HOUSING AUTHORITY
OF THE COUNTY OF SANTA CRUZ

Buena Vista – Levee Repairs RFP 2019
Table of Contents

(*) Are documents <u>that must be submitted with Bid</u>

Notice to Contractors
Buena Vista – Levee Repairs RFP 2019
Request for Proposals

The Housing Authority of the County of Santa Cruz invites proposals from appropriately licensed contractors for repair of levee at wastewater facility. Bids must be submitted to and inquiries may be directed to:

Housing Authority of the County of Santa Cruz
2160 41st Ave.
Capitola CA 95010
831-454-5928 Office

Project specifications, requirements and provisions are included in Project Package which can be obtained at the Housing Authority office between 8:00AM and 5:00PM Monday through Thursday, or from the Housing Authority web site located at: www.hacosantacruz.org

The Contractor and each of his/her subcontractors shall be required to pay the local Prevailing wage rates as determined by the Director of the Department of Industrial Relations of the State of California. No bid will be accepted from a contractor who is not licensed under Chapter 9, Division 3, California Business and Professional Code or from a Contractor that is not registered with The State of California Department of Industrial Relations. All subcontractors must be appropriately licensed and registered.

Unless otherwise required by law, no bidder may withdraw their bid for a period of sixty (60) days after the bid deadline.

Proposals for this work will be received at the office of the Housing Authority. All proposals must be submitted no later than 10:00AM on Tuesday April 9, 2019 in a sealed envelope. All proposals must be accompanied by a cashier's check, certified check or corporate surety bond in the amount of five percent (5%) of the total of Items. The sealed envelope shall be presented for time and date stamping upon receipt at the Reception Desk of Housing Authority offices.

No proposals will be accepted that are incomplete, written in pencil, altered, illegible or contains unrequested alternates. The Housing Authority reserves the right to reject any and all proposals and waive any irregularity or minor defects in any proposal received.

3/15/19, 3/22/19

DOCUMENT 00100
INSTRUCTIONS TO INTERESTED BIDDERS
Buena Vista – Levee Repairs RFP 2019

Project Description:
Levee repairs at the Buena Vista Wastewater facility located at:

113 Tierra Alta Dr.
Watsonville CA 95076

For additional information or assistance, please contact

Peter Rogers, Facility Manager
progers@hacosantacruz.org
Housing Authority of the County of Santa Cruz
2160 41stA Ave.
Capitola CA 95010
Telephone 831-454-5928

Submission of Proposal signifies careful examination of the properties and has examined thoroughly and understood the nature and extent of Work, locality, actual conditions, as built conditions, and all federal, state and local laws and regulations that in any manner may affect cost, progress, performance or furnishing of Work, including: all aspects of the means, methods, techniques, sequences, procedures to be employed by Contractor and safety precautions and programs incident thereto.

Bidder Requirements

1. Bidder(s) will possess a valid State of California contractor license appropriate for work outlined herein. Bidders must be able to comply with all provisions of this project, including Department of Industrial Relations provisions: Registering as a Public Works Contractor, pay DIR Prevailing Wages, follow Apprenticeship requirements, and maintain & submit Certified Payroll Records.

2. Successful Contractor(s) will have fully trained staff with competent employees that have the expertise necessary to perform work.

3. The site to be will be thoroughly examined by Bidder(s) prior to submitting bid

4. Successful Contractor(s) will be aware of and comply with all City, County, State and Federal ordinances governing work related to this project.

Bonding Requirements

1. A guarantee from bidder equivalent to 5% of bid price is required to be submitted with Proposal. A Performance and Payment bond in a penal sum of 100% of contract price must be submitted by successful contractor awarded project. Bonds must be obtained from guarantee or surety companies acceptable to the U.S. Government and authorized to do business in the State of California.

Safety

1. Contractor acknowledges and agrees that public safety is of the utmost importance, and will constantly protect and preserve the safety of employees, tenants and the public during progress of work.

2. Contractor will be responsible for all safety equipment and to educate their employees in the rules of safety.

3. Contractor shall be aware of and comply with all City, County, State and Federal requirements regarding workplace safety.

Storage Facilities

1. Owner will not provide any storage facilities for contractor's use at any project site.

2. Contractor may not store any materials and/or equipment on project sites without Owner approval

Damage Caused by Contractor

1. All damage caused by contractor will be repaired or replaced at the Contractor's expense to the Owner's satisfaction.

Prevailing Wage Requirements

1. The Contractor and each of his/her subcontractors shall be required to pay the local Prevailing wage rates as determined by the Director of the Department of Industrial Relations of the State of California.

2. Owner reserves the right to verify that Contractor is complying with wage rate requirements through labor interviews of Contractor staff and/or requests for payroll documents verifying that the correct wage rates were paid.

Project Spoils

1. No project spoils will be allowed on-site; all spoils to be hauled off-site by Contractor & cost of same will be included in Proposal pricing.

Rain Delays and Readiness of Construction site

1. A Notice to Proceed will be issued when site has sufficiently dried to allow work to proceed. An extension will be granted for rain delays and time necessary for site to sufficiently dry in order for construction work to occur.

END OF DOCUMENT

DOCUMENT 00300
BID FORM
Buena Vista Levee Repairs RFP - 2019

1. The undersigned Bidder proposes and agrees, if this Proposal is accepted, to enter into an agreement with the Housing Authority in the form included in the Contract Documents, Document 00510 Agreement, to perform and furnish all Work as specified or indicated in the Contract Documents for the Contract Sum indicated in this Proposal and in accordance with all other terms and conditions of Contract Documents.
2. Bidder accepts all of the terms and conditions of the Contract Documents. This Proposal will remain subject to acceptance for SIXTY (60) calendar days after the due date for Proposals.
3. In submitting this Proposal, Bidder represents:
   A. Bidder has examined copies of all of the Contract Documents and of the following Addenda (receipt of all of which is hereby acknowledged).
   DATE:_____ ADDENDA #:_____
   DATE:_____ ADDENDA #:_____

   B. Bidder has visited the sites and has examined thoroughly and understood the nature and extent of the Contract Documents, Work, Site, locality, actual conditions, and all local conditions and federal, state and local laws and regulations that in any manner may affect cost, progress, performance or furnishing of Work or which relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto.
   C. Bidder has conducted or obtained and has understood all such examinations and investigations which pertain to physical conditions at or contiguous to the site or otherwise which may affect the cost, progress, performance or furnishing of Work, as Bidder considers necessary for the performance or furnishing of Work at the Contract Sum, in accordance with the other terms and conditions of Contract Documents, including specifically the provisions of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by Bidder for such purposes;
   D. Bidder has correlated its knowledge and the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents;
   E. Bidder has given Project Manager prompt written notice of all conflicts, errors, ambiguities or discrepancies that it has discovered in or among the Contract Documents and actual conditions and the written resolution thereof by Project Manager is acceptable to Bidder.
4. Based on the foregoing, Bidder proposes and agrees to fully perform the Work outlined in the report prepared by Haro Kasunich dated 13 December 2018 – include in pricing the use of approved on-site material for core and for shell - in strict accordance with the Contract Documents for the following sums of money.

SCHEDULE OF PRICES

All items must be filled in completely, including the bidders estimated hours of service for each project location:

Contractor Pricing for Levee Repairs at "Failed" portion of levee (as described by Geotechnical Report) – excluding "Optional" Embankment Protection rip-rap; including removal of all vegetation/tree(s) on East side of levee. Pricing to include resetting of overflow components & installing rip-rap only were overflow line terminates at pond #2:

$ _____

Alternate Pricing "A1" – Replacement of Entire Levee

Contractor Pricing for Replacement of ENTIRE Levee (from West to East embankments) – excluding "Optional" Embankment Protection rip-rap. Pricing to include resetting of overflow components & installing rip-rap only were overflow line terminates at pond #2:

$ _____

Alternate Pricing "A2"

Additional Contractor Pricing for installation of "Optional" Embankment Protection rip-rap on both sides of ENTIRE Levee (from West to East embankments as described by Geotechnical Report):

$ _____

Alternate Pricing "A3"

Additional Contractor Pricing for importing approved "core" material:

$ _____ per yard

5. The undersigned understands that Housing Authority reserves the right to reject this Proposal, but that this Proposal shall remain open and shall not be withdrawn for a period of SIXTY (60) calendar days from the date prescribed for its opening.

6. Notice of Award or request for additional information may be addressed to the undersigned at the address set forth below.

7. The names of all persons interested in the foregoing Proposal as principals are:
NOTE: If Bidder or other interested person is a corporation, give the legal name of corporation, state where incorporated, and names of president and secretary thereof; if a partnership, give name of the firm and names of all individual co-partners composing the firm; if Bidder or other interested person is an individual, give first and last names in full.

_____
Signature of Bidder

Date of Proposal: _____

NAME OF BIDDER: _____
Licensed in accordance with an act for the registration of Contractors, and with license number:

Contractor License #_____

NOTE: If Bidder is a corporation, set forth the legal name of the corporation together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If Bidder is a partnership, set forth the name of the firm together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership.

Business Address:

_____

_____

Telephone Number:_____ FAX Number _____

END OF DOCUMENT

Representations, Certifications, and Other Statements of Bidders

Table of Contents

1. Certificate of Independent Price Determination

(a) The bidder certifies that--
(1) The prices in this bid have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other bidder or competitor relating to (i) those prices, (ii) the intention to submit a bid, or (iii) the methods or factors used to calculate the prices offered;
(2) The prices in this bid have not been and will not be knowingly disclosed by the bidder, directly or indirectly, to any other bidder or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a competitive proposal solicitation) unless otherwise required by law; and
(3) No attempt has been made or will be made by the bidder to induce any other concern to submit or not to submit a bid for the purpose of restricting competition.

(b) Each signature on the bid is considered to be a certification by the signatory that the signatory—
(1) Is the person in the bidder's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(l) through (a)(3) above; or
(2) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(l) through (a)(3) above.

_____
[insert full name of person(s) in the bidder's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the bidder's organization];

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and
(iii) As an agent, has not personally participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above.
(c) If the bidder deletes or modifies subparagraph (a) 2 above, the bidder must furnish with its bid a signed statement setting forth in detail the circumstances of the disclosure.

[X] [Contracting Officer check if following paragraph is applicable]
(d) Non-collusive affidavit. (applicable to contracts for construction and equipment exceeding $50,000)
(1) Each bidder shall execute, in the form provided by the OWNER, an affidavit to the effect that he/she has not colluded with any other person, firm or corporation in regard to any bid submitted in response to this solicitation. If the successful bidder did not submit the affidavit with his/her bid, he/she must submit it within three (3) working days of bid opening. Failure to submit the affidavit by that date may render the bid nonresponsive. No contract award will be made without a properly executed affidavit.
(2) A fully executed "Non-collusive Affidavit" [ ] is,

[ ] is not included with the bid.

2. Contingent Fee Representation and Agreement
(a) Definitions. As used in this provision:
"Bona fide employee" means a person, employed by a bidder and subject to the bidder's supervision and control as to time, place, and manner of performance, who neither exerts, nor proposes to exert improper influence to solicit or obtain contracts nor holds out as being able to obtain any contract(s) through improper influence.
"Improper influence" means any influence that induces or tends to induce an OWNER employee or officer to give consideration or to act regarding an OWNER contract on any basis other than the merits of the matter.
(b) The bidder represents and certifies as part of its bid that, except for full-time bona fide employees working solely for the bidder, the bidder:
(1) [ ] has, [ ] has not employed or retained any person or company to solicit or obtain this contract; and
(2) [ ] has, [ ] has not paid or agreed to pay to any person or company employed or retained to solicit or obtain this contract any commission, percentage, brokerage, or other fee contingent upon or resulting from the award of this contract.
(c) If the answer to either (a)(1) or (a)(2) above is affirmative, the bidder shall make an immediate and full written disclosure to the OWNER Contracting Officer.
(d) Any misrepresentation by the bidder shall give the OWNER the right to (1) terminate the contract; (2) at its discretion, deduct from contract payments the

amount of any commission, percentage, brokerage, or other contingent fee; or (3) take other remedy pursuant to the contract.

3. Organizational Conflicts of Interest Certification

The bidder certifies that to the best of its knowledge and belief and except as otherwise disclosed, he or she does not have any
organizational conflict of interest which is defined as a situation in which the nature of work to be performed under this proposed
contract and the bidder's organizational, financial, contractual, or other interests may, without some restriction on future activities:
(a) Result in an unfair competitive advantage to the bidder; or,
(b) Impair the bidder's objectivity in performing the contract work.
[ ] In the absence of any actual or apparent conflict, I hereby certify that to the best of my knowledge and belief, no actual or apparent conflict of interest exists with regard to my possible performance of this procurement.

4. Bidder's Certification of Eligibility

(a) By the submission of this bid, the bidder certifies that to the best of its knowledge and belief, neither it, nor any person or firm which has an interest in the bidder's firm, nor any of the bidder's subcontractors, is ineligible to:
(1) Be awarded contracts by any agency of the United States Government, HUD, or State of California in which this contract is to be performed; or,
(2) The certification in paragraph (a) above is a material representation of fact upon which reliance was placed when making award. If it is later determined that the bidder knowingly rendered an erroneous certification, the contract may be terminated for default, and the bidder may be debarred or suspended from participation in HUD programs and other Federal contract programs.

5. Minimum Bid Acceptance Period
(a) "Acceptance period," as used in this provision, means the number of calendar days available to the OWNER for awarding a contract from the date specified in this solicitation for receipt of bids.
(b) This provision supersedes any language pertaining to the
acceptance period that may appear elsewhere in this solicitation.
(c) The OWNER requires a minimum acceptance period of [**60**] calendar days.
(d) In the space provided immediately below, bidders may specify a longer acceptance period than the Owner minimum requirement. The bidder allows the following acceptance period:
[ ] calendar days.
(e) A bid allowing less than the Owner minimum acceptance period will be rejected.
(f) The bidder agrees to execute all that it has undertaken to do, in compliance with its bid, if that bid is accepted in writing within (1) the acceptance period stated in paragraph (c) above or (2) any longer acceptance period stated in paragraph (d) above.

6. Small, Minority, Service Related Disable Veteran, Women-Owned Business Concern Representation

The bidder represents and certifies as part of its bid/ offer that it –
(a) [ ] is, [ ] is not a small business concern. "Small business concern," as used in this provision, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding, and qualified as a small business under the criteria and size standards in 13 CFR 121.
(b) [ ] is, [ ] is not a women-owned business enterprise. "Women owned business enterprise," as used in this provision, means a business that is at least 51 percent owned by a woman or women who are U.S. citizens and who also control and operate the business.
(c) [ ] is, [ ] is not a service-oriented disabled veteran business enterprise. "Service-oriented disabled veteran business enterprise," as used in this provision, means a business that is at least 51 percent owned by a veteran who has been disabled due to a service related injury and who are U.S. citizens and who also control and operate the business.
(d) [ ] is, [ ] is not a minority business enterprise. "Minority business enterprise," as used in this provision, means a business which is at least 51 percent owned or controlled by one or more minority group members or, in the case of a publicly owned business, at least 51 percent of its voting stock is owned by one or more minority group members, and whose management and daily operations are controlled by one or more such individuals. For the purpose of this definition, minority group members are: (Check the block applicable to you)

[ ] Black Americans [ ] Asian Pacific Americans

[ ] Hispanic Americans [ ] Asian Indian Americans

[ ] Native Americans [ ] Hasidic Jewish Americans

7. N/A

8. Certification of Eligibility Under the Davis-Bacon Act and State of California Department of Industrial Relations and Consumer Affairs Contractor State License Board Contractors
(applicable to construction contracts exceeding $1,500)
(a) By the submission of this bid, the bidder certifies that neither it nor any person or firm who has an interest in the bidder's firm is a person or firm ineligible to be awarded contracts by the United States Government by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or by the State of California Department of Industrial Relations or the California State License Board by virtue of Chapter 9, Division 3, California Business and Professional Code.
(b) No part of the contract resulting from this solicitation shall be subcontracted to any person or

firm ineligible to be awarded contracts by the United States Government by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or by the State of California Department of Industrial Relations or the California State License Board by virtue of Chapter 9, Division 3, California Business and Professional Code
(c) The penalty for making false statements is prescribed in the U. S. Criminal Code, 18 U.S.C. 1001. A violation of the California False Claims Act can result in a civil penalty of up to $10,000.00 for each false claim

9. Certification of Non segregated Facilities (applicable to contracts exceeding $10,000)
(a) The bidder's attention is called to the clause entitled **Equal Employment Opportunity** of the General Conditions of the Contract for Construction.
(b) "Segregated facilities," as used in this provision, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin because of habit, local custom, or otherwise.
(c) By the submission of this bid, the bidder certifies that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The bidder agrees that a breach of this certification is a violation of the Equal Employment Opportunity clause in the contract.
(d) The bidder further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) prior to entering into subcontracts which exceed $10,000 and are not exempt from the requirements of the Equal Employment Opportunity clause, it will:
(1) Obtain identical certifications from the proposed subcontractors;
(2) Retain the certifications in its files; and
(3) Forward the following notice to the proposed subcontractors (except if the proposed subcontractors have submitted identical certifications for specific time periods):

10. Clean Air and Water Certification (applicable to contracts exceeding $100,000)

The bidder certifies that:

(a) Any facility to be used in the performance of this contract [ ] is, [ ] is not listed on the Environmental Protection Agency List of Violating Facilities:
(b) The bidder will immediately notify the OWNER Contracting Officer, before award, of the receipt of any communication from the Administrator, or a designee, of the Environmental Protection Agency, indicating that any facility that the bidder proposes to use for the performance of the contract is under consideration to be listed on the EPA List of Violating Facilities; and,

(c) The bidder will include a certification substantially the same as this certification, including this paragraph (c), in every nonexempt subcontract.

11. Previous Participation Certificate (applicable to construction and equipment contracts exceeding $50,000)
(a) The bidder shall complete and submit with his/her bid the Form HUD-2530, "Previous Participation Certificate." If the successful bidder does not submit the certificate with his/her bid, he/she must submit it within three (3) working days of bid opening. Failure to submit the certificate by that date may render the bid nonresponsive. No contract award will be made without a properly executed certificate.
(b) A fully executed "Previous Participation Certificate" [ ] is, [X] is not included with the bid.

12. Bidder's Signature

The bidder hereby certifies that the information contained in these certifications and representations is accurate, complete, and current.

_____
(Signature and Date)

_____
(Typed or Printed Name)

_____
(Title)

_____
(Company Name)

_____
(Company Address)

Buena Vista - Levee Repairs RFP 2019

LIST OF SUBCONTRACTORS

LIST OF SUBCONTRACTORS PERFORMING WORK OR LABOR OR RENDERING SERVICES IN EXCESS OF ONE-HALF OF ONE PERCENT OF THE PRIME CONTRACTOR'S TOTAL BID.

Name & Address	Work to be Performed	License #	Classification	DIR Registration #	E-Mail Address	Telephone #

HOUSING AUTHORITY OF THE COUNTY OF SANTA CRUZ
DOCUMENT 00420, CONTRACTOR INFORMATION FORM

Buena Vista - Levee Repairs RFP 2019

In order to undertake work for the Housing Authority of the County of Santa Cruz, you must provide this form, completed in its entirety. You may not leave any blanks.

CONTRACTOR INFORMATION:	
Full name / Corporate Name of Company:	**Date:**
Is this a Section 3 business concern (see definition on attached page)? YES NO	
California Contractor's License #:	**License Type:**
Federal ID#:	**[ ] Sole Proprietor [ ] Partnership**
Contact Person:	**[ ] Non Profit 501c3 [ ] Corp.**
Street Address:	**Phone #:**
Mailing Address:	**Fax #:**

INSURANCE / OTHER FINANCIAL COVERAGE:	
Worker's Compensation	
Carrier:	Phone #:
Address:	
Policy Number:	

General Liability Carrier (provide copy of Insurance Certificate listing the Housing Authority as an additionally insured entity)	
Carrier:	Phone #:
Address:	
Policy Number:	Policy Limits: $

Guarantors of financial responsibility bonding and reliability of bidder (if applicable)	
Name of Surety Company:	Phone#:
Address:	
Name of Bank:	Phone #:
Address:	

EXPERIENCE:
The following statements and information regarding the Bidder are submitted with the bid, as a part thereof, and the truthfulness and accuracy of the information are guaranteed by the Bidder. Bidder is required to possess California Contractor's license classification listed in Invitation to Bid to be awarded this contract.
Your organization has been in business as a contractor under its present name for ____ years, from _____.
Your organization has had experience in work comparable to that under the proposed contract, as a general contract for_____ years, or as a subcontractor for _____ years.

Work similar in character to that required in the proposed contract, which bidder's organization has completed:		
Year	**Class and location of work and for whom performed**	**Contract Amount**
Contact name:	Title:	Phone:
Address:		

Year	**Class and location of work and for whom performed**	**Contract Amount**
Contact name:	Title:	Phone:
Address:		

Year	**Class and location of work and for whom performed**	**Contract Amount**
Contact name:	Title:	Phone:
Address:		

The following information is required by the Department of Housing and Urban Development

CLASSIFICATION OF BUSINESS:

This business is a small business [ ] yes [ ] no

a small business concern is a business that is independently owned and operated, is not dominate in the field in which it is bidding, and qualifies as a small business under the criteria and size standards in 13 CFR 121

This business is a woman-owned business [ ] yes [ ] no

a women-owned business enterprise means a business that is at least 51% owned by a woman or women who are U.S. citizens, who also control and operate the business

This is a minority owned business enterprise [ ] yes [ ] no

a minority business enterprise means a business that is at least 51% owned or controlled by one or more minority group members, or in the case of a publicly owned business, at least 51% of its voting stock is owned by one or more minority group members, and whose management and daily operations are controlled by one or more individuals. For this definition, minority group members are:
(check the block applicable to you, the Owner or President)

[ ] Black American(s) [ ] Hispanic American(s) [ ] Native American(s)
[ ] Asian Pacific American(s) [ ] Asian Indian American(s) [ ] Hasidic Jewish American(s)

DEMOGRAPHICS:

The Owner/President is: [ ] male [ ] female **Owner is sole employee:** [ ] yes [ ] no

Owner/President is (check any that apply):

[ ] a public housing resident
[ ] low income (below 80% of county median income)
[ ] a resident of Santa Cruz County

4/24/18 income limits, area median $81,400

# of persons in family	80% of Median
1	$62,650
2	$71,600
3	$80,550
4	$89,450
5	$96,650
6	$103,800

This business employs approximately _____ people

This information provides the definition of a Section 3 business concern. If you are able to answer 'yes' to any one of these questions, your business may qualify as a Section 3 concern. If you contract with this Housing Authority you will be required to submit documentation supporting this status.

1)

51% of this business is owned by persons who are (check any that apply):

[ ] a public housing resident	[ ] a resident of Santa Cruz County
[ ] low income (below 80% of county median income)	

4/24/18 income limits, area median $81,400

# of persons in family	80% of Median
1	$62,650
2	$71,600
3	$80,550
4	$89,450
5	$96,650
6	$103,800

2)

This business consists of permanent full time employees, 30% of whose income is at or below 80 % of median (see above) [ ] yes [ ] no
OR
within 3 years of the date of their first employment with your business 30% of your permanent full time employees met that income eligibility (at or below 80% of median) [ ] yes [ ] no

3)

Does this business subcontract work? [ ] yes [ ] no
If yes, of all the subcontracts your business awards, can you provide evidence of a commitment to assign more than 25% of the dollar amount of all subcontracts to business concerns that meet the definitions in the section of this document labeled Demographics: [ ] yes [ ] no

I certify under penalty of perjury that the foregoing information is current and accurate and I authorize the Housing Authority of the County of Santa Cruz to obtain a credit report and /or verify any of the above information.

SIGNATURE_____ DATE_____

Section 3

What is it?
Under the Department of Housing And Urban Development (HUD) Act of 1968, known as Section 3, all recipients of certain HUD financial assistance, to the greatest extent feasible, are required to provide job training, employment and contracting opportunities for low or very-low income residents in connection with projects and activities in their neighborhoods.

What does it mean to you?
All recipients of certain HUD financial assistance must, to the greatest extent feasible, provide all types of employment opportunities to low and very low-income persons, including permanent employment and long-term jobs.

Contractors are encouraged to have 'Section 3 residents' make up at least 30% of their permanent, full time staff.

In addition, the Housing Authority is encouraged to award contracts to 'Section 3 businesses concerns'.

What is a 'Section 3 resident'?

- Public housing residents and / or
- For the purposes of the Housing Authority of the County of Santa Cruz, persons who live in Santa Cruz County and who have household income that falls below HUD's income limits (see below)

What is a 'Section 3 business concern'?

- A business that is 51% or more owned by Section 3 residents;
- Employs Section 3 residents for at least 30% of its full-time permanent staff; or
- Provides evidence of a commitment to subcontract to Section 3 business concerns, 25% or more of the dollar amount of the awarded contract.

What are the HUD income limits in use for Section 3?

Number of people in the household	Annual Household Income
1	$62,650
2	$71,600
3	$80,550
4	$89,450
5	$96,650
6	$103,800

If you are awarded this contract, and if you will be requesting a Section 3 preference, you will be required to report information to the Housing Authority regarding the Section 3 status of your business. Further information and forms will be included with the formal contract package.

All section 3 covered contracts shall include the following clause (referred to as the section 3 clause):

A. The work to be performed under this contract is subject to the requirements of section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (section 3). The purpose of section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

B. The parties to this contract agree to comply with HUD's regulations in 24 CFR part 135, which implement section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 135 regulations.

C. The contractor agrees to send to each labor organization or representative of workers with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the contractor's commitments under this section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

D. The contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR part 135. The contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR part 135.

E. The contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR part 135 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR part 135.

F. Noncompliance with HUD's regulations in 24 CFR part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

G. With respect to work performed in connection with section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e) also applies to the work to be performed under this contract. Section 7(b) requires that to the greatest extent feasible (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this contract that are subject to the provisions of section 3 and section 7(b) agree to comply with section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).

CERTIFICATION PURSUANT TO LABOR CODE SECTION 1861
Buena Vista Levee Repairs RFP 2019

A. "I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions of that Code, and I will comply with such provisions before commencing the performance of the work of this Contract."

B. "It is hereby mutually agreed that the Contractor shall forfeit to the Office of Migrant Services a penalty of $25.00 for each calendar day, or portion thereof, for each worker paid by him/her, or subcontractor under him/her, less than the prevailing wage so stipulated and in addition the Contractor further agrees to pay to each worker the difference between the actual amount paid for each calendar day, or portion thereof, and the stipulated prevailing wage rate for the same. This provision shall not apply to properly indentured apprentices."

C. "It is further agreed that the maximum hours a worker is to be employed is limited to eight hours a day and 40 hours a week and the Contractor shall forfeit, as a penalty to the Office of Migrant Services, $25.00 for each worker employed in the execution of the Contract for each calendar day during which a worker is required or permitted to labor more than eight hours in any calendar day or more than 40 hours in any calendar week, in violation of Labor Code Sections 1810-1815, inclusive."

D. "Travel and subsistence payments shall be paid to each worker needed to execute the work, as such travel and subsistence payments are defined in the applicable collective bargaining agreements filed in accordance with Labor Code Section 1773.8."

E. "Properly indentured apprentices may be employed in the prosecution of the work. They must be so employed by any Contractor or subcontractor employing workers in any apprenticeable craft or trade, i.e., a craft or trade determined to be an apprenticeable occupation in accordance with rules and regulations prescribed by the Apprenticeship Council. Special attention is directed to that portion of Labor Code Section 1777.5 that
requires such a Contractor or subcontractor to obtain from the Joint Apprenticeship Committee administering the apprenticeship standards of the craft or trade in the area of the site of the Contract work, a certificate approving the Contractor or sub-contractor, for employment and training of apprentices in such area unless already covered by local apprenticeship standards. Upon the issuance of the certificate, the Contractor or subcontractor, unless exempt pursuant to Section 1777.5 of the Labor Code, shall employ the number of apprentices or the ratio of apprentices to journeymen/woman fixed in the certificate. If there is in the area of the site of the work a fund or funds to administer and conduct the apprenticeship program in any apprenticeable craft or trade, to which fund or funds other contractors in said area are, but the Contractor or subcontractor is not contributing, the Contractor or subcontractor shall contribute to said fund or funds in the same amount or upon the same basis and in the same manner as the other contractors do. For willful failure to comply with Section 1777.5 of the Labor Code the Contractor shall be

denied the right to bid on a public works contract for a period of one year from the date the determination is made."

Contractor's Signature: _____

Printed Name &Title of Signer: _____

Date: _____

END OF DOCUMENT

Checklist of Labor Law Requirements

(CCR Title 8, Section 16421)

Ultimately the prime contractor is liable for their sub and specialty contractors. This checklist is a useful tool for the prime contractor to ensure that their sub and specialty contractors know their responsibilities on public works projects. Contractors who understand and comply with the law are more likely to deliver the job on time, on budget and done right the first time. We suggest the prime contractor encourage completion of this checklist by their sub and specialty contractors.

NAME (PRINT) _____ DATE _____

COMPANY _____ PHONE _____

ADDRESS _____ FAX _____

CITY _____ STATE _____ ZIP CODE _____

PROJECT MANAGER _____ SUPERINTENDENT/FOREMAN _____

CERTIFIED PAYROLL _____ PHONE/EXT. _____

CONTRACTOR LICENSE NO. _____ EXP. DATE _____ SPECIALTY LICENSE NO. _____

SELF-INSURED CERTIFICATE NO. _____ WORKERS COMP. POLICY NO. _____

PROJECT NAME _____ PROJECT #/BID PACKAGE# _____

AWARDING BODY _____ ADVERTISEMENT DATE _____

IF SUB-CONTRACTING, LIST YOUR PRIME/GENERAL CONTRACTOR _____

CONTRACT AWARD AMOUNT _____

THE FEDERAL AND STATE LABOR LAW REQUIREMENTS APPLICABLE TO THE CONTRACT ARE COMPOSED OF, BUT NOT LIMITED TO, THE FOLLOWING:

☐ Payment of Prevailing Wage Rates

The contractor to whom the contract is awarded and its subcontractors hired for the public works project are required to pay not less than the specified general prevailing wage rates to all workers employed in the execution of the contract. *Labor Code Section 1770 et seq*.

The contractor is responsible for ascertaining and complying with all current general prevailing wage rates for crafts and any rate changes that occur during the life of the contract. Information on all prevailing wage rates and all rate changes are to be posted at the job site for all workers to view. Additionally, current wage rate information can be found at the DLSR web site, *www.dir.ca.gov/dlsr/statistics_research.html*.

☐ Apprentices

It is the duty of the contractor and subcontractors to employ registered apprentices on the public works project and to comply with all aspects of *Labor Code Section 1777.5*, relating to Apprentices on Public Works. (1) Notify approved apprenticeship programs of contract award; (2) employ apprentices; (3) pay training fund contributions.

☐ Penalties

There are penalties required for contractor's/subcontractor's failure to pay prevailing wages and for failure to employ apprentices, including forfeitures and debarment under *Labor Code Sections 1775; 1776; 1777.1; 1777.7 and 1813*.

☐ Certified Payroll Reports

Under *Labor Code Section 1776*, contractors and subcontractors are required to keep accurate payroll records showing the name, address, social security number and work classification of each employee and owner performing work; also the straight time and overtime hours worked each day for each week, the fringe benefits, and, the actual per diem wage paid to each owner, journey person, apprentice worker or other employee hired in connection with the public works project.

This requirement includes and applies to all subcontractors performing work on Awarding Body projects even if their portion of the work is less than one half of one percent (0.05%) of the total amount of the contract.

The certified payroll records shall contain the same data fields listed on the *Public Works Payroll Reporting Form (A-1-131)* and contain or is accompanied by a declaration made under penalty of perjury. *(California Code of Regulations, Section 16401)*.

Prime Contractors are responsible for submittal of their payrolls and those of their respective subcontractors as one package. Any payroll not submitted in the proper form will be rejected. In the event that there has been no work performed during a

given week, the Certified Payroll Report shall be annotated: "No work" for that week or a Non-Performance Statement must be submitted.

Employee payroll records shall be certified and shall be made available for inspection at all reasonable hours at the principal office of the contractor/subcontractor, or shall be furnished to any employee, or his/her authorized representative on request, pursuant to *Labor Code Section 1776*.

Under *Labor Code Section 1776(g)* there are penalties required for contractor's/subcontractor's failure to maintain and submit copies of certified payroll records on request.

☐ **Nondiscrimination in Employment**

There exist prohibitions against employment discrimination under *Labor Code Sections 1735 and 1777.6,* the *Government Code,* the *Public Contracts Code,* and *Title VII of the Civil Rights Act of 1964.*

☐ **Kickbacks Prohibited**

Contractors and subcontractors are prohibited from recapturing wages illegally by accepting or extracting "kickbacks" from employee wages under *Labor Code Section 1778*.

☐ **Acceptance of Fees Prohibited**

There exists a prohibition against contractor/subcontractor acceptance of fees for registering any person for public work under *Labor Code Section 1779*; or for filling work orders on public works contracts pursuant to *Labor Code Section 1780*.

☐ **Listing of Subcontractors**

All prime contractors are required to list properly all subcontractors hired to perform work on the public works projects covering more than one-half of one percent, pursuant to *Government Code Section 4104*.

☐ **Proper Licensing**

Contractors are required to be licensed properly and to require that all subcontractors be properly licensed. Penalties are required for employing workers while unlicensed under *Labor Code Section 1021* and under the California Contractor License Law found at *Business and Professions Code Section 7000 et seq*.

☐ **Unfair Competition Prohibited**

Contractors and sub-contractors are prohibited from engaging in unfair competition as specified under *Business and Professions Code Sections 17200 to 17208.*

☐ **Workers Compensation Insurance**

Labor Code Section 1861 requires that contractors and subcontractors be insured properly for Workers Compensation.

☐ **OSHA**

Contractors and subcontractors are required to abide by the Occupational, Safety and Health laws and regulations that apply to the particular construction project.

☐ **Proof of Eligibility/Citizenship**

The federal prohibition against hiring undocumented workers, and the requirement to secure proof of eligibility/citizenship from all workers, is required.

☐ **Itemized Wage Statement**

Labor Code Section 226 requires that employees be provided with itemized wage statements.

CERTIFICATION

I acknowledge that I have been informed and am aware of the foregoing requirements and that I am authorized to make this certification on behalf of _____
(COMPANY NAME)

I fully understand that failure to comply with any of the above requirements may subject me, or my company, to penalties as provided above.

Contractor _____ _____
(SIGNATURE) (DATE)

Awarding Agency /Labor Compliance Program _____ _____
(SIGNATURE) (DATE)

DOCUMENT #00481
NONCOLLUSION AFFIDAVIT
Public Contracts Code §7106

NON COLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID
STATE OF CALIFORNIA, COUNTY OF SANTA CRUZ

_____**(NAME OF PRINCIPAL BIDDER)**, being first duly sworn, depose and says that I am _____**(OFFICE OF AFFIANT)** of _____ **(NAME OF BIDDER)**, the 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 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, and has not in any manner, directly or indirectly, sought by agreement, communication or conference with anyone to fix the bid price of 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 Housing Authority of the County of Santa Cruz, or anyone interested in the proposed contract; that all statements in the bid are true; and further, that 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; and that Bidder has made a complete disclosure to the Housing Authority of the County of Santa Cruz of all facts bearing upon any possible interest, direct or indirect, which Bidder believes any representative of the Housing Authority of the County of Santa Cruz or other officer or employee of Housing Authority of the County of Santa Cruz presently has or will have in this Contract or in the performance thereof or in any portion of the profits thereof.

Signature:_____

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of _____)

On _____ before me, _____
(insert name and title of the officer)

personally appeared _____,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ **(Seal)**

General Conditions for Non-Construction Contracts

Section II – (With Maintenance Work)

U.S. Department of Housing and Urban Development
Office of Public and Indian Housing
Office of Labor Relations
OMB Approval No. 2577-0157 (exp. 1/01/2014)

Applicability. This form HUD-5370C has 2 Sections. These Sections must be inserted into non-construction contracts as described below:

1) Non-construction contracts (*without* maintenance) greater than $100,000 - use Section I;
2) Maintenance contracts (including nonroutine maintenance as defined at 24 CFR 968.105) greater than $2,000 but not more than $100,000 - use Section II; and
3) Maintenance contracts (including nonroutine maintenance), greater than $100,000 – use Sections I and II.

==========

Section II – Labor Standard Provisions for all Maintenance Contracts greater than $2,000

==========

1. Minimum Wages

(a) All maintenance laborers and mechanics employed under this Contract in the operation of the project(s) shall be paid unconditionally and not less often than semi-monthly, and without subsequent deduction (except as otherwise provided by law or regulations), the full amount of wages due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Housing and Urban Development which is attached hereto and made a part hereof. Such laborers and mechanics shall be paid the appropriate wage rate on the wage determination for the classification of work actually performed, without regard to skill. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination, including any additional classifications and wage rates approved by HUD under subparagraph 1(b), shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(b) (i) Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the Contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate only when the following criteria have been met:

(1) The work to be performed by the classification required is not performed by a classification in the wage determination;

(2) The classification is utilized in the area by the industry; and

(3) The proposed wage rate bears a reasonable relationship to the wage rates contained in the wage determination.

(ii) The wage rate determined pursuant to this paragraph shall be paid to all workers performing work in the classification under this Contract from the first day on which work is performed in the classification.

2. Withholding of funds

The Contracting Officer, upon his/her own action or upon request of HUD, shall withhold or cause to be withheld from the Contractor under this Contract or any other contract subject to HUD-determined wage rates, with the same prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics employed by the Contractor or any subcontractor the full amount of wages required by this clause. In the event of failure to pay any laborer or mechanic employed under this Contract all or part of the wages required under this Contract, the Contracting Officer or HUD may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment or advance until such violations have ceased. The Public Housing Agency or HUD may, after written notice to the Contractor, disburse such amounts withheld for and on account of the Contractor or subcontractor to the respective employees to whom they are due.

3. Records

(a) The Contractor and each subcontractor shall make and maintain for three (3) years from the completion of the work records containing the following for each laborer and mechanic:
(i) Name, address and Social Security Number;
(ii) Correct work classification or classifications;
(iii) Hourly rate or rates of monetary wages paid;
(iv) Rate or rates of any fringe benefits provided;
(v) Number of daily and weekly hours worked;
(vi) Gross wages earned;
(vii) Any deductions made; and
(viii) Actual wages paid.

(b) The Contractor and each subcontractor shall make the records required under paragraph 3(a) available for inspection, copying, or transcription by authorized representatives of HUD or the HA and shall permit such representatives to interview employees during working hours on the job. If the Contractor or any subcontractor fails to make the required records available, HUD or its designee may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance or guarantee of funds.

4. Apprentices and Trainees

(a) Apprentices and trainees will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in:
(i) A bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration (ETA), Office of

Apprenticeship Training, Employer and Labor Services (OATELS), or with a state apprenticeship agency recognized by OATELS, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by OATELS or a state apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice;

(ii) A trainee program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, ETA; or

(iii) A training/trainee program that has received prior approval by HUD.

(b) Each apprentice or trainee must be paid at not less than the rate specified in the registered or approved program for the apprentice's/trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices and trainees shall be paid fringe benefits in accordance with the provisions of the registered or approved program. If the program does not specify fringe benefits, apprentices/trainees must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification.

(c) The allowable ratio of apprentices or trainees to journeyman on the job site in any craft classification shall not be greater than the ratio permitted to the employer as to the entire work force under the approved program.

(d) Any worker employed at an apprentice or trainee wage rate who is not registered in an approved program, and any apprentice or trainee performing work on the job site in excess of the ratio permitted under the approved program, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

(e) In the event OATELS, a state apprenticeship agency recognized by OATELS or ETA, or HUD, withdraws approval of an apprenticeship or trainee program, the employer will no longer be permitted to utilize apprentices/trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

5. Disputes concerning labor standards

(a) Disputes arising out of the labor standards provisions contained in Section II of this form HUD-5370-C, other than those in Paragraph 6, shall be subject to the following procedures. Disputes within the meaning of this paragraph include disputes between the Contractor (or any of its subcontractors) and the HA, or HUD, or the employees or their representatives, concerning payment of prevailing wage rates or proper classification. The procedures in this section may be initiated upon HUD's own motion, upon referral of the HA, or upon request of the Contractor or subcontractor(s).

(i) A Contractor and/or subcontractor or other interested party desiring reconsideration of findings of violation by the HA or HUD relating to the payment of straight-time prevailing wages or classification of work shall request such reconsideration by letter postmarked within 30 calendar days of the date of notice of findings issued by the HA or HUD. The request shall set forth those findings that are in dispute and the reasons, including any affirmative defenses, with respect to the violations. The request shall be directed to the appropriate HA or HUD official in accordance with instructions contained in the notice of findings or, if the notice does not specify to whom a request should be made, to the Regional Labor Relations Officer (HUD).

(ii) The HA or HUD official shall, within 60 days (unless otherwise indicated in the notice of findings) after receipt of a timely request for reconsideration, issue a written decision on the findings of violation. The written decision on reconsideration shall contain instructions that any appeal of the decision shall be addressed to the Regional Labor Relations Officer by letter postmarked within 30 calendar days after the date of the decision. In the event that the Regional Labor Relations Officer was the deciding official on reconsideration, the appeal shall be directed to the Director, Office of Labor Relations (HUD). Any appeal must set forth the aspects of the decision that are in dispute and the reasons, including any affirmative defenses, with respect to the violations.

(iii) The Regional Labor Relations Officer shall, within 60 days (unless otherwise indicated in the decision on reconsideration) after receipt of a timely appeal, issue a written decision on the findings. A decision of the Regional Labor Relations Officer may be appealed to the Director, Office of Labor Relations, by letter postmarked within 30 days of the Regional Labor Relations Officer's decision. Any appeal to the Director must set forth the aspects of the prior decision(s) that are in dispute and the reasons. The decision of the Director, Office of Labor Relations, shall be final.

(b) Disputes arising out of the labor standards provisions of paragraph 6 shall not be subject to paragraph 5(a) of this form HUD-5370C. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor set forth in 29 CFR Parts 5, 6 and 7. Disputes within the meaning of this paragraph 5(b) include disputes between the Contractor (or any of its subcontractors) and the HA, HUD, the U.S. Department of Labor, or the employees or their representatives.

6. Contract Work Hours and Safety Standards Act

The provisions of this paragraph 6 are applicable only where the amount of the prime contract exceeds $100,000. As used in this paragraph, the terms "laborers" and "mechanics" includes watchmen and guards.

(a) **Overtime requirements.** No Contractor or subcontractor contracting for any part of the Contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(b) **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the provisions set forth in paragraph 6(a), the Contractor and any

subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to the District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the provisions set forth in paragraph (a) of this clause, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by provisions set forth in paragraph (a) of this clause.

(c) **Withholding for unpaid wages and liquidated damages.** HUD or its designee shall upon its own action or upon written request of an authorized representative of the U.S. Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or subcontractor under any such Contract or any federal contract with the same prime Contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime Contractor such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in the provisions set forth in paragraph (b) of this clause.

7. Subcontracts

The Contractor or subcontractor shall insert in any subcontracts all the provisions contained in this Section II and also a clause requiring the subcontractors to include these provisions in any lower tier subcontracts. The prime Contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the provisions contained in these clauses.

~~**8. Non-Federal Prevailing Wage Rates**~~

~~Any prevailing wage rate (including basic hourly rate and any fringe benefits), determined under state law to be prevailing, with respect to any employee in any trade or position employed under the Contract, is inapplicable to the contract and shall not be enforced against the Contractor or any subcontractor, with respect to employees engaged under the contract whenever such non-Federal prevailing wage rate, exclusive of any fringe benefits, exceeds the applicable wage rate determined by the Secretary of HUD to be prevailing in the locality with respect to such trade or position.~~

Conditions of Work

Buena Vista Levee Repairs RFP 2019

A. licenses and Qualifications

1. The Contractor and all subcontractors must hold a valid California Contractor's Licenses in the areas of work to be performed and meet all requirements of the State of California to perform as a licensed contractor in the State.
2. The Contractor will obtain any necessary business licenses and/or permits to perform work in the County of Santa Cruz.
3. Provide adequate number of experience workmen regularly engaged in this type of work who are skilled in the application techniques of the materials specified.
4. All work shall be of highest quality and in strict accordance with the manufacturer's published specifications and to the building owner's satisfaction.
5. Provide at least one thoroughly trained and experienced superintendent on the job site at all times while work is in progress.

B. Wages

1. State of California Prevailing Wage Determinations made by the Director of Industrial relations will be paid pursuant to the California Code of Regulation Section 16001(d), or any wage determination that supersedes these. Wage determinations are available on line at:

http://www.dir.ca.gov/OPRL/pwd/index.htm#Journeyman

C. Safety

1. The contractor shall be responsible for all means and methods as they relate to safety and shall comply with all applicable local, state and federal requirements that are safety related. Safety shall be the responsibility of the contractor. All related personnel shall be instructed daily to be mindful of the full time requirement to maintain a safe environment for the building's occupants, owner's staff, visitors and occurrences of the general public on or near the site.

D. Fees and Permits

1. The Contractor shall obtain and pay for all necessary permits, licenses and fees required and arrange required inspections from the local building department having jurisdiction in the area where work is to be completed.
2. The contractor will furnish the owner with signed, closed out permits and testing reports prior to project close-out.

E. Temporary facilities and Controls

1. Water and electrical power are available for the contractor at the project property.
2. The Contractor shall provide all waste collection bins required for the work to be completed and shall not use any tenant or site bins for construction waste material.

F. Site Protection

1. The contractor will use reasonable care and responsibility to protect the building and the site against damages. The contractor shall be responsible for the correction of any damage incurred as a result of the performance of the contract.
2. Contractor will be responsible for performing daily cleanup to collect all debris from the project site and ensure that site remains free of debris and safety hazards. Magnets will be used to ensure that all nails and metal are removed from the around the units. Care will be taken not to detract from the aesthetics or the function of the building. Trash receptacles located on site are for tenant use only and shall not be used for disposal of any materials in connection with the work performed by the contractor.

G. Code Rules

1. Provide all work and materials in full accordance with all of the most current codes, rules and regulations. Nothing in these specifications is to be construed to permit work not conforming to current code requirements.

H. Use of Premises

1. Before beginning work, the contractor must secure approval from the owner for the following:
    a. Areas permitted for personnel parking.
    b. Access to the site.
    c. Areas permitted for storage of materials, equipment and debris.

I. Existing Conditions

1. Prior to bid submittal the contractors should complete a job site inspection to make themselves aware of any conditions that will affect their work.
2. Any discrepancies noted between existing site conditions and the specifications or any conditions not addressed in the specifications should be brought to the attention of the owner's representative prior to submittal of the bid. If necessary, an addendum will be issued to clarify any questionable conditions.

J. Warranties

1. The contractor will provide a one year warranty covering any defective work, materials or parts that are provided by the contractor and will include a three (3) year watertight warranty for roofing work. Information on manufacturer's material warranties will also be provided by Contractor at Project Completion. Warranty period will begin from the date the notice of completion is accepted by the Project Manager.
2. The contractor will repair or replace defective work, materials or parts included in the above guarantee within a reasonable length of time.

K. Maintenance and Operating Instructions

1. Furnish complete sets of operating and maintenance instructions for all equipment installed under this contract to include all inspection and maintenance schedules and manufacture(s bulletins with part numbers.

L. Project Close Out

1. Upon completion of all work, the contractor will notify the owner and an inspection will be conducted prior to release of final payment. Any unfinished work noted during this inspection will be identified on a "punch-list" and will be furnished to the contractor by the owner with a time line for completion of these items. Items identified, along with all submittals, must be completed prior to final payment being issued.

END OF DOCUMENT

MODIFICATIONS TO GENERAL CONDITIONS

Buena Vista Levee Repairs RFP - 2019

Equal employment opportunity.

The utilization of apprentices, trainees, and journeymen under this clause shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

Compliance with Copeland Act requirements.

The Contractor shall comply with the requirements of 29 CFR Part 3, which are hereby incorporated by reference in this contract.

Contract termination & debarment.

A breach of this contract clause may be grounds for termination of the contract and for debarment as a Contractor and a subcontractor as provided in

Certification of eligibility.

By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded contracts by the United States Government by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1). The penalty for making false statements is prescribed in the U. S. Criminal Code, 18 U.S.C. 1001.

Contract Work Hours and Safety Standards Act.

As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

Overtime requirements.

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics, including watchmen and guards, shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

Violation; liability for unpaid wages; liquidated damages.

In the event of any violation of the provisions, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic (including watchmen and guards) employed in violation of the provisions, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by provisions set forth.

Withholding for unpaid wages and liquidated damages.

Designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or subcontractor under any such contract or any Federal contract with the same prime Contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime Contractor such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in the provisions set forth.

Subcontracts.

The Contractor or subcontractor shall insert in any subcontracts all the provisions contained in this clause, and such other clauses as designee may by appropriate instructions require, and also a clause requiring the subcontractors to include these provisions in any lower tier subcontracts. The prime Contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all these provisions.

Compliance with Copeland Act requirements.

The Contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract.

Contract termination & debarment.

A breach of this contract clause may be grounds for termination of the contract and for debarment as a Contractor and a subcontractor as provided in 24 CFR Part 24.

Indemnification.

Contractor agrees to indemnify, defend and save harmless the California Department of Housing and Community Development, its officers, agents and employees from any and all claims and losses accruing or resulting to any and all contractors, subcontractors, suppliers, laborers, and any other person, firm or corporation furnishing or supplying work services, materials, or supplies in connection with the performance of this Agreement, and from any and all claims and losses accruing or resulting to any person, firm or corporation who may be injured or damaged by Contractor in the performance of this Agreement.

Bid Protests.

Any bid protest must be submitted in writing to Executive Director - Housing Authority of the County of Santa Cruz, 2160 41st Ave., Capitola, California 95010 before 5 pm of the FIFTH business day following bid opening.

a. The initial protest document must contain a complete statement of the basis for the protest.

b. The protest must refer to the specific portion of the document which forms the basis for the protest.

c. The protest must include the name, address and telephone number of the person representing the protesting party.

d. The party filing the protest must concurrently transmit a copy of the initial protest document and any attached documentation to all other parties with a direct financial interest which may be adversely affected by the outcome of the protest. Such parties shall include all other Bidders or proposers who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest.

e. The Housing Authority will issue a decision on the protest. If the Housing Authority determines that a protest is frivolous, the party originating the protest may be determined to be irresponsible and that party may be determined to be ineligible for future contract award.

f. The procedure and time limits set forth in this paragraph are mandatory and are the Bidder's sole and exclusive remedy in the event of Bid protest and failure to comply with these procedures shall constitute a waiver of any right to further pursue the Bid protest, including filing a Government Code Claim or legal proceedings

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GEOTECHNICAL INVESTIGATION
For
LEVEE REPAIR BETWEEN POND 1 AND POND 2
BUENA VISTA MIGRANT CENTER
113 TIERRA ALTA DRIVE
WATSONVILLE, CALIFORNIA

Prepared For
MR. PETER ROGERS
County of Santa Cruz Housing Authority

Prepared By
HARO, KASUNICH AND ASSOCIATES, INC.
Geotechnical & Coastal Engineers
Project No. SC11225.3
December 2018

Project No. SC11225.3
13 December 2018

MR. PETER ROGERS
County of Santa Cruz Housing Authority
2931 Mission Street
Santa Cruz, California 95060
peter@hacosantacruz.org

Subject: Geotechnical Investigation

Reference: Levee Repair Between Pond 1 and Pond 2
Buena Vista Migrant Center
113 Tierra Alta Drive
Watsonville, Santa Cruz County, California

Dear Mr. Rogers:

In accordance with your authorization, we have performed a geotechnical investigation for the referenced project located at 113 Tierra Alta Drive in Watsonville, Santa Cruz County, California. This study was performed in general accordance with our proposal No. SC11225.3, dated 6 September 2018.

This report presents the results of our geotechnical investigation which included a review of geotechnical and geologic information in our files for the site vicinity, a site visit, subsurface investigation, laboratory testing, engineering analysis, and preparation of this report which includes our geotechnical conclusions and recommendations for the levee repair between Pond 1 and Pond 2 at the above-referenced site.

Our study included slope stability analysis of the proposed repaired levee for both the northern (Pond 1) and southern (Pond 2) slopes of the levee. We evaluated the full water, low water, and rapid drawdown water conditions on both slopes. These water conditions on both slopes were analyzed for appropriate static and seismic (pseudo-static) conditions. The results of the slope stability analyses are reported as a factor of safety against sliding and were equal or greater than the minimum Santa Cruz County Code requirements. Based on these results, the proposed repaired levee embankment is stable from a geotechnical standpoint.

Our recommendations include geotechnical criteria and recommendations concerning general site grading, temporary excavations, backfill materials for the levee shell and core, keyway construction, levee shell and core construction, site surface drainage, and seepage and erosion control. Surface soils on the finished levee slopes will be susceptible to erosion, especially before vegetation becomes established, and will need to be periodically inspected for surficial deformation or erosion, especially after a seismic event or heavy rain. Maintenance will be required to prevent overtopping as well as to fill in any erosion runnels. The drop inlet (spillway

riser) should be periodically inspected, to verify that it is in operating condition, especially prior to the rainy season, and after use.

We appreciate being of service to you in the geotechnical engineering phase of this project. If you have any questions concerning the results, conclusions or recommendations presented in this report, please contact our office.

Respectfully Submitted,

HARO, KASUNICH AND ASSOCIATES, INC.

Katerina Schulz, E.I.T.

Robert Hasseler, PE, GE 3074

KS/RH/ks

Copies: 4 to Addressee

TABLE OF CONTENTS

GEOTECHNICAL INVESTIGATION

Introduction

This report summarizes our findings, conclusions, and recommendations from our geotechnical investigation for the Buena Vista Migrant Center levee repair project located at 113 Tierra Alta Drive in Watsonville, Santa Cruz County, California. Refer to Site Vicinity Map, Figure 1 in Appendix A of this report.

The primary concern at the site is that Pond 1 appears to be leaking through the existing levee into Pond 2. This report provides our geotechnical conclusions and recommendations for the repair of the levee between Ponds 1 and 2.

In preparation of this report, HKA visited the site on 29 August 2018 to observe the surficial conditions of the existing levee between Ponds 1 and 2. Water was observed in both Pond 1 and 2. The soil on the southern side (Pond 2) of the levee was observed to be wet and soft above the waterline on the western end of the levee in the area near the overflow pipe. When in operation, the overflow pipe collects water from Pond 1 near the crest of the levee and sends the water to Pond 2, downslope of the face of the levee. The wet area observed did not appear to be from a leaking overflow pipe. It is our understanding that Pond 1 had not reached overflow elevation in the recent past, and the current water level in Pond 1 was below the pipe inlet elevation. On the eastern end of the levee on the southern side (Pond 2), the levee was dry and the ground was firm, except where near the existing water elevation in Pond 2.

HKA also reviewed the “Buena Vista – Pond Staff Gauge Reading Summary” covering readings taken in the months of June, July, and August of 2018. The summary suggests a correlation between the water elevation in Pond 1 and Pond 2. The first approximately forty (40) days of the logs show a relatively steady decline in the elevation of the water in Pond 1 from approximately 8 to 5 feet, which is accompanied by a gradual rise in Pond 2 of approximately 0.5 feet. The water elevation in Pond 1 is generally level with a slight decline between Day 40 and Day 90. The elevation of Pond 2 also shows this generally level water elevation with a slight decline over the same approximate time interval. Two (2) elevation surges in Pond 1, on Day 39 and Day 70, correspond to elevation surges in Pond 2 on Day 42 and Day 74, suggesting a three- to four-day delay between activity in Pond 1 and a response in Pond 2.

Our previous work at the site consists of our geotechnical investigation for the levee between Pond 4 and Pond 5 entitled, “Geotechnical Investigation or Levee Repair Between Pond 4 and Pond 5, Buena Vista Migrant Center, 113 Tierra Alta Drive, Watsonville, California,” Project No. SC11225, dated October 3, 2017, and our construction observation and testing for the repairs of that levee. Portions of that study, particularly evaluation of on-site soils for use as engineered fill for the levee core and shell of the levee, are applicable to this study and are incorporated, as appropriate, into our repair recommendations.

Purpose and Scope

Our scope of services was to explore the surface and subsurface conditions at the site and develop geotechnical recommendations for design and construction of the levee repair between Pond 1 and Pond 2 at the Buena Vista Migrant Center at 113 Tierra Alta Drive in Watsonville, California. Therefore, our scope of services included a field investigation of the levee area between Ponds 1 and 2 by drilling test borings, performing laboratory testing on selected soil samples collected from the borings, and evaluation of the data focusing on levee stability analyses and seepage control, and development of geotechnical design criteria for the levee repair.

The scope of services for the project included the following:

- Review of available maps, reports in our files, and the Santa Cruz County GIS Website regarding the site and vicinity.
- Site reconnaissance of the project area to familiarize ourselves with existing site surficial conditions.
- Subsurface exploration by drilling three (3) test borings along the crest of the levee between Ponds 1 and 2.
- Laboratory testing of selected soil samples collected from our test borings.
- Evaluation of probable causes of seepage through the levee.
- Slope stability analysis of the levee embankment north and south sides, for high and low water and rapid draw down cases under appropriate static and seismic conditions.
- Engineering evaluation of the field and laboratory test results and slope stability analyses results.
- Preparation of this geotechnical investigation report presenting the results of our findings, conclusions, and geotechnical recommendations.

Scope of Work - Limitations

Our scope of work is limited to the levee between Pond 1 and Pond 2 as depicted on the Site Plan. Our scope of services specifically **excluded** any investigation needed to determine the presence or absence of (a) issues of economical concern on the site, and (b) hazardous or toxic materials in the soil, surface water, groundwater, or air.

The scope of services described in this project are based upon a limited number of soil samples obtained from widely spaced subsurface explorations. The nature and extent of variations between these explorations may not become evident until construction. If such variations or other latent conditions do become evident, it may be necessary to reevaluate the project site conditions and/or our recommendations.

Site Description and Condition

The project site is located at 113 Tierra Alta Drive in the southern portion of Santa Cruz County, California, as shown on the Site Vicinity Map, Figure 1, in Appendix A. The site is located about one-tenth of a mile to the west of Tierra Alta drive and just to the north of Gallighan Slough. Harkens Slough is located about ¼ of a mile to the east of the site. Highway 1 and the City of

Watsonville are located approximately $1^{1}/_{3}$ miles to the east of the site and Monterey Bay is roughly 2 miles to the southwest of the site.

The site occupies a low-lying area between the sloughs and consists of a levee situated between the two northern-most ponds, of a total of five (5) ponds, that are part of the waste water management system for the property. Site details can be seen on the Boring Site Plan, Figure 2, which shows the location of the levee and the locations of our borings from this investigation. The Test Borings are located along the levee crest between Ponds 1 and 2.

The subject levee stands approximately 5.5 feet above Pond 1 to the north and approximately 15 feet above Pond 2 to the south. The crest of the levee is approximately 15 feet wide. The levee is about 130 feet in length from east to west. The failing area is located in the western portion of the levee. Surface cover along the crest of the levee consists of a sandy clay. Along the sides of the levee, surface cover generally consists of low-lying vegetation. A tree is located on the southern (Pond 2) side in the western portion of the levee where the leakage appears to be occurring through the levee. Access to the site is by means of an asphalt concrete paved access road located along the eastern edge of the ponds.

Project Description

The project will consist of the reconstruction of the failed portion of the subject levee. We anticipate that this will consist primarily of excavation and reconstruction of the core and shell on the western portion of the levee. It was not apparent from our investigation if this was a homogeneous levee embankment, or if there was a separate core and shell. The repairs will need to include a central keyway/cutoff trench and toe keyways for the embankment slope backfill. Borrow material is anticipated to consist of both materials recovered from the levee excavation, provided clay materials are segregated from sandier soils, and also by using borrow material from the bottom of Pond 4. In a previous geotechnical investigation performed by HKA, the soil present in the bottom of Pond 4 was found to be suitable for use as engineered fill. Pre-final grading plans and details should be reviewed by the geotechnical engineer.

Field Exploration

Subsurface conditions were explored on 12 October 2018. A total of three (3) exploratory borings (Borings B-1 through B-3) were drilled along the crest of the levee between Ponds 1 and 2.

Borings were drilled to depths of 25.5 to 36 feet below the existing ground surface. The borings were advanced with 6 inch diameter solid flight auger equipment on a tractor mounted drill rig. Refer to our Boring Site Plan, Figure 2, for the approximate boring locations.

Representative soil samples were obtained from the exploratory borings at selected depths, or at major strata changes. These samples were recovered using a 3.0-inch O.D. Modified California Sampler (L), or by Standard Penetration Test (i.e. Terzaghi) Sampler (T). The soils encountered in the borings were continuously logged in the field and described in accordance with the Unified

Soil Classification System (ASTM D2488, Visual-Manual Proceeding). The Logs of Test Borings are included in Appendix A of this report. The logs depict subsurface conditions at the approximate locations shown on the Boring Site Plan.

Subsurface conditions at other locations may differ from those encountered at the explored locations. Stratification lines shown on the logs represent the approximate boundaries between soil types; the actual transitions may be gradual.

The penetration blow counts noted on the boring logs were obtained by driving a sampler into the soil with a 140-pound hammer dropping through a 30-inch fall. The sampler was driven using a hydraulic sand line system. The samplers were driven up to 18 inches into the soil, and the number of blows counted for each 6-inch penetration interval. The numbers indicated on the logs are the total number of blows that were recorded for the second and third 6-inch intervals (i.e. blows per foot).

Laboratory Testing

Soil samples obtained from the borings at selected depths were taken to our laboratory for further examination and laboratory testing. The laboratory testing program was directed toward determining pertinent engineering properties of soil underlying the project site.

In-situ moisture percentages and dry unit weights were recorded for select samples. In addition, we performed grain size analysis and Atterberg limits tests to assist in classification of the soils. The strength parameters of the underlying earth materials were determined from field penetration resistance of the in-situ soil and from laboratory unconfined compression tests.

A permeability test was also performed on a representative sample of the levee core material to measure the hydraulic conductivity of the soil for use in the seepage analysis.

The results of the laboratory testing can be found in Appendix A of this report and also appear on the "Logs of Test Boring" opposite the sample tested.

Subsurface Conditions

Ground cover at the crest of the levee consisted of exposed soil consisting of a dark reddish-brown or grey-brown, sandy clay. Gopher holes were observed at the surface in the area of Boring B-1. The surface material appears to extend to a depth of 3 to 8 feet.

Below the surface layer, soils encountered in the borings drilled through the crest of the levee in the area of the failure (Boring B-1) consisted of a relatively uniform layer of dark olive- and reddish-brown, fat clay with varying amounts of sand and gravel to a depth of at least 25.5 to 36 feet, the greatest depth of exploration in the test borings. This clay was typically firm to very stiff in consistency. In the area of Boring B-1, the clay layer was observed to be partially disturbed at

depths of approximately 15 and 30 feet. The disturbed clay may indicate the presence of leakage or the flow of water through the dam.

Refer to Figure 2 for our Boring Site Plan and Figures 4 through 6, Logs of Test Borings, in Appendix A of this report.

Groundwater Conditions

Groundwater was encountered at depths between 10 and 20.3 feet in the test borings. In the area of Boring B-1, the western-most test boring performed, the groundwater was encountered at a depth of 10 feet at the time of drilling. The depth of the groundwater encountered at the time of drilling was 16 feet and 20.3 feet in Borings B-2 and B-3, respectively. The relatively shallow depth of groundwater in Boring B-1 supports the conjecture that the leakage is occurring through the western portion of the levee. Note that groundwater levels can vary due to seasonal conditions and as a result of varying water levels in the adjacent ponds.

Possible Sources of Levee Failure

Leakage through the levee from Pond 1 to Pond 2 appears to be occurring in the western portion of the levee. In the area of Boring B-1, the clay layer was observed to be partially disturbed at depths of 15 and 30 feet. The depth of groundwater encountered in the western portion of the levee was also relatively shallow.

As noted in the site description, a tree is present along the southern (Pond 2) side of the western portion of the levee. Pathways for water to flow through the levee could have resulted from the roots of the tree. Any trees which were formerly present along the levee which had been removed may also contribute to the failure as a result of loose soil left by the tree removal.

Bioturbation from burrowing animals may have also contributed to the failure. Gopher holes were observed in the area of Boring B-1, in the western portion of the levee, where the leakage appears to be occurring.

The specific cause or causes is not known; however, the solution to repairing the levee is the same in all cases, and involves reconstructing the failed portion of the levee core and embankment. Recommendations are presented in the “Recommendations” section of the report.

General Geologic Setting

Based on the County of Santa Cruz Geographic Information Services website at “gis.co.santa-cruz.ca.us/PublicGISWeb”, the site is described as underlain by Terrace Deposits of Watsonville Fluvial facies. No faults or landslides are mapped at the site.

The site is located in the seismically active Monterey Bay area, but not within any of the Alquist-Priolo Earthquake Fault Zones established by the Alquist-Priolo Earthquake Fault Zoning Act of 1972. Therefore, the risk of ground rupture occurring across the site is low.

California Building Code Seismic Site Class

The latest CBC (2016 edition) design considerations, specifically the seismic factors and design spectral response acceleration parameters from Chapter 16, should be followed in the design of the proposed improvements. Based on the blow counts from our borings, the Site Class is considered to be "D".

Liquefaction

This geotechnical investigation was focused on repairing the existing levee. We did not perform a detailed liquefaction analysis of the foundation soils below the levee. Based on the County of Santa Cruz Geographic Information Services website at "gis.co.santa-cruz.ca.us/PublicGISWeb" the potential for liquefaction is low.

Settlement

Formal full-scale consolidation/settlement and swell analyses were beyond the scope of our work. However, provided our recommendations are incorporated into the design and construction of the project, post-construction total and differential settlement of levee due to static loading are considered to be low. This is due to the existing levee having consolidated most of any of the potential underlying compressive soils, and based on the relative stiffness of the underlying clay soils.

Quantitative Slope Stability Analysis

Stability analyses were performed on the north and south sides of the levee based on a cross section developed for the western portion of the levee where the repairs will occur. The cross section was developed using a topographic survey plan and cross sections of Ponds 1 and 2 drawn by Quad Knopf, Inc. for the site. The borings advanced at the project site were also used in preparation of the cross section.

General Methodology

Slope failures can cause problems from minor raveling of the levee surface to complete failure of the levee. Failures of slopes occur when stress acting on the soil mass is greater than its internal strength (shear strength). A slope is considered stable when the strength of its soil mass is greater than the stress field acting within it.

Some common variables influencing stress are gravity (steeper slopes), hydrostatic pressure (perched groundwater), bearing pressures (proposed structures, improvements, and possibly heavy vehicle or equipment loads), and seismic surcharge (earthquake shaking).

Various methods of analyzing stability of slopes yield a factor of safety. A factor of safety is determined by dividing the resisting forces within the slope soils by the driving forces within the slope (stress field). A factor of safety (FS) greater than or equal to 1.0 is considered to be in equilibrium. A FS less than 1.0 is a potentially un-stable slope condition. HKA considers the

potential for instability of a slope or embankment with a FS against sliding greater than or equal to 1.1 under seismic loading conditions and 1.5 under static loading conditions to be low.

Quantitative Analysis with GSTABL7

The analysis was completed with the aid of GSTABL7 software. Models for the northern slope and the southern slope of the levee were defined with the input parameters consisting of slope geometry, averaged soil properties from our laboratory tests, loading conditions, and phreatic surfaces representing high water, low water and rapid drawdown conditions. Each model was evaluated under appropriate static and seismic loading. The combination of rapid drawdown and seismic loading is expected to be very rare and was therefore not modeled. The analysis calculates the factor of safety against sliding for the failure surface(s).

Circular failure surfaces were assumed for this model. GSTABL7 program uses the Simplified Janbu Method to determine normal and resistive forces in each slice. The forces in each slice are then summed up for total force acting on the mass. The computer program assumes many failure surfaces using initiation and termination points on the ground surface selected by the user. These chosen points represent the toe and scarp of each potential landslide in relation to the assumed failure surfaces. The critical trial failure surface from the pseudo static analysis condition was selected as the projected failure surface in the development of design parameters.

Seismic Coefficient

The ground motion parameter used in pseudo-static analysis is referred to as the seismic coefficient "*k*" which is a function of the Mean Peak Ground Acceleration (MPGA).

The MPGA was determined using the USGS online design map interactive tool located at "https://earthquake.usgs.gov/designmaps/us/application.php" for the site location and Site Class "D." For the site location and site class, a Mean Peak Ground Acceleration of 0.748g was determined. The design earthquake magnitude was determined using the USGS online deaggregation tool at "https://earthquake.usgs.gov/hazards/interactive", using the Dynamic Conterminous US 2008 version. A design earthquake magnitude of 8.1 was used for the analysis. Using the Mean Peak Ground Acceleration and design earthquake magnitude, the seismic coefficient was selected using the method outlined by Blake et al (2002) which is presented in Figure 1 of Chapter 5 *Analysis of Earthquake-Induced Landslide Hazards* in *CGS Special Publication 117 Guidelines for Analyzing and Mitigating Seismic Hazards in California 2008*. A seismic coefficient of 0.442 was used.

Phreatic Surfaces

Water elevations within the embankment were modeled using phreatic surfaces corresponding to high water, low water and rapid drawdown conditions. A unit weight of 62.4 pounds per cubic foot was used for the water. The phreatic surface was assumed to pass through all soil layers. A linear phreatic surface through the levee cross section was assumed for our models.

Geometric Assumptions

For our analysis, trial failure surfaces were generated to search for the lowest factors of safety against sliding. The trial failure surfaces presented were selected using engineering judgment as well as the software's ability to generate many random surfaces.

Slope Stability Conclusions

The results of our slope stability analyses are graphically presented on Figures B-1 through B-10 in Appendix B, herein, and summarized in Table 1 below. The minimum factor of safety against sliding should meet or exceed 1.5 under static loading conditions and 1.1 for seismic (pseudo-static) conditions to be considered stable.

Table 1: Slope Stability Analysis Results

Levee Side	Loading Condition	Minimum Factor of Safety Against Sliding	Meet or Exceed Required FS
North (Pond 1)	Static, Low Water	7.99	Yes
North (Pond 1)	Static, High Water	14.66	Yes
North (Pond 1)	Static, Rapid Draw Down	2.34	Yes
North (Pond 1)	Seismic, Low Water	2.37	Yes
North (Pond 1)	Seismic, High Water	2.70	Yes
South (Pond 2)	Static, Low Water	3.88	Yes
South (Pond 2)	Static, High Water	3.65	Yes
South (Pond 2)	Static, Rapid Draw Down	3.88	Yes
South (Pond 2)	Seismic, Low Water	1.61	Yes
South (Pond 2)	Seismic, High Water	1.61	Yes

The results of our analyses indicate that the proposed repaired levee slopes are considered stable under the modeled conditions.

Limitations of Analysis

It must be cautioned that slope stability analysis is an inexact science and that the mathematical models of the slopes and soils contain many simplifying assumptions, not the least of which is homogeneity. Density, moisture content and shear strength may vary within a soil type. There may be localized areas of low strength or varying ground water elevations within a soil. Slope stability analyses and the generated factors of safety should be used as indicating trend lines. A slope with a safety factor less than one will not necessarily fail, but the probability of slope movement will be greater than a slope with a higher safety factor. Conversely, a slope with a safety factor greater than one may fail, but the probability of stability is higher than a slope with a lower safety factor.

Seepage Analysis

A seepage analysis was performed through a cross section of the levee with the proposed repairs. The cross section was developed using a topographic survey plan and cross sections of Ponds 1 and 2 drawn by Quad Knopf, Inc. for the site. The material properties used in the seepage analysis were based on the results of a hydraulic conductivity test performed in the lab for a sample of the clay core material.

General Methodology

Seepage through an earthen dam can result in serious problems from piping-type erosion to complete failure of the levee. Seepage can occur due to damage to the levee, or lack of sufficiently low permeability of the soil used to construct the levee.

Some common variables influencing seepage through an earthen embankment are the type of soils and construction methods used to construct the embankment, the age of the levee, and external forces that disturb the soil such as extreme storm events, erosion, or bioturbation.

Seepage Analysis with Seep/W

The analysis was completed with the aid of Seep/W software. A model of the embankment was defined with the input parameters consisting of slope geometry, soil properties from our laboratory tests, and phreatic surfaces. Seep/W uses a finite element model to evaluate the flow of water through the levee. The analysis provides a flow path of water through the dam, the gradient of pore water pressure and total head, and the volume of flow through the embankment.

Hydraulic Conductivity

The hydraulic conductivity, *"k"* defines the rate at which water can move through the soil. The hydraulic conductivity of the soil was measured through a Constant Head (or "Flex Wall") permeability test in the laboratory. A hydraulic conductivity of 1e-10 m/s was utilized in the analysis for the clay core material based on the results of the laboratory test. A hydraulic conductivity of 1e-9 m/s or less in soil is generally regarded as practically impermeable.

Geometric Assumptions

For our analysis, the cross section utilized was based on an ideal cross section of the repaired levee. The cross section uses well-defined boundaries between shell, core, and native/in-situ material. In practice, the interface between soil types may be gradual, and the actual cross section of the levee will depend on existing conditions and constructability.

Seepage Analysis Conclusions

The results of our seepage analyses are graphically presented in Figures B-11 through B-12 in Appendix B. The average total flow through the embankment at a high-water level is 1.25e-5 cubic feet per day, which is very low. The flow is maximized through the shell and native material, with the clay core being practically impermeable. The exit hydraulic gradient at a high-water level is 0.019, which is also very low, and indicates the risk of any piping-type erosion through the dam

is negligible. The results of our analysis indicate that the proposed repaired levee will remain competent under the modeled conditions.

Plan Review Notice

Haro, Kasunich & Associates should be provided an opportunity to review the project plans during the design phase prior to cost estimating and county submittal. Allow at least one week for this task. The review provides an opportunity to check if our recommendations have been interpreted properly, which could reduce possible confusion and costly changes and time delays during construction. Once the plans meet our recommendations sufficiently, we can provide the county-required plan review letter. Please contact our office at (reference Project Number SC11225.3):

Haro, Kasunich & Associates
116 East Lake Avenue
Watsonville, California 95076
(831) 722-4175 ext 115
bhasseler@harokasunich.com

Construction Observation Notice

Haro, Kasunich and Associates must provide observation and testing services for earthwork performed at the project site. The observation and testing of earthwork allows for evaluation of contractors' compliance with our geotechnical recommendations. It also allows us the opportunity to confirm that actual soil conditions encountered during construction are essentially the same as those anticipated based on the subsurface exploration. Unusual or unforeseen soil conditions may require supplemental evaluation by the geotechnical engineer.

The County usually requires a final grading compliance letter. We can prepare this letter only if we are called to the site to observe and test, as necessary, any grading and excavation operations **from the start of construction**. We cannot prepare a letter if we are not afforded the opportunity of observation from the **beginning of the grading operation**. The contractor must be made aware of this and earthwork testing and observation must be scheduled accordingly. Refer to contact information above.

RECOMMENDATIONS

Based on the results of our investigation, the proposed levee repair is feasible from a geotechnical standpoint, provided the design criteria and recommendations presented in this report are incorporated into the design and construction of the project.

The key, site-specific geotechnical concerns include selection of appropriate levee core and shell construction materials, and the proper repair of the levee core and shell in the failed area of the levee. In this way, the potential for future seepage through the levee structure will be reduced.

Refer to the following criteria and recommendations for general site grading, temporary excavations, backfill materials for the levee shell and core, keyway construction, levee shell and core construction, and seepage and erosion control.

Discussion

1. Repair of the levee between Ponds 1 and 2 will involve excavation and removal of the failed (leaking) portion of the levee, preparation of a key and cutoff within the middle bottom of the excavation, excavation of keyways on the north and south toes of the levee in the excavation area, subgrade preparation, backfilling and careful compaction of the core (clay materials) and shell (general engineered fill) portions of the levee, trimming and forming of the finished levee slopes and crest, and optional installation of embankment protection riprap on the Pond 1 (north) face of the levee.

General Site Grading

2. The geotechnical engineer should be notified **at least four (4) working days prior to any grading and excavating** so the work in the field can be coordinated with the grading contractor and arrangements for testing and observation can be made. The recommendations of this report are based on the assumption that the geotechnical engineer will perform the required testing and observation during grading and construction. It is the owner's responsibility to make the necessary arrangements for these required services.

3. Compaction during inclement weather or wet conditions may hamper compaction efforts and over-excavation may be necessary.

4. Where referenced in this report, Percent Relative Compaction and Optimum Moisture Content shall be based on ASTM Test Designation D1557.

5. Areas to be graded or designated to receive engineered fill, should be cleared of all obstructions and tree roots.

6. In areas to be graded or designated to receive engineered fill, all loose soil, old fill and other unsuitable material must be subexcavated to its full depth. Existing depressions or voids created during site clearing should be backfilled with engineered fill.

7. Cleared and subexcavated areas should then be stripped of organic-laden topsoil. Strippings should be wasted off-site or stockpiled for use in landscaped areas if desired.

8. Exposed subgrades should be scarified at least 8 inches; moisture conditioned and compacted to 90 percent relative compaction. Engineered fill should be placed in thin lifts not exceeding 8 inches in loose thickness; moisture conditioned, and compacted to a minimum of 90 percent relative compaction, up to desired grade.

9. Materials for the core backfill should consist of an approved on-site or imported clay material, as discussed in Item 25 below.

10. General engineered fill may be used in the shell area and elsewhere on the site except in the levee core. Native material at optimal moisture contents may be used as general engineered fill. Imported general engineered fill should consist of a predominantly granular soil conforming to the quality and gradation requirements as follows: (a) the soil should be relatively free of organic material and contain no rocks or clods greater than 4 inches in diameter, with no more than 15 percent larger than 2 inches; and (b) the material should be predominately granular with a plasticity index less than 15, a liquid limit less than 35, and not more than 40 percent passing the #200 sieve.

11. Finished engineered fill slopes should be inclined no steeper than 2:1 (horizontal to vertical) for heights up to 15 feet. Fill embankments should be keyed and benched into firm material.

12. Slopes should be protected from erosion by preventing runoff from spilling over fresh slopes.

13. Following grading exposed bare slopes and soil should be planted or covered as soon as possible with erosion resistant vegetation or blanket.

14. After the earthwork operations have been completed and the geotechnical engineer has finished his observation of the work, no further earthwork operations shall be performed except with the approval of and under the observation of the geotechnical engineer.

Levee Excavations

15. Please refer to sketches Figures 13 and 14, in Appendix A for clarification of the following sections. The existing levee in the location of the failure should be excavated to the depth of the adjacent foundation soils (i.e., pond bottoms). The failure area should be considered to start 10 feet into the perpendicular embankment on the western end of the levee and to the location of Boring B-2 in the central portion of the existing levee, i.e. approximately one-half of the levee length. This will result in a slight slope of the bottom of the excavation (downwards to the south) and this slope should be leveled by deepening the excavation

stepping downwards with a level bench (or benches) from the high (northern, Pond 1) side towards the low (southern, Pond 2) side of the excavation. We anticipate that this can be performed with a three (3) approximately 3 foot high benches located on the upslope side of the core, but the exact height and number of benches may differ.

16. The excavation (notching through the long axis of the levee) should be no steeper than 1:1 horizontal to vertical on the east and west sides of the failed area. This cut need not be benched, as the backfill for the core and shell of the levee should be field fitted to the slopes and blended at the contact to create a continuous mass of core or shell soil without laminations. This excavation should extend at least 10 feet laterally (east or west) along the levee alignment beyond the failed section of the levee.

17. A central longitudinal (east-west) keyway should be excavated at least 3 feet in depth below the bottom of the excavation described above down the 1:1 slopes and across the bottom of the excavation at the foundation level (i.e. 3 feet below the excavation in Items 15 and 16 above), such that a continuous longitudinal excavation crosses from the easternmost end of the excavation (at the unexcavated levee crest) to the westernmost end of the excavation (at the other unexcavated levee crest). This keyway trench should be at least 5 feet in width. The bottom of the excavation will need to be inspected to verify that no permeable soil lenses are located below the excavation. If lenses of permeable soil are encountered, they will need to be over-excavated and replaced with clay core material.

18. At the north and south toes of the proposed levee shells, a longitudinal keyway should be excavated at least 18 inches deep and at least as wide as the compaction equipment, but no less than 5 feet in width. The toe keyways should be backfilled with shell material.

19. Note that construction considerations may necessitate excavating and backfilling the longitudinal central keyway/cutoff and the two embankment/shell toe keys sequentially, rather than excavating all at once and backfilling all at once.

20. The bottoms of the excavation subgrade and keyways should be scarified at least 8 inches deep and recompacted prior to adding soil backfill.

21. We understand 9-foot deep or deeper cuts, excavated into fills and native soil, may be needed to accommodate the proposed levee repair. The Owner/Client and the contractor should make themselves aware of and become familiar with applicable local, state and federal safety regulations, excavation and trench safety standards. Construction site safety and temporary shoring generally is the sole responsibility of the contractor, who shall also be solely responsible for the means and methods, and sequencing of construction operations. Under no circumstances should the information provided be interpreted to mean that HKA is assuming responsibility for construction site safety for the contractors' activities; such responsibility is not implied and should not be inferred. Alternatively, consideration may be

given to using concrete in the cutoff below the 3 foot deep portion of the central keyway excavation.

22. Excavation should not be performed in inclement weather. Excavations should not remain open or exposed to runoff.

23. Temporary excavations into fills and native soils should be inclined at 1:1 (horizontal:vertical). This value may be steepened to vertical for heights up to 5 feet. Shoring will be necessary for steeper temporary cuts or where sloping or benching back is not feasible. Actual configuration of benching and or shoring for temporary cuts should be handled on a case by case basis.

Levee Backfill

24. Proper blending and compaction of the core soils into a continuous mass without laminations, or seepage pathways due to unsuitable materials, is key to the proper function of the levee repair.

25. Materials for the core backfill should consist of an approved on-site or imported clay material. On-site clay soils are generally suitable for use as the core backfill. Sandy clay materials present from a depth of approximately 6 feet below existing grade at the borrow location (Pond 4) appear to be generally suitable for core backfill. The suitability of the material was determined as a part of the previous geotechnical investigation performed by HKA at the site. Careful moisture control will need to be performed during backfilling and compaction to avoid shrinkage of the clays during dry weather. Import clay materials should be inorganic, non-calcitic, not contain sodic soils, not contain mica, have low expansion/shrinkage potential, be highly impermeable, and have more than 55 percent material passing the #200 sieve. On-site granular materials (such as the near-surface silty sands) should not be used as core backfill. Fine silts should not be used anywhere in the levee structure.

26. Exposed subgrades should be scarified at least 8 inches; moisture conditioned and compacted to 90 percent relative compaction. Core backfill should be placed in thin lifts not exceeding 8 inches in loose thickness; moisture conditioned, and compacted to 90 percent relative compaction at a moisture content slightly over optimum moisture. Each lift should be seamlessly blended and compacted with the lower lift or prepared excavation/subgrade surfaces. Care should be taken to make sure the core materials do not shrink from drying. It is preferred that the soils expand when wetted rather than shrink due to drying.

27. The replacement core should have the same approximate height and width dimensions as the existing core, to provide uniformity to the structure and to ensure that existing core materials are only blended in with other new core materials. The new core should seamlessly connect the western edge of the exposed excavated core with the eastern edge of the exposed excavated core. No gaps can be permitted. The exact dimensions of the core are

not precisely known at this time and can be determined during excavation. If the levee is of homogeneous construction, the entire levee width should be considered as the core.

28. Engineered fill for the shell may consist of approved on-site or import materials. Exposed subgrades should be scarified at least 8 inches, moisture conditioned, and compacted to 90 percent relative compaction. Engineered fill in the shell should be placed in thin lifts not exceeding 8 inches in loose thickness, moisture conditioned, and compacted to 90 percent relative compaction at a moisture content over the optimum moisture.

Optional Embankment Protection Riprap

29. Rock riprap may be considered along the slopes of the levee embankment to protect from erosion. A granular sand and gravel mixture bedding should be provided between the embankment shell soil and the riprap.

Erosion Control and Site Drainage

30. Do not discharge water directly on to slopes. Collected water to be dispersed on-site should be dispersed on energy dissipaters below the slope so as not to cause erosion and undermining, and at a location approved by geotechnical engineer.

31. All bare soil and cut and fill slopes should be seeded and mulched immediately after grading with barley, rye, grass and crimson clover or otherwise provided with erosion control measures.

32. Erosion control measures must be maintained during construction. Refer to construction timeframe constraints and requirements in the relevant Erosion Control Ordinances.

Plan Review, Construction Observation and Testing

33. Haro, Kasunich and Associates should be provided an opportunity to review project plans prior to construction to evaluate if our recommendations have been properly interpreted and implemented. We should also provide earthwork observations and testing during construction. This allows us to confirm anticipated soil conditions and evaluate conformance with our recommendations and project plans. If we do not review the plans and provide observation and testing services during the earthwork phase of the project, we assume no responsibility for misinterpretation of our recommendations.

LIMITATIONS AND UNIFORMITY OF CONDITIONS

1. The recommendations of this report are based upon the assumption that the soil conditions do not deviate from those disclosed in the borings. If any variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that planned at the time, our firm should be notified so that supplemental recommendations can be given.

2. This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information and recommendations contained herein are called to the attention of the Architects and Engineers for the project and incorporated into the plans, and that the necessary steps are taken to ensure that the Contractors and Subcontractors carry out such recommendations in the field. The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of professional practice. No other warranty expressed or implied is made.

3. The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or to the works of man, on this or adjacent properties. In addition, changes in applicable or appropriate standards occur whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or partially, by changes outside our control. Therefore, this report should not be relied upon after a period of three years without being reviewed by a geotechnical engineer.

APPENDIX A

Site Vicinity Map

Boring Site Plan

Key to Logs

Logs of Test Borings

Laboratory Test Results

Typical Earth Levee Cross Section

Repair of Damaged Levee

SITE LOCATION

SITE VICINITY MAP
NTS

N

Note: The background of the site vicinity map is a satellite image from the Santa Cruz County GIS.

113 TIERRA ALTA DRIVE
SANTA CRUZ, CALIFORNIA
BUENA VISTA MIGRANT CENTER

SCALE:	NTS
DRAWN BY:	KPS
DATE:	NOV 2018
REVISED:	
JOB NO.	SC11225.3

HARO, KASUNICH & ASSOCIATES, INC.
GEOTECHNICAL AND COASTAL ENGINEERS
116 E. LAKE AVENUE, WATSONVILLE, CA 95076
(831) 722-4175

FIGURE 1

SHEET NO.

TEST BORING LOCATION PLAN
NTS

N

Note: The background of the test boring location plan is a satellite image from Google Earth.

Denotes Exploratory Boring

113 TIERRA ALTA DRIVE
SANTA CRUZ, CALIFORNIA
BUENA VISTA MIGRANT CENTER

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FIGURE 2

SHEET NO.

PRIMARY DIVISIONS			GROUP SYMBOL	SECONDARY DIVISIONS
COARSE GRAINED SOILS — MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVELS — MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS (LESS THAN 5% FINES)	GW	Well graded gravels, gravel-sand mixtures, little or no fines.
			GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.
		GRAVEL WITH FINES	GM	Silty gravels, gravel-sand-silt mixtures, non-plastic fines.
			GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines.
	SANDS — MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS (LESS THAN 5% FINES)	SW	Well graded sands, gravelly sands, little or no fines
			SP	Poorly graded sands or gravelly sands, little or no fines
		SANDS WITH FINES	SM	Silty sands, sand-silt mixtures, non-plastic fines.
			SC	Clayey sands, sand-clay mixtures, plastic fines.
FINE GRAINED SOILS — MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS — LIQUID LIMIT IS LESS THAN 50%		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
			OL	Organic silts and organic silty clays of low plasticity.
	SILTS AND CLAYS — LIQUID LIMIT IS GREATER THAN 50%		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
			CH	Inorganic clays of high plasticity, fat clays.
			OH	Organic clays of medium to high plasticity, organic silts.
HIGHLY ORGANIC SOILS			Pt	Peat and other highly organic soils.

GRAIN SIZES

U.S. STANDARD SERIES SIEVE				CLEAR SQUARE SIEVE OPENINGS			
200	40	10	4	3/4"	3"	12"	
SILTS AND CLAYS	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		

RELATIVE DENSITY

SANDS AND GRAVELS	BLOWS PER FOOT*
VERY LOOSE	0 - 4
LOOSE	4 - 10
MEDIUM DENSE	10 - 30
DENSE	30 - 50
VERY DENSE	OVER 50

CONSISTENCY

SILTS AND CLAYS	STRENGTH (TSF)**	BLOWS PER FOOT*
VERY SOFT	0 - ¼	0 - 2
SOFT	¼ - ½	2 - 4
FIRM	½ - 1	4 - 8
STIFF	1 - 2	8 - 16
VERY STIFF	2 - 4	16 - 32
HARD	OVER 4	OVER 32

SAMPLING METHOD

STANDARD PENETRATION TEST	T	▨
MODIFIED CALIFORNIA	L or M	◧
PITCHER BARREL	P	⊠
SHELBY TUBE	S	◨
BULK	B	◢

H_2O

Final	▽
Initial	▼
Water level designation	

*Number of blows of 140 lb hammer falling 30 inches to drive a 2" O.D. (1⅜" I.D.) split spoon sampler (ASTM D-1586)

**Unconfined compressive strength in tons/ft² as determined by laboratory testing or approximated by the Standard Penetration Test (ASTM D-1586), pocket penetrometer, torvane, or visual observation.

KEY TO LOGS
113 TIERRA ALTA DRIVE
SANTA CRUZ, CALIFORNIA
BUENA VISTA MIGRANT CENTER

SCALE:	NTS
DRAWN BY:	RH
DATE:	DEC 2018
REVISED:	
JOB NO.	SC11225.3

HARO, KASUNICH & ASSOCIATES, INC.
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116 E. LAKE AVENUE, WATSONVILLE, CA 95076
(831) 722-4175

FIGURE NO. 3

SHEET NO.

Haro, Kasunich & Associates, Inc.
Geotechnical and Geological Engineers

Tierra Alta Levee
Between Ponds 1 and 2

PROJECT NO. SC11225.3

LOGGED BY RH | DATE DRILLED 10-12-18 | BORING DIAMETER 6" | BORING NO. B-1

Depth, ft.	Sample No. and type	Symbol	SOIL DESCRIPTION	Unified Soil Classification	Blows/foot 350 ft - lbs.	Qu - t.s.f. Penetrometer	Dry Density p.c.f.	Moisture % dry wt.	MISC. LAB RESULTS
0	1-1-1 (L)		Sandy Lean CLAY (CL) - dark reddish brown, moist, hard, medium plastic clay, fine SAND Gopher holes at surface pp >4.5 tsf	CL	25				
5	1-2-1 (L)		Lean Clay, dark olive-brown, damp, stiff, trace fine SAND pp = 1.5 tsf	CL	12				LL = 27 PL = 16 PI = 11
	1-3-1 (L)		FAT Clay, dark olive-brown, damp, stiff, trace fine SAND	CH	19				
10	1-4-1 (L)		Water at 10 feet at 9am Gray-brown, wet PP = 1.5 tsf		25				Shear Strength = 372 psf
15	1-5-1 (L)		Olive brown, partially disturbed pp = 1.5 tsf Disturbed n/g		24				
20	1-6-1 (L)		Sandy FAT Clay with gravel (CH) Olive brown and reddish brown mottled wet, stiff, fine grained sand coarse gravels, high plastic clay pp = 1.75 tsf	CH	22				Shear Strength = 474 psf
25	1-7-1 (L)		Sandy FAT Clay (CH)- olive brown and reddish brown mottled, wet, stiff, fine sand, high plastic clay pp = 1.75 tsf	CH	23				
	1-8-1 (L)		Partially disturbed pp = 1.25 tsf Disturbed		25				
30									
35									

HARO, KASUNICH AND ASSOCIATES, INC.

BY: sr | FIGURE NO. 4

Haro, Kasunich & Associates, Inc.
Geotechnical and Environmental Engineers

Tierra Alta Levee
Between Ponds 1 and 2

PROJECT NO. SC11225.3

LOGGED BY RH | DATE DRILLED 10-12-18 | BORING DIAMETER 6" | BORING NO. B-1

Depth, ft.	Sample No. and type	Symbol	SOIL DESCRIPTION	Unified Soil Classification	Blows/foot 350 ft - lbs.	Qu - t.s.f. Penetrometer	Dry Density p.c.f.	Moisture % dry wt.	MISC. LAB RESULTS
35			Bottom at 36 feet bgs - collapsed to 15 feet Backfilled with soil and bentonte above 15 feet						
40									
45									
50									
55									
60									
65									
70									

SuperLog CivilTech Software, USA www.civiltech.com File: C:\superlog4\HKALOGS\SC11225.3 Tierra Alta Levee Between Ponds 1 & 2.log Date: 12/13/2018

HARO, KASUNICH AND ASSOCIATES, INC.

BY: sr

FIGURE NO. 5

Haro, Kasunich & Associates, Inc.
Geotechnical and Environmental Engineers

Tierra Alta Levee
Between Ponds 1 and 2

PROJECT NO. SC11225.3

LOGGED BY RH | DATE DRILLED 10-12-18 | BORING DIAMETER 6" | BORING NO. B-2

Depth, ft.	Sample No. and type	Symbol	SOIL DESCRIPTION	Unified Soil Classification	Blows/foot 350 ft - lbs.	Qu - t.s.f. Penetrometer	Dry Density p.c.f.	Moisture % dry wt.	MISC. LAB RESULTS
0	2-1-1 (L)		Sandy LEAN Clay (CL)-dark reddish brown, moist medium stiff to stiff, medium plastic pp = 2.25 tsf, very stiff	CL	8				
5	2-2-1 (L)		FAT Clay (CH)-dark brown, damp, medium stiff, trace fine sand, high plasticity CLAY pp = 0.75 tsf	CH	7				
10	2-3-1 (L)		Sandy FAT CLAY (CH)-dark brown, damp, medium stiff, high plasticity, clay, fine SAND pp = 0.75 tsf	CH	12				-#200 = 58.5% Moisture Content = 22.7% dry = 81.3 pcf
	2-4-1 (L)		PP = 0.5 tsf soft to medium stiff, increase in moisture		8				0 = 19 degrees C' = 360
15	2-5-1 (L)		Water at 16 feet at 12 noon		20				
20	2-6-1 (L)		Sandy CLAY (CL) reddish brown, moist, very stiff, fine sand, medium plastic clay at 20 feet pp = 3.25 tsf		26				
25	2-7-1 (L)				37				
30			Bottm of 25.5 feet bgs backfilled with soil and bentonite.						
35									

SuperLog CivilTech Software, USA www.civiltech.com File: C:\superlog4\HKALOGS\SC11225.3 Tierra Alta Levee Between Ponds 1 & 2.log Date: 12/13/2018

HARO, KASUNICH AND ASSOCIATES, INC.

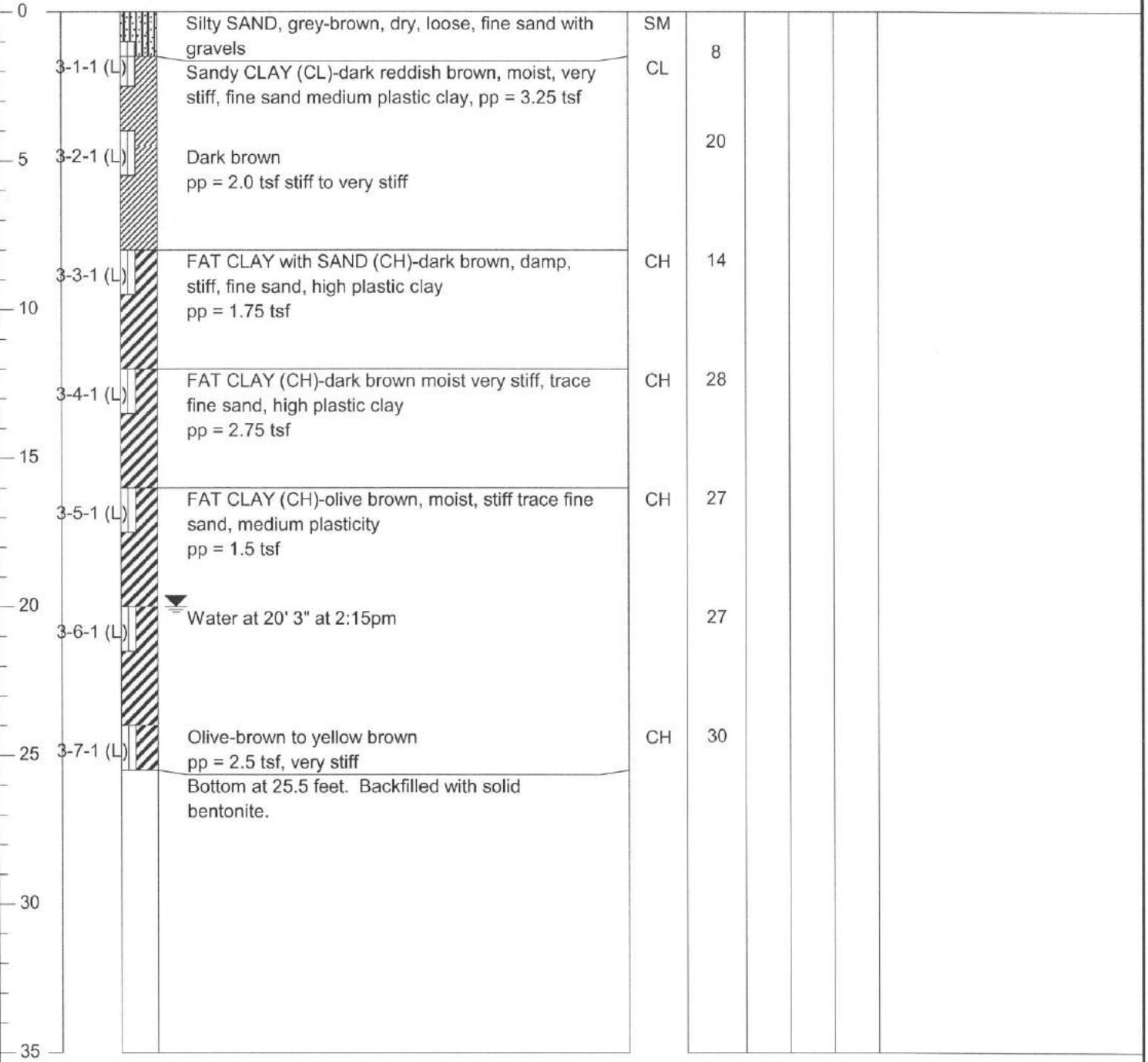
BY: sr | FIGURE NO. 6

Haro, Kasunich & Associates, Inc.
Geotechnical and Environmental Engineers

Tierra Alta Levee
Between Ponds 1 and 2

PROJECT NO. SC11225.3

LOGGED BY RH | DATE DRILLED 10-12-18 | BORING DIAMETER 6" | BORING NO. B-3



SuperLog CivilTech Software, USA www.civiltech.com File: C:\superlog4\HKALOGS\SC11225.3 Tierra Alta Levee Between Ponds 1 & 2.log Date: 12/13/2018

HARO, KASUNICH AND ASSOCIATES, INC.

BY: sr | FIGURE NO. 7

Direct Shear

Project:	Tierra Alta Levee @ Ponds 1 & 2
Sample #	SC 11225.2
Description	2-4-1'

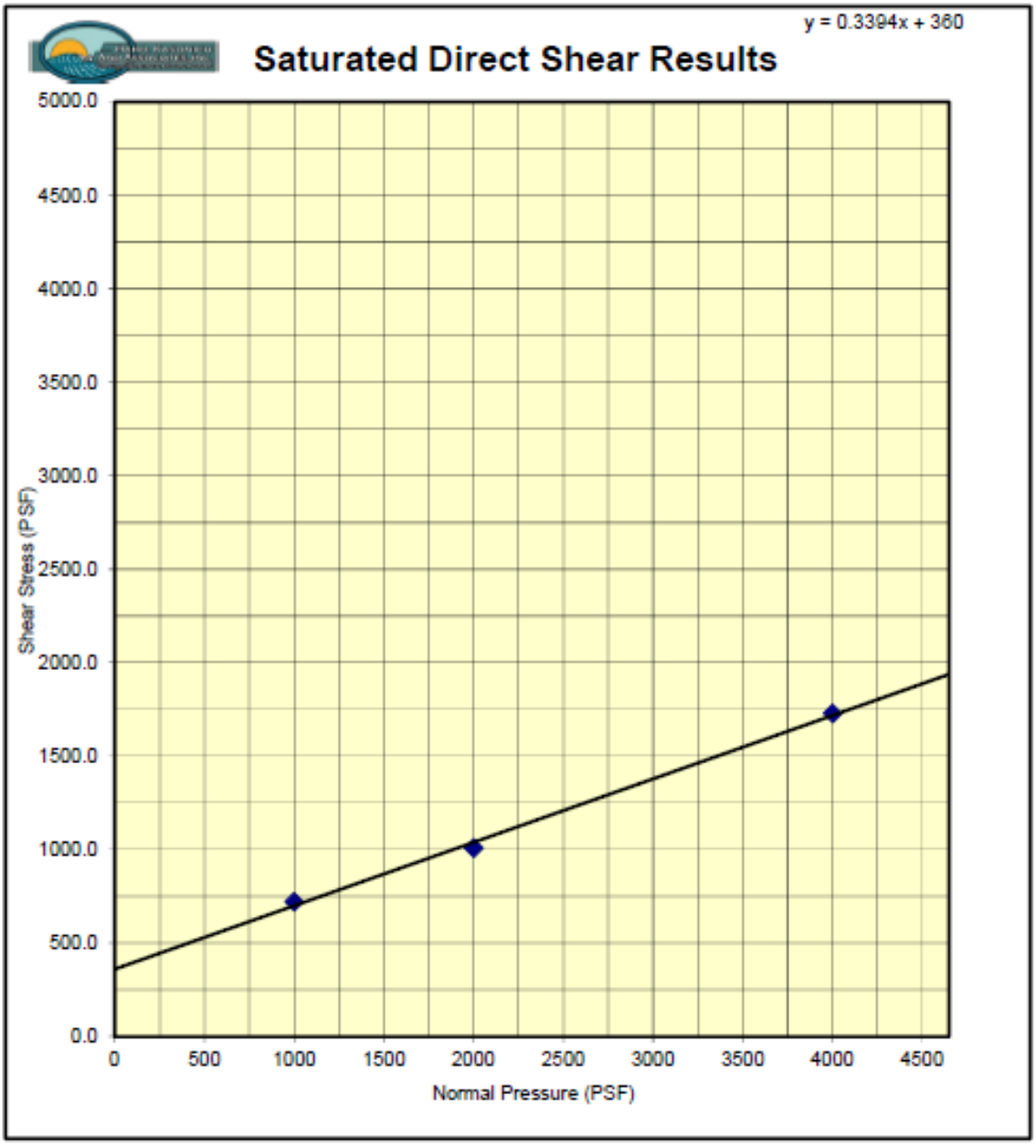
Date	10/15/2018
Tested By:	RC

Test Number	1	2	3
Normal Pressure (PSF)	1000	2000	4000
Max Shear Stress	24.5	34.3	58.8
Shear Stress (PSF)	720.0	1008.0	1728.0

Equation of Trendline	
Intercept	Slope
360	0.3394

*Manually Enter from Trendline Equation

C (PSF)	PHI
360	19



DIRECT SHEAR TEST RESULTS
113 TIERRA ALTA DRIVE
SANTA CRUZ, CALIFORNIA
BUENA VISTA MIGRANT CENTER

SCALE:	NA
DRAWN BY:	KPS
DATE:	DEC 2018
REVISED:	
JOB NO.	SC11225.3

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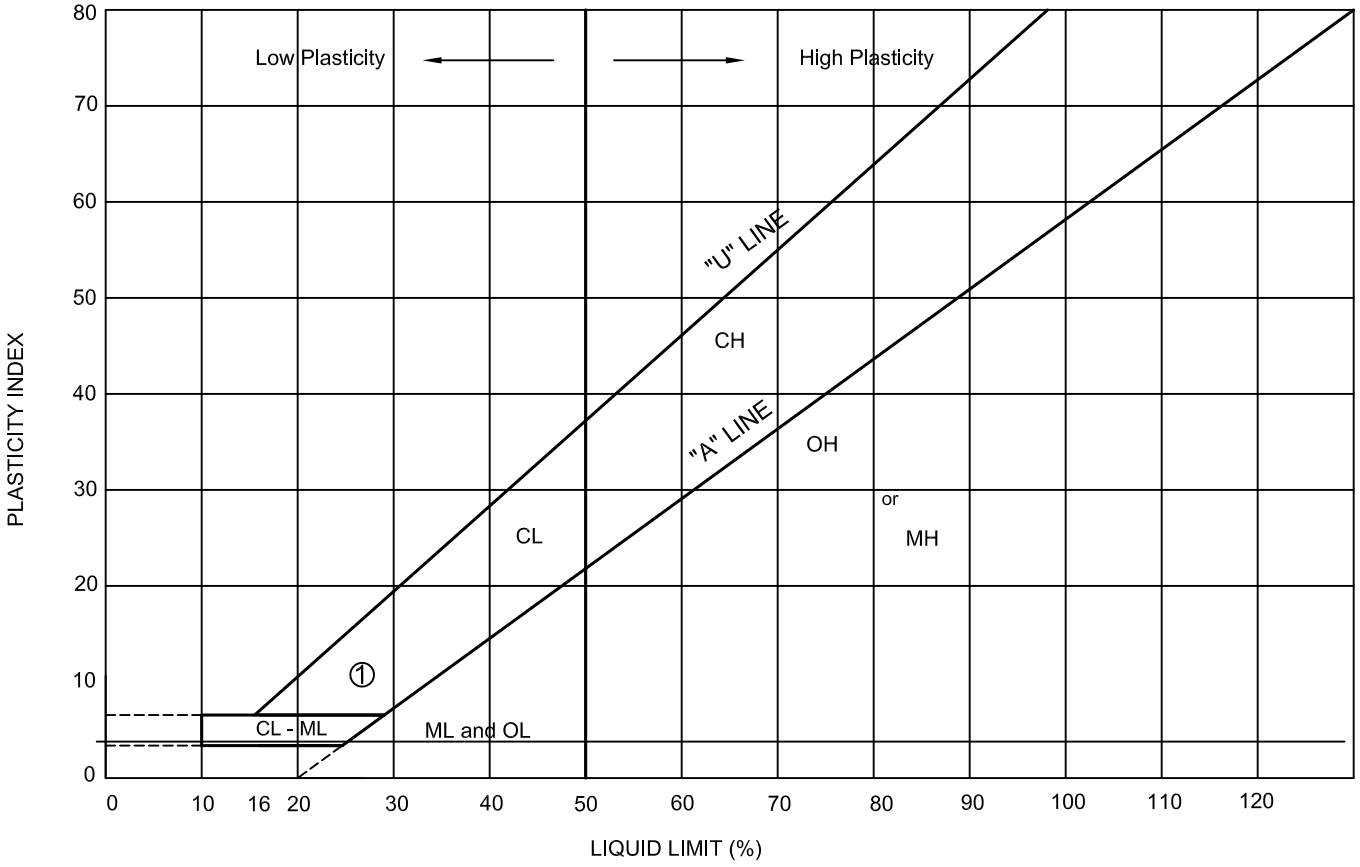
FIGURE NO. 8

SHEET NO.

PLASTICITY CHART



PLASTICITY DATA

Key Symbol	Sample Number	Depth (feet)	Natural Water Content W(%)	Plastic Limit (%)	Liquid Limit (%)	Plasticity Index	Liquidity Index $\frac{W - PL}{LL - PL}$	Unified Soil Classification Symbol
①	1-2-1	4.5	15.50	16.01	26.70	10.7	0.048	CL

ATTERBERG LIMITS TEST RESULTS
113 TIERRA ALTA DRIVE
SANTA CRUZ, CALIFORNIA
BUENA VISTA MIGRANT CENTER

SCALE:	NA
DRAWN BY:	KPS
DATE:	DEC 2018
REVISED:	
JOB NO.	SC11225.3

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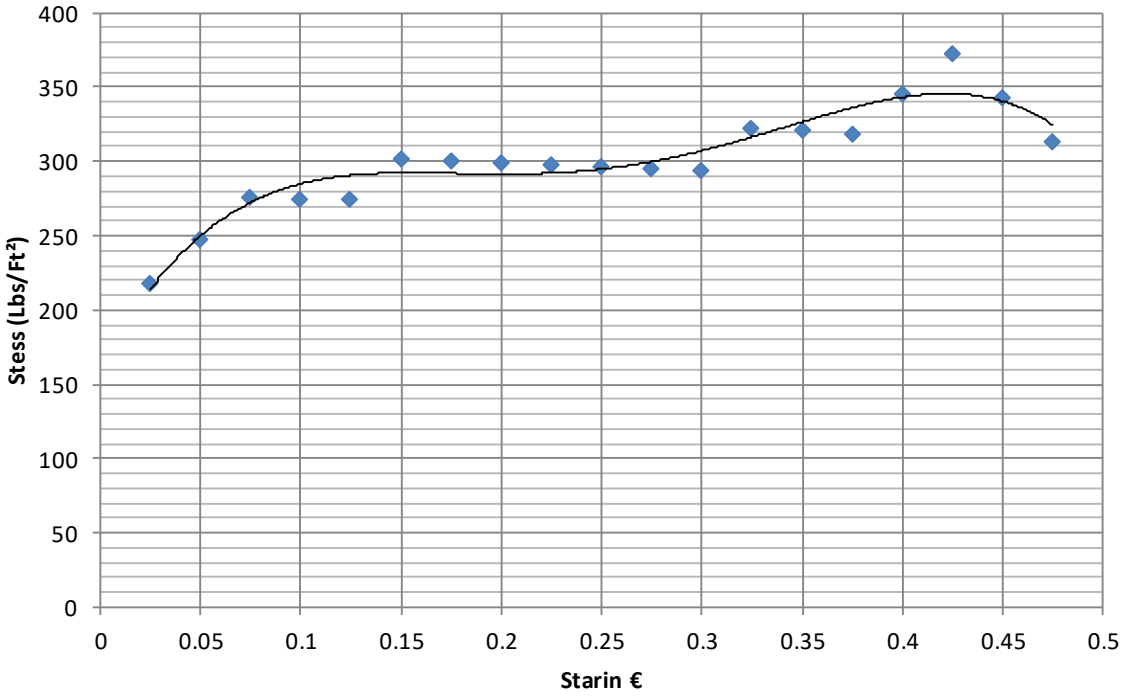
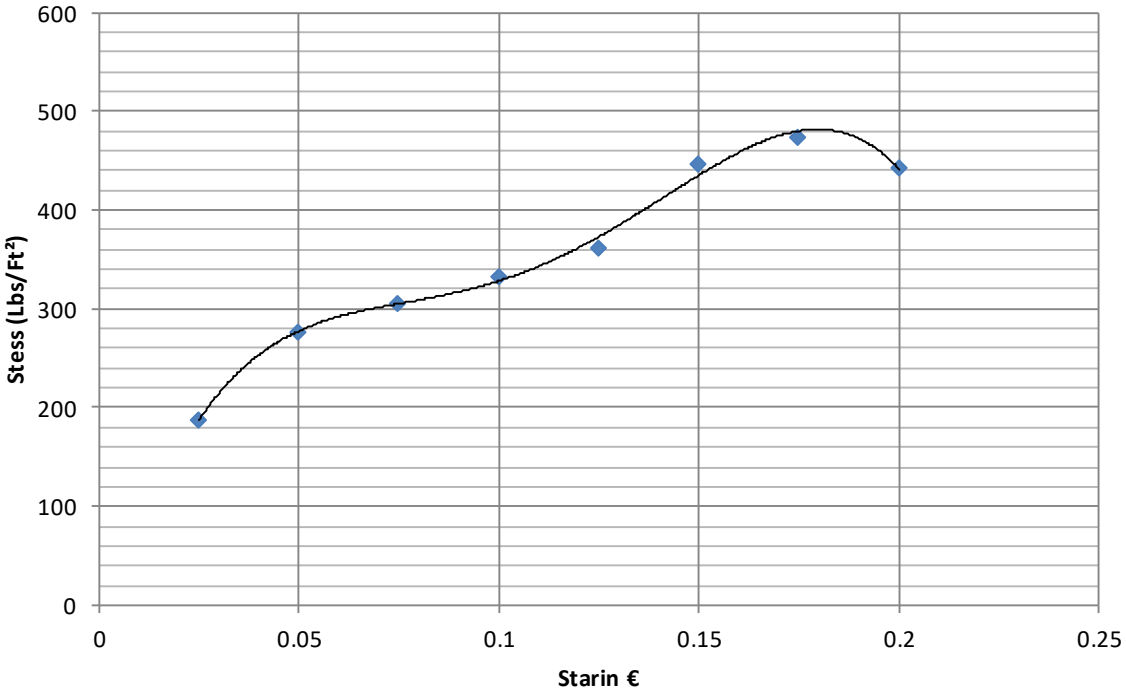
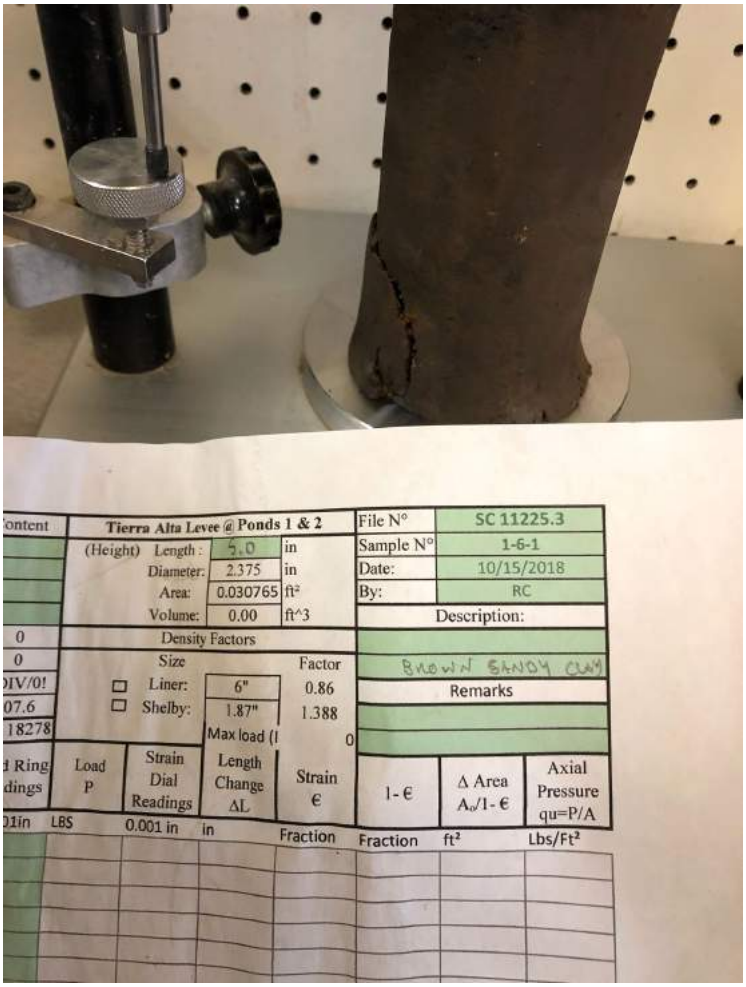
FIGURE NO. 9

SHEET NO.



	TRIAXIAL & UNCONFINED COMPRESSION TEST 113 TIERRA ALTA DRIVE SANTA CRUZ, CALIFORNIA BUENA VISTA MIGRANT CENTER
SCALE: NA	SAMPLE NO.: 1-6-1
DRAWN BY: KPS	
DATE: DEC 2018	HARO, KASUNICH & ASSOCIATES, INC. GEOTECHNICAL AND COASTAL ENGINEERS 116 E. LAKE AVENUE, WATSONVILLE, CA 95076 (831) 722-4175
REVISED:	
JOB NO. SC11225.3	
FIGURE NO. 10	SHEET NO.



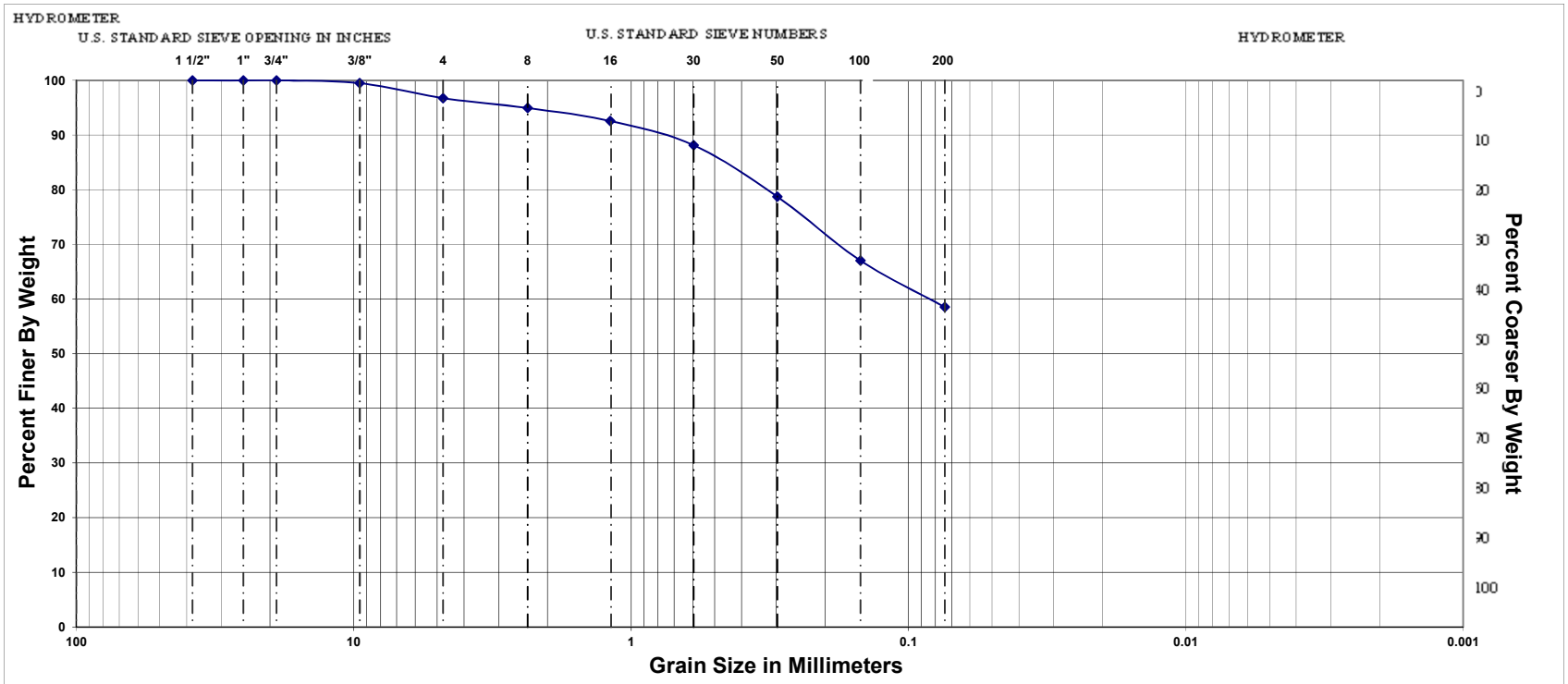


TRIAXIAL & UNCONFINED COMPRESSION TEST
113 TIERRA ALTA DRIVE
SANTA CRUZ, CALIFORNIA
BUENA VISTA MIGRANT CENTER

SCALE: NA	SAMPLE NO.: 1-6-1
DRAWN BY: KPS	
DATE: DEC 2018	HARO, KASUNICH & ASSOCIATES, INC.
REVISED:	GEOTECHNICAL AND COASTAL ENGINEERS
JOB NO. SC11225.3	116 E. LAKE AVENUE, WATSONVILLE, CA 95076 (831) 722-4175

FIGURE NO. 11

SHEET NO.



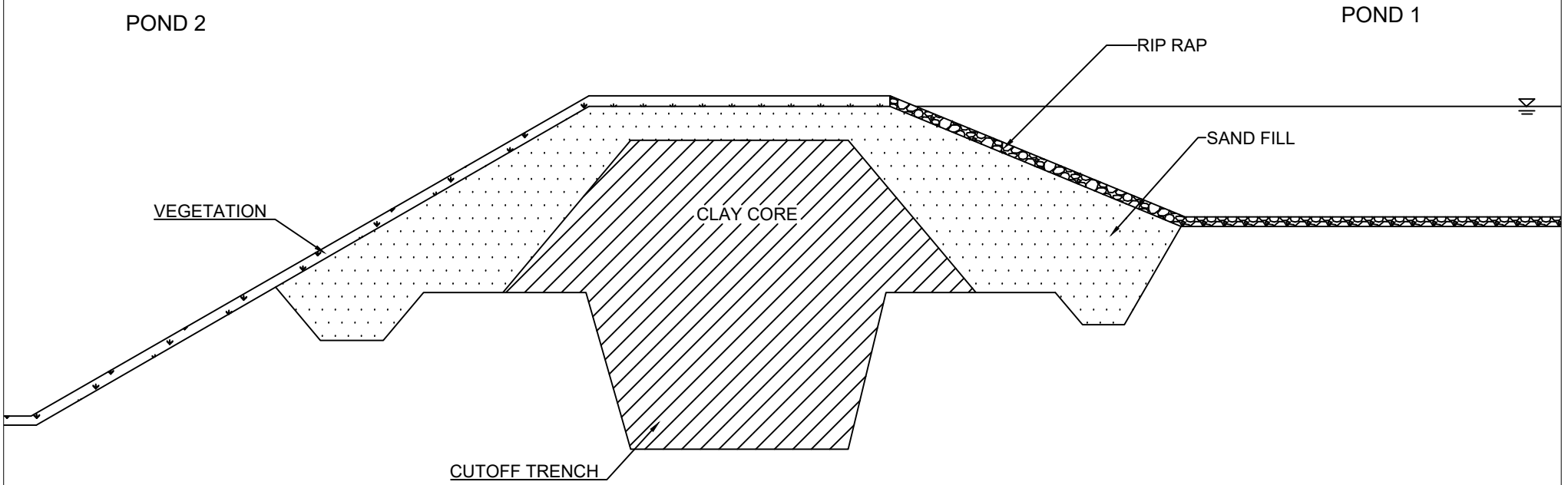
Gravel Content:	**3.3%**
Sand Content:	**38.2%**
Fines Content	**58.5%**
Cumulative Sum	**100.0%**

Sample Description: Dark Brown Sandy Fat Clay
Group Symbol: CH

D60		HKA Project No: SC 11225.3	***GRAIN SIZE ANALYSIS***
D30		Sample No: 2-3-1	
D10		Date: 11/20/18	
			Tierra Alta Levee
			Figure No. 12

HARO, KASUNICH AND ASSOCIATES, INC.
CONSULTING GEOTECHNICAL & COASTAL ENGINEERS

116 East Lake Avenue, Watsonville, California
(831) 722-4175 ~ Fax (831) 722-3202



TYPICAL EARTH DAM CROSS SECTION
113 TIERRA ALTA DRIVE
SANTA CRUZ, CALIFORNIA
BUENA VISTA MIGRANT CENTER

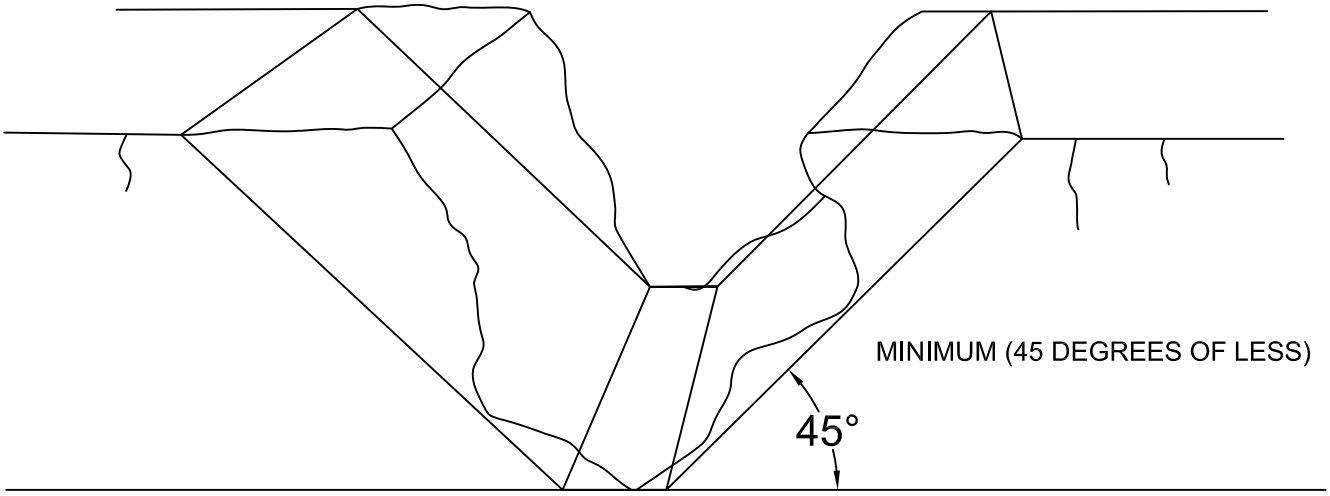
SCALE:	1" = 6'
DRAWN BY:	KPS
DATE:	DEC 2018
REVISED:	
JOB NO.	SC11225.3

HARO, KASUNICH & ASSOCIATES, INC.
GEOTECHNICAL AND COASTAL ENGINEERS
116 E. LAKE AVENUE, WATSONVILLE, CA 95076
(831) 722-4175

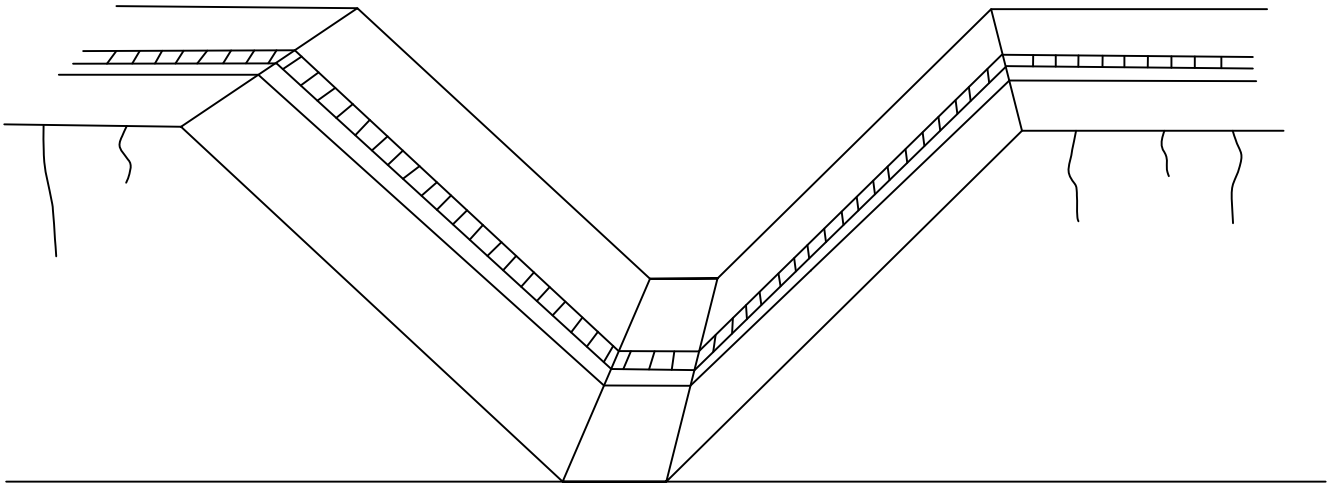
FIGURE NO. 13

SHEET NO.

1. KNOCKING DOWN SIDES TO SAFE SLOPES



2. EXCAVATING KEY TRENCH



NOTE: ONE KEY TRENCH IS SUFFICIENT FOR DAMS UP TO 5 METERS HIGH. TWO OR MORE KEY TRENCHES ARE REQUIRED FOR DAMS OVER 5 METERS HIGH.

REPAIR OF DAMAGED LEVEE
113 TIERRA ALTA DRIVE
SANTA CRUZ, CALIFORNIA
BUENA VISTA MIGRANT CENTER

SCALE:	NA
DRAWN BY:	KPS
DATE:	DEC 2018
REVISED:	
JOB NO.	SC11225.3

HARO, KASUNICH & ASSOCIATES, INC.
GEOTECHNICAL AND COASTAL ENGINEERS
116 E. LAKE AVENUE, WATSONVILLE, CA 95076
(831) 722-4175

FIGURE NO. 14

SHEET NO.

Project No. SC11225.3
13 December 2018

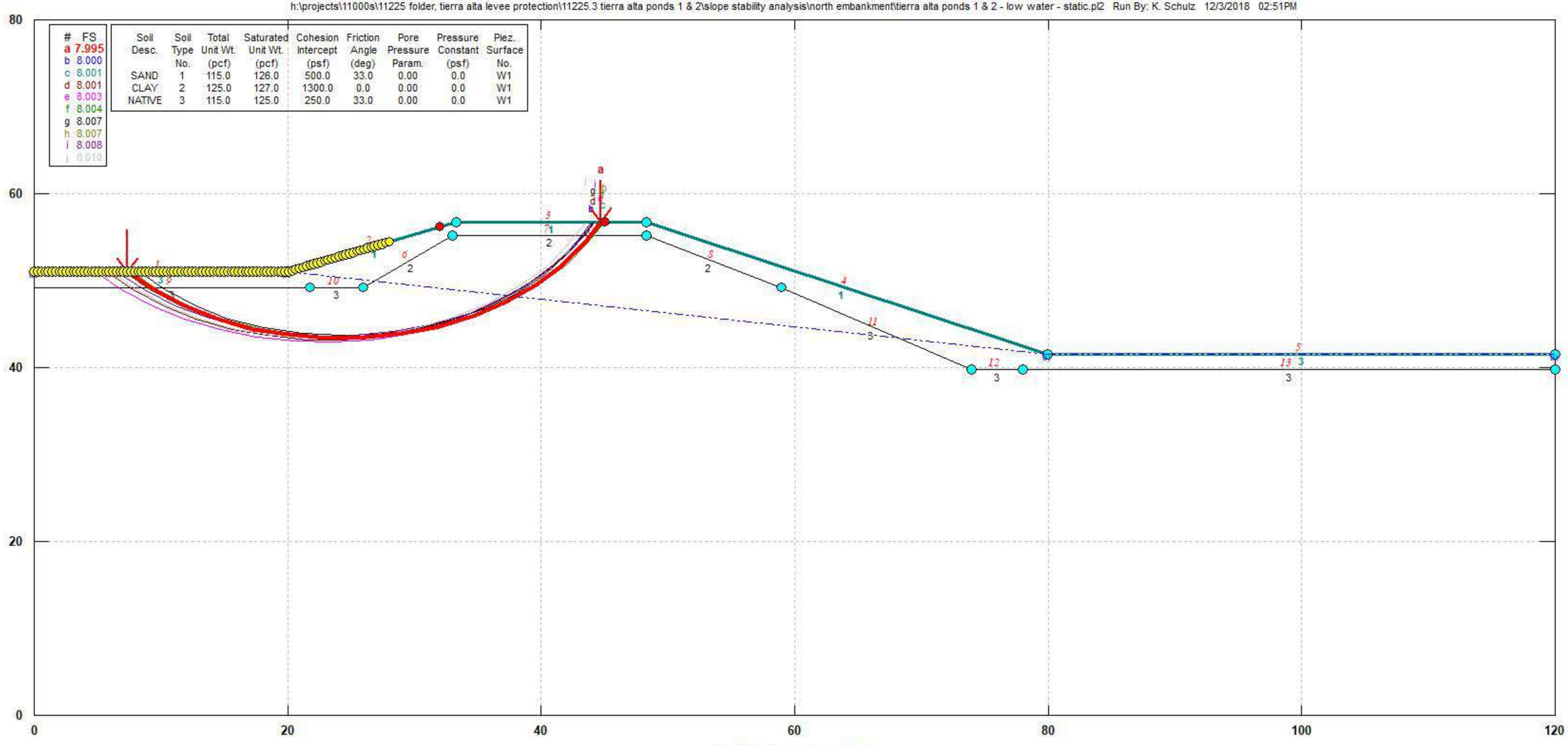
APPENDIX B

Slope Stability Analysis Results

Seepage Analysis Results

SC11225.3 Tierra Alta Levee Between Ponds 1 and 2

h:\projects\11000s\11225 folder, tierra alta levee protection\11225.3 tierra alta ponds 1 & 2\slope stability analysis\north embankment\tierra alta ponds 1 & 2 - low water - static.pl2 Run By: K. Schulz 12/3/2018 02:51PM



GSTABL7 v.2 FSmin=7.995

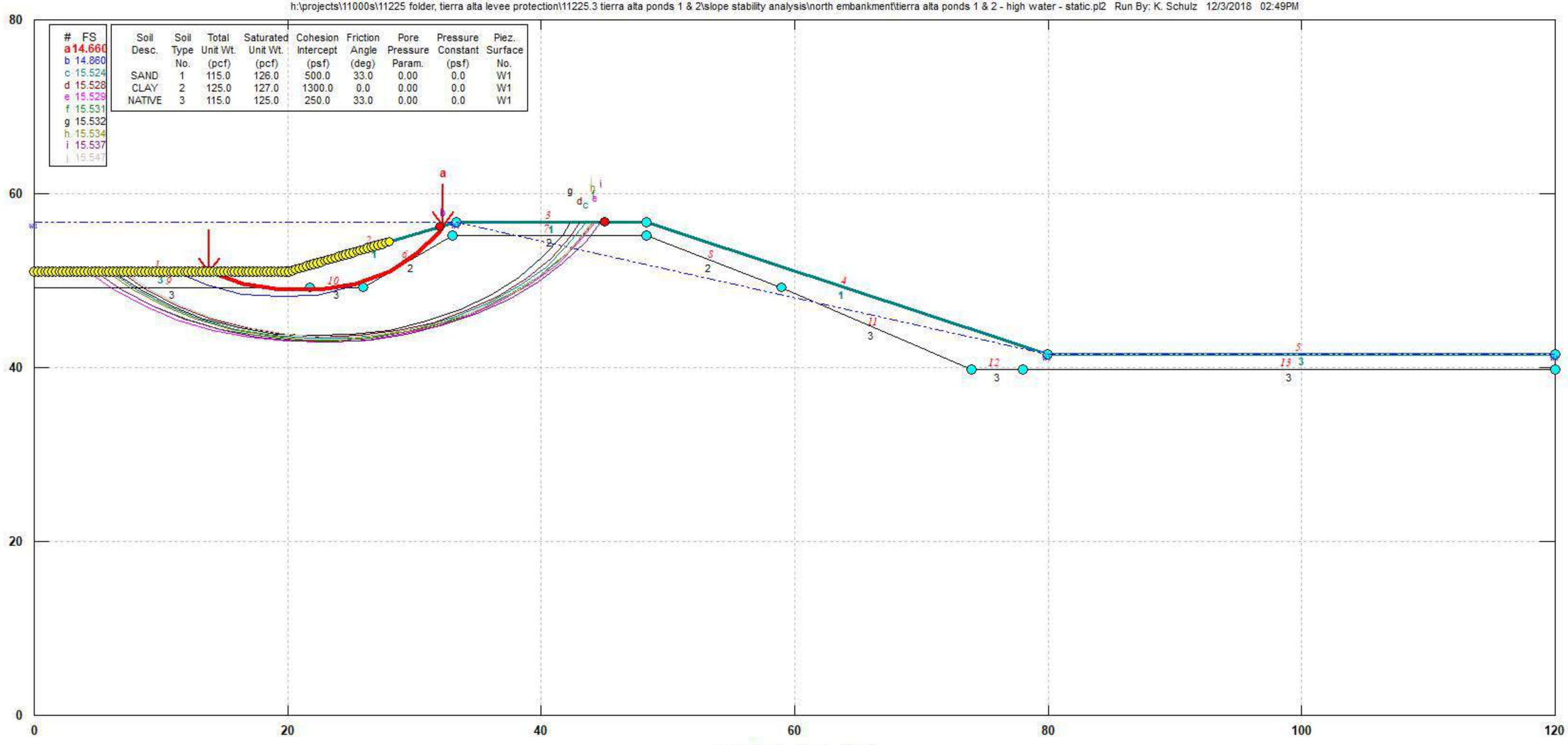
Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

North (Pond 1) Static, Low Water

Figure B-1

SC11225.3 Tierra Alta Levee Between Ponds 1 and 2

h:\projects\11000s\11225 folder, tierra alta levee protection\11225.3 tierra alta ponds 1 & 2\slope stability analysis\north embankment\tierra alta ponds 1 & 2 - high water - static.pl2 Run By: K. Schulz 12/3/2018 02:49PM



GSTABL7 v.2 FSmin=14.660

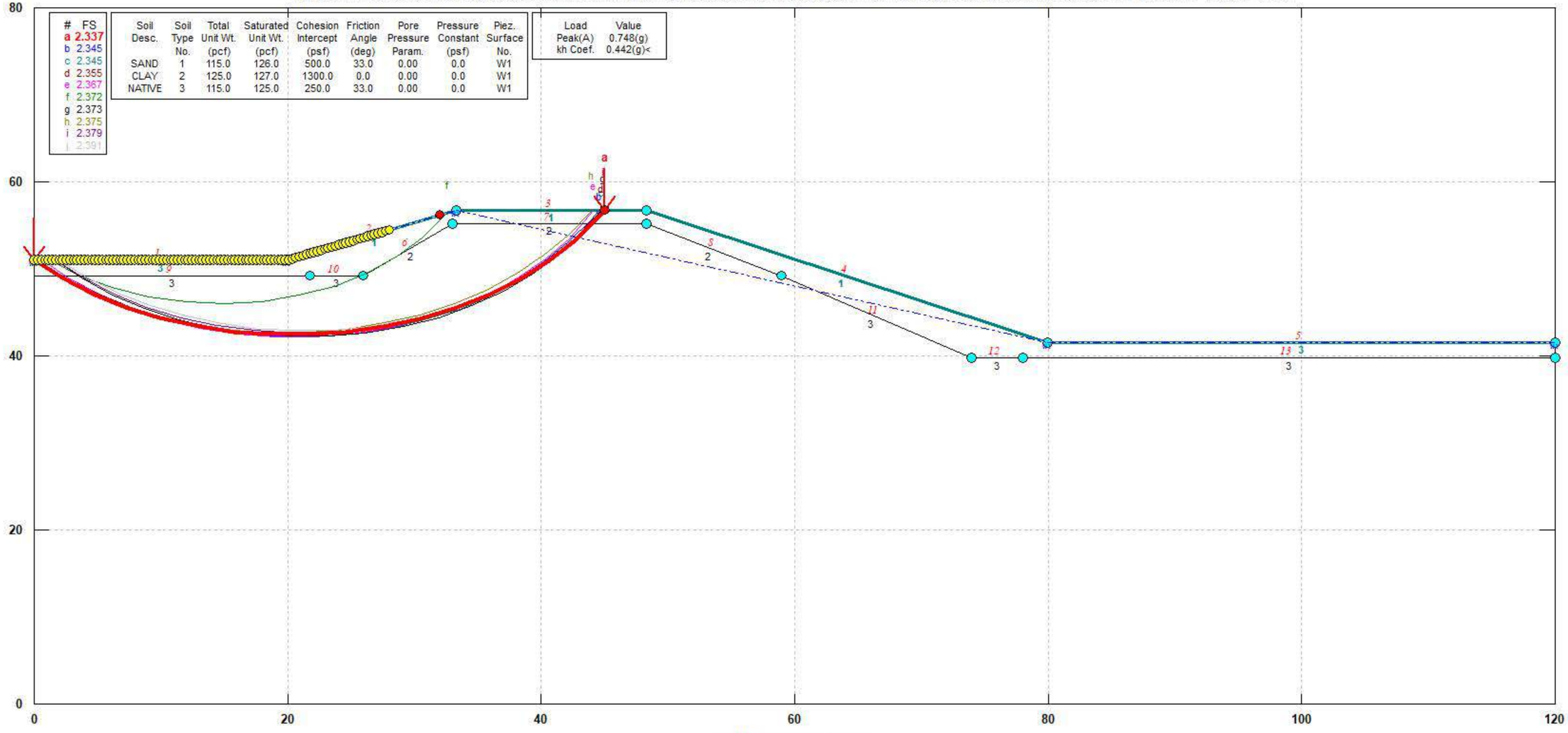
Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

North (Pond 1) Static, High Water

Figure B-2

SC11225.3 Tierra Alta Levee Between Ponds 1 and 2

h:\projects\11000s\11225 folder, tierra alta levee protection\11225.3 tierra alta ponds 1 & 2\slope stability analysis\north embankment\tierra alta ponds 1 & 2 - rapid draw down.pl2 Run By: K. Schulz 12/3/2018 02:52PM



GSTABL7 v.2 FSmin=2.337

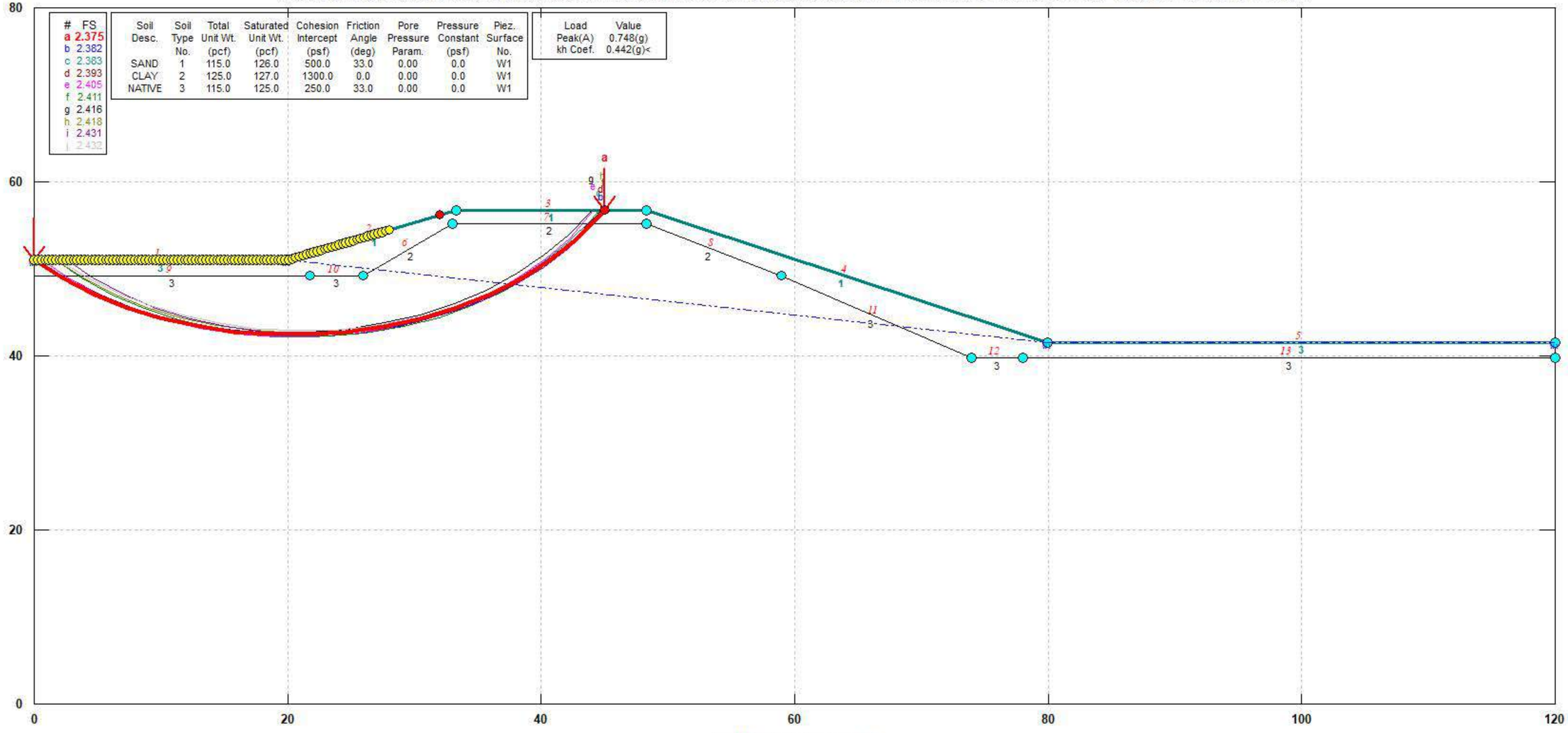
Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

North (Pond 1) Static, Rapid Draw Down

Figure B-3

SC11225.3 Tierra Alta Levee Between Ponds 1 and 2

h:\projects\11000s\11225 folder, tierra alta levee protection\11225.3 tierra alta ponds 1 & 2\slope stability analysis\north embankment\tierra alta ponds 1 & 2 - low water - seismic.pl2 Run By: Username 12/13/2018 02:39PM



GSTABL7 v.2 FSmin=2.375

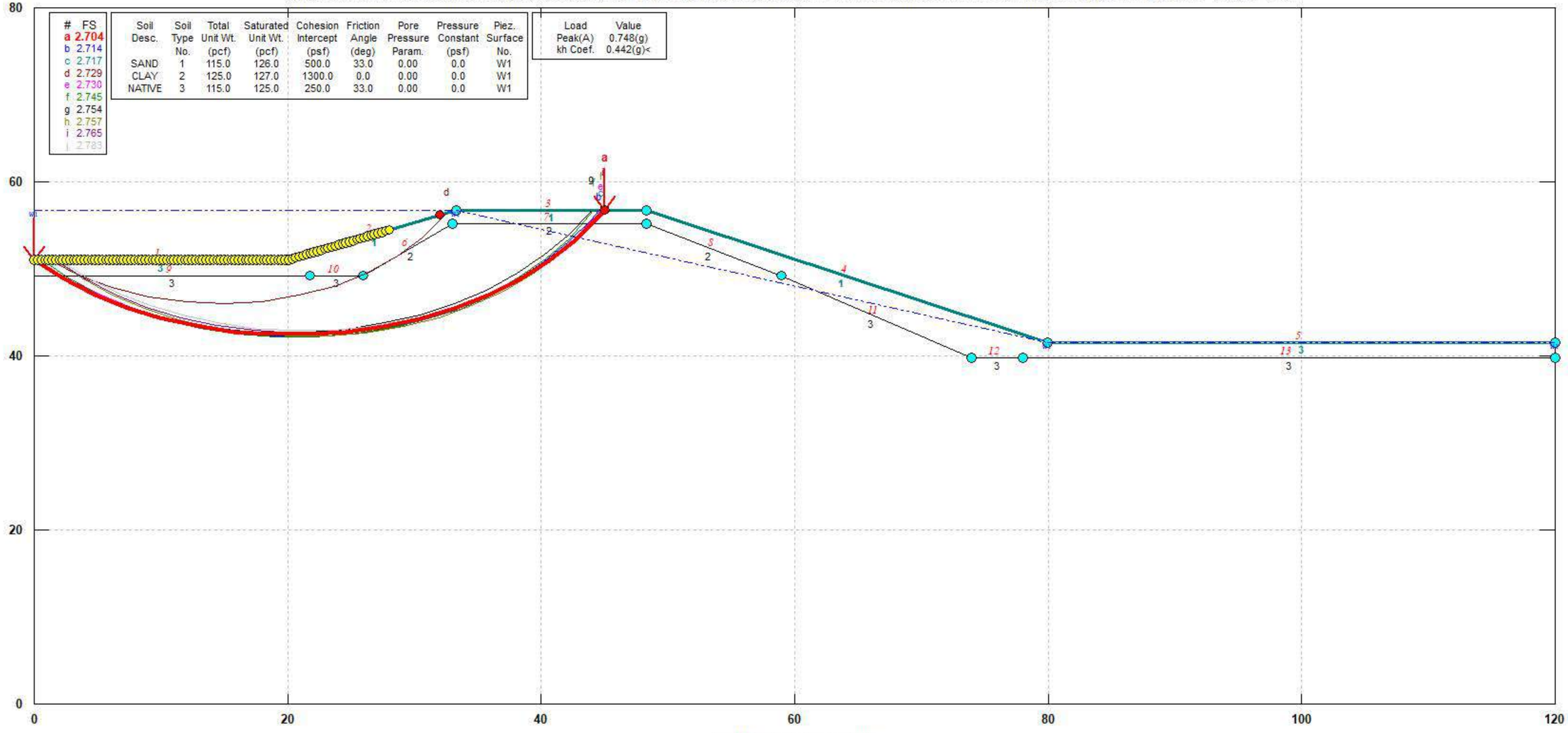
Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

North (Pond 1) Seismic, Low Water

Figure B-4

SC11225.3 Tierra Alta Levee Between Ponds 1 and 2

h:\projects\11000s\11225 folder, tierra alta levee protection\11225.3 tierra alta ponds 1 & 2\slope stability analysis\north embankment\tierra alta ponds 1 & 2 - high water - seismic.pl2 Run By: K. Schulz 12/3/2018 02:48PM



GSTABL7 v.2 FSmin=2.704

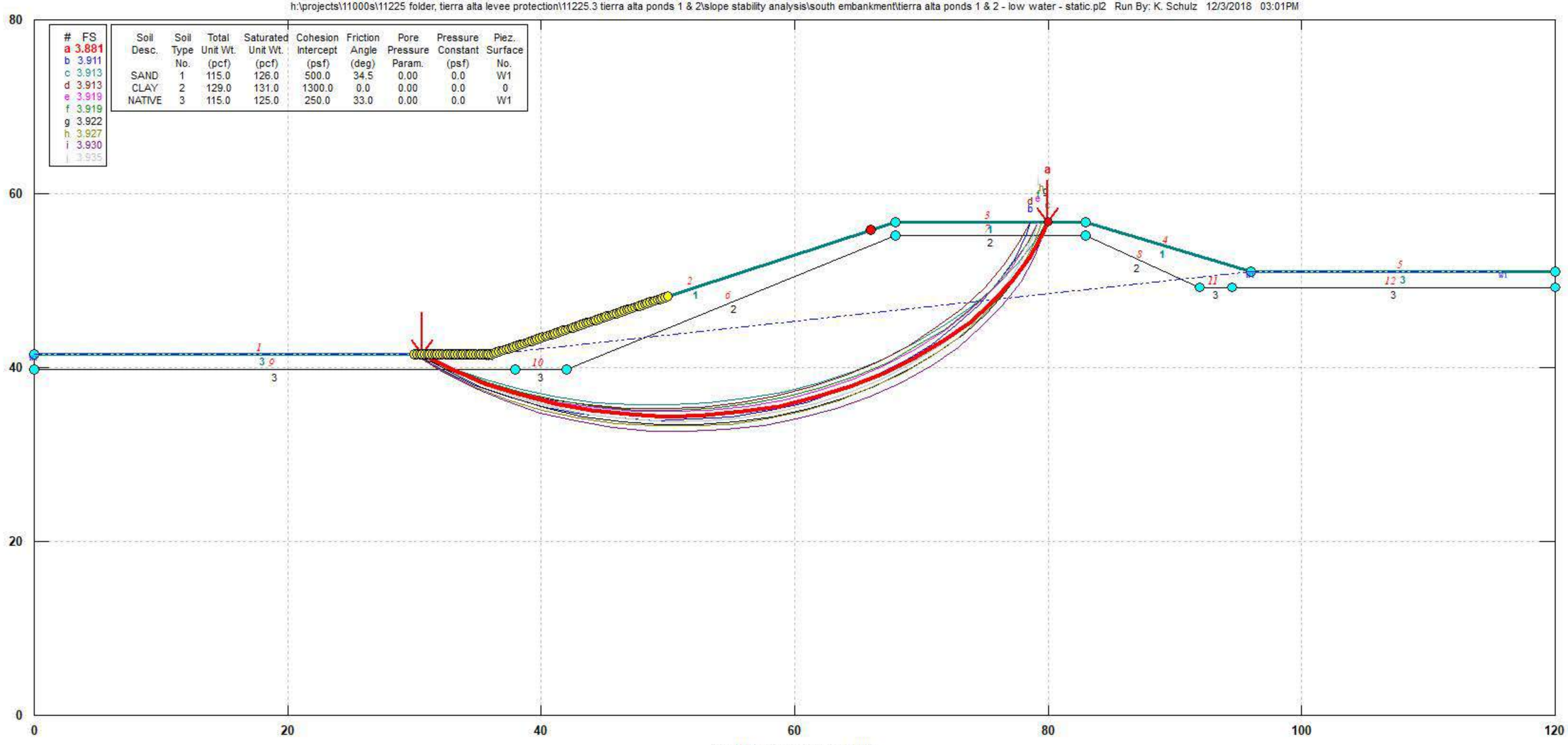
Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

North (Pond 1) Seismic, High Water

Figure B-5

SC11225.3 Tierra Alta Levee Between Ponds 1 and 2

h:\projects\11000s\11225 folder, tierra alta levee protection\11225.3 tierra alta ponds 1 & 2\slope stability analysis\south embankment\tierra alta ponds 1 & 2 - low water - static.pl2 Run By: K. Schulz 12/3/2018 03:01PM



GSTABL7 v.2 FSmin=3.881

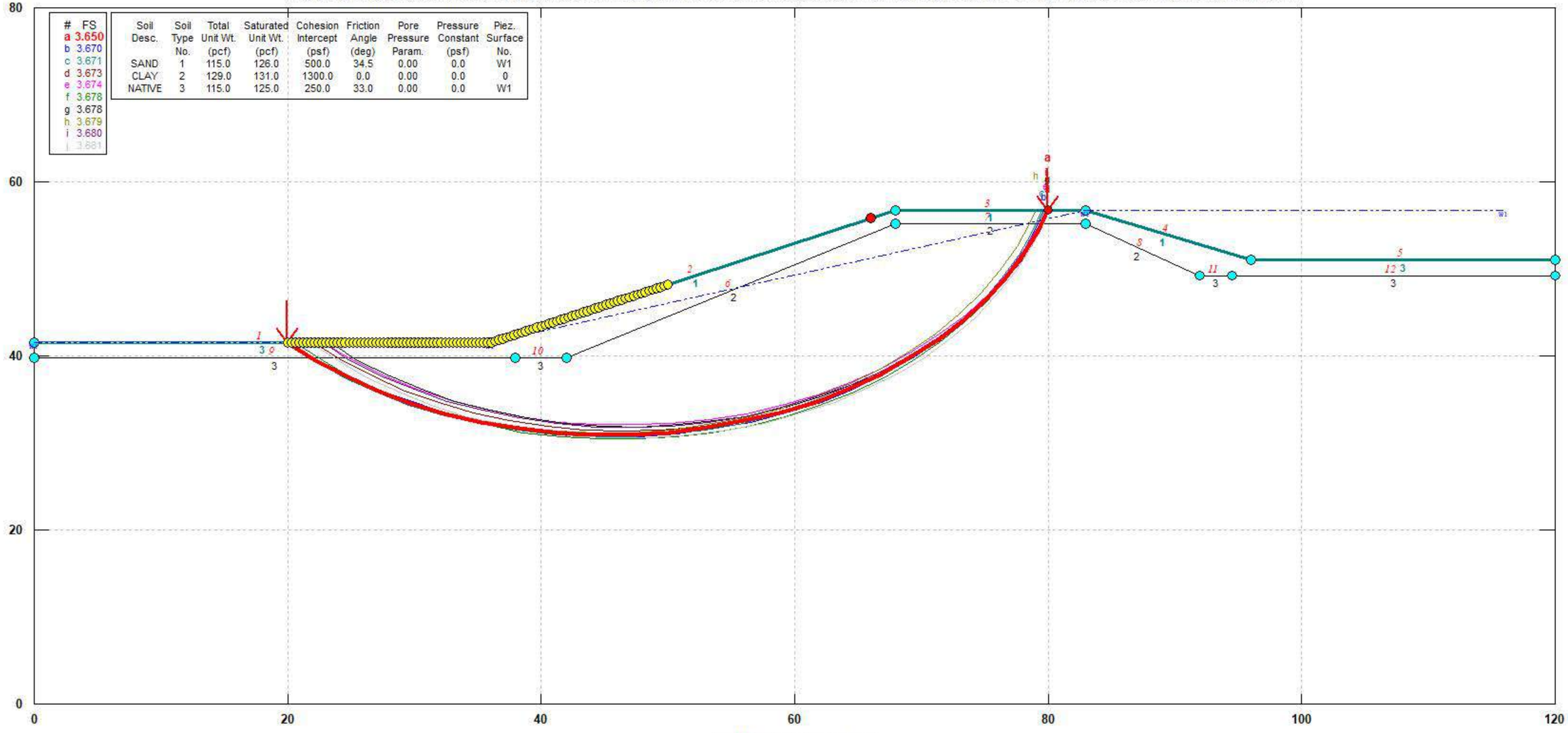
Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

South (Pond 2) Static, Low Water

Figure B-6

SC11225.3 Tierra Alta Levee Between Ponds 1 and 2

h:\projects\11000s\11225 folder, tierra alta levee protection\11225.3 tierra alta ponds 1 & 2\slope stability analysis\south embankment\tierra alta ponds 1 & 2 - high water - static.pl2 Run By: K. Schulz 12/3/2018 02:57PM



GSTABL7 v.2 FSmin=3.650

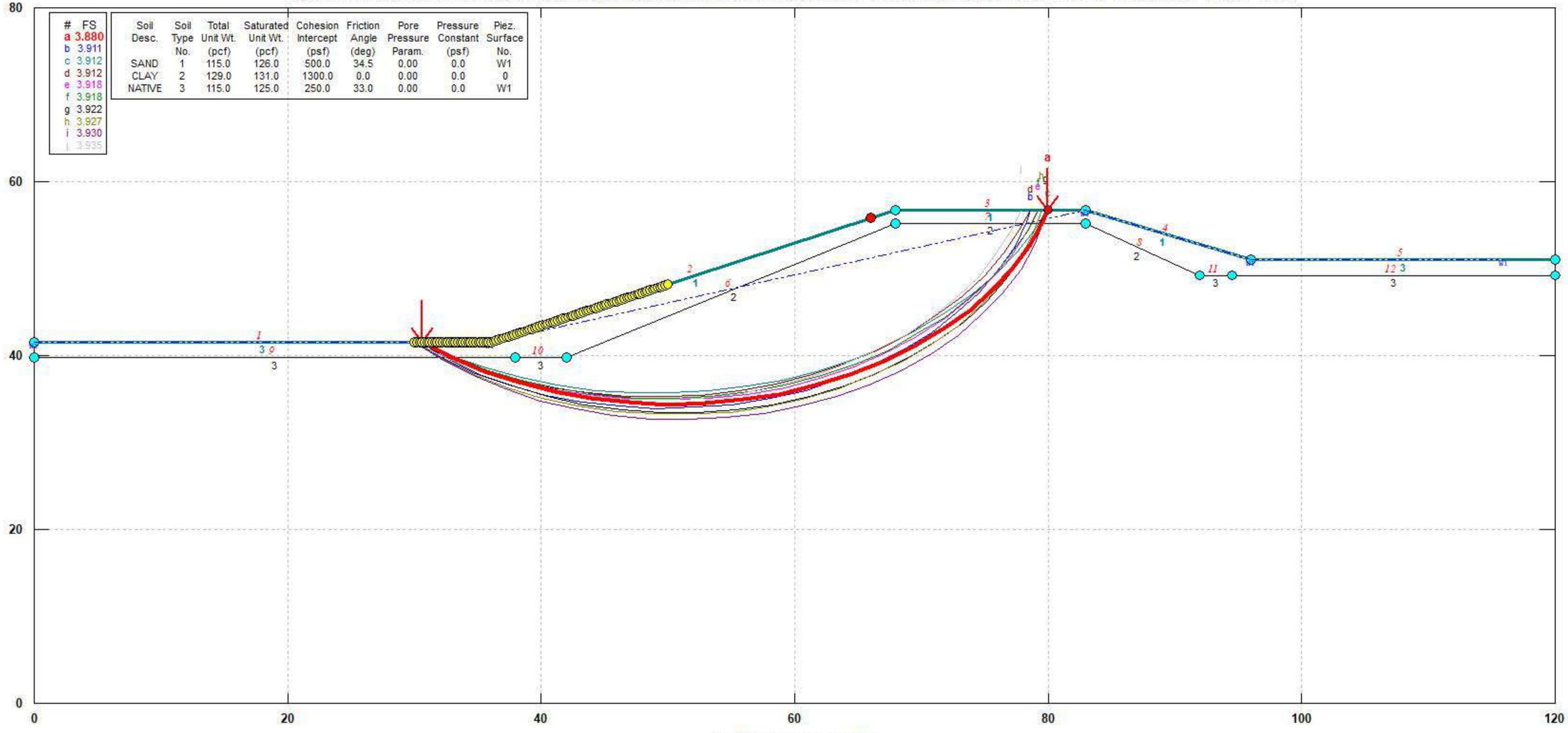
Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

South (Pond 2) Static, High Water

Figure B-7

SC11225.3 Tierra Alta Levee Between Ponds 1 and 2

h:\projects\11000s\11225 folder, tierra alta levee protection\11225.3 tierra alta ponds 1 & 2\slope stability analysis\south embankment\tierra alta ponds 1 & 2 - rapid draw down.pl2 Run By: K. Schulz 12/3/2018 03:02PM



GSTABL7 v.2 FSmin=3.880

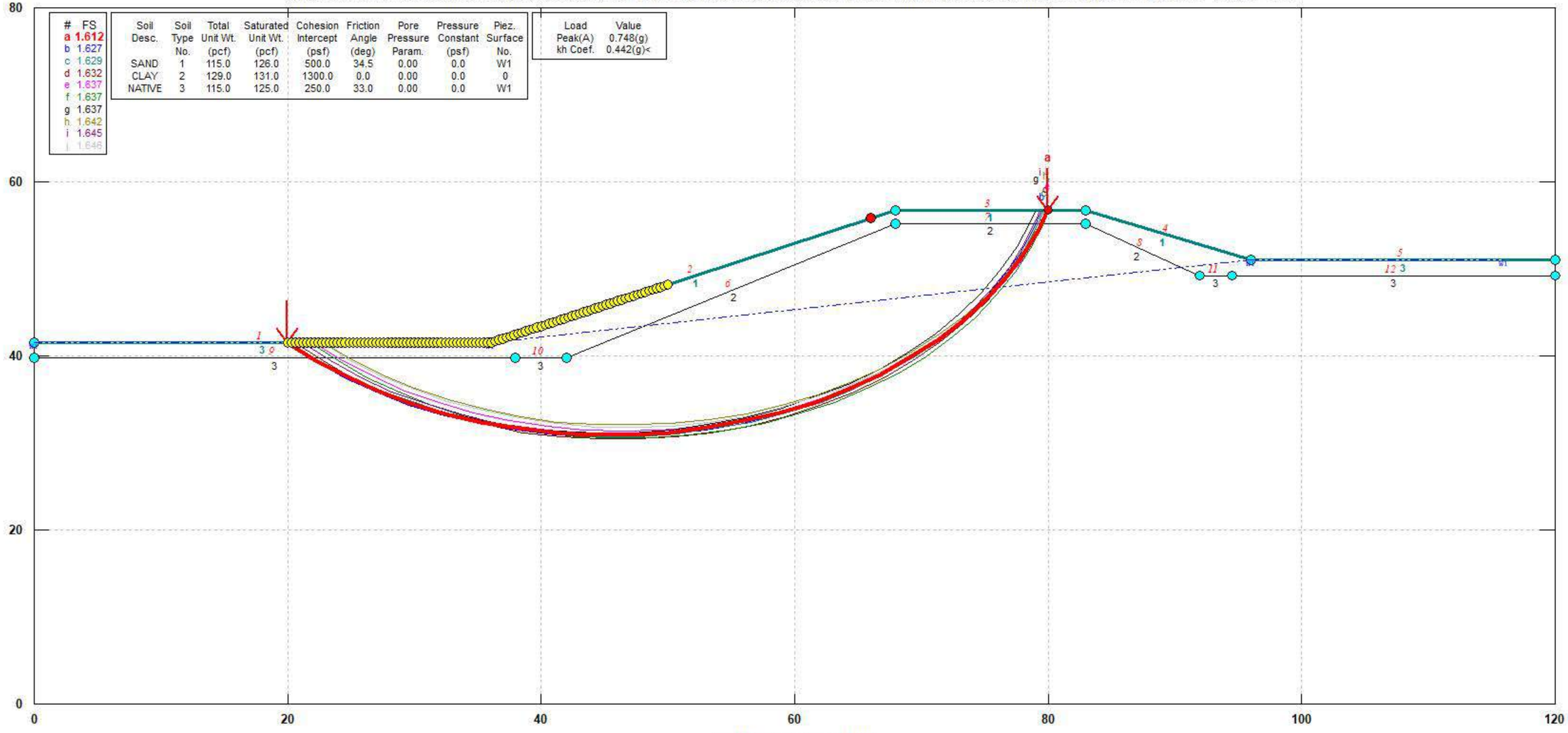
Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

South (Pond 2) Rapid Draw Down

Figure B-8

SC11225.3 Tierra Alta Levee Between Ponds 1 and 2

h:\projects\11000s\11225 folder, tierra alta levee protection\11225.3 tierra alta ponds 1 & 2\slope stability analysis\south embankment\tierra alta ponds 1 & 2 - low water - seismic.pl2 Run By: K. Schulz 12/3/2018 03:00PM



GSTABL7 v.2 FSmin=1.612

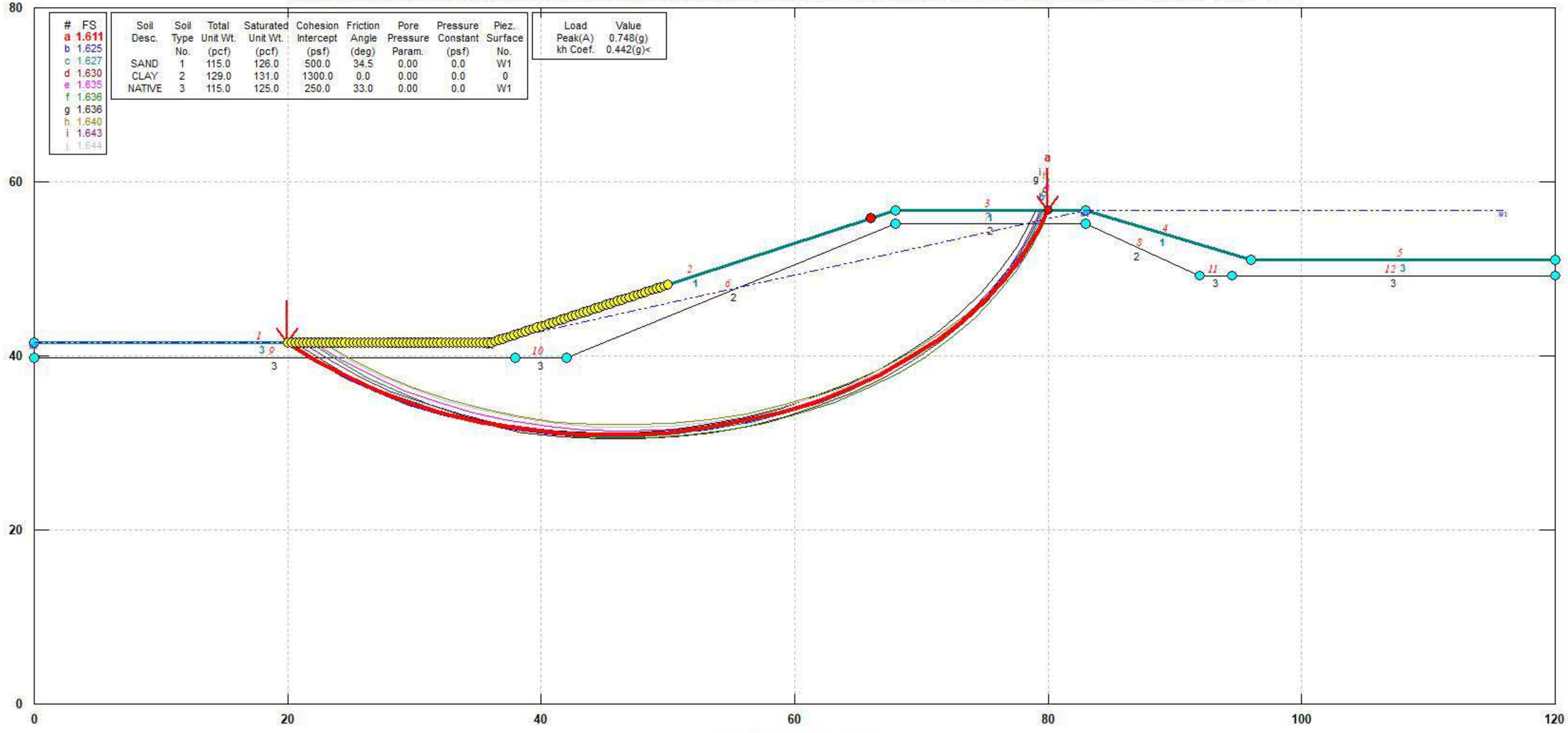
Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

South (Pond 2) Seismic, Low Water

Figure B-9

SC11225.3 Tierra Alta Levee Between Ponds 1 and 2

h:\projects\11000s\11225 folder, tierra alta levee protection\11225.3 tierra alta ponds 1 & 2\slope stability analysis\south embankment\tierra alta ponds 1 & 2 - high water - seismic.pl2 Run By: K. Schulz 12/3/2018 02:57PM



GSTABL7 v.2 FSmin=1.611

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

South (Pond 2) Seismic, High Water

Figure B-10

Steady State Seepage Analysis

File Information

File Version: 9.01
Title: Tierra Alta Seepage Analysis - Ponds 1 and 2
Created By: Katerina Schulz
Last Edited By: Katerina Schulz
Revision Number: 221
Date: 12/12/2018
Time: 04:19:49 PM
Tool Version: 9.1.1.16749
File Name: Tierra Alta Seepage Analysis - Ponds 1 and 2.gsz
Directory: H:\PROJECTS\11000s\11225 folder, Tierra Alta Levee Protection\11225.3 Tierra Alta Ponds 1 & 2\Seepage Analysis\
Last Solved Date: 12/12/2018
Last Solved Time: 04:19:51 PM

Project Settings

Unit System: International System of Units (SI)

Analysis Settings

Steady State Seepage Analysis

Description: Seepage analysis for cross section of repaired levee between Ponds 1 and 2
Kind: SEEP/W
Method: Steady-State
Physics
- Water Transfer
  - Free convection: thermal effects: No
  - Free convection: solute effects: No
  - Vapor transfer: isothermal: No
  - Vapor transfer: thermal: No

Water Settings
- Maximum Number of Iterations: 50
- Maximum Difference: 0.001
- Significant Digits: 3
- Max # of Reviews: 10
- Under-Relaxation Criteria
  - Initial Rate: 1
  - Minimum Rate: 0.1
  - Rate Reduction Factor: 0.65
  - Reduction Frequency (iterations): 10
- Unit Weight of Water: 9.807 kN/m³
- Bulk Modulus of Pore-Fluid: 2,083,333.3 kPa

Settings
- Dimension: 2D

Time

Starting Time: 0 sec
Duration: 0 sec
Ending Time: 0 sec

Materials

Shell/Fill Material

Hydraulic
- Model: Saturated / Unsaturated
- Vol. WC. Function: W/C function
- K-Function: Shell Material 'K' function
- Ky'/Kx' Ratio: 1
- Rotation: 0 °

Native/In-situ Material

Hydraulic
- Model: Saturated Only
- Sat Kx: 1e-10 m/sec
- Ky'/Kx' Ratio: 1
- Rotation: 0 °
- Volumetric Water Content: 0
- Compressibility: 0 /kPa

Core Material

Hydraulic
- Model: Saturated / Unsaturated
- Vol. WC. Function: W/C function
- K-Function: Clay Core 'K' function - Lab
- Ky'/Kx' Ratio: 1
- Rotation: 0 °

Boundary Conditions

Potential Seepage Face

Category: Hydraulic
Kind: Water Rate 0 m^3/sec
Review: Yes

Reservoir

Category: Hydraulic
Kind: Water Total Head 8 m
Review: No

Water K Functions

Shell Material 'K' function

Model: Hyd K Data Point Function
Function: Water X-Conductivity vs. Water Pressure
- Curve Fit to Data: 100 %
- Segment Curvature: 100 %

Saturated Kx: 1e-08 m/sec
Data Points: Matric Suction (kPa), Water X-Conductivity (m/sec)
Data Point: (0.1, 1e-08)
Data Point: (0.14384499, 9.9621957e-09)
Data Point: (0.20691381, 9.9051733e-09)
Data Point: (0.29763514, 9.8197279e-09)
Data Point: (0.42813324, 9.6915338e-09)
Data Point: (0.61584821, 9.4998016e-09)
Data Point: (0.88586679, 9.2142003e-09)
Data Point: (1.274275, 8.79186e-09)
Data Point: (1.8329807, 8.175324e-09)
Data Point: (2.6366509, 7.2961637e-09)
Data Point: (3.7926902, 6.0954711e-09)
Data Point: (5.4555948, 4.5803652e-09)
Data Point: (7.8475997, 2.91864e-09)
Data Point: (11.288379, 1.4691768e-09)
Data Point: (16.237767, 5.5465388e-10)
Data Point: (23.357215, 1.5807676e-10)
Data Point: (33.598183, 3.630054e-11)
Data Point: (48.329302, 7.2823494e-12)
Data Point: (69.51928, 1.3574846e-12)
Data Point: (100, 2.4390425e-13)
Estimation Properties
Hyd. K-Function Estimation Method: Van Genuchten Function
Volume Water Content Function: W/C function
Saturated Kx: 1e-05 m/sec
Residual Water Content: 0.1
Maximum: 100
Minimum: 0.1
Num. Points: 20

Clay Core 'K' function - Lab

Model: Hyd K Data Point Function
Function: Water X-Conductivity vs. Water Pressure
Curve Fit to Data: 100 %
Segment Curvature: 100 %
Saturated Kx: 1e-10 m/sec
Data Points: Matric Suction (kPa), Water X-Conductivity (m/sec)
Data Point: (0.1, 1e-10)
Data Point: (0.14384499, 9.9621957e-11)
Data Point: (0.20691381, 9.9051733e-11)
Data Point: (0.29763514, 9.8197279e-11)
Data Point: (0.42813324, 9.6915338e-11)
Data Point: (0.61584821, 9.4998016e-11)
Data Point: (0.88586679, 9.2142003e-11)
Data Point: (1.274275, 8.79186e-11)
Data Point: (1.8329807, 8.175324e-11)
Data Point: (2.6366509, 7.2961637e-11)
Data Point: (3.7926902, 6.0954711e-11)
Data Point: (5.4555948, 4.5803652e-11)
Data Point: (7.8475997, 2.91864e-11)
Data Point: (11.288379, 1.4691768e-11)
Data Point: (16.237767, 5.5465388e-12)
Data Point: (23.357215, 1.5807676e-12)

Data Point: (33.598183, 3.630054e-13)
Data Point: (48.329302, 7.2823494e-14)
Data Point: (69.51928, 1.3574846e-14)
Data Point: (100, 2.4390425e-15)

Estimation Properties
Hyd. K-Function Estimation Method: Van Genuchten Function
Volume Water Content Function: W/C function
Saturated Kx: 1e-05 m/sec
Residual Water Content: 0.1
Maximum: 100
Minimum: 0.1
Num. Points: 20

Vol. Water Content Functions

W/C function

Model: Vol WC Data Point Function
Function: Volumetric Water Content vs. Water Pressure
Compressibility: 0.0001 /kPa
Saturated Water Content: 0.44995596
Residual Water Content: 0.044995596
Curve Fit to Data: 100 %
Segment Curvature: 100 %
Porosity: 0.44995596
Data Points: Matric Suction (kPa), Volumetric Water Content
Data Point: (0.1, 0.44994596)
Data Point: (0.16237767, 0.44988297)
Data Point: (0.26366509, 0.44974584)
Data Point: (0.42813324, 0.44944695)
Data Point: (0.6951928, 0.44879565)
Data Point: (1.1288379, 0.44737971)
Data Point: (1.8329807, 0.44432087)
Data Point: (2.9763514, 0.43780916)
Data Point: (4.8329302, 0.42437936)
Data Point: (7.8475997, 0.39841474)
Data Point: (12.74275, 0.35392603)
Data Point: (20.691381, 0.29121027)
Data Point: (33.598183, 0.22256678)
Data Point: (54.555948, 0.16377266)
Data Point: (88.586679, 0.12111122)
Data Point: (143.84499, 0.092186423)
Data Point: (233.57215, 0.072562874)
Data Point: (379.26902, 0.058798428)
Data Point: (615.84821, 0.048703651)
Data Point: (1,000, 0.040947811)
Estimation Properties
Vol. WC Estimation Method: Sample functions
Saturated Water Content: 0.45
Sample Material: Silt
Liquid Limit: 0 %
Diameter at 10% passing: 0
Diameter at 60% passing: 0
Maximum: 1,000

Minimum: 0.1
Num. Points: 20

Points

	X	Y
Point 1	13 m	4 m
Point 2	23 m	10 m
Point 3	18 m	4 m
Point 4	27 m	10 m
Point 5	32 m	4 m
Point 6	32 m	8 m
Point 7	40 m	8 m
Point 8	40 m	4 m
Point 9	23 m	4 m
Point 10	24 m	2 m
Point 11	26 m	2 m
Point 12	27 m	4 m
Point 13	6 m	4 m
Point 14	6 m	2 m
Point 15	40 m	2 m
Point 16	14 m	3 m
Point 17	17 m	3 m

Lines

	Start Point	End Point	Length	Angle	Hydraulic Boundary
Line 1	2	3	7.8102 m	50.2 °	
Line 2	2	4	4 m	0 °	
Line 3	4	5	7.8102 m	-50.2 °	
Line 4	1	2	11.662 m	31 °	Potential Seepage Face
Line 5	4	6	5.3852 m	-21.8 °	Reservoir
Line 6	6	7	8 m	0 °	Reservoir
Line 7	7	8	4 m	90 °	
Line 8	9	3	5 m	0 °	
Line 9	5	12	5 m	0 °	
Line 10	9	10	2.2361 m	-63.4 °	
Line 11	10	11	2 m	0 °	
Line 12	11	12	2.2361 m	63.4 °	
Line 13	1	13	7 m	0 °	Potential Seepage Face
Line 14	13	14	2 m	90 °	
Line 15	14	10	18 m	0 °	
Line 16	11	15	14 m	0 °	
Line 17	15	8	2 m	90 °	
Line 18	5	8	8 m	0 °	
Line 19	1	16	1.4142 m	-45 °	
Line 20	16	17	3 m	0 °	
Line 21	17	3	1.4142 m	45 °	

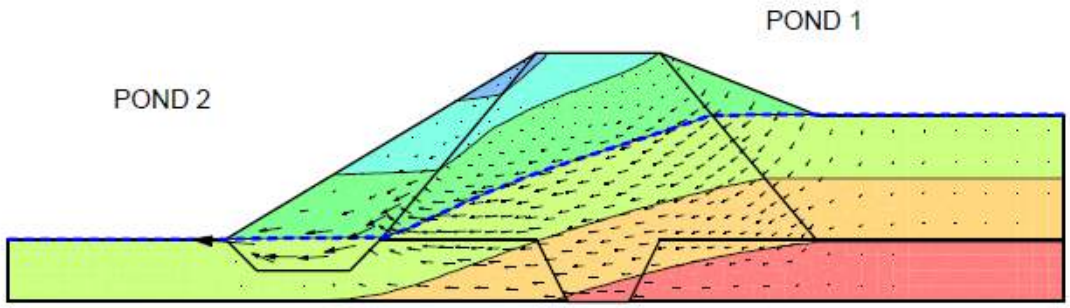
Regions

	Material	Points	Area
Region 1	Core Material	5,4,2,3,9,10,11,12	60 m²
Region 2	Shell/Fill Material	8,7,6,4,5	42 m²
Region 3	Native/In-situ Material	13,14,10,9,3,17,16,1	31 m²
Region 4	Native/In-situ Material	12,11,15,8,5	27 m²
Region 5	Shell/Fill Material	16,17,3,2,1	19 m²

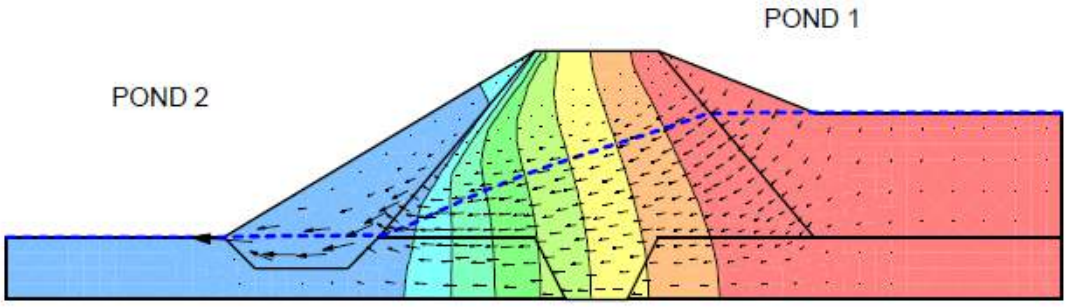
Mesh Properties

View: 2D

Element Thickness: 1 m



Steady State Seepage - Pore Water Pressure Schematic



Steady State Seepage - Total Head Schematic

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: # OPERATING ENGINEER (HEAVY AND HIGHWAY WORK)

DETERMINATION: NC-23-63-1-2018-1
ISSUE DATE: August 22, 2018
EXPIRATION DATE OF DETERMINATION: June 23, 2019** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

LOCALITY: All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

			Employer Payments					Straight-Time			Overtime Hourly Rate			
Classification (Journeyperson)	Basic Hourly Rate		Health and Welfare	Pension	Vacation and Holiday[e]	Training	Other Payments	Hours[f]	Total Hourly Rate		Daily/ Saturday[d] 1 1/2X		Sunday and Holiday 2X	
Classification Group[a]	Area 1[b]	Area 2[c]							Area 1[b]	Area 2[c]	Area 1[b]	Area 2[c]	Area 1[b]	Area 2[c]
Group 1	$46.77	$48.77	$13.88	$10.78	$4.56	$1.02	$0.79	8	$77.80	$79.80	$101.19	$104.19	$124.57	$128.57
Group 2	$45.24	$47.24	$13.88	$10.78	$4.56	$1.02	$0.79	8	$76.27	$78.27	$98.89	$101.89	$121.51	$125.51
Group 3	$43.76	$45.76	$13.88	$10.78	$4.56	$1.02	$0.79	8	$74.79	$76.79	$96.67	$99.67	$118.55	$122.55
Group 4	$42.38	$44.38	$13.88	$10.78	$4.56	$1.02	$0.79	8	$73.41	$75.41	$94.60	$97.60	$115.79	$119.79
Group 5	$41.11	$43.11	$13.88	$10.78	$4.56	$1.02	$0.79	8	$72.14	$74.14	$92.70	$95.70	$113.25	$117.25
Group 6	$39.79	$41.79	$13.88	$10.78	$4.56	$1.02	$0.79	8	$70.82	$72.82	$90.72	$93.72	$110.61	$114.61
Group 7	$38.65	$40.65	$13.88	$10.78	$4.56	$1.02	$0.79	8	$69.68	$71.68	$89.01	$92.01	$108.33	$112.33
Group 8	$37.51	$39.51	$13.88	$10.78	$4.56	$1.02	$0.79	8	$68.54	$70.54	$87.30	$90.30	$106.05	$110.05
Group 8-A	$35.30	$37.30	$13.88	$10.78	$4.56	$1.02	$0.79	8	$66.33	$68.33	$83.98	$86.98	$101.63	$105.63
ALL CRANES AND ATTACHMENTS:														
Group 1	$48.40	$50.40	$13.88	$10.78	$4.56	$1.02	$0.79	8	$79.43	$81.43	$103.63	$106.63	$127.83	$131.83
Truck Crane Assistant to Engineer	$41.43	$43.43	$13.88	$10.78	$4.56	$1.02	$0.79	8	$72.46	$74.46	$93.18	$96.18	$113.89	$117.89
Assistant to Engineer	$39.14	$41.14	$13.88	$10.78	$4.56	$1.02	$0.79	8	$70.17	$72.17	$89.74	$92.74	$109.31	$113.31
Group 1-A	$47.65	$49.65	$13.88	$10.78	$4.56	$1.02	$0.79	8	$78.68	$80.68	$102.51	$105.51	$126.33	$130.33
Truck Crane Assistant to Engineer	$40.68	$42.68	$13.88	$10.78	$4.56	$1.02	$0.79	8	$71.71	$73.71	$92.05	$95.05	$112.39	$116.39
Assistant to Engineer	$38.39	$40.39	$13.88	$10.78	$4.56	$1.02	$0.79	8	$69.42	$71.42	$88.62	$91.62	$107.81	$111.81
Group 2-A	$45.89	$47.89	$13.88	$10.78	$4.56	$1.02	$0.79	8	$76.92	$78.92	$99.87	$102.87	$122.81	$126.81
Truck Crane Assistant to Engineer	$40.42	$42.42	$13.88	$10.78	$4.56	$1.02	$0.79	8	$71.45	$73.45	$91.66	$94.66	$111.87	$115.87
Assistant to Engineer	$38.18	$40.18	$13.88	$10.78	$4.56	$1.02	$0.79	8	$69.21	$71.21	$88.30	$91.30	$107.39	$111.39
Group 3-A	$44.15	$46.15	$13.88	$10.78	$4.56	$1.02	$0.79	8	$75.18	$77.18	$97.26	$100.26	$119.33	$123.33
Truck Crane Assistant to Engineer	$40.18	$42.18	$13.88	$10.78	$4.56	$1.02	$0.79	8	$71.21	$73.21	$91.30	$94.30	$111.39	$115.39
Hydraulic	$39.79	$41.79	$13.88	$10.78	$4.56	$1.02	$0.79	8	$70.82	$72.82	$90.72	$93.72	$110.61	$114.61
Assistant to Engineer	$37.90	$39.90	$13.88	$10.78	$4.56	$1.02	$0.79	8	$68.93	$70.93	$87.88	$90.88	$106.83	$110.83
Group 4-A	$41.11	$43.11	$13.88	$10.78	$4.56	$1.02	$0.79	8	$72.14	$74.14	$92.70	$95.70	$113.25	$117.25

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at http://www.dir.ca.gov/das/das.html.

[a] For classifications within each group, see pages 39B-40.

[b] **AREA 1** - Alameda, Butte, Contra Costa, Kings, Marin, Merced, Napa, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Solano, Stanislaus, Sutter, Yolo and Yuba counties; and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity counties.

[c] **AREA 2** - Modoc, and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity counties. (Portions of counties falling in each area detailed on page 41).

[d] Saturday in the same work week may be worked at straight-time if a job is shut down during the normal work week due to inclement weather.

[e] Includes an amount for supplemental dues.

[f] When three shifts are employed for five (5) or more consecutive days, seven and one-half (7 1/2) consecutive hours (exclusive of meal period), shall constitute a day of work, for which eight (8) times the straight time hourly rate shall be paid at the non-shift wage rate for the second shift. The third shift shall be seven (7) hours of work for eight (8) hours of pay at the non-shift wage rate.

NOTE: For Special Single and Second Shift rates, please see page 39A.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

DETERMINATION: NC-23-63-1-2018-1

CLASSIFICATIONS

GROUP 1
Drill Equipment, over 200,000 lbs
Operator of Helicopter (when used in erection work)
Hydraulic Excavator 7 cu yds and over
Power Shovels, over 7 cu yds

GROUP 2
Highline Cableway
Hydraulic Excavator 3 1/2 cu yds up to 7 cu yds
Licensed Construction Work Boat Operator, On Site
Microtunneling Machine
Power Blade Operator (finish)
Power Shovels, (over 1 cu yd and up to and including 7 cu yds m.r.c.)

GROUP 3
Asphalt Milling Machine
Cable Backhoe
Combination Backhoe and Loader over ¾ cu yds
Continuous Flight Tie Back Machine
Crane Mounted Continuous Flight Tie Back Machine, tonnage to apply
Crane Mounted Drill Attachments, Tonnage to apply
Dozer, Slope Board
Drill Equipment, over 100,000 lbs up to and including 200,000 lbs
Gradall
Hydraulic Excavator up to 3 1/2 cu yds
Loader 4 cu yds and over
Long Reach Excavator
Multiple Engine Scrapers (when used as push pull)
Power Shovels, up to and including 1 cu yd
Pre-Stress Wire Wrapping machine
Side Boom Cat, 572 or larger
Track Loader 4 cu yds and over
Wheel Excavator (up to and including 750 cu yds per hour)

GROUP 4
Asphalt Plant Engineer/Boxman
Chicago Boom
Combination Backhoe and Loader up to and including ¾ cu yds
Concrete Batch Plants (wet or dry)
Dozer and/or Push Cat
Drill Equipment, over 50,000 lbs up to and including 100,000 lbs
Pull-Type Elevating Loader
Gradesetter, Grade Checker (GPS, mechanical or otherwise)
Grooving and Grinding Machine
Heading Shield Operator
Heavy Duty Drilling Equipment, Hughes, LDH, Watson 3000 or similar
Heavy Duty Repairman and/or Welder
Lime Spreader
Loader under 4 cu yds
Lubrication and Service Engineer (mobile and grease rack)
Mechanical Finishers or Spreader Machine (asphalt, Barber-Greene and similar)
Miller Formless M-9000 Slope Paver or similar
Portable Crushing and Screening plants
Power Blade Support
Roller Operator, Asphalt
Rubber-Tired Scraper, Self-Loading (paddle-wheels, etc)
Rubber-Tired Earthmoving Equipment (Scrapers)
Slip Form Paver (concrete)
Small Tractor with Drag
Soil Stabilizer (P&H or equal)
Spider Plow and Spider Puller
Timber Skidder
Track Loader up to 4 yards
Tractor Drawn Scraper
Tractor, Compressor Drill Combination
Tubex Pile Rig
Unlicensed Construction Work Boat Operator, On Site
Welder
Woods-Mixer (and other similar Pugmill equipment)

GROUP 5
Cast-In Place Pipe Laying Machine
Combination Slusher and Motor Operator
Concrete Conveyor or Concrete Pump, Truck or Equipment Mounted
Concrete Conveyor, Building Site
Concrete Pump or Pumpcrete Guns
Drilling Equipment, Watson 2000, Texoma 700 or similar
Drilling and Boring Machinery, Horizontal (not to apply to waterlines, wagon drills or jackhammers)
Concrete Mixers/all
Man and/or Material Hoist
Mechanical Finishers (concrete) (Clary, Johnson, Bidwell Bridge Deck or similar types)
Mechanical Burm, Curb and/or Curb and Gutter Machine, Concrete or Asphalt
Mine or Shaft Hoist
Portable Crushers
Power Jumbo Operator (setting slip-forms, etc., in tunnels)
Screedman (automatic or manual)
Self Propelled Compactor with Dozer
Tractor with boom, D6 or smaller
Trenching Machine, maximum digging capacity over 5 ft. depth
Vermeer T-600B Rock Cutter or similar

GROUP 6
Armor-Coater (or similar)
Ballast Jack Tamper
Boom-Type Backfilling Machine
Asst. Plant Engineer
Bridge and/or Gantry Crane
Chemical Grouting Machine, truck mounted
Chip Spreading Machine Operator
Concrete Barrier Moving Machine
Concrete Saws (self-propelled unit on streets, highways, airports, and canals)
Deck Engineer
Drill Doctor
Drill Equipment, over 25,000 lbs up to and including 50,000 lbs
Drilling Equipment Texoma 600, Hughes 200 series or similar up to and including 30 ft. m.r.c.
Helicopter Radioman
Hydro-Hammer or similar
Line Master
Skidsteer Loader, Bobcat larger than 743 series or similar (with attachments)
Locomotive
Rotating Extendable Forklift, Lull Hi-Lift or similar
Assistant to Engineer, Truck Mounted Equipment
Pavement Breaker, Truck Mounted, with compressor combination
Paving Fabric Installation and/or Laying Machine
Pipe Bending Machine (pipelines only)
Pipe Wrapping Machine (Tractor propelled and supported)
Screedman, (except asphaltic concrete paving)
Self-Loading Chipper
Self Propelled Pipeline Wrapping Machine
Tractor

GROUP 7
Ballast Regulator
Cary Lift or similar
Combination Slurry Mixer and/or Cleaner
Coolant/Slurry Tanker Operator (hooked to Grooving/Grinding Machine)
Drilling Equipment, 20 ft and under m.r.c.
Drill Equipment, over 1,000 lbs up to and including 25,000 lbs
Fireman Hot Plant
Grouting Machine Operator
Highline Cableway Signalman
Stationary Belt Loader (Kolman or similar)
Lift Slab Machine (Vagtborg and similar types)
Maginnes Internal Full Slab Vibrator
Material Hoist (1 Drum)
Mechanical Trench Shield
Partsman (heavy duty repair shop parts room)
Pavement Breaker with or without Compressor Combination
Pipe Cleaning Machine (tractor propelled and supported)
Post Driver
Roller (except Asphalt), Chip Seal
Self Propelled Automatically Applied Concrete Curing Machine (on streets, highways, airports and canals)
Self Propelled Compactor (without dozer)
Signalman
Slip-Form Pumps (lifting device for concrete forms)
Super Sucker Vacuum Truck
Tie Spacer
Trenching Machine (maximum digging capacity up) to and including 5 ft depth
Truck-Mounted Rotating Telescopic Boom Type Lifting Device, Manitex or similar (Boom Truck) - Under 15 tons
Truck Type Loader

GROUP 8
Bit Sharpener
Boiler Tender
Box Operator
Brakeman
Combination Mixer and Compressor (shotcrete/gunite)
Compressor Operator
Deckhand
Fireman
Generators
Gunite/Shotcrete Equipment Operator
Heavy Duty Repairman Helper
Hydraulic Monitor
Ken Seal Machine (or similar)
Mast Type Forklift
Mixermobile
Assistant to Engineer
Pump Operator
Refrigerator Plant
Reservoir-Debris Tug (Self-Propelled Floating)
Ross Carrier (Construction site)
Rotomist Operator
Self Propelled Tape Machine
Shuttlecar
Self Propelled Power Sweeper Operator (Includes Vacuum Sweeper)
Slusher Operator
Surface Heater
Switchman
Tar Pot Fireman
Tugger Hoist, Single Drum
Vacuum Cooling Plant
Welding Machine (powered other than by electricity)

DETERMINATION: NC-23-63-1-2018-1

GROUP 8-A
Articulated Dump Truck Operator
Elevator Operator
Mini Excavator under 25 H.P. (Backhoe-Trencher)
Skidsteer Loader, Bobcat 743 series or
Smaller and similar (without attachments)

ALL CRANES AND ATTACHMENTS:

GROUP 1
Cranes over 350 tons
Derrick over 350 tons
Self Profelled Boom Type Lifting Device over 350 tons

GROUP 1-A
Clamshells and Draglines over 7 cu yds
Cranes over 100 tons
Derrick, over 100 tons
Derrick Barge Pedestal mounted over 100 tons
Self Propelled Boom Type Lifting Device Over 100 tons

GROUP 2-A
Clamshells and Draglines over 1 cu yds up to and including 7 cu yds
Cranes over 45 tons up to and including 100 tons
Derrick Barge 100 tons and under
Mobile Self-Erecting Tower Crane (Potain) over 3 stories
Self Propelled Boom Type Lifting Device over 45 tons
Tower Cranes

GROUP 3-A
Clamshells and Draglines up to and including 1 cu yd
Cranes 45 tons and under
Mobile Self-Erecting Tower Crane (Potain), 3 stories and under
Self Propelled Boom Type Lifting Device 45 tons and under

GROUP 4-A
Boom Truck or dual-purpose A-Frame Truck, Non-Rotating over 15 tons.
Truck Mounted Rotating Telescopic Boom Type Lifting Device, Manitex or similar (Boom Truck -over 15 tons)
Truck-Mounted Rotating Telescopic Boom Type Lifting Device, Munitex or Similar (Boom Truck), under 15 tons

DESCRIPTION FOR AREAS 1 AND 2:

Area 1 is all of Northern California within the following Township, State and/or county Boundaries:

Commencing in the Pacific Ocean on the extension of the Southerly line of Township 19S, of the Mount Diablo Base and Meridian,
Thence Easterly along the Southerly line of Township 19S, to the Northwest corner of Township 20S, Range 6E,
Thence Southerly to the Southwest corner of Township 20S, Range 6E,
Thence Easterly to the Northwest corner of Township 21S, Range 7E Thence
Southerly to the Southwest corner of Township 21S, Range 7E
Thence Easterly to the Northwest corner of Township 22S, Range 9E,
Thence Southerly to the Southwest corner of Township 22S, Range 9E,
Thence Easterly to the Northwest corner of Township 23S, Range 10E,
Thence Southerly to the Southwest corner of Township 24S, Range 10E,
Thence Easterly to the Southwest corner of Township 24S, Range 31E,
Thence Northerly to the Northeast corner of Township 20S, Range 31E
Thence Westerly to the Southeast corner of Township 19S, Range 29E,
Thence Northerly to the Northeast corner of Township 17S, Range 29E,
Thence Westerly to the Southeast corner of Township 16S, Range 28E,
Thence Northerly to the Northeast corner of Township 13S, Range 28E,
Thence Westerly to the Southeast corner Township 12S, Range 27E,
Thence Northerly to the Northeast corner of Township 12S, Range 27E,
Thence Westerly to the Southeast corner of Township 11S, Range 26E,
Thence Northerly to the Northeast corner of Township 11S, Range 26E,
Thence Westerly to the Southeast corner of Township 10S, Range 25E,
Thence Northerly to the Northeast corner of Township 9S, Range 25E,
Thence Westerly to the Southeast corner of Township 8S, Range 24E,
Thence Northerly to the Northeast corner of Township 8S, Range 24E,
Thence Westerly to the Southeast corner of Township 7S, Range 23E,
Thence Northerly to the Northeast corner of Township 6S, Range 23E,
Thence Westerly to the Southeast corner of Township 5S, Range 20E,
Thence Northerly to the Northeast corner of Township 5S, Range 20E,
Thence Westerly to the Southeast corner of Township 4S, Range 19E,
Thence Northerly to the Northeast corner of Township 1S, Range 19E,
Thence Westerly to the Southeast corner of Township 1N, Range 18E,
Thence Northerly to the Northeast corner of Township 3N, Range 18E,
Thence Westerly to the Southeast corner of Township 4N, Range 17E,
Thence Northerly to the Northeast corner of Township 4N, Range 17E,
Thence Westerly to the Southeast corner of Township 5N, Range 15E,
Thence Northerly to the Northeast corner of Township 5N, Range 15E,
Thence Westerly to the Southeast corner of Township 6N, Range 14E,
Thence Northerly to the Northeast corner of Township 10N, Range 14E,
Thence Easterly along the Southern line of Township 11N, to the California / Nevada State Border,
Thence Northerly along the California / Nevada State Border to the Northerly line of Township 17N,
Thence Westerly to the Southeast corner of Township 18N, Range 10E,
Thence Northerly to the Northeast corner of Township 20N, Range 10E,
Thence Westerly to the Southeast corner of Township 21N, Range 9E,
Thence Northerly to the Northeast corner of Township 21N, Range 9E,
Thence Westerly to the Southeast corner of Township 22N, Range 8E,
Thence Northerly to the Northeast corner of Township 22N, Range 8E,
Thence Westerly to the Northwest corner of Township 22N, Range 8E,
Thence Northerly to the Southwest corner of Township 27N, Range 8E,
Thence Easterly to the Southeast corner of Township 27N, Range 8E,
Thence Northerly to the Northeast corner of Township 28N, Range 8E,
Thence Westerly to the Southeast corner of Township 29N, Range 6E,
Thence Northerly to the Northeast corner of Township 32N, Range 6E,
Thence Westerly to the Northwest corner of Township 32 N, Range 6E,
Thence Northerly to the Northeast corner of Township 35N, Range 5E,
Thence Westerly to the Southeast corner of Township 36N, Range 3E,
Thence Northerly to the Northeast corner of township 36N, Range 3E,
Thence Westerly to the Southeast corner of Township 37N, Range 1W,
Thence Northerly to the Northeast corner of Township 38N, Range 1W,
Thence Westerly to the Southeast corner of Township 39N, Range 2W,
Thence Northerly to the Northeast corner of Township 40N, Range 2W,
Thence Westerly to the Southeast corner of Township 41N, Range 4W,
Thence Northerly to the Northeast corner of Township 42N, Range 4W,
Thence Westerly to the Southeast corner of Township 43N, Range 5W,
Thence Northerly to the California / Oregon State Border,
Thence Westerly along the California / Oregon State Border to the Westerly Boundary of Township Range 8W,
Thence Southerly to the Southwest corner of Township 43N, Range 8W,
Thence Easterly to the Southeast corner of Township 43N, Range 8W,
Thence Southerly to the Southwest corner of Township 42N, Range 7W,
Thence Easterly to the Southeast corner of Township 42N, Range 7W,
Thence Southerly to the Southwest corner of Township 41N, Range 6W,
Thence Easterly to the Northwest corner of Township 40N, Range 5W,
Thence Southerly to the Southwest corner of Township 38N, Range 5W,
Thence Westerly to the Northwest corner of Township 37N, Range 6W,
Thence Southerly to the Southwest corner of Township 35N, Range 6W,
Thence Westerly to the Northwest corner of Township 34N, Range 10W,
Thence Southerly to the Southwest corner of Township 31N, Range 10W,
Thence Easterly to the Northwest corner of Township 30N, Range 9W,
Thence Southerly to the Southwest corner of Township 30N, Range 9W,
Thence Easterly to the Northwest corner of Township 29N, Range 8W,
Thence Southerly to the Southwest corner of Township 23N, Range 8W,
Thence Easterly to the Northwest corner of Township 22N, Range 6W,
Thence Southerly to the Southwest corner of Township 16N, Range 6W,
Thence Westerly to the Southeast corner of Township 16N, Range 9W,
Thence Northerly to the Northeast corner of Township 16N, Range 9W,
Thence Westerly to the Southeast. corner of Township 17N, Range 12W,
Thence Northerly to the Northeast corner of Township 18N, Range 12W,
Thence Westerly to the Northwest corner of Township 18N, Range 15W,
Thence Southerly to the Southwest corner of Township 14N, Range 15W,
Thence Easterly to the Northwest corner of Township 13N, Range 14W,
Thence Southerly to the Southwest corner of Township 13N, Range 14W,
Thence Easterly to the Northwest corner of Township 12N, Range 13W,
Thence Southerly to the Southwest corner of Township 12N, Range 13W,
Thence Easterly to the Northwest corner of Township 11N, Range 12W,
Thence Southerly into the Pacific Ocean
and Commencing in the Pacific Ocean on the extension of the Humboldt Base Line,
Thence Easterly to the Northwest corner of Township 1S, Range 2E,
Thence Southerly to the Southwest corner of Township 2S, Range 2E,
Thence Easterly to the Northwest corner of Township 3S, Range 3E,
Thence Southerly to the Southwest corner of Township 5S, Range 3E,
Thence Easterly to the Southeast corner of Township 5S, Range 4E,
Thence Northerly to the Northeast corner of Township 4S, Range 4E,
Thence Westerly to the Southeast corner of Township 3S, Range 3E,
Thence Northerly to the Northeast corner of Township 5N, Range 3E,
Thence Easterly to the Southeast corner of Township 6N, Range 5E,
Thence Northerly to the Northeast corner of Township 7N, Range 5E,
Thence Westerly to the Southeast corner of Township 8N, Range 3E,
Thence Northerly to the Northeast corner of Township 9N, Range 3E,
Thence Westerly to the Southeast corner of Township 10N, Range 1E,
Thence Northerly to the Northeast corner of Township 13N, Range 1E,
Thence Westerly into the Pacific Ocean,
excluding that portion of Northern California contained within the following lines:
Commencing at the Southwest corner of Township 12N, Range 11E, of the Mount Diablo Base and Meridian,
Thence Easterly to the Southeast corner of Township 12N, Range 16E,
Thence Northerly to the Northeast corner of Township 12N, Range 16E,
Thence Westerly to the Southeast corner of Township 13N, Range 15E,
Thence Northerly to the Northeast corner of Township 13N, Range 15E,
Thence Westerly to the Southeast corner of Township 14N, Range 14E,
Thence Northerly to the Northeast corner of Township 16N, Range 14E,
Thence Westerly to the Northwest corner of Township 16N, Range 12E,
Thence Southerly to the Southwest corner of Township 16N, Range 12E,
Thence Westerly to the Northwest corner of Township 15N, Range 11E,
Thence Southerly to the point of beginning at the Southwest corner of Township 12N, Range 11E,

Area 2 shall be all areas not part of Area 1 described above.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: # OPERATING ENGINEER (HEAVY AND HIGHWAY WORK)
(SPECIAL SINGLE AND SECOND SHIFT)

DETERMINATION: NC-23-63-1-2018-1
ISSUE DATE: August 22, 2018
EXPIRATION DATE OF DETERMINATION: June 23, 2019** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

LOCALITY: All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

			Employer Payments					Straight-Time		Overtime Hourly Rate			
Classification (Journeyperson)	Basic Hourly Rate		Health and Welfare	Pension	Vacation and Holiday[e]	Training	Other Payments	Hours	Total Hourly Rate		Daily/ Saturday[d] 1 1/2X		Sunday and Holiday 2X	
Classification Group[a]	Area 1[b]	Area 2[c]							Area 1[b]	Area 2[c]	Area 1[b]	Area 2[c]	Area 1[b]	Area 2[c]
Group 1	$51.10	$53.10	$13.88	$10.78	$4.56	$1.02	$0.79	8	$82.13	$84.13	$107.68	$110.68	$133.23	$137.23
Group 2	$49.37	$51.37	$13.88	$10.78	$4.56	$1.02	$0.79	8	$80.40	$82.40	$105.09	$108.09	$129.77	$133.77
Group 3	$47.71	$49.71	$13.88	$10.78	$4.56	$1.02	$0.79	8	$78.74	$80.74	$102.60	$105.60	$126.45	$130.45
Group 4	$46.15	$48.15	$13.88	$10.78	$4.56	$1.02	$0.79	8	$77.18	$79.18	$100.26	$103.26	$123.33	$127.33
Group 5	$44.73	$46.73	$13.88	$10.78	$4.56	$1.02	$0.79	8	$75.76	$77.76	$98.13	$101.13	$120.49	$124.49
Group 6	$43.23	$45.23	$13.88	$10.78	$4.56	$1.02	$0.79	8	$74.26	$76.26	$95.88	$98.88	$117.49	$121.49
Group 7	$41.95	$43.95	$13.88	$10.78	$4.56	$1.02	$0.79	8	$72.98	$74.98	$93.96	$96.96	$114.93	$118.93
Group 8	$40.68	$42.68	$13.88	$10.78	$4.56	$1.02	$0.79	8	$71.71	$73.71	$92.05	$95.05	$112.39	$116.39
Group 8-A	$38.17	$40.17	$13.88	$10.78	$4.56	$1.02	$0.79	8	$69.20	$71.20	$88.29	$91.29	$107.37	$111.37
ALL CRANES AND ATTACHMENTS:														
Group 1	$52.83	$54.83	$13.88	$10.78	$4.56	$1.02	$0.79	8	$83.86	$85.86	$110.28	$113.28	$136.69	$140.69
Truck Crane Assistant to Engineer	$45.00	$47.00	$13.88	$10.78	$4.56	$1.02	$0.79	8	$76.03	$78.03	$98.53	$101.53	$121.03	$125.03
Assistant to Engineer	$42.41	$44.41	$13.88	$10.78	$4.56	$1.02	$0.79	8	$73.44	$75.44	$94.65	$97.65	$115.85	$119.85
Group 1-A	$52.08	$54.08	$13.88	$10.78	$4.56	$1.02	$0.79	8	$83.11	$85.11	$109.15	$112.15	$135.19	$139.19
Truck Crane Assistant to Engineer	$44.25	$46.25	$13.88	$10.78	$4.56	$1.02	$0.79	8	$75.28	$77.28	$97.41	$100.41	$119.53	$123.53
Assistant to Engineer	$41.66	$43.66	$13.88	$10.78	$4.56	$1.02	$0.79	8	$72.69	$74.69	$93.52	$96.52	$114.35	$118.35
Group 2-A	$50.09	$52.09	$13.88	$10.78	$4.56	$1.02	$0.79	8	$81.12	$83.12	$106.17	$109.17	$131.21	$135.21
Truck Crane Assistant to Engineer	$43.96	$45.96	$13.88	$10.78	$4.56	$1.02	$0.79	8	$74.99	$76.99	$96.97	$99.97	$118.95	$122.95
Assistant to Engineer	$41.43	$43.43	$13.88	$10.78	$4.56	$1.02	$0.79	8	$72.46	$74.46	$93.18	$96.18	$113.89	$117.89
Group 3-A	$48.13	$50.13	$13.88	$10.78	$4.56	$1.02	$0.79	8	$79.16	$81.16	$103.23	$106.23	$127.29	$131.29
Truck Crane Assistant to Engineer	$43.69	$45.69	$13.88	$10.78	$4.56	$1.02	$0.79	8	$74.72	$76.72	$96.57	$99.57	$118.41	$122.41
Hydraulic	$43.23	$45.23	$13.88	$10.78	$4.56	$1.02	$0.79	8	$74.26	$76.26	$95.88	$98.88	$117.49	$121.49
Assistant to Engineer	$41.12	$43.12	$13.88	$10.78	$4.56	$1.02	$0.79	8	$72.15	$74.15	$92.71	$95.71	$113.27	$117.27
Group 4-A	$44.73	$46.73	$13.88	$10.78	$4.56	$1.02	$0.79	8	$75.76	$77.76	$98.13	$101.13	$120.49	$124.49

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at http://www.dir.ca.gov/das/das.html.

[a] For classifications within each group, see pages 39B-40.

[b] **AREA 1** - Alameda, Butte, Contra Costa, Kings, Marin, Merced, Napa, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Solano, Stanislaus, Sutter, Yolo and Yuba counties; and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity counties.

[c] **AREA 2** - Modoc, and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity counties. (Portions of counties falling in each area detailed on page 41).

[d] Saturday in the same work week may be worked at straight-time if a job is shut down during the normal work week due to inclement weather.

[e] Includes an amount for supplemental dues.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #LABORER AND RELATED CLASSIFICATIONS

DETERMINATION: NC-23-102-1-2019-1
ISSUE DATE: February 22, 2019
EXPIRATION DATE OF DETERMINATION: June 30, 2019** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

LOCALITY: ALL LOCALITIES WITHIN ALAMEDA, ALPINE, AMADOR, BUTTE, CALAVERAS, COLUSA, CONTRA COSTA, DEL NORTE, EL DORADO, FRESNO, GLENN, HUMBOLDT, KINGS, LAKE, LASSEN, MADERA, MARIPOSA, MARIN, MENDOCINO, MERCED, MODOC, MONTEREY, NAPA, NEVADA, PLACER, PLUMAS, SACRAMENTO, SAN BENITO, SAN FRANCISCO, SAN JOAQUIN, SAN MATEO, SANTA CLARA, SANTA CRUZ, SHASTA, SIERRA, SISKIYOU, SOLANO, SONOMA, STANISLAUS, SUTTER, TEHAMA, TRINITY, TULARE, TUOLUMNE, YOLO, AND YUBA COUNTIES.

		Employer Payments					Straight-Time		Overtime Hourly Rate		
Classification[a] (Journeyperson)	Basic Hourly Rate[g]	Health and Welfare	Pension	Vacation and Holiday	Training	Other Payments	Hours[f]	Total Hourly Rate	Daily 1 1/2X	Saturday[b] 1 1/2X	Sunday/ Holiday 2X
AREA 1[c]											
Construction Specialist	31.49	8.25	12.20	2.75	0.45	0.30	8	55.44	71.19	71.19	86.93
Group 1; Group 1(B)[e]	30.79	8.25	12.20	2.75	0.45	0.30	8	54.74	70.14	70.14	85.53
Group 1 (A)	31.01	8.25	12.20	2.75	0.45	0.30	8	54.96	70.47	70.47	85.97
Group 1 (C)	30.84	8.25	12.20	2.75	0.45	0.30	8	54.79	70.21	70.21	85.63
Group 1 (E)	31.34	8.25	12.20	2.75	0.45	0.30	8	55.29	70.96	70.96	86.63
Group 1 (G)	30.99	8.25	12.20	2.75	0.45	0.30	8	54.94	70.44	70.44	85.93
Group 2	30.64	8.25	12.20	2.75	0.45	0.30	8	54.59	69.91	69.91	85.23
Group 3; Group 3(A)	30.54	8.25	12.20	2.75	0.45	0.30	8	54.49	69.76	69.76	85.03
Group 4; Group 6(B)	24.23	8.25	12.20	2.75	0.45	0.30	8	48.18	60.30[d]	60.30[d]	72.41[d]
Group 6	31.75	8.25	12.20	2.75	0.45	0.30	8	55.70	71.58	71.58	87.45
Group 6 (A)	31.25	8.25	12.20	2.75	0.45	0.30	8	55.20	70.83	70.83	86.45
Group 6 (C)	30.66	8.25	12.20	2.75	0.45	0.30	8	54.61	69.94	69.94	85.27
Group 6 (D)	31.37	8.25	12.20	2.75	0.45	0.30	8	55.32	71.01	71.01	86.69
Group 6 (E)	30.39	8.25	12.20	2.75	0.45	0.30	8	54.34	69.54	69.54	84.73
Group 7 – Stage 1 (1st 6 months)	21.38	8.25	12.20	2.75	0.45	0.30	8	45.33	56.02	56.02	66.71
Stage 2 (2nd 6 months)	24.43	8.25	12.20	2.75	0.45	0.30	8	48.38	60.60	60.60	72.81
Stage 3 (3rd 6 months)	27.49	8.25	12.20	2.75	0.45	0.30	8	51.44	65.18	65.18	78.92
AREA 2[c]											
Construction Specialist	30.49	8.25	12.20	2.75	0.45	0.30	8	54.44	69.69	69.69	84.93
Group 1; Group 1(B)[e]	29.79	8.25	12.20	2.75	0.45	0.30	8	53.74	68.64	68.64	83.53
Group 1 (A)	30.01	8.25	12.20	2.75	0.45	0.30	8	53.96	68.97	68.97	83.97
Group 1 (C)	29.84	8.25	12.20	2.75	0.45	0.30	8	53.79	68.71	68.71	83.63
Group 1 (E)	30.34	8.25	12.20	2.75	0.45	0.30	8	54.29	69.46	69.46	84.63
Group 2	29.64	8.25	12.20	2.75	0.45	0.30	8	53.59	68.41	68.41	83.23
Group 3; Group 3(A)	29.54	8.25	12.20	2.75	0.45	0.30	8	53.49	68.26	68.26	83.03
Group 4; Group 6(B)	23.23	8.25	12.20	2.75	0.45	0.30	8	47.18	58.80[d]	58.80[d]	70.41[d]
Group 6	30.75	8.25	12.20	2.75	0.45	0.30	8	54.70	70.08	70.08	85.45
Group 6 (A)	30.25	8.25	12.20	2.75	0.45	0.30	8	54.20	69.33	69.33	84.45
Group 6 (C)	29.66	8.25	12.20	2.75	0.45	0.30	8	53.61	68.44	68.44	83.27
Group 6 (D)	30.37	8.25	12.20	2.75	0.45	0.30	8	54.32	69.51	69.51	84.69
Group 6 (E)	29.39	8.25	12.20	2.75	0.45	0.30	8	53.34	68.04	68.04	82.73
Group 7 – Stage 1 (1st 6 months)	20.68	8.25	12.20	2.75	0.45	0.30	8	44.63	54.97	54.97	65.31
Stage 2 (2nd 6 months)	23.63	8.25	12.20	2.75	0.45	0.30	8	47.58	59.40	59.40	71.21
Stage 3 (3rd 6 months)	26.59	8.25	12.20	2.75	0.45	0.30	8	50.54	63.83	63.83	77.12

PLEASE GO TO PAGE 50 FOR CLASSIFICATIONS WITHIN EACH GROUP

# INDICATES AN APPRENTICEABLE CRAFT. THE CURRENT APPRENTICE WAGE RATES ARE AVAILABLE ON THE INTERNET AT HTTP://WWW.DIR.CA.GOV/OPRL/PWAPPWAGE/PWAPPWAGESTART.ASP. TO OBTAIN ANY APPRENTICE WAGE RATES AS OF JULY 1, 2008 AND PRIOR TO SEPTEMBER 27, 2012, PLEASE CONTACT THE DIVISION OF APPRENTICESHIP STANDARDS OR REFER TO THE DIVISION OF APPRENTICESHIP STANDARDS' WEBSITE AT HTTP://WWW.DIR.CA.GOV/DAS/DAS.HTML.

a GROUP 1(D) - MAINTENANCE OR REPAIR TRACKMEN AND ROAD BEDS AND ALL EMPLOYEES PERFORMING WORK COVERED BY THIS CLASSIFICATION SHALL RECEIVE $0.25 PER PER HOUR ABOVE THEIR REGULAR RATE FOR ALL WORK PERFORMED ON UNDERGROUND STRUCTURES NOT SPECIFICALLY COVERED HEREIN. THIS SHALL NOT APPLY TO WORK BELOW GROUND LEVEL IN OPEN CUT. THIS SHALL APPLY TO CUT AND COVER WORK OF SUBWAY CONSTRUCTION AFTER TEMPORARY COVER HAS BEEN PLACED.
GROUP 1(H) - ALL LABORERS WORKING OFF OR WITH OR FROM BOS'N CHAIRS, SWINGING SCAFFOLDS, BELTS RECEIVE $0.50 PER HOUR ABOVE THEIR APPLICABLE WAGE RATE. THIS SHALL NOT APPLY TO LABORERS ENTITLED TO RECEIVE THE WAGE RATE SET FORTH IN GROUP 1(A).

b SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORK WEEK DUE TO INCLEMENT WEATHER, MAJOR MECHANICAL BREAKDOWN OR LACK OF MATERIALS BEYOND THE CONTROL OF THE EMPLOYER.

c **AREA 1** - ALAMEDA, CONTRA COSTA, MARIN, SAN FRANCISCO, SAN MATEO, AND SANTA CLARA COUNTIES.
AREA 2 - ALPINE, AMADOR, BUTTE, CALAVERAS, COLUSA, DEL NORTE, EL DORADO, FRESNO, GLENN, HUMBOLDT, KINGS, LAKE, LASSEN, MADERA, MARIPOSA, MENDOCINO, MERCED, MODOC, MONTEREY, NAPA, NEVADA, PLACER, PLUMAS, SACRAMENTO, SAN BENITO, SAN JOAQUIN, SANTA CRUZ, SHASTA, SIERRA, SISKIYOU, SOLANO, SONOMA, STANISLAUS, SUTTER, TEHAMA, TRINITY, TULARE, TUOLUMNE, YOLO AND YUBA COUNTIES.

d SERVICE LANDSCAPE LABORER ON NEW CONSTRUCTION MAY WORK ANY FIVE (5) DAYS WITHIN A WEEK.

e GROUP 1(B) RECEIVES AN ADDITIONAL AMOUNT EACH DAY. SEE PAGE 50 FOR DETAILS.

f WHEN THREE SHIFTS ARE EMPLOYED FOR FIVE (5) OR MORE CONSECUTIVE DAYS, SEVEN AND ONE-HALF (7 ½) CONSECUTIVE HOURS (EXCLUSIVE OF MEAL PERIOD), SHALL CONSTITUTE A DAY OF WORK, FOR WHICH EIGHT (8) TIMES THE STRAIGHT TIME HOURLY RATE SHALL BE PAID AT THE NON-SHIFT WAGE RATE FOR THE SECOND SHIFT. THE THIRD SHIFT SHALL BE SEVEN (7) HOURS OF WORK FOR EIGHT (8) HOURS PAY AT THE NON-SHIFT WAGE RATE.

g ZONE PAY AT THREE DOLLARS ($3.00) PER HOUR, FACTORED AT THE APPLICABLE OVERTIME MULTIPLE, WILL BE ADDED TO THE BASE RATE FOR WORK PERFORMED OUTSIDE THE FREE ZONE DESCRIBED BY THE BOUNDARIES ALONG TOWNSHIP AND RANGE LINES. PLEASE SEE TRAVEL AND SUBSISTENCE PROVISION FOR MAP DESCRIPTION AND EXCEPTIONS.

RECOGNIZED HOLIDAYS: HOLIDAYS UPON WHICH THE GENERAL PREVAILING HOURLY WAGE RATE FOR HOLIDAY WORK SHALL BE PAID, SHALL BE ALL HOLIDAYS IN THE COLLECTIVE BARGAINING AGREEMENT, APPLICABLE TO THE PARTICULAR CRAFT, CLASSIFICATION, OR TYPE OF WORKER EMPLOYED ON THE PROJECT, WHICH IS ON FILE WITH THE DIRECTOR OF INDUSTRIAL RELATIONS. IF THE PREVAILING RATE IS NOT BASED ON A COLLECTIVELY BARGAINED RATE, THE HOLIDAYS UPON WHICH THE PREVAILING RATE SHALL BE PAID SHALL BE AS PROVIDED IN SECTION 6700 OF THE GOVERNMENT CODE. YOU MAY OBTAIN THE HOLIDAY PROVISIONS FOR THE CURRENT DETERMINATIONS ON THE INTERNET AT HTTP://WWW.DIR.CA.GOV/OPRL/DPREWAGEDETERMINATION.HTM. HOLIDAY PROVISIONS FOR CURRENT OR SUPERSEDED DETERMINATIONS MAY BE OBTAINED BY CONTACTING THE OFFICE OF THE DIRECTOR – RESEARCH UNIT AT (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: IN ACCORDANCE WITH LABOR CODE SECTIONS 1773.1 AND 1773.9, CONTRACTORS SHALL MAKE TRAVEL AND/OR SUBSISTENCE PAYMENTS TO EACH WORKER TO EXECUTE THE WORK. YOU MAY OBTAIN THE TRAVEL AND/OR SUBSISTENCE PROVISIONS FOR THE CURRENT DETERMINATIONS ON THE INTERNET AT HTTP://WWW.DIR.CA.GOV/OPRL/DPREWAGEDETERMINATION.HTM. TRAVEL AND/OR SUBSISTENCE REQUIREMENTS FOR CURRENT OR SUPERSEDED DETERMINATIONS MAY BE OBTAINED BY CONTACTING THE OFFICE OF THE DIRECTOR – RESEARCH UNIT AT (415) 703-4774.

DETERMINATION: NC-23-102-1-2019-1 and NC-23-102-1-2019-1A

CONSTRUCTION SPECIALIST
ASPHALT IRONERS AND RAKERS
CHAINSAW
CONCRETE DIAMOND CHAINSAW
LASER BEAM IN CONNECTION WITH LABORER'S WORK
MASONRY AND PLASTER TENDER
MECHANICAL PIPE LAYER-ALL TYPES REGARDLESS OF TYPE OR METHOD OF POWER
CAST IN PLACE MANHOLE FORM SETTERS
PRESSURE PIPELAYERS
DAVIS TRENCHER – 300 OR SIMILAR TYPE (AND ALL SMALL TRENCHERS)
STATE LICENSED BLASTERS AS DESIGNATED
DIAMOND DRILLERS
DIAMOND CORE DRILLER
MULTIPLE UNIT DRILLS
HIGH SCALERS (INCLUDING DRILLING OF SAME)
HYDRAULIC DRILLS
CERTIFIED WELDER

GROUP 1 (FOR CONTRA COSTA COUNTY ONLY, USE GROUP 1 (G) FOR SOME OF THE FOLLOWING CLASSIFICATIONS)
ASPHALT SPREADER BOXES (ALL TYPES)
BARKO, WACKER AND SIMILAR TYPE TAMPERS
BUGGYMOBILE
CAULKERS, BANDERS, PIPEWRAPPERS, CONDUIT LAYERS, PLASTIC PIPE LAYERS
CERTIFIED ASBESTOS AND MOLD REMOVAL WORKER
CERTIFIED HAZARDOUS WASTE WORKER (INCLUDING LEAD ABATEMENT)
COMPACTORS OF ALL TYPES
CONCRETE AND MAGNESITE MIXER AND ½ YARD
CONCRETE PAN WORK
CONCRETE SANDERS, CONCRETE SAW
CRIBBERS AND/OR SHORING
CUT GRANITE CURB SETTER
DRI PAK-IT MACHINE
FALLER, LOGLOADER AND BUCKER
FORM RAISERS, SLIP FORMS
GREEN CUTTERS
HEADERBOARD MEN, HUBSETTERS, ALIGNERS BY ANY METHOD
HIGH PRESSURE BLOW PIPE (1-1/2" OR OVER, 100 LBS. PRESSURE/OVER)
HYDRO SEEDER AND SIMILAR TYPE
JACKHAMMER OPERATORS
JACKING OF PIPE OVER 12 INCHES
JACKSON AND SIMILAR TYPE COMPACTORS
KETTLEMEN, POTMEN, AND MEN APPLYING ASPHALT, LAY-KOLD, CREOSOTE, LIME, CAUSTIC AND SIMILAR TYPE MATERIALS (APPLYING MEANS APPLYING DIPPING, OR HANDLING OF SUCH MATERIALS)
LAGGING, SHEETING, WHALING, BRACING, TRENCH-JACKING, LAGGING HAMMER
MAGNESITE, EPOXY RESIN, FIBER GLASS AND MASTIC WORKERS (WET/DRY)
NO JOINT PIPE AND STRIPPING OF SAME, INCLUDING REPAIR OF VOIDS
PAVEMENT BREAKERS AND SPADERS, INCLUDING TOOL GRINDER
PERMA CURBS
PRECAST-MANHOLE SETTERS
PIPELAYERS (INCLUDING GRADE CHECKING IN CONNECTION WITH PIPELAYING)
PRESSURE PIPE TESTER
POST HOLE DIGGERS-AIR, GAS, AND ELECTRIC POWER BROOM SWEEPERS
POWER TAMPERS OF ALL TYPES, EXCEPT AS SHOWN IN GROUP 2
RAM SET GUN AND STUD GUN
RIPRAP-STONEPAVER AND ROCK-SLINGER, INCLUDING PLACING OF SACKED CONCRETE AND/OR SAND (WET OR DRY) AND GABIONS AND SIMILAR TYPE
ROTARY SCARIFIER OR MULTIPLE HEAD CONCRETE CHIPPING SCARIFIER
ROTO AND DITCH WITCH
ROTOTILLER
SAND BLASTERS, POTMEN, GUNMEN, AND NOZZLEMEN
SIGNALING AND RIGGING
SKILLED WRECKER (REMOVING AND SALVAGING OF SASH, WINDOWS, DOORS, PLUMBING AND ELECTRIC FIXTURES)
TANK CLEANERS
TREE CLIMBERS
TRENCHLESS TECHNOLOGY LABORER- PIPE INSTALLATION, BURSTING, RELINING, OR SIMILAR
TRENCHLESS LABORER'S WORK, CAMERA CONTROLLER
TURBO BLASTER
VIBRA-SCREED-BULL FLOAT IN CONNECTION WITH LABORER'S WORK
VIBRATORS

GROUP 1 (A)
ALL WORK OF LOADING, PLACING AND BLASTING OF ALL POWDER & EXPLOSIVES OF WHATEVER TYPE, REGARDLESS OF METHOD USED FOR LOADING AND PLACING
JOY DRILL MODEL TWM-2A
GARDENER-DENVER MODEL DH 143 AND SIMILAR TYPE DRILLS
TRACK DRILLERS
JACK LEG DRILLERS
WAGON DRILLERS
MECHANICAL DRILLERS-ALL TYPES REGARDLESS OF TYPE OR METHOD OF POWER
BLASTERS AND POWDERMAN
TREE TOPPER
BIT GRINDER

GROUP 1 (B) -- SEE GROUP 1 RATES
SEWER CLEANERS (ANY WORKMEN WHO HANDLE OR COME IN CONTACT WITH RAW SEWAGE IN SMALL DIAMETER SEWERS) SHALL RECEIVE $4.00 PER DAY ABOVE GROUP 1 WAGE RATES. THOSE WHO WORK INSIDE RECENTLY ACTIVE, LARGE DIAMETER SEWERS, AND ALL RECENTLY ACTIVE SEWER MANHOLES SHALL RECEIVE $5.00 PER DAY ABOVE GROUP 1 WAGE RATES.

GROUP 1 (C)
BURNING AND WELDING IN CONNECTION WITH LABORER'S WORK
SYNTHETIC THERMOPLASTICS AND SIMILAR TYPE WELDING

GROUP 1 (D)
SEE FOOTNOTE A ON PAGE 49

GROUP 1 (E)
WORK ON AND/OR IN BELL HOLE FOOTINGS AND SHAFTS THEREOF, AND WORK ON AND IN DEEP FOOTINGS (DEEP FOOTINGS IS A HOLE 15 FEET OR MORE IN DEPTH)
SHAFT IS AN EXCAVATION OVER FIFTEEN (15) FEET DEEP OF ANY TYPE

GROUP 1 (G) APPLIES ONLY TO WORK IN CONTRA COSTA COUNTY
PIPELAYERS (INCLUDING GRADE CHECKING IN CONNECTION WITH PIPELAYING), CAULKERS, BANDERS, PIPEWRAPPERS, CONDUIT LAYERS, PLASTIC PIPE LAYER, PRESSURE PIPE TESTER, NO JOINT PIPE AND STRIPPING OF SAME, INCLUDING REPAIR OF VOIDS, PRECAST MANHOLE SETTERS, CAST IN PLACE MANHOLE FORM SETTERS IN CONTRA COSTA COUNTY ONLY

GROUP 1(H)
SEE FOOTNOTE A ON PAGE 49

GROUP 2
ASPHALT SHOVELERS
CEMENT DUMPERS AND HANDLING DRY CEMENT OR GYPSUM
CHOKE-SETTER AND RIGGER (CLEARING WORK)
CONCRETE BUCKET DUMPER AND CHUTEMAN
CONCRETE CHIPPING AND GRINDING
CONCRETE LABORERS (WET OR DRY)
DRILLERS HELPER, CHUCK TENDER, NIPPER (ONE CHUCKTENDER ON SINGLE MACHINE OPERATION WITH MINIMUM OF ONE CHUCKTENDER FOR EACH TWO MACHINES ON MULTIPLE MACHINE OPERATION. JACKHAMMERS IN NO WAY INVOLVED IN THIS ITEM.)
GUINEA CHASER (STAKEMAN), GROUT CREW
HIGH PRESSURE NOZZLEMAN, ADDUCTORS
HYDRAULIC MONITOR (OVER 100 LBS. PRESSURE)
LOADING AND UNLOADING, CARRYING AND HANDLING OF ALL RODS AND MATERIALS FOR USE IN REINFORCING CONCRETE CONSTRUCTION
PITTSBURGH CHIPPER, AND SIMILAR TYPE BRUSH SHREDDERS
SEMI-SKILLED WRECKER (SALVAGING OF OTHER BUILDING MATERIALS) – SEE ALSO SKILLED WRECKER (GROUP 1)
SLOPER
SINGLEFOOT, HAND HELD, PNEUMATIC TAMPER
ALL PNEUMATIC, AIR, GAS AND ELECTRIC TOOLS NOT LISTED IN GROUPS 1 THROUGH 1 (F)
JACKING OF PIPE-UNDER 12 INCHES

GROUP 3
CONSTRUCTION LABORERS INCLUDING BRIDGE LABORERS, GENERAL LABORERS AND CLEANUP LABORERS
DEMOLITION WORKER
DUMPMAN, LOAD SPOTTER
FLAGPERSON/PEDESTRIAN MONITOR
FIRE WATCHER
FENCE ERECTORS, INCLUDING TEMPORARY FENCING
GUARDRAIL ERECTORS
GARDENER, HORTICULTURAL AND LANDSCAPE LABORERS (SEE GROUP 4, FOR LANDSCAPE MAINTENANCE ON NEW CONSTRUCTION DURING PLANT ESTABLISHMENT PERIOD)
JETTING
LIMBERS, BRUSH LOADERS, AND PILERS
PAVEMENT MARKERS (BUTTON SETTERS)
PAVERS/INTERLOCKING PAVERS (ALL TYPES) AND INTERLOCKING PAVER MACHINES MAINTENANCE, REPAIR TRACKMEN AND ROAD BEDS
STREETCAR AND RAILROAD CONSTRUCTION TRACK LABORERS
TEMPORARY AIR AND WATER LINES, VICTAULIC OR SIMILAR
TOOL ROOM ATTENDANT (JOBSITE ONLY)
WHEELBARROW, INCLUDING POWER DRIVEN

GROUP 3 (A) -- SEE GROUP 3 RATES
COMPOSITE CREW PERSON (OPERATION OF VEHICLES, WHEN IN CONJUNCTION WITH LABORER'S DUTIES)

GROUP 4
ALL FINAL CLEANUP OF DEBRIS, GROUNDS AND BUILDINGS NEAR THE COMPLETION OF THE PROJECT INCLUDING BUT NOT LIMITED TO STREET CLEANERS (NOT APPLICABLE TO ENGINEERING OR HEAVY HIGHWAY PROJECTS)
CLEANING AND WASHING WINDOWS (NEW CONSTRUCTION ONLY), SERVICE LANDSCAPE LABORERS (SUCH AS GARDENER, HORTICULTURE, MOWING, TRIMMING, REPLANTING, WATERING DURING PLANT ESTABLISHMENT PERIOD) ON NEW CONSTRUCTION
BRICK CLEANERS (JOB SITE ONLY)
MATERIAL CLEANERS (JOB SITE ONLY)

NOTE: AN ADDITIONAL DETERMINATION FOR LANDSCAPE MAINTENANCE WORK AFTER THE PLANT ESTABLISHMENT PERIOD OR WARRANTY PERIOD IS PUBLISHED ON PAGE 57 OF THESE GENERAL DETERMINATIONS.

GROUP 6
STRUCTURAL NOZZLEMAN

GROUP 6 (A)
NOZZLEMAN (INCLUDING GUNMAN, POTMAN)
RODMAN
GROUNDMAN

GROUP 6 (B) -- SEE GROUP 4 RATES
GUNITE TRAINEE (ONE GUNITE LABORER SHALL BE ALLOWED FOR EACH THREE (3) JOURNEYMAN (GROUP 6, 6A, 6C, OR GENERAL LABORER) ON A CREW. IN THE ABSENCE OF THE JOURNEYMAN, THE GUNITE TRAINEE RECEIVES THE JOURNEYMAN SCALE.).
NOTE: THIS RATIO APPLIES ONLY TO WORK ON THE SAME JOB SITE.

GROUP 6 (C)
REBOUNDMAN

GROUP 6 (D)
ALIGNER OF WIRE WINDING MACHINE IN CONNECTION WITH GUNITING OR SHOT CRETE

GROUP 6 (E)
ALIGNER HELPER OF WIRE WINDING MACHINE IN CONNECTION WITH GUNITING OR SHOT CRETE

GROUP 7
ENTRY LEVEL LANDSCAPE LABORER (RATIO FOR ENTRY LEVEL IS ONE IN THREE. AT LEAST ONE SECOND PERIOD ENTRY LEVEL AND AT LEAST ONE THIRD PERIOD ENTRY LEVEL MUST BE EMPLOYED BEFORE EMPLOYING ANOTHER FIRST PERIOD TRAINEE).
NOTE: THIS RATIO APPLIES ONLY TO WORK ON THE SAME JOB SITE.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #LABORER AND RELATED CLASSIFICATIONS (Special Single and Second Shift)

DETERMINATION: NC-23-102-1-2019-1A
ISSUE DATE: February 22, 2019
EXPIRATION DATE OF DETERMINATION: June 30, 2019** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director-Research Unit for specific rates at (415) 703-4774.
LOCALITY: ALL LOCALITIES WITHIN ALAMEDA, ALPINE, AMADOR, BUTTE, CALAVERAS, COLUSA, CONTRA COSTA, DEL NORTE, EL DORADO, FRESNO, GLENN, HUMBOLDT, KINGS, LAKE, LASSEN, MADERA, MARIPOSA, MARIN, MENDOCINO, MERCED, MODOC, MONTEREY, NAPA, NEVADA, PLACER, PLUMAS, SACRAMENTO, SAN BENITO, SAN FRANCISCO, SAN JOAQUIN, SAN MATEO, SANTA CLARA, SANTA CRUZ, SHASTA, SIERRA, SISKIYOU, SOLANO, SONOMA, STANISLAUS, SUTTER, TEHAMA, TRINITY, TULARE, TUOLUMNE, YOLO, AND YUBA COUNTIES.

		Employer Payments					Straight-Time		Overtime Hourly Rate		
Classification[a] (Journeyperson)	Basic Hourly Rate[f]	Health and Welfare	Pension	Vacation and Holiday	Training	Other Payments	Hours	Total Hourly Rate	Daily 1 1/2X	Saturday[b] 1 1/2X	Sunday/ Holiday 2X
AREA 1[c]											
Construction Specialist	34.49	8.25	12.20	2.75	0.45	0.30	8	58.44	75.69	75.69	92.93
Group 1; Group 1(B)[e]	33.79	8.25	12.20	2.75	0.45	0.30	8	57.74	74.64	74.64	91.53
Group 1 (A)	34.01	8.25	12.20	2.75	0.45	0.30	8	57.96	74.97	74.97	91.97
Group 1 (C)	33.84	8.25	12.20	2.75	0.45	0.30	8	57.79	74.71	74.71	91.63
Group 1 (E)	34.34	8.25	12.20	2.75	0.45	0.30	8	58.29	75.46	75.46	92.63
Group 1 (G)	33.99	8.25	12.20	2.75	0.45	0.30	8	57.94	74.94	74.94	91.93
Group 2	33.64	8.25	12.20	2.75	0.45	0.30	8	57.59	74.41	74.41	91.23
Group 3; Group 3(A)	33.54	8.25	12.20	2.75	0.45	0.30	8	57.49	74.26	74.26	91.03
Group 4; Group 6(B)	27.23	8.25	12.20	2.75	0.45	0.30	8	51.18	64.80[d]	64.80[d]	78.41[d]
Group 6	34.75	8.25	12.20	2.75	0.45	0.30	8	58.70	76.08	76.08	93.45
Group 6 (A)	34.25	8.25	12.20	2.75	0.45	0.30	8	58.20	75.33	75.33	92.45
Group 6 (C)	33.66	8.25	12.20	2.75	0.45	0.30	8	57.61	74.44	74.44	91.27
Group 6 (D)	34.37	8.25	12.20	2.75	0.45	0.30	8	58.32	75.51	75.51	92.69
Group 6 (E)	33.39	8.25	12.20	2.75	0.45	0.30	8	57.34	74.04	74.04	90.73
Group 7 – Stage 1 (1st 6 months)	24.38	8.25	12.20	2.75	0.45	0.30	8	48.33	60.52	60.52	72.71
Stage 2 (2nd 6 months)	27.43	8.25	12.20	2.75	0.45	0.30	8	51.38	65.10	65.10	78.81
Stage 3 (3rd 6 months)	30.49	8.25	12.20	2.75	0.45	0.30	8	54.44	69.68	69.68	84.92
AREA 2[c]											
Construction Specialist	33.49	8.25	12.20	2.75	0.45	0.30	8	57.44	74.19	74.19	90.93
Group 1; Group 1(B)[e]	32.79	8.25	12.20	2.75	0.45	0.30	8	56.74	73.14	73.14	89.53
Group 1 (A)	33.01	8.25	12.20	2.75	0.45	0.30	8	56.96	73.47	73.47	89.97
Group 1 (C)	32.84	8.25	12.20	2.75	0.45	0.30	8	56.79	73.21	73.21	89.63
Group 1 (E)	33.34	8.25	12.20	2.75	0.45	0.30	8	57.29	73.96	73.96	90.63
Group 2	32.64	8.25	12.20	2.75	0.45	0.30	8	56.59	72.91	72.91	89.23
Group 3; Group 3(A)	32.54	8.25	12.20	2.75	0.45	0.30	8	56.49	72.76	72.76	89.03
Group 4; Group 6(B)	26.23	8.25	12.20	2.75	0.45	0.30	8	50.18	63.30[d]	63.30[d]	76.41[d]
Group 6	33.75	8.25	12.20	2.75	0.45	0.30	8	57.70	74.58	74.58	91.45
Group 6 (A)	33.25	8.25	12.20	2.75	0.45	0.30	8	57.20	73.83	73.83	90.45
Group 6 (C)	32.66	8.25	12.20	2.75	0.45	0.30	8	56.61	72.94	72.94	89.27
Group 6 (D)	33.37	8.25	12.20	2.75	0.45	0.30	8	57.32	74.01	74.01	90.69
Group 6 (E)	32.39	8.25	12.20	2.75	0.45	0.30	8	56.34	72.54	72.54	88.73
Group 7 – Stage 1 (1st 6 months)	23.68	8.25	12.20	2.75	0.45	0.30	8	47.63	59.47	59.47	71.31
Stage 2 (2nd 6 months)	26.63	8.25	12.20	2.75	0.45	0.30	8	50.58	63.90	63.90	77.21
Stage 3 (3rd 6 months)	29.59	8.25	12.20	2.75	0.45	0.30	8	53.54	68.33	68.33	83.12

PLEASE GO TO PAGE 50 FOR CLASSIFICATIONS WITHIN EACH GROUP

# INDICATES AN APPRENTICEABLE CRAFT. THE CURRENT APPRENTICE WAGE RATES ARE AVAILABLE ON THE INTERNET AT HTTP://WWW.DIR.CA.GOV/OPRL/PWAPPWAGE/PWAPPWAGESTART.ASP. TO OBTAIN ANY APPRENTICE WAGE RATES AS OF JULY 1, 2008 AND PRIOR TO SEPTEMBER 27, 2012, PLEASE CONTACT THE DIVISION OF APPRENTICESHIP STANDARDS OR REFER TO THE DIVISION OF APPRENTICESHIP STANDARDS' WEBSITE AT HTTP://WWW.DIR.CA.GOV/DAS/DAS.HTML.

a GROUP 1(D) - MAINTENANCE OR REPAIR TRACKMEN AND ROAD BEDS AND ALL EMPLOYEES PERFORMING WORK COVERED BY THIS CLASSIFICATION SHALL RECEIVE $0.25 PER PER HOUR ABOVE THEIR REGULAR RATE FOR ALL WORK PERFORMED ON UNDERGROUND STRUCTURES NOT SPECIFICALLY COVERED HEREIN. THIS SHALL NOT APPLY TO WORK BELOW GROUND LEVEL IN OPEN CUT. THIS SHALL APPLY TO CUT AND COVER WORK OF SUBWAY CONSTRUCTION AFTER TEMPORARY COVER HAS BEEN PLACED.
GROUP 1(H) - ALL LABORERS WORKING OFF OR WITH OR FROM BOS'N CHAIRS, SWINGING SCAFFOLDS, BELTS RECEIVE $0.50 PER HOUR ABOVE THEIR APPLICABLE WAGE RATE. THIS SHALL NOT APPLY TO LABORERS ENTITLED TO RECEIVE THE WAGE RATE SET FORTH IN GROUP 1(A).

b SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORK WEEK DUE TO INCLEMENT WEATHER, MAJOR MECHANICAL BREAKDOWN OR LACK OF MATERIALS BEYOND THE CONTROL OF THE EMPLOYER.

c **AREA 1** - ALAMEDA, CONTRA COSTA, MARIN, SAN FRANCISCO, SAN MATEO, AND SANTA CLARA COUNTIES.
AREA 2 - ALPINE, AMADOR, BUTTE, CALAVERAS, COLUSA, DEL NORTE, EL DORADO, FRESNO, GLENN, HUMBOLDT, KINGS, LAKE, LASSEN, MADERA, MARIPOSA, MENDOCINO, MERCED, MODOC, MONTEREY, NAPA, NEVADA, PLACER, PLUMAS, SACRAMENTO, SAN BENITO, SAN JOAQUIN, SANTA CRUZ, SHASTA, SIERRA, SISKIYOU, SOLANO, SONOMA, STANISLAUS, SUTTER, TEHAMA, TRINITY, TULARE, TUOLUMNE, YOLO AND YUBA COUNTIES.

d SERVICE LANDSCAPE LABORER ON NEW CONSTRUCTION MAY WORK ANY FIVE (5) DAYS WITHIN A WEEK.

e GROUP 1(B) RECEIVES AN ADDITIONAL AMOUNT EACH DAY. SEE PAGE 50 FOR DETAILS.

f ZONE PAY AT THREE DOLLARS ($3.00) PER HOUR, FACTORED AT THE APPLICABLE OVERTIME MULTIPLE, WILL BE ADDED TO THE BASE RATE FOR WORK PERFORMED OUTSIDE THE FREE ZONE DESCRIBED BY THE BOUNDARIES ALONG TOWNSHIP AND RANGE LINES. PLEASE SEE TRAVEL AND SUBSISTENCE PROVISIONS FOR MAP DESCRIPTION AND EXCEPTIONS.

RECOGNIZED HOLIDAYS: HOLIDAYS UPON WHICH THE GENERAL PREVAILING HOURLY WAGE RATE FOR HOLIDAY WORK SHALL BE PAID, SHALL BE ALL HOLIDAYS IN THE COLLECTIVE BARGAINING AGREEMENT, APPLICABLE TO THE PARTICULAR CRAFT, CLASSIFICATION, OR TYPE OF WORKER EMPLOYED ON THE PROJECT, WHICH IS ON FILE WITH THE DIRECTOR OF INDUSTRIAL RELATIONS. IF THE PREVAILING RATE IS NOT BASED ON A COLLECTIVELY BARGAINED RATE, THE HOLIDAYS UPON WHICH THE PREVAILING RATE SHALL BE PAID SHALL BE AS PROVIDED IN SECTION 6700 OF THE GOVERNMENT CODE. YOU MAY OBTAIN THE HOLIDAY PROVISIONS FOR THE CURRENT DETERMINATIONS ON THE INTERNET AT HTTP://WWW.DIR.CA.GOV/OPRL/DPREWAGEDETERMINATION.HTM. HOLIDAY PROVISIONS FOR CURRENT OR SUPERSEDED DETERMINATIONS MAY BE OBTAINED BY CONTACTING THE OFFICE OF THE DIRECTOR – RESEARCH UNIT AT (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: IN ACCORDANCE WITH LABOR CODE SECTIONS 1773.1 AND 1773.9, CONTRACTORS SHALL MAKE TRAVEL AND/OR SUBSISTENCE PAYMENTS TO EACH WORKER TO EXECUTE THE WORK. YOU MAY OBTAIN THE TRAVEL AND/OR SUBSISTENCE PROVISIONS FOR THE CURRENT DETERMINATIONS ON THE INTERNET AT HTTP://WWW.DIR.CA.GOV/OPRL/DPREWAGEDETERMINATION.HTM. TRAVEL AND/OR SUBSISTENCE REQUIREMENTS FOR CURRENT OR SUPERSEDED DETERMINATIONS MAY BE OBTAINED BY CONTACTING THE OFFICE OF THE DIRECTOR – RESEARCH UNIT AT (415) 703-4774.

Appendix

Buena Vista - Levee Repairs RFP 2019

State Labor Law References

The federal and state labor law requirements applicable to the contract are composed of but not limited to the following items:

(1) The contractor's duty to pay prevailing wages under Labor Code Section 1770 et seq., should the project exceed the exemption amounts;

(2) The contractor's duty to employ registered apprentices on the public works project under Labor Code Section 1777.5;

(3) The penalties for failure to pay prevailing wages (for non-exempt projects) and employ apprentices including forfeitures and debarment under Labor Code Sections 1775 and 1777.7;

(4) The requirement to keep and submit copies upon request of certified payroll records under Labor Code Section 1776, and penalties for failure to do so under Labor Code Section 1776(g);

(5) The prohibition against employment discrimination under Labor Code Section 1777.6; the Government Code, and Title VII of the Civil Rights Act of 1964;

(6) The prohibition against accepting or extracting kickback from employee wages under Labor Code Section 1778;

(7) The prohibition against accepting fees for registering any person for public work under Labor Code Section 1779; or for filling work orders on public works under Labor Code Section 1780;

(8) The requirement to list all subcontractors under Public Contracts Code Section 4104;

(9) The requirement to be properly licensed and to require all subcontractors to be properly licensed and the penalty for employing workers while unlicensed under Labor Code Section 1021 and under the California Contractors License Law, found at Business and Professions Code Section 7000 et seq;

(10) The prohibition against unfair competition under Business and Professions Code Sections 17200-17208;

(11) The requirement that the contractor be properly insured for Workers Compensation under Labor Code Section 1861;

(12) The requirement that the contractor abide by the Occupational, Safety and Health laws and regulations that apply to the particular construction project;

(13) The federal prohibition against hiring undocumented workers, and the requirement to secure proof of eligibility/citizenship from all workers.

(14) The requirement to provide itemized wage statements to employees under Labor Code Section 226.

APPENDIX

BYRD ANTI-LOBBYING AMENDMENT COMPLIANCE AND CERTIFICATION

Buena Vista Levee Repairs RFP - 2019

For all orders above the limit prescribed in 2 CFR 215, Appendix A, Section 7 (currently $100,000), the Offeror must complete and sign the following:

The following certification and disclosure regarding payments to influence certain federal transactions are made per the provisions contained in OMB Circular A-110 and 31 U.S.C. 1352, the "Byrd Anti-Lobbying Amendment."

The offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that:

No Federal appropriated funds have been paid or will be 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 on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement;

If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be 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 on his or her behalf in connection with this solicitation, the offeror shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of $100,000 shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance is placed when this transaction was made or entered into. Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person making expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision, shall be subject to a civil penalty of not less than $10,000, and not more than $100,000, for each such failure.

SIGNATURE:_____

COMPANY NAME:_____

DATE: _____

END OF DOCUMENT

APPENDIX - Document 00510 Agreement
Standard Form of Agreement between AGENT and Contractor
Buena Vista Levee Repairs RFP 2019

THIS AGREEMENT, made by and between:

AGENT: Housing Authority of the County of Santa Cruz
2160 41st Ave.
Capitola, CA 95010

Contractor: _____

PROJECT:
Buena Vista Levee Repairs RFP 2019
113 Tierra Alta Dr., Watsonville CA 95076

WITNESS THAT:
The Contractor and Housing Authority of the County of Santa Cruz, here after identified as the Authority, for the consideration stated herein, agree as follows:

ARTICLE 1. Statement of Work:
The Contractor shall furnish all labor and materials and perform all work required in strict accordance with the Contract Documents and Specifications, including addenda, if any, hereto, all of which are made a part hereof.

ARTICLE 2. The Contract Price:
The Authority shall pay the Contractor for the performance of the Contract, subject to additions and deductions provided therein, in the total amount of:

$_____

Written as:
_____

The Contract Price shall be paid to the Contractor pursuant to the General Conditions, paragraph I entitled "Payment to Contractor".

ARTICLE 3.
A. COMMENCE DATE AND TIME OF COMPLETION
The Contractor shall commence work under this Contract within fourteen (14) calendar days of receipt from the Housing Authority of written Notice to Proceed and shall fully complete all work within 45 consecutive calendar days after commencement of work. In no event shall the Contractor perform any work under this Contract or place any materials upon site of said work prior to receipt of said written Notice to Proceed.
Housing Authority and Contractor agree that as liquidated damages for delay, Contractor shall pay Housing Authority **ONE HUNDRED DOLLARS ($100.00)** for each day that expires after the time specified above hereof until Work is Substantially Complete.
Liquidated damages for delay shall only cover damages suffered by Housing Authority as a result of delay. Liquidated damages shall not cover the cost of completion of the Work, damages resulting from defective work, damages suffered by others who then seek to recover their damages from the Housing Authority (for example, delay claims of other contractors, subcontractors, or tenants), and defense costs thereof.

B. EXTENSIONS OF TIME
Extensions of time shall be granted to the Contractor for delays in the completion of the work caused by Acts of God or the public enemy, Act of the State, fire, floods, epidemics, quarantine restrictions, strikes, freight embargoes, shortages of materials, labor, fixtures or equipment (provided that the Contractor furnished satisfactory and acceptable proof that he/she has made diligent attempts to obtain same) and severe abnormal weather, or delays of subcontractors due to such causes, provided that the cause of any delay or the effect on completion shall not be due to the Contractor's fault, negligence or control, and provided that the Contractor shall notify the Authority in writing of the causes of delay at the time they occur, but not later than two (2) days after the initial occurrence of any cause of delay. The Authority shall promptly ascertain the facts and extent of the delay. Any extensions shall be limited to the actual effect of the excusable cause of delay on completion.

ARTICLE 4. Materials and Workmanship:
Unless otherwise specifically provided for in the Contract Documents, all workmanship covered by the Contract is to be of the best grade of its respective kind for the purpose. The Authority may require the Contractor to remove from the work such employees as it deems incompetent, careless, insubordinate, or otherwise objectionable, or whose continued employment on the work is deemed by the Authority to be contrary to the public interest.

ARTICLE 5. Licenses:
The Contractor shall obtain and maintain at his/her own expense all necessary licenses required to do said work.

ARTICLE 6. Termination of Contract:
A. The Authority may, because of breach of the Contract by the Contractor, terminate this Contract at any time by a notice in writing from the Authority to the Contractor. Such examination shall be effective in the manner and upon the date specified in said notice and shall

be without prejudice to any claims that the Authority may have against the Contractor. Upon receipt of such notice, the Contractor shall, unless the notice directs otherwise, immediately discontinue all work and the placing of all orders for labor, materials, facilities, and supplies in connection with the performance of this Contract, and shall proceed to cancel promptly all existing orders and terminate all subcontractors insofar as such orders and/or subcontractors are chargeable to this Contract.
B. Upon termination of this Contract for breach of the Contract by the Contractor, the Contract price shall be reduced by the amount of any and all claims which the Authority may have against the Contractor for damages incurred by Authority as a result of the breach of the Contract, including the cost to Authority to have the work remaining under the Contract completed by another contractor or through Authority personnel. Such damage shall also include any reasonable attorney's fees and other costs incurred by Authority in effecting the termination of the Contract or completion of the performance of the Contract work. Any Contract funds remaining, including amounts retained from progress payments, or other amounts otherwise earned by the Contractor but not yet paid by Authority on the date of the termination, may be applied by Authority to the damages that it incurred as a result of the Contractor's breach. The balance remaining, if any, after full completion of the Contract work shall be payable to the Contractor. If Contract funds as indicated above are insufficient, the Contractor and its sureties shall be liable for any unpaid balances.

C. In the event that at any time it becomes necessary for the Authority to terminate this Contract for its own convenience because of cessation of operations for which work under this Contract is required by operation of law or otherwise, or because of any change in the operation of Authority which may render the work under this Contract no longer necessary or advisable, the Authority many for its own convenience and for any such reason terminate this Contract at any time by notice in writing as provided in subparagraph (A) above and upon receipt of such notice the Contractor shall proceed in the same manner as provided in subparagraph (A) above for termination by the fault of the Contractor. Such termination shall be effective in the manner and upon the date specified in said notice and shall be without prejudice to any claims that the Authority may have against the Contractor. Payment to the Contractor in the event of termination for convenience shall be limited to that portion of the Contract price which the amount of work actually completed by the Contractor bears to the total amount of work required to be performed by the Contractor under the provisions of this Contract.

D. Prior to final settlement upon termination of this Contract, the Contractor shall furnish separate releases of all claims, signed by Contractor, all subcontractors, vendors and suppliers against the Authority arising under and by virtue of this Contract, other than such claims, if any, as may be specifically excepted by the Contractor from the operation of the release in stated amounts to be set forth therein.

ARTICLE 7. Performance of Work Provisions:
The PHA shall make progress payments approximately every 30 days as the work proceeds, on estimates of work accomplished which meets the standards of quality as approved by the Contracting Officer. The PHA shall retain five (5) percent of the amount of progress payments until completion and acceptance of all work under the contract for a period of 35 days after the recording of a Notice of Completion and the Contractor furnishes a Section VIII, Certifying

Payments of Prevailing Wage Rates, and the Authority shall be under no obligation to make its final payment until such time as said Certificate of Payments has been received and the Authority satisfied that the Contractor has complied with such provisions.

ARTICLE 8. Contract Documents:
The Contract Documents consist of the following:
SEE "BID DOCUMENTS TABLE OF CONTENTS, CONTRACT REQUIREMENTS" together with all modifications, certifications and addenda included in or attached to these documents before their execution. All Contract Documents are complimentary so that work or agreements called in one and not mentioned in another are to be executed as though mentioned in all, and each and every difference of opinion respecting the same shall be finally determined by the Housing Authority of the County of Santa Cruz. This instrument, together with the documents enumerated in this Article 8 form the Contract and they are as fully a part of the Contract as if attached hereto or herein repeated. In the event that any provision in any of the component parts of the Contract conflicts with any provision of any other component part, the provision in the component part first enumerated in Article 8 shall govern, except as otherwise specifically stated.

ARTICLE 9. Waivers:
A waiver of any of the conditions or provisions of the entire Contract between the parties hereto shall not be considered or deemed to be a waiver of any other condition or provision of said Contract.

ARTICLE 10. Severability:
If any term, condition, or covenant of this Contract is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions of this agreement shall be valid and binding on the Contractor and the Authority.

ARTICLE 11. Attorneys Fees and Costs
If legal proceedings or arbitration is commenced to enforce or construe the tenens of this Contract, or to sue for damages, the prevailing party in said legal proceedings or arbitration shall be entitled to receive reasonable attorneys fees and costs as determined by the judge or arbitrator in said legal proceedings or arbitration.

ARTICLE 12. Insurance
Before commencing work, the Contractor and each subcontractor shall furnish the PHA with certificates of insurance showing the following insurance is in force and listing the California Department of Housing And Community Development AND the Housing Authority of the County of Santa Cruz as additional insured & loss payee in the event of a claim.
(1) Workers' Compensation, in accordance with state or Territorial Workers' Compensation laws.
(2) Commercial General Liability with a combined single limit for bodily injury and property damage of not less than $ 1,000,000 per occurrence to protect the Contractor and each subcontractor against claims for bodily injury or death and damage to the property of others. This shall cover the use of all equipment, hoists, and vehicles on the site(s) not covered by Automobile

Liability under (3) below. If the Contractor has a "claims-made" policy, then the following additional requirements apply: the policy must provide a "retroactive date" which must be on or before the execution date of the Contract; and the extended reporting period may not be less than five years following the completion date of the Contract.

(3) Automobile Liability on owned and non -owned motor vehicles used on the site(s) or in connection therewith for a combined single limit for bodily injury and property damage of not less than $ 1,000,000 per occurrence.

IN WITNESS WHEREOF, the parties have executed this Contract, in two original counterparts, this_____ day of _____ , 201__

HOUSING AUTHORITY OF THE COUNTY OF SANTA CRUZ

By: _____
Jennifer Panetta, Executive Director

Date:_____

CONTRACTOR

Company Name: _____

By: _____

Title: _____

Date:_____

WITNESS:_____

END OF DOCUMENT

APPENDIX

EVALUATION CRITERIA AND SCORING

Buena Vista Levee Repairs RFP - 2019

All proposals will be evaluated by Housing Authority staff and other parties that may have expertise or experience in construction & proposal evaluation. A contractor will be selected in accordance with the criteria herein. The evaluation of the proposals shall be within the sole judgment and discretion of the Housing Authority staff.

Proposals will include, as necessary:

1. Introduction (cover letter) to include brief company profile, years in business, contact information and be signed by individual who is authorized to make proposals of this nature
2. Executive Summary, including Proposers plan to execute work, a positive statement of compliance with the terms of RFP, and an explanation of each exception – if proposer cannot comply with any of the terms of this RFP.
3. Qualifications and Experience summary, including evidence of financial stability and substantiate the availability of resources to satisfy the services outline in this RFP.
4. Proposed Plan to execute work, including description of approach and methodologies to be employed in the performance of work outlined in this RFP. Delivery is a critical factor of this project; a timeline must be submitted reflecting milestones and durations of each task.
5. All RFP documents required to be returned with proposal, including "Bid Form" document fully completed by Proposer.

As a result of this RFP, the Housing Authority intends to award a contract to the responsible bidder(s) whose response conforms to the RFP and whose bid presents the greatest value to the Housing Authority, all evaluation criteria considered. The combined weight of the evaluation criteria is greater in importance than cost in determining the greatest value. The goal is to award a contract to the bidder(s) that proposes the Housing Authority the best quality as determined by the combined weight of the evaluation criteria. The Housing Authority may award a contract of higher qualitative competence over the lowest priced response.

Proposals will be evaluated based on the selection factors listed below; the relative weight that each factor will receive in the evaluation is shown below.

Completeness of Response (Pass/Fail):
Responses to this RFP must be complete. Responses that do not include the proposal content requirements identified within this RFP and subsequent Addenda and do not address each of the items listed below will be considered incomplete, may be rated a Fail in the Evaluation Criteria and may receive no further consideration.

Debarment and Suspension (Pass/Fail):
Bidders, its principal and named subcontractors are not identified on the list of debarred, suspended or other excluded parties located at www.sam.gov , and similar.

Additional evaluation of Proposals will be weighted, as follows:

Pricing & Cost of Materials: *Respondents will be awarded up to 40 points for over-all Pricing and Material costs.*

Quality of Proposal: *Respondents will be awarded up to 30 points for this section.*
Is proposal complete and responsive to items outlined in RFP ?
Does the proposer understand the purpose of the project & did proposer provide a summary of the overall approach to the project?
Did proposer submit a work schedule that demonstrates when the work will be completed and how many employees will be dedicated to complete work?

Experience: *Respondents will be awarded up to 30 points for Experience in this section.*
Does proposer possess working experience with projects of a similar size & does the proposer have a list of references for similar type work, that reflect this experience?
Do the project manager assigned to the project and persons responsible for work have experience on projects of similar type and size?
Does proposer have experience in requirements related to: MBE/WBE, County of Santa Cruz Local Hiring, State of California Public Works jobs & related labor and apprenticeship provisions, Section 3 provisions, and similar requirements?

END OF DOCUMENT