CITY OF POCATELLO

Planning & Development Services

Agenda Item #10

October 5, 2026

Regarding: Centennial Rainey Park Levee Setback and Ecosystem Enhancement Project

All,

On October 2, 2026, the City of Pocatello Planning and Development Services opened bids for the referenced project. Only one bid was received, as follows:

| | |
|---|---|
| *Suncore Construction and Materials, Inc.* | *$1,433,753.00 base bid* |

Any discrepancies found in the bid documents were addressed based on the estimated quantities and the bid unit price. The City has determined that Suncore Construction and Materials, Inc. was the lowest responsive bid. We anticipate presenting the bid to the City of Pocatello City Council on October 15, 2026.

If you have any questions, contact me at 208-234-6278.

Sincerely,

Becky Babb
Planning Manager

cc: Brent McLane, City of Pocatello; bmclane@pocatello.gov
Matt Kerbs, City of Pocatello: mkerbs@pocatello.gov
Konni Kendell, City of Pocatello: kkendell@pocatello.gov
Project File

911 N 7th Avenue
Pocatello, ID 83201

Office: (208) 234-6184
www.pocatello.gov

To: City Council and Mayor

From: Matt Kerbs, Deputy City Attorney MK

Date: October 7, 2026

Re: Bid Award for Centennial – Rainey Levee Setback and Ecosystem Enhancement Project & Bid Additive Alternate 2

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I have reviewed the above referenced documents and have no legal concerns with Council awarding the bid to Suncore Construction and Materials, Inc., and authorizing the Mayor to sign all documents associated with the execution of this contract.

CITY OF

# POCATELLO

# Centennial-Rainey Levee Setback and Ecosystem Enhancement

## Specifications & Contract Documents

**Prepared By:**

**HARMONY DESIGN & ENGINEERING**
**P. O. BOX 369**
**DRIGGS, IDAHO 83422**

**September 1, 2026**

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# 01- ADVERTISEMENT FOR BIDS

# ADVERTISEMENT FOR BIDS
# CITY OF POCATELLO
# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT

## ADVERTISEMENT FOR BIDS

This project is funded through the US Department of the Interior Bureau of Reclamation, pursuant to the Section 9504(a) of the SECURE WATER ACT, subtitle F of Title IX of the OMNIBUS PUBLIC LAND MANAGEMENT ACT OF 2009, Public Law 111-11 (42 U.S.C 10364) as amended (the "SECURE Water Act") and must adhere to all federal funding award requirements. This solicitation is being conducted in accordance with the provisions of Idaho Code Title 67, Chapter 28 (Purchasing by Political Subdivisions}, the City of Pocatello Purchasing Policies, 2 CFR 200, and other applicable federal requirements per the Bureau of Reclamation grant. Those provisions are hereby incorporated by reference into the bid documents. Section 3, disadvantaged business enterprises, minority owned businesses, and women owned businesses are especially encouraged to apply.

Sealed Bids for the construction of the **Centennial-Rainey Levee Setback and Ecosystem Enhancement Project** will be received will be received at the City of Pocatello Clerk's Office located at City Hall, 911 North 7'h Avenue, Pocatello, ID 83201, until **3:00 pm local time on October 2, 2026**, at which time that time the Bids received will be publicly opened and read.

The Project includes the following work:

> Constructing the Rainey and Centennial Park associated levee improvements along the Portneuf River, as well as the Rainey and Centennial Park improvements.

Obtaining the Bidding Documents

Information and Bidding Documents for the Project will be available on September 2, 2026 and can be found at the following designated website:

**https://www.pocatello.us/Bids.aspx**

Prospective Bidders are urged to register with the designated website as a plan holder. All official notifications, addenda, and other Bidding Documents will be offered only through the designated website. Neither Owner nor Engineer will be responsible for Bidding Documents, including addenda, if any, obtained from sources other than the designated website.

**Pre-bid Conference**

A pre-bid conference will be held at 3:00 pm local time on **September 23, 2026** at the **City of Pocatello, City Hall, Paradice Conference Room, 911 N. 7th Ave., Pocatello, Idaho**. Attendance at the pre-bid conference is mandatory.

**This Advertisement is issued by**:

Owner: **City of Pocatello**
By: **Konni Kendell**
Title: **City Clerk**
Date: **September 1, 2026**

Signature: _____

By: **Rebecca Babb**
Title: **Planning Manager**
Date: **September 1, 2026**

Signature: _____

+ END OF ADVERTISEMENT FOR BIDS + +

# 02- INSTRUCTIONS TO BIDDERS

## INSTRUCTIONS TO BIDDERS

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**ARTICLE 1 – DEFINED TERMS**

1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

A. *Issuing Office* – The office from which the Bidding Documents are to be issued.

**ARTICLE 2 – COPIES OF BIDDING DOCUMENTS**

2.01 Complete sets of the Bidding Documents may be obtained from the Issuing Office in the number and format stated in the advertisement or invitation to bid.

2.02 Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.03 Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not authorize or confer a license for any other use.

**ARTICLE 3 – QUALIFICATIONS OF BIDDERS**

3.01 To demonstrate Bidder's qualifications to perform the Work, after submitting its Bid and within 15 days of Owner's request, Bidder shall submit (a) written evidence establishing its qualifications such as financial data, previous experience, and present commitments, and (b) the following additional information:

A. Evidence of Bidder's authority to do business in the state where the Project is located.

B. The prime contractor and subcontractor(s) must hold an Idaho Public Works Contractor's License. This license is not required to bid but will be required prior to award.

3.01 To demonstrate Bidder's qualifications to perform the Work, Bidder shall submit with its Bid (a) written evidence establishing its qualifications such as financial data, previous experience, and present commitments, and (b) the following additional information:

A. Evidence of Bidder's authority to do business in the state of Idaho.

B. Bidder's public works contractor license number.

C. Subcontractor and Supplier qualification information; coordinate with provisions of Article 12 of these Instructions, "Subcontractors, Suppliers, and Others."

3.02 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.

3.03 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.

3.04 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

**ARTICLE 4 – SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE**

4.01 *Site and Other Areas*

A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.

4.02 *Existing Site Conditions*

A. Subsurface and Physical Conditions; Hazardous Environmental Conditions

1. The Supplementary Conditions identify:

a. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site.

b. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

c. reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site.

d. Technical Data contained in such reports and drawings.

2. Owner will make copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

3. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.

B. Underground Facilities: Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or adjacent to the Site are set forth in the Contract Documents and are based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.

C. Adequacy of Data: Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions appear in Paragraphs 5.03, 5.04, and 5.05 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work, appear in Paragraph 5.06 of the General Conditions.

4.03 *Site Visit and Testing by Bidders*

A. Bidder shall conduct the required Site visit during normal working hours, and shall not disturb any ongoing operations at the Site.

B. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.

C. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site.

D. Bidder shall comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.

E. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

4.04 *Owner's Safety Program*

A. Site visits and work at the Site may be governed by an Owner safety program. As the General Conditions indicate, if an Owner safety program exists, it will be noted in the Supplementary Conditions.

4.05 *Other Work at the Site*

A. Reference is made to Article 8 of the Supplementary Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

**ARTICLE 5 – BIDDER'S REPRESENTATIONS**

5.01 It is the responsibility of each Bidder before submitting a Bid to:

A. examine and carefully study the Bidding Documents, and any data and reference items identified in the Bidding Documents;

B. visit the Site, conduct a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfy itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;

C. become familiar with and satisfy itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work;

D. carefully study all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and

drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings;

E. consider the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs;

F. agree, based on the information and observations referred to in the preceding paragraph, that at the time of submitting its Bid no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;

G. become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;

H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder;

I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work; and

J. agree that the submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

**ARTICLE 6 – PRE-BID CONFERENCE**

6.01 A pre-Bid conference will be held at the time and location stated in the invitation or advertisement to bid. Representatives of Owner and Engineer will be present to discuss the Project. Bidders are encouraged to attend and participate in the conference. Engineer will transmit to all prospective Bidders of record such Addenda as Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

**ARTICLE 7 – INTERPRETATIONS AND ADDENDA**

7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to Engineer in writing. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all parties recorded as having received the Bidding Documents. Questions received less than seven days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

7.02 Addenda may be issued to clarify, correct, supplement, or change the Bidding Documents.

**ARTICLE 8 – BID SECURITY**

8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of 5% percent of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a certified check, bank money order, or a Bid bond (on the form included in the Bidding Documents) issued by a surety meeting the requirements of Paragraphs 6.01 and 6.02 of the General Conditions.

8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract Documents, furnished the required contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults.

8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Contract or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.

8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within seven days after the Bid opening.

**ARTICLE 9 – CONTRACT TIMES**

9.01 The number of days within which, or the dates by which, **Milestones are to be achieved and the Work is to be substantially completed, and completed and ready for final payment, are set forth in the Agreement.**

**ARTICLE 10 – LIQUIDATED DAMAGES**

10.01 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

**ARTICLE 11 – SUBSTITUTE AND "OR-EQUAL" ITEMS**

11.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration during the bidding and Contract award process of possible substitute or "or-equal" items. In cases in which the Contract allows the Contractor to request that Engineer authorize the use of a substitute or "or-equal" item of material or equipment, application for such acceptance may not be made to and will not be considered by Engineer until after the Effective Date of the Contract.

11.02 All prices that Bidder sets forth in its Bid shall be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of "or-equal" or substitution requests are made at Bidder's sole risk.

**ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS, AND OTHERS**

12.01 A Bidder shall be prepared to retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of the Work if required by the Bidding Documents (most commonly in the Specifications) to do so. If a prospective Bidder objects to retaining any such Subcontractor, Supplier, or other individual or entity, and the concern is not relieved by an Addendum, then the prospective Bidder should refrain from submitting a Bid.

12.02 Subsequent to the submittal of the Bid, Owner may not require the Successful Bidder or Contractor to retain any Subcontractor, Supplier, or other individual or entity against which Contractor has reasonable objection.

12.03 The apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to Owner a list of the Subcontractors or Suppliers as may be requested by Owner. If requested by Owner, such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, or other individual or entity. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder shall submit a substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.

12.04 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, or other individuals or entities. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.06 of the General Conditions.

**ARTICLE 13 – PREPARATION OF BID**

13.01 The Bid Form is included with the Bidding Documents.

A. All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.

B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words "No Bid" or "Not Applicable."

13.02 A Bid by a corporation shall be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation shall be shown.

13.03 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The partnership's address for receiving notices shall be shown.

13.04 A Bid by a limited liability company shall be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the firm's address for receiving notices shall be shown.

13.05 A Bid by an individual shall show the Bidder's name and address for receiving notices.

13.06 A Bid by a joint venture shall be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The joint venture's address for receiving notices shall be shown.

13.07 All names shall be printed in ink below the signatures.

13.08 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.

13.09 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.

13.10 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Bid Form.

**ARTICLE 14 – BASIS OF BID**

14.01 *Unit Price*

A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the unit price section of the Bid Form.

B. The "Bid Price" (sometimes referred to as the extended price) for each unit price Bid item will be the product of the "Estimated Quantity" (which Owner or its representative has set forth in the Bid Form) for the item and the corresponding "Bid Unit Price" offered by the Bidder. The total of all unit price Bid items will be the sum of these "Bid Prices"; such total will be used by Owner for Bid comparison purposes. The final quantities and Contract Price will be determined in accordance with Paragraph 13.03 of the General Conditions.

C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

14.02 *Allowances*

A. For cash allowances the Bid price shall include such amounts as the Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with Paragraph 13.02.B of the General Conditions.

**ARTICLE 15 – SUBMITTAL OF BID**

15.01 With each copy of the Bidding Documents, a Bidder is furnished one separate unbound copy of the Bid Form, and, if required, the Bid Bond Form. The unbound copy of the Bid Form is to be completed and submitted with the Bid security and the other documents required to be submitted under the terms of Article 7 of the Bid Form.

15.02 A Bid shall be received no later than the date and time prescribed and at the place indicated in the advertisement or invitation to bid and shall be enclosed in a plainly marked package with the

Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED."

15.03 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

**ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID**

16.01 A Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.

16.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 16.01 and submit a new Bid prior to the date and time for the opening of Bids.

16.03 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

**ARTICLE 17 – OPENING OF BIDS**

17.01 Bids will be opened at the time and place indicated in the advertisement or invitation to bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

**ARTICLE 18 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE**

18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

**ARTICLE 19 – EVALUATION OF BIDS AND AWARD OF CONTRACT**

19.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible. If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, then the Owner will reject the Bid as nonresponsive; provided that Owner also reserves the right to waive all minor informalities not involving price, time, or changes in the Work.

19.02 If Owner awards the contract for the Work, such award shall be to the responsible Bidder submitting the lowest responsive Bid.

19.03 Evaluation of Bids

A. In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.

B. For the determination of the apparent low Bidder when unit price bids are submitted, Bids will be compared on the basis of the total of the products of the estimated quantity of each item and unit price Bid for that item, together with any lump sum items.

19.04 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.

19.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.

**ARTICLE 20 – BONDS AND INSURANCE**

20.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the Agreement (executed by Successful Bidder) to Owner, it shall be accompanied by required bonds and insurance documentation.

**ARTICLE 21 – SIGNING OF AGREEMENT**

21.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Bidder shall execute and deliver the required number of counterparts of the Agreement (and any bonds and insurance documentation required to be delivered by the Contract Documents) to Owner. Within ten days thereafter, Owner shall deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

**ARTICLE 22 – PROCUREMENT PROCESS, PROTEST, APPEAL**

22.01 In accordance with the Association of Idaho Cities *Procurement* guidelines (2020), Purchasing of Public Works Construction over $200,000, Category A: the city must accept bids from any licensed public works contractor, and the city may only consider:

A. The amount of the bid.

B. The bidder's compliance with administrative requirements.

C. Whether the bidder holds the requisite public works contractors license.

22.02 The city must publish two notices soliciting bids in the official city newspaper, the first at least two weeks before bid opening and the second at least a week before bid opening. The notices must succinctly describe the project to be constructed and inform prospective bidders that specifications, bid forms, instructions, contract documents and other materials are available upon request for a reasonable copying fee.

22.03 Written objections to specifications or bidding procedures must be received by the clerk or other authorized official at least three business days before scheduled bid opening. The

clerk/authorized official or city council must respond, in writing, to the objector and all other prospective bidders, adjusting the timeframe for submission of bids if necessary.

22.04 The city may require bid security of at least five percent of the amount of the bid. If security is required, a bid may not be considered unless security is provided in the form required by the city, which may include:

A. Cash,

B. Cashier's check payable to the city,

C. Certified check payable to the city, or Bidder's bond executed by a qualified surety company payable to the city.

22.05 Submitted bids must be sealed, with an indication on the outside identifying the project. Any bid received by the city may not be withdrawn after the date and time of bid opening. The sealed bids are opened in public at the date, time and place specified in the published notices and thereafter are compiled and submitted to the city council.

22.06 The city council awards the contract to the qualified bidder submitting the lowest responsive bid or may reject all bids and re-bid the project. The city council may also, after determining it to be true, declare that the project can be performed more economically by purchasing goods and services on the open market. If identical bids are submitted and are the low bid, the city council may choose the bidder it prefers. If no bids are received, the city council may procure without further competitive bidding procedures.

22.07 If the city council chooses to award to a bidder other than the apparent low bidder, the city council must declare its reasons on the record and must communicate these reasons in writing to all those submitting bids. Participating bidders have seven calendar days from the date of transmittal of the notice to respond in writing with their objections. The procurement is stayed while the city council reviews its decision and determines whether to affirm its prior award, modify the award or choose to re-bid, as it deems to be in the public interest.

22.08 If the successful bidder fails to execute the contract, the bid security may be forfeited to the city and the proceeds may be deposited in a designated fund out of which the expenses of procuring substitute performance are to be paid. If the successful bidder refuses or fails to execute the contract, the city may award the contract to the qualified bidder submitting the next lowest responsive bid. If this occurs, the original contractor's security may be applied to the difference between the two bids, and any surplus remaining must be returned to the original contractor if cash or check is used or to the surety on the bidder's bond if a bond is used (less reasonable administrative costs not to exceed twenty-five percent of the amount of the security).

# 03- BID FORM

Suncore Construction & Materials, Inc.

# BID FORM

## Centennial – Rainey Levee Setback and Ecosystem Enhancement

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## ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

The City of Pocatello

911 N 7th Ave

Pocatello, ID 83201

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

## ARTICLE 2 – BIDDER'S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

## ARTICLE 3 – BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

| Addendum No. | Addendum, Date |
|---|---|
| #1 | 9/25/2026 |
| #2 | 9/29/2026 |
| #3 | 9/30/2026 |

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and

drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.

F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.

G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.

H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents and confirms that the written resolution thereof by Engineer is acceptable to Bidder.

I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.

J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

**ARTICLE 4 – BIDDER'S CERTIFICATION**

4.01 Bidder certifies that:

A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;

B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;

C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and

D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the e execution of the Contract.

**ARTICLE 5 – BASIS OF BID**

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

**BASE BID – RAINEY LEVEE**

| Item No. | Specification | Description | Unit of Measure | Quantity | Unit Cost | Base Cost |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | **GENERAL** | | | | |
| 1 | 2010.4.1.A.1 | Mobilization | LS | 1 | $ 169,000.00 | 169,000.00 |
| | | **LEVEE** | | | | |
| 2 | 202.4.1.A.1 | Excavation - Rainey Levee | CY | 14,920 | 14.50 | 216,340.00 |
| 3 | 202.4.6.A.1 | Borrow - Rainey Levee | CY | 8,715 | 9.30 | 81,049.50 |
| 4 | Levee Special Provisions 2.02.A. | Rock Riprap Removal and Salvage | TON | 710 | 17.80 | 12,638.00 |
| 5 | 802.4.1.B.1 | Crushed Aggregate for Base Type I - Riprap Bedding | TON | 565 | 25.10 | 14,181.50 |
| 6 | 2050.4.1.C.1 | Subgrade Separation Geotextile | SY | 2,085 | 3.20 | 6,672.00 |
| 7 | 206.4.1.I.1 | Machine Placed Riprap - Salvaged | TON | 710 | 23.90 | 16,969.00 |
| 8 | 206.4.1.I.1 | Machine Placed Riprap | TON | 2,331 | 85.20 | 198,601.20 |
| 9 | 301.4.1.A.1 | Trench Excavation | CY | 561 | 18.50 | 10,378.50 |
| 10 | 306.4.1.C.1 | Type "A" Trench Backfill | CY | 561 | 21.90 | 12,285.90 |
| 11 | 802.4.1.A.1 | Crushed Aggregate for Base Type I - Pavement Subgrade | CY | 266 | 59.40 | 15,800.40 |
| 12 | 810.4.1.A.1 | Plant Mix Pavement - Trail Asphalt | TON | 108 | 176.00 | 19,008.00 |
| 13 | 706.4.1.E.1 | Concrete Sidewalk, thickness 4" | SY | 274 | 132.00 | 36,168.00 |
| 14 | 802.4.1.B.1 | Crushed Aggregate for Base Type I - Trail Surfacing | CY | 29 | 127.00 | 3,683.00 |
| 15 | 706.4.1.D.1 | Concrete Steps | SF | 1,782 | 85.00 | 151,470.00 |
| 16 | Levee Special Provisions 2.02.F. | Temporary Seeding | AC | 1.46 | 29,400.00 | 42,924.00 |
| 17 | Levee Special Provisions 3.01 | Prepare, Construct, and Maintain Emergency Action Plan | LS | 1 | 10,400.00 | 10,400.00 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | **WETLAND** | | | | |
| 18 | 1001.4.1.A.1 | Erosion and Sediment Control | LS | 1 | $10,200.00 | $10,200.00 |
| 19 | 206.4.1.H.1 | LOOSE RIPRAP - Boulder Steps | CY | 5 | 140.00 | 700.00 |
| 20 | 206.4.1.H.1 | LOOSE RIPRAP - Boulder Installation | CY | 5 | 99.20 | 496.00 |
| 21 | 206.4.1.H.1 | LOOSE RIPRAP - Channel Cobble | CY | 152 | 21.80 | 3313.60 |
| 22 | 206.4.1.H.1 | LOOSE RIPRAP - Cobble Installation | CY | 152 | 26.10 | 3967.20 |
| 23 | 202.4.1.A.1 | EXCAVATION - Topsoil Overexcavation | CY | 612 | 14.80 | 9,057.60 |
| 24 | 1007.4.1.A.1 | 6" Screened Amended Top Soil | SY | 3,672 | 3.50 | 12,852.00 |
| 25 | 1007.4.1.A.1 | Topsoil Placement | SY | 3,672 | 4.60 | 16,891.20 |
| 26 | 2050.4.1.A.1 | RIPRAP/EROSION CONT GEOTEXTILE - Coir Fabric | SY | 2,617 | 3.90 | 10,206.30 |
| 27 | 2050.4.1.A.1 | RIPRAP/EROSION CONT GEOTEXTILE - Coir Fabric Installation | SY | 2,617 | 5.30 | 13,870.10 |
| 28 | 1007.4.1.D.1 | Landscaping/Irrigation - Cuttings | EA | 255 | 210.00 | 53,550.00 |
| 29 | 1007.4.1.D.1 | #5 Shrub | EA | 96 | 145.00 | 13,920.00 |
| 30 | 206.4.1.B.1 | Seeding / Revegetation | AC | 1 | 29,400.00 | 29,400.00 |
| 31 | 201.4.1.A.1 | Landscaping/Irrigation - Site Cleanup | AC | 1 | 29,400.00 | 29,400.00 |
| 32 | 321500 | Boulders- 10 @ *2,250 lbs each = 22,500 lbs.* | Lbs. | 22500 | 0.12 | 2,700.00 |
| 33 | 321500 | Place Boulders | L.S. | 1 | 4,960.00 | 4,960.00 |
| 34 | 323400 | Boardwalk | S.F. | 2150 | 98.00 | 210,700.00 |
| | | | | | **TOTAL BASE BID** | $1,443,753.00 |

**ADDITIVE ALTERNATE 1 – RAINEY PARK**

| Item No. | Specification | Description | Unit of Measure | Quantity | Unit Cost | Base Cost |
|---|---|---|---|---|---|---|
| | | **CIVIL** | | | | |
| 1 | ISPWC-2010.4.1.A.1 | Mobilization | LS | 1.00 | $ 110,000.00 | $ 110,000.00 |
| 2 | ISPWC-201.4.1.A.1 | Clearing and Grubbing | AC | 2.7 | 12,600.00 | 34,020.00 |
| 3 | ISPWC-1001.4.1.A.1 | Erosion & Sediment Control | LS | 1 | 1,810.00 | 1810.00 |
| 4 | ISPWC-202.4.1.A.1 | Excavation | CY | 678 | 24.20 | 16,407.60 |
| 5 | ISPWC-202.4.6.A.1 | Granular Borrow | CY | 678 | 10.20 | 6,915.60 |
| 6 | ISPWC-202.4.6.A.1 | Granular Borrow (from offsite) | CY | 1402 | 43.40 | 60,846.80 |
| 7 | ISPWC-201.4.1.F.1 | Removal of Tree | Ea. | 2 | 2,290.00 | 4,580.00 |
| 8 | ISPWC-201.4.1.C.1 | Removal of Obstructions- Concrete Barrier | L.S. | 1 | 3,260.00 | 3,260.00 |
| 9 | ISPWC-201.4.1.E.1 | Removal of Fence | LF | 1062 | 11.10 | 11,788.20 |
| 10 | ISPWC-201.4.1.E.1 | Removal Concrete Curb | LF | 541 | 5.20 | 2,813.20 |
| 11 | ISPWC-201.4.1.D.1 | Removal of Concrete Walls/Foundation | SY | 24 | 90.95 | 2,182.80 |
| 12 | ISPWC-201.4.1.D.1 | Removal of Sidewalk | SY | 120 | 24.20 | 2904.00 |
| 13 | 208-SS | Asphalt Sawcut | LF | 83 | 6.00 | 498.00 |
| 14 | ISPWC-201.4.1.D.1 | Removal of Asphalt Pavement | SY | 2523 | 3.40 | 8,578.20 |
| 15 | ISPWC-201.4.1.F.1 | Removal of Light Fixture/Power Pole | Ea. | 5 | 6,300.00 | 31,500.00 |
| 16 | CPDPS-400.06.22/ISPWC-2030-SP | Utility Relocation Fire Hydrant | Ea. | 2 | 8,540.00 | 17,080.00 |
| 17 | ISPWC-201.4.1.C.1 | Removal of Obstructions- Abandoned Irrigation Infrastructure | L.S. | 1 | 2,700.00 | 2,700.00 |
| 18 | ISPWC-201.4.1.E.1 | Removal Abandoned Waterline | L.F. | 405 | 25.00 | 10,125.00 |
| 19 | ISPWC-201.4.1.E.1 | Remove Existing Water Service Line | L.F. | 15 | 66.00 | 990.00 |
| 20 | ISPWC-201.4.1.F.1 | Removal of Water Meter | Ea. | 1 | 490.00 | 490.00 |
| 21 | ISPWC-201.4.1.F.1 | Removal Water Meter Pit | Ea. | 1 | 1,000.00 | 1,000.00 |

| Item No. | Specification | Description | Unit of Measure | Quantity | Unit Cost | Base Cost |
|---|---|---|---|---|---|---|
| 22 | ISPWC-2030.4.1.A.1 | Manhole, Adjust to Grade | Ea. | 2 | $ 1,150.00 | $ 2,300.00 |
| 23 | ISPWC-20304.1.C.1 | Valve Box, Adjust to Grade | Ea. | 2 | 460.00 | 920.00 |
| 24 | ISPWC-404-SP | Water Service Line, size to match existing | LF | 15 | 325.00 | 4875.00 |
| 25 | CPDPS-500.04.16/ISPWC-810.4.1.A.1 | Plant Mix Pavement (2.5" thick) | Ton | 831 | 112.50 | 93,487.50 |
| 26 | ISPWC-802.4.1.A.1 | Crushed Aggregate for Base Type 3/4" Minus | C.Y. | 699 | 48.00 | 33552.00 |
| 27 | ISPWC-802.4.1.A.1 | Crushed Aggregate for Subbase Type 2" Minus | C.Y. | 1358 | 34.00 | 46,172.00 |
| 28 | CPDPS-500.06.04/ISPWC-706.4.1.A.5 | Standard 6" Vertical Curb and Gutter | LF | 3122 | 35.00 | 109,270.00 |
| 29 | CPDPS-500.06.04/ ISPWC-706.4.1.E.1 | Concrete Sidewalks 4" thick | S.Y. | 1282 | 75.00 | 96,150.00 |
| 30 | ISPWC-802.4.1.A.1 | Crushed Aggregate for Base Type 3/4" Minus (4") (Sidewalk) | C.Y. | 143 | 33.00 | 4,719.00 |
| 31 | CPDPS-500.06.08/ ISPWC-70.4.1.H.1 | Pedestrian Ramp w/ detectable warning domes | Ea. | 15 | 2,635.00 | 39,525.00 |
| 32 | CPDPS-500.08.08/ ISPWC 1104.4.1.A.1 | Pavement Paint - White | SF | 751 | 1.90 | 1,426.90 |
| 33 | CPDPS-500.08.08/ ISPWC 1104-SP | ADA Symbol | EA | 4 | 360.00 | 1,440.00 |
| 34 | 2070-SS | Sign Relocation | Ea. | 6 | 1,150.00 | 6900.00 |
| 35 | 2052-SS | Pavillion | Ea. | 1 | 99,500.00 | 99500.00 |
| 36 | ISPWC-1102.4.1.G.1 | Electric Pedestal w/ sidewalk chase | Ea. | 2 | 2,500.00 | 5,000.00 |

| Item No. | Specification | Description | Unit of Measure | Quantity | Unit Cost | Base Cost |
|---|---|---|---|---|---|---|
| 37 | 2080-SS | Dumpster Enclosure | Ea. | 1 | $19,350.00 | $19,350.00 |
| 38 | 2051-SS | Bike Rack | Ea. | 1 | 905.00 | 905.00 |
| | | **STORMWATER** | | | | |
| 39 | ISPWC-202.4.1.A.1 | Excavation (Detention Basin) | C.Y. | 902 | 18.20 | 16,416.40 |
| 40 | 2060-SS | Treatment Soil (12") | C.Y. | 384 | 51.80 | 19,891.20 |
| 42 | 2061-SS | 1/4" Pea Gravel (15") | C.Y. | 116 | 105.00 | 12,180.00 |
| 43 | 2062-SS | 2" Drain Rock (18") | C.Y. | 40 | 65.00 | 2,600.00 |
| 44 | ISPWC-2050.4.1.A.1 | Drainage Geotextile (Non-Woven Perimeter Fabric) | S.Y. | 278 | 3.85 | 1,070.30 |
| 45 | CPDPS-700.06.02/ ISPWC-601.4.1.A.5 | 12" Storm Drain PVC | LF | 606 | 60.25 | 36,511.50 |
| 46 | ISPWC-602.4.1.F.1 | 30" Catch Basin w/ Grate | Ea. | 5 | 3850.00 | 19,250.00 |
| | | **LANDSCAPE** | | | | |
| 47 | 329300 | Planting Bed Prep: *Shrub Beds- Includes exc.; provide & place planting bed mix (2/3 on-site topsoil; 1/3 organic amendment) 5,650 sq.ft. @ 12" deep.* | C.Y. | 210 | 1,450.00 | 304,500.00 |
| 48 | 329300 | Provide and Place Topsoil- *Sod = 20,500 s.f. @ 4" deep* | C.Y. | 255 | 140.00 | 35,700.00 |
| 49 | 329300 | Scrape, stockpile, Screen, Place On-Site Topsoil- *Native Grass Seed area = 40,975 s.f. @ 4" deep* | C.Y. | 506 | 140.00 | 70,840.00 |
| 50 | 329300 | Edging (Steel) | L.F. | 1550 | 23.50 | 36,425.00 |
| 51 | 329300 | Landscape/woven weed suppression fabric (Shrub Beds 5,580 sf) | S.Y. | 620 | 12.30 | 7,626.00 |
| 52 | 329300 | Mulch, organic ground bark @ 3" deep- *Shrub Plantings (7790 sf = 865 sy)* | C.Y. | 73 | 270.00 | 19,710.00 |
| 53 | 329300 | Mulch River Rock (Cobble 4" deep @ 855 sf) | CY | 12 | 270.00 | 3,240.00 |

| Item No. | Specification | Description | Unit of Measure | Quantity | Unit Cost | Base Cost |
|---|---|---|---|---|---|---|
| 54 | 329300 | Root Barrier | L.F. | 0 | — | — |
| 55 | 329300 | Trees: Deciduous (3" - 3-1/2" cal) | Ea. | 39 | $ 1,460.00 | $ 56,940.00 |
| 56 | 329300 | Trees: Deciduous (2" - 2-1/2" cal) | Ea. | 36 | $ 1,115.00 | 40,140.00 |
| 57 | 329300 | Shrubs: Deciduous - 5 gallon containers | Ea. | 640 | 100.00 | 64,000.00 |
| 58 | 329300 | Perennials - 4" pots - Flat of 15 | Ea. | 7 | 870.00 | 6,090.00 |
| 59 | 329200 | Lawn Sod- Entry Drive | S.F. | 20500 | 1.40 | 28,700.00 |
| 60 | 329200 | Native Grass Seeding (50,500 s.f.) | S.Y. | 5650 | 2.10 | 11,865.00 |
| 61 | 328400 | Underground Irrigation System- *Lawn- head to head spray 12" popup, Native Grass- nat head-to-head, rotar 4" popup, Drip irrigation- Trees, shrubs, groundcover)* | S.F. | 76000 | 3.05 | 231,800.00 |
| | | | | | **TOTAL ADD ALT 1 – RAINEY PARK** | $ 1,921,477.20 |

**ADDITIVE ALTERNATE 2 – CENTENNIAL PARK AMPITHEATER**

| Item No. | Specification | Description | Unit of Measure | Quantity | Unit Cost | Base Cost |
|---|---|---|---|---|---|---|
| | | **GENERAL** | | | | |
| 1 | ISPWC-2010.4.1.A.1 | Mobilization | LS | 1 | #60,000.00 | #60,000.00 |
| | | **CIVIL** | | | | |
| 2 | 202.4.1.A.1 | Excavation - Centennial Levee | CY | 45 | 41.25 | 1856.25 |
| 3 | 202.4.6.A.1 | Borrow - Centennial Levee | CY | 45 | 24.90 | 1,120.50 |
| 4 | 202.4.6.A.1 | Imported Borrow - Centennial Levee | CY | 625 | 28.60 | 17,875.00 |
| 5 | 802.4.1.A.1 | Crushed Aggregate for Base Type I - Pavement Subgrade | CY | 143 | 82.00 | 11,726.00 |
| 6 | 810.4.1.A.1 | Plant Mix Pavement - Trail Asphalt | TON | 75 | 142.00 | 10,650.00 |
| 7 | 706.4.1.E.1 | Concrete Sidewalk, thickness 4" | SY | 151 | 97.00 | 14,647.00 |
| 8 | Levee Special Provisions 2.02.F. | Temporary Seeding | AC | 0.34 | 29,400.00 | 9,996.00 |
| 9 | Levee Special Provisions 3.01 | Prepare, Construct, and Maintain Emergency Action Plan | LS | 1 | 5,200.00 | 5,200.00 |
| | | **LANDSCAPE** | | | | |
| 10 | 2061-SS | 1/4" Pea Gravel (2" thickness) (Gravel Pathway) (AMPITHEATER) | C.Y. | 22 | 120.00 | 2,640.00 |
| 11 | ISPWC-706.4.1.F.1 | Concrete- Service Ramp (6" thickness) (AMPITHEATER) | S.Y. | 85 | 144.00 | 12,240.00 |
| 12 | 329300 | Provide and Place Topsoil- *Sod = 20,634 s.f. @ 4" deep* | C.Y. | 254 | 137.00 | 34,798.00 |
| 13 | 329300 | Scrape, stockpile, Screen, Place On-Site Topsoil- *Native Grass Seed area = 4,773 s.f. @ 4" deep* | C.Y. | 60 | 385.00 | 23,100.00 |
| 14 | 32 15 00 | Boulders- *90 boulders @ 2,250 lbs each = 202,500 lbs.* | Lbs. | 202500 | 0.08 | 16,200.00 |
| 15 | 32 15 00 | Place Boulders | L.S. | 1 | 14,900.00 | 14,900.00 |

| Item No. | Specification | Description | Unit of Measure | Quantity | Unit Cost | Base Cost |
|---|---|---|---|---|---|---|
| 16 | 32 93 00 | Trees: Deciduous (2" - 2-1/2" cal) | Ea. | 7 | $ 950.00 | $ 6,650.00 |
| 17 | 32 93 00 | Perennials, Grasses, Ground Covers - 4" pot | Flat (15) | 7 | $ 700.00 | 4,900.00 |
| 18 | 32 92 00 | Lawn Sod | S.F. | 20634 | 1.50 | 30,951.00 |
| 19 | 32 92 00 | Native Grass Seeding (4,773 s.f.) | S.Y. | 530 | 0.20 | 3,706.00 |
| 20 | 32 84 00 | Underground Irrigation System- *Lawn- head to head spray 12" popup, Native Grass- not head-to-head, rotor 4" popup, Drip irrigation- Trees, shrubs, groundcover)* | S.F. | 25,500 | 7.40 | 188,700.00 |
| 21 | 2052-SS | Poligon Pavillion | LS | 1 | 285,800.00 | 285,800.00 |
| 22 | 2053-SS | Poligon shade sails | LS | 1 | — | — |
| | | | | | **TOTAL ADD ALT 2 – CENTENNIAL AMPITHEATER** | $ 763,235.75 |

**ADDITIVE ALTERNATE 3 – CENTENNIAL PARK**

| Item No. | Specification | Description | Unit of Measure | Quantity | Unit Cost | Base Cost |
|---|---|---|---|---|---|---|
| | | **CIVIL** | | | | |
| 1 | ISPWC-2010.4.1.A.1 | Mobilization | LS | 1.00 | 108,000.00 | 108,000.00 |
| 2 | ISPWC-201.4.1.A.1 | Clearing and Grubbing | AC | 1.5 | 13,200.00 | 19,800.00 |
| 3 | ISPWC-1001.4.1.A.1 | Erosion & Sediment Control | LS | 1 | 1,815.00 | 1,815.00 |
| 4 | ISPWC-202.4.1.A.1 | Excavation | CY | 4116 | 14.70 | 60,505.20 |
| 5 | ISPWC-202.4.6.A.1 | Granular Borrow | CY | 975 | 10.60 | 10,335.00 |
| 6 | ISPWC-202.4.7.A.1 | Haul offsite | CY | 1739 | 7.80 | 13,564.20 |
| 7 | ISPWC-201.4.1.F.1 | Removal of Tree | Ea. | 18 | 2,290.00 | 41,220.00 |
| 8 | ISPWC-201.4.1.D.1 | Removal of Concrete Walls/Foundation | SY | 359 | 92.00 | 33,028.00 |
| 9 | 208-SS | Asphalt Sawcut | LF | 36 | 6.00 | 216.00 |
| 10 | ISPWC-201.4.1.D.1 | Removal of Asphalt Pavement | SY | 2320 | 2.90 | 6,728.00 |
| 11 | ISPWC-201.4.1.D.1 | Removal of Sidewalk | SY | 629 | 19.20 | 12,076.80 |
| 12 | ISPWC-201.4.1.F.1 | Removal of Existing Shelter Structure | Ea. | 1 | 12,040.00 | 12,040.00 |
| 13 | 2090-SS | Relocate Entrance Gate | Ea. | 1 | 1,135.00 | 1,135.00 |
| 14 | 2090-SS | Relocate Bike Maintenance Stand | Ea. | 1 | 1,135.00 | 1,135.00 |
| 15 | ISPWC-201.4.1.E.1 | Removal Abandoned Waterline | LF | 560 | 31.60 | 17,696.00 |
| 16 | ISPWC-201.4.1.F.1 | Removal of Abandoned Well | Ea. | 2 | 24,200.00 | 48,400.00 |
| 17 | ISPWC-201.4.1.F.1 | Removal of Abandoned Hydrant | Ea. | 1 | 4,600.00 | 4,600.00 |
| 18 | ISPWC-201.4.1.E.1 | Removal of Sanitary Sewer Service | LF | 423 | 22.40 | 9,475.20 |
| 19 | ISPWC-201.4.1.E.1 | Removal Sanitary Sewer Pipe | LF | 535 | 27.90 | 14,926.50 |
| 20 | ISPWC-201.4.1.F.1 | Remove Existing Manhole | Ea. | 3 | 1,920.00 | 5,760.00 |
| 21 | CPDPS-600.06.08/ ISPWC-502.4.1.A.1 | Sanitary Sewer Manhole | Ea. | 1 | 7,560.00 | 7,560.00 |

| Item No. | Specification | Description | Unit of Measure | Quantity | Unit Cost | Base Cost |
|---|---|---|---|---|---|---|
| 22 | CPDPS-600.06.02/ISPWC-501.4.1.B.1 | Gravity Sewer Pipe- 8" (w/ excavation, bedding, backfill) | L.F. | 537 | 75.25 | 40,409.25 |
| 23 | CPDPS-600.06.04/ ISPWC-502.4.1.F.1 | Connection to Existing Manhole | Ea. | 2 | 4,390.00 | 8,780.00 |
| 24 | CPDPS-500.04.16/ISPWC-810.4.1.A.1 | Plant Mix Pavement (2.5" thick) | Ton | 381 | 120.00 | 45,720.00 |
| 25 | ISPWC-802.4.1.A.1 | Crushed Aggregate for Base Type 3/4" Minus | C.Y. | 329 | 56.00 | 18,424.00 |
| 26 | ISPWC-802.4.1.A.1 | Crushed Aggregate for Subbase Type 2" Minus | C.Y. | 622 | 41.40 | 25,750.00 |
| 27 | CPDPS-500.06.04/ISPWC-706.4.1.A.1 | Standard 3" Rolled Curb & Gutter | LF | 120 | 60.00 | 7,200.00 |
| 28 | CPDPS-500.06.04/ISPWC-706.4.1.A.5 | Standard 6" Vertical Curb & Gutter | LF | 1260 | 38.60 | 48,636.00 |
| 29 | 2041-SS | Colored Concrete | S.Y. | 128 | 220.00 | 28,160.00 |
| 30 | ISPWC-706.4.1.F.1 | Concrete Service Ramp | S.Y. | 85 | 115.00 | 9,775.00 |
| 31 | CPDPS-500.06.04/ ISPWC-706.4.1.E.1 | Concrete Sidewalks 4" thick | S.Y. | 942 | 80.00 | 75,360.00 |
| 32 | ISPWC-802.4.1.A.1 | Crushed Aggregate for Base Type 3/4" Minus (4") (Sidewalk) | C.Y. | 106 | 34.00 | 3,604.00 |
| 33 | CPDPS-500.06.08/ ISPWC-70.4.1.H.1 | Pedestrian Ramp w/ detectable warning domes | Ea. | 3 | 2,650.00 | 7,950.00 |
| 34 | CPDPS-500.08.08/ ISPWC 1104.4.1.A.1 | Pavement Paint - White | SF | 321 | 1.90 | 609.90 |

| Item No. | Specification | Description | Unit of Measure | Quantity | Unit Cost | Base Cost |
|---|---|---|---|---|---|---|
| 35 | CPDPS-500.08.08/ ISPWC 1104-SP | ADA Symbol | Ea. | 2 | 360.00 | 720.00 |
| 36 | ISPWC-1102.4.1.G.1 | Electric Pedestal w/ sidewalk chase | Ea. | 2 | 2,500.00 | 5,000.00 |
| 37 | 2080-SS | Dumpster Enclosure | Ea. | 1 | 19,350.00 | 19,350.00 |
| 38 | | Bike Rack | Ea. | 1 | 900.00 | 900.00 |
| | | **STORMWATER** | | | | |
| 39 | ISPWC-202.4.1.A.1 | Excavation (Detention Basin) | C.Y. | 168 | 19.50 | 3,276.00 |
| 40 | 2060-SS | Treatment Soil (12") | C.Y. | 90 | 54.80 | 4,932.00 |
| 42 | 2061-SS | 1/4" Pea Gravel (15") | C.Y. | 23 | 99.60 | 2,290.80 |
| 43 | 2062-SS | 2" Drain Rock (18") | C.Y. | 28 | 43.50 | 1,218.00 |
| 44 | ISPWC-2050.4.1.A.1 | Drainage Geotextile (Non-Woven Perimeter Fabric) | S.Y. | 77 | 3.65 | 281.05 |
| | | **LANDSCAPE** | | | | |
| 47 | 329300 | Planting Bed Prep: *Shrub Beds- Includes exc.; provide & place planting bed mix (2/3 on-site topsoil; 1/3 organic amendment) 2,105 sq.ft. @ 12" deep. Parking lot islands* | C.Y. | 78 | 225.00 | 17,550.00 |
| 48 | 329300 | Provide and Place Topsoil- *Sod = 20,800 s.f. @ 4" deep* | C.Y. | 257 | 137.00 | 35,209.00 |
| 49 | 329300 | Scrape, stockpile, Screen, Place On-Site Topsoil- *Native Grass Seed area = 38,600 s.f. @ 4" deep* | C.Y. | 477 | 385.00 | 183,645.00 |
| 50 | 329300 | Edging (Steel) | L.F. | 40 | 24.20 | 968.00 |
| 51 | 329300 | Landscape/woven weed suppression fabric - 2105 s.f. | S.Y. | 235 | 15.15 | 3,560.25 |
| 52 | 329300 | Mulch, organic ground bark @ 3" deep- *Tree and Shrub Plantings outside of shrub beds (2100 sf = 235 sy)* | C.Y. | 20 | 270.00 | 5,400.00 |

| Item No. | Specification | Description | Unit of Measure | Quantity | Unit Cost | Base Cost |
|---|---|---|---|---|---|---|
| 53 | 329300 | Mulch, river rock 1.25" @ 4" deep- *(Parking Islands and Shrub beds 2,301 s.f.), Total = 2,301 s.f. = 256 s.y.* | C.Y. | 30 | 205.00 | 6,150.00 |
| 54 | 329300 | Root Barrier | L.F. | 500 | 72.50 | 36,250.00 |
| 55 | 329300 | Trees: Juniper chinensis (8'-10' tall) | Ea. | 44 | 1,380.00 | 60,720.00 |
| 56 | 329300 | Trees: Deciduous (3" - 3-1/2" cal) | Ea. | 38 | 1,390.00 | 52,820.00 |
| 57 | 329300 | Trees: Deciduous (2" - 2-1/2" cal) | Ea. | 12 | 1,200.00 | 14,400.00 |
| 58 | 329300 | Shrubs: Deciduous - 5 gallon containers | Ea. | 144 | 145.00 | 20,880.00 |
| 59 | 329200 | Shrubs: Deciduous - 1 gallon containers | Ea. | 0 | — | — |
| 60 | 329200 | Perennials, Grasses, Groundcovers - 4" pots- Flat of 15 | Ea. | 7 | 760.00 | 5,320.00 |
| 61 | 328400 | Lawn Sod- Amphitheater- DuraTurf - *(17,725 s.f.)* | S.F. | 17725 | 1.65 | 29,246.25 |
| 62 | 329200 | Lawn Sod- Bluegrass *(3,100 sf)* | S.F. | 3100 | 1.55 | 4,805.00 |
| 63 | 329200 | Native Grass Seeding/ Stormwater Grass Seeding *(44,000 s.f.)* | S.Y. | 5000 | 3.20 | 16,000.00 |
| 64 | 328400 | Underground Irrigation System- *Lawn- head to head spray 12" popup, Native Grass- not head-to-head, rotor 4" papup, Drip irrigation- Trees, shrubs, groundcover)* | S.F. | 66,100 | 2.50 | 165,250.00 |
| 65 | 2052-SS | Poligon Pavillion | LS | 1 | 288,000.00 | 288,000.00 |
| 66 | 2053-SS | Poligon shade sails | LS | 1 | — | — |
| 67 | 321500 | Boulders- 109 *baulders @ 2,250 lbs each = 245,250 lbs.* | Lbs. | 245,250 | 0.08 | 19,620.00 |
| 68 | 321500 | Place Boulders *109 total* | L.S. | 1 | 19,900.00 | 19,900.00 |
| 69 | 323300 | Picnic Tables | Ea. | 3 | 2,475.00 | 7,425.00 |

| Item No. | Specification | Description | Unit of Measure | Quantity | Unit Cost | Base Cost |
|---|---|---|---|---|---|---|
| 70 | 321540 | Gravel Paths in Amphitheater - Aggregate base 3/4" minus *(3,600 s.f. @ 4" deep)* Decomposed Granite 1/4" minus (3,600 sf @ 2" deep) | S.F. | 3600 | 7.40 | 26,640.00 |
| 71 | ISPWC - 706.4.1.D.1 | Concrete (cast-in-place) Amphitheater stairs *(3436 s.f. @ 6" depth)* | C.Y. | 65 | 2,725.00 | 177,125.00 |
| | | | | | **TOTAL ADD ALT 3 – CENTENNIAL PARK** | $ 1,985,246.20 |

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

## ARTICLE 6 – TIME OF COMPLETION

6.01 Bidder agrees that the Work will be substantially complete on or before September 1, 2027 and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before October 31, 2027.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

## ARTICLE 7 – ATTACHMENTS TO THIS BID

7.01 The following documents are submitted with and made a condition of this Bid:

A. Required Bid security ✓

B. List of Proposed Subcontractors ✓

C. List of Proposed Suppliers ✓

D. List of Project References ✓

E. Federal certifications ✓

F. Evidence of authority to do business in Idaho; or a written covenant to obtain such license within the time for acceptance of Bids ✓

G. Contractor's State Public License No. or Evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids ✓

H. Required Bidder Qualification Statement with supporting data ✓

## ARTICLE 8 – DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

## ARTICLE 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

Sunroc Construction & Materials, Inc.

By:
*[Signature]*

*[Printed name]* Dave Clifford – Area Manager

*(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)*

Attest:
*[Signature]*

*[Printed name]* Chad Huntsman

Title: Estimator

Submittal Date: 10/2/2026

Address for giving notices:

901 Fiev View Drive, Suite 201
Idaho Falls, Idaho 83402

Telephone Number: 208.458.4000

Fax Number: 208.458.4043

Contact Name and e-mail address: Chad Rushton
Crushton@suncore.build

Bidder's License No.: FWC-C-17452-U-1-2-4
*(where applicable)* RLE 18480

* See Attached

# 04- BID BOND

*Please See Attached

# BID BOND

## CENTENNIAL – RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMNET

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER *(Name and Address)*:

SURETY *(Name, and Address of Principal Place of Business)*:

OWNER *(Name and Address)*:

BID

Bid Due Date: October 2, 2026 at 3:00 pm local time

Description: Centennial – Rainey Levee Setback and Ecosystem Enhancement, Pocatello, ID

BOND

Bond Number:

Date:

Penal sum _____ $ _____

(Words) (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

| **BIDDER** | **SURETY** |
|---|---|
| _____ (Seal) | _____ (Seal) |
| Bidder's Name and Corporate Seal | Surety's Name and Corporate Seal |
| By: _____ | By: _____ |
| Signature | Signature (Attach Power of Attorney) |
| _____ | _____ |
| Print Name | Print Name |
| _____ | _____ |
| Title | Title |
| Attest: _____ | Attest: _____ |
| Signature | Signature |
| Title | Title |

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.

2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.

3. This obligation shall be null and void if:

3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or

3.2 All Bids are rejected by Owner, or

3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.

6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after the Bid due date.

7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

# 05- NAMING OF SUBCONTRACTORS

## NAMING OF SUBCONTRACTORS, SUPPLIERS AND OTHER ENTITIES FORM
## CITY OF POCATELLO
### CENTENNIAL – RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT

In addition to subcontractors for plumbing, heating and air-conditioning work, and electrical work, provide the names and addresses of the additional subcontractors, suppliers, individuals or entities called for in the Instructions for Bidders (include Idaho Public Works Contractor License Numbers for any subcontractors).

| Name and Address | Classification | License Number (1) |
|---|---|---|
| Aro Electric<br>625 N 25th St<br>Idaho Falls, Idaho 83402 | Electrical | ELE-C-3513<br>PWC-C-11698-U-4 |
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(1) List Idaho Public Works Contractor License Numbers for all subcontractors.

AFFIDAVIT OF PAYMENT OR SECUREMENT OF ALL TAXES

STATE OF IDAHO }

} SS

COUNTY OF Bonneville }

Suncore Construction & Materials, Inc., being first duly sworn, on oath deposes and says that they are in conformance with Idaho Code 63-1502; that they have paid or secured to the satisfaction of the respective taxing units all taxes for which they or their property is liable, now due or delinquent, including assessment, excises and license fees levied by the State of Idaho or any taxing unit within the State of Idaho.

Signed: _____ Area Manager

Titled: Dave Clifford - Area Manager

Subscribed and sworn to before me this 2 day of OCTOBER, 20 26

My commission expires: 12/09/29

_____ Notary Public

STEVEN QUE GILES NOTARY PUBLIC COMM # 45944 MY COMMISSION EXPIRES 12-09-29 STATE OF IDAHO (SEAL)

## NON-COLLUSION AFFIDAVIT

**THIS FORM IS TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID.**

STATE OF Idaho )
:ss
COUNTY OF Bonneville )

Dave Clifford, being first duly sworn, deposes and says that he or she is Area Manager of Suncore Construction & Materials, Inc., the (sole owner, partner, president, secretary, etc.) party making the foregoing bid, that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company association, organization, or corporation; that the bid is genuine and not collusive or sham; that the Bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the Bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract or anyone interested in the proposed contract; that all statements contained in the Bid are true; and further, that the Bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid.

Signed: _____

Title: Area Manager

Subscribed and sworn to before me

this 2 day of OCTOBER, 2026 (SEAL)

_____

Notary Public in and for the

County of BONNEVILLE

State of IDAHO

Residing at BONNEVILLE COUNTY, IDAHO

My Commission expires 12/09/29

STEVEN QUE GILES NOTARY PUBLIC COMM # 45944 MY COMMISSION EXPIRES 12-09-29 STATE OF IDAHO

# CERTIFICATION REGARDING LOBBYING

**Project:** Centennial-Rainey Levee Setback and Ecosystem Enhancement Project

Applicable to: **All Contractors and Subcontractors**

The undersigned certifies, to the best of his/her knowledge and belief that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to report Lobbying" in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontractors, sub-grants and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Date: 10/1/2026

Signed: _____

Title: Area Manager

DBA: Suncore Construction & Materials, Inc.

SUBSCRIBED AND SWORN TO before me this 2 day of OCTOBER, 2026

STEVEN QUE GILES NOTARY PUBLIC COMM # 45944 MY COMMISSION EXPIRES 12-09-29 STATE OF IDAHO

_____

Notary Public for Idaho, Residing in Pocatello.

My Commission Expires: 12/09/29

# 06-QUALIFICATIONS STATEMENT

# QUALIFICATIONS STATEMENT

## CENTENNIAL – RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT

**THE INFORMATION SUPPLIED IN THIS DOCUMENT IS CONFIDENTIAL TO THE EXTENT PERMITTED BY LAWS AND REGULATIONS**

1. **SUBMITTED BY:**

   Official Name of Firm: Suncore Construction & Materials, Inc.

   Address: 901 Pier View Drive, Suite 201
   Idaho Falls, Idaho 83402

2. **SUBMITTED TO:** City of Pocatello, Idaho

3. **SUBMITTED FOR:**

   Owner: City of Pocatello, Idaho

   Project Name: Centennial - Rainey Levee Setback and Ecosystem Enhancement

   **TYPE OF WORK:** Civil - Earthwork & Hardscapes

4. **CONTRACTOR'S CONTACT INFORMATION**

   Contact Person: Chad Fuehrer

   Title: PM / Estimator

   Phone: 208. 458. 4000

   Email: cfuehrer@suncore.build.

5. **AFFILIATED COMPANIES:**

Name: Clyde Companies

Address: 730 N 1500 W
Orem, UT 84057

6. **TYPE OF ORGANIZATION:**

☐ SOLE PROPRIETORSHIP

Name of Owner:

Doing Business As: — NA -

Date of Organization:

☐ PARTNERSHIP

Date of Organization:

Type of Partnership: — NA -

Name of General Partner(s):

☒ CORPORATION

State of Organization: Utah/Idaho

Date of Organization: December 1992 + D & CH 1926 - Utah

Executive Officers:

- President: CH Mark Elder
- Vice President(s): Mark Wimmer
  Brent Turpin - Idaho
- Treasurer: CH Brandon Hale
- Secretary: Ann Marie Fogg

☐ LIMITED LIABILITY COMPANY

State of Organization: _____

Date of Organization: _____

Members: _____

NA

☐ JOINT VENTURE

Sate of Organization: _____

Date of Organization: NA

Form of Organization: _____

Joint Venture Managing Partner

- Name: _____

- Address: _____

NA

Joint Venture Managing Partner

- Name: _____

- Address: NA

Joint Venture Managing Partner

- Name: _____

- Address: NA

## 7. LICENSING

Jurisdiction: Idaho

Type of License: Public Works

License Number: PWC-C-17452-U-1-2-4

Jurisdiction: Idaho

Type of License: State License

License Number: RCE-18480

## 8. CERTIFICATIONS

CERTIFIED BY:

Disadvantage Business Enterprise: -NA-

Minority Business Enterprise: - NA -

Woman Owned Enterprise: - NA -

Small Business Enterprise: - NA -

Other (_____): - NA -

## 9. BONDING INFORMATION

Bonding Company: Beehive Insurance

Address: 4393 S. Riverboat Road
Salt Lake City, UT 84123

Bonding Agent: Katelyn Bigelow

Address: 4393 S. Riverboat Road
Salt Lake City, UT 84123

Contact Name: Katelyn Bigelow

Phone: 801.685.6860

Aggregate Bonding Capacity: $100,000,000.00

Available Bonding Capacity as of date of this submittal: $100,000,000.00

## 10. FINANCIAL INFORMATION

Financial Institution: Zions Bank

Address: Agg > #1.0 Billion

Account Manager: *Will provide upon award

Phone: (potential award)

INCLUDE AS AN ATTACHMENT AN AUDITED BALANCE SHEET FOR EACH OF THE LAST 3 YEARS

## 11. CONSTRUCTION EXPERIENCE:

Current Experience:

List on **Schedule A** all uncompleted projects currently under contract (If Joint Venture list each participant's projects separately).

Previous Experience:

List on **Schedule B** all projects completed within the last 5 Years (If Joint Venture list each participant's projects separately).

Has firm listed in Section 1 ever failed to complete a construction contract awarded to it?

☐ YES ☒ NO

If YES, attach as an Attachment details including Project Owner's contact information.

Has any Corporate Officer, Partner, Joint Venture participant or Proprietor ever failed to complete a construction contract awarded to them in their name or when acting as a principal of another entity?

☐ YES ☒ NO

If YES, attach as an Attachment details including Project Owner's contact information.

Are there any judgments, claims, disputes or litigation pending or outstanding involving the firm listed in Section 1 or any of its officers (or any of its partners if a partnership or any of the individual entities if a joint venture)?

☐ YES ☒ NO

If YES, attach as an Attachment details including Project Owner's contact information.

12. SAFETY PROGRAM:

Name of Contractor's Safety Officer: Marc Weimar

Include the following as attachments:

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) OSHA No. 500- Log & Summary of Occupational Injuries & Illnesses for the past 5 years.

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) list of all OSHA Citations & Notifications of Penalty (monetary or other) received within the last 5 years (indicate disposition as applicable) - IF NONE SO STATE. None

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) list of all safety citations or violations under any state all received within the last 5 years (indicate disposition as applicable) - IF NONE SO STATE. None

Provide the following for the firm listed in Section V (and for each proposed Subcontractor furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) the following (attach additional sheets as necessary):

Workers' compensation Experience Modification Rate (EMR) for the last 5 years:

| | | | |
|---|---|---|---|
| YEAR | 2021 | EMR | 0.94 |
| YEAR | 2022 | EMR | 0.93 |
| YEAR | 2023 | EMR | 0.87 |
| YEAR | 2024 | EMR | 0.80 |
| YEAR | 2025 | EMR | 0.80 |

Total Recordable Frequency Rate (TRFR) for the last 5 years:

| | | | |
|---|---|---|---|
| YEAR | 2021 | TRFR | 2.15 |
| YEAR | 2022 | TRFR | 2.85 |
| YEAR | 2023 | TRFR | 1.64 |
| YEAR | 2024 | TRFR | 2.86 |
| YEAR | 2025 | TRFR | 2.39 |

Total number of man-hours worked for the last 5 Years:

| | | | |
|---|---|---|---|
| YEAR | 2021 | TOTAL NUMBER OF MAN-HOURS | 2,751,071 |
| YEAR | 2022 | TOTAL NUMBER OF MAN-HOURS | 2,942,845 |
| YEAR | 2023 | TOTAL NUMBER OF MAN-HOURS | 3,046,740 |
| YEAR | 2024 | TOTAL NUMBER OF MAN-HOURS | 3,420,907 |
| YEAR | 2025 | TOTAL NUMBER OF MAN-HOURS | 4,221,786 |

Provide Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) Days Away From Work, Days of Restricted Work Activity or Job Transfer (DART) incidence rate for the particular industry or type of Work to be performed by Contractor and each of Contractor's proposed Subcontractors and Suppliers) for the last 5 years:

| | | | |
|---|---|---|---|
| YEAR | 2021 | DART | 1.30 |
| YEAR | 2022 | DART | 1.63 |
| YEAR | 2023 | DART | 1.25 |
| YEAR | 2024 | DART | 1.20 |
| YEAR | 2025 | DART | 1.04 |

**13. EQUIPMENT:**

MAJOR EQUIPMENT:

List on **Schedule C** all pieces of major equipment available for use on Owner's Project.

* Please See Following Page for equipment & operated rates.

I HEREBY CERTIFY THAT THE INFORMATION SUBMITTED HEREWITH, INCLUDING ANY ATTACHMENTS, IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

NAME OF ORGANIZATION: Simcoe Construction & Materials, Inc.

BY: Dave Clifford

TITLE: Area Manager

DATED: 10/1/2026

NOTARY ATTEST:

SUBSCRIBED AND SWORN TO BEFORE ME

THIS 2 DAY OF OCTOBER, 2026

STEVEN QUE GILES NOTARY PUBLIC COMM # 45944 MY COMMISSION EXPIRES 12-09-29 STATE OF IDAHO

NOTARY PUBLIC - STATE OF IDAHO, BONNEVILLE COUNTY

MY COMMISSION EXPIRES: 12/09/29

REQUIRED ATTACHMENTS

1. Schedule A (Current Experience). ✓
2. Schedule B (Previous Experience). ✓
3. Schedule C (Major Equipment). ✓
4. Audited balance sheet for each of the last 3 years for firm named in Section 1. Upon Award
5. Evidence of authority for individuals listed in Section 7 to bind organization to an agreement. ✓
6. Resumes of officers and key individuals (including Safety Officer) of firm named in Section 1. Upon Award
7. Required safety program submittals listed in Section 13. ✓
8. Additional items as pertinent. ✓

SCHEDULE A

CURRENT EXPERIENCE

| Project Name | Owner's Contact Person | Design Engineer | Contract Date | Type of Work | Status | Cost of Work |
|---|---|---|---|---|---|---|
| Melaleuca Vitality | Name: Devin Belnap / Riverbend<br>Address: 4609 W. 05th S., Idaho Falls ID 83402<br>Telephone: 208.524-7605 | Name: Travis Payne<br>Company: Connect Engineering<br>Telephone: 208.881.0081 | 7/8/2026 | Heavy Civil | Ongoing | $2.4 Million |
| Teton River Temple | Name: Derek Phelps / Big D Co/LDS Church<br>Address: 4044 W 400 S SLC, UT 84101<br>Telephone: 801.673.9692 | Name: Caden Fuhriman<br>Company: Horrocks<br>Telephone: 208-522-1223 | 4/20/2023 | Heavy Civil | Ongoing | $25.1M |
| Winco Rexburg | Name: Brad Fullan / DTL<br>Address: PO 775 3600 W. Riverton, UT 84065<br>Telephone: 801.255.5605 | Name: Andrew Newell<br>Company: Blaine A. Warner<br>Telephone: 208.593.7555 | 04/2026 | Heavy Civil | Ongoing | $4.2M |
| Inkom Paving | Name: Cole Frost / Co ITD & Rexburg<br>Address: 1100 E 1400 S Suite 200 Draper, UT 84020<br>Telephone: 801.553.1061 | Name: Jon Singleton / ITD<br>Company: Idaho Transportation Dept<br>Telephone: 208.237.3300 | 08/2024 | Pave | Ongoing | $10.2M |
| Sunpro Rexburg | Name: Ryan Lowe / Clyde Co.<br>Address: rlowe@clyde.com Linden, UT<br>Telephone: 385.250.6020 | Name: Paul Sharr<br>Company: Eagle Rock Engineering<br>Telephone: 208.228.7420 | 05/2024 | Heavy Civil | Ongoing | $11.2M |
| etc.. | Name:<br>Address:<br>Telephone: etc. | Name:<br>Company:<br>Telephone: etc | etc | etc. | etc | etc. |
| | Name:<br>Address:<br>Telephone: | Name:<br>Company:<br>Telephone: | | | | |

## SCHEDULE B

PREVIOUS EXPERIENCE (Include ALL Projects Completed within last 5 years)

| Project Name | Owner's Contact Person | Design Engineer | Contract Date | Type of Work | Status | Cost of Work |
|---|---|---|---|---|---|---|
| Driggs Airport | Name: City of Driggs, ID<br>Address: 603 Main Driggs, ID 83422<br>Telephone: 208.354.2362 | Name: Jviation<br>Company: Jviation, Denver CO<br>Telephone: 303.524.3030 | 05/2024 | FAA Airport Earthwork | Closed | $9.1M |
| N. 500 W ITD | Name: Idaho Transportation District 6<br>Address: 206 N. Yellowstone Hwy Rigby, ID 83442<br>Telephone: 208.745-7781 | Name: Civil Science & ITD<br>Company: Civil Science & ITD<br>Telephone: 208.745.7781 | 03/2025 | Reconstruction | Closed | 4.2M ~~$3.5M~~ |
| SH-33 Teton Intersection | Name: ITD District 6<br>Address: 206 N. Yellowstone Hwy Rigby, ID 83402<br>Telephone: 208.745-7781 | Name: ITD D 6<br>Company: ITD D 6<br>Telephone: 208.745-7781 | 04/2024 | Reconstruction | Closed | $5.7M |
| Hailey Creek #5 | Name: Dan Larsen<br>Address: 851 S. Yellowstone Hwy Rexburg, ID 83440<br>Telephone: 435.755.2080 | Name: Alliance Consulting<br>Company: 150 & 200 N Suite Logan, UT 84321<br>Telephone: 435-755-5211 | 08/2025 | New Subdivision & Utilities | Closed | $2.7M |
| Teton Pines Roadway #2 | Name: Suzanne Lagerman<br>Address: PO Box 1529 Jackson WY 83001<br>Telephone: 307.733.2087 | Name: Dave Default<br>Company: Nelson Engineering<br>Telephone: 307-733-2087 | 02/2026 | Mill & Overlay | Closed | $1.5M |
| Twin Slides | Name: Jen Zug / Harmony<br>Address: 85 N. Main Ste 305 Driggs, ID 83422<br>Telephone: 208.354.1331 | Name: Jen Zug c/o Crowson West<br>Company: Harmony Design & Engineering<br>Telephone: 208.354.1331 | 05/2025 | Subdivision & Utilities | Closed | $1.571M |
| | Name:<br>Address:<br>Telephone: | Name:<br>Company:<br>Telephone: | | | | |

* See Attached *

SCHEDULE C - LIST OF MAJOR EQUIPMENT AVAILABLE

| ITEM | PURCHASE DATE | CONDITION | ACQUIRED VALUE |
|---|---|---|---|
| | | | |
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Equipment List & Operated Dates Sheet
Schedule C

# SUNROC CORPORATION

## 2026 T&M RATE SHEET

| EQUIPMENT | BASE RATE | OPERATED RATE |
|---|---|---|
| Crew Truck | $ 30.00 | |
| Crew Pipe Truck | $ 45.00 | |
| F550 Transport | $ 90.00 | $169.00 |
| Street Sweeper (Vacuum) | $ 125.00 | $204.00 |
| Distributor Truck | $ 190.00 | $269.00 |
| Water Truck | $ 80.00 | $159.00 |
| Vacuum Truck | $ 240.00 | $319.00 |
| Dump Truck | $ 90.00 | $169.00 |
| Super Dump | $ 105.00 | $184.00 |
| Dump Truck W/Pup | $ 105.00 | $184.00 |
| Rock Chucker | $ 170.00 | $249.00 |
| Transport | $ 155.00 | $234.00 |
| Single Side Dump | $ 113.00 | $192.00 |
| Double Side Dump | $ 150.00 | $229.00 |
| End Dump/Single Belly Dump | $ 117.00 | $196.00 |
| Double Belly Dump | $ 153.00 | $232.00 |
| Cat 613/621 Water Wagon | $ 115.00 | $194.00 |
| 140G/H Motor Grader | $ 97.00 | $176.00 |
| 140G/H Motor Grader w/GPS | $ 120.00 | $199.00 |
| 140M Motor Grader | $ 105.00 | $184.00 |
| 140M Motor Grader w/GPS | $ 120.00 | $199.00 |
| 14M Motor Grader w/GPS | $ 145.00 | $224.00 |
| Loader Backhoe | $ 60.00 | $139.00 |
| John Deere Tractor | $ 180.00 | $259.00 |
| 305 Cat Mini Ex | $ 56.00 | $135.00 |
| 305 Cat Mini Ex w/Breaker | $ 107.00 | $186.00 |
| 308 Cat Mini Ex | $ 75.00 | $154.00 |
| 312/314/315 Cat Excavator | $ 85.00 | $164.00 |
| 320 Cat Excavator | $ 97.00 | $176.00 |
| 325/329 Cat Excavator | $ 125.00 | $204.00 |
| 325/329 Cat Excavator w/GPS | $ 135.00 | $214.00 |
| 330/336 Cat Excavator | $ 140.00 | $219.00 |
| 330/336 Cat Excavator w/GPS | $ 150.00 | $229.00 |
| 345/349 Cat Excavator | $ 180.00 | $259.00 |
| 345/349 Cat Excavator w/GPS | $ 190.00 | $269.00 |
| 365/374 Cat Excavator | $ 265.00 | $344.00 |
| Excavator Breaker Attachment | Double Base Rate | |
| Track Skid Loader | $ 65.00 | $144.00 |
| Skidsteer Loader | $ 65.00 | $144.00 |
| Auger Attachment for Skidsteer | $ 15.00 | $94.00 |
| Breaker Attachment for Skidsteer | $ 35.00 | $114.00 |
| 930/IT Cat Tool Handler | $ 75.00 | $154.00 |
| 950 Cat Toolhandler | $ 95.00 | $174.00 |
| 966 Cat Loader | $ 105.00 | $184.00 |
| 980 Cat Loader | $ 130.00 | $209.00 |
| Cat D4 Dozer | $ 90.00 | $169.00 |
| Cat D6 Dozer | $ 110.00 | $189.00 |
| Cat D6 Dozer w/GPS | $ 135.00 | $214.00 |
| Cat D7 Dozer | $ 120.00 | $199.00 |
| Cat D8 Dozer | $ 175.00 | $254.00 |
| Cat D8 Dozer w/GPS | $ 190.00 | $269.00 |
| Cat D9 Dozer | $ 240.00 | $319.00 |
| 623 Paddle Wheel Scraper | $ 240.00 | $319.00 |
| 621B Push Scraper | $ 150.00 | $229.00 |
| 621G/K Push Scraper | $ 195.00 | $274.00 |
| Articulated Rock Truck | $ 145.00 | $224.00 |
| Articulated Rock Truck (Leased) | $ 245.00 | $324.00 |
| Asphalt Laydown Machine | $ 275.00 | $354.00 |
| Roadtec Shuttle Buggy | $ 405.00 | $484.00 |
| Road Widener | $ 205.00 | $284.00 |
| Windrow Elevator | $ 85.00 | $164.00 |
| ROADTEC RX700 MILL | $ 390.00 | $469.00 |
| PULVERIZER | $ 235.00 | $314.00 |
| Compactor | $ 95.00 | $174.00 |
| 815/825 Sheepsfoot Compactor | $ 155.00 | $234.00 |
| Walk Behind Compactor | $ 35.00 | $114.00 |
| Street Sweeper (Sidecast) | $ 67.00 | $146.00 |

| *LABOR RATES* | BASE RATE |
|---|---|
| LABORER | 63.00 |
| LABOR OPERATOR | 75.00 |
| OPERATOR | 79.00 |
| TRUCK DRIVER | 74.00 |
| MECHANIC | 90.00 |
| SURVEYOR | 100.00 |
| FOREMAN | 90.00 |
| SUPERINTENDENT | 120.00 |
| MISC. RATES | |
| TRENCH BOX | 20.00 |
| TRASH PUMP | 20.00 |
| 6" DEWATERING PUMP | 25.00 |
| LIGHT PLANT (DAILY) | 225.00 |
| MESSAGE BOARD (DAILY) | 175.00 |
| COMPRESSOR | 30.00 |
| Tractor Disc | 45.00 |

**State of Idaho**
**Division of Occupational and Professional Licenses**

11341 W Chinden Blvd.
PO Box 83720
Boise, ID 83720-0063
(208) 334-3233 dopl.idaho.gov

**Brad Little**
Governor
**Russell S. Barron**
Administrator

SUNCORE CONSTRUCTION AND MATERIALS INC
3468 N 1150 W
SPANISH FORK UT 84660-6361

Date: October 1, 2025
Letter ID: L0000681295
License ID: PWC-C-17452

# Notice of License Certificate
## Public Works Contractor - Class Unlimited License

Dear SUNCORE CONSTRUCTION AND MATERIALS INC,

Congratulations! On behalf of the Public Works Contractors License (PWCL) Board, the Idaho Division of Occupational and Professional Licenses is pleased to let you know that your Public Works Contractor - Class Unlimited License has successfully been renewed and your license has been issued.

Your license certificate is on the following page.

Type: Public Works Contractor - Class Unlimited License
Number: PWC-C-17452
Expiration Date: 30-Nov-2026

You can access and manage your Public Works Contractor - Class Unlimited License by logging into the DOPL Online Services website at edopl.idaho.gov. If you haven't created an account yet, you can sign up from the same page. From your online profile you can view, download, or reprint your license or registration, renew when eligible, and update your contact information.

If you have questions, contact us on our website at edopl.idaho.gov or by calling (208) 334-3233.

**Division of Occupational and Professional Licenses**
11341 W Chinden Blvd. Boise, ID 83720-0063
dopl.idaho.gov

The person, firm, or corporation whose name appears on this certificate has complied with the provisions of the Idaho Public Works Contractors License (PWCL) Board statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

SUNCORE CONSTRUCTION AND MATERIALS INC

Public Works Contractor - Class Unlimited License
PWC-C-17452

Issued: 01-Oct-2025 Expires: 30-Nov-2026

Renewal Required

Russell S. Barron
**Administrator**

Printed: 01-Oct-2025

Public Works Contractors License (PWCL) Board

SUNCORE CONSTRUCTION AND MATERIALS INC
Public Works Contractor - Class Unlimited License
PWC-C-17452

**Expires: 30-Nov-2026**

Russell S. Barron
**Administrator**

# Delegation of Authority Form

Suncore Construction and Materials, Inc. (the "**Company**") grants authority to certain individuals to approve and execute various contracts and other transactions, and allows them to delegate their authority to other qualified individuals within the Company. This form is required to add, change, or revoke a delegation of authority. Please use a separate form for each addition, change, or revocation. All delegations, changes, or revocations are made pursuant to the Company's Signature Authorization and Delegation of Authority Policy and are subject thereto. Submit completed forms to the Corporate Secretary's Office at bhale@clydeinc.com.

| **I. Delegator Information** | |
|---|---|
| Request Type *(check one)*: | ☒ Add delegation (*complete Sections II and V only*).<br>☐ Revoke delegation (*complete Sections III and V only*).<br>☐ Change delegation (*complete Sections IV and V only*). |
| Delegator Name and Title: **Mark Elder, President** | |
| Email: melder@suncore.build | Telephone Number: 208-559-3416 |

| **II. Add New Delegation** | |
|---|---|
| Delegatee Title (position to which delegation is made):<br>**Area Manager** | Department/Business Unit:<br>**Construction** |
| Name:<br>**All individuals in the above-referenced title.** | |
| Effective Date of Delegation:<br>**7/28/2025** | Expiration Date of Delegation:<br>**Until revoked** |

| **Delegated Powers and Authority**<br>(e.g., contract or transaction type) | **Subdelegations Allowed?**<br>(Yes/No) | **Delegation Limitations**<br>(e.g., dollar limits, dual signatures, approvals required) |
|---|---|---|
| Construction Contracts | No | Less than $10,000,000 |
| Construction Subcontracts | No | None |
| Bid Proposals | No | None |
| Bid Bonds and Payment & Performance Bonds | No | None |
| Change Orders | No | None |
| SWPPP Certifications | No | None |
| Project Specific Documents (i.e., C-115, Certifications, Submittals, etc.) | No | None |
| Motor Carrier Services Agreements | No | None |

| **III. Revoke Existing Delegation** | |
|---|---|
| Delegatee Title (position to which delegation was made): | Department/Business Unit: |
| Name (person currently holding position): | Effective Date of Revocation: |
| **Description of Delegation to Be Revoked:** | |

| **IV. Change Scope of Existing Delegation** | |
|---|---|
| Delegatee Title (position to which delegation was made): | Department/Business Unit: |
| Name (person currently holding position): | Effective Date of Change: |
| **Existing Delegation** (description of delegation) | **Change to Delegation** (description of change) |
| | |

| **V. Signature[s]** | |
|---|---|
| Delegator Signature: Mark Elder<br>Mark Elder (Aug 20, 2025 18:12:53 MDT) | Date: Aug 20, 2025 |

# SCR Delegation of Authortiy Form Area Managers

Final Audit Report 2025-08-21

| | |
|---|---|
| Created: | 2025-08-20 |
| By: | Ann-marie Fogg (afogg@suncore.build) |
| Status: | Signed |
| Transaction ID: | CBJCHBCAABAAvDI_dXLiiFk0RgG5NRQmV3F1AoBtg54A |

## "SCR Delegation of Authortiy Form Area Managers" History

Document created by Ann-marie Fogg (afogg@suncore.build)
2025-08-20 - 11:18:18 PM GMT

Document emailed to Mark Elder (melder@suncore.build) for signature
2025-08-20 - 11:18:50 PM GMT

Email viewed by Mark Elder (melder@suncore.build)
2025-08-21 - 0:12:24 AM GMT

Document e-signed by Mark Elder (melder@suncore.build)
Signature Date: 2025-08-21 - 0:12:53 AM GMT - Time Source: server

Agreement completed.
2025-08-21 - 0:12:53 AM GMT

Adobe Acrobat Sign

# Delegation of Authority Form

Suncore Construction and Materials, Inc. (the "**Company**") grants authority to certain individuals to approve and execute various contracts and other transactions, and allows them to delegate their authority to other qualified individuals within the Company. This form is required to add, change, or revoke a delegation of authority. Please use a separate form for each addition, change, or revocation. All delegations, changes, or revocations are made pursuant to the Company's Signature Authorization and Delegation of Authority Policy and are subject thereto. Submit completed forms to the Corporate Secretary's Office at bhale@clydeinc.com.

| **I. Delegator Information** | |
|---|---|
| Request Type *(check one)*: | ☒ Add delegation (*complete Sections II and V only*).<br>☐ Revoke delegation (*complete Sections III and V only*).<br>☐ Change delegation (*complete Sections IV and V only*). |
| Delegator Name and Title: **Mark Elder, President** | |
| Email: melder@suncore.build | Telephone Number: 208-559-3416 |

| **II. Add New Delegation** | | |
|---|---|---|
| Delegatee Title (position to which delegation is made):<br>**Estimator** | Department/Business Unit:<br>**Construction** | |
| Name:<br>**All individuals in the above-referenced title.** | | |
| Effective Date of Delegation:<br>**7/28/2025** | Expiration Date of Delegation:<br>**Until revoked** | |
| **Delegated Powers and Authority**<br>(e.g., contract or transaction type) | **Subdelegations Allowed?**<br>(Yes/No) | **Delegation Limitations**<br>(e.g., dollar limits, dual signatures, approvals required) |
| Bid Proposals and/or Bid Bonds | No | Less than $1,000,000.00 |

| **III. Revoke Existing Delegation** | |
|---|---|
| Delegatee Title (position to which delegation was made): | Department/Business Unit: |
| Name (person currently holding position): | Effective Date of Revocation: |
| **Description of Delegation to Be Revoked:** | |

| **IV. Change Scope of Existing Delegation** | |
|---|---|
| Delegatee Title (position to which delegation was made): | Department/Business Unit: |
| Name (person currently holding position): | Effective Date of Change: |
| **Existing Delegation** (description of delegation) | **Change to Delegation** (description of change) |
| | |

| **V. Signature[s]** | |
|---|---|
| Delegator Signature: Mark Elder<br>Mark Elder (Aug 20, 2025 18:11:09 MDT) | Date: Aug 20, 2025 |

# SCR Delegation of Authortiy Form Estimator

Final Audit Report 2025-08-21

| | |
|---|---|
| Created: | 2025-08-20 |
| By: | Ann-marie Fogg (afogg@suncore.build) |
| Status: | Signed |
| Transaction ID: | CBJCHBCAABAATPPVRbovf0MfQE_XlPdCTsKCWjF-fW9Q |

## "SCR Delegation of Authortiy Form Estimator" History

Document created by Ann-marie Fogg (afogg@suncore.build)
2025-08-20 - 11:16:07 PM GMT

Document emailed to Mark Elder (melder@suncore.build) for signature
2025-08-20 - 11:17:03 PM GMT

Email viewed by Mark Elder (melder@suncore.build)
2025-08-21 - 0:10:24 AM GMT

Document e-signed by Mark Elder (melder@suncore.build)
Signature Date: 2025-08-21 - 0:11:09 AM GMT - Time Source: server

Agreement completed.
2025-08-21 - 0:11:09 AM GMT

# OSHA's Form 300A (Rev. 01/2004)

# Summary of Work-Related Injuries and Illnesses

Year 2021

U.S. Department of Labor
Occupational Safety and Health Administration
Form approved OMB no. 1218-0176

*All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete*

*Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0."*

*Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA's Recordkeeping rule, for further details on the access provisions for these forms.*

## Number of Cases

| Total number of deaths | Total number of cases with days away from work | Total number of cases with job transfer or restriction | Total number of other recordable cases |
|---|---|---|---|
| 0 | 14 | 4 | 12 |
| (G) | (H) | (I) | (J) |

## Number of Days

| Total number of days away from work | Total number of days of job transfer or restriction |
|---|---|
| 339 | 982 |
| (K) | (L) |

## Injury and Illness Types

| Total number of... | (M) | | |
|---|---|---|---|
| (1) Injury | 30 | (4) Poisoning | 0 |
| (2) Skin Disorder | 0 | (5) Hearing Loss | 0 |
| (3) Respiratory Condition | 0 | (6) All Other Illnesses | 0 |

**Post this Summary page from February 1 to April 30 of the year following the year covered by the form**

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave, NW, Washington, DC 20210. Do not send the completed forms to this office.

## Establishment information

Your establishment name Sunroc Corporation

Street 730 N 1500 W

City Orem State Utah Zip 84057

Industry description (e.g., Manufacture of motor truck trailers)
Ready-mix Concrete Operations and Construction Services

Standard Industrial Classification (SIC), if known (e.g., SIC 3715)
____ ____ ____ ____ 3273 / 1794

OR North American Industrial Classification (NAICS), if known (e.g., 336212)
3 2 7 3 2 0 / 236220

## Employment information

Annual average number of employees 1325

Total hours worked by all employees last year 2,751,071

## Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company executive

President
Title

801-722-2100
Phone

Jan 27, 2022
Date

# OSHA's Form 300A (Rev. 01/2004)

# Summary of Work-Related Injuries and Illnesses

Year 2021

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

*All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete*

*Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0."*

*Employees former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA's Recordkeeping rule, for further details on the access provisions for these forms.*

**Number of Cases**

| Total number of deaths | Total number of cases with days away from work | Total number of cases with job transfer or restriction | Total number of other recordable cases |
|---|---|---|---|
| 0 | 14 | 4 | 12 |
| (G) | (H) | (I) | (J) |

**Number of Days**

| Total number of days away from work | Total number of days of job transfer or restriction |
|---|---|
| 339 | 982 |
| (K) | (L) |

**Injury and Illness Types**

| Total number of... | (M) | | (M) |
|---|---|---|---|
| (1) Injury | 30 | (4) Poisoning | 0 |
| (2) Skin Disorder | 0 | (5) Hearing Loss | 0 |
| (3) Respiratory Condition | 0 | (6) All Other Illnesses | 0 |

**Establishment information**

Your establishment name Sunroc Corporation

Street 730 N 1500 W

City Orem State Utah Zip 84057

Industry description (e.g., Manufacture of motor truck trailers)
Ready-mix Concrete Operations and Construction Services

Standard Industrial Classification (SIC), if known (e.g., SIC 3715)
3273 / 1794

OR North American Industrial Classification (NAICS), if known (e.g., 336212)

**Employment information**

Annual average number of employees 1325

Total hours worked by all employees last year 2,751,071

**Sign here**

**Knowingly falsifying this document may result in a fine.**

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company executive

Title

Phone

Date

**Post this Summary page from February 1 to April 30 of the year following the year covered by the form**

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# OSHA's Form 300A (Rev. 01/2004)

# Summary of Work-Related Injuries and Illnesses

Year 2022

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

*All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete*

*Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0."*

*Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA's Recordkeeping rule, for further details on the access provisions for these forms.*

## Number of Cases

| Total number of deaths | Total number of cases with days away from work | Total number of cases with job transfer or restriction | Total number of other recordable cases |
|---|---|---|---|
| 0 | 13 | 11 | 18 |
| (G) | (H) | (I) | (J) |

## Number of Days

| Total number of days away from work | Total number of days of job transfer or restriction |
|---|---|
| 316 | 835 |
| (K) | (L) |

## Injury and Illness Types

| Total number of... | (M) | | (M) |
|---|---|---|---|
| (1) Injury | 42 | (4) Poisoning | 0 |
| (2) Skin Disorder | 0 | (5) Hearing Loss | 0 |
| (3) Respiratory Condition | 0 | (6) All Other Illnesses | 0 |

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## Establishment Information

Your establishment name: Sunroc Corporation

Street: 3468 North 1150 West

City: Spanish Fork State: Utah Zip: 84660

Industry description (e.g., Manufacture of motor truck trailers)
Ready-mix Concrete Operations and Construction Services

Standard Industrial Classification (SIC), if known (e.g., SIC 3715)
### ###

OR North American Industrial Classification (NAICS), if known (e.g., 336212)
3 2 7 3 2 0

## Employment Information

Annual average number of employees: 1550

Total hours worked by all employees last year: 2,942,845

## Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company executive

President
Title

801-722-2100
Phone

1/11/2023
Date

# OSHA's Form 300A (Rev. 01/2004)

# Summary of Work-Related Injuries and Illnesses

Year 2023

**U.S. Department of Labor**
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

*All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete*

*Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0."*

*Employees former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA's Recordkeeping rule, for further details on the access provisions for these forms.*

## Number of Cases

| Total number of deaths | Total number of cases with days away from work | Total number of cases with job transfer or restriction | Total number of other recordable cases |
|---|---|---|---|
| 0 | 11 | 8 | 9 |
| (G) | (H) | (I) | (J) |

## Number of Days

| Total number of days away from work | Total number of days of job transfer or restriction |
|---|---|
| 238 | 693 |
| (K) | (L) |

## Injury and Illness Types

| Total number of... | (M) | | (M) |
|---|---|---|---|
| (1) Injury | 28 | (4) Poisoning | 0 |
| (2) Skin Disorder | 0 | (5) Hearing Loss | 0 |
| (3) Respiratory Condition | 0 | (6) All Other Illnesses | 0 |

## Establishment information

Your establishment name Sunroc Corporation

Street 3468 North 1150 West

City Spanish Fork State Utah Zip 84660

Industry description (e.g., Manufacture of motor truck trailers)
Ready-mix Concrete Operations and Construction Services

Standard Industrial Classification (SIC), if known (e.g., SIC 3715)
3 2 7 3 / 1794

OR North American Industrial Classification (NAICS), if known (e.g., 336212)
3 2 7 3 2 0

## Employment information

Annual average number of employees 1957

Total hours worked by all employees last year 3,046,740

## Sign here

**Knowingly falsifying this document may result in a fine.**

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company executive — President (Title)

801-722-2100 (Phone) — 1/9/2024 (Date)

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# OSHA's Form 300A (Rev. 01/2004)

# Summary of Work-Related Injuries and Illnesses

Year 2024

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

*All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete*

*Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0."*

*Employees former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA's Recordkeeping rule, for further details on the access provisions for these forms.*

## Number of Cases

| Total number of deaths | Total number of cases with days away from work | Total number of cases with job transfer or restriction | Total number of other recordable cases |
|---|---|---|---|
| 0 | 9 | 12 | 29 |
| (G) | (H) | (I) | (J) |

## Number of Days

| Total number of days away from work | Total number of days of job transfer or restriction |
|---|---|
| 229 | 989 |
| (K) | (L) |

## Injury and Illness Types

| Total number of... | (M) | | |
|---|---|---|---|
| (1) Injury | 50 | (4) Poisoning | 0 |
| (2) Skin Disorder | 0 | (5) Hearing Loss | 0 |
| (3) Respiratory Condition | 0 | (6) All Other Illnesses | 0 |

## Establishment information

Your establishment name Sunroc Corporation

Street 3468 North 1150 West

City Spanish Fork State Utah Zip 84660

Industry description (e.g., Manufacture of motor truck trailers)
Ready-mix Concrete Operations and Construction Services

Standard Industrial Classification (SIC), if known (e.g., SIC 3715)
3 2 7 3 / 1794

OR North American Industrial Classification (NAICS), if known (e.g., 336212)
3 2 7 3 2 0

## Employment information

Annual average number of employees 2350

Total hours worked by all employees last year 3,490,907

## Sign here

**Knowingly falsifying this document may result in a fine.**

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Mark Elder
Mark Elder (Jan 22, 2025 09:27 MST)
Company executive

President
Title

801-722-2100
Phone

1/20/2025
Date

**Post this Summary page from February 1 to April 30 of the year following the year covered by the form**

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# OSHA's Form 300A (Rev. 01/2004)
# Summary of Work-Related Injuries and Illnesses

Year 2025

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

*All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete*

*Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0."*

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## Number of Cases

| Total number of deaths | Total number of cases with days away from work | Total number of cases with job transfer or restriction | Total number of other recordable cases |
|---|---|---|---|
| 0 | 15 | 5 | 28 |
| (G) | (H) | (I) | (J) |

## Number of Days

| Total number of days away from work | Total number of days of job transfer or restriction |
|---|---|
| 483 | 912 |
| (K) | (L) |

## Injury and Illness Types

| Total number of... | (M) | | |
|---|---|---|---|
| (1) Injury | 48 | (4) Poisoning | 0 |
| (2) Skin Disorder | 0 | (5) Hearing Loss | 0 |
| (3) Respiratory Condition | 0 | (6) All Other Illnesses | 0 |

## Establishment Information

Your establishment name Suncore Construction and Materials, Inc.

Street 3468 North 1150 West

City Spanish Fork State Utah Zip 84660

Industry description (e.g., Manufacture of motor truck trailers)
Ready-mix Concrete Operations and Construction Services

Standard Industrial Classification (SIC), if known (e.g., SIC 3715)
3 2 7 3 / 1794

OR North American Industrial Classification (NAICS), if known (e.g., 336212)
3 2 7 3 2 0

## Employment information

Annual average number of employees 2000

Total hours worked by all employees last year 4,221,366

## Sign here

**Knowingly falsifying this document may result in a fine.**

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company executive — President (Title)

801-722-2100 (Phone) — 1/10/2026 (Date)

**Post this Summary page from February 1 to April 30 of the year following the year covered by the form**

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BEEHIVE.
INSURANCE

January 7, 2021

RE: Sunroc Corporation EMR Verification

To whom it may concern,

The EMOD Rate History for Sunroc Corporation is as follows:

| Year | EMOD |
|---|---|
| 2021 | .94 |
| 2020 | .80 |
| 2019 | .72 |

Please let me know if you have any questions.

Regards,

Danielle Marchant CISR, CWCS
Beehive Insurance Agency

BEEHIVE INSURANCE

January 17, 2022

RE: Sunroc Corporation EMR Verification

To whom it may concern,

The EMOD Rate History for Sunroc Corporation is as follows:

| Year | EMOD |
|---|---|
| 2022 | .93 |
| 2021 | .93 |
| 2020 | .80 |
| 2019 | .72 |

Please let me know if you have any questions.

Regards,

Danielle Marchant CISR, CWCS
Beehive Insurance Agency

BEEHIVE INSURANCE

4/1/24

RE: Sunroc Corporation EMR Verification

To whom it may concern,

The EMOD Rate History for Sunroc Corporation is as follows:

| Year | EMOD |
|---|---|
| 2023 | .87 |
| 2022 | .93 |
| 2021 | .93 |
| 2020 | .80 |
| 2019 | .72 |

Please let me know if you have any questions.

Regards,

Danielle Marchant CISR, CWCS
Beehive Insurance Agency

BEEHIVE INSURANCE

December 27, 2024

RE: Sunroc Corporation - Emod Experience Rating History

To Whom It May Concern,

The EMOD Rate History (EMR) for Sunroc Corporation is as follows:

| Year | EMOD |
|---|---|
| 2025 | .80 |
| 2024 | .80 |
| 2023 | .87 |

Please feel free to contact me if you have any questions.

Regards,

Katlyn Bigelow, CISR

Beehive Insurance Agency

# 07- AGREEMENT BETWEEN OWNER & CONTRACTOR

# AGREEMENT
# BETWEEN OWNER AND CONTRACTOR
# FOR CONSTRUCTION CONTRACT

THIS AGREEMENT is by and between City of Pocatello ("Owner") and Suncore Construction and Materials, Inc. ("Contractor").

Owner and Contractor hereby agree as follows:

**ARTICLE 1 – WORK**

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: improvements for Rainey Park and Centennial Park, as well as the associated levee improvements along the Portneuf River. Improvements include but are not limited to moving the levee, wetland creation, additional levee updates and grading, paving parking areas and drive aisles, pedestrian improvements, stormwater improvements, utility updates, , landscaping, wetland enhancements, and more.

**ARTICLE 2 – THE PROJECT**

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: **Centennial – Rainey Levee Setback and Ecosystem Enhancement**

**ARTICLE 3 – ENGINEER**

3.01 The part of the Project has been designed by Harmony Design & Engineering, who will assist the Owner's representative, and will assume all duties and responsibilities, and have the rights and authority assigned to ENGINEER in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

**ARTICLE 4 – CONTRACT TIMES**

4.01 *Time of the Essence*

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Contract Times: Dates*

A. The Work will be begun by November 1, 2026 and will be substantially completed on or before September 1, 2027, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before October 31, 2027.

4.03 *Liquidated Damages*

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of

requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Substantial Completion: Contractor shall pay Owner $500 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner $500 for each day that expires after such time until the Work is completed and ready for final payment.
3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

**ARTICLE 5 – CONTRACT PRICE**

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

A. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item). Reference the attached Bid Form for further information.

B. The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.

C. Total of Lump Sum Amount and Unit Price Work (subject to final Unit Price adjustment) $_____.

**ARTICLE 6 – PAYMENT PROCEDURES**

6.01 *Submittal and Processing of Payments*

A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 20th day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract

a. _95__ percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and

b. _95__ percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).

B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 100 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less 200 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Final Payment*

A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

**ARTICLE 7 – INTEREST**

7.01 All amounts not paid when due shall bear interest at the rate of _*18*__ percent per annum.

**ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS**

8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:

A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.

B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.

F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.

G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.

H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

**ARTICLE 9 – CONTRACT DOCUMENTS**

9.01 *Contents*

A. The Contract Documents consist of the following:

1. This Agreement (pages 1 to 6, inclusive).
2. Performance bond (pages 1 to 3, inclusive).
3. Payment bond (pages 1 to 3, inclusive).
4. General Conditions (pages 1 to 71, inclusive).
5. Supplementary Conditions (pages 1 to 7, inclusive).
6. Specifications as listed in the table of contents of the Project Manual.
7. Drawings (not attached but incorporated by reference) consisting of 44 sheets with each sheet bearing the following general title: Centennial-Rainey Levee Setback and Ecosystem Enhancement – Pocatello, ID – 100% Design Improvements.
8. Addenda (numbers ___ to ___, inclusive).
9. Exhibits to this Agreement (enumerated as follows):
    a. Contractor's Bid (pages 1 to 17, inclusive).
    b. Documentation submitted by CONTRACTOR prior to Notice of Award
    c. Insurance Certificate
    d. Workers Compensation Certificate
    e. Schedule of Rates)
    f. List of Suppliers and Subcontractors
    g. Projected Construction Schedule
    h. Notice of Award
    i. Notice to Proceed
    j. Federal Provisions

10. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:

    a. Notice to Proceed.

    b. Work Change Directives.

    c. Change Orders.

    d. Field Orders.

B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).

C. There are no Contract Documents other than those listed above in this Article 9.

D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

**ARTICLE 10 – MISCELLANEOUS**

10.01 *Terms*

A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 *Assignment of Contract*

A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 *Successors and Assigns*

A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Contractor's Certifications*

A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:

    1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on _____ (which is the Effective Date of the Contract).

| OWNER: | CONTRACTOR: |
|---|---|
| _____ | _____ |
| By: _____ | By: _____ |
| Title: _____ | Title: _____ |
| | *(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)* |
| Attest: _____ | Attest: _____ |
| Title: _____ | Title: _____ |
| Address for giving notices: | Address for giving notices: |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| | License No.: _____ *(where applicable)* |

*(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)*

# 08-PAYMENT BOND

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

# PAYMENT BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:

CONSTRUCTION CONTRACT

Effective Date of the Agreement:
Amount:
Description *(name and location)*:

BOND

Bond Number:
Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:
Amount:
Modifications to this Bond Form: ☐ None ☐ See Paragraph 18

---

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

**CONTRACTOR AS PRINCIPAL**

_____ *(seal)*
Contractor's Name and Corporate Seal

**By:** _____
Signature

_____
Print Name

_____
Title

**Attest:** _____
Signature

_____
Title

**SURETY**

_____ *(seal)*
Surety's Name and Corporate Seal

**By:** _____
Signature *(attach power of attorney)*

_____
Print Name

_____
Title

**Attest:** _____
Signature

_____
Title

***Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.***

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.

4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.

5. The Surety's obligations to a Claimant under this Bond shall arise after the following:

    5.1 Claimants who do not have a direct contract with the Contractor,

        5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and

        5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).

    5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).

6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.

7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

    7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

    7.2 Pay or arrange for payment of any undisputed amounts.

    7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.

11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the

Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. **Definitions**

16.1 **Claim:** A written statement by the Claimant including at a minimum:

1. The name of the Claimant;
2. The name of the person for whom the labor was done, or materials or equipment furnished;
3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
4. A brief description of the labor, materials, or equipment furnished;
5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
7. The total amount of previous payments received by the Claimant; and
8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4 **Owner Default**: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

18. Modifications to this Bond are as follows:

# 09-PERFORMANCE BOND

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

# PERFORMANCE BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:

CONSTRUCTION CONTRACT
Effective Date of the Agreement:
Amount:
Description *(name and location)*:

BOND
Bond Number:
Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:
Amount:
Modifications to this Bond Form: ☐ None ☐ See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

| **CONTRACTOR AS PRINCIPAL** | **SURETY** |
|---|---|
| _____ *(seal)* | _____ *(seal)* |
| Contractor's Name and Corporate Seal | Surety's Name and Corporate Seal |
| **By:** _____ | **By:** _____ |
| Signature | Signature *(attach power of attorney)* |
| _____ | _____ |
| Print Name | Print Name |
| _____ | _____ |
| Title | Title |
| **Attest:** _____ | **Attest:** _____ |
| Signature | Signature |
| _____ | _____ |
| Title | Title |

***Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.***

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

# 10-NOTICE OF AWARD

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

# NOTICE OF AWARD

Date of Issuance: 10/15/2026

Owner: City of Pocatello

Owner's Contract No.:

Engineer: Harmony Engineering and Design

Engineer's Project No.:

Project: Centennial Rainey Park Levee Setback and Ecosystem Enhancement Project

Contract Name:

Bidder: Suncore Construction and Materials, Inc.

Bidder's Address: 901 Pier View Drive, Suite 201
Idaho Falls ID 83402

**TO BIDDER:**

You are notified that Owner has accepted your Bid dated October 2, 2026 for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

Base Bid of the Centennial Rainey Park Levee Setback and Ecosystem Enhancement Project and the Bid Additive Alternate 2

The Contract Price of the awarded Contract is: $ 1,433,753 and $763,236

[ X ] unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically. *[revise if multiple copies accompany the Notice of Award]*

[ ] a set of the Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 15 days of the date of receipt of this Notice of Award:

1. Deliver to Owner [__X__]counterparts of the Agreement, fully executed by Bidder.
2. Deliver with the executed Agreement(s) the Contract security *[e.g., performance and payment bonds]* and insurance documentation as specified in the Instructions to Bidders and General Conditions, Articles 2 and 6.
3. Other conditions precedent (if any):

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner:

Authorized Signature

By:

Title:

Copy: Engineer

# 11- NOTICE TO PROCEED

# CENTENNAIL – RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT
# NOTICE TO PROCEED

| | |
|---|---|
| Owner: | Owner's Contract No.: |
| Contractor: | Contractor's Project No.: |
| Engineer: | Engineer's Project No.: |
| Project: | Contract Name: |
| | Effective Date of Contract: |

**TO CONTRACTOR:**

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on [_____, 20__]. *[see Paragraph 4.01 of the General Conditions]*

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work shall be done at the Site prior to such date. In accordance with the Agreement, [the date of Substantial Completion is _____, and the date of readiness for final payment is_____] ***or*** [the number of days to achieve Substantial Completion is _____, and the number of days to achieve readiness for final payment is _____].

Before starting any Work at the Site, Contractor must comply with the following:
*[Note any access limitations, security procedures, or other restrictions]*

Owner**:**

Authorized Signature

By:

Title:

Date Issued:

Copy: Engineer

# 12- WORK CHANGE DIRECTIVE

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

**Work Change Directive No.**

| | |
|---|---|
| Date of Issuance: | Effective Date: |
| Owner: | Owner's Contract No.: |
| Contractor: | Contractor's Project No.: |
| Engineer: | Engineer's Project No.: |
| Project: | Contract Name: |

Contractor is directed to proceed promptly with the following change(s):

Description:

Attachments: *[List documents supporting change]*

**Purpose for Work Change Directive:**

Directive to proceed promptly with the Work described herein, prior to agreeing to changes on Contract Price and Contract Time, is issued due to: *[check one or both of the following]*

☐ Non-agreement on pricing of proposed change.

☐ Necessity to proceed for schedule or other Project reasons.

**Estimated Change in Contract Price and Contract Times (non-binding, preliminary):**

Contract Price $ [increase] [decrease].

Contract Time days [increase] [decrease].

**Basis of estimated change in Contract Price:**

☐ Lump Sum ☐ Unit Price

☐ Cost of the Work ☐ Other

| RECOMMENDED: | AUTHORIZED BY: | RECEIVED: |
|---|---|---|
| By: | By: | By: |
| Engineer (Authorized Signature) | Owner (Authorized Signature) | Contractor (Authorized Signature) |
| Title: | Title: | Title: |
| Date: | Date: | Date: |

Approved by Funding Agency (if applicable)

By: Date:

Title:

# 13- FIELD ORDER

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

**Field Order No.** _____

| | |
|---|---|
| Date of Issuance: | Effective Date: |
| Owner: | Owner's Contract No.: |
| Contractor: | Contractor's Project No.: |
| Engineer: | Engineer's Project No.: |
| Project: | Contract Name: |

Contractor is hereby directed to promptly execute this Field Order, issued in accordance with General Conditions Paragraph 11.01, for minor changes in the Work without changes in Contract Price or Contract Times. If Contractor considers that a change in Contract Price or Contract Times is required, submit a Change Proposal before proceeding with this Work.

Reference: _____ Specification(s) _____ Drawing(s) / Detail(s)

Description:

Attachments:

| ISSUED: | RECEIVED: |
|---|---|
| By: _____ Engineer (Authorized Signature) | By: _____ Contractor (Authorized Signature) |
| Title: _____ | Title: _____ |
| Date: _____ | Date: _____ |

Copy to: Owner

# 14- CHANGE ORDER

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

**Change Order No.** _____

| | |
|---|---|
| Date of Issuance: | Effective Date: |
| Owner: | Owner's Contract No.: |
| Contractor: | Contractor's Project No.: |
| Engineer: | Engineer's Project No.: |
| Project: | Contract Name: |

The Contract is modified as follows upon execution of this Change Order:

Description:

Attachments: *[List documents supporting change]*

| **CHANGE IN CONTRACT PRICE** | **CHANGE IN CONTRACT TIMES** *[note changes in Milestones if applicable]* |
|---|---|
| Original Contract Price:<br>$_____ | Original Contract Times:<br>Substantial Completion: _____<br>Ready for Final Payment: _____<br>days or dates |
| [Increase] [Decrease] from previously approved Change Orders No. ___ to No. ___:<br>$_____ | [Increase] [Decrease] from previously approved Change Orders No. ___ to No. ___:<br>Substantial Completion: _____<br>Ready for Final Payment: _____<br>days |
| Contract Price prior to this Change Order:<br>$_____ | Contract Times prior to this Change Order:<br>Substantial Completion: _____<br>Ready for Final Payment: _____<br>days or dates |
| [Increase] [Decrease] of this Change Order:<br>$_____ | [Increase] [Decrease] of this Change Order:<br>Substantial Completion: _____<br>Ready for Final Payment: _____<br>days or dates |
| Contract Price incorporating this Change Order:<br>$_____ | Contract Times with all approved Change Orders:<br>Substantial Completion: _____<br>Ready for Final Payment: _____<br>days or dates |

| RECOMMENDED: | ACCEPTED: | ACCEPTED: |
|---|---|---|
| By: _____ | By: _____ | By: _____ |
| Engineer (if required) | Owner (Authorized Signature) | Contractor (Authorized Signature) |
| Title: _____ | Title _____ | Title _____ |
| Date: _____ | Date _____ | Date _____ |

Approved by Funding Agency (if applicable)

By: _____ Date:

Title: _____

# 15- CERTIFICATE OF SUBSTANTIAL COMPLETION

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

# CERTIFICATE OF SUBSTANTIAL COMPLETION

| | |
|---|---|
| Owner: | Owner's Contract No.: |
| Contractor: | Contractor's Project No.: |
| Engineer: | Engineer's Project No.: |
| Project: | Contract Name: |

**This [preliminary] [final] Certificate of Substantial Completion applies to:**

☐ All Work ☐ The following specified portions of the Work:

**Date of Substantial Completion**

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work shall be as provided in the Contract, except as amended as follows: *[Note: Amendments of contractual responsibilities recorded in this Certificate should be the product of mutual agreement of Owner and Contractor; see Paragraph 15.03.D of the General Conditions.]*

Amendments to Owner's responsibilities: ☐ None ☐ As follows

Amendments to Contractor's responsibilities: ☐ None ☐ As follows:

The following documents are attached to and made a part of this Certificate: *[punch list; others]*

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract.

| EXECUTED BY ENGINEER: | RECEIVED: | RECEIVED: |
|---|---|---|
| By: _____ (Authorized signature) | By: _____ Owner (Authorized Signature) | By: _____ Contractor (Authorized Signature) |
| Title: _____ | Title: _____ | Title: _____ |
| Date: _____ | Date: _____ | Date: _____ |

# 16- CONTRACTOR’S APPLICATION FOR PAYMENT

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

# Contractor's Application for Payment No.

| | | |
|---|---|---|
| | Application Period: | Application Date: |
| To (Owner): The City of Pocatello | From (Contractor): | Via (Engineer): |
| Project: Centennial - Rainey Levee Setback and Ecosystem Encroachment | Contract: | |
| Owner's Contract No.: | Contractor's Project No.: | Engineer's Project No.: |

**Application For Payment**

**Change Order Summary**

Approved Change Orders

| Number | Additions | Deductions |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| TOTALS | | |
| NET CHANGE BY CHANGE ORDERS | | |

| | |
|---|---|
| **1. ORIGINAL CONTRACT PRICE** | **$** |
| **2. Net change by Change Orders** | **$** |
| **3. Current Contract Price (Line 1 ± 2)** | **$** |
| **4. TOTAL COMPLETED AND STORED TO DATE (Column F total on Progress Estimates)** | **$** |
| **5. RETAINAGE:** | |
| **a. X _____ Work Completed** | **$** |
| **b. X _____ Stored Material** | **$** |
| **c. Total Retainage (Line 5.a + Line 5.b)** | **$** |
| **6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5.c)** | **$** |
| **7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application)** | **$** |
| **8. AMOUNT DUE THIS APPLICATION** | **$** |
| **9. BALANCE TO FINISH, PLUS RETAINAGE (Column G total on Progress Estimates + Line 5.c above)** | **$** |

**Contractor's Certification**

The undersigned Contractor certifies, to the best of its knowledge, the following:
(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;
(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all Liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such Liens, security interest, or encumbrances); and
(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

**Contractor Signature**

| | |
|---|---|
| By: | Date: |

Payment of: $ _____
(Line 8 or other - attach explanation of the other amount)

is recommended by: _____ _____
(Engineer) (Date)

Payment of: $ _____
(Line 8 or other - attach explanation of the other amount)

is approved by: _____ _____
(Owner) (Date)

Approved by: _____ _____
Funding or Financing Entity (if applicable) (Date)

EJCDC® C-620 Contractor's Application for Payment
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# 17- NOTICE OF ACCEPTABILITY

# NOTICE OF ACCEPTABILITY OF WORK

**PROJECT:**

**OWNER:**

**CONTRACTOR:**

**OWNER'S CONSTRUCTION CONTRACT IDENTIFICATION:**

**EFFECTIVE DATE OF THE CONSTRUCTION CONTRACT:**

**ENGINEER:**

**NOTICE DATE:**

**To:** _____
**Owner**

**And To:** _____
**Contractor**

**From:** _____
**Engineer**

The Engineer hereby gives notice to the above Owner and Contractor that Engineer has recommended final payment of Contractor, and that the Work furnished and performed by Contractor under the above Construction Contract is acceptable, expressly subject to the provisions of the related Contract Documents, the Agreement between Owner and Engineer for Professional Services dated _____, and the following terms and conditions of this Notice:

## CONDITIONS OF NOTICE OF ACCEPTABILITY OF WORK

The Notice of Acceptability of Work ("Notice") is expressly made subject to the following terms and conditions to which all those who receive said Notice and rely thereon agree:

1. This Notice is given with the skill and care ordinarily used by members of the engineering profession practicing under similar conditions at the same time and in the same locality.

2. This Notice reflects and is an expression of the Engineer's professional opinion.

3. This Notice is given as to the best of Engineer's knowledge, information, and belief as of the Notice Date.

4. This Notice is based entirely on and expressly limited by the scope of services Engineer has been employed by Owner to perform or furnish during construction of the Project (including observation of the Contractor's work) under Engineer's Agreement with Owner, and applies only to facts that are within Engineer's knowledge or could reasonably have been ascertained by Engineer as a result of carrying out the responsibilities specifically assigned to Engineer under such Agreement.

5. This Notice is not a guarantee or warranty of Contractor's performance under the Construction Contract, an acceptance of Work that is not in accordance with the related Contract Documents, including but not limited to defective Work discovered after final inspection, nor an assumption of responsibility for any failure of Contractor to furnish and perform the Work thereunder in accordance with the Construction Contract Documents, or to otherwise comply with the Construction Contract Documents or the terms of any special guarantees specified therein.

6. This Notice does not relieve Contractor of any surviving obligations under the Construction Contract, and is subject to Owner's reservations of rights with respect to completion and final payment.

7.

By: _____

Title: _____

Dated: _____

# 18- GENERAL CONDITIONS

# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

Issued and Published Jointly by

**Endorsed by**

**EJCDC® C-700 (Rev. 1), Standard General Conditions of the Construction Contract.**
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## ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.

3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

5. *Bidder*—An individual or entity that submits a Bid to Owner.

6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.

7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.

8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.

9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.

10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision

regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. ("CERCLA"); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5101 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. ("RCRA"); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.

13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.

14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .

15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.

16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.

17. *Cost of the Work*—See Paragraph 13.01 for definition.

18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.

19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.

20. *Engineer*—The individual or entity named as such in the Agreement.

21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.

22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.

23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.

25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.

26. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.

27. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.

28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.

29. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.

30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.

32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative.

33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.

34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals and the performance of related construction activities.

35. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

37. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.

38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.

39. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.

40. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.

42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.

43. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.

44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.

45. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

46. *Unit Price Work*—Work to be paid for on the basis of unit prices.

47. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 *Terminology*

A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives*:

1. The Contract Documents include the terms "as allowed," "as approved," "as ordered," "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.

C. *Day*:

1. The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective*:

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

a. does not conform to the Contract Documents; or

b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).

E. *Furnish, Install, Perform, Provide*:

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words

"furnish," "install," "perform," or "provide," then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

**ARTICLE 2 – PRELIMINARY MATTERS**

2.01 *Delivery of Bonds and Evidence of Insurance*

A. *Bonds*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.

B. *Evidence of Contractor's Insurance*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.

C. *Evidence of Owner's Insurance*: After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.

B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:

1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;

2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.

B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Initial Acceptance of Schedules*

A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

2.06 *Electronic Transmittals*

A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.

B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.

C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

## ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

A. The Contract Documents are complementary; what is required by one is as binding as if required by all.

B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents.

C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.

D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.

E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 *Reference Standards*

A. Standards Specifications, Codes, Laws and Regulations

1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard specification, manual, reference standard, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*:

1. *Contractor's Verification of Figures and Field Measurements*: Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents*: If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies*:

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:

a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.

B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.

C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

A. Contractor and its Subcontractors and Suppliers shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or

2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.

B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

**ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK**

4.01 *Commencement of Contract Times; Notice to Proceed*

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to such date.

4.03 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.

B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.

C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:

1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;

2. abnormal weather conditions;

3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and

4. acts of war or terrorism.

D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.

E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.

G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

**ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS**

5.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.

B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*:

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.

2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

B. *Removal of Debris During Performance of the Work*: During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste

materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning*: Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading of Structures*: Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

A. *Reports and Drawings*: The Supplementary Conditions identify:

1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;

2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and

3. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

A. *Notice by Contractor*: If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site either:

1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate; or

2. is of such a nature as to require a change in the Drawings or Specifications; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

B. *Engineer's Review*: After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.

C. *Owner's Statement to Contractor Regarding Site Condition*: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

D. *Possible Price and Times Adjustments*:

1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

    a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;

    b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,

    c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:

    a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or

    b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site

and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or

c. Contractor failed to give the written notice as required by Paragraph 5.04.A.

3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.

4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

A. *Contractor's Responsibilities*: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and

2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:

a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;

b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;

c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and

d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.

B. *Notice by Contractor*: If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.

C. *Engineer's Review*: Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and

recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

D. *Owner's Statement to Contractor Regarding Underground Facility*: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.

E. *Possible Price and Times Adjustments*:

1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;

b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;

c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and

d. Contractor gave the notice required in Paragraph 5.05.B.

2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.

3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

A. *Reports and Drawings*: The Supplementary Conditions identify:

1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and

2. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer,

or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.

D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.

E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.

G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.

H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special

conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

## ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.

B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond

signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.

D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.

E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.

F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 *Insurance—General Provisions*

A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.

B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.

C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor

to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.

F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.

G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.

H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.

I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.

J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Contractor's Insurance*

A. *Workers' Compensation*: Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.

2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).

3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).

4. Foreign voluntary worker compensation (if applicable).

B. *Commercial General Liability—Claims Covered*: Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:

1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.

2. claims for damages insured by reasonably available personal injury liability coverage.

3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.

C. *Commercial General Liability—Form and Content*: Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:

1. Products and completed operations coverage:

a. Such insurance shall be maintained for three years after final payment.

b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.

2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.

3. Broad form property damage coverage.

4. Severability of interest.

5. Underground, explosion, and collapse coverage.

6. Personal injury coverage.

7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.

8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.

D. *Automobile liability*: Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.

E. *Umbrella or excess liability*: Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.

F. *Contractor's pollution liability insurance*: Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.

G. *Additional insureds*: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.

H. *Contractor's professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial

Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.

I. *General provisions*: The policies of insurance required by this Paragraph 6.03 shall:

1. include at least the specific coverages provided in this Article.

2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.

3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.

4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.

5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.

J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

6.04 *Owner's Liability Insurance*

A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 *Property Insurance*

A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."

2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.

3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.

4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).

5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).

6. extend to cover damage or loss to insured property while in transit.

7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.

8. allow for the waiver of the insurer's subrogation rights, as set forth below.

9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.

10. not include a co-insurance clause.

11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.

12. include performance/hot testing and start-up.

13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.

B. *Notice of Cancellation or Change*: All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this

Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.

C. *Deductibles*: The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.

D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.

E. *Additional Insurance*: If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.

F. *Insurance of Other Property*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 *Waiver of Rights*

A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.

B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by,

arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.

C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.

D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.

C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

## ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *Supervision and Superintendence*

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.02 *Labor; Working Hours*

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.03 *Services, Materials, and Equipment*

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.

B. All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.04 *"Or Equals"*

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.

1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment Engineer determines that:

1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;

3) it has a proven record of performance and availability of responsive service; and

4) it is not objectionable to Owner.

b. Contractor certifies that, if approved and incorporated into the Work:

1) there will be no increase in cost to the Owner or increase in Contract Times; and

2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.

C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.

E. *Treatment as a Substitution Request*: If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer considered the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 *Substitutes*

A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.

1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.

2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

    a. shall certify that the proposed substitute item will:

        1) perform adequately the functions and achieve the results called for by the general design,

        2) be similar in substance to that specified, and

        3) be suited to the same use as that specified.

    b. will state:

        1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,

        2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and

        3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.

    c. will identify:

        1) all variations of the proposed substitute item from that specified, and

        2) available engineering, sales, maintenance, repair, and replacement services.

    d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.

B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.

C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the

Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.

F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.

B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.

C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.

D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.

E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.

F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.

G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.

I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.

J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.

K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.

L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.

N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.

O. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor

2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the

performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.

C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.08 *Permits*

A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

7.09 *Taxes*

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.10 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if

any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.12 *Safety and Protection*

A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.

C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.

D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly

or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *Safety Representative*

A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

7.14 *Hazard Communication Programs*

A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.16 *Shop Drawings, Samples, and Other Submittals*

A. *Shop Drawing and Sample Submittal Requirements*:

1. Before submitting a Shop Drawing or Sample, Contractor shall have:

a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;

b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and

d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.

B. *Submittal Procedures for Shop Drawings and Samples*: Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.

1. *Shop Drawings*:

a. Contractor shall submit the number of copies required in the Specifications.

b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.

2. *Samples*:

a. Contractor shall submit the number of Samples required in the Specifications.

b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.

3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Other Submittals*: Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.

D. *Engineer's Review*:

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.

3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and

Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.

5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.

6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.

7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.

8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

E. *Resubmittal Procedures*:

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.

3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *Contractor's General Warranty and Guarantee*

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.

B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Engineer;
2. recommendation by Engineer or payment by Owner of any progress or final payment;
3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
4. use or occupancy of the Work or any part thereof by Owner;
5. any review and approval of a Shop Drawing or Sample submittal;
6. the issuance of a notice of acceptability by Engineer;
7. any inspection, test, or approval by others; or
8. any correction of defective Work by Owner.

D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.

B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:

1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 *Delegation of Professional Design Services*

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.

B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

**ARTICLE 8 – OTHER WORK AT THE SITE**

8.01 *Other Work*

A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.

B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.

C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or

alter others' work with the written consent of Engineer and the others whose work will be affected.

D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

8.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:

1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;

2. an itemization of the specific matters to be covered by such authority and responsibility; and

3. the extent of such authority and responsibilities.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner for whom the Owner is responsible causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual

rights against Contractor with respect to the breach of the obligations set forth in this paragraph.

C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.

D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

**ARTICLE 9 – OWNER'S RESPONSIBILITIES**

9.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.

9.03 *Furnish Data*

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.

B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.

C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.

B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

**ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION**

10.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On

the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Project Representative*

A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent, or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

10.04 *Rejecting Defective Work*

A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.

B. Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.

C. Engineer's authority as to Change Orders is set forth in Article 11.

D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.07 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in

contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

**ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK**

11.01 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.

1. *Change Orders*:

a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.

b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.

2. *Work Change Directives*: A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents

governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. *Field Orders*: Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *Owner-Authorized Changes in the Work*

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 *Unauthorized Changes in the Work*

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.

B. An adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).

C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;

b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.04.C.2.a and 11.04.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;

d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;

e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.

B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 *Change Proposals*

A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under

the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

1. *Procedures*: Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.

2. *Engineer's Action*: Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

3. *Binding Decision*: Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.

B. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 *Execution of Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders covering:

1. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;

2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;

3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and

4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.

B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 *Notification to Surety*

A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

**ARTICLE 12 – CLAIMS**

12.01 *Claims*

A. *Claims Process*: The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:

1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;

2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and

3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.

B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.

D. *Mediation*:

1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.

2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal

and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.

E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.

F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.

G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

**ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK**

13.01 *Cost of the Work*

A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:

1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.

B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing

Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

    a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

    b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

    c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

    d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.

    e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

    f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or

indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.

i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded*: The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*: When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.

E. *Documentation*: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

13.02 *Allowances*

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. *Cash Allowances*: Contractor agrees that:

1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance*: Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

13.03 *Unit Price Work*

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.

E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:

1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;

2. there is no corresponding adjustment with respect to any other item of Work; and

3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

## ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

14.02 *Tests, Inspections, and Approvals*

A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.

B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:

1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;

2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;

3. by manufacturers of equipment furnished under the Contract Documents;

4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and

5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.

F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to

cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

A. *Contractor's Obligation*: It is Contractor's obligation to assure that the Work is not defective.

B. *Engineer's Authority*: Engineer has the authority to determine whether Work is defective, and to reject defective Work.

C. *Notice of Defects*: Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.

D. *Correction, or Removal and Replacement*: Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.

E. *Preservation of Warranties*: When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

F. *Costs and Damages*: In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.

C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.

1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.

2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.

C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

**ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD**

15.01 *Progress Payments*

A. *Basis for Progress Payments*: The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.

B. *Applications for Payments*:

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. *Review of Applications*:

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

a. the Work has progressed to the point indicated;

b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon

Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and

c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

   a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or

   b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

   a. to supervise, direct, or control the Work, or

   b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or

   c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or

   d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or

   e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.

6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:

   a. the Work is defective, requiring correction or replacement;

   b. the Contract Price has been reduced by Change Orders;

   c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

   d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

   e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due*:

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner*:

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:

    a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

    b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;

    c. Contractor has failed to provide and maintain required bonds or insurance;

    d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;

    e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;

    f. the Work is defective, requiring correction or replacement;

    g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

    h. the Contract Price has been reduced by Change Orders;

    i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;

    j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;

    k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;

    l. there are other items entitling Owner to a set off against the amount recommended.

2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

15.03 *Substantial Completion*

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.

2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

A. *Application for Payment*:

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:

    a. all documentation called for in the Contract Documents;

    b. consent of the surety, if any, to final payment;

    c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.

    d. a list of all disputes that Contractor believes are unsettled; and

    e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. *Engineer's Review of Application and Acceptance*:

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Completion of Work*: The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

D. *Payment Becomes Due*: Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.

B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 *Correction Period*

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. correct the defective repairs to the Site or such other adjacent areas;

2. correct such defective Work;

3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and

4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.

B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).

C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

## ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);

2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;

3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or

4. Contractor's repeated disregard of the authority of Owner or Engineer.

B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:

1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and

2. enforce the rights available to Owner under any applicable performance bond.

C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.

D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.

E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When

exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.

G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate For Convenience*

A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and

3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.

B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

**ARTICLE 17 – FINAL RESOLUTION OF DISPUTES**

17.01 *Methods and Procedures*

A. *Disputes Subject to Final Resolution*: The following disputed matters are subject to final resolution under the provisions of this Article:

1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and

2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.

B. *Final Resolution of Disputes*: For any dispute subject to resolution under this Article, Owner or Contractor may:

1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or

2. agree with the other party to submit the dispute to another dispute resolution process; or

3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

**ARTICLE 18 – MISCELLANEOUS**

18.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. delivered in person, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 *Computation of Times*

A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

18.07 *Controlling Law*

A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Headings*

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

# 19- SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC® C-700 (2013 Edition). All provisions that are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

## ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

SC-5.03 Add the following new paragraphs immediately after Paragraph 5.03.B:

C. The following reports of explorations and tests of subsurface conditions at or adjacent to the Site are known to Owner:

1. Data Report dated December 30, 2025, prepared by Maria Tangarife, Zach Lootens, and Dan Gado, Strata Geotech, Pocatello, ID, entitled: "Geotechnical Engineering Data Report, Centennial- Rainey Levee Setback and Ecosystem Enhancement", consisting of 89 pages.

2. Analysis Report dated December 30, 2025, prepared by Maria Tangarife, Zach Lootens, and Dan Gado, Strata Geotech, Pocatello, ID, entitled: "Geotechnical Engineering Analysis Report, Centennial- Rainey Levee Setback and Ecosystem Enhancement", consisting of 47 pages.

3. Letter Rainey Park Levee Alignment Modification (Option 2) Centennial-Rainey Levee Setback and Ecosystem Enhancement, dated February 10, 2026, prepared by Maria Tangarife, Zach Lootens, and Dan Gado, Strata Geotech, consisting of 2 pages.

SC 5.06 Delete Paragraphs 5.06.A and 5.06.B in their entirety and insert the following:

A. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner.

B. Not Used.

## ARTICLE 6 – BONDS AND INSURANCE

SC-6.02 Add the following paragraph immediately after Paragraph 6.02.B:

1. Contractor may obtain worker's compensation insurance from an insurance company that has not been rated by A.M. Best, provided that such company (a) is domiciled in the state in which the project is located, (b) is certified or authorized

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as a worker's compensation insurance provider by the appropriate state agency, and (c) has been accepted to provide worker's compensation insurance for similar projects by the state within the last 12 months.

SC 6.03 Add the following new paragraph immediately after Paragraph 6.03.J:

K. The limits of liability for the insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. Workers' Compensation, and related coverages under Paragraphs 6.03.A.1 and A.2 of the General Conditions:

| | |
|---|---|
| State: | Statutory |
| Employer's Liability: | $ _____ |

2. Contractor's Commercial General Liability under Paragraphs 6.03.B and 6.03.C of the General Conditions:

| | |
|---|---|
| General Aggregate | $ _____ |
| Products - Completed Operations Aggregate | $ _____ |
| Personal and Advertising Injury | $ _____ |
| Each Occurrence (Bodily Injury and Property Damage) | $ _____ |

3. Automobile Liability under Paragraph 6.03.D. of the General Conditions:

| | |
|---|---|
| Combined Single Limit of | $ _____ |

4. Excess or Umbrella Liability:

| | |
|---|---|
| Per Occurrence | $ _____ |
| General Aggregate | $ _____ |

## ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

**SC-7.02.B. Add the following new subparagraphs immediately after Paragraph 7.02.B:**

**1.** Regular working hours will be 7:00 A.M. to 7:00 P.M., excluding Saturdays, Sundays, and holidays. The Contractor may work weekends provided that forty-eight (48) hour notice is given. Construction engineering work required on Saturday's and Sunday's will be invoiced to the Contractor at a rate of $100.00 per hour.


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**ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION**

SC-10.03 Add the following new paragraphs immediately after Paragraph 10.03.A:

B. The Resident Project Representative (RPR) will be Engineer's representative at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions.

1. General: RPR's dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with Owner only with the knowledge of and under the direction of Engineer.

2. Schedules: Review the progress schedule, schedule of Shop Drawing and Sample submittals, and Schedule of Values prepared by Contractor and consult with Engineer concerning acceptability.

3. Conferences and Meetings: Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings, and prepare and circulate copies of minutes thereof.

4. Liaison:

   a. Serve as Engineer's liaison with Contractor. Working principally through Contractor's authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.

   b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.

   c. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.

5. Interpretation of Contract Documents: Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.

6. Shop Drawings and Samples:

   a. Record date of receipt of Samples and Contractor-approved Shop Drawings.

   b. Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.

   c. Advise Engineer and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal for which RPR believes that the submittal has not been approved by Engineer.

7. Modifications: Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, if any, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.


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8. Review of Work and Rejection of Defective Work:

    a. Conduct on-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.

    b. Report to Engineer whenever RPR believes that any part of Contractor's work in progress is defective, will not produce a completed Project that conforms generally to the Contract Documents, or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

9. Inspections, Tests, and System Start-ups:

    a. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.

    b. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.

10. Records:

    a. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the Site, Subcontractors present at the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, deliveries of equipment or materials, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.

    b. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, Subcontractors, and major Suppliers of materials and equipment.

    c. Maintain records for use in preparing Project documentation.

11. Reports:

    a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the Progress Schedule and schedule of Shop Drawing and Sample submittals.

    b. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.

    c. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, force majeure or delay events, damage to property by fire or other causes, or the discovery of any Constituent of Concern or Hazardous Environmental Condition.


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12. Payment Requests: Review applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the Schedule of Values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

13. Certificates, Operation and Maintenance Manuals: During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Contract Documents to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.

14. Completion:

    a. Participate in Engineer's visits to the Site to determine Substantial Completion, assist in the determination of Substantial Completion and the preparation of a punch list of items to be completed or corrected.

    b. Participate in Engineer's final visit to the Site to determine completion of the Work, in the company of Owner and Contractor, and prepare a final punch list of items to be completed and deficiencies to be remedied.

    c. Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the notice of acceptability of the work.

C. The RPR shall not:

1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).

2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.

3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.

4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work.

5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.

6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.

7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.

8. Authorize Owner to occupy the Project in whole or in part.

**ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK**

SC 13.03.E Delete Paragraph 13.03.E in its entirety and insert the following in its place:


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E. The unit price of an item of Unit Price Work shall be subject to reevaluation and adjustment under the following conditions:

1. if the extended price of a particular item of Unit Price Work amounts to 5 percent or more of the Contract Price (based on estimated quantities at the time of Contract formation) and the variation in the quantity of that particular item of Unit Price Work actually furnished or performed by Contractor differs by more than 20 percent from the estimated quantity of such item indicated in the Agreement; and

2. if there is no corresponding adjustment with respect to any other item of Work; and

3. if Contractor believes that Contractor has incurred additional expense as a result thereof, Contractor may submit a Change Proposal, or if Owner believes that the quantity variation entitles Owner to an adjustment in the unit price, Owner may make a Claim, seeking an adjustment in the Contract Price.

**ARTICLE 17 – FINAL RESOLUTION OF DISPUTES**

SC-17.02 Add the following new paragraph immediately after Paragraph 17.01.

SC-17.02 Arbitration

A. All matters subject to final resolution under this Article will be decided by arbitration in accordance with the rules of the selected arbitration agency, subject to the conditions and limitations of this paragraph. This agreement to arbitrate and any other agreement or consent to arbitrate entered into will be specifically enforceable under the prevailing law of any court having jurisdiction.

B. The demand for arbitration will be filed in writing with the other party to the Contract and with the selected arbitrator or arbitration provider, and a copy will be sent to Engineer for information. The demand for arbitration will be made within the specific time required in this Article, or if no specified time is applicable within a reasonable time after the matter in question has arisen, and in no event shall any such demand be made after the date when institution of legal or equitable proceedings based on such matter in question would be barred by the applicable statute of limitations. The demand for arbitration should include specific reference to Paragraph SC-17.02.D below.

C. No arbitration arising out of or relating to the Contract shall include by consolidation, joinder, or in any other manner any other individual or entity (including Engineer, and Engineer's consultants and the officers, directors, partners, agents, employees or consultants of any of them) who is not a party to this Contract unless:

1. the inclusion of such other individual or entity is necessary if complete relief is to be afforded among those who are already parties to the arbitration; and

2. such other individual or entity is substantially involved in a question of law or fact which is common to those who are already parties to the arbitration and which will arise in such proceedings.


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D. The award rendered by the arbitrator(s) shall be consistent with the agreement of the parties, in writing, and include a concise breakdown of the award, and a written explanation of the award specifically citing the Contract provisions deemed applicable and relied on in making the award.

E. The award will be final. Judgment may be entered upon it in any court having jurisdiction thereof, and it will not be subject to modification or appeal, subject to provisions of the Laws and Regulations relating to vacating or modifying an arbitral award.

F. The fees and expenses of the arbitrators and any arbitration service shall be shared equally by Owner and Contractor.


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# 20- SPECIFICATIONS

# 21- SPECIAL PROVISIONS

**SPECIAL PROVISIONS**

**Centennial – Rainey Levee Setback and Ecosystem Enhancement**

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These Special Provisions provide additions, revisions, and modifications to the Standard Specifications. The additions, revisions, and modifications contained in these Special Provisions are specific to the Project.

## Revisions to the "Idaho Standards for Public Works Construction", 2025 Edition:

# SECTION 404-SP
# WATER SERVICE LINES AND METERS

### 404.4 Measurement and Payment

Add the following subsection:

4.1.B Water Service Line Replacement: per linear foot of replaced line. Includes excavation, bedding, backfill, tying into existing service tap and saddle and all other existing appurtenances.

1. Bid Schedule Payment Reference: 404-SP
2. Bid Schedule Description: Water Service Line… linear foot (LF)

**END OF SECTION**

# SECTION 1104-SP
# PERMANENT PAVEMENT MARKINGS

**1104.4 Measurement and Payment**

Add the following subsection:

4.1.C Preformed Thermoplastic ADA Pavement Markings: By each preformed pavement marking

1. Bid Schedule Payment Reference: 1104-SP
2. Bid Schedule Description: ADA Symbol… each

**END OF SECTION**

# SECTION 2030-SP
# UTILITY ADJUSTMENTS

**2030.3 Workmanship**

Add the following subsection:

3.5 UTILITY RELOCATION FIRE HYDRANT

A. DESCRIPTION

This work shall consist of relocating existing fire hydrants and relocating/modifying fire suppression standpipes at the locations indicated on the plans or approved by the Engineer. The work will include all excavation, materials and equipment necessary to complete the installation, including removal of existing designated hydrants and returning them to the Division of Water and coordination with operations to be performed by City work forces. Painting of the hydrants shall also be included in this item. Fire hydrants purchased or installed shall meet or exceed all latest applicable requirements and tests of Section 403-Hydrants.

B. EXAMINATIONS

1. Verify that excavations are to required alignment and grade per Section 301 - Trench Excavation.
2. Verify that trench conditions and shoring, sheeting, and bracing protect workers and meet the requirements of OSHA and other State and Federal requirements.
3. Examine existing hydrants, valves, pipe and fittings for defects or damage and verify that they meet the requirements of the Contract Documents.
4. Verify utility locations, existing piping locations and structures where connections are to be made prior to beginning work. Notify the Engineer if field conditions are different from the Contract Documents. Allow 4 hours for the Engineer to modify the design, if necessary, unless specified.

C. INSTALLATION

1. Install in accordance with manufacturer's instructions and AWWA Manual of Practice M-17 at locations and elevations indicated in the Contract Documents or as directed by the Engineer and in accordance with local fire authority.
2. Install in accordance with Standard Plan 404 – Fire Hydrant Detail with pumper outlet nozzle facing the street. Ensure outlet nozzles are at least 12 inches above grade.
3. Install plumb and vertical providing a watertight seal at all joints.
4. Provide thrust restraint for fittings and the auxiliary valve per Standard Drawing SD-403 – Thrust Block and Anchor Details. Joint restraint may be used as an alternate to thrust block, subject to approval of the Engineer.

5. Remove foreign matter from piping prior to installing auxiliary valve and hydrant.
6. Install appurtenances as required in the Contract Documents.
7. Disinfect by opening and closing the main valve during disinfection of the water main. Flush the hydrant after disinfection. Disinfect and flush in accordance with Section 401 – Water Pipe and Fittings.

D. DEMONSTRATION AND TESTING
   1. A. Pressure test hydrants with the main water system per Section 401 – Water Pipe and Fittings.
   2. Conduct a drainage test on each hydrant.
      i. Procedure: Close main hydrant valve, remove one nozzle cap, and place hand over opening.
      ii. Results: Drainage should create noticeable suction. If not, repair drain and redo test.

**Section 2030.4 Measurement and Payment**

Add the following subsection:

4.1.E. Utility Relocation Fire Hydrant, measured by each fire hydrant to be relocated, which includes all earthwork, trenching, backfilling, pipe/valve/hydrant relocation & installation, examination, and testing as necessary

1. Bid Schedule Payment Reference: 2030-SP
2. Bid Schedule Description: Utility Relocation Fire Hydrants… each (EA)

**END OF SECTION**

# SPECIAL PROVISIONS

## PART 1 - GENERAL

These Special Provisions amend or supplement the following Specifications and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

The terms used in these Special Provisions will have the meanings indicated in the Specifications and Contract Documents. Additional terms used in these Special Provisions have the meanings indicated below, which are applicable to both the singular and plural thereof.

### 1.01 CONTRACT DRAWINGS AND SPECIFICATIONS

A. The Drawings, Specifications, Proposal, Special Provisions, and all supplementary documents are intended to describe the complete work and are essential parts of the Contract. All requirements occurring in any of them are binding.

B. In cases where there is a discrepancy in the contract documents.

1. Written dimensions take precedence over scaled dimensions on Drawings.
2. Larger scale Drawings take precedence over smaller scale Drawings.
3. Special Provisions take precedence over the Drawings.
4. Special Provisions take precedence over other Specification sections.

### 1.02 INCIDENTAL AND SUBSIDIARY ITEMS OF WORK

A. Any items or materials called for on the Drawings or in these Specifications that are not measured and paid for directly shall be considered incidental and subsidiary to other items of work for which direct payment is made.

### 1.03 PROJECT CONDITIONS

A. Existing Utilities:

1. There are utilities in the vicinity of the proposed work.
2. Contractor shall notify the respective utility company(s) and/or “one-call notification center” before commencing work.
3. Neither Owner nor Engineer assumes any responsibility for utility locations being accurately shown, or not shown on the Drawings.
4. Any reference to utilities in the Drawings is approximate. Contractor shall verify the location of any existing utilities within the vicinity of the proposed work.
5. Contractor shall provide notification of intent to begin construction in advance to allow utility company(s) sufficient time to locate or relocate their utilities.
6. Once the location of the utility(s) has been staked, located or marked, it shall be Contractor’s responsibility to protect these stakes/markings. Any costs for restaking or remarking shall be Contractor’s expense.
7. Contractor shall avoid damaging any utility(s). Any such damage caused by Contractor, Contractor’s employees, subcontractors, suppliers or agents will be the responsibility of Contractor to repair at Contractor's expense. No additional compensation will be allowed for protecting utility(s) or for repair of any damage caused by Contractor, Contractor’s employees, subcontractors, suppliers or agents.

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8. Contractor shall coordinate utility relocation or reconstruction with the appropriate utility company.

**1.04 SUBMITTALS**

A. All submittals shall be submitted to the Engineer in digital pdf format.

B. Engineer will review and issue approvals digitally.

**1.05 DEWATERING OF SITE**

A. Work to be performed may require pumping and dewatering to complete the work as specified and as indicated on the Drawings. It is the intent of the Specifications that such pumping and dewatering operation shall be the obligation of Contractor.

B. Pumping and dewatering shall be considered incidental and subsidiary to other items of work for which direct payment is made. No separate payments will be made for this work.

C. Contractor will be responsible for design, construction, electrical service and materials, operation, maintenance and permitting of any dewatering system necessary for the successful construction and completion of the project.

D. Contractor shall conduct such investigation as is necessary to satisfy themselves of the surface water and groundwater conditions that will be encountered during the construction of the Work.

**1.06 CONSTRUCTION PHASING AND COMPLETION MILESTONES**

A. Contractor shall submit a detailed construction schedule to Owner and Engineer for approval. Schedule shall include:

1. Construction start date, interim milestones, substantial completion, and final completion.

B. Portions of the work associated with levee construction involve disturbance to the existing levee embankment prism and until fully re-constructed and stabilized, the residents in the area are at increased flood risk.

1. No construction activity shall occur until the detailed construction schedule has been reviewed and approved by the Owner and Engineer.

2. No construction activity shall occur until the Emergency Action Plan has been reviewed and approved by the Owner, Engineer, and USACE. Refer to Section 3.01 for Emergency Action Plan details.

3. No construction activity shall occur until the imported borrow material (if necessary) is tested and approved by the Engineer.

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**PART 2 - PRODUCTS**

**2.01 EARTHWORK**

A. Earthwork consists of excavation, embankment, and grading necessary to construct the work to the lines and grades shown or noted on the Drawings.

1. Contractor shall protect existing structures and features within the limits of construction when performing earthwork operations.

2. Finish grading shall provide site drainage and smooth transitions to all existing and proposed features, paving, structures, etc. within limits of construction.

B. Earthwork, Measured in Excavation:

1. Contractor shall excavate/cut to the lines and grades shown on the Drawings. Excavated material meeting the requirements for use as embankment or topsoil, as determined by Engineer, may be incorporated into the embankment construction or topsoiling operations as appropriate. Excess or unsuitable material shall be hauled away and disposed of at Contractor's site.

2. Earthwork, Measured in Excavation will be paid for by the cubic yard (CY), based on the established quantity. The established quantity is calculated based on the difference in volume between the existing grade and the proposed finished grade in cut areas with no additional consideration for topsoil, compaction, or shrinkage/expansion of material.

C. Earthwork, Measured in Embankment:

1. Contractor shall construct embankment/fill to the lines and grades shown on the Drawings. If offsite borrow is proposed, Contractor shall source materials from a supplier/source approved by Owner and Engineer and shall make the source available to Engineer at least 30 days prior to use, to allow for sampling and testing. Owner shall arrange and pay for an independent testing agency to sample the material and conduct laboratory testing to confirm material suitability. If material is found to be unsuitable, Contractor shall pay for sampling and testing of material from additional source(s).

2. Embankment fill material shall be ASTM D 2487 classification CL, ML, or SM. Shall be clean, inorganic, and non-dispersive with a liquid limit less than or equal to 35 and a plasticity index less than or equal to 10.

3. Fill material must consist of inert earth materials with less than 3% organics or other deleterious substances (wood, metal, plastic, waste, etc.) and shall not contain any foreign material with a dimension greater than 3 inches.

4. Earthwork, Measured in Embankment will be paid for by the cubic yard (CY), based on the established quantity. The established quantity is calculated based on the difference in volume between the existing grade and the proposed finished grade in fill areas with no additional consideration for topsoil, compaction, or shrinkage/expansion of material. Contractor shall be responsible for his borrow site and any permits needed, erosion control, and site restoration. No direct payment will be made for work at or associated with the borrow site(s).

D. Topsoil:

1. Topsoil stripping, conservation, placement, and preparation of suitable seedbed with minimum 6" thickness of topsoil is responsibility of the Contractor. Areas of excavation and construction of embankment/fill shall include topsoil in areas on

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the Drawings shown to receive seeding. If necessary, Contractor shall source materials from a supplier/source approved by Owner and Engineer and shall make the source available to Engineer at least 30 days prior to use, to allow for sampling and testing. Owner shall arrange and pay for an independent testing agency to sample the material and conduct laboratory testing to confirm material suitability. If material is found to be unsuitable, Contractor shall pay for sampling and testing of material from additional source(s).

2. Topsoil material shall be fertile and friable loam, sandy loam, or silty clay loam.
3. Topsoil material shall not contain an appreciable amount of sod, clay, subsoil, roots, rock, frozen material or debris, and should not contain any foreign material with a dimension greater than 1 inches.
4. Topsoil shall be included in the respective earthwork item(s); no direct payment will be made.

**2.02 EROSION CONTROL**

A. Salvage and Reuse Rock Riprap

1. Existing riprap within the limits of construction shall be carefully removed, stockpiled, and placed as shown in the Drawings.
2. Contractor shall make reasonable effort to separate/remove soil and any foreign materials from salvaged riprap prior to installation.
3. Salvaged riprap shall be installed prior to (below) new riprap.
4. Salvaged riprap shall be measured and paid for by the ton (TON).

B. Rock Riprap

1. Riprap shall meet the requirements of Section 711 in the 2023 Standard Specifications for Highway Construction, Idaho Transportation Department.
2. The riprap shall be basalt, granite, limestone, quartzite, or other hard stone. Broken concrete is not allowed.
3. Each load of riprap shall be reasonably well graded from the largest to the smallest size specified.
4. Rock Riprap shall be measured and paid for by the ton (TON).
5. Includes furnishing, necessary excavation, installation, disposal of spoils, and backfilling as required for placement as shown on the Drawings.
6. Riprap shall meet Idaho Transportation Department standard gradations.

| Riprap Class | Nominal Riprap Size, $D_{50}$ (inches) | Percent Equal or Smaller | Range of Intermediate Dimensions (inches) |
|---|---|---|---|
| V | 18 | 100 | 36 |
| | | 85 | 23 – 28 |
| | | 50 | 17 – 21 |
| | | 15 | 11 – 16 |

7. Riprap Granular Bedding (crushed rock) shall be installed prior to riprap placement as shown on the Drawings.

a. Granular bedding shall be well compacted and uniform in thickness prior to placing riprap and shall not be displaced during riprap placement.

b. Granular Bedding shall be measured and paid for by the ton (TON).

| Gradation: Riprap Granular Bedding | | |
|---|---|---|
| Sieve Size | Percent Passing | |
| | Target Value | Tolerance |
| 1-1/2 inch | 100 | 0 |
| 3/4 inch | 80 | +/- 15 |
| 3/8 inch | 53 | +/- 17 |
| No. 10 (2.00 mm) | 20 | +/- 10 |
| No. 200 (75 µm) | 5 | +/- 5 |

8. Subgrade Separation Geotextile shall be Non-Woven Type III and meet the requirements of ISPWC Section 2050. Geotextile shall be installed prior to riprap granular bedding placement as shown on the Drawings.

   a. Riprap Geotextile shall be installed per manufacturer's recommendations and shall not be displaced or punctured during granular bedding placement.

   b. Riprap Geotextile shall be measured and paid for by the square yard (SY).

C. Temporary Seeding: Upon suspension or completion of construction activity, whereas permanent seeding and mulching will not occur for 14 or more days, temporary seed (cover crop) may be necessary to stabilize the soil until permanent seeding can be completed within the appropriate planting period. Temporary seeding shall not be applied unless directed by Engineer. Oats or Annual Ryegrass seed shall be applied by drilling or broadcasting at a rate of 40.0 PLS Lbs/Acre. Temporary Seeding shall be measured and paid for by the acre (AC).

D. Permanent Seeding: Upon completion of all construction activity and within the appropriate planting period, fertilizer and permanent seed shall be applied to all areas as shown on the Drawings. Seed shall be applied by drilling at a rate of 100 PLS Lbs/Acre of the following composition:

| | PLS Lbs/Acre (Drilled) |
|---|---|
| Tall Fescue | 30 |
| Smooth Brome | 30 |
| Perennial Ryegrass | 20 |
| Oats | 20 |

If an application method other than drilling is proposed, it must be approved by Owner and Engineer and seeding rate must be adjusted accordingly. Seeding period shall be

recommended by supplier OR March 15 – June 15; August 15 – September 30. Contractor shall submit a herbicide application plan and agreement from a certified applicator for approval by the Owner. Herbicide used shall effectively control both broadleaf and grassy weeds including crabgrass and clover. Permanent Seeding shall be measured and paid for by the acre (AC).

E. Hydromulch: Shall be applied to all areas as shown on the Drawings after seeding is complete. Hydromulch shall be included in the respective seeding item; no direct payment will be made.

1. Shall consist of a hydraulically applied, biodegradable bonded fiber matrix composed of wood fibers or wood fibers with biodegradable man-made fibers, to form an intimate bond with the soil surface to create a continuous, porous, absorbent, and flexible erosion resistant blanket that allows for rapid germination and accelerated plant growth. Functional longevity shall be at least 6 to 12 months.
2. Contractor shall submit manufacturer's product data and installation instructions for approval.

F. Erosion Control Blanket (ECB): Shall be placed on all areas as shown on the Drawings after seeding is complete. Erosion Control Blanket shall be included in the respective seeding item; no direct payment will be made.

1. Shall be constructed with 70% agricultural straw and 30% coconut fiber evenly distributed across the entire blanket, stitched with degradable thread between a heavy weight UV stabilized polypropylene top net with an approximate 0.63 x 0.63 inch net opening, and a lightweight photodegradable polypropylene bottom net, having an approximate 0.5 x 0.5 inch net opening, a mass per unit area of 0.5 lbs/sy and a functional longevity of 24 months.
2. Contractor shall submit manufacturer's product data and installation instructions for approval.

G. Silt Fence: Shall be low porosity fabric.

1. Silt fence shall be installed at the beginning of construction, prior to ground disturbing activity, as shown on the Drawings or as directed by Engineer. Silt fence is intended to provide temporary sediment control and perimeter identification throughout construction.
2. Maintenance, sediment removal, repair or replacement of damaged silt fence shall be at no cost to Owner. Silt fence shall be removed as directed by Engineer.
3. Silt Fence will be measured and paid for by the linear foot (LF).

H. Straw Wattles: Shall consist of 9" or larger diameter straw wattles placed as shown on the Drawings or as directed by Engineer.

1. Timing and location of straw wattle installation shall be coordinated with Engineer to provide the intended purpose.
2. Maintenance and replacement of damaged straw wattles shall be at no cost to Owner. Straw wattle shall be removed as directed by Engineer.
3. Straw Wattles will be measured and paid for by the linear foot (LF).

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## 2.03 PAVING AND SURFACING

A. All paving and surfacing shall be in accordance with the latest edition of Idaho Standards for Public Works Construction (ISPWC).

B. Concrete:

1. Compressive Strength When Tested in Accordance with ASTM C39 at 28 Days: Minimum 3,500 psi.

C. Asphalt Concrete:

1. Shall consist of ½-inch nominal aggregate Superpave HMA Class SP-2 or SP-3 mix design and utilize a PG 52-28 asphalt binder.

D. Gravel Base and Gravel Surfacing:

1. Shall consist of clean, hard particles of crushed stone or crushed gravel. Crushed concrete is not allowed.

2. Gravel base course shall be evenly spread, scarified, disked, blended, or otherwise incorporated into the subgrade and compacted to create to a firm, smooth, subgrade for paving.

3. Gravel surfacing shall be placed on approved subgrade, evenly spread, and compacted to create a firm, smooth surface for pedestrian travel.

| Gradation: Gravel Base and Surfacing | | |
|---|---|---|
| Sieve Size | Percent Passing | |
| | Target Value | Tolerance |
| 1 inch | 100 | 0 |
| ¾ inch | 95 | +/- 5 |
| No. 4 (4.75 mm) | 52 | +/- 12 |
| No. 8 (2.38 mm) | 40 | +/- 10 |
| No. 200 (75 µm) | 6 | +/- 3 |

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**PART 3 - EXECUTION**

**3.01 EMERGENCY ACTION PLAN**

A. Preparation and submittal of Emergency Action Plan

1. The work is within the Pocatello 2 (Right Bank – Upper) and Pocatello 4 (Left Bank - Lower) levee critical areas, defined as the area extending from the levee centerline to 500 feet landside and 300 feet riverside. The purpose of the Emergency Action Plan (EAP) is to incorporate measures to maintain the integrity of the levee system during construction.

2. Prior to construction, the Contractor shall prepare and follow an EAP which will address the requirements presented in this document and the procedures for high water conditions during construction.

3. **The Contractor's EAP shall be submitted to the Engineer and Owner for review at least 90 days prior to construction. Engineer will provide review comments for Contractor to incorporate. Once reconciled, the EAP must be provided to the USACE at least 60 days prior to construction for review and approval.**

B. Construction Phasing

1. Certain proposed activities have the potential for increased risk to the levee integrity if a high water event were to occur. The intent of these Specifications and EAP are to reduce the potential risk to the extent practical through well executed construction phasing and preparation and execution (if needed) of emergency actions.

2. In addition to previously identified requirements, the following activities shall be given specific attention to detail.

3. Contractor must continually maintain a line of protection (embankment) as shown on the Drawings, which corresponds approximately to the 100-year flood elevation.

4. Contactor to submit a detailed schedule and proposed phasing for review and approval. The proposed levee embankment must be constructed to at least the minimum elevation shown on the Drawings, prior to removal of the existing embankment below the same noted elevation.

5. The upstream and downstream project tie-in to existing embankment shall be continually monitored and protected from erosion with riprap.

6. These specific portions of the work must be performed during the June to November timeframe (outside of the normal flood season) during dry weather.

C. Modification of Drawings and/or Specifications

1. Any proposed modifications of the approved EAP by the Contractor for construction activities, such as: changes to staging, excavation depths, shoring, hauling routes, levee access locations, groundwater dewatering, must be submitted to the Engineer for approval before changes are implemented.

D. Contents and Limitations of the EAP

1. The prepared EAP shall demonstrate compliance with all provisions in the Contract Documents so that the integrity of the levee system and its ability to provide flood protection will be maintained throughout the entire duration of construction.

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2. The proposed construction will be performed during flood and non-flood event periods, including the work on the top, riverside, and landside of the existing levee. The potential does exist for the river to rise to flood level during the proposed construction. The EAP shall demonstrate that the Contractor will have adequate provisions in place to address this potential.

3. A typical EAP outline and guidance document will be provided by the Owner/Engineer to the Contractor upon request.

4. The EAP shall include each of the following at a minimum:

   a. Planned construction schedule

   b. Site Map, including:

      (1) Project location

      (2) Proposed hauling routes with site access plans

   c. Detailed materials and equipment staging plan, including temporary soils stockpile area(s)

   d. List of all construction equipment that will be present

   e. Sheeting and shoring plans, if necessary

   f. Dewatering plans, if necessary

5. The EAP shall also include emergency contact information, including cell phone numbers of the project manager, project superintendent, and foreman. The Contractor's phone numbers provided shall be monitored 24 hours a day, 7 days a week.

E. The following procedures shall be in place to address an emergency situation.

1. Daily Monitoring: The water level in the Portneuf River shall be monitored daily by the Contractor. The extended forecast of future river levels shall also be monitored by the Contractor.

2. Monitoring Agencies: The river level shall be monitored through USGS and/or National Weather Service websites for the following stream gages:

   a. Marsh Creek near McCammon: https://water.noaa.gov/gauges/MCCI1

   b. Portneuf River at Topaz: https://water.noaa.gov/gauges/TOPI1

   c. Portneuf River at Pocatello: https://water.noaa.gov/gauges/PIHI1

3. Ceasing Operation

   a. In the event the creek or river stage reaches or is forecasted to reach the published 'Action' stage, the Contractor shall coordinate with the Owner and Engineer to determine whether actions to mitigate risks are necessary based on weather and river forecasts.

   b. In the event the Portneuf River at Pocatello stage reaches or is forecasted to reach 10 feet, the Contractor shall begin necessary emergency action, such as backfilling any open excavations. This stage corresponds to approximately 4448.0 (NAVD88) at the project area. (The stream gage is approximately 9,600 stream feet downstream of the project area).

   c. The 100-year flood elevation at the upstream (southeast) end of the project is approximately 4451.2 (NAVD88). The 100-year flood elevation

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at the downstream (northwest) end of the project is approximately 4450.2 (NAVD88).

d. It is recommended that Contractor personnel subscribe for automatic alerts through USGS WaterAlert: https://accounts.waterdata.usgs.gov/wateralert/

4. Removal and Relocation: Any open excavations shall be backfilled with cohesive fill and all equipment, construction materials and stockpiled soils will be removed in the event of high water and relocated to the landside of the levee during high water events.

a. The Contractor shall be required to backfill any open excavations within 24 hours of notice by Engineer, Owner, or USACE.

5. Notification of Ceased Construction: The Owner and USACE representatives will be notified when the decision has been made to cease construction operations. The Owner and the USACE representatives will be notified prior to resumption of construction.

F. Emergency Contact Information

1. Owner

Becky Babb
City of Pocatello
911 N 7th Avenue
Pocatello, Idaho 83201
Phone: 208-234-6278
Email: becky.babb@pocatello.gov

2. Engineer

Jen Zung, PE, CFM
Harmony Design & Engineering
18 N Main Ste 305
Driggs, Idaho 83422
Phone: 208-354-1331, Ext 4003
Email: jen.zung@harmonydesigninc.com

Ross Lawrence, PE, CFM
JEO Consulting Group, Inc
1937 N Chestnut Street
Wahoo, Nebraska 68066
Phone: 402-310-4258
Email: rlawrence@jeo.com

3. USACE – Walla Walla District

Christen (Marve) Griffith
USACE – Readiness Branch
201 North 3rd Avenue
Walla Walla, WA 99362-1876

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Phone: 509-527-7020

Email: christen.m.griffith@usace.army.mil

Email: Section408NWO@usace.army.mil

G. Method of Measurement and Basis of Payment

1. All costs for complying with this special provision shall be included in the contract lump sum item "Prepare, Construct, and Maintain Emergency Action Plan," which shall constitute full compensation for preparation of all necessary documentation, making revisions to documents and furnishing all equipment, labor, and materials to install, operate, maintain, and remove any installed measures in accordance with all applicable regulations.
2. No payment shall be made to the Contractor for this work until a completed plan is submitted and approved by the Owner and Engineer.
3. The following schedule of values shall be used to determine the appropriate amount of the lump sum to be attributed to each progress payment.
    a. Preparation of the plan – 25% of contract price
    b. Review, revisions, and approval by Owner/Engineer – 50% of contract price
    c. Maintenance and updates of the plan through 50% completion of total construction contract amount – 75% of contract price
    d. Maintenance and updates of the plan through substantial completion of total construction contract amount – 100% of contract price

**3.02 UNFAVORABLE CONSTRUCTION CONDITIONS**

A. During unfavorable weather, wet ground or other unsuitable construction conditions, Contractor shall confine operations to work, which will not be affected adversely by such conditions. No portion of the work shall be constructed under conditions, which would adversely affect the quality or efficiency thereof, unless special means or precautions are taken by Contractor to perform the work in a proper and satisfactory manner.

**3.03 BARRICADES, LIGHTS AND TRAFFIC CONTROL**

A. General:

1. All open trenches and other excavations shall have suitable barricades, signs, lights and other safe guards to provide adequate protection to the public. Obstructions such as material piles and equipment shall be provided with similar warning barricades, signs, lights and other safe guards.
2. Contractor shall maintain traffic and shall provide and maintain traffic control devices in accordance with the contract documents.
3. If there is no specific traffic control plan, then Contractor's traffic control devices shall be in accordance with and shall be placed as required in the current edition of the Manual on Uniform Traffic Control Devices for Streets & Highways.
4. Barricades, signs, lights and other safeguards shall be placed and maintained by Contractor during construction activities.
5. Contractor shall provide all necessary devices for traffic control during construction.

B. Contractor shall conduct operations so that all streets along the proposed project are left open to at least one lane of traffic at all times.

C. Traffic control, including barricades, signs, lights, and other safe guards shall be paid for by lump sum (LS).

**3.04 EMBANKMENT SUBGRADE PREPARATION**

A. Limited topsoil was encountered up to a depth of 6 inches beneath the new embankment areas. Additionally, undocumented fill was observed in Boring 21-STR-B03 extending from the ground surface to approximately 4.5 feet deep. Topsoil and Undocumented fill, where encountered, beneath the proposed levee shall be over-excavated until the native Lean Clay (CL) or Silt (ML) subgrade is exposed. The exposed native subgrade within the limits of the levee construction should be scarified to a depth of 8 inches, moisture conditioned, and proof compacted with a minimum of five passes of a 5-ton static drum weight vibratory roller (smooth or sheepsfoot drum). Any observed soft spots shall be excavated and replaced with suitable material, as directed by engineer.

**3.05 LEVEE EMBANKMENT CONSTRUCTION**

A. Maximum allowable tolerance in finished grade of levee from elevation shown in the Drawings is +/- 0.1 foot.

B. Place embankment on approved subgrade only. Do not place any fill material on water, snow, ice, or frozen earth.

C. Fill material shall not be placed when the air temperature is 32 degrees F or less and falling, as measured at the working surface.

D. Existing levee embankment shall be benched prior to fill placement to prevent a seepage/slip plane from forming at the interface between existing and new embankment.

E. Fill should be placed in loose lifts not exceeding 8 inches in thickness and compacted using a ‘sheep's foot roller’ or similar approved mechanical means.

F. Each soil lift shall be moisture treated as necessary to be within the required moisture content range. If the moisture content of the material to be used in a lift deviates from the required range, the material shall be watered or dried by Contractor as necessary to achieve specified moisture content value.

G. Fill should be placed in a manner to prevent ponding of water, maintaining a slight slope for drainage prior to final development. Grading should be provided around the fill perimeters to divert surface runoff away from the fill areas. Any water that collects on the fill should be removed as soon as possible along with any softened soils.

H. A completed and approved lift of the compacted levee or other fill shall be protected from drying, desiccation, and construction traffic rutting, until the time when the next lift is placed. The Contractor shall make the necessary corrections to any lift where the moisture content and/or density falls outside the specifications, or if drying, desiccation, or rutting of the lift is observed.

I. Each compacted lift shall be scarified in preparation for the subsequent lift placement.

**3.06 SOILS, SUBGRADE, AND ASPHALT COMPACTION REQUIREMENTS**

A. Embankment and Structure Subgrade:

1. Recompacted subgrade shall be stable (ruts less than 2 inches) during proof compaction as stated in Embankment Subgrade Preparation Section 3.04.

B. Embankment or Other Fill:

1. All filled soil compaction shall meet a minimum of 92% of the modified Proctor maximum dry density (ASTM D1557) with moisture content at (-)4% to (+)2% of the optimum moisture content for compaction.

C. Topsoil:

1. Placed topsoil shall meet a minimum of 85% of the modified Proctor maximum dry density (ASTM D1557) with moisture content at (-)4% to (+)2% of the optimum moisture content for compaction.

D. The material shall not be compacted before it is thoroughly mixed and uniform in moisture content as specified above.

E. Asphalt Concrete:

1. Shall be compacted to between 92% and 96% of the maximum density for a Superpave mix design.

**3.07 TESTING**

A. Soils:

1. Subgrade: Contractor shall arrange and pay for proof rolling of all subgrade under paving. Any soft spots shall be repaired prior to density testing.

2. Subgrade: Owner shall arrange and pay for all subgrade testing to verify that the completed work meets the required densities. Any re-tests shall be paid for by Contractor. Minimum testing frequency planned shall be:

3. Subgrade under paving – 1 test per 150 linear feet or as directed by Engineer.

4. Embankment: Owner shall arrange and pay for all embankment testing to verify that the completed work meets the required densities. Any re-tests shall be paid for by Contractor. Minimum testing frequency shall be:

a. Embankment / Fill during placement 1 test per lift per 10,000 square feet for the lower half of the embankment and 1 test per lift per 5,000 square feet for the upper half of the embankment.

B. Concrete:

1. Owner shall arrange and pay for concrete testing. Any re-tests shall be paid for by Contractor. Test samples shall be collected for every 100 cubic yards placed in a day, with at least one sample for each day concrete placement takes place.

C. Asphalt Concrete:

1. Owner shall arrange and pay for asphalt testing. Any re-tests shall be paid for by Contractor. Minimum testing frequency shall be:

a. Density testing 1 test per lift per 10,000 square feet or every 300 linear feet.

b. Three cores per lift per 10,000 square feet or every 300 linear feet, to measure thickness and density.

**3.08 WATER**

A. Contractor shall make arrangements to obtain water as necessary for construction of the work and shall furnish all equipment, labor, and permits necessary.

B. All work associated with this shall not be measured and paid for directly but shall be considered incidental and subsidiary to other items of work for which direct payment is made. No separate payments will be made for this work.

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## 3.09 CLEANUP

A. Contractor shall return all areas disturbed by construction of the project to the original grade or to the finish grade as shown on Drawings and shall restore the site to as clean and sightly condition as before the work began.

B. During construction, areas to be maintained for traffic shall be kept clear of all hazardous materials, including but not limited to construction debris, dust, and mud.

C. The cleaning and sweeping of the streets in the construction area shall be completed prior to the completion of the project. The project cleanup shall be conducted to the satisfaction of Owner and Engineer and shall be completed prior to final acceptance of the project.

D. At the discretion of Owner and Engineer, Contractor shall clean streets in project area whenever mud, dirt or debris is tracked onto to the streets as a result of the activities of Contractor, by his/her employees, sub-Contractors, suppliers or agents.

**END OF SECTION**

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# 22- SUPPLEMENTARY SPECIFICATIONS

The following Supplementary Specifications shall be a part of the project Specifications.

# SECTION 208-SS
## ASPHALT SAWCUT

### PART 1 DESCRIPTION

Under this item, the CONTRACTOR shall saw cut existing asphalt at the locations indicated on the plans or as ordered by the ENGINEER.

### PART 2 MATERIALS

None Specified.

### PART 3 WORKMANSHIP

Existing asphalt shall be saw cut perpendicular to the roadway surface along neat lines, and to the depth required to remove existing asphalt. A power saw shall be used for cutting asphalt surface course and asphalt overlay. After the existing asphalt surface course or overlay has been saw cut through, the CONTRACTOR may use pry bars, pneumatic tools or other methods approved by the ENGINEER, to pry loose the existing pavement from that pavement which is to remain. A pavement breaker, under the supervision of the ENGINEER, may be used to break up the pavement to be removed after the pavement has been completely saw cut through and completely free from the pavement to remain.

Care shall be taken not to disturb or damage saw cuts of existing pavement and curbs to remain.

No payment will be made for saw cutting which the CONTRACTOR may choose to do for his/her own convenience.

### PART 4 MEASUREMENT AND PAYMENT

- Measured by linear foot of saw cutting
- Payment includes all labor, materials, and equipment necessary to complete the work

**END OF SECTION**

# SECTION 2041-SS
## INTEGRALLY COLORED CONCRETE

## PART 1 GENERAL

### 1.1 SECTION INCLUDES

A. Furnishing and placing integrally colored cast-in-place concrete using Davis Colors Brick Red No. 160 synthetic iron oxide pigment, including mix design, sample panel construction, placement, finishing, curing, and sealing.

### 1.2 RELATED SECTIONS

A. Section 703 – Cast-In-Place Concrete.

B. Section 706 – Other Concrete Construction.

C. Supplemental Specification 2041-SS supplements and modifies ISPWC-703.4.1.A.1 for all colored concrete work shown on the Contract Documents. In the event of conflict between this Supplemental Specification and Section 703 or 706, this Supplemental Specification governs.

### 1.3 REFERENCES

A. ASTM C 150 – Standard Specification for Portland Cement.

B. ASTM C 979/C 979M – Standard Specification for Pigments for Integrally Colored Concrete.

C. ASTM C 1315 – Standard Specification for Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete.

D. ACI 303.1 – Standard Specification for Cast-in-Place Architectural Concrete.

### 1.4 SUBMITTALS

A. Product Data: Submit manufacturer's technical data sheet and Safety Data Sheet (SDS) for Davis Colors Brick Red No. 160, including pigment composition, ASTM C 979 compliance certification, recommended dosage rates, and compatibility with the proposed cement type.

B. Concrete Mix Design: Submit a mix design prepared in accordance with Section 703, modified to include Davis Colors Brick Red No. 160 at the specified dosage rate. Mix design shall demonstrate compliance with all requirements of this specification.

C. Sample Panel: Prior to placing any colored concrete, construct a sample panel as specified in Section 3.1. Obtain Engineer approval in writing before proceeding with production concrete.

D. Source Documentation: Submit documentation identifying the source and brand of cement, fine aggregate, and coarse aggregate to be used throughout the colored concrete work. No substitution of sources will be permitted without prior written approval of the Engineer.

### 1.5 QUALITY ASSURANCE

A. Single Source: All colored concrete for this project shall be produced from the same batch plant using the same cement brand, aggregate sources, and pigment lot. Changes in any of these materials may result in color variation and require resubmittal and a new sample panel.

B. Color Consistency: Variations in water content, cement content, aggregate gradation, and mixing time directly affect color. The Contractor is responsible for maintaining consistent mix proportions and batching procedures throughout the project.

C. Pre-Construction Meeting: Prior to beginning colored concrete work, the Contractor shall conduct a pre-construction meeting with the Engineer and concrete supplier to review mix design, batching sequence, placement procedures, curing, and protection requirements.

## PART 2 MATERIALS

### 2.1 INTEGRAL COLOR PIGMENT

A. Manufacturer and Product: Davis Colors Brick Red No. 160, manufactured by Davis Colors (Oxerra Americas, LLC), 3700 East Olympic Blvd., Los Angeles, CA 90023. Phone: 800-356-4848. No substitutions permitted without written approval of the Engineer.

B. Pigment Type: Synthetic iron oxide, non-fading, inert, alkali-resistant, lightfast, and weather-resistant.

C. Compliance: Pigment shall conform to ASTM C 979/C 979M. Manufacturer's certification of compliance shall be submitted prior to first use.

D. Dosage Rate:

1. Powder form: 4 lbs per 94 lb sack (one bag) of cementitious material.
2. Liquid (Hydrotint) form: 6.08 lbs per 94 lb sack of cementitious material, or as directed by manufacturer for the specified color intensity.
3. Maximum pigment loading shall not exceed 10% of the cementitious material by weight.

E. Form: Submit pigment in manufacturer's original, sealed, and labeled containers. Damaged or previously opened containers shall be rejected.

### 2.2 CONCRETE MIX REQUIREMENTS

A. Base Specification: Conform to the requirements of Section 703 – Cast-In-Place Concrete, Class 3000, except as modified herein.

B. Cement: Use a single brand of ASTM C 150 Type I or Type II Portland Cement throughout the project. White cement shall not be used unless specifically approved by the Engineer for color uniformity. Gray cement shall be the standard.

C. Water-Cementitious Material Ratio: Maximum 0.45 to improve color uniformity and surface durability. Lower w/cm ratios produce more consistent, deeper color.

D. Slump: Maximum 4 inches without use of water-reducing admixture. Slump shall not be increased by adding water at the job site.

E. Admixtures:

1. Calcium chloride or admixtures containing calcium chloride shall not be used. Calcium chloride can cause color blotching and non-uniform color development.
2. Air-entraining and water-reducing admixtures shall be compatible with the pigment. Submit documentation of compatibility from the pigment manufacturer.
3. Set retarders and accelerators, if used, shall be approved by the pigment manufacturer.

F. Aggregates: Fine and coarse aggregates shall be from consistent sources throughout the project. Changes in aggregate color or gradation can affect the final concrete color.

### 2.3 CURING COMPOUND

A. Provide a white-pigmented, resin-based curing compound conforming to ASTM C 309, Type 1-D or Type 2, or a curing and sealing compound conforming to ASTM C 1315, Type 1 Class A. Curing compound shall be compatible with Davis Colors pigments; confirm compatibility with the pigment manufacturer.

B. Do not use sodium silicate-based curing compounds, iron sulfate-based curing agents, or dark-colored curing compounds, as these can cause color variation or staining.

### 2.4 SEALER

A. Provide and apply an acrylic concrete sealer compatible with integrally colored concrete, as recommended by Davis Colors. Sealer shall be specifically formulated for use over integrally colored concrete and shall enhance color depth without significant alteration of the as-placed color.

## PART 3 WORKMANSHIP

### 3.1 SAMPLE PANEL

A. Before beginning production colored concrete work, construct a sample panel of not less than 4 feet × 4 feet × same thickness as the Contract Documents, at the project site or in a location approved by the Engineer.

B. Construct the sample panel using the same mix design, pigment dosage, batching sequence, placement method, finishing technique, curing compound, and sealer proposed for the production work.

C. Allow the sample panel to cure a minimum of 28 days before final color evaluation. The Engineer will evaluate the panel for color uniformity, surface finish, and conformance to the specified color.

D. The approved sample panel shall become the color and finish standard for all colored concrete on the project. The sample panel shall be retained at the site until all colored concrete work is accepted.

E. If the sample panel is not approved, the Contractor shall adjust the mix, dosage, or procedures and construct a new sample panel at no additional cost to the Owner.

### 3.2 BATCHING AND MIXING

A. Add pigment to the concrete mixer in accordance with the manufacturer's instructions. For powder pigment, add during the initial dry mixing phase before water is introduced, or add as directed by the manufacturer to ensure uniform dispersion.

B. Mix each batch for a minimum of 5 minutes in a drum mixer, or until color is uniform and consistent throughout the batch. Minimum mixing time per the concrete supplier's equipment shall not be reduced.

C. Use consistent batch weights and volumes for every load. Do not vary the cement content, water content, aggregate content, or pigment dosage between loads.

D. Do not add water to increase slump after initial batching. If concrete is too stiff, use a water-reducing admixture to achieve desired workability, subject to Engineer approval.

E. Discard the first batch from any mixer that has been cleaned with water or that was used for uncolored concrete, as residual cement or aggregate may alter the color.

### 3.3 PLACEMENT AND FINISHING

A. Place and consolidate colored concrete in accordance with Section 703 and Section 706, as applicable.

B. Avoid excessive vibration or overworking of the surface, which can bring bleed water and fine particles to the surface and dilute the color.

C. Do not add water to the surface during finishing operations. Sprinkling water on the surface to aid finishing is strictly prohibited and will result in rejection of the work.

D. Use the same finishing tools, techniques, and finish timing throughout the project. Variations in finishing method affect surface texture and perceived color.

E. Broom finish or other surface texture shall be as shown on the Contract Documents and shall match the approved sample panel.

F. Protect fresh colored concrete from rain, dirt, debris, and traffic until the surface is fully set. Contamination of the fresh concrete surface may cause permanent staining.

### 3.4 CURING

A. Apply curing compound immediately following final finishing operations, before the surface sheen has fully disappeared, per manufacturer's application instructions. Apply at the coverage rate recommended by the manufacturer.

B. Apply curing compound uniformly and completely over the entire colored concrete surface, including edges. Missed areas will result in color variation.

C. Do not use polyethylene film or wet burlap curing directly on the surface of colored concrete, as these methods can create dark spots and uneven color from moisture migration.

D. Minimum curing period: 7 days or until the concrete has reached 70% of design strength, whichever is greater.

### 3.5 SEALING

A. Apply sealer after the concrete has cured a minimum of 28 days and the surface is clean, dry, and free of any curing compound that is incompatible with the sealer.

B. Apply sealer per manufacturer's instructions. Do not apply sealer in direct sunlight or when temperatures are below 50°F or above 90°F.

### 3.6 PROTECTION

A. Protect finished colored concrete surfaces from foot and vehicle traffic, staining, and damage for a minimum of 72 hours after placement, or as directed by the Engineer.

B. Do not allow construction equipment, vehicles, or materials to contact the finished colored concrete surface. Provide barriers or protective coverings as needed.

C. If the colored concrete surface is stained or damaged during construction, the Contractor shall restore the surface to match the approved sample panel. The Engineer will determine whether repair or replacement is required.

### 3.7 COLOR VARIATION

A. Some degree of color variation in integrally colored concrete is inherent to the material and is not grounds for rejection, provided the work meets the approved sample panel standard.

B. Color variation caused by inconsistent batching, excess water addition, inadequate curing, or surface contamination shall be considered defective work and shall be corrected at the Contractor's expense.

C. Construction and cold joints may show visible color variation. Locate joints as shown on the Contract Documents to minimize visual impact.

## PART 4 MEASUREMENT AND PAYMENT

### 4.1 MEASUREMENT

A. Integrally colored concrete will be measured per square yard (SY) of surface area placed in accordance with the Contract Documents, unless otherwise stated on the Bid Schedule.

### 4.2 PAYMENT

A. Payment will be made at the contract unit price per square yard (SY) and shall constitute full compensation for all labor, materials, tools, equipment, pigment, mix design, sample panel construction, batching, placement, finishing, curing, sealing, protection, and all incidentals necessary to complete the colored concrete work.

B. Concrete base preparation, subgrade, and base course materials are incidental unless listed as separate bid items.

C. The sample panel is incidental to the colored concrete bid item.

**Bid Schedule Payment Reference:** Bid Item 41 – Colored Concrete… square yard (SY)

**END OF SECTION**

# SECTION 2051-SS
# BIKE RACK

## PART 1 GENERAL

### 1.1 SECTION INCLUDES

A. Furnishing and installing wave/serpentine bike racks, including all hardware, anchor sleeves, and concrete base preparation required for a complete installation.

### 1.2 RELATED SECTIONS

A. Section 703 – Cast-In-Place Concrete.

B. Section 706 – Other Concrete Construction.

C. Section 204 – Structural Excavation and Compacting Backfill.

### 1.3 REFERENCES

A. ASTM A 53 – Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.

B. ASTM A 123 – Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.

C. Americans with Disabilities Act (ADA) Accessibility Guidelines.

### 1.4 SUBMITTALS

A. Product Data: Submit manufacturer's specifications, catalog cuts, and installation instructions for the specified bike rack, including dimensional drawings showing configuration, tube diameter, and anchorage details.

B. Shop Drawings: Indicate layout, anchorage locations, anchor sleeve details, and dimensions of concrete base.

C. Samples: Upon request of the Engineer, submit a sample of the specified finish.

D. Certification: Submit manufacturer's certification that materials conform to the requirements of this specification.

### 1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to the project site in manufacturer's original packaging, clearly labeled with product name and finish.

B. Store racks off the ground, protected from damage and weather. Do not stack in a manner that will cause permanent deformation.

C. Handle to avoid scratching or damaging the finish. Replace damaged racks at no additional cost to the Owner.

## PART 2 MATERIALS

### 2.1 BIKE RACK

A. Style: Wave/serpentine configuration, capable of accommodating a minimum of five (5) bicycles when parked on alternating sides, secured at two points per bicycle.

B. Material and Finish: As shown on the Contract Documents. Unless otherwise indicated, steel tube racks shall receive a hot-dip galvanized finish conforming to ASTM A 123 after all fabrication and welding is complete.

C. Tube Diameter: Minimum 1-¾ inch outer diameter Schedule 40 steel pipe or as shown on the Contract Documents.

D. Dimensions: As shown on the Contract Documents. Rack shall have a minimum height of 36 inches above finished grade to the highest point of the wave form.

E. Fabrication: Continuously welded construction. All welds ground smooth. No sharp edges or burrs. All steel shall be free of rust, scale, and defects prior to finishing.

F. Anchor Sleeves: Manufacturer-supplied galvanized steel anchor sleeves designed for surface-mount installation in cast concrete. Sleeves shall allow for minor field adjustment of rack position prior to concrete set.

### 2.2 CONCRETE

A. Concrete for anchor base: Class 3000 conforming to Section 703 – Cast-In-Place Concrete, minimum 4-inch depth below anchor sleeve, unless otherwise detailed on the Contract Documents.

## PART 3 WORKMANSHIP

### 3.1 EXAMINATION

A. Verify subgrade conditions, grades, and location are as shown on the Contract Documents before beginning work.

B. Do not begin installation until unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

A. General: Install bike racks at locations indicated on the Contract Documents. Coordinate with other site work to avoid conflicts with underground utilities, drainage structures, and pedestrian paths.

B. ADA Compliance: Position racks so that they do not encroach on accessible routes. Maintain a minimum 36-inch clear path along all adjacent accessible routes.

C. Anchor Sleeve Placement:

1. Set anchor sleeves in concrete at the spacing and depth specified by the manufacturer and as shown on the Contract Documents.

2. Temporarily brace and support sleeves during concrete placement to maintain plumb, level, and true alignment. Verify alignment before concrete sets.

3. Allow concrete to cure to a minimum of 70% of design strength before installing bike rack into sleeves.

D. Rack Installation:

1. Insert rack legs fully into anchor sleeves.

2. Secure per manufacturer's fastener requirements. Torque fasteners to manufacturer's specifications.

3. Verify rack is plumb and level after final installation.

E. Surface Protection: Protect adjacent concrete, paving, and landscaping from damage during installation. Repair any damage at no additional cost to the Owner.

### 3.3 FIELD QUALITY CONTROL

A. Verify that all racks are plumb within ¼ inch over the full height of the rack and level within ⅛ inch.

B. Confirm all fasteners are fully tightened and no components exhibit movement or looseness after installation.

C. Inspect finish for scratches, chips, or damage. Touch up minor damage with zinc-rich paint for galvanized racks or manufacturer-supplied touch-up paint for coated finishes. Replace racks with significant finish damage at no additional cost to the Owner.

## PART 4 MEASUREMENT AND PAYMENT

### 4.1 MEASUREMENT

A. Bike racks will be measured per each (EA) unit furnished and installed complete in place in accordance with the Contract Documents.

### 4.2 PAYMENT

A. Payment for bike racks will be made at the contract unit price per each (EA) and shall constitute full compensation for all labor, materials, tools, equipment, concrete base preparation, anchor sleeves, fasteners, finish touch-up, and incidentals necessary to complete the installation.

B. Excavation required for anchor base concrete, and all concrete materials and placement, are incidental to the bike rack bid item and will not be paid separately.

**Bid Schedule Payment Reference:** Bid Item – Bike Rack…each (EA)

**END OF SECTION**

# SECTION 2052-SS
# POLIGON PAVILION

## PART 1 GENERAL

### 1.1 SECTION INCLUDES

A. Furnishing and installing a Poligon steel pavilion structure (Bid Item 80), including structural steel frame, finish, roof, columns, anchor bolt foundation system, hardware, electrical provisions, and all appurtenances shown on the Contract Documents required for a complete installation.

### 1.2 RELATED SECTIONS

A. Section 703 – Cast-In-Place Concrete (concrete footings for column anchors).

B. Section 204 – Structural Excavation and Compacting Backfill.

C. ISPWC-1102 – Street Lighting (electrical service and conduit, if applicable).

D. Supplemental Specification 107310 – Poligon Shade Sails (Bid Item 81).

### 1.3 REFERENCES

A. ASTM A 500/A 500M – Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.

B. ASTM A 36/A 36M – Standard Specification for Carbon Structural Steel.

C. ASTM A 123/A 123M – Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.

D. ASTM A 307 – Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod.

E. AISC Steel Construction Manual – Current Edition.

F. International Building Code (IBC) – Current Adopted Edition.

G. ASCE 7 – Minimum Design Loads and Associated Criteria for Buildings and Other Structures.

H. Americans with Disabilities Act (ADA) – 2010 ADA Standards for Accessible Design.

### 1.4 DESIGN REQUIREMENTS

A. The pavilion shall be site-specifically engineered by Poligon to conform to the International Building Code (IBC) and ASCE 7 for the project location, including applicable snow, wind, and seismic loads.

B. Structural calculations shall be stamped by a licensed structural engineer registered in the State of Idaho.

C. Columns shall be designed to resist all applied loads without field modification to the structural frame.

D. Accessible Routes: The structure shall be positioned so that adjacent accessible routes comply with 2010 ADA Standards. Anchor bolt covers and base plates shall be flush with or recessed below adjacent finish grade or pavement to avoid trip hazards.

### 1.5 SUBMITTALS

A. Product Data: Submit Poligon product literature, color and finish samples, and manufacturer's standard specifications and details for the specified pavilion model.

B. Shop Drawings: Submit manufacturer's engineered shop drawings, stamped by a licensed structural engineer registered in the State of Idaho, showing plan, elevations, sections, column

base and anchor bolt details, footing dimensions, roof details, electrical cutout locations (if applicable), and color/finish designations.

C. Engineering Calculations: Submit structural calculations demonstrating conformance with IBC and ASCE 7 requirements for the project site, including wind uplift, snow, and seismic loads.

D. Anchor Bolt Layout: Submit anchor bolt layout drawings for each column footing prior to concrete placement.

E. Color Selection: Submit color chip or sample of the specified Poli-5000 powder coat color for Engineer approval prior to fabrication.

F. Warranty Documentation: Submit all applicable manufacturer warranties prior to final acceptance.

### 1.6 QUALITY ASSURANCE

A. Manufacturer: Poligon (Porter Corp, a PlayCore Company), 4240 136th Avenue, Holland, MI 49424. Phone: (616) 888-3500. Website: www.poligon.com. No substitutions permitted without prior written approval of the Engineer.

B. Fabrication: All welding shall be performed by qualified welders in Poligon's controlled fabrication facility. No field welding is permitted unless specifically shown on the approved shop drawings.

C. Pre-Installation Conference: Prior to installation, conduct a meeting with the Engineer, Contractor, and Poligon representative to review shop drawings, anchor bolt layout, footing construction, installation sequence, electrical provisions, and inspection requirements.

### 1.7 WARRANTIES

A. Steel Frame: Manufacturer's standard structural warranty against defects in materials and workmanship, as specified by Poligon for the designated structure type.

B. Poli-5000 Powder Coat Finish: Manufacturer's standard finish warranty against peeling, cracking, and excessive fade for the specified finish system.

C. All warranties shall be in the Owner's name and submitted prior to final payment.

### 1.8 DELIVERY, STORAGE, AND HANDLING

A. Deliver components in manufacturer's packaging, labeled for identification.

B. Store components off the ground, covered, and protected from damage. Handle using methods that prevent damage to the powder coat finish.

C. Repair minor finish damage using Poligon-supplied touch-up paint. Components with significant finish damage shall be returned to the manufacturer for refinishing or replaced, at no cost to the Owner.

## PART 2 MATERIALS

### 2.1 STRUCTURAL FRAME

A. Frame Material: Structural steel conforming to ASTM A 500/A 500M or ASTM A 36/A 36M as appropriate for the member type. All members shall be sized and detailed by the manufacturer's engineer for the specified loads.

B. Configuration, dimensions, column style, and roof type: As shown on the Contract Documents. Coordinate final model and option selections with the Engineer prior to submitting shop drawings.

C. Connection System: Bolt-together steel frame. No field welding permitted unless specifically detailed on approved shop drawings.

D. Column Base Plates: Structural steel base plates shop-welded to columns. Anchor bolt holes sized and located per the approved anchor bolt layout drawing.

### 2.2 FINISH

A. Standard Finish: Poli-5000 powder coat system. Process shall include: shot blast of steel to near-white condition, phosphate wash, application of epoxy primer, followed by a coat of polyester TGIC powder coat formulated for UV protection, adhesion, and fade resistance. Finish shall be certified by the Powder Coating Institute as PCI-4000.

B. Color: As selected by the Engineer from Poligon's standard color palette. Submit color sample for Engineer approval prior to fabrication.

C. Alternative Finish: Hot-dip galvanized per ASTM A 123, if shown on the Contract Documents or directed by the Engineer in lieu of powder coat.

### 2.3 ROOFING

A. Roof Decking: As shown on the Contract Documents. Unless otherwise specified, provide 24-gauge steel roof panels with a factory-applied Kynar 500 fluoropolymer finish, color as selected by the Engineer.

B. Roof attachment hardware shall be stainless steel or hot-dip galvanized. No uncoated ferrous fasteners on the exterior.

### 2.4 ELECTRICAL PROVISIONS

A. If shown on the Contract Documents, provide electrical cutouts in columns and structural members at locations and dimensions coordinated with the electrical design. Cutout size and location shall be reviewed and approved by Poligon's engineering department prior to fabrication. Unauthorized field cutouts are prohibited and will void the manufacturer's warranty.

B. Standard cutout locations: outlet cutouts 18 inches above grade on the inside face of columns; switch cutouts 48 inches above grade. All cutouts minimum 12 inches from structural joints.

### 2.5 ANCHOR BOLTS AND HARDWARE

A. Anchor bolts: ASTM A 307 or as specified by Poligon's engineer, hot-dip galvanized. Size, projection, spacing, and embedment depth per the approved anchor bolt layout drawing.

B. Nuts, washers, and leveling hardware: Hot-dip galvanized or stainless steel.

C. Baseplate Covers: Provide Poligon baseplate covers finished in Poli-5000 to match the structure, for all columns with exposed anchor bolts at finish grade.

## PART 3 WORKMANSHIP

### 3.1 FOOTING EXCAVATION AND CONCRETE

A. Excavate column footing locations to the dimensions and depth shown on the approved shop drawings. Remove and dispose of unsuitable material.

B. Place and brace anchor bolts at the exact locations, elevations, and projections shown on the approved anchor bolt layout drawing. Verify bolt location and plumb before placing concrete.

C. Place Class 3000 concrete per Section 703. Consolidate around anchor bolts without displacing them. Protect concrete from freezing until it reaches minimum design strength.

D. Allow concrete to cure to a minimum of 70% of design strength before erecting structural frame.

### 3.2 ERECTION

A. Erect the pavilion frame in accordance with the manufacturer's installation instructions and approved shop drawings. Use equipment and rigging that prevents damage to finished members.

B. Plumb columns within 1/8 inch per 10 feet of height before tightening anchor bolts. Shim base plates as needed to achieve plumb and level. Fill shim voids with non-shrink grout conforming to ASTM C 1107 after final alignment.

C. Torque all bolted connections to the manufacturer's specified torque values. Document torque values and provide to the Engineer upon request.

D. Install roofing panels in accordance with the manufacturer's instructions. Ensure all laps and penetrations are properly sealed to prevent water infiltration.

E. Install baseplate covers after all anchor bolts are tightened and grout is cured.

F. Repair any powder coat finish damage caused during installation using Poligon-supplied touch-up paint.

### 3.3 ELECTRICAL ROUGH-IN (IF APPLICABLE)

A. Coordinate electrical rough-in through columns with the electrical subcontractor prior to erection. Pull required conduit or wire through columns per the approved shop drawings and electrical plans.

### 3.4 FIELD QUALITY CONTROL

A. Plumb and Level: Verify all columns are plumb within 1/8 inch per 10 feet. Verify roof elevation is within ½ inch of the elevation shown on the Contract Documents.

B. Finish Inspection: Inspect all powder-coated surfaces for scratches, chips, or bare metal. Touch up damage per Section 3.2.F. Surfaces with damage exceeding 1 square inch in area shall be returned to the manufacturer for refinishing.

C. Manufacturer Inspection: At the Contractor's request, Poligon or an authorized representative shall perform a post-installation inspection and provide written confirmation that the installation conforms to the manufacturer's requirements. Provide the Engineer with a copy of this documentation prior to final payment.

### 3.5 PROTECTION AND CLEANUP

A. Protect all finished surfaces from construction traffic and damage until final acceptance.

B. Remove all construction debris, packaging, excess hardware, and waste from the site.

C. Clean pavilion surfaces of dirt, adhesive, and construction residue prior to the final inspection.

## PART 4 MEASUREMENT AND PAYMENT

### 4.1 MEASUREMENT

A. The Poligon Pavilion will be measured as a lump sum (LS) complete and accepted installation.

### 4.2 PAYMENT

A. Payment at the contract lump sum price shall constitute full compensation for all labor, materials, tools, equipment, submittals, engineering, footing excavation and concrete, anchor bolts, frame erection, roofing, electrical provisions, baseplate covers, finish touch-up, manufacturer inspection, cleanup, and all incidentals.

B. Footing excavation, concrete, and anchor bolts are incidental to the lump sum bid price and will not be paid separately.

**Bid Schedule Payment Reference:** Bid Item – Poligon Pavilion… lump sum (LS)

**END OF SECTION**

# SECTION 2053-SS

# POLIGON SHADE SAILS

## PART 1 GENERAL

### 1.1 SECTION INCLUDES

A. Furnishing and installing Poligon shade sails, including HDPE fabric panels, steel support posts, anchor bolt foundation system, stainless steel tensioning hardware, and all appurtenances shown on the Contract Documents required for a complete installation.

### 1.2 RELATED SECTIONS

A. Section 703 – Cast-In-Place Concrete (concrete footings for support post anchors).

B. Section 204 – Structural Excavation and Compacting Backfill.

C. Supplemental Specification 2052-SS – Poligon Pavilion.

### 1.3 REFERENCES

A. ASTM A 500/A 500M – Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.

B. ASTM A 36/A 36M – Standard Specification for Carbon Structural Steel.

C. ASTM A 123/A 123M – Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.

D. ASTM A 307 – Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod.

E. International Building Code (IBC) – Current Adopted Edition.

F. ASCE 7 – Minimum Design Loads and Associated Criteria for Buildings and Other Structures.

G. Americans with Disabilities Act (ADA) – 2010 ADA Standards for Accessible Design.

### 1.4 DESIGN REQUIREMENTS

A. The shade sail structure shall be site-specifically engineered by Poligon to conform to the International Building Code (IBC) and ASCE 7 for the project location, including applicable wind uplift, snow, and seismic loads applied to the fabric canopy and support posts.

B. Structural calculations shall be stamped by a licensed structural engineer registered in the State of Idaho.

C. Support posts shall be designed to resist all fabric tension and environmental loads without field modification.

D. Accessible Routes: Support post footings and base plates shall be flush with or recessed below adjacent finish grade to avoid trip hazards. Adjacent accessible routes shall comply with 2010 ADA Standards.

### 1.5 SUBMITTALS

A. Product Data: Submit Poligon product literature, fabric color samples, and manufacturer's standard specifications for the shade sail system.

B. Shop Drawings: Submit manufacturer's engineered shop drawings, stamped by a licensed structural engineer registered in the State of Idaho, showing plan, elevations, post locations and

heights, footing dimensions, anchor bolt details, fabric geometry and dimensions, hardware details, and corner tension loads.

C. Engineering Calculations: Submit structural calculations demonstrating conformance with IBC and ASCE 7 requirements for the project site.

D. Anchor Bolt Layout: Submit anchor bolt layout drawings for each support post footing prior to concrete placement.

E. Fabric Sample: Submit a fabric color sample and technical data sheet for Engineer approval prior to fabrication.

F. Warranty Documentation: Submit fabric and structure warranties prior to final acceptance.

### 1.6 QUALITY ASSURANCE

A. Manufacturer: Poligon (Porter Corp, a PlayCore Company), 4240 136th Avenue, Holland, MI 49424. Phone: (616) 888-3500. Website: www.poligon.com. No substitutions permitted without prior written approval of the Engineer.

B. Fabrication: All structural welding shall be performed in Poligon's controlled fabrication facility. No field welding is permitted. Fabric panels shall be custom fabricated to the dimensions shown on the approved shop drawings. No field cutting of fabric is permitted.

C. Pre-Installation Conference: Prior to installation, conduct a meeting with the Engineer, Contractor, and Poligon representative to review shop drawings, anchor bolt layout, footing construction, and installation sequence.

### 1.7 WARRANTIES

A. Steel Support Structure: Manufacturer's standard structural warranty against defects in materials and workmanship.

B. Poli-5000 Powder Coat Finish: Manufacturer's standard finish warranty against peeling, cracking, and excessive fade.

C. Shade Sail Fabric: Minimum 10-year limited warranty against UV degradation, rot, and undue fading, from the fabric manufacturer. Submit copy of warranty prior to installation.

D. All warranties shall be in the Owner's name and submitted prior to final payment.

### 1.8 DELIVERY, STORAGE, AND HANDLING

A. Deliver fabric panels rolled or folded in manufacturer's packaging. Do not store fabric panels in direct sunlight or extreme heat prior to installation.

B. Deliver steel components in manufacturer's packaging, labeled for identification. Store off the ground and protected from damage.

C. Repair minor finish damage to steel members using Poligon-supplied touch-up paint prior to installation.

## PART 2 MATERIALS

### 2.1 SUPPORT POSTS

A. Post Material: Structural steel conforming to ASTM A 500/A 500M, sized by the manufacturer's engineer for the specified fabric tension, wind, and snow loads.

B. Finish: Poli-5000 powder coat system — shot blast to near-white, phosphate wash, epoxy primer, polyester TGIC topcoat. PCI-4000 certified. Color as directed by the Engineer to coordinate with the Poligon Pavilion (Bid Item 80).

C. Column Base Plates: Structural steel, shop-welded to posts. Anchor bolt holes sized and located per the approved anchor bolt layout drawing.

### 2.2 ANCHOR BOLTS AND HARDWARE

A. Anchor bolts: ASTM A 307 or as specified by Poligon's engineer, hot-dip galvanized. Size, projection, spacing, and embedment per the approved anchor bolt layout drawing.

B. Nuts, washers, and leveling hardware: Hot-dip galvanized or stainless steel.

C. Post-Top Attachment Hardware: Stainless steel (Type 316) swivel fittings, D-rings, and turnbuckles at each fabric connection point, rated for the required corner tension loads. Minimum corner tensile rating: 150 lbs. per connection point, or as required by the engineering calculations.

### 2.3 SHADE SAIL FABRIC

A. Material: High-density polyethylene (HDPE) knitted mesh shade fabric, UV-stabilized and colorfast. Minimum 95% UV block rating. Fabric shall be breathable, resistant to rot and biological growth.

B. Minimum fabric weight: 340 grams per square meter (gsm).

C. Color: As selected by the Engineer from Poligon's or fabric manufacturer's standard palette. Submit sample for Engineer approval prior to fabrication.

D. Perimeter Edge: Each sail panel shall have a continuous stainless steel wire rope tensioning cable housed in a hemmed pocket sewn around the full perimeter.

E. Corner Reinforcement: Each corner attachment point shall be reinforced with multiple layers of fabric and fitted with a stainless steel (Type 316) D-ring rated for the required tension load.

F. Fabrication: Shade sail panels shall be custom fabricated to the dimensions and geometry shown on the Contract Documents.

## PART 3 WORKMANSHIP

### 3.1 FOOTING EXCAVATION AND CONCRETE

A. Excavate support post footing locations to the dimensions and depth shown on the approved shop drawings. Remove and dispose of unsuitable material.

B. Place and brace anchor bolts at the exact locations, elevations, and projections shown on the approved anchor bolt layout drawing. Verify bolt location and plumb before placing concrete.

C. Place Class 3000 concrete per Section 703. Consolidate around anchor bolts without displacing them. Protect concrete from freezing until it reaches minimum design strength.

D. Allow concrete to cure to a minimum of 70% of design strength before erecting support posts.

### 3.2 SUPPORT POST INSTALLATION

A. Erect support posts in accordance with the manufacturer's installation instructions and approved shop drawings.

B. Plumb posts within 1/8 inch per 10 feet of height before tightening anchor bolts. Shim base plates as needed. Fill shim voids with non-shrink grout conforming to ASTM C 1107 after final alignment.

C. Verify post-top hardware attachment points are at the correct elevation and orientation before tensioning fabric.

### 3.3 FABRIC INSTALLATION

A. Attach shade sail panels to support posts and/or the adjacent pavilion structure at the corner D-ring attachment points using the manufacturer-specified stainless steel hardware.

B. Tension the fabric uniformly using turnbuckles or other manufacturer-specified tensioning hardware to achieve a taut, wrinkle-free installation. Apply tension incrementally at all attachment points to avoid uneven loading on supports.

C. Minimum tension at each corner: 150 lbs., or as specified by the manufacturer for the wind and snow loads at the project site.

D. Verify that the installed fabric does not sag to a degree that would allow pooling of rainwater or contact with users below. Minimum clearance from the lowest point of the sail to grade: as shown on the Contract Documents, minimum 7 feet.

E. After tensioning, inspect all stitching, perimeter rope, and corner hardware for signs of stress, fraying, or improper fit. Correct any deficiencies before final acceptance.

### 3.4 FIELD QUALITY CONTROL

A. Post Plumb: Verify all support posts are plumb within 1/8 inch per 10 feet.

B. Fabric Inspection: Inspect the installed fabric for uniform tension, wrinkle-free surface, adequate clearance from grade, and proper function of all hardware.

C. Manufacturer Inspection: Poligon or an authorized representative shall perform a post-installation inspection and provide written confirmation that the installation conforms to the manufacturer's requirements. Provide the Engineer with a copy of this documentation prior to final payment.

### 3.5 PROTECTION AND CLEANUP

A. Protect installed shade sails from construction traffic and damage until final acceptance.

B. Remove all construction debris, packaging, excess hardware, and waste from the site.

C. Clean fabric and steel components of dirt and construction residue prior to the final inspection.

## PART 4 MEASUREMENT AND PAYMENT

### 4.1 MEASUREMENT

A. Poligon Shade Sails will be measured as a lump sum (LS) complete and accepted installation, including all support posts, hardware, and fabric panels.

### 4.2 PAYMENT

A. Payment at the contract lump sum price shall constitute full compensation for all labor, materials, tools, equipment, submittals, engineering, support post footing excavation and concrete, anchor bolts, post erection, fabric fabrication, hardware, installation, tensioning, manufacturer inspection, cleanup, and all incidentals.

B. Footing excavation, concrete, and anchor bolts are incidental to the lump sum bid price and will not be paid separately.

**Bid Schedule Payment Reference:** Bid Item – Poligon Shade Sails… lump sum (LS)

**END OF SECTION**

# SECTION 2060-SS
## TREATMENT SOIL

### PART 1 DESCRIPTION

This section specifies the requirements for furnishing, testing, and placing treatment soil for use in bioretention basins and detention ponds. The treatment soil shall be engineered to provide filtration, adsorption, and biological treatment of stormwater runoff.

### PART 2 MATERIAL COMPOSITON

#### 2.1 General

Treatment soil shall consist of a homogeneous blend of clean sand and compost designed to promote infiltration, pollutant removal, and plant growth.

#### 2.2 Approved Mix

The treatment soil shall be composed of the following by volume:

- 80 percent clean, well-graded sand
- 20 percent compost

Mixing shall be uniform to ensure consistent performance throughout the installation.

### PART 3 SAND REQUIREMENTS

The sand component shall meet the following criteria:

- Shall be clean, washed, and free of debris, organic contaminants, or deleterious materials
- Shall be well graded
- Maximum particle size: 1/8 inch
- Fines content: Less than 3 percent passing the No. 200 sieve (ASTM C117)

### PART 4 COMPOST REQUIREMENTS

- Compost shall be fully mature, stable, and derived from approved organic materials
- Shall be free of contaminants, including trash, metals, and pathogens
- Shall be suitable for use in stormwater treatment applications

### PART 5 SOIL CHEMICAL AND PHYSICAL PROPERTIES

#### 5.1 Cation Exchange Capacity (CEC)

- Treatment soil shall have a minimum CEC of 5 milliequivalents per 100 grams (meq/100g)

- Testing shall be conducted in accordance with USEPA Method 9081
- Higher CEC values are encouraged where elevated pollutant loading is expected, particularly for heavy metals
- Where practicable, empirical testing of sorption capacity should be performed to verify pollutant removal performance

**5.2 Organic Matter Content**

- Minimum organic matter content: greater than 1 percent by weight
- Organic matter shall contribute to enhanced sorption and biological treatment of pollutants

## PART 6 PERFORMANCE REQUIREMENTS

The treatment soil shall:

- Provide adequate infiltration capacity while maintaining pollutant removal efficiency
- Contain sufficient organic matter and/or clay content to:
  - Adsorb dissolved pollutants
  - Support microbial decomposition
  - Filter suspended solids
- Be suitable for long-term stormwater treatment without excessive clogging

## PART 7 PROHIBITED MATERIALS

- Waste fill materials shall not be used in the treatment soil mix
- Treatment soil shall not be placed over uncontrolled or non-engineered fill soils
- Materials containing contaminants, construction debris, or hazardous substances are strictly prohibited

## PART 8 INSTALLATION

- Treatment soil shall be placed to a minimum depth of 12 inches
- Placement shall occur in lifts and be lightly compacted or settled to avoid excessive consolidation
- Avoid over-compaction that would reduce infiltration capacity
- Protect installed soil from contamination, sedimentation, and construction traffic

## PART 9 REGIONAL CONSIDERATIONS

- Native silty soils in northern Bannock County, as identified in NRCS soil surveys, typically exhibit CEC values greater than 5 meq/100g
- Imported treatment soil shall meet or exceed this benchmark to ensure adequate pollutant removal performance

## PART 10 MEASUREMENT AND PAYMENT

- Measured by cubic yard of installed top soil
- Payment includes material, delivery, placement, grading, and compaction

**END OF SECTION**

# SECTION 2061-SS
## PEA GRAVEL

### PART 1 DESCRIPTION

Provide and install a **15-inch thick layer of 1/4-inch pea gravel** within bioretention basins as shown on the plans. This layer functions as a drainage/storage layer to promote infiltration, convey filtered stormwater, and support the overlying media.

### PART 2 MATERIALS

**2.1 Pea Gravel**

- Nominal size: **1/4 inch (6 mm)** rounded aggregate
- Gradation: Uniform, free-draining
- Material type: Washed, natural gravel
- Shape: Smooth, rounded (no crushed/angular particles)
- Fines content:
  - Passing No. 200 sieve: **≤ 2% by weight**
- Cleanliness:
  - Free of silt, clay, organic matter, debris, or contaminants
- Durability:
  - Hard, non-degradable, resistant to weathering

### PART 3 SUBGRADE PREPARATION

- Excavate to required lines and grades shown on plans
- Remove all unsuitable materials (organic soils, debris, soft zones)
- Proof-roll subgrade; recompact or stabilize as necessary
- Subgrade shall be level and free-draining
- Avoid compaction that reduces infiltration capacity

### PART 4 PLACEMENT

**4.1 General**

- Place pea gravel in lifts not exceeding 6 inches
- Avoid segregation during placement
- Do not dump directly in large piles; spread evenly

**4.2 Thickness**

- Total compacted thickness: 15 inches ± 1 inch

**4.3 Compaction**

- Lightly compact using plate compactor or similar equipment
- Do not over-compact; maintain porosity for drainage
- Target condition: stable, level surface without crushing aggregate

### PART 5 QUALITY CONTROL

- Visual inspection for cleanliness and uniformity
- Verify gradation through supplier certification or testing if required

- Confirm installed depth via field measurements
- Reject material containing excessive fines or contaminants

**PART 6 PROTECTION**

- Prevent contamination from sediment, runoff, or construction traffic
- Do not operate heavy equipment directly on placed gravel
- Cover or protect if rain or sediment-laden runoff is expected

**PART 7 MEASUREMENT AND PAYMENT**

- Measured by cubic yard of installed pea gravel
- Payment includes material, delivery, placement, grading, and compaction

**END OF SECTION**

# SECTION 2062-SS
## DRAIN ROCK

### PART 1 DESCRIPTION

Provide and install a **1-2-foot thick drain rock layer**, at the bottom of the bioretention basins and detention ponds, as shown on the plans and specified herein.

### PART 2 MATERIALS

**2.1 Drain Rock**

- Rock shall be clean, washed, crushed aggregate
- Nominal size: 2-inch diameter (1.5"–2.5" range acceptable)
- Gradation: Uniform, open-graded with minimal fines
- Fines content:
  - Passing No. 200 sieve: ≤ 2% by weight
- Durability: Hard, angular, and resistant to breakdown
- Free of organic material, clay, debris, or deleterious substances

### PART 3 SUBGRADE PREPARATION

- Excavate basin subgrade to lines and grades shown on plans
- Remove loose, soft, or unsuitable materials
- Proof-roll or otherwise verify subgrade stability
- Do not compact subgrade to the extent that infiltration capacity is reduced
- Protect subgrade from smearing, compaction, or contamination

### PART 4 DRAIN ROCK PLACEMENT

- Place drain rock in lifts not exceeding 12 inches
- Avoid segregation and minimize fines contamination
- Do not dump rock directly from heights exceeding 3 feet onto exposed geotextile
- Spread evenly to achieve a total compacted thickness of 12-24 inches
- Lightly seat material; do not over-compact. Vibratory compaction is not permitted

### PART 5 PROTECTION

- Prevent intrusion of sediment, soil, or construction debris into the rock layer
- Do not allow construction traffic directly on completed drain rock without approval
- Cover or proceed immediately with overlying layers to avoid contamination

### PART 6 MEASUREMENT AND PAYMENT

- Measured by cubic yard of installed strain rock
- Payment shall include furnishing materials, labor, placement, and incidental work required for a complete installation

**END OF SECTION**

# SECTION 2070-SS
## SIGN RELOCATION

### PART 1 DESCRIPTION

This work consists of removing, storing (if necessary), and relocating existing signs to the locations shown on the plans or as directed by the Engineer. Work includes all labor, equipment, and incidental materials required to complete the relocation and reinstallation of signs.

Roadway signs shall be relocated and installed in accordance with the current Idaho Standards for Public Works Construction (ISPWC) and applicable traffic control standards.

All other signs (including, but not limited to, private, informational, or non-roadway signs) shall be relocated and reinstalled using their original mounting method and configuration unless otherwise directed by the Engineer.

### PART 2 MATERIALS

Existing signs, posts, and hardware shall be reused unless they are damaged, defective, or deemed unsuitable by the Engineer.

Replacement materials, when required, shall match the original in type, size, and quality, unless otherwise approved. Materials used for roadway signs shall conform to the requirements of the Idaho Standards for Public Works Construction (ISPWC).

### PART 3 WORKMANSHIP

The Contractor shall carefully remove signs to prevent damage and shall store them in a manner that protects them from deterioration or loss prior to reinstallation.

All signs shall be reinstalled plumb, at the proper height and orientation, and securely fastened. Roadway signs shall be installed in accordance with the Idaho Standards for Public Works Construction (ISPWC).

All other signs shall be reinstalled using their original mounting method, hardware type, and installation configuration.

Any signs or components damaged during removal, storage, or reinstallation shall be repaired or replaced at no additional cost to the Owner.

### PART 4 MEASUREMENT AND PAYMENT

- Measured by each sign to be relocated

- Payment shall include full compensation for all labor, equipment, tools, materials, removal, storage, transportation, reinstallation, and incidentals necessary to complete the work.

**END OF SECTION**

# SECTION 2080-SS
## DUMPSTER ENCLOSURE

### PART 1 DESCRIPTION

This work consists of constructing a concrete dumpster pad and dumpster enclosure, in accordance with the details and locations indicated or as directed by the Engineer. Work includes all excavation, subgrade preparation, concrete placement, reinforcement, enclosure construction, and all incidental work necessary to provide a complete and functional installation.

The dumpster pad and enclosure shall conform to the requirements and details provided in City of Pocatello Public Works Design Principles and Standards, including:

- PSD-717: Concrete Dumpster Pad
- PSD-717A: Concrete Dumpster Pad with Enclosure
- PSD-717B: Concrete Dumpster Pad with Enclosure & Gate

### PART 2 MATERIALS

All materials shall conform to applicable sections of the City of Pocatello Public Works Design Principles and Standards.
Concrete shall meet the required compressive strength, air entrainment, and durability requirements specified in the applicable standard details.
Reinforcing steel shall be of the size, grade, and placement as shown in the standard details.
Enclosure materials, including posts, panels, gates, hardware, and fasteners, shall match the type and specifications indicated in the standard details, unless otherwise approved by the Engineer.
Base materials, if required, shall be compacted aggregate conforming to the applicable specifications.

### PART 3 WORKMANSHIP

Subgrade shall be properly prepared and compacted to provide a stable foundation. Any unsuitable material shall be removed and replaced as directed by the Engineer.
Concrete shall be placed, finished, and cured in accordance with standard practices and the requirements shown in the City of Pocatello Public Works Design Principles and Standards. Pads shall be constructed to the dimensions, thickness, slope, and reinforcement requirements specified.
Control and/or expansion joints shall be installed as shown in the standard details. The finished surface shall be smooth, durable, and slip-resistant.
Dumpster enclosures shall be installed plumb, square, and securely anchored. Gates shall be properly aligned and fully functional, opening and closing without binding.
All work shall be completed in accordance with the applicable City of Pocatello Public Works Design Principles and Standards for:

- PSD-717: Concrete Dumpster Pad
- PSD-717A: Concrete Dumpster Pad with Enclosure

- PSD-717B: Concrete Dumpster Pad with Enclosure & Gate

**PART 4 MEASUREMENT AND PAYMENT**

- Measured by each dumpster enclosure, as indicated in the Bid Schedule.
- Payment shall include all labor, materials, equipment, excavation, subgrade preparation, base material, concrete, reinforcement, enclosure components, gates, hardware, installation, and all incidental work necessary to complete the installation in accordance with the plans and specifications.
- No separate payment will be made for excavation, subgrade preparation, base material, reinforcement, forming, finishing, curing, enclosure components, or any incidental items, as these costs shall be included in the contract unit price or lump sum bid item.

**END OF SECTION**

# SECTION 2090-SS
## RELOCATION OF EXISTING SITE ELEMENTS

### PART 1 GENERAL

1.01 SUMMARY

A. This Section includes relocation of existing site elements as indicated on the Drawings, Including but not limited to:

1. Existing gate assemblies.
2. Existing bicycle maintenance stands and associated accessories.

B. Work includes:

1. Disconnecting and removing existing installations.
2. Salvaging components for reuse.
3. Temporary storage and protection.
4. Transporting materials to new locations.
5. Installing relocated items complete and operational.
6. Providing new anchors, footings, hardware, and incidental materials required for complete installation.
7. Repairing disturbed adjacent surfaces and improvements.

1.02 RELATED WORK

A. Concrete work.
B. Pavement repair and restoration.
C. Fence and gate systems.
D. Site furnishings.
E. Landscaping and irrigation repair.

1.03 REFERENCES

A. ASTM International standards applicable to materials specified.
B. Manufacturer installation recommendations for relocated equipment.

1.04 QUALITY ASSURANCE

A. Perform work using qualified personnel experienced in site improvement installation.
B. Relocated equipment shall be reinstalled in fully functional condition.
C. Replace components damaged during relocation operations at no additional cost to Owner.

### PART 2 MATERIALS

2.01. CONCRETE:

A. Normal-weight concrete with minimum compressive strength of 3,000 psi at 28 days unless otherwise indicated.

2.02 ANCHORS AND FASTENERS:

A. Stainless steel or galvanized materials suitable for exterior exposure.

2.03 GROUT:

A. Non-shrink, non-metallic grout.

2.04 REPLACEMENT COMPONENTS:

A. Match existing materials, finish, and function unless otherwise approved.

2.05 TOUCH-UP MATERIALS:

A. Coatings and paint compatible with existing finishes.

## PART 3 WORKMANSHIP

3.01 EXAMINATION

A. Verify locations, dimensions, and conditions affecting the Work.

B. Notify Owner or Engineer of conditions preventing proper installation.

C. Do not proceed until unsatisfactory conditions are corrected.

3.02 PREPARATION

A. Coordinate relocation activities with other work and site operations.

B. Locate and protect underground utilities and adjacent improvements.

C. Prepare new installation locations including excavation and foundation work as required.

3.03 REMOVAL

A. Remove existing site elements designated for relocation in a manner that prevents damage.

B. Remove existing anchors, foundations, and appurtenances as required.

C. Salvage components intended for reuse.

D. Dispose of materials not designated for reuse in accordance with applicable regulations.

3.04 INSTALLATION

A. Install relocated items at locations indicated on the Drawings or as directed.

B. Set relocated equipment plumb, level, aligned, and securely anchored.

C. Install new concrete foundations and anchorage systems as required for complete installation.

D. Reinstall salvaged hardware and accessories in proper working condition.

E. Provide replacement hardware or components where existing materials are damaged, missing, or unsuitable for reuse.

F. Adjust movable components for proper operation.

3.05 FIELD QUALITY CONTROL

A. Verify relocated installations are secure, properly aligned, and fully operational.

B. Test gates and movable assemblies for smooth operation.

C. Correct deficiencies identified during inspection.

3.06 REPAIR AND RESTORATION

A. Repair surfaces and improvements disturbed by relocation activities including:

- Concrete
- Asphalt paving

- Landscaping
- Irrigation systems
- Fencing and adjacent improvements

B. Restore repaired areas to condition equal to or better than existing.

3.07 PROTECTION

A. Protect completed work from damage until final acceptance.

B. Replace damaged work prior to project closeout.

## PART 4 MEASUREMENT AND PAYMENT

- Relocation of Existing Site Elements will be measured by "each", complete in place and accepted, as indicated in the Bid Schedule.
- Payment shall include removal and salvage, transportation and storage, new concrete foundations and anchors, reinstallation and adjustment, hardware replacement as required, and surface restoration and incidental work necessary for complete installation.
- No separate payment will be made for incidental work not specifically identified but required to complete the work.

**END OF SECTION**

**SECTION 32 15 00**

**LANDSCAPE BOULDERS**

## PART 1 - GENERAL

### 1.1 SUMMARY

A. This Section includes the following:
   1. Complete installation of natural boulders used for pedestrian seating or as stepping stones.

## PART 2 - MATERIALS

A. Boulders shall consist of regionally available basalt similar to site's existing native stone and matching character of local outcroppings in appearance, color, and type.

A. Contractor shall submit two natural boulder samples to site to enable the Owner to approve quality, texture and color prior to delivery. Submit photographs of typical boulders to be used.

B. Sizes shall vary from 2 feet to 5 feet approximate diameter. Boulders shall be rectangular and include flat surfaces suitable for sitting or stepping upon on.

C. Boulders shall be structurally sound, clean, uniform in type and free of abrasions, marks, drill holes and other deleterious marks.

## PART 3 - CONSTRUCTION

A. Salvage any existing boulders meeting the above Materials specifications suitable for seating or stepping stones, prior to construction. Avoid scratching or gouging or otherwise marring boulders while maneuvering and storing. Landscape boulders are to be stockpiled at an approved location on-site, and approved for use prior to final placement. Landscape boulders are not to be placed within 10 feet of any tree, power pole, street light pole, or hydrant, nor over any monument or utility appurtenance.

B. Drawings indicate intended boulder placement locations.

C. After rough grading, areas of boulder placement shall be compacted or consist of undisturbed subgrade. When site is prepared and ready for boulder installation, field verify location of the boulders by marking location of boulders for approval by Owner.

D. Set boulders firmly in a shallow basin carved in the subgrade, such that they appear integral to the bedrock of the site, rather than dumped on top. Rocks shall be settled so they will not move or shift; use water or bars or other means necessary to stabilize and settle boulders. Areas on which boulders are to be placed shall be well compacted, stable and firm so as to prevent as much as possible any settlement of boulders into the surface. Set boulders in place, true to surrounding cross-slope and grade, and free of any movement. Partially bury boulders by backfilling and filling in voids between bottom of boulders and surface as directed by Project Engineer.

E. Place topsoil and plantings around boulders, per Plans.

F. Following installation: clean, rake and finish grade to blend with adjacent finished grades.

4.00 METHOD OF MEASUREMENT

Quantity to be measured for payment will be the number of boulders installed.

5.00 BASIS OF PAYMENT

Boulders will be paid as each (EA). Unit price includes cost of stockpiling, layout and placement of boulders, preparation of installation area, and furnishing all labor, materials, and equipment necessary to complete work.

**END OF SECTION**

# STABILIZED PATHWAY

**SECTION [32 15 40]**

**ORGANIC-LOCK FOR STABILIZED PATHWAY AGGREGATE: FOOT/BICYCLE TRAFFIC**

## PART 1: GENERAL

### 1.1 SUMMARY

A. This section includes materials and execution information for construction with aggregate with Organic-Lock binder for foot traffic applications

B. Related Sections:

Section [ ]
Section [ ]
Section [ ]

### 1.2 REFERENCES

A. ASTM C136 / C136M – 14, Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates, ASTM International, West Conshohocken, PA, 2014, www.astm.org

B. ASTM D2419 – 14, Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregates, ASTM International, West Conshohocken, PA, 2014, www.astm.org

C. ASTM F1951 – 14, Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment, ASTM International, West Conshohocken, PA, 2014, www.astm.org

### 1.3 SUBMITTALS

A. Submit in accordance with Section 01 33 00 - Submittal Procedures:

1. [1 quart] [_____] sample of base course.

2. [1 quart] [_____] sample of crushed aggregate material sourced from an authorized Organic-Lock Dealer.
3. Manufacturer's Material Safety Data Sheet.

## 1.4 SITE CONDITIONS

A. Ensure that the subgrade and base are properly graded and compacted to required specifications.

B. Do not install the Organic-Lock Stabilized Aggregate during rain. Rain within 3-5 days after installation will increase curing time.

C. Protect all nearby surfaces, plants, and structures from possible contamination from materials or damage by equipment.

D. It is not recommended to install when temperatures are below 40 degrees Fahrenheit (5 degrees Celsius).

## 1.5 TEST PLOT

A. Install [16] square feet minimum of stabilized crushed aggregate paving including base course, at location approved by [Architect] [Engineer].

B. Allow [Architect] [Engineer] to view test plot before proceeding with rest of stabilized crushed aggregate paving.

C. [Approved mock-up may remain as part of completed Work.] [Remove test plot after acceptance of work specified in this Section.]

## 1.6 PRE-CONSTRUCTION

A. Contractor to attend a virtual pre-construction meeting led by Organic-Lock to review installation best practices and project expectations.

B. Pre-construction meeting to take place at a minimum [one week] prior to installation.

## 1.7 DELIVERY, HANDLING, AND STORAGE

A. Delivery:

Delivery of Organic-Lock pre-blended with aggregate is available from select dealers worldwide. Contact your closest dealer or the manufacturer for more information.

B. Storage:

Protect stabilized crushed aggregate mix from contamination. Store undercover. If the blended and hydrated aggregate is sitting for long periods of time (longer than 48 hours), or when subject to rainfall, it needs to be turned with a skid steerer or loader to ensure consistent moisture content throughout prior to installation. Verify hydration level with snowball test before installation. For any questions regarding storage, contact the manufacturer or local dealer.

## PART 2: PRODUCTS

### 2.1 MANUFACTURERS

A. Organic-Lock for Organic-Lock Stabilized Aggregate provided by:

Kafka Granite, LLC
550 State Highway 153
Mosinee, WI 54455
800-852-7415
info@kafkagranite.com
www.kafkagranite.com

### 2.2 MATERIALS

A. Organic-Lock Stabilized Aggregate

1. Crushed Aggregate Material
    a. Consisting of sound, angular, durable particles.
    b. Gradation, in accordance with ASTM C136:

| Optimal Gradation | | |
|---|---|---|
| Sieve | Sieve Size (mm) | Percent Passing |
| 4 | 4.75 | 80% - 100% |
| 8 | 2.36 | 65% - 90% |
| 16 | 1.18 | 40% - 65% |
| 30 | 0.6 | 25% - 55% |
| 50 | 0.3 | 15% - 35% |
| 100 | 0.15 | 10% - 20% |
| 200 | 0.075 | 5% - 15% |

## PART 3: EXECUTION

*SPECIFIER NOTES:*

1. *Proper hydration of the Organic-Lock Stabilized Aggregate is crucial to the installation and longevity of the surface. The instructions below refer to Organic-Lock that has been pre-blended with aggregate and contains optimal moisture content. For more information on pre-wetting, and pre-blending Organic-Lock refer to our installation guideline video*

https://www.kafkagranite.com/blog/kafka-granite-organic-lock-stabilized-pathway-mix-installation/

2. *Achieve best results installing Organic-Lock Stabilized aggregate in dry conditions and temperatures above 40° Fahrenheit (5° Celsius). Both wet and cold conditions slow down the curing/drying process.*

## 3.1 PREPARATION

1. Prepare the Subgrade

   Excavate the area to the depth required so that finish grade can be established as noted on plans.

   A Foot-Traffic Pathway will require a full depth of 7-9 inches: 4-6 inches of compacted base depth together with 3 inches of compacted Organic-Lock Stabilized Aggregate.

   Compact the subgrade to 95% Modified Proctor Density.

2. Prepare the Base

   *Install the base material as per your region's approved DOT road base guidelines. Clear stone or ungraded base is NOT acceptable in this application. Compact the base to 95% modified proctor density.*

   Foot-Traffic Pathway will require 4-6 inches of compacted base material.

   Depending upon the method of compaction the installation of base material may require separate lifts. 4 inches can be compacted in a single lift with a minimum 2-ton compaction roller.

   Compact the subgrade to 95% Modified Proctor Density using a single or double drum static roller or vibratory compactor.

## 3.2 WATERSHED MANAGEMENT

Crowns and/or cross-slopes must be incorporated into the compacted base material.

If the slope is 2% or lower, a crown should be incorporated into the pathway. If the slope is greater than 2%, incorporate a cross-slope.

Note: The addition of crowns and cross-slopes is heavily dependent upon surrounding watershed.

### 3.3 SPREADING

The use of a paving machine is highly recommended for large projects to evenly spread Organic-Lock Stabilized Aggregate at the specified depth. It's recommended to screed the material to ensure the depth is consistent for smaller projects or projects with tight areas.

Spread the loose and uncompacted Organic-Lock Stabilized Aggregate over the compacted base material.

Typically, a lift of 4 inches of loose, pre-wet Organic-Lock Stabilized Aggregate will compact to the required 3-inch depth for Foot-Traffic Pathways.

Where a paving machine is not feasible, Organic Lock Stabilized Aggregate

### 3.4 COMPACTION

Make passes using a 1-ton double or single static drum roller, or equivalent. A Foot-Traffic Pathway will typically require one lift, compacted to 3 inches.

Compaction will vary with different aggregates due to particle shape and size. Expected compaction is 20-25%, less if using paving machinery. This level of compaction needs to be monitored as early as possible (starting during the test plot) to determine the actual degree of compaction. It is better to put down too much material and to remove it from the top than to put down too little and add a layer later.

Compact until no further deflection occurs during rolling.

Note: Vibratory compaction is acceptable for the base material but generally not suitable for Organic-Lock Stabilized Aggregate as it risks disassociating the bonds of the stabilized aggregate or allowing the fines and moisture to migrate to the surface, causing the surface to take on a smooth, concrete-like appearance. Organic-Lock Stabilized Aggregates should be compacted using a single or double drum static roller wherever possible. For tight spaces that are not accessible by drum rollers, a hand tamper is recommended. However, in certain circumstances, a vibratory or plate tamper can be used where the installer deems it to be more effective as hand-tamping over large spaces will create inconsistent results.

Provided the moisture content of the Organic-Lock Stabilized Aggregate is adequate, additional hydration should not be necessary. On dry, sunny days, however, the surface layer may start to dry out while installing, in which case, a light misting would be appropriate to prevent surface cracks from appearing during compaction. Refer to Organic-Lock installation guideline video https://www.kafkagranite.com/blog/kafka-granite-organic-lock-stabilized-pathway-mix-installation/ for more information.

## 3.5 COMPLETING INSTALLATION

Apply a light spray to the surface of the material to give a clean appearance. Apply water until the water begins to run-off.

Do not allow any traffic on the newly installed pathway until fully cured, a minimum of 24-72 hours.

## 3.6 REPAIRS AND PROTECTION

Excavate the damaged area and scarify exposed Organic-Lock Stabilized Aggregate.

Source the replacement material from a Licensed Organic-Lock Stabilized Aggregate Dealer. Apply the material to the excavated area and compact.

Allow the newly installed Organic-Lock Stabilized Aggregate to cure, but not completely dry out.

Re-compact the material (3.4), ensuring that the final grade and crown are maintained.

## 3.7 MAINTENANCE

All outdoor products require a level of maintenance analysis. It is recommended to do a thorough analysis of your installed Organic-Lock Stabilized Aggregate 7 days after installation followed by monthly analysis to ensure no alterations are required.

**Erosion Damage**

The greatest element of concern is rainfall erosion. Often, this problem can be greatly reduced by adjusting the watershed areas surrounding the product itself. The best way to determine how the water is building up, is to examine your project area during a rainstorm. Learning where the water is coming from can lead to water diverting that dramatically reduces the stress on your surface.

Installing culverts, drains, cross slopes, crowns, or diverters can limit the majority of stress causing damage.

If you do experience erosion damage, first look at ways to get the water away or slow the water down, that's causing the damage...secondly, replace the lost material with new material following the guidelines below.

**Excess Loose Material**

Directly after the installation, the aggregate surface will be smooth because of the weight of the fresh compaction. As the surface weathers with traffic and time, the larger particles of the aggregate will loosen on the surface to create a natural look and feel which is often sought after. The loose aggregate particles on your surface should not exceed 1⁄4" in depth.

Sweeping off the excess particles can be accomplished in areas where excess 1⁄4" chip is not detrimental. These loose particles can also be shoveled and removed from site. The remaining surface will eventually chip loose again, so new material is recommended as a top up (see instructions below) after doing this more than once.

If material exceeds a 1⁄4", redistribute the particles over a greater surface, scarify the surface to a depth of 1" and water to a 1" depth and compact with a roller of no less than 1000-lbs. Keep traffic off for 24-72 hours.

**Removing Debris**

You can remove grass clippings, soil, debris or organic material by mechanically blowing or hand raking as needed.

**Snow Plowing**

When plowing snow, use a shoe lift or rubber baffle on the blade of the plow to lift the blade up 1/4" off the surface. Extra precautions should always be taken after the first snow and last snow of the season, as this is when the material is most prone (i.e. the ground is not frozen).

## 3.8 ADDING NEW BLENDED ORGANIC-LOCK STABILIZED AGGREGATE MATERIAL TO DAMAGED AREAS

Below the loose surface particles, the firmed material should be stable to resist erosion and support the intended traffic.

If this lower level material incurs damage, we recommend the following:

**Fixing Lightly Damaged Areas**

Lightly damaged areas can be repaired by soaking, scarifying with a rake to 1-2 inches and compacting the scarified area using a roller or a hand tamper.

**Adjusting Organic-Lock Stabilized Aggregate**

The Organic-Lock gel activates each time it comes in contact with water, which allows for the stabilized aggregate to be physically broken up, re-worked and returned back to its initial state. This self-healing nature allows for a simplified maintenance procedure that leaves no sign of the maintenance itself.

For example:
If you have to run an irrigation line below your finished pathway, all you need to do is add water, dig the material up, put down your irrigation line, spread the material back in place, then water and compact it using a roller or a hand tamper back to new.

**Fixing Larger or More Severely Damaged Areas**

Excavate the damaged area to a depth of 2" to an approximate 50% increase in area (i.e. if your area is in a 4-foot radius circle, excavate a total of 6 feet in diameter.

Estimate amount of material lost or material needed to be topped up. Add this amount of preblended Organic-Lock aggregate in the area.

Blend this newly blended aggregate in by one of the following methods:

A. Rototill to a Depth of 2 Inches

   This needs to be done with multiple passes and should not exceed the depth of the Organic-Lock Stabilized Aggregate (i.e. avoid disrupting the base material). Spray the surface with a light spray and begin to till this material to achieve a homogeneous blend of the new and existing material. Add further water as you mix to achieve the optimal snowball (as seen in the snowball test).

B. Remove and Blend the Material Off Site

   Add the new Organic-Lock Stabilized Aggregate to the existing material on a clean pad. Using a front-end loader (or shovels for smaller projects) mechanically turn the material over until you achieve a homogeneous blend. Add water into this mixture until you achieve an optimal snowball (as seen in the snowball test).

Spread this newly blended material back into the area where the excavation was completed and compact using a roller or a hand tamper

**Note: Maintenance or patching should not be compacted with a vibratory plate compactor because it will rattle and damage the surrounding cured area.**

END OF SECTION

# SECTION 32 33 00
# SITE FURNISHINGS

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

### 1.2 SUMMARY

A. Section Includes:
   1. Tables.
   2. Bicycle racks.
   3. Trash receptacles.

### 1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples: For each exposed product and for each color and texture specified.

C. Samples for Initial Selection: For units with factory-applied finishes.

D. Samples for Verification: For each type of exposed finish, not less than 6-inch long linear components and 4-inch square sheet components.

### 1.4 CLOSEOUT SUBMITTALS

A. Maintenance Data: For site furnishings to include in maintenance manuals.

### 1.5 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
   1. Trash Receptacle Inner Containers: Three full-size units for each product indicated.

## PART 2 - PRODUCTS

### 2.1 TABLES

A. Products: Subject to compliance with requirements, provide the following:

   1. Kay Park J2WC Wheelchair Accessible Free Standing Tables with Dual End Access – Vinyl Plastisol (PVC) finish or approved equal.

B. Frame: Hot Dip Galvanized Steel with a Black Powder Coat Finish.

C. Seat:

1. Material:
   a. Expanded Metal with Blue Vinyl Plastisol finish.
2. Weight: 342 lbs.
3. Seating Configuration: 8 feet x 2 inches x 10 inches.
4. 2 Accessible spaces per table. Dual end access.

D. Table Top:
1. Material:
   a. Stainless Steel: No. 9 by ¾ inch Expanded metal with heavy PVC coating.
2. Surface Shape: 8 feet x 2 inches x 30 inches rectangular surface.

E. Steel Finish: PVC-color coated.
1. Color: Blue

## 2.2 TRASH RECEPTACLES

A. Products: Subject to compliance with requirements, provide the following:
1. Kay Park Round Plastisol (PVC) Litter Receptacles or approved equal.

B. Trash Receptacles:

1. Receptacle Shape and Form: Round cylinder with top opening in lid for depositing trash.
2. Lids and Tops: Match receptacle with Steel and Plastisol (PVC) lid secured by cable or chain.
   a. Description: Flat rim ring lid with center opening
3. Inner Container: Designed to be removable and reusable. To be compatible with Kay Park Round Plastisol (PVC) Little Receptacles.
4. Service Access: Removable lid or top; inner container and disposable liner lift out for emptying.
5. Post Mount: Galvanized-steel pipe; for mounting one receptacle.

## 2.3 GENERAL FINISH REQUIREMENTS

A. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

## 2.4 STEEL AND GALVANIZED-STEEL FINISHES

A. Baked-Enamel, Powder-Coat Finish: Manufacturer's standard, baked, polyester, powder-coat finish complying with finish manufacturer's written instructions for surface preparation, including pretreatment, application, baking, and minimum dry film thickness.

B. PVC Finish: Manufacturer's standard, UV-light stabilized, mold-resistant, slip-resistant, matte-textured, dipped or sprayed-on, PVC-plastisol finish, with flame retardant added; complying with coating manufacturer's written instructions for pretreatment, application, and minimum dry film thickness.

PART 3 - EXECUTION

3.1 CONSTRUCTION

A. Examine areas and conditions, with Installer present, for compliance with requirements for correct and level finished grade, mounting surfaces, installation tolerances, and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

A. Comply with manufacturer's written installation instructions unless more stringent requirements are indicated. Complete field assembly of site furnishings where required.

B. Unless otherwise indicated, install site furnishings after landscaping and paving have been completed.

C. Install site furnishings level, plumb, true, and securely anchored at locations indicated on Drawings.

D. Post Setting: Set cast-in support posts in concrete footing with smooth top, shaped to shed water. Protect portion of posts above footing from concrete splatter. Verify that posts are set plumb or at correct angle and are aligned and at correct height and spacing. Hold posts in position during placement and finishing operations until concrete is sufficiently cured.

E. Posts Set into Voids in Concrete: Form or core-drill holes for installing posts in concrete to depth recommended in writing by manufacturer of site furnishings. Clean holes of loose material, insert posts, and fill annular space between post and concrete with anchoring cement, mixed and placed to comply with anchoring material manufacturer's written instructions, with top smoothed and shaped to shed water.

**END OF SECTION 32 94 00**

**SECTION 32 34 00**
**BOARDWALK**

## PART 1- GENERAL

### 1.10 SECTION INCLUDES

**A.** Furnish and install A galvanized structural steel framed boardwalk with adjustable Leg and HDPE pre-fab decking panel, including all fittings, accessories, and fasteners in accordance with the plans.

### 1.02 SUBMITTALS

**A.** Product Data: Provide manufacturer's data, installation requirements and shop drawings for all components of the steel frame walkway and deck system.
**B.** Certificate of steel origin (United States).

## PART 2- PRODUCTS

### 2.01 MATERIALS

**A.** All frames must meet or exceed International Building Code requirements of 100psf load capacity.
**B.** Galvanized structural steel frame sections constructed from ASTM A500 Structural Steel.
**C.** Frame connections to be fabricated from ¼" A36 Structural Steel.
**D.** Legs and leg-sleeves to be fabricated from ASTM A500 Structural Steel pipe.
**E.** Entire post-fabrication frame assembly to be hot dipped galvanized (HDG) with a minimum of 3.9 mill thickness of zinc based galvanizing.
**F.** All post-galvanized frame assemblies must be hand rasped and free of any sharp edges without compromising the galvanized integrity.
**G.** All decking must meet or exceed International Building Code requirements of 100psf load capacity supported by frame structure.
    **a.** If plastic decking - high-density polyethylene (HDPE) continuous construction plastic. Size either 2" x 6" or 5/4" x 6" HDPE from recycled plastic with no natural fibers (does not absorb water, ideal for wetlands)
    **b.** Other material consult Wickcraft
**H.** Frame sections are to be adjustable and leveling. Height adjustments are to be constrained with a 3/8 set bolt and 2-1/4 self-tapping screws per leg.
**I.** All boardwalk surfaces are to be ADA compliant.
**J.** Acceptable Manufacturer:

**Wickcraft Company, Inc.**
**2317 Daniels Street**
**Madison, WI 53718**
**Toll Free: (800) 549-7694**
**Phone: (608) 244-9177**

## 2.02 ADJUSTABLE LEG WALKWAY

A. Adjustable Leg Walkways are assembled from prefabricated modular sections approximately 74.5'' long by varying widths. Each modular section consists of a frame and deck section that are pre-fabricated according to project specifications and ready to install upon delivery. Frames are pre-fabricated from galvanized structural steel and supported by adjustable legs.
B. Complete deck panels are pre-fabricated from 2"x6" deck boards. All fasteners are screwed from the underside (where specified).
C. Each adjustable leg consists of a steel leg sleeve and steel leg plate that rests on a pan-foot pad. No ground penetration is necessary, while providing a load capacity of 100 lbs/sq. ft.

## 2.03 POSI SYSTEM

A. POSI-LOC System - Frames are connected to each other using the patent pending Posi-Loc System, a system that makes Adjustable Leg Walkways simple and high cost effective to install.
    **a.** The Posi-Loc System consists of two sets of complementary lugs; a male set on the back end of an installed frame and a female set on the front of a frame being added to the walkway.
    **b.** Once two frames are connected to each other with the Posi-Loc System, the hinged connection point provides the strength and stability of one contiguous system. Yet the hinged connection is flexible enough to follow the contours of the terrain and to accommodate terrain changes during freeze/thaw cycles. The Posi-Loc System also allows a top down installation method in which crews can use an installed, modular walkway section as a platform for moving materials and installing the next section. This decreases installation time while protecting sensitive terrain.
B. POSI-TRUS System – Frame section headers are each supported by a two truss systems to provide redundancy for frame-to-frame deflection. Truss plates are made from ¼ HSS, A36 structural steel and are laser cut for precision.

## 2.03 WARRANTY

A. To cover the workmanship and materials of the frames against defect for the life of the boardwalk. During this period, if the product is covered by the warranty and fails under normal use, it shall repair or replace at original owners' discretion. The decking and other non-steel elements of the boardwalk are excluded. 'Lifetime' is defined as the lifetime of the product in use.

## 3.00 CONSTRUCTION

A. The CONTRACTOR shall be solely responsible for all installation permits, safety, and environmental concerns.
B. All materials and construction practices for foundation, railing, and decks, are to be installed per local codes and industry standards.
C. Installed products are to be done so in accordance with manufacturer's instructions and recommendations to maintain warranty.
D. Leg/pile locations must be determined suitable and adequate before installation.

SECTION 32 84 00 – UNDERGROUND LANDSCAPE IRRIGATION SYSTEM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This section includes landscape irrigation system components including piping, automatic and manual valves, sprinklers, specialties, valve boxes, quick couplers, drip systems, and controls and wiring for automatic-control irrigation system.

B. Related Sections

1. Division 32 Section "Plants" for plants.
2. Division 32 Section "Turf and Grasses" for turfgrass.

1.3 DEFINITIONS

A. Laterals, a.k.a. Circuit Piping: Downstream from control valves to sprinklers, specialties, and drain valves. Piping is under pressure during flow.

B. Drain Piping: Downstream from circuit-piping and/or main line piping drain valves. Piping is not under pressure.

C. Irrigation Main Line Piping: Downstream from point of connection to water distribution piping to, and including, control valves. Piping is under water-distribution-system pressure.

1.4 SYSTEM PERFORMANCE REQUIREMENTS

A. All components shall be provided by the manufacturer, make and model as specified per Owner’s representative, or approved equal.

B. Irrigation system design shall include separate zones for Turf areas (spray and/or rotor application), Seed areas (spray and/or rotor application), and Planting Beds (drip irrigation).

C. Irrigation system shall include cross-contamination backflow prevention.

D. Irrigation system shall include dedicated water meter if required, per city code.

E. Irrigation system shall include the capability to completely winterize the system, including removable or frost-free installation of water meter if required, and backflow preventer.

F. Location of Sprinklers and Specialties: Make minor adjustments necessary to avoid plantings, and obstructions such as signs and light standards. Prevent overspray onto sidewalks, playground equipment and surface, paving and other improvements.

G. Irrigation zone control shall be automatic operation with programmable controller and automatic control valves.

H. Minimum Water Coverage: 100% head-to-head coverage of turf areas.

I. Minimum Working Pressures: verify operating pressure psi minimum at point of connection of designed system and note it on as-built irrigation plan.

J. Water supply: Verify water supply, pressure and availability with Owner's representative and water provider prior to system design.

1.5 SUBMITTALS

A. Materials Product Data: For each type of product indicated. Include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories. Provide product literature to demonstrate equality with industry-standard materials.

B. Wiring Diagrams: For power, signal, and control wiring

C. Field Quality Control Reports: As specified in "Field Quality Control" Article in Part 3.

D. Qualification Data: Submit a brief statement of the installer's qualifications and experience for similar installations of this size and scope. Include any certifications or affiliations relevant to irrigation design and installation.

E. Maintenance Instructions and data. Include instructions for monitoring and maintaining the system and its components, including regularly scheduled performance reviews, winterization, and spring startup.

F. Operation Data, to be included in Instructions, including but not limited to the following:

1. Pressure regulators
2. Automatic controllers – including wiring diagrams
3. Automatic control valves
4. Quick coupler valves
5. Sprinklers

G. Warranties for each component warranted by manufacturer.

H. Quick Coupler keys: one key for each installed quick-coupler.

I. As-Built Drawings: As-built plans shall include the complete Irrigation system(s), drawn to scale, on which components are shown and coordinated with each other, using input from Installers of the items involved.. As-Built Drawing shall include all installed irrigation system piping, including plan layout and locations, types, sizes of irrigation system piping; all components, including valves, sprinkler heads and devices, accessories, controls, and wiring; areas of sprinkler spray; areas of

drip irrigation; controllers, valves, control wires and sleeves. Submit three copies of as-built at final project substantial completion.

J. Zoning Chart: Show each irrigation zone and its control valve.

K. Controller Timing Schedule: Indicate timing settings for each automatic controller zone. Also include recommended watering times for each zone and type of coverage, and recommended adjustment for plant establishment and growth, and seasonal/temperature variation.

L. Extra materials: Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents:

1. Sprinkler Units (rotors and spray bodies): Two of each type and size installed;
2. Nozzles: Two of each nozzle installed;
3. Emitter Units: Ten of each type installed;
4. Drip Tube Units: 100’ of each type installed

## 1.6 QUALITY ASSURANCE

A. Other manufacturers’ products with equal performance characteristics may be considered, at the sole discretion of the Owner’s representative. Refer to Division 1.

B. Installer Qualifications: An employer of workers that have experience in design, installation, and trouble-shooting of large irrigation systems and have successfully installed a minimum of three systems of comparable size and scope.

C. Backflow Preventer, water meter, and other components shall be installed by a licensed plumber, as required by City code.

D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.

## 1.7 DELIVERY, STORAGE AND HANDLING

A. Deliver materials and components with factory-applied identification. Provide shipping, storage, and handling to prevent damage and to prevent entrance of dirt, debris, and moisture.

B. Store, and prepare products for transport, as recommended by manufacturer.

C. During Storage: Use precautions for valves according to the following:

1. Do not remove end protectors unless necessary for inspection; then, reinstall for storage.
2. Protect from weather. Store indoors and maintain temperature higher than ambient dew-point temperature. Support off ground or pavement in watertight enclosures when outdoor storage is necessary.

D. Deliver piping with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe-end damage and to prevent entrance of dirt, debris, and moisture.

E. Protect stored piping from moisture and dirt. Elevate above grade. Do not exceed structural capacity of floor when storing inside.

F. Protect flanges, fittings, and specialties from moisture and dirt.

G. Store plastic piping protected from direct sunlight. Support to prevent sagging and bending.

H. Maintain integrity of landscape drip tubing by preventing kinking. Any kinked areas should be immediately cut out and recoupled with compression coupling.

## 1.9 SITE CONDITIONS

A. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted in writing by Owner's representative and then only after arranging to provide temporary utility services according to requirements indicated.

B. Contractor shall acquaint himself with all site conditions and shall be responsible for locating and avoiding all underground utilities.

C. Contractor shall avoid causing disturbance or damage to properties and shall repair any such damages at its own expense, as directed by Owner's representative.

D. Contractor shall protect exterior plants and site improvements – including but not limited to pavings, curbs, surfacing, improved soils, utilities, etc. - from disturbance or damage due to his operations and shall repair any such damages at his own expense, as directed by Owner's representative.

E. The work area shall be kept in an orderly condition; the job site shall be kept free of trash and debris at all times.

F. Keep adjacent paving and construction clean; sweep and/or wash sidewalks, drives, and other pavements prior to leaving the site at the end of each work day.

G. Disposal: Remove surplus soil and waste material, including excavated materials, excess subsoil, unsuitable soil, trash, and debris, and legally dispose of them off-site.

## 1.10 SAFETY

A. Contractor agrees that he assumes sole responsibility for job site conditions related to his work during the course of his work, and that he shall defend, indemnify and hold the Owner, Architect and the Landscape Architect harmless from any and all liability, real or alleged, in connection with the performance of his work on this project.

B. Contractor shall be solely responsible for all measures to alert and protect the public from danger in the vicinity of holes or trenches, including but not limited to the use of: signage, barricades, flagging, temporary trench covers. Close or barricade all holes and trenches within 24" of pedestrian walkways prior to leaving the site at the end of each work day, and barricade or flag all other holes and trenches. Close trenches and holes as soon as possible.

C. All prudent safety precautions shall be taken by Contractor and its employees, including but not limited to the appropriate use of hard hats, and eye and ear protection.

## 1.11 PROJECT CONDITIONS

A. Perform site inspection and verify existing utility locations prior to excavation.

B. Investigate and determine available water supply, water pressure and flow characteristics, available electrical service for controller(s), and interior building space dedicated to irrigation piping and control, prior to irrigation system design and installation. Verify the existence of Sleeves prior to beginning construction. Immediately bring any deficiencies to the attention of Owner's representative for correction prior to beginning work.

## 1.12 MAINTENANCE PERIOD / COMMISSIONING

A. Furnish all labor, material, equipment, transportation, permits and fees, and perform all operations in connection with and reasonably incidental to maintaining the Irrigation System on a daily basis as delineated on the plan and as called for under this contract for thirty days (30 days) from date of substantial completion.

B. Set and adjust the Irrigation Controller:

1. Initially, set Controller to irrigate new turf Sod and Seed areas sufficient to establish Sod and Seed as required under Section 32 92 00 "Turf and Grasses". In general, moisten subsoil at least 4" deep, in a manner not to cause soil erosion nor damage to adjacent finished surfaces.
2. Review and adjust rotor/spray zones and drip circuits weekly, at a minimum, in response to weather conditions, root growth and progressive establishment of all Landscape plants, including Turf sod and Seeded areas.

C. At the end of the Maintenance/Commissioning period, review and adjust the Controller settings to provide the minimum water necessary to maintain irrigated landscape areas.

## 1.13 IRRIGATION SYSTEM WARRANTY PERIOD

A. Manufacturer's standard form in which manufacturer agrees to repair or replace components that fail in materials or workmanship within manufacturer's specified warranty period for each component.

B. Contractor's warranty on the complete Underground Irrigation system against defects in design, workmanship and materials - including but not limited to: breaks, leaks, insufficient backfill, and defective materials in part or in their entirety – for three full years from the date of substantial completion, unless specified otherwise for specific components for which the manufacturer provides a longer warranty period.

C. Provide autumn Winterization and Spring Start-Up throughout the Warranty period, including not less than one (1) Winterization and one (1) Spring Start-up.

1. Winterize the irrigation system in the autumn, after plants have entered dormancy and prior to freezing conditions: Shut off the water supply; open all manual drains, blow out system with pressurized air. Accomplish winterization in accordance with best management practices.
2. Start up the irrigation system in the spring, as soon as conditions permit and threat of deep freeze is past: Close all manual drains. Verify that all heads are aligned and not leaving dry

spots nor pools, nor spraying irrigation water on any walkways, paving, curbs, or buildings; adjust heads and nozzles as necessary. Accomplish all in accordance with best management practices.

D. Contractor shall inspect the completed project periodically – no less frequently than once per month throughout the Irrigation System Warranty period - to detect and correct potential problems at an early stage. Contractor shall inform the Owner's representative immediately if any problems arise which are the result of inadequate maintenance by Owner.

E. At startup of the first spring after installation, adjust the controller to provide irrigation water adequate for second-year plants, including minimal water – infrequent, deep waterings - in order to encourage deep roots.

F. At startup of the second spring after installation, adjust the controller to provide irrigation water adequate for third-year plants. Minimize watering to seeded reclamation areas, to encourage deep roots and native look.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the manufacturers specified.

### 2.2 PIPES, TUBES, AND FITTINGS

A. Install all components having pressure rating equal to or greater than system operating pressure:

B. Main Line Piping and fittings:

1. PVC: Polyvinyl chloride plastic.
2. Minimum working pressure: 150 psig.
3. ASTM D 1785, PVC 1120 compound, Schedule 40.
4. Schedule 40 PVC pipe.
5. Socket fittings ASTM D 2466, and solvent-cemented joints.
6. Solvent Cements for Joining PVC Piping: ASTM D 2564. Include primer according to ASTM F 656.

C. Circuit (or Lateral) Piping:

1. PE: Polyethylene plastic.
2. Minimum working pressure: 150 psig.
3. PE 3408 compound, controlled ID pipe.
4. Insert fittings for PE pipe; ASTM D 2609, banded or coupled joints.
5. ASTM F 771 and ASTM D 2239.

D. Underground Branches, Risers and Offsets at Sprinklers and Devices, Manual Drain piping solvents:

1. Schedule 80, PVC pipe; threaded PVC fittings; and threaded joints, or
2. PE piping manufactured specifically for this application: “swing pipe” or “funny pipe”
3. Solvent cemets for joining PVC piping: ASTM D 2564; include primer according to ASTM F 656.
4. Plastic, Pipe-Flange Gasket, Bolts and Nuts: type and material recommended by piping system manufacturer unless otherwise indicated.

## 2.3 MISCELLANEOUS PIPING SPECIALTIES

A. Sleeves: Sleeves for pipes passing beneath paving shall conform to ASTM D2241, Schedule 40. Minimum diameter of 2 inch or 2 sizes larger than pipe scheduled to pass through them.

B. Swing Joint Connections: As indicated on the drawings.

## 2.4 TRANSITION FITTINGS

A. Plastic to metal transition fittings: PVC one-piece fitting with manufacturer’s Schedule u80 equivalent dimensions, one end with threaded brass insert, and one solvent-cement socket or threaded end.

## 2.5 VALVE BOXES

A. Valve boxes shall be provided for each valve installation. No irrigation valve box shall be placed in paved areas; minimize valve boxes in lawn areas. Where possible, install valve boxes in planting beds, and not in a low spot or swale which will hold water. Align valve boxes in an orderly manner, parallel to walkways or edging where possible, and easily accessible for maintenance.

B. When used with single valve, provide standard, deep size with cover.

C. When used with 2 or more valves, provide deep Jumbo Box with cover.

D. Plastic Control-Valve Boxes: Box and cover, with open bottom and openings for piping; designed for installing flush with grade. Size as required for manifold valves and service.

E. Shape: Rectangular or round, as applicable

F. Color: Green

G. Sidewall Material: HDPE.

H. Cover Material: HDPE.

I. Available Manufacturers, or as specified by Owner:

1. Amtek
2. Rainbird

3. Carson Industries LLC

J. Drainage Backfill: Cleaned gravel or crushed stone, graded from 3/4 inch minimum to 3 inches maximum.

## 2.6 VALVES

A. Automatic Control Valves:

1. Provide valves as indicated on the drawings or approved equal.
2. Automatic Control Valves: Molded-plastic body, normally closed, diaphragm type with manual flow adjustment, and operated by 24-V ac solenoid. Manufacturer as specified by Owner.
3. Isolation Valves: PVC plastic ball valve, pressure rated 125 psi min., socket- or threaded end connections; installed within control-valve box.

## 2.7 WIRING

A. Wires to be I4-gauge decoder wire approved for underground direct burial.

B. Provide watertight connectors for valve wiring connections.

C. Comply with NFPA 70, "National Electrical Code," for electrical connections between wiring and electrically operated devices.

## 2.8 IRRIGATION COMPONENTS

A. Basis-of-Design Product: Provide the products' manufacturer, model, and style as indicated on the drawings or approved equal.

# PART 3 - EXECUTION

## 3.1 SEQUENCING AND SCHEDULING

A. Coordinate with other site work to provide timely installation.

B. Coordinate lawn sprinkler piping and sleeving with site work, utility work, and landscape installation.

C. Irrigation installation shall be sequenced as follows:

1. Working irrigation system to be installed prior to Sod or Seed installation.
2. Drip tubing to be installed around plants after plant installation and prior to mulch.
3. Test system prior to installing sod or seed.

## 3.2 PREPARATION

A. Contractor shall field-verify all aboveground and underground utilities prior to start of work.

B. Protect structures, utilities, sidewalks, pavements, subgrades, paving base courses, pavings and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by trenching operations.

C. Prevent surface water, ground water and irrigation water from entering excavations, from ponding on prepared subgrades, and from flooding project site and surrounding area.

D. Location of Sprinklers and components: Layout in the field as necessary to avoid obstructions such as trees, utilities, signs and light standards, and to avoid overspray.

E. Set stakes to identify locations of proposed irrigation system. Obtain Owner's Representative approval of valve box locations.

F. Notify Landscape Architect if significant changes to the plans have necessarily been made.

## 3.3 TRENCHING AND BACKFILLING

A. Refer to "Earthwork" specification for excavating, trenching, and backfilling:

1. Excavate trench to proper depth as shown or specified.
2. Over-excavate trenches deeper than required in soils containing rock or other hard material that might damage pipe and backfill to proper depth with selected fine earth or sand.
3. Backfill and hand tamp over-excavation prior to installing piping.
4. Keep trenches free of obstructions and debris that would damage pipe.
5. Sprinkler piping shall not be installed in the same trench as storm and sanitary sewer lines, water and gas mains.

B. Install warning tape directly above pressure piping, 12" below finished grades, 6" below subgrade under pavement and slabs.

C. Install piping and wiring in sleeves under sidewalks, curbs and other paving.

D. Restore all surfaces, existing underground installations etc damaged or cut as a result of excavations to original condition in manner approved by Owner's representatives. The contractor shall adhere to all OSHA requirements. Contractor shall open only enough trench that can be backfilled and cleaned up at end of each day. The site shall be kept clean and free of debris during entire installation.

E. Provide minimum cover over top of underground piping according to the following:

1. Main Line Piping: 18" below finished grade.
2. Circuit Piping: 12" below finished grade.
3. Sleeves: 18" below finished grade.

## 3.4 PIPING INSTALLATION

A. Location and Arrangement: Drawings indicate location and arrangement of piping systems. Layout shown is schematic, due to graphic and space constrains. Install piping as indicated with minor deviations to accommodate unforeseen site conditions.

B. Avoid locations of proposed trees, walks, and other improvements.

C. Install all systems per manufacturers' recommendations.

D. Lay piping on solid subbase, uniformly sloped without humps or depressions.

E. install piping free of sags and bends.

F. Install groups of pipes parallel to each other, spaced to permit valve servicing.

G. Install fittings for changes in direction and branch connections.

H. Install unions adjacent to valves and to final connections to other components with 2" NPS or larger pipe connection.

I. Install flanges adjacent to valves and final connections to other components with 2-1/2" NS or larger pipe connection.

J. Install dielectric fittings to connect piping of dissimilar metals.

K. Install PVC piping in dry weather when temperature is above 40 deg F. Allow joints to cure at least 24 hours at temperatures above 40 deg F before testing unless otherwise recommended by manufacturer.

L. Flush dirt and debris from piping before installing sprinklers and other devices.

## 3.5 CONNECTIONS

A. Connect piping to valves, sprinklers, and specialties.

B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.

C. Ground electric-powered controllers, valves, and devices.

D. Tighten electrical connectors and terminals according to manufacturers published torque-tightening values. If manufacturers torque values are not indicated, use those specified in UL 486A and UL 486B.

E. Arrange for electric-power connections to controllers, control valves, and devices that require power.

## 3.6 VALVE INSTALLATION

A. Control Valves: Install in underground valve box, in manifold configuration to reduce the number of valve boxes wherever possible.

B. Drain Valves: Install in underground valve boxes.

## 3.7 SPRINKLER INSTALLATION

A. Flush circuit piping with full head of water and install sprinklers after hydrostatic test is completed.

B. Install sprinklers at manufacturer's recommended heights.

C. Locate part-circle sprinklers to maintain a minimum distance of 4 inches from walls and 2 inches from other boundaries, unless otherwise indicated.

## 3.7 DRIP SYSTEM INSTALLATION

A. Multiple drip rings may be installed around the perimeter of the root ball of shrubs and trees. A grid pattern shall be used to irrigate groundcovers.

B. Anchor tubing every 2-4 feet with staples.

C. Install drip tubing with emitters spaced such that:

1. All groundcover areas served by a “grid” system of drip tubing, shall receive drip irrigation at a relative rate of 1 gph (gallon per hour) per square foot; and
2. All shrubs and trees planted under this contract receive drip irrigation at the rate indicated on the plan. Deliver the required volume of water by creating multiple rings, as necessary

## 3.8 AUTOMATIC-CONTROL SYSTEM INSTALLATION

A. Install controller in the location specified by the Owners representative..

B. Install control cable in same trench as irrigation Main Line piping. Provide conductors of size not smaller than recommended by controller manufacturer. If possible, install cable in separate sleeve under paved areas if irrigation piping is installed in sleeve.

C. Wiring inside controller and valve boxes shall be uncluttered and organized.

D. Install control wires at least 12-inches below finish grade and lay to the underside of Main Line piping.

E. Provide 10’ of looped slack at valves and snake wires in trench to allow for expansion and contraction. Allow 12” slack per 10’ run of control wire(s).

F. All wire splices shall be in a 6”-round box. Allow 12” slack for every 10’ of control wire.

G. Where control cable is not taped to Main Line, run wires in Conduit below grade.

## 3.9 LABELING AND IDENTIFYING

A. Inform operator of operational requirements, indicate safety and emergency precautions, and warn of hazards and improper operations.

B. Identify control zones inside Controller box in ink; code to match As Built.

## 3.10 FIELD QUALITY CONTROL

A. Testing: Perform the following field tests and inspections and prepare test reports:

B. Leak Test: After installation, and prior to backfilling trenches, hydrostatically test piping and valves. Piping may be tested in sections.

C. Main Line Testing: Charge main line and test for leaks. Isolate and test mainline piping with supply source static water pressure. Isolate test source and allow to stand for one hour. Note pressure change. If pressure loss is greater than 5 psi in one hour, identify the source of the leak, repair, and re-test.

D. Repair leaks and defects with new materials and retest system or portion thereof until satisfactory results are obtained.

E. Drip Grid Testing : Hydrostatically test all subsurface systems prior to covering grid with mulch. Test again prior to plant installation. Repair any leaks or defects and retest.

F. Operational Test: After electrical circuitry has been energized, operate controllers and automatic control valves to confirm proper system operation.

G. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

H. Remove and replace any components that fail tests and retest as specified above.

## 3.11 CLEANING AND ADJUSTING

A. Flush dirt and debris from piping before installing sprinklers and other devices.

B. Adjust automatic control valves to provide flow rate of rated operating pressure required for each sprinkler circuit.

C. Carefully adjust lawn sprinklers so they will be flush with finish grade.

D. Valve boxes shall be adjusted to be flush with final grade. Refer to construction drawing examples. Piping and wiring must not require the use of valve box extensions to properly protect the control valve.

E. Adjust settings of controller. Set timer to appropriately support and maintain new plantings, including newly seeded areas for best germination. Adjust timer periodically as necessary to accommodate growing plants.

## 3.13 COMMISSIONING

A. Starting Procedures: Follow manufacturers written procedures. If no procedures are prescribed by manufacturers, proceed as follows:

1. Verify that specialty valves and their accessories are installed and operate correctly.
2. Verify that specified tests of piping are complete.
3. Verify that sprinklers and devices are correct type.
4. Verify that damaged sprinklers and devices are replaced with new materials.
5. Verify that potable-water supply connections have backflow preventers.
6. Energize circuits to electrical equipment and devices.
7. Adjust operating controls.
8. Operational Tests: Measure and record water flow rate and area coverage at each sprinkler. Adjust to achieve indicated values.
9. Schedule qualified personnel to train Owner's assigned personnel to adjust, operate, and maintain controller and automatic control valves.

## 3.14 SUBSTANTIAL COMPLETION

A. Provide seven-days advance written notice of on-site working demonstration of the fully functioning Irrigation system.

B. Demonstrate to Owner’s maintenance personnel operation of equipment, sprinklers, specialties, and accessories:

1. Operate the system, demonstrate that all components are fully functional.
2. Review maintenance information.
3. Provide Owner 3 copies of the maintenance instructions, As-Built Plan, wire color and zone diagram, controller operation manual, written warranty and contact numbers for any service or warranty work.

C. The successful demonstration shall conclude with the Owner’s acceptance of the operational Underground Irrigation System. Acceptance shall mark the beginning of the 30-day Maintenance/Commissioning and three-year Warranty period.

END OF SECTION

SECTION 32 92 00 - TURF AND GRASSES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Turf Grass Seed and Sod
2. Native Meadow Seed and other mixes

B. Related Sections:

1. Division 32 Section "Underground Landscape Irrigation System" for turf irrigation.
2. Division 32 Section "Plants".

1.3 DEFINITIONS

A. Finish Grade: Elevation of finished surface of planting soil.

B. Manufactured Topsoil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.

C. Native Topsoil (Existing Surface Soils): Soil that is present at the top layer (typically the top 6”) of the existing soil profile at the Project site. Approximately 28,000 cy of material has been stockpiled on site from Phase 1 site clearing. In undisturbed areas, the surface soil is typically topsoil, but in disturbed areas the surface soil can be subsoil.

D. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. This includes insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. It also includes substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.

E. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. These include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.

F. Planting Soil: Standardized topsoil; existing, native surface topsoil; existing, in-place surface soil; imported topsoil; or manufactured topsoil that is modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.

G. Subgrade: Surface or elevation of subsoil remaining after excavation is complete, or top surface of a fill or backfill before planting soil is placed.

H. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.

## 1.4 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Pesticides and Herbicides: Include product label and manufacturer's application instructions specific to this Project.

C. Seed mixtures for Turf Grass and Meadow Grass mixes stating the botanical and common name and percentage by weight of each species and variety.

D. Certification of Grass Seed: From seed vendor for each grass-seed monostand or mixture stating the botanical and common name, percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.

E. Qualification Data: Submit a brief statement of the installer’s qualifications and experience for similar installations of this size and scope. Include any certifications or affiliations relevant to turf seeding and sod installation.

F. Product Certificates: For soil amendments and fertilizers, from manufacturer.

G. Material Test Reports: For standardized ASTM D 5268 topsoil, existing native surface topsoil, existing in-place surface soil, and imported or manufactured topsoil.

H. Maintenance Instructions: Recommended procedures to be established by Owner for maintenance of turf and meadows during a calendar year. Submit before expiration of required initial maintenance periods.

## 1.5 QUALITY ASSURANCE

A. Installer Qualifications: A qualified landscape Installer whose work has resulted in successful turf and meadow establishment and native reclamation.

1. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.
2. Pesticide Applicator: State licensed, commercial.

B. Soil-Testing Laboratory Qualifications: An independent laboratory or university laboratory, recognized by the State Department of Agriculture, with the experience and capability to conduct the testing indicated and that specializes in types of tests to be performed.

C. Soil Analysis: For each unamended soil type, furnish soil analysis and a written report by a qualified soil-testing laboratory stating percentages of organic matter; gradation of sand, silt, and

clay content; cation exchange capacity; deleterious material; pH; and mineral and plant-nutrient content of the soil.

1. Testing methods and written recommendations shall comply with USDA's Handbook No. 60.
2. The soil-testing laboratory shall direct soil sampling, with depth, location, and number of samples to be taken. A minimum of three representative samples shall be taken from varied locations for each soil to be used or amended for planting purposes.
3. Report suitability of tested soil for establishment and growth of turf grass, meadow grasses, and reclamation mixes.

    a. Based on the test results, state recommendations for soil treatments and soil amendments to be incorporated. State recommendations in weight per 1000 sq. ft. or volume per cu. yd. for nitrogen, phosphorus, and potash nutrients and soil amendments to be added to produce satisfactory planting soil suitable for healthy, viable plants.
    b. Report presence of problem salts, minerals, or heavy metals, including aluminum, arsenic, barium, cadmium, chromium, cobalt, lead, lithium, and vanadium. If such problem materials are present, provide additional recommendations for corrective action.

D. Preinstallation Conference: Conduct conference at Project site, see section 01 31 00.

## 1.6 DELIVERY, STORAGE, AND HANDLING

A. Seed and Other Packaged Materials:

1. Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of conformance with state and federal laws, as applicable.
2. If the storage of seed is necessary, store in a cool, dry, dark place. Do not allow moisture to enter, nor to build up inside, storage containers.

B. Sod:

1. Harvest, deliver, store and handle sod according to requirements in “Specifications for Turfgrass Sod Materials” and “Specifications for Turfgrass Sod Transplanting and Installation” in TPI’s “Guideline Specifications to Turfgrass Sodding.”
2. Deliver sod in time for planting within 24 hours of harvesting.
3. Protect sod from breakage and drying.

C. Bulk Materials:

1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
2. Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
3. Accompany each delivery of bulk fertilizers and soil amendments with appropriate certificates.

## 1.7 PROJECT CONDITIONS

A. Planting Restrictions: Coordinate planting periods with initial maintenance periods to provide required maintenance from date of Substantial Completion.

B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions.

## 1.8 MAINTENANCE SERVICE

A. Initial Turf Maintenance Service: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after each area is planted and continue until acceptable vegetation is established but for not less than 1 year from substantial completion.

# PART 2 - PRODUCTS

## 2.1 TURF GRASS SEED

A. Grass Seed: Fresh, clean, dry, new-crop seed complying with AOSA's "Journal of Seed Technology; Rules for Testing Seeds" for purity and germination tolerances.

B. Seed Species: Seed of grass species as follows, with not less than 95 percent germination, not less than 85 percent pure seed, and not more than 0.5 percent weed seed:

1. 80 percent Kentucky bluegrass (Poa pratensis), a minimum of three cultivars suitable for general lawn areas and adaptable to the local climate and elevation .
2. 20 percent perennial ryegrass (Lolium perenne).

## 2.2 TURF GRASS SOD

A. Certified premium quality, complying with “Specifications for Turfgrass Sod Materials” in TPI’s “Guideline Specifications to Turfgrass Sodding.”

B. Furnish viable sod of uniform density, color, and texture, strongly rooted, and capable of vigorous growth and development when planted.

C. Turfgrass Species:

1. Kentucky Bluegrass (*Poa pratensis*), a minimum of three cultivars suitable for general lawn areas and adaptable to the local climate and elevation.

## 2.3 NATIVE MEADOW GRASSES

A. Native Grass Seed: As indicated on plan

## 2.4 INORGANIC SOIL AMENDMENTS

A. General: Any of these amendments may be required if recommended by soil analysis.

B. Lime: ASTM C 602, agricultural liming material containing a minimum of 80 percent calcium carbonate equivalent and as follows:

1. Class: O, with a minimum of 95 percent passing through No. 8 sieve and a minimum of 55 percent passing through No. 60 sieve.

C. Sulfur: Granular, biodegradable, containing a minimum of 90 percent sulfur, and with a minimum of 99 percent passing through No. 6 sieve and a maximum of 10 percent passing through No. 40 sieve.

D. Iron Sulfate: Granulated ferrous sulfate containing a minimum of 20 percent iron and 10 percent sulfur.

E. Aluminum Sulfate: Commercial grade, unadulterated.

F. Perlite: Horticultural perlite, soil amendment grade.

G. Agricultural Gypsum: Minimum 90 percent calcium sulfate, finely ground with 90 percent passing through No. 50 sieve.

H. Sand: Clean, washed, natural or manufactured, and free of toxic materials.

I. Diatomaceous Earth: Calcined, 90 percent silica, with approximately 140 percent water absorption capacity by weight.

J. Zeolites: Mineral clinoptilolite with at least 60 percent water absorption by weight.

## 2.5 ORGANIC SOIL AMENDMENTS

A. General: Any of these amendments may be required if recommended by soil analysis.

B. Compost: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through a 3/4-inch sieve; soluble salt content of 5 to 10 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings.

C. Sphagnum Peat: Partially decomposed sphagnum peat moss, finely divided or of granular texture, with a pH range of 3.4 to 4.8.

D. Muck Peat: Partially decomposed moss peat, native peat, or reed-sedge peat, finely divided or of granular texture, with a pH range of 6 to 7.5, and having a water-absorbing capacity of 1100 to 2000 percent.

E. Wood Derivatives: Decomposed, nitrogen-treated sawdust, ground bark, or wood waste; of uniform texture and free of chips, stones, sticks, soil, or toxic materials.

F. Manure: Well-rotted, unleached, stable or cattle manure containing not more than 25 percent by volume of straw, sawdust, or other bedding materials; free of toxic substances, stones, sticks, soil, weed seed, and material harmful to plant growth.

## 2.6 FERTILIZERS

A. General: Any of these amendments may be required if recommended by soil analysis.

B. Bonemeal: Commercial, raw or steamed, finely ground; a minimum of 1 percent nitrogen and 10 percent phosphoric acid.

C. Superphosphate: Commercial, phosphate mixture, soluble; a minimum of 20 percent available phosphoric acid.

D. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:

1. Composition: 1 lb/1000 sq. ft. of actual nitrogen, 4 percent phosphorous, and 2 percent potassium, by weight, or as recommended in soil reports from a qualified soil-testing laboratory.

E. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:

1. Composition: 20 percent nitrogen, 10 percent phosphorous, and 10 percent potassium, by weight, or as recommended in soil reports from a qualified soil-testing laboratory.

## 2.7 PLANTING SOILS

A. Turf Grass Planting Soils:

1. Planting Soil: ASTM D 5268 topsoil, with pH range of 5.5 to 7, a minimum of 2 percent organic material content; free of stones 1 inch or larger in any dimension and other extraneous materials harmful to plant growth. Mix ASTM D 5268 topsoil with organic and inorganic soil amendments as required to produce planting soil.

2. Planting Soil from existing, native surface topsoil formed under natural conditions with the duff layer retained during excavation process and stockpiled on-site. Verify suitability of stockpiled native surface topsoil to produce viable planting soil. Clean soil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.

    a. Supplement with imported or manufactured planting soil when quantities are insufficient.
    b. Mix existing, native surface topsoil with organic and inorganic soil amendments as required to produce planting soil.

3. Planting Soil from existing, stockpiled or in-place surface soil. Verify suitability of existing surface soil to produce viable planting soil. Remove stones, roots, plants, sod,

clods, clay lumps, pockets of coarse sand, concrete slurry, concrete layers or chunks, cement, plaster, building debris, and other extraneous materials harmful to plant growth. Mix surface soil with organic and inorganic soil amendments as required to produce planting soil.

4. Planting Soil from imported topsoil or manufactured topsoil from off-site sources. Obtain topsoil displaced from naturally well-drained construction or mining sites where topsoil occurs at least 4 inches deep; do not obtain from bogs or marshes.

    a. Additional Properties of Imported Topsoil or Manufactured Topsoil: Screened and free of stones 1 inch or larger in any dimension; free of roots, plants, sod, clods, clay lumps, pockets of coarse sand, paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, building debris, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, acid, and other extraneous materials harmful to plant growth; free of noxious weeds and invasive plants including quackgrass, Johnsongrass, poison ivy, nutsedge, nimblewill, Canada thistle, bindweed, bentgrass, wild garlic, ground ivy, perennial sorrel, and bromegrass; not infested with nematodes, grubs, other pests, pest eggs, or other undesirable organisms and disease-causing plant pathogens; friable and with sufficient structure to give good tilth and aeration. Continuous, air-filled, pore-space content on a volume/volume basis shall be at least 15 percent when moisture is present at field capacity. Soil shall have a field capacity of at least 15 percent on a dry weight basis.

    b. Mix imported topsoil or manufactured topsoil with organic and inorganic soil amendments as required to produce planting soil.

B. Native Meadow Seed Area Planting Soils.

1. Planting soil for these areas will come from salvaged and stockpiled native surface soils. Remove stones, roots, plants, sod, clods, clay lumps, concrete slurry, concrete layers or chunks, cement, plaster, building debris, and other extraneous materials harmful to plant growth. No soil amendments are required.
2. If native surface soil stockpiles are of insufficient quantity to fulfill planting/seed bed preparation requirements, then it will be necessary to import weed-free topsoil or engineer suitable planting soil out of a compost/subsoil/mycorrhizal inoculum blend.

## 2.8 MULCHES

A. Straw Mulch: Provide air-dry, clean, mildew- and seed-free, salt hay or threshed straw of wheat, rye, oats, or barley.

B. Compost Mulch: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through a 1-inch sieve; soluble salt content of 2 to 5 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:

1. Organic Matter Content: 50 to 60 percent of dry weight.

C. Fiber Mulch: Biodegradable, dyed-wood, cellulose-fiber mulch; nontoxic and free of plant-growth or germination inhibitors; with a maximum moisture content of 15 percent and a pH range of 4.5 to 6.5.

D. Nonasphaltic Tackifier: Colloidal tackifier recommended by fiber-mulch manufacturer for slurry application; nontoxic and free of plant-growth or germination inhibitors.

## 2.9 PESTICIDES / HERBICIDES

A. General: Pesticide, registered and approved by EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.

B. Pre-Emergent Herbicide (Selective and Non-Selective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer.

C. Post-Emergent Herbicide (Selective and Non-Selective): Effective for controlling weed growth that has already germinated.

# PART 3 - EXECUTION

## 3.1 EXAMINATION

A. Examine areas to be planted for compliance with requirements and other conditions affecting performance.

1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
2. Do not mix or place soils and soil amendments in frozen, wet, or muddy conditions.
3. Suspend soil spreading, grading, and tilling operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
4. Uniformly moisten excessively dry soil that is not workable and which is too dusty.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Owner and replace with new planting soil.

## 3.2 PROTECTION

A. Protect structures, utilities, sidewalks, pavements, and other facilities, trees, shrubs, and plantings from damage caused by planting operations.

1. Protect grade stakes set by others until directed to remove them.

B. Install erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

## 3.3 TURF GRASS AREAS

A. Turf Grass Area Preparation

1. Limit turf subgrade preparation to areas to be planted.

2. Newly Graded Subgrades: Loosen subgrade to a minimum depth of 6 inches. Remove stones larger than 1-1/2 inches in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.

    a. Apply superphosphate fertilizer if recommended by the soil analysis directly to subgrade before loosening.
    b. Spread topsoil, apply soil amendments and fertilizer on surface, and thoroughly blend planting soil.
        1) Delay mixing fertilizer with planting soil if planting will not proceed within a few days.
    c. Spread planting soil to a depth of 6-inches but not less than required to meet finish grades after light rolling and natural settlement. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.
        1) Spread approximately 1/2 the thickness of planting soil over loosened subgrade. Mix thoroughly into top 2-inches of subgrade. Spread remainder of planting soil.

3. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Grade to within plus or minus 1/2 inch of finish elevation. Roll and rake, remove ridges, and fill depressions to meet finish grades. Limit finish grading to areas that can be planted in the immediate future.

4. Moisten prepared area before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.

5. Before planting, verify finish grades and restore planting areas if eroded or otherwise disturbed after finish grading.

B. Turf Grass Seeding

1. Plant during one of the following periods:

    a. Spring planting: May 1 – June 30
    b. Fall Planting: August 15 – September 15

2. Sow seed with spreader or seeding machine. Do not broadcast or drop seed when wind velocity exceeds 5 mph. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.

    a. Do not use wet seed or seed that is moldy or otherwise damaged.
    b. Do not seed against trees. Limit extent of seed to outside edge of planting saucer.

3. Sow seed at a total rate of 4 to 5 lb/1000 sq. ft..

4. Rake seed lightly into top 1/8 inch of soil, roll lightly, and water with fine spray.

5. Protect seeded areas with slopes not exceeding 1:6 by spreading straw mulch. Spread uniformly at a minimum rate of 2 tons/acre to form a continuous blanket 1-1/2 inches in loose thickness over seeded areas. Spread by hand, blower, or other suitable equipment.

    a. Anchor straw mulch by crimping into soil with suitable mechanical equipment.

6. Protect seeded areas from hot, dry weather or drying winds by applying a thin layer of compost mulch or planting soil within 24 hours after completing seeding operations. Soak areas, scatter mulch uniformly to a thickness of 3/16 inch, and roll surface smooth.

A. Turf Grass Sodding

1. Lay sod within 24 hours of harvesting. Do not lay sod if dormant or if ground is frozen or muddy.
2. Remove any backing or mesh prior to placing sod.
3. Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod; do not stretch or overlap. Stagger sod strips or pads to offset joints in adjacent courses. Avoid damage to subgrade or sod during installation. Tamp and roll lightly to ensure contact with subgrade, eliminate air pockets, and form a smooth surface. Work sifted soil or fine sand into minor cracks between pieces of sod; remove excess to avoid smothering sod and adjacent grass.

    a. Lay sod across angle of slopes exceeding 1:3.
    b. Anchor sod on slopes exceeding 1:6 with wood pegs[ or steel staples] spaced as recommended by sod manufacturer but not less than 2 anchors per sod strip to prevent slippage.
    c. Saturate sod with fine water spray within two hours of planting. During first week after planting, water daily or more frequently as necessary to maintain moist soil to a minimum depth of 1 ½".

B. Turf Grass Maintenance

1. Maintain and establish turf by watering, fertilizing, weeding, mowing, trimming, replanting, and performing other operations as required to establish healthy, viable turf. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth turf. Provide materials and installation the same as those used in the original installation.

    a. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace materials and turf damaged or lost in areas of subsidence.
    b. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch and anchor as required to prevent displacement.
    c. Apply treatments as required to keep turf and soil free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards.

2. Watering: Watering shall be done by an automatic irrigation system. The contractor shall verify with the owner appropriate watering practices with irrigation system throughout the maintenance period.

    a. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch.
    b. Water turf as necessary to keep turf uniformly moist to a depth of 4-inches.

3. Mow turf as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than 1/3 of grass height. Remove no more than 1/3 of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Schedule initial and subsequent mowings to maintain the following grass height:

    a. Mow Kentucky bluegrass to a height of 1-1/2 to 2 inches.

4. Turf Postfertilization: Apply fertilizer after initial mowing and when grass is dry.

    a. Use fertilizer that will provide actual nitrogen of at least 1 lb/1000 sq. ft. to turf area.

C. Satisfactory Turf

1. Turf installations shall meet the following criteria as determined by Owner:

    a. Satisfactory Seeded Turf: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. and bare spots not exceeding 5 by 5 inches.
    b. Satisfactory Sodded Turf: At end of maintenance period, a healthy, well-rooted, even-colored, viable turf has been established, free of weeds, open joints, bare areas, and surface irregularities

2. Use specified materials to reestablish turf that does not comply with requirements and continue maintenance until turf is satisfactory.

## 3.4 NATIVE MEADOW SEED AREAS

A. Meadow Area Preparation

1. Limit subgrade preparation to areas to be planted.

2. Newly Graded Subgrades: The subgrade shall be graded to approximately 6 inches below finished grade. Loosen or scarify subgrade to a minimum depth of 6 inches.

    a. A minimum of 6 inches of stockpiled native surface soil shall be applied to the meadow areas to meet finish grades. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.
        1) If native surface soil stockpiles are insufficient to provide the minimum thickness, then it will be necessary to import weed-free topsoil or engineer suitable planting soil out of a compost/subsoil/mycorrhizal inoculum blend.

2) Care shall be taken to keep the nutrient composition to a minimum so as not to encourage weed growth.

b. Once applied, planting soils should be left in a roughened state. The resulting seed bed should be firm but not compacted. Topsoil shall not be track-walked with heavy equipment due the resulting soil compaction and detrimental effects on growing conditions.

3. Unchanged Subgrades: If native meadow areas are to be established in areas unaltered or undisturbed by excavating, grading, or surface-soil stripping operations, no soil preparation will be necessary except for that required to facilitate interseeding with a drill seeder (e.g., large rock).

B. Native Meadow Area Seeding

1. Plant Meadow Area seed mix during one of the following periods:

a. Spring planting: May 1 – June 30
b. Fall Planting: August 15 – September 15

2. Sow Seed with spreader or seeding machine. Do not broadcast or drop seed when wind velocity exceeds 5 mph. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.

a. Sow seed at a total rate of 2 lb/1000sf.

3. Do not use wet seed or seed that is moldy or otherwise damaged.

4. Drag, press, rake or harrow grass seed into top 1/16 inch of soil, roll lightly, and water with fine spray.

5. Water newly planted areas and keep moist until Reclamation Areas are established

C. Native Meadow Grass Maintenance

1. Maintain and establish meadow by watering, weeding, mowing, trimming, replanting, and performing other operations as required to establish a healthy, viable meadow. Roll, regrade, and replant bare or eroded areas and remulch. Provide materials and installation the same as those used in the original installation.

a. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace materials and meadow damaged or lost in areas of subsidence.
b. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch and anchor as required to prevent displacement.
c. Apply treatments as required to keep meadow and soil free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards

2. Watering: Watering shall be done by an automatic irrigation system. The contractor shall verify with the owner appropriate watering practices for each type of planting with irrigation system throughout the maintenance period.

a. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch.
b. Water native grasses and as necessary to keep meadow and wildflower areas uniformly moist

## 3.5 PESTICIDE / HERBICIDE APPLICATION

A. Apply pesticides and other chemical products and biological control agents in accordance with requirements of authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.

B. Post-Emergent Herbicides (Selective and Non-Selective): Apply only as necessary to treat already-germinated weeds and in accordance with manufacturer's written recommendations.

## 3.6 CLEANUP AND PROTECTION

A. Promptly remove soil and debris created by turf work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.

B. Erect temporary fencing or barricades and warning signs as required to protect newly planted areas from traffic. Maintain fencing and barricades throughout initial maintenance period and remove after plantings are established.

C. Remove nondegradable erosion-control measures after grass establishment period.

END OF SECTION 32 92 00

SECTION 32 93 00 - PLANTS

PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

## 1.2 SUMMARY

A. Section Includes:

1. Plants (trees, shrubs, groundcovers, and perennials).
2. Planting soils.
3. Tree stabilization.
4. Mulches.
5. Weed Control Barriers.
6. Landscape Edgings

B. Related Sections:

1. Division 32 Section "Underground Landscape Irrigation System" for plant irrigation.
2. Division 32 Section "Turf and Grasses" for turfgrass.

## 1.3 DEFINITIONS

A. Backfill: The earth used to replace or the act of replacing earth in an excavation.

B. Balled and Burlapped Stock: Plants dug with firm, natural balls of earth in which they were grown, with ball size not less than diameter and depth recommended by ANSI Z60.1 for type and size of plant required; wrapped with burlap, tied, rigidly supported, and drum laced with twine with the root flare visible at the surface of the ball as recommended by ANSI Z60.1.

C. Container-Grown Stock: Healthy, vigorous, well-rooted plants grown in a container, with a well-established root system reaching sides of container and maintaining a firm ball when removed from container but not so dense that the plant has become root bound. Container shall be rigid enough to hold ball shape and protect root mass during shipping and be sized according to ANSI Z60.1 for type and size of plant required.

D. Duff Layer: The surface layer of native topsoil that is composed of mostly decayed leaves, twigs, and detritus.

E. Finish Grade: Elevation of finished surface of planting soil.

F. Manufactured Topsoil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.

G. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. This includes insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. It also includes substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.

H. Pests: Living organisms that occur where they are not desired, or that cause damage to plants, animals, or people. These include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.

I. Planting Area: Areas to be planted.

J. Planting Soil: Standardized topsoil; existing, native surface topsoil; existing, in-place surface soil; imported topsoil; or manufactured topsoil that is modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.

K. Plant; Plants; Plant Material: These terms refer to vegetation in general, including trees, shrubs, vines, ground covers, ornamental grasses, bulbs, corms, tubers, or herbaceous vegetation.

L. Root Flare: Also called "trunk flare." The area at the base of the plant's stem or trunk where the stem or trunk broadens to form roots; the area of transition between the root system and the stem or trunk.

M. Stem Girdling Roots: Roots that encircle the stems (trunks) of trees below the soil surface.

N. Subgrade: Surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.

O. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.

P. Surface Soil: Soil that is present at the top layer of the existing soil profile at the Project site. In undisturbed areas, the surface soil is typically topsoil; but in disturbed areas such as urban environments, the surface soil can be subsoil.

## 1.4 SUBMITTALS

A. Product Data: For each type of product indicated, including soils.

1. Plant Materials: Include quantities, sizes, quality, and sources for plant materials.
2. Pesticides and Herbicides: Include product label and manufacturer's application instructions specific to the Project.
3. Weed Control Barrier: Include manufacturer’s product data and installation instructions.
4. Landscape Edging: Include manufacturer’s product data and installation instructions.

B. Samples for Verification: For each of the following:

1. Organic Mulch: 1-quart volume of each organic mulch required; in sealed plastic bags labeled with composition of materials by percentage of weight and source of mulch. Each Sample shall be typical of the lot of material to be furnished; provide an accurate representation of color, texture, and organic makeup.

2. Mineral Mulch (river rock mulch): 2 pounds of each mineral mulch required, in sealed plastic bags labeled with source of mulch. Sample shall be typical of the lot of material to be delivered and installed on the site; provide an accurate indication of color, texture, and makeup of the material.
3. Landscape Boulders: Submit photographs of typical boulders to be used.

C. Qualification Data: For qualified landscape Installer.

D. Product Certificates: For each type of manufactured product, from manufacturer, and complying with the following:

1. Manufacturer's certified analysis of standard products.
2. Analysis of other materials by a recognized laboratory made according to methods established by the Association of Official Analytical Chemists, where applicable.

E. Material Test Reports: For standardized ASTM D 5268 topsoil, existing in-place surface soil, and imported or manufactured topsoil.

F. Maintenance Instructions: Recommended procedures to be established by Owner for maintenance of plants during a calendar year. Submit before start of required maintenance periods.

G. Warranty: Sample of special warranty.

## 1.5 QUALITY ASSURANCE

A. Installer Qualifications: A qualified landscape Installer whose work has resulted in successful establishment of plants in a minimum of 5 projects of similar size and scope.

1. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.
2. Pesticide Applicator: State licensed, commercial.

B. Soil-Testing Laboratory Qualifications: An independent or university laboratory, recognized by the State Department of Agriculture, with the experience and capability to conduct the testing indicated and that specializes in types of tests to be performed.

C. Soil Analysis: For each unamended soil type, furnish soil analysis and a written report by a qualified soil-testing laboratory stating percentages of organic matter; gradation of sand, silt, and clay content; cation exchange capacity; sodium absorption ratio, deleterious material; pH; and mineral and plant-nutrient content of the soil.

1. Testing methods and written recommendations shall comply with USDA's Handbook No. 60.
2. The soil-testing laboratory shall direct soil sampling; with depth, location, and number of samples to be taken. A minimum three representative samples shall be taken from varied locations for each soil to be used or amended for planting purposes.
3. Report suitability of tested soil for plant growth.

a. Based upon the test results, state recommendations for soil treatments and soil amendments to be incorporated. State recommendations in weight per 1000 sq. ft. or volume per cu. yd. for nitrogen, phosphorus, and potash nutrients and soil amendments to be added to produce satisfactory planting soil suitable for healthy, viable plants.
b. Report presence of problem salts, minerals, or heavy metals, including aluminum, arsenic, barium, cadmium, chromium, cobalt, lead, lithium, and vanadium. If such problem materials are present, provide additional recommendations for corrective action.

D. Provide quality, size, genus, species, and variety of plants indicated, complying with applicable requirements in ANSI Z60.1.

E. Measurements: Measure according to ANSI Z60.1. Do not prune to obtain required sizes.

1. Trees and Shrubs: Measure with branches and trunks or canes in their normal position. Take height measurements from or near the top of the root flare for field-grown stock and container grown stock. Measure main body of tree or shrub for height and spread; do not measure branches or roots tip to tip. Take caliper measurements 6 inches above the root flare for trees up to 4-inch caliper size, and 12 inches above the root flare for larger sizes.
2. Other Plants: Measure with stems, petioles, and foliage in their normal position.

F. Plant Material Observation: Landscape Architect may observe plant material either at place of growth or at site before planting for compliance with requirements for genus, species, variety, cultivar, size, and quality. Landscape Architect retains right to observe trees and shrubs further for size and condition of balls and root systems, pests, disease symptoms, injuries, and latent defects and to reject unsatisfactory or defective material at any time during progress of work. Remove rejected trees or shrubs immediately from Project site.

G. Preinstallation Conference: Conduct conference at Project site, see Division 01.

## 1.6 DELIVERY, STORAGE, AND HANDLING

A. Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of conformance with state and federal laws if applicable.

B. Bulk Materials:

1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
2. Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
3. Accompany each delivery of bulk fertilizers and soil amendments with appropriate certificates.

C. Do not prune trees and shrubs before delivery. Protect bark, branches, and root systems from sun scald, drying, wind burn, sweating, whipping, and other handling and tying damage. Do not bend

or bind-tie trees or shrubs in such a manner as to destroy their natural shape. Provide protective covering of plants during shipping and delivery. Do not drop plants during delivery and handling.

D. Handle planting stock by root ball.

E. Deliver plants after preparations for planting have been completed, and install immediately. If planting is delayed more than six hours after delivery, set plants and trees in their appropriate aspect (sun, filtered sun, or shade), protect from weather and mechanical damage, and keep roots moist.

1. Set balled stock on ground and cover ball with soil, peat moss, sawdust, or other acceptable material.
2. Do not remove container-grown stock from containers before time of planting.
3. Water root systems of plants stored on-site deeply and thoroughly with a fine-mist spray. Water as often as necessary to maintain root systems in a moist, but not overly-wet condition.

F. Apply antidesiccant to trees and shrubs using power spray to provide an adequate film over trunks (before wrapping), branches, stems, twigs, and foliage to protect during digging, handling, and transportation.
1. If deciduous trees or shrubs are moved in full leaf, spray with antidesiccant at nursery before moving and again two weeks after planting.

## 1.7 PROJECT CONDITIONS

A. Field Measurements: Verify actual grade elevations, service and utility locations, irrigation system components, and dimensions of plantings and construction contiguous with new plantings by field measurements before proceeding with planting work.

B. Interruption of Existing Services or Utilities: Do not interrupt services or utilities to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary services or utilities according to requirements indicated:

1. Notify Owner no fewer than two days in advance of proposed interruption of each service or utility.
2. Do not proceed with interruption of services or utilities without Owner's written permission.

C. Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with maintenance periods to provide required maintenance from date of Substantial Completion.

1. May 1 to October 15.

D. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions and warranty requirements.

E. Coordination with Turf Areas: Plant trees, shrubs, and other plants after finish grades are established and before planting turf areas unless otherwise indicated.

1. When planting trees, shrubs, and other plants after planting turf areas, protect turf areas, and promptly repair damage caused by planting operations.

## 1.8 WARRANTY

A. Special Warranty: Installer agrees to repair or replace plantings and accessories that fail in materials, workmanship, or growth within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Death and unsatisfactory growth, except for defects resulting from abuse, lack of adequate maintenance, or neglect by Owner, or incidents that are beyond Contractor's control.
b. Structural failures including plantings falling or blowing over.
c. Faulty performance of tree stabilization, root barriers, or edgings.
d. Deterioration of metals, metal finishes, and other materials beyond normal weathering.

2. Warranty Periods from Date of Substantial Completion:

a. All plants: 24 months.

3. Include the following remedial actions as a minimum:

a. Immediately remove dead plants and replace unless required to plant in the succeeding planting season.
b. Replace plants that are more than 25 percent dead or in an unhealthy condition at end of warranty period.
c. A limit of one replacement of each plant will be required except for losses or replacements due to failure to comply with requirements.
d. Provide extended warranty for period equal to original warranty period, for replaced plant material.

## 1.9 MAINTENANCE SERVICE

A. Initial Maintenance Service for all plants: Provide maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after plants are installed and continue until plantings are acceptably healthy and well established but for not less than maintenance period below.

1. Maintenance Period: 12 months from date of Substantial Completion.

B. Prepare a six month and a one year landscape inspection report to document the condition of plantings and any maintenance concerns.

PART 2 - PRODUCTS

## 2.1 PLANT MATERIAL

A. General: Furnish nursery-grown plants true to genus, species, variety, cultivar, stem form, shearing, and other features indicated in Plant Schedule or Plant Legend shown on drawings and complying with ANSI Z60.1; and with healthy root systems developed by transplanting or root pruning. Provide well-shaped, fully branched, healthy, vigorous stock, densely foliated when in leaf and free of disease, pests, eggs, larvae, and defects such as knots, sun scald, injuries, abrasions, and disfigurement.

1. Trees with damaged, crooked, or multiple leaders; tight vertical branches where bark is squeezed between two branches or between branch and trunk ("included bark"); crossing trunks; cut-off limbs more than 3/4 inch in diameter; or with stem girdling roots will be rejected.
2. Collected Stock: Do not use plants harvested from the wild, from native stands, from an established landscape planting, or not grown in a nursery unless otherwise indicated.

B. Provide plants of sizes, grades, and ball or container sizes complying with ANSI Z60.1 for types and form of plants required. Plants of a larger size may be used if acceptable to Landscape Architect, with a proportionate increase in size of roots or balls.

C. Root-Ball Depth: Furnish trees and shrubs with root balls measured from top of root ball, which shall begin at root flare according to ANSI Z60.1. Root flare shall be visible before planting.

D. Labeling: Label at least one plant of each variety, size, and caliper with a securely attached, waterproof tag bearing legible designation of common name and full scientific name, including genus and species. Include nomenclature for hybrid, variety, or cultivar, if applicable for the plant as shown on Drawings.

E. If formal arrangements or consecutive order of plants is shown on Drawings, select stock for uniform height and spread, and number the labels to assure symmetry in planting.

## 2.2 INORGANIC SOIL AMENDMENTS

A. General: Any of these amendments may be required if recommended by soil analysis.

B. Lime: ASTM C 602, agricultural liming material containing a minimum of 80 percent calcium carbonate equivalent and as follows:
1. Class: O, with a minimum of 95 percent passing through No. 8 sieve and a minimum of 55 percent passing through No. 60 sieve.

C. Sulfur: Granular, biodegradable, and containing a minimum of 90 percent sulfur, with a minimum of 99 percent passing through No. 6 sieve and a maximum of 10 percent passing through No. 40 sieve.

D. Iron Sulfate: Granulated ferrous sulfate containing a minimum of 20 percent iron and 10 percent sulfur.

E. Aluminum Sulfate: Commercial grade, unadulterated.

F. Perlite: Horticultural perlite, soil amendment grade.

G. Agricultural Gypsum: Minimum 90 percent calcium sulfate, finely ground with 90 percent passing through No. 50 sieve.

H. Sand: Clean, washed, coarse textured, natural or manufactured, and free of toxic materials.

I. Diatomaceous Earth: Calcined, 90 percent silica, with approximately 140 percent water absorption capacity by weight.

J. Zeolites: Mineral clinoptilolite with at least 60 percent water absorption by weight.

## 2.3 ORGANIC SOIL AMENDMENTS

A. General: Any of these amendments may be required if recommended by soil analysis.

B. Compost: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 3/4-inch sieve; soluble salt content of 5 to 10 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:

1. Organic Matter Content: 50 to 60 percent of dry weight.

C. Sphagnum Peat: Partially decomposed sphagnum peat moss, finely divided or granular texture, with a pH range of 3.4 to 4.8.

D. Muck Peat: Partially decomposed moss peat, native peat, or reed-sedge peat, finely divided or of granular texture, with a pH range of 6 to 7.5, and having a water-absorbing capacity of 1100 to 2000 percent.

E. Wood Derivatives: Decomposed, nitrogen-treated sawdust, ground bark, or wood waste; of uniform texture and free of chips, stones, sticks, soil, or toxic materials.

F. Manure: Well-rotted, unleached, stable or cattle manure containing not more than 25 percent by volume of straw, sawdust, or other bedding materials; free of toxic substances, stones, sticks, soil, weed seed, debris, and material harmful to plant growth.

## 2.4 FERTILIZERS

A. General: Any of these amendments may be required if recommended by soil analysis.

B. Bonemeal: Commercial, raw or steamed, finely ground; a minimum of 1 percent nitrogen and 10 percent phosphoric acid.

C. Superphosphate: Commercial, phosphate mixture, soluble; a minimum of 20 percent available phosphoric acid.

D. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:

1. Composition: 1 lb/1000 sq. ft. of actual nitrogen, 4 percent phosphorous, and 2 percent potassium, by weight or as recommended in soil reports from a qualified soil-testing laboratory.

E. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:

1. Composition: 20 percent nitrogen, 10 percent phosphorous, and 10 percent potassium, by weight or as recommended in soil reports from a qualified soil-testing laboratory.

F. Planting Tablets: Tightly compressed chip type, long-lasting, slow-release, commercial-grade planting fertilizer in tablet form. Tablets shall break down with soil bacteria, converting nutrients into a form that can be absorbed by plant roots.

1. Size: 5-gram tablets.
2. Nutrient Composition: 20 percent nitrogen, 10 percent phosphorous, and 5 percent potassium, by weight plus micronutrients.

G. Chelated Iron: Commercial-grade FeEDDHA for dicots and woody plants, and commercial-grade FeDTPA for ornamental grasses and monocots.

## 2.5 PLANTING SOILS

A. Planting Soil: ASTM D 5268 topsoil, with pH range of 5.5 to 7, a minimum of 4 percent organic material content; free of stones 1 inch or larger in any dimension and other extraneous materials harmful to plant growth. Mix ASTM D 5268 topsoil with organic and inorganic soil amendments as required to produce planting soil.

B. Planting Soil from existing in-place surface soil. Remove stones, roots, plants, sod, clods, clay lumps, pockets of coarse sand, concrete slurry, concrete layers or chunks, cement, plaster, building debris, and other extraneous materials harmful to plant growth.

1. Supplement with imported or manufactured planting soil when quantities are insufficient.
2. Mix existing, native surface topsoil with organic and inorganic soil amendments as required to produce planting soil.

C. Planting Soil from imported topsoil or manufactured topsoil from off-site sources. Obtain topsoil displaced from naturally well-drained construction or mining sites where topsoil occurs at least 4 inches deep; do not obtain from bogs or marshes.

1. Additional Properties of Imported Topsoil or Manufactured Topsoil: Screened and free of stones 1 inch or larger in any dimension; free of roots, plants, sod, clods, clay lumps, pockets of coarse sand, paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, building debris, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, acid, and other extraneous materials harmful to plant growth; free of noxious weeds and invasive plants including quackgrass, Johnsongrass, poison ivy,

nutsedge, nimblewill, Canada thistle, bindweed, bentgrass, wild garlic, ground ivy, perennial sorrel, and bromegrass; not infested with nematodes, grubs, other pests, pest eggs, or other undesirable organisms and disease-causing plant pathogens; friable and with sufficient structure to give good tilth and aeration. Continuous, air-filled, pore-space content on a volume/volume basis shall be at least 15 percent when moisture is present at field capacity. Soil shall have a field capacity of at least 15 percent on a dry weight basis.

2. Mix imported topsoil or manufactured topsoil with organic and inorganic soil amendments as required to produce planting soil.

## 2.6 MULCHES

A. Organic Mulch: Free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of one of the following:

1. Type: Shredded hardwood, Ground or shredded bark.
2. Size Range: 3 inches maximum, 1/2 inch minimum.
3. Color: Natural.

B. Rock Mulch: Hard, durable stone, washed free of loam, sand, clay, and other foreign substances, of following type, size range, and color:

1. Type: As indicated on Landscape Plan

## 2.7 WEED CONTROL BARRIER

A. Nonwoven Geotextile Filter Fabric: Polypropylene or polyester fabric, 3 oz./sq. yd. (101g/sq. m) minimum, composed of fibers formed into a stable network so that fibers retain their relative position. Fabric shall be inert to biological degradation and resist naturally-encountered chemicals, alkalis, and acids.

## 2.8 PESTICIDES / HERBICIDES

A. General: Pesticide registered and approved by EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.

B. Pre-Emergent Herbicide (Selective and Non-Selective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer.

C. Post-Emergent Herbicide (Selective and Non-Selective): Effective for controlling weed growth that has already germinated.

## 2.9 TREE STABILIZATION MATERIALS

A. Stakes and Guys:

1. Upright and Guy Stakes: Rough-sawn, sound, new hardwood or softwood with specified wood pressure-preservative treatment, free of knots, holes, cross grain, and other defects, 2-by-2-inch nominal by length as necessary, pointed at one end.
2. Guys and Tie Wires: ASTM A 641/A 641M, Class 1, galvanized-steel wire, two-strand, twisted, 0.080 inch in diameter.
3. Tree-Tie Webbing: UV-resistant polypropylene or nylon webbing with brass grommets.
4. Flags: Standard surveyor's plastic flagging tape, white, 6 inches long.

## 2.10 MISCELLANEOUS PRODUCTS

A. Antidesiccant: Water-insoluble emulsion, permeable moisture retarder, film forming, for trees and shrubs. Deliver in original, sealed, and fully labeled containers and mix according to manufacturer's written instructions.

B. Burlap: Non-synthetic, biodegradable.

C. Landscape Boulders: Native stone, matching color and character of local outcroppings. Submit photographs of typical boulders to be used.

D. Landscape Edging:

1. Standard commercial-steel edging, rolled edge, fabricated in sections of standard lengths, with loops stamped from or welded to face of sections to receive stakes.

    a. Edging Size: 3/16” thick x 5” deep
    b. Stakes: Tapered steel a minimum of 15” long.
    c. Accessories: Standard tapered ends, corners, and splicers.
    d. Finish: Unfinished

2. Or steel bar stock edging – cut, curved and welded on-site.
    a. Bar stock, 3/16” x 6” x length, unfinished
    b. Stakes: 5/8 rebar or tapered steel, min 15” length

# PART 3 - EXECUTION

## 3.1 EXAMINATION

A. Examine areas to receive plants for compliance with requirements and conditions affecting installation and performance.

1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
2. Do not mix or place soils and soil amendments in frozen, wet, or muddy conditions.
3. Suspend soil spreading, grading, and tilling operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
4. Uniformly moisten excessively dry soil that is not workable and which is too dusty.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as necessary and replace with new planting soil.

## 3.2 PREPARATION

A. Protect structures, utilities, sidewalks, pavements, and other facilities and turf areas and existing plants from damage caused by planting operations.

B. Install erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

C. Lay out individual tree and shrub locations and areas for multiple plantings. Stake locations, outline areas, adjust locations when requested, and obtain Landscape Architect's acceptance of layout before excavating or planting. Make minor adjustments as required.

D. Apply antidesiccant to trees and shrubs using power spray to provide an adequate film over trunks (before wrapping), branches, stems, twigs, and foliage to protect during digging, handling, and transportation.

1. If deciduous trees or shrubs are moved in full leaf, spray with antidesiccant at nursery before moving and again two weeks after planting.

E. Wrap trees and shrubs with burlap fabric over trunks, branches, stems, twigs, and foliage to protect from wind and other damage during digging, handling, and transportation.

F. Stake or paint metal edging location and alignment.

## 3.3 PLANTING AREA ESTABLISHMENT

A. Loosen subgrade of planting areas to a minimum depth 6 inches. Remove any stones larger than 1-1/2 inches in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.

1. Thoroughly blend planting soil off-site before spreading.

a. Delay mixing fertilizer with planting soil if planting will not proceed within a few days.

2. Spread planting soil to a minimum depth of 18 inches in all landscape areas but not less than required to meet finish grades after natural settlement. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.

a. Spread approximately 3” of the thickness of planting soil over loosened subgrade. Mix thoroughly into top 2 inches of subgrade. Spread remainder of planting soil.

B. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades.

C. Before planting, verify finished grades; restore planting areas if eroded or otherwise disturbed after finish grading.

## 3.4 EXCAVATION FOR TREES AND SHRUBS

A. Planting Pits and Trenches: Excavate circular planting pits with sides sloping inward at a 45-degree angle. Excavations with vertical sides are not acceptable. Trim perimeter of bottom leaving center area of bottom raised slightly to support root ball and assist in drainage away from center. Do not further disturb base. Ensure that root ball will sit on firm base soil to prevent settling. Scarify sides of planting pit smeared or smoothed during excavation.

1. Excavate approximately three times as wide as ball diameter for balled and burlapped container-grown stock.
2. Do not excavate deeper than depth of the root ball, measured from the root flare to the bottom of the root ball.
3. If area under the plant was initially dug too deep, add soil to raise it to the correct level and thoroughly tamp the added soil to prevent settling.
4. Maintain required angles of repose of adjacent materials as shown on the Drawings. Do not excavate subgrades of adjacent paving, structures, hardscapes, or other new or existing improvements.
5. Maintain supervision of excavations during working hours.
6. Keep excavations covered or otherwise protected when unattended by Installer's personnel.

B. Topsoil removed from excavations may be used as planting soil.

C. Obstructions: Notify Owner if unexpected rock or obstructions detrimental to trees or shrubs are encountered in excavations.

D. Drainage: Notify Owner if subsoil conditions evidence unexpected water seepage or retention in tree or shrub planting pits.

E. Fill excavations with water and allow to percolate away before positioning trees and shrubs.

## 3.5 TREE, SHRUB, AND GROUNDCOVER PLANTING

A. Before planting, verify that root flare is visible at top of root ball according to ANSI Z60.1. If root flare is not visible, remove soil in a level manner from the root ball to where the top-most root emerges from the trunk. After soil removal to expose the root flare, verify that root ball still meets size requirements.

B. Remove stem girdling roots and kinked roots. Remove injured roots by cutting cleanly; do not break.

C. Set balled and burlapped stock plumb and in center of planting pit or trench with root 2 inches above adjacent finish grades.

1. Use planting soil for backfill.
2. After placing some backfill around root ball to stabilize plant, carefully cut and remove burlap, rope, and wire baskets from tops of root balls and from sides, but do not remove

from under root balls. Remove pallets, if any, before setting. Do not use planting stock if root ball is cracked or broken before or during planting operation.

3. Backfill around root ball in layers, tamping to settle soil and eliminate voids and air pockets. When planting pit is approximately one-half filled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed.
4. Place planting tablets in each planting pit when pit is approximately one-half filled; in amounts recommended in soil reports from soil-testing laboratory. Place tablets beside the root ball about 1 inch from root tips; do not place tablets in bottom of the hole.
5. Continue backfilling process. Water again after placing and tamping final layer of soil.

D. Set container-grown stock plumb and in center of planting pit or trench with root ball 2 inches above adjacent finish grades.

1. Use planting soil for backfill.
2. Carefully remove root ball from container without damaging root ball or plant.
3. Backfill around root ball in layers, tamping to settle soil and eliminate voids and air pockets. When planting pit is approximately one-half filled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed.
4. Place planting tablets in each planting pit when pit is approximately one-half filled; in amounts recommended in soil reports from soil-testing laboratory. Place tablets beside the root ball about 1 inch from root tips; do not place tablets in bottom of the hole.
5. Continue backfilling process. Water again after placing and tamping final layer of soil.

E. When planting on slopes, set the plant so the root flare on the uphill side is flush with the surrounding soil on the slope; the edge of the root ball on the downhill side will be above the surrounding soil. Apply enough soil to cover the downhill side of the root ball.

## 3.6 TREE, SHRUB, AND VINE PRUNING

A. Remove only dead, dying, or broken branches. Do not prune for shape.

## 3.7 TREE STABILIZATION

A. Install trunk stabilization if required:

1. Upright Staking and Tying: Stake trees of 2- through 5-inch caliper. Stake trees of less than 2-inch caliper only as required to prevent wind tip out. Use a minimum of two stakes of length required to penetrate at least 18 inches below bottom of backfilled excavation and to extend at least 72 inches above grade. Set vertical stakes and space to avoid penetrating root balls or root masses.
2. Support trees with two strands of tie wire, connected to the brass grommets of tree-tie webbing at contact points with tree trunk. Allow enough slack to avoid rigid restraint of tree.

B. Staking and Guying: Stake and guy trees more than 14 feet in height and more than 3 inches in caliper unless otherwise indicated. Securely attach no fewer than three guys at 120 degree spacing to stakes 30 inches long, driven to grade.

1. Site-Fabricated Staking-and-Guying Method:

a. Support trees with strands of cable or multiple strands of tie wire, connected to the brass grommets of tree-tie webbing at contact points with tree trunk and reaching to turnbuckle. Allow enough slack to avoid rigid restraint of tree.
b. Attach flags to each guy wire, 30 inches above finish grade.

## 3.8 GROUND COVER AND PERENNIAL PLANTING

A. Set out and space ground cover and plants other than trees, shrubs, and as indicated in even rows with triangular spacing.

B. Use planting soil for backfill.

C. Dig holes large enough to allow spreading of roots.

D. For rooted cutting plants supplied in flats, plant each in a manner that will minimally disturb the root system but to a depth not less than two nodes.

E. Work soil around roots to eliminate air pockets and leave a slight saucer indentation around plants to hold water.

F. Water thoroughly after planting, taking care not to cover plant crowns with wet soil.

G. Protect plants from hot sun and wind; remove protection if plants show evidence of recovery from transplanting shock.

## 3.9 PLANTING AREA MULCHING

A. Mulch backfilled surfaces of planting areas and other areas indicated.

1. Organic Mulch in Perennial beds: Apply 3-inch average thickness of organic mulch in all perennial beds and finish level with adjacent finish grades. Do not cover plant foliage. Do not install weed control barrier in perennial beds.
2. Rock Mulch in Planting Areas: Apply 3-inch average thickness of rock mulch over whole surface of planting area where shown on drawings, and finish level with adjacent finish grades. Do not place mulch within 3 inches of trunks or stems.

## 3.10 EDGING INSTALLATION

A. Install steel edging where indicated.
1. Lay out Edging using radii and angles where provided. Free-hand curves will not be accepted.
2. Layout of Edging shall be marked on the ground, and approved by Owner's Representative prior to installation.

B. Edging shall be free of kinks or bends which will affect the appearance of the installed edging. All installed curves shall be consistent and smooth; straight runs shall be straight and true, in keeping with the aesthetic results desired.

C. Anchor with stakes spaced approximately 48 inches apart and at all joints and corners, driven below top elevation of edging. Spot weld at all joints and at each stake. Overlap joints a minimum of 6”.

D. Smooth all corners, intersections, etc., so that no rough or sharp edges protrude above finished grade.

## 3.11 PLANT MAINTENANCE

A. Maintain plantings by pruning, cultivating, watering, weeding, fertilizing, mulching, restoring planting saucers, adjusting and repairing tree-stabilization devices, resetting to proper grades or vertical position, and performing other operations as required to establish healthy, viable plantings. Spray or treat as required to keep trees and shrubs free of insects and disease.

B. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace mulch materials damaged or lost in areas of subsidence.

C. Apply treatments as required to keep plant materials, planted areas, and soils free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards. Treatments include physical controls such as hosing off foliage, mechanical controls such as traps, and biological control agents.

## 3.12 REPAIR AND REPLACEMENT

A. General: Repair or replace existing or new trees and other plants that are damaged by construction operations, in a manner approved by the the Landscape Architect.

1. Submit details of proposed pruning and repairs or replacement.
2. Perform repairs of damaged trunks, branches, and roots within 24 hours, if approved.
3. Replace trees and other plants that cannot be repaired and restored to full-growth status, as determined by the Landscape Architect.

B. Remove and replace trees that are more than 25 percent dead or in an unhealthy or declining condition or are damaged during construction operations that Landscape Architect determines are incapable of restoring to normal growth pattern.

1. Provide new plants of same size and species as those being replaced.

## 3.13 PESTICIDE APPLICATION

A. Apply pesticides and other chemical products and biological control agents if required in accordance with authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.

B. Post-Emergent Herbicides (Selective and Non-Selective): Apply only as necessary to treat already-germinated weeds and in accordance with manufacturer's written recommendations.

## 3.14 CLEANUP AND PROTECTION

A. During planting, keep adjacent paving and construction clean and work area in an orderly condition.

B. Protect plants from damage due to landscape operations and operations of other contractors and trades. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged plantings.

C. After installation and before Substantial Completion, remove nursery stakes, tie tape, labels, wire, burlap, and other debris from plant material, planting areas, and Project site. Leave nursery tags on plant materials until final inspection.

## 3.15 DISPOSAL

A. Remove surplus soil and waste material including excess subsoil, unsuitable soil, trash, and debris and legally dispose of them off Owner's property.

END OF SECTION 32 93 00

December 30, 2025
File: PO19005B

Ms. Jennifer Zung, P.E., CFM
Harmony Design & Engineering
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Driggs, Idaho 83422
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RE: **Geotechnical Engineering Analysis Report**
Centennial-Rainey Levee Setback and Ecosystem Enhancement
Pocatello, Idaho

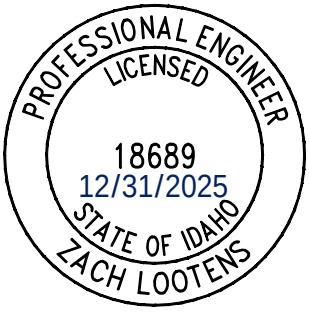
Dear Ms. Zung,

STRATA has prepared this Geotechnical Engineering Analysis Report for the proposed Centennial-Rainey Levee Setback and Ecosystem Enhancement project located in Pocatello, Idaho. The purpose of our geotechnical engineering evaluation was to explore subsurface soil conditions within the proposed project area and provide geotechnical engineering recommendations to support project design. We accomplished our services in accordance with our authorized scope of services, dated July 23, 2021.

This report summarizes the results of our engineering analysis and presents our geotechnical engineering findings, opinions, and recommendations. Specific geotechnical engineering information is included in this report for soil characteristics encountered during our field exploration. Individual portions of this report cannot be relied upon without the supporting text of remaining sections, appendices, and plates; and of our Geotechnical Engineering Data Report for the Centennial-Rainey Levee Setback and Ecosystem Enhancement Project dated June 4, 2025.

We appreciate the opportunity to continue our professional relationship with Harmony Design & Engineering, the design team, and the City of Pocatello. Please contact us if you have any questions or comments.

Sincerely,
STRATA

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**Geotechnical Engineering Analysis Report**
Centennial-Rainey Levee Setback and Ecosystem Enhancement
Pocatello, Idaho

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December 30, 2025

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**Geotechnical Engineering Analysis Report**
Centennial-Rainey Levee Setback and Ecosystem Enhancement
Pocatello, Idaho

## INTRODUCTION

This Geotechnical Engineering Analysis Report presents the results of our geotechnical analysis for the proposed Centennial-Rainey Levee Setback and Ecosystem Enhancement project located in Pocatello, Idaho. The project site is presented on Plate 1, Vicinity Map.

The Centennial-Rainey Levee Setback and Ecosystem Enhancement project is one of the projects included as part of the Portneuf River Vision Study. This study seeks to restore portions of the Portneuf River and enhance tourism, economic development, fish and wildlife habitat, and recreation of the area. As part of the Centennial-Rainey Levee Setback and Ecosystem Enhancement project, a section of the U.S. Army Corps of Engineers (USACE) levee system will be relocated to create river access through a wetland area with a diverted channel, wetland planting, and added circulation paths. The areas that will require levee removal and reconstruction at setback locations are located within the Centennial and Rainey Parks. Considering all areas, approximately 750 feet of the existing levee will be removed and approximately 1,150 lineal feet of new levee will be designed and constructed. In addition, parking areas will be constructed in both the Centennial and Rainey Parks.

We understand the existing levees are approximately 12 feet high, referencing the top of channel bank elevation, and are located adjacent to and on either side of the Portneuf River main channel. Based on the typical cross-section provided by the design team (cross-section A-A), the existing Centennial Park levee has a 3H:1V (horizontal to vertical) inboard slope and a 10H:1V outboard slope. Southwest of the existing Centennial Park levee, the ground surface gently increases in elevation. The existing Rainey Park levee has inboard and outboard slopes of 3H:1V and 2H:1V, respectively. At Rainey Park, the ground surface is relatively flat with a minor increase in elevation from approximately 4,450 feet to 4,451 feet over an approximate 240-foot length east of the existing levee.

We understand the proposed Centennial Park levee will be 13 to 15 feet high, referencing top of channel bank elevation, and will be located adjacent to and west of the Portneuf River main channel. To accommodate the proposed design, roughly 300 feet of existing levee will be set back by cutting portions of the existing inboard slopes and placing minimal fill (between 0.5 and 3 feet). In locations where the proposed levee will not be set back, the existing and proposed embankments will generally match, and fill activities will be minor (up to 1 foot).

The proposed Rainey Park levee will be located approximately 225 feet northeast of the Portneuf River main channel and will involve full embankment construction. This levee will generally maintain a constant top of embankment elevation (4460) and will be approximately 16.8 feet high referencing the inboard toe elevation based on the planned wetland excavation. The levee height will be approximately 10 feet above existing grade at Rainey Park. Inboard and outboard slopes will be 3H:1V and 4H:1V, respectively. The area between the Rainey Park levee and the Portneuf River main channel will include a scrub-shrub wetland bench followed by an emergent wetland bench, a side channel, and a series of side-channel branches. Within this area, the ground surface elevation will range between 4,441 and 4,444 feet. Beyond the Rainey Park levee, the ground surface will slope gently down towards the asphalt access road, where it will revert to an upward slope up to the asphalt parking lot.

Based on the proposed cross-sections, the average low flow in the channel is approximately 56 cubic feet per second (cfs), the full-bank flow is 618 cfs, the 100-year flow is 3,200 cfs, and the design flow is 6,000 cfs. For analysis, the top of the levee was conservatively used as the maximum water surface elevation as this is common practice for the USACE.

Appendix A presents the existing and proposed cross-sections used for analysis, along with a plan view illustrating the location of each cross-section location.

## GEOTECHNICAL ANALYSIS AND RECOMMENDATIONS

### Levee Construction

Construction Sequence

*Centennial Park Levee*

To construct the proposed Centennial Park levee, the existing levee will first be reshaped by excavating the inboard slope to achieve the proposed geometry. The cut material will then be used as embankment fill, where necessary, provided it meets the soil requirements presented in the *Recommended Structural Fill Material and Compaction* subsection of this report. As described in the *Introduction* section of this report, the proposed Centennial Park levee will be constructed by shifting the existing levee upslope and adding minimal fill (up to 3 feet). This will result in a levee system with shallower inboard slopes of 2.5H:1V. Refer to cross-sections A-A and B-B in Appendix A.

In locations where setback activities will not be performed, the proposed Centennial Park levee will generally match the existing levee section and minimal cut/fill activities will be conducted (up to 1 foot). Refer to cross-section C-C in Appendix A.

*Rainey Park Levee*

To construct the proposed Rainey Park levee, the earthwork should be accomplished between June and November when the risk of flooding in the Portneuf is low. Initially, the existing levee can be excavated/removed to 1 foot above the 100-year flood elevation or approximately 4,452 feet above mean sea level (MSL). This will provide partial flood protection during construction of the new Rainey Park levee. Excavation of the wetland area can proceed from east to west and the construction sequence should limit cut within 50 feet of the landside toe of the existing levee until the new levee section has a constructed height of at least 1 foot above the 100-year flood elevation. The cut material from the planned wetlands as well as the removed existing embankment fill material will then be used for construction of the new levee section, provided these meet the soil requirements presented in the *Recommended Structural Fill Material and Compaction* subsection of this report. While the on-site silty soil does generally have high erosion potential, it is our opinion that utilizing the onsite silty soils for levee embankment fill is feasible since the flood duration is relatively short (less than one week based on historical records), the levee will be vegetated, and scour protection will be placed in areas with higher anticipated flood velocities. If additional soil material is needed to finish construction of the new levee system, cut material from the Centennial Park levee (if available) or imported fill conforming to the embankment fill requirements presented in Table 1 will be used. After the new levee setback is constructed, the existing levee will be fully excavated and removed, and the remaining soil material will be used as structural fill for the project.

The tie-in to the existing levee will require sloping back the existing embankment and benching or keying in the new embankment fill. It is recommended to lay the existing levee back at a 1.5H:1V at connection points and incrementally cut in 4-ft high benches before placing new embankment fill.

Excavation Characteristics

We anticipate site soils may be excavated using conventional excavation techniques. Unsupported site excavations must be sloped in accordance with the Occupational Safety and Health Administration (OSHA) regulations and local codes. The site subsurface soil encountered in the upper 20 feet varies in classification but is predominately anticipated to consist of fine- to coarse-grained fill or aeolian soil. Based on OSHA guidelines, these materials are classified as type “C” soils. Unless otherwise classified by a competent individual, we recommend provisions be made to allow temporary excavations up to 20 feet of type “C” soil to be sloped no steeper than 1.5H:1V in accordance with OSHA recommendations. Excavations greater than 20 feet must be designed by a licensed Professional Engineer. Surcharges must not be allowed within a horizontal distance equal to one-half the excavation depth. Construction vibrations can cause excavations to slough or cave and should be considered by the contractor during daily task planning. Ultimately, the contractor is solely responsible for site safety and excavation configurations.


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Subgrade Preparation

*General*

Topsoil and vegetation present within the construction area are not suitable for use as structural fill and cannot be allowed to remain as subgrade. Soil containing significant organics must be stripped and removed from the project site or stockpiled for re-use in landscaping applications. Stripping depths of approximately 6 inches are anticipated for construction of the proposed project. Topsoil thicknesses can vary and additional stripping may be necessary in select locations such as tree and shrub removal areas.

The following subsections provide subgrade preparation recommendations for construction of the proposed levees and parking areas. We recommend subgrade preparations and any subsequent fill placement be observed by STRATA to ensure topsoil/vegetation is removed and subgrades are prepared as recommended in this report. Subgrade and fill placement observations are critical aspects of the geotechnical design process.

*Centennial Park Levee*

Based on our subsurface exploration, undocumented fill was encountered at the ground surface in all boring locations advanced within the Centennial Park. Any *existing*, *non-native* soil or native soil that has been disturbed is considered undocumented fill. The undocumented fill was observed to extend to depths between 9 and 23 feet below the existing ground surface and consisted of a combination of clay, silt, sand, and gravel.

We understand that establishing proposed grades at Centennial Park will include partial removal of the undocumented fill and minimal placement of embankment fill immediately west of the existing levee. We anticipate between 2 and 8 feet of material will be removed from the existing levee primarily, from the inboard slope, and between 0.5 and 3 feet of fill will be placed to establish the crest of the proposed levee.

After final subgrade elevations have been established, including the removal of topsoil and undocumented fill, we recommend the embankment subgrade be scarified to a depth of 8 inches, moisture conditioned, and proof compacted with a minimum of five passes of a 5-ton static drum weight vibratory roller (smooth or sheepsfoot drum). If during compaction pumping or rutting of the subgrade is observed, the subgrade in question should be undercut in accordance with Section 202, Part 3.7 Excavation of Unsuitable Material of the 2020 Idaho Standards for Public Works Construction (ISPWC) and replaced with General Structural Fill as defined in the *Recommended Structural Fill Material and Compaction* subsection of this report.

Once the subgrade is satisfactorily compacted, placement and compaction of General Structural Fill as required to accommodate the proposed levee and achieve proposed final grades shall take place.

*Rainey Park Levee*

Undocumented fill was observed in Boring 21-STR-B03 extending from the ground surface to approximately 4.5 feet deep. Undocumented fill beneath the proposed levee shall be over-excavated until the native Lean Clay (CL) or Silt (ML) subgrade is exposed. The native subgrade soil shall then be scarified to a depth of 8 inches, moisture conditioned, and proof compacted with a minimum of five passes of a 5-ton static drum weight vibratory roller (smooth or sheepsfoot drum). If during compaction pumping or rutting of the subgrade is observed, the subgrade in question should be undercut in accordance with Section 202, Part 3.7 Excavation of Unsuitable Material of the ISPWC and replaced with General Structural Fill.

Once the subgrade is satisfactorily compacted, placement and compaction of General Structural Fill as required to accommodate the proposed levee and achieve proposed final grades shall take place.


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*Parking Areas and Paved Trails*

Most of the borings located in areas where proposed parking lots will be constructed encountered undocumented fill from the ground surface to between 1.5 and 6.5 feet below the existing ground surface.

After establishing subgrade elevations, we recommend scarifying the subgrade to a depth of 8 inches, moisture conditioning, and proof compacting it with a minimum of five passes of a 5-ton static weight smooth drum or sheepsfoot vibratory roller. If during compaction pumping or rutting of the subgrade is observed, the subgrade in question should be undercut in accordance with Section 202, Part 3.7 Excavation of Unsuitable Material of the ISPWC, and replaced with General Structural Fill.

We understand paved trails will be constructed over the proposed levees. We recommend the subgrade preparation recommendations provided above be employed for construction of the paved trails.

Upon completion of subgrade preparation efforts, the pavement section for the parking areas and trails shall be constructed in accordance with the Pavement Design section of this report.

Recommended Structural Fill Material and Compaction

All fill placed during construction of the proposed project must be placed as structural fill. The onsite undocumented fill consisting of a combination of clay, silt, sand, and gravel as well as the native Lean Clay (CL) and Silt (ML) can be stockpiled and reused as General Structural Fill, provided they meet the criteria presented in Table 1 below. Silty/clayey soils are moisture susceptible and can be difficult to reuse during inclement weather. In general, the structural fill requirements described below, correlate to material specifications in the 2020 ISPWC.

**Table 1. Structural Fill Specifications and Allowable Use**

| **Structural Fill Material**<br>• Allowable Use | **Material Specifications** | **Sieve Size** | **Percent Passing** | **Percent Compac -tion[1]** | **Moisture Content Range** |
|---|---|---|---|---|---|
| **Unsuitable Soil**<br>• None | • Soil classified as CH, MH, OH, OL or PT.<br>• Soil not maintained within ±3% of optimum moisture content<br>• Soil containing more than 3% organics by weight or other deleterious substances (wood, metal, plastic, waste, etc.). | - | - | N/A | N/A |
| **General Structural Fill**<br>• General site grading | • Soil classified as GW, GP, GM, GC, GP-GM, GP-GC, SW, SP, SM, SC, SP-SM, SP-SC, CL, or ML according to the USCS.<br>• Soil exhibiting a liquid limit less than or equal to 35 and a plasticity index less than or equal to 10.<br>• Soil consisting of inert earth materials with less than 3% organics or other deleterious substances (wood, metal, plastic, waste, etc.). | 6-inch | 100 | 92 | -4 to +2 |
| **Embankment (Levee) Fill** | • Soil classified as CL, ML, SM, and SC.<br>• Soil exhibiting a liquid limit less than or equal to 35 and a plasticity index less than or equal to 10.<br>• Soil consisting of inert earth materials with less than 3% organics or other deleterious substances (wood, metal, plastic, waste, etc.). | 6-inch<br>No. 200 | 100<br>≥ 30 | 92 | -4 to +2 |
| **Granular Structural Fill**<br>• General Structural Fill<br>• Pavement Subbase | • Soil meeting the requirements stated in the latest edition of the *ISPWC, Section 801 – Uncrushed Aggregates.*<br>• Soil meeting the required gradation. | 6-inch<br>No. 4<br>No. 200 | 100<br>15-60<br>0-12 | 95 | -4 to +2 |


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| Structural Fill Material<br>• Allowable Use | Material Specifications | Sieve Size | Percent Passing | Percent Compac -tion[1] | Moisture Content Range |
|---|---|---|---|---|---|
| **Aggregate Base Course**<br>• Pavement Base Course<br>• Granular and General Structural Fill | • Soil meeting requirements stated in the latest edition of the *ISPWC, Section 802 – Aggregate Base.*<br>• Soil meeting the required gradation. | 1 inch | 100 | 95 | -4 to +2 |
| | | ¾-inch | 90-100 | | |
| | | No. 4 | 40-65 | | |
| | | No. 8 | 30-50 | | |
| | | No. 200 | 3-9 | | |

1. Per ASTM D1557 - Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft$^3$).
2. Referencing optimum moisture content.

Structural fill placed as part of this project must be compacted in accordance with Table 1. Fill placed outside any embankment or pavement envelope can be placed as non-structural fill (i.e. landscape fill), provided there are no structures (sidewalk, slabs, retaining walls, foundations, etc.) planned directly above the landscape fill. We recommend that landscape fill be compacted to a minimum of 85% of the maximum dry density of the soil according to ASTM D1557 (Modified Proctor).

The General Structural Fill, Embankment Fill, Granular Structural Fill, and Aggregate Base Course material should be moisture-conditioned to near optimum moisture content, placed in maximum 8-inch-thick loose lifts for fine grain cohesive soils or 12-inch-thick loose lifts for granular soils, and compacted with a minimum of five passes of a 5-ton static weight smooth drum or sheepsfoot vibratory roller. The use of a sheepsfoot roller is recommended for compaction of fine grain soils. If smaller or lighter compaction equipment is used, the lift thickness should be reduced to meet the compaction requirements.

Material with greater than 30-percent retained on the ¾-inch U.S. standard sieve size is considered too coarse to test and is unsuitable for testing per ASTM D1557 (Modified Proctor). Coarse materials may still be used as Granular Structural Fill but must be compacted using a "method specification" which is developed during construction and based on material characteristics, compaction equipment, and conditions encountered. As a minimum requirement, all oversized material shall be placed in maximum 18-inch-thick loose lifts and compacted with five (5) passes of a 10-ton, static drum weight vibratory roller. The vibratory roller shall have a dynamic force of at least 30,000 pounds per impact per vibration and be capable of generating at least 1,000 vibrations per minute. This recommendation may be modified based on conditions observed during construction; however, the coarse fill must be compacted to a dense, interlocking, firm, and unyielding state.

Cold and Wet Weather/Soil Construction

We strongly recommend that earthwork construction take place during dry weather conditions. The onsite soils encountered, especially the Lean Clays (CL) and Silts (ML), are susceptible to pumping and/or rutting from heavy loads, such as rubber-tired equipment or vehicles, when they become wet. If pumping/rutting occurs, the geotechnical engineer must be notified so that appropriate recommendations are provided to stabilize these soils prior to structural fill placement. If construction commences before soils can dry after a precipitation event or during wet periods of the year, we recommend completing earthwork with low pressure, track-mounted equipment that will spread and reduce vehicle load.

Contractors must protect exposed subgrades from sources of water. During construction, we recommend intersecting and diverting surface runoff from rainfall or snowmelt to help reduce water ponding on the project site. In addition, subgrades should be sloped to daylight to help direct water away from subgrades after the end of each construction day or before precipitation. Allowing water to infiltrate into the subgrade soil can be detrimental to the long-term performance of the site improvements.


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Structural fill shall not be placed on frozen soil. Frozen soil may not be used as fill or backfill. We recommend removing frozen soil, snow, or ice from the subgrade or fill soils prior to continuing with construction. In addition, winter excavations should be limited to areas small enough to be refilled to finished grade or higher the same day.

Embankment Protection

To help mitigate erosion of the new levees, we recommend implementing vegetation protection on both the inboard and outboard slopes. The vegetation protection on the levee and extending 15 feet beyond the toe should be grass only and not include trees or shrubs. This is consistent with USACE EP 1110-2-18, *Guidelines for Landscape Planting and Vegetation Management at Levees, Floodwalls, Embankment Dams, and Appurtenant Structures.* To mitigate burrowing of rodents into the embankment, consideration should be given to installing chain link mesh on the inboard and outboard slopes. In addition, to mitigate scour potential, riprap designed for the anticipated scour velocity should be placed on the inboard slopes with high scour velocities. Riprap classes used by the Idaho Transportation Department (ITD) along with the corresponding gradations are presented in Subsection 711.04 of the 2022 Supplemental Specifications for the 2018 Idaho Standard Specifications for Highway Construction. These classes are consistent with those presented in the Federal Highway Administration (FHWA) Hydraulic Engineering Circular No. 23 dated September 2009. We recommend placing a non-woven geotextile with a 6-inch cushion/bedding layer below the riprap protection. The geotextile should meet Class 3 strength property requirements per AASHTO M288 with >0.02 $sec^{-1}$ permittivity (ASTM D4491) and <0.60 mm apparent opening size (ASTM D4751). The cushion/bedding layer above the geotextile should meet properties for Type I Bedding per ISPWC Section 305.2.2.

**Levee Design**

General

STRATA completed seventeen (17) exploratory borings and three (3) exploratory test pits within the proposed project area to evaluate subsurface conditions within the existing levees and under proposed levees, parking areas, and excavation zones. Representative soil samples collected in the field were returned to our laboratory for further evaluation and testing. Information obtained from the field, along with laboratory test results, was utilized to perform geotechnical engineering analyses and to provide recommendations for project design and construction. Our geotechnical engineering analyses included slope stability analyses (static and seismic), seepage analysis, settlement analysis, liquefaction susceptibility, and pavement design. Refer to the Geotechnical Engineering Data Report for the Centennial-Rainey Levee Setback & Ecosystem Enhancement Project, dated December 30, 2025, and prepared by STRATA for information related to the field exploration, laboratory testing, and soil parameters used for analysis.

We evaluated three critical cross-sections for this project, one for the proposed Centennial Park levee and two for the proposed Rainey Park levee. Cross-section C-C was considered a critical cross-section for the Centennial Park levee. This proposed cross-section consists of an approximately 13-foot-high embankment, referencing the top of bank elevation, and has a 2.5H:1V inboard slope and a 6H:1V outboard slope. Based on the proposed finished grade, minimal fill (up to 6 inches) is anticipated to be placed on top of the existing levee and side slopes. Cross-sections A-A and D-D represented the critical cross-section for the proposed Rainey Park levee. Cross-section A-A consists of a 16.8-foot-high embankment, referencing the planned wetland excavation at the inboard toe of slope, and has a 3H:1V inboard slope and a 4H:1V outboard slope. Cross section D-D was evaluated to check the influence of the proposed stormwater basin located near the proposed levee on the landside.

The analysis models developed for each cross-section used the soil properties of the most critical embankment fill and foundation soils encountered beneath the Centennial Park and Rainey Park levees, respectively. Based on the subsurface soil conditions observed at Centennial Park and our understanding of the proposed new levee construction, Silt (ML) embankment fill was modeled over native Silt (ML) foundation soil over native Poorly Graded Gravel with Silt and Sand (GP-GM) soil for the Centennial Park cross-section. The Rainey Park model analyzed three different embankment fill soils and two different foundation soils. The embankment fill soils included Lean Clay


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(CL), Silt (ML), and Silty Sand with Gravel (SM). The foundation soils included native Lean Clay (CL) and Silt (ML) and were modeled over native Poorly Graded Gravel with Silt and Sand (GP-GM). The models developed assumed a homogeneous soil mass since construction of the levees will be performed in one phase (no overbuild).

All of the afore-mentioned models were analyzed, however only the most critical models (lowest factor of safety and highest exit gradient) have been included in Appendix B (Slope Stability Analyses) and Appendix C (Seepage Analyses). Plate 1 and sheets in Appendix A present the plan and profile views of the cross-sections evaluated.

Stability Analysis

Slope stability analyses were performed to assess the stability against shear failure during and after construction of the critical cross-sections, as discussed above. Slope stability computations were performed using the computer program SLIDE2 developed by Rocscience, and followed the guidelines provided in the Design and Construction of Levees EM 1110-2-1913, the Slope Stability EM 1110-2-1902, and the Earthquake Design and Evaluation for Civil Works Projects ER 1110-2-1806.

The slope stability analyses performed derived factors of safety against global failure by calculating the ratio of internal soil shear resisting forces along numerous potential slip surfaces to the gravitational and other external driving forces on the same slip surfaces within the soil mass. The computed forces were based on the slope geometry, the presence of groundwater, surface water levels, and the shear strength of the soil. A total of four (4) loading conditions were evaluated for each model, all of which used Spencer's method to compute the factors of safety. The loading conditions evaluated included:

- Case I - End of construction: This loading condition represents the undrained state of the impervious embankment and foundation soils. To model this condition, unconsolidated-undrained parameters and total stresses were used. In addition, pore water pressures were set to zero in the slope stability computations. This condition was analyzed for both the inboard and outboard slopes.
- Case II – Sudden/Rapid drawdown: This represents the condition in which a prolonged flood stage saturates a major part of the embankment and subsequently falls faster than the soil can drain. As a result, excess pore water pressure develops which may cause the slope to become unstable. To model this condition, a three-stage computation was used (Duncan, Wong, & Wright, 1990). For analysis, the top of the levee was conservatively used as the maximum water surface elevation as this represents the most critical condition, surpassing the 6,000 cubic feet per second (cfs) and the 100-year design flow.
- Case III - Steady seepage from full flood stage (fully developed phreatic surface): This represents the condition in which water remains at or near the full flood stage for a long enough period to fully saturate the embankment and create steady-state seepage. This condition may affect outboard slope stability. To model this condition effective stresses were used. For analysis, the top of the levee was conservatively used as the maximum water surface elevation.
- Case IV – Earthquake: This model was based on a peak ground acceleration (PGA) of 0.29 for a "D" site classification. A horizontal seismic component ($k_h$) of 0.13g was estimated based on guidance presented in the 2011 FHWA-NHI-11-032 LRFD Seismic Analysis and Design of Transportation Geotechnical Features and Structural Foundations. Both the inboard and outboard slopes were evaluated for this loading condition. Due to the unlikelihood of two extreme events coinciding (i.e. earthquake event and high water), our analysis used the water elevation at the full bank flow.

To verify the design software methodology used, select hand calculation slope stability checks were performed for the end of construction and sudden/rapid drawdown loading conditions. These checks made use of the stability charts developed by Janbu (1968) for soils having friction angles equal to zero, and for those having friction angles greater than zero. The stability checks followed the guidelines presented in Appendix E of the Slope Stability EM 1110-2-1902 document. Comparison between the Slide2 software outputs and the stability charts show that the slide2 software analysis is slightly more conservative, with a safety factor approximately 10-15% lower.


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Tables 2 and 3 below summarize the results of our slope stability analysis based on the worst-case scenario models (lowest factor of safety) for both the Centennial and Rainey Park cross-sections. Appendix B provides the output reports of these models along with the select chart checks performed.

**Table 2. Slope Stability Analysis Summary – Centennial Park Critical Cross-Section[1]**

| Loading Condition | Model | Factor of Safety SLIDE2 Model | Min. Factor of Safety Required |
|---|---|---|---|
| End of Construction | Silt (ML) Fill<br>Silt (ML) Foundation<br>Inboard | 4.4 | 1.3 |
| Sudden/Rapid Drawdown | Silt (ML) Fill<br>Silt (ML) Foundation<br>Inboard | 1.1 | 1.1 |
| Steady-State | Silt (ML) Fill<br>Silt (ML) Foundation<br>Inboard | 1.6 | 1.4 |
| Earthquake | Silt (ML) Fill<br>Silt (ML) Foundation<br>Inboard | 1.1 | 1.1[2] |

1. This summary presents the lowest factor of safety computed based on both the inboard and outboard slopes.
2. Based on the standard of practice in southeast Idaho.

**Table 3. Slope Stability Analysis Summary – Rainey Park Critical Cross-Section[1]**

| Loading Condition | Cross Section | Model | Factor of Safety SLIDE2 Model | Min. Factor of Safety Required |
|---|---|---|---|---|
| End of Construction | A-A | Silt (ML) Foundation<br>Silt (ML) Embankment Fill<br>Inboard | 1.7 | 1.3 |
| | D-D | | 1.6 | |
| Sudden/Rapid Drawdown | A-A | Silty Sand with Gravel (SM) Fill<br>Silt (ML) Foundation<br>Inboard | 1.2 | 1.1 |
| | D-D | | 1.4 | |
| Steady-State | A-A | Silty Sand with Gravel (SM) Fill<br>Silt (ML) Foundation<br>Outboard | 1.5 | 1.4 |
| | D-D | | 1.3[2] | |
| Earthquake | A-A | Silty Sand with Gravel (SM) Fill<br>Silt (ML) Foundation<br>Inboard | 1.1 | 1.1[3] |
| | D-D | | 1.7 | |

1. This summary presents the lowest factor of safety computed based on both the inboard and outboard slopes.
2. Safety factor is 1.5 when using 6,000 cfs design flood elevation instead of more conservative top of embankment.
3. Based on the standard of practice in southeast Idaho.

Based on our slope stability analysis results and the hand-calculated slope stability chart checks, it is our opinion that the proposed levees will be stable during and after construction of this project, provided the design and construction recommendations presented in this report are followed. The steady state safety factor for section D-D (1.3) is below the minimum (1.4); however, when re-running the analysis at the 6,000 cfs flood elevation (~4456 feet) versus top of embankment, the safety factor increases to 1.5.

Seepage Analysis

A steady-state seepage analysis was performed for Centennial Park and Rainey Park critical cross-section to assess the need for seepage control measures. Seepage calculations were performed using the computer program SLIDE2 developed by Rocscience. Each seepage analysis evaluated both under seepage and through seepage


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conditions based on a top of levee water elevation. Hydraulic conductivity values assigned to each layer were based on laboratory test results. The ratio of the horizontal to vertical permeability ($k_h/k_v$) for the embankment fill material and the native Poorly Graded Gravel with Silt and Sand (GP-GM) was taken as 1; whereas the native Lean Clay (CL) and Silt (ML) foundation soils used a 1.5 ratio.

Each analysis computed lines of seepage and calculated exit flow rates and exit gradients on the outboard slope and toe. The exit gradients were compared against the critical gradient requirement for the top stratum on the outboard side. Per the Design Guidance for Levee Underseepage ETL 1110-2-569 dated May 1, 2005, the critical gradient is the gradient required to cause boils or heaving of the outboard top stratum and is limited to 0.5 on the outboard slope and toe.

In Centennial Park, the outboard top stratum consists of fill material comprised of silt, sand, and/or gravel. For analysis, a Silt (ML) embankment fill was used. In Rainey Park, the outboard top stratum consists of native Lean Clay (CL) or native Silt (ML) soil. The Rainey Park seepage analysis modeled both conditions for each type of embankment fill which included Lean Clay (CL), Silt (ML), and Silty Sand with Gravel (SM) material.

Table 4 below summarizes the results of our seepage analysis based on the worst-case scenario models (highest exit gradient) for both the Centennial and Rainey Park cross-sections. Appendix B provides the output reports for these models.

**Table 4. Summary of Seepage Analysis Results – Outboard Slope**

| Model | Max. Flow Rate ($ft^3$/day) | Max. Exit Gradient |
|---|---|---|
| Centennial Park<br>Silt (ML) Foundation<br>Embankment Fill | 0.0421 | 0.19 |
| Rainey Park<br>Silt (ML) Foundation<br>Embankment Fill | 0.21 | 0.5 |

Based on the results of our seepage analysis, we consider the potential for boils or heaving to be low at the project site and we do not consider seepage control measures are necessary.

Settlement Analysis

A settlement analysis was performed for the critical Rainey Park levee cross-section to estimate collapse and post-construction settlement of the native Lean Clay (CL) and Silt (ML) foundation soils. To perform the settlement computations, the computer program Settle3D developed by Rocscience was utilized. Based on the nature of the foundation soils, settlement at various loading conditions was evaluated. The Westergaard stress distribution method was used for analysis.

Two (2) models, one for each anticipated foundation soil, were developed. These models were based on the subsurface soil conditions observed at the different boring and test pit locations. The Lean Clay (CL) model included 16 feet of native clay over four (4) feet of native gravel; and the Silt (ML) model included 20 feet of native silt over five (5) feet of native gravel. The soil properties used were primarily based on field and laboratory test results.


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Table 5 presents a summary of the settlement analysis results for each model.

**Table 5. Settlement Analysis Summary Results**

| Foundation Soil | Potential Collapse Settlement (in) | Post-Construction Settlement (in)[1] |
|---|---|---|
| Lean Clay (CL) | 0 to 0.5 | Up to 1 |
| Silt (ML) | 2 to 2.5 | Up to 2 |

1. Settlement estimates assume a 2-month construction period for the levees.

The native partially saturated Lean Clay (CL) is slightly over-consolidated soil having low to moderate compressibility. For this foundation soil, the majority of settlement is anticipated to occur during construction, as the embankment load is placed and compacted.

The native partially saturated Silt (ML) is a normally consolidated soil having low to moderate collapse potential. The majority of settlement of the Silt (ML) foundation soil is anticipated to occur during construction, as the embankment load is placed and compacted. The full collapse settlement of this unit under the embankment load is anticipated to be between 2 and 2.5 inches. For the anticipated full collapse settlement to occur, the Silt (ML) must first become saturated; a situation that may occur during a prolonged flood event. Post-construction settlement of this material is anticipated to be up to 2 inches.

Construction of the proposed Centennial Park Levee will primarily consist of cutting portions of the existing levee inboard slopes and placing very minimal fill (between 0.5 and 3 feet in thickness) at setback locations. Fill material will be placed over existing embankment fill which varies in classification but consists of a combination of silt, sand, and gravel. Provided the fill subgrade is prepared as recommended in the Subgrade Preparation – Centennial Park Levee subsection of this report, we anticipate collapse settlement will be negligible and up to 1 inch of post-construction settlement may occur.

Liquefaction Susceptibility

To evaluate the liquefaction resistance of onsite soils during a seismic event, a liquefaction analysis was performed. Considering the subsurface soil conditions encountered at the project site, the soft to stiff Sandy Silt (ML) layer observed below the ground surface and extending to a depth of approximately 20.5 feet in Boring 21-STR-B01, was the most critical soil material to be evaluated for liquefaction potential. Refer to the Geotechnical Engineering Data Report for Centennial-Rainey Levee Setback & Ecosystem Enhancement project dated June 4, 2025 , prepared by STRATA, for subsurface information and the exploratory logs.

The liquefaction resistance of the soft to stiff Sandy Silt (ML) was evaluated based on the Seed and Idriss (1971) Simplified Method. The calculations performed took into consideration equations, charts, and/or corrections that others have incorporated to this method including the correction factor for rod length ($C_R$) listed by Robertson and Wride (1998), the overburden stress correction factor ($C_N$) equation proposed by Liam and Whitman (1986a), the estimated average stress reduction coefficient equations proposed by Liam and Whitman (1986b), and the clean sand base curve for SPT for 7.5 magnitude earthquakes with data from liquefaction case histories recommended for calculation of the Cyclic Resistance Ratio (CRR) developed by Seed et al. 1985. Appendix E presents the results of our liquefaction analysis.

The factors of safety computed for the soft to stiff Sandy Silt (ML) material ranged between 3.2 and 3.7. Based on these results, the high fines content of the Sandy Silt (ML), and the absence of thick layers of loose saturated granular soils below the proposed levees, it is our opinion that liquefaction and lateral spreading potential at the project site is low.


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**Pavement Design**

Parking Lots and Main Drive Access Roads

The recommended pavement section for the proposed parking lots and main drive access roads was computed based on the Idaho Gravel Equivalency (GE) Method for flexible pavement design and assumed a 20-year design life. For analysis, laboratory test results along with soil correlations were used to model the strength of the anticipated subgrade, subbase, and base soils.

The exposed subgrade soil, after stripping, is anticipated to consist of firm to stiff undocumented fill classified as Silt (ML) with varying amounts of sand and gravel. For analysis, an R-value of 30 was assigned to the Silt (ML) subgrade soil. A traffic index (TI) of five (5) was used for the parking areas and a TI of six (6) was used for the main drive access roads to account for moving vans, garbage trucks, fire trucks, school buses, and snow plowing equipment.

The recommended flexible hot-mix asphalt (HMA) pavement sections for the proposed parking areas and main drive access roads are presented in Table 6 below.

**Table 6. Flexible Pavement Design Recommendations**

| Pavement Section | Subgrade Soil | HMA (inches) | Aggregate Base (inches) | Granular Subbase (inches) |
|---|---|---|---|---|
| Parking Lot (Centennial and Rainey Parks) | Silt (ML) Undocumented Fill or Native | 2.5 | 4 | 8 |
| Main Drive Access Road (Centennial and Rainey Parks) | Silt (ML) Undocumented Fill or Native | 2.5 | 4 | 12 |

Pavement sections should be constructed over properly prepared and compacted subgrade soils as recommended in the Subgrade Preparation – Parking Areas and Paved Trails subsection of this report. Uncrushed Granular Subbase and Crushed Aggregate Base shall conform to the material requirements and be compacted to the specifications presented in Table 1. In addition, the asphalt concrete shall consist of ½-inch nominal aggregate Superpave HMA Class SP-2 or SP-3 mix design and utilize a PG 52-28 asphalt binder. Asphalt concrete must be compacted to between 92% and 96% of the maximum density for a Superpave mix design. Asphalt construction and final surface smoothness, joints, and density should meet ISPWC specifications.

We recommend that crack maintenance be accomplished on all asphalt pavement surfaces every 3 to 5 years to reduce the potential for surface water infiltration into the underlying pavement subgrade. Surface and subgrade drainage are extremely important to the performance of the pavement section. Therefore, we recommend that subgrade, subbase, base, and asphalt surfaces slope at no less than 1.5% to an appropriate stormwater collection area and be conveyed to the stormwater disposal system or other appropriate location that does not impact adjacent buildings or properties. Ponding water at the pavement subgrade surface can induce heaving during freeze-thaw cycles. The pavement's life is dependent on achieving adequate drainage throughout the section, especially at the subgrade where infiltration of water can induce consolidation in the fill soils.

Paved Trails

Paved trails are planned to be constructed on both the Centennial and Rainey Parks. Based on the anticipated low vehicular loads and typical trail pavement sections used by the City, we recommend the trail pavement section consist of 2.5 inches of HMA over 6 inches of Aggregate Base. It is important to note that, based on the thickness of the proposed pavement section and the frost depth in the project area (36 inches), the trail pavement section is susceptible to frost heave considering the silty/clayey subgrade soils. As such, the section is likely to require recurrent long-term maintenance.


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The trail pavement section should be constructed over properly prepared and compacted subgrade soils as recommended in the *Subgrade Preparation – Parking Areas and Paved Trails* subsection of this report. The Crushed Aggregate Base shall conform to the material requirements and be compacted to the specifications presented in Table 1. In addition, the asphalt concrete shall consist of ½-inch nominal aggregate Superpave HMA Class SP-2 or SP-3 mix design and utilize a PG 52-28 asphalt binder. Asphalt concrete must be compacted to between 92% and 96% of the maximum density for a Superpave mix design. Asphalt construction and final surface smoothness, joints, and density should meet ISPWC specifications.


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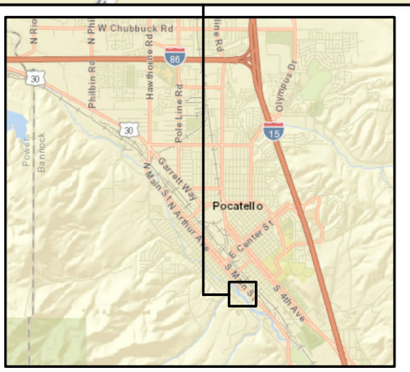



N

0 150 300 600 Feet

Scale: 1" = 300'

1. The locations of all features are approximate.
2. This vicinity map is intended to help visualize the information provided in the report. These locations and information were added to existing maps prepared by others.

# VICINITY MAP

## Centennial Park Redesign Project Pocatello, Idaho

STRATA

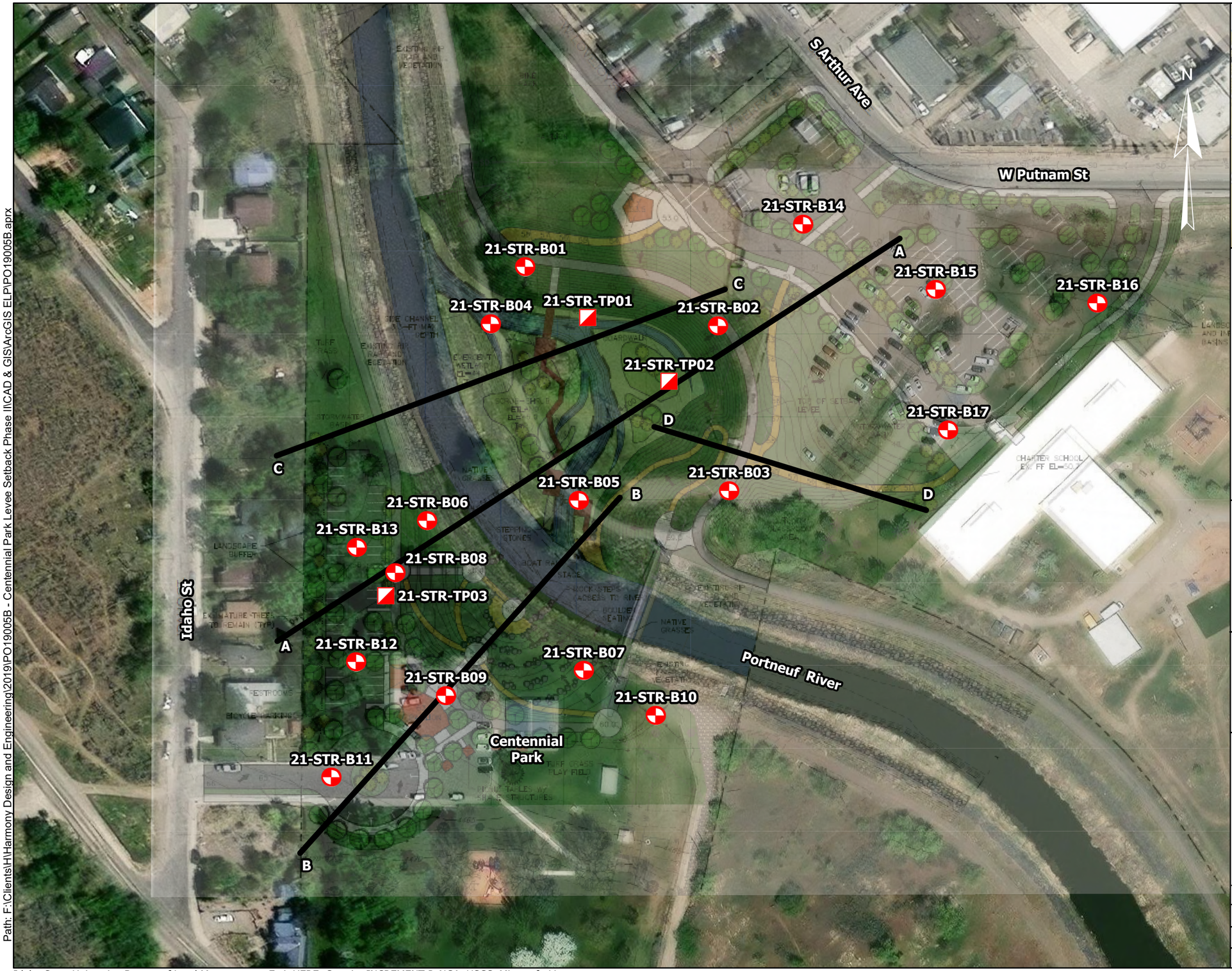
| | |
|---|---|
| Client: Harmony Design & Engineering | |
| Client Proj. No.: N/A | File No.: PO19005B |
| Drawn By: J. Cheek | Checked By: M. Tangarife |
| Date: 4/22/21 | Plate 1 |

Path: Z:\CLIENTS\H\Harmony Design and Engineering\PO19005B - Centennial Park Levee Setback Phase II\CAD & GIS\PO19005B\PO19005B.aprx

Idaho State University, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, Intermap, NGA, USGS, Esri, HERE, Garmin, NGA, USGS, NPS

# APPENDIX A

## Exploration Location Plan & Existing and Proposed Critical Cross-Sections




Idaho State University, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, NGA, USGS, Microsoft, Vantor

## Reference Map

## Legend

| | |
|---|---|
| 21-STR-B01 | Approximate location of boring observed by STRATA between October 10 and October 15, 2021 |
| 21-STR-TP01 | Approximate location of test pit observed by STRATA on December 13, 2021 |
| A-A | Approximate line of cross section |

0 50 100 200 Feet

Scale: 1" = 100'

for 11" X 17" sheet

STRATA

## EXPLORATION LOCATION PLAN

**Centennial Park Redesign Project Pocatello, Idaho**

| | |
|---|---|
| Client: Harmony Design & Engineering | |
| Client File No.: N/A | File No.: PO19005B |
| Drawn By: B. Miller | Checked By: M. Tangarife |
| Date: 12/30/2025 | App. A.1 |

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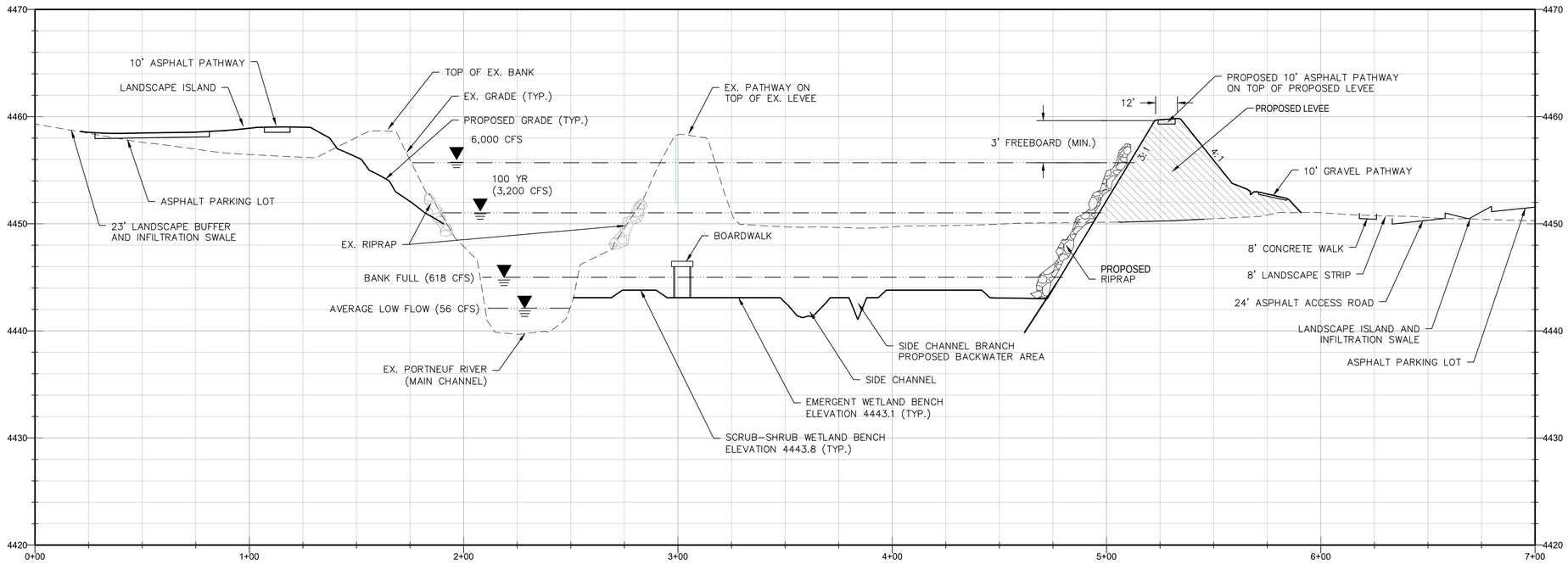
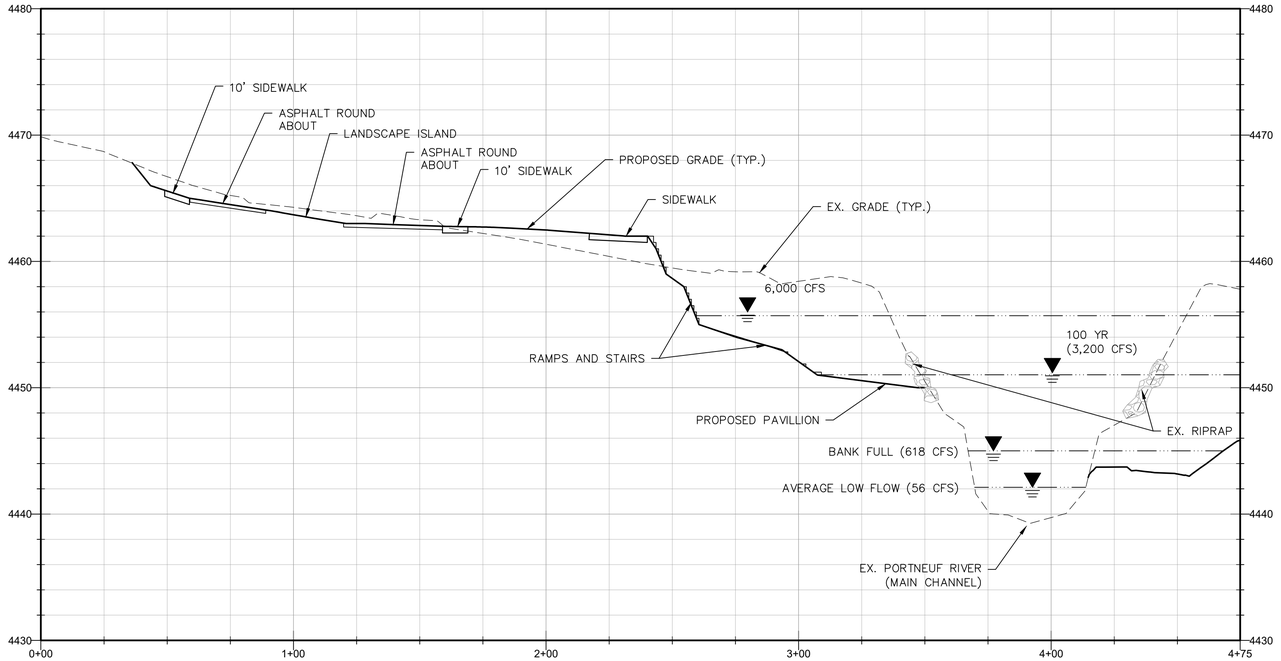



## CROSS SECTION - A-A

30' 15' 0 30' 60'

HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 6'




## CROSS SECTION - B-B

30' 15' 0 30' 60'

HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 6'

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BIOTA

JEO CONSULTING GROUP

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DRAWING IS TO SCALE IF BAR MEASURES:
1" = FULL SCALE
2" = HALF SCALE

**FILE :** XSEC.DWG

**PROJ. #:** 19010

**DATE:** 8/29/2022

**REVISIONS:**

60% DESIGN IMPROVEMENT PLANS - NOT FOR CONSTRUCTION

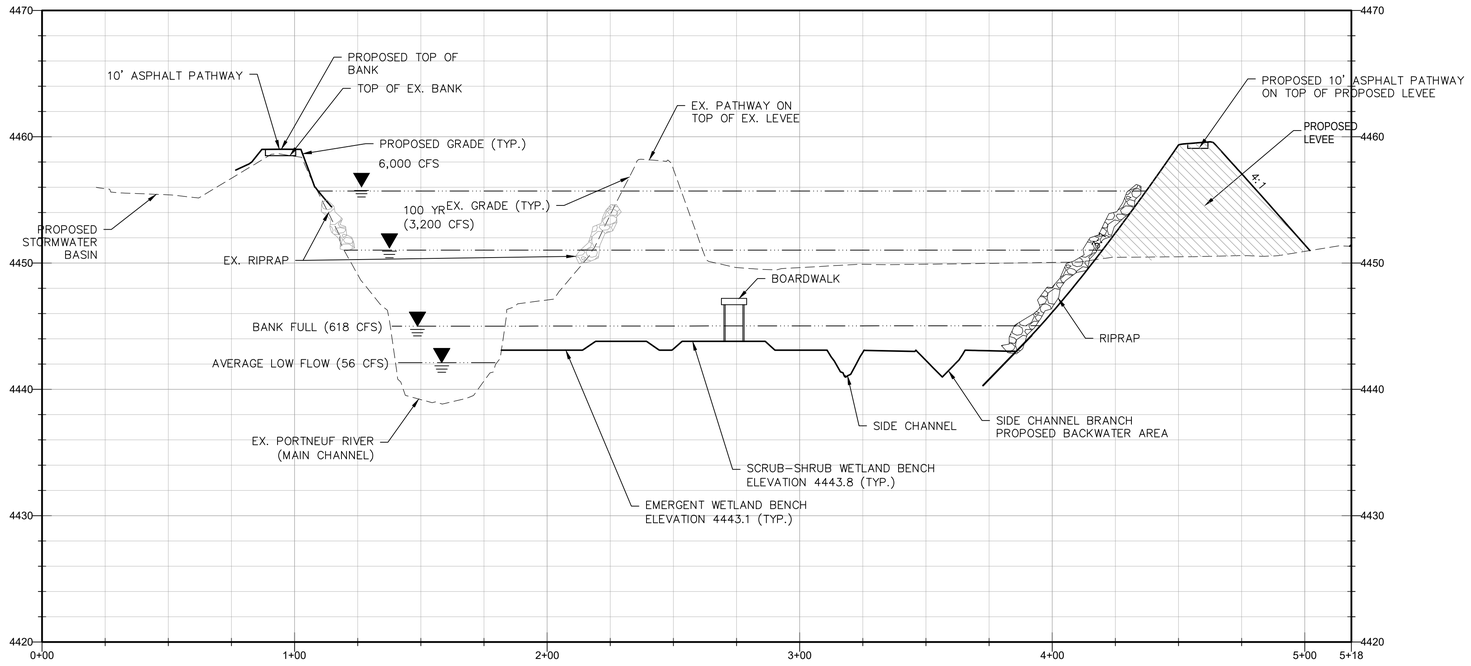
**PROJECT NAME**

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

CROSS SECTIONS

**SHEET #**

**B2.4**




## CROSS SECTION - C-C

30' 15' 0 30' 60'

HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 6'

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0 1

DRAWING IS TO SCALE IF BAR MEASURES:
1" = FULL SCALE
2" = HALF SCALE

**FILE :** XSEC.DWG

**PROJ. #:** 19010

**DATE:** 8/29/2022

**REVISIONS:**

60% DESIGN IMPROVEMENT PLANS - NOT FOR CONSTRUCTION

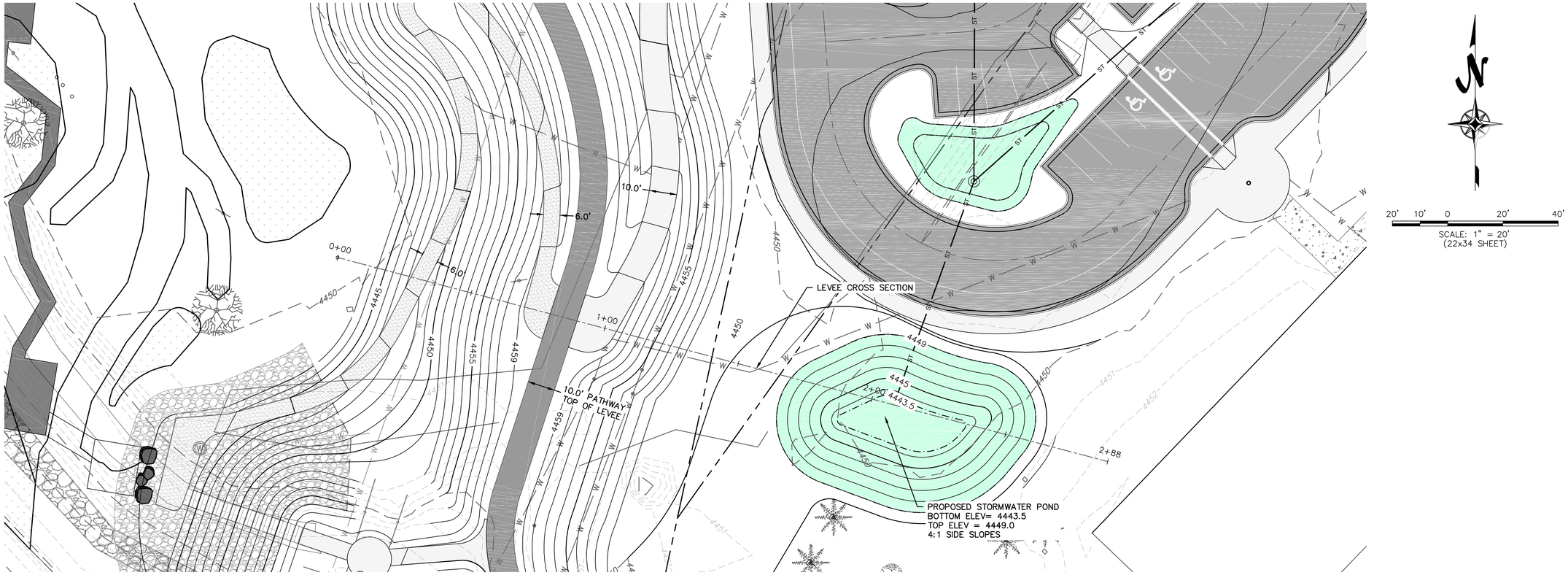
PROJECT NAME

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

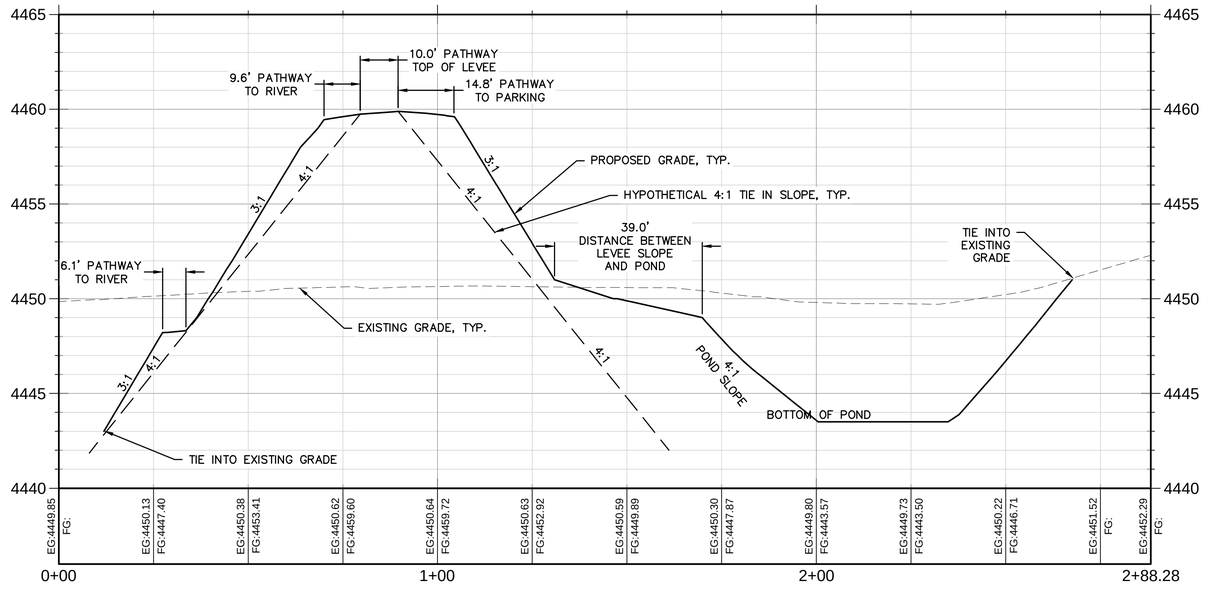
CROSS SECTIONS

SHEET #

**B2.5**




## LEVEE CROSS SECTION PLAN VIEW D-D




## LEVEE CROSS SECTION PROFILE VIEW D-D

20' 10' 20' 40'
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 4'

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DRAWING IS TO SCALE IF BAR MEASURES: 1" = FULL SCALE ½" = HALF SCALE

DWG: EX-1_XSECT
PROJ. #: 19010-270-1
DATE: 12/26/2025

REVISIONS:

PROJECT NAME
CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID
LEVEE CROSS SECTION

SHEET #
EX-1

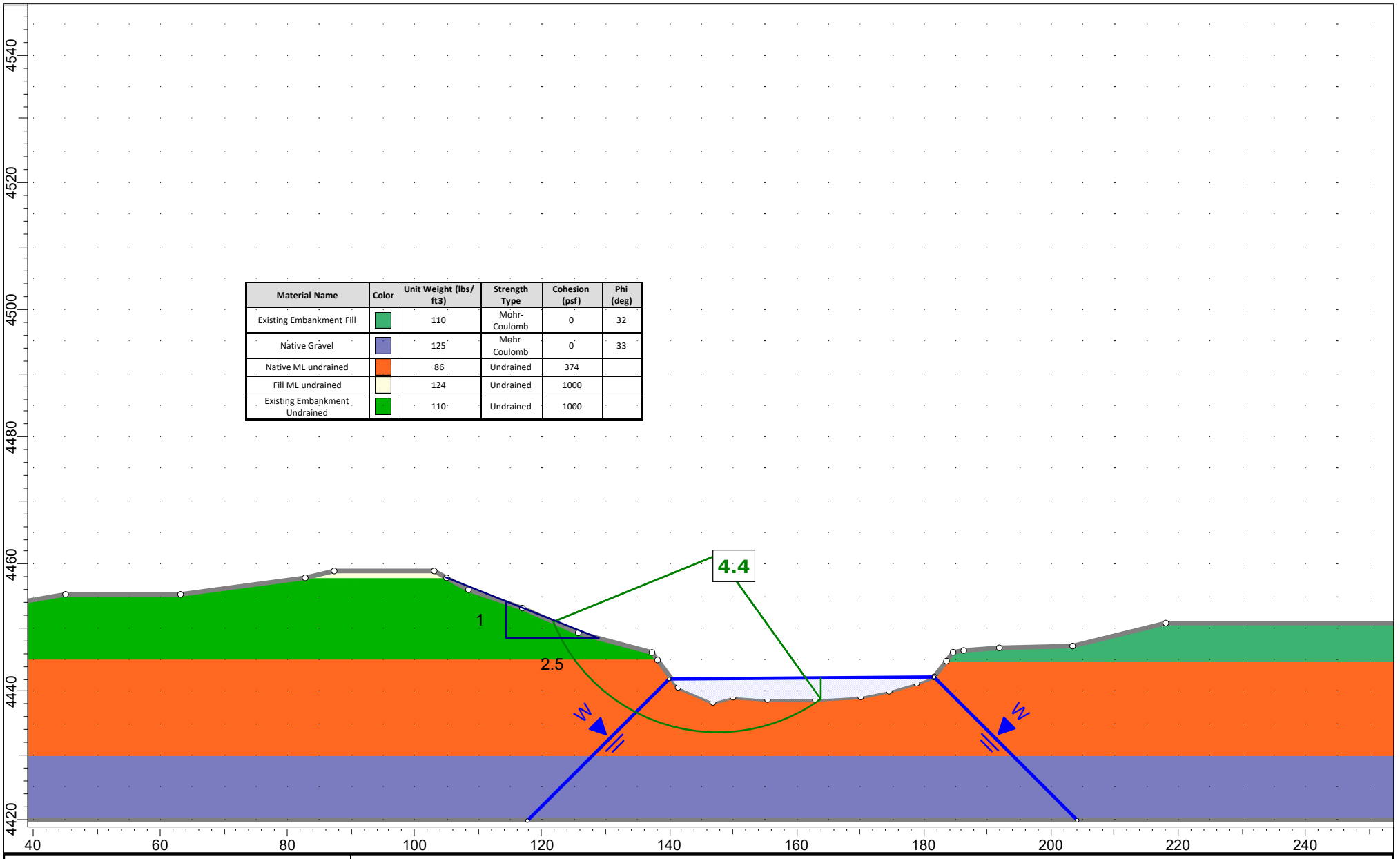
# APPENDIX B

## Slope Stability Analyses

# APPENDIX B.1

## Centennial Park
## Slope Stability Analyses

| Material Name | Color | Unit Weight (lbs/ft3) | Strength Type | Cohesion (psf) | Phi (deg) |
|---|---|---|---|---|---|
| Existing Embankment Fill | | 110 | Mohr-Coulomb | 0 | 32 |
| Native Gravel | | 125 | Mohr-Coulomb | 0 | 33 |
| Native ML undrained | | 86 | Undrained | 374 | |
| Fill ML undrained | | 124 | Undrained | 1000 | |
| Existing Embankment Undrained | | 110 | Undrained | 1000 | |

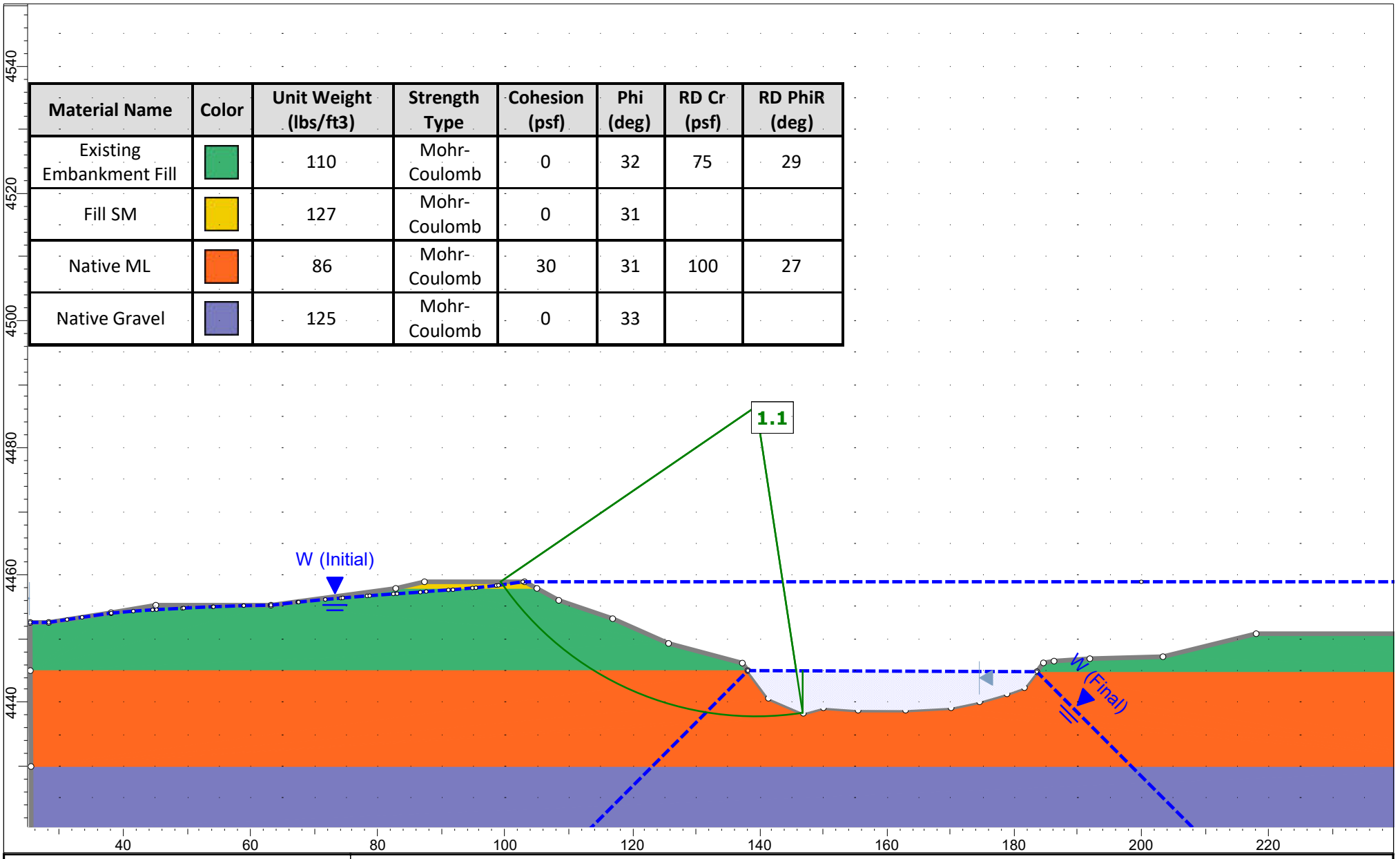



# Global Stability, Case I - End of Construction

| | | | |
|---|---|---|---|
| *Project* | Centennial Park Redesign Project | *Scenario* | Silt (ML) Foundation Soil with Silt (ML) Fill |
| *Drawn By* | Z. Lootens | *Method* | Spencer |
| *Date* | 11/9/2022, 1:55:36 PM | *Client* | STRATA |

SLIDEINTERPRET 9.019

| Material Name | Color | Unit Weight (lbs/ft3) | Strength Type | Cohesion (psf) | Phi (deg) | RD Cr (psf) | RD PhiR (deg) |
|---|---|---|---|---|---|---|---|
| Existing Embankment Fill | | 110 | Mohr-Coulomb | 0 | 32 | 75 | 29 |
| Fill SM | | 127 | Mohr-Coulomb | 0 | 31 | | |
| Native ML | | 86 | Mohr-Coulomb | 30 | 31 | 100 | 27 |
| Native Gravel | | 125 | Mohr-Coulomb | 0 | 33 | | |



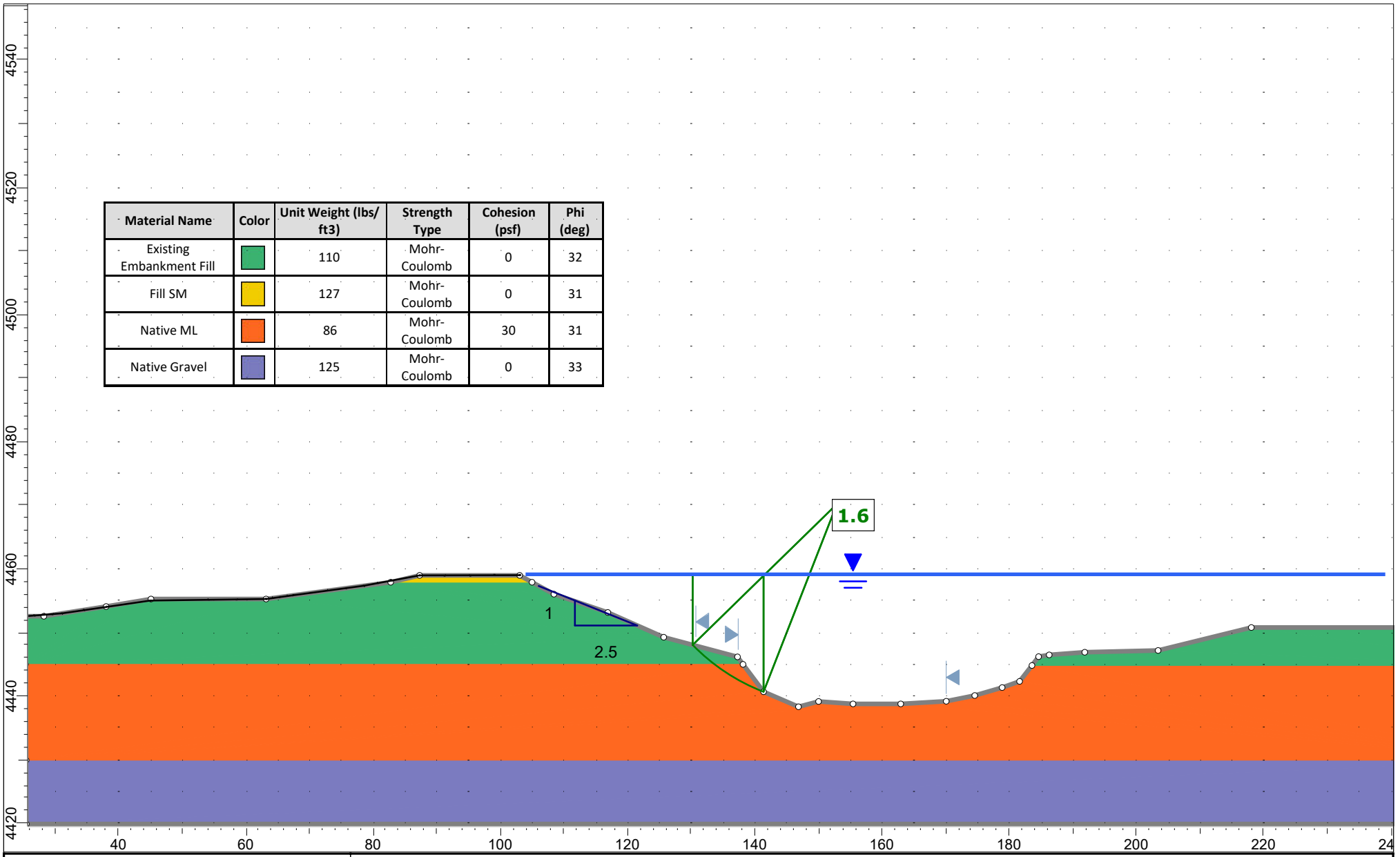

# Global Stability, Case II - Rapid/Sudden Drawdown - Master Scenario

STRATA

| | | | |
|---|---|---|---|
| Project | Centennial Park Redesign Project | Scenario | Silt (ML) Foundation with Silt (ML) Fill |
| Drawn By | Z. Lootens | Method | GLE / Morgenstern-Price |
| Date | 11/9/2022, 1:55:36 PM | Client | STRATA |

SLIDEINTERPRET 9.019

| Material Name | Color | Unit Weight (lbs/ft3) | Strength Type | Cohesion (psf) | Phi (deg) |
|---|---|---|---|---|---|
| Existing Embankment Fill | | 110 | Mohr-Coulomb | 0 | 32 |
| Fill SM | | 127 | Mohr-Coulomb | 0 | 31 |
| Native ML | | 86 | Mohr-Coulomb | 30 | 31 |
| Native Gravel | | 125 | Mohr-Coulomb | 0 | 33 |

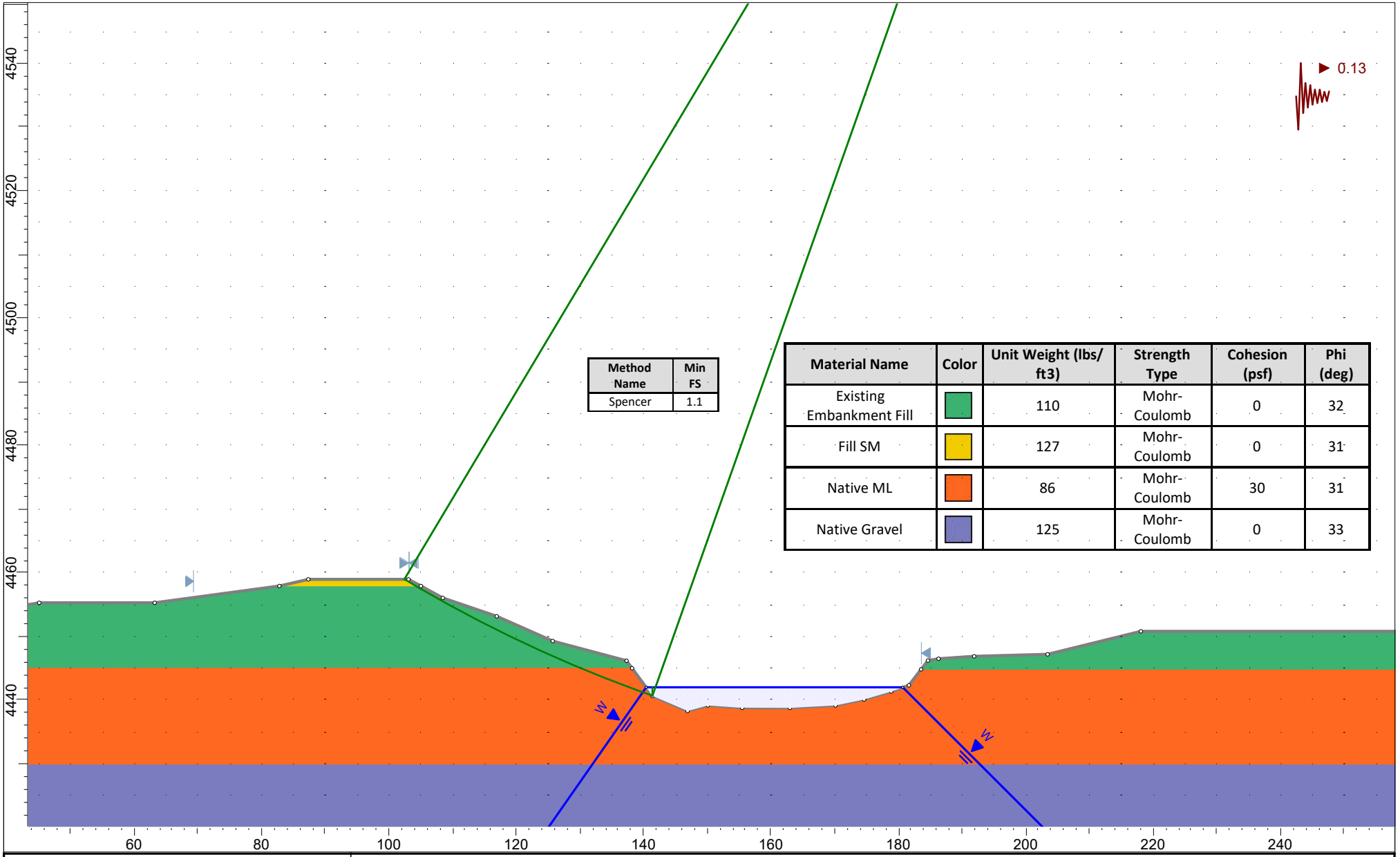



# Global Stability, Case III - Steady State

STRATA

| | | | |
|---|---|---|---|
| Project | Centennial Park Redesign Project | Scenario | Silt (ML) Foundation Soil with Silt (ML) Fill |
| Drawn By | Z. Lootens | Method | Spencer |
| Date | 11/9/2022, 1:55:36 PM | Client | STRATA |

SLIDEINTERPRET 9.019




| Method Name | Min FS |
|---|---|
| Spencer | 1.1 |

| Material Name | Color | Unit Weight (lbs/ ft3) | Strength Type | Cohesion (psf) | Phi (deg) |
|---|---|---|---|---|---|
| Existing Embankment Fill | | 110 | Mohr-Coulomb | 0 | 32 |
| Fill SM | | 127 | Mohr-Coulomb | 0 | 31 |
| Native ML | | 86 | Mohr-Coulomb | 30 | 31 |
| Native Gravel | | 125 | Mohr-Coulomb | 0 | 33 |

STRATA

SLIDEINTERPRET 9.019

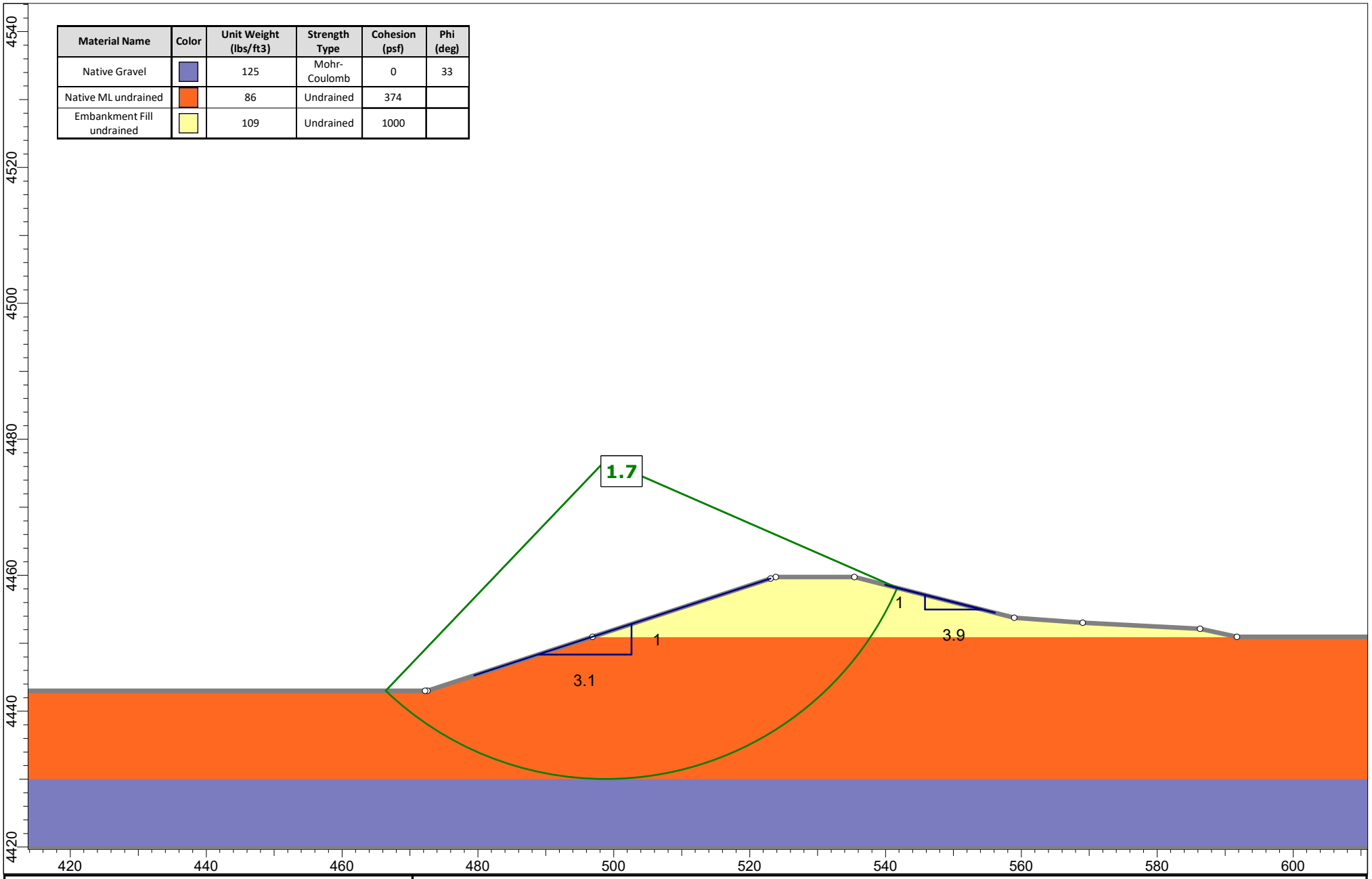
# Global Stability, Case IV - Seismic

| | | | |
|---|---|---|---|
| *Project* | Centennial Park Redesign Project | *Scenario* | Silt (ML) Foundation Soil with Silt (ML) Fill |
| *Drawn By* | Z. Lootens | *Method* | Spencer |
| *Date* | 11/9/2022, 1:55:36 PM | *Client* | STRATA |

# APPENDIX B.2

## Rainey Park
## Slope Stability Analyses

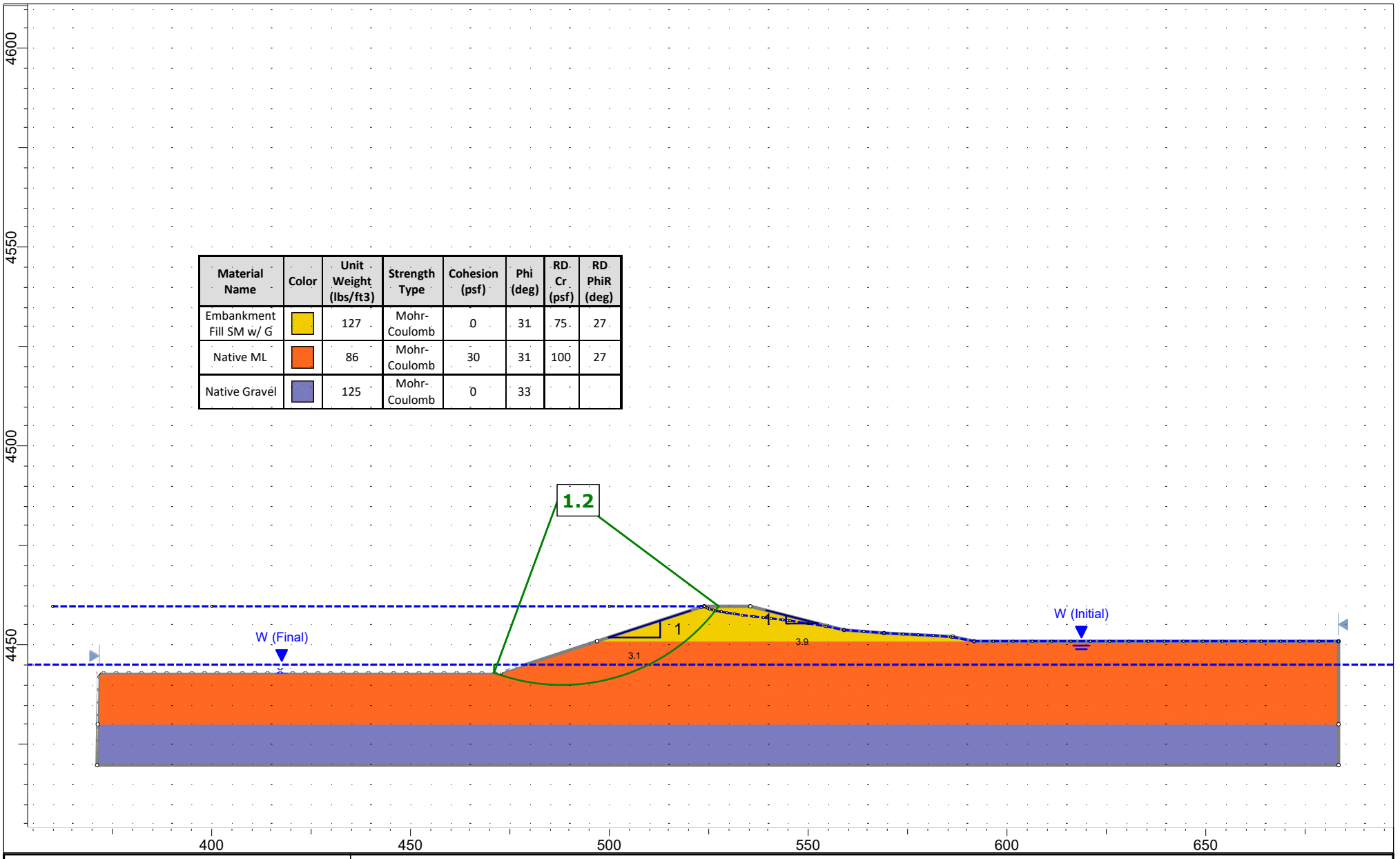
| Material Name | Color | Unit Weight (lbs/ft3) | Strength Type | Cohesion (psf) | Phi (deg) |
|---|---|---|---|---|---|
| Native Gravel | | 125 | Mohr-Coulomb | 0 | 33 |
| Native ML undrained | | 86 | Undrained | 374 | |
| Embankment Fill undrained | | 109 | Undrained | 1000 | |




STRATA

| | | | |
|---|---|---|---|
| Scenario | Rainey Park - Case I - End of Construction | | |
| Client | Harmony Design & Engineering | Project Name | Centennial Park Redesign Project |
| Drawn By | Z. Lootens | Project Number | PO19005B |
| Date | 11/23/2022 | Model | Silt (ML) Fill over Silt (ML) Foundation Soil |

| Material Name | Color | Unit Weight (lbs/ft3) | Strength Type | Cohesion (psf) | Phi (deg) | RD Cr (psf) | RD PhiR (deg) |
|---|---|---|---|---|---|---|---|
| Embankment Fill SM w/ G | | 127 | Mohr-Coulomb | 0 | 31 | 75 | 27 |
| Native ML | | 86 | Mohr-Coulomb | 30 | 31 | 100 | 27 |
| Native Gravel | | 125 | Mohr-Coulomb | 0 | 33 | | |

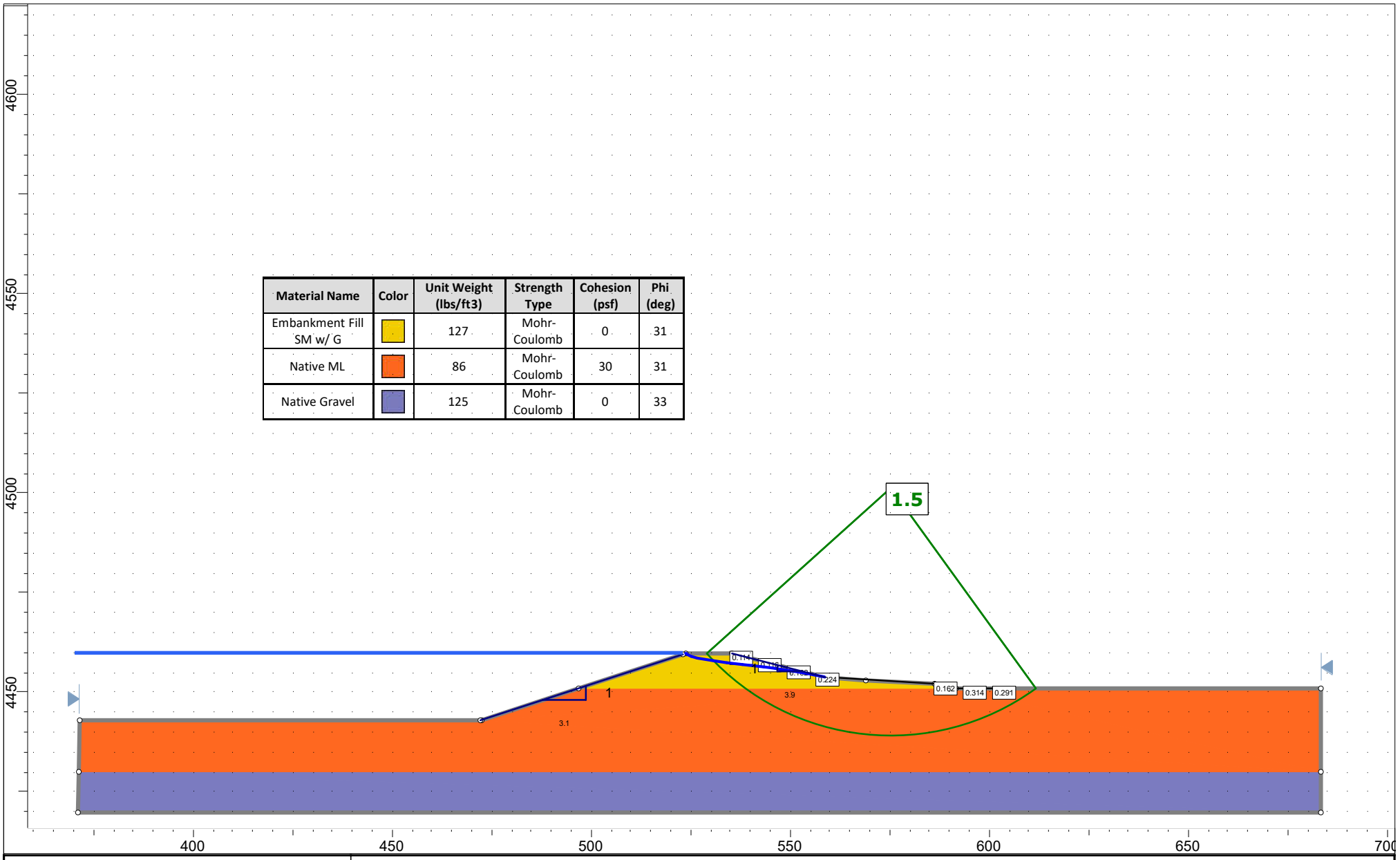



# Global Stability, Case II - Rapid/Sudden Drawdown

| | | | |
|---|---|---|---|
| *Project* | Centennial Park Redesign Project | *Scenario* | Silt (ML) Foundation Soil with Silty Sand with Gravel (SM) Fill |
| *Drawn By* | Z. Lootens | *Method* | Spencer |
| *Date* | 10/31/2022, 3:30:31 PM | *Client* | STRATA |

SLIDEINTERPRET 9.019

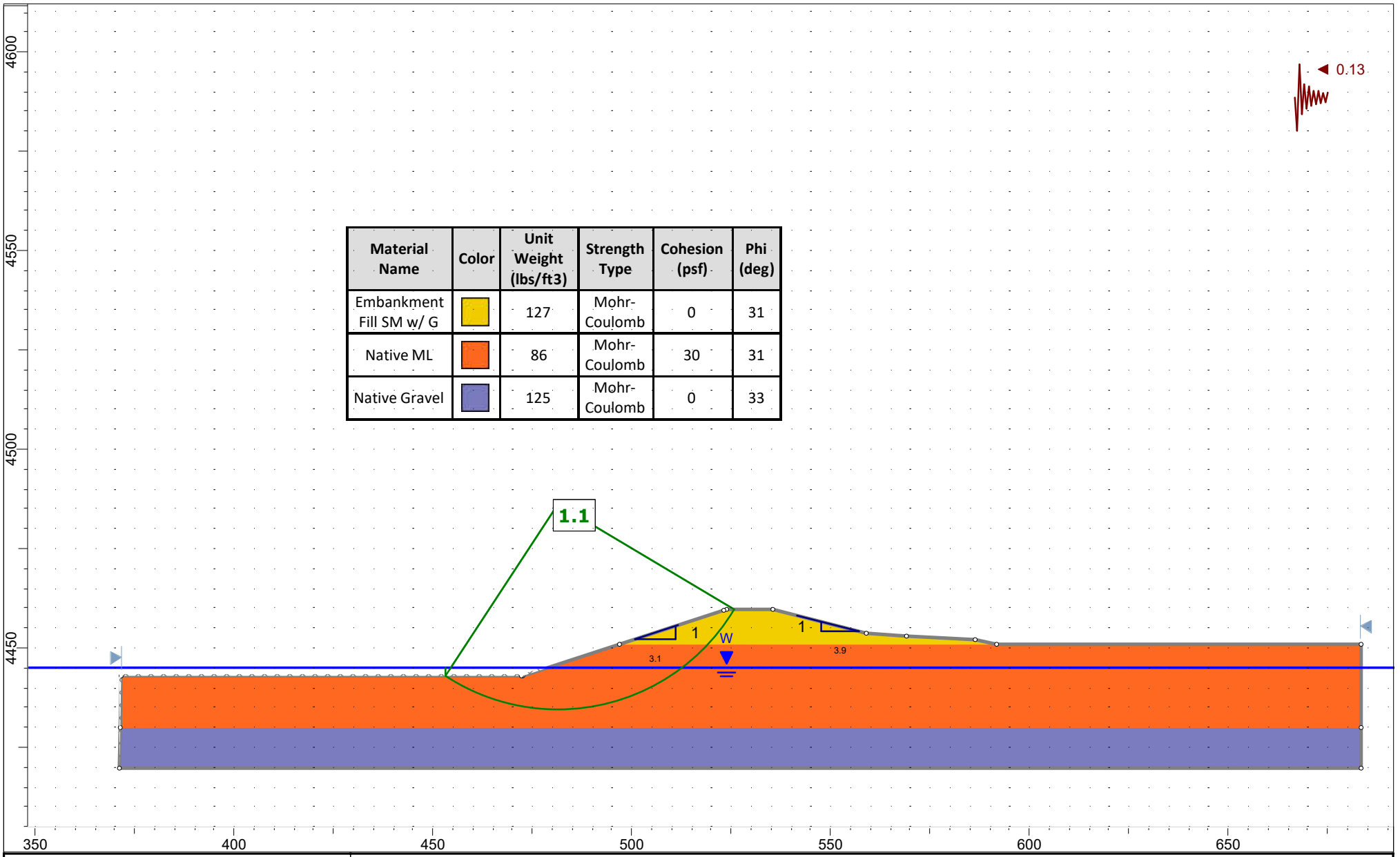
| Material Name | Color | Unit Weight (lbs/ft3) | Strength Type | Cohesion (psf) | Phi (deg) |
|---|---|---|---|---|---|
| Embankment Fill SM w/ G | | 127 | Mohr-Coulomb | 0 | 31 |
| Native ML | | 86 | Mohr-Coulomb | 30 | 31 |
| Native Gravel | | 125 | Mohr-Coulomb | 0 | 33 |




# Global Stability, Case III - Steady-State Seepage

| | | | |
|---|---|---|---|
| *Project* | Centennial Park Redesign Project | *Scenario* | Steady State Seepage Silt SM Emankment OB |
| *Drawn By* | Z. Lootens | *Method* | Spencer |
| *Date* | 10/31/2022, 3:30:31 PM | *Client* | STRATA |

SLIDEINTERPRET 9.019



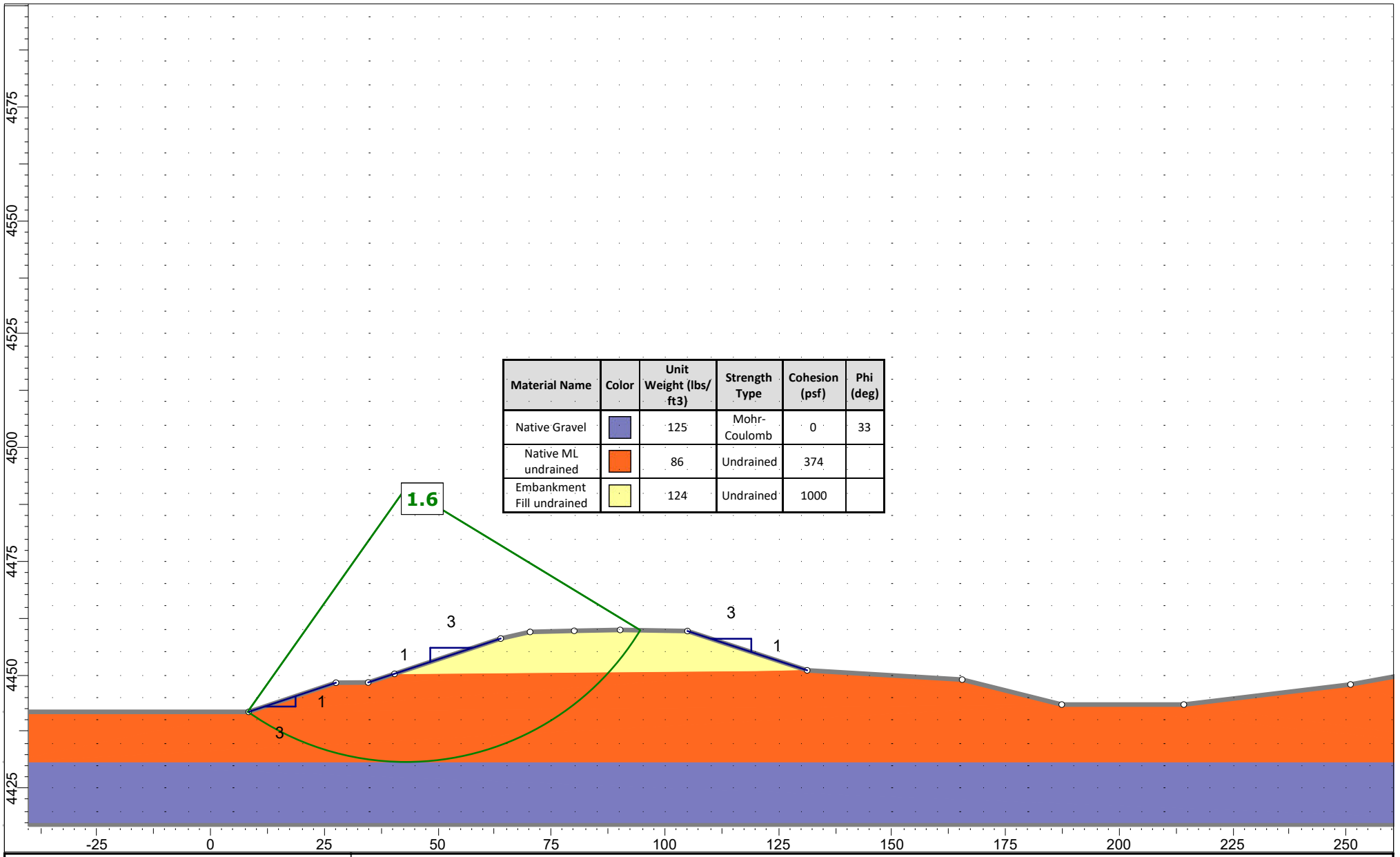

| Material Name | Color | Unit Weight (lbs/ft3) | Strength Type | Cohesion (psf) | Phi (deg) |
|---|---|---|---|---|---|
| Embankment Fill SM w/ G | | 127 | Mohr-Coulomb | 0 | 31 |
| Native ML | | 86 | Mohr-Coulomb | 30 | 31 |
| Native Gravel | | 125 | Mohr-Coulomb | 0 | 33 |

# Global Stability, Case IV - Seismic

STRATA

SLIDEINTERPRET 9.019

| | | | |
|---|---|---|---|
| *Project* | Centennial Park Redesign Project | *Scenario* | Psuedo Static Silt Embankment SM |
| *Drawn By* | Z. Lootens | *Method* | Spencer |
| *Date* | 10/31/2022, 3:30:31 PM | *Client* | STRATA |




| Material Name | Color | Unit Weight (lbs/ft3) | Strength Type | Cohesion (psf) | Phi (deg) |
|---|---|---|---|---|---|
| Native Gravel | | 125 | Mohr-Coulomb | 0 | 33 |
| Native ML undrained | | 86 | Undrained | 374 | |
| Embankment Fill undrained | | 124 | Undrained | 1000 | |

# Global Stability - Section D-D', Case I - End of Construction

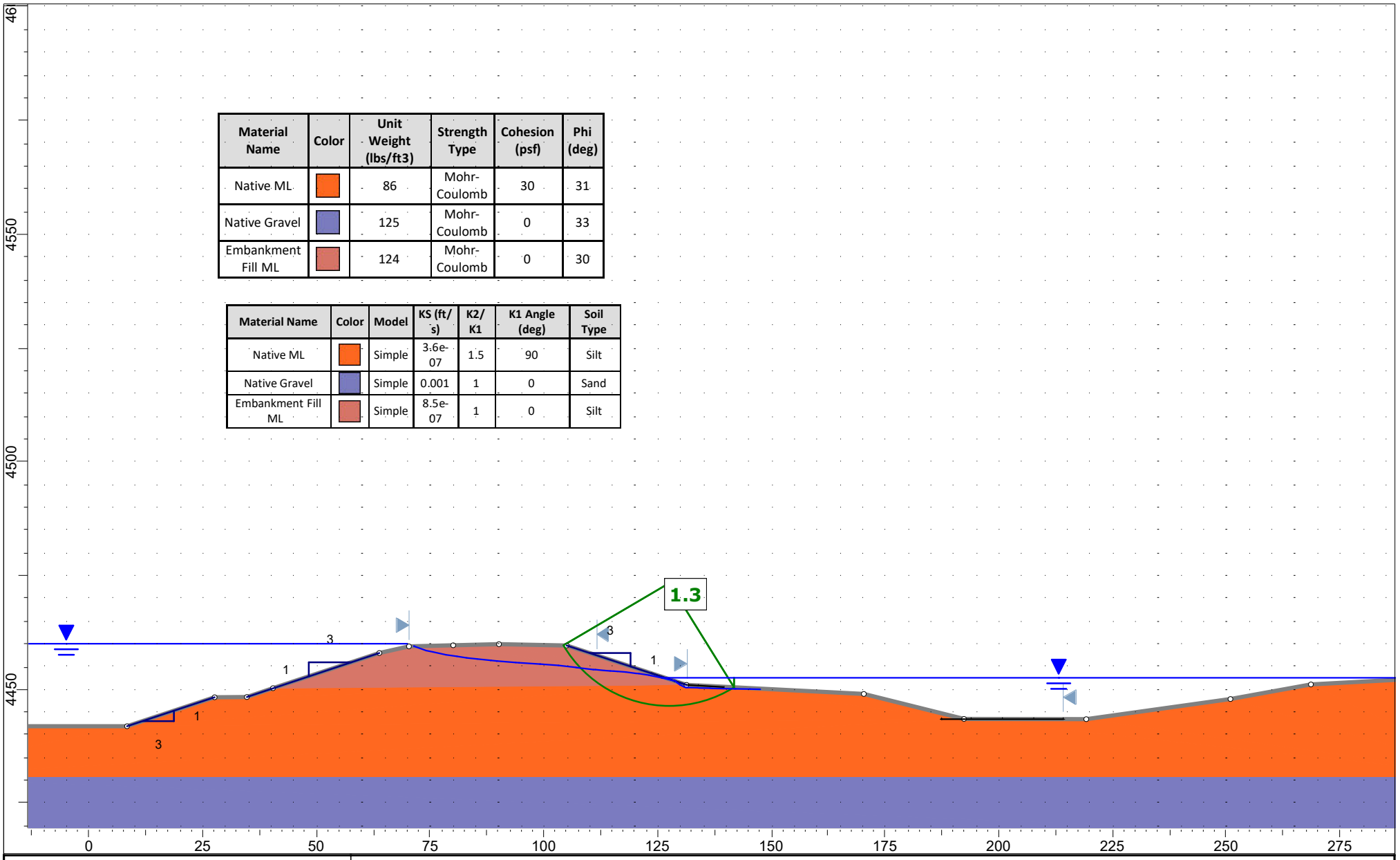
| | | | |
|---|---|---|---|
| *Project* | Centennial Park Redesign Project | *Scenario* | Short Term |
| *Drawn By* | Z. Lootens | *Method* | Janbu simplified |
| *Date* | 10/31/2022, 3:30:31 PM | *Client* | STRATA |

STRATA

SLIDEINTERPRET 9.019

| Material Name | Color | Unit Weight (lbs/ft3) | Strength Type | Cohesion (psf) | Phi (deg) |
|---|---|---|---|---|---|
| Native ML | | 86 | Mohr-Coulomb | 30 | 31 |
| Native Gravel | | 125 | Mohr-Coulomb | 0 | 33 |
| Embankment Fill ML | | 124 | Mohr-Coulomb | 0 | 30 |

| Material Name | Color | Model | KS (ft/s) | K2/K1 | K1 Angle (deg) | Soil Type |
|---|---|---|---|---|---|---|
| Native ML | | Simple | 3.6e-07 | 1.5 | 90 | Silt |
| Native Gravel | | Simple | 0.001 | 1 | 0 | Sand |
| Embankment Fill ML | | Simple | 8.5e-07 | 1 | 0 | Silt |




# Global Stability - Section D-D', Case II - Steady State

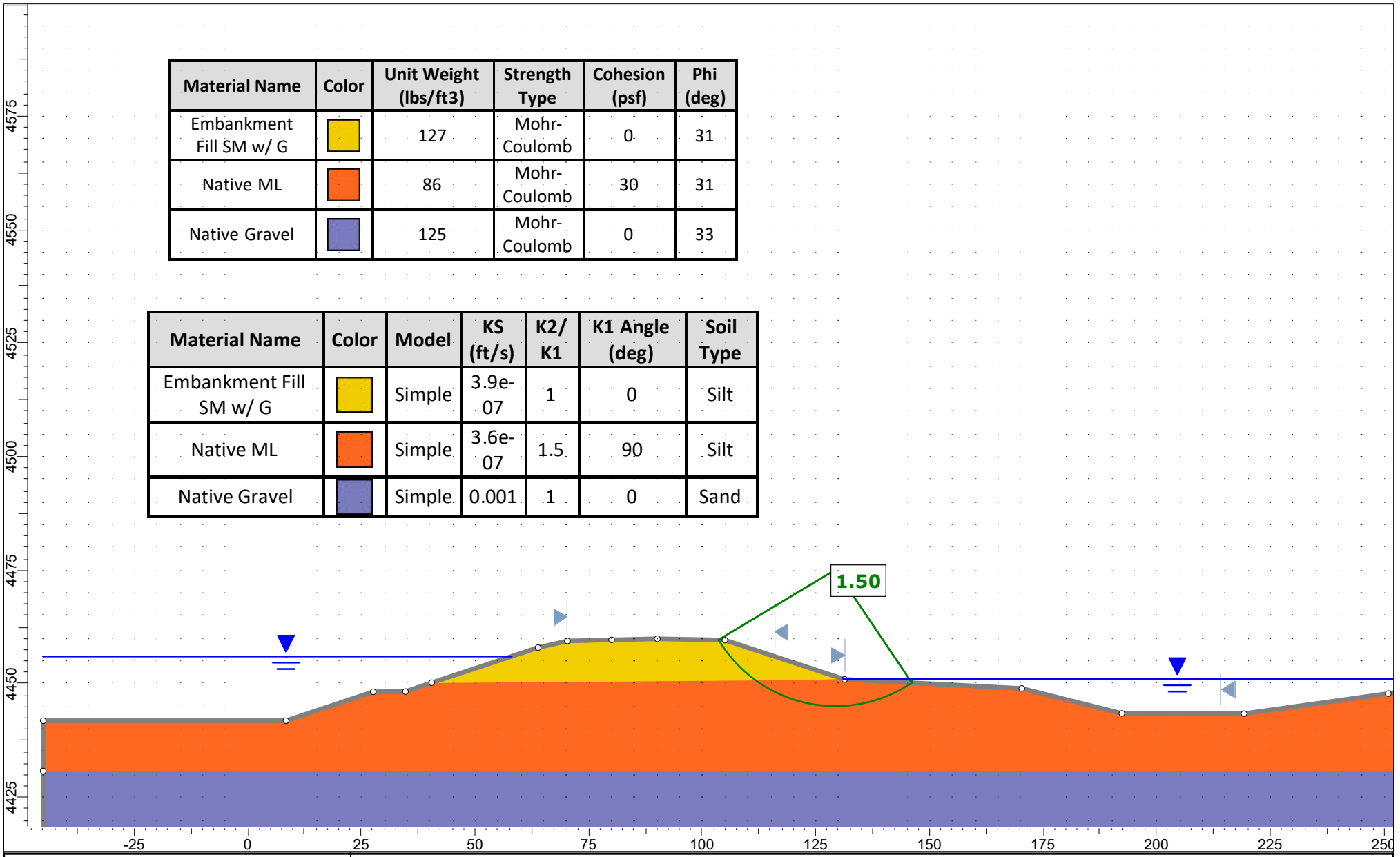
STRATA

SLIDEINTERPRET 9.019

| | | | |
|---|---|---|---|
| *Project* | Centennial Park Redesign Project | *Scenario* | Steady State ML |
| *Drawn By* | Z. Lootens | *Method* | Spencer |
| *Date* | 10/31/2022, 3:30:31 PM | *Client* | STRATA |

| Material Name | Color | Unit Weight (lbs/ft3) | Strength Type | Cohesion (psf) | Phi (deg) |
|---|---|---|---|---|---|
| Embankment Fill SM w/ G | | 127 | Mohr-Coulomb | 0 | 31 |
| Native ML | | 86 | Mohr-Coulomb | 30 | 31 |
| Native Gravel | | 125 | Mohr-Coulomb | 0 | 33 |

| Material Name | Color | Model | KS (ft/s) | K2/K1 | K1 Angle (deg) | Soil Type |
|---|---|---|---|---|---|---|
| Embankment Fill SM w/ G | | Simple | 3.9e-07 | 1 | 0 | Silt |
| Native ML | | Simple | 3.6e-07 | 1.5 | 90 | Silt |
| Native Gravel | | Simple | 0.001 | 1 | 0 | Sand |

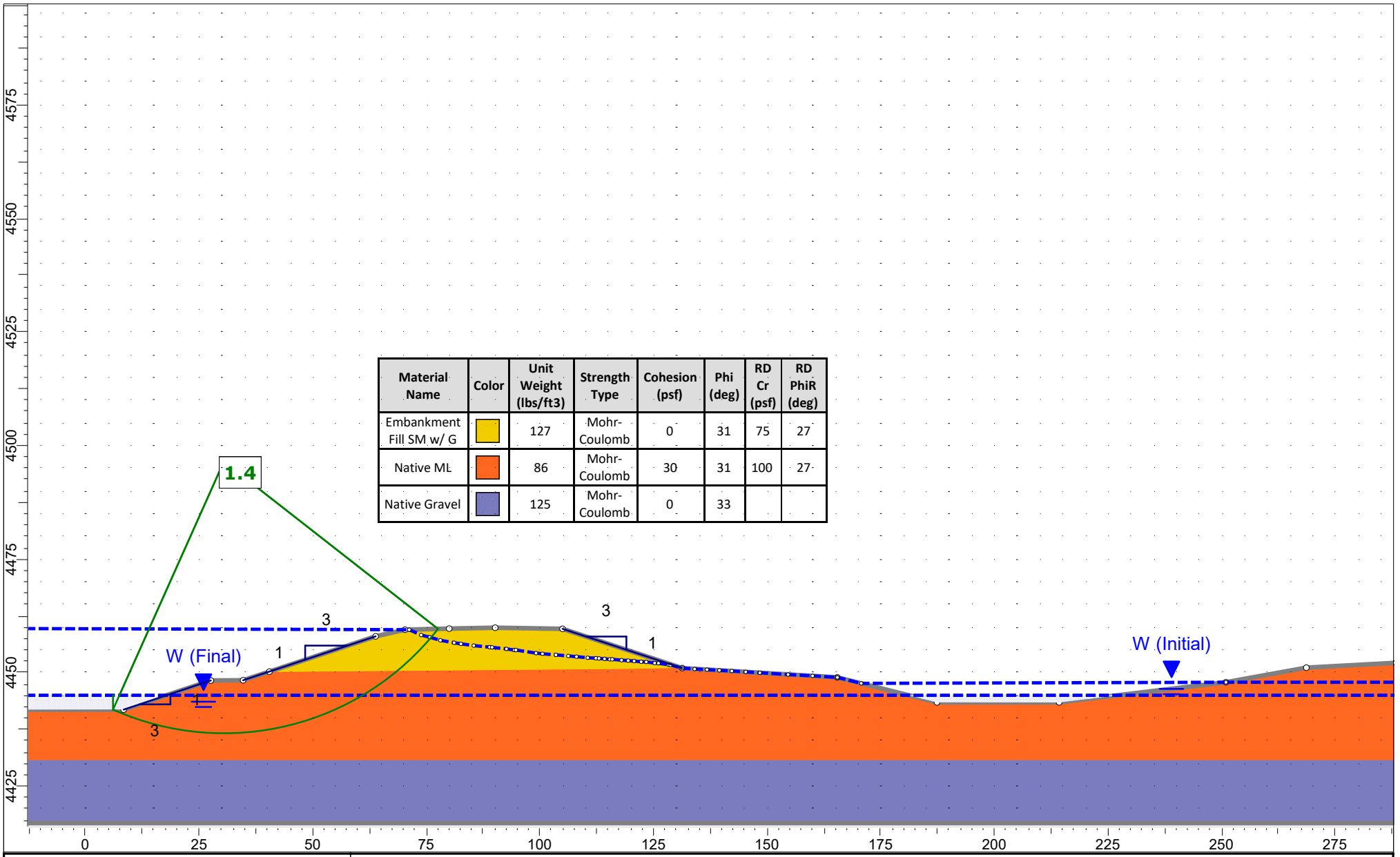



# Global Stability - Section D-D', Case II - Steady State

STRATA

SLIDEINTERPRET 9.019

| | | | |
|---|---|---|---|
| Project | Centennial Park Redesign Project | Scenario | Steady State 4456 |
| Drawn By | Z. Lootens | Method | Spencer |
| Date | 10/31/2022, 3:30:31 PM | Client | STRATA |



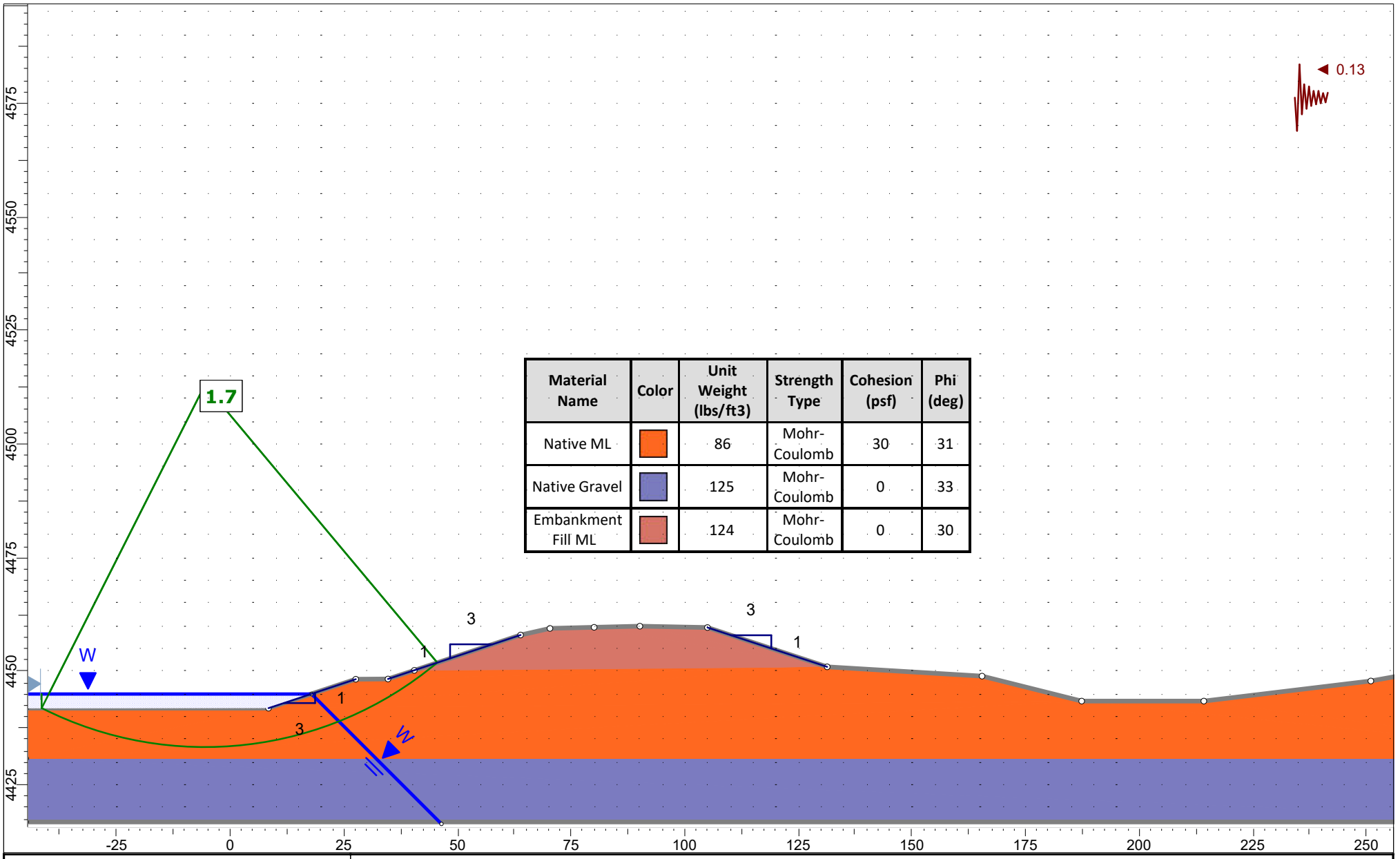

| Material Name | Color | Unit Weight (lbs/ft3) | Strength Type | Cohesion (psf) | Phi (deg) | RD Cr (psf) | RD PhiR (deg) |
|---|---|---|---|---|---|---|---|
| Embankment Fill SM w/ G | | 127 | Mohr-Coulomb | 0 | 31 | 75 | 27 |
| Native ML | | 86 | Mohr-Coulomb | 30 | 31 | 100 | 27 |
| Native Gravel | | 125 | Mohr-Coulomb | 0 | 33 | | |

# Global Stability - Section D-D', Case III - Rapid Drawdown

STRATA

SLIDEINTERPRET 9.019

| | | | |
|---|---|---|---|
| *Project* | Centennial Park Redesign Project | *Scenario* | Rapid Drawdown |
| *Drawn By* | Z. Lootens | *Method* | Spencer |
| *Date* | 10/31/2022, 3:30:31 PM | *Client* | STRATA |




| Material Name | Color | Unit Weight (lbs/ft3) | Strength Type | Cohesion (psf) | Phi (deg) |
|---|---|---|---|---|---|
| Native ML | | 86 | Mohr-Coulomb | 30 | 31 |
| Native Gravel | | 125 | Mohr-Coulomb | 0 | 33 |
| Embankment Fill ML | | 124 | Mohr-Coulomb | 0 | 30 |

STRATA

SLIDEINTERPRET 9.019

# Global Stability - Section D-D', Case IV - Seismic

| | | | |
|---|---|---|---|
| *Project* | Centennial Park Redesign Project | *Scenario* | Seismic |
| *Drawn By* | Z. Lootens | *Method* | Spencer |
| *Date* | 10/31/2022, 3:30:31 PM | *Client* | STRATA |

# APPENDIX C

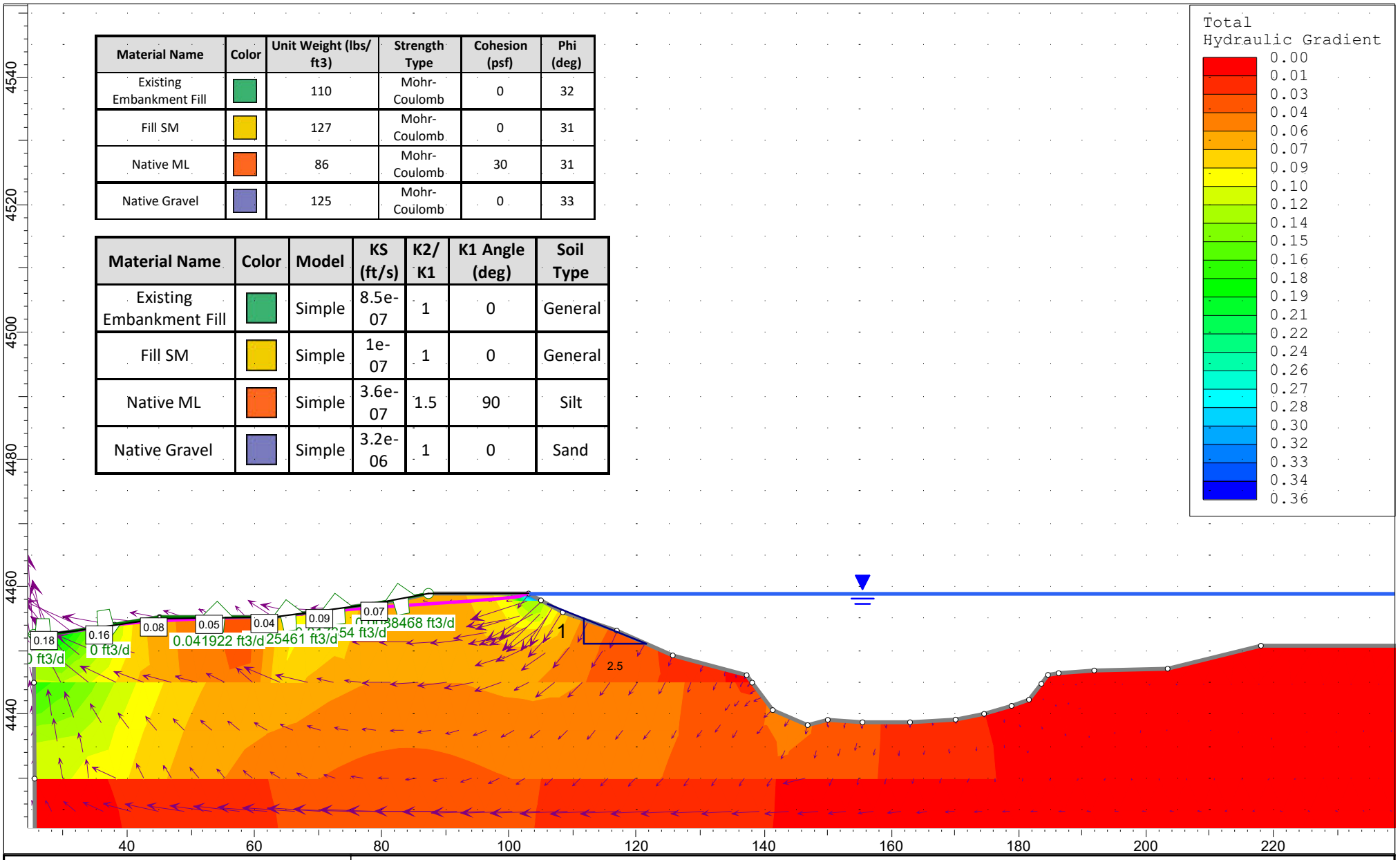
## Seepage Analyses

# APPENDIX C.1

## Centennial Park
## Seepage Analysis

| Material Name | Color | Unit Weight (lbs/ft3) | Strength Type | Cohesion (psf) | Phi (deg) |
|---|---|---|---|---|---|
| Existing Embankment Fill | | 110 | Mohr-Coulomb | 0 | 32 |
| Fill SM | | 127 | Mohr-Coulomb | 0 | 31 |
| Native ML | | 86 | Mohr-Coulomb | 30 | 31 |
| Native Gravel | | 125 | Mohr-Coulomb | 0 | 33 |

| Material Name | Color | Model | KS (ft/s) | K2/K1 | K1 Angle (deg) | Soil Type |
|---|---|---|---|---|---|---|
| Existing Embankment Fill | | Simple | 8.5e-07 | 1 | 0 | General |
| Fill SM | | Simple | 1e-07 | 1 | 0 | General |
| Native ML | | Simple | 3.6e-07 | 1.5 | 90 | Silt |
| Native Gravel | | Simple | 3.2e-06 | 1 | 0 | Sand |




# Global Stability, Case III - Steady State

| | | | |
|---|---|---|---|
| Project | Centennial Park Redesign Project | Scenario | Silt (ML) Foundation Soil with Silt (ML) Fill |
| Drawn By | Z. Lootens | Method | Spencer |
| Date | 11/9/2022, 1:55:36 PM | Client | STRATA |

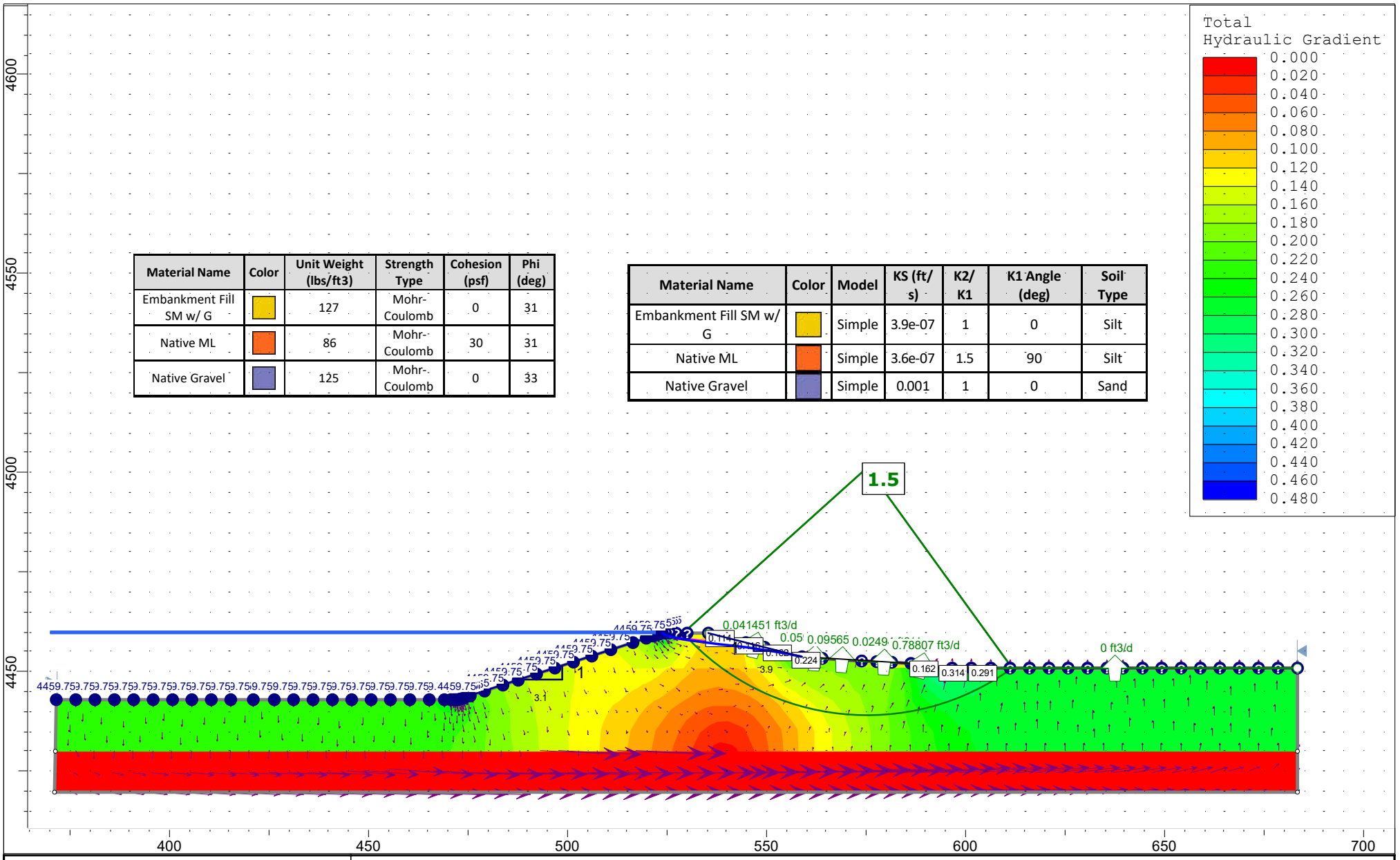
SLIDEINTERPRET 9.019

# APPENDIX C.2

## Rainey Park
## Seepage Analysis

| Material Name | Color | Unit Weight (lbs/ft3) | Strength Type | Cohesion (psf) | Phi (deg) |
|---|---|---|---|---|---|
| Embankment Fill SM w/ G | | 127 | Mohr-Coulomb | 0 | 31 |
| Native ML | | 86 | Mohr-Coulomb | 30 | 31 |
| Native Gravel | | 125 | Mohr-Coulomb | 0 | 33 |

| Material Name | Color | Model | KS (ft/s) | K2/K1 | K1 Angle (deg) | Soil Type |
|---|---|---|---|---|---|---|
| Embankment Fill SM w/ G | | Simple | 3.9e-07 | 1 | 0 | Silt |
| Native ML | | Simple | 3.6e-07 | 1.5 | 90 | Silt |
| Native Gravel | | Simple | 0.001 | 1 | 0 | Sand |




# Global Stability, Case III - Steady-State Seepage

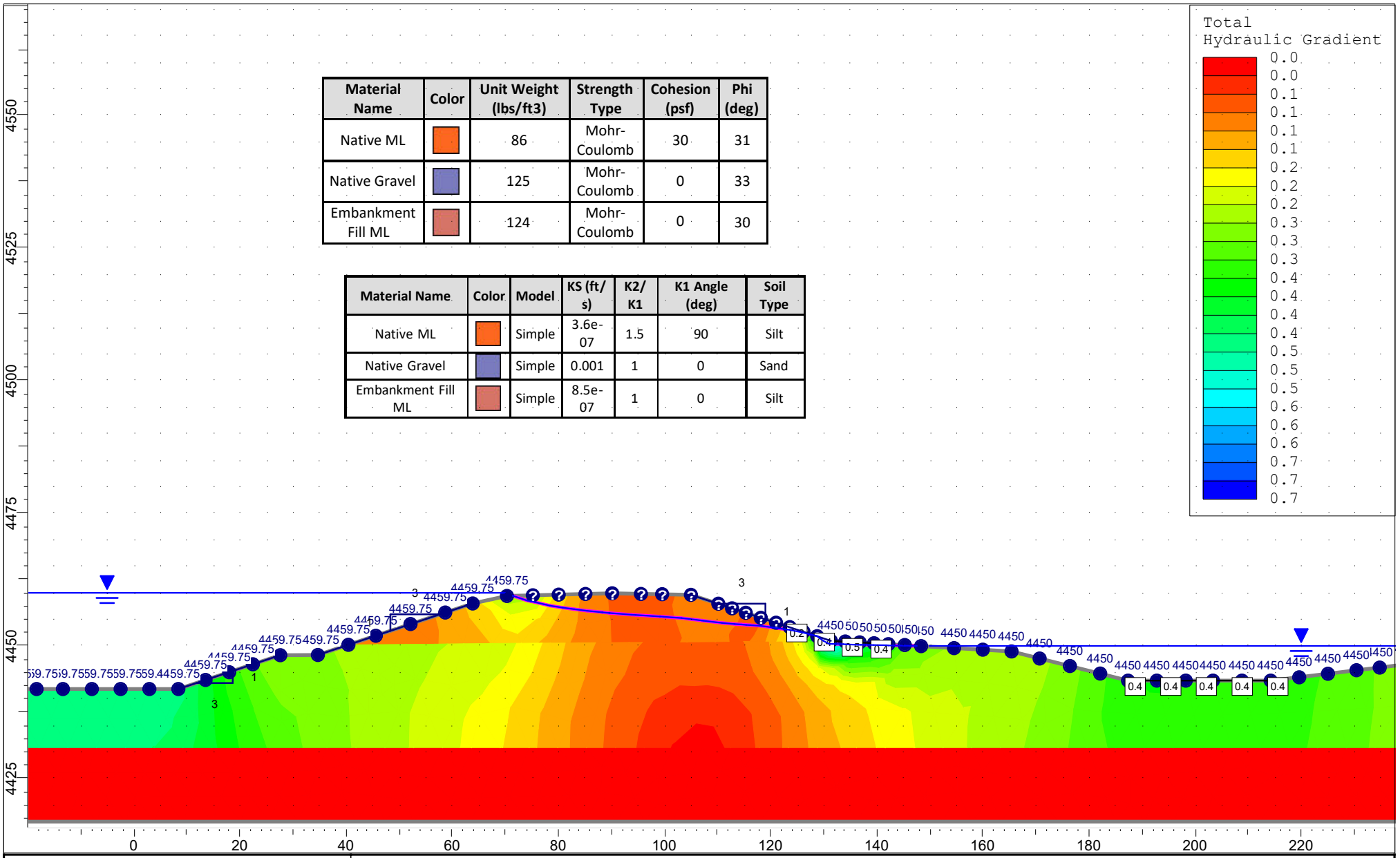
STRATA

| | | | |
|---|---|---|---|
| Project | Centennial Park Redesign Project | Scenario | Steady State Seepage Silt SM Emankment OB |
| Drawn By | Z. Lootens | Method | Spencer |
| Date | 10/31/2022, 3:30:31 PM | Client | STRATA |

SLIDEINTERPRET 9.019

| Material Name | Color | Unit Weight (lbs/ft3) | Strength Type | Cohesion (psf) | Phi (deg) |
|---|---|---|---|---|---|
| Native ML | | 86 | Mohr-Coulomb | 30 | 31 |
| Native Gravel | | 125 | Mohr-Coulomb | 0 | 33 |
| Embankment Fill ML | | 124 | Mohr-Coulomb | 0 | 30 |

| Material Name | Color | Model | KS (ft/s) | K2/K1 | K1 Angle (deg) | Soil Type |
|---|---|---|---|---|---|---|
| Native ML | | Simple | 3.6e-07 | 1.5 | 90 | Silt |
| Native Gravel | | Simple | 0.001 | 1 | 0 | Sand |
| Embankment Fill ML | | Simple | 8.5e-07 | 1 | 0 | Silt |




# Global Stability - Section D-D', Case II - Steady State

STRATA

| | | | |
|---|---|---|---|
| Project | Centennial Park Redesign Project | Scenario | Steady State ML |
| Drawn By | Z. Lootens | Method | Janbu simplified |
| Date | 10/31/2022, 3:30:31 PM | Client | STRATA |

SLIDEINTERPRET 9.019

# APPENDIX D

## Liquefaction Susceptibility

**Project Name:** Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Project No:** PO19005B

## Liquefaction Potential

| | | | |
|---|---|---|---|
| Boring | 21-STR-B01 | $C_R$ | |
| Unit Weight of Soil (pcf)= | 89 | Depth (ft) | Factor |
| Depth to ground water (ft)= | 29.2 | 10-13 | 0.75 |
| Hammer Efficiency, $C_E$= | 80 | 13-20 | 0.85 |
| Borehole diameter correct, $C_B$= | 1.15 | 20-30 | 0.95 |
| PGA (g)= | 0.293 | >30 | 1 |
| De-aggregated mean magnitude, M= | 6.18 | USGS Seis Haz Tool | |
| Magnitude Scaling Factor (Youd '01), MSF= | 1.64 | Youd '01 | Seed '75 chart |

| Depth (ft) | N | $C_N$ | $C_R$ | $N1_{60}$ | $\sigma'_v$ (psf) | $\sigma_v$ (psf) | rd | CSR | CRR | FS |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.75 | 4 | 5.6 | 0.75 | 26 | 67 | 67 | 0.99 | 0.19 | 0.60 | 5.20 |
| 3.25 | 8 | 2.7 | 0.75 | 25 | 290 | 290 | 0.98 | 0.19 | 0.60 | 5.30 |
| 5.75 | 9 | 2.0 | 0.75 | 21 | 514 | 514 | 0.96 | 0.18 | 0.60 | 5.41 |
| 10.75 | 15 | 1.5 | 0.75 | 26 | 961 | 961 | 0.92 | 0.17 | 0.60 | 5.63 |
| 15.75 | 13 | 1.2 | 0.85 | 21 | 1408 | 1408 | 0.88 | 0.17 | 0.60 | 5.88 |
| 20.75 | 66 | 1.1 | 0.95 | 103 | 1855 | 1855 | 0.84 | 0.16 | 0.60 | 6.14 |

| | |
|---|---|
| Computed By: | ZL |
| Date: | 7/1/2022 |
| Checked By: | MT |
| Date: | 11/28/2022 |

December 30, 2025
File: PO19005B

Ms. Jennifer Zung, P.E., CFM
Harmony Design & Engineering
18 N Main St. #305
Driggs, Idaho 83422
Phone: (208) 354-1331 Ext. 4
Email: Jen.Zung@harmonydesigninc.com

RE: **Geotechnical Engineering Data Report**
Centennial-Rainey Levee Setback and Ecosystem Enhancement
Pocatello, Idaho

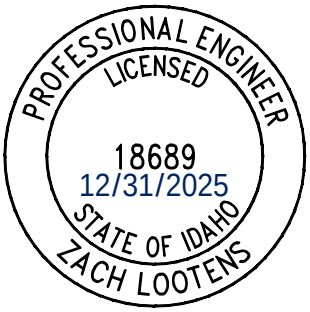
Dear Ms. Zung,

STRATA has prepared this Geotechnical Engineering Data Report for the proposed Centennial-Rainey Levee Setback and Ecosystem Enhancement project located in Pocatello, Idaho. The intent of our services was to observe subsurface soil conditions within the proposed project area and provide geotechnical engineering findings to support project design. We accomplished our services in accordance with our authorized scope of services dated July 23, 2021.

This report summarizes our field exploration and laboratory test results, provides material use/reuse recommendations, and presents the soil parameters used for analysis of the levee setback design and construction. Portions of this report cannot be relied upon individually without the supporting text of remaining sections, appendices, and plates. A separate Geotechnical Engineering Analysis Report which provides geotechnical engineering recommendations for site preparation and levee construction, and presents the results of our geotechnical engineering analyses, has also been prepared for this project.

We appreciate the opportunity to continue our professional relationship with Harmony Design & Engineering, the design team, and the City of Pocatello. Please contact us if you have any questions or comments.

Sincerely,
STRATA




Maria A. Tangarife, P.E.
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Daniel P. Gado

Dan P. Gado, P.E
Senior Engineer

MAT/ZL/DG/

**Geotechnical Engineering Data Report**
Centennial-Rainey Levee Setback and Ecosystem Enhancement
Pocatello, Idaho

**PREPARED FOR:**
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December 30, 2025

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**Geotechnical Engineering Data Report**
Centennial-Rainey Levee Setback and Ecosystem Enhancement
Pocatello, Idaho

## INTRODUCTION

This Geotechnical Engineering Data report presents the results of our field exploration and laboratory testing for the proposed Centennial-Rainey Levee Setback and Ecosystem Enhancement project located in Pocatello, Idaho. The project site is presented on Plate 1, Vicinity Map.

The Centennial-Rainey Levee Setback and Ecosystem Enhancement project is one of the projects included as part of the Portneuf River Vision Study. This study seeks to restore portions of the Portneuf River and enhance the tourism, economic development, fish and wildlife habitat, and recreation of the area. As part of the Centennial-Rainey Levee Setback and Ecosystem Enhancement project, a section of the U.S. Army Corps of Engineers (USACE) levee system will be relocated to create river access through a wetland area with a diverted channel, wetland planting, and added circulation paths. The areas that will require levee removal and reconstruction at set-back locations are located within the Centennial and Rainey Parks. Considering all areas, approximately 750 feet of the existing levee will be removed and approximately 1,150 lineal feet of new levee will be designed and constructed. In addition, parking areas will be constructed in both the Centennial and Rainey Parks.

This report has been reviewed by USACE and a safety assurance reviewer (SAR), SEH Inc. A comment response log has been included in Appendix C for reference.

## FIELD EXPLORATION

### Exploratory Borings

STRATA completed 17 exploratory borings within the proposed project area between October 10 and October 15, 2021. Four (4) exploratory borings were located within the existing levees, six (6) others were located within the proposed levee relocation areas, and seven (7) additional borings were located in proposed parking areas. We established boring locations based on the existing and proposed levee locations and approximate measurements from existing site features. Boring exploration activities were accomplished referencing the Drilling Program Plan (DPP) developed by STRATA, dated April 16, 2021, and approved by the USACE on July 13, 2021. The approximate boring locations are illustrated on Plates 2 and 3, Exploration Location Plan.

Proposed levee borings were advanced to depths ranging between 36 and 41.5 feet below the existing ground surface (BGS), existing levee borings were advanced to depths of 21.5 feet BGS, and pavement borings were advanced to depths ranging between 1.5 and 6.5 feet BGS. Table 1 provides the depths of exploration of each boring. All depths listed are in reference to the existing ground surface elevation at that boring location.

**Table 1. Boring Exploration Depths**

| Boring Designation | Termination Depth (ft) | Location |
|---|---|---|
| 21-STR-B01 | 41.5 | New levee – Rainey Park |
| 21-STR-B02 | 41.5 | New levee – Rainey Park |
| 21-STR-B03 | 41.5 | New levee – Rainey Park |
| 21-STR-B04 | 21.5 | Existing levee – Rainey Park |
| 21-STR-B05 | 21.5 | Existing levee – Rainey Park |
| 21-STR-B06 | 21.5 | Existing levee – Centennial Park |
| 21-STR-B07 | 21.5 | Existing levee – Centennial Park |
| 21-STR-B08 | 41.5 | New levee – Centennial Park |
| 21-STR-B09 | 36.0 | New levee – Centennial Park |
| 21-STR-B10 | 41.5 | New levee– Centennial Park |

| Boring Designation | Termination Depth (ft) | Location |
|---|---|---|
| 21-STR-B11 | 6.5 | New parking lot – Centennial Park |
| 21-STR-B12 | 6.5 | New parking lot – Centennial Park |
| 21-STR-B13 | 6.5 | New parking lot – Centennial Park |
| 21-STR-B14 | 6.5 | New parking lot – Rainey Park |
| 21-STR-B15 | 6.5 | New parking lot – Rainey Park |
| 21-STR-B16 | 1.5 | New parking lot – Rainey Park |
| 21-STR-B17 | 6.5 | New parking lot – Rainey Park |

Exploratory borings were advanced using a truck-mounted CME-85 drill rig equipped with an automatic hammer and 8-inch outside diameter hollow-stem augers. Soils encountered during drilling were logged and visually classified in accordance with the Unified Soil Classification System (USCS) by a geotechnical engineer with an Idaho Professional Engineer (P.E.) license. Sampling was performed at the ground surface, at 2.5-foot intervals in the upper 10 feet, and at 5-foot intervals thereafter using a 2-inch outside-diameter (OD) split-spoon sampler or a 3-inch OD Shelby Tube sampler. Bulk samples of select soil layers were collected from auger cuttings.

Field testing consisted of Standard Penetration Tests (SPTs) performed in general accordance with ASTM International (ASTM) D1586. The SPT consists of driving a 2-inch OD split-spoon sampler a distance of 18 inches with a 140-pound automatic hammer falling 30 inches. The SPT N-values (in blows per foot) were recorded on the boring logs for soil samples recovered with the standard split-spoon sampler by documenting the blow counts from 6 to 18 inches of sampler penetration. The SPT N-values presented on the boring logs are uncorrected N-values and correction factors for hammer efficiency, borehole diameter, rod length, and overburden pressure have not been applied. The SPT N-values give an indication of the relative density of cohesionless soils and the consistency of cohesive soils; however, SPT N-values for gravel and clay soils may not be representative and should be considered with engineering judgement and experience. Soil samples obtained via split-spoon samplers are disturbed and may be used for visual classification and index testing.

Groundwater was encountered in boring 21-STR-B02 at a depth of 38.5 BGS. Groundwater readings were taken at the time of drilling after groundwater appeared to stabilize. Groundwater levels within the project site are likely to fluctuate seasonally and are anticipated to be primarily influenced by the stage and flow of the Portneuf River, irrigation practices, land use, and precipitation.

At the conclusion of our subsurface exploration, borings located within the existing and proposed levee areas were backfilled by tremie-placed, cement-bentonite grout, referencing USACE requirements and the approved DPP developed by STRATA, dated April 16, 2021, and approved by the USACE on July 13, 2021. Borings located within proposed parking areas were backfilled with bentonite and sand, as required by the Idaho Department of Water Resources (IDWR) regulations, and the pavement was patched with cold-mix asphalt to match the existing hot-mix asphalt thickness.

**Exploratory Test Pits**

STRATA completed three (3) exploratory test pits within the proposed wetlands and circulation path areas. Two (2) exploratory test pits were located in Rainey Park and one (1) exploratory test pit was located in Centennial Park. We established test pit locations based on approximate measurements from existing site features. Test pit exploration activities were accomplished referencing the DPP developed by STRATA, dated April 16, 2021, and approved by the USACE on July 13, 2021. The approximate test pit locations are illustrated on Plates 2 and 3, Exploration Location Plan.


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The exploratory test pits were advanced to between 12 and 13 feet BGS. Table 2 provides the depths of exploration for each test pit. All depths listed are in reference to the existing ground surface elevation at that test pit location.

**Table 2. Test Pit Exploration Depths**

| Boring Designation | Termination Depth (ft) | Location |
|---|---|---|
| 21-STR-TP01 | 13.0 | Cut/borrow area – Rainey Park |
| 21-STR-TP02 | 12.5 | Cut/borrow area – Rainey Park |
| 21-STR-TP03 | 12.0 | Cut/borrow area – Centennial Park |

Exploratory test pits were excavated using a CASE 580 backhoe loader equipped with a 24-inch-wide bucket. Soils encountered during test pit excavation were logged and visually classified in accordance with the USCS by a geotechnical engineer with an Idaho P.E. license. Sampling was accomplished by collecting disturbed bulk samples from the spoil piles of the different soil layers observed within each test pit. Sample collection was performed at varying depths at each exploratory test pit. Groundwater was not encountered within the excavated depths.

At the conclusion of our subsurface exploration, test pits were backfilled with the excavated soil. Backfilling activities attempted to generally match the in-place conditions, considering the soil types encountered. Backfilling was performed in 12-inch loose lifts and each lift was compacted with a vibratory hoe pack to a firm, unyielding condition. To complete the backfilling activities, imported soil was utilized to match the top of test pit elevations to the surrounding ground surface elevation, since the excavated material was compacted to a denser state than its in-situ condition. Test pit abandonment was performed referencing the approved DPP developed by STRATA.

## LABORATORY TESTING

Representative soil samples collected in the field were returned to our laboratory for further evaluation and testing. Test procedures were performed in general accordance with the applicable ASTM test guidelines identified below. “General accordance” indicates that certain local and common descriptive practices and methodologies have been followed.

- Water (Moisture) Content of Soil (ASTM D2216)
- Amount of Material in Soils Finer than the No. 200 Sieve (ASTM D1140)
- Particle Size Distribution (Gradation) of Soils (ASTM D6913)
- Liquid Limit, Plastic Limit, and Plasticity Index of Soils (ASTM D4318)
- Unit Weight and Water (Moisture) Content of Soil (ASTM D2937)
- Compaction Characteristics of Soil Using Modified Effort (ASTM D1557)
- California Bearing Ratio (ASTM D1883)
- Flexible Wall Hydraulic Conductivity (ASTM D5084)
- Unconsolidated-Undrained Triaxial Compression (ASTM D2850)
- Collapse Potential of Soils (ASTM D5333)
- Direct Shear under Consolidated Drained Conditions (ASTM D3080)

We used these laboratory test results in conjunction with our field observations as the basis for our analysis and recommendations. Laboratory test results are presented in Appendix B and on the boring and test pit logs in Appendix A.


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## GEOTECHNICAL DATA EVALUATION

Our geotechnical data evaluation presents the data gathered from our field exploration and laboratory testing to evaluate material use/reuse for levee construction and the design parameters for levee embankment and foundation soils.

### Surface Conditions

The project site is located in an urban area, with residential development north and west of Centennial Park and north of Rainey Park, a school institution to the southeast of Rainey Park, and undeveloped land south of the overall project site. The Portneuf River traverses the project site from southeast to northwest and is protected by a set of earthen levees located on either side of the river. In general, the topography within and around Rainey Park is relatively flat with an increase in elevation towards the southeast portion of the park where it meets the levee. At the Centennial Park side of the river, the terrain gradually increases in elevation towards the southwest. Within the project area, elevations range from approximately 4,485 feet above mean sea level (MSL), along the southwest portion of Centennial Park, to an elevation of approximately 4,450 feet above MSL on the northeast side of the softball field at Rainey Park.

### Subsurface Soil Conditions

Subsurface conditions at the boring and test pit locations generally consisted of interbedded fill layers at locations where fill was encountered, or aeolian deposits. In aeolian processes, sediments such as fine sand, silt, and clay undergo wind erosion and deposition. Below the aeolian deposits, alluvial gravels were observed. A general description of each soil unit's stratigraphic location and properties is provided below:

- **Asphalt Pavement Section** – Asphalt concrete pavement was observed in borings 21-STR-B04, -B05, -B09, -B11, -B14, and -B17. The asphalt concrete pavement observed within the project site was associated with the paved pedestrian path located on top of the northeastern levee and the Centennial Park, Rainey Park, and the Pocatello Community Charter School parking lots. The pedestrian path asphalt thickness ranged between 0.2 and 0.25 feet (borings 21-STR-B04 and -B05), and the parking lot pavement thickness ranged between 1.8 and 3 inches. In the Rainey and Centennial Park parking areas (borings 21-STR-B09, -B11, and -B14), the pavement surface course was underlain by a slag layer having thicknesses ranging between 4.2 and 7.8 inches. Slag is a byproduct of phosphorus production in the area. In borings 21-STR-B11 and -B14, a base layer consisting of Silty Gravel with varying Sand (GM) was observed below the slag layer. This unit was generally brown or gray, moist, medium dense, and had a thickness ranging between 5.4 and 8.4 inches. The base layer was underlain by a brown to gray, moist, and medium dense Poorly Graded Gravel with Silt and Sand (GP-GM) subbase layer extending to depths of 2.25 to 2.5 feet BGS. In the Pocatello Community Charter School parking lot (boring 21-STR-B17), the pavement was underlain by a gray, moist, and loose to medium dense Poorly Graded Gravel with Silt and Sand (GP-GM) base layer followed by a dark brown, moist, and medium dense Gravelly Silt (ML) subbase layer.
- **Fill** – Fill layers were observed throughout the project site. The fill layers observed appear to be associated with the levee construction (borings 21-STR-B04 and -B05), presumed grading of the Centennial Park (borings 21-STR-B06 to -B10, -B11, and -B12), gravel areas north of the Pocatello Community Charter School parking lot (borings 21-STR-B03 and -B15), and fill associated with the softball field construction.
    - **Levee Fill** – Interbedded fill layers classified as Silty Gravel with Sand (GM), Silty Sand with Gravel and varying amounts of Cobbles (SM), Silt with varying amounts of Sand (ML), and Silty Clay (CL-ML) were observed in the upper soil profile of borings 21-STR-B04 and -B05. The Silty Gravel with Sand (GM) and Silty Sand with Gravel (SM) layers were generally brown, moist, medium dense, and had a strong reaction to hydrochloric acid (HCl). These layers varied in thickness between 0.8 and 2 feet and extended to depths up to approximately 5 feet BGS. The Sandy Silt (ML), Silt with Sand (ML), and Silty Clay (CL-ML) layers were generally brown, moist, and firm to very stiff. Reaction to HCl was weak to strong and layer thicknesses varied between 1.5 and 5 feet. The ML and CL-ML units were observed to extend to depths of approximately between 10 and 10.5 feet BGS.


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- **Fill Associated with Presumed Grading Activities (Centennial Park)** – Interbedded silt, sand, and gravel fill layers were observed in borings 21-STR-B06 to -B10, -B12, and -B13 as well as test pit 21-STR-TP03. Silt with varying amounts of Sand and Gravel (ML) fill was observed in all of the aforementioned locations. This layer was generally brown, dark brown or tan, moist, and soft to hard with most layers having a consistency ranging between stiff and very stiff. The HCl reaction of this material was primarily strong. Layer thicknesses ranged between approximately 0.5 and 7 feet. Fill consisting of Poorly Graded Sand with varying amounts of Silt, Gravel, and Cobbles (SP-SM and SM) was observed in borings 21-STR-B06 to -B08 and -B10. The Poorly Graded Sand with varying Silt, Gravel, and Cobbles (SP-SM and SM) was primarily brown, moist and medium dense to very dense. Layer thicknesses varied between 1.5 and 5 feet. Poorly Graded Gravel with varying amounts of Silt, Sand, and Cobbles (GP, GP-GM, and GM) was observed in borings 21-STR-B06 to -B10, and -B12, and in test pit 21-STR-TP03. This unit was primarily brown or gray, moist, and loose to medium dense. Layer thicknesses ranged between 0.25 and 4.5 feet. Fill layers around this area extended to depths of approximately between 9 and 23 feet BGS.
- **Fill Associated with Gravel Areas (Rainey Park)** – Brown or gray, moist, and loose to medium dense Poorly Graded Gravel with varying amounts of Silt and Sand (GP-GM or GM) fill was observed at the ground surface of borings 21-STR-B03 and -B15. This material extended to depths ranging between 0.75- and 1-foot BGS. Below the gravel layers, fill consisting of Silt with varying amounts of Sand (ML) was encountered at both boring locations. The Silt (ML) fill was generally brown to dark brown, moist, and stiff to very stiff, and extended to depths ranging between 3.5 and 3.75 feet BGS. Below the Sandy Silt (ML) fill, in boring 21-STR-B03, a brown, moist, and medium dense Silty Gravel (GM) fill layer was observed. This unit extended to a depth of approximately 4.5 feet BGS.
- **Fill Associated with Softball Field Construction (Rainey Park)** – Gravelly Silt (ML) and Sandy Silt (ML) fill was observed at the ground surface of test pits 21-STR-B01 and -B02, respectively. The Gravelly Silt (ML) fill was dark brown, moist, and very loose. Construction debris, bricks, 0.5-inch roots and select 4-inch cobbles were observed within this layer. This unit extended to a depth of approximately 3 feet BGS. The Sandy Silt (ML) fill was dark brown, moist, and very loose. This unit extended to a depth of approximately 2 feet BGS.

- **Aeolian Deposits** – Wind-blown Silt (loess) with varying Sand contents (ML) was observed in borings 21-STR-B01, -B03 to -B06, -B08, -B09, -B11, and -B14 to -B17. The Silt with varying Sand (ML) was primarily brown, dark brown or tan, moist, and soft to hard with the majority of layers having a firm to stiff consistency. This unit was observed to be highly cemented and iron oxide stains were observed within the matrix of various samples. The Silt with varying Sand (ML) extended to the depths of exploration or between 6.5 and 21.5 feet BGS in borings 21-STR-B04 to -B06, -B11, and -B14 to -B17; and to depths ranging between 20 and 30 feet BGS in borings 21-STR-B01, -B03, -B08, and -B09. In addition, brown or tan, moist, and loose to medium dense Silty Sand (SM) was observed in borings 21-STR-B02, -B06, and -B08 at depths ranging between 11 and 11.9 feet BGS. The Silty Sand (SM) had a strong reaction to HCl. This unit extended to depths ranging between approximately 15 and 17.5 feet BGS. Further, in boring 21-STR-B02 and test pits 21-STR-TP01 and TP02, brown, moist and firm to stiff Lean Clay with varying amounts of Sand (CL) layers were observed extending from the ground surface or below the fill layers, to depths ranging between 12.5 and 16 feet BGS.
- **Alluvial Deposits** – Layers consisting of Poorly Graded Gravel with varying Silt, Sand, and Cobble contents (GP-GM and GM) were observed in borings 21-STR-B01 to -B03, and -B08 to -B10. The gravel layers were generally brown to gray, moist, and loose to very dense with the majority of layers exhibiting a medium dense to dense relative density. The gravel alluvial deposits were primarily observed below depths of approximately between 19 and 30 feet BGS, and extended to the depths of exploration or approximately between 36 and 41.5 feet BGS. Based on our review of well driller logs in the area, the gravel alluvial deposits extend to depths of 100 feet BGS or greater.


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Subsurface soil profiles along the existing and proposed levee alignments are presented in Plates 4 to 8. The exploratory boring and test pit logs are presented in Appendix A along with a USCS summary which should be used to interpret the soil descriptive terms in this report. It should be noted that the boundaries indicating layer changes on the boring and test pit logs and subsurface soil profiles are approximate, as in-situ transitions may be gradual.

**Surface and Subsurface Water**

The Portneuf River is the primary source of surface water that exists within the project limits. Our subsurface evaluation activities were performed in the fall and early winter months when the flow of the Portneuf River was predominantly low. Water flows are expected to vary throughout the year depending on land use, local irrigation activities, precipitation, and snow melt.

During our subsurface exploration, subsurface water was encountered at a depth of approximately 29.2 to 38.5 feet below ground surface in borings 21-STR-B01 and BO2, respectively. In the project vicinity, groundwater levels are influenced primarily by the Portneuf River, precipitation, and snow melt. Due to infiltrating water from the river, local groundwater characteristics may be influenced and saturated soil zones at depths shallower than 29 feet are possible.

**Material Use/Re-Use**

This project will include the removal of approximately 325 linear feet of existing levee on Centennial Park and approximately 450 linear feet of existing levee on Rainey Park. As presented in the Subsurface Soil Conditions section of this report, the existing levees consist of a combination of clay, silt, sand, and gravel soils. Per the EM 1110-2-1913, Design and Construction of Levees, all soils except very wet, fine-grained soils or highly organic soils are suitable for construction of levees. Based on the fill soils encountered within the existing levees, we consider that the Silt with varying Sand (ML), Silty Clay (CL-ML), and Silty Sand with Gravel (SM) are suitable for use as embankment fill for construction of the new levees, provided they comply with the requirements presented in the Recommended Structural Fill Material and Compaction section of the Geotechnical Engineering Analysis Report prepared by STRATA and dated December 30, 2025.

To construct the proposed Rainey Park wetlands, the existing grade will be lowered by up to approximately 6.5 feet at select locations. Based on the subsurface conditions encountered within this area, the cut material is anticipated to consist of Gravelly Silt (ML) fill, Sandy Silt (ML) fill, native Silt with varying Sand (ML), and/or native Lean Clay with varying Sand (CL). The Gravelly Silt was observed to contain debris, brick, and 0.5-inch roots, and is not considered to be suitable for use as embankment fill for this project. The Silt with varying Sand (ML) as well as the native Lean Clay with varying Sand (CL) soils are suitable for use as embankment fill for construction of the new levees, provided they comply with the requirements presented in the Recommended Structural Fill Material and Compaction section of the Geotechnical Engineering Analysis Report prepared by STRATA and dated December 30, 2025.

The onsite Silt with varying Sand (ML), Silty Sand with varying Gravel (SM), Lean Clay with varying Sand (CL) soils are moisture-sensitive and will require moisture-conditioning to near-optimum moisture content to facilitate compaction. During periods of inclement weather, these fill/ native soils may be difficult to utilize as they are susceptible to pumping and/or rutting from heavy loads when they become wet. The Cold and Wet Weather/Soil Construction section of the Geotechnical Engineering Analysis Report developed by STRATA and dated December 30, 2025, provides additional information concerning the use of these soils during inclement weather.

At the time this report was prepared, off-site fill material sources had not been identified for the project.

**Soil Parameters for Design**

Based on the results of our subsurface exploration, the anticipated embankment fill soils that will be used for construction of the new Rainey and Centennial Park levees, and our understanding of the proposed levee design,


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the following soil properties have been used for analysis. These properties are based on laboratory test results and soil correlations.

Results from the direct shear tests demonstrated that the in-situ Silt (ML) exhibits effective cohesion. There is much debate in practice on using effective cohesion for silt and normally consolidated clays. To justify the use of effective cohesion in our analysis, we performed back-calculation analysis for the existing Centennial Park levee assuming an existing long term global slope stability safety factor as low as 1.1. Results from the back-calculation analyses show that a minimum effective cohesion of 30 psf is required for the native silt to maintain stable conditions with the existing slope geometry. All shear strength testing was performed on saturated samples, to simulate flood/high groundwater conditions.

Total Stress parameters in Table 4 were estimated using typical relationships between effective and total stress parameters from Consolidated Undrained (CU) triaxial test results from other projects performed on soils with similar properties.

**Table 3. Embankment Fill Soil Properties**

| Soil Type | Moist Unit Weight (pcf) | Undrained Shear Strength, $S_u$ (psf) | Cohesion, c (psf) | Friction Angle, $\phi$ (°) | Hydraulic Conductivity, k (cm/s) |
|---|---|---|---|---|---|
| Silt (ML) | 124 | 1,000 | 0 | 30 | $2.6 \times 10^{-5}$ |
| Silty Sand with Gravel (SM) | 127 | - | 0 | 31 | $1.2 \times 10^{-5}$ |
| Lean Clay (CL) | 109 | 1,000 | 100 | 29 | $2 \times 10^{-5}$ |

**Table 4. Embankment Fill & Foundation Soil Properties – Rapid Drawdown Total Stress Condition**

| Soil Type | Cohesion, $c_T$ (psf) | Friction Angle, $\phi_T$ (°) |
|---|---|---|
| Embankment Fill | 75 | 27 |
| Native Silt (ML), Silty Sand (SM), or Lean Clay (CL) | 100 | 27 |

**Table 5. Foundation Soil Properties**

| Soil Type | Moist Unit Weight (pcf) | Undrained Shear Strength, $S_u$ (psf) | Cohesion, c (psf) | Friction Angle, $\phi$ (°) | Hydraulic Conductivity, k (cm/s) |
|---|---|---|---|---|---|
| Silt (ML) | 86 | 374 | 30 | 31 | $1.1 \times 10^{-5}$ |
| Lean Clay (CL) | 100 | 430 | 100 | 27.9 | $2.5 \times 10^{-5}$ |
| Poorly Graded Gravel with Silt and Sand (GP-GM) | 125 | - | 0 | 33 | $9.8 \times 10^{-5}$ |
| Existing Embankment | 110 | 1000 | 0 | 32 | $1.1 \times 10^{-5}$ |

**Seismic Design Criteria**

STRATA utilized our observations of the site soil, geologic data, the project location, the International Building Code (IBC), and ASCE 7 to establish a Seismic Site Classification of "D" at the project site. Based on the soil


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conditions and project location, we recommend that seismic design reference the seismic parameters provided in Table 6.

**Table 6. Seismic Response Criteria (IBC/ASCE-7)[1]**

| Period (Seconds) | Standard Acceleration Coefficients for Site (g) | Site Factor for Site Class D | Modified Acceleration Coefficient for Site Class D (g) |
|---|---|---|---|
| 0.0 (Peak) | PGA = 0.211 | $F_{PGA}$ = 1.389 | $PGA_M$ = 0.293 |
| 0.2 (Short) | $S_S$ = 0.479 | $F_a$ = 1.417 | $S_{DS}$ = 0.452 |
| 1.0 | $S_1$ = 0.156 | $F_v$ = 2.288 | $S_{D1}$ = 0.238 |

1. Values for location Latitude: 42.854346°N Longitude: 112.446082°W.

Based on our experience in the area, the site soil conditions observed, and readily available geologic information, there is no evidence of active or potentially active faults on or immediately adjacent to the project site. The United States Geological Survey (USGS) and the Idaho Geological Survey show that the nearest mapped faults are North Bannock Range Fault and the Scout Mountain Fault (considering the last 16 million years), located approximately 2.3 miles northwest and 2.7 miles east, respectively. Based on the geologic information, the distances from the listed faults, and the age of fault activity, we consider the possibility of fault rupture at the site to be negligible.


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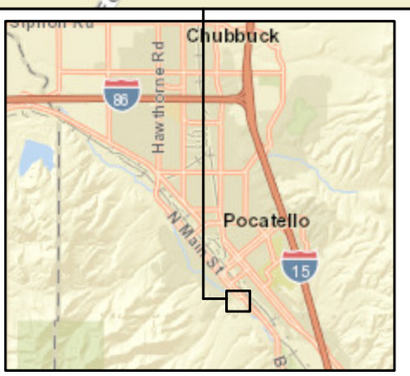


N

0 150 300 600 Feet

Scale: 1" = 300'

1. The locations of all features are approximate.
2. This vicinity map is intended to help visualize the information provided in the report. These locations and information were added to existing maps prepared by others.

# VICINITY MAP

**Centennial**-Rainey Levee Setback & Ecosystem Enhancement
**Pocatello, Idaho**

STRATA

| | |
|---|---|
| Client: Harmony Design & Engineering | |
| Client Proj. No.: N/A | File No.: PO19005B |
| Drawn By: J. Cheek | Checked By: M. Tangarife |
| Date: 4/22/21 | Plate 1 |

Path: Z:\CLIENTS\H\Harmony Design and Engineering\PO19005B - Centennial Park Levee Setback Phase II\CAD & GIS\PO19005B\PO19005B.aprx

Bureau of Land Management, Esri, HERE, Garmin, NGA, USGS, NPS, Idaho State University, Bureau of Land Management, Esri, HERE, Garmin, GeoTechnologies,

Maxar, Microsoft, Idaho State University, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, NGA, USGS

## Reference Map

## Legend

21-STR-B01 — Approximate location of boring observed by STRATA between October 10 and October 15, 2021

21-STR-TP01 — Approximate location of test pit observed by STRATA on December 13, 2021

0 30 60 120 Feet

Scale: 1" = 60'

for 11" X 17" sheet

STRATA

# EXPLORATION LOCATION PLAN

**Centennial-Rainey** Levee Setback & Ecosystemt Enhancement

**Pocatello, Idaho**

| | |
|---|---|
| Client: Harmony Design & Engineering | |
| Client File No.: N/A | File No.: PO19005B |
| Drawn By: J. Cheek | Checked By: M. Tangarife |
| Date: 12/28/2021 | Plate 2 |

Path: Z:\CLIENTS\H\Harmony Design and Engineering\PO19005B - Centennial Park Levee Setback Phase II\CAD & GIS\PO19005B\PO19005B.aprx

Path: Z:\CLIENTS\H\Harmony Design and Engineering\PO19005B - Centennial Park Levee Setback Phase II\CAD & GIS\PO19005B\PO19005B.aprx

Maxar, Microsoft, Idaho State University, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, NGA, USGS

## Reference Map

## Legend

21-STR-B01 — Approximate location of boring observed by STRATA between October 10 and October 15, 2021

21-STR-TP01 — Approximate location of test pit observed by STRATA on December 13, 2021

0 30 60 120 Feet

Scale: 1" = 60'

for 11" X 17" sheet

STRATA

# EXPLORATION LOCATION PLAN

**Centennial-Rainey Levee Setback & Ecosystemt Enhancement Pocatello, Idaho**

| | |
|---|---|
| Client: Harmony Design & Engineering | |
| Client File No.: N/A | File No.: PO19005B |
| Drawn By: J. Cheek | Checked By: M. Tangarife |
| Date: 12/28/2021 | Plate 3 |

## LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| 21-STR-B01 | STRATA BORING DESIGNATION |
| | ASPHALT CONCRETE PAVEMENT |
| | SLAG |
| | FILL – SILTY SAND WITH GRAVEL (SM)<br>FILL – SILTY SAND WITH GRAVEL AND COBBLES (SM) |
| | FILL – SILTY GRAVEL (GM)<br>FILL – SILTY GRAVEL WITH SAND (GM)<br>FILL – SILTY GRAVEL WITH COBBLES (GM) |
| | FILL – SILT (ML)<br>FILL – SILT WITH SAND (ML)<br>FILL – SANDY SILT (ML)<br>FILL – SANDY SILT AND GRAVEL (ML)<br>FILL – GRAVELLY SILT (ML)<br>FILL – GRAVELLY SILT WITH SAND (ML) |
| | FILL – POORLY GRADED SAND WITH SILT (SP-SM)<br>FILL – POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM) |
| | FILL – SILTY CLAY (CL-ML) |

## LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| | NATIVE – SILT (ML)<br>NATIVE – SILT WITH SAND (ML)<br>NATIVE – SANDY SILT (ML)<br>NATIVE – GRAVELLY SILT (ML) |
| | NATIVE – LEAN CLAY (CL) |
| | NATIVE – SILTY SAND (SM) |
| | NATIVE – POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM)<br>NATIVE – POORLY GRADED GRAVEL WITH SILT, SAND, AND COBBLES (GP-GM) |
| | NATIVE – SILTY GRAVEL WITH SAND (GM) |
| | NATIVE – POORLY GRADED GRAVEL (GP) |

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0 1 2
DRAWING IS TO SCALE IF BAR MEASURES:
1" = FULL SCALE
½" = HALF SCALE

FILE : SOIL_PROFILE.DWG

PROJ. #: P019005B

DATE: 11/27/2022

REVISIONS:

PROJECT NAME

CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

SOIL PROFILE LEGEND

PLATE

4

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½" = HALF SCALE

FILE : SOIL_PROFILE.DWG

PROJ. #: PO19005B

DATE: 11/27/2022

REVISIONS:

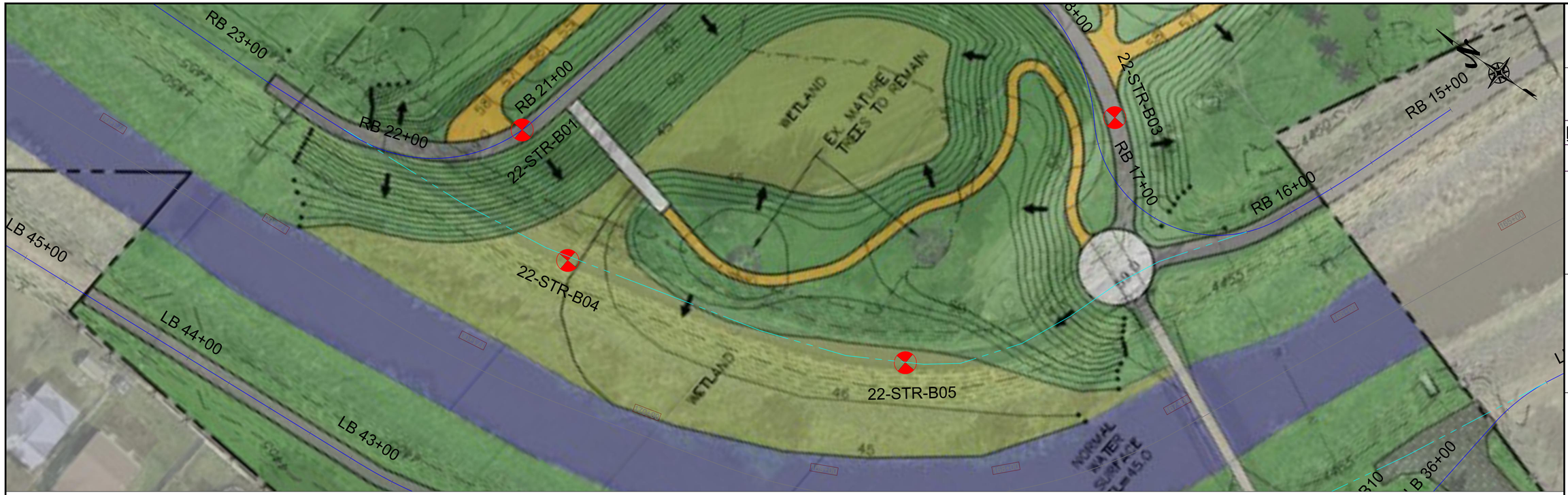
PROJECT NAME

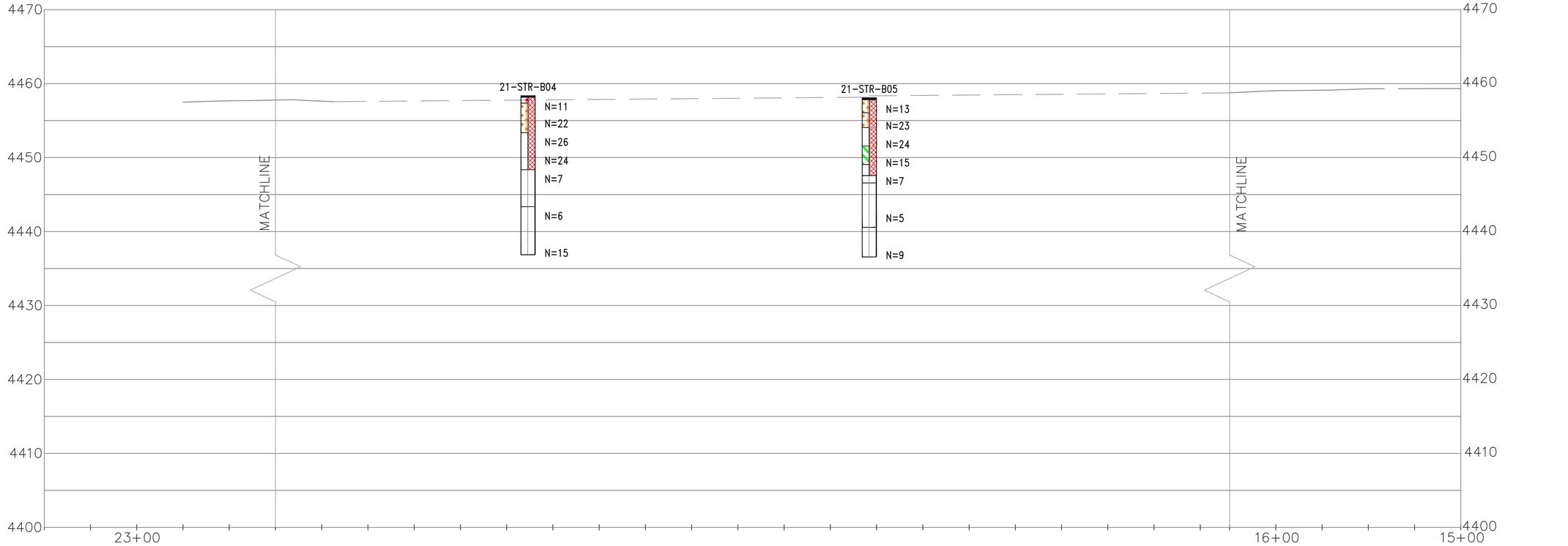
# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

## SOIL PROFILE PROPOSED RAINEY PARK LEVEE

PLATE

5




HORIZONTAL
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SCALE: 1" = 30'
(24" X 36" SHEET)

VERTICAL
7.5 3.75 0 7.5 15
SCALE: 1" = 7.5'
(24" X 36" SHEET)

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**FILE :** SOIL_PROFILE.DWG

**PROJ. #:** P019005B

**DATE:** 11/27/2022

**REVISIONS:**

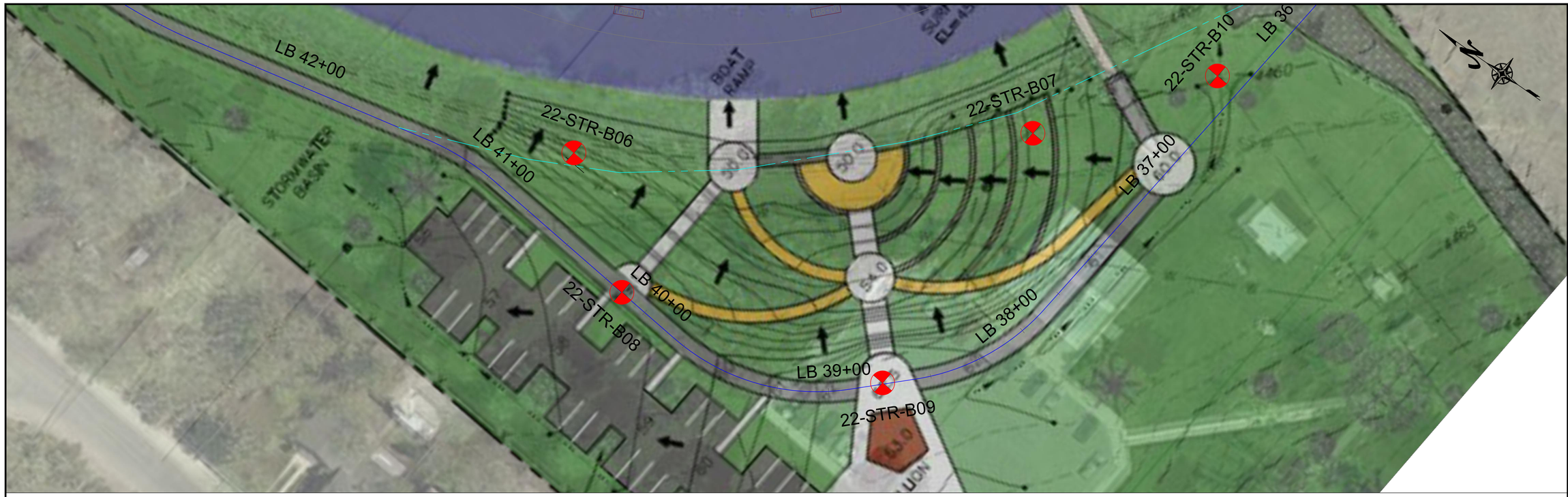
**PROJECT NAME**

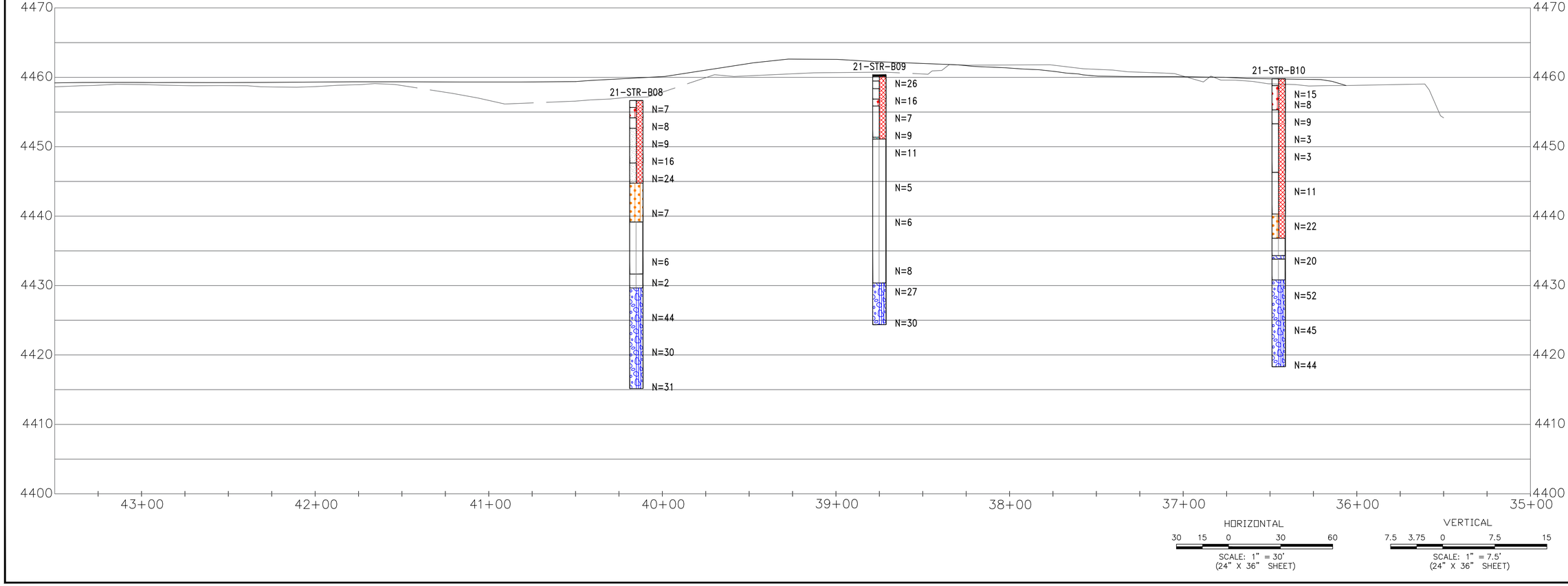
# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

## SOIL PROFILE EXISTING RAINEY PARK LEVEE

**PLATE**

**6**

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**PROJ. #:** P0190058

**DATE:** 11/27/2022

**REVISIONS:**

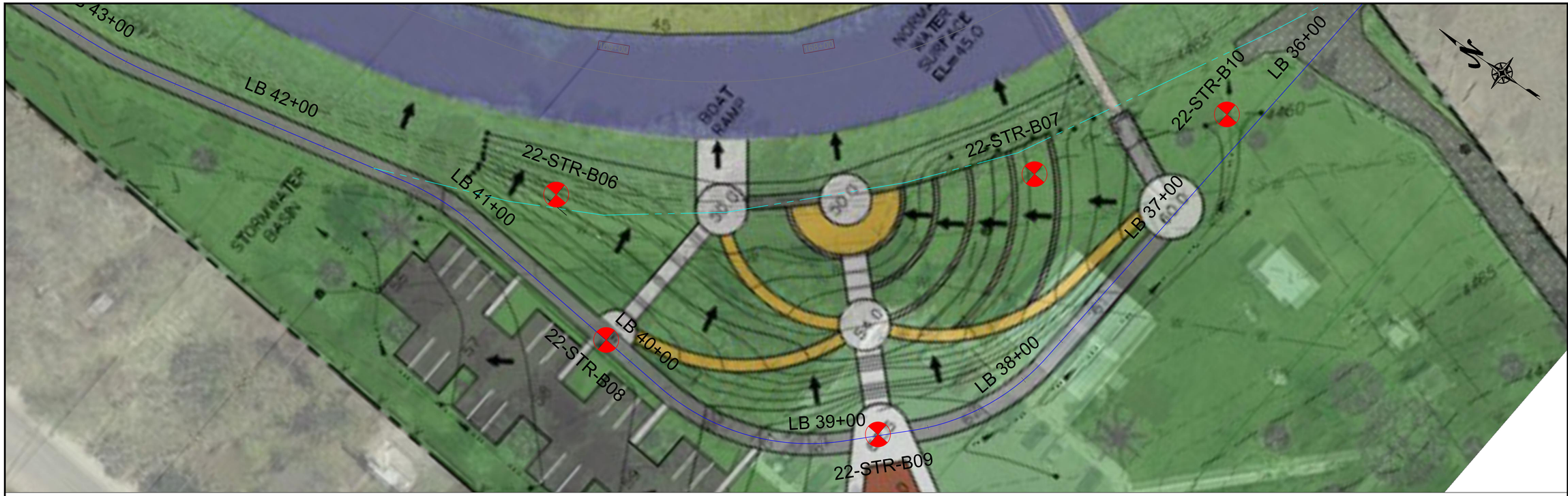
**PROJECT NAME**

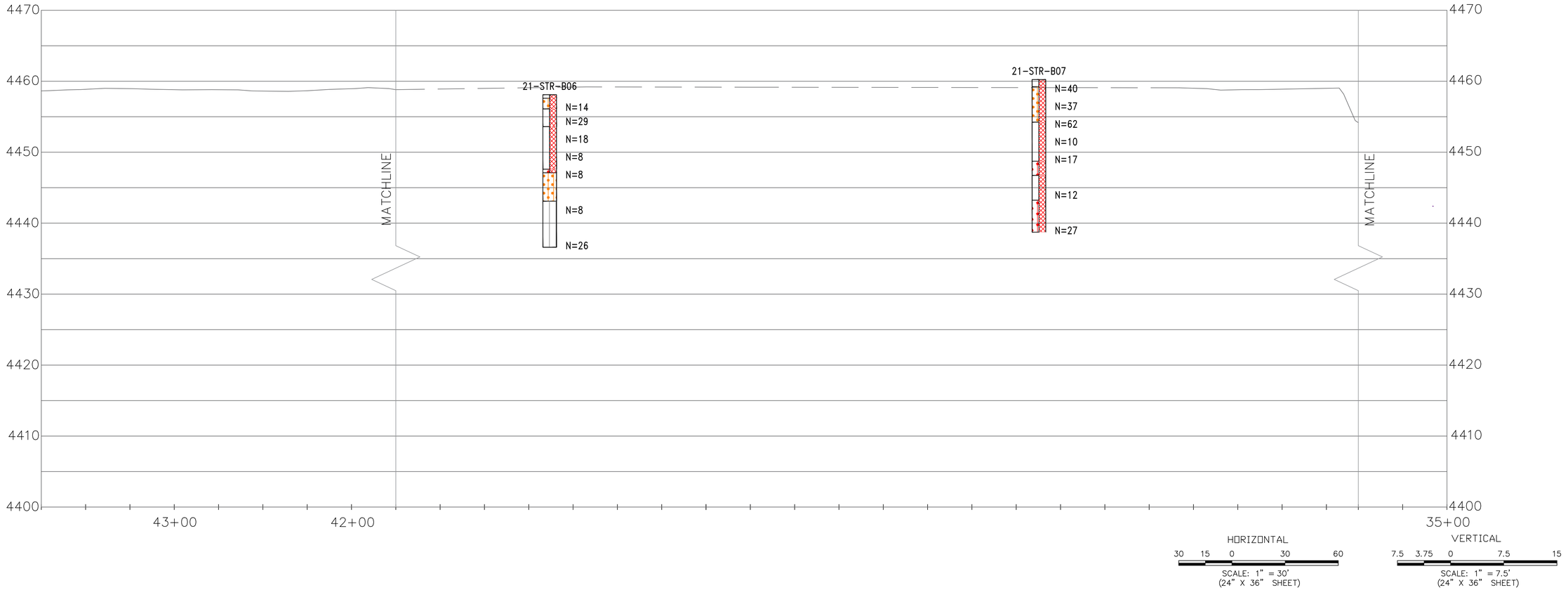
# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

## SOIL PROFILE PROPOSED CENTENNIAL PARK LEVEE

**PLATE**

**7**

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**DATE:** 11/27/2022

**REVISIONS:**

**PROJECT NAME**

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

## SOIL PROFILE EXISTING CENTENNIAL PARK LEVEE

**PLATE**

**8**

# APPENDIX A

## Exploratory Boring Logs

# UNIFIED SOIL CLASSIFICATION SYSTEM

| MAJOR DIVISIONS | | | GRAPH SYMBOL | LETTER SYMBOL | TYPICAL NAMES |
|---|---|---|---|---|---|
| COARSE GRAINED SOIL<br>MORE THAN 50% RETAINED ON NO. 200 SIEVE | GRAVELS >50% COARSE FRACTION RETAINED #4 SIEVE | CLEAN GRAVELS WITH LITTLE OR NO FINES | | GW | WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES |
| | | | | GP | POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES |
| | | GRAVELS WITH >12% FINES | | GM | SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES |
| | | | | GC | CLAYEY GRAVELS, GRAVEL-SAND-SILT MIXTURES |
| | SANDS >50% COARSE FRACTION PASSES #4 SIEVE | CLEAN SANDS WITH LITTLE OR NO FINES | | SW | WELL-GRADED SANDS, GRAVELY SANDS |
| | | | | SP | POORLY GRADED SANDS, GRAVELY SANDS |
| | | SANDS WITH >12% FINES | | SM | SILTY SANDS, SAND-SILT MIXTURES |
| | | | | SC | CLAYEY SANDS, SAND CLAY MIXTURES |
| FINE GRAINED SOIL<br>50% OR MORE PASSING NO. 200 SIEVE | SILTS AND CLAYS<br>LIQUID LIMIT LESS THAN 50 | INORGANIC | | ML | INORGANIC SILTS, SANDY OR CLAYEY SILTS |
| | | | | CL | INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, SANDY OR SILTY CLAYS |
| | | ORGANIC | | OL | ORGANIC SILTS AND CLAYS OF LOW PLASTICITY |
| | SILTS AND CLAYS<br>LIQUID LIMIT 50 OR MORE | INORGANIC | | MH | INORGANIC SILTS, MICACEOUS SILTS, PLASTIC SILTS |
| | | | | CH | INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS |
| | | ORGANIC | | OH | ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY |
| HIGHLY ORGANIC SOILS | | | | PT | PEAT, MUCK AND OTHER HIGHLY ORGANIC SOIL |

## SHORTHAND NOTATION

SPT - STANDARD PENETRATION TEST
PL - PLASTIC LIMIT
LL - LIQUID LIMIT
PI - PLASTICITY INDEX
MC - MOISTURE CONTENT
DD - DRY DENSITY
WD - WET DENSITY
UC - UNCONFINED COMPRESSION
OC - ORGANIC CONTENT
BGS - BELOW GROUND SURFACE
N.E. - NOT ENCOUNTERED

## MATERIAL DESCRIPTION CONTACT

——— DISTINCT SOIL LAYER CONTACT WITHIN SOIL PROFILE

- - - - - - APPROXIMATE SOIL LAYER CONTACT WITHIN SOIL PROFILE

## NOTES

1. MIXED UNIFIED SOIL CLASSIFICATION SYSTEM SYMBOLS ARE USED TO INDICATE DUAL SOIL CLASSIFICATIONS.
2. THE SPT N-VALUE, REPORTED IN BLOWS PER FOOT, IS THE SUM OF THE NUMBER OF BLOWS REQUIRED TO DRIVE THE STANDARD SPLIT SPOON SAMPLER A DISTANCE OF 12-INCHES AFTER AN INITIAL 6-INCHES OF PENETRATION. IF A TOTAL OF 50 BLOWS ARE INSUFFICIENT TO ADVANCE ANY OF THE THREE 6-INCH INTERVALS, THE PENETRATION DEPTH AFTER 50 BLOWS IS ALSO REPORTED.

## BORING LOG SYMBOLS

| GRAPH SYMBOL | DESCRIPTION |
|---|---|
| | STANDARD 2-INCH OUTSIDE DIAMETER SPLIT SPOON SAMPLER |
| | MODIFIED CALIFORNIA 3-INCH OUTSIDE DIAMETER SAMPLER |
| | ROCK CORE |
| | SHELBY TUBE 3-INCH OUTSIDE DIAMETER SAMPLER |

## ADDITIONAL MATERIAL SYMBOLS

| GRAPH SYMBOL | LETTER SYMBOL | TYPICAL NAMES |
|---|---|---|
| | AC | ASPHALT CONCRETE |
| | CC | PORTLAND CEMENT CONCRETE |
| | TS | TOPSOIL |
| | FL | FILL |

## TEST PIT LOG SYMBOLS

| GRAPH SYMBOL | DESCRIPTION |
|---|---|
| BG | BAGGIE SAMPLE |
| | BULK SAMPLE |
| RG | RING SAMPLE |

## GROUNDWATER SYMBOLS

| GRAPH SYMBOL | DESCRIPTION |
|---|---|
| | GROUNDWATER LEVEL AT TIME OF DRILLING |
| | GROUNDWATER LEVEL AT END OF DRILLING |
| | GROUNDWATER LEVEL 24 HOURS AFTER DRILLING COMPLETION |
| 04-10-18 | DATE OF GROUNDWATER READING |

EXPLORATION LOG KEY - SOIL

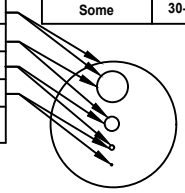
STRATA

## GRAIN SIZE

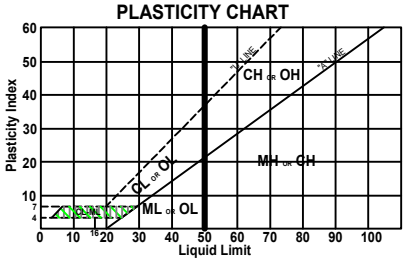
| DESCRIPTION | | SIEVE SIZE | GRAIN SIZE | APPROXIMATE SIZE |
|---|---|---|---|---|
| Boulders | | >12" | >12" | Larger than basketball-size. |
| Cobbles | | 3" - 12" | 3" - 12" | Fist-size to basketball-size. |
| Gravel | coarse | 3/4" - 3" | 3/4" - 3" | Thumb-sized to fist sized. |
| | fine | #4 - 3/4" | 0.19 - 0.75" | Pea-sized to thumb-sized. |
| Sand | coarse | #10 - #4 | 0.079 - 0.19" | Rock salt-sized to pea-sized. |
| | medium | #40 - #10 | 0.017 - 0.079" | Sugar-sized to rock salt-sized. |
| | fine | #200 - #40 | 0.0029 - 0.017" | Flour-sized to sugar-sized. |
| Fines | | Passing #200 | <0.0029" | Flour-sized and smaller. |

## MODIFIERS

| DESCRIPTION | % |
|---|---|
| Trace | <5 |
| Few | 5-10 |
| Little | 15-25 |
| Some | 30-45 |



## PLASTICITY CHART




## STRATIFICATION

| DESCRIPTION | THICKNESS |
|---|---|
| Parting | 1/16 - 1/4" |
| Lense | 1/4 - 4" |
| Layer | 4 - 12" |

| DESCRIPTION | THICKNESS |
|---|---|
| Occasional | One or less per foot of thickness. |
| Frequent | More than one per foot of thickness. |

## MOISTURE CONTENT

| DESCRIPTION | FIELD TEST |
|---|---|
| Dry | Absence of moisture, dusty, dry to touch. |
| Moist | Slightly damp, some apparent moisture. |
| Wet | Saturated, visible free water, soil is below water table. |

## APPARENT RELATIVE DENSITY OF COARSE-GRAINED SOIL

| APPARENT DENSITY | SPT blows/ft | CALIFORNIA SAMPLER blows/ft | D & M SAMPLER blows/ft | RELATIVE DENSITY (%) | FIELD TEST |
|---|---|---|---|---|---|
| Very Loose | 0-4 | <4 | <5 | 0-15 | Easily penetrated with 1/2" reinforcing rod pushed by hand. |
| Loose | 5-10 | 5-12 | 5-15 | 15-35 | Difficult to penetrate with 1/2" reinforcing rod pushed by hand. |
| Medium Dense | 11-30 | 12-35 | 15-40 | 35-65 | Easily penetrated a foot with 1/2" reinforcing rod driven with 5-lb hammer. |
| Dense | 31-50 | 35-60 | 40-70 | 65-85 | Difficult to penetrate a foot with 1/2" reinforcing rod driven with 5-lb hammer. |
| Very Dense | >50 | >60 | >70 | 85-100 | Penetrated only a few inches with 1/2" reinforcing rod driven with 5-lb hammer. |

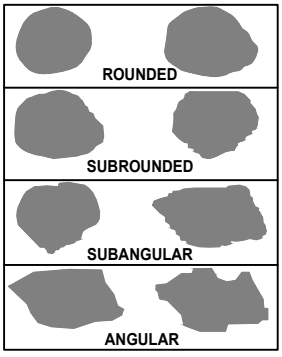
## CONSISTENCY FINE-GRAINED SOIL

| | | TORVANE | POCKET PENETROMETER | |
|---|---|---|---|---|
| CONSISTENCY | SPT blows/ft | UNDRAINED SHEAR STRENGTH (tsf) | UNCONFINED COMPRESSIVE STRENGTH (tsf) | FIELD TEST |
| Very Soft | <2 | <0.125 | <0.25 | Easily penetrated several inches by thumb. Extrudes between thumb and finger when squeezed in hand. |
| Soft | 2-3 | 0.125-0.25 | 0.25-0.5 | Penetrated about 1/4 inch by thumb with moderate effort. Molded by strong finger pressure. |
| Firm | 4-7 | 0.25-0.5 | 0.5-1.0 | Penetrated about 1/4 inch by thumb with moderate effort. Molded by strong finger pressure. |
| Stiff | 8-14 | 0.5-1.0 | 1.0-2.0 | Indented about 1/2 inch by thumb only with great effort. |
| Very Stiff | 15-30 | 1.0-2.0 | 2.0-4.0 | Readily indented with difficulty by thumbnail. |
| Hard | >30 | >2.0 | >4.0 | Indented with difficulty by thumbnail. |

## REACTION WITH HCl

| | |
|---|---|
| None | No visible reaction. |
| Weak | Some reaction, with bubbles forming slowly. |
| Strong | Violent reaction, with bubbles forming immediately. |

## PARTICLE SHAPE




## CEMENTATION

| | |
|---|---|
| Weak | Crumbles or breaks with handling or little finger pressure. |
| Moderate | Crumbles or breaks with considerable finger pressure. |
| Strong | Will not crumble or break with finger pressure. |

## STRUCTURE

| | |
|---|---|
| Stratified | Alternating layers of varying material or color with layers at least 1/4" thick; note thickness. |
| Laminated | Alternating layers of varying material or color with layers at least 1/2" thick; note thickness. |
| Fissured | Breaks along definite planes of fracture with little resistance to fracturing. |
| Slickensided | Fracture planes appear polished or glossy, sometimes striated. |
| Blocky | Cohesive soil that can be broken down into small macular lumps which resist further breakdown. |
| Lensed | Inclusion of small pockets of different soil, such as small lenses or sand scattered through a mass of clay; note thickness. |
| Homogeneous | Same color and thickness throughout. |

**EXPLORATION LOG KEY - SOIL**

STRATA

**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering | **Drill Rig:** CME 85

**Date Drilled:** 10-11-2021 | **Borehole Diameter:** 8.0"

**Depth to Groundwater:** 29.2' | **Logged By:** R. Benedetti

STRATA

**Boring:** 21-STR-B01

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 4449.5 | **Aeolian - Sandy Silt (ML) -** Brown, moist, soft to very stiff, HCl reaction: strong. | | | 16 | 1<br>1<br>3 | 4 | | | | | | | Organics observed to 0.5 ft BGS |
| | | | | | 14 | 2<br>2<br>6 | 8 | | | | | | | |
| 5 | | | | | 13 | 4<br>4<br>5 | 9 | 4.5 | | | | | | |
| | | | | | 22 | | | | | 79.8 | | | | Pinholes visible<br>Atterbeg Limits<br>LL= NV, PL= NV, PI = NP |
| 10 | | | ML | | 12 | 5<br>6<br>9 | 15 | 4.5 | | | | | | |
| 15 | | | | | 15 | 3<br>5<br>8 | 13 | 1.25 | | | | | | |
| 20 | 4429.0 | **Alluvium - Poorly Graded Gravel with Silt and Sand (GP-GM)** - Gray and green, moist to wet, dense to very dense, HCl reaction: strong, rounded to subangular. | | | 12 | 20<br>33<br>33 | 66 | | | | | | | |
| 25 | | | GP-GM | | 11 | 19<br>18<br>21 | 39 | | | | | | | Rough drilling |
| | | | | | | | | | | | | | | Water Level Measured 10-11-21 |
| 30 | | | | | | | | | | | | | | |

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**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering

**Drill Rig:** CME 85

**Date Drilled:** 10-11-2021

**Borehole Diameter:** 8.0"

**Depth to Groundwater:** 29.2'

**Logged By:** R. Benedetti

STRATA

**Boring:**

**21-STR-B01**

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | | **Alluvium - Poorly Graded Gravel with Silt and Sand (GP-GM)** - Gray and green, moist to wet, dense to very dense, HCl reaction: strong, rounded to subangular. *(continued)* | GP-GM | | 9 | 8<br>18<br>22 | 40 | | | | | | | Note: BGS = Below Ground Surface |
| 35 | 4413.0 | **Alluvium - Silty Gravel with Sand (GM)** - Brown, wet, very dense, HCl reaction: none. | GM | | 8 | 24<br>38<br>50/5.5" | 50+ | | | | | | | |
| 40 | 4408.0 | Borehole Terminated at 41.5 Feet. | | | 8 | 9<br>47<br>32 | 79 | | | | | | | Latitude: 42.854853<br>Longitude: -112.445813<br>Northing: 1000<br>Easting: 100 |

**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering | **Drill Rig:** CME 85

**Date Drilled:** 10-12-2021 | **Borehole Diameter:** 8.0"

**Depth to Groundwater:** 38.5' | **Logged By:** R. Benedetti

STRATA

**Boring:** 21-STR-B02

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 4450.5 | **Aeolian - Lean Clay (CL) -** Brown, moist, firm to stiff, HCl reaction: strong. Cemented. | CL | | 12 | 1<br>2<br>3 | 5 | 0.75 | | | | | | Organics observed to 0.5 ft BGS |
| | | | | | 12.5 | 5<br>5<br>4 | 9 | 1.25 | | | | | | |
| 5 | | | | | 23 | | | 2.5 | | 82.8 | | | | Pinholes visible |
| | | | | | 17 | 5<br>4<br>6 | 10 | 1.0 | | | | | | |
| 10 | | | | | 16 | 3<br>5<br>6 | 11 | 2.25<br>1.5 | | | | | | |
| 15 | 4434.5 | **Aeolian - Silty Sand (SM) -** Brown, moist, medium dense, HCl reaction: weak to strong. | SM | | 24 | | | 1.5 | | | | | | Pinholes visible |
| | | | | | 14 | 3<br>5<br>6 | 11 | 0.75 | | | | | | |
| | 4431.5 | **Alluvium - Poorly Graded Gravel with Silt (GP-GM) -** Brown, moist, medium dense to dense, HCl reaction: weak. | GP-GM | | | | | | | | | | | Rough drilling |
| 20 | | | | | | 14<br>19<br>26 | 45 | | | | | | | Atterbeg Limits<br>LL= NV, PL= NV, PI = NP |
| | 4426.0 | **Alluvium - Poorly Graded Gravel with Silt and Sand (GP-GM)** - Gray purple, moist to wet, loose to very dense, HCl reaction: none to strong. | GP-GM | | 10 | 7<br>12<br>15 | 27 | | | | | | | Easier drilling |
| 25 | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | |

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**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering

**Drill Rig:** CME 85

**Date Drilled:** 10-12-2021

**Borehole Diameter:** 8.0"

**Depth to Groundwater:** 38.5'

**Logged By:** R. Benedetti

STRATA

**Boring:**

**21-STR-B02**

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | | **Alluvium - Poorly Graded Gravel with Silt and Sand (GP-GM)** - Gray purple, moist to wet, loose to very dense, HCl reaction: none to strong. *(continued)* | GP-GM | | 6 | 6<br>11<br>17 | 28 | | | | | | | Easier drilling<br>Minor grinding |
| 35 | | | | | 0 | 3<br>4<br>6 | 10 | | | | | | | Water Level Measured 10-12-21 |
| 40 | 4409.0 | | | | 16.5 | 19<br>32<br>49 | 81 | | | | | | | Latitude: 42.854708<br>Longitude: -112.445077<br>Northing: 1000<br>Easting: 200 |
| | | Borehole Terminated at 41.5 Feet. | | | | | | | | | | | | |

**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering | **Drill Rig:** CME 85

**Date Drilled:** 10-11-2021 | **Borehole Diameter:** 8.0"

**Depth to Groundwater:** N.E. | **Logged By:** R. Benedetti

STRATA

**Boring:** 21-STR-B03

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 4450.8 | | | | | | | | | | | | | Note: BGS = Below Ground Surface |
| | 4449.8 | **Fill - Silty Gravel (GM)** - Brown, moist, medium dense, HCl reaction: strong. | GM | | 16 | 10<br>13<br>7 | 20 | | | | | | | Gravel surface |
| | | **Fill - Sandy Silt (ML)** - Brown, moist, very stiff, HCl reaction: strong. | ML | | | | | | | | | | | |
| | 4447.3 | | | | 4 | | | | | | | | | |
| | 4446.3 | **Fill - Silty Gravel (GM)** - Brown, moist, medium dense, HCl reaction: strong. | GM | | | | | | | | | | | Shelby Tube refusal, bagged contents |
| 5 | | **Aeolian - Silt with Sand (ML)** - Brown, moist, stiff, HCl reaction: strong, iron oxide staining. Cemented. | | | 9 | 3<br>4<br>4 | 8 | | | | | | | |
| | | | | | 23 | | | 1.75 | | 78 | | | | Pinholes visible<br>Atterbeg Limits<br>LL= NV, PL= NV, PI = NP |
| 10 | | | ML | | 16 | 4<br>5<br>7 | 12 | 2.25 | | | | | | |
| 15 | 4434.8 | **Alluvium - Sandy Silt (ML)** - Tan, moist, stiff, HCl reaction: strong, iron oxide staining. | ML | | 13 | 7<br>7<br>7 | 14 | | | | | | | Trace gravel |
| 20 | 4430.8 | **Alluvium - Poorly Graded Gravel with Silt and Sand (GP-GM)** - Gray, moist, very dense, HCl reaction: strong. | GP-GM | | 12 | 14<br>23<br>38 | 61 | | | | | | | Drill rods chattering |
| | 4427.3 | **Alluvium - Silty Gravel with Sand (GM)** - Brown, moist to wet, medium dense to dense, HCl reaction: strong. | | | | | | | | | | | | Minor grinding from 23.5 to 27 ft BGS |
| 25 | | | GM | | 14 | 12<br>13<br>11 | 24 | | | | | | | |
| 30 | | | | | | | | | | | | | | |

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**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering

**Drill Rig:** CME 85

**Date Drilled:** 10-11-2021

**Borehole Diameter:** 8.0"

**Depth to Groundwater:** N.E.

**Logged By:** R. Benedetti

STRATA

**Boring:**

**21-STR-B03**

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | | **Alluvium - Silty Gravel with Sand (GM)** - Brown, moist to wet, medium dense to dense, HCl reaction: strong. *(continued)* | | | 3 | 11<br>17<br>28 | 45 | | | | | | | Note: BGS = Below Ground Surface<br><br>Rough drilling<br>Cobbles |
| 35 | | | GM | | 7 | 12<br>10<br>12 | 22 | | | | | | | Water Level Measured 10-11-21 |
| 40 | 4409.3 | Borehole Terminated at 41.5 Feet. | | | 7 | 10<br>12<br>16 | 28 | | | | | | | Latitude: 42.85422<br>Longitude: -112.445009<br>Northing: 1000<br>Easting: 300 |

**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering | **Drill Rig:** CME 85

**Date Drilled:** 10-13-2021 | **Borehole Diameter:** 8.0"

**Depth to Groundwater:** N.E. | **Logged By:** R. Benedetti

STRATA

**Boring:** 21-STR-B04

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 4458.4 | | | | | | | | | | | | | Note: BGS = Below Ground Surface |
| | 4458.2 | **Asphalt Concrete Pavement (AC)** | AC | | | | | | | | | | | |
| | 4457.4 | **Fill - Silty Gravel with Sand (GM)** - Brown, moist, medium dense, HCl reaction: strong. | GM | | 10 | 5<br>5<br>6 | 11 | | | | | | | |
| | | | | BG | | | | | | | | | | |
| | | **Fill - Silty Sand with Gravel (SM)** - Brown, moist, medium dense, HCl reaction: strong. | SM | | 12 | 4<br>9<br>13 | 22 | | | | | | | |
| 5 | 4453.4 | **Fill - Silt with Sand (ML) -** Brown, moist, very stiff, HCl reaction: weak to strong. | | | 18 | 8<br>12<br>14 | 26 | 3.75 | | | | | | |
| | | | ML | | 18 | 9<br>12<br>12 | 24 | 3.0 | | | | | | Atterbeg Limits<br>LL= NV, PL= NV, PI = NP |
| 10 | 4448.4 | **Aeolian - Silt with Sand (ML) -** Dark brown, moist, firm to very stiff, HCl reaction: strong. | | | 9.5 | 3<br>3<br>4 | 7 | 2.25 | | | | | | |
| | | | ML | | | | | | | | | | | |
| 15 | 4443.4 | **Aeolian - Silt (ML) -** Brown, moist, firm, HCl reaction: strong. | | | 13 | 3<br>3<br>3 | 6 | 2.25 | | | | | | |
| | | | ML | | | | | | | | | | | |
| 20 | 4436.9 | Borehole Terminated at 21.5 Feet. | | | 18 | 5<br>7<br>8 | 15 | 2.25 | | | | | | Pinholes visible<br>Latitude: 42.854723<br>Longitude: -112.44591<br>Northing: 1000<br>Easting: 400 |



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**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering

**Drill Rig:** CME 85

**Date Drilled:** 10-12-2021

**Borehole Diameter:** 8.0"

**Depth to Groundwater:** N.E.

**Logged By:** R. Benedetti

STRATA

**Boring:** 21-STR-B05

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4458.1 | | | | | | | | | | | | | Note: BGS = Below Ground Surface |
| 0 | 4457.8 | **Asphalt Concrete Pavement (AC)** | AC | | | | | | | | | | | |
| | | **Fill - Silty Sand with Gravel (SM)** - Brown, moist, medium dense, rounded to subangular. | SM | | 8 | 4<br>5<br>8 | 13 | | | | | | | |
| | 4456.1 | **Fill - Silty Sand with Gravel and Cobbles (SM)** - Brown, moist, medium dense. | SM | | 12 | 7<br>13<br>10 | 23 | | | | | | | |
| | 4454.1 | **Fill - Sandy Silt (ML)** - Brown, moist, very stiff, HCl reaction: strong. | ML | | 17 | 10<br>11<br>13 | 24 | 4.5 | | | | | | |
| 5 | 4451.6 | **Fill - Silty Clay (CL-ML)** - Brown, moist, very stiff, HCl reaction: strong. | CL-ML | | 16 | 5<br>7<br>8 | 15 | 4.5 | | | | | | |
| | 4449.1 | **Fill - Sandy Silt (ML)** - Brown, moist, firm, HCl reaction: strong. | ML | | 8 | 1<br>4<br>3 | 7 | | | | | | | |
| 10 | 4447.6 | **Aeolian - Silt (ML)** - Dark brown, moist, firm, HCl reaction: none to strong. | ML | | | | | | | | | | | Likely original topsoil |
| | 4446.6 | **Aeolian - Silt with Sand (ML)** - Brown, moist, firm, HCl reaction: strong, iron oxide staining. | ML | | 12 | 1<br>2<br>3 | 5 | | | | | | | |
| 15 | 4440.6 | **Aeolian - Sandy Silt (ML)** - Brown, moist, stiff, HCl reaction: strong, iron oxide staining. | ML | | 14 | 3<br>4<br>5 | 9 | 0.75 | | | | | | Soil sample crumbling |
| 20 | 4436.6 | Borehole Terminated at 21.5 Feet. | | | | | | | | | | | | Latitude: 42.854173<br>Longitude: -112.445558<br>Northing: 1000<br>Easting: 500 |



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**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering

**Drill Rig:** CME 85

**Date Drilled:** 10-14-2021

**Borehole Diameter:** 8.0"

**Depth to Groundwater:** N.E.

**Logged By:** R. Benedetti

STRATA

**Boring:** 21-STR-B06

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 4458.1 | | | | | | | | | | | | | Note: BGS = Below Ground Surface |
| | 4457.6 | **Fill - Silt (ML) -** Dark brown, moist. Topsoil | ML | | | | | | | | | | | |
| | | **Fill - Silty Sand with Gravel (SM) -** Brown, moist, medium dense. | SM | | 8 | 5<br>8<br>6 | 14 | | | | | | | |
| | 4456.1 | **Fill - Sandy Silt (ML) -** Dark brown to brown, moist, very stiff. | ML | BG | 18 | 10<br>12<br>17 | 29 | 4.5 | | | | | | |
| | 4453.6 | | | | | | | | | | | | | |
| 5 | | **Fill - Silt with Sand (ML) -** Brown, moist, stiff to very stiff. | | | 18 | 7<br>10<br>8 | 18 | | | | | | | Gravel seam from 5.5 to 6 ft BGS |
| | | | ML | | 14 | 3<br>3<br>5 | 8 | 3.5 | | | | | | Intermittent grinding from 9 to 12 ft BGS<br>Potential floating cobbles |
| 10 | 4447.6 | | | | | | | | | | | | | |
| | 4447.1 | **Fill - Silty Gravel (GM) -** Brown and gray, moist, loose, HCl reaction: none to strong. | GM | | 18 | 2<br>5<br>3 | 8 | | | | | | | |
| | | **Aeolian - Silty Sand (SM) -** Tan, moist, loose to medium dense, HCl reaction: strong. | SM | | | | | | | | | | | |
| | 4443.1 | | | | | | | | | | | | | |
| 15 | | **Aeolian - Silt with Sand (ML) -** Tan, moist, stiff, HCl reaction: strong. | | | 14 | 4<br>4<br>4 | 8 | 2.5 | | | | | | |
| | | | ML | | | | | | | | | | | |
| 20 | | | | | 10 | 10<br>11<br>15 | 26 | | | | | | | |
| | 4436.6 | Borehole Terminated at 21.5 Feet. | | | | | | | | | | | | Latitude: 42.854119<br>Longitude: -112.446135<br>Northing: 1000<br>Easting: 600 |

**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering

**Drill Rig:** CME 85

**Date Drilled:** 10-15-2021

**Borehole Diameter:** 8.0"

**Depth to Groundwater:** N.E.

**Logged By:** R. Benedetti

STRATA

**Boring:** 21-STR-B07

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 4460.2 | | | | | | | | | | | | | Note: BGS = Below Ground Surface |
| | 4459.2 | **Fill - Silt (ML) -** Dark brown, moist, hard. | ML | | 8 | 3<br>7<br>33 | 40 | | | | | | | |
| | | **Fill - Silty Sand with Gravel and Cobbles (SM) -** Brown, moist, dense to very dense. | SM | BG | 10 | 10<br>16<br>21 | 37 | | | | | | | Rough drilling |
| 5 | 4454.2 | | | | 16 | 8<br>33<br>29 | 62 | | | | | | | Trace gravel |
| | | **Fill - Silt with Sand (ML) -** Brown, moist, stiff to very stiff, HCl reaction: strong. | ML | | 12 | 9<br>5<br>5 | 10 | | | | | | | |
| 10 | 4448.7 | | | | 0 | 7<br>8<br>9 | 17 | | | | | | | |
| | | **Fill - Silty Gravel (GM) -** Brown, moist, medium dense. | GM | | | | | | | | | | | |
| | 4446.7 | **Fill - Silt with Sand (ML) -** Brown, moist, stiff, HCl reaction: strong. | ML | | 16 | 6<br>5<br>7 | 12 | | | | | | | |
| 15 | 4443.2 | | | | | | | | | | | | | |
| | | **Fill - Silty Gravel (GM) -** Brown, moist, medium dense, HCl reaction: strong. | GM | | | | | | | | | | | |
| 20 | 4438.7 | | | | 8 | 7<br>13<br>14 | 27 | | | | | | | |
| | | Borehole Terminated at 21.5 Feet. | | | | | | | | | | | | Latitude: 42.853726<br>Longitude: -112.445587<br>Northing: 1000<br>Easting: 700 |



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**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering | **Drill Rig:** CME 85

**Date Drilled:** 10-13-2021 | **Borehole Diameter:** 8.0"

**Depth to Groundwater:** N.E. | **Logged By:** R. Benedetti

STRATA

**Boring:** 21-STR-B08

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 4456.7 | | | | | | | | | | | | | Note: BGS = Below Ground Surface |
| | 4455.7 | **Fill - Silt (ML)** - Dark brown, moist, firm. | ML | | 18 | 0<br>4<br>3 | 7 | | | | | | | Organics observed to 0.5 ft BGS |
| | | **Fill - Silty Gravel (GM)** - Brown, moist, loose. | GM | | | | | | | | | | | |
| | 4454.2 | | | | | | | | | | | | | |
| | | **Fill - Sandy Silt (ML)** - Dark brown, moist, stiff. | ML | | 6 | 2<br>3<br>5 | 8 | | | | | | | Tree roots observed |
| | 4452.7 | | | | | | | | | | | | | |
| 5 | | **Fill - Poorly Graded Sand with Silt (SP-SM)** - Brown, moist, loose to medium dense, HCl reaction: none. | SP-SM | | 4 | 5<br>4<br>5 | 9 | | | | | | | Trace gravel |
| | | | | | 12 | 3<br>8<br>8 | 16 | | | | | | | |
| | 4447.7 | | | | | | | | | | | | | |
| 10 | | **Fill - Poorly Graded Sand with Silt and Gravel (SP-SM)** - Brown, moist, medium dense, HCl reaction: weak to strong. | SP-SM | | 12 | 18<br>12<br>12 | 24 | | | | | | | |
| | 4444.8 | | | | | | | | | | | | | |
| | | **Aeolian - Silty Sand (SM)** - Tan, moist, loose, HCl reaction: strong. | SM | | 14 | 2<br>3<br>4 | 7 | | | | | | | |
| 15 | 4439.2 | | | | | | | | | | | | | |
| | | **Aeolian - Silt (ML)** - Dark brown to brown, moist, firm, HCl reaction: none. | ML | | 24 | | | 3.0 | | 78.1 | | | | |
| 20 | | | | | 14 | 2<br>2<br>4 | 6 | | | | | | | |
| | | | | BG | | | | 1.5 | | | | | | |
| | 4431.7 | | | | | | | | | | | | | |
| 25 | | **Aeolian - Silt with Sand (ML)** - Tan, moist, soft, HCl reaction: none. | ML | | 18 | 0<br>1<br>1 | 2 | | | | | | | Atterbeg Limits<br>LL= NV, PL= NV, PI = NP |
| | 4429.7 | | | | | | | | | | | | | |
| | | **Alluvium - Poorly Graded Gravel with Silt and Sand (GP-GM)** - Gray, moist, dense, HCl reaction: none. | GP-GM | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | |

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**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering

**Drill Rig:** CME 85

**Date Drilled:** 10-13-2021

**Borehole Diameter:** 8.0"

**Depth to Groundwater:** N.E.

**Logged By:** R. Benedetti

STRATA

**Boring:**

**21-STR-B08**

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | | **Alluvium - Poorly Graded Gravel with Silt and Sand (GP-GM)** - Gray, moist, dense, HCl reaction: none. *(continued)* | GP-GM | | 8 | 8<br>15<br>29 | 44 | | | | | | | Note: BGS = Below Ground Surface |
| 35 | | | | | 8 | 8<br>15<br>15 | 30 | | | | | | | |
| 40 | | | | | 6 | 17<br>18<br>13 | 31 | | | | | | | Increase in moisture content |
| | 4415.2 | Borehole Terminated at 41.5 Feet. | | | | | | | | | | | | Latitude: 42.853966<br>Longitude: -112.446281<br>Northing: 1000<br>Easting: 800 |

**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering

**Drill Rig:** CME 85

**Date Drilled:** 10-13-2021

**Borehole Diameter:** 8.0"

**Depth to Groundwater:** N.E.

**Logged By:** R. Benedetti

STRATA

**Boring:** 21-STR-B09

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 4460.4 | | | | | | | | | | | | | Note: BGS = Below Ground Surface |
| | 4460.1 | **Asphalt Concrete Pavement (AC)** | AC | | | | | | | | | | | |
| | 4459.5 | **Fill - Base Course** Slag | ML | | 5 | 2<br>5<br>21 | 26 | | | | | | | |
| | 4458.4 | **Fill - Gravelly Silt (ML)** - Brown to gray, moist, very stiff, HCl reaction: strong. | ML | | | | | | | | | | | |
| | 4456.9 | **Fill - Sandy Silt (ML)** - Brown, moist, very stiff. | GM | | | 3<br>8<br>8 | 16 | | | | | | | |
| | 4455.9 | **Fill - Silty Gravel with Cobbles (GM)** - Brown, moist, medium dense. | | | | | | | | | | | | |
| 5 | | **Fill - Silt with Sand (ML)** - Tan, moist, firm to stiff, HCl reaction: strong. | ML | | 10 | 2<br>3<br>4 | 7 | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | 5 | 4<br>5<br>4 | 9 | | | | | | | |
| | 4451.4 | | GP-GM | | | | | | | | | | | |
| | 4451.1 | **Fill - Poorly Graded Gravel with Silt and Sand (GP-GM)** - Brown, moist, loose. | | | | | | | | | | | | Gravel lense. |
| 10 | | **Aeolian - Sandy Silt (ML)** - Tan, moist, firm to stiff, HCl reaction: strong. | | | 12 | 3<br>4<br>7 | 11 | | | | | | | Soil sample crumbling when unconfined |
| | | | | | | | | | | | | | | |
| 15 | | | | | 9 | 2<br>2<br>3 | 5 | 1.5 | | | | | | |
| | | | ML | | | | | | | | | | | |
| 20 | | | | | 14 | 2<br>3<br>3 | 6 | 1.5 | | | | | | |
| | | | | | | | | | | | | | | |
| 25 | | | | | 24 | | | 3.0 | | 95.6 | | | | Pinholes visible |
| | | | | | | 2<br>4<br>4 | 8 | 1.5 | | | | | | Slight increase in plasticity |
| 30 | 4430.4 | | | | | | | | | | | | | |

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**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering

**Drill Rig:** CME 85

**Date Drilled:** 10-13-2021

**Borehole Diameter:** 8.0"

**Depth to Groundwater:** N.E.

**Logged By:** R. Benedetti

STRATA

**Boring:**

**21-STR-B09**

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | | **Alluvium - Poorly Graded Gravel with Silt, Sand and Cobbles (GP-GM)** - Brown and gray, moist, medium dense, HCl reaction: none. | GP-GM | | 4 | 10<br>15<br>12 | 27 | | | | | | | Note: BGS = Below Ground Surface<br><br>Rough drilling |
| 35 | 4424.4 | | | | 7 | 19<br>16<br>14 | 30 | | | | | | | Auger refusal<br><br>Latitude: 42.853634<br>Longitude: -112.446105<br>Northing: 1000<br>Easting: 900 |
| | | Borehole Terminated at 36.0 Feet. | | | | | | | | | | | | |

**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering | **Drill Rig:** CME 85

**Date Drilled:** 10-14-2021 | **Borehole Diameter:** 8.0"

**Depth to Groundwater:** N.E. | **Logged By:** R. Benedetti

STRATA

**Boring:** 21-STR-B10

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 4459.8 | | | | | | | | | | | | | Note: BGS = Below Ground Surface |
| | 4458.8 | **Fill - Silt (ML) -** Dark brown, moist. Topsoil. | ML | | | | | | | | | | | Organics observed to 0.5 ft BGS |
| | | **Fill - Silty Gravel (GM) -** Brown, moist, loose to medium dense. | | | 12 | 6<br>7<br>8 | 15 | | | | | | | Trace slag from 0.83 to 1 ft<br>Cobbles and boulders from 1 to 3 ft BGS |
| | | | GM | | | 3<br>2<br>6 | 8 | | | | | | | |
| | 4455.3 | | | | | | | | | | | | | |
| 5 | | **Fill - Sandy Silt with Gravel (ML) -** Brown, moist, stiff. | ML | | 12 | 6<br>5<br>4 | 9 | | | | | | | Easier drilling |
| | 4453.3 | | | | | | | | | | | | | |
| | | **Fill - Silt (ML) -** Brown, moist, soft, HCl reaction: weak to strong. | | | 14 | 1<br>2<br>1 | 3 | 0.75 | | | | | | |
| 10 | | | ML | | 12 | 1<br>2<br>1 | 3 | | | | | | | Increase in stiffness below 12 ft |
| | 4446.3 | | | | | | | | | | | | | Grinding from 13.5 to 15 ft BGS |
| | | **Fill - Gravelly Silt with Sand (ML) -** Tan, moist, stiff. | | | | | | | | | | | | |
| 15 | | | | | 12 | 4<br>5<br>6 | 11 | | | | | | | Atterbeg Limits<br>LL= NV, PL= NV, PI = NP |
| | | | ML | | | | | | | | | | | Minor grinding from 16.5 to 19.5 ft BGS |
| | 4440.3 | | | | | | | | | | | | | |
| 20 | | **Fill - Silty Sand with Gravel (SM) -** Brown, moist, medium dense, HCl reaction: none. | SM | | 14 | 7<br>9<br>13 | 22 | | | | | | | |
| | 4436.8 | | | | | | | | | | | | | |
| | | **Aeolian - Sandy Silt (ML) -** Tan, moist, very stiff. | ML | | | | | | | | | | | |
| 25 | 4434.3 | | | | | | | | | | | | | |
| | 4433.8 | **Alluvium - Poorly Graded Gravel (GP) -** Brown, moist, medium dense. | GP | | 16 | 9<br>14<br>6 | 20 | | | | | | | Atterbeg Limits<br>LL= NV, PL= NV, PI = NP |
| | | **Alluvium - Gravelly Silt (ML) -** Brown, moist, very stiff. | ML | | | | | | | | | | | |
| | 4430.8 | | | | | | | | | | | | | |
| 30 | | | GP-GM | | | | | | | | | | | |



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**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering

**Drill Rig:** CME 85

**Date Drilled:** 10-14-2021

**Borehole Diameter:** 8.0"

**Depth to Groundwater:** N.E.

**Logged By:** R. Benedetti

STRATA

**Boring:**

**21-STR-B10**

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | | **Alluvium - Poorly Graded Gravel with Silt and Sand (GP-GM)** - Brown and gray, moist, dense to very dense. *(continued)* | GP-GM | | 16 | 18<br>28<br>24 | 52 | | | | | | | Note: BGS = Below Ground Surface |
| 35 | | | | | 10 | 13<br>15<br>30 | 45 | | | | | | | |
| 40 | 4418.3 | | | | 2 | 47<br>32<br>12 | 44 | | | | | | | Gravel particle in tip of sampler |
| | | Borehole Terminated at 41.5 Feet. | | | | | | | | | | | | Latitude: 42.853591<br>Longitude: -112.445307<br>Northing: 1000<br>Easting: 1000 |

**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering | **Drill Rig:** CME 85

**Date Drilled:** 10-10-2021 | **Borehole Diameter:** 8.0"

**Depth to Groundwater:** N.E. | **Logged By:** R. Benedetti

STRATA

**Boring:** 21-STR-B11

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 4464.6 | | | | | | | | | | | | | Note: BGS = Below Ground Surface |
| | 4464.4 | **Asphalt Concrete Pavement (AC)** | AC | | | | | | | | | | | Asphalt: 1.8" |
| | 4463.9 | **Fill - Base Course** Slag. | | | | | | | | | | | | Slag: 6.6" |
| | 4463.2 | **Fill - Silty Gravel with Sand (GM)** - Gray, moist, medium dense, HCl reaction: none to strong. (Base) | GM | | 10 | 3<br>11<br>11 | 22 | | | | | | | Base: 8.4" |
| | 4462.3 | **Fill - Poorly Graded Gravel with Silt and Sand (GP-GM)** - Gray, moist, medium dense, HCl reaction: none to strong, rounded to subangular. (Subbase) | GP-GM | | | | | | | | | | | |
| 2.5 | | **Aeolian - Sandy Silt (ML)** - Light brown, moist, firm, HCl reaction: strong. | ML | BG | 14 | 3<br>3<br>3 | 6 | 1.25 | | | | | | Trace gravel |
| 5.0 | | | | | 12 | 1<br>2<br>3 | 5 | 0.75 | | | | | | |
| | 4458.1 | Borehole Terminated at 6.5 Feet. | | | | | | | | | | | | Latitude: 42.853391<br>Longitude: -112.446545 |



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**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering

**Drill Rig:** CME 85

**Date Drilled:** 10-14-2021

**Borehole Diameter:** 8.0"

**Depth to Groundwater:** N.E.

**Logged By:** R. Benedetti

STRATA

**Boring:**

**21-STR-B12**

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 4459.7 | **Fill - Silt (ML)** - Dark brown, moist, stiff. | ML | | | | | | | | | | | Organics observed to 0.5 ft BGS |
| | 4458.7 | **Fill - Silty Gravel (GM)** - Brown, moist, loose. | GM | | 16 | 1<br>6<br>4 | 10 | | | | | | | |
| | 4458.2 | **Fill - Silt with Sand (ML)** - Brown, moist, stiff. | ML | BG | | | | | | | | | | Trace gravel<br>Potential cobbles |
| 2.5 | 4456.7 | **Fill - Sandy Silt (ML)** - Tan, moist, stiff, HCl reaction: strong. | ML | BG | 9 | 3<br>4<br>5 | 9 | | | | | | | |
| 5.0 | 4454.2 | **Fill - Poorly Graded Gravel with Silt and Sand (GP-GM)** - Brown, moist, medium dense, HCl reaction: none to strong. | GP-GM | | 12 | 6<br>9<br>12 | 21 | | | | | | | |
| | 4453.2 | Borehole Terminated at 6.5 Feet. | | | | | | | | | | | | Latitude: 42.853732<br>Longitude: -112.44644 |



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**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering

**Drill Rig:** CME 85

**Date Drilled:** 10-14-2021

**Borehole Diameter:** 8.0"

**Depth to Groundwater:** N.E.

**Logged By:** R. Benedetti

STRATA

**Boring:**

**21-STR-B13**

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 4456.4 | **Fill - Gravelly Silt (ML)** - Dark brown, moist, firm, HCl reaction: none to weak. | ML | | | | | | | | | | | Note: BGS = Below Ground Surface |
| | 4455.4 | **Fill - Silt with Sand (ML)** - Dark brown, moist, firm. | ML | BG | 18 | 1 4 3 | 7 | | | | | | | Gravel seam from 0.75 to 1 ft BGS<br>CBR = 10.9 |
| 2.5 | 4453.9 | **Fill - Silt (ML)** - Tan, firm to stiff, HCl reaction: weak to strong. | ML | | 18 | 3 5 6 | 11 | 3.25 | | | | | | |
| 5.0 | 4449.9 | Borehole Terminated at 6.5 Feet. | ML | | 10 | 2 2 4 | 6 | 1.5<br>0.0 | | | | | | Gravel particle in tip of sampler |

Latitude: 42.854044
Longitude: -112.446431

**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering

**Drill Rig:** CME 85

**Date Drilled:** 10-10-2021

**Borehole Diameter:** 8.0"

**Depth to Groundwater:** N.E.

**Logged By:** R. Benedetti

STRATA

**Boring:**

**21-STR-B14**

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 4451.6 | | | | | | | | | | | | | Note: BGS = Below Ground Surface |
| | 4451.4 | **Asphalt Concrete Pavement (AC)** | AC | | | | | | | | | | | Slag: 4.2" |
| | 4451.0 | **Fill - Base Course** Slag. | | | | | | | | | | | | Asphalt: 2.4" |
| | 4450.6 | **Fill - Silty Gravel (GM)** - Brown, moist, medium dense, HCl reaction: strong, rounded to subangular. (Base) | GM | BG | 14 | 5<br>11<br>18 | 29 | | | | | | | Base: 0.45" |
| | | **Fill - Poorly Graded Gravel with Silt and Sand (GP-GM)** - Brown to gray, moist, medium dense, HCl reaction: strong. (Subbase) | GP-GM | | | | | | | | | | | |
| 2.5 | 4449.1 | **Aeolian - Silt (ML)** - Brown, moist, firm to stiff, HCl reaction: strong. | | BG | 18 | 3<br>2<br>4 | 6 | 2.5 | | | | | | |
| | | | ML | | | | | | | | | | | |
| 5.0 | | | | | 14 | 2<br>3<br>5 | 8 | | | | | | | |
| | 4445.1 | Borehole Terminated at 6.5 Feet. | | | | | | | | | | | | Latitude: 42.855012<br>Longitude: -112.444725 |



BOREHOLE - STRATA PROJECT.GDT - 11/28/22 13:16 - V:\CLIENTS\H\HARMONY DESIGN AND ENGINEERING\PO19005B - CENTENNIAL PARK LEVEE SETBACK PHASE II\ELECTRONIC LOGS\PO19005B - ELECTRONIC LOGS CENTENNIAL PARK REDESIGN PROJE

**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering

**Drill Rig:** CME 85

**Date Drilled:** 10-10-2021

**Borehole Diameter:** 8.0"

**Depth to Groundwater:** N.E.

**Logged By:** R. Benedetti

STRATA

**Boring:** 21-STR-B15

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 4449.3 | | | | | | | | | | | | | Note: BGS = Below Ground Surface |
| | 4448.6 | **Fill - Poorly Graded Gravel with Silt and Sand (GP-GM) -** Gray, moist, loose, HCl reaction: none, rounded to subangular. | GP-GM | | 14 | 6<br>4<br>5 | 9 | | | | | | | Gravel surface<br>Base: 8.4" |
| | | **Fill - Silt (ML)** - Dark brown, moist, stiff, HCl reaction: none to strong. | ML | BG | | | | | | | | | | |
| 2.5 | 4445.5 | | | | 16 | 5<br>5<br>6 | 11 | 3.25 | | | | | | |
| | | **Aeolian - Silt with Sand (ML) -** Brown, moist, stiff, HCl reaction: strong. | ML | BG | | | | | | | | | | |
| 5.0 | | | | | | | | 1.75 | | | | | | |
| | | | | | 14 | 4<br>4<br>5 | 9 | 2.75 | | | | | | |
| | 4442.8 | Borehole Terminated at 6.5 Feet. | | | | | | | | | | | | Latitude: 42.854831<br>Longitude: -112.444216 |



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BOREHOLE - STRATA PROJECT.GDT - 11/28/22 13:16 - V:\CLIENTS\H\HARMONY DESIGN AND ENGINEERING\PO19005B - CENTENNIAL PARK LEVEE SETBACK PHASE II\ELECTRONIC LOGS\PO19005B - ELECTRONIC LOGS CENTENNIAL PARK REDESIGN PROJE

**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering

**Drill Rig:** CME 85

**Date Drilled:** 10-10-2021

**Borehole Diameter:** 8.0"

**Depth to Groundwater:** N.E.

**Logged By:** R. Benedetti

STRATA

**Boring:**

**21-STR-B16**

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 4451.6 | **Aeolian - Sandy Silt (ML) -** Light brown, moist, stiff, HCl reaction: strong. | ML | | 18 | 3<br>6<br>7 | 13 | | | | | | | Organics observed to 0.4 ft BGS<br>Sprinkler line at approximately 1.5 ft BGS |
| | 4450.1 | Borehole Terminated at 1.5 Feet. | | | | | | | | | | | | Latitude: 42.854724<br>Longitude: -112.44359 |

Remarks

Note: BGS = Below Ground Surface

**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering | **Drill Rig:** CME 85

**Date Drilled:** 10-10-2021 | **Borehole Diameter:** 8.0"

**Depth to Groundwater:** N.E. | **Logged By:** R. Benedetti

STRATA

**Boring:** 21-STR-B17

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | Recovery (in) | Blows Per 6 Inches | SPT N-Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 4449.3 | | | | | | | | | | | | | Note: BGS = Below Ground Surface |
| | 4449.1 | **Asphalt Concrete Pavement (AC)** | AC | | | | | | | | | | | Base: 4.8" Asphalt: 2.4" |
| | 4448.7 | **Fill - Poorly Graded Gravel with Silt and Sand (GP-GM) -** Gray, moist, medium dense, HCl reaction: none, rounded to subangular. (Base) | GP-GM | | 14 | 14 13 8 | 21 | | | | | | | |
| | 4447.8 | **Fill - Gravelly Silt (ML) -** Dark brown, moist, medium dense, HCl reaction: none to strong. (Subbase) | ML | | | | | 0.0 | | | | | | CBR = 15.8 |
| 2.5 | | **Aeolian - Sandy Silt (ML) -** Brown, moist, firm, HCl reaction: strong. | | BG | | | | | | | | | | |
| | | | | | 18 | 2 2 2 | 4 | | | | | | | |
| | | | ML | | | | | | | | | | | |
| 5.0 | | | | | | | | | | | | | | |
| | | | | | 14 | 2 3 3 | 6 | 0.0 | | | | | | |
| | 4442.8 | | | | | | | | | | | | | |

Borehole Terminated at 6.5 Feet.

Latitude: 42.854406
Longitude: -112.44419



BOREHOLE - STRATA PROJECT.GDT - 11/28/22 13:16 - V:\CLIENTS\H\HARMONY DESIGN AND ENGINEERING\PO19005B - CENTENNIAL PARK LEVEE SETBACK PHASE II\ELECTRONIC LOGS\PO19005B - ELECTRONIC LOGS CENTENNIAL PARK REDESIGN PROJE

**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering | **Equipment:** Case 580

**Date Excavated:** 12-13-2021 | **Bucket Width:** 24.0

**Depth to Groundwater:** N.E. | **Logged By:** R. Benedetti

STRATA

**Test Pit:**

**21-STR-TP01**

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | DCP Blows | DCP Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks (Note: BGS = Below Ground Surface) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 4449.7 | **Fill - Gravelly Silt (ML)** - Dark brown, moist, very loose, HCl reaction: none to strong. | ML | | | | | | | | | | Construction debris, bricks, 1/2" roots, and a few 4" cobbles observed within the upper fill layer |
| 2.5 | 4446.7 | **Aeolian - Lean Clay with Sand (CL)** - Brown, moist, firm to hard, HCl reaction: strong. | | BG | | | | | | | | | |
| 5.0 | | | | | | | | | | | | | Increased cementation<br>Pinholes visible |
| 7.5 | | | CL | | | | | | | | | | |
| 10.0 | | | | BG | | | 4.5 | 18.0 | | 77 | | | Pocket penetrometer taken on clod |
| 12.5 | 4436.7 | | | | | | | | | | | | |

Terminated at 13.0 Feet.

Latitude: 42.85470704
Longitude: -112.44555481



TEST PIT - STRATA PROJECT.GDT - 11/28/22 13:17 - V:\CLIENTS\H\HARMONY DESIGN AND ENGINEERING\PO19005B - CENTENNIAL PARK LEVEE SETBACK PHASE II\ELECTRONIC LOGS\PO19005B - TEST PIT LOGS CENTENNIAL PARK REDESIGN PROJECT PH.

**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering

**Equipment:** Case 580

**Date Excavated:** 12-13-2021

**Bucket Width:** 24.0

**Depth to Groundwater:** N.E.

**Logged By:** R. Benedetti

STRATA

**Test Pit:**

**21-STR-TP02**

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | DCP Blows | DCP Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks<br>Note: BGS = Below Ground Surface |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 4450.1 | **Fill - Sandy Silt (ML) -** Dark brown, moist, very loose, HCl reaction: none to strong. | ML | | | | | | | | | | |
| | 4448.1 | **Aeolian - Lean Clay (CL) -** Brown, moist, stiff to hard, HCl reaction: strong. | | BG | | | 1.5 | 23.0 | | 92.4 | 31 | 9 | |
| 2.5 | | | | | | | 2.0 | | | | | | |
| 5.0 | | | | | | | | | | | | | Increased cementation<br>Pinholes visible |
| 7.5 | | | CL | BG | | | | | | | | | |
| 10.0 | | | | | | | | | | | | | Pocket penetrometer taken on clod |
| | | | | BG | | | 4.5 | | | | | | |
| 12.5 | 4437.6 | Terminated at 12.5 Feet. | | | | | | | | | | | |

Latitude: 42.8545277
Longitude: -112.44524193



TEST PIT - STRATA PROJECT.GDT - 11/28/22 13:17 - V:\CLIENTS\H\HARMONY DESIGN AND ENGINEERING\PO19005B - CENTENNIAL PARK LEVEE SETBACK PHASE II\ELECTRONIC LOGS\PO19005B - TEST PIT LOGS CENTENNIAL PARK REDESIGN PROJECT PH.

**Project:** PO19005B Centennial-Rainey Levee Setback & Ecosystem Enhancement

**Client:** Harmony Design & Engineering | **Equipment:** Case 580

**Date Excavated:** 12-13-2021 | **Bucket Width:** 24.0

**Depth to Groundwater:** N.E. | **Logged By:** R. Benedetti

STRATA

**Test Pit:**

**21-STR-TP03**

| Depth (ft) | Elevation | USCS Description | Symbol | Sample Type | DCP Blows | DCP Value | Pocket Pen (TSF) | Moisture Content (%) | Dry Density (pcf) | Percent Passing the No. 200 Sieve | Liquid Limit | Plasticity Index | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 4456.8 | **Fill - Poorly Graded Gravel with Silt and Sand (GP-GM) -** Brown gray, moist, medium dense, HCl reaction: none. | GP-GM | | | | | | | | | | Tree roots 2" in diameter observed<br>Topsoil less than 3" thick |
| 2.5 | 4454.8 | **Fill - Silt (ML) -** Brown, moist, very stiff to hard, HCl reaction: strong. | ML | BG | | | 2.5<br>4.0<br>4.5 | 34.0 | | 86 | | | Atterbeg Limits<br>LL= NV, PL= NV, PI = NP |
| 5.0 | | | | | | | | | | | | | |
| 7.5 | 4449.8 | **Fill - Silty Gravel with Sand and Cobbles (GM) -** Brown, moist, medium dense, HCl reaction: weak. | GM | BG | | | | 1.0 | | 23 | | | Cobbles up to 8" in size<br>Minor caving |
| 10.0 | 4446.8 | **Aeolian - Sandy Silt (ML) -** Brown, moist, stiff to hard, HCl reaction: weak to strong. | ML | | | | | | | | | | Caving of gravel/cobbles |
| | 4444.8 | Terminated at 12.0 Feet. | | | | | | | | | | | |

Latitude: 42.85391881
Longitude: -112.44632745



TEST PIT - STRATA PROJECT.GDT - 11/28/22 13:17 - V:\CLIENTS\H\HARMONY DESIGN AND ENGINEERING\PO19005B - CENTENNIAL PARK LEVEE SETBACK PHASE II\ELECTRONIC LOGS\PO19005B - TEST PIT LOGS CENTENNIAL PARK REDESIGN PROJECT PH.

# APPENDIX B

## Laboratory Test Results

STRATA

Summary of Test Results

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design & Engineering

Project Number: PO19005B
Date: 11/23/2021

| Location | Depth, feet | Lab Number | Soil Classification (USCS) | In Situ Moisture, % | Passing No. 200, % | Atterberg | | | Fines Class | Dry Unit Weight, pcf | CBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | LL | PL | PI | | | |
| 21-STR-B01 | 7.5-9.5 | 32286 | Sandy Silt (ML) | 12 | 56.5 | NV | NV | NP | ML | 79.8 | |
| 21-STR-B01 | 25-26.5 | 32287 | Poorly Graded Gravel with Silt and Sand (GP-GM) | 3 | 8 | | | | | | |
| 21-STR-B01 | 40-41.5 | 32288 | Silty Gravel with Sand (GM) | 13 | 18 | | | | | | |
| 21-STR-B02 | 5-7 | 32289 | Lean Clay (CL) | 21 | 98.5 | 29 | 20 | 9 | CL | 82.8 | |
| 21-STR-B02 | 20-21.5 | 32290 | Poorly Graded Gravel with Silt (GP-GM) | 2 | 6 | NV | NV | NP | ML | | |
| 21-STR-B02 | 25-26.5 | 32291 | Poorly Graded Gravel with Silt and Sand (GP-GM) | 7 | 7 | | | | | | |
| 21-STR-B03 | 7.5-9.5 | 32292 | Silt with Sand (ML) | 10 | 72.1 | NV | NV | NP | ML | 78.0 | |
| 21-STR-B03 | 15-16.5 | 32293 | Sandy Silt (ML) | 8 | 56.3 | | | | | | |
| 21-STR-B03 | 20-21.5 | 32294 | Poorly Graded Gravel with Silt and Sand (GP-GM) | 1 | 10 | | | | | | |
| 21-STR-B03 | 25-26.5 | 32295 | Silty Gravel with Sand (GM) | 7 | 15 | | | | | | |
| 21-STR-B04 | 1-2.5 | 32297 | Silty Sand with Gravel (SM) | 10 | 38 | | | | | | |
| 21-STR-B04 | 7.5-9 | 32299 | Silt with Sand (ML) | 13 | 72 | NV | NV | NP | ML | | |
| 21-STR-B04 | 15-16.5 | 32300 | Silt (ML) | 10 | 89 | | | | | | |
| 21-STR-B05 | 0.25-1.75 | 32301 | Silty Sand with Gravel (SM) | 10 | 36 | | | | | | |
| 21-STR-B05 | 2.5-4 | 32302 | Silty Sand with Gravel (SM) | 9 | 39 | | | | | | |
| 21-STR-B05 | 5-6.5 | 32303 | Sandy Silt (ML) | 13 | 65 | | | | | | |
| 21-STR-B05 | 7.5-9 | 32304 | Silty Clay (CL-ML) | 15 | 94.7 | 25 | 18 | 7 | CL-ML | | |
| 21-STR-B05 | 15-16.5 | 32305 | Silt with Sand (ML) | 14 | 70.9 | | | | | | |
| 21-STR-B05 | 20-21.5 | 32306 | Sandy Silt (ML) | 20 | 65.0 | | | | | | |
| 21-STR-B06 | 0.5-2 | 32307 | Silty Sand with Gravel (SM) | 7 | 23 | | | | | | |
| 21-STR-B06 | 2-4 | 32308 | Sandy Silt (ML) | 13 | 54 | | | | | | |
| 21-STR-B06 | 5-6.5 | 32309 | Silt with Sand (ML) | 13 | 74 | | | | | | |
| 21-STR-B06 | 15-16.5 | 32310 | Silt with Sand (ML) | 14 | 72.1 | | | | | | |
| 21-STR-B07 | 1-3.5 | 32311 | Silty Sand with Gravel (SM) | 4 | 40 | | | | | | |
| 21-STR-B07 | 7.5-9 | 32312 | Silt with Sand (ML) | 10 | 71 | | | | | | |
| 21-STR-B07 | 15-16.5 | 32313 | Silt with Sand (ML) | 16 | 78.7 | | | | | | |
| 21-STR-B08 | 2.5-4 | 32314 | Sandy Silt (ML) | 18 | 69 | | | | | | |
| 21-STR-B08 | 7.5-9 | 32315 | Poorly Graded Sand with Silt (SP-SM) | 11 | 11 | | | | | | |
| 21-STR-B08 | 10-11.5 | 32316 | Poorly Graded Sand with Silt and Gravel (SP-SM) | 2 | 12 | | | | | | |
| 21-STR-B08 | 20-22 | 32317 | Silt (ML) | 20 | 89.6 | | | | | 78.1 | |
| 21-STR-B08 | 25-26.5 | 32318 | Silt with Sand (ML) | 28 | 81.3 | NV | NV | NP | ML | | |
| 21-STR-B09 | 5-6.5 | 32319 | Silt with Sand (ML) | 9 | 78 | | | | | | |
| 21-STR-B09 | 25-27 | 32320 | Sandy Silt (ML) | 22 | 70 | | | | | 95.6 | |
| 21-STR-B10 | 5-6.5 | 32321 | Sandy Silt with Gravel (ML) | 6 | 56 | | | | | | |
| 21-STR-B10 | 10-11.5 | 32322 | Silt (ML) | 22 | 89.2 | | | | | | |
| 21-STR-B10 | 15-16.5 | 32323 | Gravelly Silt with Sand (ML) | 14 | 50 | NV | NV | NP | ML | | |
| 21-STR-B10 | 20-21.5 | 32324 | Silty Sand with Gravel (SM) | 7 | 23 | | | | | | |
| 21-STR-B10 | 25-26.5 | 32325 | Poorly Graded Gravel (GP) | 2 | 4 | NV | NV | NP | ML | | |
| 21-STR-B10 | 30-31.5 | 32326 | Poorly Graded Gravel with Silt and Sand (GP-GM) | 4 | 7 | | | | | | |

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## Summary of Test Results

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design & Engineering

Project Number: PO19005B
Date: 11/23/2021

| Location | Depth, feet | Lab Number | Soil Classification (USCS) | In Situ Moisture, % | Passing No. 200, % | Atterberg | | | Fines Class | Dry Unit Weight, pcf | CBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | LL | PL | PI | | | |
| 21-STR-B11 | 2.5-4 | 32327 | Sandy Silt (ML) | 6 | 63 | | | | | | |
| 21-STR-B12 | 1-3 | 32328 | Silt with Sand (ML) | 15 | 74 | | | | | | |
| 21-STR-B13 | 1-2.5 | 32329 | Silt with Sand (ML) | 18 | 84.7 | | | | | | 10.9 |
| 21-STR-B14 | 1.5-2 | 32330 | Poorly Graded Gravel with Silt and Sand (GP-GM) | 8 | 10 | | | | | | |
| 21-STR-B14 | 5-6.5 | 32331 | Silt (ML) | 19 | 95 | | | | | | |
| 21-STR-B15 | 2.5-4 | 32332 | Silt (ML) | 18 | 85.6 | | | | | | |
| 21-STR-B17 | 1.5-3 | 32333 | Sandy Silt (ML) | 17 | 65.7 | | | | | | 15.8 |
| 21-STR-TP01 | 10-12 | 33620 | Lean Clay with Sand (CL) | 18 | 77 | | | | | | |
| 21-STR-TP02 | 2-4 | 33621 | Lean Clay (CL) | 23 | 92.4 | 31 | 22 | 9 | CL | | |
| 21-STR-TP03 | 2-4 | 33622 | Silt (ML) | 34 | 86 | NV | NV | NP | ML | | |
| 21-STR-TP03 | 7-10 | 33623 | Silty Gravel with Sand (GM) | 1 | 23 | | | | | | |

NV = No Value NP = Non-Plastic

Reviewed by: _____

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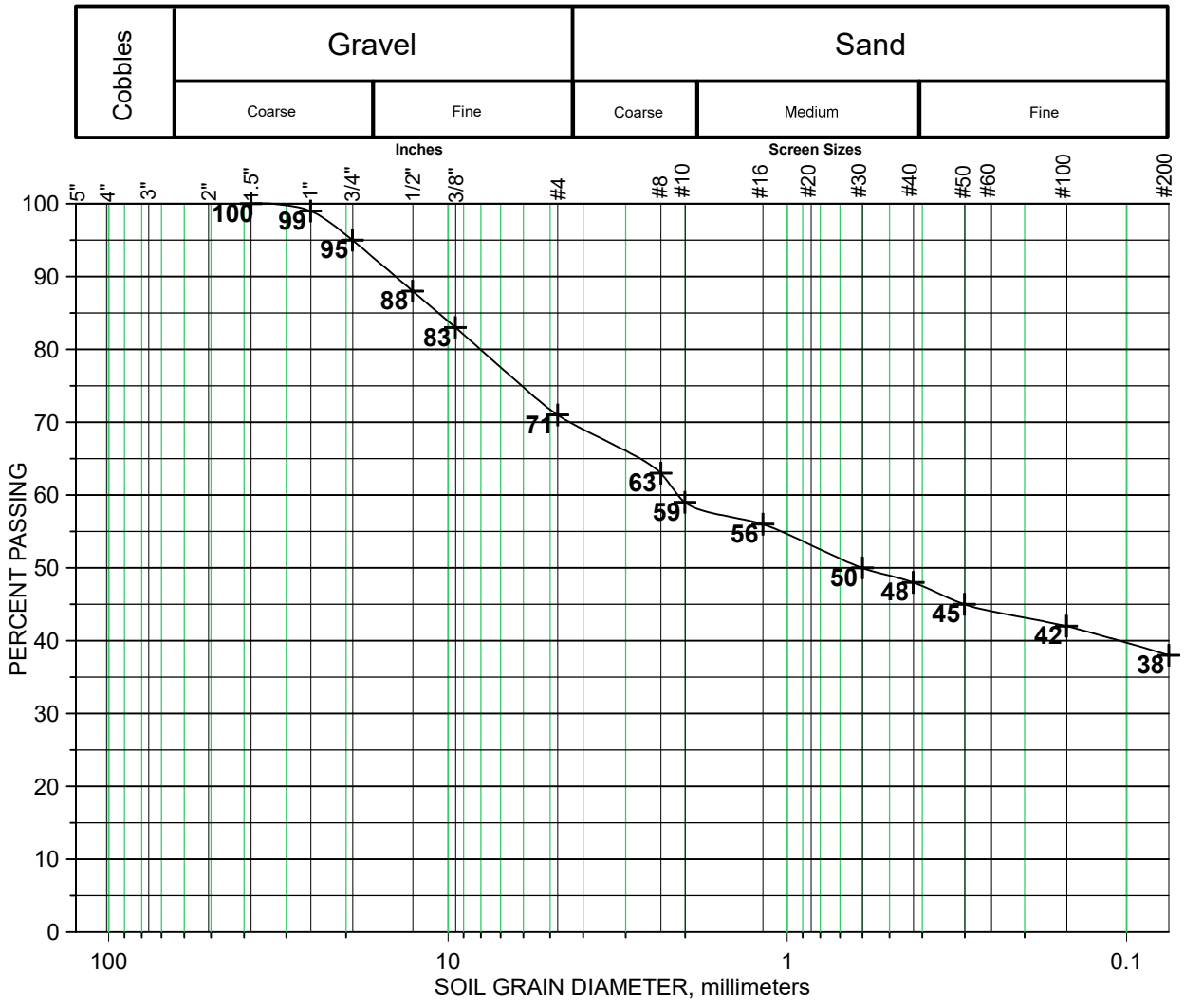
# SIEVE ANALYSIS
# ASTM D6913 Method A

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design & Engineering
Project Number: PO19005B
Lab Number: 32297
Sample Source: 21-STR- B04, 1'-2.5'
Sample Classification: Silty Sand with Gravel (SM)
Date Tested: 11/15/2021 By: C. Spencer - STRATA

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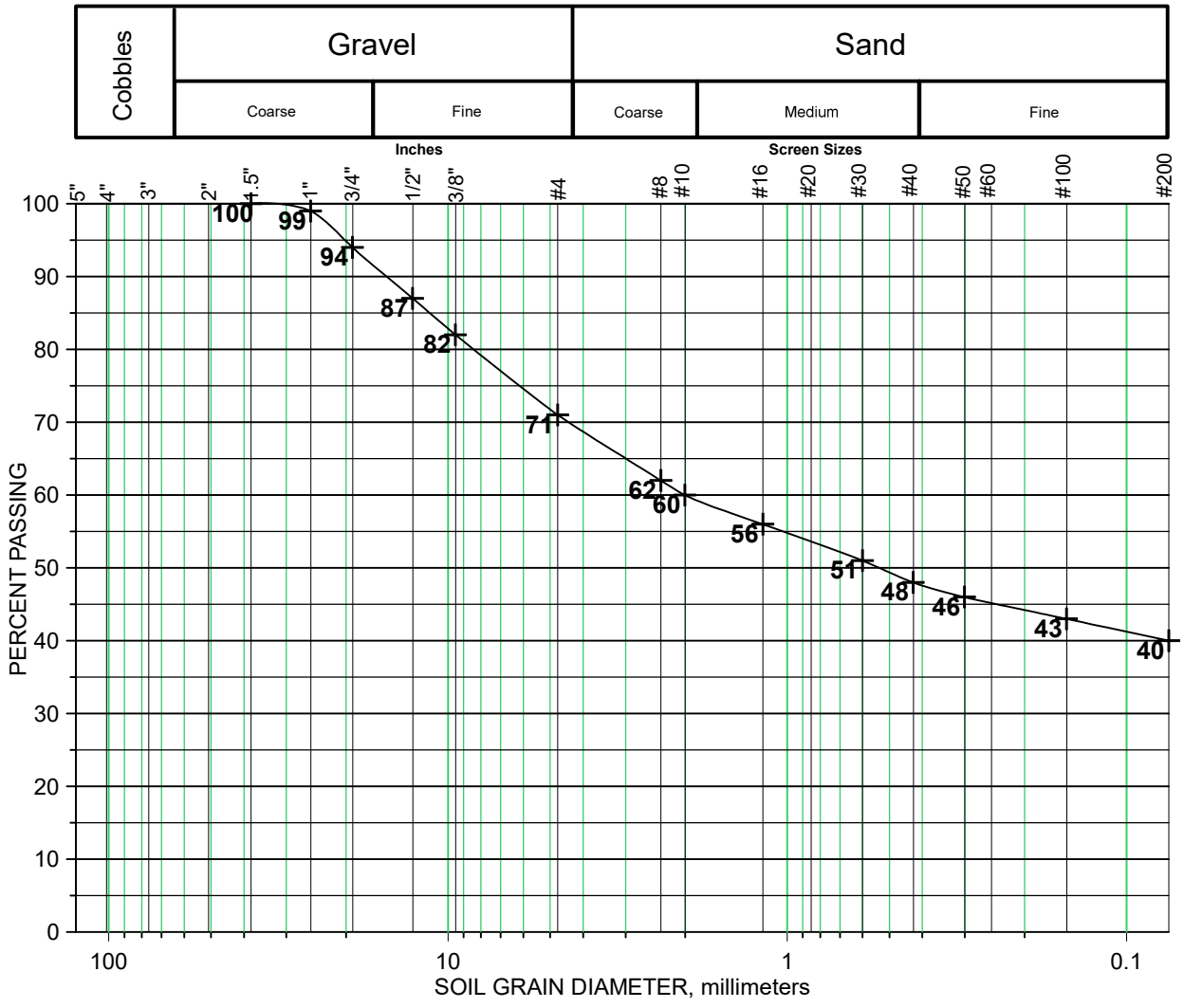
Reviewed By:

# SIEVE ANALYSIS
# ASTM D6913 Method A

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design & Engineering
Project Number: PO19005B
Lab Number: 32311
Sample Source: 21-STR- B07, 1'-3.5'
Sample Classification: Silty Sand with Gravel (SM)
Date Tested: 11/15/2021 By: C. Spencer - STRATA

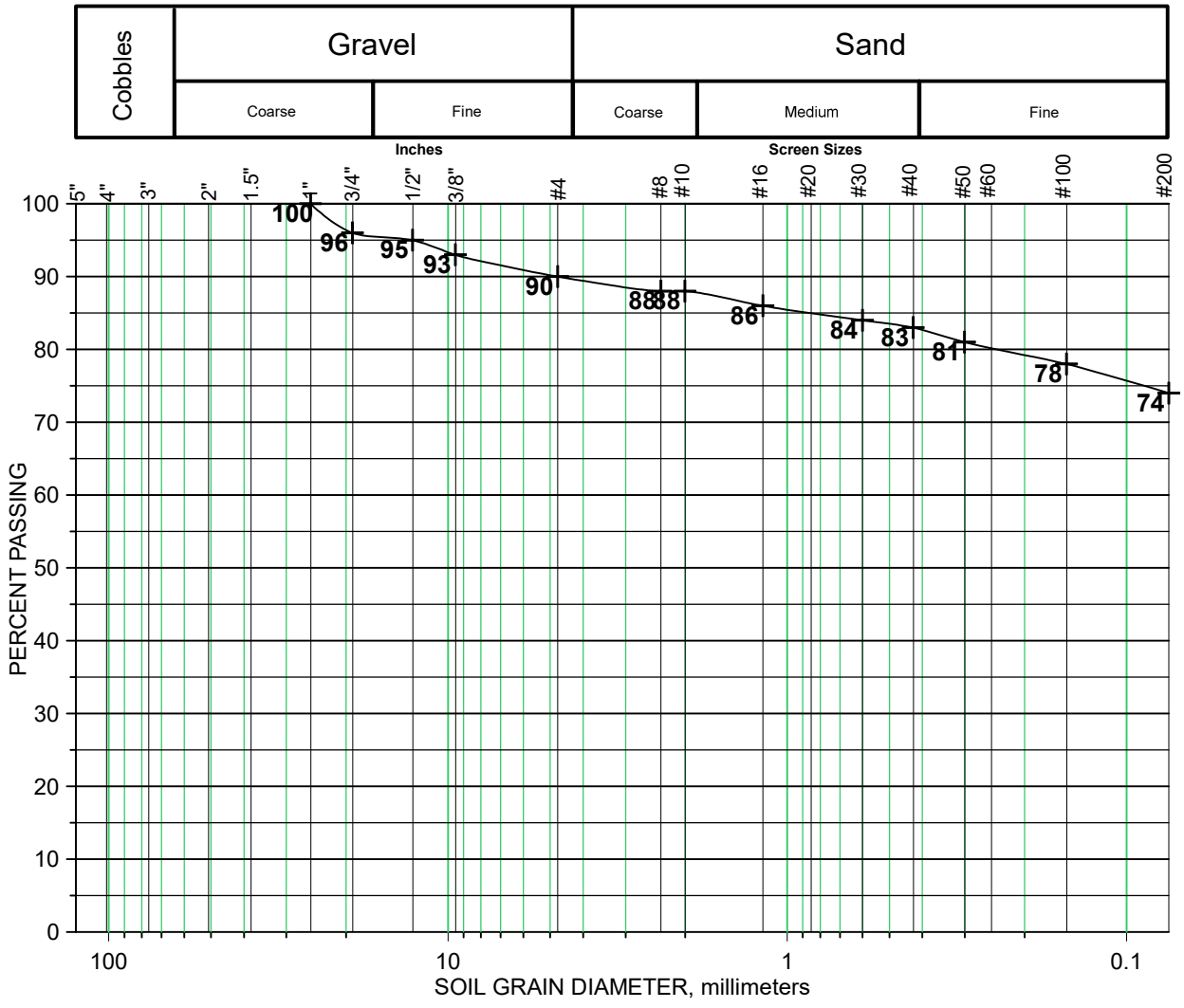



STRATA

Reviewed By:

# SIEVE ANALYSIS
# ASTM D6913 Method A

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design & Engineering
Project Number: PO19005B
Lab Number: 32328
Sample Source: 21-STR-B12, 1'-3'
Sample Classification: Silt with Sand (ML)
Date Tested: 11/15/2021 By: C. Spencer - STRATA

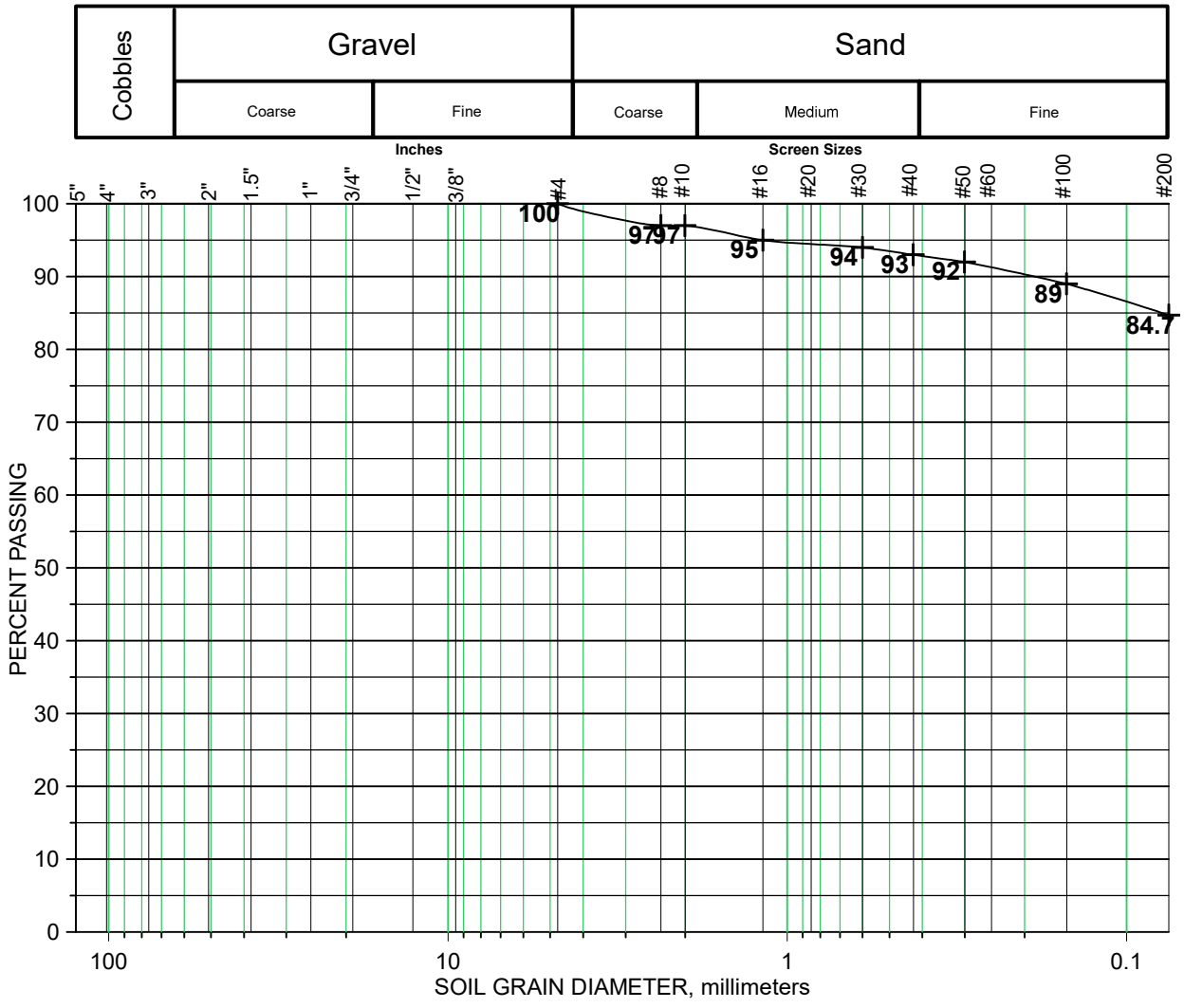



STRATA

Reviewed By: _____

# SIEVE ANALYSIS
# ASTM D6913 Method B

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design & Engineering
Project Number: PO19005B
Lab Number: 32329
Sample Source: 21-STR-B13 1'-2.5'
Sample Classification: Silt with Sand (ML)
Date Tested: 11/15/2021 By: C. Spencer - STRATA

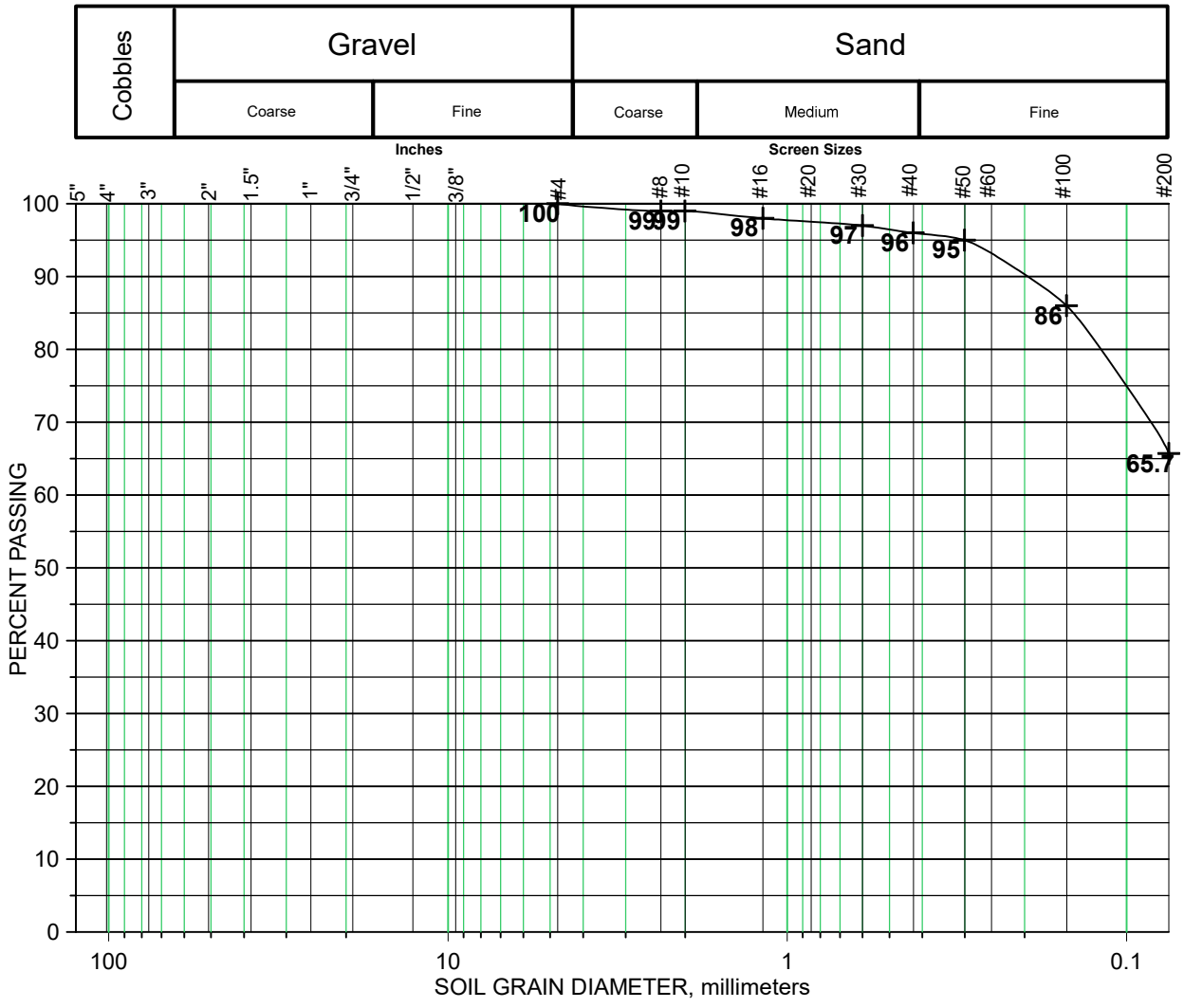



STRATA

Reviewed By:

# SIEVE ANALYSIS
# ASTM D6913 Method B

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design & Engineering
Project Number: PO19005B
Lab Number: 32333
Sample Source: 21-STR-B17, 1.5'-3'
Sample Classification: Sandy Silt (ML)
Date Tested: 11/15/2021 By: C. Spencer - STRATA

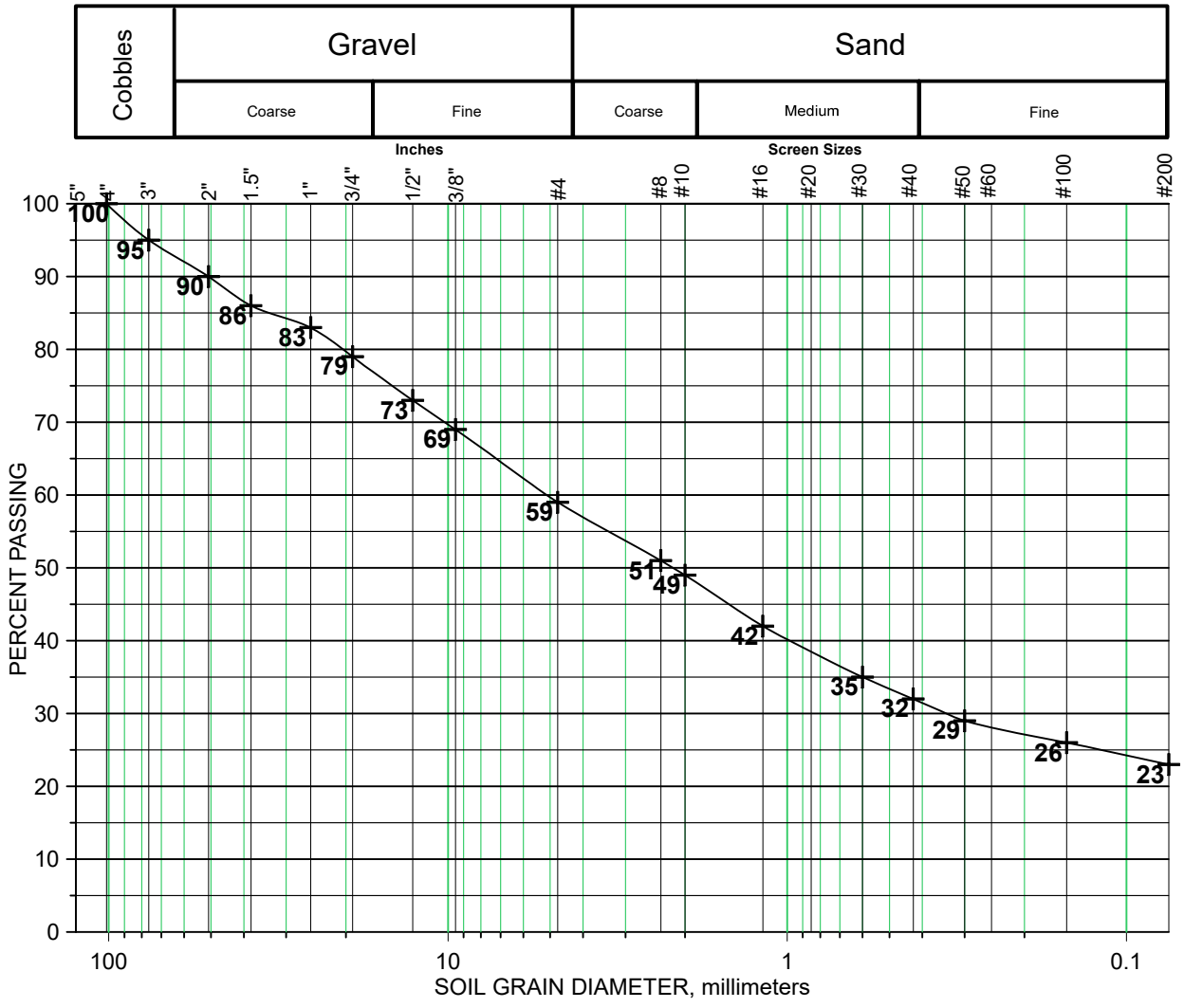



STRATA

Reviewed By:

# SIEVE ANALYSIS
# ASTM D6913 Method B

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design & Engineering
Project Number: PO19005B
Lab Number: 33623
Sample Source: 21-STR-TP03, 7'-10'
Sample Classification: Silty Gravel with Sand (GM)
Date Tested: 1/21/2021 By: C. Spencer - STRATA




STRATA

Reviewed By: _____

**Pocatello**
2055 Garrett Way, Building 1, Ste. 1
Pocatello, ID 83201
Phone: 208.237.3400

# ASTM D1557

**Report Date:** 11/29/2021

**Client:**

Harmony Design, Inc.
PO Box 369
Driggs, ID 83422

**Project:**

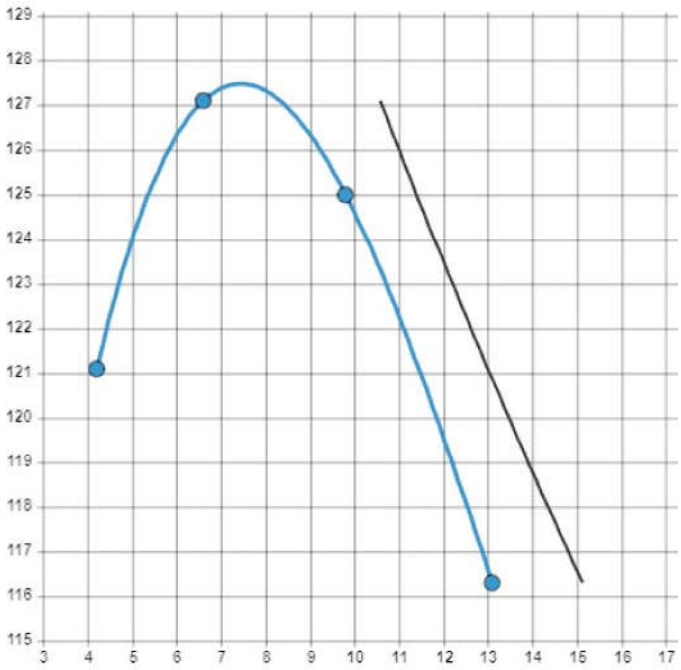
PO19005B
Centennial Park/Levee Setback Phase II
U.S. 20 between MP 369.882 to MP 377.100, MP ...
Varies, ID Varies

## SAMPLE INFORMATION

| | | | |
|---|---|---|---|
| **SAMPLE NO:** | 32297 | **SAMPLE DATE:** | 10/10/2021 |
| **SPECIMEN SIZE:** | SAMPLE BAG | **RECEIVED DATE:** | 10/27/2021 |
| **DESCRIPTION:** | Silty Sand with Gravel (SM) | **TEST DATE:** | 10/27/2021 |
| **LOCATION:** | 21-STR-B04 1-2.5' | **SAMPLED BY:** | BENEDETTI, ROCKY |
| | | **TESTED BY:** | MYERS, SCOTT |

| | |
|---|---|
| **SAMPLE TYPE:** | CMT |
| **METHOD:** | NOT REPORTED |
| **SAMPLE FROM:** | NOT REPORTED |

## ASTM D1557: COMPACTION CHARACTERISTICS OF SOIL USING MODIFIED EFFORT




| | |
|---|---|
| **PROCTOR ID:** | 32297 |
| **MAX DRY DENSITY (pcf):** | 127.5 |
| **OPTIMUM MOISTURE (%):** | 7.4 |
| **CORRECTED MAX DRY DENSITY (pcf):** | 132.3 |
| **CORRECTED OPTIMUM MOISTURE (%):** | 6.1 |
| **PROCTOR METHOD:** | B |
| **PREPARATION METHOD:** | Moist |
| **RAMMER TYPE:** | Manual |
| **OVERSIZE SPECIFIC GRAVITY SOURCE:** | Assumed |
| **OVERSIZE SPECIFIC GRAVITY** | 2.60 |
| **ZAV SPECIFIC GRAVITY:** | 2.60 |
| **% RETAINED ON 3/8 Inch SIEVE:** | 17 |
| **% PASSING LAST SIEVE ( 3/8 Inch ):** | 83 |

**REMARKS:**

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STRATA
**Pocatello**
2055 Garrett Way, Building 1, Ste. 1
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Phone: 208.237.3400

# ASTM D1557

**Report Date:** 11/29/2021

**Client:**
Harmony Design, Inc.
PO Box 369
Driggs, ID 83422

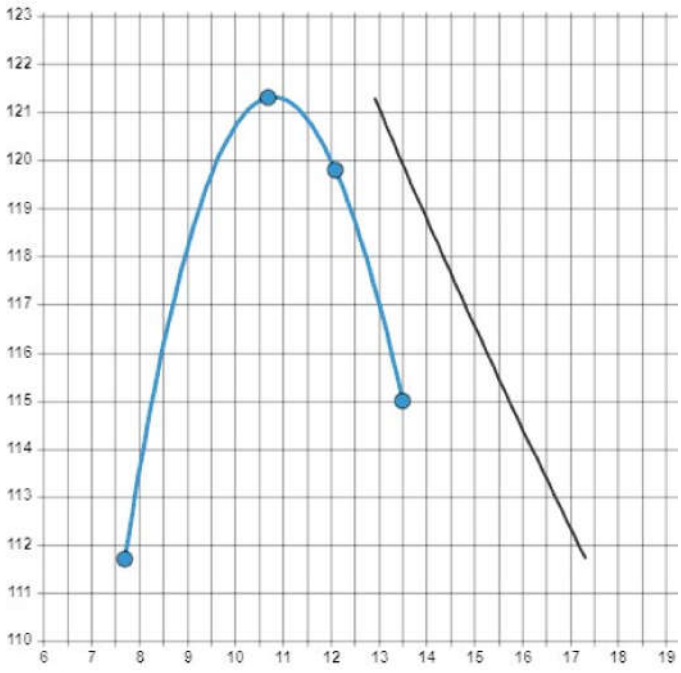
**Project:**
PO19005B
Centennial Park/Levee Setback Phase II
U.S. 20 between MP 369.882 to MP 377.100, MP ...
Varies, ID Varies

## SAMPLE INFORMATION

| | | | |
|---|---|---|---|
| **SAMPLE NO:** | 32308 | **SAMPLE DATE:** | 10/10/2021 |
| **SPECIMEN SIZE:** | SAMPLE BAG | **RECEIVED DATE:** | 10/27/2021 |
| **DESCRIPTION:** | Sandy Silt (ML) | **TEST DATE:** | 10/27/2021 |
| **LOCATION:** | 21-STR-B06 2-4' | **SAMPLED BY:** | BENEDETTI, ROCKY |
| | | **TESTED BY:** | MYERS, SCOTT |

| | |
|---|---|
| **SAMPLE TYPE:** | CMT |
| **METHOD:** | NOT REPORTED |
| **SAMPLE FROM:** | NOT REPORTED |

## ASTM D1557: COMPACTION CHARACTERISTICS OF SOIL USING MODIFIED EFFORT




| | |
|---|---|
| **PROCTOR ID:** | 32308 |
| **MAX DRY DENSITY (pcf):** | 121.3 |
| **OPTIMUM MOISTURE (%):** | 10.8 |
| **PROCTOR METHOD:** | B |
| **PREPARATION METHOD:** | Moist |
| **RAMMER TYPE:** | Manual |
| **ZAV SPECIFIC GRAVITY:** | 2.60 |
| **% RETAINED ON 3/8 Inch SIEVE:** | 4 |
| **% PASSING LAST SIEVE ( 3/8 Inch ):** | 96 |

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# ASTM D1557

**Report Date:** 11/29/2021

**Client:**

Harmony Design, Inc.
PO Box 369
Driggs, ID 83422

**Project:**

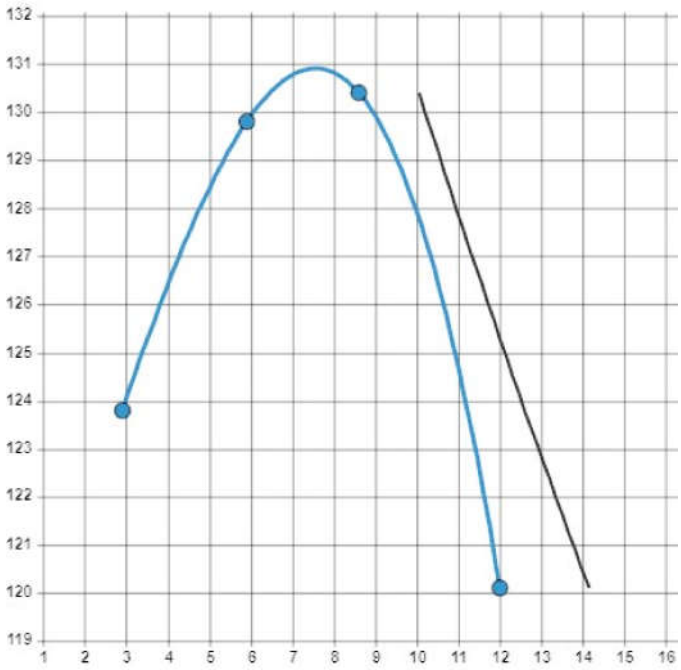
PO19005B
Centennial Park/Levee Setback Phase II
U.S. 20 between MP 369.882 to MP 377.100, MP ...
Varies, ID Varies

## SAMPLE INFORMATION

| | | | |
|---|---|---|---|
| **SAMPLE NO:** | 32311 | **SAMPLE DATE:** | 10/10/2021 |
| **SPECIMEN SIZE:** | SAMPLE BAG | **RECEIVED DATE:** | 10/27/2021 |
| **DESCRIPTION:** | Silty Sand with Gravel (SM) | **TEST DATE:** | 10/27/2021 |
| **LOCATION:** | 21-STR-B07 1-3.5' | **SAMPLED BY:** | BENEDETTI, ROCKY |
| | | **TESTED BY:** | MYERS, SCOTT |

| | |
|---|---|
| **SAMPLE TYPE:** | CMT |
| **METHOD:** | NOT REPORTED |
| **SAMPLE FROM:** | NOT REPORTED |

## ASTM D1557: COMPACTION CHARACTERISTICS OF SOIL USING MODIFIED EFFORT




| | |
|---|---|
| **PROCTOR ID:** | 32311 |
| **MAX DRY DENSITY (pcf):** | 130.9 |
| **OPTIMUM MOISTURE (%):** | 7.6 |
| **CORRECTED MAX DRY DENSITY (pcf):** | 135.6 |
| **CORRECTED OPTIMUM MOISTURE (%):** | 6.2 |
| **PROCTOR METHOD:** | B |
| **PREPARATION METHOD:** | Moist |
| **RAMMER TYPE:** | Manual |
| **OVERSIZE SPECIFIC GRAVITY SOURCE:** | Assumed |
| **OVERSIZE SPECIFIC GRAVITY** | 2.60 |
| **ZAV SPECIFIC GRAVITY:** | 2.65 |
| **% RETAINED ON 3/8 Inch SIEVE:** | 18 |
| **% PASSING LAST SIEVE ( 3/8 Inch ):** | 82 |

**REMARKS:**

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**Pocatello**
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# ASTM D1557

**Report Date:** 11/29/2021

**Client:**

Harmony Design, Inc.
PO Box 369
Driggs, ID 83422

**Project:**

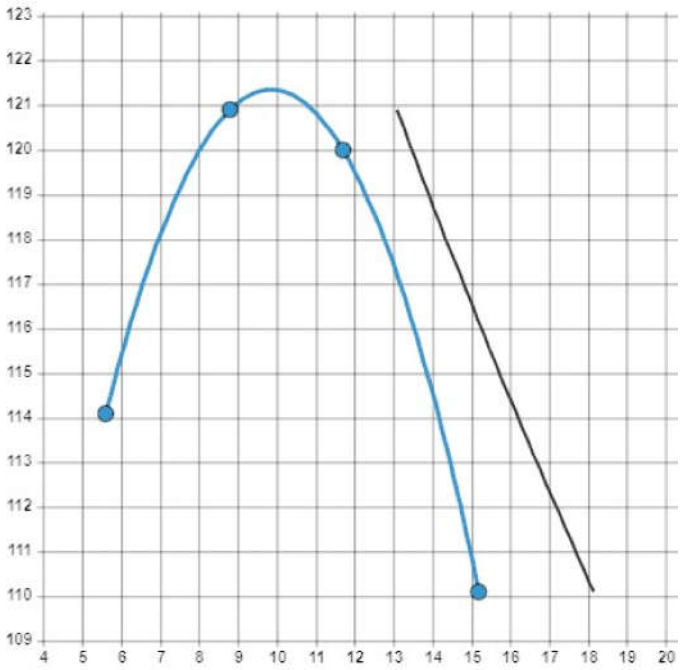
PO19005B
Centennial Park/Levee Setback Phase II
U.S. 20 between MP 369.882 to MP 377.100, MP ...
Varies, ID Varies

## SAMPLE INFORMATION

| | | | |
|---|---|---|---|
| **SAMPLE NO:** | 32329 | **SAMPLE DATE:** | 10/10/2021 |
| **SPECIMEN SIZE:** | SAMPLE BAG | **RECEIVED DATE:** | 10/27/2021 |
| **DESCRIPTION:** | Silt with Sand (ML) | **TEST DATE:** | 10/07/2021 |
| **LOCATION:** | 21-STR-B13 1-2.5' | **SAMPLED BY:** | BENEDETTI, ROCKY |
| | | **TESTED BY:** | MYERS, SCOTT |

| | |
|---|---|
| **SAMPLE TYPE:** | CMT |
| **METHOD:** | NOT REPORTED |
| **SAMPLE FROM:** | NOT REPORTED |

## ASTM D1557: COMPACTION CHARACTERISTICS OF SOIL USING MODIFIED EFFORT




| | |
|---|---|
| **PROCTOR ID:** | 32329 |
| **MAX DRY DENSITY (pcf):** | 121.3 |
| **OPTIMUM MOISTURE (%):** | 9.9 |
| **PROCTOR METHOD:** | B |
| **PREPARATION METHOD:** | Moist |
| **RAMMER TYPE:** | Manual |
| **ZAV SPECIFIC GRAVITY:** | 2.60 |
| **% RETAINED ON 3/8 Inch SIEVE:** | 0 |
| **% PASSING LAST SIEVE ( 3/8 Inch ):** | 100 |

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Pocatello, ID 83201
Phone: 208.237.3400

# ASTM D1557

**Report Date:** 11/29/2021

**Client:**

Harmony Design, Inc.
PO Box 369
Driggs, ID 83422

**Project:**

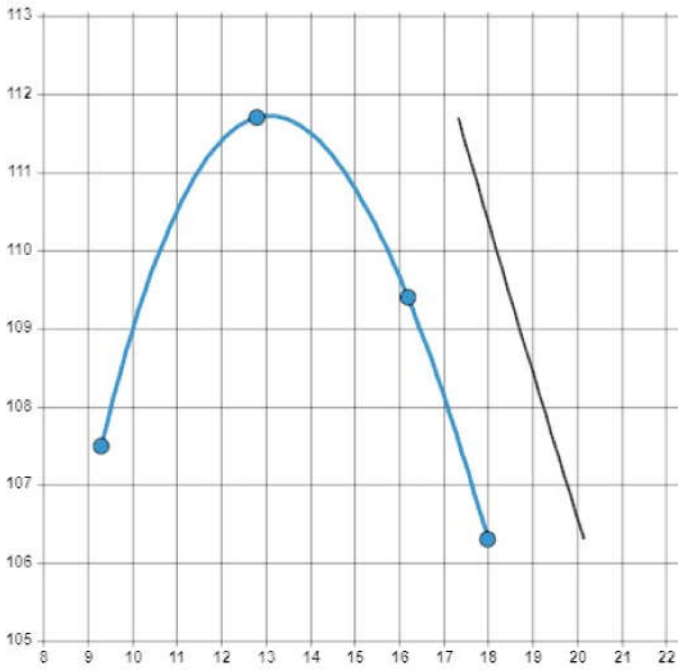
PO19005B
Centennial Park/Levee Setback Phase II
U.S. 20 between MP 369.882 to MP 377.100, MP ...
Varies, ID Varies

## SAMPLE INFORMATION

| | | | |
|---|---|---|---|
| **SAMPLE NO:** | 32333 | **SAMPLE DATE:** | 10/10/2021 |
| **SPECIMEN SIZE:** | SAMPLE BAG | **RECEIVED DATE:** | 10/27/2021 |
| **DESCRIPTION:** | Sandy Silt (ML) | **TEST DATE:** | 10/10/2021 |
| **LOCATION:** | 21-STR-B17 1.5-3' | **SAMPLED BY:** | BENEDETTI, ROCKY |
| | | **TESTED BY:** | MYERS, SCOTT |

| | |
|---|---|
| **SAMPLE TYPE:** | CMT |
| **METHOD:** | NOT REPORTED |
| **SAMPLE FROM:** | NOT REPORTED |

## ASTM D1557: COMPACTION CHARACTERISTICS OF SOIL USING MODIFIED EFFORT




| | |
|---|---|
| **PROCTOR ID:** | 32333 |
| **MAX DRY DENSITY (pcf):** | 111.7 |
| **OPTIMUM MOISTURE (%):** | 13.1 |
| **PROCTOR METHOD:** | B |
| **PREPARATION METHOD:** | Moist |
| **RAMMER TYPE:** | Manual |
| **ZAV SPECIFIC GRAVITY:** | 2.60 |
| **% RETAINED ON 3/8 Inch SIEVE:** | 0 |
| **% PASSING LAST SIEVE ( 3/8 Inch ):** | 100 |

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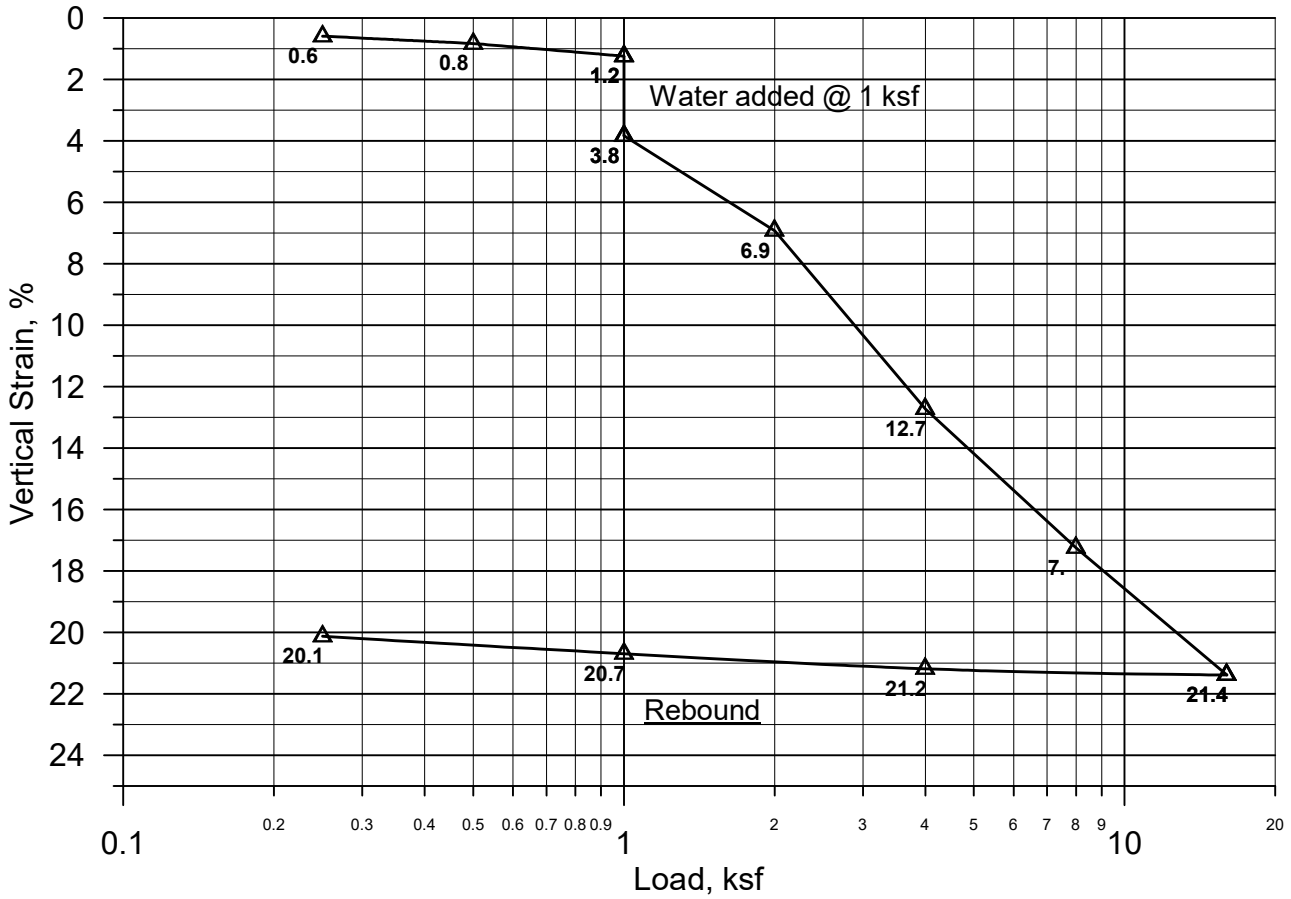
# CONSOLIDATION TEST RESULTS
# ASTM D 2435 (Method B)

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design & Engineering
Project Number: PO19005B
Lab Number: 32286
Sample Identification: 21-STR-B01, 7.5'-9.5'
Sample Classification: Sandy Silt (ML)
Sample: In-Situ Tube (Condition: Good)
Date Tested: 12/2/2021 By: S. Myers
Sample Dry Unit Weight: 79.8 PCF
Moisture Content: 12%

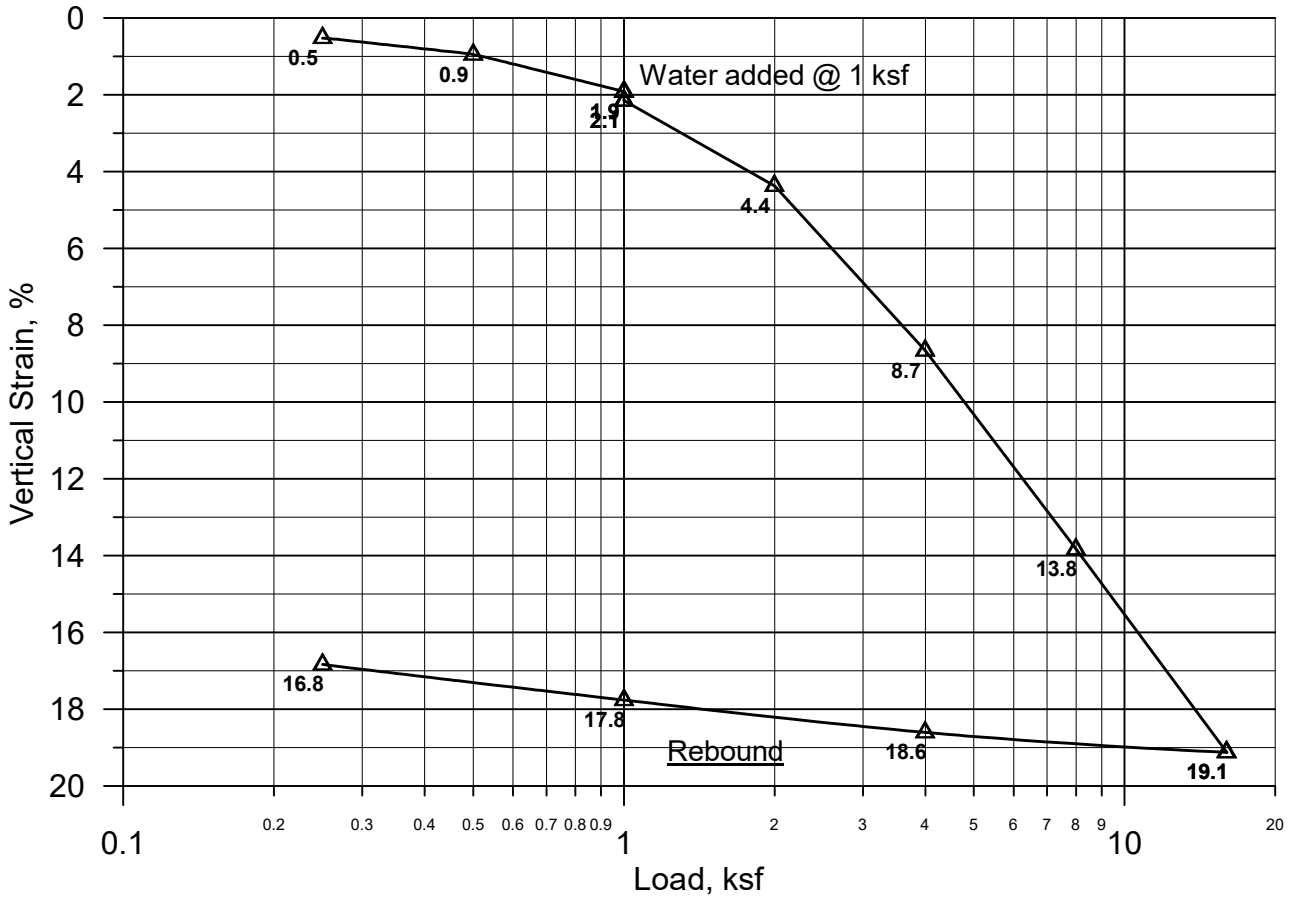



Reviewed By: _____

STRATA

# CONSOLIDATION TEST RESULTS
# ASTM D 2435 (Method B)

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design & Engineering
Project Number: PO19005B
Lab Number: 32289
Sample Identification: 21-STR-B02, 5'-7'
Sample Classification: Lean Clay (CL)
Sample: In-Situ Tube (Condition: Good)
Date Tested: 12/2/2021 By: S. Myers
Sample Dry Unit Weight: 79.6 PCF
Moisture Content: 21%

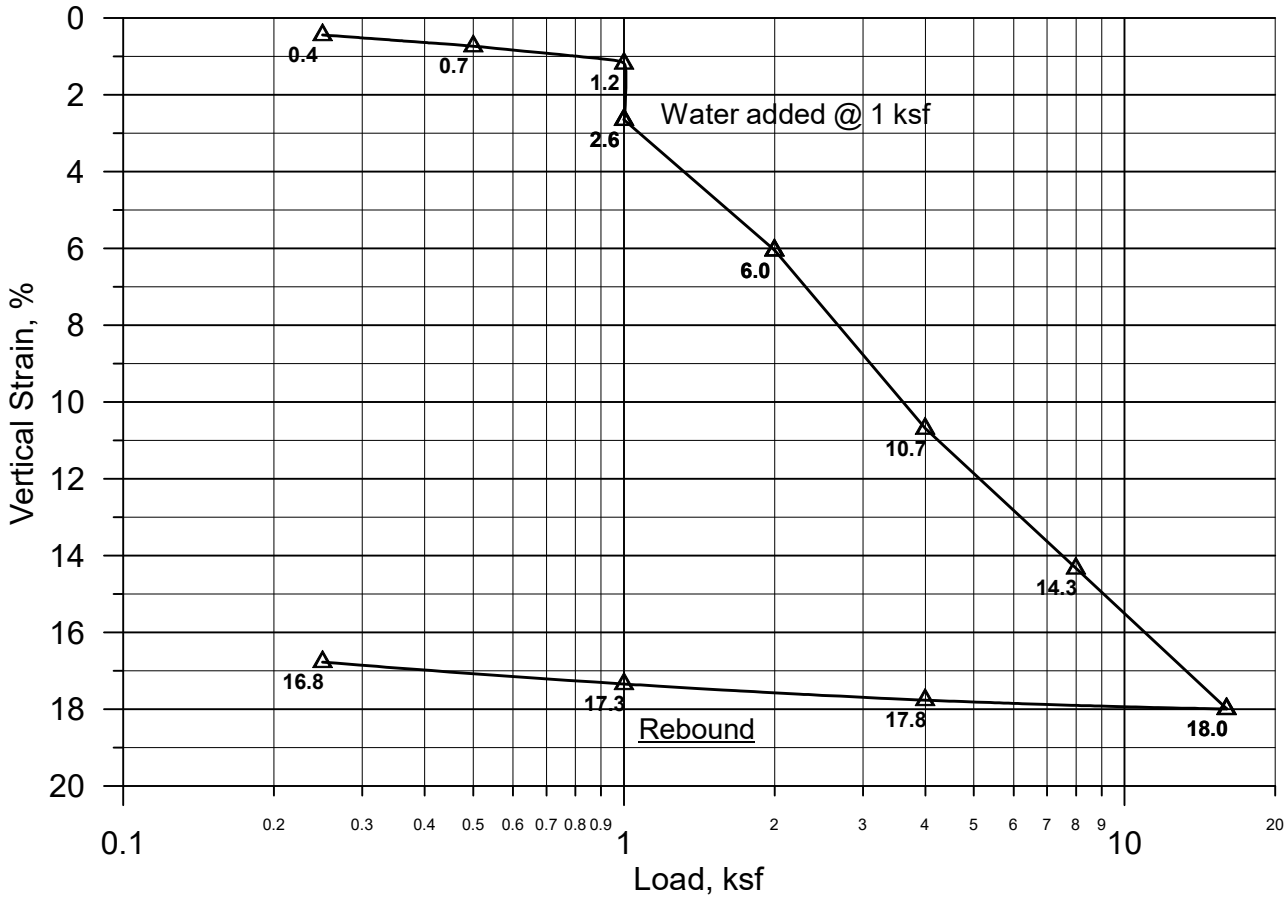



Reviewed By: M. Tangarye

STRATA

# CONSOLIDATION TEST RESULTS
# ASTM D 2435 (Method B)

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design & Engineering
Project Number: PO19005B
Lab Number: 32292
Sample Identification: 21-STR-B03, 7.5'-9.5'
Sample Classification: Silt with Sand (ML)
Sample: In-Situ Tube (Condition: Good)
Date Tested: 12/2/2021 By: S. Myers
Sample Dry Unit Weight: 78.0 PCF
Moisture Content: 10%



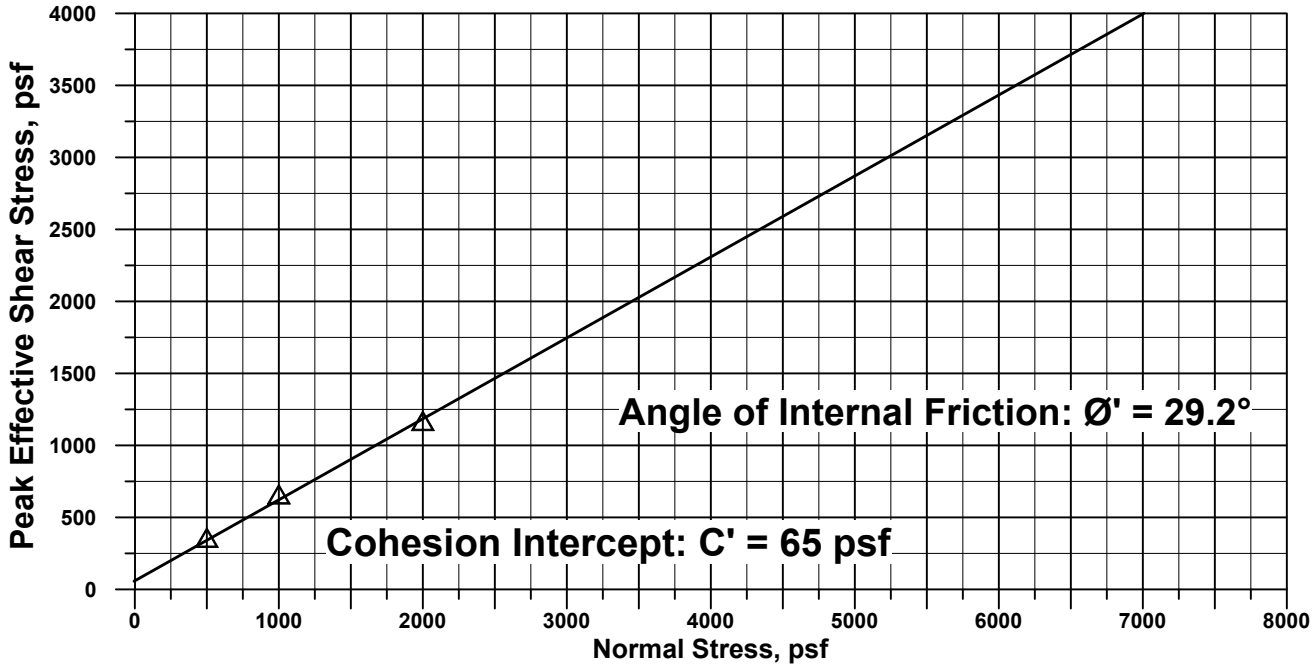

Reviewed By: _____

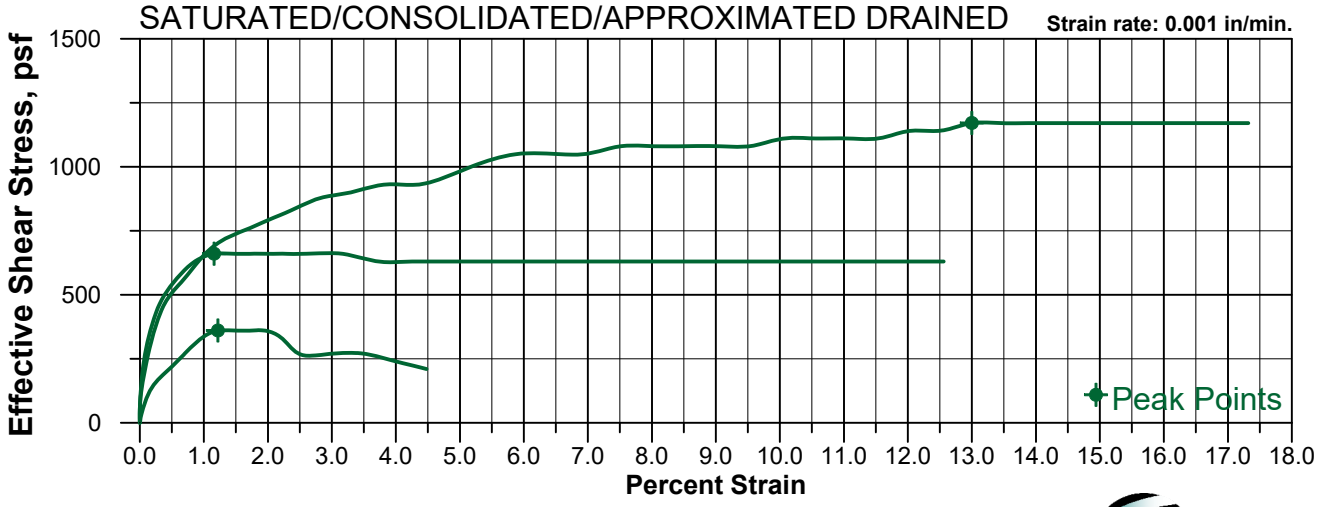
STRATA

# DIRECT SHEAR
## ASTM D 3080

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design and Engieering
Sample Location: 21-STR-B01 @ 7.5'-9.5'
Sample Classification: Sandy Silt (ML)
Moisture: 12%
Dry Unit Weight: 79.8 pcf

Project Number: PO19005B
Sample Number: 32286
Date Tested: 12/02/21
By: D. Bjorum



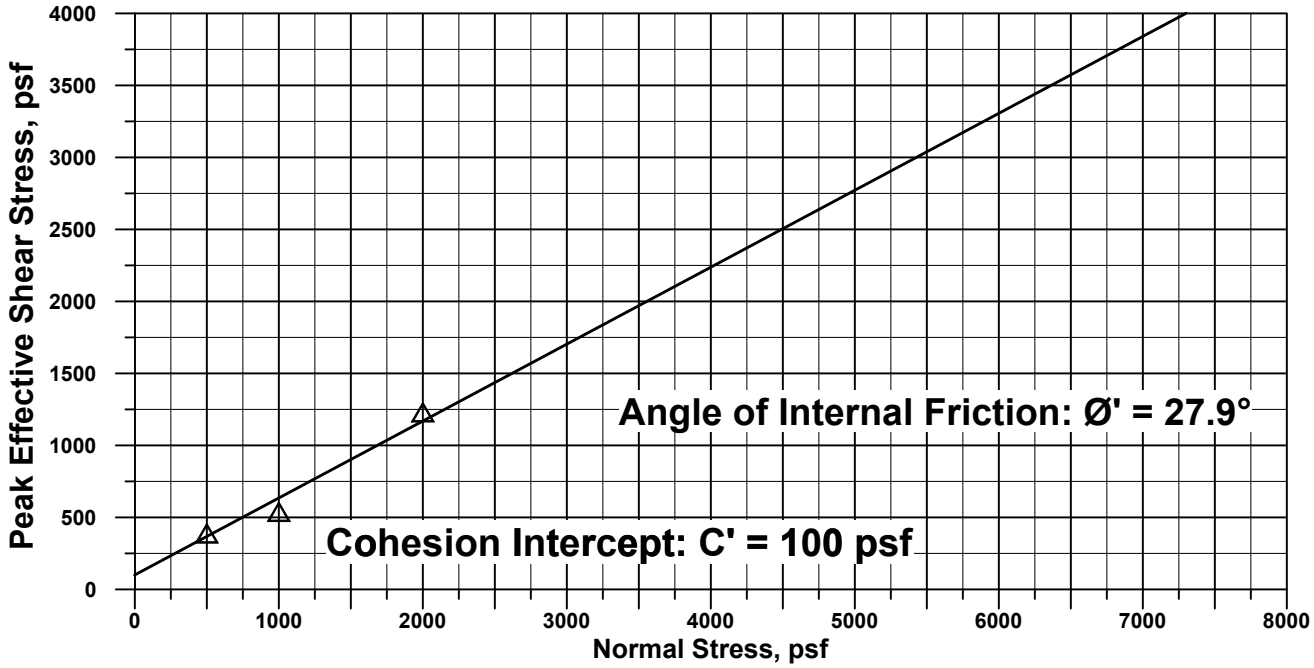

Reviewed By: _____

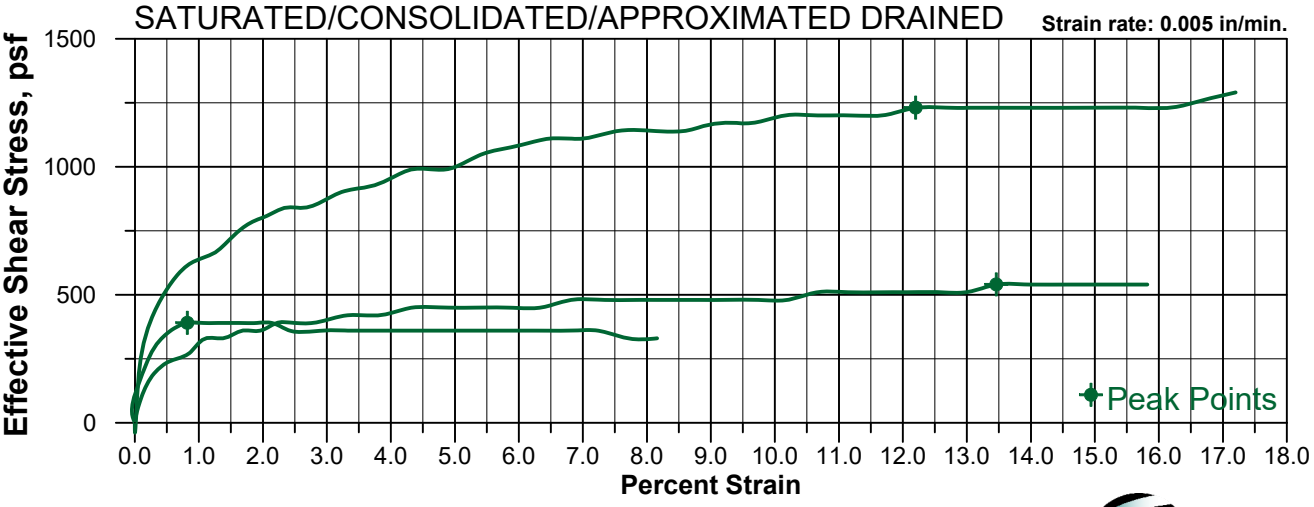
STRATA

# DIRECT SHEAR
## ASTM D 3080

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design & Engineering
Sample Location: 21-STR-B02 @ 5'-7'
Sample Classification: Lean Clay (CL)
Moisture: 21%
Dry Unit Weight: 82.8 pcf

Project Number: PO19005B
Sample Number: 32289
Date Tested: 12/01/21
By: D. Bjorum



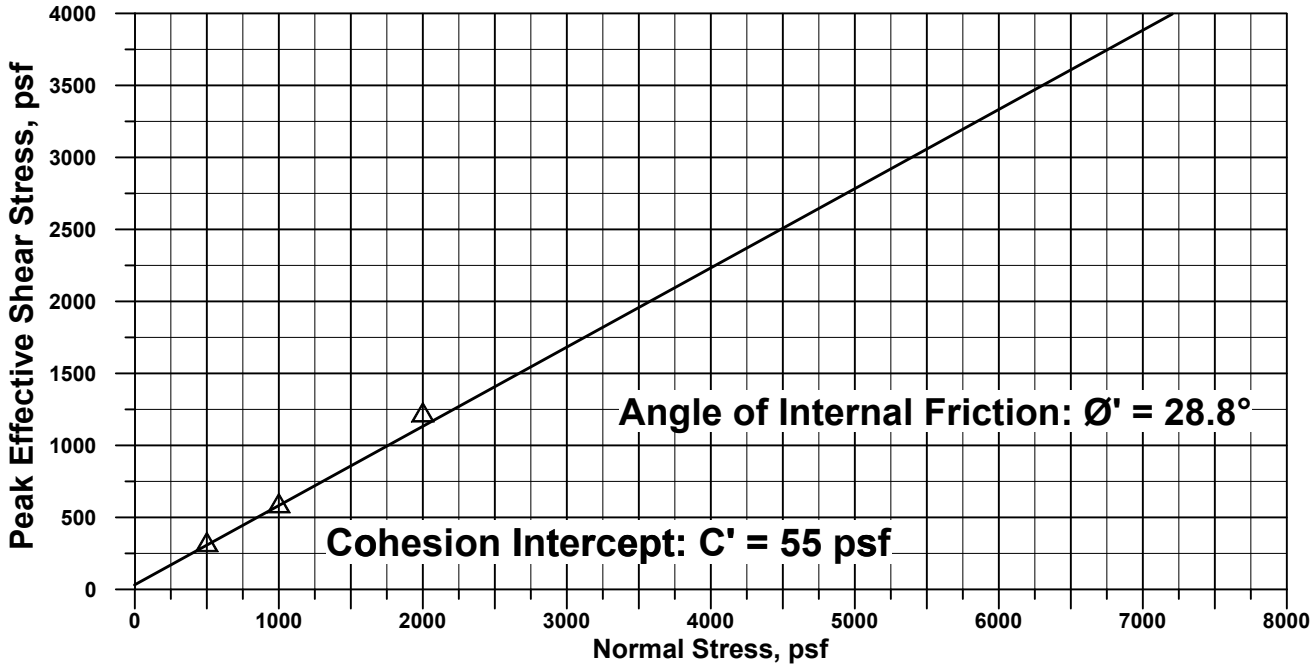

Reviewed By: _____

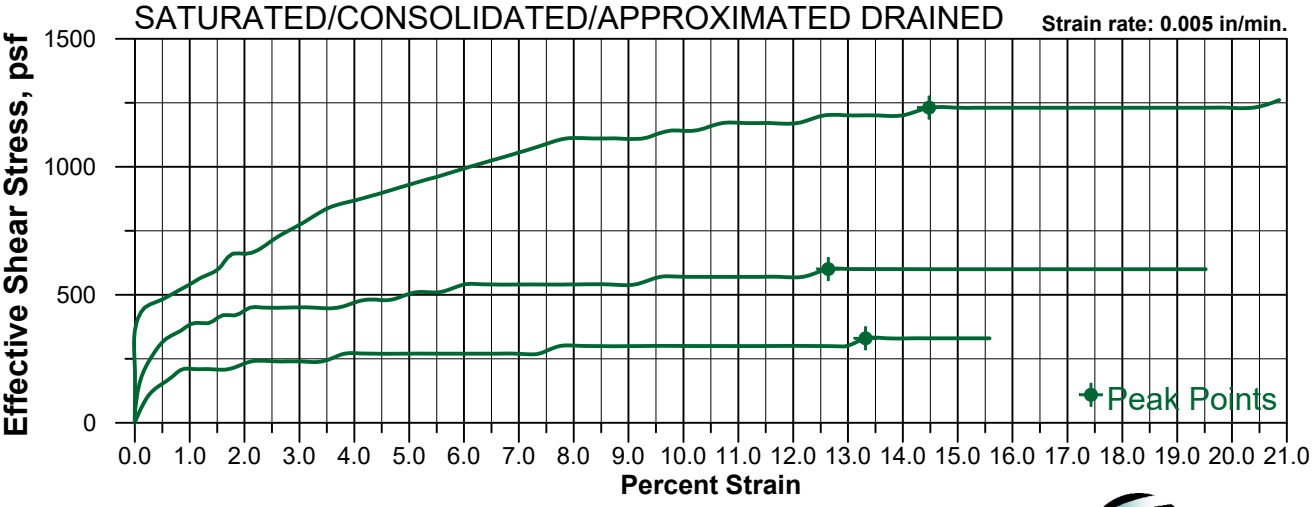
STRATA

# DIRECT SHEAR
## ASTM D 3080

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design & Engineering
Sample Location: 21-STR-B03 @ 7.5'-9.5'
Sample Classification: Silt with Sand (ML)
Moisture: 10%
Dry Unit Weight: 78.0 pcf

Project Number: PO19005B
Sample Number: 32292
Date Tested: 12/7/21
By: D. Bjorum

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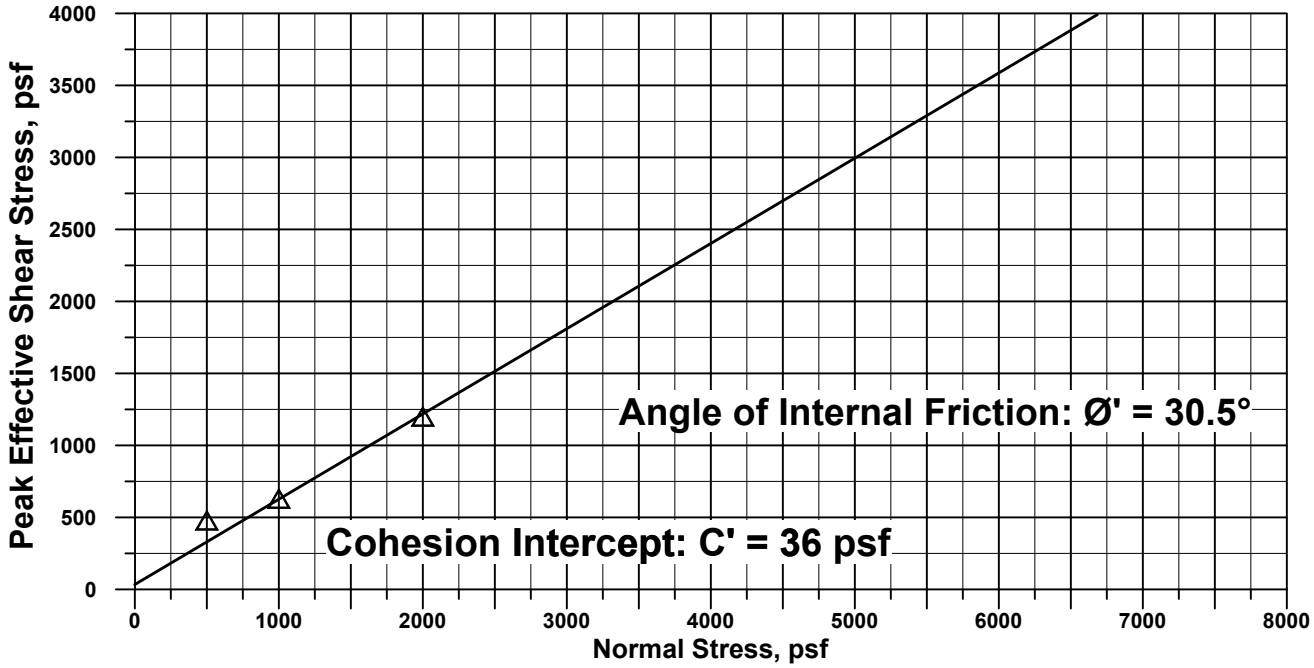
STRATA

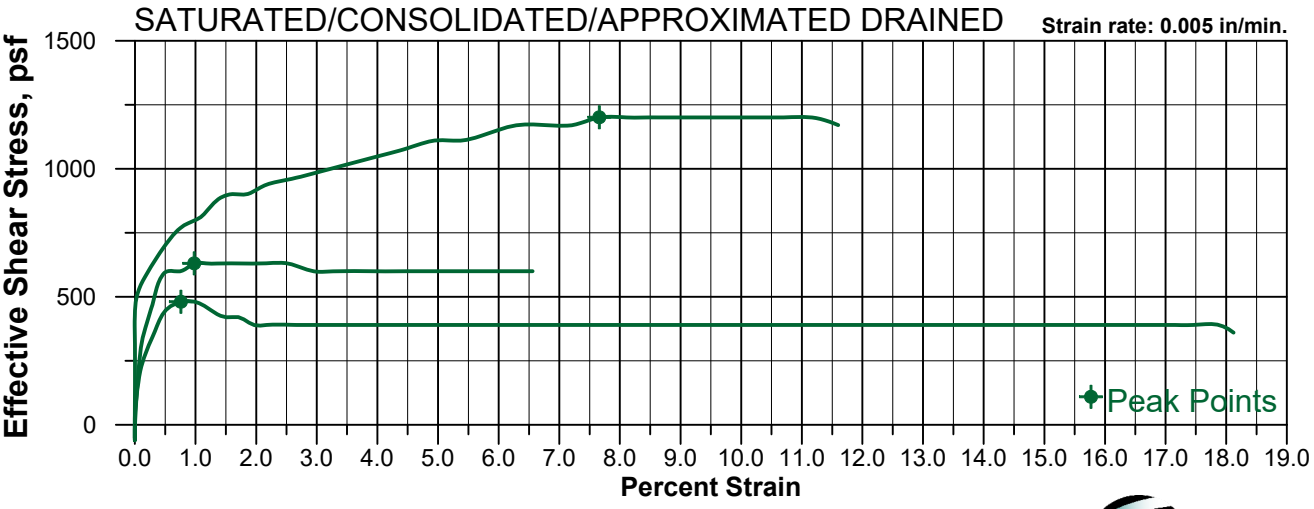
# DIRECT SHEAR
## ASTM D 3080

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design & Engineering
Sample Location: 21-STR-B04 @ 1'-2.5'
Sample Classification: Silty Sand with Gravel (SM)
Moisture: 8.4%
Remolded Dry Unit Weight*: 116.9 pcf

Project Number: PO19005B
Sample Number: 32297
Date Tested: 11/24/21
By: D. Bjorum

*Sample was remolded to 92% of the ASTM D1557 moisture density relationship curve at 1% over optimum moisture.




Reviewed By: _____

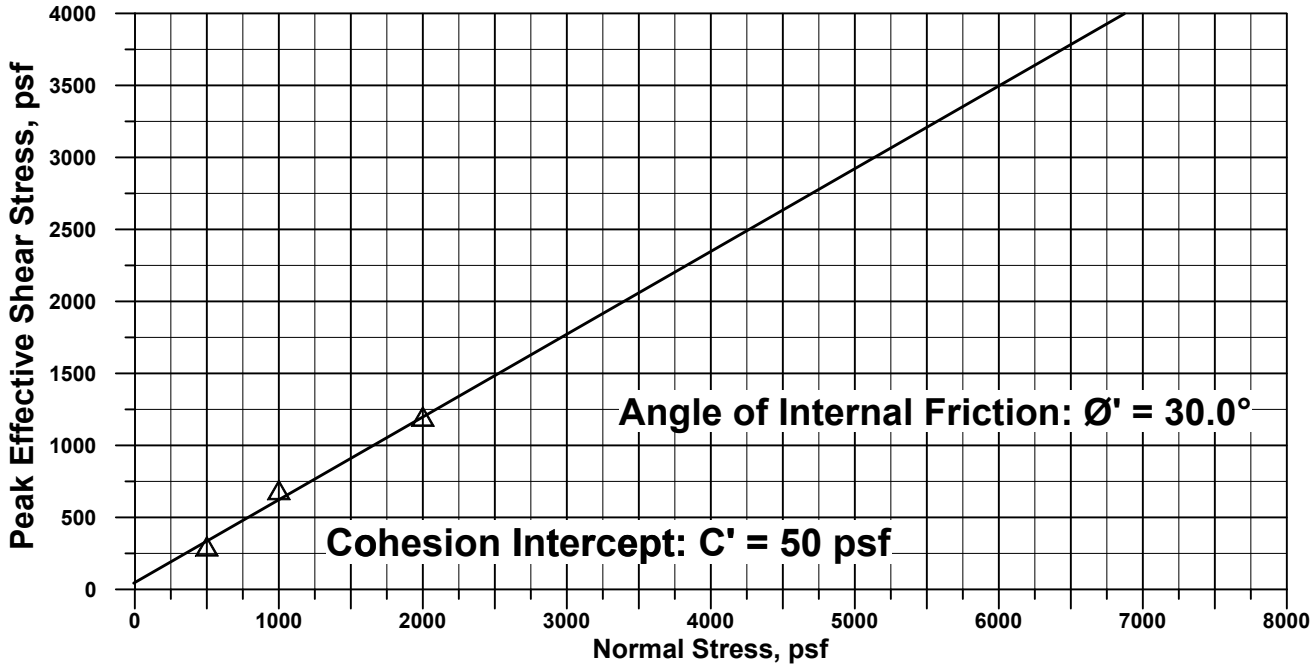
STRATA

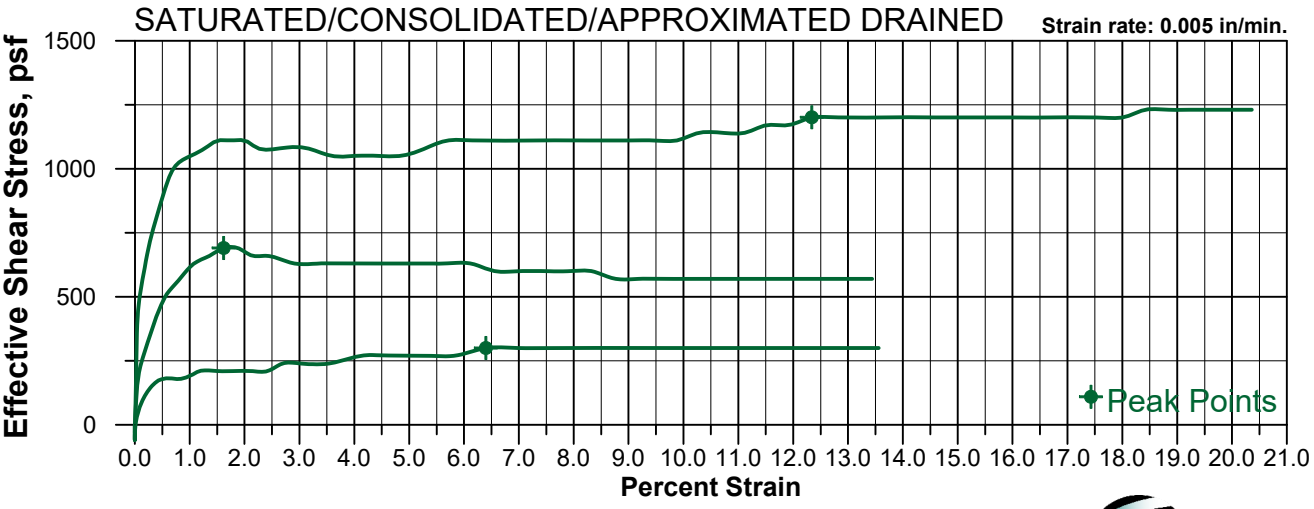
# DIRECT SHEAR
## ASTM D 3080

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design & Engineering
Sample Location: 21-STR-B06 @ 2'-4'
Sample Classification: Sandy Silt (ML)
Moisture: 11.8%
Remolded Dry Unit Weight*: 111.3 pcf

Project Number: PO19005B
Sample Number: 32308
Date Tested: 11/30/21
By: D. Bjorum

*Sample was remolded to 92% of the ASTM D1557 moisture density relationship curve at 1% over optimum moisture.




Reviewed By: _____

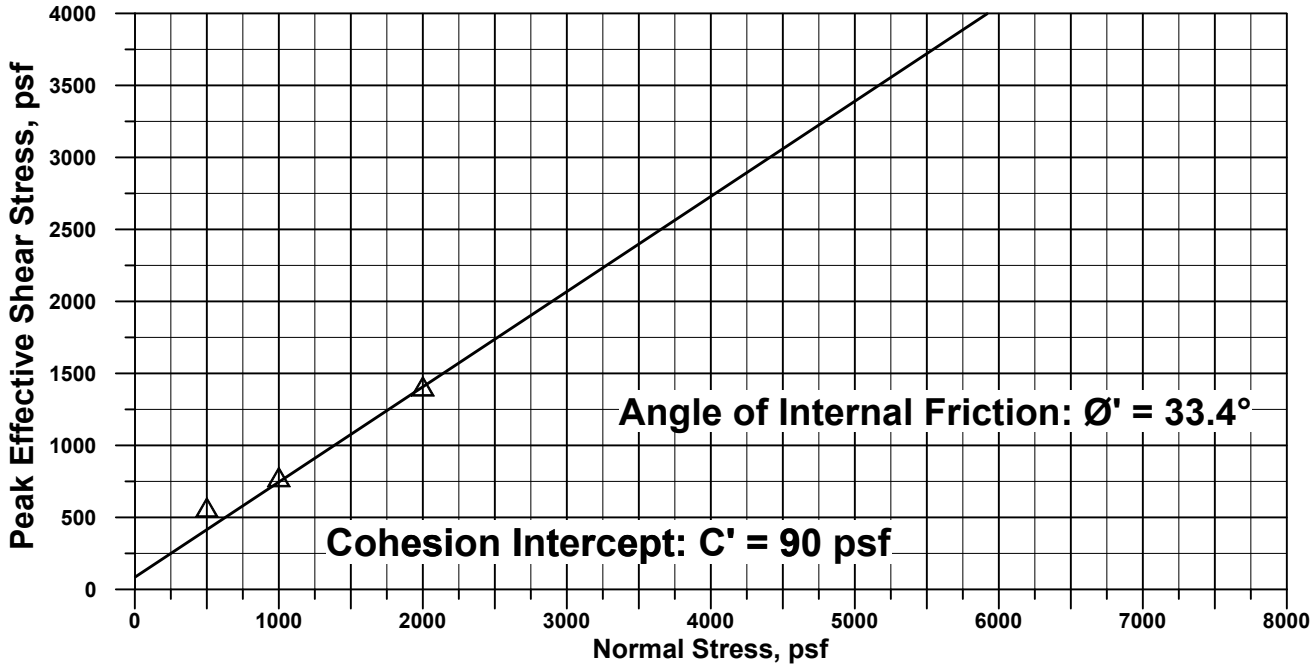
STRATA

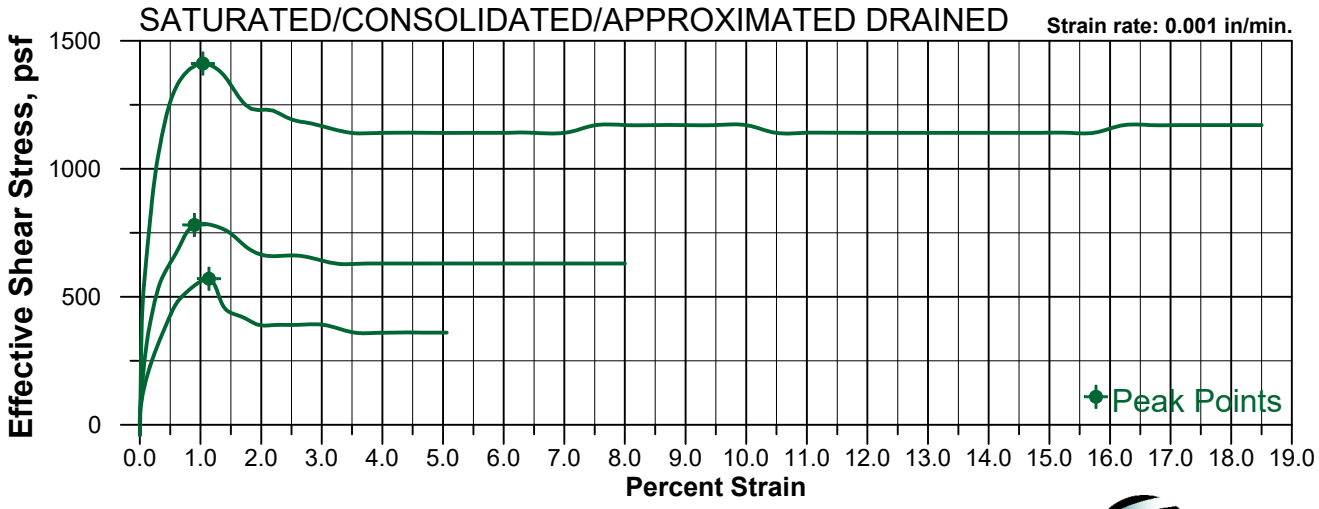
# DIRECT SHEAR
## ASTM D 3080

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design and Engineering
Sample Location: 21-STR-B07 1'-3.5'
Sample Classification: Silty Sand with Gravel (SM)
Moisture: 8.7%
Remolded Dry Unit Weight*: 120.7 pcf

Project Number: PO19005B
Sample Number: 32311
Date Tested: 12/08/21
By: D. Bjorum

*Sample was remolded to 92% of the ASTM D1557 moisture density relationship curve at 1% over optimum moisture.



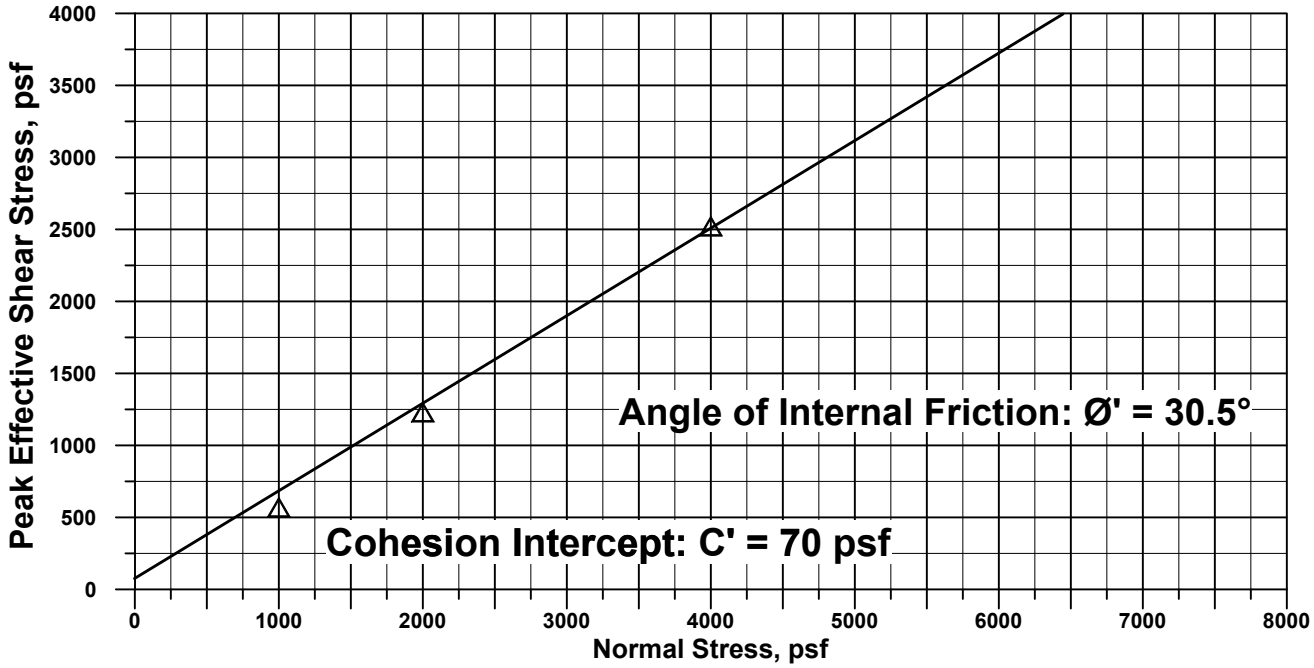

Reviewed By: _____

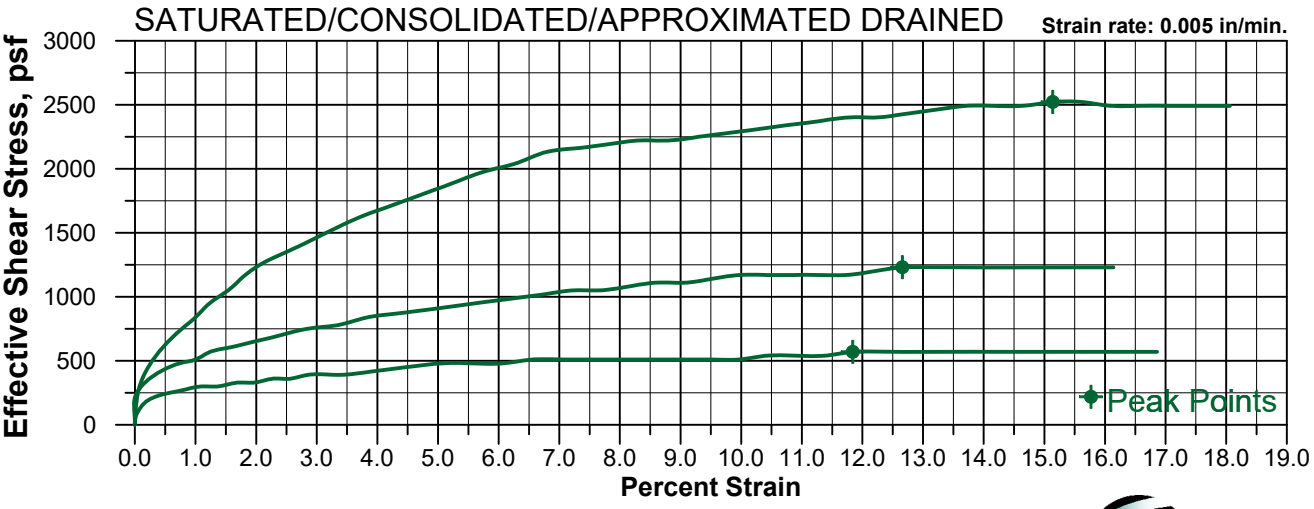
STRATA

# DIRECT SHEAR
## ASTM D 3080

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design & Engineering
Sample Location: 21-STR-B08 @ 20'-22'
Sample Classification: Silt (ML)
Moisture: 20%
Dry Unit Weight: 78.1 pcf

Project Number: PO19005B
Sample Number: 32317
Date Tested: 12/02/21
By: D. Bjorum




Reviewed By: _____

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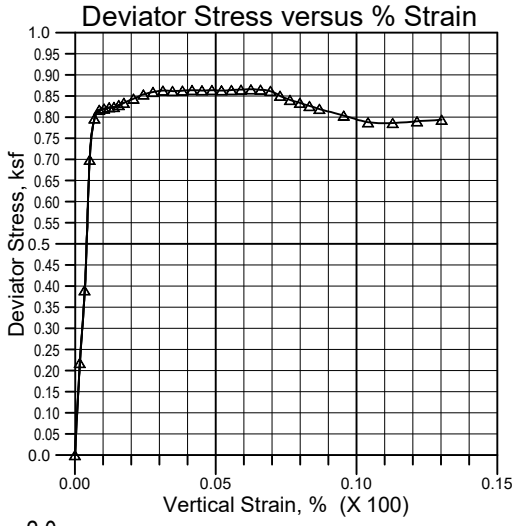
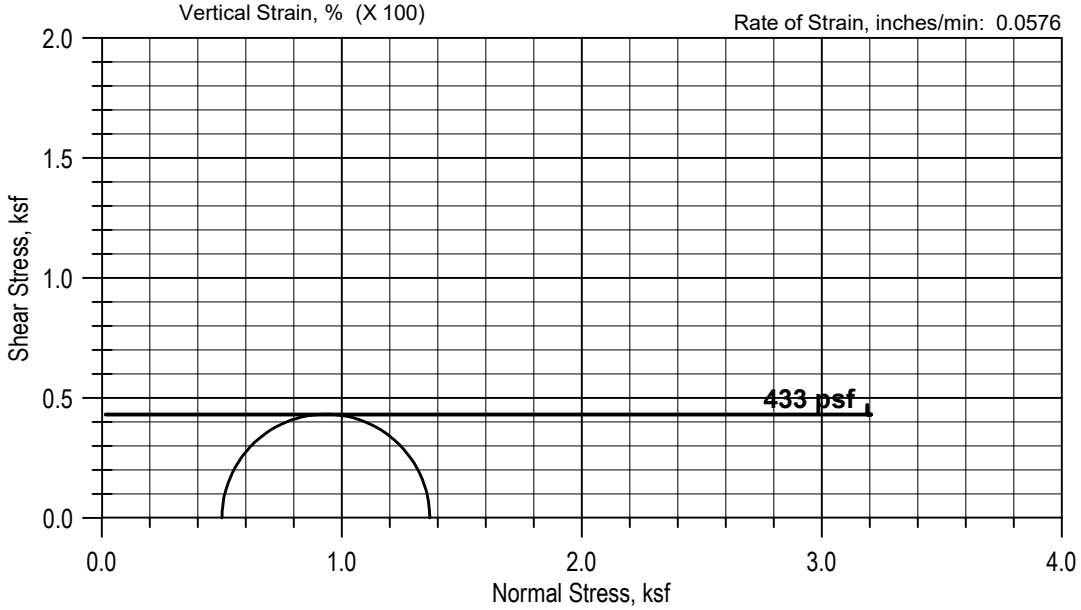
# TRIAXIAL SHEAR
# ASTM D 2850 (UU Saturated)

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design & Engineering
Project Number: PO19005B
Sample Identification: 21-STR-B02 @ 5'-7'
Sample Classification: Lean Clay (CL)
Date Tested: 11/29/21 By: K. Wildman

Dry Unit Weight: 82.8 pcf
Moisture Content: 21%
Height to Diameter Ratio: 2:1
Confinement Pressure: 3.5 psi (0.5 ksf)
Max. Deviator Stress: 866 psf @ 6.3% Strain



**At 15% Strain**



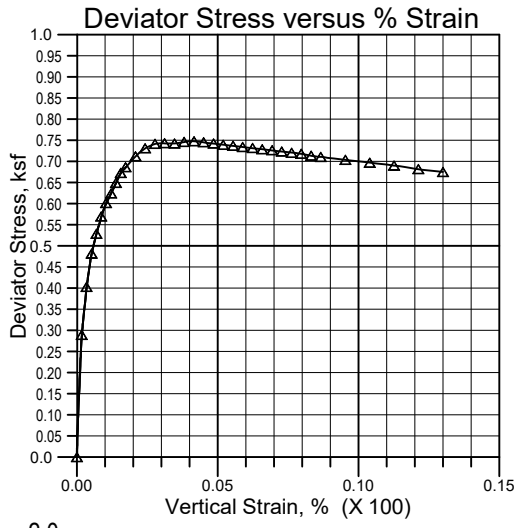

Reviewed By: _____

STRATA

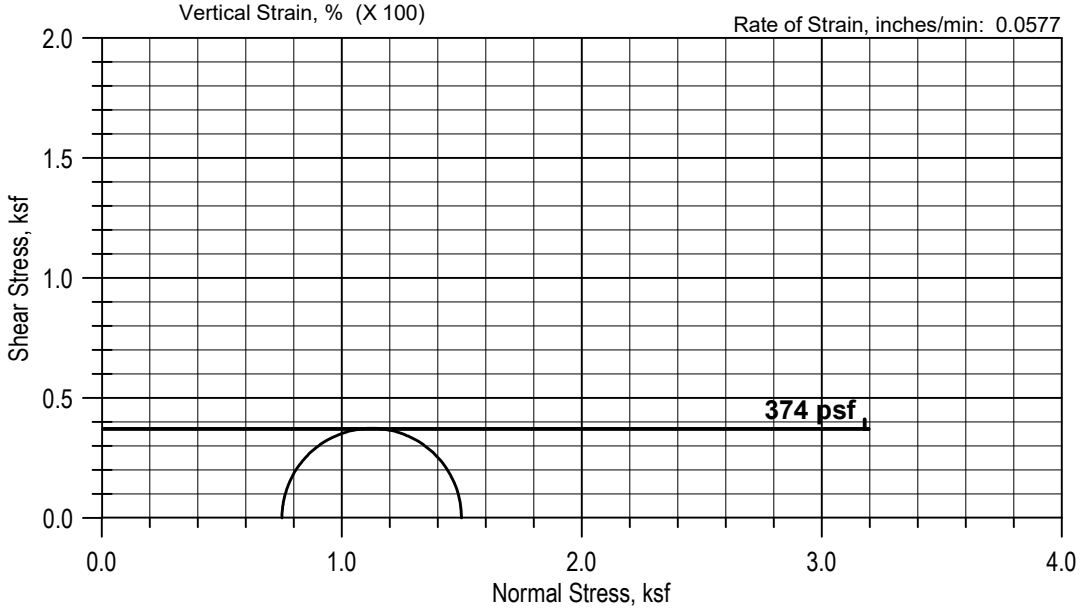
# TRIAXIAL SHEAR
# ASTM D 2850 (UU Saturated)

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design & Engineering
Project Number: PO19005B
Sample Identification: 21-STR-B03 @ 7.5'-9.5'
Sample Classification: Silt with Sand (ML)
Date Tested: 11/29/21 By: K. Wildman

Dry Unit Weight: 78.0 pcf
Moisture Content: 10%
Height to Diameter Ratio: 2:1
Confinement Pressure: 5.2 psi (0.75 ksf)
Max. Deviator Stress: 748 psf @ 4.2% Strain



**At 15% Strain**




Reviewed By: _____

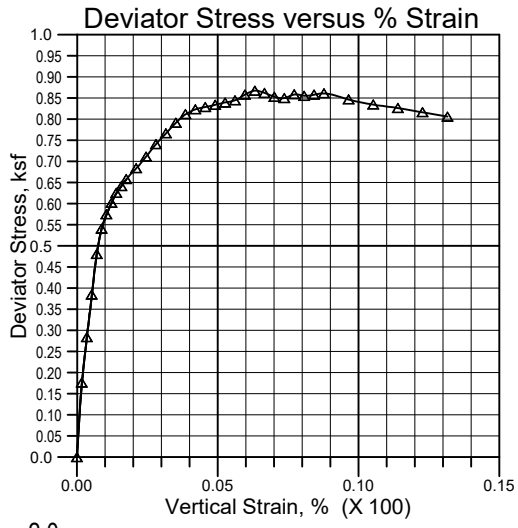
STRATA

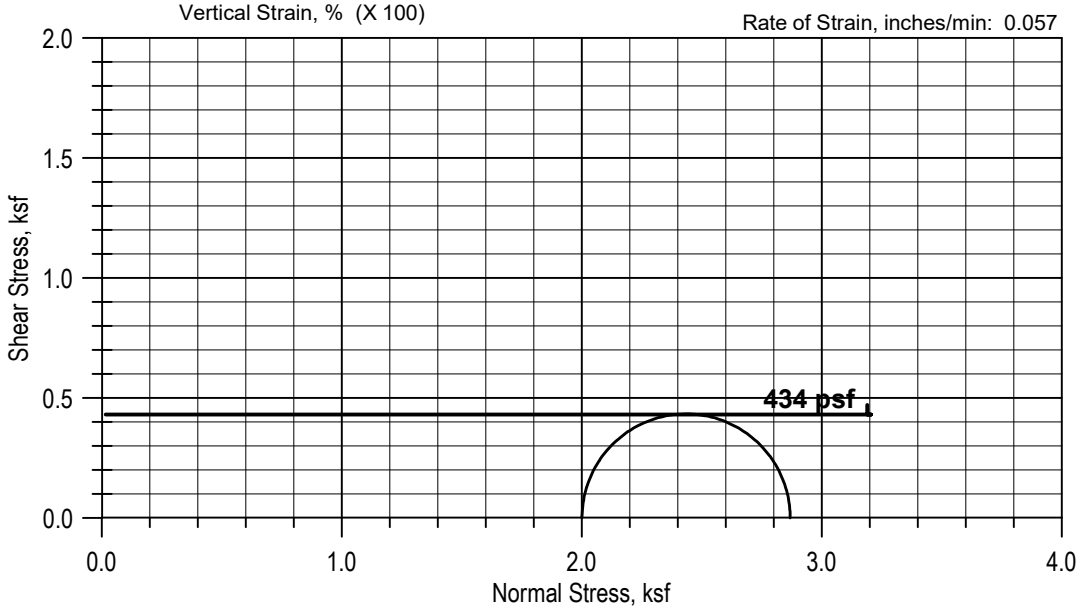
# TRIAXIAL SHEAR
# ASTM D 2850 (UU Saturated)

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design & Engineering
Project Number: PO19005B
Sample Identification: 21-STR-B08 @ 20'-22'
Sample Classification: Silt (ML)
Date Tested: 11/29/21 By: K. Wildman

Dry Unit Weight: 78.1 pcf
Moisture Content: 20%
Height to Diameter Ratio: 1.98:1
Confinement Pressure: 13.9 psi (2 ksf)
Max. Deviator Stress: 868 psf @ 6.3% Strain

**At 15% Strain**



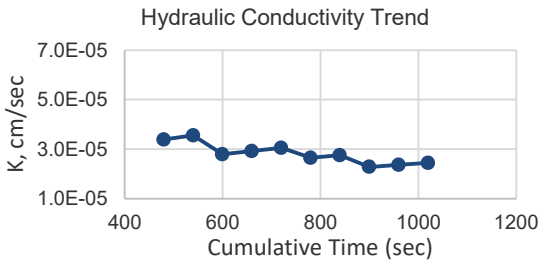

Reviewed By: _____

STRATA

# FLEXWALL HYDRAULIC CONDUCTIVITY

**ASTM D5084 (Method C)**

STRATA




Project No.: PO19005B
Client: Harmony Design & Engineering
Remolded
Sample ID: 32289
Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement X
Undisturbed
Tested by: S. Myers
Sample Description: Lean Clay (CL)
Date Tested: 11/30/2021
Burrette Area: 0.880 $cm^2$
Sample Location: 21-STR-B02 5-7'
Assumed SG: 2.65
Notes:

| | Initial | Final | |
|---|---|---|---|
| Mass | 267.03 | 294.32 | g |
| Moisture Content | 21% | 34% | |
| Dry Density | 82.8 | 84.1 | pcf |
| Diameter | 7.14 | 7.14 | cm |
| Length | 4.16 | 4.08 | cm |
| Area | 40.01 | 40.01 | $cm^2$ |

Effective Consolidation Stress 1.1 psi
Hydraulic Gradient 3.5
System Constant, C 0.440 ($cm^2$)
Chamber 30.0 psi
Upper 28.8 psi
Lower 29.0 psi

| Date | Time (s) | Temperature °C | Temperature $R_T$ | Burette Readings Lower $V_U$ (t) (cc) | Burette Readings Upper $V_L$ (t) (cc) | Incremental Flow Inflow (lower) (cc) | Incremental Flow Outflow (upper) (cc) | Incremental Flow Ratio In/Out | Head Difference h (t) | Preliminary kA/L ($cm^2$/sec) | Final $k_{20}$ ($x10^-$) (cm/sec) | **ASTM D5084 Method C $k_{20}$ (cm/sec)** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11/30/2021 | 0 | 23.5 | 0.919 | 0.50 | 24.50 | | | | | | | |
| 11/30/2021 | 420 | 23.5 | 0.919 | 9.70 | 15.30 | 9.20 | 9.20 | 1.0 | 16.5 | | | |
| 11/30/2021 | 480 | 23.5 | 0.919 | 10.50 | 14.50 | 0.80 | 0.80 | 1.0 | 15.7 | 3.6E-04 | 3.4E-05 | 3.4E-05 |
| 11/30/2021 | 540 | 23.5 | 0.919 | 11.30 | 13.70 | 0.80 | 0.80 | 1.0 | 14.9 | 3.8E-04 | 3.6E-05 | 3.6E-05 |
| 11/30/2021 | 600 | 23.5 | 0.919 | 11.90 | 13.10 | 0.60 | 0.60 | 1.0 | 14.3 | 3.0E-04 | 2.8E-05 | 2.8E-05 |
| 11/30/2021 | 660 | 23.5 | 0.919 | 12.50 | 12.50 | 0.60 | 0.60 | 1.0 | 13.7 | 3.1E-04 | 2.9E-05 | 2.9E-05 |
| 11/30/2021 | 720 | 23.5 | 0.919 | 13.10 | 11.90 | 0.60 | 0.60 | 1.0 | 13.1 | 3.3E-04 | 3.0E-05 | 3.0E-05 |
| 11/30/2021 | 780 | 23.5 | 0.919 | 13.60 | 11.40 | 0.50 | 0.50 | 1.0 | 12.6 | 2.8E-04 | 2.6E-05 | 2.6E-05 |
| 11/30/2021 | 840 | 23.5 | 0.919 | 14.10 | 10.90 | 0.50 | 0.50 | 1.0 | 12.1 | 2.9E-04 | 2.7E-05 | 2.7E-05 |
| 11/30/2021 | 900 | 23.5 | 0.919 | 14.50 | 10.50 | 0.40 | 0.40 | 1.0 | 11.7 | 2.4E-04 | 2.3E-05 | 2.3E-05 |
| 11/30/2021 | 960 | 23.5 | 0.919 | 14.90 | 10.10 | 0.40 | 0.40 | 1.0 | 11.3 | 2.5E-04 | 2.4E-05 | 2.4E-05 |
| 11/30/2021 | 1020 | 23.5 | 0.919 | 15.30 | 9.70 | 0.40 | 0.40 | 1.0 | 10.9 | 2.6E-04 | 2.4E-05 | 2.4E-05 |

**Permeant liquid:** Tap Water

**kavg =** 2.5E-05 cm/s

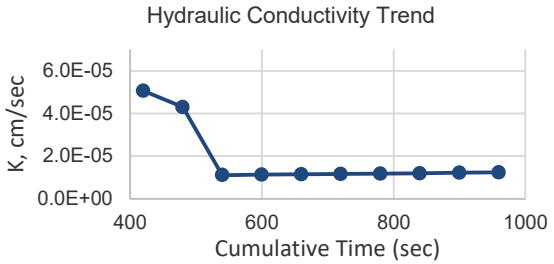
Reviewed by:

V:\CLIENTS\H\Harmony Design and Engineering\PO19005B - Centennial Park Levee Setback Phase II\LABORATORY\Lab Worksheets\32289\PO19005B 32289 B02 5-7 Permeability.xlsPO19005B 32289 B02 5-7 Permeability.xls

# FLEXWALL HYDRAULIC CONDUCTIVITY

**ASTM D5084 (Method C)**

STRATA




Project No.: PO19005B | Client: Harmony Design & Engineering | X Remolded

Sample ID: 32297 | Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement | Undisturbed

Tested by: S. Myers | Sample Description: Silty Sand with Gravel (SM)

Date Tested: 12/1/2021 | Burrette Area: 0.880 $cm^2$

Sample Location: 21-STR-B04 1-2.5' | Assumed SG: 2.65

Notes: Sample was rock corrected and remolded to 90% of the uncorrected maximum density and moisture as determined by ASTM D1557.

| | Initial | Final | |
|---|---|---|---|
| Mass | 454.3 | 488.5 | g |
| Moisture Content | 7.4% | 17.9% | |
| Dry Density | 114.8 | 112.4 | pcf |
| Diameter | 7.59 | 7.52 | cm |
| Length | 5.08 | 5.18 | cm |
| Area | 45.30 | 44.40 | $cm^2$ |

Effective Consolidation Stress 1.1 psi | Chamber 30.0 psi

Hydraulic Gradient 2.7 | Upper 28.8 psi

System Constant, C 0.440 ($cm^2$) | Lower 29.0 psi

| Date | Time (s) | Temperature | | Burette Readings | | Incremental Flow | | | Head Difference h (t) | Preliminary kA/L ($cm^2$/sec) | Final $k_{20}$ ($x10^-$) (cm/sec) | **ASTM D5084 Method C $k_{20}$ (cm/sec)** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | °C | $R_T$ | Lower $V_U$ (t) (cc) | Upper $V_L$ (t) (cc) | Inflow (lower) (cc) | Outflow (upper) (cc) | Ratio In/Out | | | | |
| 12/1/2021 | 0 | 23.4 | 0.921 | 0.10 | 24.70 | | | | | | | |
| 12/1/2021 | 360 | 23.4 | 0.921 | 18.20 | 6.60 | 18.10 | 18.10 | 1.0 | 8.0 | | | |
| 12/1/2021 | 420 | 23.4 | 0.921 | 18.70 | 6.10 | 0.50 | 0.50 | 1.0 | 7.5 | 4.7E-04 | 5.1E-05 | 5.1E-05 |
| 12/1/2021 | 480 | 23.4 | 0.921 | 19.10 | 5.70 | 0.40 | 0.40 | 1.0 | 7.1 | 4.0E-04 | 4.3E-05 | 4.3E-05 |
| 12/1/2021 | 540 | 23.4 | 0.921 | 19.20 | 5.60 | 0.10 | 0.10 | 1.0 | 7.0 | 1.0E-04 | 1.1E-05 | 1.1E-05 |
| 12/1/2021 | 600 | 23.4 | 0.921 | 19.30 | 5.50 | 0.10 | 0.10 | 1.0 | 6.9 | 1.0E-04 | 1.1E-05 | 1.1E-05 |
| 12/1/2021 | 660 | 23.4 | 0.921 | 19.40 | 5.40 | 0.10 | 0.10 | 1.0 | 6.8 | 1.1E-04 | 1.1E-05 | 1.1E-05 |
| 12/1/2021 | 720 | 23.4 | 0.921 | 19.50 | 5.30 | 0.10 | 0.10 | 1.0 | 6.7 | 1.1E-04 | 1.2E-05 | 1.2E-05 |
| 12/1/2021 | 780 | 23.4 | 0.921 | 19.60 | 5.20 | 0.10 | 0.10 | 1.0 | 6.6 | 1.1E-04 | 1.2E-05 | 1.2E-05 |
| 12/1/2021 | 840 | 23.4 | 0.921 | 19.70 | 5.10 | 0.10 | 0.10 | 1.0 | 6.5 | 1.1E-04 | 1.2E-05 | 1.2E-05 |
| 12/1/2021 | 900 | 23.4 | 0.921 | 19.80 | 5.00 | 0.10 | 0.10 | 1.0 | 6.4 | 1.1E-04 | 1.2E-05 | 1.2E-05 |
| 12/1/2021 | 960 | 23.4 | 0.921 | 19.90 | 4.90 | 0.10 | 0.10 | 1.0 | 6.3 | 1.1E-04 | 1.2E-05 | 1.2E-05 |

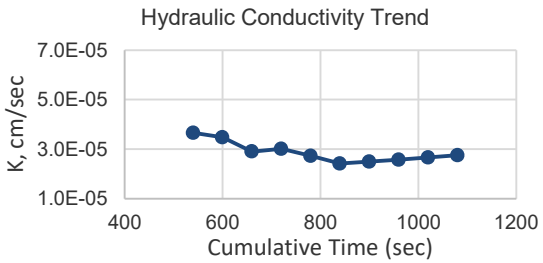
**Permeant liquid:** Tap Water **kavg =** 1.2E-05 cm/s

Reviewed by: M.Langarye

# FLEXWALL HYDRAULIC CONDUCTIVITY

**ASTM D5084 (Method C)**

STRATA




Project No.: PO19005B
Client: Harmony Design & Engineering
X Remolded
Sample ID: 32308
Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Undisturbed
Tested by: S. Myers
Sample Description: Sandy Silt (ML)
Date Tested: 12/1/2021
Burrette Area: 0.880 $cm^2$
Sample Location: 21-STR-B06 2-4'
Assumed SG: 2.65

Notes: Sample was remolded to 90% of the maximum dry density value and at optimum moisture content as determined by ASTM D1557.

Effective Consolidation Stress 1.2 psi
Chamber 35.0 psi
Hydraulic Gradient 5.5
Upper 33.6 psi
System Constant, C 0.440 ($cm^2$)
Lower 34.0 psi

| | Initial | Final | |
|---|---|---|---|
| Mass | 434 | 473.4 | g |
| Moisture Content | 10.8% | 23.5% | |
| Dry Density | 109.2 | 105.2 | pcf |
| Diameter | 7.49 | 7.49 | cm |
| Length | 5.08 | 5.16 | cm |
| Area | 44.10 | 44.10 | $cm^2$ |

| Date | Time (s) | Temperature | | Burette Readings | | Incremental Flow | | | Head Difference h (t) | Preliminary kA/L ($cm^2$/sec) | Final $k_{20}$ ($x10^-$) (cm/sec) | **ASTM D5084 Method C $k_{20}$ (cm/sec)** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | °C | $R_T$ | Lower $V_U$ (t) (cc) | Upper $V_L$ (t) (cc) | Inflow (lower) (cc) | Outflow (upper) (cc) | Ratio In/Out | | | | |
| 12/1/2021 | 0 | 23.2 | 0.926 | 0.60 | 23.70 | | | | | | | |
| 12/1/2021 | 480 | 23.2 | 0.926 | 15.80 | 8.50 | 15.20 | 15.20 | 1.0 | 24.2 | | | |
| 12/1/2021 | 540 | 23.2 | 0.926 | 16.90 | 7.40 | 1.10 | 1.10 | 1.0 | 23.1 | 3.4E-04 | 3.7E-05 | 3.7E-05 |
| 12/1/2021 | 600 | 23.2 | 0.926 | 17.90 | 6.40 | 1.00 | 1.00 | 1.0 | 22.1 | 3.2E-04 | 3.5E-05 | 3.5E-05 |
| 12/1/2021 | 660 | 23.2 | 0.926 | 18.70 | 5.60 | 0.80 | 0.80 | 1.0 | 21.3 | 2.7E-04 | 2.9E-05 | 2.9E-05 |
| 12/1/2021 | 720 | 23.2 | 0.926 | 19.50 | 4.80 | 0.80 | 0.80 | 1.0 | 20.5 | 2.8E-04 | 3.0E-05 | 3.0E-05 |
| 12/1/2021 | 780 | 23.2 | 0.926 | 20.20 | 4.10 | 0.70 | 0.70 | 1.0 | 19.8 | 2.5E-04 | 2.7E-05 | 2.7E-05 |
| 12/1/2021 | 840 | 23.2 | 0.926 | 20.80 | 3.50 | 0.60 | 0.60 | 1.0 | 19.2 | 2.2E-04 | 2.4E-05 | 2.4E-05 |
| 12/1/2021 | 900 | 23.2 | 0.926 | 21.40 | 2.90 | 0.60 | 0.60 | 1.0 | 18.6 | 2.3E-04 | 2.5E-05 | 2.5E-05 |
| 12/1/2021 | 960 | 23.2 | 0.926 | 22.00 | 2.30 | 0.60 | 0.60 | 1.0 | 18.0 | 2.4E-04 | 2.6E-05 | 2.6E-05 |
| 12/1/2021 | 1020 | 23.2 | 0.926 | 22.60 | 1.70 | 0.60 | 0.60 | 1.0 | 17.4 | 2.5E-04 | 2.7E-05 | 2.7E-05 |
| 12/1/2021 | 1080 | 23.2 | 0.926 | 23.20 | 1.10 | 0.60 | 0.60 | 1.0 | 16.8 | 2.5E-04 | 2.8E-05 | 2.8E-05 |

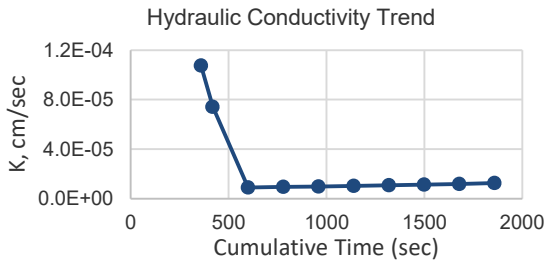
**Permeant liquid:** Tap Water

**kavg =** 2.6E-05 cm/s

Reviewed by: M.Tangarife

# FLEXWALL HYDRAULIC CONDUCTIVITY

**ASTM D5084 (Method C)**




Project No.: PO19005B
Client: Harmony Design & Engineering
Remolded
Sample ID: 32317
Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement X
Undisturbed
Tested by: S. Myers
Sample Description: Silt (ML)
Date Tested: 11/30/2021
Burrette Area: 0.880 $cm^2$
Sample Location: 21-STR-B08 20-22'
Assumed SG: 2.65
Notes:

| | Initial | Final | |
|---|---|---|---|
| Mass | 268.28 | 292.51 | g |
| Moisture Content | 20% | 38.0% | |
| Dry Density | 78.1 | 82.5 | pcf |
| Diameter | 7.19 | 7.18 | cm |
| Length | 4.40 | 3.97 | cm |
| Area | 40.61 | 40.44 | $cm^2$ |

Effective Consolidation Stress 1.1 psi
Chamber 25.0 psi
Hydraulic Gradient 1.8
Upper 23.9 psi
System Constant, C 0.440 ($cm^2$)
Lower 24.0 psi

| Date | Time (s) | Temperature °C | Temperature $R_T$ | Burette Readings Lower $V_U$ (t) (cc) | Burette Readings Upper $V_L$ (t) (cc) | Incremental Flow Inflow (lower) (cc) | Incremental Flow Outflow (upper) (cc) | Incremental Flow Ratio In/Out | Head Difference h (t) | Preliminary kA/L ($cm^2$/sec) | Final $k_{20}$ ($x10^-$) (cm/sec) | **ASTM D5084 Method C $k_{20}$ (cm/sec)** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11/30/2021 | 0 | 23.5 | 0.919 | 0.30 | 24.70 | | | | | | | |
| 11/30/2021 | 300 | 23.5 | 0.919 | 15.90 | 9.10 | 15.60 | 15.60 | 1.0 | 3.3 | | | |
| 11/30/2021 | 360 | 23.5 | 0.919 | 16.40 | 8.60 | 0.50 | 0.50 | 1.0 | 2.8 | 1.2E-03 | 1.1E-04 | 1.1E-04 |
| 11/30/2021 | 420 | 23.5 | 0.919 | 16.70 | 8.30 | 0.30 | 0.30 | 1.0 | 2.5 | 8.2E-04 | 7.4E-05 | 7.4E-05 |
| 11/30/2021 | 600 | 23.5 | 0.919 | 16.80 | 8.20 | 0.10 | 0.10 | 1.0 | 2.4 | 9.9E-05 | 8.9E-06 | 8.9E-06 |
| 11/30/2021 | 780 | 23.5 | 0.919 | 16.90 | 8.10 | 0.10 | 0.10 | 1.0 | 2.3 | 1.0E-04 | 9.3E-06 | 9.3E-06 |
| 11/30/2021 | 960 | 23.5 | 0.919 | 17.00 | 8.00 | 0.10 | 0.10 | 1.0 | 2.2 | 1.1E-04 | 9.7E-06 | 9.7E-06 |
| 11/30/2021 | 1140 | 23.5 | 0.919 | 17.10 | 7.90 | 0.10 | 0.10 | 1.0 | 2.1 | 1.1E-04 | 1.0E-05 | 1.0E-05 |
| 11/30/2021 | 1320 | 23.5 | 0.919 | 17.20 | 7.80 | 0.10 | 0.10 | 1.0 | 2.0 | 1.2E-04 | 1.1E-05 | 1.1E-05 |
| 11/30/2021 | 1500 | 23.5 | 0.919 | 17.30 | 7.70 | 0.10 | 0.10 | 1.0 | 1.9 | 1.2E-04 | 1.1E-05 | 1.1E-05 |
| 11/30/2021 | 1680 | 23.5 | 0.919 | 17.40 | 7.60 | 0.10 | 0.10 | 1.0 | 1.8 | 1.3E-04 | 1.2E-05 | 1.2E-05 |
| 11/30/2021 | 1860 | 23.5 | 0.919 | 17.50 | 7.50 | 0.10 | 0.10 | 1.0 | 1.7 | 1.4E-04 | 1.2E-05 | 1.2E-05 |

**Permeant liquid:** Tap Water

**kavg =** 1.1E-05 cm/s

Reviewed by:

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# CALIFORNIA BEARING RATIO
# ASTM D 1883

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design & Engineering
Sample Identification: 21-STR-B13, 1'-2.5'
Sample Classification: Silt with Sand (ML)

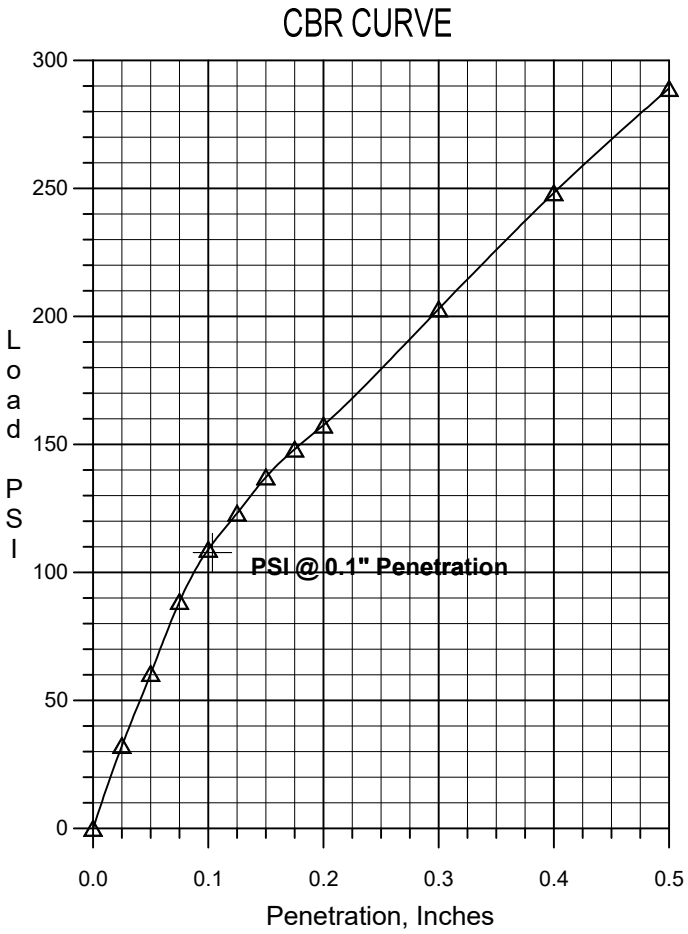
Project Number: PO19005B
Lab Number: 32329
Date Tested: 11/9/2021
Tested By: S. Myers

## SOIL CONSTANTS

CBR = 10.9
Fines Classification: ML
Test Dry Density = 110.0 pcf
Test Specimen Remolded @ 9.9% Moisture
Remold Percentage of Proctor = 90%
Test Performed @ 19.4% Moisture (Top 1")
Percent Swell = 0.9%
Soak Time = 95 hrs
Surcharge = 50 psf

## GRADING ANALYSIS

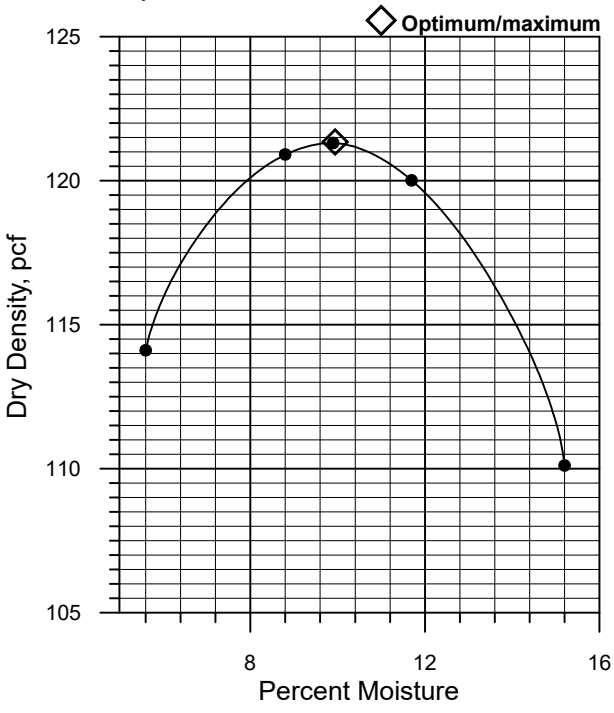
| SCREEN SIZE | % PASSING |
|---|---|
| No. 4 | 100 |
| No. 8 | 97 |
| No. 10 | 97 |
| No. 16 | 95 |
| No. 30 | 94 |
| No. 40 | 93 |
| No. 50 | 92 |
| No. 100 | 89 |
| No. 200 | 84.7 |




## MOISTURE-DENSITY CURVE

ASTM D-1557 Method A

Maximum Dry Density, pcf: 121.3
Optimum Moisture Content, %: 9.9




Reviewed by: M. Langarise

STRATA

# CALIFORNIA BEARING RATIO
# ASTM D 1883

Project: Centennial-Rainey Levee Setback & Ecosystem Enhancement
Client: Harmony Design & Engineering
Sample Identification: 21-STR-B17, 1.5'-3'
Sample Classification: Sandy Silt (ML)

Project Number: PO19005B
Lab Number: 32333
Date Tested: 11/9/2021
Tested By: S. Myers

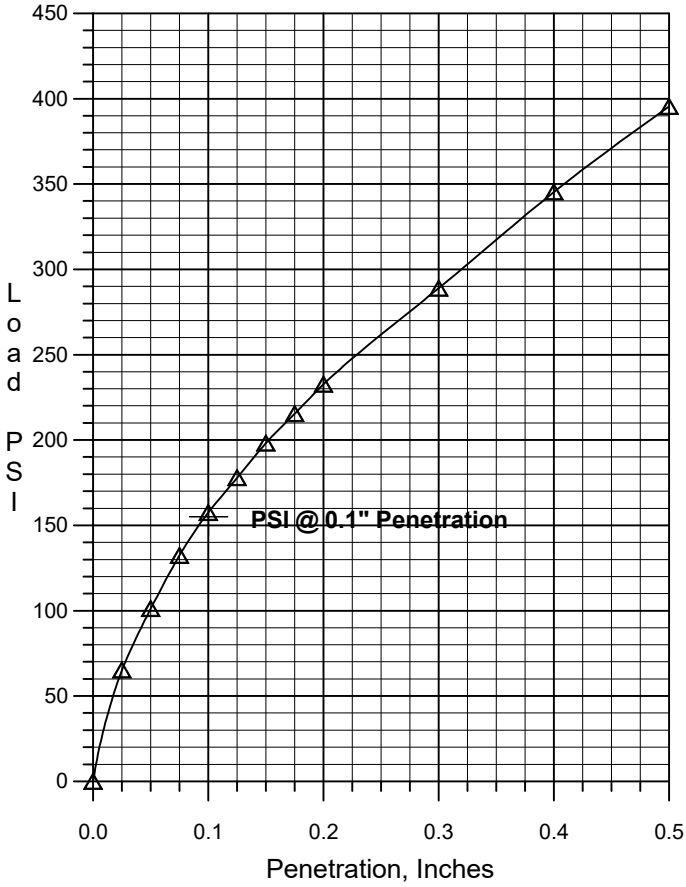
## SOIL CONSTANTS

CBR = 15.8
Fines Classification: ML
Test Dry Density = 101.6 pcf
Test Specimen Remolded @ 13.1% Moisture
Remold Percentage of Proctor = 90%
Test Performed @ 19.0% Moisture (Top 1")
Percent Swell = 0.3%
Soak Time = 95 hrs
Surcharge = 50 psf

## GRADING ANALYSIS

| SCREEN SIZE | % PASSING |
|---|---|
| No. 4 | 100 |
| No. 8 | 99 |
| No. 10 | 99 |
| No. 16 | 98 |
| No. 30 | 97 |
| No. 40 | 96 |
| No. 50 | 95 |
| No. 100 | 86 |
| No. 200 | 65.7 |

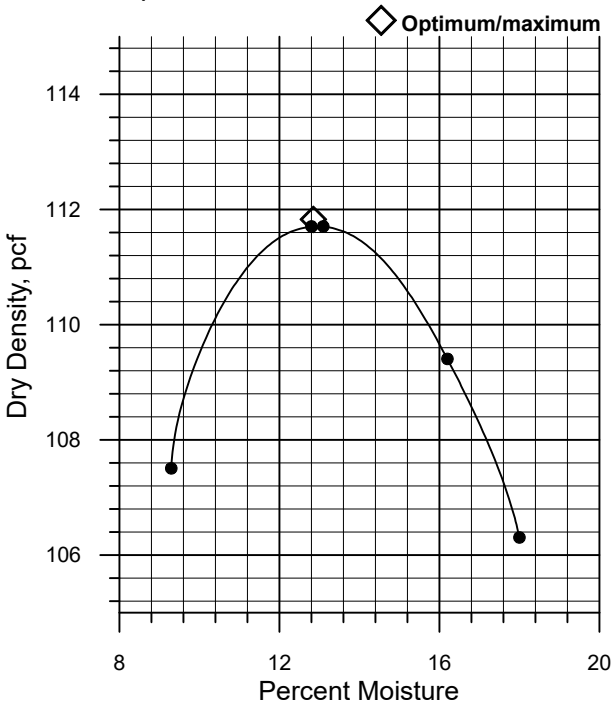
CBR CURVE




## MOISTURE-DENSITY CURVE

ASTM D-1557 Method A

Maximum Dry Density, pcf: 111.7
Optimum Moisture Content, %: 13.1




Reviewed by: M.A. Langarye

STRATA

# APPENDIX C

## Comment Response Log

(Note that the table headings are intentionally taken from a 4-part DrChecks review comment format.)

| | | | | | | | Design Team Response | |
|---|---|---|---|---|---|---|---|---|
| **Comment ID** | **Reviewer** | **Clear Statement of the Concern** | **Basis for the Concern** | **Significance / Criticality** | **Recommendations** | **Who** | **Comment Response** | **Proposed action** |
| 12 | Michael Schaffer | The interpretation of one of the two direct shear test results appears unconservative. | There are 2 direct shear test results in the GDR by Strata. The result for sample 21-STR-B08 shows 3 data points with two below the line, and one on the line. The points match nicely with the strain curves. However, the best-fit line extends to the vertical axis, where the cohesion is 70 psf. The notion of "best fit" invites leaving the line on the point at 4,000 psf and adjusting the slope to make it steeper, so it passes between the data points at 1000 psf and 2000 psf. This would yield a lower cohesion value. This lower value would be more conservative and would affect slope stability analyses results. | Low | Consider adding a diagram showing the modeled soil profile. Add text to indicate same profile as shown for slope stability analyses. | Strata | We will update our report accordingly and add the recommended text to the analysis outputs. | |
| 13 | | | | Low | Confirm with the Consultant that the test procedure (and establishment of the best fit line) was correct and the test results reported are not unconservative. | Strata | We will adjust the best fit lines on the direct shears to pass between the data points at 1,000 psf and 2,000 psf. Based on our local experience, native silts in this area typically exhibit cohesion values ranging from 30 to 65 psf. We anticipate this material will demonstrate similar behavior. | |

| Overall Comment No. | Discipline & Comment No. | | Drawing No., Page No., Spec. No. | Reviewer | Submittal | |
|---|---|---|---|---|---|---|
| | | | | | 60-percent | |
| | | | | | Reviewer Comment | Designer Response/Action |
| **1** | Geotechnical -1 | Centennial-Rainey Levee Setback_Section 408_Narrative | Table 5.1.3 | W. Wambold | Please explain the anticipated mechanism for the Potential Collapse Settlement described in Table 5.1.3. If this is anticipated collapse under wetting of silt this would pose a concern to levee safety during flooding. Is there concern over loss of strength or internal erosion during the collapse process during flooding? If so, how is this being mitigated, if needed? Please outline and describe the expected performance of levees constructed on silt foundations that may be susceptible to collapse under load and wetting. | Additional details on the collapse settlement mechanism can be incorporated into the body of the report. There is no concern regarding strength loss or internal erosion if the silt material becomes wet, only settlement is expected. Since the strength tests (direct shear and unconsolidated undrained triaxial tests) were conducted on saturated samples, the properties used for analysis already represent the "collapsed" condition of the material. |
| **2** | Geotechnical-2 | Appendix C - Geotechnical Engineering Data Report | Page 6 - Material Use/Re-Use | W. Wambold | Silt is considered highly erodible and not typically a preferred fill material for earth levees. Consider revising recommendations for levee fill to exclude use of silt or if use of silt cannot be avoided please describe what measures in design and construction will be taken to account for the susceptibility of silt to erode, including potential internal erosion with the levee during seepage. | Based on our on-site observations, the existing embankment materials primarily consist of silt, which has historically performed well despite being subject to periodic flooding over the past 80 years. Our review of the historical data shows that flood duration for floods with >2500 cfs was less than 1 week.<br><br>Due to the limited availability of clay-rich soils in the vicinity, constructing a watertight core is not feasible for this project. Laboratory testing of lean clay samples obtained from select borings and test pits (21-STR-B02, 21-STR-TP01, and 21-STR-TP02) indicates similar strength and permeability characteristics to the on-site silt. As such, we consider the on-site silt to be a suitable material for constructing the proposed levee. Utilizing this material will also reduce overall project costs by minimizing the need for imported fill.<br><br>For embankment protection, vegetative cover will be used in areas with lower anticipated flow velocities, while riprap will be placed in zones expected to experience higher flow velocities. |
| **3** | Geotechnical-3 | Appendix C - Geotechnical Engineering Data Report | Soil Parameters for Design, Tables 3-6 | W. Wambold | Per the test results it appears that the silt (ML) is described as non-plastic. Use of a cohesion intercept for the steady state seepage case would tend to be unconservative. To ensure a more robust levee design, an alternative intrepretation of the direct shear tests could be made without a cohesion intercept, an in some cases, particularly 21-STR-B03 @ 7.5'-9.5', would appear to fit the data points better. | We performed back-calculations on the existing Centennial Park slope to evaluate the cohesion of the native silt, given that the slope is currently stable and performing as intended. The results confirm that the native silt exhibits some cohesive strength. Additionally, based on our local experience, native silts in the area typically display cohesion values ranging from 30 to 65 psf. Accordingly, we have incorporated a representative cohesion value for the native silt in our analysis. Embankment material soil parameters have been updated to include a cohesion value of zero. |

| Overall Comment No. | Discipline & Comment No. | | Drawing No., Page No., Spec. No. | Reviewer | Submittal | |
|---|---|---|---|---|---|---|
| | | | | | 60-percent | |
| | | | | | Reviewer Comment | Designer Response/Action |
| **4** | Geotechnical-4 | Appendix C - Geotechnical Engineering Data Report | Soil Parameters for Design, Tables 3-6 | W. Wambold | Use of a cohesion intercept for granular/gravel soil is unusual and would be considered unconservative and less robust design, especially when described as non-plastic. Reconsider use of a cohesion intercept for silt sands, sand with silts and gravel, alternatively provide additional data supporting its use in this case. | We have updated the soil parameters for the embankment fill to include a cohesion value of zero. Refer to the comment #3 response regarding the use of cohesion for native silts. |
| **5** | Geotechnical-5 | Appendix C - Geotechnical Engineering Data Report | Soil Parameters for Design, Tables 3-6 | W. Wambold | The direct shear test on clays and silts were performed with a 0.005 inch/minute rate of strain, which seems high for a drained test as failure would likely occur within approximately 20 to 30 minutes. A lower rate of strain, 0.001 in/minute was performed on the silty sand with gravel. How was the strain rate determined to ensure the test was performed such that it would provide effective stress, or drained, shear strength? Was the procedure in ASTM D 3080, Standard Test Method for Direct Shear Test of Soils Under Consolidated Drained Conditions, followed? | T50 data from consolidation tests on the Lean Clay sample (21-STR-B02 at 5–7 feet) and the Silt with Sand sample (21-STR-B03 at 7.5–9.5 feet) were used to estimate the appropriate displacement rates for the direct shear tests. Using the correlation to T50 in the ASTM D3080 standard, we calculated maximum displacement rates ranging from 0.01 to 0.03 inches per minute. For laboratory testing, we selected a more conservative displacement rate of 0.005 inches per minute. |
| **6** | Geotechnical-6 | Appendix C - Geotechnical Engineering Analysis Report | Levee Construction/Construction Sequence, Pg 2, Paragraph 3 | W. Wambold | The geotechnical report states, "To construct the proposed Rainey Park levee, cut activities will first be performed between the existing and new levee sections (proposed wetland area) to achieve proposed grades. The existing levee will then be excavated/removed to 1 foot above the 100-year flood elevation..." and, "This will provide partial flood protection during construction of the new Rainy Park Levee." Given this planned sequence ensure interim conditions, with lowered landside grade, for stability and seepage of the existing levee meet levee safety guidelines and levee performance is not compromised should flooding occur prior to construction of the new levee. Alternatively, consider constructing the new levee prior to excavating for the wetland area to minimize any induced slope stability and seepage issues due to lowering of the landside grade. | Construction sequencing will be added to the final design plans and full construction of the new levee will be completed prior to removing the old levee if possible. |
| **7** | Geotechnical-7 | Appendix C - Geotechnical Engineering Analysis Report | Stability Analysis Case II, Pg 7 Paragraph 3 | W. Wambold | The use of undrained shear strength in the Sudden/Rapid Drawdown Case does not follow the guidance in EM 1110-2-1902 that was cited (See Appendix G of EM 1110-2-1902). The R envelope, or total stress envelope, from a CU triaxial shear test is used in this case. It is recommended to rerun the analyses using the appropriate shear strength parameters per EM 1110-2-1902. | Total stress parameters will be used instead and estimated from CU triaxial testing on soils with similar properties. |
| **8** | Geotechnical-8 | Appendix C - Geotechnical Engineering Analysis Report | Stability Analysis Case III, Pg 7 Paragraph 4 | W. Wambold | The use of cohesion intercept for soils in the effective stress analysis, especially non-plastic soils such as sand, gravel, and silt, may not result in a robust levee design based on the materials proposed. | Refer to comment #3 and #4 responses. |

| Overall Comment No. | Discipline & Comment No. | | Drawing No., Page No., Spec. No. | Reviewer | Submittal | |
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| | | | | | 60-percent | |
| | | | | | Reviewer Comment | Designer Response/Action |
| **9** | Geotechnical-9 | Appendix C - Geotechnical Engineering Analysis Report | Seepage Analysis | W. Wambold | The range of tested hydraulic conductivity reported for the Rainy Park Levee embankment fill is 1.2 to 2.6 x $10^{-5}$ cm/s (3.9 to 8.5 x $10^{-7}$ ft/s). The seepage analysis uses the lowest hydraulic conductivity per the printed output in Appendix C.2 of 3.9 x $10^{-7}$ ft/s. Consider performing an analysis to verify this is the critical case for both seepage rate and exit gradient conditions. | We performed seepage analyses using hydraulic conductivity values spanning the full range of laboratory test results, including both upper and lower bound values, as well as intermediate cases. The results presented in this report reflect the most critical condition identified. Additional language will be added to the body of the report to clarify that multiple scenarios were evaluated using the range of hydraulic conductivities obtained from laboratory testing. |
| **10** | Geotechnical-10 | Appendix C - Geotechnical Engineering Analysis Report | Settlement Analysis | W. Wambold | Based on the consolidation tests it appears that the potential collapse settlement of silt is approximately 1.4 to 2.6 % strain. For the 20 feet of silt analyzed for settlement, it seems the settlement may be higher than the reported 2 to 2.5 inches based on the strain reported in the tests. | Boring 21-STR-B01 encountered approximately 20 feet of silt. The upper 10 feet exhibits lower consistency, with SPT N-values ranging from 4 to 9, and is considered to have a higher potential for collapse. In contrast, the lower 10 feet displays higher consistency (SPT N-values of 13 to 15) and a reduced collapse potential. Based on these observations, we anticipate that collapse-induced settlement will be concentrated within the upper 10 feet.<br><br>Similarly, boring 21-STR-B03 encountered about 15 feet of silt. The upper 5.5 feet shows lower consistency (SPT N-value of 8) and a higher potential for collapse, while the lower 10 feet is more competent and less susceptible to collapse. Given that applied stresses in the deeper, more consistent material are relatively low, any collapse settlement—should the material become saturated—is expected to be minimal.<br><br>We have reviewed and updated our calculations. To estimate total settlement, we applied an average collapse strain—derived from consolidation test results from 21-STR-B01 and 21-STR-B03—across the upper 10 feet of silt. This analysis indicates anticipated collapse settlement in the range of approximately 2 to 3 inches. |
| **11** | Geotechnical-11 | Appendix C - Geotechnical Engineering Analysis Report | Pg 91 of 128 Table 1. Structural Fill Specifications and Allowable Use, Emankment (Levee) Fill | W. Wambold | Consider constructing the levee of one homogeneous material or zones of homogeneous material within the embankment , there is a concern with having mixed conditions, or layers of clay, gravel and silt creating preferential flow paths within the levee. | Based on the laboratory permeability results of the recommended embankment fill material for the new embankment—which are similar across all recommended backfill soils—we do not anticipate the formation of preferential flow paths. |
| **12** | Geotechnical-12 | 60% Design Drawings | Sheet B2.2 | W. Wambold | It appears the watermain is being relocated, additional detail is needed for utilities which cross the line of protection to ensure appropriate abandonment, installation, and emergency shut off are considered as part of the design and operation for overall levee safety and integrity. | This watermain has already been relocated by the City in coordination with the USACE. As built drawings can be provided. |

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| | | | | | 60-percent | |
| | | | | | Reviewer Comment | Designer Response/Action |
| **13** | Geotechnical-13 | 60% Design Drawings | Sheets B2.4 and B2.5 | W. Wambold | Consider incorporating a means to identify existing utilities or objects which may introduce a preferential seepage path under the levee during construction, such as an inspection trench. | Noted, this can be added to the specifications and notes for the Contractor. |
| **14** | Geotechnical-14 | 60% Design Drawings | SheetB2.4, B2.5 - Cross Section A-A and C-C | W. Wambold | What is the shaded area along the riverside slope and below existing ground representing? It has the same shading as the embankment fill - levee. | Cross-sections will be revised to show correct embankment fill hatching. |
| **15** | Geotechnical-15 | 60% Design Drawings | Sheet B5.2, PSD-401 Sheets 1-3 of 3 | W. Wambold | Aggregate bedding is shown for pipes which cross the levee which may introduce a potential seepage path, consider introducing means to limit this concern such as impervious bedding and deeper pipe bury underneath the levee. | This willl be addressed in Civil Drawings |
| **16** | Geotechnical-16 | 60% Design Drawings | Sheets C1.1 through C2.2 - Plan and Profile - Levee | W. Wambold | The Geotechnical Engineering Analysis identified undocumented fill that needs to be removed for both levees. Ensure removal of this is appropriately indicated within construction documents. | This willl be addressed in Civil Drawings |
| **17** | Geotechnical-17 | 60% Design Drawings | Sheet D1.1 | W. Wambold | Additional detail is necessary on the typical sections for the levee to confirm the design details necessary for levee safety, including seepage and slope stability. | This willl be addressed in Civil Drawings |
| **18** | Geotechnical-18 | 60% Design Drawings | Sheet D1.1 | W. Wambold | The Proposed Pavement Subgrade material could be a potential seepage path if the hydraulic conductivity is higher than the Proposed Embankment Fill Material for the levee. | The pavement section will be located above the freeboard elevation. Water from the Portneuf River is not expected to permeate through this layer. |
| **19** | Geotechnical-19 | 60% Design Drawings | Sheet D1.4 | W. Wambold / J. Walgrave | Confirm that the proposed riprap protection is adequate to resist expected scour and hydraulic forces. Provide potential depth of scour to ensure riprap depth is adequate to prevent undermining. Consider using layered aggregate bedding over natural silt soils in lieu of geotextile. Confirm the compatibility of the geotextile with the protected soil been reviewed with respect to filter and/or retention criteria. | This willl be addressed in Civil Drawings |
| **20** | Geotechnical-20 | 60% Design Drawings | Sheets L1.1 and L1.2 | W. Wambold | Ensure the proposed landscape plantings do not introduce roots and woody vegetation near the levee which may impact the overall integrity. Recommended following the USACE guidance for a vegetation free zone. | STRATA will include additional verbiage in the Geotechnical Datan and Analysis Reports in accordance with USACE guidance. |

February 10, 2026
File: PO25021E

Ms. Jennifer Zung, P.E., CFM
Harmony Design & Engineering
18 N. Main St, #305
Driggs, Idaho 83422
Phone: (208) 354-1331, Ext. 4
Email: Jen.Zung@harmonydesigninc.com

RE: **LETTER**
**RAINEY PARK LEVEE ALIGMENT MODIFICATION (OPTION 2)**
Centennial-Rainey Levee Setback and Ecosystem Enhancement
Centennial and Rainey Parks
Pocatello, Idaho

Dear Ms. Zung,

STRATA has completed its evaluation of the proposed Rainey Park levee alignment modification (Option 2) for the Centennial-Rainey Levee Setback and Ecosystem Enhancement project located in Pocatello, Idaho. The following paragraphs describe our understanding of the proposed modification and our evaluation.

## PROJECT UNDERSTANDING

The project includes relocating a portion of the U.S. Army Corps of Engineers (USACE) levee system at the Centennial and Rainey Parks in Pocatello, Idaho, to create river access through a wetland area with a diverted channel, wetland planting, and added circulation paths.

STRATA completed field exploration, laboratory testing, and geotechnical engineering analyses for this project, and submitted the final stamped Geotechnical Engineering Data Report and Geotechnical Engineering Analysis Report on December 30, 2025.

Based on recent information provided by Harmony Design & Engineering, a portion of the proposed Rainey Park levee alignment conflicts with a new waterline installed by the City of Pocatello. To address this conflict, the design team has proposed shifting the southern portion of the Rainey Park levee westward by up to approximately 40 feet and tying it back into the proposed top of levee near the mid-alignment. This alternative, referred to as Option 2, is shown in Figure 1. This modification maintains the original levee prism design, with only the landside and riverside pathways adjusted.

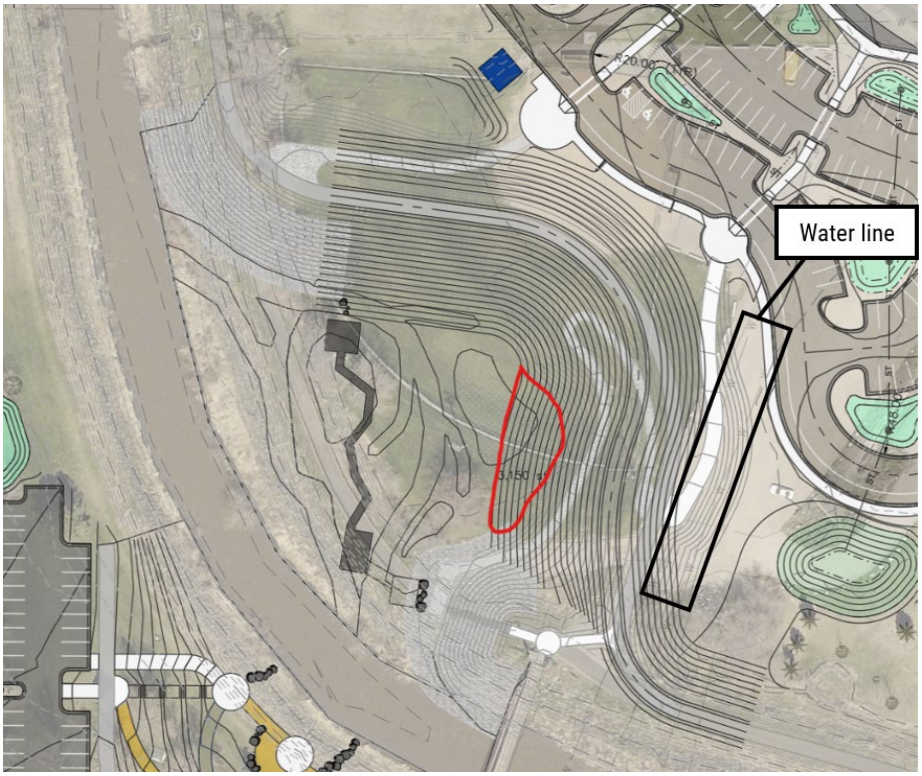


**Figure 1. Proposed Rainey Park Levee Alignment Modification (Option 2)**

## GEOTECHNICAL CONCLUSIONS AND RECOMMENDATIONS

Based on the proposed changes to the Rainey Park levee alignment, the original design section for the levee prism will remain unchanged, with adjustments limited to the landside and riverside pathways. It is our opinion that this modification will not reduce the geotechnical integrity of the levee, and the recommendations presented in our Final Geotechnical Analysis Report dated December 30, 2025, remain applicable to the planned levee alignment modification.

We appreciate the opportunity to continue supporting the project team.

Sincerely,
STRATA

Maria Tangarife, P.E.
Project Manager

Zach Lootens, P.E.
Project Engineer

Dan Gado, P.E.
Senior Engineer

MAT/ZL/DG/js

PROFESSIONAL ENGINEER
LICENSED
18689
2/10/2026
STATE OF IDAHO
ZACH LOOTENS

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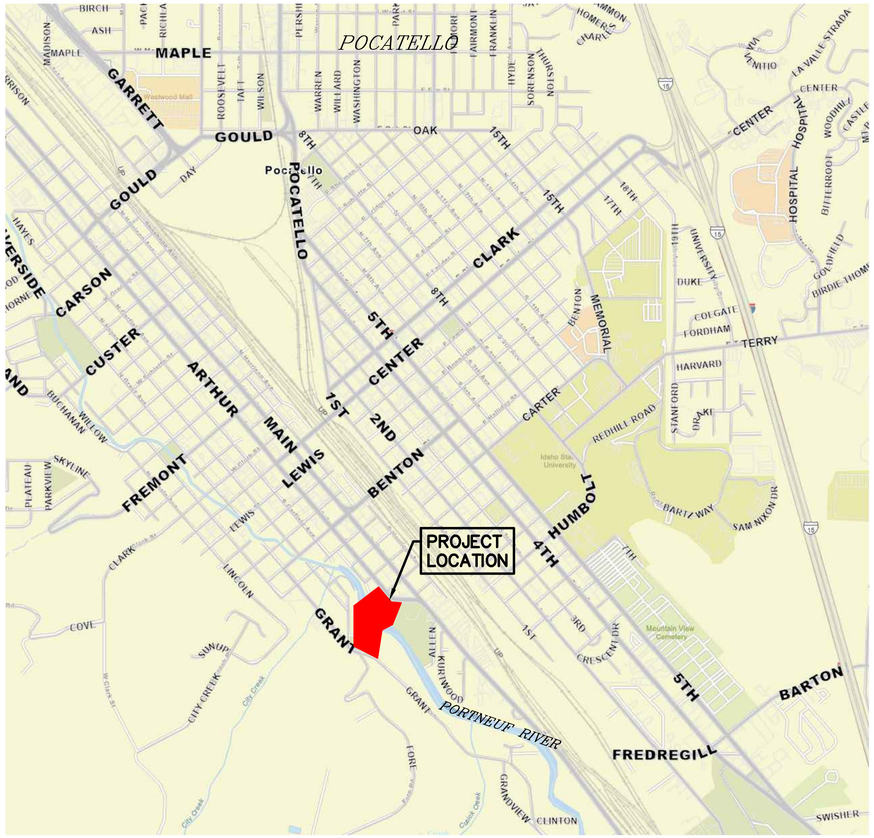
# CONSTRUCTION DRAWINGS

# CENTENNIAL - RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT- 100% PLANS

## SECTION 35, TOWNSHIP 6 SOUTH, RANGE 34 EAST, BOISE MERIDIAN

## CITY OF POCATELLO, IDAHO

**JULY 20, 2026 - CONSTRUCTION DRAWINGS - BID SET**




## VICINITY MAP

NOT TO SCALE

## SHEET INDEX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**CIVIL ENGINEER / SURVEYOR**
HARMONY DESIGN & ENGINEERING
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DRIGGS, ID 83422
208-354-1331

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STRATA

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1" = FULL SCALE
½" = HALF SCALE

FILE :
PROJ. #: 19010

DATE: 7/20/2026
REVISIONS:

100% DESIGN IMPROVEMENT PLANS

PROJECT NAME
CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

COVER SHEET

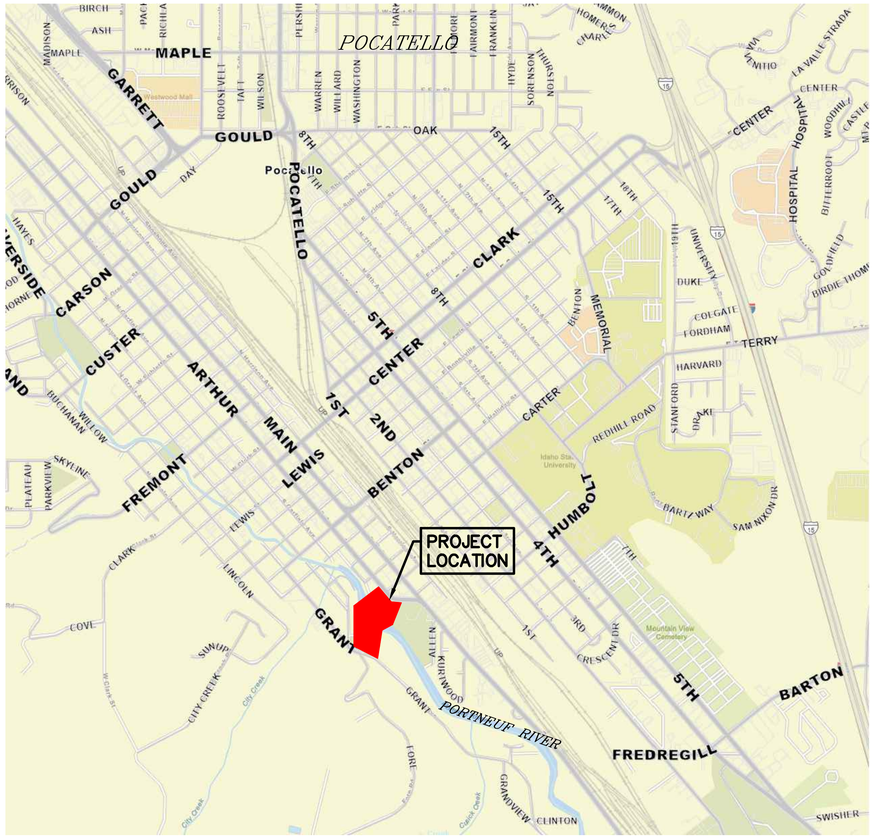
SHEET #
A0.0

# CENTENNIAL - RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT- 95% PLANS

## SECTION 35, TOWNSHIP 6 SOUTH, RANGE 34 EAST, BOISE MERIDIAN

## CITY OF POCATELLO, IDAHO

**JULY 20, 2026 - CONSTRUCTION DRAWINGS - BID SET**




**VICINITY MAP**

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DRIGGS, ID 83422
208-354-1331

**CLIENT**
CITY OF POCATELLO
PO BOX 4169
POCATELLO, ID 83205


CALL BEFORE YOU DIG
ONE CALL CENTER OF IDAHO
**1-800-342-1585**
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.


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STRATA

DRAWING IS TO SCALE IF 11"x17" SHEET IS:
1" = FULL SCALE
2" = HALF SCALE

FILE :

PROJ. #: 19010

DATE: 7/20/2026

REVISIONS:

100% DESIGN IMPROVEMENT PLANS

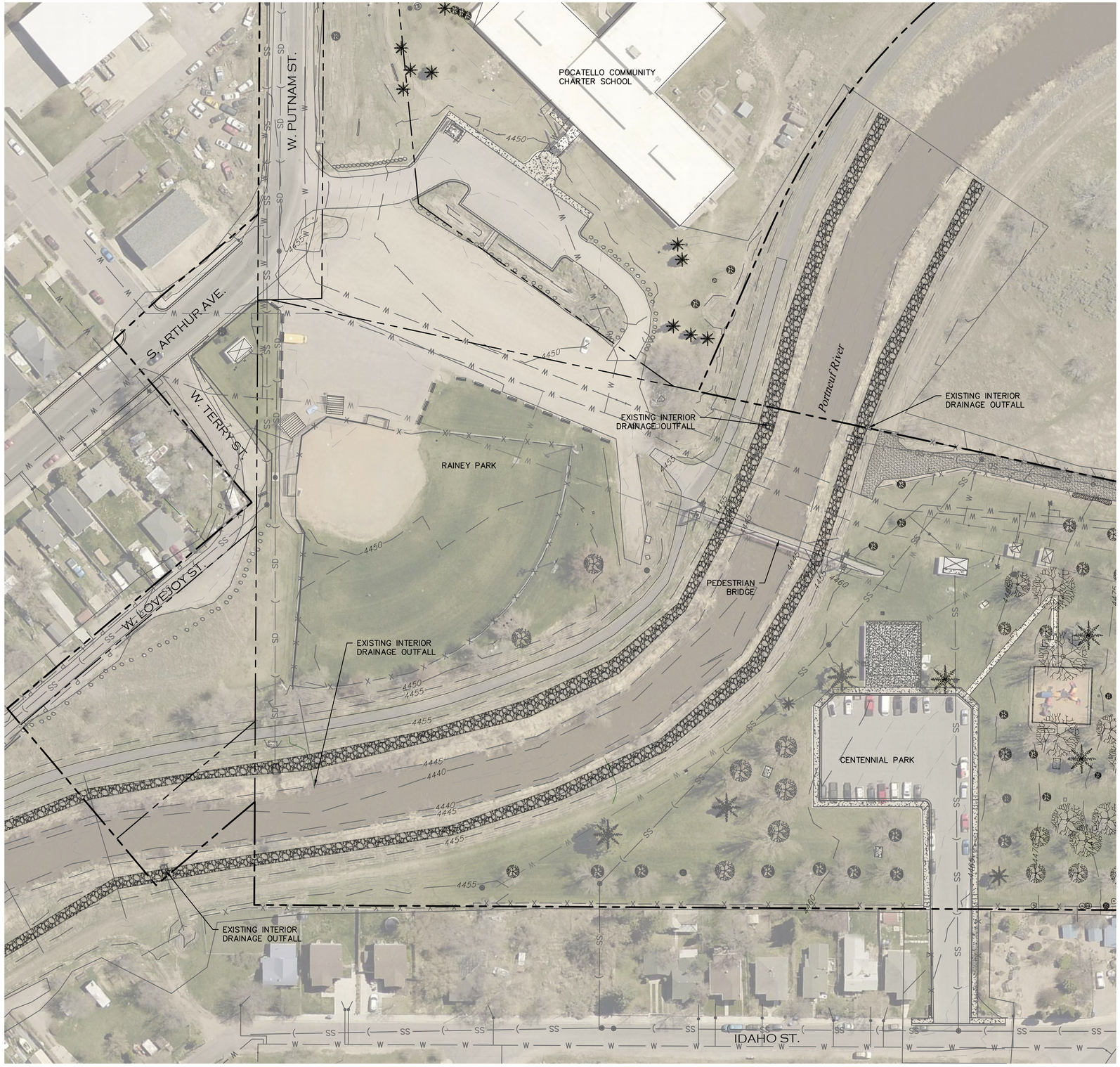
PROJECT NAME

CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

COVER SHEET

SHEET #

A0.0




## LEGEND (EXISTING)

- PROPERTY LINE FROM GIS
- EXISTING TREE (DECIDUOUS)
- EXISTING TREE (EVERGREEN)
- EXISTING RIPRAP
- 4450 EXISTING CONTOUR (MAJOR)
- EXISTING CONTOUR (MINOR)
- W EXISTING WATERLINE
- SS EXISTING SANITARY SEWER
- SD EXISTING STORM SEWER

50' 25' 0 50' 100'

SCALE: 1" = 50'
(24" X 36" SHEET)

95% DESIGN IMPROVEMENT PLANS - NOT FOR CONSTRUCTION

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STRATA

DRAWING IS TO SCALE IF PLOTTED ON 24" X 36" SHEETS
1" = FULL SCALE
2" = HALF SCALE

FILE : ExConditions.DWG

PROJ.#: 19010

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 7/20/2026

REVISIONS:

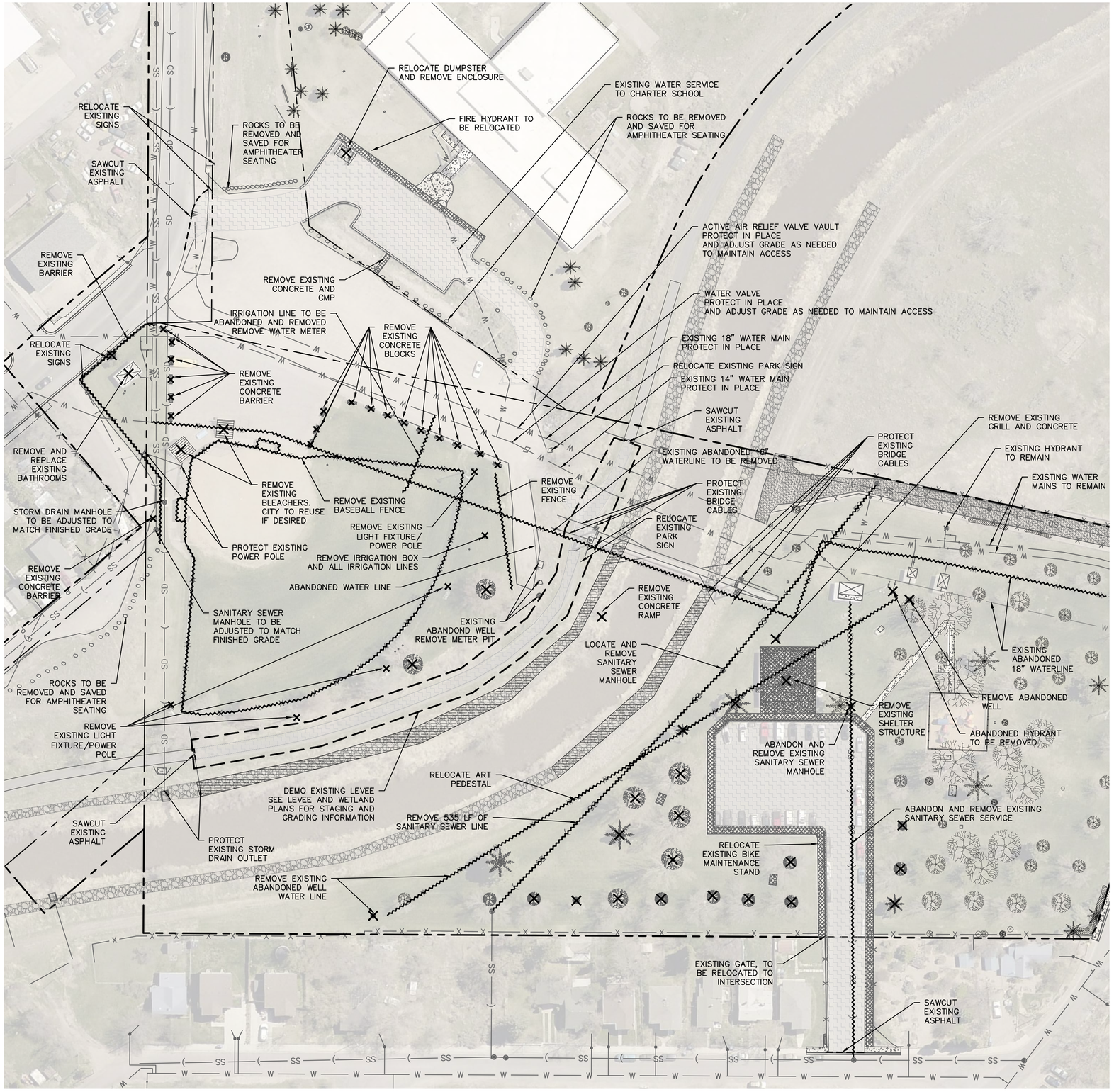
PROJECT NAME

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

## EXISTING CONDITIONS

SHEET #

B1.1




## LEGEND

- EXISTING PROPERTY LINE
- EXISTING WATER LINE
- EXISTING ABANDONDED WATER LINE
- EXISTING SEWER MAIN
- EXISTING STORM DRAIN
- EXISTING TELEPHONE LINE
- EXISTING POWER LINE
- EXISTING FENCE
- EXISTING BOULDERS
- EXISTING CONCRETE BARRIERS
- EXISTING TREES
- EXISTING CONCRETE
- EXISTING RIPRAP
- EXISTING RIPRAP TO BE REMOVED
- REMOVE OR ABANDON EXISTING LINE (UTILITY, FENCE, BARRIER, ETC. AS NOTED)
- SAWCUT EXISTING ASPHALT
- REMOVE FEATURE
- EXISTING CONCRETE TO BE REMOVED
- EXISTING ASPHALT TO BE REMOVED

## DEMOLITION NOTES

1. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES IN ADVANCE OF THEIR CONSTRUCTION OPERATION TO ENABLE THEM TO FIELD LOCATE THEIR UTILITIES.
2. ALL MONUMENTS, ACCESSORIES TO CORNERS, BENCHMARKS, AND POINTS SET IN CONTROL SURVEYS THAT ARE LOST OR DISTURBED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RE-ESTABLISHED AND RE-MONUMENTED, AT THE EXPENSE OF THE CONTRACTOR, AT THEIR ORIGINAL LOCATION OR BY THE SETTING OF A WITNESS CORNER OR REFERENCE POINT OR A REPLACEMENT BENCHMARK OR CONTROL POINT, BY OR UNDER THE DIRECTION OF A PROFESSIONAL LAND SURVEYOR.
3. ALL FACILITIES TO REMAIN SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR. ANY DAMAGE DURING CONSTRUCTION SHALL BE RESTORED, RECONSTRUCTED OR REPLACED TO AT LEAST THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
4. THE CONTRACTOR SHALL ONLY REMOVE THOSE TREES IDENTIFIED ON THIS PLAN. REMOVAL OF ANY OTHER TREES SHALL REQUIRE APPROVAL BY THE ARCHITECT OR OWNER.
5. TEMPORARY SANITARY FACILITIES SHALL BE PROVIDED FOR WORKERS ON SITE.
6. AN APPROVED FIRE EXTINGUISHER SHALL BE AVAILABLE AT ALL TIMES DURING DEMOLITION.
7. PRIOR TO SHIPMENT TO A FINAL DISPOSAL AREA, ALL DEBRIS SHALL BE SORTED. FAILURE TO SORT DEBRIS WILL RESULT IN HIGHER DISPOSAL COST TO THE CONTRACTOR AND OWNER. NO ON-SITE BURNING OR BURYING OF DEBRIS IS PERMITTED.
8. SAWCUT THE EDGES OF PAVED AREAS CLEAN, NEAT, AND TRUE TO LINE SO NO UNWANTED CHIPPING OR BREAKING OF EXISTING PAVEMENT TO REMAIN WILL OCCUR.
9. COMPLETELY FILL BELOW-GRADE AREAS AND VOIDS RESULTING FROM BUILDING REMOVAL OR DEMOLITION WITH SATISFACTORY SOIL MATERIALS THAT MEET THE REQUIREMENTS OF ANY PROPOSED CONSTRUCTION AT THE SAME LOCATION.
10. UNIFORMLY ROUGH GRADE AREA OF DEMOLISHED CONSTRUCTION TO A SMOOTH SURFACE, FREE FROM IRREGULAR SURFACE CHANGES. PROVIDE A SMOOTH TRANSITION BETWEEN ADJACENT EXISTING GRADES AND NEW GRADES.
11. REMOVE BELOW-GRADE CONSTRUCTION, INCLUDING BASEMENTS, FOUNDATION WALLS, AND FOOTINGS, TO AT LEAST 12 INCHES BELOW GRADE.
12. IF YELLOW PHOSPHOROUS SLAG IS ENCOUNTERED AT ANY POINT DURING THE DEMOLITION AND EARTHWORK, IT MUST BE PROPERLY REMOVED FROM THE SIGHT IN ACCORDANCE WITH IDAHO DEQ AND EPA REGULATIONS.
13. ANY FILL MATERIAL USED TO FILL ABANDONED UTILITY TRENCHES, OR OTHER AREAS IN AND NEAR THE LEVEE PRISM, SHALL MEET THE EMBANKMENT REQUIREMENTS AS LISTED IN THE SPECIAL PROVISIONS (SECTION 2.01.C).

50' 25' 0 50' 100'

SCALE: 1" = 50'
(22x34 SHEET)

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STRATA

DRAWING IS TO SCALE IF PLOTTED AT 22"x34" SHEET
1" = FULL SCALE
2" = HALF SCALE

FILE :

PROJ. #: 19010

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 7/20/2026

REVISIONS:

95% DESIGN IMPROVEMENT PLANS - NOT FOR CONSTRUCTION

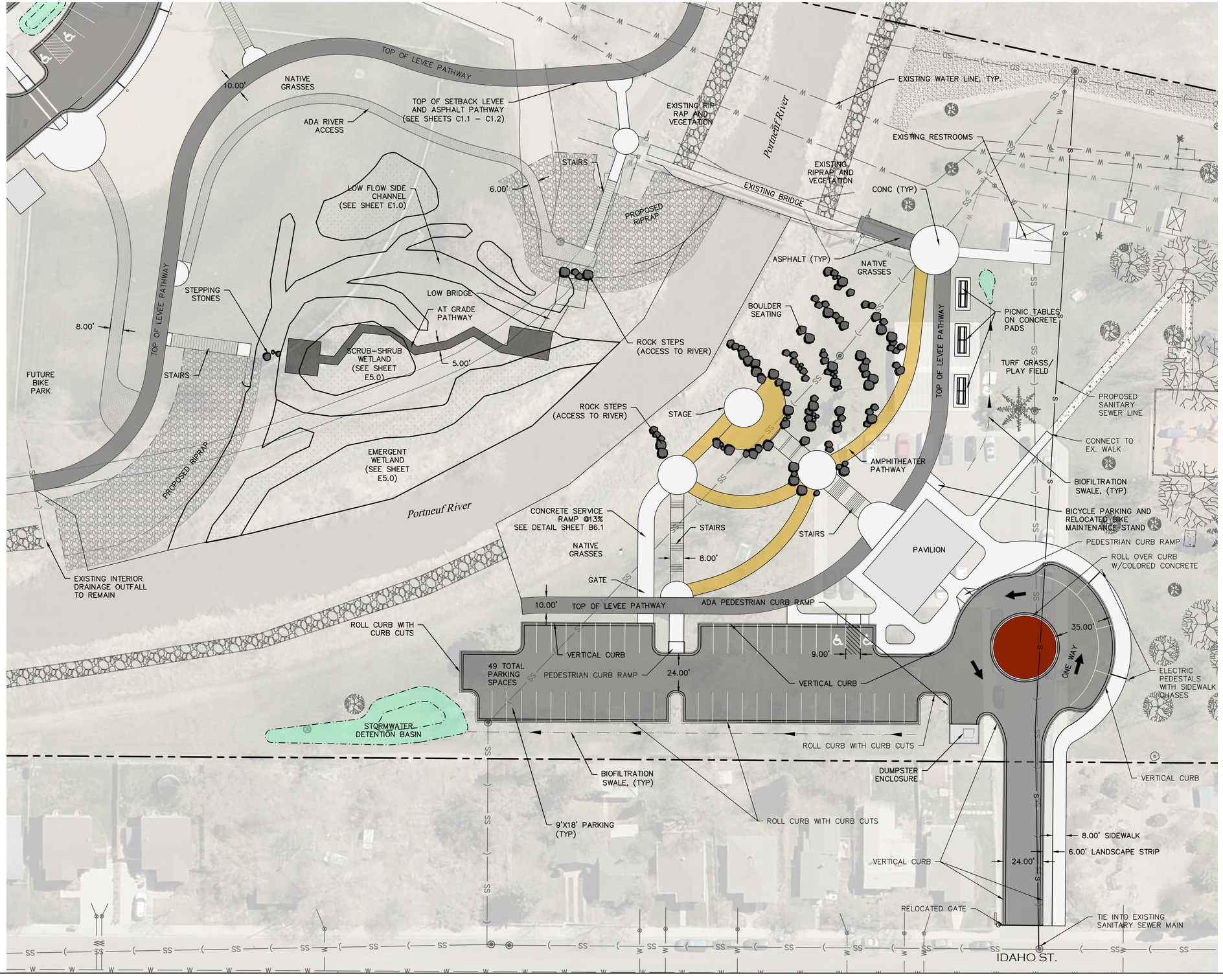
PROJECT NAME

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

## DEMOLITION PLAN

SHEET #

B1.2




## LEGEND

- PROPERTY LINE FROM GIS
- EXISTING TREE (DECIDUOUS)
- EXISTING TREE (EVERGREEN)
- EXISTING RIPRAP
- EXISTING GRAVEL
- EXISTING SIDEWALK
- EXISTING WATERLINE
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- GRAVEL PATHWAY
- COLORED CONCRETE
- STORMWATER BASIN
- RIPRAP
- BOULDER
- PROPOSED WATERLINE
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- BIOFILTRATION SWALE

## NOTES

1. SEE LANDSCAPE DRAWINGS FOR ADDITIONAL INFORMATION.
2. SEE HORIZONTAL CONTROL PLANS FOR ADDITIONAL INFORMATION.

30' 15' 0 30' 60'

SCALE: 1" = 30'
(24" X 36" SHEET)

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STRATA

DRAWING IS TO SCALE IF BAR MEASURES:
1" = FULL SCALE
2" = HALF SCALE

FILE : SitePlan.DWG

PROJ. #: 19010

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 7/20/2026

REVISIONS:

95% DESIGN IMPROVEMENT PLANS - NOT FOR CONSTRUCTION

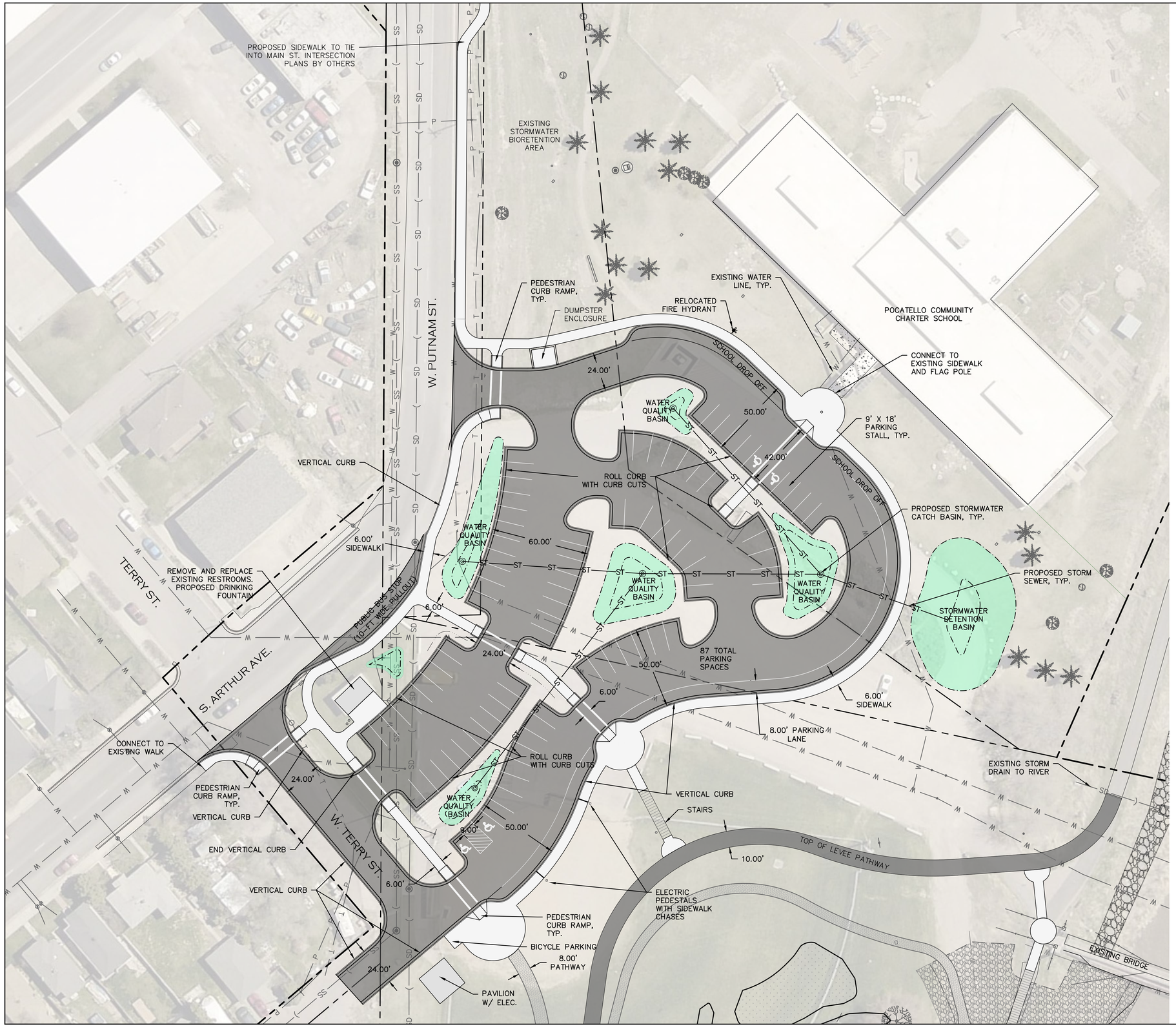
PROJECT NAME

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

## SITE PLAN- CENTENNIAL PARK

SHEET #

B2.1




## LEGEND

- PROPERTY LINE FROM GIS
- EXISTING TREE (DECIDUOUS)
- EXISTING TREE (EVERGREEN)
- EXISTING RIPRAP
- EXISTING GRAVEL
- EXISTING SIDEWALK
- EXISTING WATERLINE
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- GRAVEL PATHWAY
- COLORED CONCRETE
- STORMWATER BASIN
- RIPRAP
- BOULDER
- PROPOSED WATERLINE
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- BIOFILTRATION SWALE

## NOTES

1. SEE LANDSCAPE DRAWINGS FOR ADDITIONAL INFORMATION.
2. SEE HORIZONTAL CONTROL PLANS FOR ADDITIONAL INFORMATION.

30' 15' 0 30' 60'

SCALE: 1" = 30'
(24" X 36" SHEET)

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1" = FULL SCALE
2" = HALF SCALE

FILE : SitePlan.DWG

PROJ. #: 19010

PRELIMINARY
NOT FOR CONSTRUCTION

95% DESIGN IMPROVEMENT PLANS - NOT FOR CONSTRUCTION

DATE: 7/20/2026

REVISIONS:

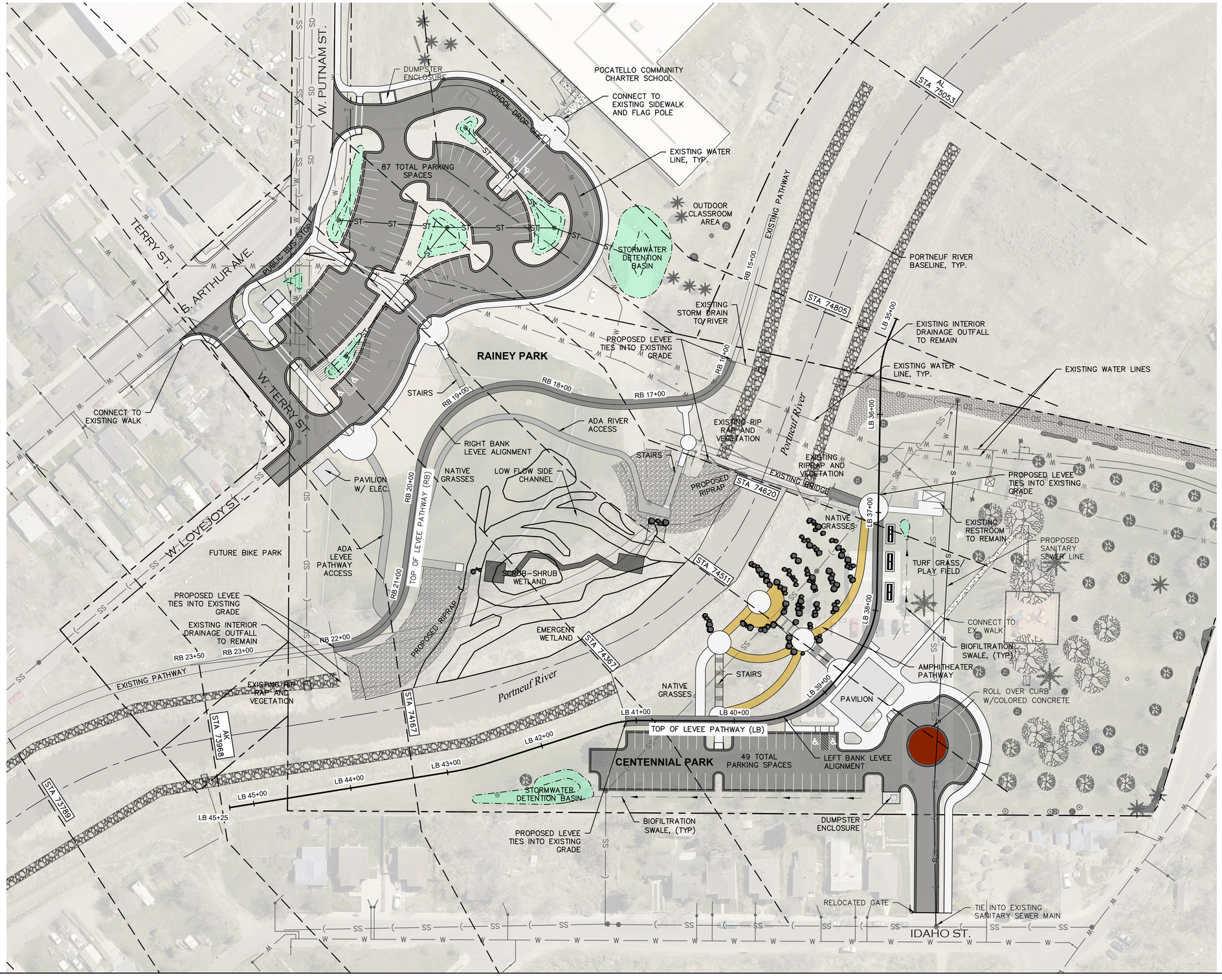
PROJECT NAME

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

## SITE PLAN- RAINEY PARK

SHEET #

B2.2




## LEGEND

- PROPERTY LINE FROM GIS
- EXISTING TREE (DECIDUOUS)
- EXISTING TREE (EVERGREEN)
- EXISTING RIPRAP
- EXISTING GRAVEL
- EXISTING SIDEWALK
- EXISTING WATERLINE
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- GRAVEL PATHWAY
- COLORED CONCRETE
- STORMWATER BASIN
- RIPRAP
- BOULDER
- PROPOSED WATERLINE
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- BIOFILTRATION SWALE
- RIVER BASELINE
- RIVER CROSS SECTIONS
- LB LEFT BANK
- RB RIGHT BANK

## NOTES

1. SEE LANDSCAPE DRAWINGS FOR ADDITIONAL INFORMATION.
2. SEE HORIZONTAL CONTROL PLANS FOR ADDITIONAL INFORMATION.

50' 25' 0 50' 100'

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FILE : SitePlan.DWG

PROJ. #: 19010

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 7/20/2026

REVISIONS:

95% DESIGN IMPROVEMENT PLANS - NOT FOR CONSTRUCTION

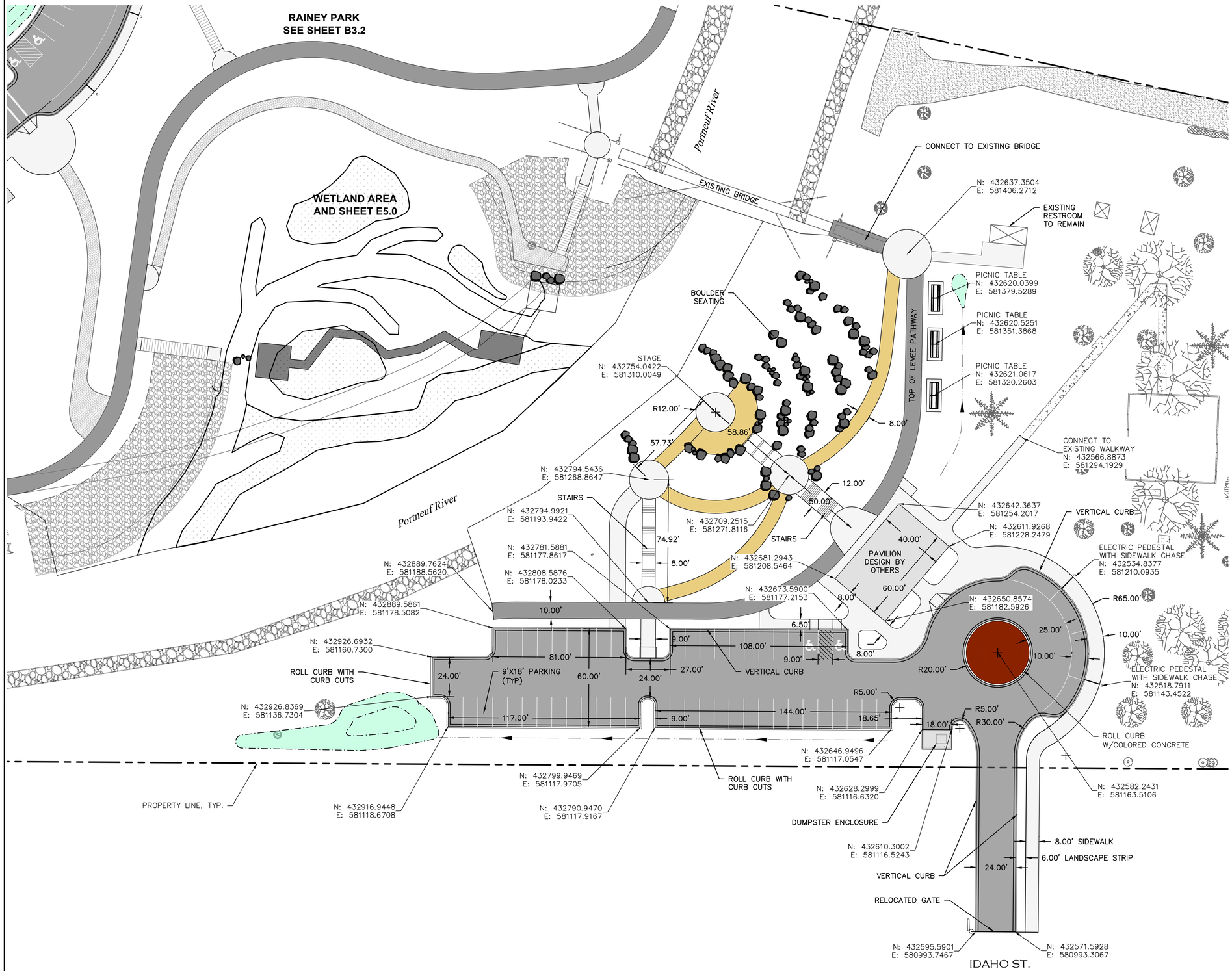
PROJECT NAME

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

## OVERALL SITE PLAN

SHEET #

B2.3




## LEGEND

- PROPERTY LINE FROM GIS
- EXISTING TREE (DECIDUOUS)
- EXISTING TREE (EVERGREEN)
- EXISTING RIPRAP
- EXISTING GRAVEL
- EXISTING SIDEWALK
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- GRAVEL PATHWAY
- COLORED CONCRETE
- STORMWATER BASIN
- BOULDER
- RIPRAP
- BIOFILTRATION SWALE

## NOTES

1. SEE LANDSCAPE DRAWINGS FOR ADDITIONAL INFORMATION.
2. DIMENSIONS SHOWN TO CURBS ARE TO FLOWLINE OF VERTICAL/ROLL CURBS UNLESS OTHERWISE NOTED.
3. HORIZONTAL DATUM IS NAD83.

30' 15' 0 30' 60'

SCALE: 1" = 30'
(24" X 36" SHEET)

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1" = FULL SCALE
2" = HALF SCALE

FILE : SitePlan.DWG

PROJ. #: 19010

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 7/20/2026

REVISIONS:

95% DESIGN IMPROVEMENT PLANS - NOT FOR CONSTRUCTION

PROJECT NAME

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

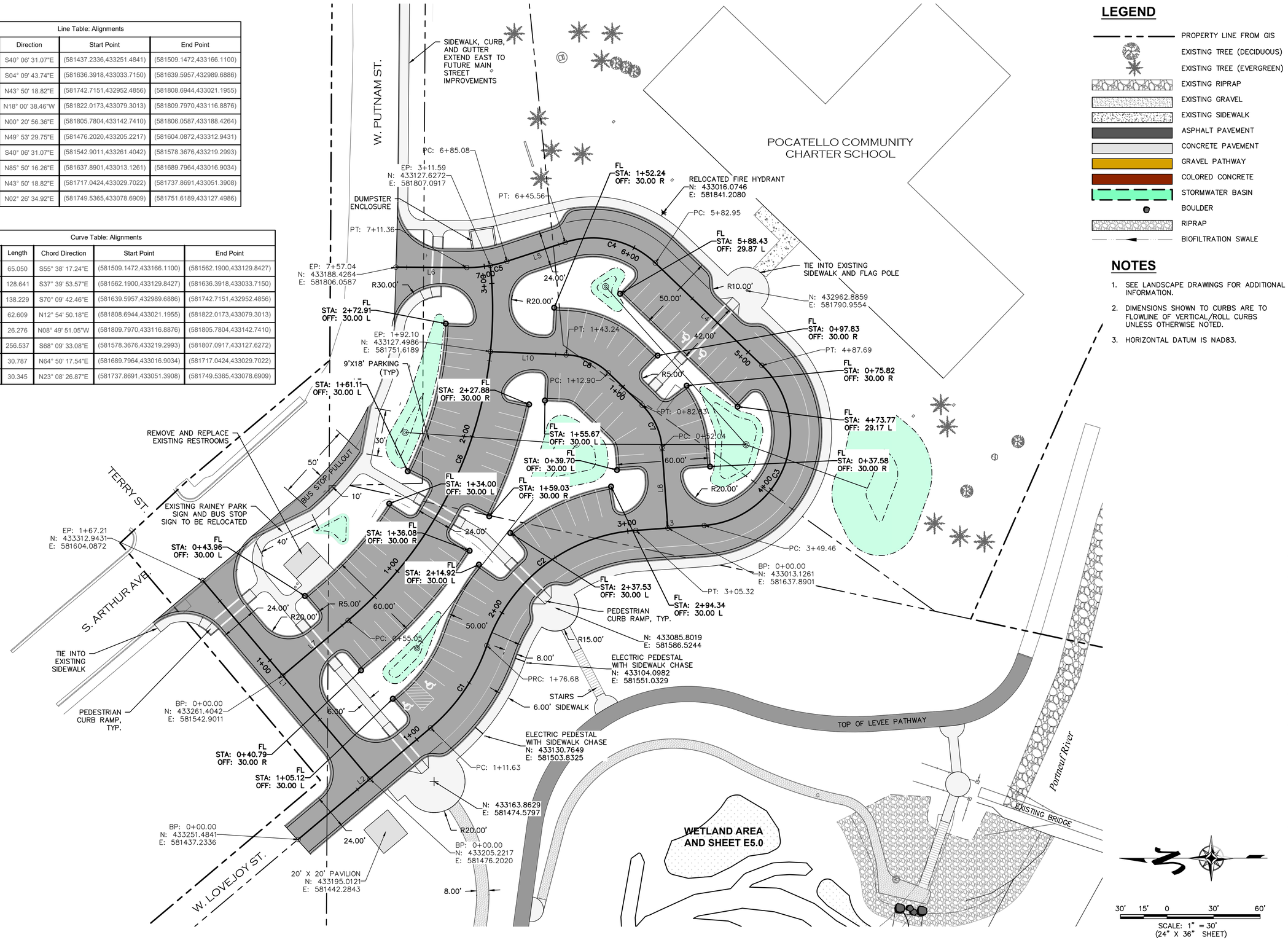
## HORIZONTAL CONTROL PLAN- CENTENNIAL PARK

SHEET #

B3.1

| Line Table: Alignments | | | | |
|---|---|---|---|---|
| Line # | Length | Direction | Start Point | End Point |
| L2 | 111.626 | S40° 06' 31.07"E | (581437.2336,433251.4841) | (581509.1472,433166.1100) |
| L3 | 44.143 | S04° 09' 43.74"E | (581636.3918,433033.7150) | (581639.5957,432989.6886) |
| L4 | 95.259 | N43° 50' 18.82"E | (581742.7151,432952.4856) | (581808.6944,433021.1955) |
| L5 | 39.523 | N18° 00' 38.46"W | (581822.0173,433079.3013) | (581809.7970,433116.8876) |
| L6 | 45.686 | N00° 20' 56.36"E | (581805.7804,433142.7410) | (581806.0587,433188.4264) |
| L1 | 167.208 | N49° 53' 29.75"E | (581476.2020,433205.2217) | (581604.0872,433312.9431) |
| L7 | 55.052 | S40° 06' 31.07"E | (581542.9011,433261.4042) | (581578.3676,433219.2993) |
| L8 | 52.044 | N85° 50' 16.26"E | (581637.8901,433013.1261) | (581689.7964,433016.9034) |
| L9 | 30.069 | N43° 50' 18.82"E | (581717.0424,433029.7022) | (581737.8691,433051.3908) |
| L10 | 48.852 | N02° 26' 34.92"E | (581749.5365,433078.6909) | (581751.6189,433127.4986) |

| Curve Table: Alignments | | | | | |
|---|---|---|---|---|---|
| Curve # | Radius | Length | Chord Direction | Start Point | End Point |
| C1 | 120.000 | 65.050 | S55° 38' 17.24"E | (581509.1472,433166.1100) | (581562.1900,433129.8427) |
| C2 | 110.000 | 128.641 | S37° 39' 53.57"E | (581562.1900,433129.8427) | (581636.3918,433033.7150) |
| C3 | 60.000 | 138.229 | S70° 09' 42.46"E | (581639.5957,432989.6886) | (581742.7151,432952.4856) |
| C4 | 58.000 | 62.609 | N12° 54' 50.18"E | (581808.6944,433021.1955) | (581822.0173,433079.3013) |
| C5 | 82.000 | 26.276 | N08° 49' 51.05"W | (581809.7970,433116.8876) | (581805.7804,433142.7410) |
| C6 | 262.000 | 256.537 | S68° 09' 33.08"E | (581578.3676,433219.2993) | (581807.0917,433127.6272) |
| C7 | 42.000 | 30.787 | N64° 50' 17.54"E | (581689.7964,433016.9034) | (581717.0424,433029.7022) |
| C8 | 42.000 | 30.345 | N23° 08' 26.87"E | (581737.8691,433051.3908) | (581749.5365,433078.6909) |




## LEGEND

- PROPERTY LINE FROM GIS
- EXISTING TREE (DECIDUOUS)
- EXISTING TREE (EVERGREEN)
- EXISTING RIPRAP
- EXISTING GRAVEL
- EXISTING SIDEWALK
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- GRAVEL PATHWAY
- COLORED CONCRETE
- STORMWATER BASIN
- BOULDER
- RIPRAP
- BIOFILTRATION SWALE

## NOTES

1. SEE LANDSCAPE DRAWINGS FOR ADDITIONAL INFORMATION.
2. DIMENSIONS SHOWN TO CURBS ARE TO FLOWLINE OF VERTICAL/ROLL CURBS UNLESS OTHERWISE NOTED.
3. HORIZONTAL DATUM IS NAD83.

30' 15' 0 30' 60'

SCALE: 1" = 30'
(24" X 36" SHEET)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JEO CONSULTING GROUP
STRATA


DRAWING IS TO SCALE IF BAR MEASURES 1" = FULL SCALE 2" = HALF SCALE

FILE : SitePlan.DWG

PROJ. #: 19010

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 7/20/2026

REVISIONS:

95% DESIGN IMPROVEMENT PLANS - NOT FOR CONSTRUCTION

PROJECT NAME

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

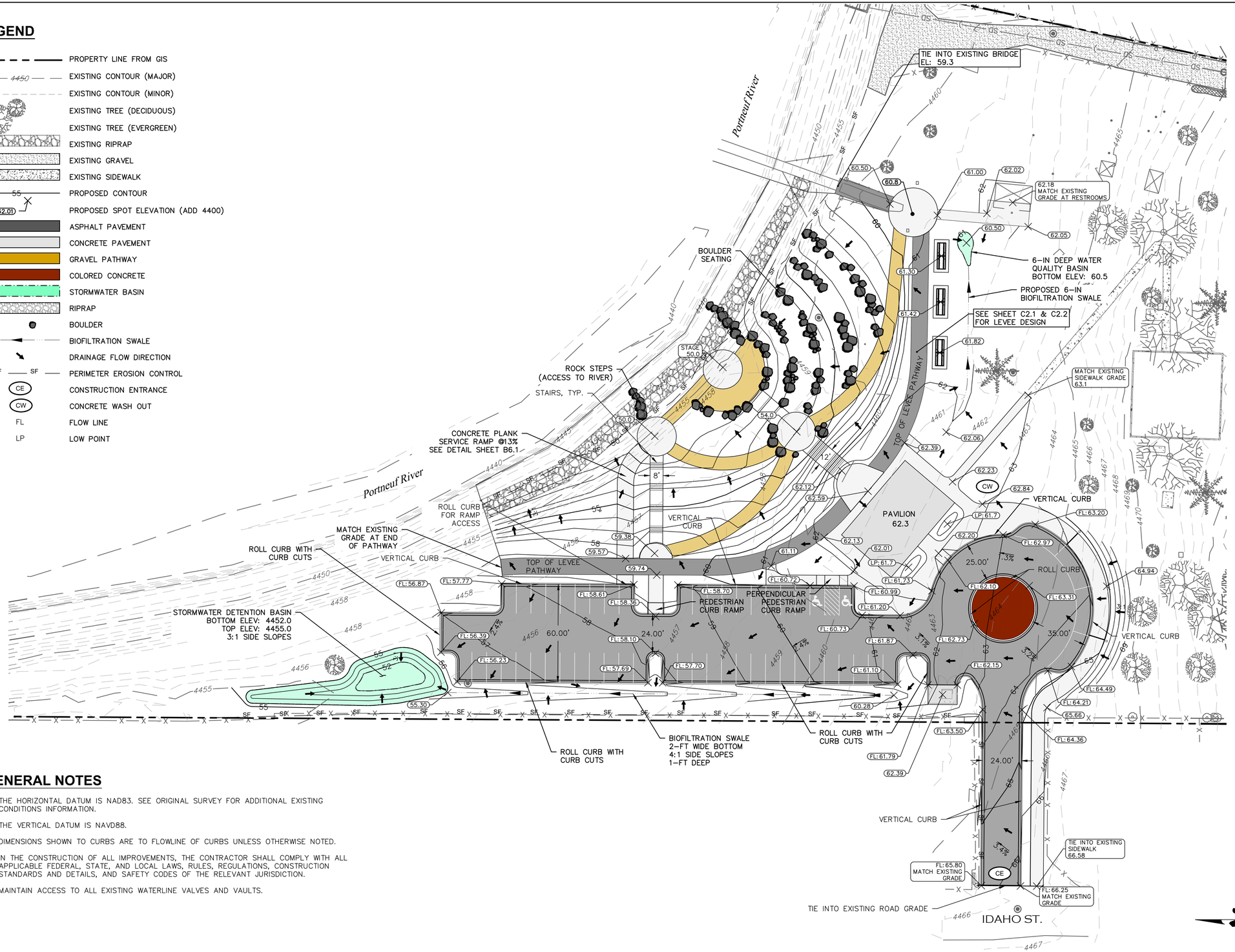
## HORIZONTAL CONTROL PLAN- RAINEY PARK

SHEET #

B3.2

## LEGEND

- PROPERTY LINE FROM GIS
- 4450 — EXISTING CONTOUR (MAJOR)
- EXISTING CONTOUR (MINOR)
- EXISTING TREE (DECIDUOUS)
- EXISTING TREE (EVERGREEN)
- EXISTING RIPRAP
- EXISTING GRAVEL
- EXISTING SIDEWALK
- 55 — PROPOSED CONTOUR
- 62.01 — PROPOSED SPOT ELEVATION (ADD 4400)
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- GRAVEL PATHWAY
- COLORED CONCRETE
- STORMWATER BASIN
- RIPRAP
- BOULDER
- BIOFILTRATION SWALE
- DRAINAGE FLOW DIRECTION
- SF — SF — PERIMETER EROSION CONTROL
- CE — CONSTRUCTION ENTRANCE
- CW — CONCRETE WASH OUT
- FL — FLOW LINE
- LP — LOW POINT




## GENERAL NOTES

1. THE HORIZONTAL DATUM IS NAD83. SEE ORIGINAL SURVEY FOR ADDITIONAL EXISTING CONDITIONS INFORMATION.
2. THE VERTICAL DATUM IS NAVD88.
3. DIMENSIONS SHOWN TO CURBS ARE TO FLOWLINE OF CURBS UNLESS OTHERWISE NOTED.
4. IN THE CONSTRUCTION OF ALL IMPROVEMENTS, THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES, REGULATIONS, CONSTRUCTION STANDARDS AND DETAILS, AND SAFETY CODES OF THE RELEVANT JURISDICTION.
5. MAINTAIN ACCESS TO ALL EXISTING WATERLINE VALVES AND VAULTS.

30' 15' 0 30' 60'

SCALE: 1" = 30'
(24" X 36" SHEET)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STRATA


DRAWING IS TO SCALE IF BAR MEASURES:
1" = FULL SCALE
2" = HALF SCALE

FILE: GradingPlan.DWG

PROJ. #: 19010

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 7/20/2026

REVISIONS:

95% DESIGN IMPROVEMENT PLANS - NOT FOR CONSTRUCTION

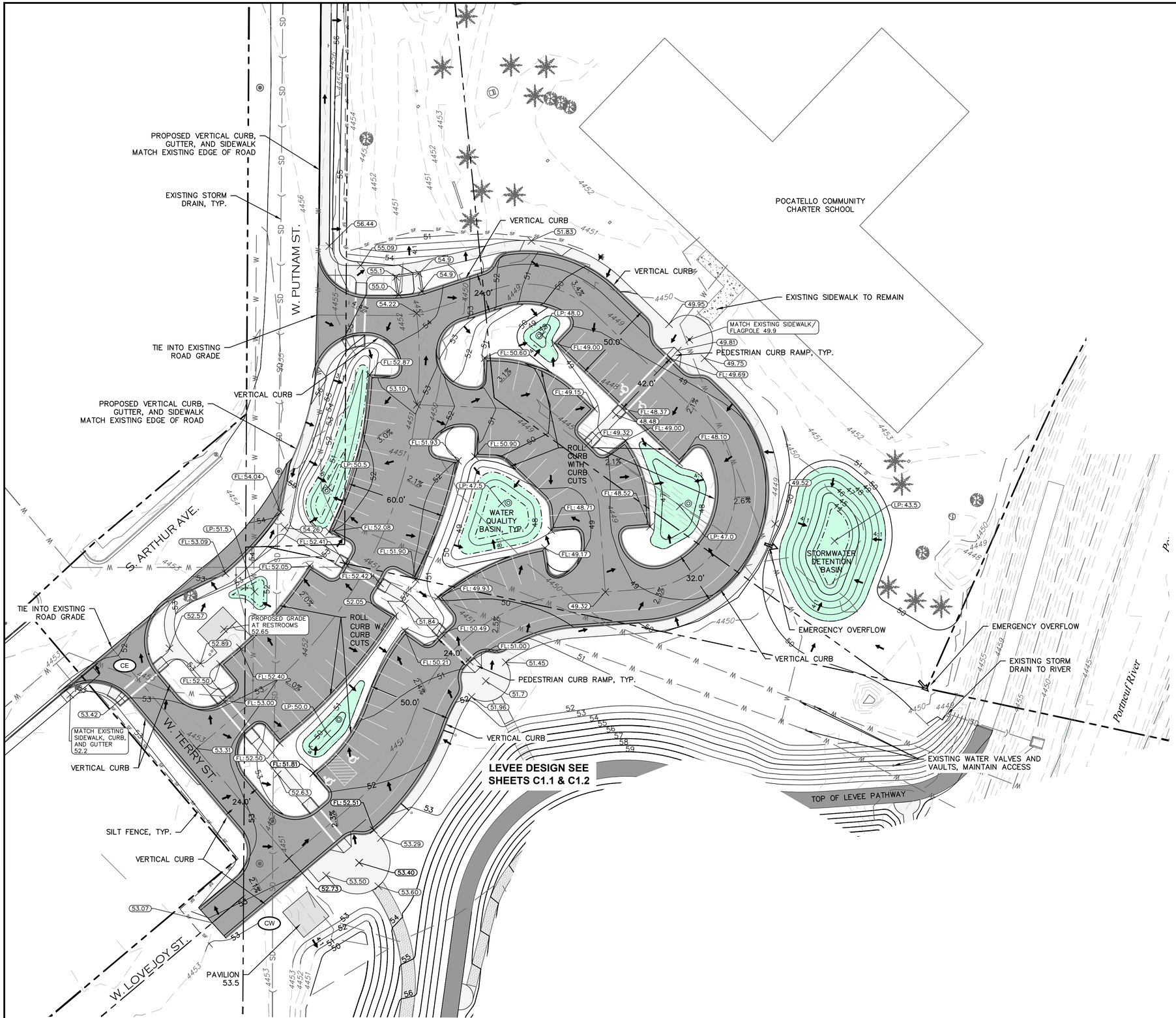
PROJECT NAME

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

## CENTENNIAL PARK AND AMPHITHEATER GRADING, DRAINAGE, AND EROSION CONTROL PLAN

SHEET #

B4.1




## LEGEND

- PROPERTY LINE FROM GIS
- EXISTING CONTOUR (MAJOR)
- EXISTING CONTOUR (MINOR)
- EXISTING TREE (DECIDUOUS)
- EXISTING TREE (EVERGREEN)
- EXISTING RIPRAP
- EXISTING GRAVEL
- EXISTING SIDEWALK
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION (ADD 4400)
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- GRAVEL PATHWAY
- COLORED CONCRETE
- STORMWATER BASIN
- RIPRAP
- BOULDER
- BIOFILTRATION SWALE
- DRAINAGE FLOW DIRECTION
- PERIMETER EROSION CONTROL
- CE — CONSTRUCTION ENTRANCE
- CW — CONCRETE WASH OUT
- FL — FLOW LINE
- LP — LOW POINT

## GENERAL NOTES

1. THE HORIZONTAL DATUM IS NAD83. SEE ORIGINAL SURVEY FOR ADDITIONAL EXISTING CONDITIONS INFORMATION.
2. THE VERTICAL DATUM IS NAVD88.
3. DIMENSIONS SHOWN TO CURBS ARE TO FLOWLINE OF CURBS UNLESS OTHERWISE NOTED.
4. IN THE CONSTRUCTION OF ALL IMPROVEMENTS, THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES, REGULATIONS, CONSTRUCTION STANDARDS AND DETAILS, AND SAFETY CODES OF THE RELEVANT JURISDICTION.
5. SEE SHEET B4.3 FOR A DETAILED STORMWATER PLAN FOR RAINEY PARK.
6. SEE SHEETS B4.4 & B4.5 FOR ROAD PLAN AND PROFILES FOR MORE DETAIL FOR THE PARKING LOT DESIGN.
7. MAINTAIN ACCESS TO ALL EXISTING WATERLINE VALVES AND VAULTS.

30' 15' 0 30' 60'

SCALE: 1" = 30'
(24" X 36" SHEET)

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STRATA

DRAWING IS TO SCALE IF BAR MEASURES:
1" = FULL SCALE
½" = HALF SCALE

**FILE:** GradingPlan.DWG
**PROJ. #:** 19010

PRELIMINARY
NOT FOR CONSTRUCTION

**DATE:** 7/20/2026

**REVISIONS:**

95% DESIGN IMPROVEMENT PLANS - NOT FOR CONSTRUCTION

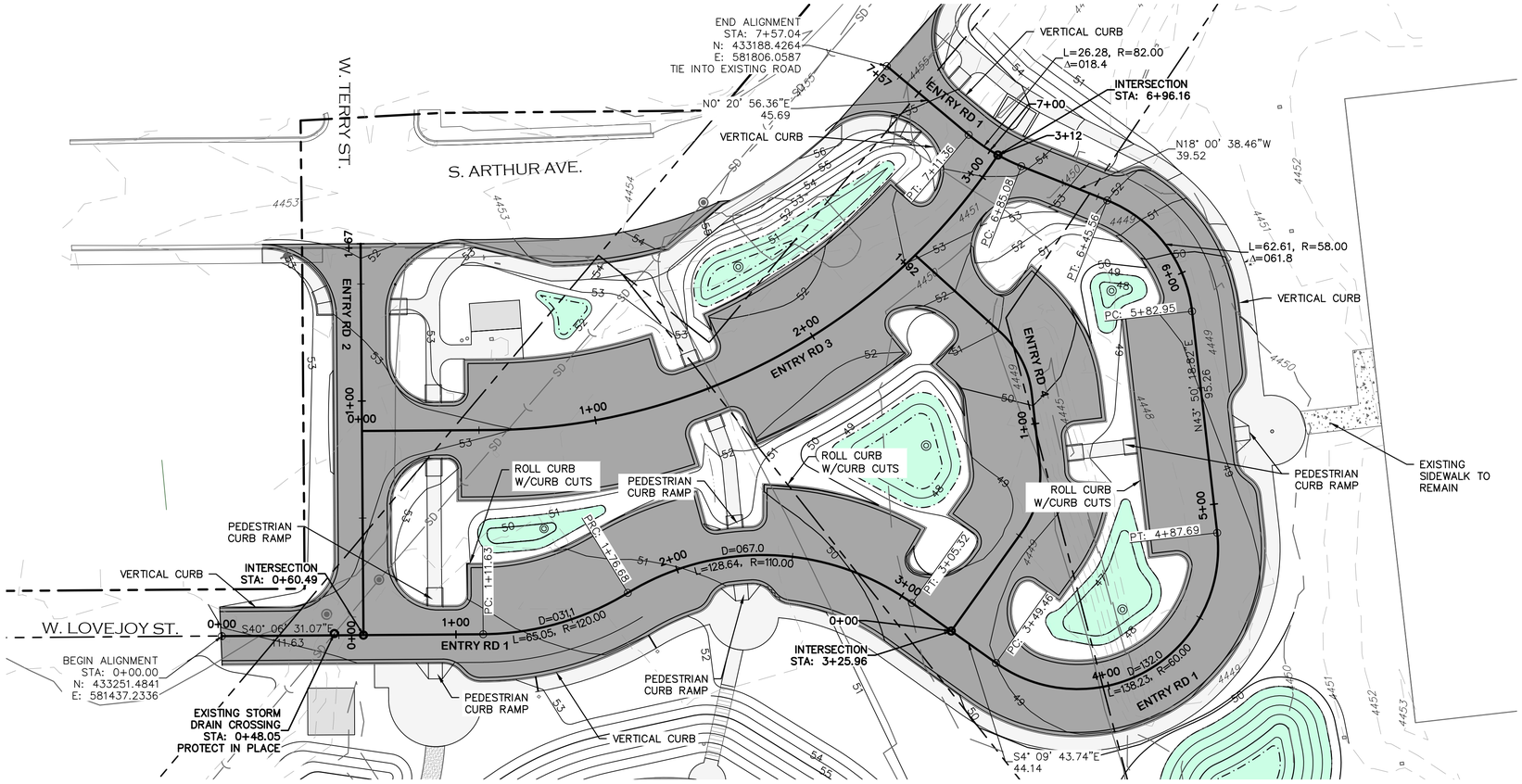
**PROJECT NAME**

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

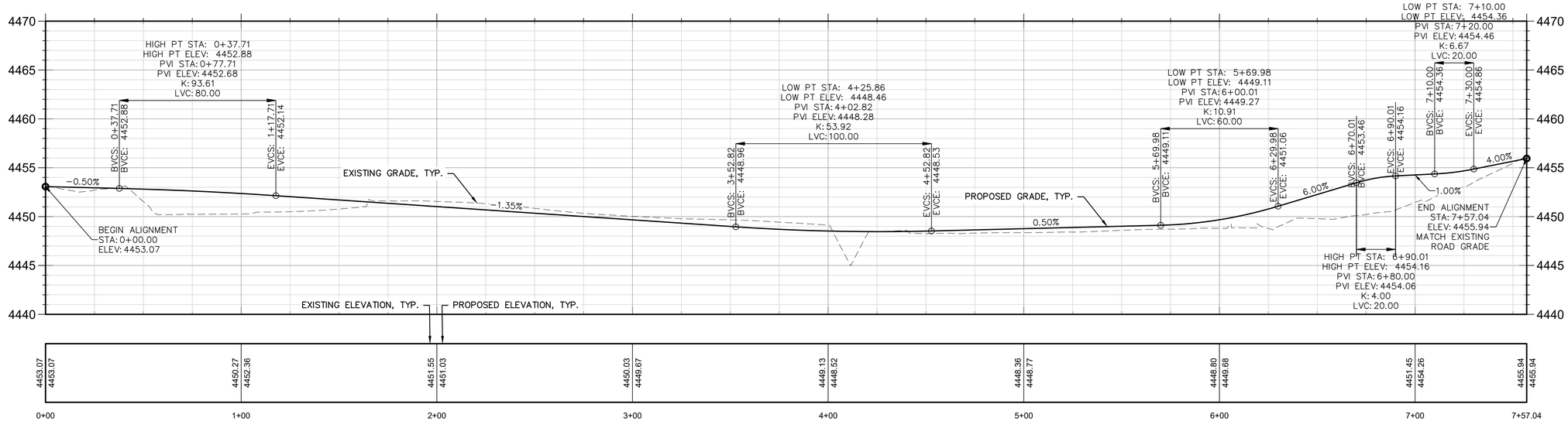
## RAINEY PARK GRADING, DRAINAGE, AND EROSION CONTROL PLAN

**SHEET #**

**B4.2**




## ENTRY ROAD 1 PLAN




## ENTRY ROAD 1 PROFILE

30' 15' 0 30' 60'

HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 6'

## LEGEND

- PROPERTY LINE FROM GIS
- EXISTING CONTOUR (MAJOR) — 4450
- EXISTING CONTOUR (MINOR)
- PROPOSED CONTOUR — 55
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- STORMWATER BASIN
- BIOFILTRATION SWALE

## NOTES

1. THE HORIZONTAL DATUM IS NAD83. SEE ORIGINAL SURVEY FOR ADDITIONAL EXISTING CONDITIONS INFORMATION.
2. THE VERTICAL DATUM IS NAVD88.
3. SEE SHEET B4.2 FOR AN OVERALL GRADING PLAN.
4. SEE SHEET B4.4 FOR ENTRY ROADS 2, 3 AND 4 PLAN AND PROFILES.
5. SEE SHEET B3.2 RAINEY PARK HORIZONTAL CONTROL PLAN FOR MORE ROAD DESIGN AND LAYOUT INFORMATION.

30' 15' 0 30' 60'

SCALE: 1" = 30'
(24" X 36" SHEET)

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DRAWING IS TO SCALE IF MEASURE 1" BY 2" = FULL SCALE
1" = HALF SCALE

FILE: GradingPlan.DWG

PROJ. #: 19010

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DATE: 7/20/2026

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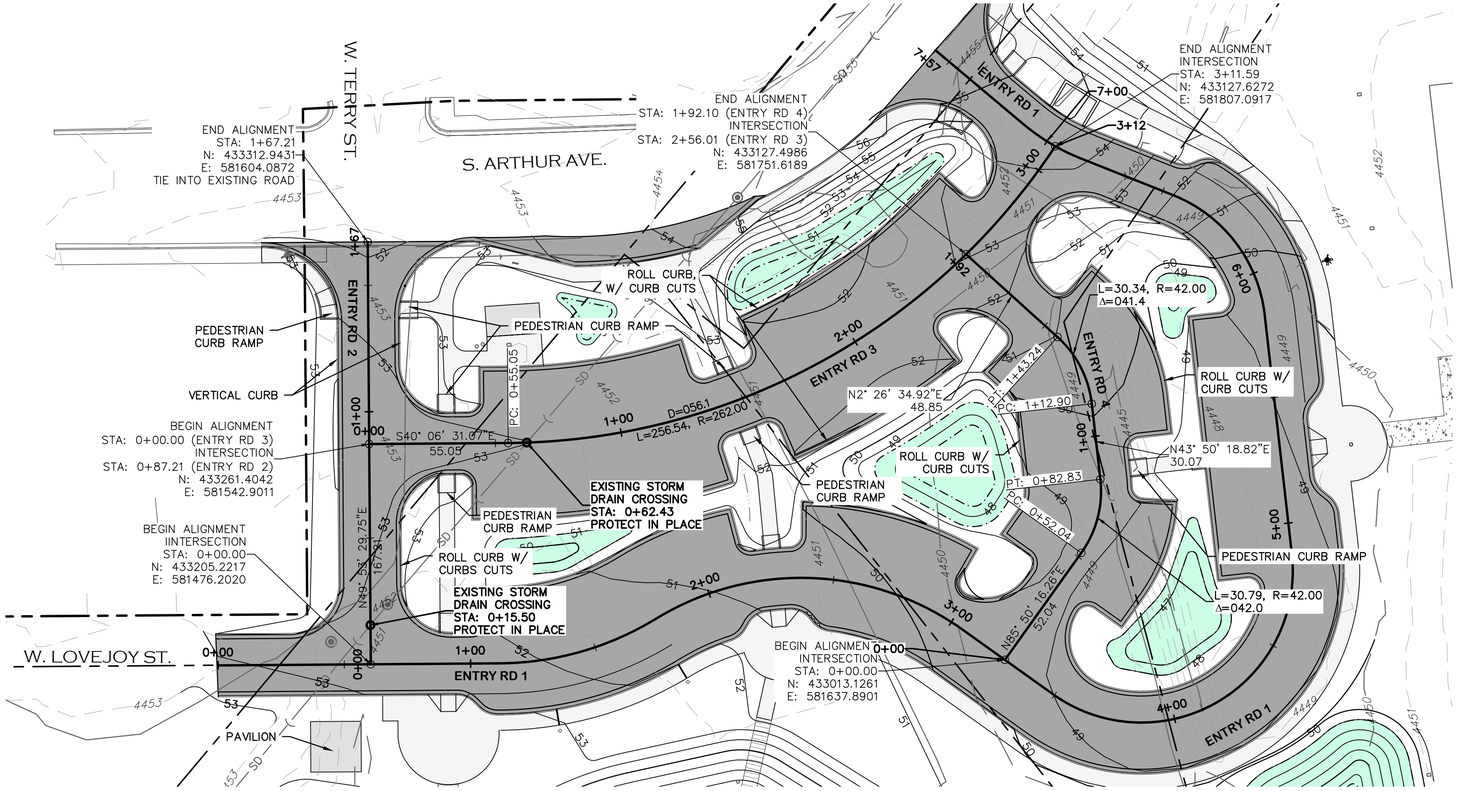
PROJECT NAME

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

## RAINEY PARK PARKING LOT PLAN AND PROFILE 1

SHEET #

B4.3




## ENTRY ROAD 2, 3, AND 4 PLAN

30' 15' 0 30' 60'

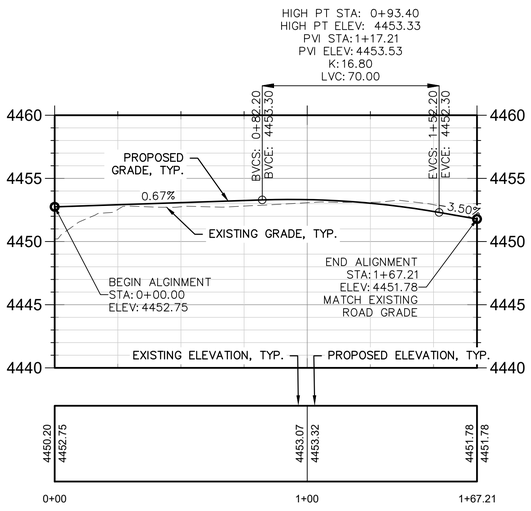
SCALE: 1" = 30'
(24" X 36" SHEET)

## LEGEND

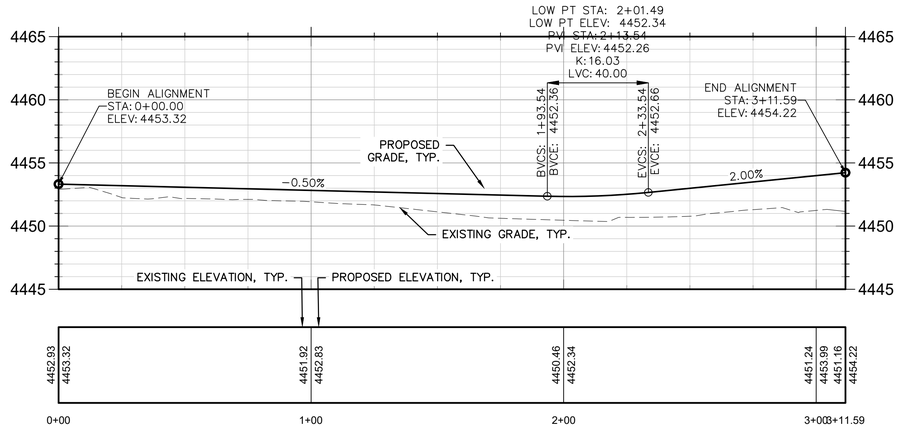
- PROPERTY LINE FROM GIS
- EXISTING CONTOUR (MAJOR) — 4450
- EXISTING CONTOUR (MINOR)
- PROPOSED CONTOUR — 55
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- STORMWATER BASIN
- BIOFILTRATION SWALE

## NOTES

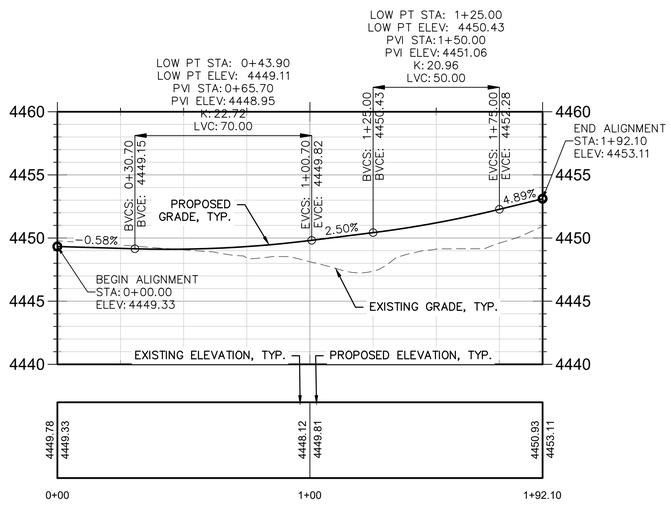
1. THE HORIZONTAL DATUM IS NAD83. SEE ORIGINAL SURVEY FOR ADDITIONAL EXISTING CONDITIONS INFORMATION.
2. THE VERTICAL DATUM IS NAVD88.
3. SEE SHEET B4.2 FOR AN OVERALL GRADING PLAN.
4. SEE SHEET B4.3 FOR ENTRY ROAD 1 PLAN AND PROFILE.
5. SEE SHEET B3.2 RAINEY PARK HORIZONTAL CONTROL PLAN FOR MORE ROAD DESIGN AND LAYOUT INFORMATION.




## ENTRY ROAD 2 PROFILE




## ENTRY ROAD 3 PROFILE




## ENTRY ROAD 4 PROFILE

30' 15' 0 30' 60'

HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 6'

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FILE: GradingPlan.DWG

PROJ. #: 19010

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DATE: 7/20/2026

REVISIONS:

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PROJECT NAME

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

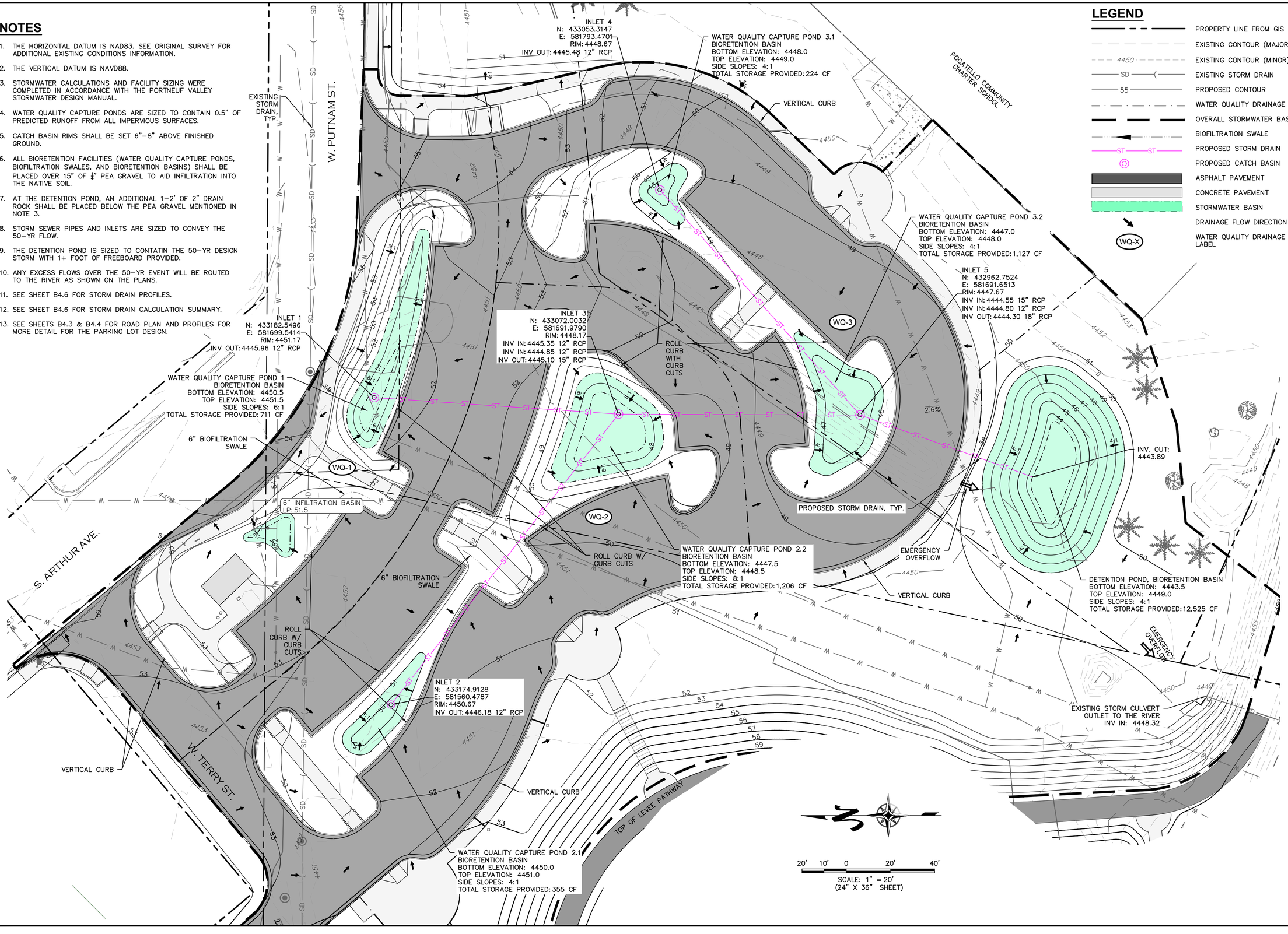
RAINEY PARK PARKING LOT PLAN AND PROFILE 2

SHEET #

B4.4

## NOTES

1. THE HORIZONTAL DATUM IS NAD83. SEE ORIGINAL SURVEY FOR ADDITIONAL EXISTING CONDITIONS INFORMATION.
2. THE VERTICAL DATUM IS NAVD88.
3. STORMWATER CALCULATIONS AND FACILITY SIZING WERE COMPLETED IN ACCORDANCE WITH THE PORTNEUF VALLEY STORMWATER DESIGN MANUAL.
4. WATER QUALITY CAPTURE PONDS ARE SIZED TO CONTAIN 0.5" OF PREDICTED RUNOFF FROM ALL IMPERVIOUS SURFACES.
5. CATCH BASIN RIMS SHALL BE SET 6"–8" ABOVE FINISHED GROUND.
6. ALL BIORETENTION FACILITIES (WATER QUALITY CAPTURE PONDS, BIOFILTRATION SWALES, AND BIORETENTION BASINS) SHALL BE PLACED OVER 15" OF ¾" PEA GRAVEL TO AID INFILTRATION INTO THE NATIVE SOIL.
7. AT THE DETENTION POND, AN ADDITIONAL 1–2' OF 2" DRAIN ROCK SHALL BE PLACED BELOW THE PEA GRAVEL MENTIONED IN NOTE 3.
8. STORM SEWER PIPES AND INLETS ARE SIZED TO CONVEY THE 50–YR FLOW.
9. THE DETENTION POND IS SIZED TO CONTATIN THE 50–YR DESIGN STORM WITH 1+ FOOT OF FREEBOARD PROVIDED.
10. ANY EXCESS FLOWS OVER THE 50–YR EVENT WILL BE ROUTED TO THE RIVER AS SHOWN ON THE PLANS.
11. SEE SHEET B4.6 FOR STORM DRAIN PROFILES.
12. SEE SHEET B4.6 FOR STORM DRAIN CALCULATION SUMMARY.
13. SEE SHEETS B4.3 & B4.4 FOR ROAD PLAN AND PROFILES FOR MORE DETAIL FOR THE PARKING LOT DESIGN.




20' 10' 0 20' 40'

SCALE: 1" = 20'
(24" X 36" SHEET)

## LEGEND

- PROPERTY LINE FROM GIS
- EXISTING CONTOUR (MAJOR)
- 4450 EXISTING CONTOUR (MINOR)
- SD EXISTING STORM DRAIN
- 55 PROPOSED CONTOUR
- WATER QUALITY DRAINAGE BASIN
- OVERALL STORMWATER BASIN
- BIOFILTRATION SWALE
- ST PROPOSED STORM DRAIN
- PROPOSED CATCH BASIN
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- STORMWATER BASIN
- DRAINAGE FLOW DIRECTION
- WQ-X WATER QUALITY DRAINAGE BASIN LABEL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FILE : GradingPlan.DWG

PROJ. #: 19010

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 7/20/2026

REVISIONS:

95% DESIGN IMPROVEMENT PLANS - NOT FOR CONSTRUCTION

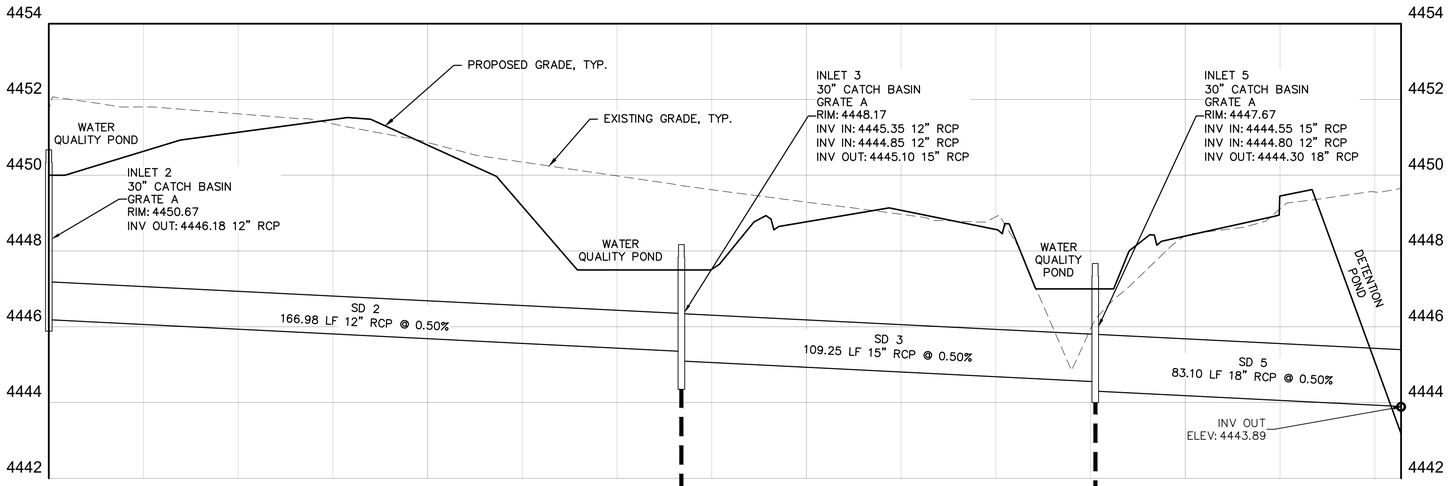
PROJECT NAME

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

RAINEY PARK STORMWATER PLAN

SHEET #

B4.5

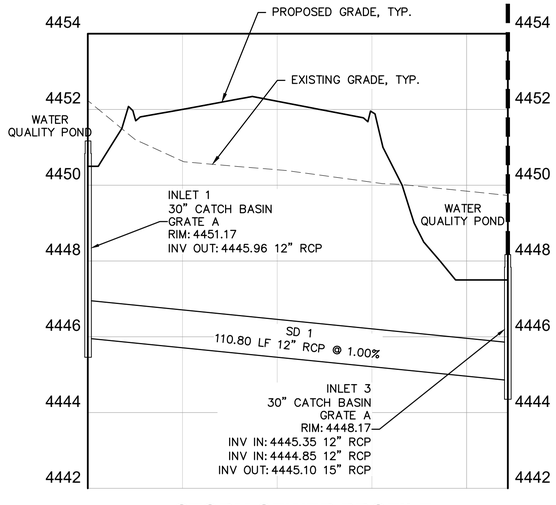



20' 10' 0 20' 40'

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'

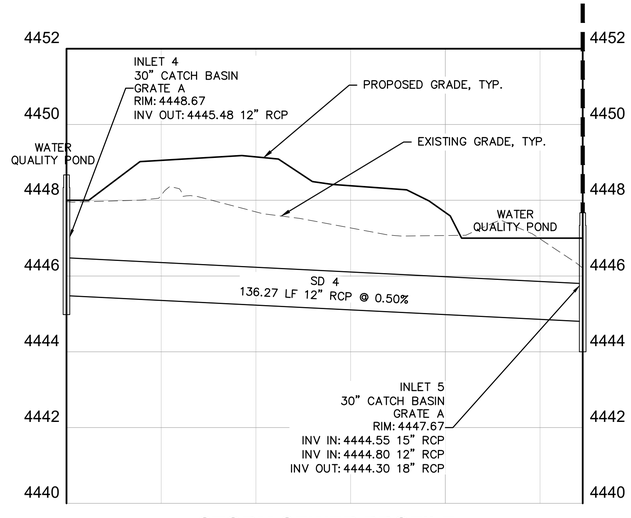
## STORM SEWER PROFILE

**INLET 2 - SD 2 - INLET 3 - SD 3 - INLET 5 - SD 5**




## STORM SEWER PROFILE

**INLET 1 - SD 1 - INLET 3**




## STORM SEWER PROFILE

**INLET 4 - SD 4 - INLET 5**

# STORMWATER CALCULATIONS:

## NOTES

1. STORMWATER CALCULATIONS AND FACILITY SIZING WERE COMPLETED IN ACCORDANCE WITH THE PORTNEUF VALLEY STORMWATER DESIGN MANUAL.
2. SEE SHEET B4.5 FOR THE RAINEY PARK STORMWATER PLAN VIEW.

## WATER QUALITY CAPTURE VOLUME

1. WATER QUALITY CAPTURE PONDS ARE SIZED TO CONTAIN 0.5" OF PREDICTED RUNOFF FROM ALL IMPERVIOUS SURFACES.
2. CATCH BASIN RIMS SHALL BE SET 6"–8" ABOVE FINISHED GROUND.

| *Tributary Sub-basin* | *Design Point/s* | *Impervious Surfaces (acres)* | *Predicted runoff (inches)* | *WQCV required (cubic feet)* | *WQCV provided (cubic feet)* | |
|---|---|---|---|---|---|---|
| WQ1 | Inlet 1 | 0.35 | 0.5 | 633 | WQCV Pond 1 | **711.39** |
| WQ2 | Inlets 2 & 3 | 0.74 | 0.5 | 1338 | WQCV Pond 2.1 | 354.57 |
| | | | | | WQCV Pond 2.2 | 1205.68 |
| | | | | | TOTAL | **1560.24** |
| WQ3 | Inlets 4 & 5 | 0.52 | 0.5 | 944 | WQCV Pond 3.1 | 223.75 |
| | | | | | WQCV Pond 3.2 | 1127.08 |
| | | | | | TOTAL | **1350.82** |

## DETENTION VOLUME

1. THE DETENTION BASIN IS SIZED TO CONTAIN THE 50–YR DESIGN STORM WITH 1+ FOOT OF FREEBOARD PROVIDED.
2. THE MODIFIED RATIONAL METHOD WAS USED TO SIZE THE DETENTION BASIN.
3. C–VALUE IS CALCULATED BASED ON TABLE 4–6 OF PVSDM. C–VALUES HAVE BEEN INCREASED BY 1.2 FOR THE 50–YR EVENT.
4. RAINFALL INTENSITY IS BASED ON THE IDF CURVE DEVELOPED FOR POCATELLO CREEK, AS CITED IN THE PVSDM.

EQUATIONS:

Developed Flow = QD = CIA
Vol. In = Vi = T C I A = T QD
Vol. Out = Vo =K QPO T
Storage = S = Vi – Vo

INPUTS:

Tributary Area = 3.25 acres
C Value = 0.60
Hydrologic Soil Group = B
Pond Infiltration Area = 5,015 square feet

| Storm Duration, T (min) | Rainfall Intensity, I (in/hr) | $Q_D$ (cfs) | Vol. In Vi ($ft^3$) | Soil Infiltration Rate, $I_{soil}$ (in/hr) | Vol. Out Vo ($ft^3$) | Storage S ($ft^3$) | Storage S (ac-ft) | Overflow volume ($ft^3$) | Overland release rate (cfs) |
|---|---|---|---|---|---|---|---|---|---|
| 5 | 3.88 | 7.6 | 2282 | 5.00 | 156 | 2125 | 0.05 | 0 | 0.00 |
| 10 | 3.01 | 5.9 | 3540 | 5.00 | 313 | 3227 | 0.07 | 0 | 0.00 |
| 20 | 2.28 | 4.5 | 5363 | 5.00 | 625 | 4737 | 0.11 | 0 | 0.00 |
| 30 | 1.76 | 3.4 | 6210 | 5.00 | 938 | 5272 | 0.12 | 0 | 0.00 |
| 40 | 1.55 | 3.0 | 7292 | 1.35 | 1022 | 6269 | 0.14 | 0 | 0.00 |
| 50 | 1.33 | 2.6 | 7821 | 1.35 | 1107 | 6714 | 0.15 | 0 | 0.00 |
| 60 | 1.12 | 2.2 | 7903 | 1.35 | 1191 | 6712 | 0.15 | 0 | 0.00 |
| 90 | 0.86 | 1.7 | 9103 | 0.53 | 1291 | **7811** | 0.18 | 0 | 0.00 |
| 120 | 0.60 | 1.2 | 8468 | 0.30 | 1348 | 7120 | 0.16 | 0 | 0.00 |

STORAGE VOLUME REQUIRED = 7,811 CUBIC FEET
STORAGE VOLUME PROVIDED = 12,525 CUBIC FEET

TOTAL POND DEPTH = 5.5 FT
50–YR STORAGE VOLUME PROVIDED WHEN POND IS AT THE 4.5–FT STAGE, RESULTING IN 1.0–FT OF FREEBOARD

## STORM SEWER SIZING

1. STORM SEWER PIPES AND INLETS ARE SIZED TO CONVEY THE 50–YR FLOW RATE.
2. THE RATIONAL METHOD WAS USED TO CALCULATE PEAK FLOW RATES.
3. RAINFALL INTENSITY IS BASED ON THE IDF CURVE DEVELOPED FOR POCATELLO CREEK, AS CITED IN THE PVSDM.

EQUATIONS:

Q = CiA
Q = Peak Discharge
C = runoff coefficient
i = rainfall intensity (in/hr) from PVSDM Appendix 4A IDF curve for Pocatello Creek
A = drainage area (acres)

INLETS:

| DIRECT RUNOFF PEAK FLOWS | | | | | | DRAINAGE STRUCTURE |
|---|---|---|---|---|---|---|
| Tributary Sub-basin | Area (ac) | C | tc (min) | i (50) (in/hr) | Q (50) (cfs) | |
| N-WQ1 | 0.54 | 0.71 | 5.1 | 3.86 | 1.5 | Inlet 1 |
| N-WQ2 | 0.94 | 0.80 | 5.0 | 3.88 | 2.9 | Inlets 2 and 3 |
| N-WQ3 | 0.79 | 0.72 | 5.4 | 3.80 | 2.1 | Inlets 4 and 5 |

ALL INLETS ARE SIZED TO CONVEY THE 50–YR FLOW WITH 2" – 4" OF HEAD AND WITHOUT OVERTOPPING THE WATER QUALITY BASINS THEY ARE LOCATED IN.

PIPES:

| STORM SEWER | UPSTREAM FLOWS | PIPE DIAMETER | PIPE SLOPE | Q (50) (cfs) | Q (Capacity) (cfs) |
|---|---|---|---|---|---|
| Storm Drain 1 | Inlet 1 | 12" | 1% | 1.47 | 3.56 |
| Storm Drain 2 | Inlet 2 | 12" | 0.5% | 1.46 | 2.43 |
| Storm Drain 3 | Inlet 3, SD 1 & SD 2 | 15" | 0.5% | 4.40 | 4.58 |
| Storm Drain 4 | Inlet 4 | 12" | 0.5% | 1.07 | 2.52 |
| Storm Drain 5 | Inlet 5, SD 3 & SD 4 | 18" | 0.5% | 6.54 | 7.41 |

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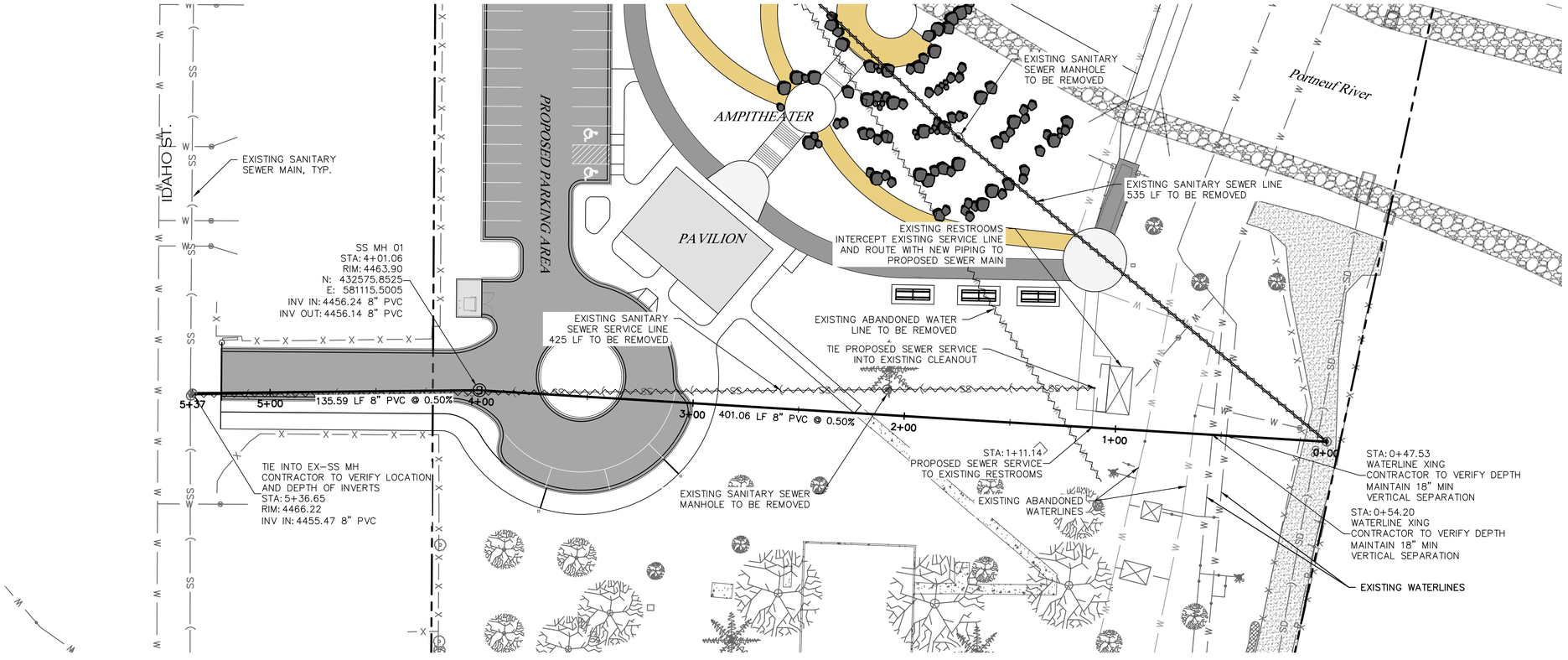
PROJECT NAME

CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

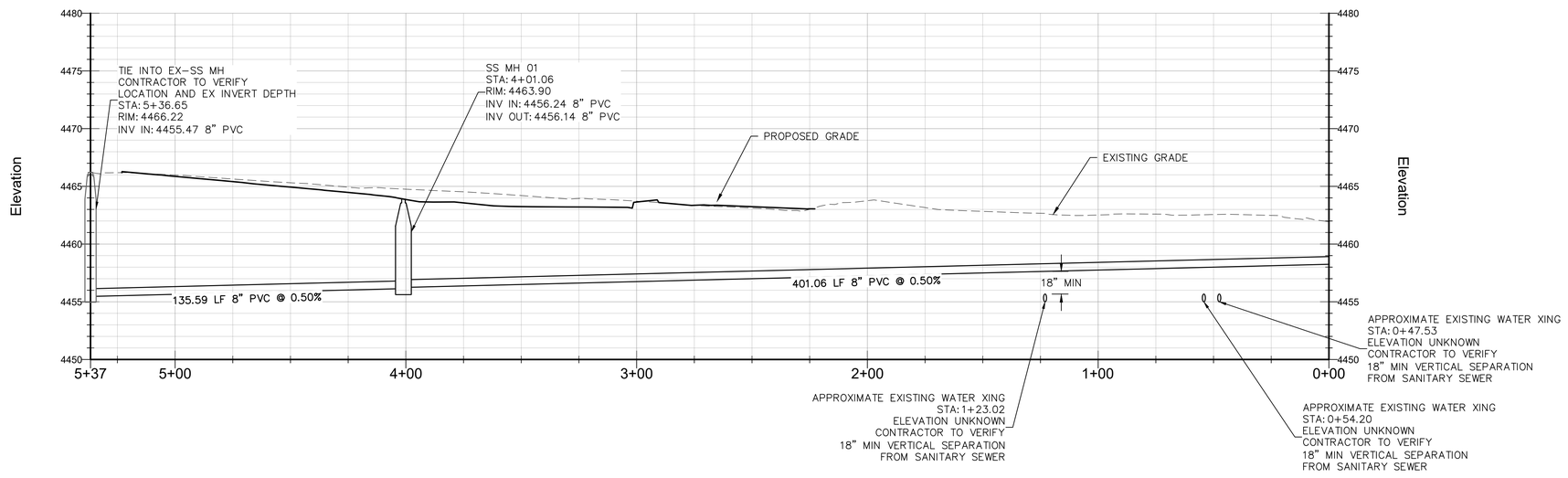
RAINEY PARK STORMWATER PROFILES AND CALCULATIONS

SHEET #

B4.6




## SANITARY SEWER PLAN




## SANITARY SEWER PROFILE

30' 15' 0 30' 60'

HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 6'

30' 15' 0 30' 60'

SCALE: 1" = 30'
(24" X 36" SHEET)

## LEGEND

- PROPERTY LINE FROM GIS
- EXISTING TREE (DECIDUOUS)
- EXISTING TREE (EVERGREEN)
- EXISTING RIPRAP
- EXISTING GRAVEL
- EXISTING SIDEWALK
- EXISTING WATERLINE
- EXISTING ABANDONED WATERLINE
- EXISTING SANITARY SEWER
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- GRAVEL PATHWAY
- RIPRAP
- PROPOSED SANITARY SEWER

## NOTES

1. ALL SEWER WORK SHALL BE IN ACCORDANCE WITH THE CITY OF POCATELLO PUBLIC WORKS DESIGN PRINCIPALS & STANDARDS, LATEST EDITION (DIVISION 600).
2. CONTRACTOR SHALL COORDINATE ALL WORK AND RELOCATION OF ALL UTILITIES WITH THE APPROPRIATE UTILITY COMPANY.
3. VERIFY FINAL LOCATION, SIZE, DEPTH AND MATERIAL OF ALL PROPOSED UTILITIES WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO CONSTRUCTION.
4. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF EXISTING SANITARY SEWER LINE.
5. PROVIDE A MINIMUM OF 4" BEDDING MATERIAL (¾" MINUS) OVER, UNDER AND AROUND ALL SIDES OF CONDUIT PIPE.
6. ADJUST ALL MANHOLE COVERS, METER PIT COVERS, VALVE BOXES, AND OTHER SURFACE UTILITY STRUCTURES TO PROPOSED FINISHED GRADE.

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CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

SANITARY SEWER PLAN AND PROFILE

SHEET #
B5.1

## GENERAL NOTES

1. THE CONTRACTOR SHALL HAVE ON SITE AT ALL TIMES, ONE (1) SIGNED COPY OF THE APPROVED PLANS, ONE (1) COPY OF THE APPROPRIATE STANDARDS AND SPECIFICATIONS, AND A COPY OF ANY AND ALL PERMITS REQUIRED FOR THE PROJECT.
2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES, REGULATIONS AND SAFETY CODES IN THE CONSTRUCTION OF ALL IMPROVEMENTS.
3. CONTRACTOR SHALL HAVE A CURRENT SET OF CONSTRUCTION PLANS STAMPED BY THE ENGINEER WITH AN APPROVAL STAMP BY THE CITY AND DEQ AT THE WORKSITE. IF NO PLANS APPEAR ON THE PROJECT SITE, CONSTRUCTION ACTIVITIES MAY BE HALTED AT THE DISCRETION OF THE OWNER.
4. THE CONTRACTOR SHALL KEEP A RECORD OF ANY DISCREPANCIES OR CHANGES IN THE LOCATIONS OF ANY UTILITIES SHOWN OR ENCOUNTERED DURING CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER OR OWNER'S REPRESENTATIVE.
5. IF THE CONTRACTOR DISCOVERS ANY DISCREPANCIES BETWEEN THE PLANS AND EXISTING CONDITIONS ENCOUNTERED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER AND DESIGN ENGINEER.
6. ALL CONSTRUCTION SHALL CONFORM TO THE 2017 IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPWC), THE CITY OF POCATELLO REVISIONS TO ISPWC AND ALL OTHER LOCAL, STATE, AND FEDERAL AGENCIES WHICH ARE APPLICABLE UNLESS OTHERWISE SHOWN.
7. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTORS SHALL NOTIFY THE UTILITY COMPANIES IN ADVANCE OF THEIR CONSTRUCTION OPERATION TO ENABLE THEM TO FIELD LOCATE THEIR UTILITIES.
8. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES AND REPORT FINDINGS TO THE OWNER PRIOR TO PROCEEDING WITH RELATED CONSTRUCTION. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SATISFY THEM THAT ALL EXISTING UTILITIES, WHETHER SHOWN ON THESE PLANS OR NOT, HAVE BEEN PROPERLY LOCATED. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THE PROTECTION OF UTILITIES AFFECTED BY THE PROSECUTION OF THIS CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE AFFECTED UTILITY COMPANY AND THE COORDINATION OF ALL WORK IN THE PROXIMITY OF THE UTILITIES.
9. ALL CONNECTIONS TO EXISTING UTILITIES SHALL BE DONE IN A WAY SO AS TO MINIMIZE DISRUPTION IN SERVICE TO EXISTING USERS
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL EXISTING ROAD AND DRIVEWAY SURFACES AND RELATED STRUCTURES TO ORIGINAL CONDITIONS (OR BETTER) AND GRADES, UNLESS DESIGNATED OTHERWISE ON THE DRAWINGS. THE OWNER OR OWNER'S REPRESENTATIVE AND THE CONTRACTOR SHALL TOGETHER COORDINATE THE DOCUMENTATION OF EXISTING GRADES AND OTHER INFORMATION PRIOR TO ALL CONSTRUCTION ACTIVITIES.
11. THE CONTRACTOR SHALL CONTACT "IDAHO DIG LINE" (PHONE 1–800–342–1585) FOR THE MARKING OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO PROTECT ALL UTILITY LINES SHOWN AND OTHER UTILITY LINES OTHERWISE LOCATED.
12. BEFORE WORK BEGINS, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND MUST NOTIFY THE REQUIRED PARTIES AT LEAST 24 HOURS IN ADVANCE OF COMMENCING CONSTRUCTION ACTIVITIES.
13. ALL SURPLUS MATERIAL, TOOLS, AND TEMPORARY STRUCTURES, FURNISHED BY THE CONTRACTOR, SHALL BE REMOVED FROM THE PROJECT SITE BY THE CONTRACTOR. ALL DEBRIS AND RUBBISH CAUSED BY THE OPERATIONS OF THE CONTRACTOR SHALL BE REMOVED, AND THE AREA OCCUPIED DURING CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ITS ORIGINAL CONDITION, WITHIN 48 HOURS OF PROJECT COMPLETION.
14. SURVEY LINE AND GRADE CONTROL HUBS FOR ALL PUBLIC WORKS CONSTRUCTION SHALL BE PROVIDED BY AN ENGINEER OR SURVEYOR CAPABLE OF PERFORMING SUCH WORK IN A MANNER CONSISTENT WITH ACCEPTED PRACTICES. NORMAL STATIONING IS CONSIDERED AT 50–FT INTERVALS AND AT CHANGES IN DIRECTION OR GRADE.
15. ALL SUB–GRADE AND TRENCH BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY, AS DETERMINED BY ASTM D698. EXISTING IN PLACE SOILS THAT ARE TO BE USED FOR SUB–GRADE SHALL BE SCARIFIED TO A DEPTH OF 6" (INCHES) AND THEN SHALL BE RECOMPACTED TO THE ABOVE REFERENCED DENSITY. ALL EXISTING VEGETATION AND TOPSOIL MUST BE STRIPPED PRIOR TO SUB–GRADE SCARIFICATION AND RECOMPACTION.THE CONTRACTOR SHALL STRIP TOPSOIL IN AREAS OF NEW CONSTRUCTION AND STOCKPILE FOR RE–USE.
16. THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE LIMIT OF WORK. THE CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS TO PROTECT ALL NATURAL LANDSCAPING, SITE FEATURES, AND EXISTING ROADWAYS OUTSIDE OF THE LIMITS OF WORK AS SHOWN ON THE DRAWINGS AND SHALL REPAIR AND REPLACE TO ORIGINAL CONDITION OR BETTER OR OTHERWISE MAKE GOOD AS DIRECTED BY THE OWNER OR OWNER'S DESIGNATED REPRESENTATIVE ANY SUCH DAMAGE SO CAUSED.
17. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES, REGULATIONS AND SAFETY CODES IN THE CONSTRUCTION OF ALL IMPROVEMENTS.
18. IF THE CONTRACTOR DISCOVERS ANY DISCREPANCIES BETWEEN THE PLANS AND EXISTING CONDITIONS ENCOUNTERED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER AND DESIGN ENGINEER.
19. ALL CHANGES REQUIRE APPROVAL BY THE PROJECT ENGINEER AND THE CITY ENGINEER. THE ENGINEER TAKES NO RESPONSIBILITY FOR ANY DEVIATIONS FROM THESE PLANS UNLESS AUTHORIZED, IN WRITING, BY THE ENGINEER.
20. ALL WATER AND SEWER MAINS SHALL BE INSTALLED AND CONSTRUCTED TO HAVE A MINIMUM OF 3 HORIZONTAL FEET OF CLEARANCE FROM LIP OF GUTTER.
21. TRAFFIC CONTROL & SIGNAGE FOR SUCH SHALL BE INCIDENTAL TO THE CONTRACT AND BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE PROJECT ENGINEER PRIOR TO COMMENCING WORK.
22. ALL PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNAGE SHALL BE IN ACCORDANCE WITH THE MANUAL ON TRAFFIC CONTROL DEVICES (MUTCD), CURRENT EDITION.

## SANITARY SEWER NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2017 IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPWC), THE UNIFORM PLUMBING CODE, THE CITY OF POCATELLO REVISIONS TO ISPWC AND ALL OTHER APPLICABLE AGENCIES UNLESS OTHERWISE SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THESE STANDARDS.
2. SEWER MAINS ONLY TO BE LAID IN TRENCHES.
3. ALL LATERALS TO BE LAID AT NOT LESS THAN THE MINIMUM SLOPES AS SHOWN IN THE AFOREMENTIONED STANDARDS.
4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER THESE PLANS. ANY ADDITIONS, DELETIONS OR CHANGES SHALL FIRST MEET WITH THE WRITTEN APPROVAL OF THE CONTROLLING AGENCIES.
5. ALL TESTING AND INSPECTION SHALL BE IN ACCORDANCE WITH STANDARDS.
6. ALL SEWER MAINS AND FITTINGS TO BE CONSTRUCTED OF ASTM 3034–89, SDR 35 PVC PIPE.
7. POTABLE AND NON–POTABLE MAINLINES SEPARATIONS SHALL CONFORM TO IDAPA RULES AND REGULATIONS AS NOTED.

## EROSION CONTROL / RE-VEGETATION NOTES

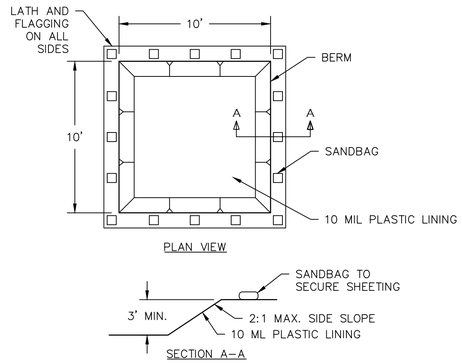
1. TO THE EXTENT PRACTICABLE, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO GRADING ACTIVITIES. AT ALL TIMES DURING PROJECT CONSTRUCTION, ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO PREVENT ACCELERATED EROSION ON THE SITE AND ANY ADJACENT PROPERTIES. KEEP LAND DISTURBANCE TO A MINIMUM. PLAN THE PHASES OF CONSTRUCTION SO THAT ONLY THE AREAS ACTIVELY BEING DEVELOPED ARE EXPOSED. ALL OTHER AREAS SHOULD HAVE NATURAL VEGETATION PRESERVED, HAVE GOOD TEMPORARY COVER, OR PERMANENT VEGETATION ESTABLISHED.
2. IF REQUIRED, IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A NPDES PERMIT, INCLUDING PREPARING A SWPPP AND FILING A NOTICE OF INTENT (NOI) WITH THE EPA, AT LEAST 14 DAYS PRIOR TO COMMENCING ANY LAND DISTURBING ACTIVITIES.
3. PROVIDE SILT FENCE OR STRAW WATTLES AT THE TOE OF ALL FILL SLOPES, AT THE INLET OF ALL CULVERTS AND AS REQUIRED TO MINIMIZE EROSION AND SEDIMENT TRANSFER TO UNDISTURBED AREAS.
4. ALL TOPSOIL, WHERE PHYSICALLY PRACTICABLE, SHALL BE SALVAGED AND NO TOPSOIL SHALL BE REMOVED FROM THE SITE. TOPSOIL AND OVERBURDEN SHALL BE SEGREGATED AND STOCKPILED SEPARATELY. RUNOFF FROM STOCKPILED AREA SHALL BE CONTROLLED TO PREVENT EROSION AND RESULTANT SEDIMENTATION.
5. TOPSOIL SHALL BE REDISTRIBUTED WITHIN THE GRADED AREA AFTER ROUGH GRADING TO PROVIDE A SUITABLE BASE FOR AREAS WHICH WILL BE SEEDED AND PLANTED.
6. PERMANENT VEGETATIVE COVER SHALL BE APPLIED TO DISTURBED AREAS WITHIN 14 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY VEGETATIVE COVER SHALL BE APPLIED WITHIN 14 DAYS TO DISTURBED AREAS WHICH MAY NOT BE AT FINAL GRADE, BUT WILL BE LEFT DORMANT FOR LONGER THAN 60 DAYS.
   - TEMPORARY VEGETATIVE COVER SHALL CONSIST OF ANNUAL RYEGRASS AT 40 LBS PLS/ACRE. SEEDED AREAS SHALL BE HYDROMULCHED WITH A WOOD FIBER AND TACKIFIER AT 1 TON/ACRE.
   - PERMANENT VEGETATIVE COVER SHALL BE A BLEND OF DROUGHT TOLERANT NATIVE GRASSES OR OTHER PLANT MATERIALS INDICATED ON AN APPROVED LANDSCAPE PLAN.
6. ALL SEEDED AND PLANTED AREAS SHALL BE MAINTAINED AS NECESSARY BY WATERING AND WEED CONTROL UNTIL ESTABLISHED.
7. ALL DISTURBED AREAS SHALL RECEIVE PERMANENT VEGETATIVE COVER AS DESCRIBED ABOVE. ALL CUT OR FILL SLOPES WITH 3 TO 1 OR GREATER SLOPE SHALL BE COVERED WITH EROSION CONTROL MATTING OR HYDROMULCHED WITH A WOOD FIBER AND TACKIFIER AT 1 TON/ACRE.
8. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED BY THE OWNER, OR OWNER APPROVED AGENT, AFTER ALL STORM EVENTS. ANY EROSION CONTROL MEASURES WHICH ARE DAMAGED PRIOR TO RE–ESTABLISHMENT OF VEGETATIVE COVER SHALL BE REPLACED IMMEDIATELY. THE REPAIR OF ANY COMPONENT OF THE SYSTEM SHALL BE MADE AS SOON AS POSSIBLE TO PREVENT ANY POTENTIAL POLLUTANTS, INCLUDING SILT, FROM EXITING THE DISTURBED AREA.

   MAINTENANCE SCHEDULE DURING CONSTRUCTION:

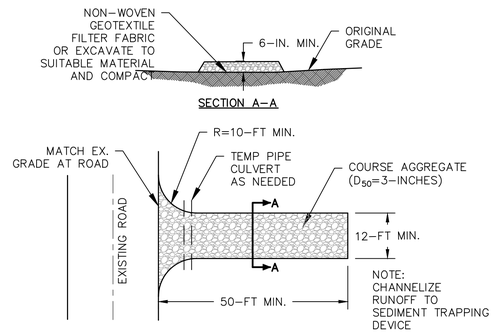
   SILT FENCE & WATTLES

   | | |
   |---|---|
   | INSPECTION: | WEEKLY & AFTER 0.5 INCHES OF RAINFALL |
   | MAINTENANCE THRESHOLDS: | SYSTEM INTEGRITY IS COMPROMISED |
   | MAINTENANCE ACTION: | CLEAN OUT SEDIMENT, REPLACE IF DAMAGED |

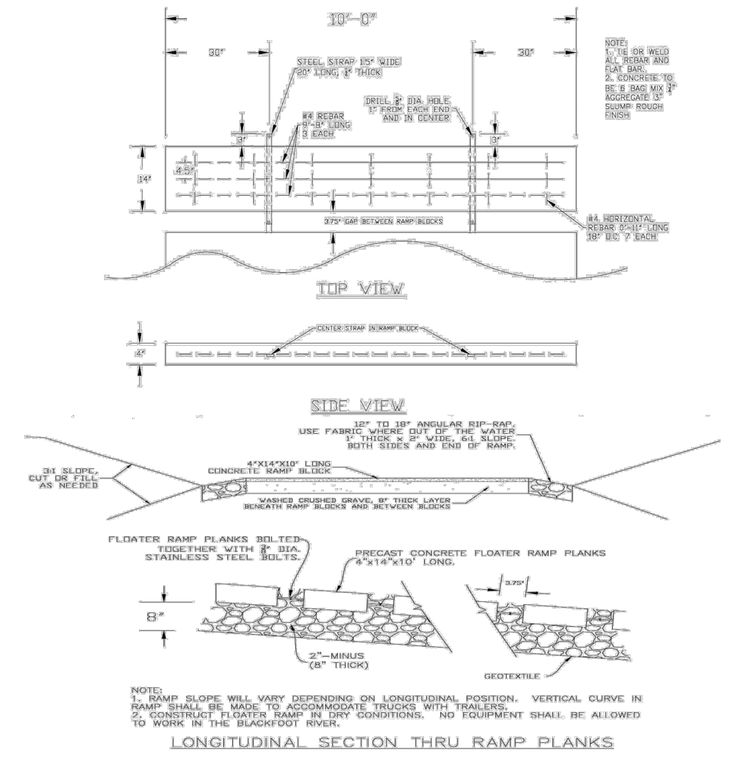
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY EROSION CONTROL DEVICES AFTER THE ESTABLISHMENT OF FULL VEGETATION.



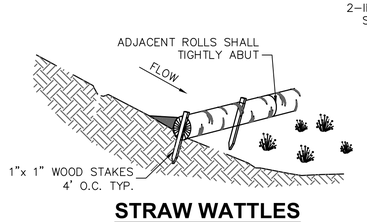

**CONCRETE WASHOUT**
NOT TO SCALE



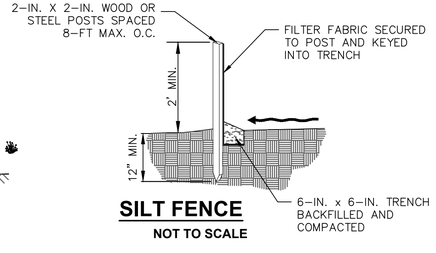

**STABILIZED CONSTRUCTION ENTRANCE**
NOT TO SCALE




**CONCRETE RAMP- RIVER ACCESS**
NOT TO SCALE




**STRAW WATTLES**
NOT TO SCALE




**SILT FENCE**
NOT TO SCALE

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DRAWING IS TO SCALE IF 1" BAR MEASURES
1" = FULL SCALE
½" = HALF SCALE

FILE :
PROJ. #: 19010

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 7/20/2026
REVISIONS:

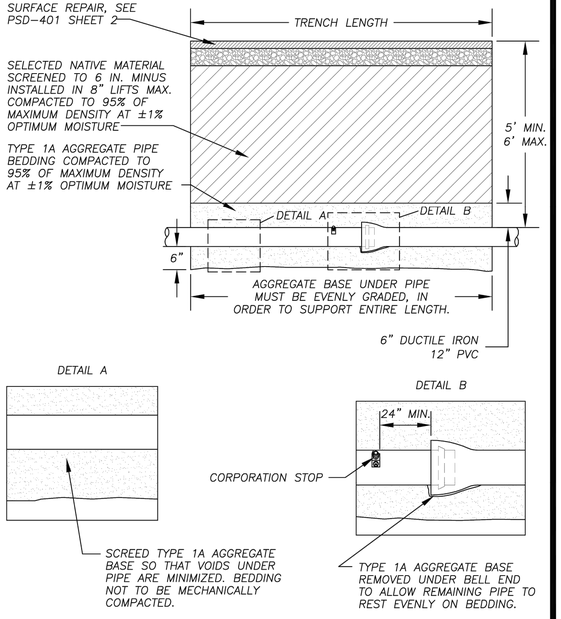
95% DESIGN IMPROVEMENT PLANS - NOT FOR CONSTRUCTION

PROJECT NAME
CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

NOTES AND EROSION CONTROL DETAILS

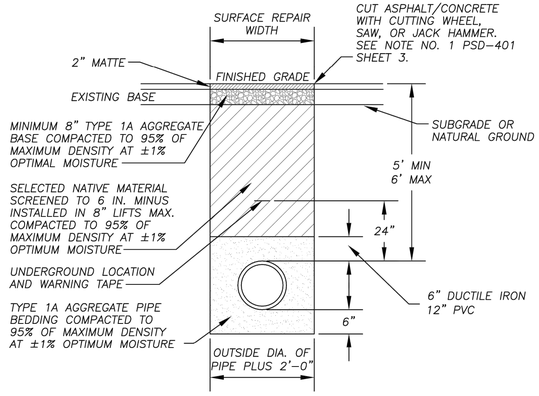
SHEET #
B6.1

SEE PSD-401 SHEET 2 & 3




| CITY OF POCATELLO WATER UTILITIES | TRENCH SECTION BACKFILL | | DETAIL PSD-401 |
|---|---|---|---|
| | ISSUE DATE: 4/1/1993 | DRAWN BY: R.B.J. | |
| | REVISED DATE: 3/4/2015 | SCALE: NOT TO SCALE | SHEET 1 OF 3 |

SEE PSD-401 SHEET 1 & 3




| CITY OF POCATELLO WATER UTILITIES | TRENCH SECTION BACKFILL | | DETAIL PSD-401 |
|---|---|---|---|
| | ISSUE DATE: 4/1/1993 | DRAWN BY: R.B.J. | |
| | REVISED DATE: 3/4/2015 | SCALE: NOT TO SCALE | SHEET 2 OF 3 |

SEE PSD-401 SHEET 1 & 2

TYPE 1A AGGREGATE MATERIAL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

| SIEVE SIZES: | PERCENTAGE BY DRY WEIGHT PASSING SIEVE |
|---|---|
| 1/2 INCH | 100% |
| 3/8 INCH | 85-100% |
| NO. 4 | 55-75% |
| NO. 8 | 30-60% |
| NO. 30 | 0-15% |
| NO. 200 | 0-10% |

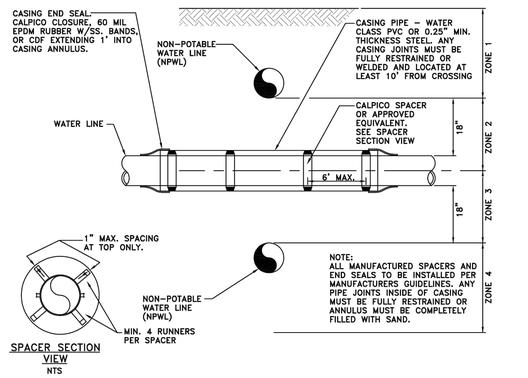
| PROJECT CONTROL TEST | TEST METHOD | REQUIREMENTS |
|---|---|---|
| SIEVE ANALYSIS | AASHTO T 27 | ABOVE |
| SAMPLING AGGREGATE | ASTM D 75 | --- |
| FRACTURED FACES | NEV. T 230 | 50% MINIMUM |
| PLASTICITY INDEX | ASTM D 434 | TABLE 1 |
| LIQUID LIMIT | ASTM D 423 | 35% MAXIMUM |
| RESISTANCE (R VALUE) | ASTM D 2844 | 78% MINIMUM |
| PERCENTAGE OF WEAR (500 REV.) | ASTM C 131 | 45% MAXIMUM |

SELECT NATIVE MATERIAL SCREENED TO 6 IN. MINUS, SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

| SIEVE SIZES: | PERCENTAGE BY DRY WEIGHT PASSING SIEVE |
|---|---|
| 6 INCH | 100% |
| NO. 4 | 45-70% |
| NO. 200 | 6-14% |

NOTE NO. 1: ASPHALT CUT SHALL BE LOCATED ON SHOULDER OF ROADWAY, CENTER LINE OF ROADWAY, OR BETWEEN TRAFFIC LANES, BUT NOT WITHIN NORMAL WHEEL PATH.

| CITY OF POCATELLO WATER UTILITIES | AGGREGATE MATERIAL REQUIREMENTS | | DETAIL PSD-401 |
|---|---|---|---|
| | ISSUE DATE: 4/1/1993 | DRAWN BY: R.B.J. | |
| | REVISED DATE: 12/18/2013 | SCALE: NOT TO SCALE | SHEET 3 OF 3 |




SPACER SECTION VIEW
NTS

VERTICAL SEPARATION REQUIREMENTS
NTS

ZONE 1: A) WATER AND NPWL MUST BE SEPARATED BY AT LEAST 18 INCHES.

AND B) ONE FULL, UNCUT LENGTH OF WATER PIPE MUST BE CENTERED OVER THE CROSSING SO THAT THE JOINTS ARE AS FAR AS POSSIBLE FROM THE NPWL.

ZONE 2: A) ONE FULL, UNCUT LENGTH OF WATER PIPE MUST BE CENTERED OVER THE CROSSING SO THAT THE JOINTS ARE AS FAR AS POSSIBLE FROM THE NPWL.

AND EITHER B) NPWL MAIN MUST BE CONSTRUCTED TO WATER MAIN STANDARDS AND PRESSURE TESTED FOR WATER TIGHTNESS FOR A HORIZONTAL DISTANCE OF 10 FEET ON BOTH SIDES OF CROSSING.

OR C) EITHER THE NPWL OR WATER MAIN OR BOTH MUST BE SLEEVED AS SHOWN ABOVE FOR A HORIZONTAL DISTANCE OF 10 FEET ON BOTH SIDES OF THE CROSSING.

ZONE 3: SAME REQUIREMENTS AS ZONE 2 EXCEPT THE NPWL MUST ALSO BE SUPPORTED ABOVE THE CROSSING TO PREVENT SETTLING.

ZONE 4: SAME REQUIREMENTS AS ZONE 1 EXCEPT THE WATER PIPE MUST ALSO BE SUPPORTED ABOVE THE CROSSING TO PREVENT SETTLING.

| CITY OF POCATELLO WATER UTILITIES | WATER & SEWER CROSSING VERTICAL SEPERATION | | DETAIL PSD-423 |
|---|---|---|---|
| | ISSUE DATE: 6/7/2004 | DRAWN BY: STAFF | |
| | REVISED DATE: 12/18/2013 | SCALE: NOT TO SCALE | SHEET 1 OF 2 |

NOTE:

SHAPE TROUGH WITH SMOOTH RADII TO PROMOTE SMOOTH FLOW AT PIPE ANGLE JOINTS.

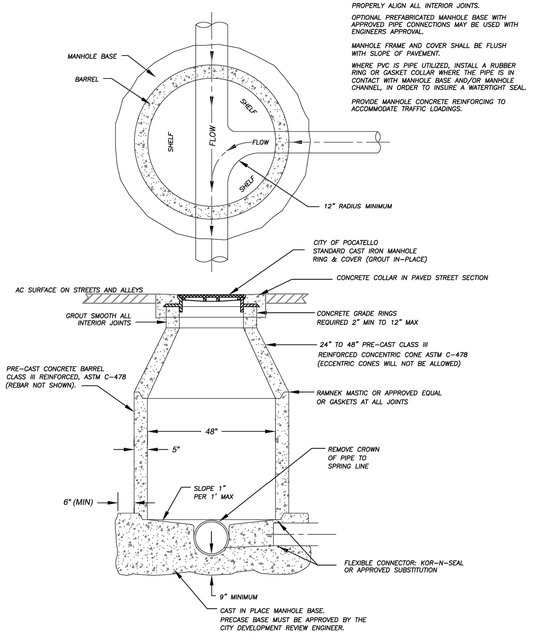
PROPERLY ALIGN ALL INTERIOR JOINTS.

OPTIONAL PREFABRICATED MANHOLE BASE WITH APPROVED PIPE CONNECTIONS MAY BE USED WITH ENGINEERS APPROVAL.

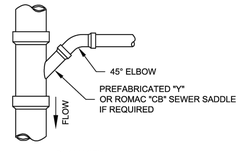
MANHOLE FRAME AND COVER SHALL BE FLUSH WITH SLOPE OF PAVEMENT.

WHERE PVC IS PIPE UTILIZED, INSTALL A RUBBER RING OR GASKET COLLAR WHERE THE PIPE IS IN CONTACT WITH MANHOLE BASE AND/OR MANHOLE CHANNEL, IN ORDER TO INSURE A WATERTIGHT SEAL.

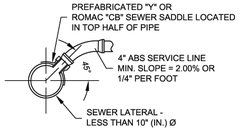
PROVIDE MANHOLE CONCRETE REINFORCING TO ACCOMMODATE TRAFFIC LOADINGS.




| CITY OF POCATELLO Standard Revisions | STANDARD MANHOLE FOR 8" to 24" PIPE | | DETAIL PSD-501 |
|---|---|---|---|
| | ISSUE DATE: 01/16/1998 | DRAWN BY: STAFF | |
| | REVISED DATE: 1/28/2009 | SCALE: NOT TO SCALE | SHEET 1 OF 1 |



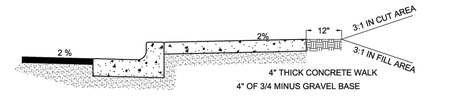

PLAN VIEW

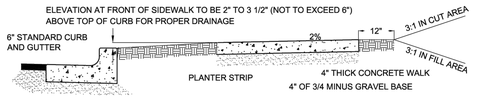



PROFILE VIEW

*NOTES:*
*1. ALL TAPS TO EXISTING SEWER SHALL BE LOCATED IN THE UPPER HALF OF THE PIPE.*
*2. A ROMAC "CB" SEWER SADDLE SHALL BE REQUIRED FOR ALL NEW TAPS TO EXISTING SEWER LATERALS.*
*3. TAPPING SADDLES ARE ONLY ALLOWED WITH EXISTING SEWER MAINS. ANY NEW MAINS & SERVICES WILL REQUIRE A PREFABRICATED "Y".*

| CITY OF POCATELLO Standard Revisions | STANDARD SEWER SERVICE CONNECTION | | DETAIL PSD-511 |
|---|---|---|---|
| | ISSUE DATE: 01/07/2014 | DRAWN BY: JJM | |
| | REVISED DATE: - | SCALE: NOT TO SCALE | SHEET 1 OF 1 |



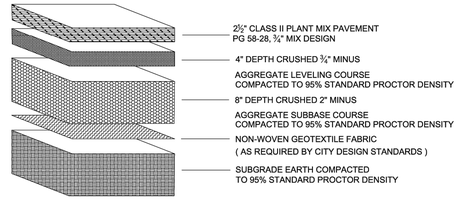

NOTES:

1. Location, grade & width of sidewalk to be established or approved by the Engineer
2. Gravel base under concrete to be compacted to exceed 95% of standard density.
3. Thickness of concrete to be 6" across driveways.
4. Slope sidewalk toward the street not to exceed 1/4" per foot (0.02 FL/FL.) unless otherwise specified by the Engineer
5. Score at intervals to match width of walk not to exceed 5 feet spacing.
6. Materials and construction according to Division 700 and as follows:
   Residential.....4' Min. Width
   Collector and arterial.....5' Min. Width
   Business district.....As specified by Engineer
7. Square back curb is the only curb allowed by the City of Pocatello
8. If curb and sidewalk do not abut, sidewalk grade shall not exceed top of curb elevation by more than 6 inches.

| CITY OF POCATELLO Standard Revsions | Concrete Sidewalk | | DETAIL PSD-709 |
|---|---|---|---|
| | ISSUE DATE: 02/22/2001 | DRAWN BY: STAFF | |
| | REVISED DATE: 08/01/2004 | SCALE: NOT TO SCALE | SHEET 1 OF 1 |

## CITY OF POCATELLO

### STREET SPECIFICATIONS FOR RESIDENTIAL AREAS




CLASS II PLANT MIX
THREE SEPARATE STOCKPILES
TWO COARSE AND ONE FINE
(¾" NOMINAL MAXIMUM SIZE)

3/4" MINUS GRADATION
AGGREGATE LEVELING COURSE

| SIEVE | % PASSING |
|---|---|
| 1" | 100 |
| 3/4"" | 90-100 |
| #4 | 40-65 |
| #8 | 30-50 |
| #200 | 3-9 |

2" MINUS GRADATION
AGGREGATE SUBBASE

| SIEVE | % PASSING |
|---|---|
| 2" | 90-100 |
| 1" | 55-83 |
| #4 | 30-60 |
| #30 | 10-25 |
| #200 | 0-8 |

| CITY OF POCATELLO Standard Revisions | Street Specifications | | DETAIL PSD-800 |
|---|---|---|---|
| | ISSUE DATE: 02/22/2001 | DRAWN BY: STAFF | |
| | REVISED DATE: 08/01/2004 | SCALE: NOT TO SCALE | SHEET 1 OF 1 |

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DRAWING IS TO SCALE IF 11" x 17" SHEET IS: 1" = FULL SCALE, 2" = HALF SCALE

FILE :

PROJ. #: 19010

PRELIMINARY NOT FOR CONSTRUCTION

95% DESIGN IMPROVEMENT PLANS - NOT FOR CONSTRUCTION

DATE: 7/20/2026

REVISIONS:

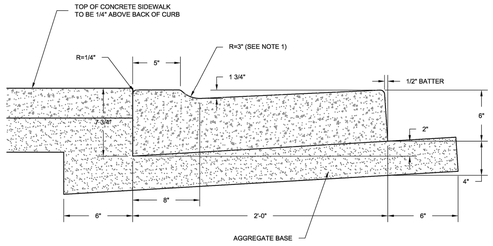
PROJECT NAME

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

## CITY OF POCATELLO STANDARD DETAILS

SHEET #

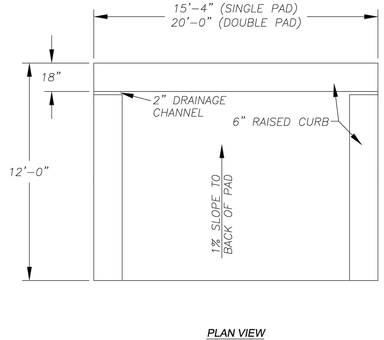
B6.2



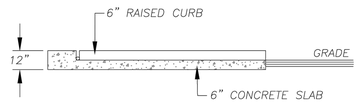

NOTES:
1. GRADE AND ALIGNMENT TO BE ESTABLISHED OR APPROVED BY THE ENGINEER AND THE CITY OF POCATELLO ENGINEERING DEPARTMENT.
2. BASE: FOUR (4) INCH COMPACTED DEPTH OF THREE QUARTER (3/4) INCH MINUS CRUSHED AGGREGATE BASE MATERIAL, PLACE AS SPECIFIED AND PAID UNDER SECTION 802 OF THE ISPWC; COMPACTED TO EXCEED 95% OF STANDARD PROCTOR; A MINIMUM WIDTH OF THREE (3) FEET SIX (6) INCHES TO GRADE, PRIOR TO SETTING CURB FORMS.
3. HALF (1/2) INCH PREFORMED EXPANSION JOINT MATERIAL (AASHTO M213) AT TERMINAL POINTS OF RADII.
4. CONTINUOUS PLACEMENT PREFERRED. SCORE INTERVALS EIGHT (8) FEET MAXIMUM SPACING.
5. MATERIALS AND CONSTRUCTION IN COMPLIANCE WITH CITY OF POCATELLO DESIGN PRINCIPLES AND STANDARDS.
6. BACKFILL AS PER ISPWC SECTION 706.
7. SECURE RIGHT-OF-WAY ACCESS/ALTERATION BEFORE BEGINNING CONSTRUCTION IN PUBLIC RIGHT-OF-WAY.
8. FOR PEDESTRIAN RAMPS, CONSTRUCT TRANSITION PER A.D.A. REQUIREMENTS IN LIEU OF 3" RADIUS.

CITY OF POCATELLO
Standard Revsions

| Curb Cut Detail | | DETAIL PSD-706 |
|---|---|---|
| ISSUE DATE: 07/19/2013 | DRAWN BY: JJM | |
| REVISED DATE: - | SCALE: NOT TO SCALE | SHEET 1 OF 1 |



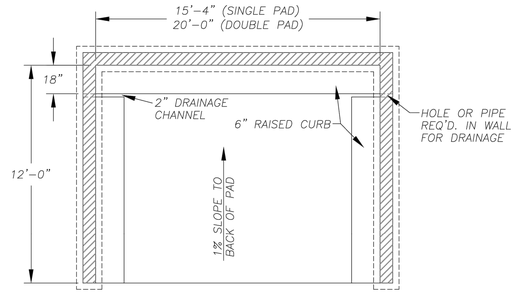

PLAN VIEW



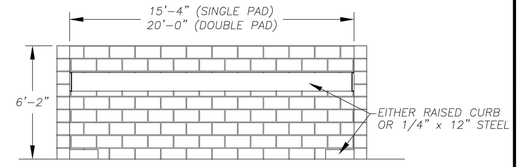

SECTION VIEW

CITY OF POCATELLO
Standard Revsions

| Concrete Dumpster Pad | | DETAIL PSD-717 |
|---|---|---|
| ISSUE DATE: 02/22/2016 | DRAWN BY: JJM | |
| REVISED DATE: - | SCALE: NOT TO SCALE | SHEET 1 OF 1 |



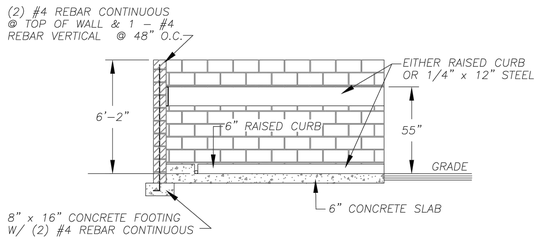

PLAN VIEW




ELEVATION VIEW

CITY OF POCATELLO
Standard Revsions

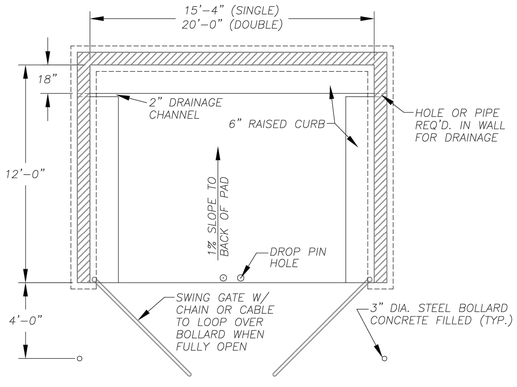
| Concrete Dumpster Pad w/Enclosure | | DETAIL PSD-717A |
|---|---|---|
| ISSUE DATE: 07/19/2013 | DRAWN BY: JJM | |
| REVISED DATE: - | SCALE: NOT TO SCALE | SHEET 1 OF 2 |



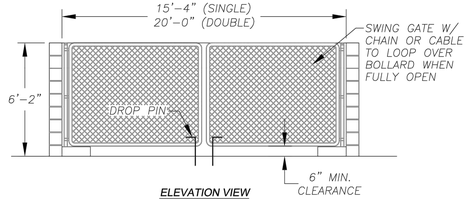

SECTION VIEW

CITY OF POCATELLO
Standard Revsions

| Concrete Dumpster Pad w/Enclosure | | DETAIL PSD-717A |
|---|---|---|
| ISSUE DATE: 07/19/2013 | DRAWN BY: JJM | |
| REVISED DATE: - | SCALE: NOT TO SCALE | SHEET 2 OF 2 |



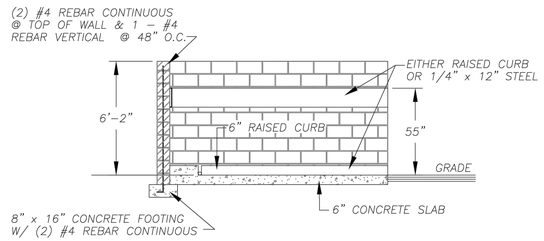

PLAN VIEW



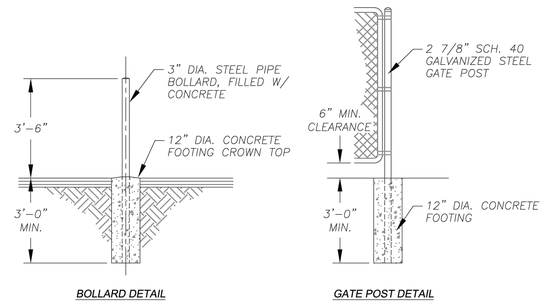

ELEVATION VIEW

CITY OF POCATELLO
Standard Revsions

| Concrete Dumpster Pad w/Enclosure & Gate | | DETAIL PSD-717B |
|---|---|---|
| ISSUE DATE: 07/19/2013 | DRAWN BY: JJM | |
| REVISED DATE: - | SCALE: NOT TO SCALE | SHEET 1 OF 2 |




SECTION VIEW




BOLLARD DETAIL GATE POST DETAIL

CITY OF POCATELLO
Standard Revsions

| Concrete Dumpster Pad w/Enclosure & Gate | | DETAIL PSD-717B |
|---|---|---|
| ISSUE DATE: 07/19/2013 | DRAWN BY: JJM | |
| REVISED DATE: - | SCALE: NOT TO SCALE | SHEET 2 OF 2 |

HARMONY
DESIGN & ENGINEERING
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JEO CONSULTING GROUP

STRATA

DRAWING IS TO SCALE IF BAR MEASURES:
1" = FULL SCALE
1/2" = HALF SCALE

FILE :

PROJ. #: 19010

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 7/20/2026

REVISIONS:

95% DESIGN IMPROVEMENT PLANS - NOT FOR CONSTRUCTION

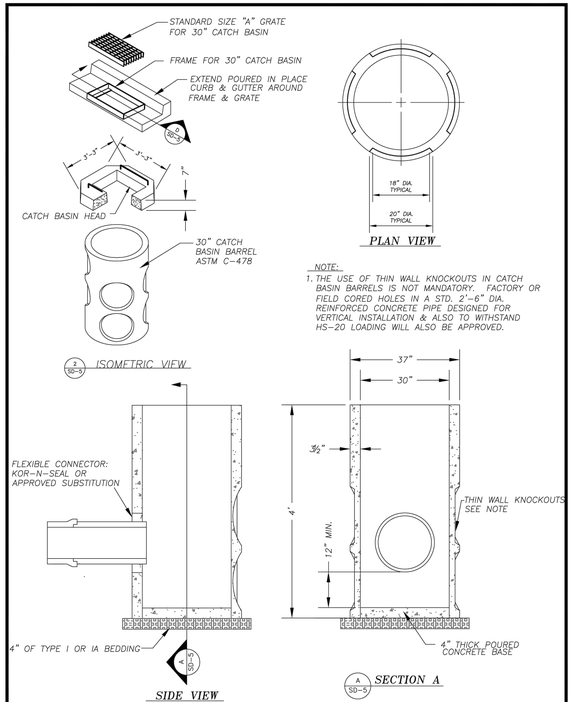
PROJECT NAME

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

## CITY OF POCATELLO STANDARD DETAILS

SHEET #

B6.3

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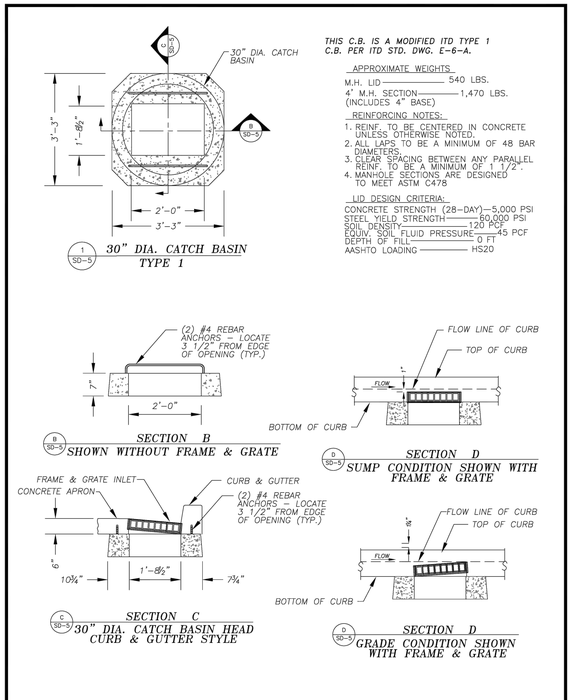
| CITY OF POCATELLO Standard Revisions | 30" CATCH BASIN | | DETAIL PSD-601 |
| ISSUE DATE: 04/31/2001 | DRAWN BY: STAFF | | |
| REVISED DATE: 02/12/2004 | SCALE: NOT TO SCALE | | SHEET 1 OF 3 |

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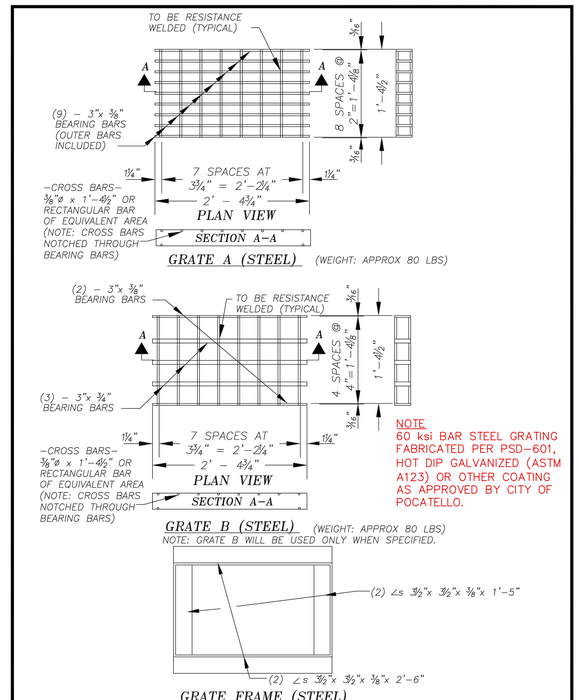
|---|---|---|---|
| CITY OF POCATELLO Standard Revisions | 30" CATCH BASIN | | DETAIL PSD-601 |
| ISSUE DATE: 04/31/2001 | DRAWN BY: STAFF | | |
| REVISED DATE: 02/12/2004 | SCALE: NOT TO SCALE | | SHEET 2 OF 3 |

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|---|---|---|---|
| CITY OF POCATELLO Standard Revisions | 30"CATCH BASIN | | DETAIL PSD-601 |
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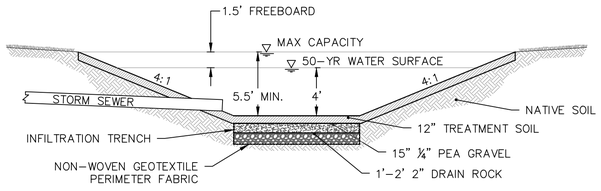
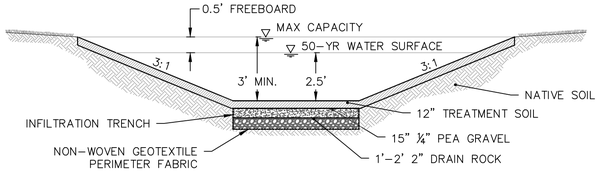
| REVISED DATE: 02/12/2004 | SCALE: NOT TO SCALE | | SHEET 3 OF 3 |



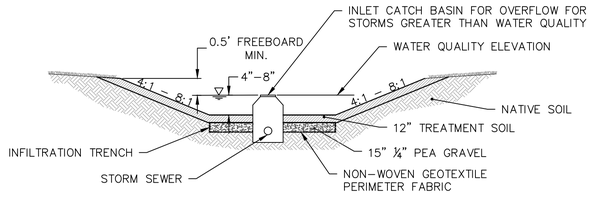

**RAINEY PARK DETENTION POND SECTION**

NOT TO SCALE




**CENTENNIAL PARK DETENTION POND SECTION**

NOT TO SCALE




**BIORETENTION BASIN SECTION**

NOT TO SCALE

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JEO CONSULTING GROUP
STRATA

DRAWING IS TO SCALE IF BAR MEASURES 1" = FULL SCALE; 2" = HALF SCALE

FILE :

PROJ. #: 19010

DATE: 7/20/2026

REVISIONS:

100% DESIGN IMPROVEMENT PLANS

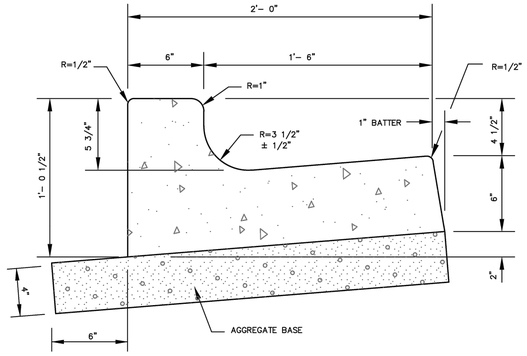
PROJECT NAME

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

## CITY OF POCATELLO STANDARD DETAILS

SHEET #

**B6.4**




## NOTES:

(A) GRADE AND ALIGNMENT TO BE ESTABLISHED OR APPROVED BY THE ENGINEER AND THE PUBLIC AGENCY HAVING JURISDICTION.

(B) BASE: 4-INCH COMPACTED DEPTH OF 3/4-INCH MINUS CRUSHED AGGREGATE BASE MATERIAL, PLACE AS SPECIFIED AND PAID UNDER SECTION-802 ISPWC; COMPACTED TO EXCEED 95% OF STANDARD PROCTOR.

(C) 1/2-INCH PREFORMED EXPANSION JOINT MATERIAL (AASHTO M 213) AT TERMINAL POINTS OF RADII.

(D) CONTINUOUS PLACEMENT PREFERRED, SCORE INTERVALS AT 10-FEET MAXIMUM SPACING (OR CONSISTENT WITH 2X SIDEWALK WIDTH FOR SCORE SPACING).

(E) MATERIALS AND CONSTRUCTION IN COMPLIANCE WITH ISPWC SPECIFICATIONS.

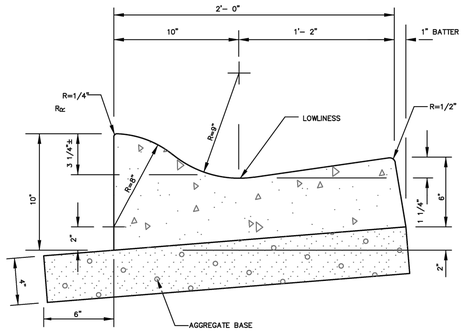
(F) BACKFILL AS PER SECTION-706.

(G) SECURE RIGHT-OF-WAY PERMIT BEFORE BEGINNING CONSTRUCTION IN PUBLIC RIGHT-OF-WAY.

(H) STANDARD CURB TO BE USED ON:
1. COLLECTOR AND ARTERIAL STREETS, UNLESS OTHERWISE INDICATED.
2. ALL RADII PLUS 5-FEET EACH END WITH 2-FEET TRANSITION TO ROLL CURB.
3. TO MATCH EXISTING CURBS.
4. SEE SD-709 FOR CURB CONSTRUCTION WHEN SIDEWALK IS INCLUDED.

2020

| IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION | 6" VERTICAL CURB AND GUTTER | STANDARD DRAWING NO. SD-701 |
|---|---|---|




## NOTES:

(A) GRADE AND ALIGNMENT TO BE ESTABLISHED OR APPROVED BY THE ENGINEER AND THE PUBLIC AGENCY HAVING JURISDICTION.

(B) BASE: 4-INCH COMPACTED DEPTH OF 3/4-INCH MINUS CRUSHED AGGREGATE BASE MATERIAL, PLACED AS SPECIFIED AND PAID UNDER SECTION-802 ISPWC; COMPACTED TO EXCEED 95% OF STANDARD PROCTOR.

(C) 1/2-INCH PREFORMED EXPANSION JOINT MATERIAL (AASHTO M 213) AT TERMINAL POINTS OF RADII.

(D) CONTINUOUS PLACEMENT PREFERRED, SCORE INTERVALS AT 10-FEET MAXIMUM SPACING (OR CONSISTENT WITH 2x SIDEWALK WIDTH FOR SCORE SPACING.)

(E) MATERIALS AND CONSTRUCTION IN COMPLIANCE WITH ISPWC SPECIFICATIONS.

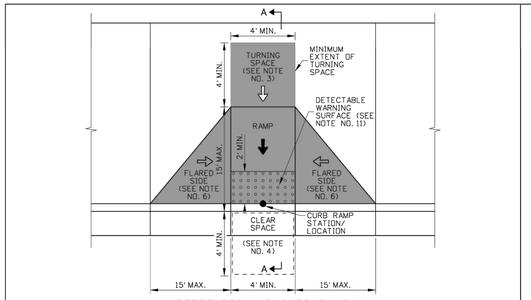
(F) BACKFILL AS PER ISPWC SECTION-706.

(G) SECURE RIGHT-OF-WAY PERMIT BEFORE BEGINNING CONSTRUCTION IN PUBLIC RIGHT-OF-WAY.

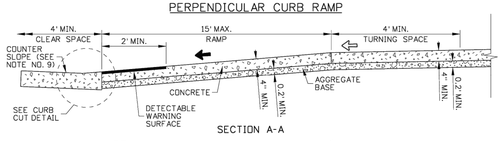
(H) USE ROLLED CURB IN RESIDENTIAL AREAS. WHEN LOCAL JURISDICTION REQUIRES VERTICAL CURB AT INTERSECTIONS VERTICAL CURB LENGTH TO BE FULL RADIUS PLUS 5 FEET AT EACH END. TRANSITION LENGTH FROM ROLLED CURB TO VERTICAL CURB 2 FEET.

2020

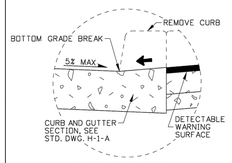
| IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION | 3" ROLLED CURB AND GUTTER | STANDARD DRAWING NO. SD-702 |
|---|---|---|



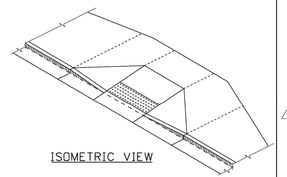

PERPENDICULAR CURB RAMP




SECTION A-A



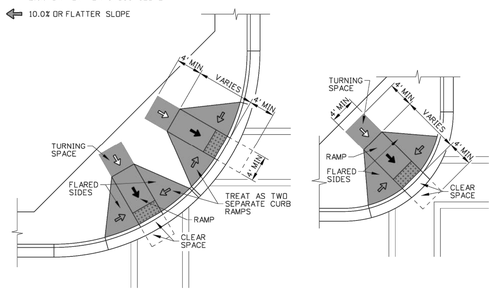

CURB CUT DETAIL

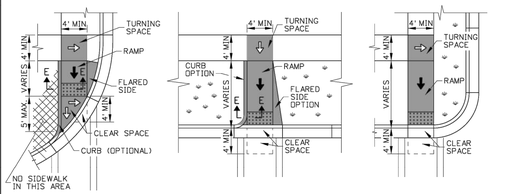


ISOMETRIC VIEW

SYMBOL LEGEND

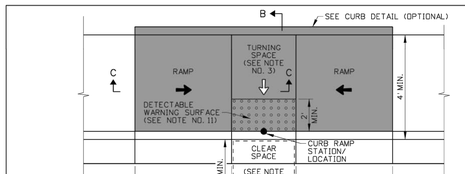
- 1.0% TO 2.0% SLOPE
- 5.0% TO 8.3% RUNNING SLOPE, 2.0% OR FLATTER CROSS SLOPE
- 10.0% OR FLATTER SLOPE



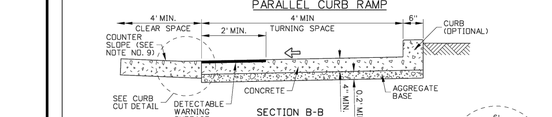




EXAMPLE APPLICATIONS

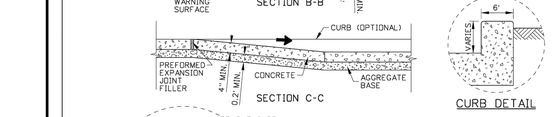
| REVISIONS | | | | | | | | | | | | | | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY | IDAHO TRANSPORTATION DEPARTMENT | ORIGINAL SIGNED BY: KEVIN SABLAN | STANDARD DRAWING | English | ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho | ORIGINAL SIGNED BY: KEVIN G. ANDREWS, DATE APPROVAL LACKED, JUNE 15, 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NO. | DATE | BY | NO. | DATE | BY | NO. | DATE | BY | | | | | | | | | | | | |
| 1 | 09-93 | MSM | 6 | 07-03 | MSM | 11 | 07-10 | JAW | | | | | | | | | | | | |
| 2 | 12-95 | MSM | 7 | 12-04 | MSM | 12 | 09-11 | TEM | | | | | | CADD FILE NAME: 614-3_0613.dgn | | | | | | |
| 3 | 06-98 | MSM | 8 | 06-05 | MSM | 13 | 05-15 | ROL | | | | | | | | | | | | |
| 4 | 08-01 | MSM | 9 | 05-06 | MSM | | | | | | | | | DRAWING DATE: JUNE, 1990 | BOISE IDAHO | DESIGN/TRAFFIC SERVICES ENGINEER | CURB RAMPS | 614-3 | | |
| 5 | 10-02 | MSM | 10 | 05-07 | MSM | | | | | | | | | | | | REQUIRES SHEETS 1 OF 4, 2 OF 4, & 3 OF 4 | SHEET 1 OF 4 | | |




PARALLEL CURB RAMP



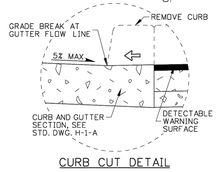

SECTION B-B



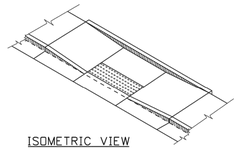

SECTION C-C




CURB DETAIL




CURB CUT DETAIL



ISOMETRIC VIEW

SYMBOL LEGEND

- 1.0% TO 2.0% SLOPE
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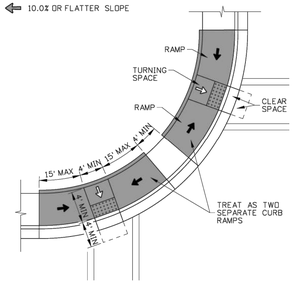
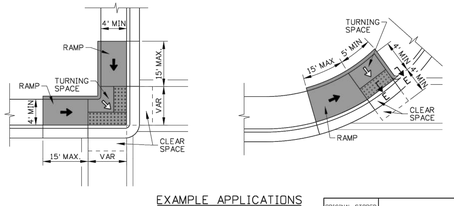
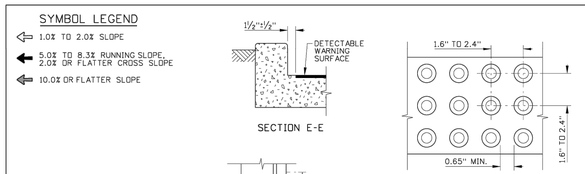
- 10.0% OR FLATTER SLOPE

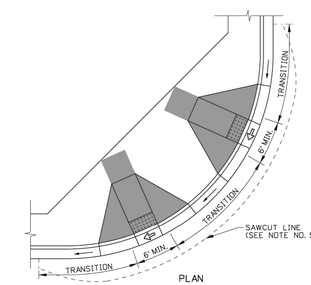



EXAMPLE APPLICATIONS

| REVISIONS | | | | | | | | | | | | | | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY | IDAHO TRANSPORTATION DEPARTMENT | ORIGINAL SIGNED BY: KEVIN SABLAN | STANDARD DRAWING | English | ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho | ORIGINAL SIGNED BY: KEVIN G. ANDREWS, DATE APPROVAL LACKED, JUNE 15, 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NO. | DATE | BY | NO. | DATE | BY | NO. | DATE | BY | | | | | | | | | | | | |
| 1 | 09-93 | MSM | 6 | 07-03 | MSM | 11 | 07-10 | JAW | | | | | | | | | | | | |
| 2 | 12-95 | MSM | 7 | 12-04 | MSM | 12 | 09-11 | TEM | | | | | | CADD FILE NAME: 614-3_0613.dgn | | | | | | |
| 3 | 06-98 | MSM | 8 | 06-05 | MSM | 13 | 05-15 | ROL | | | | | | | | | | | | |
| 4 | 08-01 | MSM | 9 | 05-06 | MSM | | | | | | | | | DRAWING DATE: JUNE, 1990 | BOISE IDAHO | DESIGN/TRAFFIC SERVICES ENGINEER | CURB RAMPS | 614-3 | | |
| 5 | 10-02 | MSM | 10 | 05-07 | MSM | | | | | | | | | | | | REQUIRES SHEETS 1 OF 4, 2 OF 4, & 3 OF 4 | SHEET 2 OF 4 | | |




DETECTABLE WARNING SURFACE DETAILS
SEE NOTE NO. 11

PLAN

PROFILE

FLOWLINE PROFILE DETAIL
SEE NOTE NO. 5

## NOTES

1. EXTENTS OF CURB RAMP PAY ITEMS ARE SHOWN IN GRAY SHADING.
2. CURB RAMPS CAN BE PERPENDICULAR, PARALLEL, OR A COMBINATION OF PARALLEL AND PERPENDICULAR RAMPS. EXAMPLE APPLICATIONS OF EACH ARE SHOWN ON SHEETS 1, 2, AND 3.
   PERPENDICULAR CURB RAMPS HAVE A RAMP THAT CUTS THROUGH THE CURB AT RIGHT ANGLES OR MEETS THE GUTTER GRADE BREAK AT RIGHT ANGLES WHEN THE CURB IS CURVED.
   PARALLEL CURB RAMPS HAVE A RAMP OR RAMPS IN-LINE WITH THE DIRECTION OF SIDEWALK TRAVEL AND LOWER THE SIDEWALK TO A LEVEL TURNING SPACE WHERE A TURN IS MADE TO ENTER THE PEDESTRIAN STREET CROSSING.
   COMBINATION CURB RAMPS HAVE FEATURES FROM PERPENDICULAR AND PARALLEL CURB RAMPS.
3. PROVIDE A TURNING SPACE WITH A 2.0% OR FLATTER SLOPE IN EACH DIRECTION. TURNING SPACES MAY OVERLAP WITH OTHER TURNING SPACES AND CLEAR SPACES.
   PERPENDICULAR CURB RAMP:
   PROVIDE A 4'-0" BY 5'-0" MINIMUM TURNING SPACE WHEN THE TURNING SPACE IS CONSTRAINED AT THE BACK-OF-SIDEWALK.
   PARALLEL CURB RAMP:
   PROVIDE A 4'-0" BY 5' TURNING SPACE WHEN THE TURNING SPACE IS CONSTRAINED ON TWO OR MORE SIDES. ENSURE THAT THE 5' DIMENSION IS PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.
4. PROVIDE A CLEAR SPACE BEYOND THE BOTTOM OF THE GRADE BREAK THAT IS WITHIN THE WIDTH OF THE PEDESTRIAN STREET CROSSING AND WHOLLY OUTSIDE THE PARALLEL VEHICLE TRAFFIC LANE.
5. CROSS SLOPE IS THE SLOPE PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL. ENSURE THAT THE CROSS SLOPE OF THE RAMP AND TURNING SPACE DOES NOT EXCEED TWO PERCENT. AT PEDESTRIAN STREET CROSSINGS WITHOUT YIELD OR STOP CONTROL AND AT MIDBLOCK PEDESTRIAN STREET CROSSINGS, THE CROSS SLOPE MAY MATCH THE STREET OR HIGHWAY GRADE. FLATTEN THE GUTTER FLOWLINE THROUGH CURB RAMPS TO TWO PERCENT OR FLATTER WHEN NEEDED. WHEN THE PAVEMENT IS SAWCUT TO FLATTEN THE FLOWLINE, VARY THE WIDTH OF THE SAWCUT SO THAT THE PAVEMENT PATCH SMOOTHLY MATCHES THE EXISTING PAVEMENT.
6. PROVIDE FLARED SIDES ON PERPENDICULAR CURB RAMPS, OR COMBINATION CURB RAMPS WHERE A PEDESTRIAN CIRCULATION PATH CROSSES THE CURB RAMP. THE FLARED SIDES ARE PART OF THE PEDESTRIAN CIRCULATION PATH, BUT ARE NOT PART OF THE PEDESTRIAN ACCESS ROUTE. THE SLOPE OF THE FLARED SIDES IS MEASURED PARALLEL TO THE CURB LINE. FLARED SIDES ARE NOT NEEDED OR MAY BE STEEPER WHEN THE PEDESTRIAN CIRCULATION PATH DOES NOT CROSS THE CURB RAMP.
7. THE PEDESTRIAN CIRCULATION PATH IS A PREPARED SURFACE PROVIDED FOR PEDESTRIAN TRAVEL IN THE PUBLIC RIGHT-OF-WAY. THE PEDESTRIAN ACCESS ROUTE IS A CONTINUOUS AND UNOBSTRUCTED PATH OF TRAVEL PROVIDED FOR PEDESTRIANS WITH DISABILITIES WITHIN OR COINCIDING WITH A PEDESTRIAN CIRCULATION PATH.
8. ENSURE THAT GRADE BREAKS ARE PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN AND ARE FLUSH. DO NOT CREATE GRADE BREAKS ON THE SURFACE OF RAMP RUNS AND TURNING SPACES.
9. ENSURE THAT THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE FOOT OF CURB RAMPS RUNS DOES NOT EXCEED FIVE PERCENT.
10. WHERE PRACTICAL, PLACE UTILITY COVERS, VAULT FRAMES, AND GRATINGS OUTSIDE RAMP RUNS, TURING SPACES, OR GUTTER AREAS. LOCATE CATCH BASINS AND INLETS OUTSIDE OF RAMP RUNS.
11. DETECTABLE WARNING SURFACES CONSIST OF TRUNCATED DOMES ALIGNED IN A SQUARE OR RADIAL GRID PATTERN. PROVIDE DETECTABLE WARNING SURFACES THAT CONTRAST VISUALLY WITH ADJACENT GUTTER, HIGHWAY, OR PEDESTRIAN ACCESS ROUTE SURFACE, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT. ENSURE THAT THE DETECTABLE WARNING SURFACE EXTENDS THE FULL WIDTH OF THE RAMP RUN (EXCLUDING FLARED SIDES) OR TURNING SPACE.
    PERPENDICULAR AND COMBINATION CURB RAMPS:
    WHERE THE ENDS OF THE BOTTOM GRADE BREAK ARE IN FRONT OF THE BACK OF CURB, PLACE THE DETECTABLE WARNING SURFACE AT THE BACK OF CURB.
    WHERE THE ENDS OF THE BOTTOM GRADE BREAK ARE BEHIND THE BACK OF CURB, PLACE THE DETECTABLE WARNING SURFACE ON THE RAMP RUN WITHIN ONE DOME SPACING OF THE BOTTOM GRADE BREAK AND WITHIN 5'-0" OF THE BACK OF CURB.
    PARALLEL CURB RAMP:
    PLACE DETECTABLE WARNING SURFACE ON THE TURNING SPACE AT THE BACK OF CURB.
12. USE A BOND PREVENTATIVE BETWEEN THE CURB RAMP OR SIDEWALK AND CURB WHEN CONSTRUCTED SEPARATELY AND PLACED ADJACENT TO EACH OTHER.
13. ALIGN ALTERNATING CURB AND SIDEWALK JOINTS. CONSTRUCT JOINTS APPROXIMATELY ⅛" WIDE AND ¾" IN DEPTH.
14. DRAWING NOT TO SCALE.

| REVISIONS | | | | | | | | | | | | | | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY | IDAHO TRANSPORTATION DEPARTMENT | ORIGINAL SIGNED BY: KEVIN SABLAN | STANDARD DRAWING | English | ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho | ORIGINAL SIGNED BY: KEVIN G. ANDREWS, DATE APPROVAL LACKED, JUNE 15, 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NO. | DATE | BY | NO. | DATE | BY | NO. | DATE | BY | | | | | | | | | | | | |
| 1 | 09-93 | MSM | 6 | 07-03 | MSM | 11 | 07-10 | JAW | | | | | | | | | | | | |
| 2 | 12-95 | MSM | 7 | 12-04 | MSM | 12 | 09-11 | TEM | | | | | | CADD FILE NAME: 614-3_0613.dgn | | | | | | |
| 3 | 06-98 | MSM | 8 | 06-05 | MSM | 13 | 05-15 | ROL | | | | | | | | | | | | |
| 4 | 08-01 | MSM | 9 | 05-06 | MSM | | | | | | | | | DRAWING DATE: JUNE, 1990 | BOISE IDAHO | DESIGN/TRAFFIC SERVICES ENGINEER | CURB RAMPS | 614-3 | | |
| 5 | 10-02 | MSM | 10 | 05-07 | MSM | | | | | | | | | | | | REQUIRES SHEETS 1 OF 4, 2 OF 4, & 3 OF 4 | SHEET 4 OF 4 | | |

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DRAWING IS TO SCALE IF BAR MEASURES:
1" = FULL SCALE
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FILE :

PROJ. #: 19010

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 7/20/2026

REVISIONS:

95% DESIGN IMPROVEMENT PLANS - NOT FOR CONSTRUCTION

PROJECT NAME

CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

STANDARD DETAILS

SHEET #

B6.5

| EARTHWORK, MEASURED IN EXCAVATION (CUT) | |
|---|---|
| LOCATION | CU. YDS. |
| LEVEE - RIGHT BANK | 3,873 |

| EARTHWORK, MEASURED IN EMBANKMENT (FILL) | |
|---|---|
| LOCATION | CU. YDS. |
| LEVEE - RIGHT BANK | 7,214 |

NOTE: FILL QUANTITIES SHOWN IN TABLE DO NOT INCLUDE COMPACTION FACTOR.

**RECREATIONAL TRAIL, ASPHALT**

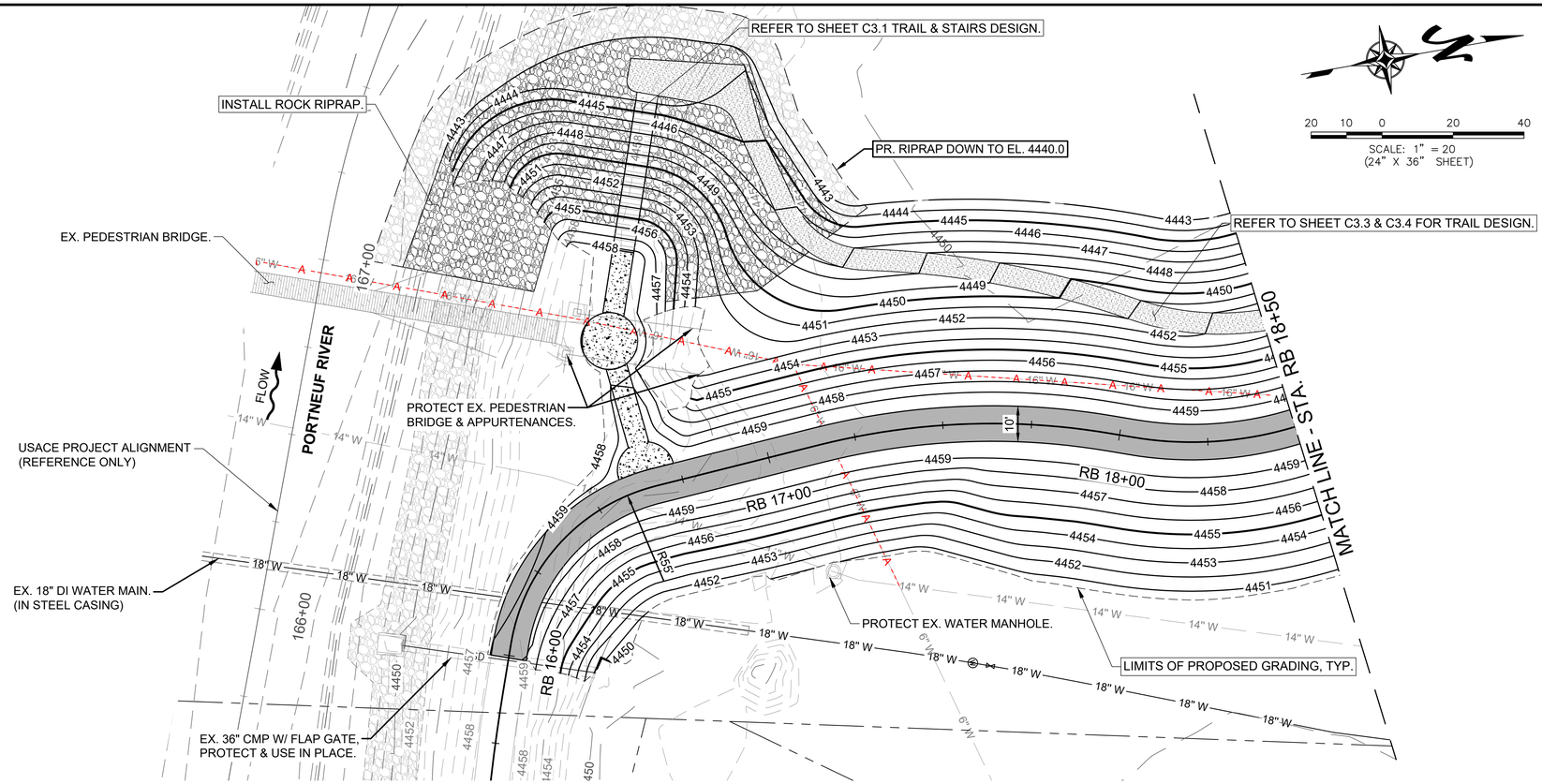
| STATION TO STATION | THICK | SIDE | TONS |
|---|---|---|---|
| RB 15+99± TO RB 18+50 | 3" | LT. & RT. | 93 |

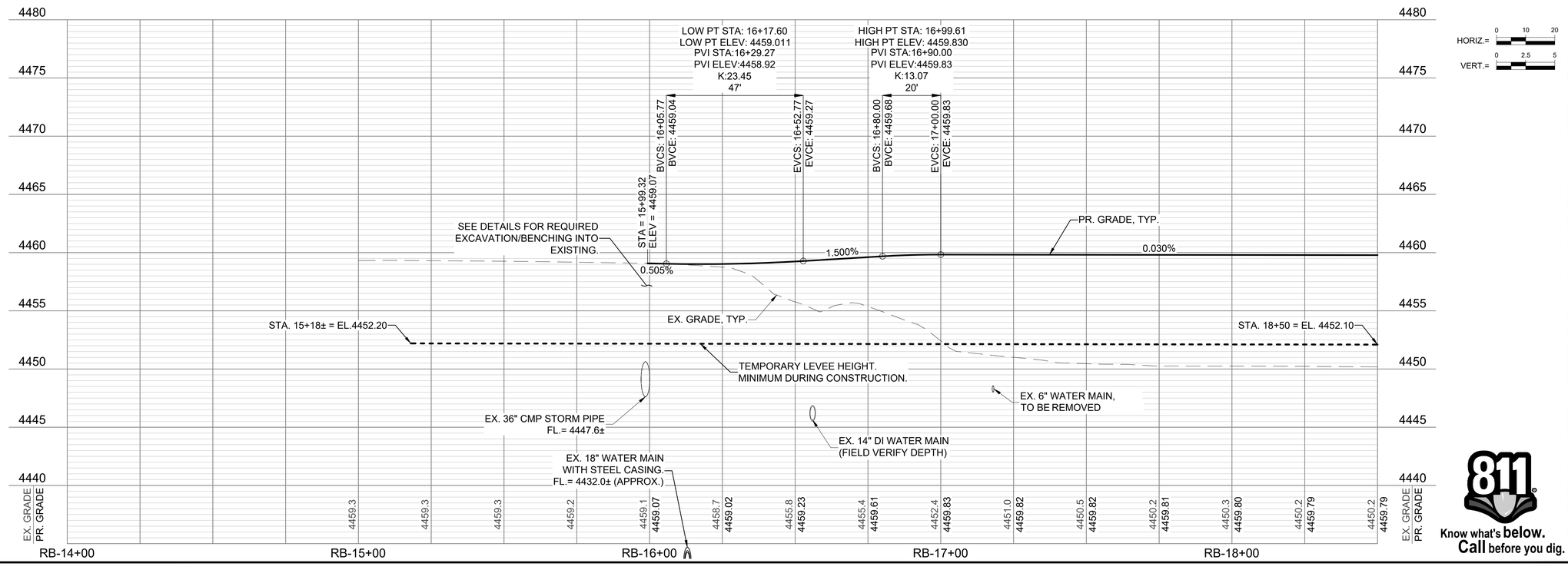
**ROCK RIPRAP**

| STATION TO STATION | SIDE | TONS |
|---|---|---|
| RB 16+40± TO RB 17+30± | LT. | 1,057 |
| SEE SPECIFICATIONS FOR MATERIAL REQUIREMENTS. | | |
| RIPRAP SHOWN GREYSCALE IS BELOW PROPOSED GRADE. | | |

**GRANULAR BEDDING**

| STATION TO STATION | SIDE | TONS |
|---|---|---|
| RB 16+40± TO RB 17+30± | LT. | 357 |
| SEE SPECIFICATIONS FOR MATERIAL REQUIREMENTS. | | |

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# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

## PLAN & PROFILE - LEVEE (RIGHT BANK)

SHEET #

C1.1

## STAIRS, CONCRETE

| STATION | SIDE | EACH |
|---|---|---|
| RB 20+75± | LT. | 1 |

NOTE: REFER TO SHEET D1.3, DETAIL #1 FOR STAIR DETAILS.

## RECREATIONAL TRAIL, CONCRETE

| STATION TO STATION | THICK | SIDE | SQ. YDS. |
|---|---|---|---|
| RB 20+75± | 4" | LT. | 8 |

## ROCK RIPRAP

| STATION TO STATION | SIDE | TONS |
|---|---|---|
| RB 20+77± TO RB 22+00± | LT. | 1,203 |

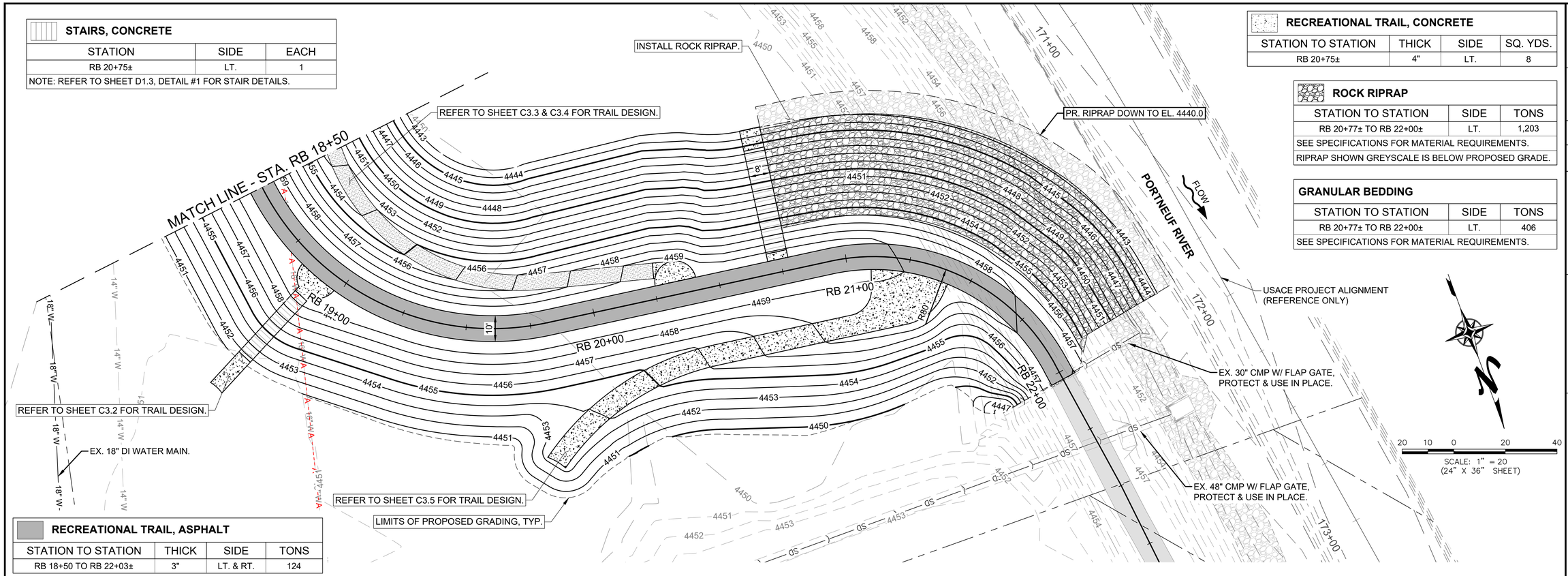
SEE SPECIFICATIONS FOR MATERIAL REQUIREMENTS.

RIPRAP SHOWN GREYSCALE IS BELOW PROPOSED GRADE.

## GRANULAR BEDDING

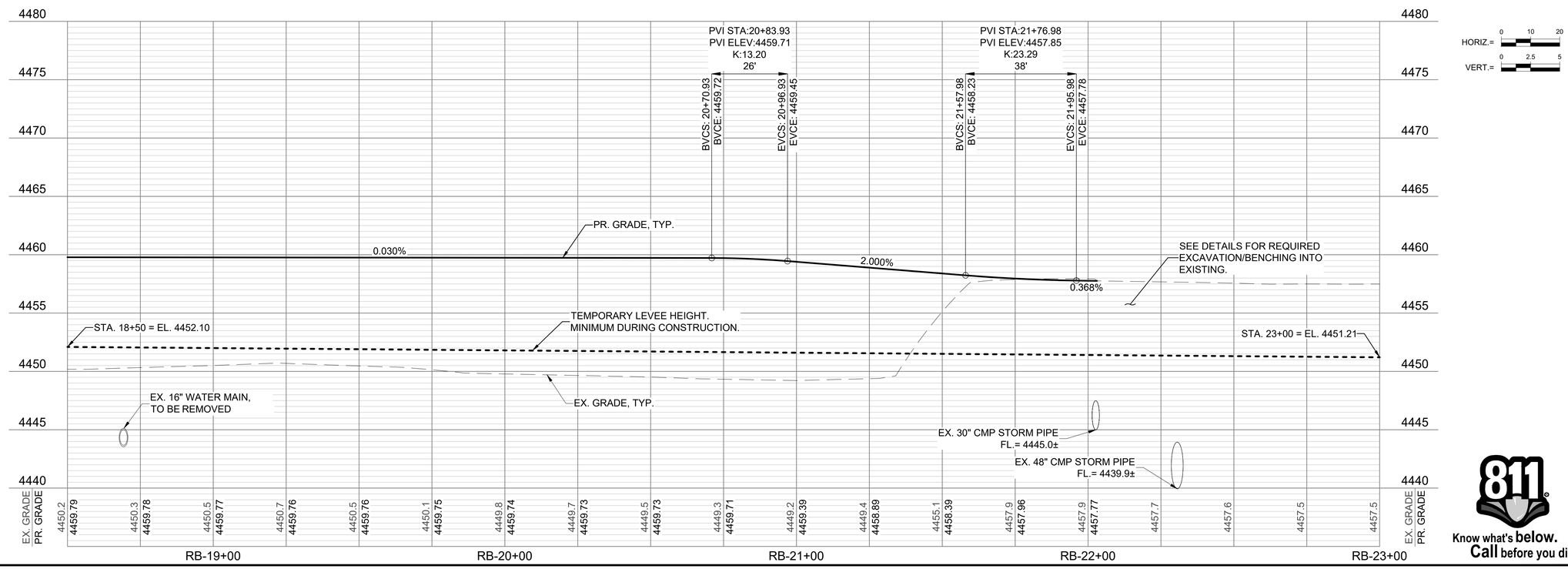
| STATION TO STATION | SIDE | TONS |
|---|---|---|
| RB 20+77± TO RB 22+00± | LT. | 406 |

SEE SPECIFICATIONS FOR MATERIAL REQUIREMENTS.




## RECREATIONAL TRAIL, ASPHALT

| STATION TO STATION | THICK | SIDE | TONS |
|---|---|---|---|
| RB 18+50 TO RB 22+03± | 3" | LT. & RT. | 124 |

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PROJECT NAME

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

## PLAN & PROFILE - LEVEE (RIGHT BANK)

SHEET #

C1.2

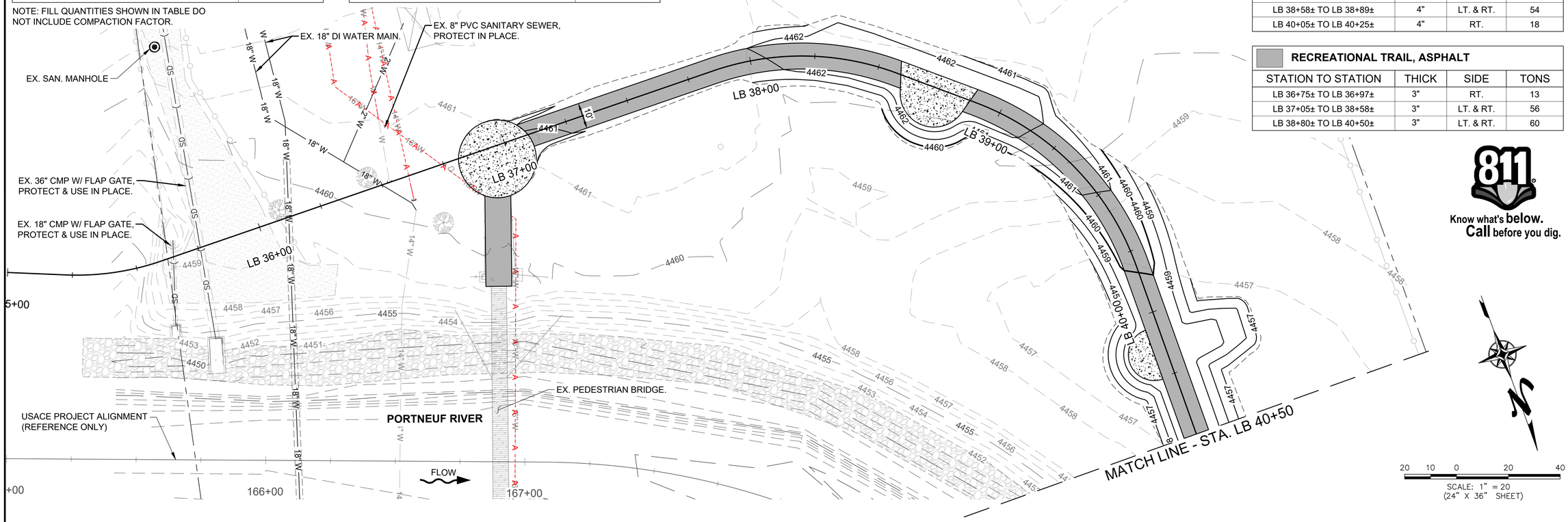
| EARTHWORK, MEASURED IN EMBANKMENT (FILL) | |
|---|---|
| LOCATION | CU. YDS. |
| LEVEE - LEFT BANK | 670 |

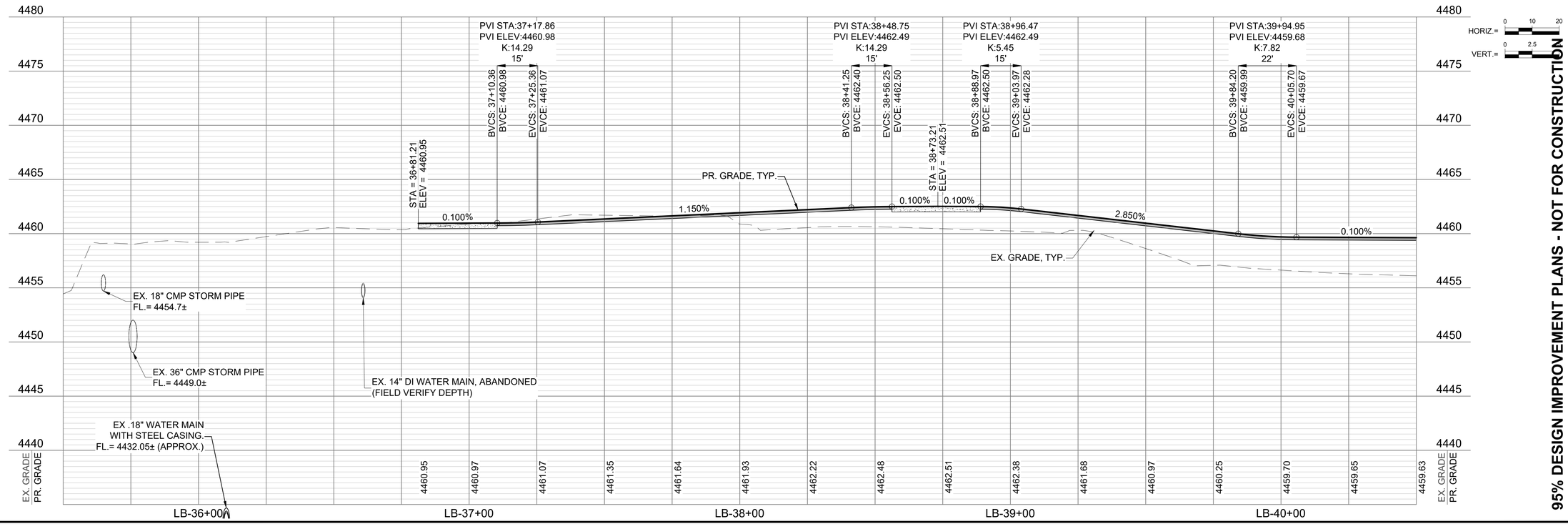
| EARTHWORK, MEASURED IN EXCAVATION (CUT) | |
|---|---|
| LOCATION | CU. YDS. |
| LEVEE - LEFT BANK | 45 |

NOTE: FILL QUANTITIES SHOWN IN TABLE DO NOT INCLUDE COMPACTION FACTOR.

| RECREATIONAL TRAIL, CONCRETE | | | |
|---|---|---|---|
| STATION TO STATION | THICK | SIDE | SQ. YDS. |
| LB 36+81± TO LB 37+09± | 4" | LT. & RT. | 79 |
| LB 38+58± TO LB 38+89± | 4" | LT. & RT. | 54 |
| LB 40+05± TO LB 40+25± | 4" | RT. | 18 |

| RECREATIONAL TRAIL, ASPHALT | | | |
|---|---|---|---|
| STATION TO STATION | THICK | SIDE | TONS |
| LB 36+75± TO LB 36+97± | 3" | RT. | 13 |
| LB 37+05± TO LB 38+58± | 3" | LT. & RT. | 56 |
| LB 38+80± TO LB 40+50± | 3" | LT. & RT. | 60 |

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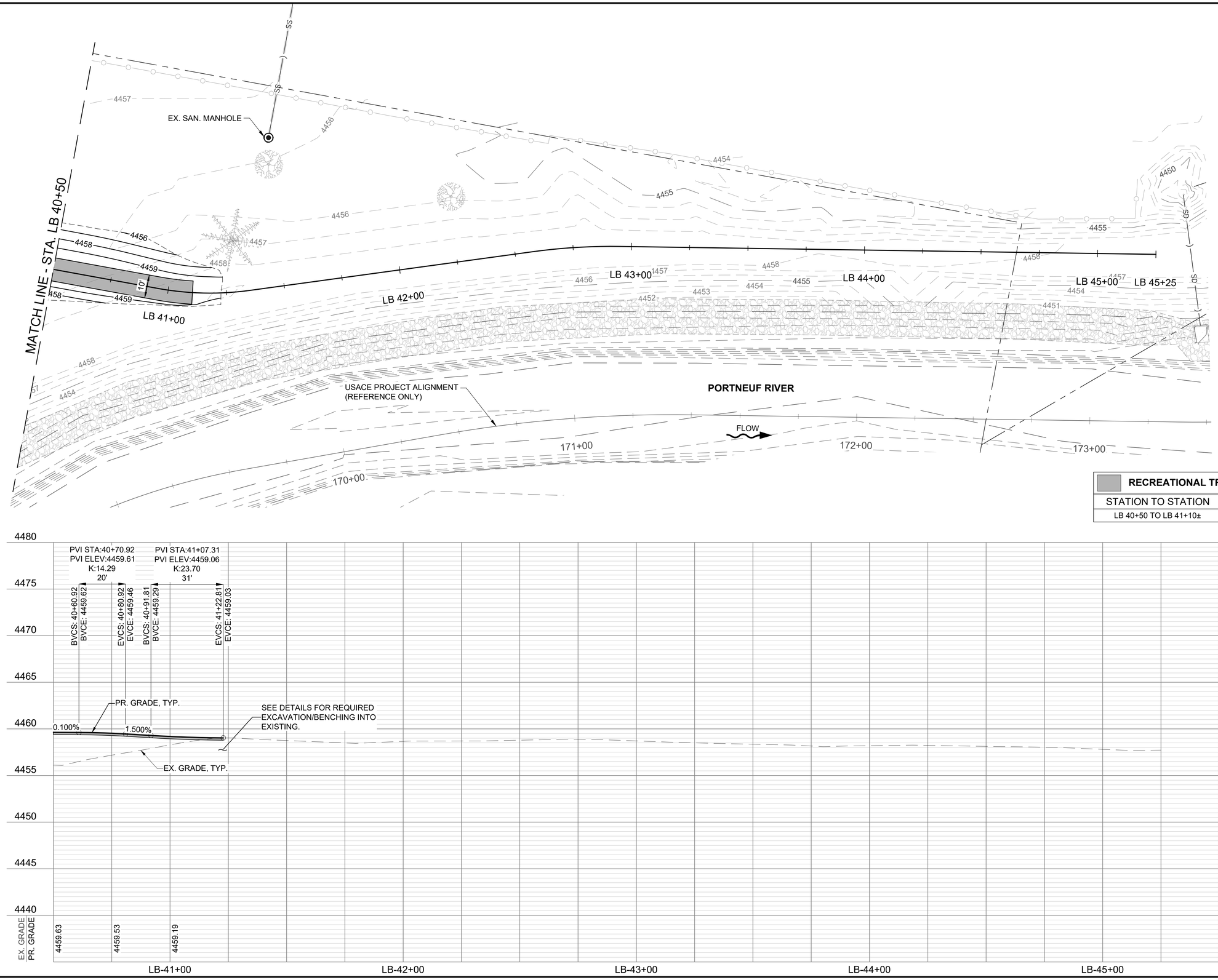
# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

## PLAN & PROFILE - LEVEE (LEFT BANK)

SHEET #

C2.1




**RECREATIONAL TRAIL, ASPHALT**

| STATION TO STATION | THICK | SIDE | TONS |
|---|---|---|---|
| LB 40+50 TO LB 41+10± | 3" | LT. & RT. | 22 |

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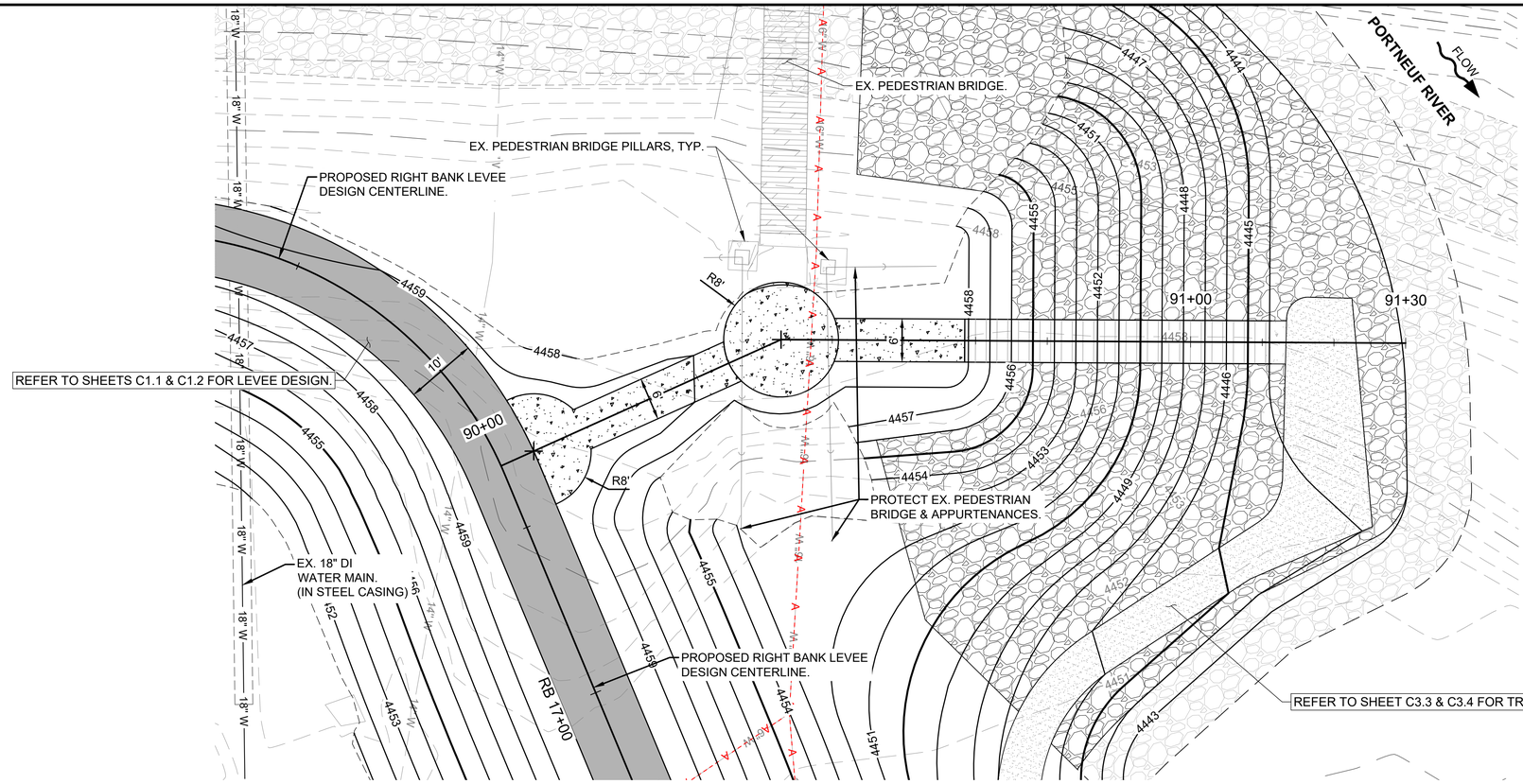
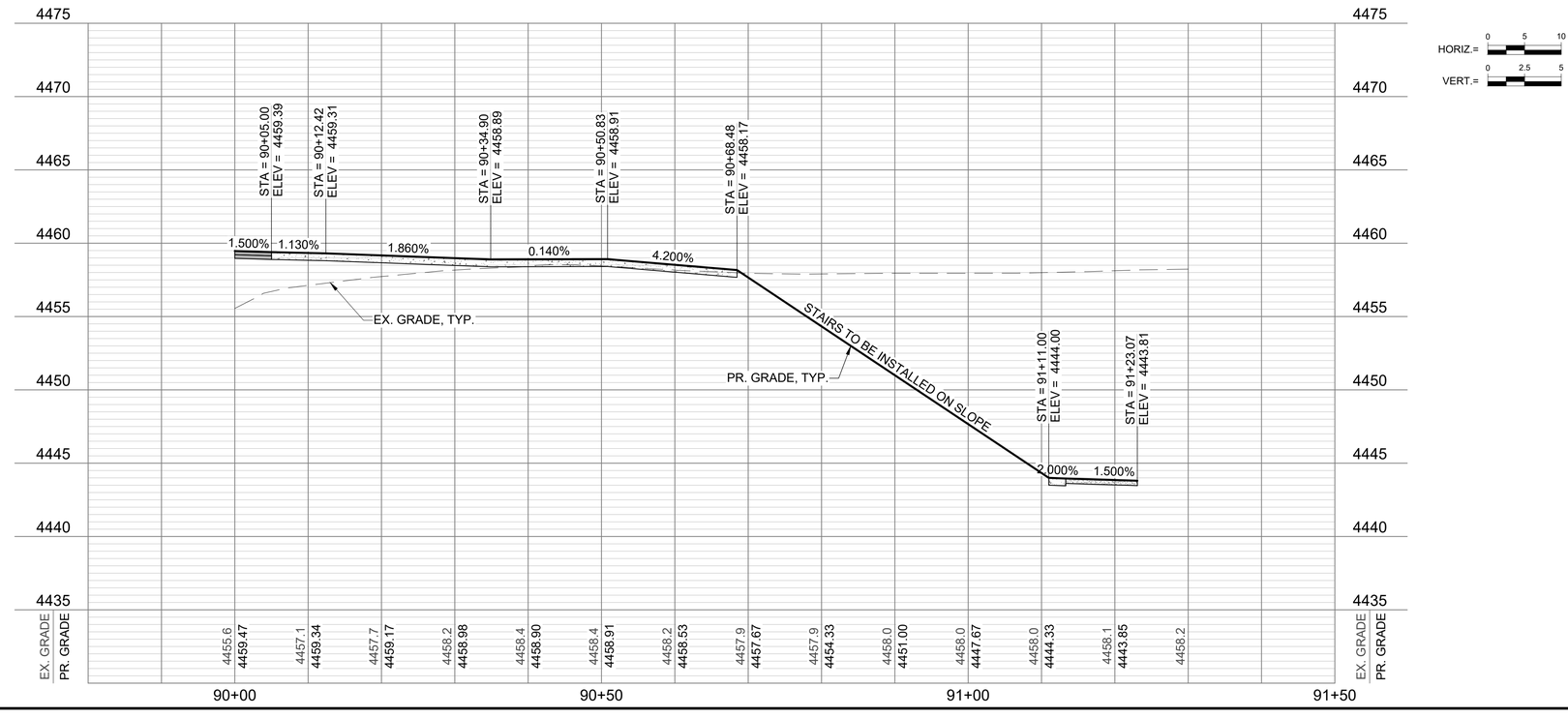
# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

## PLAN & PROFILE - LEVEE (LEFT BANK)

SHEET #

C2.2




## STAIRS, CONCRETE

| STATION | SIDE | EACH |
|---|---|---|
| 90+68± TO 91+10± | LT. & RT. | 1 |

NOTE: REFER TO SHEET D1.3, DETAIL #1 FOR STAIR DETAILS.

## RECREATIONAL TRAIL, CONCRETE

| STATION TO STATION | THICK | SIDE | SQ. YDS. |
|---|---|---|---|
| 90+05± TO 90+35± | 4" | LT. & RT. | 26 |
| 90+35± TO 90+51± | 4" | LT. & RT. | 22 |
| 90+51± TO 90+68± | 4" | LT. & RT. | 12 |
| 91+10± TO 91+13± | 4" | LT. & RT. | 2 |

10 5 0 10 20

SCALE: 1" = 10
(24" X 36" SHEET)

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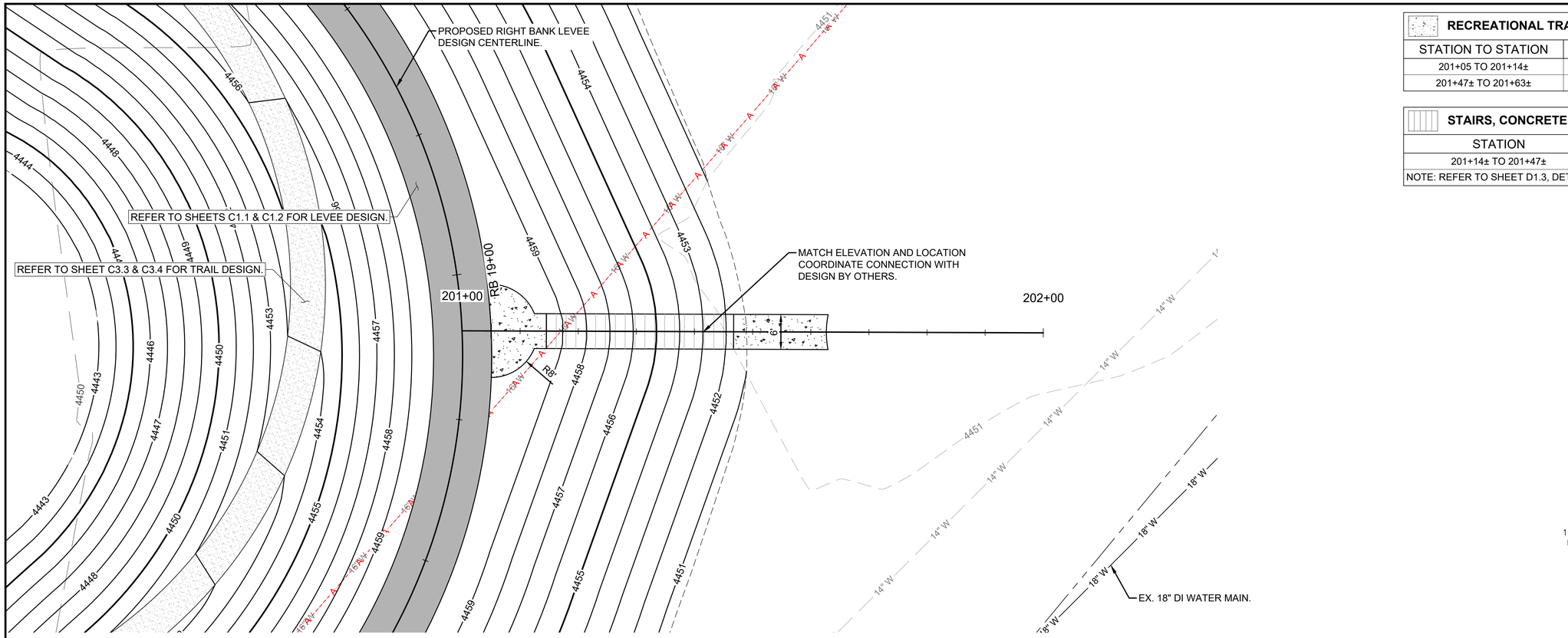
# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

## PLAN & PROFILE - TRAILS (RIGHT BANK)

SHEET #

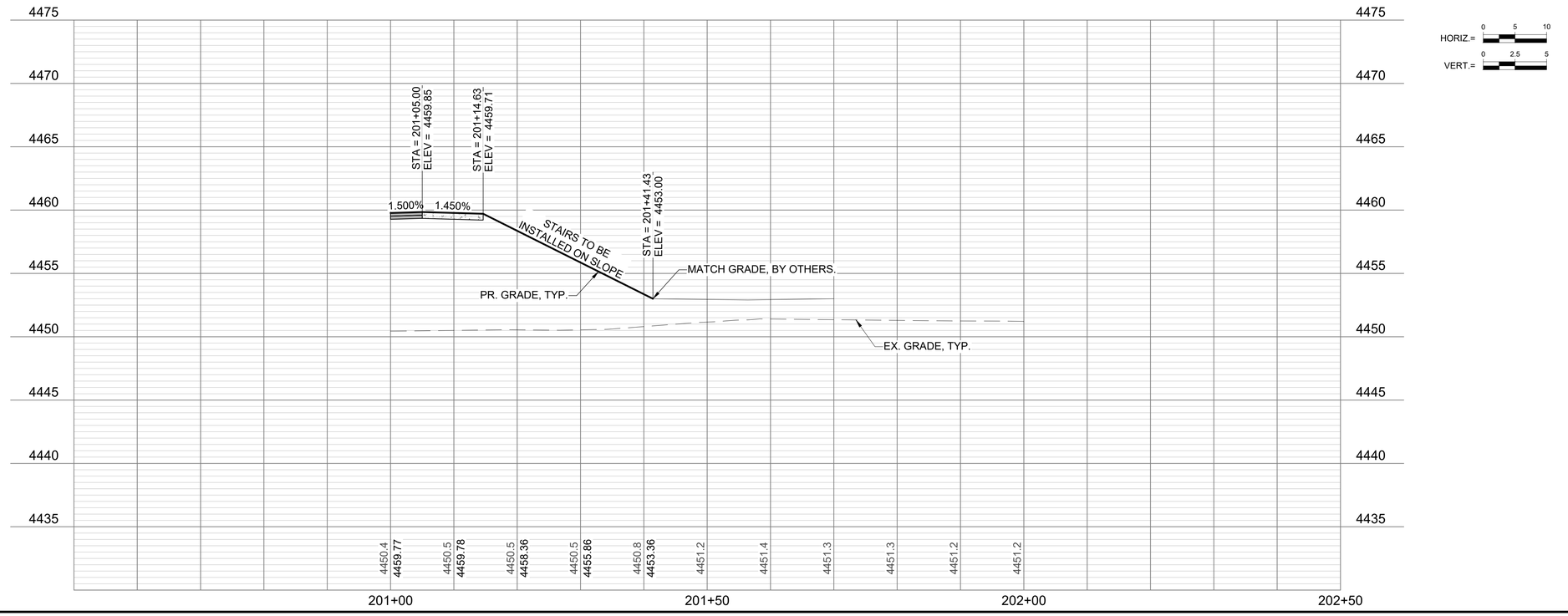
C3.1




| RECREATIONAL TRAIL, CONCRETE | | | |
|---|---|---|---|
| STATION TO STATION | THICK | SIDE | SQ. YDS. |
| 201+05 TO 201+14± | 4" | LT. & RT. | 13 |
| 201+47± TO 201+63± | 4" | LT. & RT. | 11 |

| STAIRS, CONCRETE | | |
|---|---|---|
| STATION | SIDE | EACH |
| 201+14± TO 201+47± | LT. & RT. | 1 |
| NOTE: REFER TO SHEET D1.3, DETAIL #1 FOR STAIR DETAILS. | | |

10 5 0 10 20
SCALE: 1" = 10
(24" X 36" SHEET)

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## PLAN & PROFILE - TRAILS (RIGHT BANK)

SHEET #

C3.2

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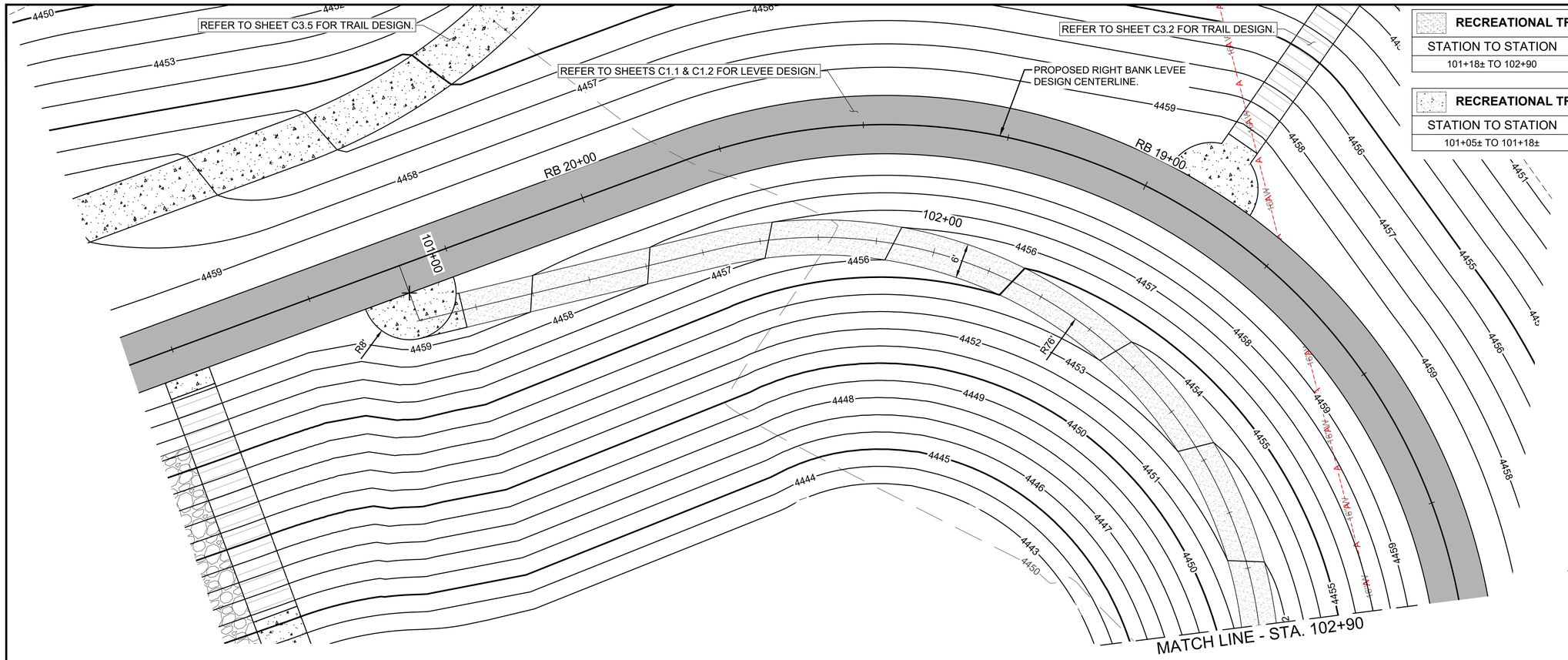


| RECREATIONAL TRAIL, CRUSHED ROCK | | | |
|---|---|---|---|
| STATION TO STATION | THICK | SIDE | TONS |
| 101+18± TO 102+90 | 4" | LT. & RT. | 23 |

| RECREATIONAL TRAIL, CONCRETE | | | |
|---|---|---|---|
| STATION TO STATION | THICK | SIDE | SQ. YDS. |
| 101+05± TO 101+18± | 4" | LT. & RT. | 13 |

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# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

## PLAN & PROFILE - TRAILS (RIGHT BANK)

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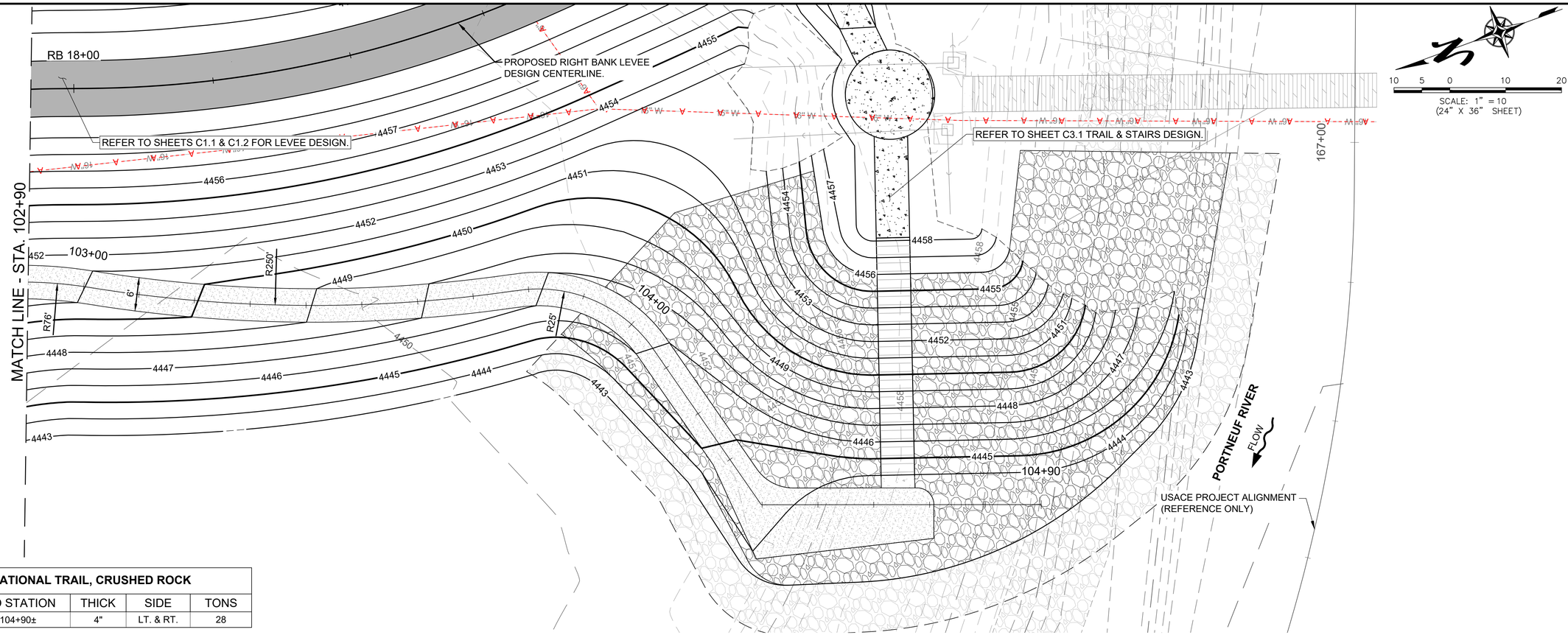
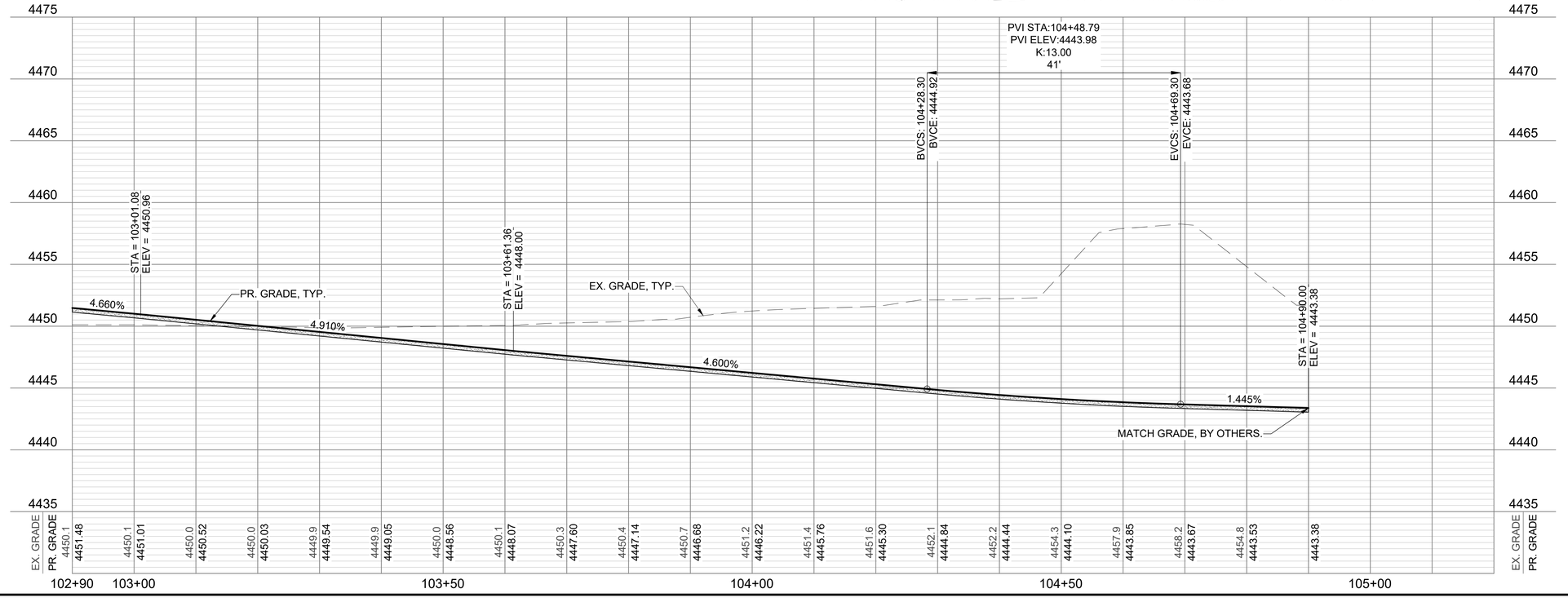
SHEET #

C3.3




| RECREATIONAL TRAIL, CRUSHED ROCK | | | |
|---|---|---|---|
| STATION TO STATION | THICK | SIDE | TONS |
| 102+90 TO 104+90± | 4" | LT. & RT. | 28 |

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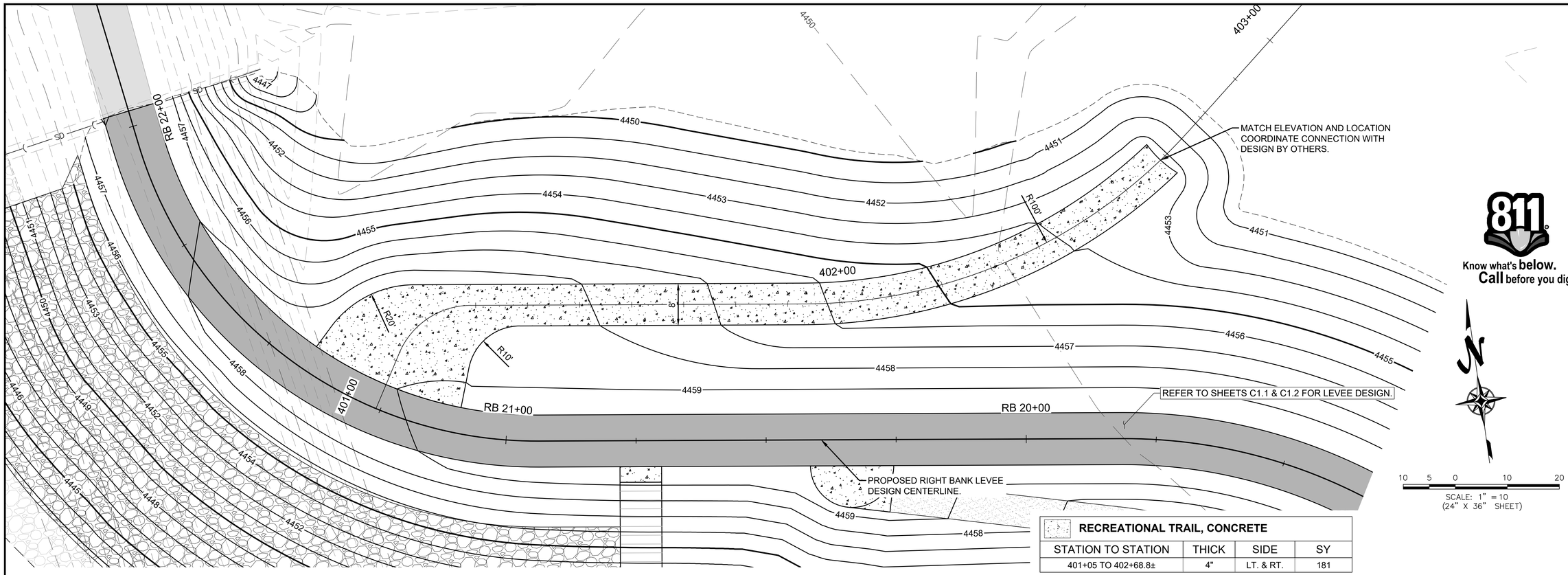
PROJECT NAME

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

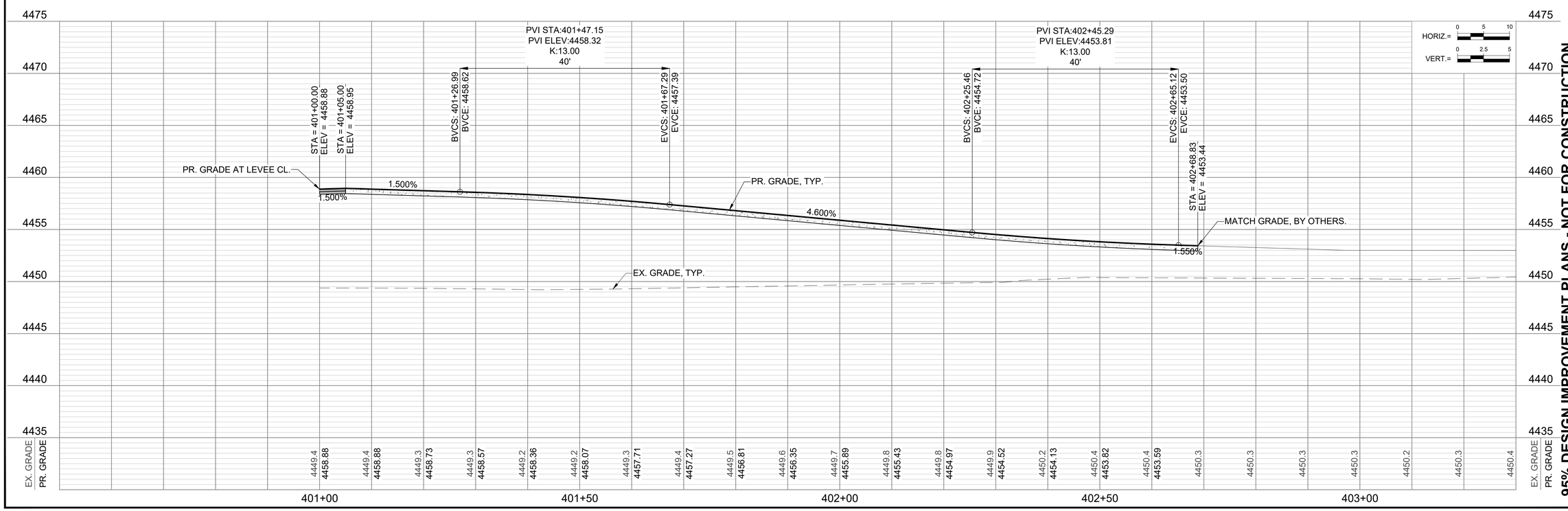
## PLAN & PROFILE - TRAILS (RIGHT BANK)

SHEET #

C3.4




| RECREATIONAL TRAIL, CONCRETE | | | |
|---|---|---|---|
| STATION TO STATION | THICK | SIDE | SY |
| 401+05 TO 402+68.8± | 4" | LT. & RT. | 181 |

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REVISIONS:

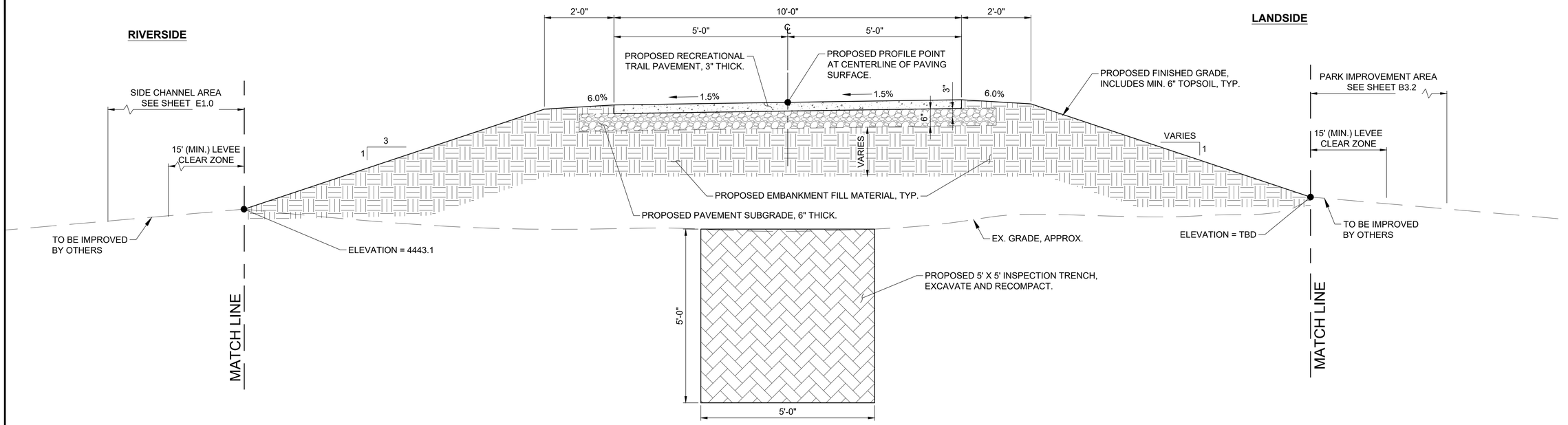
PROJECT NAME

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

## PLAN & PROFILE - TRAILS (RIGHT BANK)

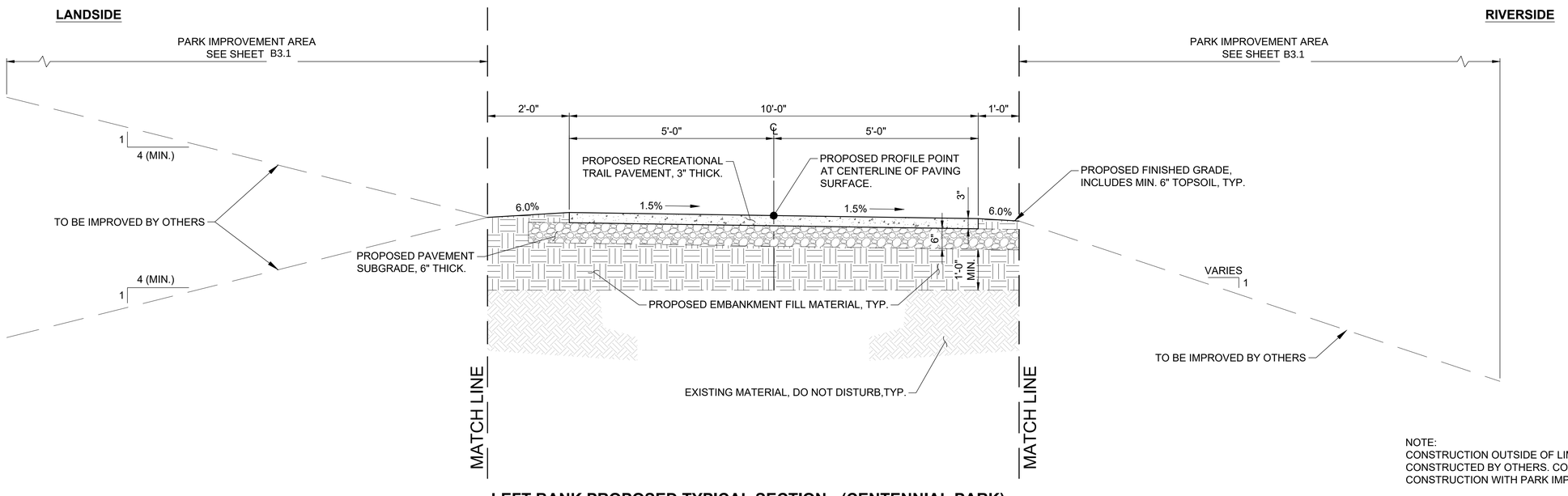
SHEET #

C3.5




## RIGHT BANK PROPOSED TYPICAL SECTION - (RAINEY PARK)

SCALE: N.T.S.




## LEFT BANK PROPOSED TYPICAL SECTION - (CENTENNIAL PARK)

SCALE: N.T.S.

NOTE:
CONSTRUCTION OUTSIDE OF LIMITS SHOWN TO BE CONSTRUCTED BY OTHERS. COORDINATE LEVEE CONSTRUCTION WITH PARK IMPROVEMENTS.

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1" = FULL SCALE
½" = HALF SCALE

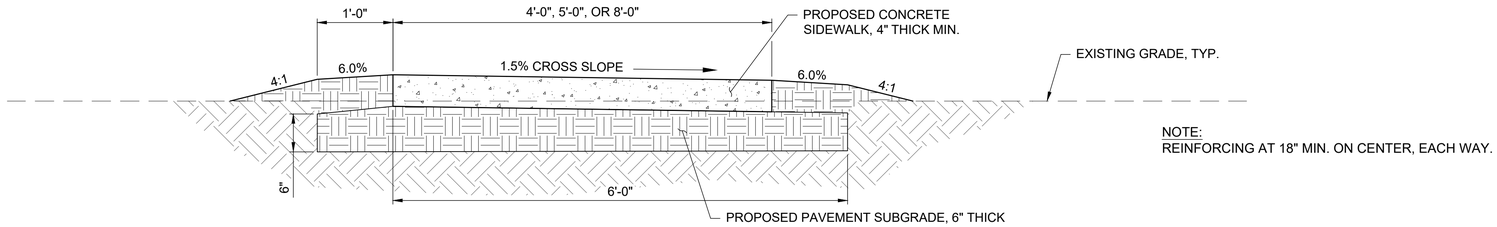
FILE : S-190168.00.DWG
PROJ. #: 19010

DATE: 7/20/2026
REVISIONS:

PROJECT NAME
CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

TYPICAL LEVEE SECTIONS

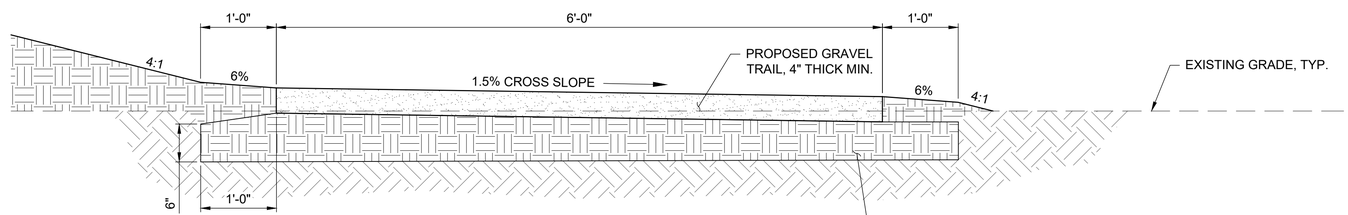
SHEET #
D1.1




NOTE:
REINFORCING AT 18" MIN. ON CENTER, EACH WAY.

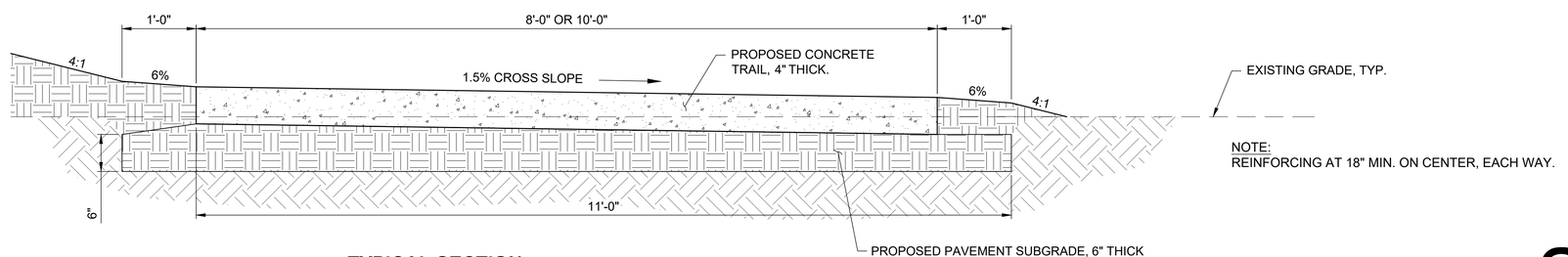
**TYPICAL SECTION**
**CONCRETE SIDEWALK - LEFT BANK**
1 SCALE: N.T.S.

**LEVEE SIDE**




**TYPICAL SECTION**
**GRAVEL TRAIL - RIGHT BANK**
2 SCALE: N.T.S.

**LEVEE SIDE**




NOTE:
REINFORCING AT 18" MIN. ON CENTER, EACH WAY.

**TYPICAL SECTION**
**CONCRETE TRAIL - RIGHT BANK, RIGHT SIDE**
3 SCALE: N.T.S.

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DRAWING IS TO SCALE IF BAR MEASURES:
1" = FULL SCALE
2" = HALF SCALE

FILE : S—190168.00.DWG

PROJ. #: 19010

DATE: 7/20/2026

REVISIONS:

95% DESIGN IMPROVEMENT PLANS - NOT FOR CONSTRUCTION

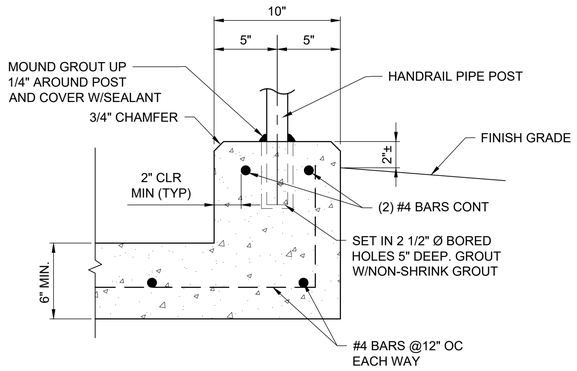
PROJECT NAME
**CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID**

**STANDARD DETAILS**

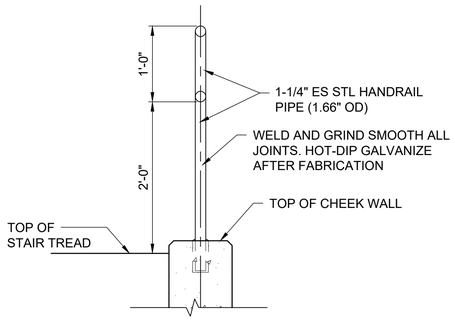
SHEET #
**D1.2**

## STAIR SCHEDULE

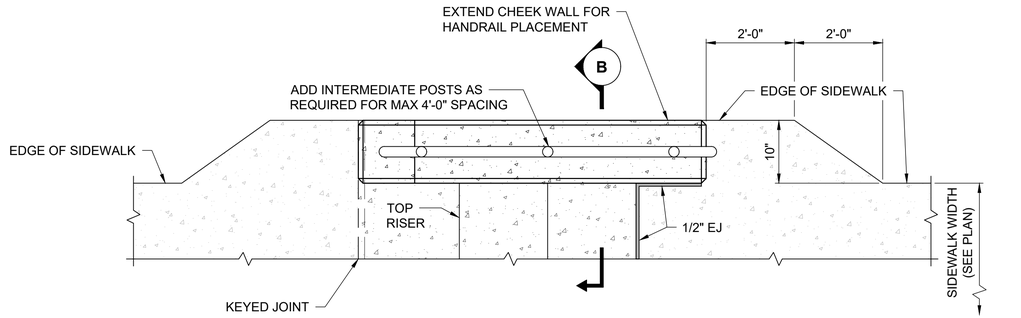
| STAIR NO. | STA. | TREAD MIN. | NO. OF TREADS | RISER DIM. | NO. OF RISERS | TOP ELEV. | BOT. ELEV. |
|---|---|---|---|---|---|---|---|
| 1 | 90+68.00 TO 91+11.00 | 1'-6" | 28 | 6" | 28 | 4458.00 | 4444.00 |
| 2 | 200+78.13 TO 200+91.88 | 1'-3" | 11 | 6" | 11 | 4459.65 | 4454.15 |
| 3 | 201+14.23 TO 201+46.73 | 2'-2" | 12 | 6 3/8" | 15 | 4459.78 | 4451.81 |
| 4 | 300+44.28 TO 300+92.40 | 1'-8 5/8" | 28 | 7" | 28 | 4459.60 | 4443.27 |




SECTION A - CHEEK WALL DETAIL

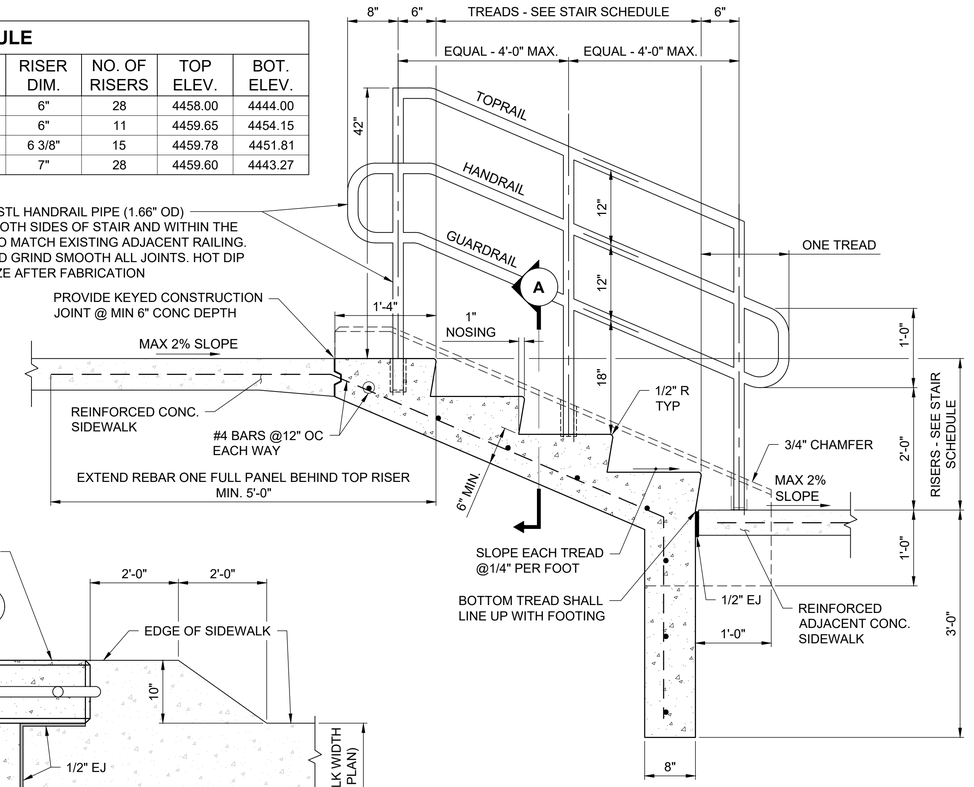



SECTION B - HANDRAIL DETAIL




CHEEK WALL / HANDRAIL PLAN

NOTE:
USE EXPANSION JOINT ALONG EDGE OF STAIRS WHEN ABUTTING RETAINING WALL OR OTHER STRUCTURE.




### 1 REINFORCED CONCRETE STEPS AND HANDRAILS

SCALE: N.T.S.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DRAWN
CHECKED
FULL SCALE

FILE :

PROJ. #:

REVISIONS:

DATE:

PROJECT NAME

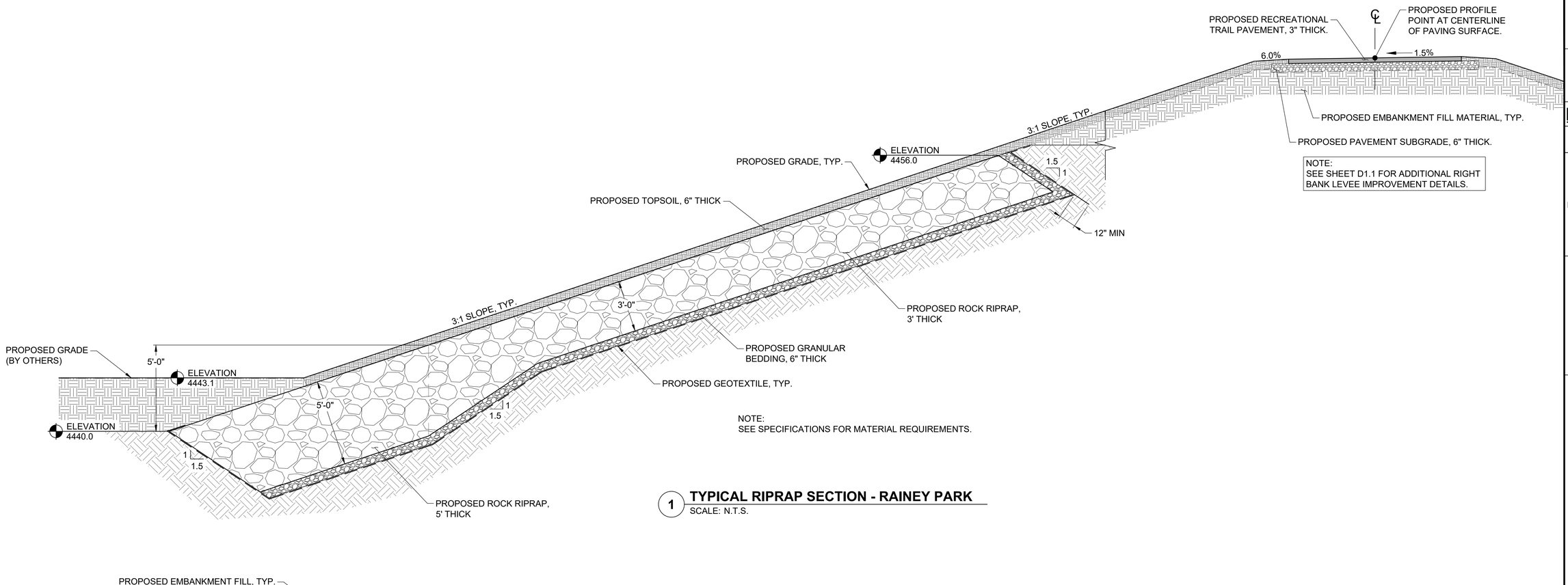
**CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID**

**STANDARD DETAILS**

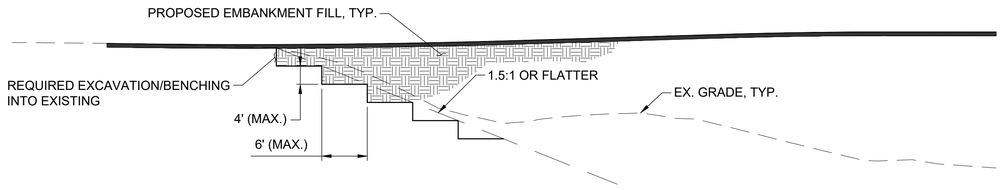
SHEET #

**D1.3**

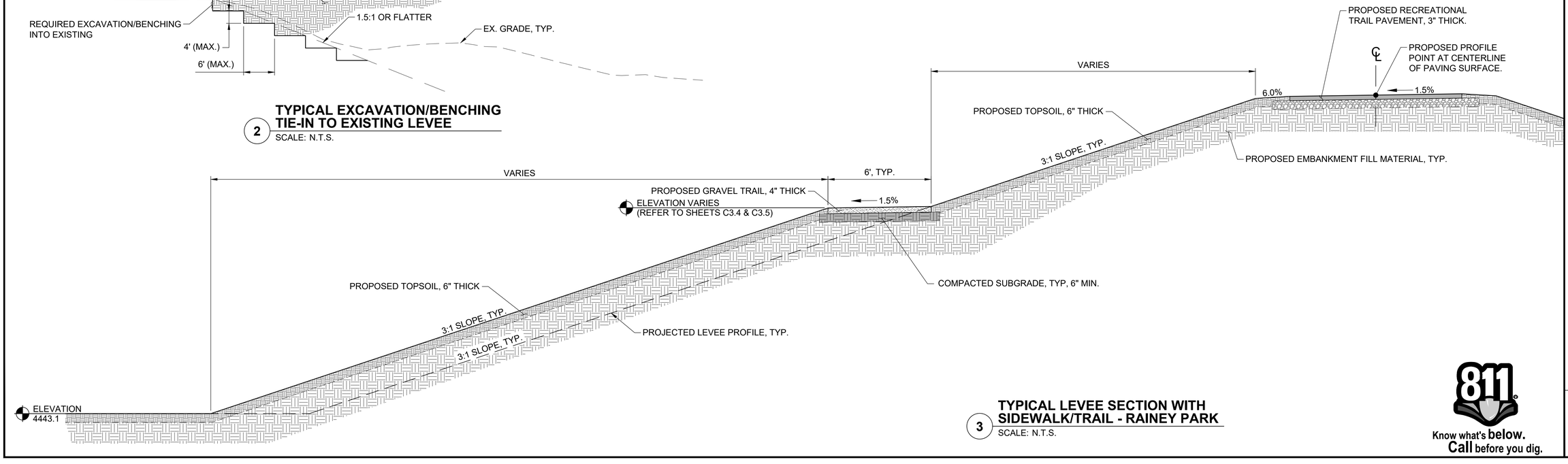
811 Know what's **below.** **Call** before you dig.




**1 TYPICAL RIPRAP SECTION - RAINEY PARK**
SCALE: N.T.S.




**2 TYPICAL EXCAVATION/BENCHING TIE-IN TO EXISTING LEVEE**
SCALE: N.T.S.




**3 TYPICAL LEVEE SECTION WITH SIDEWALK/TRAIL - RAINEY PARK**
SCALE: N.T.S.

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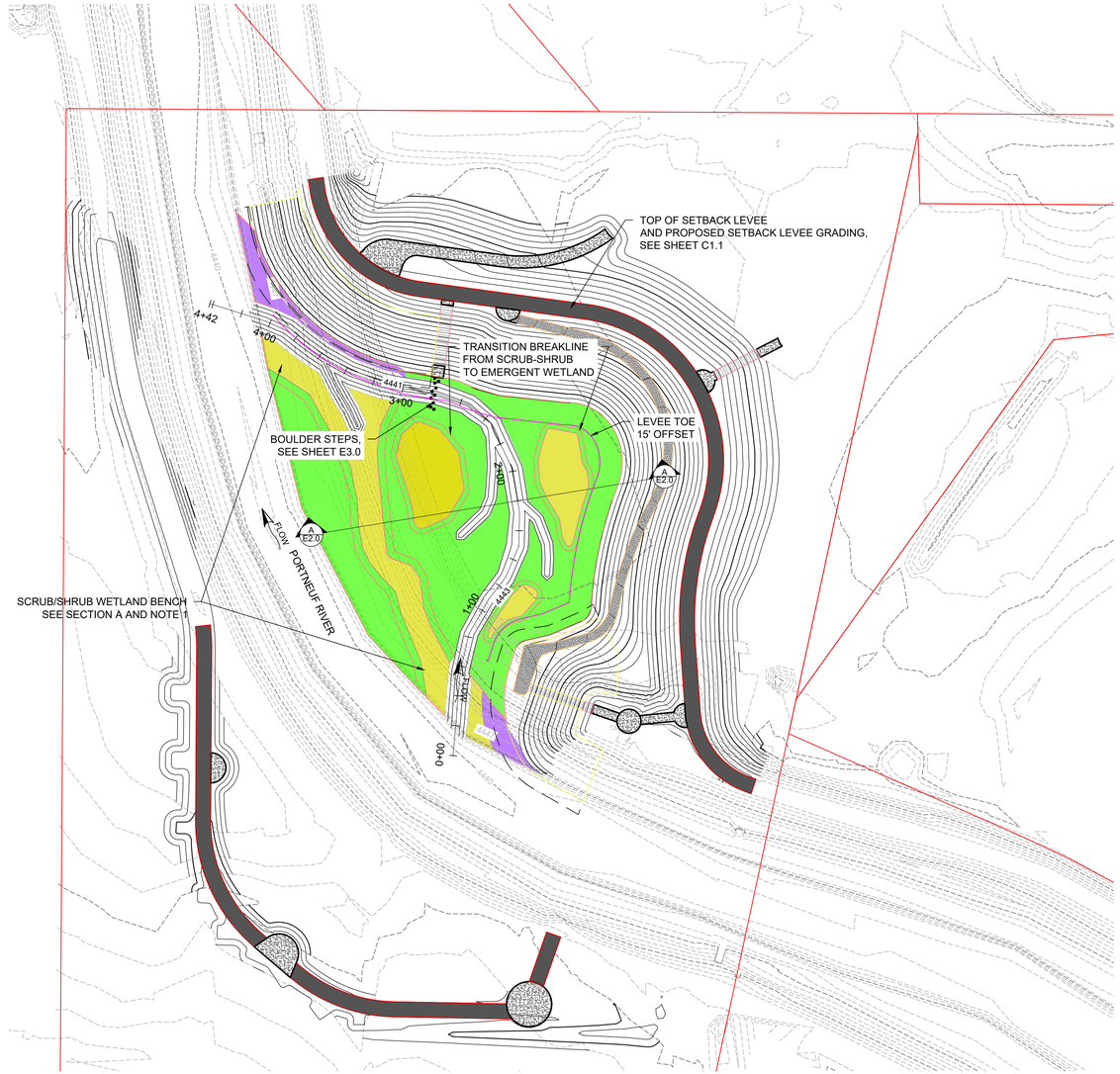
PROJECT NAME
CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

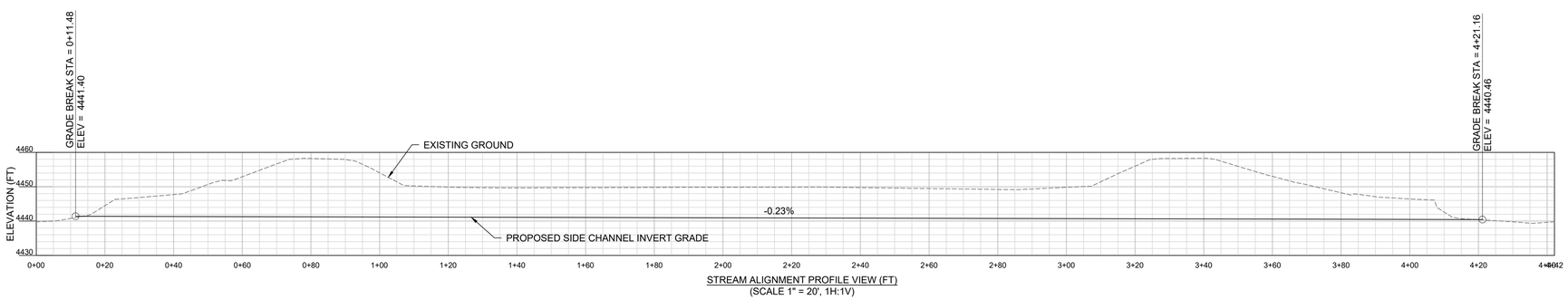
STANDARD DETAILS

SHEET #
D1.4



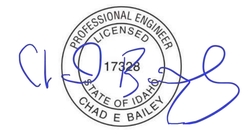
| WETLAND/SEEDING GRADING TARGET ELEVATIONS | |
|---|---|
| PLANTING/SEEDING TYPE | ELEVATION |
| EMERGENT WETLAND | 4,443.1 |
| SCRUB/SHRUB WETLAND | 4,443.8 |
| MESIC GRASSLAND | 4,443.8 |

NOTES:
1. A CONTINUOUS BAND OF SCRUB/SHRUB WETLAND HAS BEEN DESIGNED BETWEEN THE BANK OF THE PORTNEUF RIVER AND THE SIDE CHANNEL TO CREATE A BUFFER BETWEEN THE SIDE CHANNEL INUNDATION AND MAIN CHANNEL DURING THE ANNUAL PEAK FLOW OF 360 CFS.
2. NO WOODY PLANT MATERIAL WILL BE PLANTED WITHIN 15 FEET OF THE LEVEE TOE.




STREAM ALIGNMENT PROFILE VIEW (FT)
(SCALE 1" = 20', 1H:1V)

LEGEND
- EXISTING CONTOUR MAJOR (5')
- EXISTING CONTOUR MINOR (1')
- PROPOSED CONTOUR MAJOR (5')
- PROPOSED CONTOUR MINOR (1')
- PARCEL BOUNDARY
- PROPOSED SCRUB/SHRUB WETLAND AREAS
- PROPOSED EMERGENT WETLAND AREAS
- PROPOSED MESIC GRASSLAND AREAS
- PROPOSED TRAIL




2-17-2026
Stamp applies to Section E only

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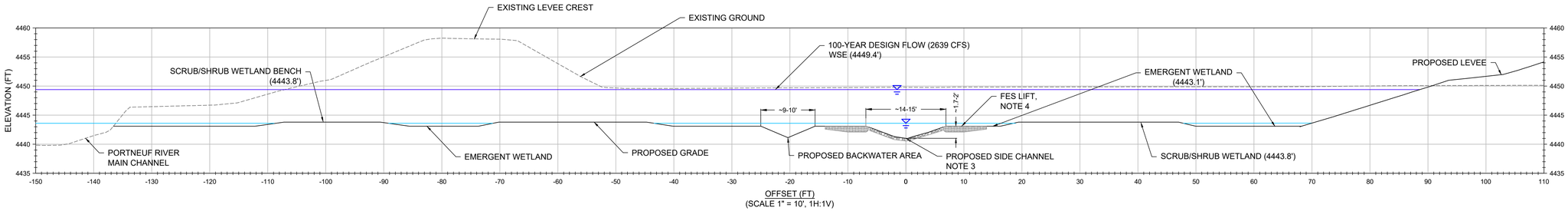
| A | 100% DESIGN PLANS | CEB | |

PROJECT NAME
CENTENNIAL PARK
POCATELLO, IDAHO

PROPOSED SIDE CHANNEL AREA
PLAN & PROFILE

SHEET #
E1.0




A / E1.0 SIDE CHANNEL & WETLAND - TYPICAL SECTION

NOTES:
1. SCRUB/SHRUB WETLAND ELEVATION SET JUST ABOVE ANNUAL PEAK FLOW OF 360 CFS WATER SURFACE ELEVATION.
2. WIDTH OF WETLAND AND BACKWATER AREAS VARIES, SEE PLAN FOR LAYOUT.
3. PROPOSED SIDE CHANNEL GEOMETRY - 2' ON EITHER SIDE OF CENTER AT 15% SLOPE, THEN 3.7' AT 37% SLOPE AND DAYLIGHT TO PROPOSED GRADE 50% SLOPE. CHANNEL TOP OF BANK DEPTH APPROXIMATELY 1.7' TO 2'. CHANNEL TO BE LINED WITH IMPORTED STREAMBED COBBLE. SEE DETAILS ON SHEET E3.0 AND E3.1.
4. SIDE CHANNEL BANKS TO BE CONSTRUCTED FROM FABRIC ENCAPSULATED SOIL (FES) LIFT. SEE SHEET E3.1 FOR DETAILS.
5. SEE SHEET E3.0 FOR TYPICAL DETAILS OF CHANNEL AND WETLAND CONSTRUCTION. SEE SHEET 5.0 FOR REVEGETATION PLAN.

LEGEND

- EXISTING GROUND
- PROPOSED GRADE
- APPROX. ANNUAL PEAK FLOW WSE
- APPROX. 100-YEAR DESIGN FLOW WSE

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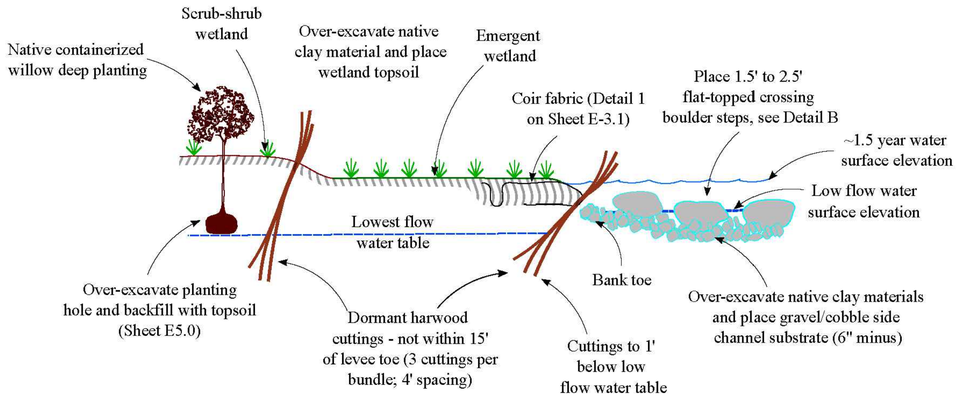
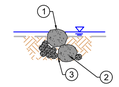
PROJECT NAME
**CENTENNIAL PARK**
**POCATELLO, IDAHO**

**PROPOSED SIDE CHANNEL AREA**
**TYPICAL SECTIONS**

SHEET #
**E2.0**



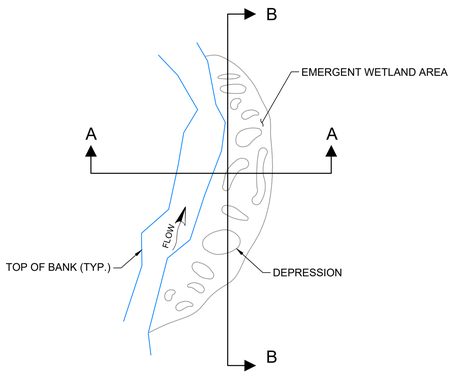

A E2.0 SIDE CHANNEL & WETLAND - TYPICAL DETAIL

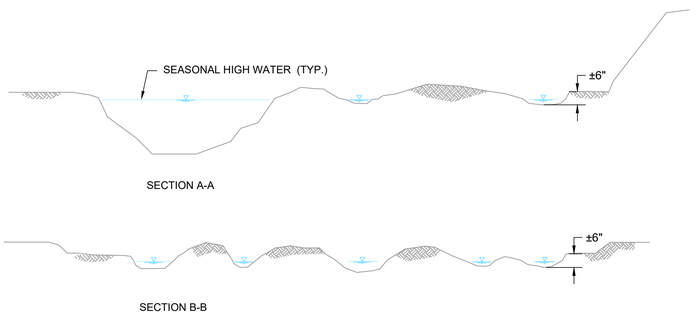



B E1.0 TYPICAL BOULDER STEP PROFILE VIEW (NTS)

BOULDER STEP NOTES:

1. HEADER BOULDER (1.5'-2.5' DIA.) TO BE EMBEDDED INTO STREAMBED BETWEEN 50 AND 65% OF BOULDER DIA.
2. FOOTER BOULDER, EMBED INTO STREAMBED SO THAT TOP BOULDER SITS ON FOOTER BOULDERS AS SHOWN.
3. STREAMBED COBBLE EMBEDDED TO SUPPORT FOOTER AND HEADER BOULDERS AS NEEDED. WASH IN FINE SEDIMENT MATERIAL INTO VOIDS AROUND BOULDER STEPS AND EXCAVATED TRENCH TO SEAL SIDE CHANNEL BED.




SECTION A-A



SECTION B-B

1 -- TYPICAL WETLAND CONTOURING NTS

NOTES:

1. LOCATION, ORIENTATION, AND SIZE OF SWALES AND DEPRESSIONS FOR WETLAND GRADING SHALL BE +- 6" OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
2. TYPICAL DRAWINGS SHOW ONLY PROPOSED SURFACE FOR CLARITY.
3. INTENT OF WETLAND GRADING IS TO ENHANCE WETLAND HABITAT DIVERSITY AND ROUGHNESS.
4. ALL WETLAND GRADING SHALL SIMULATE EXISTING NATURAL TOPOGRAPHY.

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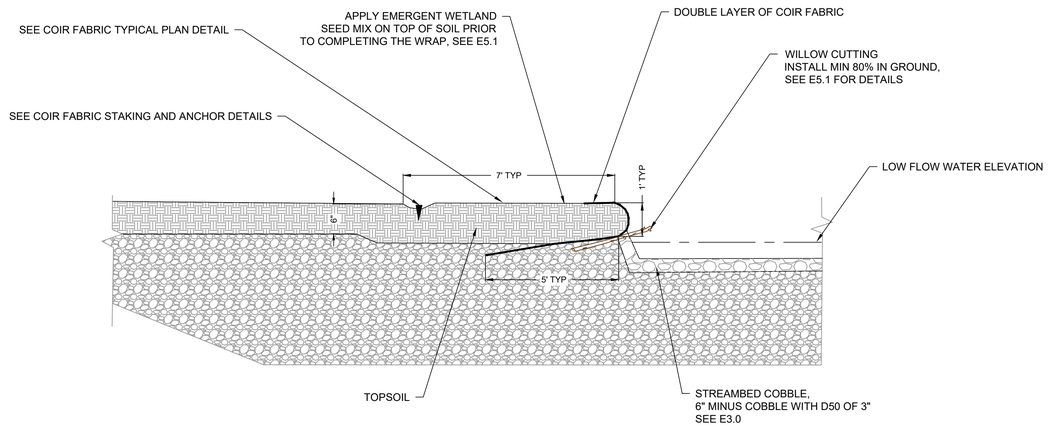
PROJECT NAME

CENTENNIAL PARK
POCATELLO, IDAHO

PROPOSED SIDE CHANNEL AREA
TYPICAL DETAILS

SHEET #

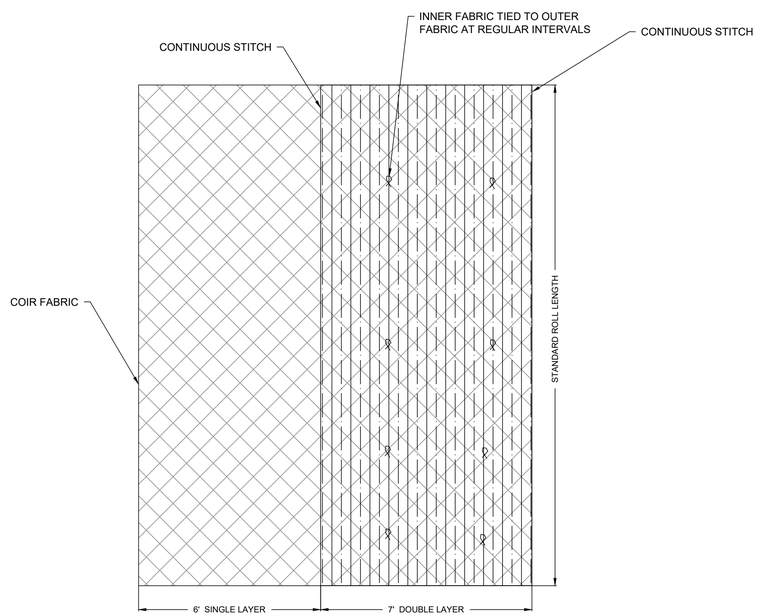
E3.0



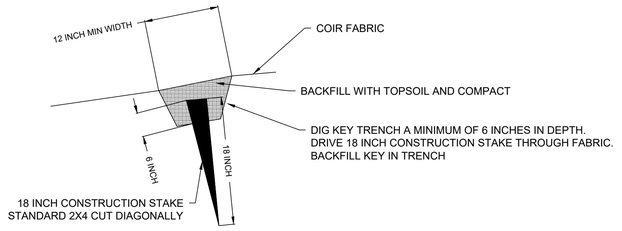

1 / E2.0 FES LIFT - TYPICAL SECTION DETAIL
NTS

FES LIFT CONSTRUCTION NOTES:

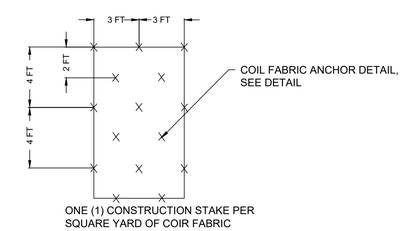
1. PLACE COIR FABRIC BEHIND STREAMBED COBBLE AS AN END TREATMENT FOR THE FABRIC. INSTALLATION SHALL FOLLOW MANUFACTURER RECOMMENDATIONS FOR MINIMUM OVERLAP AND PINNING.
2. FES LIFT CONSTRUCTED OF DUAL FABRIC (C21BD OR EQUIVALENT FOR EXTERIOR AND COIR 700 OR EQUIVALENT FOR INTERIOR). FOLLOW MANUFACTURER GUIDELINES FOR ANCHOR TRENCH.
3. CONTINUE PLACING THE COIR FABRIC AS THE BANK IS SLOPED. ON TOP OF THE BANK FACE AND BELOW THE FABRIC, PLACE NATIVE SEED MIX AS DESCRIBED ON THE REVEGETATION DETAIL SHEET.
4. CONTINUE BANK CONSTRUCTION AS SHOWN IN THE PLAN.
5. NO WILLOW CUTTINGS TO BE INSTALLED UNDER THE FESL WITHIN THE LEVEE TOE 15' OFFSET, SEE PLAN.




2 / - COIR FABRIC - TYPICAL PLAN
NTS




3 / - COIR FABRIC ANCHOR DETAIL
NTS




4 / - COIR FABRIC SURFACE STAKING DETAIL
NTS

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MEASURE, FULL SCALE

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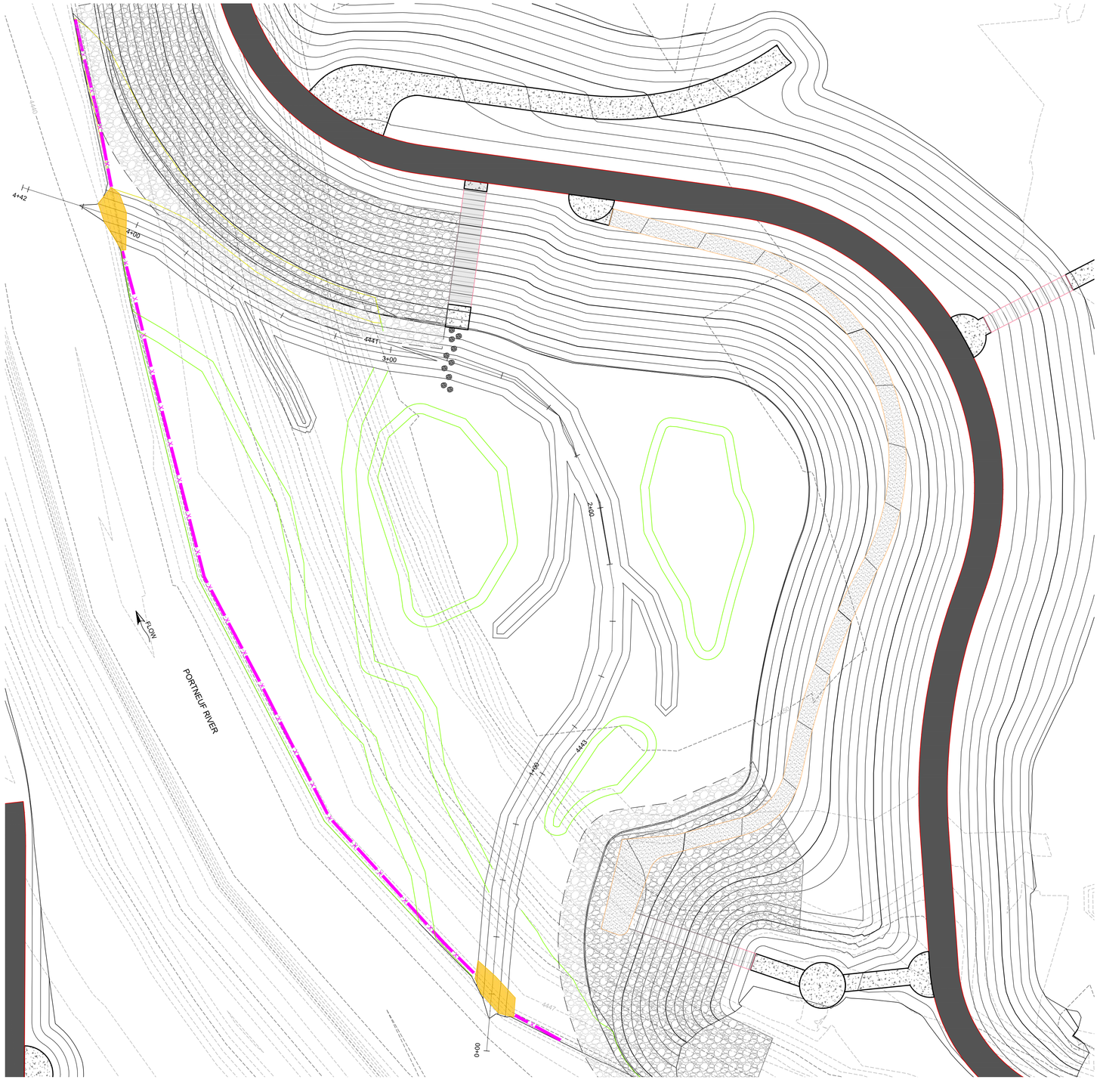
PROJECT NAME

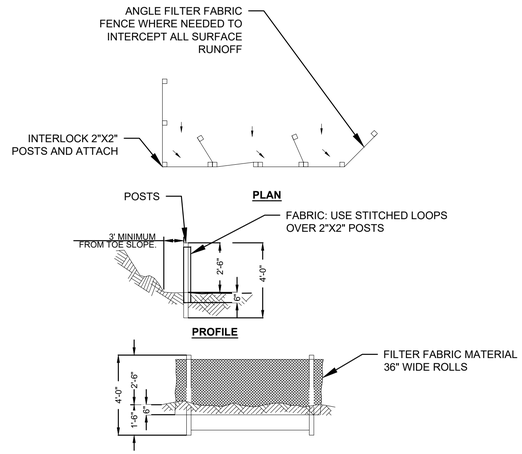
# CENTENNIAL PARK POCATELLO, IDAHO

## FABRIC ENCAPSULATED SOIL LIFT TYPICAL DETAILS

SHEET #

E3.1




TEMPORARY SILT FENCE TYPICAL DETAIL

SEDIMENT FENCE NOTES:

1. SEDIMENT FENCE SHALL BE INSTALLED ON A LINE OF EQUAL ELEVATION.
2. BOTTOM EDGE OF SEDIMENT FENCE SHALL BE BURIED MIN 6".
3. POSTS MAY BE 2"X2" FIR, PINE OR STEEL.
4. POSTS TO BE INSTALLED ON UPHILL SIDE OF SLOPE.
5. COMPACT BOTH SIDES OF FILTER FABRIC TRENCH.
6. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES 1/3 OF THE MEASURE HEIGHT. SEDIMENT SHALL BE DISPOSED OF TO AN AREA THAT CAN BE PERMANENTLY STABILIZED.

NOTES:
1. INSTALL SILT FENCE ALONG THE BOUNDARY OF THE WORK AREA WITH THE PORTNEUF RIVER AS SHOWN IN THE DETAIL.
2. FILL PLUG TO REMAIN/COFFERDAM TO BE PLACED DURING PERIOD OF LOW OR NO FLOW AT INLET AND OUTLET OF PROPOSED SIDE CHANNEL. CONSTRUCT THE SIDE CHANNEL IN THE DRY. ONCE SIDE CHANNEL AND ALL WETLAND AREAS ARE CONSTRUCTED, REMOVE PLUGS/COFFERDAMS AND SIDE CHANNEL TERMINUSES TO ALLOW LOW FLOW TO ENTER SIDE CHANNEL.

LEGEND

- EXISTING CONTOUR MAJOR (5')
- EXISTING CONTOUR MINOR (1')
- PROPOSED CONTOUR MAJOR (5')
- PROPOSED CONTOUR MINOR (1')
- PROPOSED WETLAND BREAKLINE
- PARCEL BOUNDARY
- CHANNEL PLUG/COFFERDAM
- PROPOSED TESC (WATTLE/SILT FENCE)
- PROPOSED TRAIL

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PROJECT NAME
CENTENNIAL PARK
POCATELLO, IDAHO

PROPOSED SIDE CHANNEL AREA
WATER MANAGEMENT PLAN

SHEET #
E4.0

NOTES:
1. SEE SHEET E5.1 FOR PLANTING DETAILS AND SPECIFICATIONS.

LEGEND

- EXISTING CONTOUR MAJOR (5')
- EXISTING CONTOUR MINOR (1')
- PROPOSED CONTOUR MAJOR (5')
- PROPOSED CONTOUR MINOR (1')
- PROPOSED WETLAND BREAKLINE
- PARCEL BOUNDARY
- PROPOSED BANK PLANTING
- PROPOSED SCRUB/SHRUB WETLAND AREA
- PROPOSED EMERGENT WETLAND AREA
- PROPOSED MESIC GRASSLAND AREAS
- PROPOSED TRAIL

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PROJECT NAME

# CENTENNIAL PARK
# POCATELLO, IDAHO

## PROPOSED SIDE CHANNEL AREA REVEGETATION PLAN

SHEET #

**E5.0**

**REVEGETATION NOTES:**

THREE DISTINCT REVEGETATION TREATMENTS WILL BE UTILIZED TO REVEGETATE THE CREATED WETLANDS, SIDE CHANNEL BANKS, AND MESIC GRASSLAND AREA. THESE TREATMENTS ARE DETAILED BELOW. PLANNED EMERGENT WETLANDS AND MESIC GRASSLAND AREAS SHALL BE REVEGETATED WITH REVEGETATION TREATMENT A. PLANNED SCRUB-SHRUB WETLANDS SHALL BE REVEGETATED WITH REVEGETATION TREATMENTS A, B, AND C. DESIGNATED BANK PLANTING AREAS WILL BE REVEGETATED WITH REVEGETATION TREATMENT C. NO WOODY PLANT MATERIAL WILL BE PLANTED WITHIN 15 FEET OF THE LEVEE TOE TO ALLOW FOR LEVEE ASSESSMENT AND MAINTENANCE.

**REVEGETATION TREATMENT A**

REVEGETATION TREATMENT A INCLUDES WEED MANAGEMENT, GRADING AND TOPSOIL APPLICATION, SEEDBED PREPARATION, SEED APPLICATION, MULCH APPLICATION, AND SUPPLEMENTAL IRRIGATION.

**WEED MANAGEMENT**

ALL CONSTRUCTION EQUIPMENT AND VEHICLES SHALL BE WASHED AND CLEANED PRIOR TO MOBILIZING TO AND FROM THE PROJECT SITE TO PREVENT THE SPREAD OF NOXIOUS WEEDS. ALL DISTURBED AREAS SHOULD BE CLOSELY MONITORED FOR THE PRESENCE OF WEEDS THROUGH ALL PHASES OF CONSTRUCTION. WEED CONTROL SHOULD BE PERFORMED AT THE FIRST SIGN OF WEED PRESENCE. OWNER SHALL PERFORM THE POST-CONSTRUCTION WEED CONTROL.

**GRADING AND TOPSOIL APPLICATION**

PROVIDE ROUGH GRADING TO A SUBGRADE ELEVATION THAT IS 6" LOWER THAN THE PLANNED FINISHED GRADE IN PLANNED WETLAND AREAS. AFTER ROUGH GRADING, PLACE 6 INCHES OF SALVAGED TOPSOIL ON SUBGRADE TO ACHIEVE THE FINISHED GRADE AND PROVIDE FOR A SMOOTH TRANSITION TO SURROUNDING GRADE. IF THE QUANTITY OF SALVAGED TOPSOIL IS INSUFFICIENT, THEN IT WILL BE NECESSARY TO IMPORT WEED-FREE TOPSOIL OR ENGINEER TOPSOIL OUT OF A COMPOST/SUBSOIL/MYCORRHIZAL INOCULUM BLEND.

**SEED BED PREPARATION**

ONCE APPLIED, TOPSOIL SHALL BE ROLLED OR LIGHTLY TAMPED WITH AN EXCAVATOR BUCKET TO FIRM THE SEEDBED. CAUTION SHALL BE TAKEN IF THE TOPSOIL IS TRACK-WALKED WITH HEAVY EQUIPMENT DUE THE POTENTIAL FOR SOIL COMPACTION AND DETRIMENTAL EFFECTS ON GROWING CONDITIONS. PROPER SOIL FIRMNESS IS ESSENTIAL TO OPTIMIZING GERMINATION AND ESTABLISHMENT OF SEEDED VEGETATION. THE TARGET FIRMNESS IS MEASURED BY AN ADULT FOOTPRINT BEING ONLY SLIGHTLY VISIBLE (1/4" DEEP PRINT) AFTER WALKING ON IT.

**SEEDING**

AFTER FINISH GRADING AND SEEDBED PREP HAS BEEN COMPLETED, THE CREATED WETLANDS AND MESIC GRASSLAND AREAS SHALL BE SEEDED WITH THE SEEDMIX PROVIDED BELOW. ANY SPECIES SUBSTITUTIONS MUST BE APPROVED BY THE DESIGN CONSULTANT. SEED SHALL BE MEASURED IN POUNDS OF PURE LIVE SEED (PLS) AND APPLIED AT THE RATE SPECIFIED BELOW. SEED SHALL BE CLEAN, DRY, NEW-CROP SEED DELIVERED TO THE PROJECT SITE IN ORIGINAL SEALED, LABELED AND UNDAMAGED CONTAINER(S). SEED CONTAINERS SHALL BE LABELED IN ACCORDANCE WITH THE REQUIREMENTS AND STANDARDS OF THE ASSOCIATION OF OFFICIAL SEED CERTIFICATION AGENCIES (AOSCA). SEED SHALL HAVE BEEN TESTED FOR, AND CERTIFIED FREE OF, NOXIOUS WEEDS SEED IN ACCORDANCE WITH THE IDAHO PURE SEED LAW (IS 22-414) AND SHALL BE SO LABELED. COPIES OF SEED TAGS AND CERTIFICATION LABELS SHALL BE MAINTAINED ON THE JOB SITE AND PROVIDED TO THE DESIGN CONSULTANT FOR REVIEW AND APPROVAL PRIOR TO SOWING THE SEED.

SEED SHALL BE BROADCAST AS SOON AS POSSIBLE AFTER HIGH WATER RECEDES IN THE SUMMER AND EXPOSES THE WETLAND BENCHES. SEED SHALL NOT BE BROADCAST ON SNOW-COVERED GROUND. AFTER SEEDING, THE SEED SHOULD BE ROLLED, OR LIGHTLY HARROWED OR RAKED TO ENSURE MAXIMUM SEED-TO-SOIL CONTACT.

**MULCHING**

MULCH SHALL BE APPLIED AFTER THE SEEDING TO ENHANCE SEED GERMINATION AND EARLY SEEDLING ESTABLISHMENT. LONG-STRAND MULCH SUCH AS WOOD STRANDS, STRAW, OR WOOD CHIPS IS THE PREFERRED MULCH FOR THIS PROJECT. IF STRAW IS USED, IT SHOULD BE CERTIFIED "WEED-FREE" STRAW DERIVED FROM WHEAT, RICE, BARLEY, OR NATIVE GRASSES. THE DEPTH/THICKNESS OF THE MULCH LAYER SHOULD BE ABOUT 1 INCH. APPROXIMATELY 15% TO 20% OF THE SOIL SURFACE SHOULD BE VISIBLE THROUGH THE MULCH AFTER APPLICATION. IF STRAW IS UTILIZED, A NATURAL TACKIFIER SHOULD BE HYDRAULICALLY APPLIED (125 LBS/ACRE) OVER THE STRAW IN ORDER TO KEEP IT IN PLACE. ALTERNATIVELY, STRAW MULCH CAN BE MECHANICALLY CRIMPED, ROLLED, OR PUNCHED INTO THE SOIL.

**IRRIGATION**

SUPPLEMENTAL SPRINKLER IRRIGATION WILL BE NECESSARY FOR THE FIRST 2 GROWING SEASONS TO FACILITATE GERMINATION AND ESTABLISHMENT. IRRIGATION SHOULD OCCUR TWICE PER WEEK, OR AS NEEDED TO KEEP THE SOIL SURFACE MOIST THROUGH THE DRY SUMMER MONTHS (JUNE-SEPTEMBER). THE SPECIFIED SPECIES ARE NATIVE AND ADAPTED TO THE REGIONAL CLIMATE; THEREFORE, NO IRRIGATION WILL BE REQUIRED AFTER THE VEGETATION HAS BECOME ESTABLISHED.

**REVEGETATION TREATMENT B**

REVEGETATION TREATMENT B INVOLVES THE INSTALLATION OF NURSERY-GROWN PLANT STOCK. CONTAINERIZED, NATIVE, NURSERY-GROWN WILLOWS AND COTTONWOODS WILL BE A MINIMUM OF 5-GALLON CONTAINERIZED STOCK AND ACQUIRED FROM A REGIONAL NURSERY. WILLOWS WILL BE INSTALLED IN CLUSTERS AT APPROXIMATELY 10 FT O.C. SPACING THROUGHOUT THE SCRUB-SHRUB WETLAND AREAS. SPECIES MAY INCLUDE COYOTE WILLOW (SALIX EXIGUA), YELLOW WILLOW (SALIX LUTEA), WHIPLASH WILLOW (SALIX LASIANDRA), AND PEACH-LEAF WILLOW (SALIX AMYGDALOIDES). FINAL SPECIES SCHEDULE WILL BE BASED ON NURSERY AVAILABILITY AT THE TIME OF PLANTING AND MUST BE APPROVED BY DESIGN CONSULTANT. WILLOWS WILL BE INSTALLED SO THAT THE BOTTOM OF THE ROOTBALL IS IN THE LOW-FLOW WATER TABLE OR ZONE OF CAPILLARY FRINGE AND THE ROOT COLLAR IS BELOW GROUND LEVEL (SEE ROOTED STOCK PLANTING DIAGRAM).

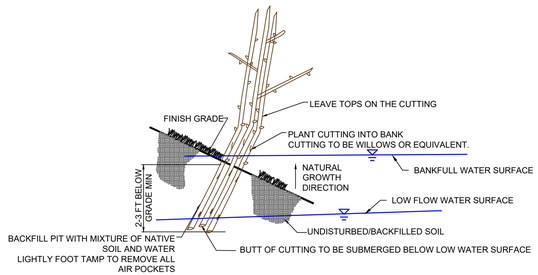
**REVEGETATION TREATMENT C**

REVEGETATION TREATMENT C INVOLVES THE INSTALLATION OF WILLOW POLE CUTTINGS.

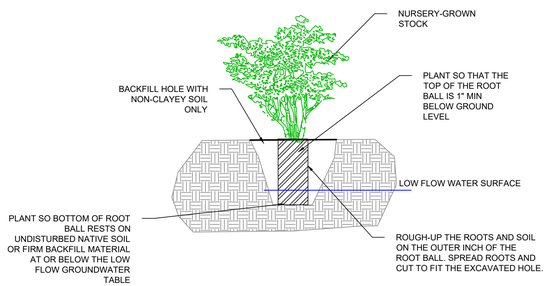
DORMANT WILLOW POLE CUTTINGS WILL BE UTILIZED IN CONCERT WITH THE PLANTING OF NURSERY-GROWN STOCK TO VEGETATE THE SCRUB-SHRUB WETLAND AREAS. CUTTINGS WILL BE HARVESTED FROM HEALTHY VIGOROUS PLANTS DURING THE DORMANT SEASON (I.E., BETWEEN DORMANCY/LEAF ABSCISSION IN THE FALL AND BUD BREAK IN THE SPRING). CARE WILL BE TAKEN TO AVOID HARVESTING CUTTINGS FROM DONOR PLANTS THAT EXHIBIT SIGNS OF DAMAGE BY DISEASE OR INSECTS. CUTTINGS WILL BE COMPRISED OF LOCALLY-COLLECTED WILLOW STEMS THAT HAVE A MINIMUM BOTTOM DIAMETER OF 1-INCH, HAVE A MINIMUM LENGTH OF 7 FEET, AND ARE RELATIVELY STRAIGHT. CUTTINGS WILL BE REMOVED FROM THE DONOR PLANT WITH A CLEAN DIAGONAL CUT AT THE BASE OF THE STEM USING LOPPING SHEARS, BYPASS PRUNERS, OR A SHARP SAW. THE DIAGONAL SURFACE WILL ALLOW FOR EASIER INSTALLATION. THE TERMINAL BUDS AND A FEW UPPER BRANCHES WILL BE LEFT INTACT. ALL OTHER LATERAL BRANCHES WILL BE REMOVED BY CLIPPING THEM AS CLOSE TO THE BRANCH COLLAR AS POSSIBLE. CAUTION WILL BE USED TO AVOID DAMAGING THE STEM WHILE TRIMMING THE LATERAL BRANCHES.

CUTTINGS WILL BE BUNDLED BY TYPE AND KEPT COOL, MOIST, AND SHADED DURING TRANSPORTATION AND ON-SITE STORAGE. THE CUTTINGS WILL BE SOAKED IN WATER FOR 7-14 DAYS PRIOR TO INSTALLATION. AT LEAST HALF OF THE LENGTH OF THE CUTTING SHOULD BE IN CONTACT WITH WATER WHILE SOAKING, AND CUTTINGS SHOULD BE WEIGHTED DOWN WHEN SOAKED.

BUNDLES OF 3 CUTTINGS WILL BE INSTALLED ON APPROXIMATE 10-FOOT SPACING IN THE SCRUB-SHRUB WETLAND AREAS AND INSTALLED ON APPROXIMATE 5 LINEAL FOOT SPACING IN DESIGNATED BANK PLANTING AREAS ALONG THE SIDE CHANNEL. SMALL TRENCHES WILL BE EXCAVATED AND BUNDLES WILL BE INSTALLED SO THAT THE BUTTS OF THE CUTTINGS ARE BELOW THE LOW-FLOW WATER LEVEL. THE TRENCHES WILL THEN BE BACKFILLED WITH SOIL THAT IS CONDUCIVE FOR THE ESTABLISHMENT AND GROWTH OF THE INSTALLED WILLOWS.




1 -- TYPICAL DETAIL - LIVE CUTTING/BUNDLE
NTS




2 -- TYPICAL DETAIL - CONTANIERIZED STOCK
NTS

| SEED MIX: EMERGENT WETLAND, SCRUB-SHRUB WETLAND, AND MESIC GRASSLAND | | |
|---|---|---|
| COMMON NAME | SCIENTIFIC NAME | LBS PLS PER ACRE |
| Artic rush | *Juncus arcticus* | 0.2 |
| Poverty rush | *Juncus tenuis* | 0.1 |
| Tufted hairgrass | *Deschampsia cespitosa* | 0.8 |
| Slender wheatgrass | *Elymus trachycaulus* | 12.0 |
| Creeping bentgrass | *Agrostis stolonifera* | 0.3 |
| Bluejoint reedgrass | *Calamagrostis canadensis* | 0.6 |
| Fowl bluegrass | *Poa palustris* | 0.6 |
| American sloughgrass | *Beckmannia syzigachne* | 3.6 |
| | **TOTAL** | 18.2 |

| REVEGETATION AREAS | | |
|---|---|---|
| ITEMS | UNITS | |
| EMERGENT | AC | 0.49 |
| SCRUB-SHRUB | AC | 0.22 |
| MESIC GRASSLAND | AC | 0.04 |
| | TOTAL | 0.76 |

| WILLOW CUTTING/NURSERY STOCK QUANTITIES | | | |
|---|---|---|---|
| **TREATMENT/PLANT MATERIAL** | **UNITS** | **QUANTITY** | **SPACING** |
| SCRUB-SHRUB WETLAND | | | |
| NURSERY-GROWN WILLOW - SALIX LUTEA | EA | 26 | |
| NURSERY-GROWN WILLOW - SALIX EXIGUA | EA | 25 | |
| NURSERY-GROWN WILLOW - SALIX LASIANDRA | EA | 25 | |
| NURSERY-GROWN WILLOW - SALIX AMYGDALOIDES | EA | 20 | |
| **NURSERY-GROWN WILLOW TOTAL** | **EA** | **96** | **10 FT O.C.** |
| BUNDLE OF 3 WILLOW CUTTINGS | EA | 96 | 10 FT O.C. |
| **WILLOW CUTTING SUBTOTAL** | | **287** | |
| | | | |
| SIDE CHANNEL BANK PLANTING | | | |
| BUNDLE OF 3 WILLOW CUTTINGS | EA | 159 | 5 LF |
| **WILLOW CUTTING SUBTOTAL** | | **477** | |
| **CUTTING TOTAL** | | **764** | |

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FILE :

PROJ. #:

DATE: 7/20/2026

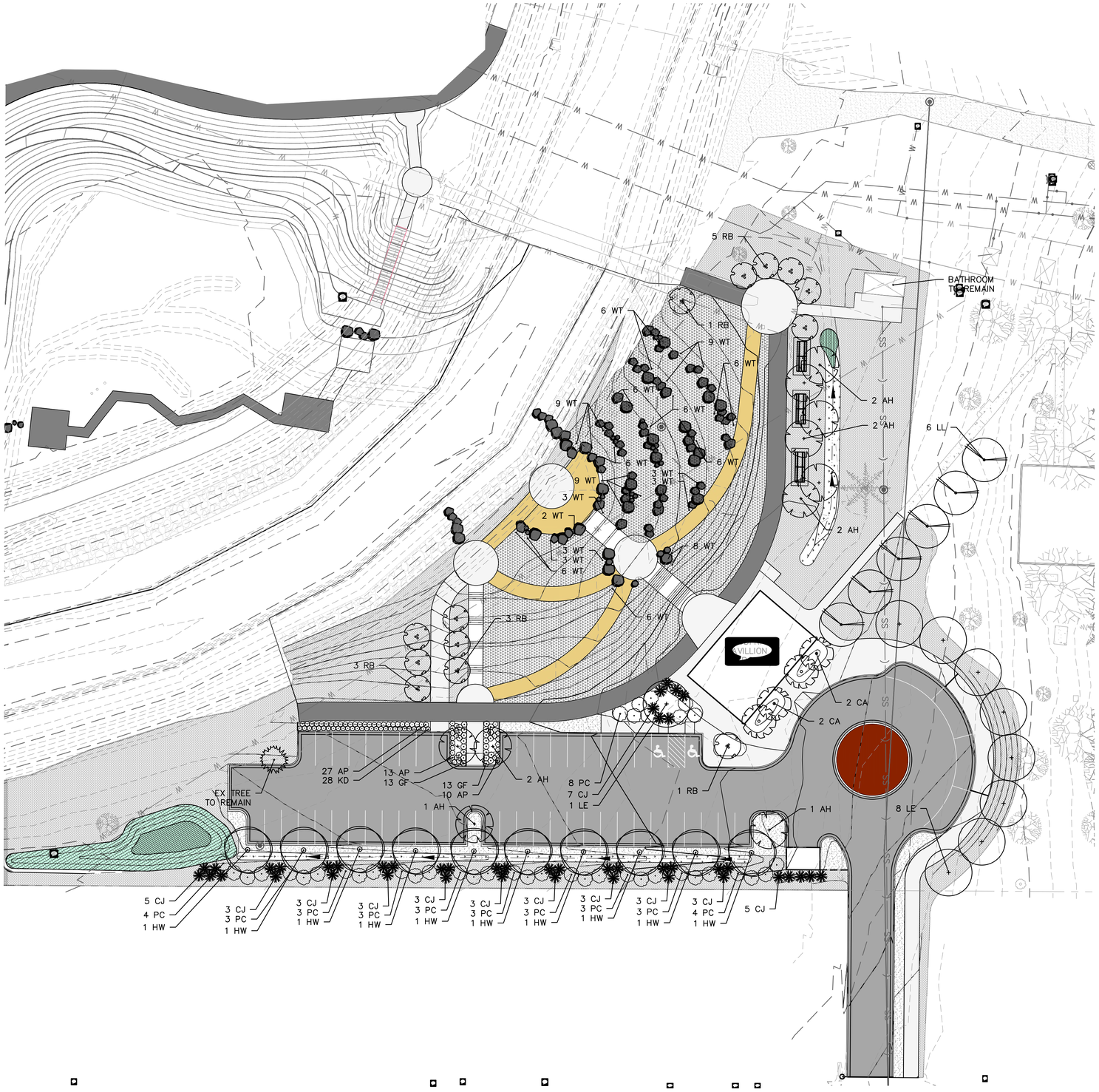
REVISIONS:

| | | | | |
|---|---|---|---|---|
| A | 100% DESIGN PLANS | | | |
| | | CEB | | |

PROJECT NAME
CENTENNIAL PARK
POCATELLO, IDAHO

REVEGETATION PLAN
TYPICAL DETAILS

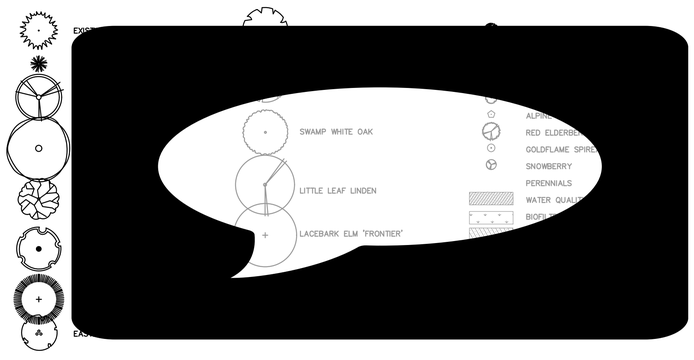
SHEET #
E5.1




# CENTENNIAL PARK PLANT SCHEDULE:

| KEY | QTY. | SCIENTIFIC NAME | COMMON NAME | CONDITION | SIZE | SPACING |
|---|---|---|---|---|---|---|
| | | EVERGREEN TREES | | | | |
| CJ | 44 | Juniperus chinensis 'Spartan' | CHINESE JUNIPER | B & B | 10'–15' H | As Shown |
| | | DECIDUOUS TREES | | | | |
| HW | 10 | Acer tataricum 'Hot Wings' | TATARIAN MAPLE | B & B | 3"–3.5" CAL. | |
| RB | 12 | Cercis canadensis | EASTERN REDBUD | B & B | 2"–2.5" CAL. | |
| CA | 4 | Malus 'Spring Snow' | SPRING SNOW CRABAPPLE | B & B | 3"–3.5" CAL. | |
| AH | 9 | Ostrya virginiana | AMERICAN HOPHORNBEAM | B & B | 3"–3.5" CAL. | |
| LL | 6 | Tilia cordata | LITTLE LEAF LINDEN | B & B | 3"–3.5" CAL. | |
| LE | 9 | Ulmus parvifolia 'Frontier' | FRONTIER LACEBARK ELM | B & B | 3"–3,5" CAL. | |
| | | DECIDUOUS SHRUBS | | | | |
| KD | 28 | Cornus sericea 'Kelseyi' | KELSEY DOGWOOD | CONT. | 5 GAL. | |
| PC | 40 | Cotoneaster acutifolius v lucidus | PEKING COTONEASTER | CONT. | 5 GAL. | |
| AP | 50 | Ribes alpinum 'Greenmound'' | ALPINE CURRANT | CONT. | 5 GAL. | |
| RE | 0 | Sambucus racemosa | RED ELDERBERRY | CONT. | 5 GAL. | |
| GF | 26 | Spiraea japonica 'Goldflame' | GOLDFLAME SPIREA | CONT. | 5 GAL. | |
| | | WATER QUALITY GRASS SEED MIX | | | | |
| | | Festuca idahoensis 'Nezpurs' | IDAHO FESCUE | | 2 lbs. PLS/Acre | |
| | | Elymus elymoides 'Fish Creek' | SQUIRRELTAIL BOTTLEBRUSH | | 3 lbs. PLS/Acre | |
| | | Poa sandbergii 'High plains' | SANDBERG BLUEGRASS | | 2 lbs. PLS/Acre | |
| | | Pascopyrum smithii | WESTERN WHEATGRASS | | 3 lbs. PLS/Acre | |
| | | Geranium viscossimum | STICKY GERANIUM | | 2 lbs. PLS/Acre | |
| | | Linum lewisii | LEWIS' FLAX | | 3 lbs. PLS/Acre | |
| | | Penstemon eatonii 'Richfield' | FIRECRACKER PENSTEMON | | 0.5 lbs. PLS/Acre | |
| | | Penstemon strictus | ROCKY MOUNTAIN PENSTEMON | | 4 lbs. PLS/Acre | |
| | | BIOFILTRATION SWALE GRASS MIX (<6") | | | | |
| | | Bouteloua gracilis | BLUE GRAMA | | 2 lbs. PLS/Acre | |
| | | Festuca ovina | SHEEP FESCUE | | 4 lbs. PLS/Acre | |
| | | Poa alpina | ALPINE BLUEGRASS | | 3 lbs. PLS/Acre | |
| | | Poa sandbergii 'High plains' | SANDBERG BLUEGRASS | | 2 lbs. PLS/Acre | |
| | | Linum lewisii | LEWIS' FLAX | | 3 lbs. PLS/Acre | |
| | | BIORETINTION BASIN SLOPES MIX | | | | |
| | | Agropyron dasytachyum 'Bannock' | THICKSPIKE WHEATGRASS | | 8 lbs. PLS/Acre | |
| | | Agropyron spicatum 'Anatone' | BLUEBUNCH WHEATGRASS | | 8 lbs. PLS/Acre | |
| | | Agropyron riparium 'Sodar' | STREAMBANK WHEATGRASS | | 7 lbs. PLS/Acre | |
| | | Agropyron trachycaulum 'Pryor' | SLENDER WHEATGRASS | | 7 lbs. PLS/Acre | |
| | | Elymus elymoides 'Fish Creek' | SQUIRRELTAIL BOTTLEBRUSH | | 6 lbs. PLS/Acre | |
| | | Poa sandbergii 'High plains' | SANDBERG BLUEGRASS | | 3 lbs. PLS/Acre | |
| | | Artemisia ludoviciana | PRAIRIE WHITE SAGE | | | |
| | | Achillea millefolium var. occidentalis | WESTERN YARROW | | | |
| | | Eriogonum umbellatum | SULPHUR–FLOWER BUCKWHEAT | | | |
| | | Penstemon palmeri | PALMER'S PENSTEMON | | | |
| | | NATIVE UPLAND GRASS MIX | | | | |
| | | Agropyron spicatum 'Anatone' | BLUEBUNCH WHEATGRASS | | 14 lbs. PLS/Acre | |
| | | Poa sandbergii 'Highplains' | SANDBERG BLUEGRASS | | 3 lbs. PLS/Acre | |
| | | Agropyron dasytachyum 'Bannock' | THICKSPIKE WHEATGRASS | | 8 lbs. PLS/Acre | |
| | | Elymus cinereus 'Magnar' | BASIN WILDRYE | | 8 lbs. PLS/Acre | |
| | | Festuca idahoensis 'Nezpurs' | IDAHO FESCUE | | 6 lbs. PLS/Acre | |
| | | Achillea millefolium var. occidentalis | WESTERN YARROW | | 2 lbs. PLS/Acre | |
| | | Eriogonum umbellatum | SULPHUR–FLOWERED BUCKWHEAT | | 0.5 lbs. PLS/Acre | |
| | | Balsamorhiza sagittata | ARROWLEAF BALSAMROOT | | 1 lbs. PLS/Acre | |
| | | Sphaeralcea munroana | MONROE'S GLOBEMALLOW | | 3 lbs. PLS/Acre | |
| | | PERENNIALS | | | | |
| WT | 100 | Thymus praecox 'Pseudolanuginosus' | WOOLY THYME | 4" POTS | 18" O.C. | |

# PLANT LEGEND:

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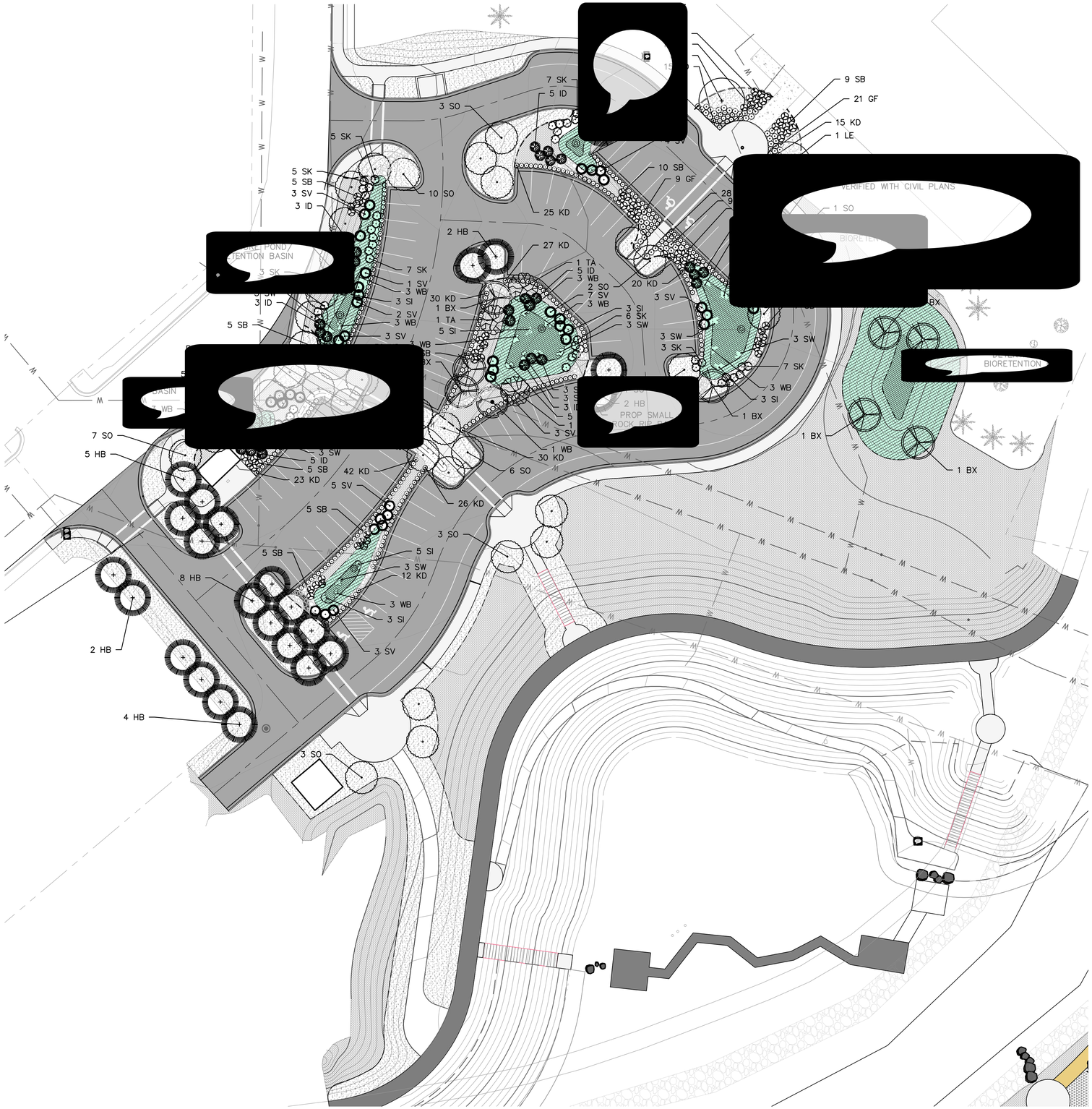
FILE #:
PROJ. #:
DATE:
REVISIONS:

95% DESIGN IMPROVEMENT PLANS - NOT FOR CONSTRUCTION

PROJECT NAME
CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

LANDSCAPE PLAN - CENTENNIAL PARK (SOUTHWEST)

SHEET #
L1.1




# RAINEY PARK PLANT SCHEDULE:

| KEY | QTY. | SCIENTIFIC NAME | COMMON NAME | CONDITION | SIZE | SPACING |
|---|---|---|---|---|---|---|
| | | DECIDUOUS TREES | | | | |
| BX | 8 | Acer negundo | BOXELDER | B&B | 2"–2.5" CAL. | |
| TA | 3 | Alnus incana | THINLEAF ALDER | B&B | 2"–2.5" CAL. | |
| WB | 1 | Betula occidentalis | WATER BIRCH | B&B | 2"–2.5" CAL. | |
| HB | 24 | Celtis occidentalis | HACKBERRY | B&B | 2"–2.5" CAL. | |
| AH | 1 | Ostrya virginiana | AMERICAN HOPHORNBEAM | B&B | 3"–3.5" CAL. | |
| SO | 37 | Quercus bicolor | SWAMP WHITE OAK | B&B | 3"–3.5" CAL. | |
| LE | 2 | Ulmus parvifolia 'Frontier' | FRONTIER LACEBARK ELM | B&B | 3"–3.5" CAL. | |
| | | DECIDUOUS SHRUBS | | | | |
| ID | 28 | Cornus sericea 'Isanti' | ISANTI REDTWIG DOGWOOD | CONT. | 5 GAL. | |
| KD | 389 | Cornus sericea 'Kelseyi' | KELSEY DOGWOOD | CONT. | 5 GAL. | |
| SV | 43 | Elaeagnus commutata | SILVERBERRY | CONT. | 5 GAL. | |
| SK | 48 | Rhus trilobata | SKUNKBUSH SUMAC | CONT. | 5 GAL. | |
| RE | 0 | Sambucus racemosa | RED ELDERBERRY | CONT. | 5 GAL. | |
| GF | 56 | Spiraea japonica 'Goldflame' | GOLDFLAME SPIREA | CONT. | 5 GAL. | |
| SB | 76 | Symphoricarpos albus | SNOWBERRY | CONT. | 5 GAL. | |
| | | WATER QUALITY GRASS SEED MIX | | | | |
| | | Festuca idahoensis 'Nezpurs' | IDAHO FESCUE | | 2 lbs. PLS/Acre | |
| | | Elymus elymoides 'Fish Creek' | SQUIRRELTAIL BOTTLEBRUSH | | 3 lbs. PLS/Acre | |
| | | Poa sandbergii 'High plains' | SANDBERG BLUEGRASS | | 2 lbs. PLS/Acre | |
| | | Pascopyrum smithii | WESTERN WHEATGRASS | | 3 lbs. PLS/Acre | |
| | | Geranium viscossimum | STICKY GERANIUM | | 2 lbs. PLS/Acre | |
| | | Linum lewisii | LEWIS' FLAX | | 3 lbs. PLS/Acre | |
| | | Penstemon eatonii 'Richfield' | FIRECRACKER PENSTEMON | | 0.5 lbs. PLS/Acre | |
| | | Penstemon strictus | ROCKY MOUNTAIN PENSTEMON | | 4 lbs. PLS/Acre | |
| | | BIOFILTRATION SWALE GRASS MIX | | | | |
| | | Bouteloua gracilis | BLUE GRAMA | | 2 lbs. PLS/Acre | |
| | | Festuca ovina | SHEEP FESCUE | | 4 lbs. PLS/Acre | |
| | | Poa alpina | ALPINE BLUEGRASS | | 3 lbs. PLS/Acre | |
| | | Poa sandbergii 'High plains' | SANDBERG BLUEGRASS | | 2 lbs. PLS/Acre | |
| | | Linum lewisii | LEWIS' FLAX | | 3 lbs. PLS/Acre | |
| | | BIORETINTION BASIN SLOPES MIX | | | | |
| | | Agropyron dasytachyum 'Bannock' | THICKSPIKE WHEATGRASS | | 8 lbs. PLS/Acre | |
| | | Agropyron spicatum 'Anatone' | BLUEBUNCH WHEATGRASS | | 8 lbs. PLS/Acre | |
| | | Agropyron riparium 'Sodar' | STREAMBANK WHEATGRASS | | 7 lbs. PLS/Acre | |
| | | Agropyron trachycaulum 'Pryor' | SLENDER WHEATGRASS | | 7 lbs. PLS/Acre | |
| | | Elymus elymoides 'Fish Creek' | SQUIRRELTAIL BOTTLEBRUSH | | 6 lbs. PLS/Acre | |
| | | Poa sandbergii 'High plains' | SANDBERG BLUEGRASS | | 3 lbs. PLS/Acre | |
| | | Artemisia ludoviciana | PRAIRIE WHITE SAGE | | | |
| | | Achillea millefolium var. occidentalis | WESTERN YARROW | | | |
| | | Eriogonum umbellatum | SULPHUR–FLOWER BUCKWHEAT | | | |
| | | Penstemon palmeri | PALMER'S PENSTEMON | | | |
| | | NATIVE UPLAND GRASS MIX | | | | |
| | | Agropyron spicatum 'Anatone' | BLUEBUNCH WHEATGRASS | | 14 lbs. PLS/Acre | |
| | | Poa sandbergii 'Highplains' | SANDBERG BLUEGRASS | | 3 lbs. PLS/Acre | |
| | | Agropyron dasytachyum 'Bannock' | THICKSPIKE WHEATGRASS | | 8 lbs. PLS/Acre | |
| | | Elymus cinereus 'Magnar' | BASIN WILDRYE | | 8 lbs. PLS/Acre | |
| | | Festuca idahoensis 'Nezpurs' | IDAHO FESCUE | | 6 lbs. PLS/Acre | |
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| | | Eriogonum umbellatum | SULPHUR–FLOWERED BUCKWHEAT | | 0.5 lbs. PLS/Acre | |
| | | Balsamorhiza sagittata | ARROWLEAF BALSAMROOT | | 1 lbs. PLS/Acre | |
| | | Sphaeralcea munroana | MONROE'S GLOBEMALLOW | | 3 lbs. PLS/Acre | |
| | | PERENNIALS | | | | |
| SI | 34 | Iris siberica 'Butter and Sugar' | SIBERIAN IRIS | CONT. | 1 GAL. | |
| SW | 31 | Tradescantia x andersoniana 'Red Cloud' | RED CLOUD SPIDERWORT | CONT. | 1 GAL. | |
| WB | 32 | Tradescantia occidentalis | WESTERN BLUE SPIDERWORT | CONT. | 1 GAL. | |

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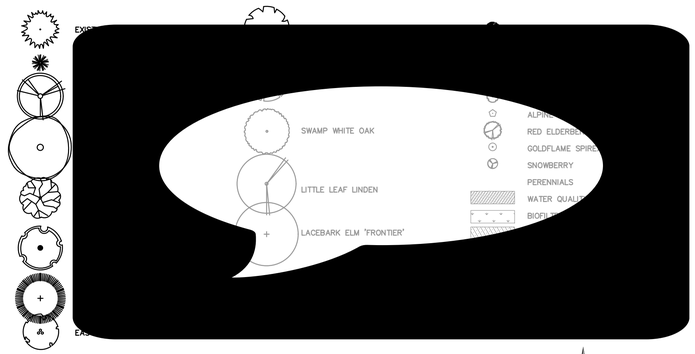


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FILE :

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95% DESIGN IMPROVEMENT PLANS - NOT FOR CONSTRUCTION

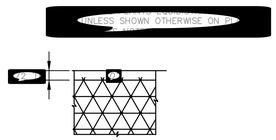
PROJECT NAME

CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

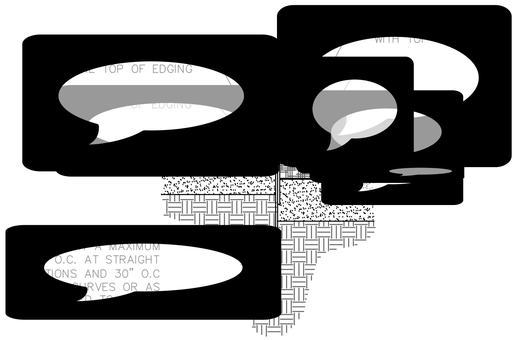
LANDSCAPE PLAN- RAINEY PARK (NORTHEAST)

SHEET #

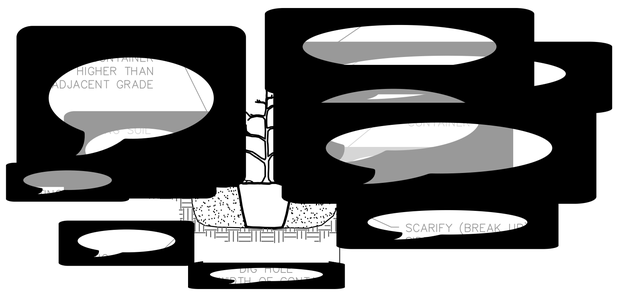
L1.2



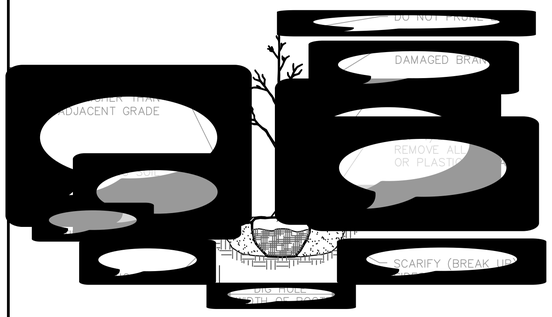

## TRIANGULAR PLANT SPACING



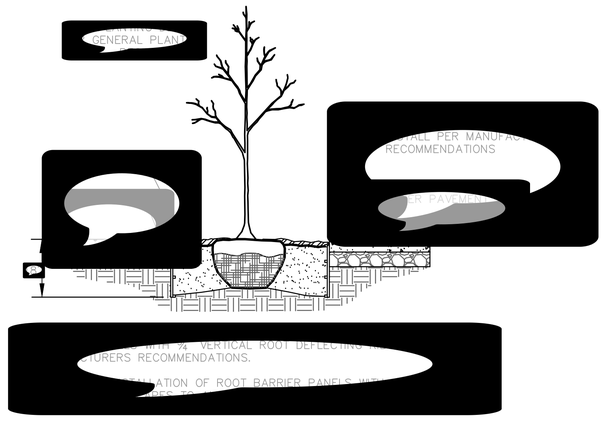

## STEEL EDGING




## PLANTING DETAIL (CONTAINER)




## PLANTING DETAIL (B&B)




## ROOT BARRIER

# IRRIGATION NOTES:

1. THE CONTRACTOR SHALL PROVIDE ALL DESIGN, LABOR, MATERIALS, EQUIPMENT, AND SERVICES TO INSTALL A HIGH QUALITY, EFFICIENT, RELIABLE, AND MAINTAINABLE LANDSCAPE IRRIGATION SYSTEM CAPABLE OF PROVIDING SUPPLEMENTARY WATER FOR THE PROPOSED LANDSCAPE PLAN. ALL COMPONENTS SHALL BE MANUFACTURED BY A REPUTABLE MANUFACTURER AND SHALL BE SUITABLE FOR COMMERCIAL USE.

2. ALL WORK SHALL COMPLY WITH ALL ORDINANCES, REGULATIONS AND CODES OF AUTHORITIES HAVING JURISDICTION. BACKFLOW PREVENTION DEVICES SHALL BE FURNISHED AND INSTALLED AS REQUIRED BY LOCAL CODE.

3. INSTALL ALL COMPONENTS PER MANUFACTURER'S RECOMMENDATIONS.

4. SYSTEM DESIGN:
   - 4.1. THE CONTRACTOR SHALL DESIGN A 100 PERCENT COVERAGE IRRIGATION SYSTEM, INCLUDING COMPREHENSIVE ENGINEERING ANALYSIS BY A QUALIFIED IRRIGATION TECHNICIAN, USING PERFORMANCE REQUIREMENTS, SPECIFIED COMPONENTS, AND DESIGN CRITERIA INDICATED.
   - 4.2. EACH PLANT TYPE (TURF GRASS, TREES, SHRUBS AND PERENNIAL BEDS) SHALL BE SERVED BY SEPARATE ZONES TO ALLOW SPECIFIC WATERING SCHEDULES FOR EACH TYPE.
   - 4.3. ALL TURF GRASS AREAS ARE TO BE SERVED BY FIXED SPRAY WITH HEAD TO HEAD COVERAGE. PROVIDE THE MINIMUM NUMBER OF ZONES REQUIRED FOR EFFICIENT FUNCTIONALITY WITH THE AVAILABLE PRESSURES AND FLOWS.
   - 4.4. ALL PROPOSED TREES AND SHRUBS SHALL BE SERVED BY A DRIP IRRIGATION SYSTEM.
   - 4.5. PROVIDE ISOLATION VALVES AND MANUAL DRAINS AT VALVE MANIFOLDS.
   - 4.6. PROVIDE BLOW-OUT CONNECTIONS FOR SYSTEM WINTERIZATION.

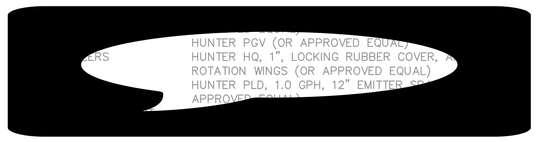
5. VELOCITIES SHALL NOT EXCEED 5 FPS IN ANY PIPING.

6. DRIP CIRCUITS:
   - 6.1. PLACE EMITTER TUBING ON TOP OF FINISHED GRADE AND WEED SUPPRESSION MAT AND BELOW MULCH. CAP ENDS OF RUNS WITH THREADED TEES OR CAPS TO FACILITATE FLUSHING. SECURE LINES WITH TIE DOWN STAKES OR SOD STAPLES PER MANUFACTURER'S RECOMMENDATIONS AT A MAXIMUM OF 5' O.C. AND AT ALL TEES AND ELBOWS, AND WHERE NECESSARY TO KEEP TUBING FLAT AGAINST THE GROUND.
   - 6.2. ALL DECIDUOUS TREES SHALL RECEIVE DRIP IRRIGATION AT A RELATIVE RATE OF 20 GPH EACH.
   - 6.3. ALL SHRUBS SHALL RECEIVE DRIP IRRIGATION AT A RELATIVE RATE OF 10 GPH EACH.
   - 6.4. LENGTH OF DRIP TUBE ON ANY GIVEN RUN SHALL NOT EXCEED 230'

7. SYSTEM PIPING:
   - 7.1. ALL MAIN LINE PIPING SHALL BE SCHEDULE 40 PVC (MINIMUM 18" DEPTH BURY).
   - 7.2. ALL LATERAL PIPING SHALL BE SCHEDULE 40 PVC OR HDPE (MINIMUM 12" DEPTH BURY).
   - 7.3. ALL SLEEVES MANIFOLDS SHALL CONSIST OF TWO (2) 4" SCHEDULE 40 PVC PIPES (12" MINIMUM COVER).
     - 7.3.1. PROVIDE SLEEVE MANIFOLDS S UNDER ALL HARDSCAPE PAVING AND WHERE SHOWN ON THE PLAN.
     - 7.3.2. COORDINATE LOCATIONS OF SLEEVE MANIFOLDS WITH SITEWORK CONTRACTOR.
     - 7.3.3. EXTEND SLEEVES A MINIMUM OF 2' BEYOND EDGE OF CURB OR PAVING.
     - 7.3.4. THE NUMBER AND LOCATION OF SLEEVE MANIFOLDS SHOWN ON THE PLANS IS A MINIMUM. THE CONTRACTOR MAY INSTALL ADDITIONAL SLEEVES AS NECESSARY TO ACCOMMODATE THE SYSTEM.

8. THE CONTRACTOR SHALL PROVIDE:
   - 8.1. TWO COMPLETE SETS OF AS-BUILT IRRIGATION SYSTEM DRAWINGS SHOWING LOCATIONS, SIZES, AND TYPES OF PIPING, VALVES, WIRING, AND OTHER COMPONENTS PRIOR TO FINAL ACCEPTANCE OF THE SYSTEM. THE PLAN SHALL BE CLEAR, LEGIBLE, COMPLETE, AND TRUE TO SCALE.
   - 8.2. COMPLETE OPERATION INSTRUCTIONS, INCLUDING SPRING START-UP AND FALL WINTERIZATION PROCEDURES.

9. THE COMPLETE IRRIGATION SYSTEM SHALL BE WARRANTED FOR A PERIOD OF TWO (2) YEARS FROM SUBSTANTIAL COMPLETION.




# LANDSCAPE NOTES:

1. SEE CIVIL PLANS FOR ADDITIONAL SITE INFORMATION.

2. REFER TO PLANT SCHEDULE, SHEETS L1.1 AND L1.2 FOR ALL PLANT MATERIALS. IN THE EVENT THAT DISCREPANCIES OCCUR BETWEEN QUANTITIES OF PLANTS INDICATED IN THE PLANT LIST, AND AS INDICATED ON THE DRAWINGS, THE PLANT QUANTITIES INDICATED ON THE DRAWINGS SHALL GOVERN.

3. PROVIDE A MINIMUM OF 18" OF PLANTING SOIL IN ALL PLANTING BEDS AND 4" PLANTING SOIL BENEATH ALL TURFGRASS AREAS. PLANTING SOIL SHALL BE 75% TOPSOIL AND 25% ORGANIC MATTER, CERTIFIED WEED FREE MEETING ASTM 5268 STANDARDS, WITH pH RANGE OF 5.5 TO 7, FREE OF STONES GREATER THAN 1" IN DIAMETER AND OTHER EXTRANEOUS MATERIALS HARMFUL TO PLANT GROWTH. SCARIFY AND LOOSEN EXISTING SUBGRADE PRIOR TO PLACING TOPSOIL.

4. PROVIDE A MINIMUM OF 2" OF ORGANIC MULCH IN ALL PLANTING BEDS. ORGANIC MULCH SHALL BE GROUND OR SHREDDED BARK, 3" MAXIMUM, ½" MINIMUM SIZE, NATURAL COLOR. FINISHED GRADE OF MULCH SHALL BE FLUSH WITH ADJACENT FINISHED GRADE.

5. PROVIDE A WEED SUPPRESSION MAT UNDER ROCK IN ALL ROCK MULCH AREAS.

6. PROVIDE ROOT BARRIERS ALONG SIDEWALKS OR BACK OF CURB WHERE TREES ARE CLOSER THAN 5'. ROOT BARRIERS SHALL BE 18" DEEP, BLACK, MOLDED POLYETHYLENE, MODULAR PANELS WITH ¾" VERTICAL ROOT DEFLECTING RIBS. INSTALL PER MANUFACTURERS RECOMMENDATIONS.

7. RESTORE ALL DISTURBED AREAS TO PREVIOUSLY EXISTING CONDITION, OR BETTER.

8. ONLY TREES THAT SHOW SIGNS OF INSTABILITY AFTER PLANTING SHALL BE STAKED AND GUYED. TIES MADE OF APPROVED MATERIAL SHALL BE ATTACHED DIRECTLY TO THE STAKES OR MAY BE ATTACHED TO STAKES BY WIRE. IN NO CASE SHALL THE WIRE EXTEND AROUND THE TREE TRUNK. TIES SHOULD BE ATTACHED LOOSELY ENOUGH TO ALLOW A SMALL AMOUNT OF PLAY IN THE TRUNK.

9. THE CONTRACTOR WILL BE RESPONSIBLE FOR REMOVING ALL STAKES AND STRAPS AFTER A ONE YEAR PERIOD. THESE STAKES AND STRAPS WILL REMAIN THE PROPERTY OF THE CONTRACTOR AND SHOULD BE FIGURED INTO THE BID.

10. ALL PLANT MATERIALS SHALL BE WARRANTED FOR A PERIOD OF 2 YEARS FROM SUBSTANTIAL COMPLETION.

11. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTORS SHALL NOTIFY THE UTILITY COMPANIES IN ADVANCE OF THEIR CONSTRUCTION OPERATION TO ENABLE THEM TO FIELD LOCATE THEIR UTILITIES.

12. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES AND REPORT FINDINGS TO THE OWNER PRIOR TO PROCEEDING WITH RELATED CONSTRUCTION. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SATISFY THEM THAT ALL EXISTING UTILITIES, WHETHER SHOWN ON THESE PLANS OR NOT, HAVE BEEN PROPERLY LOCATED. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THE PROTECTION OF UTILITIES AFFECTED BY THE PROSECUTION OF THIS CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE AFFECTED UTILITY COMPANY AND THE COORDINATION OF ALL WORK IN THE PROXIMITY OF THE UTILITIES.

13. THE CONTRACTOR SHALL CONTACT "ONE CALL" FOR THE MARKING OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO PROTECT ALL UTILITY LINES SHOWN AND OTHER UTILITY LINES OTHERWISE LOCATED. REPORT ANY DAMAGE TO THE OWNER AND THE "ONE CALL" NOTIFICATION CENTER, AND TO EMERGENCY SERVICES IF NECESSARY (911).
   - 13.1. "ONE CALL" IN IDAHO: 811 (PHONE 1-800-342-1585)

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JEO CONSULTING GROUP

STRATA

FILE :

PROJ. #:

PRELIMINARY - NOT FOR CONSTRUCTION

DATE:

REVISIONS:

95% DESIGN IMPROVEMENT PLANS - NOT FOR CONSTRUCTION

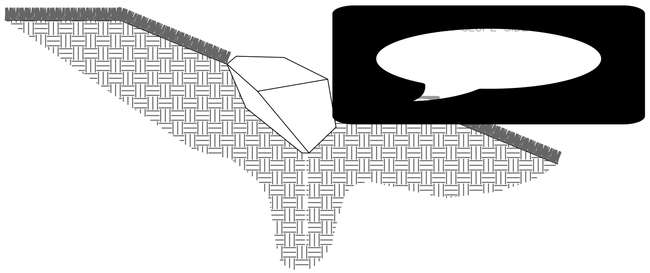
PROJECT NAME

**CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID**

**LANDSCAPE NOTES AND DETAILS**

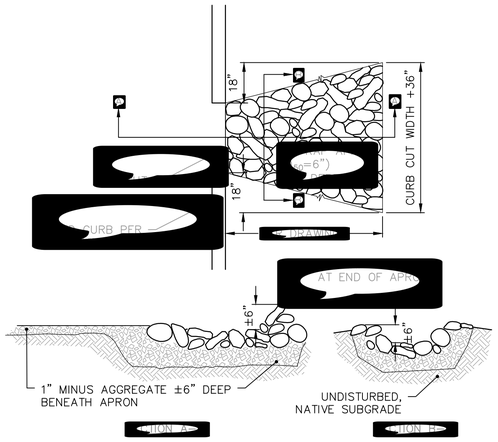
SHEET #

**L2.1**



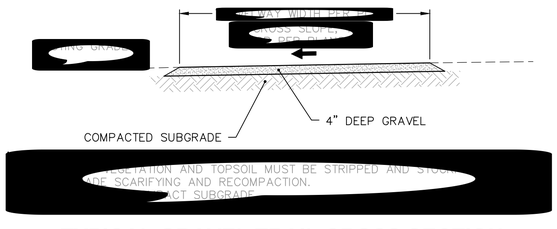
## BOULDER PLACEMENT

NOT TO SCALE



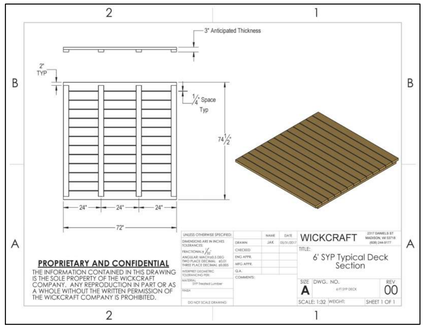

## CURB CUT SMALL ROCK RIP RAP DETAIL

NOT TO SCALE



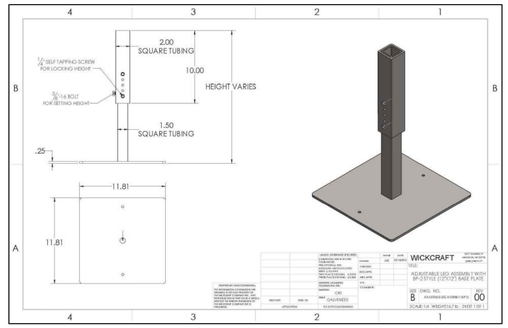

## TYPICAL GRAVEL TRAIL CROSS SECTION

NOT TO SCALE



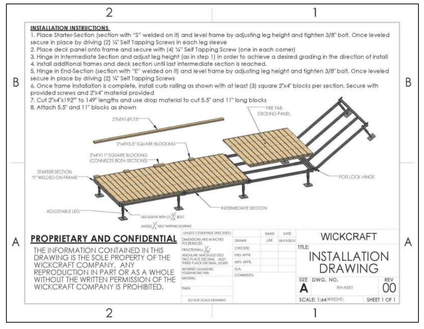

## WICKCRAFT BOARDWALK TYPICAL DECK SECTION

NOT TO SCALE




## WICKCRAFT BOARDWALK ADJUSTABLE LEG ASSEMBLY

NOT TO SCALE

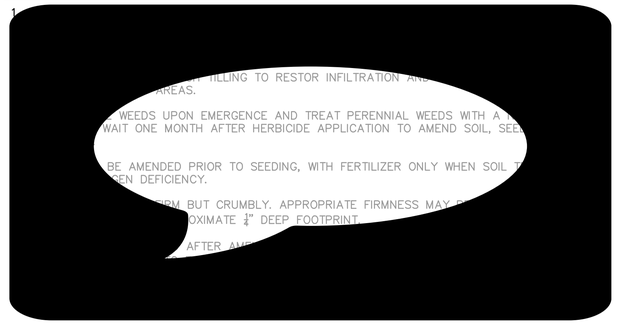



## WICKCRAFT BOARDWALK INSTALLATION DRAWING

NOT TO SCALE

## REVEGETATION NOTES:

1

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CONSULTANT FULL SCALE

FILE :

PROJ.#:

PRELIMINARY NOT FOR CONSTRUCTION

DATE:

REVISIONS:

95% DESIGN IMPROVEMENT PLANS - NOT FOR CONSTRUCTION

PROJECT NAME

# CENTENNIAL-RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMENT - POCATELLO, ID

LANDSCAPE NOTES AND DETAILS

SHEET #

L2.2

# Invitation for Bids

# City of Pocatello – Centennial-Rainey Levee Setback and Ecosystem Enhancement

# Addendum #1 (Issued September 28, 2026)

This Addendum #1 (Addendum) is being issued to make clarifications and modifications to the City of Pocatello – Centennial-Rainey Levee Setback and Ecosystem Enhancement Invitation to Bid and shall constitute a part of the Invitation for Bids.

This Addendum is being delivered to every Bidder that attended the pre-bid meeting. This Addendum shall also be posted online on the City of Pocatello website: https://www.pocatello.us/Bids.aspx.

THIS ADDENDUM MUST BE ACKNOWLEDGED, SIGNED, DATED AND RETURNED AS PART OF THE BID RESPONSE.

ADDENDUM #1 CLARIFICATIONS & CHANGES TO INVITATION FOR BIDS:

1. CAD dwg files for the project are available upon request. Any data files transmitted are provided as a courtesy and possible convenience. Harmony and our subconsultants do not guarantee the accuracy, completeness, validity, or usefulness of electronically transmitted data. By signing this Addendum, the undersigned agrees to hold Harmony and our subconsultants harmless in the event of a discrepancy between the record plan documents and the transmitted data files.
2. This project has federal funding so Davis-Bacon wages will apply.
3. The landscape irrigation system is a design-build item and shall meet the requirements included in the notes on Sheet L2.1 and specifications of Section 328400 of the Supplementary Specifications.
4. Note that per the General Conditions Article 14, the City (Owner) will hire and pay for an independent testing lab for soils, concrete, and asphalt testing. Any retests after a failed test are to be paid by the Contractor at the Contractor's cost. The Contractor is responsible for tests required by manufacturers and tests needed for material and mix design submittals.
5. Construction of the Rainey levee (right bank) is restricted to occur only between July 1 – December 31. At no time shall the height of the existing or reconstructed setback levee be lower than the 100-year water surface elevation or the temporary levee height shown on Sheets C1.1 and C1.2.
6. Time of Completion is amended so that the project shall be substantially complete on or before November 1, 2027, and completed and ready for final payment on or before December 31, 2027. Special Provision Part 3 – Emergency Action Plan 3.01.B.6. shall be changed to "These specific portions of the work must be performed during the July 1 to December 31 timeframe (outside of the normal flood season) during dry weather."
7. Award will be based on the Base Bid for the Rainey Levee.

8. The pathways through the project site may be closed to the public during construction. Maintaining an alternative route will not be required.
9. The Poligon Pavilion in Rainey Park shall be 20'x20' Model REK with multi-rib roof. The Poligon Pavilion in Centennial Park shall be 40'x64' Model REK with multi-rib roof.
10. The Poligon shade sail in the Centennial Amphitheater shall be removed from the bid.
11. The lateral bridge support on the northwest side will need to remain in place and cannot be removed during construction. Grading around this support is not needed (see Sheet C1.1) and the grades will tie-in downstream of the support anchor.
12. The water mains to be abandoned under the proposed levee will need to be removed. The water main that is currently hung on the existing bridge can remain in place and be capped at each end.
13. Include an allowance of $2,500 ea. for the electrical pedestals and connections for Add Alt 1 and Add Alt 3 Item 36.

**STATEMENT ACKNOWLEDGING RECEIPT OF ADDENDUM 1**

**TO BE COMPLETED BY THE BIDDER AND RETURNED AS PART OF THE BID**

RESPONSE:

1. Name of the Bidder: Suncore Construction & Materials, Inc.

2. Address of the Bidder: 901 Pier View Drive, Suite 201 Idaho Falls, ID 83402

The Undersigned herby certifies and declares that the above-named Bidder received a complete and accurate copy of **Addendum #1 to the Invitation for Bids; City of Pocatello – Centennial-Rainey Levee Setback and Ecosystem Enhancement**, that it had full opportunity to review the contents therein and that the bid response returned by the Bidder is made with full knowledge of the same. The Undersigned hereby further certifies that he or she has been authorized by the Bidder to execute this statement.

Printed Name: Brad Huntsman Dated: 10/1/2026

Signature: _____

# Invitation for Bids

# City of Pocatello – Centennial-Rainey Levee Setback and Ecosystem Enhancement

# Addendum #2 (Issued September 29, 2026)

This Addendum #2 (Addendum) is being issued to make clarifications and modifications to the City of Pocatello – Centennial-Rainey Levee Setback and Ecosystem Enhancement Invitation to Bid and shall constitute a part of the Invitation for Bids.

This Addendum is being delivered to every Bidder that attended the pre-bid meeting. This Addendum shall also be posted online on the City of Pocatello website: https://www.pocatello.us/Bids.aspx.

THIS ADDENDUM MUST BE ACKNOWLEDGED, SIGNED, DATED AND RETURNED AS PART OF THE BID RESPONSE.

ADDENDUM #2 CLARIFICATIONS & CHANGES TO INVITATION FOR BIDS:

1. Additional Contract Provisions
2. Affidavit of Payment of Taxes
3. Noncollusion Affidavit
4. Certification Regarding Lobbying
5. Davis-Bacon and Related Act Provisions
6. Boardwalk Details

**STATEMENT ACKNOWLEDGING RECEIPT OF ADDENDUM 2**

**TO BE COMPLETED BY THE BIDDER AND RETURNED AS PART OF THE BID**

RESPONSE:

1. Name of the Bidder: Suncore Construction & Materials, Inc.

2. Address of the Bidder: 901 Pier View Drive, Suite 201 Idaho Falls, ID 83402

The Undersigned herby certifies and declares that the above-named Bidder received a complete and accurate copy of **Addendum #2 to the Invitation for Bids; City of Pocatello – Centennial-Rainey Levee Setback and Ecosystem Enhancement**, that it had full opportunity to review the contents therein and that the bid response returned by the Bidder is made with full knowledge of the same. The Undersigned hereby further certifies that he or she has been authorized by the Bidder to execute this statement.

Printed Name: Chad Huntsman Dated: 10/1/2026

Signature: _____

# Invitation for Bids

# City of Pocatello – Centennial-Rainey Levee Setback and Ecosystem Enhancement

# Addendum #3 (Issued September 30, 2026)

This Addendum #3 (Addendum) is being issued to make clarifications and modifications to the City of Pocatello – Centennial-Rainey Levee Setback and Ecosystem Enhancement Invitation to Bid and shall constitute a part of the Invitation for Bids.

This Addendum is being delivered to every Bidder that attended the pre-bid meeting. This Addendum shall also be posted online on the City of Pocatello website: https://www.pocatello.us/Bids.aspx.

THIS ADDENDUM MUST BE ACKNOWLEDGED, SIGNED, DATED AND RETURNED AS PART OF THE BID RESPONSE.

ADDENDUM #3 CLARIFICATIONS & CHANGES TO INVITATION FOR BIDS:

1. CAD dwg files for the project are available upon request. Any data files transmitted are provided as a courtesy and possible convenience. Harmony and our subconsultants do not guarantee the accuracy, completeness, validity, or usefulness of electronically transmitted data. By signing this Addendum, the undersigned agrees to hold Harmony and our subconsultants harmless in the event of a discrepancy between the record plan documents and the transmitted data files.
2. Storm culvert pipe is PVC as shown on the bid form.

**STATEMENT ACKNOWLEDGING RECEIPT OF ADDENDUM 3**

**TO BE COMPLETED BY THE BIDDER AND RETURNED AS PART OF THE BID**

RESPONSE:

1. Name of the Bidder: Suncore Construction & Materials, Inc.

2. Address of the Bidder: 911 Pier View Drive, Suite 201, Idaho Falls, ID 83402

The Undersigned herby certifies and declares that the above-named Bidder received a complete and accurate copy of **Addendum #3 to the Invitation for Bids; City of Pocatello – Centennial-Rainey Levee Setback and Ecosystem Enhancement**, that it had full opportunity to review the contents therein and that the bid response returned by the Bidder is made with full knowledge of the same. The Undersigned hereby further certifies that he or she has been authorized by the Bidder to execute this statement.

Printed Name: Chad Huntsman Dated: 10/1/2026

Signature:

# BID BOND

## CENTENNIAL – RAINEY LEVEE SETBACK AND ECOSYSTEM ENHANCEMNET

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER *(Name and Address)*:
Suncore Construction and Materials Inc.
901 Pier View Drive, Suite 201
Idaho Falls, ID 83402

SURETY *(Name, and Address of Principal Place of Business)*:
Travelers Casualty and Surety Company of America
One Tower Square
Hartford, CT 06183

OWNER *(Name and Address)*:
City of Pocatello, Idaho
911 N. 7th Avenue
Pocatello, Idaho 83201

BID
Bid Due Date: October 2, 2026 at 3:00 pm local time
Description: Centennial – Rainey Levee Setback and Ecosystem Enhancement, Pocatello, ID

BOND
Bond Number: N/A
Date: 10/02/2026
Penal sum Five Percent of Accompanying Bid Dollars (Words) $ (5% of Bid) (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

| BIDDER | SURETY |
|---|---|
| Suncore Construction and Materials Inc. (Seal) | Travelers Casualty and Surety Company of America (Seal) |
| Bidder's Name and Corporate Seal | Surety's Name and Corporate Seal |
| By: Signature | By: Signature (Attach Power of Attorney) |
| Dave Clifford<br>Print Name | Lindsey Carcamo<br>Print Name |
| Area Manager<br>Title | Attorney-in-Fact<br>Title |
| Attest: Signature | Attest: Signature |
| Title Estimator | Title CSR |

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.

2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.

3. This obligation shall be null and void if:

3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or

3.2 All Bids are rejected by Owner, or

3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.

6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after the Bid due date.

7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

TRAVELERS

**Travelers Casualty and Surety Company of America**
**Travelers Casualty and Surety Company**
**St. Paul Fire and Marine Insurance Company**

## POWER OF ATTORNEY

Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and the Companies do hereby make, constitute and appoint **Lindsey Carcamo** of **SALT LAKE CITY** , **Utah** , their true and lawful Attorney(s)-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

**IN WITNESS WHEREOF**, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this **13th** day of **May, 2026.**

SEAL SEAL SEAL

State of Connecticut

By: _____
Bryce Grissom, Senior Vice President

City of Hartford ss.

On this the **13th** day of **May, 2026**, before me personally appeared **Bryce Grissom**, who acknowledged himself to be the Senior Vice President, Surety, Bond & Specialty Insurance, of each of the Companies, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of said Companies by himself as a duly authorized officer.

**IN WITNESS WHEREOF**, I hereunto set my hand and official seal.

My Commission expires the **31st** day of **March, 2031**

MARIE E. SORENSEN NOTARY PUBLIC CONNECTICUT

_____
Marie E. Sorensen, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of each of the Companies, which resolutions are now in full force and effect, reading as follows:

**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

**FURTHER RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

**FURTHER RESOLVED**, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of each of the Companies, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this **2nd** day of **October** , **2026** .

SEAL SEAL SEAL

_____
Kevin E. Hughes, Assistant Secretary

***To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.***
***Please refer to the above-named Attorney(s)-in-Fact and the details of the bond to which this Power of Attorney is attached.***

# DAVIS-BACON AND RELATED ACT PROVISIONS

## TABLE OF CONTENTS


- Davis Bacon and Related Provisions
    - Davis Bacon Wage Determination
    - Weekly Certified Payroll Form WH-347
    - Form WH-347 Instruction
    - Davis-Bacon Pre-Construction Requirements
    - The Secretary of Labor's Davis Bacon Poster, Document WH – 1321 & WH-1321 SPA
    - The Equal Employment Opportunity Poster

"General Decision Number: ID20260109 05/18/2026

State: Idaho

Construction Types: Heavy

Counties: Idaho Counties of
Bannock and Franklin

| Modification Number | Publication Date |
|---|---|
| 1 | 01/23/2026 |
| 2 | 05/18/2026 |

ELEC0291-005 12/01/2024

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN | $ 42.25 | 18.84 |

ENGI0302-006 01/01/2025

| | Rates | Fringes |
|---|---|---|
| POWER EQUIPMENT OPERATOR: CRANE | $ 36.98 | 20.50 |

ENGI0302-011 06/01/2025

| | Rates | Fringes |
|---|---|---|
| POWER EQUIPMENT OPERATOR: BACKHOE/EXCAVATOR/TRACKHOE | $ 36.14 | 16.10 |

IRON0014-007 07/03/2025

| | Rates | Fringes |
|---|---|---|
| IRONWORKER | $ 43.40 | 30.27 |

LABO0155-011 06/01/2022

| | Rates | Fringes |
|---|---|---|
| LABORER (COMMON OR GENERAL) | $ 34.25 | 13.80 |

SUID2021-010 04/27/2023

| | Rates | Fringes |
|---|---|---|
| CARPENTER | $ 24.00 | 2.62 |

TEAM0983-004 01/01/2025

| | Rates | Fringes |
|---|---|---|
| TRUCK DRIVER: DUMP TRUCK | $ 35.60 | 17.00 |

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours

they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least $13.65 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract from May 11, 2026, through December 31, 2026. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

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The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than "SU", "UAVG", "SA", or "SC" denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number

used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The "SU" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

"SU" wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The "SA" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the "SA" identifier took effect under state law in the state from which the rates were adopted.

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WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division

U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

==========

END OF GENERAL DECISION

"

200 Constitution Avenue, N.W.
Washington, DC 20210

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U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

**U.S. Department of Labor**
Wage and Hour Division

# Davis-Bacon and Related Acts Weekly Certified Payroll Form

**(For Contractor's Optional Use; See Instructions at www.dol.gov/whd/forms/wh347instr.htm)**

**Unless otherwise noted, the information requested is specific to the named project below.**

*Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.*

U.S. Wage and Hour Division

Rev. January 2025
OMB No.: 1235-0008
Expires: 01/31/2028

☐ SUBMISSION OF FINAL DBRA CERTIFIED PAYROLL FORM ☐ PRIME CONTRACTOR ☐ SUBCONTRACTOR

| PROJECT NAME | PROJECT NO. or CONTRACT NO. | CERTIFIED PAYROLL NO. | PRIME CONTRACTOR'S/SUBCONTRACTOR'S BUSINESS NAME |
|---|---|---|---|
| | | | |
| **PROJECT LOCATION** | **WAGE DETERMINATION NO.** | **WEEK ENDING DATE** | **PRIME CONTRACTOR'S/SUBCONTRACTOR'S BUSINESS ADDRESS** |
| | | | |

| (1A) | (1B) | (1C) | (1D) | (1E) | (2) | (3) | (4) | | (5) | (6A) | (6B) | (6C) | (7A) | (7B) | (8) | | | | (9) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WORKER ENTRY NO. | WORKER LAST NAME | WORKER FIRST NAME | WORKER MIDDLE INITIAL | WORKER IDENTIFYING NO. | (J) JOURNEYWORKER (RA) REGISTERD APPRENTICE | LABOR CLASSIFICATION | ST = STRAIGHT TIME OT = OVERTIME | (TOP) DAYS OF WORK WEEK (BOTTOM) DATES HOURS WORKED EACH DAY | TOTAL HOURS WORKED FOR WEEK | HOURLY WAGE RATE PAID FOR ST AND OT | TOTAL FRINGE BENEFIT CREDIT | PAYMENT IN LIEU OF FRINGE BENEFITS | GROSS AMT EARNED | GROSS AMT EARNED FOR **ALL WORK** | DEDUCTIONS FOR **ALL WORK** | | | | NET PAY TO WORKER FOR **ALL WORK** |
| | | | | | | | | | | | | | | | TAX WITH-HOLDINGS | FICA | OTHER (MUST SPECIFY, SEE INSTRUCTIONS) | TOTAL DEDUCTIONS | |
| | | | | | | | ST | | | | | | | | | | | | |
| | | | | | | | OT | | | | | | | | | | | | |
| | | | | | | | ST | | | | | | | | | | | | |
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| | | | | | | | ST | | | | | | | | | | | | |
| | | | | | | | OT | | | | | | | | | | | | |

While use of Form WH-347 itself is optional, covered contractors and subcontractors performing work on Federal or federally assisted construction contracts are required by the DBRA regulations and the contract clauses to submit payroll information on a weekly basis. The Copeland Act (40 U.S.C. § 3145) requires contractors and subcontractors performing work on Federal or federally financed construction contracts to, on a weekly basis, "furnish a statement on the wages paid each employee during the prior week." U.S. Department of Labor (DOL) Regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors and subcontractors to submit weekly certified payrolls to the appropriate Federal agency if the agency is a party to the contract (or, if the agency is not such a party, to the applicant, sponsor, owner, or other entity, as the case may be, that maintains such records, for transmission to the Federal agency). Each certified payroll must be accompanied by a signed "Statement of Compliance" (e.g., page 2 of the WH-347 or another document with identical wording) indicating that the certified payrolls are accurate and complete, and that each laborer or mechanic has been paid not less than the required Davis-Bacon prevailing wage rate(s) (including any fringe benefits) for the work performed. DOL and contracting agencies receiving this information review the information to determine whether workers have received legally required wages and fringe benefits.

**Public Burden Statement**

We estimate that it will take an average of 55 minutes to complete this collection, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W. Washington, D.C. 20210

(over)

| PROJECT NAME | PROJECT NO. or CONTRACT NO. | PAYROLL NO. | PRIME CONTRACTOR'S/SUBCONTRACTOR'S BUSINESS NAME |
|---|---|---|---|
| | | | |
| **PROJECT LOCATION** | | **WEEK ENDING DATE** | **CERTIFYING OFFICIAL's NAME AND TITLE** |
| | | | |

I paid or supervised the payment of the laborers or mechanics working on the above project during the stated time period. I certify the following:

☐ The payroll information submitted with this statement is correct and complete for the above project during the above period, and the wage and fringe benefit rates paid to the workers, including credit taken for the reasonably anticipated costs of a bona fide fringe benefit plan, fund or program, are not less than the applicable wage and fringe benefits rates for the classification(s) of work actually performed, as specified in the wage determination(s) incorporated into the contract.

☐ All regular payrolls and all other basic records that the contractor is required to maintain for this payroll period are complete and accurate and will be made available upon request from the agency or the Department of Labor.

☐ The classifications reported for each laborer or mechanic are the classification(s) of work that each worker actually performed.

☐ Any workers paid as apprentices during the above period are duly registered in a bona fide apprenticeship program registered with the Office of Apprenticeship, Employment and Training Administration, United States Department of Labor ("OA"), or a State Apprenticeship Agency ("SAA") recognized by Department of Labor. I have verified the registered apprenticeship program information provided below as accurate and applicable to any apprentices identified on page 1 of this form.

| APPRENTICESHIP PROGRAM NAME | REGISTERED | | NAME OF LABOR CLASSIFICATION |
|---|---|---|---|
| | ☐ OA | ☐ SAA | |
| | ☐ OA | ☐ SAA | |
| | ☐ OA | ☐ SAA | |

☐ Fringe benefits have been paid in cash and/or to bona fide fringe benefit plans, funds, or programs. Where the contractor is claiming an hourly credit for their contributions to or reasonably anticipated costs of a bona fide fringe benefit plan, fund, or program, provide plan information and the hourly credit claimed for each worker listed on the previous page of this form.

**HOURLY CREDIT FOR FRINGE BENEFITS**

*If an amount is listed in (6B) on the first page of this certified payroll form, enter the hourly credit claimed under each plan name, type and number for each worker and check whether the plan is funded or unfunded.*

| NAME OF WORKER | FB NAME / FB TYPE / PLAN NO. / ☐ Funded ☐ Unfunded | FB NAME / FB TYPE / PLAN NO. / ☐ Funded ☐ Unfunded | FB NAME / FB TYPE / PLAN NO. / ☐ Funded ☐ Unfunded | FB NAME / FB TYPE / PLAN NO. / ☐ Funded ☐ Unfunded | FB NAME / FB TYPE / PLAN NO. / ☐ Funded ☐ Unfunded | FB NAME / FB TYPE / PLAN NO. / ☐ Funded ☐ Unfunded | TOTAL HOURLY CREDIT |
|---|---|---|---|---|---|---|---|
| | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | $ |
| | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | $ |
| | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | $ |
| | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | $ |
| | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | $ |
| | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | $ |
| | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | $ |
| | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hrly Credit $ | $ |

☐ All workers on the project have been paid the full weekly wages earned, and no rebates or deductions have been or will be made either directly or indirectly, other than permissible deductions as defined in 29 CFR part 3.

ADDITIONAL REMARKS

| SIGNATURE OF CERTIFYING OFFICIAL | DATE | TELEPHONE NUMBER | EMAIL ADDRESS |
|---|---|---|---|
| | | (___) ___ -____ | |

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION (SEE SECTION 1001 OF TITLE 18 AND SECTION 3729 OF TITLE 31 OF THE UNITED STATES CODE), AS WELL AS DEBARMENT FROM FUTURE FEDERAL AND FEDERALLY-ASSISTED CONTRACTS. INFORMATION REPORTED IN CERTIFIED PAYROLLS MAY BE SUBJECT TO DISCLOSURE IN RESPONSE TO A FREEDOM OF INFORMATION ACT REQUEST.

# Instructions For Completing Davis-Bacon and Related Acts Weekly Certified Payroll Form, WH-347

- WH-347 (PDF)

OMB Control No. 1235-0008, Expires 01/31/2028.

**General:** Form WH-347 is available for the convenience of contractors and subcontractors to submit certified weekly payrolls in connection with their Federal or federally assisted construction contracts and subcontracts. Properly completed, this form will satisfy the requirements of the regulations in parts 3 and 5 of Title 29 of the Code of Federal Regulations (CFR) as to certified payrolls submitted in connection with contracts subject to the Davis-Bacon and Related Acts (DBRA).

While use of Form WH-347 itself is optional, covered contractors and subcontractors performing work on Federal or federally assisted construction contracts are required by the DBRA regulations and the contract clauses to submit payroll information on a weekly basis. The Copeland Act (40 U.S.C. § 3145) requires contractors and subcontractors performing work on Federal or federally financed construction contracts to, on a weekly basis, "furnish a statement on the wages paid each employee during the prior week." U.S. Department of Labor (DOL) Regulations at 29 CFR 5.5(a)(3)(ii) require contractors and subcontractors to submit weekly certified payrolls to the appropriate Federal agency if the agency is a party to the contract (or, if the Federal agency is not party to the contract, to the applicant, sponsor, owner, or other entity, as the case may be, that maintains such records, for transmission to the Federal agency that provided the Federal assistance). Each certified payroll must be accompanied by a signed "Statement of Compliance" (e.g., page 2 of the WH-347 or another document with *identical* wording) indicating that the certified payrolls are accurate and complete, and that each laborer or mechanic has been paid not less than the required Davis-Bacon prevailing wage rate(s) (including any fringe benefits) for the work performed. DOL and contracting agencies receiving this information review the information to help determine whether workers have received legally required wages and fringe benefits.

Under the DBRA, contractors and subcontractors are required to pay not less than the prevailing wage, including fringe benefits, as predetermined by DOL. The contractor's obligation to pay fringe benefits may be met through the

contractor's contributions to or reasonably anticipated costs of bona fide benefit plans, funds, or programs, or by paying workers cash in lieu of fringe benefits.

Form WH-347 provides fields for contractors and subcontractors to document all wages paid to each worker, whether paid entirely as cash wages or by a combination of cash wages and employer-provided bona fide fringe benefits, and provides for the contractor or subcontractor's certification in the Statement of Compliance (as shown on page 2 of Form WH-347) that the data and payroll information on the form are accurate and complete. The Statement of Compliance also provides for the representation that the contractor or subcontractor is paying its workers, including registered apprentices, at least the required wage rates, satisfying its fringe benefits obligations, and maintaining required payroll records.

**Detailed instructions for completing the first page of Form WH-347 follow:**

**"Check Box" for Submission of Final DBRA Certified Payroll Form:** Mark the box to indicate that this submission is for the final week of work on the project for the contractor or subcontractor.

**"Check Box" for Prime Contractor or Subcontractor:** Mark the appropriate box to indicate whether it is the prime contractor or a subcontractor on the project for which certified payroll is being reported.

**Project Name:** Enter the name of the project on which you are reporting.

**Project No. or Contract No.:** Enter the project number or the prime contract number assigned by the relevant contracting agency (if available).

**Certified Payroll No.:** Beginning with the number "1", each weekly certified payroll that a contractor or subcontractor submits for a project should be given a payroll number. Enter the appropriate payroll number.

**Prime Contractor's/Subcontractor's Business Name:** Enter the business' legal name.

**Project Location:** Enter the complete address of the project, or, if there is no specific address, a description of the project location, including, at a minimum, the county or counties and state in which the project is located.

**Wage Determination No.:** Enter the wage determination number(s) and revision number(s) included in the covered contract and relevant to the submitted certified payroll form (e.g., if there are multiple wage determinations applicable to the project, please list all wage determinations that applied to the work performed by the workers in this pay period).

**Week Ending Date:** Enter the workweek ending date for this pay period.

**Prime Contractor's/Subcontractor's Business Address:** Enter the company's full business address.

**Column 1A – Worker Entry No.:** Beginning with the number "1", enter each worker's entry number (e.g., entry in row 2 may be 2, entry in row 3 may be 3, etc. If reporting more than 8 entries, row 1 on page 2 may be entry 9 and row 1 on page 3 may be entry 17, etc.). If a worker works in more than one labor classification during the course of the week, the contractor should show the number of hours the worker worked in each classification using separate rows. In such circumstances, the same worker entry number should be used on each row associated with the worker.

**Column 1B – Worker Last Name:** Self-explanatory.

**Column 1C – Worker First Name:** Self-explanatory.

**Column 1D – Worker Middle Initial:** Self-explanatory.

**Column 1E – Worker Identifying No.:** Enter each worker's individual identifying number (e.g., last four digits of the worker's social security number or any number specific to the individual worker) on each weekly certified payroll submitted. ***Note:*** *workers' full Social Security numbers must* ***not*** *be included.*

**Column 2 – Journeyworker / Registered Apprentice:** Enter "J" if the worker is a journeyworker or "RA" if the worker is a registered apprentice in an apprenticeship program approved by DOL's Office of Apprenticeship (OA) or a State Apprenticeship Agency (SAA). For registered apprentices, also list their level of progression within the approved program.

**Column 3 – Labor Classification:** List the labor classification for the work actually performed by each worker. Labor classifications are found in the applicable Davis-Bacon wage determination(s) that are included in the contract for this project. If the wage determination(s) does not include a labor classification for work that a worker has performed on this contract, contact the Contracting Officer or Agency representative immediately.

If a worker performed work in more than one labor classification during the week, the worker must be paid at least the rate specified for the appropriate labor classification for the time actually worked in that labor classification. In such circumstances, an accurate breakdown of hours worked in each labor classification must be shown on the submitted payroll by using a separate row for each labor classification in which the worker performed work. If the contractor did

not maintain an accurate breakdown of hours worked by a worker in each labor classification, the worker must be paid for all hours worked using the highest applicable prevailing wage rate (basic hourly rate and fringe benefits).

**Column 4 – Hours Worked Each Day:** In column 4 in the table above row 1, please enter the first letter for each day of the contractor's workweek in each box on the top row and its corresponding date in each box on the second row below it. For example, if a contractor's workweek starts on Tuesday and ends on Monday, enter "T" for Tuesday in the first box of the first row and continue with the appropriate letter identifying the day of the week for each box ending with "M" on the last box of the first row. In the second row, enter the corresponding date for each day of the week. Please see example below:

| T | W | T | F | S | S | M |
|---|---|---|---|---|---|---|
| 6/16 | 6/17 | 6/18 | 6/19 | 6/20 | 6/21 | 6/22 |

For worker-specific entries, please enter hours worked on this project as straight time ("ST") and overtime ("OT") in the applicable boxes. On all contracts subject to the Contract Work Hours and Safety Standards Act (CWHSSA), enter hours worked on this project in excess of 40 hours total in the week as overtime ("OT") (including hours worked on and off the site of the work of the covered contract). ***Note:*** *For more information about compliance with overtime requirements on Federal and federally assisted contracts, please visit Overtime Pay on Government Contracts.*

**Column 5 – Total Hours Worked for the Week:** Enter the total number of the hours worked entered in column four.

**Column 6A – Hourly Wage Rate Paid for ST and OT:** For each worker, list the actual hourly rate paid for straight time (top row) and overtime (bottom row) worked for work in the classification indicated in column 3. If the worker was paid at a higher rate than the wage rate required on the wage determination, indicate the wage rate the worker was actually paid. ***Note:*** *do not include cash payments in lieu of fringe benefits in this column.*

**Column 6B – Total Fringe Benefit Credit:** Enter the total of the contractor's or subcontractor's contributions to or reasonably anticipated costs of bona fide fringe benefit plans, funds, or programs for which the contractor or subcontractor is taking a credit toward satisfying Davis-Bacon prevailing fringe benefit rates as listed on page 2 of Form WH-347 under "Hourly Credit for Fringe Benefits". This amount should equal the worker's total hours worked in this period multiplied by the hourly credit for fringe benefits as listed under the Total Hourly Credit column on page 2 of Form WH-347 under "Hourly Credit for Fringe Benefits".

**Column 6C – Payment in Lieu of Fringe Benefits:** Enter the total amount in cash provided in lieu of fringe benefits to the worker during the workweek. This amount should equal the worker's total hours worked in this period multiplied by the hourly rate provided to the worker as cash in lieu of fringe benefits.

**Column 7A – Gross Amount Earned:** Enter the worker's gross amount earned for the workweek for hours worked on this Federal or federally assisted project.

**Column 7B –Gross Amount Earned for all Work:** If part of a worker's weekly wage was earned on projects or work other than the project described on this payroll, including non-DBRA covered projects, enter in column 7B the total gross amount earned during the week for all work performed during the week.

**Column 8 – Deductions for all Work:** Enter all deductions made from worker's total gross amount earned for all work (Column 7B). Columns are provided for entering deductions made for tax withholdings, FICA, and "Other" deductions. If the amount under "Other" deductions is specific to one deduction, please describe the deduction under "Additional Remarks" on page 2 of this certified payroll form. If the amount under the "Other" deductions made from the worker's pay is a result of more than one deduction, submit an addendum that itemizes each deduction and includes a description and amount for each deduction listed on that document. Enter the total amount for all deductions actually made under the "Total Deductions" column (include the amounts listed under the Tax Withholdings, FICA and Other columns). All deductions must be in accordance with the provisions of the Copeland Act Regulations, 29 CFR part 3. If a worker worked on other jobs in addition to this project, do not pro-rate the deductions; instead, show actual deductions from the worker's weekly gross wage for all projects. ***Note:*** *Except for deductions listed in 29 CFR 3.5, all deductions must have prior approval from the Department of Labor.*

**Column 9 – Net Payment to Worker for All Work:** Enter the actual dollar amount paid to the worker for all hours worked across all projects (including non-DBRA covered projects) during the week.

**Detailed instructions for completing the second page of Form WH-347 follow:**

**Project Name:** Enter the name of the project on which you are reporting.

**Project No. Or Contract No.:** Enter the project or prime contract number associated with your contract assigned by the relevant contracting agency (if available).

**Payroll No.:** Beginning with the number “1”, each weekly certified payroll that a contractor or subcontractor submits for a project should be given a payroll number. Enter the appropriate payroll number.

**Prime Contractor’s/Subcontractor’s Business Name:** Enter the business’ legal name.

**Project Location:** Enter the complete address of the project, or, if there is no specific address, a description of the project location, including, at a minimum, the county or counties and state in which the project is located.

**Week Ending Date:** Enter the workweek ending date for this pay period.

**Certifying Official’s Name and Title:** Print the name and official title of the contractor or subcontractor, or their agent who paid or supervised the payment of the workers under the contract during the weekly time period covered by the form.

**Statement of Compliance:** While the “Statement of Compliance” need not be notarized, the statement (on page 2 of this certified payroll form) is subject to the penalties provided by 18 U.S.C. § 1001, namely, a fine, possible imprisonment of not more than 5 years, or both. Accordingly, the party signing this statement should have knowledge of the facts represented as true.

If applicable, please “check” each of the 6 boxes certifying the accompanying statement as accurate. Boxes 1, 2, 3 and 6 (i.e., the first three boxes and the last box) always **must** be checked to certify that the contractor or subcontractor completing the form is in compliance with the DBRA.

If any worker is being paid as an apprentice during the period, box 4 **must** be checked and each program name in which the contractor has registered apprentices working on the project during this payroll period must be listed, with the appropriate box checked to indicate whether the apprenticeship program is registered with DOL’s Office of Apprenticeship (OA) or a State Apprenticeship Agency (SAA), and the name of the labor classification entered. If more than three entries are required, please submit an addendum providing the requested information with the submission of the certified payroll. If box 4 is not applicable, do not check the box and enter “Not Applicable” or “N/A” in the entry subsection, under Apprenticeship Program Name.

If the contractor or subcontractor is claiming an hourly credit for their contributions to or reasonably anticipated costs of bona fide fringe benefit plans, funds, or programs, box 5 must be checked and the subsections titled “Hourly Credit for Fringe Benefits” must be completed. In the first column, list each

worker entry number (entered in column 1A on the first page) and name of worker for whom the contractor or subcontractor claimed an hourly fringe benefit credit (this should mirror the worker names and order found on Page 1 of the certified payroll form). In the following columns, list each fringe benefit plan name in the top row, fringe benefit plan type in the second row, fringe benefit plan number in the third row, mark whether the fringe benefit plan is funded or unfunded in the fourth row, and state the hourly amount of credit claimed for each worker under each applicable plan in the rows below. In the last column, list the total hourly cost of fringe benefit provided for each worker. Where the contractor or subcontractor is claiming a credit for the reasonably anticipated costs of fringe benefits provided directly by the contractor (commonly referred to as an “unfunded plan”), the contractor or subcontractor must have prior approval from the Department of Labor prior to claiming such credit as required in 29 CFR 5.28. If more than six bona fide fringe benefits are provided to the workers for which the contractor is claiming a credit, submit an addendum for each providing the information requested in this section.

***Note:*** *If the contractor or subcontractor is meeting its fringe benefit obligations partially through contributions to or reasonably anticipated costs of a bona fide fringe benefit plan and partially through the payment of cash in lieu of fringe benefits, the contractor or subcontractor should enter the respective amounts in this section and in column 6C (Cash Payment in Lieu of Fringe Benefits) on page 1. If the contractor or subcontractor is meeting its fringe benefits obligations by simply paying the cash equivalent to each worker, check the box but do not complete the subsection, because those payments will be reported under column 6C (Cash Payment in Lieu of Fringe Benefits) on page 1.*

**Additional Remarks:** Optional space for additional information on deductions, hourly cost of fringe benefits, or explanations. If more space is needed, please continue remarks on a separate page. If the optional space or separate pages are used, please include all contractor and project information required by the form.

**Signature of Certifying Official, Date, Telephone Number, and Email Address:** The Statement of Compliance must be signed by the contractor or subcontractor, or their agent who paid or supervised the payment of the workers under the contract during the weekly time period covered by the form. Enter the phone number and email address of the individual who is signing the statement and the date signed. Legally valid electronic signatures are acceptable. A legally valid electronic signature includes any electronic process that indicates acceptance of the certified payroll record and includes an electronic method of verifying the signer’s identity. ***Note:*** *Photocopies or scanned copies of signatures do not satisfy this requirement.*

**Public Burden Statement:** We estimate that it will take an average of 55 minutes to complete this collection of information, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection of information, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W., Washington, D.C. 20210.

City of Pocatello

# DAVIS BACON PRECONSTRUCTION SUMMARY OF REQUIREMENTS

(for more detail see *Making Davis-Bacon Work – A Contractor's Guide to Prevailing Wage Requirements for Federally-Assisted Construction Projects*

**1. REGULATIONS**: This federally funded project is subject to the following regulations:

**Davis-Bacon and Related Acts (DBRA)** requires the payment of prevailing wage rates to all laborers and mechanics working on the construction site. The prevailing wages for this project are listed in the contract documents. Prevailing wages include a basic hourly rate of pay and in most cases a fringe benefit payment.

The **Copeland Act** makes it a crime for anyone to require any laborer or mechanic to kick back any part of their wages to their employer. Consequently, the only deductions that can be taken out of an employee's paycheck are those required by law or those authorized by the employee in writing. The Copeland Act also requires that every contractor pay their employees weekly and submit weekly certified payroll reports.

The **Contract Work Hours and Safety Standards Act (CWHSSA)** requires time and one-half pay for hours worked over 40 in any workweek. The time-and-one-half is computed on the basic hourly wage and then the fringe amount is added to it. CWHSSA violations carry a liquidated damages penalty of ten dollars per day per violation. Intentional violations of CWHSSA standards are considered a federal criminal misdemeanor.

The **Fair Labor Standards ACT (FLSA)** contains federal minimum wage rates and overtime requirements. These requirements generally apply to any labor performed and may be pre-empted by other federal standards such as the DBRA prevailing wage requirements and CWHSSA overtime provisions.

**Idaho Unemployment Insurance:** All contractor or subcontractor based in Idaho and based outside of Idaho must pay Unemployment Insurance in Idaho if work is performed within Idaho.

**2. ADDITIONAL CLASSIFICATIONS:** If the work classification(s) needed does not appear on the wage decision, a request for an additional classification and wage rate will be needed. The grant administrator can assist you in this process. These additional classifications and rates must be approved by the Department of Labor. If additional classification(s) cannot be obtained prior to the start of work, the requested amount requested will be paid. If the amount requested is not approved, any additional amount will be paid as wage restitution.

**3.** **POST ON JOB SITE**: The contractor is required to post the following forms in all company-assigned vehicles and at the job site in a conspicuous place:

- The Wage Decision for this project.
- All Additional Classifications for this project.
- The Secretary of Labor's Davis Bacon poster.
- The Equal Employment Opportunity Poster

**4.** **PAYROLLS**

a. Contractor will inform grants administrator of the first day on the job site.

b. Original payrolls must be submitted weekly by all contractors and subcontractors.

c. Contractors are not required to use Payroll Form WH-347, but the payroll used must contain all of the information that is required on the WH-347, and the Statement of Compliance must be the exact wording as on page 2 of WH-347.

d. Payroll deductions must be made according to USDOL Regulations 29-CFR Part 3. These regulations prohibit the employer from requiring employees to "kick back" any of their earnings. Any noneligible deductions will require that the employee fill out and sign the Employee Voluntary Deduction Authorization form to be submitted with the payroll where the deduction is first reported.

e. If fringe benefits are paid to a plan instead of in cash, the hourly contribution must be determined by the grants administrator. Documentation of the plan and the amount paid into the plan per employee must be submitted with the first payroll.

f. Payrolls must be numbered sequentially by the respective contractor or subcontractor. If not, contractor must submit a letter or email for the period that work was not performed so that a continuous record is maintained.

g. General contractor and all subs must fill out and sign a Supplemental Conditions Relating to Davis Bacon form which, among other items, states who is designated to sign payrolls if someone other than the owner signs them.

h. Subcontractor payrolls must be submitted to the General Contractor within seven (7) days after the payroll period ends, reviewed and forwarded to the Grants Administrator.

i. General Contractor must submit payrolls to the Grant Administrator within seven (7) days after the payroll period ends. Payroll periods must end on the same day of each week.

5. **SPLIT CLASSIFICATION**: If employees perform work in more than one classification during the workweek, the wage rates specified for each classification can be paid only if accurate time records are maintained showing the amount of time spent in each classification of work. If there is a dispute, the contractor will be asked to provide the employee time records. If accurate time records are not maintained, the employees must be paid the highest wage rate of all the classifications for work performed.

6. **PROPER DESIGNATION OF TRADE**: The classification of each employee must be selected from the wage decision or an approved additional classification based on the actual type of work performed. Each worker must be paid no less than the wage rate on the wage decision for that classification regardless of their level of skill. In other words, if someone is performing carpentry work on the project, they must be paid no less than the wage rate on the wage decision for Carpenters, even if they aren't considered by the contractor to be fully trained as a Carpenter. The only people who can be paid less than the rate for their craft are apprentices registered with the USDOL.

7. **FOREMEN**: Foremen or supervisors that regularly spend more than 20 percent of their time performing construction work are covered laborers, i.e. workers or employees, for labor standards purposes and must be paid the designated wage (or greater) for the classification in which they work.

8. **RELATIVES**: Relatives are not exempt from Davis-Bacon requirements and must be paid the prevailing wage rate for the classification of work performed.

9. **APPRENTICESHIP PROVISIONS**: Idaho does not have an approved apprenticeship or trainee program so all apprentices must be registered with the USDOL, Bureau of Apprenticeship and Training, to be paid less than the Davis-Bacon rate for the work they perform. Contract the grants administrator if additional information is needed.

10. **WAGE INTERVIEWS**: Every contractor must make their employees available for interviews at the job site with the grants administrator or other agency representative.

11. **WORKING CONTRACTORS/SUBCONTRACTORS**: In the event the contractor or subcontractor is a self-employed proprietor and will perform all the work him/herself, work classification and hours worked must be reported on their own certified payroll or the certified payroll of the company that hired them.

12. **TRUCK DRIVERS**: Truck drivers employed by a contractor or subcontractor are not covered by Davis-Bacon prevailing wage requirements while engaged in transporting materials or supplies to or from the site of the work. These truck drivers must be paid Davis-Bacon wages for their time spent while working "directly upon the site of the work."

13. **VIOLATIONS**: Violations can result in withholding of funds, termination of contract, or contractor debarment.

**14.** **EQUAL EMPLOYMENT OPPORTUNITY**: Hiring employees will conform with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

**15.** **SECTION 3:** Contractors must make good faith efforts to use Section 3 low income area residents and/or businesses in connection with the project. Targeted recruitment and the selection of Section 3 area residents for available positions are two examples of good faith efforts that meet this requirement. Contractors must keep records documenting good faith efforts taken and results of these efforts. Also, contractors are required to complete a "Steps to Comply with Section 3" report at the time of contract signing.

# EMPLOYEE RIGHTS
# UNDER THE DAVIS-BACON ACT

## FOR LABORERS AND MECHANICS EMPLOYED ON FEDERAL OR FEDERALLY ASSISTED CONSTRUCTION PROJECTS

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

**PREVAILING WAGES**

You must be paid not less than the wage rate listed in the Davis-Bacon Wage Decision posted with this Notice for the work you perform.

**OVERTIME**

You must be paid not less than one and one-half times your basic rate of pay for all hours worked over 40 in a work week. There are few exceptions.

**ENFORCEMENT**

Contract payments can be withheld to ensure workers receive wages and overtime pay due, and liquidated damages may apply if overtime pay requirements are not met. Davis-Bacon contract clauses allow contract termination and debarment of contractors from future federal contracts for up to three years. A contractor who falsifies certified payroll records or induces wage kickbacks may be subject to civil or criminal prosecution, fines and/or imprisonment.

**APPRENTICES**

Apprentice rates apply only to apprentices properly registered under approved Federal or State apprenticeship programs.

**PROPER PAY**

If you do not receive proper pay, or require further information on the applicable wages, contact the Contracting Officer listed below:

Becky Babb 208-234-6278

City of Pocatello
Planning and Development Services
911 North 7th Avenue
Pocatello, Idaho

**or contact the U.S. Department of Labor's Wage and Hour Division.**

For additional information:

**1-866-4-USWAGE**

(1-866-487-9243) TTY: 1-877-889-5627

U.S. Wage and Hour Division

**WWW.WAGEHOUR.DOL.GOV**

U.S. Department of Labor | Employment Standards Administration | Wage and Hour Division

WH 1321 (Revised April 2009)

# DERECHOS DEL EMPLEADO

## BAJO LA LEY DAVIS-BACON

## PARA OBREROS Y MECÁNICOS EMPLEADOS EN PROYECTOS DE CONSTRUCCIÓN FEDERAL O CON ASISTENCIA FEDERAL

LA SECCIÓN DE HORAS Y SUELDOS DEL DEPARTAMENTO DE TRABAJO DE EEUU

**SALARIOS PREVALECIENTES**

No se le puede pagar menos de la tasa de pago indicada en la Decisión de Salarios Davis-Bacon fijada con este Aviso para el trabajo que Ud. desempeña.

**SOBRETIEMPO**

Se le ha de pagar no menos de tiempo y medio de su tasa básica de pago por todas las horas trabajadas en exceso de 40 en una semana laboral. Existen pocas excepciones.

**CUMPLIMIENTO**

Se pueden retener pagos por contratos para asegurarse que los obreros reciban los salarios y el pago de sobretiempo debidos, y se podría aplicar daños y perjuicios si no se cumple con las exigencias del pago de sobretiempo. Las cláusulas contractuales de Davis-Bacon permiten la terminación y exclusión de contratistas para efectuar futuros contratos federales hasta tres años. El contratista que falsifique los registros certificados de las nóminas de pago o induzca devoluciones de salarios puede ser sujeto a procesamiento civil o criminal, multas y/o encarcelamiento.

**APRENDICES**

Las tasas de aprendices sólo se aplican a aprendices correctamente inscritos bajo programas federales o estatales aprobados.

**PAGO APROPIADO**

Si Ud. no recibe el pago apropiado, o precisa de información adicional sobre los salarios aplicables, póngase en contacto con el Contratista Oficial que aparece abajo:

Becky Babb 208-234-6278
City of Pocatello
Planning and Development Services
911 North 7th Avenue
Pocatello, Idaho

o póngase en contacto con la Sección de Horas y Sueldos del Departamento de Trabajo de EEUU.

Para obtener información adicional:

**1-866-4-USWAGE**

(1-866-487-9243) TTY: 1-877-889-5627

**WWW.WAGEHOUR.DOL.GOV**

U.S. Wage and Hour Division

U.S. Department of Labor | Employment Standards Administration | Wage and Hour Division

WH 1321 SPA (Revised April 2009)

# Equal Employment Opportunity is

# THE LAW

## Private Employers, State and Local Governments, Educational Institutions, Employment Agencies and Labor Organizations

Applicants to and employees of most private employers, state and local governments, educational institutions, employment agencies and labor organizations are protected under Federal law from discrimination on the following bases:

### RACE, COLOR, RELIGION, SEX, NATIONAL ORIGIN

Title VII of the Civil Rights Act of 1964, as amended, protects applicants and employees from discrimination in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment, on the basis of race, color, religion, sex (including pregnancy), or national origin. Religious discrimination includes failing to reasonably accommodate an employee's religious practices where the accommodation does not impose undue hardship.

### DISABILITY

Title I and Title V of the Americans with Disabilities Act of 1990, as amended, protect qualified individuals from discrimination on the basis of disability in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment. Disability discrimination includes not making reasonable accommodation to the known physical or mental limitations of an otherwise qualified individual with a disability who is an applicant or employee, barring undue hardship.

### AGE

The Age Discrimination in Employment Act of 1967, as amended, protects applicants and employees 40 years of age or older from discrimination based on age in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment.

### SEX (WAGES)

In addition to sex discrimination prohibited by Title VII of the Civil Rights Act, as amended, the Equal Pay Act of 1963, as amended, prohibits sex discrimination in the payment of wages to women and men performing substantially equal work, in jobs that require equal skill, effort, and responsibility, under similar working conditions, in the same establishment.

### GENETICS

Title II of the Genetic Information Nondiscrimination Act of 2008 protects applicants and employees from discrimination based on genetic information in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment. GINA also restricts employers' acquisition of genetic information and strictly limits disclosure of genetic information. Genetic information includes information about genetic tests of applicants, employees, or their family members; the manifestation of diseases or disorders in family members (family medical history); and requests for or receipt of genetic services by applicants, employees, or their family members.

### RETALIATION

All of these Federal laws prohibit covered entities from retaliating against a person who files a charge of discrimination, participates in a discrimination proceeding, or otherwise opposes an unlawful employment practice.

### WHAT TO DO IF YOU BELIEVE DISCRIMINATION HAS OCCURRED

There are strict time limits for filing charges of employment discrimination. To preserve the ability of EEOC to act on your behalf and to protect your right to file a private lawsuit, should you ultimately need to, you should contact EEOC promptly when discrimination is suspected:

The U.S. Equal Employment Opportunity Commission (EEOC), 1-800-669-4000 (toll-free) or 1-800-669-6820 (toll-free TTY number for individuals with hearing impairments). EEOC field office information is available at www.eeoc.gov or in most telephone directories in the U.S. Government or Federal Government section. Additional information about EEOC, including information about charge filing, is available at www.eeoc.gov.

## Employers Holding Federal Contracts or Subcontracts

Applicants to and employees of companies with a Federal government contract or subcontract are protected under Federal law from discrimination on the following bases:

### RACE, COLOR, RELIGION, SEX, NATIONAL ORIGIN

Executive Order 11246, as amended, prohibits job discrimination on the basis of race, color, religion, sex or national origin, and requires affirmative action to ensure equality of opportunity in all aspects of employment.

### INDIVIDUALS WITH DISABILITIES

Section 503 of the Rehabilitation Act of 1973, as amended, protects qualified individuals from discrimination on the basis of disability in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment. Disability discrimination includes not making reasonable accommodation to the known physical or mental limitations of an otherwise qualified individual with a disability who is an applicant or employee, barring undue hardship. Section 503 also requires that Federal contractors take affirmative action to employ and advance in employment qualified individuals with disabilities at all levels of employment, including the executive level.

### DISABLED, RECENTLY SEPARATED, OTHER PROTECTED, AND ARMED FORCES SERVICE MEDAL VETERANS

The Vietnam Era Veterans' Readjustment Assistance Act of 1974, as amended, 38 U.S.C. 4212, prohibits job discrimination and requires affirmative action to employ and advance in employment disabled veterans, recently separated veterans (within three years of discharge or release from active duty), other protected veterans (veterans who served during a war or in a campaign or expedition for which a campaign badge has been authorized), and Armed Forces service medal veterans (veterans who, while on active duty, participated in a U.S. military operation for which an Armed Forces service medal was awarded).

### RETALIATION

Retaliation is prohibited against a person who files a complaint of discrimination, participates in an OFCCP proceeding, or otherwise opposes discrimination under these Federal laws.

Any person who believes a contractor has violated its nondiscrimination or affirmative action obligations under the authorities above should contact immediately:

The Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, 200 Constitution Avenue, N.W., Washington, D.C. 20210, 1-800-397-6251 (toll-free) or (202) 693-1337 (TTY). OFCCP may also be contacted by e-mail at OFCCP-Public@dol.gov, or by calling an OFCCP regional or district office, listed in most telephone directories under U.S. Government, Department of Labor.

## Programs or Activities Receiving Federal Financial Assistance

### RACE, COLOR, NATIONAL ORIGIN, SEX

In addition to the protections of Title VII of the Civil Rights Act of 1964, as amended, Title VI of the Civil Rights Act of 1964, as amended, prohibits discrimination on the basis of race, color or national origin in programs or activities receiving Federal financial assistance. Employment discrimination is covered by Title VI if the primary objective of the financial assistance is provision of employment, or where employment discrimination causes or may cause discrimination in providing services under such programs. Title IX of the Education Amendments of 1972 prohibits employment discrimination on the basis of sex in educational programs or activities which receive Federal financial assistance.

### INDIVIDUALS WITH DISABILITIES

Section 504 of the Rehabilitation Act of 1973, as amended, prohibits employment discrimination on the basis of disability in any program or activity which receives Federal financial assistance. Discrimination is prohibited in all aspects of employment against persons with disabilities who, with or without reasonable accommodation, can perform the essential functions of the job.

If you believe you have been discriminated against in a program of any institution which receives Federal financial assistance, you should immediately contact the Federal agency providing such assistance.

# La Igualdad de Oportunidades en el Empleo es

# LA LEY

## Empleadores privados, autoridades locales y estatales, instituciones educativas, agencias de empleo y organizaciones laborales

Los solicitantes de empleo y los empleados de la mayoría de los empleadores privados, autoridades locales y estatales, instituciones educativas, agencias de empleo y organizaciones laborales están protegidos conforme a la ley federal contra la discriminación por cualquiera de los siguientes motivos:

### RAZA, COLOR, RELIGIÓN, SEXO, ORIGEN NACIONAL

El Título VII de la Ley de Derechos Civiles de 1964, y sus enmiendas, protege a los solicitantes de empleo y a los empleados contra la discriminación en la contratación, ascenso, despido, sueldo, beneficios adicionales, capacitación laboral, clasificación, referencia, y otros aspectos del empleo, debido a la raza, color, religión, sexo (incluido el embarazo) u origen nacional. La discriminación religiosa incluye el no realizar los arreglos razonables para las prácticas religiosas de un empleado, cuando tales arreglos no impongan una dificultad indebida.

### DISCAPACIDAD

El Título I y el Título V de la Ley de Estadounidenses con Discapacidades de 1990, y sus enmiendas, protegen a los individuos que califiquen contra la discriminación por una discapacidad en la contratación, ascenso, despido, sueldo, beneficios adicionales, capacitación laboral, clasificación, referencia, y otros aspectos del empleo. La discriminación por discapacidad incluye el no realizar los arreglos razonables para las limitaciones mentales o físicas conocidas de un individuo con una discapacidad quien solicite empleo o sea empleado, salvo que implique una dificultad indebida.

### EDAD

La Ley Contra la Discriminación por Edad en el Empleo de 1967, y sus enmiendas, protége a los solicitantes de empleo y a los empleados que tengan 40 años de edad o más contra la discriminación por la edad en la contratación, ascenso, despido, sueldo, beneficios adicionales, capacitación laboral, clasificación, referencia, y otros aspectos del empleo.

### SEXO (SALARIOS)

Adicionalmente a la prohibición de la discriminación por sexo estipulada en el Título VII de la Ley de Derechos Civiles, y sus enmiendas, la Ley de Igualdad Salarial de 1963, y sus enmiendas, prohíbe la discriminación por sexo en el pago de salarios a los hombres y mujeres que realicen un trabajo sustancialmente similar, en empleos que requieran iguales destrezas, esfuerzos y responsabilidades, bajo condiciones laborales similares, en el mismo establecimiento.

### GENÉTICA

El Título II de la Ley contra la Discriminación por Información Genética de 2008 (GINA) protege a los solicitantes de empleo y a los empleados contra la discriminación con basada en información genética, en la contratación, ascenso, despido, sueldo, beneficios adicionales, capacitación laboral, clasificación, referencia, y otros aspectos del empleo. GINA también restringe la adquisición de la información genética por parte de los empleadores y limita estrictamente la divulgación de la información genética. La información genética incluye la información sobre las pruebas genéticas de los solicitantes de empleo, los empleados o sus familiares; la manifestación de enfermedades o desordenes en los familiares (historial médico familiar); y las solicitudes o recibo de servicios genéticos por los solicitantes de empleo, los empleados o sus familiares.

### REPRESALIA

Todas estas leyes federales prohíben a las entidades cubiertas tomar represalias contra una persona que presente un cargo de discriminación, participe en un procedimiento de discriminación o se oponga a una práctica laboral ilegal.

### QUÉ DEBE HACER SI CONSIDERA QUE HA OCURRIDO UNA DISCRIMINACIÓN

Hay límites estrictos de tiempo para presentar cargos de discriminación en el empleo. Para conservar la capacidad del EEOC de actuar en su nombre y para proteger su derecho de presentar una demanda privada, en caso de que en última instancia lo necesite, usted debe comunicarse con el EEOC de manera oportuna cuando sospeche de la discriminación:

La Comisión para la Igualdad de Oportunidades en el Empleo de los EE.UU. (EEOC), 1-800-669-4000 (número gratuito) o 1-800-669-6820 (número TTY gratuito para las personas con dificultades auditivas). La información de las oficinas de campo del EEOC está disponible en www.eeoc.gov o en la mayoría de los directorios telefónicos en la sección de Gobierno de los EE.UU. o Gobierno Federal. Puede encontrar información adicional sobre el EEOC, incluida la información sobre la presentación de cargos, en www.eeoc.gov.

## Empleadores que tengan contratos o subcontratos federales

Los solicitantes de empleo y los empleados de compañías con un contrato o subcontrato gubernamental federal están protegidos conforme a las leyes federales contra la discriminación por los siguientes motivos:

### RAZA, COLOR, RELIGIÓN, SEXO, ORIGEN NACIONAL

La Orden Ejecutiva 11246, y sus enmiendas, prohíbe la discriminación en el trabajo por motivo de raza, color, religión, sexo u origen nacional, y exige la aplicación de acción afirmativa para garantizar la igualdad en las oportunidades en todos los aspectos del empleo.

### INDIVIDUOS CON DISCAPACIDADES

La Sección 503 de la Ley de Rehabilitación de 1973, y sus enmiendas, protege a los individuos que califiquen contra la discriminación por una discapacidad en la contratación, ascenso, despido, sueldo, beneficios adicionales, capacitación laboral, clasificación, referencia, y otros aspectos del empleo. La discriminación por discapacidad incluye el no realizar los arreglos razonables para las limitaciones mentales o físicas conocidas de un individuo con una discapacidad quien solicite empleo o sea empleado, salvo que implique una dificultad indebida. La Sección 503 también exige que los contratistas federales tomen las acciones afirmativas para emplear y ascender en el empleo a individuos calificados con discapacidades en todos los niveles laborales, incluido el nivel ejecutivo.

### VETERANOS CON MEDALLAS DEL SERVICIO DE LAS FUERZAS ARMADAS Y VETERANOS DISCAPACITADOS, SEPARADOS RECIENTEMENTE Y DE OTRO ESTATUS PROTEGIDO

La Ley de Asistencia a la Readaptación de los Veteranos de Vietnam de 1974, y sus enmiendas, 38 U.S.C. 4212, prohíbe la discriminación laboral y exige la acción afirmativa para emplear y ascender en el empleo a veteranos discapacitados, veteranos separados del servicio recientemente (dentro de los tres años dados de baja del servicio activo), otros veteranos protegidos (quienes hayan prestado el servicio militar en una guerra o en una campaña o expedición para la cual se haya autorizado una insignia de campaña), y los veteranos con medallas del Servicio de las Fuerzas Armadas (veteranos quienes, mientras se encontraban en el servicio activo, participaron en una operación militar de EE.UU. para la cual se les otorgó una medalla del Servicio de las Fuerzas Armadas).

### REPRESALIA

Se prohíben las represalias contra una persona que presente un cargo de discriminación, participe en un procedimiento de la Oficina de Programas de Cumplimiento de Contratos Federales (OFCCP), o quien se oponga a la discriminación de conformidad con estas leyes federales.

Toda persona quien considere que un contratista ha incumplido sus obligaciones antidiscriminatorias o de acción afirmativa conforme a las autoridades antes indicadas, debe contactar de inmediato a:

The Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, 200 Constitution Avenue, N.W., Washington, D.C. 20210, 1-800-397-6251 (número gratuito) o (202) 693-1337 (número TTY). También puede contactar a la OFCCP por el correo electrónico OFCCP-Public@dol.gov, o llamando a una oficina distrital o regional de la OFCCP, la cual puede encontrar en la mayoría de los directorios telefónicos en la sección U.S. Government (Gobierno de los EE.UU.), Department of Labor (Departamento del Trabajo).

## Programas o actividades que reciban asistencia financiera federal

### RAZA, COLOR, ORIGEN NACIONAL, SEXO

Adicionalmente a las protecciones del Título VII de la Ley de Derechos Civiles de 1964, y sus enmiendas, el Título VI de la Ley de Derechos Civiles de 1964, y sus enmiendas, prohíbe la discriminación por raza, color u origen nacional en los programas o actividades que reciban asistencia financiera federal. La discriminación en el empleo está cubierta por el Título VI si el objetivo principal de la asistencia financiera es la provisión del empleo, o donde la discriminación laboral cause o pueda causar una discriminación en la provisión de los servicios conforme a tales programas. El Título IX de las Enmiendas en la Educación de 1972 prohíbe la discriminación en el empleo por motivo del sexo en las actividades o programas educativos que reciban asistencia financiera federal.

### INDIVIDUOS CON DISCAPACIDADES

La Sección 504 de la Ley de Rehabilitación de 1973, y sus enmiendas, prohíbe la discriminación en el empleo por una discapacidad, en cualquier programa o actividad que reciba asistencia financiera federal. Se prohíbe la discriminación en todos los aspectos del empleo contra las personas con discapacidades quienes, con o sin arreglos razonables, puedan realizar las funciones esenciales del trabajo.

Si usted considera que ha sido discriminado en un programa de alguna institución que reciba asistencia financiera federal, debe contactar inmediatamente a la agencia federal que proporciona dicha asistencia.

# DAVIS-BACON AND RELATED ACT PROVISIONS

## TABLE OF CONTENTS


- Federal Provisions (Summary Below)
    - EPA's Disadvantaged Business Enterprise Program
    - Davis Bacon Act (DBA)
    - Build America, Buy America (BABA) Act
    - American Iron and Steel (AIS) Requirement
    - Federal Cross-cutting Requirements/Other
    - Applicable Federal Laws

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# FEDERAL PROVISIONS

## Project: Centennial-Rainey Levee Setback and Ecosystem Enhancement Project

Applicable to: **All Contractors and Subcontractors**

This project is funded through Environmental Protection Agency (EPA) 2024 Consolidated Appropriations Act and must adhere to all federal funding
award requirements. This solicitation is being conducted in accordance with the provisions of Idaho Code Title 67, Chapter 28 (Purchasing by Political
Subdivisions), the City of Pocatello Purchasing Policies, 2 CFR 200, and other applicable federal requirements per the EPA grant. This includes but is not limited to compliance with the Grant-Specific Programmatic Terms and Conditions for EPA Community Grants and the current EPA general terms and conditions available at: https://www.epa.gov/system/files/documents/2024-10/fy_2025_epa_general_terms_and_conditions_effective_october_1_2024_or_later.pdf

These terms and conditions are in addition to the assurances and certifications made as a part of the award and the terms, conditions, or restrictions cited throughout the award.

Those provisions are hereby incorporated by reference into the bid documents. Section 3, disadvantaged business enterprises, minority owned businesses, and women owned businesses are especially encouraged to apply.

EPA's Disadvantaged Business Enterprise (DBE) Program

EPA's DBE Program applies to all EPA Assistance Agreements, with the exception of procurements that meet the statutory flexibility described above, and requires recipients who procure goods and/or services to employ the six good faith efforts, document their efforts, and maintain DBE forms and other documentation from the prime contractor. EPA grant recipients and subrecipients are required to seek and encouraged to utilize DBEs for their procurement needs under grant agreements. Recipients and subrecipients must ensure that their contracts contain the following term and condition:

"The contractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 40 CFR Part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in termination of this contract or other legally available remedies."

EPA's DBE Program and its requirements are contained within 40 CFR Part 33 as modified by various memorandums and exceptions issued over time.

Davis Bacon Act (DBA)

The DBA requires that all contractors and subcontractors performing construction, alteration, and repair (including painting and decorating) work under federal contracts in

excess of $2,000, pay their laborers and mechanics not less than the prevailing wage and fringe benefits for the geographic location. DBA requirements may be extended to federal financial assistance programs by the terms of other statutes (referred to as Davis Bacon and Related Acts (DBRA)) establishing or funding the programs. The explanatory statement accompanying the FY 2024 Appropriations Act provides that those federal requirements that would apply to a CWSRF or DWSRF project grant recipient shall apply to a grantee receiving a Community Grant (see Appendix A). Consequently, the FY 2024 Appropriations Act extends DBRA provisions applicable to state revolving fund projects to the Community Grants program.

Section 513 of the Clean Water Act (CWA), which applies to the CWSRF program, applies DBA prevailing wage requirements and labor standards to all laborers and mechanics employed by contractors or subcontractors on projects for treatment works. Section 1452(a)(5) of the Safe Drinking Water Act, which applies to the DWSRF program, applies DBA prevailing wage requirements and labor standards to all laborers and mechanics employed by contractors or subcontractors on any construction project.

DBA requirements apply to all laborers and mechanics employed by contractors and subcontractors with job duties that are physical and manual in nature including: laborers and mechanics, watchmen or guards (under certain conditions), and working foremen (under certain conditions). The term laborer or mechanic does not include workers whose duties are primarily administrative, executive, or clerical, rather than manual. Requirements only apply to construction at the “site of the work,” which has generally been defined as the physical place where the construction occurs. Work conducted off-site is generally not covered.

EPA provides information on requirements and compliance with DBRA online, and the Department of Labor provides information on its website about updates to DBRA regulations effective October 23, 2023 online. Note, if your Community Grant project triggers compliance with Davis Bacon, you must incorporate the appropriate wage determination in the bid solicitation document(s) and contract specifications.

Build America, Buy America (BABA) Act

BABA states that: “[N]one of the funds made available for a Federal financial assistance program for infrastructure…may be obligated for a project unless all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States.” Project means any activity related to the construction, alteration, maintenance, or repair of infrastructure in the United States. This law applies to all Federal financial assistance as defined in section 2 CFR 200.1, whether funded through the Infrastructure Investment and Jobs Act (IIJA) or not. New awards made on or after May 14, 2022, must comply with BABA requirements.

EPA provides information and guidance on BABA compliance, implementation, and any applicable waivers. Note, recipients are required to ensure that procurement plans and contract specifications comply with BABA requirements as applicable.

American Iron and Steel (AIS) Requirement

The AIS requirement requires recipients to use iron and steel products that are produced in the United States for the construction, alteration, maintenance, or repair of a public water system or treatment works. Compliance with AIS requirements for iron and steel products will satisfy a subset of BABA requirements (e.g., those pertaining to iron and steel); however, BABA also includes requirements pertaining to manufactured goods and construction materials, which must also be met. Projects in compliance with BABA are also in compliance with AIS.

EPA provides information and guidance on AIS compliance and implementation, any applicable waivers, as well as a step-by-step process for requesting waivers and the circumstances under which waivers may be granted. Note, recipients are required to ensure that procurement plans and contract specifications comply with AIS requirements as applicable.

NOTE: DBA, BABA, and AIS remain applicable to all Community Grants projects, regardless of whether the project is eligible for a waiver from Federal procurement requirements for competition and methods of procurement.

Federal Cross-cutting Requirements/Other Applicable Federal Laws

Recipients must comply with Federal cross-cutting requirements as well as other applicable Federal laws. These requirements may include but are not limited to –

- Environmental Authorities: Archeological and Historic Preservation Act, Pub. L. 93-291, as amended; Clean Air Act, Pub. L. 95-95, as amended; Clean Water Act, Titles III, IV and V, Pub. L. 92-500, as amended; Coastal Barrier Resources Act, Pub. L. 97-348; Coastal Zone Management Act, Pub. L. 92-583, as amended; Endangered Species Act, Pub. L. 93-205, as amended; Environmental Justice, Executive Orders 12898 and 14096; Flood Plain Management, Executive Order 11988, as amended by Executive Order 12148, and Executive Order 13690, Executive Order 13807, Executive Order 13990, and Executive Order 14030; Protection of Wetlands, Executive Order 11990, as amended by Executive Order 12608; Farmland Protection Policy Act, Pub. L. 97-98; Fish and Wildlife Coordination Act, Pub. L. 85-624, as amended; Magnuson-Stevens Fishery Conservation and Management Act, Pub. L. 94-265; National Environmental Policy Act, Pub. L. 91-190, as amended; National Historic Preservation Act, Pub. L. 89-655, as amended; Safe Drinking Water Act, Pub L. 93-523, as amended; Wild and Scenic Rivers Act, Pub. L. 90-54, as amended.

- Economic and Miscellaneous Authorities: OSHA Worker Health and Safety Standards; Contract Work Hours and Safety Standards Act, Pub. L. 91-54; Debarment and Suspension, Executive Order 12549; Demonstration Cities and Metropolitan Development Act, Pub. L. 89 -754, as amended, and Executive Order 12372; Drug-Free Workplace Act, Pub. L. 100-690; Copeland “Anti-kickback” Act,

Pub. L. 73-324; Government Neutrality Toward Contractor's Labor Relations, Executive Order 13202, as amended by Executive Order 13208; New Restrictions on Lobbying, Section 319 of Pub. L. 101-121; Prohibitions relating to violations of the Clean Water Act or Clean Air Act with respect to Federal contracts, grants, or loans under Section 306 of the Clean Air Act and Section 508 of the Clean Water Act, and Executive Order 11738; Uniform Relocation and Real Property Acquisition Policies Act, Pub. L. 91-646, as amended;

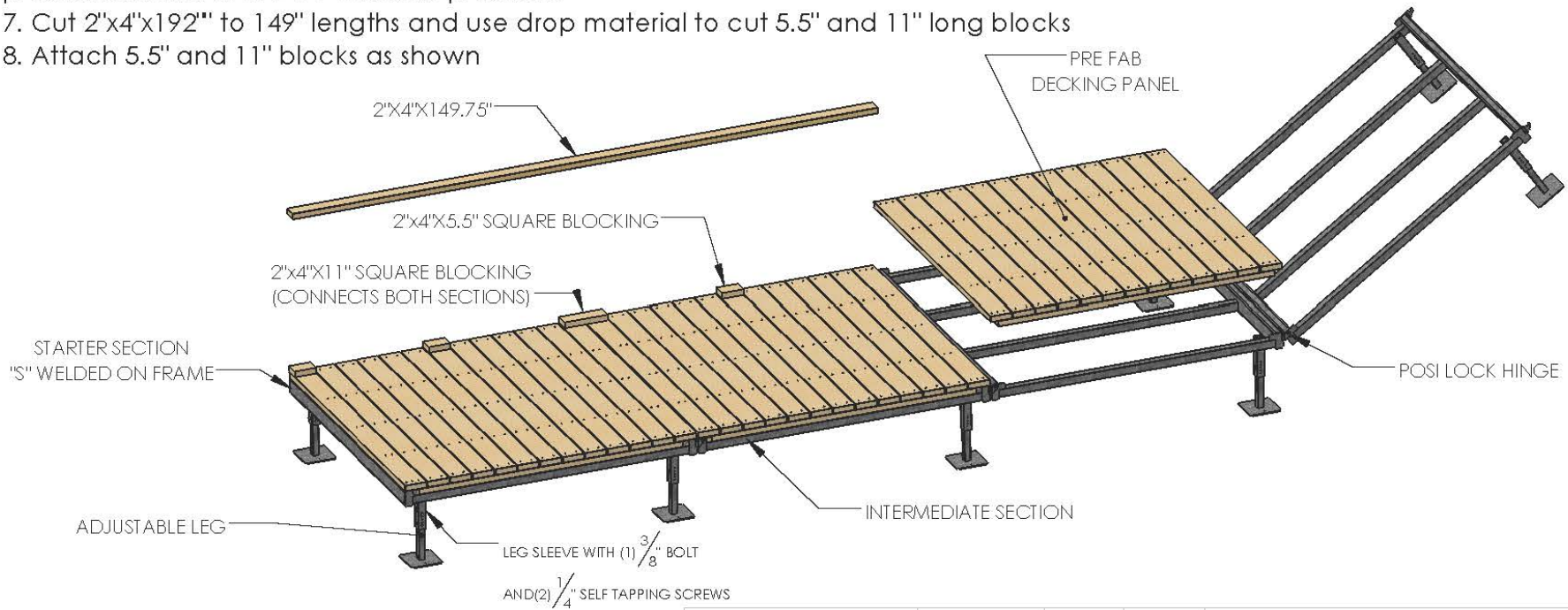
- Civil Rights, Nondiscrimination, Equal Employment Opportunity Authorities: Age Discrimination Act, Pub. L. 94-135; Equal Employment Opportunity, Executive Order 11246; Section 13 of the Clean Water Act, Pub. L. 92-500; Section 504 of the Rehabilitation Act, Pub. L 93-112, supplemented by Executive Orders 11914 and 11250; Title VI of the Civil Rights Act, Pub. L. 88-352;

    - Under Title VI of the Civil Rights Act, EPA has a responsibility to ensure that federal funds are not being used to subsidize discrimination based on race, color, or national origin. This prohibition against discrimination under Title VI has been a statutory mandate since 1964, and EPA has had Title VI regulations since 1973. EPA's nondiscrimination regulations prohibit recipients of EPA financial assistance from taking actions in their programs or activities that are intentionally discriminatory and/or have a discriminatory effect based on race, color, national origin (including limited English proficiency), age, disability, or sex.

- Disadvantaged Business Enterprise Authorities: EPA's FY 1993 Appropriations Act, Pub. L. 102-389; Section 129 of the Small Business Administration Reauthorization and Amendment Act, Pub. L. 100-590; Small, Minority and Women Owned Business Enterprises, Executive Orders 11625, 12138, and 12432.

## INSTALLATION INSTRUCTIONS

1. Place Starter-Section (section with "S" welded on it) and level frame by adjusting leg height and tighten 3/8" bolt. Once leveled secure in place by driving (2) ¼" Self Tapping Screws in each leg sleeve
2. Place deck panel onto frame and secure with (4) ¼" Self Tapping Screw (one in each corner)
3. Hinge in Intermediate Section and adjust leg height (as in step 1) in order to achieve a desired grading in the direction of install
4. install additional frames and deck section until last intermediate section is reached.
5. Hinge in End-Section (section with "E" welded on it) and level frame by adjusting leg height and tighten 3/8" bolt. Once leveled secure in place by driving (2) ¼" Self Tapping Screws
6. Once frame installation is complete, install curb railing as shown with at least (3) square 2"x4" blocks per section. Secure with provided screws and 2"x4" material provided
7. Cut 2"x4"x192"' to 149" lengths and use drop material to cut 5.5" and 11" long blocks
8. Attach 5.5" and 11" blocks as shown





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| UNLESS OTHERWISE SPECIFIED: | | NAME | DATE |
|---|---|---|---|
| DIMENSIONS ARE IN INCHES<br>TOLERANCES:<br>FRACTIONAL ± 1/32"<br>ANGULAR: MACH ±0.5 DEG<br>TWO PLACE DECIMAL ±0.01<br>THREE PLACE DECIMAL ±0.005 | DRAWN | JAK | 08/19/2016 |
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WICKCRAFT

TITLE:

# INSTALLATION DRAWING

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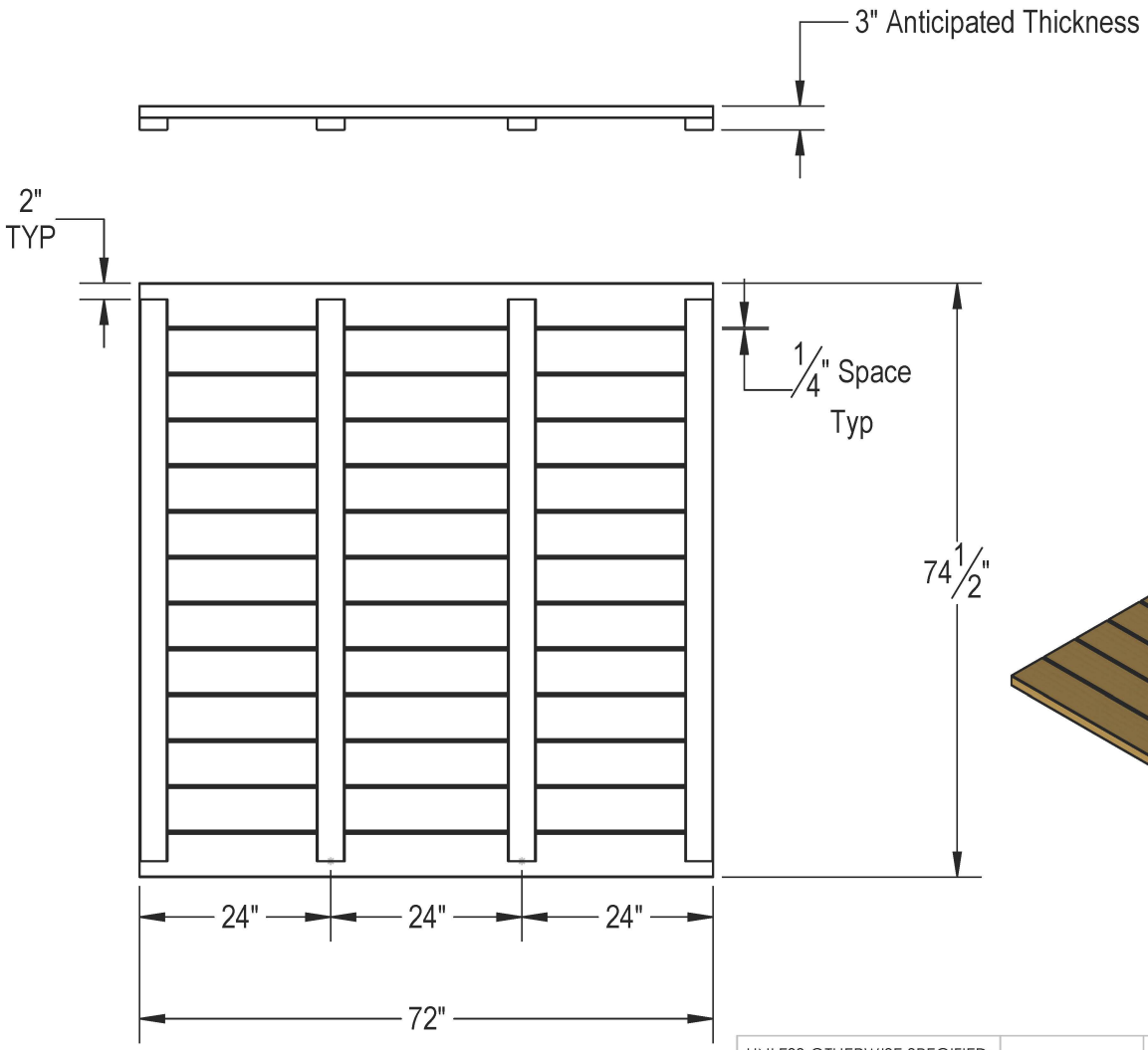


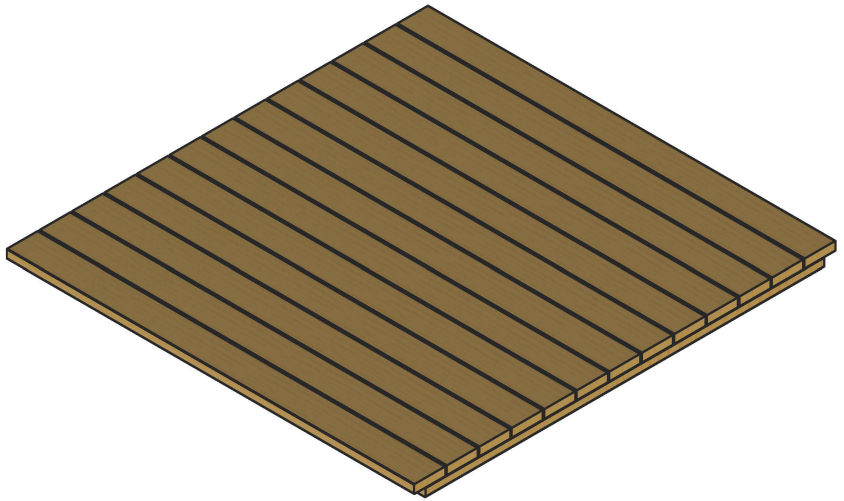

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WICKCRAFT

2317 DANIELS ST
MADISON, WI 53718
(608) 244-9177

TITLE:

# 6' SYP Typical Deck Section

| SIZE | DWG. NO. | REV |
|---|---|---|
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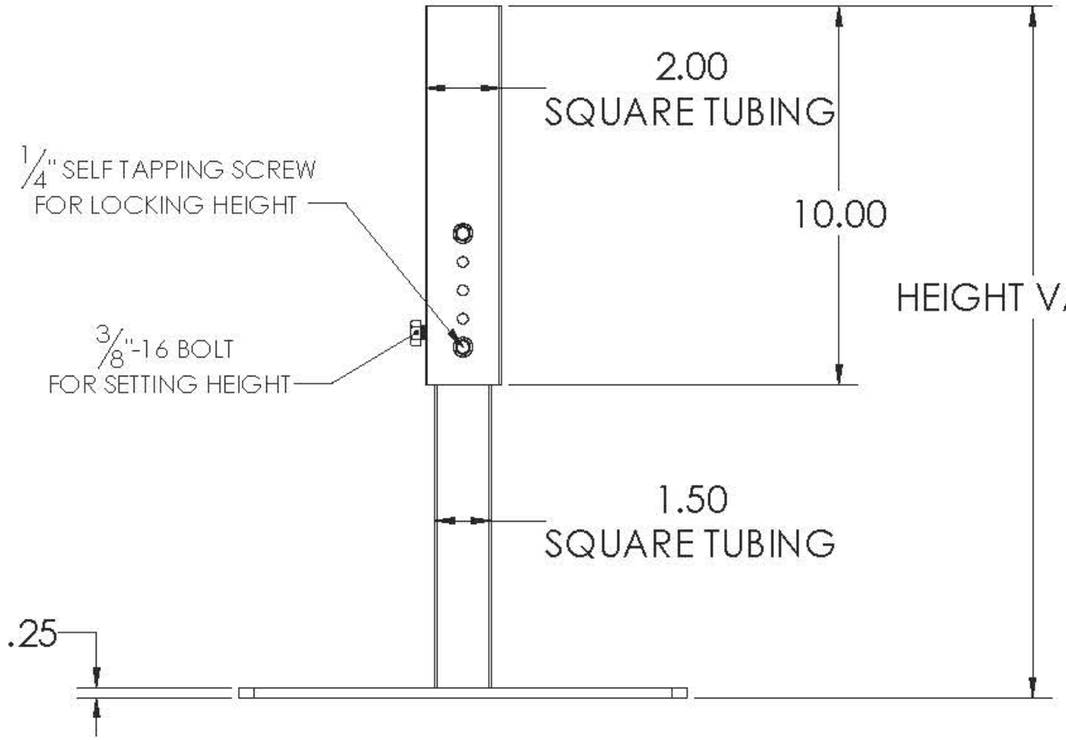


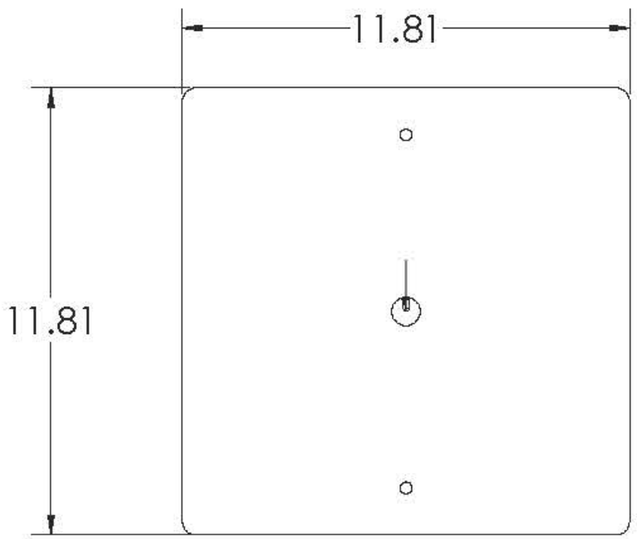


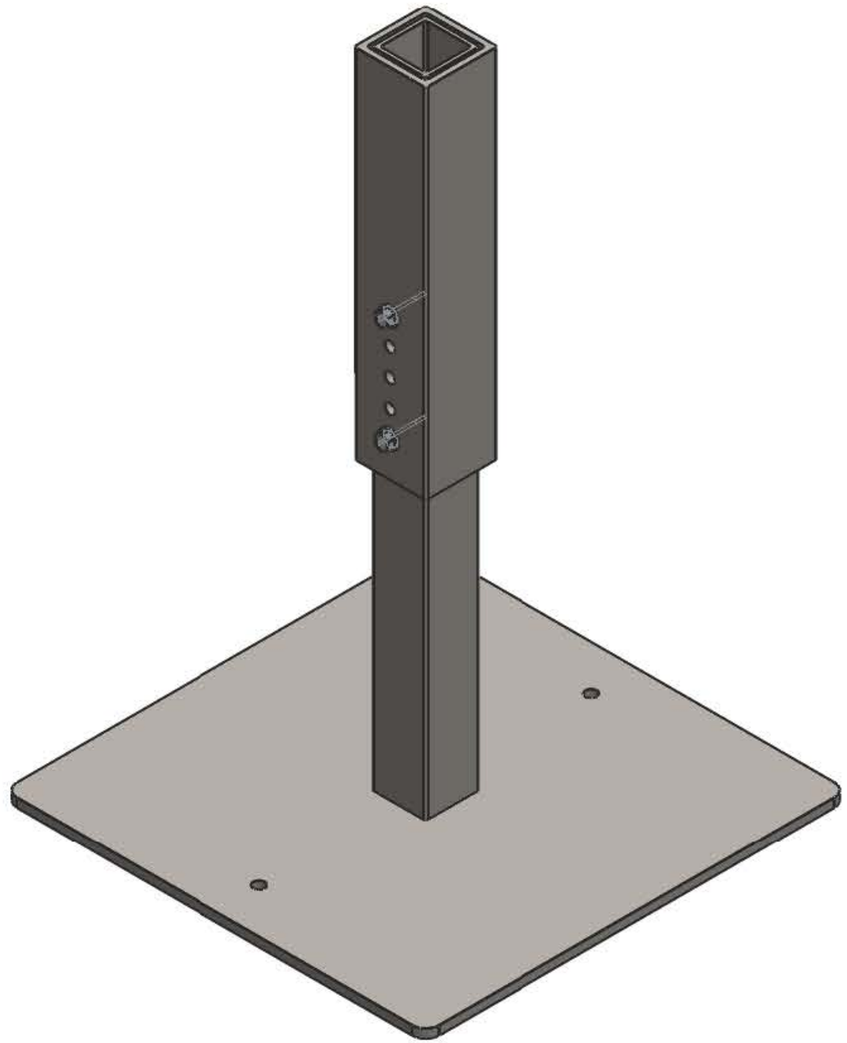

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BEND ± 0.5 DEG
TWO PLACE DECIMAL ± 0.010
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| MFG APPR. | | |
| Q.A. | | |
| COMMENTS: | | |

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(608) 244-9177

TITLE:
ADJUSTABLE LEG ASSEMBLY WITH BP-2 STYLE (12"X12") BASE PLATE

| SIZE | DWG. NO. | REV |
|---|---|---|
| B | ADJUSTABLE LEG ASSEMBLY (BP 2) | 00 |

SCALE: 1:4 | WEIGHT:16.7 lb | SHEET 1 OF 1