

City of San Diego

CONTRACTOR'S NAME: _____

ADDRESS: _____

TELEPHONE NO.: _____ FAX NO.: _____

CITY CONTACT: Juan E. Espindola, Senior Contract Specialist, Email: JEEspindola@sandiego.gov

Phone No. (619) 533-4491

Y. Lewis / R.W. Bustamante/ C. Catapia

BIDDING DOCUMENTS



FOR

NORTH PARK MINI PARK

BID NO.: _____ **K-20-1864-DBB-3**

SAP NO. (WBS/IO/CC): _____ **S-10050**

CLIENT DEPARTMENT: _____ **1714**

COUNCIL DISTRICT: _____ **3**

PROJECT TYPE: _____ **GC**

THIS CONTRACT WILL BE SUBJECT TO THE FOLLOWING:

- THE CITY'S SUBCONTRACTING PARTICIPATION REQUIREMENTS FOR SLBE PROGRAM
- PREVAILING WAGE RATES: STATE ☒ FEDERAL ☐
- APPRENTICESHIP

BID DUE DATE:

2:00 PM

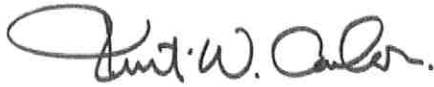
AUGUST 14, 2019

CITY OF SAN DIEGO'S ELECTRONIC BIDDING SITE, PLANETBIDS

<http://www.sandiego.gov/cip/bidopps/index.shtml>

ENGINEER OF WORK

The engineering Specifications and Special Provisions contained herein have been prepared by or under the direction of the following Registered Engineer:



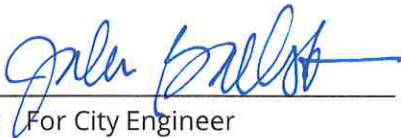
1) Registered Engineer

07/10/2019

Date

Seal:





2) For City Engineer

7/11/19

Date

Seal:



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NOTICE INVITING BIDS

1. **SUMMARY OF WORK:** This is the City of San Diego's (City) solicitation process to acquire Construction services for **North Park Mini Park**. For additional information refer to Attachment A.
2. **FULL AND OPEN COMPETITION:** This solicitation is subject to full and open competition and may be bid by Contractors on the City's approved Prequalified Contractors List. For information regarding the Contractors Prequalified list visit the City's web site: <http://www.sandiego.gov>.
3. **ESTIMATED CONSTRUCTION COST:** The City's estimated construction cost for this project is **\$2,707,100**.
4. **BID DUE DATE AND TIME ARE:** **AUGUST 14, 2019 at 2:00 PM**
5. **PREVAILING WAGE RATES APPLY TO THIS CONTRACT:** Refer to Attachment D
6. **LICENSE REQUIREMENT:** To be eligible for award of this contract, Prime contractor must possess the following licensing classification: **A**
7. **SUBCONTRACTING PARTICIPATION PERCENTAGES:** Subcontracting participation percentages apply to this contract.
 - 7.1. The City has incorporated **mandatory** SLBE-ELBE subcontractor participation percentages to enhance competition and maximize subcontracting opportunities. For the purpose of achieving the mandatory subcontractor participation percentages, a recommended breakdown of the SLBE and ELBE subcontractor participation percentages based upon certified SLBE and ELBE firms has also been provided to achieve the mandatory subcontractor participation percentages:

1. SLBE participation	7.6%
2. ELBE participation	10.0%
3. Total mandatory participation	17.6%
 - 7.2. The Bid may be declared non-responsive if the Bidder fails to meet the following requirements:
 - 7.2.1. Include SLBE-ELBE certified subcontractors at the overall mandatory participation percentage identified in this document; **OR**
 - 7.2.2. Submit Good Faith Effort documentation, saved in searchable Portable Document Format (PDF) and stored on a Universal Serial Bus (USB) Type-A, Compact Disc (CD) or Digital Video Disc (DVD), demonstrating the Bidder made a good faith effort to outreach to and include SLBE-ELBE Subcontractors required in this document within 3 Working Days of the Bid opening if the overall mandatory participation percentage is not met.

8. **PRE-BID SITE VISIT:** All those wishing to submit a bid are encouraged to visit the Work Site with the Engineer. The purpose of the Site visit is to acquaint Bidders with the Site conditions. To request a sign language or oral interpreter for this visit, call the Public Works Contracts at (619) 533-3450 at least 5 Working Days prior to the meeting to ensure availability. The Pre-Bid Site Visit is scheduled as follows:

Time: 11:00 am
Date: July 30, 2019
Location: 3812 29th Street, San Diego, CA 92104

9. **AWARD PROCESS:**

- 9.1. The Award of this contract is contingent upon the Contractor's compliance with all conditions of Award as stated within these documents and within the Notice of Intent to Award.
- 9.2. Upon acceptance of bids and determination of the apparent low bidder, the City will prepare the contract documents for execution within approximately 21 days of the date of the bid opening. The City will then award the contract upon receipt of properly signed Contract, bonds, and insurance documents.
- 9.3. This contract will be deemed executed and effective only upon the signing of the Contract by the Mayor or his designee and approval as to form by the City Attorney's Office.
- 9.4. The low Bid will be determined by the Base Bid plus all alternates.
- 9.5. Once the low bid has been determined, the City may, at its sole discretion, award the contract for the Base Bid alone or Base Bid plus alternates.

10. **SUBMISSION OF QUESTIONS:**

- 10.1. The Director (or Designee) of Public Works Department is the officer responsible for opening, examining, and evaluating the competitive Bids submitted to the City for the acquisition, construction and completion of any public improvement except when otherwise set forth in these documents. Any questions related to this solicitation shall be submitted to:

Public Works Contracts
525 B Street, Suite 750 (7th Floor)
San Diego, California, 92101
Attention: Juan E. Espindola

OR:

JEEspindola@sandiego.gov

- 10.2. Questions received less than 14 days prior to the date for opening of Bids may not be considered.

- 10.3.** Questions or clarifications deemed by the City to be material shall be answered via issuance of an addendum and posted to the City's online bidding service.
- 10.4.** Only questions answered by formal written addenda shall be binding. Oral and other interpretations or clarifications shall be without legal effect. It is the Bidder's responsibility to be informed of any addenda that have been issued and to include all such information in its Bid.

INSTRUCTIONS TO BIDDERS

1. PREQUALIFICATION OF CONTRACTORS:

- 1.1. Contractors submitting a Bid must be pre-qualified for the total amount proposed, including all alternate items, prior to the date of submittal. Bids from contractors who have not been pre-qualified as applicable and Bids that exceed the maximum dollar amount at which contractors are pre-qualified may be deemed **non-responsive** and ineligible for award.
- 1.2. The completed application must be submitted online no later than 2 weeks prior to the bid opening.
- 1.3. **Joint Venture Bidders Cumulative Maximum Bidding Capacity:** For projects with an engineer's estimate of \$30,000,000 or greater, Joint Ventures submitting bids may be deemed responsive and eligible for award if the cumulative maximum bidding capacity of the individual Joint Venture entities is equal to or greater than the total amount proposed.
 - 1.3.1. Each of the entities of the Joint Venture must have been previously prequalified at a minimum of \$15,000,000.
 - 1.3.2. Bids submitted with a total amount proposed of less than \$30,000,000 are not eligible for Cumulative Maximum Bidding Capacity prequalification. To be eligible for award in this scenario, the Joint Venture itself or at least one of the Joint Venture entities must have been prequalified for the total amount proposed.
 - 1.3.3. Bids submitted by Joint Ventures with a total amount proposed of \$30,000,000 or greater on a project with an engineer's estimate of less than \$30,000,000 are not eligible for Cumulative Maximum Bidding Capacity prequalification.
 - 1.3.4. The Joint Venture designated as the Apparent Low Bidder shall provide evidence of its corporate existence and furnish good and approved bonds in the name of the Joint Venture within 14 Calendar Days of receipt by the Bidder of a form of contract for execution.
- 1.4. Complete information and links to the on-line prequalification application are available at:

<http://www.sandiego.gov/cip/bidopps/prequalification>
- 1.5. Due to the City's responsibility to protect the confidentiality of the contractors' information, City staff will not be able to provide information regarding contractors' prequalification status over the telephone. Contractors may access real-time information about their prequalification status via their vendor profile on [PlanetBids™](#).

2. **ELECTRONIC FORMAT RECEIPT AND OPENING OF BIDS:** Bids will be received in electronic format (eBids) EXCLUSIVELY at the City of San Diego's electronic bidding (eBidding) site, at: <http://www.sandiego.gov/cip/bidopps/index.shtml> and are due by the date, and time shown on the cover of this solicitation.
- 2.1. **BIDDERS MUST BE PRE-REGISTERED** with the City's bidding system and possess a system-assigned Digital ID in order to submit and electronic bid.
- 2.2. The City's bidding system will automatically track information submitted to the site including IP addresses, browsers being used and the URLs from which information was submitted. In addition, the City's bidding system will keep a history of every login instance including the time of login, and other information about the user's computer configuration such as the operating system, browser type, version, and more. Because of these security features, Contractors who disable their browsers' cookies will not be able to log in and use the City's bidding system.
- 2.3. The City's electronic bidding system is responsible for bid tabulations. Upon the bidder's or proposer's entry of their bid, the system will ensure that all required fields are entered. **The system will not accept a bid for which any required information is missing.** This includes all necessary pricing, subcontractor listing(s) and any other essential documentation and supporting materials and forms requested or contained in these solicitation documents.
- 2.4. **BIDS REMAIN SEALED UNTIL BID DEADLINE.** eBids are transmitted into the City's bidding system via hypertext transfer protocol secure (https) mechanism using SSL 128-256 bit security certificates issued from Verisign/Thawte which encrypts data being transferred from client to server. Bids submitted prior to the "Bid Due Date and Time" are not available for review by anyone other than the submitter who has until the "Bid Due Date and Time" to change, rescind or retrieve its proposal should it desire to do so.
- 2.5. **BIDS MUST BE SUBMITTED BY BID DUE DATE AND TIME.** Once the bid deadline is reached, no further submissions are accepted into the system. Once the Bid Due Date and Time has lapsed, bidders, proposers, the general public, and City staff are able to immediately see the results on line. City staff may then begin reviewing the submissions for responsiveness, EOCP compliance and other issues. The City may require any Bidder to furnish statement of experience, financial responsibility, technical ability, equipment, and references.
- 2.6. **RECAPITULATION OF THE WORK.** Bids shall not contain any recapitulation of the Work. Conditional Bids may be rejected as being non-responsive. Alternative proposals will not be considered unless called for.
- 2.7. **BIDS MAY BE WITHDRAWN** by the Bidder only up to the bid due date and time.

2.7.1. Important Note: Submission of the electronic bid into the system may not be instantaneous. Due to the speed and capabilities of the user's internet service provider (ISP), bandwidth, computer hardware and other variables, it may take time for the bidder's submission to upload and be received by the City's eBidding system. It is the bidder's sole responsibility to ensure their bids are received on time by the City's eBidding system. The City of San Diego is not responsible for bids that do not arrive by the required date and time.

2.8. ACCESSIBILITY AND AMERICANS WITH DISABILITIES ACT (ADA) COMPLIANCE: To request a copy of this solicitation in an alternative format, contact the Public Works Contract Specialist listed on the cover of this solicitation at least five (5) working days prior to the Bid/Proposal due date to ensure availability.

3. ELECTRONIC BID SUBMISSIONS CARRY FULL FORCE AND EFFECT

3.1. The bidder, by submitting its electronic bid, acknowledges that doing so carries the same force and full legal effect as a paper submission with a longhand (wet) signature.

3.2. By submitting an electronic bid, the bidder certifies that the bidder has thoroughly examined and understands the entire Contract Documents (which consist of the plans and specifications, drawings, forms, affidavits and the solicitation documents), and that by submitting the eBid as its bid proposal, the bidder acknowledges, agrees to and is bound by the entire Contract Documents, including any addenda issued thereto, and incorporated by reference in the Contract Documents.

3.3. The Bidder, by submitting its electronic bid, agrees to and certifies under penalty of perjury under the laws of the State of California, that the certification, forms and affidavits submitted as part of this bid are true and correct.

3.4. The Bidder agrees to the construction of the project as described in Attachment "A-Scope of Work" for the City of San Diego, in accordance with the requirements set forth herein for the electronically submitted prices. The Bidder guarantees the Contract Price for a period of 120 days from the date of Bid opening. The duration of the Contract Price guarantee shall be extended by the number of days required for the City to obtain all items necessary to fulfill all conditions precedent.

4. BIDS ARE PUBLIC RECORDS: Upon receipt by the City, Bids shall become public records subject to public disclosure. It is the responsibility of the respondent to clearly identify any confidential, proprietary, trade secret or otherwise legally privileged information contained within the Bid. General references to sections of the California Public Records Act (PRA) will not suffice. If the Contractor does not provide applicable case law that clearly establishes that the requested information is exempt from the disclosure requirements of the PRA, the City shall be free to release the information when required in accordance with the PRA, pursuant to any other applicable law, or by order of any court or government agency, and the Contractor will hold the City harmless for release of this information.

5. CONTRACTOR REGISTRATION AND ELECTRONIC REPORTING SYSTEM:

5.1. **Prior** to the Award of the Contract or Task Order, you and your Subcontractors and Suppliers must register with the City's web-based vendor registration and bid management system. For additional information go to:

<http://www.sandiego.gov/purchasing/bids-contracts/vendorreg>

5.2. The City may not award the contract until registration of all subcontractors and suppliers is complete. In the event this requirement is not met within the time frame specified in the Notice of Intent to Award letter, the City reserves the right to rescind the Notice of Award / Intent to Award and to make the award to the next responsive and responsible bidder / proposer.

6. JOINT VENTURE CONTRACTORS: Provide a copy of the Joint Venture agreement and the Joint Venture license to the City within 14 Calendar Days after receiving the Contract forms.

7. INSURANCE REQUIREMENTS:

7.1. All certificates of insurance and endorsements required by the contract are to be provided upon issuance of the City's Notice of Intent to Award letter.

7.2. Refer to sections 5-4, "INSURANCE" of the Supplementary Special Provisions (SSP) for the insurance requirements which must be met.

8. REFERENCE STANDARDS: Except as otherwise noted or specified, the Work shall be completed in accordance with the following standards:

Title	Edition	Document Number
Standard Specifications for Public Works Construction ("The GREENBOOK") http://www.greenbookspecs.org/	2018	PWPI010119-01
City of San Diego Standard Specifications for Public Works Construction ("The WHITEBOOK")* https://www.sandiego.gov/publicworks/edocref/greenbook	2018	PWPI010119 -02
City of San Diego Standard Drawings* https://www.sandiego.gov/publicworks/edocref/standarddraw	2018	PWPI010119 -03
Citywide Computer Aided Design and Drafting (CADD) Standards https://www.sandiego.gov/publicworks/edocref/drawings	2018	PWPI010119 -04
California Department of Transportation (CALTRANS) Standard Specifications – http://www.dot.ca.gov/des/oe/construction-contract-standards.html	2018	PWPI030119-05
CALTRANS Standard Plans http://www.dot.ca.gov/des/oe/construction-contract-standards.html	2018	PWPI030119-06

Title	Edition	Document Number
California Manual on Uniform Traffic Control Devices Revision 3 (CA MUTCD Rev 3) http://www.dot.ca.gov/trafficops/camutcd/	2014	PWPI030119-07
<p>NOTE: *Available online under Engineering Documents and References at: http://www.sandiego.gov/publicworks/edocref/index.shtml</p> <p>*Electronic updates to the Standard Drawings may also be found in the link above</p>		

9. **CITY'S RESPONSES AND ADDENDA:** The City, at its discretion, may respond to any or all questions submitted in writing via the City's eBidding web site in the **form of an addendum**. No other responses to questions, oral or written shall be of any force or effect with respect to this solicitation. The changes to the Contract Documents through addenda are made effective as though originally issued with the Bid. The Bidders shall acknowledge the receipt of Addenda at the time of bid submission.

10. **CITY'S RIGHTS RESERVED:** The City reserves the right to cancel the Notice Inviting Bids at any time, and further reserves the right to reject submitted Bids, without giving any reason for such action, at its sole discretion and without liability. Costs incurred by the Bidder(s) as a result of preparing Bids under the Notice Inviting Bids shall be the sole responsibility of each bidder. The Notice Inviting Bids creates or imposes no obligation upon the City to enter a contract.

11. **CONTRACT PRICING:** This solicitation is for a Lump Sum contract with Unit Price provisions as set forth herein. The Bidder agrees to perform construction services for the City of San Diego in accordance with these contract documents for the prices listed below. The Bidder further agrees to guarantee the Contract Price for a period of 120 days from the date of Bid opening. The duration of the Contract Price guarantee may be extended, by mutual consent of the parties, by the number of days required for the City to obtain all items necessary to fulfill all contractual conditions.

12. **SUBCONTRACTOR INFORMATION:**
 - 12.1. **LISTING OF SUBCONTRACTORS.** In accordance with the requirements provided in the "Subletting and Subcontracting Fair Practices Act" of the California Public Contract Code, the Bidder shall provide the **NAME** and **ADDRESS** of each Subcontractor who will perform work, labor, render services or who specially fabricates and installs a portion [type] of the work or improvement, in an amount in excess of 0.5% of the Contractor's total Bid. The Bidder shall also state within the description, whether the subcontractor is a **CONSTRUCTOR**, **CONSULTANT** or **SUPPLIER**. The Bidder shall state the **DIR REGISTRATION NUMBER** for all subcontractors and shall further state within the description, the **PORITION** of the work which will be performed by each subcontractor under this Contract. The Contractor shall list only one Subcontractor for each portion of the Work. The **DOLLAR VALUE** of the total Bid to be performed shall be stated for all subcontractors listed. Failure to comply with this requirement may result in the Bid being rejected as **non-responsive** and ineligible for award. The

Bidder's attention is directed to the Special Provisions – Section 3-2, “SELF-PERFORMANCE”, which stipulates the percent of the Work to be performed with the Bidders' own forces. The Bidder shall list all SLBE, ELBE, DBE, DVBE, MBE, WBE, OBE, SDB, WoSB, HUBZone, and SDVOSB Subcontractors for which Bidders are seeking recognition towards achieving any mandatory, voluntary (or both) subcontracting participation goals.

Additionally, pursuant to California Senate Bill 96 and in accordance with the requirements of Labor Code sections 1771.1 and 1725.5, by submitting a bid or proposal to the City, Contractor is certifying that he or she has verified that all subcontractors used on this public work project are registered with the California Department of Industrial Relations (DIR). **The Bidder shall provide the name, address, license number, DIR registration number of any Subcontractor – regardless of tier** - who will perform work, labor, render services or specially fabricate and install a portion [type] of the work or improvement pursuant to the contract.

12.2. LISTING OF SUPPLIERS. Any Bidder seeking the recognition of Suppliers of equipment, materials, or supplies obtained from third party Suppliers towards achieving any mandatory or voluntary (or both) subcontracting participation goals shall provide, at a minimum, the **NAME, LOCATION (CITY), DIR REGISTRATION NUMBER** and the **DOLLAR VALUE** of each supplier. The Bidder will be credited up to 60% of the amount to be paid to the Suppliers for materials and supplies unless vendor manufactures or substantially alters materials and supplies, in which case, 100% will be credited. The Bidder is to indicate within the description whether the listed firm is a supplier or manufacturer. If no indication is provided, the listed firm will be credited at 60% of the listed dollar value for purposes of calculating the Subcontractor Participation Percentage.

12.3. LISTING OF SUBCONTRACTORS OR SUPPLIERS FOR ALTERNATES. For subcontractors or suppliers to be used on additive or deductive alternate items, in addition to the above requirements, bidder shall further note “ALTERNATE” and alternate item number within the description.

13. SUBMITTAL OF “OR EQUAL” ITEMS: See Section 4-6, “Trade Names” in The WHITEBOOK and as amended in the SSP.

14. AWARD:

14.1. The Award of this contract is contingent upon the Contractor's compliance with all conditions precedent to Award.

14.2. Upon acceptance of a Bid, the City will prepare contract documents for execution within approximately 21 days of the date of the Bid opening and award the Contract approximately within 7 days of receipt of properly executed Contract, bonds, and insurance documents.

- 14.3.** This contract will be deemed executed and effective only upon the signing of the Contract by the Mayor or his designee and approval as to form the City Attorney's Office.
- 15. SUBCONTRACT LIMITATIONS:** The Bidder's attention is directed to Standard Specifications for Public Works Construction, Section 3-2, "SELF-PERFORMANCE" in The GREENBOOK and as amended in the SSP which requires the Contractor to self-perform not less than the specified amount. Failure to comply with this requirement shall render the bid **non-responsive** and ineligible for award.
- 16. AVAILABILITY OF PLANS AND SPECIFICATIONS:** Contract Documents may be obtained by visiting the City's website: <http://www.sandiego.gov/cip/>. Plans and Specifications for this contract are also available for review in the office of the City Clerk or Public Works Contracts.
- 17. ONLY ONE BID PER CONTRACTOR SHALL BE ACCEPTED:** No person, firm, or corporation shall be allowed to make, file, or be interested in more than one (1) Bid for the same work unless alternate Bids are called for. A person, firm or corporation who has submitted a sub-proposal to a Bidder, or who has quoted prices on materials to a Bidder, is not hereby disqualified from submitting a sub-proposal or quoting prices to other Bidders or from submitting a Bid in its own behalf. Any Bidder who submits more than one bid will result in the rejection of all bids submitted.
- 18. SAN DIEGO BUSINESS TAX CERTIFICATE:** The Contractor and Subcontractors, not already having a City of San Diego Business Tax Certificate for the work contemplated shall secure the appropriate certificate from the City Treasurer, Civic Center Plaza, First floor and submit to the Contract Specialist upon request or as specified in the Contract Documents. Tax Identification numbers for both the Bidder and the listed Subcontractors must be submitted on the City provided forms within these documents.
- 19. BIDDER'S GUARANTEE OF GOOD FAITH (BID SECURITY) FOR DESIGN-BID-BUILD CONTRACTS:**
- 19.1.** For bids \$250,000 and above, bidders shall submit Bid Security at bid time. Bid Security shall be in one of the following forms: a cashier's check, or a properly certified check upon some responsible bank; or an approved corporate surety bond payable to the City of San Diego for an amount of not less than 10% of the total bid amount.
- 19.2.** This check or bond, and the monies represented thereby, will be held by the City as a guarantee that the Bidder, if awarded the contract, will in good faith enter into the contract and furnish the required final performance and payment bonds.
- 19.3.** The Bidder agrees that in the event of the Bidder's failure to execute this contract and provide the required final bonds, the money represented by the cashier's or certified check will remain the property of the City; and the Surety agrees that it will pay to the

City the damages, not exceeding the sum of 10% of the amount of the Bid, that the City may suffer as a result of such failure.

- 19.4. At the time of bid submission, bidders must upload and submit an electronic PDF copy of the aforementioned bid security. Whether in the form of a cashier's check, a properly certified check or an approved corporate surety bond payable to the City of San Diego, the bid security must be uploaded to the City's eBidding system. Within twenty-four (24) hours after the bid due date and time, the first five (5) apparent low bidders must provide the City with the original bid security.
- 19.5. Failure to submit the electronic version of the bid security at the time of bid submission AND failure to provide the original within twenty-four (24) hours may cause the bid to be rejected and deemed **non-responsive**.

20. AWARD OF CONTRACT OR REJECTION OF BIDS:

- 20.1. This contract may be awarded to the lowest responsible and reliable Bidder.
- 20.2. Bidders shall complete ALL eBid forms as required by this solicitation. Incomplete eBids will not be accepted.
- 20.3. The City reserves the right to reject any or all Bids, to waive any informality or technicality in Bids received, and to waive any requirements of these specifications as to bidding procedure.
- 20.4. Bidders will not be released on account of their errors of judgment. Bidders may be released only upon receipt by the City within 3 Working Days of the bid opening, written notice from the Bidder which shows proof of honest, credible, clerical error of a material nature, free from fraud or fraudulent intent; and of evidence that reasonable care was observed in the preparation of the Bid.
- 20.5. A bidder who is not selected for contract award may protest the award of a contract to another bidder by submitting a written protest in accordance with the San Diego Municipal Code.
- 20.6. The City of San Diego will not discriminate in the award of contracts with regard to race, religion creed, color, national origin, ancestry, physical handicap, marital status, sex or age.
- 20.7. Each Bid package properly signed as required by these specifications shall constitute a firm offer which may be accepted by the City within the time specified herein.
- 20.8. The City reserves the right to evaluate all Bids and determine the lowest Bidder on the basis of the base bid and any proposed alternates or options as detailed herein.

21. BID RESULTS:

- 21.1.** The availability of the bids on the City's eBidding system shall constitute the public announcement of the apparent low bidder. In the event that the apparent low bidder is subsequently deemed non-responsive or non-responsible, a notation of such will be made on the eBidding system. The new ranking and apparent low bidder will be adjusted accordingly.
- 21.2.** To obtain the bid results, view the results on the City's web site, or request the results by U.S. mail and provide a self-addressed, stamped envelope. If requesting by mail, be sure to reference the bid name and number. The bid tabulations will be mailed to you upon their completion. The results will not be given over the telephone.

22. THE CONTRACT:

- 22.1.** The Bidder to whom award is made shall execute a written contract with the City of San Diego and furnish good and approved bonds and insurance certificates specified by the City within 14 days after receipt by Bidder of a form of contract for execution unless an extension of time is granted to the Bidder in writing.
- 22.2.** If the Bidder takes longer than 14 days to fulfill these requirements, then the additional time taken shall be added to the Bid guarantee. The Contract shall be made in the form adopted by the City, which includes the provision that no claim or suit whatsoever shall be made or brought by Contractor against any officer, agent, or employee of the City for or on account of anything done or omitted to be done in connection with this contract, nor shall any such officer, agent, or employee be liable hereunder.
- 22.3.** If the Bidder to whom the award is made fails to enter into the contract as herein provided, the award may be annulled and the Bidder's Guarantee of Good Faith will be subject to forfeiture. An award may be made to the next lowest responsible and reliable Bidder who shall fulfill every stipulation embraced herein as if it were the party to whom the first award was made.
- 22.4.** Pursuant to the San Diego City Charter section 94, the City may only award a public works contract to the lowest responsible and reliable Bidder. The City will require the Apparent Low Bidder to (i) submit information to determine the Bidder's responsibility and reliability, (ii) execute the Contract in form provided by the City, and (iii) furnish good and approved bonds and insurance certificates specified by the City within 14 Days, unless otherwise approved by the City, in writing after the Bidder receives notification from the City, designating the Bidder as the Apparent Low Bidder and formally requesting the above mentioned items.

- 22.5.** The award of the Contract is contingent upon the satisfactory completion of the above-mentioned items and becomes effective upon the signing of the Contract by the Mayor or designee and approval as to form by the City Attorney's Office. If the Apparent Low Bidder does not execute the Contract or submit required documents and information, the City may award the Contract to the next lowest responsible and reliable Bidder who shall fulfill every condition precedent to award. A corporation designated as the Apparent Low Bidder shall furnish evidence of its corporate existence and evidence that the officer signing the Contract and bond for the corporation is duly authorized to do so.
- 23. EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE OF WORK:** The Bidder shall examine carefully the Project Site, the Plans and Specifications, other materials as described in the Special Provisions, Section 3-9, "TECHNICAL STUDIES AND SUBSURFACE DATA", and the proposal forms (e.g., Bidding Documents). The submission of a Bid shall be conclusive evidence that the Bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and scope of Work, the quantities of materials to be furnished, and as to the requirements of the Bidding Documents Proposal, Plans, and Specifications.
- 24. CITY STANDARD PROVISIONS:** This contract is subject to the following standard provisions. See The WHITEBOOK for details.
- 24.1.** The City of San Diego Resolution No. R-277952 adopted on May 20, 1991 for a Drug-Free Workplace.
- 24.2.** The City of San Diego Resolution No. R-282153 adopted on June 14, 1993 related to the Americans with Disabilities Act.
- 24.3.** The City of San Diego Municipal Code §22.3004 for Contractor Standards.
- 24.4.** The City of San Diego's Labor Compliance Program and the State of California Labor Code §§1771.5(b) and 1776.
- 24.5.** Sections 1777.5, 1777.6, and 1777.7 of the State of California Labor Code concerning the employment of apprentices by contractors and subcontractors performing public works contracts.
- 24.6.** The City's Equal Benefits Ordinance (EBO), Chapter 2, Article 2, Division 43 of The San Diego Municipal Code (SDMC).
- 24.7.** The City's Information Security Policy (ISP) as defined in the City's Administrative Regulation 90.63.
- 25. PRE-AWARD ACTIVITIES:**
- 25.1.** The contractor selected by the City to execute a contract for this Work shall submit the required documentation as specified in the herein and in the Notice of Award. Failure

to provide the information as specified may result in the Bid being rejected as **non-responsive**.

- 25.2.** The decision that bid is non-responsive for failure to provide the information required within the time specified shall be at the sole discretion of the City.

PERFORMANCE BOND, LABOR AND MATERIALMEN'S BOND

FAITHFUL PERFORMANCE BOND AND LABOR AND MATERIALMEN'S BOND:

_____, a corporation, as principal, and
_____, a corporation authorized to do
business in the State of California, as Surety, hereby obligate themselves, their successors and assigns,
jointly and severally, to The City of San Diego a municipal corporation in the sum of
_____ for the faithful performance of the
annexed contract, and in the sum of _____ for the benefit
of laborers and materialmen designated below.

Conditions:

If the Principal shall faithfully perform the annexed contract with the City of San Diego, California, then the obligation herein with respect to a faithful performance shall be void; otherwise it shall remain in full force.

If the Principal shall promptly pay all persons, firms and corporations furnishing materials for or performing labor in the execution of this contract, and shall pay all amounts due under the California Unemployment Insurance Act then the obligation herein with respect to laborers and materialmen shall be void; otherwise it shall remain in full force.

The obligation herein with respect to laborers and materialmen shall inure to the benefit of all persons, firms and corporations entitled to file claims under the provisions of Article 2. Claimants, (iii) public works of improvement commencing with Civil Code Section 9100 of the Civil Code of the State of California.

Changes in the terms of the annexed contract or specifications accompanying same or referred to therein shall not affect the Surety's obligation on this bond, and the Surety hereby waives notice of same.

PERFORMANCE BOND, LABOR AND MATERIALMEN'S BOND (continued)

The Surety shall pay reasonable attorney's fees should suit be brought to enforce the provisions of this bond.

Dated _____

Approved as to Form

Principal

By _____

Printed Name of Person Signing for Principal

Mara W. Elliott, City Attorney

By _____
Deputy City Attorney

Surety

By _____
Attorney-in-fact

Approved:

Local Address of Surety

By _____
Mayor or Designee

Local Address (City, State) of Surety

Local Telephone No. of Surety

Premium \$ _____

Bond No. _____

ATTACHMENTS

ATTACHMENT A
SCOPE OF WORK

SCOPE OF WORK

1. **SCOPE OF WORK:** The project includes the demolition and removal of an existing parking lot and surrounding sidewalk areas to create a new park for the north park community. Improvements include new pedestrian access from the public right of way, new public park / plaza with various enhanced paving area, an enhanced stage, entry monument wall, musical play areas, wayfind gateway pylons, pergolas, enhanced furnishings including; gate/tables, chairs, benches, trash/recycling receptacles, enhanced lighting, bike racks, drinking fountain, tree grates/pots, bio-retention area, dry stream bed, landscape planting and irrigation and many additional items.

1.1. ADDITIVE BID ALTERNATE #1: PERGOLA 1

Bid Alternate includes all construction and materials associated with Pergola 1, including foundations, structural and decorative steel framework and screens, and lighting specific to the Pergola. See following sheets for all associated work:

LC-01, LC-02, LC-06, LC-12, A-01, A-02, S-2.1, S-3.1, S-3.2, E-01, E-02, E-04

1.2. ADDITIVE BID ALTERNATE #2: PERGOLA 2

Bid Alternate includes all construction and materials associated with Pergola 2, including foundations, structural and decorative steel framework and screens, and lighting specific to the Pergola. See following sheets for all associated work:

LC-01, LC-02, LC-06, A-03, A-04, S-2.2, S-3.3, E-01, E-02, E-04

1.3. ADDITIVE BID ALTERNATE #3: PERGOLA 3

Bid Alternate includes all construction and materials associated with Pergola 3, including foundations, structural and decorative steel framework and screens, and lighting specific to the Pergola. See following sheets for all associated work:

LC-01, LC-02, LC-06, LC-15, LC-16, LC-17, A-05, A-06, S-2.3, S-3.3, E-01, E-02, E-04

1.4. ADDITIVE BID ALTERNATE #4: WAYFINDING PYLON 1

Bid Alternate includes all construction and materials associated with Wayfinding Pylon 1, including foundations, structural and decorative elements, and lighting specific to the Pylon. See following sheets for all associated work:

LC-01, LC-02, LC-18, S-3.3, E-02, E-04

1.5. ADDITIVE BID ALTERNATE #5: WAYFINDING PYLON 2

Bid Alternate includes all construction and materials associated with Wayfinding Pylon 1, including foundations, structural and decorative elements, and lighting specific to the Pylon. See following sheets for all associated work:

LC-01, LC-02, LC-18, S-3.3, E-02, E-04

1.6. ADDITIVE BID ALTERNATE #6: SECURITY CAMERA

Bid Alternate includes all construction and materials associated with Security Cameras, including attachment, electrical, and meter specific to the cameras. See following sheets for all associated work:

E-02, E-04

1.7. The Work shall be performed in accordance with:

1.7.1. The Notice Inviting Bids and Plans numbered **40295-01-D** through **40295-72-D**, inclusive.

2. LOCATION OF WORK: The location of the Work is as follows:

See **Appendix E, Location Map.**

3. CONTRACT TIME: The Contract Time for completion of the Work, including the Plant Establishment Period and Walk-through and Punchlist procedures, shall be **264 Working Days.**

ATTACHMENT B

RESERVED

ATTACHMENT C

RESERVED

ATTACHMENT D
PREVAILING WAGE

PREVAILING WAGE

1. **PREVAILING WAGE RATES:** Pursuant to San Diego Municipal Code section 22.3019, construction, alteration, demolition, repair and maintenance work performed under this Contract is subject to State prevailing wage laws. For construction work performed under this Contract cumulatively exceeding \$25,000 and for alteration, demolition, repair and maintenance work performed under this Contract cumulatively exceeding \$15,000, the Contractor and its subcontractors shall comply with State prevailing wage laws including, but not limited to, the requirements listed below.
 - 1.1. **Compliance with Prevailing Wage Requirements.** Pursuant to sections 1720 through 1861 of the California Labor Code, the Contractor and its subcontractors shall ensure that all workers who perform work under this Contract are paid not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations (DIR). This includes work performed during the design and preconstruction phases of construction including, but not limited to, inspection and land surveying work.
 - 1.1.1. Copies of such prevailing rate of per diem wages are on file at the City and are available for inspection to any interested party on request. Copies of the prevailing rate of per diem wages also may be found at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Contractor and its subcontractors shall post a copy of the prevailing rate of per diem wages determination at each job site and shall make them available to any interested party upon request.
 - 1.1.2. The wage rates determined by the DIR refer to expiration dates. If the published wage rate does not refer to a predetermined wage rate to be paid after the expiration date, then the published rate of wage shall be in effect for the life of this Contract. If the published wage rate refers to a predetermined wage rate to become effective upon expiration of the published wage rate and the predetermined wage rate is on file with the DIR, such predetermined wage rate shall become effective on the date following the expiration date and shall apply to this Contract in the same manner as if it had been published in said publication. If the predetermined wage rate refers to one or more additional expiration dates with additional predetermined wage rates, which expiration dates occur during the life of this Contract, each successive predetermined wage rate shall apply to this Contract on the date following the expiration date of the previous wage rate. If the last of such predetermined wage rates expires during the life of this Contract, such wage rate shall apply to the balance of the Contract.
 - 1.2. **Penalties for Violations.** Contractor and its subcontractors shall comply with California Labor Code section 1775 in the event a worker is paid less than the prevailing wage rate for the work or craft in which the worker is employed. This shall be in addition to any other applicable penalties allowed under Labor Code sections 1720 – 1861.

- 1.3. Payroll Records.** Contractor and its subcontractors shall comply with California Labor Code section 1776, which generally requires keeping accurate payroll records, verifying and certifying payroll records, and making them available for inspection. Contractor shall require its subcontractors to also comply with section 1776. Contractor and its subcontractors shall submit weekly certified payroll records online via the City's web-based Labor Compliance Program. Contractor is responsible for ensuring its subcontractors submit certified payroll records to the City.
- 1.3.1.** Contractor and their subcontractors shall also furnish records specified in Labor Code section 1776 directly to the Labor Commissioner in the manner required by Labor Code section 1771.4.
- 1.4. Apprentices.** Contractor and its subcontractors shall comply with California Labor Code sections 1777.5, 1777.6 and 1777.7 concerning the employment and wages of apprentices. Contractor is held responsible for the compliance of their subcontractors with sections 1777.5, 1777.6 and 1777.7.
- 1.5. Working Hours.** Contractor and their subcontractors shall comply with California Labor Code sections 1810 through 1815, including but not limited to: (i) restrict working hours on public works contracts to eight hours a day and forty hours a week, unless all hours worked in excess of 8 hours per day are compensated at not less than 1½ times the basic rate of pay; and (ii) specify penalties to be imposed on contractors and subcontractors of \$25 per worker per day for each day the worker works more than 8 hours per day and 40 hours per week in violation of California Labor Code sections 1810 through 1815.
- 1.6. Required Provisions for Subcontracts.** Contractor shall include at a minimum a copy of the following provisions in any contract they enter into with a subcontractor: California Labor Code sections 1771, 1771.1, 1775, 1776, 1777.5, 1810, 1813, 1815, 1860 and 1861.
- 1.7. Labor Code Section 1861 Certification.** Contractor in accordance with California Labor Code section 3700 is required to secure the payment of compensation of its employees and by signing this Contract, Contractor certifies that "I am aware of the provisions of Section 3700 of the California 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."
- 1.8. Labor Compliance Program.** The City has its own Labor Compliance Program authorized in August 2011 by the DIR. The City will withhold contract payments when payroll records are delinquent or deemed inadequate by the City or other governmental entity, or it has been established after an investigation by the City or other governmental entity that underpayment(s) have occurred. For questions or assistance, please contact the City of San Diego's Prevailing Wage Unit at 858-627-3200.

- 1.9. Contractor and Subcontractor Registration Requirements.** This project is subject to compliance monitoring and enforcement by the DIR. A contractor or subcontractor shall not be qualified to bid on, be listed in a bid or 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 Labor Code section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.
- 1.9.1.** A Contractor's inadvertent error in listing a subcontractor who is not registered pursuant to Labor Code section 1725.5 in response to a solicitation shall not be grounds for filing a bid protest or grounds for considering the bid non-responsive provided that any of the following apply: (1) the subcontractor is registered prior to bid opening; (2) within twenty-four hours after the bid opening, the subcontractor is registered and has paid the penalty registration fee specified in Labor Code section 1725.5; or (3) the subcontractor is replaced by another registered subcontractor pursuant to Public Contract Code section 4107.
- 1.9.2.** By submitting a bid or proposal to the City, Contractor is certifying that he or she has verified that all subcontractors used on this public work project are registered with the DIR in compliance with Labor Code sections 1771.1 and 1725.5, and Contractor shall provide proof of registration for themselves and all listed subcontractors to the City at the time of bid or proposal due date or upon request.
- 1.10. Stop Order.** For Contractor or its subcontractors engaging in the performance of any public work contract without having been registered in violation of Labor Code sections 1725.5 or 1771.1, the Labor Commissioner shall issue and serve a stop order prohibiting the use of the unregistered contractors or unregistered subcontractor(s) on ALL public works until the unregistered contractor or unregistered subcontractor(s) is registered. Failure to observe a stop order is a misdemeanor.
- 1.11. List of all Subcontractors.** The Contractor shall provide the list of subcontractors (regardless of tier), along with their DIR registration numbers, utilized on this Contract prior to any work being performed; and the Contractor shall provide a complete list of all subcontractors with each invoice. Additionally, Contractor shall provide the City with a complete list of all subcontractors (regardless of tier) utilized on this contract within ten working days of the completion of the contract, along with their DIR registration numbers. The City shall withhold final payment to Construction Management Professional until at least thirty (30) days after this information is provided to the City.
- 1.12. Exemptions for Small Projects.** There are limited exemptions for installation, alteration, demolition, or repair work done on projects of \$25,000 or less. The Contractor shall still comply with Labor Code sections 1720 et. seq. The only recognized exemptions are listed below:

- 1.12.1.** Registration. The Contractor will not be required to register with the DIR for small projects. (Labor Code section 1771.1).
- 1.12.2.** Certified Payroll Records. The records required in Labor Code section 1776 shall be required to be kept and submitted to the City of San Diego, but will not be required to be submitted online with the DIR directly. The Contractor will need to keep those records for at least three years following the completion of the Contract. (Labor Code section 1771.4).
- 1.12.3.** List of all Subcontractors. The Contractor shall not be required to hire only registered subcontractors and is exempt from submitting the list of all subcontractors that is required in section 1.11 above. (Labor code section 1773.3).

ATTACHMENT E
SUPPLEMENTARY SPECIAL PROVISIONS

SUPPLEMENTARY SPECIAL PROVISIONS

The following Supplementary Special Provisions (SSP) modifies the following documents:

1. The **2018 Edition** of the Standard Specifications for Public Works Construction (The "GREENBOOK").
2. The **2018 Edition** of the City of San Diego Standard Specifications for Public Works Construction (The "WHITEBOOK"), including the following:
 - a) General Provisions (A) for all Construction Contracts.

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

- 1-2 TERMS AND DEFINITIONS.** To the "WHITEBOOK", item 54, "Normal Working Hours", ADD the following:

The **Normal Working Hours** are **7:00 AM** to **5:00 PM**.

To the "WHITEBOOK", item 43, DELETE in its entirety and SUBSTITUTE with the following:

43. **Field Order** - A Field Order is a written agreement by the Engineer to compensate you for Work items in accordance with 2-8, "EXTRA WORK" or 2-9, "CHANGED CONDITIONS". A Field Order does not change the Contract Price, Contract Time, or the scope intent of the Contract.

SECTION 2 - SCOPE OF THE WORK

- 2-2 PERMITS, FEES, AND NOTICES.** To the "WHITEBOOK", ADD the following:

2. The City will obtain, at no cost to you, the following permits:
 - a) Building Permit: Structural, Electrical, and grading

SECTION 3 – CONTROL OF THE WORK

- 3-2 SELF-PERFORMANCE.** To the "GREENBOOK", DELETE in its entirety and SUBSTITUTE with the following:

1. You shall perform, with your own organization, Contract Work amounting to at least 50% of the base Bid **AND** 50% of any alternates.

3-7.3.2 Asset Specific Red-lines. To the "WHITEBOOK", item 1, ADD the following:

- u) Dimensions for all installed remote control valve wire, flow sensor wire and master valve wire. Include number of spare wires at each location, and wire splice locations (if located other than inside remote control valve boxes and pull boxes).
- v) Dimensions for all new pressure line tie-in locations to existing mainline.

ADD:

3-8.8 Samples and Mock-ups. Contractor shall provide samples of the following materials in the quantities required for approval by the engineer. Materials shall be delivered 60 days minimum prior to their incorporation into the work.

1. Integral color concrete paving with integral color and both light sand and exposed aggregate finishes (4-ft. X 4-ft.) including sample expansion joints, and scoring lines. Contractor shall provide separate mock-ups for each color and finish specified on the plans.
2. Stabilized Decomposed Granite (4-ft. x 4-ft.).
3. Concrete Unit Pavers (4-ft. x 4-ft.).

ADD:

3-8.9 Specialty items. Contractor shall provide one (1) complete set of Specialty Item information electronically to the Resident Engineer for approval. It shall include manufacturer's data sheets, installation instructions and specifications, testing information, color, texture and finish samples for all the following specialty items:

1. Playground safety surface: poured-in-place rubber (P.I.P.)
2. Music Play Structures
3. Spinning Play Structure
4. Precast Concrete Furniture (including but not limited to monument sign letters, benches, tree rings, game tables and benches)
5. Site Furnishings (including, but not limited to, Drinking Fountain, Removable Bollards, Trash and Recycling Receptacles, Tree Grates, Bicycle Racks, Interpretive Signs, and Pet Waste Station)
6. Landscape Boulders
7. Steel Header
8. Photographs and nursery sources for all trees and shrubs
9. Photographs and nursery sources for all sod

3-9 TECHNICAL STUDIES AND SUBSURFACE DATA. To the "WHITEBOOK", ADD the following:

5. In preparation of the Contract Documents, the designer has relied upon the following reports of explorations and tests at the Work Site:
 - a) Geotechnical Report
6. The reports listed above are available for review. **See Appendix I - Geotechnical Report.**

3-10 SURVEYING. To the "GREENBOOK", DELETE in its entirety and SUBSTITUTE with the following:

3-10 SURVEYING.

1. You shall locate and mark all features related to the building and site, including landscaping and hardscape, using industry standard contractor's construction tools.
2. You shall preserve construction survey stakes, control points, and other survey related marks described in 3-10.1, "Survey Services Provided by the City" for the duration of the Project. If any construction survey stakes are lost or disturbed and need to be replaced, such replacement shall be performed by the City at your expense.
3. The Contractor shall perform and be responsible for the accuracy of the surveying adequate for construction. Stakes shall be set for curbs, headers, storm drains, structures, edge of concrete, paving, walkways, grades, limit of work and other staking as required to accurately locate, grade and construct the items of the contract. Cut or fill to finished grade (or flow line) shall be indicated on stakes and on a grade sheet. The Contractor shall dig all holes necessary for line and grade stakes. Surveying and staking shall be acceptable to the Resident Engineer.

3-10.1 Survey Services Provided by the City's Hired Survey Consultant.

1. The City's hired survey consultant will provide surveying services and on-site survey staking for the following:
 - a) Provide horizontal and vertical site control to complete construction staking work being provided.
 - b) Provide stakes for limits of construction and demolition limits.
 - c) Provide rough grade stakes.
 - d) Provide stakes for retention basins.
 - e) Provide stakes for monument sign.

- f) Provide finish grade and flatwork stakes including radius points.
 - g) Provide stakes for pergola supports and trash enclosure.
 - h) Provide stakes for lights
 - i) Provide stakes for trees (tree locations in the six (6) precast tree rings will serve as the center point for locating tree rings).
 - j) Provide stakes for street curb, tree grates, and pedestrian ramps.
 - k) Provide stage area stakes and radius point.
 - l) Provide stake for center of spinner play equipment.
 - m) Provide stake for center of wayfinding pylons.
 - n) Replace sidewalk monuments and file a post construction Corner Record per County requirements.
 - o) Provide office calculation necessary to support field survey crews including cut sheets.
 - p) Supervision and Coordination.
2. Notify the Resident Engineer in writing at least 2 Working Days prior to requesting survey services provided by the City's hired survey consultant.
 3. One (1) set of stakes for each of the improvements listed above shall be provided by the City's hired survey consultant. The Contractor shall preserve construction survey stakes and marks for the duration of their usefulness. If any construction survey stakes are lost or disturbed and need to be replaced, such replacement will be performed by the City's hired survey consultant at the expense of the Contractor.
 4. All surveying requiring a licensed surveyor shall be performed by the City's hired survey consultant.

3-10.2 Line and Grade.

1. The Work shall conform to the lines, elevations, and grades shown on the Plans. Three consecutive points set on the same slope shall be used together so that any variation from a straight grade can be detected. Any such variation shall be reported to the Engineer. In the absence of such report, you shall be responsible for any error in the grade of the Work.
2. Grades for underground conduits will be set at the surface of the ground. You shall transfer them to the bottom of the trench.

3-10.3 Payment.

1. The payment for survey services Work shall be included in the Contract Price.

3-13.3 **Warranty.** To the “WHITEBOOK”, item 1, DELETE in its entirety and SUBSTITUTE with the following:

1. You shall warranty and repair all defective materials and workmanship for a period of 1 year. This call back warranty period shall start on the date the Work was accepted by the City unless the City had beneficial use of the project (excluding water, sewer, and storm drain projects). In addition, you shall warranty the Work against all latent defects for a period of 10 years and patent defects for a period of 4 years.

ADD:

3-13.1.3 Site Observation Visits.

1. Observations herein specified shall be made by the Resident Engineer, Parks and Recreation Representative and Project Manager. The Contractor shall request site observations 48 hours minimum in advance of the time observation is required.
2. Site observations shall be required for the following parts of the work (completed portions of work shall be combined for single observation visit whenever possible):
 - a) Prior to commencing grading, a preconstruction conference should be held at the site with the Resident Engineer, grading contractor, civil engineer, and landscape architect in attendance.
 - b) Review of paving and site furnishing samples.
 - c) Review and tagging of trees.
 - d) Review and approval of layout of concrete formwork.
 - e) Review of site furnishing and monument subgrades, placement, and location of equipment and monument footings.
 - f) Review and approval of all proposed locations of sleeves, conduits, control wire routing, pressure supply line, manual and automatic control valves (manifold locations), pull boxes, automatic controller and sprinkler heads.
 - g) Review of operation of automatic irrigation valves, rain sensor and flow sensor.
 - h) Review of irrigation mainline, lateral line pressure tests.
 - i) Review of irrigation swing joint assembly installation.
 - j) Sprinkler coverage tests (provide automation from controller at time of test).
 - k) Review of playground safety surfacing wear-coat layer after placement and prior to being fully cured, when still able to be manipulated.

- l) Upon delivery of plant materials to the project site.
- m) When trees and shrubs are spotted in place for planting, but before planting holes are excavated. Where trees are proposed to be located within existing rotor irrigation zones, they must be spotted by the Landscape Architect according to providing sufficient distance from rotors.
- n) Incorporation of soil conditioner and fertilizer into the soil and upon completion of fine grading prior to planting.
- o) When all specified work, except the maintenance period has been completed. Acceptance and written approval of completed work shall establish the beginning of the maintenance and plant establishment period.
- p) At the completion of the maintenance and plant establishment period. This final site observation visit shall establish the beginning date for the plant material guarantee period.

3-15.3 Coordination. To the "WHITEBOOK", ADD the following:

- 2. Other adjacent City projects are scheduled for construction for the same time period in the vicinity of Utah Street, North Park Way, Granada Avenue, and 29th Street. See **Appendix F – Adjacent Projects Map** for the approximate location. Coordinate the Work with the adjacent projects as listed below:
 - a) North Park Mini Park Ped Improvements, Dan Nutter (619) 533-7492

SECTION 4 - CONTROL OF MATERIALS

4-3.6 Preapproved Materials. To the "WHITEBOOK", ADD the following:

- 3. You shall submit in writing a list of all products to be incorporated in the Work that are on the AML.

4-6 TRADE NAMES. To the "WHITEBOOK", ADD the following:

- 11. You shall submit your list of proposed substitutions for an "equal" item **no later than 5 Working Days after the determination of the Apparent Low Bidder** and on the City's Product Submittal Form available at:

<http://www.sandiego.gov/publicworks/edocref/index.shtml>

SECTION 5 – LEGAL RELATIONS AND RESPONSIBILITIES

5-4 **INSURANCE.** To the “GREENBOOK”, DELETE in its entirety and SUBSTITUTE with the following:

5-4 **INSURANCE.**

1. The insurance provisions herein shall not be construed to limit your indemnity obligations contained in the Contract.

5-4.1 **Policies and Procedures.**

1. You shall procure the insurance described below, at its sole cost and expense, to provide coverage against claims for loss including injuries to persons or damage to property, which may arise out of or in connection with the performance of the Work by you, your agents, representatives, officers, employees or Subcontractors.
2. Insurance coverage for property damage resulting from your operations is on a replacement cost valuation. The market value will not be accepted.
3. You shall maintain this insurance for the duration of this Contract and at all times thereafter when you are correcting, removing, or replacing Work in accordance with this Contract. Your liabilities under the Contract, e.g., your indemnity obligations, is not deemed limited to the insurance coverage required by this Contract.
4. The payment for insurance shall be included in the Contract Price as bid by you. Except as specifically agreed to by the City in writing, you are not entitled to any additional payment. Do not begin any Work under this Contract until you have provided and the City has approved all required insurance.
5. Policies of insurance shall provide that the City is entitled to 30 Days (10 Days for cancellation due to non-payment of premium) prior written notice of cancellation or non-renewal of the policy. Maintenance of specified insurance coverage is a material element of the Contract. Your failure to maintain or renew coverage or to provide evidence of renewal during the term of the Contract may be treated by the City as a material breach of the Contract.

5-4.2 **Types of Insurance.**

5-4.2.1 **Commercial General Liability Insurance.**

1. Commercial General Liability Insurance shall be written on the current version of the ISO Occurrence form CG 00 01 07 98 or an equivalent form providing coverage at least as broad.

2. The policy shall cover liability arising from premises and operations, XCU (explosions, underground, and collapse), independent contractors, products/completed operations, personal injury and advertising injury, bodily injury, property damage, and liability assumed under an insured's contract (including the tort liability of another assumed in a business contract).
3. There shall be no endorsement or modification limiting the scope of coverage for either "insured vs. insured" claims or contractual liability. You shall maintain the same or equivalent insurance for at least 10 years following completion of the Work.
4. All costs of defense shall be outside the policy limits. Policy coverage shall be in liability limits of not less than the following:

<u>General Annual Aggregate Limit</u>	<u>Limits of Liability</u>
Other than Products/Completed Operations	\$2,000,000
Products/Completed Operations Aggregate Limit	\$2,000,000
Personal Injury Limit	\$1,000,000
Each Occurrence	\$1,000,000

5-4.2.2 Commercial Automobile Liability Insurance.

1. You shall provide a policy or policies of Commercial Automobile Liability Insurance written on the current version of the ISO form CA 00 01 12 90 or later version or equivalent form providing coverage at least as broad in the amount of \$1,000,000 combined single limit per accident, covering bodily injury and property damage for owned, non-owned, and hired automobiles ("Any Auto").
2. All costs of defense shall be outside the limits of the policy.

5-4.2.5 Contractors Builders Risk Property Insurance.

1. You shall provide at your expense, and maintain until Final Acceptance of the Work, a Special Form Builders Risk Policy or Policies. This insurance shall be in an amount equal to the replacement cost of the completed Work (without deduction for depreciation) including the cost of excavations, grading, and filling. The policy or policies limits shall be 100% of this Contract value of the Work plus 15% to cover administrative costs, design costs, and the costs of inspections and construction management.
2. Insured property shall include material or portions of the Work located away from the Site but intended for use at the Site and shall cover material or portions of the Work in transit. The policy or policies shall include as insured property scaffolding, falsework, and temporary buildings located at the Site. The policy or policies shall cover the cost of removing debris, including demolition.
3. The policy or policies shall provide that all proceeds thereunder shall be payable to the City as Trustee for the insured, and shall name the City, the Contractor,

Subcontractors, and Suppliers of all tiers as named insured. The City, as Trustee, will collect, adjust, and receive all monies which may become due and payable under the policy or policies, may compromise any and all claims thereunder, and will apply the proceeds of such insurance to the repair, reconstruction, or replacement of the Work.

4. Any deductible applicable to the insurance shall be identified in the policy or policies documents and responsibility for paying the part of any loss not covered because of the application of such deductibles shall be apportioned among the parties except for the City as follows: if there is more than one claimant for a single occurrence, then each claimant shall pay a pro-rata share of the per occurrence deductible based upon the percentage of their paid claim to the total paid for insured. The City shall be entitled to 100% of its loss. You shall pay the City any portion of that loss not covered because of a deductible at the same time the proceeds of the insurance are paid to the City as trustee.
5. Any insured, other than the City, making claim to which a deductible applies shall be responsible for 100% of the loss not insured because of the deductible. Except as provided for under California law, the policy or policies shall provide that the City is entitled to 30 Days prior written notice (10 Days for cancellation due to non-payment of premium) of cancellation or non-renewal of the policy or policies.

5-4.3 Rating Requirements. Except for the State Compensation Insurance Fund, all insurance required by this Contract as described herein shall be carried only by responsible insurance companies with a rating of, or equivalent to, at least "A-, VI" by A.M. Best Company, that are authorized by the California Insurance Commissioner to do business in the State, and that have been approved by the City.

5-4.3.1 Non-Admitted Carriers. The City will accept insurance provided by non-admitted, "surplus lines" carriers only if the carrier is authorized to do business in the State and is included on the List of Approved Surplus Lines Insurers (LASLI list).

All policies of insurance carried by non-admitted carriers shall be subject to all of the requirements for policies of insurance provided by admitted carriers described herein.

5-4.4 Evidence of Insurance. Furnish to the City documents e.g., certificates of insurance and endorsements evidencing the insurance required herein, and furnish renewal documentation prior to expiration of this insurance. Each required document shall be signed by the insurer or a person authorized by the insurer to bind coverage on its behalf. We reserve the right to require complete, certified copies of all insurance policies required herein.

5-4.5 Policy Endorsements.

5-4.5.1 Commercial General Liability Insurance.

5-4.5.1.1 Additional Insured.

1. You shall provide at your expense policy endorsement written on the current version of the ISO Occurrence form CG 20 10 11 85 or an equivalent form providing coverage at least as broad.
2. To the fullest extent allowed by law e.g., California Insurance Code §11580.04, the policy shall be endorsed to include the City and its respective elected officials, officers, employees, agents, and representatives as additional insured.
3. The additional insured coverage for projects for which the Engineer's Estimate is \$1,000,000 or more shall include liability arising out of:
 - a) Ongoing operations performed by you or on your behalf,
 - b) your products,
 - c) your Work, e.g., your completed operations performed by you or on your behalf, or
 - d) premises owned, leased, controlled, or used by you.
4. The additional insured coverage for projects for which the Engineer's Estimate is less than \$1,000,000 shall include liability arising out of:
 - a) Ongoing operations performed by you or on your behalf,
 - b) your products, or
 - c) premises owned, leased, controlled, or used by you.

5-4.5.1.2 Primary and Non-Contributory Coverage. The policy shall be endorsed to provide that the coverage with respect to operations, including the completed operations, if appropriate, of the Named Insured is primary to any insurance or self-insurance of the City and its elected officials, officers, employees, agents and representatives. Further, it shall provide that any insurance maintained by the City and its elected officials, officers, employees, agents and representatives shall be in excess of your insurance and shall not contribute to it.

5-4.5.1.3 Project General Aggregate Limit. The policy or policies shall be endorsed to provide a Designated Construction Project General Aggregate Limit that will apply only to the Work. Only claims payments which arise from the Work shall reduce the Designated Construction Project General Aggregate Limit. The Designated Construction Project General Aggregate Limit shall be in addition to the aggregate limit provided for the products-completed operations hazard.

5-4.5.2 Commercial Automobile Liability Insurance.

5-4.5.2.1 Additional Insured. Unless the policy or policies of Commercial Auto Liability Insurance are written on an ISO form CA 00 01 12 90 or a later version of this form or equivalent form providing coverage at least as broad, the policy shall be endorsed to include the City and its respective elected officials, officers, employees, agents, and representatives as additional insured, with respect to liability arising out of automobiles owned, leased, hired or borrowed by you or on your behalf. This endorsement is limited to the obligations permitted by California Insurance Code §11580.04.

5-4.5.5 Builders Risk Endorsements.

5-4.5.5.1 Waiver of Subrogation. The policy or policies shall be endorsed to provide that the insurer will waive all rights of subrogation against the City, and its respective elected officials, officers, employees, agents, and representatives for losses paid under the terms of the policy or policies and which arise from Work performed by the Named Insured for the City.

5-4.5.5.2 Builders Risk – Partial Utilization. If the City desires to occupy or use a portion or portions of the Work prior to Acceptance in accordance with this Contract, the City will notify you and you shall immediately notify your Builder's Risk insurer and obtain an endorsement that the policy or policies shall not be cancelled or lapse on account of any such partial use or occupancy. You shall obtain the endorsement prior to the City's occupation and use.

5-4.6 Deductibles and Self-Insured Retentions. You shall pay for all deductibles and self-insured retentions. You shall disclose deductibles and self-insured retentions to the City at the time the evidence of insurance is provided.

5-4.7 Reservation of Rights. The City reserves the right, from time to time, to review your insurance coverage, limits, deductibles and self-insured retentions to determine if they are acceptable to the City. The City will reimburse you, without overhead, profit, or any other markup, for the cost of additional premium for any coverage requested by the Engineer but not required by this Contract.

5-4.8 Notice of Changes to Insurance. You shall notify the City 30 Days prior to any material change to the policies of insurance provided under this Contract.

5-4.9 Excess Insurance. Policies providing excess coverage shall follow the form of the primary policy or policies e.g., all endorsements.

5-4.10 Architects and Engineers Professional Insurance (Errors and Omissions Insurance).

1. For Contracts with required engineering services (e.g., Design-Build, preparation of engineered Traffic Control Plans (TCP), and etc) by you, you shall keep or require all of your employees or Subcontractors, who provide professional engineering services under this contract, Professional Liability coverage with a limit of **\$1,000,000** per claim and **\$2,000,000** annual aggregate in full force and effect.
2. You shall ensure the following:
 - a) The policy retroactive date is on or before the date of commencement of the Project.
 - b) The policy will be maintained in force for a period of 3 years after completion of the Project or termination of this Contract, whichever occurs last. You agree that for the time period specified above, there will be no changes or endorsements to the policy that affect the specified coverage.
3. If professional engineering services are to be provided solely by the Subcontractor, you shall:
 - a) Certify this to the City in writing and
 - b) Agree in writing to require the Subcontractor to procure Professional Liability coverage in accordance with the requirements set forth above.

5-4.11 Workers' Compensation Insurance and Employers Liability Insurance.

1. In accordance with the provisions of §3700 of the California Labor Code, you shall provide at your expense Workers' Compensation Insurance and Employers Liability Insurance to protect you against all claims under applicable state workers compensation laws. The City, its elected officials, and employees will not be responsible for any claims in law or equity occasioned by your failure to comply with the requirements of this section.
2. Limits for this insurance shall be not less than the following:

<u>Workers' Compensation</u>	<u>Statutory Employers Liability</u>
Bodily Injury by Accident	\$1,000,000 each accident
Bodily Injury by Disease	\$1,000,000 each employee
Bodily Injury by Disease	\$1,000,000 policy limit

3. By signing and returning the Contract you certify that you are aware of the provisions of §3700 of the Labor Code which requires every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code and you shall comply with such provisions before commencing the Work as required by §1861 of the California Labor Code.

5-4.11.1. Waiver of Subrogation. The policy or policies shall be endorsed to provide that the insurer will waive all rights of subrogation against the City and its respective elected officials, officers, employees, agents, and representatives for losses paid under the terms of the policy or policies and which arise from Work performed by the Named Insured for the City.

5-13 ELECTRONIC COMMUNICATION. To the "WHITEBOOK", ADD the following:

2. Virtual Project Manager shall be used on this Contract. For more information, refer to the VPM training videos at the location below:

<https://www.sandiego.gov/publicworks/edocref>

SECTION 6 – PROSECUTION AND PROGRESS OF THE WORK

6-1.1 Construction Schedule. To the "WHITEBOOK", item 1, subsection "s", DELETE in its entirety and SUBSTITUTE with the following:

- s) Submit an updated cash flow forecast with every pay request (for each Project ID or WBS number provided in the Contract) showing periodic and cumulative construction billing amounts for the duration of the Contract Time. If there has been any Extra Work since the last update, include only the approved amounts.
 - i. Refer to the Sample City Invoice materials in **Appendix D – Sample City Invoice with Cashflow Forecast** and use the format shown.
 - ii. See also the "Cashflow Forecast Example" at the location below:

<https://www.sandiego.gov/publicworks/edocref>

To the "WHITEBOOK", ADD the following:

3. The **90 Calendar Day** Plant Establishment Period is included in the stipulated Contract Time and shall begin with the acceptance of installation of the vegetation plan in accordance with Section 801-6, "MAINTENANCE AND PLANT ESTABLISHMENT".

6-1.5.2 Excusable Non-Compensable Delays. To the "WHITEBOOK", DELETE in its entirety and SUBSTITUTE with the following:

6-1.5.2 Excusable Non-Compensable and Concurrent Delays.

1. The City shall only issue an extension of time for Excusable Delays that meet the requirements of 6-4.2, "Extensions of Time" for the following circumstances:
 - a) Delays resulting from Force Majeure.
 - b) Delays caused by weather.
 - c) Delays caused by changes to County, State, or Federal law.
2. When a non-excusable delay is concurrent with an Excusable Delay, you shall not be entitled to an extension of Contract Time for the period the non-excusable delay is concurrent with the Excusable Delay.
3. When an Excusable Non-Compensable Delay is concurrent with an Excusable Compensable Delay, you shall be entitled to an extension of Contract Time, but shall not be entitled to compensation for the period the Excusable Non-Compensable Delay is concurrent with the Excusable Compensable Delay.

6-4.2 Extensions of Time. To the "WHITEBOOK", DELETE in its entirety and SUBSTITUTE with the following:

1. The Contract Time shall not be modified except by Change Order.
2. You shall notify the City in writing within **1 Working Day** after the occurrence and discovery of an event that impacts the Project Schedule.
 - a) If you believe this event requires a Change Order, you shall submit a **written Change Order request with a report to** the City that explains the request for Change Order within **5 Working Days**. The Change Order request must include supporting data, a general description of the discovery, the basis for extension, and the estimated length of extension. The City may grant an extension of time, in writing, for the Change Order request if you require more time to gather and analyze data.
3. The Engineer shall not grant an extension of Contract Time in accordance with 6-1.5, "Excusable Delays" unless you demonstrate, through an analysis of the critical path, the following:
 - a) The event causing the delay impacted the activities along the Project's critical path.
 - b) The increases in the time to perform all or part of the Project beyond the Contract Time arose from unforeseeable causes beyond your

control and without your fault or negligence and that all project float has been used.

4. Any modifications to the Contract Time will be incorporated into the weekly document that the Engineer issues that stipulates the Contract Time. If you do not agree with this document, submit to the Engineer for review a written protest supporting your objections to the document within **30 Calendar Days** after receipt of the statement. Your failure to file a timely protest shall constitute your acceptance of the Engineer's weekly document.
 - a) Your protest will be considered a claim for time extension and shall be subject to 2-10.1, "Claims".

ADD:

6-6.1.1

Environmental Document.

1. The City of San Diego has prepared a **Notice of Exemption** for **North Park Mini Park**, Project No. **S-10050** (283124), as referenced in the Contract Appendix. You shall comply with all requirements of the **Notice of Exemption** as set forth in **Appendix A**.
2. Compliance with the City's environmental document shall be included in the Contract Price.

6-6.4

Written Notice and Report. To the "WHITEBOOK", DELETE in its entirety and SUBSTITUTE with the following:

1. Your failure to notify the Resident Engineer within **1 Working Day** OR provide a Change Order request within **5 Working Days** after the event, in accordance with 6-4.2, "Extensions of Time", will be considered grounds for refusal by the City to consider such request if your failure to notify prejudices the City in responding to the event.

SECTION 7 – MEASUREMENT AND PAYMENT

7-3.1

General. To the "WHITEBOOK" ADD the following:

3. The Lump Sum Bid item for "**Construction of Park Improvements**" shall include the payment for demolition and removal of an existing parking lot and surrounding sidewalk areas to create a new park for the north park community, payment for improvements including new pedestrian access from the public right of way, new public park / plaza with various enhanced paving area, an enhanced stage, entry monument wall, musical play areas, wayfind gateway pylons, pergolas, enhanced furnishings including; gate/tables, chairs, benches, trash/recycling receptacles, enhanced lighting, bike racks, drinking fountain, tree grates/pots, bio-retention area, dry stream bed, landscape planting and irrigation and all other items specified in the Plans, Supplementary Special Provisions, and other Contract Documents.

4. The Additive Alternate 1 Bid item for **"Pergola 1"** shall include all construction and materials associated with pergola 1, including foundations, structural and decorative steel framework and screens, and lighting specific to the pergola. see following sheets for all associated work: LC-01, LC-02, LC-06, LC-12, A-01, A-02, S-2.1, S-3.1, S-3.2, E-01, E-02, E-04.
5. The Additive Alternate 2 Bid item for **"Pergola 2"** shall include all construction and materials associated with pergola 2, including foundations, structural and decorative steel framework and screens, and lighting specific to the pergola. See following sheets for all associated work: LC-01, LC-02, LC-06, A-03, A-04, S-2.2, S-3.3, E-01, E-02, E-04.
6. The Additive Alternate 3 Bid item for **"Pergola 3"** shall include all construction and materials associated with pergola 3, including foundations, structural and decorative steel framework and screens, and lighting specific to the pergola. See following sheets for all associated work: LC-01, LC-02, LC-06, LC-15, LC-16, LC-17, A-05, A-06, S-2.3, S-3.3, E-01, E-02, E-04.
7. The Additive Alternate 4 Bid item for **"Wayfinding Pylon 1"** shall include all construction and materials associated with wayfinding pylon 1, including foundations, structural and decorative elements, and lighting specific to the pylon. See following sheets for all associated work: LC-01, LC-02, LC-18, S-3.3, E-02, E-04.
8. The Additive Alternate 5 Bid item for **"Wayfinding Pylon 2"** shall include all construction and materials associated with wayfinding pylon 1, including foundations, structural and decorative elements, and lighting specific to the pylon. See following sheets for all associated work: LC-01, LC-02, LC-18, S-3.3, E-02, E-04
9. The Additive Alternate 6 Bid item for **"Security Cameras"** shall include all construction and materials associated with security cameras, including attachment, electrical, and meter specific to the cameras. See following sheets for all associated work: E-02, E-04.

7-3.2 Partial and Final Payment. To the "GREENBOOK", paragraph (3), DELETE in its entirety and SUBSTITUTE with the following:

Upon commencement of the Work, an escrow account shall be established in a financial institution chosen by you and approved by the City. Documentation for an escrow payment shall have an escrow agreement signed by you, the City, and the escrow agent. From each progress payment, no less than 5% will be deducted and deposited by the City into the escrow account. Upon completion of the Contract, the City will notify the Escrow agent in writing to release the funds to you. Only the designated representative of the City shall sign the request for the release of Escrow funds.

7-3.9

Field Orders. To the "WHITEBOOK", DELETE in its entirety and SUBSTITUTE with the following:

1. If the cumulative total of Field Order items of Work does not exceed the "Field Orders" Bid Item, the City shall pay those Field Orders as shown below:

TABLE 7-3.9

FIELD ORDER LIMITS

Contract Price	Maximum Field Order Work Amount
Less than \$100,001	\$2,500
\$100,001 to \$1,000,000	\$5,000
\$1,000,001 to \$5,000,000	\$10,000
\$5,000,001 to \$15,000,000	\$20,000
\$15,000,001 to \$30,000,000	\$40,000
Greater than \$30,000,000	\$50,000

2. Field Order items of Work for contracts greater than \$15,000,000 will require additional approvals from the City prior to its approval by the Resident Engineer.
3. The City will issue a Field Order only after the City's acceptance of the cost of the field order amount.
4. Field Orders shall not be used to add scope or to include extensions of time related to changes in work.
5. If in the event there is a change related to the critical path on the project which necessitates an extension of time and the change amount is within the Field Order limits shown on Table 7-3.9, then a Field Order can be issued to compensate you for the approved costs. Any extensions of time associated with the change shall be included in a subsequent Change Order and no additional compensation shall be granted as part of the change order for the extension of time.
6. The unused portions of Field Orders Bid item shall revert to the City upon Acceptance.

7-3.11

Compensation Adjustments for Price Index Fluctuations. To the "WHITEBOOK" ADD the following:

5. This Contract is not subject to the provisions of The "WHITEBOOK" for Compensation Adjustments for Price Index Fluctuations for paving asphalt.

SECTION 200 – ROCK MATERIALS

200-2.1 **General.** To the “WHITEBOOK”, ADD the following:

3. Base material for concrete paving, sidewalks, walkways, and ramps shall be Class 2 Aggregate base and shall conform to 3/4" Class 2 aggregate base, per Whitebook section 200-2.9 “Class 2 Aggregate Base.” Installation per section 301-2.

200-2.7.1 **General.** To the “GREENBOOK”, ADD the following:

1. Decomposed granite shall be 4” depth stabilized ‘Graphite Gray Fines’ by Southwest Boulder and Stone, or approved equal. Soil stabilizer shall be TechniSoil by Southwest Boulder and Stone, or approved equal.

ADD:

200-2.7.4 **Stabilized Decomposed Granite.**

Stabilized Decomposed Granite shall comply with table 200-2.7.2 unless otherwise stated. Stabilized Decomposed Granite shall be:

Product: Graphite Gray Fines DG (Stabilized)

Manufacturer: Southwest Boulder and Stone, or approved equal

Nominal Size: 3/8” minus

Gradation:	<u>Size</u>	<u>Percent Passing</u>
	3/8”	100
	No. 4	96
	No. 8	90
	No. 16	79
	No. 30	64
	No. 50	41
	No. 100	24
	No. 200	14

*Allowed percent passing tolerance per screen size shall be 3% for approved equivalents.

Sand Equivalent: 23

Maximum Density: 122.0 lbs/ft³

Optimum Moisture: 8.0%

Thickness: As indicated on the plans.

Sample: 1 cup bag, See section 200-1.1

Stabilized Decomposed Granite surfacing shall be compacted to 95% minimum. The Contractor shall provide product data and testing information to confirm that material contains the binder materials at the rates recommended by the manufacturer.

A maintenance program as defined by the product manufacturer shall be implemented to maintain the original specifications of the constructed path as required by CBC 1101B.3. The maintenance program shall address the weather and wear and tear related maintenance practices.

ADD:

200-2.7.5

Stabilized Binding Agent for Stabilized Decomposed Granite. Binding Agent for Stabilized Decomposed Granite shall be a commercially produced, non-toxic organic binder agent and shall be colorless, odorless, concentrated powder that naturally binds decomposed granite. Stabilizer shall be thoroughly pre-blended with the decomposed granite at the manufacturing facility. Water shall activate stabilizing binding agent.

SECTION 201 - CONCRETE, MORTAR AND RELATED MATERIALS

201-1.1.2

Concrete Specified by Class and Alternate Class. To the "WHITEBOOK", ADD the following:

The Type of Construction, Concrete Class, and Maximum Slump for the various sub-items of concrete work shall be as specified in Table 201-1.1.2 of the Standard Specifications with the following additions or modifications:

<u>Type of Construction</u>	<u>Concrete Class</u>	<u>Max. Slump (With Certified Truck Ticket)</u>
Concrete Paving (not integral with curb)	560-C-3250	4-inch
Concrete Sidewalk and Curb	560-C-3250	4-inch
Concrete Street Section	560-C-3250	4-inch
Concrete Mow Curb	560-C-3250	4-inch
CIP Concrete Block Seating	560-C-3250	4-inch
Concrete Footings	560-C-3250	4-inch
Concrete Base	520-C-2500	4-inch

201-1.2.4 Chemical Admixtures. To the "GREENBOOK", subsection "a", Water Reducing, Set-Retarding, and Hydration Stabilizing Admixtures, ADD the following:

Integral Colored Concrete.

Admixture for all integral colored concrete shall be the following:

Admixture: Davis Color (Mix-Ready bags), or approved equal

Manufacturer: Davis Colors, or approved equal

1-800-356-4848

www.daviscolors.com

Color/ Finish: Standard Concrete Walkway: Color per plans with light sand or exposed aggregate finish per plans and section 201-1.2.8.

Color/ Finish: 8" Concrete Mow Curb: Color natural gray with light sand finish per section 201-1.2.8.

Sealer: Per SSP section 201-1.2.7

Minimum Standards: ASTM C 494

ASTM C 979

AASHTO M 194

CRD C 87.

Prior to construction, provide concrete sample panel per 3-8.8, Samples and Mock-ups for all above color/finishes above for approval by Resident Engineer with coordination by the Landscape Architect.

Integral color shall consist of colored admixtures developed for use in ready mixed concrete. The product shall be made of the highest quality synthetic pigments, as well as other ingredients designed to enhance the color and improve the pigment dispersion, workability and finishing performance of the concrete.

Colored admixture shall be water-reducing, set controlling for horizontal or vertical architectural concrete that are compatible with a variety of finishes (broom finishes, sandblast finishes, smooth finishes.) Pigment shall be a permanent coloration, uniform throughout the concrete surface and interior, and shall be highly UV and fade resistant.

Admixture products and procedures for installation shall be in strict accordance with the manufacturer's specifications and recommendations, and those published by the American Concrete Institute (ACI) and the Portland Cement Association (PCA).

ADD:

201-1.2.7

Concrete Sealers.

Concrete Sealer shall conform to the following specifications:

Product: Davis Color Seal II with integral tint to match color Color TBD, or approved equal

Manufacturer: Davis Colors, or approved equal

1-800-356-4848

www.daviscolors.com

When to Apply: After concrete has FULLY cured, ~ 28 days.

Surface Preparation: Power wash clean of compounds, oil, and debris. Allow surfaces to DRY completely.

Spray Applicator Guidelines: Airless Spray: 1500-2500 psi with 0.013-0.015 inch fan tip.

HVLP Spray: 5-40 psi with 1.3-1.5mm tip.

Dried Color: Semi-gloss semi-transparent

Coating: Uniform

Coverage: 300 Sq. Ft/Gal. for rough concrete; 400 Sq. Ft/Gal. for smooth concrete

VOC Content: Meet ASTM C 309 Requirements <100g/L (0.82./gal.)

Second Coat: Per manufacturer recommendations.

Drying Time: Min. 24 hrs. foot traffic

Temperature: Apply above 45°F, Store from 45°F - 120°F

Shelf Life: 1 Year

Concrete Sealer shall be designed for application on interior/ exterior natural concrete and integral colored concrete of variable architectural finishes. Sealer shall be suitable for freshly placed (CIP or PIP) or existing concrete with little to no alteration of concrete color. When dry, sealed surface shall resist staining from other construction materials and common food products. Sealer shall be slip resistant.

A brushed, rolled or sprayed method of application shall leave the finish surface with adequate wet and dry slip resistance. The method of application shall be approved by the Landscape Architect or Resident Engineer.

Sealer shall leave no visible material between the concrete surface and sealer. The sealer shall be absorbed and locked into the pores surfaces and installed per manufacturer's directions.

Contractor shall prepare concrete paving surfaces per Davis Color Seal II product specifications or approved equal.

Contractor shall apply sealer Davis Color Seal II per product specifications or approved equal.

Sealer shall be applied to half of all concrete mock ups 28 days after curing time for review of performance and adherence to finishes.

ADD:
201-1.2.8

Surface Retarder.

For exposed aggregate concrete, the retardant shall be a water-based, top-surface retarder available in 11 depths of etch. Product shall be ideal for poured-in-place flatwork with etch selections ranging from simulated light acid wash or sand blast finish to full exposure of 1-1/4" aggregate. Surface retarder shall comply with the following specifications:

- Product: Top-Cast, or approved equal.
- Manufacturer: Dayton Superior, or approved equal
1-877-2663-7732
www.daytonsuperior.com
- Etch Depth: Sandblast Finish - 05 Light Blue; Exposed Aggregate Finish – 15 Yellow
- Surface Preparation: Protect surrounding features not to receive etching solution. Protect during application and removal.
- When to Apply: Apply uniformly to wet concrete after the evaporation of initial bleed water.
- Spray Applicator: Low-pressure sprayer (plastic)
- Precautions: Protective clothing, gloves, and eye protection. Use with adequate ventilation.
- Coating: Thoroughly mix prior to application. Apply uniform coating over entire concrete surface until a complete hiding coat is applied. Do not apply too sparingly.
- Pigment: Product is pigmented for visibility of application.
- When to Remove: Varies based on concrete mix, site conditions, finishing technique. As early as 4 hours, up to 16 hours; Fast-setting concrete mixes or warmer weather, especially for lightest etches, wash away same day for best results. Early conditions- wash away with hose and brush. Normally wash away the next day using pressure washer and or brush. Do not wait too long to remove Top Cast as concrete will eventually harden.
- Coverage: 200-300 Sq. Ft/Gal.
- Clean-up: Water

VOC Content: Meet ASTM C 309 Requirements < 100g/L (0.82./gal.)

Drying Time: 1-2 hours after application

Shelf Life: 5 gallon size unopened, 2 Years from manufacture date. Discard opened product.

Test Panels: Provide test panel using accepted concrete matrix and similar project conditions.

ADD:

201-2.4.5 Tie Wire. Tie wire shall be 16 gauge, black annealed.

ADD:

201-2.4.6 Reinforcing Supports. All horizontal reinforcing shall be supported on approved chairs or supports to the specified height and locations.

201-3.4 Type "A" Sealant (Two-Part Polyurethane Sealant). To the "GREENBOOK", ADD the following:

1. Contractor shall submit product data from the manufacturer of each joint sealant product required, including instructions for joint preparation and joint sealer application. Contractor shall also submit samples for initial selection purposes in form of manufacturer's standard bead samples, consisting of strips of actual products showing full range of colors available, for each product exposed to view. Samples shall be submitted to Resident Engineer. Submit complete schedule of type (and location where type is to be used) of each sealant.
2. Provide joint sealants, joint fillers, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.
3. Provide color selections made by Engineer from manufacturer's full range of standard colors for products of type indicated. Sealant color parallel to curb line shall match color of adjacent paving.
4. **FINISH.** Finish joint material flush with concrete surface.

201-4.1.1 General. To the "GREENBOOK", ADD the following:

1. **CURING COMPOUND SEALER.** Curing compound shall be approved by color additive manufacturer for use with colored concrete. Crystal Rez or approved equal is acceptable for natural gray concrete.

SECTION 206 – MISCELLANEOUS METAL ITEMS

ADD:

206-8

ACCESSIBLE SIGNAGE.

206-8.1

General. Signs shall be fabricated in conformance with the SDM-117 standards for signs. Signs shall be fabricated in conformance with the City of San Diego standards for signs. In the event there SDM-117 does not illustrate sign mounting details, refer to City of San Diego Standard Drawing M-45 for installation. Signs shall include:

- a) Accessible Parking Sign
- b) Tow Away Sign

SECTION 209 – PRESSURE PIPE

209-1.1.1

General. To the “WHITEBOOK”, ADD the following:

- 2. PVC products, specifically type C900 and C905, as manufactured or distributed by J-M Manufacturing Company or JM Eagle shall not be used on the Contract for pressurized pipe.
- 3. Refer to AWWA C900-16 for all references to AWWA C905.

SECTION 210 – PAINT AND PROTECTIVE COATINGS

210-1.5

Paint Systems. To the “GREENBOOK”, DELETE Primer listed and Finish Coat listed for Galvanized Metal in Table 210-1.5 and SUBSTITUTE with the following:

Paint System for Pergolas and Trash Enclosure:

Primer: Epoxy Primer conforming with MPI #101. Sherman Williams Dura-Plate 235, or approved equal.

Finish Coats: 2 coats of Epoxy Paint conforming with MPI #108. Gloss Level 5. Sherwin Williams Macropoxy 646, or approved equal. Final color selection per plans and Architect approval.

Paint System for Wayfinding Pylons:

Primer: Epoxy Primer – Matthews 274 530SP/White with Matthews 274529SP Hardener, or approved equal.

Finish Coats: Acrylic Polyurathane – Matthes Satin VOC MAP SV 202SP, or approved equal. Final color selections per plans and Architect approval.

Graffiti Coating for Pergolas, Trash Enclosure, and Wayfinding Pylon:

Anti-Graffiti Coating shall be as manufactured by Monopole, Inc. Materials, or approved equal, shall be field applied to the trash enclosures, pergolas, and wayfinding pylons.

Graffiti coatings shall be applied as specified below and per manufacturer's specifications for coverage:

1st Coat: Aquaseal ME12 (Item 5200 (for unpainted porous surfaces)

2nd Coat: Permashield Base (Item 6100)

3rd Coat: Permashiel Premium (Item 5600 for matte finish)

4th Coat: Permashield Premium (Item 5600 for matte finish)

Final finish selection per Architect approval.

SECTION 212 - WATER AND SEWER SYSTEM VALVES AND APPURTENANCES

ADD:

212-13.1 Submersible Pump.

212-13.1.1 General. Contractor shall furnish all labor, materials, equipment and incidentals required to provide one submersible centrifugal sewage ejector pump as specified herein. The pump to be furnished shall be model SK75 as manufactured by Hydromatic Pumps or approved equal.

DESIGN CONDITIONS: Each pump shall be rated $\frac{3}{4}$ HP, 230 volts, 1 phase, and operate at 1750 RPM. The pump shall deliver 120 GPM at 17' TDH and handle 2 inch solids. The curve submitted for approval shall state, in addition to head and capacity performance, solid handling, amp rating, and design impeller diameter.

CONSTRUCTION: Each pump shall be sealed submersible type, incorporating features including:

1. The pump volute, motor, and seal housing shall be high quality gray cast iron, ASTM A-48, Class 30.
2. The pump inlet shall be open and clear, without screening to provide access for storm water and solids.
3. All external mating parts shall be machined and Buna N, O-ring sealed.
4. All fasteners exposed to the pumped liquid shall be 300 series stainless steel.
5. All power cords shall be water resistant UL or CSA approved, with double insulation and sized as a function of Amp draw.

MOTOR AND SHAFT: The stator, rotor, and bearings shall be mounted in a sealed submersible type housing. Single phase motors shall be split phase or capacitor start with centrifugal switch. Full load and locked rotor amps as well as Start and Run winding resistance shall be tabulated for each pump.

BEARINGS, SHAFT AND MECHANICAL SEAL: An upper bushing bearing and lower thrust bearing shall be required. The upper bearing shall be brass while the lower bearing is a single row ball. They are both permanently and continuously lubricated and cooled by dielectric oil which fills the motor housing. The motor shaft shall be stainless steel and sealed from the pumped liquid with a carbon ceramic mechanical seal.

IMPELLER: The impeller shall be high capacity, two vane, non-clog design with pump out vanes on the back side. These vanes wash out grit and stringy material that damage the shaft and mechanical seal.

AUTOMATIC CONTROL: All single phase pumps should be capable of automatic operation. A Super or Double wide angle piggy-back float switch shall be use to operate pumps.

PAINTING: All cast iron parts shall be painted before assembly with a water reducible alkyd air dried enamel. The paint shall be applied in one coat with a minimum thickness of 3 to 4 mils. Alternative coatings shall comply with Section 212-12 of the Greenbook.

TESTING: All pumps shall be individually tested to include the following:

1. The pump and power chord shall be visually inspected for imperfections, cuts or nicks.
2. The pump shall have a ground continuity check and the motor chamber shall be Hi-potted to test for moisture content and/or insulation defects.
3. The motor and volute housing shall be pressurized and a 10 second air leak decay test run.
4. Oil is added, and the pump is run. Voltage and current are monitored visually, electronically, and the tester listens for any noise or malfunction.

212-13.2 Control Panel And Enclosure.

212-13.2.1 General. The control panel shall be a 112 series panel as manufactured by SJE-Rhombus or approved equal.

The motor control panel shall be assembled and tested by a controls system manufacturer (SJE-Rhombus or pre-approved equal) meeting the Standards of UL 508A for industrial controls and be UL labeled and serialized accordingly. The motor control panel shall be assembled and tested by the manufacturer so as to insure suitability in matching controls to motors and to insure single source responsibility for the equipment. The panel shall contain all components required by the pump manufacturer for starting and protecting the motor as well as features required by the

pump manufacturer for warranty of the pumps. Items such as thermal overload detection or seal failure detection shall be included when required.

Incoming pump power shall be single-phase, 60 Hz, 120/208/240 volts AC.

Incoming control/alarm power shall be single-phase, 60 Hz, 120 volts AC.

The control panel shall incorporate three (3) normally open, mercury or mechanically-activated control switches with pipe clamps. Floats shall be labeled in the panel as stop, start, and alarm. Floats shall be SJE-Rhombus control switches or approved equal.

212-13.2.2 Construction. The controls for the pump shall be housed in an engineered thermoplastic enclosure meeting NEMA 4X requirements with a hinged door and neoprene gasket. The enclosure shall have provisions for a padlock.

A nameplate shall be permanently affixed to the panel. A ratings label shall include the model number, voltage, phase, frequency, ampere rating and horsepower rating and shall be affixed to the inside of the enclosure. A warning label against electric shock shall be permanently affixed to the outer door. The interior of the enclosure shall have a clear envelope with "as built" schematics located within.

A removable aluminum back plate shall be provided for mounting all circuit breakers, motor starters, etc. All components mounted to the back plate shall be secured by type 25, self-tapping screws in extruded holes. Rivets shall not be acceptable for securing any component to the backplate.

A simplex pump controller shall be provided for control logic. The controller shall utilize a printed circuit board to avoid conventional wiring. The printed circuit board of the pump controller shall be manufactured using UL listed materials. There shall be separately fused control and alarm circuit protection. A run light and hand-off-auto switch shall be provided for the pump circuit. The run light and hand-off-auto switch shall be mounted on the printed circuit board. The run light shall be green.

A circuit breaker shall be used as branch circuit protection for the pump. The circuit breaker shall be thermal magnetic and sized to meet NEC requirements for interrupt capacity and amp rating.

The magnetic motor starter shall be general purpose type rated for the pump horsepower and include a contactor with a minimum mechanical life of 500,000 operations and a minimum contact life of 100,000 operations. Pump overloads, if not included in the pump, shall provide overload protection for the pump circuit and shall be sized to meet NEC requirements for the pump full load ampere rating specified.

A high-level alarm condition shall activate the main alarm light (red, mounted on the top of the panel) and alarm horn. The alarm light shall remain illuminated until the problem is corrected. The alarm horn shall be rated 83-85 dB minimum. A Test-Normal-Silence toggle switch labeled and placed adjacent to the horn, shall be included.

Wire ties shall be used to maintain panel wiring in neat bundles for maintenance and to prevent interference with operating devices. All grounding conductors shall be securely connected to assure a proper ground.

212-13.3 Sump Pit.

212-13.3.1 General. The sump pit shall be adequately sized to house the submersible pump and its appurtenances with a grate to allow storm water access to the bottom of the pit. The pit insert shall be heavy duty and non corrosive.

The sump pit that will fit the specified pump is the SF30PR Sewage Basin manufactured by Jackel, Inc. The sump pit is made of injection molded high density structural foam. The unit is 18 inches in diameter and 30 inches deep with a capacity of 30 gallons. The cover shall be a drainage cover allowing water to pass through and capable of supporting a minimum of 1000 pounds.

SECTION 218 – DETECTABLE WARNING TILES (DWT)

218-1 General. To the "WHITEBOOK", ADD the following:

2. Detectable warning surfaces shall be in conformance with CBC Section 1133B.8.5. Color shall be yellow for detectable warning surface shall conform to Color 33538 per Federal Standard No. 595B. CBC Sections 1133B.8.5 and 1121 B.3.1, Item 8(a). Provide a minimum of 5-year warranty per DSA Bulletin 10/31/2002, revised 04/09/2008.

SECTION 300 – EARTHWORK

ADD:

1. It shall be the sole responsibility of the Contractor to provide adequate equipment and methods to accomplish the work in accordance with applicable grading codes or agency ordinances, these specifications and the approved grading plans. If, in the opinion of the Resident Engineer, unsatisfactory conditions such as questionable soil materials, poor moisture condition, inadequate compaction, and/or adverse weather result in a quality of work not in conformance with these specifications, the work will be rejected and grading shall be stopped until the unacceptable conditions are corrected.

300-1.1 General. To the "WHITEBOOK", ADD the following:

10. Clearing and grubbing shall consist of clearing natural ground surfaces of all trees, shrubs, vegetation and objectionable materials within the limits of construction in accordance with the provisions of Section 300-1, "Clearing and Grubbing," of the Standard Specifications and in accordance with the plans with these Special Provisions and as directed by the Resident Engineer.

11. Clearing shall consist of complete removal above the ground surface of trees, stumps, brush, vegetation, man-made structures, and similar debris. Grubbing shall consist of removal of stumps, roots, buried logs and other unsuitable material and shall be performed in areas to be graded. Roots and other projections exceeding 1½ inches in diameter shall be removed to a depth of 3 feet below the surface of the ground. Borrow areas shall be grubbed to the extent necessary to provide suitable fill materials.
12. Clearing and grubbing shall also include the removal and disposal of all miscellaneous concrete, pavement, pipes, hardware, timber, rubble or any other objectionable material encountered beneath the ground surface as a result of grading or trenching operations connected with the construction of the project improvements.
13. Clearing and grubbing shall also include the removal, relocation, adjusting, or salvaging of all facilities so indicated on the plans. In addition to the above items, clearing and grubbing shall include, but not limited to the following items as shown on the plans or specified in these Special Provisions:
 - a) Deleterious materials resulting from clearing and grubbing operations shall be hauled away and disposed of at a site obtained by the Contractor.
 - b) Provide continuous pedestrian and driveway access adjacent to the project area, and as directed by the Resident Engineer.
 - c) Minor grading for swales and drainage control.
 - d) Sawcutting of concrete at joints and construction limits and the removal and disposal of concrete and base.
 - e) Protection of existing and relocated utility structures prior to and during construction of proposed improvements.
 - f) Removal and disposal of pipe, ditches, protection posts, guardrail, inlets, trees, stairways, and any additional items not specifically mentioned which may be found within the work limits.
 - g) Furnishing and applying water during construction.
 - h) Maintenance of project appearance.
 - i) Control of water and dewatering during construction.
 - j) Clean-up of project upon completion of work.
 - k) Adjustment to grade of miscellaneous items such as drainage inlets, utility boxes, valves, manholes, pullboxes, interfering portions of storm drain pipes, posts.
14. The Contractor shall protect all existing structures or facilities which are adjacent to, or fall within, the limits of the work to be done under this contract in accordance with Part 4 and Section 300-1 of the 2018 Standard Specifications. This item shall also include those structures and facilities which

the plans show or these Specifications indicate to be protected. Any structure or facility to be protected which is damaged as a result of the Contractor shall be repaired or replaced at his cost, to the satisfaction of the Resident Engineer.

15. The Contractor shall remove and transport debris and rubbish in a manner that will prevent spillage on streets or adjacent areas. Clean-up of spillage will be at the Contractor's expense.
16. All material removed from the site shall be disposed of at the Contractor's expense at a site approved by the Resident Engineer.
17. Clearing and grubbing shall also include mobilization. Mobilization shall consist of preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, materials and incidentals to the project site necessary for work on the project and for all other work and operations which must be performed or costs incurred prior to beginning work on the various contract items on the project site.
18. Any asphalt pavement material removed during clearing operations should be properly disposed at an approved off-site facility. Concrete fragments which are free of reinforcing steel may be placed in fills, provided they are placed in accordance with these specifications.
19. Section 4216/4217 of the Government Code requires a Dig-Alert identification number be issued at least two (2) working days prior to a "Permit to Excavate" will be valid. For your Dig-Alert identification number, Contractor shall call the following Underground Service Alert, services, and utilities:

Underground Service Alert	1-800-422-4133
Police	(619) 424-0400
Streets	(619) 527-7500
Storm Drainage	(619) 235-1000
Water and Sewer	1-800-422-4133
San Diego Gas & Electric	(800) 411-7343
Cable T.V.	(619) 236-9251 ext. 5212

20. Grading should be performed in conjunction with the observation and compaction testing services of Geocon Incorporated. Fill soil should be observed on a full-time basis during placement and tested to check in-place dry density and moisture content.
21. Site preparation should begin with removal of all deleterious material and vegetation. The depth of removal should be such that material exposed in cut areas or soil to be used for fill is relatively free of organic matter. Deleterious

material generated during stripping and/or site demolition should be exported from the site.

22. Existing area drain pipes, and buried utility lines should be completely removed. All demolished material generated during removal should be exported from the site.

300-2.1 General. To the "GREENBOOK", ADD the following:

1. In general, the on-site soils are suitable for reuse as fill if free from vegetation, debris, and other deleterious matter.

300-2.9 Payment. To the "GREENBOOK", DELETE in its entirety and SUBSTITUTE with the following:

1. Unclassified Excavation shall include full compensation for furnishing all labor, materials, tools, equipment, and incidents, and for doing all the work involved in the excavation and embankments to achieve the subgrades and final grades as shown on the plans and as specified and as directed by the Resident Engineer.
2. Payment for Unclassified Excavation shall be included in the lump sum price and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in the excavation and embankments to achieve the subgrades and final grades as shown on the plans and as specified and as directed by the Resident Engineer.

300-4.1 General. To the "GREENBOOK", ADD the following:

1. The suitability of unclassified excavation as fill material shall be in accordance with the Geotechnical Report and prescribed recommendations found therein. Unclassified fill material shall be free of deleterious material.

ADD:

300-12 Finish Grading.

1. Finish grades shall be measured at the top surface of materials.
2. The Contractor shall take every precaution to protect and avoid damage to underground utilities during his grading and conditioning operations.
3. The Contractor shall coordinate all drainage work with all other trades. Established site drainage shall be maintained by the Contractor during all phases of landscape construction.
4. Final finish grades shall ensure positive drainage of the site with all surface drainage away from trails, buildings, play areas, walls, and toward, drainage facilities, and catch basins or water courses.

5. Final grades shall be acceptable to the Resident Engineer. Grading operations shall conform with the Geotechnical Report.

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

ADD:

301-1.2.1 Decomposed Granite Preparation and Compaction.

1. Subgrade and base under all D.G. shall be prepared and compacted to 95% relative compaction.
2. Minimum compaction for D.G. surfaces shall be 95% relative compaction.
3. Decomposed granite shall be placed to a minimum depth of 4" compacted.
4. The finish grade shall be even between the headers with no humps or depressions after the compaction. The Contractor shall provide compaction tests as required by the Resident Engineer.
5. Treat compacted subgrade with pre-emergent herbicide, as recommended by certified pest control advisor.
6. For each 2" lift, evenly spread the material over the area of concern. Grade and smooth as needed. Thoroughly water the entire area so that the entire depth of the material is moist. Roll the area with approximately 1000-3000 lbs. of weight. Allow the finished surface sufficient time to dry prior to use.

301-2.1 General. To the "GREENBOOK", ADD the following:

1. Class II Aggregate Base shall be installed per this Section 301-2.

301-2.4 Measurement and Payment. To the "GREENBOOK", ADD the following:

1. Payment for Class II Aggregate Base shall be at the contract unit price per cubic yard and shall be included in the overall project cost, and shall include full compensation for furnishing all labor, materials, equipment and incidentals necessary to perform the work as specified in the Standard Specifications, these Special Provisions and as directed by the City Engineer.

ADD:
301-7

STABILIZED DECOMPOSED GRANITE INSTALLATION. Install stabilized decomposed granite surfacing as follows:

1. Excavate material and compact sub-grade to the relative compaction rate indicated on the details and/or notes.
2. Apply two applications of pre-emergent herbicide (See Section 800-1.2.7). Apply once before and once following placement of the decomposed granite.
3. Pre-blend stabilized decomposed granite with Binding Agent per manufacturer's recommendations at the manufacturing facility. Blending may be done with a cement mixer, pug mill, or any similar piece of equipment to thoroughly and completely blend the stabilizer with the decomposed granite material. It is essential that the stabilizer be mixed thoroughly and uniformly through the decomposed granite. Proper mixing is a must for successful application.
4. Apply mixture in two inch lifts to a compacted depth as shown on the plans.
5. Grade and smooth stabilized decomposed granite.
6. Apply water until moisture penetrates to full depth of the stabilized decomposed granite. Water activates stabilizer, so it is essential that the full depth of the material receives water at this time. To allow water to penetrate, the stabilized decomposed granite should be applied in two lifts.
7. Upon thorough moisture penetration, compact each lift of the stabilized decomposed granite. Compaction shall be done with a vibrating roller. Finish grade shall be level with adjacent concrete grades.
8. Allow finished surface enough time to dry completely before use. Set up time varies, depending upon weather conditions. A hot, dry climate will set up sooner than a cooler, moist climate.
9. Make one additional pre-emergent application one week prior to substantial completion.

301-7.1 Measurement and Payment.

1. Stabilized Decomposed Granite Paving shall be measured by the total cubic yards and paid within the total lump sum project cost. Payment shall include: complete and in place installation, be full compensation for furnishing all material, delivery, placement, fees, labor, equipment, water, Class II base materials (if indicated on the detail), tools and incidentals required to complete the work specified. No additional compensation will be made therefore.

SECTION 303 - CONCRETE AND MASONRY CONSTRUCTION

303-1.1 General. To the "GREENBOOK", ADD the following:

1. This work shall consist of preparing the area on which the concrete work is to be placed, which may include preparation of sub-grade, removal of tree roots, and placement of base materials in accordance with these Specifications and as shown on the plans. The following types of miscellaneous concrete items are included:

- a) Concrete cleanouts
- b) Concrete Catch Basins

303-1.12 Payment. To the GREENBOOK, DELETE in its entirety and SUBSTITUTE with the following:

1. Payment for concrete structures shall be included in the total lump sum project price and shall include the complete structural section, reinforcing, subgrade preparation, compaction, form work , and all specified finishes, admixtures, sealants, etc. and no other payment allowed therefore.

303-4.1.5 Measurement and Payment. To the GREENBOOK, DELETE in its entirety and SUBSTITUTE with the following:

1. Payment for masonry construction shall be included in the total lump sum project price and shall include the complete structural footing section, reinforcing, subgrade preparation, compaction, formwork , and all specified finishes, admixtures, sealants, etc. and no other payment allowed therefore.

303-5.1.1 General. To the "WHITEBOOK", ADD the following:

7. This work shall consist of preparing the area on which the concrete work is to be placed, which may include preparation of sub-grade, removal of tree roots, and placement of base materials in accordance with these Specifications and as shown on the plans. The following types of miscellaneous concrete items are included:

- a) Standard Concrete Paving installed per section 303-5.5.3
- b) ADA Accessible Ramps installed per section 303-5.5.5.

303-5.5.3 Walk. To the GREENBOOK AND WHITEBOOK, DELETE all in its entirety and SUBSTITUTE with the following:

1. If the continuous sidewalk length equals a block or more, your name and the year in which the improvements is constructed shall be stamped therein to a depth of ¼ inch (6.4 mm) in letters not less than ¾ inch (19.1 mm) high, at a location determined by the Engineer.

2. You shall coordinate the root pruning activities in accordance with 801-6, "MAINTENANCE AND PLANT ESTABLISHMENT".
3. The forms shall be set to place the finish surface in a plane sloping from one edge of paving to the other edge a maximum of 1.5 percent right angle to the edge of paving.
4. Following placing, the concrete shall be screeded to the required grade, tamped to consolidate the concrete and to bring a thin layer of mortar to the surface, and floated to a smooth, flat, uniform surface. The concrete shall then be edged at all headers, given a preliminary troweling and provided with weakened plane joints.
5. Walk shall be steel troweled to a smooth and even finish. All formed edges shall be rounded to a radius of 1/4 inch. Edges at expansion joints shall be rounded to a radius of 1/8 inch. Preliminary troweling may be done with a long handled trowel or "Fresno", but the finish troweling, shall be done with a hand trowel. After final troweling, concrete paving shall receive 'sandblast finish' or 'exposed aggregate finish' where indicated on plans with Top-Cast surface retardent. Apply To-Cast per manufacturer' specifications, allow proper curing time per manufacturer, and remove and finish concrete surface per manufacturer's specifications.
6. Scoring lines, where required, shall have a minimum depth of 1/4 inch and sawcut. When longitudinal scoring lines are required, they shall be parallel to, or concentric with, the lines of the work. Walks 20 feet or more in width shall have a longitudinal center scoring line. In walk returns, one scoring line shall be made radially midway between the BCR and ECR. When directed by the Engineer, longitudinal and transverse scoring lines shall match the adjacent walk. The Contractor shall have sufficient metal bars, straightedges, and joint tools on the project.
7. Headers shall remain in place for at least 16 hours after completion of the walk but must be removed before the Work is accepted.
8. If the continuous sidewalk length equals a block or more, the name of the contractor, together with the year in which the improvements are constructed, shall be stamped therein to a depth of 1/4 inch in letters not less than 3/4 inch high, at a location determined by the Engineer. After final troweling all walk surfaces shall receive a uniform light broom finish with a stiff fiber broom perpendicular to the edge of the walk, verify direction with Resident Engineer. Upon final curing walk surface shall meet or exceed a static coefficient of friction of .6 wet and approximately .8 dry. Finished surface shall meet ADAAG 4.5 requirements for paving."

ADD:

- 303-5.5.6 Concrete Mow Curbs.** Concrete Mow Curbs shall be constructed as indicated on the plans. Concrete shall be 560-C-3250, cast in place using smooth forms set to provide the smooth radius curves as indicated on the plans. Reinforcing bar shall conform to section. Top surface of mow curb shall be 'sandblast finish' with troweled edge radii as indicated on the plans. Mow curbs shall be formed to provide smooth flowing curves free of kinks and irregularities. Mow curb height shall be set to be flush with the adjacent finished grade.

SECTION 306 – OPEN TRENCH CONDUIT CONSTRUCTION

- 306-7.8.2.1 General.** To the "WHITEBOOK", item 2, DELETE in its entirety and SUBSTITUTE with the following:

2. Pressure testing of pipe and fittings at the lowest elevation shall be performed at 150% of the specified test pressure and no less than 100% of the specified test pressure at the highest elevation.
 - a) Specified test pressure for Class 235 pipe shall be 150 psi and is tested at 225 psi.
 - b) Specified test pressure for Class 305 pipe shall be 200 psi and is tested at 300 psi.

ADD:

306-8.5.4 High Deflection Coupling.

1. High deflection couplings shall be constructed in accordance with the Plans and Reference Specifications. Working Drawings prepared by a Civil or Structural Engineer registered in the State of California shall be submitted in accordance with 3-8.2, "Working Drawings" for any proposed additional high deflection couplings not indicated on the Plans and Reference Specifications.

ADD:

310-5.6 Painting Wayfinding Pylons. (Additive Alternate Bid Item)

1. This section applies only to the Additive Alternate Wayfinding Pylons
2. Paints shall be of the type made for the surface material on which applied and recommended by manufacturer.
 - a) Identify each type and usage on Shop Drawings.
 - b) Include data describing method of application.
3. Products that will deface, discolor or delaminate as a result of exposure to ultraviolet light source or heat therefrom shall not be used.

4. Prepare surfaces per manufacturer's specifications prior to painting. Include, as a part of this work, prime coats as specified. Porous material should be filled sanded smooth and primed prior to painting unless indicated otherwise.
5. All paint shall be spray applied. Pretreatment of surfaces and spray application of paint shall be performed in accordance with manufacturer's specifications.
6. Paints and primers shall be applied without pinholes, scratches, peeling, application marks, etc.
7. Back lighted or internally illuminated panels containing defects that cause light leaks in surface areas intended to be opaque will not be accepted.
8. All paint for metal signage, unless otherwise specified, shall be acrylic aliphatic isocyanate/acrylic polyurethane with ultraviolet (UV) inhibitors and formulated for exterior use in colors specified on the plans or as otherwise specified by the Graphic Designer. Paint is to be the highest quality recommended by the manufacturer for specific surfaces. Apply paint to the manufacturer's recommended thickness for highest durability. All exposed steel shall be urethane coated. Use a high solids, low VOC, two-component aliphatic urethane satin enamel formulated for use in commercial and industrial applications where color retention and a durable long-lasting coating is required. Apply 3 coats minimum for a dry film thickness of 5 mils.)
 - a) Allow paint to fully cure (at least 10 days) before applying any vinyl legends to prevent bubbling or peeling during the curing process.
 - b) Apply a polymer-based sealant recommended by the base coat manufacturer, such as NEWFINISH 2000 or equiv. Follow manufacturer's instructions for preparation and application. Care must be given to the areas around brands and typography as to not damage, discolor, or make surfaces uneven.
9. Paint shall be applied to all interior and exterior surfaces, visible and non-visible, and edges of metal parts and components unless otherwise noted and approved.
10. All finish coats should be satin unless otherwise specified or approved as part of the Shop Drawings.

ADD:

310-5.7

Painting Trash Enclosures and Pergolas. (Base Bid and Additive Alternate Bid Item)

1. Painting of the Trash Enclosure is a Base Bid item.
2. Painting of the Pergolas is an Additive Alternate Bid Item.

3. Paints shall be of the type made for the surface material on which applied and recommended by manufacturer.
 - a) Identify each type and usage on Shop Drawings.
 - b) Include data describing method of application.
4. Products that will deface, discolor or delaminate as a result of exposure to ultraviolet light source or heat therefrom shall not be used.
5. Prepare surfaces per manufacturer's specifications prior to painting. Include, as a part of this work, prime coats as specified. Porous material should be filled sanded smooth and primed prior to painting unless indicated otherwise.
6. All paint shall be spray applied. Pretreatment of surfaces and spray application of paint shall be performed in accordance with manufacturer's specifications.
7. Paints and primers shall be applied without pinholes, scratches, peeling, application marks, etc.
8. Back lighted or internally illuminated panels containing defects that cause light leaks in surface areas intended to be opaque will not be accepted.
9. All paint for metal structures, unless otherwise specified, shall be a high solids, less than 100g/L VOC, high build, fast drying, polyamide epoxy and formulated for exterior use in colors specified on the plans or as otherwise specified by the Architect. Paint is to be the highest quality recommended by the manufacturer for specific surfaces. Apply paint to the manufacturer's recommended thickness for highest durability. All exposed steel shall be primer coated with the specified primer per manufacturer's recommendations.
10. Paint shall be applied to all interior and exterior surfaces, visible and non-visible, and edges of metal parts and components unless otherwise noted and approved.
11. All finish coats should be gloss level 5 unless otherwise specified or approved as part of the Shop Drawings.

SECTION 400 – PROTECTION AND RESTORATION

400-1

GENERAL. To the WHITEBOOK ADD the following.

5. The Contractor is responsible for provide visual warning and control around the perimeter of the work. Provide safety orange, 36 inches high plastic mesh fencing supported by steel posts driven into ground.
6. During construction, the Contractor shall properly grade all excavated surfaces to provide positive drainage and prevent ponding of water. Drainage

of surface water shall be controlled to avoid damage to adjoining properties or to finished work on the site. The Contractor shall take remedial measures to prevent erosion of freshly graded areas until such time as permanent drainage and erosion control features have been installed. Areas subjected to erosion or sedimentation shall be properly prepared in accordance with the Specifications prior to placing additional fill or structures.

7. The Contractor shall protect existing work which is to remain in place, that is to be re-used, or which is to remain the property of Owner by temporary covers, shoring, bracing, and supports.
8. Items which are to remain or are to be salvaged and which are damaged during performance of work shall be repaired to their original condition or replaced with new by the Contractor at no additional cost to Owner. The Contractor shall protect all services and utilities which are to remain. Where removal of existing utilities and pavement is specified or indicated, provide approved barricades, temporary covering of exposed areas, and temporary services or connections for electrical utilities.

SECTION 401 – REMOVAL

401-1

GENERAL. To the “GREENBOOK”, ADD the following:

1. Miscellaneous materials: Buried pavements and other materials, old subsurface pavements and other materials such as concrete planters, and other materials encountered under existing pavements, which are within designated excavation areas on the demolition plans shall be removed.
2. The work includes demolition of removal (unclassified demolition) of all materials and facilities indicated or specified. Do not begin demolition until authorization is received from the Resident Engineer. Remove rubbish and debris daily, unless otherwise directed. Store materials that cannot be removed daily in areas specified by the Resident Engineer.
3. Dust control: The Contractor shall take appropriate action to check the spread of dust to avoid the creation of a nuisance in the surrounding area. Do not use water if it results in hazardous or objectionable conditions, such as flooding, or pollution. Comply with all dust regulations imposed by local air pollution agencies.
4. Personnel: Where pedestrian and driver safety is endangered in the area of removal work, use traffic barricades with flashing lights. Notify the Resident Engineer prior to beginning any such work.
5. Explosives: Use of explosives will not be permitted.

ADD:
401-1.1

Execution.

1. Paving: Remove concrete and asphaltic concrete paving as indicated to a depth as indicated. Remove decomposed granite play field surface to a depth as indicated.
2. Concrete: Where concrete work is to be removed, saw cut concrete along straight lines to a depth of not less than two inches. Make each cut in walls perpendicular to the face and in alignment with the cut in the opposite face. The remainder of the concrete shall be broken out, provided that the broken area is concealed in the finished work, and the remaining concrete is sound. At locations where the broken face cannot be concealed, it shall be ground smooth or the sawcut shall be made entirely through the concrete.
3. Filling: Fill holes and other hazardous openings in accordance with Section 300 Earthwork.
4. Title to Materials: Title to all materials resulting from demolition, and all materials and equipment to be removed, is vested in the Contractor upon approval by the Resident Engineer of the Contractor's demolition and removal procedures, and authorization by the Resident Engineer to begin demolition. The City will not be responsible for the condition or loss of, or damage to, such property after notice to proceed. Materials and equipment shall not be viewed by prospective purchasers or sold on or near the site.
5. Re-use of materials and equipment: Carefully remove and store materials and equipment indicated to be re-used or relocated to prevent damage, and reinstall as the work progresses.
6. Salvaged Materials and Equipment: Contractor to carefully remove materials and equipment that are designated to be removed on the plans.
7. Debris and Rubbish: Remove and transport debris and rubbish in a manner that will prevent spillage on streets or adjacent areas. Clean up spillage from streets and adjacent roads.
8. Regulations: Comply with federal, state and local hauling and disposal regulations.
9. Hazardous Materials: In the event that Hazardous Materials such as contaminated soil, underground tanks, or asbestos is found or identified during excavation for foundation or conduit installation, the following procedures shall be instituted:
 - a) The Resident Engineer shall issue a "stop work order" directing the Contractor to cease all construction operations at the locations of such potential hazardous material find. The contractor shall relocate their

operations to another portion of the project site at no additional cost to the City.

- b) Such "stop work order" shall be effective until such time as the Resident Engineer assesses the impact of the hazardous material and makes recommendations for its removal and disposal. Any "stop work order" shall contain the following:
 - i. A clear description of the work to be suspended;
 - ii. Any instructions regarding issuance of further orders by the Contractor for material services;
 - iii. Guidance as to action to be taken on subcontracts;
 - iv. Any suggestions to the Contractor as to minimization of his costs; and
 - v. Estimated duration of the temporary suspension.
- c) If the Resident Engineer determines the Hazardous Material removals will cause further delays, the Resident Engineer shall extend the duration of the "stop work order" in writing, and the Contractor shall suspend work at the location of the hazardous materials.

401-2 ASPHALT CONCRETE PAVEMENT. To the "WHITEBOOK", DELETE in its entirety and SUBSTITUTE with the following:

- 2. Bituminous pavement shall be cut and removed in such a manner so as not to tear, bulge or displace adjacent paving by use of construction machinery. Wheel type pressure cutters and drop hammer cutters will not be permitted for final edge cut. Sawcutting of edges to be joined is required. Where only the surface of existing bituminous pavement is to be removed, the method of removal shall be approved by the Engineer, and a minimum laying depth of 25 mm (1 inch) of new pavement material shall be provided at the join line. Where bituminous pavement adjoins a trench, the edges adjacent to the trench shall be trimmed to neat straight lines before resurfacing to ensure that all areas to be resurfaced are accessible to the rollers used to compact the subgrade or paving materials.

SECTION 402 – UTILITIES

402-6 COOPERATION. To the "GREENBOOK", ADD the following:

- 1. Notify SDG&E at least 44 Working Days prior to excavating within 10 feet of SDG&E Underground High Voltage Transmission Power Lines (69 KV and higher).

SECTION 601- TEMPORARY TRAFFIC CONTROL FOR CONSTRUCTION AND MAINTENANCE WORK ZONES

601-2.1.2 Engineered Traffic Control Plans (TCP). To the "WHITEBOOK", ADD the following:

5. Engineered TCP (2 foot x 3 foot size) shall be required for the following areas:
 - a) North Park Way
 - b) 29th Street
 - c) Granada Street

SECTION 800 – MATERIALS

800-1.1.4 Class "C" Topsoil. To the WHITEBOOK, ADD the following:

2. Topsoil in planting areas shall be Type "C", on-site topsoil, tested and amended to meet Class "A" specifications.

800-1.2.3.1 Pre-plant Fertilizer and Tablets. To the "WHITEBOOK", item 1, DELETE in its entirety an SUBSTITUTE with the following:

1. Pre-plant fertilizer shall be a fast-release, 6-20-20 commercial, dust-free, homogeneous pellet fertilizer having the following guaranteed analysis:

Nitrogen 6%

Phosphorus 20%

Potassium 20%

800-1.2.3.2 Post-plant Fertilizer. To the "WHITEBOOK", ADD the following:

2. Post-plant fertilizer shall have 5-3-1 NPK analysis with 50% humus, 15% humic acids, soil strain bacteria, micronutrients, and 1% soil penetrant. 'Gro-Power Plus' or equal.

800-1.2.4 Organic Soil Amendment. To the "GREENBOOK", ADD the following:

1. Type 4 organic soil amendment shall be a fine textured, dark brown soil conditioner made from composted yard trimmings. The ground yard trimmings shall be composted for a minimum period of one month. Temperatures shall be maintained between 132 degrees F and 155 degrees F throughout the thermophilic stage to kill pathogens and weed seeds. This process meets California Title 14 regulations, Process to Further Reduce Pathogens. Curing phase is up to two months.

2. Organic Soil Amendment shall be blended, commercially-processed soil conditioner consisting of an organic-based conditioner, prepared by mixing a light, friable, siliceous material with nitrogen-fortified, finely ground bark, wood chips and/or saw dust. The material shall contain a long-lasting form of iron and shall have the following analysis:

Total nitrogen	0.5%	
Ph	4.6 to 6.8	
Salinity (Ece)	less than 2.0	
Salinity (Ece)	85.0% min.	
Particle size: percent passing	9.50 mm screen	100%
	6.35 mm	100%
	2.38 mm	83%
	0.50 mm	31%

3. And shall be treated with a non-ionic wetting agent 'Sarvon' or approved equal.
4. Material shall be equal to or better than "Loamex" or 'BFI Organics' "Organo-Life" soil amendment.

800-1.2.5 Mulch. To the "WHITEBOOK", ADD the following:

3. Use Type 1 Mulch

800-1.4.1 General. To the "WHITEBOOK", ADD the following:

8. Plants shall be in accordance with the California State Department of Agriculture's regulations for nursery inspections, rules and grading. The Resident Engineer is the sole judge as to acceptability for each plant. Vigorous, healthy, well-proportioned plants are the intent of this specification. Plants which are even moderately "overgrown," or are showing any signs of decline or lack of vigor are subject to rejection.
9. The size of the plants will correspond with that normally expected for species and variety of commercially available nursery stock, or as specified in the Special Conditions or drawings. Plants larger in size than specified may be used with the approval of the Resident Engineer, but the use of larger plants will make no change in contract price. If the use of larger plants is approved, the ball of earth and spread of roots for each plant shall be increased proportionately.
10. Rejection or substitution. All plants not conforming to the requirements herein specified, shall be considered defective, and such plants, whether in

place or not, shall be marked as rejected and immediately removed from the site of the work and replaced with new plants by the Contractor, at his expense.

11. Right to changes. The City reserves the right to change the species, variety, and/or sizes of plant material to be furnished, provided that the cost of such plant changes does not exceed the cost of plants in the original bid, and with the provision that the Contractor shall be notified, in writing, at least thirty (30) days before commencement of planting operations.
12. Pruning. At no time shall the trees or plant materials be pruned, trimmed or topped prior to delivery, and any alteration of their shape shall be conducted only with the approval and in the presence of the Resident Engineer.
13. Handling and protection. All plants at all times shall be handled and stored so that they are adequately protected from drying out, from wind burn, or from any other injury. Any plant determined by the Resident Engineer to be wilted shall be rejected at any time during this project, whether in the ground or not. All plants shall be handled solely by their containers. Any plant that has been handled by its stem or trunk shall be rejected. The Contractor's on-site plant storage area shall be approved by the Resident Engineer prior to the delivery of any plant material.
14. Guarantees. All trees shall be guaranteed for one (1) year from final acceptance of project (at the completion of the plant establishment and maintenance period). All other plant material shall be guaranteed for six (6) months from final acceptance.

800-1.5.3 Tree Stakes. To the "WHITEBOOK", ADD the following:

3. Tree stakes shall be of lodgepole pine and shall be straight shafts, shaved and cut clean and bare of branches and stubs, of uniform thickness with a minimum diameter of 2 inches, and free of loose knots, splits or bends.

800-1.5.4 Tree Ties. To the "WHITEBOOK", ADD the following:

4. Tree ties shall be self-cinching vinyl plastic commercial ties, black in color, and twenty (20) inches minimum long. V.I.T. cinch-tie, wonder tree tie, or equal.

ADD:

800-1.5.5 Steel Edging. Steel edging shall be powdercoated, galvanized steel, 6" deep x 3/16" thick. Edging shall be supplied in minimum 10 foot lengths. Stakes shall be 15" long x 1/8" thick, powdercoated, galvanized steel. Provide minimum 4 stakes per every 10 foot section of edging. Manufacturer: JD Russel Company, or approved equal.

ADD:

800-1.7 Filter Fabric. Filter fabric shall be non-woven type, fully stabilized UV-resistant and shall prevent soil particles from clogging, entering or blocking subsurface perforated pipe drains.

ADD:

800-1.8 Weed Barrier Fabric. Weed barrier fabric shall be 2.8 oz. polypropylene, UV-treated fabric.

ADD:

800-1.9 Poured in Place Rubber Safety Surfacing. Surfacing for tot lot play shall be poured-in-place rubberized safety surface, and shall meet the requirements of CPSC and ASTM for play areas. Only aliphatic polyurethane binder shall be used. Aromatic polyurethane binder is not acceptable.

Color wear layer may be EPDM or TPV.

Cushion layer shall be SBR or approved equal.

800-2.4 Sprinkler Equipment. To the "WHITEBOOK", ADD the following:

3. Bubbler heads shall have fixed output and pressure compensating control.
4. Heads used for modifications/repairs shall match the equipment manufacturer, model and performance characteristics on the irrigation zone attached to.

ADD:

800-5 SITE FURNISHINGS.

800-5.1 Site Furnishings.

1. Contractor shall submit shop drawings, Manufacturer's cut sheets and specifications, including materials and fastener specifications, paint and finish systems, color charts, to the Engineer for review and approval for all site furnishings. Location of all site furnishings shall be approved by the Resident Engineer.
2. All furnishings shall be as listed on the Furniture Plan and the Construction Legend
 - a) Drinking Fountain – Manufacturer: Haws, or approved equal.
 - b) Precast Concrete Monument Sign Wall – Manufacturer: QCP, or approved equal.
 - c) Wayfinding Monuments
 - d) Precast Concrete Benches – Manufacturer: QCP, or approved equal.

- e) Precast Concrete Game Tables – Manufacturer: QCP, or approved equal
 - f) Trash Receptacle – Manufacturer: Forms + Surfaces, or approved equal
 - g) Recycle Receptacle – Manufacturer: Forms + Surfaces, or approved equal
 - h) Music Play Structures – Manufacturer: Freenote Harmony Park, or approved equal.
 - i) Spinning Climbing Structure – Manufacturer: Dynamo Playgrounds, or approved equal.
 - j) Tree Grates – Manufacturer: Ironsmith, or approved equal
 - k) Precast Concrete Planter Rings – Manufacturer: QCP, or approved equal
 - l) Removable Bollards – Manufacturer: ID Metalco, or approved equal.
 - m) Bicycle Racks – Manufacturer: Landscape Forms, or approved equal.
 - n) Interpretive Signs – Manufacturer: Envirosigns, or approved equal.
 - o) Storage Containers – Manufacturer: Aztec Container, or approved equal.
 - p) Park Dedication Plaque – Manufacturer: The Bronze Plaque, or approved equal.
3. Drinking Fountain shall conform to the San Diego Regional Standard Drawing No. SDM-107 and to these Special Provisions. Drinking Fountain on concrete slab shall be Model No 440 SM with pet fountain, as manufactured by Most Dependable Fountain Company or an approved equal.
 4. Precast Monument Sign Wall Contractor shall furnish and install sign wall per plans, manufacturer's specifications, and approved shop drawings.
 5. Wayfinding Monuments Contractor shall furnish and install wayfinding monuments per plans and approved shop drawings.
 6. Precast Concrete Benches Contractor shall furnish and install benches per plans and manufacturer's specifications.
 7. Precast Concrete Game Tables Contractor shall furnish and install tables per plans and manufacturer's specifications.
 8. Trash and Recycling Receptacles Contractor shall furnish and install trash and recycle receptacle per plans.
 9. Music Play Structures Contractor shall furnish and install exercise equipment per plans and manufacturer's specifications.

10. Spinning Climbing Structure Contractor shall furnish and install nature play equipment per plans and manufacturer's specifications.
11. Tree Grates Contractor shall install tree grates per plans and manufacturer's specifications.
12. Precast Concrete Planter Rings Contractor shall furnish and install planter rings per plans and manufacturer's specifications.
13. Removable Bollards Contractor shall furnish and install removable bollards per plans and manufacturer's specifications.
14. Bicycle Racks Contractor shall furnish and install bicycle racks per plans and manufacturer's specifications.
15. Interpretive Signs Contractor shall furnish and install interpretive signs per plans and manufacturer's specifications.
16. Park Dedication Plaque Contractor shall furnish and install dedication plaque per plans and manufacturer's specifications.
17. Anti-Graffiti Coating shall be as manufactured by Monopole, Inc. Materials, or approved equal, shall be applied to the following site furnishings:
 - a) Shop applied by precast concrete manufacturer:
 - Precast monument sign wall
 - Precast benches
 - Precast tables and seating
 - Precast trash and recycle receptacles
 - b) Field applied by contractor:
 - Drinking fountain
 - Bike racks
 - Interpretive signage
 - Musical equipment
 - Removable bollards

Graffiti coatings shall be applied as specified below and per manufacturer's specifications for coverage:

 - 1st Coat: Aquaseal ME12 (Item 5200)
 - 2nd Coat: Permashield Base (Item 6100)
 - 3rd Coat: Permashiel Premium (Item 5600 for matte finish)
 - 4th Coat: Permashield Premium (Item 5600 for matte finish)

18. The contract price paid for Site Furnishings shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installing Site Furnishings and minor concrete complete in place, and no additional compensation will be allowed therefore.

ADD:

800-6

RESILIENT SAFETY SURFACING.

800-6.1

Submittals. Prospective manufacturers and/or installers of the poured-in-place safety surfacing system should be required to comply with the following:

1. The manufacturer must be experienced in the manufacturing of a poured-in-place safety surfacing system and provide references.
2. The installer must provide competent workmen skilled in this specific type of poured-in-place safety surfacing system installation. The designated supervisory personnel on the project must be competent in the installation of this material, including mixing of the materials, and spreading and compacting the materials correctly.
3. Installation should be in accordance with ASTM F1951 – Determination of accessibility of surface systems under and around playground equipment and ASTM F1292 for Impact Attenuation of surface system under and around playground equipment.
4. The poured-in-place system and the engineered wood fiber shall be installed in compliance with the Critical Fall Height as determined by the Playground Equipment.
5. IPEMA Certification specific to poured-in-place safety surfacing, and to engineered wood fiber surfacing.
6. IPEMA certification specific to ½" layer of 1-3mm EPDM over cushion layer. 0.5mm TPV or EPDM. IPEMA certification not acceptable.
7. Manufacturer should provide written instructions for recommended maintenance practices.
8. Manufacturer should submit color samples for customer verification. Color samples shall be 6" x 6" of ½" top wear course layer with aromatic or aliphatic binder – per Resident Engineer; or 8 oz. clear plastic jars with specified colored granules. Sample submittal format per Resident Engineer.

800-6.2

Definitions.

1. EPDM granules: EPDM rubber (ethylene propylene diene monomer (M-class) rubber), a type of synthetic rubber, is an elastomer characterized by a wide range of applications. The M refers to its classification in ASTM standard D-

1418; the M class includes rubbers having a saturated chain of the polymethylene type.

2. Engineered Wood Fiber: product manufactured of ground wood fiber comprised of softwoods and/or hardwoods, consisting of randomly sized wood fibers, the majority of which do not exceed 2" in length and no more than 15% fines to aid in compaction. Product is to have minimal bark and be free of twigs, leaf debris and other organic material, and be non-flammable.
3. Critical Fall Height: A critical fall height (CFH) is the maximum height of fall from play equipment to the ground. It is important to note that safety surfaces do not prevent injury but aim to lessen the severity of any injury that may occur on falls from height.
4. Fall Height: Fall height is a measurement defined as the "vertical distance between a designated play surface and the protective surfacing beneath it.
5. TPV: Thermoplastic Vulcanized Elastomer. Developed using resin and synthetic rubber with higher UV stabilization.
6. E.SBR: Styrene-butadiene or styrene-butadiene rubber (SBR) describe families of synthetic rubbers derived from styrene and butadiene

800-6.3

ASTM Testing Standards. The Poured-in-Place Rubber Over Safety Cushioning safety surfacing must meet the following standards:

1. ASTM D624 Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
2. ASTM D2859 Standard Test Method for Flammability of Finished Textile Floor Covering Materials
3. ASTM E303 Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester
4. ASTM F1292 Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment
5. ASTM F1951 Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment
6. ASTM C1028 Standard Test Method for Determining the Static Coefficient of Friction of Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull Meter Method – This standard replaces
7. ASTM D2047 ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers- Tension

The Engineered Wood Fiber safety surfacing must meet the following standards:

1. ASTM F1292 Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment
2. ASTM F2075 Standard Specifications for Engineered Wood Fiber for Use as a Playground Safety Surface Under and Around Playground Equipment.

800-6.4 Warranty and Maintenance. The bidder and/or poured in place safety surfacing manufacturer must provide the following:

1. The poured in place safety surfacing manufacturer should provide a warranty to the owner that covers defects in materials and workmanship of the rubber for a period of FIVE (5) years from the date of onstruction Completion and acceptance by the Resident Engineer.
2. The manufacturer's warranty should include general wear and tear. The warranty should specifically exclude vandalism, high heel punctures, acts of war or acts of nature beyond the control of the owner or the manufacturer.
3. All poured in place warranties should be limited to repair or replacement of the affected areas and should include all necessary materials, labor, transportation costs, etc. to complete said repairs. All warranties are contingent on the full payment by the owner of all pertinent invoices and adherence to any required maintenance procedures.
4. The manufacturer should instruct the owner's personnel on proper maintenance and repair of the safety surface.

800-6.5 Safety Surface Material (Tot-Lot Surfacing: Poured-in-Place Rubber Over Safety Cushioning). Written approval from the Resident Engineer, the Department of Parks and Recreation shall be required before alternative installation procedures are used.

800-6.5.1 Performance Requirements.

1. Safety: Safety surfacing within playground equipment zones shall meet or exceed the performance of CPC and ASTM F 1292 that a surface yield both a peak deceleration of now more than 200 g's, and a Head Injury Criteria (HIC) value of no more than 1,000 for a head first fall from the highest accessible portion of play equipment being installed as shown on drawings.
2. Manufactured Safety Surface: For surfaces manufactured for the purpose of playground safety surface, the impact attenuation performance shall be documented by a certificate of compliance.

800-6.5.2 Accessibility.

1. Children's outdoor play areas shall be in compliance with the Uniform Federal Accessibility Standards (UFAS) FED-STD-795 and the Architectural and Engineer

Instructions (9AEI0 Design Criteria. The requirements of the Americans with Disabilities Act Accessibility Guidelines (9ADAAG) 28 DFR Part 36 that provide equal or greater accessibility than the requirements of UFAS must also be met with children's outdoor play areas.

2. Safety surfaces intended to serve as accessible paths of travel for persons with disabilities shall be fire stable and slip resistant, and shall meet the requirements of FED-STD-795, 28 CFR Part 36, ASTM F1487, and ASTM F 1292.

800-6.6 Submittals. The following shall be submitted:

1. Manufacturer's descriptive data and installation instructions, including cleaning and preventative maintenance instructions.
2. Drawings showing shop details of the safety surfacing system, including depths of materials, anchoring system, and edge details.
3. A list of all materials and components to be installed as part of the system, by weight and/or volume and recommended coverage, including manufacturer's name, shipment date, storage requirements, and precautions, and shall state chemical composition and test results to which material has been subjected in compliance with these specifications.
4. Statement signed by an officer authorized to certify on behalf of the manufacturer of the synthetic safety surfacing attesting that the surfacing meets the requirements of ASTM F 1292 for a head first fall from the highest accessible portion of specified playground equipment. The statement shall provide the name, address, and telephone number of the testing company, the date of the test, and the test results.
5. Statement signed by the manufacturer of the synthetic safety surfacing attesting that all materials under this section shall be installed by the Manufacturer's employees and that Playground surfacing installation shall not be performed by subcontractors, "Certified Licensed Applicationers" or anyone not employed full time by the Manufacturer. Contractor must have a current California Contractor's License No. C61-D12, synthetic surfaces.
6. A Certificate of Insurance, shall be provided by manufacturers of synthetic safety surfacing for use as safety surfacing, covering both product and general liability, of not less than \$1,000,000. The issuing underwriter shall be AA rated.
7. Sample of safety surface for review, minimum size 150 (6 inches) 6 inches by 1500 mm (6 inches) proposed for this project.
8. Two copies of color charts displaying manufacturer's color selections and finishes proposed for use. Colors shall be as shown on Materials Plans.

800-6.5.4 Delivery, Storage, and Handling. Materials and equipment shall be delivered and stored in accordance with the manufacturer's recommendations.

- 800-6.5.5 Project/Site Conditions.** Synthetic safety surfacing shall be installed on dry sub surfaces, with no prospect of rain within the initial drying period, at temperatures recommended by the manufacturer.
- 800-6.5.6 Sequencing and Scheduling.** Safety surfacing shall be installed after the playground equipment is installed. The installation shall be coordinated with playground equipment and site furnishings installation.
- 800-6.5.7 Warranty.** Poured-in place rubber surfacing shall maintain required impact attenuation characteristics and be guaranteed against defects in workmanship and material for a three (3) year period. Engineered wood fiber shall be warrantied for a minimum of 15 years.
- 800-6.7 Materials.** Safety surfacing shall consist of synthetic safety surfacing meeting requirements of this specification.
- 800-6.7.1 Synthetic Safety Surface (Tot-lot Surfacing: Poured-in-Place Rubber over Safety Cushioning).**
1. Synthetic surfacing shall consist of an impact attenuating substrate and wear surface bonded to produce unified system. synthetic surfacing shall consist of a uniform material manufacturer in such a way that the top portion meets the requirements specified herein for wear surface. The type of synthetic safety surfacing shall be a poured-in place system with colors as indicated on the drawings.
 - a) Impact Attenuating Substrate: Substrate shall consist of shredded styrene butadiene rubber (SBR) adhered with a 100 percent solids polyurethane binder to form a resilient, porous material. Strands of SBR may vary from 0.5 mm-2 min. thickness, by 3 mm-20 mm in length. Foam or granular rubber may not be permitted in substrate. Binder shall not be less than 12 percent, nor more than 16 percent, of the total weight of rubber, and shall provide 100 percent coating of the particles. The substrate shall be compatible with a poured-in-place wearing surface and shall meet requirements herein for impact attenuation.
 - b) Poured-in-Place Wear Surface: Wear surface shall consist of ethylene propylene diene monomer (EPDM) particles adhered with a polyurethane binder formulated to produce an even, uniform surface. EPDM particles shall meet requirement of ASTM D 412 for tensile strength and elongation, ASTM D 2240 (Shore A) hardness of 50-70, not less than 25 % rubber hydrocarbons. EPDM shall be peroxide cure. Size of rubber particles shall not be less than 1 mm nor greater than 3 mm across. Binder shall not be less than 15 percent, nor greater than 20 percent, of total weight of rubber used in the wear surface, and shall provide 100 percent coating of the particles, thickness of wear

surface shall be a minimum 10 mm (3/8-inch). The wear surface shall be porous.

- c) Binder: Binder for synthetic surfacing shall be non-toxic, weather resistant, ultraviolet stable, non-hardening, retaining impact attenuating qualities, and shall be 100 percent solid polyurethane, methylene diphenyl isocyanate (MDI) or as recommended by the manufacturer. No toluene diphenyl isocyanate (TDI) shall be used. Weight of polyurethane shall be less than 1.02 Kg/1 (8.5 lbs/gal) 8.5 lbs/gal, nor more than 1.14 Kg/1 (9.5 lbs/gal) 9.5 lbs/gal.

SECTION 801 - INSTALLATION

ADD:

801-1.1

Demolition.

1. The Contractor shall be responsible for the demolition and site preparation of the entire area prescribed. The Contractor shall make themselves aware of the proposed new layout of surface and landscape areas and coordinate his work with other Contractors whether part of this contract or as a separate contract with Owner.
2. Unless otherwise approved by Owner, all demolition within the barricaded areas shall be executed using hand methods or approved small hand held mechanical machinery provided exceptional care is taken to avoid injury to the root system or other portions of the tree. Large mechanical equipment may be used so long as it is not used within the drip line of the trees.
3. The storage or stockpiling of equipment and material or the unauthorized entry of personnel within the barricaded areas shall be strictly prohibited. The use of the tree's shade within the barricaded area by construction personnel during break periods shall be strictly prohibited.
4. All excavation around existing trees to remain shall be executed by hand. Where excavations uncover and expose roots that are to remain the Contractor shall cover these roots with 6" of fill immediately to prevent the roots from drying out.
5. All demolished material shall be removed from site and legally disposed of by the Contractor at no additional charge to the Owner.
6. Immediately before any root pruning operations, the Contractor shall thoroughly spray the tree with an antidesiccant solution. The antidesiccant shall be applied using a power sprayer capable of thoroughly coating the tree's foliage, trunks, branches, stems, and twigs. Two weeks after root pruning, the antidesiccant solution shall be sprayed again on the tree.

7. All holes, depressions, or disturbances left by the Contractor's demolition and transplant activities shall be backfilled and brought up to existing grade by the Contractor and covered with 'sod' (Refer to sheet LP-1). Where new asphalt pavement is to be installed, whether as part of this contract or as a separate contract with the Owner, the Contractor shall backfill and compact up to 12" less than final asphalt grades. This is to allow for the installation of the asphalt subbase and surface costs by the Paving Contractor.
8. Where proposed landscape areas are to be created the Contractor shall shape and grade the area within the barricade to final finished grade.

801-1.1.1 Site Access. The Contractor shall not close or obstruct roadways, drive isles or other access lanes without the written approval of the Owner. The Contractor shall maintain service access for the adjacent property tenants at all times. This includes access to the existing trash enclosure at the northwest corner of the site and service and emergency egress access to the rear service entrance to the Observatory Theater. The Contractor shall exercise extreme care to protect the health and safety of these users. The Contractor shall be responsible for the erection of warning lights and barricades in areas in which the Contractor's construction activities may pose a health threat. The Contractor shall prepare and submit to the Engineer a site access plan to illustrate the Contractor's means for maintaining service and emergency egress access to adjacent property tenants during construction.

ADD:

801-1.2 Maintenance.

1. The Contractor shall be responsible for the care and maintenance of all existing trees to remain and all trees from planting to final acceptance of each phase of work.
2. Maintenance personnel shall be specifically assigned to monitor the health of all trees under the Contractor's responsibility. It shall be required as part of this contract that key maintenance personnel be approved by the Resident Engineer. These personnel shall be assigned specific and sole responsibility to continuously monitor the health of the trees. In order to maintain continuity these key personnel shall not be dismissed or reassigned to other projects without the written permission of the Resident Engineer.
3. Maintenance shall include but not be limited to: fertilization, watering, pruning of dead or sick branches, maintaining stakes and cables to maintain transplanted trees in an upright plumb position, pest/disease control and monitoring, and any other acceptable maintenance practice to maintain the trees in a healthy and vigorous state.

801-2.3

Finish Grading. To the "WHITEBOOK", ADD the following:

5. The finish grade shall be defined as the surface of soil following all grading, soil preparation, water settlement and repair and shall be smooth, uniform, and free of abrupt grade changes and depressions to ensure surface drainage.
6. Contours and finish grade shall provide for drainage to sheet and shall not channel drainage in a manner where volume and velocity of water will create surface erosion.
7. Finish grade shall ensure positive drainage from the site. Surface drainage shall be away from all building foundations. The Resident Engineer shall approve the final grades and elevations before planting operations may begin.
8. The Contractor shall take every precaution to protect and avoid damage to sprinkler heads, irrigation lines, and other underground utilities during his grading and conditioning operations.
9. All depressions where water will stand, all voids, erosion, settled trenches and excavations, and all ridges and rises which affect the maintenance and mowing of the lawns with a gang-mower or which visually are evident shall be filled with conditioned topsoil and/or removed by Contractor, leaving a smooth, even finish grade.
10. All stones one inch (1") and larger generated by the finish grading shall be removed off site.

800-4.1

General. To the "WHITEBOOK", ADD the following:

7. Plant installation shall be performed during those periods when weather and soil conditions are suitable and in accordance with locally accepted horticultural practice. No planting shall be done in any area until the area concerned has been satisfactorily prepared in accordance with these specifications.
8. Soil moisture level prior to planting shall be no less than 75% of field capacity. The determination of adequate soil moisture for planting shall be the sole judgment of the Resident Engineer. The Contractor shall obtain approval of planting pits before planting operations shall begin. If the soil moisture level is found to be insufficient for planting, all planting pits shall be filled with water and allowed to drain before starting planting operations.
9. No more plants shall be distributed in the planting area on any day than can be planted and watered on that day. All plants shall be planted and watered as herein specified immediately after the removal of the containers. Containers shall not be cut prior to placing the plants in the planting area.
10. Prior to any excavation, the exact positioning and location of trees to be planted in existing lawn areas shall be done on site with Landscape Architect.

Contractor shall flag all existing rotor sprinkler locations in the proximity of the proposed tree locations on the plans prior to meeting with the Landscape Architect. Trees shall not be placed closer than 20 feet from any rotor, unless otherwise directed by Landscape Architect/Resident Engineer.

801-4.2 **Protection and Storage.** To the "WHITEBOOK", DELETE in its entirety and SUBSTITUTE with the following:

1. Sun sensitive plants, stolons, and sod shall be stored in the shade or screened from the sun.
2. The Contractor's on-site plant storage area shall be approved by the Resident Engineer prior to the delivery of any plant materials. Any plant determined by the Resident Engineer to be wilted or otherwise damaged shall be rejected at any time during the project, whether in the ground or not. All plants that have been handled by trunk or stem shall be rejected.

801-4.6.2 **Guying.** To the "WHITEBOOK", ADD the following:

2. All trees 36" box and smaller shall be staked with two wood stakes placed 18" from each side of the tree trunk. The stakes shall be placed relative to the tree in the perpendicular direction to the prevailing wind direction. The stakes shall be driven in plumb and secure. Special care shall be taken that the driving in of the stake does not damage the tree roots or root ball. Tree ties shall be fastened to each tree and stake by looping figure 8's with the inside diameter of the tie at 2 or 3 times the diameter of the tree and by tacking the back of the tie to the stake.

ADD:

801-4.10 **Bark Mulching.** All areas to receive shrubs and ground covers shall be mulched by covering the entire surface of the planting area with a three inch (3") deep minimum layer of Type 1 bark mulch.

801-5.1 **General.** To the WHITEBOOK, ADD the following:

2. Work on the irrigation system including hydrostatic tests, backfill and densification of trenches, and other excavations shall be performed before topsoil placement. Preliminary operational tests of the automatic control system and coverage tests shall be performed after top soil placement.
3. Work on the existing irrigation system including verifying components and their condition, mainline and wire location to be connected thereto, and functional (operational) condition of all components shall be included in the scope of work. A written record of the findings shall be created as part of the project records, aside from as-built drawings. This shall set in place the identified existing conditions.

801-5.4 **Installation of Valves, Valve Boxes, and Special Equipment.** To the WHITEBOOK, ADD the following:

8. Connect all existing wires of the existing remote control valves to the new remote control valves. Provide splices and wire extensions as required to complete the work.

801-7.1 **Tree Trimming.** To the WHITEBOOK, ADD the following:

4. Pruning shall be limited to the minimum necessary to remove injured twigs and branches, and to compensate for loss of roots during transplanting, but never to exceed one-tenth the branching structure. Pruning may be done only with the approval of, and in the presence of, the Resident Engineer. Cuts over three-quarters of an inch (3/4") shall be painted with an approved tree wound paint.

801-9 **PAYMENT.** To the WHITEBOOK, ADD the following:

4. The contract price paid for independent play event shall include full compensation for furnishing all submittals labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installing play equipment and project components complete in place, and no additional compensation will be allowed therefor.

ADD:

801-10 **INSTALLATION OF SAFETY SURFACING.**

801-10.1 **Preparation.**

1. Finished Grade: Verify that finished elevations of adjacent areas are as indicated on the drawings and safety surfacing manufacturer's direction, that the subgrade elevation has been established for the safety surface to be installed, and that the subsurface has been installed in a true, even plane, and sloped to drain as indicated on drawings. Verify that all surface irregularities have been corrected.
2. Subsurface: Tolerance of compacted subgrade shall be within 3 mm (1/8-inch) 1/8-inch in 3050 mm (10 feet) 10 feet. Tolerance of aggregate subsurface shall be within 10 mm (3/8-inch) 3/8 inch in 3050 mm (10 feet) 10 feet. Verify that aggregate subsurface have been fully compacted to 95 percent.
3. Drainage: Verify that subsurface drainage has been installed to provide positive drainage.

801-10.2 Synthetic Safety Surface Installation.

1. Poured-in-Place System: Components of the poured-in-place safety surface system shall be mixed on site in a rotating tumbler to ensure components are thoroughly mixed and are in accordance with manufacturer's recommendations. Installation of poured-in-place surfacing shall be seamless and completely bonded to subsurface. Material shall cover all foundations and fill around all elements penetrating the surface.
2. Poured-in-Place Substrate: Whenever practical, substrate layer of poured-in-place surfacing material shall be installed in one continuous pour on the same day. When a second pour is required, fully coat the edge of the previous work with polyurethane binder to ensure 100 percent bond with new work. Apply adhesive in small quantities so that new substrate can be placed before the adhesive dries.
3. Poured-in-Place Wear Surface: Wearing surface shall be bonded to substrate. Apply adhesive to substrate in small quantities so that wearing surface can be applied before adhesive dries. Surface shall be hand trowled to a smooth, even finish. Pour shall be continuous and seamless.
4. Thickness: Construction methods, such as use of measured screeds 1/16-inch thicker than the required surfacing depth, shall be employed to ensure full depth of specified surfacing material is installed. Surfacing system thickness throughout the playground equipment use zone shall be as required to meet the impact attenuation requirements specified herein.
5. Clean-up: Do not allow adhesives on adjacent surfaces. Immediately clean up spills or excess adhesives.
6. Protection: The synthetic safety surface shall be allowed to fully cure in accordance with manufacturer's instructions. The surface shall be protected from all traffic during the curing period for 48 hours or as instructed by the manufacturer.
7. Manufacturer's Service: For synthetic safety, surfacing services of a manufacturer's representative who is experienced in installation of the specified playground safety surface shall be provided. The representative shall supervise the installation to ensure that the safety surfacing meets the impact attenuation requirements as specified herein.
8. The cost for unitary rubber surfacing shall be included in the project lump sum cost and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installing unitary rubber surfacing as shown on the plans, and as specified in these special provisions and as directed by the Engineer, including clean-up, repairs, and guarantees.

SECTION 1001 – CONSTRUCTION BEST MANAGEMENT PRACTICES (BMPs)

1001-1 **GENERAL.** To the “WHITEBOOK”, ADD the following:

7. Based on a preliminary assessment by the City, this Contract is subject to **WPCP**.
-

SUPPLEMENTARY SPECIAL PROVISIONS

APPENDICES

APPENDIX A

NOTICE OF EXEMPTION

NOTICE OF EXEMPTION

(Check one or both)

TO: ☒ RECORDER/COUNTY CLERK
P.O. Box 1750, MS A-33
1600 PACIFIC HWY, ROOM 260
SAN DIEGO, CA 92101-2422
☐ OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET, ROOM 121
SACRAMENTO, CA 95814

FROM: CITY OF SAN DIEGO
DEVELOPMENT SERVICES DEPARTMENT
1222 FIRST AVENUE, MS 501
SAN DIEGO, CA 92101

Project No.: 283124

Project Title: North Park Mini Park

PROJECT LOCATION-SPECIFIC: This project is located at 3812 29th Street San Diego, CA 92102 within the Greater North Park Community Plan

PROJECT LOCATION-CITY/COUNTY: San Diego/San Diego

Description of nature and Purpose of the Project: The project would provide the design of an approximately 0.50 acre, urban mini-park. This mini-park is to be located between Granada Avenue and 29th Street, along North Park Way. The mini-park would be located in an existing parking lot directly behind the renovated, historic North Park Theater. Park amenities would include items such as: public art, plaza areas, specialty/enhanced paving areas for performances and events, an amphitheater and/or audience seating area, a gazebo/shade structure, unique site furniture, walkways, seat walls, security & decorative lighting, and landscaping & irrigation.

NAME OF PUBLIC AGENCY APPROVING PROJECT: City of San Diego

NAME OF PERSON OR AGENCY CARRYING OUT PROJECT: City of San Diego, Public Works, 525 B Street, Suite 750 MS 908A San Diego CA, 92101, (619) 533-4620

EXEMPT STATUS: (CHECK ONE)

- ☐ MINISTERIAL (SEC. 21080(b)(1); 15268);
- ☐ DECLARED EMERGENCY (SEC. 21080(b)(3); 15269(a));
- ☐ EMERGENCY PROJECT (SEC. 21080(b)(4); 15269 (b)(c)..
- ☒ CATEGORICAL EXEMPTION: 15332 (In-Fill)
- ☐ STATUTORY EXEMPTION:

REASONS WHY PROJECT IS EXEMPT: The City of San Diego determined that the project would qualify to be categorically exempt from CEQA pursuant to Section 15332 (In-Fill). This exemption applies to projects that are consistent with zoning and land use regulations, on sites that are no greater than five acres, would not impact rare or threatened species; and would not result in noise, air, water quality or traffic impacts. The project is less than 5 acres and no conflicts were identified with zoning or land use designations. Through the process of review it was determined that no significant impacts to noise, air, water quality or traffic would occur. Furthermore, since the project is located in an area where public services exist and is devoid of sensitive resources the project qualifies to be categorical exempt from CEQA and the exceptions listed in CEQA Section 15300.2 would not apply.

LEAD AGENCY CONTACT PERSON: JEFFREY SZYMANSKI

TELEPHONE: 619 446-5324

IF FILED BY APPLICANT:

1. ATTACH CERTIFIED DOCUMENT OF EXEMPTION FINDING.
2. HAS A NOTICE OF EXEMPTION BEEN FILED BY THE PUBLIC AGENCY APPROVING THE PROJECT?
() YES () NO

IT IS HEREBY CERTIFIED THAT THE CITY OF SAN DIEGO HAS DETERMINED THE ABOVE ACTIVITY TO BE EXEMPT FROM CEQA

 / SENIOR PLANNER

SIGNATURE/TITLE

7/14/2016

DATE

CHECK ONE:

(X) SIGNED BY LEAD AGENCY

DATE RECEIVED FOR FILING WITH COUNTY CLERK OR OPR:

APPENDIX B
FIRE HYDRANT METER PROGRAM

CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS	NUMBER DI 55.27	DEPARTMENT Water Department
SUBJECT FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)	PAGE 1 OF 10	EFFECTIVE DATE October 15, 2002
	SUPERSEDES DI 55.27	DATED April 21, 2000

1. **PURPOSE**

- 1.1 To establish a Departmental policy and procedure for issuance, proper usage and charges for fire hydrant meters.

2. **AUTHORITY**

- 2.1 All authorities and references shall be current versions and revisions.
- 2.2 San Diego Municipal Code (NC) Chapter VI, Article 7, Sections 67.14 and 67.15
- 2.3 Code of Federal Regulations, Safe Drinking Water Act of 1986
- 2.4 California Code of Regulations, Titles 17 and 22
- 2.5 California State Penal Code, Section 498B.0
- 2.6 State of California Water Code, Section 110, 500-6, and 520-23
- 2.7 Water Department Director

Reference

- 2.8 State of California Guidance Manual for Cross Connection Programs
- 2.9 American Water Works Association Manual M-14, Recommended Practice for Backflow Prevention
- 2.10 American Water Works Association Standards for Water Meters
- 2.11 U.S.C. Foundation for Cross Connection Control and Hydraulic Research Manual

3. **DEFINITIONS**

- 3.1 **Fire Hydrant Meter:** A portable water meter which is connected to a fire hydrant for the purpose of temporary use. (These meters are sometimes referred to as Construction Meters.)

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SUBJECT FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)	PAGE 2 OF 10	EFFECTIVE DATE October 15, 2002
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3.2 **Temporary Water Use:** Water provided to the customer for no longer than twelve (12) months.

3.3 **Backflow Preventor:** A Reduced Pressure Principal Assembly connected to the outlet side of a Fire Hydrant Meter.

4. **POLICY**

4.1 The Water Department shall collect a deposit from every customer requiring a fire hydrant meter and appurtenances prior to providing the meter and appurtenances (see Section 7.1 regarding the Fees and Deposit Schedule). The deposit is refundable upon the termination of use and return of equipment and appurtenances in good working condition.

4.2 Fire hydrant meters will have a 2 ½" swivel connection between the meter and fire hydrant. The meter shall not be connected to the 4" port on the hydrant. All Fire Hydrant Meters issued shall have a Reduced Pressure Principle Assembly (RP) as part of the installation. Spanner wrenches are the only tool allowed to turn on water at the fire hydrant.

4.3 The use of private hydrant meters on City hydrants is prohibited, with exceptions as noted below. All private fire hydrant meters are to be phased out of the City of San Diego. All customers who wish to continue to use their own fire hydrant meters must adhere to the following conditions:

a. Meters shall meet all City specifications and American Water Works Association (AWWA) standards.

b. Customers currently using private fire hydrant meters in the City of San Diego water system will be allowed to continue using the meter under the following conditions:

1. The customer must submit a current certificate of accuracy and calibration results for private meters and private backflows annually to the City of San Diego, Water Department, Meter Shop.

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2. The meter must be properly identifiable with a clearly labeled serial number on the body of the fire hydrant meter. The serial number shall be plainly stamped on the register lid and the main casing. Serial numbers shall be visible from the top of the meter casing and the numbers shall be stamped on the top of the inlet casing flange.
3. All meters shall be locked to the fire hydrant by the Water Department, Meter Section (see Section 4.7).
4. All meters shall be read by the Water Department, Meter Section (see Section 4.7).
5. All meters shall be relocated by the Water Department, Meter Section (see Section 4.7).
6. These meters shall be tested on the anniversary of the original test date and proof of testing will be submitted to the Water Department, Meter Shop, on a yearly basis. If not tested, the meter will not be allowed for use in the City of San Diego.
7. All private fire hydrant meters shall have backflow devices attached when installed.
8. The customer must maintain and repair their own private meters and private backflows.
9. The customer must provide current test and calibration results to the Water Department, Meter Shop after any repairs.
10. When private meters are damaged beyond repair, these private meters will be replaced by City owned fire hydrant meters.

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11. When a private meter malfunctions, the customer will be notified and the meter will be removed by the City and returned to the customer for repairs. Testing and calibration results shall be given to the City prior to any re-installation.
 12. The register shall be hermetically sealed straight reading and shall be readable from the inlet side. Registration shall be in hundred cubic feet.
 13. The outlet shall have a 2 ½ "National Standards Tested (NST) fire hydrant male coupling.
 14. Private fire hydrant meters shall not be transferable from one contracting company to another (i.e. if a company goes out of business or is bought out by another company).
- 4.4 All fire hydrant meters and appurtenances shall be installed, relocated and removed by the City of San Diego, Water Department. All City owned fire hydrant meters and appurtenances shall be maintained by the City of San Diego, Water Department, Meter Services.
- 4.5 If any fire hydrant meter is used in violation of this Department Instruction, the violation will be reported to the Code Compliance Section for investigation and appropriate action. Any customer using a fire hydrant meter in violation of the requirements set forth above is subject to fines or penalties pursuant to the Municipal Code, Section 67.15 and Section 67.37.
- 4.6 **Conditions and Processes for Issuance of a Fire Hydrant Meter**

Process for Issuance

- a. Fire hydrant meters shall only be used for the following purposes:
 1. Temporary irrigation purposes not to exceed one year.

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2. Construction and maintenance related activities (see Tab 2).

- b. No customer inside or outside the boundaries of the City of San Diego Water Department shall resell any portion of the water delivered through a fire hydrant by the City of San Diego Water Department.
- c. The City of San Diego allows for the issuance of a temporary fire hydrant meter for a period not to exceed 12 months (365 days). An extension can only be granted in writing from the Water Department Director for up to 90 additional days. A written request for an extension by the consumer must be submitted at least 30 days prior to the 12 month period ending. No extension shall be granted to any customer with a delinquent account with the Water Department. No further extensions shall be granted.
- d. Any customer requesting the issuance of a fire hydrant meter shall file an application with the Meter Section. The customer must complete a "Fire Hydrant Meter Application" (Tab 1) which includes the name of the company, the party responsible for payment, Social Security number and/or California ID, requested location of the meter (a detailed map signifying an exact location), local contact person, local phone number, a contractor's license (or a business license), description of specific water use, duration of use at the site and full name and address of the person responsible for payment.
- e. At the time of the application the customer will pay their fees according to the schedule set forth in the Rate Book of Fees and Charges, located in the City Clerk's Office. All fees must be paid by check, money order or cashiers check, made payable to the City Treasurer. Cash will not be accepted.
- f. No fire hydrant meters shall be furnished or relocated for any customer with a delinquent account with the Water Department.
- g. After the fees have been paid and an account has been created, the

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meter shall be installed within 48 hours (by the second business day). For an additional fee, at overtime rates, meters can be installed within 24 hours (within one business day).

4.7 Relocation of Existing Fire Hydrant Meters

- a. The customer shall call the Fire Hydrant Meter Hotline (herein referred to as "Hotline"), a minimum of 24 hours in advance, to request the relocation of a meter. A fee will be charged to the existing account, which must be current before a work order is generated for the meter's relocation.
- b. The customer will supply in writing the address where the meter is to be relocated (map page, cross street, etc). The customer must update the original Fire Hydrant Meter Application with any changes as it applies to the new location.
- c. Fire hydrant meters shall be read on a monthly basis. While fire hydrant meters and backflow devices are in service, commodity, base fee and damage charges, if applicable, will be billed to the customer on a monthly basis. If the account becomes delinquent, the meter will be removed.

4.8 Disconnection of Fire Hydrant Meter

- a. After ten (10) months a "Notice of Discontinuation of Service" (Tab 3) will be issued to the site and the address of record to notify the customer of the date of discontinuance of service. An extension can only be granted in writing from the Water Department Director for up to 90 additional days (as stated in Section 4.6C) and a copy of the extension shall be forwarded to the Meter Shop Supervisor. If an extension has not been approved, the meter will be removed after twelve (12) months of use.
- b. Upon completion of the project the customer will notify the Meter Services office via the Hotline to request the removal of the fire hydrant meter and appurtenances. A work order will be generated

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for removal of the meter.

- c. Meter Section staff will remove the meter and backflow prevention assembly and return it to the Meter Shop. Once returned to the Meter Shop the meter and backflow will be tested for accuracy and functionality.
- d. Meter Section Staff will contact and notify Customer Services of the final read and any charges resulting from damages to the meter and backflow or its appurtenance. These charges will be added on the customer's final bill and will be sent to the address of record. Any customer who has an outstanding balance will not receive additional meters.
- e. Outstanding balances due may be deducted from deposits and any balances refunded to the customer. Any outstanding balances will be turned over to the City Treasurer for collection. Outstanding balances may also be transferred to any other existing accounts.

5. **EXCEPTIONS**

- 5.1 Any request for exceptions to this policy shall be presented, in writing, to the Customer Support Deputy Director, or his/her designee for consideration.

6. **MOBILE METER**

- 6.1 Mobile meters will be allowed on a case by case basis. All mobile meters will be protected by an approved backflow assembly and the minimum requirement will be a Reduced Pressure Principal Assembly. The two types of Mobile Meters are vehicle mounted and floating meters. Each style of meters has separate guidelines that shall be followed for the customer to retain service and are described below:
 - a) **Vehicle Mounted Meters:** Customer applies for and receives a City owned Fire Hydrant Meter from the Meter Shop. The customer mounts the meter on the vehicle and brings it to the Meter Shop for

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inspection. After installation is approved by the Meter Shop the vehicle and meter shall be brought to the Meter Shop on a monthly basis for meter reading and on a quarterly basis for testing of the backflow assembly. Meters mounted at the owner's expense shall have the one year contract expiration waived and shall have meter or backflow changed if either fails.

- b) **Floating Meters:** Floating Meters are meters that are not mounted to a vehicle. **(Note: All floating meters shall have an approved backflow assembly attached.)** The customer shall submit an application and a letter explaining the need for a floating meter to the Meter Shop. The Fire Hydrant Meter Administrator, after a thorough review of the needs of the customer, (i.e. number of jobsites per day, City contract work, lack of mounting area on work vehicle, etc.), may issue a floating meter. At the time of issue, it will be necessary for the customer to complete and sign the "Floating Fire Hydrant Meter Agreement" which states the following:

- 1) The meter will be brought to the Meter Shop at 2797 Caminito Chollas, San Diego on the third week of each month for the monthly read by Meter Shop personnel.
- 2) Every other month the meter will be read and the backflow will be tested. This date will be determined by the start date of the agreement.

If any of the conditions stated above are not met the Meter Shop has the right to cancel the contract for floating meter use and close the account associated with the meter. The Meter Shop will also exercise the right to refuse the issuance of another floating meter to the company in question.

Any Fire Hydrant Meter using reclaimed water shall not be allowed use again with any potable water supply. The customer shall incur the cost of replacing the meter and backflow device in this instance.

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7. **FEE AND DEPOSIT SCHEDULES**

- 7.1 **Fees and Deposit Schedules:** The fees and deposits, as listed in the Rate Book of Fees and Charges, on file with the Office of the City Clerk, are based on actual reimbursement of costs of services performed, equipment and materials. These deposits and fees will be amended, as needed, based on actual costs. Deposits, will be refunded at the end of the use of the fire hydrant meter, upon return of equipment in good working condition and all outstanding balances on account are paid. Deposits can also be used to cover outstanding balances.

All fees for equipment, installation, testing, relocation and other costs related to this program are subject to change without prior notification. The Mayor and Council will be notified of any future changes.

8. **UNAUTHORIZED USE OF WATER FROM A HYDRANT**

- 8.1 Use of water from any fire hydrant without a properly issued and installed fire hydrant meter is theft of City property. Customers who use water for unauthorized purposes or without a City of San Diego issued meter will be prosecuted.
- 8.2 If any unauthorized connection, disconnection or relocation of a fire hydrant meter, or other connection device is made by anyone other than authorized Water Department personnel, the person making the connection will be prosecuted for a violation of San Diego Municipal Code, Section 67.15. In the case of a second offense, the customer's fire hydrant meter shall be confiscated and/or the deposit will be forfeited.
- 8.3 Unauthorized water use shall be billed to the responsible party. Water use charges shall be based on meter readings, or estimates when meter readings are not available.
- 8.4 In case of unauthorized water use, the customer shall be billed for all applicable charges as if proper authorization for the water use had been obtained, including but not limited to bi-monthly service charges, installation charges and removal charges.

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- 8.5 If damage occurs to Water Department property (i.e. fire hydrant meter, backflow, various appurtenances), the cost of repairs or replacements will be charged to the customer of record (applicant).

Water Department Director

- Tabs: 1. Fire Hydrant Meter Application
2. Construction & Maintenance Related Activities With No Return To Sewer
3. Notice of Discontinuation of Service

APPENDIX

Administering Division: Customer Support Division

Subject Index: Construction Meters
Fire Hydrant
Fire Hydrant Meter Program
Meters, Floating or Vehicle Mounted
Mobile Meter
Program, Fire Hydrant Meter

Distribution: DI Manual Holders



Application for Fire (EXHIBIT A) Hydrant Meter

(For Office Use Only)

NS REQ	FAC#
DATE	BY

METER SHOP (619) 527-7449

Meter Information

Application Date	Requested Install Date:
------------------	-------------------------

Fire Hydrant Location: (Attach Detailed Map//Thomas Bros. Map Location or Construction drawing.) <u>Zip:</u>	<u>T.B.</u>	<u>G.B. (CITY USE)</u>
Specific Use of Water:		
Any Return to Sewer or Storm Drain, If so, explain:		
Estimated Duration of Meter Use: <input type="text"/>	<input type="checkbox"/>	Check Box if Reclaimed Water

Company Information

Company Name:			
Mailing Address:			
City:	State:	Zip:	Phone: ()
*Business license#		*Contractor license#	
A Copy of the Contractor's license OR Business License is required at the time of meter issuance.			
Name and Title of Billing Agent: <small>(PERSON IN ACCOUNTS PAYABLE)</small>		Phone: ()	
Site Contact Name and Title:		Phone: ()	
Responsible Party Name:		Title:	
Cal ID#		Phone: ()	
Signature:		Date:	
Guarantees Payment of all Charges Resulting from the use of this Meter. Insures that employees of this Organization understand the proper use of Fire Hydrant Meter			

Fire Hydrant Meter Removal Request		Requested Removal Date:
<input type="text"/>		
Provide Current Meter Location if Different from Above:		
Signature:		Title: Date:
Phone: ()	Pager: ()	

<input type="checkbox"/> City Meter	<input type="checkbox"/> Private Meter	
Contract Acct #:	Deposit Amount: \$ 936.00	Fees Amount: \$ 62.00
Meter Serial #	Meter Size: 05	Meter Make and Style: 6-7
Backflow #	Backflow Size:	Backflow Make and Style:
Name:	Signature:	Date:

WATER USES WITHOUT ANTICIPATED CHARGES FOR RETURN TO SEWER

Auto Detailing
Backfilling
Combination Cleaners (Vactors)
Compaction
Concrete Cutters
Construction Trailers
Cross Connection Testing
Dust Control
Flushing Water Mains
Hydro Blasting
Hydro Seeing
Irrigation (for establishing irrigation only; not continuing irrigation)
Mixing Concrete
Mobile Car Washing
Special Events
Street Sweeping
Water Tanks
Water Trucks
Window Washing

Note:

1. If there is any return to sewer or storm drain, then sewer and/or storm drain fees will be charges.

Date

Name of Responsible Party

Company Name and Address

Account Number: _____

Subject: Discontinuation of Fire Hydrant Meter Service

Dear Water Department Customer:

The authorization for use of Fire Hydrant Meter # _____, located at *(Meter Location Address)* ends in 60 days and will be removed on or after *(Date Authorization Expires)*. Extension requests for an additional 90 days must be submitted in writing for consideration 30 days prior to the discontinuation date. If you require an extension, please contact the Water Department, or mail your request for an extension to:

City of San Diego
Water Department
Attention: Meter Services
2797 Caminito Chollas
San Diego, CA 92105-5097

Should you have any questions regarding this matter, please call the Fire Hydrant Hotline at (619) _____ - _____.

Sincerely,

Water Department

APPENDIX C

MATERIALS TYPICALLY ACCEPTED BY CERTIFICATE OF COMPLIANCE

MATERIALS TYPICALLY ACCEPTED BY CERTIFICATE OF COMPLIANCE

1. Soil amendment
2. Fiber mulch
3. PVC or PE pipe up to 16 inch diameter
4. Stabilizing emulsion
5. Lime
6. Preformed elastomeric joint seal
7. Plain and fabric reinforced elastomeric bearing pads
8. Steel reinforced elastomeric bearing pads
9. Waterstops (Special Condition)
10. Epoxy coated bar reinforcement
11. Plain and reinforcing steel
12. Structural steel
13. Structural timber and lumber
14. Treated timber and lumber
15. Lumber and timber
16. Aluminum pipe and aluminum pipe arch
17. Corrugated steel pipe and corrugated steel pipe arch
18. Structural metal plate pipe arches and pipe arches
19. Perforated steel pipe
20. Aluminum underdrain pipe
21. Aluminum or steel entrance tapers, pipe downdrains, reducers, coupling bands and slip joints
22. Metal target plates
23. Paint (traffic striping)
24. Conductors
25. Painting of electrical equipment
26. Electrical components
27. Engineering fabric
28. Portland Cement
29. PCC admixtures
30. Minor concrete, asphalt
31. Asphalt (oil)
32. Liquid asphalt emulsion
33. Epoxy

APPENDIX D

SAMPLE CITY INVOICE WITH CASH FLOW FORECAST

City of San Diego, CM&FS Div., 9753 Chesapeake Drive, SD CA 92123

Project Name:

Work Order No or Job Order No.

City Purchase Order No.

Resident Engineer (RE):

RE Phone#: Fax#:

Contractor's Name:

Contractor's Address:

Contractor's Phone #:

Contractor's fax #:

Contact Name:

Invoice No.

Invoice Date:

Billing Period: (To)

Item #	Item Description	Contract Authorization				Previous Totals To Date		This Estimate		Totals to Date	
		Unit	Price	Qty	Extension	%/QTY	Amount	% / QTY	Amount	% / QTY	Amount
1					\$ -		\$ -		\$ -	0.00	\$ -
2					\$ -		\$ -		\$ -	0.00%	\$ -
3					\$ -		\$ -		\$ -	0.00%	\$ -
4					\$ -		\$ -		\$ -	0.00%	\$ -
5					\$ -		\$ -		\$ -	0.00%	\$ -
6					\$ -		\$ -		\$ -	0.00%	\$ -
7					\$ -		\$ -		\$ -	0.00%	\$ -
8					\$ -		\$ -		\$ -	0.00%	\$ -
5					\$ -		\$ -		\$ -	0.00%	\$ -
6					\$ -		\$ -		\$ -	0.00%	\$ -
7					\$ -		\$ -		\$ -	0.00%	\$ -
8					\$ -		\$ -		\$ -	0.00%	\$ -
9					\$ -		\$ -		\$ -	0.00%	\$ -
10					\$ -		\$ -		\$ -	0.00%	\$ -
11					\$ -		\$ -		\$ -	0.00%	\$ -
12					\$ -		\$ -		\$ -	0.00%	\$ -
13					\$ -		\$ -		\$ -	0.00%	\$ -
14					\$ -		\$ -		\$ -	0.00%	\$ -
15					\$ -		\$ -		\$ -	0.00%	\$ -
16					\$ -		\$ -		\$ -	0.00%	\$ -
17	Field Orders				\$ -		\$ -		\$ -	0.00%	\$ -
					\$ -		\$ -		\$ -	0.00%	\$ -
	CHANGE ORDER No.				\$ -		\$ -		\$ -	0.00%	\$ -
					\$ -		\$ -		\$ -	0.00%	\$ -
Total Authorized Amount (including approved Change Order)					\$ -		\$ -		\$ -	Total Billed	\$ -

SUMMARY

A. Original Contract Amount	\$ -
B. Approved Change Order #00 Thru #00	\$ -
C. Total Authorized Amount (A+B)	\$ -
D. Total Billed to Date	\$ -
E. Less Total Retention (5% of D)	\$ -
F. Less Total Previous Payments	\$ -
G. Payment Due Less Retention	\$0.00
H. Remaining Authorized Amount	\$0.00

I certify that the materials
have been received by me in
the quality and quantity specified

Resident Engineer

Construction Engineer

Retention and/or Escrow Payment Schedule

Total Retention Required as of this billing (Item E)	\$0.00
Previous Retention Withheld in PO or in Escrow	\$0.00
Add'l Amt to Withhold in PO/Transfer in Escrow:	\$0.00
Amt to Release to Contractor from PO/Escrow:	

Contractor Signature and Date: _____

NOTE: CONTRACTOR TO CALCULATE TO THE 2ND DECIMAL PLACE.

WBS #:	B18108
Date Submitted:	10/10/2018
NTP Date:	3/23/2018
Final Statement of WD Date:	5/23/2020
Contract #:	K-XX-XXXX-XXX-X
Contract Amount:	\$5,617,000

Construction Cash Flow Forecast

"Sewer and Water Group Job 965 (W)"

Year	January	February	March	April	May	June	July	August	September	October	November	December
2018				15,000	25,000	52,000	52,000	100,000	10,000	100,000	100,000	100,000
2019	10,000	10,000	85,000	58,000	100,000	100,000	100,000	100,000	100,000	100,000	1,000,000	1,000,000
2020	100,000	100,000	100,000	1,000,000	1,000,000							
2021												
2022												
2023												
2024												
2025												

APPENDIX E

LOCATION MAP

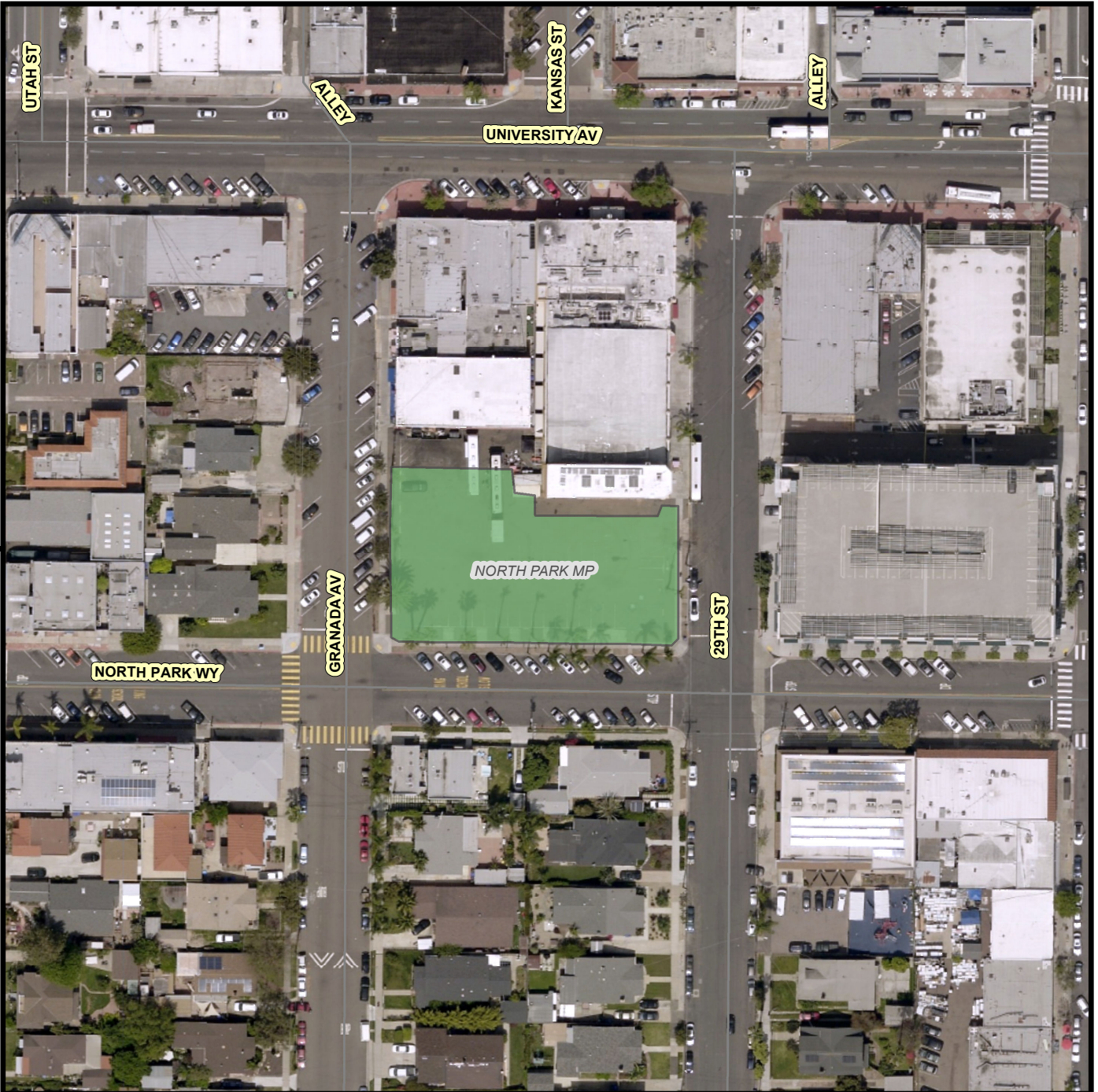
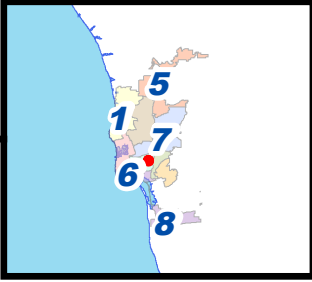
North Park Mini Park

PROJECT OFFICER II
Kevin Oliver
619-533-5139

PROJECT MANAGER
Yovanna Lewis
619-533-5130

PROJECT ENGINEER
Mehdi Rashidpour
619-533-4221

FOR QUESTIONS ABOUT THIS PROJECT
Call: 619-533-4207
Email: engineering@sandiego.gov



North Park Mini Park S10050



APPENDIX F

ADJACENT PROJECT MAP

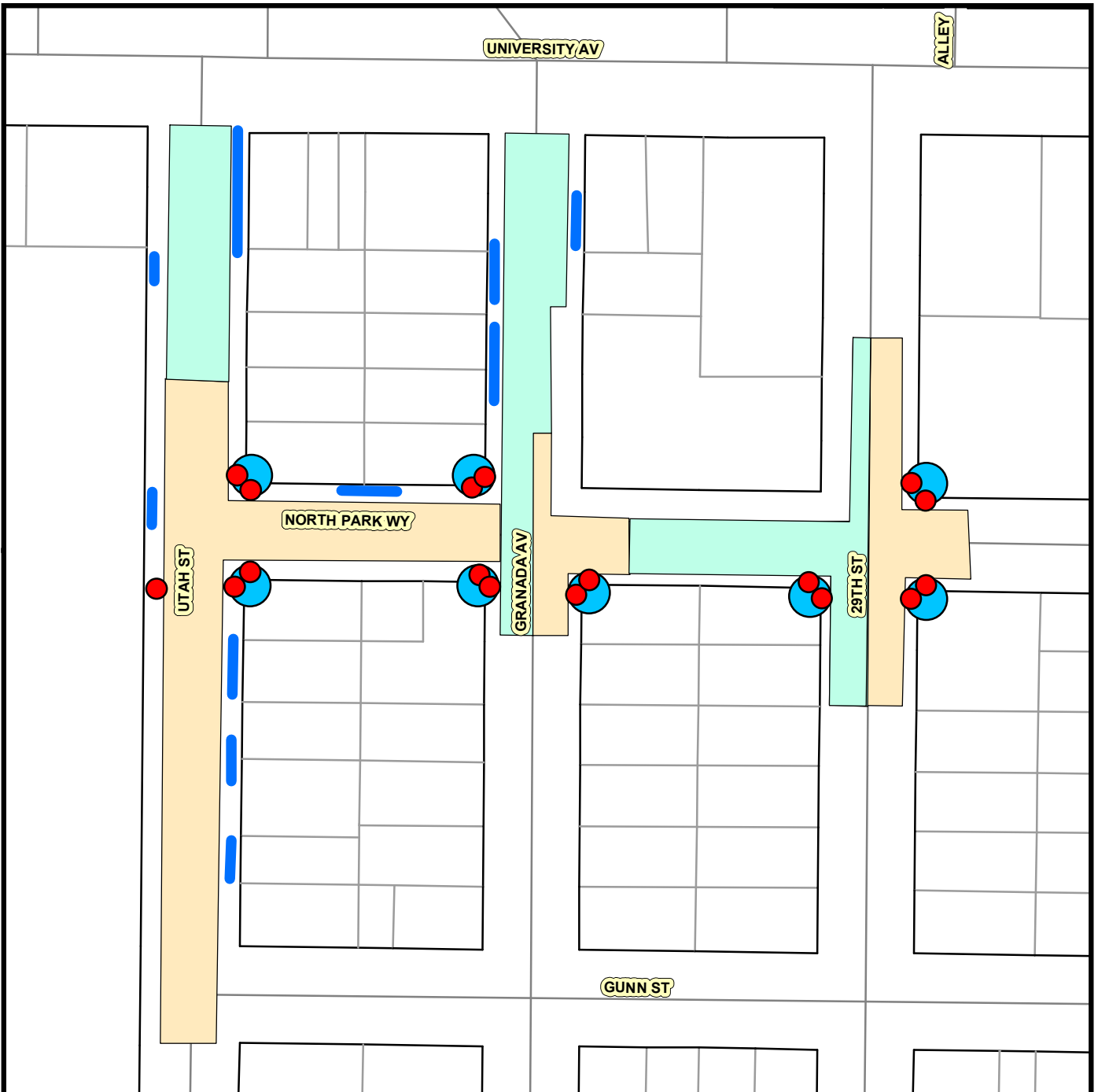
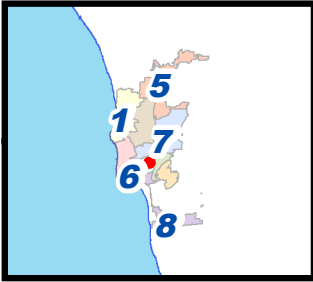
North Park Mini Park PED Improvements

SENIOR ENGINEER
DANIEL NUTTER
(619) 533-7492

PROJECT MANAGER
JESUS GARCIA
(619) 533-5410

PROJECT ENGINEER
HEIDI LEON
(619) 533-7531

FOR QUESTIONS ABOUT THIS PROJECT
Call: 619-533-4207
Email: engineering@sandiego.gov



Legend

- Proposed Curb Ramps
- Proposed Pop Out & Sidewalk
- Proposed Sidewalk
- Street Overlay
- Street Reconstruction



COMMUNITY NAME: GREATER NORTH PARK

COUNCIL DISTRICT: 3

SAP ID: B-17102

Date: May 17, 2018



APPENDIX G

SAMPLE OF PUBLIC NOTICE



CONSTRUCTION NOTICE

PROJECT TITLE

Work on your street will begin within one week to replace the existing water mains servicing your community.

The work will consist of:

- Saw-cutting and trench work on Ingulf Street from Morena Boulevard to Galveston Street to install new water mains, water laterals and fire hydrants.
- Streets where trenching takes place will be resurfaced and curb ramps will be upgraded to facilitate access for persons with disabilities where required.
- This work is anticipated to be complete in your community by December 2016.

How your neighborhood may be impacted:

- Water service to some properties during construction will be provided by a two-inch highline pipe that will run along the curb. To report a highline leak call 619-515-3525.
- Temporary water service disruptions are planned. If planned disruptions impact your property, you will receive advance notice.
- Parking restrictions will exist because of the presence of construction equipment and materials.
- "No Parking" signs will be displayed 72 hours in advance of the work.
- Cars parked in violation of signs will be TOWED.

Hours and Days of Operation:

Monday through Friday X:XX AM to X:XX PM.

City of San Diego Contractor:

Company Name, XXX-XXX-XXXX



CONSTRUCTION NOTICE

PROJECT TITLE

Work on your street will begin within one week to replace the existing water mains servicing your community.

The work will consist of:

- Saw-cutting and trench work on Ingulf Street from Morena Boulevard to Galveston Street to install new water mains, water laterals and fire hydrants.
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- Parking restrictions will exist because of the presence of construction equipment and materials.
- "No Parking" signs will be displayed 72 hours in advance of the work.
- Cars parked in violation of signs will be TOWED.

Hours and Days of Operation:

Monday through Friday X:XX AM to X:XX PM.

City of San Diego Contractor:

Company Name, XXX-XXX-XXXX

APPENDIX H

ADVANCED METERING INFRASTRUCTURE (AMI) DEVICE PROTECTION

Protecting AMI Devices in Meter Boxes and on Street Lights

The Public Utilities Department (PUD) has begun the installation of the Advanced Metering Infrastructure (AMI) technology as a new tool to enhance water meter reading accuracy and efficiency, customer service and billing, and to be used by individual accounts to better manage the efficient use of water. **All AMI devices shall be protected per Section 5-2, "Protection", of the 2015 Whitebook.**

AMI technology allows water meters to be read electronically rather than through direct visual inspection by PUD field staff. This will assist PUD staff and customers in managing unusual consumption patterns which could indicate leaks or meter tampering on a customer's property.

Three of the main components of an AMI system are the:

- A. Endpoints, see Photo 1:

Photo 1



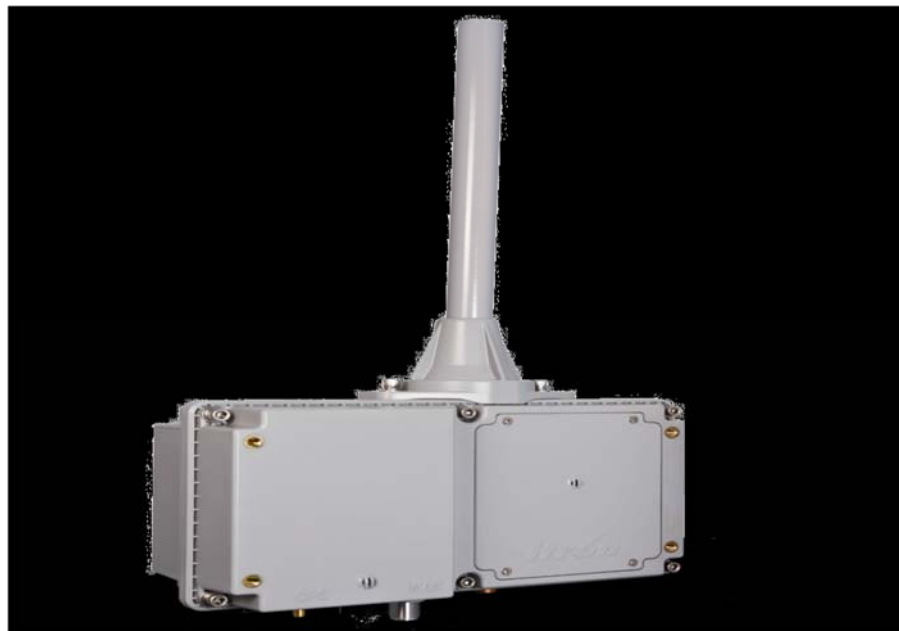
- B. AMI Antenna attached to Endpoint (antenna not always required), see Photo 2:

Photo 2



Network Devices, see Photo 3:

Photo 3



AMI endpoints transmit meter information to the AMI system and will soon be on the vast majority of meters in San Diego. These AMI devices provide interval consumption data to the PUD's Customer Support Division. If these devices are damaged or communication is interrupted, this Division will be alerted of the situation. The endpoints are installed in water meter boxes, coffins, and vaults adjacent to the meter. A separate flat round antenna may also be installed through the meter box lid. This antenna is connected to the endpoint via cable. The following proper installation shall be implemented when removing the lid to avoid damaging the antenna, cable, and/or endpoint. Photo 4 below demonstrates a diagram of the connection:

Photo 4



The AMI device ERT/Endpoint/Transmitter shall be positioned and installed as discussed in this Appendix. If the ERT/Endpoint/Transmitter is disturbed, it shall be re-installed and returned to its original installation with the end points pointed upwards as shown below in Photo 5.

The PUD's code compliance staff will issue citations and invoices to you for any damaged AMI devices that are not re-installed as discussed in the Contract Document

Photo 5 below shows a typical installation of an AMI endpoint on a water meter.

Photo 5

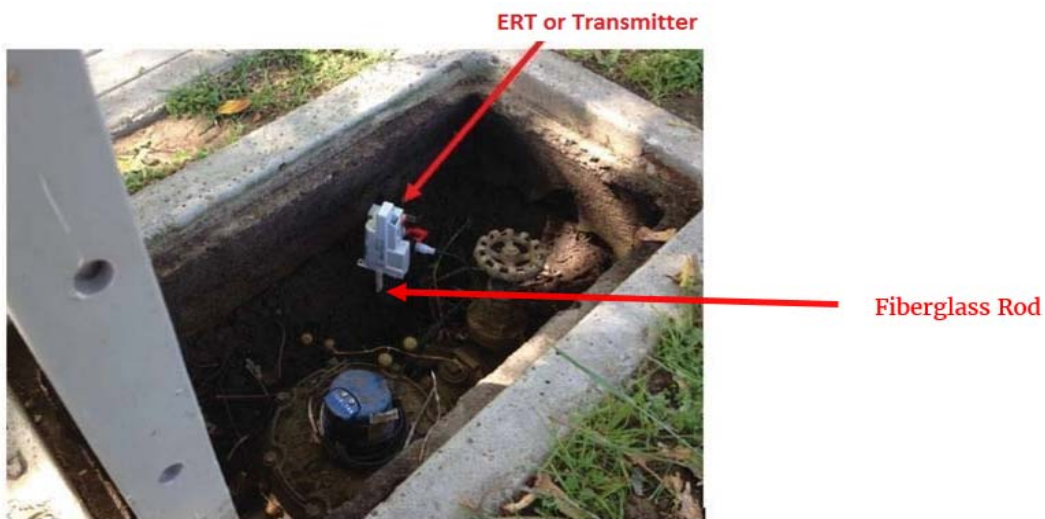


Photo 6 below is an example of disturbance that shall be avoided:

Photo 6



You are responsible when working in and around meter boxes. If you encounter these endpoints, use proper care and do not disconnect them from the registers on top of the water meter. If the lid has an antenna drilled through, do not change or tamper with the lid and inform the Resident Engineer immediately about the location of that lid. Refer to Photo 7 below:

Photo 7



Another component of the AMI system are the Network Devices. The Network Devices are strategically placed units (mainly on street light poles) that collect interval meter reading data from multiple meters for transmission to the Department Control Computer. **If you come across any of these devices on street lights that will be removed or replaced (refer to Photos 8 and 9 below), notify AMI Project Manager Arwa Sayed at (619) 362-0121 immediately.**

Photo 8 shows an installed network device on a street light. On the back of each Network Device is a sticker with contact information. See Photo 9. **Call PUD Water Emergency Repairs at 619-515-3525 if your work will impact these street lights.** These are assets that belong to the City of San Diego and you shall be responsible for any costs of disruption of this network.

Photo 8



Network Device

Photo 9



If you encounter any bad installations, disconnected/broken/buried endpoints, or inadvertently damage any AMI devices or cables, notify the Resident Engineer immediately. The Resident Engineer will then immediately contact the AMI Project Manager, Arwa Sayed, at (619) 362-0121.

APPENDIX I
PRELIMINARY GEOTECHNICAL REPORT

REPORT
PRELIMINARY GEOTECHNICAL INVESTIGATION
North Park Mini Park
29th Street and North Park Way, San Diego, California



PREPARED FOR

KTU+A
3916 Normal Street
San Diego, CA 92103

PREPARED BY



NOVA Services, Inc.
4373 Viewridge Avenue, Suite B
San Diego, CA 92123

NOVA PROJECT 2017771
MARCH 22, 2018

KTU+A
3916 Normal Street
San Diego, CA 92103

March 22, 2018
NOVA Project No. 2017771

Attn: Chris Langdon

Subject: Report
Preliminary Geotechnical Investigation and Infiltration Study
North Park Mini Park
29th Street and North Park Way, San Diego, California

Dear Mr. Langdon:

NOVA Services, Inc. (NOVA) is pleased to forward herewith its report of findings of a preliminary geotechnical investigation and infiltration study for the North Park Mini-Park project.

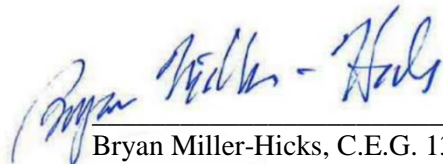
Work related to this revised report was completed by NOVA for KTU+A, in accordance with the scope of work detailed in NOVA's proposal dated August 23, 2016, authorized by you on April 11, 2017.

NOVA appreciates the opportunity to provide its services to KTU+A. Should you have any questions, please do not hesitate to contact the undersigned at (858) 292-7575.

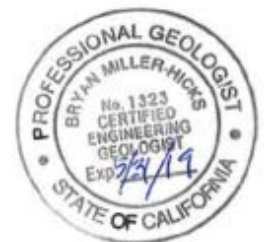
Sincerely,
NOVA Services, Inc.

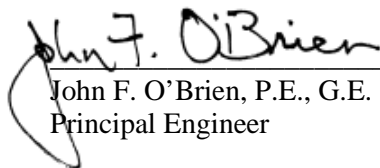


Wail Mokhtar
Project Manager



Bryan Miller-Hicks, C.E.G. 1323
Senior Geologist





John F. O'Brien, P.E., G.E.
Principal Engineer



4373 Viewridge Avenue, Ste. B | San Diego, CA 92123 | P:858.292.7575 | F: 858.292.7570

**REPORT
PRELIMINARY GEOTECHNICAL INVESTIGATION AND
INFILTRATION STUDY**

North Park Mini Park
29th Street and North Park Way, San Diego, California

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1.0 INTRODUCTION

1.1 Terms of Reference

This report presents the findings of a preliminary geotechnical investigation and infiltration study for North Park Mini Park, planned to be developed at 29th Street and North Park Way in the City of San Diego, California (hereafter, 'the site'). Figure 1-1 provides a graphic that depicts the site vicinity.

The work reported herein was completed by NOVA Services, Inc. (NOVA) for KTU+A in accordance with the scope of work detailed in NOVA's proposal dated August 23, 2016.



Figure 1-1. Vicinity Map

1.2 Objectives, Scope, and Limitations of This Work

1.2.1 Objectives

The objectives of the investigation were threefold, namely: (i) to characterize the subsurface conditions at the site; (ii) to develop recommendations for geotechnical-related design and construction; and, (iii) to develop recommendations for siting and design of permanent stormwater infiltration Best Management Practices ('BMPs').

1.2.2 Scope

In order to accomplish the above-described objectives, NOVA undertook the task-based scope of services described below.

- Task 1, Background Review. Reviewed background data, including geotechnical reports, fault investigation reports, topographic maps, geologic data, fault maps, and preliminary development plans for the project.
- Task 2, Field Exploration. Completed a subsurface exploration that included the following elements of work.
 - *Subtask 2-1, Reconnaissance.* Conducted a site reconnaissance, including the layout of exploratory borings. Dig Alert was notified for underground utility mark-out services.
 - *Subtask 2-2, Engineering Borings.* Drilled and sampled two engineering borings. The borings were extended to depths as great as 20 feet below existing ground surface (bgs).
 - *Subtask 2-3, Exploratory Test Pit.* Excavated and logged one exploratory test pit near the southwest corner of the Observatory building.
 - *Subtask 2-4, Percolation Testing.* Drilled two percolation test borings to depths of approximately 6.5 feet bgs. Percolation testing was completed in each boring.
- Task 3, Laboratory Testing. Laboratory testing addressed soil gradation, plasticity, *in-situ* moisture content and density, expansion potential, compressibility, strength, and corrosivity.
- Task 4, Engineering Evaluations. Utilizing data developed by the preceding tasks, NOVA completed geotechnical and stormwater infiltration-focused engineering evaluations.
- Task 5, Reporting. Preparation of this report presenting NOVA's findings and preliminary recommendations completes the scope of work described in NOVA's August 23, 2016, proposal.

1.2.3 Limitations

The recommendations included in this report are not final. These recommendations are developed by NOVA using judgment and opinion and based on the limited information available from the borings. NOVA can finalize its recommendations only by observing actual subsurface conditions revealed during construction. NOVA cannot assume responsibility or liability for the report's recommendations if NOVA does not perform construction observation.

This report does not address any environmental assessment or investigation for the presence or absence of hazardous or toxic materials in the soil, groundwater, or surface water within or beyond the site. In particular, the site of the planned mini-park is bordered to the north by a commercial dry cleaner. Such operations are often associated with environmental impacts to soil and/or groundwater resulting from the uncontrolled release of dry-cleaning solvents. This report does not address any environmental assessment related thereto.

Appendix A to this report provides important additional guidance regarding the use and limitations of this report. This information should be reviewed by all users of the report.

1.3 Understood Use of This Report

NOVA expects that the findings and recommendations provided herein will be utilized by KTU+A and its Design Team in decision-making regarding design and construction of the planned development.

NOVA's recommendations are based on our current understanding and assumptions regarding project development. Effective use of this report by the Design Team should include review by NOVA of the final design. Such review is important for both (i) conformance with the recommendations provided herein, and (ii) consistency with NOVA's understanding of the planned development.

1.4 Report Organization

The remainder of this report is organized as follows:

- Section 2 reviews available project information;
- Section 3 describes the field investigation and laboratory testing;
- Section 4 describes the surface and subsurface conditions;
- Section 5 reviews geologic and soil hazards that may affect the site;
- Section 6 provides recommendations for earthwork and foundations;
- Section 7 provides an evaluation of stormwater infiltration; and,
- Section 8 provides a list of references utilized in the development of this report.

The report is supported by four appendices. Appendix A provides guidance regarding the use and limitations of this report. Appendix B presents geologic logs of NOVA engineering borings and the footing trench. Appendix C provides results of infiltration testing. Appendix D provides records of the geotechnical laboratory testing.

2.0 PROJECT INFORMATION

2.1 Site Description

2.1.1 Location

The approximately 0.5-acre site is located between Granada Avenue to the west, 29th Street to the east, North Park Way to the south, and existing buildings including the North Park Observatory, to the north, in San Diego, California. The property is identified as Assessor's Parcel Number 453-121-04.

Figure 2-1 depicts the location and limits of the site on a recent aerial photo.



Figure 2-1. North Park Mini-Park Location and Limits

(Source: Google Earth 2017)

2.1.2 Current and Historic Use

The asphalt-surfaced site is developed for at-grade parking. Review of aerial photography dating to 1994 indicates the same site use.

3.0 FIELD EXPLORATION AND LABORATORY TESTING

3.1 Overview

NOVA's field exploration was completed on July 31, 2017. That work included two engineering borings and (B-1 and B-2), two percolation test borings (P-1 and P-2) and a trench (T-1) used to inspect the condition of an adjacent foundation. Percolation testing was performed in both P-1 and P-2.

The engineering borings and percolation/ infiltration borings were completed by specialty subcontractors retained by NOVA. The trench was excavated by NOVA personnel. All work was completed under the continuous supervision of a NOVA geologist.

The remainder of this section describes the field exploration. Figure 3-1 presents a plan view of the site indicating the location of engineering borings, percolation test borings, and the footing trench.

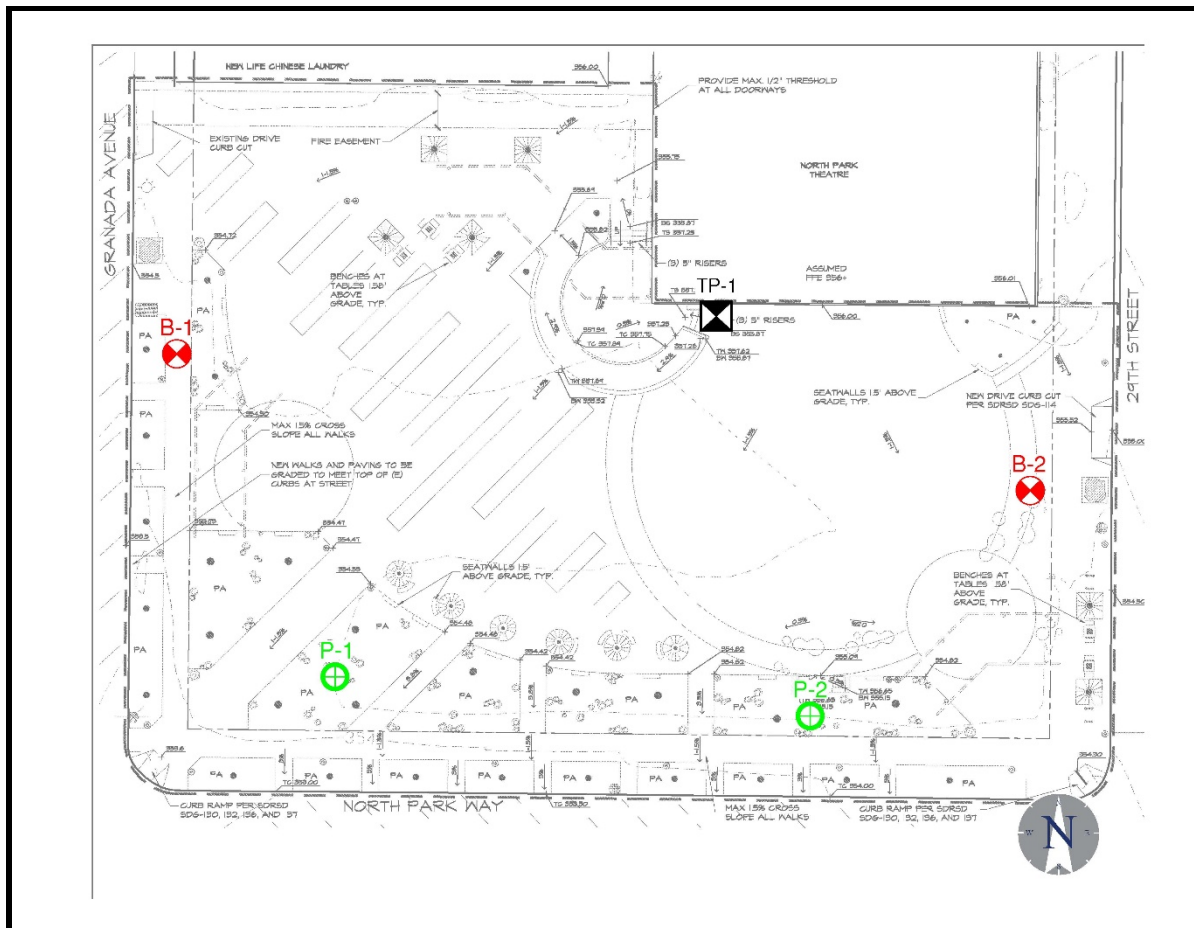


Figure 3-1. Boring, Percolation Test and Trench Locations

3.2 Engineering Borings

3.2.1 General

The engineering borings were advanced by a truck-mounted drilling rig utilizing hollow stem auger drilling equipment. Boring locations were determined in the field by the NOVA geologist. Elevations of the ground surface at the boring locations were estimated.

Table 3-1 provides an abstract of the engineering borings.

Table 3-1. Abstract of the Engineering Borings

Boring Reference	Approximate Ground Elevation (feet, msl)	Total Boring Depth (feet)	Thickness of Fill (feet)	Depth to Groundwater (feet)
B-1	357	18.6	8	not encountered
B-2	357	20	5.5	not encountered

The engineering borings each penetrated a layer of fill, below which the borings encountered sandy and gravelly soil of a locally extensive geologic unit known as Very Old Paralic Unit 8 (Qvop8). Table 3-1 tabulates the thickness of fill encountered at each boring location. As may be seen by review of Table 3-1, groundwater was not encountered by this work.

3.2.2 Logging and Sampling

The borings were completed under the direction of a geologist from NOVA who collected samples and maintained a log of the subsurface materials that were encountered.

Both disturbed and relatively undisturbed samples were recovered from the borings. Sampling of soils is described below.

1. The Modified California sampler ('ring sampler', after ASTM D 3550) was driven using a 140-pound hammer falling for 30 inches with a total penetration of 18 inches, recording blow counts for each 6 inches of penetration.
2. The Standard Penetration Test sampler ('SPT', after ASTM D1586) was driven in the same manner as the ring sampler, recording blow counts in the same fashion. SPT blow counts for the final 12 inches of penetration comprise the SPT 'N' value, an index of soil consistency.
3. Bulk samples were recovered from the upper 5 feet of the subsurface, providing composite samples for testing of soil moisture and density relationships and corrosivity.

Logs of the borings are provided in Appendix B.

3.2.3 Closure

Each boring was backfilled to the ground surface with cuttings upon completion. The area of each boring was restored as closely as possible to its approximate condition before drilling.

3.3 Laboratory Testing

3.3.1 General

Soil samples recovered from the engineering borings were transferred to NOVA's geotechnical laboratory where a geotechnical engineer reviewed the soil samples and the field logs.

Representative soil samples were selected and tested in NOVA's materials laboratory to check visual classifications and to determine pertinent engineering properties. The laboratory program included visual classifications of all soil samples as well as index, expansivity and strength testing in general accordance with ASTM standards.

The structures planned for the park will be relatively lightweight, affecting only the near surface soils. Accordingly, index testing was undertaken to characterize these fine-grained soils. Records of the geotechnical laboratory testing are provided in Appendix D.

3.3.2 Expansion Potential

The borings completed this work, disclose the occurrence of plastic, clayey soils in the near surface. Index testing was completed to address the potential for these soils to be expansive

Gradation testing indicates that the soils within the upper 5 feet of the ground surface are very fine-grained (with typically 70% finer than the U.S. #200 sieve), and moderately to highly plastic. Plasticity characterized by Atterberg limits (after ASTM D 4318) indicates a Liquid Limit (LL) of 60 and Plasticity Index (PI) of 43, characteristic of a highly plastic clay ('CH').

Testing to determine Expansion Index ('EI', after ASTM D4829) was also performed to evaluate expansion. The expansion test was performed on a remolded sample of soil within the upper 5 feet of the ground surface. The results of the expansion index test indicated that fill possesses a medium expansion potential (EI = 86), a finding consistent with the indications of the Atterberg limits testing.

EI has been adopted by the 2013 California Building Code ('CBC', Section 1803.5.3) for characterization of expansive soils. Table 3-2 tabulates the qualitative descriptors of expansion potential as included with ASTM D 4829 and the 2013 CBC.

Table 3-2. Qualitative Descriptors of Expansion Potential

Expansion Index ('EI'), ASTM D 4829	Expansion Potential, ASTM D 4829	Expansion Classification, 2013 CBC
0 to 20	Very Low	Non-Expansive
21 to 50	Low	Expansive
51 to 90	Medium	
91 to 130	High	
>130	Very high	

The EI of 86 drives design to adapt to expansive soils as required by the 2013 CBC.

3.3.3 Moisture-Density Relationship

The existing fill soil will readily densify and will be able to develop an R-value of 11 as a basis for the bearing of paved surfaces. The near surface soils will compact to an optimum dry density of about 116 pounds per cubic foot at an optimum moisture content of about 14%.

3.3.4 Corrosivity Testing

Chemical tests were performed on a representative sample of the near-surface soils by Clarkson Laboratory and Supply, Inc. Resistivity, sulfate content and chloride contents were determined to estimate the potential corrosivity of on-site soils. The testing indicates that the site soils may be moderately corrosive to embedded metals. The level of sulfates is sufficiently low that there is no risk of sulfate attack to embedded concrete. Section 6 discusses the indications of these data in more detail

3.4 Footing Trench

A trench was excavated near the southwestern corner of the existing North Park Observatory (North Park Theater), in order to expose and inspect the exterior footings of the building.

The asphalt surfacing at the trench location was saw cut and removed prior to excavation. The trench was then hand excavated so as not to disturb existing utilities or damage any structures. NOVA noted that the asphalt paving at the trench location is as much as 12 inches in thickness.

The trench was excavated to a depth of approximately six feet, exposing an existing basement wall rather than a conventional footing. NOVA was unable to review building plans showing basement dimensions, including depth. Therefore, the hand excavation was terminated at six feet below pavement surface. Figure 3-2 depicts the trench.



Figure 3-2. Footing Inspection Trench

During the process of excavating the trench, a piece of existing waterproofing was removed. This waterproofing was repaired and replaced. The trench was backfilled, and the surface was patched by replacing some saw cut asphalt blocks and covering those blocks with cold patch asphalt.

3.5 Percolation Testing

3.5.1 General

NOVA directed the excavation and construction of two (2) percolation test borings, following the recommendations for percolation testing presented in the City of San Diego BMP Design Manual. The locations of these borings are shown in Figure 3-1.

3.5.2 Drilling

Borings were drilled with a truck mounted 8-inch hollow stem auger to the level of the base of proposed storm water infiltration BMPs. Field measurements were taken to confirm that the borings were excavated to approximately 8-inches in diameter.

The borings were logged by a NOVA geologist, who observed and recorded exposed soil cuttings and the boring conditions. Logs of the exploratory percolation test borings are provided in Appendix B.

3.5.3 Conversion to Percolation Wells

Once the test borings were drilled, the borings were converted to percolation wells by placing an approximately 2-inch layer of ¾-inch gravel on the bottom, then extending 3-inch diameter Schedule 40 perforated PVC pipe to the ground surface. The ¾-inch gravel was used to fill the annular space around the perforated pipe to at least 12-inches below existing finish grade to minimize potential soil caving.

3.5.4 Percolation Testing

The percolation test holes were pre-soaked before testing and immediately prior to testing. The pre-soak process consisted of filling the hole twice with water before testing. Water levels were recorded every 30 minutes for six hours (minimum of 12 readings), or until percolation stabilized. After each reading, the water level was raised to close to the previous water level to maintain a near constant head before subsequent readings. Table 3-3 abstracts the results of the percolation testing.

Table 3-3. Summary of the Percolation Borings

Boring	Approx. Elevation (feet, msl)	Total Depth (feet)	Approximate Percolation Test Elev. (feet, msl)	Percolation Rate (in/hour)	Subsurface Unit Tested^{1,2}
P-1	357	5	352	2.5	Qaf
P-2	357	5	352	0.72	Qaf

Notes:

1. The referenced unit is the Undocumented Artificial Fill (Qaf).
2. Groundwater first occurs below a depth of 52 feet bgs, as determined by borings for this work.

3.5.5 Closure

At the conclusion of percolation testing, the upper sections of the PVC pipe were removed and the holes backfilled with soil cuttings and patched to match the existing surfacing.

4.0 SITE CONDITIONS

4.1 Geologic Setting

4.1.1 Regional

The project area is located in the coastal portion of the Peninsular Range geomorphic province. This geomorphic province encompasses an area that extends approximately 900 miles from the Transverse Ranges and the Los Angeles Basin south to the southern tip of Baja California. The province varies in width from approximately 30 to 100 miles.

The site is situated within the coastal plain zone of the Peninsular Ranges geomorphic province. The geology of this area is controlled by both alluvial and marine influences. This plain is underlain by near-shore marine sedimentary rocks deposited at various intervals between late-Mesozoic through Quaternary time. This area has undergone several episodes of marine inundation and subsequent marine regression (coastline changes) throughout the last 54 million years. These events have resulted in the deposition of a thick sequence of marine and nonmarine sedimentary rocks on the basement igneous rocks of the Southern California Batholith and metamorphic rocks.

Gradual emergence of the region from the sea occurred in Pleistocene time, and numerous wave-cut platforms, most of which were covered by relatively thin marine and nonmarine terrace deposits, formed as the sea receded from the land. Accelerated fluvial erosion during periods of heavy rainfall, along with the lowering of base sea level during Quaternary times, resulted in the rolling hills, mesas, and deeply incised canyons which characterize the landforms in western San Diego County.

The Coastal Plain increases in elevation from west to east across the marine terrace surfaces uplifted during Pleistocene time. Sedimentary rocks consist of sandstones, siltstones, and claystones that were deposited during the Cretaceous, Tertiary, and Quaternary periods.

4.1.2 Site Specific

Geologic mapping of the site area indicates that the uppermost geologic unit is the Pleistocene-aged Very Old Paralic Unit 8 (Qvop8).

The Paralic deposits are shallow marine and nonmarine (talus and slopewash) deposits of early Pleistocene age. The Paralic sediments were deposited on a currently-raised 6 mile-wide (west to east) wavecut platform. This unit is composed of typically consolidated, light brown to reddish brown, clean to silty, medium- to coarse-grained sand and gravels, with localized interbeds of clayey sand and sandy clay. These deposits are characteristically dense, providing foundation support for a number of major civil works in the San Diego area.

The Paralic sediments were deposited over large areas of the region, found from the International Border to northern Carlsbad. They comprise the dominant near-surface geologic formation in much of the San Diego region. It is likely that the Paralic deposits at this site extend to a depth of at least 30 feet below existing ground surface.

Figure 4-1 (following page) reproduces geologic mapping of the site vicinity.

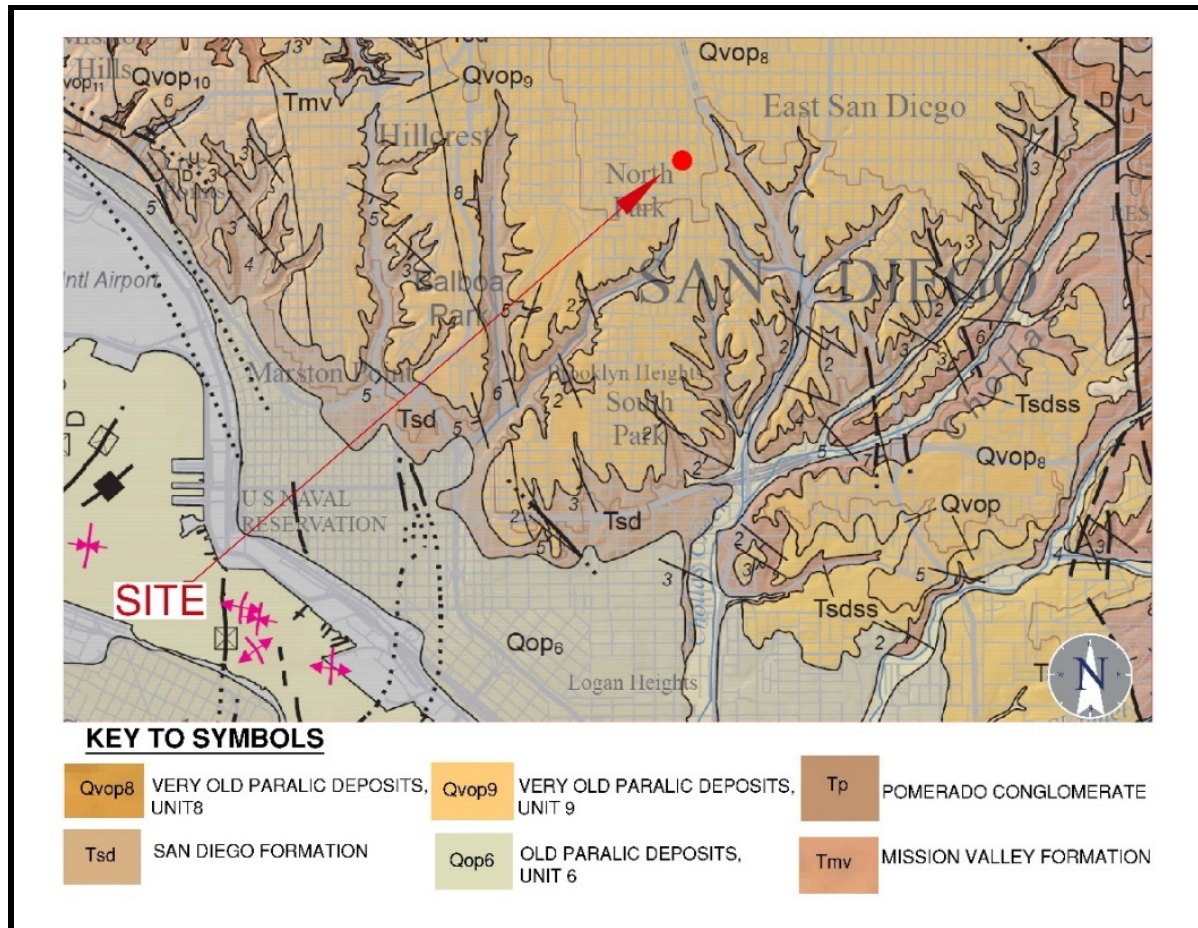


Figure 4-1. Geologic Map of the Site Vicinity

4.2 Site Conditions

4.2.1 Surface

The 0.5-acre site is paved with asphalt for use as a parking lot. As previously discussed, review of aerial photography indicates the same site use since at least 1994.

The ground surface of the site is relatively level, at about Elevation +357 feet msl. This elevation is generally set 2 feet above the surrounding street levels. The periphery of the site area is sloped at about 5%, such that storm water/surface water drains radially to surrounding sidewalks and streets.

The site is surrounded by mature palm trees. The only structure is a small (about 2 feet wide by 8 feet tall by 8 feet long) windowless structure that appears related to power or lighting

Figure 4-2 depicts the site's surface conditions at the time of NOVA's July 2017 field exploration.



Figure 4-2. Surface Conditions, July 2017

4.2.2 Subsurface

For the purposes of this report, subsurface materials below the fill generally occur as the sequence of soil and rock described below.

1. Unit 1, Fill. The entire site is covered by five to eight feet of fill. The fill is clayey, likely sourced from the upper portions of the naturally occurring Paralic deposits common to this area. The clayey fill is of medium stiff consistency, considered ‘undocumented’ due to the lack of records regarding its placement. Laboratory testing (see Section 3.3.2) shows the clayey fill to be expansive ($EI = 86$).
2. Unit 2, Paralics. Beneath the fill, the site is underlain by Quaternary-aged very old Paralic deposits. As encountered in the borings, the soils are silty and sandy, of dense to very dense consistency. The Paralic deposits extend to depths beyond the maximum depth (20 feet) explored.

4.2.3 Groundwater

No groundwater was encountered in borings that extended to 20 feet bgs, about elevation +337 feet msl.

Infiltrating storm water from prolonged wet periods can ‘perch’ atop localized zones of lower permeability soil that exist above the static groundwater level. Localized perched groundwater conditions may also develop once site development is complete and landscape irrigation commences. No perched groundwater was observed during drilling of the engineering borings.

4.2.4 Surface Water

No surface water was evident on the site at the time of NOVA’s work. Reconnaissance of the site indicated no visual evidence of seeps, springs, erosion, staining, etc. that would indicate recent problems with surface water.

5.0 REVIEW OF GEOLOGIC AND SOIL HAZARDS

5.1 Overview

This section provides review of soil and geologic hazards common to this region of California, considering each for its potential to affect the site.

The primary hazard during the life of the planned development is the likelihood of moderate-to-severe ground shaking in response to a large-magnitude earthquake. While there is no risk of liquefaction or related seismic phenomena, strong ground motion will affect the site in the event of a large regional or local seismic event. This circumstance is common to all civil works in this area of California.

Laboratory testing shows that the clayey soils of Unit 1 have medium to high expansion potential. If the Unit 1 soils are reused as fill and improperly handled, the soils will be subject to expansion/shrinkage, leading to cracking and distress in pavements. Section 6 addresses this design consideration.

5.2 Geologic Hazards

5.2.1 Strong Ground Motion

The site is not located within a currently designated Alquist-Priolo Earthquake Zone (Hart and Bryant, 2007). No known active faults are mapped underlying the site area. The nearest known active faults are within the Rose Canyon fault system, located approximately two miles west of the site. This system has the potential to be a source of strong ground motion. The Florida Canyon Fault, approximately 3,500 feet to the west, is designated as potentially active, inactive, presumed inactive, or activity unknown.

The seismicity of the site was evaluated utilizing a web-based analytical tool provided by the USGS. This evaluation shows the site may be subjected to a Magnitude 7 seismic event, with a corresponding risk-based Peak Ground Acceleration (PGA_M) of $PGAM = 0.49\text{ g}$.

5.2.2 Fault Rupture

No evidence of faulting was observed during NOVA's geologic reconnaissance of the site. No faulting is otherwise mapped at the site. Because of the lack of known active faults on the site, the potential for surface rupture at the site is considered low. Shallow ground rupture due to shaking from distant seismic events is not considered a significant hazard, although it is a possibility at any site.

Figure 5-1 (following page) reproduces seismic hazard mapping of the site vicinity by the City of San Diego (reference, *City of San Diego, Seismic Safety Study, Geologic Hazards and Faults*, City of San Diego Development Services Department, April 3, 2008) that depicts faulting in the site vicinity. This graphic indicates the approximately north-south alignment of the Quaternary-aged Texas Street fault, located about 1000 feet west of the site.

The green shading of Figure 5-1 is coded to indicate "*Other level areas, gently sloping steep terrain, favorable structure. Low risk*"

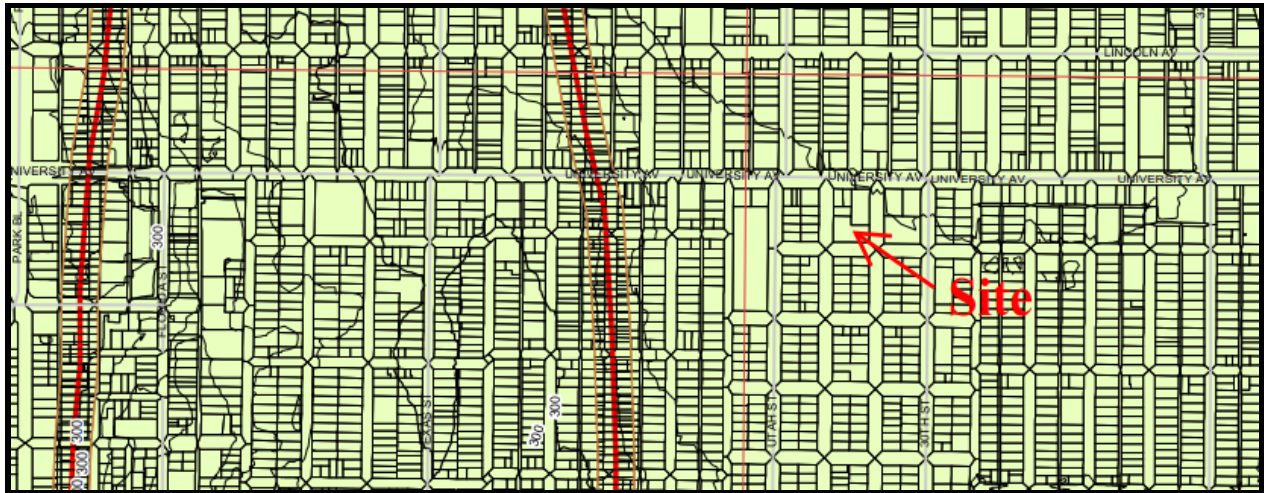


Figure 5-1. Location of the Site Relative to the Texas Street Fault

5.2.3 Landslide

As used herein, ‘landslide’ describes downslope displacement of a mass of rock, soil, and/or debris by sliding, flowing, or falling. Such mass earth movements are greater than about 10 feet thick and larger than 300 feet across. Landslides typically include cohesive block glides and disrupted slumps that are formed by translation or rotation of the slope materials along one or more slip surfaces.

The causes of classic landslides start with a preexisting condition- characteristically, a plane of weak soil or rock- inherent within the rock or soil mass. Thereafter, movement may be precipitated by earthquakes, wet weather, and changes to the structure or loading conditions on a slope (e.g., by erosion, cutting, filling, release of water from broken pipes, etc.).

In consideration of the level ground at and around the site, NOVA considers the landslide hazard at the site to be ‘negligible’ for the site and the surrounding area.

5.3 Soil Hazards

5.3.1 Embankment Stability

As used herein, ‘embankment stability’ is intended to mean the safety of localized natural or man-made embankments against failure. Unlike landslides described above, embankment stability can include smaller scale slope failures such as erosion-related washouts and more subtle, less evident processes such as soil creep.

No new slopes are planned as part of the future site development. There are no existing slopes on the site. There is no concern regarding embankment stability at this site.

5.3.2 Liquefaction

Liquefaction” refers to the loss of soil strength during a seismic event. The phenomenon is observed in areas that include geologically ‘younger’ soils, shallow water table, and cohesionless (i.e., sandy and silty) soils of loose consistency. The ground motions increase soil water pressures, decreasing grain-to-grain contact among the soil particles, which causes the soils to lose strength.

Resistance of a soil mass to liquefaction increases with increasing density, plasticity (associated with clay-sized particles of varying mineralogy), geologic age, cementation, and stress history. Because of the relatively dense and geologically ‘older’ subsurface, there is no potential for liquefaction at this site.

5.3.3 Seismically Induced Settlement

During a strong seismic event, seismically induced settlement can occur within loose to moderately dense, unsaturated granular soils, separate from liquefaction. The clayey soils of Unit 1 and cohesionless sandy soils of Unit 2 are sufficiently dense that these soils will not be prone to seismic settlement.

5.3.4 Lateral Spreading

Lateral spreading is a phenomenon in which large blocks of intact, non-liquefied soil move downslope on a liquefied soil layer. Lateral spreading is often a regional event. For lateral spreading to occur, a liquefiable soil zone must be laterally continuous and unconstrained, free to move along sloping ground. Due to the absence of a potential for liquefaction, there is no potential for lateral spreading.

5.3.5 Expansive Soil

Expansive soils are characterized by their ability to undergo significant volume changes (shrinking or swelling) due to variations in moisture content, the magnitude of which is related to both clay content and plasticity index. These volume changes can be damaging to structures. Nationally, the annual value of real estate damage caused by expansive soils is exceeded only by that caused by termites.

As is discussed in Section 3, the soils have been characterized by testing to determine Expansion Index (‘EI’ after ASTM D 4829). The EI test of the remolded sample of the Unit 1 fill indicated EI = 61, indicating ‘medium’ expansion potential. Originally developed in Orange County in the 1960s, EI is a basic soil index property, comparable to indices such as the Atterberg limits of soils. The expansion index has been judged by ASTM “... to have a greater range and better sensitivity of expansion potential than other indices...” EI has been adopted by the 2016 California Building Code (‘CBC’, Section 1803.5.3) for characterization of expansive soils. The listing below tabulates the qualitative descriptors of expansion potential based upon EI.

Table 5-1. Qualitative Descriptors of Expansion Potential

Expansion Index (‘EI’), ASTM D 4829	Expansion Potential, ASTM D 4829	Expansion Classification, 2016 CBC
0 to 20	Very Low	Non-Expansive
21 to 50	Low	Expansive
51 to 90	Medium	
91 to 130	High	
>130	Very high	

Because the soils are shown to be expansive, the 2016 CBC requires management of these soils. As such. Code-driven alternatives for management include (i) removal, (ii) modification, or (iii) design of structures to adapt to movement of the soils. Section 6 provides guidance for using these soils for the planned mini park by a combination of removal and modification.

5.3.6 Hydro-Collapsible Soils

Hydro-collapsible soils are common in the arid climates of the western United States in specific depositional environments (principally, in areas of young alluvial fans, debris flow sediments and loess (wind-blown sediment) deposits. These soils are characterized by low *in-situ* density, low moisture contents, and relatively high unwetted strength.

The soil grains of hydro-collapsible soils were initially deposited in a loose state (i.e., high initial ‘void ratio’) and thereafter lightly bonded by water sensitive binding agents (e.g., clay particles, low-grade cementation, etc.). While relatively strong in a dry state, the introduction of water into these soils causes the binding agents to fail. Destruction of the bonds/binding causes relatively rapid densification and volume loss (collapse) of the soil. This change is manifested at the ground surface as subsidence or settlement. Ground settlements from the wetting can be damaging to structures and civil works. Human activities that can facilitate soil collapse include irrigation, water impoundment, changes to the natural drainage, disposal of wastewater, etc.

The consistency, depositional history, and geologic age of the Unit 2 soils are such that these soils are not potentially hydro-collapsible.

5.3.7 Corrosive Soils

Chemical testing of the near-surface soils indicates low concentrations of soluble sulfates, such that the soils will not be corrosive to embedded concrete. Chloride concentrations are such that the soils will be moderately corrosive to embedded metals. Section 6 addresses this consideration in more detail.

5.4 Other Hazards

5.4.1 Floods

The site is located within a FEMA-designated flood zone, flood map No. 06073C1882G dated May 16, 2012. The site area is designated “Zone X.” This designation means the site is within an area of minimal flood hazard.

Figure 5-2 (following page) reproduces flood mapping by FEMA of the site area.

5.4.2 Tsunami

Tsunami describes a series of fast-moving, long period ocean waves caused by earthquakes or volcanic eruptions. The altitude and distance of the site from the ocean preclude this threat.

5.4.3 Seiche

Seiches are standing waves that develop in an enclosed or partially enclosed body of water such as lakes or reservoirs. Harbors or inlets can also develop seiches. Most commonly caused by strong winds and rapid atmospheric pressure changes, seiches can be affected by seismic events and tsunamis.

The site is not located near a body of water that could generate a seiche.

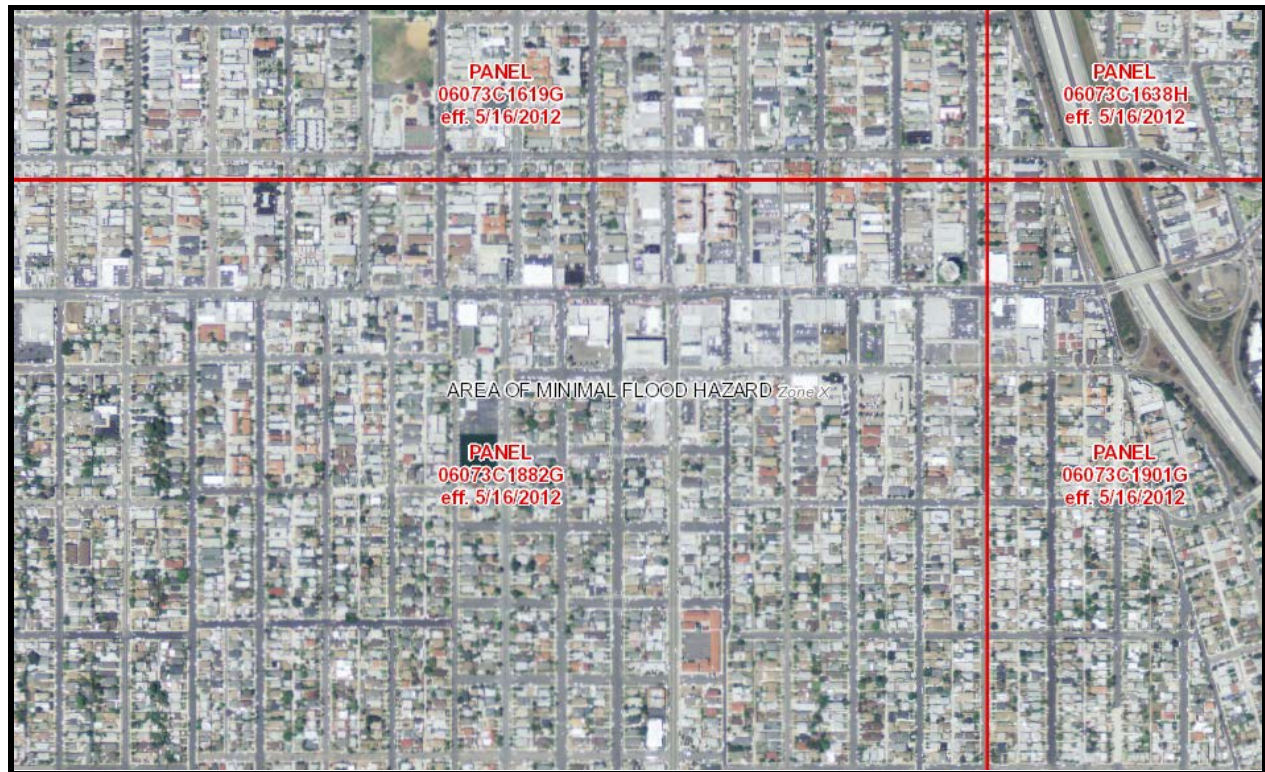


Figure 5-2. Flood Mapping of the Site Area
(Source: FEMA Flood Map 06073C1882G, Revised May 16, 2012)

6.0 EARTHWORK AND FOUNDATIONS

6.1 Overview

6.1.1 General

Based upon the indications of the field and laboratory data developed for this investigation, as well as review of previously developed subsurface information, the site is suitable for development of the planned mini park structures provided the geotechnical recommendations described herein are followed.

As is discussed in Section 3.3 and Section 5.3, the laboratory testing of the Unit 1 fill has shown the soils to have medium to high expansion potential ($EI = 86$). EI has been adopted by the 2016 California Building Code ('CBC', Section 1803.5.3), requiring specific design accommodations for soils with $EI > 20$. Code-driven alternatives for management include (i) removal, (ii) modification, or (iii) design of structures to adapt to movement of the soils. Section 6.4 provides guidance for using these soils for the planned mini park by a combination of removal and modification.

6.1.2 Review and Surveillance

The subsections following provide recommendations for earthwork and foundations for the planned mini-park as it is now understood. It is intended that these recommendations provide sufficient geotechnical information to develop the project in general accordance with 2016 California Building Code (CBC) requirements.

NOVA should be given the opportunity to review the grading plan, foundation plan, and geotechnical-related specifications as they become available to confirm that the recommendations presented in this report have been incorporated into the plans prepared for the project. All earthwork related to site and foundation preparation should be completed under the observation of NOVA.

6.2 Corrosivity and Sulfates

6.2.1 General

Electrical resistivity, chloride content, and pH level are all indicators of the soil's tendency to corrode ferrous metals. These chemical tests were performed on a representative sample of the near-surface soils by Clarkson Laboratory and Supply, Inc. The results of the testing are tabulated in Table 6-1.

Table 6-1. Summary of Corrosivity Testing of the Near Surface Soil

Parameter	Units	Value
pH	standard unit	7.8
Resistivity	Ohm-cm	260
Water Soluble Chloride	ppm	560
Water Soluble Sulfate	ppm	780

6.2.2 Metals

Caltrans considers a soil to be corrosive if one or more of the following conditions exist for representative soil and/or water samples taken at a site:

- chloride concentration is 500 parts per million (ppm) or greater;
- sulfate concentration is 2,000 ppm (0.2%) or greater; or,
- the pH is 5.5 or less.

Based on the Caltrans criteria, the on-site soils would be considered moderately corrosive to buried metals. Appendix D provides records of the chemical testing that include estimates of the life expectancy of buried metal culverts of varying gauge.

It is NOVA's experience in this area that subsurface conditions can locally be heavily corrosive to unprotected buried metals. In consideration of this potential, NOVA recommends that exposed ferrous metals be considered at risk for a corrosive environment. Typical recommendations for mitigation of such potential are abstracted below.

- Below grade ferrous metals should be given a high-quality protective coating such as an 18-mil plastic tape, extruded polyethylene, coal tar enamel, or Portland cement mortar.
- Below grade ferrous metals should be electrically insulated (i.e., isolated) from above grade ferrous metals and other dissimilar metals by means of dielectric fittings in utilities and exposed metal structures breaking grade.
- Steel and wire reinforcement within concrete having contact with the site soils should have at least 2 inches of concrete cover.

If extremely sensitive ferrous metals are expected to be placed in contact with the site soils, it may be desirable to consult a corrosion specialist regarding chosen the construction materials and/or protection design for the objects of concern.

6.2.3 Sulfate Attack

As shown in Table 6-1, the soil sample tested indicated water-soluble sulfate (SO_4) content of 780 parts per million ('ppm,' 0.078% by weight). With $\text{SO}_4 < 0.10$ percent by weight, the American Concrete Institute (ACI) 318-08 considers a soil to have no potential (S0) for sulfate attack.

Table 6-2 reproduces the Exposure Categories considered by ACI.

Table 6-2. Exposure Categories and Requirements for Water-Soluble Sulfates

Exposure Category	Class	Water-Soluble Sulfate (SO_4) In Soil (percent by weight)	Cement Type (ASTM C150)	Max Water-Cement Ratio	Min. f'_c (psi)
Not	S0	$\text{SO}_4 < 0.10$	-	-	-
Moderate	S1	$0.10 \leq \text{SO}_4 < 0.20$	II	0.50	4,000
Severe	S2	$0.20 \leq \text{SO}_4 \leq 2.00$	V	0.45	4,500
Very severe	S3	$\text{SO}_4 > 2.0$	V + pozzolan	0.45	4,500

Adapted from: ACI 318-08, Building Code Requirements for Structural Concrete

6.2.4 Limitations

Testing to determine several chemical parameters that indicate a potential for soils to be corrosive to construction materials are traditionally completed by the Geotechnical Engineer, comparing test results with a variety of indices regarding corrosion potential. Like most geotechnical consultants, NOVA does

not practice in the field of corrosion protection, since this is not specifically a geotechnical issue. Should you require more information, a specialty corrosion consultant should be retained to address these issues.

6.3 Seismic Design Parameters

Table 6-3 provides seismic design parameters for the site in accordance after ASCE 7-10 utilizing resource provided by the USGS for this determination (found at: http://earthquake.usgs.gov/design_maps).

Table 6-3. Seismic Design Parameters, Site Class D, ASCE 7-10

Parameter		Value
Site Latitude (decimal degrees)	---	32.732°N
Site Longitude (decimal degrees)	---	117.153°W
Site Coefficient, Subject Site Soil Classification D	F_a	1.022
Site Coefficient, Subject Site Soil Classification D	F_v	1.540
Mapped Spectral Acceleration Value, Soil Class B Period = 0.2 sec	S_s	1.195g
Mapped Spectral Acceleration Value, Soil Class B Period = 1.0 sec	S_1	0.460g
Short Period Spectral Acceleration Adjusted For Site Class, Period = 0.2 sec	S_{MS}	1.222g
Spectral Acceleration Adjusted For Site Class, Period = 1.0 (sec)	S_{M1}	0.709g
Design Spectral Response Acceleration Occupancy Category II per 2013 CBC Table 1604.5 Period = 0.2 (sec)	S_{DS}	0.814g
Design Spectral Response Acceleration Occupancy Category II per 2013 CBC Table 1604.5 Period = 1.0 (sec)	S_{D1}	0.473g
Peak Ground Acceleration Adjusted For Site Class Effects	PGA_M	0.53g

6.4 Earthwork

6.4.1 General

As is discussed in Section 2, NOVA expects that earthwork will be limited to subgrade preparation required for replacement of the existing asphalt surfacing with surfacing for the park use.

Development of the park will require removal/demolition of existing infrastructure (pavement, the small structure, lighting, utilities, etc.), within the limits of the planned park. Thereafter, establishment of the park surface will consist of minor fine grading and shallow excavations for foundations and utilities. Based upon the field exploration, excavation will be completed within the Unit 1 fill. These soils can be readily excavated with the smaller excavation equipment commonly utilized for such work.

Earthwork should be performed in accordance with Section 300 of the most recent approved edition of the “*Standard Specifications for Public Works Construction*” and “*Regional Supplement Amendments*.”

All fill and backfill should be compacted to a minimum of 90 percent relative compaction after ASTM D1557 (the ‘modified Proctor’) following moisture conditioning to at least 2% above the optimum

moisture content. Fill placed in loose lifts no thicker than the ability of the compaction equipment to thoroughly densify the lift. For most construction equipment, this limits loose lifts to 10-inches or less.

6.4.2 Select Fill

‘Select’ soil should be used as engineered fill. ‘Select’ soil describes a mineral soil free of organics, classified as SW, SM, SC, GM or GW after ASTM D 2488, with the characteristics listed below:

- at least 60 percent by weight finer than ¼-inch;
- maximum particle size of 4 inches; and,
- EI (after ASTM D 4829) of less than 50.

All select fill should be compacted to 90% relative compaction after ASTM D 1557.

6.4.3 Site Preparation

Asphalt pavement, utilities, and the single small structure should be removed from the park area before the start of grading operations. Abandoned utilities and improvements, vegetation, and debris and rubble should be removed and properly disposed of off-site. Abandoned underground utilities should either be excavated and the trenches backfilled or the lines completely filled with sand-cement slurry.

6.4.4 Remedial Grading of Areas to Receive flatwork and Pavements

The Unit 1 soils in areas to receive flatwork, pavements, pavers and related base course should be improved using the general approach described below.

1. Excavation. The Unit 1 undocumented fill should be removed to a depth of 24 inches below the below the design finish grade. This excavation should extend to include the entire footprint of the flatwork or pavement area, extending outward horizontally 3 feet from the edge of pavements/pavers, or to the property line, whichever is greater.
2. Replacement and Compaction. The Unit 1 fill soils may be reused following moisture conditioning using the step-wise procedure described below.
 - a. Step 1, Inspect/Approve Exposed Surface. After excavation and prior to replacement with engineered fill, the exposed soils should be examined by a NOVA representative to identify any localized soft, yielding or otherwise unsuitable materials. Prior to the replacement of the fill, the bottom of the removal area that is disturbed by excavation should be recompact to at least 90 percent relative compaction after ASTM D1557 (the ‘Modified Proctor’).

Construction should plan for the contingency that in certain instances the bottom of the removals may require the use of ground stabilization to provide a base for subsequent backfilling. In such instances, soft, wet areas may be stabilized by the use of 12 inches of ¾-inch crushed rock or aggregate base placed over a biaxial geogrid, such as Tensar BX 1100 or equivalent. The crushed rock should be covered with a segregation geotextile, a non-woven fabric such as Mirafi 140N, or equivalent.
 - b. Step 2, Moisture Conditioning. The clayey excavated soils should be moisture conditioned to at least 3% above optimum moisture.
 - c. Step 3, Replacement. The moisture conditioning soils should be replaced in relatively thin lifts within the excavated area and recompact to at least 90 percent relative

compaction after ASTM D1557 (the 'Modified Proctor'). For paved areas, the upper 12 inches of subgrade soils should be compacted to at least 95 percent relative compaction after ASTM D1557 (the 'Modified Proctor').

6.4.5 Remedial Grading of Areas to Receive Structures

Areas to receive settlement sensitive structures such as the concrete stages should be improved using the general approach described below.

1. Excavation. The Unit 1 undocumented fill should be removed within the limits of any settlement-sensitive structure to a depth of 12 inches below the bottom of foundations or 3 feet below the finish grade, whichever is deeper and replaced with engineered fill. The over-excavation should extend outward horizontally 3 feet from the exterior limits of any settlement-sensitive structure footprint or to the property line, whichever is greater.
2. Replacement and Compaction. The expansive Unit 1 fill soils may be reused, if the risks from potential cracking are deemed acceptable, following moisture conditioning using the step-wise procedure described below.

- a. Step 1, Inspect/Approve Exposed Surface. After excavation and prior to replacement with engineered fill, the exposed soils should be examined by a NOVA representative to identify any localized soft, yielding or otherwise unsuitable materials. Prior to the replacement of the fill, the bottom of the removal area that is disturbed by excavation should be recompacted to at least 90 percent relative compaction after ASTM D1557 (the 'Modified Proctor').

Construction should plan for the contingency that in certain instances the bottom of the removals may require the use of ground stabilization to provide a base for subsequent backfilling. In such instances, soft, wet areas may be stabilized by the use of 12 inches of ¾-inch crushed rock or aggregate base placed over a biaxial geogrid, such as Tensar BX 1100 or equivalent. The crushed rock should be covered with a segregation geotextile, a non-woven fabric such as Mirafi 140N, or equivalent.

- b. Step 2, Moisture Conditioning. The clayey excavated soils should be moisture conditioned to at least 3% above optimum moisture.
 - c. Step 3, Replacement. The moisture conditioning soils should be replaced in relatively thin lifts within the excavated area and recompacted to at least 90 percent relative compaction after ASTM D1557 (the 'Modified Proctor').
3. Timely Foundation Construction. The area of improved soils should be covered with the planned park surfacing as soon as possible following subgrade approval. The Contractor should be responsible for maintaining the subgrade in its approved condition (i.e., moist, free of water, debris, etc.) until the foundation is constructed.

6.4.6 Maintenance of Moisture in Soils During Construction

The subgrade moisture condition of the soils must be maintained at least 2% above optimum moisture content up to the time of park construction.

6.4.7 Temporary Slopes

Temporary slopes may be required for excavations associated with utilities. All temporary excavations should comply with local safety ordinances. The safety of all excavations is solely the responsibility of the Contractor and should be evaluated during construction as the excavation progresses.

Based on the data interpreted from the borings, the design of temporary slopes may assume California Occupational Safety and Health Administration (Cal/OSHA) Soil Type C for planning purposes.

6.5 Shallow Foundations

6.5.1 General

Shallow foundations ('footings') established on compacted fill soils may be used to support settlement-sensitive improvements such as concrete stages where designed to the parameters listed below.

1. *Minimum Dimensions.* Footings should be at least 18 inches wide and embedded at least 24 inches below the lowest adjacent grade.
2. *Contact Stress.* An allowable bearing capacity of 2,000 psf can be used for footings supported on compacted fill materials. This bearing value applies to combined dead and sustained live loads (DL + LL). The allowable bearing pressure may be increased by one-third when considering transient live loads, including seismic and wind.
3. *Lateral Resistance.* Resistance to lateral loads will be provided by a combination of friction between the soil and foundation interface and passive pressure acting against the vertical portion of the footings. For calculating allowable lateral resistance, a passive pressure of 250 psf per foot of depth and a frictional coefficient of 0.30 may be used. No reduction is necessary when combining frictional and passive resistance.

6.5.2 Settlement

Structures supported on spread footings as recommended above will settle on the order of ½ inch or less. The differential settlement between adjacent columns is estimated on the order of ½ inch over a horizontal distance of 40 feet.

6.5.3 Slab-On-Grade

Conventional concrete slabs may be supported at grade on compacted fill materials. Slab design may employ a modulus of subgrade reaction (k) of $k = 80$ pounds per cubic inch (pci).

From a geotechnical standpoint, NOVA recommends a slab-on-grade be a minimum 5 inches thick with No. 4 rebar placed at the center of the slab at 18 inches on center in each direction. The Structural Engineer should design the actual thickness and reinforcement based on anticipated loading conditions and expected settlements.

Minor cracking of concrete after curing due to drying and shrinkage is normal and should be expected; however, concrete is often aggravated by a high water/cement ratio, high concrete temperature at the time of placement, small nominal aggregate size, and rapid moisture loss due to hot, dry, and/or windy weather conditions during placement and curing.

Cracking due to temperature and moisture fluctuations should also be expected. The use of low-slump concrete or low water/cement ratios can reduce the potential for shrinkage cracking. To reduce the potential for excessive cracking, concrete slabs-on-grade should be provided with construction or weakened plane joints at frequent intervals. Joints should be laid out to form approximately square panels.

6.5.4 Underslab Moisture Barrier

Ground supported slabs that support moisture-sensitive floor coverings or equipment may be protected by an underslab moisture barrier. Moisture barriers normally include two components, as described below.

1. Capillary Break. A “capillary break” consisting of a thin (typically 4-inch thick) layer of compacted, well-graded gravel or crushed stone placed below the floor slab. This porous fill should be clean coarse sand or sound, durable gravel with not more than 5 percent coarser than the 1-inch sieve or more than 10 percent finer than the No. 4 sieve, such as AASHTO Coarse Aggregate No. 57.
2. Vapor Membrane. A minimum 15-mil polyethylene membrane, or similarly-rated vapor barrier, should be placed over the porous fill to preclude floor dampness. Membranes set below floor slabs should be rugged enough to withstand construction. A minimum 15 mil low permeance vapor membrane should meet or exceed the Class A rating as defined by ASTM E 1745-97 and have a permeance rating less than 0.01 perms as described in ASTM E 96-95 and ASTM E 154-88. For example, Carlisle-CCW produces the Blackline 400® underslab, vapor and air barrier, a 15-mil low-density polyethylene (LDPE) rated at 0.012 perms after ASTM E 96.

NOVA recommends that any moisture barrier be designed in accordance with ACI Publication 302.1R-15, “*Guide to Concrete Floor and Slab Construction*.”

7.0 STORMWATER INFILTRATION

7.1 General

Based upon the indications of the field exploration and laboratory testing reported herein, NOVA has evaluated the site as abstracted below after guidance contained in the *County of San Diego BMP Design Manual* (hereafter, 'the BMP Manual'), which has been adopted by the City of San Diego.

Section 3.4 provides a description of the field work undertaken to complete the testing. Figure 3-1 depicts the location of the testing. This section provides the results of that testing and related recommendations for management of stormwater in conformance with the BMP Manual.

As is well-established by the BMP Manual, the feasibility of stormwater infiltration is principally dependent on geotechnical and hydrogeologic conditions at the project site. This section provides NOVA's assessment of the feasibility of stormwater infiltration BMPs utilizing the information developed by the field exploration described in Section 3.4, as well as other elements of the site assessment.

7.2 Infiltration Rates

7.2.1 General

The percolation rate of a soil profile is not the same as its infiltration rate ('I'). Therefore, the measured/calculated field percolation rate must be converted to an estimated infiltration rate utilizing the Porchet Method in accordance with guidance contained in the BMP Manual. Table 7-1 provides a summary of the infiltration rates determined by the percolation testing.

Table 7-1. Infiltration Rates Determined by Percolation Testing

Boring	Approximate Ground Elevation (feet, msl)	Depth of Test (feet)	Approximate Test Elevation (feet, msl)	Infiltration Rate (inches/hour)	Design Infiltration Rate (in/hour, F=2*)
P-1	357	5	352	0.04	0.02
P-2	357	5	352	0.01	0.01

Notes: (1) 'F' indicates 'Factor of Safety' (2) elevations are approximate and should be reviewed

7.2.2 Design Infiltration Rate

As may be seen by review of Table 8-1, in consideration of the nature and variability of subsurface materials, as well as the natural tendency of infiltration structures to become less efficient with time, the infiltration rates measured in the testing should be modified to use at least a factor of safety (F) of F=2 for preliminary design purposes.

The recommended design basis infiltration rates range from I = 0.02 to I = 0.01 inches per hour using a preliminary factor of safety (F) of F = 2, as is indicated in Table 7-1.

Based on the soil and geologic conditions, the site allows for partial infiltration, however, infiltration will increase the risk of geotechnical hazards.

7.3 Review of Geotechnical Feasibility Criteria

7.3.1 Overview

Section C.2 of Appendix C of the BMP Manual provides seven factors that should be considered by the project geotechnical professional while assessing the feasibility of infiltration related to geotechnical conditions. These factors are listed below

- C.2.1 Soil and Geologic Conditions
- C.2.2 Settlement and Volume Change
- C.2.3 Slope Stability
- C.2.4 Utility Considerations
- C.2.5 Groundwater Mounding
- C.2.6 Retaining Walls and Foundations
- C.2.7 Other Factors

The above geotechnical feasibility criteria are reviewed in the following subsections.

7.3.2 Soil and Geologic Conditions

This 0.5-acre site has been explored by a series of three engineering borings and to borings completed as described in Section 3 herein for the purposes of percolation testing. Based on the indications of this exploration, the occurrence of subsurface materials at this site may be generalized as described below.

1. Unit 1, Fill. The entire site is covered by five to eight feet of fill that was used to create the relatively level groundform that now exists. The fill is characteristically clayey, likely sourced from the upper portions of the naturally occurring Paralic deposits common to this area. The clayey fill is of medium stiff consistency, considered 'undocumented' for the lack of records that exist regarding its placement. The fill has medium to high expansion potential (EI = 86).
2. Unit 2, Paralics. Beneath the fill, the site is underlain by Quaternary-aged very old paralic deposits. As encountered in the borings, the soils are characteristically silty and sandy, of dense to very dense consistency. The paralic deposits extend to depths beyond the maximum depth (20 feet) explored by this work, likely to at least 40 feet depth.

7.3.3 Settlement and Volume Change

Clayey zones of Unit 1 and Unit 2 have medium to high expansion potential. These soils will be prone to swelling upon wetting. The soils will not be prone to hydro-collapse on wetting.

7.3.4 Slope Stability

There are no slopes on-site, nor are any material soil embankments planned for the new development. As a consequence, embankment stability is not a constraint to BMPs.

7.3.5 Utilities

Stormwater infiltration BMPs should not be sited within 10 feet of underground utilities.

7.3.6 Groundwater Mounding

In consideration of the low measured percolation rates and clayey nature of the fill that is documented by laboratory testing, it is the judgment of NOVA that stormwater infiltration can result in damaging groundwater mounding during wet periods, affecting utilities, park surfacing, related flat work, and foundations. Shallow or perched ground water may affect performance of pavement if allowed to impound at pavement subgrade.

Groundwater mounding will also provide a source of water to medium to high expansion potential soils, for which geotechnical design is endeavoring to limit exposure to water.

7.3.7 Retaining Walls and Foundations

No retaining walls are planned for this project. In the event this planning change, permanent stormwater infiltration BMPs should not be sited within 25 feet of such structures.

7.3.8 Other Factors

NOVA is not aware of any other factors that would affect design of stormwater infiltration BMPs.

7.4 Suitability of the Site for Stormwater Infiltration

In consideration of the above factors- most significantly, the low measured infiltration rates, the related potential for groundwater mounding and the medium to high expansion potential soils- it is NOVA's judgment that the site is not suitable for infiltration in any appreciable rate.

8.0 PAVEMENTS

8.1 General

Similar to the requirements for control of moisture beneath floor slabs and flatwork, control of surface drainage is important to the design and construction of pavements for this site.

Moisture must be controlled in the Unit 1 fill. Moreover, where standing water develops either on the pavement surface or within the base course- softening of the subgrade and other problems related to the deterioration of the pavement can be expected. Furthermore, good drainage should minimize the risk of the subgrade materials becoming saturated and weakened over a long period of time.

The following recommendations should be considered to limit the amount of excess moisture, which can reach the subgrade soils:

- maintain surface gradients at a minimum 2% grade away from the pavements;
- compact utility trenches for landscaped areas to the same criteria as the pavement subgrade;
- seal all landscaped areas in or adjacent to pavements to minimize or prevent moisture migration to subgrade soils;
- planters should not be located next to pavements (otherwise, subdrains should be used to drain the planter to appropriate outlets);
- place compacted backfill against the exterior side of curb and gutter; and,
- concrete curbs bordering landscaped areas should have a deepened edge to provide a cutoff for moisture flow beneath pavements (generally, the edge of the curb can be extended an additional twelve inches below the base of the curb).

Preventative maintenance should be planned and provided for. Preventative maintenance activities are intended to slow the rate of pavement deterioration and to preserve the pavement investment.

Preventative maintenance consists of both localized maintenance (e.g. crack sealing and patching) and global maintenance (e.g. surface sealing). Preventative maintenance is usually the first priority when implementing a planned pavement maintenance program and provides the highest return on investment for pavements.

8.2 Subgrade Preparation

8.2.1 Rough Grading

Grading for paved areas should be as described in Section 6.4, removing and replacing the Unit 1 fill to a depth of two feet.

The surface of the Unit 1 soils disturbed by excavation should be moisture conditioned and re-densified. Thereafter, this unit should be proof rolled to make sure no soft areas exist. Following proof rolling, the excavated soils should be moisture conditioned to at least 2% above the optimum moisture content and replaced to at least 95% relative compaction after ASTM D1557 (the 'modified Proctor'). Replacement filling should be done in lifts (i) not to exceed 10-inches thickness; or, (ii) the ability of the compaction equipment employed to densified through a complete lift, whichever is less.

8.2.2 Proof-Rolling

After the completion of compaction/densification, areas to receive pavements should be proof-rolled. A loaded dump truck or similar should be used to aid in identifying localized soft or unsuitable material. Any soft or unsuitable materials encountered during this proof-rolling should be removed, replaced with an approved backfill, and compacted. The Geotechnical Engineer can provide alternative options such as using geogrid and/or geotextile to stabilize the subgrade at the time of construction, if necessary.

8.2.3 Moisture Control

Construction should be managed such that preparation of the subgrade immediately precedes placement of the base course. Proper drainage of the paved areas should be provided to reduce moisture infiltration to the subgrade.

8.2.4 Surveillance

The preparation of roadway and parking area subgrades should be observed on a full-time basis by a representative of NOVA to confirm that any unsuitable materials have been removed and that the subgrade is suitable for support of the proposed driveways and parking areas.

8.3 Flexible Pavements

Table 8.1 provides preliminary flexible pavement sections based on an R-value of 11. NOVA performed an R-value from soils sampled within the upper 5 feet. A final R-value test should be confirmed by testing performed on the actual subgrade soils during construction.

Table 8-1. Preliminary Pavement Sections, R = 11

Area	Traffic Index	Asphalt Thickness (inches)	Base Course Thickness (inches)
Passenger Car/Parking Slots	5.0	3	9
		4	7
Heavy Traffic	6.0	3	12.5
		4	10.5

1. The above sections assume properly prepared subgrade consisting of at least 12 inches of subgrade compacted to $\geq 95\%$ relative compaction after ASTM D1557, with EI < 50 .
2. The aggregate base, conforming to Caltrans Class 2, or equivalent, should compacted to $\geq 95\%$ relative compaction after ASTM D1557.

8.4 Rigid Pavements

8.4.1 General

Concrete pavement sections should be developed in the same manner as undertaken for pavements: removal of the upper 2 feet of the Unit 1 soils and replacement of that material in an engineered manner as described in Section 6.4.

A concrete pavement section consisting of 7 inches of Portland cement concrete over a base course of 6 inches and a properly prepared subgrade support a wide range of traffic indices.

Where rigid pavements are used, the concrete should be obtained from an approved mix design with the minimum properties of Table 8-2.

Table 8-2. Requirements for Concrete for Pavements

Property	Recommended Requirement
Compressive Strength @ 28 days	3,250 psi minimum
Strength Requirements	ASTM C94
Minimum Cement Content	5.5 sacks/cu. yd.
Cement Type	Type I Portland
Concrete Aggregate	ASTM C33 and CalTrans Section 703
Aggregate Size	1-inch maximum
Maximum Water Content	0.50 lb/lb of cement
Maximum Allowable Slump	4 inches

8.4.2 Jointing and Reinforcement

Longitudinal and transverse joints should be provided as needed in concrete pavements for expansion/contraction and isolation. Sawed joints should be cut within 24-hours of concrete placement and should be a minimum of 25% of slab thickness plus 1/4 inch. All joints should be sealed to prevent entry of foreign material and doweled where necessary for load transfer.

Load transfer devices, such as dowels or keys are recommended at joints in the paving to reduce possible offsets. Where dowels cannot be used at joints accessible to wheel loads, pavement thickness should be increased by 25 percent at the joints and tapered to regular thickness in 5 feet.

9.0 REFERENCES

9.1 Site Specific

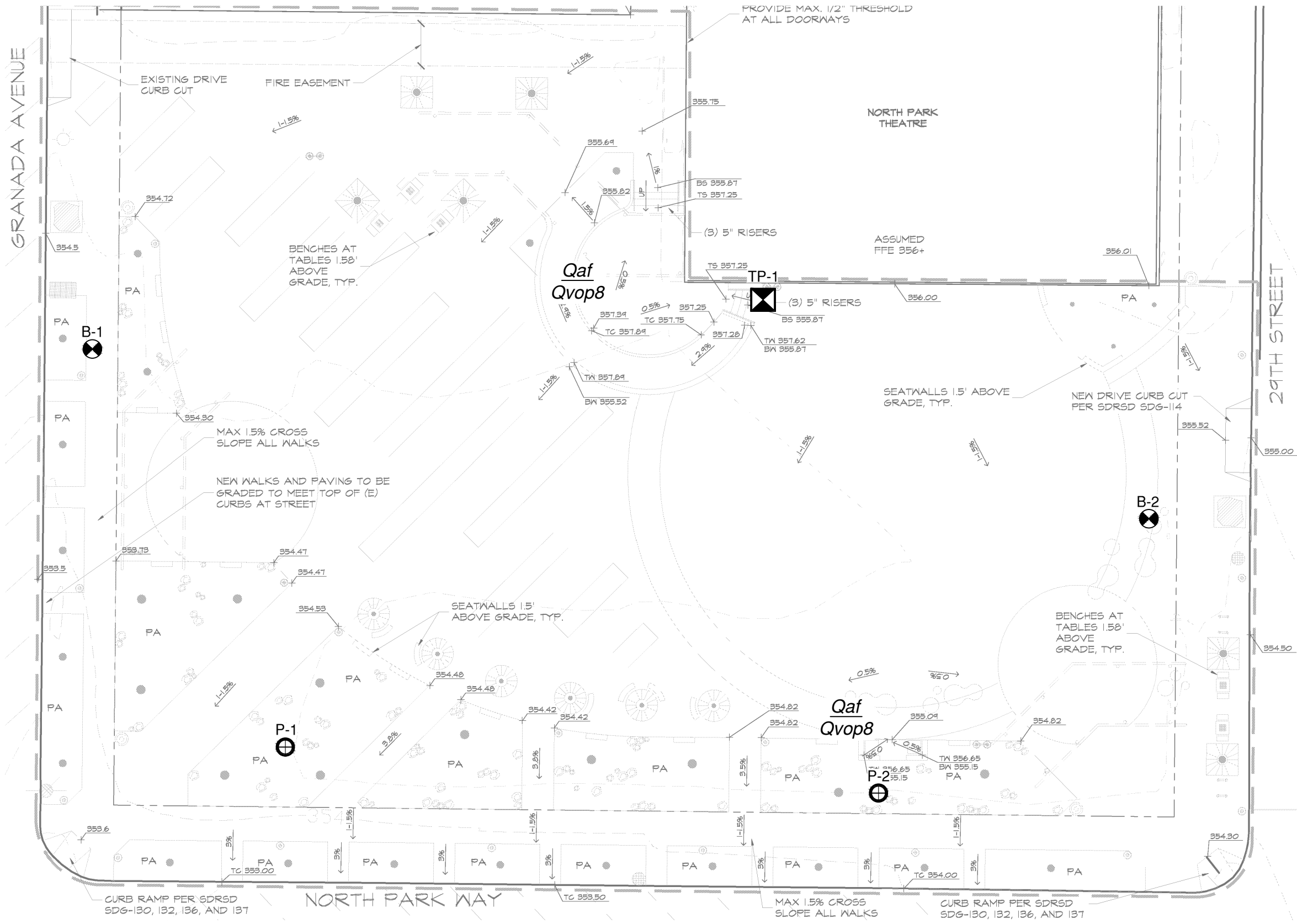
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KEY TO SYMBOLS

- Qaf** ARTIFICIAL FILL
- Qvop8** VERY OLD PARALIC DEPOSITS, UNIT 8
- B-1** APPROXIMATE GEOTECHNICAL BORING LOCATION

- P-3** APPROXIMATE PERCOLATION BORING LOCATION
- TP-1** APPROXIMATE EXPLORATORY TEST PIT

L3 CONCEPTUAL GRADING PLAN


CITY OF SAN DIEGO PARK AND RECREATION DEPARTMENT

THE GENERAL DEVELOPMENT PLAN

NORTH PARK MINI-PARK

NEIGHBORHOOD PARK

LAMBERT COORDINATES: THOMAS BROTHERS PAGE: PSD (PSD #)

**NOVA**
4373 VIEWRIDGE AVENUE, SUITE B
SAN DIEGO, CALIFORNIA


858-292-7575
858-292-7570 (FAX)

WWW.USA-NOVA.COM

NORTH PARK MINI PARK
29TH STREET & NORTH PARK WAY
SAN DIEGO, CALIFORNIA

PROJECT NO: 2017771
DATE: AUG 2017
DESIGN BY: AJA
DRAWN BY: DTW
CHECKED BY: AJA
REVIEWED BY: JDB

SUBSURFACE INVESTIGATION MAP


0 20' 40'
PLATE: 1

APPENDIX A
USE OF THE GEOTECHNICAL REPORT



Important Information About Your Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

The following information is provided to help you manage your risks.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you — should apply the report for any purpose or project except the one originally contemplated.*

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,

- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time* to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that

have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant: ***none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.***

Rely, on Your ASFE-Member Geotechnical Engineer for Additional Assistance

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with you ASFE-member geotechnical engineer for more information.



8811 Colesville Road/Suite G106, Silver Spring, MD 20910
Telephone: 301/565-2733 Facsimile: 301/589-2017
e-mail: info@asfe.org www.asfe.org

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II GER06045.0M

APPENDIX B

LOGS OF BORINGS



BORING LOG B-1

DATE EXCAVATED: JULY 31, 2017 **EQUIPMENT:** UNIMOS TRUCK AUGER

EXCAVATION DESCRIPTION: 8 INCH DIAMETER AUGER BORING **GPS COORD.:** N/A





GROUNDWATER DEPTH: NO GROUNDWATER ENCOUNTERED **ELEVATION:** 357.0'

LAB TEST ABBREVIATIONS

CR CORROSIVITY
MD MAXIMUM DENSITY
DS DIRECT SHEAR
EI EXPANSION INDEX
AL ATTERBERG LIMITS
SA SIEVE ANALYSIS
RV RESISTANCE VALUE
CN CONSOLIDATION
SE SAND EQUIVALENT

DEPTH (FT)	GRAPHIC LOG	BULK SAMPLE	CAL/SPT SAMPLE	SOIL CLASS. (USCS)	BLOWS PER 12-INCHES	SOIL DESCRIPTION SUMMARY OF SUBSURFACE CONDITIONS (USCS; COLOR, MOISTURE, DENSITY, GRAIN SIZE, OTHER)	LABORATORY	REMARKS
0				CH		3" ASPHALT CONCRETE, NO BASE		
					6	UNDOCUMENTED ARTIFICIAL FILL (Qaf): FAT CLAY; GRAY BROWN, MOIST, MEDIUM STIFF, WITH MEDIUM GRAINED SAND AND GRAVEL		
5					13			19.8% 104.2pcf
				SM	44	VERY OLD PARALIC DEPOSITS (Qvop8): SILTY SAND; YELLOW BROWN, DRY TO DAMP, DENSE, MEDIUM TO COARSE GRAINED, SOME GRAVEL < 2", SOME CLAY		11.4% 115.6pcf
10					50/5" *	ROCKS		
15					50/6" *			
					50/2" *			
20						BORING TERMINATED AT 19.0 FT DUE TO REFUSAL ON BEDROCK. NO GROUNDWATER ENCOUNTERED. NO CAVING.		
25								
30								

KEY TO SYMBOLS

	GROUNDWATER	#	ERRONEOUS BLOWCOUNT
	BULK SAMPLE	*	NO SAMPLE RECOVERY
	SPT SAMPLE (ASTM D1586)	—	GEOLOGIC CONTACT
	CAL. MOD. SAMPLE (ASTM D3550)	- - -	SOIL TYPE CHANGE

PROPOSED NORTH PARK MINI PARK

29TH STREET & NORTH PARK WAY
SAN DIEGO, CALIFORNIA

LOGGED BY: DM DATE: AUG 2017

REVIEWED BY: BMH/WM PROJECT NO.: 2017771



APPENDIX B-1

BORING LOG B-2

DATE EXCAVATED: JULY 31, 2017 **EQUIPMENT:** UNIMOS TRUCK AUGER

EXCAVATION DESCRIPTION: 8 INCH DIAMETER AUGER BORING **GPS COORD.:** N/A

GROUNDWATER DEPTH: NO GROUNDWATER ENCOUNTERED **ELEVATION:** 357.0'

LAB TEST ABBREVIATIONS

CR CORROSIVITY
MD MAXIMUM DENSITY
DS DIRECT SHEAR
EI EXPANSION INDEX
AL ATTERBERG LIMITS
SA SIEVE ANALYSIS
RV RESISTANCE VALUE
CN CONSOLIDATION
SE SAND EQUIVALENT

DEPTH (FT)	GRAPHIC LOG	BULK SAMPLE	CAL/SPT SAMPLE	SOIL CLASS. (USCS)	BLOWS PER 12-INCHES	SOIL DESCRIPTION SUMMARY OF SUBSURFACE CONDITIONS (USCS; COLOR, MOISTURE, DENSITY, GRAIN SIZE, OTHER)	LABORATORY	REMARKS
0				CL		2" ASPHALT CONCRETE. 5" CONCRETE. NO BASE		
				CH	10	UNDOCUMENTED ARTIFICIAL FILL(Qaf): SANDY CLAY; DARK BROWN, MOIST, TRACE GRAVEL		
						FAT CLAY; GRAY BROWN, MOIST, FIRM, MEDIUM GRAINED SAND, TRACE GRAVEL	EI AL SA MD	86 (MEDIUM) 13.6% 116.4pcf 22.4% 105.0pcf
5				SM	50/5"	VERY OLD PARALIC DEPOSITS (Qvop8): SILTY SAND; YELLOW BROWN, DRY TO DAMP, VERY DENSE, FINE TO COARSE GRAINED, SCATTERED GRAVEL		
					50/6"	GREENISH GRAY ROCK		
				SC		CLAYEY SAND WITH GRAVEL; MEDIUM BROWN, DAMP, VERY DENSE, MEDIUM GRAINED		
10					50/4"			
				SM		SILTY SAND WITH GRAVEL; YELLOW BROWN TO GRAYISH ORANGE, DRY TO DAMP, HARD, MEDIUM GRAINED		
15					50/5"			
				ML	53	SANDY SILT WITH GRAVEL; YELLOW BROWN, DAMP, HARD		
20						BORING TERMINATED AT 20 FT. NO GROUNDWATER ENCOUNTERED. NO CAVING.		
25								
30								

KEY TO SYMBOLS

	GROUNDWATER	#	ERRONEOUS BLOWCOUNT
	BULK SAMPLE	*	NO SAMPLE RECOVERY
	SPT SAMPLE (ASTM D1586)	—	GEOLOGIC CONTACT
	CAL. MOD. SAMPLE (ASTM D3550)	- - -	SOIL TYPE CHANGE

PROPOSED NORTH PARK MINI PARK
29TH STREET & NORTH PARK WAY
SAN DIEGO, CALIFORNIA

LOGGED BY: DM DATE: AUG 2017

REVIEWED BY: BMH/WM PROJECT NO.: 2017771



APPENDIX B-2

TEST PIT LOG TP-1

DATE EXCAVATED: JULY 31, 2017
 EQUIPMENT: DEERE 410G BACKHOE
 EXCAVATION DESCRIPTION: LARGE BUCKET
 GROUNDWATER DEPTH:: GROUNDWATER NOT ENCOUNTERED

LAB TEST LEGEND

CR CORROSIVITY
 MD MAXIMUM DENSITY
 DS DIRECT SHEAR
 EI EXPANSION INDEX
 AL ATTERBERG LIMITS
 SA SIEVE ANALYSIS
 RV RESISTANCE VALUE
 CN CONSOLIDATION
 SE SAND EQUIVALENT

DEPTH (FT)	GRAPHIC LOG	BULK SAMPLE	SOIL CLASS. (USCS)	SOIL DESCRIPTION SUMMARY OF SUBSURFACE CONDITIONS (USCS; COLOR, MOISTURE, DENSITY, GRAIN SIZE, OTHER)	LABORATORY	REMARKS
0			SM	UNDOCUMENTED ARTIFICIAL FILL (Qaf): SILTY SAND W/CLAY; TAN BROWN, MOIST, MEDIUM DENSE, FINE TO MEDIUM GRAINED, GRAVEL		
1						
2						
3						
4						
5						
6				TEST PIT TERMINATED AT 6.0 FT. NO GROUNDWATER ENCOUNTERED. NO CAVING.		
7						

KEY TO SYMBOLS

	GROUNDWATER
	BULK SAMPLE
	SPT SAMPLE
	CAL. MOD. DRIVE SAMPLE
#	NON-REPRESENTATIVE BLOWCOUNT
*	DISTURBED SAMPLE
**	NO SAMPLE RECOVERY
---	GEOLOGIC CONTACT
---	SOIL TYPE CHANGE

PROPOSED NORTH PARK MINI PARK
 29TH STREET & NORTH PARK WAY
 SAN DIEGO, CALIFORNIA

LOGGED BY: HE DATE: AUG 2017
 REVIEWED BY: JDB PROJECT NO.: 2016499



APPENDIX B-3

PERCOLATION BORING LOG P-1

DATE EXCAVATED: JULY 31, 2017 **EQUIPMENT:** UNIMOS TRUCK AUGER

EXCAVATION DESCRIPTION: 8 INCH DIAMETER AUGER BORING **GPS COORD.:** N/A





GROUNDWATER DEPTH: NO GROUNDWATER ENCOUNTERED **ELEVATION:** 357.0'

LAB TEST ABBREVIATIONS

CR CORROSIVITY
MD MAXIMUM DENSITY
DS DIRECT SHEAR
EI EXPANSION INDEX
AL ATTERBERG LIMITS
SA SIEVE ANALYSIS
RV RESISTANCE VALUE
CN CONSOLIDATION
SE SAND EQUIVALENT

DEPTH (FT)	GRAPHIC LOG	BULK SAMPLE	CAL/SPT SAMPLE	SOIL CLASS. (USCS)	BLOWS PER 12-INCHES	SOIL DESCRIPTION SUMMARY OF SUBSURFACE CONDITIONS (USCS; COLOR, MOISTURE, DENSITY, GRAIN SIZE, OTHER)	LABORATORY	REMARKS
0				CL		2" ASPHALT CONCRETE, 5" CONCRETE, NO BASE UNDOCUMENTED ARTIFICIAL FILL (Q _{af}): SILTY CLAY; GRAY BROWN, MOIST, STIFF, MEDIUM GRAINED SAND, SCATTERED GRAVEL		
				CH		FAT CLAY; GRAY BROWN, VERY MOIST, FIRM TO STIFF, MEDIUM GRAINED SAND	CR	
5					9		SA	
						BORING TERMINATED AT 6.5 FT. NO GROUNDWATER ENCOUNTERED. NO CAVING.		
10								
15								
20								
25								
30								

KEY TO SYMBOLS

	GROUNDWATER	#	ERRONEOUS BLOWCOUNT
	BULK SAMPLE	*	NO SAMPLE RECOVERY
	SPT SAMPLE (ASTM D1586)	—	GEOLOGIC CONTACT
	CAL. MOD. SAMPLE (ASTM D3550)	- - -	SOIL TYPE CHANGE

PROPOSED NORTH PARK MINI PARK
29TH STREET & NORTH PARK WAY
SAN DIEGO, CALIFORNIA

LOGGED BY: DM DATE: AUG 2017
REVIEWED BY: BMH/WM PROJECT NO.: 2017771



APPENDIX B-4

PERCOLATION BORING LOG P-2

DATE EXCAVATED: JULY 31, 2017 EQUIPMENT: UNIMOS TRUCK AUGER





EXCAVATION DESCRIPTION: 8 INCH DIAMETER AUGER BORING GPS COORD.: N/A

GROUNDWATER DEPTH: NO GROUNDWATER ENCOUNTERED ELEVATION: 357.0'

LAB TEST ABBREVIATIONS	
CR	CORROSIVITY
MD	MAXIMUM DENSITY
DS	DIRECT SHEAR
EI	EXPANSION INDEX
AL	ATTERBERG LIMITS
SA	SIEVE ANALYSIS
RV	RESISTANCE VALUE
CN	CONSOLIDATION
SE	SAND EQUIVALENT

DEPTH (FT)	GRAPHIC LOG	BULK SAMPLE	CAL/SPT SAMPLE	SOIL CLASS. (USCS)	BLOWS PER 12-INCHES	SOIL DESCRIPTION SUMMARY OF SUBSURFACE CONDITIONS (USCS; COLOR, MOISTURE, DENSITY, GRAIN SIZE, OTHER)	LABORATORY	REMARKS
0				CL		2" ASPHALT CONCRETE, 5" CONCRETE, NO BASE UNDOCUMENTED ARTIFICIAL FILL (Qaf): SANDY CLAY; DARK BROWN, MOIST, FIRM TO STIFF, MEDIUM GRAINED SAND, TRACE GRAVEL		
5				CH	9	FAT CLAY; GRAY BROWN, VERY MOIST, FIRM TO STIFF, MEDIUM GRAINED SAND	SA	
6.5						BORING TERMINATED AT 6.5 FT. NO GROUNDWATER ENCOUNTERED. NO CAVING.		
10								
15								
20								
25								
30								

KEY TO SYMBOLS

	GROUNDWATER	#	ERRONEOUS BLOWCOUNT
	BULK SAMPLE	*	NO SAMPLE RECOVERY
	SPT SAMPLE (ASTM D1586)	—	GEOLOGIC CONTACT
	CAL. MOD. SAMPLE (ASTM D3550)	- - -	SOIL TYPE CHANGE

PROPOSED NORTH PARK MINI PARK
29TH STREET & NORTH PARK WAY
SAN DIEGO, CALIFORNIA

LOGGED BY: DM DATE: AUG 2017

REVIEWED BY: BMH/WM PROJECT NO.: 2017771



APPENDIX B-5

APPENDIX C
RECORDS OF PERCOLATION TESTING



Worksheet C.4-1: Categorization of Infiltration Feasibility Condition

Categorization of Infiltration Feasibility Condition		Worksheet C.4-1	
<p><u>Part 1 - Full Infiltration Feasibility Screening Criteria</u></p> <p>Would infiltration of the full design volume be feasible from a physical perspective without any undesirable consequences that cannot be reasonably mitigated?</p> <p>Note that it is not necessary to investigate each and every criterion in the worksheet if infiltration is precluded. Instead a letter of justification from a geotechnical professional familiar with the local conditions substantiating any geotechnical issues will be required.</p>			
Criteria	Screening Question	Yes	No
1	<p>Is the estimated reliable infiltration rate below proposed facility locations greater than 0.5 inches per hour? The response to this Screening Question must be based on a comprehensive evaluation of the factors presented in Appendix C.2 and Appendix D.</p>		X
<p>Provide basis:</p> <p><i>The infiltration rates of the existing soils for locations P-1 and P-2 based on the on-site infiltration study were calculated to be less than 0.5 inches per hour (0.02 and 0.01 inches per hour respectively) after applying a minimum factor of safety of 2.</i></p>			
2	<p>Can infiltration greater than 0.5 inches per hour be allowed without increasing risk of geotechnical hazards (slope stability, groundwater mounding, utilities, or other factors) that cannot be mitigated to an acceptable level? The response to this Screening Question must be based on a comprehensive evaluation of the factors presented in Appendix C.2.</p>		X
<p>Provide basis:</p> <p><i>The infiltration rates of the existing soils for locations P-1 and P-2 based on the on-site infiltration study were calculated to be less than 0.5 inches per hour (0.02 and 0.01 inches per hour respectively) after applying a minimum factor of safety of 2.</i></p>			

Worksheet C.4-1 Page 2 of 4

Criteria	Screening Question	Yes	No
3	Can infiltration greater than 0.5 inches per hour be allowed without increasing risk of groundwater contamination (shallow water table, storm water pollutants or other factors) that cannot be mitigated to an acceptable level? The response to this Screening Question must be based on a comprehensive evaluation of the factors presented in Appendix C.3.		
Provide basis: <i>Water contamination was not evaluated by NOVA services.</i>			
4	Can infiltration greater than 0.5 inches per hour be allowed without causing potential water balance issues such as change of seasonality of ephemeral streams or increased discharge of contaminated groundwater to surface waters? The response to this Screening Question must be based on a comprehensive evaluation of the factors presented in Appendix C.3.		
Provide basis: <i>The potential for water balance was not evaluated by NOVA services.</i>			
Part 1 Result*	If all answers to rows 1 - 4 are “ Yes ” a full infiltration design is potentially feasible. The feasibility screening category is Full Infiltration If any answer from row 1-4 is “ No ”, infiltration may be possible to some extent but would not generally be feasible or desirable to achieve a “full infiltration” design. Proceed to Part 2		

*To be completed using gathered site information and best professional judgment considering the definition of MEP in the MS4 Permit. Additional testing and/or studies may be required by County staff to substantiate findings.

Part 2 – Partial Infiltration vs. No Infiltration Feasibility Screening Criteria

Would infiltration of water in any appreciable amount be physically feasible without any negative consequences that cannot be reasonably mitigated?

Criteria	Screening Question	Yes	No
5	Do soil and geologic conditions allow for infiltration in any appreciable rate or volume? The response to this Screening Question must be based on a comprehensive evaluation of the factors presented in Appendix C.2 and Appendix D.	X	

Provide basis:

The infiltration rate of the existing soils for locations P-1 and P-2 based on the on-site infiltration study were calculated to be less than 0.5 inches per hour (0.02 and 0.01 inches per hour respectively) after applying a minimum factor of safety of 2. These rates imply that geologic conditions allow for partial infiltration.

6	Can Infiltration in any appreciable quantity be allowed without increasing risk of geotechnical hazards (slope stability, groundwater mounding, utilities, or other factors) that cannot be mitigated to an acceptable level? The response to this Screening Question must be based on a comprehensive evaluation of the factors presented in Appendix C.2.		X
---	--	--	---

Provide basis:

*C2.1 A geologic investigation was performed at the subject site.
 C2.2 Clayey zones of Unit 1 and Unit 2 have medium expansion potential. These soils will be prone to swelling upon wetting. These soils will not be prone to hydro-collapse on wetting.
 C2.3 BMPs are not anticipated to be located near slopes on this site. BMPs are to be sited a minimum of 10 feet away from any slope.
 C2.4 Infiltration can potentially damage existing subsurface and underground utilities. Stormwater infiltration BMPs should not be sited within 10 feet of underground utilities.
 C2.5 Stormwater infiltration can result in damaging ground water mounding during wet periods.
 C2.6 BMPs are not anticipated to be located near foundations or retaining walls. BMPs are to be sited a minimum of 25 feet away from any foundations or retaining walls.
 C2.7 Other Factors: In consideration of the above factors- most significantly, the low measured infiltration rates and the related potential for groundwater mounding- it is NOVA's judgment that the site is not suitable for infiltration in any appreciable rate.*

Worksheet C.4-1 Page 4 of 4

Criteria	Screening Question	Yes	No
7	<p>Can Infiltration in any appreciable quantity be allowed without posing significant risk for groundwater related concerns (shallow water table, storm water pollutants or other factors)?</p> <p>The response to this Screening Question must be based on a comprehensive evaluation of the factors presented in Appendix C.3.</p>		
<p>Provide basis:</p> <p><i>Water contamination was not evaluated by NOVA services.</i></p>			
8	<p>Can infiltration be allowed without violating downstream water rights? The response to this Screening Question must be based on a comprehensive evaluation of the factors presented in Appendix C.3.</p>		
<p>Provide basis:</p> <p><i>The potential for water balance was not evaluated by NOVA services.</i></p>			
Part 2 Result*	<p>If all answers from row 5-8 are yes then partial infiltration design is potentially feasible. The feasibility screening category is Partial Infiltration.</p> <p>If any answer from row 5-8 is no, then infiltration of any volume is considered to be infeasible within the drainage area. The feasibility screening category is No Infiltration.</p>		

*To be completed using gathered site information and best professional judgment considering the definition of MEP in the MS4 Permit. Additional testing and/or studies may be required by Agency/Jurisdictions to substantiate findings

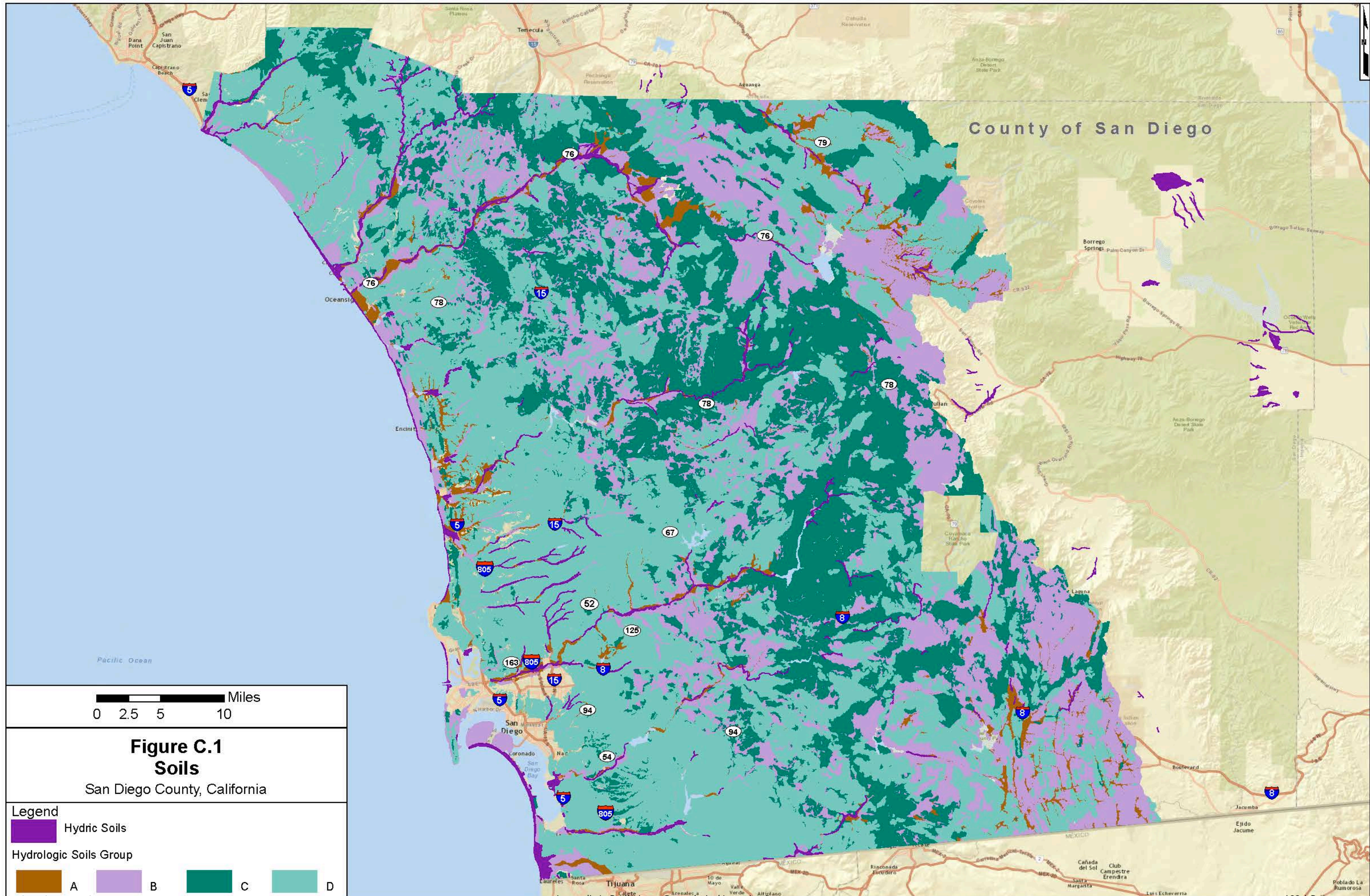
C.5 Feasibility Screening Exhibits

Table C.5-1 lists the feasibility screening exhibits that were generated using readily available GIS data sets to assist the project applicant to screen the project site for feasibility.

Table C.5-1: Feasibility Screening Exhibits

Figures	Layer	Intent/Rationale	Data Sources
C.1 Soils	Hydrologic Soil Group – A, B, C, D	Hydrologic Soil Group will aid in determining areas of potential infiltration	SanGIS http://www.sangis.org/
	Hydric Soils	Hydric soils will indicate layers of intermittent saturation that may function like a D soil and should be avoided for infiltration	USDA Web Soil Survey. Hydric soils, (ratings of 100) were classified as hydric. http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm
C.2: Slopes and Geologic Hazards	Slopes >25%	BMPs are hard to construct on slopes >25% and can potentially cause slope instability	SanGIS http://www.sangis.org/
	Liquefaction Potential	BMPs (particularly infiltration BMPs) must not be sited in areas with high potential for liquefaction or landslides to minimize earthquake/landslide risks	SanGIS http://www.sangis.org/
	Landslide Potential		SanGIS Geologic Hazards layer. Subset of polygons with hazard codes related to landslides was selected. This data is limited to the City of San Diego Boundary. http://www.sangis.org/
C.3: Groundwater Table Elevations	Groundwater Depths	Infiltration BMPs will need to be sited in areas with adequate distance (>10 ft) from the groundwater table	GeoTracker. Data downloaded for San Diego county from 2014 and 2013. In cases where there were multiple measurements made at the same well, the average was taken over that year. http://geotracker.waterboards.ca.gov/data_download_by_county.asp
C.4: Contaminated Sites	Contaminated soils and/or groundwater sites	Infiltration must be limited in areas of contaminated soil/groundwater	GeoTracker. Data downloaded for San Diego county and limited to active cleanup sites http://geotracker.waterboards.ca.gov/

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**Figure C.1
Soils**

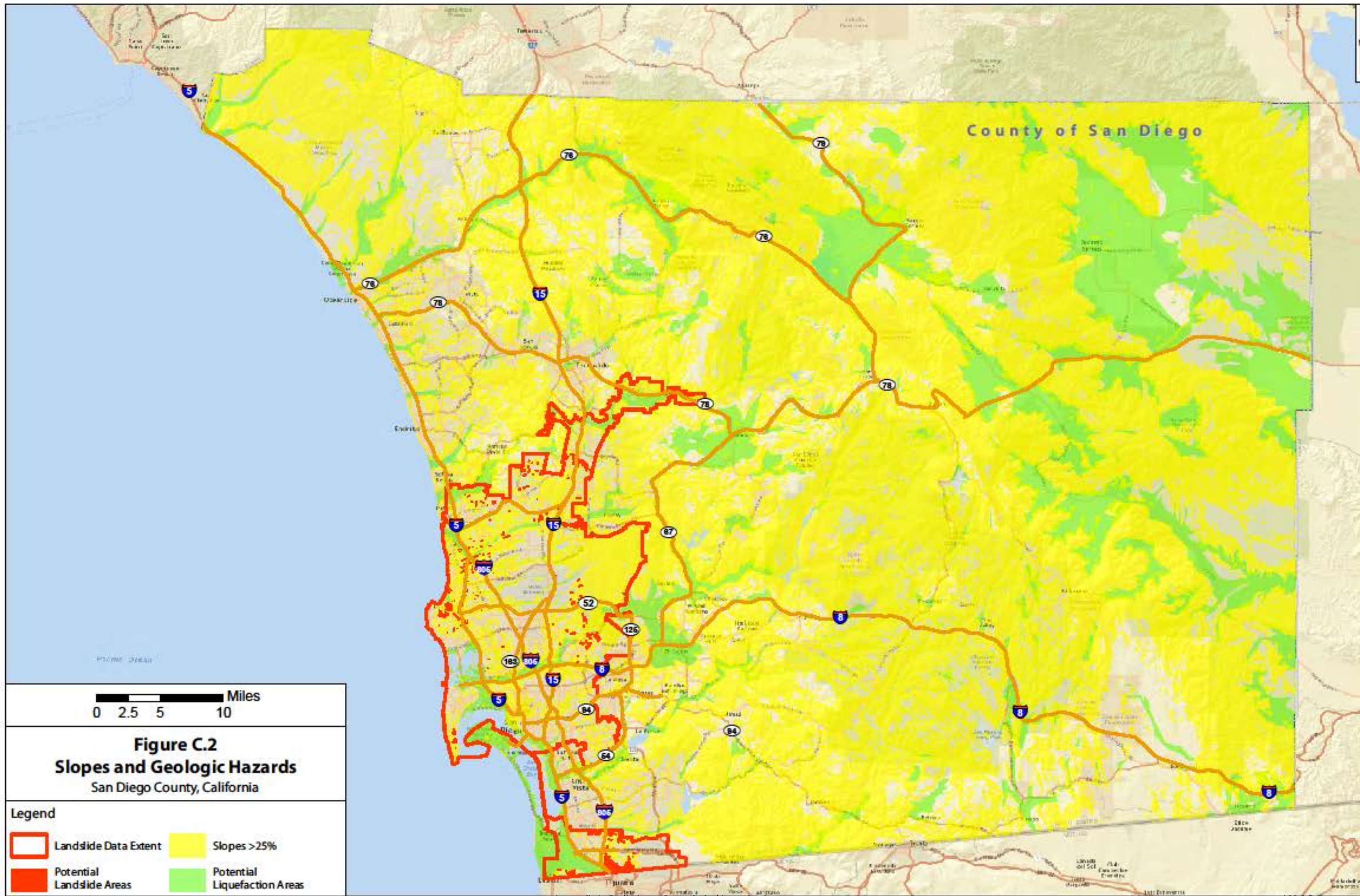
San Diego County, California

Legend

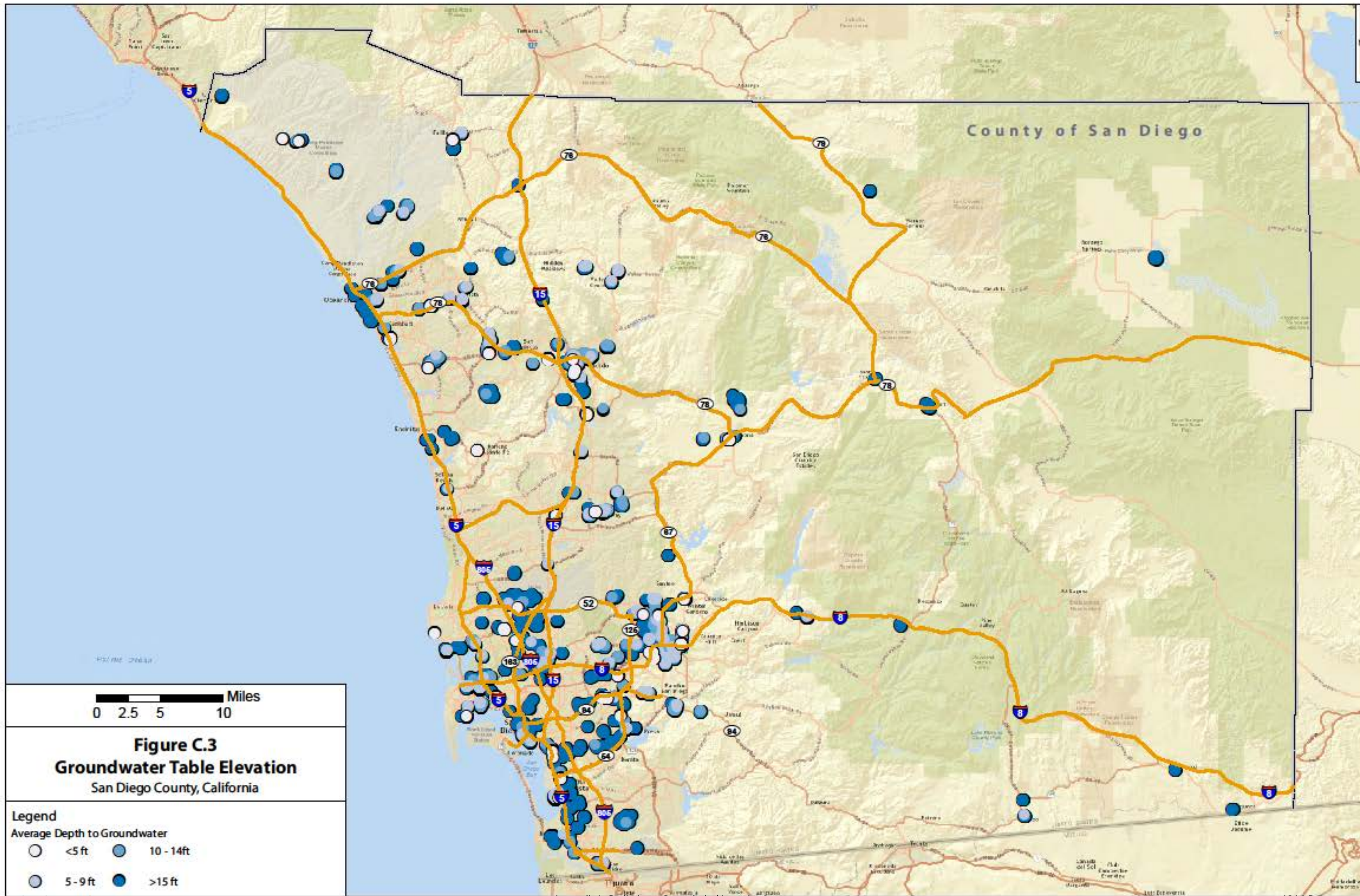
Hydric Soils

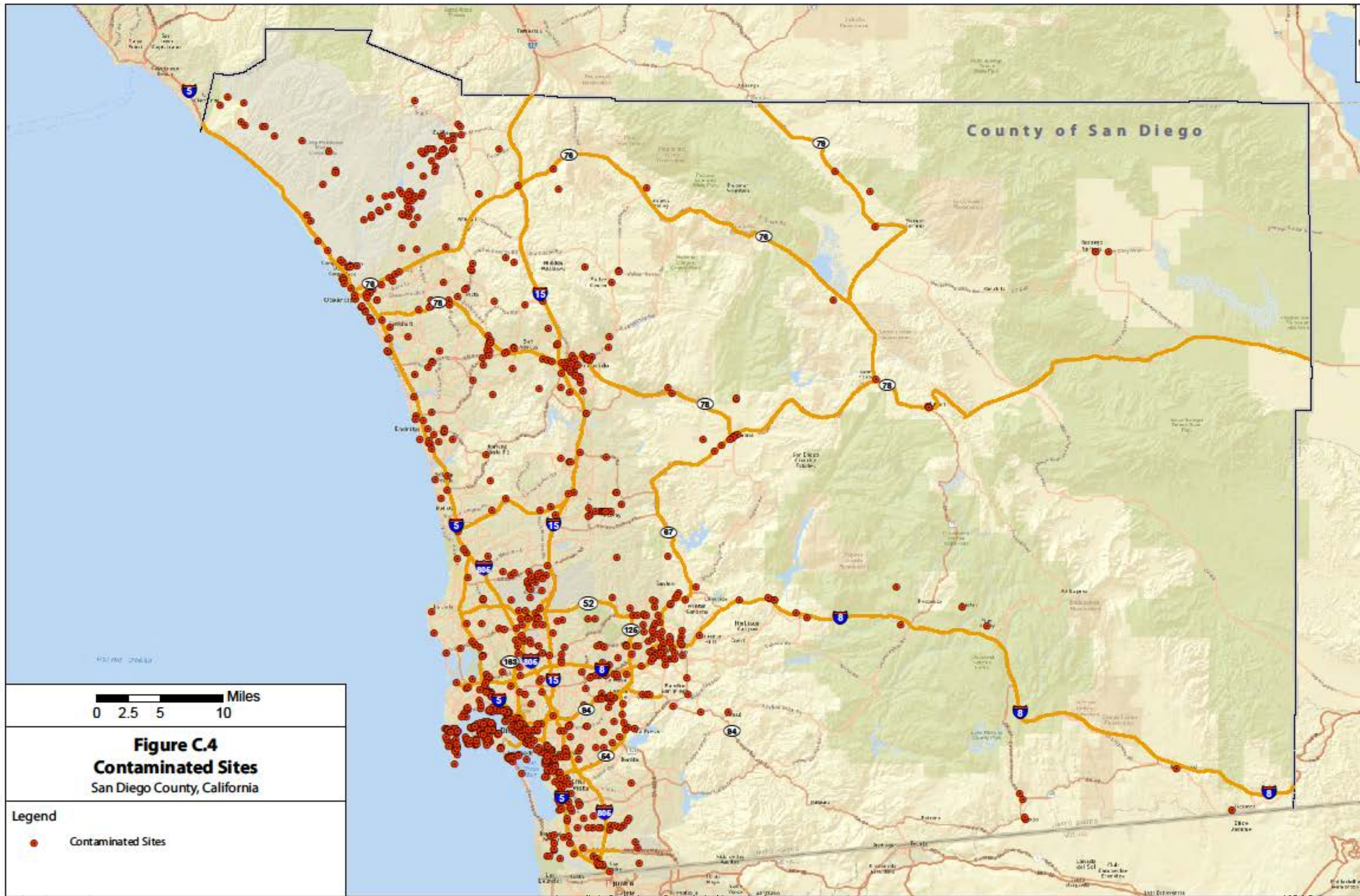
Hydrologic Soils Group

	A		B		C		D
---	---	---	---	---	---	---	---



0 2.5 5 10 Miles
Figure C.2
Slopes and Geologic Hazards
 San Diego County, California
Legend
 [Red Outline] Landslide Data Extent [Yellow] Slopes >25%
 [Red Fill] Potential Landslide Areas [Green] Potential Liquefaction Areas





APPENDIX D
RECORDS OF LABORATORY TESTING



Laboratory tests were performed in accordance with the generally accepted American Society for Testing and Materials (ASTM) test methods or suggested procedures. Brief descriptions of the tests performed are presented on Appendix D.2 through Appendix D.3:

- **CLASSIFICATION:** Field classifications were verified in the laboratory by visual examination. The final soil classifications are in accordance with the Unified Soils Classification System and are presented on the exploration logs in Appendix B.
- **EXPANSION INDEX TEST (ASTM D4829):** The expansion index of selected materials was evaluated in general accordance with ASTM D4829. Specimens were molded under a specified compactive energy at approximately 50 percent saturation (plus or minus 1 percent). The prepared 1-inch thick by 4-inch diameter specimens were loaded with a surcharge of 144 pounds per square foot and were inundated with tap water. Readings of volumetric swell were made for a period of 24 hours.
- **ATTERBERG LIMITS (ASTM D4318):** Tests were performed on selected representative fine-grained soil samples to evaluate the liquid limit, plastic limit, and plasticity index in general accordance with ASTM D4318. These test results were utilized to evaluate the soil classification in accordance with the Unified Soil Classification System.
- **MOISTURE CONTENT (ASTM D2216):** Tests were performed on selected representative soil samples to evaluate the water (moisture) content by mass of soil, rock, and similar materials where the reduction in mass by drying is due to loss of water. Test sample is dried in an oven at a temperature of 110° ± 5°C to a constant mass. The loss of mass due to drying is considered to be water. The water (moisture) content were determined in general accordance with ASTM D2216
- **MAXIMUM DENSITY AND OPTIMUM MOISTURE CONTENT (ASTM D1557 METHOD A,B,C):** The maximum dry density and optimum moisture content of typical soils were determined in the laboratory in accordance with ASTM Standard Test D1557, Method A, Method B, Method C.
- **R-VALUE (ASTM D 2844):** The resistance Value, or R-Value, for near-surface site soils were evaluated in general accordance with California Test (CT) 301 and ASTM D 2844. Samples were prepared and evaluated for exudation pressure and expansion pressure. The equilibrium R-value is reported as the lesser or more conservative of the two calculated results.
- **CORROSIVITY TEST (CAL. TEST METHOD 417, 422, 643):** Soil PH, and minimum resistivity tests were performed on a representative soil sample in general accordance with test method CT 643. The sulfate and chloride content of the selected sample were evaluated in general accordance with CT 417 and CT 422, respectively.
- **GRADATION ANALYSIS (ASTM C 136 and/or ASTM D422):** Tests were performed on selected representative soil samples in general accordance with ASTM D422. The grain size distributions of selected samples were determined in accordance with ASTM C 136 and/or ASTM D422. The results of the tests are summarized on Appendix D.4 through Appendix D.6.



4373 VIEWRIDGE AVENUE, SUITE B
SAN DIEGO, CALIFORNIA

PHONE: 858-292-7575

FAX: 858-292-7570

LAB TEST SUMMARY

PROPOSED NORTH PARK MINI PARK
29TH STREET & NORTH PARK WAY
SAN DIEGO, CALIFORNIA

BY: AJS

DATE: AUG 2017

PROJECT: 2017771

APPENDIX: D.1

Expansion Test (ASTM D4829)

Sample Location	Sample Depth (ft.)	Expansion Index	Expansion Potential
B-2	2.5' - 5.0'	86	Medium

Atterberg Limits (ASTM D4318)

Sample Location	Sample Depth (ft.)	Liquid Limit, LL	Plastic Limit, PL	Plasticity Index, PI	USCS
B-2	2.5' - 5.0'	43	17	60	CH

Moisture-Density (ASTM D2216)

Sample Location	Sample Depth (ft)	Soil Description	Moisture (%)	Dry Density (pcf)
B-1	5.0'	Gray Brown Fat Clay	19.8	104.2
B-1	7.5'	Gray Brown Fat Clay	11.4	115.6
B-2	5.0'	Gray Brown Fat Clay	22.4	105.0

Maximum Dry Density and Optimum Moisture Content (ASTM D1557)

Sample Location	Sample Depth (ft.)	Soil Description	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
B-2	2.5' - 5.0'	Gray Brown Fat Clay	116.4	13.6



4373 VIEWRIDGE AVENUE, SUITE B

SAN DIEGO, CALIFORNIA

PHONE: 858-292-7575

FAX: 858-292-7570

LAB TEST RESULTS

PROPOSED NORTH PARK MINI PARK

29TH STREET & NORTH PARK WAY

SAN DIEGO, CALIFORNIA

BY: AJS

DATE: AUG 2017

PROJECT: 2017771

APPENDIX: D.2

Resistance Value (Cal. Test Method 301 & ASTM D2844)

Sample Location	Sample Depth (ft.)	Soil Description	R-Value
T-1	0' - 5.0'	Gray Brown Fat Clay	11

Corrosivity Test (Cal. Test Method 417,422,643)

Sample Location	Sample Depth (ft.)	pH	Resistivity (Ohm-cm)	Sulfate Content (ppm)	Sulfate Content (%)	Chloride Content (ppm)	Chloride Content (%)
P-1	2.0' - 5.0'	7.8	260	780.0	0.078	560	0.056



4373 VIEWRIDGE AVENUE, SUITE B

SAN DIEGO, CALIFORNIA

PHONE: 858-292-7575

FAX: 858-292-7570

LAB TEST RESULTS

PROPOSED NORTH PARK MINI PARK

29TH STREET & NORTH PARK WAY

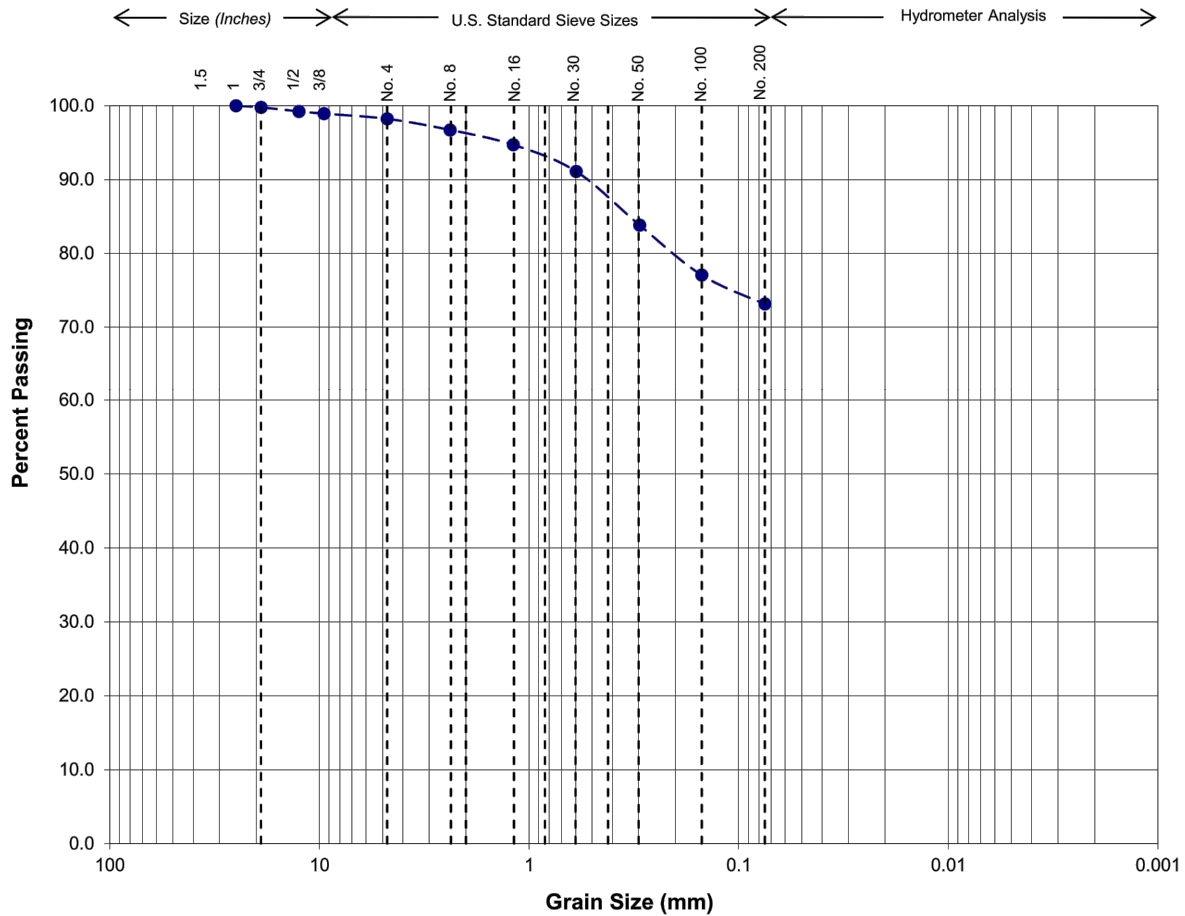
SAN DIEGO, CALIFORNIA

BY: AJS

DATE: AUG 2017

PROJECT: 2017771

APPENDIX: D.3



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample Location: B-2

Depth (ft): 2.5' - 5.0'

USCS Soil Type: CH

Passing No. 200 (%): 73



4373 VIEWRIDGE AVENUE, SUITE B
SAN DIEGO, CALIFORNIA

PHONE: 858-292-7575 FAX: 858-292-7570

GRADATION ANALYSIS TEST RESULTS

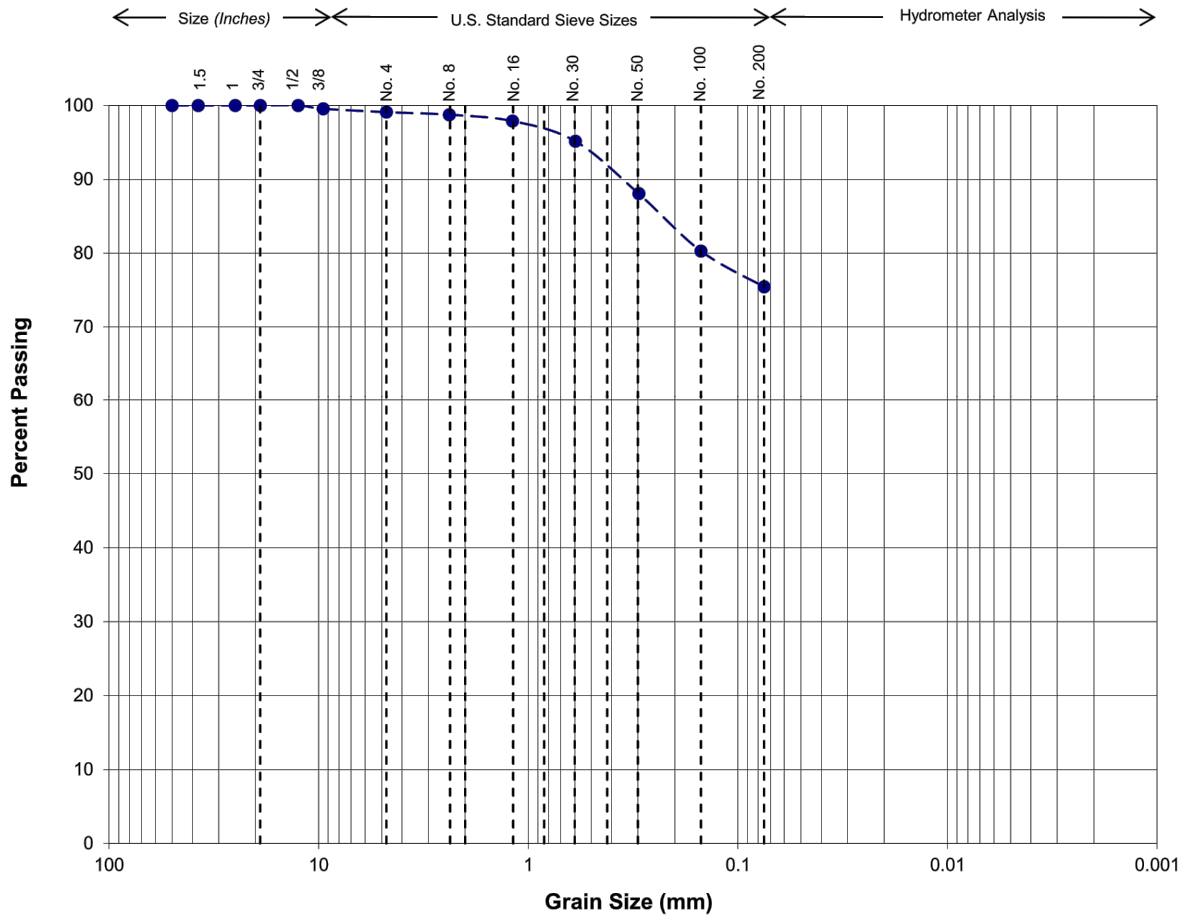
PROPOSED NORTH PARK MINI PARK
29TH STREET & NORTH PARK WAY
SAN DIEGO, CALIFORNIA

BY: AJS

DATE: AUG 2017

PROJECT: 2017771

APPENDIX: D.4



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample Location: P-1
Depth (ft): 5.0'
USCS Soil Type: CH
Passing No. 200 (%): 75



4373 VIEWRIDGE AVENUE, SUITE B
SAN DIEGO, CALIFORNIA

PHONE: 858-292-7575

FAX: 858-292-7570

GRADATION ANALYSIS TEST RESULTS

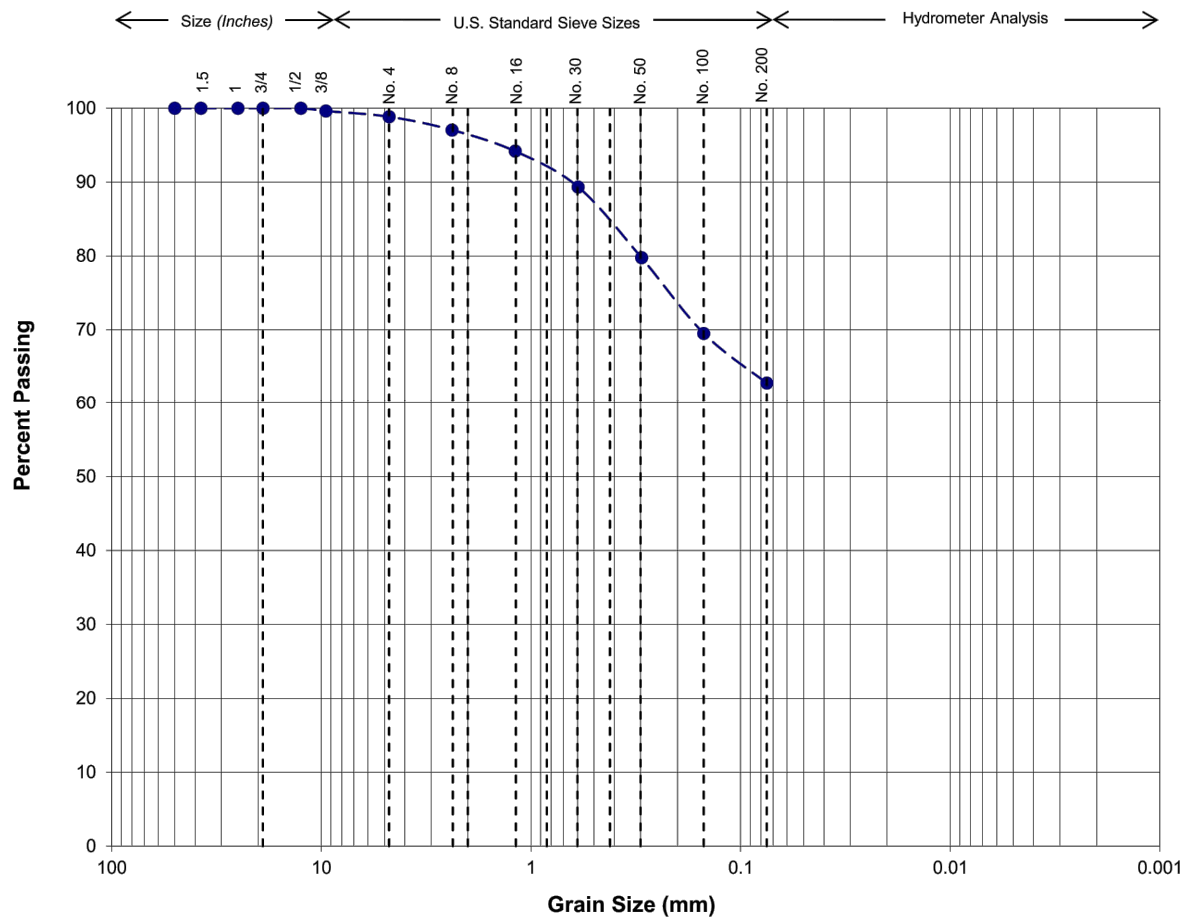
PROPOSED NORTH PARK MINI PARK
29TH STREET & NORTH PARK WAY
SAN DIEGO, CALIFORNIA

BY: AJS

DATE: AUG 2017

PROJECT: 2017771

APPENDIX: D.5



ATTACHMENT F

RESERVED

ATTACHMENT G

CONTRACT AGREEMENT

CONTRACT AGREEMENT

CONSTRUCTION CONTRACT

This contract is made and entered into between THE CITY OF SAN DIEGO, a municipal corporation, herein called "City", and _____, herein called "Contractor" for construction of **North Park Mini Park**; Bid No. **S-10050**; in the amount of _____ (\$ _____), which is comprised of the Base Bid plus/minus Additive/Deductive Alternates _____.

IN CONSIDERATION of the payments to be made hereunder and the mutual undertakings of the parties hereto, City and Contractor agree as follows:

1. The following are incorporated into this contract as though fully set forth herein:
 - (a) The attached Faithful Performance and Payment Bonds.
 - (b) The attached Proposal included in the Bid documents by the Contractor.
 - (c) Reference Standards listed in the Instruction to Bidders and the Supplementary Special Provisions (SSP).
 - (d) That certain documents entitled **North Park Mini Park**, on file in the office of the Public Works Department as Document No. **S-10050**, as well as all matters referenced therein.
2. The Contractor shall perform and be bound by all the terms and conditions of this contract and in strict conformity therewith shall perform and complete in a good and workmanlike manner **North Park Mini Park**, Bid Number **K-20-1864-DBB-3**, San Diego, California.
3. For such performances, the City shall pay to Contractor the amounts set forth at the times and in the manner and with such additions or deductions as are provided for in this contract, and the Contractor shall accept such payment in full satisfaction of all claims incident to such performances.
4. No claim or suit whatsoever shall be made or brought by Contractor against any officer, agent, or employee of the City for or on account of anything done or omitted to be done in connection with this contract, nor shall any such officer, agent, or employee be liable hereunder.
5. This contract is effective as of the date that the Mayor or designee signs the agreement.

CONTRACT AGREEMENT (continued)

IN WITNESS WHEREOF, this Agreement is signed by the City of San Diego, acting by and through its Mayor or designee, pursuant to Resolution No. R - _____ or Municipal Code _____ authorizing such execution.

THE CITY OF SAN DIEGO

APPROVED AS TO FORM

Mara W. Elliott, City Attorney

By _____

By _____

Print Name: _____
Mayor or designee

Print Name: _____
Deputy City Attorney

Date: _____

Date: _____

CONTRACTOR

By _____

Print Name: _____

Title: _____

Date: _____

City of San Diego License No.: _____

State Contractor's License No.: _____

DEPARTMENT OF INDUSTRIAL RELATIONS (DIR) REGISTRATION NUMBER: _____

CERTIFICATIONS AND FORMS

The Bidder, by submitting its electronic bid, agrees to and certifies under penalty of perjury under the laws of the State of California, that the certifications, forms and affidavits submitted as part of this bid are true and correct.

BIDDER'S GENERAL INFORMATION

To the City of San Diego:

Pursuant to "Notice Inviting Bids", specifications, and requirements on file with the City Clerk, and subject to all provisions of the Charter and Ordinances of the City of San Diego and applicable laws and regulations of the United States and the State of California, the undersigned hereby proposes to furnish to the City of San Diego, complete at the prices stated herein, the items or services hereinafter mentioned. The undersigned further warrants that this bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

The undersigned bidder(s) further warrants that bidder(s) has thoroughly examined and understands the entire Contract Documents (plans and specifications) and the Bidding Documents therefore, and that by submitting said Bidding Documents as its bid proposal, bidder(s) acknowledges and is bound by the entire Contract Documents, including any addenda issued thereto, as such Contract Documents incorporated by reference in the Bidding Documents.

**NON-COLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID UNDER 23
UNITED STATES CODE 112 AND PUBLIC CONTRACT CODE 7106**

State of California

County of San Diego

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

CONTRACTOR CERTIFICATION

DRUG-FREE WORKPLACE

I hereby certify that I am familiar with the requirements of San Diego City Council Policy No. 100-17 regarding Drug-Free Workplace as outlined in the WHITEBOOK, Section 5-1.3, "Drug-Free Workplace", of the project specifications, and that;

This company has in place a drug-free workplace program that complies with said policy. I further certify that each subcontract agreement for this project contains language which indicates the subcontractor's agreement to abide by the provisions of subdivisions a) through c) of the policy as outlined.

CONTRACTOR CERTIFICATION

AMERICANS WITH DISABILITIES ACT (ADA) COMPLIANCE CERTIFICATION

I hereby certify that I am familiar with the requirements of San Diego City Council Policy No. 100-4 regarding the Americans With Disabilities Act (ADA) outlined in the WHITEBOOK, Section 5-1.2, "Americans With Disabilities Act", of the project specifications, and that:

This company has in place workplace program that complies with said policy. I further certify that each subcontract agreement for this project contains language which indicates the subcontractor's agreement to abide by the provisions of the policy as outlined.

CONTRACTOR CERTIFICATION

CONTRACTOR STANDARDS – PLEDGE OF COMPLIANCE

I declare under penalty of perjury that I am authorized to make this certification on behalf of the company submitting this bid/proposal, that as Contractor, I am familiar with the requirements of City of San Diego Municipal Code § 22.3004 regarding Contractor Standards as outlined in the WHITEBOOK, Section 5-1.4, ("Contractor Standards"), of the project specifications, and that Contractor has complied with those requirements.

I further certify that each of the Contractor's subcontractors has completed a Pledge of Compliance attesting under penalty of perjury of having complied with City of San Diego Municipal Code § 22.3004.

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CONTRACTOR CERTIFICATION

EQUAL BENEFITS ORDINANCE CERTIFICATION

I declare under penalty of perjury that I am familiar with the requirements of and in compliance with the City of San Diego Municipal Code § 22.4300 regarding Equal Benefits Ordinance.

CONTRACTOR CERTIFICATION

EQUAL PAY ORDINANCE CERTIFICATION

Contractor shall comply with the Equal Pay Ordinance (EPO) codified in the San Diego Municipal Code (SDMC) at section 22.4801 through 22.4809, unless compliance is not required based on an exception listed in SDMC section 22.4804.

Contractor shall require all of its subcontractors to certify compliance with the EPO in their written subcontracts.

Contractor must post a notice informing its employees of their rights under the EPO in the workplace or job site.

By signing this Contract with the City of San Diego, Contractor acknowledges the EPO requirements and pledges ongoing compliance with the requirements of SDMC Division 48, section 22.4801 et seq., throughout the duration of this Contract.

AFFIDAVIT OF DISPOSAL

(To be submitted upon completion of Construction pursuant to the contracts Certificate of Completion)

WHEREAS, on the _____ DAY OF _____, 2____ the undersigned entered into and executed a contract with the City of San Diego, a municipal corporation, for:

North Park Mini Park

(Project Title)

as particularly described in said contract and identified as Bid No. **K-20-1864-DBB-3**; SAP No. (WBS/IO/CC) **S-10050**; and **WHEREAS**, the specification of said contract requires the Contractor to affirm that "all brush, trash, debris, and surplus materials resulting from this project have been disposed of in a legal manner"; and **WHEREAS**, said contract has been completed and all surplus materials disposed of:

NOW, THEREFORE, in consideration of the final payment by the City of San Diego to said Contractor under the terms of said contract, the undersigned Contractor, does hereby affirm that all surplus materials as described in said contract have been disposed of at the following location(s)

and that they have been disposed of according to all applicable laws and regulations.

Dated this _____ DAY OF _____, _____.

By: _____
Contractor

ATTEST:

State of _____ County of _____

On this _____ DAY OF _____, 2____, before the undersigned, a Notary Public in and for said County and State, duly commissioned and sworn, personally appeared _____ known to me to be the _____ Contractor named in the foregoing Release, and whose name is subscribed thereto, and acknowledged to me that said Contractor executed the said Release.

Notary Public in and for said County and State

LIST OF SUBCONTRACTORS

***** PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY *** TO BE SUBMITTED IN ELECTRONIC FORMAT ONLY *** SEE INSTRUCTIONS TO BIDDERS, FOR FURTHER INFORMATION**

In accordance with the requirements of the "Subletting and Subcontracting Fair Practices Act", Section 4100, of the California Public Contract Code (PCC), the Bidder is to list below the name, address and license number of each Subcontractor who will perform work, labor, render services or specially fabricate and install a portion [type] of the work or improvement, in an amount of or in excess of 0.5% of the Contractor's total Bid. Failure to comply with this requirement may result in the Bid being rejected as non-responsive. The Contractor is to list only one Subcontractor for each portion of the Work. The Bidder's attention is directed to the Special Provisions - Section 3-2, "SELF-PERFORMANCE", which stipulates the percentage of the Work to be performed with the Bidder's own forces. The Bidder is to also list all SLBE, ELBE, DBE, DVBE, MBE, WBE, OBE, SDB, WoSB, HUBZone, and SDVOSB Subcontractors for which the Bidders are seeking recognition towards achieving any mandatory, voluntary, or both subcontracting participation percentages.

NAME, ADDRESS AND TELEPHONE NUMBER OF SUBCONTRACTOR	CONSTRUCTOR OR DESIGNER	SUBCONTRACTOR LICENSE NUMBER	TYPE OF WORK	DOLLAR VALUE OF SUBCONTRACT	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB ^①	WHERE CERTIFIED ^②	CHECK IF JOINT VENTURE PARTNERSHIP
Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____							
Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____							

- ① As appropriate, Bidder shall identify Subcontractor as one of the following and shall include a valid proof of certification (except for OBE, SLBE and ELBE):
- | | | | |
|---|--------|--|---------|
| Certified Minority Business Enterprise | MBE | Certified Woman Business Enterprise | WBE |
| Certified Disadvantaged Business Enterprise | DBE | Certified Disabled Veteran Business Enterprise | DVBE |
| Other Business Enterprise | OBE | Certified Emerging Local Business Enterprise | ELBE |
| Certified Small Local Business Enterprise | SLBE | Small Disadvantaged Business | SDB |
| Woman-Owned Small Business | WoSB | HUBZone Business | HUBZone |
| Service-Disabled Veteran Owned Small Business | SDVOSB | | |
- ② As appropriate, Bidder shall indicate if Subcontractor is certified by:
- | | | | |
|--|--------|--|----------|
| City of San Diego | CITY | State of California Department of Transportation | CALTRANS |
| California Public Utilities Commission | CPUC | | |
| State of California's Department of General Services | CADoGS | City of Los Angeles | LA |
| State of California | CA | U.S. Small Business Administration | SBA |

The Bidder will not receive any subcontracting participation percentages if the Bidder fails to submit the required proof of certification.

NAMED EQUIPMENT/MATERIAL SUPPLIER LIST

***** PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY *** TO BE SUBMITTED IN ELECTRONIC FORMAT ONLY *** SEE INSTRUCTIONS TO BIDDERS FOR FURTHER INFORMATION**

NAME, ADDRESS AND TELEPHONE NUMBER OF VENDOR/SUPPLIER	MATERIALS OR SUPPLIES	DOLLAR VALUE OF MATERIAL OR SUPPLIES	SUPPLIER (Yes/No)	MANUFACTURER (Yes/No)	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB ^①	WHERE CERTIFIED ^②
Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____						
Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____						

- ① As appropriate, Bidder shall identify Vendor/Supplier as one of the following and shall include a valid proof of certification (except for OBE,SLBE and ELBE):
- | | | | |
|---|--------|--|---------|
| Certified Minority Business Enterprise | MBE | Certified Woman Business Enterprise | WBE |
| Certified Disadvantaged Business Enterprise | DBE | Certified Disabled Veteran Business Enterprise | DVBE |
| Other Business Enterprise | OBE | Certified Emerging Local Business Enterprise | ELBE |
| Certified Small Local Business Enterprise | SLBE | Small Disadvantaged Business | SDB |
| Woman-Owned Small Business | WoSB | HUBZone Business | HUBZone |
| Service-Disabled Veteran Owned Small Business | SDVOSB | | |
- ② As appropriate, Bidder shall indicate if Vendor/Supplier is certified by:
- | | | | |
|--|--------|--|----------|
| City of San Diego | CITY | State of California Department of Transportation | CALTRANS |
| California Public Utilities Commission | CPUC | | |
| State of California's Department of General Services | CADoGS | City of Los Angeles | LA |
| State of California | CA | U.S. Small Business Administration | SBA |

The Bidder will not receive any subcontracting participation percentages if the Bidder fails to submit the required proof of certification.

ELECTRONICALLY SUBMITTED FORMS

THE FOLLOWING FORMS MUST BE SUBMITTED IN PDF FORMAT WITH BID SUBMISSION

The following forms are to be completed by the bidder and submitted (uploaded) electronically with the bid in PlanetBids.

- A. BID BOND – See Instructions to Bidders, Bidders Guarantee of Good Faith (Bid Security) for further instructions**
- B. CONTRACTOR’S CERTIFICATION OF PENDING ACTIONS**
- C. MANDATORY DISCLOSURE OF BUSINESS INTERESTS FORM**
- D. SUBCONTRACTOR LISTING (OTHER THAN FIRST TIER)**

Bids will not be accepted until ALL the above-named forms are submitted as part of the bid submittal

BID BOND

See Instructions to Bidders, Bidder Guarantee of Good Faith (Bid Security)

KNOW ALL MEN BY THESE PRESENTS,

That _____ as Principal,
and _____ as Surety, are held
and firmly bound unto The City of San Diego hereinafter called "OWNER," in the sum
of **10% OF THE TOTAL BID AMOUNT** 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.

WHEREAS, said Principal has submitted a Bid to said OWNER to perform the WORK required under
the bidding schedule(s) of the OWNER's Contract Documents entitled

NOW THEREFORE, if said Principal is awarded a contract by said OWNER and, within the time and in
the manner required in the "Notice Inviting Bids" enters into a written Agreement on the form of
agreement bound with said Contract Documents, furnishes the required certificates of insurance, and
furnishes the required Performance Bond and Payment Bond, then this obligation shall be null and
void, otherwise it shall remain in full force and effect. In the event suit is brought upon this bond by
said OWNER and OWNER prevails, said Surety shall pay all costs incurred by said OWNER in such suit,
including a reasonable attorney's fee to be fixed by the court.

SIGNED AND SEALED, this _____ day of _____, 20____

(Principal) (SEAL)

(Surety) (SEAL)

By: _____
(Signature)

By: _____
(Signature)

(SEAL AND NOTARIAL ACKNOWLEDGEMENT OF SURETY)

CONTRACTOR'S CERTIFICATION OF PENDING ACTIONS

As part of its bid or proposal (Non-Price Proposal in the case of Design-Build contracts), the Bidder shall provide to the City a list of all instances within the past 10 years where a complaint was filed or pending against the Bidder in a legal or administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.

CHECK ONE BOX ONLY.

- ☐ The undersigned certifies that within the past 10 years the Bidder has NOT been the subject of a complaint or pending action in a legal administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors or suppliers.
- ☐ The undersigned certifies that within the past 10 years the Bidder has been the subject of a complaint or pending action in a legal administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors or suppliers. A description of the status or resolution of that complaint, including any remedial action taken and the applicable dates is as follows:

DATE OF CLAIM	LOCATION	DESCRIPTION OF CLAIM	LITIGATION (Y/N)	STATUS	RESOLUTION/REMEDIAL ACTION TAKEN

Contractor Name: _____

Certified By _____ Title _____
Name

Signature Date _____

USE ADDITIONAL FORMS AS NECESSARY

Mandatory Disclosure of Business Interests Form

BIDDER/PROPOSER INFORMATION

Legal Name	DBA		
Street Address	City	State	Zip
Contact Person, Title	Phone	Fax	

Provide the name, identity, and precise nature of the interest* of all persons who are directly or indirectly involved** in this proposed transaction (SDMC § 21.0103).

* The precise nature of the interest includes:

- the percentage ownership interest in a party to the transaction,
- the percentage ownership interest in any firm, corporation, or partnership that will receive funds from the transaction,
- the value of any financial interest in the transaction,
- any contingent interest in the transaction and the value of such interest should the contingency be satisfied, and
- any philanthropic, scientific, artistic, or property interest in the transaction.

** Directly or indirectly involved means pursuing the transaction by:

- communicating or negotiating with City officers or employees,
- submitting or preparing applications, bids, proposals or other documents for purposes of contracting with the City, or
- directing or supervising the actions of persons engaged in the above activity.

Name		Title/Position	
City and State of Residence	Employer (if different than Bidder/Proposer)		
Interest in the transaction			

Name	Title/Position
City and State of Residence	Employer (if different than Bidder/Proposer)
Interest in the transaction	

* Use Additional Pages if Necessary *

Under penalty of perjury under the laws of the State of California, I certify that I am responsible for the completeness and accuracy of the responses contained herein, and that all information provided is true, full and complete to the best of my knowledge and belief. I agree to provide written notice to the Mayor or Designee within five (5) business days if, at any time, I learn that any portion of this Mandatory Disclosure of Business Interests Form requires an updated response. Failure to timely provide the Mayor or Designee with written notice is grounds for Contract termination.

Print Name, Title	Signature	Date
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Failure to sign and submit this form with the bid/proposal shall make the bid/proposal non-responsive. In the case of an informal solicitation, the contract will not be awarded unless a signed and completed Mandatory Disclosure of Business Interests Form is submitted.

SUBCONTRACTOR LISTING

(OTHER THAN FIRST TIER)

Pursuant to California Senate Bill 96 and in accordance with the requirements of Labor Code sections 1771.1 and 1725.5, by submitting a bid or proposal to the City, Contractor is certifying that he or she has verified that all subcontractors used on this public work project are registered with the California Department of Industrial Relations (DIR). **The Bidder is to list below the name, address, license number, DIR registration number of any (known tiered subcontractor) - who will perform work, labor, render services or specially fabricate and install a portion [type] of the work or improvement pursuant to the contract. If none are known at this time, mark the table below with non-applicable (N/A).**

NAME, ADDRESS AND TELEPHONE NUMBER OF SUBCONTRACTOR	CONSTRUCTOR OR DESIGNER	DIR REGISTRATION NUMBER	SUBCONTRACTOR LICENSE NUMBER	TYPE OF WORK
Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____				
Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____				
Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____				
Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____				

**** USE ADDITIONAL FORMS AS NECESSARY ****