

CONTRACT DOCUMENTS

FOR

LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044

Bid Opening: April 24, 2024 at 2:00PM

Bid Location: CITY OF PACIFICA

Via the City's E-Procurement System: https://secure.procurenow.com/portal/cityofpacifica

CITY OF PACIFICA COUNTY OF SAN MATEO

LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044

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SECTION I PROJECT DESCRIPTION

I. PROJECT DESCRIPTION

LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044

The LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044 includes replacing sewer mainlines throughout the Lower Linda Mar neighborhood in the City of Pacifica (City). The approximate length of sewer mainlines to be replaced are listed below:

- Base Bid = 18,359 linear feet
- Additive Bid Item #1 = 3,450 linear feet
- Additive Bid Item #2 = 7,048 linear feet

The project includes replacement of existing sanitary sewer mains with pipe bursting and open trench construction methods. New sanitary sewer piping ranges from 8-inch to 16-inch HDPE pipe for pipe bursting methods, and 8-inch to 12-inch for open trench methods. The work includes reconnection of sanitary sewer laterals, connection to existing manholes, construction of new manholes, manhole modifications, manhole rehabilitation, and lamp hole replacement.

The project includes, but is not limited to the following additional items:

- Bypass pumping and/or routing of sewage.
- Prepare and implement a water pollution control plan (WPCP) and site protection.
- Traffic and pedestrian control
- Dewatering and the construction of all temporary shoring and slope protection measures.
- Replacement of disturbed landscaping, private improvements, curb & gutter, sidewalks, curb ramps, monuments, AC pavement restoration, and other miscellaneous items.

The project includes additive bid items that may or may not be awarded by the City depending on the bid results and available funding. The project also includes provisions for the contractor to replace private laterals under separate contracts with individual property owners.

These specifications were prepared by or under the direction of the following professional engineer:

Benjamin L. Shick, P.E.

Schaaf & Wheeler, Consulting Civil Engineers Professional Engineering License No. C-68813

Expires: 9/30/2025

SECTION II NOTICE TO BIDDERS

II. NOTICE TO BIDDERS

LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044

Electronic (sealed) proposals will be received by the City Clerk of the City of Pacifica per the attached timeline for the following project:

LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044

To be opened through a teleconferenced meeting live via Zoom Conference (link provided in the OpenGov PRO Bidding System), with a telephone option. The bids will be publicly opened, examined and declared by the City Clerk; said bids, after being publicly opened, examined and declared, will be calculated by the Engineer, their report returned to the City Clerk, and the report of the results of the bidding and the calculations of the Engineer will be reported to the City Council of the City of Pacifica at the next regular meeting thereof. The City Council of the City of Pacifica reserves the right to reject any and all proposals or bids, should it deem this necessary for the public good, waive any irregularities in any bids and its determination as to which bid is the lowest responsible bid and it may also reject the bid of any bidder who has been delinquent or unfaithful in any former contract with the City of Pacifica for the best interest of the City shall be final. The City shall have SIXTY (60) calendar days from and after the opening of the bids within which to make its determination.

The City will only accept completed bid packages submitted electronically to the City through the City's eProcurement portal at https://secure.procurenow.com/portal/cityofpacifica by authenticated submitters up to the date and time as specified in the Notice to Bidders; without exception, responses will not be accepted after the submission deadline regardless of any technical difficulties such as poor internet connections. The City strongly recommends completing your response well ahead of the deadline.

LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044

Following the closure of the bid submittal period, bids will be publicly opened and read for performing work as follows:

Furnishing all labor, materials, equipment, and performing all work necessary and incidental to the construction of the project known as **LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044** according to drawings and specifications prepared by the City of Pacifica and according to the Contract Documents.

The project includes replacing sewer mainlines throughout the Lower Linda Mar neighborhood in the City of Pacifica (City). The approximate length of sewer mainlines to be replaced are listed below:

- Base Bid = 18.359 linear feet
- Additive Bid Item #1 = 3,450 linear feet
- Additive Bid Item #2 = 7,048 linear feet

The project includes replacement of existing sanitary sewer mains with pipe bursting and open trench construction methods. New sanitary sewer piping ranges from 8-inch to 16-inch HDPE pipe for pipe bursting methods, and 8-inch to 12-inch for open trench methods. The work

includes reconnection of sanitary sewer laterals, connection to existing manholes, construction of new manholes, manhole modifications, manhole rehabilitation, and lamp hole replacement.

The project includes, but is not limited to the following additional items:

- Bypass pumping and/or routing of sewage.
- Prepare and implement a water pollution control plan (WPCP) and site protection.
- Traffic and pedestrian control
- Dewatering and the construction of all temporary shoring and slope protection measures.
- Replacement of disturbed landscaping, private improvements, curb & gutter, sidewalks, curb ramps, monuments, AC pavement, and other miscellaneous items.

The project includes additive bid items that may or may not be awarded by the City depending on the bid results and available funding. The project also includes provisions for the contractor to replace private laterals under separate contracts with individual property owners.

The work described will be collectively referred to as the "Project" for the remainder of these specifications.

The Lower Linda Mar Rehabilitation and Repair Project C044 must commence as soon as the Notification to Proceed is provided.

Substantial Completion of this Project shall be completed within the following number of calendar days from the Notice to Proceed. The number of calendar days will be adjusted based on the award of the additive bid items and number of private laterals replaced by the contractor.

Project Component	Number of Calendar Days
Base Bid	280
Additive Bid Item #1 (additional calendar days)	40
Additive Bid Item #2 (additional calendar days)	80
Private Lateral Replacement (additional calendar	0.5 days per
days per private lateral replaced by contractor)	private lateral

The Contractor shall pay to the City of Pacifica Fifteen Hundred Dollars (\$1,500) for each and every calendar days delay in finishing the work in excess of the Contract Time, as modified in accordance with the Contract Documents.

Contractors shall fully complete and submit all materials requested herein including the Statement of Responsibility to be considered a responsive bidder.

The City will only accept completed bid packages submitted electronically to the City through the City's eProcurement portal at:

NOTICE TO BIDDERS

Project Title: Lower Linda Mar Rehabilitation and Repair Project C044

https://secure.procurenow.com/portal/cityofpacifica by authenticated submitters up to the date and time as specified in the Notice to Bidders; without exception, responses will not be accepted after the submission deadline regardless of any technical difficulties such as poor internet connections. The City strongly recommends completing your response well ahead of the deadline.

Bidding procedures are prescribed in the Contract Documents. This is a Public Works project. Bids shall be executed upon the bid forms provided, which are a part of the Contract Documents. Each bidder must submit with its bid security in one of the following forms: cash, cashier's check payable to the City, a certified check payable to the City, or a bid bond in the form included with the bid documents, executed by an admitted surety insurer, made payable to the City. The guaranty shall be in the amount of ten percent (10%) of the amount bid, and shall be forfeited should the bidder, if awarded the contract, fail to enter into the same, or fail to furnish in a timely manner the bonds and/or proof of insurance required under the Contract Documents.

Pursuant to Section 1770, et. seq. of the California Labor Code, the successful bidder and all subcontractors shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations.

Pursuant to Public Contract Code Section 22300, for monies earned by the Contractor and withheld by the City of Pacifica to ensure the performance of the Contract, the Contractor may, at its option, choose to substitute securities meeting the requirements of Public Contract Code Section 22300.

All bidders shall be licensed under the provisions of the Business and Professions Code to do the type of work contemplated in the project. In accordance with provisions of California Public Contract Code Section 3300, the City has determined that the Contractor shall possess one of the following: a valid Class A, General Engineering Contractor license, C-34 Pipeline license, or C-42 Sanitation Systems license at the time that the bid is submitted. Failure to possess the specified license shall render the bid non-responsive.

Effective March 1, 2015, all prime contractors and sub-contractors must have a current registration with the Department of Industrial Relations at the time bids are received and throughout the duration of the project. If a prime contractor is not registered at the time bids are received their bid will be deemed non-responsive. If a sub-contractor is not registered at the time bids are received, they must be registered within 24 hours of the bid opening, otherwise their bid will be deemed non-responsive. In the case that a sub-contractor's bid is deemed non- responsive, the prime contractor shall substitute that subcontractor with a responsive and responsible registered subcontractor per Section 4107 of the Public Contract Code.

For more information please go to the DIR website at https://www.dir.ca.gov/Public-Works/PublicWorksLawsRegsDetDec.html. To register with Department of Industrial Relations please go to the following website: https://efiling.dir.ca.gov/PWCR/ActionServlet?action=displayPWCRegistrationForm.

Effective immediately, the prime contractor shall post job site notices prescribed by California Code of Regulations, Title 8 Section 16541 (d).

SB 854 Notice Requirements:

- No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].
- No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
- This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

The successful bidder will be required to furnish a faithful performance bond in the amount equal to one hundred percent (100%) of the Contract Price, and a labor and materials bond in the amount equal to one hundred percent (100%) of the Contract Price.

The successful bidder will be required to obtain a business license from the City's Finance Department at https://pacifica.hdlgov.com/.

Each bidder shall submit with its bid a statement setting forth its experience on the forms included in the Contract Proposal.

Telephones will not be available to bidders for the preparation or submittal of bids. Bid forms received after the designated time will not be accepted by the City Clerk. Bidders and their authorized agents are invited to attend the bid opening.

The City reserves the right to reject any or all bids; to make any awards or any rejections in what it alone considers to be in the best interest of the City, and waive any irregularities in the bids.

The contract will be awarded, if at all, to the responsible bidder that submits the lowest responsive bid.

The successful bidder must insure that employees and applicants for employment are not discriminated against on the basis of age, color, race, national origin, ancestry, religion, sex, sexual preference, marital status, and shall comply with the Americans with Disabilities Act.

The Design Engineer's Opinion of Probable Cost that includes Base Bid, Additive Bid Items, and Private Lateral Replacement (excluded from Contract) is \$12,200,000.

SECTION III INFORMATION FOR BIDDERS

III. INFORMATION FOR BIDDERS

LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044

SCOPE AND LOCATION OF WORK

The work to be performed under this contract consists of furnishing of all labor, materials, and equipment for the construction of LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044 complete, and in satisfactory operating condition, all as shown on the Contract Documents and/or as specified herein. The work is to be performed in the City of Pacifica.

INSPECTION OF SITE OF WORK

Bidders are required to inspect the site of the work in order to satisfy themselves, by personal examination or by such other means as they may prefer, of the location of the proposed work and the actual conditions of and at the site. Bidders may apply to the Engineer for additional information and explanation before submitting bids. However, no supplemental information requested or furnished shall vary the terms of the Contract Documents or affect the Contractor's sole responsibility to satisfy himself as to the conditions of the work to be performed. No claim for additional compensation will be allowed which is based upon a lack of knowledge of the actual conditions or location of the work.

Submission of a proposal by the bidder shall constitute acknowledgment that the bidder has relied, and is relying, on its own examination of (a) the site of the work; (b) access to the site; (c) all other data, matters, and things requisite to the fulfillment of the work, (d) project information and plans and specifications, and on their own knowledge of existing facilities on and in the vicinity of the site of the work to be constructed under the contract, and not on any representation or warranty of the City, or lack of knowledge of the above items. Note that the City has not performed any geotechnical investigations for this project. Removal, relocation, or protection of existing public utilities not identified by the City shall be done in conformance with Section 4215 of the Government Code.

EXAMINATION OF CONTRACT DOCUMENTS

Each bidder shall thoroughly examine and be familiar with legal and procedural documents, general conditions, soil testing if any, City Standard Plans, Drawings and Specifications, drawings, and addenda (if any). Submission of a proposal shall constitute acknowledgment, upon which the City may rely, that the bidder has thoroughly examined and is familiar with the Contract Documents. Failure or neglect of a bidder to receive or examine any of the Contract Documents shall in no way relieve them of any obligation with respect to their proposal or to the Contract. No claim for additional compensation will be allowed which is based upon a lack of knowledge of any Contract Documents.

INTERPRETATION OF CONTRACT DOCUMENTS

No oral representation or interpretations will be made to any bidders as to the meaning of the Contract Documents. Requests for interpretation shall be made in writing and delivered to the Engineer at least five (5) calendar days before the time announced for opening the proposals. Interpretations, where necessary, will be made by the Engineer in the form of an addendum to the Contract Documents and, when issued, will be sent as promptly as is practical to all parties to whom the bid documents have been issued. All such addenda shall become part of the contract. Requests for information before and after the award of contract shall be directed to:

Dan Patten
Engineering Manager
151 Milagra Drive
Pacifica, California 94044
Phone: 650-922-7248

Email: dpatten@pacifica.gov

It shall also be the bidder's responsibility to call to the attention of the Engineer to any missing pages in the Contract Documents, including the addenda. These items shall be brought to the attention of the Engineer, in writing, at least five (5) calendar days prior to the bid opening date.

PROPOSAL

Proposals shall be made on the blank forms prepared by the City, which may be removed from the bound Contract Documents. All proposals shall give the prices proposed in the space provided, shall give all other information requested therein, and shall be signed by the bidder or an authorized representative, with their address.

Bidders must prepare and submit all required documents.

If the proposal is made by an individual, his/her name, signature, and post office address must be shown.

If the proposal is made by a firm or partnership, the name and post office address of the firm or partnership and the signature of at least one of the general partners must be shown.

If the proposal is made by a corporation, the proposal shall show the name of the corporation and state under the laws of which the corporation is incorporated, the post office address of the corporation, and the signature of at least two officers authorized to sign on behalf of the corporation. Additionally, the proposal shall include a document empowering the signator(s) to execute the proposal and bind the corporation.

If the proposal is made by a joint venture, the proposal shall be signed by at least one of the joint venture firms in a format meeting with the requirements outlined above. Additionally, the proposal shall include a document empowering the signator(s) to execute the proposal and bind the joint venture.

Every contractor, other than a joint venture, who submits a bid, must, at the time the bid is submitted, have a California contractor's license in good standing. The license shall be in the class or classes specified in the Contract Documents. Any bid from an unlicensed contractor, other than those persons exempt under Business & Professions Code section 7028.15, shall be non-responsive and shall be rejected. This statute also makes it a misdemeanor for any person without a valid contractor's license (with specified exceptions) to submit a bid to act as a contractor to a public agency. The penalties on a bidder violating these provisions are severe.

Each proposal shall be enclosed in a sealed envelope, labeled, and delivered prior to the time stated in the Notice to Bidders to the City Clerk, City of Pacifica, 170 Santa Maria Avenue, Pacifica CA 94044. Bidders are warned against making erasures or alterations of any kind without initialing each and every such change. Proposals that contain erasures or irregularities of any kind, without such initialing, or omissions, may be rejected. No oral, telegraphic, or telephone (including facsimile) proposals or modifications will be considered.

ADDENDA

Each proposal shall include specific acknowledgment (in the space provided) of the receipt of all addenda issued during the bidding period. <u>Failure to so acknowledge all addenda may result in the proposal being rejected as not responsive.</u>

BID PRICES

Bid prices shall include everything necessary for the completion of construction and fulfillment of the contract, including but not limited to, furnishing all transportation, materials, equipment, tools, excavation, utilities, sheeting, shoring, bracing and supports, plant and other facilities, and all management, superintendence, permits, labor and services. In the event that the product of a unit price and an estimated quantity does not equal the extended amount quoted, the unit price shall govern, and the correct product of the unit price and the estimated quantity shall be deemed to be the amount bid. Where there is a conflict between words and figures, the words shall govern, and the figures shall be disregarded.

TAXES

Bid prices shall include all applicable federal, state, and local taxes.

EXPERIENCE OF BIDDERS

At the time of bidding, and throughout the period of the contract, each bidder shall be licensed under the provisions of Business and Professions Code of the State of California, to do the type of work contemplated for the project.

It is the intention of the City to award a contract, if at all, to the lowest responsive responsible bidder who furnishes satisfactory evidence that it has the requisite experience and ability, and sufficient capital, facilities, and plant to enable it to prosecute the work successfully and properly, and to complete the work within the time named in the Contract Documents.

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To determine the degree of responsibility to be credited to the bidder, the City will weigh any evidence that the bidder has performed satisfactorily other contracts of like nature and magnitude, and comparable difficulty and rates of progress, to the work. The City shall have sole discretion to determine what contracts are of like nature and magnitude, and comparable difficulty and rates of progress.

LISTS OF SUBCONTRACTORS

Each proposal shall list, on the forms provided, the name and address of each subcontractor to whom the bidder proposes to sublet portions of the work in excess of one-half of one percent of the total amount of the proposal or \$10,000, whichever is greater. For the purpose of this paragraph, a subcontractor is defined as anyone who contracts with the Contractor to furnish materials and labor, labor only, and/or one who specially fabricates and/or installs a portion of the work or improvement according to detailed drawings contained in the Contract Documents. The Prime Contractor shall perform at least 50% of the work with his own forces. All subcontractor listings and subsequent substitutions, if any, shall be done in conformance with the Subletting and Subcontracting Fair Practices Act, Public Contract Code Section 4100 et seq.

PROPOSAL GUARANTY

The proposal shall be accompanied by a proposal guaranty bond duly completed by a corporate surety authorized to conduct business in the State of California for payment to the City of Pacifica in the sum of at least ten percent (10%) of the total amount of the proposal. The bond shall be on the form included in the Contract Documents. Alternatively, a certified or cashier's check, payable to the City of Pacifica in the sum of at least ten percent (10%) of the total amount of the proposal may be substituted for the proposal guaranty bond.

Bidder's security is only accepted by one of the following options 1) paper bond (a scanned copy must be submitted with the bid), OR 2) certified check or cashier's check delivered to the City Clerk prior to bid opening. Bidder's security must be received electronically prior to the bid deadline and the original paper bond must be delivered and postmarked, at the latest the same day as the bid opening date, to:

City Clerk, 540 Crespi Drive Pacifica, CA 94044

The amount payable to the City of Pacifica under the proposal guaranty bond, or the certified or cashier's check, as the case may be, shall be forfeited to the City as liquidated damages in the case of the failure or neglect of the successful bidder to furnish, execute, and deliver to the City the required performance and payment bonds, and evidences of insurance, and to enter into, execute, and deliver to the City, the Agreement, on the form provided herewith, within ten (10) days after being notified in writing by the City that the award has been made.

MODIFICATION OF PROPOSAL

Modification of a proposal already received will be considered only if the modification is received prior to the time established for receiving proposals. All modifications shall be made in writing, executed, and submitted in the same form and manner as the original proposal.

POSTPONEMENT OF OPENING

The City reserves the right to postpone the date and time for receiving and/or opening of proposals at any time prior to the date and time established in the Notice Inviting Bids.

NON-COLLUSION AFFIDAVIT

Section 7106 of the Public Contract Code requires that each bidder execute a Non-Collusion Affidavit in the form shown in the Contract Documents on all public works contracts. By signing the contract Proposal, Bidder agrees to all requirements of this Affidavit.

DISQUALIFICATION OF BIDDER

If there is a reason to believe that collusion exists among any of the bidders, none of the bids of the participants in such collusion will be considered, and the City may elect to reject all bids received.

REJECTION OF PROPOSALS

The City reserves the right to reject any proposals from Contractors who were not pre-qualified, which are incomplete, obscure, or irregular, including but not limited to any proposals which omit a bid on any one or more items for which bids are required; any proposals which omit unit prices if unit prices are required; any proposal in which unit prices are unbalanced in the opinion of the City; any proposals accompanied by insufficient or irregular proposal guaranty; and any proposals from bidders who have previously failed to perform properly or to complete contracts of any nature on time.

RELIEF OF BIDDERS

Attention is directed to the provisions of Public Contract Code Section 5100, et seq., concerning relief of bidders, and in particular to the requirement therein that if a bidder claims a mistake was made in its bid, the bidder shall give the City written notice within five (5) calendar days after the opening of the bids of the alleged mistake, specifying in the notice, in detail, how the mistake occurred.

RETURN OF PROPOSAL GUARANTEES

The City will retain all proposal guarantees until the Agreement for the work has been fully executed and the City has received the bonds and evidence of insurance required to be furnished, or the City has acted to reject all bids. The City will return the proposal guarantees of unsuccessful bidders, other than those forfeited, promptly thereafter.

COMPLETING AND SIGNING FORMS

The Bidder's attention is directed to the forms included in the Contract Documents, which must be completed and signed. **FAILURE TO PROPERLY COMPLETE AND SIGN ANY FORMS MAY BE CAUSE FOR REJECTION OF A BID**.

DEBARRED CONTRACTORS AND SUBCONTRACTORS

No contractor or subcontractor who has not been pre-qualified, is ineligible to bid on work, or be awarded a public works project under Labor Code sections 1771.1 or 1777.7 can bid on, be awarded, or perform work as a subcontractor on the Project. The Contractor is prohibited from performing work on the Project with a subcontractor who is ineligible to perform work on a public works project under these sections of the Labor Code.

SHEETING AND SHORING

Pursuant to the provisions of California Labor Code Section 6707, each bid submitted in response to the Notice Inviting Bids shall contain, as a bid item, adequate sheeting, shoring, and bracing, or equivalent method, for the protection of life and limb in trenches and open excavation, which shall conform to applicable safety orders. By listing this sum, the bidder warrants that its action does not convey tort liability to the City, its consultants and subconsultants, and their directors, partners, officers, employees, agents, and servants.

PROPOSED SUBSTITUTIONS

Bidders wishing to obtain prior approval of a material or system substitution for that specified shall submit all required documentation in compliance with procedures established in the Contract Documents.

Prior approval requests shall be received by the Engineer no later than ten (10) calendar days prior to bid date. If Engineer determines the requested material or system is equal to that specified, the Engineer will issue an addendum. If the Engineer rejects the proposed substitution, or does not respond before the bid date, the bidder shall furnish the specified items.

BID PROTEST PROCEDURES

Any bid protest relating to the form or content of the bidding or Contract Documents must be submitted in writing to the City Clerk, City of Pacifica, 170 Santa Maria Avenue, Pacifica, CA 94044 at least ten (10) business days before the original date set for the bid opening. Any bidder who submits a bid shall be deemed to have waived any protest to the form or content of the bidding or Contract Documents.

Any bid protest relating to the award of the contract for the Project must be submitted in writing to City Clerk, City of Pacifica, 170 Santa Maria Avenue, Pacifica, CA 94044. The protest must be received before 5:00 p.m. of the fifth business day following bid opening.

The initial protest document shall contain a complete statement of the basis for the protest. The protest shall refer to the specific portion(s) of the bid documents which forms the basis for the protest. The protest shall include the name, address and telephone number of the person representing the protesting party.

The party filing the protest shall concurrently transmit a copy of the initial protest document and any attached documentation to all other parties who have a direct financial interest that may be adversely affected by the outcome of the protest. Such parties shall include all other bidders or proposers who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest. The documents shall be transmitted by fax or overnight mail.

INFORMATION FOR BIDDERS

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

SECTION IV CONTRACT PROPOSAL

IV. CONTRACT PROPOSAL TO CITY OF PACIFICA SAN MATEO COUNTY

FOR

LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044

Name of Bidder	of
Business Address	
Telephone ()	

TO THE CITY COUNCIL OF THE CITY OF PACIFICA:

Pursuant to and in compliance with your Notice to Bidders for the Project identified above and the other Contract Documents relating thereto, the undersigned Bidder, being fully familiar with the terms of the Contract Documents, the current general prevailing wage rates, local conditions affecting the performance of the Project, the character, quality, quantities and scope of the work, and the cost of the work at the place of performance, hereby proposes and agrees, within the time stipulated in the Contract Documents, to furnish to the City of Pacifica all of the transportation, materials, equipment, tools, excavation, sheeting, shoring, bracing, supports, plant and other facilities, labor, services, permits, utilities, and other items necessary to conduct and complete the Project, all in strict conformity with the Contract Documents, including Addenda identified herein for the price set forth in the Bid Schedule.

Bidder declares that the only persons or parties interested in this proposal are those named herein, and that this proposal is made without collusion with any person, firm, or corporation. Bidder proposes and agrees, if the proposal is accepted, that Bidder will execute a contract with the City, in strict conformity to the Contract Documents including providing acceptable insurance, security, and labor and materials and performance bonds, in the form set forth in the Contract Documents, and will perform the entire work for the prices set forth in the attached Bid Schedule, upon which the award of contract is made.

PROPOSED SUBCONTRACTORS

Pursuant to California Public Contract Code Section 4100 et seq., the following list gives the name, contractor's license number, business address, and portion of work (description of work to be done) for each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvements, or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specifically fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent of the prime contractor's total bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of 1 percent of the prime contractor's total bid or ten thousand dollars (\$10,000), whichever is greater. Additional supporting data may be attached to this page. Each page shall be sequentially numbered, headed "Proposed Subcontractors" and shall be signed.

CONTROL OTTODO DELCENTRO

NAME	LICENSE	ADDRESS	PORTION OF WORK

The Prime Contractor shall perform at least 50% of the work with its own forces.

After the award of contract, substitutions of the above-listed proposed subcontractors may only be made with the prior approval of the Engineer in accordance with Public Contract Code section 4104.

The above information is part of the proposal. Signing this proposal on the signature portion thereof shall also constitute signature of this list of Proposed Subcontractors

CONTRACTOR'S EXPERIENCE AND QUALIFICATIONS

NOTE: EACH BIDDER MUST MEET THE EXPERIENCE REQUIREMENTS AND SAFETY QUALIFICATIONS PRESENTED IN THE BIDDER'S STATEMENT OF RESPONSIBILITY AND CONTRACT DOCUMENTS IN ORDER TO BE CONSIDERED A RESPONSIVE BIDDER.

The following statements as to the experience and financial qualifications of the bidder are to be submitted with the Contract Proposal, as a part thereof. The truthfulness and accuracy of the information is guaranteed by the bidder.

			resent business name, for oject extends over a period of
			_ projects of like magnitude, _ years, including: (list two
•	rates of progress. Bidder	rs shall provide suc	ojects are of like magnitude, ch additional information
	or, has never failed to sati all exceptions and reasons	• •	e a contract except as
persons, firm or authority	rily completed the follow indicated, and to whom phone number for each principle.	reference is made (e last three years, for the (list five contracts). (Provide
CONTRACT YEAR	TYPE OF WORK	AMOUNT	CONTACT

CONTRACT FOR PROPOSAL Project Title: Lower Linda Mar Rehabilitation and Repair Project C044			
Contractor's License Number:			
License Renewal Business name of bidder:			

SCHEDULE OF BID PRICES

Bid Item	Bid Item	Est. Quan.	Unit	Unit Price	Bid Amount
No.					
1	Mobilization/Demobilization	1	LS		
2	Pedestrian Control, Traffic Control, and Notifications	1	LS		
3	Sheeting, Shoring, and Bracing	1	LS		
4	Temporary Bypass Pumping and Piping	1	LS		
5	Water Pollution Control Plan (WPCP)	1	LS		
6	8-inch Pipe Burst	16,084	LF		
7	12-Inch Pipe Burst	1,491	LF		
8	16-Inch Pipe Burst	439	LF		
9	8-Inch Open Trench Replace	235	LF		
10	12-Inch Open Trench Replace	110	LF		
11	Replace Lateral Connection	390	EA		
12	6-Inch Sewer Abandonment	155	LF		
13	Modify Manhole for Pipe Bursting	74	EA		
14	Remove & Replace Lamphole	12	EA		
15	Remove Manhole Ladder Rungs (per rung)	124	EA		
16	Rehabilitate Manhole	66	EA		
17	Reset Manhole Frame	1	EA		
18	Remove & Replace Manhole	5	EA		
19	New Manhole	1	EA		
20	Street Monument Replacement	13	EA		
21	Additional Open Cut in Pipe Bursting Locations (Revocable)	300	LF		
22	Additional AC Pavement Replacement (Revocable)	2,000	SF		
23	Bursting Head Recovery (Revocable)	3	EA		
24	City Pavement Cut Fee (Allowance)	1	AL	\$580,000	\$580,000
TOTAL BASE BID (Bid Items 1 thru 24)					

Bid Item No.	tem		Unit	Unit Price	Bid Amount
	ADDITIVE BI	D ITEM #1			
A1-1	Mobilization/Demobilization, Traffic Control, Shoring, Bypass, and WPCP	1	LS		
A1-2	8-inch Pipe Burst	3,313	LF		
A1-3	8-Inch Open Trench Replace	137	LF		
A1-4	Replace Lateral Connection	96	EA		
A1-5	Modify Manhole for Pipe Bursting	13	EA		
A1-6	Remove & Replace Lamphole	4	EA		
A1-7	Remove Manhole Ladder Rungs (per rung)	44	EA		
A1-8	Manhole Rehabilitation	12	EA		
A1-9	Street Monument Replacement	2	EA		
A1-10	New Manhole	1	EA		
A1-11	City Pavement Cut Fee (Allowance)	1	AL	\$90,000	\$90,000
	TOTAL ADDITIVE BID IT	E M #1 (Bid I	tems A1-1	thru A1-11)	
	ADDITIVE BI	D ITEM #2			
A2-1	Mobilization/Demobilization, Traffic Control, Shoring, Bypass, and WPCP	1	LS		
A2-2	8-inch Pipe Burst	7,048	LF		
A2-3	Replace Lateral Connection	179	EA		
A2-4	Modify Manhole for Pipe Bursting	15	EA		
A2-5	Remove & Replace Lamphole	2	EA		
A2-6	Remove & Replace Manhole	16	EA		
A2-7	Street Monument Replacement	5	EA		
A2-8	City Pavement Cut Fee (Allowance)	1	AL	\$280,000	\$280,000
	TOTAL ADDITIVE BID IT	EM #2 (Bid	Items A2-	l thru A2-8)	
	PRIVATE LATERAL REPLACEMEN	T BID ITE	MS (Separ	ate Contrac	t)
B-1	Private Lateral Replacement	50	EA		
B-2	Private Lateral - Additional Length	350	LF		
B-3	Private Lateral - Additional Cleanout	5	EA		
B-4	Private Lateral - Tree Protection	30	EA		
B-5	B-5 Private Lateral – Permit and Inspection 50 EA \$1,250		\$1,250	\$62,500	
	TOTAL BID PRICE (Total Base Bid + A Bid Item #2 + Lateral Replacement Bid Ite		Item #1 + .	Additive	

TOTAL BID PRICE: Items 1 through 24, A1-1 thorough A1-11, A2-1 through A2-8, and B-1 through B-5, inclusive, and all work incidental thereto and connected herewith: (In Words)

EVALUATION OF BIDS AND AWARD OF CONTRACT

This Contract includes descriptions of bid items for Lateral Replacement of private homeowner laterals to be performed under separate contract(s) with home owners. Lateral Replacement bid item prices are included within the TOTAL BID PRICE. The lowest responsive, responsible bidder will be selected based on the lowest TOTAL BID PRICE. The awarded value of the Contract will be the TOTAL BASE BID plus any ADDITIVE BID ITEMS the City decides to include in the Contract after receiving Bids.

Private property Lateral Replacement work is independent of this Contract. Lateral Replacement Bid Item unit prices will be used to reimburse the Contractor for private property owner lateral replacement performed under separate contract(s) with homeowners as described by Bid Items B-1 through B-5.

The Contractor shall be obligated to use the Lateral Replacement Bid Item unit prices for performance of the Lateral Replacement Bid Items under separate contract(s) with private homeowners.

In the event of a conflict between the TOTAL BID PRICE stated in figures and the TOTAL BID PRICE stated in words, the words shall govern. In the event of a conflict between the Item prices and the TOTAL BID PRICE, the TOTAL BID PRICE shall govern.

If the proposal is made by a corporation, the proposal shall show the name of the corporation and identify the state in which the corporation is incorporated, the post office address of the corporation, and the signature of at least two officers authorized to sign on behalf of the corporation. Additionally, the proposal shall include a document empowering the signator(s) to execute the proposal and bind the corporation.

BID AMOUNT OF EACH OF THE ABOVE BID ITEMS MUST BE FILLED IN AND COMPLETED IN INK.

• If corporation, two officer's signatures are required.
Company Name (printed):
The total amount bid includes the summation of Bid Items 1 through 24, plus Additive Bid Item #1, plus Additive Bid Item #2, and Private Lateral Replacement. The Contract amount is the Base Bid (Bid Items #1 though #24) with the City's option to include or not include Additive Bid Item #1 and/or Additive Bid Item #2. The Contract amount represents the total price bid to provide the work as shown in the Contract Documents.
Signed:
Name:
Title:

Bidder acknowledges receipt of Addendum:

Addendum Number	Received

THE BIDDER MUST ACKNOWLEDGE RECEIPT OF ALL ADDENDA. Not checking the box for all issued addenda will disqualify the bid.

The undersigned agrees, if awarded the Contract, that said Bidder and all of said Bidder's subcontractors, shall pay to all laborers, workers and mechanics employed in the execution of the Contract not less than the general prevailing rate of per diem wages and rates for overtime and legal holidays in the locality in which the Work is to be performed, as determined by the Director of Industrial Relations in accordance with California Labor Code Section 1770, which schedule shall be available for review at City's principal office.

The Project is a public work. Therefore, the prime contractor and all subcontractors for the Project must be registered with the California Department of Industrial Relations pursuant to the provisions of Labor Code Section 1725.5 in order to be qualified to bid on, be listed in a bid proposal, or engage in the performance of any work under the Contract for the Project. A bid shall not be accepted nor any contract or subcontract be entered into without proof of the contractor or subcontractor's current registrations to perform public work pursuant to Labor Code Section 1725.5. The undersigned Bidder hereby certifies that she/he/it, and all subcontractors listed in the Proposed Subcontractors form included with this proposal form are registered pursuant to that Section. The undersigned Bidder hereby further certifies that his/her/its Department of Industrial Relations registration number is listed below.

Pursuant to Labor Code Section 1771.4, the Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. The prime contractor shall post jobsite notices as prescribed by regulation and the prime contractor and each subcontractor shall furnish the records specified in Labor Code Section 1776 directly to the Labor Commissioner as specified in said Section 1771.4. Pursuant to Labor Code Section 1773.3, the City shall provide notice to the Department of Industrial Relations of the award of the contract for the Project within five days of the award.

CONTRACT FOR PROPOSAL Project Title: Lower Linda Mar Rehabilitation and Repair Project C044

This sheet must accompany bid.

Signature	
Title	
Date	
DIR Number	

SECTION V

BIDDER'S STATEMENT OF RESPONSIBILITY

The general scope of the work for this project will primarily include using pipe bursting trenchless sanitary sewer replacement technology to minimize impacts to the surrounding neighborhood. Some of the work will be in the backyards of the homes. The project also includes rehabilitation or replacement of sanitary sewer manholes as necessary. In addition, the option for residents to replace their sanitary sewer laterals by contracting directly with the Project's contractor will be included in the project.

The Awarding Body affirmatively identifies this Project as a "public works project" as that term is defined by Labor Code Section 1720. Therefore, the Project is subject to prevailing wage requirements under Labor Code Section 1771. Contractor and its subcontractors shall fully comply with all the provisions of the California Labor Code governing the performance of public works contracts including, but not limited to, payment of prevailing wages, uploading of certified payroll reports to the DIR website, limitations on time worked, compliance with apprentice requirements, maintenance of payroll records, posting of wages at the job site, and prohibitions against discrimination. The prevailing wage rates may be obtained on the internet at: https://www.dir.ca.gov/OPRL/dprewagedetermination.htm. The prevailing wage rates obtained from the above internet link are hereby incorporated in this Contract and made a part hereof.

In order to allow the City to make a determination of the Bidder's responsibility, the Bidder shall provide the information required herein as a part of its Bid.

City's Right to Use the Bidder's Statement of Responsibility. The City shall use the information required by this Statement of Responsibility for the sole purpose of determining the Bidder's "responsibility." While the City conducts its deliberative process to determine whether a bidder is "responsible," the City will not disclose "confidential" information unless otherwise compelled by a court order. However, if there is a challenge regarding the City's determination of whether a Bidder is "responsible," the City shall have the right to use any and all information contained herein in support of the City's determination, and the Bidder waives any claim against the City for the City's use of information for this intended purpose.

Bidder's Obligation to Identify Confidential Information. If a Bidder believes that any portion of this Statement of Responsibility is "confidential" and not legally subject to public disclosure in accordance with the requirements of the California Public Records Act (Government Code Sections 6250, et seq), the Bidder shall: (1) clearly mark the relevant portions of the Statement of Responsibility as "Confidential"; and (2) upon request from the City, identify the legal basis for exception from disclosure under the Public Records Act; and

Project Title: Lower Linda Mar Rehabilitation and Repair Project C044

(3) the Bidder shall defend, indemnify, and hold harmless the City regarding any claim by any third party for the public disclosure of the "Confidential" portion of the Statement of Responsibility; and (4) if the Bidder fails to identify information as "Confidential," or if the Bidder fails to defend and indemnify the City regarding any claim by any third party for the public disclosure of a "Confidential" portion of the Statement of Responsibility, the Bidder shall hold the City harmless and waive any claim against the City for any damages allegedly related to any public disclosure of any portion of the Statement of Responsibility.

Bidder's Statement of Responsibility Page 27
Project Title: Lower Linda Mar Rehabilitation and Repair Project C044

BIDDER'S STATEMENT OF RESPONSIBILITY

Date:				
Ov	Owner: City of Pacifica Owner's Contract No. C044			
Co	Contractor:			
Pro	oject: Lower Linda Mar Reha	bilitation and Repair Project		
		ation supplied in this document is coextent permitted by laws and regula		
1.	FIRM INFORMATION (Mu	ist complete)		
	Official Name of Firm:			
	Address:			
	Address.			
2.	TYPE OF WORK (Must Co	mplete)		
	Danninkinu			
	Description:			
3.	3. CONTRACTOR'S CONTACT INFORMATION (Must Complete)			
	Contact Person:			
	Title:			
	Phone No:		Email:	
4.	AFFILIATED COMPANIES	(Must Complete)		
	Name:			
	Address:			
	Address.			
		Address:		
5.	LICENSING AND DIR NUM	1BER		
	Jurisdiction:			
	Type of License:		License No:	
	DIR Number	de-		

Bidder's Statement of Responsibility Page 28
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6. CONSTRUCTION EXPERIENCE						
Current Experience: List on the following Project Refence Form at least three (3) projects completed in the last ten (10) years that include a total combined length of 10,000 linear feet of new 8-inch or larger gravity sanitary sewer pipe installed by pipe bursting.						
Bidder authorizes representative to verify any and all information contained in the Qualification Statement from references contained herein and hereby releases all those concerned providing information as a reference from any liability in connection with any information they give.						
City may disqualify any contractor that an	City may disqualify any contractor that answers yes to the following 3 questions)					
Has firm listed in Section 1 ever failed to complete a construction contract awarded to it?			 Yes (If yes, attach as an Attachment details, including Project Owner's contact information.) No 			
Has any Corporate Officer, Partner, Joint Venture participant Proprietor ever failed to complete construction contract awar to them in their name or when acting as a principal of anothe entity?		arded	 ☐ Yes (If yes, attach as an Attachment details, including Project Owner's contact information.) ☐ No 			
Are there any judgments, claims, disputes or litigation per or outstanding involving the firm listed in Section 1 or an officers (or any of its partners if a partnership or any of t individual entities if a joint venture)?		of its	 ☐ Yes (If yes, attach as an Attachment details, including Project Owner's contact information.) ☐ No 			
7. SAFETY PROGRAM						
Name of Contractor's Safety Officer:						
Include the following as attachments:						
Provide as an Attachment Contractor's						
OSHA No. 300 – Log of Work-Related Injuries and Illnesses for the past three (3) years.						
List of all OSHA Citations & Notifications of Penalty (monetary or other) received within the last three (3) years(indicate disposition as applicable). – IF NONE SO STATE.						
List of all safety citations or violations under any state all received within the last three (3) years (indicate disposition as applicable). – IF NONE SO STATE.						
Provide for the firm listed in Section 1 the following:						
Must have an Average Workers' compensation Experience Modification Rate (EMR) for the last three (3) years of 1 or lower to be considered a responsive bidder:						
Year:		EMR:				
Year:		EMR:				

Bidder's Statement of Responsibility Page 29
Project Title: Lower Linda Mar Rehabilitation and Repair Project C044

CONTRACT FOR PROPOSAL

Project Title: Lower Linda Mar Rehabilitation and Repair Project C044

Year:		EMR:		
Must have an Average Total Recordable Incident Rate (TRIR) for the last three (3) years of 3.0 or lower to be considered a responsive bidder.:				
Year:		TRFR:		
Year:		TRFR:		
Year:		TRFR:		
I HEREBY CERTIFY THAT THE INFORMATION SUBMITTED HEREWITH, INCLUDING ANY ATTACHMENTS, IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF AND I AM AUTHORIZED BY (NAME OF Firm) TO MAKE THIS STATEMENT.				
SIAIEMENI.				
Name of Organization:				
Name of Organization:				

PROJECT REFERNCE FORM

List at least three (3) projects that are of similar scope (e.g., pipe bursting in a residential neighborhood with a portion of the work performed in the back yards of homes) completed in the last ten (10) years that include a total combined length of 10,000 linear feet of new 8-inch or larger gravity sanitary sewer pipe installed by pipe bursting. Provide the information indicated below. Names and references must be current and verifiable. Use separate sheets of paper for each project. Failure to provide this information with the Bid may render the bid non-responsive and may be the basis for rejection of the Bid.

Project Name:
Location:
Owner:
Contractor On-Site Superintendent
Length and size of pipe installed with pipe bursting methods
Short Project Description:
Owner Contact (name and current phone number):
Engineer Contact (name and current phone number):
Construction Manager (name and current phone number):

SECTION VI CONTRACT FOR CONSTRUCTION

VI. CONTRACT FOR CONSTRUCTION

LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044

This Contract for construction is made this	_ day of	, 2024 between the City of
Pacifica (Owner or City) and	(Contractor).	The work described below shall be
performed in accordance with all plans, specif	fications and o	ther Contract Documents attached
to or incorporated into this Agreement.		

[NOTE: the following section must be modified for each project to include ALL documents that are part of the Contract Documents.]

The following documents are incorporated into and made part of this Contract by this reference:

- Notice to Bidders
- Information for Bidders
- Contract Proposal (including list of subcontractors, proposed material suppliers, Bidder's Experience, and Bid Schedule)
- Statement of Responsibility
- Certificates of Insurance
- Lien Waivers, Bid Bond, Non-Collusion Affidavit, Faithful Performance Bond, Bond for Payment of Labor and Materials, Guarantee
- General Condition
- Special Provisions
- Technical Specifications
- Project Plans
- General Specifications

The documents shall be referred to collectively as the "Contract Documents".

SECTION 1 - SCOPE

Contractor shall furnish all necessary management, supervision, labor, materials, tools, supplies, equipment, plant, services, engineering, testing and/or any other act or thing required to diligently and fully perform and complete the work generally described as follows:

Replacement of replacing sewer mainlines throughout the Lower Linda Mar neighborhood in the City of Pacifica (City). The approximate length of sewer mainlines to be replaced are listed below:

- Base Bid = 18,359 linear feet
- Additive Bid Item #1 = 3,450 linear feet
- Additive Bid Item #2 = 7.048 linear feet

The project includes replacement of existing sanitary sewer mains with pipe bursting and open trench construction methods. New sanitary sewer piping ranges from 8-inch to 16-inch HDPE

pipe for pipe bursting methods, and 8-inch to 12-inch for open trench methods. The work includes reconnection of sanitary sewer laterals, connection to existing manholes, construction of new manholes, manhole modifications, manhole rehabilitation, and lamp hole replacement.

The project includes, but is not limited to the following additional items:

- Bypass pumping and/or routing of sewage.
- Prepare and implement a water pollution control plan (WPCP) and site protection.
- Traffic and pedestrian control
- Dewatering and the construction of all temporary shoring and slope protection measures.
- Replacement of disturbed landscaping, private improvements, curb & gutter, sidewalks, curb ramps, monuments, AC pavement rehabilitation, and other miscellaneous items.

The project includes additive bid items that may or may not be awarded by the City depending on the bid results and available funding. The project also includes provisions for the contractor to replace private laterals under separate contracts with individual property owners.

LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044

Contractor shall comply with all requirements of the Contract Documents. Where there is a conflict between the requirements of the several Contract Documents, the more stringent requirements shall govern.

Without limiting the foregoing description, Contractor's scope of work includes, but is not limited to, the following:

- Submit all required samples, product data, certificates, operations, and maintenance instructions, guarantees, and other submittals no later than five (5) days after the date the City issues a Notice to Proceed.
- Obtain all necessary permits and approvals for the Work.
- Comply with all applicable federal, state, and local laws and guidelines.
- Protect all materials to be used in the Work in accordance with the specifications.
- Protect existing facilities and personal property. Contractor shall be solely responsible for all damage to the building or contents.
- Attend a preconstruction conference with City to discuss schedule, access, sequence of construction plan (to be submitted), and other issues.
- Prepare and submit a written daily activity report to City for each day on which work is performed, including weekends and holidays when worked, and submit the reports to the City no

Project Title: Lower Linda Mar Rehabilitation and Repair Project C044

later than the next business day. The daily reports shall, at a minimum, include the following information: construction activities and locations, construction crew sizes of general and subcontractors, start or completion of activities, progress on construction activities (including units or portions of work completed), tests or inspections performed, deliveries of material or equipment, delays or potential delays, visitors to the site, weather conditions, construction equipment used, and personal injuries or damage to property.

- The Contractor shall be responsible for unloading, hoisting, and otherwise handling its own materials, supplies and equipment.
- Coordinate with owner-scheduled use or events at the Project site.
- The Contractor is responsible for researching and complying with all local codes, agencies and jurisdictions that regulate and govern the Work.
- Contractor shall set up, identify, coordinate, provide safe access, and obtain all inspections for its work, as required by any authorized agency or applicable code, prior to covering up work.

SECTION 2 - PRICE

A.	City agrees to pay, and Contractor agrees to accept, the sum of	Dollars
(\$_) (the "Contract Price") subject to adjustments for changes in t	the work as may be
dir	ected in writing by City, as payment in full for the Work.	

Contractor shall submit a payment application in the amount of the contract sum upon completion of the Work and satisfaction of all conditions of the Contract Documents. City shall make payment within 30 days of receipt of application, less five percent retention. City shall release the retained funds no less than thirty-five (35) days after the date the City accepts the Work.

- B. Pursuant to Public Contract Code Section 22300, for monies earned by the Contractor and withheld by the City to ensure the performance of the Contract, the Contractor may, at its option, choose to substitute securities meeting the requirements of Public Contract Code Section 22300.
- C. Contractor agrees to furnish, as a condition of payment, payroll affidavits, receipts, vouchers, and other documents, in form satisfactory to City, prior to receipt of any payment. Contractor shall submit Conditional and Unconditional waivers and release of lien upon (as provided in Civil Code Section 3262) on behalf of itself and suppliers that furnished labor, material, equipment, or services to the Project.

SECTION 3 - ENTIRE AGREEMENT

This Contract for Construction, including the documents incorporated herein, represents the entire agreement between City and Contractor and supersedes any prior written or oral representations.

SECTION 4 - TIME

A. Contract will be awarded within 60 days from the	bid opening. Notice to Proceed will be		
issued within two weeks of contract award. Project mu	ast commence as soon as the Notice to		
Proceed is given. Project is to be completed within	calendar days from the Notice to		
Proceed (Contract Time). The Contractor shall pay to the City of Pacifica Fifteen Hundred			
Dollars (\$1,500) for each and every calendar days dela	ay in finishing the work in excess of the		
Contract Time, as modified in accordance with the Co	ntract Documents.		

- B. Time is of the essence of this Agreement.
- C. Contractor shall provide City with scheduling information in a form acceptable to City, including any changes made by City in the scheduling of work. Contractor shall coordinate its work with that of all other contractors, subcontractors, and suppliers so as not to delay or damage their performance.
- D. It is further agreed that in case Contractor fails to complete the Work in all parts and requirements within the Contract Time, the City shall have the right to extend the Contract Time or not, as may seem best to serve the interest of the City; and if it decides to extend Contract Time, City shall further have the right to charge to the Contractor, his heirs, assigns or sureties, and to deduct from the final payment for the Work, all or any part, as it may deem proper, of the actual cost of engineering, inspection, superintendence, and other overhead expenses which are directly chargeable to the Contract, and which accrue during the period of such extension.

The Contractor will not be assessed with liquidated damages or the cost of engineering and inspection during the delay in the completion of the Work caused by acts of God or of the public enemy, fire, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather or delays of subcontractors due to such causes; provided, that the Contractor shall within five (5) days from the beginning of any such delay, notify the City, in writing of the causes of delay. The City shall ascertain the facts and the extent of delay, and his findings thereon shall be final and conclusive.

E. In the event that Contractor's work is delayed for any reason, including acts of City, Contractor's sole remedy shall be an extension of time equal to the period of delay, provided Contractor has given City written notice of the commencement of delay within 48 hours of its occurrence.

SECTION 5 – LABOR

A. The Contract is subject to the provisions of Part 7 of Division 2 of the California Labor Code (Sections 1720 and following), and Contractor and any subcontractor shall pay not less than the specified prevailing rates of wage to all workers employed in performance of the Work. Pursuant to the provisions of Section 1770 of the Labor Code of the State of California, the City Council of the City of Pacifica has obtained the general prevailing rate of wages and employer

Project Title: Lower Linda Mar Rehabilitation and Repair Project C044

payments for health and welfare, vacation, pension and similar purposes in the City, a copy of which is on file at the Calera Creek Water Recycling Plant and shall be made available for viewing to any interested party upon request.

- B. Contractor's attention is directed to the provisions in Section 1777.5 and 1777.6 of the Labor Code concerning the employment of apprentices by the Contractor or any subcontractor under the Contractor. It shall be the responsibility of the Contractor to effectuate compliance on the part of itself and any subcontractors with the requirements of said sections in the employment of apprentices. Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of Industrial Relations, ex-officio the Administrator of Apprenticeship, San Francisco, California, or from the Division of Apprenticeship Standards and its branch offices.
- C. Pursuant to the requirements of Division 4 of the Labor Code, the Contractor will be required to secure the payment of worker's compensation to its employees in accordance with the provisions of Section 3700 of the Labor Code. Prior to commencement of work, the Contractor shall sign and file with the City a certification in the following form:
 - "I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions before commencing the performance of the work of this contract."
- D. The Contractor or subcontractor shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit twenty-five dollars (\$25) for each worker employed in the execution of the contract by the respective contractor or subcontractor for each calendar day during which the worker is required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of this article.
- E. Contractor certifies that it is aware of and has complied with the provisions of California Labor Code Section 6401.7, which requires every employer to adopt a written injury and illness prevention program.

SECTION 6 – CHANGES IN WORK

- A. Contractor shall make no changes in the Work without written direction from the City. Contractor shall not be compensated for any change made without any such written direction. No changes in the work covered by this Agreement shall exonerate any surety or any bond given in connection with this Agreement.
- B. If the City directs the Contractor in writing to make changes in the Work that materially affect the cost of performing the Work, the Contract Price will be adjusted based on one of the following:

- i. Where the Work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities involved in the changed Work;
 - ii. By establishment of new unit prices and related quantities for the changed Work;
 - iii. By a combination of existing and new unit prices and related quantities for the changed Work; or
 - iv. By mutual acceptance of a lump sum.
- C. If the City directs the Contractor in writing to make changes in the Work that materially affect the time required to perform the Work, the City will make a reasonable adjustment to the Contract Time.
- D. There is no allowable mark-up for extra work or changes in work.

SECTION 7 – CLAIMS

A. If any dispute shall arise between City and Contractor regarding performance of the Work, or any alleged change in the work, Contractor shall timely perform the disputed work and shall give written notice of a claim for additional compensation for the work to City within ten (10) days after commencement of the disputed work. Contractor's failure to give written notice within the ten (10) day period constitutes an agreement by Contractor that it will receive no extra compensation for the disputed work.

No claim, potential claim, dispute or controversy shall interfere with the progress and performance of the Work or any changes thereto, and Contractor shall proceed as directed by Owner in all instances with its Work, including any disputed Work, or any changes thereto and that any failure of Contractor to comply herewith and to proceed with its work shall automatically be deemed a material breach of this Contract entitling Owner to all remedies available under Section 10 or other provision of this Contract and applicable law. Except as provided elsewhere in the Contract Documents, Owner shall continue to make payments in accordance with the Contract.

SECTION 8 - INSPECTION AND PROTECTION OF WORK

- A. Contractor shall make the Work accessible at all reasonable times for inspection by the City. Contractor shall, at the first opportunity, inspect all material and equipment delivered to the jobsite by others to be used or incorporated in the Contractor's work and give prompt notice of any defect therein. Contractor assumes full responsibility to protect the work done hereunder until final acceptance by the City.
- B. When the Work is completed, Contractor shall request, in writing, a final inspection. Within ten (10) days of the receipt of such request, the City shall make a final inspection. The

Contractor or its representatives may be present at the final inspection. The purpose of such final inspection shall be to determine whether the Work has been completed in accordance with the Contract Documents, including all change orders and all interpretations and instructions previously issued.

C. All materials the City has determined do not conform to the requirements of the Contract Documents will be rejected, whether in place or not. They shall be removed immediately from the site of the work, unless otherwise permitted by the City. No rejected material shall be used in the Work, unless the defects have been corrected and approval in writing has been given by the City. The cost of re-testing material or workmanship that fails to pass the first test shall be borne by the Contractor. Upon failure of the Contractor to comply promptly with any order of the City made under the provisions in this section, the City shall have authority to cause the removal and replacement of rejected material and to deduct the cost thereof from any monies due or to become due the Contractor.

SECTION 9 - ASSIGNMENT AND SUBCONTRACTING

- A. Contractor shall give personal attention to the performance of the Work and shall keep the Work under its control.
- B. No subcontractors will be recognized as such, and all persons engaged in the work of construction will be considered as employees of the Contractor, who will be held responsible for their work which shall be subject to the provisions of the Contract and specifications.
- C. No subcontractor who is ineligible to bid work on, or be awarded, a public works project under Labor Code Sections 1771.1 or 1777.7 can bid on, be awarded, or perform work as a subcontractor on the Project. The Contractor is prohibited from performing work on the Project with a subcontractor who is ineligible to perform work on a public works project under these sections of the Labor Code.

When a portion of the work which has been subcontracted by the Contractor is not being prosecuted in a manner satisfactory to the Engineer or Collection Manager or they're representative, the subcontractor shall be removed immediately on the request of the Engineer or Collection Manager and shall not again be employed on the work.

D. Contractor may not assign performance of the Contract except upon written consent of the City.

SECTION 10 – TERMINATION

A. Should Contractor fail within three (3) calendar days from receipt of City's written notice to correct any contractual deficiencies, including but not limited to failure perform the Work in accordance with the Contract Documents, failure to comply with the directions of City, or failure pay its creditors, City may terminate this Agreement. Following a termination for default, City

shall have the right to take whatever steps it deems necessary to correct and complete the Work and charge the cost thereof to Contractor, who shall be liable for the full cost of City's corrective action, including reasonable overhead, profit, and attorneys' fees.

- B. City may at any time terminate the Contract at City's convenience upon five days written notice to Contractor; in the event of termination for convenience, Contractor shall recover only the actual cost of work completed to the date of termination, which costs are documented to City's satisfaction, plus a reasonable amount not to exceed fifteen percent (15%) of the actual cost of the Work performed for overhead and profit. Contractor shall not be entitled to any claim or lien against City for any additional compensation or damages in the event of such termination.
- C. If City terminates Contractor for cause, and if it is later determined that the termination was wrongful, such default termination shall automatically be converted to and treated as a termination for convenience. In such event, Contractor shall be entitled to receive only the amounts payable under this section, and Contractor specifically waives any claim for any other amounts or damages, including, but not limited to, any claim for consequential damages or lost profits.

SECTION 11 – HOLD HARMLESS AND INDEMNIFICATION

A. The City of Pacifica and all officers and employees thereof connected with the Work, including but not limited to the Director of Wastewater, Collection Manager, Engineer, Inspector, the City Council, elected and appointed officials, City volunteers and servants, City contractors and agents (collectively the "Indemnitees"), shall not be answerable or accountable in any manner: for any loss or damage that may happen to the Work or any part thereof; for any loss or damage to any of the materials or other things used or employed in performing the Work; for injury to or death of any person; or for damage to property from any cause except losses due to sole or active negligence of the City of Pacifica' officers or employees.

To the fullest extent allowed by law, Contractor shall defend, indemnify and hold harmless the Indemnitees from all liability, penalties, costs, losses, damages, expenses, causes of action, claims or judgments, including attorney's fees and other defense costs, resulting from injury to or death sustained by any person (including Contractor's employees), or damage to property of any kind, or any other injury or damage whatsoever, which injury, death or damage arises out of or is in any way connected with the performance of the Work, regardless of the Contractor's fault or negligence, including any of the same resulting from City's alleged or actual negligent act or omission, or its agents, contractors or employees; except that said indemnity shall not be applicable to injury, death or damage to property arising from the sole or active negligence or willful misconduct of City, its officers, agents, or servants who are directly responsible to City. This indemnification shall extend to claims asserted after termination of this Contract for whatever reason.

B. In addition to any remedy authorized by law, so much of the money due the Contractor under and by virtue of the contract as shall be considered necessary by the City, may be retained by the City of Pacifica until disposition has been made of such suits or claims for damage.

SECTION 12 – BONDS AND INSURANCE

A. Bonds.

- i. Within ten (10) days after being notified of the award of the contract, and before the City will execute the agreement for construction, the Contractor to whom the Contract is awarded shall furnish and file with the City Performance and Payment Surety bonds as set forth below.
- ii. Contractor shall submit a faithful performance bond on the form provided with the Contract Documents, duly executed by a responsible corporate surety listed in the United States Department of the Treasury circular entitled "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies," authorized to do business in the State of California and acceptable to City conditioned upon the faithful performance by the Contractor of all requirements of the Contract Documents. The amount of said bond shall be in a sum no less than one hundred percent (100%) of the total Contract Price.
- iii. Contractor shall also submit a bond on the form provided with the Contract Documents, duly executed by a responsible corporate surety listed in the United States Department of the Treasury circular entitled "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies," authorized to do business in the State of California and acceptable to City, which in all respects complies with Civil Code sections 3247-3252, inclusive. This bond, hereinafter referred to as a "payment bond," shall be in a sum no less than one hundred percent (100%) of the Contract Price.

B. Insurance.

- i. Contractor shall obtain, at its sole cost and expense, all insurance required by this section 12.B. Certificates of such insurance and copies of the insurance policies and endorsements shall be delivered to City within ten (10) days after being notified of the award of the contract, and before execution of the agreement for construction by the City.
- ii. The insurance requirements specified herein shall apply to all subcontractors. The Contractor shall designate appropriate insurance limits for subcontractors. It shall be the responsibility of the Contractor to ensure that all subcontractors comply with this provision, and to verify their compliance when requested by the City. The Contractor shall not allow any subcontractor to commence work until all insurance required of the subcontractor has been obtained and verified by the Contractor and submitted to the City. Subcontractors shall furnish original certificates and endorsements as verification of insurance coverage. Upon request, Contractor shall deliver certificates of insurance or copies of the insurance policies and endorsements of all subcontractors; provided, however, that this authority shall not relieve Contractor of its obligation to ascertain the existence of such insurance.
 - iii. The insurance required by this article shall be maintained by Contractor in full

force and effect at all times during prosecution of the Work and until the expiration of the warranty period following the final completion and acceptance thereof by City, and every policy shall be endorsed to state that it shall not be assigned, cancelled, or reduced in coverage without thirty (30) days' prior written notice to City. Every policy shall also be endorsed to state that the City shall be given written notice of nonrenewable at least thirty (30) days prior to the nonrenewable date.

- iv. The parties defined as "Indemnitees" above in Section 11, are collectively defined herein as the "Additional Insureds."
- v. <u>Liability Insurance</u>. This insurance shall protect the Contractor from claims for bodily injury and property damage which may arise because of the nature of the work or from operations under this Contract.
 - a. Commercial General Liability
 - Vendor shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than five million dollars (\$5,000,000) per occurrence for bodily injury, personal injury, and property damage, including without limitation, blanket contractual liability. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit. Vendor's general liability policies shall be primary and shall not seek contribution from the City's coverage, and be endorsed using Insurance Services Office form CG 20 10 (or equivalent) to provide that City and its officers, officials, employees, and agents shall be additional insureds under such policies. For construction projects, an endorsement providing completed operations coverage for the additional insured, ISO form CG 20 37 (or equivalent), is also required.
 - (ii) Any failure to comply with reporting provisions of the policies by Vendor shall not affect coverage provided the City.
 - (iii) Coverage shall state that Vendor insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
 - (iv) Coverage shall contain a waiver of subrogation in favor of the City.
 - b. Workers' Compensation and Employers' Liability- Statutory
 - (i) Vendor shall maintain Workers' Compensation Insurance and Employer's Liability Insurance with limits of at least one million dollars (\$1,000,000). Vendor shall submit to City, along with the certificate of insurance, a waiver of subrogation endorsement in favor of City, its officers, agents, employees, and volunteers.

- (ii) (Proof of Worker's Compensation is not required if Consultant provides written verification that they have no employees).
- c. Business Automobile Liability
 - (iii) Vendor shall provide auto liability coverage for owned, non-owned, and hired autos using ISO Business Auto Coverage form CA 00 01 (or equivalent) with a limit of no less than five million dollars (\$5,000,000) per accident.

d. Builders Risk Insurance

- Contractor shall obtain and maintain Builders Risk/Course of (i) Construction insurance. Policy shall be provided for replacement value on an "all-risk" basis, including earthquake and flood. The City shall be named as Loss Payee on the policy and there shall be no coinsurance penalty provision in any such policy. Policy must include: (1) coverage for removal of debris, and insuring the buildings, structures, machinery, equipment, materials, facilities, fixtures, and all other properties constituting a part of the project; (2) "Installation Floater" coverage with limits sufficient to insure the full replacement value of any property or equipment stored either on or off the project site. Such insurance shall be on a form acceptable to City to ensure adequacy of terms and limits. Contractor shall not be required to maintain property insurance for any portion of the Project following transfer of control thereof to City.
- e. Pollution Liability Insurance
 - (i) Pollution Coverage shall be provided for liability arising out of sudden, accidental and gradual pollution and remediation. The policy limit shall be no less than two million dollars (\$2,000,000) per claim. All activities contemplated in this agreement shall be specifically scheduled on the policy as "covered operations." The policy shall provide coverage for the hauling of waste from the project site to the final disposal location, including non-owned disposal sites.
 - (ii) The policy shall be endorsed to include the City, its officers, employees, and agents as insureds.

f. All Coverages

- (i) It shall be a requirement under this agreement 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 named insured; whichever is greater. No representation is made that the minimum insurance requirements of this agreement are sufficient to cover the obligations of the Contractor under this agreement.
- (ii) Each insurance policy required by the agreement shall be endorsed to

- state that coverage shall not be suspended, voided, cancelled, or reduced in limits except after thirty (30) days' prior written notice has been given to the City, except that ten (10) days' prior written notice shall apply in the event of cancellation for nonpayment of premium.
- (iii) All self-insurance, self-insured retentions, and deductibles must be declared and approved by the City.
- (iv) Evidence of Insurance Prior to commencement of work, the Vendor shall furnish the City with certificates, additional insured endorsements, and waivers of subrogation evidencing compliance with the insurance requirements above. The Vendor must agree to provide complete, certified copies of all required insurance policies if requested by the City.
- (v) Acceptability of Insurers Insurance shall be placed with insurers admitted in the State of California and with an A.M. Best rating of A- VII or higher.
- g. Subcontractors and Consultants
 - Contractors shall require and verify that all subcontractors, or other parties hired for this work, purchase and maintain coverage for indemnity and insurance requirements as least as broad as specified in this agreement to the extent they apply to the scope of the subcontractor's work with the same certificate of insurance requirements and naming as additional insureds all parties to this contract. Contractor shall include the following language in their agreement with Subcontractors: 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 and provide a valid certificate of insurance and the required endorsements included in the agreement as proof of compliance prior to commencement of any work and to include this same requirement for any subcontractors they hire for this work. A copy of the owner contract document indemnity and insurance provisions will be given to the subcontractor upon request. Contractor shall provide proof of such compliance and verification to the City upon request.
- C. <u>Waiver of Subrogation</u>. City and Contractor waive all rights against each other and against all other subcontractors for loss or damage to the extent covered by Builder's Risk or any other property or equipment insurance applicable to the Project, except such rights as they may have to the proceeds of such insurance less their pro-rata share of the deductible. If the policies of insurance referred to in this section require an endorsement or consent of the insurance company to provide for continued coverage where there is a waiver of subrogation, the owners of such policies will cause them to be so endorsed or obtain such consent.
- D. <u>Insurance Requirements are Material Elements of Performance</u>. In the event of the breach of any provision of this paragraph, or in the event of any notices received which indicate any required insurance coverage will be diminished or canceled, City, at its option, may, notwithstanding any other provisions of this Agreement to the contrary, immediately declare a

material breach of this Agreement and suspend all further work pursuant to this Agreement.

SECTION 13 – CLAIMS RESOLUTION

Disputes arising under this Agreement shall be resolved in accordance with the procedures set forth in Sections 9204 and 20104.50 of the Public Contract Code.

SECTION 14 – WARRANTY

Contractor warrants to City that all materials and equipment furnished shall be new, free from faults and defects and of good quality. Contractor hereby warrants its work against all deficiencies and defects for the period required by the Special Provisions or the longest period permitted by the law of this State, whichever is less.

SECTION 15 – LAWS TO BE OBSERVED

- A. Contractor shall keep itself fully informed of all existing and future state and federal laws and county and municipal ordinances and regulations which in any manner affect those engaged or employed in the work, or the materials used in the work, or which in any way affect the conduct of the Work, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same.
- B. Contractor shall at all times observe and comply with, and shall cause all of its agents and employees to observe and comply with all such existing and future laws, ordinances, regulations, orders, and decrees of bodies or tribunals having any jurisdiction or authority over the work; and shall protect and indemnify the City, and all officers and employees thereof connected with the work, including but not limited to the Deputy Director of Public Works Wastewater, against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by the City's representative or their employees. If any discrepancy or inconsistency is discovered in the plans, drawings, specifications, or contract for the work in relation to any such law, ordinance, regulation, order or d–cree, Contractor shall forthwith report the same to the City in writing.

SECTION 16 - MISCELLANEOUS

A. Utility Facilities.

- i. The Contractor shall protect from damage any utility facilities that are to remain in place, be installed, relocated, or otherwise rearranged.
- ii. If Contractor while performing the Work discovers utility facilities not identified in the Contract Documents, Contractor shall immediately notify the City and the utility owner. City shall arrange the removal, relocation, or protection of existing main or trunk line utility facilities located at the site of the Work but not identified in the Contract.

- iii. If the Contractor is required to locate, repair damage not due to the Contractor's failure to exercise reasonable care, and remove or relocate existing main or trunk line utility facilities, it shall be compensated under the Changes section of this Contract, including payment for equipment on the Project necessarily idled during such work.
- iv. Contractor will not be entitled to damages or additional payment for delays caused solely by the failure of City, or the owner of the utility, to provide for removal or relocation of existing main or trunk line utility facilities not identified in the Contract Documents, except for equipment necessarily idled during such work.
- v. Contractor shall not be assessed liquidated damages for delay in completing the Work solely attributable to the failure of City, or the owner of the utility, to provide for removal or relocation of existing main or trunk line utility facilities not indicated in the Contract Documents with reasonable accuracy.
- vi. The right is reserved by the City and the owners of facilities or their authorized agents, to enter the Project site for the purpose of making such changes as are necessary for the rearrangement of their facilities or for making necessary connections or repairs to their properties. Contractor shall cooperate with forces engaged in such work and shall conduct its operations in such a manner as to avoid any delay or hindrance to the work being performed by such other forces.
- vii. Attention is directed to the possible existence of underground facilities not known to the City of Pacifica, or in a location different from that which is shown on the plans or in the Contract Documents. The Contractor shall take all steps reasonably necessary to ascertain the exact location of all underground facilities prior to doing work that may damage such facilities or interfere with their service, including but not limited to calling USA to mark utilities.

B. Differing Site Conditions.

- i. The Contractor shall promptly, and before the following conditions are disturbed, notify the City in writing of any:
 - a. Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code that is required to be removed to a Class I disposal site in accordance with provisions of existing law.
 - All costs associated with removing, hauling, and disposing of materials in a Class II or Class III landfill/disposal site shall be included in the contractor's bid. This includes disposal of excavated materials, sludge and debris removed from the sewer system, and any other material to be removed from the

site.

- b. Subsurface or latent physical conditions at the site differing materially from those indicated in this Contract, or
- c. Unknown physical conditions at the site of any unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract.
- ii. The City shall promptly investigate the conditions, and if it finds that such conditions do materially so differ, or do involve hazardous waste, and cause an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the Work, it shall issue a change order under the provisions described in the Contract Documents.
- iii. No claim of the Contractor under this clause shall be allowed unless the Contractor has given the notice required in the Contract Documents.
- iv. In the event a dispute arises between the City and the Contractor as to whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the work, Contractor shall not be excused from completing the Work as provided in the Contract Documents. The Contractor shall proceed with all work to be performed under the Contract. The Contractor shall retain any and all rights provided either by this Contract or by law which pertain to the resolution of disputes and protests.

C. Records and Audits.

- i. Contractor and its subcontractors shall establish and maintain records pertaining to this contract. Contractor's and subcontractors' accounting systems shall conform to generally accepted accounting principles and all records shall provide a breakdown of total costs charged under this contract, including properly executed payrolls, time records, invoices, and vouchers.
- ii. Contractor shall permit City and its authorized representatives to inspect and examine Contractor's books, records, accounts, and any and all data relevant to this Contract at any reasonable time for the purpose of auditing and verifying statements, invoices, or bills submitted by Contractor pursuant to this contract and shall provide such assistance as may be reasonably required in the course of such inspection. City further reserves the right to examine and re-examine said books, records, accounts, and data during the three (3) year period following the termination of this Contract; and Contractor shall in no event dispose of, destroy, alter, or mutilate said books, records, accounts, and data in any manner whatever for three (3) years after the termination of this Contract.
 - iii. Pursuant to California Government Code Section 10532, the parties to this

Contract shall be subject to the examination and audit of representative of the Auditor General of the State of California for a period of three (3) years after final payment under the contract. The examination and audit shall be confined to those matters connected with the performance of this contract including, but not limited to, the cost of administering the contract

SECTION 17 – WAIVERS OF LIEN

Upon request the Contractor shall submit a complete list of major suppliers and/or subcontractors who will be providing material and/or labor for the performance of the Work, and shall submit with each payment request waivers of lien from each major supplier and/or subcontractor. A sample of this form to be used will be furnished by the City.

SECTION 18 – BACK CHARGES

Charges from Contractor to City will not be honored or paid by City unless the charges are authorized and approved by City at the time the work is being performed for which a charge is to be submitted.

SECTION 19 – CLEAN-UP

Contractor will remove from the project site all debris resulting from performance of the Work no less often than daily. If Contractor fails to do so, City may, after twenty-four (24) hours' notice to Contractor, clean up the site and deduct the cost from the Contract Price.

SECTION 20 – LICENSE REQUIREMENT

Contractor's attention is directed to Business and Professions Code Sections 7000 et seq. concerning the licensing of contractors. At the time Contractor enters into this Contract and all times Contractor is performing the Work, Contractor shall have a valid license issued by the Contractors State License Board in the classification stated in the Contract Documents. Contractor and all subcontractors shall be licensed in accordance with the laws of this State and any contractor or subcontractor not so licensed is subject to penalties imposed by such laws.

CONTRACTORS ARE REQUIRED BY LAW TO BE LICENSED AND REGULATED BY THE CONTRACTORS' STATE LICENSE BOARD WHICH HAS JURISDICTION TO INVESTIGATE COMPLAINTS AGAINST CONTRACTORS IF A COMPLAINT REGARDING A PATENT ACT OR OMISSION IS FILED WITHIN FOUR YEARS OF THE DATE OF THE ALLEGED VIOLATION. A COMPLAINT REGARDING A LATENT ACT OR OMISSION PERTAINING TO STRUCTURAL DEFECTS MUST BE FILED WITHIN 10 YEARS OF THE DATE OF THE ALLEGED VIOLATION. ANY QUESTIONS CONCERNING A CONTRACTOR MAY BE REFERRED TO THE REGISTRAR, CONTRACTORS' STATE LICENSE BOARD, P.O. BOX 26000, SACRAMENTO, CALIFORNIA 95826.

SECTION 21 – NOTICES

All notices required by this Agreement shall be given to the City and Contractor in writing, by first class mail, postage prepaid, addressed as follows:

CITY:

Name
Address
City, State, Zip
Attention:
Email Address:

CONTRACTOR:

Name
Address
City, State, Zip
Attention:
Email Address:

SECTION 22 – GOVERNING LAW AND VENUE

This Agreement shall be deemed to have been executed in the County of San Mateo, California. The formation, interpretation and performance of this Agreement shall be governed by the laws of the State of California, excluding its conflict of laws rules. Any suit or action initiated by either party shall be brought in the County of San Mateo, California unless the parties agree otherwise in a written amendment to this Agreement.

IN WITNESS THEREOF, three identical counterparts of this Agreement, each of which shall for all purposes be deemed an original thereof, have been fully executed by the parties hereinabove named, on the day and year first hereinabove written.

CITY OF PACIFICA,
A Municipal Corporation:
W ' W ' 11 C': W
Kevin Woodhouse, City Manager
ATTEST:
Sarah Coffey, City Clerk
ADDROVED ACTO FORM
APPROVED AS TO FORM:
Michelle Kenyon, City Attorney
Tyrionomo renty on, enty renormo
CONTRACTOR:
By
=
Title

SECTION VI-A GENERAL CONDITIONS

VI-A. GENERAL CONDITIONS

LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044

1. **Specifications and Plans**

The work embraced herein shall be done in accordance with the project plans, these specifications, the standard plans of the City of Pacifica, the Standard Plans and Specifications for Public Works Construction, "Greenbook", latest edition, and other standard construction references insofar as the same may apply and in accordance with provisions herein. The Special Provisions describe which specifications and plans are part of this contract.

The drawings and specifications are intended to be complementary and that shown in one but not the other is to be included as if shown in both. Anything not expressly set forth in either but which is necessarily implied shall be furnished as though specifically both shown and mentioned without extra charge. Should anything be omitted from the drawings which is necessary for proper execution of the work herein described, it shall be the duty of the Contractor to notify the Engineer or authorized representative before signing the contract.

Scaling of prints shall be avoided and, when done, shall be the Contractor's responsibility. Given dimensions shall take precedence. Consult the Engineer for all necessary dimensions that are not given. Check all field dimensions, existing site or building conditions, locations, and sizes before proceeding.

Omissions or errors, if discovered in the drawings or specifications, shall be brought to the attention of the Engineer. No work is to proceed where there is any uncertainty as to the meaning of these documents.

Contractor shall consult the Engineer if at any time a variation in the construction or in the quality of materials as specified would be beneficial or expedite the execution of this work or that of the other trades. The Contractor will be allowed to vary from the documents only after written approval of the City is obtained.

2. **Shop Drawings**

Shop drawings will be required on this project.

3. **Definitions**

The term "Owner" or "City" shall mean "City of Pacifica" and the authorized representative acting on the City's behalf.

The term "Engineer" shall mean "City Engineer" or the authorized representative acting on the City's behalf, such as the Consultant, Design Engineer, Construction Manager, and Program Manager.

The term "Inspector" shall be the Engineer or the City's authorized job inspector or any independent inspection service acting on the City's behalf.

The term "Specification" shall mean these project specifications and shall encompass all sections thereof, appendices, attachments, contracts, standard specifications, agreement forms, bond forms and guarantees.

The term "Standard Plan and/or Standard Specifications" shall mean "Greenbook", latest edition, or the City of Pacifica Standard drawings.

The term "Plans" or "Project Plans" shall mean the plans for this project, standard plans, standard drawings, or standard details.

The term "Contractor" shall mean the entity submitting the contract bid proposal and executing the contract documents.

The term "Subcontractor" shall mean any contractor working under and for the Contractor.

4. **Dust Control and Cleanup**

During the construction period, the Contractor shall not generate any visible dust. The premises shall also be kept free from the accumulation of waste material or rubbish. A water truck and a sweeper shall be on site and operational at all times. Failure to meet this requirement may result in project shutdown.

The final cleaning shall leave the facilities ready for use or occupancy with no additional cleanup. Clean up dirt, grease, asphalt, etc. from all surfaces. Use no cleaning materials which will damage finishes.

At the completion of the contract, the Contractor shall remove all remaining litter, debris, materials, temporary structures, and equipment from the site. The premises shall be left in a clean and orderly condition acceptable to the Engineer.

5. **Award and Execution of Contract**

The bidder's attention is directed to "Award and Execution of Contract" of the "Greenbook" Standard Specifications for the requirements and conditions concerning the award and execution of contract.

The right is reserved to reject any bids if the Engineer is not satisfied that the bidder is fully qualified to carry out the terms of the Contract.

6. **Beginning of Work and Time of Completion**

Attention is directed to "Prosecution and Progress of the Work" of the "Greenbook" Standard Specifications and these General Conditions. The number of working days shall be counted from the date of issuance of the Notice to Proceed. The Contractor shall start work within 15 Days after issuance of the Notice to Proceed and shall diligently prosecute the work to completion as noted in the "Notice to Bidders."

7. **Public Safety and Site Security**

Contractor shall be responsible for public safety, convenience, and site security during all phases of work. The Contractor shall provide the City with a 24-hour emergency number.

Contractor shall designate a Public Safety Person responsible for site safety as well as site security.

In the event Contractor leaves the job overnight in an unsafe and/or in-secure condition, or fails to provide for public safety and convenience, City may take action to provide necessary requirements and will deduct the cost of doing so from subsequent Contractor payments.

All applicable safety regulations shall be complied with to protect the public and the Contractor's employees. Strict compliance with Cal/OSHA and NESHAP safety requirements in doing the work is required.

8. Failure to Perform

The determination by the Engineer of the question as to whether the Contractor has failed to perform any of the terms of the contract shall be conclusive upon the Contractor, surety and any and all other parties who may have any interest in the contract or any portion thereof.

The foregoing provision of this section shall be in addition to all other rights and remedies available to the City under the law.

9. Termination by Owner for Cause

Attention is directed to "Termination of the Contract for Default" of the "Greenbook" Standard Specifications and these General Conditions. Owner may terminate the contract pursuant to the provisions of this article, for the following causes:

- 1. Contractor is insolvent or has made a general assignment for the benefit of creditors, or a receiver has been appointed on account of the insolvency of Contractor.
- 2. Contractor or any of its subcontractors materially violates any of the provisions of the Contract Documents or fail to perform the work within the time specified in the current Construction Schedule, as properly modified for time extensions.

Project Title: Lower Linda Mar Rehabilitation and Repair Project C044

- 3. Contractor or any of its subcontractors should fail to make prompt payment to subcontractors or material supplies for material or for labor, unless such failure arises from a failure on the part of Owner to make prompt payment on account of such work or material.
- 4. Contractor or subcontractor persistently disregards laws, ordinances or the instructions of the Engineer or Owner.
- 5. Contractor fails to abide by a property stop work notice or fails to correct rejected work or materials.
- 6. Contractor fails to provide and keep in full force and effect all required insurance or fails to cause all subcontractors to so comply.
- 7. Contractor fails to supply a sufficient number of properly skilled workers or proper materials.
- 8. Contractor commits any substantial violation of the terms and conditions of the Contract Documents which constitutes a material breach of the contract. Contractor may get a single chance to present the City with a plan of how they'll get back into compliance with the Contract Documents including how they'll demonstrate contractual compliance to the City. If accepted after City review, the Contractor may continue to work on the Project until completion or the next breach of contract and thus termination.

10. Retention of Legal Rights

Inspection by the Engineer, or by any of his duly authorized representatives, any order, measurement, or certificate by the Engineer, any order by the City for the payment of money, acceptance of any work or any extension of time, or any possession taken by the City shall not operate as a waiver of any provision of the contract, or any power therein reserved to the City, or any right to damages therein provided. Any waiver of any breach of the contract shall not be held to be a waiver of any other or subsequent breach.

The City reserves the right to correct any error that may be discovered in any estimate that may have been paid, and to adjust the same to meet the requirements of the contract and specifications. The City reserves the right to claim and recover by process of law, sums as may be sufficient to correct the error or make good any deficit in the work resulting from such error, dishonesty or collusion discovered in the work after the final payment has been made.

11. Estimates and Payments

On or about the first day of each calendar month, the Contractor shall submit to the Engineer an approximate measurement of all work done and materials stored on site and will certify to the approximate value of such work and materials based upon the prices set forth in the bid schedule and to an estimate of the value of all extra work performed in accordance with the provisions of the contract during the preceding calendar month.

No payment or partial payment will be made for materials not incorporated in the work.

Upon Contractor's request for payment, the City will make partial payment to the Contractor for the work performed to the close of the previous month; said partial payment will be made in accordance with the certified estimate made by the Engineer as set forth herein. The City will retain 5% of the amount of each such estimate until 45 days after the date of recordation of the notice of completion on which project is accepted as complete and until all obligations of the Contractor under the contract have been discharged.

Whenever the Contractor shall deem all work under the contract to have been completed in accordance therewith, he shall so notify the Engineer who will promptly ascertain whether such be the fact, and if not will so notify the Contractor in detail of any additional work required. When all the provisions of the contract have been fully complied with to the satisfaction of the Engineer, he will proceed with all reasonable diligence to measure all work done and all materials furnished and will make a final and complete estimate of the value of such work done and materials furnished and will certify to the City Council said estimate and the date of completion of the work. The Council will take prompt action thereon and will furnish the Contractor with a statement of acceptance or of exceptions.

At 45 days from the date of final acceptance of the work by the Council, the difference between said final estimate and all payments theretofore made to the Contractor shall be due and payable to the Contractor, excepting only such sum or sums as may lawfully be withheld in accordance with the provisions of the contract. Acceptance by the Contractor of said payment made in accordance with said final estimate shall operate as and shall be a release to the City, its officers, agents, and employees, excepting only claims against the City for any amount withheld by it at the time of such payment.

12. Right of City to Withhold Payments

The City may withhold or nullify the whole or any part of any partial or final payment to such an extent as may be reasonably necessary to protect it from loss on account of:

Defective work not remedied, irrespective of when any such work be found defective;

Claims or liens filed or reasonable evidence indicating probable filing of claims or liens;

Failure of the Contractor to make payments promptly for labor, materials, equipment, or other facilities, or to subcontractors;

A reasonable doubt that the work can be completed by the City for the balance then unearned by the Contractor in the event the City at that time elects to take over work or to

terminate the contract pursuant to the "Greenbook" Standard Specifications;

A reasonable doubt that the Contractor can complete the work within the agreed time limits;

Costs to the City resulting from failure of the Contractor to complete the work within the proper time;

Damage to other work or property.

Whenever the City, in accordance herewith, withholds any monies otherwise due under the contract, written notice of the amount withheld and the reasons therefor will be given to the Contractor, and when the Contractor removes the grounds for such withholding, the City will promptly pay to the Contractor the amount so withheld.

13. <u>Substitution of Securities in Lieu of Retainage</u>

The Contractor may elect to receive 100 percent of payments due under the contract documents from time to time, without retention from any portion of the payment by the Owner, by depositing securities of equivalent value with the Owner in accordance with the provisions of Public Contract Code 22300. Such securities, if deposited by the Contractor, shall be valued by the Owner, whose decision on valuation of the securities shall be final. Securities eligible for investment under this provision shall be limited to those listed in Public Contract Code 22300 and Section 16430 of the California Government Code.

Pursuant to Section 22300 of the California Public Contract Code (Section 10263 of the Public Contract Code for State Agencies), the Contractor may substitute securities for any money held by the Owner to insure performance of the contract. At the request and expense of the Contractor, securities equivalent to the amount withheld shall be deposited with the Owner or with a state or federally chartered bank as an escrow agent, who shall return such securities to the Contractor upon satisfactory completion of the contract.

Deposit of securities with an escrow agent shall be subject to written agreement in accordance with the provisions of Section 22300. The Owner shall not certify that the contract has been completed until at least 45 days after filing by the Owner of a Notice of Completion. Securities eligible for investment under this Section shall be limited to those listed in Section 16430 of the California Government Code, bank or savings and loan certificates of deposit, interest bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed upon by the Contractor and the public agency.

14. **Prevailing Wage Rates**

The Contractor shall post, in a location on the job site, the prevailing wage rate Determination which is applicable to this project.

15. Liquidated Damages

In the event Contractor, for any reason, shall have failed to perform the work herein

specified, within the time herein required and to the satisfaction of the Engineer, City may, in lieu of any other of its rights and authorized under this contract, deduct from payments or credits due contractor after such breach, a sum equal to \$1,500.00 as liquidated damages for each calendar day beyond the date herein provided for the completion of such work.

16. **Discrimination**

No discrimination shall be made in the employment of persons upon public works because of the race, sex, age, color, national origin, creed, sexual orientation or marital status of such persons and every contractor for public works violating this section is subject to all the penalties imposed for a violation of Section 1735 of the California Labor Code.

17. Employment of Apprentices

Attention is directed to the provisions in Sections 1777.5 (Chapter 1411, Statutes of 1967) and 1777.6 of the Labor Code concerning the employment of apprentices by the Contractor or any subcontractor under him.

The Contractor and any subcontractor shall comply with the requirements of Sections 1777.5 and 1777.6 in the employment of apprentices.

Information relative to apprenticeship standards, wage schedules and other requirements may be obtained from the Director of Industrial Relations, ex officio the Administrator of Apprenticeship, San Francisco, California, or from the Division of Apprenticeship Standards and its branch offices.

18. **Materials and Supplies**

All materials and supplies called for by the plans and specifications shall be new unless otherwise specified.

Whenever in the specifications or on the plans any material, process or article is indicated or specified by patent or proprietary name or by the name of the manufacturer, such name shall be deemed to have been used for the purpose of facilitating the description of the material, process or article desired and shall be deemed to be followed by the words "or approved equal."

Proposed alternate materials and methods must be submitted for approval by the Engineer at least one week prior to the opening of bids or actual construction. Failure to comply with this provision will automatically disqualify such alternate substitutions. If, in the judgement of the Engineer, the proposed substitute does not equal the material, process or article specified, the Contractor shall furnish the material, process or article as specified in these specifications. Materials and supplies described in words which have a well-known technical or trade meaning shall refer to such recognized standards.

All federal and state laws and regulations now imposed by competent authority and

relating to any materials required to be furnished under the specifications are hereby made controlling and a part of the specifications.

19. **Existing Utilities**

Shutdowns of utilities for any reason shall be subject to approval by the City and shall require at least 48 hours prior notice, excluding weekends or holidays. When extended shutdowns are required, the Contractor shall provide standby service for normal occupancy requirements.

Before starting work, coordinate work and obtain clearance from utility companies and/or governmental agencies which supply existing or proposed services to project.

Unless they are shown to be removed, protect active utility lines shown on these plans or otherwise made known to the Contractor prior to excavating. If utilities are damaged, they shall be repaired or replaced at no additional cost to the Owner.

If active utility lines are encountered and are not shown on these plans or otherwise made known to the Contractor, the Engineer shall be immediately notified and Contractor shall then take the necessary steps promptly to assure that service will not be interrupted. If service is interrupted by work performance under this section, immediately restore service by repairing damaged utility at no additional cost to the City.

If existing utilities interfere with permanent facilities being constructed under this contract, immediately notify Engineer.

Do not proceed with permanent relocations or utilities until you receive written instructions from Engineer.

The Contractor shall be responsible for contacting USA, Underground Service Alert at 1-800-227-2600.

20. **Protection**

The Contractor shall provide adequate protection for all parts of the existing site, its improvements, and its occupants throughout the work. All damage done to existing property shall be neatly repaired or replaced at the Contractor's expense. Work shall be executed in a careful and orderly manner with the least possible disturbance to public and occupants of the area.

Contractor's attention is directed towards the careful removal of asphalt pavement adjacent to existing concrete pavement. Care shall be taken by the Contractor not to damage, crack, chip or break any portion of the existing concrete pavement during asphalt removal. Any damage, crack, chip, or break shall be repaired and/or replaced per City standard and to the satisfaction of the Engineer the cost of which shall be borne solely by the Contractor without additional compensation.

The Contractor shall protect and save any and all utilities. Any time existing utilities are exposed, inspector shall be notified. Repairs on existing utilities shall not be performed

without prior approval and inspection of the City Inspector.

The Contractor shall repair or replace any damage occurring from his operations to pursue completion of the contract. The repairs and replacement shall be to the satisfaction of the Engineer and according to City standards and practices. The minimum repair or replacement shall be equal to surrounding existing conditions or better, and the Engineer's decision as to acceptable repair or replacement shall be final. The burden of proof as to whether there was existing damage by the Contractor shall rest with the Contractor. This is a nonpayment item.

The Contractor shall conduct his operations in such a manner as to avoid damage to existing improvements and adjacent property.

The site shall be maintained in a neat and orderly manner at all times. All existing facilities shall be protected and, if they are damaged or destroyed by the Contractor, shall be restored or replaced in kind at his expense, to their original conditions, or better, as approved by the City or other owner thereof. The site shall be secured at the conclusion of each work day.

If it is necessary, during the performance of the work, to remove and replace any existing facilities (e.g. — sidewalks, fences, etc.), such removal and replacement shall be included in the various items of work and no additional compensation will be allowed therefor.

Tree roots:

No tree root shall be unnecessarily cut in trenching operations. Excavation around roots shall be performed by hand. Where a root conflicts with the required location of the underground facility being installed, the root shall be trimmed neat at the edge of the excavation or trench, and shall be painted with an approved tree seal, as directed by the Engineer. Said work shall be included in the various items of work and no additional compensation will be allowed therefor.

Reference the tree protection requirement listed within the Special Provisions and as noted on the plans.

21. Field Office. Enclosures and Storage

Fences, enclosures, storage areas, etc. for use by the Contractor for the storing of tools and materials shall be located where approved by the City. The City has no obligation to provide a location to be used by the Contractor for material and/or equipment storage. Such fences, enclosures, storage areas, etc. are the Contractor's option. No payment shall be made therefor.

22. <u>Inspection and Tests</u>

Inspectors, employed by the City, shall be authorized to inspect all work done and all materials furnished. Such inspection may extend to all or any part of the work on the project and to the preparation, fabrication or manufacture of the materials to be used. An inspector is not authorized to revoke, alter or waive any requirements of the

specifications. He is authorized to call the attention of the Contractor to any failure of the work or materials to conform to the specifications and contract. He shall have the authority to reject materials or suspend the work until any question at issue can be referred to and decided by the Engineer.

An inspector will in no case act as foreman or perform other duties for the Contractor, nor interfere with the Contractor's management of the work. Any advice which an inspector may give the Contractor shall in no way be construed as binding to the Engineer or to the City, or as releasing the Contractor from fulfilling all the terms of the contract.

In case the Contractor refuses to suspend operations on verbal order, the inspector giving such verbal order will then issue the order in writing. After placing the order in the hands of the person in charge of the work for the Contractor, the inspector will immediately leave the job. Work done during the absence of the inspector will not be accepted or paid for.

The Contractor shall prosecute work only in the presence of an authorized inspector or authorized representative of the Engineer, and any work done without such inspection shall be at the Contractor's risk and be subject to rejection.

The Contractor shall furnish the Engineer with every reasonable facility for ascertaining whether or not the work, as performed, is in accordance with the requirements and intent of the specifications and contract. The Contractor shall at all times and for any purpose permit the Engineer and any of his representatives and representatives of the City to have access to the work and the premises used by the Contractor. The Engineer and his representatives and representatives of the City shall at all times have access to all places where machinery or materials are being manufactured, produced or fabricated for use on the work, and shall have full facilities for determining that all such machinery or materials are being made strictly in accordance with the specifications and plans. The Contractor shall, whenever so requested, provide facilities and assistance for weighing or measuring any of the materials.

In the event any materials, equipment or work are required by law, ordinance or regulation of any public authority, or by the specifications or otherwise, to be specifically tested or approved, the Contractor shall give the Engineer timely notice of its readiness for inspection or test, and of the date set for such if the inspection is to be made by other than the Engineer.

23. **Defective Work or Materials**

The Contractor shall promptly remove all work condemned by the Engineer as failing to conform to the contract and shall promptly provide a City-approved plan to correct the defects, replace and re-execute such work in accordance with the contract and without additional expense to the City, and shall bear all costs of making good any work destroyed or damaged by such removal or replacement.

Any materials condemned or rejected by the Engineer as not meeting the requirements of

these specifications may be branded or otherwise marked by the Engineer and shall, on demand, be at once removed by the Contractor to a satisfactory distance from the work. If the Contractor does not remove such material within a reasonable time, fixed by written notice, the City may remove and store the materials at the expense of the Contractor. If the Contractor does not pay the expense of such removal and storage within ten days thereafter, the City may, upon ten days' written notice, sell such materials at auction or at private sale. The City will account for the net proceeds thereof after deducting all the costs and expenses that should have been borne by the Contractor.

No partial payment, inspection, taking possession of, or other act made or done by the Engineer or the City with respect to the work prior to the final completion and acceptance thereof shall affect or prejudice the right of the Engineer or the City to reject any defective work or material or to require the complete fulfillment of all the provisions of the contract.

If the Engineer deems it expedient and not in the best interests of the City to correct work injured or done not in accordance with the contract, the defective work may be accepted subject to an equitable deduction from the contract price which may be made therefor by the City upon certificate from the Engineer.

24. Schedule of Operations and Preconstruction Meeting

The Contractor shall submit to the Engineer, within five (5) days after Notice to Proceed, a prepared schedule of operations. Subject to the approval of the Engineer, the proposed construction schedule may be revised to facilitate the Contractor's operations. A preconstruction conference will be held, at a location selected by the Engineer within seven (7) days after the Notice to Proceed for the purpose of review and approval of said schedule, and to discuss construction procedures. The Contractor shall be represented by his superintendent of work. The Engineer will be represented by all members of his organization having direct control or supervision of the project.

25. Temporary Suspension of Work and Extension of Time for Performance

When conditions at the site of the proposed work are unsatisfactory for the prosecution of a part or all of the work as adjudged by the Contractor and he is forced to suspend such work until reasonable conditions for its prosecution exist, he may request, in writing, that the Engineer authorize such suspension of work. Without the Engineer's approval, any suspensions violate this specification. Unsatisfactory conditions may include, but not limited to: inclement weather, strikes, excessive high or low ambient temperature and inability of delivery of materials by suppliers for good reason.

When, in the opinion of the Engineer, suspensions of work are not due to the fault or negligence of the Contractor, the time of performance as set forth in the Agreement will be extended by the Engineer, in writing, by a period of time equal to that lost due to the delay occasioned by the allowed suspension, all at no additional cost to the City and without waiver of remedies for nonproliferation of the work.

Such allowed suspension of work shall not relieve the Contractor of his responsibilities.

In the event that a disagreement shall arise between the Engineer and the Contractor over time of performance as extended by the Engineer due to an allowed suspension of work, the Contractor may request an extension from the City Council. Such requests shall be filed with the Engineer, addressed to him, at least twenty days prior to the expiration of the time of performance as modified. The ruling of the City Council shall be final and conclusive.

26. Safety Requirements

All applicable safety regulations shall be complied with to protect the public and the Contractor's or subcontractor's employees. Strict compliance with Cal/OSHA and other agency requirements in doing the work is required.

27. **Laws and Regulations**

The Contractor shall comply with all local, regional, State and Federal laws and regulations at all times. In addition, the Contractor shall meet the standards set by the Air Quality Act for Noise and Pollution. If there is any conflict between these specifications and provisions and any laws or regulations, the matter shall be brought to the attention of the Engineer immediately.

28. Permits and Licenses

All necessary permits or approvals from any agency shall be obtained by the Contractor at the Contractor's expense before any work is started.

No charges will be made for City issued permits. However, a City of Pacifica business license shall be purchased by the Contractor and all subcontractors. All Contractors and subcontractors shall have all required licenses.

29. **Sound Control Requirements**

The Contractor shall comply with all local sound control and noise level rules, regulations and ordinances which apply to any work performed pursuant to the contract.

Each internal combustion engine, used for any purposes on the job or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without said muffler.

30. **Air Pollution Control**

The Contractor shall comply with all air pollution control rules, regulations, ordinances and statutes which apply to any work performed pursuant to the contract, involving any air pollution control rules, regulations, ordinances and statutes specified in Section 11017 of the Government Code.

31. Water Pollution and Erosion Control

General:

Contractor shall take all measures necessary to prevent debris from entering the storm drain and sewer systems. Best Management Practice (BMP) shall be enforced at all times.

Water pollution and erosion control work is intended to provide prevention, control, and abatement of water pollution and siltation to drainage systems, streams, waterways and other bodies of water, and shall consist of constructing those facilities that may be shown on the plans, specified herein or in the special provisions, required as a condition of a permit or directed by the Engineer.

Scheduling of work:

No grading or other surface or ground cover disturbing work will be permitted to take place between the calendar dates of October 15 through April 15 without an approved and implemented erosion control plan. In order to provide effective and continuous control of water pollution and erosion, it may be necessary for the Contractor to perform the contract work in small or multiple units, on and out of phase schedule, and with modified construction procedures. The Contractor shall coordinate water pollution and erosion control work with all other work done on the contract.

Contractor's program:

Before starting any work on a project, the Contractor shall submit to the Engineer for his acceptance, a Water Pollution Control Plan (WPCP) detailing the control of water pollution and erosion during construction of the project to comply with the requirements set forth in the State Water Resources Control Board NPDES General Permit Requirements (Requirements (Order No. 2009-0009-DWQ) and required for the Work, and the methods used to comply with those BMPs directed at operational procedures, Monitoring Program and Reporting Plan. The plan shall specifically address and detail changes from the alternatives called out in this section. The Contractor's preferred techniques shall show how it will comply with the stated objectives of the program. The WPCP shall include detailed figures showing the location and type of each BMP.

The Contractor shall submit details and product data for proposed BMP's. Details shall be from the California Stormwater Quality Association (CASQA) Storm water Best Management Practice (BMP), Handbook Portal, Construction, and shall be marked to show compliance or marked to show deviation.

The entire plan shall be kept and maintained by the Contractor on the construction site during the duration of the project.

The Contractor shall not perform any clearing and grubbing, excavation or other vegetation or surfacing disturbing work, other than that authorized by the Engineer, until the Contractor's program has been approved. The City will not be liable to the Contractor for failure to accept all or any portion of an originally submitted or revised water pollution and erosion control program, nor for any delays to the work due to the Contractor's failure to submit an acceptable program.

The Contractor shall be responsible for taking the proper actions to prevent contaminants

and sediments from entering the storm sewer drainage system should any unforeseen circumstance occur. The Contractor shall take immediate action if directed by the Engineer, or if the Contractor observes contaminants and/or sediments entering the storm drainage system, to prevent further storm water from entering the system.

Correction of inadequate pollution and erosion control measures:

If the measures being taken by the Contractor are inadequate to control water pollution or erosion effectively, the Engineer may direct the Contractor to revise operations and the water and erosion control program. The directions will be in writing and will specify the items of work for which the Contractor's water pollution and erosion control measures are inadequate. No further work shall be performed on those items until the water pollution control measures are made adequate and, if also required, a revised water pollution and erosion control program has been accepted. The Engineer will notify the Contractor of the acceptance or rejection of any submitted revised water pollution and erosion control program in not more than 5 working days of its submittal.

Responsibility and payment for removal of silt from storm drains, channels and retention basins:

When, as a result of the absence, failure or inadequacy of the Contractor's water pollution and erosion control measures, silt is deposited in any storm drain, storm water channel, retention basin, catch basin, or any other drainage structure or facility, the Contractor shall be required to completely clean and remove all silt from said drainage structure or facility and from all downstream elements of the drainage system of which the structure or facility is a part, for whatever distance the Engineer determines likely to have received silt as a result of the absence, failure or inadequacy of the Contractor's water pollution and erosion control measures. Should the Contractor fail to respond promptly to the Engineer's demand for removal of silt and correction of the absence or inadequacy he deems to be the cause, the Engineer will take steps he deems appropriate, including hiring others to remove silt and to stop additional silt from the Contractor's operations to enter any part of the storm drain and related systems. On City projects, the cost of such action by the Engineer shall be deducted from any monies due or to become due the Contractor. On private jobs, the costs will be billed to the Contractor and a Stop Work Order shall be placed on the entire job until the bill is paid.

Abatement of other water pollution:

The cleanup of water pollution by chemicals, petroleum products, cement or by the escape of any other material that is harmful or potentially harmful, from the work site as a result of the Contractor's operations, into drainage systems, their receiving waters, waterways or other bodies of water shall be the financial responsibility of the Contractor. The means of cleanup and the party or parties to be engaged to perform the cleanup work shall be determined by the Engineer in consultation with appropriate hazardous materials, pollution control, safety, health and wildlife authorities and officials. The Contractor shall immediately carry out cleanup orders issued to him through or by the Engineer and shall make the work site accessible to personnel and equipment from outside pollution control resources called in by the Engineer. On City projects, the cost of cleanup action called for

by the Engineer and performed by outside resources shall be deducted from any monies due or become due the Contractor. On private jobs, the costs will be billed to the Contractor and a Stop Work Order shall be placed on the entire job until the bill is paid.

Other requirements:

The Contractor's submittal and the Engineer's approval of the Contractor's water pollution and erosion control program shall not relieve the Contractor from responsibility for compliance with Sections 5650 and 12015 of the Fish and Game Code or other applicable statutes relating to prevention or abatement of water pollution and erosion control. The Contractor is advised that if the area covered by the project exceeds 5 acres, he is required to file a Notice of Intent and a Storm Water Pollution Prevention Plan with the State Water Resources Control Board before starting work.

Compensation:

Full compensation for conforming to the requirements of this section shall be included in the Contractor's bid for "Water Pollution Control Plan (WPCP)". No additional compensation will be allowed therefor.

32. Environmental Protection Requirements

The Contractor shall exercise every reasonable precaution to protect streams, lakes, reservoirs, bays, detention ponds, drainage facilities and the waters therein from pollution by fuels, oils, bitumen, calcium chloride, mud, silt and other harmful materials. Care shall be exercised to preserve all vegetation beyond the limits of construction.

• Stormwater pollution prevention:

The Contractor is advised that the City of Pacifica and all other municipal stormwater dischargers in San Mateo County are co-permittees under the National Pollutant Discharge Elimination System (NPDES) Permit Number CAS612008. This permit prohibits the discharge of illicit discharges (non-rainwater) into the storm drain system unless specifically exempt. As a condition of this permit, the City of Pacifica and San Mateo County have implemented a local Stormwater Management Plan, adopted respective enabling ordinances prohibiting illicit discharges and adopted "Best Management Practices" (BMPs) to assist contractors and citizens with alternatives. The central goal of the Stormwater Management Plan and BMPs is to reduce the amount of pollution in runoff and establish procedures to address and control stormwater pollution resulting from both public and private sector construction activity within the City. The types of construction contracts controlled by this section include site improvement work, street and utility replacement or improvement, drainage work and general construction. All work performed under this contract and all contractors and their associates and/or employees are required to comply with all applicable stormwater regulations and to implement BMPs at all times. Guidelines and BMPs are available from the Pacifica Planning Department.

• Source reduction and recycling:

The California Integrated Waste Management Act of 1989 (AB 939) mandates that 25 percent of the waste stream in the City of Pacifica be diverted from landfill by 1995 and that this diversion increase to 50 percent by 2000. AB 939 also required the City of Pacifica to prepare and adopt a Source Reduction and Recycling Element (SRRE) outlining recommended programs to meet the above noted diversion goals. One of the approved SRRE programs is to require the utilization of recycled construction materials for City projects. All work performed under this contract and all contractors and their associates and/or employees shall utilize recycled materials and recycle construction materials where feasible. Construction/Demolition Recycling Resources Lists are available from the Pacifica Planning Department and the California Integrated Waste Management Board.

Contractor shall reuse or recycle any useful construction materials generated during the project.

Disposal:

At the end of each working day, the Contractor shall collect all scrap, debris and waste material and dispose of such materials properly.

The Contractor shall inspect dumpsters for leaks and contact trash hauling contractors to replace or repair dumpsters that leak.

The Contractor shall not discharge water on site from cleaning dumpsters.

The Contractor shall arrange for regular waste collection before dumpsters overflow.

Hazardous material/waste management:

a. Storage:

The Contractor shall label and store all hazardous materials, such as pesticides, paints, thinners, solvents, and fuels; and all hazardous wastes, such as waste oil and antifreeze; in accordance with the City of Pacifica Hazardous Materials Storage Ordinance and all applicable State and Federal regulations.

The Contractor shall store all hazardous materials and all hazardous wastes in accordance with secondary containment regulations, and it is recommended that these materials and wastes be covered, as needed, to avoid potential management of collected rain water as a hazardous waste.

The Contractor shall keep an accurate, up-to-date inventory, including Material Safety Data Sheets (MSDSs), of hazardous materials and hazardous wastes stored on-site, to assist emergency response personnel in the event of a hazardous materials incident.

b. Usage:

When rain is forecast within 24 hours or during wet weather, the Engineer may

prevent the Contractor from applying chemicals in outside areas.

The Contractor shall not over-apply pesticides or fertilizers and shall follow material manufacturer's instructions regarding uses, protective equipment, ventilation, flammability, and mixing of chemicals. Over-application of a pesticide constitutes a "label violation" subject to an enforcement action by the San Mateo County Agriculture Department.

c. Disposal:

The Contractor shall use secondary containment, such as a drip pan, to catch leaks or spills any time that vehicle or equipment fluids are dispensed, changed or poured.

The Contractor shall keep a stockpile of spill cleanup materials, such as rags or absorbents, readily accessible on site.

The Contractor shall clean up leaks and spills of vehicle or equipment fluids immediately and dispose of the waste and cleanup materials as hazardous waste, as described in the section above.

The Contractor shall not wash any spilled material into streets, gutters, storm drains or creeks and shall not bury spilled hazardous materials.

The Contractor shall report any hazardous materials spill to the City of Pacifica Building Division at (650) 738-7344.

The Contractor shall inspect vehicles and equipment arriving on site for leaking fluids and shall promptly repair leaking vehicles and equipment. Drip pans shall be used to catch leaks until repairs are made.

The Contractor shall recycle waste oil and antifreeze to the maximum extent practicable.

The Contractor shall comply with federal, state and city requirements for aboveground storage tanks.

d. Contractor training and awareness:

The Contractor shall train all employees/subcontractors on the stormwater pollution prevention requirements contained in these specifications.

The Contractor shall inform subcontractors of the stormwater pollution prevention contract requirements and include appropriate subcontract provisions to ensure that these requirements are met.

The Contractor shall post warning signs in areas treated with chemicals.

e. Activity-specific requirements:

The following requirements shall be met on all projects within the City of Pacifica that include the listed activities.

(1) Dewatering operations:

Sediment control: The Contractor shall route water through a control to the stockpile or dispose of it in a trash container. The Contractor shall not use water to wash down fresh asphalt concrete pavement.

(2) Sawcutting:

During sawcutting, the Contractor shall cover or barricade catch basins using control measures such as vacuum, filter fabric, straw bales, sandbags and fine gravel dams to keep slurry out of the storm drain system. When protecting a catch basin, the Contractor shall ensure that the entire opening is covered.

The Contractor shall shovel, absorb or vacuum sawcut slurry and pick up the waste prior to moving to the next location or at the end of each working day, whichever is sooner.

If sawcut slurry enters catch basins, the Contractor shall remove the slurry from the storm drain system immediately.

(3) Contaminated soil management:

On all projects involving grading or excavation, the Contractor shall look for contaminated soil as evidenced by site history, discoloration, odor, differences in soil properties, abandoned underground tanks or pipes or buried debris. If the project is not within an area of known soil contamination and no evidence of soil contamination is found, then testing of the soil shall only be required if directed by the Engineer. The Contractor shall follow the section below if contamination is found.

If the project is within an area of known soil contamination or evidence of soil contamination is found, then soil from grading or excavation operations shall be tested. The soil shall be managed as required by the Pacifica Fire Department or other designated agency.

If the project is found to be within an area of soil contamination not

identified by the City in the project specifications, a change order shall be

negotiated to cover additional work performed by the Contractor.

(4) Concrete, grout and mortar waste management:

Material management:

The Contractor shall store concrete, grout and mortar away from drainage areas and ensure that these materials do not enter the storm drain system.

Concrete truck/equipment washout:

The Contractor shall not wash out concrete trucks or equipment into streets, gutters, storm drains or creeks.

The Contractor shall perform washout of concrete trucks or equipment offsite or in a designated area on-site where the water will flow onto dirt or into a temporary pit in a dirt area. The Contractor shall let the water percolate into the soil and dispose of the hardened concrete in a trash container. If a suitable dirt area is not available, then the Contractor shall collect the wash water and remove it off-site.

33. Layout of Work

All layout shall be done by the Contractor and must be approved by the City. Temporary traffic control shall be per Section 10 of the Technical Specifications.

34. **Substitutions**

Substitutions in material or methods of construction, when necessary because of material shortages or in order to avoid serious delay may be made only after they are approved by the Engineer in writing.

35. Traffic Control and Public Access

The Contractor shall be responsible for proper traffic control to assure work site safety.

The Contractor shall submit a traffic control plan to the Engineer for review prior to commencement of work.

No street or sidewalk closure shall be allowed without prior approval of the City or Engineer.

Continuous safe public access shall be maintained to residential, retail and commercial structures at all times.

Barricade open depressions and holes which occur in the performances of this work. Post warning light on property adjacent to, or with public access to, the work site.

Operate warning light during hours from dusk to dawn each day and as otherwise required.

Protect structures, utilities, sidewalks, pavements and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by operations under the specified work.

36. Material and Workmanship

All materials and workmanship are to be the best of their respective kinds. The terms "or equal," "approved," "selected" and so forth shall mean as approved, etc. by the Engineer. All materials and equipment used should be in accordance with the manufacturer's printed directions.

Use adequate numbers of skilled workmen who are thoroughly trained and experienced in necessary crafts and who are completely familiar with the specified requirements and methods needed for proper performance of work specified. Use equipment adequate in terms of size, capacity and numbers to accomplish work in a timely manner.

37. Extra Work

Extra work not bid at a unit price as a singular item of work shall be performed per "Greenbook" Standard Requirements.

38. <u>Compliance with Public Contract Code, Article 1.5</u>

This contract is governed by Public Contract Code, Article 1.5, Resolution of Construction Claims. A copy of Article 1.5 is included as an Appendix to these specifications and is made a part thereof.

39. <u>Drug-Free Workplace</u>

The Contractor is required to comply with the Drug-Free Workplace Act of 1988. The requirements of the Drug-Free Workplace Policy are described in City of Pacifica Administrative Policy Number 46.

40. Harassment and Discrimination

The Contractor is required to comply with City of Pacifica Administrative Policy Number 33, Harassment and Discrimination in the Workplace.

41. Payroll Records

Contractor and each subcontractor shall keep an accurate payroll record, showing the name, address, social security number, work week and the actual per diem wages paid to each journeyman, apprentice, worker or other employee employed by him in connection with the public work. Each covered contractor and subcontractor must on a weekly basis

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Project Title: Lower Linda Mar Rehabilitation and Repair Project C044

provide the City a copy of all payrolls for the preceding weekly period signed by the authorized officer or employee of the contractor who supervises the payment of wages. Each payroll submitted must be accompanied by a "Statement of Compliance."

42. Sequence of Construction Plan

Contractor shall prepare and submit for review and approval a Sequence of Construction Plan detailing the proposed project schedule and significant milestones for performance of the work.

SECTION VI-B SPECIAL PROVISIONS

VI-B. SPECIAL PROVISIONS

LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044

1. Summary of Work — Scope

The Contractor shall furnish all labor, materials, equipment, permits, licenses and services required to perform the construction of the work described in the project description and as shown on the documents and as specified herein.

The project includes replacing sewer mainlines throughout the Lower Linda Mar neighborhood in the City of Pacifica (City). The approximate length of sewer mainlines to be replaced are listed below:

- Base Bid = 18,359 linear feet
- Additive Bid Item #1 = 3.450 linear feet
- Additive Bid Item #2 = 7,048 linear feet

The project includes replacement of existing sanitary sewer mains with pipe bursting and open trench construction methods. New sanitary sewer piping ranges from 8-inch to 16-inch HDPE pipe for pipe bursting methods, and 8-inch to 12-inch for open trench methods. The work includes reconnection of sanitary sewer laterals, connection to existing manholes, construction of new manholes, manhole modifications, manhole rehabilitation, and lamp hole replacement.

The project includes, but is not limited to the following additional items:

- Bypass pumping and/or routing of sewage.
- Prepare and implement a water pollution control plan (WPCP) and site protection.
- Traffic and pedestrian control
- Dewatering and the construction of all temporary shoring and slope protection measures.
- Replacement of disturbed landscaping, private improvements, curb & gutter, sidewalks, curb ramps, monuments, AC pavement restoration, and other miscellaneous items.

The project includes additive bid items that may or may not be awarded by the City depending on the bid results and available funding. The project also includes provisions for the contractor to replace private laterals under separate contracts with individual property owners.

2. **Project Plans**

Plans for the work to be done are part of these specifications, included in the bid documents, part of the construction contract and shall be on site in the Contractor's possession during construction. The project plans for the work are entitled "LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044."

3. **Standard Plans**

Greenbook, latest edition or the City of Pacifica Standard drawings.

4. <u>Standard Specifications</u>

The following standard specifications are referenced in these specifications and are part of the bid documents and construction contract:

Standard Specifications for Public Works Construction, Greenbook, Latest Edition.

5. Additional Standards and Codes

All work done under this contract shall conform to all standards and codes which apply to the work. Such standards and codes include, but may not be limited to:

ASTM, Annual Book of Standards, American Society for Testing and Materials

MUTCD, Manual On Uniform Traffic Control Devices

The most current edition of each of these publications, at the time of bid opening, shall apply.

6. Conflicts between Plans and Specifications

In cases of conflict between any portions of these plans and specifications, the order of precedence shall be as follows:

- 1. Addenda
- 2. Contract Technical Specifications
- 3. Contract Plans
- 3. Contract Special Provisions
- 4. Contract General Conditions
- 5. Standard Specifications
- 6. Standard Plans

7. **Cooperation**

Attention is directed to Sections 2-4, "Cooperation and Collateral Work" and 402, "Utilities," of the Standard Specifications and these Special Provisions.

In addition, Contractor shall specifically coordinate with the following entities:

North Coast County Water District, 2400 Francisco Boulevard, Pacifica,
 California 94044

- PG&E, Colma Service Center, 450 Eastmoor Avenue, Daly City, California
 94015
- AT&T, 840 West San Bruno Avenue, San Bruno,
 California 94066
- Comcast, 860 Stanton Rd, Burlingame, CA 94010
- SamTrans (San Mateo County Transit District), 1250 San Carlos Avenue, P.O. Box 3006, San Carlos, California 94070-1306
- Recology of the Coast, 2305 Palmetto Ave. Pacifica, CA 9404

8. **Obstructions**

Attention is directed to Sections 402, "Utilities" of the Standard Specifications and these Special Provisions.

The Contractor shall notify the Engineer and the appropriate regional notification center for operators of subsurface installations at least two working days prior to performing any excavation or other work close to any underground pipeline, conduit, duct, wire or other structure. Regional notification centers include but are not limited to the following:

Underground Service Alert — Northern California (USA) Telephone: (800) 227-2600

9. **Mobilization/Demobilization**

Mobilization/demobilization shall conform to the provisions in Section 7-3.4, "Mobilization," of the Standard Specifications. Mobilization and demobilization shall be paid for under the bid item for Mobilization/Demobilization.

10. <u>Construction Area Signs</u>

Traffic control shall also comply with Part 6 "Temporary Traffic Control" of the Standard Specifications. Construction area and detour signs shall be furnished, installed, maintained and removed when no longer required in accordance with the provisions in with the provisions in Section 302-2.5 "Temporary Traffic Control," of the Standard Specifications and these specifications. All construction area and detour signs shall be paid for under the bid item for Pedestrian Control, Traffic Control, and Notifications.

Changeable message signs are required on arterial or collector streets (Crespi Drive and Peralta Road) where the project construction activities occur adjacent to these arterial or collector streets, and any other locations identified by the Traffic Engineer during the course of construction. The changeable message sign locations and types shall be included on the Traffic Control Plans.

Contractor shall provide a Changeable Message Sign at any location seven (7) days in advance of the closure and during the day of closure. The exact wording is to be approved by the Engineer. Each portable message sign unit shall consist of a controller unit, a power supply, and a structural support system, all mounted on a trailer, per Standard Specification Section 601-3.7.5 "Portable Changeable Message Signs (PCMS)" shall be installed as directed by the Engineer one (1) week prior to start of construction and shall be relocated to the next street location as the job progresses or as directed by the Engineer. Changeable message signs shall be maintained to the satisfaction of the Engineer.

11. **Maintaining Traffic**

Attention is directed to Sections 7-1.08, "Public Convenience," 5-7, "Safety," and Part 6, "Temporary Traffic Control," of the Standard Specifications and to the section entitled Public Safety elsewhere in these Special Provisions.

Nothing in these Special Provisions shall be construed as relieving the Contractor from his responsibility as provided in said Section 5-7.

Road closures shall be requested 72 hours in advance of schedule. Lane closures shall conform to the provisions in the section of these Special Provisions entitled Traffic Control System for Lane Closure.

12. **Traffic Control**

Traffic control shall protect vehicle, bicycle, and pedestrian traffic in the work area from construction equipment. The Contractor shall submit a copy of the Traffic Control Plan/Detour Plans to the Engineer for approval seven (7) days prior to the preconstruction conference meeting. Traffic control shall also comply with Part 6 "Temporary Traffic Control" of the Standard Specifications.

At least one lane of traffic must be kept open at all times on public roads unless prior approval is provided by the City and any affected agency. No roads shall be blocked or made inaccessible, due to Contractor's work, without prior written approval of the City and the affected agencies.

A minimum of two flagmen shall be used at all times and be able to communicate clearly. When construction occurs at an intersection, a minimum of two flagmen shall be required.

The Contractor shall prepare and submit a Traffic Control Plan and Detour Plan for each separate construction operation. No work shall be allowed to commence unless the traffic control and detour plans are approved by the Engineer and/or Construction Inspector. The Traffic Control Plan shall comply with all dimensions, signing, restrictions, signalization, and detours for all phases of construction. Approved traffic control and detour plans shall be in-place and approved by the Engineer prior to starting daily construction operations.

Contractor shall take into consideration the parking requirements and situations during the performance of the work and shall prepare a construction schedule to reflect a construction phasing plan to ensure residents and businesses will have adequate parking at nearby streets, minimizing the inconvenience of finding parking several blocks away. The construction phasing plan will be strictly enforced. No work shall be allowed to commence unless the traffic control and detour plans are approved by the Engineer and/or Construction Inspector.

The order of work for this project shall be expected to be the following: mobilization and demobilization; public posting and notification; traffic regulation and construction area signs; clearing, grubbing, and environmental protection; sanitary sewer improvements, street restoration; street sweeping; and striping and marking application.

Once the Traffic Control Plans/Detour Plans have been approved, the Contractor shall adhere to the plan at all times or shall give the City written notice if modifications are required, subject to approval of the Engineer/Construction Inspector. Contractor shall not be allowed to start work until the revised Traffic Control Plan is in place and approved.

Convenient access to all residences and businesses shall always be maintained and available during construction. It shall be the Contractor's responsibility to coordinate their work with the residents and businesses to minimize local traffic through the work area. Requests for roadway closure shall be made in writing at least five (5) business days in advance for the Engineer's review and for ample time for notification and posting.

All open excavations shall be covered at the end of each day and when work has progressed beyond the immediate area to allow traffic access to the full width of the roadway.

Work shall only be between the hours of 8:00 A.M. and 5:00 P.M. and as stated on the working-hours provisions of these specifications. Lane closures for arterial and collector streets (Crespi Drive and Peralta Road) shall be restricted to the hours of 9:00 A.M. and 4:00 P.M. to avoid rush hour conflict. Contractor shall carefully program the work for each workday and coordinate with nearby schools or transportation authorities regarding any hour restrictions for street work.

It is the Contractor's responsibility to provide the required traffic control personnel, traffic control equipment and materials (e.g., barricades, cones, any other approved traffic control measures), and traffic control plan to ensure adequate protection of the traveling public and newly installed improvements during construction and after hours.

No construction equipment, project offices or storage yards shall be parked or located within the public right-of-way unless prior written approval is secured from the Engineer. No construction equipment shall be parked within 40 feet of a City fire hydrant.

13. **Parking Interferences**

In any areas where parked vehicles would interfere with the work, temporary "Towaway, No Parking — Construction Zone" signs, indicating the times and dates applicable, shall be adequately posted at least 72 hours prior to towing of any vehicles.

The Contractor shall be responsible for furnishing, posting and maintaining the temporary "No Parking" signs. Temporary "No Parking" signs shall be mounted on A frame barricade with flashing lights. Temporary "No Parking" signs shall not be greater than 40 feet apart. The Contractor shall notify the Pacifica Police Department if any towing is required. Vehicles blocking the work will not be considered cause for delay of work.

The cost of the above work will be included in the bid item Pedestrian Control, Traffic Control, and Notifications and no additional compensation will be allowed therefor.

14. **Programming of Work**

All work shall be performed during weekdays, Monday through Friday, and during the hours, 8 a.m. to 5 p.m. only. The Contractor shall obtain prior written permission from the Engineer to vary the hours of operations from the above stated hours. Such permission may be revoked as deemed necessary by the Engineer or any of his representatives. The Contractor shall reimburse the City for all overtime inspection services performed.

15. **Quality Assurance**

The Contractor shall submit certifications for each source of supply and for each construction material employed on the project. Certifications shall indicate that the material meets the specification requirements.

16. **Cleanup**

The Contractor shall not allow the site of work and staging areas to become littered with trash and waste material, and shall maintain the same in a neat and orderly condition throughout the construction period.

Sidewalks, street area, parking strips, planting strips and driveway approaches must be kept reasonably clean after the work has progressed beyond the immediate vicinity.

17. **Measurements**

All cost for measurement shall be included with other items of work and no additional compensation shall be allowed therefore.

18. <u>Tree Protection</u>

Contractor shall comply with City of Pacifica Ordinance 884-C.S. regarding Tree Preservation. A City of Pacifica tree permit and the associated application fees are not required for the work associated with the base bid and additive bid items.

Contractor shall have a certified arborist (as defined below) onsite to review bore pits and excavations that are in the public easements located at:

- 1. 716 Corona Drive
- 2. 720 Corona Drive
- 3. 790 Serena Drive
- 4. 796 Serena Drive
- 5. 803 Crespi Drive
- 6. 807 Crespi Drive

Arborist shall be onsite while the Contractor is digging bore pits and to verify that appropriate tree protection has been put in place. During digging of the bore pits, arborists shall specify which roots may be safely cut, or if bore pits can be relocated (as feasible) to prevent root damage. If significant roots must be cut, arborist shall determine if trees will need to be removed due to failure. Arborist shall work with the contractor to develop a tree protection plan.

All excavation, including trenching for utilities within drip-lines of trees shall be by hand only. Tunnel under roots where feasible. No tree roots shall be cut without written approval from the Project Arborist.

The contractor's Arborist shall be certified as an arborist by the International Society of Arboriculture (ISA) with an active ISA certification number, or a person who is a registered consulting arborist with the American Society of Consulting Arborists. Arborist shall be independent, and not an employee or sub-contractor to a landscaping or tree removal firm.

The Contractor is responsible for all costs associated with meeting the City's tree ordinance requirements, preparing and adhering to the tree protection plans, and preparation of arborist reports.

Arborist Review and Tree Protection for Private Lateral Replacement

Arborist review and tree protection is required for all private lateral replacement work in locations where proposed excavations are within 50 feet of a tree. The City's on-call arborist will review the proposed work associated with private lateral replacement. The Contractor is responsible for notifying the City a minimum of 2 weeks prior to private lateral replacement, for marking the proposed excavation locations, and for adhering to all tree protection requirements outlined by the City's arborist and as necessary to meet the City's tree ordinance requirements.

Replacement of private laterals and the associated tree protection requirements will be paid for under separate contracts between the property owner and the contractor as specified herein.

19. <u>City of Pacifica Pavement Cut Fee</u>

The Contractor shall pay the City of Pacifica's pavement cut fees associated with the City's encroachment permit. The bid item "City Pavement Cut Fee (Allowance)" will be

used to reimburse the Contractor for the actual fees paid by the Contractor associated with the City's encroachment permit. The allowance amount is based on the estimated area of pavement replacement associated with the project. The Contractor shall calculate the proposed area of pavement replacement based on the Contractor's proposed operations and shall calculate the pavement cut fee prior to construction and prior to issuance of a City encroachment permit.

The Contractor shall conduct operations to limit pavement disturbance to the extent feasible. The Contractor shall mark the proposed locations of pavement disturbance and excavations in the field and review with the City's inspector prior to performing the work. The Contractor will not be reimbursed for pavement cut fees associated with pavement disturbance and pavement damage that could have been avoided.

The Contractor shall submit the detailed pavement cut fee calculations to the City for review and approval prior to applying for an encroachment permit. The Contractor will be required to pay the calculated pavement cut fee in advance of performing the work, when the Contractor submits an application for a City of Pacifica Encroachment Permit. The Contractor will be reimbursed for the pavement cut fee with the following construction payment application.

The City of Pacifica pavement cut fee calculation requirement are detailed in the "Utility Pavement Cut Fees" document included as an appendix to the specifications.

SECTION VII WAIVERS, BONDS, AND GUARANTEE FORMS

CONDITIONAL WAIVER AND RELEASE UPON PROGRESS PAYMENT

LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044

Upon receipt by the und	ersigned of a check from	maker of
the check in the sum of \$	amount of c	heck payable to
pa	yee of check and when the che	ck has been properly endorsed and
has been paid by the bank upon	which it is drawn, this docume	ent shall become effective to
release any mechanic's lien, sto	p notice, or bond right the unde	ersigned has on the job of
owner located at		job description
to the following extent. This re-	lease covers a progress paymer	nt for labor, services, equipment,
or material furnished to		
date only	and does not cover any retention	ons retained before or after the
release date; extras furnished be	efore the release date for which	payment has not been received;
extras or items furnished after the	•	1
	•	xecuted by the parties prior to the
release date are covered by this	release unless specifically rese	erved by the claimant in this
•		nd right shall not otherwise affect
the contract rights, including rig	- <u>-</u>	<u> -</u>
The state of the s		ersigned to recover compensation
for furnished labor, services, eq		•
labor, services, equipment or m	•	
• 1	elies on it, said party should ve	erify evidence of payment to the
undersigned.		
Dated:		Company Name
	By:	Title

UNCONDITIONAL WAIVER AND RELEASE UPON PROGRESS PAYMENT

LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044

The undersigned has been paid and has receive	d a progress payment in the sum of
\$ for labor, services, equipment, or materi	al furnished to
your customer on the job of	owner located at
jol	description and does hereby release any
mechanic's lien, stop notice, or bond right that the und	ersigned has on the above referenced job
to the following extent. This release covers a progress	s payment for labor, services, equipment,
or materials furnished to	your customer through
	ns retained before or after the release date;
extras furnished before the release date for which payn	nent has not been received; extras or items
furnished after the release date. Rights based upon wo	•
written change order which has been fully executed by	the parties prior to the release date are
covered by this release unless specifically reserved by	
of any mechanic's lien, stop notice, or bond right shall	<u> </u>
including rights between parties to the contract based u	•
of the contract, or the right of the undersigned to recov	•
services, equipment, or material covered by this releas	
equipment, or material was not compensated by the pr	ogress payment.
Dated:	Company Name
Dated.	Company Ivame
By:	Title

NOTICE: THIS DOCUMENT WAIVES RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL RELEASE FORM.

CONDITIONAL WAIVER AND RELEASE UPON FINAL PAYMENT

LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044

Upon	receipt by the undersigned of a check	from	in the sum of
\$	payable to	and when the	check has been
properly ende	orsed and has been paid by the bank up	pon which it is drawn, this	s document shall
become effec	ctive to release any mechanic's lien, sto	op notice, or bond right th	e undersigned has
on the job of	Owner locate	ed at	
equipment, o amount of \$_	on. This release covers the final payme or material furnished on the job, except Before an verify evidence of payment to the under	for disputed claims for ac ny recipient of this docum	lditional work in the
Dated:			Company Name
	Ву:		Title

UNCONDITIONAL WAIVER AND RELEASE UPON FINAL PAYMENT

Lower Linda Mar Rehabilitation and Repair Project C044

The undersigned has b	een paid in full for all labor, serv	rices, equipment or material
furnished to	your Custor	ner on the job of
	Owner located at	job
description and does hereby w	raive and release any right to a mrial bond on the job, except for d	echanic's lien, stop notice, or any isputed claims for extra work in
Dated:		Company Name
	Ву:	Title
THAT YOU HAVE BEEN PA	YOU IF YOU SIGN IT, EVEN	RIGHTS. THIS DOCUMENT IS

BID BOND

KNOW ALL PERSONS BY THESE PRESENT, that		
	, hereinafter called PRINC	CIPAL, and
		;
corporation duly organized under the laws of the State	of having its principal place	of business
at	in the State of	_ and
authorized to do business in the State of California, he	reinafter call SURETY, are h	eld and
firmly bound unto the City of Pacifica, hereinafter call	ed the OBLIGEE, on order, i	n the sum
of	Dollars (\$)
(being at least ten percent (10%) of the total amount of	PRINCIPAL 's proposal) lav	vful money
of the United States, for the payment of which we bind	d ourselves, our heirs, executo	ors,
administrators, successors, and assigns, jointly and sev	erally, firmly by these preser	ıts.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH THAT:

WHEREAS, the PRINCIPAL has submitted its Proposal for the project entitled **Lower Linda Mar Rehabilitation and Repair Project C044** to the OBLIGEE, said Proposal, by reference thereto, being hereby made a part hereof.

NOW, THEREFORE, if said Proposal is rejected or, in the alternate, if said Proposal is accepted and the PRINCIPAL signs and delivers a Contract and furnishes evidence of insurance and a Performance Bond and Payment Bond, in the form and within the time required by the Proposal and the Contract Documents, then this obligation shall become null and void, otherwise the same shall remain in full force and effect and upon default of the PRINCIPAL shall be forfeited to the OBLIGEE, it being expressly understood and agreed that the liability of the SURETY for any and all default of the PRINCIPAL shall be the amount of this obligation as herein stated, as liquidated damages. Such forfeiture and liquidated damages under this bond shall be without prejudice to the OBLIGEE'S right to pursue any excess actual damages from the PRINCIPAL for breach of contract or otherwise.

The SURETY, for value received, hereby agrees that the obligations of said SURETY and its bond shall not be impaired or affected by any extension of the time within which the OBLIGEE may accept such Proposal, and the SURETY hereby waives notice of any such extension.

In the event suit is brought upon this bond by the OBLIGEE and judgment is recovered, the SURETY shall pay, in addition to the sum set forth above, all costs incurred by the OBLIGEE in such suit, including reasonable attorney's fees and expert witness fees, to be fixed by the court.

BID BOND

Project Title: Lower Linda Mar Rehabilitation and Repair Project C044

Signed this		day of	 _
		PRINCIPAL:	
		BY	
	AND		
		SURETY:	
		BY	

Note: Signature of person executing for SURETY must be notarized and evidence of corporate authority attached.

NON-COLLUSION AFFIDAVIT

PUBLIC CONTRACT CODE 7106

LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044

The bidder declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-Collusion Affidavit is part of the proposal. Signing this proposal on the signature portion thereof shall also constitute signature of this Non-Collusion Affidavit.

Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

• If corporation, two officer's signatu	ares are required.
Company Name (printed):	
Signed:	
Name:	
Title:	

*Signature of Bidder:

FAITHFUL PERFORMANCE BOND KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the City of Pacifica, California ("Owner") and	
("Contractor"), have entered into a written contract for furnishing of all	
labor, materials, equipment, transportation and services for the construction of the Lower	
Linda Mar Rehabilitation and Repair Project C044 (hereinafter referred to as the	
"Construction Contract"); and	

WHEREAS, Contractor is required by the terms of the Construction Contract to furnish a bond for the faithful performance of all terms and conditions of the Construction Contract;

NOW, THEREFORE, Contractor, as principa	l, and	
(hereinafter referred to as "Surety"), as surety	, are held and firmly bou	and unto Owner in
the penal sum of	Dollars (\$), lawful
money of the United States, for the payment of which	n sum well and truly to b	e made as provided
in this Performance Bond.	•	-

- 1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to Owner for the performance of the Construction Contract, which is incorporated herein by reference.
- 2. If Contractor timely performs each and every obligation under the Construction Contract, Surety and Contractor shall have no obligation under this Bond, except to participate in conferences as provided in Subparagraph 3.1.
- 3. Surety's obligation under this Performance Bond shall arise after:
 - 3.1 Owner has declared a Contractor Default and has notified Contractor and Surety at its address described in Paragraph 10 below that Owner has declared a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than seven days after receipt of such notice to discuss methods of performing the Construction Contract; and
 - 3.2 Owner has agreed to pay the Balance of the Agreement Price, as calculated under the terms of the Construction Contract, to Surety in accordance with the terms of the Construction Contract or to a contractor selected to perform the Construction Contract in accordance with the terms of the Construction Contract with Owner.
- 4. When Owner has satisfied the conditions of Paragraph 3, Surety shall promptly and at Surety's expense take one of the following actions:
 - 4.1 Arrange for Contractor, with consent of Owner, to perform and complete the Construction Contract; or

- 4.2 Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors; or
- 4.3 Obtain bids or negotiated proposals from qualified contractors acceptable to Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by Owner and the contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Agreement Price, as calculated under the terms of the Construction Contract, incurred by Owner resulting from Contractor's Default; or
- 4.4 Waive its right to perform and complete, arrange for completion, or obtain a new Contractor and with reasonable promptness under the circumstances:
 - 4.4.1 After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment thereof to Owner; or
 - 4.4.2 Deny liability in whole or in part and notify Owner citing specific reasons therefore.
- 5. If Surety does not proceed as provided in Paragraph 4 within twenty days from receipt of the notice described in paragraph 3.1 (whether or not a conference has been held pursuant to paragraph 3.1), or such longer period upon which Owner and Surety may agree in writing, Surety shall be deemed to be in default on this Bond. If the Surety proceeds as provided in Subparagraph 4.4, and Owner refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.
- 6. After Owner has declared a Contractor Default, and if Surety elects to act under Subparagraph 4.1, 4.2, or 4.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Construction Contract, and the responsibilities of Owner to Surety shall not be greater than those of the Owner under the Construction Contract. To the limit of the amount of this Performance Bond, but subject to commitment by Owner of the Balance of the Agreement Price to mitigation of costs and damages on the Construction Contract, Surety is obligated without duplication for:
 - 6.1 The responsibilities of Contractor for correction of defective work, materials and equipment and completion of the Construction Contract;
 - Additional legal, design professional, construction management and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 4; and

- 6.3 Liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of Contractor.
- 7. Surety shall not be liable to Owner or others for obligations of Contractor that are unrelated to the Construction Contract, and the Balance of the Agreement Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than Owner or its heirs, executors, administrators or successors.
- 8. Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.
- 9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction. The prevailing party in any such action shall be entitled to recover its attorneys' fees, to be taxed as an item of costs.
- 10. Notice to Surety, Owner or Contractor shall be mailed or delivered to the address, or sent via facsimile to the facsimile number, shown on the signature page.

11. Definitions:

- 11.1 Balance of the Agreement Price: The total amount payable by Owner to Contractor under the Construction Contract after all proper adjustments have been made, including allowance to Contractor of any amounts received or to be received by Owner in settlement of insurance or other claims for damages to which Contractor is entitled, reduced by all valid and proper payments made to or on behalf of Contractor under the Construction Contract.
- 11.2 Construction Contract: The agreement between the Owner and the Contractor identified on the first page of this bond, including all Contract Documents and changes thereto.
- 11.3 Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract.

CONTRACTOR , as principal:	SURETY:	
By:	By:	
Its:	Its:	
Address:	Address:	
FAX:	FAX:	
	11111	

FAITHFUL PERFORMANCE BOND Project Title: Lower Linda Mar Rehabilitation and Repair Project C044

Note: Signature of person executing for SURETY must be notarized and evidence of corporate authority attached.

BOND FOR PAYMENT OF LABOR AND MATERIALS

KNOW ALL PERSONS BY THESE PRESENTS:

	WHEREAS, the City of Pacifica, California (hereinafter referred to as "Owner") and
	(hereinafter referred to as "Contractor"), have
and s	ed into a written contract for furnishing of all labor, materials, equipment, transportation ervices for the construction of the LOWER LINDA MAR REHABILITATION AND
REP	AIR PROJECT C044 (hereinafter referred to as the "Construction Contract"); and
bond	WHEREAS, Contractor is required by the terms of the Construction Contract to furnish a to secure payment for all work, labor, materials, equipment or services furnished in
conn	ection with the Construction Contract;
	NOW, THEREFORE, Contractor, as principal, and
	(hereinafter referred to as "Surety"), as surety, are held and firmly bound unto Claimants,
as de	fined herein, in the penal sum of Dollars (\$
), lawful money of the United States, for the payment of which sum well and truly to
be m	ade as provided in this Payment Bond.
1.	Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to Owner to pay for work, labor, materials, equipment, services, or other items furnished for use and actually used in the performance of the Construction Contract, which is incorporated herein by reference.
_	

- 2. With respect to Owner, this obligation shall be null and void if Contractor:
 - 2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants, and
 - 2.2 Defends, indemnifies and holds Owner harmless from claims, demands, liens or suits by any person or entity whose claim, demand, lien or suit is for the payment for work, labor, materials, equipment, services or other items furnished for use in the performance of the Construction Contract, provided Owner has promptly notified Contractor and Surety (at the address described in Paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to Contractor and Surety.
- 3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.
- 4. Surety shall have no obligation to Claimants under this Bond until:
 - 4.1 Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the address described below) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Payment Bond and, with substantial accuracy, the amount of the claim.

- 4.2 Claimants who do not have a direct contract with the Contractor:
 - 4.2.1 Have furnished written notice to Contractor and sent a copy, or notice thereof, to Owner, as required by and conforming with Civil Code sections 3252 and 3091; and
 - 4.2.2 Not having been paid within 30 days of sending the required notice, have sent a written notice to Surety (at the address described below) and sent a copy to the Owner, stating that a claim is being made under this Payment Bond and enclosing a copy of the previous written notice furnished to Contractor.
- 5. When the Claimant has satisfied the conditions of Paragraph 4, Surety shall promptly and at Surety's expense take the following actions:
 - 5.1 Send an answer to the Claimant, with a copy to Owner, within 20 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
 - 5.2 Pay or arrange for payment of any undisputed amounts.
- 6. Surety's total obligation shall not exceed the amount of this Payment Bond, and the amount of this Payment Bond shall be credited for any payments made in good faith by Surety.
- 7. Amounts owed by Owner to Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under the Performance Bond. By Contractor furnishing and Owner accepting this Payment Bond, they agree that all funds earned by Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work or the satisfaction of Owner's claims, including liquidated damages, under the Construction Contract.
- 8. Surety shall not be liable to Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. Owner shall not be liable for payment of any costs or expenses of any Claimants under this Payment Bond, and shall have under this Payment Bond no obligation to make payments to, give notices on behalf of, or otherwise have any obligation to Claimants under this Payment Bond.
- 9. Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.
- 10. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction. The prevailing party in any such action shall be entitled to recover its attorneys' fees, to be taxed as costs.

BOND FOR PAYMENT OF LABOR AND MATERIAL Project Title: Lower Linda Mar Rehabilitation and Repair Project C044

- 11. Notice to Surety, Owner or Contractor shall be mailed or delivered to the address shown on the signature page.
- 12. This Payment Bond has been furnished to comply with Civil Code sections 3247 through 3252. Any provision in this Payment Bond conflicting with those statutory requirements shall be deemed deleted and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Payment Bond shall be construed as a statutory bond and not as a common law bond.
- 13. Upon request by any person or entity appearing to be a potential beneficiary of this Payment Bond, the Contractor shall promptly furnish a copy of this Payment Bond or shall permit a copy to be made.

14. DEFINITIONS

- 14.1 Claimant: An individual or entity identified in California Civil Code sections 3181 or 3248.
- 14.2 Construction Contract: The agreement between Owner and Contractor identified above, including all Contract Documents and changes thereto.

CONTRACTOR, as principal:	SURETY:	
By:	By:	
Its:	Its:	
Address:	Address:	
FAX:	FAX:	

Note: Signature of person executing for SURETY must be notarized and evidence of corporate authority attached.

GUARANTEE

We hereby guarantee the "LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044", for one year from date of filing of the Notice of Completion.

We agree to repair or replace to the satisfaction of the Owner any and all such work that may prove defective in workmanship or materials within that period, ordinary wear and tear and unusual abuse or neglect excepted, together with all other work which may be damaged or displaced in so doing.

In the event of our failure to comply with the above-mentioned conditions within a reasonable time after being notified in writing we collectively and separately do hereby authorize the Owner to proceed to have the defects repaired and make good at our expense, and will pay the costs and charges therefore immediately upon demand.

	(Signature of Subcontractor)
Dated:	
	(Signature of Contractor
(Contr	ractor must co-sign with each subcontractor.)

Assemble and bind three sets of all certificates, warranties and maintenance manuals into clearly organized files and present the file to the City at the completion of the work.

SECTION VIII (THIS SECTION IS INTENTIONALLY LEFT BLANK)

SECTION IX TECHNICAL SPECIFICATIONS

IX. TECHNICAL SPECIFICATIONS

SECTION IX-A - CONSTRUCTION STANDARDS

Definitions –

Standards Specifications – Standard Specifications are defined as the latest edition of the Greenbook Standard Specifications for Public Construction.

Standard Plans - Standard Plans are defined as the latest edition of the Greenbook Standard Plans for Public Construction.

Improvements Plans – Design Drawings provided by the City if applicable.

Engineer – The Engineer may be the City Engineer, City's representative, construction manager or design engineer. The Engineer represents the City and will be the Contractor's main point of contact during the duration of the project. The Engineer shall be defined during the kickoff meeting (if held) or when the Notice to Proceed is issued.

IX-A1. MATERIALS OF CONSTRUCTION

The sections that follow establish the specific material requirements for sewer pipe products, manholes, and other miscellaneous sewer appurtenances.

Submit complete specifications, catalog information and cuts, descriptive drawings, and literature for each equipment item to be furnished under this Section for review and approval by Engineer, with all exceptions to the Specifications noted. Provide submittals for:

- a. Pipe (including gaskets),
- b. Structures,
- c. Fittings, and
- d. Manhole rehabilitation-related work

IX-A1-1. Sewer Pipe and Fittings

Unless otherwise approved by the Engineer, sewer pipe shall be limited to HDPE and PVC pipe. See Project Plans for sewer pipe size and material to be used. Although requirements for all acceptable pipe materials are provided herein, not all pipe materials specified below may be used.

<u>IX-A1-1.01</u>. Polyvinyl Chloride Pipe ("PVC" Pipe)

PVC pipe and fittings for sizes 4-inch through 14-inch shall meet the requirements of ASTM D3034, DR 26 (PS 115), cell classification 12454-B or 12454-C. PVC pipe and fittings for sizes 18-inch through 27-inch shall meet the requirements of ASTM F679, PS 115, cell classification 12454-C. All pipe and fittings shall be no older than 6 months from date of manufacture and made of virgin material free of cracks, holes, etc.

Bell and spigot joints shall meet the requirements of ASTM D3212 with integral bell push-on type elastomeric gasket joints. Field cut joints and connections to other piping materials shall be made with a mechanical compression joint composed of a heavy duty synthetic rubber sealing component; two (2) Type 316 stainless steel clamps; Type 305 stainless steel nuts and bolts; and an adjustable stainless steel shear ring. Grouted connections to cast-in-place concrete manhole bases shall be made with a rubber ring water stop.

Pipe fittings having either spiral or concentric external reinforcing ribs will not be acceptable.

Installation of PVC pipe shall meet the requirements of ASTM D2321. All field cut PVC pipe shall be beveled and lubricated before joining.

IX-A1-1.02. HDPE Pipe and Fittings

HDPE pipe shall conform to ASTM F714, "Polyethylene (PE) Plastic Pipe (DR-PR) Based on Outside Diameter," or ASTM D3035 "Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter."

HDPE pipe shall have a Plastic Pipe Institute (PPI) material designation of PE 4710, a cell classification of PE 445574C/E per ASTM D3350, and have an established hydrostatic design basis of 1600 psi at 73 degrees F per ASTM D2837. HDPE pipe interior surface shall have a light color (light grey or white). Sewer HDPE pipe exterior shall have green stripes or warning tape identifying the pipe as "sewer".

HDPE shall be Iron Pipe Size (IPS) DR 17 unless otherwise noted on the Drawings. HDPE fused fittings shall be either DR 17 or DR 21, unless otherwise noted on the Drawings. All HDPE to HDPE connections shall be fused and de-beaded, refer to specification section IX-A-11 for additional information.

All HDPE fittings shall be manufactured from the same resin type, grade, and cell classification as the pipe, and shall be fully pressure rated. All pipe and fittings shall be no older than 6 months from date of manufacture and made of virgin material free of cracks, holes, etc.

IX-A1-2. Manholes

This section covers the materials of construction for standard, drop, shallow, and sampling/metering manholes. All manholes shall be constructed of precast reinforced concrete concentric cone sections with a minimum access opening of twenty-four (24) inches. Eccentric cones may be used upon specific approval by the Engineer. Material specifications are as follows:

Manhole Component	Material Specification
Concrete	Materials, handling, finishing, and curing as specified in Section IX-A10 Minor Concrete and as shown on Standard Manhole detail in the drawings. Manhole bottom and collars shall be Class 560-B-3250.

D + C +	C' 1 A CTD (C470
Precast Sections	Circular precast concrete, ASTM C478 except as
	modified. Vacuum tested.
Wall thickness	Five (5) inches minimum.
Reinforcement	In accordance with ASTM C478 and Standard
	Manhole Detail on Drawings.
Openings	Circular with surfaces grooved or roughened to
	improve mortar bond.
Mortar	Commercial strength non-shrink grout such as Sakrete
	Precision Non-Shrink Grout, Quickrete Non-Shrink
	Precision Grout, or approved equal.
Pipe Waterstop	Christy Manhole Water-Stop Gasket or Approved
	Equal
Mastic	See Standard Manhole Detail on Drawings
Coal Tar Paint	Carboline 330M or equivalent
Asphalt Varnish	Fed Spec TT-V-51.
Manhole Frame and Cover Coatings	ASTM A 48, Class 35B or better with asphalt varnish
	coating applied at the foundry. Field coatings are not
	acceptable.
Manhole Frame and Covers	Frame and cover shall be replaced on all new
	manholes. Frame and covers shall be Phoenix Iron
	Works "P1090" or equal. Dimensions shall match
	existing in locations where the existing manhole is to
	remain and the frame and lid is being replaced. Hinged
	manhole covers are not acceptable. Lids shall be
	stamped "Sanitary Sewer".
Manhole Steps	Prohibited.
Brick Manholes	Not Allowed.

The manhole cover and its seat in the frame shall be machined so that the cover will sit evenly and firmly in the frame and shall be match-marked. Manhole lids shall be stamped "Sanitary Sewer".

Rejection of a manhole section may be made if: (1) there are damaged or cracked ends, where such damage would prevent making a satisfactory joint; (2) any continuous crack having a surface width of 0.01 inches or more and extending for a length of twelve (12) inches or more, regardless of position in the wall; (3) fractures or cracks passing through the wall except for a single end joint that does not exceed the joint depth; or (4) surface defects indicating honeycombed or open texture.

All interior concrete surfaces including the manhole shafts shall have at least one (1) coat of primer and two (2) coats of protective coating (Amercoat 64 primer, and Amercoat 320 protective coating, or approved equal).

IX-A1-3. Saddle Fittings for Sanitary Sewer Mains Replaced by Pipe Bursting

Saddle fittings used for connecting existing lateral sewers to existing mains that have been replaced with HDPE by pipe bursting method shall be heat fusion stub saddle and shall be fabricated of a material approved by the Engineer. The heat fusion stub saddle shall conform to the requirements of the Plan Drawings.

IX-A1-4. Lamp Holes

Lamp hole covers shall be per Standard Lamp hole detail provided on the Plans. Lamp holes shall be installed in accordance with manufacturer specification. Lamp hole size shall be selected based on the new sanitary sewer pipe the lamp hole serves. Contractor shall grout the annular space between the outside diameter of the sewer pipe and the inside diameter of angled lamp hole cover.

IX-A1-5. Pavement and Pavement Markings

Materials shall comply with Section 203, "Bituminous Materials," of the Standard Specifications. The grade of asphalt binder mixed with aggregate for Type C2 asphalt concrete shall be PG-64-10. The aggregate must comply with the C2 dense medium aggregate gradation for the overlays. Maximum compacted lift thickness for AC overlay shall be 3 inches (0.25 feet). Maximum time allowed between paving lifts on any given street included in this project shall be seven (7) calendar days.

Contractor shall submit certificates from materials suppliers stating compliance with the requirements of this Section including compaction curve of subgrade materials.

Traffic striping markers shall conform to Section 214 of the Standard Specifications. Thermoplastic material and glass beads shall be furnished by the Contractor and shall conform to Section 214-5 of the Standard Specifications. Thermoplastic material shall also conform to State Specification PTH-025SPRAY, PTH-02HYDRO, or PTH-02ALKYD.

Temporary reflective pavement markers shall be, at the option of the Contractor, one of the following or approved equal:

- 1. Temporary Overlay Marker (Types Y and W) manufactured by Davidson Plastics Company, 22435 68th Ave S, Kent, Washington 98032.
- 2. Safe-Hit Temporary Pavement Marker, manufactured by Safe-Hit Corporation, 23785 Cabot Boulevard, Suite #322, Hayward, CA 94545.
- 3. Sareflex Pavement Marker (Models 3553, 3554, Cat Eyes Nos. 3002 and 3004) manufactured by Swareco and distributed by Servtech Plastics, Inc., 1711 California Avenue, Monrovia, CA 91016.
- 4. Flex-O-Lite Raised Construction Marker (RCM), manufactured by Flex-O-Lite, 50 Crestwood Exec Ctr #522, St. Louis, Mo 63126.
- 5. 3M Scotch-Lane A200 Pavement Marking System (reflective raised pavement marker on reflective traffic line tape), manufactured by 3M Company, Traffic Control Materials Division, 223-3N 3M Center, St. Paul MN 55144.
- 6. MV Plastics Cape seal Marker (1280/1281 Series), Manufactured by MV Plastics, Inc., 533 W. Collins Avenue, Orange CA 92667.

IX-A2. INSTALLATION OF SEWER PIPE AND APPURTENANCES

IX-A2-1. Pipe and Fittings

Sewer pipe laying shall proceed upgrade with the spigot ends of bell and spigot pipe pointing in the direction of flow. Sewer pipe entering and leaving manholes or other structures shall have a joint installed not less than twenty-four (24) inches from the manhole base.

In all cases, flexibility of joints in or at the manhole base shall be preserved to prevent damage to the pipe by differential settlement.

IX-A2-2 Manholes

Standard, drop, and shallow manholes shall be constructed in accordance with the details provided in the bid documents. All materials for precast manhole sections shall conform to the requirements set forth in Section IX-A1-2.

Manholes shall not be located in easements with steep slopes. However, when manhole is required under special circumstances to be installed in steep slopes, the standard, drop, and shallow manholes shown in City Standard Drawings may be installed subject to the approval of the Engineer. Use of manholes in steep slopes shall be reviewed by the Engineer on a case-by-case basis.

IX-A2-2.01. Assembly of Precast Sections

Assembly of Precast Sections shall be per Standard Manhole Detail.

The top cone section shall be set at such an elevation that not more eighteen (18) inches height of entrance or manhole throat is present with the manhole cover at finish grade.

IX-A2-2.02. Manhole Base and Channels

Sewer lines shall first be laid as a whole pipe through manholes. After the manhole floor and walls have been set, the top half of the piping within the manhole shall be carefully cut off to within one (1) inch longitudinally of the inside wall of the pre-cast section and the sides mortared to form a smooth channel as indicated on the Drawings unless otherwise shown on the Improvement Plans or directed by the Engineer.

Unless otherwise required by the Engineer, the width of the opening at the top of base block shall be the inside diameter of the pipes in the manhole.

In the manholes where the pipe cannot be laid through, the pipes shall be joined by smooth curves, worked to conform with the lower halves of the pipe.

In angle point manholes and in junction manholes, the pipes shall be joined by smooth curves, warped to conform with the lower halves of the pipe. In all cases, the upper portion of the manhole channel from the midpoint of the pipes in the manhole to the top of the base block shall be constructed vertically.

The manhole channel shall be completed in the original pour, unless otherwise directed by the Engineer.

IX-A2-2.03. Adjustments to Surface Grade During Construction

The Contractor shall set the transition section to match the adjacent pavement grade. The Contractor shall coordinate the fitting of entrance sections, frames, and covers with the final paving so that the finished manhole covers blend neatly with the street surface. Successful completion of the testing of sewer line does not relieve the Contractor from making these final adjustments.

Frames and covers shall be installed on top of manholes to positively prevent all infiltration of surface or ground water into manholes. Frames shall be set in a bed of mortar with the mortar carried over the flange of the ring. On sloping finish grade, frames and covers shall be installed as shown on City Standard Drawings unless otherwise shown on the Improvement Plans or directed by the Engineer.

Manholes located in unimproved easements or undeveloped areas not subject to vehicular traffic shall be provided with wire mesh reinforced concrete encasement. In addition, a marker post shall be erected not more than four (4) feet from the center of the manhole. The post shall be provided with the necessary identification marks as required by the Engineer.

IX-A2-2.04. Adjustment to Surface Grade After Construction

The Contractor shall be required to make any adjustments in the manhole cover sections during the one-year guarantee period if there is additional paving work. This work consists of removing and replacing the manhole frame and the grade rings. Adjustments shall be accomplished by excavating as necessary, lifting off the frame and grade rings as directed, thoroughly cleaning the frame's bottom bearing surface, coating it with asphalt paint similar to the original coating, removing the old mortar from the manhole cone and grade rings, and replacing the existing frame and grade rings to the new grade as specified for new manholes.

IX-A2-2.05. Manhole Collar

All manhole collars shall be poured only after the frame has been centered over the manhole shaft. Unless otherwise specified by the Engineer, in unpaved areas a concrete collar shall be poured around the frame and shaft so as to securely anchor the frame to the shaft. In paved areas, concrete shall be poured around the manhole frame and shaft in lieu of rock base to a point three (3) inches below the rim unless otherwise required by the City or other public agency having jurisdiction.

IX-A2-2.06. Manholes with Drop Connections - NOT USED

IX-A2-2.07. Pipe Stubout on Future Connections - NOT USED

IX-A2-2.08. Flexible Pipe Connections to Manholes

All lateral sewers and all sewer mains entering manholes shall have a rubber sealing gasket, as supplied by the pipe manufacturer, firmly seated perpendicular to the pipe axis, around the pipe exterior, and cast into the structure as a water stop (Christy or approved equal).

IX-A2-2.09. Manhole Protection

During construction, particular care must be taken to protect the manhole from damage and to keep rock, dirt, and debris from getting into the sewer. After the sewer pipe through the manhole has been broken out and the channel finished, a close fitting board cover shall be placed over channel and covered with building paper. A temporary metal plate cover, of adequate strength, close fitting, and well secured, shall be placed over the manhole opening until the frame and cover are permanently installed. Manholes in undeveloped areas, which are above finish grade as required, shall be secured with wire mesh and concrete.

IX-A2-2.10 to IX-A2-2.13. Not Used

IX-A2-2.14. Reset Manhole Frame

Where indicated, remove and reset the frame and cover from existing manholes. All existing frames shall be thoroughly cleaned, including the bottom bearing surface. Repair top of manhole surface where necessary including removing the old mortar from the manhole cone to provide sound base for setting the frame. As shown in the Standard Manhole detail, pour concrete around frame.

IX-A2-2.15. Rehabilitate Manhole

Where indicated, manhole rehabilitation shall consist of the following:

- 1. Clean interior surfaces of the manhole.
- 2. Repair bench, pin holes, chimney, or other manhole deficiency with hydraulic cement.
- 3. Apply cementitious coating, 1-inch minimum thickness, to all interior surfaces of the manhole in conformance with manufacturer's instructions.

Contractor shall bypass flows as necessary to allow proper installation and curing of the manhole rehabilitation products.

Manhole interior surfaces shall be prepared as follows:

- 1. All loose material, debris, and roots shall be removed from the manhole.
- 2. All oil, grease, and form release and curing compounds shall be removed by detergent cleaning in accordance with SSPC-SP1 before abrasive blast cleaning. Surface preparation shall be performed in accordance with the latest editions of the following standards:
 - a. ASTM D 4258: Standard Practice for Surface Cleaning Concrete for Coating
 - b. ASTM D 4259: Standard Practice for Abrading Concrete
- 3. Concrete surfaces requiring repairs in excess of one-quarter inch (¼") depth shall be repaired and brought flush with the surface, in accordance with the coating manufacturers' recommendations to provide a continuously smooth and even surface for application of topcoat.

Hydraulic cement for repairs prior to installing manhole coating system shall be Parson Quick Plug, Parson RPM, Mainstay ML-10, or approved equal.

Coating material furnished under this specification shall be a prepackaged mortar mix, including all cement, aggregates and required additives.

The chemical composition of the cement portion as well as the aggregates of the mortar mix shall be as follows:

Al ₂ O ₃	CaO	FeO+Fe ₂ O ₃	SiO ₂
39-44%	35-40%	9-15%	4-9%

Compressive Strength (ASTM C109)	>5,000 psi	24 hours
	>7,000 psi	28 days
Flexural Strength (ASTM C293)	>600 psi	24 hours
	>1,300 psi	28 days
Splitting Tensile Strength (ASTM C496)	> 550 psi	24 hours
Bond Strength (ASTM C882)	>2,000 psi	28 days
Shrinkage at 28days (ASTM C157) Freeze/Thaw after 100 Cycles(ASTM C666)	<0.07% cured @ 90% relative humidity No visible damage after 100 cycles	

The design of the mortar mix shall be as follows:

Mix shall have been successfully used on at least 25 similar projects over a minimum of five (5) years.

Mix shall be designed to withstand long-term exposure to hydrogen sulfide with pH values of 2 or lower.

Water used in mixing shall be clean, potable water, free of oil, acid, alkali and other material that may be detrimental to the performance of the mix.

Cementitious coating product shall be:

- 1. SewperCoat PG
- 2. Raven 705CA
- 3. Parsons CA Liner
- 4. Mainstay ML-CA
- 5. Or Approved Equal

Coating shall be applied by a Manufacturer approved installer.

Coating shall be applied by spray methods in accordance with the manufacturer requirements and as follows: Application shall be at an angle as near perpendicular to the sub-surface as practicable with the application nozzle held 1 foot from the sub-surface. If nozzle flow is non-uniform and slugs, sand spots and wet sloughs result, the nozzle shall be directed away from the work area until the faulty conditions are corrected.

Whether spray or trowel application is used, the application shall be according to the principles of good workmanship outlined in SSPC-PA1-82 and shall provide a finish which is continuous, uniform in thickness, and verified free of pores or other defects using electrical discontinuity testing (high voltage spark testing.

IX-A2-3. Cleanouts

Lateral Cleanouts are the responsibility of the individual property owners and are not part of this Project. Contractor can enter into private agreements with property owners to replace their private laterals and cleanout(s) in conformance with the City's Standard Drawing WW101.

IX-A2-4. Lateral Sewers

The property owner is responsible for their sewer lateral. The project consists of replacing the lateral connection at the sewer main per the Lateral Connection detail on the Drawings. The City will notify residents to inform them about the sewer project and the opportunity for the property owners to replace their sewer laterals. Contractor may enter into separate private agreements with property owners to replace their laterals during the course of the project. Lateral replacement shall be in conformance with the City's Standard Drawing WW201. No public funds shall be used for the replacement of sewer laterals beyond the connection at the sewer main.

IX-A2-4.02. Backflow Protection

Laterals that require backflow protection shall be installed in a well drained area with unobstructed access for observation and repair. Backwater valve shall either be RectorSeal, Sioux Chief, Mainline Backflow Products Adapt-a-Valve, or approved equal with an access extension to grade or Jones Stephen's Sewer Popper Model S62-304, United Home Solutions LLC Sewer Relief Cap, or approved equal.

IX-A2-4.03. Abandonment

Laterals that are capped/abandoned shall not be re-connected to sewer main..

IX-A2-5. Lamp Holes

Lamp holes shall be constructed in accordance with manufacturer specifications. All materials for lamp holes shall conform to the requirements set forth in Section IX-A1-4. Lamp hole frames shall be set in a concrete collar.

IX-A3. CONNECTIONS WITH EXISTING CITY FACILITIES

General locations where new sewer mains are to connect to existing manholes and sewer mains are shown on the Improvement Plans. It shall be the responsibility of the Contractor to determine the exact location and depth of the existing manholes and sewers prior to the installation of any new sewer pipe and manhole.

IX-A3-1. Connection of New Sewer Main to Existing Sewer Facilities

Connection of new sewer mains to existing lines shall be made at existing manholes.

Where the connection is to be made into an existing manhole, the Contractor shall make the connection by breaking through the manhole base, cutting a rough channel through the manhole shelf to the existing channel, installing the new pipe with a water stop, finishing the new channel within the manhole, and repairing any damage to the structure. Where the connection is to be made by constructing a new manhole on an existing sewer, the manhole and new connection shall conform to details as shown in Standard Manhole Detail. The existing sewer shall not be broken until immediately before the cleaning and flushing operation commences.

Where the connection is to be made at a removed rodding inlet (lamp hole) or plug, an air test fitting shall be installed at the connection of new and existing pipelines installed in preparation for testing as directed by the Engineer.

Approved mechanical expanding type temporary plugs shall be installed in each of the following cases.

- 1. If there is an existing manhole at the beginning of a new system, a plug shall be installed in the new pipe at the existing manhole and another plug installed on the downstream side of the first manhole upstream in the new system pipeline.
- 2. If the Contractor constructs a new manhole at the beginning of a new system and an existing pipe is in the new manhole, a plug shall be installed on the downstream sides of the first two (2) manholes upstream from the existing manhole.
- 3. If the new system begins at an existing rodding inlet or stub, a plug shall be installed on the downstream sides of the first (2) two manholes upstream from the beginning of the new system.
- 4. Temporary plugs shall be installed in the open ends of sewer lines while adjusting, repairing, or pouring the top blocks on rodding inlets or similar structures.

All temporary plugs shall be installed, secured, and removed in the presence of the Inspector. Temporary plugs shall remain intact until immediately prior to the beginning of the cleaning and flushing operation. Premature removal of the plug may result in the Contractor being required to clean existing downstream sewer mains. In case of neglect or refusal by the Contractor to perform such cleaning, the District shall execute the work and bill the Contractor or the Contractor's surety for costs incurred.

IX-A3-2. Connection of New Lateral Sewer to Existing Sewer Facilities

Where wyes or tees were previously installed on the main sewer, the lateral sewer shall be connected to the wye or tee as provided for the particular connection. Lateral connections to existing manholes shall be as detailed on City Standard Drawings unless otherwise shown on the Improvement Plans or directed by the Engineer.

New wye branch or tee fittings shall be installed when a connection shall be made to an existing sewer main without previously installed connection fittings. A new connection fitting shall be of the same size and type of material as the main line. The Contractor shall be responsible for all necessary bypass pumping to maintain sewer service while connecting fittings and laterals are installed. All Work shall conform to City Standard Drawings unless otherwise shown on the Improvement Plans or directed by the Engineer.

Tapping and saddle installation shall only be used upon approval of the Engineer for cases where disruption of existing sewer service is unavoidable. Tapping and saddles shall be tap-tite or approved equal. Tapping and saddle connections shall be made as follows:

Excavation to permit a minimum of three (3) inches of concrete under the main and six (6) inches on the sides shall be made. The exterior of the sewer main shall then be cleaned thoroughly around its entire outside circumference, and twelve (12) inches each way measured from the center of the saddle. An opening shall then be cut in the barrel of the main sewer pipe and carefully trimmed to permit a snug fit for the spigot end of the saddle. Care shall be taken that no fragments of pipe are allowed to remain in the main sewer. The saddle shall then be installed as shown on City Standard Drawings unless otherwise shown on the Improvement Plans or directed by the Engineer. After this operation is complete and before any pipe is connected to the saddle, the Work must be inspected and approved by the Inspector. Following this approval, concrete shall be poured into the excavated area around the pipe to completely encase the main to the lip of the saddle bell.

IX-A3-3. Joining Pipes of Different Materials

When pipes of different materials are joined together, the joint shall use a stainless steel banded rubber compression type coupling with stainless steel shear band, with bushings as required. Couplings shall be Mission Rubber Company Flex-Seal ARC Shielded Adjustable sewer Repair Couplings or approved equal, or as directed by the Engineer.

Connections to existing pipe shall be made by cutting and removing a portion of the pipe, and installing a new spool of pipe, and couplings. Contractor is responsible to verify existing pipe material.

Joining pipes of different materials between manholes shall not be permitted. The same type of pipe material shall be used between manholes.

IX-A4. TESTING, CLEANING, AND TELEVISION INSPECTION

Testing, cleaning, and television inspection requirements shall be as follows. Upon successful completion of testing, access to manholes must be maintained at all times.

IX-A4-1. Testing

All completed sewer mains shall be tested by and at the expense of the Contractor in the Inspector's presence prior to acceptance of Work and prior to connection to the existing sewer line. The conditions under which testing shall be performed shall be as follows:

- 1. After all proposed Work has been completed.
- 2. After the installation of all other underground utilities.
- 3. In improved areas, after the roadway base rock has been placed and compacted.
- 4. In unimproved areas, after the backfill is satisfactorily compacted.
- 5. After access to all manholes has been provided.

Testing of newly constructed private sewer laterals is not required.

IX-A4-2. Air Testing

Contractor shall have the option to air test gravity sewers in lieu of water testing gravity sewers.

Air Test: Test lines between manholes with low pressure air. Safety requires a regulator or relief valve on pressurizing equipment, set at 4 psig. No one will be allowed in manholes while there is air pressure against test plugs.

- 1. Plug all pipe outlets to resist test pressure. Give special attention to laterals.
- 2. Plug all other pipes in both upstream and downstream manholes and fill manholes with clear water to just above the line plugged for testing. Any bubbles appearing during the test indicate leakage past a plug or in part of the test equipment
- 3. Compute the test pressure by multiplying 0.43 times the elevation difference (in feet) of the upstream manhole rim and the invert of the line under test at the downstream manhole. The result is in psig and may be rounded to the nearest half psig. The test pressure shall be not less than 3.5 psig, nor more than 6.0 psig. Total line length included in any test section shall not exceed 400 feet.
- 4. Supply air into the line until test pressure is attained. Allow at least 5 minutes for air temperature in the test section to stabilize.
- 5. Reestablish the test pressure and start a stop watch. Determine the time required for pressure to drop 0.5 psig.
- 6. If the pressure does not drop during the stabilization period, and no additional air has been added, the section undergoing test will have passed without further testing.
- 7. The pipe section will also have passed if the time observed for the pressure to drop 0.5 psig is greater than that determined by using the following table:

Pipe Size, Inches	Time
4	4 minutes -
6	6 minutes -
8	8 minutes
10	9 minutes
12	11 minutes
14	13 minutes
16	15 minutes

When a combination of more than one pipe size is under test, the calculated time for the larger pipe shall apply.

IX-A4-3. Street Monument Replacement

All street monuments that are disturbed or removed shall be replaced as specified herein. Contractor shall submit proposed monument marker and frame and cover for review and approval prior to construction.

Work consists of replacing existing street monuments disturbed or removed during the course of the project. Contractor shall conduct work and adjust excavations as necessary to avoid impacts to street monuments to the extent practicable.

Work includes locating and referencing each existing monument by or under the direction of a Licensed Land Surveyor prior to the start of construction, and resetting new permanent monuments in the surface of new pavement. New permanent monuments shall consist of the monument itself, a concrete monument well, frame, and cover. Work also includes replacing concrete collars and placement of temporary and permanent asphalt pavement around the new frame & cover as detailed on the plans.

Corner Records shall be filed by the Licensed Land Surveyor with the County of San Mateo prior to removing the existing monuments, and after the new monuments have been installed. Contractor shall submit a copy of the Corner Records to the City.

The Contractor shall preserve all monuments, markings, stakes, and survey points in their undisturbed location and condition for the duration of construction. Contractor shall provide the City with forty-eight (48) hour advance notice, prior to any excavation, in the vicinity of existing monuments. The monuments shall be field referenced by the Contractor. Under no circumstances shall any monument be damaged, removed, destroyed, or otherwise disturbed in any way, nor covered permanently. If a monument is damaged due to contractor operations and must be restored, or must be replaced to accommodate contractor operations, a Licensed Land Surveyor and the City shall be consulted for legal requirements. All costs to hire the land surveyor and for the filing of proper documents at the County Recorder's Office shall be borne by the Contractor.

The estimated number of monuments to be replaced is included under the bid items for replacing monuments. The quantity will be adjusted to account for the actual number of monuments replaced.

IX-A4-4. Water Exfiltration Test NOT USED

IX-A4-5. Testing Deflection of HDPE Sewer Pipe

The inside diameter of an installed section of HDPE sewer pipe shall not be allowed to deflect more than five (5) percent. All HDPE pipe main sewers shall be checked by means of a pipe deflection gauge. The pipe deflection shall be checked in the presence of the Inspector after the placement of all trench backfill and prior to surface restoration.

The pipe deflection gauge shall be fabricated to permit passage through installed sections of pipelines within the specified maximum five (5) percent deflection of the base inside diameter of the HDPE pipe. Any section(s) of plastic pipe that does not permit deflection gauge passage will not be accepted and said section(s) shall be properly repaired or replaced and rechecked as directed by the Engineer.

Re-rounding through the use of a vibratory machine will not be permitted.

IX-A4-6. Testing of Manholes

All new manholes constructed by the contractor shall be tested as follows:

- The test shall be conducted prior to paving.
- All lift holes shall be filled with non-shrink grout.
- All pipe inlets and outlets in the manhole shall be plugged sufficiently secure to hold against vacuum pressure.
- The rubberized test plate shall be placed on the cone after potential leaks on the top of the cone have been sealed.
- A vacuum of ten (10) inches of mercury shall be drawn and the vacuum pump shut off. With the valves closed, the time shall be measured for the vacuum to drop to nine (9) inches. Following are the minimum test times for respective manhole barrel inside diameters:

Test Times	Inside Diameter	
60 seconds	48-inch	
75 seconds	60-inch	
90 seconds	72-inch	

If a manhole fails the test, repairs shall be made with non-shrink grout. Retesting shall proceed until passing test is conducted.

IX-A4-7. Cleaning

Upon satisfactory completion of the testing and after all necessary repairs and adjustments have been made including setting manhole frames to final elevations, the entire new system of sewers and manholes shall be cleaned. Before beginning the cleaning operation, a standard sand trap (Southwest Flexible Co., or equal) shall be placed in the manhole at which the new work connects to the District's system, and it will remain in place until all solid matter has been removed. Under no conditions shall material other than clear flushing water be discharged into the District's system before final acceptance of the new work. Splattered mortar and all irregularities shall be removed from the flow channels, leaving smooth dense uniform surfaces finished in a thoroughly first-class manner.

The entire system of new sewer shall be cleaned using high-velocity sewer cleaning equipment (hydro-jet). All high-velocity sewer cleaning equipment shall be constructed for ease and safety of operation. The equipment shall have a selection of two or more high-velocity nozzles. The nozzles shall be capable of producing a scouring action from 15 to 45 degrees in all size lines

designated to be cleaned. Equipment shall also include a high-velocity gun for washing and scouring manhole walls and floor. The gun shall be capable of producing flows from a fine spray to a solid stream. The equipment shall carry its own water tank, auxiliary engines, pumps, and hydraulically driven hose reel.

Prior to the beginning of this work, excessive amounts of debris shall be removed by the Contractor.

Solid material washed into the lowest manhole(s) shall be removed from the system. The standard sand trap between the new work and the District system shall be removed only after all phases of the work have been approved after final inspection.

IX-A4-8. Television Inspection of Pipelines

All main line inspections shall be performed in accordance with the National Association of Sewer Service Companies' (NASSCO) Pipeline Assessment and Certification Program (PACP) version 7.0 format or later. Inspections conducted or submitted in other formats that do not meet all the requirements of this specification are subject to being rejected. Any survey that is rejected must be re-televised to meet the guidelines for CCTV Inspections.

All surveyors and/or operators must have a valid PACP and LACP certification from the National Association of Sewer Service Companies prior to assessing and televising sewer mains within the City sewer system.

Each CCTV survey is to be a full PACP or LACP survey, continuous from a starting manhole or access point to a finishing manhole, access point, or utility feature where possible. Any line that is not televised from a starting manhole, access point, or utility feature to a finishing manhole, access point, or ending utility feature will be considered as a partial or incomplete survey and will be rejected unless specified to do so otherwise or if the camera cannot not pass through the entire line due to an obstacle or other defect.

Each CCTV inspection shall be performed one line segment at a time in accordance with NASSCO guidelines. A line segment is defined as the sewer main from a manhole, cleanout, special chamber, or utility feature to the next in-line manhole, sewer main, special chamber, or utility feature. Any CCTV survey that contains multiple line segments within a single PACP or LACP inspection and/or video file will be rejected.

The television camera used for the inspection shall be one specifically designed and constructed for sanitary sewer inspection with an accurate footage counter. The camera shall be operative in 100 percent humidity conditions. Lighting for the camera shall be suitable to allow a clear picture of the entire periphery of the pipe. The rotating camera and lighthead configuration shall provide 240 degrees of pan and tilt angle measuring centerline to centerline and 70-degree lens viewing angle. The camera shall be color and shall provide a minimum of 1280H x 720W pixels for a total of 921,600 pixels at 30 frames per second resolution. Geometrical distortion of the image shall not exceed one percent (1%).

The video and audio recordings of the sewer inspections shall be made using digital video equipment. A video enhancer may be used in conjunction with, but not in lieu of, the required equipment. The digital recording equipment shall capture sewer inspection on hard drive, with each sewer reach inspection recorded as an individual movie file (.MPEG, .MPG, or .WMV) or approved equal.

The video file name shall contain both the upstream and downstream manhole number and date of inspection. The video file names will be referenced in the inspection database and in an inspection, report generated in PDF format. The pipeline collection and real time video capture and data acquisition systems shall be provided.

Contractor shall be responsible for bypassing sewer flow around his work and dewatering of sewer lines. Where sags or submerged sections of the sewer are encountered during TV inspection, the contractor shall first complete inspection of the entire reach to determine the extent of such areas prior to dewatering the sewer. Dewatered sections of the sewer shall then be TV inspected.

On all sewer mains which have sags or dips, to an extent that the television camera lens becomes submerged during the television inspection, the contractor shall use a high pressure cleaner to draw the water out of the pipe, or other means, to allow inspection of the pipe and identification of pipe defects, cracks, holes and location of service connections.

Pre-Construction

Prior to beginning construction, Contractor shall TV inspect the sewer main, identifying all lateral connections, identify any capped/abandoned laterals, and any issues that may prevent the successful completion of the proposed work. Contractor shall clean and remove excess debris/water in the pipe as necessary to identify all lateral connections and major defects (i.e. breaks, large joint offsets, medium or large sags, etc.) that impact the proposed pipe rehabilitation/replacement. Contactor shall electronically submit the pre-construction TV inspection reports and videos to the City for review and approval prior to construction of each pipe segment.

Post-Inspection

Upon completion of sewer cleaning by the Contractor, all sewer main lines shall be television inspected by the Contractor prior to acceptance. Contactor shall electronically submit the TV inspection reports and videos to the City for review and approval prior to acceptance.

IX-A4-9. Manhole Rehabilitation Testing

Proper, safe access shall be provided in locations where requested by the Engineer to facilitate inspection. Additional illumination shall be furnished when the Engineer requests. Proper ventilation and atmospheric monitoring shall be provided as well as all other safety equipment and precautions required by OSHA for a safe inspection in all areas.

All manholes shall be visually inspected by the Contractor and by the City's inspector. Any leakage into the manhole shall be identified and repaired by the Contractor.

The City will conduct coating thickness measurements. Contractor shall recoat any areas found deficient in thickness.

Material Property Testing:

- 1. The City may elect to perform cementitious material property testing.
- 2. Contractor shall provide the City with 2-inch sample cubes as requested by the City. Samples shall be sprayed from a nozzle in the presence of the City. The City will arrange for and pay for independent laboratory testing for tecompression strength per ASTM C-109.

The contractor shall repair any areas damaged, faulty areas, or discontinuities (pinholes) found during quality control inspection shall be repaired in accordance with the Manufacturer's recommendations.

IX-A4-10. Private Lateral Inspection

Construction of private laterals shall be inspected by the City during construction. All excavations, pipe connections and couplings shall be fully inspected by the City's inspector prior to backfilling excavations. Any items that are backfilled by the Contractor prior to inspection shall be excavated, exposed, and inspected by the City prior to acceptance of the work.

Testing and CCTV inspection of private laterals are not required.

IX-A5. ABANDONMENT OF SANITARY MAIN AND MANHOLES

This item shall govern the abandonment of sanitary sewer mains and manholes required on the plans to be abandoned.

Pipe shall be abandoned by plugging end(s) with 6-inches of concrete and filling pipe with cementitious low strength material until all voids in the pipe are filled. Manholes shall be abandoned by plugging any pipe connections with 6-inches of concrete, removing the frame, cover, grade rings, and cone (to approximately 2-feet below grade) and filling the remaining manhole portion with cementitious low strength material. Abandoning of sanitary sewer lines and manholes shall not occur until all existing sanitary sewer services have been transferred to another line and directed by the Engineer.

Existing manhole covers shall be returned to City to a location directed by the Engineer.

IX-A5-1. Materials

Materials for abandonment of sanitary sewer pipe and manholes shall be:

Sanitary Sewer Pipe: A cement-based grout shall be used to fill the void of the existing sanitary sewer main. The grouting material must have a strength of at least 100 PSI and shall have flow characteristics appropriate for filling a sanitary sewer. The grout mix designed and method of installation shall be approved by the Engineer prior to beginning operation. The existing sanitary sewer shall be cut and capped at each end where the sanitary sewer pipe connects the manholes with 6-inches of concrete.

<u>Manholes:</u> The sanitary sewer manhole shall be filled to the top of the remaining concrete structure with the same material used to abandon the sanitary sewer line.

IX-A5-2 Construction

Abandonment of sanitary sewer lines shall be accomplished by installing the grout material with sufficient pressure and in numerous locations. The method of installation shall be able to meet the requirement of completely filling the existing sanitary sewer line and any voids adjacent to the sanitary sewer line. The method shall adequately provide for the removal and legal disposal of the existing sewer materials in the system. The method shall provide for the release of air. When intermediate points are required to be constructed for the abandonment of the system, they shall be a part of the abandonment project process.

The concrete structure of the manhole shall be removed to a depth of two feet (2') under proposed subgrade or finished ground elevation.

IX-A6. TRENCHING AND BACKFILLING

All trenching and backfilling shall conform to the provisions in Section 300, "Earthwork", of the Standard Specifications, these Specifications, City of Pacifica Standard Drawings and Project Plans.

The Contractor will notify adjacent property owners of the work schedule and necessary access restrictions.

IX-A6-1 Trenching

In general a trench is defined as an excavation in which the depth is greater than the width of the bottom of the excavation. Trench shall include excavation for appurtenant structures including but not limited to, manholes, pipes, transition structures, junction structures and boring pits.

The Contractor shall verify the location of existing underground utilities before trenching.

Existing Portland cement concrete pavement and bituminous pavement to be removed for installation of a pipeline before being broken and removed, shall be neatly sawn along the edges of the area to be removed with a concrete pavement saw. This shall be in straight lines parallel to the trench.

Except by permission of the Engineer, the maximum length of open trench shall be 200 feet or the distance necessary to accommodate the amount of pipe installed in a single day, whichever is the greater. The distance is the collective length at any location, including open excavation, pipe laying and appurtenant construction and backfill which has not been temporarily resurfaced.

No excavations shall remain open longer than is necessary to perform the work. If, in the opinion of the Engineer, the Contractor is not pursuing the work with diligence, the Engineer may require an excavation to be backfilled and protected with temporary paving or covered with steel traffic plates, even though that particular installation is not complete. No additional payment will be made for this additional work.

At the close of work each day, all open trenches shall be backfilled or covered with steel traffic-rated plates and full access to all roads and driveways shall be provided. Steel traffic-rated plates shall be properly secured to account for grade, and beveled-tapered edges with cutback.

The trench shall be excavated to a depth required to allow for placement of bedding material.

When either ground water or surface run-off is encountered, the Contractor shall furnish, install, maintain, and operate all necessary pumps, materials and equipment to keep excavation reasonably free from water until the laying and jointing of the pipe, pouring of concrete and placing of bedding material has been completed, inspected and approved, and all danger of flotation and other damage is removed. Water pumped from the trench excavation shall be disposed of in a manner subject to the approval of the Engineer.

Excavated material from trenches located within paved areas shall be immediately loaded into trucks and hauled off and disposed of outside the public right-of-way. No excavated material shall be placed or stored within the public right-of-way unless otherwise allowed by the Engineer.

Surplus excavated material shall become the property of the Contractor and shall be properly disposed of outside the street right-of-way and water, sewer, or storm drain easements in accordance with the provisions in Section 300-2.6 of the Standard Specifications. All excavated material shall be removed from the project site concurrent with the excavation operations. Hydrants under pressure, valve pit covers, valve boxes, curb stop boxes, fire and police call boxes, or other utility controls shall be left unobstructed and accessible until the work is completed. Gutters and drainage channels shall be kept clear at all tunes. All excavated material shall be piled in a manner which will not endanger the work and which will avoid obstructing sidewalks and driveways.

Excavation for pipes shall be by open trench and trenchless pipe bursting methods unless otherwise specified, or shown on the plans, or permitted by the Engineer. No excavated material will be allowed to be stockpiled overnight in or adjacent to public right-of-way.

The Contractor shall make his own arrangements for a staging area for the temporary stockpiling of material and equipment storage. The Contractor will not be allowed to use public streets or property for such purpose.

Prior to using any private property, the Contractor shall submit to the Engineer a written release from the property owner absolving the City of any and all responsibility in connection with the use of such property in accordance with Section 300-2.6 of the Standard Specifications.

IX-A6-1.01 Trench Plates:

Trench Plates shall be used for temporary cover of trenches and other excavations.

When the backfilling of trenches and excavations cannot be completed in the same day within a paved parking lot section, trench plates shall be required and the following conditions shall apply:

- The plates shall be of steel construction capable of supporting H20 loading.
- The plates shall have a skid resistant surface.

- The plates must extend beyond the edge of trench wall to adequately support the traffic loads on it. In no case shall the plates extend less than twelve (12) inches beyond the trench wall.
- Each plate must be fully supported around the perimeter to prevent wobbling or rocking.
- The plates shall be secured to prevent any movement.
- Trenches and excavations shall be adequately shored and braced to withstand highway traffic loads.
- Temporary paving or cold-mix asphalt concrete (cutback) shall be placed and continuously maintained around all outside edges of the trench plates until removal of the plates.

IX-A6-2 Backfilling

Backfill material and compaction shall conform to requirements shown on the Standard Trench detail as shown on the Project Plans. Backfill shall be replaced around exposed existing utilities to the same conditions as existed prior to excavation.

All potential imported fill must be reviewed and approved by the Engineer prior to importation to the site. A minimum of five days will be required to evaluate and test the suitability of all planned imported materials. All imported materials should conform to the provisions of Sections 217, "Bedding and Backfill Materials," and 300 "Earthwork" of the Standard Specifications.

The imported materials should be non-expansive and have a Plasticity Index less than 30 percent and a sand equivalent of at least 20. The imported material shall be clean soil, free of organic materials, trash, rubbish, broken concrete, bituminous materials, or other objectionable substances.

Bedding material shall provide a uniform and continuous bearing and support for the pipe at every point between bell holes or joints unless otherwise shown on the plans, except that it will be permissible to disturb and otherwise damage the finished surface over a maximum length of eighteen inches near the middle of each length of pipe by the withdrawal of pipe slings or other lifting tackle. Any part of the bottom of the trench excavated below the specified grade shall be backfilled with approved material thoroughly compacted as directed by the Engineer. The finished grade of the bedding material shall be prepared accurately by means of hand tools.

Permanent pavement shall be placed to the finish grade on the same work day temporary pavement is removed. Testing, backfilling, compacting to the required relative compaction, and placing of temporary pavement shall be performed immediately after placing pipe.

IX-A6-2.01 Mechanically Compacted Backfill

Backfill shall be mechanically compacted by means of tamping rollers, sheepsfoot rollers, pneumatic tire roller, vibrating rollers, or other mechanical tampers. All such equipment shall be of a size and type approved by the Engineer. Impact-type pavement breakers (stampers) will not be permitted.

Permission to use specific compaction equipment shall not be construed as guaranteeing or implying that the use of such equipment will not result in damage to adjacent ground, existing improvements, or improvements installed. The Contractor shall make its own determination in this regard.

Material for mechanically compacted backfill shall be placed in lifts which, prior to compaction, shall not exceed 8 inches in thickness. The Contractor is responsible to achieve the required compaction in such a manner that the pipe is not damaged.

In the Initial Backfill where pipe embedment material is specified for trench backfill material, jetting or jetting and hand-directed mechanical compaction is required, with the maximum thickness of each layer of backfill not exceeding 6 inches before compaction.

Mechanically compacted backfill shall be placed in horizontal layers of thickness (not exceeding those specified above) compatible to the material being placed and the type of equipment being used. Each layer shall be evenly spread, moistened (or dried, if necessary) and then tampered or rolled until the specified relative compaction has been attained.

Relative compaction of trench backfill materials shall conform to the requirements shown on the Standard Trench detail as shown on the Plans.

Fill materials which do not meet the specified relative compaction and moisture content shall be ripped, moisture conditioned, and re-worked until the required relative compaction and moisture content are attained. For this rework, Contractor shall document all compaction testing and submit compaction testing documentation to Engineer for review and approval.

Testing for relative compaction shall be performed by the City as outlined in Section 211 "Material Tests" in the Standard Specifications (Greenbook). At least three tests will be performed for each run of new pipe construction between manholes. All testing is performed at Contractor's expense.

IX-A6-2.02 Backfill and Bedding Material

Class 2 Aggregate Base (AB), shall be 3/4-Inch maximum, in conformance with Standard Specification Section 200-2.2. Class 2 AB shall have a minimum 80 R-Value in conformance with California Test Method 301, 50 minimum sand equivalent in conformance with California Test Method 217, 15% maximum wear at 100 revolutions and 52% maximum wear at 500 revolutions per ASTM C 131, and 2.58 minimum specific gravity per ASTM C 127.

Bedding Material shall be Class 1, Type A Permeable Material in conformance with Section 200-3 of the Standard Specifications.

Drain Rock Material shall have a gradation per ASTM No. 57 with a 1-Inch maximum size.

Controlled Low Strength Material (CLSM) may be used when approved by Engineer when used in close proximity to other utility pipes. CLSM shall be in conformance with Section 201-6 of the Standard Specifications and have a 28-day strength between 50 and 300 psi.

Bedding and backfill materials can either be virgin or recycled materials.

General

A Certificate of Compliance shall be required for all imported material provided. See Special Conditions as they relate to work conditions.

Provide a minimum of 48 hours' notice to Owner before initiating work. At all times, keep work open to inspection by Owner.

Placement of Aggregate

Aggregate base shall be placed per Section 200 and Section 300 of the Standard Specifications.

IX-A6-3 Utility Locating and Potholing

The existing utilities shown on the plans are approximate in nature and are based on utility basemaps, utility USA marks where available, limited utility potholing as shown on the plans and detailed in Appendix A, and are approximate in nature. Contractor shall request that underground facilities be located and marked in the field a minimum of 48 hours prior to the start of construction by calling Underground Service Alert (U.S.A.) at 800-642-2444. Contractor shall excavate with caution to avoid utility damage. Contractor is Liable for all utility damage repair as a result of the construction operations.

As soon as the utility survey is completed, and prior to setting grades or fabrication of engineered pipe, the Contractor shall commence "potholing" to determine the actual location of existing utilities. The Contractor shall uncover all underground utilities, including sewers and storm drains and provide the City with a log of pothole location and utility depth. Underground utilities shall be uncovered to a point one (1) foot below the pipe, where crossing, interferences or connections, prior to trenching or excavating and pipe bursting for any pipe or structure, in order to determine actual elevations. Once uncovered, the Contractor shall record the depth, size, type, and material of the utility at the pothole and clearly mark the depth on the pavement. If the Contractor does not expose all required utilities prior to construction, the Contractor shall not be entitled to additional compensation for work necessary to avoid interferences,1 nor for repair to damaged utilities. Excavations around underground electrical ducts and conduits shall be performed using extreme caution to prevent injury or damage to workers and the electrical ducts or conduits. Similar precautions shall be exercised around gas line, telephone, and television cables.

All costs associated with locating, coordinating, and potholing of existing utilities shall be included within the individual bid items associated with the work. No additional compensation will be granted for utility locating and potholing, regardless of the presence and locations of utilities shown on the plans.

IX-A6-3.01 Clearance to Gas Pipelines

Construction adjacent to gas pipelines shall adhere to the latest edition of the PG&E Greenbook. Any digging within 2 feet of a gas pipeline must be excavated by hand.

New sewer mains and laterals crossing gas service lines shall be constructed with a minimum vertical clearance of 6 inches.

New sewer mains and laterals crossing gas mains shall be constructed with a minimum vertical clearance of 2 feet.

If the specified clearances cannot be met the Contractor shall notify the City and the Contractor shall coordinate with PG&E and obtain a variance for the proposed conditions and clearances.

IX-A7.SHEETING, SHORING AND BRACING

The Contractor shall design, furnish and install sufficient shoring, sheeting, and bracing to insure the safety of workmen and the public, protect the work, and protect existing facilities. Attention is directed to Section 306 of the Standard Specifications, and to the applicable provisions of the Labor Code of the State of California and these Specifications. The current CAL/OSHA trench shoring regulations and State of California, Department of Transportation, Trenching and Shoring Manual shall be used as a guide for minimum shoring requirements.

The Contractor shall be required to provide drawings and/or calculations by a registered engineer to the Engineer a minimum of five (5) working days prior to beginning excavation for specially designed bracing and shoring of an excavation where required by CAL/OSHA or the Contractor's Trench Safety Plan. The Contractor shall design, manage, install and remove all sheeting, shoring and bracing.

When close sheeting is required, it shall be so driven so as to prevent adjacent soil from entering the trench either below or through such sheeting. Where sheeting and bracing are used, the trench width shall be increased accordingly.

Sheeting and bracing which have been ordered left in place must be removed for a distance of three (3) feet below the established pavement grade or the existing pavement surface, whichever is lower. Trench bracing, except that which must be left in place, may be removed when the backfilling has reached the respective levels of such bracing. Sheeting, except that which has been left in place, may be removed after the backfilling has been completed or has been brought up to such an elevation as to permit its safe removal. Sheeting and bracing may be removed before jetting the trench, but only in such manner as will insure the adequate protection of the completed structures and adjacent underground or surface structures, and prevent the disturbance of the adjacent ground. If the trench shields or any other type of sheeting system is needed under current CAL-OSHA regulations, the Engineer reserves the right to require using and installing the trench shields or other type of shoring system for the protection and safety of the workers.

IX-A8. PAVEMENT REPLACEMENT AND TEMPORARY PAVEMENT

Reference section IX-A1-5 for pavement material requirements.

IX-A8-1 Removing Surfacing and Base

This work shall cover the removal of the existing asphalt concrete pavement, concrete (reinforced or non-reinforced), portions of the aggregate base section, paving fabric, and cement treated base to allow for roadway reconstruction (i.e. surface reconstruction) to the lines and grades as indicated on the plans. The temporary tapers installed shall be removed and disposed before constructing the new pavement.

Temporary asphalt tapers/conform shall be provided where transverse joints are left in the pavement. No drop-off shall remain between the existing pavement and the removed area when the pavement is

opened to public traffic. Asphalt concrete for temporary tapers shall be placed to the level of the existing pavement and tapered on a longitudinal slope of 1:30 max (Vertical:Horizontal) or flatter to the level of the existing pavement.

At the end of each day during the removal of surfacing and base operations ramp-ups to resident and commercial driveways shall be provided by the Contractor to permit ingress/egress after work hours. The Contractor shall use the asphalt concrete millings to provide the ramps to driveways at a maximum slope 1" V in 12" H.

Remove surfacing and base shall conform to the provisions in Section 300, "Earthwork," of the Standard Specifications and the following special provisions:

- 1. All materials shall be excavated as shown on the plan and according to these Specifications.
- 2. Existing AC pavement, PCC pavement, paving fabric, and potentially portions of base shall be removed to the depth specified.
- 3. All concrete, soft, spongy, or deleterious materials, structures and other unsuitable material encountered during the excavation operation (whether shown or not shown on the plan) shall be removed and disposed of.
- 4. When the planned excavation for subgrade is made, all undesirable material then encountered shall be removed and disposed of as directed by the Engineer.
- 5. The accumulation of water in excavated areas shall be prevented by means of pumping or other approved methods. At no time is ground water or storm water allowed to flow down sanitary sewer lines or storm drain lines.
- 6. Pavement surfacing shall be blade cut, scored and broken, or milled ahead of the excavation operations, and shall be cut or trimmed to a neat edge after backfilling and prior to paving. The pavement surfacing shall be cut accurately and on neat lines parallel to the excavation. Any pavement damage outside these lines shall be re-cut and restored at the expense of the Contractor.
- 7. Contractor shall field verify locations of existing underground utilities and shall immediately notify the Engineer of any field conflicts. Contractor shall conduct potholing of shallow utilities that might potentially pose a conflict with the excavation work.

IX-A8-2 Temporary Pavement

Temporary pavement 1" thick shall be placed in all trenches over compacted untreated base which is placed to 1" below finish pavement in the trench area at all locations where existing pavement has been removed and final pavement replacement is not done.

Temporary pavement and base in all trenches shall be removed before final pavement replacement.

Temporary Pavement shall be done as shown on the plans or as directed by the Engineer as incidental work and no additional payment will be made therefore.

IX-A8-3 Pavement Placement

Producing and placement of asphalt concrete shall follow Section 302-6 "Asphalt Concrete" of the Standard Specifications. Apply tack coat to existing pavement surfaces and sides prior to AC paving and between lifts of new pavement. Before opening the lane to public traffic, pave shoulders and median borders adjacent to a lane being paved.

Pavement placement shall not commence unless the ambient temperature is above 50 degrees F and has not been below 35 degrees F during the previous twelve (12) hours. Prime or tack coats shall not be applied when the surface to be coated is wet or contains an excess of moisture. The temperature of asphalt concrete shall not be less than 270 degrees F or higher than 320 degrees F during initial spreading.

Do not leave a vertical joint more than 0.15-foot high between adjacent lanes open to public traffic.

Place additional AC along the pavement's edge to conform to road connections and private driveways. Hand rake, if necessary, and compact the additional AC to form a smooth conform taper.

City will arrange and Contractor will be required to coordinate for a third-party lab to field test compaction on each day of paving with a nuclear gauge at random locations. A sample shall be taken and tested; testing shall include a test for stability. Core samples shall be made by the third-party lab for every 500 tons of ASPHALT CONCRETE (AC) production. City will hire third party for quality control testing perform acceptance testing.

IX-A9. PAVEMENT MARKINGS

Contractor shall be responsible for installing and maintaining all Temporary Pavement Delineation between the time paving is complete and installation of Thermoplastic Pavement Markings.

All damaged or removed markers and striping shall be replaced by the Contractor. Contractor shall replace damaged thermoplastic striping that may pose a risk to pedestrian or traffic safety with temporary striping or as directed by the Engineer, until permanent thermoplastic striping can be installed. Contractor shall restore thermoplastic striping for crosswalks and stop bars within seven (7) days of final lift. Thermoplastic Pavement Markings shall be placed in accordance with Section IX-A1-5 of these specifications and Section 214 of the Standard Specifications.

IX-A10. MINOR CONCRETE

Minor concrete and grout shall conform to the provisions in Section 201 of the Standard Specifications.

Aggregate shall conform to Section 200.1 of the Standard Specifications.

It is not anticipated that any curb-ramps will need replacing. However, should any curb ramps be damaged and need replacing - curb ramps shall be per Standard Plan 111 and vary in length (not to exceed 20 feet) with the different conditions of each site. Bidders should account accordingly and no additional compensation will be allowed therefore.

Removal and disposal of existing concrete curb, gutter, sidewalk and valley gutter shall be considered incidental work.

IX-A11. PIPE BURSTING

IX-A11-1 General

This section specifies the system, method, or process to include all labor materials, tools, equipment and incidentals necessary to provide for the complete rehabilitation/replacement of deteriorated pipe by the Pipe Bursting System. Pipe bursting is the construction technique of replacing an existing, underground pipe system in situ by simultaneously "bursting" the existing pipe and installing a new pipe in its place. The replacement pipe is either pulled or pushed into the bore. The method allows for the replacement pipe size on size from 2-inch through 36-inch and/or upsizing in varying increments up to 36 inches.

IX-A11-2 Quality Assurance

2.1 Certification:

The Contractor shall provide qualifications to the representative upon request evidence of competency and authority to perform pipe bursting. The qualifications shall at a minimum include the following:

2.2 Pipe Bursting Experience:

The Contractor shall have a minimum of two (2) years of experience in the pipe bursting business and a record of at least four (4) mile of pipe bursting using the hydraulic static pull method.

2.3 <u>Personnel performing pipe bursting</u>:

The Contractor/Personnel shall be certified by manufacturer of pipe bursting system having successfully completed training in:

- Operating bursting head
- Installing proposed replacement pipe
- Operation and maintenance of all equipment to be used

2.4 Personnel performing fusing of HDPE pipe and fittings:

The Contractor/Personnel shall be certified by manufacturer of fusing equipment having successfully completed training in:

- Handling replacement pipe materials
- Butt fusion of pipe joints, saddle fusion / electrofusion of fittings for service laterals
- Operation and maintenance of all equipment to be used

2.5 Certificate of Training:

Certificate of Training includes at a minimum: Installer's name, date of issuance, and process or product the person is certified to install.

2.6 Other:

- Contractor shall make available for inspection all information regarding production, delivery, handling, and storage aspects of replacement pipe.
- Contractor shall submit plan on proposed pipe bursting method
- Contractor shall internally inspect pre-bursting and post-bursting work
- Contractor shall make fully aware of the construction site

• Contractor shall ensure all underground utilities within the project site are located and marked.

IX-A11-3 Material Specifications

3.1 Pipe:

Pipe shall be high-density polyethylene (HDPE) with DR 17 rating and shall conform to Section IX-A1 of these specifications..

3.2 <u>Fittings</u>:

Fittings shall conform to Section IX-A1 of these specifications.

3.3 Service Connections:

Service Connection fittings shall conform to Section IX-A1 of these specifications. Heat fusion saddles and electrofusion saddles shall be made of polyethylene pipe compound following ASTM D3350 and suitable for fusion welding to polyethylene pipe.

IX-A11-4 Execution

4.1 <u>Materials Handling</u>:

No materials shall be dumped, dropped, pushed or rolled into a trench. Support stands and rollers shall be used when fusing and lowering pipe into the trench or bore hole. Pipe shall not be dragged on the ground or on paved surfaces. Support stands and rollers must be used at all times that the pipe is above paved surfaces and ground level. Pipe may be pulled longitudinally into the trench after fusion of the pipeline. Pulling of the main shall be accomplished by mechanical action during pipe bursting operations.

4.2 Pipe Bursting:

Prior to commencement of the construction, the Contractor shall submit to the City a pipe bursting plan which shall minimally include bursting method, pit locations and schedule, service line replacement, bursting distances and directions, and service outage and reinstatement schedule. In general, the bursting operation shall be as follows:

- Post notices of service interruption and outages as indicated in the pipe-bursting plan.
- Isolate the existing system and excavate launch, bursting, and service pipes as indicated in the pipe-bursting plan.
- Construct placement service lines.
- Set up the bursting equipment in the bursting pit and insert the bursting rods or cable through the host pipe.
- Connect the bursting head to the main and the bursting rods or cable in the launch pit.
- Burst the existing main.
- Install new service connection fittings and connect new service lines.
- Flush the new main then connect the new main to the existing system; and
- Continue this series of operation to complete the full scope of burstings.

4.3 Launching and Bursting Pit:

Pits shall be strategically located along the alignment of the pipe to be burst to minimize the quantity of pits. The Contractor shall prepare a pit location schematic illustrating the planned pit locations and schedule for pit excavation, backfilling and restoration.

The duration that pits are open shall be kept to a minimum. Pit locations shall consider locations of existing utilities.

4.4 Service Pits:

Pits for lateral service re-connections shall be dug prior to bursting the sewer main pipe. All laterals shall be disconnected from the main prior to pipe bursting.

4.5 Service Line Replacement:

Lateral replacement is not a part of this contract. Contractor may enter into private agreements with property owners to replace laterals during the Project.

4.6 Bursting Distance and Directions:

The Contractor shall include in the pipe bursting plan distances and directions of the bursts to be performed. For this Project, stamped pipe bursting calculations are not required.

4.7 <u>Service Outage and Reinstatement</u>:

The contractor shall minimize service interruption to customer. Service outage shall be strictly limited to the hours of 9:00 AM to 5:00 PM, Monday through Friday. No service interruption shall be allowed from 5:00 PM to 9:00 AM, Monday through Friday or all on Saturdays, Sundays, or legal holidays. The pipe-bursting plan shall include the days and hours planned for service outage and reinstatement to each customer.

NOTE: If off hours bursting is anticipated, special permission must be obtained. The Contractor shall coordinate with the City and post notices to the customers a minimum of 48 hours prior to service interruption.

4.8 Pit Contamination Prevention:

Pits shall be kept as dry as possible and shall be excavated to at least one foot below the pipe invert to minimize the potential for contamination during connection of the new main valves, fittings, and services.

4.9 Pipe Jointing:

Sections of replacement pipe shall be assembled and joined on the job site above the ground. Jointing shall be accomplished by the heating and butt-fusion method in strict conformance with the manufacturer's printed instructions. The Butt-Fusion method for pipe jointing shall be carried out in the field by certified operators with prior experience in fusing pipe with similar equipment using prop jigs and tools per standard procedures outlined by the pipe manufacturer. These joints shall have a smooth, uniform; double rolled back bead made while applying the proper melt, pressure, and alignment. It shall be the sole responsibility of the Contractor to provide an

acceptable butt-fusion joint. The replacement pipe shall be joined on the site in appropriate working lengths near the insertion pit.

Heat fusion joining is the process where mating surfaces are prepared for joining, heated until molten, joined together, and cooled under pressure. All fusion procedures require appropriate surface preparation tools, alignment tools, and temperature-controlled heating irons with properly shaped, non-stick heater faces. An open flame cannot be used for heating because it oxidizes the surface and prevents bonding.

During joining, all heat fusion procedures require the mating components to be moved several inches apart to accommodate surface preparation and surface heating tools. All fusions shall be constructed in strict accordance with pipe and fitting manufacturers' recommendations. Contractors shall cut out and replace defective joints at no additional cost to the City.

Interior beads caused by pipe fusion shall be removed (de-beaded) prior to installation.

4.10 Joining and Connections:

Before joining and before any special surface preparation, surfaces must be clean and dry. General dust and light soil may be removed by wiping the surfaces with clean, dry lint-free cloths. Heavier soil may be washed or scrubbed off with soap and water solutions, followed by thorough rinsing with clean water, and drying with dry, clean, lint-free cloths.

4.11 <u>Cutting Pipe</u>:

Joining methods for plain end pipe require square-cut ends. Pipe cutting is accomplished with guillotine shears, run around cutters, and saws.

4.12 Cutting Branch Outlet Holes:

Except for self-tapping saddle tees, hole cutting is required for field installed side outlet fittings. Polyethylene pipe hole saws shall be used.

4.13 Pipe Relaxation

It may take 12-24 hours for the newly installed pipe to cool down and settle back to its ambient temperature and ultimate length after pipe bursting. A minimum of two feet of pipe shall remain in upstream and downstream manhole after pipe bursting to ensure that the final tie-ins and connections are secure the day after pipe bursting.

4.14 Socket Fusion:

Socket fusion shall only be used with ½ inch through four-inch pipe and fittings.

4.15 Saddle Fusion:

Saddle fusion outlets may be used for eight-inch and smaller outlets applied to twelve-inch and larger mains. Larger outlets for larger main sizes shall be factory fabricated.

4.16 Butt Fusion:

Butt fusion joints shall be used to connect segments of sewer main pipe and fittings.

4.17 Electrofusion:

Electrofusion may be used for lateral and fitting connections. Contractor shall obtain permission from Engineer prior to using electrofusion couplings to join segments of sewer main pipe.

IX-A11-5 Record Drawings

The Contractor shall provide red-line record drawings to the City. The record drawings shall include all changes to the contract drawings and pertinent information including potholed utilities, any abandoned laterals, laterals connection locations, any laterals replaced, locations backfilled with CLSM, and changes to pipe size or construction methods that are different from the contract drawings. The Contractor shall submit to the City record drawings within 15 calendar days from the date of completion of the job.

IX-A11-6 Gravity Lines Pipe Bursting

6.1 Pre-Installation Video Inspection:

It shall be the responsibility of the Contractor to video inspect the main prior to pipe bursting in accordance with Section IX-A4.8 to assure that exiting pipe conditions are acceptable for pipe bursting, and to locate all active service line connections. This inspection as well as the video inspection after the installation shall be incidental and paid for under the bid item associated with the work. Contractor shall provide any cleaning and debris removal necessary to identify all active and abandoned/capped laterals and any major issues with the sewer main that would prevent potential successful bursting of the sewer main. Contractor shall submit copies of the videos to the City prior to construction. If conditions are acceptable, Contractor shall submit a letter stating that Pre-Installation Video Inspection has been performed and that the lines are ready for pipe-bursting construction. Contractor shall notify the City of any lines that cannot be burst due to existing conditions discovered in the Pre-Installation Inspection.

6.2 Post-Installation Video of Completed Sections:

The Contractor shall provide the City post-installation inspection reports and videos in accordance with Section IX-A4.8.

6.3 Sags in Line:

The Contractor shall provide pre-installation inspection report of the pipe to be replaced using pipe bursting. If pre-installation report reveals a sag in the existing sewer that is greater than one-half the diameter of the existing pipe, the Contractor shall notify the City. The City will determine if the sag will need to be eliminated during construction. Upon direction from the City, the Contractor shall perform the necessary measures to eliminate sags. Open trench pipe replacement, digging a sag elimination pit, and bringing the bottom of the pipe trench to a uniform grade in line with existing pipe invert or by other measures may be necessary to eliminate the sag. Additional work necessary to eliminate sags in the sewer main will be paid for under the revocable bid item for additional open cut in pipe bursting locations.

6.4 Sealing and Benches in Manhole:

The replacement pipe shall be installed with a tight-fitting seal with the existing or new manhole as shown on the Project Plans. An approved Water Stop Gasket shall be placed circumferentially

on the replacement pipe and encased with cementitious non-shrink grout to prevent inflow at the manhole. The top half of the pipe within the manhole shall be neatly cutoff and not broken or sheared off, at least four inches away from the manhole walls. The channel in the manhole shall be a smooth continuation of the pipe(s) and shall be merged with other lines or channels, if any. Channel cross-section shall be U-shaped with a minimum height of half pipe diameter to three-fourths of the pipe diameter for fifteen inches and larger. The side of the channels shall be built up with mortar/concrete, as specified, to provide benches at a slope of one-half inch per foot pitch towards the channel. Trough and Shelf Rehabilitation shall include removal of all loose grout and rubble, rebuild of trough and/or shelf by shaping and repairing trough and shelf slopes, and correcting alignment of inflow and outflow ports to prevent deposition of solids at transition points.

The replacement pipe in the manhole shall be sealed as specified above before proceeding on to the next manhole section and all manholes shall be individually inspected for replacement pipe outfalls, benches and sealing.

Where excavations for the insertion of the replacement pipe are made between two manholes, the ends of the pipe will be cut smooth and square to the axis so that it can by joined in a workman like manner such that both ends meet and touch uniformly and continuously. The pipes shall be joined with butt fusion methods. The use of electrofusion couplings may be acceptable on a case by case basis as approved by the Engineer.

6.5 Sewer Service Laterals and Connections:

Existing service connections shall be located before initiating sewer main replacement operations. Active service laterals shall be reconnected to the new sewer line after replacement and before video inspection is completed. Laterals that are capped/abandoned shall not be reconnected. Any services remaining off line for an extended period of time, or any connections as deemed necessary by the City to protect the customer, shall be bypass pumped until such time that they can be reconnected.

Connection of the new service lateral the new sewer main shall be accomplished by use of HDPE DR17 fusion stub type saddle as shown on the plans. The service connection shall be specifically designed for connection to the HDPE sewer main being installed.

6.6 Documentation:

Contractor shall document condition of surfaces over the proposed pipe bursting alignment and adjacent structures within 10 feet of the alignment using video and photographs prior to initiating pipe bursting operations. Contractor shall temporarily mark or otherwise designate the alignment limits on the surface over the proposed pipe bursting alignment using chalk or other temporary marking material prior to documentation. Contractor shall identify and document any cracks in pavement wider than 1 inch, pavement bulges, mounds or other significant pavement irregularities. Contractor shall identify and document any cracks in adjacent foundations and walls wider than 0.5 inch. Contractor shall identify significant bulges and irregularities in lawn or soil. Contractor shall identify and document any existing damage to fences and fence footings within 10 feet of the alignment. Contractor shall submit a complete documentation package to the City and/or Engineer for approval prior to initiating pipe bursting activities.

IX-A11-7 Equipment

7.1 <u>Hydraulic Bursting Unit</u>

The hydraulically-operated bursting head and winching system shall provide smooth, vibration-free, controlled power to expand and break away existing pipe, pushing it into the surrounding soil. The bursting head shall open and close by hydraulic power to accomplish this task. The backside of the unit shall be firmly connected to the new sewer pipe to be pulled in place of the existing sewer. Passage of the pipe shall be controlled at approximately 2 to 3 feet per minute andshall be capable of achieving distances of up to 300 feet.

The design and shape of the head shall be such that the existing pipe will be broken into many small fragments. The method of connection of the replacement pipe to the unit shall be such that stresses transmitted to the replacement pipe are not damaging to the pipe, nor will they exceed thetensile capacity of the pipe.

Provisions shall be made in the equipment to remotely start and stop the unit should it become necessary to temporarily cease operations.

Measures shall be taken to ensure that the pipe does not become separated from the hydraulic bursting unit.

7.2 Winching or Pulling Unit

The winching or pulling unit shall be operated to provide constant pull to the hydraulic bursting unit in order that it may operate in an efficient manner with a minimum of recoil. It shall ensure directional stability in keeping the unit in line.

- a. The winch shall be of the constant load type but shall be fitted with a direct reading load gauge to measure the winching load. It shall also be fitted with a device to automatically disengage when loading exceeds a preset maximum load.
- b. Contractor shall supply sufficient cable in one continuous length so that the pull may be continuous between winching points.
- c. The winch, cable and cable drum shall be provided with safety cage and supports.
- d. The Contractor shall also provide a system of guide pulleys and bracing at each manhole to minimize contact of cable with the existing sewer between manholes.
- e. A nose cone shall be fixed to the first pipe or the head of the mole and shall be fitted with a swivel attachment to reduce the twist transmission between the winch cable and nose cone.
- f. Supports to the trench sheets in the insertion trench shall remain completely separate for the pipe support system and shall be so designed that neither the pipe nor the winch cable shall be in contact with them at any time.
- g. Proper clearance shall be provided below the existing pipe to allow for the proper use of winch.

7.3 <u>Hydraulic Pipe Pushing Unit</u>

At the option of the Contractor, a hydraulic pipe pushing machine may be used to overcome boththe weight of the pipe and frictional forces of the surrounding soil during the insertion operation.

- a. The pushing machine shall allow the unit to work independently.
- b. The machine shall have static and moving jaws to grip the pipe alternately.
- c. Proper clearance shall be provided below the existing pipe to allow for the proper use ofthe pushing machine.

IX-A12. BYPASSING SEWAGE:

Contractor shall submit a sewage bypass plan including a site plan, calculations to support sizing, operations plan, and emergency plan in the event of a failure. The Contractor shall provide for continuous sewage flow around the section(s) of pipe designated at all times for pipe replacement. The pump bypass discharge lines shall be adequate capacity and size to handle full flow capacity of the pipes. Lay flat piping may be used when permitted by the City. Prior to disassembling the discharge piping, the piping shall be flushed with clean water in its entirety. The cost for flushing operations and water shall be incidental to the bypass piping.

Temporary flow control shall be done in a manner that will not damage private or public property or create a nuisance or public menace. Flow shall be conveyed in enclosed pipes that are adequately protected from traffic or other hazards. The bypass system shall be constructed with piping and fittings in good condition with watertight joints that are fully rated for the intended use and anticipated pressures with a factor of safety equal to 2. Sizing, design, installation, and operation of the temporary bypass piping system is the sole responsibility of the Contractor.

Bypass pumping shall be performed during normal working hours to the extent feasible and shall be supervised at all times.

Contractor shall notify property owners of any interruption of sewer services 24 hours prior to any interruption of work on existing sewer pipes. Outages of sewer service longer than four (4) hours shall not be permitted. For outages exceeding four (4) hours, contractor shall provide temporary sewer services to the affected parcels/residents.

Equipment and Material Requirements:

1. Pumps:

- a. Fully automatic, self-priming units that do not require use of foot valves or vacuum pumps in priming system.
- b. Solids handling design with ability to pump minimum 3 inch diameter sphere.
- c. Able to run dry for long periods of time to accommodate cyclical nature of flows.
- d. Engine: Equipped to minimize noise. Noise levels shall not exceed 86 dBA at a distance of 50 feet from source. The use of engines or engine-generators shall be

kept to an absolute minimum and are not allowed outside of the specified work hours.

e. The use of engine driven/powered pumps shall be kept to an absolute minimum and are not allowed outside of the specified work hours.

2. Backup Equipment:

- a. Contractor shall have a backup pump readily available in case primary pump fails.
- b. When bypass pumping operations is not continually monitored in person (i.e. bypass pumping occurs beyond work hours), contractor shall have a fully redundant bypass pumping system, including the following equipment:
- c. Backup float/level sensor
- d. Backup pump
- e. Backup power
- f. High water level alarm that notifies Contractor

IX-A13. EMERGENCY REPAIRS TO DAMAGED UTILITIES

13.1. Utilities:

All existing utility conflicts shall be potholed where they cross or are within the work area of the sanitary sewer line. It is the Contractor's responsibility to locate all utilities prior to construction.

In the event that the Contractor or his Subcontractor during the execution of the work breaks or damages any utility, it shall be the responsibility of the Contractor/Subcontractor to immediately notify the Engineer and the utility owner(s) at the designated emergency telephone number and immediately undertake measure to repair the damaged utility. To that effect the Contractor/Subcontractor shall ascertain prior to initiating the work that the necessary repair parts, tools, equipment, and labor are on ready and available onsite to complete the repair work without delays. Authorize City staff shall witness the repair work.

IX-A14. TRAFFIC CONTROL

A traffic control plan shall be submitted for review by the Engineer.

A traffic control system shall consist of closing travel lanes and parking areas adjacent to work as specified in the Special Provisions and Part 6 of the Standard Specifications.

One Lane in each direction shall remain open at all times, if feasible.

No Parking signs must be put out 48 hours prior to work with the no parking date(s) and times clearly indicated on the signs. Contractor shall take pictures of the no parking signs on the street after installation.

The provisions in this section will not relieve the Contractor from his responsibility to provide such additional devices or take such measures as may be necessary to comply with the provisions in Part 6 of the Standard Specifications.

Each vehicle used to place, maintain and remove components of a traffic control system shall be equipped with a Type II flashing arrow sign which shall be in operation when the vehicle is being used for placing, maintaining or removing said components. The sign shall be controllable

by the operator of the vehicle while the vehicle is in motion. A separate flashing arrow sign shall be in place in both directions before lane closures.

If any component in the traffic control system is displaced, or ceases to operate or function as specified, from any cause, during the progress of the work, the Contractor shall immediately repair said component to its original condition or replace said component and shall restore the component to its original location.

Lane closures are to be made during work periods only, as specified in the Special Provisions. At the end of each work period, all components of the traffic control system, except portable delineators placed along open trenches or excavation adjacent to the traveled way shall be removed from the traveled way and shoulder. If the Contractor so elects, said components may be stored at selected central locations, approved by the Engineer, within the limits of the road right-of-way.

IX-A15. TEMPORARY UTILITIES

15.1 Contractor's Temporary Utility Services:

The Contractor shall make its own arrangements for any utility services including but not limited to power, water, telephone and sanitation service that the Contractor will require for its operations during the life of this Project. All utility costs will be at the Contractor's expense.

15.2 <u>Sanitation</u>:

The Contractor shall provide chemical toilets and other sanitary facilities required for its employees and subcontractors. Facilities shall be trailer mounted or provided with anchoring to prevent spills.

IX-A16. DELAYS

16.1 Notice of Delays:

When Contractor foresees a delay in the prosecution of the Work and, in any event, immediately upon the occurrence of a delay, Contractor shall notify the City in writing of the probability of the occurrence and the estimated extent of the delay, and its cause. Contractor shall take immediate steps to prevent, if possible the occurrence or continuance of the delay. Contractor agrees that no claim shall be made for delays which are not called to the attention of the City at the time of their occurrence.

16.2 Non-excusable Delays:

Non-excusable delays in the prosecution of the Work shall include delays which could have been avoided by the exercise of care, prudence, foresight, and diligence on the part of Contractor or its subcontractors, at any tier level, or suppliers.

16.3 Excusable Delays:

Excusable delays in the prosecution or completion of the Work shall include delays which result from causes beyond the control of Contractor and City and which could not have been avoided

by the exercise of care, prudence, foresight, and diligence on the part of Contractor or its subcontractors, at any tier level, or suppliers.

- a. Abnormal Delays Delays caused by acts of God (other than inclement weather), fire, floods, tidal waves, earthquakes, strikes, labor disputes, freight embargoes, and shortages of materials shall be considered as excusable delays insofar as they prevent Contractor from proceeding with at least seventy-five (75) percent of the normal labor and equipment force for at least five (5) hours per day toward completion of the current critical activity item(s) on the latest favorably reviewed Construction Schedule, and Contractor could not have avoided the consequence of the event or circumstance through exercise of reasonable care. During the pre-construction meeting, contractor shall state that the necessary materials to complete the project are available.
- b. Should inclement weather conditions or the conditions resulting from weather prevent Contractor from proceeding with seventy-five (75) percent of the normal labor and equipment force engaged in the current critical activity item for a period of at least five (5) hours per day toward completion of such operation or operations, and the crew is dismissed as a result thereof, it shall be a weather delay day. An allowance of three (3) working days of weather caused delay has been included in the time allowed for completion.

IX-A17. SUBSTANTIAL COMPLETION

Substantial completion of the Project requires that the following portions of the Work must be operational and ready for the City's continuous use as intended:

The following items of Work must be fully tested and functional for Project Substantial Completion to be attained:

- 1. All manholes
- 2. All sewer mains
- 3. All lateral connections to main

When Contractor considers that the Work is substantially complete, Contractor shall notify the City in writing. Upon receipt of the notification, the City and/or their authorized representatives will make inspection, to determine if the Work is sufficiently complete in accordance with the Contract Documents so City can occupy or utilize the Work for its intended use. If items are found which prevent such use or occupancy, the City shall notify Contractor in writing of such items by issuing a Corrective Work Item List.

Upon the completion of the items listed on the Corrective Work Item List, Contractor shall so notify the City in writing. The City shall inspect the Work to determine its acceptability for Substantial Completion and for determination of other items which do not meet the terms of the Contract. Upon verification that the Work is substantially complete the City shall issue a Certificate of Substantial Completion and a Punch List. The Certificate shall establish the date of Substantial Completion and the responsibilities of City and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, commencement of warranties required by the Contract Documents, and shall fix the time, not to exceed fifteen (15) days, within which

Contractor shall finish all items on the Punch List accompanying the Certificate. When the preceding provisions have been approved by both City and Contractor, they shall sign the Certificate to acknowledge their written acceptance of the responsibilities assigned to them in such Certificate. By such acknowledgement, Contractor agrees to pay City's actual costs including, but not limited to, charges for engineering, inspection and administration incurred due to the failure to complete the Punch List within the time period provided in the Certificate of Substantial Completion.

IX-A18. NOTIFICATIONS

The Contractor will notify property owners and adjacent property owners of the work schedule and necessary access restrictions along with providing the property owners a notice of City inspection prior to completing the project. Contractor shall notify property owners at least 48 hours and hang door hangers before performing work.

SECTION X BID ITEM DESCRIPTIONS

X. BID ITEM DESCRIPTIONS

LOWER LINDA MAR REHABILITATION AND REPAIR PROJECT C044

Bid Item 1 – Mobilization/Demobilization

Measurement:

"Mobilization/Demobilization" consists of furnishing all labor, materials, tools, equipment, and incidentals for the movement of personnel, equipment, supplies, and incidentals to the project sites; for the establishment of all field offices, fencing and other facilities necessary for work on the Project; and for all other work and operations which must be performed or costs incurred prior to beginning work on the various contract items on the project sites.

Payment:

Payment for "Mobilization/Demobilization" shall be on a lump on a lump sum basis based paid out on percent of work completed. The total bid price for this item shall not exceed 5% of the total bid.

Bid Item 2 – Pedestrian Control, Traffic Control, and Notifications

Measurement:

"Pedestrian Control, Traffic Control, and Notifications" consists of furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved with traffic control, pedestrian control, and resident notifications including providing all signage, personnel, and traffic control plans and all other incidental work required for traffic control and notifications..

Payment:

Payment for "Pedestrian Control, Traffic Control, and Notifications" shall be on a lump sum basis based paid out on percent of work completed.

Bid Item 3 – Sheeting, Shoring and Bracing

Measurement:

"Sheeting, Shoring & Bracing" consists of full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved to provide sheeting, shoring and bracing, complete in place, including design, installation and

removal of sheeting, shoring, bracing and other excavation supports necessary to complete all work in compliance with the California Occupational Safety and Health (CAL-OSHA) standards. All work and materials shall conform to the Contract Documents including the Project Plans and Specifications, as described herein and as directed by the Inspector or Engineer.

Payment

Payment for "Sheeting, Shoring & Bracing" shall be on a lump sum basis based paid out on percent of work completed.

Bid Item 4 – Temporary Bypass Pumping and Piping

Measurement:

"Temporary Bypass Pumping and Piping" consists of all work to prepare and implement bypass pumping plan, furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved with plugging, diverting, bypassing, or re-directing sewer flows in order to maintain sewer flows at all times during construction. This includes all pumps, piping, plugs, fuel, and backup pumps necessary for bypass pumping.

Payment:

Payment for "Temporary Bypass Pumping and Piping" shall be on a lump sum basis paid out based on percent of work completed.

Bid Item 5 - Water Pollution Control Plan

Measurement:

"Water Pollution Control Plan" consists of all work to prepare and implement water pollution control plan based on CASQA (California Stormwater Quality Association) California Stormwater BMP Handbook, furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved with preventing runoff of dust and sediment including but not limited to installing inlet capture bags, fiber rolls, and straw wattles, vehicle / equipment inspection and cleaning, concrete truck / equipment wash out, paint cleanup, street sweeping, recycling, controlling dust resulting from the Contractor's operations, public traffic, wind, or other conditions at all times including Saturdays, Sundays, holidays, and when directed by the City, and all other incidental work.

Payment:

Payment for Water Pollution Control Plan shall be on a lump sum basis paid out based on percent of work completed.

Bid Item 6 - 8-Inch Pipe Burst

Measurement:

"8-Inch Pipe Burst" consists of furnishing all labor, materials, tools, equipment, and incidentals to replace existing sewer pipe with new 8-inch HDPE pipe by pipe bursting.. This item includes CCTV inspection, locating and exposing utilities, excavation for insertion pits and any necessary receiving pits, new piping, backfill, compaction, pipe testing, pavement restoration, traffic striping restoration, and other items necessary to facilitate the construction of the work. Modification to manholes and reconnecting laterals are included in separate bid items.

Payment:

Payment for "8-Inch Pipe Burst" is on a per linear foot of pipe replaced basis.

Bid Item 7 - 12-Inch Pipe Burst

Measurement:

"12-Inch Pipe Burst" consists of furnishing all labor, materials, tools, equipment, and incidentals to replace existing sewer pipe with new 12-inch HDPE pipe by pipe bursting.. This item includes CCTV inspection, locating and exposing utilities, excavation for insertion pits and any necessary receiving pits, new piping, backfill, compaction, pipe testing, pavement restoration, traffic striping restoration, and other items necessary to facilitate the construction of the work. Modification to manholes and reconnecting laterals are included in separate bid items.

Payment:

Payment for "12-Inch Pipe Burst" is on a per linear foot of pipe replaced basis.

Bid Item 8 - 16-Inch Pipe Burst

Measurement:

"16-Inch Pipe Burst" consists of furnishing all labor, materials, tools, equipment, and incidentals to replace existing sewer pipe with new 16-inch HDPE pipe by pipe bursting. This item includes CCTV inspection, locating and exposing utilities, excavation for insertion pits and any necessary receiving pits, new piping, backfill, compaction, pipe testing, pavement restoration, traffic striping restoration, and other items necessary to facilitate the construction of the work. Modification to manholes and reconnecting laterals are included in separate bid items.

Payment:

Payment for "16-Inch Pipe Burst" is on a per linear foot of pipe replaced basis.

Bid Item 9 - 8-Inch Open Trench Replace

Measurement:

"8-Inch Open Trench Replace" consists of furnishing all labor, materials, tools, equipment, and incidentals to remove the install new 8-inch pipe using open trench construction methods. This item includes CCTV inspection, locating and exposing utilities, excavation, new piping, removal of existing sewer main piping within excavation area, warning tape, backfill, compaction, pipe testing, pavement restoration, traffic striping restoration, connection to the manhole, and other items necessary to facilitate the construction of the work. Reconnecting laterals are included in a separate bid item.

Payment:

Payment for "8-Inch Open Trench Replace" is on a per linear foot of pipe installed basis.

Bid Item 10 – 12-Inch Open Trench Replace

Measurement:

"12-Inch Open Trench Replace" consists of furnishing all labor, materials, tools, equipment, and incidentals to remove the install new 12-inch pipe using open trench construction methods. This item includes CCTV inspection, locating and exposing utilities, excavation, new piping, removal of existing sewer main piping within excavation area, warning tape, backfill, compaction, pipe testing, pavement restoration, traffic striping restoration, connection to the manhole, and other items necessary to facilitate the construction of the work. Reconnecting laterals are included in a separate bid item.

Payment:

Payment for "12-Inch Open Trench Replace" is on a per linear foot of pipe installed basis.

Bid Item 11 - Replace Lateral Connection

Measurement:

"Replace Lateral Connection" consists of furnishing all labor, materials, tools, equipment, and incidentals to reconnect the lateral to the new sewer main. This includes locating utilities, excavation, disconnection of the existing lateral connection prior to

bursting or during open trenching, reconnection of the existing lateral to the new sewer main, extending the new lateral to achieve necessary slope where necessary at open trench locations, coupling, wye or fused connection, backfill, compaction, pavement restoration, traffic striping restoration, site restoration, and other items as required to facilitate the construction of the work.

Payment:

Payment for "Replace Lateral Connection" is on a per each lateral re-connection basis.

Bid Item 12 - 6-Inch Sewer Abandonment

Measurement:

"6-Inch Sewer Abandonment" consists of furnishing all labor, materials, tools, equipment, and incidentals to abandon the 6-inch Sewer main. This includes plugging ends of the existing pipe, filling the existing sewer main pipe, and other items as required to facilitate the construction of the work.

Payment:

Payment for "6-Inch Sewer Abandonment" is on a per linear foot of sewer abandoned basis.

Bid Item 13 - Modify Manhole for Pipe Bursting

Measurement:

"Modify Manhole for Pipe Bursting" consists of furnishing all labor, materials, tools, equipment, and incidentals to modify the manhole for pipe bursting. This includes removing a portion of the bench and invert, reforming the bench and invert, installation of new waterstops, patching existing manhole walls, and other items as required to facilitate the construction of the work.

Payment:

Payment for "Modify Manhole for Pipe Bursting" will be paid on a per each manhole that is modified basis.

Bid Item 14 – Remove and Replace Lamphole

Measurement:

"Remove and Replace Lamphole" consists of furnishing all labor, materials, tools, equipment, and incidentals to remove the existing lamphole and construct a new lamphole as shown on the Plans. This includes removal of the existing lamphole, new pipe elbow, pipe riser, lamphole frame and cover, concrete frame, and other items as required to facilitate the construction of the work.

Payment:

Payment for "Remove and Replace Lamphole" will be paid on a per each lamphole replaced basis.

Bid Item 15 – Remove Manhole Ladder Rungs (per rung)

Measurement:

"Remove Manhole Ladder Rungs" consists of furnishing all labor, materials, tools, equipment, and incidentals to remove each manhole ladder rung in existing manholes. This includes cutting the each end of the ladder rung flush with the manhole wall, and removing and disposal of the ladder rung.

Payment:

Payment for "Remove Manhole Ladder Rungs" will be paid on a per each ladder rung removed basis.

Bid Item 16- Rehabilitate Manhole

Measurement:

"Rehabilitate Manhole" consists of furnishing all labor, materials, tools, equipment, and incidentals to rehabilitate each manhole. This includes cleaning interior surfaces of the manhole, repair bench, pin holes, chimney or other manhole deficiencies, application of cement coating and other items as required to facilitate the construction of the work.

Payment:

Payment for "Rehabilitate Manhole" will be paid on a per each manhole rehabilitated basis.

Bid Item 17– Reset Manhole Frame

Measurement:

"Reset Manhole Frame" consists of furnishing all labor, materials, tools, equipment, and incidentals to reset manhole frame. This includes removal of the existing manhole frame and cover, re-setting the existing frame and cover to sit directly over existing grade rings, installing new concrete collar around frame and grade rings, and other items as required to facilitate the construction of the work.

Payment:

Payment for "Rest Manhole Frame" will be paid on a per each manhole frame reset basis.

Bid Item 18- Remove and Replace Manhole

Measurement:

"Remove and Replace Manhole" consists of furnishing all labor, materials, tools, equipment, and incidentals to replace each manhole. This includes removal and disposal of the existing manhole, excavation, installation of new manhole including new base, bench, frame, cover, and concrete collar, pavement restoration, and other items as required to facilitate the construction of the work.

Payment:

Payment for "Remove and Replace Manhole" will be paid on a per each manhole replaced.

Bid Item 19– New Manhole

Measurement:

"New Manhole" consists of furnishing all labor, materials, tools, equipment, and incidentals to install a new manhole. This includes excavation, installation of new manhole including new base, bench, frame, cover, and concrete collar, pavement restoration, and other items as required to facilitate the construction of the work.

Payment:

Payment for "New Manhole" will be paid on a per each manhole installed.

Bid Item 20-Street Monument Replacement

Measurement:

"Street Monument Replacement" consists of furnishing all labor, materials, tools, equipment, and incidentals to replace each street monument. This includes removal of the existing monument, coordination with the County, installation of new monument marker, surveying, concrete, frame, cover, pavement restoration, and other items as required to facilitate the construction of the work.

Payment:

Payment for "Street Monument Replacement" will be paid on a per each monument replaced basis.

Bid Item 21- Additional Open Cut in Pipe Bursting Locations (Revocable)

Measurement:

"Additional Open Cut in Pipe Bursting Locations (Revocable)" consists of furnishing all labor, materials, tools, equipment, and incidentals to open trench replace pipe in lieu of pipe bursting. This includes saw cutting pavement, trenching, backfill, compaction, warning tape, pavement restoration, traffic striping restoration, and other items as required to facilitate the construction of the work.

Payment:

This item is a revocable bid item that is subject to approval by the City prior work. Quantities are subject to change. This bid item applies to sewer locations with sags and/or locations in proximity existing utilities that require bursting when approved in the field by the City. This bid item does not apply to typical excavations necessary for bursting pits, receiving pits, and/or lateral connection. Payment for "Additional Open Cut in Pipe Bursting Locations" will be paid as a per linear foot of sewer required to be open trenched at pipe bursting locations. This revocable bid item will be paid in addition to the pipe bursting bid item and should only account for the cost differences between pipe bursting and open trench replacement. Location(s) and length requires approval from the City prior to performing work.

Bid Item 22- Additional AC Pavement Replacement (Revocable)

Measurement:

"Additional AC Pavement Replacement (Revocable)" consists of furnishing all labor, materials, tools, equipment, and incidentals to replace AC Pavement. This includes saw cutting pavement, excavation, removal of damaged asphalt, backfill, compaction, installation of new AC surface, striping restoration, and other items as required to facilitate the construction of the work.

Payment:

This item is a revocable bid item that is subject to approval by the City prior work. Quantities are subject to change. This bid item applies to locations where pavement upheaval occurs or where directed in the field by the City. This bid item does not apply to typical excavations necessary for open trench replacement, pipe bursting, lateral connections, and/or manhole replacement. Payment for "Additional AC Pavement Replacement" will be paid on a per square foot basis. Location(s) and area requires approval from the City prior to performing work.

Bid Item 23– Bursting Head Recovery (Revocable)

Measurement:

"Bursting Head Recovery (Revocable)" consists of furnishing all labor, materials, tools, equipment, and incidentals to replace to retrieve a stuck bursting head. This includes saw cutting pavement, excavation, backfill, compaction, installation of new AC surface,

striping restoration, and other items as required to facilitate the construction of the work.

Payment:

This item is a revocable bid item that is subject to approval by the City. Quantities are subject to change. This bid item applies to locations where the bursting head gets stuck while bursting. Payment for "Bursting Head Recovery" will be paid on a per each time bursting head recovery is necessary.

Bid Item 24– City Pavement Cut Fee (Allowance)

Measurement:

"City Pavement Cut Fee (Allowance)" consists of providing the contractor with reimbursement for the pavement cut fees paid by the Contractor associated with the City's encroachment permit. The allowance amount is based on the estimated area of pavement replacement associated with the project. The Contractor shall calculate the proposed area of pavement replacement based on the Contractor's proposed operations and shall calculate the pavement cut fee prior to construction and prior to issuance of a City encroachment permit. If the pavement cut fees exceed the allowance amount, the City will provide a contract change order for the additional pavement cut fees.

Payment:

This item is an allowance bid item with a total estimated amount defined in the bid tab. This bid item is to provide the contractor with reimbursement of the City's pavement cut fees associated with the City's encroachment permit. The Contractor will be reimbursed for the actual cut fees paid for the project; no additional compensation will be provided.

ADDITIVE BID ITEMS

The following Additive Bid Items are either awarded or removed from the project depending on the City's budget and the base bid received. City will provide notice to the Contract whether Additive Bid Item #1 and Additive Bid Item #2 will be incorporated into the project or removed from the project after bids are received and during project award.

ADDITIVE BID ITEM #1 (VALENCIA & GRANADA)

Additive bid item #1 includes all work associated within the area identified as bid item #2 on the plans.

Additive Bid Item A1-1 – Mobilization/Demobilization, Traffic Control, Shoring, Bypass, and WPCP

Measurement:

"Mobilization/Demobilization, Traffic Control, Shoring, Bypass, and WPCP" consists of furnishing all labor, materials, tools, equipment, and incidentals for mobilization and demobilization, traffic control, shoring, bypass pumping, and implementation of water

pollution control measures associate with all Additive Bid item #1 work along Valencia and Granada.

Payment:

Payment for "Mobilization/Demobilization, Traffic Control, Shoring, Bypass, and WPCP" shall be on a lump on a lump sum basis based paid out on percent of Additive Bid Item #1 completed work.

Additive Bid Item A1-2 - 8-Inch Pipe Burst

Measurement:

"8-Inch Pipe Burst" consists of furnishing all labor, materials, tools, equipment, and incidentals to replace existing sewer pipe with new 8-inch HDPE pipe by pipe bursting.. This item includes CCTV inspection, locating and exposing utilities, excavation for insertion pits and any necessary receiving pits, new piping, backfill, compaction, pipe testing, pavement restoration, traffic striping restoration, and other items necessary to facilitate the construction of the work. Modification to manholes and reconnecting laterals are included in separate bid items.

Payment:

Payment for "8-Inch Pipe Burst" is on a per linear foot of pipe replaced basis.

Additive Bid Item A1-3 – 8-Inch Open Trench Replace

Measurement:

"8-Inch Open Trench Replace" consists of furnishing all labor, materials, tools, equipment, and incidentals to remove the install new 8-inch pipe using open trench construction methods. This item includes CCTV inspection, locating and exposing utilities, excavation, new piping, removal of existing sewer main piping within excavation area, warning tape, backfill, compaction, pipe testing, pavement restoration, traffic striping restoration, connection to the manhole, and other items necessary to facilitate the construction of the work. Reconnecting laterals are included in a separate bid item.

Payment:

Payment for "8-Inch Open Trench Replace" is on a per linear foot of pipe installed basis.

Additive Bid Item A1-4 – Replace Lateral Connection

Measurement:

"Replace Lateral Connection" consists of furnishing all labor, materials, tools, equipment, and incidentals to reconnect the lateral to the new sewer main. This includes locating utilities, excavation, disconnection of the existing lateral connection prior to bursting, reconnection of the existing lateral to the new sewer main, coupling, fused connection, backfill, compaction, pavement restoration, traffic striping restoration, site restoration, and other items as required to facilitate the construction of the work.

Payment:

Payment for "Replace Lateral Connection" is on a per each lateral re-connection basis.

Additive Bid Item A1-5 – Modify Manhole for Pipe Bursting

Measurement:

"Modify Manhole for Pipe Bursting" consists of furnishing all labor, materials, tools, equipment, and incidentals to modify the manhole for pipe bursting. This includes removing a portion of the bench and invert, reforming the bench and invert, installation of new waterstops, patching existing manhole walls, and other items as required to facilitate the construction of the work.

Payment:

Payment for "Modify Manhole for Pipe Bursting" will be paid on a per each manhole that is modified basis.

Additive Bid Item A1-6 – Remove and Replace Lamphole

Measurement:

"Remove and Replace Lamphole" consists of furnishing all labor, materials, tools, equipment, and incidentals to remove the existing lamphole and construct a new lamphole as shown on the Plans. This includes removal of the existing lamphole, new pipe elbow, pipe riser, lamphole frame and cover, concrete frame, and other items as required to facilitate the construction of the work.

Payment:

Payment for "Remove and Replace Lamphole" will be paid on a per each lamphole replaced basis.

Additive Bid Item A1-7 – Remove Manhole Ladder Rungs (per rung)

Measurement:

"Remove Manhole Ladder Rungs" consists of furnishing all labor, materials, tools, equipment, and incidentals to remove each manhole ladder rung in existing manholes. This includes cutting the each end of the ladder rung flush with the manhole wall, and removing and disposal of the ladder rung.

Payment:

Payment for "Remove Manhole Ladder Rungs" will be paid on a per each ladder rung removed basis.

Additive Bid Item A1-8 Rehabilitate Manhole

Measurement:

"Rehabilitate Manhole" consists of furnishing all labor, materials, tools, equipment, and incidentals to rehabilitate each manhole. This includes cleaning interior surfaces of the manhole, repair bench, pin holes, chimney or other manhole deficiencies, application of cement coating and other items as required to facilitate the construction of the work.

Payment:

Payment for "Rehabilitate Manhole" will be paid on a per each manhole rehabilitated basis.

Additive Bid Item A1-9-Street Monument Replacement

Measurement:

"Street Monument Replacement" consists of furnishing all labor, materials, tools, equipment, and incidentals to replace each street monument. This includes removal of the existing monument, coordination with the County, installation of new monument marker, surveying, concrete, frame, cover, pavement restoration, and other items as required to facilitate the construction of the work.

Payment:

Payment for "Street Monument Replacement" will be paid on a per each monument replaced.

Additive Bid Item A1-10 - New Manhole

Measurement:

"New Manhole" consists of furnishing all labor, materials, tools, equipment, and

incidentals to install a new manhole. This includes excavation, installation of new manhole including new base, bench, frame, cover, and concrete collar, pavement restoration, and other items as required to facilitate the construction of the work.

Payment:

Payment for "New Manhole" will be paid on a per each manhole installed.

Additive Bid Item A1-11 – City Payement Cut Fee (Allowance)

Measurement:

"City Pavement Cut Fee (Allowance)" consists of providing the contractor with reimbursement for the pavement cut fees paid by the Contractor associated with the City's encroachment permit. The allowance amount is based on the estimated area of pavement replacement associated with the project. The Contractor shall calculate the proposed area of pavement replacement based on the Contractor's proposed operations and shall calculate the pavement cut fee prior to construction and prior to issuance of a City encroachment permit. If the pavement cut fees exceed the allowance amount, the City will provide a contract change order for the additional pavement cut fees.

Payment:

This item is an allowance bid item with a total estimated amount defined in the bid tab. This bid item is to provide the contractor with reimbursement of the City's pavement cut fees associated with the City's encroachment permit. The Contractor will be reimbursed for the actual cut fees paid for the project; no additional compensation will be provided.

ADDITIVE BID ITEM #2 (CRESPI & BARCELONA)

Additive bid item #2 includes all work associated within the area identified as bid item #2 on the plans.

Additive Bid Item A2-1 – Mobilization/Demobilization, Traffic Control, Shoring, Bypass, and WPCP

Measurement:

"Mobilization/Demobilization, Traffic Control, Shoring, Bypass, and WPCP" consists of furnishing all labor, materials, tools, equipment, and incidentals for mobilization and demobilization, traffic control, shoring, bypass pumping, and implementation of water pollution control measures associate with all Additive Bid item #2 work along Crespi and Barcelona as shown on the plans.

Payment:

Payment for "Mobilization/Demobilization, Traffic Control, Shoring, Bypass, and WPCP" shall be on a lump on a lump sum basis based paid out on percent of Additive

Bid Item #2 completed work.

Additive Bid Item A2-2 - 8-Inch Pipe Burst

Measurement:

"8-Inch Pipe Burst" consists of furnishing all labor, materials, tools, equipment, and incidentals to replace existing sewer pipe with new 8-inch HDPE pipe by pipe bursting. This item includes CCTV inspection, locating and exposing utilities, excavation for insertion pits and any necessary receiving pits, new piping, backfill, compaction, pipe testing, pavement restoration, traffic striping restoration, and other items necessary to facilitate the construction of the work. Modification to manholes and reconnecting laterals are included in separate bid items.

Payment:

Payment for "8-Inch Pipe Burst" is on a per linear foot of pipe replaced basis.

Additive Bid Item A2-3 - Replace Lateral Connection

Measurement:

"Replace Lateral Connection" consists of furnishing all labor, materials, tools, equipment, and incidentals to reconnect the lateral to the new sewer main. This includes locating utilities, excavation, disconnection of the existing lateral connection prior to bursting, reconnection of the existing lateral to the new sewer main, coupling, fused connection, backfill, compaction, pavement restoration, traffic striping restoration, site restoration, and other items as required to facilitate the construction of the work.

Payment:

Payment for "Replace Lateral Connection" is on a per each lateral re-connection basis.

Additive Bid Item A2-4 – Modify Manhole for Pipe Bursting

Measurement:

"Modify Manhole for Pipe Bursting" consists of furnishing all labor, materials, tools, equipment, and incidentals to modify the manhole for pipe bursting. This includes removing a portion of the bench and invert, reforming the bench and invert, installation of new waterstops, patching existing manhole walls, and other items as required to facilitate the construction of the work.

Payment:

Payment for" Modify Manhole for Pipe Bursting" will be paid on a per each manhole that is modified basis.

Additive Bid Item A2-5 – Remove and Replace Lamphole

Measurement:

"Remove and Replace Lamphole" consists of furnishing all labor, materials, tools, equipment, and incidentals to remove the existing lamphole and construct a new lamphole as shown on the Plans. This includes removal of the existing lamphole, new pipe elbow, pipe riser, lamphole frame and cover, concrete frame, and other items as required to facilitate the construction of the work.

Payment:

Payment for "Remove and Replace Lamphole" will be paid on a per each lamphole replaced basis.

Additive Bid Item A2-6 – Remove and Replace Manhole

Measurement:

"Remove and Replace Manhole" consists of furnishing all labor, materials, tools, equipment, and incidentals to replace each manhole. This includes removal and disposal of the existing manhole, excavation, installation of new manhole including new base, bench, frame, cover, and concrete collar, pavement restoration, and other items as required to facilitate the construction of the work.

Payment:

Payment for "Remove and Replace Manhole" will be paid on a per each manhole replaced basis.

Additive Bid Item A2-7- Street Monument Replacement

Measurement:

"Street Monument Replacement" consists of furnishing all labor, materials, tools, equipment, and incidentals to replace each street monument. This includes removal of the existing monument, coordination with the County, installation of new monument marker, surveying, concrete, frame, cover, pavement restoration, and other items as required to facilitate the construction of the work.

Payment:

Payment for "Street Monument Replacement" will be paid on a per each monument replaced basis.

Additive Bid Item A2-8 - City Pavement Cut Fee (Allowance)

Measurement:

"City Pavement Cut Fee (Allowance)" consists of providing the contractor with reimbursement for the pavement cut fees paid by the Contractor associated with the City's encroachment permit. The allowance amount is based on the estimated area of pavement replacement associated with the project. The Contractor shall calculate the proposed area of pavement replacement based on the Contractor's proposed operations and shall calculate the pavement cut fee prior to construction and prior to issuance of a City encroachment permit. If the pavement cut fees exceed the allowance amount, the City will provide a contract change order for the additional pavement cut fees.

Payment:

This item is an allowance bid item with a total estimated amount defined in the bid tab. This bid item is to provide the contractor with reimbursement of the City's pavement cut fees associated with the City's encroachment permit. The Contractor will be reimbursed for the actual cut fees paid for the project; no additional compensation will be provided.

PRIVATE LATERAL REPLACEMENT BID ITEMS (Separate Contract)

The following Private Lateral Replacement Bid Items will be used in determining the lowest bidder and awarding the Construction Contract. These bid items will not be paid out by the City but is the required price to be offered by the contractor to any homeowner's that want to replace their private sewer lateral where the sewer main is being replaced as a part of this project. The contractor is responsible for any agreement with the property owner that wants to replace their sewer lateral at the prices listed in the following bid items. Quantities are an estimate based on the number of private laterals replaced from similar previous projects. No adjustments to unit prices shall be made if the quantities are higher or lower than the estimated quantities listed in the bid table.

Bid Item B-1 – Private Lateral Replacement

Measurement:

"Private Lateral Replacement" consists of furnishing all labor, materials, tools, equipment, and incidentals to replace sanitary sewer lateral from the connection to the sewer main to within 2 feet of the associated building. This item includes up to 35-feet of pipe bursting or open trench replacement with new 4-inch pipe, and installing one new two way cleanout. This bid item also includes all work associated with coordinating and contracting with the private property owners, work associated with applying for the permits and adhering to the inspection requirements. A separate bid item is included for reimbursement of permit and inspection fees.

The estimated quantity is a representative amount for developing a bid price. The number

of property owners anticipated to privately contract with the Contractor for this work is unknown.

Payment:

Payment includes full compensation for replacing each lateral with a length of up to 35 feet and installing one cleanout.

The Contractor shall perform this work under a separate contract with respective property owners. Payment will be from participating property owners who contract to have their sanitary sewer lateral replaced.

Bid Item B-1- Private Lateral - Additional Length

Measurement:

"Private Lateral – Additional Length" consists of furnishing all labor, materials, tools, equipment, and incidentals for each additional linear foot of private lateral replacement over 35 feet by pipe bursting or open trench replacement of new 4-Inch pipe. The estimated quantity is a representative amount for developing a bid price. The actual quantities required, and number of property owners anticipated to privately contract with the Contractor for this work is unknown.

Payment:

Payment includes full compensation on a per linear foot basis of lateral replacement that exceeds 35-feet in length.

The Contractor shall perform this work under a separate contract with respective property owners. Payment will be from participating property owners who contract to have their sanitary sewer lateral replaced.

Bid Item B-3 - Private Lateral - Additional Cleanout

Measurement:

"Private Lateral – Additional Cleanout" consists of furnishing all labor, materials, tools, equipment, and incidentals to install an additional cleanout at any major bend or when requested by the property owner. The additional cleanout shall be a two-way cleanout. The estimated quantity is a representative amount for developing a bid price. The actual quantities required, and number of property owners anticipated to privately contract with the Contractor for this work is unknown.

Payment:

Payment includes full compensation for installation of each additional cleanout.

The Contractor shall perform this work under a separate contract with respective property owners. Payment will be from participating property owners who contract to have their sanitary sewer lateral replaced.

Bid Item B-4 – Private Lateral – Tree Protection

Measurement:

"Private Lateral – Tree Protection" consists of furnishing all labor, materials, tools, equipment, and incidentals to implement tree protection plans for work associated with the replacement of private laterals. The City's On-Call arborist will review the proposed excavations and will develop tree protection requirements meeting the City's tree ordinance requirements. If tree protection is not required as part of the private lateral replacement, then this bid item shall not be charged to the property owner.

The estimated quantity is a representative amount for developing a bid price. The actual quantities required, and number of property owners anticipated to privately contract with the Contractor for this work is unknown.

Payment:

Payment includes full compensation for tree protection and meeting the requirements outlined by the City's On-Call arborist for each private property where such work is required. Payment shall be on a per private property basis when tree protection is required regardless of the number of trees where protection and review is required.

The Contractor shall perform this work under a separate contract with respective property owners. Payment will be from participating property owners who contract to have their sanitary sewer lateral replaced.

Bid Item B-5 – Private Lateral – Permit and Inspection Fees (Reimbursement)

Measurement:

"Private Lateral – Permit and Inspection Fees (Reimbursement)" consists of providing the contractor with reimbursement for the City permit and inspection fees required for the private lateral replacement work. The Contractor will be responsible for obtaining separate permits from the City for each lateral to be replaced. The permit costs for each lateral include \$250 for the application fee, \$500 for inspection, and \$500 for the pavement cut fee.

Payment:

Payment includes full reimbursement for permit and inspection fees per private lateral replacement defined in the bid tab. This bid item is to provide the contractor with reimbursement of the City's permit and inspection fees associated with each private lateral replacement which is defined as \$1,250. The Contractor will be reimbursed for

BID ITEM DESCRIPTIONS

Project Title: Lower Linda Mar Rehabilitation and Repair Project C044

the actual fees paid for the permit and inspections; no additional compensation will be provided.

The Contractor shall perform this work under a separate contract with respective property owners. Payment will be from participating property owners who contract to have their sanitary sewer lateral replaced.

SECTION XI APPENDICES

SECTION XI APPENDICES

APPENDIX A: POTHOLE REPORT, SUBTRONIC CORP., 1/3/2024 – 1/14/2024



Pothole Report

Client:

Schaaf and Wheeler

Estimate Number: 38174

City: Pacifica

1/3/2024 - 1/14/2024

5031 Blum Road Martinez, California 94553

Telephone (925) 228-8771 Fax No. (925) 228-8737 www.subtronic.com



Client:	Schaaf and Wheeler
E#:	38174
City:	Pacifica

Date	PH #	Location (#, Street/Area, Station, Lat/Lon)	Target Utility	Description of utility found	Utility Color	Depth Feet	to TOP In	Initials	NS/ EW	Comments	Asph./Conc. Thickness
N/A	1	In the intersection of Escalero Avenue and Peralta Road	Gas	No pothole performed	N/A	N/A	N/A	P.S.	N/A	No Gas line PG&E marked	
1/3/2024	2	On the North side of Escalero Avenue at Cadiz Street (Location on map)	Water	8" Asbestos concrete	Gray	2	8	P.S.	N.W/ S.E.		4½" Asphalt
1/16/2024	3	In front of 863 Arguello Blvd. (Location on map)	Water	6" Asbestos concrete	Gray	2	10	P.S.	N/S	Also found 6" Sanitary sewer Vitrified clay pipe N.W/S.E. at 5'4" Pothole 3'6" wide. USA mark 2'0" off. 2 Potholes	3½" Asphalt
1/16/2024	4	In front of 880 Arguello Blvd. (Location on map)	Gas	2" Steel	Black	2	11½	P.S.	N.W/ S.E.	Magnetic	7" Asphalt
1/3/2024		On the South East corner of Peralta Road and Crespi Drive (Location on map)	Water Possible Communication	6" Steel Concrete encasement	Black Gray	3 Top 2 Bottom 3	8 Top 0 Bottom 5	M.E.	E/W N/S	Magnetic Communication was marked but had an X through it	3½" Asphalt 7" Concrete
1/3/2024	6	On the South East corner of Peralta Road and Crespi Drive (Location on map)	Communication	Concrete encasement	Gray	Top 5	Top 3	P.S.	E/W	Ground water at 4'6". Could only see top of concrete encasement due to ground water.	4½" Asphalt 4½" Concrete
1/12/2024	7	On the North side of the intersection of Peralta Road and Crespi Drive (Location on map)	Gas	4" Tar coated Steel	Black	2	1	P.S.	E/W	Magnetic	In Dirt
1/10/24	8	On the North side of the intersection of Escalero Avenue and Crespi Drive (Location on map)	Electric	No Electric found	N/A	N/A	N/A	M.E.	N/A	Dug to 5'1" depth X 3'6" width Found 6" vitrified clay pipe Sanitary Sewer N/S at 5'1"	3" Asphalt 6" Concrete



Client:	Schaaf and Wheeler
E#:	38174
City:	Pacifica

Date	PH #	Location (#, Street/Area, Station, Lat/Lon)	Target Utility	Description of utility found	Utility Color	Depth Feet	to TOP In	Initials	NS/ EW	Comments	Asph./Conc. Thickness
1/10/24	9	On the North side of the intersection of Escalero Avenue and Crespi Drive (Location on map)	Communication	4" Plastic	Black	3	0	M.E.	E/W	Also found 4" blue plastic unknown E/W at 2'1"	3" Asphalt 6" Concrete
1/10/24	10	On the East side of the intersection of Escalero Avenue and Crespi Drive (Location on map)	Water	6" Asbestos concrete	Gray	4	0	M.E.	N/S	Also found 8" vitrified clay pipe Sanitary Sewer E/W at 5'0"	6" Asphalt
1/9/24	11	On the East side of the intersection of Escalero Avenue and Crespi Drive (Location on map)	Electric	2" Plastic	Gray	2	11	M.E.	E/W		3½" Asphalt
1/12/24	12	On the South West corner of the intersection of Seville Drive and Crespi Drive (Location on map)	Gas	2" Tar coated steel	Black and silver	5	0½	P.S.	N/S	Magnetic	5" Asphalt
1/12/24	1	On the South East corner of the intersection of Seville Drive (Location on map)	Communication	No utility found	N/A	N/A	N/A	P.S.	N/A	Dug a 5'0" wide pothole in PH13 and PH14 X 6'0" depth. Could be with Electric in PH14. Communication USA mark 3'6" wide	5" Asphalt
1/12/24	14	On the South East corner of the intersection of Seville Drive (Location on map)	Electric	3 X 4" Plastic	Gray	5 5 5	2 2 11	P.S.	N/S		5" Asphalt 8" Concrete
1/12/24	15	On the South East corner of the intersection of Seville Drive (Location on map)	Communication	Concrete encasement 3" Plastic	Gray	Top 0 Bottom 1	Top 8 Bottom 1	P.S.	N/S	3" Plastic under concrete encasement	8" Asphalt



Client: Schaaf and Wheeler
E#: 38174
City: Pacifica

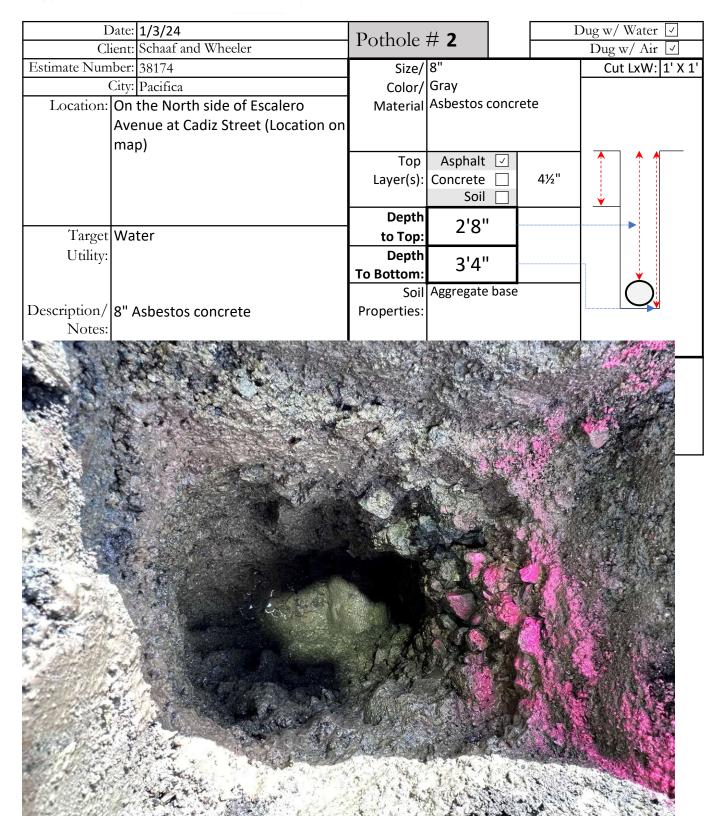
Date	PH #	Location (#, Street/Area, Station, Lat/Lon)	Target Utility	Description of utility found	Utility Color	Depth Feet	to TOP In	Initials	NS/ EW	Comments	Asph./Conc. Thickness
		On the North East corner of the intersection of La Mirada	Electric	3 X 4" Plastic	Black	3 3	1 5 5½		E/W		6" Asphalt
1/4/24	116	Way and Crespi Drive (Location on map)	Water	6" Asbestos concrete	Gray	5	2½	P.S.	N/S		8" Concrete
1/4/24 17	17	On the North East corner of the intersection of La Mirada Way and Crespi Drive (Location on map)	Gas	4" Steel (found 90° bend)	Black	3	7	P.S.	E/W N/S	.	4½" Asphalt
			Communication	No Communication found	N/A	N/A	N/A		N/A	No Communication found. Dug to 7'0" depth X 4'0" width on USA mark.	
1/4/24	18	On La Mirada Way at Serena Drive (Location on map)	Electric Water	6" Plastic No Water found	Gray N/A	4 N/A	0 N/A	P.S.	E/W N/A	No Water found Dug 5' depth X 3'0" width on USA mark. Valve nut is 3'1" 20' East in sidewalk.	3½" Asphalt
1/4/24	19	On La Mirada Way at Serena Drive (Location on map)	Gas	2" Tape wrapped steel	Black	3	6½	P.S.	E/W	Magnetic	3" Asphalt
1/8/24	l .	On La Mirada Way at Alta Vista Drive (Location on map)	Gas	2" Steel	Black	3	3½	M.E.	E/W	Magnetic Also found 6" vitrified clay Sanitary Sewer N/S at 6'2"	3" Asphalt
1/8/24	21	On Ladera Way at Ortega Court (Location on map)	Gas Water	2" Steel No Water Found	Steel N/A	2 N/A	11 N/A	M.E.	N.W/ S.E. N/A	Magnetic Also found 18" concrete Storm Drain N.W/S.E at 3'6" Dug to 5'0" depth X 3'0" width on Water USA mark	3" Asphalt
1/9/24	22	On Ladera Way at Alta Vista Drive (Location on map)	Gas Water	2" Steel No Water Found	Black N/A	5 N/A	6 N/A	M.E.	N.W/ S.E. N/A	Magnetic Dug to 5'0" depth X 3'0" width on Water USA mark	3½" Asphalt



Client:	Schaaf and Wheeler
E#:	38174
City:	Pacifica

Date	PH #	Location (#, Street/Area, Station, Lat/Lon)	Target Utility	Description of utility found	Utility Color	Depth Feet	to TOP In	Initials	NS/ EW	Comments	Asph./Conc. Thickness
1/14/24	23	On the North West corner of Cordova Court and Corona Drive (Location on map)	Gas Water	2" Steel No Water Found	Black N/A	2 N/A	8 N/A	P.S.	N/S	Magnetic Also found 6" vitrified clay Sanitary Sewer N.E/S.W. at 4'6" Dug to 5'0" depth X 3'0" width on Water USA mark	4" Asphalt
1/14/24	27	On the North West corner of the intersection of Valencia Way and Granada Drive (Location on map)	Electric	4" Plastic	Gray	3	0	P.S.	E/W		1" Asphalt 8" Concrete
1/14/24	28	On the North West corner of the intersection of Hinton Ranch Road and Valencia Way (Location on map)	Gas	2" Tar coated steel	Black	2	1	P.S.	E/W	Magnetic	3½" Asphalt
1/14/24	29	On Granada Drive a the top of the hill (Location on map)	Gas	2" Steel	Black	2	8	P.S.	N/S	Magnetic	8" Asphalt
1/14/24	30	On the North East side of Crespi Drive across from Alcala Court (Location on map)	Water	6" Asbestos concrete	Gray	3	0	P.S.	N.E/ S.W.		6" Asphalt
1/4/24	31	On The North East side of Crespi Drive across from Tapis Way (Location on map)	Water	No utility found	N/A	N/A	N/A	P.S.	N/A	Dug to 5'0" depth X 4'0" width on Water USA mark	8" asphalt



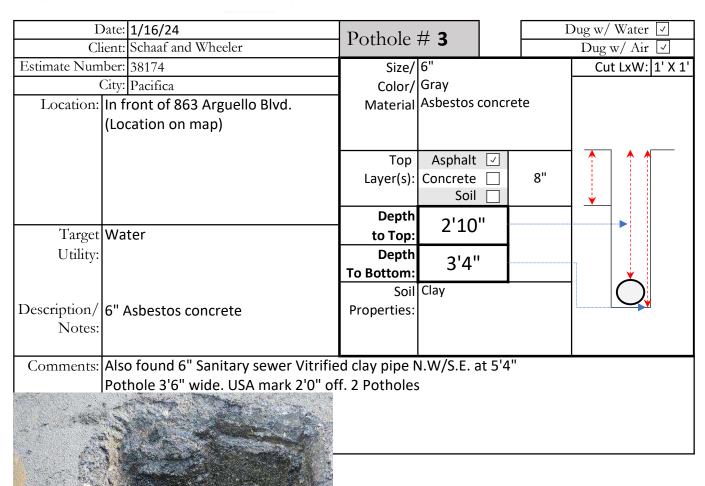


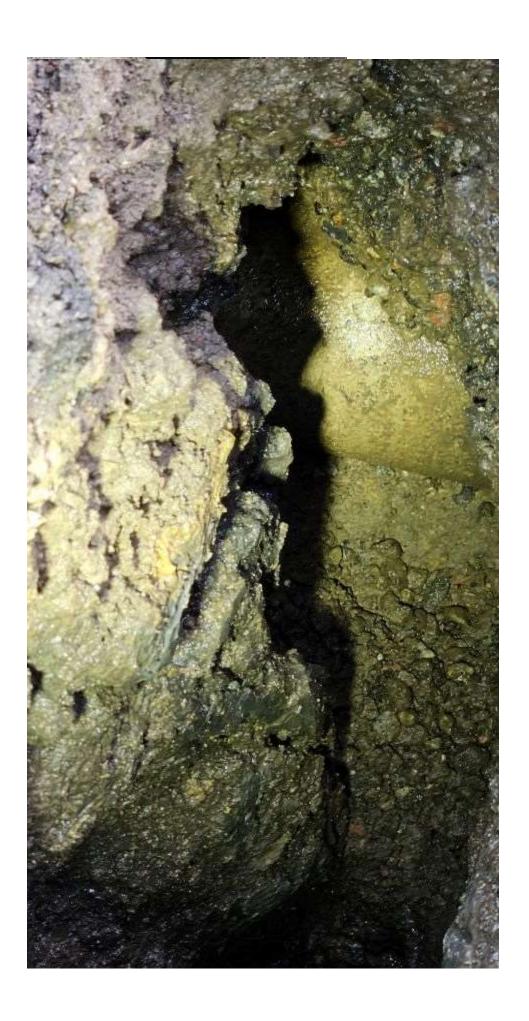










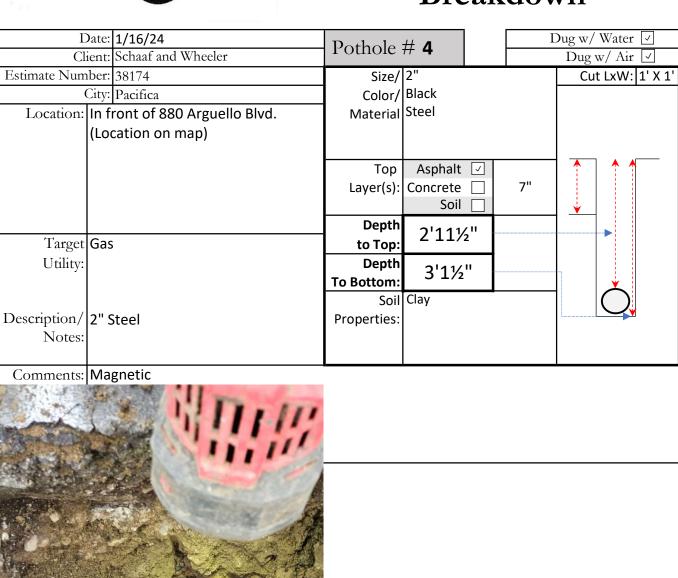










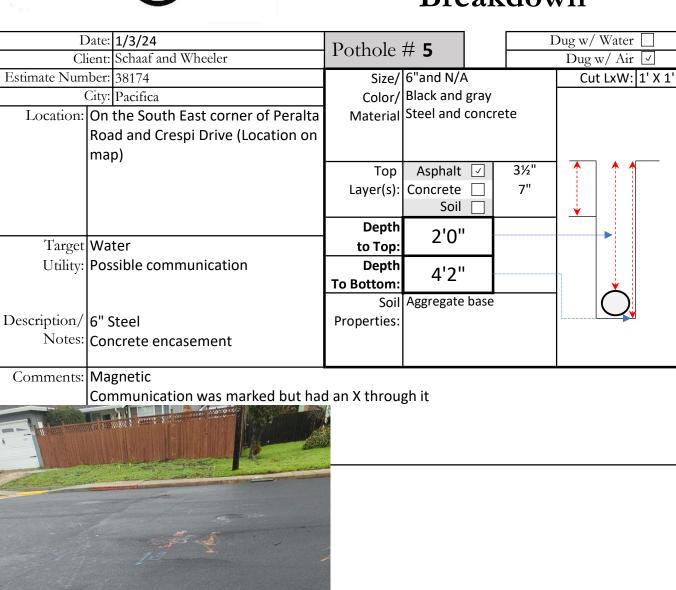






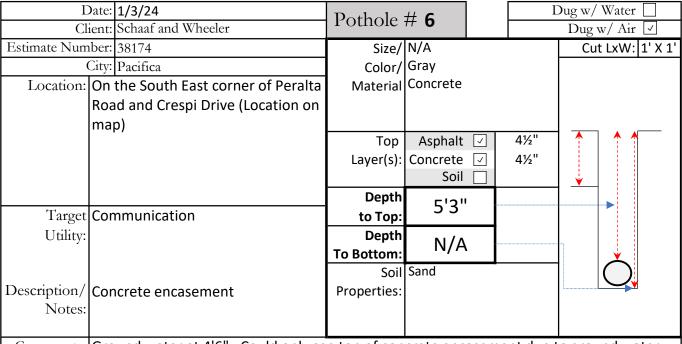


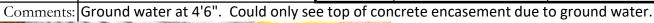


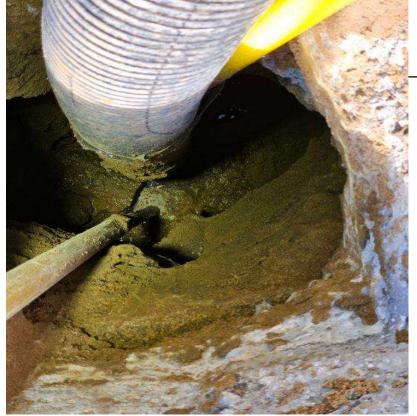




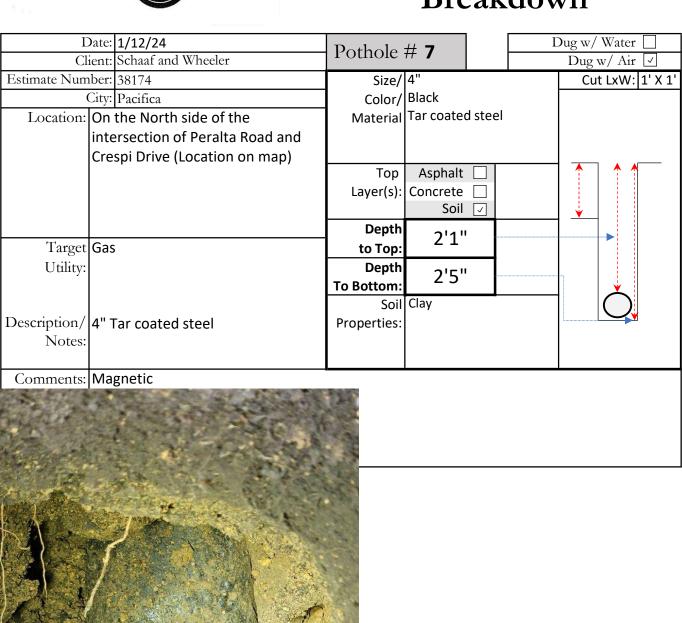




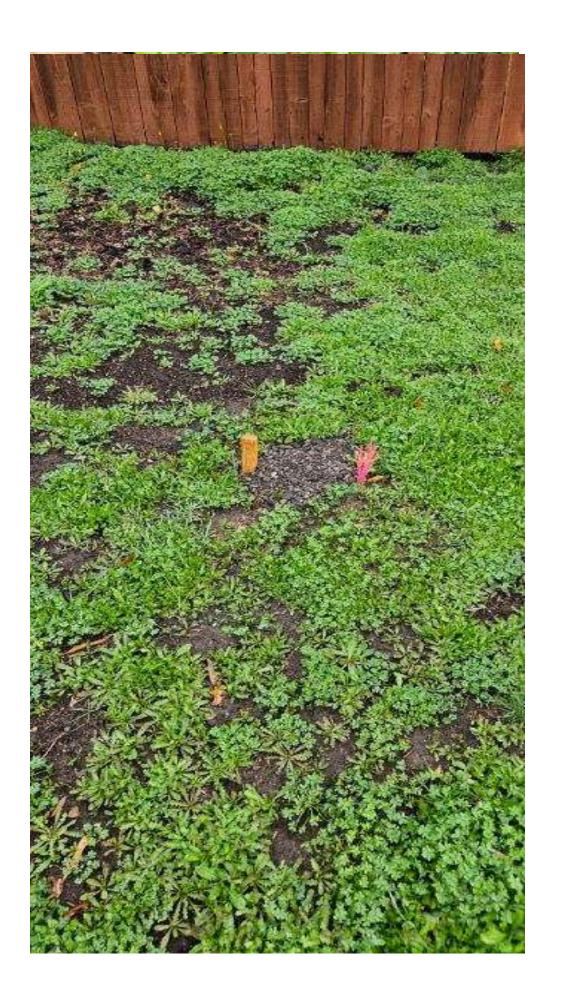




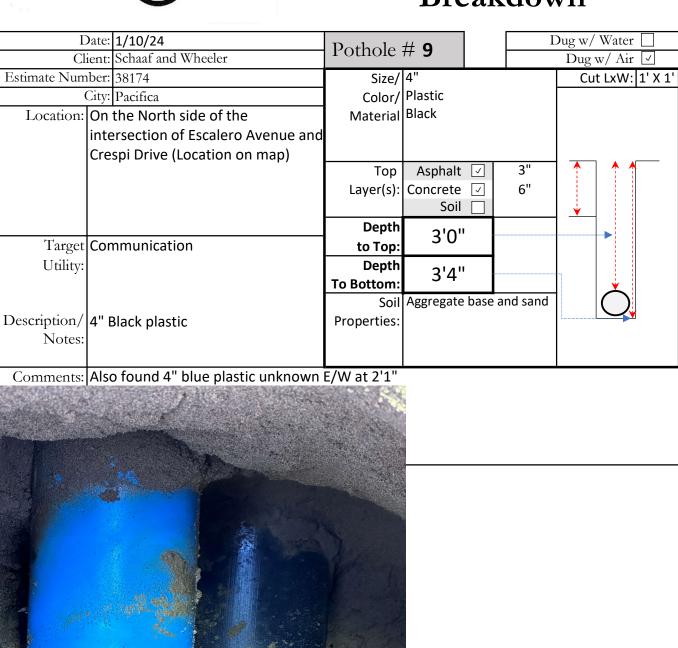










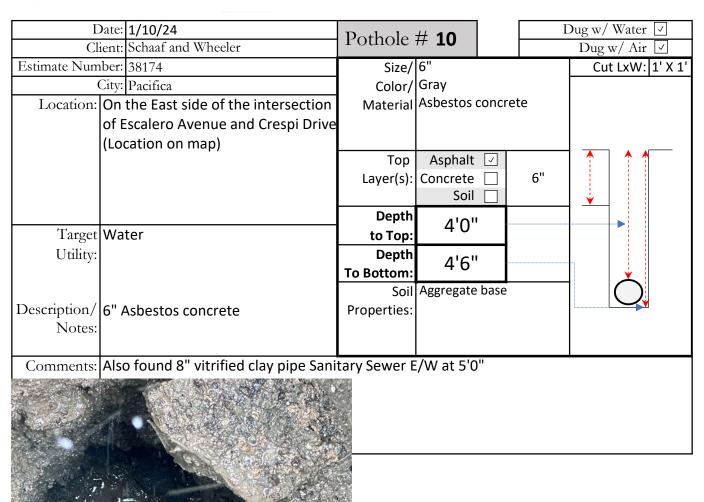






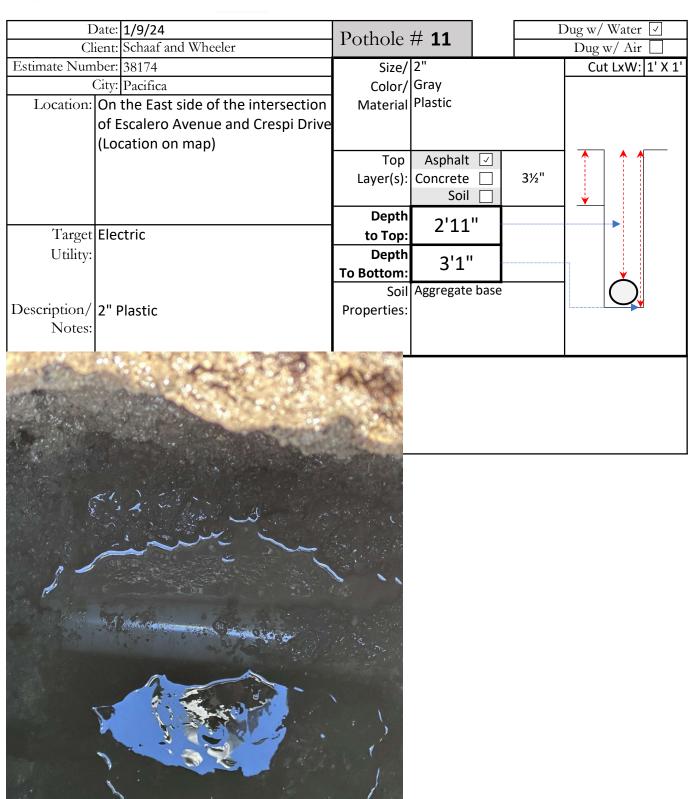


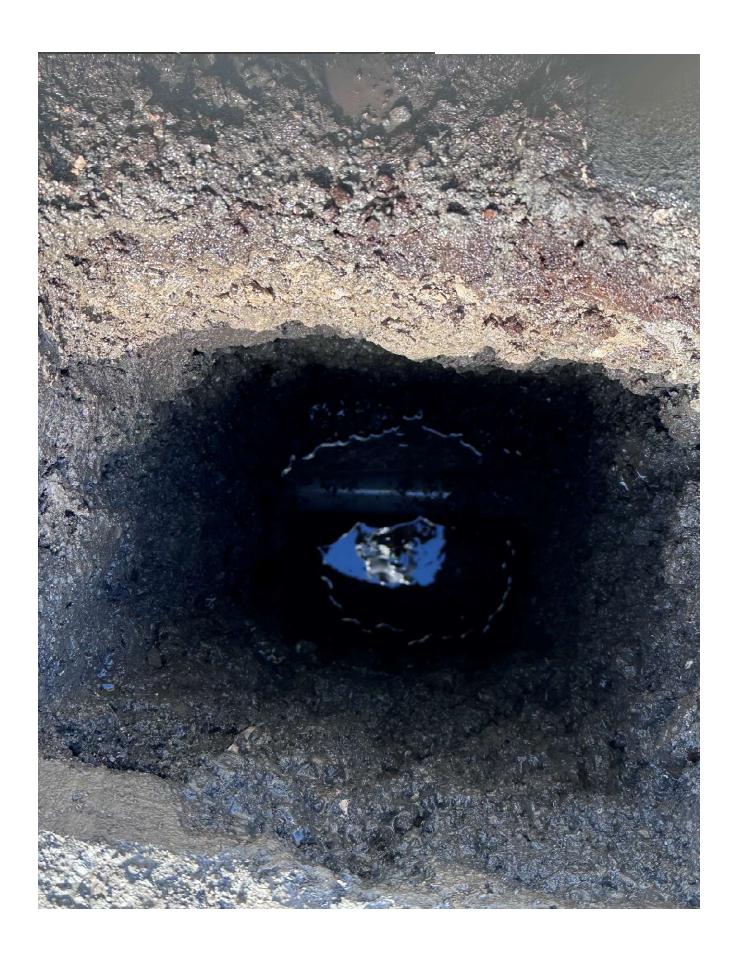


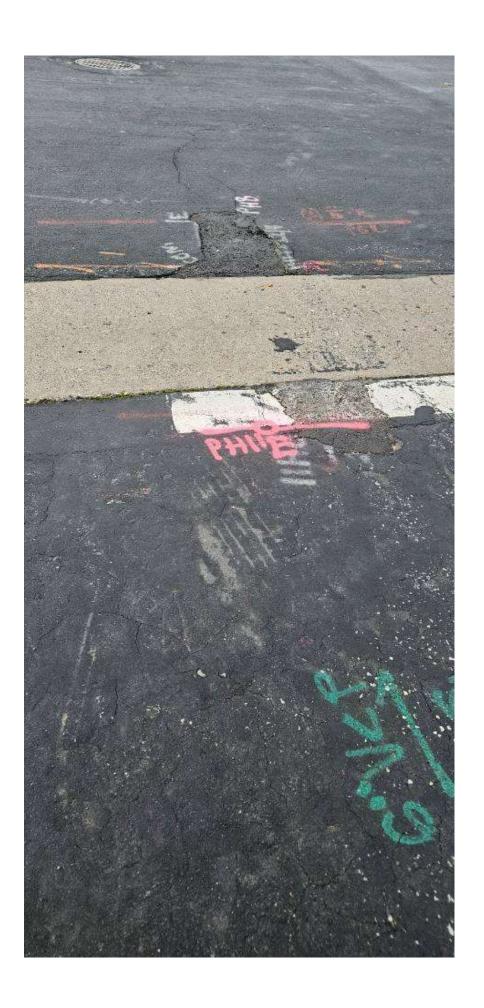




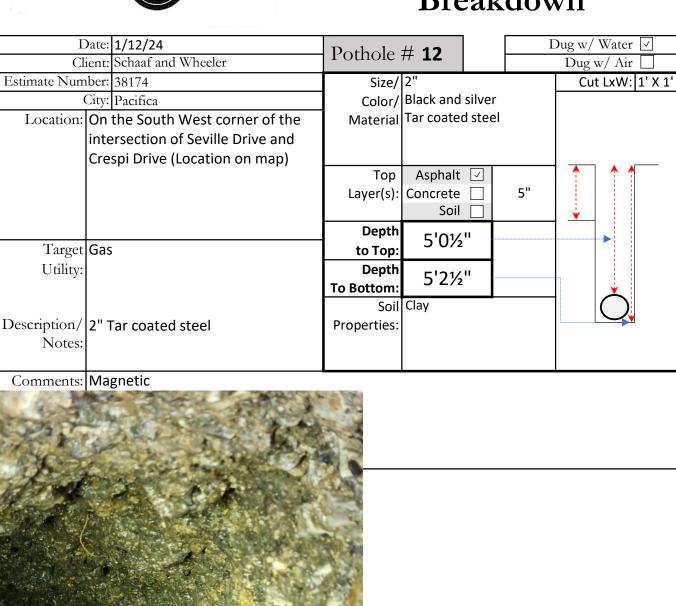


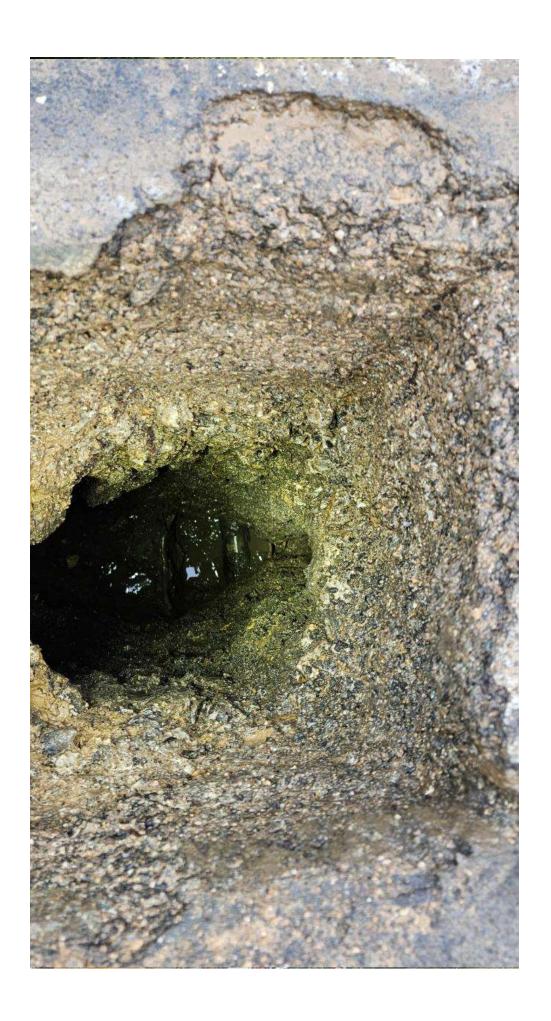






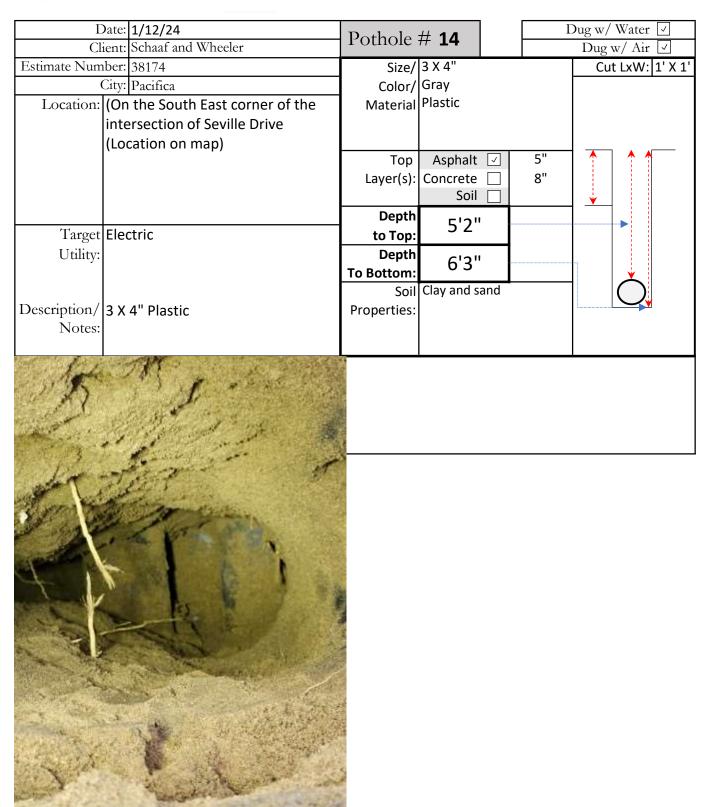


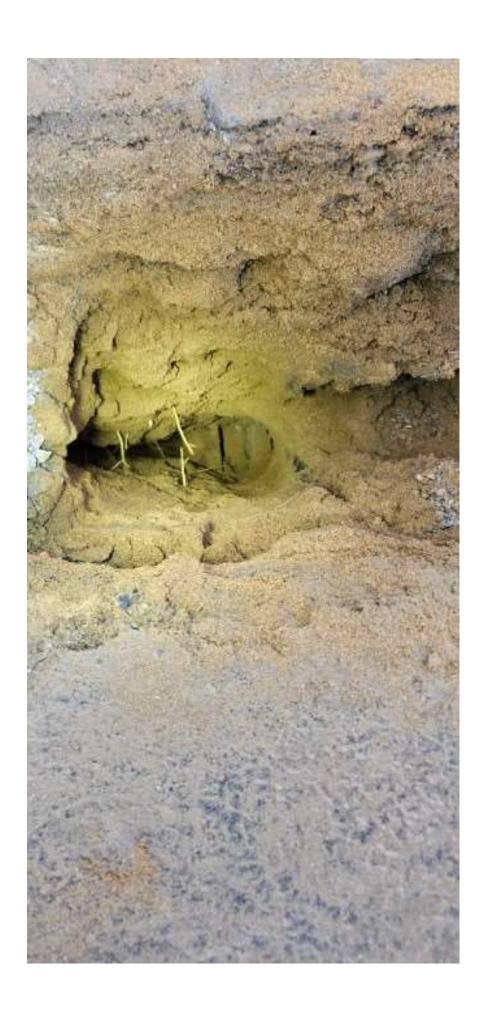








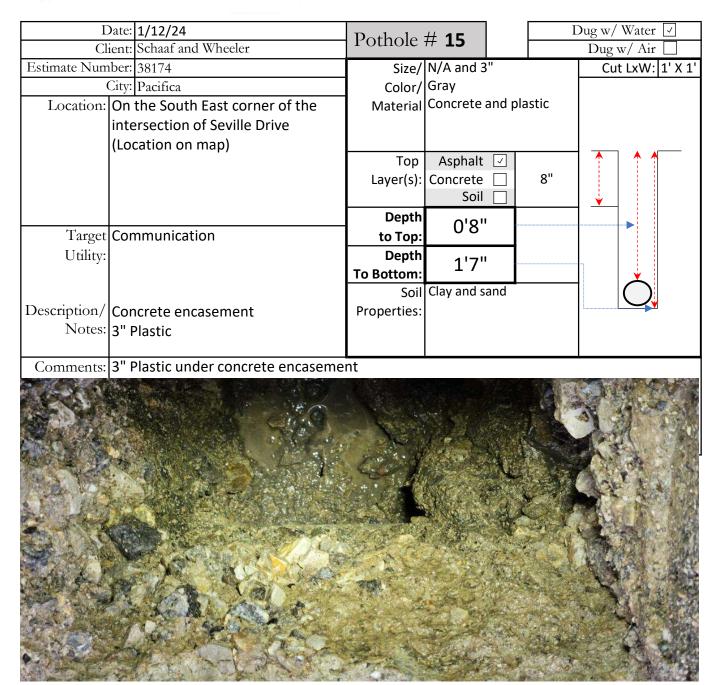








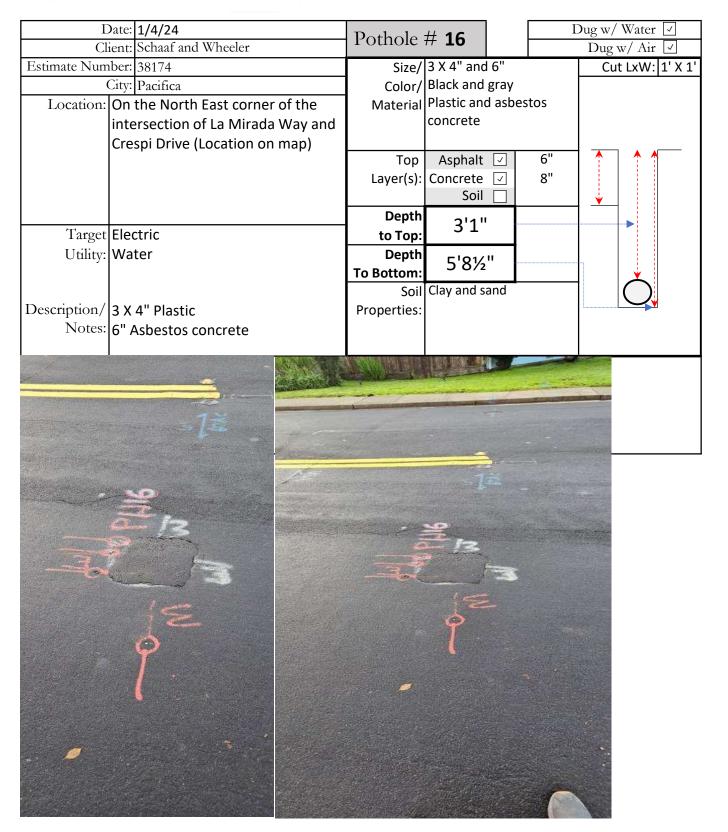




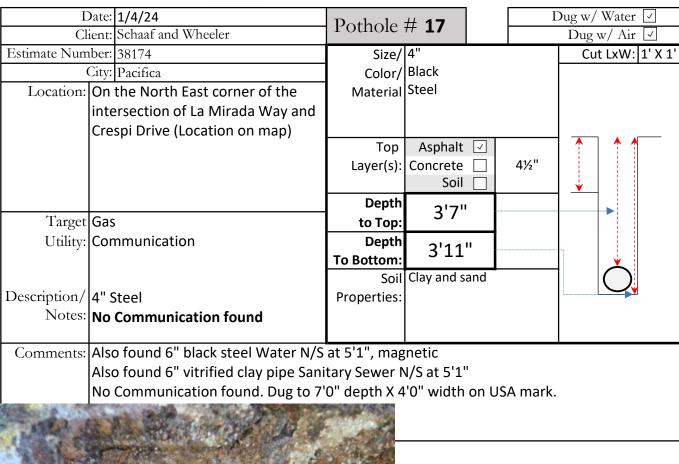




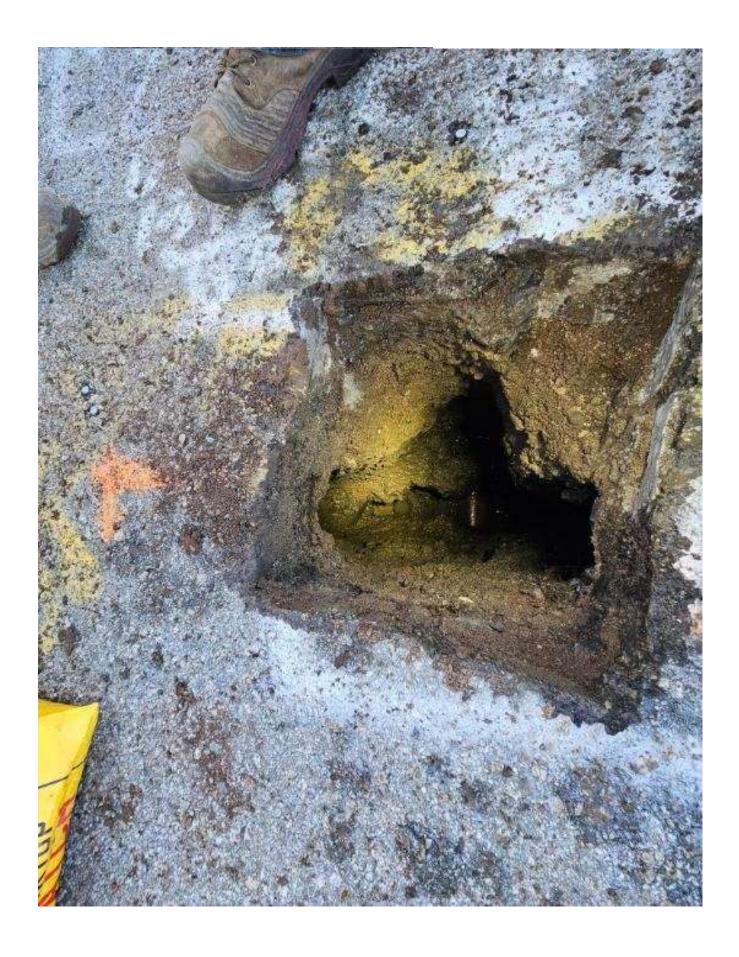


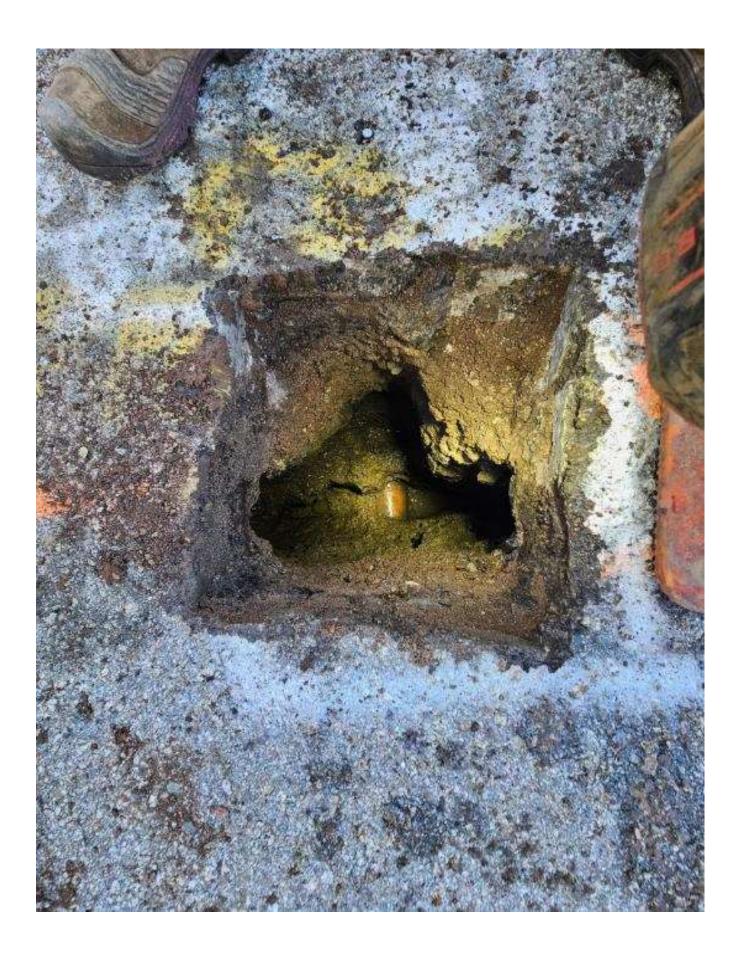


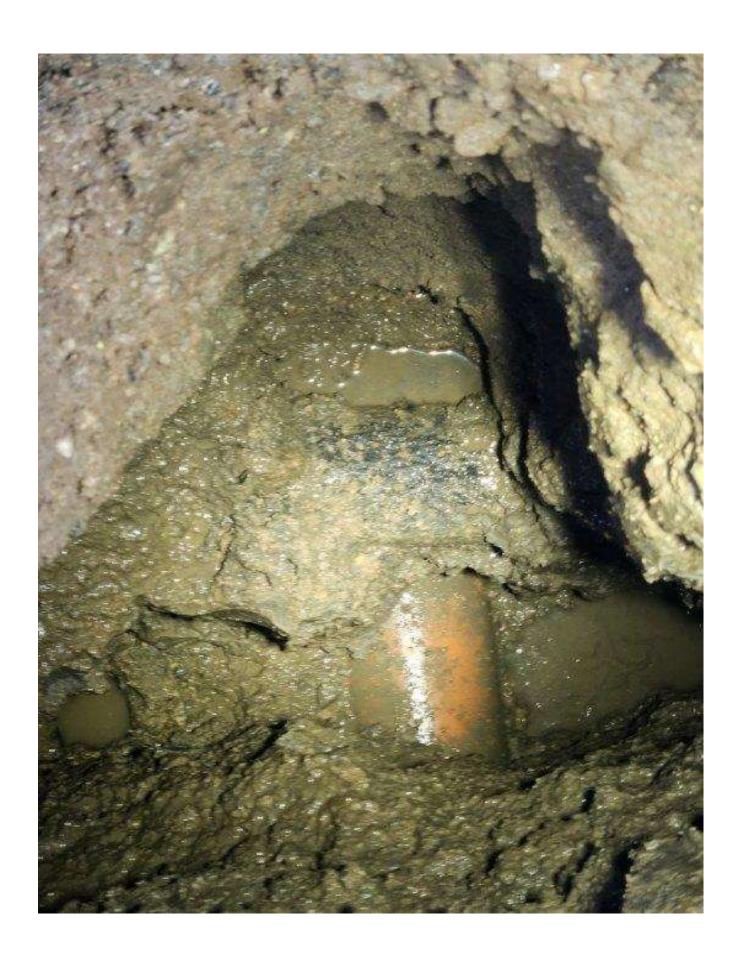






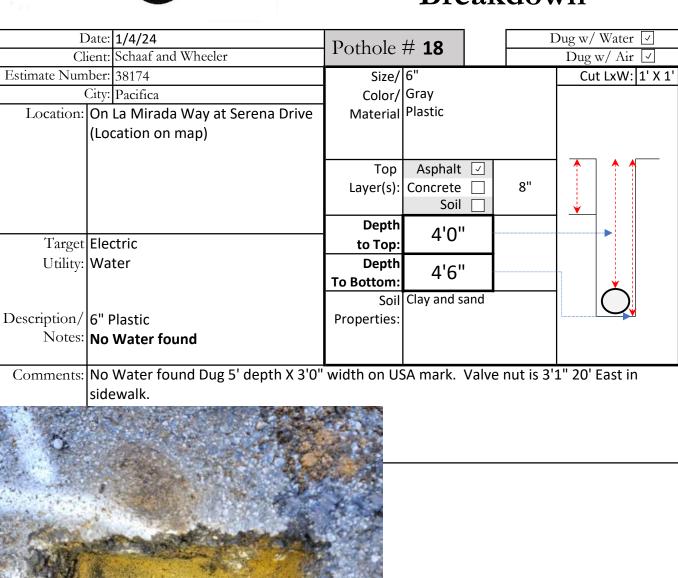


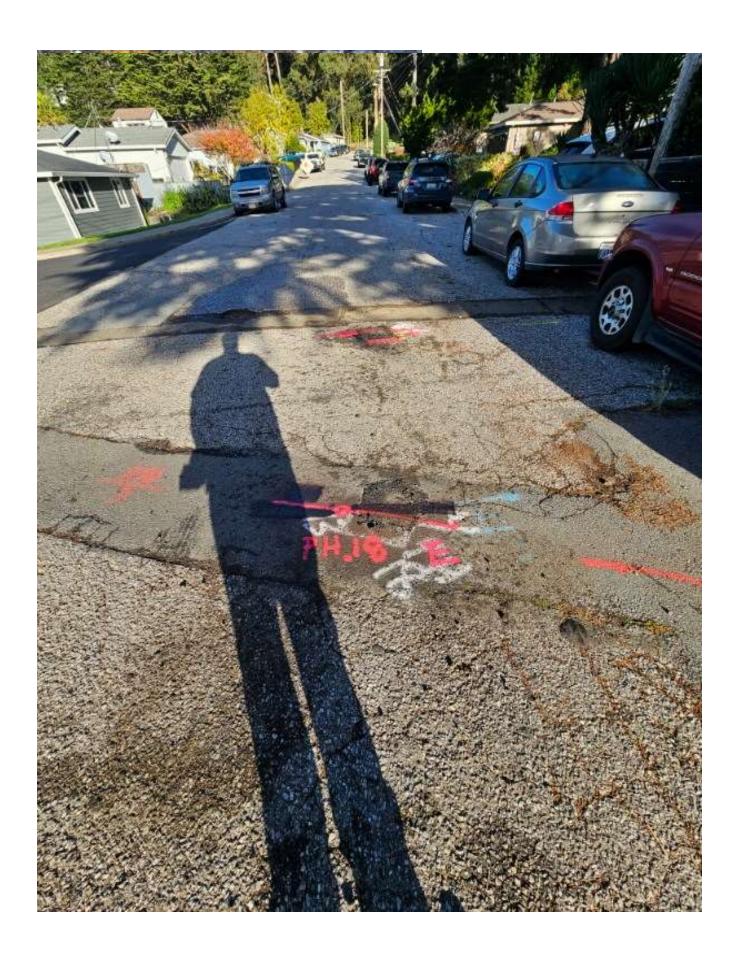


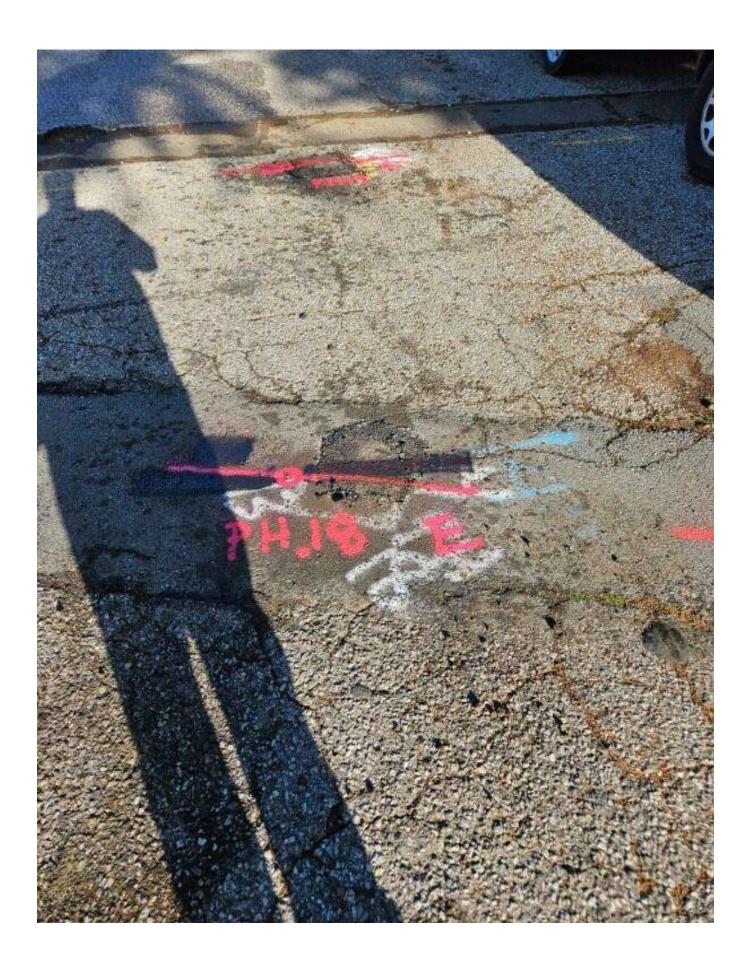




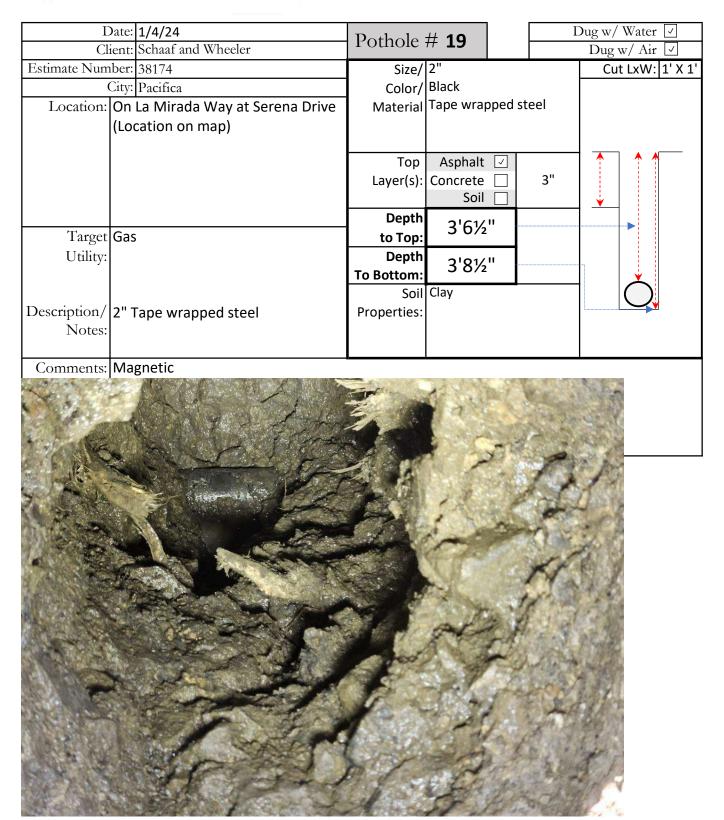






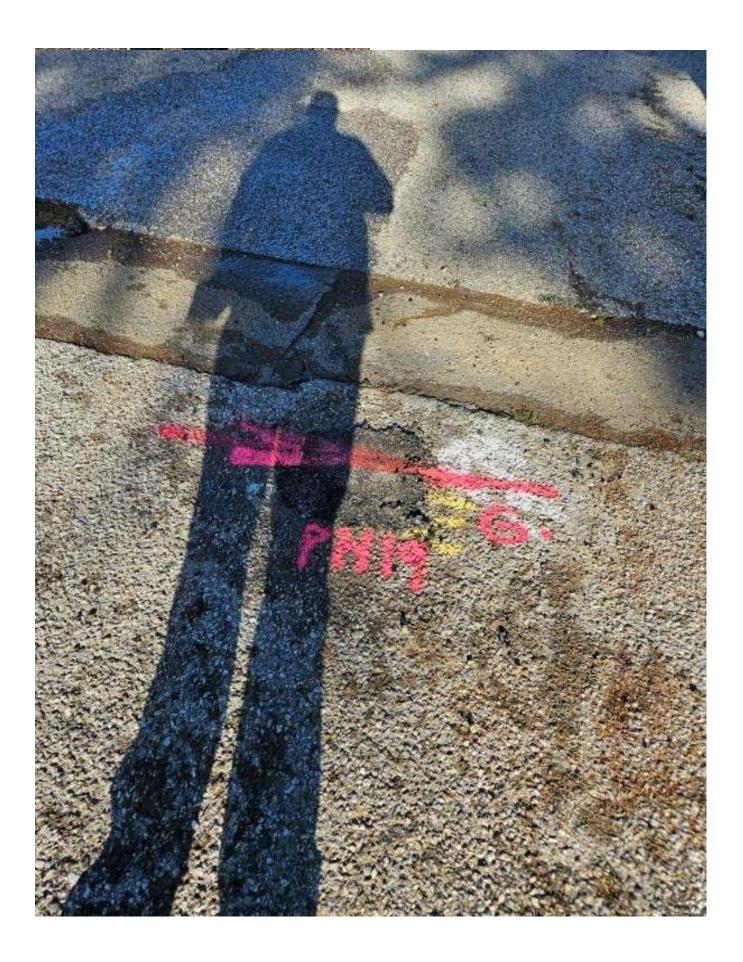














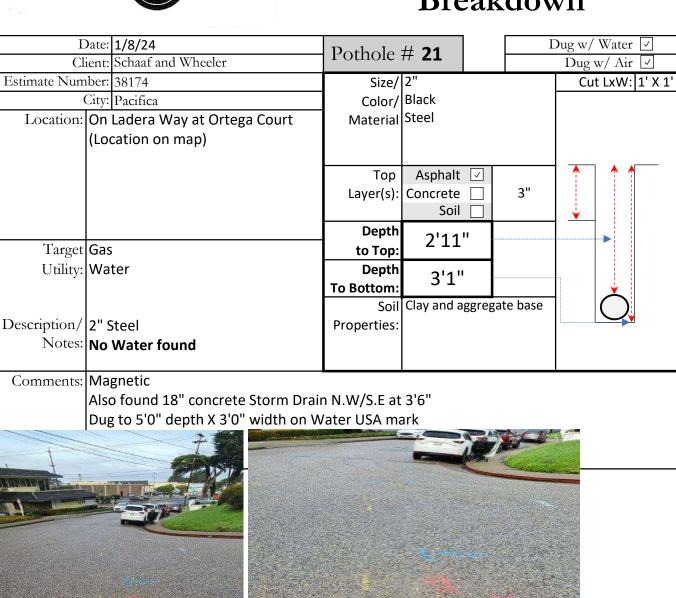
	Pate: 1/8/24	Pothole	# 20		Ι	Oug w/ W	Vater ✓	
Cli	ent: Schaaf and Wheeler	1 othole	# 20			Dug w/ Air ✓		
Estimate Number: 38174		Size/	2"			Cut I	xW: 1' X 1'	
(City: Pacifica	Color/	Black					
Location:	On La Mirada Way at Alta Vista	Material						
	Drive (Location on map)							
	- · · · · · · · · · · · · · · · · · · ·							
		Тор	Asphalt	7		<u> </u>	^ ^	
			Concrete		3"			
		20,01(0).	Soil					
		Depth				<u> </u>		
Target	Gas	•	3'3%					
	Gas	to Top:						
Utility:		Depth	45%	"				
		To Bottom:					—	
/		Soil						
Description/	2" Steel	Properties:					•	
Notes:								
Comments:	Magnetic							
	Also found 6" vitrified clay Sanitary S	Sewer N/S a	t 6'2"					
2000		PER CONTRACTOR	190					
			103					
70		and the same of th						



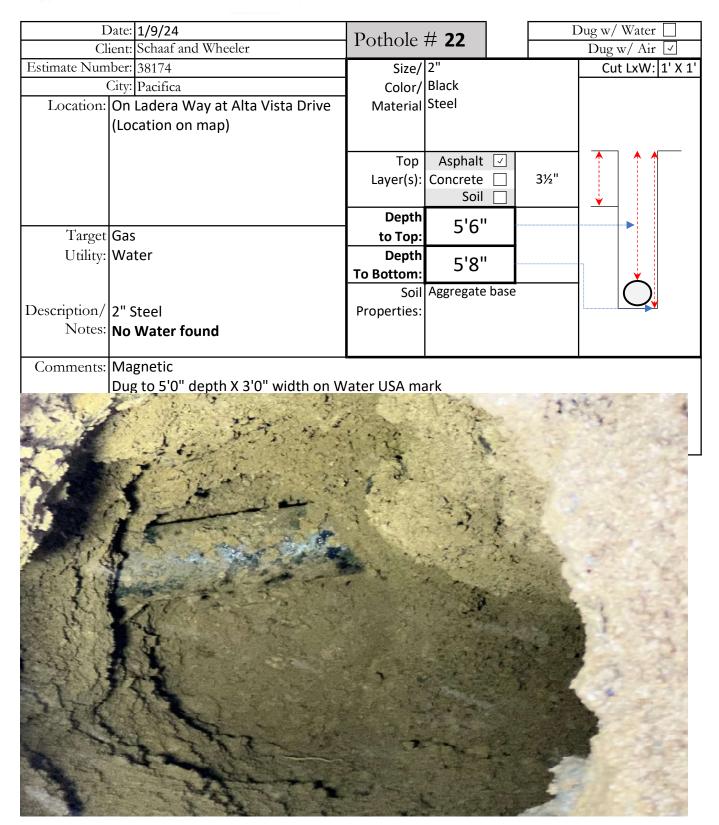






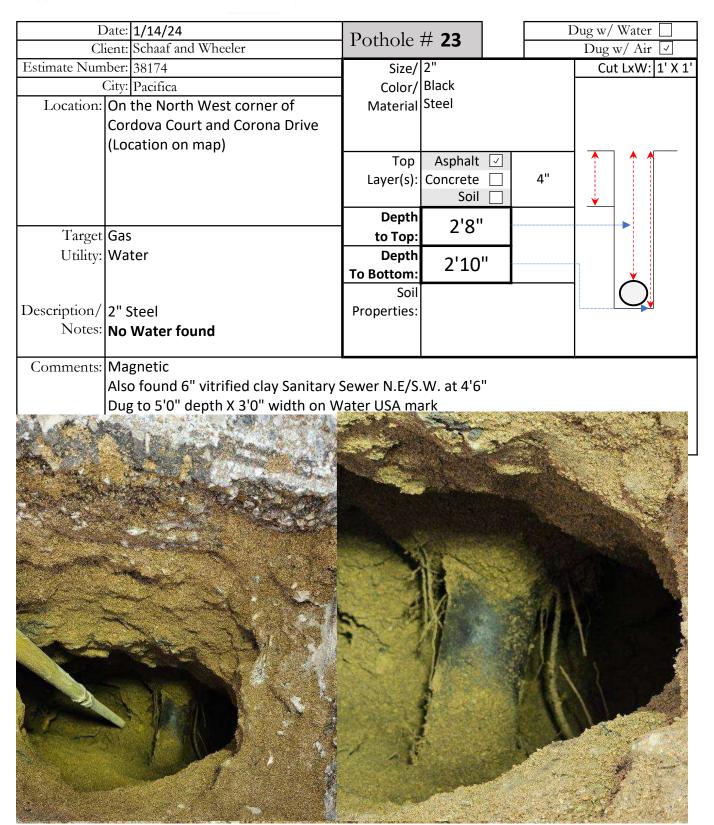


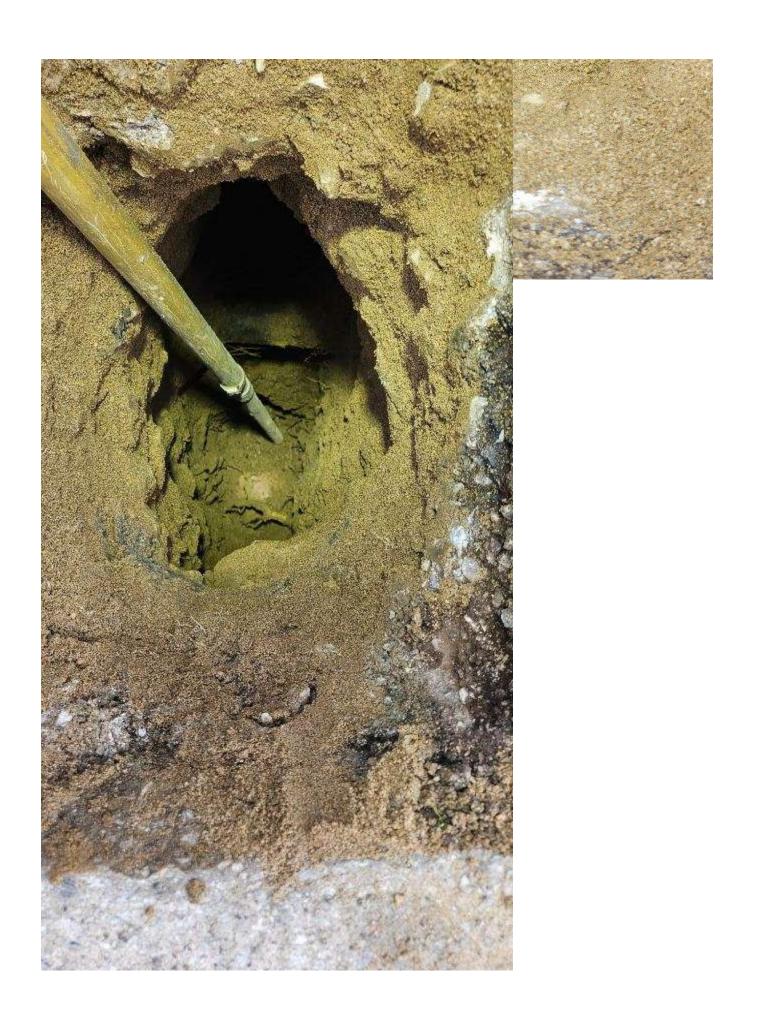


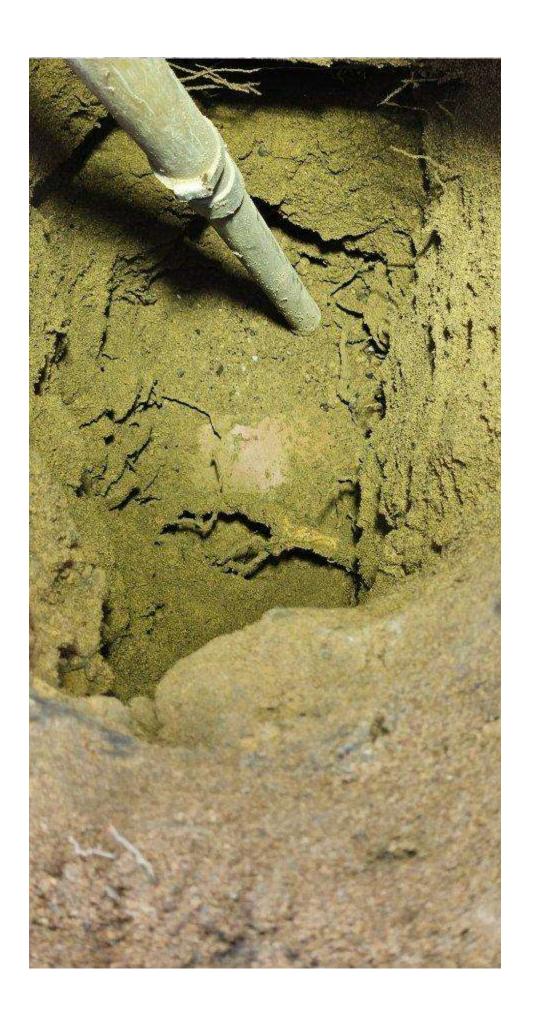


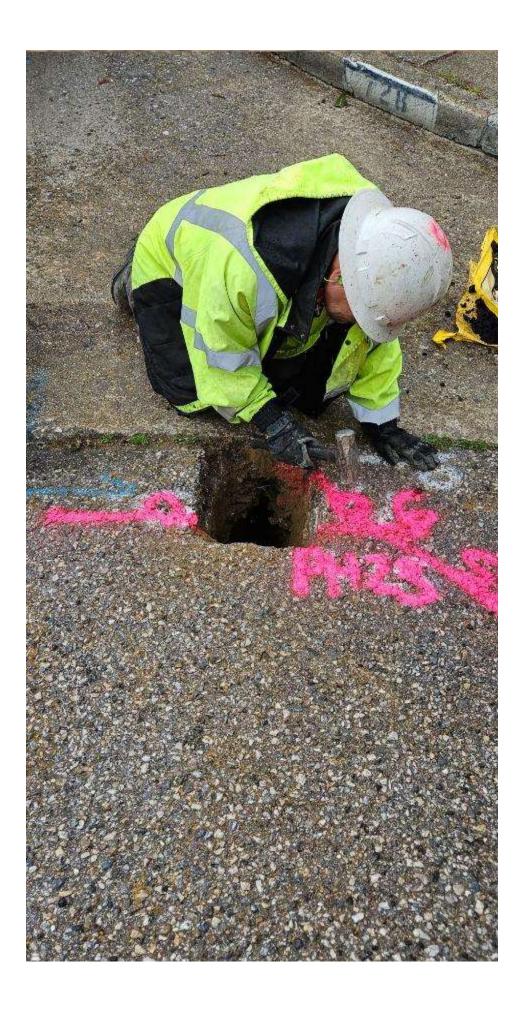






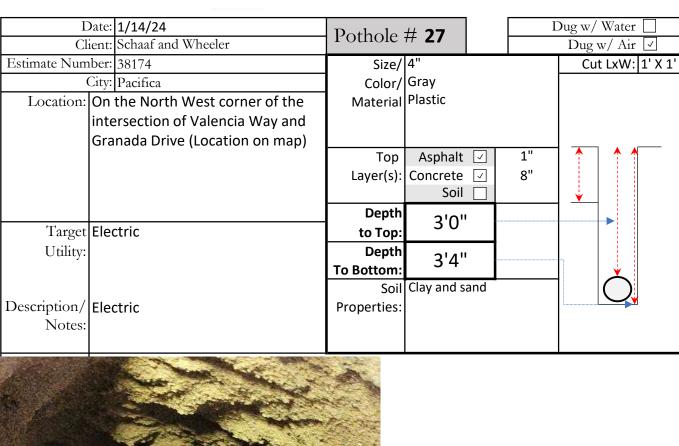




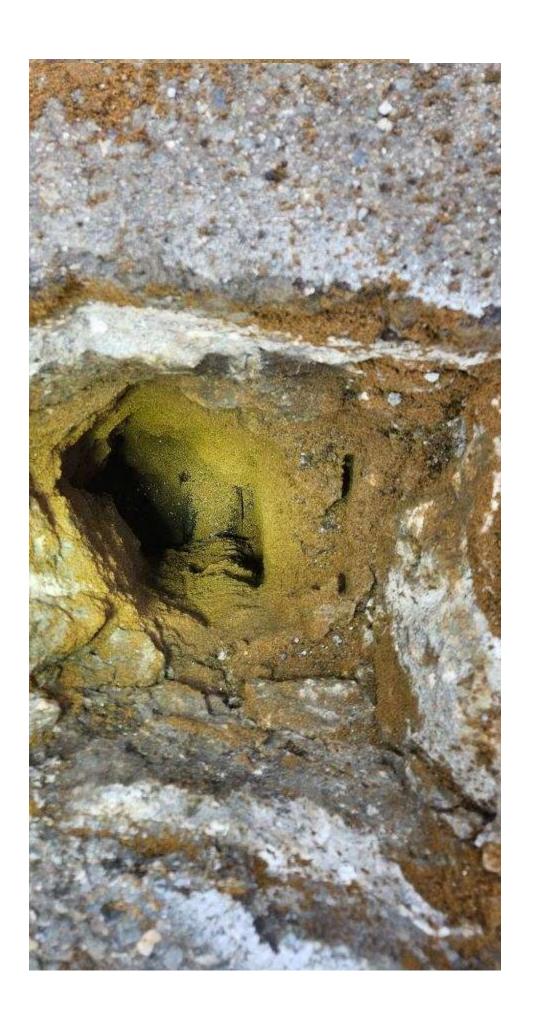








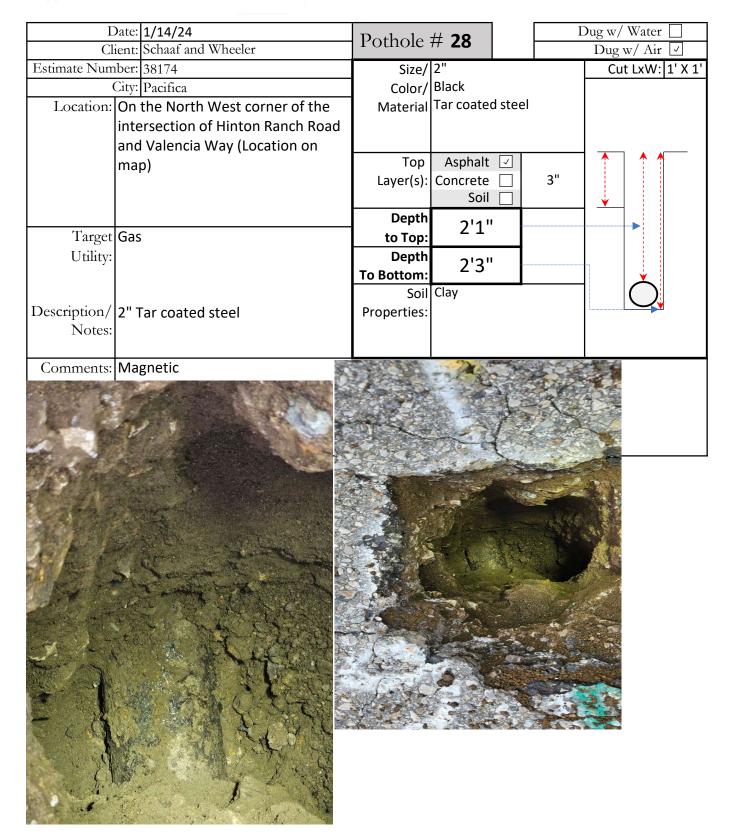








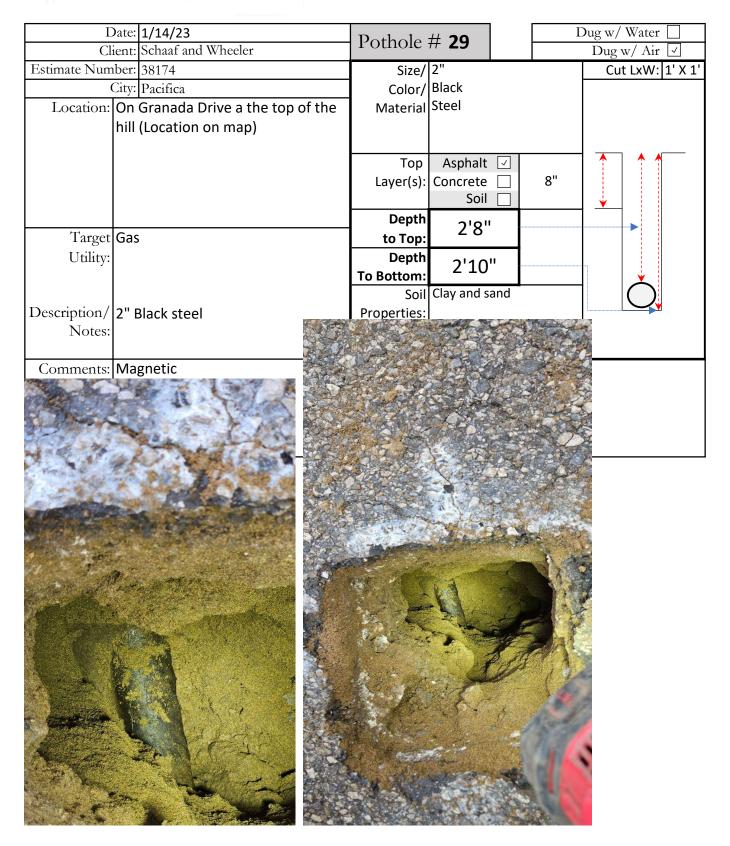








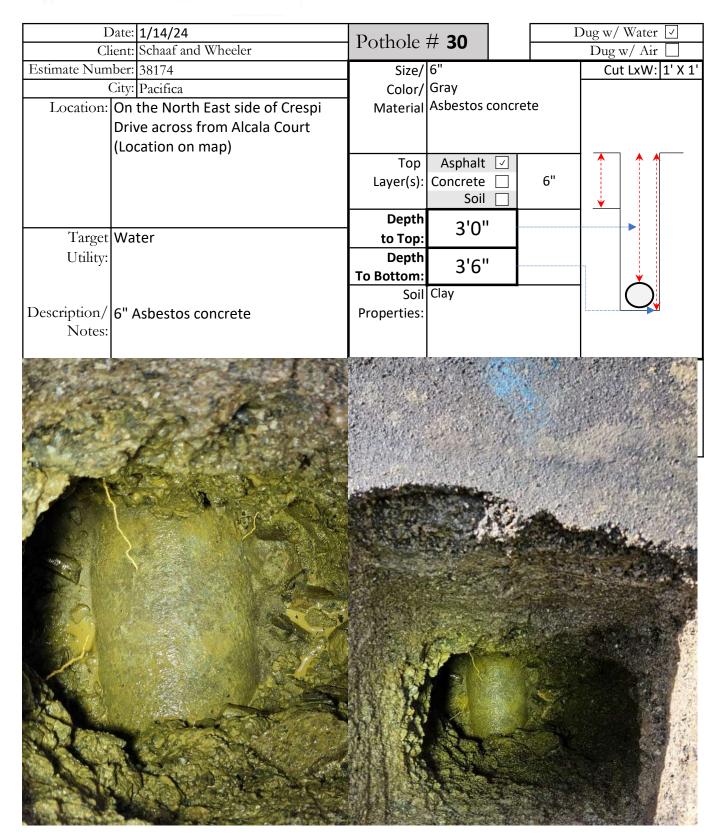


















Job Completion Summary

Crew						
Foreman:	Peter Sparks		Client Rep:	N/A		
Standby:	N/A		Inspector:	N/A		
Technicians:	Peter Sparks, Marcus Earl, Sal Zesa	ati, and	Additional:			
	Damien Lawrence					
Flaggers:	Peter Sparks and Marcus Earl					
Equipme	nt		Mate	rials Use	d	
Located with:	☐ Passive Scanning			Cold Patch	Z	
	☐ Active - Direct Connect/Clamp		Ready-N	Aix Concrete [
	V90			CDF/Slurry		
Vehicle	V22			Class II AB		
Number(s)	V100			Other	☑ Sand	
	V18					
Additional	☐ Arrow Board					
Equipment				_		

APPENDIX B: PUBLIC CONTRACT CODE ARTICLE 1.5

PUBLIC CONTRACT CODE - PCC

DIVISION 2. GENERAL PROVISIONS [1100 - 22355]

(Division 2 enacted by Stats. 1981, Ch. 306.)

PART 3. CONTRACTING BY LOCAL AGENCIES [20100 - 22185.11]

(Part 3 added by Stats. 1982, Ch. 465, Sec. 11.)

CHAPTER 1. Local Agency Public Construction Act [20100 - 20929]

(Chapter 1 added by Stats. 1982, Ch. 465, Sec. 11.)

ARTICLE 1.5. Resolution of Construction Claims [20104 - 20104.6]

(Article 1.5 added by Stats. 1994, Ch. 726, Sec. 22.)

20104.

- (a) (1) This article applies to all public works claims of three hundred seventy-five thousand dollars (\$375,000) or less which arise between a contractor and a local agency.
 - (2) This article shall not apply to any claims resulting from a contract between a contractor and a public agency when the public agency has elected to resolve any disputes pursuant to Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2.
- (b) (1) "Public work" means "public works contract" as defined in Section 1101 but does not include any work or improvement contracted for by the state or the Regents of the University of California.
 - (2) "Claim" means a separate demand by the contractor for (A) a time extension,
 - (B) payment of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public work and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to, or (C) an amount the payment of which is disputed by the local agency.
- (c) The provisions of this article or a summary thereof shall be set forth in the plans or specifications for any work which may give rise to a claim under this article.
- (d) This article applies only to contracts entered into on or after January 1, 1991. (Amended by Stats. 2010, Ch. 697, Sec. 47. (SB 189) Effective January 1, 2011. Operative July 1, 2012, by Sec. 105 of Ch. 697.)

20104.2.

For any claim subject to this article, the following requirements apply:

- (a) The claim shall 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.
- (b) (1) For claims of less than fifty thousand dollars (\$50,000), the local agency shall 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 local agency may have against the claimant.

- (2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the local agency and the claimant.
- (3) The local agency's written response to the claim, as further documented, shall be submitted to the claimant within 15 days after receipt of the further documentation or within a period of time no greater than that taken by the claimant in producing the additional information, whichever is greater.
- (c) (1) For claims of over fifty thousand dollars (\$50,000) and less than or equal to three hundred seventy-five thousand dollars (\$375,000), the local agency shall 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 local agency may have against the claimant.
 - (2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the local agency and the claimant.
 - (3) The local agency's written response to the claim, as further documented, shall be submitted to the claimant within 30 days after receipt of the further documentation, or within a period of time no greater than that taken by the claimant in producing the additional information or requested documentation, whichever is greater.
- (d) If the claimant disputes the local agency's written response, or the local agency fails to respond within the time prescribed, the claimant may so notify the local agency, in writing, either within 15 days of receipt of the local agency's response or within 15 days of the local agency'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 local agency shall schedule a meet and confer conference within 30 days for settlement of the dispute.
- (e) Following the meet and confer conference, if the claim or any portion remains in dispute, the claimant 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 shall be tolled from the time the claimant 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.
- (f) This article does not apply to tort claims and nothing in this article is intended nor shall 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. (Added by Stats. 1994, Ch. 726, Sec. 22. Effective September 22, 1994.)

20104.4.

The following procedures are established for all civil actions filed to resolve claims subject to this article:

- (a) Within 60 days, but no earlier than 30 days, following the filing or responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by mutual stipulation of both parties. The mediation process shall provide for the selection within 15 days by both parties of a disinterested third person as mediator, shall be commenced within 30 days of the submittal, and shall 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.
- (b) (1) If the matter remains in dispute, the case shall 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 (Title 4 (commencing with Section 2016.010) of Part 4 of the Code of Civil Procedure) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration.
 - (2) Notwithstanding any other provision of law, upon stipulation of the parties, arbitrators appointed for purposes of this article shall be experienced in construction law, and, upon stipulation of the parties, mediators and arbitrators shall be paid necessary and reasonable hourly rates of pay not to exceed their customary rate, and such fees and expenses shall 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 shall these fees or expenses be paid by state or county funds.
 - (3) 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 shall, 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.
- (c) The court may, upon request by any party, order any witnesses to participate in the mediation or arbitration process.

(Amended by Stats. 2004, Ch. 182, Sec. 54. Effective January 1, 2005. Operative July 1, 2005, by Sec. 64 of Ch. 182.)

20104.6.

- (a) No local agency shall fail to pay money as to any portion of a claim which is undisputed except as otherwise provided in the contract.
- (b) In any suit filed under Section 20104.4, the local agency shall pay interest at the legal rate on any arbitration award or judgment. The interest shall begin to accrue on the date the suit is filed in a court of law. (Added by Stats. 1994, Ch. 726, Sec. 22. Effective September 22, 1994.)

APPENDIX C: CITY OF PACIFICA, UTILITY PAVEMENT CUT FEES



Utility Pavement Cut Fees

Background:

Beginning August 12, 2022 the City of Pacifica will be imposing Utility Pavement Cut Fees on encroachment permits who make cuts into City roads. In 2021, the City undertook a study that empirically showed negative impacts of cutting into the City roads, quantified those impacts in present day dollars, and subsequently City Council passed Resolution 28-2022 to codify assessing fees into the Municipal Code § 7-2.214. These fees go directly into the City's annual repaving and resurfacing project, to learn more about that program, please visit the City Streets Maintenance Program site.

Exceptions

If your project falls under the following exceptions, you may be exempt or qualify for reduced cut fee:

- Sewer Lateral Grant Program: If you are in the Sewer Lateral Grant Program, please submit your letter of acceptance with the encroachment to be eligible for the fee to be reduced to a flat rate of \$500.
- 2. Accessory Dwelling Units (ADU): Utility Pavement Cut Fee shall not be charged for any pavement cuts required for an ADU that is under 750 square feet or an ADU of any size when the ADU is being constructed at the same time, under the same permit, as a new main residential unit or an expansion of the main unit that make payment of the fees as required.
- 3. Partial or Full Credit Utility Cut Fees for Developments with Pavement Improvements: A credit may be applied against the Utility Cut Fees for completing frontage roadway paving.

How to Estimate:

Below is a table of some common trench sizes with adjoining fees if the site is on a residential road, the cut is less than 10% of the block, and the pavement age is older than 10 years (majority of cases). This will allow you to roughly estimate the fee but all site's needs are different and may not match perfectly.

Туре	Length (ft)	Width (ft)	Fee	
Pothole	1	1	\$ 250	
Sewer Lateral	4	4	\$ 640	
Large Sewer Lateral	5	5	\$ 810	
Utility Install	15	2	\$ 1,140	
Far Utility Install	25	2	\$ 1,740	
Joint Trench	20	5	\$ 2,160	

Below will lay out how you can estimate the Utility Pavement Cut Fee yourself, however if you wish you may email engineering@pacifica.gov with the address of work and estimated length and width of the pavement cut and we will provide you with an estimate. Please note that fees and pavement age change annually, thus this is to help estimate, actual fees may be different.

Basic Steps

- 1. Find out what the unit cost will be for the road. To do this you need to:
 - a. Find out if the road being cut is classified as an arterial/collector or residential road.
 - b. Find out the age of the pavement on the road.
 - c. Estimate whether the cut will be over or under 10% of the area of the block.
 - d. Use table to find correct unit cost.
- 2. Find out the estimated length and width of your cut and estimate if it is under or over 10% of the block's area.
- 3. Use the below formulas based on answer to number 2 with information from 1 & 2.
 - a. If under 10% (typical), use the following formula:

$$Cut\ Fee\ (\$) = \frac{(Length\ of\ Cut\ (ft) + 4\ ft) \times (Width\ of\ Cut\ (ft) + 4ft)}{0.10} \times Unit\ Cost$$

b. If over 10% (atypical), use the following formula:

$$Cut\ Fee\ (\$) = Full\ block\ area\ (Sq.Ft.) * Unit\ Cost$$

Detailed Steps

- 1. Find out what the unit cost will be for the road
 - a. If the cut is on the list of following roads, it is an arterial/collector, if not, it is a residential road.
 - i. Adobe Drive
 - ii. Crespi Drive
 - iii. Fassler Avenue
 - iv. Francisco Boulevard
 - v. Gateway Drive
 - vi. Hickey Boulevard
 - vii. Inverness Drive
 - viii. Lerida Way
 - ix. Linda Mar Boulevard
 - x. Lundy Way
 - xi. Manor Drive
 - xii. Manzanita Drive
 - xiii. Monterey Road
 - xiv. Oceana Boulevard
 - xv. Oddstad Boulevard
 - xvi. Palmetto Avenue
 - xvii. Peralta Road
 - xviii. Reina Del Mar Avenue
 - xix. Roberts Road
 - xx. Rockaway Beach Avenue
 - xxi. Rosita Road
 - xxii. Sharp Park Road
 - xxiii. Terra Nova Boulevard

b. If the address is on the following segments of road, it is under 10 years old, if not then over 10 years old.

RoadName	BegLocation	EndLocation	Age of Pavement
Acacia Court	REDWOOD WAY	CUL DE SAC	1
Adobe Drive	ROSITA RD	LINDA MAR BLVD	1
Alta Vista Drive	CUL DE SAC (WEST)	LADERA WY	1
Alta Vista Drive	LADERA WY	ESCALERO AVE	1
Alta Vista Drive	ESCALERO AVE	LA MIRADA WAY	1
Andorra Court	CRESPI DR	CUL DE SAC	1
Anza Drive	ARGUELLO BLVD	DE SOLO DR	1
Arguello Boulevard	ANZA DR	DE SOLO DR	1
Arguello Boulevard	DE SOLO DR	PERALTA RD	1
Arguello Boulevard	PERALTA RD	LINDA MAR BLVD	1
Cadiz Court	ESCALERO AVE	CUL DE SAC	1
Cervantes Way	ARGUELLO BLVD	ANZA DR	1
Chico Court	ESCALERO AVE	CUL DE SAC	1
Crespi Drive	LADERA WAY	DE SOLO DR	1
Crespi Drive	DE SOLO DR	PERALTA RD	1
Crespi Drive	PERALTA RD	SEVILLE DR	1
Crespi Drive	SEVILLE DR	LA MIRADA WAY	1
Crespi Drive	LA MIRADA WAY	TAPIS WAY	1
Crespi Drive	MANZANITA DR	LERIDA WAY	1
Crespi Drive	LERIDA WAY	FASSLER AVE	1
Dell Road	PERALTA RD	STANDISH RD	1
De Solo Drive	MONTEZUMA DR (EAST INT.)	LINDA MAR BLVD	1
De Solo Drive	LINDA MAR BLVD	CRESPI DR	1
De Solo Drive	MONTEZUMA DR (NORTH)	MONTEZUMA DR (SOUTH)	1
Driftwood Circle	FASSLER AVE	FASSLER AVE	1
Driftwood Court	DRIFTWOOD CIRCLE	CUL DE SAC	1
Elm Court	LERIDA WAY	CUL DE SAC	1
Encanto Way	ARGUELLO BLVD	FERNANDEZ WAY	1
Escalero Avenue	MARVILLA CIR (EDGE COBBLESTONE	PERALTA RD	1
Estella Drive	FASSLER AVE	DEAD END	1
Everglades Drive	TERRA NOVA BLVD	PICARDO CT	1
Everglades Drive	PICARDO CT	PARK PACIFICA AVE	1
Everglades Drive	PARK PACIFICA AVE	ODDSTAD BLVD	1
Fassler Avenue	Driftwood Cir	Crespi Dr	1
Fassler Avenue	TERRA NOVA BLVD	DEAD END	1
Fernandez Way	ARGUELLO BLVD	DE SOLO DR	1

Flores Drive	MONTEZUMA DR WEST	MONTEZUMA DR	1
	INTERSCTION	EAST	
		INTERSECTION	
Kendall Court	EVERGLADES DR	CUL DE SAC	1
Lerida Way	TERRA NOVA BLVD	REDWOOD WAY	1
Lerida Way	REDWOOD WAY	1670 ft N/O Spruce Ct	1
Lerida Way	1670 ft N/O Spruce Ct	CRESPI DR	1
Linda Mar Boulevard	PERALTA RD	ADOBE DR	1
Marvilla Place	ARGUELLO DR	MARVILLA CIR	1
Marvilla Circle	MARVILLA PLACE	END OF LOOP	1
Mason Drive	TERRA NOVA AVE	240 ft E/O Victoria Way	1
Mason Drive	240 ft E/O Victoria Way (COP)	DEAD END EAST OF VEGA CT	1
Miranda Court	TERRA NOVA BLVD	CUL DE SAC	1
Montezuma Drive	DE SOLO DR	PERALTA AVE	1
Navarre Drive	DE SOLO DR (WEST)	DE SOLO DR (EAST)	1
Noriega Way	FLORES DR	FLORES DR	1
Oviedo Court	SEVILLE DR	CUL DE SAC	1
Peralta Road	SAN PEDRO TERRACE	LINDA MAR BLVD	1
Picardo Court	EVERGLADES DR	CUL DE SAC	1
Poplar Avenue	LERIDA WAY	DEAD END	1
Redwood Way	BANYAN WAY	LERIDA WAY	1
Redwood Way	BANYAN WAY	LERIDA WAY	1
Redwood Way	LERIDA WAY	CUL DE SAC	1
Serena Drive	LADERA WAY	ESCALERO AVE	1
Serena Drive	ESCALERO AVE	LA MIRADA WAY	1
Seville Drive	LINDA MAR BLVD	OVIEDO CT	1
Seville Drive	OVIEDO CT	CRESPI DR	1
Spruce Court	LERIDA WAY	CUL DE SAC	1
Standish Court	STANDISH RD	CUL DE SAC	1
Standish Drive	PERALTA RD	STANDISH CT	1
Vega Court	MASON DR	CUL DE SAC	1
Victoria Way	TERRA NOVA BLVD	MASON DR	1
Escalero Avenue	PERALTA RD	CRESPI DR	2
Escalero Avenue	CRESPI DR	CORONA DR	2
Escalero Avenue	CORONA DR	CORONA DR	2
Monterey Road	OCEANA BLVD	HICKEY BLVD	2
Oddstad Boulevard	PARK PACIFICA	MUIR WAY	2
Oddstad Boulevard	MUIR WAY	BIG BEND DR	2
Oddstad Boulevard	BIG BEND DR	1116 ODDSTAD BLVD.	2

Oddstad Boulevard	1116 ODDSTAD BLVD	ST LAWRENCE DR	2
Oddstad Boulevard	ST LAWRENCE DR	CAPE BRETON DR	2
Oddstad Boulevard	CAPE BRETON DR	CUL DE SAC	2
Peralta Road	LINDA MAR BLVD	CRESPI DR	2
Terra Nova Boulevard	ODDSTAD BLVD	ASPEN DR	2
Terra Nova Boulevard	ASPEN DR	ALICANTE DR	2
Terra Nova Boulevard	ALICANTE DR	LERIDA WAY	2
Terra Nova Boulevard	LERIDA WAY	430FT NORTH OF EVERGLADES DR	2
Terra Nova Boulevard	430 FT N. OF EVERGLADES DR	VICTORIA WAY	2
Terra Nova Boulevard	VICTORIA WAY	FASSLER AVE	2
Linda Mar Boulevard	ADOBE DR	SOLANO DR	3
Linda Mar Boulevard	SOLANO DR	ALICANTE DR	3
Linda Mar Boulevard	ALICANTE DR	MADEIRA DR	3
Linda Mar Boulevard	MADEIRA DR	ODDSTAD BL	3
Oceana Boulevard	MILAGRA DR	AVALON DR	3
Oceana Boulevard	AVALON DR	MANOR DR	3
Palmetto Avenue	CLARENDON RD	MONTECITO AVE	4
Palmetto Avenue	MONTECITO AVE	PALOMA AVE	4
Linda Mar Boulevard	ST HWY 101	DE SOLO DR	8
Linda Mar Boulevard	DE SOLO DR	PERALTA RD	8
Linda Mar Boulevard	PERALTA RD	ADOBE DR	8

- c. Estimate whether the cut will be over or under 10% of the area of the road.
- d. Use information from a, b, & c to find the correct unit cost below.

a. Classification	h Ago Group	c. Unit Cost		
a. Classification	b. Age Group	<10% of Section Area	≥10% of Section Area	
Arterials/Collectors	<10 years	\$2.50	\$4.00	
	≥10 years	\$1.50	\$2.50	
Desidential	<10 years	\$1.50	\$3.00	
Residential	≥10 years	\$1.00	\$2.50	

2. Find out the estimated length and width of your cut

- Trenchless sewer laterals are typically around 4' x 4'.
- Utility trench standards are often dictated by Utility company
- Size will be checked upon final of permit; any large discrepancies will need to be rectified at that time which may cause the fee to increase.

- 3. Figure out if the cut will be over 10% of the block or under.
 - a. If under 10% (typical), use the following formula to estimate the fee:

$$\textit{Cut Fee} \ (\$) = \frac{(\textit{Length of Cut} \ (ft) + 4 \ ft) \times (\textit{Width of Cut} \ (ft) + 4 ft)}{0.10} \times \textit{Unit Cost}$$

Example (common): Sewer lateral replacement on Carmel Ave.

- 1. Unit cost is \$1 because it is on a residential road, pavement age is over 10 years old, and cut is <10% of section area.
- 2. 4' x 4' trench is estimated being less than 10% of block area.
- 3. Use formula a from above: Cut Fee (\$)=((8x8)/(0.10))*1=\$640.
- b. If over 10% (atypical), use the following formula to estimate the fee:

$$Cut Fee (\$) = Full block area(Sq.Ft.) * Unit Cost$$

Example (Very Strict Scenario): Large Utility cut on Crespi Drive between Ladera & De Solo.

- 1. Unit Cost is \$4 because it is on an arterial road, pavement age is less than 10 years, and cut is >10% of section area.
- 2. 300' by 4' estimated size of trench, this is over 10% of section
- 3. Use formula b from above: Cut Fee (\$)= 20500 (sq ft)*4=\$82,000

APPENDIX D:

SITE INFORMATION REPORT (EASEMENT LOCATIONS)

Contents

803 Crespi Drive	
790 Serena Drive	D-7
716 Corona Dr	D-11

This site information report provides information regarding the existing conditions for the contractor to base their bid on. The report is provided for locations where the Contractor may not be able to access prior to bid. Surface conditions shall be restored to pre-construction conditions as detailed in this report, Contract Plans, and Specification. Contractor shall base their bid on the photos of the existing conditions identified in this report and special features described herein and on the Contract Plans. The Contractor is responsible for visiting all locations of the project outside of easement locations.

All locations have restrictive access, typically through approximate 3' wide gates to access the backyard. Only foot traffic and handheld equipment are permitted in backyard easement locations.

Note: All existing and proposed elements are approximate and schematic in nature.

803 Crespi Drive

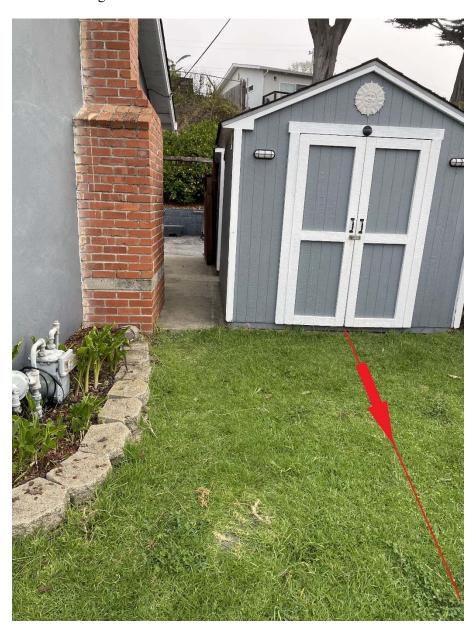
Manhole LLF6 looking South. Impacts to the existing patio shall be minimized to the extent feasible. Contractor shall replace all existing site improvements and landscaping in-kind that are damaged or removed during construction.



View looking north standing at manhole, approximate sewer alignment in red. Impacts to the existing patio and retaining wall shall be minimized to the extent feasible. The contractor shall replace all existing site improvements and landscaping in-kind that are damaged or removed during construction.



View looking northeast toward manhole LLF6 (on other side of shed), approximate sewer alignment in red. Impacts to the existing patio shed, and lawn shall be minimized to the extent feasible. The contractor shall replace all existing site improvements and landscaping in-kind that are damaged or removed during construction.



View looking south near shed, approximate sewer alignment in red. Impacts to the existing fence and lawn shall be minimized to the extent feasible. The contractor shall replace all existing site improvements and landscaping in-kind that are damaged or removed during construction.



790 Serena Drive

Looking South, down to 803 Crespi Drive, from 790 Serena Drive. Approximate alignment of sewer shown in red and a red circle indicates approximate location of manhole LLF6. Impacts to the existing fences, landscaping, and patios shall be minimized to the extent feasible. The contractor shall replace all existing site improvements and landscaping in-kind that are damaged or removed during construction.



Looking North to Manhole LLF5, indicated with a red circle, and approximate sewer alignment indicated in red. Impacts to the existing fences, landscaping and planters shall be minimized to the extent feasible. The contractor shall replace all existing site improvements and landscaping in-kind that are damaged or removed during construction.



Looking East at Manhole LLF5. Impacts to the existing fences and landscaping shall be minimized to the extent feasible. The contractor shall replace all existing site improvements and landscaping in-kind that are damaged or removed during construction.



Looking southeast at the front yard of 790 Serena Drive, with approximate sewer alignment shown in red. Impacts to the existing fences and landscaping shall be minimized to the extent feasible. The contractor shall replace all existing site improvements and landscaping in-kind that are damaged or removed during construction.

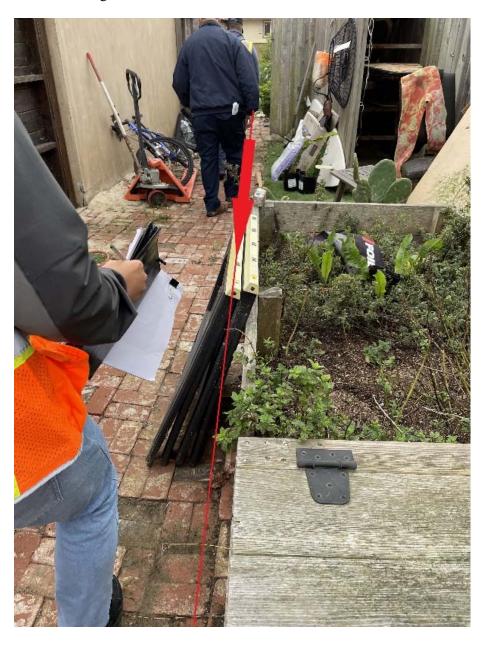


716 Corona Dr

Looking towards northwest, approximate sewer alignment shown in red. Impacts to the existing pavers and fence shall be minimized to the extent feasible. The contractor shall replace all existing site improvements and landscaping in-kind that are damaged or removed during construction.



Looking southeast towards manhole LLG4 from side yard. Approximate sewer alignment shown in red. Impacts to the existing brick pavers, landscaping and fence shall be minimized to the extent feasible. The contractor shall replace all existing site improvements and landscaping in-kind that are damaged or removed during construction.



Looking northwest towards manhole LLG5 from side yard. Approximate sewer alignment shown in red, manhole LLG5 shown with a red circle. Impacts to the existing landscaping and trees shall be minimized to the extent feasible. The contractor shall replace all existing site improvements and landscaping in-kind that are damaged or removed during construction.

