

CITY OF MANHATTAN BEACH

BID DOCUMENTS

PROJECT NO. SD 281

BID NO. EXXX-XXC

28TH STREET STORMWATER INFILTRATION PROJECT

**Manhattan Avenue from 28th Street to 26th Street,
26th Street Parking Facility (near 26th Street and Ocean Drive)
and Surrounding Areas**

MARCH 2025



**CITY OF MANHATTAN BEACH
PUBLIC WORKS DEPARTMENT**

JEFF FIJALKA, P.E.

**1400 HIGHLAND AVENUE
MANHATTAN BEACH, CA 90266**

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**NOTICE INVITING BIDS
FOR
28TH STREET STORMWATER INFILTRATION PROJECT [the “Project”]**

Project number: SD-281 Bid Number: EXXXX-XXC

NOTICE IS HEREBY GIVEN that the City of Manhattan Beach, California (“City”) invites sealed Bids for the Project. The City will receive **ELECTRONIC BIDS ONLY** up to **TBD Time** on **TBD Date**, at which time the **ELECTRONIC** bids will be opened and posted on PlanetBids (online bid portal). The deadline to submit questions related to the bid documents is **TBD Date** at **TBD Time**.

Bids shall be received electronically only on the bid vendor portal accessible through the City of Manhattan Beach Public Works Department Bid Opportunities webpage at <https://www.manhattanbeach.gov/departments/public-works/bid-opportunities>. To submit your bid electronically and to review Bid tabulation results (“Bid Opening”), please visit the following link: **(Link to be inserted here)**

Contract Documents in PDF format (including City Special Provisions and Project Plans, but not including Standard Plans, Standard Specifications, or Reference Specifications) shall be obtained from the link/website above.

Total Cost per set: **\$XXX.00**

All fees listed above are non-refundable. The Contract Documents must be purchased online; they cannot be purchased or mailed from City Hall. Bidders are solely responsible for on time submission of their electronic bid. The City will only consider bids that have been transmitted successfully and have been issued an ebid confirmation number with a time stamp from the bid management system indicating that the bid was submitted successfully. Transmission of bids by any other means will not be accepted. Bidders shall be solely responsible for informing themselves with respect to the proper utilization of the bid management system, for ensuring the capability of their computer system to upload the required documents, and for the stability of their internet service. Failure of the bidders to successfully submit electronic bids shall be at the bidders’ sole risk and no relief will be given for late and/or improperly submitted bids. Bidders experiencing any technical difficulties with the bid submission process may contact PlanetBids at (818) 992-1771. Neither the City, nor the online bid portal, makes any guarantee as to the timely availability of assistance, or assurance that any given problem will be resolved by the bid submission deadline.

Bids must remain valid and shall not be subject to withdrawal for 90 calendar days after the Bid opening date.

PROJECT DESCRIPTION: This Project consists of, but is not limited, to the following: demolition and removal of various existing PCC and asphalt improvements, tree removals, retaining wall, handrails, parking meters and poles, gate, traffic spikes, catch basins, light and post, SCE electrical vent, various traffic signs and irrigation improvements. Construction will consist of PCC and AC paving improvements, PCC sidewalks, curb and gutter, landscaping and irrigation improvements, excavation/installation of sedimentation system with filter system, trash collection, manholes, storm drain pipes, and retaining walls. Project also includes, but not limited to, diversion pump system, drywells, manholes, electrical components, Motor Control Center (MCC), variable frequency drives (VFD), PLC and SCADA cabinet. The following is not an inclusive list of other electrical items to be provided and installed: Electric Vehicle (EV) chargers, parking lights and poles, parking kiosks, barrier gates, various electrical connections for pumps, actuator valves, radar sensors, float switches, pressure switches, and instrumentation.

SCOPE OF WORK.

The Project includes, without limitation, furnishing all necessary labor, materials, equipment and other incidental and appurtenant Work necessary to satisfactorily complete the Project, as more specifically described in the Contract Documents. This Work will be performed in strict conformance with the Contract Documents, permits from regulatory agencies with jurisdiction, and applicable regulations. The quantity of Work to be performed and materials to be furnished are approximations only, being given as a basis for the comparison of bids. Actual quantities of Work to be performed may vary at the discretion of the City Engineer. Time for completion of the Work is **280 total Working Days** from the date specified in the Initial Notice to Proceed.

MANDATORY PRE-BID MEETING AND SITE VISIT. A [mandatory/optional] pre-bid meeting will be held on [date] at [a.m./p.m. [time] at [location]], followed by a [mandatory/optional] site visit. Every Bidder is required to attend the mandatory pre-bid meeting and Project site visit. Failure of a Bidder to attend any mandatory pre-bid meeting and Project site visit will render that Bidder's Bid non-responsive. No allowances for cost adjustments will be made if a Bidder fails to adequately examine the Project site before submitting a Bid.

REGISTRATION WITH THE DEPARTMENT OF INDUSTRIAL RELATIONS. In accordance with Labor Code Sections 1725.5 and 1771.1, no contractor or subcontractor shall be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, unless currently registered and qualified to perform public work pursuant to Section 1725.5 [with limited exceptions for bid purposes only under Labor Code Section 1771.1(a)].

PREVAILING WAGES. In accordance with Labor Code Section 1770 *et seq.*, the Project is a "public work." The selected Bidder (Contractor) and any Subcontractors shall pay wages in accordance with the determination of the Director of the Department of Industrial Relations ("DIR") regarding the prevailing rate of per diem wages. Copies of those rates are on file with the Director of Public Works and are available to any interested party upon request. The Contractor shall post a copy of the DIR's determination of the prevailing rate of per diem wages at each job site. This Project is subject to compliance monitoring and enforcement by the DIR.

BONDS. Each Bid must be accompanied by a cash deposit, cashier's check, certified check or Bidder's Bond issued by a Surety insurer, made payable to the City and in an amount not less than ten percent of the total Bid submitted. Personal or company checks are not acceptable. Upon Contract award, the Contractor shall provide faithful performance and payment Bonds, each in a sum equal to the Contract Price, as well as a warranty or maintenance Bond that is valid for one year from Project acceptance in the amount of ten percent of the Contract Price. All Bonds must be issued by a California admitted Surety insurer using the forms set forth in the Contract Documents, or in any other form approved by the City Attorney. Failure to enter into the Contract with the City, including the submission of all required Bonds and insurance coverages, within ten calendar days after the date of the mailing of written notice of contract award to the Bidder, shall subject the Bid security to forfeiture to the extent provided by law.

LICENSES. Each Bidder shall possess a valid **Class 'A'** license issued by the California State Contractors License Board at the time of the Bid submission, unless this Project has any federal funding, in which case the successful Bidder must possess such a license at the time of Contract award.

RETENTION SUBSTITUTION. Five percent of any progress payment will be withheld as retention. In accordance with Public Contract Code Section 22300 and at the request and expense of the Contractor, securities equivalent to the amount withheld may be deposited with the City or with a

State or federally chartered bank as escrow agent, which shall then pay such moneys to the Contractor. Upon satisfactory completion of the Project, the securities shall be returned to the Contractor. Alternatively, the Contractor may request that the City make payments of earned retentions directly to an escrow agent at the Contractor's expense. No such substitutions shall be accepted until all related documents are approved by the City Attorney.

BIDDING PROCESS. The City reserves the right to reject any Bid or all Bids, and to waive any irregularities or informalities in any Bid or in the bidding, as deemed to be in its best interest.

By:

Katherine Doherty, City Engineer

Date

INSTRUCTIONS TO BIDDERS

FORM OF BID. The following shall be submitted using the City of Manhattan Beach Public Works Department Bid Opportunities webpage link to the online bid portal at <https://www.manhattanbeach.gov/departments/public-works/bid-opportunities>.

Online webform via online portal:

1. Online Completed Bid Schedule
2. Online Acceptance of Addenda (if any)
3. Online Completed Subcontractor Designation Form

In addition, each Bidder must scan and submit the following documents with its electronic bid on the City's Bid Forms. (The forms listed below can be downloaded separately on the online bid portal).

1. Completed and Signed Contractor's Statement
2. Completed References Form
3. Completed, Signed, and Notarized Bid Bond or Other Security Form
4. Signed Noncollusion Declaration Form
5. Evidence satisfactory to the City indicating the capacity of the person(s) signing the Bid to bind the Bidder

Any Bid not accompanied by a Contractor's Statement completed with all information required and bearing the signature of the Bidder's duly authorized representative under penalty of perjury may be deemed non-responsive and rejected. If the City determines that any information provided by a Bidder in the Contractor's Statement is false or misleading or is so incomplete as to be false or misleading, the City may reject the Bid submitted by such Bidder as being non-responsive.

DELIVERY OF BIDS. The Bid shall be delivered by the time and date specified in the Notice Inviting Bid, through the City of Manhattan Beach Public Works Department Bid Opportunities webpage link to the online bid portal at <https://www.manhattanbeach.gov/departments/public-works/bid-opportunities>. Paper copies will not be accepted. Bidders are solely responsible for ensuring that their Bids are received in proper time. Accepted Bids shall become the property of the City.

AMENDED BIDS. Unauthorized conditions, limitations or provisos attached to a Bid may cause the Bid to be deemed incomplete and non-responsive.

WITHDRAWAL OF BID. A Bid may be withdrawn without prejudice upon written request by the Bidder filed with the City Clerk before the Bid submission deadline. Bids must remain valid and shall not be subject to withdrawal for 90 Days after the Bid opening date.

BIDDER'S SECURITY. Each Bid shall be accompanied by cash, a certified or cashier's check payable to the City, or a satisfactory Bid Bond in favor of the City executed by the Bidder as principal and an admitted surety insurer as Surety, in an amount not less than ten percent of the

amount set forth in the Bid. The cash, check or Bid Bond shall be given as a guarantee that, if selected, the Bidder will execute the Contract in conformity with the Contract Documents, and will provide the evidence of insurance and furnish the specified Bonds, within ten calendar days after the date of delivery of the Contract Documents to the Bidder. In case of the Bidder's refusal or failure to do so, the City may award the Contract to the next lowest responsible bidder, and the cash, check, or Bond (as applicable) of the lowest Bidder shall be forfeited to the City to the extent permitted by law. No Bid Bond will be accepted unless it conforms substantially to the form provided in these Contract Documents.

QUANTITIES APPROXIMATE. Any quantities shown in the Bid form or elsewhere herein shall be considered as approximations listed to serve as a general indication of the amount of Work or materials to be performed or furnished, and as basis for the Bid comparison. The City does not guarantee that the actual amounts required will correspond with those shown. As deemed necessary or convenient, the City may increase or decrease the amount of any item or portion of Work or material to be performed or furnished or omit any such item or portion, in accordance with the Contract Documents.

ADDENDA. Each Bidder shall register to become a Registered Bidder via the City of Manhattan Beach Public Works Department Bid Opportunities webpage link to the online bid portal at <https://www.citymb.info/departments/public-works/bid-opportunities>. Addenda, if any, shall be issued via email through the online bid vendor portal. It is the Contractor's responsibility to ensure the email address utilized in the online bid vendor portal is current and accurate and it is further the Contractor's responsibility to actively check the Portal and email for the issuance of Addenda. Bidders are responsible for ensuring that they have received any and all Addenda. It is the Bidder's responsibility to actively check the online bid vendor portal for Addenda or bulletin updates. Each Bidder is responsible for verifying that it has received all Addenda issued. Bidders must acknowledge receipt of all Addenda, if any. Failure to acknowledge receipt of all Addenda may cause a Bid to be deemed incomplete and non-responsive.

DISCREPANCIES IN BIDS. The unit prices for each Bid Item shall be properly entered in the online electronic Bid Schedule. Each Bidder shall set forth as to each item of Work, a unit or line item Bid amount for the item in the respective spaces provided for this purpose.

In case of discrepancy between the unit price and the line total set forth for the item, the unit price shall prevail. However, if the amount set forth as a unit price is ambiguous, unintelligible or uncertain for any cause, or is omitted, or if the unit price is the same amount as the entry in the "Line Total" column, then the amount set forth in the "Line Total" column for the item shall prevail in accordance with the following:

- (1) As to lump sum items, the amount set forth in the "Line Item" column shall be the unit price.
- (2) As to unit price items, the amount set forth in the "Line Item" column shall be divided by the estimated quantity for the item set forth in the Bid documents, and the price thus obtained shall be the unit price.

In case of discrepancy between words and figures, the words shall prevail.

COMPETENCY OF BIDDERS. In evaluating Bidder responsibility, consideration will be given not only to the financial standing, but also to the general competency of the Bidder for the performance of the Project. Each Bidder shall set forth in the designated area of the Bid form a statement of its experience. No Contract will be executed with a Bidder that is not licensed and registered with the DIR in accordance with State law, and with any applicable specific licensing

requirements specified in these Contract Documents. These licensing and registration requirements for Contractors shall also apply to all Subcontractors.

BIDDER'S EXAMINATION OF SITE AND CONTRACT DOCUMENTS. The Bidder, at its sole cost and expense, is required to carefully examine the Contract Documents and the Project site to become fully acquainted with the conditions affecting the Work. The failure of a Bidder to receive or examine any of the Contract Documents or to inspect the site shall not relieve such Bidder from any obligation relating to the Bid, the Contract, or the Work required under the Contract Documents. The City assumes no responsibility or liability to any Bidder for, nor shall the City be bound by, any understandings, oral representations or oral agreements of the City's agents, employees or officers concerning the Contract Documents or the Work made prior to execution of the Contract. By submitting a Bid, Bidder represents:

(1) that Bidder has read and understands the Contract Documents; (2) the Bid is made in compliance with the Contract Documents and is based upon the labor, materials, equipment, and systems required by the Contract Documents; (3) that Bidder understands that all labor, materials, equipment, and systems to be furnished for the Work shall be furnished for the prices bid; (4) that it has visited the Project site, familiarized itself with the local conditions under which the Work is to be performed; (5) that it is fully experienced, qualified and competent to perform the Work set forth in the Contract Documents; (6) that it shall not damage or endanger and shall preserve and protect adjacent properties; (7) that it is properly equipped, organized, and financed to perform the Work; (8) that it is properly permitted and licensed by the California Contractors State Licensing Board to perform the Work; (9) that it has familiarized itself with all conditions bearing upon transportation, disposal, handling, and storage of materials; (10) that it has familiarized itself with the availability of labor, water, electric power, and roads; (11) that it has familiarized itself with uncertainties of weather, or similar physical conditions at the Project site; (12) that it has familiarized itself with the character of equipment and facilities needed preliminary to and during performance of the Work; (13) that it has familiarized itself with the staging and material storage constraints of the Project site and surrounding buildings and will confine its staging and storage operations to approved areas; and (14) that it will coordinate its construction activities with the other contractors performing work on the Project site, if any, including, but not limited to, any separate contractor retained by the City.

No information derived from an inspection of records or investigation will in any way relieve the Contractor from its obligations under the Contract Documents nor entitle the Contractor to any additional compensation. The Contractor shall not make any claim against the City based upon ignorance or misunderstanding of any condition of the Project site or of the requirements set forth in the Contract Documents. No claim for additional compensation will be allowed which is based on a lack of knowledge of the above items. Bidders assume all risks in connection with performance of the Work in accordance with the Contract Documents, regardless of actual conditions encountered, and waive and release the City with respect to any and all claims and liabilities in connection therewith, to the extent permitted by law.

The omission of any portion or item of Work from the Bid that is reasonably inferable from the Contract Documents is not a basis for adjustment of the Contract Price or the Contract Time.

DISQUALIFICATION OF BIDDERS. No Person shall be allowed to make, file or be interested in more than one Bid for the Project. A Person that has submitted a sub-bid to a Bidder, or that has quoted prices of materials to a Bidder, is not thereby disqualified from submitting a sub-proposal or quoting prices to other Bidders or from making a prime Bid. If there is a reason to believe that collusion exists among the Bidders, all affected Bids will be rejected.

RETURN OF BID SECURITY. The successful Bidder's Bid security shall be held until the

Contract is executed. Bid security shall be returned to the unsuccessful Bidders within a reasonable time, which in any case shall not exceed 90 Days after the successful Bidder has signed the Contract.

AWARD OF CONTRACT. The City reserves the right to reject any or all Bids or any parts thereof or to waive any irregularities or informalities in any Bid or in the bidding. The Contract award, if made, will be to the lowest responsible, responsive Bidder and is anticipated to occur within 90 calendar Days after the Bid opening. The Contract award may be made after that period if the selected Bidder has not given the City written notice of the withdrawal of its Bid.

DETERMINATION OF LOWEST BIDDER IF ADDITIVE OR DEDUCTIVE ITEMS. In accordance with Public Contract Code Section 20103.8, the lowest Bid shall be determined by comparing the total Bid price of all Base Bid Items and Additive Alternate Bid Items, using the Engineer's estimate of quantities for the Work as set forth in the Bidder's Proposal. The amount of the contract award will be based on the available budget for the project. It may be only for the Base Bid or if the budget allows, include Additive Bid Items. In the event that any or all of the Alternate Bid Items are not awarded as part of the Contract, the City reserves the right to add any or all of the Alternate Bid Items by Change Order or Construction Change Directive at the prices set forth in the Bid.

TRENCHING. If the Project involves the construction of a pipeline, sewer, sewage disposal system, boring and jacking pits, or similar trenches or open excavations, which are five feet deep or more, then each Bidder must submit, as a Bid item, adequate sheeting, shoring, and bracing, or an equivalent method, for the protection of life or limb, which shall conform to applicable safety orders. This final submission must be accepted by the City in advance of excavation and must include a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from caving ground during the excavation Work. If such plan varies from the shoring system standards, the plan shall be prepared by a registered civil or structural engineer.

LISTING SUBCONTRACTORS. Each Bidder shall submit a list of the proposed Subcontractors on the Project, as required by the Subletting and Subcontracting Fair Practices Act (Public Contract Code Section 4100, *et seq.*).

WORK OF SUBCONTRACTORS. All Bidders are encouraged to disseminate all of the Specifications, Drawings, and other Contract Documents to all persons or entities submitting sub-bids to the Bidder.

INELIGIBLE SUBCONTRACTORS. The successful Bidder is prohibited from performing Work on the Project with any Subcontractor who is ineligible to perform work on a public works project pursuant to Sections 1777.1 or 1777.7 of the California Labor Code. By submitting a Bid, each Bidder certifies that it has investigated the eligibility of each and every listed Subcontractor and has determined that none is ineligible to perform Work pursuant to the Labor Code.

EXECUTION OF CONTRACT. The selected Bidder shall execute the Contract in the form included in these Contract Documents within ten calendar days from the date of delivery of the Contract Documents to the Bidder. Additionally, the selected Bidder shall also secure all insurance and Bonds as herein specified, and provide copies to the City, within ten calendar days from the date of delivery of the Contract Documents to the Bidder. Failure or refusal to execute the Contract or to conform to any of the stipulated requirements shall be just cause for the annulment of the award and forfeiture of the Bidder's security. In such event, the City may declare the Bidder's security forfeited to the extent permitted by law, and the City may award the Contract to the next lowest responsible Bidder or may reject all bids.

SIGNATURES. The Bidder shall execute all documents requiring signatures, and shall cause to be notarized all documents that indicate such a requirement. The Bidder shall provide evidence satisfactory to the City, such as an authenticated resolution of its board of directors or a power of attorney, indicating the capacity of the person(s) signing the Bid to bind the Bidder to the Bid and any Contract arising therefrom.

INSURANCE AND BONDS. The Contractor shall not begin Work until it has given the City evidence of all required insurance coverage (including all additional insured endorsements), a Bond guaranteeing the Contractor's faithful performance of the Contract, and a Bond securing the payment of claims for labor and materials. Where a Contractor has entered into an agreement with a Professional Employment Organization (PEO) to provide human resources, workers' compensation insurance, or other benefits to the Contractor's employees, the Contractor must also submit the agreement with the PEO for review by the City.

INTERPRETATION OF CONTRACT DOCUMENTS. Any Bidder that is in doubt as to the intended meaning of any part of the Contract Documents, or that finds discrepancies in or omissions from the Contract Documents, may submit to the City Engineer a written request for an interpretation or correction not later than the date specified in the Notice Inviting Bids. Requests for clarification received after this date will be disregarded. Please indicate the Project and identification number in the request for clarification. Telephonic requests will not be taken. Any interpretation or correction of the Contract Documents will be made only by a written Addendum. No oral interpretation of any provision in the Contract Documents shall be binding.

TRADE NAMES OR EQUALS. Requests to substitute an equivalent item for a brand or trade name item must be made by written request submitted no later than ten calendar days after the award of contract. Requests received after this time shall not be considered. Requests shall clearly describe the product for which approval is requested, including all data necessary to demonstrate acceptability.

TAXES. Except as may be otherwise specifically provided herein, all sales and/or use taxes assessed by federal, State or local authorities on materials used or furnished by the Contractor in performing the Work shall be paid by the Contractor. The Bidder shall calculate payment for all sales, unemployment, pension and other taxes imposed by federal, State, and local law and shall include these payments in computing the Bid.

PROTESTS. Any protest of the award of a bid to the apparent lowest responsive and responsible bidder or other bidders must be submitted in accordance with the provisions of the City of Manhattan Beach Public Works Department Bid Protest Procedure Policy 2020-1, available on the City of Manhattan Beach Public Works Department Bid Opportunities webpage at <https://www.manhattanbeach.gov/departments/public-works/bid-opportunities>.

CHECKLIST FOR BIDDERS

The following information is required of all Bidders at the time of Bid submission:

Online webform via online portal:

1. Online Completed Bid Schedule
2. Online Acceptance of Addenda (if any)
3. Online Completed Subcontractor Designation Form

Scanned copy submitted as attachment via online portal:

1. Completed and Signed Contractor's Statement
2. Completed References Form
3. Completed, Signed, and Notarized Bid Bond or Other Security Form
4. Signed Noncollusion Declaration Form
5. Evidence satisfactory to the City indicating the capacity of the person(s) signing the Bid to bind the Bidder

Failure of the Bidder to provide all required information in a complete and accurate manner may cause the Bid to be considered non-responsive.

BID**CITY OF MANHATTAN BEACH****28TH STREET STORMWATER INFILTRATION PROJECT****Project Number: SD-281****TO THE HONORABLE MAYOR AND CITY COUNCIL OF THE CITY OF MANHATTAN BEACH:**

The undersigned, as Bidder, declares that: (1) this Bid is made without collusion with any other person and that the only persons or parties interested as principals are those named herein; (2) the undersigned has carefully examined the Contract Documents (including all Addenda) and the Project site; and (3) the undersigned has investigated and is satisfied as to the conditions to be encountered, the character, quality and quantities of Work to be performed, and the materials to be furnished. Furthermore, the undersigned agrees that submission of this Bid shall be conclusive evidence that such examination and investigation have been made and agrees, in the event the Contract be awarded to it, to execute the Contract with the City of Manhattan Beach to perform the Project in accordance with the Contract Documents in the time and manner therein prescribed, and to furnish or provide all materials, labor, tools, equipment, apparatus and other means necessary so to do, except as may otherwise be furnished or provided under the terms of the Contract Documents, for the following stated unit prices or lump-sum price as submitted on the Bid herein.

This Bid is made with the full knowledge of the kind, quantity, and quality of the materials and Work required and, if it is accepted by the City, the Bidder shall enter into a Contract and furnish the bonds, insurance, and other documents as required by the Contract Documents within ten calendar days after award of the Contract. The Bidder agrees that failure to execute and return the Contract or the required faithful performance bond, labor and materials payment bond, warranty bond, and insurance certificates to the City within the ten calendar day period shall be sufficient cause for the rescission of the award and forfeiture of the Bid Security to the City to the extent permitted by law.

Accompanying this Bid is cash, a cashier's check, a certified check or a Bid Bond in an amount equal to at least ten percent of the total aggregate Bid price based on the quantities shown and the unit prices quoted. The undersigned further agrees that, should it be awarded the Contract and thereafter fail or refuse to execute the Contract and provide the required evidence of insurance and Bonds within ten calendar days after delivery of the Contract to the undersigned, then the cash, check or Bid Bond shall be forfeited to the City to the extent permitted by law.

CITY OF MANHATTAN BEACH

BID SCHEDULE FOR

28TH STREET STORMWATER INFILTRATION PROJECT

Project Number: SD-281

Bidder's Name: _____

Bidder's Address: _____

City, ST and Zip Code: _____

To the Honorable Mayor and Members of the City Council:

In compliance with the Notice Inviting Bids, the undersigned hereby agrees to execute the Contract to furnish all labor, materials, equipment and supplies for the Project in accordance with the Contract Documents to the satisfaction and under the direction of the City Engineer, at the following prices:

ITEM NO.	CODE	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICES	EXTENDED AMOUNT
MISCELLANEOUS						
1	%	MOBILIZATION (MAX 5%) See Part 1, 7-3.4	LS	1	\$	\$
2	%	CONSTRUCTION SURVEY	LS	1	\$	\$
3	%	CLASS "C" FIELD OFFICE	LS	1	\$	\$
4	%	TRAFFIC CONTROL	LS	1	\$	\$
5	%	SWPPP IMPLEMENTATION	LS	1	\$	\$
6	%	NOISE MITIGATION	LS	1	\$	\$
7	C	PILOT DRYWELL INSTALLATION AND TESTING	LS	1	\$	\$

ITEM NO.	CODE	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICES	EXTENDED AMOUNT
8	%	COMMISSIONING, TESTING, AND TRAINING FOR STORMWATER COMPONENTS	LS	1	\$	\$
DEMOLITION						
9		REMOVE TREE	EA	16	\$	\$
10		DEMO AC PAVING AND BASE (INCLUDING SAWCUTS)	SF	28,460	\$	\$
11		REMOVE CURB	LF	770	\$	\$
12		REMOVE CURB AND GUTTER	LF	430	\$	\$
13		DEMO RETAINING WALLS (INCLUDING STAIRS AND RAILINGS)	LF	760	\$	\$
14	%	DEMO PARKING FACILITY FEATURES (PARKING METER/POLE, GATES, SPIKE STRIPS, LIGHT/POSTS, ETC.)	LS	1	\$	\$
15		DEMO PCC PAVING (SIDEWALK, DRIVEWAY, ETC.)	SF	4,350	\$	\$
16		REMOVE CATCH BASIN	EA	2	\$	\$
17	%	RELOCATE LIGHT/POST	LS	1	\$	\$
18	%	REMOVE LANDSCAPE AND IRRIGATION SYSTEM	LS	1	\$	\$
19	%	DEMO SIGNAGE AND STRIPING	LS	1	\$	\$

ITEM NO.	CODE	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICES	EXTENDED AMOUNT
WATER QUALITY IMPROVEMENTS						
20		DIVERSION STRUCTURE	EA	1	\$	\$
21		GRAVITY DIVERSION PIPING (60-INCH RCP DOUBLE RUBBER GASKET WET CAST JACKING PIPE INSTALLED USING TRENCHLESS INSTALLATION)	LF	250	\$	\$
22		DISTRIBUTION PIPING (48" RCP)	LF	10	\$	\$
23		DRYWELL DISTRIBUTION PIPING (24" RCP)	LF	40	\$	\$
24		DRYWELL DISTRIBUTION PIPING (2'H x 3'W RCB, INCLUDING BULKHEAD)	LF	190	\$	\$
25		DRYWELL DISTRIBUTION PIPING (2'H x 4.5'W RCB, INCLUDING BULKHEAD)	LF	420	\$	\$
26		DRYWELL DISTRIBUTION PIPING (4'H x 4.5'W RCB)	LF	60	\$	\$
27		TEMPORARY UTILITY SUPPORT	EA	10	\$	\$
28	C	TEMPORARY CITY WATER LINE RELOCATION AND RESTORATION	LS	1	\$	\$
29	S	PUMP STATION, INCLUDING PUMPS, MOTORS, VAULTS, CONNECTIONS, ETC.	EA	1	\$	\$
30	S	PRETREATMENT DEVICE (TRASH CAPTURE)	EA	1	\$	\$

ITEM NO.	CODE	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICES	EXTENDED AMOUNT
31	S	PRETREATMENT DEVICE (SEDIMENTATION)	LS	1	\$	\$
32		5'x5' PRECAST CONCRETE JUNCTION STRUCTURE WITH SLIDE GATE	EA	1	\$	\$
33		8'x8' PRECAST CONCRETE JUNCTION STRUCTURE	EA	1	\$	\$
34		8' x 12' PRECAST CONCRETE JUNCTION STRUCTURE WITH SLIDE GATES	EA	1	\$	\$
35		RCB MANHOLES	EA	3	\$	\$
36		18" RCP AND CONNECTION TO EXISTING STORM DRAIN PER SPPWC STD. 335-2	EA	2	\$	\$
37		PRIMARY AND SECONDARY RADAR SENSOR WITH MOUNTING HARDWARE IN DRYWELLS	EA	3	\$	\$
38		DRYWELL LATERAL PIPING (12" HDPE, INCLUDES CONNECTIONS)	LF	330	\$	\$
39		DRYWELLS	EA	20	\$	\$
40		MANHOLES AT DRYWELLS	EA	20	\$	\$
41		SOIL EXPORT (FROM PRETREATMENT SYSTEMS, PUMPS, AND DRYWELLS)	CY	3,490	\$	\$

ITEM NO.	CODE	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICES	EXTENDED AMOUNT
SURFACE IMPROVEMENTS						
42		4" AC PAVEMENT OVER 9" $\frac{3}{4}$ " AGGREGATE BASE	SF	8,150	\$	\$
43		DRIVEWAY APPROACH PER CITY STD. MBSI-110C-1	SF	1,070	\$	\$
44		SIDEWALK PER CITY STD. 112A-0	SF	4,770	\$	\$
45		6" PCC OVER 4" $\frac{3}{4}$ " AGGREGATE BASE	SF	220	\$	\$
46		6" PERVIOUS CONCRETE PAVEMENT OVER 8.5" WASHED $\frac{3}{4}$ " AGGREGATE BASE	SF	20,650	\$	\$
47		CURB RAMP	EA	8	\$	\$
48		TRUNCATED DOMES AT EXISTING RAMP	EA	2	\$	\$
49		6" CURB AND GUTTER PER CITY STD. MBSI-120A-0	LF	60	\$	\$
50		8" CURB AND GUTTER PER CITY STD. MBSI-120A-0	LF	230	\$	\$
51		6" DEEPENED CURB	LF	190	\$	\$
52		CURB PER SPPWC STD. PLAN 120-3, A1-6/A1-8	LF	120	\$	\$
53		6" TO 24" RETAINING CURB	LF	40	\$	\$
54		CURB STEP OUT	LF	160	\$	\$

ITEM NO.	CODE	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICES	EXTENDED AMOUNT
55		CURB OPENING CATCH BASIN WITH GRATING AND DEBRIS SKIMMER PER SPPWC STD. 301-4 (V=4', W=7') AND LOCAL DEPRESSION	EA	1	\$	\$
56		CURB OPENING CATCH BASIN WITH GRATING AND DEBRIS SKIMMER PER SPPWC STD. 302-4 (V=4.5', W=14') AND LOCAL DEPRESSION	EA	1	\$	\$
57		PIPE BOLLARD	EA	10	\$	\$
58		REINFORCED CONCRETE RETAINING WALL TYPE 4 WITH SCREEN WALL/VIEW RAILING	LF	670	\$	\$
59		REINFORCED CONCRETE RETAINING WALL TYPE 5 WITH SCREEN WALL/VIEW RAILING	LF	145	\$	\$
60		SOLDIER PILE RETAINING WALL WITH SCREEN WALL/VIEW RAILING	LF	45	\$	\$
61		INTEGRATE LIGHT POSTS WITH RETAINING WALL	EA	3	\$	\$
62		INTERPRETIVE SIGN	EA	2	\$	\$
63		PRECAST CONCRETE WHEELSTOP	EA	64	\$	\$
64	%	PARKING FACILITY STRIPING/PAVEMENT MARKINGS/SIGNAGE (INCLUDING RELOCATIONS)	LS	1	\$	\$

ITEM NO.	CODE	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICES	EXTENDED AMOUNT
65	%	STREET STRIPING/PAVEMENT MARKINGS/SIGNAGE	LS	1	\$	\$
66		TREES	EA	12	\$	\$
67	%	LANDSCAPING AND IRRIGATION	LS	1	\$	\$
68		PARK IMPROVEMENTS NEAR DRYWELLS	SF	5,000	\$	\$
69	%	180 DAY PLANT MAINTENANCE/ESTABLISHMENT	LS	1	\$	\$
ELECTRICAL SERVICE, CONTROLS, AND INSTRUMENTATION						
70		LIGHT AND POST	EA	8	\$	\$
71	C	(3) EV CHARGERS AND CONTROLLERS	LS	1	\$	\$
72	C	IRRIGATION SYSTEM (ELECTRICAL CONNECTION)	LS	1	\$	\$
73		GATE OPERATOR	EA	4	\$	\$
74		GENERAL SERVICE OUTLETS	EA	2	\$	\$
75		PAYMENT KIOSK	EA	2	\$	\$
76	%	SCADA SYSTEM, FIBER SERVICE, & CONTROLLERS	LS	1	\$	\$
77	C	PLC CONTROLLERS	LS	1	\$	\$
78		HAND HOLES	EA	14	\$	\$
79	%	INSTALL SENSORS INSTRUMENTS & MOTORS	LS	1	\$	\$

ITEM NO.	CODE	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICES	EXTENDED AMOUNT
80		SWITCHBOARD "MS1"	EA	1	\$	\$
81		SWITCHBOARD "MS2"	EA	1	\$	\$
82		MOTOR CONTROL CENTER "MCC"	EA	1	\$	\$
83		SWITCHBOARD "MS1" CONCRETE PAD (8'6"X4'X1'6")	EA	1	\$	\$
84		SWITCHBOARD "MS2" CONCRETE PAD (4'8"X3'X1'6")	EA	1	\$	\$
85		"MCC" CONCRETE PAD (26'4"X3'8"X1'6")	EA	1	\$	\$
86	%	TRENCHING AND BACHILL	LS	1	\$	\$
87	%	CONDUITS AND CONDUCTORS	LS	1	\$	\$
88	%	ELECTRICAL DEMOLITION	LS	1	\$	\$
89	%	ENGINEERED SHOP DRAWINGS, PROGRAMMING, INTEGRATION	LS	1	\$	\$
90	%	TRAINING, TESTING, AND COMMISIONING	LS	1	\$	\$
91	%	MISC. ELECTRICAL PROVISIONS (VAPOR FITTINGS, CORE DRILLING)	LS	1	\$	\$
ADDITIVE BID ITEMS						
92	%	SLURRY BACKFILL AT PUMP STATION AND DIVERSION STRUCTURE (ANTICIPATED CREDIT)	CY	2,100	\$	\$
93		DRYWELLS	EA	19	\$	\$

ITEM NO.	CODE	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICES	EXTENDED AMOUNT
94		MANHOLES AT DRYWELLS	EA	19	\$	\$
95		SLURRY PLUG (EA = 5' SEGMENT)	EA	160	\$	\$
96		STEEL CASING FOR DRYWELL INSTALLATION (EA = 10' SEGMENT)	EA	90	\$	\$
TOTAL BID SCHEDULE:					\$	_____

NOTES:

- 1) In the CODE column (S) denotes a specialty item, (%) denotes progress payments for that lump sum item will be allowed based on the percentage of completion in each pay period, and (C) denotes payments will be made after the completion of the lump sum item. See Subsection 9-2.1 of the General Provisions for details.
- 2) In the UNIT column (LS) denotes a lump sum item. See Section 9 of the General Provisions for details.
- 3) Estimated quantities are for the purpose of Bid comparison only; payments will be made on the basis of actual measurement of Work completed, except for lump sum (LS) items. For lump sum items, see Note 1. The Bid Price shall include, but not limited to, sales tax and all other applicable taxes and fees.
- 4) Items may be adjusted or deleted. Therefore, regardless of total actual volume (percentage) compared to estimated quantities, the unit prices provided above by the Bidder shall be applied to the final quantity when payment is calculated for these items. No adjustment in the unit prices will be allowed. The City reserves the right to not use any of the estimated quantities; and if this right is exercised, the Contractor will not be entitled to any additional compensation. Cost of all export of material shall be included in the above unit costs; no additional compensation will be granted for such expenses.
- 5) **All concrete shall be class 560 C 3250.**

TOTAL BID PRICE IN DIGITS: \$ _____

TOTAL BID PRICE IN WORDS: _____

The undersigned certifies to have a minimum of three consecutive years of current experience in the type of Work related to the Project and that this experience is in actual operation of the firm with permanent employees performing a part of the Work as distinct from a firm operating entirely by subcontracting all phases of the Work. The undersigned also certifies to be properly licensed by the State as a contractor to perform this type of Work. The undersigned possesses California Contractor's License

Number _____, Class _____, which expires on _____.

Signature: _____

Title: _____ Date: _____

Title: _____

Signature: _____

Title: _____

Date: _____

The City will only consider bids that have **been transmitted successfully online** and have been issued an ebid confirmation number with a time stamp from the Bid Management System indicating that the bid was submitted successfully. Transmission of bids by any other means will not be accepted.

BIDDER'S PROPOSAL – CONTRACTOR'S STATEMENT**28TH STREET STORMWATER INFILTRATION PROJECT****Project Number: SD-281**

Fill out all of the following information. Attach additional sheets if necessary.

- (1) Bidder's Name: _____
- (2) If the Bidder's name is a fictitious name, who or what is the full name of the registered owner? If the Bidder's name is not a fictitious name, write "N/A" in the response to this question. If you are doing business under a fictitious name, provide a copy of the filed valid Fictitious Business Name Statement.

- (3) Business Address: _____
- (4) Telephone: _____ Email: _____
- (5) Type of Firm – Individual, Partnership, LLC or Corporation: _____
- (6) Corporation organized under the laws of the State of: _____
- (7) California State Contractor's License Number and Class: _____
Original Date Issued: _____ Expiration Date: _____
- (8) DIR Contractor Registration Number: _____
- (9) List the name and title of the person(s) who inspected the Project site for your firm:

- (10) Number of years' experience the company has as a contractor in construction work: _____
- (11) List the names, titles, addresses and telephone numbers of all individuals, firm members, partners, joint ventures, and company or corporate officers having a principal interest in this Bid:

- (12) List all current and prior D.B.A.'s, aliases, and fictitious business names for any principal having interest in this Bid:

- (13) List the dates of any voluntary or involuntary bankruptcy judgments against any principal having an interest in this Bid:

- (14) For all arbitrations, claims, lawsuits, settlements and the like (in or out of court) that the company or any principal having an interest in this Bid has been involved with in the past five years:

- a. List the names, addresses and telephone numbers of contact persons for the parties:

- b. Briefly summarize the parties' claims and defenses:

- c. State the tribunal (e.g., Superior Court, American Arbitration Association, etc.), the matter number, and the outcome:

- (15) Has the company or any principal having an interest in this Bid ever had a contract terminated by the owner or agency? If yes, explain.

- (16) Has the company or any principal having an interest in this Bid ever failed to complete a project? If yes, explain.

- (17) Has the company or any principal having an interest in this Bid ever been terminated for cause, even if it was converted to a "termination of convenience"? If yes, explain.

- (18) For projects that the company or any principal having an interest in this Bid has been involved with in the last five years, did you have any claims or actions:

- a. By you against the owner? Circle one: Yes No
- b. By the owner against you? Circle one: Yes No
- c. By any agency or individual Yes No
- d. By any outside agency or individual for labor compliance?
Circle one: Yes No
- e. By Subcontractors? Circle one: Yes No
- f. Are any of these claims or actions unresolved or outstanding?
Circle one: Yes No

If your answer is "yes" to any part or parts of this question, explain.

- (19) Has the company or any of its principals ever been debarred by any agencies? Is yes, please explain.

(20) For all public agency projects in excess of \$15,000.00 that you are currently working on or have worked on in the past three (3) years, provide the following information:

Project 1 Name/Number _____

Project Description _____

Approximate Construction Dates From: _____ To: _____

Agency Name: _____

Contact Person: _____ Telephone: _____

Address: _____

Original Contract Amount: \$_____ Final Contract Amount: \$_____

If final amount is different from original amount, please explain (change orders, extra work, etc.).

Did any individual file any claims against you or any Subcontractor? Circle one: Yes No

Did you or any Subcontractor, file any claims against the Agency? Circle one: Yes No

Did the Agency file any claims against you? Circle one: Yes No

If you answered yes to either of the above two questions, please explain and indicate outcome of claims.

Project 2 Name/Number _____

Project Description _____

Approximate Construction Date From: _____ To: _____

Agency Name: _____

Contact Person: _____ Telephone: _____

Address: _____

Original Contract Amount: \$_____ Final Contract Amount: \$_____

If final amount is different from original amount, please explain (change orders, extra work, etc.).

Did any individual file any claims against you or any Subcontractor? Circle one: Yes No

Did you or any Subcontractor, file any claims against the Agency? Circle one: Yes No

Did the Agency file any claims against you? Circle one: Yes No

If you answered yes to either of the above two questions, please explain and indicate outcome of claims.

Project 3 Name/Number

Project Description

Approximate Construction Dates From:

 To:

Agency Name:

Contact Person:

 Telephone:

Address:

Original Contract Amount: \$

 Final Contract Amount: \$

If final amount is different from original amount, please explain (change orders, extra work, etc.).

Did any individual file any claims against you or any Subcontractor? Circle one: Yes No

Did you or any Subcontractor, file any claims against the Agency? Circle one: Yes No

Did the Agency file any claims against you? Circle one: Yes No

If you answered yes to either of the above two questions, please explain and indicate outcome of claims.

Project 4 Name/Number

Project Description

Approximate Construction Dates From:

 To:

Agency Name: _____

Contact Person: _____ Telephone: _____

Address: _____

Original Contract Amount: \$_____ Final Contract Amount: \$_____

If final amount is different from original amount, please explain (change orders, extra work, etc.).

Did any individual file any claims against you or any Subcontractor? Circle one: Yes No

Did you or any Subcontractor, file any claims against the Agency? Circle one: Yes No

Did the Agency file any claims against you? Circle one: Yes No

If you answered yes to either of the above two questions, please explain and indicate outcome of claims.

Project 5 Name/Number _____

Project Description _____

Approximate Construction Dates From: _____ To: _____

Agency Name: _____

Contact Person: _____ Telephone: _____

Address: _____

Original Contract Amount: \$_____ Final Contract Amount: \$_____

If final amount is different from original amount, please explain (change orders, extra work, etc.).

Did any individual file any claims against you or any Subcontractor? Circle one: Yes No

Did you or any Subcontractor, file any claims against the Agency? Circle one: Yes No

Did the Agency file any claims against you? Circle one: Yes No

If you answered yes to either of the above two questions, please explain and indicate outcome of claims.

Project 6 Name/Number _____

Project Description _____

Approximate Construction Dates **From:** _____ **To:** _____

Agency Name: _____

Contact Person: _____ **Telephone:** _____

Address: _____

Original Contract Amount: \$_____ **Final Contract Amount: \$**_____

If final amount is different from original amount, please explain (change orders, extra work, etc.).

Did any individual file any claims against you or any Subcontractor? Circle one: Yes No

Did you or any Subcontractor, file any claims against the Agency? Circle one: Yes No

Did the Agency file any claims against you? Circle one: Yes No

If you answered yes to either of the above two questions, please explain and indicate outcome of claims.

[Continue to Next Page]

Upon request of the City, the Bidder shall furnish evidence showing a notarized financial statement, financial data, construction experience, or other additional information.

Failure to provide truthful answers to the questions above or in the following References Form may result in the Bid being deemed non-responsive.

Urban Runoff Certification. The Bidder certifies to the City that he/she has trained his/her employees and Subcontractors, if any, for Urban Runoff management and has included sufficient sums in the Bid Price to cover such costs of training as stipulated in the most current Regional Water Quality Control Board requirements, including the Municipal Separate Storm Sewer System National Pollutant Discharge Elimination System (NPDES) Permit. The Contractor is responsible for all clean up and payment of all fines levied as a result of any illegal discharge (as defined in NPDES permit) occurring as a result of the Contractor's Work and/or operations.

I, the undersigned, certify and declare that I have read all the foregoing answers to the Bidder's Proposal – Contractor's Statement and know their contents. The matters stated in the Bidder's Proposal – Contractor's Statement answers are true of my own knowledge and belief, except as to those matters stated on information and belief, and as to those matters I believe them to be true. I declare under penalty of perjury under the laws of the State of California that the foregoing is correct.

Company Name: _____

Address: _____

City, State and Zip Code: _____

Signature: _____

Name: _____

Title: _____

Date: _____

Signature: _____

Name: _____

Title: _____

Date: _____

DESIGNATION OF SUBCONTRACTORS
[Public Contract Code Section 4104]
28TH STREET STORMWATER INFILTRATION PROJECT
Project Number: SD-281

List all Subcontractors who will perform Work or labor or render service to the Contractor in or about the construction of the Work or improvement, or a Subcontractor licensed by the State of California who, under subcontract to the Contractor, specially 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 one percent of the 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 one percent of the Contractor's total Bid or \$10,000.00, whichever is greater. If all Subcontractors do not fit on this page, attach another page listing all information for all other Subcontractors.

Name under which Subcontractor is Licensed and Registered	CSLB License Number(s) and Class(es)	DIR Contractor Registration Number	Address and Phone Number	Type of Work (e.g., Electrical)	Percentage of Total Bid (e.g., 10%)*

*The percentage of the total Bid shall represent the "portion of the work" for the purposes of Public Contract Code Section 4104(b).

Bond No. _____

BID BOND**28TH STREET STORMWATER INFILTRATION PROJECT**Project Number: **SD-281**

KNOW ALL PERSONS BY THESE PRESENTS that:

WHEREAS the City of Manhattan Beach ("City"), has issued an invitation for Bids for the Work described as follows: _____

WHEREAS _____
(Name and address of Bidder)

("Principal"), desires to submit a Bid to City for the Work.

WHEREAS, Bidders are required to furnish a form of Bidder's security with their Bids.

NOW, THEREFORE, we, the undersigned Principal, and _____

(Name and address of Surety)

("Surety"), a duly admitted surety insurer under the laws of the State of California, as Surety, are held and firmly bound unto the City in the penal sum of _____ Dollars (\$ _____), being not less than ten percent (10%) of the total Bid price, in lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the hereby bounded Principal is awarded the Contract for the Work by the City and, within the time and in the manner required by the bidding specifications, enters into the written form of Contract included with the bidding specifications, furnishes the required Bonds (one to guarantee faithful performance and the other to guarantee payment for labor and materials), and furnishes the required insurance coverage, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

In case suit is brought upon this instrument, Surety further agrees to pay all court costs incurred by the City in the suit and reasonable attorneys' fees in an amount fixed by the court. Surety hereby waives the provisions of Civil Code Section 2845.

IN WITNESS WHEREOF, this instrument has been duly executed by Principal and Surety, on the date set forth below, the name of each corporate party being hereto affixed and these presents duly signed by its undersigned representative(s) pursuant to authority of its governing body.

Dated: _____

“Principal”

Name: _____

Address: _____

Telephone No.: _____

Signature: _____

Print Name: _____

Title: _____

Date: _____

Signature: _____

Print Name: _____

Title: _____

Date: _____

“Surety”

Company Name: _____

Address: _____

Telephone No.: _____

Signature: _____

Print Name: _____

Title: _____

Date: _____

NOTE: *This Bond must be dated, all signatures must be notarized, and evidence of the authority of any person signing as attorney-in-fact must be attached.*

**NONCOLLUSION DECLARATION FORM
TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID
[Public Contract Code Section 7106]**

28TH STREET STORMWATER INFILTRATION PROJECT

Project Number: SD-281

The undersigned declares:

I am the _____ of _____, the party making the foregoing Bid.

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

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

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____ [date], at _____ [city], _____ [state].

Signature: _____

Signature: _____

Printed Name: _____

Printed Name: _____

Date: _____

Date: _____

ADDENDA ACKNOWLEDGMENT FORM

28TH STREET STORMWATER INFILTRATION PROJECT

Project Number: SD-281

Bidder’s Name: _____

The Bidder shall signify receipt of all Addenda here, if any:

Addendum Number	Date Received	Signature

If there are more Addenda than there is room in the chart above, attach another page acknowledging receipt of the Addenda.

CONTRACT**CITY OF MANHATTAN BEACH CONTRACT FOR****28TH STREET STORMWATER INFILTRATION PROJECT**

Project Number: SD-281

THIS CONTRACT ("Contract") is made and entered this _____ day of _____, 20____ ("Effective Date"), by and between the CITY OF MANHATTAN BEACH, a California municipal corporation ("City") and _____, a _____ [Legal Form of Entity and state of formation, e.g., California corporation, limited partnership, limited liability company] ("Contractor"). The Contractor's California State Contractor's license number is _____.

In consideration of the mutual covenants hereinafter set forth, the parties hereto agree as follows:

1. Contract Documents. The Contract Documents consist of this Contract, the Notice Inviting Bids, Instructions to Bidders, Bid (including documentation accompanying the Bid and any post-Bid documentation submitted before the Notice of Award), the Bonds, permits from regulatory agencies with jurisdiction, General Provisions, Special Provisions, Plans, Standard Plans, Standard Specifications, Reference Specifications, Addenda, Change Orders, and Supplemental Agreements. The Contract Documents are attached hereto and incorporated herein by reference.

2. Scope of Services. The Contractor shall perform and provide all materials, tools, equipment, labor, and services necessary to complete the Work in a good and workmanlike manner for the project identified as **28th Street Stormwater Infiltration Project** ("Project"), as described in the Contract Documents.

3. Compensation.

3.1 Contract Price and Basis for Payment. In consideration for the Contractor's full, complete, and timely performance of the Work required by the Contract Documents, the City shall pay the Contractor for the actual quantity of Work required under the Bid Items awarded by the City performed in accordance with the lump sum prices and unit prices for Bid Items, set forth in the Bidder's Proposal submitted with the Bid. The sum of the unit prices and lump sum prices for the Bid Items, awarded by the City is \$_____ ("Contract Price"). It is understood and agreed that the quantities set forth in the Bidder's Proposal for which unit prices are fixed are estimates only and that the City will pay and the Contractor will accept, as full payment for these items of work, the unit prices set forth in the Bidder's Proposal multiplied by the actual number of units performed, constructed, or completed as directed by the Engineer.

3.2 Payment Procedures. Based upon applications for payment submitted by the Contractor to the City, the City shall make payments to the Contractor in accordance with Section 7 of the Standard Specifications, as modified by Section 7 of the General Provisions.

4. Contract Time.

4.1 Initial Notice to Proceed. The City shall issue the "Notice to Proceed to Fulfill Preconstruction Requirements and Order Materials," (referred to as Phase 1 NTP) at which time the Contractor shall diligently prepare and transmit to the Engineer all pertinent submittals and/or request for information (RFI), and coordinate the date and time for the Project Preconstruction Meeting with the City, outside agencies, and other pertinent stakeholders. The Phase 1 NTP

must include submittals for critical items, including electrical and mechanical components along with other long lead-time items. As part of this NTP, the Contractor must also submit a utility locating plan and pilot drywell installation and testing plan for review and approval by the City.

The Notice to Proceed to Fulfill Preconstruction Requirements and Order Materials (Phase 1 NTP) shall further specify that the Contractor must complete the preconstruction requirements and order materials. The date specified in the Phase 1 NTP constitutes the date of commencement of the Contract Time of **280 Working Days**. It is anticipated that the Phase 1 NTP will be completed within 20 Working Days.

Phase 1 NTP requirements include, but are not limited to, the following:

- Submitting and obtaining approval of Baseline Schedule. Refer to GP Part 1 Section 6.
- Submitting and obtaining approval of Traffic Control Plans. Refer to GP Part 6.
- Submitting and obtaining approval of Schedule of Values.
- Submitting and obtaining approval of the Stormwater Pollution Prevention Plan (SWPPP)/Water Pollution Control Plan (WPCP). Refer to GP Part 1 Section 3-12.6.
- Submitting and obtaining approval of critical required and lead time submittals, including electrical and mechanical components..
- Submitting and obtaining approved Project Identification Signs. Refer to GP Part 1 Section 3-11.
- Obtaining approved Permits from all applicable agencies. Refer to GP Part 1 Section 2-2.
- Obtaining a Temporary Use Permit for a construction yard / staging area, if applicable.
- Notifying all agencies, utilities, residents, etc., as outlined in the Contract Documents.
- Submitting and obtaining approval of a Project Staffing List with contact information, Illness and Injury Prevention Plan, and a Project Emergency Contact List. Refer to GP Part 1 Section 6.
- Preparing a utility locating plan (expected to include potholing and slot trenching. Refer to GP Part 4 Section 402-1.
- Preparing pilot drywell installation and testing plan. Refer to Technical Specifications Section SW11-6.

4.2 Notice to Proceed with Utility Locating, Utility Relocation, and Pilot Drywell Installation/Testing (Phase 2 NTP). After Phase 1 requirements are met, to the satisfaction of the City, the City shall issue the "Notice to Proceed with Utility Locating, Utility Relocation, and Pilot Drywell Installation/Testing," (Phase 2 NTP) at which time the Contractor shall diligently prosecute the associated Work. Utility locating and drywell test results shall be submitted to the City for review during this phase. Pending the results, minor modifications may be made to the number and location of drywells. It is anticipated that this NTP will take 20 Working Days to complete.

4.3 Notice to Proceed with Construction (Phase 3 NTP). After all preconstruction

requirements are met, to the satisfaction of the City, and materials have been ordered in accordance with the previous NTPs, the City shall issue the "Notice to Proceed with Construction," (Phase 3 NTP) at which time the Contractor shall diligently prosecute the Work, including corrective punch list items of Work, day to day thereafter, within the remaining Contract Time (except as adjusted by subsequent Change Orders).

5. Liquidated Damages for Delay and Control of Work.

5.1 Liquidated Damages. The Contractor and the City have agreed to five thousand dollars (\$5,000.00) liquidated damages per calendar day pursuant to Section 6-9 of the General Provisions.

6. Early Completion.

6.1 Bonus for Early Completion. Not Applicable.

6.2 City Not Liable for Contractor Failure to Achieve Early Completion. While the Contractor may schedule completion of all of the Work, or portions thereof, earlier than the Contract Time, the City is exempt from liability for and the Contractor will not be entitled to an adjustment of the Contract Sum or to any additional costs, damages, including, but not limited to, claims for extended general conditions costs, home office overhead, jobsite overhead, and management or administrative costs, or compensation whatsoever, for use of float time or for the Contractor's inability to complete the Work earlier than the Contract Time for any reason whatsoever.

7. Work after Stop Work Notice. Any work completed by the Contractor after the issuance of a Stop Work Notice by the City shall be rejected and/or removed and replaced as specified in the applicable Section of the Special Provisions.

8. Antitrust Claims. In entering into this Contract, the Contractor offers and agrees to assign to the City all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. § 15) or under the Cartwright Act (Business and Professions Code Section 16700 *et seq.*) arising from purchases of goods, services, or materials pursuant to the Contract. This assignment shall be made and become effective at the time the City tenders final payment to the Contractor without further acknowledgment by the parties.

9. Prevailing Wages. The City and the Contractor acknowledge that the Project is a public work to which prevailing wages apply.

10. Workers' Compensation. Labor Code Sections 1860 and 3700 provide that every contractor will be required to secure the payment of compensation to its employees. In accordance with the provisions of Labor Code Section 1861, by signing this Contract, the Contractor certifies as follows:

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

11. Titles. The titles used in this Contract are for convenience only and shall in no way define, limit or describe the scope or intent of this Contract or any part of it.

12. Authority. Any person executing this Contract on behalf of the Contractor warrants and represents that he or she has the authority to execute this Contract on behalf of the Contractor and has the authority to bind the Contractor to the performance of its obligations hereunder.

13. Entire Agreement. This Contract, including the Contract Documents and any other documents incorporated herein by specific reference, represents the entire and integrated

Contract between the City and the Contractor. This Contract supersedes all prior oral or written negotiations, representations or agreements. This Contract may not be modified or amended, nor any provision or breach waived, except in a writing signed by both parties that expressly refers to this Contract.

14. Counterparts. This Contract may be executed in counterpart originals, duplicate originals, or both, each of which is deemed to be an original for all purposes.

15. !5 Abandonment of work?

IN WITNESS WHEREOF, the parties hereto have executed this Contract the day and year first above written.

See next Page for Signatures

CITY:

City of Manhattan Beach,
a California municipal corporation

By: _____
Name: Taylan Mirzakanian
Title: City Manager

ATTEST:

By: _____
Name: Liza Tamura
Title: City Clerk

APPROVED AS TO FORM:

By: _____
Name: Quinn M. Barrow
Title: City Attorney

APPROVED AS TO FISCAL IMPACT:

By: _____
Name: Onyx Jones
Title: Interim Finance Director

APPROVED AS TO CONTENT:

By: _____
Name: Erick Lee
Title: Public Works Director

CONTRACTOR:

Legal Corporate/Company Name:

By: _____
Name: _____
Title: _____

By: _____
Name: _____
Title: _____

**PROOF OF AUTHORITY TO BIND
CONTRACTING PARTY REQUIRED**

Bond No. _____

**PAYMENT BOND
(LABOR AND MATERIALS)**

KNOW ALL PERSONS BY THESE PRESENTS that:

WHEREAS the City of Manhattan Beach ("City"), State of California, has awarded to _____

_____ (“Principal”)

(Name and address of Contractor)

a contract (the "Contract") for the Work described as follows:

28th Street Stormwater Infiltration Project, Project Number: SD - 281

(Project name)

WHEREAS, under the terms of the Contract, the Principal is required before entering upon the performance of the Work, to file a good and sufficient payment Bond with the City to secure the claims to which reference is made in Title 3 (commencing with Section 9000) of Part 6 of Division 4 of the Civil Code.

NOW, THEREFORE, we, the undersigned Principal, and _____

(Name and address of Surety)

(“Surety”) a duly admitted surety insurer under the laws of the State of California, as Surety, are held and firmly bound unto the City and all contractors, subcontractors, laborers, material suppliers, and other persons employed in the performance of the Contract and referred to in Title 3 (commencing with Section 9000) of Part 6 of Division 4 of the Civil Code in the penal sum of _____ Dollars

(§ _____), for materials furnished or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to this Work or labor, that the Surety will pay the same in an amount not exceeding the amount hereinabove set forth, and also in case suit is brought upon this Bond, will pay, in addition to the face amount thereof, costs and reasonable expenses and fees, including reasonable attorneys' fees, incurred by City in successfully enforcing this obligation, to be awarded and fixed by the court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this Bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under Title 3 (commencing with Section 9000) of Part 6 of Division 4 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this Bond.

Upon expiration of the time within which the California Labor Commissioner may serve a civil wage and penalty assessment against the principal, any of its subcontractors, or both the principal and its subcontractors pursuant to Labor Code Section 1741, and upon expiration of the time within which a joint labor management committee may commence an action against the principal, any of its subcontractors, or both the principal and its subcontractors pursuant to Labor Code Section 1771.2, if the condition of this Bond be fully performed, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

The Surety hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract or the Specifications accompanying the same shall in any manner affect its obligations on this Bond, and it does hereby waive notice of any such change, extension, alteration, or addition.

IN WITNESS WHEREOF, two identical counterparts of this instrument, each of which shall for all purposes be deemed an original hereof, have been duly executed by Principal and Surety, on the date set forth below, the name of each corporate party being hereto affixed and these presents duly signed by its undersigned representative(s) pursuant to authority of its governing body.

Dated: _____

“Principal”

“Surety”

Signature:

Signature:

Print Name: _____

Print Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

Signature: _____

Print Name: _____

Title: _____

Date: _____

(Seal)

(Seal)

NOTE: *This Bond must be executed in duplicate and dated, all signatures must be notarized, and evidence of the authority of any person signing as attorney-in-fact must be attached. DATE OF BOND MUST NOT BE BEFORE DATE OF CONTRACT.* Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.

Bond No. _____

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS that:

WHEREAS the City of Manhattan Beach ("City"), has awarded to _____

 _____ ("Principal")
(Name and address of Contractor)

a contract (the "Contract") for the Work described as follows:

28th Street Stormwater Infiltration Project, Project Number: SD - 281

(Project name)

WHEREAS, Principal is required under the terms of the Contract to furnish a Bond for the faithful performance of the Contract.

NOW, THEREFORE, we, the undersigned Principal, and _____

(Name and address of Surety)

("Surety") a duly admitted surety insurer under the laws of the State of California, as Surety, are held and firmly bound unto the City in the penal sum of _____ Dollars (\$_____), this amount being not less than the total Contract Price, in lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, successors executors and administrators, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the hereby bounded Principal, his, her or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and provisions in the Contract and any alteration thereof made as therein provided, on the Principal's part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the City, its officers, agents and employees, as therein stipulated, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

As a part of the obligation secured hereby and in addition to the face amount specified therefor, there shall be included costs and reasonable expenses and fees, including reasonable attorneys' fees, incurred by City in successfully enforcing such obligation, all to be taxed as costs and included in any judgment rendered. Surety hereby waives any statute of limitations as it applies to an action on this Bond.

The Surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or of the Work to be performed thereunder or the specifications accompanying the same shall in anywise affect its obligations under this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the Work or to the specifications. Surety hereby waives the provisions of California

Civil Code Sections 2845 and 2849. The City is the principal beneficiary of this Bond and has all rights of a party hereto.

IN WITNESS WHEREOF, two identical counterparts of this instrument, each of which shall for all purposes be deemed an original hereof, have been duly executed by Principal and Surety, on the date set forth below, the name of each corporate party being hereto affixed and these presents duly signed by its undersigned representative(s) pursuant to authority of its governing body.

Dated: _____

“Principal”

“Surety”

Signature: _____
Print Name: _____
Title: _____
Date: _____

Signature: _____
Print Name: _____
Title: _____
Date: _____

Signature: _____
Print Name: _____
Title: _____
Date: _____

(Seal)

(Seal)

NOTE: *This Bond must be executed in duplicate and dated, all signatures must be notarized, and evidence of the authority of any person signing as attorney-in-fact must be attached. DATE OF BOND MUST NOT BE BEFORE DATE OF CONTRACT.* Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.

accompanying the same shall in anywise affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the specifications.

IN WITNESS WHEREOF, two identical counterparts of this instrument, each of which shall for all purposes be deemed an original hereof, have been duly executed by Principal and Surety, on the date set forth below, the name of each corporate party being hereto affixed and these presents duly signed by its undersigned representative(s) pursuant to authority of its governing body.

Dated: _____

“Principal”

“Surety”

Signature: _____
Print Name: _____
Title: _____
Date: _____

Signature: _____
Print Name: _____
Title: _____
Date: _____

Signature: _____
Print Name: _____
Title: _____
Date: _____

(Seal)

(Seal)

NOTE: *This Bond must be executed in duplicate and dated, all signatures must be notarized, and evidence of the authority of any person signing as attorney-in-fact must be attached. DATE OF BOND MUST NOT BE BEFORE DATE OF CONTRACT.* Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.

CHECKLIST FOR EXECUTION OF CONTRACT**TO BE SUBMITTED BY SUCCESSFUL BIDDER:**

- _____ Executed copy of the Contract (will be sent via DocuSign)
- _____ Completed, signed, and notarized Payment Bond (one original and one electronic copy) in amount of the Contract
- _____ Completed, signed, and notarized Performance Bond (one original and one electronic copy) in amount of the Contract
- _____ Completed, signed, and notarized Warranty Bond (one original and one electronic copy) in the amount of 10% of the Contract
- _____ Workers' Compensation Certificate with attached Certificate of Insurance
- _____ General Liability insurance certificate naming the City as a co-insured
- _____ Automobile insurance naming the City as a co-insured
- _____ Umbrella/Excess Liability (General aggregate) insurance certificate naming the City as a co-insured, if applicable
- _____ Additional insured endorsement – comprehensive general liability
- _____ Additional insured endorsement – automobile liability
- _____ Additional insured endorsement – excess liability
- _____ Primary and Non-Contributory Endorsement- General Liability Policy
- _____ Waiver of Subrogation - general liability
- _____ Waiver of Subrogation - Worker's Compensation
- _____ W-9 Request for Taxpayer Identification Number and Certification Form
- _____ Verification of Authority to Sign Document
- _____ DocuSign Contact Signature Form

ALL SUBMITTALS WILL BE RETAINED BY CITY, EXCEPT FOR ONE COPY OF THE FULLY EXECUTED CONTRACT

PART 1 - GENERAL PROVISIONS

SECTION 0. GENERAL PROVISIONS DEFINED

0-1 STANDARD SPECIFICATIONS

The 2024 edition of “Standard Specifications for Public Works Construction”, as amended by the Contract Documents, is incorporated into the Contract Documents by this reference. The Work described herein shall be done in accordance with the provisions of the Standard Specifications, as amended by the Contract Documents.

0-2 NUMBERING OF SECTIONS

The number of sections and subsections in these General Provisions are compatible with the numbering in the Standard Specifications. Subsections of architectural and/or other work may be numbered according to the Construction Specifications Institute (CSI) format.

0-3 SUPPLEMENTATION OF STANDARD SPECIFICATIONS

The Sections that follow supplement, but do not replace, the corresponding provisions in Part 1 (General Provisions) of the Standard Specifications, except as otherwise indicated herein. In the event of any conflict between the Standard Specifications and these General Provisions, these General Provisions shall control.

SECTION 1. GENERAL, TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE, AND SYMBOLS

The provisions below shall supplement, but not replace, those provisions in Section 1 of the Standard Specifications.

1-2 TERMS AND DEFINITIONS

Whenever in the Standard Specifications or in the Contract Documents the following terms are used, they shall be understood to mean the following:

Agency – The City of Manhattan Beach.

Applicable Law – All State, federal, and local laws, statutes, ordinances, codes, rules, and regulations governing the Work.

Bid Item – An item of Work listed on the Bid Schedule.

Board – The City Council of the City of Manhattan Beach.

City – The City of Manhattan Beach

City Council – The City Council of the City of Manhattan Beach

Contract Documents – As defined in Section 1 of the Contract.

Contract Time – The number of Working Days stated in the Contract for the completion of the Work.

County – County of Los Angeles, California

Detour – A temporary route for traffic (vehicular or pedestrian) around a closed portion of a road or travel way.

Engineer – The City Engineer, acting either directly or through properly authorized agents. Such agents shall act within the scope of the particular duties entrusted to them.

Estimated Quantities – The quantities of Work anticipated to be performed, as set forth in the Bid Schedule, designated as units or a lump sum.

Excavation – Any operation in which earth, rock, or other material in the ground is moved, removed, or otherwise displaced by means of tools, equipment, or explosives in any of the following ways: grading, trenching, digging, ditching, drilling, augering, tunneling, scraping, cable or pipe plowing and driving, or any other way (Cal. Gov. Code § 4216).

Final Acceptance- Acceptance of the Work by the City Council and direction to staff to cause recordation of the Notice of Completion, pursuant to Section 3-13.1 these General Provisions.

Inspector – An authorized representative of the City, assigned by the City to make inspections of Work performed by or materials supplied by the Contractor.

Major Item of Work – A bid item amount that is at least 10% of the total contract award amount.

Minor Item of Work – A bid item amount that is less than 10% of the total contract award amount.

Notice of Completion – The notice authorized by Civil Code Section 9204.

Notice to Proceed or Notice to Proceed with Construction – A written notice issued by the City to the Contractor that authorizes the Contractor to perform the Work.

Notice to Proceed to Fulfill Preconstruction Requirements and Order Materials – A written notice issued by the City to the Contractor that authorizes the Contractor to proceed with preconstruction requirements and the acquisition or purchase of materials that are to be incorporated into the Work and establishes the date of commencement of the Contract Time.

Project – See Work.

Punch List – A list of items of Work to be completed or corrected by the Contractor in order to complete the Work as specified in the Contract Documents.

Shop Drawings – All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the Contractor, a Subcontractor, manufacturer, supplier, or distributor, which illustrate how specific portions of the Work shall be fabricated or installed.

State – The State of California.

Submittal – Any drawing, calculation, specification, product data, samples, manuals, requests for substitutes, spare parts, photographs, survey data, traffic control plans, record drawings, bonds or similar items required to be submitted to the City under the terms of the Contract.

Traffic Engineer – The representative of the Engineer who is assigned traffic-related matters.

Work – The construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, services provided or to be provided by the Contractor to fulfill the Contractor's obligations.

Working Day - Any calendar day except Saturdays, Sundays, and the following holidays:

New Year's Day January 1

Martin Luther King, Jr. Day 3rd Monday in January

Presidents' Day 3rd Monday in February

Memorial Day Last Monday in May

Independence Day July 4

Labor Day 1st Monday in September

Columbus Day 2nd Monday in October

Veterans' Day November 11

Thanksgiving 4th Thursday in November

Friday after Thanksgiving 4th Friday in November

Christmas Day December 25

If a holiday falls upon a Sunday, the following Monday shall be the day the holiday is observed, and if a holiday falls upon a Saturday, the preceding Friday shall be the day the holiday is observed.

Work Directive – A unilateral written order issued by the City directing the Contractor to continue performance of the Work or a disputed item of Work pending resolution of a claim or dispute concerning the scope of Work.

1-3 ABBREVIATIONS

1-3.3 Institutions

The institutions listed in Section 1-3.3 of the Standard Specifications shall be supplemented by the list below:

<u>Abbreviation</u>	<u>Word or Words</u>
AAN	American Association of Nurserymen
AGCA.....	Associated General Contractors of America
APWA	American Public Works Association
CRSI	Concrete Reinforcing Steel Institute
CSI.....	Construction Specifications Institute
NFPA	National Fire Protection Association
SSS.....	State of California Standard Specifications, Latest edition, Department of Transportation
SSP.....	State of California Standard Plans, Latest edition, Department of Transportation

1-7 AWARD AND EXECUTION OF THE CONTRACT

1-7.2. Contract Bonds. The following paragraphs shall be added following the seventh paragraph:

The Faithful Performance Bond shall remain in force until the date of recordation of the Notice of Completion. The Labor and Materials Bond shall remain in force until expiration of the time within which the California Labor Commissioner may serve a civil wage and penalty assessment against the principal, any of its Subcontractors, or both the principal and its Subcontractors pursuant to Labor Code Section 1741, and until the expiration of the time within which a joint labor management committee may commence an action against the principal, any of its Subcontractors, or both the principal and its Subcontractors pursuant to Labor Code Section 1771.2.

The warranty or maintenance Bond shall be valid for one year from the date of recordation of Notice of Completion by the County Recorder, in the amount of ten percent of the Contract Price. Other than the details listed herein, the warranty or maintenance Bond shall adhere to the requirements for Bonds in Section 1-7.2 of the Standard Specifications. Nothing herein shall abridge or amend Section 3-13.3 of the Standard Specifications or the related provisions in these Contract Documents.

All Bonds must be submitted using the required forms, which are in the Contract Documents, or on any other form approved by the City Attorney.

SECTION 2. SCOPE OF THE WORK

The provisions below shall supplement but not replace those provisions in Section 2 of the Standard Specifications, unless specifically noted below.

2-1 WORK TO BE DONE

The following paragraphs shall be added at the end of Subsection 2-1:

All work which is defective in its construction or deficient in any of the requirements of the Plans and Specifications shall be remedied or removed and replaced by the Contractor in an acceptable manner at his own expense. No compensation will be allowed for any work done beyond the lines and grades shown on the Plans or established by the Engineer. Upon failure on the part of the Contractor to comply with any order of the Engineer made under the provisions of this article, the Engineer and the City may cause the defective work to be remedied or removed and replaced at the expense of the Contractor.

Any unauthorized or defective work, defective material or workmanship or any unfaithful or imperfect work that may be discovered before Final Acceptance of work by the Board shall be corrected immediately with no extra charge even though it may have been overlooked in previous inspections and estimates or may have been caused due to failure to inspect the work.

2-2 PERMITS

The following paragraphs shall be added at the end of Subsection 2-2:

Before starting any construction work, the Contractor will be required to obtain all necessary permits from the City, which may include obtaining a business license and an encroachment permit for Work within the public right-of-way, as well as all other permits required from all other agencies. All Subcontractors shall also obtain City Business license. Should this Project require construction of trenches or excavations which are five feet or deeper and into which a person is required to descend, the Contractor shall obtain a Cal/OSHA permit and furnish the City with a copy before Work can commence on this Project. The Contractor shall bear all cost for fees for all agencies except for the City's permit fees. Permits, including but not limited to, will be required from Los Angeles County Public Works (LACPW) for a Connection Permit, Coastal Development Permit issued by the City's Local Coastal Program, a Right of Entry Permit from Los Angeles County Beaches and Harbors (LACBH), City of Manhattan Beach Building and Safety Permit for retaining walls and parking lot improvements, City of Manhattan Beach Encroachment Permit for work in the public right-of-way, and a Division of Occupational Safety and Health (DOSH) permit for trenchless pipe installation.

The Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work. All City of Manhattan Beach permits required for the performance of the Contract shall be issued on a "no fee" basis.

2-2.1 Los Angeles County Department of Public Works Permit

A permit is required from the Los Angeles County Department of Public Works ("LACPW") and must be secured by the Contractor for the connection to LACPW storm drains and work in LACPW-owned catch basins. The Contractor shall prepare documentation, if necessary, and obtain

required bonds and insurance. The Contractor shall inform the City of required inspection fees, for which the Contractor will issue payment directly to LACPW, unless the City states otherwise. The approved plans and permit may be obtained from Los Angeles County Department of Public Works, 900 South Fremont Avenue, 3rd Floor, Alhambra, California 91803, (626) 458-4936.

Plan checks have been completed and the following permit/plan check number applies to the Project: *FCDP2022000558*. Full compensation for complying with the above requirements shall be considered as included in the Contract Lump Sum and Unit Prices for the work necessitating the permit (diversion structure and related catch basin demolition and improvements). Unless otherwise authorized by the LACPW Permit and approved plan, all storm drain work shall be performed in accordance with the Plans and Specifications, including scheduling/diversion requirements dictated by the permit.

2-2.2 Coastal Development Permit

The City's Local Coastal Program approved the Project for work within the Coastal Development Zone. Appendix V includes documentation related to this approval and associated requirements. Full compensation for complying with the referenced requirements shall be considered as included in the Contract Lump Sum and Unit Prices for the work necessitating the permit.

2-2.3 LACBH Right of Entry Permit

The 26th Street Parking Facility is owned by LACBH and the City has an agreement that allows them to utilize the parking lot. A Right of Entry permit was obtained for work within the parking facility. Appendix V includes documentation related to this approval and associated requirements. Full compensation for complying with the referenced requirements shall be considered as included in the Contract Lump Sum and Unit Prices for the work necessitating the permit (demolition and improvements within the parking facility).

2-2.4 City of Manhattan Beach Building & Safety Permit

2-2.5 City of Manhattan Beach Encroachment Permit

2-2.6 DOSH Permit

Installation of the diversion pipe between 28th Street and 27th Street that is to be installed using trenchless installation methods is subject to a DOSH Permit. Appendix V includes documentation related to this submittal. It was found that the trenchless pipe installation (Line A) is POTENTIALLY GASSY. Full compensation for complying with the referenced requirements shall be considered as included in the Contract Lump Sum and Unit Prices for the work necessitating the permit (diversion pipe installation).

2-4 COOPERATION AND COLLATERAL WORK

The following paragraphs shall be added at the end of Subsection 2-4:

The Contractor shall be responsible for coordinating all Work with the City's street sweeping, trash pick-up, and street maintenance contractors, emergency services departments, all utility company crews, and others when necessary who have the right to operate within or adjacent to the work site during the performance of such work. If necessary to avoid or minimize such damage or delay, the Contractor shall re-deploy its work force to other parts of the work. Each contractor shall be

responsible to the other for all damage to work, to persons or property caused to the other by their operations, and for loss caused to the other due to unnecessary delays or failure to finish the work within the time specified for completion.

Payment for conforming with all collateral work shall be considered, as being included in the various Contract items in the bid schedule and no additional compensation will be allowed thereof.

2-5 THE CONTRACTOR'S EQUIPMENT AND FACILITIES

The following sentence shall be added at the end of Section 2-5:

The use of excessively loud equipment and warning signals shall be avoided, except in those cases required for the protection of personnel.

2-5.4 Haul Routes

Subsection 2-5.4 shall be deleted and replaced as follows:

The Contractor must obtain the Engineer's approval before using any haul routes. Further detail requirements for haul traffic are delineated in the Special Provisions.

2-6 CHANGES REQUESTED BY THE CONTRACTOR

2-6.1 General

The following paragraph shall be added at the end of Subsection 2-6.1:

If the Contractor alleges that instructions issued after the date of the Contract will result in increases to the Contract Price or Contract Time, if latent or unforeseen conditions require modification of the Contract Documents, or the Contractor otherwise becomes aware of the need for or desirability of a change in the Work, a Change Order Proposal ("COP") may be submitted to the City in writing, using the forms provided herein in Subsection 2-7.1.1 of the General Provisions, and must specify the reasons for such change, including relevant circumstances and impacts on the construction schedule. The Contractor may request additional compensation and/or time through a COP but not for instances that occurred more than ten calendar days prior to the COP. The Contractor's failure to initiate a COP within such period shall be deemed a waiver of the right to adjustment of the Contract Price or the Contract Time for the alleged change, unless such waiver is prohibited under state law. Any COP that is approved by the City will be incorporated in a Change Order or Construction Change Directive. If the City determines that the Work in question is not a change, the City shall issue a Work Directive, ordering the Contractor to proceed with the Work without delay. If the COP is denied but the Contractor believes that it does have merit, the Contractor may submit a claim to the City.

2-7 CHANGES INITIATED BY THE AGENCY

The following paragraph shall be added at the end of Section 2-7:

The City reserves the right, without notice to the Surety, to increase or decrease the quantity of any item or portion of the Work described in the Contract Documents or to alter or omit portions of the Work so described, as may be deemed necessary or expedient by the Engineer, without in any way making the Contract void. Such increases, alterations or decreases of Work shall be considered and treated as though originally contracted for, and shall be subject to all the terms,

conditions and provisions of the original Contract. The Contractor shall not claim or bring suit for damages, whether for loss of profits or otherwise, on account of any decrease, alteration or omission of any kind of Work to be done.

2-7.1 General

Add the following paragraphs at the end of Subsection 2-7.1:

The City reserves the right to make changes in the Work, including the elimination of any Bid Item, after execution of the Contract and without invalidating the Contract by:

Change Order approved by the City Council, City Manager, Public Works Director, or City Engineer (dollar value of approval authority for each as per City policy); or

Construction Change Directive approved by the City Council, City Manager, Public Works Director, or City Engineer (dollar value of approval authority for each as per City policy);

A change that causes the total value of all changes to exceed the Contract contingency amount established at the time of award of the Contract must be approved by the City Council. No payments in excess of the original Contract Price will be made until a Change Order is approved in the normal course of business. The City may, at any time, without notice to the Contractor's surety(ies), order changes in the Work within the general scope of the Contract. Such changes in the Work shall not relieve or release the surety(ies) of its (their) obligations under the Performance and Payment Bonds issued for the Project. Changes in the Work made pursuant to this Article 3 shall in no way release any guarantee or warranty provided by the Contractor.

The City may issue a Change Order Proposal Request ("COPR"), in writing, to the Contractor, describing a proposed change to the Work and requesting that the Contractor submit an itemized Change Order Proposal ("COP") to the City. The Contractor shall submit the COP to the City Engineer, using the forms provided herein in Subsection 2-11.2 of these General Provisions, within ten calendar days after the City's issuance of the COPR. If the Contractor fails to submit a COP within such period of time, it shall be presumed that the change described in the City's COPR will not result in an increase to the Contract Price or Contract Time and the change shall be performed by the Contractor without such increases. A COPR does not authorize the Contractor to commence performance of the changed work. The Contractor shall not perform any change until receipt of the City's written approval. If the City approves the Contractor's COP, the City shall issue a Change Order.

Whenever a change is pending, the Contractor shall notify the City if it is necessary to halt other Work in the area of the change that would be affected thereby, until such time as the change is authorized.

Any change to the Contract Price shall be in a sum mutually agreed to by the Contractor and the City. When the cost for Extra Work cannot be agreed upon, the City will pay for Extra Work based on the accumulation of costs as provided for in Subsection 7-4, "Payment for Extra Work," of the Standard Specifications and the General Provisions.

2-7.1.1 Change Order

A Change Order is a written instrument prepared by the City and signed by the City and the Contractor, stating their agreement upon all of the following:

- A. The scope of the change in the Work;
- B. The amount of the adjustment, if any, in the Contract Price; and
- C. The extent of the adjustment, if any, in the Contract Time.

2-7.1.1.1 Accord and Satisfaction

Add Subsection 2-7.1.1.1 as follows:

The Contractor's agreement on any Change Order shall be a full compromise and settlement of all adjustments to the Contract Time and Contract Price, and compensation for any and all delay, extended or additional field and home office overhead, disruption, acceleration, inefficiencies, lost labor or equipment productivity, differing site conditions, construction interferences, and other extraordinary or consequential damages (hereinafter called "Impacts"), including any ripple or cumulative effect of the Impacts on the overall Work under the Contract arising directly or indirectly from the performance of Work described in the Change Order. By execution of any Change Order, the Contractor agrees that the Change Order constitutes a complete accord and satisfaction with respect to all claims for schedule extension, Impacts, or any costs of whatsoever nature, character or kind arising out of or incidental to the Change Order. No action, conduct, omission, product failure, or course of dealing by the City shall act to waive, modify, change, or alter the requirement that Change Orders must be in writing, signed by the City and the Contractor, and that such written Change Orders are the exclusive method for effectuating any change to the Contract Sum and/or Contract Time.

2-7.1.2 Construction Change Directive

Add Subsection 2-7.1.2 as follows:

A Construction Change Directive is a written order prepared and signed by the City, directing a change in the Work prior to the Contractor's agreement on adjustment, if any, in the Contract Price or Contract Time, or both. The City may, by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Price and Contract Time being adjusted accordingly. Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved. A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order. The City's form of Construction Change directive is provided in Subsection 2-11 of the General Provisions.

2-8 EXTRA WORK

Subsection 2-8 of the Standard Specifications shall be deleted and replaced as follows:

New and unforeseen work will be classified as Extra Work only when the Work is not covered and cannot be paid for under any of the various items or combination of items for which a Bid price appears on the Bid. The Contractor shall not do any Extra Work except upon written order from the Engineer.

All Extra Work shall conform to the Plans and Specifications.

The Contractor shall furnish to the Engineer each Subcontractor's signed and detailed estimate

of the cost for labor, materials, and equipment, including the markup by such Subcontractor for overhead and profit for Work added or deducted to a Subcontractor's scope of Work. The Contractor shall furnish to the Engineer the sub-Subcontractor's signed detailed estimate of the cost for labor, materials, and equipment, including the markup by such sub- Subcontractor for overhead and profit for Work added or deducted to a sub-Subcontractor's scope of Work. The Contractor shall furnish to the Engineer the vendor or supplier's signed detailed estimate or quotation of the cost to the Contractor for Work added or deducted from a vendor or suppliers scope of Work.

2-10 DISPUTED WORK

Delete Subsection 2-10 in its entirety and substitute the following:

In the event of disputed Work, the City shall have the right to unilaterally issue a written Work Directive; and the Contractor shall continue performance pending resolution of the dispute and shall maintain cost data described in Subsection 2-8 of the Standard Specifications and the General Provisions. The City's form of Work Directive is provided in Subsection 2-11.4 of the General Provisions. Payment shall be made for such disputed Work as is later determined by negotiation between the parties or as is fixed by a court of law.

2-11 FORMS

Add Section 2-11 to incorporate the following forms, which appear in the succeeding pages.

2-11.1 Change Order Form

2-11.2 Change Order Proposal Forms

- (a) Change Order Proposal Summary Report
- (b) Labor Cost Report
- (c) Labor Rates Report
- (d) Material Cost Report
- (e) Equipment Cost Report
- (f) Special Forces/Services Cost Report

2-11.3 Construction Change Directive Form

2-11.4 Work Directive Form



CITY OF MANHATTAN BEACH

Project No. SD - 281

**CITY OF MANHATTAN BEACH
PUBLIC WORKS DEPARTMENT
Engineering Division**

CONTRACT CHANGE ORDER NO. 1 (Final)

PROJECT NO.:

DESCRIPTION:

TO: Construction Company, Inc.

SUMMARY: This change order includes items for XXXXX. It added XX days to the schedule.

You are hereby instructed to comply with the following changes from the Contract Plans and Specifications:

SUMMARY OF CHANGES			
Description (Detailed Explanation Attached)		Change in Contract Price ¹	Change in Work Days
1.		\$0.00	
2.	Adjustment in Final Bid Quantities	\$0.00	
Net Change in Contract Price and Work Days		\$0.00	

¹Deduction or decrease in Contract Price is denoted in parentheses.

The following change is hereby made a part of the Contract Documents and shall be performed under the same terms and conditions as required by the original Contract Documents. Except as modified herein, the original Contract Documents and all prior amendments shall remain in full force and effect and all of the terms of the Contract Documents are hereby incorporated in this Change Order.

SUMMARY OF ALL CHANGE ORDERS

ORIGINAL CONTRACT AMOUNT\$000,000.00
CCO1 (FINAL).....\$0.00
TOTAL\$000,000.00

SUMMARY OF WORKING DAYS

FIRST DAY OF WORK:..... Date
CONTRACT WORKING DAYS..... X
TIME EXTENSION: CCO 1 (Final) Y
NEW TOTAL WORKING DAYS:.....X+Y
LAST DAY OF WORK..... New Date



CITY OF MANHATTAN BEACH

Project No. SD - 281

CHANGE ORDER DETAIL

Change Order No.: 1 (Final)

Project No.:

Description:

The changes or interpretations described and noted herein are hereby authorized. The signed original of this order is on file in the Department of Public Works. Shown as separate paragraphs: (A) Reason for Change; (B) Description of Change; (C) Change in Contract Costs; and (D) Change in Completion Date.

Item No. 1:A. Reason for Change:

Due to conditions encountered during construction, modifications to the amount of Work were determined to be appropriate, and the changes were addressed by means of adjusting applicable contract quantities, as outlined below.

B. Description of Change:

ITEM	DESCRIPTION	UNIT	UNIT PRICE	BID OR CURRENT APPROVED QTY	FINAL QTY	CHANGE	CHANGE IN COST ¹
New Item				0	0	0	0.00

¹Deduction or decrease in Contract Price is denoted in parentheses.

C. Change in Contract Cost:

Add \$0.00

D. Change in Completion Date:

Add Y Working Days

Item No. 2:A. Reason for Change:

**CITY OF MANHATTAN BEACH**
Project No. SD - 281**B. Description of Change:**

ITEM	DESCRIPTION	UNIT	UNIT PRICE	BID OR CURRENT APPROVED QTY	FINAL QTY	CHANGE	CHANGE IN COST ¹
New Item				0	0	0	0.00

¹Deduction or decrease in Contract Price is denoted in parentheses.**C. Change in Contract Cost:**
Add \$0.00**D. Change in Completion Date:**
No Change.**SIGNATURE PAGE TO FOLLOW:**



CITY OF MANHATTAN BEACH
Project No. SD - 281

The original Contract Price was (\$0.00). Contract Change Order No. 1 (Final) increased the Contract Price by (\$0.00). The new Contract Price will be \$00/100, resulting in an increase of approximately 0.00% to the original Contract.

The original Contract Time of X Working Days was extended by Y Working Days per Change Order No. 1 (Final). The last contract Working Day is new Date.

Ordered: _____
Public Works Director

Date: _____

Concurred by: _____
City Engineer

Date: _____

Concurred by: _____
Project Manager

Date: _____

Acceptance by the Contractor:

This Change Order is in full compromise and settlement of all adjustments to Contract Time and Contract Price, and compensation for any and all delay, extended or additional field and home office overhead, disruption, acceleration, inefficiencies, lost labor or equipment productivity, differing site conditions, construction interferences and other extraordinary or consequential damages (hereinafter called "Impacts"), including any ripple or cumulative effect of these Impacts on the overall Work under the Contract arising directly or indirectly from the performance of Work described in this Change Order. By execution of this Change Order, the Contractor agrees that this Change Order constitutes a complete accord and satisfaction with respect to all claims for schedule extension, Impacts, or any costs of any nature, character or kind arising out of or incidental to this Change Order.

Name: _____ Date: _____

Title: _____



CITY OF MANHATTAN BEACH

Project No. SD - 281

CHANGE ORDER PROPOSAL FORM EXAMPLE**2-11.2(a) CONTRACT CHANGE ORDER PROPOSAL SUMMARY REPORT**

Date _____

CCO Proposal No. _____ Contractor _____

Item No. _____ Location _____

General Contractor	AMOUNT
1. Labor Cost	\$ _____
2. Material Cost	\$ _____
3. Equipment Cost	\$ _____
4. Special Forces/Services	\$ _____
Subtotal Contractor Cost•	\$ _____
5. Subcontractor/Sub-Subcontractor Name _____	
Labor Cost	\$ _____
Material Cost	\$ _____
Equipment Cost	\$ _____
Subtotal Subcontractor/Sub-Subcontractor Cost	
6. Subcontractor/Sub-Subcontractor Name _____	
Labor Cost	\$ _____
Material Cost	\$ _____
Equipment Cost	\$ _____
Subtotal Subcontractor/Sub-Subcontractor Cost	\$ _____
TOTAL CONTRACT CHANGE ORDER COSTS	\$ _____



CITY OF MANHATTAN BEACH

Project No. SD - 281

CHANGE ORDER PROPOSAL FORM**2-11.2(b) LABOR COST REPORT EXAMPLE**

Date _____

CCO Proposal No. _____ Contractor or Subcontractor _____

Item No. _____ Location _____

CLASSIFICATION AND NAME	HOURS	HOURLY RATE	EXTENDED AMOUNTS
Classification:	OT	\$	\$
Name:	REG	\$	\$
Classification:	OT	\$	\$
Name:	REG	\$	\$
Classification:	OT	\$	\$
Name:	REG	\$	\$
Classification:	OT	\$	\$
Name:	REG	\$	\$
Classification:	OT	\$	\$
Name:	REG	\$	\$
Classification:	OT	\$	\$
Name:	REG	\$	\$
TOTAL LABOR			\$

Overhead/profit 20%.....\$ _____

Total labor/overhead/profit.....\$ _____

Subcontractor's mark-up of total Sub-Subcontractor
labor/overhead/profit (if applicable) 5%.....\$ _____General contractor's mark-up of total Subcontractor
or Sub-Subcontractor labor/overhead/profit (if applicable) 5%\$ _____

Total.....\$ _____



CITY OF MANHATTAN BEACH
Project No. SD - 281

CHANGE ORDER PROPOSAL FORM

2-11.2(c) LABOR RATES REPORT EXAMPLE

Date _____

CCO Proposal No. _____ Contractor or Subcontractor _____

Item No. _____ Location _____

CLASSIFICATION:		
TAXABLE BASE:		AMOUNT
Base Hourly Pay		\$
Vacation		\$
TOTAL TAXABLE BASE		\$
TAXES & INSURANCE	PERCENT	AMOUNT
Social Security Tax		\$
State Unemployment Tax		\$
Federal Unemployment Tax		\$
Workmen's Compensation		\$
Liability & Umbrella Insurance		\$
TOTAL TAXES & INSURANCE		\$
FRINGE BENEFITS	AMOUNT	
Pension	\$	
Health & Welfare	\$	
Training	\$	
Other Fringe Benefits	\$	
TOTAL FRINGE BENEFITS	\$	
AMOUNT	\$	



CITY OF MANHATTAN BEACH

Project No. SD - 281

CHANGE ORDER PROPOSAL FORM**2-11.2(d) MATERIAL COST REPORT EXAMPLE**

Date _____

CCO Proposal No. _____ Contractor or Subcontractor _____

Item No. _____ Location _____

INVOICE NO.	DESCRIPTION	AMOUNT
1.	Material	\$
	Sales Tax (Prevailing Tax Rate) 9.50%	\$
	Subtotal	\$
2.	Material	\$
	Sales Tax (Prevailing Tax Rate) 9.50%	\$
	Subtotal	\$
3.	Material	\$
	Sales Tax (Prevailing Tax Rate) 9.50%	\$
	Subtotal	\$
SUBTOTAL MATERIAL COST		\$

NOTE: An itemized list of materials, manufacturers, serial numbers, invoices, and other pertinent data shall be submitted along with the material cost report.

Overhead/profit 15%..... \$ _____

Total material/overhead/profit \$ _____

Subcontractor's mark-up of total Sub-Subcontractor material/overhead/profit (if applicable) 5% \$ _____

General contractor's mark-up of total Subcontractor or Sub-Subcontractor labor/overhead/profit (if applicable) 5% \$ _____

Total..... \$ _____



CITY OF MANHATTAN BEACH

Project No: SD - 281

CHANGE ORDER PROPOSAL FORM**2-11.2(e) EQUIPMENT COST REPORT EXAMPLE**

Date _____

CCO Proposal No. _____ Contractor or Subcontractor _____

Item No. _____ Location _____

EQUIPMENT NO. (Description, Type, Size)	HOURS	HOURLY RATE	EXTENDED AMOUNTS
SUBTOTAL EQUIPMENT COST			\$

Overhead/profit 15%.....\$ _____

Total equipment/overhead/profit\$ _____

Subcontractor's mark-up of total Sub-Subcontractor
equipment/overhead/profit (if applicable) 5%\$ _____General contractor's mark-up of total Subcontractor
or Sub-Subcontractor equipment/overhead/profit (if applicable) 5%\$ _____

Total.....\$ _____



CITY OF MANHATTAN BEACH
Project No. SD - 281

CHANGE ORDER PROPOSAL FORM

2-11.2 (f) SPECIAL FORCES/SERVICES COST REPORT EXAMPLE

Date _____

CCO Proposal No. _____ Contractor or Subcontractor _____

Item No. _____ Location _____

INVOICE NO.	DESCRIPTION	AMOUNT
1.		\$
		\$
	Subtotal	\$
2.		\$
		\$
	Subtotal	\$
3.		\$
		\$
	Subtotal	\$
SUBTOTAL MATERIAL COST		\$

NOTE: An itemized list of materials, manufacturers, serial numbers, invoices, and other pertinent data shall be submitted along with the special forces/services cost report.

Overhead/profit 15%..... \$ _____

Total Special Forces/Services/Overhead/Profit \$ _____

**2-11.3 CONSTRUCTION CHANGE DIRECTIVE**Distribution to: CITY ☐ CONTRACTOR ☐ OTHER ☐ PROJECT MANAGER ☐

PROJECT:

DIRECTIVE NO.:

DATE:

CONTRACT DATE:

TO CONTRACTOR:

CONTRACT FOR:

You are hereby directed to make the following change(s) to this Contract:

PROPOSED ADJUSTMENTS

1. The proposed basis of adjustment to the Contract Price is:
 - ☐ Lump Sum (increase) (decrease) of \$ _____
 - ☐ Unit Price of \$ _____ per _____
 - ☐ Daily time and materials records of actual costs plus a overhead and profit, as provided in Subsection 2-8, "Extra Work," the Standard Specifications and the General Provisions, [subject to a Not-To-Exceed Amount of \$ _____].\
 - ☐ as follows:
2. The Contract Time is proposed to (be adjusted) (remain unchanged). The proposed adjustment, if any, is (an increase of ____ days) (a decrease of ____ days).

If the Contractor disagrees with the proposed adjustments, it must submit its own proposal within ten days of the date of this Construction Change Directive pursuant to Contract Documents or the proposed adjustment will become final and binding on the Contractor.

When signed by the City and received by the Contractor, this document becomes effective IMMEDIATELY as a Construction Change Directive (CCD), and the Contractor shall proceed with the change(s) described above.

Ordered: _____
Public Works Director

Date: _____

Concurred by: _____
City Engineer

Date: _____

Concurred by: _____
Project Manager

Date: _____

**2-11.4 WORK DIRECTIVE**Distribution to: CITY ☐ CONTRACTOR ☐ FIELD ☐ OTHER ☐ PROJECT MANAGER ☐

PROJECT:

WORK DIRECTIVE NO.:

DATE:

CONTRACT DATE:

TO CONTRACTOR:

CONTRACT FOR:

You are hereby directed to continue performance of the following Work, without delay, pending resolution of the dispute concerning such Work and maintain the cost data described in Subsection 2-8, "Extra Work," of the Standard Specifications and the **General Provisions** to the Contract for the performance of such Work:

Neither the issuance of this Work Directive nor the requirement for the Contractor to maintain cost data constitutes approval by the City of a change in the Work or modification of the Contract Documents.

Ordered: _____
Public Works Director

Date: _____

Concurred by: _____
City Engineer

Date: _____

Concurred by: _____
Project Manager

Date: _____

SECTION 3. CONTROL OF THE WORK

The provisions below shall supplement but not replace those provisions in Section 3 of the Standard Specifications, unless specifically noted below.

3-1 ASSIGNMENT

Any purported assignment without written consent of the City shall be null, void, and of no effect, and the Contractor shall hold harmless, defend and indemnify the City and its officers, officials, employees, agents and representatives with respect to any claim, demand or action arising from or relating to any unauthorized assignment.

If the City opts to consent to assignment, the City's consent shall be contingent upon: (1) a letter from the Surety agreeing to the assignment and assigning all of the Bonds to the assignee without any reduction, or the assignee supplying all new Bonds in the amounts originally required under the Contract Documents; and (2) the assignee supplying all of the required insurance in the amounts required in the Contract Documents. Until the Surety assigns all of the Bonds or the assignee supplies all of the new Bonds, and until the assignee supplies all of the required insurance, an assignment otherwise consented to in writing by the City shall not be effective. Even if the City consents to assignment, no assignment shall relieve the Contractor of liability under the Contract.

3-3 SUBCONTRACTORS

Add the following subsections:

3-3.1 Subcontractors shall be listed by the Bidder in accordance with these specifications and must be properly licensed under the laws of the State of California for the type of work which they are to perform. Copies of all Subcontracts shall be made available to the Engineer, upon request.

3-3.2 Subcontractor Prosecution of Work: A Subcontractor whose prosecution of the work is not satisfactory shall be terminated immediately by the Contractor upon the receipt of a written notice by the Engineer. Subcontractors whose work was determined to be unsatisfactory shall not be allowed to perform any work on the job site.

3-5 INSPECTION

City will provide continuous inspections during Working Hours on Working Days only. The Contractor shall not perform work without the inspector present unless approved in advance by the City. The Contractor shall notify the City of anticipated rain days in advance, as inspection will not be required on days where the Contractor is not performing Work. The City will provide testing services for Quality Assurance as specified in Section 4-4 or in a future addendum., including the special inspections noted on the Plans for the retaining walls. At a minimum, Quality Assurance testing is anticipated for earthwork (compaction), structure backfill, base, and subbase. The Contractor must pay for retesting in relation to failed Quality Assurance tests. The Contractor will be responsible for their own Quality Control testing.

Add the following subsection:

3-5.1 Inspector Requirements

An inspector shall 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 not be binding to the Engineer or to the City, or release the Contractor from fulfilling all the terms of the Contract.

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 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 interest 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 certification from the Engineer.

Reexamination of any work may be ordered by the Engineer at any time prior to Final Acceptance and, if so ordered, the work must be uncovered by the Contractor. If such work be found in accordance with the Contract, the City will pay the cost of reexamination and replacement. If such work be found defective or not in accordance with the Contract, the Contractor shall pay such costs.

3-7 CONTRACT DOCUMENTS

3-7.1 General

All final locations determined in the field, and any deviations from the Plans and Specifications, shall be marked in red on the control set to show the as-built conditions. This control set of Plans shall also be edited for all Addenda, Requests for Information, Change Orders, field changes not involving cost, and any other variation that occurred during construction. Upon completion of all Work, the Contractor shall return the control set to the Engineer. Final payment will not be made until this requirement is met.

Where a work feature is shown on the drawings or identified in the Specifications but is not specifically indicated as an item in the Bid Schedule, and there is no ambiguity regarding the requirement to construct, install, or construct and install that work feature, the Contractor is required to complete the work feature. All costs to the Contractor for constructing, installing, or both constructing and installing such a work feature shall be included in the Bid.

3-7.2 Precedence of the Contract Documents

The following shall replace Section 3-7.2:

With regard to Section 3-7.2 in the Standard Specifications, the Special Provisions shall control over the General Provisions, and the Notice Inviting Bids and Instructions to Bidders (in that order) shall control over the Bid, such that the order of precedence shall be as follows:

1. Requirements of law.
2. Permits issued by regulatory agencies with jurisdiction.
3. Change Orders and Supplemental Agreements, whichever occurs last.
4. Contract.
5. Addenda.
6. Notice Inviting Bids.

7. Instructions to Bidders.
8. Bid/Proposal.
9. Special Provisions.
10. General Provisions.
11. Plans.
12. Standard Plans.
13. Standard Specifications.
14. Reference Specifications.

3-8 SUBMITTALS.

3-8.1 General

The following paragraphs shall be added at the end of Subsection 3-8.1:

The Contractor shall, at its own expense, transmit to the Engineer for review and acceptance, working drawings, shop drawings, supporting information, and/or other available instructive and descriptive information from the manufacturer, when and as required by the Plans or General Provisions or requested by the Engineer. Shop drawings will not be required for standard items in common use for which adequate manufacturers' literature is available unless otherwise required by the Engineer.

The Contractor shall consecutively number, thoroughly check, approve and sign each submittal and transmit the submittals to the Engineer for review. In the event that certain submittals are submitted without the Contractor's approval signature or are unacceptable to the City, they shall be rejected by the Engineer. The Contractor shall thereafter correct the submittals and resubmit.

In the event that in the process of development of the submittals it is discovered that there are defects and/or errors on the Plans that result in conflict between the Plans and the submittals, or if the submittals show variation from the Plans or other Contract Documents, the Contractor shall thoroughly describe and explain any defects and/or conflicts in its transmittal letter to the Engineer.

The Engineer's review of the submittals will be for general design and arrangement only, and shall not relieve the Contractor from responsibility for errors of any sort in the submittals or of the responsibility for executing the work in accordance with the Contract Documents. The Contractor shall allow a minimum of 20 Working Days for review of submittals. The Contractor shall be solely responsible for the correctness of the submittals, for shop fits and field connections, and for the results obtained by use of such submittals. The Contractor shall verify and be fully responsible for all dimensions and job-site conditions affecting the Work and shall be responsible for furnishing and installing the proper materials required by the Contract Documents.

The Contract Time will not be extended due to the failure of the Contractor to provide submittals as required by the Contract Documents in a timely manner.

3-8.2 Working Drawings

The following shall hereby be added to Table 3-8.2 of the Standard Specifications:

Item	Subsection No.	Title	Subject
15	SWP (Technical Specification)	Stormwater Pump	Stormwater pump installation and operation and maintenance procedures
16	SWT (Technical Specification)	Trash Capture System	Stormwater treatment device installation and operation and maintenance procedures
17	SWS (Technical Specification)	Sedimentation System	Stormwater treatment system installation and operation and maintenance procedures
18	SWI (Technical Specification)	Drywells	Stormwater infiltration system (drywell) installation and operation and maintenance procedures
19	SG (Technical Specification)	Slide Gate and Vault	Slide gate, actuator, and vault installation and operation and maintenance procedures

The fourth paragraph of Section 3-8.2 is revised with the following:

Working drawings listed in Table 3-8.2 as Items 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, and 19 shall be prepared, wet stamped, and signed by a Civil or Structural Engineer registered by the State of California.

3-8.3 Shop Drawings

The following shall hereby be added to Table 3-8.3 of the Standard Specifications:

Item	Subsection No.	Title	Subject
5	304 and Plans	Diversion Grating	Fabrication and Dimensional Details
6	SWP (Technical Specification)	Stormwater Pump	Fabrication and Dimensional Details
7	SWT (Technical Specification)	Trash Capture System	Fabrication and Dimensional Details
8	SWS (Technical Specification)	Sedimentation System	Fabrication and Dimensional Details
9	SWI (Technical Specification)	Drywells	Fabrication and Dimensional Details
10	SG (Technical Specification)	Slide Gate and Vault	Fabrication and Dimensional Details
11	Landscape and Irrigation (Part 8)	Landscape and Irrigation	[as required in associated Specifications]
12	Electrical	[as required in associated Technical Specifications]	[as required in associated Technical Specifications]

The following shall be added after Table 3-8.3 in Section 3-8.3:

Shop drawings listed in Table 3-8.3 as Items 5, 6, 7, 8, 9, and 10 shall be prepared, wet stamped,

and signed by a Civil or Structural Engineer registered by the State of California.

3-8.4 Supporting Information

The following shall hereby be added to the list in the second paragraph of Section 3-8.4:

- n) Control set of plans per 3-7.1.
- o) Sample contract sign per 3-11.
- p) Interpretive sign per 3-11.1.
- q) Lump sum breakdowns (if requested) per 7-2.
- r) City-owned utility relocation alignments and details per 306-15.1 and 402-4,
- s) Storm Drain Bypass Plan per 306-16.
- t) Stormwater treatment device (trash capture and sedimentation system) manufacturer's performance certificates per SWT and SWS (Technical Specifications).
- u) Subsurface infiltration system (drywell) supporting documentation per SWI (Technical Specifications).
- v) Valves/actuators and vault warranty along with operation and maintenance information for the plug valve and slide gates per SG (Technical Specifications)
- w) Landscape and irrigation materials/components per Part 8.
- x) Electrical and mechanical components and systems per Electrical Technical Specifications.
- y) Work Plan per Part 11 (Special Instructions).
- z) Construction Staging Plan noting parking, stockpiling, and haul routes.
- aa) All written manufacturer's warranties.

3-9 SUBSURFACE DATA

The following paragraphs shall be added at the end of Subsection 3-9:

If the City or its consultants have made investigations of subsurface conditions in areas where the Work is to be performed, such investigations shall be deemed made only for the purpose of study and design. If a geotechnical or other report has been prepared for the Project, the Contractor may inspect the records pertaining to such investigations subject to and upon the conditions hereinafter set forth. The inspection of the records shall be made in the office of the Engineer. It is the Contractor's sole responsibility to determine whether such investigations exist, and the City makes no affirmative or negative representation concerning the existence of such investigations.

The records of any such investigations are made available solely for the convenience of the Contractor. It is expressly understood and agreed that the City, the Engineer, their agents, consultants or employees assume no responsibility whatsoever with respect to the sufficiency or accuracy of any investigations, the records thereof, and the interpretations set forth therein. No warranty or guarantee is expressed or implied that the conditions indicated by any such investigations or records are representative of those existing in the Project area. The Contractor agrees to make such independent investigations and examination as necessary to be satisfied of the conditions to be encountered in the performance of the Work.

The Contractor represents that it has studied the Plans, Specifications and other Contract Documents, and all surveys and investigation reports of subsurface and latent physical conditions, has made such additional surveys and investigations as necessary for the performance of the Work at the Contract Price in accordance with the requirements of the Contract Documents, and that it has correlated the results of all such data with the requirements of the Contract Documents.

No claim of any kind shall be made or allowed for any error, omission or claimed error or omission, in whole or in part, of any geotechnical exploration or any other report or data furnished or not furnished by the City.

3-10 SURVEYING

3-10.1 General.

Add the following before the first paragraph:

The Contractor shall verify all dimensions on the drawings and shall report to the City any discrepancies before proceeding with related Work. The Contractor shall perform all survey and layout Work per the benchmark information on the Project Plans. All surveying Work must conform to the Professional Land Surveyors' Act (Business and Professions Code Section 8700 *et seq*). All Project surveying notes and "cut-sheets" are to be provided to the City after the completion of each surveying activity and all final surveying notes shall be provided before final payment to the Contractor.

The Contractor is responsible for hiring a Surveyor to set survey points to be used for re-establishments of disturbed monuments and submit Corner Records to the County Surveyor. Copy of the submitted Corner Records must be provided to the City prior to actual disturbance of the monuments. The Contractor shall also cause all disturbed survey monuments within the project work area to be re-established at the end of the project. This also includes filing Corner Records and Record of Survey with the County Surveyor within 7 days of substantial completion of the construction work and submitting a copy to the City of the filed paperwork receipt within 2 days of submission. The Contractor is required to provide a copy of the County Surveyor's acceptance within 2 days of receipt from the County Surveyor.

Construction stakes shall be set and stationed by the Contractor at its expense. Unless otherwise indicated in the Special Provisions, surveying costs shall be included in the price of items bid. No separate payment will be made. Re-staking and replacement of construction survey markers damaged as a result of the Work, vandalism, or accident shall be at the Contractor's expense.

3-11 CONTRACT INFORMATION SIGNS

Delete Section 3-11 and insert the following:

The names, addresses and specialties of the Contractor, Subcontractors, architects or engineers may **not** be displayed on any signage within the public right-of-way. This signage prohibition includes advertising banners hung from truck beds or other equipment. Signage shall include language as required by funding agreements that the City has in place (refer to Appendix VIII for additional requirements). Language is expected to be something like "funding for this project has been provided in part from the Los Angeles County Flood Control District's Safe, Clean Water Program, Proposition 1 – the Water Quality, Supply, and Infrastructure Improvement Act of 2014 through an agreement with the State Water Resources Control Board, Proposition 68 under the Urban Flood Protection Grant Program administered by the California Natural Resources Agency, and the City of Manhattan Beach." Signage shall also include color logos of the agencies/programs contributing funding to the Project. The Contractor shall submit a sample sign to the Agency for approval in accordance with Section 3-8.4.

3-11.1 Interpretive Signs

Section 3-11.1 shall be added to the Standard Specifications:

Permanent interpretive signs shall be installed in accordance with the Plans. The color of the signposts shall be confirmed by the City through the construction submittal process. The content for the sign will be developed by the City and provided to the Contractor. The Contractor shall produce the sign based on the City-provided content. The sign structure shall be submitted to the Engineer for review and approval, as indicated in 3-8.4. The final locations shall be approved by the City. Interpretive sign costs shall be included in the Contract Bid price for Each "INTERPRETIVE SIGN" and shall include construction and the furnishing of all necessary labor, equipment, and materials, including the foundation.

3-12 WORKSITE MAINTENANCE

3-12.1 General.

Insert the following paragraph after the last paragraph:

Clean-up shall be done as Work progresses at the end of each day and thoroughly before weekends. The Contractor shall not allow the Work site to become littered with trash and waste material, but shall maintain the same in a neat and orderly condition throughout the construction operation, including suspension of work, and until the final acceptance. Materials which need to be disposed shall not be stored at the Project site, but shall be removed by the end of each Working Day. Failure of the Contractor to comply with the Engineer's clean up orders may result in an order to suspend work until the condition is corrected. No additional compensation will be allowed as a result of such suspension. If the job site is not cleaned to the satisfaction of the Engineer, the cleaning will be done or contracted by the City and shall be back-charged to the Contractor and deducted from the Contract Price.

The Contractor shall make arrangements for storing its equipment and materials. The Contractor shall make its own arrangements for any necessary off-site storage or shop areas necessary for the proper execution of the Work. Approved areas within Work site may be used for temporary storage; however, the Contractor shall be responsible for obtaining any necessary permits from the City. In any case, the Contractor's equipment and personal vehicles of the Contractor's employees shall not be parked on the traveled way or on any section where traffic is restricted at any time.

The Contractor shall deliver, handle, and store products in accordance with the manufacturer's written recommendations and by methods and means that will prevent damage, deterioration, and loss including theft. Delivery schedules shall be controlled to minimize long- term storage of products at the Project site and overcrowding of construction spaces. In particular, the Contractor shall provide delivery and installation coordination to ensure minimum holding or storage times for products recognized to be flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other sources of loss.

Storage shall be arranged to provide access for inspection. The Contractor shall periodically inspect to ensure products are undamaged and are maintained under required conditions.

The Contractor shall promptly remove from the vicinity of the completed Work, all rubbish, debris, unused materials, lumber, concrete forms, construction equipment, and temporary structures and facilities used during construction. Excess excavated material from catch basins or similar

structures shall be removed from the site immediately. Sufficient material may remain for use as backfill if permitted by the Specifications or Engineer. Before final inspection of the work, the Contractor shall clean the right of way, private property, material sites, and all ground occupied by the Contractor in connection with the work of all rubbish, weeds, unwanted plants/trees, excess and unused materials, falsework, temporary structures, and equipment. All parts of the work shall be left in a neat and presentable condition. Final Acceptance of the Work by the City will be withheld until the Contractor has satisfactorily complied with the foregoing requirements for final clean-up of the Project site.

All costs associated with the clean-up and storage required to complete the Project shall be the sole responsibility of the Contractor. Full compensation for collecting and disposing of loose material and debris from the job site shall be considered as included in the contract prices paid for the various items of work involved and no additional compensation will be allowed therefor.

Pursuant to the provisions of Section 3-12 and Section 5-7 - Safety of the Standard Specifications and these General Provisions, the Contractor is responsible for Project site maintenance and for public convenience and safety. Payment for compliance with these provisions is considered as included in the prices bid for other contract items.

The City, however, to maintain good public relations, may deem it necessary to require special Project site maintenance, and public convenience and safety actions and work to be performed by the Contractor that are over and above those required by the provisions of Section 3-12 and Section 5-7 - Safety of the Standard Specifications and these General Provisions.

These actions and work shall be as directed by the Engineer in writing and payment for compliance therewith shall be on a cost plus basis for extra work per Section 7-4 of the Standard Specifications and applied against the not-to-exceed bid item for "Special Project Site Maintenance and Public Convenience and Safety."

3-12.3 Noise Control.

Replace "Special Provisions" with "Special Instructions".

3-12.4 Storage of Equipment and Materials.

3-12.4.2 Storage in Public Streets.

The first sentence of Section 3-12.4.2 shall not be incorporated, and shall instead be replaced with the following:

Construction materials and equipment shall not be stored in streets, roads, or highways unless otherwise specified in the Special Provisions or approved by the Engineer.

3-12.5 Sanitary Sewers.

3-12.5.2 Sewage Bypass and Pumping Plans.

The following paragraph shall be added at the end of Section 3-12.5.2:

Additional requirements pertaining to sewer bypass and restoration are included in Section 402-2, including payment and other details.

3-12.5.3 Spill Prevention and Emergency Response Plan.

The following paragraph shall be added at the end of Section 3-12.5.3:

The Contractor shall submit a Spill Contingency Plan to the City detailing precautions to be implemented to prevent sewage spills, including specific responses and control measures to following during overflow resulting from breakage or blockage and maintenance and inspection schedules to detect potential problems and mitigate potential release resulting from overflows, bypass pipe ruptures, pipe ruptures, blockages and backups. The sewer spill contingency plan shall also identify and describe the size and type of pump system to be used based on the quantity of identified sewer flows, locations of bypass operations including manholes and hose length/size, time of operations, total duration days of work, construction work team, etc. including how the entire operations will be conducted, all improvements constructed/tied-in, removal of demolished manholes and pipes, to ensure a clean no-spill site, all standby pumps and appurtenance at hand during the by-pass operations, contingency plan if by-pass operation system and standby appurtenances fail, such as pump failure, hose rupture, sewer overflow/spill, seeking third party contractor assistance, notification process to schools, county, agencies, city, adjacent residents, response personnel and time, health hazards and protective/clean up equipment and procedures.

3-12.6 Water Pollution Control.

3-12.6.3 Stormwater Pollution Prevention Plan (SWPPP).

Replace Section 3-12.6.3 with the following:

The Agency will provide a Project-specific Stormwater Pollution Prevention Plan (SWPPP) to the Contractor. The Contractor shall update the SWPPP with Contractor information prior to construction/ground-breaking activities. The Notice of Intent (NOI) shall be prepared and submitted by the Contractor to the California Stormwater Multiple Applications and Reporting System (SMARTS). The Contractor shall work with the City to be identified in SMARTS as a data submitter.

The SWPPP shall be implemented in accordance with the County Wide Storm Water Management Plan, National Pollutant Discharge Elimination System (NPDES) PERMIT ORDER NO. R4-2021-0105 NPDES PERMIT NO. CAS004004 and any other requirements established by the City. Best Management Practices (BMPs) referenced are from the California Storm Water Best Management Practice Handbooks (Construction, Municipal, and Industrial). The Contractor shall also be responsible for required reporting through SMARTS.

The Contractor shall assess site conditions, identify construction activities with the potential to cause stormwater pollution, and then identify the BMP that will best suit the construction activities. The SWPPP shall include a site map of the project providing the following information, if applicable, but not limited to (existing maps may need to be updated based on the Contractors means and methods):

- a) The boundary of the construction site(s).
- b) The area of the construction site(s) in acres.
- c) Location of existing storm drain facilities.
- d) Types and locations of stormwater structures, controls, and/or BMP, which will be built/utilized to control storm water pollution during construction.
- e) Construction and erosion control material storage areas.
- f) Temporary stockpile and construction waste storage areas.
- g) Construction vehicle storage and service areas.

- h) Watershed boundary of off-site areas that drain into the construction site.
- i) The boundary of the drainage area where stormwater leaves the construction site.
- j) Areas of soil disturbance and locations of potential soil erosion areas requiring BMPs during construction.
- k) Drainage patterns and slopes anticipated after major grading activities.

The above information should be updated as needed to meet evolving construction conditions. The Contractor shall coordinate stormwater pollution prevention work with all other work done on the contract and is responsible for ensuring that all project contractors and subcontractors implement all applicable BMPs. If the measures being taken by the Contractor are inadequate to prevent stormwater pollution effectively, the Engineer may direct the Contractor to revise the operations and the SWPPP and/or the Erosion Control Plan measures. The directions will be in writing and will specify the items of work for which the Contractor's stormwater pollution prevention measures are inadequate. No further work shall be performed on the items until the water pollution prevention measures are adequate and, if also required, a revised SWPPP and/or Erosion Control Plan has been accepted.

The Engineer will notify the Contractor of the acceptance or rejection of any submitted or revised SWPPP and/or Erosion Control Plans in not more than 5 working days. The City will not be liable to the Contractor for failure to accept all or any portion of an originally submitted or revised SWPPP and/or Erosion Control Plan, nor for any delays to the work due to the Contractor's failure to submit an acceptable SWPPP and/or Erosion Control Plan.

Maintenance

To ensure the proper implementation and functioning of water pollution prevention measures, the Contractor shall regularly inspect and maintain the construction site for the water pollution prevention measures identified in the SWPPP and the Erosion Control Plan. The Contractor shall inspect the construction site in accordance with the SWPPP, which typically includes:

- a) Prior to a forecast storm.
- b) After a precipitation event which causes site runoff.
- c) At 24 hour intervals during extended precipitation events.
- d) Routinely, a minimum of once every week

One copy of each site inspection record shall be submitted to the Engineer within 24 hours of completing the inspection.

Reporting Requirements

If the Contractor identifies discharges into surface waters or drainage systems in a manner causing, or potentially causing, a condition of pollution, or if the project receives a written notice or order from a regulatory agency, the Contractor shall immediately inform the Agency. The Contractor shall submit a written report to the Agency within 7 days of the discharge event, notice, or order. The report shall include the following information:

- a) The date, time, location, nature of the operation, and type of discharge, including the cause or nature of the notice or order.
- b) The water pollution control practices deployed before the discharge event, or prior to receiving the notice or order.
- c) The date of deployment and type of water pollution control practices deployed after the discharge event, or after receiving the notice or order, including additional measures installed or planned to

reduce or prevent reoccurrence.

- d) An implementation and maintenance schedule for affected water pollution control practices.

3-12.6.5 Payment.

Replace Section 3-12.6.5 with the following:

Payment for SWPPP update, stormwater BMP implementation, BMP maintenance, BMP removal, required reporting, and other activities required by the SWPPP is considered included in the Lump Sum Bid price for "SWPPP IMPLEMENTATION"

Payment for dewatering (if required) shall be considered in the Bid as part of the items requiring it.

3-13 COMPLETION, ACCEPTANCE AND WARRANTY

3-13.1 Completion

The following paragraph shall be added at the beginning of Section 3-13.1:

The Contractor shall complete all Work under the Contract including punchlist items within the stipulated Working Days from the Notice to Proceed, as stated in the Contract. The Contractor shall not be allowed to begin any construction activity at the site before the issuance of the Notice to Proceed. Between the period of the Notice of Award and Notice to Proceed, the Contractor shall process Shop Drawings and begin procuring equipment and materials.

3-13.2 Acceptance

Delete the subsection and insert the following:

The Project will not be considered complete and ready for City Council direction to staff regarding recordation of the Notice of Completion until all Work required by the Contract Documents has been fully completed in compliance with the Contract Documents and all Applicable Laws including, but not limited to, correction or completion of all punch list items, the Work site is cleaned up in accordance with Section 3-12 of the Standard Specifications, the General Provisions, and the Special Provisions, and all of the following items have been received by the Engineer:

1. A form of Notice of Completion, with all information required by the California Civil Code;
2. All written guarantees, warranties, and special warranties if applicable;
3. All "as-builts" and record drawings;
4. Duly completed and executed forms of Conditional Waiver and Release On Final Payment from the Contractor, Subcontractors of any tier, suppliers, and other person eligible to file stop notices in connection with the Work; and
5. Duplicate copies of all operating instructions and manufacturer's operating catalogs and data, together with such field instructions as necessary to fully instruct City personnel in correct operation and maintenance procedures for all equipment installed listed under the electrical, air conditioning, heating, ventilating and other trades. This data and instructions shall be furnished for all equipment requiring periodic adjustments, maintenance or other operation procedures.

The Contractor shall allow at least seven Working Days' notice for final inspection. Such notice shall be submitted to the Engineer in writing.

After the Work is considered substantially complete, the Project will begin the acceptance, commissioning, testing, and training phase. Electrical Specifications include requirements associated with individual component commissioning, testing, and training. In addition to the requirements set forth in the Electrical Specifications, the Contractor must provide the City with system-wide training in relation to the stormwater components and controls (how to operate valves, access system data, view/address alarms and other conditions, etc.). The Contractor must provide training in relation to SCADA and onsite controls. The Contractor must also stay onboard until at least two rain events predicted to be greater than 0.5-inches have occurred, at which time the system is fully operational. The Contractor must notify the City in advance of the projected rain events. During the first projected rain event, the Contractor shall conduct onsite training (during normal Working Hours) to walk through the component operations and to review in the field system performance. Following the onsite training, the Contractor must be available within two (2) hours if any issues arise onsite or with remote controls. During the second rain event, the Contractor must be available within two (2) hours to help with troubleshooting issues that arise, or answer questions related to system operation, controls, data, SCADA, etc. Payment for commissioning, testing, and training for stormwater components will be made at the Lump Sum price in the Bid for "COMMISSIONING, TESTING, AND TRAINING FOR STORMWATER COMPONENTS" and shall include weather tracking, coordination with the City, on-site training, review of system operation, response to City correspondences, and associated labor, materials, equipment, and incidentals required.

3-13.3 Warranty

The following paragraph shall be added at the end of Section 3-13.3:

For the purposes of the calculation of the start of the warranty period, the Work shall be deemed to be completed upon the date of recordation of the Notice of Completion. If that direction is contingent on the completion of any items remaining on a punchlist, the Work shall be deemed to be completed upon the date of the Engineer's acceptance of the final item(s) on that punchlist.

The Contractor shall repair or replace defective materials and workmanship as required in Section 3-13.3 of the Standard Specification at its own expense. Additionally, the Contractor agrees to defend, indemnify and hold the City harmless from claims of any kind arising from damage, injury or death due to such defects.

The parties agree that no certificate given shall be conclusive evidence of the faithful performance of the Contract, either in whole or in part, and that no payment shall be construed to be in acceptance of any defective Work or improper materials. Further, the certificate or final payment shall not terminate the Contractor's obligations under the warranty herein. The Contractor agrees that payment of the amount due under the Contract and the adjustments and payments due for any Work done in accordance with any alterations of the same, shall release the City, the City Council and its officers and employees from any and all claims or liability on account of Work performed under the Contract or any alteration thereof.

SECTION 4. CONTROL OF MATERIALS

The provisions below shall supplement but not replace those provisions in Section 4 of the Standard Specifications, unless specifically noted below.

4-1 GENERAL

The first paragraph of Section 4-1 is replaced with the following:

Wherever applicable, materials shall conform to the latest Standards of the American Society for Testing Materials. All workmanship in the fabrication, assembly and construction of materials and equipment shall be neat and workmanlike in every respect. All equipment offered shall be of the manufacturer's latest design.

The Contractor and all Subcontractors, suppliers, and vendors shall guarantee that the Work will meet all requirements of this Contract as to the quality of materials, equipment, and workmanship.

The following subsection shall be added to Section 4-1:

4-1.1 Property Rights in Materials

Nothing in the Contract shall be construed as vesting in the Contractor any right, title, or interest in material used in the Work after it has been attached or affixed to the Work or the soil. All such material shall become the property of the City upon being so attached or affixed.

4-2 PROTECTION

Add the following at the end of Subsection 4-2:

Materials shall not be stored in the right-of-way unless written permission is given by the Engineer.

4-4 TESTING

Delete Subsection 4-4 and insert the following:

Unless otherwise called for in the Special or General Provisions, all Quality Assurance testing of materials will be performed by the City in such number and at such locations as deemed necessary by the Engineer to ensure compliance with the Contract Documents. The cost of all testing that can be performed within 50 miles of the Project will be borne by the City. The cost of all testing that must be performed 50 miles or more from the Project will be borne by the Contractor. The cost of all re- testing will be borne by the Contractor, and the amount due the City for the re-testing will be deducted from the Contract Price via Change Order.

The cost of rework material testing, overtime, travel and other related costs incurred by the City will be deducted from the Contract Price via Change Order. The Contractor shall be responsible for Quality Control related testing.

4-6 TRADE NAMES

The following paragraph shall be added to Section 4-6:

If the Contractor requests to substitute an equivalent item for a brand or trade name item, the

burden of proof as to the comparative quality and suitability of alternative equipment or articles or materials shall be upon the Contractor, and the Contractor shall furnish, at its own expense, all information necessary or related thereto as required by the Engineer. All requests for substitution shall be submitted, together with all documentation necessary for the Engineer to determine equivalence, no later than ten calendar days after the award of the Contract, unless a different deadline is listed in the Special Provisions.

4-9 RECYCLING OF MATERIALS

Subsection 4-9 add to the Standard Specifications as follows:

4-9.1 Recycling of Asphalt Concrete, Portland Cement Concrete, Aggregate Base, and Green Waste are Required

The records of disposal, including scale tonnages, shall be furnished to the City on a monthly basis. Failure to comply with the requirements of this Section will result in delay of progress payment.

4-9.2 Contractor's Obligation

The City is committed to a recycling program. If available, it is the obligation of the Contractor, under the Contract, to recycle the waste material through an approved recycling plant. Records and reports of waste recycle will be submitted to the City on a regular monthly basis.

SECTION 5 LEGAL RELATIONS AND RESPONSIBILITIES

The provisions below shall supplement but not replace those provisions in Section 5 of the Standard Specifications, unless specifically noted below

5-3 LABOR

5-3.1 General

The following subsection shall be added to Section 5-3.1:

5-3.1.1 Public Work

The Contractor acknowledges that the Project is a “public work” as defined in Labor Code Section 1720 *et seq.* (“Chapter 1”), and that this Project is subject to (a) Chapter 1, including without limitation Labor Code Section 1771 and (b) the rules and regulations established by the Director of Industrial Relations (“DIR”) implementing such statutes. The Contractor shall perform all Work on the Project as a public work. The Contractor shall comply with and be bound by all the terms, rules and regulations described in (a) and (b) as though set forth in full herein.

5-3.2 Prevailing Wages

The following subsections shall be added to Section 5-3.2:

5-3.2.1 Copies of Wage Rates

Pursuant to Labor Code Section 1773.2, copies of the prevailing rate of per diem wages for each craft, classification, or type of worker needed to perform the Project are on file at City Hall and will be made available to any interested party on request. By initiating any Work on this Project, the Contractor acknowledges receipt of a copy of the DIR determination of such prevailing rate of per diem wages, and the Contractor shall post such rates at each job site covered by these Contract Documents.

5-3.2.2 Failure to Pay Prevailing Rates

The Contractor shall comply with and be bound by the provisions of Labor Code Sections 1774 and 1775 concerning the payment of prevailing rates of wages to workers and the penalties for failure to pay prevailing wages. The Contractor shall, as a penalty paid to the City, forfeit \$200.00 for each calendar day, or portion thereof, for each worker paid less than the prevailing rates as determined by the DIR for the work or craft in which the worker is employed for any public work done pursuant to these Contract Documents by the Contractor or by any Subcontractor.

5-3.2.3 Debarment or Suspension

The Contractor shall not perform Work with any Subcontractor that has been debarred or suspended pursuant to California Labor Code Section 1777.1 or any other federal or State law providing for the debarment of contractors from public works. The Contractor and Subcontractors shall not be debarred or suspended throughout the duration of the Contract pursuant to Labor Code Section 1777.1 or any other federal or State law providing for the debarment of contractors from public works. If the Contractor or any Subcontractor becomes debarred or suspended during the duration of the Project, the Contractor shall immediately notify the City.

5-3.3 Payroll Records

The following paragraph shall be added to Section 5-3.3:

The Contractor shall comply with and be bound by the provisions of Labor Code Section 1776, which requires the Contractor and each Subcontractor to (1) keep accurate payroll records and verify such records in writing under penalty of perjury, as specified in Section 1776, (2) certify and make such payroll records available for inspection as provided by Section 1776, and (3) inform the City of the location of the records. The Contractor has ten days in which to comply subsequent to receipt of a written notice requesting these records, or as a penalty to the City, the Contractor shall forfeit \$100.00 for each Day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.

5-3.4 Hours of Labor

The following shall replace Subsection 5-3.4:

The Contractor shall not conduct any operations or perform any Work pertaining to the Project outside the working days and hours as defined in Section 10-8 Working Days and Hours. In the event that the Contractor abuses the hours of work requirement, a written warning will follow. After each additional warning, a \$200.00 penalty will be deducted from the Contract amount.

The Contractor acknowledges that eight hours labor constitutes a legal day's work. The Contractor shall comply with and be bound by Labor Code Section 1810. The Contractor shall comply with and be bound by the provisions of Labor Code Section 1813 concerning penalties for workers who work excess hours. The Contractor shall, as a penalty paid to the City, forfeit \$25.00 for each worker employed in the performance of this Project by the Contractor or by any Subcontractor for each calendar day during which such worker is required or permitted to work more than eight hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of Division 2, Part 7, Chapter 1, Article 3 of the Labor Code. Pursuant to Labor Code Section 1815, work performed by employees of the Contractor in excess of eight hours per day, and 40 hours during any one week shall be permitted upon public work upon compensation for all hours worked in excess of eight hours per day at not less than one and one-half times the basic rate of pay.

5-3.5 Apprentices

The following paragraph should be added at the end of Subsection 5-3.5:

The Contractor shall comply with and be bound by the provisions of Labor Code Sections 1777.6 and 1777.7 and California Code of Regulations Title 8, Section 200 *et seq.* concerning the employment of apprentices on public works projects. The Contractor shall be responsible for compliance with these Sections for all apprenticeable occupations. Before commencing Work on this Project, the Contractor shall provide the City with a copy of the information submitted to any applicable apprenticeship program. Within 60 Days after concluding Work, Contractor and each of its Subcontractors shall submit to the City a verified statement of the journeyman and apprentice hours performed under this Contract.

5-3.6 Registration with the DIR

Subsection 5-3.6 is hereby added to the Standard Specifications as follows:

In accordance with Labor Code Sections 1725.5 and 1771.1, no contractor or Subcontractor shall be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, unless currently registered and qualified to perform public work pursuant to Section 1725.5.

5-3.7 Compliance Monitoring and Posting Job Sites

Subsection 5-3.7 is hereby added to the Standard Specifications as follows:

This Project is subject to compliance monitoring and enforcement by the DIR. The Contractor shall post job site notices, as prescribed by regulation.

5-3.8 Subcontractors

Subsection 5-3.8 is hereby added to the Standard Specifications as follows:

For every Subcontractor who will perform Work on the Project, the Contractor shall be responsible for such Subcontractor's compliance with Chapter 1 and Labor Code Sections 1860 and 3700, and the Contractor shall include in the written Contract between it and each Subcontractor a copy of the provisions in this Section 5-3 of the General Provisions and a requirement that each Subcontractor shall comply with those provisions. The Contractor shall be required to take all actions necessary to enforce such contractual provisions and ensure Subcontractor's compliance, including without limitation, conducting a periodic review of the certified payroll records of the Subcontractor and upon becoming aware of the failure of the Subcontractor to pay its workers the specified prevailing rate of wages. The Contractor shall diligently take corrective action to halt or rectify any failure.

5-3.9 Prevailing Wage Indemnity

Subsection 5-3.9 is hereby added to the Standard Specifications as follows:

To the maximum extent permitted by law, the Contractor shall indemnify, hold harmless and defend (at the Contractor's expense with counsel reasonably acceptable to the City) the City, its officials, officers, employees, agents and independent contractors serving in the role of City officials, and volunteers from and against any demand or claim for damages, compensation, fines, penalties or other amounts arising out of or incidental to any acts or omissions listed in Section 5-3 of the General Provisions by any Person (including the Contractor, its Subcontractors, and each of their officials, officers, employees and agents) in connection with any Work undertaken or in connection with the Contract Documents, including without limitation the payment of all consequential damages, attorneys' fees, and other related costs and expenses. All duties of the Contractor under this Section 5-3.9 shall survive expiration or termination of the Contract.

5-4 INSURANCE

5-4.1 General.

Delete the first paragraph and insert the following:

The Contractor shall provide and maintain insurance naming the City, its elected and appointed officials, officers, employees, attorneys, agents, designated volunteers, and independent contractors in the role of City officials as insureds or additional insureds regardless of any inconsistent statement in the policy or any subsequent endorsement whether liability is attributable to the Contractor or the City. The insurance provisions shall not be construed to limit the Contractor's indemnity obligations contained in the Contract. The City will not be liable for any accident, loss, or damage to the Work before completion, except as otherwise specified in Section 6-5.

The Contractor shall at all times during the term of the Contract carry, maintain, and keep in full force and effect the insurance referenced in Section 5-4 of the Standard Specifications, as modified below.

The following provisions are hereby added to Section 5-4.1 of the Standard Specifications:

5-4.1.1 Acceptability of Insurers.

The insurance policies required under this Section 5-4 shall be issued by an insurer authorized or admitted to write insurance in the State of California with a rating of A:VII or better in the latest edition of the A.M. Best Insurance Rating Guide. Self-insurance shall not be considered to comply with the insurance requirements under this Section 5-4.

5-4.1.2 Additional Insured.

The City, its elected and appointed officials, officers, employees, attorneys, agents, designated volunteers, and independent contractors in the role of City officials, shall be the insured or named as additional insureds covering the Work, regardless of any inconsistent statement in the policy or any subsequent endorsement, whether liability is attributable to the Contractor or the City. The commercial general and automobile liability policies shall contain an endorsement naming City, its officers, employees, agents and volunteers as additional insureds. This provision shall also apply to any excess/umbrella liability policies.

5-4.1.3 Primary and Non-Contributing.

The insurance policies required under this Section 5-4 shall apply on a primary non-contributing basis in relation to any other insurance or self-insurance available to the City. Any insurance or self-insurance maintained by the City, its officers, employees, agents or volunteers, shall be in excess of the Contractor's insurance and shall not contribute with it. This provision shall also apply to any excess/umbrella liability policies.

5-4.1.4 Contractor's Waiver of Subrogation.

The insurance policies required under this Section 5-4 shall not prohibit the Contractor and the Contractor's employees, agents or Subcontractors from waiving the right of subrogation prior to a loss. The Contractor hereby waives all rights of subrogation against the City.

5-4.1.5 Deductibles and Self-Insured Retentions.

Any deductibles or self-insured retentions must be declared to and approved by the City. At the City's option, the Contractor shall either reduce or eliminate the deductibles or self-insured retentions with respect to the City, or the Contractor shall procure a bond guaranteeing payment of losses and expenses.

5-4.1.6 Cancellations or Modifications to Coverage.

The Contractor shall not cancel, reduce or otherwise modify the insurance policies required by this Section 5-4 during the term of the Contract. The commercial general and automobile liability policies required under the Contract shall be endorsed to state that should the issuing insurer cancel the policy before the expiration date, the issuing insurer will endeavor to mail 30 days' prior written notice to the City. If any insurance policy required under this Section 5-4 is canceled or reduced in coverage or limits, the Contractor shall, within two business days of notice from the insurer, phone, fax or notify the City via certified mail, return receipt requested, of the cancellation of or changes to the policy.

5-4.1.7 City Remedy for Noncompliance.

If the Contractor does not maintain the policies of insurance required under this Section 5-4 in full force and effect during the term of the Contract, or in the event any of the Contractor's policies do not comply with the requirements under this Section 5-4, the City may either immediately terminate the Contract or, if insurance is available at a reasonable cost, the City may, but has no duty to, take out the necessary insurance and pay, at the Contractor's expense, the premium thereon. The Contractor shall promptly reimburse the City for any premium paid by the City or the City may withhold amounts sufficient to pay the premiums from payments due to the Contractor.

5-4.1.8 Evidence of Insurance.

At least two (2) Working Days prior to the performance of Services under the Contract, the Contractor shall furnish the City's Risk Manager with a certificate or certificates of insurance and all original endorsements (both of which must reference the same Policy number), evidencing and effecting the coverages required under Section 5-4 of the Standard Specifications, as modified by this Section 5-4. The endorsements are subject to approval by the City's Risk Manager. The Contractor may provide complete, certified copies of all required insurance policies to the City. The Contractor shall provide proof to the City's Risk Manager that insurance policies expiring during the term of the Contract have been renewed or replaced with other policies providing at least the same coverage. The Contractor shall furnish such proof at least two weeks prior to the expiration of the coverages.

The endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. The endorsements must specifically name the City of Manhattan Beach and its elected and appointed officials, officers, employees, attorneys, agents, designated volunteers, and independent contractors in the role of City officials as insureds or additional insureds. The Contractor shall maintain current insurance certificates and endorsements on file with the City's Risk Manager at all times during the term of this Contract. The City reserves the right to require complete, certified copies of all required insurance policies at any time.

Where the Contractor has entered into an agreement with a Professional Employment Organization (PEO) to provide human resources, workers' compensation insurance, or other

benefits to the Contractor's employees, the Contractor must also submit the agreement with the PEO. If the evidence of insurance submitted by the Contractor pursuant to this Section 5-4 evidences that the insurance is provided by the PEO, all such PEO-provided insurance coverages and indemnities must comply with the requirements of these Contract Documents.

5-4.1.9 Indemnity Requirements not Limiting.

Procurement of insurance by the Contractor shall not be construed as a limitation of Contractor's liability or as full performance of the Contractor's duty to indemnify the City under Section 5-8 of the Contract.

5-4.1.10 Subcontractor Insurance Requirements.

The Contractor shall require each of its Subcontractors that perform Services under the Contract to maintain insurance coverage that meets all of the requirements of this Section -5-4.

5-4.1.11 Replacement Insurance

The Contractor agrees that it will not cancel, reduce or otherwise modify the insurance coverage. The Contractor agrees that if it does not keep the required insurance in full force and effect, and such insurance is available at a reasonable cost, the City may take out the necessary insurance and pay the premium thereon, and the repayment thereof shall be deemed an obligation of the Contractor and the cost of such insurance may be deducted, at the option of the City, from payments due the Contractor. This shall be in addition to all other legal options available to the City to enforce the insurance requirements.

5-4.1.12 Subcontractors

The Contractor shall ensure all Subcontractors and their employees are listed as additional insureds on all of the Contractor's insurance.

The provisions below shall supplement but not replace those provisions in Sections 5-4.2, 5-4.3, and 5-4.4 of the Standard Specifications.

5-4.2 General Liability Insurance

Instead of the minimum limits listed in Section 5-4.2 of the Standard Specifications, the Contractor shall procure and at all times during the term of the Contract carry, maintain, and keep in full force and effect Commercial General Liability Insurance with a minimum limit of \$2,000,000.00 per occurrence for bodily injury, personal injury and property damage and a general aggregate limit of \$2,000,000.00 per project or location. If the Contractor is a limited liability company, the commercial general liability coverage shall be amended so that the Contractor and its managers, affiliates, employees, agents and other persons necessary or incidental to its operation are insureds.

5-4.3 Workers' Compensation Insurance

Workers' Compensation Insurance as required by the State of California and Employer's Liability Insurance with a minimum limit of \$1,000,000.00 per accident for bodily injury or disease. If the Contractor has no employees while performing the Work under the Contract, a Workers' Compensation policy is not required, but the Contractor shall execute a declaration that it has no employees.

5-4.4 Automobile Insurance

Instead of the minimum limits listed in Section 5-4.4 of the Standard Specifications, the Contractor shall procure and at all times during the term of the Contract carry, maintain, and keep in full force and effect Automobile Liability Insurance for any owned, non-owned or hired vehicle used in connection with the performance of the Contract with a combined single limit of \$2,000,000.00 per accident for bodily injury and property damage. If the Contractor does not use any owned, non-owned or hired vehicles in the performance of the Work under this Contract, the Contractor shall obtain a non-owned auto endorsement to the Commercial General Liability policy required by Subsection 5-4.2.

5-4.5 Insurance Requirements not Limiting

Subsection 5-4.5 is hereby added to the Standard Specifications as follows:

If the Contractor maintains broader coverage and/or higher limits than the minimums required above, the City requires and shall be entitled to the broader coverage and/or the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City. No representation is made that the minimum insurance requirements of this Contract are sufficient to cover the obligations of the Contractor under this Contract.

5-7 SAFETY

The provisions below shall supplement but not replace those provisions in Subsection 5-7 of the Standard Specifications.

5-7.2.2 Shoring Plan

Delete "registered Structural or Civil Engineer" in the second sentence and replace with "California Registered Structural or Civil Engineer."

t5-7.8 Steel Plate Covers

5-7.8.1 General

The Contractor shall cover all openings, trenches and excavations at the end of each Work Day with steel plate covers.

5-8 INDEMNIFICATION

The following indemnity provisions shall supersede the indemnity in Section 5-4.1 of the Standard Specifications.

5-8.1 Contractor's Duty.

To the fullest extent permitted by law, the Contractor shall, at its sole cost and expense, defend, hold harmless and indemnify the City and its elected officials, officers, attorneys, agents, employees, designated volunteers, successors, assigns and those City agents serving as independent contractors in the role of City officials (collectively "Indemnitees"), from and against any and all damages, costs, expenses, liabilities, claims, demands, causes of action,

proceedings, expenses, judgments, penalties, liens, and losses of any nature whatsoever, including fees of accountants, attorneys, or other professionals and all costs associated therewith and the payment of all consequential damages (collectively "Liabilities"), in law or equity, whether actual, alleged or threatened, which arise out of, are claimed to arise out of, pertain to, or relate to the acts or omissions of the Contractor, its officers, agents, servants, employees, Subcontractors, materialmen, contractors or their officers, agents, servants or employees (or any entity or individual that the Contractor shall bear the legal liability thereof) in the performance of the Contract, including the Indemnitees' active or passive negligence, except for Liabilities arising from the sole negligence or willful misconduct of the Indemnitees, as determined by final arbitration or court decision or by the agreement of the Parties. The Contractor shall defend the Indemnitees in any action or actions filed in connection with any Liabilities with counsel of the Indemnitees' choice, and shall pay all costs and expenses, including all attorneys' fees and experts' costs actually incurred in connection with such defense. The Contractor shall reimburse the Indemnitees for any and all legal expenses and costs incurred by Indemnitees in connection therewith.

5-8.1.1 Taxes and Workers' Compensation

The Contractor shall pay all required taxes on amounts paid to the Contractor under the Contract, and indemnify and hold the City harmless from any and all taxes, assessments, penalties, and interest asserted against the City by reason of the independent contractor relationship created by the Contract. The Contractor shall fully comply with the Workers' Compensation law regarding the Contractor and the Contractor's employees. The Contractor shall indemnify and hold the City harmless from any failure of the Contractor to comply with applicable Workers' Compensation laws. The City may offset against the amount of any fees due to the Contractor under the Contract any amount due to the City from the Contractor as a result of the Contractor's failure to promptly pay to the City any reimbursement or indemnification arising under this Subsection 5-8.1.1.

5-8.1.2 Subcontractor Indemnity Agreements

The Contractor shall obtain executed indemnity agreements with provisions identical to those in this Section 5-8 from each and every Subcontractor or any other person or entity involved by, for, with or on behalf of the Contractor in the performance of the Contract. If the Contractor fails to obtain such indemnity obligations, the Contractor shall be fully responsible and indemnify, hold harmless and defend the Indemnitees from and against any and all Liabilities at law or in equity, whether actual, alleged or threatened, which arise out of, are claimed to arise out of, pertain to, or relate to the acts or omissions of the Contractor's Subcontractor, its officers, agents, servants, employees, Subcontractors, materialmen, contractors or their officers, agents, servants or employees (or any entity or individual that the Contractor's Subcontractor shall bear the legal liability thereof) in the performance of the Contract, including the Indemnitees' active or passive negligence, except for Liabilities arising from the sole negligence or willful misconduct of the Indemnitees, as determined by final arbitration or court decision or by the agreement of the Parties.

5-8.2 Workers' Compensation Acts not Limiting.

The Contractor's indemnifications and obligations under this Section 5-8, or any other provision of the Contract, shall not be limited by the provisions of any Workers' Compensation act or similar act. The Contractor expressly waives its statutory immunity under such statutes or laws as to the City, its officers, agents, employees and volunteers.

5-8.3 Insurance Requirements not Limiting.

The City does not, and shall not, waive any rights that it may possess against the Contractor because of the acceptance by the City, or the deposit with the City, of any insurance policy or certificate required pursuant to the Contract. The indemnities in this Section 5-8 shall apply regardless of whether or not any insurance policies are determined to be applicable to the Liabilities, tax, assessment, penalty or interest asserted against the City.

5-8.4 Survival of Terms.

The Contractor's indemnifications and obligations under this Section 5-8 shall survive the expiration or termination of the Contract.

5-8.5 Civil Code Exception.

Nothing in this Section 5-8 shall be construed to encompass Indemnitees' sole negligence or willful misconduct to the limited extent that the underlying Contract is subject to Civil Code Section 2782(a) or the City's active negligence to the limited extent that the underlying Contract Documents are subject to Civil Code Section 2782(b), provided such sole negligence, willful misconduct or active negligence is determined by agreement between the parties or by the findings of a court of competent jurisdiction.

5-8.6 Nonwaiver of Rights.

Indemnitees do not and shall not waive any rights that they may possess against the Contractor because the acceptance by the City, or the deposit with the City, of any insurance policy or certificate required pursuant to these Contract Documents. This indemnity provision is effective regardless of any prior, concurrent, or subsequent active or passive negligence by Indemnitees and shall operate to fully indemnify Indemnitees against any such negligence.

5-8.7 Waiver of Right of Subrogation.

The Contractor, on behalf of itself and all parties claiming under or through it, hereby waives all rights of subrogation and contribution against the Indemnitees, while acting within the scope of their duties, from all Claims arising out of or incident to the activities or operations performed by or on behalf of the Contractor regardless of any prior, concurrent or subsequent active or passive negligence by Indemnitees.

SECTION 6. PROSECUTION AND PROGRESS OF THE WORK

The provisions below shall supplement but not replace those provisions in Section 6 of the Standard Specifications.

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF THE WORK

6-1.1 Construction Schedule

In addition to the construction schedule required pursuant to Section 6-1.1 of the Standard Specifications after notification of the Contract award and before any start of the Project, as well as the revised construction schedule in advance of beginning revised operations, the Contractor shall submit an updated construction schedule with its monthly invoice every month. Progress payments shall be contingent upon the receipt of monthly updated construction schedules.

6-1.1.1 Pre-Construction Meetings

Insert the following new subsection:

Following execution of the contract, around the time of the Initial Notice to Proceed, a kickoff meeting will be held at the City and shall be attended by the Contractor's Project Manager and other Project contacts that the Contractor deems appropriate. The kickoff meeting will include discussion on the following:

- 1) Various NTPs that will be issued and associated requirements.
- 2) Expectations for utility locating and pilot drywell installation and testing.
- 3) Construction schedule and sequencing.
- 4) Critical submittals.

Approximately five (5) calendar days before the commencement of Work at the site, a pre-construction meeting will be held at the City and shall be attended by the Contractor's Project Manager, its on-site field superintendent, and any Subcontractors that the Contractor deems appropriate. Attendance by the Contractor and any Subcontractors designated is mandatory.

Contractor shall submit its **24-hour emergency telephone numbers** to the Engineer for approval a minimum of two Working Days before the pre-construction meeting. Unless previously submitted to the Engineer, the Contractor shall bring to the pre-construction meeting copies of each of the following:

- 1) Construction Schedule.
- 2) Procurement schedule of major equipment and materials and items requiring long lead time.
- 3) Shop drawing/sample submittal schedule.
- 4) Preliminary schedule of values (lump sum price breakdown) for progress payment purposes.
- 5) Written designation of the on-site field superintendent and the Project manager. Both daytime and emergency telephone numbers shall be included in the written designation.
- 6) Drywell test well results and outcome provided to vendor and engineer to verify design.
- 7) Slot-trenching and potholing results.
- 8) Sounds wall design and permit.
- 9) Habitat assessment per MMRP.

- 10) Nesting bird survey per MMRP.
- 11) Retained biologist, paleontologist, native Amercian monitor agreements per MMRP.

The purpose of the conference is to designate responsible personnel and establish a working relationship. The parties will discuss matters requiring coordination and establish procedures for handling such matters. The complete agenda will be furnished to the Contractor before the meeting date. The Contractor shall be prepared to discuss all of the items listed below.

- 1) The Contractor's construction schedule.
- 2) Notification of local residents before starting any Work and keeping them informed throughout the Project.
- 3) Procedures for transmittal, review, and distribution of the Contractor's submittals.
- 4) Processing applications for payment.
- 5) Maintaining record documents.
- 6) Critical Work sequencing.
- 7) Maintaining sewage service during construction, including proposed bypasses if needed.
- 8) NPDES requirements, if any.
- 9) Field decisions and Change Orders.
- 10) Use of Project site, office and storage areas, security, housekeeping, and the City's needs.
- 11) Major equipment deliveries and priorities.
- 12) Traffic control.
- 13) All items listed in Pre-Construction meeting
- 14) Any other item that the City representative states is relevant to the meeting.

6-1.1.2 Construction Schedule Submission Requirements

Insert the following new subsection:

One week prior to the scheduled pre-construction meeting, the Contractor must submit a construction schedule to the Engineer for review and approval. The Contractor shall make revisions as required by the Engineer. The schedule must account for all subcontract work, as well as the work of the Contractor, submittals, coordination with the other contractors performing concurrent work and the Traffic Control Plan. The Contractor shall update this Construction Schedule when directed by the Engineer, or when:

- a. A Change Order significantly affects the Contract completion date or the sequence of construction approach or activities; or
- b. The actual sequence of the Work, or the planned sequence of the Work, is changed and does not conform to the Contractor's current accepted Project construction schedule.
- c. The Contractor shall submit a revised construction schedule in advance of beginning revised operations or changes to the Work

6-1.1.3 Monthly Construction Updates

Insert the following new subsection:

The Contractor shall submit an updated construction schedule reflecting the current status of the

work including, any additional days granted with the Change Order process, weather delays, or material delays (this is not an all inclusive list), with its monthly invoice/pay application. Progress **payments shall be** contingent upon the receipt of monthly updated construction schedule.

6-1.1.4 Weekly Progress Meetings

Insert the following new subsection:

Progress meetings will be held each week during the course of the Project. The meeting location, day of the week and time of day will be mutually agreed to by the City and the Contractor. The Contractor shall provide a three-week “look ahead” schedule for each meeting. The construction manager will preside at these meetings and will prepare the meeting agenda, meeting minutes and will distribute minutes to all persons in attendance. As the Work progresses, if it is determined by agreement of the attendees, that weekly meetings are not necessary, the weekly progress meetings may be changed to bi-weekly progress meetings.

6-2 PROSECUTION OF THE WORK

Add the following as Section 6-2.1:

6-2.1 Excess Cost of City Personnel and Inspection Personnel

For any overtime or emergency work beyond a regular eight-hour day and for any work performed on Saturday, Sunday, or holidays, the charges for City personnel and City consultants/independent contractors, including inspection, required on the job site shall be the responsibility of the Contractor and all costs therefor shall be deducted from the payments due the Contractor. The cost of City personnel and City consultants/independent contractors shall be computed pursuant to the actual costs incurred by City, including but not limited to, overtime costs, fringe benefits, and overhead costs.

6-3 TIME OF COMPLETION

6-3.2 Contract Time Accounting

Add the following at the end of Subsection 6-3.2:

The Contract Time for completion of the Work, including corrective items of Work, shall be in accordance with Section 4 of the Contract. Contract Time extensions, when granted by the Engineer, will be in Working Days and in accordance with the Contract Documents, and will be set forth in writing via Change Order.

6-4 DELAYS AND EXTENSIONS OF TIME

6-4.2 Extensions of Time

Add the following at the end of Subsection 6-4.2:

Unless otherwise agreed in writing, an adjustment to the Contract time by reason of a Change Order shall be agreed to at the time the Change Order is issued and accepted by the Contractor. If the Change Order does not reserve the right of the parties, or either of them, to seek an adjustment to the Contract time, then the parties forever relinquish and waive such right and there shall be no further adjustments to the Contract time.

In the event it is deemed appropriate by the City to extend the time for completion of the Work, any such extension shall not release any guarantee for the Work required by the Contract Documents, nor shall any such extension of time relieve or release the Sureties on the Bonds executed. In executing such Bonds, the Sureties shall be deemed to have expressly agreed to any such extensions of time. The amount of time allowed by an extension of time shall be limited to the period of the delay giving rise to the same as determined by the City. Notwithstanding any dispute which may arise in connection with a claim for adjustment of the Contract time, the Contractor shall promptly proceed with the Work.

6-4.3 Payment for Delays

Add the following at the end of Subsection 6-4.3:

Notwithstanding any other terms and conditions of the Contract Documents, the City shall have no obligation whatsoever to increase the Contract Price or extend the time for delays.

Unless compensation and/or mark up is agreed upon by the City, the Contractor agrees that no payment of compensation of any kind shall be made to the Contractor for damages or increased overhead costs caused by any delays in the progress of the Contract, whether such delays are avoidable or unavoidable or caused by any act or omission of the City or its agents. Any accepted delay claim shall be fully compensated for by an extension of time to complete the performance of the Work.

This Section shall not apply to compensable delays caused solely by the City. If a compensable delay is caused solely by the City, the Contractor shall be entitled to a Change Order that: (1) extends the time for completion of the Contract by the amount of delay caused by the City; and (2) provides equitable adjustment, as determined by the City, to the Contractor.

6-6 SUSPENSION OF THE WORK

6-6.1 General

Add the following paragraph following paragraph at the end of Subsection 6-6.1:

In the event a suspension of work is ordered because of failure on the part of the Contractor to carry out orders given or to perform any provisions of the Work, such suspension of work shall not relieve the Contractor of its responsibility to complete the work within the time limit set forth herein and shall not be considered cause for extension of the time for completion, and further, such suspension of work shall not entitle the Contractor to any additional compensation.

6-8 TERMINATION OF THE CONTRACT FOR CONVENIENCE

In addition to the reasons for termination listed in Section 6-8 of the Standard Specifications, which allow termination upon any written notice, the City may cancel the Contract for any other reason or for no reason upon 30 Days' written notice. The rest of the procedure outlined in Section 6-8 shall apply to such situation, including the Contractor's required immediate notification of Subcontractors and suppliers and the payment. In no event (including termination for impossibility or impracticability, due to conditions or events beyond the control of the City, for any other reason or for no reason) shall the total amount of money to Contractor exceed the amount which would have been paid to the Contractor for the full performance of the services described in the Contract.

Furthermore, some of the City's projects are funded in whole or in part by funds other than the City's General Fund. If this Project is funded by such external funds in whole or in part, or if those external funds are terminated or reduced at any time and for any reason or for no reason at all, and the City determines at its discretion that no other funding is available for continuation of this Project, the City will not be obligated to continue funding for the services contained in these Contract Documents and may terminate the Project immediately. The City shall reimburse the Contractor for its work satisfactorily completed until the termination date. In no event shall the total amount of money to the Contractor exceed the amount which the City has received in funding from its external source. The Special Provisions may include further details in this regard.

6-9 LIQUIDATED DAMAGES

For the purposes of the calculation of the start of the liquidated damages, the Work shall be deemed to be completed when the same has been completed in accordance with the Plans and Specifications therefor and to the satisfaction of the Engineer, and the Engineer has certified such completion in accordance with Section 3-13.1 of the Standard Specifications. The liquidated damages value is hereby amended to be five thousand dollars (\$5,000.00) per calendar day.

SECTION 7 - MEASUREMENT AND PAYMENT

The provisions below shall supplement but not replace those provisions in Section 7 of the Standard Specifications.

7-1 MEASUREMENT OF QUANTITIES OF UNIT PRICE WORK

7-1.1 General

Add the following at the end of Subsection 7-1.1:

All items of Work which are not designated on the Bid Schedule by the letters “F” or “LS” or words “Final” or “Lump Sum” shall have final pay quantities measured and paid for in accordance with the Standard Specifications and these General Provisions.

7-1.2 Methods of Measurement

Add the following at the end of Subsection 7-1.2:

The Contract Price shall constitute full compensation for all labor, equipment, materials, tools and incidentals required to complete the Project as outlined in these Contract Documents and as directed by the Engineer.

7-2 LUMP SUM WORK

Delete the first sentence of Subsection 7-2 and insert the following:

Items of Work which are designated by the letters “LS” or the words “Lump Sum” in the Estimated Quantities column of the Bid Schedule shall be paid for at the price indicated in the Bid, unless the dimensions of the Work, as shown on the Plans, are revised by the Engineer. If such dimensions are revised and such revisions result in an increase or decrease in the quantity of such Work, the final payment for the lump sum item will be revised in proportion to the change in dimensions authorized by Change Order.

Add the following at the end of Subsection 7-2:

The Contractor shall submit a Work item breakdown of the Bid, described in the second paragraph of Subsection 7-2, “Lump Sum Work,” of the Standard Specifications, within ten Working Days after award of the Contract and/or at any other time as required by the Engineer.

No guarantee is made regarding the amount of Work required to complete a lump sum item of Work.

7-2.1 Progress Payments for Lump Sum Items of Work

The word “Complete” in the Estimated Quantities column of the Bid Schedule for a lump sum item of Work shall mean that payment for that item will only be made after all Work for that item has been completed. The “%” symbol in the Estimated Quantities column of the Bid Schedule for a lump sum item of Work shall mean that progress payments for that item will be allowed based on the percentage of completion as determined by the Engineer in each pay period, typically every 30 days. (See Subsection 7-3.2 of the Standard Specifications and these General Provisions.)

7-3 PAYMENT

7-3.1 General

Add the following at the end of Subsection 7-3.1:

In accordance with Public Contract Code Section 7107, if no claims have been filed and are still pending, the amount deducted from the final estimate and retained by the City will be paid to the Contractor except such amounts as are required by law to be withheld by properly executed and filed notices to stop payment, or as may be withheld for any other lawful purposes.

Whenever the Contractor is required to perform work or furnish equipment, labor, tools, and materials of any class for which no price is fixed in the proposal, it shall be understood that such work, equipment, labor, tools, and materials shall be provided without extra charge, allowance, or direct payment of any kind. The cost of performing such work or furnishing such equipment, labor, tools, and materials shall be included in the unit bid prices in the proposal most closely related to the work and no additional compensation will be made thereof.

- a) Completing Work in a safe and orderly manner, including, but without being limited to, safety measures, hoists, flagmen, clean-up, barricades, fences, temporary utilities, utility fees and charges, parking for the Contractor's and subcontractor's personnel, and temporary facilities as may apply to this Work;
- b) All insurance in accordance with the insurance requirements;
- c) Maintain and update current record drawings onsite (Section 3-7.1). Upon completion, provide the City a legible set of record drawings, operations and maintenance manuals, warranties, and guarantees;
- d) Required permits;
- e) Weekly meeting attendance;
- f) Engineering, testing, and inspection costs for defective Work and work performed outside of Work hours;
- g) Repair or replacement of all existing improvements (public or private) damaged by the Contractor. The Contractor is responsible for providing evidence of pre-Project conditions;
- h) Scheduling of utility connections to turn on/off including, but not limited to, electrical, water, and wastewater services;
- i) Watchman or security service, as necessary;
- j) Perimeter fencing of work zones, staging areas, and large excavations (required for HDS installation) as necessary for public safety and protection of equipment and materials;
- k) Dust control, street sweeping, and protection and/or replacement of existing surfaces or properties;
- l) Submittal log of all submittals required to the City including, but not limited to, material, products, concrete testing data, batch plant testing data, shop drawings, and traffic control and phasing plans. Logs shall be updated for each weekly project meeting.

If any portion of the work done or materials furnished under the Contract shall prove defective or not in accordance with the Specifications and Contract drawings, and if the imperfection in the same is not of sufficient magnitude or importance to make the work dangerous or undesirable, the Engineer shall have the right and authority to retain the work instead of requiring it to be removed and reconstructed, but he shall make such deductions therefor in the payment due the Contractor as may be just and reasonable.

7-3.2 Partial and Final Payment

7-3.2.1 Monthly Closure Date and Invoice Date

Subsection 7-3.2.1 is hereby added to the Standard Specifications as follows:

The Contractor shall prepare and submit the form attached herewith (see Appendix I), or its own form in an identical format, to the Engineer for all requests for progress payments for the work performed in accordance with the provisions of the Contract during the preceding month. The progress payment request shall be submitted monthly, and a maximum of one progress payment request may be submitted each month. The Contractor shall submit a Conditional Waiver and Release Form (Civil Code Section 8132) with the applicable monthly progress payment request. Progress payment requests associated with work completed prior to June 30th (the end of the City's fiscal year), must be submitted no later than July 30th.

7-3.2.2 Payments

Subsection 7-3.2.2 is hereby added to the Standard Specifications as follows:

The City shall make payments within 30 Working Days after receipt of the Contractor's undisputed and properly submitted payment request, including an updated construction schedule pursuant to Section 6-1.1 of the General Provisions. The City shall return to the Contractor any payment request determined not to be a proper payment request as soon as practicable, but not later than seven Working Days after receipt, and shall explain in writing the reasons why the payment request is not proper. Acceptance by the Contractor of the payment made in accordance with the final estimate 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.

7-3.2.3 Retention

Subsection 7-3.2.3 is hereby added to the Standard Specifications as follows:

The City shall withhold not less than five percent from each progress payment. The City shall withhold not less than five percent of the Contract Price from the Final Payment Amount (defined in Section 7-3.2.4) until at least 35 days after recordation of the Notice of Completion, or recordation of a notice of cessation, but not longer than the period permitted by Public Contract Code Section 7107.

In addition to retained percentage and liquidated damages, the City may withhold payments to the Contractor including for defective work not remedied and other valid claims against the Contractor.

Not later than sixty (60) days from the date of Final Acceptance, the five percent deducted and retained from each progress estimate (see Subsection 7-3.2 of the Standard Specifications and these General Provisions) by the City will be paid to the Contractor except such amounts as are required by law to be withheld by properly executed and filed notices to stop payment, or as may be authorized by the Contract to be further retained.

7-3.2.4 Final Invoice and Payment

Subsection 7-3.2.4 is hereby added to the Standard Specifications as follows:

Whenever the Contractor shall have completely performed the Contract in the opinion of the

Engineer, the Contractor shall submit to the Engineer a written statement of the final quantities of Contract items in the form of the final invoice, which must have an identical format to the progress payment request form attached herewith (see Appendix I). Upon receipt of the final payment request, the Engineer shall check the quantities included therein and shall authorize a payment amount, which in the Engineer's opinion shall be just and fair, covering the value of the total amount of Work done by the Contractor, less all previous payments and all amounts to be retained under the provisions of the Contract Documents ("Final Payment Amount"). The Contractor shall submit a Conditional Waiver and Release form (Civil Code Section 8136) with the Final Payment request. The Engineer shall then request that the City accept the Work and that the City Clerk be authorized to file, on behalf of the City in the office of the County Recorder, a Notice of Completion of the Work herein agreed to be done by the Contractor. In addition, the final payment will not be released until the Contractor returns the control set of Plans and Specifications showing the redlined as-built conditions.

Final payment requests associated with work completed prior to June 30th (the end of the City's fiscal year), must be submitted no later than July 30th.

7-3.2.5 Substitute Security

Subsection 7-3.2.5 is hereby added to the Standard Specifications as follows:

In accordance with Public Contract Code Section 22300, the Contractor may request that it be permitted to substitute securities in lieu of having retention withheld by the City from progress payments when such payments become due or, in the alternative, the Contractor may request that the City make payments of earned retentions directly to an agreed upon designated escrow agent at the Contractor's expense. If the Contractor selects either one of these alternatives, the following shall control.

7-3.2.5.1 Substitution of Securities for Performance Retention

Subsection 7-3.2.5.1 is hereby added to the Standard Specifications as follows:

At some reasonable time before any progress payment would otherwise be due and payable to the Contractor in the performance of Work under these Contract Documents, the Contractor may submit a request to the City in writing to permit the substitution of retentions with securities equivalent to the amount estimated by the City ("estimated amount of retention") to be withheld. The Contractor shall deposit such securities with the City or may, in the alternative, deposit such securities in escrow with a State or federally chartered bank in California, as the escrow agent, at the Contractor's expense. Such securities will be the equivalent or greater in value of the estimated amount of retention. If the Contract is modified by written Modifications or Change Orders or the Contractor otherwise becomes entitled to receive an amount more than the Contract Price at the time the securities are deposited, the Contractor shall, at the request of the City, deposit with the City or escrow agent, whichever is applicable, additional securities within a reasonable time so that the amount of securities on deposit with the City or escrow agent is equivalent or greater in value than the amount of retention the City would otherwise be entitled to withhold from progress payments due or to become due to the Contractor as the Work progresses. The City shall withhold any retention amount that exceeds the security amount until the additional securities are deposited and, if the deposit is with an escrow agent, the City has confirmation from that escrow agent of the new total value of securities. Upon satisfactory completion of the Contract, which shall mean, among other things, that the City is not otherwise entitled to retain proceeds from progress payments as elsewhere provided in the Contract or under applicable law, the securities shall be returned to the Contractor. The City shall, within its sole discretion, determine

whether the amount of the securities on deposit with the City or escrow agent is equal to or greater than the amount of estimated retention of progress payments that could otherwise be held by the City if the Contractor had not elected to substitute same with securities.

7-3.2.5.2 Deposit of Retention Proceeds with an Escrow Agent

Subsection 7-3.2.5.2 is hereby added to the Standard Specifications as follows:

As an alternative to the substitution of securities, as provided above, or the City otherwise retaining and holding retention proceeds from progress payments, the Contractor may request the City to make payments of retentions earned directly to an escrow agent with the same qualifications as required in Section 7-3.2.5.1 above and at the expense of the Contractor. At its sole expense, the Contractor may direct the investment of such retention payments into only such securities as mentioned in Section 7-3.2.5.3 below and shall be entitled to interest earned on such investments on the same terms provided for securities deposited by the Contractor. Upon satisfactory completion of the Contract, which shall mean when the City would not otherwise be entitled to withhold retention proceeds from progress payments had the Contractor not elected to have such proceeds deposited into escrow, the Contractor shall be allowed to receive from the escrow agent all securities, interest and payments deposited into escrow pursuant to the terms of this Section. The Contractor shall pay to each Subcontractor, not later than ten Days of receipt of payment, the respective amount of interest earned, net of costs attributed to retention withheld from each Subcontractor, on the amount withheld to ensure performance of the Contractor.

7-3.2.5.3 Subcontractor Entitlement to Interest

Subsection 7-3.2.5.3 is hereby added to the Standard Specifications as follows:

If the Contractor elects to receive interest on any moneys withheld in retention by the City, then the Subcontractor shall receive the identical rate of interest received by the Contractor on any retention moneys withheld from the Subcontractor by the Contractor, less any actual pro rata costs associated with administering and calculating that interest. In the event that the interest rate is a fluctuating rate, the rate for the Subcontractor shall be determined by calculating the interest rate paid during the time that retentions were withheld from the Subcontractor. If the Contractor elects to substitute securities in lieu of retention, then, by mutual consent of the Contractor and the Subcontractor, the Subcontractor may substitute securities in exchange for the release of moneys held in retention by the Contractor. The Contractor shall pay each Subcontractor, not later than ten Days after receipt of escrow moneys, the amount owed to each Subcontractor from the moneys plus the respective amount of interest earned, net of costs attributed to the retention held from each Subcontractor, on the amount of retention withheld to ensure performance of the Subcontractor.

7-3.2.5.4 Securities Eligible for Investment

Subsection 7-3.2.5.4 is hereby added to the Standard Specifications as follows:

Securities eligible for investment shall include those listed in Government Code Section 16430, bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed upon between the Contractor and the City. The Contractor shall be the beneficial owner of any securities substituted for any monies withheld and shall receive any interest thereon.

7-3.2.5.5 Escrow Agreement for Security Deposits in Lieu of Retention

Subsection 7-3.2.5.5 is hereby added to the Standard Specifications as follows:

The escrow agreement that shall be used for the deposit of securities in lieu of retention shall substantially conform to the form prescribed in Public Contract Code Section 22300(f).

7-3.2.5.6 Inconsistencies with Prevailing Statutory Requirements

Subsection 7-3.2.5.6 is hereby added to the Standard Specifications as follows:

If there is any inconsistency between or differences in Public Contract Code Section 22300 and the terms of this provision, or any future amendments thereto, Section 22300 shall control.

7-3.5.2. Increases of More than 25 Percent

Delete Subsection 7-3.5.2 in its entirety and substitute the following:

Should the actual quantity of a Major Item of Work covered by a Contract Unit Price and constructed in conformance with the Plans and Specifications exceed the Bid quantity by more than 25%, a Change Order will be issued and payment for the quantity in excess of 25% of the Bid quantity will be made on the basis of an adjustment to the Contract Unit price mutually agreed to by the City and the Contractor or pursuant to Subsection 7-3.7 "Agreed Prices."

For Minor Items of Work, the Contractor will be paid using the Contract Unit Price, regardless of whether the actual quantity of the Minor Item of Work covered by a Contract Unit Price exceeds the bid quantity by more than 25%.

7-3.5.3 Decreases of More than 25 Percent

Delete Subsection 7-3.5.3 in its entirety and substitute the following:

Should the actual quantity of a Major Item of Work covered by a Contract Unit Price and constructed in conformance with the Plans and Specifications be less than 75% of the Bid quantity, an adjustment in payment will not be made unless so requested in writing by the Contractor. If the Contractor so requests, a Change Order shall be issued and payment shall be made on the basis of an adjustment to the Contract Unit Price mutually agreed to by the City and the Contractor, or pursuant to Subsection 7-3.7 "Agreed Prices"; however, in no case will payment be less than would be made for the actual quantity at the Contract Unit Price.

For Minor Items of Work, the Contractor will be paid using the Contract Unit Price, regardless of whether the actual quantity of the Minor Item of Work covered by a Contract Unit Price is less than 75% of the Bid quantity.

7-3.5.4 Changes for Items Not Covered by Unit Prices

Subsection 7-3.5.4 is hereby added to the Standard Specifications as follows:

Payment for any change for an Item of Work not covered by a Contract Unit Price shall be made pursuant to Subsection 7-4 "Payment for Extra Work."

7-3.4 Mobilization

Subsection 7-3.4 shall be replaced with the following:

When a Bid item is included in the Bid for "MOBILIZATION", the costs of Work in advance of construction operations and not directly attributable to any specific Bid item will be included in the progress estimate.

Mobilization shall consist of preparatory Work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the project site 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 site.

Payments for mobilization will be made as follows:

- a) When the monthly progress payment estimate of the amount earned, not including the amount earned for mobilization, is 5 percent or more of the Contract Price, the total amount earned for mobilization shall be 50 percent of the Contract Unit Price for mobilization or 5 percent of the Contract Price, whichever is less, and said amount will be included in said estimate for payment.
- b) When the monthly progress payment estimate of the amount earned, not including the amount earned for mobilization, is 10 percent or more of the Contract Price, the total amount earned for mobilization shall be 75 percent of the Contract Unit Price for mobilization or 7.5 percent of the Contract Price, whichever is less, and said amount will be included in said estimate for payment.
- c) When the monthly progress payment estimate of the amount earned, not including the amount earned for mobilization, is 20 percent or more of the Contract Price, the total amount earned for mobilization shall be 95 percent of the Contract Unit Price for mobilization or 9.5 percent of the Contract Price, whichever is less, and said amount will be included in said estimate for payment.
- d) When the monthly progress payment estimate of the amount earned, not including the amount earned for mobilization, is 50 percent or more of the Contract Price, the total amount earned for mobilization shall be 100 percent of the Contract Unit Price for mobilization or 10 percent of the Contract Price, whichever is less, and said amount will be included in said estimate for payment.
- e) After completion of the Contract Work, the amount, if any, of the Contract Unit Price for mobilization in excess of 10 percent of the Contract Price will be included in the final progress payment.

7-4 PAYMENT FOR EXTRA WORK

7-4.1 General

Add the following at the end of Subsection 7-4.1

Any change in the Work for an Item of Work not covered by a Contract Unit Price that involves both added and deleted Work shall be paid on the basis of the net total cost. The cost of deleted Work not covered by a Contract Unit Price shall be determined by the Engineer based on the schedule of lump sum prices submitted by the Contractor in accordance with Subsection 7-2, "Lump Sum Work," of the Standard Specifications and the General Provisions.

7-4.2.1 Labor

Delete Subsection 7-4.2.1 in its entirety and substitute the following:

The cost of labor will be the actual cost for wages prevailing locally for each craft or type of worker (including foreman when authorized by the Engineer) performing the Extra Work at the time the Extra Work is done, plus liability insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs, as well as assessments or benefits required by lawful collective bargaining agreements.

To the actual wages, as defined above, will be added a labor surcharge set forth in the California Department of Transportation publication entitled "Labor Surcharge and Equipment Rental Rates" that is in effect on the date upon which the Extra Work is performed. The labor surcharge shall constitute full compensation for all payments imposed by State and federal laws and for all other payments made to, or on behalf of, the workers, other than actual wages, subsistence and travel paid to the workers. The labor surcharge includes Workers' Compensation, Social Security, Medicare, Federal Unemployment, State Unemployment, and State Training taxes.

Except when direct supervision is provided by working foremen whose time is included in accordance with Subsection 7-4.2.2, the cost of direct supervision of Extra Work, when such direct supervision is provided exclusively for the Extra Work and not in conjunction with or at the same time as supervision for other Work, and when approved in advance in writing by the Engineer, may be charged to the Extra Work. Such cost includes only the actual cost of supervision labor, plus payroll taxes, insurance, and pension costs. The cost of transportation, use of vehicle, and other costs incurred by supervision will not be allowed.

7-4.2.2 Materials

Add the following to the end of Subsection 7-4.2.2:

If the Contractor does not furnish satisfactory evidence of the cost of the materials from the actual supplier thereof within five (5) working days following delivery of materials to the Work site, the Engineer reserves the right to establish the cost of the materials at the lowest current wholesale prices at which the materials were available, in the quantities concerned, delivered to the location of the Work site, less any discounts.

7-4.2.3 Tool and Equipment Rental

Delete Subsection 7-4.2.3 in its entirety and substitute the following:

No payment will be made for individual pieces of equipment or tools not listed in the California Department of Transportation publication entitled "Labor Surcharge and Equipment Rental Rates" that is in effect on the date upon which the Extra Work is performed and that have a replacement value of \$200.00 or less, whether or not consumed by use. Such equipment or tools shall be considered to be small tools.

The Contractor will be paid for the use of equipment at the rental rates listed for such equipment in the Labor Surcharge and Equipment Rental Rates publication that is in effect on the date upon which the Extra Work is performed.

Move in and out, or minimum charges other than the hourly rate, shall not apply to equipment available from the force already on the Project site.

For equipment that is rented from a local equipment agency, the Contractor will be paid at the hourly rate shown on the rental agency invoice or agreement for the time the equipment is used on Extra Work. If a minimum equipment rental amount is required by the local equipment rental agency, the actual amount charged will be paid to the Contractor.

If it is deemed necessary by the Engineer to use equipment not listed in the Labor Surcharge and Equipment Rental Rates publication, a suitable rental rate for that equipment will be established by the Engineer. The Contractor may furnish any cost data that might assist the Engineer in the establishment of the rental rate. If the rental rate established by the Engineer is \$10.00 per hour or less, the provisions above concerning rental of equipment from a local equipment agency shall apply.

Rental time will not be allowed while equipment is inoperative due to breakdowns.

When owner operated equipment is used to perform Extra Work to be paid on a force account basis, the Contractor will be paid for the equipment and operator as follows:

1. Payment for the equipment will be made at the rental rates listed for such equipment in the Labor Surcharge and Equipment Rental Rates publication that is in effect on the date upon which the Extra Work is performed.
2. Payment for the cost of labor will be made in conformance with the provisions in Subsection 7-4.2.1 “Labor” of the General Provisions.

7-4.3 Markup

Delete Subsection 7-4.3 in its entirety and substitute the following:

The markup for overhead and profit on Extra Work shall be in accordance with the following schedule.

7-4.3.1 Work by Contractor.

The following percentages shall be added to the Contractor’s costs and shall constitute the markup for all overhead and profit:

- 1) Labor 20%
- 2) Materials 15%
- 3) Equipment Rental 15%
- 4) Other Items and Expenditures..... 15%

To the sum of the costs and markups provided for in this subsection, one percent shall be added as compensation for bonding.

7-4.3.2 Work by Subcontractor.

For Extra Work performed by a Subcontractor, the markup established in Subsection 7-4.3.1 of the General Provisions shall be applied to the Subcontractor's costs. An additional five percent shall be added to the Subcontractor's final cost, which shall reimburse the Contractor for administrative costs, including overhead and profit.

7-4.3.3 Work by Sub-Subcontractor.

Subsection 7-4.3.3 is hereby added to the Standard Specifications as follows:

For Extra Work performed by a sub-Subcontractor, the markup established in Subsection 7-4.3.1 of the General Provisions shall be applied to the sub-Subcontractor's costs. An additional ten percent shall be added to the sub-Subcontractor's final cost, five percent of which shall reimburse the Contractor for administrative costs, including overhead and profit, and five percent of which shall reimburse the Subcontractor for administrative costs, including overhead and profit.

7-4.3.4 Work by Specialist.

Subsection 7-4.3.4 is hereby added to the Standard Specifications as follows:

If the Engineer and the Contractor agree that a service or an item of Extra Work cannot be performed by the forces of the Contractor or those of any of its Subcontractors or sub-Subcontractors, such service or Extra Work item may be performed by a specialist. Invoices for such services or items of Extra Work calculated on the basis of current market prices may be accepted without complete itemization of labor, material, and equipment rental costs when it is impracticable and not in accordance with the established practice of the special service industry to provide such complete itemization.

If the Contractor is required to perform Extra Work that requires a fabrication or matching process in a fabrication or machine shop facilities away from the Project site, the charges for that portion of the Extra Work performed in such facility may, by agreement between the Contractor and Engineer, be accepted as a specialist billing.

For Extra Work performed by a specialist, 15% shall be added to the specialist's invoice price less a credit to the City for any cash or trade discount offered or available, whether or not such discount may have been taken; such percentage shall reimburse the Contractor for administrative costs, including overhead and profit.

7-4.3.5 Work not Covered by Unit Prices.

Subsection 7-4.3.5 is hereby added to the Standard Specifications as follows:

Markup for overhead and profit on any change in the Work for an Item of Work not covered by a Contract Unit Price that involves both added and deleted Work shall be paid, in accordance with this Subsection 7-4.3 of the General Provisions, only if the net cost increases the Contract Price (i.e., if the cost for added Work exceeds the cost for deleted Work).

7-4.4 Daily Reports by Contractor

Delete the first sentence of Subsection 7-4.4 and substitute the following:

The Contractor shall submit daily reports for Extra Work showing all labor, material, and equipment costs incurred.

Add the following at the end of Subsection 7-4.4:

The daily reports shall describe in detail the Extra Work that was performed and the location (station, etc.). Separate daily reports shall be submitted for Extra Work that is performed for more than one location and for different tasks that are performed on the same day. Material charges shall be substantiated by valid copies of vendor's invoices. Such invoices shall be submitted with the daily reports, or if not available, they shall be submitted with subsequent daily reports. The Contractor shall maintain the Contractor's records in such a manner as to provide a clear accounting of the costs.

Upon completion of the Extra Work, the Contractor shall submit a summary of costs, including markup for overhead and profit. All costs shall be in accordance with this Section 7-4 "Payment for Work." The signature of the City's Inspector on a daily report shall indicate agreement with the information reflected therein, not that the Contractor is entitled to payment of the costs in the report. The Engineer shall review the daily reports. The Engineer shall compare the Inspector's records with the completed daily reports furnished by the Contractor and make any necessary adjustments. When the daily reports are agreed upon and signed by both parties, these reports shall become the basis of payment for the Extra Work performed.

7-4.5 Extension of Time

Add the following as Subsection 7-4.5:

If the Contractor is delayed in completing the Extra Work due to a change ordered by the City, the time for completion of Work will be extended in accordance with Section 6-4 of these General Provisions.

7-6 AUDIT

The City or its representative shall have the option of inspecting and/or auditing all records and other written materials used by the Contractor in preparing its billings to the City as a condition precedent to any payment to the Contractor or in response to a construction claim or a Public Records Act (Government Code Section 6250 *et seq.*) request. The Contractor will promptly furnish documents requested by the City at no cost. Additionally, the Contractor shall be subject to State Auditor examination and audit at the request of the City or as part of any audit of the City, for a period of three and one-half years after Final Acceptance under the Contract. The Contractor shall include a copy of this Section 7-6 in all contracts with its Subcontractors, and the Contractor shall be responsible for immediately obtaining those records or other written material from its Subcontractors upon a request by the State Auditor or the City. If the Project includes other auditing requirements, those additional requirements will be listed in the Special Provisions.

SECTION 8 – FACILITIES FOR AGENCY PERSONNEL

The provisions below shall supplement but not replace those provisions in Section 8 of the Standard Specifications.

8-1 GENERAL

Add the following:

The City may share a field office with the Contractor on site provided that such does not seriously conflict with the City's use.

8-2 FIELD OFFICE FACILITIES

Add the following:

City's personnel shall have the right to enter upon any Field Offices provided for Agency use or upon the project site at all times.

8-2.3 Class "C" Field Office

Add the following:

The City may share the field office with the Contractor if the Class "A" field office requirements are met for the Contractor's field office, so long as a space is dedicated for the sole use of the City. Otherwise, a Class "C" field office shall be provided for the sole use of the City.

Furniture for the City's use shall be provided as follows: one desk with a drawer suitable for holding files and one chair. At a minimum, a portable AC unit shall be made available for use in the Class "C" field office. The office shall have power and wireless internet.

The location of the field office shall be approved by the Engineer. The field office shall be located on the Project site. The Contractor will not be compensated for a field office located outside the Project site. The field office space shall be in-place and fully operational at the start of Work. No payment will be made for each Working Day in which the field office space is not in-place and fully operational.

8-6 BASIS OF PAYMENT

Add the following:

Payment for office space will be made at the Lump Sum price in the Bid for "CLASS "C" FIELD OFFICE" and shall include the set-up, maintenance, take-down, and other appurtenances required to maintain an operational field office for City personnel. Payment for this item is lump sum and includes any working days added to the project,

***Sections 9 and 10 are hereby added to
Part 1 of the Standard Specifications, as follows:***

SECTION 9 – CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT PLAN

9-1 GENERAL

To ensure that solid waste generated in the City is reduced, reused or recycled, the Contractor shall submit a “Waste Management Plan” (WMP) to the Engineer for review and approval, using the form found at the end of this Section 9. After the WMP has been reviewed by the Engineer, it will be returned to the Contractor in one of the following four status conditions:

- “Approved”
- “Further Explanation Required”: The Engineer will return the WMP to the Contractor with questions about the WMP. The Contractor shall resubmit plan with each of the City’s questions answered thoroughly.
- “Denied”: The Engineer will indicate the reasons for denial. The Contractor shall then re-submit a new WMP that complies with the requirements of this Section or request an Infeasibility Exemption.
- “Infeasibility Exemption Approved”

The Contractor shall follow the WMP and document results during demolition and construction. Final documentation shall be submitted at the end of the project to the Engineer for review of compliance with the original WMP. The amount deducted from the final estimate and retained by the City in accordance with Section 7.3.1 and 7.3.2 shall be withheld until final WMP is submitted to the City and approved by the City.

9-2 DEFINITIONS

- a) “Construction” means the building of any facility or structure or any portion thereof including any tenant improvements to an existing facility or structure.
- b) “Construction and Demolition Debris” means used or discarded materials removed from premises during construction of the Project.
- c) “Conversion Rate” means the rate set forth in the standardized Conversion Rate Table approved by the City Council pursuant to this Section for use in estimating the volume or weight of materials identified in a Construction and Demolition Waste Reduction and Recycling Plan.
- d) “Divert” means to use material for any purpose other than disposal in a landfill. Diversion credit is given for source reduction (waste reduction), recycling, and composting.
- e) “Diversion Requirement” means the diversion of at least 65% of the total Construction and Demolition Debris generated by a Project via reduction (source reduction), reuse or recycling, unless the Contractor has been granted an Infeasibility Exemption, in which case the Diversion Requirement shall be the maximum feasible diversion rate established by the Engineer.

- f) "Recycling" means the process of collecting, sorting, cleansing, treating, and reconstituting materials that would otherwise become solid waste, and returning them to the economic mainstream in the form of raw material for new, reused, or reconstituted products which meet the quality standards necessary to be used in the marketplace.
- g) "Renovation" means any change, addition, or modification in an existing structure.
- h) "Reuse" means further or repeated use of Construction or Demolition Debris. An example is the reuse of crushed concrete as road base or as aggregate on the construction site.
- i) "Salvage" means the controlled removal of Construction or Demolition Debris from project for the purpose of recycling, reuse, or storage for later recycling or reuse.
- j) "Construction and Demolition Waste Management Plan" means a completed form, approved by the Engineer for the purpose of compliance with this Section, submitted by the Contractor/Contractor for any Covered or Noncovered Project that indicates the estimated diversion that the Contractor/Contractor anticipates in diverting from disposal.
- k) "Construction and Demolition Waste Management Report" means a completed form, approved by the Engineer for the purpose of compliance with this Section, submitted by the Contractor for any Project that documents the disposal and diversion tonnages and destinations.

9-3 INFEASIBILITY EXEMPTION

- a) Application. If the Contractor experiences unique circumstances that the Contractor believes make it infeasible to comply with the Diversion Requirement, the Contractor shall apply for an exemption at the time that it submits the WMP. The Contractor shall indicate on the WMP the maximum rate of diversion the Contractor believes is feasible for each material and the specific circumstances that the Contractor believes make it infeasible to comply with the Diversion Requirement.
- b) The Engineer shall review the information supplied by the Contractor and may meet with the Contractor to discuss possible ways of meeting the Diversion Requirement. Based on the information supplied by the Contractor, the Engineer shall determine whether it is possible for the Contractor to meet the Diversion Requirement.
- c) If the Engineer determines that it is infeasible for the Contractor to meet the Diversion Requirement due to unique circumstances, the Engineer shall determine the maximum feasible diversion rate for each material and shall indicate this rate on the WMP submitted by the Contractor. The Engineer shall return a copy of the WMP to the Contractor marked "Infeasibility Exemption Approved."
- d) Denial of Exemption. If the Engineer determines that it is possible for the Contractor to meet the Diversion Requirement, the Engineer shall so inform the Contractor in writing. The Contractor will have 15 days to resubmit a new WMP. If the Contractor fails to resubmit a new WMP, or if the resubmitted WMP does not comply with the requirements of the plan, the Engineer shall deny the WMP.

9-4 DIVERSION PROGRAM

The methodology used to calculate diversion is based on the Title 14, California Code of Regulations, Article 6.1 Solid Waste Generation Study, Section 18722 et seq, and is consistent with

CalRecycle measurement protocols. The following equation defines the “Generation-Based Diversion Quantification Methodology”:

$$\begin{aligned}\text{Generation} &= \text{Disposal} + \text{Diversion} \\ \text{Diversion Rate (\%)} &= \frac{\text{Diversion Tons}}{\text{Generation Tons}}\end{aligned}$$

9-5 ADDITIONAL INFORMATION

Other materials to assist the Contractor in completing the WMP can be found on the City’s website at <https://www.manhattanbeach.gov/departments/community-development/building-and-safety/waste-management-plan-information>

- Construction and Demolition Debris Recycling Guide
- Construction and Demolition Recycling Brochure

CITY OF MANHATTAN BEACH
Construction & Demolition Waste Management Plan

Manhattan Beach Municipal Code 5.26 requires construction projects to reuse or recycle 65% of all construction site waste (all demolition and roof tear-off projects, and all construction with a total value of \$100,000).

REQUIRED GOAL: REUSE OR RECYCLE A MINIMUM OF 65% OF ALL PROJECT WASTE

Instructions:

1. Complete entire WMP & submit to the Project Manager as a project submittal.
2. Reuse and/or recycle at least 65% of all construction site waste and keep good records of all facility waste tickets.
3. Submit a copy of this WMP and ALL recycling and landfill facility weight tickets before Final Inspection to the Project Manager as a new project submittal. **A COPY OF THIS WMP AND RECEIPTS OF ALL RECYCLING AND DISPOSAL SHALL BE SUBMITTED BEFORE FINAL PAYMENT WILL BE MADE BY THE CITY.**

Fines for Non-Compliance (MBMC 5.26.020): Demo projects up to \$5,000 and Construction projects up to \$10,000

Project Name: _____

Project Address: _____

Type of Project: ☐ Street Improvement ☐ Water Main ☐ Sewer Main
 ☐ Storm Drain ☐ Other

Total Bid Price: \$ _____

Requesting Infeasibility Exemption: ☐ Yes ☐ No

Contractor Name: _____ **Contact Name:** _____

Address: _____ **Contact Phone:** _____

Recycler: _____ **Recycler Contact:** _____

Recycler Address: _____ **Recycler Contact Phone:** _____

CITY USE ONLY	
Application (Date)	Final (Date)
Approved	_____
Further explanation needed (see attached)	_____
Denied	_____
Infeasibility Exemption Approved	_____
Reviewed By	_____

Submit this form and the attached Waste Management Plan Table to: **Project Manager by email or Engineering Division, City of Manhattan Beach 3621 Bell Avenue, Manhattan Beach, CA 90266**

CITY OF MANHATTAN BEACH
Construction & Demolition Waste Management Plan Table

Project Name: _____

Total Estimated Waste Generated by Project: _____ (**IN TONS**).
 (Ask your hauler, recycler or site cleanup vendor to assist you. Use receipts from your previous jobs for estimates.)

Complete and return with Building Permit Application				Complete and return with receipts prior to final building approval		
Material Type	Estimated Reused/ Recycled	Estimated Disposed/ Landfilled	Vendor or Facility to be Used (Destination)	Actual Reused/ Recycled	Actual Disposed/ Landfilled	Vendor or Facility Used (Destination)
Asphalt & Concrete						
Bricks/Masonry/Tiles						
Building Materials (doors, windows, fixtures, etc.)						
Cardboard						
Concrete Pavement and Grindings						
Drywall (new, unpainted)						
Asphalt Pavement Grindings						
Landscape Debris (Plant & Tree Trimmings)						
Scrap Metal						
Unpainted Wood & Pallets						
Other (painted wood & drywall, roofing, etc.)						
Mixed C&D*						
Trash/Garbage						
TOTAL						

*Mixed C&D is defined as a mixture of three or more materials (e.g., wood, drywall, roofing, etc.) from construction or demolition sites that will be taken to a "qualified" facility for recycling. (See C&D Debris Recycling Guide.)

If you are requesting an infeasibility exemption and the estimated amount reused/recycled is less than 65%, please explain why (attach additional sheets if necessary):

If the actual amount reused/recycled is less than 65%, please explain why:

Prepared by (please print): _____

Date: _____

Contractor Signature: _____

Phone Number: _____

Conversion Rates

The following conversion rates are estimates. The ranges vary widely, depending on how the materials are handled (compacted, loose, chipped, etc.). Use the conversion factors and receipts from any previous projects to help you estimate the potential amount of materials and diversion. Take into consideration the type and load of vehicles that will be used to haul the materials. Ask your hauler or recycler to assist you in estimating these numbers.

Material	Lbs/cy	Tons/cy
Asphalt	1,400 lbs/cy	0.7 tons/cy
Brick	2,430 lbs/cy	1.21 tons/cy
Cardboard	100 lbs/cy	0.05 tons/cy
Concrete	2,600 lbs/cy (Sources range from 1,000 to 4,000)	1.3 tons/cy
Dirt/Soils	2,660 lbs/cy	1.33 tons/cy
Drywall	700 lbs/cy	0.35 tons/cy
Wood (chipped)	300 – 650 lbs/cy	0.15 – 0.3 tons/cy
Mixed C&D Debris	900 lbs/cy	0.45 tons/cy
Mixed Waste/Trash	100 – 350 lbs/cy	0.5 – 0.175 tons/cy

SECTION 10 – ADDITIONAL TERMS

10-1 NONDISCRIMINATORY EMPLOYMENT

The Contractor shall not unlawfully discriminate against any individual based on race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation or military and veteran status. The Contractor understands and agrees that it is bound by and will comply with the nondiscrimination mandates of all statutes and local ordinances and regulations.

10-2 NOTICE TO PROCEED

Initial Notice to Proceed. The City shall issue the “Notice to Proceed to Fulfill Preconstruction Requirements and Order Materials,” (referred to as Phase 1 NTP) at which time the Contractor shall diligently prepare and transmit to the Engineer all pertinent submittals and/or request for information (RFI), and coordinate the date and time for the Project Preconstruction Meeting with the City, outside agencies, and other pertinent stakeholders. The Phase 1 NTP must include submittals for critical items, including electrical and mechanical components along with other long lead-time items. As part of this NTP, the Contractor must also submit a utility locating plan and pilot drywell installation and testing plan for review and approval by the City.

The Notice to Proceed to Fulfill Preconstruction Requirements and Order Materials (Phase 1 NTP) shall further specify that the Contractor must complete the preconstruction requirements and order materials. The date specified in the Phase 1 NTP constitutes the date of commencement of the Contract Time of 280 Working Days. It is anticipated that the Phase 1 NTP will be completed within 20 Working Days.

Phase 1 NTP requirements include, but are not limited to, the following:

Submitting and obtaining approval of Baseline Schedule. Refer to GP Part 1 Section 6.

Submitting and obtaining approval of Traffic Control Plans. Refer to GP Part 6.

Submitting and obtaining approval of Schedule of Values.

Submitting and obtaining approval of the Stormwater Pollution Prevention Plan (SWPPP)/Water Pollution Control Plan (WPCP). Refer to GP Part 1 Section 3-12.6.

Submitting and obtaining approval of critical required and lead time submittals, including electrical and mechanical components..

Submitting and obtaining approved Project Identification Signs. Refer to GP Part 1 Section 3-11.

Obtaining approved Permits from all applicable agencies. Refer to GP Part 1 Section 2-2.

Obtaining a Temporary Use Permit for a construction yard / staging area, if applicable.

Notifying all agencies, utilities, residents, etc., as outlined in the Contract Documents.

Submitting and obtaining approval of a Project Staffing List with contact information, Illness and Injury Prevention Plan, and a Project Emergency Contact List. Refer to GP Part 1 Section 6.

Preparing a utility locating plan (expected to include potholing and slot trenching. Refer to GP Part 4 Section 402-1.

Preparing pilot drywell installation and testing plan. Refer to Technical Specifications Section SW11-6.

Notice to Proceed with Utility Locating, Utility Relocation, and Pilot Drywell Installation/Testing (Phase 2 NTP). After Phase 1 requirements are met, to the satisfaction of the City, the City shall issue the "Notice to Proceed with Utility Locating, Utility Relocation, and Pilot Drywell Installation/Testing," (Phase 2 NTP) at which time the Contractor shall diligently prosecute the associated Work. Utility locating and drywell test results shall be submitted to the City for review during this phase. Pending the results, minor modifications may be made to the number and location of drywells. It is anticipated that this NTP will take 20 Working Days to complete.

Notice to Proceed with Construction (Phase 3 NTP). After all preconstruction requirements are met, to the satisfaction of the City, and materials have been ordered in accordance with the previous NTPs, the City shall issue the "Notice to Proceed with Construction," (Phase 3 NTP) at which time the Contractor shall diligently prosecute the Work, including corrective punch list items of Work, day to day thereafter, within the remaining Contract Time (except as adjusted by subsequent Change Orders).

The City will not authorize any Work to be done under these Contract Documents before the Contract has been fully executed. Any Work that is done by the Contractor in advance of such time shall be considered as being done at the Contractor's own risk and responsibility, and as a consequence will be subject to rejection.

10-3 CONTRACTOR'S RESPONSIBILITY FOR WORK

Until the final acceptance of the Work by the City as defined in Section 3-13.2 of the General Provisions, by written action of the Engineer, the Contractor shall have the charge and care thereof and shall bear the risk of injury or damage to any part of the Work by the action of the elements, criminal acts, or any other cause. The Contractor shall rebuild, repair, restore and make good all injuries or damages to any portion of the Work occasioned by any cause before its completion and acceptance and shall bear the expense thereof, except for such injuries or damages arising from the sole negligence or willful misconduct of the City, its officers, agents or employees. In the case of suspension of Work from any cause whatever, the Contractor shall be responsible for all materials and the protection of Work already completed, shall properly store and protect them if necessary, and shall provide suitable drainage and erect temporary structures where necessary.

10-4 PROCEDURE IN CASE OF DAMAGE TO PUBLIC PROPERTY

Any portions of curb, gutter, sidewalk or any other City improvement damaged by the Contractor during the course of construction shall be replaced by the Contractor at its own cost. The cost of additional replacement of curb, gutter or sidewalk in excess of the estimated quantities shown in the Bid form and Specifications, and found necessary during the process of construction (but not due to damage resulting from carelessness on the part of the Contractor during its operation), shall be paid to the Contractor at the unit prices submitted in its Bid.

10-5 REMOVAL OF INTERFERING OBSTRUCTIONS

The Contractor shall remove and dispose of all debris, abandoned structures, tree roots and obstructions of any character encountered during the process of excavation. It is understood that

the cost of any such removals are made a part of the unit price bid by the Contractor under the item for excavation or removal of existing Work.

10-6 SOILS ENGINEERING AND TESTING

An independent certified materials testing firm must be retained by the Contractor to perform materials tests and applicable special inspections during the Contractor's entire operation to ascertain compliance with the Contract requirements. If the initial tests do not meet the Contract requirements, the Contractor shall bear the cost of all subsequent tests.

The Contractor shall provide a copy of the testing and inspection reports to the Engineer within 24 hours upon receipt.

If the City requires other tests or more specific requirements for testing regarding this Project, those details will be included in the Special Provisions.

10-7 ACCESS TO PRIVATE PROPERTY

Unless otherwise stated in the Special Provisions, the Contractor shall be responsible for all fees and costs associated with securing permission to access private property for any portion of the Project.

10-8 WORKING DAYS AND HOURS

Unless otherwise noted in Part 11 Special Instructions or authorized by the City Engineer:

- a) The Contractor shall do all Work between the hours of 7:30 a.m. to 4:30 p.m., Monday through Friday.
- b) No Work will be allowed on Saturday, Sunday or City holidays listed on the City's website.
- c) No Work will be allowed on any election or special election day that may be declared within a 300-foot radius of any voting location or in any location that will disturb access to any voting location, as determined and directed by the City Engineer. If the Work is within the 300-foot radius or disturbs access to any voting location, as determined by the City Engineer, a time extension of one Working Day will be granted for each such Day that Work cannot be performed.

The City's Municipal Code or the project permit may list conflicting hours or Days for the Contractor to do the Work. In these cases, Working Days and Hours shall be as noted in Part 11 Special Instructions, unless otherwise authorized by the City Engineer.

Whenever the Contractor is permitted or directed to perform night Work or to vary the period during which Work is performed during the Working Day, the Contractor shall give 24 hours' notice to the Engineer so that inspection may be provided. Charges to the Contractor for inspection will be incurred as stated in Section 6-2.1.

10-9 CLAIM DISPUTE RESOLUTION

In the event of any dispute or controversy with the City over any matter whatsoever, the Contractor shall not cause any delay or cessation in or of Work, but shall proceed with the performance of the Work in dispute. The Contractor shall retain any and all rights provided that pertain to the resolution of disputes and protests between the parties. The Disputed Work will be categorized as an "unresolved dispute" and payment, if any, shall be as later determined by mutual agreement or a court of law. The Contractor shall keep accurate, detailed records of all Disputed Work,

claims and other disputed matters.

All claims arising out of or related to the Contract Documents or the Project, and the consideration and payment of such claims, are subject to the Government Claims Act (Government Code Section 810 *et seq.*) with regard to filing claims. All such claims are also subject to Public Contract Code Section 9204 and Public Contract Code Section 20104 *et seq.* (Article 1.5), where applicable. The Contract hereby incorporates those provisions as though fully set forth herein. Thus, the Contractor or any Subcontractor must file a claim in accordance with the Government Claims Act as a prerequisite to filing a construction claim in compliance with Section 9204 and Article 1.5 (if applicable), and must then adhere to Article 1.5 and Section 9204, as applicable, pursuant to the definition of “claim” as individually defined therein.

10-10 THIRD PARTY CLAIMS

The City shall have full authority to compromise or otherwise settle any claim relating to the Project at any time. The City shall timely notify the Contractor of the receipt of any third-party claim relating to the Project. The City shall be entitled to recover its reasonable costs incurred in providing this notice.

10-11 COMPLIANCE WITH LAWS

The Contractor shall comply with all applicable federal, State and local laws, ordinances, codes and regulations in force at the time the Contractor performs pursuant to the Contract Documents.

10-12 CONTRACTOR'S REPRESENTATIONS

By signing the Contract, the Contractor represents, covenants, agrees, and declares under penalty of perjury under the laws of the State of California that: (a) the Contractor is licensed, qualified, and capable of furnishing the labor, materials, and expertise necessary to perform the services in accordance with the terms and conditions set forth in the Contract Documents; (b) there are no obligations, commitments, or impediments of any kind that will limit or prevent its full performance under the Contract Documents; (c) there is no litigation pending against the Contractor that could adversely affect its performance of the Contract, and the Contractor is not the subject of any criminal investigation or proceeding; and (d) to the Contractor's actual knowledge, neither the Contractor nor its personnel have been convicted of a felony.

10-13 CONFLICTS OF INTEREST

The Contractor agrees not to accept any employment or representation during the term of the Contract or within 12 months after acceptance as defined in Section 3-13.2 of the General Provisions that is or may likely make the Contractor “financially interested,” as provided in Government Code Sections 1090 and 87100, in any decisions made by the City on any matter in connection with which the Contractor has been retained pursuant to the Contract Documents.

10-14 APPLICABLE LAW

The validity, interpretation, and performance of these Contract Documents shall be controlled by and construed under the laws of the State of California, excluding California's choice of law rules. Venue for any such action relating to the Contract shall be in the Los Angeles County Superior Court.

10-15 TIME

Time is of the essence in these Contract Documents.

10-16 INDEPENDENT CONTRACTOR

The Contractor and Subcontractors shall at all times remain, as to the City, wholly independent contractors. Neither the City nor any of its officials, officers, employees or agents shall have control over the conduct of the Contractor, Subcontractors, or any of their officers, employees, or agents, except as herein set forth, and the Contractor and Subcontractors are free to dispose of all portions of their time and activities that they are not obligated to devote to the City in such a manner and to such Persons that the Contractor or Subcontractors wish except as expressly provided in these Contract Documents. The Contractor and Subcontractors shall have no power to incur any debt, obligation, or liability on behalf of the City, bind the City in any manner, or otherwise act on behalf of the City as agents. The Contractor and Subcontractors shall not, at any time or in any manner, represent that they or any of their agents, servants or employees, are in any manner agents, servants or employees of the City. The Contractor and Subcontractors agree to pay all required taxes on amounts paid to them under the Contract, and to indemnify and hold the City harmless from any and all taxes, assessments, penalties, and interest asserted against the City by reason of the independent contractor relationship created by the Contract Documents. The Contractor shall include this provision in all contracts with all Subcontractors.

10-17 CONSTRUCTION

In the event of any asserted ambiguity in, or dispute regarding the interpretation of any matter herein, the interpretation of these Contract Documents shall not be resolved by any rules of interpretation providing for interpretation against the party who causes the uncertainty to exist or against the party who drafted the Contract Documents or who drafted that portion of the Contract Documents.

10-18 NON-WAIVER OF TERMS, RIGHTS AND REMEDIES

Waiver by either party of any one or more of the conditions of performance under these Contract Documents shall not be a waiver of any other condition of performance under these Contract Documents. In no event shall the making by the City of any payment to the Contractor constitute or be construed as a waiver by the City of any breach of covenant, or any default that may then exist on the part of the Contractor, and the making of any such payment by the City shall in no way impair or prejudice any right or remedy available to the City with regard to such breach or default.

10-19 TERM

The Contract is effective as of the Effective Date listed, and shall remain in full force and effect until the Contractor has fully rendered the services required by the Contract Documents or the Contract has been otherwise terminated by the City. However, some provisions may survive the term listed within this Section, as stated in those provisions.

10-20 NOTICE

Except as otherwise required by law, any notice or other communication authorized or required by these Contract Documents shall be in writing and shall be deemed received on (a) the day of delivery if delivered by hand or overnight courier service during the City's regular business hours or (b) on the third business day following deposit in the United States mail, postage prepaid, to the addresses listed on the Contractor's Bid and City Hall, or at such other address as one party may notify the other.

10-21 SEVERABILITY

If any term or portion of these Contract Documents is held to be invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions of these Contract Documents shall continue in full force and effect.

PART 2 – CONSTRUCTION MATERIALS

PART 2 - CONSTRUCTION MATERIALS

The corresponding provisions in Part 2 (Construction Materials) of the Standard Specifications, except as otherwise indicated herein. In the event of any conflict between the Standard Specifications and these Special Provisions, these Special Provisions shall control.

SECTION 200 ROCK MATERIALS

The provisions below shall supplement but not replace those provisions in Section 200 of the Standard Specifications.

200-1 ROCK PRODUCTS.

200-1.2 Crushed Rock and Rock Dust

Add the following to Subsection 200-1.2:

Crushed rock used with infiltration system (drywells) shall be washed prior to delivery. Crushed rock shall be free of fines and clear of soil or other materials that may clog the infiltration system. The ¾-inch crushed rock identified on the Contract Plans shall be ¾-inch crushed rock per this section.

200-2 UNTREATED BASE MATERIALS.

200-2.1 General

Add the following to Subsection 200-2.1:

a) Class 2 Aggregate Base shall meet the requirements of Caltrans Specifications, Section 26, Aggregate Bases, Class 2.

SECTION 201 CONCRETE, MORTAR, AND RELATED MATERIALS

The provisions below shall supplement but not replace those provisions in Section 201 of the Standard Specifications.

201-1 PORTLAND CEMENT CONCRETE.

201-1.1 Requirements

201-1.1.2 General

Add the following to Subsection 201-1.1.2:

The same brand type, source of cement, and aggregate shall be used for all cast in place Portland cement concrete.

201-1.1.4 Concrete Specified by Compressive Strength

Add the following to Subsection 201-1.1.4:

For site pavement and for other site concrete work, the 28-day compressive strength shall be 2,500 psi with a w/c ratio no more than 45 percent. For all structure concrete work including storm drain manholes, junction structures, and diversion structures, whether pre-cast or cast-in-place, the 28-day compressive strength shall be 5,000 psi. Concrete associated with the pretreatment system (trash capture and sedimentation), subsurface infiltration system (drywells), and valve manholes are specified in Sections SWT, SWS, SWI, and SG, respectively. Strength requirements for other concrete structures shown in the Plans may be specified in the Plans or Technical Specifications (outside this section). For all concrete work, the slump shall be 4-inches \pm 1-inch.

SECTION 203 BITUMINOUS MATERIALS

The provisions below shall supplement but not replace those provisions in Section 203 of the Standard Specifications.

203-6 ASPHALT CONCRETE.

203-6.1 General

Add the following as Subsection 203-6.1 General:

Asphalt concrete within the public right-of-way shall be per Greenbook SSPWC and the City Pavement Management Plan for surface courses.

SECTION 206 MISCELLANEOUS METAL ITEMS

The provisions below shall supplement but not replace those provisions in Section 206 of the Standard Specifications.

206-3 GRAY IRON AND DUCTILE IRON CASTINGS

206-3.3 Manufacturing and Finishing

206-3.3.2 Manhole Frame and Cover Sets and Grates

206-3.3.2.1 Manhole Cover Labels

Add the following as Subsection 206-3.3.2.1:

All manhole covers installed within public right-of-way shall be labeled according to City requirements, similar to the details shown in City of Manhattan Beach Standard Plans MBSS-210A-0 (ST-19) and MBFE-312A-0 (ST-7), while the lids should show a "D" for Drain.

206-5 METAL RAILINGS

206-5.2 View Railing

Add the following as Subsection 206-5.2:

View railing shall be integrated into the retaining walls and shall be stainless steel laser infill with post system. The laser infill pattern will be selected by the City during construction. View railing shall be by Viva Railings (<https://vivarailings.com/infill-options/metal-laser-cut-infill-post-system>) or Agency approved equal.

PART 3 – CONSTRUCTION METHODS

The corresponding provisions in Part 3 (Construction Methods) of the Standard Specifications are incorporated, except as otherwise indicated herein. In the event of any conflict between the Standard Specifications and these Special Provisions, these Special Provisions shall control.

SECTION 300 EARTHWORK

The provisions below shall supplement but not replace those provisions in Section 300 of the Standard Specifications.

300-1 CLEARING AND GRUBBING

300-1.4 Payment

Replace the second sentence in the first paragraph of Subsection 300-1.4 with the following:

Payment for removal of trees shall be measured separately and shall be made at the Contract Unit Price per Each for “REMOVE TREE”. The Contract Unit Prices shall include payment for removal and disposal of the resulting materials off the Work site.

300-2 UNCLASSIFIED EXCAVATION

300-2.1 General

Subsection 300-2.1 shall be replaced with the following:

Unclassified excavation shall consist of all excavation, including roadways, bituminous pavement, concrete pavement, curb, walk, gutters, cross gutters, driveways, access ramps, and improvements on adjacent private property areas. Additional requirements related to unclassified excavation (removal) are included in Section 401-3.

300-2.8 Measurement

The second sentence in the third paragraph of Subsection 300-2.8 shall be replaced with the following:

The Contractor shall backfill and compact unauthorized excavated areas to the original ground elevation or authorized section at its own expense.

300-2.9 Payment

The first sentence in the first paragraph of Subsection 300-2.9 shall be replaced with the following:

Payment for unclassified excavation performed as part of the Work for various Bid items, including removal of extra AC thickness, shall be paid for as part of the Work for that item and no additional compensation will be allowed therefor.

Add the following as Subsection 300-2.9:

Payment for unclassified excavation is considered included in the Bid under each Bid item requiring unclassified excavation and includes excavation, hauling, and disposal. No separate payment will be

made unless otherwise indicated. Payment for the export of excess material related to the pretreatment system (trash capture and sedimentation) and subsurface infiltration system (drywells) shall be considered included in the Bid per Cubic Yard for "SOIL EXPORT (FROM PRETREATMENT SYSTEMS AND DRYWELLS)" for which the quantity is based on calculated values (do not include shrinkage or subsidence). Export shall be defined as the transport of materials to their final location or disposal. Export shall not refer to the movement of soil to other locations within the project site.

300-4 UNCLASSIFIED FILL

300-4.9 Measurement

Add the following to Subsection 300-4.9:

Fill required for rough and finish grading of the parking facility and other areas within the Project area no part of structure backfill are unclassified fill.

300-4.10 Payment

Replace the first paragraph of Subsection 300-4.10 with the following:

Payment for unclassified fill performed as part of the Work shall be paid for as part of the Work for that item and shall include all grading, shaping, compacting or consolidation, and extra fill, and no additional compensation will be allowed therefor.

SECTION 301 SUBGRADE PREPARATION, TREATED MATERIALS, AND PLACEMENT OF BASE MATERIALS

The provisions below shall supplement but not replace those provisions in Section 301 of the Standard Specifications.

301-2 UNTREATED BASE

301-2.4 Measurement and Payment

Add the following to Subsection 301-2.4:

Payment for construction of untreated base under curb, curb and gutter, driveways, sidewalks, pretreatment systems (trash capture and sedimentation), ramps, and all other hardscape shall be considered as included in the Bid price for related items of Work and no additional compensation will be allowed therefor. Payment for untreated base under AC pavement shall be considered as included in the Contract Bid price per Square Foot for "4" AC PAVEMENT OVER 9" AGGREGATE BASE." Payment for untreated base under pervious pavement shall be considered as included in the Contract Bid price per Square Foot for "6" PERVIOUS CONCRETE PAVEMENT OVER 8.5" AGGREGATE BASE." Payment for untreated base under PCC pavement shall be considered as included in the Contract Bid price per Square Foot for "6" PCC OVER 4" AGGREGATE BASE."

Payment for crushed rock used in the subsurface infiltration system (drywells) will be included with the infiltration system, as specified in Technical Specification Section SWI.

SECTION 302 ROADWAY SURFACING

The provisions below shall supplement but not replace those provisions in Section 302 of the Standard Specifications.

302-5 ASPHALT CONCRETE PAVEMENT

302-5.9 Measurement and Payment

Add the following to Subsection 302-5.9:

Compensation for delivery of all necessary equipment to the site, and operating equipment as specified, including all rollers specified regardless of rolling pattern elected by Contractor, shall be considered included in the Contract Unit price per Square Foot for "4" AC PAVEMENT OVER 9" AGGREGATE BASE," which includes AC, AC placement, compaction, utility adjustment, and all other elements necessary to construct AC pavement to the conditions indicated in the Contract Documents. Removal of existing AC pavement in the parking facility and surrounding right-of-way, additional unclassified excavation, sawcutting, hauling, disposal, protection of utilities, removal of pavement markers and markings, and other elements to demolish existing AC pavement shall be considered included in the Contract Unit price per Square Foot for "DEMO AC PAVING AND BASE (INCLUDING SAWCUTS)".

302-6 PORTLAND CEMENT CONCRETE PAVEMENT

Add the following Subsection:

302-6.9 Pervious Concrete Pavement

302-6.9.1 Quality Assurance

Upon completion of the initial curing, the Pervious Concrete Pavement (PCP) shall be tested for initial baseline infiltration in accordance with ASTM C1701 (Infiltration Rate of in Place Pervious Concrete). The rate shall be 100 inches per hour. It is recommended that the Contractor hire a subcontractor that specializes in PCP, while at the minimum, the paving crew must meet one of the following criteria and have five years of experience with PCP:

1. Crew must employ one (1) or more NRMCA certified pervious concrete craftsman who must be onsite actively working with and guiding the placement crew during PCP placement.
2. Crew must employ three (3) or more NRMCA certified pervious concrete installers who must be onsite actively working with and guiding the placement crew during PCP placement.
3. Crew must employ one (1) or more NRMCA certified pervious concrete installer and three (3) or more NRMCA certified pervious concrete technicians who must all be onsite actively working with and guiding the placement crew during PCP placement.

Ready mixed PCP shall be produced and provided by a NRMCA certified personnel employed at the plant. The batch plant used for PCP shall be a semi-automatic or automatic batching plant with a current NRMCA certification. Once accepted, the mix design meeting the design criteria specified below shall become the Approved Mix Design and shall not be modified in any way.

302-6.9.2 Submittals

Prior to commencing work, the Contractor shall submit the following:

1. Concrete Materials:
 - a. Proposed PCP mixture proportions, including all material weights, volumes, density (unit weight), water cement ratio, and void content.
 - b. Aggregate type.
 - c. Cement, fly ash, and admixture manufacturer certifications.
2. Qualifications: evidence of paving crew qualifications listed above.
3. Project Details: specific plans, details, schedule, construction procedures, and quality control plan.
4. Test Panels: prior to installation of the PCP, one test panel shall be constructed onsite using the materials, tools, equipment, personnel, and methods that will be used to complete the work. Test results shall be approved by the City.
 - a. Test panels shall be a minimum of 140 square feet. The panel size shall be placed, jointed, and cured. Test panel must be laid out in a manner that does not create a "patchy" appearance.
 - b. Test panels shall have acceptable surface finish, joint details, thickness, porosity, and infiltration rate.
 - c. If the test panel placed at the site is found to be deficient in surface finish (appearance), joint construction, thickness, porosity, and/or baseline infiltration, it shall be removed at the Contractor's expense and taken to an approved landfill or recycling facility. If the test panel is found to be satisfactory, it may be left in place and included in the completed work.

302-6.9.3 Materials

1. Cement: Portland cement Type II or V conforming to ASTM C150 or Portland cement Type IP conforming to ASTM C595. The Contractor shall use one brand and source of cement throughout the entire length of the project.
2. Supplementary cementitious materials may include Class F fly ash conforming to ASTM C618 and ground iron blast-furnace slag conforming to ASTM C989.
3. Chemical admixtures may include air entraining agents per ASTM C260, chemical admixtures per ASTM C494, and/or retarding chemical or hydration-stabilizing admixtures when necessary to increase allowable PCP discharge time to 90 minutes and improve finishing operations.
4. Aggregates in accordance with the Standard Specifications.
5. Water shall comply with ASTM C1602. Water shall be potable and free from deleterious materials such as oils, acids, and organic matter.
6. Mixture proportions: the Contractor shall submit the composition of the proposed PCP mixtures to the City for review and approval. Submittals shall comply with the following provisions:
 - a. Cementitious Content: Total cementitious content shall not be less than 540 pounds per cubic yard (lbs/cy) and shall not be more than 590 lbs/cy.
 - b. Supplementary cementitious content: Class F fly ash: content shall not be greater than 25 percent of the total weight of cementitious materials and slag shall not be greater than 50 percent.
 - c. Water / Cementitious Ratio: Maximum 0.33.
 - d. Aggregate Content: in accordance with the Standard Specifications.
 - e. Admixtures: Admixtures shall be used in accordance with the manufacturer's instructions and recommendations.
 - f. Mix Water: The quantity of mixing water shall be established to produce a PCP mixture of the desirable workability to facilitate placing, compaction, and finishing to the desired surface characteristics.
7. Joints: see below.
8. PCP shall be of the thickness shown on the plans and shall have the following characteristics when wet:

- a. Void content: 18-25%
- b. Unit weight: 120-128 pounds per cubic foot
- c. Water:Cement ratio: 0.27-0.33 by weight

302-6.9.4 Execution

1. Subbase/Subgrade shall not be over compacted, as it can inhibit infiltration. Subgrade soils shall be pre-saturated, such that the upper 24 inches (approximately) of subgrade soil is moisture conditions to 4% or more above the optimum moisture content per ASTM D1557. The subgrade moisture shall be maintained until the washed stone and PCP is placed.
2. Formwork: Form materials are permitted to be of wood or steel, and shall be of width and the depth of the PCP. Forms shall be of sufficient strength and stability to support mechanical equipment without deformation of plan profiles following spreading, strike-off, and compaction operations. String lines shall be used to set form elevation. Placement width shall not exceed 12 feet. Placement sections shall be square (or close).
3. Mixing and Hauling:
 - a. Production: PCP shall be manufactured and delivered in accordance with ASTM C94.
 - b. Mixing: Mixtures shall be produced in central mixers or in truck mixers. When PCP is delivered in agitating or non-agitating units, the PCP shall be mixed in the central mixer for a minimum of one (1) minute or until a homogenous mix is achieved. PCP mixed in truck mixers shall be mixed at the speed designated as mixing speed by the manufacturer for 75 – 100 revolutions.
 - c. Transportation: The PCP mixture may be transported or mixed on site and discharge of individual loads shall be completed within 60 minutes of the introduction of mix water to the cement. Delivery times may be extended to 90 minutes with the introduction of retarding chemical or hydration stabilizing admixtures.
 - d. Discharge: Contractor will visually inspect each truckload for consistency of PCP mixture. Discharge shall be a continuous operation and shall be completed as quickly as possible. Concrete shall be deposited as close to its final position as practical and such that discharged PCP is incorporated into previously placed plastic concrete.
4. Placing and Finishing:
 - a. Prior to placement, the wet unit weight of PCP shall be tested (for each load) and shall be within +/- five (5) cubic feet per pounds of the approved mix design when tested in accordance to ASTM C1688.
 - b. Placement shall conform to the line, grades, and cross sections shown on the plans. Placement operations shall not result in the voids becoming sealed.
 - c. PCP shall be uniformly deposited over the entire formed area. A self-propelled roller screed shall be used for strike-off, spreading, and compaction. Hand-rodding may be used in areas inaccessible to the roller screed. Adjacent to the edge of each form, hand tampers shall be used for compaction. Strike off approximately 1/2-inch to 3/4-inch above the forms to allow for compaction.
 - d. Following strike-off, compact the PCP to the form level, utilizing a steel roller (roller screed). Proper compaction may be achieved by cross rolling with hand rollers that weigh 40 pounds per foot, following initial compaction. Compaction shall be completed within 15 minutes of placement.
 - e. The Contractor shall compact the PCP to the required cross-section and shall not deviate more than +/- 3/8 inch in 10 feet from profile grade.
 - f. Surface depressions shall be corrected immediately after compaction by placing fresh PCP in depression and compacting using a hand tamper.
 - g. Do not use steel trowels or power finishing equipment.
5. Joints:
 - a. Transverse Construction Joints: Transverse Construction Joints shall be constructed whenever placement is suspended for more than 20 minutes.

- b. Control Joints/Weakened Plane Joints: Control Joints shall be installed at regular intervals not to exceed 15 feet on center. The control joints/weakened plane joints shall be installed to a depth of one-quarter of the thickness of the pavement or to a minimum depth of 1.5 inches, whichever is greater. These joints shall be constructed by one of the following methods:
 - c. Rolling with a roller equipped with a circumferential beveled fin immediately after compaction and prior to curing.
 - d. Saw cutting as soon as the PCP can be saw cut without causing raveling along the joint edges. Only the area occupied by the PCP shall be uncovered and exposed (from curing). Immediately after sawing each joint, the exposed area shall be fogged with water and re-covered in accordance with item 6 below.
 - e. Isolation Joints: Construct an isolation joint at pre-existing structures that abut or penetrate the PCP. The isolation joint must extend the full depth of the PCP. Place and secure the isolation joint material before placing PCP.
6. Curing:
- a. Curing procedures shall begin no later than 20 minutes after final placement operations have been completed. Begin curing within twenty (20) minutes of concrete discharge. The pavement surface shall be securely and completely covered with polyethylene sheeting having a minimum thickness of six (6) millimeters. The cover shall overlap all exposed edges. Dirt shall not be used to secure sheeting.
 - b. A fog shall be sprayed above the surface, before covering, when required due to hot weather conditions.
 - c. The cover shall be checked daily to verify that it has not been displaced or damaged, and that condensation is evident underneath the sheeting.
 - d. Damaged sheeting shall be repaired.
 - e. Displaced sheeting shall be replaced.
 - f. When there is no observable condensation, 1.5 gallons of water per square yard shall be applied to the surface.
 - g. The sheeting shall remain secured in place for a minimum of 7 days. No vehicular traffic shall be permitted on the PCP until curing is complete and no truck/equipment traffic shall be permitted for at least 14 days.
 - h. Removal of forms: Forms shall be removed when concrete has developed sufficient strength to safely sustain its own weight.
7. Quality Control:
- a. Test Panels: Prior to installation of the PCP, one (1) test panel shall be constructed onsite using the materials, tools, equipment, personnel, and methods that will be used to complete the Work. Test results shall be submitted to and approved by the City.
 - i. The test panel shall be a minimum of 140 square feet. The panel size shall be placed, jointed, and cured. The test panel must be laid out in a manner that does not create a "patchy" appearance.
 - ii. Quality: Test panels shall have acceptable surface finish, joint details, thickness, porosity, and infiltration rate.
 - iii. If the test panel placed at the site is found to be deficient in surface finish (appearance), joint construction, thickness, porosity, and/or baseline infiltration, it shall be removed and replaced at the Contractor's expense. Removed panels shall be taken to an approved landfill or recycling facility. The satisfactory test panel must remain in place until all the PCP is completed.
 - b. Satisfactory performance of the test panels will be determined by:
 - i. Compacted thickness must be within +/- 3/8 inches of specified thickness.
 - ii. Void content must be within +/- three percent of the specified void content.
 - iii. Dry unit weight must be within +/- five pounds per cubic foot of the dry unit weight established by testing the dry unit weight of cores from the test panel.
 - iv. Infiltration rate shall be at least 100 inches per hour, tested in accordance with

ASTM C1701. Do not perform tests if there is standing water on the PCP surface or less than 24 hours after ¼-inch or more of rain.

- c. Take two core samples from the test panel in accordance with ASTM C42 at a minimum of seven days after placement of the PCP. The cores shall be measured for thickness, void structure, and dry unit weight.
 - i. Untrimmed, hardened core samples shall be used to determine placement thickness.
 - ii. The average of all production cores shall be within the ranges specified above.
 - iii. Once the thickness is measured, the cores shall be trimmed and measured for dry unit weight.
- d. Core holes shall be filled with concrete meeting the PCP mix design or grout.
- e. Pressure wash testing: before final acceptance, the Contractor shall pressure wash the PCP. Pressure washing shall be provided and completed by using portable washer equipment working at a minimum of 3,000 psi at 2.0 to 2.5 gpm. The nozzle shall be a zero degree nozzle and be held a maximum of three (3) inches off the concrete surface. The Contractor shall pressure test three (3) locations per lot. A lot is defined as the lesser of one (1) day's production or 5,000 square feet of placed PCP. Any sections of the PCP that breaks up, ravel, or does not infiltrate shall be removed and replaced with acceptable PCP to the nearest joints. The City will reject the PCP if the pressure washing dislodges aggregate particles from more than two (2) percent of the PCP in a single panel (joint to joint) or dislodges aggregates from a contiguous area of the pavement surface exceeding five times the nominal maximum aggregate size in any direction. The Contractor shall decide, after placing the pervious concrete, when to perform the quality assurance pressure wash testing for the acceptance.

302-6.9.5 Acceptance

PCP shall have a consistent, uniform surface with no visible excess cement paste, tears, or gouges. Roller-constructed joints shall have smooth, round, and uniformly compacted edges. Saw cut joints shall not contain cement paste or dust nor exhibit evidence of spalling. Pavement acceptance shall be based on smoothness, grade, line, slope, thickness, hardened density, void ratio, infiltration rate, fresh density, batch ticket, appearance, conformance to approved mix design, and required inspections. The Contractor shall repair or replace defective PCP to acceptable standards at no expense to the Agency.

302-6.9.5 Payment

Payment for "6" PERVIOUS CONCRETE PAVEMENT OVER 8.5" AGGREGATE BASE" shall be at the contract unit price bid per Square Foot as listed in the Bid Proposal, and shall include full compensation for doing all work, including furnishing all materials, labor, equipment, tools, and incidentals as required and no additional compensation will be allowed therefore. The work shall include pervious concrete materials, washed crushed rock, test panel, placement, testing, curing, cutting joints, submittals, and other incidentals and appurtenances required to construct a smooth pervious surface that can infiltrate stormwater. The aggregate base (¾-inch crushed rock) is included as part of this bid item (as noted in Subsection 301-2.4).

SECTION 303 CONCRETE AND MASONRY CONSTRUCTION

The provisions below shall supplement but not replace those provisions in Section 303 of the Standard Specifications.

303-1 CONCRETE STRUCTURES

303-1.11 Measurement

Add the following to Subsection 303-1.11:

Measurement for concrete structures, such as the storm drain diversion, pretreatment systems, pump station, junction structures, catch basin structures, and retaining walls are defined in the Bid as Lump Sum, Each, or Lineal Foot payment items, which are further detailed in the Subsection 303-1.12 or the Technical Specifications. Measurement shall include all work, materials, and other items necessary to install complete-in-place.

303-1.12 Payment

Add the following after the first paragraph of Subsection 303-1.12:

Payment for the concrete diversion structure shall be made at the Contract Unit price for Each "DIVERSION STRUCTURE (INCLUDING SLIDE GATE AND ACTUATOR)," and shall include labor, material, and equipment costs associated with the construction of the diversion structure (excavation, shoring, etc.), grating, pipe connections, slide gate with actuator (refer to Technical Specification Section SG), concrete collars, structure backfill, and other elements required to construct a system that functions as intended. If the existing storm drain is cut less than 5 feet from the nearest existing joint, then the Contractor will need to construct a concrete collar or other approved improvements to connect the system and no additional compensation will be allowed therefor. An Additive Bid Item with a per Cubic Yard cost has been included for "SLURRY BACKFILL AT PUMP STATION AND DIVERSION STRUCTURE (ANTICIPATED CREDIT)". It is anticipated that a credit would be associated with this bid item and it shall include required backfill at the specified structures using a 2-sack slurry.

Payment for concrete junction structures shall be made at the Contract Unit Price per Each for "5'x5' PRECAST CONCRETE JUNCTION STRUCTURE WITH SLIDE GATE," "8'x8' PRECAST CONCRETE JUNCTION STRUCTURE, and "8'x12' PRECAST CONCRETE JUNCTION STRUCTURE WITH SLIDE GATES." These Bid items shall include manhole frames and covers and/or hatches, as applicable. Additional information on these Bid items are included in Section SG of the Technical Specifications.

Payment for concrete manhole structures at the infiltration systems (drywells) shall be made at the Contract Unit Price per Each for "MANHOLES AT DRYWELLS" and additional information is included in Section SWI of the Technical Specifications. Payment for concrete manhole structures at the pretreatment systems (trash capture and sedimentation system) will be included with the pretreatment system, as described in Section SWT and SWS of the Technical Specifications. Payment for concrete manhole structures on RCBs shall be made at the Contract Unit Price per Each for "RCB MANHOLES".

Payment for concrete catch basins and local depressions shall be made at the Contract Unit Price per Each for "CURB OPENING CATCH BASIN WITH GRATING AND DEBRIS SKIMER PER SPPWC STD. PLAN 301-4 (V=4', W=7') AND LOCAL DEPRESSION" and "CURB OPENING CATCH BASIN WITH GRATING AND DEBRIS SKIMER PER SPPWC STD. PLAN 302-4 (V=4.5', W=14') AND LOCAL DEPRESSION." These Bid items shall include frames, covers, and grates, as applicable. This bid item shall include incidentals required to construct these improvements. Nearby surfaces must be restored to match the existing conditions or better and shall be approved by the City (restoration shall be included in the associated bid item). Catch basin reconstruction shall be

coordinated with LACPW in accordance with the applicable permit (referenced in Section 2-2.1).

Payment for concrete retaining walls and screen walls shall be made at the Contract Unit Price per Lineal Foot for "REINFORCED CONCRETE RETAINING WALL TYPE 4 WITH SCREEN WALL/VIEW RAILING," "REINFORCED CONCRETE RETAINING WALL TYPE 5 WITH SCREEN WALL/VIEW RAILING," and "SOLDIER PILE RETAINING WALL WITH SCREEN WALL/VIEW RAILING". The soldier pile wall bid item shall include protection of the existing transformer, core drilling existing retaining wall footing, shotcrete finish, connection to concrete retaining wall, in addition to the wall. Additional information on the View Railing can be found in Subsection 206. Payment for concrete retaining walls with integrated light posts/foundations shall be made at the Contract Unit Price for Each light integrated for "INTEGRATE LIGHT POSTS WITH RETAINING WALL." These Bid items shall include labor, materials, and equipment needed to install the new retaining walls, including shoring, forming, finishing, protection of surrounding features, etc. This bid item shall include incidentals required to construct these improvements. Nearby surfaces must be restored to match the existing conditions or better and shall be approved by the City (if they are not being improved as part of the Work). Light specifications are included as part of the Electrical Plans/Specifications.

303-5 CONCRETE CURBS, WALKS, GUTTERS, CROSS GUTTERS, ALLEY INTERSECTIONS, ACCESS RAMPS, AND DRIVEWAYS

303-5.1 Requirements

303-5.1.1 General

Replace the second paragraph of Subsection 303-5.1.1 with the following:

Unless otherwise specified on the Plans or the City's Standard Plans, the minimum thickness of walks shall be 4 inches. The thickness of gutters, cross gutters, alley intersections, access ramps, and driveway aprons shall be as shown on the Plans or as specified in referenced standard plans.

Add the following to Subsection 303-5.1.1:

All concrete flatwork areas behind sidewalks, driveways, and right-of-way shall be considered as walks. Detectable warning surface (truncated domes) for curb ramps shall be Cast-in-Place System per Armor Tile Part No. ADA-C-3648 or City approved equal. Color shall be federal yellow or per the City's selection.

303-5.7 Repairs and Replacements

Add the following to Subsection 303-5.7:

The Contractor shall be responsible to protect all new concrete work from being etched, scratched or otherwise marked following replacement thereof. If new concrete work is marked, the Contractor shall replace it at its expense and no extra costs will be allowed.

303-5.9 Measurement and Payment

Add the following to Subsection 303-5.9:

Payment for curb ramps and surrounding approach shall be included in the Contract Bid price for Each "CURB RAMP" and includes the construction of a new curb ramp per the details included in the Plans. This payment item includes complete removal of adjacent pavement and subgrade, underlying subgrade and base, disposal, subgrade preparation and compaction, truncated domes, and all labor,

materials, and equipment necessary to complete the Work. The Contractor shall also prepare a certificate of compliance for each ramp, which must be signed by a licensed civil engineer. An example of the certificate of compliance is included in Appendix VI for reference. Additional details are included in Part 9. Payment for the addition of truncated domes at existing ramps shall be included in the Contract Bid price for Each "TRUNCATED DOMES AT EXISTING RAMP" and shall include all labor, materials, and equipment necessary to complete the Work.

Payment for concrete walks and driveways shall be included in the Contract Bid price per Square Foot for "SIDEWALK PER CITY STD. 112A-0," "DRIVEWAY APPROACH PER CITY STD, MBSI-110C-1," and "CURB STEP OUT", respectively, and include the material and labor necessary to construct the walks in accordance with the Plans and referenced details. The driveway Bid item shall include complete removal and replacement of adjacent pavement and subgrade (within 2 feet of the proposed gutter), as required for construction.

Payment for curb and gutter and curbs shall be included in the Contract Bid price per Linear Foot for "6" CURB AND GUTTER PER CITY STD. MBSI-120A-0", "8" CURB AND GUTTER PER CITY STD. MBSI-120-0", "6" DEEPENED CURB", "CURB PER SPPWC STD. PLAN 120-3, A1-6/A1-8", AND "6" TO 24" RETAINING CURB", respectively, and include the material and labor necessary to construct the improvements in accordance with the Plans and referenced details. This Bid item shall also include sawcutting, complete removal of adjacent pavement and subgrade (within 2-feet of the proposed gutter) (as needed/applicable), underlying subgrade and base, disposal, subgrade preparation and compaction, disposal, and all labor and equipment necessary to complete the required removal (in accordance with 401-3).

Payment for "PRECAST CONCRETE WHEEL STOP" shall be per Each at the Contract Unit Price in the Bid, and shall include all labor, materials, and incidentals required for the installation of the wheel stops in accordance with the Contract Documents.

Payment for concrete walks, sidewalks, access ramps, and curb/gutter along proposed pipe construction and not shown separately as part of the Construction Plans shall be included in the Bid under the corresponding pipe-related Bid item.

SECTION 304 – METAL FABRICATION AND CONSTRUCTION

The provisions below shall supplement but not replace those provisions in Section 304 of the Standard Specifications.

304-6 METAL SIGNS

Add the following as Subsection 304-6:

Informational signs in and around the parking areas shall be in accordance with Section 206-7. Payment for metal signs is considered included in Contract Lump Sum price for "PARKING FACILITY STRIPING/PAVEMENT MARKINGS/SIGANGE (INCLUDING RELOCATIONS)" and "STREET STRIPING/ PAVEMENT MARKINGS/SIGNAGE" and includes materials, labor, and equipment, including the sign, sign post, foundation, placement/installation, relocation, and appurtenances required to install the signs as shown on the Plans. Additional details on these Bid items are included under Subsection 314-4.

304-7 PIPE BOLLARDS

Add the following as Subsection 304-7:

Pipe bollards shall include a 6-inch diameter pipe filled with concrete with a concrete footing in accordance with the Plans. Payment for bollards shall be considered included in Contract price for Each "PIPE BOLLARD" and includes materials, labor, and equipment, including the painted pipe, concrete filling, foundation, placement/installation, and appurtenances required to install the bollards as shown on the Plans.

SECTION 306 – OPEN TRENCH CONDUIT CONSTRUCTION

306-3.1 GENERAL

Pursuant to Public Contract Code Section 7104, if the project involves trenching more than four (4) feet deep, Contractor shall promptly and before the following conditions are disturbed notify the City in writing of any:

- a.** Material that Contractor believes may be material that is hazardous waste, as defined in California Health and Safety Code Section 25117, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law; and/or
- b.** Subsurface or latent physical conditions at the site differing from those indicated; and/or
- c.** Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.
- d.** As required by Labor Code Section 6705 and in addition thereto, whenever work under the Contract that involves an estimated expenditure in excess of twenty-five thousand dollars (\$25,000) for the excavation of any trench or trenches five (5) feet or more in depth, Contractor shall submit for acceptance by City in advance of excavation, a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If such plan varies from the shoring system standards established by the Construction Safety Orders of the Division of Industrial Safety, the plan shall be prepared by a registered civil or structural engineer employed by Contractor, and all costs therefor shall be included in the price of the Contract. Nothing in this provision shall be deemed to allow the use of a shoring, sloping, or other protective system less effective than that required by the Construction Safety Orders. Nothing in this provision shall be construed to impose tort liability on the City or on any City officer, agent, consultant, representative, or employee. All plans, processing and shoring costs are Contractor's responsibility and must be included in Contractor's bid.

306-13 TRENCH RESURFACING

306-13.2 Permanent Resurfacing

Add the following to Subsection 306-13.2:

Trench resurfacing in paved areas shall be performed according to the Plans and City Standard Plans (and associated requirements).

If any surface features are disturbed during construction of open trench conduit construction such as curbs, gutters, sidewalks, roadway pavement, utility covers, landscape/irrigation components, traffic detector loops, adjacent site features, planters, and other existing improvements, the features must be repaired or replaced to original working condition at no additional cost to the Agency.

306-14 MEASUREMENT**306-14.1 Shoring and Bracing**

Replace Subsection 306-14.1 with the following:

Shoring and bracing, if necessary, will not be measured separately for payment. Shoring and bracing shall be considered as included in the prices in the Bid for the items of Work necessitating it.

306-14.3 Gravity Pipe

Replace the first sentence in Subsection 306-14.3 with the following:

Gravity pipe will be measured in a horizontal plane along the pipe centerline between the ends as laid and shall include the length of the actual pipe in-place, including the lay-lengths of in-line tees, fittings, valves, meters, manholes, and appurtenances.

306-14.7 Temporary Resurfacing

Replace Subsection 306-14.7 with the following:

Temporary resurfacing, if necessary, will not be measured separately for payment. Temporary resurfacing shall be considered as included in the prices in the Bid for the items of Work necessitating it.

306-15 PAYMENT**306-15.1 General**

Replace item o) and add the following to the alphabetized list included in Subsection 306-15.1. Items listed are as applicable/necessary.

- o) Shoring and bracing;
- p) Bedding material and placement;
- q) Trench dewatering;
- r) Over-excavation, refilling, and compaction of suitable material;
- s) Temporary resurfacing;
- t) Steel plates;
- u) Manholes along pipeline;
- v) Bypass plans as required;
- w) Utility support and encasement across, within, and adjacent to trench (if not separated by a different bid item);
- x) Bulkheads as shown on the plans;
- y) Connections;
- z) Repair or replacement of any surface features impacted, including, but not limited to, curbs, gutters, sidewalks, curb ramps, roadway pavement, utility covers, landscape/irrigation components, traffic detector loops, and other existing improvements; and
- aa) All other work necessary to install the pipe or conduit complete-in-place.

Add the following to Subsection 306-15.1:

Payment for the diversion piping from the diversion structure to the pump station shall be made at the

Contract Unit Price per Lineal Foot for “GRAVITY DIVERSION PIPING (60-INCH RCP DOUBLE RUBBER GASKET WET CAST JACKING PIPE INSTALLED USING TRENCHLESS INSTALLATION)” and shall include the items listed in Section 306-15.1 along with connections to proposed structures. Additional information on installation and payment is included in Subsection 307.

Payment for the piping from the pump station to the pretreatment system shall be made at the Contract Unit Price per Lineal Foot for “DISTRIBUTION PIPING (48” RCP)” and shall include the items listed in Section 306-15.1 along with connections to proposed structures.

Payment for the drywell distribution piping from the pretreatment systems to the drywell laterals shall be made at the Contract Unit Price per Lineal Foot for “DRYWELL DISTRIBUTION PIPING (24” RCP),” “DRYWELL DISTRIBUTION PIPING (2’H X 3’W RCB, INCLUDING BULKHEAD),” “DRYWELL DISTRIBUTION PIPING (2’H X 4.5’W RCB, INCLUDING BULKHEAD),” and “DRYWELL DISTRIBUTION PIPING (4’H X 4.5’W RCB),” and shall include the items listed in Section 306-15.1 along with connections to proposed structures and bulkheads as shown in the Plans.

Payment for the drywell lateral piping from the drywell distribution lines to the drywells shall be made at the Contract Unit Price per Lineal Foot for “DRYWELL LATERAL PIPING (12” HDPE, INCLUDES CONNECTIONS)” and shall include the items listed in Section 306-15.1 along with connections to proposed structures as shown in the Plans.

Payment for the piping from replaced catch basins shall be made at the Contract Unit Price per Lineal Foot for “18” RCP AND CONNECTION TO EXISTING STORM DRAIN PER SPPWC STD. 335-2” and shall include the items listed in Section 306-15.1 along with connections to proposed structures as shown in the Plans.

306-15.2 Shoring and Bracing

Replace Subsection 306-15.2 with the following:

No separate payment for shoring and bracing shall be made. Shoring and bracing, as needed, shall be considered as included in the prices in the Bid for the items of Work necessitating it.

306-15.3 Dewatering

Replace the Subsection 306-15.3 with the following:

No separate payment for dewatering shall be made. Dewatering, as needed, shall be considered as included in the prices in the Bid for the items of Work necessitating it.

306-15.5 Valves

Remove the words “excluding temporary resurfacing” from the second sentence.

306-15.6 Hydrants

Remove the words “excluding temporary resurfacing” from the second sentence.

306-15.7 Buried Structures

Remove the words “excluding temporary resurfacing” from the third sentence.

306-15.8 Pipeline Appurtenances

Remove the words “excluding temporary resurfacing” from the second sentence of the second paragraph.

306-15.9 Temporary Resurfacing

Replace Subsection 306-15.9 with the following:

No separate payment for temporary resurfacing shall be made. Temporary resurfacing, as needed, shall be considered as included in the prices in the Bid for the items of Work necessitating it.

Subsection 306-16 shall be added as follows:

306-16 STORM DRAIN BYPASS

306-16.1 General

Bypass pumping may be required to divert the flow in existing storm drains around proposed improvements. Work in storm drains shall be limited to the dry season (April 15th to September 30th), unless otherwise indicated in the LACPW permit or approved by the Engineer. Requirements related to sewer bypass and spill contingency are included in Section 3-12.5.3 and 402-2.

306-16.2 Submittals

The Contractor shall submit for the Agency's approval, a written Storm Drain Bypass Plan at least ten (10) working days prior to the beginning of any individual construction process where bypass is needed. The plan shall contain a contingency plan in the event of pump(s) failure, the sequence of construction, and a list of all piping, pumps, plugs, etc. required for each site. The plan shall indicate the locations and capacities of all pumps, sumps, suction lines, and discharge lines.

306-16.3 Requirements

When bypass pumping is required, the Contractor shall supply the pumps, conduits, and other equipment to divert flows around the pipe section in which Work is to be performed. The bypass system shall be of sufficient capacity to handle existing flow plus additional flow that may occur. The Contractor shall have onsite backup pumps capable of pumping 150% of the existing flow. Each standby backup pump shall be a complete unit with its own suction and discharge piping. Bypass capacities must conform to the requirements set forth in the LACPW permit for all facilities (even the storm drains owned by the City of Manhattan Beach), unless approved by the City otherwise.

All pump(s) drives shall have noise suppresser exhaust systems to mitigate the noise levels to within acceptable levels per the Agency's guidelines.

Bypass piping, when crossing areas subject to traffic loads, shall be constructed in trenches with adequate cover and otherwise protected from damage due to traffic. Lay-flat hose or aluminum piping with an adequate casing and/or traffic plates may be allowed if so approved by the Engineer. Bypass pump suction and discharge lines that extend into manholes shall be rigid hose or hard pipe. Lay-flat hose will not be allowed to extend into manholes.

The Contractor will be responsible for furnishing the necessary labor and supervision to set up and operate the pumping and bypassing system.

306-16.4 Payment

Payment for storm drain bypass shall be included in the Contract Price for the items necessitating it.

SECTION 307 – JACKING AND TUNNELING

307-1 JACKING OPERATIONS

307-1.1 General

Add the following to Subsection 307-1.1:

Double rubber gasket wet cast jacking pipe per ASTM Class V, as indicated in the Plans, can be installed without a steel casing. The type of trenchless installation shall be determined/recommended by the Contractor and included in the required submittal for review and approval by the Agency. The required submittal must include the items listed in Subsection 314-1, along with shoring plans for the launching and receiving pits.

307-1.7 Payment

Add the following to Subsection 307-1.7:

Payment for the diversion piping from the diversion structure to the pump station shall be made at the Contract Unit Price per Lineal Foot for “GRAVITY DIVERSION PIPING (60-INCH RCP DOUBLE RUBBER GASKET WET CAST JACKING PIPE INSTALLED USING TRENCHLESS INSTALLATION)” and shall include the items listed in Section 306-15.1, 307-1.7, and connections to proposed structures. This item includes the launching and receiving pit excavation, shoring, backfill, and surface restoration.

SECTION 314 – TRAFFIC STRIPING, CURB AND PAVEMENT MARKINGS, AND PAVEMENT MARKERS

314-1 GENERAL

Add the following to Subsection 314-1:

Traffic striping, curb and pavement markings, and pavement markers shall be non-reflectORIZED paint.

314-2 REMOVAL OF TRAFFIC STRIPING AND CURB AND PAVEMENT MARKINGS

314-2.3 Payment

Add the following to Subsection 314-2.3:

Payment for removal of traffic striping and curb markings will be made at the Lump Sum price for “DEMO SIGNAGE AND STRIPING” and shall include the removal of signage, striping, pavement markings, and pavement markers in accordance with the Plans and as necessary to install new signage, striping, pavement markings, and pavement markers.

314-3 REMOVAL OF PAVEMENT MARKERS

314-3.3 Payment

Add the following to Subsection 314-3.3:

Payment for removal of traffic striping and curb markings will be made at the Lump Sum price for “DEMO

SIGNAGE AND STRIPING” and shall include the removal of signage, striping, pavement markings, and pavement markers in accordance with the Plans and as necessary to install new signage, striping, pavement markings, and pavement markers.

314-4 APPLICATION OF TRAFFIC STRIPING AND CURB AND PAVEMENT MARKINGS

314-4.3 Painted Traffic Striping and Curb and Pavement Markings

314-4.3.7 Payment

Add the following to Subsection 314-4.3.7:

Payment for traffic striping, curb and pavement markings, and pavement markers, specifically in the parking facility and surrounding right-of-way, shall be made at the Contract Lump Sum Bid Price for “PARKING FACILITY STRIPING/PAVEMENT MARKINGS/SIGNAGE (INCLUDING RELOCATIONS)” and “STREET STRIPING/PAVEMENT MARKINGS/SIGNAGE,” respectively, and shall include labor, equipment, and materials necessary to complete the Work as described in the associated Greenbook sections, including striping, pavement markings, pavement markers, and associated traffic signage. Traffic striping and curb/pavement markings impacted during the course of work for other improvements (piping, etc.) shall be replaced in kind and shall be included in the associated Bid items.

314-5 PAVEMENT MARKERS

314-5.7 Payment

Add the following to Subsection 314-5.7:

Payment for traffic striping, curb and pavement markings, and pavement markers, specifically in the parking areas and adjacent rights-of-way, shall be made at the Contract Lump Sum Bid Price for “PARKING FACILITY STRIPING/PAVEMENT MARKINGS/SIGNAGE (INCLUDING RELOCATIONS)” and “STREET STRIPING/PAVEMENT MARKINGS/SIGNAGE,” respectively, and shall include labor, equipment, and materials necessary to complete the Work as described in the associated Greenbook sections. Pavement markers impacted during the course of work for other improvements (piping, etc.) shall be replaced in kind and shall be included in the associated Bid items.

PART 4 - EXISTING IMPROVEMENT

The corresponding provisions in Part 4 (Existing Improvement) of the Standard Specifications are incorporated, except as otherwise indicated herein. In the event of any conflict between the Standard Specifications and these Special Provisions, these Special Provisions shall control.

SECTION 400 - PROTECTION AND RESTORATION

400-1 GENERAL

Replace the subsection with the following:

All costs to the Contractor for protecting, removing, restoring, relocating, repairing, replacing, or reestablishing existing improvements shall be included in the Bid. Existing improvements damaged or removed without written authorization from the City shall be replaced by the Contractor at no expense to the City. The Contractor shall leave the Work area in the same or better condition as compared to before beginning Contract Work.

The Contractor shall be responsible for the protection of public and private property adjacent to the Work and shall exercise due caution to avoid damage to such property. If damage to existing improvements occurs, the engineer must be notified immediately, and damages must be repaired at the Contractor's expense within 24 hours from the time the damage occurred, unless otherwise approved by the engineer.

The Contractor shall repair or replace all existing improvements which are not designated for removal (e.g., sidewalks, driveways, fences, walls, utility installations, conduits, pavement, structures, hardscape, signs, markings, striping, posts, traffic loops, curbs, gutters, sidewalk, ADA detectable warning devices, asphalt, delineators, landscape, plants, irrigation infrastructure, fences, walls, structures, manholes, frames, valve covers, sleeves, survey markers, benchmarks, survey control monuments, etc.) which are damaged or removed as a result of its operations. Repairs and replacements shall be at least equal to existing improvements and shall match them in finish and dimension at the contractor's expense and to the satisfaction of the engineer.

Contractor to complete and submit the Monument Inventory List in within 2 weeks of receiving the City's location list.

Contractor is responsible for clean-up of any debris on, around, or in the manholes or valve covers.

Maintenance of street and traffic signal systems that are damaged, temporarily removed, or relocated shall conform to 701-2.

If excavation is required, Contractor shall finish grade soil adjacent to Work that is disturbed during construction operations. Trees, lawns, and shrubbery that are not to be removed shall be protected from damage or injury. If damaged or removed due to Contractor's operations, all shall be restored or replaced in as nearly the original condition and location as is reasonably possible. Lawn areas shall be re-sod or reseeded and covered with suitable mulch. Plants shall be replaced with the same materials and similar in size. Parkway fill materials shall be Class A topsoil. When a portion of a sprinkler system within the right-of-way must be removed, the remaining lines shall be capped. Repairs to damaged irrigation lines or sprinkler heads shall be made within 48 hours.

The Contractor shall give reasonable notice to occupants or owners of adjacent property to permit them to salvage or relocate plants, trees, fences, sprinklers, and other improvements, within the right-of-way which are designated for removal and would be destroyed because of the Work.

400-2 PERMANENT SURVEY MARKERS

Revise Subsection 400-2 as indicated below:

Replace "The Agency will:" in second paragraph with "The Contractor shall retain a Registered Land Surveyor or a Registered Civil Engineer authorized to practice land surveying within the State of California to do the following:" in Section 400-2 of the Standard Specifications.

Contractor to complete and submit the Monument Inventory List within 2 weeks of receiving the City's location list.

400-3 PAYMENT

Replace the entire subsection with the following:

All costs to the Contractor for protecting, removing, restoring, relocating, repairing, replacing, or reestablishing existing improvements shall be included in the Bid.

No separate or additional payment will be made for

- 1) Protection of existing improvements, and
- 2) Restoration of existing improvements.

Permanent survey markers will be restored by the Contractor at their own expense. Permanent survey markers will be restored by a Registered Land Surveyor or a Registered Civil Engineer authorized to practice land surveying within the State of California, retained by the Contractor, at no additional expense to the Agency.

It shall be the Contractor's responsibility to place protective covering over existing improvements which are not designated for removal to otherwise avoid disturbing existing improvements and remove any covering after operations have been completed.

SECTION 401 – REMOVAL

401-1 GENERAL

Add the following to Subsection 401-1:

Unless otherwise stated in the Contract Documents, all material removed from the Work Site shall become the property of the Contractor and shall be disposed of in a lawful manner. Removals shall include, but not be limited to, all excess excavation material, trees and plants, debris, interfering portions of curb, gutters, asphalt and PCC pavements and sidewalks (including base, where applicable), and miscellaneous items as shown on the Plans. The Contractor shall conform to the following requirements:

1. The Contractor shall not start any removal work unless it is prepared to perform reconstruction work within 24 hours of the time removals were begun, unless otherwise approved by the Engineer.
2. The Contractor shall complete forming and pouring of PCC construction within five (5) working days following the removal of existing material at any location, unless otherwise approved by the Engineer.
3. The Contractor shall not remove on-site improvements until it is prepared to construct the adjacent Work and shall promptly restore all such improvements as applicable, upon completion of the adjacent Work.

Prior to making removals, the Contractor shall meet with the Engineer to verify the limits of removals, the locations of joins to establish smooth joins, and to ensure proper drainage. The Contractor may make minor changes in the location of joins and the limits of removals, provided a smooth join and proper drainage can be achieved and it has obtained prior written approval from the Engineer.

401-3 CONCRETE AND MASONRY IMPROVEMENTS

401-3.2 Concrete Curb, Walk, Gutters, Cross Gutters, Curb Ramps, Driveway, and Alley

Replace Subsection 401-3.2 with the following:

Concrete shall be removed to neatly sawed edges with saw cuts made through the entire depth. Concrete sidewalk, curbs, gutters, ramps, or driveways to be removed shall be neatly sawed in straight lines at right angles to the alignment of the curb, or walkway. No section to be replaced shall be smaller than 30 inches in either length or width. If any saw cut falls within 30 inches of a construction joint, expansion joint, or edge, the concrete shall be removed to the joint or edge, except that where the saw cut would fall within 12 inches of a score mark, the saw cut shall be made in and along the score mark. Curb and gutter shall be sawed (full depth) on a neat line at right angles to the curb face.

401-5 OTHER IMPROVEMENTS

Replace the entire subsection with the following:

401-5.1 Remove and Reinstall Items

In locations indicated on the Plans, Bid, and Specifications, or where directed by the Engineer, the Contractor shall remove items, protect them, and then restore them once conflicting Work is completed. The Contractor shall place back features to match conditions at the at the start of the Work, or better. The Contractor shall take photographs of existing features to be reinstalled prior to removal and once restored, which shall be available if requested by the Agency or Engineer. The Contractor is responsible for recording existing layouts, locations, and feature characteristics, such that they can be restored. If the Contractor identifies conditions that may make it difficult to restore the infrastructure, it shall be brought to the immediate attention of the Engineer. If the Contractor identifies any permanent conflicts that will arise between the restored items and proposed Work, it shall be brought to the immediate attention of the Engineer (within five days from removing the infrastructure). The Contractor is responsible for storing and protecting infrastructure in such a manner that will not degrade quality and performance. The Contractor shall also be responsible for coordination with the property owners and/or tenants.

401-6 MEASUREMENT

Replace Subsection 401-6 with the following:

Measurements for removals vary for the types of removals required. Removal measurements include Lump Sum, Each, Square Feet, and Linear Feet, as further defined in Section 401-7 below.

401-7 PAYMENT

Replace Subsection 401-7 with the following:

Payment under this section shall be by the following:

- a. **Concrete Walkways/PCC Paving.** Payment for the removal of walkways and PCC paving, shall be made at the Contract Unit Price per Square Foot for “DEMO PCC PAVING (SIDEWALK, DRIVEWAY, ETC.)” and shall include the labor, materials, and incidentals, including disposal, required in accordance with the Contract Documents.
- b. **Curbs/Gutters.** Payment for the removal of curbs and/or curb and gutter shall be made at the Contract Unit Price per Linear Foot for “REMOVE CURB” and “REMOVE CURB AND GUTTER” and shall include the labor, materials, and incidentals, including disposal, required in accordance with the Contract Documents.
- c. **Trees.** Payment for the removal of trees shall be made at the Contract Unit Price per Each for “REMOVE TREE” and shall include the labor, materials, and incidentals, including disposal, required in accordance with the Contract Document and as indicated in Section 300-1.4.
- d. **Retaining Wall.** Payment for the removal of the existing retaining walls and associated stairs and railings, including the masonry extension walls above the retaining sections, shall be made at the Contract Unit Price per Lineal Foot for “DEMO RETAINING WALLS (INCLUDING STAIRS AND RAILINGS)” and shall include the labor, materials, and incidentals, including disposal, required in accordance with the Contract Documents.
- e. **Bituminous Pavement.** Payment for removal of AC pavement and aggregate base shall be made at the Contract Unit Price per Square Foot for “DEMO AC PAVING AND BASE (INCLUDING SAWCUTS)” in accordance with Sections 302-5.9. The Bid item shall include sawcutting AC, AC removal, base removal, and pull box/utility cover removal/adjustment.
- f. **Parking Facility Features.** Payment for removal of parking facility features, such as parking meters (poles and heads), gates, spike strips, lights/posts, etc. shall be made at the Contract Lump Sum Price for “DEMO PARKING FACILITY FEATURES (PARKING METER/POLE, GATES, SPIKE STRIPS, LIGHT/POSTS, ETC.)”. The Bid item shall the removal of these features. The Contractor shall coordinate with the City to determine if the existing features shall be salvaged and returned.
- g. **Catch Basin.** Payment for the removal of catch basins and associated local depressions shall be made at the Contract Unit Price per Each for “REMOVE CATCH BASIN” and shall include the labor, materials, and incidentals, including disposal, required in accordance with the Contract Documents.
- h. **Landscape/Irrigation System.** The Contractor shall remove the existing landscape and associated irrigation system servicing the areas shown with a new irrigation system in the Plans. Removal of the existing irrigation system shall be included in the Contract Lump Sum Price for “REMOVE LANDSCAPE/IRRIGATION SYSTEM” and shall include labor, materials, and incidentals, including disposal, required in accordance with the Contract Documents.

SECTION 402 - UTILITIES

402-1 LOCATION

Replace the first paragraph with:

The location and existence of any underground Utility or substructure has not been obtained.

The methods used and costs involved to locate existing elements, points of connection and all construction methods are the Contractor's sole responsibility. Accuracy of information furnished, as to existing conditions, is not guaranteed by the City. The Contractor, at its sole expense, must make all

investigations necessary to determine locations of existing elements, which may include contacting Underground Service Alert and other private underground locating firm(s), utilizing specialized locating equipment, hand trenching, or both. For every Dig Alert Identification Number issued by Underground Service Alert during the course of the Project, the Contractor must submit to the City the following form. The Contractor shall be responsible for preserving the integrity of the existing underground utilities at the site.

Add the following:

Existing utilities may include, but are not limited: electric utilities, gas utilities, telephone utilities, television utilities, water utilities, street lighting facilities, traffic signal facilities, sanitary sewers, storm drains, subsea cables, and irrigation systems. The Contractor shall assume that any of these underground utilities and/or facilities may be encountered during the removal and reconstruction work and shall protect and restore same in place in accordance with the Standard Specifications and the following requirements and provisions:

The Contractor shall slot trench at the diversion structure, pump station, trash capture pretreatment, and sedimentation system and pothole utilities in any areas of excavation, including but not limited to, street/sidewalk improvements, retaining wall construction, light pole installation or relocation, pipe installation, catch basin installation, pavement reconstruction, drywells, and other required excavations. The Contractor shall submit pothole/slot trench locations and an associated plan to the City as part of the Phase 1 NTP for review and comment. The Contractor retains sole responsibility for utilities. The Contractor shall pothole/slot trench a minimum of two (2) working days ahead of the construction or installation for the area in which the work is to be performed. The potholes/slot trenches shall be to a depth sufficient to satisfy the Contractor that the proposed construction work will not damage any underground utilities and/or facilities. The Contractor shall be solely responsible for the cost of repair for any such damage to the underground utilities and/or facilities and shall, except for irrigation systems, make or cause to be made all repairs necessary to restore service the same day. Contractor shall be solely responsible for obtaining all permits necessary to execute slot trenching and potholing.

Full compensation for compliance with the preceding requirements shall be considered as being included in the various Contract items in the bid schedule and no additional compensation will be allowed therefor.

The location and existence of any underground Utility or substructure has not been obtained. The methods used and costs involved to locate existing elements, points of connection and all construction methods are the Contractor's sole responsibility. Accuracy of information furnished, as to existing conditions, is not guaranteed by the City. The Contractor, at its sole expense, must make all investigations necessary to determine locations of existing elements, which may include contacting Underground Service Alert and other private underground locating firm(s), utilizing specialized locating equipment, hand trenching, or both. For every Dig Alert Identification Number issued by Underground Service Alert during the course of the Project, the Contractor must submit to the City the following form. The Contractor shall be responsible for preserving the integrity of the existing underground utilities at the site.

There are subsea cables in the parking facility that must be protected from proposed improvements. Information on their location is included in Appendix IV. If the Contractor impacts the existing utility lines, then they will be fully responsible for paying for replacement/fixes as required by the utility owner, which is anticipated to be upwards of \$1 million dollars. If a conflict is identified, it shall be brought to the Agency's attention immediately. The Contractor shall coordinate with Zayo related to improvements surrounding the subsea cables.

402-1.2 Payment

Add Subsection 402-1.2 to the Specifications as follows:

Payment for utility locating shall be considered as included in the Bid items necessitating it and no additional compensation will be allowed therefor.

402-1.3 Entry by Utility Owners

Add the following:

The right is reserved to the owners of public Utilities or franchises to enter the Project site for the purpose of making repairs or changes in their property that may be necessary as a result of the Work as well as any other reason authorized by the City. When the Contract Documents provide for the Utility owners to alter, relocate or reconstruct a Utility, or when the Contract Documents are silent in this regard and it is determined by the City Engineer that the Utility owners must alter, relocate or reconstruct a Utility, the Contractor shall schedule and allow adequate time for those alterations, relocations or reconstructions by the respective Utility owners. City employees and agents shall likewise have the right to enter upon the Project site at any time and for any reason or no reason at all.

UNDERGROUND SERVICE ALERT IDENTIFICATION NUMBER FORM

No excavation will be permitted until this form is completed and returned to the City.

Government Code Section 4216 *et seq.* requires a Dig Alert Identification Number to be issued before a permit to excavate will be valid.

To obtain a Dig Alert Identification Number, call Underground Service Alert at **811** a minimum of three (3) Working Days before scheduled excavation. For best response, provide as much notice as possible up to ten (10) Working Days.

Dig Alert Identification Number: _____

Dated: _____

("CONTRACTOR")

By: _____

Printed Name: _____

Title: _____

By: _____

Printed Name: _____

Title: _____

Note: This form is required for every Dig Alert Identification Number issued by Underground Service during the course of the Work. Additional forms may be obtained from the City upon request.

402-2 PROTECTION

Add the following to Subsection 402-2:

If Contractor damages or breaks the Utilities, it will be the Contractor's responsibility to repair the Utility at no cost to the Utility or the City. Additional requirements and notes related to the subsea cables in the parking facility are included under Subsection 402-1.

The Contractor shall identify locations where the project area and proposed construction is crossed by overhead utilities. The Contractor shall place a sign that reads "DANGER OVERHEAD POWER LINES" (or similar) at each of the locations identified as being crossed by existing overhead utilities. If the Contractor damages overhead utilities within the project area during the course of the Work, then the Contractor must restore them to existing condition or better at no additional cost to the City.

Utilities crossing the Work area shall be protected and supported during construction, as indicated on the Plans. In some instances, utilities are shown to be protected, while temporary relocation may be required. If a City-owned sewer requires temporary relocation, then a Sewer Bypass/Relocation Plan shall be submitted to the City in advance for approval (must meet requirements of Section 3-12.5.2). The Contractor shall consider and address related laterals within the relocation plan. Sewer system bypass shall be considered as included in the Bid under items of Work necessitating it and shall include the development of a Sewer Bypass/Relocation Plan, plan review/coordination with the City, implementation, restoration of sewer main, and other items required to bypass conflicting sewer lines and no additional compensation will be allowed therefor. Following implementation of the Work, bypassed sewer laterals shall be reconnected to the sewer main per the City's Standard Plan ST-5. Sewer lateral connections back to the main shall be considered as included in the Contract Bid for items necessitating it and no additional compensation will be allowed therefor.

Utility support shall be considered as included in the Contract Bid price per Each for "TEMPORARY UTILITY SUPPORT" and no additional compensation will be allowed therefor. The utility support bid item shall include planning, submittals, materials, equipment, and incidentals required to protect and restore the utility to existing conditions or better.

402-3 REMOVAL

Add the following to Subsection 402-3:

Facilities encountered during the prosecution of the Work that are determined to be abandoned shall be removed by the Contractor as required for the Work, unless directed otherwise by the City Engineer. The remaining portion of the existing Utility which is left in place shall be accurately recorded, in elevation and plan, on the control set of Contract Drawings. In at least one location, the Plans show that the Contractor is to support a utility that is noted as abandoned. The Contractor shall confirm the utility is abandoned at the start of the Work, at which time the Contractor can confirm with the City that the interfering portion will be removed rather than supported. If the City feels the utility may be used in the future, then it shall be supported by the Contractor during construction.

402-4 RELOCATION

Add the following to Subsection 402-4:

The Contractor shall cooperate fully with all Utility forces of the City or forces of other public or private agencies engaged in the relocation, altering, or otherwise rearranging of any facilities that interfere with the progress of the Work. The Contractor shall schedule the Work so as to minimize interference with the relocation, altering, or other rearranging of facilities.

Temporary utility relocation and restoration of City owned water lines shall be coordinated with the City prior to modification. Lines shall be high lined if they cannot temporarily be removed without impacting service and restored to match original condition or better following completion of the conflicting Work. Temporary water line relocation/high line and restoration shall be considered as included in the Contract Lump Sum Bid price for "TEMPORARY CITY WATER LINE RELOCATION AND RESTORATION" and no additional compensation will be allowed therefor. The bid item shall include planning, submittals, materials, equipment, and incidentals required to temporarily relocate and restore the utility to existing conditions or better.

402-6 COOPERATION

Add the following to Subsection 402-6:

The Contractor's attention is directed to the fact that Work may be conducted at or adjacent to the site by other contractors during the performance of the Work under this Contract. The Contractor shall conduct its operations so as to cause a minimum of interference with the work of such other contractors, and shall cooperate fully with such contractors to provide continued safe access to their respective portions of the site, as required to perform work under their respective contracts. Compensation for compliance shall be included in the various items of the Work, and no additional compensation shall be allowed therefor.

402-7 NOTIFICATION

Add Subsection 402-7 to the Specifications as follows:

The Contractor shall notify the City Engineer and the owners of all Utilities and substructures not less than forty-eight (48) hours before starting construction

PART 5 - PIPELINE SYSTEM REHABILITATION

Incorporated by Reference

PART 6 - TEMPORARY TRAFFIC CONTROL

The corresponding provisions in Part 6 (Temporary Traffic Control) of the Standard Specifications, except as otherwise indicated herein. In the event of any conflict between the Standard Specifications and these Special Provisions, these Special Provisions shall control.

SECTION 600 - ACCESS

600-1 GENERAL

Add the following to Subsection 600-1:

The Contractor may choose to comply with the requirements of WATCH (Work Area Traffic Control Handbook) or MUTCD (Manual on Uniform Traffic Control Devices) in providing devices and signage for pedestrian and vehicular traffic. The Contractor shall provide flagman as necessary.

Overnight parking of construction equipment in the project site shall comply with City parking restriction/guidelines. Contractor shall provide adequate flashing barricades.

SECTION 601 – TEMPORARY TRAFFIC CONTROL FOR CONSTRUCTION AND MAINTENANCE WORK ZONES

601-1 GENERAL

Add the following to Subsection 601-1:

The Contractor shall implement any measure requested by the City Engineer, as deemed necessary to ensure the proper flow of traffic and the protection of the public and the safety of the workers. The Contractor shall maintain, at all times, the ability to respond to calls from the Manhattan Beach Police Department during non-working hours to replace or provide additional traffic control or safety devices as shall be required by the Police Department.

601-2 TEMPORARY TRAFFIC CONTROL PLANS (TCP)

601-2.1 General

Replace the first sentence with the following:

The Contractor shall submit a TCP in accordance with 3-8.2.

601-2.2 Payment

Replace the Subsection 601-2.2 with the following:

Payment for preparation of the TCP shall be considered as included in the Bid under the Lump Sum Bid Price for "TRAFFIC CONTROL", which includes preparation of traffic control plans, full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in placing and maintaining temporary pedestrian paths of travel and placing, removing, storing, maintaining, moving to new locations, replacing, and disposing of the components of traffic control systems as specified in Part 6. The Lump Sum Price shall also include all associated temporary signs, flashing arrow signs, flagging and/or flagmen, project notifications, and striping/pavement marking restoration.

601-3 TEMPORARY TRAFFIC CONTROL (TTC) ZONE DEVICES

601-3.5 Signs and Signage

601-3.5.2 Payment

Replace Subsection 601-3.5.2 with the following:

Payment for signs and signage for temporary traffic control shall be considered as included in the Bid under the Lump Sum Price for "TRAFFIC CONTROL", which includes overall traffic control, as further defined in Section 601-2.2.

601-3.6 Channelizing Devices

601-3.6.6 Measurement

Replace Subsection 601-3.6.6 with the following:

Cones, tubular markers, channelizers, drums, barricades, temporary traffic barriers, and end treatments will not be measured separately for payment.

601-3.6.7 Payment

Replace Subsection 601-3.6.7 with the following:

No separate or additional payment will be made for cones, delineators (tubular markers), channelizers, drums, barricades, temporary traffic barriers, and end treatments, as they shall be considered as included in the Bid under the Lump Sum Bid Price for "TRAFFIC CONTROL", which includes overall traffic control, as further defined in 601-2.2.

601-3.7 Traffic Sign Enhancement Devices

601-3.7.8 Measurement

Replace Subsection 601-3.7.8 with the following:

Flags, high-level warning devices, warning lights, flashing directional bars, PCMS, and flashing arrow signs will not be measured separately for payment.

601-3.7.9 Payment

Replace Subsection 601-3.7.9 with the following:

No separate or additional payment will be made for flags, high-level warning devices, warning lights, flashing directional bars, PCMS, and flashing arrow signs, as they shall be considered as included in the Bid under the Lump Sum Bid Price for "TRAFFIC CONTROL", which includes overall traffic control, as further defined in 601-2.2.

601-4 TEMPORARY TRAFFIC STRIPING AND PAVEMENT MARKINGS

601-4.5 Payment

Add the following to Subsection 601-4.5:

Temporary traffic striping and pavement markings included in the Contractor-developed TCP shall be included in the Bid under the Lump Sum Bid Price for "TRAFFIC CONTROL", which includes overall traffic control, as further defined in 601-2.2.

PART 7 - STREET LIGHTING AND TRAFFIC SIGNAL SYSTEM

The corresponding provisions in Part 7 (Street Lighting and Traffic Signal System) of the Standard Specifications are incorporated, except as otherwise indicated herein. In the event of any conflict between the Standard Specifications and these Special Provisions, these Special Provisions shall control.

SECTION 701 - CONSTRUCTION

701-1 GENERAL

Except as otherwise specified in the General Provisions or on the Plans, all Work relating to traffic signals and incidental illuminated street name signs and safety lighting, including all equipment, materials, components, and the installation thereof, shall be in accordance with the City's Technical Provisions for traffic signals, latest edition of the State Standard Plans (SSP) in effect and published at the Bid Deadline and Section 86 "Signals, Lighting and Electrical Systems" of the latest edition of the State Standard Specifications (SSS) in effect and published at the Bid Deadline, unless otherwise indicated in the Technical Provisions. With respect to traffic signal Work, the order of precedence, from highest to lowest, shall be: City Technical Provisions, City Standard Plans, Section 86 of the State Standard Specifications, State Standard Plans, County Standard Plans, and County Standard Specifications.

PART 8 - LANDSCAPE AND IRRIGATION

The corresponding provisions in Part 8 (Landscape and Irrigation) of the Standard Specifications are incorporated, except as otherwise indicated herein. In the event of any conflict between the Standard Specifications and these Special Provisions, these Special Provisions shall control.

SECTION 800 - MATERIALS

800-2 IRRIGATION SYSTEM MATERIALS

Add the following subsection:

800-2.5 Drip Irrigation System

Dripline tubing shall be pressure compensating in-line drip emitter with built in check valve, anti-siphon feature and copper oxide embedded emitters. Dripline tubing and equipment shall be of the types and sizes shown on the Plans.

Root Watering Systems (RWS) shall be of the types and sizes as shown on the Plans. RWS will consist of a perforated polyethylene cylinder. RWS shall have an integrated bubbler with check valve. The RWS shall come with pre-configured swing assemblies.

SECTION 801 - INSTALLATION

801-5 IRRIGATION SYSTEM INSTALLATION

801-5.5 Sprinkler Head Installation and Adjustment.

Add the following subsection:

801-5.5.5 Drip Irrigation System

Dripline tubing installation shall conform to the following. The Contractor shall:

- Coordinate with plant material installation for location and orientation of planting layout.
- Verify the inlet pressure on the Plans.
- Place dripline to typical depth of 6"-8" below finish grade, and in conformance with the details shown on the Plans.
- Install air relief assemblies in each remote-control valve at high elevation points.

Root Watering System installation shall conform to the following. The Contractor shall:

- Install RWS units evenly spaced and positioned against root ball or root mass.
- Place units vertically with top even with ground surface, and in conformance with the details shown on the Plans.
- Install grate until top surface is below grate lock tabs. Assure tabs are secure over grate.
- Fill area surrounding unit with soil.

801-7 MEASUREMENT

Add the following:

Measurement for trees shall be per unit Each. Measurement for landscape and irrigation and 180 day

plant maintenance/establishment shall be Lump Sum. Measurement for improvements in the park near the drywells (within Bruce's Beach) shall be per Square Foot.

801-8 PAYMENT

Payment for the "TREES" shall be made at the contract price for Each and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals involving tree planting, as shown on the Plans and specified in the Standard Specifications and Special Provisions, and no additional compensation will be allowed, therefore. Trees shall not exceed 15 gallons in size as required by the CNRA funding source.

Payment for the "LANDSCAPING AND IRRIGATION" shall be made at the contract Lump Sum price and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals involving landscape and irrigation system planting/installation, as shown on the Plans and specified in the Standard Specifications and Special Provisions, and no additional compensation will be allowed, therefore.

Payment for the "PARK IMPROVEMENTS NEAR DRYWELLS" shall be made at the contract price per Square Foot and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals involving landscape and irrigation system planting/installation, as shown on the Plans and specified in the Standard Specifications and Special Provisions, and no additional compensation will be allowed, therefore. If the existing irrigation system is impacted, it shall be restored to match existing conditions following construction.

Payment for the "180 DAY PLANT MAINTENANCE/ESTABLISHMENT" shall be made at the contract Lump Sum price and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals to establish and maintain the landscape and irrigation system, and no additional compensation will be allowed, therefore.

PART 9 – NOT USED

The Greenbook has not yet defined this Part.

PART 10 – ASPHALT CONCRETE RECYCLING

NOT FOR THIS PROJECT

PART 11 - SPECIAL INSTRUCTIONS

SECTION 1. GENERAL

1-1 CONSTRUCTION STAGING AREA

Spoils from excavation shall be immediately removed from the project site. Overnight storage of materials removed or equipment shall not be permitted on the traveled roadway surface.

If necessary, the Contractor shall be responsible for securing a construction staging area for this project. Securing a staging area shall be considered as part of the cost of the individual bid items, and no additional compensation will be allowed therefor.

SECTION 2. SCHEDULE / COORDINATION OF WORK

2-1 PROJECT TIMELINE

A Preliminary Construction Schedule has been prepared by the City and included as an attachment to the bid documents. Construction work shall be sequenced according to the Preliminary Construction Schedule unless otherwise approved in advance by the City Engineer. Activity durations indicated within the Preliminary Construction Schedule are approximate and shall be used by the Contractor as a guide for resource planning. Actual activity durations included in the Contractor's schedule which exceed the durations indicated in the Preliminary Construction Schedule are subject to review and approval by the City Engineer.

The following must be considered in the construction schedule: Per LACPW Connection Permit, connections to the LACFCD storm drain may NOT be made from October 15th to April 15th. A water diversion plan must be submitted to the City and LACFCD and bypass capacity must be provided as follows:

- April 16 to May 31: 33% of design capacity
- June 1 to August 31: 5% of design capacity
- September 1 to October 14: 33% of design capacity
- No work will be allowed from October 15 to April 15

See additional schedule restrictions per BIO-2 of MMRP.

2-2 SPECIAL EVENTS

City of Manhattan Beach Special Events Calendar:

<https://www.manhattanbeach.gov/departments/parks-and-recreation/calendar>

2-3 TRASH COLLECTION, STREET SWEEPING, AND POWERWASHING SCHEDULE

To be provided by City at issuance of initial Notice to Proceed.

SECTION 3. STAKEHOLDERS

The Contractor shall coordinate all Work within the vicinity of schools with the school district, for pick-up and drop-off of children, special dismissal, and school event days.

Contractor shall work in close coordination with all impacted agencies, including LA County Lifeguards, businesses, and residents, to ensure impacts are minimized during work. This includes

those along the haul route.

The Contractor shall notify the following City Departments and agencies at least 24 hours prior to the start of work at any location, and 24 hours prior to the partial closing of a street or alley within the City of Manhattan Beach.

MANHATTAN BEACH PUBLIC WORKS DEPARTMENT

Public Works Inspector (310) 802-5361 & (310) 802-5341

MANHATTAN BEACH POLICE DEPARTMENT

Notify Dispatcher's Office (310) 545-4566

MANHATTAN BEACH FIRE DEPARTMENT

Notify Dispatcher's Office (310) 802-5203

WASTE MANAGEMENT

Notify Route Manager (310) 830-7100

STREET SWEEPING - SCA of CA

Notify Route Manager (310) 538-6903

SECTION 4. WORKER HIRE POLICY

The Project is receiving funding from the Safe, Clean Water Program (SCWP) Regional Infrastructure Program. The Los Angeles County Code of Ordinances, Flood Control District Code, Chapter 18 – Safe, Clean Water Program Implementation, Section 18.09, item B.11 indicates that Projects funded through the Regional Program (such as this one) must apply and enforce provisions mirroring those set forth in the current version of the County's Local and Targeted Worker Hire Policy, adopted by the County's Board on September 6, 2016 as to contractors performing work on the Project. The City of Manhattan Beach will utilize the County's Policy, which is included in Exhibit E.

PART 12 - STANDARD AND SPECIAL TECHNICAL PROVISIONS

The following Technical Provisions/Specifications are included:

- Stormwater Treatment (SWT) (includes trash capture and sedimentation system)
- Stormwater Sedimentation (SWS) (modular underground sediment chambers)
- Stormwater Infiltration (SWI) (includes drywells)
- Stormwater Pumps (SWP)
- Slide Gates (SG) (includes slide gates and actuators)
- Electrical Specifications

STORMWATER TREATMENT (SWT)

SECTION 1 – GENERAL

SWT1-1 DESCRIPTION

- A. Fabrication and installation of stormwater trash and debris guards for stormwater treatment as indicated on the drawings and as specified herein.

SWT1-2 RELATED WORK SPECIFIED ELSEWHERE

The Greenbook 2024 Edition shall apply to the entirety of the Work and installation of Stormwater Treatment (SWT) systems (trash capture), along with related Special Provisions.

SWT 1-2.1 RELATED REQUIREMENTS

- A. Section 3-8 – Submittal Procedures
- B. Section 7-3.1 c) – Operation and Maintenance Data
- C. Section 201-7.3 – Non-Shrink Grout
- D. Section 300-2.1 – Excavation and Fill
- E. Section 306-3.1 d) – Shoring
- F. Appendix IV – Geotechnical Investigations

SWT1-3 REFERENCES

- A. Abbreviations and Acronyms
 - 1. SWTD: Stormwater Treatment and Trash Capture Device
- B. Reference Standards
 - 1. American Association of State Highway and Transportation Officials (AASHTO)
 - a) Standard Specification for Highway Bridges – 7th Edition
 - 2. American Association of Testing and Materials (ASTM) (Latest Revision Referenced)
 - a) ASTM A-48 - Standard Specification for Gray Iron Castings
 - b) ASTM A-240 - Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications
 - c) ASTM A-320 - Standard Specification for Alloy-Steel and Stainless-Steel Bolting for Low-Temperature Service
 - d) ASTM A-615 - Standard Specification for Deformed and Plain, Carbon-Steel Bars for Concrete Reinforcement
 - e) ASTM A-1064 - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete
 - f) ASTM C-33 - Standard Specification for Concrete Aggregates
 - g) ASTM C-150 - Standard Specification for Portland Cement
 - h) ASTM C-857 - Standard Practice for Minimum Structural Design Loading for Underground

Precast Concrete Utility Structures

- i) ASTM C-858 - Standard Specification for Underground Precast Concrete Utility Structures
 - j) ASTM C-891 - Standard Practice for Installation of Underground Precast Concrete Utility Structures
 - k) ASTM C-990 - Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants
 - l) ASTM D-3776 - Standard Test Methods for Mass Per Unit Area (Weight) of Fabric
 - m) ASTM D-3787 - Standard Test Method for Bursting Strength of Textiles - Constant-Rate-of-Travel (CRT) Ball Burst Test
 - n) ASTM D-4886 - Standard Test Method for Abrasion Resistance of Geotextiles (Sandpaper/Sliding Block Method)
 - o) ASTM D-3887 - Standard Specification for Tolerances for Knitted Fabrics
 - p) ASTM D-4595 - Standard Test Method for Tensile Properties of Geotextiles by the Wide-Width Strip Method
 - q) ASTM E-3332 - Standard Test Method for Determining Trash and/or Debris Capture Performance of Stormwater Control Measures
3. American Concrete Institute (ACI)
- a) ACI-318 - Building Code Requirements for Structural Concrete

SWT1-4 SUBMITTALS

The following submittal requirements apply (in accordance with Section 3-8):

A. Product Data

- 1. Storm Water Treatment and Trash Capture Device (SWTD) brochures or specifications sheets.
- 2. Brochures or cut sheet of accessories.

B. Submittal Drawings

- 1. Submittal drawings are to detail the SWTD's primary dimensions and elevations
- 2. Pipe type, locations, provided pipe opening dimensions, and connection details
- 3. Access opening locations, dimensions, and connection details
- 4. Indicate all materials to be used and applicable material standards
- 5. Design assumptions for structural analysis

C. Certificates

- 1. Certification by a Professional Engineer licensed in the State of installation shall be submitted that the SWTD meets or exceeds the structural design standards listed in this specification if engineering stamp and calculations are required by the Owner.
- 2. Certification by a Professional Engineer licensed in the State of installation shall be submitted that the SWTD meets or exceeds the hydraulic design standards listed in this specification if engineering stamp and calculations are required by the Owner.
 - a. It is the responsibility of the Engineer of Record to verify that the design assumptions are acceptable for the proposed application.

D. Suppliers' Instructions

1. Installation Manual
2. Inspection and Maintenance Manual
3. Inspection Checklist

SWT1-5 QUALITY ASSURANCE

- A. California State Water Resources Control Board Certified Full Capture System List of Trash Treatment Control Devices
- B. The Supplier of the SWTD shall be one that is acceptable to the Engineer of Record, regularly engaged in the engineering, design, and production of systems developed for the treatment of stormwater runoff for at least five (5) years and which have a history of successful production.
- C. Upon request, the SWTD Supplier shall submit to the Engineer of Record a "Supplier's Performance Report" stating that each SWTD can achieve the specified performance criteria listed in these specifications.
- D. All components shall be subject to inspection by the Engineer at the place of manufacture and/or installation. All components are subject to be rejected or identified for repair if the quality of materials and manufacturing do not comply with the requirements of this specification. Components which have been identified as defective may be subject to repair. Final acceptance of the component is contingent upon the discretion of the Engineer.

SWT1-6 DELIVERY, STORAGE, AND HANDLING.

- A. The SWTD components shall be delivered to the jobsite by the manufacturer.
- B. The Contractor shall provide all labor, equipment, and materials necessary to install the SWTD as specified in the Drawings and the specifications herein.
- C. The Contractor shall ensure the methods used to offload, store, and install the SWTD components are done in a safe manner and do not damage the SWTD.
- D. Any repair or replacement costs associated with events occurring after delivery is accepted shall be the responsibility of the Contractor.
- E. Components shall be handled and stored in accordance with the Supplier's recommendations.

SWT1-7 WARRANTY

- A. The SWTD Supplier shall guarantee the components against all manufacturer originated defects in materials or workmanship for a period of five (5) years from the date of delivery.
- B. The Supplier shall be notified of warranty claims in writing within the referenced warranty period. The Supplier, upon its determination, shall repair, correct, or replace any manufacturing defects identified by the written notice.
- C. The use of SWTD components shall be limited to the application for which it was specifically designed.

SECTION 2 – PRODUCTS

SWT2-1 SUPPLIERS

- A. The indicated Supplier is the basis of design.
- B. The SWTD shall be a TrashTrap as designed by StormTrap LLC, 1287 Windham Parkway, Romeoville, IL 60446. Phone (815) 941-4663. Fax (331) 318-5347.
Website www.stormtrap.com.
Local Representative: Charlie Carter. Phone (760) 212.5628\
Email ccarter@stormtrap.com, or approved equal.
- C. Substitution Limitations
 - 1. Any other manufacturers shall submit substitution request in accordance with Section 4-6 – TRADE NAMES.
 - 2. Alternate SWTDs must demonstrate compliance with the specifications herein and submissions for substitutions require review and approval by the Engineer for hydraulic performance, impact to project designs, equivalent treatment performance, and any required project plan and report modifications that would be required by the approving jurisdictions/agencies.
 - 3. Contractor to coordinate with the Engineer on any applicable modifications to the project estimates of cost, bonding amount determinations, plan check fees for changes to approved documents, and/or any other regulatory requirements resulting from the product substitution.
 - a) Costs for reviewing submittals for alternative SWTDs shall be the Contractor's or substituting Manufacturer's responsibility.

SWT2-2 DESCRIPTION

- A. A SWTD that is housed in a precast concrete vault or structure unless noted otherwise on drawings. The SWTD shall use the passive energy of the influent flow to capture trash and debris within a netting bag or screening device and shall drain dry during dry weather conditions.
- B. The SWTD shall be designed to span the entire open cross-sectional area of the inlet pipe and shall be designed to convey all flows associated up to and including the design flow rate through a netting bag or screening device. Bypass prior to the design flow rate, in a clean condition, is not permitted.
 - 1. The use of a net physically attached, mechanically connected, or tethered to a pipe is not permitted.
- C. SWTD capacities shall not be less than the values listed in Section SWT2.3.B.
- D. The SWTD must include the capability to partition flows, causing treatment flows to be diverted thru the netting bag or screening device and flows exceeding the treatment capacity of the SWTD (bypass flows) shall divert over the netting bag or screening device to prevent washout of previously retained trash and debris.
- E. The use of rotational or "swirling" flow as the mechanism for trash and debris removal shall not be permitted.
 - 1. The use of tangential inlet pipes shall not be permitted.
- F. The clear opening of the access frames and covers that provide access for inspection and maintenance activities shall be 24 inches or greater in the shortest dimension.
 - 1. Removal of pollutants from the SWTD shall be possible without confined space entry.

SWT2.3 PERFORMANCE/DESIGN CRITERIA

A. The SWTD shall be designed such that the maximum head loss throughout the device in a clean condition does not exceed six (6") at the design flow rate.

B. Capacities

- | | |
|-------------------------------------|------------------------|
| 1. Design Flow Rate | <u>120.00 CFS</u> |
| 2. Peak Flow Rate | <u>120.00 CFS</u> |
| 3. SWTD Peak Design Velocity | <u>5 ft/sec</u> |
| 4. Trash/Debris Capacity | <u>120.00 C.F.</u> |
| 5. Net/Screen Opening Size | <u>5.0 mm</u> |
| 6. Net/Screen Dimensions (W"xH"xL") | <u>72" x 36" x 80"</u> |

SWT2-4 MATERIALS

A. Housing Unit

1. The housing unit of the SWTD shall be constructed of precast concrete unless noted otherwise on drawings. Precast components shall conform to applicable sections of ACI-318, ASTM C-857, ASTM C-858, and the following:
 - a) Concrete shall achieve a minimum twenty-eight (28) day compressive strength of six-thousand (6000) pounds per square-inch (psi);
 - b) Unless otherwise noted, the precast concrete sections shall be designed to withstand lateral earth and AASHTO HS-20 traffic loads;
 - 1) Minimum/Maximum Cover: As indicated on drawings.
 - 2) Minimum Soil Pressure: As indicated on drawings.
 - 3) Groundwater: At or below invert of system.
 - 4) Lateral soil pressures shall be determined using:
 - i. Equivalent Unsaturated Lateral Active Earth Pressure: 35 psf/ft
 - ii. Equivalent Saturated Lateral Active Earth Pressure: 80 psf/ft when groundwater is above invert.
 - 5) Vertical soil pressures shall be determined using:
 - i. Live Load: AASHTO HS-20
 - ii. Dead Load: 120 pcf cover fill unit weight.
 - 6) Engineer to verify geotechnical requirements.
 - 7) Lateral Seismic Surcharge loading provided by project Engineer. Housing unit shall be designed without seismic surcharge loading if seismic information is not provided by the Engineer.
 - c) Cement shall be Portland Cement conforming to ASTM C-150;
 - d) Aggregates shall conform to ASTM C-33, except that the requirements for gradation shall not apply;
 - e) Reinforcing steel shall consist of wire and welded steel wire conforming to ASTM A-1064 or of bars conforming to ASTM A-615;

- f) Concrete clear cover for reinforcing steel shall conform to ACI-318.
- 2. Pipe openings shall be sized to accept pipes of the specified sizes and materials and shall be sealed by the contractor.
- B. Access Openings
 - 1. Sizes: as indicated on drawings.
 - 2. Hatches intended for net maintenance shall be provided with a lockable latch and lift springs or comparable prop up mechanisms to hold the hatch doors in an opened position.
 - a) Minimum net maintenance hatch clear opening: as indicated on drawings
 - b) Minimum clear opening shall be the width of the net frame plus six inches or greater.
 - 3. Size and location of access openings shall be determined by the Supplier.
 - 4. Manhole steps shall be installed and in conformance with OSHA requirements.
- C. Internal Components
 - 1. All internal components [mounting and support system, guide rails, and lifting units, and] shall be designed and constructed to withstand all anticipated loadings associated with the fabrication, shipping, installation, and operation of the equipment.
 - a) Anticipated operational loadings shall be based upon the values as indicated on the drawings and the values listed in Section SWT2.3.B.
 - 2. The guide rails at a minimum shall extend from the base of the unit to the top of the netting assembly frame.
 - 3. The lifting unit shall enclose the disposable netting assembly in a manner that minimizes the potential of the netting material being cut or abraded.
 - 4. The lifting unit shall be equipped with devices that prevents the netting assembly from dislodging during all anticipated loadings.
 - 5. The lifting unit shall be designed to allow for the removal of the netting assemblies with or without removing the lifting unit from the system. Products that do not allow this operating and maintenance flexibility are not acceptable.
- D. Screening Basket (Contractor to coordinate with the City to confirm if a Screening Basket or Disposable Netting Assembly is preferred)
 - 1. The screening basket shall be designed and constructed to withstand all anticipated loadings associated with the fabrication, shipping, installation, and operation of the equipment.
 - a) Anticipated operational loadings shall be based upon the values as indicated on the drawings and the values listed in Section 2.3.B.
 - 2. The opening size and dimensions of the screening baskets shall be sized by the Manufacturer based on the values listed in Section 2.3.B.
- E. Disposable Netting Assemblies (Contractor to coordinate with the City to confirm if a Screening Basket or Disposable Netting Assembly is preferred)
 - 1. The disposable netting assemblies shall be constructed of a knotless, knitted, synthetic mesh material mounted on a frame constructed of wood or a single piece molded polyethylene plastic frame. The netting material shall be secured to the frame in a manner that exceeds the yield strength of the netting material.
 - 2. The netting assemblies shall be of adequate size and shape to withstand the values listed in Section 2.3.B.

3. The netting and frame shall be sized by the Manufacturer based on the values listed in Section 2.3.B.
4. The composition, denier, and the method of knitting the netting material shall be such that the finished material meets or exceeds the following parameters:
 - a. The material testing shall be determined by an independent, third-party, testing laboratory accredited to perform the test contained within this section. The Supplier shall provide copies of these test results at the request of the Engineer or Owner.

	SD- 0.375"	HD- 0.375"	SD- 1.00"	HD- 1.00"	HD- 5mm
Mass/Unit Area of Fabric (ASTM D 3776, Option C)					
Mass/Unit Area (oz/yd ²)	15.91	21.55	7.63	7.26	14.58
Tolerances for Knitted Fabrics (ASTM D 3887)					
Whales per Inch	1.34	1.20	0.66	0.51	2.77
Counts per Inch	2.32	1.89	0.90	0.94	4.75
Bursting Strength of Textiles: CRT Test (ASTM D 3787)					
Puncture Resistance (lbs)	584	654	288	377	435
Abrasion Resistance of Geotextiles (ASTM D 4886)					
Tensile Strength (ppi) - Baseline	152	222	100	115	101
Tensile Strength (ppi) - Abraded	198	252	89	105	119
Tensile Properties of Geotextiles (ASTM D 4595)					
Ultimate Strength (lbs)	1059	1566	440	809	766
Ultimate Strength (ppi)	132	196	55	101	96
Break Elongation (%)	59	75	67	88	76
*SD denotes Standard Duty. HD denotes Heavy Duty.					

F. Mounting Hardware

1. All mounting hardware shall be made of 304SS or 316SS conforming to ASTM A-240 or ASTM A-320 unless indicated otherwise on the drawings.
2. Internal components shall be secured together using mounting hardware comprised of bolts, nuts, and washers of adequate size and numbers to withstand the anticipated loadings.
3. Internal components shall be secured to the housing unit using "drill-in" type anchors.
4. The Supplier shall supply all necessary hardware required to install the supplied components.

SWT2-5 ACCESSORIES

- A. Use of accessories shall be as indicated on submittal drawings.
- B. Refer to accessory manufacturers as indicated on submittal drawings for specific product details.

SWT2-6 INSPECTION

- A. The SWTD shall be subject to inspection by the Engineer or the Owner's Representative at either the place of manufacture or the jobsite. All components are subject to be rejected or identified for repair if the quality of materials and manufacturing do not comply with the requirements of this specification. Components which have been identified as defective may be subject to repair. Final acceptance of the component is at the discretion of the Engineer.

SECTION 3 – EXECUTION**SWT3-1 EXAMINATION**

- A. Review installation procedures and coordinate installation with preparation and adjacent work, including but not limited to grading, excavation, utilities, or erosion control.
- B. Do not permit loads greater than the design loads over completed SWTD installation.

SWT3-2 PREPARATION

- A. Verify in field, before installation, that pertinent dimensions and soil conditions are satisfactory, including but not limited to, groundwater conditions and soil bearing capacity.
 - 1. If field conditions are unsatisfactory, or an obstruction is present, notify the Engineer of observed conditions. Do not commence system installation until conditions have been corrected and are deemed satisfactory.

SWT3-3 INSTALLATION

- A. The Contractor shall inspect and accept the SWTD components prior to unloading the components. Commencement of installation constitutes acceptance of the SWTD components.
 - 1. If any components are damaged prior to unloading, the Contractor shall notify the Supplier immediately. Failure to notify the Supplier prior to unloading or any field modifications may void all associated warranties and Supplier liability.
- B. The SWTD shall be installed by the Contractor in accordance with ASTM C-891, the site plans, the Supplier's recommendations, the specifications herein, and per the approved submittal drawings.
- C. Backfill the SWTD as soon as possible and in accordance with ASTM C-891, the site plans, the Supplier's recommendations, the specifications herein, and per the approved submittal drawings.
- D. Any damage during delivery or installation shall be repaired or replaced.

SWT3-4 FIELD QUALITY CONTROL**A. SUPPLIER SERVICES**

- 1. At the time and place of the SWTD installation, the Supplier shall offer to provide a Product Liaison onsite to offer installation guidance and delivery coordination to the installing Contractor at no additional expense.
- 2. Contractor shall notify the Supplier a minimum of five (5) business days prior to the installation date to allow performance of the services included in this subsection.

SWT3-5 PROTECTION

- A. Prior to site stabilization, the SWTD shall be reasonably protected from construction debris and excessive sediment runoff entering the device.
- B. Prior to transfer of operational responsibility to the Owner, the contractor shall remove all loose material from the SWTD.

SWT3-6 PAYMENT

Payment for the "PRETREATMENT DEVICE (TRASH CAPTURE)" shall be made at the contract price for Each and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals involving excavation, shoring, backfill, grading, compaction, crushed rock base, trash capture system and components, pipe connections, manholes/access structures (including frame and cover), and all other appurtenances, as shown on the Plans, as specified in the Standard Specifications, Special Provisions, and Technical Specifications, as recommended by the manufacturer, as required for complete installation, and as directed by the Engineer, and no additional compensation will be allowed, therefore.

STORMWATER SEDIMENTATION (SWS)**SECTION 1 – GENERAL****SWS1-1 DESCRIPTION**

- A. Fabrication and installation of precast concrete modular detention system to be used for sedimentation as indicated on the drawings and as specified herein.

SWS1-2 RELATED WORK SPECIFIED ELSEWHERE

The Greenbook 2024 Edition shall apply to the entirety of the Work and installation of Stormwater Sedimentation System (SWS), along with related Special Provisions.

SWS1-2.1 RELATED REQUIREMENTS

- A. Section 3-8 – Submittal Procedures
- B. Appendix IV – Geotechnical Investigations

SWS1-3 REFERENCE STANDARDS

1. American Association of State Highway and Transportation Officials (AASHTO) – Standard Specification for Highway Bridges – 7th Edition
2. American Concrete Institute (ACI) 318 - Building Code Requirements for Structural Concrete
3. American Association of Testing and Materials (ASTM) (Latest Revision Referenced)
 - a) ASTM A-615/A 615M - Standard Specification for Deformed and Plain, Billet-Steel Bars for Concrete Reinforcement
 - b) ASTM C-857 - Standard Practice for Minimum Structural Design Loading for Underground Precast Concrete Utility Structures
 - c) ASTM C-858 - Standard Specification for Underground Precast Concrete Utility Structures
 - d) ASTM C-891 - Standard Practice for Installation of Underground Precast Concrete Utility Structures
 - e) ASTM C-990 - Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants
 - f) ASTM A-1064 - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete

SWT1-4 DESIGN REQUIREMENTS

- A. Precast Concrete Modular Stormwater Detention shall comply with ASTM C858.
- B. Underground precast concrete stormwater management system shall be sized in accordance with the design requirements provided by the Engineer and/or Agency.
- C. The system shall be designed so modules are aligned and have channels that extend to the bottom of the modules allowing for relatively unrestricted fluid flow in both directions.
- D. Minimum Structural Design Loading: ASTM C 857.
 - a. Total Cover:

- i. Minimum: As indicated on the drawings.
 - ii. Maximum: As indicated on the drawings.
- b. Concrete chamber shall be designed for AASHTO HS-20 wheel load.
- c. Minimum Soil Pressure:
 - i. As indicated on the drawings for concrete pad.
- d. Vertical and lateral soil pressures shall be determined using:
 - i. Groundwater: At or below invert of system.
 - ii. Lateral soil pressures to be based on Active earth pressure
 - 1. Lateral soil pressure = 35 pcf for 120 pcf backfill unit weight
 - iii. Vertical soil pressures
 - 1. Live load = HS-20-44 and Dead load = 120 pcf cover fill unit weight
 - iv. Engineer to verify geotechnical requirements

SWS1-5 QUALITY ASSURANCE

- A. The manufacturer of the concrete modules shall be performed at a precast production facility certified by the NPCA or PCI.
- B. The Supplier of the SWS shall be one that is acceptable to the Engineer, regularly engaged in the engineering, design, and production of systems developed for the management/treatment of stormwater runoff for at least five (5) years and which have a history of successful production.
- C. All components shall be subject to inspection by the Engineer at the place of manufacture and/or installation. All components are subject to be rejected or identified for repair if the quality of materials and manufacturing do not comply with the requirements of this specification. Components which have been identified as defective may be subject to repair. Final acceptance of the component is contingent upon the discretion of the Engineer.

SWS1-6 SUBMITTALS

The following submittal requirements apply (in accordance with Section 3-8):

- A. Product Data
 - 1. Supplier product data, including brochures or specifications sheets.
 - 2. Installation instructions
- B. Submittal Drawings
 - 1. Supplier's shop drawings, including plans, elevations, sections, and details indicating layout, dimensions, foundation, cover, and joints.
 - 2. Indicate size and location of roof openings and inlet and outlet pipe openings (include pipe connection details).
 - 3. Indicate sealing of joints.
 - 4. Details and dimensions related to sedimentation walls.
 - 5. Indicate all materials to be used and applicable material standards.
 - 6. Design assumptions for structural analysis.

C. Suppliers' Instructions

1. Installation Manual
2. Inspection/Operation and Maintenance Manual
3. Inspection Checklist

SWS1-7 DELIVERY, STORAGE, AND HANDLING.

- A. Delivery of Accessories: Deliver to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage of Accessories:
 1. Store in accordance with supplier's instructions.
 2. Store in clean, dry area, out of direct sunlight.
- C. Handling: Protect materials during handling and installation to prevent damage.
- D. Any repair or replacement costs associated with events occurring after delivery is accepted shall be the responsibility of the Contractor.

SWS1-8 WARRANTY

- A. The supplier shall guarantee the components against all manufacturer originated defects in materials or workmanship for a period of five (5) years from the date of delivery.

SECTION 2 – PRODUCTS**SWS2-1 SUPPLIERS**

- A. The indicated Supplier is the basis of design.
- B. StormTrap LLC, 1287 Windham Parkway, Romeoville, IL 60446. Phone (815) 941-4663. Fax (331) 318-5347. Website www.stormtrap.com. Local Representative: Charlie Carter. Phone (760) 212.5628\ Email ccarter@stormtrap.com, or approved equal.

SWS2-2 STORMWATER DETENTION

- A. All material shall meet or exceed all applicable referenced standards, federal, state and local requirements, and conform to codes and ordinances of authorities having jurisdiction.
- B. Stormwater Detention Modules:
 1. Description: Engineered, precast concrete, modular stormwater detention.
 2. Module Type: StormTrap SingleTrap or approved equal.
 3. Size: As indicated on the drawings.
 4. Concrete: Supplier's Approved Mix design providing a minimum compressive strength of 6,000 psi at 28 days.
 5. Reinforcing Bars: ASTM A 615, Grade 60.
 6. Reinforcing Mesh: ASTM A 1064, Grade 80.

7. Cover for Reinforcing Bars: ACI 318

SWS2-3 CONCRETE PAD (NOT PROVIDED BY SUPPLIER)

- A. Concrete pad foundation shall be reinforced cast-in-place concrete.
 - 1. Foundation shall have a minimum 1-foot overhang as indicated on the drawings.
 - 2. Minimum compressive strength: 4,000 psi at 28 days.
 - 3. Reinforcing bar design: as indicated in the drawings (calculations and additional details to be included in the Contractor's submittal).

SWS2-4 ACCESSORIES

- A. Joint Tape:
 - 1. ASTM C 990.
 - 2. Seven eighths inch (7/8") diameter, preformed butyl mastic joint sealer.
 - 3. Approved by supplier.
- B. Joint Wrap:
 - 1. Eight inch (8") wide self-adhesive elastomeric resin bonded woven puncture resistant polymer wrap.
 - 2. Approved by supplier.

SECTION 3 – EXECUTION

SWS3-1 EXAMINATION

- A. Examine area to receive stormwater detention modules. Notify Engineer if area is not acceptable. Do not begin installation until unacceptable conditions have been corrected.
- B. Verify in field before installation, dimensions and soils conditions, including groundwater and soil bearing capacity.

SWS3-2 INSTALLATION

- A. Install stormwater detention modules in accordance with supplier's instructions and ASTM C 891.
- B. Install modules plumb, on line, and to proper elevation.
- C. Install modules with a maximum space of three quarters inch (3/4") between adjacent modules. If the space exceeds three quarters inch (3/4"), the modules shall be reset with appropriate adjustment made to line and grade to bring the space into compliance.
- D. SingleTrap or approved equal:
 - 1. Concrete Pad Foundation: Place modules on level, cast-in-place concrete foundation with minimum one foot (1') overhang as indicated on the drawings.
 - 2. Cast-in-place concrete for foundation shall have a minimum compressive strength of 4,000 psi at twenty-eight (28) days.
- E. Joint Tape:

1. Seal perimeter horizontal joint between modules with joint tape in accordance with ASTM C 891, 8.8 and 8.12.
 2. Prepare surfaces and install joint tape in accordance with supplier's instructions.
- F. Joint Wrap:
1. Seal exterior joints between adjacent modules with joint wrap in accordance with ASTM C 891.
 2. Prepare surfaces and install joint wrap in accordance with supplier's instructions.
- G. Field Modifications to the modules is strictly prohibited without prior written consent of supplier.
- H. Excavation and fill shall be per Greenbook and associated Special Provisions.
- I. Fill:
1. Backfill material shall consist of a GW, GP, SW, or SP material as defined by the Unified Soil Classification System and that meets the gradation requirements.
 2. Native materials shall be separated from backfill materials with a geotextile filter fabric unless approved by the Engineer.
 3. Deposit fill on both sides of modules at same time and to approximate same elevation.
 4. Prevent wedging action against structure by stepping or serrating slopes bounding or within area to be backfilled.
 5. Do not disrupt or damage joint wrap during backfilling.
- J. Do not use stormwater detention modules that are damaged, as determined by supplier.
- K. Contractor is responsible for installation in accordance with project plans, specifications, and all federal, state, and local regulations.

SWS3-3 PAYMENT

Payment for the "PRETREATMENT DEVICE (SEDIMENTATION)" shall be made at the Lump Sum contract and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals involving excavation, shoring, backfill, grading, compaction, crushed rock base, sedimentation system and components, pipe connections, manholes/access structures (including frame and cover), and all other appurtenances, as shown on the Plans, as specified in the Standard Specifications, Special Provisions, and Technical Specifications, as recommended by the manufacturer, as required for complete installation, and as directed by the Engineer, and no additional compensation will be allowed, therefore.

STORMWATER INFILTRATION (DRYWELLS) (SWI)**SECTION 1 – GENERAL****SWI1-1 DESCRIPTION**

- A. Stormwater infiltration system, consisting of drywells.

SWI1-2 QUALITY ASSURANCE

- A. Specification is based on MaxWell stormwater drywells (or approved equal). Torrent Resources, Inc., or an alternative approved A-General Engineering Contractor with not less than three successfully completed contracts with similar soil conditions, depths, and volumes of work contained in this Project shall be utilized.

SWI1-3 SUBMITTALS

- A. Product Data: Submit supplier's product data and installation instructions.
- B. Record Documents:
 - 1. Shop Drawings:
 - a. Submit supplier's shop drawings, including plans, elevations, sections, and details indicating layout, dimensions, and pipe connections.
 - b. Include structural calculations based on HS20 loading.
- C. Operation and Maintenance Data: Submit supplier's operation and maintenance instructions.

SWI1-4 FINAL DRYWELL DEPTH

- A. The final drywell depth shall be determined by the minimum penetration requirement and may vary from the base drywell depth. Refer to additional notes/requirements in the Plans.

SWI1-5 WARRANTY

- A. The supplier's shall provide a minimum five (5) year limited warranty.

SWI1-6 PILOT DRYWELL AND TESTING

- A. Drywell 3 (DW 3), east of Manhattan Avenue in the Bruce's Beach grass area, shall be installed per Plans as a pilot drywell as part of the Phase 2 NTP.
- B. The Contractor shall develop a drywell testing plan with the proposed methodology that will be used to test the drywell and quantify the flow rate capacity of the system (in cubic feet per second [cfs]).
- C. Calculations demonstrate each drywell would have a capacity around 3 cfs, while it is anticipated that the actual capacity could be greater than that.
- D. Pending the results of the drywell test, the Agency, in partnership with the Engineer, may choose to eliminate drywells and associated piping and appurtenances.
- E. Drywell testing recommendations/considerations:
 - 1. It is recommended that the Contractor work with a geotechnical engineer to perform testing.

2. Fire hydrants are typically used as a water source for drywell testing, while the anticipated capacity far exceeds hydrant capacity, therefore other water sources are recommended.
 3. A falling head test with a pressure transducer or other water level measuring device may be considered.
 4. Longer-term testing is recommended, such that the results of the test provide the capacity under saturated conditions. The system shall be pre-soaked prior to testing.
- F. Test results must show volume of water added to the well, depth of water in the well, drawdown rate, and flow rate capacity of the drywell in cfs (or similar data).

SECTION 2 – PRODUCTS

SWI2-1 DRYWELL PRODUCT DETAILS

- A. Pre-Cast Liner: Reinforced 4000 PSI concrete. 48" I.D., 54" O.D. with eight (8) 1.25" diameter holes per foot where noted.
- B. Manhole Cone: Pre-cast, conforming to ASTM C478 with modified flat bottom.
- C. Overflow Pipe: Minimum 6" diameter Schedule 40 Poly Vinyl Chloride (PVC) solid wall.
- D. Brackets: Formed 12 gauge steel, fusion bonded epoxy coated.
- E. Drainage Pipe: 100 PSI minimum PVC pipe or HDPE highway grade pipe, mated to the overflow pipe with a suitable coupling.
- F. Rings and Grates: 30" diameter minimum nominal metal castings conforming to TRI #2030-B Specifications. The rings and grates shall be bolted in two (2) locations and suitable for light traffic with "Storm Water Only" cast into the grating surface.
- G. Rock: Clean washed rock uniformly graded between 3/4" and 1 1/2", sized to best compliment soil conditions (shall meet Greenbook gradation requirements for crushed rock unless otherwise recommended by the drywell supplier).
- H. Drainage Fabric: Mirafi 140NL fabric or approved equal.
- I. Drainage Screen: Minimum 6" diameter Schedule 40 PVC slotted screen with 0.120 slots continuous, with a minimum of 160 slots/foot. 96" overall length, with a suitable coupling.
- J. Debris Shield: Rolled 16 gauge steel x 24" length, with rolled 16 gauge x .265" maximum SWO flattened expanded steel internal screen x 12" length. Fusion bonded epoxy coated. Equipped with anti-siphon vent, and screen.
- K. Moisture Membrane: Polyethylene liner with 6 mil. thickness, conforming to ASTM D-2103.
- L. Absorbent: Hydrophobic petrochemical sponge with minimum four (4) quart capacity used in all main well and inlet chambers.
- M. Interceptor/Existing Well Connecting Pipe: Four-inch (4") diameter Schedule 40 PVC solid wall pipe with screened inlet and flow regulator.
- N. Trench Backfill/Chamber Encasement: Connecting pipe trench backfill and stabilizing envelope around chambers shall be two (2) sack ABC concrete slurry, extending from trench bottom to beneath asphalt paving for the entire trench length including the annular space around the well chambers; areas surrounding the upper portion of the interceptor and drywell chamber shall also be backfilled with slurry.
- O. Concrete/Pipe Connections: All pipe inlets in pre-cast liner or concrete structure shall be sealed with Speed-Crete or approved equal. Connecting pipe should not exceed 4" in diameter for single-chambered wells, or 24" for dual-chambered systems.

SWI2-2 DRYWELL SENSOR DETAILS

- A. The drywells noted in the Plans shall have two radar sensors to measure the depth of water in the drywell, for which the output shall be integrated into the Project controls as defined in the Sequence of Operation. The secondary sensor is to provide redundancy.
- B. Sensors shall be Vegapuls C 21 radar sensors for continuous level measurement or approved equal.
 - a. Local Sales Contact: Dik Haz, (949) 375-5109, d.haz@vega.com
- C. Measuring range: 15 m (49+ feet)
- D. Measuring frequency: W-band (80 GHz technology)
- E. Output signal: 4 ... 20 mA/HART
- F. Operating voltage: 12 ... 35 V DC
- G. Shall be Bluetooth compatible
- H. Wetted parts of the instrument are made of PVDF. The process seal is made of FKM. The connection cable is PUR insulated.
- I. Mounting bracket: AC – 222 2XV anticipated, while the Contractor shall work with the supplier to confirm the preferred mounting approach

SECTION 3 – EXECUTION**SWI3-1 DRYWELL INSTALLATION**

- A. Install units at locations indicated in strict accordance with manufacturer's printed instructions.
- B. The drilled holes shall be of the diameter shown on the plans. Reaming or piloting is only allowed for the settling chamber excavation, and the hole shall be drilled in a manner to maintain maximum permeability of soils.
- C. The drainage pipe and drainage screen shall be suspended during backfilling operations. The rock backfill shall be placed with care to prevent buckling or breakage of the drainage pipe and screen.
- D. The pre-cast liner shall be centered in the drilled shaft, and the sections carefully aligned to maximize the bearing surfaces of the liner walls.
- E. Filter fabric shall be placed at the bottom of the settling chamber. The filter fabric shall be placed tightly against the pre-cast liner and overflow pipe.
- F. Pavement removal shall be outlined with clean sawcut edges. Jack-hammered or rough edges are not acceptable.
- G. Asphalt paving in light traffic areas shall be a minimum of 3" thick hot rolled over 3" ABC compacted subgrade, or two (2) sack slurry trench backfill (or shall match improvements identified in the Plans).
- H. Concrete paving in light traffic areas shall be a minimum of 4" thick reinforced class A Portland cement concrete, over 3" ABC compacted subgrade or two (2) sack slurry trench backfill (or shall match improvements identified in the Plans).
- I. The ring and grate shall be set to the rim elevation shown on the plans or to match existing grades, and shall be secured to the cone with mortar.
- J. Upon completion of each drywell, a layer of UV stabilized Mirafi 100X fabric shall be placed over the grated inlet and banded in place. The fabric shall not be removed until after paving and landscaping operations are completed.
- K. Install polyethylene membrane over the top of the rock fill.

- L. Clean up all debris and remove all excess excavated soil from the site and legally dispose of same.

SWI3-2 OBSTRUCTIONS

- A. If rock, boulders, or other unforeseen obstructions are encountered which cannot be removed by standard drywell excavation methods, and if such obstructions are not indicated by available subsurface data, removal of such obstructions will be paid for in accordance with the terms of the contract relative to changes in the work.

SWI3-3 CLASSIFICATION OF ROCK

- A. Rock or rock-like soils are defined as material which cannot be drilled with a conventional bucket auger equipped with standard teeth, and that require the use of carbide teeth, special rock core barrels, air tools, blasting and/or other methods of special excavation.

SWI3-4 PAYMENT

Payment for "PILOT DRYWELL INSTALLATION AND TESTING" shall be made at the contract Lump Sum price and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals involving drywell testing plan development, mobilization, traffic control, excavation, setup, drilling, backfilling, compaction, crushed rock, pipe stub outs, testing, and reporting, as shown on the Plans, as specified in the Standard Specifications, Special Provisions, and Technical Specifications, as recommended by the supplier, as required for complete installation, and as directed by the Engineer, and no additional compensation will be allowed, therefore.

Payment for the "DRYWELLS" shall be made at the contract price for Each and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals involving excavation, setup, drilling, backfill, compaction, crushed rock, pipe connections, and all other appurtenances, as shown on the Plans, as specified in the Standard Specifications, Special Provisions, and Technical Specifications, as recommended by the supplier, as required for complete installation, and as directed by the Engineer, and no additional compensation will be allowed, therefore. As noted above, the drywell quantity is subject to change based on the drywell test results. Following the drywell testing, the City and Engineer will confirm the number of drywells to be installed using the Base Bid and Additive Bid Items as needed. If drywells are to be eliminated, they will be eliminated based on the numbering in the Plans (highest numbers to be eliminated first).

Payment for the "MANHOLES AT DRYWELLS" shall be made at the contract price for Each and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals involving manholes/access structures (including frame and cover), matching proposed elevations, and all other appurtenances, as shown on the Plans, as specified in the Standard Specifications, Special Provisions, and Technical Specifications, as recommended by the supplier, as required for complete installation, and as directed by the Engineer, and no additional compensation will be allowed, therefore. Additional information is included in Subsection 303-1.12 of the Special Provisions. This is not for the upper concrete chamber of the drywell, it is specifically for setting the manhole frame and cover.

Payment for the "PRIMARY AND SECONDARY RADAR SENSOR WITH MOUNTING HARDWARE IN DRYWELLS" shall be made at the contract price for Each drywell containing referenced improvements and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals involving the radar sensors (primary and secondary), mounting, testing, set-up, training, controls integration, and all other appurtenances, as shown on the Plans, as specified in the Standard Specifications, Special Provisions, and Technical Specifications, as recommended by the supplier, as required for complete installation, and as directed by the Engineer, and no additional compensation will be allowed, therefore.

Payment for the "SLURRY PLUG (EA = 5' SEGMENT)" shall be made at the contract price for Each 5-foot segment and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals involving utilizing a slurry plug along the upper precast concrete drywell chamber to aid in installation of drywells, if needed, due to soil conditions.

Payment for the "STEEL CASING FOR DRYWELL INSTALLATION (EA = 10' SEGMENT)" shall be made at the contract price for Each 10-foot segment and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals involving utilizing a steel casing to aid in installation of drywells, specifically along the rock shaft, if needed, due to soil conditions. Steel casings must be removed following construction.

STORMWATER PUMPS (SWP)

SECTION 1 – GENERAL

SWP1-1 DESCRIPTION

- A. Pump system consisting of four (4) submersible wet pit stormwater pumps packaged in precast concrete separate wet wells configured in parallel with a ductile iron pipe effluent manifold discharging into a precast concrete trash capture and sedimentation system connected to the distribution network piping to drywells.
- B. Two (2) sump submersible pumps discharging into effluent manifold.
- C. Precast concrete structures (shafts, risers, manholes, etc.).
- D. Polymer concrete structures/shafts.
- E. Pump system shall be a packaged pump system, such that the Contractor's team is responsible for a set of complete shop drawings detailing the components based on the performance specifications provided herein.

SWP1-1.1 Performance Requirements for Stormwater Pumps

- A. Operating Conditions
 - 1. Design Discharge 16,800 Gallons per Minute (GPM)
 - 2. 35 feet Total Dynamic Head (TDH)
 - 3. 75% Efficiency.
- B. 80 feet Minimum Shutoff Head
- C. 250 HP Maximum Horsepower
- D. 900 RPM Maximum Motor RPM

SWP1-1.2 Performance Requirements for Sump Pumps

- A. Operating Conditions
 - 1. Design Discharge 200 GPM
 - 2. 40 feet TDH
 - 3. 35% Efficiency
- B. 44 feet Minimum Shutoff Head
- C. 7.5 HP Maximum Horsepower
- D. 1,800 RPM Maximum Motor RPM

SWP1-2 RELATED WORK SPECIFIED ELSEWHERE

The Greenbook 2024 Edition shall apply to the entirety of the Work and installation of Stormwater Pump (SWP) system, along with related Special Provisions.

SWP1-3 REFERENCE STANDARDS

- A. American Iron and Steel Institute (AISI).

- B. American Society of Testing and Materials (ASTM)
- C. Factory Manual
- D. Hydraulic Institute Standards for Centrifugal, Rotary, and Reciprocating Pumps.
- E. National Fire Protection Agency (NFPA).
- F. National Electric Code (NEC).
- G. National Electrical Manufacturers Association (NEMA).
- H. Anti-Friction Bearing Manufacturers Association (AFBMA).
- I. International Standards Organization (ISO) – ISO9001
- J. National Precast Concrete Association (NPCA).
- K. References for Polymer Concrete Shafts:
 - 1. ASTM C 478 (most current) Standard Specification for Precast Reinforced Concrete Manhole Sections.
 - 2. ASTM C 579 (most current) Standard Test Methods for Compressive Strength of Chemical-Resistant Mortars, Grouts, Monolithic, Surfacing, and Polymer Concretes
 - 3. ASTM C 443 (most current) Standard Specification for Joints for Concrete Pipe and Manholes Using Rubber Gaskets
 - 4. ASTM C 580 (most current) Standard Test Method for Flexural Strength and Modulus of Elasticity of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes
 - 5. ASTM C 857 (most current) Standard Practice for Minimum Structural Design Loading for Underground Utility Structures.
 - 6. ACI 350-06 Code Requirements for Environmental Engineering Concrete Structures & Commentary
 - 7. ACI 440.1R-15 Guide for the Design and Construction of Structural Concrete Reinforced with Fiber-Reinforced Polymer (FRP) Bars
 - 8. ACI 548.6R-96 Polymer Concrete-Structural Applications State-of-the-Art Report
 - 9. ASTM D 648 (most current) Test Method for Deflection Temperature of Plastics Under Flexural Load in Edgewise Position.
 - 10. ASTM D 6783 (most current) Standard Specification for Polymer Concrete Pipe.
 - 11. ASTM D 2584 (most current) Test Method for Ignition Loss of Cured Reinforced Resins.
 - 12. ASTM C 923 (most current) Standard Specifications for Resilient Connectors between Concrete Manholes Structures and Pipe.
 - 13. ASTM C 990 (most current) Standard Specification for Joints for Concrete Pipe, Manholes and Precast Box Sections using Preformed Flexible Joint Sealants
 - 14. ASTM C 497 (most current) Test Methods for Concrete Pipe, Manhole Sections, or Tile.
 - 15. California Greenbook Standard Specifications for Public Works Construction Section 211-2

SWP1-3 PUMP SUBMITTALS

The following submittal requirements apply (in accordance with Section 3-8):

- A. Name, Address, and Phone Number of a Sole Source Packaged Pump Station supplier as defined in Section SWP2-1 below.

- B. Product Data: Provide manufacturer's technical data including station capacities and operating characteristics;
- C. Pump performance curves;
- D. Shop Drawings: show fabrication and installation details;
- E. Concrete structural reinforcement drawings and calculations and buoyancy calculations for concrete structures, stamped and signed by a licensed California Professional Civil Engineer;
- F. Warranty information; and
- G. Operations and maintenance manual.

SWP1-4 POLYMER SHAFT SUBMITTALS

The following submittal requirements apply (in accordance with Section 3-8):

- A. Conform to bid document requirements.
- B. Submit manufacturer's data and details of following items for approval:
- C. Shop drawings of structure sections, base units and construction details, jointing methods, materials, and dimensions.
- D. Summary of criteria used in design of structures including, at minimum, material properties, loading criteria, and dimensions assumed. Include certification from manufacturer that polymer concrete manhole design meets or exceeds the load and strength requirements of ASTM C 478 and ASTM C 857, reinforced in accordance with ACI 440.1R-15.
- E. Frames, grates, covers, and other accessories as required by design.
- F. Materials to be used for pipe connections
- G. Materials to be used for stubs and stub plugs, if required.
- H. Proof of independent chemical resistance testing conducted in accordance with the standard specifications for public works construction (California Greenbook) Section 211-2.
- I. Current ISO 9001:2015 Certification for the facility where the polymer concrete structures are manufactured for the project.
- J. References of 20 previous polymer concrete projects including scope in the last 5 years performed with both owner and contractor contact information for reference and review by owner. References of projects not being done by current company shall not be allowed.
- K. 50 year corrosion warranty on the polymer concrete structures to be provided and enforced from contract completion date.
- L. Submittal shall be stamped and signed by a registered Professional Engineer in the state of California.

SWP1-5 Quality Assurance

- A. Manufacturer Qualifications for precast concrete structures:
 - 1. NPCA certified plant with experience and demonstrated capability to produce work specified herein.
- B. Electrical Components, Devices, and Accessories:
 - 1. Listed and labeled as defined in NFPA 70, Article 100 by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

SWP1-6 WARRANTY

The pump manufacturer shall warrant the pump, motor, and guide system to the Agency against defects in workmanship and materials for a period of one (1) year from date of installation or eighteen (18) months from date of shipment, under normal use and service. If a guide cable system is used the pump manufacturer shall warrant the guide cable system (including guide cables and brackets) to the Agency against defects in workmanship and materials for a period of ten (10) years under normal use and service. Both pump manufacturer warranties shall be in published form and shall apply to all similar units. A copy of each warranty shall be provided to the Agency at startup.

SECTION 2 - MATERIALS**SWP2- 1 ACCEPTABLE MANUFACTURERS**

- A. Subject to compliance with the Contract Documents, the following are acceptable:
 - 1. KSB for pumps
 - 2. Armorock Polymer Concrete (702) 824-9702
 - 3. Multi-W Systems for packaged pump system
 - a. William Wang, (626) 401-2627, william.wang@multiwsystems.com
 - 4. Equal alternates as approved by the engineer prior to bid
- B. All products, whether named as "acceptable" or proposed as "equal" must fully comply with these specifications. Standard product must be modified, if required, for compliance. The Contractor shall base their bid price on product offered by KSB, Inc. for purposes of determining the successful bidder on this project. The contractor may submit, with the bid, an alternate proposal with applicable deduct if any for supplying product other than KSB. Alternate proposals must include a clear statement of each point of difference between the proposed alternate product and these specifications. The Agency and Engineer reserve the right to reject any bid not based on KSB product.

SWP2-2 SUBMERSIBLE PUMPS

- A. Pump Case: Cast Iron, ASTM A48, Class 35B
- B. Motor Housing: Cast Iron, ASTM A48, Class 35B
- C. Impellers:
 - 1. Stormwater Pumps: Duplex Steel A 890 CD4 MCuN
 - 2. Sump Pumps: Cast Iron ASTM A48, Class 35B
- D. Intermediate Housing (Backplate): Cast Iron, ASTM A48, Class 35B
- E. Discharge Base Elbow: Cast Iron, ASTM A48, Class 35B
- F. Pump/Motor Shaft: Carbon Steel, ASTM A576, Gr.1045 with replaceable ASTM A276 Type 420 shaft protection sleeve. (NOTE: If sleeve is not supplied, entire shaft is to be ASTM A276 Type 420 stainless steel)
- G. Shaft Sleeve (if used): Stainless Steel, ASTM A276 Type 420
- H. Wear Ring, case: Cast Iron, ASTM A48, minimum 200 Brinell (Stormwater Pumps)
- I. Wear Ring, impeller (enclosed impellers only): Stainless Steel, AISI329, 350 Brinell (Stormwater Pumps)
- J. O-Rings: Nitrile Rubber (NBR)

- K. Fasteners (including impeller fastener): Stainless Steel, ASTM A276 Type 316Ti
- L. Lower Seal Faces: Silicon Carbide/Silicon Carbide
- M. Upper Seal Faces: Silicon Carbide stationary/Carbon rotating
- N. Guide rails/cables and mounting brackets: Stainless Steel, ASTM A276 Type 316 (cables shall be nylon coated)
- O. Lifting Chain or cable: Stainless Steel, ASTM A276 Type 316
- P. Oil-all uses (seal lubrication, etc): Ecologically safe, parifin or mineral base
- Q. Power/Control Cable Jacket: Chloroprene with non-wicking fillers

SWP2-3 PUMP ACCESSORIES

A. POWER CABLE

Provide 33 feet of power/control cable with each pump, suitable for submersible stormwater application, sized in accordance with NEC requirements. Provide cable terminal box on side of motor housing, with cable entry sealed to ensure that no entry of moisture is possible into the high-voltage motor/terminal area even if the cable is damaged or severed below water level. Cable seal shall include a compressed rubber grommet to seal the cable exterior and epoxy fill to seal the interior passages. A strain relief device, in direct contact with both the cable and the cast iron entry housing, shall be provided. The cable entry shall be rated by Factory Mutual (or UL) for submerged operating depths to 85 feet.

B. TEMPERATURE PROTECTION

Furnish temperature monitoring devices in motor windings for use in conjunction with and supplemental to external motor overload protection. Arrange controls to shut down pump should any of the monitors detect high temperature and automatically reset once motor temperature returns to normal. Set temperature monitors at levels recommended by pump manufacturer

C. SEAL LEAK DETECTION

Provide a detector in the motor's stator cavity which allows a control panel mounted relay to indicate leakage into the motor. In addition, on motors 80HP and larger provide a stainless steel float switch in a separate leakage collection chamber to indicate leakage past the inner mechanical seal prior to its entrance into either the motor stator cavity or the lower bearing. Electronic probes which depend on sensing resistance value changes in seal oil will not be acceptable as seal leak indicators.

D. "PumpSafe" MOTOR SENSOR MONITORING RELAY

The pump supplier shall furnish all relays required for monitoring all motor sensors. The relays shall be installed by the Contractor in the motor control panel and properly wired in accordance with pump manufacturer's instructions. Relays shall mount in standard 12-pin socket bases (provided) and shall operate on available control voltage of 24-240 VAC. If relays require an input voltage that is not available in the motor control panel an adequate transformer (with fused input) shall be provided by the pump supplier. Relays shall have a power consumption of no more than 2.8 watt, and shall be UL approved. Relays shall be modular in design, with each relay monitoring no more than two motor sensor functions.

Each relay module shall include a dual color (red/green) LED to indicate the status of each monitored sensor. Green will indicate "status OK"; red will indicate a failure or alarm condition. A self-corrected fault will allow the relay output contacts to reset, and cause the LED to change from a steady alarm indication to a flashing signal. The LED shall continue to flash until locally cleared, providing the operator an indication of a potential intermittent fault. Each relay shall also include a power-on LED and both "test" and "reset" pushbuttons.

An independent fail-safe (switch on power loss) form-C output contact shall be included for each monitored sensor to provide a normally-open/normally-closed dry contact to initiate a remote alarm device or shut down the motor. Contacts shall be rated for 5 amps at 120 volt.

SWP2-4 POLYMER CONCRETE STRUCTURES

A. Products: Polymer Concrete Structures

1. Provide polymer concrete manhole sections, monolithic base sections and related components referencing to ASTM C 478.
2. Provide base riser section with monolithic cast. Bench and invert channel and/or fillet shall be one continuous cast. No cold joints allowed.
 - a) Foam inserts or any voids cast into a polymer concrete structure shall not be acceptable.
 - b) For non-circular or large diameter structures with a “drop-in” channel or fillet split out for handling, the entire component shall be comprised of polymer concrete. Foam inserts or voids cast into these components shall not be acceptable.

B. Provide riser sections joined with bell and spigot/ship-lap design seamed with butyl mastic and or rubber gaskets (ASTM C 990) so that on assembly, structure base, riser and top section make a continuous and uniform structure.

C. Grouted connections shall only be accepted as a secondary sealing method. Mastic and/or gaskets shall be required for each joint.

D. Construct riser components for polymer concrete structures from standard polymer concrete structure components of the diameter indicated on drawings. Use various lengths of polymer concrete structure components in combination to provide correct height with the fewest joints.

E. Design wall sections for depth and loading conditions with wall thickness as designed by polymer concrete manufacturer.

F. Provide tops to support AASHTO HS-20 loading or loads as required and receiving cast iron frame covers or hatches, as indicated on the drawings.

G. Design Criteria

1. Polymer Concrete structure components (risers, cones, flat lids, grade rings and base sections) shall be designed by manufacturer to meet the intent of ASTM C 478 with allowable compositional and sizing differences as designed by the polymer concrete manufacturer.
 - a) AASHTO HS-20 design or as required loading applied to structure cover and transition and base slabs.
 - b) Polymer manholes will be designed based upon live and dead load criteria in ASTM C 857 and ACI 350-06.
 - c) Unit soil weight of 120 pcf located above portions of manhole, including base slab projections.
 - d) Internal liquid pressure based on unit weight of 63 pcf.
 - e) Dead load of structure sections fully supported by polymer concrete structure base.
 - f) Buoyancy calculations to be provided based on geotechnical report with a safety factor of at least 1.2.

H. Design

1. Polymer Concrete structure risers, cone, flat lids, grade rings and manhole base sections shall be designed by manufacturer to meet loading requirements of ASTM C 478, ASTM C 857, and ACI 350-06 as modified for polymer concrete structure design as follows:

- a) AASHTO HS-20 design or as required loading applied to structure cover and transition and base slabs.
- b) Reinforcement – Will use acid resistant reinforcement (FRP Bar) in accordance with ACI 440.1R-06, as applicable for polymer concrete design.
- c) The wall thickness of polymer concrete structures shall not be less than that prescribed by the manufacturer's design by less than 95% of stated design thickness.
- d) Each polymer concrete structure component shall be free of all defects, including indentations, cracks, foreign inclusions, foam voids or blockouts, and resin starved areas that, due to their nature and degree or extent, detrimentally affect the strength and serviceability of the component part. Cosmetic defect shall not be cause for rejection. The nominal internal diameter of structure components shall not vary more than 2%. Variations in height of two opposite sides of risers and cones shall not be more the 5/8 inch. The under run in height of a riser or cone shall not be more than ¼ in/ft of height with a maximum of ½ inch in any one section.
- e) Marking and Identification - Each structure shall be marked with the following information - Manufacturer's name or trademark, Manufacturer's location and Production Date.
- f) Structure joints shall be assembled with a shi lap butyl mastic and/or gasketed joint so that on assembly, manhole base, riser and top section make a continuous and uniform manhole. External joint sealants can be utilized as well in areas needing additional containment. Joint sealing surfaces shall be free of dents, gouges, and other surface irregularities that would affect joint seal integrity.
- g) Minimum clearance between wall penetrations and joints shall be per manufacturer's design (as shown in approved shop drawings).
- h) Construct invert channels to provide smooth flow transition with minimal disruption of flow at pipe-manhole connections. Invert slope through manhole is as indicated on drawings. All precast base sections to be cast monolithically. Polymer concrete structure bench and channel are to be constructed with all polymer concrete material.
- i) Extended ballast slab for buoyancy collars can be addressed with cementitious concrete material.
- j) Provide resilient connectors conforming to requirements of ASTM C 923 or other options as available. All connectors are to be water tight. Install approved resilient connectors at each pipe entering and exiting manholes in accordance with manufacturer's instructions.

I. Quality Control

1. Facility Quality Control shall be maintained by adhering to ISO 9001:2015 for manufacturing. All facility manufacturing polymer concrete shall be ISO 9001:2015 Certified, with current certification provided via submittals. All fabrication will take place in an all polymer concrete fabrication facility. At no time will the polymer concrete fabrication facility share the facility with a cementitious precast product production facility. Fabricator is also to provide references of 20 previous projects in the last 5 years performed with both owner and contractor contact information for reference and the scope and review by the Agency. References of projects not being done by current company shall not be allowed.

J. Grouting

1. All materials needed for grouting and patching will be a polyester mortar compound provided by the manufacturer or an approved equal by the manufacturer.

SWP2-5 ACCESS DOORS AND FRAMES

The following requirements pertain to access doors and frames related to the pump system:

- A. Wet well access doors: double-leaf opening steel access hatch. Includes lift assist, bituminous paint, flush lifting handle, and 316 stainless steel nuts, bolts, hinges, slamlock, and hold-open arm.
- B. Loading capacity: support continuous H-20 loading (direct traffic).

SECTION 3 – EXECUTION

SWP3-1 FABRICATION

A. GENERAL

Provide pumps capable of handling raw unscreened wastewater/stormwater. Design pumps to allow for removal and reinstallation without the need to enter the wet well and without removal of bolts, nuts or other fasteners. Provide a pump which connects to a permanently mounted discharge connection by simple downward motion, without rotation, guided by at least two non-load-bearing guides. For guide pipe systems the pipe shall be supplied and warranted by the installing contractor. Pipe guides must be installed perfectly plumb and vertical. Intermediate guide supports (between upper bracket and discharge elbow connections) shall not be required for cable systems but **MUST** be supplied where needed to maintain perfect alignment for pipe guides. Final connection shall ensure zero leakage between pump and discharge connection flange. Provide a discharge connection/ guide system so that no part of the pump bears directly on the floor of the wet well. Provide Type 316 stainless steel chain of sufficient length to properly and safely lift pumps from the wet well. All exposed cast iron and ferrous surfaces shall be cleaned of dirt and grease, sandblasted to near white finish, and coated with an anti-corrosion reaction primer. The pump shall then be coated with two-component thick coat paint, with an epoxy resin base, having at minimum 83% solids by volume. This coating shall be non-toxic and approved for both wastewater/stormwater and water applications.

B. MAJOR COMPONENTS

Furnish major components (pump case, impeller, intermediate housing, motor housing) of cast material as specified with smooth surfaces devoid of blow holes and other irregularities. Pump case design shall incorporate a centerline discharge for stability when mounted on the base elbow.

C. IMPELLERS

1. Stormwater Pumps (Impeller and Wear Rings – single Vane or Multi-Vane Enclosed Type)
 - a. Provide non-clog type impeller, capable of passing at minimum a 5.2 inch spherical solid. Statically and dynamically balance the impeller. Provide hard metal wear rings of material and Brinell hardness specified, to ensure maximum pump/impeller life and continuing high efficiencies. Impellers must incorporate back vanes which reduce axial loads and propel solids away from the seal area. Do not use soft metals (i.e. bronze, 304 or 316 stainless) or elastomers as wear ring material as these are incompatible with the grit contaminate expected in the pumpage.
2. Sump Pumps (Vortex Impeller)
 - a. Provide non-clog type impeller, capable of passing at minimum a 3.9 inch spherical solid. The impeller(s) shall be of gray cast iron, Class 35B, dynamically balanced, semi-open, non-clogging design capable of handling soils, fibrous materials, heavy sludge and other matter found in wastewater/stormwater. The impeller(s) shall have a back shroud only with back pump-out vanes to equalize axial thrust, and curved blades which protrude into the pump casing for maximum efficiency. The impeller will create a vortex which carries solids through the pump casing without passing through the blades.

D. SHAFT

Provide common pump/motor shaft of sufficient size to transmit full driver output. Machine the shaft of carbon steel (for maximum strength and motor efficiency) and isolate the shaft from the pumped media with a replaceable Type 420 stainless steel shaft sleeve under the lower mechanical seal. Do not use carbon steel as shaft material without a stainless steel sleeve. If a sleeve is not used, machine the entire pump/motor shaft of ASTM A276 Type 420 stainless steel.

E. SHAFT SEAL

Furnish upper and lower bearings, single row (preferred) or double row as needed to provide a B10 life of, at minimum, 100,000 hours at all anticipated axial and radial loadings. Provide sealed/shielded (permanently lubricated) bearings. If open-type (non-shielded) bearings are used, provide re-lubrication ports with positive anti-leak plugs for periodic addition of lubrication from external to the pump.

F. MOTOR

Provide a motor which is squirrel cage, induction in design, housed in a completely watertight and air filled chamber, with a min 1.15 service factor. The motor shall be adequately sized and rated for continuous operation at a maximum fluid temperature of 104° F (40° C). Allowable maximum submergence shall not be less than 100ft (30 m). The motor stator shall be wound using Class H monomer-free polyester resin insulation resulting in an overall motor rating of 311 Degrees F (155 degrees C), Class F insulation. The stator windings shall be trickle impregnated resulting in a winding fill factor of at least 95%. The use of a multiple step "dip and bake" type stator insulation method shall not be acceptable. The rotor bars and short circuit rings shall be made of aluminum. The motor and pump set complete shall be designed and manufactured by the same company. Provide temperature protection and seal leak detection as described in section above. Provide adequately rated motor with sufficient surface area for ambient only cooling suited for the intermittent mode of operation in wet well wastewater/stormwater applications, submerged or partially submerged, without damage. Motors containing di-electric oils used for motor cooling and/or bearing lubrication or motors where the pumped media or externally provided fresh water is directed through the motor shell for cooling are not acceptable.

Provide motors which are FM listed for use in Class I Division 1 Groups C&D hazardous locations as defined by the National Electric Code.

G. QUALITY CONTROL (EQUIPMENT TESTS)

Tests shall be performed in accordance with the Test Code for Centrifugal Pumps per the Standards of the Hydraulic Institute, Level A. Tests shall be performed on the actual assembled pumps to be supplied. Tests shall cover a range from shut-off to at minimum 20% beyond specified design capacity. Conduct test per above specification on all supplied pumps, generating a curve showing actual flow, head, BHP and hydraulic efficiency.

SWP3-2 PAYMENT

Payment for the "PUMP STATION, INCLUDING PUMPS, MOTORS, VAULTS, CONNECTIONS, ETC." shall be made at the Lump Sum contract price and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals involving the packaged pump system, including all submittals, certifications and warranties, excavation, shoring, backfill, grading, compaction, base under wet wells, sealant, pipe connections, internal piping, pumps, motors, valves, concrete structures, power supply, risers, rings, traffic rated lid and frames, testing, set-up, training, controls integration, and all other appurtenances, as shown on the Plans, as specified in the Standard Specifications, Special Provisions, and Technical Specifications, as recommended by the supplier, as required for complete installation, and as directed by the Engineer, and no additional compensation will be allowed, therefore.

An Additive Bid Item with a per Cubic Yard cost has been included for “SLURRY BACKFILL AT PUMP STATION AND DIVERSION STRUCTURE (ANTICIPATED CREDIT)”. It is anticipated that a credit would be associated with this bid item and it shall include required backfill at the specified structures using a 2-sack slurry.

SLIDE GATES (SG)

SECTION 1 – GENERAL

SG1-1 General

The Slide Gates shall be self-contained with yoke and bench stand operators with provisions to mount an electrically powered actuator with Programmable Logic Controller (PLC) to control opening and closing operations of four (4) separate Slide Gates, in accordance with the requirements of these specifications. Specific configurations shall be as noted on the gate schedule or as shown on the plans.

SG1-2 Related Work Specified Elsewhere

The Greenbook 2024 Edition shall apply to the entirety of the Work, along with related Special Provisions and Technical Specifications.

SG1-3 Submittals

The following submittal requirements apply (in accordance with Section 3-8):

- A. Shop Drawings with full dimensions of the gate frame and guides, stem, gate, with details of top, sides and invert seals.
- B. Manufacturer's installation instructions
- C. Manufacturer's warranty
- D. Manufacturer's cut sheets
- E. Operations and Maintenance Manual
- F. Electrical actuator manufacturer's cut sheet
- G. Electrical actuator specifications with maximum power draw ratings
- H. PLC specifications

SG1-4 Quality Assurance

Qualifications:

- A. All of the equipment specified under this Section shall be furnished by a single manufacturer with a minimum of 10-years of experience designing and manufacturing slide gates. The manufacturer shall have manufactured cast iron sluice gates of the type described herein for a minimum of 20 similar projects.
- B. The sealing system shall be certified and tested for operation and performance to leakage specifications compliant with AWWA C-561 for a minimum of 100,000 cycles.
- C. The project design is based on the Waterman SS-250 Stainless Steel Slide Gate as manufactured by Waterman Industries of Exeter, California. Proposed alternates must be submitted to the Agency for review and approval. Requests for alternates must be supplemented with detailed drawings, specifications, and references. Any/all additional costs for engineering structure modifications or other changes associated with utilizing a brand other than Waterman are to be borne by the Contractor.
- D. To ensure quality and consistency, the slide gates listed in this section shall be manufactured and assembled in a facility owned and operated by the slide gate manufacturer. Machining, testing, and performance verification of the gates shall be in a U.S. facility. The client may verify/view the

manufacturing and testing process at the facility. Third-party manufacturers contracted for fabrication and assembly of the slide gates will not be permitted.

SECTION 2 - MATERIALS

SG2-1 ACCEPTABLE MANUFACTURERS

- A. Waterman Industries
- B. Sales Representative: Tim Hennessey, McWane Plant and Industrial, (949) 919-4674, Tim.Hennessey@McWanePI.com
- C. Information on product: https://watermanusa.com/wp-content/uploads/2021/03/MPI_Waterman_SS250_SlideGates_SpecSheet.pdf

SG2-1 GENERAL

- A. The gate shall be either self-contained with yoke and bench stand operators, or non-self contained with stem guides and operator, in accordance with the requirements of these specifications.
- B. The gates shall be compliant with the latest version of AWWA C561.
- C. Specific configurations shall be as noted in the Plans and approved in associated submittals.
- D. Materials shall be in accordance with the product information linked in Section SG2-1.

SG2-2 FRAME AND GUIDE RAILS

- A. The gate frame shall be composed of stainless steel guide rails with UHMW seats/seals upstream and downstream. The seats/seals shall form a tight seal between the frame and slide (disc). The guides will be of sufficient length to support ½ the height of the slide gate when in the full open position.
- B. Yoke shall not deflect more than 1/360th of the span under full head break load.
- C. Seals shall be replaceable without removing the frame from the wall. In the case of embedded gates, they shall be constructed in a manner that allows replacement of the seals without removal of the gate frame from the embedment.

SG2-3 STEM AND STEM GUIDE

- A. Material
 - 1. The stem shall be solid stainless steel.
- B. Design
 - 1. Guides shall be adjustable with split stem sleeves. Guides shall be spaced per the manufacturer's recommendations. The stem L/r ratio shall not exceed 200.
 - 2. Stem threads shall be machine cut 29 degree full Acme or stub Acme type.
 - 3. Nominal diameter of the stem shall not be less than the crest of the threaded portion.

SG2-4 SEALS

- A. The seals shall be self-adjusting. Seals requiring periodic maintenance and adjustments to maintain specified leakage rates will not be permitted.
- B. The top seal design on upward opening gates consisting of four side seals shall incorporate a self-

cleaning wiping function that prevents debris from building-up above the top seal and causing premature wear of the seats, seals, and gate face.

- C. The UHMW seats shall impinge on the slide (disc) by way of a continuous loop cord seal. Seal designs incorporating resilient seals such as "J-bulb" or "P" seals that come in direct contact with the friction surface of the slide will not be considered.
- D. The cord seal shall function as a seal between the frame and the UHMW, and as a spring force to maintain contact between the UHMW and the slide (disc).
- E. The resilient bottom seal shall be set into the invert member of the frame which shall be formed in a manor to protect 3 sides of the seal only exposing the side that will come in contact with the slide. Disc-mounted invert seals exposing additional surface area will not be permitted.
- F. The self-adjusting seal system shall provide an allowable leakage rate of no more 0.05 gpm per peripheral foot of perimeter opening for seating and unseating heads.

SG2-5 SLIDE COVER (DISC)

- A. The slide cover (disc) shall be stainless steel plate reinforced with structural shapes welded to the plate.
 - 1. The slide cover shall not deflect more than $1/720^{\text{th}}$ of the span, or 1/16" at the seated sealing surface of the gate under maximum specified head.
 - 2. The stem to gate connection shall be either the clevis type, with structural members welded to the slide and a bolt or bolts to act as a securing method, or a threaded and bolted (or keyed) thrust nut supported in a welded nut pocket.
 - 3. The clevis, or pocket and yoke, of the gate shall be capable of taking, without damage, at least twice the rated thrust output of the operator at 40 pounds of pull on a hand wheel or hand crank, and at locked-rotor stall of a motor operator.
 - 4. The slide cover shall be constructed with vertical and horizontal reinforcement ribs.
 - 5. All welds shall be performed by an AWS-certified welding technician.

SG2-6 ANCHOR BOLTS

- A. Anchor hardware shall be provided by the slide gate manufacturer.
 - 1. The size, quantity, and location of the anchor hardware shall be engineered by the slide gate manufacturer (calculations shall be made available for anchor bolt sizing and quantity upon request).
 - 2. Anchor hardware consisting of studs, nuts, and washers shall be provided by the manufacturer.

SG2-6 JUNCTION STRUCTURES, ACCESS DOORS, AND FRAMES

The following requirements pertain to junction structures, access doors, and frames related to the structures that contain slide gates:

- A. Access doors: double-leaf opening steel access hatch. Includes lift assist, bituminous paint, flush lifting handle, and 316 stainless steel nuts, bolts, hinges, slamlock, and hold-open arm.
 - 1. Loading capacity: support continuous H-20 loading (direct traffic).
- B. Junction structure shall be precast concrete (concrete strength requirements are included in Section 201-1 of the Special Provisions and additional information is included in Section 303-1.12 of the Special Provisions).

SECTION 3 - EXECUTION

SG3-1 INSTALLATION

- A. Installation of the gates shall be performed in accordance with standard industry practices. It shall be the responsibility of the Contractor to handle, store, and install the equipment specified in this Section in strict accordance with the Manufacturer's recommendations.
- B. The Contractor shall review the installation drawings and installation instructions prior to installing the gates.
- C. The gate frames shall be installed in a true vertical plane, square and plumb, with no twist, convergence, or divergence between the vertical legs of the guide frame.
- D. The Contractor shall fill any void between the guide frames and the structure with non-shrink grout as shown on the installation drawing/shop drawing package and in accordance with the grout manufacturer's recommendations.
- E. The frame cross rail shall be adjusted as required to maintain consistent seal compression across the full width of the gate.

SG3-2 FIELD TESTING

- A. After installation, all gates will be field tested in the presence of the Engineer and Agency to ensure that all items of equipment are in full compliance with this Section. Each gate assembly shall be water tested by the Contractor to confirm that leakage does not exceed allowable leakage.

SG3-3 PAYMENT

Payment for concrete junction structures, slide gates, and actuators shall be made at the Contract Unit Price per Each for "5'x5' PRECAST CONCRETE JUNCTION STRUCTURE WITH SLIDE GATE" and "8'x12' PRECAST CONCRETE JUNCTION STRUCTURE WITH SLIDE GATES." These Bid items shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals involving the junction structure with slide gate(s), including all submittals, certifications and warranties, excavation, shoring, backfill, grading, compaction, base under structure, pipe connections, slide gate(s), actuators, concrete structures, power supply, risers, rings, traffic rated lid and frames, testing, set-up, training, controls integration, and all other appurtenances, as shown on the Plans, as specified in the Standard Specifications, Special Provisions, and Technical Specifications, as recommended by the supplier, as required for complete installation, and as directed by the Engineer, and no additional compensation will be allowed, therefore.

Payment for the concrete diversion structure shall be made at the Contract Unit price for "DIVERSION STRUCTURE." This Bid item shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals involving the diversion structure with a slide gate, including all submittals, certifications and warranties, excavation, shoring, backfill, grading, compaction, base under structure, pipe connections, grating, concrete collars, slide gate, actuators, concrete structures, power supply, risers, rings, traffic rated lid and frames, testing, set-up, training, controls integration, and all other appurtenances, as shown on the Plans, as specified in the Standard Specifications, Special Provisions, and Technical Specifications, as recommended by the supplier, as required for complete installation, and as directed by the Engineer, and no additional compensation will be allowed, therefore.

ELECTRICAL TECHNICAL SPECIFICATIONS

The following sections are included in the Electrical Technical Specifications:

DIVISION 26 - ELECTRICAL

Section 260000	Project Start-Up, Testing, Commissioning and Training
Section 260519	Low-Voltage Electrical Power Conductors and Cables
Section 260523	Control-Voltage Electrical Power Cables
Section 260526	Grounding and Bonding for Electrical Systems
Section 260529	Hangers and Supports for Electrical Systems
Section 260533.13	Conduits for Electrical Systems
Section 260533.16	Boxes and Covers for Electrical Systems
Section 260543	Underground Ducts and Raceways for Electrical Systems
Section 260544	Sleeves and Sleeve Seals for Electrical Raceways and Cabling
Section 260553	Identification for Electrical Systems
Section 260573.13	Short-Circuit Studies
Section 260573.16	Coordination Studies
Section 260573.19	Arc-Flash Hazard Analysis
Section 260915	Programmable Logic Controllers
Section 260923	Lighting Control Devices
Section 262213	Low-Voltage Distribution Transformers
Section 262413	Switchboards
Section 262416	Panelboards
Section 262419	Motor-Control Centers
Section 262716	Electrical Cabinets and Enclosures
Section 262726	Wiring Devices
Section 262923	Variable-Frequency Motor Controllers
Section 265613	Lighting Poles and Standards
Section 265619	LED Exterior Lighting

DIVISION 27 - COMMUNICATIONS

Section 270528	Pathways for Communications Systems
Section 271513	Communications Copper Horizontal Cabling

APPENDICES

APPENDIX I PROGRESS PAYMENT REQUEST FORM

TO: CITY OF MANHATTAN BEACH
 Engineering Division, 1400 Highland Avenue, Manhattan Beach, CA 90266
 PROJECT TITLE _____
 PROJECT NO. _____

FROM: CONTRACTOR _____ Date _____
 Address _____
 Telephone _____ Progress Estimate # _____
 Submitted by _____ Contract Award Amount \$ _____

No.	Description	Contract Quantity	Previous Quantity	Quantity This Estimate	Unit Price	Amount This Estimate	Total Quantity to Date	Total Amount to Date
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
	Total							
	Less Retention							
	Less Previous Billing(s)							
	Total Amount Due							

City Approval: _____

Date: _____

NOTE: An updated Project Schedule must be provided with each monthly progress payment in accordance with Section 7-3 of the General Provisions in addition to a Conditional Waiver and Release form per Section 7-3.2.1

APPENDIX III – APPLICABLE CITY STANDARD PLANS

City Standard Plans are available here:

<https://www.manhattanbeach.gov/departments/public-works/engineering-division/consultants>

Referenced SPPWC, LA County, and Caltrans Standard Plans are included following this sheet.

APPENDIX IV –GEOTECHNICAL OR OTHER REPORTS

APPENDIX V –PERMIT DOCUMENTS

APPENDIX VI –SAMPLE ADA COMPLIANCE MEMO

APPENDIX VII –CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) DOCUMENTS (INCLUDING MITIGATION MONITORING AND REPORTING PROGRAM [MMRP])

APPENDIX VIII –SIGNAGE REQUIREMENTS

APPENDIX IX –WORKER HIRE POLICY