CITY OF HEALDSBURG

NOTICE TO BIDDERS, PROPOSAL, CONTRACT

FOR

CONSTRUCTION OF THE
FOSS CREEK PATHWAY SEGMENTS 7 AND 8

PROJECT NO. 2019-011

CITY OF HEALDSBURG

BID OPENING DATE:
August 11, 2020

CITY OF HEALDSBURG
ENGINEERING DEPARTMENT
401 Grove Street

HEALDSBURG, CALIFORNIA 95448
PHONE: (707) 431-3346
NOTICE TO BIDDERS

NOTICE IS HEREBY GIVEN that sealed bids will be received by the City Engineer of the City of Healdsburg at the Administration/Clerks office located at City Hall, 401 Grove Street, Healdsburg, County of Sonoma, State of California, until the hour of 2:00 p.m., on the 11th day of August, 2020 at which time they will be publicly opened and read aloud in the chambers of the City Council, 401 Grove Street, Healdsburg, California, for:

FOSS CREEK PATHWAY SEGMENTS 7 AND 8

During the COVID-19 pandemic City of Healdsburg is committed to public participation in city government in a manner that is consistent with the guidance provided by the Sonoma County Public Health Officer. Remote viewing options for the bid opening will be provided to all plan-holders.

Project plans and specifications may only be obtained by contacting the office of the City Engineer of the City of Healdsburg at (707)431-3346 (cdcfront@ci.healdsburg.ca.us) and paying a non-refundable fee of $50.00. Upon receipt of the required fee project plans and specifications will be shipped and electronically transmitted to the prospective bidder. No in person purchases will be allowed.

The project work generally consists of constructing a public Class 1 bicycle and pedestrian pathways, pedestrian bridges, drainage improvements, lighting improvements, and signalized pedestrian crossing.

The Engineer's estimate of cost is $2,571,366.

For technical questions regarding this project, please email the City Project Engineer, Clay Thistle, at cthistle@ci.healdsburg.ca.us

In accordance with California Public Contract Code Section 3400, bidders may propose equals of products listed in the technical specifications or project plans by manufacturer name, brand or model number, unless the technical specifications or plans specify that the product is necessary to match others in use. Complete information for products proposed as equals must be submitted to the City Clerk’s Office for review at least seven (7) working days before the time specified for bid opening in accordance with the bidders instructions contained in the bid package.

In accordance with California Public Contract Code Section 20170, all bids must be presented under sealed cover and include one of the following forms of bidder’s security: cash, cashier’s check made payable to the City, certified check made payable to the City, or a bidder’s bond. The amount of bidder’s security provided must equal at least ten (10) percent of the total of the bid price for the base bid and the additive or deductive items listed in this notice. The successful bidder must submit to the City complete, executed copies of all required documents within ten (10) working days of receiving written notice of award of the project. Bidder’s security of any successful bidder that fails to do so will be forfeited to the City. Such required documents include, but are not limited to, a payment or labor and materials bond in an amount of at least 100 percent of the amount payable by the terms of the project contract and that satisfies the requirements of California Civil Code Section 9554, and a performance bond in an amount of at least 100 percent of the amount payable by the terms of the contract. All project bonds must be
executed by an admitted surety insurer in accordance with applicable law and acceptable to the City.

Pursuant to the provisions of Section 1720 et seq. of the Labor Code of California, the Director of Industrial Relations for the State of California has ascertained the current general prevailing rate of wages for employer purposes, in Sonoma County, State of California. Not less than the general prevailing rate of per diem wages for work of a similar character in Sonoma County and not less than the general prevailing rate of per diem wages for holiday work fixed as provided in the California Labor Code must be paid to all workers engaged in performing the project.

In accordance with the California Labor Code Section 1773.2, copies of the applicable determinations of the Director are on file in the City of Healdsburg City Engineer's Office and may be reviewed upon request.

Due to COVID-19 and the County Shelter-in-Place Order NO pre-bid meeting is scheduled for this project.

In accordance with California Public Contract Code Section 3300, a valid class A California contractor's license is required to bid on the project.

In accordance with California Public Contract Code Section 22300, except where prohibited by federal regulations or policies, the successful bidder may, on request and at its expense, substitute securities in lieu of amounts withheld by the City from progress payments to ensure performance under the contract in accordance with the contract documents.

The City of Healdsburg reserves the right to postpone the date and time for the opening of proposals at any time prior to the date and time announced in the advertisement in accordance with applicable law.

The City of Healdsburg reserves the right to reject any and all bids or to waive any defects or irregularity in bidding in accordance with applicable law. In accordance with California Public Contract Code Section 20103.8, if the City elects to award a contract for performance of the project, the contract will be awarded in accordance with California Public Contract Code Section 20162 and other applicable law to the responsible bidder submitting a responsive bid with the lowest total bid price for the base bid without consideration of the bid price for any additive or deductive items. All bids will remain valid for 90 days after the bid opening. Except as permitted by law and subject to all applicable remedies, including forfeiture of bidder’s security, bidders may not withdraw their bid during the 90-day period after the bid opening.

By order of the City Council of the City of Healdsburg, Sonoma County, California.

PUBLISH: July 18th, 2020 and July 23rd, 2020

/s/ Tyler Kettmann  Date July 15th, 2020
Central Services Manager
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Project Plans
INSTRUCTIONS TO BIDDERS

1. DEFINITIONS

1.1 Bid forms. The bid forms are the forms listed in the Bid Forms Section in the bid package Table of Contents.


1.3 Contract documents. All of the documents incorporated into the final Project contract as listed in the contract.

1.4 Project. The Project is the Foss Creek Pathway Segments 7 and 8 as described in the bid package.

1.5 Project Plans. The Project Plans are the primarily graphic detailed requirements concerning the Project contained in the bid package.

1.6 Technical Specifications. The Technical Specifications provide detailed requirements concerning the Project.

2. BIDDER’S REPRESENTATIONS

Each bidder by submitting a bid represents that:

2.1 The bidder has read and understands the bid package and the bid is in accordance with all of the requirements of the bid package and applicable law.

2.2 Neither the bidder nor any subcontractor included on the list of proposed subcontractors submitted with the bid are ineligible to perform work on public works projects pursuant to California Labor Code Sections 1777.1 or 1777.7.

2.3 The bidder understands that quantities of unit price items may vary from the estimates provided in the Technical Specifications.

2.4 Representatives of the bidder have visited the Project site and have familiarized themselves with the conditions under which the Project work is to be performed so as to ensure that the Project work may be performed for the amount bid.
2.5 The bidder has informed the City in writing no later than five (5) working days prior to the time specified for bid opening of any apparent conflicts, errors, or ambiguities contained in the bid package or between the contents of the bid package and the Project site.

3. PRE-BID COMMUNICATION AND INTERPRETATION OF THE BID PACKAGE

3.1 Any bidder that discovers any apparent conflicts, errors, or ambiguities contained in the bid package or between the contents of the bid package and the Project site, or that has questions or requires clarification concerning the bid package or its intent must inform the City in writing as soon as reasonably possible, but no later than five (5) working days before the date specified for bid opening. Such notice to the City must be sent to the address specified in the Notice to Bidders for questions concerning the bid package. Questions received less than five (5) working days before the time specified for opening bids may not be answered.

3.2 Any interpretation, correction or change of the bid package prior to bid opening will be made by addendum signed by an authorized representative of the City and transmitted to all bid package recipients. No other interpretation or information concerning the bid package issued prior to the date specified for opening bids will be binding. All addenda signed by an authorized representative of the City and issued prior to the time and date specified for opening bids will form a part of the contract documents and must be acknowledged on the bid forms. Any changes, exceptions or conditions concerning the Project and/or the bid package submitted by any bidder as part of a bid may render that bid non-responsive.

4. PRE-BID ACCESS TO THE PROJECT SITE

4.1 Prior to submitting a bid, it will be the sole responsibility of each bidder to conduct any additional examination, investigation, exploration, test, study or other inquiry and to obtain any additional information pertaining to the physical conditions (including surface, subsurface, and underground utilities) at or near the Project site that may affect the cost, progress, or performance of the Project, and that the bidder deems are necessary to prepare its bid for performance of the Project in accordance with the bid package and contract documents. Bidders seeking any such additional examination or other inquiries or information concerning the Project will do so at the bidder’s sole expense.

4.2 Bidders seeking to conduct any additional examination or other inquiry at the Project site must request site access from the City at least two (2) working days in advance. The location of any excavation, boring or other invasive testing will be subject to approval on behalf of the City and any other agencies with jurisdiction over such testing. Bidders may not conduct tests at the Project site prior to obtaining City approval. The City may require bidders to execute an access agreement prior to approving testing at the Project site. Once approved testing is complete, Bidders must fill all trenches or holes, restore all pavement to match existing structural section, and otherwise clean up and restore the test site to its pre-test condition.
5. BIDDING PROCEDURE

5.1 Bids must be delivered to the City of Healdsburg, 401 Grove Street, Healdsburg, California 95448, no later than the time and date specified in the Notice to Bidders. Bids will be opened and read publicly at that time. Bids that are submitted late according to the official time kept by the City Clerk or a designee will be returned unopened. Telephones for use by bidders are not available at the City offices.

5.2 In accordance with California Public Contract Code Section 20170, bids must be presented under sealed cover. Bids must be submitted using the bid forms furnished with the bid package. Bids must include all documents listed in the Bidder’s Check List completed in accordance with the bid package. Bids must bear the bidder’s legal name and be signed by a representative authorized to bind the bidder. Bids must be typed or written in ink. Corrections may be made if initialed by the individual signing the bid. No oral or telegraphic modifications of bids, including facsimile modifications, will be considered. Bids that are incomplete or that are not presented on the bid forms furnished with the bid package may be deemed non-responsive.

5.3 Each bid must give the full business address of the bidder. Bids of partnerships must furnish the full name of all partners and must be signed in the partnership name by one of the members of the partnership, or by an authorized representative, followed by the printed name and title of the person signing. Bids of corporations must be signed with the legal name of the corporation, followed by the name of the state of incorporation and by the signature and designation of the president, secretary or other person authorized to bind the corporation. The name of each person signing must also be typed or printed below the signature. Upon request of the City, bidders will furnish satisfactory evidence of the authority of the person signing the bid. Bids of joint ventures must include a certified copy of the legal agreement constituting the joint venture.

5.4 No person, firm, corporation, partnership or legal joint venture may submit more than one bid for the Project. However, a person, firm, corporation, partnership or legal joint venture that has submitted a subcontract proposal to a bidder, or that has quoted prices on materials to a bidder may submit a subcontract proposal, quote prices to other bidders and submit its own bid.

5.5 In accordance with California Public Contract Code Section 20170, all bids must include one of the forms of bidder’s security specified in the Notice to Bidders in an amount of at least ten (10) per cent of the total of the bid prices for the base bid and those additive or deductive items specifically identified in the Notice to Bidders for the purpose of determining the lowest price bid. Bidders that elect to provide bidder’s security in the form of a bid bond must execute a bid bond using the form provided in the bid forms. The bidder’s security is tendered as a guarantee that the successful bidder, if issued a notice of award concerning the Project contract, will execute and submit to the City all required bonds, certificates of insurance, completed contract forms and other documents listed in the Contract Check List and enter into a contract with the City within ten (10) working days of receipt of the notice of award. The bidder’s security of any successful bidder that fails to do so will be forfeited to the City. All bidders’ security not forfeited to the City will be returned once a successful bidder provides all required documents and enters a contract with the City in
accordance with all applicable bid package requirements. Forfeiture of the bidder’s security to the City will not waive or otherwise limit any other remedy available to the City under applicable law.

5.6 In accordance with California Business and Professions Code Section 7028.15, Public Contract Code Section 20103.5, and as specified in the Notice to Bidders, all Project work must be performed by properly licensed contractors and subcontractors with active licenses in good standing as of the date and time specified for bid opening, or, if the Project involves federal funds, no later than the time the Project contract is awarded. Bidders must verify their Contractor’s License number and license expiration date in the proposal under penalty of perjury. Bids that do not satisfy applicable licensing requirements will be considered non-responsive and rejected and may subject the bidder to criminal and/or civil penalties.

5.7 Pursuant to Labor Code Section 1771.1(a), a contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in Part 7, Chapter 1 of the Labor Code, unless currently registered and qualified to perform public work pursuant to Labor Code Section 1725.5. It is not a violation of Labor Code Section 1771.1 for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Labor Code Section 1725.5 at the time the contract is awarded.

5.8 If the bid forms include a bidder’s questionnaire, all bids must include a completed bidder’s questionnaire on the forms provided. By submitting a bid, bidders authorize City representatives to verify any and all information provided on the bidder’s questionnaire and agree to indemnify, defend and hold harmless the City and its officials, officers, employees, agents and volunteers to the full extent permitted by law from and against any claims, liability or causes of action, including, without limitation, legal fees and costs, arising out of verification of the information provided on the bidder’s questionnaire, and/or arising out of use of information provided in the bidder’s questionnaire to determine, in accordance with applicable law, the qualification of the bidder to perform the Project.

5.9 Bids may be withdrawn prior to the time set for bid opening by a written request signed by an authorized representative of the bidder filed with the City Clerk. The bid security submitted with bids so withdrawn will be returned to the bidder. Bidders that have withdrawn their bid in accordance with this provision may submit a new bid prior to the time set for bid opening in accordance with all applicable bid package requirements. Bids may not be withdrawn during the ninety-day period after the time set for bid opening except as permitted by law pursuant to California Public Contract Code Section 5100 and following. Any other bid withdrawal will result in forfeiture of the bidder’s bid security to the City.

6. BID PROTESTS

6.1 Any protest of the proposed Project award must be submitted in writing to the City no later than 5:00 PM on the third business day following the date of the bid opening. All bids will be available for inspection by the next business day after the bid opening. All bidders have equal access to the bids. The company
protesting the bid will be asked to contact the City Clerk, of the City Manager's Office, and review the bids onsite at City Hall, 401 Grove Street, Healdsburg CA 95448. The bid protest must follow the requirements listed below:

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

6.3 The protest must state the facts and refer to the specific portion of the document or the specific statute that forms the basis for the protest. The protest must include the name, address, and telephone number of the person representing the protesting party.

6.4 The party filing the protest must concurrently transmit a copy of the protest to the proposed awardee.

6.5 The party filing the protest must have actually submitted a bid for the Project. A subcontractor of a party filing a bid for the Project may not submit a bid protest. A party may not rely on the bid protest submitted by another bidder but must timely pursue its own protest.

6.6 The procedure and time limits set forth in these Instructions to Bidders are mandatory and are the bidders’ sole and exclusive remedy in the event of a bid protest. Any bidder’s failure to fully comply with these procedures will constitute a waiver of any right to further pursue a bid protest, including filing of a challenge of the award pursuant to the California Public Contract Code, filing of a claim pursuant to the California Government Code, or filing of any other legal proceedings.

6.7 The City will review all timely protests prior to award of the Project. The City will not be required to hold an administrative hearing to consider any protests, but may do so at its option. At the time of the City Council’s consideration of the Project award, the City Council will also consider the merits of any timely protests. The City Council may either reject the protest and award to the lowest responsible bidder or accept the protest and award the bid to the next lowest responsible bidder. Nothing in this section will be construed as a waiver of the City Council's right to reject all bids.

7. AWARD

7.1 In accordance with applicable law, the City reserves the right to reject any or all bids and to waive any informality in any bid. The City reserves the right to accept any portion of any bid, unless the bid package expressly provides that the award will be made as a whole. If the City elects to award a contract for performance of the Project, the contract will be awarded in accordance with California Public Contract Code Section 20162 and other applicable law to the responsible bidder submitting a responsive bid with the lowest total bid price for the base bid and the additive or deductive alternate items listed in the Notice to Bidders. In accordance with the contract documents and applicable law, the City may add or deduct items of work from the Project after the lowest responsible bidder is determined.

7.2 The successful bidder must submit to the City complete, executed copies of all documents specified in the Contract Checklist within ten (10) working days of
receiving written notice of award of the Project. Bidder’s security of any successful bidder that fails to do so will be forfeited to the City.

7.3 The successful bidder and any subcontractors and others engaged in performance of the Project must have valid local business license(s), as applicable, before commencing work on the Project.

7.4 Upon verifying that the successful bidder has provided complete, executed copies of all documents specified in the Contract Checklist an authorized City representative will execute the Project contract, and the City will issue to the successful bidder a notice to proceed specifying the Project commencement date. The number of days within which the Project must be complete begins to run on the Project commencement date.

8. PRICING

8.1 If an inconsistency exists between the amount listed for a unit price in a bid and the total listed for that bid item (e.g., if the total listed for a bid item does not equal the unit price listed in the bid multiplied by the quantity listed), subject to applicable law, the unit price will be deemed to accurately reflect the bidder’s intent concerning the bid item and the intended total for the bid item will be deemed to be the unit price as listed in the bid multiplied by the quantity listed.

8.2 If the Project bid price is a lump sum total made up of smaller individual bid item prices and an inconsistency exists between the lump sum total bid price and any individual bid item price, subject to applicable law, the individual bid item prices as listed in the bid will be deemed to accurately reflect the bidder’s intended bid for the Project and the intended lump sum total bid for the Project will be deemed to be the sum of the individual bid item prices as listed in the bid, even if that sum is different from the amount actually listed as the lump sum total bid for the Project.

8.3 Any federal, state, or local tax payable on articles to be furnished for the Project will be included in the lump sum total bid price and paid by the Contractor under the contract. The City is exempt from federal excise tax and will provide a certificate of exemption to the successful bidder upon request.

9. QUANTITIES

9.1 Quantities, including but not limited to, material or labor quantities, that are provided in the bid package concerning the Project are estimates only and are provided solely as a general indication of the Project scope. The City does not warrant that such quantity estimates provided in the bid package represent the actual quantities required to perform the Project in accordance with the contract documents. Such quantity estimates do not bind the City, and bidders should not rely on them in preparing their bids. Each bidder is solely responsible for determining the quantities on which to base their bids in light of information contained in the bid package, bidder investigation and analysis of the Project and the Project site, and any other analysis or expertise of the bidder concerning the Project.

9.2 The City may amend, decrease or increase the Project work in accordance with the bid package and the contract documents. If the City amends, decreases or
increases the Project work prior to award of the Project each bidder will be solely responsible for determining the revised quantities, if any, on which to base their bid in light of information contained in the bid package and any amendments or addenda to the bid package, bidder investigation and analysis of the Project as amended, decreased or increased, the Project site, and any other analysis or expertise of the bidder concerning the Project.

10. **SUBSTITUTION OF “OR EQUAL” ITEMS**

10.1 In accordance with California Public Contract Code Section 3400, where the Technical Specifications or Project Plans list products by manufacturer’s name, brand or model number such information indicates the quality and utility of the items desired and does not restrict bidders to that manufacturer’s name, brand or model number, unless the Technical Specifications or Project Plans specify that the listed product is necessary to match others in use on a particular public improvement either completed or in the course of completion. Except where the Technical Specifications indicate that a particular brand product is necessary to match others in use, when a manufacturer’s name, brand or model number is listed, it will be construed to be followed by the words “or equal” whether or not those words in fact follow the manufacturer’s name, brand name or model number listed in the Technical Specifications or Project Plans. Unless the Technical Specifications or Project Plans indicate that a particular brand product is necessary to match others in use, bidders may propose equals of products listed by manufacturer name, brand name or model number.

10.2 Complete information for products proposed as equals must be submitted to the City for review at least seven (7) working days before the time specified for opening bids. To be considered, proposals concerning products proposed as equals must include sufficient information to permit the City to determine whether the products proposed as equals will satisfy the same performance requirements as products listed by manufacturer name, brand or model number. Such performance requirements may include, but are not limited to, size, strength, function, appearance, ease of maintenance and repair, and useful life requirements. Proposals concerning products proposed as equals that are submitted less than seven (7) days before the time specified for opening bids will not be considered. Failure to bid products specified by manufacturer name, brand name or model number where the Technical Specifications or Project Plans specify that a particular product is necessary to match others in use, or where no proposal concerning products proposed as equals has been submitted in accordance with this provision may render a bid non-responsive.

11. **SUBCONTRACTING**

11.1 Bids must be in accordance with the requirements of the Subletting and Subcontracting Fair Practices, Act, California Public Contract Code Section 4100 and following. Bids must include a completed list of proposed subcontractors on the form included in the bid package. In accordance with California Public Contract Code Section 4104, completed lists of proposed subcontractors must include the name, business location, the portion (type or trade), and dollar amount of the Project work to be subcontracted for each subcontractor that will perform a portion of the Project work (including special fabrication and installation of a portion of the work) valued in excess of one half of one percent of the total Project bid price. If the Project work includes construction of streets or highways,
the completed list of proposed subcontractors must include the subcontractor name, business location, type of work and dollar amount to be subcontracted for each subcontractor that will perform a portion of the Project work (including special fabrication and installation of a portion of the work) valued in excess of one half of one percent of the total Project bid price, or ten thousand dollars ($10,000), whichever is greater.

11.2 In accordance with California Public Contract Code Section 4106, for any portion of the Project work with a value of more than one half of one percent of the total Project bid price for which no subcontractor is listed, or for which more than one subcontractor is listed, bidders certify by submitting their bids that they are qualified to perform that portion of the Project work and that they will perform that portion of the Project work with their own forces. Bidders may not substitute another subcontractor for a subcontractor listed in their bid except as permitted by the City in accordance with Section 4107 and following of the California Public Contract Code.

11.3 The Contractor must perform with his or her own organization a value of work amounting to not less than 50% of the contract amount in accordance with Section 8-1.06 of the Contract.

11.4 Subcontractors must meet all applicable indemnification and insurance requirements as detailed in the Acknowledgement of Indemnity and Insurance Requirement.

12. ASSIGNMENT

Bidders may not assign, sublet, sell, transfer, or otherwise dispose of their bid or any right, title or interest in their bid, or their obligations under their bid, without the written consent of an authorized representative of the City. Any purported assignment, subletting, sale, transfer or other disposition of a bid or any interest in a bid, or of any obligations under a bid without such written consent will be void and of no effect.

13. BONDS

13.1 The successful bidder must submit to the City a performance bond within ten working days of receiving written notice of award. If the Project involves expenditures in excess of twenty-five thousand dollars ($25,000), the successful bidder must submit to the City a payment or labor and materials bond within 10 working days of the date of mailing of the notice of award. Prior to issuance of the final Project payment, the successful bidder must submit a warranty or maintenance bond. All bonds must be executed by corporate sureties who are admitted surety insurers in the State of California in accordance with applicable law and acceptable to the City. Individual sureties will not be accepted. All Project bonds must be executed using the forms provided in the bid package.

13.2 In accordance with California Civil Code Section 9554, the payment or labor and materials bond must be in the amount of one hundred percent of the total amount payable by the terms of the Project contract and guarantee payment to persons listed in California Civil Code Section 9100(a) for work performed and for charges for materials, supplies, and equipment provided under the Project contract (including amounts due under or subject to the Unemployment Insurance Code) in accordance with the requirements of California Civil Code Section 9554.
13.3 The performance bond must be in the amount of one hundred percent of the amount payable by the terms of the Project contract to guarantee the faithful performance of the Project work.

13.4 The warranty or maintenance bond must be in the amount of ten percent of the final Project contract amount and guaranty the Project work against defects in materials, equipment, workmanship, or needed repair for one year from the City’s acceptance of the Project work. A warranty or maintenance bond that meets these requirements must be submitted to the City prior to issuance of final Project payment.

14. LABOR LAWS

14.1 Bidders must comply with applicable provisions of the California Labor Code.

14.2 In accordance with California Labor Code Section 1861, bids must include a worker’s compensation insurance certification on the form included in the bid package.

14.3 In accordance with California Labor Code Section 1771, not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the Project is to be performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work fixed as provided in the California Labor Code must be paid to all workers engaged in performing the Project.

14.4 In accordance with California Labor Code Part 7, Chapter 1m Article 2, Sections 1770, 1773, and 1173.2 and following, the Director of Industrial Relations has determined the general prevailing wage per diem rates for work in the locality in which the Project is to be performed. In accordance with California Labor Code Section 1773, the City has obtained the general prevailing rate of per diem wages and the general rate for holiday and overtime work in the locality in which the Project is to be performed for each craft, classification or type of worker needed to perform the Project. In accordance with California Labor Code Section 1773.2, copies of the prevailing rate of per diem wages are on file at the City offices and will be made available on request. The Contractor can also download this information from the website: http://www.dir.ca.gov/dlsr/PWD/.

14.5 In accordance with California Labor Code Section 1777.1, contractors and subcontractors that are found guilty of willfully violating Chapter 1 of Part 7 of Division 2 of the Labor Code (except for Section 1777.5), or that are found guilty of such violations with intent to defraud, and entities in which such contractors or subcontractors have any interest, may be ineligible to bid on, be awarded, or perform Project work as a subcontractor.

14.6 Pursuant to, Labor Code Section 1771.1(a), a contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in Part 7, Chapter 1 of the Labor Code, unless currently registered and qualified to perform public work pursuant to Labor Code Section 1725.5. It is not a violation of Labor Code Section 1771.1 for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of
the Business and Professions Code or Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Labor Code Section 1725.5 at the time the contact is awarded.
BIDDER'S CHECK LIST

Did You:

_____ Submit equal product proposals, if any, in accordance with the instructions to bidders included in the bid package at least 7 days before the time specified for bid opening?

_____ Include with your bid properly completed, accurate copies of the following documents in the following order using the forms included in the bid package:
   _____ Bidder's check list
   _____ Proposal and Schedule of Bid Prices that state the bid as intended
   _____ Copies of each addendum issued signed and dated on behalf of the bidder
   _____ Executed bid bond
   _____ Contractor license information
   _____ List of subcontractors
   _____ Signed Workers compensation insurance certification
   _____ Signed Debarment certifications
   _____ Signed Acknowledgment of Indemnity and Insurance Requirements
   _____ Signed non-collusion affidavit
   _____ Bidder's questionnaire, if any
   _____ Public Contract Code Section 10285.1 Statement
   _____ Public Contract Code Section 10162 Questionnaire
   _____ Executed bidder's signature page

_____ Arrange to have the sealed bid delivered to the City of Healdsburg offices at 401 Grove Street, Healdsburg, California, 95448 on or before 2:00 p.m. on August 11, 2020
PROPOSAL

For: Construction of Foss Creek Pathway Segments 7 and 8
For the City of Healdsburg, Sonoma County, California.

TO THE HONORABLE CITY COUNCIL
OF THE CITY OF HEALDSBURG

The undersigned, as bidder, declares that he has carefully examined the work, the annexed proposed form of contract, and agrees that if this Proposal is accepted that he will contract with the City of Healdsburg, under the form of contract annexed of hereto, to provide all the necessary tools, apparatus, and other means of accomplishing the work as specified in the contract in the manner and time herein prescribed, and in accordance with the requirements of the Engineer as therein set forth, and he will take in full payment therefore the following prices for the work to be done completely performed to the satisfaction of the City of Healdsburg, to-wit:

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item Description</th>
<th>Estimated Quantity</th>
<th>Unit of Measure</th>
<th>Unit Cost (in figures)</th>
<th>Total Cost (in figures)</th>
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<tbody>
<tr>
<td>1</td>
<td>Utility Clearances</td>
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<td>2</td>
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<td>Remove Fence</td>
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<td>Tree and ESA Protective Fencing</td>
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<td>6</td>
<td>Adjust Manhole Frame and Cover to Grade</td>
<td>1</td>
<td>Each</td>
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<td>7</td>
<td>Adjust Fiber Optic Box to Finished Grade</td>
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<td>Each</td>
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<td>8</td>
<td>Adjust Utility Box to Finished Grade</td>
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<td>Each</td>
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<td>9</td>
<td>Relocate Street Light</td>
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<tr>
<td>10</td>
<td>Clearing and Grubbing</td>
<td>1</td>
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<td>11</td>
<td>Roadway Excavation (F)</td>
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<td>12</td>
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<td>Asphalt Concrete</td>
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<td>Asphalt Concrete Dike</td>
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<td>17</td>
<td>Drop Inlet 24&quot;x24&quot; with 2 Side Openings</td>
<td>2</td>
<td>Each</td>
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<tr>
<td>18</td>
<td>Drop Inlet 24&quot;x24&quot; with ADA Frame and Grate</td>
<td>1</td>
<td>Each</td>
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<tr>
<td>19</td>
<td>Drop Inlet 36&quot;x36&quot; with 1 Side Opening</td>
<td>1</td>
<td>Each</td>
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<td>20</td>
<td>Storm Drain Manhole - 48&quot; dia. With Reducer Slab</td>
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<td>Concrete Headwall</td>
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<td>Rock Slope Protection</td>
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<td>1&quot; Water Service with Meter and RPB Assembly</td>
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<td>32</td>
<td>Minor Concrete, Curb and Gutter</td>
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<td>Item Description</td>
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<td>Unit of Measure</td>
<td>Unit Cost (in figures)</td>
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<td>44</td>
<td>Median Nose Treatment</td>
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<td>Each</td>
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<td>Roadside Sign (on steel post)</td>
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<td>46</td>
<td>Roadside Sign (on signal pole)</td>
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<td>Chain Link Fence, 4'</td>
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<td>48</td>
<td>Chain Link Fence, 6'</td>
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<td>49</td>
<td>Man Gates</td>
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<td>50</td>
<td>Safety Railing</td>
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<td>51</td>
<td>Steel Bollard</td>
<td>14</td>
<td>Each</td>
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<tr>
<td>52</td>
<td>Prefabricated Pedestrian Bridge (40')</td>
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<td>53</td>
<td>Prefabricated Pedestrian Bridge (80')</td>
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<td>54</td>
<td>Bridge Abutments / Wingwalls / Footings / Pile Cap</td>
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<td>55</td>
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<tr>
<td>57</td>
<td>Pathway Lighting System</td>
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<tr>
<td>58</td>
<td>Traffic Signal</td>
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<td>L.S.</td>
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<tr>
<td>59</td>
<td>Mobilization</td>
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<tr>
<td>60</td>
<td>Winter Shutdown Site Maintenance</td>
<td>6</td>
<td>Month</td>
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</tbody>
</table>

Total Base Bid $_______________________

Written in words: The undersigned further agrees to deliver and to complete the same within 165 working days, from the date of issuance, by the Engineer, of instructions to proceed with the work, and within 10 working days of the date of mailing of the notice of award, to enter into and execute and provide to the City the necessary contract with the necessary bonds and other required documents, and in case of default in executing the necessary contract within the time fixed by the Instructions to Bidders, the bidder's security accompanying this bid will become the property of and be forfeited to the City of Healdsburg.

Prime Contractor                                      
License # _______________________________ Expiration Date: _______________________________
DIR# ______________________________________

Name of person submitting bid: __________________________ Email: __________________________

The Contractor's license number and expiration date are herein stated under penalty of perjury.

By: __________________________________ Title: ______________________________

Dated this ______ day of ____________, 20___

(Corporate Seal)

CORPORATION

Corporate signature
__________________

Address: __________________________

Phone No.: _______________________

President's signature
__________________

Secretary's signature
__________________

Corporation organized under the laws of the State of __________________________
PARTNERSHIP

Partnership Name: __________________________________________

Address: ___________________________________________________

Names of Co-Partners and Addresses: ____________________________

_____________________________________________________________

SOLE PROPRIETORSHIP

Names of Individuals and Addresses: ____________________________

_____________________________________________________________

NOTE: Sign in proper space above.
KNOW ALL MEN BY THESE PRESENTS:

That we, as PRINCIPAL, and ____________________________________, a (sole proprietorship/corporation/partnership/joint venture) organized and existing under and by virtue of the laws of the State of _________________ and an admitted surety insurer authorized to do business in the State of California, as SURETY, are held and firmly bound unto the City of Healdsburg, as OBLIGEE, in a penal sum equal to ten-percent (10%) of the total bid price including the base bid and alternates specified in the proposal of the PRINCIPAL, to the OBLIGEE for the work described below, which penal sum is __________________________________________ ($_____________________) lawful money of the United States of America, for the payment of which sum well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the PRINCIPAL has submitted the accompanying proposal dated ___________________, _________ to the OBLIGEE, for the Foss Creek Pathway Segments 7 and 8 (designated as the “Project”) which proposal is hereby made a part hereof;

NOW THEREFORE, if the PRINCIPAL shall not withdraw said proposal within the ninety (90) day period following the opening of bids, and if the PRINCIPAL receives written notice concerning award of the Project to the PRINCIPAL and shall, within ten (10) calendar days of receiving such notice: enter into a written contract with the OBLIGEE in the form prescribed in the bid package issued by the OBLIGEE concerning the Project; and give insurance and bond with good and sufficient sureties guaranteeing the faithful performance and proper fulfillment of such contract and guaranteeing payment for labor and materials used for performance of the contract as required by law; and file with the OBLIGEE all required documents and do all other thing required in accordance with the bid package issued by the OBLIGEE concerning the Project for the contract between the PRINCIPAL and the OBLIGEE to become effective and for work to commence in accordance with the bid package issued by the OBLIGEE concerning the Project, or, in the event of withdrawal of the accompanying proposal within the ninety (90) day period following the opening of bids; or failure by the PRINCIPAL to enter into such contract with the OBLIGEE or to give the OBLIGEE such bonds or to file any other documents or to do any other things required in the bid package issued by the OBLIGEE for the Project, if the PRINCIPAL shall pay the OBLIGEE the difference between the total bid price in the accompanying proposal and the amount for which the OBLIGEE may procure the required performance, if the latter amount be in excess of the former, together with all costs incurred by the OBLIGEE in again attempting to let the Project, and if the said PRINCIPAL shall fully reimburse and save harmless the OBLIGEE from any damage sustained by the OBLIGEE through failure of the PRINCIPAL to enter into the written contract or to file the required performance or labor and material bonds, or to file any other required documents or to do any other things required for the contract between the PRINCIPAL and the OBLIGEE to become effective and the work to commence in accordance with the bid package issued by the
OBLIGEE concerning the Project, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect.

SURETY, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the bid or contract documents for the Project, or to the specifications included in the same, or to the work to be performed thereunder, or to the notice to bidders, or to any other documents concerning the Project, shall in anywise affect SURETY’s obligation under this bond, and SURETY hereby waives notice of any such change, extension of time, alteration or addition to such bid or contract documents.

In the event suit is brought upon this bond by the OBLIGEE and judgment is recovered, the SURETY shall pay all costs incurred by the OBLIGEE in such suit, including a reasonable attorney’s fee to be fixed by the Court.

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their several seals this __________ day of ________________________, ______, the name and corporate seals of each corporate party being hereto affixed and these presents duly signed by their undersigned representatives, pursuant to authority of their governing bodies.

(Corporate Seal) 

PRINCIPAL ____________________________

By ______________________________

(Acknowledgement) 

Title ______________________________

SURETY ____________________________

By ______________________________

(Associate-in-fact)

(Acknowledgement) 

Title ______________________________

(NOTE TO SURETY COMPANY: A certified copy of unrevoked resolution of authority for the attorney-in-fact must be submitted with and attached to the executed bid bond.)
CONTRACTOR LICENSE INFORMATION

The bidder acknowledges that the license required for performance of the Foss Creek Pathway Segments 7 and 8 project is Class A.

The bidder holds the following California Contractors License(s):

1. License No. _______________, Class _____, Expiration Date _______________
2. License No. _______________, Class _____, Expiration Date _______________
3. License No. _______________, Class _____, Expiration Date _______________
4. License No. _______________, Class _____, Expiration Date _______________
5. License No. _______________, Class _____, Expiration Date _______________
6. License No. _______________, Class _____, Expiration Date _______________
7. License No. _______________, Class _____, Expiration Date _______________
8. License No. _______________, Class _____, Expiration Date _______________
9. License No. _______________, Class _____, Expiration Date _______________
10. License No. _______________, Class _____, Expiration Date _______________

Bidder’s Taxpayer Identification No. _______________________________________

Public Works Contractor DIR Registration # _________________________________
LIST OF SUBCONTRACTORS

In accordance with the requirements of the Subletting and Subcontracting Fair Practices, Act, California Public Contract Code Section 4100 and following, listed below are the name, business location, and the portion (type or trade) of the Project work to be subcontracted to each subcontractor that will perform a portion of the Project work (including special fabrication and installation of a portion of the work) valued in excess of one half of one percent of the total bid price. If the Project work includes construction of streets or highways, listed below are the name, business location, and the portion (type or trade) of the Project work to be subcontracted to each subcontractor that will perform a portion of the Project work (including special fabrication and installation of a portion of the work) valued in excess of one half of one percent of the total Project bid price, or ten thousand dollars, whichever is greater. Also listed below are the proposed subcontract dollar amount and current California Contractor’s License Number(s) for each proposed subcontractor. Bids that fail to include complete proposed subcontractor information in accordance with this form and Public Contract Code Section 4100 and following may be deemed non-responsive.

In accordance with California Public Contract Code Section 4106, for any portion of the Project work with a value of more than one half of one percent of the total bid price for which no subcontractor is listed, or for which more than one subcontractor is listed, the bidder certifies by submission of its bid that the bidder is qualified to perform that portion of the Project work and that the bidder will perform that portion of the Project work with its own forces. The penalties listed in California Public Contract Code Section 4111 will apply to any substitution of another subcontractor for a subcontractor listed below except as permitted by the City in accordance with Section 4107 and following of the California Public Contract Code.

The Contractor must perform with his or her own organization, a value of work amounting to not less than fifty percent (50%) of the contract amount, except that the bid amount for “Specialty Items” so designated in any Special Provisions if included may be eliminated from the contract amount and not considered as sub-contracted for the purposes of calculating the value of work to be performed by the Contractor. For the purposes of determining the value of work to be performed by the Contractor pursuant to this provision, materials, equipment, incidentals, etc., shall be considered to have been purchased by the contractor or subcontractor that is to install them. Where a portion of an item is subcontracted, the value of work subcontracted will be based on the estimated cost of such portion of the subcontracted item, as determined from information submitted by the Contractor, subject to approval by the Engineer.

1. Subcontractor Name ___________________________________________________________
   Business Location _____________________________________________________________
   Trade _______________________________________________________________________
   Subcontract Amount ___________________________________________________________
   Current Contractor’s License No.(s) _____________________________________________
   Public Works Contractor DIR Registration #____________________________________

2. Subcontractor Name ___________________________________________________________
   Business Location _____________________________________________________________
   Trade _______________________________________________________________________
   Subcontract Amount ___________________________________________________________
   Current Contractor’s License No.(s) _____________________________________________
<table>
<thead>
<tr>
<th>No.</th>
<th>Subcontractor Name</th>
<th>Business Location</th>
<th>Trade</th>
<th>Subcontract Amount</th>
<th>Current Contractor’s License No.(s)</th>
<th>Public Works Contractor DIR Registration #</th>
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Public Works Contractor DIR Registration #______________________________
NON-COLLUSION DECLARATION

TO BE EXECUTED BY BIDDER
AND SUBMITTED WITH BID
(Title 23 United States Code Section 112 and Public Contract Code Section 7106)

The undersigned declares:

I am the ___________________ of ____________________, the party making the foregoing bid. The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on ________, at _____________, ________.

__________________________________
Signature of Bidder

2387815.1
WORKERS COMPENSATION INSURANCE CERTIFICATION

By submitting its bid the bidder certifies as follows:

I am aware of the provisions of California Labor Code Section 3700, which require every employer to be insured against liability for workmen’s compensation or to undertake self-insurance in accordance with the provisions of the Labor Code, and I will comply with such provisions before commencing performance of the work of this Contract.

DEBARMENT CERTIFICATION

By submitting its bid the bidder certifies in accordance with California Public Contract Code Section 6109 that neither the bidder nor any subcontractor included on the list of proposed subcontractors submitted with the bid is ineligible to perform work on public works projects pursuant to California Labor Code Sections 1777.1 or 1777.7. In accordance with California Public Contract Code Section 6109, contractors and subcontractors who are ineligible to perform work on public works projects pursuant to California Labor Code Sections 1777.1 or 1777.7 may neither bid on, be awarded or perform as a subcontractor on public works projects.

_____________________________________________
Signature of Bidder

_____________________________________________
Printed Name
ACKNOWLEDGMENT OF INDEMNITY AND INSURANCE REQUIREMENTS

Insurance

a. All required insurance must be provided in the form of “occurrence”-type policies underwritten by admitted insurers in the State of California with a rating of A or better from the current year Best Rating Guide. All policies must be issued at the expense of the Contractor and must be maintained at the Contractor’s expense throughout the performance of the Work. Contractor shall maintain insurance as required by this contract to the fullest amount allowed by law and shall maintain insurance for a minimum of five years following the completion of this project. In the event contractor fails to obtain or maintain completed operations coverage as required by this Contract, the City at its sole discretion may purchase the coverage required and the cost will be paid by Contractor.

b. Contractor agrees to include with all subcontractors in their subcontract the same requirements and provisions of this contract including the indemnity and insurance requirements to the extent they apply to the scope of the Subcontractor’s work. Contractor shall require all sub-contractors to provide a valid certificate of insurance and the required endorsements included in the Contract prior to commencement of any work and Contractor will provide proof of compliance, upon request, to the City.

c. Subcontractor hired by the Contractor agree to be bound to the Contractor and the City in the same manner and to the same extent as Contractor is bound to the City under the Contract. Subcontractor further agrees to include the same requirements and provisions of this Contract, including the Indemnity and Insurance requirements, with any Subcontractor to the extent they apply to the scope of the Subcontractor’s work. A copy of the Contract Indemnity and Insurance provisions will be furnished to the Subcontractor upon request.

d. The Contractor and any Subcontractors engaged in performance of the Work must secure payment of workers compensation in accordance with California Labor Code Section 3700 and other applicable law. The Contractor must verify that all Subcontractors comply with this requirement.

e. Within ten working days following the Notice of Award, the Contractor must submit to the City acceptable certificates of insurance, declarations page(s) and endorsements evidencing that the Contractor has the required insurance in effect and will maintain it throughout the performance of the Work and beyond, as applicable, the following kinds and amounts of insurance:

1. The minimum limits of the Commercial General Liability (including bodily injury, personal injury and property damage) insurance shall be:
   - $10,000,000 aggregate
   - $5,000,000 occurrence

   If the work to be performed involves any excavation, the policy shall include an endorsement that affords coverage for explosion, collapse and underground hazards.
2. If the work to be performed involves vehicles or vehicular equipment, the Automobile insurance limit shall be:
   $5,000,000 per accident for bodily injury and property damage

3. Automobile coverage should be at least as broad as Insurance Services Automobile Liability form CA 0001 Code 1 (“any auto”). No endorsement may be attached limiting the coverage. Anything less than ‘any auto’ coverage must be approved by the Risk Manager prior to approval. If the Risk Manager accepts anything less than ‘any auto’, additional information such as a schedule of covered autos, proof of personal auto liability coverage, or a verification statement may be required by the City.

4. Worker’s Compensation Insurance. Proof of Workers Compensation and Employers Liability insurance as required by any applicable law, regulation or statute, including the provisions of Division IV of the Labor Code of the State of California, and any act or acts amending it. Worker’s compensation insurance must be for Statutory Limits and must cover the full liability of the Contractor. The Contractor’s Employer’s Liability Insurance must be in an amount no less than $1,000,000.00 per occurrence. The workers’ compensation policy is to be endorsed with a waiver of subrogation. The insurance company, in its endorsement, must agree to waive all rights of subrogation against the City, its officers, officials, employees and volunteers for losses paid under the terms of such policy.

5. Umbrella/Excess Policy. The limits of insurance required under this Contract may be satisfied by a combination of primary and umbrella or excess Insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of City (if agreed to in a written contract or agreement) before the City’s own insurance or self-insurance shall be called upon to protect it as a named insured.

f. Additional Requirements

i. Endorsements must add the City, its officials, officers, employees, agents and volunteers as an additional insured (“Additional Insured”). Examples of City approved insurance forms are included in this package. If the Contractor provides policy pages or broad forms of endorsement the insurance carrier will be asked to sign, initial and date all applicable sections of the document which conveys coverage to the City.

ii. It shall be a requirement under this Contract that any available insurance proceeds broader than or in excess of the specified minimum Insurance coverage requirements and/or limits shall be available to the Additional Insured. Furthermore, the requirements for coverage and limits shall be (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any Insurance policy or proceeds available to the name insured; which ever greater.
iii. The Additional Insured coverage under the Contractor’s policy shall be “primary and non-contributory” and will not seek contribution from the City of Healdsburg’s insurance or self-insurance and shall be at least as broad as CG 20 01 04 013.

iv. The Contractor shall provide the City with a 30 day written notice of any reduction or cancellation of such insurance required to be furnished by the Contractor; and include a severability of interest clause acceptable to the City if requested by the City.

v. If an Umbrella or Excess Policy is used to satisfy the requirements, than an email or language stating such on the certificate must be provided from the insurance carrier/broker and that the Umbrella/Excess Policy ‘follows form’ or is ‘continuous’ to the General liability and/ Auto liability policy in addition to the required endorsement.

vi. The City has included examples of approved standard and preferred forms of endorsements in the Contract. If the Contractor’s insurance carrier chooses to use forms other than the City’s approved forms, such forms shall be subject to the prior approval of the City. If the Contractor provides policy pages instead of an endorsement the insurance agent/broker will be asked to sign, initial and date all applicable sections of the policy that meet the City’s insurance requirements.

g. All self-insured retentions (SIR) must be disclosed to City for approval and shall not reduce the limits of liability. Policies containing any self-insured retention (SIR) provision shall provide or be endorsed to provide that the SIR may be satisfied by either the named Insured or the City, The City reserves the right to obtain a full certified copy of any Insurance policy and endorsements. Failure to exercise this right shall not constitute a waiver of right exercise later.

Contractor's failure to provide insurance certificates and endorsement forms that are acceptable to the City within ten (10) days of notice of award of contract shall:

   (i) constitute a failure to complete the "Contract Documents Checklist" as described on page 39

   (ii) entitle the City to rescind any contract award

   (iii) result in a forfeiture of Contractor's bid bond or other form of bid security.

a. Contractor must continue to provide approved forms of insurance certificates, declarations page(s) and endorsements that meet the requirements of Section 8-1.07 of the Contract Documents for 3 years following recordation of a Notice of Completion or other form of notice of project completion provided by City.

Indemnities

a. The Contractor will take all responsibility for the Work, and will bear all losses and damages directly or indirectly resulting to the Contractor, any subcontractors engaged in performance of the Work, the City, its officials, officers, employees, agents, volunteers and consultants, and to third parties on account of the performance or character of the Work, unforeseen difficulties, accidents, or occurrences of other causes predicated on active or passive negligence of the Contractor or of any subcontractor engaged in performance of the Work. To the
fullest extent permitted by law the Contractor will indemnify, defend and hold harmless the City, its officials, officers, employees, agents, volunteers and consultants from and against any or all loss, liability, expense, claims, costs (including costs of defense), suits, and damages of every kind, nature and description (including, but not limited to, penalties resulting from exposure to hazards in violation of the California Labor Code) directly or indirectly arising from the performance of the Work (“Claims”). The Contractor’s responsibility for such defense and indemnity obligations shall survive the termination or completion of this agreement for the full period of time allowed by law.

b. The Contractor will indemnify, defend and hold harmless the City, the City’s officials, officers, employees, volunteers, agents and the Engineer and the Architect for all liability on account of any patent rights, copyrights, trade names or other intellectual property rights that may apply to the Contractor’s performance of the Work. The Contractor will pay all royalties or other charges as a result of intellectual property rights that may apply to methods, types of construction, processes, materials, or equipment used in the performance of the Work, and will furnish written assurance satisfactory to the City that any such charges have been paid.

c. The Contractor assumes all liability for any accident or accidents resulting to any person or property as a result of inadequate protective devices for the prevention of accidents in connection with the performance of the Work. The Contractor will indemnify, defend, and hold harmless the City and its officials, officers, employees, agents, volunteers and consultants from such liability.

d. The defense and indemnification obligations in this Contract are undertaken in addition to, and shall not in any way be limited by the insurance obligations contained in this Agreement, Sections 8-1.08 or 8-1.09. The Contractor will defend, with legal counsel reasonably acceptable to the City, any action or actions filed in connection with any Claims and will pay all related costs and expenses, including attorney’s fees incurred. The Contractor will promptly pay any judgment rendered against the City, its officials, officers, employees, agents, volunteers or consultants for any Claims. In the event the City, its officials, officers, employees, agents, volunteers or consultants is made a party to any action or proceeding filed or prosecuted against Contractor for any Claims, Contractor agrees to pay the City, its officials, officers, employees, agents, volunteers and consultants any and all costs and expenses incurred in such action or proceeding, including but not limited to, reasonable attorneys’ fees.

e. Subject to the requirements of Section 5 of the General Provisions, the Contractor will indemnify, hold harmless and defend with legal counsel reasonably acceptable to the City the City and its officials, officers, employees, agents and volunteers from and against any and all Claims related to damage to surface or underground facilities caused by the Contractor or any of the Contractor’s privities or agents.

f. The Contractor will indemnify, hold harmless and defend with legal counsel reasonably acceptable to the City the City and its officials, officers, employees, agents and volunteers from and against any and all Claims, including any fines or other penalties, related to failure of the Contractor and/or privities or agents of the Contractor to comply with the requirements of the General Permit, or to
implement the SWPPP in accordance with provision 12-1.04 of the Contract. The City may withhold from amounts due or that may become due the Contractor under this Contract amounts that equal or are estimated to equal the amount of Claims, including fines, resulting from failure of the Contractor and/or privities or agents of the Contractor to comply with the requirements of the General Permit, or to implement the SWPPP in accordance with provision 12-1.04 of the Contract.

g. In accordance with California Civil Code Section 2782(a), nothing in the Contract will be construed to indemnify the City for its sole negligence, willful misconduct, or for defects in design furnished by City. In accordance with California Civil Code Section 2782(b), nothing in the Contract will be construed to impose on the Contractor or to relieve the City from liability for the City’s active negligence. By execution of the Contract Documents the Contractor acknowledges and agrees that the Contractor has read and understands the insurance and indemnity requirements of the Contract Documents, which are material elements of consideration.

h. Contractor's and subcontractor's responsibility for such defense and indemnity obligations shall survive the termination or completion of this Contract for the full period of time allowed by law.

i. The defense and indemnification obligations of this Contract are undertaken in addition to, and shall not in any way be limited by, the insurance obligations contained in this Contract.

I have read, understand and agree to comply with the Indemnity and Insurance requirements supplied with this notice to bidders.

____________________________________________
Signature of Bidder

____________________________________________
Printed Name
TITLE 49, CODE OF FEDERAL REGULATIONS - PART 29
DEBARMENT AND SUSPENSION CERTIFICATION

The bidder, under penalty of perjury, certifies that, except as noted below, he/she or any person associated therewith in the capacity of City, partner, director, officer, manager:

1. Is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency;

2. Has not been suspended, debarred, voluntarily excluded or determined ineligible by any Federal Agency within the past 3 years;

3. Does not have a proposed debarment pending; and,

4. Has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

If there are any exceptions to this certification, insert the exceptions in the following space:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted above, indicate below to whom it applies, initiating agency, and dates of action.

Signature of Bidder

__________________________________________

Printed Name

__________________________________________
PUBLIC CONTRACT CODE SECTION 10285.1 STATEMENT

In accordance with Public Contract Code Section 10285.1 (Chapter 376, Stats, 1986), the bidder hereby declares under penalty of perjury under the laws of the State of California, that the bidder has ____ has not ____ been convicted within the preceding three years of any offenses referred to in that section, including any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of any state or federal antitrust law in connection with the bidding upon, award of, or performance of, any public works contract, as defined in Public Contract Code Section 1100, including the Regents of the University of California or the Trustees of the California State University. The term "bidder" is understood to include any partner, member, officer, director, responsible managing officer, or responsible managing employee thereof, as referred to in Section 10285.1.

Note: The bidder must place a check mark after "has" or "has not" in one of the blank spaces provided.

The above Statement is part of the Proposal. Bidders are cautioned that making false certification may subject the certifier to criminal prosecution.

______________________________
Signature of Bidder

______________________________
Printed Name
PUBLIC CONTRACT CODE SECTION 10162 QUESTIONNAIRE

In accordance with Public Contract Code Section 10162, the Bidder shall complete, under penalty of perjury, the following questionnaire:

Has the bidder, any officer of the bidder, or any employee of the bidder who has a proprietary interest in the bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of law or a safety regulation?

Yes _____  No _____

If the answer is "Yes", explain the circumstances in the following space.

________________________________________________________________________

Signature of Bidder

________________________________________________________________________

Printed Name
PUBLIC CONTRACT SECTION 10232 STATEMENT

In accordance with Public Contract Code Section 10232, the Contractor, hereby states under penalty of perjury, that no more than one final unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two year period because of the Contractor's failure to comply with an order of a federal court which orders the Contractor to comply with an order of the National Labor Relations Board.

_____________________________________________
Signature of Bidder

_____________________________________________
Printed Name
BIDDER’S SIGNATURE PAGE

By signing this proposal the bidder certifies, under penalty of perjury under the laws of the State of California, that the information submitted with this proposal for the Foss Creek Pathway Segments 7 and 8 (“Project”), which information includes, but is not limited to, the Bidder’s Check List, Proposal and Schedule of Bid Prices, Bid Bond, Contractor License Information, List of Subcontractors, Workers Compensation Insurance Certification, Non-collusion Affidavit, Debarment Certification, Debarment and Suspension Certification, Public Contract Code Section 10285.1 Statement, Public Contract Code Section 10162 Questionnaire, and Public Contract Code Section 10232 Statement, is accurate, true and correct, and is submitted in accordance with the requirements of the bid package issued by the City of Healdsburg concerning the Project and applicable law. By signing this proposal the bidder representative specified below certifies that he or she is legally authorized to bind the bidder.

The bidder agrees to deliver and to complete the Project within 165 working days from the date of issuance, by the Engineer, of instructions to proceed with the Project, and within 10 working days of the date of mailing of the notice concerning the award, to enter into and execute and provide to the City the Project contract, bonds and all other documents specified in the Contract Check List included in the bid package, and in case of default in executing the Project contract within the time fixed by the Instructions to Bidders, the bidder’s security accompanying this bid shall become the property of and be forfeited to the City of Healdsburg.

Prime Contractor ______________________________________________________

By: _______________________________ Title: _____________________________

Dated this ________ day of _____________________, 20___

(Corporate Seal)

Corporate signature

___________________________________________________

Address: _____________________________________________________

Phone No.: ___________________________________________________

President’s signature ____________________________________________

Secretary’s signature ____________________________________________

Corporation organized under the laws of the State of __________________

Partnership Name: ______________________________________________

Address: _____________________________________________________

Names of Co-Partners and Addresses:

______________________________________________________________

Names of Individuals and Addresses:

______________________________________________________________

NOTE: Sign in proper space above.
Date: ________________                    (Typed or printed name)

______________________________                    (Signature)

______________________________                    (Bidder)

Bidder business address (street, city, state and zip code)
______________________________________________________________________
______________________________________________________________________

Bidder Business phone: (______)__________________________

Bidder Business fax: (______)__________________________
CONTRACT DOCUMENTS CHECK LIST

Complete, accurate, executed copies of the following documents must be submitted to the City of Healdsburg in accordance with the bid package issued by the City within ten (10) working days of receiving written notice concerning award of the project. The bidder’s security of any successful bidder that fails to do so will be forfeited to the City.

_____ Contract, Part 1
_____ Performance Bond
_____ Payment Bond
_____ Certificates of Insurance, Declarations page(s) and Endorsements
_____ Escrow for Deposit Agreement, if applicable
_____ General Conditions, Contract, Part 2
_____ Special Provision (if included)
_____ Technical Specifications
_____ Project Plans
_____ Contractor Safety Program
_____ Report of Use/Storage of Hazardous Substances
CONTRACT PART 1

This Contract is made and entered into this (to be completed by the City) _____ day of ________________, 201__, by and between the City of Healdsburg, a California Municipal Corporation, 401 Grove Street, Healdsburg, California, 95448, hereinafter referred to as "City," and ___________________________________________________, a _________________________________, ____________________________________, hereinafter referred to as "Contractor"

RECITALS

A. NOTICE INVITING BIDS. The City gave notice inviting bids to be submitted by __________________ for the Foss Creek Pathway Segments 7 and 8 by published notice and/or posting in accordance with California Public Contract Code Section 20164 and other applicable law.

B. BID OPENING. On ________________________________, City representatives opened the bids for the Foss Creek Pathway Segments 7 and 8 and read the bids aloud.

C. PROJECT AWARD. On _______________________________, the City Council awarded the Foss Creek Pathway Segments 7 and 8 to the Contractor and directed City staff to send the Contractor written notice of award of the project. The City Council conditioned award of the project on the Contractor's providing executed copies of all documents specified in the Contract checklist included in the bid package within ten (10) calendar days of receiving written notice concerning award of the project.

D. REQUIRED DOCUMENTS. The Contractor has provided the City executed copies of all documents specified in the Contract checklist included in the bid package within ten (10) calendar days of receiving written notice of award.

CONTRACT TERMS

The City and the Contractor agree as follows:

1. THE WORK. The Contractor must furnish all equipment, tools, apparatus, facilities, material, labor, and skill necessary to perform and complete in a good and workmanlike manner the Foss Creek Pathway Segments 7 and 8 ("Work") as shown in the Technical Specifications and Project Plans in accordance with the Contract Documents and applicable law.

2. LOCATION OF WORK. The Work will be performed at the following location: within public lands, railroad right-of-way or public right-of-way (ROW) between the flood control detention basin adjacent to the Carson Warner Memorial Skatepark and the intersection of Grove Street and Healdsburg Avenue in Healdsburg, California.
3. **TIME FOR COMPLETION.** The Contractor must complete the Work in accordance with the Contract Documents within **165 Working days** from the date specified in the City’s Notice to Proceed (“Time for Completion”).

4. **REMEDIES FOR FAILURE TO TIMELY COMPLETE THE WORK.** If the Contractor fails to fully perform the Work in accordance with the Contract Documents by the Time for Completion, as such time may be amended by change order or other modification to this Contract in accordance with its terms, and/or if the Contractor fails, by the Time for Completion, to fully perform all of the Contractor’s obligations under this Contract that have accrued by the Time for Completion, the Contractor will become liable to the City for all resulting loss and damage in accordance with the Contract Documents and applicable law. The City’s remedies for the Contractor’s failure to perform include, but are not limited to, assessment of **liquidated damages of $1000 per day** in accordance with California Government Code Section 53069.85 and the Contract Documents, and/or obtaining or providing for substitute performance in accordance with the Contract Documents.

5. **CONTRACT PRICE AND PAYMENT.** As full compensation in consideration of completion of the Work in accordance with the Contract Documents and in consideration of the fulfillment of all of the Contractor’s obligations under the Contract Documents, the City will pay the Contractor in lawful money of the United States the total price of $____________ (the “Contract Price”) as specified in the Contractor’s completed Bid Schedule dated ________________, ____, attached to and incorporated in this Contract. Payment to the Contractor under this Contract will be for Work actually performed in accordance with the Contract Documents and will be made in accordance with the requirements of the Contract Documents and applicable law. The City will have no obligation to pay the Contractor any amount in excess of the Contract Price unless this Contract is first modified in accordance with its terms. The City’s obligation to pay the Contractor under this Contract is subject to and may be offset by charges that may apply to the Contractor under this Contract. Such charges include but are not limited to, charges for liquidated damages and/or substitute performance in accordance with the Contract Documents.

6. **PREVAILING WAGES.** In accordance with California Labor Code Section 1771, not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the Work is to be performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work fixed as provided in the California Labor Code must be paid to all workers engaged in performing the Work. In accordance with California Labor Code Section 1770 and following, the Director of Industrial Relations has determined the general prevailing wage per diem rates for the locality in which the Work is to be performed. In accordance with California Labor Code Section 1773, the City has obtained the general prevailing rate of per diem wages and the general rate for holiday and overtime work in the locality in which the Work is to be performed for each craft, classification or type of worker needed to perform the project. In accordance with California Labor Code Section 1773.2, copies of the prevailing rate of per diem wages are on file at the City Public Works Department and will be made available on request. Throughout the performance of the Work the Contractor must comply with all provisions of the Contract Documents and all applicable laws and regulations that apply to wages earned in performance of the Work.
7. THE CONTRACT DOCUMENTS. This Contract consists of the following documents 
(“Contract Documents”), all of which are incorporated into and made a part of this 
Contract as if set forth in full. In the event of a conflict between or among the Contract 
Documents, precedence will be in the following order:

7.1 Part 1 of the Contract and change orders and other amendments to this 
agreement signed by authorized representatives of the City and the Contractor.

7.2 The General Provisions, Part 2 of the Contract, and change orders and other 
amendments to the General Conditions signed by authorized representatives of 
the City and the Contractor.

7.3 The Special Provisions, if included make up Part 3 of the Contract, and include 
any addenda to the Special Provisions signed by authorized representatives of 
the City and issued prior to bid opening, Equal Product Proposals accepted by 
the City and signed by authorized City representatives prior to bid opening, and 
change orders and other amendments to the Technical Specifications signed by 
authorized representatives of the City and the Contractor.

7.4 The Project Plans, Part 4 of the Contract, addenda to the Project Plans signed by 
authorized representatives of the City and issued prior to bid opening, Equal 
Product Proposals accepted by the City and signed by authorized City 
representatives prior to bid opening, and change orders and other amendments 
to the Project Plans signed by authorized representatives of the City and the 
Contractor.

7.5 Notice Inviting Bids.

7.6 Instructions to Bidders.

7.7 The successful bidder’s completed Proposal Form and Bidder’s Sheet.

7.8 The successful bidder’s completed Contractor License Information.

7.9 The successful bidder’s completed List of Proposed Subcontractors.

7.10 The successful bidder’s Workers Compensation Insurance Certification.

7.11 The successful bidder’s completed Non-collusion Affidavit.

7.12 The successful bidder’s Debarment Certification.

7.13 The successful bidder’s signed Acknowledgment of Indemnity and Insurance 
requirements and completed Certificates of Insurance, Declaration page(s) and 
Endorsements.

7.14 The successful bidder’s executed Performance Bond.

7.15 The successful bidder’s executed Payment Bond.

7.16 The Maintenance Bond form included in the bid package that the Contractor 
must execute prior to release of final payment under the Contract.
7.17 The successful bidder’s Qualification Statement, if any.

7.18 The successful bidder’s signed Signature Form.

8. **PROVISIONS INCORPORATED BY REFERENCE.** Provisions or parts of provisions that are incorporated by reference and not set forth at length in any of the Contract Documents will only form a part of this Contract to the extent the Contract Documents expressly make such provisions or parts of provisions a part of this Contract. For example, published public works agreement provisions, such as those of the State of California Department of Transportation Standard Specifications (known as the Caltrans Standard Specifications) are only a part of this Contract to the extent expressly incorporated in this Contract by section number. When such published provisions are made a part of this Contract, references in the published provisions to other entities, such as the State, the Agency, or similar references, will be deemed references to the City as the context of this Contract may require.

9. **INTERPRETATION OF CONTRACT DOCUMENTS.** Any question concerning the intent or meaning of any provision of the Contract Documents, including, but not limited to, the Technical Specifications or Project Plans, must be submitted to the Public Works Director, or his/her designee, for issuance of an interpretation and/or decision by the authorized Public Works Director in accordance with the requirements of the Contract Documents. Interpretations or decisions by any other person concerning the Contract Documents will not be binding on the City. The decision of the Public Works Director, or his/her designee, will be final.

10. **ASSIGNMENT PROHIBITED.** The Contractor may not assign part or all of this Contract, or any moneys due or to become under this Contract, or any other right or interest of the Contractor under this Contract, or delegate any obligation or duty of the Contractor under this Contract without the prior written approval of an official authorized to bind the City and an authorized representative of Contractor’s surety or sureties. Any such purported assignment or delegation without such written approval on behalf of the City and the Contractor’s sureties will be void and a material breach of this Contract subject to all available remedies under this Contract and at law and equity.

11. **CERTIFICATION RE CONTRACTOR’S LICENSE.** By signing this Contract the Contractor certifies that the Contractor holds a valid license issued by the California State Contractors Licensing Board as required to perform the Work and as specified in the Notice to Bidders for the Project, and that the Contractor understands that failure to maintain its license in good standing throughout the performance of the Work may result in discipline and/or other penalties pursuant to the California Business and Professions Code, and may constitute a material breach of this Contract subject to all available remedies under this Contract and at law and equity.

12. **SEVERABILITY.** If any term or provision or portion of a term or provision of this Contract is declared invalid or unenforceable by any court of lawful jurisdiction, then the remaining terms and provisions or portions of terms or provisions will not be affected thereby and will remain in full force and effect.
CONTRACTOR

__________________________________________
By: ________________________________
Title: ________________________________
Executed by Contractor on ____________

[Attach Notary Page]

CITY

City of Healdsburg

By: ________________________________
David Kiff,
Interim City Manager
Executed by City on: ____________

By: ________________________________
Heather Ippoliti, Administrative Services
Director/Risk Manager

Attest:

By: ________________________________
Raina Allan, City Clerk

The forgoing contract is approved by me in its entirety as to form on ____________________,
201____.

__________________________________________
City Attorney
City of Healdsburg
PERFORMANCE BOND

(NOTE: The successful bidder must use this form. Use of any other bond form may prevent a contract from forming and/or result in forfeiture of the successful bidder’s bid bond)

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS the City Council of the City of Healdsburg has awarded to ____________________, (designated as the “PRINCIPAL”) a contract for the Foss Creek Pathway Segments 7 and 8, which contract and all of the contract documents as defined therein (designated as the “Contract”) are hereby made a part hereof; and

WHEREAS, said PRINCIPAL is required under the terms of the Contract to furnish a bond for the faithful performance of the Contract;

NOW, THEREFORE, WE, the PRINCIPAL and ____________________, (designated as “SURETY”), an admitted surety insurer authorized to do business in the State of California, are held and firmly bound unto the City (designated as “OBLIGEE”), in the penal sum of $________________, lawful money of the United States for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, and administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that, if the above bound PRINCIPAL, his or its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the Contract and any alteration thereof made as therein provided, on his or their part to be kept and performed at the time and in the manner therein specified and in all respects according to their true intent and meaning, and shall defend, indemnify and save harmless the OBLIGEE, its officials, officers, employees, volunteers and agents, as therein stipulated, then this obligation shall become null and void, otherwise it shall be and remain in full force and virtue.

And the said SURETY, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or to the specifications or the plans accompanying the same or to any other part of the contract documents, as defined therein, shall in any way affect said SURETY’s obligation on this bond, and the SURETY does hereby waive notice of any such change, extension of time, alteration or addition.

And the said SURETY, for value received, hereby stipulates and agrees that upon termination of the Contract for cause, the OBLIGEE reserves the right to refuse tender of the PRINCIPAL by the SURETY to complete the Contract work.

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their several seals this________________ day of _________________________________, _____, the name and corporate seals of each corporate party being hereto affixed and these presents duly signed by their undersigned representatives, pursuant to authority of their governing bodies.
(Corporate Seal)

PRINCIPAL

By

(Acknowledgement)

Title

SURETY

By

(Accertified copy of unrevoked resolution of authority for the attorney-in-fact must be submitted with and attached to the executed bond.)
PAYMENT/LABOR AND MATERIALS BOND

(NOTE: The successful bidder must use this form. Use of any other bond form may prevent a contract from forming and/or result in forfeiture of the successful bidder’s bid bond)

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS the City Council of the City of Healdsburg has awarded to ____________________________, (designated as the “PRINCIPAL”) a contract for the Foss Creek Pathway Segments 7 and 8, which contract and all of the contract documents as defined therein (designated as the “Contract”) are hereby made a part hereof; and

WHEREAS, pursuant to California Civil Code Section 9550, the PRINCIPAL is required, before entering upon the performance of the Contract, to file a payment bond with and have such bond approved by the officer or public entity by whom the Contract is awarded; and

WHEREAS, pursuant to California Civil Code Section 9554, such payment bond must be in a sum not less than one hundred percent (100%) of the total amount payable by the terms of the Contract, and must satisfy the other requirements specified in that section; and

WHEREAS, the PRINCIPAL is required in accordance with the Contract to furnish a payment bond in connection with the Contract to secure payment of claims of laborers, mechanics and materialmen employed on work under the Contract in accordance with applicable law;

NOW, THEREFORE, THESE PRESENTS WITNESSETH:

That the PRINCIPAL and the undersigned______________________________________
_____________________________________ _, as surety (designated as “SURETY”), an admitted surety insurer authorized to do business in the State of California are held and firmly bound unto all laborers, material men, and all other persons named in California Civil Code Section 9100 (a) in the sum of _________________________________________ Dollars ($___________________), lawful money of the United States, being a sum not less than one hundred percent of the total amount payable by the terms of the Contract, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns, jointly and severally, by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if the PRINCIPAL or any of the PRINCIPAL’s subcontractors, or the heirs, executors, administrators, successors, or assigns of any, all, or either of them, shall fail to pay any persons named in California Civil Code Section 9100 (a), or fail to pay for any labor, materials, provisions, provender, or other supplies used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or fail to pay amounts due under the Unemployment Insurance Code with respect to such work or labor, or fail to pay for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the PRINCIPAL or any subcontractors of the PRINCIPAL pursuant to Section 13020 of the Unemployment Insurance Code with respect to such work or labor, that the SURETY will pay for the same in an amount not exceeding the amount herein above set forth, and also, in case suit is brought upon this bond, will pay a reasonable attorney’s fee to be awarded and fixed by the Court; otherwise this obligation shall be void.

It is hereby expressly stipulated and agreed by the said Surety, for value received, that this bond shall inure to the benefit of any and all of the persons named in Section 9100 (a) of the
California Civil Code so as to give a right of action to them or their assigns in any suit brought upon this bond.

It is hereby further expressly stipulated and agreed by the said Surety, for value received, that no change, extension of time, alteration or addition to the terms of the Contract or the specifications or drawings accompanying the same or to any other part of the contract documents, as defined therein, shall in any manner affect the obligations of the SURETY on this bond, and SURETY does hereby waive notice of any such change, extension, alteration, or addition.

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their several seals this___________ day of _____________________, _______, the name and corporate seals of each corporate party being hereto affixed and these presents duly signed by their undersigned representatives, pursuant to authority of their governing bodies.

(Corporate Seal)

PRINCIPAL______________________________________

By______________________________________________

(Acknowledgement)

Title_____________________________________________

SURETY_________________________________________

(Corporate Seal)

By_______________________________________________

(Attorney-in-fact)

(Acknowledgement)

Title_____________________________________________

(Note to Surety Company: A certified copy of unrevoked resolution of authority for the attorney-in-fact must be submitted with and attached to the executed bond.)
MAINTENANCE BOND

(NOTE: The Contractor must use this form. Use of any other bond form may prevent release of final payment and/or release of retention under the Contract)

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS the City Council of the City of Healdsburg has awarded to ______________________________, (designated as the “PRINCIPAL”) a contract for the Foss Creek Pathway Segments 7 and 8, which contract and all of the contract documents as defined therein (designated as the “Contract”) are hereby made a part hereof; and

WHEREAS, the PRINCIPAL is required under the terms of the Contract to furnish a bond for the correction of any defects due to defective materials or workmanship in the work performed under the Contract.

NOW, THEREFORE, we the PRINCIPAL and the undersigned ________________________________, (designated as “SURETY”), an admitted surety insurer authorized to do business in the State of California, are held and firmly bound unto the City of Healdsburg, (designated as the “OBLIGEE”), in the penal sum of ________________________ Dollars ($______________), lawful money of the United States, being a sum not less than ten percent (10%) of the final Contract price, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH that if, during a maintenance period of one (1) year from the date of acceptance by the OBLIGEE of the contracted work, the PRINCIPAL upon receiving written notice of a need for repairs which are directly attributable to defective materials or workmanship, shall diligently take the necessary steps to correct said defects within seven (7) days from the date of said notice, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

If any action shall be brought by the OBLIGEE upon this bond, a reasonable attorney’s fee, to be fixed by the Court, shall be and become a part of OBLIGEE’s judgment in any such action. No right of action shall accrue on this bond to, or for the use of, any person or corporation other than the OBLIGEE named herein or the heirs, executors, administrator or successor of the OBLIGEE.

IN WITNESS WHEREOF, the above bound parties have executed this instrument under their seals this ____________ day of ____________, the name and corporate seals of each
corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

(Corporate Seal)

PRINCIPAL ________________________________

By _______________________________________

(Acknowledgment)

Title ______________________________________

SURETY ________________________________

(Corporate Seal)

By _______________________________________

(Attorneys-in-fact)

(Acknowledgment)

Title ______________________________________

(NOTE TO SURETY COMPANY: A certified copy of unrevoked resolution of authority for the attorney-in-fact must be submitted with and attached to the executed bond.)
ESCROW AGREEMENT

SECURITY DEPOSITS IN LIEU OF RETENTION

This Escrow Agreement is made and entered into by and between the City of Healdsburg, whose address is 401 Grove Street, Healdsburg, California 95448, hereinafter called "City", __________________________________________, whose address is __________________________________________, hereinafter called "Contractor", and __________________________________________, whose address is __________________________________________, hereinafter called "Escrow Agent"

For consideration hereinafter set forth, the City, Contractor, and Escrow Agent agree as follows:

1. Pursuant to Section 22300 of the Public Contract Code of the State of California, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by City pursuant to the Construction Contract entered into between the City and Contractor for the project entitled Foss Creek Pathway Segments 7 and 8 in the amount of ___________________________ dated ___________________________ (hereinafter referred to as the "Contract"). Alternatively, on written request of the Contractor, the City shall make payments of the retention earnings directly to the Escrow Agent. When Contractor deposits the securities as substitute for Contract earnings, the Escrow Agent shall notify the City within 10 days of the deposit. The market value of the securities at the time of the substitution shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract between the City and Contractor. Securities shall be held in the name of City of Healdsburg and shall designate the Contractor as the beneficial owner.

2. The City shall make progress payments to the Contractor for such funds which otherwise would be withheld from progress payments pursuant to the Contract provisions, provided that the Escrow Agent holds securities in the form and amount specified above.

3. When the City makes payment of retentions earned directly to the Escrow Agent, the Escrow Agent shall hold them for the benefit of the Contractor until such time as the escrow created under this contract is terminated. The Contractor may direct the investments of the payments into securities. All terms and conditions of this agreement and the rights and responsibilities of the parties shall be equally applicable and binding when the City pays the escrow agent directly.

4. Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the Escrow Account and all expenses of the City. These expenses and payment terms shall be determined by the City, Contractor and Escrow Agent.

5. The interest earned on the securities or the money market accounts held in escrow and all interest earned on that interest shall be for the sole account of the Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to the City.

6. Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from City to the Escrow Agent that City consents to the withdrawal of the amount sought to be withdrawn by Contractor.

7. The City shall have a right to draw upon the securities in the event of default by the Contractor. Upon seven day's written notice to the Escrow Agent from the City of the default,
the Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by the City.

8. Upon receipt of written notification from the City certifying that the Contract is final and complete, and that the Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all monies and securities on deposit and payments of fees and charges.

9. Escrow Agent shall rely on the written notifications from the City and the Contractor pursuant to Sections (5) to (8) inclusive, of this agreement and the City and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.

10. The names of the persons who are authorized to give written notice or to receive written notice on behalf of the City and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures, are as follows:

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<th>On Behalf of City:</th>
<th>On Behalf of Contractor</th>
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<td>Signature</td>
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At the time the Escrow Account is opened, the City and Contractor shall deliver to the Escrow Agent a fully executed counterpart of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement by their proper officers on the date first set forth above.

City: Contractor:

Title Title
CONTRACT PART 2

GENERAL PROVISIONS

SECTION 1 Definitions

The following terms as used in any agreement of which these General Provisions are a part are defined as follows:

1-1.01 Contract: The agreement between the City and Contractor concerning the Project, as evidenced by and comprised of the Contract Documents.

1-1.02 Architect: The person or persons so specified on the Technical Specifications and/or Project Plans.


1-1.04 Bid Package: All of the documents listed as comprising the entire Bid Package as specified in the Instructions to Bidders and representing the full set of documents made available to bidders on the Project.

1-1.05 City: City of Healdsburg

1-1.06 Public Works Standard Specifications and Details: The edition of the City of Healdsburg Public Works Standard Specifications and Details in effect on the date of the last signature to this Contract.

1-1.07 Contract Documents: All those documents listed in Paragraph 7 of the Contract Part 1 as comprising the entire agreement between the City and the Contractor.

1-1.08 Contractor: The successful bidder for the Project and party to the Contract with the City as specified in the Contract Documents.

1-1.09 Days: Unless otherwise specified in the Contract Documents, days mean calendar days.

1-1.10 Engineer: The City’s authorized representative for administration and overall management of the Project, Contract, and Work. The Engineer is the official point of contact between the City and the Contractor.

1-1.11 Project: The Foss Creek Pathway Segments 7 and 8 project as described in the Technical Specifications and Project Plans.

1-1.12 Project Plans: The primarily graphic detailed requirements concerning the Project contained in the Bid Package and any addenda to the Project Plans signed by authorized City representatives and issued prior to bid opening, Equal Product Proposals accepted by the City and signed by authorized City representatives prior to bid opening, and change orders and other amendments to the Project Plans signed by authorized representatives of the City and the Contractor in accordance with the requirements of the Contract Documents.
1-1.13 **Project Inspector:** The party or parties charged by the City with inspecting the Work for compliance with the requirements of the Contract Documents and applicable laws and regulations. The Project Inspector acts under the direction of the City and must coordinate with the Engineer as directed by the City in accordance with the Contract Documents.


1-1.15 **Caltrans Construction Manual:** The State of California Department of Transportation Construction Manual, latest edition.

1-1.16 **Subcontractor:** A person, firm or corporation that is obligated as a party to a contract with the Contractor to perform part of the Work. For purposes of these General Provisions Subcontractors include, but are not limited to, those that are obligated as parties to a contract with the Contractor to specially fabricate and install a portion of the Work according to the Technical Specifications and/or Project Plans.

1-1.17 **Technical Specifications:** The detailed Project requirements contained in the Bid Package and any addenda to the Technical Specifications signed by authorized City representatives and issued prior to bid opening, Equal Product Proposals accepted by the City and signed by authorized City representatives prior to bid opening, and change orders and other amendments to the Technical Specifications signed by authorized representatives of the City and the Contractor in accordance with the requirements of the Contract Documents.

1-1.18 **Work:** The furnishing of all equipment, tools, apparatus, facilities, material, labor and skill necessary to perform and complete in a good and workmanlike manner the Project as shown in the Technical Specifications and Project Plans in accordance with the Contract Documents and applicable law.

1-1.19 **Written Notice:** Will be deemed to have been duly served for purposes of these General Provisions and any Contract of which they are a part if delivered in person to the individual or to a member of the firm or to any office of the corporation for whom the notice is intended, or if sent by registered or certified mail to the last known business address known to the party giving notice. Unless otherwise specified in the Contract Documents, the last known address of the Contractor will be that listed in the Contractor's completed Proposal.
SECTION 2 Scope of Work

2-1.01 Documents Furnished by City. The City will furnish to the Contractor, free of charge, five (5) sets of prints of the Project Plans and Technical Specifications for execution of the Work. Throughout the performance of the Work the Contractor must keep one copy of the Project Plans and Technical Specifications in good order and available for review by the Engineer, the Architect, and any other City contractors or representatives.

2-1.02 Ownership of Documents Furnished by City. All documents furnished by the City, including, but not limited to, the Technical Specifications, Project Plans, and any copies, are the property of the City. Documents furnished by the City may not be used on any other work. All documents furnished by the City must be returned to City upon completion of the Work.

2-1.03 Technical Specifications and Project Plans.

a. The Technical Specifications and Project Plans are complementary and intended to mutually describe the Work necessary to complete the Project in accordance with the Contract Documents.

b. In general, the Project Plans indicate dimensions, position and kind of construction, and the Technical Specifications indicate qualities and methods. Any Work indicated on the Project Plans and not mentioned in the Technical Specifications or vice versa must be furnished as though fully set forth in both. Work that is not particularly detailed, marked or specified will be the same as similar Work that is detailed, marked or specified. The Contractor must furnish items necessary for the operation of equipment depicted in the Project Plans or specified in the Technical Specifications that are suitable to allow such equipment to function properly at no extra charge.

c. The Contractor must notify the Engineer as soon as possible of any apparent errors or inconsistencies, including, but not limited to, typographical or notational errors in the Project Plans, Technical Specifications, and/or in work done by others affecting the Work. The Engineer will issue instructions concerning any such apparent errors or inconsistencies. If the Contractor proceeds with Work impacted by apparent errors or inconsistencies without instructions from the Engineer, the Contractor does so at its sole risk and will have all of the obligations and the City will have all of the rights and remedies specified in Section 11 concerning any resulting damage or defect.

d. The General Provisions apply with equal force to all of the Work, including extra work authorized by the Engineer in accordance with the Contract Documents. The Contractor must submit any required shop diagrams and/or drawings by the times and in the quantities indicated in the Technical Specifications. Any such shop diagrams and/or drawings must show completely the Work to be done, expanding on the Project Plans concerning details not previously shown, field conditions and the condition of the Work. Engineer review of such shop diagrams and/or drawings will concern conformance with the requirements of the Contract Documents only. The Engineer assumes no responsibility for the correctness or accuracy of the dimensions or any other contents of any shop diagrams and/or drawings submitted by the Contractor. The Contractor must check all dimensions at the Work site. Shop diagrams and/or drawings must be clearly marked with the name of the Project and...
the name of the Contractor, subcontractor or supplier making the submittal, and must be stamped and signed by the Contractor and submitted under a signed transmittal letter from the Contractor certifying that all dimensions have been checked at the Work site. These requirements are mandatory. The Engineer will not review shop diagrams and/or drawings that do not satisfy these requirements. The Contractor will be responsible for any and all discrepancies between dimensions of the actual Work site and/or Work and those shown on shop diagram and/or drawings submitted by the Contractor, and for any other errors contained in or resulting from such shop diagrams and/or drawings, including, but not limited to, errors in material and/or equipment quantities and any resulting errors, delays or additional cost in the performance of the Work. The Contractor will have all of the obligations and the City will have all of the rights and remedies that are specified in Section 11 concerning any discrepancies or errors in shop diagrams and/or drawings submitted by the Contractor, and concerning any resulting errors, delays or additional costs in the performance of the Work.
SECTION 3 Control of Work and Material

3-1.01 Engineer’s Status. The Engineer will administer the Project in accordance with the Contract Documents. After execution of the Contract and issuance of the Notice to Proceed, all correspondence and/or instructions concerning the Project between the Contractor and/or City must be forwarded through the Engineer. Except as otherwise provided in the Contract Documents, the Engineer will not be responsible for and will not have control or charge of construction means, methods, techniques, or procedures or for safety precautions in connection with the Work. The Engineer, however, will have authority to reject materials and/or workmanship that do not conform to the requirements of the Contract Documents. The Engineer will also have the authority to require inspection or testing of the Work.

3-1.02 Architect’s Status. The Architect will advise the Engineer concerning decisions on all claims of the Contractor and all other matters relating to the execution and progress of the Work or the interpretation of the Contract Documents. The Architect will also advise the Engineer concerning Work that does not conform to the Contract Documents. Whenever, in the Architect's opinion, it is necessary or advisable in accordance with the Contract Documents, the Architect may recommend to the Engineer inspection or testing of the Work, whether or not such Work is then fabricated, installed or completed.

3-1.03 Inspection and Testing of Work and Material.

a. The City, the Engineer, the Architect and their representatives will have access to the Work at all times wherever it is in preparation or progress. The Contractor must provide proper facilities for such access and for inspection.

b. The Contractor must inspect all materials as delivered and promptly return all defective materials without waiting for their rejection by the Architect or Engineer.

c. If the Engineer, the Technical Specifications, or any laws, ordinances, or any public authority require any Work to be tested or approved, the Contractor must give the Engineer timely notice of the Contractor's readiness for inspection. Inspections will be promptly made, and where practicable, at the source of supply. Any Work subject to such testing that is covered up without timely notice to the Engineer or without the approval or consent of the Engineer must, if required by the Engineer, be uncovered for examination at the Contractor's expense. The Contractor will have all of the obligations and the City will have all of the rights and remedies that are specified in Section 11 concerning any Work subject to testing that is covered up or otherwise rendered inaccessible for inspection without timely notice to the Engineer and that is not uncovered for examination at the Contractor's expense if required by the Engineer.

d. Tests of materials or qualification tests required by the Contract Documents must be made in accordance with the Technical Specifications and the requirements of the California Building Standards Code as adopted by the City and other applicable law. Copies of all testing reports will be distributed as required in the Technical Specifications.

e. The City or its representatives may order re-examination of questioned Work. If ordered to do so, the Contractor must uncover such Work. If such Work is found to
be according to the Contract Documents, the City will pay the cost of uncovering and restoring the Work, unless such Work was subject to testing and covered up without timely notice to or approval of the Engineer. If re-examined Work is found not in accordance with the Contract Documents, the Contractor must pay the cost of uncovering and restoring the Work. The Contractor will have all of the obligations and the City will have all of the rights and remedies that are specified in Section 11 concerning any re-examined Work not in accordance with the Contract Documents that the Contractor fails to uncover and restore at the Contractor’s expense.

f. The Contractor must replace or correct without charge any material or workmanship found not to conform to the requirements of the Contract Documents, unless the City consents to accept such material or workmanship with an appropriate adjustment in the Contract Price. The Contractor must promptly segregate and remove non-conforming material from the Work site. The Contractor will have all of the obligations and the City will have all of the rights and remedies that are specified in Section 11 concerning any failure by the Contractor to replace or correct without charge any material or workmanship that does not conform to the requirements of the Contract Documents and that the City has not consented to accept.

3-1.04 Samples Furnished by the Contractor. The Contractor must furnish all samples for approval as directed in sufficient time to permit the Architect or Engineer to examine, approve and select samples before they are required by the progress of the Work. Portions of the Work for which samples are required and for which the Architect or Engineer has selected samples must be in accordance with such approved samples. Samples must be sent prepaid to the office of the Engineer or to such place as the Engineer may direct.

3-1.05 Materials and Substitutions.

a. Materials used for the Work must be new and of the quality specified. When not particularly specified, materials must be the best of their class or kind. The Contractor must, if required, submit satisfactory evidence as to the kind and quality of materials.

b. If the Contractor submitted complete information to the Public Works Department for products proposed as equals in accordance with the bid package, and the City approved such products proposed as equals in writing, the Contractor may either furnish such products approved as equals, or furnish the products listed by manufacturer name, brand or model number in the Technical Specifications or Project Plans. The City retains the right, in its sole discretion, to accept or reject any other proposed substitution. To be considered, proposals concerning products proposed as equals must include sufficient information to permit the City to determine whether the products proposed as equals will satisfy the same performance requirements as products listed by manufacturer’s name, brand or model number. Such performance requirements may include, but are not limited to, size, strength, function, and appearance, ease of maintenance and repair, and useful life requirements. If the City does not accept a proposed substitution, the Contractor must furnish the product specified in the Technical Specifications or Project Plans for the Contract Price, regardless of whether the product is specified by manufacturer’s name, brand or model number, or otherwise.

c. During the performance of the Work, all materials must be neatly stacked, properly protected from the weather and other adverse impacts, and placed so as to avoid
interference with efficient progress of the Work, with other activities of the City, or with the use of existing City facilities by the public. Materials may not be stored in a manner that presents a safety hazard or a nuisance. All materials must be delivered so as to ensure efficient and uninterrupted progress of the Work. Materials must be stored so as to cause no obstruction and so as to prevent overloading of any portion of the Work. The Contractor will be responsible for damage or loss of materials delivered to and/or stored at the Work site due to weather or other causes. The Contractor must promptly remove from the Work site all materials rejected by the City or its representatives as failing to conform to the requirements of the Contract Documents, whether such non-conforming materials have been incorporated in the Work or not. If the City or its representatives so direct, the Contractor must promptly replace and re-execute Work performed by the Contractor and order the replacement and re-execution of Work performed by subcontractors using non-conforming materials with materials that satisfy the requirements of the Contract Documents without expense to the City. The Contractor will bear the expense of making good all Work destroyed or damaged by such removal. The Contractor will have all of the obligations and the City will have all of the rights and remedies that are specified in Section 11 concerning any failure by the Contractor to replace or re-execute Work using non-conforming materials, and/or to make good all Work destroyed or damaged by such removal and/or execution.

d. If any portion of the Work done or material furnished under this Contract proves defective and not in accordance with the Project Plans or Technical Specifications, and if the Engineer determines that the imperfection of the same is not of sufficient magnitude or importance to make the Work dangerous or undesirable, or if the removal of such Work, is impractical or will create conditions which are dangerous or undesirable, the Engineer may retain such Work, instead of requiring the imperfect Work to be removed and reconstructed, and make such deductions therefore in the payments due or to become due the Contractor as are just and reasonable.

3-1.06 Audit and Examination of Records. The City may examine and audit at no additional cost to the City all books, estimates, records, contracts, documents, bid documents, bid cost data, subcontract job cost reports and other Project related data of the Contractor, subcontractors engaged in performance of the Work, and suppliers providing supplies, equipment and other materials required for the Work, including computations and projections related to bidding, negotiating, pricing or performing the Work or Contract modifications and other materials concerning the Work, including, but not limited to, Contractor daily logs, in order to evaluate the accuracy, completeness, and currency of cost, pricing, scheduling and any other Project related data. The Contractor will make available all such Project related data at all reasonable times for examination, audit, or reproduction at the Contractor’s business office at or near the Work site, and at any other location where such Project related data may be kept until three years after final payment under the Contract. Pursuant to California Government Code Section 8546.7, if the amount of public funds to be expended is in excess of $10,000, this Contract will be subject to the examination and audit of the State Auditor, at the request of the City, or as part of any audit of the City, for a period of three (3) years after final payment under the Contract.

3-1.07 Advertising. No advertising signs of any kind may be displayed on the Work site, or on fences, offices or elsewhere adjacent to the Work site.

3-1.08 Project Schedule. Within ten (10) days after execution and delivery of the Contract, and prior to the issuance of the notice to proceed, the Contractor must deliver to the
Engineer a bar chart and critical path (CPM) schedule detailing the Contractor's intended schedule of Work for the entire Project. The schedules must be detailed to clearly show the relative sequence of the items of Work, their inter-relationships, start and completion dates, float, the critical path, and any other item deemed necessary by the Engineer. The schedule must allow for the completion of the entire Work within the Time for Completion.

a. City Review of Schedule. The City may review the Contractor’s submitted schedule and may note any exceptions. The Contractor must correct any exceptions noted by the City within five (5) working days of being notified of the exceptions.

b. Update of Schedule. After submission of a schedule to which the City has taken no exceptions, the Contractor must submit an updated schedule on a monthly basis or as otherwise specified by the City until completion of the Work. The updated schedule must show the progress of Work as of the date specified in the updated schedule.

c. Float. The schedule must show early and late completion dates for each task. The number of days between these dates will be designated as “Float”. The Float will be designated to the Project and will be available to both the City and the Contractor as needed to complete the Work in accordance with the Contract.

d. Failure to Submit Schedule. If the Contractor fails to submit schedules within the time periods specified in this Section, or submits a schedule to which the City has taken uncorrected exceptions, the City may withhold payments to the Contractor until such schedules are submitted and/or corrected in accordance with the Contract Documents.

e. Responsibility for Schedule. The Contractor will be solely and exclusively responsible for creating the schedule and properly updating it. The City may note exceptions to any schedule submitted by the Contractor. However, the Contractor will be solely responsible for determining the proper method for addressing such exceptions and the City’s review of the schedule will not create scheduling obligations of the City.

3-1.09 Construction Staking. All Work done under this Contract must be in conformance with the Project Plans and contract documents. It is the responsibility of the Contractor to obtain construction staking services. The Contractor must inform the Engineer, forty-eight (48) hours in advance if electronic design files or other information is needed to be transmitted to a surveyor in order that lines and grades may be furnished and necessary measurements for record and payment made, with the minimum of inconvenience to the Engineer and delay to the Contractor.

The City will NOT provide construction staking services. The Contractor shall carefully preserve bench marks, reference points, and stakes and in the case of willful or careless destruction, will be responsible for the cost of replacement and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.

3-1.10 Materials Testing. Materials will be tested by the City of Healdsburg or its authorized agent, following the Caltrans Standard Specifications. Statistical testing may not be
used. All individual samples must meet the specified test results. Each material used must meet the specified requirements.

The Contractor must request and coordinate all testing. All tests must occur in the presence of the Project Inspector. The City will, at its sole discretion, have the right to reject any and/or all test results, that do not meet this requirement, and to order a retest in the presence of the Project Inspector. The costs for all retests so ordered will be the responsibility of the Contractor. The cost of all retests will be charged to the Contractor at the actual cost plus 30 percent, with a minimum charge of $150.00 per test to cover staff and administrative costs.

The City, at its sole expense, will provide all initial material and compaction tests. Sampling and testing will comply with Chapter 3 of the Caltrans Construction Manual at a minimum. Where conditions vary, the City may perform additional testing. Cost for testing of materials offered in lieu of the specified materials will be the responsibility of the Contractor. Cost for R-value tests when required by the Caltrans Standard Specifications will be the responsibility of the Contractor.

Testing will only be performed on normal City working days between the hours of 8:00 a.m. and 4:00 p.m. unless other arrangements are made in advance. Tests performed outside of these hours may be subject to increased charges.

The Contractor must request all tests in writing a minimum of 2 working days in advance of the time desired. A minimum of one working day must be allowed for compilation and reporting of data and test results after tests have been performed. No subsequent layer of material may be placed until a passing test is obtained and acknowledged by the City.

Concrete and asphalt may be supplied only from suppliers approved and certified by the State Department of Transportation. Proposed mix designs for all concrete and asphalt concrete to be placed within the City of Healdsburg must be provided to and approved by the City, prior to placement.

The Contractor must coordinate with the City concerning any additional testing as required.
SECTION 4 Changes in Work

4-1.01 City Directed Change Orders. The City may at any time during the progress of the Work direct any amendments to the Work or any of the Contract Documents, including, but not limited to the Technical Specifications, or Project Plans. Such amendments will in no way void the Contract, but will be applied to amend the Contract Price, if such amendments affect the Contract Price, the Project schedule, if such amendments affect the Project schedule, or any other provision of the Contract Documents based on a fair and reasonable valuation of the amendment in accordance with this Section 4.

4-1.02 Writing Requirement. Change orders and other amendments to the Technical Specifications, the Project Plans, or other Contract Documents may be made only upon prior written approval of the Engineer and as evidenced by a writing executed by authorized representatives of the City and the Contractor.

4-1.03 Contractor Proposed Change Orders. Unless the Engineer otherwise authorizes or the City and the Contractor otherwise agree, change order proposals submitted by the Contractor must be submitted to the Engineer no later than the time of the proposed change.

4-1.04 All Change Orders. All change order proposals must be submitted on completed City Change Order forms. All such change order proposals must itemize all cost impacts of the proposed change order and include a total price for that change order and the amended Contract Price that would become effective upon execution of the change order. All change order proposals must specify any change in the Project schedule, or in any Project milestone including, but not limited to, the Time for Completion, under the change order. It is understood that change orders that do not specify a change in any milestone, including, but not limited to, the Time for Completion, may be accomplished by the Time for Completion then in effect.

4-1.05 Change Order Pricing. Change order pricing for all change orders, whether, additive, deductive, or both, will be governed by the following:

a. Prices specified in the Contract Documents will apply to cost impacts involving items for which the Contract Documents specify prices.

b. Cost impacts involving items for which the Contract Documents do not specify prices may be paid on a lump sum basis as approved by the City.

c. For cost impacts involving items for which the Contract Documents do not specify prices, and for which no lump sum amount has been approved by the City, charges or credits for the Work will be paid on a time and materials basis in accordance with the following and subject to Caltrans Standard Specifications, provision 9-1.04 concerning allowable direct charges. The time and materials payment will be the sum of and limited to the direct and indirect costs for labor, materials, equipment and overhead calculated as follows:

6. Labor: The Contractor will be paid the cost of labor for the workers (including foremen when authorized by the Engineer), used in the actual and direct performance of the Work. The cost of labor utilized in performing the Work, whether the employer is the Contractor, a subcontractor or other entity engaged in the performance of the Work, will be the sum of the following:
- **Actual Wages:** The actual wages paid will include any employer fringe benefit payments to or on behalf of the workers for health and welfare, pension, vacation and similar purposes. The actual wages and fringe benefits paid must be at the rates shown on the certified payroll documents submitted by the Contractor.

- **Labor Surcharge:** The labor surcharge will be as set forth in the latest edition of the California Department of Transportation publication entitled “Labor Surcharge and Equipment Rental Rates”. The labor surcharge will constitute full compensation for all payments imposed by State or Federal laws and for all other payments made to, or on behalf of, workers engaged in the performance of the Work, excluding the Actual Wages as defined above.

- **Fixed Markup:** A fixed markup of 33% of the sum of the actual wages paid and the labor surcharge applicable to such actual wages, together with the actual wage and labor surcharge costs described in this provision will constitute full and complete compensation for all overhead, profit, incidentals, and any and all other direct or indirect expenses associated with furnishing all labor for the Work.

7. **Materials:** Materials costs will be the direct costs for materials actually exhausted, consumed or entering permanently into the Work, plus a fixed markup of 15% of such direct materials costs, which, together with the direct cost of materials as described in this provision will constitute full and complete compensation for all overhead, profit, incidentals, and any and all other direct or indirect expenses associated with furnishing all materials for the Work.

8. **Equipment:** All equipment used will be paid in accordance with the rates in subsection 9-1.04D entitled “Equipment Rental” of the Caltrans Standard Specifications, which subsection 9-1.04D is made a part of this Contract, plus a fixed markup of 10% of such equipment rates, which, together with the equipment rates as described in this provision will constitute full and complete compensation for all overhead, profit, incidentals, and any and all other direct or indirect expenses associated with furnishing all equipment for the Work.

9. Unless approved in writing in accordance with provision 4-1.02 of this Contract in advance of performance of the Work, any and all other cost impacts (including, but not limited to profit, bond premiums or fees, insurance premiums or fees, superintendent labor, clerical expenses, home office expenses, Work site office expenses, utility costs, permit costs, and licensing costs) involving items for which the Contract Documents do not specify prices, and for which no lump sum amount has been approved by the City, will constitute incidentals, full compensation for which will be deemed included in the markups for labor, material, and equipment specified above, and no additional compensation for such cost impacts will be allowed.

**4-1.06 Liability Under Unapproved Change Orders.** The Contractor will be solely responsible for any and all losses, costs, or liabilities of any kind incurred by the
Contractor, any subcontractor engaged in the performance of the Work, any party supplying material or equipment for the Work or any third party that are incurred pursuant to Contractor-proposed change orders prior to issuance of an approved change order executed in accordance with this Section 4. The Contractor will have all of the obligations and the City will have all of the rights and remedies that are specified in Section 11 concerning any work or resulting losses, costs, or liabilities pursuant to a Contractor proposed change order before issuance of an approved change order executed in accordance with this Section 4.

4-1.07 Changes Subject to Contract Documents. Any changes in the Work and/or the Contract Documents pursuant to change orders and any other amendments issued in accordance with the Contract Documents, including this Section 4, will in all respects be subject to all provisions of the Contract Documents, including, but not limited to, the Technical Specifications and the Project Plans, except as modified by such change orders or amendments.

4-1.08 Change Order Disputes.

a. Disputed City-Directed Change Orders. If the Contractor disputes a City directed change order following a reasonable effort by the City and the Contractor to resolve the dispute including, at a minimum, a meeting between appropriate representatives of the Contractor and the City, the Contractor must commence performing the Work consistent with the disputed change order within five (5) working days of the last meeting between representatives of the Contractor and the City to resolve the dispute, or within the time specified in the disputed City directed change order, whichever is later. In performing Work consistent with a disputed City-directed change order pursuant to this provision the Contractor will have all of the Contractor’s rights concerning claims pursuant to the Contract Documents and applicable law.

b. Disputed Contractor Proposed Change Orders. If the City disputes a Contractor proposed change order, the City and the Contractor will use reasonable efforts to resolve the dispute including, at a minimum, holding a meeting between appropriate representatives of the Contractor and the City. Regardless of and throughout any such efforts to resolve the dispute the Contractor must continue performing the Work irrespective of and unmodified by the disputed change order. In continuing to perform the Work, the Contractor will retain all of the Contractor’s rights under contract or law pertaining to resolution of disputes and protests between contracting parties. Disputes between the City and the Contractor concerning any Contractor-proposed change order or other amendment do not excuse the Contractor’s obligation to perform the Work in accordance with the Contract Documents excluding such Contractor-proposed change order or other amendment by the Time for Completion or waive any other Project milestone or other requirement of the Contract Documents.
SECTION 5  Trenching and Utilities

5-1.01 Excavation More Than Four Feet Deep. In accordance with California Public Contract Code Section 7104, if the Work involves excavation more than four feet deep the Contractor must promptly notify the City in writing before disturbing: any material that the Contractor believes may be hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II or Class III disposal site in accordance with provisions of existing law; any subsurface or latent physical conditions at the Work site differing from those indicated; or any unknown physical conditions at the Work site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents. The City will promptly investigate any such conditions for which notice is given. If the City finds that the conditions do materially differ, or involve hazardous waste, and would cause a decrease or increase in the cost or time of performance of the Work, the City will issue a change order pursuant to Section 4 of these General Provisions. If a dispute arises between the City and the Contractor concerning whether the conditions materially differ, or involve hazardous waste, or cause a decrease of increase in the cost or time of performance, the Contractor will not be excused from any completion date provided in the Contract Documents, but will proceed with all Work to be performed. The Contractor will retain all rights under contract or law pertaining to resolution of disputes and protests between contracting parties.

5-1.02 Excavation of Five Feet or More. In accordance with California Labor Code Section 6705, contractors performing contracts exceeding $25,000 in cost and involving excavation five or more feet deep must submit for the City’s acceptance, prior to excavation, a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during excavation. If the plan varies from the shoring system standards, it must be prepared by a registered civil or structural engineer.

5-1.03 Utility Relocation Costs.

a. In accordance with California Government Code Section 4215, the City assumes the responsibility for the timely removal, relocation or protection of existing main or trunk line utility facilities located on the Work site if such utilities are not identified by the City in the Technical Specifications and/or Project Plans. The City will compensate the Contractor for the costs of locating, repairing damage not due to the Contractor’s failure to exercise reasonable care, and removing or relocating existing main or trunk line utility facilities located at the Work site and not identified with reasonable accuracy in the Technical Specifications and/or Project Plans. The City will also compensate the Contractor for the cost of equipment on the Project necessarily idled during such work. The Contractor will not be assessed liquidated damages for Work completion delays caused by the City’s failure to provide for removal or relocation of such main or trunk line utility facilities.

b. Nothing in this provision or the Contract Documents will be deemed to require the City to indicate the presence of existing service laterals or appurtenances whenever the presence of such utilities on the Work site can be inferred from the presence of other visible facilities, such as buildings, meter and junction boxes, cleanouts, on or adjacent to the Work site; provided, however, that nothing in this provision or the Contract Documents will relieve the City from identifying main or trunk lines in the Technical Specifications and/or Project Plans.
c. Nothing in this provision or the Contract Documents will preclude the City from pursuing any appropriate remedy against the utility for delays, which are the responsibility of the utility.

d. Nothing in this provision or the Contract Documents will be construed to relieve the utility from any obligation as required either by law or by contract to pay the cost of removal or relocation of existing utility facilities.

e. If the Contractor while performing the Work discovers utility facilities not identified by the City in the Technical Specifications and/or Project Plans, the Contractor must immediately notify the City and utility in writing.

f. Either the City or the utility, whichever owns existing main or trunk line utility facilities located on the Work site, will have sole discretion to effect repairs or relocation work or to permit the Contractor to perform such repairs or relocation work at a reasonable price.

5-1.04 Protection of Existing Facilities and Property.

The Contractor must notify Underground Service Alert (USA) for marking the locations of existing underground facilities.

Subject to Section 5 of the General Provisions, the Contractor must take all necessary measures to avoid injury to existing surface and underground utility facilities in and near the Work site. Subject to Section 5 of the General Provisions, no error or omission of utility markouts will be construed to relieve the Contractor from his responsibility to protect all underground pipes, conduits, cables or other structures affected by the work.

The existing underground facilities in the area of Work may include telephone, television and electrical cables, gas mains, water mains, sewer pipe and drainage pipe. The various utility companies must be notified before trenching begins and at such other times as required to protect their facilities. Subject to Section 5 of the General Provisions, all underground facilities must be located and exposed ahead of trenching to prevent damage to the facilities, and to determine the depth and character of all facilities that cross or infringe on the trench prism. The Contractor must immediately notify the Engineer of any facilities found. If damage should occur to the existing facilities, the utility company and the City must be notified immediately and, subject to Section 5 of the General Provisions, repairs acceptable to the utility company must be made at the Contractor's expense.

The Project Plans show the underground utilities on the site of the construction insofar as they are known to the City. The drawings may not show facilities apparent from visual inspection of the site or service laterals or appurtenances, the existence of which can be inferred from the presence of other visible facilities such as buildings, meters, junction boxes, etc. on or adjacent to the construction site.

If in the performance of the Work an existing utility is encountered that is not shown on the Project Plans and is not apparent or inferable from visual inspection of the Work site, the Inspector must be notified immediately. The Engineer will determine, subject to Section 5 of the General Provisions, whether the Project Plans or Technical
Specifications should be modified, or whether the existing utility should be relocated or whether the Contractor must work around the existing utility. Subject to Section 5 of the General Provisions, the Contractor must replace, at his or her own expense, in as good condition as they were prior to the start of construction, all existing improvements and surroundings damaged by his or her operation. Reconstruction of all existing improvements must conform to City of Healdsburg Public Works Standard Specifications and Details under the direction of and subject to the acceptance by the Engineer.

Subject to Section 5 of the General Provisions, should the Contractor fail to take adequate measures to avoid injury or damage to the facilities described above, the City may take any actions necessary to protect such facilities from the Contractor’s operations. Subject to Section 5 of the General Provisions, the City may withhold the cost of injury to existing surface and underground utility facilities in and near the Work site from amounts due or that may become due the Contractor.
SECTION 6  Project Facilities

6-1.01 Work Site Offices. Any Work site office facilities used by the Contractor and/or its privities must conform to all applicable codes, ordinances and regulations. The cost of such Work site office facilities will be paid from and included in the Contract Price.

6-1.02 City Rights of Access and Ownership. The City and its authorized representatives will at all reasonable times while such office facilities are located at the Work site (including, at a minimum, all times during which the Work is performed), have access to any such Work site office facilities used by the Contractor and/or its privities. With respect to the right of access of the City and its authorized representatives, neither the Contractor nor its privities will have a reasonable expectation of privacy pursuant to the Fourth Amendment to the United States Constitution or other applicable law concerning such Work site office facilities used by the Contractor and/or its privities. Without exception, any and all Project related materials located at such Work site facilities will be deemed at all times to be City property subject to inspection and copying by the City and its authorized representatives at all reasonable times while such facilities are located at the Work site (including, at a minimum, all times during which the Work is performed). Any interference by the Contractor or its privities with the City’s rights of access and/or ownership pursuant to this Section 6 will constitute a material breach of the Contract subject to any and all remedies available pursuant to the Contract Documents and at law and equity.
SECTION 7 Prosecution and Progress of the Work

7-1.01 Liquidated Damages. For the purposes of this Contract time is of the essence. The City and the Contractor agree that it will be difficult and/or impossible to determine the actual damage which the City will sustain in the event of the Contractor's failure to fully perform the Work or to fully perform all of the Contractor's obligations that have accrued pursuant to the Contract by the Time for Completion. Accordingly, the City and the Contractor agree in accordance with California Government Code Section 53069.85 that the Contractor will forfeit and pay to the City liquidated damages in the sum of $1000 per day for each and every calendar day completion of the Work and/or performance of all of the Contractor's obligations that have accrued pursuant to the Contract is delayed beyond the Time for Completion. The City and the Contractor further agree in accordance with California Government Code Section 53069.85 that the liquidated damages sum specified in this provision is not manifestly unreasonable under the circumstances existing at the time the Contract was made, and that the City may deduct liquidated damages sums in accordance with this provision from any payments due or that may become due the Contractor under the Contract.

7-1.02 No Damage for Avoidable Delays. All delays in the Work that might have been avoided by the exercise of care, prudence, foresight and diligence of the Contractor or any privities of the Contractor will be deemed avoidable delays. Delays in the Work that may be unavoidable but that do not necessarily affect other portions of the Work or prevent completion of all Work within the Time for Completion, including, but not limited to, reasonable delays in Engineer approval of shop drawings, placement of construction survey stakes, measurements and inspection, and such interruption as may occur in prosecution of the Work due to reasonable interference of other contractors of the City, will be deemed avoidable delays. The Contractor will not be awarded a change in the Project schedule, the Time for Completion, and/or additional compensation in excess of the contract price for avoidable delays.

7-1.03 Unavoidable Delays. All delays in the Work that result from causes beyond the control of the Contractor and that the Contractor could not have avoided through exercise of care, prudence, foresight, and diligence will be deemed unavoidable delays. Orders issued by the City changing the amount of Work to be done, the quantity of materials to be furnished, or the manner in which the work is to be prosecuted, and unforeseen delays in the prosecution of the Work due to causes beyond the Contractor's control, such as strikes, lockouts, labor disturbances, fires, epidemics, earthquakes, acts of God, neglect by utility owners or other contractors that are not privities of the Contractor will be deemed unavoidable delays to the extent they actually delay the Contractor's completion of the Work. The Contractor will be awarded a change in the Project schedule, the Time for Completion, and/or additional compensation in excess of the contract price for unavoidable delays to the extent such delays actually delay the Contractor's completion of the Work and/or result in the Contractor incurring additional costs in excess of the Contract Price.

Delay due to normal, adverse weather conditions will not be deemed unavoidable. The Contractor should understand that normal adverse weather conditions are to be expected and plan the Work accordingly, such as by incorporating into the Project schedule normal, adverse weather delays as reflected in historical data of the National Oceanic and Atmospheric Administration of the U.S. Department of Commerce for the weather station most applicable to the Work site.
7-1.04 **No Damage for Contractor Caused Delay.** Contractor will not be entitled to additional compensation for extended field or home office overhead, field supervision, costs of capital, interest, escalation charges, acceleration costs or other impacts for any delays to the extent such delays are caused by the failure of the Contractor or any subcontractor or other entity engaged in performance of the Work to perform the Work in accordance with the Contract Documents.

7-1.05 **No Damage for Delay Not Caused By the City, Delay Contemplated by the Parties, or other Reasonable Delay.** Contractor will not be entitled to damages for delay to the Work caused by the following, which the City and Contractor agree will be deemed for purposes of California Public Contract Code Section 7102 either not caused by the City, and/or within the contemplation of the City and the Contractor, and/or reasonable under the circumstances:

a. Exercise of the City’s right to sequence the Work in a manner that would avoid disruption to the City and other contractors based on: the failure of the Contractor or any subcontractor or other entity engaged in the performance of the Work to perform the Work in accordance with the Contract Documents, enforcement by the City or any other governmental agency of competent jurisdiction of any government act or regulation, or enforcement by the City of any provisions of the Contract.

b. Requests for clarification or information concerning the Contract Documents or proposed change orders or modifications to the Contract Documents, including extensive and/or numerous such requests for clarification or information or proposed change orders or modifications, provided such clarifications or information or proposed change orders or modifications are processed by the City or its representatives in a reasonable time in accordance with the Contract Documents.

7-1.06 **Delays Caused by the City and/or It’s Privities.** Delay caused by the City and/or other contractors of the City will be deemed unavoidable delays. Either the City or the Contractor may propose a change in the Time for Completion and/or the Project schedule for delays that are purported to be caused by the City and/or its privities and that are not reasonable under the circumstances involved and/or that are not within the contemplation of the City and the Contractor. Such proposed changes in the Time for Completion will constitute change order proposals subject to Section 4. In accordance with Section 4, the City and the Contractor may agree upon pricing for the cost impacts, if any, resulting from such delays. If such pricing and/or changes in the Time for Completion and/or the Project schedule are in anticipation of impacts that may, but have not yet occurred, the City will be obligated to pay the Contractor for such anticipated impacts or to award a change in the Time for Completion and/or the Project schedule in accordance with the Contract and any applicable, approved change orders only to the extent the Contractor actually incurs the anticipated impacts. Notwithstanding anything to the contrary in Section 4, the City and the Contractor may agree to a daily rate or cap or lump sum that will apply to the cost impacts, if any, resulting from delay purportedly caused by the City and/or its privities subject to this provision. However, if such daily rate or cap or lump sum is in anticipation of cost impacts that have not yet occurred, the City will be obligated to pay such daily rate or cap or lump sum only to the extent the Contractor actually incurs such cost impacts.

7-1.07 **Delay Claims.** Whenever the Contractor claims a delay for which the Time for Completion may be extended, the Contractor must request an extension of time within five (5) days of the start of the delay. The request must be in writing and describe in detail the cause for the delay, and, if possible, the foreseeable extent of the delay.
7-1.08 Contractor Coordination of the Work.

a. The City reserves the right to do other work in connection with or in the vicinity of the Project by contract or otherwise, and Contractor must at all times conduct the Work so as to impose no hardship on the City, others engaged in the Work or other contractors working at the Work site. The Contractor will adjust, correct and coordinate the Work with the work of others so that no delays result in the Work or other work at or near the Work site.

b. If any part of the Work depends for proper execution or results upon the work of the City or any other contractor, the Contractor will, before proceeding with such Work, promptly report to the City any apparent discrepancies or defects in such other Work. Failure of the Contractor to promptly report any apparent discrepancy or defect will be deemed an acceptance of the City’s or other contractor's Work as fit and proper.

c. The Contractor will anticipate the relations of the various trades to the progress of the Work and will ensure that required anchorage or blocking is furnished and set at proper times. Anchorage and blocking necessary for each trade will be part of the Work except where stated otherwise.

d. The Contractor will provide proper facilities at all times for access of the City, the Engineer, Architect, and other authorized City representatives to conveniently examine and inspect the Work.
SECTION 8 Contractor Responsibilities

8-1.01 Eligibility. By executing the Contract, the Contractor certifies that the Contractor is not ineligible to perform work on public works projects pursuant to California Labor Code Sections 1777.1 or 1777.7. In accordance with California Public Contract Code Section 6109(a), contractors who are ineligible to perform work on public works projects pursuant to California Labor Code Sections 1777.1 or 1777.7 may neither bid on, be awarded or perform the Work. To the full extent permitted by law the Contractor will hold harmless, indemnify and defend the City from and against any and all damages, costs, and liability arising from or as a consequence of any violation of Public Contract Code Section 6109.

8-1.02 Supervision of the Work. The Contractor will be solely responsible for the performance of the Work, including portions of the Work to be performed by subcontractors. The Contractor is charged with ensuring that all orders or instructions from the City, Engineer or Architect are disseminated to and followed by all subcontractors engaged in performance of the Work. The Contractor will supervise the Work using the Contractor’s best skill and attention. At any time during the progress of the Work, the City, the Engineer, or the Architect may require the Contractor and/or subcontractors engaged in performance of the Work to attend a Project meeting and the Contractor will attend, and ensure the attendance of any subcontractors whose attendance is required by the City and/or advisable in light of the matters to be addressed at the meeting.

8-1.03 Contractor’s Superintendent. The Contractor will keep on the Work, throughout its progress, a competent superintendent and any necessary assistants, all satisfactory to the City. The superintendent may not be changed without the consent of the City. The superintendent will represent the Contractor and all directions given by the City to the superintendent will bind the Contractor in accordance with the Contract. Superintendent time included in Contractor’s completed bid schedule and/or in approved change orders, if any, must be included in Contractor’s approved overhead rate and may not be charged as a direct cost.

8-1.04 Competent Employees. The Contractor must at all times enforce strict discipline and good order among the Contractor’s employees and may not employ on the Work any unfit person or anyone not skilled in the Work assigned, or anyone incompetent or unfit for the duties of that person. When the City determines that a Contractor employee does not satisfy the requirements of this provision, upon notice from the City, the Contractor must ensure that employee performs no further Work and is no longer present at the Work site. Any such Contractor employee may not again be employed on the Work without City approval.

8-1.05 Items Necessary for Proper Completion of the Work. Except as otherwise noted in the Contract Documents, the Contractor will provide and pay for all labor, materials, equipment, permits, fees, licenses, facilities and services necessary for the proper execution and timely completion of the Work in accordance with the Contract Documents.

8-1.06 Subcontracting.

a. The Contractor must perform with his or her own organization, a value of work amounting to not less than fifty percent (50%) of the contract amount, except that the bid amount for subcontracted “Specialty Items” if so designated in any Special
Provisions may be eliminated from the contract amount and not considered as subcontracted for the purposes of calculating the value of work to be performed by the Contractor. For the purposes of determining the value of work to be performed by the Contractor pursuant to this provision, materials, equipment, incidentals, etc., shall be considered to have been purchased by the contractor or subcontractor that is to install them. Where a portion of an item is subcontracted, the value of work subcontracted will be based on the estimated cost of such portion of the subcontracted item, as determined from information submitted by the Contractor, subject to approval by the Engineer.

b. By executing the Contract, the Contractor certifies that no subcontractor included on the list of proposed subcontractors submitted with the Contractor’s bid is ineligible to perform work on public works projects pursuant to California Labor Code Sections 1777.1 or 1777.7. In accordance with California Public Contract Code Section 6109(a), subcontractors who are ineligible to perform work on public works projects pursuant to California Labor Code Sections 1777.1 or 1777.7 may neither bid on, be awarded or perform as a subcontractor on the Work. In accordance with California Public Contract Code Section 6109(b), any contract on a public works project entered into between a contractor and a debarred subcontractor is void as a matter of law. The Contractor will ensure that no debarred subcontractor receives any public money for performing the Work, and any public money that may have been paid to a debarred subcontractor for the Work is returned to the City. The Contractor will be responsible for payment of wages to workers of a debarred subcontractor who has been allowed to perform the Work.

c. The Contract and the performance of the Work are subject to the requirements of the Subletting and Subcontracting Fair Practices Act codified at California Public Contract Code Section 4100 and following. If the Contractor fails to specify a subcontractor or specifies more than one subcontractor for the same portion of the Work in excess of one-half of 1 percent of the Contractor’s total bid, the Contractor agrees that the Contractor is fully qualified to perform that portion of the Work with the Contractor’s own forces, and that the Contractor will perform that portion of the Work with the Contractor’s own forces. If after award of the Contract the Contractor subcontracts, except as provided for in California Public Contract Code Sections 4107 or 4109, any such portion of the Work, the Contractor will be subject to the penalties set forth in California Public Contract Code Sections 4110 and 4111, including cancellation of the Contract, assessment of a penalty of up to 10 percent of the amount of the subcontract, and disciplinary action by the Contractors State License Board.

d. No contractual relationship exists between the City and any subcontractor engaged in performance of the Work.

e. Incorporation of Contract Documents. Contractor agrees to include with all subcontractors in their subcontract the same requirements and provisions of this Contract including the indemnity and insurance requirements to the extent they apply to the scope of the Subcontractor’s work. Subcontractors hired by Contractor agree to be bound to Contractor and City in the same manner and to the same extent as Contractor is bound to City under the Contract Documents. Subcontractor further agrees to include these same provisions with any sub-subcontractor. A copy of the City’s Contract Document indemnity and insurance provisions will be furnished to the subcontractor upon request. The Contractor shall require all sub-contractors to provide a valid certificate of insurance and the required endorsements included in the
agreement prior to commencement of any work and contractor will provide proof of compliance to the City. The Contractor will be solely responsible for any delay or additional costs incurred as a result of its failure to provide adequate or accurate Project information to a subcontractor that results in improper submittals and/or Work, or time or other impacts. The Contractor will have all of the obligations and the City will have all of the remedies that are specified in Section 11 concerning any delay or additional costs incurred due to failure of the Contractor to provide adequate and accurate Project information to subcontractors.

f. Coordination of Subcontract Work: The Contractor is responsible for scheduling the Work of subcontractors so as to avoid delay or injury to either Work or materials.

g. Subcontractor agrees to be bound to Contractor and City in the same manner and to the same extent as Contractor is bound to City under the Contract Documents. Subcontractor further agrees to include the same requirements and provisions of this agreement, including the indemnity and Insurance requirements, with any sub-subcontractor to the extent they apply to the scope of the sub-subcontractor’s work. A copy of the City’s Contract Document indemnity and insurance provisions will be furnished to the Subcontractor upon request.

8-1.07 Insurance.

a. All required insurance must be provided in the form of “occurrence”-type policies underwritten by admitted insurers in the State of California with a rating of A or better from the current year Best Rating Guide. All policies must be issued at the expense of the Contractor and must be maintained at the Contractor’s expense throughout the performance of the Work. Contractor shall maintain insurance as required by this contract to the fullest amount allowed by law and shall maintain insurance for a minimum of 3 years following the completion of this project. In the event contractor fails to obtain or maintain completed operations coverage as required by this Contract, the City at its sole discretion may purchase the coverage required and the cost will be paid by Contractor.

b. Contractor agrees to include with all subcontractors in their subcontract the same requirements and provisions of this contract, including the indemnity and Insurance requirements to the extent they apply to the scope of the Subcontractor’s work. Contractor shall require all sub-contractors to provide a valid certificate of insurance and the required endorsements included in the Contract prior to commencement of any work and Contractor will provide proof of compliance, upon request, to the City.

c. Subcontractor hired by the Contractor agree to be bound to the Contractor and the City in the same manner and to the same extent as Contractor is bound to the City under the Contract. Subcontractor further agrees to include the same requirements and provisions of this Contract, including the Indemnity and Insurance requirements, with any Subcontractor to the extent they apply to the scope of the Subcontractor’s work. A copy of the Contract Indemnity and Insurance provisions will be furnished to the Subcontractor upon request.

d. The Contractor and any Subcontractors engaged in performance of the Work must secure payment of workers compensation in accordance with California Labor Code Section 3700 and other applicable law. The Contractor must verify that all Subcontractors comply with this requirement.
e. Within ten working days following the Notice of Award, the Contractor must submit to the City acceptable certificates of insurance, declarations page(s) and endorsements evidencing that the Contractor has the required insurance in effect and will maintain it throughout the performance of the Work, and beyond as applicable, the following kinds and amounts of insurance:

1. The minimum limits of the Commercial General Liability (including bodily injury, personal injury and property damage) insurance shall be:
   - $10,000,000 aggregate
   - $5,000,000 occurrence

If the work to be performed involves any excavation, the policy shall include an endorsement that affords coverage for explosion, collapse and underground hazards.

2. If the work to be performed involves vehicles or vehicular equipment, the Automobile insurance limit shall be:
   - $5,000,000 per accident for bodily injury and property damage

3. Automobile coverage should be at least as broad as Insurance Services Automobile Liability form CA 0001 Code 1 ("any auto"). No endorsement may be attached limiting the coverage. If coverage provided is anything less than 'any auto', additional information such as a schedule of covered autos, or proof of personal auto liability coverage may be required by the City.

4. Worker’s Compensation Insurance. Proof of Workers Compensation and Employers Liability insurance as required by any applicable law, regulation or statute, including the provisions of Division IV of the Labor Code of the State of California, and any act or acts amending it. Worker’s compensation insurance must be for Statutory Limits and must cover the full liability of the Contractor. The Contractor’s Employer’s Liability Insurance must be in an amount no less than $1,000,000.00 per occurrence. The workers’ compensation policy must be endorsed with a waiver of subrogation. The insurance company, in its endorsement, must agree to waive all rights of subrogation against the City, its officers, officials, employees, agents and volunteers for losses paid under the terms of such policy.

5. Umbrella/Excess Policy. The limits of insurance required under this Contract may be satisfied by a combination of primary and umbrella or excess Insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of City (if agreed to in a written contract or agreement) before the City’s own insurance or self-insurance shall be called upon to protect it as a named insured.

f. Additional Requirements
i. Endorsements must add the City, its officials, officers, employees, agents and volunteers as an additional insured (“Additional Insured”). Examples of City approved insurance forms are included in this package. If the Contractor provides policy pages or broad forms of endorsement the insurance carrier will be asked to sign, initial and date all applicable sections of the document which conveys coverage to the City.

ii. It shall be a requirement under this Contract that any available insurance proceeds broader than or in excess of the specified minimum Insurance coverage requirements and/or limits shall be available to the Additional Insured. Furthermore, the requirements for coverage and limits shall be (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any Insurance policy or proceeds available to the name insured; which ever greater.

iii. The Additional Insured coverage under the Contractor’s policy shall be “primary and non-contributory” and Contractor will not seek contribution from the City of Healdsburg’s insurance or self-insurance and shall be at least as broad as CG 20 01 04 13.

iv. The Contractor shall provide the City with a 30 day written notice of any reduction or cancellation of such insurance required to be furnished by the Contractor; and include a severability of interest clause acceptable to the City and if requested by the City.

v. If an Umbrella or Excess Policy is used to satisfy the requirements, an endorsement form must be provided from the insurance carrier/broker and that Umbrella/Excess Policy ‘follows form’ or is ‘continuous’ to the General liability and/ Auto liability policy in addition to the required endorsement.

vi. The City will provide examples of approved standard and preferred forms of endorsements. If the Contractor’s insurance carrier chooses to use forms other than the City’s approved forms, such forms shall be subject to the prior approval of the City. If the Contractor provides policy pages instead of an endorsement the insurance agent/broker will be asked to sign, initial and date all applicable sections of the policy that meet the City’s insurance requirements.

g. All self-insured retentions (SIR) must be disclosed to City for approval and shall not reduce the limits of liability. Policies containing any self-insured retention (SIR) provision shall provide or be endorsed to provide that the SIR may be satisfied by either the named Insured or the City. The City reserves the right to obtain a full certified copy of any Insurance policy and endorsements. Failure to exercise this right shall not constitute a waiver of right exercise later.

**Contractor’s failure to provide insurance certificates and endorsement forms that are acceptable to the City within ten (10) working days of notice of award of contract shall:**

i. constitute a failure to complete the “Contract Documents Checklist” as described on page 39
(ii) entitle the City to rescind any contract award  
(iii) result in a forfeiture of Contractor's bid bond or other form of bid security.

h. Contractor must continue to provide approved forms of insurance certificates, declarations page(s) and endorsements that meet the requirements of Section 8-1.07 of the Contract Documents for 3 years following recordation of a Notice of Completion or other form of notice of project completion provided by City.
CITY APPROVED STANDARD CERTIFICATE FORM

CERTIFICATE OF INSURANCE

CITY OF HEALDSBURG (the “City”)

CERTIFICATE OF INSURANCE

ISSUE DATE (MM/DD/YYYY)

PRODUCER

CITY OF HEALDSBURG

INSURED

A___________________________ ____________

B___________________________ ____________

C___________________________ ____________

D___________________________ ____________

E___________________________ ____________

CO

LTR

TYPE OF INSURANCE

POLICY NUMBER

POLICY EFFECTIVE DATE (MM/DD/YYYY)

POLICY EXPIRATION DATE (MM/DD/YYYY)

COMPANIES

BEST’S RATING

A

B

C

D

E

THE FOLLOWING PROVISIONS APPLY:

1. None of the above-described policies will be canceled until after 30 days’ written notice has been given to the City at the address indicated below.

2. The City, its officials, officers, employees, volunteers and agents are added as insureds on all liability

Certificate holder / Additional Insured

City of Healdsburg

401 Grove Street

Healdsburg, CA 95448

Authorized Representative

Signature

Title

Phone No.

This certificate of insurance is not an insurance policy and does not amend, extend or alter the coverage afforded by the policies below.

Companies

Company Letter

All limits in thousands

Limit

GENERAL LIABILITY

COMMERCIAL GENERAL LIABILITY

PRODUCTS-COMPS AGGREGATE

PERSONAL & ADVERTISING INJURY

EACH OCCURRENCE

FIRE DAMAGE (ANY ONE FIRE)

MEDICAL EXPENSE (ANY ONE PERSON)

CLAIMS MADE

OCCUR.

OWNER’S & CONTRACTOR’S PROT.

OTHER

AUTOMOBILE LIABILITY

ANY AUTO

BODILY INJURY (PER PERSON)

BODILY INJURY (PER ACCIDENT)

ALL OWNED AUTOS

SCHEDULED AUTOS

HIRED AUTOS

NON-OWNED AUTOS

GARAGE LIABILITY

EXCESS LIABILITY

UMBRELLA

EACH OCCURRENCE

AGGREGATE

STATUTORY

WORKER’S COMPENSATION & EMPLOYER’S LIABILITY

EACH ACCIDENT

DISEASE-POLICY LIMIT

DISEASE-EACH EMPLOYEE

PROPERTY INSURANCE

COURSE OF CONSTRUCTION

AMOUNT OF INSURANCE

Description of Operations / Locations / Vehicles / Restrictions / Special Items

This is to certify that the policies of insurance listed below have been issued to the insured named above for the policy period indicated. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies. Limits shown may have been reduced by paid claims.
CERTIFICATE OF LIABILITY INSURANCE

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFER NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER

CONTACT NAME:
PHONE (incl. ext.):
EMAIL ADDRESS:

INSURED

INSURER A:
INSURER B: 
INSURER C: 
INSURER D: 
INSURER E: 
INSURER F: 

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRARY OR OTHER DOCUMENT, THE LIMITS OF LIABILITY STATED HEREIN ARE SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

<table>
<thead>
<tr>
<th>TYPE OF INSURANCE</th>
<th>ADD'L/CERT</th>
<th>LIMITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMERCIAL GENERAL LIABILITY</td>
<td>CLAIMS-MADE</td>
<td>OCCUR</td>
</tr>
<tr>
<td>GENERAL AGGREGATE LIMIT APPLIES PER:</td>
<td>POLICY YR</td>
<td>LOC</td>
</tr>
<tr>
<td>AUTOMOBILE LIABILITY</td>
<td>COMBINED SINGLE LIMIT (per occurrence)</td>
<td></td>
</tr>
<tr>
<td>SCHEDULED AUTO</td>
<td>MED EXP (Any One Occurrence)</td>
<td></td>
</tr>
<tr>
<td>NON-OWNED AUTO</td>
<td>PERSONAL INJURY</td>
<td></td>
</tr>
<tr>
<td>EMPLOYERS LIABILITY</td>
<td>PRODUCT LIABILITY</td>
<td></td>
</tr>
<tr>
<td>EXCESS LIABILITY</td>
<td>PROPERTY DAMAGE</td>
<td></td>
</tr>
<tr>
<td>WORKERS COMPENSATION</td>
<td>EACH OCCURRENCE</td>
<td></td>
</tr>
<tr>
<td>AND EMPLOYER'S LIABILITY</td>
<td>GENERAL AGGREGATE</td>
<td></td>
</tr>
<tr>
<td>ANY PROPRIETOR/OWNER/EMPLOYEE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OFF-RENTAL/LEASED (Standing In N/A)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES (MADE UPON REQUEST, IF MORE SPACE IS REQUIRED)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CERTIFICATE HOLDER CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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ACORD 25 (2010/05) The ACORD name and logo are registered marks of ACORD
THIS ENDORSEMENT CHANGES THE POLICY, PLEASE READ IT CAREFULLY

ADDITIONAL INSURED - DESIGNATED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART.

SCHEDULE

Name of Person or Organization:

(If no entry appears above, the information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement).

WHO IS INSURED (Section II) is amended to include as an insured the person or organization shown in the Schedule as an insured but only with respect to liability arising out of your operations or premises owned or rented to you.

 Modifications to ISO for CG 20 26 11 85:
1) "Operation" includes the named insured's products.
2) The insured scheduled above includes the Insured's officers, officials, employees, volunteers and agents.
3) This insurance shall be primary as respects the insured shown in the schedule above, or if excess, shall stand in an unbroken chain of coverage except of the Named Insured's scheduled underlying primary coverage. In either event, any other insurance maintained by the Insured scheduled above shall be in excess of this insurance and shall not be called upon to contribute with it.
4) The insurance afforded by this policy shall not be canceled except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the Agency.

Signature - Authorized Representative

Address


# CITY APPROVED STANDARD ENDORSEMENT FORM

## AUTOMOBILE LIABILITY SPECIAL ENDORSEMENT

For the City of Healdsburg

<table>
<thead>
<tr>
<th>PRODUCER</th>
<th>POLICY INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance Company:</td>
<td></td>
</tr>
<tr>
<td>Policy No:</td>
<td></td>
</tr>
<tr>
<td>Policy Period: (from) (to)</td>
<td></td>
</tr>
</tbody>
</table>
| LOSS ADJUSTMENT EXPENSE | Included in Limits
| In Addition to Limits |
| Telephone | |
| Deductible | Self-Insured Retention (check which) of $ |

<table>
<thead>
<tr>
<th>NAMED INSURED</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPLICABILITY. This insurance pertains to the operation and/or tenancy of the named insured under all written agreements and permits in force with the City unless checked here in which case only the following specific agreements and permits with the City are covered:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TYPE OF INSURANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMERCIAL AUTO POLICY</td>
</tr>
<tr>
<td>BUSINESS AUTO POLICY</td>
</tr>
<tr>
<td>OTHER</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LIMIT OF LIABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLAIMS: Underwriter's representative for claims pursuant to this insurance.</td>
</tr>
<tr>
<td>Name:</td>
</tr>
<tr>
<td>Address:</td>
</tr>
<tr>
<td>Telephone: (_______)</td>
</tr>
</tbody>
</table>

In consideration of the premium charged and notwithstanding any inconsistent statement in the policy to which this endorsement is attached or any endorsement now or hereafter attached thereto, it is agreed as follows:

2. CONTRIBUTION NOT REQUIRED. As respects work performed by the Named Insured for or on behalf of the City the insurance afforded by this policy shall: (a) be primary insurance as respects the City, its officers, officials, employees, volunteers and agents; or (b) stand in an unbroken chain of coverage excess of the Named Insured's primary coverage. Any insurance or self-insurance maintained by the City its officers, officials, employees, volunteers and agents shall be excess of the Named Insured's insurance and not contribute with it.

3. CANCELLATION NOTICE. With respect to the interests of the City this insurance shall not be cancelled, except after thirty (30) days prior written notice by receipted delivery has been given to the City.

4. SCOPE OF COVERAGE. This policy affords coverage at least as broad as:

   (1) If primary, Insurances Services Office form number CA0001 (Ed.1/87), Code 1 ("any auto"); or
   (2) If excess, affords coverage which is at least as broad as the primary insurance forms referenced in the preceding section (1).

Except as stated above nothing herein shall be held to waive, alter or extend any of the limits, conditions, agreements or exclusions of the policy to which this endorsement is attached.

<table>
<thead>
<tr>
<th>ENDORSEMENT HOLDER</th>
</tr>
</thead>
<tbody>
<tr>
<td>I __________________________ (print / type name), warrant that I have authority to bind the above-mentioned insurance company and by my signature hereon do so bind this company to this endorsement.</td>
</tr>
<tr>
<td>Signature</td>
</tr>
<tr>
<td>Telephone (_____)</td>
</tr>
<tr>
<td>Date Signed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHORIZED REPRESENTATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broker / Agent</td>
</tr>
</tbody>
</table>
### Worker's Compensation and Employer's Liability

**Special Endorsement**

**For The City of Healdsburg (the City)**

<table>
<thead>
<tr>
<th>PRODUCER</th>
<th>POLICY INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone</td>
<td>Insurance Company</td>
</tr>
<tr>
<td></td>
<td>Policy No:</td>
</tr>
<tr>
<td></td>
<td>Policy Period:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NAMED INSURED</th>
<th>OTHER PROVISIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>EMPLOYERS LIABILITY LIMITS</td>
</tr>
<tr>
<td>Address:</td>
<td>$______________ (Each Accident)</td>
</tr>
<tr>
<td></td>
<td>$______________ (Disease - Policy Limit)</td>
</tr>
<tr>
<td></td>
<td>$______________ (Disease - Each Employee)</td>
</tr>
<tr>
<td>Telephone:</td>
<td>____________________</td>
</tr>
</tbody>
</table>

**In consideration of the premium charged and notwithstanding any inconsistent statement in the policy to which this endorsement is attached or any endorsement now or hereafter attached thereto, it is agreed as follows:**

1. **CANCELATION NOTICE.** This insurance shall not be cancelled, except after thirty (30) days prior written notice by receipted delivery has been given to the City.

2. **WAIVER OF SUBROGATION.** This Insurance Company agrees to waive all rights of subrogation against the City, its officers, officials, employees, volunteers and agents for losses paid under the terms of this policy which arise from the work performed by the Named Insured for the City.

Except as stated above nothing herein shall be held to waive, alter or extend any of the limits conditions, agreements or exclusions of the policy to which this endorsement is attached.

**ENDORSEMENT HOLDER**

**AUTHORIZED REPRESENTATIVE:** Broker / Agent __ Underwriter __________

I, ____________________________ (print / type name), warrant that I have authority to bind the above-mentioned insurance company and by my signature hereon do so bind this company to this endorsement.

Signature ____________

(Original signature required)

Telephone ___ Date Signed ___

---

**City of Healdsburg**

401 Grove Street

Healdsburg CA, 95448

---

**City Approved Preferred Endorsement Form**
COMMERCIAL GENERAL LIABILITY
CG 20 38 04 13

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – AUTOMATIC STATUS FOR OTHER PARTIES WHEN REQUIRED IN WRITTEN CONSTRUCTION AGREEMENT

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

A. **Section II – Who Is An Insured** is amended to include as an additional insured:

1. Any person or organization for whom you are performing operations when you and such person or organization have agreed in writing in a contract or agreement that such person or organization be added as an additional insured on your policy; and

2. Any other person or organization you are required to add as an additional insured under the contract or agreement described in Paragraph 1, above.

Such person(s) or organization(s) is an additional insured only with respect to liability for “bodily injury”, “property damage” or “personal and advertising injury” caused, in whole or in part, by:

a. Your acts or omissions; or

b. The acts or omissions of those acting on your behalf,
in the performance of your ongoing operations for the additional insured.

However, the insurance afforded to such additional insured described above:

a. Only applies to the extent permitted by law; and

b. Will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

A person’s or organization’s status as an additional insured under this endorsement ends when your operations for the person or organization described in Paragraph 1, above are completed.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to:

1. “Bodily injury”, “property damage” or “personal and advertising injury” arising out of the rendering of, or the failure to render, any professional architectural, engineering or surveying services, including:

a. The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or

b. Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the “occurrence” which caused the “bodily injury” or “property damage”, or the offense which caused the “personal and advertising injury”, involved the rendering of, or the failure to render, any professional architectural, engineering or surveying services.

2. “Bodily injury” or “property damage” occurring after:

a. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
b. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

C. With respect to the insurance afforded to those additional insureds, the following is added to Section III – Limits Of Insurance:

The most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement described in Paragraph A.1.; or

2. Available under the applicable Limits of Insurance shown in the Declarations; whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.
8-1.09 Indemnities

a. The Contractor will take all responsibility for the Work, and will bear all losses and damages directly or indirectly resulting to the Contractor, any subcontractors engaged in performance of the Work, the City, its officials, officers, employees, agents, volunteers and consultants, and to third parties on account of the performance or character of the Work, unforeseen difficulties, accidents, or occurrences of other causes predicated on active or passive negligence of the Contractor or of any subcontractor engaged in performance of the Work. To the fullest extent permitted by law the Contractor will indemnify, defend and hold harmless the City, its officials, officers, employees, agents, volunteers and consultants from and against any or all loss, liability, expense, claims, costs (including costs of defense), suits, and damages of every kind, nature and description (including, but not limited to, penalties resulting from exposure to hazards in violation of the California Labor Code) directly or indirectly arising from the performance of the Work (“Claims”). The Contractor’s responsibility for such defense and indemnity obligations shall survive the termination or completion of this agreement for the full period of time allowed by law.

b. The Contractor will indemnify, defend and hold harmless the City, the City’s officials, officers, employees, volunteers, agents and the Engineer and the Architect for all liability on account of any patent rights, copyrights, trade names or other intellectual property rights that may apply to the Contractor’s performance of the Work. The Contractor will pay all royalties or other charges as a result of intellectual property rights that may apply to methods, types of construction, processes, materials, or equipment used in the performance of the Work, and will furnish written assurance satisfactory to the City that any such charges have been paid.

c. The Contractor assumes all liability for any accident or accidents resulting to any person or property as a result of inadequate protective devices for the prevention of accidents in connection with the performance of the Work. The Contractor will indemnify, defend, and hold harmless the City and its officials, officers, employees, agents, volunteers and consultants from such liability.

d. The defense and indemnification obligations in this Contract are undertaken in addition to, and shall not in any way be limited by the insurance obligations contained in this Agreement. Sections 8-1.08 or 8-1.09. The Contractor will defend, with legal counsel reasonably acceptable to the City, any action or actions filed in connection with any Claims and will pay all related costs and expenses, including attorney's fees incurred. The Contractor will promptly pay any judgment rendered against the City, its officials, officers, employees, agents, volunteers or consultants for any Claims. In the event the City, its officials, officers, employees, agents, volunteers or consultants is made a party to any action or proceeding filed or prosecuted against Contractor for any Claims, Contractor agrees to pay the City, its officials, officers, employees, agents, volunteers and consultants any and all costs and expenses incurred in such action or proceeding, including but not limited to, reasonable attorneys' fees.
e. Subject to the requirements of Section 5 of the General Provisions, the Contractor will indemnify, hold harmless and defend with legal counsel reasonably acceptable to the City the City and its officials, officers, employees, agents and volunteers from and against any and all Claims related to damage to surface or underground facilities caused by the Contractor or any of the Contractor’s privities or agents.

f. The Contractor will indemnify, hold harmless and defend with legal counsel reasonably acceptable to the City the City and its officials, officers, employees, agents and volunteers from and against any and all Claims, including any fines or other penalties, related to failure of the Contractor and/or privities or agents of the Contractor to comply with the requirements of the General Permit, or to implement the SWPPP in accordance with provision 12-1.04 of the Contract. The City may withhold from amounts due or that may become due the Contractor under this Contract amounts that equal or are estimated to equal the amount of Claims, including fines, resulting from failure of the Contractor and/or privities or agents of the Contractor to comply with the requirements of the General Permit, or to implement the SWPPP in accordance with provision 12-1.04 of the Contract.

g. In accordance with California Civil Code Section 2782(a), nothing in the Contract will be construed to indemnify the City for its sole negligence, willful misconduct, or for defects in design furnished by City. In accordance with California Civil Code Section 2782(b), nothing in the Contract will be construed to impose on the Contractor or to relieve the City from liability for the City’s active negligence. By execution of the Contract Documents the Contractor acknowledges and agrees that the Contractor has read and understands the insurance and indemnity requirements of the Contract Documents, which are material elements of consideration.

h. Contractor’s and subcontractor’s responsibility for such defense and indemnity obligations shall survive the termination or completion of this Contract for the full period of time allowed by law.

i. The defense and indemnification obligations of this Contract are undertaken in addition to, and shall not in any way be limited by, the insurance obligations contained in this Contract.

8-1.10 Licenses/Permits. The Contractor must, without additional expense to the City, obtain all licenses, permits and other approvals required for the performance of the Work. This would include a valid City Business license.

8-1.11 California Labor Code Requirements.

a. In accordance with California Labor Code Section 1810, eight (8) hours of labor in performance of the Work will constitute a legal day’s work under the Contract.

b. In accordance with California Labor Code Section 1811, the time of service of any worker employed in performance of the Work is limited to eight hours during any one calendar day, and forty hours during any one calendar week, except in accordance with California Labor Code Section 1815, which provides that work in excess of eight hours during any one calendar day and forty hours during any one calendar week is permitted.
upon compensation for all hours worked in excess of eight hours during any one calendar day and forty hours during any one calendar week at not less than one-and-one-half times the basic rate of pay.

c. The Contractor and its subcontractors will forfeit as a penalty to the City $25 for each worker employed in the performance of the Work for each calendar day during which the worker is required or permitted to work more than eight (8) hours in any one calendar day, or more than forty (40) hours in any one calendar week, in violation of the provisions of California Labor Code Section 1810 et seq.

d. In accordance with California Labor Code Section 1773.2, the City has determined the general prevailing wages in the locality in which the Work is to be performed for each craft or type of work needed to be as published by the State of California Department of Industrial Relations, Division of Labor Statistics and Research, a copy of which is on file in the Public Works Department and will be made available on request. The Contractor and subcontractors engaged in the performance of the Work must pay no less than these rates to all persons engaged in performance of the Work.

e. In accordance with California Labor Code Section 1775, the Contractor and any subcontractors engaged in performance of the Work must comply Labor Code Section 1775 which establishes a penalty of up to $50 per day for each worker engaged in the performance of the Work that the Contractor or any subcontractor pays less than the specified prevailing wage. The amount of such penalty will be determined by the Labor Commissioner. The Contractor or subcontractor must pay the difference between the prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate. If a subcontractor worker engaged in performance of the Work is not paid the general prevailing per diem wages by the subcontractor, the Contractor is not liable for any penalties therefore unless the Contractor had knowledge of that failure or unless the Contractor fails to comply with all of the following requirements:

1. The contract executed between the Contractor and the subcontractor for the performance of part of the Work must include a copy of the provisions of California Labor Code Sections 1771, 1775, 1776, 1777.5, 1813, and 1815.

2. The Contractor must monitor payment of the specified general prevailing rate of per diem wages by the subcontractor by periodic review of the subcontractor’s certified payroll records.

3. Upon becoming aware of a subcontractor’s failure to pay the specified prevailing rate of wages, the Contractor must diligently take corrective action to halt or rectify the failure, including, but not limited to, retaining sufficient funds due the subcontractor for performance of the Work.

4. Prior to making final payment to the subcontractor, the Contractor must obtain an affidavit signed under penalty of perjury from the subcontractor that the subcontractor has paid the specified general prevailing rate of per diem wages employees engaged in the performance of the Work and any amounts due pursuant to California Labor Code Section 1813.

5. In accordance with California Labor Code Section 1776, the Contractor and each subcontractor engaged in performance of the Work, must keep accurate payroll
records showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed in performance of the Work. Each payroll record must contain or be verified by a written declaration that it is made under penalty of perjury, stating that the information contained in the payroll record is true and correct and that the employer has complied with the requirements of Sections 1771, 1811, and 1815 for any work performed by the employer’s employees on the public works project. The payroll records required pursuant to California Labor Code Section 1776 must be certified and must be available for inspection by the City and its authorized representatives, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations and must otherwise be available for inspection in accordance with California Labor Code Section 1776.

f. In accordance with California Labor Code Section 1777.5, the Contractor, on behalf of the Contractor and any subcontractors engaged in performance of the Work, will be responsible for ensuring compliance with California Labor Code Section 1777.5 governing employment and payment of apprentices on public works contracts.

g. In case it becomes necessary for the Contractor or any subcontractor engaged in performance of the Work to employ on the Work any person in a trade or occupation (except executive, supervisory, administrative, clerical, or other non-manual workers as such) for which no minimum wage rate has been determined by the Director of the Department of Industrial Relations, the Contractor must pay the minimum rate of wages specified therein for the classification which most nearly corresponds to Work to be performed by that person. The minimum rate thus furnished will be applicable as a minimum for such trade or occupation from the time of the initial employment of the person affected and during the continuance of such employment.

8-1.12 Laws and Ordinances. The Contractor and all subcontractors engaged in the performance of the Work must conform to the following specific rules and regulations as well as all other laws, ordinances, rules and regulations that apply to the Work. Nothing in the Technical Specifications or Project Plans is to be construed to permit Work not conforming to these codes:

- National Electrical Safety Code, U. S. Department of Commerce
- National Board of Fire Underwriters’ Regulations
- California Building Standards Code as adopted by the City
- Industrial Accident Commission's Safety Orders, State of California
- Regulations of the State Fire Marshall (Title 19, California Code of Regulations) and Applicable Local Fire Safety Codes
- Federal, state, and local air pollution control laws and regulations applicable to the Contractor and/or the Work.

8-1.13 Guaranty. The Contractor guarantees all of the Work for one year from the date the City accepts the Work. Upon receiving written notice of a need for repairs which are directly attributable to defective materials or workmanship the Contractor must make
good any defects arising or discovered in any part of the Work by diligently commencing the necessary repairs within seven (7) days from the date of notice from the City. If the Contractor fails to make good any defects in the Work in accordance with this provision, in addition to any other available remedy under the Contract or at law or equity, the City may make good or have made good such defects in the Work and deduct the cost from amounts that may be due or become due the Contractor, and/or call on the Contractor’s maintenance bond for the cost of making good such defects and for the City’s reasonable legal costs, if any, of recovering against the bond. The Contractor will remain responsible for repairing any Work found to be defective regardless of when such defect is discovered by the City.

8-1.14 Assignment of Unfair Business Practice Claims. In accordance with California Public Contract Code Section 7103.5, the Contractor and any subcontractors offer and agree to assign to the City all rights, title, and interest in and to all causes of action the Contractor or any subcontractors may have under Section 4 of the Clayton Act (15 U.S.C. § 15) or under the Cartwright Act (Chapter 2 (commencing with § 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services or materials pursuant to this Contract. This assignment will be made and become effective at the time the City tenders final payment to the Contractor, without further acknowledgement by the parties.
SECTION 9 Measurement and Payment

9-1.01 F.O.B. All shipments must be F.O.B. destination to the Work site and/or other sites indicated in the Contract Documents. The Contract Price is all-inclusive (including sales tax). There will be no additional compensation paid for containers, packing, unpacking, drayage or insurance.

9-1.02 Payment

a. The Contractor must submit to the Engineer his or her partial payment estimate on the 15th day of the month. When the 15th falls on a weekend or holiday submittal must be on the first workday prior to the 15th. The partial payment estimate must be a verified application for payment and schedule of values supported by a statement showing all materials actually installed during the preceding month and the cost of labor actually expended in the performance of the Work. The Contractor must also provide information with the payment that includes bid item identification and % complete/remaining. Unless otherwise provided in the Contract Documents, no allowances or payments will be made for material or equipment not placed at the Work site.

b. Within ten (10) days after the issuance of the Notice to Proceed, the Contractor shall furnish to the City a detailed Schedule of Values giving a complete breakdown of large lump sum prices and items which include numerous subdivisions of work. The Contractor and City shall jointly review the Schedule of Values and make any adjustments in value allocations if, in the opinion of the City, changes are necessary to establish fair and reasonable allocation of values for the Work components. Front end loading will not be permitted. If, in the City's judgment, more detail (i.e. more items of work) is necessary, the Contractor shall add the additional items identified by the City. The City may also require reallocation of Work components from items in the preliminary schedule if such are allocation is necessary. The Contractor shall submit any necessary revisions for the completed Schedule of Values within 15 days from the Notice to Proceed. The costs indicated in making up this breakdown will be used as a basis for partial payments and shall not be considered as fixing a basis of additions or deductions from the contract.

c. To be eligible for payment the Contractor's applications for payment must be accompanied by certified payroll reports, including “Statement of Non-Performance” for periods where no Work was performed. Certified payroll shall be prepared in accordance with California Labor Code Section 1776 and the Contract for each employee of the Contractor and any subcontractors engaged in the performance of the Work during the preceding months. Applications for payment will not be processed without certified payroll reports.

d. In accordance with California Public Contract Code Section 20104.50, the City will review applications for payment as soon as practicable after receipt. Any application or part of an application that is determined to be improper will be returned to the Contractor as soon as practicable, but no later than seven days after receipt by the City, along with a written description of the reasons why the application is improper. The Contractor's failure to submit a schedule by the time specified in Section 3-1.08, or its submission of a schedule to which the City has taken any uncorrected exception, will serve as a basis for returning an application for payment in its entirety.
e. Unless the Contractor has elected to post securities in lieu of retention in accordance with California Public Contract Code Section 22300 and the Contract, and the Contractor and the City have executed an escrow agreement in accordance with the Public Contract Code and the Contract, the City will make progress payments to the Contractor in accordance with applicable law in the amount of ninety-five (95) percent of the value of the labor actually performed and the material incorporated in the Work as specified in Contractor's verified application for payment upon approval by the City's authorized representative(s). Payment of progress payments will not be construed as acceptance of the Work performed. If the Contractor has elected to post securities in lieu of retention in accordance with Public Contract Code Section 22300 and the Contract and the Contractor and the City have executed an escrow agreement in accordance with the Public Contract Code and the Contract, the City will make payments to the Contractor or the Contractor's escrow agent in accordance with such escrow agreement.

f. Wherever the estimated quantities of Work to be done and materials to be furnished on a unit price basis under this Contract are specified in any of the Contract Documents, including the proposal, such quantities are specified for purposes of comparing bids, and the right is expressly reserved, except as otherwise expressly provided, to increase or diminish such quantities as may be deemed reasonably necessary or desirable by the Engineer to complete the Work. No such increase or diminution will be a basis for claims for adjustments in the Contract Price other than adjustments necessary to reflect the impacts of such changes in quantities based on the applicable contract prices and/or pursuant to Section 4 of this Contract.

g. In accordance with California Public Contract Code Section 20104.50, if the City fails to make a progress payment within thirty (30) days of receipt of an undisputed, properly submitted application for payment, the City will pay the Contractor interest equivalent to the legal rate set forth in subdivision (a) of California Code of Civil Procedure Section 685.010. The number of days available to the City to make a payment without incurring an interest obligation pursuant to this provision and California Public Contract Code Section 20104.50 will be reduced by the number of days, if any, by which the City has delayed return of an application for payment beyond the seven day return requirement set forth in Section 9-1.02(d).

h. The City will pay the Contractor's final invoice in accordance with applicable law and this Section 9 following acceptance of the Work provided that:

i. The Contractor has furnished evidence satisfactory to the City that all claims for labor and material have been paid, or the time for filing valid stop notices has passed and no stop notices have been filed, or all stop notices filed have been released by valid release or release bond acceptable to the City.

ii. No claim has been presented to the City by any person based upon any acts or omissions of the Contractor or any subcontractor engaged in the performance of the Work.

iii. No other claim or dispute exists under the Contract or applicable law concerning payment of the Contractor's final invoice and/or release of the Contract retention.

iv. The Contractor has filed with the City the Maintenance Bond provided in the Contract Documents with duly notarized signatures of an authorized representative of the Contractor and an attorney-in-fact of an admitted surety.
insurer acceptable to the City and such Maintenance Bond binds the Contractor as Principal and the Surety in accordance with its terms in the amount of 10% of the final Contract Price.

**9-1.03 Non-Allowable Direct Charges.** The following costs are not allowable direct charges under the Contract. The following costs may only be paid under the Contract, if at all, as part of any allowance for contractor overhead and/or profit established under the Contract.

a. Labor costs in excess of applicable prevailing wages pursuant to the Contract and applicable law, liability and workers compensation insurance, social security, retirement and unemployment insurance and other employee compensation and benefits pursuant to bona fide compensation plans in effect at the time specified for the opening of Project bids for contractor and subcontractor employees engaged in the performance of the Work, or in excess of the labor costs specified in provision 4-1.05 of this Contract in the case of cost impacts involving items for which the Contract Documents do not specify prices, and for which no lump sum amount has been approved by the City. However, in no event will allowable direct labor charges under the Contract include employee bonuses, employee vehicles or vehicle allowances, employee telephones or telephone allowances, or employee housing or housing allowances, whether or not such benefits are part of a bona fide compensation plan in effect at the time specified for the opening of Project bids.

b. Superintendent labor and clerical labor.

c. Bond premiums

d. Insurance in excess of that required under Section 8.8

e. Utility costs

f. Work Site office expenses

g. Home office expenses.

h. Permit or license costs

**9-1.04 Retention.** The City or its agent may, in accordance with the Contract Documents and applicable law, withhold any payment of monies due or that may become due the Contractor because of:

a. Defective work not remedied or uncompleted work.

b. Claims filed or reasonable evidence indicating probable filing of claims.

c. Failure to properly pay subcontractors or to pay for material or labor.

d. Reasonable doubt that the Work can be completed for the balance then unpaid.

e. Damage to another contractor.
f. Damage to the City.

g. Damage to a third party.

h. Delay in the progress of the Work, which, in the City’s judgment, is due to the failure of the Contractor to properly expedite the Work.

i. Liquidated damages or other charges that apply to the Contractor under the Contract.

j. Any other lawful basis for withholding payment under the Contract.

9-1.05 Securities in Lieu of Retention.

a. In accordance with Public Contract Code Section 22300, except where federal regulations or policies do not permit substitution of securities, the Contractor may substitute securities for any moneys withheld by the City to ensure performance of the Work. At the Contractor’s request and expense, securities equivalent to the amount withheld will be deposited with the City, or with a state or federally chartered bank in California as the escrow agent, who will then pay those moneys to the Contractor under the terms of an Escrow for Security Deposit agreement. The Escrow for Security Deposit agreement is provided in the Contract Documents. Upon satisfactory completion of the Work, the securities will be returned to the Contractor.

b. Alternatively, at the Contractor’s request and expense, the City will pay retentions earned directly to the escrow agent. At the Contractor’s expense, the Contractor may direct investment of the payments into securities. Upon satisfactory completion of the Work, the Contractor will receive from the escrow agent all securities, interest, and payments received by the escrow agent from the City pursuant to this provision and the terms of the Escrow for Security Deposit agreement. The Contractor will, within 20 days of receipt of payment, pay to each subcontractor the respective amount of interest earned, less costs of retention withheld from each Subcontractor, on moneys withheld to ensure the Contractor’s performance of the Work.

c. Securities eligible for investment in accordance with this provision include those listed in Government Code Section 16430, bank or savings and loan certificates of deposit, interest bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed to by the Contractor and the City.

d. The Contractor will be the beneficial owner of any securities substituted for moneys withheld and will receive any interest thereon.
SECTION 10  Project Acceptance and Closeout

10-1.01 Occupancy. The City reserves the right to occupy or use any part or parts or the entire of the Work before the Work is fully performed. Subject to applicable law, exercising this right will in no way constitute acceptance of any part of the Work so occupied or used or acceptance of the entire Work, nor will such occupancy or use in any way affect the times when payments will become due the Contractor, nor will such occupancy or use in any way prejudice the City’s rights under the Contract, any Contract bonds, or at law or equity. Occupancy or use will not waive the City’s rights to assess liquidated damages in accordance with Section 7 after the date of such occupancy or use.

10-1.02 Work Completion and Final Inspection. When the Contractor considers the Work is completed, the Contractor will submit written certification to the Engineer specifying that: the Contract Documents have been reviewed; the Work has been inspected for compliance with the Contract Documents; the Work has been completed in accordance with the Contract Documents; and that equipment and systems have been tested in the presence of the City’s representative and are operational. The City and/or the City’s authorized representatives will make an inspection to verify that the Work is complete and will notify the Contractor in writing of any incomplete or deficient Work. The Contractor will take immediate steps to remedy the stated deficiencies and give notice of correction to the Engineer. Upon receiving a notice of correction, the City or the City’s authorized representatives will re-inspect the Work. The Contractor must correct all punch list items within 10 working days after the issuance of the punch list.

10-1.03 Work Acceptance.

a. All finished Work will be subject to inspection and acceptance or rejection by the City, the Engineer, and the Architect or other government agencies having jurisdiction over the Work. Final acceptance of the Work will be at the discretion of the City.

b. The City will accept the Work in writing only when the Work has been completed to the City’s reasonable satisfaction. Progress payments will in no way be construed as acceptance of any part of the Work.

c. In evaluating the Work, no allowance will be made for deviations from the Technical Specifications, Project Plans or other Contract Documents unless already approved in writing in accordance with the requirements of Section 4, above.

d. The fact that the Work and materials have been inspected from time to time and that progress payments have been made does not relieve the Contractor of the responsibility of replacing and making good any defective or omitted work or materials in accordance with the requirements of the Contract Documents.
SECTION 11 Remedies and Disputes

11-1.01 Failure to Correct Work. Within ten (10) working days of receiving written notice from the City describing Work that is defective or that is otherwise not in accordance with the requirements of the Contract and/or applicable law and directing that such Work be corrected, the Contractor and/or the Contractor’s sureties must give the City written notice of the intent of the Contractor and/or the Contractor’s sureties to correct such Work and commence correction of such Work in accordance with the City’s notice and the Contract. If the Contractor and/or the Contractor’s sureties do not give the City written notice of intent to correct such Work and commence correction of such Work within ten (10) working days of receipt of the City’s notice, then the City may correct such work and/or have such work corrected for the account and at the expense of the Contractor and/or its sureties, and the Contractor and/or its sureties will be liable to the City for any resulting excess cost. The City may, in addition to all other remedies that the City may have under the Contract and at law or equity, deduct any such excess cost of completing the Work from amounts that are due or that may become due the contractor.

11-1.02 Termination.

a. In accordance with California Public Contract Code Section 7105, in addition to all other available remedies that the City may have under the Contract, and at law or equity, the City may terminate the Contract:

1. If the Contractor or any of its subcontractors engaged in the performance of the Work fails to timely perform the Work and/or any of the Contractor’s material obligations under the Contract Documents, including but not limited to submission of an acceptable schedule, that have accrued except for due to reasons beyond the control of the Contractor pursuant to the Contract Documents.

2. If the Contractor is adjudged bankrupt, or if it should make a general assignment for the benefit of creditors, or if a receiver should be appointed on account of its creditors.

3. If the Contractor or any of the subcontractors engaged in the performance of the Work persistently or repeatedly refuses or fails to supply enough properly skilled workmen or proper materials for the timely completion of the Work.

4. If the Contractor fails to make prompt payment to subcontractors engaged in the performance of the Work or for material or labor used in the performance of the Work in accordance with the Contract Documents and applicable law.

5. If the Contractor or any subcontractors engaged in the performance of the Work persistently disregards laws or ordinances applicable to the performance of the Work, or the instructions of the City, the Engineer, the Architect, or other authorized representatives of the City.

6. For any reason or for no reason, at the City’s sole discretion.
b. If the City intends to terminate the Contractor’s control of the Work for any of the reasons specified in Section 11-1.102(a) 1 through 5, above, the City will immediately serve written notice to the Contractor and its sureties in accordance with the Contract Documents. Notice of the City’s intent to terminate the Contract will be given by registered or certified mail and specify the grounds for termination, the required cure and the time by which the cure must be effected. Upon receipt of notice of the City’s intent to terminate the Contract for any of the reasons specified in Section 11-1.102(a) 1 through 5, the Contractor will have ten (10) days from receipt of the notice or a longer time specified in the notice to cure its default. If the Contractor does not affect the required cure by the time specified in the notice, the City will issue a written notice of termination to the Contractor and its sureties by registered or certified mail. The notice of termination will specify: that upon receipt of the notice the Contractor’s right to perform or complete the Work, including on behalf of the Contractor’s sureties, is terminated; that the Contractor’s sureties will have the right to take over and complete the Work and perform all of the Contractor’s remaining obligations that have accrued under the Contract; and that if the Contractor’s sureties do not both give the City written notice of their intention to take over and perform the Contract and commence completion of the Work and performance of all of the Contractor’s remaining obligations that have accrued under the Contract within ten (10) days after receipt of notice of termination that the City may declare the Contractor’s sureties in default and take over the completion of the Work or have the Work completed for the account and at the expense of the Contractor and its sureties, and the Contractor and its sureties will be liable to the City for any resulting excess cost. The City may, in addition to all other available remedies that the City may have under the Contract Documents and at law or equity, deduct any such excess cost of completing the Work from amounts that are due or that may become due the Contractor.

c. Upon termination of the Contractor’s control of the Work for any of the reasons specified in Section 11-1.102(a) 1 through 5, the Contractor will, if so directed by the City, immediately remove from the Work site any and all materials and personal property belonging to the Contractor which have not been incorporated in the Work and the Contractor and its sureties will be liable upon their bond for all damages caused the City by reason of the Contractor's failure to complete the Work.

d. Upon termination of the Contractor’s control of the Work for any of the reasons specified in Section 11-1.102(a) 1 through 5, above, the City reserves the right to refuse tender of the Contractor by any surety to complete the Work.

e. If the City completes or has completed any portion of, or the whole of the Work, following termination of the Contractor’s control of the Work for any of the reasons specified in Section 11-1.102(a) 1 through 5, above, the City will neither be liable for nor account to the Contractor or the Contractor’s sureties in any way for the time within which, or the manner in which such Work is performed, or for any changes made in such Work or for the money expended in satisfying claims and/or suits and/or other obligations in connection with completing the Work. If, following termination of the Contractor’s control of the Work for any of the reasons specified in Sections Section 11-1.102(a) 1 through 5, above, the unpaid balance of the Contract Price exceeds the expense of completing the Work, including compensation for additional legal, managerial and administrative services and all other amounts due for the completion of the Work and/or satisfaction of claims of the City and/or others arising out of the Contract and any other charges that apply to the Contractor under the Contract, the difference will be paid to the Contractor.
If such expenses of completing the Work exceed the unpaid balance of the Contract Price, the Contractor or its sureties will pay the difference to the City.

f. If the Contract or Contractor’s control of the Work is terminated for any reason, no allowances or compensation will be granted for the loss of any anticipated profit by the Contractor.

g. In accordance with California Government Code Section 4410, in the event a national emergency occurs, and public work being performed by contract is stopped, directly or indirectly, because of the freezing or diversion of materials, equipment or labor, as the result of an order or a proclamation of the President of the United States, or of an order of any federal authority, and the circumstances or conditions are such that it is impracticable within a reasonable time to proceed with a substantial portion of the work, then the City and the Contractor may, by written agreement, terminate the Contract. In accordance with California Government Code Section 4411, such an agreement will include the terms and conditions of the termination of the contract and provision for the payment of compensation or money, if any, which either party will pay to the other or any other person, under the facts and circumstances in the case. Compensation to the Contractor will be determined on the basis of the reasonable value of the work done, including preparatory work. As an exception to the foregoing, in the case of any fully completed separate item or portion of the Work for which there is a separate contract price, the Contract price will control. The parties may in any other case adopt the Contract price as the reasonable value of the work or any portion of the work done.

11-1.03 Disputes.

a. In accordance with California Public Contract Code Section 20104.2, the following procedures apply to claims of $375,000 or less between the Contractor and the City:

   1. The claim must be in writing and include the documents necessary to substantiate the claim. Claims must be filed on or before the date of final payment. Nothing in this subdivision is intended to extend the time limit or supersede notice requirements otherwise provided by contract for the filing of claims.

   2. For claims of less than fifty thousand dollars ($50,000), the City will respond in writing to any written claim within 45 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the City may have against the Contractor.

   3. If additional information is thereafter required, it will be requested and provided pursuant to this subdivision, upon mutual agreement of the City and the Contractor.

   4. The City’s written response to the claim, as further documented, will be submitted to the Contractor within 15 days after receipt of the further documentation or within a period of time no greater than that taken by the Contractor in producing the additional information, whichever is greater.

   5. For claims of over fifty thousand dollars ($50,000) and less than or equal to three hundred seventy-five thousand dollars ($375,000), the City will respond in writing
to all written claims within 60 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the City may have against the Contractor.

6. If additional information is thereafter required, it will be requested and provided pursuant to this subdivision, upon mutual agreement of the City and the Contractor.

7. The City’s written response to the claim, as further documented, will be submitted to the Contractor within 30 days after receipt of the further documentation, or within a period of time no greater than that taken by the Contractor in producing the additional information or requested documentation, whichever is greater.

8. If the Contractor disputes the City’s written response, or the City fails to respond within the time prescribed, the Contractor may so notify the City, in writing, either within 15 days of receipt of the City’s response or within 15 days of the City’s failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the City will schedule a meet and confer conference within 30 days for settlement of the dispute.

9. Following the meet and confer conference, if the claim or any portion remains in dispute, the Contractor may file a claim as provided in Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of those provisions, the running of the period of time within which a claim must be filed will be tolled from the time the Contractor submits his or her written claim pursuant to subdivision (a) until the time that claim is denied as a result of the meet and confer process, including any period of time utilized by the meet and confer process.

10. This section does not apply to tort claims and nothing in this article is intended nor will be construed to change the time periods for filing tort claims or actions specified by Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code.

b. In accordance with California Public Contract Code Section 20104.4, the following procedures apply to civil actions to resolve claims of $375,000 or less between the City and the Contractor:

1. Within 60 days, but no earlier than 30 days, following the filing or responsive pleadings, the court will submit the matter to non-binding mediation unless waived by mutual stipulation of both parties. The mediation process will provide for the selection within 15 days by both parties of a disinterested third person as mediator, will be commenced within 30 days of the submittal, and will be concluded within 15 days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court or by stipulation of both parties. If the parties fail to select a mediator within the 15-day period, any party may petition the court to appoint the mediator.
2. If the matter remains in dispute, the case will be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding Section 1141.11 of that code. The Civil Discovery Act of 1986 (Article 3 (commencing with Section 2016) of Chapter 3 of Title 3 of Part 4 of the Code of Civil Procedure) will apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration.

3. Notwithstanding any other provision of law, upon stipulation of the parties, arbitrators appointed for purposes of this article will be experienced in construction law, and, upon stipulation of the parties, mediators and arbitrators will be paid necessary and reasonable hourly rates of pay not to exceed their customary rate, and such fees and expenses will be paid equally by the parties, except in the case of arbitration where the arbitrator, for good cause, determines a different division. In no event will these fees or expenses be paid by state or county funds.

4. In addition to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, any party who after receiving an arbitration award requests a trial de novo but does not obtain a more favorable judgment must, in addition to payment of costs and fees under that chapter, pay the attorney's fees of the other party arising out of the trial de novo.

5. The court may, upon request by any party, order any witnesses to participate in the mediation or arbitration process.

c. In accordance with California Public Contract Code Section 20104.6:

1. The City will not fail to pay money as to any portion of a claim, which is undisputed except as otherwise provided in the Contract.

2. In any suit filed under Public Contract Code Section 20104.4 concerning this Contract, the City will pay interest at the legal rate on any arbitration award or judgment. Such interest will accrue from date the suit was filed.
SECTION 12 Additional Provisions

12-1.01 Description of Work.
The Work generally consists of constructing a public Class 1 bicycle and pedestrian pathways, pedestrian bridges, drainage improvements, lighting improvements, signalized pedestrian crossing and other such items of work as are required to complete the Project in accordance with this Contract, the Project Plans and Technical Specifications.

All Work shall conform to the requirements of the City of Healdsburg Public Works Standard Specification and Details Specific Provisions and Standard Details as they apply, and any modifications or additions herein and/or on the Project Plans.

Work shown on the plans and/or described within the Contract Documents that is not specifically referenced or contained on the bid item list shall be considered as paid for by the various items of work and no additional compensation will be provided.

The estimate of the quantities of Work to be done is approximate only, being as a basis for the comparison of bids, and the City does not expressly or by implication agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount or any portion of the work as directed by the Engineer.

Incidental items of construction necessary to complete the Work in a satisfactory and acceptable manner as shown on the Project Plans and as provided for in the Technical Specifications and not specifically referred to in this section, shall be considered part of the Work and will be understood to be furnished by the Contractor at no additional cost.

12-1.02 Construction Limitations.
The Contractor will be expected to conduct his or her operations in a manner; which creates a minimum to the natural vegetation and landscape. Ingress and egress must be via the existing right of way. Care must be exercised to avoid hazards that may cause injury to persons, animals or property either during working hours of after work hours, which will include dust control, backfilling trenches immediately following pipe laying and temporary fencing as required. Excavation made under this Contract must be backfilled before leaving the work for the night.

The Contractor will be responsible for obtaining permission from the property owners for any construction outside of the Work site or easements as shown on the plans. Equipment will be restricted to the immediate area of construction; pipe trenches will be backfilled as soon as possible.

Receptacles for construction residue, including oil, cleaning fluids, and litter, must be covered. Such residues must be disposed of in a proper manner.

Construction activity within the existing right-of-way must be scheduled to minimize traffic inconvenience and safety hazards to motorists, pedestrians and cyclists.

12-1.03 Order of Work.
Work as shown on the project plans and described herein shall be constructed in a sequence that is satisfactory to and approved by the Engineer. Additional Order of work requirements may be found on the project plans or within the Special Provisions.

12-1.04 Storm Water Pollution Prevention.
The Contractor must perform the Work in compliance with all applicable requirements of the California State Water Resources Control Board pursuant to National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities Order No. 2009-0009-DWQ, NPDES No. CAS000002 ("General Permit") adopted pursuant to regulations adopted by the U.S. Environmental Protection Agency (USEPA) on November 16, 1990 and codified in 40 Code of Federal Regulations Parts 122, 123, 124. The General Permit applies to storm water discharges from construction sites that disturb land equal to or greater than one acre, and to construction activity that results in soil disturbances of less than one acre if the construction activity is part of a larger common plan of development that encompasses one or more acre of soil disturbance or if there is significant water quality impairment resulting from the activity. The General Permit requirements that may apply to the Contractor’s performance of the Work include, but are not limited to:

a. Development and implementation of a Storm Water Pollution Prevention Plan ("SWPPP") developed by a Qualified SWPPP Developer (QDD) that is designed to address the following objectives:
   i. All pollutants and their sources, including sources of sediment associated with construction, construction site erosion and all other activities associated with construction activity are controlled;
   ii. Where not otherwise required to under a Regional Water Board permit, all non-storm water discharges are identified and either eliminated, controlled, or treated;
   iii. Site BMPs are effective and result in the reduction or elimination of pollutants in storm water discharges and authorized non-storm water discharges from construction activity;
   iv. Calculations and design details as well as BMP controls for site run-on are complete and correct; and
   v. Stabilization BMPs installed to reduce or eliminate pollutants after construction are completed.

b. Assess the risk level based on both sediment transport and receiving water risk and implement risk specific requirements including monitoring and, for risk level 2 and 3, development of a Rain Event Action Plan 48 hours prior to any likely precipitation event.

c. Inspection of all BMPs.

Portions of the Work that may be subject to the General Permit include, but are not limited to clearing, grading, stockpiling and excavation.

Prior to commencing performance of the Work, the Legally Responsible Person (LRP) must obtain coverage under the General Permit. To obtain coverage, the LRP must electronically file Permit Registration Documents to the State Water Board’s Storm Water Multi-Application and Report Tracking System (SMARTS) website, prior to commencement of construction activity, including:

a. Notice of Intent
b. Risk Assessment
c. Site Map
d. SWPPP
e. Annual Fee
f. Signed Certification Statement
The SWPPP must include a Work site map. Geometric equations, notes, details, and all data not related to water pollution control work shall be removed to provide clarity. A copy of the Project Plans must be used as a base plan, with the pertinent stage of construction shown as an overlay to accurately reflect Project site conditions at various phases of construction.

The Contractor must revise and update the SWPPP whenever there is a change in construction operations that may affect the site drainage patterns or discharge of pollutants to surface waters, ground waters, or a separate municipal storm sewer system.

Any fines, damages, Work delays or other impacts that result from failure of the Contractor or privities or agents of the Contractor to fully comply with the requirements of the General Permit or to fully implement the SWPPP will be solely the responsibility of the Contractor.

The Contractor must keep a copy of the General Permit, together with updates and revisions, at the Project site and provide copies of the SWPPP at the request of the City.

12-1.05 Maintaining Traffic and Pedestrian Operations.
The Contractor must conduct his or her operations so as to cause the least possible obstruction and inconvenience to public traffic. Unless otherwise approved by the Engineer, all traffic must be permitted to pass through the Work.

Due to the need to accommodate and minimize inconvenience to the public, unless expressly specified or approved in writing by the Engineer, no road closures will be permitted. Public vehicular and pedestrian traffic must be allowed to travel through the Work area with an absolute minimum of interruption or impedance unless otherwise provided for in the Contract or approved in writing by the Engineer. The Contractor must make provisions for the safe passage of pedestrians around the area of Work at all times.

Residents affected by construction must be provided passage and access through the Work area to the maximum extent possible. Where existing driveways occur on the street, the Contractor must make provisions for the trench crossings at these points, either by means of backfill or by temporary bridges acceptable to the Engineer, so that the length of shut-down of any driveway is kept to a minimum. In addition, all driveways must be accessible at the end of each workday, and no driveway or property access may be closed for more than four (4) hours during the workday. Access to driveways, houses, and buildings along the road or street must be as convenient as possible and well maintained, and all temporary crossings must be maintained in good condition. To minimize the need for and complexity of detours, not more than one crossing or street intersection or road may be closed at any one time without the written approval of the Engineer.

The Contractor must provide multiple, advance written notices of closures to all affected property owners in a form approved by the Engineer.

Except as otherwise approved by the Engineer, the stockpiling or storing of material in City streets or right of way shall be prohibited. Where this is unavoidable, all such materials must be piled or stored in a manner that will not obstruct sidewalks, driveways, or pedestrian crossings. Gutters and drainage channels must be kept clear and unobstructed at all times. All such materials shall be stored and handled in a manner that protects City streets, sidewalks, or other facilities from damage.

Where approved in advance by the Engineer, the Contractor must construct and maintain detours for the use of public traffic at his or her own expense. Failure or refusal of the
Contractor to construct and maintain detours so approved at the proper time will be a material breach of the Contract subject to any and all remedies available pursuant to the Contract Documents and at law and equity. Such remedies include, but are not limited to, termination pursuant to Section 11.

Throughout performance of the Work the Contractor must construct and adequately maintain suitable and safe crossings over trenches and such detours as are necessary to care for the public and private traffic at all times including Saturdays, Sundays and holidays.

The Contractor will be responsible for keeping all emergency services, including the Healdsburg police and fire departments informed of obstructions to, or detours around any public or private roads caused by reasons of his or her operations.

The Contractor must comply with the State of California, Department of Transportation Manual of warning signs, lights, and devices for use and performance of work within the job site.

The fact that rain or other causes, either within or beyond the control of the Contractor, may force suspension or delay of the Work, shall in no way relieve the Contractor of his or her responsibility of maintaining traffic through the Project and providing local access as specified in this section. The Contractor must, at all times, keep on the job such materials, force and equipment as may be necessary to keep roads, streets and driveways within the Project open to traffic and in good repair and shall expedite the passage of such traffic, using such force and equipment as may be necessary.

Full compensation for conforming to the requirements of this section will be deemed included in the prices paid or the various Contract items of Work and no additional allowances will be made therefore.

12-1.06 Public Safety.
The Contractor must at all times conduct the Work in accordance with Construction Safety Orders of the Division of Industrial Safety, State of California, to ensure the least possible obstruction to traffic and inconvenience to the general public, and adequate protection of persons and property in the vicinity of the work.

No pedestrian or vehicle access way may be closed to the public without first obtaining permission of the Engineer.

Should the Contractor fail to provide public safety as specified or if, in the opinion of the Engineer, the warning devices furnished by the Contractor are not adequate, the City may place any warning lights or barricades or take any necessary action to protect or warn the public of any dangerous condition connected with the Contractor’s operations and the Contractor will be liable to the City for, and the City may deduct from amounts due or that may become due the Contractor under the Contract, all costs incurred including, but not limited to, administrative costs.

Nothing in this section will be construed to impose tort liability on the City or Engineer.

12-1.07 Preconstruction Conference.
A pre-construction conference will be scheduled, at which time the Contractor must present his or her proposed work schedule in accordance with Section 3-1.08 of the General Provisions, information concerning offsite yards, subcontractors, location of disposal and stock pile areas, and traffic control plans. All such schedules will be subject to the approval of the Engineer and the applicable agencies.
12-1.08 Owner Notification.
The Contractor must notify all property owners and businesses affected by the Work at least 72 hours before Work is to begin. The notice must be in writing in the form of a door hanger, and must indicate the Contractor’s name and phone number, type of work, day(s) and time when Work will occur. Notices shall be reviewed in advance and approved by the Engineer.

12-1.09 Emergency Service Providers Notifications.
The Contractor must furnish the name and phone number of the Safety Supervisor appointed in Section 13 to the City Police Department dispatcher for contact in the event of an emergency and shall keep such information updated as required to provide 24-hour phone access.

12-1.10 Clean up.
Section 4-1.13 of the Caltrans Standard Specifications is made a part of this Contract.

Before final inspection of the work, the Contractor must clean the construction site and all ground occupied by him in connection with the work, of all rubbish, excess material, falsework, temporary structures and equipment. All parts of the work shall be left in a neat and presentable condition.

Nothing herein shall require the Contractor to remove warning, regulatory, and guide signs prior to formal acceptance by the Engineer.

12-1.11 Obstructions.
Section 15, “Existing Highway Facilities”, of the Caltrans Standard Specifications, is made a part of this Contract; except that, measurement and payment shall be as described herein.

Attention is directed to the possible existence of overhead and underground power, telephone, and television cable poles, underground sewer mains and laterals, underground gas mains, and underground water mains and laterals within the area in which construction is to be performed.

Prior to starting work, the Contractor must (a minimum of 2 working days in advance) call Underground Service Alert (USA), toll free, at (800) 642-2444 and provide USA with all necessary data relative to the proposed work. USA will accept calls and process information to participating agencies that have underground facilities in the area between the hours of 7:30 a.m. and 5:00 p.m. daily, except Saturdays, Sundays, and holidays. Between the hours of 5:00 p.m. and 7:30 a.m. calls will be recorded and then processed after 7:30 a.m. For emergency situations, after hours and on Saturdays, Sundays and holidays, the Contractor shall contact the organization owning the affected facility. Upon notification, agencies having facilities in the area of the proposed excavation will mark their locations in the field using USA standard colors and codes to identify the facility.

The Contractor will be required to work around public and private utility facilities and other improvements that are to remain in place within the construction area and he will be held liable to the owners of such facilities or interference with service resulting from his operations.

12-1.12 Hours of Work.
Unless otherwise specified herein, all construction activity, except for emergency situations, will be confined to Monday through Friday between the hours of 7:30 a.m. and 6:00 p.m., to minimize nuisances to local residents. Mufflers and/or baffles will be required on all construction equipment to control and minimize noise. The Contractor must comply with all applicable noise regulations in the City’s Municipal Code.
Saturday, Sunday, holidays and overtime shall not be regarded as working days. Work shall not be allowed on non-working days without the expressed approval of the Engineer. The Contractor shall make a request for approval in writing with the stipulation (implied or expressed) that the Contractor shall pay for all overtime labor charges at the rate of $135 per hour per inspector and/or resident engineer. All overtime labor charges shall be deducted from the final payment along with any liquidated damages.

Work necessary for the proper care and protection of work already performed or in case of emergency may be allowed without permission of the Engineer.

**12-1.13 Dust Control**
The Contractor must furnish all labor, equipment, and means required and carry out effective measures wherever and as often as necessary to prevent its operation from producing dust in amounts damaging to property, cultivated vegetation, or domestic animals, or causing a nuisance. The Contractor will be responsible for any damage resulting from any dust originating from the performance of the Work. The use of water resulting in mud on streets, sidewalks, or driveways, will not be permitted as a substitute for sweeping or other methods of dust control. The Contractor may not discharge smoke, dust, or any other air contaminants into the atmosphere in such quantity as will violate the regulations of any legally constituted authority.

Dust control must conform to the provisions in Section 10-5, “Dust Control”, of the Caltrans Standard Specifications, which section is made a part of this Contract. No separate payment will be made to the Contractor for controlling dust, whether caused by construction traffic or by public traffic only. Full compensation for dust control will be considered as included in the Contract Price paid for the various items of work and no additional compensation will be allowed therefore.

**12-1.14 Water For Construction And Dust Control.**
Construction water is available free-of-charge from the recycled water dispensing facilities located at 280 Kinley Road and at 340 Foreman Lane. The Contractor shall apply for a Recycled Water Trucking Permit through the City of Healdsburg and shall meet the requirements of the permitting process. The Contractor shall comply with all permit requirements for the use and handling of recycled water. Construction water shall not be drawn from any other source within the City of Healdsburg.

The Contractor is prohibited from operating gate valves, fire hydrants, pumps or any other components of the City water system. The Contractor must contact the City’s utilities staff, a minimum of twenty-four (24) hours in advance, to operate these or any other components on the City water system.

**12-1.15 Sanitary Provisions.**
The Contractor must maintain such camps, as he or she may establish for the housing and feeding of the laborers, employed by him or her for the Work, in accordance with the status and general health laws of the State of California pertaining to the sanitation of dwelling and camps and in conformity with such rules and regulations pertaining to labor camps, as have been or may hereafter be prescribed by the State Board of Health or by the Commission of Emigration and Housing of California acting in conjunction with said State Board of Health.

**12-1.16 Protection And Restoration Of Vegetation.**
Trees, lawns, shrubbery and vegetation that are not to be removed must be protected from damage or injury. Existing trees, shrubs, and other plants, that are not to be removed and are
injured or damaged by reason of the Contractor’s operations, must be replaced by the
Contractor in accordance with the requirements in Section 20-4.03F, “Replacement”, of the
Caltrans Standard Specifications. Section 20-4.03F of the Caltrans Standard Specifications is
made part of this Agreement.

When it is necessary to excavate adjacent to existing trees, shrubs, or hedges, the Contractor
must use all possible care to avoid injury to the trees, shrubs, or hedges and their roots. No
roots or limbs two inches (2”) or larger in diameter may be cut without the express approval of
the Engineer.

All roots two inches (2”) in diameter and larger left in place must be wrapped with burlap to
prevent scarring or excessive drying. When it is necessary to cut limbs and branches of trees
to provide clearance for equipment used in construction, the Contractor must repair the damaged
areas by properly painting with an emulsified asphalt type seal. All cuts through 1/2” or larger
roots and limbs must be hand trimmed and cleanly cut before being repaired.

12-2.01  Cultural Resources.
In accordance with the National Historic Preservation Act of 1966 (U.S.C. 470), the following
procedures are implemented to insure historic preservation and fair compensation to the
Contractor for delays attendant to the cultural resources investigation. Contractor hereby
agrees to comply with these procedures.

12-2.02  Surplus Material.
All material removed or excavated during the course of construction will be surplus. All surplus
material will be the property of the Contractor and be disposed of outside the right-of-way,
unless the City elects to salvage certain objects that are determined to be of historical interest.
The City reserves the right of ownership of all objects that it elects to salvage, and the
Contractor must protect such objects from subsequent damage until delivered unto the care of
the owner.

12-2.03  Historical Finds.
In the event potential historical, architectural, archeological, or cultural resources (hereinafter
called cultural resources) are discovered during subsurface excavations at the site of
construction, the following procedures will apply:

1. The Contractor must immediately notify the Engineer and stop any Work which may
   jeopardize the find pending an investigation of its significance;

2. The Engineer will select a qualified archeologist (such as through the Northwest
   Information Center at Sonoma State University or other official contact) and wait for an
   archaeologist to complete an evaluation of significance before continuing Work in that
   area.

3. The Engineer will supply the Contractor with a “Stop Work Order” directing the
   Contractor to cease all portions of the Work that the Engineer determines may impact
   the find. The “Stop Work Order” will be effective until a qualified archaeologist assesses
   the value of the potential cultural resources. The “Stop Work Order” will contain the
   following:

   a. A clear description of the Work to be suspended;

   b. Any instructions regarding issuance of further orders by the Contractor for
      materials services;

   c. Guidance as to action to be taken regarding subcontractors;
d. Any direction to the Contractor to minimize costs; and

e. Estimated duration of the temporary suspension.

4. If the archaeologist determines the potential find is a bona fide cultural resource, the Engineer may extend the duration of the “Stop Work Order” in writing, and if so the “Stop Work Order” will remain in effect and Work subject to the “Stop Work Order” may not resume work until authorized by the Engineer.

12-2.04 Cultural Resources Defined.
Possible indicators that a cultural resource has been found include, but are not limited to the following:

1. Prehistoric-era archaeological site indicators: obsidian tools, tool manufacture waste flakes, grinding and other implements, dwelling sites, animal or human bones, fossils, and/or locally darkened soil containing dietary debris such as bone fragments and shellfish remains;

2. Historic-era site indicators: ceramic, glass, and/or metal.

12-2.05 Engineer’s Discretion.
Once possible cultural resources are found at the Work site, the Engineer may use discretion to continue the work, regardless of the cultural resource find, if the Engineer determines that there are overriding considerations such as the instability of the excavation site, that there are weather or other conditions which would preclude leaving the site exposed, or if the site would be unsafe to workers who would retrieve cultural resource items from therein.
SECTION 13 Safety Rules and Requirements

13-1.01 General

a. Within ten (10) working days following notice of award the Contractor must submit to the City a safety program for the Work site ("Contractor's Safety Program") and provide evidence that the Contractor’s safety policies and procedures relevant to the Work.

b. The Contractor shall insure that its employees and subcontractors, as well as visitors and others brought onto the Work site under the authority of the Contractor, shall, at all times, observe all applicable Local, State and Federal safety requirements as well as the safety rules and requirements contained in this Contract including, but not limited to, the Contractor’s Safety Program.

c. In accordance with generally accepted construction practices and applicable law, the Contractor will be solely and completely responsible for conditions at the Work site, including safety of all persons and property during performance of the Work. This requirement will apply continuously and not be limited to normal working hours. For purposes of California Labor Code Section 6400 and related provisions of law, the Contractor and the Contractor's privities and any other entities engaged in the performance of the Work will be “employers” responsible for furnishing employment and a place of employment that is safe and healthful for all employees of any such entities engaged in the performance of the Work. Neither the City nor its officials, officers, employees, agents, volunteers or consultants will be “employers” pursuant to California Labor Code Section 6400 and related provisions of law with respect to the Contractor, the Contractor’s privities or other entities engaged in the performance of the Work.

d. The Contractor agrees with respect to the Work, and the Work site, the Contractor will be responsible for not creating hazards and for having hazards corrected and/or removed, for taking appropriate, feasible steps to protect the Contractor's employees from such hazards and that the Contractor has instructed and/or will instruct its employees to recognize such hazards and how to avoid the associated dangers.

e. The Contractor will be solely responsible for the implementation and maintenance of safety programs to ensure that the Work site is maintained and the Work is performed in a safe manner in accordance with the Contract and applicable law. If the Contractor damages City equipment or property, the Contractor shall report the incident to the Engineer on or before the next calendar day and provide such information as necessary for the City to evaluate the damage.

f. The Contractor shall submit a written request to the Engineer in order to obtain keys or other devices to gain access to City facilities. Keys and other devices shall not be copied or otherwise replicated and shall remain in the possession of the Contractor and its employees or subcontractors at all times and shall be returned to the City when no longer required to complete the Work.
g. The Contractor must furnish and place proper guards and systems for the prevention of accidents, including, but not limited to, those systems required pursuant to Title 8, Section 1670 et seq. of the California Code of Regulations concerning safety belts and nets. The Contractor must provide and maintain any other necessary systems or devices required to secure safety of life or property at the Work site in accordance with accepted standards of the industry and applicable law. The Contractor must maintain during all night hours sufficient lights to prevent accident or damage to life or property.

h. Examination, inspection, investigation, and review by the City and or its employees and representatives, of the Contractor’s Safety Plan or the Contractor’s performance of the Work will not constitute review or approval of the adequacy of the Contractor’s safety measures in, on, or near the Work site and shall not relieve the Contractor of any of the Contractor’s obligations under the Contract and applicable law to ensure that the Work site is maintained and the Work is performed in a safe manner.

13-1.02 Safety Supervisor; Hazardous Substances

a. The Contractor shall designate an individual who is qualified and authorized to supervise and enforce compliance with the Contractor’s Safety Program (“Safety Supervisor”). The Contractor shall notify the Engineer in writing prior to the commencement of the Work of the name and contact information of the Safety Supervisor. The Safety Supervisor shall be either a full-time employee of the Contractor or a contracted safety consultant with experience and/or professional certifications indicating experience in construction safety. The Safety Supervisor shall provide the City, upon request, with weekly safety inspection reports identifying hazards found and corrective actions taken. The Safety Supervisor shall also be responsible for supervising compliance with applicable safety requirements on the Work site and to develop and implement safety training for all job personnel. The City shall have the authority, but not the duty, to require the Contractor replace the Safety Supervisor if the Supervisor’s performance is judged by the City to be improper or inadequate.

b. Prior to beginning the Work, the Contractor shall review the City’s Hazard Communication Program. In addition, if the Contractor brings any substance onto City property, other than gasoline or diesel fuel, for which a manufacturer has prepared a Materials Safety Data Sheet (MSDS), in quantities greater than 25 pounds, 200 cubic feet, or five gallons; or any substance defined in Cal/OSHA regulations as “acutely hazardous;” or if the Contractor’s work activities may expose City employees to any of the substances described above, the Contractor shall first complete and submit to the Engineer a “Report of Use/Storage of Hazardous Substances on City Property” form (form(s) provided at Project’s Pre-Construction meeting).

13-1.03 Non-Compliance with Safety Rules and Regulations

a. In the event the Contractor fails to comply with applicable Local, State and Federal safety requirements, or the safety rules and requirements contained in this Contract including the provisions of the Contractor’s Safety Plan, the City reserves the right to (i) notify the Contractor of its failure to comply, and the reasons therefore, and require that the Contractor immediately undertake, at Contractor’s own expense, all actions necessary to bring the Contractor and/or the Project into compliance and (ii) exercise the
right to suspend all or part of the Work if the Contractor fails or refuses to undertake and complete such corrective action within the time specified in the notice.

b. No extension of time or additional compensation will be granted as a result of any suspension of the Work and any issuance by the City of any notice or suspension order shall not operate to waive or otherwise diminish the (i) Contractor’s obligations under this Contract to provide a safe Work site or (ii) City’s right to pursue or enforce any remedy, power or right under the Contract or otherwise available at law.

13-1.04 Accidents and Safety Emergencies

a. In accidents or emergencies affecting the safety or protection of persons, the Work, the Work site, or property adjacent thereto, the Contractor shall immediately act to prevent threatened damage, injury or loss and notify the Engineer as soon as possible of the facts and circumstances surrounding the emergency including the involvement of any emergency responders (police, fire, medical, etc.).

b. The City reserves the right to conduct an investigation of the accident or emergency either in conjunction with, or separate of, the Contractor, and the Contractor shall provide the City all access necessary to permit the City to perform a full and complete investigation, the scope of which shall be at the sole discretion of the City.

c. Within 24 hours of accidents or emergencies involving in-patient hospitalization or a fatality, the Contractor shall provide the Engineer with a completed Contractor’s Injury/Fatality Incident Report (form(s) provided at Project’s Pre-Construction meeting). The Contractor shall also notify the Engineer in writing of any claims brought against the Contractor, or any subcontractor, judicial or otherwise, related to any such injuries and/or fatalities including a copy of such claim(s).
SECTION 14 Special Provisions
TECHNICAL SPECIFICATIONS
(Special Provisions)

For

FOSS CREEK PATHWAY
SEGMENTS 7 & 8

June 2020

Prepared By:

Heidi E Utterback, RCE 53723
Exp. 06/30/21

07/01/2020
Date:

COASTLAND
1400 Neotomas Avenue
Santa Rosa, CA 95405
(707) 571-8005
SECTION 10
SPECIAL PROVISIONS

10-1 GENERAL

10-1.01 Description of Work: The Work in general consists of the construction of public Class 1 bicycle and pedestrian pathways, pedestrian bridges, drainage improvements, lighting improvements, signalized pedestrian crossing and other such items of work as are required to complete the Project in accordance with this Contract, the Project Plans and Technical Specifications, and the 2015 Caltrans Standard Specifications.

The estimate of the quantities of work to be done is approximate only, being as a basis for the comparison of bids, and the City does not expressly or by implication agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any portion of the work as directed by the City Engineer.

Incidental items of construction necessary to complete the whole work in a satisfactory and acceptable manner as shown on the plans and as provided for in the specifications and not specifically referred to in this section, shall be understood to be furnished by the Contractor at no additional cost.

10-1.02 Construction Limitations: The Contractor will be expected to conduct his operations in a manner which creates a minimum damage to the natural vegetation and landscaping, paving and gravel areas. Care shall be exercised to avoid hazards that may cause injury to persons, animals or property either during working hours or after work hours.

Equipment will be restricted to the immediate area of construction.

Construction equipment shall be maintained and operated to minimize exhaust emissions. During construction, trucks and equipment shall be operated only when necessary. Equipment shall be kept in good condition and well-tuned to minimize exhaust emissions.

Receptacles for construction residue, including oil, cleaning fluids and litter, will be covered. Such residues will be disposed of in a proper manner.

The contractor shall recycle waste materials during all construction phases of the project, particularly brush and vegetation removed, and any other materials that are prohibited from landfill disposal.

Mufflers and/or baffles will be required on all construction equipment. All equipment shall have sound control devices no less effective than those provided on the original equipment.

Construction activity within the existing right-of-way will be scheduled to minimize traffic inconvenience and safety hazards to motorists, pedestrians and cyclists.
10-1.03 Order of Work: Order of work shall be in accordance with Section 12-1.03 “Order of Work,” of the General Provisions and these Special Provisions.

Attention is directed to 10-1.19 “Utility Clearances” and 10-3 “Traffic Control” of these Special Provisions.

Contractor shall provide 30 days advance notice prior to working in the existing Big John’s parking area between station 14+00 and station 17+50 so that the adjacent business can remove any existing property and cease existing use. No work in this area shall occur until specifically authorized by the Engineer.

Working days shall be as defined in the Caltrans Standard Specifications.

10-1.04 Maintaining Traffic and Pedestrian Operations: The site of the work shall be enclosed by suitable barricades, signs and lights to warn and protect traffic effectively and shall be in accordance with the Current edition of the California Manual of Uniform Traffic Control Devices (CA MUTCD) for all items related to traffic within the work site.

Attention is directed to Section 10-3 TRAFFIC CONTROL of these Special Provisions.

The Contractor shall provide adequate barricades, signs, warning lights, watchmen and flagmen in accordance with the Current edition of the California Manual of Uniform Traffic Control Devices (CA MUTCD) to protect the work and the safety of the public. Warning lights using inflammable liquids will not be permitted; only electrically operated lights will be approved for use. Warning lights shall be kept burning from sunset to sunrise, and barricades shall be painted to increase their visibility at night.

All detours and traffic control shall be between 8:00 a.m. and 5:00 p.m.; unobstructed two-way traffic shall be maintained daily from 5:00 p.m. to 8:00 a.m.

Attention is directed to Section 7-1.03, “Public Convenience,” and Section 7-1.04, “Public Safety,” of the Caltrans Standard Specifications, which sections are hereby incorporated in these Special Provisions as if set forth in full. Attention is also directed to Section 10-1.05, “Public Safety,” of these Special Provisions.

Adequate traffic control, flagmen, signing, and barricades shall be provided by the Contractor at all times as approved by the Engineer.

10-1.05 Public Safety: The Contractor shall at all times conduct his work in accordance with Construction Safety Orders of the Division of Industrial Safety, State of California, to ensure the least possible obstruction to traffic and inconvenience to the general public, and adequate protection of persons and property in the vicinity of the work.

No access way shall be closed to the public without first obtaining permission of the City Engineer.

Should the Contractor fail to provide public safety as specified or if, in the opinion of the City Engineer, the warning devices furnished by the Contractor are not adequate, the City may place any warning lights or barricades or take any necessary action to protect or warn the public of any
dangerous condition connected with the Contractor’s operations and the Contractor shall be liable to the City for all costs incurred including, but not limited to, administrative costs.

Nothing in this section shall be construed to impose tort liability on the City or Engineer.

**10-1.06 Storm Water Pollution Prevention:** Attention is directed to the provisions in Section 13, "Water Pollution Control," of the Caltrans Standard Specifications, Section 12-1.04 “Storm Water Pollution Prevention,” of the General Provisions and these Special Provisions. Construction activities shall comply with the current California Water Quality Control Board, the California Stormwater Quality Association Storm Water BMP Handbook for Construction (CASQA Handbook) and the NPDES General Permit for "Storm Water Discharges Associated with Construction and Land Disturbance Activities".

The Contractor shall exercise every reasonable precaution to protect channels, storm drains, and bodies of water from pollution and shall conduct and schedule its operations as so to minimize or avoid muddying and silting of said channels, drains, and waters. Water pollution control work shall consist of constructing those facilities which may be required to provide prevention, control, and abatement of water pollution.

Water pollution control work is intended to provide prevention, control and abatement of water pollution to streams, waterways, and other bodies of water, and shall consist of constructing those facilities which may be shown on the plans, specified herein or in the special provisions, or directed by the Engineer.

Section 13-3, Storm Water Pollution Prevention Plan, of the Standard Specifications does apply to this project. Before starting any work on the project, the Contractor shall prepare and submit Storm Water Pollution Protection Plan, SWPPP, for review and approval by the Engineer and filing of the NOI. The SWPPP shall be developed by a Qualified SWPPP Developer (QDD).

Such program shall show the schedule for the erosion control work included in the contract and for all water pollution control measures which the Contractor proposes to take in connection with construction of the project to minimize the effects of his operation upon adjacent streams and other bodies of water. The Contractor shall not perform any clearing and grubbing or earthwork on the project, other than that specifically authorized in writing by the Engineer, until such program has been accepted.

SWPPP shall be paid for at the contract lump sum price and shall include full compensation for furnishing all labor, materials, tools and equipment, and doing all the work involved in SWPPP including but not limited to all fees, inspections, testing, sampling, preparation of reports and WPCDs, filing the NOI, and completing post construction calculations, as specified in the Caltrans Standard Specifications and these Special Provisions, and as directed by the Engineer and no additional compensation will be allowed therefor.

**10-1.07 Water for Construction and Dust Control:** Construction and testing water shall conform to Section 10-6, “Watering,” of the Caltrans Standard Specifications and these Special Provisions.
The Contractor shall be responsible for providing all water necessary for construction and testing and disposing of all water needed for testing. Construction water is available from the City per Section 12-1.14 “Water for Construction and Dust Control,” of the General Provisions.

During the performance of the work called for under these Specifications, or any operations appurtenant thereto, the Contractor shall furnish all labor, equipment and means required, and as often as necessary, to prevent his operations from producing visible dust.

Attention is also directed to Section 12-1.06 “Public Safety,” of the General Provisions

10-1.08 Protection of Existing Facilities and Property: The Contractor shall notify Underground Service Alert (USA) for marking the locations of existing underground facilities.

The Contractor shall take all necessary measures to avoid injury to existing surface and underground utility facilities in and near the site of the work. No error or omission of utility markouts shall be construed to relieve the Contractor from his responsibility to protect all underground pipes, conduits, cables or other structures. The Contractor shall indemnify the City and hold it harmless from any and all claims, demands, or liability made or asserted by any person or entity on account of or in connection with any damage to such surface or underground facilities caused by the Contractor or any of his agents or subcontractors.

The existing underground facilities in the area of work may include telephone, television, Century Link and electrical cables/conduit, gas mains, water mains, sewer pipe and drainage pipe. The various utility companies shall be notified before trenching begins and at such other times as required to protect their facilities. Underground facilities shall be located and exposed ahead of excavations to prevent damage to the facilities, and to determine the depth and character of all facilities that cross or infringe on the excavation prism. The Contractor shall immediately notify the City Engineer of any facilities found. If damage should occur to the existing facilities, the utility company and the City shall be notified immediately and repairs acceptable to the utility company shall be made at the Contractor’s expense.

Attention is directed to the provisions in Section 5-1.36, "Property and Facility Preservation" of the Caltrans Standard Specifications, which section is hereby incorporated in these special provisions as if set forth in full, and these Special Provisions.

Existing trees, shrubs, and other plants, that are not to be removed and are injured or damaged by reason of the Contractor’s operations, shall be replaced by the Contractor in accordance with the requirements in Section 5-1.36, "Property and Facility Preservation," of the Caltrans Standard Specifications. Section 5-1.36 of the Caltrans Standard Specifications is hereby incorporated in these Special Provisions.

10-1.09 Obstructions: Attention is directed to Section 5-1.36, "Property and Facility Preservation" and 15, “Existing Facilities,” of the Caltrans Standard Specifications, which sections are hereby incorporated in these Special Provisions as if set forth in full, Section 12-1.11 “Obstructions,” of the General Provisions and these Special Provisions.
Attention is directed to the existence of overhead and underground power, telephone, and television cable poles, underground sewer mains and laterals, underground gas mains, and underground water mains and laterals within the area in which construction is to be performed.

Prior to starting work, the Contractor shall (a minimum of 2 working days in advance) call Underground Service Alert (USA), toll free, at (800) 642-2444 and provide USA with all necessary data relative to the proposed work. USA will accept calls and process information to participating agencies who have underground facilities in the area between the hours of 7:30 a.m. and 5:00 p.m. daily, except Saturdays, Sundays, and holidays. Between the hours of 5:00 p.m. and 7:30 a.m. calls will be recorded and then processed after 7:30 a.m. For emergency situations, after hours and on Saturdays, Sundays and holidays, the Contractor shall contact the organization owning the affected facility. Upon notification, agencies having facilities in the area of the proposed excavation will mark their locations in the field using USA standard colors and codes to identify the facility.

Any delays claimed by the Contractor as a direct result of the utility facilities not being arranged as provided will not be recognized nor will any delays be considered right-of-way delays within the meaning of Section 8-1.07, “Delays,” of the Caltrans Standard Specifications, except that any such delays will entitle the Contractor to an extension of time as provided in Section 8-1.10, “Liquidated Damages,” of the Caltrans Standard Specifications. The Contractor shall immediately notify the Engineer of such delays.

The Contractor will be required to work around public and private utility facilities and other improvements that are to remain in place within the construction area and he will be held liable to the owners of such facilities or interference with service resulting from his operations.

10-1.10 Hours of Work: The Contractor shall restrict his hours of work to 8:00 a.m. to 5:00 p.m. Monday through Friday. Deviations from these hours may be requested and approved in writing by the Engineer.


Contractor shall provide dust control measures at all times, including weekends and holidays, during all phases of construction to the satisfaction of the Engineer. Dust control measures shall include, but not be limited to, watering, application of dust suppressants or other means in order to prevent fugitive dust from leaving the project site. Paved areas at the access points shall be swept or washed as often as necessary each day to eliminate tracking soil and debris onto public streets. Any soil and/or debris, rock, gravel, etc. resulting on any public streets as a result of this project shall be removed immediately. Paved areas within the right-of-way shall be left in a cleaned and washed condition at the end of each work day.

No separate payment will be made to the Contractor when the Engineer orders the application of water for the purpose of controlling dust caused by public traffic only.

10-1.12 Preconstruction Conference: Prior to beginning any work, the Contractor shall provide the Engineer and affected agencies with a list of key and responsible personnel and how they may be reached at any time. A preconstruction conference shall be scheduled at least 72 hours prior to
construction, at which time the Contractor shall be required to present his proposed work schedule, information of offsite yards, subcontractors, location of disposal and stockpile areas, and traffic control plans. All such schedules shall be subject to the approval of the Engineer and the applicable agencies.

10-1.13 **Referenced Specifications and Standards:** All contract work will be in accordance with the City Standards, all other terms of this contract including, but not limited to, these Special Provisions, and applicable law. Provisions of the State Standards and the 2015 Caltrans Standard Specifications will only apply to and be a part of this contract to the extent such provisions are expressly incorporated in these Special Provisions.

10-1.14 **Owner Notification:** The Contractor shall notify all property owners and businesses affected by the project’s work at least 72 hours before work is to begin. The notice shall be in writing, placed on doors and shall indicate the Contractor’s name and phone number, type of work, day(s) and time when work will occur. Notice shall be reviewed by the Engineer prior to being posted.

Parking restrictions shall be posted 48 hours in advance along the affected construction areas. See section 10-3.03 “Removal on On-Street Parking” of these Special Provisions.

**Contractor shall provide 30 days advance notice prior to working in the existing Big John’s parking area between station 14+00 and station 17+50 so that the adjacent business can remove any existing property and cease existing use. No work in this area shall occur until specifically authorized by the Engineer.**

10-1.15 **Emergency Service Providers Notifications:** The Contractor shall furnish the name and phone number of a representative that can be contacted in the event of an emergency. Said information shall be reported to the City Police Department dispatcher and updated as required to provide 24-hour phone access. The Contractor shall also keep the emergency providers and bus services informed of the project schedule and any traffic delays. The Contractor shall notify the following:

- City of Healdsburg Fire Department
- City of Healdsburg Police Department
- Sonoma County Transit

10-1.16 **Clean Up:** Attention is directed to Section 4-1.13, “Clean Up,” of the Standard Standards, which section is hereby incorporated in these Special Provision as if set forth in full.

Before final inspection of the work, the Contractor shall clean the construction site and all ground occupied by him in connection with the work, of all rubbish, excess material, falsework, temporary structures and equipment. All parts of the work shall be left in a neat and presentable condition.

Nothing herein shall require the Contractor to remove warning, regulatory, and guide signs prior to formal acceptance by the Engineer.

10-1.17 **Construction Staking:** Attention is directed to Article 24 of the General Provisions for information on Construction Staking.
10-1.18 Tests and Inspections: Attention is directed to Article 26 of the General Provisions for information on materials testing and inspections.

10-1.18 Measurement and Payment General: Full compensation for conforming to the provisions of Sections 10-1.01 thru 10-1.05, 10-1.07 thru 10-1.18 and Sections 10-1.20 thru 10-1.25, shall be considered as included in the contract price paid for various other items of work and no additional allowances shall be allowed.

10-1.19 Utility Clearances: All items noted in this Section shall take place prior to any other construction activities.

Contractor shall investigate, confirm and/or determine the exact locations of existing utilities, and verify clearances between existing and proposed utilities at crossings and/or known potential conflicts. The Contractor shall determine elevations and alignments of existing utilities at connection points.

The Contractor shall provide all relevant information in writing to the Engineer immediately upon discovery of any conflict. Any delay in notification to the Engineer may delay direction and/or corrective action and a delay claim due to this reason shall not be considered by the City. The Contractor shall not proceed with any work that is in conflict until direction is provided by the Engineer and shall redirect crews to other contract work. All the information required to be obtained per this Section and any other information not noted but relative to the project shall be provided to the Engineer on a set of Plans when the investigative effort is complete.

In the area of the 40’ bridge foundations, the Contractor shall exercise extreme care when working around the existing Century Link conduits. If the Century Link conduits are in conflict with the bridge foundations, the conduit shall be protected in place and sleeves installed per the details on the plans. Contractor shall also notify Century Link and provide the location of the conduit sleeves for their records.

Century Link Contract Information:

Marlo Shelton, OSPE
510-708-8210
marlo.shelton@centurylink.com

Measurement and Payment: Utility Clearances shall be paid for at the contract lump sum price and shall include full compensation for furnishing all labor, materials, tools and equipment, and doing all the work involved in verifying utility clearances, including but not limited to: potholing to verify potential conflicts, grades and alignments of existing facilities to be connected to; excavation; backfill; notification; coordination with Century Link; and coordination and redirection of crews to other contract work if required, as specified herein, and no additional allowance will be made therefor.
10-1.20 Protection of Biological Resources: Contractor shall implement the following measures to reduce impacts to special-status species within the project area.

**10-1.20 (A) Protection of Special-Status Birds.** To the fullest extent possible, initial ground disturbance and/or vegetation removal should occur during the non-nesting season (August 16 to January 31). No pre-construction surveys would be required during this period.

If initial ground disturbance and/or vegetation removal occurs during the nesting season (February 1 through August 15), a qualified biologist shall conduct a nesting bird survey no more than 14 days prior to ground disturbance to determine if any birds are nesting within or adjacent to project impact areas.

If active nests are found within project impact areas or close enough to these areas to be affected by project activities, the biologist shall establish an appropriate exclusion zone around the nest. This exclusion zone may be modified depending upon the species, nest location, and existing visual buffers and ambient sound levels. Once all young have become independent of the nest (or the nest otherwise becomes inactive), work may take place in the former exclusion zone.

If initial ground disturbance is delayed or there is a break in project activities of greater than 14 days within the nesting season, then a follow-up nesting bird survey shall be performed to ensure no nests have been established in the interim.

**10-1.20 (B) Protection of the Western Pond Turtle.** Prior to initiation of initial ground disturbance or vegetation removal around the bridge over Foss Creek, a qualified biologist shall perform a preconstruction survey. If any pond turtles are observed within the construction area, the animal shall be allowed to leave the area on its own.

Any open holes or trenches should be fully covered or backfilled at the end of the day to prevent turtles or other wildlife from falling into said features and becoming trapped.

To avoid impacts to aquatic habitats, staging or maintenance of equipment should occur outside of the top of bank within previously developed or disturbed areas.

During refueling, any equipment within 50 feet of the Creek should use appropriate secondary containment to prevent spills or contamination.

All vehicles operating near the creek should be checked daily for leaks.

The Contractor will be responsible for providing the qualified biologist for the nesting bird and pond turtle preconstruction surveys.

**10-1.21 Protection of Cultural Resources:** Any excavation by Contractor that uncovers an historical or archaeological artifact or human remains shall be immediately reported to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further direction issued by Agency after consultation with the State Historic Preservation Officer (SHPO). In the event that archaeological sites are accidentally discovered during
construction, Section 15064.5(f) of the State CEQA Guidelines shall be followed. In the event that human remains are accidentally discovered during construction, Section 15064.5(d) of the State CEQA Guidelines shall be followed.

10-1.22 Relations With California Regional Water Quality Control Board: This location is within an area controlled by the Regional Water Quality Control Board (RWQCB), North Coast Region. The RWQCB issued the City of Healdsburg project certification under Section 401 of the Clean Water Act. The Contractor shall fully inform himself of the requirements of this certification as well as all rules, regulations, and conditions that may govern his operations in said area and shall conduct his operations accordingly. A copy of this agreement is included in Appendix “A” of these special provisions.

The Contractor shall conform to the following RWQCB permit conditions:

1. Only wildlife-friendly, 100 percent biodegradable erosion and sediment control products that will not entrap or harm wildlife shall be used. Erosion and sediment control products shall not contain synthetic (e.g., plastic or nylon) netting. Photodegradable synthetic products are not considered biodegradable.
2. Only 100 percent biodegradable geotextiles shall be used for permanent applications within waters of the state unless explicitly approved for specific purposes in the project design.
3. Best management practices (BMPs) shall be implemented according to the submitted application and the conditions in this certification. BMPs for erosion, sediment, and turbidity control shall be implemented and in place at commencement of, during, and after any ground clearing activities or any other project activities that could result in erosion or sediment discharges to surface water. BMPs shall be immediately available for deployment at all times to prevent discharges to waters of the state.
4. The Contractor is prohibited from discharging waste to waters of the state, unless explicitly authorized by this certification. For example, no debris, soil, silt, sand, bar, slash, sawdust, cement or concrete washings, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature, other than that authorized by this Certification, shall be allowed to enter into or be placed where it may be washed by rainfall into waters of the state. When operations are completed, any excess material or debris shall be removed from the work area.
5. The Contractor is liable and responsible for the proper disposal, reuse, and/or recycling of all Project-generated waste in compliance with applicable state and federal laws and regulations.
6. The Contractor shall provide Regional Water Board staff access to the project site to document compliance with this certification.
7. Work in flowing or standing surface waters, unless otherwise proposed in the project description and approved by the Regional Water Board, is prohibited.
8. If, at any time, an unauthorized discharge to surface water (including wetlands, lakes, rivers, or streams) occurs, or any water quality problem arises, the associated project activities shall cease immediately until adequate BMPs are implemented including stopping work. The Regional Water Board shall be notified promptly and in no case more than 24 hours after the unauthorized discharge or water quality problem arises.
9. Any contractor(s), subcontractor(s), and utility company(ies) conducting work on the project shall have a copy of the Certification and State Water Board Order 2003-0017-DWQ, and keep in their possession at the work site.

10. Disturbance or removal of existing vegetation as detailed within the application shall not exceed the minimum necessary to complete the project.

11. Fueling, lubrication, maintenance, storage, and staging of vehicles and equipment shall not result in a discharge or threatened discharge to any waters of the state including dry portions of the creek or wetlands. At no time shall the Contractor allow use of any vehicle or equipment that leaks any substance that may impact water quality.

12. The Contractor shall not use leaking vehicles or equipment within state waters or riparian areas. Vehicles and equipment used within state waters shall be checked for leaks at the beginning of each workday.

Full compensation for conforming to the requirements of this section shall be considered as included in the contract prices paid for the various items of work and no additional compensation will be allowed.

10-1.23 Relations With Department Of Fish And Wildlife: A portion of this project is located within the jurisdiction of the State of California Department of Fish and Wildlife (CDFW).

An agreement regarding proposed streambed alteration has been entered into by the City of Healdsburg and the CDFW. The Contractor shall fully inform himself of the requirements of this agreement as well as all rules, regulations, and conditions that may govern his operations in said area and shall conduct his operations accordingly. A copy of this agreement is included in Appendix "A" of these Special Provisions.

The Contractor shall conform to the following CDFW permit conditions:

1. All work shall begin on or after June 15 and all work shall be completed by October 15. Revegetation work is not limited to this work window but must be completed within the same season as project activities. If more time is needed to complete Project activities, the work period may be modified in writing on a week-by-week basis by a CDFW representative. Requests for a work period extension shall: 1) describe the extent of work already completed; 2) detail the activities that remain to be completed; 3) detail the time required to complete each of the remaining activities; 4) provide photographs of both the current work completed and the proposed site for continued work; and 5) include an assessment of additional biological impacts as a result of the work extension.

2. All Best Management Practices (BMPs) and other conditions as submitted in the Notification shall be implemented as part of this project.

3. Project work shall be restricted to dry weather as allowed during the work period specified above. Construction shall be timed with awareness of precipitation forecasts and potential increases in stream flow. Construction activities shall cease when the National Weather Service (NWS) 72-hour weather forecast indicates a 30 percent chance or higher of precipitation. All necessary erosion control measures shall be implemented prior to the onset of precipitation. Construction equipment and materials shall be removed if inundation is likely. Construction activities halted due to precipitation may resume when precipitation ceases and the NWS 72-hour weather forecast indicates less than a 30 percent chance of precipitation.
precipitation. No work shall occur during a dry-out period of 24 hours after the above referenced wet weather. Weather forecasts shall be documented upon request by CDFW.

4. Biological Monitor On-site. The Permittee shall designate a person to monitor on-site compliance with all conditions of this Agreement, within CDFW jurisdictional area. The monitor shall have the authority to halt project activities in order to comply with the terms of this Agreement and otherwise avoid impacts to species and or habitats.

5. Qualified Biologist(s) and Monitor(s). Qualified Biologist(s) and Biological Monitor(s) shall meet the following requirements.
   • A qualified biologist is an individual who shall have a minimum of five years of academic training and professional experience in biological sciences and related resource management activities with a minimum of two years conducting surveys for each species that may be present within the project area.
   • A biological monitor is an individual who shall have academic and professional experience in biological sciences and related resource management activities as it pertains to this project, experience with construction-level biological monitoring, be able to recognize species that may be present within the project area, and be familiar with the habits and behavior of those species.

6. Training Session for Personnel. The Contractor shall ensure that a CDFW-approved qualified biologist conducts an education program for all persons employed on the project prior to performing covered activities. Instruction shall consist of a presentation by the designated qualified biologist that includes a discussion of the biology and general behavior of any sensitive species that may be in the area, how they may be encountered within the work area, and procedures to follow when they are encountered. The status of CESA-listed species including legal protection, penalties for violations and project-specific protective management measures provided in this Agreement shall be discussed. Interpretation shall be provided for non-English speaking workers, and the same instruction shall be provided for any new workers prior to on-site project activity. Copies of the Agreement for this project shall be maintained at the worksite with the project supervisor. Permittee or designated biologist shall prepare and distribute wallet-sized cards or a factsheet handout containing this information for workers to carry on-site. Upon completion of the program, employees shall sign an affidavit stating they attended the program and understand all protection measures. These forms shall be filed at the Permittee's office and be available to CDFW upon request.

7. At the end of each workday all trenches and holes greater than one foot deep shall be covered to prevent wildlife from entering. When trenches cannot be fully covered, an escape ramp shall be placed at each end of any constructed open trench to allow any wildlife that may have become entrapped in the trench to climb out overnight. The ramp may be constructed of either dirt fill or wood planking or other suitable material that is placed at an angle no greater than 30 degrees.

8. All pipes, hoses, or similar structures less than 12 inches in diameter shall be closed or covered to prevent animal entry. All construction pipes or similar structures greater than 2 inches in diameter stored at the project site overnight shall be inspected thoroughly for wildlife before the pipe or similar structure is buried, capped, used, or moved.

9. If Contractor encounters special status species during the conduct of Project Activity, work shall be suspended, CDFW notified, and conservation measures shall be developed in agreement with CDFW prior to re-initiating the activity.

10. No equipment shall be operated within the live stream.
11. No excavation shall occur in the portion of the stream bed where surface water is present or anticipated during the term of this agreement.

12. Refueling of project related equipment and vehicles may not occur within 175 feet of any water body, or anywhere that spilled fuel could drain to a water body. Tarps or similar material shall be placed underneath the project related equipment and vehicles, when refueling, to capture incidental spillage of fuels. Equipment and vehicles operating in the project area shall be checked and maintained daily to prevent leaks of fuels, lubricants, or other liquids.

13. Contractor shall install the necessary containment structures to control the placement of wet concrete and to prevent it from entering into the channel outside of those structures. No concrete shall be poured within the high flow line if the 15-day weather forecast indicates any chance of rain greater than 20 percent.

14. All cement-based products (concrete, mortar, etc.) poured or applied wet onsite shall be excluded from the wetted channel or areas where they may come into contact with water for a period of 30 days after application. During that time the product shall be kept moist and runoff from the product shall not be allowed to enter the stream. Commercial sealants may be applied to the product surface or mixture where difficulty in excluding flow for a long period may occur. If sealant is used, water shall be excluded from the site until the sealant is cured.

15. At all times when the Contractor is pouring or working with wet concrete within CDFW jurisdictional area there shall be a designated monitor to inspect the containment structures and ensure that no concrete or other debris enters into the channel outside of those structures.

16. Culvert Backfill. Backfill material shall be free of rocks, limbs or other debris that could dent the pipe or allow water to seep around the pipe. The crossing backfill base and sidewall material shall be compacted before the pipe is placed in its bed. A minimum amount of fill material shall be used for the bed to reduce seepage into and along the fill.

17. Nesting Bird Surveys. If construction, grading, vegetation removal, or other project-related improvements are scheduled during the nesting season of protected raptors and migratory birds, January 31 to September 1, a focused survey for active nests of such birds shall be conducted by a qualified biologist within 7 days prior to the beginning of project-related activities. The results of the survey shall be sent to James Hansen, Environmental Scientist by email (James.Hansen@Wildlife.ca.gov) prior to the start of project activities. Refer to Notification Number 1600-2019-0253-R3 when submitting the survey to CDFW. If an active nest is found, Permittee shall consult with the United States Fish and Wildlife Service (USFWS) and CDFW regarding appropriate action to comply with the Migratory Bird Treaty Act of 1918 and Fish and Game Code. If a lapse in project-related work of 7 days or longer occurs, another focused survey and if required, consultation with CDFW and USFWS, shall be required before project work can be reinitiated.

18. Contractor shall avoid active nests occurring near the project site. Permittee is responsible to comply with the Migratory Bird Treaty Act of 1918 and the Fish & Game Code of California, section 3503.

19. If an active nest is found during surveys, Contractor or the qualified biologist shall consult with CDFW and USFWS regarding appropriate action to comply with State and federal laws. Active nest sites shall be designated as "Ecologically Sensitive Areas" (ESA) and protected (while occupied) during project work by demarking a "No Work Zone" around each nest site.
20. Buffer distances for bird nests should be site specific and an appropriate distance, as determined by a qualified biologist. The buffer distances should be specified to protect the bird's normal bird behavior to prevent nesting failure or abandonment. The buffer distance recommendation should be developed after field investigations that evaluate the bird(s) apparent distress in the presence of people or equipment at various distances. Abnormal nesting behaviors which may cause reproductive harm include, but are not limited to, defensive flights/vocalizations directed towards project personnel, standing up from a brooding position, and flying away from the nest. The qualified biologist shall have authority to order the cessation of all nearby project activities if the nesting birds exhibit abnormal behavior which may cause reproductive failure (nest abandonment and loss of eggs and/or young) until an appropriate buffer is established.

21. The qualified biologist shall monitor the behavior of the birds (adults and young, when present) at the nest site to ensure that they are not disturbed by project work. Nest monitoring shall continue during project work until the young have fully fledged (have completely left the nest site and are no longer being fed by the parents), as determined by the qualified biologist.

22. No habitat removal or modification shall occur within the ESA-fenced nest zone until the young have fully fledged and will no longer be adversely affected by the project. Any trees or shrubs that are removed shall be "downed" in such a manner as to minimize disturbance to stable soil conditions.

23. Disturbance or removal of vegetation shall not exceed the minimum necessary to complete the project. Vegetation outside the construction corridor shall not be removed or damaged without prior consultation and approval of a CDFW representative.

24. Prior to project activities, the Contractor shall clearly mark all vegetation within the project area that shall be avoided during project activities.

25. At no time shall silt-laden runoff be allowed to enter a river, stream, or lake or directed to where it may enter a river, stream, or lake. Erosion control measures shall be utilized throughout all phases of operation where sediment runoff from exposed slopes threatens to enter a river, stream, or lake. Erosion control measures, such as, silt fences, straw hay bales, gravel or rock lined ditches, water check bars, and broadcasted straw shall be used where ever sediment has the potential to leave the work site and enter the river, stream, or lake.

26. Contractor shall not use erosion control materials containing plastic monofilament netting (erosion control matting) or similar material containing netting within the project area due to documented evidence of amphibians and reptiles becoming entangled or trapped in such material. Acceptable substitutes include coconut coir matting or similar.

27. Contractor shall monitor erosion control measures during and after each storm event and repair and/or replace ineffective measures immediately.

28. All removed spoils and construction debris shall be moved outside the work area prior to inundation by water. Spoil sites shall not be located within the stream channel or areas that may be subjected to stream flows, where spoils may be washed back into a stream, or where it may impact streambed habitat, aquatic or riparian vegetation. All removed material shall be disposed of according to State and local laws and ordinances.

29. Building materials and/or construction equipment shall not be stockpiled or stored where they may be washed into the water or cover aquatic or riparian vegetation. Stockpiles shall b-e covered when measurable rain is forecasted.

30. All contractors, subcontractors, and employees shall not dump any litter or construction debris within the stream, or where it may pass into the stream.

31. Contractor shall pick up all debris and waste daily.
32. Water containing mud, silt, or other pollutants from equipment washing or other activities, shall not be allowed to enter a lake or flowing stream or placed in locations that may be subjected to high storm flows.

33. Any hazardous or toxic materials that could be deleterious to aquatic life that could be washed into the stream or its tributaries shall be contained in water tight containers or removed from the project site.

34. Debris, soil, silt, bark, slash, sawdust, rubbish, creosote- treated wood, raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic life, wildlife, or riparian habitat resulting from the project related activities shall be prevented from contaminating the soil and/or entering the Waters of the State.

35. Prior to entering the work site, all field personnel shall know the location of spill kits and trained in their appropriate use.

36. In the event of a hazardous materials spill into a stream (e.g., concrete or bentonite), Contractor shall immediately notify the California Office of Emergency Services State Warning Center by calling 1-800-852-7550 and immediately provide written notification to CDFW by email at R31600Program@wildlife.ca.gov. Contractor shall take all reasonable measures to document the extent of the impacts and affected areas including photographic documentation of affected areas, injured fish and wildlife. If dead fish or wildlife are found in the affected area, Permittee shall collect carcasses and immediately deliver them to CDFW. Contractor shall meet with CDFW within ten days of the reported spill in order to develop a resolution including: site clean-up, site remediation and compensatory mitigation for the harm caused to fish, wildlife and the habitats on which they depend as a result of the spill. The Contractor shall be responsible for all spill clean-up, site remediation and compensatory mitigation costs. Spill of materials to waters of the state that are deleterious to fish and wildlife are in violation of Fish and Game Code section 5650 et. seq. and are subject to civil penalties for each person responsible. CDFW reserves the right to refer the matter to the District Attorney’s Office if a resolution cannot be agreed upon and achieved within a specified timeframe, generally six months from the date of the incident.

37. All activities performed in or near a river, stream, or lake shall have absorbent materials designated for spill containment and cleanup activities on-site for use in an accidental spill. The Permittee shall immediately notify the California Emergency Management Agency at 1-800-852-7550 and immediately initiate the cleanup activities. CDFW shall be notified by the Permittee and consulted regarding clean-up procedures.

Full compensation for conforming to the requirements of this section, including providing a qualified biologist(s), shall be considered as included in the contract prices paid for the various items of work and no additional compensation will be allowed.

10-1.24 Relations With Army Corps Of Engineers: A portion of this project is located within the jurisdiction of the U.S. Army Corps of Engineers. An agreement has been entered into by the City of Healdsburg and the Corps of Engineers regarding authorization of this project under Department of the Army nationwide permit program, Section 404 of the Clean Water Act. The Contractor shall fully inform himself of the requirements of this agreement as well as all rules, regulations, and conditions that may govern his operations in said area and shall conduct his operations accordingly. A copy of this agreement is included in Appendix “A” of these special provisions.
Full compensation for conforming to the requirements of this section shall be considered as included in the contract prices paid for the various items of work and no additional compensation will be allowed.

**10-1.25 Railroad Relations:** The term “Railroad” shall be understood to mean the North Coast Railroad Authority (NCRA). A portion of this project is located within the jurisdiction of the NCRA. An encroachment permit agreement has been entered into by the City of Healdsburg and the NCRA regarding authorization of this project within their jurisdiction. The Contractor shall fully inform himself of the requirements of this encroachment permit as well as all rules, regulations, and conditions that may govern his operations in said area and shall conduct his operations accordingly. A copy of this encroachment permit is included in Appendix “B” of these special provisions.

The Contractor shall conform to the following NCRA permit conditions:

1. NCRA shall be given written notice two weeks before the start of any work within NCRA right of way.
2. A construction work plan shall be submitted including a plan to access work within NCRA right of way.
3. NCRA shall be provided detailed botanical information on all planting within NCRA right of way for final approval.
4. During construction NCRA shall be afforded the opportunity to check elevations of all drainage facilities that affect drainage within NCRA right of way.
5. NCRA shall be given the opportunity to verify construction staking to check horizontal offsets from the centerline of track and elevations.
6. No equipment shall operate on NCRA track without a specific access plan approved by an NCRA representative.
7. No equipment shall be left parked nor material placed within 8’- 6” of the track.
8. This permit is being granted with the understanding that all construction shall be completed before regular freight service is restored. Currently there are no plans to reinstate rail service. If freight service is restored prior to construction or before construction is completed there could be additional restrictions so that construction will not interfere with rehabilitation of the track or operations. In addition, the contractor will be required to be roadway worker trained by NCRA’s operator and the contractor will be required to pay for any required flagging and expenses incurred as a result of construction activities.
9. It is possible that NCRA’s Operator may complete maintenance activities in this area before the fall during fire season. As a precaution a Red Cone or Flag shall be placed in the middle of the tracks five hundred feet before and after the limits of ongoing work within NCRA right of way.
10. The Owner and its Contractor shall be responsible to obtain all required regulatory permits if any and compliance with regulatory permit conditions for work within NCRA right of way. NCRA shall be provided copies of all permits.
11. Existing obstructions including but not limited to trees, overhead utilities, underground utilities and culverts present within the project limits shall be the responsibility of the City and its Contractor to locate and protect in-place as required.
12. All woody debris associated with vegetation removal if any shall be removed from the right of way.
13. The contractor shall be required to abide by all of NCRA’s Best Management Practices (BMPs).
Before beginning work in the Railroad right-of-way, the Contractor shall provide insurance certificates to the Railroad as outlined in the Encroachment Permit. Copies of the insurance certificates shall also be supplied to the Engineer.

Full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed.

10-1.26 Winter Shutdown Site Maintenance: During periods of winter shutdown, the Contractor shall be responsible for maintaining the project site, including but not limited to, BMP measures, temporary trenching paving, tree and ESA protective fencing and temporary erosion control facilities. The Contractor shall inspect the project site on a regular weekly basis, as well as, before and after rain events and repair and/or replace facilities as required.

Winter Shutdown Site Maintenance shall be measured and paid by the month. Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved to maintain the project site, shall be considered as included in the contract per month price for Winter Shutdown Maintenance as shown on the plans, as specified in these Special Provisions and as directed by the Engineer and no additional compensation will be allowed.
10-2 CONSTRUCTION AREA SIGNS

10-2.01 Description: Construction area signs are required for the direction of public vehicle and pedestrian traffic through or around the work during construction.

Construction area signs shall be furnished, installed, maintained and removed when no longer required in accordance with the provisions in Section 12, “Temporary Traffic Control,” of the Caltrans Standard Specifications and these Special Provisions. Sections 7-1.03, “Public Convenience,” and 7-1.04, “Public Safety,” of the Caltrans Standard Specifications set forth the Contractor’s responsibilities for public convenience and public safety are hereby incorporated in these Special Provisions as if set forth in full and are considered to be part of the contract requirements.

Construction area signs shall not be used until they are needed and when no longer needed they shall be removed from the site of the work.

10-2.02 Measurement and Payment: No separate measurement and payment will be made for Construction Area Signs. Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved including, but not limited to, erecting, covering and uncovering as required, maintaining and removing construction area signs will be considered as included in the lump sum price paid for Traffic Control System and no additional compensation will be allowed therefor.
10-3 TRAFFIC CONTROL


Attention is directed to Section 7-1.03, “Public Convenience,” Section 7-1.04, “Public Safety,” and Section 12 “Temporary Traffic Control,” of the Caltrans Standard Specifications, which sections are hereby incorporated in these Special Provisions as if set forth in full. Nothing in these Special Provisions shall be construed as relieving the Contractor from his responsibilities as provided in said Section 7-1.04. Attention is also directed to Section 12-1.05 “Maintaining Traffic and Pedestrian Operations,” of the General Provisions.

10-3.02 Traffic Control Plan: It is the responsibility of the Contractor to provide a Traffic Control Plan five (5) working days prior to beginning construction. Work shall not begin until the plan is approved by the Engineer.

The content of the Traffic Control Plan shall include, but not be limited to, the following:

a. Show location and limits of the work zone.
b. Give dimensions of lanes affected by traffic control that will be open to traffic.
c. Indicate signing, cone placement, and other methods of delineation and reference to appropriate City or Caltrans standard.
d. Dimension location of signs and cone tapers.
e. Identify side streets and driveways affected by construction and show how they will be handled.
f. Show how pedestrian traffic will be handled through the construction site.
g. Demonstrate how two-way traffic will be maintained.

No work except for the installation of project identification signage will be allowed to commence prior to approval of the work zone Traffic Control Plan.

10-3.03 Removal of On-Street Parking: Forty-eight (48) hours prior to construction, the Contractor shall place barricades signed “NO PARKING – TOW AWAY – Specific Time and Date(s)” at 100-foot intervals or a minimum of 2 signs per block, whichever is greater, in the work area. “NO PARKING” signs must also state “C.V.C. 22651 (L)”. See example below.
“NO PARKING – TOW AWAY” signs shall be submitted for approval by the Engineer prior to their use. The Contractor shall notify the Engineer immediately after the “NO PARKING” signs are in place. “NO PARKING” signs and barricades shall be supplied by the Contractor.

Failure to comply with this section will prevent the City from towing vehicles parked in the proposed work area. Any resulting delay will be the responsibility and at the expense of the Contractor.

Section 12-1.04, “Payment,” of the Caltrans Standard Specifications is hereby incorporated in these Special Provisions as if set forth in full and is amended to read:

The total cost of furnishing all flaggers will be borne solely by the Contractor. The cost of furnishing all flaggers, including transporting flaggers, to provide for passage of public traffic through the work under the provisions in Section 7-1.03, "Public Convenience," and Section 7-1.04, "Public Safety," shall be considered as included in the contract lump sum price paid for Traffic Control System and no additional allowance will be made therefor.

10-3.04 Measurement and Payment Traffic Control: Full compensation for furnishing all labor (including flagging costs), materials (including signs), Traffic Control Plan, Construction area signs, tools, equipment, and incidentals and for doing all the work involved in placing, removing, storing, maintaining, and moving to new locations, replacing, and disposing of the components of the traffic control system, as specified in the Caltrans Standard Specifications and these Special Provisions, and as directed by the Engineer will be considered included in the contract lump sum price paid for Traffic Control System and no additional compensation will be allowed therefor.
10-4 EXISTING FACILITIES

10-4.01 Existing Facilities: The work performed in connection with various existing highway facilities shall conform to the provisions in Section 15, “Existing Facilities,” of the Caltrans Standard Specifications and these Special Provisions.

Portions of the existing facilities that are to remain in place must be protected, preserved, and maintained. If contractor damages a portion of the facility that is to remain in place, contractor must repair or replace the damaged facility. After completion of the project, the condition of the facility must be equal or better in quality than it was before beginning the work.

10-4.02 Removal of Miscellaneous Items: Various items identified for removal on the Plans will be completely removed and disposed of in accordance with Section 5-1.20B(4) “Contractor-Property Owner Agreement,” of the Caltrans Standard Specifications and to these Special Provisions.

Adjacent facilities damaged during removal shall be repaired to a condition satisfactory to the Engineer or shall be removed and replaced if ordered by the Engineer. Repairing or removing and replacing damaged facilities shall be at the Contractor's expense and no additional compensation will be allowed.

10-4.03 Remove Fence: Remove existing fence from locations shown on the Project Plans. Existing posts and concrete base shall be completely removed. Cutting posts at ground level is not allowed. Depressions left after removal of fence posts shall be immediately backfilled with native material or Class 2 Aggregate Base and compacted sufficiently to obtain an unyielding surface.

10-4.04 Remove Storm Drain: Remove existing storm drain piping as shown on the Project Plans. Abandoning of storm drain piping in place is not allowed. Depressions left after removal of pipes shall be immediately backfilled with native material or Class 2 Aggregate Base and compacted sufficiently to obtain an unyielding surface.

10-4.05 Remove Tree: Removal of trees shall conform to the following Special Provisions. Contractor shall remove only those trees shown on the Plans to be removed or as designated by the Engineer.

Attention is directed to Section 5-1.36, "Property and Facility Preservation", of the Caltrans Standard Specifications.

Attention is directed to Section 10-5, “Clearing and Grubbing” of these Special Provisions.

All stumps, large roots and other objectionable material shall be removed to a depth of two feet below finished grade in the area of construction. The resulting spaces shall be backfilled with material suitable for the planned use. Such suitable material shall be placed and compacted in layers as specified in Section 19-6 "Embankment Construction" of the Caltrans Standard Specifications.

Wood debris, including all tree roots, chips, and debris shall be disposed of in accordance with Section 17-2.03D "Disposal of Materials," of the Caltrans Standard Specifications. Wood debris
shall not be stored onsite. All wood debris shall be removed as it is generated. Under no circumstances may chips or other combustible materials be disposed of onsite.

**10-4.06 Tree and ESA Protective Fencing:** Temporary tree and ESA protective fencing shall be installed around the dripline of the trees and environmental sensitive areas as shown on the plans and as directed by the Engineer.

The contractor shall submit a certificate of compliance for high visibility fabric and safety caps for metal posts.

**10-4.06(A) Materials:**

*High visibility fabric* for temporary tree and ESA protective fencing must comply with the following:

1. Contain ultraviolet inhibitors
2. Comply with the ESA properties in the following table:

<table>
<thead>
<tr>
<th>Property</th>
<th>Specifications</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width, inches, min</td>
<td>Measured</td>
<td>48</td>
</tr>
<tr>
<td>Opening size, inches</td>
<td>Measured</td>
<td>1 by 1 inch (min)</td>
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<tr>
<td></td>
<td></td>
<td>2 by 4 inches (max)</td>
</tr>
<tr>
<td>Color</td>
<td>Observed</td>
<td>Orange</td>
</tr>
<tr>
<td>Roll weight, lb, min</td>
<td>Measured</td>
<td>12</td>
</tr>
<tr>
<td>for 4 by 100 foot roll</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tensile strength, lb, min</td>
<td>ASTM D4595</td>
<td>320</td>
</tr>
</tbody>
</table>

**Posts** shall be steel and a minimum of 6 feet long.

**10–4.06(B) Installation:** Installation of temporary tree and ESA protective fencing shall be installed before clearing and grubbing activities.

Posts shall be spaced 10 feet apart and embedded at least 16 inches in the soil.

Fasteners must be tie wires or locking plastic fasteners. Spacing of the fasteners must be no more than 8 inches apart.

If trees and other plants need protection, install the fence to enclose the drip line of the foliage canopy of protected plants and protect visible roots from encroachment.

**10–4.06(C) Maintenance:** Temporary tree and ESA protective fencing shall be maintained by:

- Keeping posts in a vertical position
- Reattaching fabric to posts
- Replacing damaged sections of fabric
10-4.06 Sawcut Pavement: Where no joint exists in concrete or asphalt concrete to be removed and concrete or asphalt concrete to remain in place, the concrete or asphalt concrete shall be cut in neat lines to a minimum depth of 0.17 feet with a power-driven saw before the concrete or asphalt concrete is removed.

10-4.07 Adjust Manhole Frame and Cover to Grade: Where indicated on the Project Plans, existing manhole frames and covers shall be adjusted to the final pavement grade, complete and in place in accordance with the Project Plans, City Standard Specifications, and these Special Provisions.

The Contractor shall accurately locate and record the location of all manhole covers to be raised to grade and shall furnish the City Engineer a copy of said record prior to resurfacing.

Waste materials generated while adjusting the manhole and utility frame and cover to grade shall be completely removed and disposed of in accordance with Section 5-1.20B(4) “Contractor-Property Owner Agreement,” of the Caltrans Standard Specifications.

Concrete used for collars shall conform to the provisions in Section 90-2, “Minor Concrete,” of the Caltrans Standard Specifications. Portland Cement Concrete shall be Class A, conforming to the provisions of Section 90, “Concrete,” of the Caltrans Standard Specifications.

All sections of manhole frames and grade rings shall be set in Portland Cement Concrete the same day that the grade rings are placed. Contractor shall let the concrete collar cure for 24 hours prior to traffic loading. Asphalt concrete paving over Portland Cement Concrete shall be installed by the end of the following calendar day.

10-4.08 Relocate Street Light: Existing street light at Dry Creek Road that is shown on the Plans to be relocated shall be removed, salvaged and relocated as shown on the plans. Existing wiring and conduit shall be removed, salvaged and reinstalled as required for the light relocation. Contractor shall provide and install additional conduit and wiring as required. Existing foundation and pull box shall be removed and disposed of by the Contractor in accordance with Section 5-1.20B(4) “Contractor-Property Owner Agreement,” of the Standard Specifications New foundation and pull box shall be installed similar to details shown for other new pathway lighting and City Standards.

Relocate Street Light will be paid for at the contract price each, which price shall include full compensation for furnishing all labor, materials, tools and equipment, and doing all the work involved including but not limited to foundation, conduit, wiring, splices, pull boxes, excavation and backfill, removal, disposal, salvaging and relocating light pole as herein specified in these Special Provisions and as directed by the Engineer and no additional compensation will be allowed.

No separate measurement and payment will be made for the relocation of the street light adjacent to the existing pathway near Foss Creek. Relocation of this street light will be considered to be included with the lump sum cost for Pathway Lighting.

10-4.09 Adjust Fiber Optic Utility Box to Grade: Where indicated on the Project Plans, existing fiber optic utility boxes shall be adjusted to finish grade and install a locking lid, complete and in place in accordance with the Project Plans, City Standard Specifications, and these Special Provisions.
Waste materials generated while adjusting fiber optic utility box to grade shall be completely removed and disposed of in accordance with Section 5-1.20B(4) “Contractor-Property Owner Agreement,” of the Caltrans Standard Specifications.

10-4.09 Adjust Utility Box to Grade: Where indicated on the Project Plans, existing utility boxes shall be adjusted to finish grade and install a traffic rated lid, complete and in place in accordance with the Project Plans, City Standard Specifications, and these Special Provisions.

Waste materials generated while adjusting fiber optic utility box to grade shall be completely removed and disposed of in accordance with Section 5-1.20B(4) “Contractor-Property Owner Agreement,” of the Standard Specifications.

10-4.08 Measurement and Payment

Remove Fence will be measured and paid for by the lineal foot. Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved including, but not limited to, removing existing fence, gate and posts, disposal, backfilling, and compacting of depressions shall be considered as included in the contract lineal foot price for Remove Fence as shown on the plans, as specified in these Special Provisions and as directed by the Engineer and no additional compensation will be allowed.

Remove Storm Drain: Full compensation for removing existing storm drains where shown on the Project Plans shall be considered as included in the contract prices paid for under the various contract items of work requiring removal of storm drains and no additional compensation will be allowed.

Remove Tree: Full compensation for furnishing all labor, materials, tools, equipment, and incidentals; and for doing all the work involved in tree removal complete in place including, but not limited to excavation, backfill, grinding of stump and roots and disposal, will be measured and paid for as units from actual count as shown on the plans, as specified in these Special Provisions and as directed by the Engineer, and no additional compensation will be allowed.

Tree and ESA Protective Fencing shall be measured and paid by the lump sum. Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved including, but not limited to, posts, hardware, fabric and maintenance, shall be considered as included in the contract lump sum price for Tree and ESA Protective Fencing as shown on the plans, as specified in these Special Provisions and as directed by the Engineer and no additional compensation will be allowed.

Sawcut Pavement: Full compensation for sawcutting of asphalt or concrete pavement shall be considered as included in the contract prices paid for the various contract items of work requiring sawcutting and no additional compensation will be allowed.

Adjust Manhole Frame and Cover to Grade: Full compensation for furnishing all labor, materials, tools and equipment, and doing all the work involved in Adjust Manhole Frame and Cover to Grade as herein specified, including, but not limited to excavation, backfill, concrete, additional grade rings if required, pavement and mortar, furnishing location of existing boxes and
covers to be adjusted to grade, removing silt and debris will be measured per each from actual count as shown on the plans, as specified in these Special Provisions and as directed by the Engineer and paid at the contract unit price for Adjust Manhole Frame and Cover to Grade and no additional compensation will be allowed.

**Relocate Light Pole and Pull Box:** Full compensation for relocating light pole and pull box shall be considered as included in the contract prices paid for the various contract items of work requiring relocation of the light pole and pull box and no additional compensation will be allowed.

**Adjust Fiber Optic Utility Box to Grade:** Full compensation for furnishing all labor, materials, tools and equipment, and doing all the work involved in Adjust Fiber Optic Utility Box to Grade as herein specified, including, but not limited to excavation, backfill, locking lid, removing silt and debris and disposal will be measured per each from actual count as shown on the plans, as specified in these Special Provisions and as directed by the Engineer and paid at the contract unit price for Adjust Fiber Optic Utility Box to Grade and no additional compensation will be allowed.

**Adjust Utility Box to Grade:** Full compensation for furnishing all labor, materials, tools and equipment, and doing all the work involved in Adjust Utility Box to Grade as herein specified, including, but not limited to excavation, backfill, traffic rated lid, removing silt and debris and disposal will be measured per each from actual count as shown on the plans, as specified in these Special Provisions and as directed by the Engineer and paid at the contract unit price for Adjust Utility Box to Grade and no additional compensation will be allowed.
10-5 CLEARING AND GRUBBING

10-5.01 Description: Clearing and grubbing shall conform to the provisions in Section 17-2, "Clearing and Grubbing," of the Caltrans Standard Specifications and these Special Provisions.

Vegetation shall be cleared and grubbed only within the proposed grading areas or as directed by the Engineer.

All existing vegetation, outside the areas to be cleared and grubbed, shall be protected from the Contractor's operations unless specifically shown on the plans to be removed.

Nothing herein shall be construed as relieving the Contractor of his responsibility for final cleanup of the highway as provided in Section 4-1.13, "Cleanup," of the Caltrans Standard Specifications.

Only those trees noted on the plans to be removed or so designated by the Engineer shall be removed. The Contractor's attention is directed to “Tree Removal,” elsewhere in these Special Provisions. Removal of trees smaller than six inches in diameter shall be considered as included in the contract lump sum price for Clearing and Grubbing and no additional compensation will be allowed.

10-5.02 Measurement and Payment: Full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in clearing and grubbing, including disposal of material, protection of adjacent areas and as specified in the Caltrans Standard Specifications, these Special Provisions, and as directed by the Engineer, will be considered as included in the lump sum price paid for Clearing and Grubbing and no additional compensation will be allowed therefor.
10-6 EARTHWORK

10-6.01 Earthwork: All earthwork shall be performed in accordance with the City Standard Specifications, and the Caltrans Standard Specifications except as herein amended.


Roadway excavation shall include the removal of the roadway prism within the limits for pathway construction, removal and disposal of aggregate base, subgrade and native material, at the locations shown on the Project Plans. Removal shall be to the lines and grades shown, specified or as determined by the Engineer.

Excavation in excess of the planned or authorized cross section will not be paid for. The Contractor shall backfill and compact, as directed by the Engineer, unauthorized excavated areas at his expense.

10-6.01(B) Surplus Material: Surplus materials from the excavation shall become the property of the Contractor and shall be disposed of by him, at his expense. Surplus excavated material shall conform to the provisions in Section 19-2.03B, "Surplus Material," of the Caltrans Standard Specifications and these Special Provisions.

The Contractor shall make his own arrangements for disposing of surplus material including unsuitable material outside the right of way in accordance with the provisions in Section 5-1.20B(4), "Contractor-Property Owner Agreement," of the Caltrans Standard Specifications. Arrangements shall include, but not be limited to, entering into agreements with property owners and obtaining necessary permits, licenses and environmental clearance.

No separate measurement or payment will be made for the removal of surplus material, including asphalt concrete, existing bituminous pavement and base materials. Full compensation for surplus excavated material shall be considered as included in the contract cubic yard price paid for Roadway Excavation and no additional compensation will be allowed.

10-6.01(C) Embankment: Embankment shall conform to the provisions in Section 19-6, "Embankment Construction," of the Caltrans Standard Specifications and these Special Provisions.

Fill shall be spread in loose, horizontal lifts, approximately 8 inches (or less) loose thickness, moisture conditioned to near optimum moisture content and compacted to at least 90% relative compaction. Subgrades that receive fill shall be finished to present smooth, unyielding surfaces.

Fill shall be placed in thin lifts (normally 6 to 8 inches depending on compaction equipment), moisture conditioned to at least optimum moisture content and, where within 36” of finish grade of roadway, compacted to not less than 95 percent relative compaction per California Test 216. Granular backfill should be vibrated in-place.
Subgrade soils shall be maintained at their moist or above-optimum moisture contents, and be free of shrinkage cracks, until covered by permanent construction.

No separate measurement or payment will be made for embankment material. Full compensation for embankment shall be considered as included in the cubic yard contract prices paid for Roadway Excavation and no additional compensation will be allowed.

10-6.01(D) Fill Material: Fill material including placement and compaction shall conform to Section 19, “Earthwork,” of the Caltrans Standard Specifications, the Geotechnical Report, entitled “Geotechnical Study Report, Foss Creek Pathway, Segments 7 & 8, Healdsburg, California” dated November 30, 2017, prepared by RGH Consultants, and these Special Provisions.

All fill materials should be free of perishable matter and rocks or lumps over 6 inches in diameter and must be approved by the geotechnical engineer prior to use. The upper 12 inches of fill beneath and within 3 feet horizontally of pavement edges should be select fill.

Based on the geotechnical report prepared by RGH, on-site soils are generally suited for use as general and select fill. The suitability of the on-site soil for use as select fill should be verified during grading.

Select fill shall be free of organic matter, have a low expansion potential, and conform in general to the following requirements:

<table>
<thead>
<tr>
<th>SIEVE SIZE</th>
<th>PERCENT PASSING (by dry weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 inch</td>
<td>100</td>
</tr>
<tr>
<td>4 inch</td>
<td>90-100</td>
</tr>
<tr>
<td>No. 200</td>
<td>10-60</td>
</tr>
</tbody>
</table>

   Liquid Limit – 40 percent maximum
   Plasticity Index – 15 percent maximum
   R-value – 20 minimum (pavement areas only)

In general, imported fill, if needed, should be select. Material not conforming to these requirements may be suitable for use as import fill; however, it shall be the contractor’s responsibility to demonstrate that the proposed material will perform in an equivalent manner. The grading contractor is responsible for submitting, at least 72 hours (3 days) in advance of its intended use, samples of the import materials for laboratory testing and approval by the soils engineer.

Fill Placement: The surface exposed by stripping and removal of heterogeneous fill and weak, compressible, surface soil should be scarified to a depth of at least 6 inches, uniformly moisture-conditioned to near optimum and compacted to at least 90 percent of the maximum dry density of the materials as determined by ASTM Test Method D-1557. Approved fill material should then be spread in thin lifts, uniformly moisture-conditioned to near optimum and properly compacted. All structural fills, including those placed to establish site surface drainage, should be compacted to at least 90 percent relative compaction. Only approved select materials should be used for fill within the upper 12 inches of pavement subgrades.
10-6.02 Measurement and Payment:

Roadway Excavation shall be measured and paid for by the cubic yard. Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved including, but not limited to, excavating, loading, hauling and disposing of the excavated material, furnishing and placing suitable backfill material, preparing subgrade at the grading plane, furnishing, placing and compacting embankments, and ditch grading shall be considered as included in the contract unit price for Roadway Excavation as shown on the plans, as specified in these Special Provisions and as directed by the Engineer and no additional compensation will be allowed.

The contract item quantity for Roadway Excavation is designated as a final pay quantity in accordance with Section 9-1.02(C), “Final Pay Item Quantities,” of the Caltrans Standard Specifications.
SECTION 10-7 EROSION CONTROL

10-7.01 Temporary Erosion Control: Temporary erosion control shall consist of, but not be limited to, constructing such facilities and taking such measures as are necessary to prevent, control and abate water, mud, and erosion damage to public and private property as a result of the construction of this Project.

Conformance with the requirements of this section shall in no way relieve the Contractor from his responsibilities, as provided in Section 13, "Water Pollution Control, and " Section 5-1.36, "Property and Facility Preservation," of the Caltrans Standard Specifications.

Temporary erosion control features, as are necessary to prevent damage and sediment transport during the winter season, shall be constructed and functional from October 15th to April 15th. The Contractor shall construct such supplementary temporary erosion control facilities as are necessary to protect adjacent private and public property.

Temporary erosion control measures shall conform to the current edition of ABAG manual of standards for erosion and sediment control measures and includes, but not limited to the following:

1. The Contractor shall conduct his operations in such a manner that storm runoff will be contained within the project or channeled into the storm drain system which serves the runoff area. Storm runoff from one area shall not be allowed to divert to another runoff area.
2. Excavation areas, while being brought to grade, shall be protected from erosion and the resulting siltation of downstream facilities and adjacent areas by the use of various temporary erosion control measures. These measures may include, but shall not be limited to, the use of silt fencing, straw bale barriers and straw wattles.
3. Contour graded areas shall be protected against erosion and the resulting siltation of downstream facilities and adjacent areas during grading operations. Various measures may include, but shall not be limited to: the use of silt fencing and straw wattles.

The roadway access to the site shall be kept swept daily or as often as needed to prevent spoils and silt from entering the storm drain system and roadside ditches.

Attention is directed to Section 10-1.06 "Storm Water Pollution Prevention" of these Special Provisions.

Full compensation for any cost involved in temporary erosion control to act as temporary water pollution control and temporary erosion control shall be considered as included in the contract lump sum price paid for Erosion Control and no additional compensation will be allowed.

10-7.02 Temporary Sediment Traps: Temporary Sediment Traps shall be furnished, installed, maintained, and later removed at the locations shown on the approved Storm Water Pollution Prevention Plan in conformance with "Storm Water Pollution Prevention" of these Special Provisions, and in conformance with details shown on the plans and these Special Provisions. When no longer required, Sediment Traps shall be completely removed and disposed of in accordance
with Section 5-1.20B(4) “Contractor-Property Owner Agreement,” of the Caltrans Standard Specifications

10-7.02(A) Straw Bales: Straw bales shall be a minimum of 14 inches in width, 18 inches in height, 36 inches in length and shall have a minimum weight of 50 pounds. Straw bales shall be composed entirely of vegetative matter, except for binding material.

Straw bales shall be bound by either wire, nylon or polypropylene string. Jute or cotton binding shall not be used. Baling wire shall be a minimum of 16 gauge. Nylon or polypropylene string shall be approximately 0.08 inch in diameter with 80 pounds of breaking strength.

10-7.02(B) Stakes: Stakes shall be wood or metal. Wood stakes shall be untreated fir, redwood, cedar, or pine, shall be cut from sound timber, and shall be straight and free of loose or unsound knots and other defects which would render them unfit for the purpose intended. Wood stakes shall be at least 2” x 2” x 48” in size. Metal stakes may be used as an alternative and shall be a minimum 0.5 inch in diameter. Stakes shall be a minimum 48 inches in length. The tops of the metal stakes shall be bent at a 90-degree angle or capped with an orange or red plastic safety cap that fits snugly to the metal stake. Contractor shall submit a sample of the metal stake and plastic cap, if used, for Engineer's approval prior to installation.

10-7.02(C) Installation: Temporary straw bale barriers shall be installed as follows:

1. At drainage inlets, temporary straw bale barriers shall consist of straw bales placed tightly together in a 4-inch (vertical) trench surrounding the inlet.

2. Straw bales shall be placed so that the binding wire or string is not in contact with the ground. Straw bales shall be securely anchored in place by 2 stakes driven through each bale. Temporary straw bale barriers on slopes, shall have the first stake in each bale driven toward the previously laid bale to force the bales together. Temporary straw bale barriers surrounding drainage inlets shall have both stakes in each bale driven toward the drainage inlet.

4. The top of the stakes shall be driven flush or trimmed to a maximum of 2 inches above the straw bale. The bedding area for the straw bale shall be cleared of obstructions including, but not limited to, rocks, clods, and debris greater than 1 inch in diameter prior to installation.

10-7.02(D) Maintenance: Temporary Sediment Traps shall be maintained to provide sediment holding capacity. Straw bales shall be replaced when the binding fails and allows the straw to spill out. Broken or split stakes shall be replaced. Sagging or slumping straw bales shall be repaired with additional stakes or replaced. The replacement of bales and stakes shall be paid for based on an approved “schedule of values” provided by the Contractor.

When sediment exceeds one-third the height of the straw bale above ground, or when directed by the Engineer, sediment shall be removed. The removed sediment shall be
deposited within the project limits in such a way that the sediment is not subject to erosion by wind or by water. Removal of sediment shall be at the Contractor’s expense. If in the judgment of the Engineer, sediment has impeded the filtration abilities of the straw bales, the bales shall be replaced at the Contractor’s expense.

Temporary Sediment Traps shall be repaired or replaced on the same day the damage occurs. Locations where rills and other evidence of concentrated runoff have occurred between or beneath the temporary straw bale barrier shall be corrected. Temporary Sediment Traps damaged during the progress of work from the Contractor’s vehicles, equipment, or operations shall be replaced or repaired at the Contractor’s expense.

10-7.02(D) Measurement and Payment: Temporary Sediment Traps, of the various types, shall be considered as included in the contract lump sum price paid for Erosion Control and no additional compensation will be allowed therefor.

10-7.03 Temporary Fiber Roll: Temporary fiber roll shall be furnished, installed, maintained, and later removed at the locations shown on the approved Storm Water Pollution Prevention Plan in conformance with "Storm Water Pollution Prevention" of these Special Provisions, and in conformance with details shown on the plans and these Special Provisions.

10-7.03(A) Materials: Fiber roll shall be one of the following:

1. Fiber roll shall be constructed with a pre-manufactured blanket consisting of one material or a combination of materials consisting of wood excelsior, rice or wheat straw, or coconut fibers. The blanket shall be between 2.0 m and 2.4 m in width and between 20 m and 29 m in length. Wood excelsior shall be individual fibers, of which 80 percent shall be 150 mm or longer in length. The blanket shall have a photodegradable plastic netting or biodegradable jute, sisal or coir fiber netting on at least one side. The blanket shall be rolled along the width and secured with jute twine spaced 2 m apart along the full length of the roll and placed 150 mm from the ends of each roll. The finished roll shall be between 200 mm and 250 mm in diameter, between 3 m and 6 m in length and shall weigh at least 0.81-kg/m. More than one blanket may be required to achieve the finished roll diameter. When more than one blanket is required, blankets shall be jointed longitudinally with an overlap of 150 mm along the length of the blanket.

2. Fiber roll shall be a pre-manufactured roll of rice or wheat straw, wood excelsior or coconut fiber encapsulated within a photodegradable plastic or biodegradable jute, sisal or coir fiber netting. Rolls shall be between 200 mm and 250 mm in diameter, between 3 m and 6 m in length and shall weigh at least 1.6 kg/m. The netting shall have a minimum durability of one year after installation. The netting shall be secured tightly at each end of the rolls.

10-7.03(B) Stakes: Wood stakes shall be in accordance with the details on the Project Plans and these Special Provisions. Wood stakes shall be untreated fir, redwood, cedar, or pine, shall be cut from sound timber, and shall be straight and free of loose or unsound knots and other defects which would render them unfit for the purpose intended. Metal stakes may be used as an alternative. Contractor shall submit a sample of the metal stake for Engineer’s
approval prior to installation. The tops of the metal stakes shall be bent at a 90-degree angle.

10-7.03(C) Rope: Rope shall be biodegradable, such as sisal or manila, with a minimum diameter of 6.35 mm.

10-7.03(D) Installation: Temporary fiber rolls shall be installed in accordance with the details on the plans and these Special Provisions.

The bedding area for the fiber roll shall be cleared of obstructions including, but not limited to, rocks, clods, and debris greater than 25 mm in diameter prior to installation.

Temporary fiber roll shall be installed approximately parallel to the slope contour.

Temporary fiber roll shall be installed prior to the application of other temporary erosion control or soil stabilization materials in the same area.

When no longer required, as determined by the Engineer, temporary fiber roll shall become the property of the Contractor, and shall be removed and disposed of in conformance with the provisions in Section 5-1.20B(4), "Contractor-Property Owner Agreement," of the Caltrans Standard Specifications.

Ground disturbances, including holes and depressions, caused by the installation and removal of the temporary fiber roll shall be backfilled and repaired in conformance with the provisions in Section 5-1.36, "Property and Facility Preservation," of the Caltrans Standard Specifications.

10-7.03(E) Maintenance: Temporary fiber roll shall be maintained to disperse concentrated water runoff and to reduce runoff velocities. Split, torn, or unraveling rolls shall be repaired or replaced. Broken or split stakes shall be replaced. Sagging or slumping fiber rolls shall be repaired with additional stakes or replaced. Locations where rills and other evidence of concentrated runoff have occurred beneath the rolls shall be corrected.

Temporary fiber roll shall be repaired or replaced on the same day when the damage occurs. Damage to the temporary fiber rolls resulting from the Contractor's vehicles, equipment, or operations shall be repaired at the Contractor's expense.

10-7.03(F) Measurement and Payment: Fiber Rolls required for temporary erosion control shall be considered as included in the contract lump sum price paid for Erosion Control and no additional compensation will be allowed therefor.

10-7.04 Temporary Silt Fence: Temporary silt fence shall be furnished, installed, maintained, and later removed at the locations shown on the approved Storm Water Pollution Prevention Plan in conformance with "Storm Water Pollution Prevention" of these Special Provisions, and in conformance with details shown on the plans and these Special Provisions.

Attention is directed to "Storm Water Pollution Prevention" of these Special Provisions.
10-7.04(A) Materials: At the Contractor's option, temporary silt fence shall be prefabricated or constructed with silt fence fabric, posts, and fasteners.

Silt fence fabric shall be geotextile manufactured from woven polypropylene or polymer material. Silt Fence Fabric may be virgin or recycled, or a combination of virgin and recycled polymer materials. No virgin or recycled polymer materials shall contain biodegradable filler materials that can degrade the physical or chemical characteristics of the finished fabric. The Engineer may order tests to confirm the absence of biodegradable filler materials in conformance to the requirements in ASTM Designation: E 204 (Fourier Transformed Infrared Spectroscopy-FTIR).

Silt fence fabric shall conform to the following requirements:

<table>
<thead>
<tr>
<th>Property</th>
<th>ASTM Designation</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grab breaking load</td>
<td>D 4632</td>
<td>Woven: 120</td>
</tr>
<tr>
<td>1-inch grip, lb, min. in each direction</td>
<td></td>
<td>Non-woven: 120</td>
</tr>
<tr>
<td>Apparent elongation</td>
<td>D 4632</td>
<td>Woven: 15</td>
</tr>
<tr>
<td>percent, min., in each direction</td>
<td></td>
<td>Non-woven: 50</td>
</tr>
<tr>
<td>Water Flow Rate</td>
<td>D 4491</td>
<td>Woven: 10-50</td>
</tr>
<tr>
<td>max. average roll value, gallons per minute/square foot</td>
<td></td>
<td>Non-woven: 100-150</td>
</tr>
<tr>
<td>Permittivity</td>
<td>D 4491</td>
<td>Woven: 0.05</td>
</tr>
<tr>
<td>1/sec., min.</td>
<td></td>
<td>Non-woven: 0.05</td>
</tr>
<tr>
<td>Apparent opening size</td>
<td>D 4751</td>
<td>Woven: 30</td>
</tr>
<tr>
<td>max. average roll value, U.S. Standard sieve size</td>
<td></td>
<td>Non-woven: 30</td>
</tr>
<tr>
<td>Ultraviolet Degradation</td>
<td>D 4595</td>
<td>Percent of original unexposed grab breaking load 500 hr, minimum: 70</td>
</tr>
</tbody>
</table>

Posts for temporary silt fence shall be one of the following:

1. Posts shall be untreated fir or pine, minimum 2" x 2" in size, and 4 feet long. One end of the post shall be pointed.

2. Posts shall be steel and have a "U", "T", "L" or other cross sectional shape that can resist failure by lateral loads. The steel posts shall weigh at least 75 pounds per foot and shall have a minimum length of 4 feet. One end of the steel posts shall be pointed and the other end shall be capped with an orange or red plastic safety cap which fits snugly to the steel post. The Contractor shall submit to the Engineer for approval a sample of the capped steel post prior to installation.

Fasteners for attaching silt fence fabric to posts shall be as follows:

1. When prefabricated silt fence is used, posts shall be inserted into sewn pockets.

2. Silt fence fabric shall be attached to wooden posts with nails or staples as shown on the plans or as recommended by the manufacturer or supplier. Tie wire or locking plastic
fasteners shall be used to fasten the silt fence fabric to steel posts. Maximum spacing of fasteners shall be 200 mm along the length of the steel post.

10-7.04(B) Installation: Temporary silt fence shall be installed parallel with the slope contour in reaches not to exceed 50 feet. A reach is considered a continuous run of temporary silt fence from end to end or from an end to an opening, including joined panels. Each reach shall be constructed so that the elevation at the base of the fence does not deviate from the contour more than one third of the fence height.

The silt fence fabric shall be installed on the side of the posts facing the slope. The silt fence fabric shall be anchored in a trench as shown on the plans. The trench shall be backfilled and mechanically or hand tamped to secure the silt fence fabric in the bottom of the trench.

Mechanically pushing 4 inches of the silt fence fabric vertically through the soil may be allowed if the Contractor can demonstrate to the Engineer that the silt fence fabric will not be damaged and will not slip out of the soil, resulting in sediment passing under the silt fence fabric.

At the option of the Contractor, the maximum post spacing may increase to 10 feet if the fence is reinforced by a wire or plastic material by prefabrication or by field installation. The field assembled reinforced temporary silt fence shall be able to retain saturated sediment without collapsing.

The tops of the posts shall be tied together by minimum of 2 wraps of tie wire of a minimum 16-gauge diameter. The silt fence fabric shall be attached to the posts at the joint as specified in these Special Provisions.

Temporary silt fence shall be repaired or replaced at the expense of the Contractor on the same day when the damage occurs.

When no longer required as determined by the Engineer, temporary silt fence shall become the property of the Contractor and be removed and disposed of in conformance with the provisions in Section 17-2.03D, “Disposal of Materials”, of the Caltrans Standard Specifications. Trimming the silt fence fabric and leaving it in place will not be allowed.

Ground disturbance, including holes and depressions, caused by the installation and removal of the temporary silt fence shall be backfilled and repaired in conformance with the provisions in Section 5-1.36, "Property and Facility Preservation," of the Caltrans Standard Specifications.

10-7.04(C) Maintenance: Temporary silt fence shall be maintained to provide a sediment holding capacity of approximately one half the height of the silt fence fabric above ground. When sediment exceeds this height, or when directed by the Engineer, sediment shall be removed. The removed sediment shall be deposited within the project limits in such a way that the sediment is not subject to erosion by wind or by water.
Temporary silt fence shall be repaired or replaced on the same day when the damage occurs. Damage to the temporary silt fence resulting from the Contractor's vehicles, equipment, or operations shall be repaired at the Contractor’s expense.

10-14.04(D) Measurement and Payment: Silt Fence required for temporary erosion control shall be considered as included in the contract lump sum price paid for Erosion Control and no additional compensation will be allowed therefor.

10-7.04 Temporary Storm Drain Sediment Trap: Temporary Storm Drain Sediment Traps will be constructed as shown on the Project Plans.

10-7.04(A) Gravel: Gravel shall be between 0.4 and 0.8 inch in diameter, and shall be clean and free from clay balls, organic matter, and other deleterious materials.

10-7.04(B) Maintenance: Replace gravel bags with holes or gashes. Remove the sediment behind the barrier when it reaches one-third the height of the barrier.

10-7.05 Stabilized Construction Entrance: Construct Stabilized Construction Entrance in conformance with the Project Plans.

10-7.05 Erosion Control (Type D): Erosion Control (Type D) shall conform to the provisions in Section 20-3, "Erosion Control," of the Caltrans Standard Specifications and these special provisions and shall consist of applying erosion control materials to embankment and excavation slopes and other areas disturbed by construction activities. Hydroseeding shall take place between October 1 and October 31.

10-7.05(A) Materials: Materials shall conform to the provisions in Section 20-2, "Materials," of the Caltrans Standard Specifications and these special provisions.

Seed: Seed shall conform to the provisions in Section 20-2.10, "Seed," of the Caltrans Standard Specifications. Individual seed species shall be measured and mixed in the presence of the Engineer.

Seed shall be delivered to the project site in unopened separate containers with the seed tag attached. Containers without a seed tag attached will not be accepted.

A sample of approximately 1 oz (30 g) of seed will be taken from each seed container by the Engineer.

Seed shall consist of the following:

<table>
<thead>
<tr>
<th>Botanical Name (Common Name)</th>
<th>Percent Germination (Minimum)</th>
<th>Pounds Pure Live Seed Per Acre (Slope Measurement)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elymus glaucus (Blue Wildrye)</td>
<td>80</td>
<td>12</td>
</tr>
<tr>
<td>Hordeum brachyanthrum (Meadow Barley)</td>
<td>80</td>
<td>12</td>
</tr>
</tbody>
</table>
### Table: Erosion Control Materials

<table>
<thead>
<tr>
<th>Material</th>
<th>Pounds Per Acre (Slope Measurement)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed</td>
<td>46</td>
</tr>
<tr>
<td>Fiber</td>
<td>500</td>
</tr>
</tbody>
</table>

10-7.05(B) Application: Erosion control materials (Type D) shall be applied in separate applications in the following sequence:

- **A.** The following mixture in the rates indicated shall be applied with hydro-seeding equipment within 60 minutes after the seed has been added to the mixture:

<table>
<thead>
<tr>
<th>Material</th>
<th>Application Rate (Slope Measurement)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiber</td>
<td>2500 lbs/acre</td>
</tr>
<tr>
<td>Commercial Fertilizer</td>
<td>500 lbs/acre</td>
</tr>
<tr>
<td>Stabilizing Emulsion</td>
<td>9 gals/acre</td>
</tr>
</tbody>
</table>

The ratio of total water to total stabilizing emulsion in the mixture shall be as recommended by the manufacturer. The rates of erosion control materials may be changed by the Engineer to meet field conditions.

10-7.05(C) Measurement and Payment: Erosion Control (Type D), shall be considered as included in the contract lump sum price paid for Erosion Control and no additional compensation will be allowed therefor.

Commercial Fertilizer: Commercial fertilizer shall conform to the provisions in Section 20-2.02, "Commercial Fertilizer," of the Caltrans Standard Specifications and shall have a guaranteed chemical analysis of 14 percent nitrogen, 14 percent phosphoric acid and 14 percent water soluble potash.


Stabilizing emulsion shall be “EarthGuard” by TerraNova, Inc or approved equal. Mixing and application shall be per manufacturers recommendations.
Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved for Erosion Control (Type D) including, but not limited to, soil surface preparation, furnishing and applying seed, fiber, commercial fertilizer and stabilizing emulsion, shall be considered as included in the contract lump sum price for “Erosion Control” as shown on the plans, as specified in these Special Provisions and as directed by the Engineer and no additional compensation will be allowed.

**10-7.06 Measurement and Payment**

Erosion Control shall be measured and paid for as a *lump sum* contract price.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved for Erosion Control including, but not limited to, temporary sediments traps, temporary fiber rolls, silt fence, stabilized construction entrance, maintenance and removal of temporary erosion control measures, and installation and maintenance of permanent erosion control measures shall be considered as included in the contract *lump sum* price for “Erosion Control” as shown on the plans, as specified in these Special Provisions and as directed by the Engineer and no additional compensation will be allowed.
10-8 AGGREGATE BASE

10-8.01 Aggregate Base. This work shall consist of furnishing, spreading, and compacting aggregate base in accordance with the Caltrans Standard Specifications and these Special Provisions.

Aggregate shall conform to the grading requirements for 3/4-inch maximum Class 2 aggregate base and shall conform to the quality requirements of the Caltrans Standard Specifications, Section 26. Aggregate base shall be compacted to a minimum of 95 percent relative compaction.

10-8.02 Placement: Compaction shall commence immediately after spreading of the damp material and before the material has dried sufficiently to allow separation between the fine and coarse particles. If the Engineer determines that the aggregate base has dried excessively before compaction can be achieved, the aggregate base shall be removed and replaced, or moisture conditioned prior to resumption of compaction effort at the Engineer’s direction and the Contractor’s expense.

The surface of the finished aggregate base shall be firm and unyielding. Any visible movement vertically or horizontally of the aggregate base under the action of construction equipment or other maximum legal axle loads shall be considered as evidence that the aggregate base does not meet this requirement.

Only aggregate base used in the construction of the pathway structural section and pathway shoulder will be paid for under this contract item of work. Aggregate base used in conjunction with the construction of curb and gutter, median curb, sidewalks, ramps, bench turnouts and as backfill for trenches and backfill for voids when facilities are removed will be measured and paid for as part of these items of contract work and no additional compensation will be allowed.

10-8.03 Measurement and Payment: Aggregate Base will be measured and paid for at the contract price per cubic yard, which price shall include full compensation for furnishing all labor, materials, tools, and equipment, and doing all work involved in placing aggregate base including but not limited to removal of existing material, subgrade preparation, conforming to existing grade, spreading, and compaction, and no additional compensation will be allowed therefor.
10-9 ASPHALT CONCRETE

10-9.01 Asphalt Concrete: Asphalt concrete base and asphalt concrete surface and the placing thereof shall conform to the requirements of Section 39, of the 2010 Caltrans Standard Specifications with the following modifications:

Aggregate shall be Type A, ½” maximum for asphalt concrete surface and ¾” maximum, for asphalt concrete base.

Paving asphalt shall be PG64-16 conforming to Section 92, "Asphalts,” of the Caltrans Standard Specifications.

The Contractor shall furnish the Owner’s Engineer, at least ten (10) working days prior to the start of work, a list of sources of materials together with a Certified of Compliance indicating that materials to be incorporated in the work fulfill the requirements of these specifications and a mix design for the asphalt concrete. The mix design shall be performed in accordance with CTM 367. The Certified of Compliance shall be signed by the material supplier or his representative. The Contractor shall be responsible for all costs associated with the required mix design.

10-9.02 Placement: Construction shall be in accordance with Section 39-3, “Method Construction Process,” of the Caltrans Standard Specifications. Asphalt concrete shall be compacted to 91-97% of maximum theoretical compaction (California Test 309) as determined by California Test 375 (Nuclear Density Device may be used). The Contractor shall use asphalt spreading machinery with automated controls. A profilograph will not be required.

A tack coat, type SS-1, shall be applied to all mating surfaces along lip of gutter and at conforms to existing pavement prior to placement of new asphalt concrete and shall conform to Section 94, “Asphaltic Emulsions” of the Caltrans Standard Specifications.

Tack coat shall be applied between all asphalt concrete lifts.

The complete surfacing shall be true to grade and cross section, of uniform smoothness and texture, compacted firmly and free from depressions, humps or irregularities.

A drop-off of more than 0.15-foot will not be allowed at any time between adjacent lanes open to public traffic.

The Contractor shall schedule paving operations such that each layer of asphalt concrete is placed on all contiguous lanes of a traveled way each work shift. At the end of each work shift, the distance between adjacent lanes, hand raked, and compacted to form temporary conforms. Kraft paper, or other approved bond breaker, may be placed under the conform tapers to facilitate the removal of the taper when paving operations resume.

Section 9-1.07, “Payment Adjustments for Price Fluctuations,” of the Caltrans Standard Specifications shall not apply. No adjustments in payment will be made for fluctuations in the cost of asphaltic materials.
10-9.03 Asphalt Concrete Dike: Asphalt Concrete Dike shall be Type A as noted on the plans and conform to the provisions of Section 39-2.01B(11), “Miscellaneous Areas and Dikes,” of the Caltrans Standard Specifications and these Special Provisions.

10-9.04 Measurement and Payment
Asphalt Concrete will be measured and paid for at the contract price per ton, which price shall include full compensation for furnishing all labor, materials, tools, and equipment, and doing all work involved in placing asphalt concrete including but not limited to removal of existing material, pavement preparation and tack coat, sawcutting, conforming to existing asphalt concrete, and no additional compensation will be allowed.

Asphalt Concrete Dike will be measured and paid for at the contract price per lineal foot in place in addition to the price paid for the asphalt concrete required. Full compensation for furnishing all labor, material, tools, and equipment, and doing all work involved in constructing asphalt concrete dikes, including but not limited to pavement preparation, tack coat, spreading and compacting, and no additional compensation will be allowed.
10-10 DRAINAGE FACILITIES

10-10.01 Drainage Structures: Drainage structures, including drop inlets and manholes, shall conform to the details shown on the Project Plans and the provisions in Section 70, "Miscellaneous Drainage Facilities," of the Caltrans Standard Specifications as amended by the City Standard Specifications and Details and these Special Provisions.

Drainage inlets and manholes shall be of the types and sizes as specified on the Project Plans. At the option of the Contractor, drop inlets and bases may be poured in place or furnished and installed as precast units.

Concrete used for drainage structures, including foundations, bases, collars, and basin floors, shall conform to the provisions in Section 90-2, “Minor Concrete,” of the Caltrans Standard Specifications. Portland Cement Concrete shall contain no less than 590 pounds of cementitious material per cubic yard and have a minimum compressive strength of 3,000 psi.

Reinforcement shall be Grade 60 conforming to the provisions of Section 52, "Reinforcement," of the Caltrans Standard Specifications.

Frames, grates, rims, and covers for drop inlet and manhole structures shall be designed for H20 loading and shall comply with City Standard Specifications and Section 75 of the Caltrans Standard Specifications. Where shown on the plans, drop inlets shall be provided with ADA conforming frames and grate.

10-10.02 Drainage Pipe Materials
All storm drains and related appurtenances shall conform to the provisions of the Caltrans Standard Specifications, the Project Plans and these Special Provisions.

Reinforced concrete pipe shall conform with Section 11 of the City Standard Specifications.

HDPE storm drain pipe shall conform to the provisions of Section 64, "Plastic Pipe” of the Caltrans Standard Specifications. HDPE pipe shall be type S corrugated polyethylene pipe with a smooth inner lining and corrugated outer wall.

10-10.03 Drainage Pipe Installation

10-10.03(B) Excavation and Backfill
Excavation and backfill shall be in accordance with these Special Provisions, Project Plans, Section 10 of the City Standard Specifications, Standard Plans and Specifications, and as directed by the Engineer.

Bedding and backfill shall be furnished and installed in accordance with City Standard Detail ST08 and with Section 10 of the City Standard Specifications.

Control density fill (CDF) shall be used as backfill where specified in the Plans.

10-10.03(C) Laying Pipe
Unless otherwise specifically permitted by the Engineer, all pipes shall be laid upgrade.
All pipe joints shall be sealed with grout or by use of a rubber gasket. A joint lubricant recommended by the pipe manufacturer shall be used on gasket sealed pipe. All excess grout shall be removed from inside the pipe.

**10-10.03(D) Control Density Fill**

Control density fill (CDF) shall be a mixture of Portland cement, sand and 1” maximum coarse aggregate, air entraining agent and water, batched by a ready-mixed concrete plant and delivered to the jobsite by means of transit mixing trucks. Control density fill may also contain Class F pozzolan (fly ash). Control density fill shall be free of asphaltic material.

Cement shall meet the standards as set forth in ASTM C-150, Type II cement.

Fly ash shall meet the standards as set forth in ASTM C-618, for Class F pozzolans. The fly ash shall not inhibit the entrainment of air.

Aggregate Size: 1” max.
Sand Equivalent: 31 min.

The mix proportions shall be determined by the producer of the control density fill to produce a flowable fill mixture which will not segregate. Each yard shall contain not less than 50 pounds of Portland cement and not less than a total of 100 pounds of cementitious material. The Contractor shall supply a mix design two weeks prior to any use of control density fill.

Compressive Strength: 75-200 psi @ 28 days
Slump: 3-9 inches

The consistency of the CDF shall be such that all trench voids are filled with minimum rodding or vibrating but not so wet as to cause excessive shrinkage.

Permanent pavement may be placed directly upon the CDF as soon as it has consolidated for the surface to withstand the process of paving without displacement. The surface of the control density fill shall be firm and unyielding. Any visible movement vertically or horizontally of the control density fill under the action of construction equipment or other maximum legal axle loads shall be considered as evidence that the control density fill does not meet this requirement. The Contractor shall provide trench plates to allow traffic flow for all locations until CDF is ready to be paved.

**10-10.04 36” RCP Headwall Connection**

Connection of new storm drains to existing headwalls shall be constructed according to the Project Plans and Section 51 of the Caltrans Standard Specifications.

Concrete shall conform to the provisions in Section 90-2, “Minor Concrete,” of the Caltrans Standard Specifications. Portland Cement Concrete shall contain no less than 590 pounds of cementitious material per cubic yard and have a minimum compressive strength of 3,000 psi.

Reinforcement shall be Grade 60 conforming to the provisions of Section 52, "Reinforcement," of the Caltrans Standard Specifications.
Drill and epoxy grout dowels into existing headwall according to details shown on the Project Plans and in accordance with Section 51-1.03E(4).

Damage to existing headwalls due to construction shall be repaired and/or replaced to the condition existing before construction and as approved by the Engineer.

10-10.05 Concrete Headwall
All headwalls and wingwalls shall be constructed of 3000 psi reinforced Portland cement concrete constructed in accordance with the Plans and Section 51 of the Caltrans Standard Specifications and City Standard Specifications.

10-10.06 Connect to Existing Storm Drain Inlet
Pipe connections to existing structures shall be sealed with cement mortar in accordance with the Plans, Section 70-4 of the Caltrans Standard Specifications, and the City Standard Specifications.

Connections to existing storm drain structures shall be made with care to avoid unnecessary damage to any existing curb and gutter or sidewalk. Any damaged section shall be removed and replaced in accordance with City Standard Specifications and the direction of the Engineer.

10-10.08 Measurement and Payment
Drainage Structures, including drop inlets and manholes, will be measured and paid for at the contract price per unit installed for various dimensions, frame and grate types, and number of openings, which shall include all labor, materials, tools, equipment and incidentals, including excavation, backfill, concrete, adjusting manhole covers and drop inlet grates to grade, castings, class 2 aggregate base and testing, and no additional compensation will be allowed.

Storm drain pipe, of the various sizes and materials, will be measured and paid for by the lineal foot of pipe installed, which price shall include full compensation for furnishing all labor, materials, tools, equipment, and doing all the work involved in placing or extending drainage structures as specified herein:

- excavation,
- removal of existing storm drain pipe,
- potholing,
- placing and compacting all required bedding and backfill,
- trench plates (as needed),
- miscellaneous iron and steel,
- flared end sections,
- pipe joints,
- connecting to existing pipes and facilities.
- concrete collars,
- dewatering trench,
- disposal of soil and groundwater,
- CDF backfill
and any other work required for placing or extending existing drainage structures not specifically enumerated on the plans or in these specifications and no additional allowance will be made therefor.

**Connect to Existing Storm Drain Inlet** will be measured and paid for at the contract price per **each**, which shall include full compensation for furnishing all labor, materials, tools, and equipment, and doing all work included in connecting new storm drain to an existing storm drain inlet as specified including excavation, bedding, compaction, drilling, mortar and grout joints, and any other items necessary to complete the work not specifically enumerated in the plans or these specifications, and no additional allowance will be made therefor.

**Concrete Headwall** will be measured and paid for at the contract price per **cubic yard**, which price shall include full compensation for furnishing all labor, materials, tools, and equipment, and doing all work included in constructing concrete headwalls and wingwalls complete in place as specified, including excavation, portland cement concrete, construction and removal of forms, furnishing and placing backfill, reinforcement, broom finish, furnishing and placing Class 2 aggregate base cushion, furnishing and applying curing materials, and any other items necessary to construct concrete headwalls and wingwalls not specifically enumerated in the plans or these specifications, and no additional allowance will be made therefor.

**36” RCP Headwall Connection**: will be measured and paid for at the contract price per **each**, which shall include full compensation for furnishing all labor, materials, tools, and equipment, and doing all work included in connecting new storm drain to an existing headwall as specified including excavation, drilling, doweling, and epoxy grouting, forming, and any other items necessary to complete the work not specifically enumerated in the plans or these specifications, and no additional allowance will be made therefor.
10-11 ROCK SLOPE PROTECTION

10-11.01 Storm Drain Outfall: Storm drain outfall shall conform to these Special Provisions and the details on the Project Plans.


Quantities of excavation required in connection with placing Rock Slope Protection will not be measured or paid for separately.

10-11.02 Materials: Rock slope protection shall be Caltrans No. 3 backing material.

Rock Slope protection fabric shall be Class 8 per Section 72-2.02C of the Caltrans Standard Specifications.

10-11.03 Installation: Prior to placing rock slope protection fabric, the surfaces upon or against which rock slope protection fabric is to be placed, shall be free of loose or extraneous material and sharp objects.

All Rock Slope Protection shall be installed over fabric as outlined in Section 72-2.02C of the Caltrans Standard Specifications.

Rock slope protection shall be of the class shown on the plans and placed in accordance with Method B as outlined in the Caltrans Standard Specifications.

10-11.02 Measurement and Payment

Rock Slope Protection will be measured and paid for by the cubic yard of rock installed, complete and in place. Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved, including, but not limited to, excavation, backfill, compaction, rock slope protection, and rock slope protection fabric, shall be considered as included in the contract unit price for Rock Slope Protection and no additional compensation will be allowed.
10-12 MINOR CONCRETE

10-12.01 Description: Minor concrete shall conform to the provisions of Section 73, "Concrete Curbs and Sidewalks," of the Caltrans Standard Specifications, Section 9 of the City Standard Specifications, and these Special Provisions.

Damage to adjacent landscaped areas, pavement or sidewalk due to construction or replacement of curb and gutter and sidewalk shall be repaired and/or replaced to the condition existing before construction. Replacement landscape materials shall match the existing materials as closely as possible. Payment for landscape repair shall be considered as included in the contract prices paid for minor concrete, of the various kinds and no additional compensation will be allowed.

Concrete shall be Class A, 6 sack concrete.

Curb and gutter, and sidewalk shall be doweled into the existing concrete in conformance with Section 9.02F of the City Standard Specifications.

All oil, paint, tire, graffiti and other marks shall be removed from all minor concrete construction by sandblasting or complete replacement prior to acceptance by the Engineer. Cement mortar will not be an acceptable substitute for sandblasting or complete replacement.

Aggregate Base, Class 2, shall be placed under minor concrete per City Standard Details and Plan details.

Minor concrete shall have a medium broom finish. No separate measurement or payment will be made for medium broom finish.

Cobble Stone finish shall conform to the details on the plans.

Curb ramp detectable warning surface shall consist of prefabricated raised truncated domes in conformance with the Caltrans Standard Plan A88 and these special provisions. The color of the detectable warning surface shall be yellow conforming to Federal Standard 595B, Color No. 33538. Prefabricated detectable warning surface shall be in conformance with the requirements established by the Department of General Services, Division of State Architect and be attached in conformance with the manufacturer's recommendations.

Prefabricated detectable warning surfaces shall be installed in accordance with the manufacturer’s recommendations. The manufacturer shall provide a written 5-year warranty for prefabricated detectable warning surfaces, guaranteeing replacement when there is defect in the dome shape, color fastness, sound-on-cane acoustic quality, resilience, or attachment. The warranty period shall begin upon acceptance of the contract.

10-12.02 Disposal: Existing concrete shall be removed and disposed of outside the roadway right of way in accordance with Section 5-1.20B(4) “Contractor-Property Owner Agreement,” of the Caltrans Standard Specifications.
10-12.03 Measurement and Payment

**Minor Concrete, Curb and Gutter** shall be measured by the **lineal foot** of exposed front face without regard to depressions and thickening for driveways or pedestrian ramps.

**Minor Concrete, Curb and Gutter** shall be paid by the contract price per **lineal foot**. Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved, including, but not limited to, removal and disposal of existing concrete, sawcutting, furnishing and placing expansion joint filler, constructing weakened plane joints, removing discoloration, excavation, tree root protection, backfill, compaction, forms, dowels, epoxy, Class 2 aggregate base cushion, integral concrete colorant, conforming to existing concrete, landscape repair, sidewalk repair, and broom finish shall be considered as included in the contract lineal foot price for Curb and Gutter, as specified in these Special Provisions and as directed by the Engineer and no additional compensation will be allowed.

**Minor Concrete, Median Curb** shall be measured by the **lineal foot** of exposed front face without regard to depressions and thickening for pedestrian ramps.

**Minor Concrete, Median Curb** shall be paid for at the contract price per **lineal foot**, which price shall include full compensation for furnishing all labor, materials, tools, and equipment, and doing all the work involved, including, but not limited to, removal and disposal of existing concrete, asphalt or existing material, sawcutting, furnishing and placing expansion joint filler, constructing weakened plane joints or score lines, removing discoloration, excavation, backfill, compaction, forms, Class 2 aggregate base cushion, conforming to existing concrete, integral concrete colorant, dowels, drilling into existing concrete, rebar, epoxy, asphalt repair, and broom finish shall be considered as included in the contract lineal foot price for Median Curb as specified in these Special Provisions and as directed by the Engineer and no additional compensation will be allowed.

**Minor Concrete, Sidewalk** shall be measured by the **square foot**. For purposes of measurement and payment driveways shall be considered sidewalk.

**Minor Concrete, Sidewalk** including sidewalk conforms, driveways and pedestrian ramps as shown on the plans, will be paid for at the contract price per **square foot**, which price shall include full compensation for furnishing all labor, materials, tools, and equipment, and doing all work included in constructing concrete sidewalks complete in place as specified, including excavation, sawcutting, portland cement concrete, forms, furnishing and placing backfill, compaction, broom finish, furnishing and placing Class 2 aggregate base cushion, furnishing and placing expansion joint filler, constructing weakened plane joints, doweling, furnishing and applying curing materials, curb ramps, vertical curbs at curb ramps, driveways, landscape repair, and any other items necessary to construct concrete sidewalks and ramps not specifically enumerated in the plans or these specifications, and no additional allowance will be made therefor.

**Detectable Warning Surface** will be measured and paid for at the contract price per **square foot**, which price shall include full compensation for furnishing all labor, materials, tools and equipment, and doing all the work involved in constructing detectable warning surfaces in place complete as herein specified, including warranty, and any other work necessary to construct
detectable warning surfaces not specifically enumerated in the Plans or Specifications, and no additional allowance will be made therefor.

**Cobble Stone Median** shall be measured by the **square foot**.

**Cobble Stone Median** shall be paid by the contract price per **square foot**. Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved, including, but not limited to, removal and disposal of existing concrete, sawcutting, excavation, backfill, compaction, and concrete mortar bed shall be considered as included in the contract square foot price for Cobble Stone as specified in these Special Provisions and as directed by the Engineer and no additional compensation will be allowed.
10-13 TRAFFIC STRIPING, MARKING AND SIGNAGE

10-13.01 Thermoplastic Traffic Stripes and Pavement Markings: Thermoplastic and painted traffic stripes and pavement markings shall conform to the applicable provisions of Section 84 of the Caltrans Standard Specifications, and these Special Provisions and shall be placed at the locations shown on the plans.

Surface preparation shall be performed in accordance with Section 84-2.03B of the Caltrans Standard Specifications. Existing reflectors shall be removed and disposed prior to restriping the centerline. Contractor shall use a backhoe, scraper or other approved method to remove the reflectors and shall exercise due caution during removal to provide the least damage to the pavement or surfacing.

Residue from the removal of reflectors shall be swept or vacuumed from the street surface and disposed of immediately after removal. Residue shall not be allowed to enter the storm drain system or creeks and roadside ditches. Disposal shall be performed in accordance with Section 5-1.20B(4) “Contractor-Property Owner Agreement,” of the Caltrans Standard Specifications.

Median Nose Treatment, including signs and object markers shall conform to the details on the plans and these Special Provisions.

10-13.02 Roadside Signs: Roadside sign installation shall conform to Section 82-3, "Roadside Signs," of the Caltrans Standard Specifications, the applicable City Standards, and these Special Provisions.

Sign faces shall be prismatic reflective sheeting grade IV or better.

10-13.03 Measurement and Payment

Thermoplastic Traffic Stripes, of the various types, will be measured by the linear foot.

Thermoplastic Traffic Stripes will be paid for at the contract price per linear foot of the various detail types, which price shall include full compensation for furnishing all labor, materials, tools and equipment, and doing all work involved in placing traffic stripes, complete in place, including:

- Removal of existing stripes,
- furnishing all glass beads,
- thermoplastic pavement marking material,
- pavement markers,
- tape,
- temporary traffic stripes,
- replacement of damaged stripes, and
- pavement surface preparation

and any other work required to install traffic stripes not specifically enumerated in the plans and specifications and no additional compensation will be allowed.
Thermoplastic Pavement Markings will be measured by the square foot. For purposes of measurement and payment, 12” wide limit lines, 24” wide diagonal stripes and continental crosswalk striping will be considered pavement markings.

Thermoplastic Pavement Markings will be paid for at the contract price per square foot which price shall include full compensation for furnishing all equipment, tools, and labor, and doing all the work involved, as herein specified, including:

- all glass beads,
- thermoplastic material,
- tape,
- temporary pavement markings,
- replacement of damaged markings, and
- pavement surface preparation

and any other work required to install pavement markings not specifically enumerated in the plans or specifications, and no additional compensation will be allowed.

Traffic Painted Stripes, of the various types, will be measured by the linear foot.

Traffic Painted Stripes, of the various types, will be paid for at the contract price per linear foot, which price shall include full compensation for furnishing all labor, materials, tools and equipment, and doing all work involved in placing traffic stripes, complete in place, including:

- paint material (2 coats),
- tape,
- surface preparation

and any other work required to install traffic painted stripes not specifically enumerated in the plans and specifications and no additional compensation will be allowed.

Painted Pavement Markings will be measured by the square foot. For purposes of measurement and payment 12” painted limit lines will be considered pavement markings.

Painted Pavement Markings will be paid for at the contract price per square foot, which price shall include full compensation for furnishing all labor, materials, tools and equipment, and doing all work involved in placing painted pavement markings, complete in place, including:

- paint material (2 coats),
- tape,
- surface preparation

and any other work required to install painted pavement markings not specifically enumerated in the plans and specifications and no additional compensation will be allowed.

Median Nose Treatment will be measured by each.
Median Nose Treatment will be paid for at the contract price per each, which price shall include full compensation for furnishing all labor, materials, tools and equipment, and doing all work involved in placing traffic stripes, complete in place, including:

- paint material (2 coats),
- sign,
- object markers,
- reflective markers,
- surface preparation

and any other work required to install median nose treatment not specifically enumerated in the plans and specifications and no additional compensation will be allowed.

Roadside Signs will be measured as units from actual count as shown on the plans, as specified in these Special Provisions and as directed by the Engineer. Roadside Sign assemblies, without regard for the number of sign posts or sign panels, shall be considered as a single unit.

Roadside Signs shall be paid for at the unit contract price which shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing the work involved in installing roadside signs including, but not limited to excavation, backfill, aggregate base, compaction and disposal, salvaging and installation of existing sign faces, posts, sign face, and mounting hardware, and no additional compensation will be allowed.
10-14 PAVEMENT MARKERS

10-14.01 Description
Pavement markers shall conform to the requirements of Section 81-3, "Pavement Markers," of the Caltrans Standard Specifications and these Technical Specifications.

Attention is directed to “Construction Area Signs and Traffic Control” elsewhere in these Technical Specifications regarding the use of moving lane closures during placement of pavement markers with bituminous adhesive.

Hot melt bituminous adhesive shall be used to cement the markers to the pavement. Bituminous adhesive material shall conform to the following:

<table>
<thead>
<tr>
<th>Specification</th>
<th>ASTM</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point, COC, °F</td>
<td>D 92</td>
<td>550 Min.</td>
</tr>
<tr>
<td>Softening Point, °F</td>
<td>D 36</td>
<td>200 Min.</td>
</tr>
<tr>
<td>Brookfield Thermosel Viscosity, Centipoise, No. 27 Spindle, 20 RPM, 400°F</td>
<td>D 4402</td>
<td>3,000-6,000</td>
</tr>
<tr>
<td>Penetration dmm, 100g, 55 seconds, 77°F</td>
<td>D 5</td>
<td>10 - 20</td>
</tr>
<tr>
<td>Filler Cement, percent by weight (Insoluble in 1,1,1 Trichloroethane)</td>
<td>D 2371</td>
<td>65 - 75</td>
</tr>
</tbody>
</table>

Filler material used in bituminous adhesive shall be Type PC, Grade III, calcium carbonate conforming to ASTM D1199, and shall conform to the following gradation:

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Percent Passing</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 100</td>
<td>100</td>
</tr>
<tr>
<td>No. 200</td>
<td>95</td>
</tr>
<tr>
<td>No. 325</td>
<td>75</td>
</tr>
</tbody>
</table>

Bituminous adhesive shall be heated indirectly in an applicator with continuous agitation or recirculation. Bituminous adhesive shall not be heated above the maximum safe heating temperature recommended by the manufacturer and shall not be applied at temperatures greater than 425°F nor less than 375°F.

Immediately after application of the adhesive, pavement markers shall be placed in position and pressure applied until firm contact is made with the pavement.

Placement of pavement markers using bituminous adhesive shall conform to the requirements of the Section 81-3.03 of the Caltrans Standard Specifications.

When bituminous adhesive is used for pavement marker placement, traffic control during placement operations shall conform to the requirements of “Construction Area Signs and Traffic Control” of these Technical Specifications.
10-14.02 Measurement and Payment

No separate measurement and payment will be made for installation of the individual pavement markers used in conjunction with new traffic striping or the median island treatment. Full compensation for pavement markers used in conjunction with new traffic striping or the median island treatment shall be considered as included in conjunction with new traffic stripes of the various detail types, or the median island treatment and no additional compensation will be allowed.
10-15 CHAIN LINK FENCE, MAN GATES AND STEEL BOLLARDS

10-15.01 Chain Link Fence and Man Gates: Where shown on the plans new chain link fence and man gates shall be installed in accordance with the Project Plans, Section 80-3, “Chain Link Fences” of the Caltrans Standard Specifications, these Special Provisions and as directed by the Engineer.

Fence shall be 4 feet or 6 feet high as shown on the Project Plans. Fences shall not be topped with barbed wire.

Prior to fencing construction near the Geysers pipeline, the contractor shall mark out the location of the new fencing and the City of Santa Rosa Geysers Operations Center staff will verify existing Geysers pipeline location. If needed, the fenceline location may need to be adjusted to avoid conflicts with the Geysers pipeline. Contractor shall coordinate with Mike Sherman, msherman@srcity.org, 707-543-4242 at the Santa Rosa Geysers Operations Center a minimum of 72 hours prior to needing the verification of the Geysers pipeline location.

10-15.02 Fence and Gate Materials: Visual inspection of all material shall be made prior to installation. Any material showing signs of damage shall not be used.

The strength of the bond between the coating material and the steel of the bonded vinyl-coated chain link fabric or posts shall be equal to or greater than the cohesive strength of the polyvinyl chloride (PVC) coating material.

10-15.02(A) Chain Link Fence and Gate Fabric: Fence and gate material shall conform to the applicable requirements of Section 80, “Fences,” of the Caltrans Standard Specifications and to these Special Provisions. Chain link fence and gate fabric shall be vinyl coated black. Chain link fence and gate fabric shall be galvanized steel fabric conforming to the specifications of AASHTO Designation M-181. The fabric shall be 11-gauge, Type IV, Class A bonded vinyl-coated.

The vinyl coating and color sample shall be submitted to the Engineer prior to ordering material.

10-15.02(B) Post and Braces: All posts, gate frames, and rails shall be steel pipe galvanized and vinyl clad according to the specifications of AASHTO Designation M-111 and as specified on the Project Plans.

10-15.02(C) Footings: Portland cement concrete for post footings shall be produced with commercial quality aggregate and cement and shall contain not less than 470 pounds of cement per cubic yard.

10-15.03 Fence and Gate Construction: The fence shall be installed by skilled and experienced fence erectors on lines and grades furnished by the Engineer or shown on the plans. Line and corner posts for perimeter fence shall be set in concrete foundations a minimum of 36” inches deep. Concrete foundations shall be no less than three times the diameter of the posts. Line post spacing shall not exceed ten-foot centers.

Lines and grades of the fence shall be true, and fence fabric shall be tight and secured to all posts.
and rails if applicable.

The existing fencing and appurtenances to be removed shall become the property of the Contractor and shall be disposed of away from the construction site to the satisfaction of the Engineer.

Any existing cross fences shall be connected to the new fences in a manner similar to the current method of construction.

**10-15.04 Steel Bollards:** Steel bollards, removable/lockable, shall be placed at the locations shown on the Project Plans and constructed in conformance with the City of Healdsburg Public Works Standard Detail ST17, these Special Provisions and the details shown on the Project Plans.

**10-15.06 Measurement and Payment**

**Chain Link Fence** shall be measured and paid for by the lineal foot of the various types. The contract price paid per linear foot for fence, of the various types, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in installing new fence complete in place including footings, posts, rails, connection to existing fencing, chain link fence and hardware, as shown on the plans, as specified in these Special Provisions and as directed by the Engineer.

**Man Gates** shall be measured and paid for by each. The contract price paid per each for man gates, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in installing new man gates complete in place including footings, posts, rails, chain link fence fabric and hardware, as shown on the plans, as specified in these Special Provisions and as directed by the Engineer.

**Steel Bollards** shall be measured and paid for as units from actual count as shown on the plans, as specified in these Special Provisions, and as directed by the Engineer. Full compensation for steel bollards shall include furnishing of all labor, materials, tools, equipment and incidentals, and doing all work involved, including but not limited to, saw cutting, excavation, removal and disposal of excavated material, placing bollard and concrete footing, filling stationary bollard with concrete and creating a rounded and smooth concrete cap, providing handles and at-grade locking mechanism for removable bollards, paving, and any other work necessary to construct steel bollard, removable/lockable, not specifically enumerated herein or on the Project Plans, and no additional allowance will be made therefor.
SECTION 10-16  PREFABRICATED STEEL PEDESTRIAN BRIDGES

10-16.01 GENERAL: These specifications are for two fully engineered clear span bridges of steel construction and shall be regarded as minimum standards for design and construction. The bridges shall be identified as Segment 7 Bridge and Segment 8 Bridge.

10-16.02 QUALIFIED SUPPLIERS:
Each bidder is required to identify their intended bridge supplier as part of the bid submittal.

Pre-approved Manufacturers:

Contech Engineered Solutions LLC
8301 State Highway 29 North
Alexandria, Minnesota 56308
1-800-328-2047

Contech Engineered Solutions LLC
4021 Gault Avenue South
Fort Payne, Alabama 35967
1-800-749-7515

See Instructions to Bidders for Substitution of “Or Equal” items. Qualified suppliers must have at least five (5) years experience designing and fabricating these type structures and a minimum of five (5) successful bridge projects, each of which has been in service at least three (3) years. Provide product literature, list the location, bridge size, owner, and a contact for reference for each project and documentation to include: representative design calculations, representative drawings, splicing and erection procedures, warranty information, inspection and maintenance procedures, AISC shop certification and welder qualifications.

10-16.03 GENERAL FEATURES:

10-16-03 (A) SPAN: The Segment 7 Bridge span shall be 80'-0" and the Segment 8 Bridge span shall be 40'-0” (straight line dimensions) and shall be as measured from each end of the bridge structure.

10-16-03 (B) WIDTH: Bridge width shall be 10'-0" as measured from the inside face of structural elements at deck level.

10-16-03 (C) SYSTEM: Bridge(s) shall be designed as a Continental Connector Truss or equal, with has one (1) diagonal per panel and plumb end vertical members. Interior vertical members may be either plumb or perpendicular to the chord faces.

1. Bridge(s) shall be designed utilizing an underhung floor beam (top of floor beam welded to the bottom of the bottom chord).
2. The bridge manufacturer shall determine the distance from the top of the deck to the top and bottom truss members based upon structural and/or shipping requirements.
3. The top of the top chord shall not be less than 48 inches above the deck (measured from the high point of the riding surface).
4. All members of the vertical trusses (top and bottom chords, verticals, and diagonals) shall be fabricated from square and/or rectangular structural steel tubing. Other structural members and bracing shall be fabricated from structural steel shapes or square and rectangular structural steel tubing.
5. Unless the floor and fastenings are specifically designed to provide adequate lateral support to the top flange of open shape stringers (w-shapes or channels), a minimum of one stiffener shall be provided in each stringer at every floor beam location.

6. Attachments:
   a. Safety Rails
      Horizontal safety rails shall be placed on the structure up to a minimum height of 4’-6” above the deck surface. Safety rails shall be placed so as to prevent a 4” sphere from passing through the truss. Safety rails shall be placed on the inside or outside of the structure at the bridge fabricator’s option. Safety rails placed on the inside of the truss shall have their ends sealed and ground smooth so as to produce no sharp edges. The safety rail system shall be designed for an infill loading of 200 pounds, applied horizontally at right angles, to a one square foot area at any point in the system.

   b. Toe Plate
      The bridge shall be supplied with a steel toe plate mounted to the inside face of both trusses. The toe plate shall be a minimum of 4 inches high. Toe plating will be welded to the truss members at a height adequate to provide a 2” gap between the bottom of the plate and the top of the deck or the top of the bottom chord, whichever is higher. The span of unstiffened flat toe plating (from center to center of supports) shall not exceed 5’-8’.

   c. Rubrails
      The bridge will be supplied with a 1" x 5-1/2" (actual size) naturally durable hardwood Ipe (Tabebuia Spp Lapacho Group) rubrails. Rubrail shall be partially air dried to a moisture content of 15% to 20%, shall be supplied S4S (surfaced four sides), E4E (eased four edges), with the edges eased to a radius of 1/8”. Measured at 30% moisture content, the width and thickness shall not vary from specified dimensions by more than ± 0.04 inches. Ends of each piece shall be sealed with “Anchorseal” Mobil CER-M or an equal aqueous wax log sealer. Rubrails shall be attached flush to the inside face of the bridge truss verticals and fastened with two carriage bolts at each support location. The span of the rubrail from centerline to centerline of support shall not exceed 6’-6”.

7. Camber: The bridge shall have a vertical camber dimension at midspan equal to 100% of the full dead load-deflection plus 1% of the full length of the bridge.

8. Elevation: The bridge is to be provided with a zero (0) percent longitudinal slope.

10-16.04 DESIGN: Structural design of the bridge structure shall be performed by or under the direct supervision of a licensed professional engineer and done in accordance with recognized engineering practices and principles. The engineer shall be licensed to practice in the State of California.

10-16.04 (A) DESIGN LOADS: In considering design and fabrication issues, this structure shall be assumed to be statically loaded. No dynamic analysis shall be required nor shall fabrication issues typically considered for dynamically loaded structures be considered for this bridge.
1. Dead Load: The bridge structure shall be designed considering its own dead load (superstructure and original decking) only. No additional dead loading need be considered.

2. Uniform Live Load:
   Main Members: Main supporting members, including girders, trusses and arches shall be designed for a pedestrian live load of 85 pounds per square foot of bridge walkway area. The pedestrian live load shall be applied to those areas of the walkway so as to produce maximum stress in the member being designed. If the bridge walkway area to which the pedestrian live load is applied (deck influence area) exceeds 400 square feet, the pedestrian live load may be reduced by the following equation:
   \[ w = 85 \left[ 0.25 + \frac{15}{\sqrt{A_i}} \right] \]
   Where \( w \) is the design pedestrian load (psf) and \( A_i \) is the deck influence area in square feet.
   The reduced design live load shall not be less than 65 pounds per square foot of bridge walkway area.

   Secondary Members: Bridge decks and supporting floor systems, including secondary stringers, floor beams and their connections to main supporting members shall be designed for a live load of 85 pounds per square foot, with no reduction allowed.

3. Concentrated Loads: The bridge superstructure, floor system and decking shall be designed for each of the following point load conditions:
   a. A concentrated load of 1000 pounds placed on any area 2.5 ft x 2.5 ft square.
   b. A 1200-pound two-wheel vehicle with a wheelbase and tire print area as shown in the following diagram:
   
   ![Diagram of two-wheel vehicle](image)
   
   b. A 4,000-pound four wheeled vehicle with the appropriate wheelbase, tire track and tire print area as shown in the following diagram: (See Table I for the values corresponding to the selected vehicle.)


Vehicle Axle and Wheel Spacings

<table>
<thead>
<tr>
<th>Vehicle</th>
<th>Front Wheels</th>
<th>Rear Wheels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>WB</td>
<td>T</td>
</tr>
<tr>
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</table>

(*C is the minimum dimension from center of wheel to the inside face of truss or curb.)

TABLE I

All of the concentrated or wheel loads shall be placed so as to produce the maximum stress in each member being analyzed. Critical stresses need be calculated assuming there is only one vehicle on the bridge at any given time. Assumptions that vehicles only travel down the center of the bridge or that the vehicle load is a uniform line load will not be allowed.

Each four wheeled vehicle load listed in Table I, up to and including the maximum weight vehicle selected, must be used in determining critical deck stresses. The wheel distribution for deck design shall be as specified in Section 16.05(B) Decking. Stringers shall be designed for the applied wheel loads assuming no lateral load distribution to adjacent stringers.

A vehicle impact allowance is not required.

4. Wind Load:
   a. Horizontal Forces
      The bridge(s) shall be designed for a wind load of 25 pounds per square foot on the full vertical projected area of the bridge as if enclosed. The wind load shall be applied
horizontally at right angles to the longitudinal axis of the structure. The wind loading shall be considered both in the design of the lateral load bracing system and in the design of the truss vertical members, floor beams and their connections.

b. Overturning Forces
The effect of forces tending to overturn structures shall be calculated assuming that the wind direction is at right angles to the longitudinal axis of the structure. In addition, an upward force shall be applied at the windward quarter point of the transverse superstructure width. This force shall be 20 pounds per square foot of deck.

c. Top Chord/Railing Loads
The top chord, truss verticals, and floor beams shall be designed for lateral wind loads (per section 3.1.4.1) and for any loads required to provide top chord stability as outlined in Section 3.3.6; however, in no case shall the load be less than 50 pounds per lineal foot or a 200 pound point load, whichever produces greater stresses, applied in any direction at any point along the top chord or at the top of the safety system (42" or 54" above deck level), if higher than the top chord.

5. Seismic Load: see plans.

6. Load Combinations:
The loads listed herein shall be considered to act in the following combinations, whichever produce the most unfavorable effects on the bridge superstructure or structural member concerned.
[DL=Dead Load; LL = Live Load; WL = Wind Load; VEH = Vehicle Load, SL = seismic Load]

\[
\begin{align*}
DL + LL \\
DL + VEH \\
DL+WL or SL \\
DL+LL+WL \\
DL+VEH+.3WL
\end{align*}
\]

NOTE: Allowable stresses may be increased 1/3 above the values otherwise provided when produced by wind loading, acting alone or in combination with the design dead and live loads.

10-16.04 (B) DESIGN LIMITATIONS:

1. Vertical Deflection:
The vertical deflection of the main trusses due to service pedestrian live load shall not exceed 1/400 of the span.

The vertical deflection of cantilever spans of the structure due to service pedestrian live load shall not exceed 1/300 of the cantilever arm length.
The deflection of the floor system members (floor beams and stringers) due to service pedestrian live load shall not exceed 1/360 of their respective spans.

The service pedestrian live load shall be 85 PSF, reduced in accordance with Section 3.1.2.1, but should in no case be less than 65 PSF for deflection checks.

Deflection limits due to occasional vehicular traffic shall not be considered.

2. Horizontal Deflection: The horizontal deflection of the structure due to lateral wind loads shall not exceed 1/500 of the span under an 85 MPH (25 PSF) wind load.

3. Minimum Thickness of Metal: The minimum thickness of all structural steel members shall be 3/16” nominal and be in accordance with the AISC Manual of Steel Constructions' "Standard Mill Practice Guidelines". For ASTM A500 and ASTM A847 tubing, the section properties used for design shall be per the Steel Tube Institute of North America's Hollow Structural Sections "Dimensions and Section Properties".

4. Governing Design Codes/References: Structural members shall be designed in accordance with recognized engineering practices and principles as follows:


   b. Welded Tubular Connections: American National Standards Institute / American Welding Society (ANSI/AWS). All welded tubular connections shall be checked, when within applicable limits, for the limiting failure modes outlined in the ANSI/AWS D1.1 Structural Welding Code. When outside the “validity range” defined in these design guidelines, the following limit states or failure modes must be checked:

      * Chord face plastification
      * Punching shear (through main member face)
      * Material failure
         - Tension failure of the web member
         - Local buckling of a compression web member
      * Weld failure
         - Allowable stress based on “effective lengths”
         - “Ultimate” capacity
      * Local buckling of a main member face
      * Main member failure:
         - Web or sidewall yielding
         - Web or sidewall crippling
         - Web or sidewall buckling
         - Overall shear failure

   All tubular joints shall be plain unstiffened joints (made without the use of reinforcing plates) except as follows:
* Floor beams hung beneath the lower chord of the structure may be constructed with or without stiffener (or gusset) plates, as required by design.
* Floor beams which frame directly into the truss verticals (H-Section bridges) may be designed with or without end stiffening plates as required by design.
* Where chords, end floor beams and in high profiles the top end struts weld to the end verticals, the end verticals (or connections) may require stiffening to transfer the forces from these members into the end vertical.
* Truss vertical to chord connections.

NOTE: The effects of fabrication tolerances shall be accounted for in the design of the structure. Special attention shall be given to the actual fit-up gap at welded truss joints.

c. Wood: American Institute of Timber Construction (AITC), the U.S. Forest Products Laboratory, and the American Forest & Paper Association (AF&PA). Sawn lumber shall be designed in accordance with the ANSI/AF&PA NDS, “National Design Standard for Wood Construction”, as published by the American Forest & Paper Association or the “Timber Construction Manual” as published by the American Institute of Timber Construction (AITC). Design properties for naturally durable hardwoods shall be in accordance with “Tropical Timbers of the World”, as published by the U.S. Forest Products Laboratory.

d. Top Chord Stability: Structural Stability Research Council (SSRC), formerly Column Research Council.

The top chord shall be considered as a column with elastic lateral supports at the panel points. The critical buckling force of the column, so determined, shall exceed the maximum force from dead load and live load (uniform or vehicular) in any panel of the top chord by not less than 50 percent for parallel chord truss bridges or 100 percent for bowstring bridges. The design approach to prevent top chord buckling shall be as outlined by E.C. Holt's research work in conjunction with the Column Research Council on the stability of the top chord of a half-through truss. See Appendix A for the calculation of the spring constant C and the determination of an appropriate K factor for out-of-plane buckling.

In addition, for the dead load plus vehicle load combination, the spring constant “C” furnished by the transverse “U-Frames” shall not be less than “C” required as defined by:

\[
C_{required} = \frac{1.46 P_c}{L}
\]

where \(P_c\) is the maximum top chord compression due to dead load plus the vehicle load times the appropriate safety factor (1.5 for parallel chord truss bridges or 2.0 for bowstring bridges) and \(L\) is the length in inches of one truss panel or bay.

For uniformly loaded bridges, the vertical truss members, the floor beams and their connections (transverse frames) shall be proportioned to resist a lateral force of not less than 1/100k times the top chord compressive load, but not less than .004 times that top
chord load, applied at the top chord panel points of each truss. The top chord load is
determined by using the larger top chord axial force in the members on either side of the
"U-frame" being analyzed. For end frames, the same concept applies except the
transverse force is 1% of the axial load in the end post member.

For bridges with vehicle loads, the lateral force applied at the top chord elevation for
design of the transverse frames shall not be less than 1% of the top chord compression
due to dead load plus any vehicle loading.

The bending forces in the transverse frames, as determined above, act in conjunction
with all forces produced by the actual bridge loads as determined by an appropriate
analysis which assumes that the floor beams are “fixed” to the trusses at each end.

NOTE: The effects of three-dimensional loading (including “U-frame” requirements)
shall be considered in the design of the structure. The “U-frame” forces shall be added
to the forces derived from a three-dimensional analysis of the bridge.

**10-16.05 MATERIALS:**

**10-16.05 (A) Unpainted Weathering Steel:** Bridges which are not to be painted shall be
fabricated from high strength, low alloy, atmospheric corrosion resistant ASTM A847 cold-formed
welded square and rectangular tubing and/or ASTM A588, or ASTM A242, ASTM A606 plate and
structural steel shapes (Fy = 50,000 psi). The minimum corrosion index of atmospheric corrosion
resistant steel, as determined in accordance with ASTM G101, shall be 6.0.

**10-16.05 (B) Decking:** The bridge shall be furnished with a stay-in place galvanized steel form
derk suitable for pouring a reinforced concrete slab. The form deck shall be designed to carry the
dead load of the wet concrete, weight of form decking, plus a construction load of 20 psf or a 150
pound concentrated load on a 1'-0” wide section of deck. When edge supports are used, deflection
is limited to 1/180 of the span or ½”, whichever is less. Without edge supports, deflection shall be
limited to 1/180 of the span or 3/8”, whichever is less.

The form deck shall be either smooth or composite. Composite decking shall not be used as
reinforcing when designing for concentrated loads (wheel loads). The decking shall be galvanized
in accordance with ASTM A525 (G60)

Concrete deck design shall be performed by the Bridge manufacturer. Concrete decks shall be
designed for concentrated load as specified in Section 10-16.04(A) 3. Concentrated Loads. The
wheel loads used for deck design shall be distributed per the Structural Engineering Handbook by
Gaylord and Gaylord. The load distribution width is equal to the tire width plus 0.6 times the slab
span but in no case will it be greater than the smallest of the following values:

1. ½ the deck width
2. 75% of the wheel track spacing, or
3. 4’ + 0.06S, per AASHTO, where S = slab span in feet

Structural concrete for bridge decks shall be normal weight concrete and shall have a minimum 28
day compressive strength of 3,000 psi at 28 days.
The surface of deck concrete shall be finished with a transverse rough broomed finish.

Reinforcing shall be A775-Grade 60 for Epoxy coated bars. All bar bends and anchorage shall be in accordance with AASHTO Specifications. Reinforcing bars shall have a minimum clearance above the valleys of the form deck of 1.5", top reinforcing shall have a minimum clearance of 1.5" to the top of deck.

**10-16.06 WELDING:** Welding and weld procedure qualification tests shall conform to the provisions of ANSI/AWS D1.1 “Structural Welding Code”, Latest Edition. Filler metal shall be in accordance with the applicable AWS Filler Metal Specification (i.e. AWS A 5.28 for the GMAW Process). For exposed, bare, unpainted applications of corrosion resistant steels (i.e. ASTM A588 and A847), the filler metal shall be in accordance with AWS D1.1, Section 3.7.3. Welders shall be properly accredited operators, each of whom shall submit certification of satisfactorily passing AWS standard qualification tests for all positions with unlimited thickness of base metal, have a minimum of 6 months experience in welding tubular structures and have demonstrated the ability to make uniform sound welds of the type required.

**10-16.07 SUBMITTALS**

**10-16.07 (A) Submittal Drawings:** Schematic drawings and diagrams shall be submitted to the Engineer for their review after receipt of order. Submittal drawings shall be unique drawings, prepared to illustrate the specific portion of the work to be done. All relative design information such as member sizes, bridge reactions, and general notes shall be clearly specified on the drawings. Drawings shall have cross referenced details and sheet numbers. All drawings shall be signed and sealed by a Professional Engineer who is licensed in the State of California.

**10-16.07 (B) Structural Calculations:** Structural calculations for the bridge superstructure shall be submitted by the bridge manufacturer and reviewed by the approving engineer. All calculations shall be signed and sealed by a Professional Engineer who is licensed in the State of California. The calculations shall include all design information necessary to determine the structural adequacy of the bridge. The calculations shall include the following:

* All AISC allowable stress checks for axial, bending and shear forces in the critical member of each truss member type (i.e. top chord, bottom chord, floor beam, vertical, etc.).
* Checks for the critical connection failure modes for each truss member type (i.e. vertical, diagonal, floor beam, etc.). Special attention shall be given to all welded tube on tube connections (see section 3.3.2 for design check requirements).
* All bolted splice connections.
* Main truss deflection checks.
* U-Frame stiffness checks (used to determine K factors for out-of-plane buckling of the top chord) for all half through or "pony" truss bridges.
* Deck design.

NOTE: The analysis and design of triangulated truss bridges shall account for moments induced in members due to joint fixity where applicable. Moments due to both truss deflection and joint eccentricity must be considered.
10-16.07 (C) Certifications: Welder certifications in compliance with AWS standard qualification tests. Welding procedures in compliance with Section 10-16.08.

10-16.08 FABRICATION

10-16.08 (A) Drain Holes: When the collection of water inside a structural tube is a possibility, either during construction or during service, the tube shall be provided with a drain hole at its lowest point to let water out.

10-16.08 (B) Welds: Special attention shall be given to developing sufficient weld throats on tubular members. Fillet weld details shall be in accordance with AWS D1.1, Section 3.9 (See AWS Figure 3.2). Unless determined otherwise by testing, the loss factor “Z” for heel welds shall be in accordance with AWS Table 2.8. Fillet welds which run onto the radius of a tube shall be built up to obtain the full throat thickness (See Figure 7.1). The maximum root openings of fillet welds shall not exceed 3/16” in conformance with AWS D1.1, Section 5.22. Weld size or effective throat dimensions shall be increased in accordance with this same section when applicable (i.e. fit-up gaps > 1/16”).

![Figure 7.1 Build Up Radius Weld](https://via.placeholder.com/150)

The fabricator shall have verified that the throat thickness of partial joint penetration groove welds (primarily matched edge welds or the flare-bevel-groove welds on underhung floor beams) shall be obtainable with their fit-up and weld procedures. Matched edge welds shall be “flushed” out when required to obtain the full throat or branch member wall thickness.

For full penetration butt welds of tubular members, the backing material shall be fabricated prior to installation in the tube so as to be continuous around the full tube perimeter, including corners. Backing may be of four types:

* A “box” welded up from four (4) plates.
* Two “channel” sections, bent to fit the inside radius of the tube, welded together with full penetration welds.
* A smaller tube section which slides inside the spliced tube.
* A solid plate cut to fit the inside radius of the tube.

Corners of the “box” backing, made from four plates, shall be welded and ground to match the inside corner radii of the chords. The solid plate option shall require a weep hole either in the chord wall above the “high side” of the plate or in the plate itself. In all types of backing, the minimum fit-up tolerances for backing must be maintained at the corners of the tubes as well as across the “flats”.

10-16.08 (C) Quality Certification: Bridge(s) shall be fabricated by a fabricator who is currently certified by the American Institute of Steel Construction to have the personnel, organization, experience, capability, and commitment to produce fabricated structural steel for the category “Major Steel Bridges” as set forth in the AISC Certification Program with Fracture Critical Endorsement. Quality control shall be in accordance with procedures outlined for AISC certification. For painted structures, the fabricator must hold a "Sophisticated Paint Endorsement" as set forth in the AISC certification program. Furthermore, the bridge(s) shall be fabricated in a facility owned and/or leased by the corporate owner of the manufacturer, and fully dedicated to bridge manufacturing.

10-16.09 FINISHING Bare applications of enhanced corrosion resistant steels: All Blast Cleaning shall be done in a dedicated OSHA approved indoor facility owned and operated by the bridge fabricator. Blast operations shall use Best Management Practices and exercise environmentally friendly blast media recovery systems. To aid in providing a uniformly “weathered” appearance, all exposed surfaces of steel shall be blast cleaned in accordance with Steel Structures Painting Council Surface Preparation Specifications No. 7 Brush-Off Blast Cleaning, SSPC-SP7 latest edition. Exposed surfaces of steel shall be defined as those surfaces seen from the deck and from outside of the structure. Stringers, floor beams, lower brace diagonals and the inside face of the truss below deck and bottom face of the bottom chord shall not be blasted.

10-16.10 DELIVERY AND ERECTION: Delivery is made to a location nearest the site which is easily accessible to normal over-the-road tractor/trailer equipment. All trucks delivering bridge materials will need to be unloaded at the time of arrival. The manufacturer will provide detailed, written instruction in the proper lifting procedures and splicing procedures (if required). The method and sequence of erection shall be the responsibility of others. The bridge manufacturer shall provide written inspection and maintenance procedures to be followed by the bridge owner.

10-16.11 BEARINGS: Bridge bearings shall consist of a steel setting or slide plate placed on the abutment or grout pad. The bridge bearing plate which is welded to the bridge structure shall bear on this setting plate. One end of the bridge will be fixed by fully tightening the nuts on the anchor bolts at that end. The opposite end will have finger tight only nuts to allow movement under thermal expansion or contraction.

The bridge bearings shall sit in a recessed pocket on the concrete abutment. Minimum 28-day strength for the abutment concrete shall be 3,000 PSI. The bearing seat shall be a minimum of 16" wide. The step height (from bottom of bearing to top-of-deck) shall be determined by the bridge manufacturer.
10-16.12 FOUNDATIONS: Unless specified otherwise, the bridge manufacturer shall determine the number, diameter, minimum grade and finish of all anchor bolts. The anchor bolts shall be designed to resist all horizontal and uplift forces to be transferred by the superstructure to the supporting foundations. The Contractor shall provide all materials for (including anchor bolts) and construction of the bridge supporting foundations. The Contractor shall install the anchor bolts in accordance with the manufacturer's anchor bolt spacing dimensions.

10-16.13 WARRANTY: The bridge manufacturer shall warrant that it can convey good title to the goods, that they are free of liens and encumbrances and that their steel structure(s) are free of design, material and workmanship defects for a period of ten years from the date of delivery. There are no warranties, expressed or implied with respect to structures sold hereunder which are used, supplied for use or made available for use in any nuclear application of which bridge manufacturer has not been notified in writing at the time of order of the structure(s).

This warranty shall not cover defects in the bridge caused by abuse, misuse, overloading, accident, improper installation, maintenance, alteration or any other cause not expressly warranted. This warranty does not cover damage resulting from or relating to the use of any kind of de-icing material.

Repair, replacement or adjustment, at the sole discretion of the bridge manufacturer, shall be the exclusive remedy for defects under this warranty. Under no circumstances shall the bridge manufacturer be liable for any consequential or incidental damages.

10-16.14 APPROVAL CHECKLIST: The following checklist will be used in the evaluation of all submittals to assure compliance with the Special Specifications for Prefabricated Bridge. This checklist is considered the minimum acceptable requirements for compliance with these specifications. Any deviations from this checklist shall be considered grounds for rejection of the submittal. Any costs associated with delays caused by the rejection of the submittal, due to non-compliance with this checklist, shall be fully borne by the contractor and bridge supplier.

SUBMITTAL DRAWINGS
Data Required to be Shown:

☐ Bridge Elevation
☐ Bridge Cross Section
☐ All Member Sizes
☐ All Vertical Truss Members are Square or Rectangular Tubing
☐ Bridge Reactions
☐ General Notes Indicating
☐ AISC Stress Conformance
☐ Material Specifications to be Followed
☐ Design Live Load
☐ Design Vehicle Load (If Applicable)
☐ Design Wind Load
☐ Other Specified Design Loads
☐ Welding Process
☐ Blast Cleaning
☐ Paint System to be Used (If Applicable)
☐ Paint Color Chart (If Applicable)
☐ Detailed Bolted Splices (If Applicable)
☐ Bolted Splice Location (If applicable)
Signature and Seal of Professional Engineer, licensed in Accordance with Section 10-16.04

**DESIGN CALCULATIONS**
*Data Required to be Shown:*

- Data Input for 3-D Analysis of Bridge
- Joint Coordinates & Member Incidences
- Joint and Member Loads
- Member Properties
- Load Combinations
- AASHTO Member Stress Checks for Each Member Type
- Critical Connection Failure Mode Checks For Each Member Type
- Chord Face Plasticification Checks
- Punching Shear Checks
- Material Failure Checks (Truss Webs)
- Weld Failure Checks (Effective Length)
- Weld Failure Checks (Ultimate)
- Local Buckling of the Main Member Face Checks
- Main Member Yielding Failure Checks
- Main Member Crippling Failure Checks
- Main Member Buckling Failure Checks
- Main Member Shear Failure Checks
- All Bolted Splice Checks (if applicable)
- Main Truss Deflection Checks
- Decking Material Checks
- “U-Frame” Stiffness Checks (if applicable)
- Interior and End Portal Design Checks (if applicable)
- Determination of Top Chord K Factor Based on “U-Frame” Stiffness (if applicable)
- Consideration of Individual Member Moments Due to Truss Deflection, Joint Fixity and Joint Eccentricity

**FABRICATION SUBMITTALS**
*Data Required to be Shown:*

- ** Written Installation Instructions
- ** Written Splicing Instructions
- ** Written Maintenance & Inspection Instructions
- ** Welder Certifications
- ** Welding Procedures
- Material Certifications (if applicable)
- Structural Steel (if applicable)
- Decking (if applicable)
- Structural Bolts (if applicable)
- ** Quality Control Section of AISC Certification Manual (if applicable)
- ** Painter Certifications (if applicable)
- Weld Testing Reports (if applicable)

**NOTE:** These items are required to be submitted along with Submittal Drawings and Design Calculations. Those Fabrication Submittal Items not marked are to be submitted prior to shipment of the bridge.
Appendix A

1/K FOR VARIOUS VALUES OF CL/Pc and n

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Where:

\[ C = \frac{E}{h^2 \left[ h/3I_v + b/2I_b \right]} \]

\( L = \text{Length in inches of one truss panel} \)

\( P_c = \text{Buckling Load} \ (= \text{Top Chord Compression} \times \text{F.S.}) \)

\( n = \text{Number of Panels} \)

10-16.15 PAYMENT: Prefabricated Steel Pedestrian Bridges, of the various lengths, will be paid for at the contract lump sum price, which price shall include full compensation for furnishing all submittals, shop drawings, calculations, labor, materials, transportation, delivery, unloading, erection, tools and equipment, and doing all the work involved in fabrication and installation of the bridge, and any other items necessary to provide a complete installation and no additional allowance will be made therefor.
SECTION 10-17  BRIDGE ABUTMENTS, WING WALLS, FOOTINGS, DRILLED PIERS AND RETAINING WALLS

10-17.01 Bridge Abutments: Bridge abutments, wing walls, footings, drilled piers and retaining walls shall conform to the details and locations shown on the plans, Section 51, "Concrete Structures," of the Caltrans Standard Specifications, the Geotechnical Report, entitled “Geotechnical Study Report, Foss Creek Pathway, Segments 7 & 8, Healdsburg, California” dated November 30, 2017, prepared by RGH Consultants, and these Special Provisions.

10-17.02 Materials:

10-17.02(A) Portland Cement Concrete: Portland cement concrete shall be Class A, minimum 6 sack, conforming to the provisions of Section 90, "Portland Cement Concrete," of the Caltrans Standard Specifications.

10-17.02(B) Reinforcement: Reinforcement shall be Grade 60 conforming to the provisions of Section 52, "Reinforcement," of the Caltrans Standard Specifications.

10-17.02(C) Structural Backfill: Structural backfill to be placed beneath bridge abutments and extending outward to 5 feet beyond outside of footings shall be select fill as defined in the Geotechnical Report.

10-17.02(D) Drain Rock: Drain rock shall meet the requirements for Class 2 Permeable Material, Section 68 of the Caltrans Standard Specifications.

10-17.02(E) Backdrain Pipe: Backdrain pipe shall be 4-inch diameter, rigid perforated pipe. The pipe should be PVC Schedule 40 or ABS with SDR 35 or better

10-17.03 Construction: Bridge abutments, footings, pile cap, wingwalls, retaining walls and drilled piers shall be cast in place. The design, size and elevation of the abutments, footings, pile cap, wingwalls, retaining walls and piers shall be as shown on the plans and as specified in Section 51 “Concrete Structures” and Section 52 “Reinforcement” of the Caltrans Standard Specifications, the Geotechnical Report and these Special Provisions.

Slope excavation for retaining walls shall be at a 1:1 gradient from the back of footing where expansive materials are exposed.

Concrete bridge abutments shall be constructed in accordance with Section 51 of the Caltrans Standard Specifications.

Select fill material should be spread in thin lifts, uniformly moisture-conditioned to near optimum and properly compacted. All structural fills, including those placed to establish site surface drainage, should be compacted to at least 90 percent relative compaction.

Drain rock shall be placed behind retaining walls to a height of three-quarters the height of the retaining wall and to a minimum thickness of 12 inches.
Retaining walls shall be surfaced with a Class 1 surface finish in accordance with Section 51-1.18B, “Class 1 Surface Finish”, of the Caltrans Standard Specifications.

Backdrains shall be provided in locations shown on the Project Plans. Drain pipe shall be bedded in Class 2 permeable fill and sloped to drain to outlets by gravity. The top of the pipe should be at least 8 inches below adjacent grade. The Class 2 permeable material should extend to within 1.5 feet of the surface. The upper 1.5 feet should be backfilled with compacted soil to exclude surface water.

Pier Drilling: Groundwater and caving-prone soil within the planned pier depth was encountered during the geotechnical study. If groundwater is encountered during drilling, it may be necessary to de-water the holes and/or place the concrete by the tremie method. If caving soil is encountered, it may be necessary to case the holes. Difficult drilling in gravelly deposits may be required to achieve the required penetration. The drilling subcontractor should review the geotechnical report, become familiar with site conditions as they pertain to his operation and draw his own conclusions regarding drilling difficulty, suitable drill rigs and the need for casing and dewatering prior to bidding.

In the area of the 40’ bridge foundations, the Contractor shall exercise extreme care when working around the existing Century Link conduits. If the Century Link conduits are in conflict with the bridge foundations, the conduit shall be protected in place and sleeves installed per the details on the plans. Contractor shall also notify Century Link and provide the location of the conduit sleeves for their records.

Century Link Contract Information:

Marlo Shelton, OSPE
510-708-8210
marlo.shelton@centurylink.com

10-17.04 Measurement and Payment: Bridge Abutments/Footings/Pile Cap/Wing Walls will be measured and paid for at the contract price per cubic yard, which price shall include full compensation for furnishing all labor, materials, tools and equipment, and doing all the work involved in constructing Bridge Abutments/Footings/Pile Cap complete in place, including but not limited to, removal and disposal of excavated material, backfill and compaction, concrete testing, forms, concrete, reinforcing steel, surface finish, applying curing material, removing discoloring, backdrains, utility/pipe sleeves and any other items necessary to install bridge abutments/footings/pile cap/wings walls not specifically enumerated in the Caltrans Standard Specifications, these Special Provisions or on the Project Plans, and no additional allowance will be made therefor.

Drilled 30” CIP Piers will be measured and paid for at the contract price per cubic yard, which price shall include full compensation for furnishing all labor, materials, tools and equipment, and doing all the work involved in constructing the drilled CIP piers complete in place, including but not limited to, removal and disposal of excavated material, dewatering, concrete testing, concrete, reinforcing steel, and any other items necessary to install drilled CIP piers not specifically enumerated in the Caltrans Standard Specifications, these Special Provisions or on the Project Plans, and no additional allowance will be made therefor.
Retaining Walls will be measured and paid for at the contract price per cubic yard, which price shall include full compensation for furnishing all labor, materials, tools and equipment, and doing all the work involved in constructing Retaining Walls complete in place, including but not limited to, removal and disposal of excavated material, backfill and compaction, concrete testing, forms, concrete, reinforcing steel, surface finish, applying curing material, removing discoloring, backdrains, and any other items necessary to install retaining walls not specifically enumerated in the Caltrans Standard Specifications, these Special Provisions or on the Project Plans, and no additional allowance will be made therefor.
10-18 SAFETY RAILING

10-18.01 General

Fabrication and installation of safety railings at retaining walls shall conform to the details as shown on the Project Plans, these Special Provisions, and as directed by the Engineer.

10-18.02 Materials

A. All steel material shall conform to the requirements of ASTM A36/A36M, unless otherwise noted on the Plans.
B. All steel material shall be hot-dip galvanized finish according to ASTM A123/A123M.
C. All Stainless steel components shall be ASTM A276, Type 303 or 304.
D. All anchor bolts shall have stainless steel self locking hex nuts. Tack welding of the nut to the anchor bolt may be used in lieu of self locking nuts.
E. Preparation of the hot-dipped galvanized steel for powder coating shall be in accordance with ASTM D7803, Practice for Preparation of Zinc (Hot-Dip Galvanized) Coated Iron and Steel Product and Hardware Surfaces for Powder Coating. Powder coating shall be 4.0 mil average film thickness and in accordance with American Architectural Manufacturer’s Association (AAMA) 2605. Railing powder coating shall be black in color.
F. Adhesive for anchor bolts shall have a minimum bond strength of 2.5 ksi and installed in accordance with manufacturer recommendations. Expansion anchors are not permitted.

10-18.03 Submittals

A. Welder certifications.
B. Shop drawings which specify material sizes, shapes, plans, welds, sections, installation details and finishes per project requirements. Signed and Sealed Shop Drawings to be provided by a Registered Professional Engineer registered in the State of California. Shop drawings shall be reviewed and approved by the City prior to fabrication.
C. Product Data: Submit manufacturer’s data sheets on each product to be used, including, but not limited to, the following:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.
   4. Product data for rail systems and finishes.
   5. Samples of rail materials and finish (minimum 4-inch sections of each type).
   6. Adhesive/Epoxy anchorage system
   7. Powder coating products

10-18.04 Delivery Storage and Handling

A. Materials to be delivered to shall be suitably packaged to prevent damage.
B. Store material at secure location in original packaging until ready to install.
C. Repair or replace damaged finishes to the satisfaction of the City.
10-18.05 Fabrication

A. Fabricate pedestrian railings in accordance with approved shop drawing and field dimensions using mitered and welded joints with bends where indicated on shop drawings.
B. Form bends to uniform radius, free of distortion, twists, cracks and grain separation.
C. Weld all shop assembled connections continuous without undercut and or distortion of rail materials.
D. Remove all burrs and sharp edges from exposed ends of final rail assemblies.
E. Provide metal free from pitting, seam marks, roller marks, grinding marks and stains at areas exposed to view on completed rail sections.

10-18.06 Installation of Railing

A. Install railing system in accordance with the Plans, these Special Provisions, and manufacturer instructions / recommendations.
B. After installation is complete clean product using non-abrasive mild soap and water. Do not utilize any cleaners containing any type of acid.
C. Use touch up kit to repair any areas damaged during installation in accordance with manufacturer recommendations to the satisfaction of the City.

10-18.07 Warranty

A. Contractor shall warrant all work against defects in materials and workmanship for a period of one (1) year, unless otherwise noted, from the date of final acceptance of the project. Contractor shall, within a reasonable time after receipt of written notice thereof, repair defects in materials or workmanship which may develop during said one (1) year period, and any damage to other work caused by such defects or the repairing of same, at his own expense and without cost to the City.

10-18.08 Measurement and Payment

Safety Railing, of the various types and sizes, will be measured and paid for on a lineal foot basis, which price shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in the fabrication and installation including:

- Shop drawings,
- product and material samples,
- field verification of measurements and dimensions,
- welding,
- fabrication,
- anchorage system,
- material storage,
- material testing,
- installation,
- powder coating repairs,
- additional mobilizations,
- clean up,
warranty

and any other work necessary to complete fabrication and installation not specifically enumerated in the Plans or Specifications, and no additional allowance will be made therefore.

The Contractor warrants the work to be performed as specified and free of defects attributed to Contractor's control and workmanship for a period of one year. During such time necessary repairs will be performed by the Contractor at no additional cost to the City.
10-19 PATHWAY LIGHTING

10-19.01 Description: The Contractor furnish all labor, materials, tools and equipment to install pathway lighting and electric service in a complete and workmanlike manner, including pullboxes, conduit, wiring, foundations and light fixtures in accordance with the Project Plans, the electric utility requirements and the California Electrical Code. Fixtures to be supplied for new meter pedestals per the Project Plans.

Prior to trenching operations for the service connections, the Contractor shall coordinate a field meeting with the City Electric Depart staff.

All trench spoils shall be removed from the work area as they are generated.

Conduit: Conduit shall be installed with a minimum of 24 inches of cover. Where existing facilities prevent installing conduit with 24 inches of cover, the Contractor shall depress the new conduit a minimum of 6 inches under the existing facilities without exception. Conduit under existing paved areas shall be installed via trenchless methods or via a "rock saw". Underground buried electric line warning tape shall be installed 12 inches above all conduit.

Pullboxes: Pullboxes shall be installed where required and cleaned out after installation. Lids shall be marked “Street Lighting”.

Conductors: Wire and cable shall be new and shall have size, type of insulation, voltage rating and manufacturer's name permanently marked on outer covering at regular intervals. Wire and cable shall be factory color-coded by integral pigmentation.

Wire shall conform to UL 83 and ANSI C33.8 standards, Federal Specifications JC 30A. Use THHN type of insulation on feeders and branch circuits, unless a different type of insulation is required by the CEC or an agency having jurisdiction over this work.

The copper conductor shall have a 90 percent minimum conductivity and shall be stranded, unless otherwise noted. Minimum wire size shall be No 12 AWG, unless larger gauge is required per plans. Aluminum wire is not acceptable for this work.

Bare ground conductors shall meet Federal Specification QQ-W-343.

Concrete: Concrete for foundations and pads shall conform to Section 90-2 Minor Concrete of the Caltrans Standard Specifications.

Fixture & Luminaire: Pole shall be 14'-0" straight round steel with fluted base per drawings.
Holophane SM A 14 S4J 13 P07 ABG RAL-9017

"Post top" luminaire with led light source, Type III, Lunar optic, photocell receptacle and shorting cap, 120-277V, 3000K.
Holophane AWDE2 P20 30K AS T TDC 6 N S HPSC RAL-9017 (FIXTURE), H PSC NL1X1 (OPTIONS), GVDHSL90 (ACCESSORIES)
10-19.02 Meter Pedestal: The Contractor shall furnish all labor, materials, tools and equipment to install THREE (3) meter pedestals in a complete and workmanlike manner, including pullboxes, conduit, wiring, foundations and pedestal in accordance with the plans, the electric utility requirements and the California Electrical Code, including:

1. 200 amp main breaker.
2. Rated 120/240V, 1φ, 3 wire
3. Bus rated 200 amp
4. NEMA 3R enclosure
5. Continuous welded seams
6. Fully framed side hinged outer door with swaged close tolerance sides for flush fit with top drip lip & closed cell neoprene flange compressed gaskets
7. Separate pull section
8. Service enclosure interior is fabricated from cold rolled steel & powder coated white
9. Full length deadfront with stainless steel hinge and ¼ turn latch & knurled knobs
10. Deadfront hinged on same side as the front door and opens up to 120 degrees
11. Completely prewired in the factory
12. Wiring will be to NEMA IIB standards showing external connections & external equipment
13. Minimum (5) 40/IP circuit breakers (Lighting Circuits) and (1) 20/IP (Control Circuit)
14. 30A 120V (4) pole lighting contactor. To be controlled by photocell mounted on north side of pedestal cabinet
15. 4-jaw or 5-jaw meter socket (as noted on drawings) per City of Healdsburg standards
16. 25 KAIC rated
17. TESCO 27-100 III or City of Healdsburg approved equal.

10-19.03 Measurement and Payment: Pathway Lighting System will be measured and paid for at the contract lump sum price, which price shall include full compensation for furnishing all labor, materials, tools and equipment, and doing all the work involved in construction of new light fixtures, including coordination with the electric utility, excavation, backfill, concrete foundations, anchor bolts, reinforcing steel, conduits, wiring, trenching, pullboxes, meter pedestals, testing and adjustment, cleaning, paint touch-up, pavement and landscape repairs and no additional compensation will be allowed.
10-20 TRAFFIC SIGNAL

10-20.01 General: Traffic signals and payment shall conform to the 2015 provisions in Section 86 - "Electrical Work" and Section 87 “Electrical Systems” of the Caltrans Revised Standard Specifications, CA-MUTCD, and to these Special Provisions. The following are additions and revisions that shall be applied to Section 86 and 87 of the Caltrans Standard Specifications for this project.

Replace the 2nd paragraph of the RSS for section 86-1.02D(3) with:
The warning tape must have a printed message that reads: CAUTION: CITY OF HEALDSBURG FACILITIES BELOW CALL 1 - (707) 431-3346

Add to the end of section 86-1.02F(2)(a):
Conductors size no. 8 or larger must be aluminum except for bonding jumpers and equipment grounding conductors.

Replace insulated in the 2nd paragraph of the RSS for section 86-1.02F(2)(c)(ii) with:
bare

Replace the 14th paragraph of section 86-1.02P(2) with:
Circuit breakers used as disconnects must have a minimum interrupting capacity of 42,000 A, rms, for 120/240 V(ac) services and 30,000 A, rms, for 480 V(ac) services.

Replace the 1st sentence in the 15th paragraph of section 86-1.02P(2) with:
The interior of the enclosure must accept cable-in/cable-out circuit breakers. The circuit breakers must be mounted on nonenergized clips and vertically with the up position of the handle being the ON position.

Replace section 86-1.02Q(3) with:

86-1.02Q(3) Controller Cabinets
86-1.02Q(3)(a) General
The controller cabinet must be a Model 334L, comply with TEES, and be on the Authorized Material List for traffic signal control equipment. The cabinet must have 3 drawer shelves. Each shelf must be attached to the tops of 2 supporting angles with 4 screws.

The cabinet components include:
1. Multiple AC outlet strip
2. RJ-11 modular jack
3. RJ-45 modular jack
4. DC terminal block

86-1.02Q(3)(b) Multiple AC Outlet Strip
The multiple AC outlet strip must:
1. Be 19 inch, rack mountable
2. Have a minimum of 6 receptacle outlets
3. Be rated for 15 A, 125 V(ac)
4. Have internal 12 A, 125 V(ac) circuit breaker
5. Be rated for 36,000 A surge current protection from Hot to Neutral
6. Have an UL 1449 rating for a minimum 400 V
7. Have a minimum 6-foot-long cord

86-1.02Q(3)(c) RJ-11 Modular Jack
The RJ-11 modular jack must:
1. Be DIN rail mounting
2. Have 6 interface positions
3. Be rated for 120 V and 1 A
4. Have dimensions of 2 inches (D) by 1.5 inches (W) by 3.25 inches (H)
5. Have a screw clamp connection

86-1.02Q(3)(d) RJ-45 Modular Jack
The RJ-45 modular jack must:
1. Be DIN rail mounting
2. Have 8 interface positions
3. Be rated for 120 V and 1 A
4. Have dimensions of 2 inches (D) by 1.5 inches (W) by 3.25 inches (H)
5. Have a screw clamp connection

86-1.02Q(3)(e) DC Terminal Block
The DC terminal block must:
1. Be rated for 250 V(ac)/DC voltage and 30 A current
2. Have an operating temperature from -13 to 122 degrees F
3. Have a maximum size of 3.9 inches (D) by 2.7 inches (W) by 2.7 inches (H)
4. Have a wire size for the input terminals of 26-10 AWG solid/strand
5. Have a wire size for the output terminals of 26-12 AWG solid/strand
6. Have a torque of at least 4.4 in-lb

Replace Reserved in section 86-1.02Q(4)(b) with:
A Type A telephone demarcation cabinet consists of mounting boards, a junction box, a circuit breaker, outlets, a terminal block, and an outlet plate.
The mounting backboard, bottom shelf, and shelf supports must be made of 1/2-inch-thick, ACX-grade plywood.
The cabinet and hinged cover must be a NEMA 3R type with a minimum material thickness of 0.080 inch.
The cabinet must have a hasp lock and a bolted slip fitter that allows mounting to a 4-1/2-inch-diameter steel pedestal.

Replace Reserved in section 86-1.02Q(4)(d) with:
A Type C telephone demarcation cabinet consists of mounting boards, a thermostat, fan, an outlet box, a circuit breaker, and an outlet plate.
The mounting panel must be 3/4-inch-thick, ACX-grade plywood.
The cabinet must be made of 0.125-inch-thick anodized aluminum.
Ventilation louvers must be located on the door.
The cabinet door must be secured with drawn latches, lockable with a padlock.
The fan must be located in a ventilator housing and be controlled thermostatically. The thermostat control must have a range from 80 to 130 degrees F.

The thermostat and fan circuit must be protected with a fuse rated for 175 percent of the motor capacity. The fan capacity must be a minimum of 25 cfm.

Add to the list in the 2nd paragraph of section 86-1.02R(4):
4. Be made of metal.

Replace the 1st sentence in the 1st paragraph of the RSS for section 86-1.02U with:
The housing for a push button assembly must be made of UV-stabilized, self-extinguishing structural plastic.

Add to the end of the RSS for section 87-19.02H:
Fiber optic markers must be labeled as shown including phone number (707) 431-3346.

Add to the list in the 1st paragraph of the RSS for section 87-19.02I:
3. ST, SC, FC, LC, or MT-RJ and as shown

Add between the 12th and 13th paragraphs of the RSS for section 87-19.03C:
Use the county abbreviations for the fiber optic cable identification as shown in the following table:

<table>
<thead>
<tr>
<th>County</th>
<th>Abbreviations</th>
<th>County</th>
<th>Abbreviations</th>
<th>County</th>
<th>Abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sonoma</td>
<td>SON</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Add to the end of the RSS for section 87-19.03:

87-19.03H Transportation Management Center Cable Installation
Notify Engineer 7 days before scheduling any work. Schedule work within the hours shown in the following table:

<table>
<thead>
<tr>
<th>Location</th>
<th>Times of operations, except on legal holidays</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Hub</td>
<td>7:00 am to 4:00 pm, Monday to Friday</td>
</tr>
<tr>
<td></td>
<td>7:00 am to 3:30 pm, Saturday to Sunday</td>
</tr>
</tbody>
</table>

Do not block access to the equipment in the communication hub. Maintain a neat workspace. Access only hardware, electronics, and peripheral equipment necessary to perform the work.

10-20.02 Measurement and Payment:

Traffic Signal Installation shall be measured and paid for at the contract lump sum price, which price shall include full compensation for furnishing all labor, materials, tools, equipment, pick up, delivery, on-site storage, to install the traffic signals, complete in place, including but not limited to all excavation and backfill, foundations, standards, steel pedestals and posts, conduit, conductors, wiring, traffic signals and fittings, electrical components, pedestrian signal faces, pull boxes, and luminaires, as shown on the plans and as specified herein, and no additional compensation will be allowed.
10-21 WATER MAIN CONSTRUCTION

10-21.01 Description: All water mains and related appurtenances shall be constructed as shown on the Plans in accordance with the City of Healdsburg Standards, Details and Specifications.

10-21.02 Water Service Tubing: All water services shall be polyethylene Class 200 SDR-9 in accordance with AWWA C901 and City of Healdsburg Standards.

10-21.03 Water Service Components: Water service components shall be in accordance with AWWA C-800 as applicable. All brass components shall conform to California Health and Safety Code Section 116875, Section 2, containing no more than 0.25% lead in any wetted surface area parts. All components shall be per the City’s Approved Materials List.

10-21.04 Water Meter and Reduced Pressure Backflow Assembly Boxes: Water meter and Reduced Pressure Backflow Assembly boxes shall be bedded on a minimum of 3” thick of ¾” drain rock, or other clean material with typical sand equivalent of 20 minimum, uncontaminated by native soil, against compacted or undisturbed base. The gravel bed shall extend to a 4” minimum beyond all sides of the meter box. Box shall be set flush with top of curb, sidewalk or ground, whichever is applicable.

10-21.05 Trench Excavation, Backfill, and Resurfacing: Excavation, backfill, and resurfacing of the water service trench under this contract shall conform to City Standard ST08 and these Special Provisions.

10-21.06 Hot Taps: The Contractor shall install hot taps at the location(s) shown on the plans, as directed by the Engineer, and in accordance with City Standards and these Special Provisions.

For hot tap connections, the Contractor shall provide and install the tapping sleeve, and related hardware and shall make the hot tap under City inspection. No hot tap will be made within 4 feet of a joint as measured from joint to centerline of hot tap pipe.

10-21.06 Measurement and Payment

1” Water Service, Meter and Reduced Pressure Backflow Assembly will be paid for at the contract price each of the specified sizes, which price shall include full compensation for furnishing all labor, materials, tools, equipment and doing all work involved, including, as specified herein:
- excavation,
- backfilling,
- hot tap and tapping sleeve,
- reduced pressure backflow assembly and box,
- polyethylene water service tubing,
- water meter and ERT,
- inlet and outlet meter valves,
- water meter boxes,
- fittings and saddles,
• tracer wire,
• water tubing from meter to reduced pressure backflow assembly,
• pressure testing,
• chlorinating,
• on site tie-ins,
• testing of backflow prevention assemblies,

and any other work required for constructing 1” water service not specifically enumerated on the plans and specifications, and no additional allowance will be made therefore.
10-22 MOBILIZATION

10-22.01 Mobilization: Mobilization shall conform to the provisions in Section 9-1.16D, “Mobilization,” of the Caltrans Standard Specifications and these Special Provisions.

Mobilization shall include the obtaining of all permits, moving onto the site of all equipment, and other construction facilities as required for the proper performance and completion of the work.

Mobilization shall include but not be limited to the following principal items:

1. Signed Contract by the City and the Contractor.
2. Completion of all tasks and submittal of all documents (bonds, insurance, schedule, etc.) required as conditions of issuing the Notice to Proceed.
3. Moving all Contractor’s equipment required for operations onto the site.
4. Installing temporary construction water supply, power, wiring and lighting facilities, as required.
5. Providing field office trailers if needed by the Contractor.
6. Providing all on-site communication facilities, including telephones and radio pagers.
7. Obtaining all required permits.
8. Having all OSHA required notices and establishment of safety programs.
9. Attendance at Pre-Construction Conference of Contractor’s principal construction personnel.
10. Physical verification (potholing) of existing utilities.
11. Beginning work on the project or at the subject site as applicable.

10-22.02 Measurement and Payment

Mobilization will be measured and paid for at the contract lump sum price, which price shall include full compensation for furnishing all labor, materials, tools and equipment, and doing all work involved in mobilization, as specified herein, and no additional allowance will be made therefor.

No payment for mobilization, or any part thereof will be approved for payment under the contract until all applicable mobilization items listed above have been completed.
ENVIRONMENTAL PERMITS

APPENDIX A
March 5, 2020

Regulatory Division

Subject: File Number SPN-2019-00308

Ms. Jemma Williams
WRA
4225 Hollis St.
Emeryville, California 94608
williams@wra-ca.com

Dear Ms. Williams,

This correspondence is in reference to your submittal of July 11, 2019, on behalf of the City of Healdsburg concerning Department of the Army (DA) authorization for the construction of Foss Creek Pathway, Segments 7 and 8 located adjacent to the Northwestern Pacific rail line, in the City of Healdsburg, Sonoma County, California; Latitude 38.6261°, Longitude -122.87417°.

Work within U.S. Army Corps of Engineers (Corps) jurisdiction will include extending Foss Creek Pathway, a Class I (off-street) paved bike and pedestrian path, to parallel Foss Creek and/or the North Coast Railroad Authority Railroad from the flood control detention basin adjacent to the Carson Warner Memorial Skate Park to the intersection of Grove Street and Healdsburg Avenue along the western edge of the City of Healdsburg. Work will require placement of fill material within 0.05 acre of seasonal wetlands tributary to Foss Creek. All work shall be completed in accordance with the plans and drawings titled: “Plans for the improvement of Foss Creek Pathway Segments 7 and 8 for the City of Healdsburg,” dated January 2019, in 50 sheets, provided in your Preconstruction Notification.

Section 404 of the Clean Water Act (CWA) generally regulates the discharge of dredged or fill material below the plane of ordinary high water in non-tidal waters of the United States, below the high tide line in tidal waters of the United States, and within the lateral extent of wetlands adjacent to these waters. Section 10 of the Rivers and Harbors Act (RHA) generally regulates construction of structures and work, including excavation, dredging, and discharges of dredged or fill material occurring below the plane of mean high water in tidal waters of the United States; in former diked baylands currently below mean high water; outside the limits of mean high water but affecting the navigable capacity of tidal waters; or below the plane of ordinary high water in non-tidal waters designated as navigable waters of the United States. Navigable waters of the United States generally include all waters subject to the ebb and flow of the tide, and/or all waters presently used, or have been used in the past, or may be susceptible for future use to transport interstate or foreign commerce. A Preliminary Jurisdictional Determination (JD) has been completed for your site. Preliminary JDs are written indications that there may be waters of the U.S. on a parcel or indications of the approximate location(s) of waters of the U.S. on a parcel. Preliminary JDs are advisory in nature and may not be appealed.
While this preliminary JD was conducted pursuant to Regulatory Guidance Letter No. 16-01, *Jurisdictional Determinations*, it may be subject to future revision if new information or a change in field conditions becomes subsequently apparent. The basis for this preliminary JD is fully explained in the enclosed Preliminary Jurisdictional Determination Form. You are requested to sign and date this form and return it to this office within two weeks of receipt. Please see the enclosed Preliminary JD map titled “Preliminary Jurisdictional Determination, Pursuant to Section 404 Clean Water Act, Foss Creek Pathway 7 & 8, Healdsburg, Sonoma County, California” and dated March 4, 2020 (enclosure 1).

Based on a review of the information in your submittal, the project qualifies for authorization under Department of the Army Nationwide Permit (NWP) NWP 42 Recreational Facilities (82 Fed. Reg. 1860, January 6, 2017), pursuant to Section 404 of the CWA of 1972, as amended (33 U.S.C. § 1344 et seq.). The project must be in compliance with the terms of the NWP cited on our website (www.sgn.usace.army.mil/Portals/68/docs/regulatory/NWP/NWP17_42.pdf), the general conditions of the Nationwide Permit Program (www.sgn.usace.army.mil/Portals/68/docs/regulatory/NWP/NWP17_GC.pdf), and the San Francisco District regional conditions (www.sgn.usace.army.mil/Portals/68/docs/regulatory/NWP/NWP17_RC.pdf). You must also be in compliance with any special conditions specified in this letter for the NWP authorization to remain valid. Non-compliance with any term or condition could result in the revocation of the NWP authorization for your project, thereby requiring you to obtain an Individual Permit from the Corps. This NWP authorization does not obviate the need to obtain other State or local approvals required by law.

This verification will remain valid until March 18, 2022, unless the NWP authorization is modified, suspended, or revoked. Activities which have commenced (i.e., are under construction) or are under contract to commence in reliance upon a NWP will remain authorized provided the activity is completed within 12 months of the date of a NWP expiration, modification, or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 C.F.R. § 330.4(e) and 33 C.F.R. § 330.5(c) or (d). This verification will remain valid if, during the time period between now and March 18, 2022, the activity complies with any subsequent modification of the NWP authorization. The Chief of Engineers will periodically review NWPs and their conditions and will decide to modify, reissue, or revoke the permits. If a NWP is not modified or reissued within five years of its effective date, it automatically expires and becomes null and void. It is incumbent upon you to remain informed of any changes to the NWPs. Changes to the NWPs would be announced by Public Notice posted on our website (www.sgn.usace.army.mil/Missions/Regulatory/Public-Notices.aspx). Upon completion of the project and all associated mitigation requirements, you shall sign and return the Certification of Compliance, enclosure 2, verifying that you have complied with the terms and conditions of the permit.
This authorization will not be effective until you have obtained a Section 401 water quality certification from the North Coast Regional Water Quality Control Board (RWQCB). If the RWQCB fails to act on a valid request for certification within 60 days after receipt of a complete application, the Corps will presume a waiver of water quality certification has been obtained. You shall submit a copy of the certification to the Corps prior to the commencement of work.

You may refer any questions on this matter to William Connor by telephone at (415) 503-6631 or by e-mail at William.M.Connor@usace.army.mil. All correspondence should be addressed to the Regulatory Division, North Branch, referencing the file number at the head of this letter.

The San Francisco District is committed to improving service to our customers. The Regulatory staff seeks to achieve the goals of the Regulatory Program in an efficient and cooperative manner while preserving and protecting our nation’s aquatic resources. If you would like to provide comments on our Regulatory Program, please complete the Customer Service Survey Form available on our website: http://www.spn.usace.army.mil/Missions/Regulatory.aspx

Sincerely,

William M. Connor
Senior Project Manager
Regulatory Division

Enclosures

cc:
City of Healdsburg, Larry Zimmer, lzimmer@ci.healdsburg.ca.us
WRA, Rei Scampavia, scampavia@wra-ca.com
RWQCB, Kaete King, kaete.king@waterboards.ca.gov
Figure 3. Aquatic Resources Delineation Mapbook
Page 1
Coastland Healdsburg CEQA and Permitting
Healdsburg, Sonoma County, California
Figure 3. Aquatic Resources Delineation Mapbook

Page 2

Coastland Healdsburg CEQA and Permitting
Healdsburg, Sonoma County, California
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Page 3
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Healdsburg, Sonoma County, California
Figure 3. Aquatic Resources
Delineation Mapbook
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Coastland Healdsburg CEQA and Permitting
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Figure 3. Aquatic Resources Delineation Mapbook
Page 7
Coastland Healdsburg CEQA and Permitting
Healdsburg, Sonoma County, California
PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: March 5, 2020

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:
Jemma Williams
WRA
4225 Hollis St.
Emeryville, California 94608
williams@wra-ca.com

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:
San Francisco District, Foss Creek Pathway 7&8 Project, SPN-2019-00308

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:
(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

<table>
<thead>
<tr>
<th>Site number</th>
<th>Latitude (decimal degrees)</th>
<th>Longitude (decimal degrees)</th>
<th>Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)</th>
<th>Type of aquatic resource (i.e. wetland vs. non-wetland waters)</th>
<th>Geographic authority to which the aquatic resource “may be” subject (i.e. Section 404 or Section 10/404)</th>
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<td>-122.87426</td>
<td>0.12 ACRES</td>
<td>Non-wetland</td>
<td>Section 404</td>
</tr>
</tbody>
</table>
1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.

2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there "may be" waters of the U.S. and/or that there "may be" navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:
SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

☒ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
  Map:
  ☒ Data sheets prepared/submitted by or on behalf of the PJD requestor.
  ☐ Office concurs with data sheets/delineation report.
  ☐ Office does not concur with data sheets/delineation report. Rationale:

☐ Data sheets prepared by the Corps:__________
☐ Corps navigable waters’ study:__________
☐ U.S. Geological Survey Hydrologic Atlas:
  ☐ USGS NHD data.
  ☐ USGS 8 and 12 digit HUC maps.
☐ U.S. Geological Survey map(s). Cite scale & quad name:__________
☐ National Resources Conservation Service Soil Survey. Citation:__________
☐ National wetlands inventory map(s). Cite name:
☐ State/local wetland inventory map(s):__________
☐ FEMA/FIRM maps:__________
☐ 100-year Floodplain Elevation is: ________. (National Geodetic Vertical Datum of 1929)
☐ Photographs: ☐ Aerial (Name & Date): ________
  or ☐ Other (Name & Date): ________
☐ Previous determination(s). File no. and date of response letter:__________
☐ Other information (please specify):__________

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

_________________________________________  ______________________________________
Signature and date of                        Signature and date of
Regulatory staff member                      person requesting PJD
completing PJD                               (REQUIRED, unless obtaining
  (REQUIRED, unless obtaining          the signature is impracticable) ¹
the signature is impracticable) ¹

¹ Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.
Permittee: City of Healdsburg, Larry Zimmer

File Number: SPN-2019-00308

Certification of Compliance for Nationwide Permit

“I hereby certify that the work authorized by the above referenced File Number and all required mitigation have been completed in accordance with the terms and conditions of this Nationwide Permit authorization.”

(Permittee) (Date)

Return to:
William Connor
U.S. Army, Corps of Engineers
San Francisco District
Regulatory Division, CESPN-R-N
450 Golden Gate Ave., 4th Floor
San Francisco, CA  94102-3404
May 27, 2020

Larry Zimmer
City of Healdsburg
401 Grove Street
Healdsburg, CA, 95448

Dear Mr. Zimmer:

Amendment of Lake or Streambed Alteration Agreement, Notification No. 1600-2019-0253-R3, Foss Creek Pathway Segments 7 and 8 Project

The California Department of Fish and Wildlife (CDFW) has received your request to amend Lake or Streambed Alteration Agreement 1600-2019-0253-R3 (Agreement) and the required fee in the amount of $457.25 for a minor amendment. Your request to amend the Agreement includes the following changes:

- Permanent impacts to riparian habitat as described in the Project Description, will be reduced from 0.152 acres to 0.11 acres.
- Based on the revision above, the permanent impacts to riparian habitat in Measure 3.1 will be revised from 0.152 acres to 0.11 acres.

CDFW hereby agrees to amend the agreement as requested. All conditions in the Agreement remain in effect.

Copies of the Agreement and this amendment must be readily available at project worksites and must be presented when requested by a CDFW representative or agency with inspection authority.

If you have any questions regarding this letter, please contact James Hansen, Environmental Scientist at (707) 576-2869 or by email at James.Hansen@Wildlife.ca.gov.

Sincerely,

Craig J. Weightman, Environmental Program Manager
Bay Delta Region

ecc: WRA
Jemma Williams; williams@wra-ca.com

California Department of Fish and Wildlife, Bay Delta Region
Lieutenant J. Jones, Law Enforcement Division
Warden J. Reed, Law Enforcement Division

Conserving California’s Wildlife Since 1870
November 20, 2019

Larry Zimmer
City of Healdsburg
401 Grove Street
Healdsburg, CA 95448

Dear Mr. Zimmer:

Final Lake or Streambed Alteration Agreement, Notification No. 1600-2019-0253-R3, Foss Creek Pathway Segments 7 and 8 Project

Enclosed is the final Streambed Alteration Agreement (Agreement) for the Foss Creek Pathway Segments 7 and 8 Project (Project). Before the California Department of Fish and Wildlife (CDFW) may issue an Agreement, it must comply with the California Environmental Quality Act (CEQA). In this case, CDFW acting as a responsible agency filed a Notice of Determination (NOD) within five working days of signing the Agreement. The NOD was based on information contained in the Mitigated Negative Declaration prepared by the lead agency.

Under CEQA, the filing of an NOD triggers a 30-day statute of limitations period during which an interested party may challenge the filing agency's approval of the Project. You may begin the Project before the statute of limitations expires if you have obtained all necessary local, state, and federal permits or other authorizations. However, if you elect to do so, it will be at your own risk.

If you have any questions regarding this letter, please contact James Hansen, Environmental Scientist at (707) 576-2869 or by email at James.Hansen@Wildlife.ca.gov.

Sincerely,

Craig J. Weightman, Environmental Program Manager

cc: City of Healdsburg
Jemma Williams
lzimmer@ci.healdsburg.ca.us

California Department of Fish and Wildlife
Lieutenant J. Jones, Law Enforcement Division
Warden J. Reed, Law Enforcement Division

Conserving California's Wildlife Since 1870
STREAMBED ALTERATION AGREEMENT

NOTIFICATION NO. 1600-2019-0253-R3
Foss Creek

CITY OF HEALDSBURG
FOSS CREEK PATHWAY SEGMENTS 7 AND 8

This Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Wildlife (CDFW) and City of Healdsburg (Permittee) as represented by Larry Zimmer.

RECITALS

WHEREAS, pursuant to Fish and Game Code section 1602, Permittee notified CDFW on July 15, 2019 that Permittee intends to complete the project described herein.

WHEREAS, pursuant to Fish and Game Code section 1603, CDFW has determined that the project could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, Permittee agrees to complete the project in accordance with the Agreement.

PROJECT LOCATION

The project is located on Foss Creek and an unnamed tributary, paralleling Highway Grove Street to the west and Healdsburg Avenue to the East, in the City of Healdsburg, in the County of Sonoma, State of California; Latitude 38.62611, Longitude -122.8742.

PROJECT DESCRIPTION

The project is limited to the construction of Segments 7 and 8 of the Foss Creek Pathway. These trail segments will include one 10-foot wide and 60-foot long prefabricated bridge crossing of Foss Creek with abutments above top of bank, placed at a minimum of 1-foot above the 100-year flood elevation (Exhibit A: Figure 2, page 1). The project also includes one 14-foot long and 18-inch diameter culvert placed on a section of a seasonal wetland stream that is a tributary to Foss Creek (Exhibit A: Figure
2, page 7). The impacts associated with this project are 0.152 acres along 14.33 linear feet, and five native riparian trees will be removed.

PROJECT IMPACTS

Existing fish or wildlife resources the project could substantially adversely affect include:
- common aquatic organisms
- nesting birds
- aquatic habitat
- riparian habitat
- riparian vegetation
- upland habitat
- upland vegetation
- water quality

The adverse effects the project could have on the fish or wildlife resources identified above include:
- disruption to aquatic organisms
- disruption to nesting birds and other wildlife
- disruption of aquatic and riparian habitat
- alter the existing drainage pattern of the site in a manner which would result in
- on- or off-site erosion
- change in contour of bed, channel or bank
- change in gradient of bed, channel or bank
- change in channel cross-section
- loss of bank stability during construction
- soil compaction or other disturbance to soil layer
- increased bank erosion during construction
- increased turbidity
- disturbance from project activity
- sort term release of contaminates

MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES

1. Administrative Measures

Permittee shall meet each administrative requirement described below.

1.1 Documentation at Project Site. Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the project site at all times and shall be presented to CDFW personnel, or personnel from another state, federal, or local agency upon request.
1.2 Providing Agreement to Persons at Project Site. Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons who will be working on the project at the project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.

1.3 Notification of Conflicting Provisions. Permittee shall notify CDFW if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the project by another local, state, or federal agency. In that event, CDFW shall contact Permittee to resolve any conflict.

1.4 Project Site Entry. Permittee agrees that CDFW personnel may enter the project site at any time to verify compliance with the Agreement.

1.5 Notify CDFW Prior to Work. The Permittee shall notify CDFW by email at least five working days prior to commencement of covered activities. See contact information below.

1.6 No Trespass. To the extent that any provisions of this Agreement provide for activities that require the Permittee to traverse another owner's property, such provisions are agreed to with the understanding that the Permittee possesses the legal right to traverse. In the absence of such right, any such provision is void.

1.7 Unauthorized Take. The Permittee is required to comply with all applicable State and Federal laws, including the California Endangered Species Act (CESA) and Federal Endangered Species Act. This Agreement does not authorize the take of any State or Federal endangered or threatened species. Liability for any take or incidental take of such listed species remains the responsibility of the Permittee for the duration of the project. Any unauthorized take of such listed species may result in prosecution and nullification of the Agreement.

1.8 Fish Passage. The project shall be in compliance with Fish and Game Code section 5901 and shall not install or maintain any device or contrivance that prevents, impedes, or tends to prevent or impede, the passing of fish up and down stream.

1.9 Designated Representative. Before initiating ground-disturbing project activities, Permittee shall designate a representative (Designated Representative) responsible for communications with CDFW and overseeing compliance with this Agreement. The Permittee shall notify CDFW in writing 5 days prior to commencement of project activities of the Designated Representative’s name, business address, and contact information. Permittee shall notify CDFW in writing if a substitute Designated Representative is selected or identified at any time during the term of this Agreement.
2. Avoidance and Minimization Measures

To avoid or minimize adverse impacts to fish and wildlife resources identified above, Permittee shall implement each measure listed below.

Work Period and Design

2.1 Work Period. All work shall begin on or after June 15 and all work shall be completed by October 15. Revegetation work is not limited to this work window but must be completed within the same season as project activities. If more time is needed to complete Project activities, the work period may be modified in writing on a week-by-week basis by a CDFW representative. Requests for a work period extension shall: 1) describe the extent of work already completed; 2) detail the activities that remain to be completed; 3) detail the time required to complete each of the remaining activities; 4) provide photographs of both the current work completed and the proposed site for continued work; and 5) include an assessment of additional biological impacts as a result of the work extension.

2.2 Conduct Work During Daylight Hours. Work is restricted to daylight hours (one hour after sunrise to sunset).

2.3 Work According to Documents. Except as they are contradicted by measures required by this Agreement, all work shall be conducted in conformance with the project description above and the avoidance, minimization, and mitigation measures provided in the notification package.

2.4 Work according to plans. All work shall be completed according to the plans, and all associated appendices and attachments, submitted to CDFW entitled Coastland Healdsburg CEQA and Permitting, prepared by WRA, January 2019 (Exhibit A). If the Permittee finds it necessary to update project plans prior to construction, the updated plans will be submitted to CDFW at least 30 days prior to beginning project activities to determine if an Amendment to this Agreement is required. Project activities shall not proceed until CDFW has accepted the updated plans in writing. At the discretion of CDFW, minor plan modifications may require an amendment to this Agreement. At the discretion of the CDFW, if substantial changes are made to the original plans this Agreement becomes void and the Permittee shall submit a new notification.

2.5 Best Management Practices. All Best Management Practices (BMPs) and other conditions as submitted in the Notification shall be implemented as part of this project, unless otherwise conditioned herein.
Weather Restrictions

2.6 **Work Period in Dry Weather Only.** Project work shall be restricted to dry weather as allowed during the work period specified in Measure 2.1. Construction shall be timed with awareness of precipitation forecasts and potential increases in stream flow. Construction activities shall cease when the National Weather Service (NWS) 72-hour weather forecast indicates a 30 percent chance or higher of precipitation. All necessary erosion control measures shall be implemented prior to the onset of precipitation. Construction equipment and materials shall be removed if inundation is likely. Construction activities halted due to precipitation may resume when precipitation ceases and the NWS 72-hour weather forecast indicates less than a 30 percent chance of precipitation. No work shall occur during a dry-out period of 24 hours after the above referenced wet weather. Weather forecasts shall be documented upon request by CDFW.

Wildlife Protection and Prevention

2.7 **Biological Monitor On-site.** The Permittee shall designate a person to monitor on-site compliance with all conditions of this Agreement, within CDFW jurisdictional area. The monitor shall have the authority to halt project activities in order to comply with the terms of this Agreement and otherwise avoid impacts to species and or habitats.

2.8 **Qualified Biologist(s) and Monitor(s).** Qualified Biologist(s) and Biological Monitor(s) shall meet the following requirements.

- A qualified biologist is an individual who shall have a minimum of five years of academic training and professional experience in biological sciences and related resource management activities with a minimum of two years conducting surveys for each species that may be present within the project area.

- A biological monitor is an individual who shall have academic and professional experience in biological sciences and related resource management activities as it pertains to this project, experience with construction-level biological monitoring, be able to recognize species that may be present within the project area, and be familiar with the habits and behavior of those species.

2.9 **Training Session for Personnel.** Permittee shall ensure that a CDFW-approved qualified biologist conducts an education program for all persons employed on the project prior to performing covered activities. Instruction shall consist of a presentation by the designated qualified biologist that includes a discussion of the biology and general behavior of any sensitive species that may be in the area, how they may be encountered within the work area, and procedures to follow when they are encountered. The status of CESA-listed species including legal protection,
penalties for violations and project-specific protective management measures provided in this Agreement shall be discussed. Interpretation shall be provided for non-English speaking workers, and the same instruction shall be provided for any new workers prior to on-site project activity. Copies of the Agreement for this project shall be maintained at the worksite with the project supervisor. Permittee or designated biologist shall prepare and distribute wallet-sized cards or a factsheet handout containing this information for workers to carry on-site. Upon completion of the program, employees shall sign an affidavit stating they attended the program and understand all protection measures. These forms shall be filed at the Permittee’s office and be available to CDFW upon request.

2.10 **Trenching.** At the end of each workday all trenches and holes greater than one foot deep shall be covered to prevent wildlife from entering. When trenches cannot be fully covered, an escape ramp shall be placed at each end of any constructed open trench to allow any wildlife that may have become entrapped in the trench to climb out overnight. The ramp may be constructed of either dirt fill or wood planking or other suitable material that is placed at an angle no greater than 30 degrees.

2.11 **Pipes, Hoses, and Similar Structures.** All pipes, hoses, or similar structures less than 12 inches in diameter shall be closed or covered to prevent animal entry. All construction pipes or similar structures greater than 2 inches in diameter stored at the project site overnight shall be inspected thoroughly for wildlife before the pipe or similar structure is buried, capped, used, or moved.

2.12 **Special Status Species Encountered During Work.** If Permittee encounters special status species during the conduct of Project Activity, work shall be suspended, CDFW notified, and conservation measures shall be developed in agreement with CDFW prior to re-initiating the activity.

2.13 **No Equipment in Stream.** No equipment shall be operated within the live stream.

2.14 **No Excavation in Stream.** No excavation shall occur in the portion of the stream bed where surface water is present or anticipated during the term of this agreement.

2.15 **Refueling of Equipment.** Refueling of project related equipment and vehicles may not occur within 175 feet of any water body, or anywhere that spilled fuel could drain to a water body. Tarps or similar material shall be placed underneath the project related equipment and vehicles, when refueling, to capture incidental spillage of fuels. Equipment and vehicles operating in the project area shall be checked and maintained daily to prevent leaks of fuels, lubricants, or other liquids.
Bridge Design and Construction

2.16 **Bottom of Bridges Above 100 Year Mark.** The bottom of bridge superstructure shall be of sufficient height to allow unrestricted passage of water and debris during 100-year storms. As long as the bridge remains, the Permittee is responsible for maintaining free-flowing conditions under the bridge and clearing of all debris. Substantial changes to the bed, channel or bank necessary for maintenance may require separate notification under Fish and Game Code section 1602(a).

2.17 **Abutment Location.** Abutments shall be located outside the stream banks and above ordinary high water.

2.18 **Concrete – Primary Containment.** The Permittee shall install the necessary containment structures to control the placement of wet concrete and to prevent it from entering into the channel outside of those structures. No concrete shall be poured within the high flow line if the 15-day weather forecast indicates any chance of rain greater than 20 percent.

2.19 **Cement Based Products.** All cement-based products (concrete, mortar, etc.) poured or applied wet onsite shall be excluded from the wetted channel or areas where they may come into contact with water for a period of 30 days after application. During that time the product shall be kept moist and runoff from the product shall not be allowed to enter the stream. Commercial sealants may be applied to the product surface or mixture where difficulty in excluding flow for a long period may occur. If sealant is used, water shall be excluded from the site until the sealant is cured.

2.20 **Concrete – Designated Monitor.** At all times when the Permittee is pouring or working with wet concrete within CDFW jurisdictional area there shall be a designated monitor to inspect the containment structures and ensure that no concrete or other debris enters into the channel outside of those structures.

Culvert Design and Construction

2.21 **Culvert Design.** The culvert design shall be:

- Adequately sized to convey the 100-year storm flow, including debris and sediment loads;
- Properly aligned within the channel and otherwise engineered, installed and maintained, to resist washout and erosion of the stream bed, stream banks and/or fill;
2.22 **Culvert Backfill.** Backfill material shall be free of rocks, limbs or other debris that could dent the pipe or allow water to seep around the pipe. The crossing backfill base and sidewall material shall be compacted before the pipe is placed in its bed. A minimum amount of fill material shall be used for the bed to reduce seepage into and along the fill.

2.23 **Culverts shall be kept open.** Permanent culverts shall be maintained and kept open year round. The Permittee is responsible for such maintenance as long as the culvert remains in the stream. Substantial changes to the bed, channel or bank necessary for maintenance may require separate notification under Fish and Game Code section 1602(a).

**Nesting Bird Surveys, Prohibitions, and Buffers**

2.24 **Nesting Bird Surveys.** If construction, grading, vegetation removal, or other project-related improvements are scheduled during the nesting season of protected raptors and migratory birds, January 31 to September 1, a focused survey for active nests of such birds shall be conducted by a qualified biologist within 7 days prior to the beginning of project-related activities. The results of the survey shall be sent to James Hansen, Environmental Scientist by email (James.Hansen@Wildlife.ca.gov) prior to the start of project activities. Refer to Notification Number 1600-2019-0253-R3 when submitting the survey to CDFW. If an active nest is found, Permittee shall consult with the United States Fish and Wildlife Service (USFWS) and CDFW regarding appropriate action to comply with the Migratory Bird Treaty Act of 1918 and Fish and Game Code. If a lapse in project-related work of 7 days or longer occurs, another focused survey and if required, consultation with CDFW and USFWS, shall be required before project work can be reinitiated.

2.25 **Breeding Bird Nest Take Prohibition.** Permittee shall avoid active nests occurring near the project site. Permittee is responsible to comply with the Migratory Bird Treaty Act of 1918 and the Fish & Game Code of California, section 3503.

2.26 **Active Nest Buffers.** If an active nest is found during surveys, Permittee or the qualified biologist shall consult with CDFW and USFWS regarding appropriate action to comply with State and federal laws. Active nest sites shall be designated as “Ecologically Sensitive Areas” (ESA) and protected (while occupied) during project work by demarking a “No Work Zone” around each nest site.

- Buffer distances for bird nests should be site specific and an appropriate distance, as determined by a qualified biologist. The buffer distances should be specified to protect the bird's normal bird behavior to prevent nesting failure or abandonment. The buffer distance recommendation should be developed after field investigations that evaluate the bird(s) apparent distress in the presence of people or equipment at various distances. Abnormal nesting behaviors which
may cause reproductive harm include, but are not limited to, defensive flights/vocalizations directed towards project personnel, standing up from a brooding position, and flying away from the nest. The qualified biologist shall have authority to order the cessation of all nearby project activities if the nesting birds exhibit abnormal behavior which may cause reproductive failure (nest abandonment and loss of eggs and/or young) until an appropriate buffer is established.

- The qualified biologist shall monitor the behavior of the birds (adults and young, when present) at the nest site to ensure that they are not disturbed by project work. Nest monitoring shall continue during project work until the young have fully fledged (have completely left the nest site and are no longer being fed by the parents), as determined by the qualified biologist.

2.27 Nesting Habitat Removal or Modification. No habitat removal or modification shall occur within the ESA-fenced nest zone until the young have fully fledged and will no longer be adversely affected by the project. Any trees or shrubs that are removed shall be "downed" in such a manner as to minimize disturbance to stable soil conditions.

Vegetation Protection, Prevention, and Restoration

2.28 Habitat Protection. Disturbance or removal of vegetation shall not exceed the minimum necessary to complete the project. Vegetation outside the construction corridor shall not be removed or damaged without prior consultation and approval of a CDFW representative.

2.29 Vegetation Marked for Protection. Prior to project activities, the Permittee shall clearly mark all vegetation within the project area that shall be avoided during project activities.

2.30 Vegetation Success. To ensure a successful revegetation effort, all plants shall be monitored and maintained as necessary for five years. All planting shall have a minimum of 85% survival at the end of five years.

2.31 Irrigation. When supplemental watering is used to establish and maintain plant growth in order to meet success criteria, irrigation shall be done in the most water efficient manner possible, such as using hand watering, drip/microirrigation or through the use of a time release system.

2.32 Revegetation Remediation. If revegetation survival and/or cover requirements do not meet established goals, Permittee is responsible for replacement planting, additional watering, weeding, invasive exotic eradication, or any other practice, to achieve these requirements. Replacement plants shall be monitored with the same survival and growth requirements for five years after planting.
2.33 Native Plant Materials Required. Revegetation shall include only local plant materials native to the project area, unless otherwise approved by CDFW in writing.

2.34 Prohibited Plant Species. Permittee shall not plant, seed or otherwise introduce invasive exotic plant species. Prohibited exotic plant species include those identified in the California Exotic Pest Plant Council’s database, which is accessible at: www.cal-ipc.org/paf/.

2.35 Phytophthora. Permittee shall implement measures to avoid using plant stock that may be infected with the plant pathogen Phytophthora sp. Measures to avoid contamination with Phytophthora sp. may include, but are not limited to, avoiding collection of propagules from 1) known or likely infected areas; 2) during wet conditions; 3) when soil is muddy; or 4) from within 0.5 meters of the soil surface. Measures may also include implementing heat or chemical treatments to collected seeds prior to installation.

2.36 Treat Exposed Areas. All exposed/disturbed areas and access points within the riparian zone left barren of vegetation as a result of the construction activities shall be restored by seeding with a blend of native erosion control grass seed. Seeded areas shall be mulched. Landscape fabric shall not be used. Revegetation shall be completed as soon as possible after construction activities in those areas cease. Seeding placed after October 15 must be covered with broadcast straw, jute netting, coconut fiber blanket or similar erosion control blanket.

2.37 Control Invasive Species. Permittee is responsible for monitoring and if needed, eradication of invasive exotic species that may occur within the project area for a minimum of two years following construction. All revegetation efforts shall include local plant materials native to the project area.

Erosion and Sediment Control

2.38 Erosion control. At no time shall silt-laden runoff be allowed to enter a river, stream, or lake or directed to where it may enter a river, stream, or lake. Erosion control measures shall be utilized throughout all phases of operation where sediment runoff from exposed slopes threatens to enter a river, stream, or lake. Erosion control measures, such as, silt fences, straw hay bales, gravel or rock lined ditches, water check bars, and broadcasted straw shall be used where ever sediment has the potential to leave the work site and enter the river, stream, or lake.

2.39 Monofilament. Permittee shall not use erosion control materials containing plastic monofilament netting (erosion control matting) or similar material containing netting within the project area due to documented evidence of amphibians and reptiles.
becoming entangled or trapped in such material. Acceptable substitutes include coconut coir matting or similar.

2.40 Erosion Control Monitoring. Permittee shall monitor erosion control measures during and after each storm event and repair and/or replace ineffective measures immediately.

2.41 Disposal and Removal of Materials. All removed spoils and construction debris shall be moved outside the work area prior to inundation by water. Spoil sites shall not be located within the stream channel or areas that may be subjected to stream flows, where spoil may be washed back into a stream, or where it may impact streambed habitat, aquatic or riparian vegetation. All removed material shall be disposed of according to State and local laws and ordinances.

Material Handling, Debris, and Waste

2.42 Stockpiled Materials. Building materials and/or construction equipment shall not be stockpiled or stored where they may be washed into the water or cover aquatic or riparian vegetation. Stockpiles shall be covered when measurable rain is forecasted.

2.43 No Dumping. Permittee and all contractors, subcontractors, and employees shall not dump any litter or construction debris within the stream, or where it may pass into the stream.

2.44 Pick Up Debris. Permittee shall pick up all debris and waste daily.

2.45 Wash water. Water containing mud, silt, or other pollutants from equipment washing or other activities, shall not be allowed to enter a lake or flowing stream or placed in locations that may be subjected to high storm flows.

Toxic and Hazardous Material

2.46 Toxic Materials. Any hazardous or toxic materials that could be deleterious to aquatic life that could be washed into the stream or its tributaries shall be contained in water tight containers or removed from the project site.

2.47 Hazardous Materials. Debris, soil, silt, bark, slash, sawdust, rubbish, creosote-treated wood, raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic life, wildlife, or riparian habitat resulting from the project related activities shall be prevented from contaminating the soil and/or entering the Waters of the State.
Spills and Emergencies

2.48 **Spill Kits.** Prior to entering the work site, all field personnel shall know the location of spill kits and trained in their appropriate use.

2.49 **Spill of Material Deleterious to Fish and Wildlife.** In the event of a hazardous materials spill into a stream (e.g., concrete or bentonite), Permittee shall immediately notify the California Office of Emergency Services State Warning Center by calling 1-800-852-7550 and immediately provide written notification to CDFW by email at R31600Program@wildlife.ca.gov. Permittee shall take all reasonable measures to document the extent of the impacts and affected areas including photographic documentation of affected areas, injured fish and wildlife. If dead fish or wildlife are found in the affected area, Permittee shall collect carcasses and immediately deliver them to CDFW. Permittee shall meet with CDFW within ten days of the reported spill in order to develop a resolution including: site clean-up, site remediation and compensatory mitigation for the harm caused to fish, wildlife and the habitats on which they depend as a result of the spill. The Permittee shall be responsible for all spill clean-up, site remediation and compensatory mitigation costs. Spill of materials to waters of the state that are deleterious to fish and wildlife are in violation of Fish and Game Code section 5650 et. seq. and are subject to civil penalties for each person responsible. CDFW reserves the right to refer the matter to the District Attorney’s Office if a resolution cannot be agreed upon and achieved within a specified timeframe, generally six months from the date of the incident.

2.50 **Spill Containment.** All activities performed in or near a river, stream, or lake shall have absorbent materials designated for spill containment and cleanup activities on-site for use in an accidental spill. The Permittee shall immediately notify the California Emergency Management Agency at 1-800-852-7550 and immediately initiate the cleanup activities. CDFW shall be notified by the Permittee and consulted regarding cleanup procedures.

3. **Compensatory Measures**

3.1 **Mitigation Plan.** At least 30 days prior to commencement of project activities, Permittee shall submit to CDFW for review and approval a Mitigation Plan. The Mitigation Plan shall detail the mitigation of permanent impacts to riparian habitat of 0.152 acres including the removal of 5 native riparian trees from the construction of project activities. No work shall commence until approval from CDFW is received. The Mitigation Plan shall include the following:

- Temporary impacts to riparian habitat restored at a 1:1 ratio based on area.
- Permanent impacts to riparian habitat mitigated for at a 2:1 ratio based on area.
• Native trees removed to be replaced at a 3:1 ratio.
• All restoration and mitigation to be conducted on-site. If on-site mitigation is not possible, mitigation ratios may need to be increased, and will require approval from CDFW.
• All restoration and mitigation to be conducted within the same calendar year as the completion of project activities.
• Monitoring plan for at least 5 years, at the end of which success criteria outlined in Measure 2.30 must be met or revegetation efforts and extended monitoring as outlined in Measure 2.32 shall be conducted.

4. Reporting Measures

Permittee shall meet each reporting requirement described below.

4.1 Notification Prior to Work. As per measure 1.5, at least 5 days prior to the start of Project activities, Permittee shall notify CDFW that work will commence.

4.2 Notification of Designated Representative. As per Measure 1.9, at least 5 days prior to the start of Project activities, Permittee shall submit to CDFW the name, business address, and contact information of the Designated Representative.

4.3 Mitigation Plan. As per Measure 3.1, at least 30 days prior to commencement of project activities, Permittee shall submit a Mitigation Plan for CDFW review and acceptance.

4.4 Nesting Bird Survey Reports. Survey results for nesting birds shall be submitted to CDFW prior to the start of work.

4.5 Re-vegetation Annual Report. The Permittee shall submit an annual status report on the monitoring of planting to CDFW by January 31st of each year for five (5) years. This report shall include the survival, percent cover, and height of both tree and shrub species. The number by species of plants replaced, an overview of the revegetation effort, and the method used to assess these parameters shall also be included. Photos from designated photo stations shall be included.

4.6 Notification to the California Natural Diversity Database. If any listed, rare, or special status species are detected during project surveys or on or around the project site during project activities, the Permittee shall submit CNDDDB Field Survey Forms to CDFW in the manner described at the CNDDDB website (http://www.dfg.ca.gov/biogeodata/cnddb/submitting_data_to_cnndb.asp) within five working days of the sightings. Copies of such submittals shall also be submitted to the CDFW regional office as specified below.
4.7 **Photographic Documentation of Work.** Prior to commencement of work a minimum of four (4) vantage points that offer representative views of the project site and work areas shall be identified. The Permittee shall photograph the project area from each of the vantage points, noting the direction and magnification of each photo. Upon completion of work, the Permittee shall photograph post-project conditions from the vantage points using the same direction and magnification as pre-project photos. A reference key shall be submitted with the photos describing the location of the photo, the direction of the view, and whether the photo is pre- or post-construction. All photos shall be submitted within 30 days of project conclusion.

**CONTACT INFORMATION**

Any communication that Permittee or CDFW submits to the other shall be in writing and any communication or documentation shall be delivered to the address below by U.S. mail or email, or to such other address as Permittee or CDFW specifies by written notice to the other.

**To Permittee:**

Larry Zimmer  
City of Healdsburg  
401 Grove Street  
Healdsburg, CA 95448  
lzimmer@ci.healdsburg.ca.us

**To CDFW:**

Department of Fish and Wildlife  
Bay Delta Region  
2825 Cordelia Rd, Suite 100  
Fairfield, CA 94534  
Attn: Lake and Streambed Alteration Program – James Hansen  
Notification #1600-2019-0253-R3  
James.Hansen@Wildlife.ca.gov

**LIABILITY**

Permittee shall be solely liable for any violations of the Agreement, whether committed by Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents or contractors and subcontractors, to complete the project or any activity related to it that the Agreement authorizes.

This Agreement does not constitute CDFW's endorsement of, or require Permittee to proceed with the project. The decision to proceed with the project is Permittee's alone.
SUSPENSION AND REVOCATION

CDFW may suspend or revoke in its entirety the Agreement if it determines that Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, is not in compliance with the Agreement.

Before CDFW suspends or revokes the Agreement, it shall provide Permittee written notice by certified or registered mail that it intends to suspend or revoke. The notice shall state the reason(s) for the proposed suspension or revocation, provide Permittee an opportunity to correct any deficiency before CDFW suspends or revokes the Agreement, and include instructions to Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused CDFW to issue the notice.

ENFORCEMENT

Nothing in the Agreement precludes CDFW from pursuing an enforcement action against Permittee instead of, or in addition to, suspending or revoking the Agreement.

Nothing in the Agreement limits or otherwise affects CDFW's enforcement authority or that of its enforcement personnel.

OTHER LEGAL OBLIGATIONS

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with, or obtaining any other permits or authorizations that might be required under, other federal, state, or local laws or regulations before beginning the project or an activity related to it. For example, if the project causes take of a species listed as threatened or endangered under the Endangered Species Act (ESA), such take will be unlawful under the ESA absent a permit or other form of authorization from the U.S. Fish and Wildlife Service or National Marine Fisheries Service.

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in the Fish and Game Code including, but not limited to, Fish and Game Code sections 2050 et seq. (threatened and endangered species), section 3503 (bird nests and eggs), section 3503.5 (birds of prey), section 5650 (water pollution), section 5652 (refuse disposal into water), section 5901 (fish passage), section 5937 (sufficient water for fish), and section 5948 (obstruction of stream).
Nothing in the Agreement authorizes Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

AMENDMENT

CDFW may amend the Agreement at any time during its term if CDFW determines the amendment is necessary to protect an existing fish or wildlife resource.

Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by CDFW and Permittee. To request an amendment, Permittee shall submit to CDFW a completed CDFW “Request to Amend Lake or Streambed Alteration” form and include with the completed form payment of the corresponding amendment fee identified in CDFW’s current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). Submit the form and fee to the CDFW regional office that serves the area where the project is located.

TRANSFER AND ASSIGNMENT

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of the Agreement to another entity shall not be valid or effective, unless the transfer or assignment is requested by Permittee in writing, as specified below, and thereafter CDFW approves the transfer or assignment in writing.

The transfer or assignment of the Agreement to another entity shall constitute a minor amendment, and therefore to request a transfer or assignment, Permittee shall submit to CDFW a completed CDFW “Request to Amend Lake or Streambed Alteration” form and include with the completed form payment of the minor amendment fee identified in CDFW’s current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). Submit the form and fee to the CDFW regional office that serves the area where the project is located.

EXTENSIONS

In accordance with Fish and Game Code section 1605, subdivision (b), Permittee may request one extension of the Agreement, provided the request is made prior to the expiration of the Agreement’s term. To request an extension, Permittee shall submit to CDFW a completed CDFW “Request to Extend Lake or Streambed Alteration” form and include with the completed form payment of the extension fee identified in CDFW’s current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). CDFW shall process the extension request in accordance with Fish and Game Code section 1605, subdivisions (b) through (e).

If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the project the Agreement covers (Fish & G. Code § 1605, subd. (f)). Submit
the form and fee to the CDFW regional office that serves the area where the project is located.

**EFFECTIVE DATE**

The Agreement becomes effective on the date of CDFW’s signature, which shall be: 1) after Permittee’s signature; 2) after CDFW complies with all applicable requirements under the California Environmental Quality Act (CEQA); and 3) after payment of the applicable Fish and Game Code section 711.4 filing fee listed at https://www.wildlife.ca.gov/Conservation/CEQA/Fees.

**TERM**

This Agreement shall expire on December 31, 2023, unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing any provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as Fish and Game Code section 1605, subdivision (a)(2) requires.

**EXHIBITS**

The documents listed below are included as exhibits to the Agreement and incorporated herein by reference.

A. *Coastland Healdsburg CEQA and Permitting*, prepared by WRA, January 2019

**AUTHORITY**

If the person signing the Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee’s behalf and represents and warrants that he or she has the authority to legally bind Permittee to the provisions herein.

**AUTHORIZATION**

This Agreement authorizes only the project described herein. If Permittee begins or completes a project different from the project the Agreement authorizes, Permittee may be subject to civil or criminal prosecution for failing to notify CDFW in accordance with Fish and Game Code section 1602.
CONCURRENCE

The undersigned accepts and agrees to comply with all provisions contained herein.

FOR CITY OF HEALDSBURG

[Signature]
Larry Zimmer
Public Works and Transportation Director

Date
11/6/19

FOR DEPARTMENT OF FISH AND WILDLIFE

[Signature]
Craig J. Weightman
Environmental Program Manager

Date
11/20/19

Prepared by: James Hansen, Environmental Scientist
Date Draft Sent: October 4, 2019
Date Draft Resent: November 6, 2019
Figure 2. Proposed Impacts to Biological Communities in the Project Area

Coastal Healdsburg CEQA and Permitting
Healdsburg, Sonoma County, California
Figure 2. Proposed Impacts to Biological Communities in the Project Area
Page 2
Coastland Healdsburg CEQA and Permitting
Healdsburg, Sonoma County, California
Figure 2. Proposed Impacts to Biological Communities in the Project Area

Page 3
Coastland Healdsburg CEQA and Permitting
Healdsburg, Sonoma County, California
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Coastland Healdsburg CEQA and Permitting
Healdsburg, Sonoma County, California
Figure 2. Proposed Impacts to Biological Communities in the Project Area

Coastland Healdsburg CEQA and Permitting
Healdsburg, Sonoma County, California
Figure 2. Proposed Impacts to Biological Communities in the Project Area

Project Area

Path (1.69 ac.)
Top of Bank & Ordinary High Water Mark
Impacts

Sensitive Biological Communities

- Perennial Stream (0.12 ac., 178.80 ln. ft.)
- Seasonal Wetland Stream (<0.01 ac., 29.00 ln. ft.)
- Seasonal Wetland (0.25 ac.)
- Mixed Riparian Woodland (0.58 ac.)

Impact Area:
- Seasonal Wetland 0.045 ac.
- Seasonal Wetland Stream 0.001 ac.
- Mixed Riparian Woodland 0.106 ac.

Total Area 0.152 ac.

Impact Length:
- -
- 14.33 ln. ft.
- 14.33 ln. ft.
Figure 2. Proposed Impacts to Biological Communities in the Project Area

Coastal Healdsburg CEQA and Permitting
Healdsburg, Sonoma County, California
NOTIFICATION OF LAKE OR STREAMBED ALTERATION

Complete EACH field, unless otherwise indicated, following the instructions and submit ALL required enclosures, attachments, and fee(s) to the CDFW regional or field office that serves the area where the project will occur. Attach additional pages to notification, if necessary.

1. APPLICANT PROPOSING PROJECT

<table>
<thead>
<tr>
<th>Name</th>
<th>Larry Zimmer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business/Agency</td>
<td>City of Healdsburg</td>
</tr>
<tr>
<td>Mailing Address</td>
<td>401 Grove Street</td>
</tr>
<tr>
<td>City, State, Zip</td>
<td>Healdsburg, CA 95448</td>
</tr>
<tr>
<td>Phone Number</td>
<td>707-431-3346</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:lzimmer@ci.healdsburg.ca.us">lzimmer@ci.healdsburg.ca.us</a></td>
</tr>
</tbody>
</table>

2. CONTACT PERSON (Complete only if different from applicant.)

<table>
<thead>
<tr>
<th>Name</th>
<th>Jemma Williams</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business/Agency</td>
<td>WRA, Inc.</td>
</tr>
<tr>
<td>Mailing Address</td>
<td>4225 Hollis Street</td>
</tr>
<tr>
<td>City, State, Zip</td>
<td>Emeryville, CA 94608</td>
</tr>
<tr>
<td>Phone Number</td>
<td>(510) 296-5024</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:williams@wra-ca.com">williams@wra-ca.com</a></td>
</tr>
</tbody>
</table>

While an applicant is legally responsible for complying with Fish and Game Code section 1602 et seq., an applicant may designate and authorize an agent (e.g., lawyer, consultant, or other individual) to act as a Designated Representative. The Designated Representative is authorized to sign the notification and any agreement on behalf of the Applicant.

Do you authorize the Contact Person above to represent you as your Authorized Designated Representative?

☐ Yes, I authorize. ☐ No, I do not authorize.

3. PROPERTY OWNER (Complete only if different from applicant)

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Mailing Address</td>
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<td>City, State, Zip</td>
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<tr>
<td>Phone Number</td>
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<td>Email</td>
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4. PROJECT NAME AND AGREEMENT TERM

<table>
<thead>
<tr>
<th>A. Project Name</th>
<th>Foss Creek Pathway Segments 7 and 8 Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Agreement Term Requested</td>
<td>☑ Regular (5 years or less)</td>
</tr>
<tr>
<td></td>
<td>☐ Long-term (greater than 5 years)</td>
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<tr>
<td>C. Project Term</td>
<td>Beginning (year) 2019</td>
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<tr>
<td></td>
<td>Ending (year) 2022</td>
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<tr>
<td>D. Seasonal Work Period</td>
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<table>
<thead>
<tr>
<th>Season(s)*</th>
<th>Start Date (month/day)</th>
<th>End Date (month/day)</th>
<th>E. Number of Work Days</th>
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<tbody>
<tr>
<td>1</td>
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<td>10/15</td>
<td>180</td>
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* Continue on additional page(s) if necessary

5. AGREEMENT TYPE

Check the applicable box. If boxes B – F are checked, complete the specified attachment.

| A. ☑ Standard (Most construction projects, excluding the categories listed below) |
| B. ☐ Gravel/Sand/Rock Extraction (Attachment A) Mine I.D. Number: ____________________ |
| C. ☐ Timber Harvesting (Attachment B) THP Number: ____________________ |
| D. ☐ Water Diversion/Extraction/Impoundment (Attachment C) SWRCB Number: ____________________ |
| E. ☐ Routine Maintenance (Attachment D) |
| F. ☐ Cannabis Cultivation (Attachment E) |
| G. ☑ CDFW Grant Programs Agreement Number: ____________________ |
| H. ☐ Master |
| I. ☐ Master Timber Operations |
6. FEES

See the current fee schedule to determine the appropriate notification fee. Itemize each project's estimated cost and corresponding fee. Note: CDFW may not process this notification until the correct fee has been received.

<table>
<thead>
<tr>
<th>A. Project Name</th>
<th>B. Project Cost</th>
<th>C. Project Fee</th>
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<tbody>
<tr>
<td>1 Foss Creek Pathway Segments 7 and 8</td>
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<td>$5,313.00</td>
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D. Base Fee (if applicable)

E. TOTAL FEE* $5,313.00

* Check, money order, and Visa or MasterCard (select Environmental Fees from Menu) payments are accepted.

7. PRIOR NOTIFICATION AND ORDERS

A. Has a notification previously been submitted to, or a Lake or Streambed Alteration Agreement previously been issued by, CDFW for the project described in this notification?

☐ Yes (Provide the information below) ☐ No

Applicant Notification Number Date

B. Is this notification being submitted in response to a court or administrative order or notice, or a notice of violation (NOV) issued by CDFW?

☐ Yes ☐ No (Enclose a copy of the order, notice, or NOV. If the applicant was directed to notify CDFW verbally rather than in writing, identify the person who directed the applicant to submit this notification, the agency he or she represents, and describe the circumstances relating to the order.)

Name of person who directed notification Agency

Describe circumstances relating to order

☐ Continued on additional page(s)
8. PROJECT LOCATION

A. Address or description of project location.
   (Include a map that marks the location of the project with a reference to the nearest city or town, and provide directions from a major road or highway.)

The Foss Creek Pathway Segments 7 and 8 Project site is located along the western edge of the City of Healdsburg within the public right-of-way. The site consists of a narrow strip of land paralleling Highway 101 and Grove Street to the west. Segment 7 commences from the northern edge of Segment 6 and continues paralleling Foss Creek and the Northwestern Pacific Railroad tracks from south of Monte Vista Avenue to Dry Creek Road. Segment 8 continues from the northern side of Dry Creek Road to Grove Street, west of the Grove Street and Healdsburg Avenue Intersection.

B. River, stream, or lake affected by the project. Riparian vegetation associated with Foss Creek

C. What water body is the river, stream, or lake tributary to? Foss Creek

D. Is the river or stream segment affected by the project listed in the state or federal Wild and Scenic Rivers Acts? □ Yes □ No □ Unknown

E. County Sonoma County

F. USGS 7.5 Minute Quad Map Name Healdsburg and Jimtown quadrangles

G. Township T9N

H. Range R9W

I. Section sec 17

J. ½ Section

K. Meridian (check one) □ Humboldt □ Mt. Diablo □ San Bernardino

L. Assessor’s Parcel Number(s) 089-062-009 003-030-008 003-010-024

M. Geographic coordinates (Provide the latitude and longitude coordinates for the property where the project(s) will take place. CDFW utilizes decimal degrees and WGS 84 datum. Access Google Maps Help if you need assistance in finding your coordinates.)

<table>
<thead>
<tr>
<th>Latitude/Longitude</th>
<th>Latitude: 38.62611</th>
<th>Longitude: -122.8742</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latitude:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Longitude:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latitude:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Longitude:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latitude:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Longitude:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 9. PROJECT CATEGORY

<table>
<thead>
<tr>
<th>WORK TYPE</th>
<th>NEW CONSTRUCTION</th>
<th>REPLACE EXISTING STRUCTURE</th>
<th>REPAIR-MAINTAIN-OPERATE EXISTING STRUCTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank stabilization – bioengineering/recontouring</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Bank stabilization – rip-rap/retaining wall/gabion</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Boat dock/pter</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Boat ramp</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Bridge</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Channel clearing/vegetation management</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Culvert</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Debris basin</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Dam</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Filling of wetland, river, stream, or lake</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Geotechnical survey</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Habitat enhancement – revegetation/mitigation</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Levee</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Low water crossing</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Road/trail</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Sediment removal: pond, stream, or marina</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>flood control</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Storm drain outfall structure</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Temporary stream crossing</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Utility crossing: horizontal directional drilling</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Jack/bore</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>open trench</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Water diversion without facility</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Water diversion with facility</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Other (specify):</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
10. PROJECT DESCRIPTION

A. Describe the project in detail. Include photographs of the project location and immediate surrounding area.
   - Written description of all project activities with detailed step-by-step description of project implementation.
   - Include any structures (e.g., rip-rap, culverts) that will be placed or modified in or near the stream, river, or lake, and any channel clearing.
   - Specify volume, and dimensions of all materials and features (e.g., rip rap fields) that will be used or installed.
   - If water will be diverted or drafted, specify the purpose or use and include Attachment C.
   - Enclose diagrams, drawings, design plans, construction specifications, and maps that provide all of the following: site specific construction details; dimensions of each structure and/or extent of each activity in the bed, channel, bank or floodplain; overview of the entire project area (i.e., “bird’s-eye view”) showing the location of each structure and/or activity, significant area features, stockpile areas, areas of temporary disturbance, and where the equipment/machinery will access the project area.
     - A helpful resource to assist in the development of quality PDF maps in Google Earth. See Using Google Earth to Map Your Property (PDF).

The proposed Project is the construction of Segments 7 and 8 of the Foss Creek Pathway, completing the Foss Creek South Reach and a portion of the Foss Creek North Reach. These trail segments will include one bridge crossing of a jurisdictional stream (Foss Creek) and one culvert placed on a section of seasonal wetland stream (Part 3 Figure 2).

Additional information is provided in Part 2 of this application.

B. Specify the equipment and machinery that will be used to complete the project.

- Skip loader and blade
- Crane
- 10 wheel truck
- Paving machine with compaction rollers

C. Will water be present during the proposed work period (specified in box 4.D) in the stream, river, or lake (specified in box 8.B).  
   - Yes  □ No (Skip to box 11)

D. Will the project require work in the wetted portion of the channel?
   - Yes (Enclose a plan to divert water around work site)
   - No
11. PROJECT IMPACTS

A. Describe impacts to the bed, channel, and bank of the river, stream, or lake, and the associated riparian habitat.
   Specify the dimensions of the modifications in length (linear feet) and area (square feet or acres) and the type and volume of material (cubic yards) that will be moved, displaced, or otherwise disturbed, if applicable.

The path alignment will avoid tree removal to the greatest extent feasible. Approximately 0.11 acre of riparian vegetation will be removed at the south end of Segment 7 where it connects with the existing path. Impacts to Foss Creek will be avoided.

Additional information is provided in Part 2 of this application.

B. Will the project affect any vegetation? ☑ Yes (Complete the tables below) ☐ No (Include aerial photo with date supporting this determination)

<table>
<thead>
<tr>
<th>Vegetation Type</th>
<th>Temporary Impact</th>
<th>Permanent Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riparian vegetation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Linear feet:</td>
<td>Linear feet:</td>
</tr>
<tr>
<td></td>
<td>Total area:</td>
<td>Total area:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tree Species</th>
<th>Number of Trees to be Removed</th>
<th>Trunk Diameter (range)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oregon ash (Fraxinus latifolia)</td>
<td>2</td>
<td>10-19.5 inches</td>
</tr>
<tr>
<td>Arroyo willow (Salix lasiolepis)</td>
<td>3</td>
<td>4-9 inches</td>
</tr>
</tbody>
</table>

C. Are any special status animal or plant species, or habitat that could support such species, known to be present on or near the project site?

☑ Yes (List each species and/or describe the habitat below) ☐ No ☐ Unknown

Based on database searches, special status plant and animal species have potential to occur within the Project Area, see Part 2 and 4 of this application.

D. Identify the source(s) of information that supports a "yes" or "no" answer above in Box 11.C.

CNDDB (2018) - See biological study provided as Part 4 of this application.

E. Has a biological study been completed for the project site?

☑ Yes (Enclose the biological study) ☐ No

Note: A biological assessment or study may be required to evaluate potential project impacts on biological resources.
F. Has one or more technical studies (e.g., engineering, hydrologic, geological, or geomorphological) been completed for the project or project site?

☐ Yes (Enclose the study(ies))    ✔ No

Note: One or more technical studies may be required to evaluate potential project impacts to a lake or streambed.

G. Have fish or wildlife resources or waters of the state been mapped or delineated on the project site?

✔ Yes (Enclose the mapped results)    ☐ No

Note: Check "yes" if fish and wildlife resources or waters of the state on the project site have been mapped or delineated. "Wildlife" means and includes all wild animals, birds, plants, fish, amphibians, reptiles and related ecological communities, including the habitat upon which the wildlife depends. (Fish & G. Code, § 895.) If "yes" is checked, submit the mapping or delineation. If the mapping or delineation is in digital format (e.g., GIS shape files or KML), you must submit the information in this format for CDFW to deem your notification complete. If "no" is checked, or the resolution of the mapping or delineation is insufficient, CDFW may request mapping or delineation in digital or non-digital format, or higher resolution mapping or delineation for CDFW to deem the notification complete.

12. MEASURES TO PROTECT FISH, WILDLIFE, AND PLANT RESOURCES

A. Describe the techniques that will be used to prevent sediment, hazardous, or other deleterious materials from entering watercourses during and after construction.

See Part 2 of this application.

✔ Continued on additional page(s)

B. Describe project avoidance and/or minimization measures to protect fish, wildlife, and plant resources.

See Part 2 of this application.

✔ Continued on additional page(s)

C. Describe any project mitigation and/or compensation measures to protect fish, wildlife, and plant resources.

The Applicant is currently investigating options for providing compensatory mitigation for Project impacts should this be determined necessary by CDFW and the other governing regulatory agencies. Additional information regarding proposed mitigation will be provided under a separate cover if required by the agency.

☐ Continued on additional page(s)
13. PERMITS

List any local, State, and federal permits required for the project and check the corresponding box(es). Enclose a copy of each permit that has been issued.

<table>
<thead>
<tr>
<th>Permit Description</th>
<th>Applied</th>
<th>Issued</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. RWQCB 401 Water Quality Certification</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>B. Corps 404 NWP 42</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>C.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Unknown whether □ local, □ State, or □ federal permit is needed for the project. (Check each box that applies)</td>
<td>✔</td>
<td></td>
</tr>
</tbody>
</table>

14. ENVIRONMENTAL REVIEW

A. Has a CEQA lead agency been determined?  ✔ Yes (Complete boxes B, C, D, E, and F)  □ No (Skip to box 14.G)

B. CEQA Lead Agency  City of Healdsburg

C. Contact Person  Larry Zimmer  D. Phone Number  707-431-3346

E. Has a draft or final document been prepared for the project pursuant to CEQA and/or NEPA?

☑ Yes (Check the box below for each CEQA or NEPA document that has been prepared and enclose a copy of each.)

☑ No (Check the box below for each CEQA or NEPA document listed below that will be or is being prepared.)

☐ Notice of Exemption

☐ Initial Study

☐ Negative Declaration

☐ THP/NTMP

☐ Mitigated Negative Declaration

☐ Environmental Impact Report

☐ Notice of Determination (Enclose)

☐ Mitigation, Monitoring, & Reporting Plan

☐ NEPA document (type):

F. State Clearinghouse Number (if applicable)  2006072072

G. If the project described in this notification is not the "whole project" or action pursuant to CEQA, briefly describe the entire project (Cal. Code Regs., tit. 14 § 15378).

The Foss Creek Pathway Segments 7 and 8 Project is a component of the larger Foss Creek Pathway Project. In 2006, an Initial Study/Mitigated Negative Declaration (IS/MND) was adopted to implement the Foss Creek Pathway Project. The proposed Project will complete segments 7 and 8 of the pathway. As the 2006 Initial Study was based on information collected during that time period, a Supplemental Initial Study (SIS) is being prepared to analyze the present environment and minor alterations to the proposed pathway.
H. Has a CEQA filing fee been paid pursuant to Fish and Game Code section 711.4?

☐ Yes (Enclose proof of payment)  ☐ No (Briefly explain below the reason a CEQA filing fee has not been paid)

Note: The CEQA filing fee is in addition to the notification fee. If a CEQA filing fee is required, the Lake or Streambed Alteration Agreement may not be finalized until paid.

CEQA fee in process.

15. SITE INSPECTION

Check one box only.

☐ In the event CDFW determines that a site inspection is necessary, I hereby authorize a CDFW representative to enter the property where the project described in this notification will take place at any reasonable time, and hereby certify that I am authorized to grant CDFW such entry.

☐ I request CDFW to first contact (insert name) Larry Zimmer at (insert phone number or email address) 707-431-3346 to schedule a date and time to enter the property where the project described in this notification will take place. I understand that this may delay CDFW’s determination as to whether a Lake or Streambed Alteration Agreement is required and/or CDFW’s issuance of a draft agreement pursuant to this notification.

16. DIGITAL FORMAT

Is any of the information included as part of the notification available in digital format (i.e., CD, DVD, etc.)?

☐ Yes (Please enclose the information via digital media with the completed notification form.)

☐ No

17. SIGNATURE

I hereby certify that to the best of my knowledge the information in this notification is true and correct and that I am authorized to sign this notification as, or on behalf of, the applicant. I understand that if any information in this notification is found to be untrue or incorrect, CDFW may suspend processing this notification or suspend or revoke any draft or final Lake or Streambed Alteration Agreement issued pursuant to this notification. I understand also that if any information in this notification is found to be untrue or incorrect and the project described in this notification has already begun, I and/or the applicant may be subject to civil or criminal prosecution. I understand that this notification applies only to the project(s) described herein and that I and/or the applicant may be subject to civil or criminal prosecution for undertaking any project not described herein unless CDFW has been separately notified of that project in accordance with Fish and Game Code section 1602 or 1611.

[Signature]
Signature of Applicant or Applicant's Authorized Representative

[Date] 6/3/2019

[Print Name] Jemma Williams
In the Matter of Water Quality Certification for the Foss Creek Pathway Segments 7 & 8 Project

APPLICANT: Larry Zimmer, City of Healdsburg
RECEIVING WATER: Jurisdictional wetlands and Foss Creek
HYDROLOGIC UNIT: Middle Russian River hydrologic area (114.24)
COUNTY: Sonoma
FILE NAME: Foss Creek Pathway Segments 7 and 8 Project
ECM PIN CW-860086; WDID 1B190101WNSO

FINDINGS BY THE EXECUTIVE OFFICER:

1. On July 29, 2019, Jemma Williams of WRA on behalf of Larry Zimmer, City of Healdsburg (applicant) filed an application for water quality certification (certification) under section 401 of the Clean Water Act (33 U.S.C. § 1341) with the North Coast Regional Water Quality Control Board (Regional Water Board) for activities associated with the Foss Creek Pathway Segments 7 and 8 Project (project). The application was deemed complete on May 6, 2020. The project parallels Foss Creek between Monte Vista Avenue and Grove Street in Healdsburg.

2. **Public Notice:** The Regional Water Board provided public notice of the application pursuant to Title 23, California Code of Regulations, Section 3858 on April 1, 2020, and posted information describing the project on the Regional Water Board’s website. No comments were received.

3. **Receiving Waters:** The proposed project will cause disturbances to jurisdictional wetlands and Foss Creek, within the Middle Russian River hydrologic area (114.24).

4. **Project Description:** The purpose of the project is to extend the Foss Creek Pathway approximately 0.88 miles to the north of the existing trail. The project will involve constructing an 8-10-foot-wide asphalt concrete pathway connecting to the existing pathway at the Carson Warner Memorial Skate Park. A 10 foot-wide, 60-foot-long prefabricated steel truss pedestrian bridge will be installed to span Foss Creek. The pathway will continue north to Dry Creek Road.
The pathway has been sited to avoid impacts to wetlands and trees. Approximately 0.05 acre of seasonal wetlands cannot be avoided and will be permanently filled. Approximately 5 riparian trees are proposed for removal. The application lists avoidance and minimization measures to limit impacts to jurisdictional features, including constructing the pedestrian bridge during the dry season between April 15 and October 31.

5. **Construction Timing**: Construction is expected to occur between May 15 and October 31, 2021.

6. **Project Impacts**: Approximately 0.05 acre of seasonal wetlands would be permanently filled for construction of the pathway. Additionally, approximately 0.11 acre of riparian impacts are expected, including for installation of the pedestrian bridge over Foss Creek.

7. **Mitigation for Project Impacts**: The applicant has purchased 0.05 acre of wetland creation credits from Hazel Mitigation Bank. Credits from Hazel were found to be acceptable even though the project is approximately 1.5 miles outside the service area of the bank. It was determined that offsite mitigation from a bank is preferable to permittee responsible wetland creation along the pathway in the city’s narrow right-of-way.

The applicant will also comply with the Habitat Mitigation and Monitoring Plan (HMMP) prepared by WRA and submitted on March 5, 2020. The HMMP includes 0.22 acres of riparian enhancement both onsite and on a tributary to Foss Creek, and enhancement and stabilization of the banks of Foss Creek in the vicinity of the new pedestrian bridge.

8. **Project Tracking**: It has been determined through regional, state, and national studies that tracking of mitigation and restoration projects must be improved to better assess their performance. In addition, to effectively carry out the state’s Wetlands Conservation Policy of no net loss to wetlands, the state needs to closely track both aquatic habitat losses and the success of mitigation and restoration projects. Therefore, this certification requires the Applicant to upload impact totals and mitigation measures to a web-based project tracking system called “EcoAtlas” using the “Project Tracker” form, which can be found here: [http://ptrack.ecoatlas.org](http://ptrack.ecoatlas.org). Instructions and how to request a username and password are on the Project Tracker website. More information about EcoAtlas is available at: [www.ecoatlas.org](http://www.ecoatlas.org).

9. **Other Agency Actions**: The applicant has received authorization from the United States Army Corps of Engineers for Nationwide Permit 42, *Recreational Facilities*, pursuant to section 404 of the Clean Water Act. The applicant has also submitted a section 1600 Notification of Lake or Streambed Alteration to the California Department of Fish and Wildlife.
10. **CEQA Compliance:** As lead agency, the City of Healdsburg certified a Mitigated Negative Declaration (SCH 2006072072), pursuant to the requirements of the California Environmental Quality Act (CEQA). A supplemental Mitigated Negative Declaration was filed on April 8, 2019.

11. **Antidegradation Policy:** The federal antidegradation policy requires that state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California’s antidegradation policy in State Water Board Resolution 68-16, which incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing high-quality waters be maintained unless degradation is justified under specific provisions. The Regional Water Board’s Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. This Certification is consistent with applicable federal and state antidegradation policies, as it does not authorize the discharge of increased concentrations of pollutants or increased volumes of treated wastewater, and does not otherwise authorize degradation of the waters affected by this project.

12. This discharge is also regulated under State Water Resources Control Board Order 2003-0017-DWQ, *General Waste Discharge Requirements for Dredge and Fill Discharges that have Received State Water Quality Certification*, which requires compliance with all conditions of this water quality certification. [https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/generalorders/go_wdr401regulated_projects.pdf](https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/generalorders/go_wdr401regulated_projects.pdf)

Receiving Water: Jurisdictional wetlands and Foss Creek

Permanent Impacts: 0.05-acre seasonal wetlands; 0.11-acre riparian

Latitude/Longitude: 38.62611111°N /122.87416667°W

Certification Expiration: May 18, 2025

Accordingly, based on its independent review of the record, the Regional Water Board certifies that the Foss Creek Pathway Segments 7 and 8 Project (WDID 1B190101WNSO), as described in the application, will comply with sections 301, 302, 303, 306, and 307 of the Clean Water Act, and with applicable provisions of state law, provided that the applicant complies with the following terms and conditions:

**All conditions of this Certification apply to the applicant (and all their employees) and all contractors (and their employees), sub-contractors (and their employees), and any other entity or agency that performs activities or work on the project as related to this water quality certification.**
Project-Specific Conditions

1. The Applicant shall implement the *Habitat Mitigation and Monitoring Plan*, dated March 2020.

2. Mitigation success shall be subject to the review and acceptance by Regional Water Board staff, and shall not be considered successful until a minimum of five years of monitoring has occurred. Plants shall not be considered successful until irrigation has been terminated for a minimum of two years.

3. Within 30 days of issuance of this Order, the Applicant shall upload Project information to EcoAtlas using the “Project Tracker” form found at the following website: [http://ptrack.ecoatlas.org/](http://ptrack.ecoatlas.org/). Required information includes a Project map that may either be uploaded to EcoAtlas or created within EcoAtlas by using the “draw polygon” tool.

Project Specific Conditions Requiring Reports

4. The applicant shall report on the success of the stream and riparian mitigation for a minimum of five years. Reports shall document the success of plantings and stream bank stabilization; the applicant shall send reports to the Regional Water Board by January 31 annually.

5. Regional Water Board staff shall be notified in writing at least five working days prior to the commencement of ground disturbing activities, with details regarding the construction schedule, in order to allow staff to be present onsite during construction, and to answer any public inquiries that may arise regarding the project.

Standard Conditions

6. This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Water Code section 13330 and title 23, California Code of Regulations, section 3867.

7. This certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to title 23, California Code of Regulations, section 3855, subdivision (b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

8. The validity of this certification is conditioned upon total payment of any fee required under title 23, California Code of Regulations, section 3833, and owed by the applicant.
9. A complete fee of $2,318, (Category A, Fill & Excavation Discharges), was received for the Project on July 29, 2019, and May 6, 2020. This Certification will be subject to annual billing while the project is constructed and monitored, per the fee schedule that is current at the time of annual billing. Currently the annual fee is $1,638; the annual fee is expected to increase every year. The fee calculator may be found at: https://www.waterboards.ca.gov/resources/fees/water_quality/docs/dredgefillcalculator.xlsm

Annual fees will be automatically invoiced to the Applicant. **The applicant must notify the Regional Water Board at project and/or mitigation completion with a final report in order to request to terminate annual billing.** Notification should be sent to the staff listed at the bottom of this Order and to Northcoast@waterboards.ca.gov. Regional Water Board staff will verify conditions of the Certification have been met and may request a site visit at that time to confirm status of Project and compliance with this Certification.

10. This certification does not authorize drafting of surface waters. Any drafting of surface waters shall be in compliance with state water rights law and diversion requirements overseen by the State Water Resources Control Board’s Division of Water Rights.

11. Only wildlife-friendly, 100 percent biodegradable erosion and sediment control products that will not entrap or harm wildlife shall be used. Erosion and sediment control products shall not contain synthetic (e.g., plastic or nylon) netting. Photodegradable synthetic products are not considered biodegradable. The applicant shall request approval from the Regional Water Board if an exception from this requirement is needed for a specific location.

12. Only 100 percent biodegradable geotextiles shall be used for permanent applications within waters of the state unless explicitly approved for specific purposes in the project design.

13. Best management practices (BMPs) shall be implemented according to the submitted application and the conditions in this certification. BMPs for erosion, sediment, and turbidity control shall be implemented and in place at commencement of, during, and after any ground clearing activities or any other project activities that could result in erosion or sediment discharges to surface water. BMPs shall be immediately available for deployment at all times to prevent discharges to waters of the state.

14. The applicant is prohibited from discharging waste to waters of the state, unless explicitly authorized by this certification. For example, no debris, soil, silt, sand, bar, slash, sawdust, cement or concrete washings, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature, other than that authorized by this Certification, shall be allowed to enter into or be placed where it may be washed by rainfall into waters of the state. When
operations are completed, any excess material or debris shall be removed from the work area.

15. The Applicant is liable and responsible for the proper disposal, reuse, and/or recycling of all Project-generated waste in compliance with applicable state and federal laws and regulations.

16. The applicant shall provide Regional Water Board staff access to the project site to document compliance with this certification.

17. Work in flowing or standing surface waters, unless otherwise proposed in the project description and approved by the Regional Water Board, is prohibited.

18. If, at any time, an unauthorized discharge to surface water (including wetlands, lakes, rivers, or streams) occurs, or any water quality problem arises, the associated project activities shall cease immediately until adequate BMPs are implemented including stopping work. The Regional Water Board shall be notified promptly and in no case more than 24 hours after the unauthorized discharge or water quality problem arises.

19. All project activities shall be implemented as described in the submitted certification application package and the findings and conditions of this certification. Subsequent project changes that could significantly impact water quality shall first be submitted to Regional Water Board staff for prior review, consideration, and written concurrence. If the Regional Water Board is not notified of a significant alteration to the project, it will be considered a violation of this certification, and the applicant may be subject to Regional Water Board enforcement actions.

20. Prior to implementing any change to the project that may be a material change as defined in California Water Code section 13260(c) as a proposed change in character, location, or volume of the discharge, the applicant shall obtain prior written approval of the Regional Water Board Executive Officer. If the Regional Water Board is not notified of the material change to the discharge, it will be considered a violation of this certification, and the applicant may be subject to Regional Water Board enforcement action(s).

21. The applicant shall provide a copy of this Certification and State Water Board Order 2003-0017-DWQ to any contractor(s), subcontractor(s), and utility company(ies) conducting work on the project, and shall require that copies remain in their possession at the work site. The applicant shall be responsible for ensuring that all work conducted by its contractor(s), subcontractor(s), and utility companies is performed in accordance with the information provided by the applicant to the Regional Water Board.

22. Disturbance or removal of existing vegetation as detailed within the application shall not exceed the minimum necessary to complete the project.
23. Fueling, lubrication, maintenance, storage, and staging of vehicles and equipment shall not result in a discharge or threatened discharge to any waters of the state including dry portions of the creek or wetlands. At no time shall the applicant or its contractors allow use of any vehicle or equipment that leaks any substance that may impact water quality.

24. The Applicant shall not use leaking vehicles or equipment within state waters or riparian areas. Vehicles and equipment used within state waters shall be checked for leaks at the beginning of each workday.

25. In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under applicable state or federal law. For the purposes of section 401 (d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Certification. In response to a suspected violation of any condition of this certification, the Regional Water Board may require the holder of any federal permit or license subject to this Certification to furnish, under penalty of perjury, any technical or monitoring reports the Regional Water Board deems appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In response to any violation of the conditions of this Certification, the Regional Water Board may add to or modify the conditions of this Certification as appropriate to ensure compliance pursuant to Section 13267 of the Porter-Cologne Water Quality Control Act.

26. The Regional Water Board may add to or modify the conditions of this Certification, as appropriate, to implement any new or revised water quality standards and implementation plans adopted and approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act.

27. In the event of any change in control of ownership of land presently owned or controlled by the applicant, the applicant shall notify the successor-in-interest of the existence of this certification by letter and shall email a copy of the letter to the Regional Water Board at the following email address:

NorthCoast@waterboards.ca.gov.

The successor-in-interest shall email the Regional Water Board Executive Officer at: NorthCoast@waterboards.ca.gov to request authorization to discharge dredged or fill material under this certification. The request must contain the following:

i) Effective date of ownership change;

ii) Requesting entity’s full legal name;

iii) The state of incorporation, if a corporation;
iv) The address and phone number of contact person; and
v) A description of any changes to the Project or confirmation that the successor-in-interest intends to implement the project as described in this certification.

28. Except as may be modified by any preceding conditions, all certification actions are contingent on:

i) the discharge being limited to and all proposed mitigation being completed in strict compliance with the applicant’s Project description, and
ii) compliance with all applicable requirements of the Water Quality Control Plan for the North Coast Region (Basin Plan).

29. The authorization of this certification for any dredge and fill activities expires on May 18, 2025. Conditions and monitoring requirements outlined in this Certification are not subject to the expiration date outlined above, and remain in full effect and are enforceable.

**Conditions 4-5 are requirements for information and reports.** Any requirement for a report made as a condition to this certification is a formal requirement pursuant to California Water Code section 13267, and failure or refusal to provide, or falsification of such required report is subject to civil liability as described in California Water Code, section 13268.

If you have any questions or comments, please contact Kaete King of my staff, at (707) 576-2848, or via e-mail at Kaete.King@waterboards.ca.gov.

_______________________________
Matthias St. John
Executive Officer

200518_KRK_dp_Foss Creek Path 401

Original to: City of Healdsburg, Attn: Larry Zimmer, 401 Grove Street, Healdsburg, CA 95448, Izimmer@ci.healdsburg.ca.us

cc: State Water Resources Control Board, Stateboard401@waterboards.ca.gov
Jennifer Siu, EPA Wetlands Office, siu.jennifer@epa.gov
Sahrye Cohen, ACOE, Sahrye.E.Cohen@usace.army.mil
James Hansen, CDFW, James.Hansen@Wildlife.ca.gov
Jemma Williams, WRA, williams@wra-ca.com
Figure 1. Project Vicinity Map
NORTH COAST RAILROAD AUTHORITY,
Jointly and Severally (collectively referred to as, "Railroad")

APPLICATION FOR:

PIPELINE ______ LEASE ______ PRIVATE CROSSING ______
COMMERCIAL CROSSING ______ TEMP. USE ______
ENVIRONMENTAL STUDIES ______ ACCESS PERMIT ______
OTHER Multi-use Pathway

Section “A” – Identity of Applicant:

1. Name of Applicant (If Corporation, give exactly as per Articles of Incorporation):
   City of Healdsburg

2. State of incorporation (If corporation or partnership, give names of all general partners; if proprietorship so state):
   Municipality

3. Name and Address of person or office to which future billing for rental or fees should be sent:
   Clay Thistle, City of Healdsburg, 401 Grove St, Healdsburg, CA 95448

4. Name and Phone Number of person to whom questions regarding this Application can be directed:
   Clay Thistle (707) 431-3381 or email cthistle@ci.healdsburg.ca.us

5. If work is to be performed by a contractor or subcontractor other than Applicant Give name, address and phone number of contractor or representative:
   City of Healdsburg will require contractor to apply to NCRA for an additional permit (rider) once contract awarded

Please use the remaining space on this page to provide any additional information about the Applicant and its contractors or subcontractors that will permit the Railroad to contact, and stay in contact with, parties responsible for the design, implementation and future maintenance of the work to be performed:
Section “B” - General Description of Project:

1. Give a general description of project, including the reason the work is necessary and the parties to be served, names of proposed contractors and subcontractors, etc.:
   
   Construction of the Foss Creek Pathway Phase 7 and 8 a paved bicycle and pedestrian pathway as part of the planned Multi-use pathway (MUP).

2. Is this a new installation, relocation, repairs or modifications to an existing Installation? Give details:
   
   New installation of multi use pathway

3. General location information:
   
   Pathway segment will enter Railroad right-of way at rail station 3573+00 and continue on the west side of the tracks until the north side of Dry Creek Road where it will cross to the east side of the tracks and continue to rail station 3617+00 (the intersection of Grove St and Healdsburg Ave.)

4. Was there an agreement or any correspondence covering this or a related project with the Northwestern Pacific Railroad or other precursor company or landowner? Give details:
   
   Beautification Lease and Amendment (attached)
   
   If so, give references or attach copies.

   Date work scheduled to begin: July 2020

   Estimated completion of work: October 2021

   Date by which permits/licenses desired: April 2020

5. Please provide information as to type and amount of general liability insurance carried or proposed, name of insurer or agent, and person to contact. Railroad will generally require contractor(s) to provide $1 million unrestricted liability insurance and certificate naming Railroad as insured party must be received and approved before work begins.

   Please submit this Application with a cover letter on your firm’s letterhead signed by an authorized officer, and submit with three (3) copies of a sketch or prints clearly depicting the proposed crossing or encroachment and its location.

   Application fee of $1,000.00 is to be remitted with completed Application. A one-time initial fee, plus an annual license or encroachment fee will also be charged; this is based on current NCRA policy. The fee will be specified in the license or encroachment permit when issued. No work may begin on or over Railroad property until the license or permit has been duly issued and the initial fees paid.

   Prior to start of any encroachment on any of the Railroads right of way, proper notice must be given to the NCRA. This due notice must be given a minimum of 72 hours prior to the onset of any activity. In addition, any work activity encroaching within twelve (12) feet of the Railroad right of way must comply with all state and federal railroad safety and operational requirements.
as defined by applicable state and federal regulations, including without limitation 49 CFR Part 214, and the Carrier’s Contractor Safety Requirements. It is incumbent upon the holder of this encroachment permit to contact the Railroad to determine what if any railroad safety training, or operational requirements must be met before any work can start. Most charges for Railroad support services are found in its published tariffs. Upon request, the holder of this encroachment permit will be given an estimate of any other fees to be incurred.

Section “C” - Design Particulars of Proposed Line (s)

Commodity transmitted in pipeline: __________________________

Is commodity hazardous? __________________________

**PIPE DATA**

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<tr>
<td><strong>Casing Pipe</strong></td>
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(Casing must have a 2" minimum clearance between greatest outside diameter of carrier pipe and inside diameter of casing; when furnishing diameters give O.D. of carrier and I.D. of casing.)

Depth of carrier pipe below natural ground: ________________

Depth of casing (top of casing to bottom of rail): ________________

Depth of casing (top of casing to sub-grade): ________________

Maximum operating pressure: ________________

Does casing terminate above ground? ________________

Is casing vented: ________________

Describe vents (number, size, and height above ground): __________________________

Type of material of carrier pipe elsewhere in line if different from undertrack material. If open ditch, give depth, profile and lining information, and whether debris screens or floodgates are used: __________________________

Proposed method of undertrack installation.
(If other than boring or jacking, a detailed plan must be submitted and extra review time allowed).

Location of proposed pipeline crossing relative to nearest section line, measured at right angles to the section line where pipeline will pass under tracks: _____ ft. from (N)(S)(E)(W)
(Center) line of
Section ______, Township ______, Range ______
County ______ or city street ______
City of ______

Angle of pipeline crossing to track (Degree minimum):

Additional description, location information, etc.:

Section “D” Insurance Information and Applicant’s Signature:

The Railroad will ordinarily require Applicant and/or contractor(s) and subcontractor(s) to provide liability insurance in an amount of at least $1 million before work commences or any entry is made on or over Railroad property. In executing this Application, Applicant acknowledges that it is aware of all requirements and agrees to procure insurance and furnish certificate thereof, naming the Railroad as an additional insured or co-insured under a suitable policy of insurance to cover all risks undertaken in carrying out the proposed work on Railroad’s property.

I hereby certify that this Application is made and signed by me as the duly authorized officer or representative of Applicant, which agrees to pay the Application fee and all railroad required fees established by the Carrier, and upon and after commencement of the work described herein, the one-time fee, and annual fees then or thereafter imposed. After applicant’s plans have been approved by the Carrier’s duly authorized agent or engineer, all fees required by the Railroad have been paid, all safety and railroad requirements identified by the Carrier have been met, and the application fee and the first annual license fee paid, this form duly counter signed becomes the encroachment permit and authorization to proceed.

Applicant Signature __________ Date 2/25/20

Print Applicant’s Name __________________________ Applicant’s Title __________________________

NCRA Fees:
$ ________ Applicant Fee
$ ________ Prepaid Annual License Fee
$ ________ One-Time Fee

Engineering Inspection Fees
$ ________ Engineering Review Fee
$ ________ 49 CFR 214 Roadway Worker Safety Training Fee
$ ________ Other One-Time Fees
Return Completed Application to:

North Coast Railroad Authority
419 Talmage Road, Suite M
Ukiah, CA 95482
Fax: 707-463-3282
Email: ncrad@sbglobal.net

ENCROACHMENT APPROVAL

North Coast Railroad Authority

Title: Executive Director

Engineering Review (if applicable)

Title: Engineer - ART for Dave Anderton

* NOTE 72 hours' notice must be given to NCRA at 707-463-3280 prior to construction and/or access.

** All fees must be paid prior to construction.
City of Healdsburg
Foss Creek Pathway Segments 7 & 8
Encroachment Permit

Permit to Construct is granted with the following understanding and requirements:

1. NCRA shall be given written notice two weeks before the start of any work within NCRA right of way.
2. A construction work plan shall be submitted including a plan to access work within NCRA right of way.
3. NCRA shall be provided detailed botanical information on all planting within NCRA right of way for final approval.
4. During construction NCRA shall be afforded the opportunity to check elevations of all drainage facilities that affect drainage within NCRA right of way.
5. NCRA shall be given the opportunity to verify construction staking to check horizontal offsets from the centerline of track and elevations.
6. No equipment shall operate on NCRA track without a specific access plan approved by an NCRA representative.
7. No equipment shall be left parked nor material placed within 8’- 6” of the track.
8. This permit is being granted with the understanding that all construction shall be completed before regular freight service is restored. Currently there are no plans to reinstate rail service. If freight service is restored prior to construction or before construction is completed there could be additional restrictions so that construction will not interfere with rehabilitation of the track or operations. In addition, the contractor will be required to be roadway worker trained by NCRA’s operator and the contractor will be required to pay for any required flagging and expenses incurred as a result of construction activities.
9. It is possible that NCRA’s Operator may complete maintenance activities in this area before the fall during fire season. As a precaution a Red Cone or Flag shall be placed in the middle of the tracks five hundred feet before and after the limits of ongoing work within NCRA right of way.
10. The Owner and its Contractor shall be responsible to obtain all required regulatory permits if any and compliance with regulatory permit conditions for work within NCRA right of way. NCRA shall be provided copies of all permits.
11. Existing obstructions including but not limited to trees, overhead utilities, underground utilities and culverts present within the project limits shall be the responsibility of the City and its Contractor to locate and protect in-place as required.
12. All woody debris associated with vegetation removal if any shall be removed from the right of way.
13. The contractor shall be required to abide by all of NCRA’s Best Management Practices (BMPs). NCRA’s BMPs are attached.
14. Before any work is done on NCRA property the Contractor shall provide the required insurance documentation to NCRA which will hold NCRA and its agents harmless. If the contractor proposes to store equipment on NCRA property those areas shall be outlined and appropriate protection from equipment leakage of fluids shall be provided.

15. Any disturbance of the existing ground cover shall be restored and properly protected from erosion. NCRA shall be provided a copy of the project SWPPP for review.

16. No maintenance and/or fueling of equipment shall be allowed on NCRA’s right of way. Any event during construction that causes a spill of any petroleum or toxic materials shall be promptly reported to the proper resource agencies and the NCRA. A spill kit shall be on site during all construction.

17. It shall be the responsibility of the Owner and its contractor to locate existing utilities on NCRA property.
BMP’s for Private Encroachment Construction Activities Under .25 Acres With No Track Work

BEST MANAGEMENT PRACTICES (BMPS)

CONSTRUCTION MEASURES

C1 Work will not be conducted in waterways and wetlands.

C2 Use appropriate pollution prevention controls during servicing and fueling of construction vehicles including:

- Perform fueling and servicing in designated areas located no less than 100 feet from streams, creeks, wetlands and any other native waterway.
- When fueling, do not “top off” tanks.
- Carry spill containment kits in all construction vehicles.
- Use a secondary containment system such as a drain pan or drain cloth when refueling to catch spills.
- Train all project personnel and subcontractors in proper fueling, servicing and clean up procedures.
- Develop and implement a contingency plan for leaks and spills of hazardous materials during refueling activities.
- Report all fluid spills immediately and in accordance with the contingency plans.
- Take appropriate action to contain spills and remove impacted media (soil) as soon as feasible in accordance with the contingency plans.
- Collect confirmation samples to verify removal of impacted soil.

C3 Develop stormwater pollution prevention controls to minimize soil erosion and sedimentation including:

- Control sheet flow and storm water run off from all disturbed areas using ditches, berms, weed free wattles, straw bales, and silt fencing.
- Cover or stabilize loose soil and exposed slopes prior to the onset of any rainy season and any time that rain is forecast within 24 hours.
- Use protective mats to minimize ground damage where vehicle travel through wetlands or other saturated soil areas cannot be avoided in temporary work areas.
- Apply gravel to a depth of three (3) inches to access roads used during the rainy season.
- Install sandbags or other erosion control measure to prevent silt runoff to public roadways.
BMP’s for Private Encroachment Construction Activities Under .25 Acres With No Track Work

- Install silt fencing and fiber rolls around soil and gravel stockpiles between October 15 and April 15 to prevent sedimentation in nearby watercourses and wetlands.
- Stabilize stream banks prior to October 15 with riprap, native plantings, willow wattles or other biotechnical slope stabilization technique.
- Hydrosedt disturbed areas before October 15 with a mixture of weed-free native and non-invasive plants that provide protection from soil erosion. The seed mixtures will be developed for each site based upon local conditions.

C4 Implement air quality controls such as the following;

- Conduct all construction activities in accordance with local and state air quality regulations
- Water all active project areas at least twice a day if needed in dry conditions.
- Do not conduct rehabilitation activities that create dust during inappropriate wind conditions.
- Conduct any spraying of herbicides in accordance with the approved herbicide spraying plan.
- All equipment will comply with appropriate air quality regulations.
- Cover all trucks hauling soil, sand, and other loose materials or require that all trucks have a least two feet of freeboard.
- Sweep streets if visible soil material is carried onto adjacent streets.
- Enclose, cover, water twice daily or apply soil stabilizers to exposed stockpiles.
- Limit traffic speeds on unpaved roads to 15 miles per hour.
- Replant groundcover herbaceous vegetation in disturbed areas as soon as possible to prevent or reduce dirt and dust in the air.
- Minimize equipment idling time.

GEOLOGY AND SOILS

G1 Implement soil erosion control measures such as the use of runoff diversions, silt fences and filter socks. Site-specific measures shall be determined prior to rehabilitation activities being started. Implement Measure R4.

G2 Hydrosedt or place erosion control materials on areas that have been graded or disturbed to avoid the deposition of sediment into nearby waterways.
BMP’s for Private Encroachment Construction Activities Under .25 Acres  
With No Track Work

**WATER RESOURCES**

**W1**  The project will comply with the National Pollution Discharge Elimination System (NPDES) permit process and file a Notice of Intent (NOI) and SWPPP to the Regional Water Quality Control Board (RWQCB), as necessary.

**NOISE AND VIBRATION**

**NV1**  In order to reduce construction noise at nearby receptors, the following noise abatement measures will be implemented:

- Construction activities generating noise in excess of the CNEL limit (usually 50 db) will not occur between 7:00 p.m. and 7:00 a.m. or on weekends and holidays in residential areas.
- Activities will not include the use of heavy equipment that could result in excessive vibration which could have a significant impact on historical buildings or structures near the railroad line.
- All internal combustion engines will be equipped with a muffler of a type recommended by the manufacturer.
- Equipment will be turned off during long periods (>1/2 hour) of non-use.
- Locate stationary noise-generating equipment away from noise sensitive receptors such as residences. The appropriate distance will be determined by a qualified noise engineer.
- All equipment is to be maintained and operators are to be trained in their proper use.

**ENERGY**

**E1**  Implement energy conservation measures during construction such as:

- Passenger vehicles and trucks may not be left idling for longer than 10 minutes.
- Material deliveries by truck will be consolidated and deliveries made during off-peak hours.

**BIOLOGY**

**B1**  Site access, staging, storage, and parking areas shall be located on ruderal (weedy), disturbed or developed lands not containing native vegetation.

**B2**  Vehicle travel adjacent to wetlands and riparian areas shall be limited to existing roads and designated access paths.

**B3**  Sensitive natural communities (i.e., wetlands, waters, and riparian zones) shall be conspicuously marked in the field and work activities shall be limited to outside the marked areas.
BMP’s for Private Encroachment Construction Activities Under .25 Acres
With No Track Work

B4  Qualified biologists shall monitor activities that could potentially cause impacts on adjacent sensitive biological resources such as streams and wetland areas. The monitoring biologist will have the authority to suggest means of avoiding impacts and stop work, if necessary.

B5  Where it is feasible to avoid protected trees, keep vehicles and mechanical equipment outside the drip line of these trees. In areas where oaks or other protected trees cannot be avoided, replace trees removed with the same native tree species at a minimum 3:1 ratio, or as required by applicable ordinance(s). Prior to removal of any tree during the nesting season (March 1 through August 15) trees should be inspected by a qualified biologist for active nests. If the nest is active the tree should not be removed until after fledging is confirmed.

B8  Herbicide applications shall only be used in accordance with the herbicide spraying plan approved by the RWQCB and manufactures directions and shall be confined to within the right-of-way. Only herbicides approved for aquatic habitats will be used in areas adjacent to open waters and wetland habitats.

TRAFFIC

T1  A construction phasing/sequencing and traffic management plan will be developed and implemented to avoid traffic impacts during rehabilitation activities.

HISTORIC RESOURCES

HR1  A worker education program shall be developed and presented to all project personnel before they start working areas that have sensitive historic resources adjacent to the project.

The education program shall summarize relevant laws and regulations that protect historic resources, discuss sensitive resources with the potential to occur in the work zone, explain the role and authority of the cultural resource monitors and review applicable avoidance and minimization measures to protect sensitive resources.
GEOTECHNICAL STUDY REPORT
FOSS CREEK PATHWAY
SEGMENTS 7 & 8
HEALDSBURG, CALIFORNIA

Project Number:
1193.69.04.1

Prepared For:
Coastland Civil Engineering
1400 Neotomas Avenue
Santa Rosa, CA 95405

Prepared By:
RGH Consultants

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Project Manager

Middletown Office
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Middletown, CA 95461
P: 707-987-4602

Eric G. Chase
Senior Associate Engineer

November 30, 2017
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INFORMATION ABOUT YOUR GEOTECHNICAL REPORT
INTRODUCTION

This report presents the results of our geotechnical study for the Foss Creek Pathway, Segments 7 & 8, to be constructed from just south of Dry Creek Road at Grove Street to the intersection of Grove Street and Healdsburg Avenue in Healdsburg, California. The site location generally parallels the existing railroad tracks and is shown on Plate 1, Appendix A.

We understand that the City of Healdsburg plans to extend the existing pedestrian pathway that currently stops near the Carson Warner Memorial Skate Park (1100 Grove Street). The new segment of pathway will branch off the existing pathway east of the skate park and cross Foss Creek via a new pedestrian bridge. From there it will follow the North Coast Rail Authority right-of-way and continue north along the railroad tracks, to and cross Dry Creek Road and terminate at Grove Street. Pathway features are to include a 10-foot wide pedestrian pathway, two creek-water crossings, a boardwalk section, and an enhanced safety crossing at Dry Creek Road. Culvert upgrades are also planned at several locations. Pathway features and station numbering used in this report refer to sheets 1 through 6 of 6 sheets of a plan set titled “Conceptual Pathway Plan” prepared by Coastland Civil Engineering, dated August 2017.

SCOPE

The purpose of our study, as outlined in Amendment Number 9 to your Master Agreement for Professional Geotechnical Engineering and Material Testing Services dated May 11, 2017, was to generate geotechnical information for the design and construction of the project. Our scope of services included reviewing selected published geologic data pertinent to the site; evaluating the subsurface conditions with borings and laboratory tests; analyzing the field and laboratory data; and presenting this report with the following geotechnical information:

1. A brief description of the soil and groundwater conditions observed during our study;
2. A discussion of seismic hazards that may affect the proposed improvements;
3. Seismic design criteria per guidelines in the 2016 California Building Code; and
4. Conclusions and recommendations regarding:
   a. Primary geotechnical engineering concerns and mitigating measures, as applicable;
   b. Site preparation and grading including remedial grading of weak, porous, compressible and/or expansive soils;
   c. Alternative foundation type(s), design criteria, and estimated settlement behavior;
   d. Lateral loads for abutment wall design;
   e. Preliminary pavement sections based on our experience with similar soil and projects and the results of an R-value test on the anticipated subgrade soil;
   f. Geotechnical engineering drainage improvements; and
g. Supplemental geotechnical engineering services.

**STUDY**

**Site Exploration**

We reviewed our previous geotechnical studies in the vicinity and selected geologic references pertinent to the site. The geologic literature reviewed is listed in Appendix B. On August 10 and August 14, 2017, we performed a geotechnical reconnaissance of the site and explored the subsurface conditions by drilling six borings to depths ranging from about 5 to 24½ feet. Borings B-1 and B-2 borings were drilled with a track-mounted drill rig equipped with 4-inch diameter, solid and hollow stem augers at the approximate locations shown on the Exploration Plan, Plate 2. Due to limited access, borings B-3 through B-6 were drilled using a portable, ATV-mounted drill rig using 4-inch solid stem augers at the approximate locations shown on Plate 2. The boring locations were determined approximately by pacing their distance from features shown on the Exploration Plan and should be considered accurate only to the degree implied by the method used. Our field engineer and engineering geologist located and logged the borings and obtained samples of the materials encountered for visual examination, classification and laboratory testing.

Relatively undisturbed samples were obtained from the borings at selected intervals by driving a 2.43-inch inside diameter, split spoon sampler, containing 6-inch long brass liners, using a 140-pound hammer dropping approximately 30 inches. The sampler was driven 12 to 18 inches. The blows required to drive each 6-inch increment were recorded and the blows required to drive the last 12 inches, or portion thereof, were converted to equivalent Standard Penetration Test (SPT) blow counts for correlation with empirical data. Disturbed samples were also obtained at selected depths by driving a 1.375-inch inside diameter (2-inch outside diameter) SPT sampler, without liners or rings, using a 140-pound hammer dropping approximately 30 inches. The sampler was driven 12 to 18 inches, the blows to drive each 6-inch increment were recorded, and the blows required to drive the final 12 inches, or portion thereof, are provided on the boring logs. Disturbed “bulk” samples of the anticipated subgrade soils were also obtained from the borings and placed in buckets.

The logs of the borings showing the materials encountered, groundwater conditions, converted blow counts and sample depths are presented on Plates 3 through 10. The soil is described in accordance with the Unified Soil Classification System, outlined on Plate 11.

The boring logs show our interpretation of the subsurface soil and groundwater conditions on the date and at the locations indicated. Subsurface conditions may vary at other locations and times. Our interpretation is based on visual inspection of soil samples, laboratory test results, and interpretation of drilling and sampling resistance. The location of the soil boundaries should be considered approximate. The transition between soil types may be gradual.
**Laboratory Testing**

The samples obtained from the borings were transported to our office and re-examined to verify soil classifications, evaluate characteristics, and assign tests pertinent to our analysis. Selected samples were laboratory tested to determine their water content, dry density, classification (Atterberg Limits, percent of silt and clay), shear strength, and R-value. The test results for all but the R-value test are presented on the boring logs. Results of the classification, triaxial strength, and R-value tests are presented on Plates 12 through 16.

**SITE CONDITIONS**

**General**

Sonoma County is located within the California Coast Range geomorphic province. This province is a geologically complex and seismically active region characterized by sub-parallel northwest-trending faults, mountain ranges and valleys. The oldest bedrock units are the Jurassic-Cretaceous Franciscan Complex and Great Valley sequence sediments originally deposited in a marine environment. Subsequently, younger rocks such as the Tertiary-age Sonoma Volcanics group, the Plio-Pleistocene-age Clear Lake Volcanics and sedimentary rocks such as the Guinda, Domengine, Petaluma, Wilson Grove, Cache, Huichica and Glen Ellen formations were deposited throughout the province. Extensive folding and thrust faulting during late Cretaceous through early Tertiary geologic time created complex geologic conditions that underlie the highly varied topography of today. In valleys, the bedrock is covered by thick alluvial soil. The site is located in the Dry Creek alluvial valley, north of its confluence with the Russian River. Valley alluvium in this area may be up to 150 feet thick (Huffman, 1980).

**Geology**

Published geologic maps (Delattre et al., 2010) indicate the property is underlain by Quaternary alluvium. The alluvium ranges from modern/active to Holocene and includes poorly to moderately sorted sand, gravel, silt and clay.

**Surface**

The pathway alignment extends primarily over relatively level ground, with local depressions associated with drainages, and the Norton Slough crossing at the south end. The vegetation consists of seasonal grasses and sparse oak trees. Dense stands of mature oak and bay trees line the creek/slough. The majority of the pathway alignment follows the course of the existing railroad tracks (currently not in service), where grass growth is periodically maintained by service crews. In general, the ground surface is moderately hard. However, soil in the area that appears hard and strong when dry will typically lose strength rapidly and settle under the loads of fills, foundations and slabs as its moisture content increases and approaches saturation. This typically occurs because the surface soil is weak, porous and compressible.
Natural drainage consists of sheet flow over the ground surface that concentrates in man made surface drainage elements such as shallow canals, and natural drainage elements such as the adjacent creek and slough.

**Subsurface**

**General**

Borings B-3 and B-4 were drilled at locations where the standard, paved pathway section will be constructed, as opposed to elevated crossings. In boring B-3 we encountered stiff, medium plasticity (LL = 36, PI = 19), light brown sandy clay to about 3 feet below the surface. We encountered stiff, orange-brown sandy clay with some gravels to about 6 feet below the surface. In boring B-4 we encountered about 1½ feet of soft, sandy silt fill soils. We anticipate the presence of shallow heterogeneous fill soils along much of the pathway alignment due to its proximity to the railroad and many underground utilities. Heterogeneous fill is a material with varying density, strength, compressibility and shrink-swell characteristics that often has an unknown origin and placement history. Underlying the fill in boring B-4, we encountered sandy silt and sandy clay to about 4½ feet below the surface. We encountered medium dense, clayey gravel at about 4½ feet and terminated the boring at 5 feet. We encountered similar stratigraphy in boring B-5, described in subsequent sections.

**Pedestrian Bridge at 3573+00**

Our borings and laboratory tests indicate that the portion of the southern pedestrian bridge site we studied is blanketed by 8 to 8½ feet of weak, porous, compressible, clayey soil. Porous soil appears hard and strong when dry but becomes weak and compressible as its moisture content increases towards saturation. These soils include interbedded layers of clay and silty-clayey sand with variable strength. These surface materials are underlain by continued interbedded layers of sandy clay, clayey gravel, and sand-silt mixtures increasing in density with depth. In general, we encountered more coarse-grained soils (clayey gravel and clayey sand with gravel) in boring B-2 and more sandy clay in boring B-1. In boring B-2 we encountered medium dense clayey gravel starting at about 9 feet below the ground surface, whereas in boring B-2 we encountered dense sand with clay and gravel starting at about 19½ feet below the surface. Both borings were terminated in dense to very dense, silty-clayey gravel at 24½ feet below the ground surface. The creek channel is approximately 3 to 4 feet deep at this location and a small amount of water was present at the time of our exploration. At this location, a 60-foot span pedestrian bridge is planned.

**Pedestrian Bridge at 3590+50**

In boring B-6, we encountered medium stiff to stiff sandy silt to about 3½ feet below the ground surface, underlain by stiff sandy to silty clay to about 7 feet. These materials appear low in plasticity and expansion potential. At this location, a 40-foot bridge will span an existing culvert, localized swale, and an environmentally sensitive habitat area (ESHA).
Boardwalk at 3604+00

In boring B-5, we encountered about 1 foot of stiff, sandy silt fill soil underlain by sandy clay to about 4½ feet below the surface. Below 4½ feet, we encountered dense clayey gravel with sand and terminated the boring at 5 feet. The clay fraction of this material exhibits high plasticity (LL = 50, PL = 32). At this location, a 114-foot, pier-supported boardwalk will span an existing culvert, localized swale, and ESHA.

A detailed description of the subsurface conditions found in our borings is given on Plates 3 through 10, Appendix A. Based on Table 20.3-1 of American Society of Civil Engineers (ASCE) Standard 7-10, titled “Minimum Design Loads for Buildings and Other Structures” (2010), we have determined a Site Class of D should be used for the site.

Corrosion Potential

Mapping by the Natural Resources Conservation Service (2017) indicates that the corrosion potential of the near surface soil (Zamora silty clam loam, map unit ZaA) is moderate for uncoated steel and low for concrete. Performing corrosivity tests to verify these values was not part of our requested and/or proposed scope of work. Should the need arise, we would be pleased to provide a proposal to evaluate these characteristics.

Groundwater

Free groundwater was first detected in our borings (B-1 and B-2) at depths ranging from 5 to 10 feet below the ground surface at the time of drilling. Water levels remained relatively stable until the holes were backfilled after drilling was completed. Fluctuation in the groundwater level typically occurs because of a variation in rainfall intensity, duration and other factors such as flooding and periodic irrigation.

Flooding

Our review of the Federal Emergency Management Agency (FEMA) Flood Zone Map for Sonoma County, California, City of Healdsburg, panels 06097C0363E, 06097C0532E, and 06097C0551E, dated December 2, 2008, indicates that the proposed pathway alignment is Zone “X,” an area determined to be outside the 500-year flood plain. The pedestrian bridge at the southern end of the pathway is located within Zone “A,” the 100-year flood boundary. Pedestrian bridge abutments will need to be designed to provide support in saturated, flooded conditions, and to resist scour. Evaluation of flooding potential is typically the responsibility of the project civil engineer.
DISCUSSION AND CONCLUSIONS

Seismic Hazards

Seismicity

Data presented by the Working Group on California Earthquake Probabilities (2007) estimates the chance of one or more large earthquakes (Magnitude 6.7 or greater) in the San Francisco Bay region within the next 30 years to be approximately 63 percent. Therefore, future seismic shaking should be anticipated at the site. It will be necessary to design and construct the proposed improvements in strict adherence with current standards for earthquake-resistant construction.

Faulting

We did not observe landforms within the area that would indicate the presence of active faults and the site is not within a current Alquist-Priolo Earthquake Fault Zone (Bryant and Hart, 2007). Therefore, we believe the risk of fault rupture at the site is low. However, the site is within an area affected by strong seismic activity. Several northwest-trending Earthquake Fault Zones exist in close proximity to and within several miles of the site (Bortugno, 1982). The shortest distances from the site to the mapped surface expression of these faults are presented in the table below.

<table>
<thead>
<tr>
<th>ACTIVE FAULT PROXIMITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fault</td>
</tr>
<tr>
<td>San Andreas</td>
</tr>
<tr>
<td>Healdsburg-Rodgers Creek</td>
</tr>
<tr>
<td>Concord-Green Valley</td>
</tr>
<tr>
<td>Cordelia</td>
</tr>
<tr>
<td>West Napa</td>
</tr>
<tr>
<td>Maacama</td>
</tr>
</tbody>
</table>

Liquefaction

Liquefaction is a rapid loss of shear strength experienced in saturated, predominantly granular soil below the groundwater level during strong earthquake ground shaking due to an increase in pore water pressure. The occurrence of this phenomenon is dependent on many complex factors including the intensity and duration of ground shaking, particle size distribution and density of the soil.

Granular soil was encountered at the site below the groundwater table. Therefore, we performed an analysis of the blow count data from our borings using the methods of Seed and Idriss (1982), Seed and others (1985), Youd and Idriss (2001), Idriss and Boulanger (2004) and
Idriss and Boulanger (2008). These procedures normalize the blow counts to account for overburden pressure, rod length, hammer energy, and fines (percent of silt and clay) content. Once the blow counts are normalized and adjusted to a clean sand blow count, the cyclic resistance ratio (CRR) for each blow count is then determined using the same procedures referenced above. The CRR is compared to the cyclic stress ratio (CSR) induced by the earthquake. Calculating the CSR requires a peak ground acceleration and design earthquake magnitude.

Peak ground acceleration (PGA) was determined using the methods in the 2016 California Building Code (CBC) and the American Society of Civil Engineers (ASCE) Standard 7-10, titled “Minimum Design Loads for Buildings and Other Structures” (2010). Using the U.S. Seismic Design Maps from the United States Geological Survey (USGS) website (http://earthquake.usgs.gov/designmaps/us/application.php), the site’s latitude and longitude of 38.6228°N and 122.8742°W, respectively, and a site soil Class of D, the PGA for the site is 0.553g. Using this information, the CSR for a Mm 7.5 earthquake at the site ranges from 0.36 to 0.56. The Healdsburg-Rodgers Creek fault is most likely controlling the ground motions at the site. According to Petersen (1996), the Healdsburg-Rodgers Creek fault is capable of a Mm 7.0 earthquake. Therefore, the CRR values at the site must be scaled to account for the difference between Mm 7.0 and Mm 7.5. When the scaling factor for magnitude and confining stress corrections presented in Idriss and Boulanger (2004) are applied, the CRR values at the site do not exceed the CSR values for 1 to 2 foot thick sand layers in boring B-2 between about 8 and 15 feet. In addition, there is a layer from about 3 to 7 feet in boring B-1 that could be susceptible to liquefaction if the groundwater level rises. Therefore, we judge that there is potential for liquefaction at the pedestrian bridge at station 3573+00.

There are three potential consequences of liquefaction: bearing capacity failure, lateral spreading toward a free face (e.g. riverbank) and settlement. Bearing capacity failure is sudden and extreme settlement of foundations that typically occurs when the liquefied layer is relatively close (typically within two times the footing width, depending on the loads) to the bottom of the foundation. Because the liquefiable layer could be as shallow as 3 feet below the ground surface depending on groundwater elevation, we judge that the potential for bearing capacity failure could be high depending on the depth of the abutment. In order to reduce the risk of bearing capacity failure, the pedestrian bridge needs to be supported on drilled piers.

Lateral spreading can occur where continuous layers of liquefiable soil extend to a free face, such as a creek bank. The bridge abutments are immediately adjacent to the creek so continuous liquefiable layers could extend to the creek. However, the corrected blow counts for theses soils are greater than 18 blows per foot. According to Youd, Hansen, and Bartlett (1992), soil with a corrected blow count greater than 15 blows per foot are not susceptible to lateral spreading. Therefore, we judge the potential for liquefaction-induced lateral spreading at the site is low.

The third potential consequence of liquefaction is settlement due to densification of the liquefied soil. Potential settlements based on the blow count data and cyclic stress ratio were calculated using the methods of Ishihara and Yoshimine (1992). For the layers encountered in boring B-1 and B-2, we calculated total settlement ranging from ¼ to ¾ inch.
**Densification**

Densification is the settlement of loose, granular soil above the groundwater level due to earthquake shaking. Typically, granular soil that would be susceptible to liquefaction, if saturated, are susceptible to densification if not saturated. As discussed in the “Liquefaction” section, the soil at the site have the potential for liquefaction. As such, we judge that there is potential for densification if the granular layers are not saturated. We estimate that densification settlement will be less than that predicted for liquefaction.

**Lurching**

Seismic slope failure or lurching is a phenomenon that occurs during earthquakes when slopes or man-made embankments yield and displace in the unsupported direction. Provided the foundations are installed as recommended herein, we judge the potential for impact to the proposed improvements from the occurrence of this phenomenon at the site is low. However, some of these secondary earthquake effects are unpredictable as to location and extent, as evidenced by the 1989 Loma Prieta Earthquake.

**Geotechnical Issues**

**General**

Based on our study, we judge the proposed improvements can be built as planned, provided the recommendations presented in this report are incorporated into their design and construction. The primary geotechnical concerns during design and construction of the project are:

1. The presence of 1½ (localized along pathway) to 8½ feet (southern pedestrian bridge) of weak, porous, compressible, clayey surface soil and heterogeneous fill;
2. The potential for liquefaction at the southern pedestrian bridge;
3. The detrimental effects of uncontrolled surface runoff and groundwater seepage on the long-term satisfactory performance of pavements and abutments, given the erosion potential and porous nature of the surface soil, and proximity to flowing water; and
4. The strong ground shaking predicted to impact the site during the life of the project.

**Heterogeneous Fill**

Heterogeneous fills of unknown quality and unknown method of placement, such as those found at the site, can settle and/or heave erratically under the load of new fills, structures, and pavements. Footings, abutments, and pavements supported on heterogeneous fill could also crack as a result of such erratic movements. Thus, where not removed by planned grading, the heterogeneous fill must be excavated and replaced as an engineered fill if it is to be used for pavement section support.
Weak, Porous Surface Soil

Weak, porous surface soil, such as that found at the site, appear hard and strong when dry but will lose strength rapidly and settle under the load of fills, foundations, and pavements as their moisture content increases and approaches saturation. The moisture content of this soil can increase as the result of rainfall, periodic irrigation or when the natural upward migration of water vapor through the soil is impeded by, and condenses under fills, foundations, and pavements. The detrimental effects of such movements can be reduced by strengthening the soil during grading. This can be achieved by excavating the weak soil and replacing it as properly compacted fill. For bridge support elements, satisfactory foundation support needs to be obtained below the weak surface soil.

Potentially Liquefiable Soils

As discussed previously, potentially liquefiable soils were encountered in the area of the southern pedestrian bridge. Depending on the groundwater level at the time of the seismic event, foundations for the bridge could be susceptible to bearing capacity failure or densification settlement. As discussed previously, we estimate ¼ to ¾ inch settlement. In order to reduce the impacts of liquefaction, stable foundation support needs to be obtained below the potentially liquefiable soils.

Foundation and Pavement Support - After remedial grading, satisfactory support for the paved pathway can be obtained from the engineered fill. The abutments at pedestrian bridge at Station 3573+00 can be supported on drilled piers that gain support below the potentially liquefiable soil. The abutments for the bridge at Station 3590+50 can be supported on either deepened spread footings that gain support below the weak soils/heterogeneous fill, spread footings founded in compacted fill, or on drilled piers. The boardwalk at Station 3604+00 can be supported on drilled, cast in place concrete piers.

On-Site Soil Quality

All fill materials used in the upper 12 inches of the pavement subgrade must be select, as subsequently described in “Recommendations.” We anticipate that with the exception of organic matter and of rocks or lumps larger than 6 inches in diameter, the excavated material will be suitable for selective re-use as select fill.

Select Fill

The select fill can consist of approved on-site soil or import materials with a low expansion potential. The geotechnical engineer must approve the use of on-site soil as select fill during grading.
Settlement

Bridges and Boardwalk – Provided the bridges and boardwalk are supported on drilled piers as recommended herein, we estimate total settlement of about ½ inch for non-seismic conditions. Seismic-induced settlements will be negligible.

Pathways – Provided the weak soils and heterogeneous fill are removed by and/or strengthened by grading, we estimate the new fill will settle about 1 inch.

Surface Drainage

Because of topography and location, the pathway will be impacted by surface runoff from the elevated railroad prism and from ponding or flow within local swales. Surface runoff typically sheet flows over the ground surface but can be concentrated by the planned site grading, landscaping, and drainage. The surface runoff can pond against structures and/or seep into the pavement section. Therefore, strict control of surface runoff is necessary to provide long-term satisfactory performance of the pathway elements. It will be necessary to divert surface runoff around improvements and provide positive drainage away from structures. This can be achieved by constructing the pathway several inches above the surrounding area and conveying the runoff into man made drainage elements or natural swales that lead downgradient of the pathway.

RECOMMENDATIONS

Seismic Design

Seismic design parameters presented below are based on Section 1613 titled “Earthquake Loads” of the 2016 California Building Code (CBC). Based on Table 20.3-1 of American Society of Civil Engineers (ASCE) Standard 7-10, titled “Minimum Design Loads for Buildings and Other Structures” (2010), we have determined a Site Class of D should be used for the site. Using a site latitude and longitude of 38.6228°N and 122.8742°W, respectively, and the U.S. Seismic Design Maps from the United States Geological Survey (USGS) website (http://earthquake.usgs.gov/designmaps/us/application.php), we recommend that the following seismic design criteria be used for structures at the site.

<table>
<thead>
<tr>
<th>Spectral Response Parameter</th>
<th>Acceleration (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sₗ (0.2 second period)</td>
<td>1.500</td>
</tr>
<tr>
<td>S₁ (1 second period)</td>
<td>0.600</td>
</tr>
<tr>
<td>Sₘₜ (0.2 second period)</td>
<td>1.500</td>
</tr>
<tr>
<td>Sₘ₁ (1 second period)</td>
<td>0.900</td>
</tr>
<tr>
<td>Sᵦₘ (0.2 second period)</td>
<td>1.000</td>
</tr>
<tr>
<td>Sᵦ₁ (1 second period)</td>
<td>0.600</td>
</tr>
</tbody>
</table>
Grading

Site Preparation

Areas to be developed should be cleared of vegetation and debris. Trees and shrubs that will not be part of the proposed project should be removed and their primary root systems grubbed. Cleared and grubbed material should be removed from the site and disposed of in accordance with County Health Department guidelines. We did not observe septic tanks, leach lines or underground fuel tanks during our study. Any such appurtenances found during grading should be capped and sealed and/or excavated and removed from the site, respectively, in accordance with established guidelines and requirements of the County Health Department. Voids created during clearing should be backfilled with engineered fill as recommended herein.

Stripping

Areas to be graded should be stripped of the upper few inches of soil containing organic matter. Soil containing more than two percent by weight of organic matter should be considered organic. Actual stripping depth should be determined by a representative of the geotechnical engineer in the field at the time of stripping. The strippings should be removed from the site, or if suitable, stockpiled for re-use as topsoil in landscaping.

Excavations

Following initial site preparation, excavation should be performed as recommended herein. Excavations extending below the proposed finished grade should be backfilled with suitable materials compacted to the requirements given below.

Within paved pathway areas, and where shallow spread footings are to be used for bridge abutments, old fill and weak, porous, compressible surface soil should be excavated to within 6 inches of its entire depth (about 1½ feet in our borings). Additional excavation should be performed, as necessary, to allow space for the installation of a blanket of select fill, at least 12 inches thick, beneath the pavement section subgrade (not including base rock).

The excavation of weak, porous, compressible, surface materials should extend at least 5 feet beyond the edge of the abutment footings and 3 feet beyond the edge of pavements and three feet beyond the toe of new fills. The excavated materials should be stockpiled for later use as compacted fill, or removed from the site, as applicable.

At all times, temporary construction excavations should conform to the regulations of the State of California, Department of Industrial Relations, Division of Industrial Safety or other stricter governing regulations. The stability of temporary cut slopes, such as those constructed during the installation of underground utilities, should be the responsibility of the contractor. Depending on the time of year when grading is performed, and the surface conditions exposed, temporary cut slopes may need to be excavated to 1½:1, or flatter. The tops of the temporary cut slopes should be rounded back to 2:1 in weak soil zones.
Fill Quality

All fill materials should be free of perishable matter and rocks or lumps over 6 inches in diameter, and must be approved by the geotechnical engineer prior to use. The upper 12 inches of fill beneath and within 3 feet of pavement edges should be select fill. We judge the on-site soil is generally suitable for use as general and select fill. The suitability of the on-site soil for use as select fill should be verified during grading.

Select Fill

Select fill should be free of organic matter, have a low expansion potential, and conform in general to the following requirements:

<table>
<thead>
<tr>
<th>SIEVE SIZE</th>
<th>PERCENT PASSING (by dry weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 inch</td>
<td>100</td>
</tr>
<tr>
<td>4 inch</td>
<td>90 – 100</td>
</tr>
<tr>
<td>No. 200</td>
<td>10 – 60</td>
</tr>
</tbody>
</table>

Liquid Limit – 40 Percent Maximum  
Plasticity Index – 15 Percent Maximum  
R-value – 20 Minimum (pavement areas only)

In general, imported fill, if needed, should be select. Material not conforming to these requirements may be suitable for use as import fill; however, it shall be the contractor’s responsibility to demonstrate that the proposed material will perform in an equivalent manner. The geotechnical engineer should approve imported materials prior to use as compacted fill. The grading contractor is responsible for submitting, at least 72 hours (3 days) in advance of its intended use, samples of the proposed import materials for laboratory testing and approval by the soils engineer.

Fill Placement

The surface exposed by stripping and removal of heterogeneous fill and weak, compressible, surface soil should be scarified to a depth of at least 6 inches, uniformly moisture-conditioned to near optimum and compacted to at least 90 percent of the maximum dry density of the materials as determined by ASTM Test Method D-1557. Approved fill material should then be spread in thin lifts, uniformly moisture-conditioned to near optimum and properly compacted. All structural fills, including those placed to establish site surface drainage, should be compacted to at least 90 percent relative compaction. Only approved select materials should be used for fill within the upper 12 inches of pavement subgrades.
### SUMMARY OF COMPACTION RECOMMENDATIONS

<table>
<thead>
<tr>
<th>Area</th>
<th>Compaction Recommendation (ASTM D-1557)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation for areas to receive fill</td>
<td>After preparation in accordance with this report, compact upper 6 inches to a minimum of 90 percent relative compaction.</td>
</tr>
<tr>
<td>General fill (native or import)</td>
<td>Compact to a minimum of 90 percent relative compaction.</td>
</tr>
<tr>
<td>Structural fill beneath bridge abutments, extending outward to 5' beyond outside of footings</td>
<td>Compact to a minimum of 90 percent relative compaction.</td>
</tr>
<tr>
<td>Trenches</td>
<td>Compact to a minimum of 90 percent relative compaction. Compact the top 6 inches below vehicle pavement subgrade to a minimum of 95 percent relative compaction.</td>
</tr>
<tr>
<td>Retaining wall backfill</td>
<td>Compact to a minimum of 90 percent relative compaction, but not more than 95 percent.</td>
</tr>
<tr>
<td>Pavements, extending outward to 3' beyond edge of pavement</td>
<td>Compact upper 6 inches of subgrade to a minimum of 95 percent relative compaction.</td>
</tr>
<tr>
<td>Aggregate Base</td>
<td>Compact aggregate base to at least 95 percent relative compaction.</td>
</tr>
</tbody>
</table>

### Permanent Cut and Fill Slopes

In general, cut and fill slopes should be designed and constructed at slope gradients of 2:1 (horizontal to vertical) or flatter, unless otherwise approved by the geotechnical engineer in specified areas. Where steeper slopes are required, retaining walls should be used. Fill slopes should be constructed by overfilling and cutting the slope to final grade. “Track walking” of a slope to achieve slope compaction is not an acceptable procedure for slope construction. The geotechnical engineer is not responsible for measuring the angles of these slopes. Denuded slopes should be planted with fast-growing, deep-rooted groundcover to reduce sloughing or erosion. The cut and fill slope inclinations recommended herein address only the stability of the
slopes. It should not be inferred that they address the feasibility of landscaping and weed control. Where these are concerns, the slopes should be flattened accordingly.

**Wet Weather Grading**

Generally, grading is performed more economically during the summer months when on-site soil are usually dry of optimum moisture content. Delays should be anticipated in site grading performed during the rainy season or early spring due to excessive moisture in on-site soil. Special and relatively expensive construction procedures, including dewatering of excavations and importing granular soil, should be anticipated if grading must be completed during the winter and early spring or if localized areas of soft saturated soil are found during grading in the summer and fall.

Open excavations also tend to be more unstable during wet weather as groundwater seeps towards the exposed cut slope. Severe sloughing and occasional slope failures should be anticipated. The occurrence of these events will require extensive clean up and the installation of slope protection measures, thus delaying projects. The general contractor is responsible for the performance, maintenance and repair of temporary cut slopes.

**Foundation Support**

Bridges and boardwalks may be supported on drilled, cast-in-place, reinforced concrete piers. The abutments for the bridge at Station 3590+50 can also be supported on deepened spread footings or engineered fill.

**Spread Footings**

Spread footings should be at least 12 inches wide and should bottom on firm, natural soil at least 36 inches below the existing ground surface, or on engineered fill at least 12 inches below lowest adjacent grade. Additional embedment or width may be needed to satisfy code and/or structural requirements. Footings should be deepened as necessary to provide at least 7 feet of horizontal confinement between the footing bottoms and the face of the nearest slope.

The bottoms of all footing excavations should be thoroughly cleaned out or wetted and compacted using hand-operated tamping equipment prior to placing steel and concrete. This will remove the soil disturbed during footing excavations, restore their adequate bearing capacity, and reduce post-construction settlements. Footing excavations should not be allowed to dry before placing concrete. If shrinkage cracks appear in soil exposed in the footing excavations, the soil should be thoroughly moistened to close all cracks prior to concrete placement. The moisture condition of the foundation excavations should be checked by the geotechnical engineer no more than 24 hours prior to placing concrete.

**Bearing Pressures** - Footings installed in accordance with these recommendations may be designed using allowable bearing pressures of 2,000, 3,000 and 4,000 pounds per square foot (psf), for dead loads, dead plus code live loads, and total loads (including wind and seismic), respectively.
Lateral Pressures - The portion of spread footing foundations extending into firm natural soil or engineered fill may impose a passive equivalent fluid pressure and a friction factor of 350 pounds per cubic foot (pcf) and 0.35, respectively, to resist sliding. Passive pressure on ungraded weak surface soil should be reduced to 150 pcf. Passive pressure should be neglected within the upper 12 inches, unless the soil is confined by concrete slabs or pavements.

Drilled Piers

Drilled, cast-in-place, reinforced concrete piers should be used for foundation support for the southern bridge (at Station 3573+00), the boardwalk, and as an option for the bridge at Station 3590+50. Drilled piers for the southern bridge (Station 3573+00) should be at least 18 inches in diameter and should develop support in native soils beginning at 15 feet below the ground surface (bgs). Drilled piers for the boardwalk and the bridge at Station 3590+50 should be at least 12 inches in diameter and gain support in the soils 2 feet bgs. Larger piers and deeper embedment may be needed to resist the lateral forces imposed by earthquakes per the 2016 California Building Code. Piers should be spaced no closer than 3 pier diameters, center to center.

Skin Friction - The portion of the piers extending below 15 feet bgs for the southern bridge and 2 feet for the boardwalk and bridge at Station 3590+50 may be designed using an allowable skin friction of 600 and 500 psf, respectively, for dead load plus long term live loads. These values can be increased by ⅓ for total loads, including downward vertical wind or seismic forces. Skin friction values of 400 and 350 psf, respectively, should be used to resist uplift forces. End bearing should be neglected because of the difficulty of cleaning out small diameter pier holes, and the uncertainty of mobilizing end bearing and skin friction simultaneously.

Lateral Forces - Lateral loads on piers will be resisted by passive pressure on the soil. An equivalent fluid pressure of 350 pcf acting on two pier diameters should be used. Confinement for passive pressure may be assumed from 15 and 2 feet below the lowest adjacent finished ground surface for the southern bridge and boardwalk/bridge at Station 3590+50, respectively.

Pier Drilling - We encountered groundwater and caving-prone soil within the planned pier depth during our study. If groundwater is encountered during drilling, it may be necessary to de-water the holes and/or place the concrete by the tremie method. If caving soil is encountered, it may be necessary to case the holes. Difficult drilling in gravelly deposits may be required to achieve the required penetration. The drilling subcontractor should review this report, become familiar with site conditions as they pertain to his operation and draw his own conclusions regarding drilling difficulty, suitable drill rigs and the need for casing and dewatering prior to bidding.

Concrete - Concrete mix design and placement should be done in accordance with the current ADSC and/or ACI specifications. Concrete should not be allowed to mushroom at the top of the piers or below the bottom of grade beams.
Retaining Walls (Abutment Walls)

Retaining walls and bridge abutments constructed at the site that retain soils must be designed to resist lateral earth pressures plus additional lateral pressures that may be caused by surcharge loads applied at the ground surface behind the walls. Retaining walls free to rotate (yielding greater than 0.1 percent of the wall height at the top of the backfill) should be designed for active lateral earth pressures. If walls are restrained by rigid elements to prevent rotation, they should be designed for “at rest” lateral earth pressures.

Retaining walls should be designed to resist the following earth equivalent fluid pressures (triangular distribution):

<table>
<thead>
<tr>
<th>Loading Condition</th>
<th>Pressure (pcf)</th>
<th>Additional Seismic Pressure (pcf)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active - Level Backfill</td>
<td>42</td>
<td>11</td>
</tr>
<tr>
<td>Active - Sloping Backfill 3:1 or Flatter</td>
<td>53</td>
<td>23</td>
</tr>
<tr>
<td>At Rest - Level Backfill</td>
<td>63</td>
<td>25</td>
</tr>
</tbody>
</table>

* If required

These pressures do not consider additional loads resulting from adjacent foundations or other loads. If these additional surcharge loadings are anticipated, we can assist in evaluating their effects. Where retaining wall backfill is subject to vehicular traffic, the walls should be designed to resist an additional surcharge pressure equivalent to two feet of additional backfill.

Retaining walls will yield slightly during backfilling. Therefore, walls should be backfilled prior to building on, or adjacent to, the walls. Backfill against retaining walls should be compacted to at least 90 and not more than 95 percent relative compaction. Over-compaction or the use of large compaction equipment should be avoided because increased compactive effort can result in lateral pressures higher than those recommended above.

Foundation Support

Retaining walls should be supported on spread footings or drilled piers, as applicable, designed in accordance with the recommendations presented in this report. Retaining wall foundations should be designed by the project civil or structural engineer to resist the lateral forces set forth in this section.

Wall Drainage and Backfill

Retaining walls should be backdrained as shown on Plate 12, Appendix A. The backdrains should consist of 4-inch diameter, rigid perforated pipe embedded in Class 2 permeable material. The pipe should be PVC Schedule 40 or ABS with SDR 35 or better, and the pipe should be sloped to drain to outlets by gravity. The top of the pipe should be at least 8 inches below lowest adjacent grade. The Class 2 permeable material should extend to within 1½ feet of
the surface. The upper 1½ feet should be backfilled with compacted soil to exclude surface water. Expansive soil should not be used for wall backfill. Where expansive soil is present in the excavation made to install the retaining wall, the excavation should be sloped back 1:1 from the back of the footing or grade beam. The ground surface behind retaining walls should be sloped to drain. Where migration of moisture through retaining walls would be detrimental, retaining walls should be waterproofed.

Pavements

An R-value of 22 was measured on a bulk sample of near-surface soil obtained near boring B-3. Because of potential variation in the on-site soil, we selected an R-value of 20 for use in pavement design calculations. In addition, we have recommended 12 inches of select fill with an R-Value of at least 20 be used as subgrade soil. Based on the selected R-value, we have computed pavement sections for Traffic Indices (TI) ranging from 5.0 to 7.0 in the table below. The project engineer, in consultation with City officials, should choose the pertinent (TI) for this project.

<table>
<thead>
<tr>
<th>TI</th>
<th>ASPHALT CONCRETE (feet)</th>
<th>CLASS 2 AGGREGATE BASE (feet)</th>
<th>IMPORTED SELECT FILL* (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.0</td>
<td>0.30</td>
<td>1.15</td>
<td>1.0</td>
</tr>
<tr>
<td>6.0</td>
<td>0.25</td>
<td>1.05</td>
<td>1.0</td>
</tr>
<tr>
<td>5.0</td>
<td>0.20</td>
<td>0.90</td>
<td>1.0</td>
</tr>
</tbody>
</table>

* R-value ≥ 20

Pavement thicknesses were computed using Caltrans CalFP v1.5 design software and are based on a pavement life of 20 years. These recommendations are intended to provide support for traffic represented by the indicated Traffic Indices. They are not intended to provide pavement sections for heavy concentrated construction storage or wheel loads such as forklifts, parked truck-trailers and concrete trucks.

Prior to placement of aggregate base, the upper 6 inches of the pavement subgrade soil should be scarified, uniformly moisture-conditioned to near optimum, and compacted to at least 95 percent relative compaction to form a firm, non-yielding surface. Aggregate base materials should be spread in thin layers, uniformly moisture-conditioned, and compacted to at least 95 percent relative compaction to form a firm, non-yielding surface. The materials and methods used should conform to the requirements of the City of Healdsburg and the current edition of the Caltrans Standard Specifications, except that compaction requirements should be based on ASTM Test Method D-1557. Aggregate used for the base course should comply with the minimum requirements specified in Caltrans Standard Specifications, Section 26 for Class 2 Aggregate Base.
Wet Weather Paving

In general, the pavements should be constructed during the dry season to avoid the saturation of the subgrade and base materials, which often occurs during the wet winter months. If pavements are constructed during the winter, a cost increase relative to drier weather construction should be anticipated. Unstable areas may have to be overexcavated to remove soft soil. The excavations will probably require backfilling with imported crushed (ballast) rock. The geotechnical engineer should be consulted for recommendations at the time of construction.

Geotechnical Drainage

Surface water should be diverted away from slopes, foundations and edges of pavements. Surface drainage gradients should slope away from foundations in accordance with the requirements of the CBC or local governing agency.

Water seepage or the spread of extensive root systems into the soil subgrade of footings, slabs or pavements could cause differential movements and consequent distress in these structural elements. Landscaping should be planned with consideration for these potential problems.

Maintenance

Periodic land maintenance will be required. Surface and subsurface drainage facilities should be checked frequently, and cleaned and maintained as necessary or at least annually. A dense growth of deep-rooted ground cover must be maintained on all slopes to reduce sloughing and erosion. Sloughing and erosion that occurs must be repaired promptly before it can enlarge.

Supplemental Services

Pre-Bid Meeting

It has been our experience that contractors bidding on the project often contact us to discuss the geotechnical aspects. Informal contacts between RGH and an individual contractor could result in incomplete or misinterpreted information being provided to the contractor. Therefore, we recommend a pre-bid meeting be held to answer any questions about the report prior to submittal of bids. If this is not possible, questions or clarifications regarding this report should be directed to the project owner or their designated representative. After consultation with RGH, the project owner or their representative should provide clarifications or additional information to all contractors bidding the job.
Plan and Specifications Review

Coordination between the design team and the geotechnical engineer is recommended to assure that the design is compatible with the soil, geologic and groundwater conditions encountered during our study. RGH Consultants (RGH) recommends that we be retained to review the project plans and specifications to determine if they are consistent with our recommendations. In the event we are not retained to perform this recommended review, we will assume no responsibility for misinterpretation of our recommendations.

Construction Observation and Testing

Prior to construction, a meeting should be held at the site that includes, but is not limited to, the owner or owner’s representative, the general contractor, the grading contractor, the foundation contractor, the underground contractor, any specialty contractors, the project civil engineer, other members of the project design team and RGH. This meeting should serve as a time to discuss and answer questions regarding the recommendations presented herein and to establish the coordination procedure between the contractors and RGH.

In addition, we should be retained to monitor all soil related work during construction, including:

- Site stripping, over-excavation, grading, and compaction of near surface soil;
- Placement of all engineered fill with verification field and laboratory testing;
- Observation of all foundation excavations, including pier drilling; and
- Observation of subdrain installations.

If, during construction, we observe subsurface conditions different from those encountered during the explorations, we should be allowed to amend our recommendations accordingly. If different conditions are observed by others, or appear to be present beneath excavations, RGH should be advised at once so that these conditions may be evaluated and our recommendations reviewed and updated, if warranted. The validity of recommendations made in this report is contingent upon our being notified and retained to review the changed conditions.

If more than 18 months have elapsed between the submission of this report and the start of work at the site, or if conditions have changed because of natural causes or construction operations at, or adjacent to, the site, the recommendations made in this report may no longer be valid or appropriate. In such case, we recommend that we be retained to review this report and verify the applicability of the conclusions and recommendations or modify the same considering the time lapsed or changed conditions. The validity of recommendations made in this report is contingent upon such review.

These supplemental services are performed on an as-requested basis and are in addition to this geotechnical study. We cannot accept responsibility for items that we are not notified to observe or for changed conditions we are not allowed to review.
LIMITATIONS

This report has been prepared by RGH for the exclusive use of Coastland Civil Engineering and their consultants as an aid in the design and construction of the proposed improvements described in this report.

The validity of the recommendations contained in this report depends upon an adequate testing and monitoring program during the construction phase. Unless the construction monitoring and testing program is provided by our firm, we will not be held responsible for compliance with design recommendations presented in this report and other addendum submitted as part of this report.

Our services consist of professional opinions and conclusions developed in accordance with generally accepted geotechnical engineering principles and practices. We provide no warranty, either expressed or implied. Our conclusions and recommendations are based on the information provided to us regarding the proposed construction, the results of our field exploration, laboratory testing program, and professional judgment. Verification of our conclusions and recommendations is subject to our review of the project plans and specifications, and our observation of construction.

The borings represent the subsurface conditions at the locations and on the date indicated. It is not warranted that they are representative of such conditions elsewhere or at other times. Site conditions and cultural features described in the text of this report are those existing at the time of our field exploration on August 8 and 14, 2017, and may not necessarily be the same or comparable at other times.

The scope of our services did not include an environmental assessment or a study of the presence or absence of toxic mold and/or hazardous, toxic or corrosive materials in the soil, surface water, groundwater or air (on, below or around this site), nor did it include an evaluation or study for the presence or absence of wetlands. These studies should be conducted under separate cover, scope and fee and should be provided by a qualified expert in those fields.
APPENDIX A - PLATES

LIST OF PLATES

Plate 1  Site Location Map
Plate 2  Exploration Plan
Plates 3 through 10  Logs of Borings B-1 through B-6
Plate 11  Soil Classification Chart and Key to Test Data
Plate 12  Classification Test Data
Plates 13 through 15  Strength Test Data
Plate 16  Resistance (R) Value Data
Plate 17  Retaining Wall Backdrain Illustration
Reference: City of Healdsburg, Foss Creek Pathway Segments 7&8 RFP, dated February 9, 2017. Approx.scale: 1" = 700'
**LOG OF BORING B-1**  
Foss Creek Pathway Segments 7 & 8  
Healdsburg, California

<table>
<thead>
<tr>
<th>Elevation (feet)</th>
<th>Sample Type</th>
<th>Sampling Resistance</th>
<th>Graphic Log</th>
<th>MATERIAL DESCRIPTION</th>
<th>Dry Density (pcf)</th>
<th>Water Content (%)</th>
<th>PL %</th>
<th>LL %</th>
<th>Expansion Index (EI)</th>
<th>UC, ksf</th>
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<tbody>
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<tr>
<td>7</td>
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<td></td>
<td></td>
<td>BROWN CLAYEY SAND (SC), loose, moist, weak, porous</td>
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<tr>
<td>19</td>
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<td>BROWN/GRAY MOTTLED SANDY SILT (ML), medium stiff, moist, weak, porous</td>
<td>90.1 9.6</td>
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<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td>BROWN TO GRAY BROWN SILTY-CLAYEY SAND (SC), medium dense, dry, well-indurated, occasional small roots, somewhat porous</td>
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<td>13</td>
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<td></td>
<td></td>
<td>BROWN CLAY (CL), stiff, moist</td>
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<td>26</td>
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<td>15</td>
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<td></td>
<td>MOTTLED BROWN-GREEN-GRAY SANDY CLAY (CL), very stiff, moist to wet, coarse-grained sand</td>
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**Remarks and Other Tests**  
Su = 2204 psf
**LOG OF BORING B-1, CONTINUED**

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<th>Sampling Resistance, blowifft.</th>
<th>Graphic Log</th>
<th>MATERIAL DESCRIPTION</th>
<th>Dry Density (pcf)</th>
<th>Water Content (%)</th>
<th>% &lt;#200 Sieve</th>
<th>PI, %</th>
<th>LL, %</th>
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<th>UC, ksf</th>
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<td></td>
<td>GREEN CLAY (CL), very stiff, wet</td>
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<td>RED BROWN SAND W/ CLAY AND GRAVEL (SP-SC), dense, wet</td>
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<td></td>
<td>RED BROWN SILTY-CLAYEY GRAVEL (GC-GM), dense to very dense, wet</td>
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<tr>
<td>50'2&quot;</td>
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<td></td>
<td></td>
<td>Boring terminated at 25'</td>
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<td></td>
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<td></td>
<td>Backfilled with cement grout by tremie method</td>
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<tr>
<td>25</td>
<td></td>
<td></td>
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<td></td>
<td>Water encountered at 10'</td>
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Job No: 1193.69.4.1  Date: NOV 2017

Foss Creek Pathway Segments 7 & 8
Healdsburg, California
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<th>Elevation (feet)</th>
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<th>Sampling Resistance, blow count</th>
<th>Graphic Log</th>
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<tr>
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<td>BROWN CLAY (CL), soft to medium stiff, wet, w/ sand</td>
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<td>GRAY-BROWN MOTTLED CLAYEY SAND (SC), medium dense, wet, very fine-grained</td>
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<td>MOTTLED GRAY-BROWN CLAY W/ SAND (CL), stiff dry to moist, porous, weak, w/ roots</td>
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<td>BROWN CLAYEY GRAVEL (GC), dense, wet</td>
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<td>MOTTLED GRAY-BLUE-BROWN SILTY &amp; CLAYEY SAND W/ GRAVEL (SC-SM), medium dense, wet</td>
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<td></td>
<td>MOTTLED GRAY-BLUE-BROWN CLAY (CH), very stiff, wet</td>
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<td>Su = 1839 psf</td>
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Dry Density (pcf) 100.2, Water Content (%) 16.6, % <#200 Sieve, PI, LL, %, Expansion Index (EI), UC, ksf

Remarks and Other Tests
MOTTLED GRAY-BLUE-BROWN CLAY (CH), very stiff, wet

BROWN CLAYEY SILTY SAND (SM), medium dense, wet

BROWN SILTY-CLAYEY GRAVEL (GC-SM), very dense, wet

Boring terminated at 24 1/2'. Water encountered at 5'. Backfilled with cement grout by tremie method
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<td>ORANGE BROWN SANDY CLAY (CL), stiff, wet, w/ gravel</td>
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<td>Boring terminated at 6'</td>
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<td>No free water encountered</td>
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<td>Backfilled with spoils</td>
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Data:
- Date: NOV 2017
- Job No: 1193.69.4.1
- Location: Foss Creek Pathway Segments 7 & 8, Healdsburg, California
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<td>22</td>
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<td>MOTTLED ORANGE &amp; BROWN CLAYEY GRAVEL (GC), medium dense, moist</td>
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<td>Boring terminated at 6.5'</td>
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<td>Backfilled with spoils</td>
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Date(s) Drilled: 08/14/2017
Logged By: KSG
Checked By: EGC

Drilling Method: Solid Stem Auger
Drill Bit Size/Type: 4" drag bit
Total Depth of Borehole: 6 1/2 feet bgs

Drill Rig Type: ATV
Drilling Contractor: Lone Pine Drilling
Approximate Surface Elevation: Existing ground surface

Groundwater Level and Date Measured: N/A
Sampling Method(s): Modified California
Hammer Data: 140lb 30’ drop

E-COPY
**LOG OF BORING B-5**

Foss Creek Pathway Segments 7 & 8
Healdsburg, California

Job No: 1193.69.4.1  Date: NOV 2017

<table>
<thead>
<tr>
<th>Date(s) Drilled</th>
<th>Logged By</th>
<th>Checked By</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/14/2017</td>
<td>KSG</td>
<td>EGC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drilling Method</th>
<th>Drill Bit Size/Type</th>
<th>Total Depth of Borehole</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid Stem Auger</td>
<td>4” drag bit</td>
<td>5 feet bgs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drill Rig Type</th>
<th>Drilling Contractor</th>
<th>Approximate Surface Elevation</th>
<th>Existing ground surface</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATV</td>
<td>Lone Pine Drilling</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Groundwater Level and Date Measured</th>
<th>Sampling Method(s)</th>
<th>Hammer Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>Modified California</td>
<td>140lb 30’ drop</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elevation (feet)</th>
<th>Depth (feet)</th>
<th>Sample Type</th>
<th>Sampling Resistance</th>
<th>Graphic Log</th>
<th>Material Description</th>
<th>Dry Density (pcf)</th>
<th>Water Content (%)</th>
<th>PL, %</th>
<th>LL, %</th>
<th>Expansion Index (EI)</th>
<th>UC, ksf</th>
<th>Remarks and Other Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BROWN SANDY SILT (ML), stiff, dry (fill)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BROWN SANDY CLAY (CL), stiff, moist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BROWN CLAYEY GRAVEL W/ SAND (GC), medium dense, moist</td>
<td>32.9</td>
<td>32</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Boring terminated at 5’
No free water encountered
Backfilled with spoils
<table>
<thead>
<tr>
<th>Elevation (feet)</th>
<th>Depth (feet)</th>
<th>Sample Type</th>
<th>Sampling Resistance, blowcount</th>
<th>Graphic Log</th>
<th>Material Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BROWN SANDY SILT (ML), medium stiff to stiff, dry</td>
</tr>
<tr>
<td>24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BROWN SANDY CLAY (CL), stiff, wet</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LIGHT BROWN SILTY CLAY (CL), stiff, wet</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Boring terminated at 7'
No free water encountered
Backfilled with spoils
<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Elevation (feet): Elevation (MSL, feet).</td>
</tr>
<tr>
<td>2</td>
<td>Depth (feet): Depth in feet below the ground surface.</td>
</tr>
<tr>
<td>3</td>
<td>Sample Type: Type of soil sample collected at the depth interval shown.</td>
</tr>
<tr>
<td>4</td>
<td>Sampling Resistance, blows/ft: Number of blows to advance driven sampler one foot (or distance shown) beyond seating interval using the hammer identified on the boring log.</td>
</tr>
<tr>
<td>5</td>
<td>Graphic Log: Graphic depiction of the subsurface material encountered.</td>
</tr>
<tr>
<td>6</td>
<td>MATERIAL DESCRIPTION: Description of material encountered. May include consistency, moisture, color, and other descriptive text.</td>
</tr>
<tr>
<td>7</td>
<td>Dry Density (pcf): Dry density, in pcf.</td>
</tr>
<tr>
<td>8</td>
<td>Water Content (%): Water content, percent.</td>
</tr>
</tbody>
</table>

**FIELD AND LABORATORY TEST ABBREVIATIONS**

- CHEM: Chemical tests to assess corrosivity
- COMP: Compaction test
- CONS: One-dimensional consolidation test
- LL: Liquid Limit, percent

**MATERIAL GRAPHIC SYMBOLS**

- Fat CLAY, CLAY w/SAND, SANDY CLAY (CH)
- Lean CLAY, CLAY w/SAND, SANDY CLAY (CL)
- Clayey GRAVEL (GC)
- Silty GRAVEL to Clayey GRAVEL (GM-GC)
- SILT, SILT w/SAND, SANDY SILT (ML)
- Clayey SAND (SC)
- Silty SAND (SM)
- Silty to Clayey SAND (SM-SC)
- Poorly graded SAND with Clay (SP-SC)

**TYPICAL SAMPLER GRAPHIC SYMBOLS**

- Bulk Sample
- Core
- 2.5-inch-ID Modified California w/ brass liners
- 2-inch-OD unlined split spoon (SPT)

**OTHER GRAPHIC SYMBOLS**

- `H` Water level (at time of drilling, ATD)
- `W` Water level (after waiting)
- `1` Minor change in material properties within a stratum
- `1.` Inferred/gradational contact between strata
- `?` Queries contact between strata

**GENERAL NOTES**

1. Soil classifications are based on the Unified Soil Classification System. Descriptions and stratum lines are interpretive, and actual lithologic changes may be gradual. Field descriptions may have been modified to reflect results of lab tests.
2. Descriptions on these logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.
<table>
<thead>
<tr>
<th>MATERIAL DESCRIPTION</th>
<th>LL</th>
<th>PL</th>
<th>PI</th>
<th>%&lt;#40</th>
<th>%&lt;#200</th>
<th>USCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown Sandy Clay (CL)</td>
<td>36</td>
<td>17</td>
<td>19</td>
<td>56.1</td>
<td></td>
<td>CL</td>
</tr>
<tr>
<td>Brown Clayey Gravel W/ Sand (GC)</td>
<td>50</td>
<td>18</td>
<td>32</td>
<td>32.9</td>
<td></td>
<td>GC</td>
</tr>
</tbody>
</table>

Dashed line indicates the approximate upper limit boundary for natural soils.

**Remarks:**
- Sampled: 8/14/2017

**Project No.**: 1193.69.04.1
**Project**: Foss Creek Pathway-Segments 7 & 8

**Source of Sample**: B-3  Depth: 1.7'
**Source of Sample**: B-5  Depth: 4.3'

**Tested By**: SCW  **Checked By**: SEF

---

**RGH CONSULTANTS**

CLASSIFICATION TEST DATA
Foss Creek Pathway Segments 7 & 8
Healdsburg, California

Job No: 1193.69.4.1  Date: NOV 2017
Type of Test: Unconsolidated Undrained
Sample Type: Tube
Description: Brown Sandy Clay (CL)

Assumed Specific Gravity: 2.70
Remarks: Sample Dry and Fragile

Tested By: SCW
Checked By: SEF

Sample No.

| Water Content, % | 9.6 |
| Dry Density,pcf | 90.1 |
| Saturation, % | 29.8 |
| Void Ratio | 0.8709 |
| Diameter, in. | 2.41 |
| Height, in. | 5.40 |

At Test

| Water Content, % | 9.6 |
| Dry Density,pcf | 90.1 |
| Saturation, % | 29.8 |
| Void Ratio | 0.8709 |
| Diameter, in. | 2.41 |
| Height, in. | 5.40 |

Strain rate, in./min.: 0.060
Back Pressure, psf: 0
Cell Pressure, psf: 720
Fail. Stress, psf: 4407
Strain, %: 1.7
Ult. Stress, psf: 4407
Strain, %: 1.7
σc Failure, psf: 5127
σα Failure, psf: 720

Project: Foss Creek Pathway-Segments 7 & 8
Source of Sample: B-1 Depth: 4.0'

Proj. No.: 1193.69.04.1 Date Sampled: 8/14/2017
**Sample No.**

| Water Content, % | 16.6 |
| Dry Density, pcf | 100.2 |
| Saturation, % | 65.9 |
| Void Ratio | 0.6815 |
| Diameter, in. | 2.39 |
| Height, in. | 6.00 |

**At Test**

| Water Content, % | 16.6 |
| Dry Density, pcf | 100.2 |
| Saturation, % | 65.9 |
| Void Ratio | 0.6815 |
| Diameter, in. | 2.39 |
| Height, in. | 6.00 |
| Strain rate, in./min. | 0.060 |
| Back Pressure, psf | 0 |
| Cell Pressure, psf | 720 |
| Fail. Stress, psf | 3677 |
| Strain, % | 2.7 |
| Ult. Stress, psf | 3677 |
| Strain, % | 2.7 |
| σ1 Failure, psf | 4397 |
| σ3 Failure, psf | 720 |

**Project:** Foss Creek Pathway-Segments 7 & 8

**Source of Sample:** B-2  **Depth:** 3.0’

**Proj. No.:** 1193.69.04.1  **Date Sampled:** 8/14/2017

---

**Type of Test:**
Unconsolidated Undrained

**Sample Type:** Tube

**Description:** Brown Sandy Clay (CL)

**Assumed Specific Gravity:** 2.70

**Tested By:** SCW  **Checked By:** SEF
**Type of Test:**
Unconsolidated Undrained

**Sample Type:** Tube

**Description:** Brown Sandy Clay (CH)

**Assumed Specific Gravity:** 2.70

**Remarks:** Ring reached maximum capacity on 14th reading

**Tested By:** SCW

**Checked By:** SEF

**Sample No.**

<table>
<thead>
<tr>
<th>Initial</th>
<th>At Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Content, %</td>
<td>12.8</td>
</tr>
<tr>
<td>Dry Density,pcf</td>
<td>115.8</td>
</tr>
<tr>
<td>Saturation, %</td>
<td>75.8</td>
</tr>
<tr>
<td>Void Ratio</td>
<td>0.4559</td>
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<tr>
<td>Diameter, in.</td>
<td>2.39</td>
</tr>
<tr>
<td>Height, in.</td>
<td>5.10</td>
</tr>
</tbody>
</table>

**Strain rate, in./min.**
0.060

**Back Pressure, psf**
0

**Cell Pressure, psf**
720

**Fail. Stress, psf**
15657

**Strain, %**
3.5

**Ult. Stress, psf**
15657

**Strain, %**
3.5

**σ₁ Failure, psf**
16377

**σ₃ Failure, psf**
720

**Client:** RGH Consultants

**Project:** Foss Creek Pathway-Segments 7 & 8

**Source of Sample:** B-4  **Depth:** 3.8'

**Proj. No.:** 1193.69.04.1  **Date Sampled:** 8/14/2017
## R-VALUE TEST REPORT

### Resistance R-Value and Expansion Pressure - ASTM D2844

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>200</td>
<td>129.3</td>
<td>9.8</td>
<td>57</td>
<td>92</td>
<td>518</td>
<td>34</td>
<td>32</td>
<td></td>
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<tr>
<td>2</td>
<td>90</td>
<td>124.3</td>
<td>12.3</td>
<td>35</td>
<td>115</td>
<td>156</td>
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<td>18</td>
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</tr>
<tr>
<td>3</td>
<td>160</td>
<td>127.8</td>
<td>11.0</td>
<td>44</td>
<td>107</td>
<td>329</td>
<td>25</td>
<td>23</td>
<td></td>
</tr>
</tbody>
</table>

### Test Results

- **R-value at 300 psi exudation pressure:** 22
- **Exp. pressure at 300 psi exudation pressure:** 42 psf

### Material Description

- Brown Sandy Clay W/ Gravel (CL)

### Project Information

- **Project No.:** 1193.69.04.1
- **Project:** Foss Creek Pathway-Segments 7 & 8
- **Source of Sample:** Bulk A
- **Date:** 8/30/2017

---

**RGH CONSULTANTS**

**R-VALUE TEST DATA**

Foss Creek Pathway Segments 7 & 8

Healdsburg, California

Job No: 1193.69.4.1 | Date: NOV 2017
Notes:

1. Drain rock should meet the requirements for Class 2 Permeable Material, Section 68, State of California "Caltrans" Standard Specification, latest edition. Drain rock should be placed to approximately three-quarters the height of the retaining wall.

2. Pipe should conform to the requirements of Section 68 of State of California "Caltrans" Standards, perforations placed down, sloped at 1% for gravity flow to outlet or sump with automatic pump. The pipe invert should be located at least 8 inches below the lowest adjacent finished surface.

3. During construction the contractor should use appropriate methods such as temporary bracing and/or light compaction equipment to avoid overstressing the walls. Non-expansive soils to be used as backfill.

4. Slope excavation back at a 1:1 gradient from the back of footing where expansive materials are exposed.

Not to Scale
APPENDIX B - REFERENCES


Bortugno, E.J., 1982, Map Showing Recency of Faulting, Santa Rosa Quadrangle in Wagner and Bortugno, Geologic Map of the Santa Rosa Quadrangle: California Division of Mines and Geology, Regional Geologic Map Series, Map No. 2A, Santa Rosa Quadrangle, Scale 1:250,000.


Delattre, M.P. and McLaughlin, R.J., 2010, Geologic Map of the Jimtown 7.5’ Quadrangle, Sonoma County, California: A Digital Database.


Seed, H.B. and Idriss, I.M., 1982, Ground Motion and Soil Liquefaction During Earthquakes: Earthquake Engineering Research Institute, Berkeley, California.


APPENDIX C - DISTRIBUTION

Coastland Civil Engineering
Attn: Heidi Utterback
1400 Neotomas Avenue
Santa Rosa, CA 95405
utterback@coastlandcivil.com

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Project Plans
encl.