

City of San Diego

CONTRACTOR'S NAME: Southland Paving, Inc.
ADDRESS: 361 North Hale Avenue, Escondido, CA 92029
TELEPHONE NO.: (760) 747-6895 **FAX NO.:** (760) 747-1008
CITY CONTACT: Juan E. Espindola, Senior Contract Specialist, Email: JEEspindola@sandiego.gov
Phone No. (619) 533-4491
R. Salha / R. Bustamante / br

BIDDING DOCUMENTS



FOR

ASHLEY FALLS LG SCALE STORM FLOW STORAGE

BID NO.: K-19-1786-DBB-3
SAP NO. (WBS/IO/CC): B-14007
CLIENT DEPARTMENT: 2116
COUNCIL DISTRICT: 1
PROJECT TYPE: CC

THIS CONTRACT WILL BE SUBJECT TO THE FOLLOWING:

- PHASED-FUNDING
- THE CITY'S SUBCONTRACTING PARTICIPATION REQUIREMENTS FOR SLBE PROGRAM
- BID DISCOUNT PROGRAM (The WHITEBOOK, Part 0, EOCP SECTION B, Section 0-4, ITEM 4.2)
- PREVAILING WAGE RATES: STATE FEDERAL
- APPRENTICESHIP

BID DUE DATE:

2:00 PM

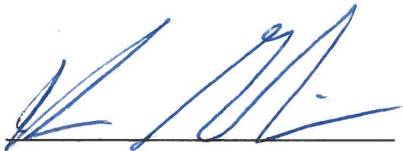
APRIL 9, 2019

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:

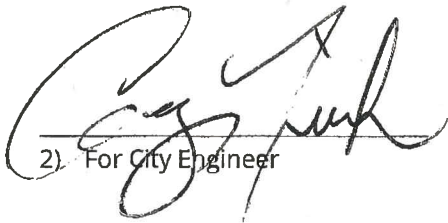


1) Registered Engineer

2-28-19

Date

Seal:



2) For City Engineer

2-28-2019

Date

Seal:

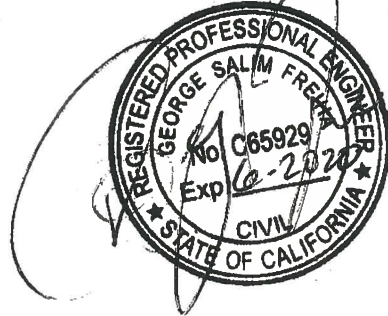


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NOTICE INVITING BIDS

1. **SUMMARY OF WORK:** This is the City of San Diego's (City) solicitation process to acquire Construction services for **Ashley Falls Lg Scale Storm Flow Storage**. 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 **\$640,000**.
4. **BID DUE DATE AND TIME ARE: APRIL 9, 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**
 - 6.1. For additional license requirements, see **Appendix H** – Long-Term Maintenance and Monitoring Agreement.
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	7.3%
2. ELBE participation	8.5%
3. Total mandatory participation	15.8%
 - 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 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. AWARD PROCESS:

- 8.1.** 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.
- 8.2.** 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.
- 8.3.** 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.
- 8.4.** The low Bid will be determined by the Base Bid alone.
- 8.5.** Once the low bid has been determined, the City may, at its sole discretion, award the contract for the Base Bid alone.

9. SUBMISSION OF QUESTIONS:

- 9.1.** 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

- 9.2.** Questions received less than 14 days prior to the date for opening of Bids may not be considered.
- 9.3.** 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.
- 9.4.** 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.

- 10. SUPPLEMENTAL AGREEMENTS:** Supplemental agreements attached to this contract for items of Work such as revegetation maintenance/monitoring shall be signed by the BIDDER at time of award of the primary BID. The signed agreements shall be accompanied by the proper bonds and insurance as specified in 1-7.2, "CONTRACT BONDS," 5-4, "INSURANCE," and 5-4.11 WORKERS' COMPENSATION INSURANCE. Bonds shall be in the amount of the total Contract Price for all Work including the supplemental agreements.

 - 10.1 Partial Release of Performance Bond and Labor and Materialmen's Bond:** For information regarding partial release of bonds for this Contract, see Long-Term Maintenance and Monitoring Agreement, **Appendix H.**
- 11. PHASED FUNDING:** For Phased Funding Conditions, see Attachment B.

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.shtml>
- 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.shtml>.

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

Title	Edition	Document Number
CALTRANS Standard Plans http://www.dot.ca.gov/des/oe/construction-contract-standards.html	2018	PWPI030119-06
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 **PORTION** 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 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.
- 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 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, 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:

Southland Paving, Inc., a corporation, as principal, and LIBERTY MUTUAL INSURANCE COMPANY, 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 **Seven Hundred Sixty One Thousand Five Hundred Sixty Seven Dollars and Zero Cents (\$761,567.00)** for the faithful performance of the annexed contract, and in the sum of **Seven Hundred Sixty One Thousand Five Hundred Sixty Seven Dollars and Zero Cents (\$761,567.00)** 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)

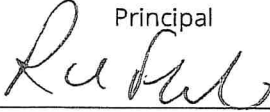
The Surety shall pay reasonable attorney's fees should suit be brought to enforce the provisions of this bond.

Dated MAY 8, 2019

Approved as to Form

SOUTHLAND PAVING, INC.


Principal

By 

RICHARD FLECK, PRESIDENT

Printed Name of Person Signing for Principal

Mara W. Elliott, City Attorney

By 
Deputy City Attorney

LIBERTY MUTUAL INSURANCE COMPANY

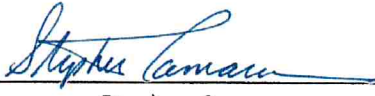
Surety

By 
MARK D. IATAROLA, Attorney-in-fact

Approved:

790 THE CITY DRIVE SOUTH, SUITE 200

Local Address of Surety

By 
Stephen Samara
Principal Contract Specialist
Public Works Department

ORANGE, CA 92868

Local Address (City, State) of Surety

714/634-5728

Local Telephone No. of Surety

Premium \$ 6,084.00

PREMIUM IS FOR CONTRACT TERM
AND IS SUBJECT TO ADJUSTMENT
BASED ON FINAL CONTRACT PRICE

Bond No. 24236902

ACKNOWLEDGMENT

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

State of California
County of San Diego)

On _____ before me, Danielle Maxwell, Notary Public

(insert name and title of the officer)

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

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

WITNESS my hand and official seal.

Signature Danielle Maxwell (Seal)



CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

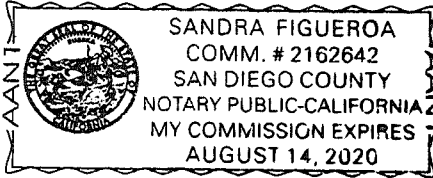
CIVIL CODE § 1189

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

State of California }
County of SAN DIEGO }

On 5/8/2019 before me, SANDRA FIGUEROA, NOTARY PUBLIC
Date Here Insert Name and Title of the Officer
personally appeared MARK D. IATAROLA
Name(s) of Signer(s)

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



Place Notary Seal and/or Stamp Above

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

WITNESS my hand and official seal.

Signature *Sandra Figueroa*
Signature of Notary Public

OPTIONAL

Completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: MARK D. IATAROLA

Corporate Officer – Title(s): _____

Partner – Limited General

Individual Attorney in Fact

Trustee Guardian of Conservator

Other: _____

Signer is Representing: _____

Signer's Name: _____

Corporate Officer – Title(s): _____

Partner – Limited General

Individual Attorney in Fact

Trustee Guardian of Conservator

Other: _____

Signer is Representing: _____



This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No: 8196922

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Sandra Figueroa, Mark D. Iatarola, Helen Maloney, John G. Maloney, LeNasa Deshon Scott

all of the city of Escondido state of CA each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 27th day of September, 2018.



Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: David M. Carey, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

State of PENNSYLVANIA ss
County of MONTGOMERY

On this 27th day of September, 2018 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Upper Merion Twp., Montgomery County
My Commission Expires March 28, 2021
Member, Pennsylvania Association of Notaries

By: Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS: Section 12. Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII - Execution of Contracts: Section 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 8TH day of MAY, 2019.



By: Renee C. Llewellyn, Assistant Secretary

ATTACHMENTS

ATTACHMENT A
SCOPE OF WORK

SCOPE OF WORK

1. **SCOPE OF WORK:** This is a pilot Best Management Practices (BMP) project in the Miramar Reservoir sub-watershed of the Penasquitos watershed. The proposed Ashley Falls Large Scale Storm Flow Storage project intends to reduce storm water flow pollutant loads and limit outlet flows to address regulatory requirements. The project will be constructed on an undeveloped City owned parcel in the community of Carmel Valley.
 - 1.1. The Work shall be performed in accordance with:
 - 1.1.1. The Notice Inviting Bids and Plans numbered **39210-01-D** through **39210-11-D**, and **39210-T1-D** through **39210-T4-D**, inclusive.
2. **LOCATION OF WORK:** The location of the Work is as follows: Carmel Knolls Drive at Pearlman Way, San Diego, CA 92130.
3. **CONTRACT TIME:** The Contract Time for completion of the Work, including the Plant Establishment Period, shall be **176 Working Days**.

ATTACHMENT B
PHASED FUNDING PROVISIONS

PHASED FUNDING PROVISIONS

1. PRE-AWARD

- 1.1. Within 10 Working Days of the Notice of Intent to Award, the Contractor must contact the Project Manager to discuss fund availability for each phase and shall also submit the following:
 - 1.1.1. Construction Cost Loaded Schedule in accordance with 6-1, "CONSTRUCTION SCHEDULE AND COMMENCEMENT OF THE WORK" and 7-3, "PAYMENT.
- 1.2. Contractor's failure to perform any of the following may result cancelling the award of the Contract:
 - 1.2.1. Meeting with the City's Project Manager to discuss the Phased Funding Schedule.
 - 1.2.2. Agreeing to a Phased Funding Schedule within **thirty** days of meeting with the City's Project Manager.

2. POST-AWARD

- 2.1. Do not start any construction activities for the next phase until the Notice to Proceed (NTP) has been issued by the City. The City will issue a separate NTP for each phase.
- 2.2. The City may issue the NTP for a subsequent phase before the completion of the preceding phase.

PHASED FUNDING SCHEDULE AGREEMENT

The particulars left blank below, such as the total number of phases and the amounts assigned to each phase, will be completed with funding specific information from the Pre-Award Schedule and Construction Cost Loaded Schedule submitted to and approved by the City.

BID NUMBER: K-19-1786-DBB-3

CONTRACT OR TASK TITLE: Ashley Falls LG Scale Storm Flow Storage

CONTRACTOR: Southland Paving, Inc.

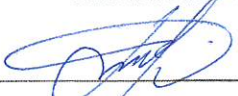
Funding Phase	Phase Description	Phase Start	Phase Finish	Not-to-Exceed Amount
1	Construction of a large-scale storm flow storage and multi-pollutant treatment system. Construction of 12" RCP, 18" RCP, and 24" RCP storm drain and appurtenances for low-flow collection at biofiltration basin.	July 2019	Feb. 2020	\$761,567.00
2	<u>N/A</u>			<u>0</u>
Contract Total				\$761,567.00

Notes:

- 1) WHITEBOOK section 9-3.6, "Phased Funding Compensation" applies.
- 2) The total of all funding phases shall be equal to the TOTAL BID PRICE as shown on BID SCHEDULE 1 - PRICES.
- 3) This PHASED FUNDING SCHEDULE AGREEMENT will be incorporated into the CONTRACT and shall only be revised by written modifications to the CONTRACT.

CITY OF SAN DIEGO

PRINT NAME: Igor Levin
Construction Manager

Signature: 

Date: 5-10-2019

PRINT NAME: Rawsan Salha
Project Manager

Signature: 

Date: 5/10/19

CONTRACTOR

PRINT NAME: Robert Kandy

Title: Vice President

Signature: 

Date: May 10, 2019

ATTACHMENT C
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ATTACHMENT D
PREVAILING WAGES

PREVAILING WAGES

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 4.20.11 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 **7:30 AM to 3:30 PM**.

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.

- 3-9 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) Final Design Report (Bio report) / Archaeological Survey Results Report.
 - b) Report of Geotechnical Field Exploration by Allied Geotechnical Engineers (June 14, 2011).
 - c) 1st Supplemental to Geotechnical Report by Allied Geotechnical Engineers (May 5, 2016).
 - d) 2nd Supplemental to Geotechnical Report by Allied Geotechnical Engineers (March 2, 2017).
6. The reports listed above are available for review in **Appendix L**.

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.

3-10.1 Survey Services Provided by the City.

1. The City will provide surveying services and on-site survey staking for the following:
 - a) Locations of any property lines, boundaries, or easement surveys within the project boundaries as required by the project.
 - b) Locations of up to four corners per building.
 - c) Verification of building pad finish surface elevation.
 - d) A maximum of 4 site control points.
 - e) Location and perpetuation of survey monuments within the project boundary in accordance with 400-2, "Permanent Survey Markers".
2. Notify the Resident Engineer in writing at least 2 Working Days prior to requesting survey services provided by the City.

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.

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 **120 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”.

6-4.2 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 **Mitigated Negative Declaration and notice of Determination** for **Ashley Falls Lg Scale Storm Flow Storage, WBS: B-14007**, as referenced in the Contract Appendix. You shall comply with all requirements of the **Mitigated Negative Declaration and Notice of Determination** as set forth in **Appendix A**.
2. Compliance with the City's environmental document shall be included in the Contract Price.

6-6.2.2 Paleontological Monitoring Program. To the "WHITEBOOK", ADD the following:

3. You shall retain a qualified paleontologist for this Contract. You shall coordinate your activities and Schedule with the activities and schedules of the paleontologist monitor. Notify the Engineer before noon of the Working Day before monitoring is required. See 3-5, "INSPECTION" for details.

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

7-3.2 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.

7-3.11 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 400 – PROTECTION AND RESTORATION

402-2 PROTECTION. To the "WHITEBOOK", item 2, ADD the following:

- g) Refer to **Appendix K - Advanced Metering Infrastructure (AMI) Device Protection** for more information on the protection of AMI devices.

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

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

SECTION 800 – MATERIALS

800-1.1.2 Class "A" Topsoil. To the "WHITEBOOK", item 4, subsection "e", DELETE in its entirety and SUBSTITUTE with the following:

- e) The test results shall provide the following information:
 - i. Date of Testing
 - ii. Project Name
 - iii. The Contractor's Name
 - iv. Source of Material and Supplier's Name
 - v. Estimate of Quantity Needed in Cubic Yards
 - vi. Soil Gradation
 - vii. Fertility
 - viii. Heavy Metals
 - ix. Soil Permeability in Inches per Hour
 - x. Toxic Elements
 - xi. Chloride Content
 - xii. pH
 - xiii. EcE (electrical conductivity)
 - xiv. SAR (Sodium Absorption Ratio)

- xv. Organic Content by Dry Weight
- xvi. Carbon : Nitrogen Ratio
- xvii. Water-soluble Nutrient Levels
- xviii. Recommendations for adding amendments, chemical corrections, or both.

To the "WHITEBOOK", item 5, DELETE in its entirety and SUBSTITUTE with the following:

5. The topsoil shall conform to the following agricultural suitability requirements:

pH	6.0 – 7.5
ECe (electrical conductivity)	0.0 – 3.0
SAR (Sodium Absorption Ratio)	0.0 – 5.0
Chloride Content	Less than 150 ppm
Boron Content	Less than 1 ppm
Organic Content	3% to 6% by dry weight
Carbon : Nitrogen Ratio	20:1 maximum
Sandy Loam Gradation Limit*	Gravel over 2mm: Less than 10% by weight Sand: 75% to 85% Sand finer than 100 mesh (0.15 mm): Less than 15% Sand finer that 60 mesh (0.25 mm): Less than 40% Sand larger than 32 mesh (0.5 mm): Minimum 15% Silt: 20% maximum Clay: 15% maximum
Permeability Rate**	2 inches to 5 inches per hour at 80% compaction

* Per USDA Classification Scheme.

** Tested in accordance with USDA Handbook Number 60, method 34b or other approved method.

800-1.2.5 Mulch. To the "WHITEBOOK", item 3, subsection "i", ADD the following:

Type 9 Mulch shall be 2 inches maximum in size.

**SECTION 802 – NATIVE HABITAT PROTECTION, INSTALLATION, MAINTENANCE, AND
MONITORING**

802-2.1 **Project Biologist.** To the “WHITEBOOK”, ADD the following:

5. You shall retain a qualified Project Biologist to perform biological monitoring Work for this Contract. You shall coordinate your activities and Schedule with the activities and schedules of the Project Biologist.

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.

END OF SUPPLEMENTARY SPECIAL PROVISIONS (SSP)

SUPPLEMENTARY SPECIAL PROVISIONS
APPENDICES

APPENDIX A

MITIGATED NEGATIVE DECLARATION AND NOTICE OF DETERMINATION



THE CITY OF SAN DIEGO

MITIGATED NEGATIVE DECLARATION

Project No. 488418
SCH No. 2018111006

SUBJECT: ASHLEY FALLS STORM FLOW STORAGE SDP PROJECT: A SITE DEVELOPMENT PERMIT (SDP) for encroachment into Environmentally Sensitive Lands (Sensitive Biological Resources). The project consists of the construction of a large-scale storm flow storage and multi-pollutant treatment system within City right-of-way and a City owned parcel (APN# 3045021300) located at the northwest corner of the intersection of Pearlman Way and Carmel Knolls Drive. The project site is located within the Carmel Valley Community Plan Area and City Council District 1. Applicant: City of San Diego Public Works Department.

- I. PROJECT DESCRIPTION: See attached Initial Study.
- II. ENVIRONMENTAL SETTING: See attached Initial Study.
- III. DETERMINATION:

The City of San Diego conducted an Initial Study which determined that the proposed project could have a significant environmental effect in the following areas(s): **Biological Resources**. Subsequent revisions in the project proposal create the specific mitigation identified in Section V of this Mitigated Negative Declaration. The project as revised now avoids or mitigates the potentially significant environmental effects previously identified, and the preparation of an Environmental Impact Report will not be required.

IV. DOCUMENTATION: The attached Initial Study documents the reasons to support the above Determination.

V. MITIGATION, MONITORING AND REPORTING PROGRAM:

A. GENERAL REQUIREMENTS – PART I
Plan Check Phase (prior to permit issuance)

1. Prior to the issuance of a Notice To Proceed (NTP) for a subdivision, or any construction permits, such as Demolition, Grading or Building, or beginning any construction related activity on-site, the Development Services Department (DSD) Director's Environmental Designee (ED) shall review and

approve all Construction Documents (CD), (plans, specification, details, etc.) to ensure the MMRP requirements are incorporated into the design.

2. In addition, the ED shall verify that the MMRP Conditions/Notes that apply ONLY to the construction phases of this project are included VERBATIM, under the heading, **“ENVIRONMENTAL/MITIGATION REQUIREMENTS.”**

3. These notes must be shown within the first three (3) sheets of the construction documents in the format specified for engineering construction document templates as shown on the City website:

<http://www.sandiego.gov/development-services/industry/standtemp.shtml>

4. The **TITLE INDEX SHEET** must also show on which pages the “Environmental/Mitigation Requirements” notes are provided.

5. **SURETY AND COST RECOVERY** – The Development Services Director or City Manager may require appropriate surety instruments or bonds from private Permit Holders to ensure the long term performance or implementation of required mitigation measures or programs. The City is authorized to recover its cost to offset the salary, overhead, and expenses for City personnel and programs to monitor qualifying projects.

B. GENERAL REQUIREMENTS – PART II

Post Plan Check (After permit issuance/Prior to start of construction)

1. PRE CONSTRUCTION MEETING IS REQUIRED TEN (10) WORKING DAYS PRIOR TO BEGINNING ANY WORK ON THIS PROJECT. The PERMIT HOLDER/OWNER is responsible to arrange and perform this meeting by contacting the CITY RESIDENT ENGINEER (RE) of the Field Engineering Division and City staff from MITIGATION MONITORING COORDINATION (MMC). Attendees must also include the Permit holder’s Representative(s), Job Site Superintendent and the following consultants:

Qualified Biologist

Note:

Failure of all responsible Permit Holder’s representatives and consultants to attend shall require an additional meeting with all parties present.

CONTACT INFORMATION:

- a) The PRIMARY POINT OF CONTACT is the **RE** at the **Field Engineering Division – 858-627-3200**
- b) For Clarification of ENVIRONMENTAL REQUIREMENTS, it is also required to call **RE and MMC at 858-627-3360**

2. MMRP COMPLIANCE: This Project, Project Tracking System (PTS) #488418 and Environmental Document # 488418, shall conform to the mitigation requirements contained in the associated Environmental Document and implemented to the satisfaction of the DSD’s Environmental Designee (MMC) and the City Engineer (RE). The requirements may not be reduced or changed but may be annotated (i.e. to explain when and how compliance is being met and location of verifying proof,

etc.). Additional clarifying information may also be added to other relevant plan sheets and/or specifications as appropriate (i.e., specific locations, times of monitoring, methodology, etc

Note:

Permit Holder’s Representatives must alert RE and MMC if there are any discrepancies in the plans or notes, or any changes due to field conditions. All conflicts must be approved by RE and MMC BEFORE the work is performed.

3. OTHER AGENCY REQUIREMENTS: Evidence of compliance with all other agency requirements or permits shall be submitted to the RE and MMC for review and acceptance prior to the beginning of work or within one week of the Permit Holder obtaining documentation of those permits or requirements. Evidence shall include copies of permits, letters of resolution or other documentation issued by the responsible agency.

None

4. MONITORING EXHIBITS

All consultants are required to submit , to RE and MMC, a monitoring exhibit on a 11x17 reduction of the appropriate construction plan, such as site plan, grading, landscape, etc., marked to clearly show the specific areas including the **LIMIT OF WORK**, scope of that discipline’s work, and notes indicating when in the construction schedule that work will be performed. When necessary for clarification, a detailed methodology of how the work will be performed shall be included.

5. OTHER SUBMITTALS AND INSPECTIONS:

The Permit Holder/Owner’s representative shall submit all required documentation, verification letters, and requests for all associated inspections to the RE and MMC for approval per the following schedule:

<i>Issue Area</i>	<i>Document submittal</i>	<i>Assoc Inspection/Apv l</i>	<i>Notes</i>
Pre-Con Meeting	Request letter	MMC approval	3 days prior to pre-con
Biology	Consultant Qual. Letter	MMC approval	
	Bio. Monitoring Exhibit.	MMC approval	
	Protocol or other Survey	MMC approval	
Biology	Limit of Work Ver. Letter	MMC inspection	
Final approval	Request for Final	Final inspection	1 week after request

C. SPECIFIC MMRP ISSUE AREA CONDITIONS/REQUIREMENTS

BIOLOGICAL RESOURCES

Biological Resources Protection During Construction

I. Prior to Construction

- A. **Biologist Verification** -The owner/permittee shall provide a letter to the City’s Mitigation Monitoring Coordination (MMC) section stating that a Project Biologist (Qualified Biologist) as

defined in the City of San Diego's Biological Guidelines (2012), has been retained to implement the project's biological monitoring program. The letter shall include the names and contact information of all persons involved in the biological monitoring of the project.

- B. **Preconstruction Meeting** - The Qualified Biologist shall attend the preconstruction meeting, discuss the project's biological monitoring program, and arrange to perform any follow up mitigation measures and reporting including site-specific monitoring, restoration or revegetation, and additional fauna/flora surveys/salvage.
- C. **Biological Documents** - The Qualified Biologist shall submit all required documentation to MMC verifying that any special mitigation reports including but not limited to, maps, plans, surveys, survey timelines, or buffers are completed or scheduled per City Biology Guidelines, Multiple Species Conservation Program (MSCP), Environmentally Sensitive Lands Ordinance (ESL), project permit conditions; California Environmental Quality Act (CEQA); endangered species acts (ESAs); and/or other local, state or federal requirements.
- D. **BCME** -The Qualified Biologist shall present a Biological Construction Mitigation/Monitoring Exhibit (BCME) which includes the biological documents in C above. In addition, include: restoration/revegetation plans, plant salvage/relocation requirements (e.g., coastal cactus wren plant salvage, burrowing owl exclusions, etc.), avian or other wildlife surveys/survey schedules (including general avian nesting and USFWS protocol), timing of surveys, wetland buffers, avian construction avoidance areas/noise buffers/ barriers, other impact avoidance areas, and any subsequent requirements determined by the Qualified Biologist and the City ADD/MMC. The BCME shall include a site plan, written and graphic depiction of the project's biological mitigation/monitoring program, and a schedule. The BCME shall be approved by MMC and referenced in the construction documents.
- E. **Avian Protection Requirements** - To avoid any direct impacts to any species identified as a listed, candidate, sensitive, or special status species in the MSCP, including, but not limited to Cooper's Hawk, removal of habitat that supports active nests in the proposed area of disturbance should occur outside of the breeding season for these species (February 1 to September 15). If removal of habitat in the proposed area of disturbance must occur during the breeding season, the Qualified Biologist shall conduct a pre-construction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The pre-construction survey shall be conducted within 10 calendar days prior to the start of construction activities (including removal of vegetation). The applicant shall submit the results of the pre-construction survey to City DSD for review and approval prior to initiating any construction activities. If nesting birds are detected, a letter report or mitigation plan in conformance with the City's Biology Guidelines and applicable State and Federal Law (i.e. appropriate follow up surveys, monitoring schedules, construction and noise barriers/buffers, etc.) shall be prepared and include proposed measures to be implemented to ensure that take of birds or eggs or disturbance of breeding activities is avoided. The report or mitigation plan shall be submitted to the City for review and approval and implemented to the satisfaction of the City. The City's MMC Section and Biologist shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction.

- F. **Resource Delineation** - Prior to construction activities, the Qualified Biologist shall supervise the placement of orange construction fencing or equivalent along the limits of disturbance adjacent to sensitive biological habitats and verify compliance with any other project conditions as shown on the BCME. This phase shall include flagging plant specimens and delimiting buffers to protect sensitive biological resources (e.g., habitats/flora & fauna species, including nesting birds) during construction. Appropriate steps/care should be taken to minimize attraction of nest predators to the site.
- G. **Education** -Prior to commencement of construction activities, the Qualified Biologist shall meet with the owner/permittee or designee and the construction crew and conduct an on-site educational session regarding the need to avoid impacts outside of the approved construction area and to protect sensitive flora and fauna (e.g., explain the avian and wetland buffers, flag system for removal of invasive species or retention of sensitive plants, and clarify acceptable access routes/methods and staging areas, etc.).

II. During Construction

- A. **Monitoring**- All construction (including access/staging areas) shall be restricted to areas previously identified, proposed for development/staging, or previously disturbed as shown on "Exhibit A" and/or the BCME. The Qualified Biologist shall monitor construction activities as needed to ensure that construction activities do not encroach into biologically sensitive areas, or cause other similar damage, and that the work plan has been amended to accommodate any sensitive species located during the pre-construction surveys. In addition, the Qualified Biologist shall document field activity via the Consultant Site Visit Record (CSVr). The CSVr shall be e-mailed to MMC on the 1st day of monitoring, the 1st week of each month, the last day of monitoring, and immediately in the case of any undocumented condition or discovery.
- B. **Subsequent Resource Identification** - The Qualified Biologist shall note/act to prevent any new disturbances to habitat, flora, and/or fauna onsite (e.g., flag plant specimens for avoidance during access, etc.). If active nests or other previously unknown sensitive resources are detected, all project activities that directly impact the resource shall be delayed until species specific local, state or federal regulations have been determined and applied by the Qualified Biologist.

III. Post Construction Measures

- A. In the event that impacts exceed previously allowed amounts, additional impacts shall be mitigated in accordance with City Biology Guidelines, ESL and MSCP, State CEQA, and other applicable local, state and federal law. The Qualified Biologist shall submit a final BCME/report to the satisfaction of the City ADD/MMC within 30 days of construction completion.

Direct Impacts to Sensitive Vegetation Communities

Prior to the start of construction the owner/permittee shall demonstrate to the satisfaction of MMC that the following mitigation measures have been satisfied:

To compensate for the loss of 0.32-acre of Diegan coastal sage scrub (Tier II), located outside the MHPA, impacts shall be mitigated through payment to the City of San Diego's Habitat Acquisition Fund or the purchase of credits at the Cornerstone Lands Bank, either of which will preserve habitat within the MHPA. Payment will be provided for 0.32-acre to achieve the required 1:1 impact to mitigation ratio.

Revegetation of Temporary Impacts

To mitigate for indirect impacts related to the potential for invasive plant species to establish within temporary disturbance areas resulting from the construction of the storm water storage basin shall be revegetated in accordance with the Landscape Plans (Sheet L-1) of the project's approved Site Development Permit Exhibit A. The revegetation areas will be monitored and maintained for 25 months to ensure adequate establishment and sustainability of the plantings/seedings in accordance with the Landscape Revegetation Notes and Criteria (Sheet L-2) of the project's approved Site Development Permit Exhibit A.

VI. PUBLIC REVIEW DISTRIBUTION:

Draft copies or notice of this Mitigated Negative Declaration were distributed to:

City of San Diego
Councilmember Bry - District 1
Mayor's Office
City Attorney's Office (MS 59)
Development Services (501)
Mark Brunette, EAS/Planning
Golsa Soraya, Project Management
Louis Shultz, Engineering
Kreg Mills, Geology
Engineering and Capital Projects (908A)
Rawsan Salha
Mark Berlin
Park and Recreation
Shannon Scoggins
Facilities Financing, Tom Tomlinson (93B)
Water Review, Medhi Rastakhiz (86A)
Library Dept. - Government Documents (81)
San Diego Central Library (81A)
Carmel Valley Branch Library (81F)

Biology/Wetlands

- US Fish & Wildlife Service (23)
- California Dept. of Fish & Wildlife (32)
- Sierra Club (165)
- San Diego Audubon Society (167)
- Mr. Jim Peugh (167A)
- California Native Plant Society (170)
- Endangered Habitats League (182A)

Other Interested Parties:

- Carmel Valley Community Planning Board (350)

VII. RESULTS OF PUBLIC REVIEW:

- (X) No comments were received during the public input period.

- () Comments were received but did not address the accuracy or completeness of the draft environmental document. No response is necessary and the letters are incorporated herein.

- () Comments addressing the accuracy or completeness of the draft environmental document were received during the public input period. The letters and responses are incorporated herein.

Copies of the draft Mitigated Negative Declaration, the Mitigation, Monitoring and Reporting Program and any Initial Study material are available in the office of the Entitlements Division for review, or for purchase at the cost of reproduction.



Mark Brunette, Senior Planner
Development Services Department

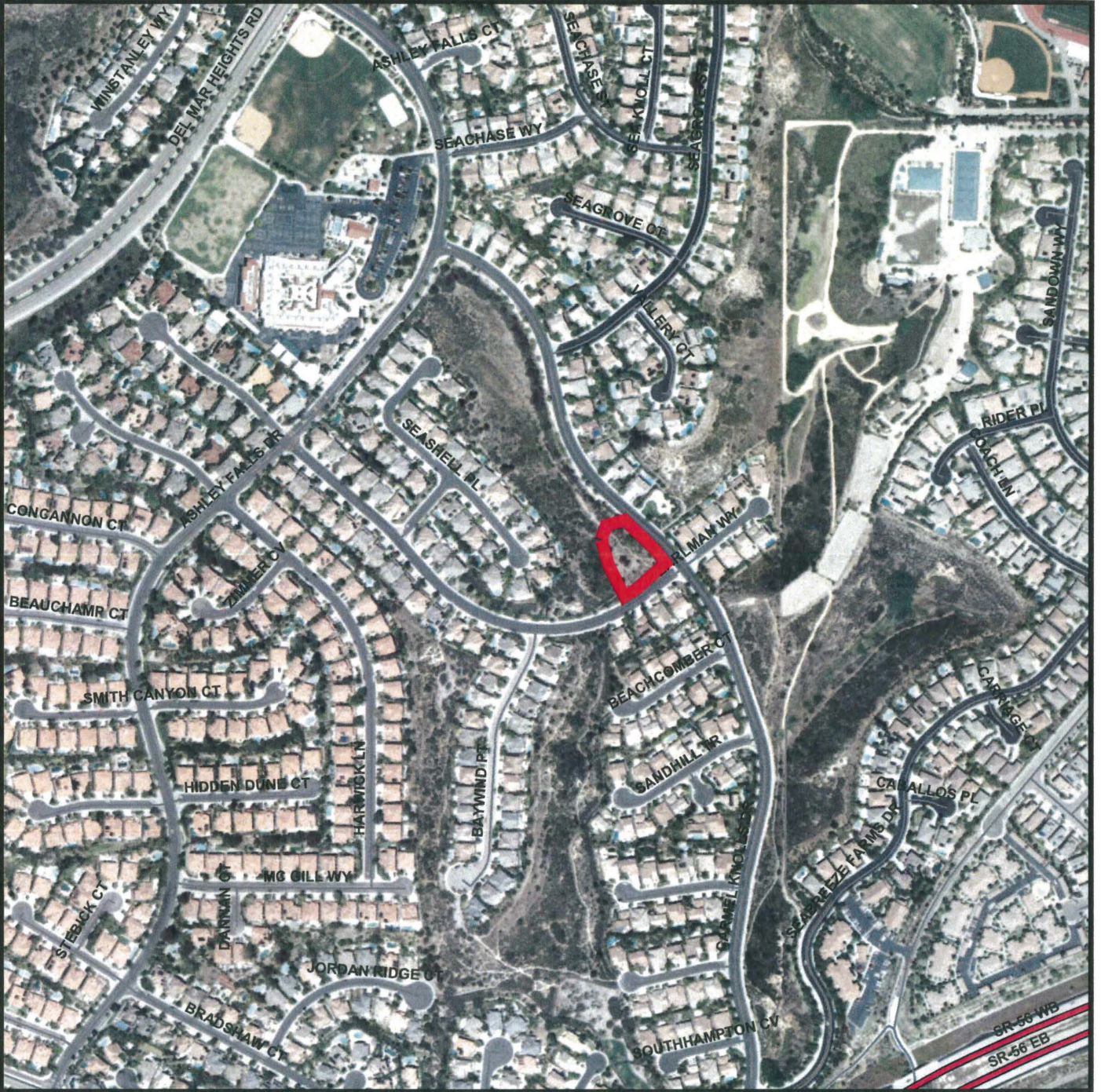
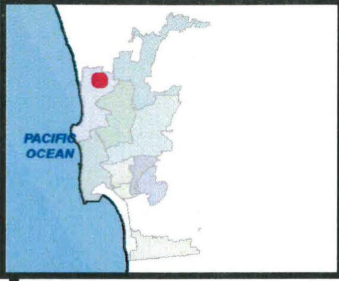
10/30/18
Date of Draft Report


12/4/18
Date of Final Report

Analyst: Mark Brunette

Attachments: Vicinity Map
Landscape Plan
Initial Study Checklist

Ashley Falls Large Scale Storm Flow Storage



 Proposed location of Bioretention Basin

Orthophotographic Map



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PLANT MATERIAL LEGEND

TREES

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY	SIZE	H.W./GAL/DEPTH	DETAIL
	RHUS INTEGRIFOLIA	LEMONADE BERRY	22	6 GAL	7' x 7' (1")	INSTALL PER S.D.R.S.D. PL1
	EXISTING TREES		18			PROTECT IN PLACE

HYDROSEED SEED MIX

NATIVE PLANTING MIX - ORNAMENTAL, LOW GROWING NATIVE MIX

THIS IS A MIXTURE OF SHOWY, LOW GROWING ANNUAL AND PERENNIAL SPECIES THAT WILL PROVIDE MONTHS OF BRIGHT SPRING COLOR IN A WARM-DRY CLIMATE SETTING, OR YEAR-ROUND COLOR WHEN IRRIGATED. THIS MIX MAY BE USED ALONE OR IN CONJUNCTION WITH GRASS AND SHRUB SEEDS.

SEEDS	COMMON NAME	BULK LBS/ACRE	MIN % PURITY
ADONISAM GLABER	DEERWEED	6,000	85
ANTENNARIA CALIFORNICA	CALIFORNIA SAGEBRUSH	2,200	85
EULOBUS CALIFORNICUS	CALIFORNIA PRIMROSE	1,500	85
COLUSSIA HETEROPHYLLA	CHINESE ROSE	3,000	85
ERODIYLLUM CONFERTIFLORUM	GOLDEN YARROW	3,000	25
EROSIUM CALIFORNICA	BUSH GUNNOWER	2,200	85
ESCHSCHOLZIA CALIFORNICA	CALIFORNIA POPPY	2,000	85
FESTUCA MICROSTACHYA	SMALL FESCUE	8,000	85
LATHRAEA CALIFORNICA	DWARF GOLDENROD	1,000	95
LEONATUS GRACILOPS	LARGE FL. OWENIA	1,000	75
LUPINUS HERCUTESBOMI	STINGING LUPINE	2,000	85
LUPINUS NANUS	SOFT LUPINE	2,000	85
MINIULUS ALPHANTHACUS I ONGIFLORIS	STOCKY MONKEYFLOWER	1,000	25
MINIULUS ALPHANTHACUS PINNATUS	MISSION RED MONKEYFLOWER	1,000	25
MIRABILIS LUTEA	LITTLESEED MURRAY	2,200	50
SALVIA MELLEIFERA	BLACK SAGE	2,200	80
SISTRINCHUM BELLUM	BLUE EYED GRASS	41,000	80

*MIN % P.U.S (PURE LINE SEED) = SEED PURITY X GERMINATION RATE
NOTE: SEED MIX AVAILABLE THROUGH SAS SEEDS, OR A PROVIDED EQUAL.

SEEDING RATE:	41 LBS PER ACRE
HEIGHT:	1'-4"
EMERGENCE:	10-24 DAYS

BOTANICAL NAME	COMMON NAME	QTY	SIZE	SPACING
EROSIUM CALIFORNICA	BUSH SUNNOWER	70	1 GAL	19" O.C.
MINIULUS ALPHANTHACUS LONG. STYLOS MONKEYFLOWER	BLACK SAGE	35	1 GAL	12" O.C.
SALVIA MELLEIFERA	BLACK SAGE	35	1 GAL	12" O.C.

NOTE: SHRUBS IN GALLON CONTAINER TO BE PLANTED WITH HYDROSEED ZONE AND SHALL BE SPOTTED BY CITY INSPECTOR PER O.C. IN RANDOM, ISOLATED GROUPINGS PRIOR TO PLANTING.

BASIN BOTTOM

THIS COMPOSITION OF ALL NATIVE CALIFORNIA GRASSES WOULD FORMULATE A VERY EFFECTIVE FILTERING FUNCTIONAL BARRIER WHEN PLANTED IN NEIGHBORHOODS, BROWLAWS AND OTHER OPEN AREAS THAT ARE ON OCCASION INUNDATED WITH WATER FOR A VERY SHORT TERM BASIS.

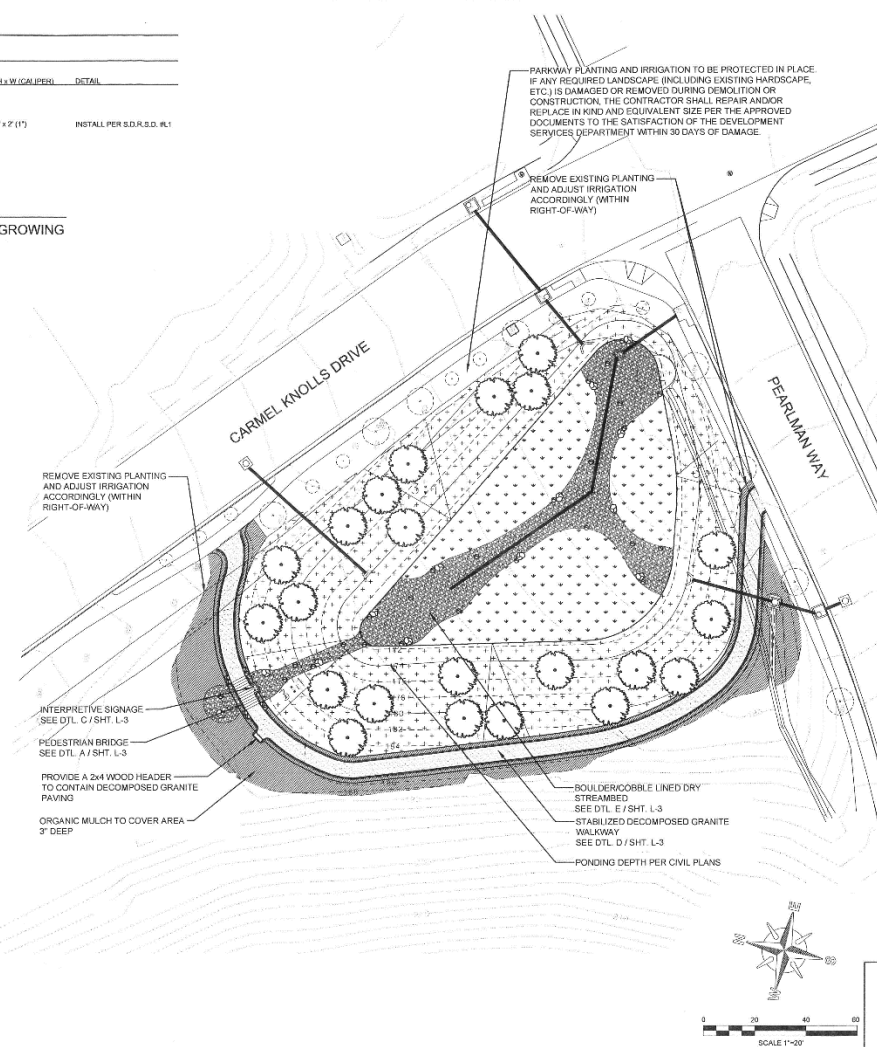
BOTANICAL NAME	COMMON NAME	QTY	SIZE	SPACING
MILVUS PINIFOLIA	MILVUS PINIFOLIA	45	1 GAL	19" O.C.
ELYNUS TRITICOIDES	PRO. GREENING WILDOYE	15	1 GAL	7" O.C.
STIPA LEPTA	FOOTHILL NEEDLE GRASS	85	1 GAL	4" O.C.
STIPA POLYCHA	PURPLE NEEDLE GRASS	180	1 GAL	2" O.C.

NOTES:
1. FOR LANDSCAPE REVEGETATION CRITERIA, SEE SHEET L-2.
2. APPLY 2" MELLARGES DIRECTED HARDENED MIX CH.
3. SHRUBS IN GALLON CONTAINER SHALL BE SPOTTED BY CITY INSPECTOR PER O.C. IN RANDOM, ISOLATED GROUPINGS PRIOR TO PLANTING.

MATERIALS LEGEND

	COBBLE ROCK SHALL BE MISSION COBBLE 50% 1-5", 50% 5-10", OR APPROVED EQUAL. AVAILABLE AT SOUTHWEST BOULDER & STONE WWW.SOUTHWESTBOULDER.COM 877.792.7625
	SHREDED BARK MULCH SHALL BE FOREST MULCH, OR APPROVED EQUAL. AVAILABLE AT AGRISERVICE WWW.AGRISERVICE.COM 800.262.4167
	BOULDERS SHALL BE CRESTA, OR APPROVED EQUAL. SEE CHART BELOW FOR SIZING. AVAILABLE AT SOUTHWEST BOULDER & STONE WWW.SOUTHWESTBOULDER.COM 877.792.7625

BOULDERS SYMBOL	SIZE	QUANTITY
	LARGE 24"-48"	13
	MEDIUM 12"-24"	33



ASHLEY FALLS LARGE SCALE STORM FLOW STORAGE LID PROJECT			
LANDSCAPE PLAN			
CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET # OF 10 SHEETS		NO. 8-14007	
DESIGNED BY GEORGE PROCHA	DATE 6-10-2020	PROJECT MANAGER GEORGE PROCHA	
DESIGNED BY RICK SALINAS	DATE 6-10-2020	PROJECT MANAGER RICK SALINAS	
ORIGINAL	REC.	286-1707	CHECK COORDINATE
			1928-4287
CONTRACTOR PARTNER	DATE STARTED	CONTRACT NO.	39210-6-D

RICK SALINAS ENGINEERING COMPANY
 3609 FRANKS ROAD
 SAN DIEGO, CA 92118
 619-591-2017
 619-591-4195
 rick@salinaseng.com
 salinaseng.com



Landscape Plan

Ashley Falls Storm Flow Storage SDP/Project No. 488148 Location: Northwest corner of Pearlman Way and Carmel Knolls Drive, San Diego, CA 92130 (APN: 304-502-13-00)
 City of San Diego – Development Services Department

INITIAL STUDY CHECKLIST

1. Project Title/Project Number: **ASHLEY FALLS STORM FLOW STORAGE SDP PROJECT/488418**

2. Lead agency name and address:

City of San Diego
Department of Development Services
1222 First Avenue, MS 501
San Diego, CA 92101

3. Contact person and phone number: Mark Brunette/ (619) 446-5379

4. Project location:

The Ashley Falls Storm Flow Storage SDP project is located within the Carmel Valley Community Planning Area within Council District 1. The site is located at the northwest corner of the intersection of Pearlman Way and Carmel Knolls Drive (See attached vicinity and landscape plan).

5. Project Applicant/Sponsor's name and address:

City of San Diego Public Works Department – Engineering and Capital Projects, Right of Way Design Division

6. General Plan designation:

Open Space general and community plan designations.

7. Zoning:

The proposed project is within the CVPD-SF1 (Carmel Valley Planned District – Single Family) zone and the public-right-of way which does not have a zoning designation.

8. Description of project (Describe the whole action involved, including but not limited to, later phases of the project, and any secondary, support, or off-site features necessary for its implementation.):

A SITE DEVELOPMENT PERMIT (SDP) for impacts to Environmentally Sensitive Lands (ESL) to construct a large-scale storm flow storage and multi-pollutant treatment system within City right-of-way and a City owned parcel (APN# 3045021300). The total project impact area of 0.71-acre would include 0.60-acre of grading for a biofiltration basin and three (3) lateral storm drain connections to direct storm water from the existing storm drain system into the basin.

The proposed biofiltration basin would also function as an ADA-compliant passive park which would include interpretive signage for the biofiltration basin/storm water outreach, a small pedestrian footbridge, and connections to the existing sidewalk on each side of the basin. The

proposed biofiltration basin/passive park would be landscaped with 5-gallon Lemonade Berry trees, a native planting hydroseed mix, and a palette of native California grass container plants in the basin bottom. The project proposes a 25-month Maintenance, Monitoring and Reporting program for the proposed landscaping including plant establishment success criteria. The project would directly impact approximately 0.32-acre of Diegan Coastal Sage Scrub (DCSS) and disturbed DCSS (Tier II) upland habitat which is proposed to be mitigated through the purchase of credits at the Cornerstone Lands Bank or through payment into the City of San Diego's Habitat Acquisition Fund. **The project site is not included on any Government Code listing of hazardous waste sites.**

9: Surrounding land uses and setting: Briefly describe the project's surroundings:

The project site is a vacant City-owned parcel and adjacent public parkway that has been previously graded and contains disturbed coastal sage scrub upland habitat within an existing single family residential neighborhood. The project site is bounded by the improved public roads Carmel Knolls Drive to the northeast and Pearlman Way to the southeast. Natural open space is situated to the north, west and southwest of the project site. Existing one and two-story single-family dwellings are present on the opposite side of the adjacent public streets to the southeast and northeast, and on the opposite side of existing natural open space to the west and northwest of the project site.

The topography on the project site is relatively flat and has a slight slope in a southeasterly direction toward a storm drain opening in the southeastern corner of the site. Elevations in the project area range from 178 to 185 feet above mean sea level (AMSL). The natural open space to the west and northwest of the project site slopes steeply upward in a westerly direction to an approximate elevation of 230 feet AMSL.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):

None

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

The Iipay Nation of Santa Ysabel and Jamul Indian Village of Kumeyaay Nation Native American tribes which are traditionally and culturally affiliated with the project area have requested consultation with the City of San Diego pursuant to Public Resources Code section 21082.3 (c). However, these tribes were notified of the opportunity to consult with the City of San Diego on the proposed project and they responded that they do not require consultation for this project.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|---|--|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Population/Housing |
| <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Air Quality | <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Recreation |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Geology/Soils | <input type="checkbox"/> Noise | <input type="checkbox"/> Utilities/Service System |
| | | <input type="checkbox"/> Mandatory Findings Significance |

DETERMINATION: (To be completed by Lead Agency)

On the basis of this initial evaluation:

- The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (a) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (b) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required.
- Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or (MITIGATED) NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or (MITIGATED) NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based

on project specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis.)

- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses", as described in (5) below, may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or (mitigated) negative declaration. *Section 15063(c)(3)(D)*. In this case, a brief discussion should identify the following:
 - a. Earlier Analysis Used. Identify and state where they are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated", describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion. Please note, all reports and documents mentioned in this document are available for public review in the Entitlements Division on the Fifth Floor of 1222 First Avenue, San Diego.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
 - a. The significance criteria or threshold, if any, used to evaluate each question; and
 - b. The mitigation measure identified, if any, to reduce the impact to less than significant.

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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I) AESTHETICS – Would the project:

- a) Have a substantial adverse effect on a scenic vista?

No public scenic vistas are designated by the community plan on or adjacent to the project site. Furthermore, the aesthetic appearance of the project site will be improved by revegetating it with appropriate native vegetation and using the site as a passive recreation area with educational and interpretative information about the adjacent natural habitat. Therefore, the proposed project would have no significant impacts to public scenic vistas and no mitigation would be required.

- b) Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

See answer to I.a. above. In addition, the project would not damage any existing scenic rock outcroppings, trees or historic buildings as none of these features are located within or adjacent to the boundaries of the proposed project. Furthermore, the project site is not located near a state scenic highway.

- c) Substantially degrade the existing visual character or quality of the site and its surroundings?

See answer to I.a and I.b. above.

- d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

The project does not include any new or modified light sources such as new or replacement street lights, and the project would not utilize highly reflective materials. In addition, no substantial sources of light would be generated during project construction, as construction activities would occur during daylight hours. The project would also be subject to the City's Outdoor Lighting Regulations per Municipal Code Section 142.0740.

- II) AGRICULTURAL AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. – Would the

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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project:

- a) Converts Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The project would occur on a previously disturbed vacant City parcel which is adjacent to a natural hillside and improved public roads. None of these areas are designated for agricultural use or farmland. In addition, agricultural land is not present in the vicinity of the project.

- b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?

Refer to II.a.

- c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 1220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

The project would occur adjacent to natural open space and within paved public roads which are not designated as forest land. In addition, forest land is not present in the vicinity of the project.

- d) Result in the loss of forest land or conversion of forest land to non-forest use?

Refer to II.c.

- e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

The project does not propose a change in land use and would not result in the conversion of Farmland since no Farmland exists within, or in the vicinity, of the project boundaries.

III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make the following determinations - Would the project:

- a) Conflict with or obstruct implementation of the applicable air quality plan?

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
-------	--------------------------------	--	------------------------------	-----------

The proposed storm flow storage and treatment basin would not involve any future actions that would generate air quality emissions because of the proposed use (e.g. vehicle miles traveled). However, emissions would occur during the construction phase of the project and could increase the amount of harmful pollutants entering the air basin. The emissions would be minimal and would only occur temporarily during construction. When appropriate, dust suppression methods would be included as project components. As such, the project would not conflict with the region's air quality plan.

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

Refer to III.b

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

As described above, construction operations could temporarily increase the emissions of dust and other pollutants. However, construction emissions would be temporary and implementation of Best Management Practices would reduce potential impacts related to construction activities to below a level of significance. Therefore, the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under applicable federal or state ambient air quality standards.

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| d) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

Operation of construction equipment and vehicles could generate odors associated with fuel combustion. However, these odors would dissipate into the atmosphere upon release and would only remain temporarily in proximity to the construction equipment and vehicles. Therefore, the project would not create odors affecting a substantial number of people.

IV. BIOLOGICAL RESOURCES – Would the project:

- | | | | | |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|
| a) Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
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Direct Impacts

A Biological Resource Letter Report for the Ashley Falls Storm Water Improvement Project (February 15, 2017) was prepared by DUDEK for the proposed project. The letter report

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analyzed the impacts of the proposed project on the biological and jurisdictional resources located on or near the project site. The project area is not located within or adjacent to the Multi-Habitat Planning Area (MHPA) of the MSCP San Diego Subarea Plan. The proposed project will result in permanent direct impacts to upland habitat which is summarized in the table below.

Mitigation for Impacts to Sensitive Vegetation Communities

Vegetation Community	Impacts (acres) ¹	Ratios	Mitigation Required	Proposed Mitigation
Uplands				
Diegan Coastal Sage Scrub	0.080	1:1 (impact outside MHPA, mitigation inside MHPA)	0.080	0.080
Disturbed Diegan Coastal Sage Scrub	0.240	1:1 (impact outside MHPA, mitigation inside MHPA)	0.240	0.240
Other Cover Types				
Disturbed Land	0.490	n/a	n/a	n/a
Developed Land	0.070	n/a	n/a	n/a

Mitigation for direct impacts to upland habitat would will be satisfied through payment into the City of San Diego Habitat Acquisition Fund or through the purchase of credits at the Cornerstone Lands Bank (both are within the MHPA). The proposed project would not result in a direct impact on jurisdictional resources or a City of San Diego defined wetland and thus would not require mitigation.

Implementation of the mitigation and monitoring requirements identified in Section V of this Mitigated Negative Declaration would reduce potentially significant direct impacts to sensitive upland habitat to a less than significant level. These requirements include a revegetation plan and 25-month monitoring and maintenance plan to revegetate all disturbed areas with Diegan coastal sage scrub habitat of a higher quality than presently exists. Section V also includes specific mitigation measures for any potential impacts to MSCP covered species.

Indirect Impacts

To mitigate for indirect impacts related to the potential for invasive plant species to establish within temporary disturbance areas resulting from the construction of the storm water storage and treatment basin, all temporary disturbance areas shall be revegetated with Diegan coastal sage scrub plant species. As described under Direct Impacts above, the revegetation areas will be monitored and maintained for 25 months to ensure adequate establishment and sustainability of the plantings/seedings.

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Implementation of the Mitigation and Monitoring Requirements identified in Section V of this Mitigated Negative Declaration, including biological resources protection during construction, landscape revegetation, and revegetation establishment criteria, would reduce potentially significant indirect impacts to biological resources, to a less than significant level.

- b) Have a substantial adverse effect on any riparian habitat or other community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?
- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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Refer to IV.a regarding direct vegetation impacts. According to the project’s biological resource letter report the project would not directly or indirectly impact any riparian habitat or any other community identified in local or regional plans, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service.

- c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- | | | | | |
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| | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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Refer to IV.a and b.

- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- | | | | | |
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| | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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Due to the project’s relatively small scale, its location on the edge of native habitat and adjacent to improved public streets, the proposed revegetation of any ground disturbance with Diegan coastal sage scrub plant species, and revegetation monitoring and maintenance, the project is not expected to significantly impact a wildlife corridor or alter the local movement of wildlife, and thus would not be considered significant under CEQA.

- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- | | | | | |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|
| | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
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Refer to IV.a. The project would comply with all local policies and ordinances protecting biological resources including satisfying mitigation requirements for impacts to sensitive biological resources in accordance with the City of San Diego Multiple Species Conservation Program and the City of San Diego Biology Guidelines. The project is not located within or adjacent to the Multi-Habitat Planning Area (MHPA) and is therefore not subject to the MSCP City of San Diego Subarea Plan MHPA land use agency guidelines.

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| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|

Refer to IV.a, b, and e. The project would not conflict with any local conservation plans including the MSCP City of San Diego Subarea Plan. Mitigation is required for any potentially significant impacts that may occur to an MSCP listed species.

V. CULTURAL RESOURCES – Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Cause a substantial adverse change in the significance of an historical resource as defined in §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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The project involves the construction of a storm water flow storage and treatment basin on a site that is currently vacant. Since there are no structures on the project site, no designated built-environment historical resources would be impacted by the project.

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| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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An Archaeological Survey Results Report (ASR) for the Ashley Falls Large-Scale Flow Storage LID project was prepared by LSA (October 6, 2017). The report concludes that, based the topographic context of the natural landform adjacent to the proposed retention basin, combined with the potential for resource transport via alluvial mechanisms or mechanical displacement, the potential for intact subsurface cultural resources within the project area is remote. The report further states that the landform upon which the proposed project is located has been modified from its original context during the creation of the surrounding neighborhoods. The report recommends no further cultural resources work and states that cultural resource monitoring by archaeologists is not recommended. Based on the conclusions and recommendations of the ASR, the project would have a less than significant impact on archaeological resources and no mitigation is required.

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|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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The project site is underlain by the Friars geological deposit/formation/rock unit as indicated by the project's geotechnical investigation (Report of Geotechnical Field Exploration Vacant Parcel Located Northwest of the Intersection of Pearlman Way and Carmel Knolls Drive, Allied Geotechnical Engineers, Inc., June 14, 2011) and City of San Diego Development Services Department (DSD) geologic maps. The City of San Diego Land Development Manual General Grading Guidelines for Paleontological Resources indicate that the Friars Formation has a high potential for the discovery of paleontological resources.

San Diego Municipal Code Section 142.0501 (Paleontological Resources Requirements for

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Grading Activities) requires paleontological monitoring for grading that involves 1,000 cubic yards or greater and 10 feet or greater in depth, in a High Resource Potential Geologic Deposit/Formation/Rock Unit.

Since, according to the project’s DSD PTS Review Cycle 4 Grading Plan, this project would excavate 4,300 cubic yards of soil with a maximum excavation depth of 16.8 feet, paleontological monitoring will be required during project grading. The Site Development Permit for this project will include a condition of approval that requires the project to comply with the above referenced Municipal Code section and the General Grading Guidelines for Paleontological Resources, which will ensure that the potential impact to paleontological resources is less than significant. As such, no mitigation is required.

- d) Disturb any human remains, including those interred outside of formal cemeteries?

No cemeteries, formal or informal, have been identified on or adjacent to the project site. While there is a possibility of encountering human remains during subsequent project construction activities, if remains are found monitoring would be required. In addition, per CEQA Section 15064.5(e), the California Public Resources Code (Sec. 5097.98) and State Health and Safety Code (Sec. 7050.5), if human remains are discovered during construction, work would be required to halt in that area and no soil would be exported off-site until a determination could be made regarding the provenance of the human remains via the County Coroner and other authorities as required.

VI. GEOLOGY AND SOILS – Would the project:

- a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
- i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

According to the City of San Diego Seismic Safety Study maps the project site is not located on or near any known (mapped) active or potentially active faults. Therefore, the potential for fault ground rupture at the site is low. In addition, the project would utilize proper engineering design and standard construction practices in order to ensure that potential impacts in this category based on regional geologic hazards would remain less than significant. Therefore risks from rupture of a known earthquake fault would be below a level of significance.

- ii) Strong seismic ground shaking?

See VI.a.i. above. The project would also be required to utilize proper engineering design and standard construction practices to ensure that the potential for impacts from

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ground shaking would be below a level of significance.

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| iii) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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See VI.a above. The project’s geotechnical field exploration did not encounter groundwater in any of the borings that were completed during the field exploration of the site. The project would also be required to utilize proper engineering design and standard construction practices to ensure that the potential for impacts from ground shaking would be below a level of significance.

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| iv) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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See VI.a. above. The is not identified on City of San Diego DSD Seismic Safety Study maps as being on or near areas that are susceptible to landslides. Furthermore, the project site has relatively flat topography and no unstable slopes are present on the project site.

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| b) Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Refer to VI.a. All disturbed areas would be revegetated with appropriate non-invasive, low water use, container plants and hydroseed mix to control erosion. Additionally, appropriate Best Management Practices would be utilized during project construction to prevent soil erosion. As such, the project would not result in a substantial amount of soil erosion or loss of topsoil.

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| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

Refer to VI.a. The project is located within City of San Diego Geologic Hazard Category 53 which is designated as “level or sloping terrain, unfavorable geologic structure, low to moderate geologic risk.” In addition, proper engineering design and utilization of standard construction practices would ensure that the potential impacts would be less than significant.

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| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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Refer to VI.a.

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| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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Refer to VI.a. In addition, no septic or alternative wastewater systems are proposed since the scope of the project is to construct a large-scale storm flow storage and treatment basin.

VII. GREENHOUSE GAS EMISSIONS – Would the project:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

In December 2015, the City adopted a Climate Action Plan (CAP) that outlines the actions that City will undertake to achieve its proportional share of State greenhouse gas (GHG) emission reductions. The purpose of the Climate Action Plan Consistency Checklist (Checklist) is to, in conjunction with the CAP, provide a streamlined review process for proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to the California Environmental Quality Act (CEQA).

Analysis of GHG emissions and potential climate change impacts from new development is required under CEQA. The CAP is a plan for the reduction of GHG emissions in accordance with CEQA Guidelines Section 15183.5. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project’s incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of the CAP.

This Checklist is part of the CAP and contains measures that are required to be implemented on a project-by-project basis to ensure that the specified emissions targets identified in the CAP are achieved. Implementation of these measures would ensure that new development is consistent with the CAP’s assumptions for relevant CAP strategies toward achieving the identified GHG reduction targets. Projects that are consistent with the CAP as determined through the use of this Checklist may rely on the CAP for the cumulative impacts analysis of GHG emissions. Projects that are not consistent with the CAP must prepare a comprehensive project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions and incorporation of the measures in this Checklist to the extent feasible. Cumulative GHG impacts would be significant for any project that is not consistent with the CAP.

The project involves a relatively small construction area of approximately 0.60-acre. In addition, the project would not result in operational greenhouse gas emissions. Under Step 1 of the CAP Checklist the proposed project is consistent with the existing General Plan and Community Plan land use designations, and zoning designations for the project site because these designations allow for the construction of public storm water storage and treatment facilities that would enhance existing public storm water drainage infrastructure. Therefore, the proposed project is consistent with the growth projections and land use assumptions used in the CAP.

Furthermore, completion of the Step 2 of the CAP Checklist for the project demonstrates that the CAP strategies for reduction in GHG emissions are not applicable to the project

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because it is a public storm water storage and treatment project with no habitable space or operational GHG emissions and does not require a building permit or certificate of occupancy.

Therefore, the project has been determined to be consistent with the City of San Diego Climate Action Plan, would result in a less than significant impact on the environment with respect to Greenhouse Gas Emissions, and further GHG emissions analysis and mitigation would not be required.

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| b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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Refer to VII.a.

VIII. HAZARDS AND HAZARDOUS MATERIALS – Would the project:

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|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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Construction of the project may require the use of hazardous materials (e.g. fuels, lubricants, solvents, etc.) which would require proper storage, handling, use and disposal; however, these conditions would not occur during routine construction within or adjacent to the PROW. Construction specifications would include requirements for the contractor regarding where routine handling or disposal of hazardous materials could occur and what measures to implement in the event of a spill from equipment. Compliance with contract specifications would ensure that potential hazards are minimized to below a level of significance.

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| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

Construction of the project may have the potential to traverse properties which could contain Leaking Underground Storage Tank (LUST) cleanup sites, permitted UST's, or contaminated sites located within 1,000 feet of the project alignments; however, in the event that construction activities encounter underground contamination, the contractor would be required to implement section 803 of the City's "WHITEBOOK" for "Encountering or Releasing Hazardous Substances or Petroleum Products" of the City of San Diego Standard Specifications for Public Works Construction which is included in all construction documents and would ensure the proper handling and disposal of any contaminated soils in accordance with all applicable local, state, and federal regulations. Compliance with these requirements would minimize the risk to the public and the environment; therefore, impacts would remain less than significant.

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|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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within one-quarter mile of an existing or proposed school?

The proposed project is not located within one-quarter mile of existing schools but would involve excavation activities that could result in the release of hazardous emissions if unanticipated contamination is encountered within or adjacent to the PROW. However, section 803 of the City's "WHITEBOOK" to ensure that appropriate protocols are followed pursuant to County DEH requirements should any hazardous conditions be encountered. As such, impacts regarding the handling or discovery of hazardous materials, substances or waste within close proximity of a school would be below a level of significance with implementation of the measures required pursuant to the contract specifications and County DEH oversight.

- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

See VIIIa-c above. In addition, the project site is not included on a list of hazardous materials locations.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two mile of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

The project site is not located within an airport land use plan. Furthermore, since the proposed project involves construction of an at or below existing grade storm water storage and treatment basin, it would not introduce any new features that would result in a safety hazard for people residing or working in the area or create a flight hazard.

- f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

The project site is not within proximity of a private airstrip.

- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Construction of the proposed project may temporarily affect traffic circulation within the project Area of Potential Effect (APE) and its adjoining roads. However, an approved Traffic Control Plan would be implemented during construction which would allow emergency plans to be employed. Therefore, the project would not physically interfere with and adopted emergency response plan or emergency evacuation plan.

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| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

The proposed project would be located adjacent to native vegetation. However, the proposed storm water storage and treatment facility and passive recreation area would not introduce new features that would substantially increase the risk of fire beyond the risk from existing disturbed native vegetation on the project site. The site is also separated from nearby residences by existing improved public roads. Revegetation of the disturbed areas will be completed in accordance with the brush management regulations of the Municipal Code which would reduce potential impacts to a less than significant level.

IX. HYDROLOGY AND WATER QUALITY - Would the project:

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|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

According to the Final Design Report for Ashley Falls Large Scale Storm Flow Storage LID Project revised July 13, 2018 by Rick Engineering Company, the proposed storm water storage and treatment basin should significantly reduce the pollutant loads that are currently being conveyed to downstream channels and water bodies. The report states further that the project will follow the guidelines and requirements set forth in the City of San Diego's 2016 "Storm Water Standards."

Furthermore, potential impacts to existing water quality standards associated with the proposed project would include minimal short-term construction-related erosion sedimentation and would only result in beneficial long term operational storm water effects. The project would be required to comply with the City's Storm Water Standards Manual and would have to comply with either a Water Pollution Control Plan or Storm Water Pollution Prevention Plan. These plans would prevent or effectively minimize short-term water quality impacts during construction activities. In addition, the project will comply with all requirements of the most current Regional Water Quality Control Board municipals storm water (MS4) permit requirements. Therefore, the proposed project would not violate any existing water quality standards or discharge requirements.

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| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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The project does not use groundwater, nor would it create new impervious surfaces that would interfere with groundwater recharge.

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- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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All disturbed areas would be re-vegetated with a non-irrigated native hydroseed mix and non-invasive, native container plants to minimize soil erosion. In addition, the purpose of the project is to add storm water storage capacity and provide storm water treatment so both the on and off-site drainage and water quality would be improved by the project. Thus, the project would actually reduce the potential for erosion in the future.

- d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Refer to IX.c.

- e) Create or contribute runoff water, which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Refer to IX.c. The project would be required to comply with all local and regional storm water quality standards during construction using approved Best Management Practices (BMPs), which would ensure that water quality is not degraded.

- f) Otherwise substantially degrade water quality?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Refer to IX.c. The project would be required to comply with all local and regional storm water quality standards during construction using approved Best Management Practices (BMPs), which would ensure that water quality is not degraded.

- g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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The project does not propose any housing.

- h) Place within a 100-year flood hazard area, structures that would impede or redirect flood flows?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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The project would not impede or redirect flood flows as it is not located within a 100-year flood hazard area. In addition, the project would provide additional storm water storage capacity to reduce potential flooding.

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- i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

The proposed project does not include any features that would increase the risk associated with flooding beyond those of existing conditions.

- j) Inundation by seiche, tsunami, or mudflow?

The proposed project does not include any features that would increase the risk associated with inundation by seiche, tsunami, or mudflow beyond those of existing conditions.

X. LAND USE AND PLANNING – Would the project:

- a) Physically divide an established community?

The project would involve constructing a storm water storage and water quality treatment basin on a vacant lot, and, therefore, would not introduce new features that could divide an established community.

- b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The project would involve constructing a storm water storage and water quality treatment basin on a vacant lot and would be consistent with all applicable land use plans, policies, or regulations of an agency with jurisdiction over the project and would not conflict with any land use plans.

- c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

Refer to IV. The project is not within or adjacent to the MHPA preserve area of the City of San Diego Multiple Species Conservation Program (MSCP). Implementation of the Mitigation and Monitoring Requirements identified in Section V of this Mitigated Negative Declaration would reduce potentially significant direct and indirect impacts to sensitive biological resources, including MSCP covered species, to a less than significant level.

XI. MINERAL RESOURCES – Would the project:

- a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

The project site and areas around the site are not being used for the recovery of mineral resources and are not designed by the General Plan or other local, state or federal land use plan for mineral resources recovery; therefore, the project would not result in the loss of

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mineral resources.

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| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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Refer to X.e.

XII. NOISE – Would the project result in:

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| a) Generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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The project would not result in the generation of operational noise levels in excess of existing standards or existing ambient noise levels in the vicinity of the project.

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|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| b) Generation of excessive ground borne vibration or ground borne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

The project would not result in the generation of operational ground borne vibration or noise levels in excess of existing standards or ambient levels.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Refer to XII.a-b

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

The proposed storm water storage and water treatment basin project would result in construction noise, but would be temporary in nature; in addition, the project is required to comply with the San Diego Municipal Code, Chapter 5, Article 9.5, (§59.5.0404 Construction Noise). This section specifies that it is unlawful for any person, between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on legal holidays (with exception of Columbus Day and Washington’s Birthday), or on Sundays, to erect, construct, demolish, excavate for, alter or repair any building or structure in such a manner as to create disturbing, excessive or offensive noise. In addition, the project would be required to conduct any construction activity so as to not cause, at or beyond the property lines of any property zoned residential, an average sound level greater than 75 decibels during the 12-hour period from 7:00 a.m. to 7:00 p.m.

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| e) For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport would the project expose people residing or working | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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in the area to excessive noise levels?

The project site is not located within an airport land use plan. The project would not generate operational noise. Furthermore, compliance with OSHA standards will ensure the project workers would not be exposed to excessive noise levels.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

The project site is not located within the vicinity of a private airstrip.

XIII. POPULATION AND HOUSING – Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

The project scope does not include the construction of new or extended roads or infrastructure, or new homes and businesses. The project would add storm water storage and water treatment to existing infrastructure. Therefore, the project would not induce population growth nor require the construction of new infrastructure.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

No such displacement would result. There is no existing housing within the boundaries of the proposed project.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

No such displacement would result. There is no existing housing or residents within the boundaries of the project.

XIV. PUBLIC SERVICES

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Would the project result in substantial adverse physical impacts associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service rations, response times or other performance objectives for any of the public services: | | | | |
| i) Fire Protection | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

The project would not result in adverse physical impacts to fire facilities or adversely affect

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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existing levels of fire services.

ii) Police Protection

The project would not affect existing levels of police protection service and would not require the construction or expansion of a police facility.

iii) Schools

The project would not affect existing levels of public services and would not require the construction or expansion of a school facility.

v) Parks

The project would not affect existing levels of public services and would not require the construction or expansion of a park facility.

vi) Other public facilities

The project would not affect existing levels of public services; therefore, no new or altered government facilities would be required.

XV. RECREATION -

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The project would not adversely affect the availability of and/or need for new or expanded recreational resources because it would create a new small public recreational facility for the surrounding community.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

Refer to XV.a. The project proposes the development of a small passive, interpretive recreational facility on the new storm water storage basin, which would be compatible with the surrounding residential community and the adjacent native vegetation. The new park would improve the character of the community by providing native landscaping and educational information to the public about the adjacent natural habitat. Therefore, there would be no adverse physical impact on the environment.

XVI. TRANSPORTATION/TRAFFIC – Would the project?

a) Conflict with an applicable plan, ordinance or policy

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Construction of the proposed project may temporarily affect traffic circulation within the project Area of Potential Effect (APE) and its adjoining roads. However, an approved Traffic Control Plan would be implemented during construction such that traffic circulation would not be substantially impacted. Therefore, the project would not result in any significant permanent increase in traffic generation or level of service.

- b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Construction of the proposed project may temporarily affect traffic circulation within the project Area of Potential Effect (APE) and its adjoining roads. However, an approved Traffic Control Plan would be implemented during construction so that existing cumulative or individual levels of service are minimally impacted. Therefore, the project would not result in any significant permanent increase in traffic generation or permanent reduction in level of service.

- c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

The project is not located near an airport or near any existing or proposed air traffic patterns and would not generate additional air traffic. Therefore, the project would not result in change to air traffic patterns that would cause substantial safety risks.

- d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The project would not create a permanent increase in hazards resulting from design features and would reduce temporary hazards due to construction to a less than significant level through a Traffic Control Plan. The project does not propose any change in land use that would affect existing land uses in the area.

- e) Result in inadequate emergency access?

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Construction of the proposed project may temporarily affect traffic circulation within the project Area of Potential Effect (APE) and its adjoining roads. However, an approved Traffic Control Plan would be implemented during construction such that emergency access would not be substantially impacted. Therefore, the project would not result in inadequate emergency access.

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

The project may temporarily impact circulation during construction activities relative to traffic, pedestrians, public transit and bicycles. However, the preparation of a Traffic Control Plan would ensure that any disruption to these services would not be significant.

XVII. TRIBAL CULTURAL RESOURCES- Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Refer to Section V.b. No tribal cultural resources as defined by Public Resources Code section 21074 have been identified on the project site. Furthermore, the project site was not determined to be eligible for listing on either the State or local register of historical resources. Notification, as required by Public Resources Code section 21074 was provided to the Lipay Nation of Santa Ysabel, Jamul Indian Village of Kumeyaay Nation on March 21, 2018. On March 21, 2018 and April 4, 2018, these two Native American communities responded to the City that they do not require consultation for this project. Therefore, the project will not impact Tribal Cultural Resources and no mitigation is required.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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tribe.

No significant resources pursuant to subdivision (c) of Public Resources Code Section 5024.1 have been identified on the project site. Please see discussion in XVII (a) above.

XVIII. UTILITIES AND SERVICE SYSTEMS – Would the project:

- a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Construction of the proposed storm water storage and treatment basin would provide additional storm water storage and treatment for the existing City storm water drainage system and, as such, would improve the wastewater system. Therefore, the project would not exceed the requirements of the Regional Quality Control Board.

- b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Construction of the proposed project would result in improvements to the existing storm water drainage infrastructure. It would not affect the water or wastewater systems and would, therefore, not result in a significant unmitigated impact on the environment.

- c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Refer to XVIII a. The project would treat storm water and reduce storm water flow rates downstream from the proposed storm water storage and treatment basin. As such, it would reduce potential downstream flooding and erosion and would improve the quality of storm water flowing through the basin. Furthermore, all impacts to biological resources would be mitigated to a less than significant level as discussed under Section IV of the initial study checklist.

- d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Construction of the proposed project would not increase the demand for water as it is a storm water infrastructure improvement project.

- e) Result in a determination by the wastewater treatment provided which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Refer to XVII.c

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

Construction of the project would likely generate minimal waste. Project waste, including any exported soil, would be disposed of in accordance with all applicable local and state regulations pertaining to solid waste including the permitted capacity of the landfill serving the project area. Demolition or construction materials which can be recycled shall comply with the City's Construction and Demolition Debris Ordinance. Operation of the project would not generate a substantial amount of waste and, therefore, would not affect the permitted capacity of the landfill serving the project area.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| g) Comply with federal, state, and local statutes and regulation related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Refer to XVII.f. Any solid waste generated during construction related activities would be recycled or disposed of in accordance with all applicable local, state and federal regulations.

XIX. MANDATORY FINDINGS OF SIGNIFICANCE -

- | | | | | |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|

Although the proposed project could have significant direct and indirect impacts to sensitive biological resources, these impacts would be mitigated to a less than significant level by the mitigation measures identified in the Mitigation Monitoring and Reporting Program in Section V of the MND. These mitigation requirements are also consistent with the MSCP City of San Diego Subarea Plan. As stated in the initial study checklist, the project would result in less than significant impacts on archaeological, tribal cultural, and paleontological resources. Historical built-environment resources would not be significantly impacted by the project as stated in the Initial Study.

- | | | | | |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable futures projects)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|

The City of San Diego MSCP Subarea Plan addresses cumulative impacts on biological

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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resources throughout San Diego. Since the mitigation measures identified in Section V of the MND are consistent with the avoidance and mitigation requirements for covered species, and the mitigation ratio requirements of the Subarea Plan, the proposed project is consistent with the MSCP Subarea Plan. As a result, project implementation would not result in any individually limited, but cumulatively significant impacts to these resources. Based on the project’s consistency with the Climate Action Plan it would not result in cumulatively considerable environmental impacts relative to greenhouse gas emissions.

Furthermore, when considering all potential environmental impacts of the proposed project, including impacts identified as less than significant in the Initial Study Checklist, together with the impacts of other present, past and reasonably foreseeable future projects, there would not be a cumulatively considerable impact on the environment.

- c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

As evidenced by the Initial Study Checklist, no other substantial adverse effects on human beings, either indirectly or directly, would occur as a result of project implementation.

INITIAL STUDY CHECKLIST

REFERENCES

I. AESTHETICS / NEIGHBORHOOD CHARACTER

- City of San Diego General Plan; City of San Diego Land Development Municipal Code
- Community Plan.
- Local Coastal Plan.

II. AGRICULTURAL RESOURCES & FOREST RESOURCES

- City of San Diego General Plan.
- U.S. Department of Agriculture, Soil Survey - San Diego Area, California, Part I and II, 1973.
- California Agricultural Land Evaluation and Site Assessment Model (1997)
- Site Specific Report:

III. AIR QUALITY

- California Clean Air Act Guidelines (Indirect Source Control Programs) 1990.
- Regional Air Quality Strategies (RAQS) - APCD.
- Site Specific Report:

IV. BIOLOGY

- City of San Diego, Multiple Species Conservation Program (MSCP), Subarea Plan, 1997
- City of San Diego, MSCP, "Vegetation Communities with Sensitive Species and Vernal Pools" Maps, 1996.
- City of San Diego, MSCP, "Multiple Habitat Planning Area" maps, 1997.
- Community Plan - Resource Element.
- California Department of Fish and Game, California Natural Diversity Database, "State and Federally-listed Endangered, Threatened, and Rare Plants of California," January 2001.
- California Department of Fish & Game, California Natural Diversity Database, "State and Federally-listed Endangered and Threatened Animals of California," January 2001.
- City of San Diego Land Development Code Biology Guidelines.
- Site Specific Reports: Biological Resource Letter Report for the Ashley Falls Storm Water Improvement Project (February 17, 2017) by DUDEK.

V. CULTURAL RESOURCES (INCLUDES HISTORICAL RESOURCES)

- City of San Diego Historical Resources Guidelines.
- City of San Diego Archaeology Library.
- Historical Resources Board List.
- Community Historical Survey:
- Site Specific Reports: Archaeological Survey Results Report for the Ashley Falls Large-Scale Storm Flow Storage LID Project by LSA, dated October 6, 2017.

VI. GEOLOGY/SOILS

- City of San Diego Seismic Safety Study.
- U.S. Department of Agriculture Soil Survey - San Diego Area, California, Part I and II, December 1973 and Part III, 1975.
- Site Specific Report(s): Report of Geotechnical Field Exploration Vacant Parcel Located Northwest of the Intersection of Pearlman Way and Carmel Knolls Drive dated June 14, 2011, by Allied Geotechnical Engineers, Inc. Response to City of San Diego Planning Department Review Comments Pertaining to Ashley Falls Large Scale Storm Flow Storage LID dated March 2, 2017 by Allied Geotechnical Engineers, Inc.

VII. GREENHOUSE GAS EMISSIONS

- City of San Diego Climate Action Plan, Adopted 2015
- Project Specific: Climate Action Plan Consistency Checklist for the Ashley Falls Large Scale Storm Flow Storage LID Project.

VIII. HAZARDS AND HAZARDOUS MATERIALS

- San Diego County Hazardous Materials Environmental Assessment Listing,
- San Diego County Hazardous Materials Management Division
- FAA Determination
- State Assessment and Mitigation, Unauthorized Release Listing, Public Use Authorized.
- Airport Land Use Compatibility Plan.
- Site Specific Report:

IX. HYDROLOGY/WATER QUALITY

- Flood Insurance Rate Map (FIRM).

Federal Emergency Management Agency (FEMA), National Flood Insurance Program - Flood Boundary and Floodway Map.

Clean Water Act Section 303(b) list, http://www.swrcb.ca.gov/tmdl/303d_lists.html).

Site Specific Reports: Final Design Report for Ashley Falls Large Scale Storm Flow Storage LID Project revised July 13, 2018 by Rick Engineering Company.

X. LAND USE AND PLANNING

City of San Diego General Plan.

Community Plan.

Airport Land Use Compatibility Plan

City of San Diego Zoning Maps

FAA Determination

XI. MINERAL RESOURCES

California Department of Conservation - Division of Mines and Geology, Mineral Land Classification.

Division of Mines and Geology, Special Report 153 - Significant Resources Maps.

Site Specific Report:

XII. NOISE

Community Plan

San Diego International Airport - Lindbergh Field CNEL Maps.

Brown Field Airport Master Plan CNEL Maps.

Montgomery Field CNEL Maps.

San Diego Association of Governments - San Diego Regional Average Weekday Traffic Volumes.

San Diego Metropolitan Area Average Weekday Traffic Volume Maps, SANDAG.

City of San Diego General Plan.

Site Specific Report:

XIII. PALEONTOLOGICAL RESOURCES

City of San Diego Paleontological Guidelines.

- Deméré, Thomas A., and Stephen L. Walsh, "Paleontological Resources City of San Diego," Department of Paleontology San Diego Natural History Museum, 1996.
- Kennedy, Michael P., and Gary L. Peterson, "Geology of the San Diego Metropolitan Area, California. Del Mar, La Jolla, Point Loma, La Mesa, Poway, and SW 1/4 Escondido 7 1/2 Minute Quadrangles," California Division of Mines and Geology Bulletin 200, Sacramento, 1975.
- Kennedy, Michael P., and Siang S. Tan, "Geology of National City, Imperial Beach and Otay Mesa Quadrangles, Southern San Diego Metropolitan Area, California," Map Sheet 29, 1977.
- Site Specific Report:

XIV. POPULATION / HOUSING

- City of San Diego General Plan.
- Community Plan.
- Series 11 Population Forecasts, SANDAG.
- Other:

XV. PUBLIC SERVICES

- City of San Diego General Plan.
- Community Plan.

XVI. RECREATIONAL RESOURCES

- City of San Diego General Plan.
- Community Plan.
- Department of Park and Recreation
- City of San Diego - San Diego Regional Bicycling Map
- Additional Resources:

XVII. TRANSPORTATION / CIRCULATION

- City of San Diego General Plan.
- Community Plan.
- San Diego Metropolitan Area Average Weekday Traffic Volume Maps, SANDAG.

- San Diego Region Weekday Traffic Volumes, SANDAG.
- Site Specific Report:

XVIII. UTILITIES

- City of San Diego General Plan.
- Community Plan.

XIX. WATER CONSERVATION

- City of San Diego General Plan.
- Community Plan.
- Sunset Magazine, New Western Garden Book. Rev. ed. Menlo Park, CA: Sunset Magazine.

NOTICE OF DETERMINATION

TO: Recorder/County Clerk
P.O. Box 1750, MS A33
1600 Pacific Hwy, Room 260
San Diego, CA 92101-2422

FROM: City of San Diego
Development Services Department
1222 First Avenue, MS 501
San Diego, CA 92101

FILED
Ernest J. Dronenburg, Jr. Recorder County Clerk

JAN 23 2019

BY: 
DEPUTY

190006

Office of Planning and Research
1400 Tenth Street, Room 121
Sacramento, CA 95814

PROJECT NUMBER: 488418/B-14007.02.06

STATE CLEARINGHOUSE NUMBER: 2018111006

PROJECT TITLE: ASHLEY FALLS STORM FLOW STORAGE SDP

PROJECT LOCATION: The site is located at the northwest corner of the intersection of Pearlman Way and Carmel Knolls Drive. The project site is located within the Carmel Valley Community Planning Area and City Council District 1.

PROJECT DESCRIPTION: A SITE DEVELOPMENT PERMIT (SDP) for impacts to Environmentally Sensitive Lands (ESL) to construct a large-scale storm flow storage and multi-pollutant treatment system within City right-of-way and a City owned parcel (APN# 3045021300). The total project impact area of 0.71-acre would include 0.60-acre of grading for a biofiltration basin and three (3) lateral storm drain connections to direct storm water from the existing storm drain system into the basin.

The proposed biofiltration basin would also function as an ADA-compliant passive park which would include interpretive signage for the biofiltration basin/storm water outreach, a small pedestrian footbridge, and connections to the existing sidewalk on each side of the basin. The proposed biofiltration basin/passive park would be landscaped with 5-gallon Lemonade Berry trees, a native planting hydroseed mix, and a palette of native California grass container plants in the basin bottom. The project proposes a 25-month Maintenance, Monitoring and Reporting program for the proposed landscaping including plant establishment success criteria. The project would directly impact approximately 0.32-acre of Diegan Coastal Sage Scrub (DCSS) and disturbed DCSS (Tier II) upland habitat which is proposed to be mitigated through the purchase of credits at the Cornerstone Lands Bank or through payment into the City of San Diego's Habitat Acquisition Fund.

PROJECT APPLICANT: City of San Diego Public Works Department, 600 B Street #800, San Diego, CA 92101. Contact: Rawsan Salha, 619-533-5132.

This is to advise that, on December 20, 2018 the City of San Diego Development Services Staff approved the above described project and made the following determinations:

1. The project in its approved form ___ will, will not, have a significant effect on the environment.
2. ___ An Environmental Impact Report was prepared for this project and certified pursuant to the provisions of CEQA.
 A Mitigated Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
___ An Addendum to Negative Declaration / Mitigated Negative Declaration / Environmental Impact Report No. was prepared for this project pursuant to the provisions of CEQA.

Record of project approval may be examined at the address above.

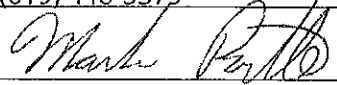
3. Mitigation measures were not, made a condition of the approval of the project; and as mitigation, monitoring and reporting program was, ___ was not, adopted for the project.

4. (EIR only) Findings ___ were, ___ were not, made pursuant to CEQA Guidelines Section 15091.
5. (EIR only) A Statement of Overriding Considerations ___ was, ___ was not, adopted for this project.

It is hereby certified that the final environmental report, including comments and responses, is available to the general public at the office of the Development Services Department, 1222 First Avenue, San Diego, CA 92101.

Analyst: Mark Brunette

Telephone: (619) 446-5379

Filed by: 

Signature

Senior Planner

Title

FILED IN THE OFFICE OF THE COUNTY CLERK

San Diego County on JAN 23 2019

Posted JAN 23 2019 Removed

Returned to agency on

Deputy **C. Reison**



San Diego County



Transaction #: 3564828
Receipt #: 2019032143

Ernest J. Dronenburg, Jr.
Assessor/Recorder/County Clerk
1600 Pacific Highway Suite 260
P. O. Box 121750, San Diego, CA 92112-1750
Tel. (619) 237-0502 Fax (619) 557-4155
www.sdarcc.com

Cashier Date: 01/23/2019
Cashier Location: SD

Print Date: 01/23/2019 3:13 pm

Payment Summary

Total Fees:	\$2,404.75
Total Payments:	\$2,404.75
Balance:	\$0.00

Payment	
CHECK PAYMENT	\$2,404.75
Total Payments	\$2,404.75
Miscellaneous Item	
FISH & WILDLIFE FEES	
Fees: Fish & Wildlife County Administrative Fee	\$50.00
Fees: Fish & Wildlife Mitigated/Negative Declaration	\$2,354.75
Total Fees Due:	\$2,404.75
Grand Total - All Documents:	\$2,404.75



State of California - Department of Fish and Wildlife
2019 ENVIRONMENTAL FILING FEE CASH RECEIPT
 DFW 753.5a (Rev. 11/16/19) Previously DFG 753.5a

RECEIPT NUMBER: 37-2019- 0042
STATE CLEARINGHOUSE NUMBER (if applicable) 2018111006

SEE INSTRUCTIONS ON REVERSE. TYPE OR PRINT CLEARLY.

LEAD AGENCY CITY OF SAN DIEGO DEVELOPMENT SERVICES DEPARTMENT	LEAD AGENCY EMAIL --	DATE 01/23/2019
COUNTY/STATE AGENCY OF FILING San Diego County		DOCUMENT NUMBER 2019 - 0006

PROJECT TITLE ASHLEY FALLS STORM FLOW STORAGE SDP		
PROJECT APPLICANT NAME CITY OF SAN DIEGO PUBLIC WORKS DEPARTMENT	PROJECT APPLICANT EMAIL --	PHONE NUMBER 619.533.5132
PROJECT APPLICANT ADDRESS 600 B STREET #800	CITY SAN DIEGO	STATE CA
		ZIP CODE 92101

PROJECT APPLICANT (Check appropriate box)

Local Public Agency School District Other Special District State Agency Private Entity

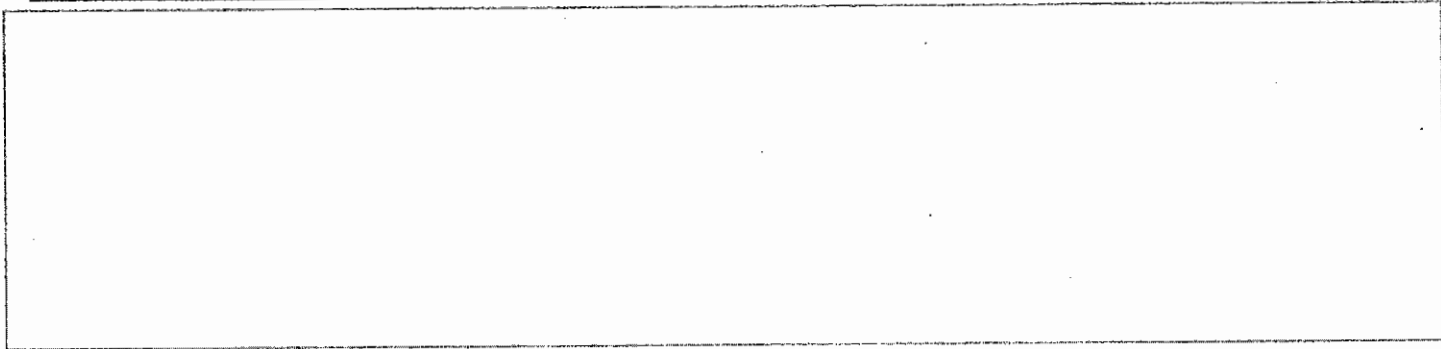
CHECK APPLICABLE FEES:

<input type="checkbox"/> Environmental Impact Report (EIR)	190006	\$3,271.00	\$	
<input checked="" type="checkbox"/> Mitigated/Negative Declaration (MND)(ND)		\$2,354.75	\$	\$2,354.75
<input type="checkbox"/> Certified Regulatory Program document (CRP)		\$1,112.00	\$	
<input type="checkbox"/> Exempt from fee				
<input type="checkbox"/> Notice of Exemption (attach)				
<input type="checkbox"/> CDFW No Effect Determination (attach)				
<input type="checkbox"/> Fee previously paid (attach previously issued cash receipt copy)				
<input type="checkbox"/> Water Right Application or Petition Fee (State Water Resources Control Board only)		\$850.00	\$	
<input checked="" type="checkbox"/> County documentary handling fee			\$	\$50.00
<input type="checkbox"/> Other			\$	

PAYMENT METHOD:

Cash Credit Check Other CK # 0001692415 TOTAL RECEIVED \$ 2,404.75

SIGNATURE X	AGENCY OF FILING PRINTED NAME AND TITLE San Diego County C. REISON , Deputy
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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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- 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 Hydrant Meter (EXHIBIT A)

(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.) Zip:	T.B.	G.B. (CITY USE)
Specific Use of Water:		
Any Return to Sewer or Storm Drain, if so, explain:		
Estimated Duration of Meter Use:	<input type="checkbox"/>	<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:	
<small>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</small>			

Fire Hydrant Meter Removal Request	Requested Removal Date:
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 CASHFLOW 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												

SAMPLE REFERENCE

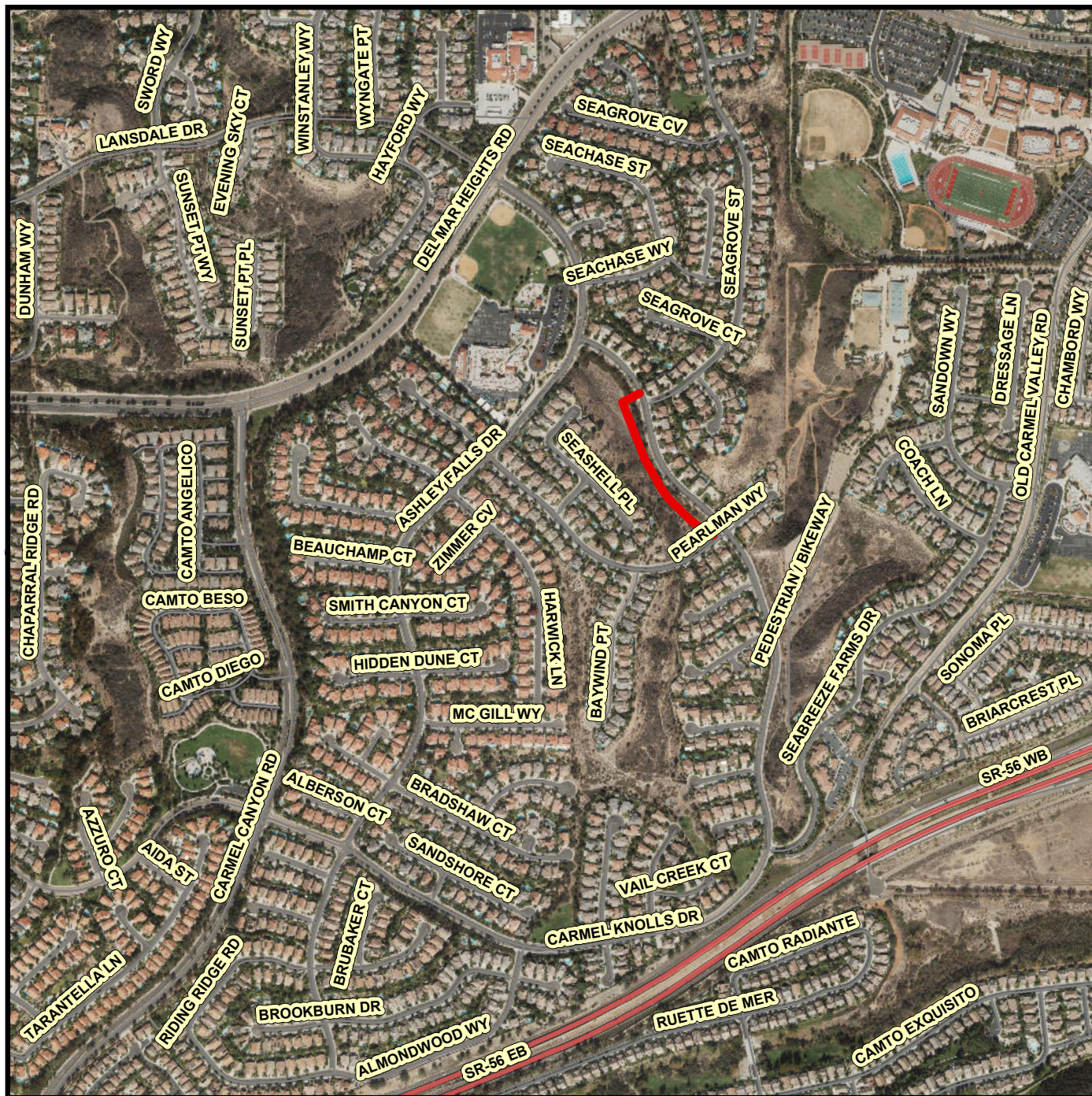
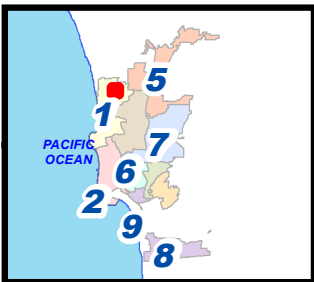
APPENDIX E
LOCATION MAP

ASHLEY FALLS LG SCALE STORM FLOW STORAGE

SENIOR ENGINEER
George Freiha
619-533-7449

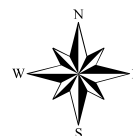
PROJECT MANAGER
Rawsan Salha
619-533-5132

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



Legend

 Project Location



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APPENDIX F
MONTHLY DRINKING WATER DISCHARGE MONITORING FORM

DRINKING WATER DISCHARGE MONITORING FORM

(Use for All Discharges to the Storm Drain)

All discharge activities related to this project comply with the State Water Resources Control Board ORDER WQ 2014-0194-DWQ, STATEWIDE GENERAL NPDES PERMIT FOR DRINKING WATER SYSTEMS DISCHARGES as referenced by (http://www.waterboards.ca.gov/water_issues/programs/npdes/docs/drinkingwater/final_statewide_wqo2014_0194_dwq.pdf), and as follows:

Project Name:				WBS No.:			Watershed No.					
Qualified Person Conducting Tests:				signature								
BMPs MUST BE IN PLACE PRIOR TO ANY SCHEDULED DISCHARGE					By signing, I certify that all of the statements and conditions for drinking water discharge events are correct.							
Event #1												
Discharge Location ¹	Category ² (Select one)	Notification ³ (Select all that apply)	BMPs in Place ⁴ (Select all that apply)	Volume ⁵ (gal)	Sampling ⁶ (take samples at 10 mins, 50-60 mins & last 10 mins)				Exceedence ⁷			Notes <small>Report exceedence to RE & complete page 2 of 2</small>
					Measure	Unit	Time	Result	Limit	No	Yes	
Inlet Location Date: <u>Start</u> Time: Date: <u>End</u> Time:	<input type="checkbox"/> Superchlorinated <small>(Chlorine added for disinfection)</small>	<input type="checkbox"/> TSW <small>(All Categories)</small>	<input type="checkbox"/> Sweep flow path <small>(gutter, street, etc.)</small>	Total	Chlorine	mg/L			0.1 mg/L= Exceedence			
	<input type="checkbox"/> Large Volume <small>(≥ 325,850 gal)</small>	<input type="checkbox"/> PUD <small>(All Categories)</small>	<input type="checkbox"/> Dechlorination <small>(diffusers, chemicals, etc.)</small>				Reused <small>(if any)</small>					
	<input type="checkbox"/> Well Dev/Rehab <small>(Not Typical)</small>	<input type="checkbox"/> Water Board <small>(Large Volume Only)</small>	<input type="checkbox"/> Inlet Protection		Turbidity	NTU			20 NTU= Exceedence 225 NTU= Exceedence for Ocean			
	<input type="checkbox"/> Small Volume/Other <small>(No Sampling Required)</small>	<input type="checkbox"/> County <small>(≥100,000 gal & within ¼ mile of ocean/bay; or if enters the County's MS4)</small>	<input type="checkbox"/> Erosion Controls									
			<input type="checkbox"/> Sediment Controls		pH	Unit			Range 6.5 to 8.5			
Event #2												
Discharge Location ¹	Category ² (Select one)	Notification ³ (Select all that apply)	BMPs in Place ⁴ (Select all that apply)	Volume ⁵ (gal)	Sampling ⁶ (take samples at 10 mins, 50-60 mins & last 10 mins)				Exceedence ⁷			Notes <small>Report exceedence to RE & complete page 2 of 2</small>
					Measure	Unit	Time	Result	Limit	No	Yes	
Inlet Location Date: <u>Start</u> Time: Date: <u>End</u> Time:	<input type="checkbox"/> Superchlorinated <small>(Chlorine added for disinfection)</small>	<input type="checkbox"/> TSW <small>(All Categories)</small>	<input type="checkbox"/> Sweep flow path <small>(gutter, street, etc.)</small>	Total	Chlorine	mg/L			0.1 mg/L= Exceedence			
	<input type="checkbox"/> Large Volume <small>(≥ 325,850 gal)</small>	<input type="checkbox"/> PUD <small>(All Categories)</small>	<input type="checkbox"/> Dechlorination <small>(diffusers, chemicals, etc.)</small>				Reused <small>(if any)</small>					
	<input type="checkbox"/> Well Dev/Rehab <small>(Not Typical)</small>	<input type="checkbox"/> Water Board <small>(Large Volume Only)</small>	<input type="checkbox"/> Inlet Protection		Turbidity	NTU			20 NTU= Exceedence 225 NTU= Exceedence for Ocean			
	<input type="checkbox"/> Small Volume/Other <small>(No Sampling Required)</small>	<input type="checkbox"/> County <small>(≥100,000 gal & within ¼ mile of ocean/bay; or if enters the County's MS4)</small>	<input type="checkbox"/> Erosion Controls									
			<input type="checkbox"/> Sediment Controls		pH	Unit			Range 6.5 to 8.5			

Submit completed Form to RE

Instructional Notes found on the Page 2 of 2

Receiving Water Monitoring

(Complete only if limits exceed on Page 1 of 2)

Event #1	
1) Go to the location where the discharge enters the receiving water.	
<input type="checkbox"/> Accessible <input type="checkbox"/> Unable to Determine <input type="checkbox"/> No Safe Access	
2) If accessible, take photos and complete the visual monitoring below. If unable to determine, stop here. If no safe access, stop here.	
3) Visual Monitoring: Is the discharge into the receiving water...	
...causing erosion	<input type="checkbox"/> Yes <input type="checkbox"/> No
...carrying floating or suspended matter	<input type="checkbox"/> Yes <input type="checkbox"/> No
...causing discoloration	<input type="checkbox"/> Yes <input type="checkbox"/> No
...causing and impact to the aquatic life present	<input type="checkbox"/> Yes <input type="checkbox"/> No
...observed with visible film	<input type="checkbox"/> Yes <input type="checkbox"/> No
...observed with an sheen or coating	<input type="checkbox"/> Yes <input type="checkbox"/> No
...causing potential nuisance conditions	<input type="checkbox"/> Yes <input type="checkbox"/> No
3) If all answers are NO, stop here.	
4) If any answers are YES, Notify the RE immediately for further action	

Event #2	
1) Go to the location where the discharge enters the receiving water.	
<input type="checkbox"/> Accessible <input type="checkbox"/> Unable to Determine <input type="checkbox"/> No Safe Access	
2) If accessible, take photos and complete the visual monitoring below. If unable to determine, stop here. If no safe access, stop here.	
3) Visual Monitoring: Is the discharge into the receiving water...	
...causing erosion	<input type="checkbox"/> Yes <input type="checkbox"/> No
...carrying floating or suspended matter	<input type="checkbox"/> Yes <input type="checkbox"/> No
...causing discoloration	<input type="checkbox"/> Yes <input type="checkbox"/> No
...causing and impact to the aquatic life present	<input type="checkbox"/> Yes <input type="checkbox"/> No
...observed with visible film	<input type="checkbox"/> Yes <input type="checkbox"/> No
...observed with an sheen or coating	<input type="checkbox"/> Yes <input type="checkbox"/> No
...causing potential nuisance conditions	<input type="checkbox"/> Yes <input type="checkbox"/> No
3) If all answers are NO, stop here.	
4) If any answers are YES, Notify the RE immediately for further action	

Instructional Notes to Contractor

- 1) Log the location of the inlet or discharge point. For example: Albatross St & 5th Av. Log the start date and time and the end date and time of the discharge.
- 2) Log the discharge category. "Superchlorinated" are discharges where additional chlorine is added in order to adequately disinfect and sanitize drinking water system facilities. This does NOT include potable water containing residual chlorine from the water treatment process. "Large Volume" discharges are greater than 325,850 gallons of total volume for one event. "Well Dev/Rehab" are discharges of potable ground water from a well. This is not typical. If none of these categories apply, then select "Small Volume/Other."
- 3) Notifications of the location, date, time, category, and estimated volume of discharge must be made to the contacts and per the requirements below:

Contact	Email	When to Notify
TSW	SWPPP@SanDiego.gov	3 days prior to all discharges
PUD	CompReports@SanDiego.gov RDavenport@sandiego.gov	3 days prior to all discharges
San Diego Water Board	SanDiego@WaterBoards.ca.gov cc:Ben.Neill@WaterBoards.ca.gov	3 days prior to a Large Volume discharge
County of San Diego	DEH: joseph.palmer@sdcounty.ca.gov dominique.edwards@sdcounty.ca.gov	3 days prior if ≥100,000 gal within ¼ mile of the ocean/bay
	WPP: Nicholas.DelValle@sdcounty.ca.gov	3 days prior if enters County's MS4 or unincorporated County

- 4) At a minimum, sweep gutters prior to starting discharge and use dechlorination BMPs. The contractor and RE must monitor and determine if BMPs need to be removed/modified. For example if inlet protection is causing flooding at a storm drain inlet, contractor may elect to remove BMPs. Document any modification to BMPs in notes section.
- 5) Total volume must be logged for all discharges. If discharge water is reused for other purposes such as watering a golf course, log that volume under "Reused"
- 6) Sampling is required for categories per the following table:

Category	Measure	Sample Frequency
Superchlorinated	Chlorine, Turbidity, pH	first 10 mins, 50-60 mins, last 10 mins
Large Volume	Chlorine, Turbidity	first 10 mins, 50-60 mins, last 10 mins
Well Dev/Rehab	Chlorine, Turbidity	first 10 mins, 50-60 mins, last 10 mins
Small Volume/Other	None	None

- 7) Effluent limitations must be monitored not to exceed per the following table:

Measure	Method	Limit
Volume	Estimate None	
Chlorine	Field Measurement	0.10 mg/L-Cl
Turbidity	Visual Estimate	20 NTU for inland water 225 NTU for ocean 100 NTU for well water
pH	Field Measurement	6.5 to 8.5

APPENDIX G
HAZARDOUS LABEL/FORMS

HAZARDOUS WASTE

STATE AND FEDERAL LAW PROHIBITS IMPROPER DISPOSAL
IF FOUND, CONTACT THE NEAREST POLICE, OR PUBLIC SAFETY
AUTHORITY, OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY
OR THE CALIFORNIA DEPARTMENT OF HEALTH SERVICES

GENERATOR NAME _____

ADDRESS _____ 24 HR. PHONE () _____

CITY _____ STATE _____ ZIP _____

EPA ID NO. _____ MANIFEST DOCUMENT NO. _____

EPA WASTE NO. _____ CA WASTE NO. _____ ACCUMULATION START DATE _____ / ____ / ____

CONTENTS, COMPOSITION _____

PROPER DOT SHIPPING NAME _____

TECHNICAL NAME (S) _____

UN/NA NO. WITH PREFIX _____

PHYSICAL STATE HAZARDOUS PROPERTIES FLAMMABLE TOXIC
 SOLID LIQUID CORROSIVE REACTIVE OTHER _____

HANDLE WITH CARE!
CONTAINS HAZARDOUS OR TOXIC WASTES

INCIDENT/RELEASE ASSESSMENT FORM ¹

If you have an emergency, Call 911

Handlers of hazardous materials are required to report releases. The following is a tool to be used for assessing if a release is reportable. Additionally, a non-reportable release incident form is provided to document why a release is not reported (see back).

Questions for Incident Assessment:

	YES	NO
1. Was anyone killed or injured, or did they require medical care or admitted to a hospital for observation?	<input type="checkbox"/>	<input type="checkbox"/>
2. Did anyone, other than employees in the immediate area of the release, evacuate?	<input type="checkbox"/>	<input type="checkbox"/>
3. Did the release cause off-site damage to public or private property?	<input type="checkbox"/>	<input type="checkbox"/>
4. Is the release greater than or equal to a reportable quantity (RQ)?	<input type="checkbox"/>	<input type="checkbox"/>
5. Was there an uncontrolled or unpermitted release to the air?	<input type="checkbox"/>	<input type="checkbox"/>
6. Did an uncontrolled or unpermitted release escape secondary containment, or extend into any sewers, storm water conveyance systems, utility vaults and conduits, wetlands, waterways, public roads, or off site?	<input type="checkbox"/>	<input type="checkbox"/>
7. Will control, containment, decontamination, and/or clean up require the assistance of federal, state, county, or municipal response elements?	<input type="checkbox"/>	<input type="checkbox"/>
8. Was the release or threatened release involving an unknown material or contains an unknown hazardous constituent?	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the incident a threatened release (a condition creating a substantial probability of harm that requires immediate action to prevent, reduce, or mitigate damages to persons, property, or the environment)?	<input type="checkbox"/>	<input type="checkbox"/>
10. Is there an increased potential for secondary effects including fire, explosion, line rupture, equipment failure, or other outcomes that may endanger or cause exposure to employees, the general public, or the environment?	<input type="checkbox"/>	<input type="checkbox"/>

If the answer is YES to any of the above questions – report the release to the California Office of Emergency Services at 800-852-7550 and the local CUPA daytime: (619) 338-2284, after hours: (858) 565-5255. Note: other state and federal agencies may require notification depending on the circumstances.

Call 911 in an emergency

If all answers are NO, complete a Non Reportable Release Incident Form (page 2 of 2) and keep readily available. Documenting why a “no” response was made to each question will serve useful in the event questions are asked in the future, and to justify not reporting to an outside regulatory agency.

If in doubt, report the release.

¹ This document is a guide for accessing when hazardous materials release reporting is required by Chapter 6.95 of the California Health and Safety Code. It does not replace good judgment, Chapter 6.95, or other state or federal release reporting requirements.

NON REPORTABLE RELEASE INCIDENT FORM

1. RELEASE AND RESPONSE DESCRIPTION

Incident # _____

Date/Time Discovered	Date/Time Discharge	Discharge Stopped <input type="checkbox"/> Yes <input type="checkbox"/> No
Incident Date / Time:		
Incident Business / Site Name:		
Incident Address:		
Other Locators (Bldg, Room, Oil Field, Lease, Well #, GIS)		
Please describe the incident and indicate specific causes and area affected. Photos Attached?: <input type="checkbox"/> Yes <input type="checkbox"/> No		
Indicate actions to be taken to prevent similar releases from occurring in the future.		

2. ADMINISTRATIVE INFORMATION

Supervisor in charge at time of incident:	Phone:
Contact Person:	Phone:

3. CHEMICAL INFORMATION

Chemical	Quantity <input type="checkbox"/> GAL <input type="checkbox"/> LBS <input type="checkbox"/> FT ³
Chemical	Quantity <input type="checkbox"/> GAL <input type="checkbox"/> LBS <input type="checkbox"/> FT ³
Chemical	Quantity <input type="checkbox"/> GAL <input type="checkbox"/> LBS <input type="checkbox"/> FT ³
Clean-Up Procedures & Timeline:	
Completed By:	Phone:
Print Name:	Title:

EMERGENCY RELEASE FOLLOW - UP NOTICE REPORTING FORM

A	BUSINESS NAME	FACILITY EMERGENCY CONTACT & PHONE NUMBER () -	
B	INCIDENT DATE MO DAY YR	TIME NOTIFIED OES (use 24 hr time)	OES CONTROL NO.
C	INCIDENT ADDRESS LOCATION	CITY / COMMUNITY	COUNTY ZIP
D	CHEMICAL OR TRADE NAME (print or type)		CAS Number
D	CHECK IF CHEMICAL IS LISTED IN 40 CFR 355, APPENDIX A <input type="checkbox"/>	CHECK IF RELEASE REQUIRES NOTIFICATION UNDER 42 U.S.C. Section 9603 (a) <input type="checkbox"/>	
D	PHYSICAL STATE CONTAINED <input type="checkbox"/> SOLID <input type="checkbox"/> LIQUID <input type="checkbox"/> GAS	PHYSICAL STATE RELEASED <input type="checkbox"/> SOLID <input type="checkbox"/> LIQUID <input type="checkbox"/> GAS	QUANTITY RELEASED
D	ENVIRONMENTAL CONTAMINATION <input type="checkbox"/> AIR <input type="checkbox"/> WATER <input type="checkbox"/> GROUND <input type="checkbox"/> OTHER	TIME OF RELEASE	DURATION OF RELEASE — DAYS — HOURS — MINUTES
E	ACTIONS TAKEN		
F	KNOWN OR ANTICIPATED HEALTH EFFECTS (Use the comments section for addition information)		
	<input type="checkbox"/> ACUTE OR IMMEDIATE (explain) _____		
	<input type="checkbox"/> CHRONIC OR DELAYED (explain) _____		
	<input type="checkbox"/> NOTKNOWN (explain) _____		
G	ADVICE REGARDING MEDICAL ATTENTION NECESSARY FOR EXPOSED INDIVIDUALS		
H	COMMENTS (INDICATE SECTION (A - G) AND ITEM WITH COMMENTS OR ADDITIONAL INFORMATION)		
I	CERTIFICATION: I certify under penalty of law that I have personally examined and I am familiar with the information submitted and believe the submitted information is true, accurate, and complete.		
	REPORTING FACILITY REPRESENTATIVE (print or type) _____		
	SIGNATURE OF REPORTING FACILITY REPRESENTATIVE _____		DATE: _____

EMERGENCY RELEASE FOLLOW-UP NOTICE REPORTING FORM INSTRUCTIONS

GENERAL INFORMATION:

Chapter 6.95 of Division 20 of the California Health and Safety Code requires that written emergency release follow-up notices prepared pursuant to 42 U.S.C. § 11004, be submitted using this reporting form. Non-permitted releases of reportable quantities of Extremely Hazardous Substances (listed in 40 CFR 355, appendix A) or of chemicals that require release reporting under section 103(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 [42 U.S.C. § 9603(a)] must be reported on the form, as soon as practicable, but no later than 30 days, following a release. The written follow-up report is required in addition to the verbal notification.

BASIC INSTRUCTIONS:

- The form, when filled out, reports follow-up information required by 42 U.S.C § 11004. Ensure that all information requested by the form is provided as completely as possible.
- If the incident involves reportable releases of more than one chemical, prepare one report form for each chemical released.
- If the incident involves a series of separate releases of chemical(s) at different times, the releases should be reported on separate reporting forms.

SPECIFIC INSTRUCTIONS:

Block A: Enter the name of the business and the name and phone number of a contact person who can provide detailed facility information concerning the release.

Block B: Enter the date of the incident and the time that verbal notification was made to OES. The OES control number is provided to the caller by OES at the time verbal notification is made. Enter this control number in the space provided.

Block C: Provide information pertaining to the location where the release occurred. Include the street address, the city or community, the county and the zip code.

Block D: Provide information concerning the specific chemical that was released. Include the chemical or trade name and the Chemical Abstract Service (CAS) number. Check all categories that apply. Provide best available information on quantity, time and duration of the release.

Block E: Indicate all actions taken to respond to and contain the release as specified in 42 U.S.C. § 11004(c).

Block F: Check the categories that apply to the health effects that occurred or could result from the release. Provide an explanation or description of the effects in the space provided. Use Block H for additional comments/information if necessary to meet requirements specified in 42 U.S.C. § 11004(c).

Block G: Include information on the type of medical attention required for exposure to the chemical released. Indicate when and how this information was made available to individuals exposed and to medical personnel, if appropriate for the incident, as specified in 42 U.S.C. § 11004(c).

Block H: List any additional pertinent information.

Block I: Print or type the name of the facility representative submitting the report. Include the official signature and the date that the form was prepared.

MAIL THE COMPLETED REPORT TO:

**State Emergency Response Commission (SERC)
Attn: Section 304 Reports
Hazardous Materials Unit
3650 Schriever Avenue
Mather, CA 95655**

NOTE: Authority cited: Sections 25503, 25503.1 and 25507.1, Health and Safety Code. Reference: Sections 25503(b)(4), 25503.1, 25507.1, 25518 and 25520, Health and Safety Code.

APPENDIX H
LONG-TERM MAINTENANCE AND MONITORING AGREEMENT

LONG-TERM MAINTENANCE AND MONITORING AGREEMENT

This **25-Month Long-Term Maintenance and Monitoring Agreement (LTMMA)** is made and entered into by and between the City of San Diego (City), a municipal corporation, and INSERT NAME OF CONTRACTOR - TO BE IDENTIFIED AFTER AWARD (Contractor), who may be individually or collectively referred to herein as a "Party" or the "Parties."

RECITALS

- A. Concurrent with execution of this LTMMA, the Parties entered into a general contract (Construction Contract) for the construction of **Ashley Falls Lg Scale Storm Flow Storage (Project)**, WBS/IO number **B-14007**, Bid No. **K-19-1786-DBB-3**.
- B. In accordance with the Construction Contract, the Contractor shall enter into this LTMMA with the City for the purpose of implementing and fulfilling long-term maintenance requirements in accordance with the City of San Diego Municipal Code and the Contract Documents for the specified elopement(s) of **Ashley Falls Lg Scale Storm Flow Storage** (Maintenance Requirements).
- C. The Contractor is ready and willing to fulfill its maintenance requirements in accordance with the terms of this LTMMA.

NOW, THEREFORE, in consideration of the above recitals and the mutual covenants and conditions set forth herein, and for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby set forth their mutual covenants and understandings as follows:

INTRODUCTORY PROVISIONS

- A. **Recitals Incorporated.** The above referenced Recitals are true and correct and are incorporated into this LTMMA by this reference.
- B. **Exhibits Incorporated.** All Exhibits and Attachments referenced in this LTMMA are incorporated into this LTMMA by this reference.
- C. **Contract Term.** This LTMMA shall be effective upon completion of the Plant Establishment Period (PEP) as described in **Section 6-1.1** of Attachment E and **Section 802** of the Construction Contract and it shall be effective until the completion of the Work as described below.
- D. **Terms and Conditions.** This LTMMA is subject to the terms and conditions of the Construction Contract included in the GREENBOOK, WHITEBOOK, and Special Provisions (**Part 0, Part 1, and Part 8**) except as otherwise stated in this LTMMA.

E. Partial Release of Payment Bond and Performance Bond.

- 1. Performance of Contract in Two Phases.** There are two separate phases of Work to be performed by the Contractor under this Contract. The first phase covers the Work involved in the original agreement as described in this agreement (“Phase 1 Work”). The second phase covers the work involved in the long-term maintenance of the Re-vegetation/Restoration Area after Phase 1 Work has been completed (“Phase 2 Work”).
- 2. Bond Handling for Contract Phases.** The Payment Bond and the Performance Bond covering Phase 1 Work on this Contract shall remain in full force and effort until completion of that phase is certified. The original Payment Bond and the original Performance Bond covering Phase 1 Work on this Contract shall continue in full force and effort for Phase 2 Work, however the value of each bond may be reduced as follows:

 - i. Completion by the Contractor of all Phase 1 Work shall be evidenced solely by the City Engineer affirming in writing that to the best of their knowledge that all Phase 1 Work has been completed by the Contractor in strict conformity with all City-approved plans and revisions, and that the Phase 1 Work completed by the Contractor meets all applicable standards (“Notice of Completion”).
 - ii. Upon issuance by the City Engineer of the Notice of Completion for Phase 1 Work, the Payment Bond for this Project, and the Performance Bond for this Project, may be partially released, and thereby reduced for the Work performed under Phase 1. The remaining payment and performance bond will cover the full cost of Phase 2 Work on this Project, which will be the amount specified in Section 4.1 of this LTMMA.
- 3. No Partial Release Upon Default.** No Partial Performance Bond Release and Reduction shall be given to the Contractor if the Performance Bond and/or this Agreement is in default on Phase 1 Work.

SECTION 1 - MAINTENANCE CONTRACT SUMMARY

- 1.1. General.** The Contractor shall fulfill the Project's Maintenance Requirements (Work) as identified in the scope of work attached as **Exhibit A** in a manner satisfactory to the City.

The Contractor shall provide all equipment, labor, and materials necessary to perform the **Work** as described in **Exhibit A**, at the direction of the City.

- 1.2. Schedule of Work.** The Contractor shall follow the Schedule of Work (Schedule) for the maintenance and monitoring period provided in the Plans.

After receiving notification from the City, the Contractor shall create a comprehensive Schedule of Work (Schedule) for performance of this LTMMA for the City's approval. The Schedule shall include routine work, inspection, and infrequent operations such as repairs, fertilization, aerification, watering, and pruning.

The City will approve the Schedule prior to the commencement of the Work. The City may require the Contractor to revise the Schedule. The Contractor shall not revise the Schedule unless the revisions have received the prior written approval of the City.

- 1.3. Commencement of Work & Maintenance Period.** This LTMMA shall commence when the City approves of the Work of the Plant Establishment Period and sends notice of the approval to the Contractor in accordance with **Part 8, Section 802** of the Construction Contract and shall continue for **25** months. A copy of the approval form is attached as **Exhibit B**.

- 1.4. License.** The Contractor shall hold the following licenses in good standing:

1.4.1. **C-27** State Contractor's License.

1.4.1.1. Alternatively, the Contractor shall retain the services of a Subcontractor with a **C-27** State Contractor's License.

1.4.2. Pest Control Advisor's License.

1.4.2.1. Alternatively, the Contractor shall retain the services of a licensed Pest Control Advisor.

1.4.3. Registration with the County Agriculture Commission.

1.4.4. Qualified Applicator's Certificate for Category B. This shall apply to any person supervising the use of pesticides, herbicides, or rodenticides.

1.4.5. City of San Diego Business License.

Prior to performing the Work, the Contractor shall complete and submit to the City the License Data Sheet. **See Exhibit C.**

- 1.5. Hours of Performance.** The Contractor shall perform the Work between the hours of 7:00 a.m. and 3:30 p.m., Monday through Friday (Working Hours). The City may, in its sole discretion, grant permission to the Contractor to perform Work during non-Working Hours. Maintenance functions that generate excess noise (operations of power equipment which would cause annoyance to area residents for example) shall not begin before 7:00 a.m.

SECTION 2 - ADMINISTRATION

- 2.1. Contract Administrator. PUBLIC WORKS CONTRACTING (PWC)** is the Contract Administrator for the LTMMA. The Contractor shall perform the Work under the direction of a designated representative of the Public Works Department. The City will communicate with the Contractor on all matters related to the administration of this LTMMA and the Contractor's performance of the Work rendered hereunder. When this LTMMA refers to communications to or with the City, those communications shall be with the City, unless the City or this LTMMA specifies otherwise. Further, when this LTMMA requires an act or approval by City, that act or approval will be performed by the City.
- 2.2. Local Office.** The Contractor shall maintain a local office with a company representative who is authorized to discuss matters pertaining to this LTMMA with the City and shall promptly respond and be available during Normal Working Hours. A local office is one located in San Diego County that can be reached by telephone and facsimile. An answering service in conjunction with a company email address for the designated company representative may fulfill this requirement. A mobile telephone shall not fulfill the requirement for a local office. All calls to the Contractor from the City shall be returned within a 1-hour period.
- 2.3. Emergency Calls.** The Contractor shall have the capability to receive and to respond immediately to calls of an emergency nature. The City shall refer emergency calls to the Contractor for immediate disposition. The Contractor shall provide the City with a 24 hour emergency telephone number for this purpose.
- 2.4. Staffing.** The Contractor shall furnish supervisory and working personnel capable of promptly accomplishing all Work required under this LTMMA on schedule and to the satisfaction of the City.
- 2.5. Contractor Inspections.** The Contractor shall perform inspections of the Work site and shall prepare and submit to the City a Punchlist and dates of correction. The Punchlist shall include a comprehensive report of Work performed at the Work site to ensure 100% cover.

SETION 3: WORK SITE MAINTENANCE

- 3.1. Use of Chemicals.** The Contractor shall submit to the City for approval sample labels and MSDS for all chemical herbicides, rodenticides, and pesticides proposed for use under this LTRMC. Materials included shall be limited to chemicals approved by the State of California Department of Agriculture.

The use of any chemical shall be based on the recommendations of a licensed pest control advisor. Annual PCA Pesticide Recommendations are required for each pesticide proposed to be used for the Work site covered by this LTRMC. The use of chemicals shall conform to the current San Diego County Department of Agriculture regulations.

No chemical herbicide, rodenticide, or pesticide shall be applied until its use is approved, in writing, by City as appropriate for the purpose and area proposed.

The Contractor shall submit a monthly pesticide use report to the City along with the Contractor's invoices for payment. This report shall include a statement of all applications of herbicides, rodenticides, and pesticides, detailing the chemical used, undiluted quantity, rate of application, applicator's name, and the date and purpose of the application. For months in which no pesticides are applied, state "No Pesticide Used" on the report.

- 3.2. Irrigation Water.** The Contractor shall diligently practice water conservation, including minimizing run-off or other waste. The Contractor shall turn off irrigation systems, if any, during periods of rainfall and at such other times when suspension of irrigation is desirable to conserve water and to remain within the guidelines of good horticultural landscape maintenance practices in accordance with the instructions from the Project Biologist. The Contractor's failure to properly manage and conserve water may result in deductions from the monthly payment to be made to the Contractor or other penalties under this LTMMA.

If the Contractor causes excessive use or waste of irrigation water, the estimated cost of that water shall be deducted from the monthly payment. Further, any monetary fines or other damages assessed to City for the Contractor's failure to follow water conservation regulations imposed by the City, the Public Utilities Department of the City of San Diego, and, where appropriate, the State of California, the County Water Authority, or other legal entities shall be solely the responsibility of the Contractor and may be deducted from the monthly payment to be made to the Contractor under this LTMMA.

- 3.3. Payment for Water.** The Contractor shall pay for the water used in the maintenance of the Work site and this cost is included in the price of this LTMMA.
- 3.4. Satisfactory Progression.** If the Revegetation/Restoration Area is not progressing towards the required performance criteria, as defined in the Scope of Work, in accordance with the Work Schedule, and as determined by City, the City may accordingly adjust monthly payments to the Contractor.

SECTION 4: COMPENSATION

- 4.1. Maximum Compensation.** The compensation for this LTMMA shall not exceed **\$CONTRACTOR'S LUMP SUM BID AMOUNT FOR THIS LONG-TERM MAINTENANCE AGREEMENT - TO BE ESTABLISHED DURING THE AWARD PROCESS. SEE EXHIBIT A.** (Contract Price).
- 4.2. Prevailing Wage Requirements.** The Prevailing Wages requirements in accordance with **Attachment D** of this Construction Contract are hereby incorporated by this reference.
- 4.3. Method of Payment and Reports.** The payments will be made monthly in direct proportion that each month bears to the total value of the Contract Price. As conditions precedent to payment, the Contractor shall submit a detailed invoice and report of maintenance Work performed every month. The Contractor's failure to submit the required reports or certified payrolls as described in the Construction Contract shall constitute a basis for withholding payment by the City.

4.4. Final Payment. The Contractor shall not receive final payment until the following conditions have been completed to the City's satisfaction:

- 1.4.1. The item(s) of the Work subject to this maintenance coverage as specified in **Exhibit A** (Maintenance Items) have been determined to be in compliance with the Construction Contract and this LTMMA.
- 1.4.2. The Contractor has provided to the City a signed and notarized Affidavit of Disposal, a copy of which is attached to the Construction Contract, stating that all brush, trash, debris, and surplus materials resulting from the Work have been disposed of in a legal manner.
- 1.4.3. The Contractor has provided a final work summary report to the City.
- 1.4.4. The Contractor has performed comprehensive and successful testing and checks of the Maintenance Items.

SECTION 5: BONDS AND INSURANCE

5.1. Contract Bonds. Prior to the commencement of Work, the Contractor, at its sole cost and expense, shall provide the following bonds issued by a surety authorized to issue bonds in California satisfactory to the City:

- 1.1.1. A Payment Bond (Material and Labor Bond) in an amount not less than the Contract Price for this Bid item, to satisfy claims of material suppliers and mechanics and laborers employed by it on the Work. The Payment Bond shall be maintained by the Contractor in full force and effect until the Work is accepted by City and until all claims for materials and labor are paid, and shall otherwise comply with the California Civil Code.
- 1.1.2. A Performance Bond in an amount not less than the Contract Price for this bid item to guarantee the faithful performance of all Work within the time prescribed in a manner satisfactory to the City and to guarantee all materials and workmanship will be free from original or developed defects. The Performance Bond shall remain in full force and effect until performance of the Work is completed as set forth in this LTMMA.

5.2. Insurance. The Contractor shall maintain insurance coverage as specified in **Section 5-4, "INSURANCE"** of the Construction Contract at all times during the term of this LTMMA.

The Contractor shall not begin the Work under this LTMMA until they have complied with the following:

- 1.2.1. Obtain insurance certificates reflecting evidence of insurance:
 1. Commercial General Liability
 2. Commercial Automobile Liability
 3. Worker's Compensation

- 1.2.2. Confirm that all policies contain the specific provisions required in Section 5-4, "INSURANCE."

The Contractor shall submit copies of any policy upon request by the City.

The Contractor shall not modify any policy or endorsement thereto which increases the City's exposure to loss for the duration of this LTMMA.

SECTION 6: MISCELLANEOUS

- 6.1. Illness and Injury Prevention Program.** The Contractor shall comply with all the mandates of Senate Bill 198 and shall specifically have a written Injury Prevention Program on file with the City in accordance with all applicable standards, orders, or requirements of California Labor Code, Section 6401.7. This Program shall be on file prior to the performance of any Work.
- 6.2. City Standard Provisions.** This LTMMA is subject to the same standard provisions and Contractor Certification requirements as the Construction Contract.
- 6.3. Taxpayer Identification Number.** I.R.S. regulations require the City to have the correct name, address, and Taxpayer Identification Number (TIN) or Social Security Number (SSN) on file for businesses or persons who provide services or products to the City. This information is necessary to complete Form 1099 at the end of each tax year. As such, the Contractor shall provide the City with a Form W-9 upon execution of this LTMMA.
- 6.4. Assignment.** The Contractor shall not assign the obligations under this LTMMA, whether by express assignment or by sale of the company, nor any monies due or to become due, without the City's prior written approval. Any assignment in violation of this section shall constitute a Default and is grounds for immediate termination of this LTMMA, at the sole discretion of City. In no event shall any putative assignment create a contractual relationship between the City and any putative assignee.
- 6.5. Independent Contractors.** The Contractor and any Subcontractors employed by Contractor shall be independent contractors and not agents of the City. Any provisions of this LTMMA that may appear to give the City any right to direct the Contractor concerning the details of performing the Work, or to exercise any control over such performance, shall mean only that the Contractor shall follow the direction of the City concerning the end results of the performance.
- 6.6. Covenants and Conditions.** All provisions of this LTMMA expressed as either covenants or conditions on the part of the City or the Contractor shall be deemed to be both covenants and conditions.
- 6.7. Jurisdiction and Venue.** The jurisdiction and venue for any suit or proceeding arising out of or concerning this LTMMA, the interpretation or application of any of its terms, or any related disputes shall be the County of San Diego, State of California.

- 6.8. Successors in Interest.** This LTMMA and all rights and obligations created by it shall be in force and effect whether or not any Parties to this LTMMA have been succeeded by another entity and all rights and obligations created by this LTMMA shall be vested and binding on any Party's successor in interest.
- 6.9. Integration.** This LTMMA and the exhibits, attachments, and references incorporated into this LTMMA fully express all understandings of the Parties concerning the matters covered in this LTMMA. No change, alteration, or modification of the terms or conditions of this LTMMA, and no verbal understanding of the Parties, their officers, agents, or employees shall be valid unless made in the form of a written change agreed to in writing by both Parties or by an amendment to this LTMMA agreed to by both Parties. All prior negotiations and agreements shall be merged into this LTMMA.
- 6.10. Counterparts.** This LTMMA may be executed in counterparts, which when taken together shall constitute a single signed original as though all Parties had executed the same page.
- 6.11. No Waiver.** Any failure of either the City or the Contractor to insist upon the strict performance by the other of any covenant, term, or condition of this LTMMA, nor any failure to exercise any right or remedy consequent upon a breach of any covenant, term, or condition of this LTMMA, shall constitute a waiver of any such breach or of such covenant, term, or condition. No waiver of any breach shall affect or alter this LTMMA, and each and every covenant, condition, and term hereof shall continue in full force and effect to any existing or subsequent breach.
- 6.12. Severability.** The unenforceability, invalidity, or illegality of any provision of this LTMMA shall not render any other provision of this LTMMA unenforceable, invalid, or illegal.
- 6.13. Signing Authority.** The representative for each Party signing on behalf of a corporation, partnership, joint venture or governmental entity hereby declares that authority has been obtained to sign on behalf of the corporation, partnership, joint venture, or entity and agrees to hold the other Party or Parties hereto harmless if it is later determined that such authority does not exist.

IN WITNESS WHEREOF, this Contract is executed by the City of San Diego, acting by and through its Public Works Department Director in accordance with Resolution No. R-**INSERT NUMBER OF RESOLUTION AUTHORIZING ADVERTISING AND AWARD OF THE UNDERLYING CONSTRUCTION CONTRACT**, and by Contractor.

Dated this _____ day of _____, **INSERT YEAR.**

THE CITY OF SAN DIEGO

By: _____

Mayor or designee

I HEREBY CERTIFY I can legally bind **NAME OF CONTRACTOR TO BE DETERMINED DURING AWARD PROCESS** and that I have read this entire contract, this _____ day of _____, **INSERT YEAR.**

By: _____

Printed Name: _____

Title: _____

I HEREBY APPROVE the form of the foregoing Contract this

_____ day _____ of **INSERT YEAR.**

Mara W. Elliott, City Attorney

By: _____

Printed Name: _____

Deputy City Attorney

EXHIBIT A

SCOPE OF WORK

- I. **Location of Work.** The location of the Work to be performed is shown on Specifications and Drawings numbered **39210-01-D** through **39210-11-D**, and **39210-T1-D** through **39210-T4-D** (Specifications), which are incorporated into this Contract by this reference as though fully set forth herein.
- II. **Description of Work.** The Contractor shall maintain and monitor the Revegetation/Restoration Area during the Monitoring Program in accordance with this Contract. The Revegetation/Restoration Area shall meet the success criteria specified in **Appendix L** Final Design Report at each of the milestones listed in the Schedule for the maintenance and monitoring period. The scope of work is based on Exhibit/Attachment number specific to the final design plan.

The Work also includes biological monitoring of the Revegetation/Restoration Area according to the schedule and methods specified in the Revegetation/Restoration Plan. The monitoring work shall include all reporting tasks specified in the Plan Sheet L-2.

- III. **Method of Performing Work.**

- A. **Irrigation.** Irrigation shall be applied to container and salvaged plants in accordance with instructions from the Project Biologist. Irrigation delivery techniques and schedules will vary depending on the availability of a sprinkler irrigation system and weather patterns. Failure of an existing irrigation system to provide full and proper irrigation shall not relieve Contractor of the responsibility to provide adequate irrigation with full and proper coverage of all areas subject to this LTMMA.
 1. In areas where an automatic sprinkler system is installed, Contractor shall periodically inspect the operation of the system for any malfunction. The maximum interval between inspections shall not exceed 7 Days. The Contractor shall maintain all sprinkler systems in such a way as to guarantee proper coverage and full working capability, and shall make whatever adjustments may be necessary to prevent excessive run-off into streets, rights-of-way, or other areas not meant to be irrigated. The cost of wasted water may be charged to Contractor.
 2. All areas not adequately covered by a sprinkler system shall be irrigated by a portable irrigation method in accordance with instructions from the Project Biologist. The Contractor shall furnish all hoses, nozzles, sprinklers, etc. necessary to accomplish this supplementary irrigation. The Contractor shall exercise due diligence to prevent water waste, erosion, and detrimental seepage into existing underground improvements and to existing structures.

3. Irrigation shall be accomplished as follows:
 - a) Turf (if any) shall be irrigated Monday through Friday, as required, to maintain acceptable growth, viability and health, and to encourage deep rooting, in accordance with instructions from the Project Biologist. Additional irrigation shall be performed in the event of unusually hot/dry weather conditions (as are present during Santa Ana conditions, or other times of low humidity or high winds, or during a prolonged high temperature period during summer months).
 - b) Landscaped improved banks and slopes (if any) shall be irrigated Monday through Friday as required to maintain acceptable growth, viability and health, and to encourage deep rooting, in accordance with instructions from the Project Biologist.
 - c) Shrub beds (if any) shall be irrigated as required to maintain acceptable growth, viability and health, and to encourage deep rooting, in accordance with instructions from the Project Biologist. Shrub areas shall be irrigated at a rate which keeps surface runoff to a minimum. The irrigation rate shall be adjusted to the needs of shrub types, seasons and weather conditions.
 - d) Planted and seeded areas shall be irrigated as required to maintain acceptable growth, viability and health, and to encourage deep rooting, in accordance with instructions from the Project Biologist. Planted and seeded areas shall be irrigated at a rate which keeps surface runoff to a minimum. The irrigation rate shall be adjusted to the needs of plant types, seasons and weather conditions.
4. **Maintenance of Irrigation System.** The Contractor shall keep controller and valve boxes (if any) clear of soil and debris and shall maintain the irrigation system at no additional cost to City, including replacement, repair, adjustment, raising or lowering, straightening and any other operation required for the continued proper operation of the system from the "cold" side of the water meter throughout the Revegetation/Restoration Area. The Contractor shall also be responsible for maintaining the painted surfaces of irrigation and lighting controller cabinets as well as the corresponding automatic irrigation battery numbers on the lids of the automatic control valve boxes (if any). The Contractor shall be responsible for light bulb replacements in controller cabinets as necessary.
 - a) Repair or replacement includes: sprinkler system laterals (piping), sprinkler mains (pressure lines), vacuum breakers, sprinkler control valves, sprinkler controllers, sprinkler heads, sprinkler caps, sprinkler head risers, valve covers, boxes and lids (including electrical pull boxes and lids), valve sleeves and lids, quick coupler valves and hose bibs. Any replacement shall conform to the type

and kind of existing system. Any deviation shall be approved in writing by City.

- b) The Contractor shall repair irrigation systems which are damaged or altered in any way, including by acts of God, vandalism, vehicular damage, or theft.

5. **Operation of Automatic Irrigation Controllers.** Where the operation of automatic irrigation controllers is required as part of this LTRMC, the Contractor shall:

- a) Not duplicate any coded City key furnished by City for access and operation of the controller;
- b) Surrender all keys furnished by City, promptly at the end of the term of this LTRMC, or at any time deemed necessary by City to prevent serious loss to City;
- c) protect the security of City's property by keeping controller cabinet and building doors locked at all times; and
- d) refrain from using premises behind locked doors for storage of materials, supplies, or tools except as approved by City.

B. Pruning Shrubs and Ground Cover Plants. The Contractor shall prune all shrubs and ground cover plants growing in the Revegetation Area as required to:

- 1. Maintain plant growth viability and health, and to encourage deep rooting, in accordance with instructions from the Project Biologist.
- 2. Prevent encroachment of passage ways, walks, streets, or view of signs; and
- 3. Prevent encroachment in any manner deemed objectionable by the City.

The Contractor shall remove dead or damaged limbs with sharp pruning tools, with no stubs remaining. The Contractor shall seal any pruning cut which exceeds 2 inches in diameter with an approved pruning paint when required by the City. The Contractor shall perform pruning to permit plants to grow naturally in accordance with their normal growth characteristics except where box hedging is required by the City. The Contractor shall not shear, hedge, or severely prune plants, unless authorized by the City. The Contractor shall not use growth regulators.

C. Tree Maintenance. The Contractor shall maintain all trees and container plants in the revegetation area in accordance with instructions from the Project Biologist. The Contractor shall perform pruning in accordance with instructions from the Project Biologist, when necessary. The Contractor shall not top trees.

- 1. **Potential Hazards.** The Contractor shall notify the City within 24 hours of any tree that shows signs of root heaving or leaning, or is in any manner a potential safety hazard. The Contractor shall immediately reestablish trees and shrubs that are uprooted due to storms, if possible. If trees or shrubs

cannot be reestablished, Contractor shall remove them immediately (including roots) and fill the holes until replacement planting is complete.

2. **Replacement.** The Contractor shall completely remove and replace trees lost due to Contractor's faulty maintenance or negligence, as determined by the City. The Contractor shall replace trees in kind and size as determined by the City. If there is a difference in value between the tree lost and the replacement tree, the City will deduct the difference from payment to be made under this LTMMA. The City shall determine the value of the tree lost using the latest International Society of Arboriculture (I.S.A.) guidelines for value determination.
3. **Staking.** The Contractor shall securely stake any newly planted trees and other trees needing support with two "lodge pole" type stakes placed on opposite sides of the tree outside the root ball and secured to the tree with at least two flexible rubber tree ties. The Contractor shall regularly inspect tree ties and stakes and reposition them as necessary to ensure against girdling and abrasion.

D. Fertilization. The Contractor shall fertilize the Revegetation Area as necessary in accordance with instructions from the Project Biologist. Contractor shall submit to City Material Safety Data Sheets and a schedule of application showing the site, date, and approximate time of fertilizer application (Fertilizer Schedule). The Fertilization Schedule, regardless of its intensity, timing, or the number of sites covered daily or weekly, shall not excuse Contractor from performing any other Work regularly required under this LTMMA. All fertilization shall first be approved by the Project Biologist.

1. The Contractor shall notify the City at least 48 hours before beginning any fertilization. Fertilizer shall be delivered to the site only in the original unopened containers bearing the manufacturer's guaranteed analysis. Damaged packages shall not be accepted. The Contractor shall furnish to the City with duplicate signed, legible copies of all certificates and invoices for all fertilizer to be used for this LTMMA. The invoices shall state the grade, amount and quantity received. Both the copy to be retained by the City and the Contractor's copy shall be signed by the City, on site, before any fertilizer may be used.
2. Fertilizers, if necessary, shall be applied at the direction of the Project Biologist and according to manufacturer's product specifications.
3. If deemed necessary by the City to achieve required results, the Contractor shall apply other materials as directed by the City, including:
 - a) iron chelate;
 - b) soil sulfur;
 - c) gypsum; or
 - d) surfactant enzymes such as Sarvon or Naiad.

4. The Contractor shall adequately irrigate the fertilized area(s) immediately following the application of fertilizers and/or amendments to force fertilizer material to rest directly on the soil surface. Drip irrigated areas shall be adequately hand watered using quick coupler valves and hoses to dissolve fertilizer.

E. Weed Removal. The Contractor shall completely remove weeds from the Re-vegetation Area, including all turf grass areas, shrub and ground cover areas, planters, tree wells, and cracks in paved areas, including sidewalks, parking lot, gutters and curbs, as shown on the Work Schedule. For the purposes of this Section, "Weed" means any undesirable or misplaced plant. The Contractor shall control Weeds by manual, mechanical, or chemical methods. The City or Project Biologist may restrict the use of chemical weed control in certain areas.

Weed removal in areas with native habitat shall be in accordance with **Section 802 of the Whitebook.**

F. Disease and Pest Control. The Contractor shall regularly inspect the Revegetation Area for the presence of disease and insect or rodent infestation. The Contractor shall notify the City within 4 Days if disease or insect or rodent infestation is discovered. In its notice to the City, the Contractor shall identify the disease, insect, or rodent and specify the control measures to be taken. Upon approval of the City, the Contractor shall implement the approved control measures, exercising extreme caution in the application of all sprays, dusts, or other materials utilized. The Contractor shall continue the approved control measures until the disease, insect, or rodent is controlled to the satisfaction of the City.

1. All individuals who supervise the mixing and application of herbicides, pesticides, and rodenticides on behalf of the Contractor shall possess valid Qualified Applicators Certificate for Category B issued to them by the State Department of Food and Agriculture.
2. The Contractor shall utilize all safeguards necessary during disease, insect or rodent control operations to ensure safety of the public and the employees of the Contractor, in accordance with current standard practices accepted by the State of California Department of Food and Agriculture. If the Contractor is unable to control the pest or disease, a pest control company will be hired and the cost shall be deducted from Contractor's monthly payment.

G. Plant Replacement. Except as provided in **Section H** below, the Contractor shall notify the City within 4 Calendar Days of the loss of plant material due to any cause.

1. The Contractor shall, at no cost to the City, replace any tree, shrub, ground cover, or other plant which is damaged or lost as a result of Contractor's faulty maintenance or negligence. The size and species of replacement plant materials shall be as directed by the City.

2. If so directed by the City, the Contractor shall replace any plant damaged or lost that is not a result of the Contractor's faulty maintenance or negligence. The size and species of replacement plant materials shall be as directed by City. The City will pay for materials and labor outside of warranty.
 3. The City may determine that certain plants should be replaced in order to ensure maximum ecological health and overall aesthetic appearance of planting in the Revegetation Area. When the City determines such replacement should occur, Contractor shall replace the plants as directed by the City. The City will pay for materials and labor outside of warranty.
- H. Damage Reports.** The Contractor shall notify the City within 24 hours of any damage to the Work Area caused by accident, vandalism, or theft.
- I. Litter.** The Contractor shall promptly dispose of all trash and debris at an appropriate City disposal site. The Contractor shall pay any and all fees associated with the disposal of debris or trash accumulated under the terms of this LTMMA. The Contractor understands that disposal of refuse at City landfills is subject to a fee and that the Refuse Disposal Division can be contacted at (619) 573-1418 for fee information.
1. **Contractor Generated Litter.** The Contractor shall promptly remove all debris generated by the Contractor's pruning, trimming, weeding, edging and other Work required by this LTMMA. Immediately after working in streets, park walks, gutters, driveways, and paved areas, the Contractor shall clean them in accordance with all applicable laws.
 2. **Third Party Generated Litter.** Upon discovery, the Contractor shall remove all litter, including bottles, glass, cans, paper, cardboard, fecal matter, leaves, branches, metallic items, and other debris, from the Work site.
- J. Monitoring.** The Project Biologist will oversee all maintenance operations and conduct qualitative and quantitative biological monitoring of the Revegetation Area according to the schedule and methods described in the Revegetation Plan. The Project Biologist will be responsible for preparing and submitting monitoring reports according to the schedule and instructions in the Revegetation Plan. The Project Biologist shall meet all requirements specified in **Section 802 of the Whitebook.**
- K. Final Site Cleanup.** Prior to completion of the LTMMA, all temporary irrigation materials, BMP's, and signs shall be removed from the site and properly disposed of.

EXHIBIT B

INSERT A COPY OF THE ENGINEER'S FIELD NOTIFICATION WHICH ESTABLISHES THE COMMENCEMENT DATE OF THE MONITORING PROGRAM, SEE THE 2018 WHITEBOOK, SECTION 802

EXHIBIT C

LICENSE DATA SHEET

State Contractor License Classification and Number:_____

Name of License Holder:_____

Expiration Date:_____

City of San Diego Business License Number:_____

Expiration Date:_____

APPENDIX I
SAMPLE ARCHAEOLOGY INVOICE

(FOR ARCHAEOLOGY ONLY)

Company Name

Address, telephone, fax

Date: Insert Date

To: Name of Resident Engineer
City of San Diego
Field Engineering Division
9485 Aero Drive
San Diego, CA 92123-1801

Project Name: Insert Project Name

SAP Number (WBS/IO/CC): Insert SAP Number

Drawing Number: Insert Drawing Number

Invoice period: Insert Date to Insert Date

Work Completed: Bid item Number – Description of Bid Item – Quantity – Unit Price– Amount

Detailed summary of work completed under this bid item: Insert detailed description of Work related to Archaeology Monitoring Bid item. See Note 1 below.

Summary of charges:

Description of Services	Name	Start Date	End Date	Total Hours	Hourly Rate	Amount
Field Archaeologist	Joe Smith	8/29/2011	9/2/2011	40	\$84	\$3,360
Laboratory Assistant	Jane Doe	8/29/2011	9/2/2011	2	\$30	\$60
Subtotal						\$3,420

Work Completed: Bid item Number – Description of Bid Item – Quantity – Unit Price– Amount

Detailed summary of work completed under this bid item: Insert detailed description of Work related to Archaeology Curation/Discovery Bid item. See Note 2 below.

Summary of charges:

Description of Services	Where work occurred (onsite vs offsite/lab)	Name	Start Date	End Date	Total Hours	Hourly Rate	Amount
Field Archaeologist		Joe Smith	8/29/2011	9/2/2011	40	\$84	\$3,360
Laboratory Assistant		Jane Doe	8/29/2011	9/2/2011	2	\$30	\$60
Subtotal							\$3,420

Total this invoice: \$ _____

Total invoiced to date: \$ _____

Note 1:

For monitoring related bid items or work please include summary of construction work that was monitored from Station to Station, Native American monitors present, MMC coordination, status and nature of monitoring and if any discoveries were made.

Note 2:

For curation/discovery related bid items or work completed as part of a discovery and curation process, the PI must provide a response to the following questions along with the invoice:

1. Preliminary results of testing including tentative recommendations regarding eligibility for listing in the California Register of Historical Resources (California Register).
 - a. Please briefly describe your application (consideration) of all four California Register criteria.
 - b. If the resource is eligible under Criterion D, please define the important information that may be present.
 - c. Were specialized studies performed? How many personnel were required? How many Native American monitors were present?
 - d. What is the age of the resource?
 - e. Please define types of artifacts to be collected and curated, including quantity of boxes to be submitted to the San Diego Archaeological Center (SDAC). How many personnel were required? How many Native American monitors were present?
2. Preliminary results of data recovery and a definition of the size of the representative sample.
 - a. Were specialized studies performed? Please define types of artifacts to be collected and curated, including quantity of boxes to be submitted to the SDAC. How many personnel were required? How many Native American monitors were present?
3. What resources were discovered during monitoring?
4. What is the landform context and what is the integrity of the resources?
5. What additional studies are necessary?
6. Based on application of the California Register criteria, what is the significance of the resources?
 - a. If the resource is eligible for the California Register, can the resource be avoided by construction?
 - b. If not, what treatment (mitigation) measures are proposed? Please define data to be recovered (if necessary) and what material will be submitted to the SDAC for curation. Are any specialized studies proposed?

(After the first invoice, not all the above information needs to be re-stated, just revise as applicable).

APPENDIX J
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

To contact the City of San Diego: SD Public Works 619-533-4207 | engineering@sandiego.gov | sandiego.gov/CIP

To contact the City of San Diego: SD Public Works 619-533-4207 | engineering@sandiego.gov | sandiego.gov/CIP

APPENDIX K

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

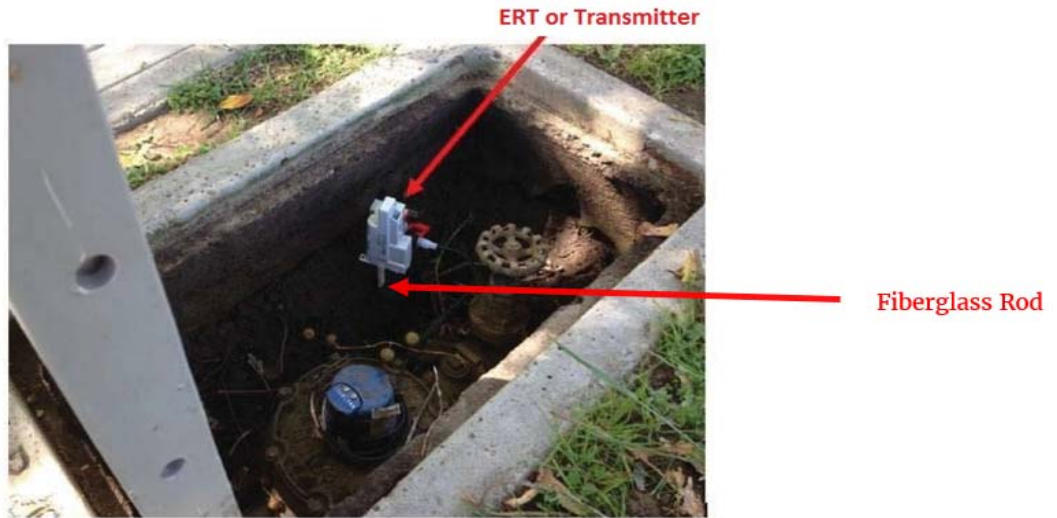


Photo 6 below is an example of disturbance that shall be avoided:

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 L
TECHNICAL STUDIES AND DATA

**REPORT OF GEOTECHNICAL FIELD EXPLORATION
VACANT PARCEL LOCATED NORTHWEST OF THE
INTERSECTION OF PEARLMAN WAY AND
CARMEL KNOLLS DRIVE
SAN DIEGO, CALIFORNIA**

Prepared For:

TETRA TECH, INC.
1230 Columbia Street, Suite 1000
San Diego, CA 92101

Prepared By:

ALLIED GEOTECHNICAL ENGINEERS, INC.
9500 Cuyamaca Street, Suite 102
Santee, California 92071-2685

June 14, 2011



June 14, 2011

Mr. Jason Wright, P.E.
Water Resources Engineer
Tetra Tech, Inc.
1230 Columbia Street, Suite 1000
San Diego, CA 92101

**Subject: REPORT OF GEOTECHNICAL FIELD EXPLORATION
VACANT PARCEL LOCATED NORTHWEST OF THE
INTERSECTION OF PEARLMAN WAY AND
CARMEL KNOLLS DRIVE
SAN DIEGO, CALIFORNIA
AGE Project No. 119 GTS-08-C (34E3)**

Dear Mr. Wright:

In accordance with your request, we are pleased to submit the accompanying report to present the results of a geotechnical field exploration study which was performed for the design of "Low Impact Development" (LID) measures at the vacant parcel located northwest of the intersection of Pearlman Way and Carmel Knolls Drive in San Diego, California.

We appreciate the opportunity to be of service on this important project. If you have any questions regarding the contents of this report or need further assistance, please feel free to give us a call.

Sincerely,

ALLIED GEOTECHNICAL ENGINEERS, INC.

Sani Sutanto, P.E.
Senior Engineer

SS/TJL:sem
Distr. (1 electronic copy) Addressee



9500 Cuyamaca Street, Suite 102 ■ Santee, California 92071-2685 Phone 619.449.5900 Fax 619.449.5902

**REPORT OF GEOTECHNICAL FIELD EXPLORATION
VACANT PARCEL LOCATED NORTHWEST OF THE
INTERSECTION OF PEARLMAN WAY AND
CARMEL KNOLLS DRIVE IN SAN DIEGO, CALIFORNIA**

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Appendix B Summary of Percolation Test Results

Appendix C Geotechnical Laboratory Testing



1.0 INTRODUCTION

In accordance with the request of Tetra Tech, Inc. (Tetra Tech), Allied Geotechnical Engineers, Inc. (AGE) has performed a geotechnical field exploration study to assist Tetra Tech with the preparation of conceptual stormwater Best Management Practice (BMP) facility designs at the following six sites.

Site No. 1 - Callado Road between Pastoral Road and Hispano Drive in the Rancho Bernardo area;

Site No. 2 - A vacant parcel located on the northwest corner of the intersection of Carmel Knolls Drive and Pearlman Way in the Carmel Valley area;

Site No. 3 - Rosecrans Street between the intersections with Talbot Street and Canon Street in the Point Loma area;

Site No. 4 - Larsen Field Park and Athletic Facility located at 455 Sycamore Road in the San Ysidro area;

Site No. 5 - Dirt shoulder behind the sidewalk in front of the San Ysidro Community Center located at 663 East San Ysidro Boulevard in the San Ysidro area; and

Site No. 6 - Nestor Park on Grove Avenue in the Nestor area.

We understand that the type and size of the proposed BMP facilities for each site are not known at this time but that they may include infiltration pits, rain gardens, small scale storm water treatment, hydromodification, and green street and green mall infiltration.



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The objectives of the study were to characterize the subsurface soil conditions at the site, particularly with respect to the soil percolation characteristics. This report presents the results of our study which included the advancement of two deep exploratory soil borings and five percolation test holes, field percolation testing, and the performance of laboratory tests on selected soil samples collected from the borings. This report is specifically prepared to address the design of the proposed Low Impact Development (LID) measures at Site No. 2. At the time of our preparation of this report the plans showing the location and type of the proposed LID measures have not been prepared yet.

The services provided by AGE were performed in conformance with the scope of work authorized under Work Order No. 3 of the Master Services Retainer Agreement executed between Tetra Tech and AGE on April 8, 2010.

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2.0 SITE DESCRIPTION

The project site encompasses a vacant parcel located in the community of Carmel Valley in San Diego, California (see Site Plan, Figure 1). The parcel is bounded by open space on the north, Pearlman Way on the south, Carmel Knolls Drive on the east, and single family residences on the west. The project study area is located at approximate Latitude 32°57'13.1"N and Longitude 117°12'23"W. The surrounding areas are mostly developed with single family residences.

Ground surface elevation at the project site ranges from +178 feet to + 185 feet above mean sea level (MSL). The ground surface is relatively flat with a slight slope in a southeasterly direction toward a storm drain opening located in the southeastern corner of the parcel. The limits of the project study area are shown on Figure 1. Based on the information gathered from our utility clearance efforts, it appears that, other than an uncovered vertical storm drain pipe, no other buried utilities are located on the parcel.

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3.0 GEOTECHNICAL FIELD EXPLORATION STUDY

The scope of our study included several tasks which are more fully described in the following sections of this report.

3.1 Information Review

This task consisted of a review of readily available published information pertaining to the project site. The available information included published geologic literature and maps, U.S. Geological Survey topographic quadrangles, as-built utility maps, and information maintained in the Geotracker database. A listing of the references that were reviewed is presented in Section 9.0.

3.2 Field Exploration Program**3.2.1 Planning, Permitting and Utility Clearance**

Prior to commencement of the drilling operations, representatives from AGE and Tetra Tech conducted a site visit to select suitable locations for the borings and percolation test holes. Selection of the boring and percolation test hole locations was based on various considerations, such as anticipated subsurface conditions, drill rig access limitations, and the presence of existing buried utilities.

Underground Service Alert (USA) was subsequently contacted to coordinate clearance of the boring locations with respect to existing underground utilities. In addition, AGE submitted an application for a boring permit to the County of San Diego Department of Environmental Health Services (DEHS) and obtained a waiver for a DEHS boring permit.



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3.2.2 Soil Borings and Test Holes

This task involved the advancement of two (2) borings to a depth of 20 feet below the ground surface (bgs) and five (5) percolation test holes. The percolation test holes were extended to depths on the order of 3 to 8 feet bgs. The field exploration was conducted on May 26, 2011. The approximate test locations are shown on Figure 1. A more detailed description of the drilling and sampling activities, and logs of the borings are presented in Appendix A.

3.2.3 Percolation Test Program

Percolation testing was performed on May 27 and 31, 2011. Prior to testing, the sides of the test holes were cleaned with a rotating wire brush, and then the test holes were pre-soaked for a period of at least 24 hours and subsequently cleaned with a hand auger. An approximately 3-inch thick layer of pea gravel was then placed on the bottom of each test hole.

The testing procedure involved the placement of water to an approximate elevation of 6 to 10 inches above the top of the pea gravel in each test hole. As the water dissipated through the soil at the bottom of the test holes, measurements were then taken to evaluate the discharge rate over a period of 2 to 3 hours. The percolation rate was calculated based on the average rate of discharge. The percolation test results are presented in Appendix B.



3.3 Geotechnical Laboratory Testing

Selected soil samples obtained from the soil borings were tested in the laboratory to verify field classifications and evaluate certain engineering characteristics. The geotechnical laboratory tests were performed in general conformance with the American Society for Testing and Materials (ASTM) or other generally accepted testing procedures.

The geotechnical laboratory testing performed for this project included: in-place moisture content, mechanical sieve (wash) analysis, and soil expansion index. A description of the laboratory tests that were performed and the final test results are presented in Appendix C.

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4.0 SUBSURFACE CONDITIONS**4.1 Geologic Units**

Friars Formation of Eocene age was encountered in all the borings to the maximum depth of exploration of 20 feet below the ground surface (bgs). The Friars Formation is primarily composed of a gray, fine to medium grained sandstone with minor conglomeratic beds and lenses. The unit is generally soft and friable.

4.2 Groundwater Conditions

Groundwater was not encountered in any of the borings at the time of our field exploration. A review of the Geotracker Database did not reveal the presence of any monitoring wells within a one mile radius of the project site. The nearest major drainage to the project site is the San Dieguito River which is located approximately 2 miles to the north. Based on the elevation difference between the project site and the San Dieguito River, the depth to the groundwater table at the project site is estimated to be in excess of 50 feet.

The subject study area lies within the Hodges Hydrologic Area of the San Dieguito Hydrologic Unit as designated by the California Regional Water Quality Control Board (CRWQCB), San Diego Region 9. Groundwater in this area has beneficial use for municipal, agricultural and industrial supply.



The San Dieguito River watershed is a drainage area of approximately 346 square miles in west-central San Diego County. The watershed includes portions of the cities of Del Mar, Escondido, Poway, San Diego, and Solana Beach, and unincorporated San Diego County. In terms of land area, the majority of the watershed (79.8%) is within the unincorporated jurisdiction. The San Dieguito River watershed is presently divided into vacant/undeveloped (54%), parks/open space (29%), and urban (18%) land uses. Nearly half of the vacant land area is open to future development, most of which is zoned for residential usage. The current watershed population is approximately 125,000 however; this level is projected increase to over 210,000 residents by 2015.

The watershed extends through a diverse array of habitats from its eastern headwaters in the Volcan Mountains to the outlet at the San Dieguito Lagoon and the Pacific Ocean. There are several important natural areas within the watershed that sustain a number of threatened and endangered species. Among these are the 55-mile long, 80,000 acre San Dieguito River Park, the 150 acre San Dieguito Lagoon, and five water storage reservoirs including Lake Hodges, Lake Sutherland, and Lake Poway.

The Pacific Ocean at the mouth of the San Dieguito River is listed as a impaired water body for elevated coliform bacteria. In the absence of a comprehensive watershed planning effort, large-scale future development may exasperate current water quality problems and create additional beneficial use impairments. The San Dieguito Lagoon is especially sensitive to the effects of pollutants and oxygen depletion due to restricted or intermittent tidal flushing.

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5.0 SUMMARY OF FINDINGS

The project study area is underlain by the Friars Formation. The unit was encountered in all borings to the maximum depth of exploration. The unit can be characterized by fine to medium grained sandstone.

The results of the field percolation tests indicate a soil percolation rate ranging from 90 to 105 minutes per inch (refer to Appendix B). that the subsurface soils in the project study area have low permeability characteristics. It is our opinion that the subsurface material would allow for moderate stormwater infiltration.



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6.0 LIMITATIONS

This report has been prepared for the sole use of Tetra Tech and the City of San Diego in their evaluation of the feasibility to implement LID measures at the project site. This report is intended for preliminary planning and design purposes only and does not provide sufficient data for final design and construction.

The geotechnical services provided by AGE for this project have been performed in accordance with generally accepted principles and practices of the local geotechnical engineering profession at the time of report preparation. No other warranty, either expressed or implied, is made by AGE.

The findings and opinions presented in this report pertain only to specific locations within the project study area. It must be noted that the subsurface conditions in other areas of the study area may be substantially different from those reported herein.

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7.0 REFERENCES

California Water Resources Control Board and California Regional Water Quality Control Board, San Diego Region, 1994, "Water Quality Control Plan for the San Diego Basin (9)" (Basin Plan, revised 2007).

City of San Diego, Draft Guidelines for Geotechnical Evaluations for Low Impact Development Stormwater Infiltration Facilities.

Kennedy, M.P., 1975, Geology of the San Diego Metropolitan Area, California, California Division of Mines and Geology Bulletin 200.

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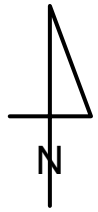




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APPENDIX A

DRILLING, SAMPLING AND TESTING ACTIVITIES

APPENDIX A

FIELD EXPLORATION ACTIVITIES

The field exploratorion activities for this project were performed between February 22, 2011 and February 25, 2011, and included the advancement of two borings to a depth of 20 feet bgs and 5 percolation test holes to depths ranging from 2 feet to 8 feet. The approximate locations of the boring and test holes are shown on Figure 1. The drilling operations were performed by Tri-County Drilling, Inc. using 8-inch diameter hollow-stem auger drilling methods with a truck-mounted CME 75 drill rig. Percolation testing was performed on May 27 and May 31, 2011 in conformance with the procedures described in Section 3.2.3 of the report. The final test results are summarized in Appendix B.





The soils encountered in the boring and percolation test holes were visually classified and logged by a field geologist from our firm. A Key to Logs is presented on Figure Nos. A-1 and A-2, and logs of the boring and test holes are shown on Figures A-3 through A-7. The logs depict the various soil types encountered and indicate the depths at which samples were obtained for laboratory testing and analysis.

Following completion of the drilling, sampling and testing activities, all borehole and test holes were backfilled with onsite soil materials mixed with bentonite chips. The remaining soil cuttings generated from the drilling operations were disposed of off-site.

KEY TO LOG OF BORING

DEPTH (FEET)	SAMPLES	BLOW COUNTS (BLOWS/6 INCHES)	OVM READING (PPM)	GRAPHIC LOG	SOIL DESCRIPTION	FIELD MOISTURE (% DRY WT.)	DRY DENSITY (PCF)	REMARKS
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	1 2 3	 16 18 20 18 20 30			<p>Sample identification number</p> <p>Approximate interval of bulk sample</p> <p>Approximate interval of Standard California Sampler (SCS).</p> <p>Number of blows required to advance sampler 6 inches, or distance indicated.</p> <p>Approximate interval of Standard Penetration Test (SPT).</p>			
(KEY TO LOG OF BORING CONTINUED ON FIGURE A-2)								
PROJECT NO. 119-08-C (34E3)					ALLIED GEOTECHNICAL ENGINEERS, INC.			FIGURE A-1

KEY TO LOG OF TEST HOLE (CONTINUED)

DEPTH (FEET)	SAMPLES	BLOW COUNTS (BLOWS/FOOT)	OVM READING (PPM)	GRAPHIC LOG	SOIL DESCRIPTION	FIELD MOISTURE (% DRY WT.)	DRY DENSITY (PCF)	REMARKS
1					-? - -? - APPROXIMATE GEOLOGIC CONTACT			
2					GRAVEL			
3					SAND			
4					SILT			
5					CLAY			
6								
7								
8								
9								
10					GENERAL NOTES			
11					1. Approximate location and elevation of test holes are based on the Google Map, 2011.			
12					2. Soil descriptions are based on visual classification made during the field exploration and, where deemed appropriate, have been modified based on the results of laboratory tests.			
13					3. Description on the test hole logs apply only at the specific test hole locations and at the time the test holes were performed. They are not warranted to be representative of subsurface conditions at other locations or times.			
14								
15								
16								
17								
18								
19								
PROJECT NO. 119-08-C (34E3)					ALLIED GEOTECHNICAL ENGINEERS, INC.			FIGURE A-2

BORING NO. B-1

DATE OF DRILLING: MAY 26, 2011

TOTAL BORING DEPTH: 22 FEET

GENERAL LOCATION: VACANT PARCEL NORTHWEST CORNER OF PEARLMAN WAY AND CARMEL KNOLLS

APPROXIMATE SURFACE ELEV.: + 180 FEET MSL

DRILLING CONTRACTOR: TRI-COUNTY DRILLING, INC.

DRILLING METHOD: HSA

LOGGED BY: F. KHATIB

DEPTH (FEET)	SAMPLES	BLOW COUNTS BLOWS/FOOT	QVM READING (PPM)	GRAPHIC LOG	SOIL DESCRIPTION	FIELD MOISTURE % DRY WT.	DRY DENSITY LBS./CU. FT.	REMARKS
1					FRIARS FORMATION			
2					Light brown, moist, silty fine to coarse sand (SM) with some gravels			
3	1							
4								
5		9						
6	2	13			Gravel layer at 6 feet	12.4	112.1	
7		13			Light brown, moist, medium dense clayey sand (SC)			
8								
9								
10		7						
11	3	7			White to light brown, moist, silty sand (SM)	11.6		
12		12						
13								
14								
15		12						
16	4	3			Light brown, moist, clayey sand (SC) with gravel layer at 16.5 feet	13.2	108.5	
17		31						
18								
19								
20		16						
21	5	31			White with orange stains, moist, silty fine micaceous sand (SM)	9.5		
21		50/5"						
22								

NOTES:

Bottom of borehole at 22 feet

No seepage or groundwater encountered at time of drilling

**PROJECT NO.
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ALLIED GEOTECHNICAL ENGINEERS, INC.

FIGURE A-3

BORING NO. B-2

DATE OF DRILLING: MAY 26, 2011	TOTAL BORING DEPTH: 4 FEET
GENERAL LOCATION: VACANT PARCEL NORTHWEST CORNER OF PEARLMAN WAY AND CARMEL KNOLLS	
APPROXIMATE SURFACE ELEV.: +180 FEET MSL	DRILLING CONTRACTOR: TRI-COUNTY DRILLING
DRILLING METHOD: HSA	LOGGED BY: F. KHATIB

DEPTH (FEET)	SAMPLES	BLOW COUNTS BLOWS/FOOT	OVM READING (PPM)	GRAPHIC LOG	SOIL DESCRIPTION	FIELD MOISTURE % DRY WT.	DRY DENSITY LBS./CU. FT.	REMARKS
1					FRIARS FORMATION Light brown, moist, silty fine to coarse sand (SM) with some gravels			
2								
3								
4								
NOTES: Bottom of test hole at 4 feet; No seepage or groundwater encountered at time of drilling.								

BORING NO. B-3

DATE OF DRILLING: MAY 26, 2011	TOTAL BORING DEPTH: 5 FEET
GENERAL LOCATION: VACANT PARCEL NORTHWEST CORNER OF PEARLMAN WAY AND CARMEL KNOLLS	
APPROXIMATE SURFACE ELEV.: +180 FEET MSL	DRILLING CONTRACTOR: TRI-COUNTY DRILLING
DRILLING METHOD: HSA	LOGGED BY: F. KHATIB

DEPTH (FEET)	SAMPLES	BLOW COUNTS BLOWS/FOOT	OVM READING (PPM)	GRAPHIC LOG	SOIL DESCRIPTION	FIELD MOISTURE % DRY WT.	DRY DENSITY LBS./CU. FT.	REMARKS
1					FRIARS FORMATION Light brown silty sand (SM)			
2								
3								
4								
5								
NOTES: Bottom of test hole at 4 feet; No seepage or groundwater observed at time of drilling.								

PROJECT NO. 119-08-C (34E3)	ALLIED GEOTECHNICAL ENGINEERS, INC.	FIGURE A-4
---------------------------------------	--	-------------------

BORING NO. B-4

DATE OF DRILLING: MAY 26, 2011	TOTAL BORING DEPTH: 6 FEET
GENERAL LOCATION: VACANT PARCEL NORTHWEST CORNER OF PEARLMAN WAY AND CARMEL KNOLLS	
APPROXIMATE SURFACE ELEV.: +180 FEET MSL	DRILLING CONTRACTOR: TRI-COUNTY DRILLING
DRILLING METHOD: HSA	LOGGED BY: F. KHATIB

DEPTH (FEET)	SAMPLES	BLOW COUNTS BLOWS/FOOT	OVM READING (PPM)	GRAPHIC LOG	SOIL DESCRIPTION	FIELD MOISTURE % DRY WT.	DRY DENSITY LBS./CU. FT.	REMARKS
1				●●●●●●●●●●	FRIARS FORMATION Light brown, moist, silty fine to coarse sand (SM) Gravel at 5.5 feet			
2				●●●●●●●●●●				
3				●●●●●●●●●●				
4				●●●●●●●●●●				
5				●●●●●●●●●●				
6				●●●●●●●●●●				
NOTES: Bottom of test hole at 6 feet; No seepage or groundwater encountered at time of drilling.								

BORING NO. B-5

DATE OF DRILLING: MAY 26, 2011	TOTAL BORING DEPTH: 7 FEET
GENERAL LOCATION: VACANT PARCEL NORTHWEST CORNER OF PEARLMAN WAY AND CARMEL KNOLLS	
APPROXIMATE SURFACE ELEV.: +180 FEET MSL	DRILLING CONTRACTOR: TRI-COUNTY DRILLING
DRILLING METHOD: HSA	LOGGED BY: F. KHATIB

DEPTH (FEET)	SAMPLES	BLOW COUNTS BLOWS/FOOT	OVM READING (PPM)	GRAPHIC LOG	SOIL DESCRIPTION	FIELD MOISTURE % DRY WT.	DRY DENSITY LBS./CU. FT.	REMARKS
1				●●●●●●●●●●	FRIARS FORMATION Light brown, silty fine to coarse sand (SM)			
2				●●●●●●●●●●				
3				●●●●●●●●●●				
4				●●●●●●●●●●				
5				●●●●●●●●●●				
6				●●●●●●●●●●				
7				●●●●●●●●●●				
NOTES: Bottom of test hole at 7 feet; No seepage or groundwater encountered at time of drilling.								

PROJECT NO. 119-08-C (34E3)	ALLIED GEOTECHNICAL ENGINEERS, INC.	FIGURE A-5
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TEST HOLE NO. B-6

DATE OF DRILLING: MAY 26, 2011

TOTAL BORING DEPTH: 8 FEET

GENERAL LOCATION: VACANT PARCEL NORTHWEST CORNER OF PEARLMAN WAY AND CARMEL KNOLLS

APPROXIMATE SURFACE ELEV.: +180 FEET MSL

DRILLING CONTRACTOR: TRI-COUNTY DRILLING, INC.

DRILLING METHOD: HSA

LOGGED BY: F. KHATIB

DEPTH (FEET)	SAMPLES	BLOW COUNTS BLOWS/FOOT	OVM READING (PPM)	GRAPHIC LOG	SOIL DESCRIPTION	FIELD MOISTURE % DRY WT.	DRY DENSITY LBS./CU. FT.	REMARKS
1 2 3 4 5 6 7 8					<p>FRIARS FORMATION</p> <p>Light brown, moist silty sand (SM) with trace of clay binder</p>			
<p>NOTES:</p> <p>Bottom of borehole at 8 feet; No seepage or groundwater encountered at time of drilling.</p>								
<p>PROJECT NO. 119-08-C (34E3)</p>		<p>ALLIED GEOTECHNICAL ENGINEERS, INC.</p>				<p>FIGURE A-6</p>		

BORING NO. B-7

DATE OF DRILLING: MAY 26, 2011	TOTAL BORING DEPTH: 22 FEET
GENERAL LOCATION: VACANT PARCEL NORTHWEST CORNER OF PEARLMAN WAY AND CARMEL KNOLLS	
APPROXIMATE SURFACE ELEV.: + 180 FEET MSL	DRILLING CONTRACTOR: TRI-COUNTY DRILLING, INC.
DRILLING METHOD: HSA	LOGGED BY: F. KHATIB

DEPTH (FEET)	SAMPLES	BLOW COUNTS BLOWS/FOOT	CPTV READING (PPM)	GRAPHIC LOG	SOIL DESCRIPTION	FIELD MOISTURE % DRY WT.	DRY DENSITY LBS./CU. FT.	REMARKS
1					FRIARS FORMATION Light brown, moist, silty fine sand (SM) with clay binder			
2	1							
3								
4								
5		8						
6	2	9			White to orange brown, moist, dense silty fine to very coarse sand (SM)	14.3		
7		17			Gravel layer at 6.5 feet			
8								
9					Dark gray clayey sand (SC)			
10		5						
11	3	12			Olive green to dark gray, moist, stiff sandy clay (CL)	18.6	106.5	
12		13						
13								
14								
15		3			Dark gray, moist, medium dense clayey sand (SC)			
16	4	8				17.6		
17		9						
18								
19								
20		7						
21	5	12			Dark gray, moist, medium dense sandy clay (CL) to gray silty coarse sand (SM)	13.7	113.3	
22		16						

NOTES:

Bottom of borehole at 22 feet

No seepage or groundwater encountered at time of drilling

**PROJECT NO.
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ALLIED GEOTECHNICAL ENGINEERS, INC.

FIGURE A-7

APPENDIX B

SUMMARY OF PERCOLATION TEST RESULTS

**TABLE B-1
SUMMARY OF PERCOLATION TEST RESULTS FOR
CONCEPTUAL DESIGN PROJECT - VACANT PARCEL NORTHWEST CORNER
PEARLMAN WAY AND CARMEL KNOLLS**

Test Hole # B-2		Hole Depth: 48"				Test Date: May 27, 2011		Average Rate (mpi): 105				
	1		2		3		4		5		6	
	Reading (inch)	Time (min)	Reading (inch)	Time (min)	Reading (inch)	Time (min)	Reading (inch)	Time (min)	Reading (inch)	Time (min)	Reading (inch)	Time (min)
START	39.25	1:20										
END	41.25	4:50										
DIFF.	2	210										
RATE (mpi)	105											

Test Hole # B-3		Hole Depth: 60"				Test Date: May 27, 2011		Average Rate (mpi): 90				
	1		2		3		4		5		6	
	Reading (inch)	Time (min)	Reading (inch)	Time (min)	Reading (inch)	Time (min)	Reading (inch)	Time (min)	Reading (inch)	Time (min)	Reading (inch)	Time (min)
START	54.25	2:15										
END	56.25	5:15										
DIFF.	2	180										
RATE (mpi)	90											

Test Hole # B-4		Hole Depth: 72"				Test Date: May 27, 2011		Average Rate (mpi): 90				
	1		2		3		4		5		6	
	Reading (inch)	Time (min)	Reading (inch)	Time (min)	Reading (inch)	Time (min)	Reading (inch)	Time (min)	Reading (inch)	Time (min)	Reading (inch)	Time (min)
START	61.5	2:15										
END	63.5	5:15										
DIFF.	2	180										
RATE (mpi)	90											

Test Hole # B-5		Hole Depth: 84"				Test Date: May 31, 2011		Average Rate (mpi): 93				
	1		2		3		4		5		6	
	Reading (inch)	Time (min)	Reading (inch)	Time (min)	Reading (inch)	Time (min)	Reading (inch)	Time (min)	Reading (inch)	Time (min)	Reading (inch)	Time (min)
START	75	9:00										
END	77	12:06										
DIFF.	2	186										
RATE (mpi)	93											

TABLE B-1
SUMMARY OF PERCOLATION TEST RESULTS FOR
CONCEPTUAL DESIGN PROJECT - VACANT PARCEL NORTHWEST CORNER
PEARLMAN WAY AND CARMEL KNOLLS
(Continued)

	Test Hole # B-6		Hole Depth: 96" Refusal on cobble				Test Date: May 31, 2011		Average Rate (mpi): 102			
	1		2		3		4		5		6	
	Reading (inch)	Time (min)	Reading (inch)	Time (min)	Reading (inch)	Time (min)	Reading (inch)	Time (min)	Reading (inch)	Time (min)	Reading (inch)	Time (min)
START	88	8:28										
END	89.75	11:28										
DIFF.	1.75	180										
RATE (mpi)	102											

APPENDIX C

GEOTECHNICAL LABORATORY TESTING

APPENDIX C

GEOTECHNICAL LABORATORY TESTING

Selected soil samples were tested in the laboratory to verify visual field classifications and to evaluate certain engineering characteristics. The testing was performed in accordance with the American Society for Testing and Materials (ASTM) or other generally accepted test methods, and included the following:

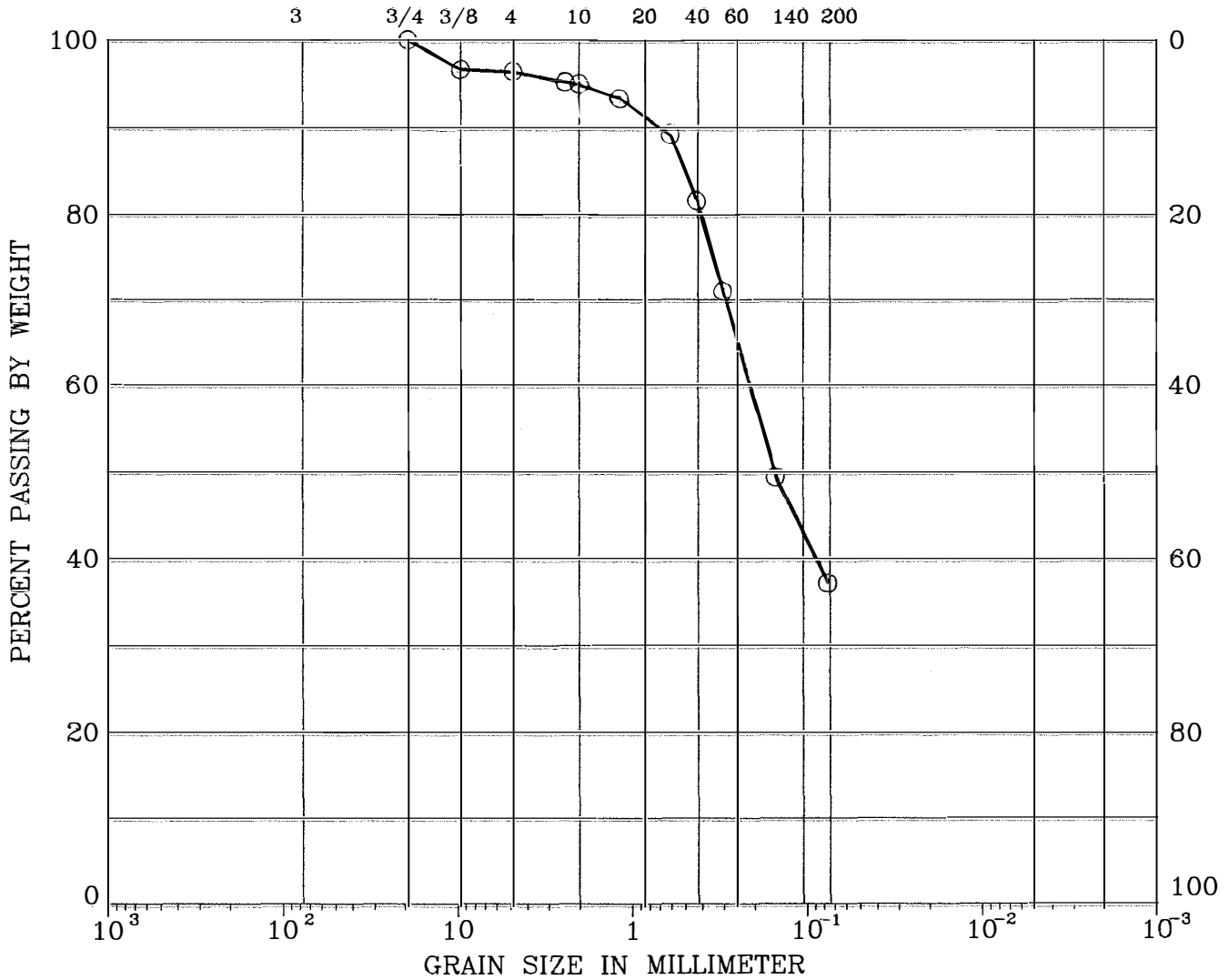
- Determination of in-place dry density and moisture content (ASTM D2937) based on relatively undisturbed drive samples. The final test results are presented on the boring logs;
- Sieve analyses (ASTM D422), and the final test results are plotted as gradation curves on Figure C-1; and
- Expansion Index (ASTM D4829), and the test results are presented in Table C-1.

**TABLE C-1
SUMMARY OF EXPANSION INDEX TEST RESULTS**

SAMPLE NO.	EXPANSION INDEX
1-1 @ 1' - 5'	35

UNIFIED SOIL CLASSIFICATION

<i>COBBLES</i>	<i>GRAVEL</i>		<i>SAND</i>			<i>SILT OR CLAY</i>
	COARSE	FINE	COARSE	MEDIUM	FINE	
U.S. SIEVE SIZE IN INCHES			U.S. STANDARD SIEVE No.			HYDROMETER



SYMBOL	BORING	DEPTH (ft)	LL (%)	PI (%)	DESCRIPTION
○	1-1	1-5			SILTY SAND (SM)

Remark :

Project No. 34E3	CONCEPTUAL DESIGN - PEARLMAN/CARMEL KNOLLS
ALLIED GEOTECHNICAL ENGINEERS, INC.	GRAIN SIZE DISTRIBUTION Figure C-1



May 5, 2016

Mr. Brendan Hastie, P.E.
Water Resources Engineer
Rick Engineering Company
5620 Friars Road
San Diego, CA 92110

**Subject: UPDATE LETTER - REVIEW OF 100% SUBMITTAL PLANS
ASHLEY FALLS LARGE SCALE
STORM FLOW STORAGE LID
SAN DIEGO, CALIFORNIA
AGE Project No. 164 GS-14-H (34E3)**

Dear Brendan,

In accordance with your request, we have reviewed the following documents pertaining to the design of the subject project.

- 100% Submittal Plans entitled "Ashley Falls Large Scale Storm Flow Storage LID", undated; and
- "Final Design Report for Ashley Falls Large Scale Storm Flow Storage LID Project", unpublished consulting report prepared by Rick Engineering Company, dated October 30, 2015 (Revised April 27, 2016).

The project site encompasses a vacant parcel located in the community of Carmel Valley in San Diego, California. The parcel is bounded by open space on the north, Pearlman Way on the south, Carmel Knolls Drive on the east, and single family residences on the west. The project study area is located at approximate Latitude 32°57'13.1"N and Longitude 117°12'23"W. The surrounding areas are mostly developed with single family residences.

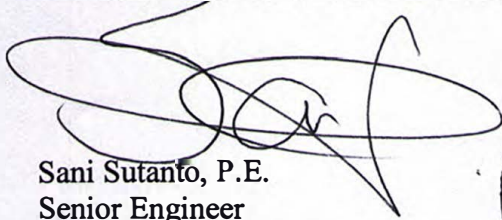
Allied Geotechnical Engineers, Inc. had previously performed a subsurface geotechnical exploration and percolation testing at the project site. The results of the subsurface exploration and percolation testing were presented in a written report dated June 14, 2011.

Based on a review of the aforementioned documents, it is our understanding that the scope of the proposed project includes the design and construction a stormwater basin at the project site to collect stormwater run off from the surrounding area. The stormwater basin will have bioretention soil mix layer, gravel layer, subdrain and an outlet structure for overflow. The basin is intended to reduce the pollutant loads that are currently conveyed to the downstream channels and receiving water bodies. We further understand, that the basin is designed based on infiltration rate of 0.6 inch per hour for a drawdown of 30 hours using 18 inches of dead storage.

Based on the results of the percolation testing and the subsurface conditions observed in the borings (AGE, 2011), we do not have any objections to proposed basin design and assumed design infiltration rate. We appreciate the opportunity to be of service on this important project. If you have any questions regarding the contents of this update letter or need further assistance, please feel free to give us a call.

Sincerely,

ALLIED GEOTECHNICAL ENGINEERS, INC.



Sani Sutanto, P.E.
Senior Engineer



SS/TJL:sem
Distr. (1 electronic copy) Addressee



Update Letter
AGE Project No. 164 GS-14-H (34E3)
May 5, 2016

Page 2 of 2



March 2, 2017

Mr. Brendan Hastie, P.E.
Water Resources Engineer
Rick Engineering Company
5620 Friars Road
San Diego, CA 92110

**Subject: RESPONSE TO CITY OF SAN DIEGO PLANNING DEPARTMENT
REVIEW COMMENTS PERTAINING TO
ASHLEY FALLS LARGE SCALE
STORM FLOW STORAGE LID
SAN DIEGO, CALIFORNIA
AGE Project No. 164 GS-14-H (34E3)**

Dear Brendan,

This letter provides Allied Geotechnical Engineers, Inc. (AGE) response to the City of San Diego Development Services Department's review comments which you forwarded to us in your e-mail dated February 11, 2017. The general and specific comments that we received and our response are presented below.

Development Services Department Comment #3

The project's geotechnical consultant must submit an addendum geotechnical report or update letter that specifically addresses the current site conditions, referenced development plans.

AGE Response to Comment #3

In accordance with your request, we have reviewed the "Plans for the Construction of Ashley Falls Large Scale Storm Flow Storage LID Project", prepared by Rick Engineering Company, undated. AGE had previously performed a subsurface geotechnical exploration and percolation testing at the project site. The results of the subsurface exploration and percolation testing were presented in a written report dated June 14, 2011. Based on the results of the percolation testing and the subsurface conditions observed in the borings, it is our opinion that the subject project may be constructed as proposed in the aforementioned plans.

Development Services Department Comment #4

Provide a geologic/geotechnical map that shows the proposed grading, the distribution of fill, geologic units, and geologic structures. Circumscribe the limits of anticipated remedial grading on the geologic/geotechnical map to delineate the proposed footprint of the project.

AGE Response to Comment #4

A generalized geologic map is shown on Figure 1. No remedial grading is anticipated for the proposed project.

Development Services Department Comment #5

Provide representative geologic/geotechnical cross sections that show the existing and proposed grades, distribution of fill and geologic units, and the anticipated area of the proposed bioretention basin. The cross-sections should extend beyond the property lines and show the relation to adjacent properties and right of way.

AGE Response to Comment #5

The location of the cross sections A-A' and B-B' are shown on Figure 1. The generalized geologic cross-sections are shown on Figures 2 and 3.

Development Services Department Comment #6

Address the potential impact of stormwater infiltration on slope stability, fill settlement, piping of soil, and premature failure of pavement. The geotechnical consultant must comment whether or not the proposed on-site storm water disposal/ infiltration systems will have adverse impacts on adjacent properties.

AGE Response to Comment #6

Groundwater was not encountered in any of the borings at the time of our field exploration (AGE, 2011). A review of the Geotracker Database did not reveal the presence of any monitoring and/or water supply wells within a one mile radius of the project site. The nearest major tributary drainage to the project site is the San Dieguito River which is located approximately 2 miles to the north. Based on the elevation difference between the project site and the San Dieguito River, the depth to the groundwater table at the project site is estimated to be in excess of 50 feet.

Infiltrated water is anticipated to flow in a southerly direction along an unnamed canyon toward Carmel Valley Creek which is located approximately 0.5 miles south of the project site. The project site is underlain by Friars Formation which is not prone to collapse and/or consolidation when wet. Therefore, the potential for fill settlement and piping is considered remote. The project site elevation is lower than the adjacent Carmel Knolls Drive and Pearlman way. Therefore, the infiltrated water is not anticipated to cause premature failure of the roadway pavement, and/or have adverse impacts on adjacent properties.

The project site lies within the Hodges Hydrologic Area of the San Dieguito Hydrologic Unit as designated by the California Regional Water Quality Control Board (CRWQCB), San Diego Region 9. Groundwater in this area has beneficial use for municipal, agricultural and industrial supply. The San Dieguito River watershed is a drainage area of approximately 346 square miles in west-central San Diego County. The watershed includes portions of the cities of Del Mar, Escondido, Poway, San Diego, and Solana Beach, and unincorporated San Diego County. In terms of land area, the majority of the watershed (79.8%) is within the unincorporated jurisdiction. The San Dieguito River watershed is presently divided into vacant/undeveloped (54%), parks/open space (29%), and urban (18%) land uses. Nearly half of the vacant land area is open to future development, most of which is zoned for residential usage.

The watershed extends through a diverse array of habitats from its eastern headwaters in the Volcan Mountains to the outlet at the San Dieguito Lagoon and the Pacific Ocean. There are several important natural areas within the watershed that sustain a number of threatened and endangered species. Among these are the 55-mile long, 80,000 acre San Dieguito River Park, the 150 acre San Dieguito Lagoon, and five water storage reservoirs including Lake Hodges, Lake Sutherland, and Lake Poway.

The Pacific Ocean at the mouth of the San Dieguito River is listed as an impaired water body for elevated coliform bacteria. In the absence of a comprehensive watershed planning effort, large-scale future development may exacerbate current water quality problems and create additional beneficial use impairments. The San Dieguito Lagoon is especially sensitive to the effects of pollutants and oxygen depletion due to restricted or intermittent tidal flushing.

The proposed storm water infiltration is not anticipated to adversely impact the groundwater quality. Vertical distance to the regional groundwater table is anticipated to be greater than 10 feet.

Development Services Department Comment #7

Provide a conclusion regarding if the proposed development will destabilize or result in settlement of adjacent property or the right of way.

AGE Response to Comment #7

Based on the subsurface conditions encountered in the borings (AGE, 2011) and the project site elevations, the proposed project development is not anticipated to have detrimental effects on the adjacent roadways, properties, and cut slope.

We appreciate the opportunity to be of service on this important project. If you have any questions regarding the contents of this update letter or need further assistance, please feel free to give us a call.

Sincerely,

ALLIED GEOTECHNICAL ENGINEERS, INC.

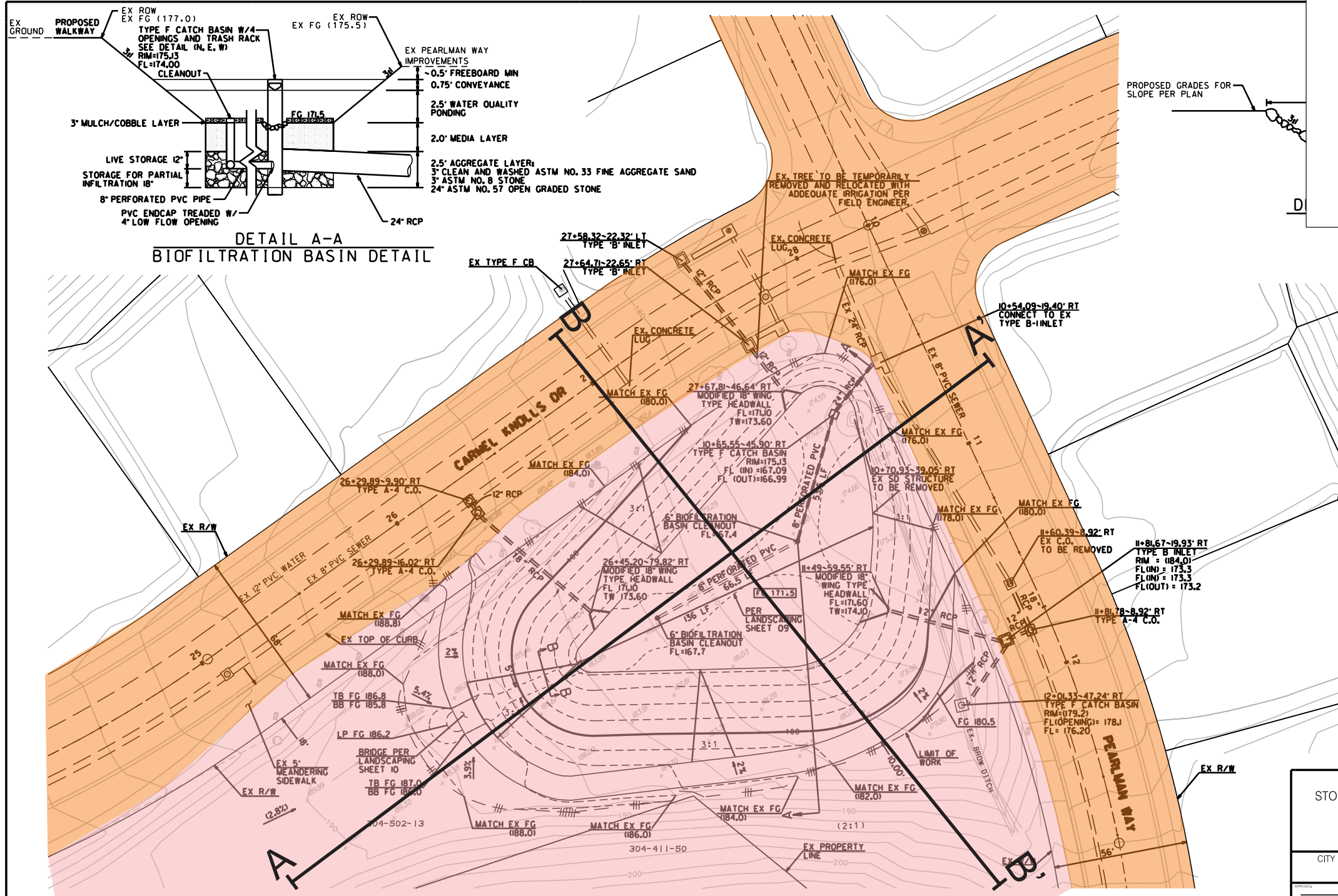

Sani Sutanto, P.E.
Senior Engineer



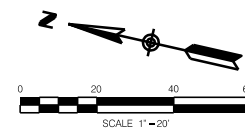
SS/TJL:sem
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LEGEND

- Friars Formation
- Existing roadway fill. Fill conditions unknown.
- Cross Section



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NOTE:
IN ORDER TO MAINTAIN MINIMUM
COMPACTION OF EXISTING SUBGRADE,
NO HEAVY EQUIPMENT SHALL BE
OPERATED ALONG THE BOTTOM OF
THE BIOFILTRATION BASIN

ASHLEY FALLS LARGE SCALE STORM FLOW STORAGE LID PROJECT	
GRADING PLAN	
CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 03 OF 07 SHEETS	
PROJECT NO.	985 B-14007
FOR CITY ENGINEER	DATE
PROJECT MANAGER	COSELYN GOODRICH
PROJECT ENGINEER	GIO MECO-SANAGUN
PROJECT NO.	286-1707
PROJECT ENGINEER	1926-6267
CONTRACTOR	39210-03-D
DATE STARTED	DATE COMPLETED

100% SUBMITTAL CARMEL KNOLLS DRIVE

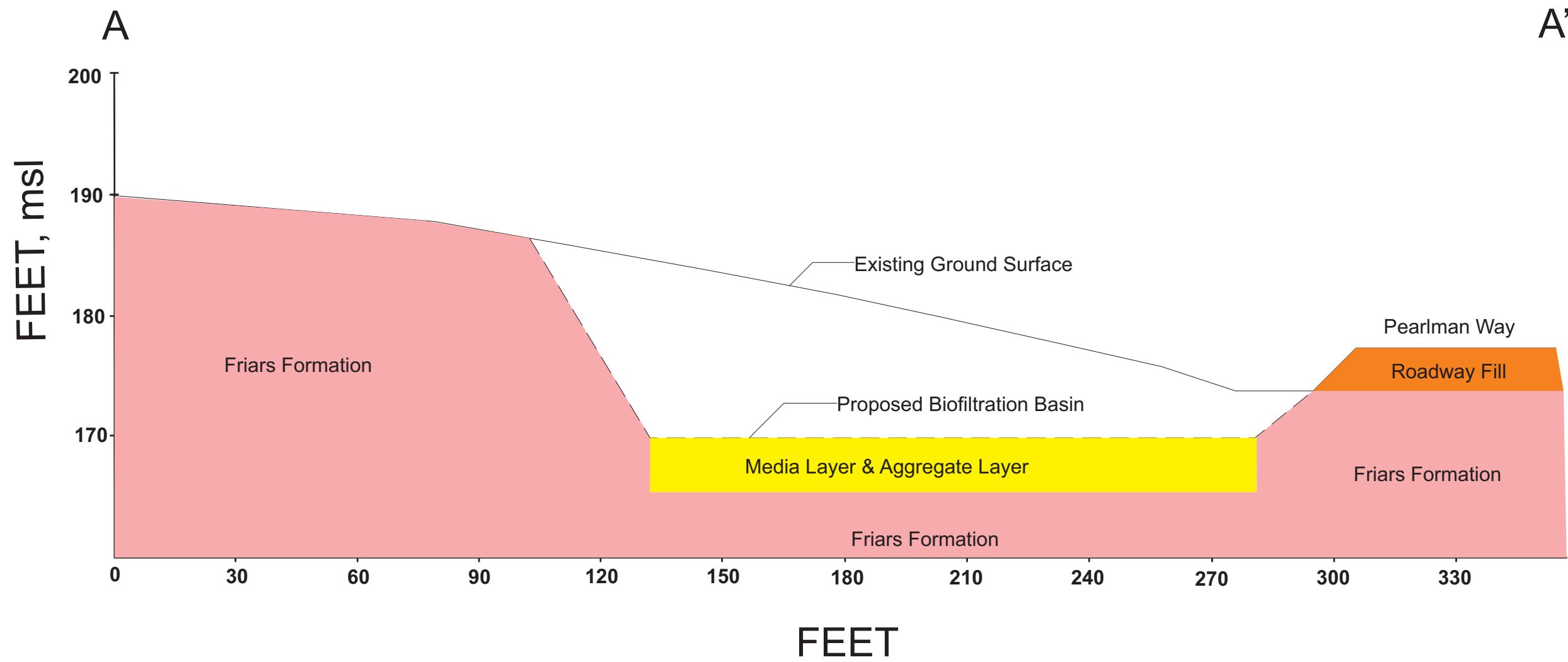
ASHLEY FALLS LARGE SCALE STORM FLOW STORAGE LID

GENERALIZED GEOLOGIC MAP

PROJECT NO.
164 GS-14-H (34E3)

ALLIED GEOTECHNICAL ENGINEERS, INC.

FIGURE 1



Horizontal Scale: 1" = 30'
 Vertical Scale: 1" = 10'

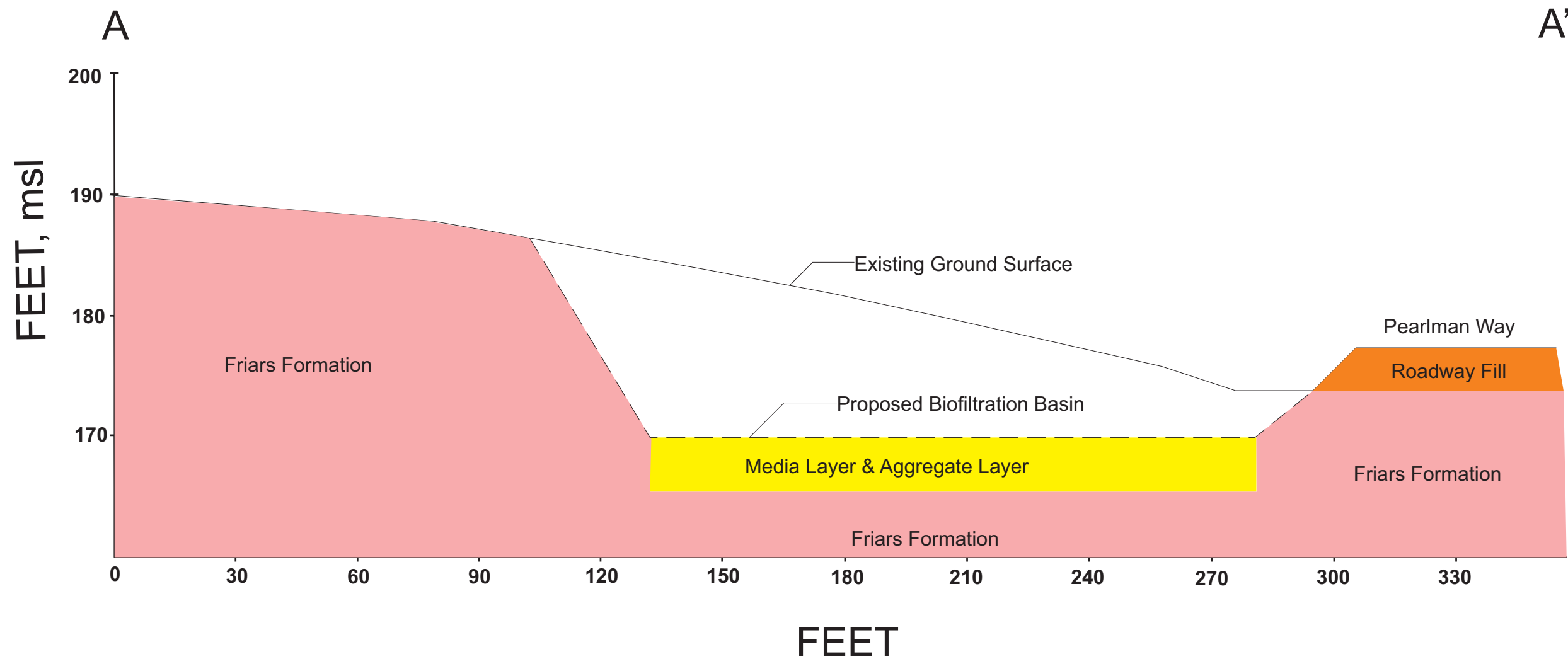
ASHLEY FALLS LARGE SCALE STORM FLOW STORAGE LID

CROSS SECTION A-A'

PROJECT NO.
164 GS-14-H (34E3)

ALLIED GEOTECHNICAL ENGINEERS, INC.

FIGURE 2



Horizontal Scale: 1" = 30'
 Vertical Scale: 1" = 10'

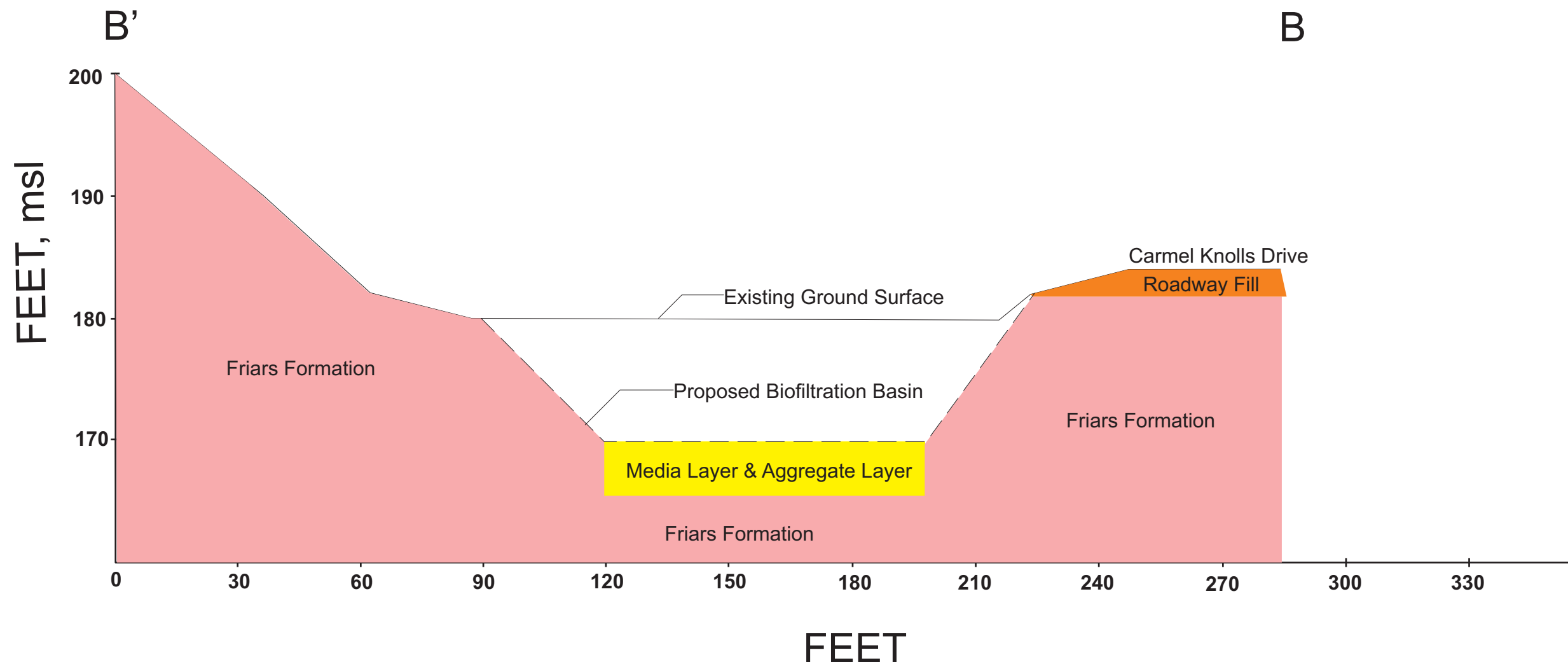
ASHLEY FALLS LARGE SCALE STORM FLOW STORAGE LID

CROSS SECTION A-A'

PROJECT NO.
164 GS-14-H (34E3)

ALLIED GEOTECHNICAL ENGINEERS, INC.

FIGURE 2



Horizontal Scale: 1" = 30'
 Vertical Scale: 1" = 10'

ASHLEY FALLS LARGE SCALE STORM FLOW STORAGE LID

CROSS SECTION B-B'

PROJECT NO.
164 GS-14-H (34E3)

ALLIED GEOTECHNICAL ENGINEERS, INC.

FIGURE 3

**FINAL DESIGN REPORT
FOR
ASHLEY FALLS LARGE SCALE STORM
FLOW STORAGE LID PROJECT**

(Final Design Submittal)

Job Number 17208-C

October 30, 2015

Revised: January 31, 2017

Revised: June 27, 2017

Revised: May 31, 2018

Revised: July 13, 2018

Revised: October 4, 2018

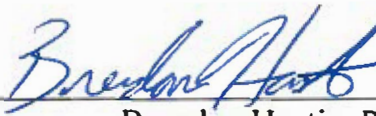

RICK
RICK ENGINEERING COMPANY
ENGINEERING COMPANY
RICK ENGINEERING CO



**FINAL DESIGN REPORT
FOR
ASHLEY FALLS LARGE SCALE STORM
FLOW STORAGE LID PROJECT**

(Final Design Submittal)

Job Number 17208-C



**Brendan Hastie, P.E.
R.C.E. #65809
Exp. 09/19**

Prepared For:

**City of San Diego
525 B Street, Suite 750, MS#908A
San Diego, California 92101**

Prepared By:

**Rick Engineering Company
Water Resources Department
5620 Friars Road
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October 30, 2015

Revised: January 31, 2017

Revised: June 27, 2017

Revised: May 31, 2018

Revised: July 13, 2018

Revised: October 4, 2018

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Appendices

Appendix A: Storm Water Requirements Applicability Checklist

Appendix B: Water Quality Treatment Calculations and BMP Details

Appendix C: Inlet Sizing Calculations and Open Channel Sizing

Appendix D: Modified Rational Method Analyses (100-year, 6-hour) [Pre-project and Ultimate Condition]

Appendix E: AES Pipe Flow Hydraulic Analyses (Low Flow Analysis for Water Quality Storm Event, Ultimate Condition 100-year Analysis, Outflow Pipe Analysis)

Appendix F: Water Quality Equivalency Analysis for Earned Credits with the City of San Diego Alternative Compliance Program

Map Pockets

Map Pocket 1: Drainage Management Area Map for Ashley Falls Large Scale Storm Flow Storage LID Project

Map Pocket 2: Drainage Map for Ashley Falls Large Scale Storm Flow Storage LID Project [Pre-project]

Map Pocket 3: Drainage Map for Ashley Falls Large Scale Storm Flow Storage LID Project [Ultimate Condition]

1.0 INTRODUCTION

1.1 Project Description

This final design report summarizes storm water protection, hydrologic, and hydraulic analyses for the proposed Ashley Falls Large Scale Storm Flow Storage LID Project (herein referred to as the “project”). The project is located within the City of San Diego, south of Ashley Falls Drive, north of Pearlman Way, and west of Carmel Knolls Drive. See Figure 1, Vicinity Map, located at the end of Section 1.0. The existing land use for the project is an open space with an approximate area of 6.9-acres.

This project includes construction of an LID water quality basin to be located in the open space parcel that will collect water quality low-flows from approximately 92.6-acres of existing development area to provide water quality treatment for water quality storm events (i.e. – 85th Percentile Storm Events). This project includes the construction of associated cleanouts, inlets, and pipes.

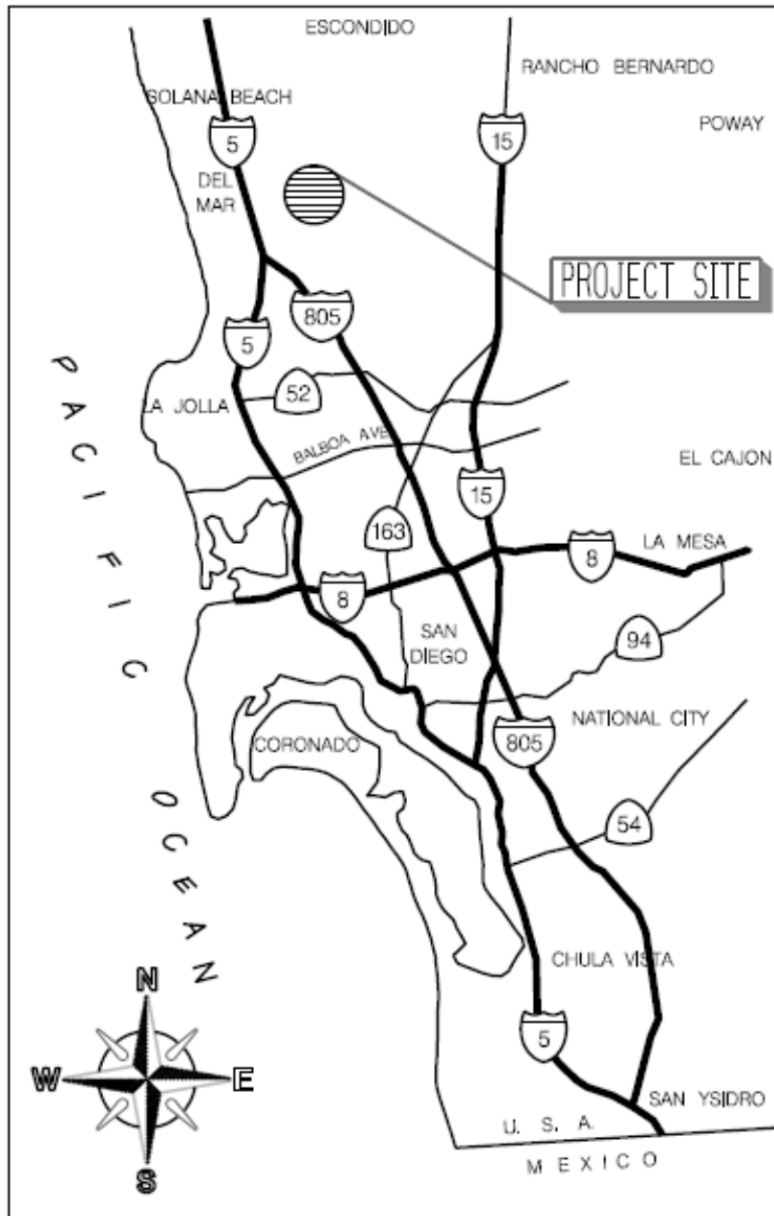
1.2 Regulatory Framework

The project is not categorized as a “Priority Development Project” according to the 2016 Storm Water Standards Manual. Its sole purpose is to be an LID Retrofit for runoff from existing development areas. There are no proposed impervious surfaces and the only removal and replacement of impervious area is associated with the trenching and resurfacing necessary to install the low flow storm drains to direct runoff into the proposed facility. Therefore, a Priority Development Project Storm Water Quality Management Plan (PDP SWQMP, formerly known as a Water Quality Technical Report, WQTR) is not required and additional water quality treatment or Hydromodification Management is not applicable. Refer to the Storm Water Requirements Applicability Checklist in Appendix A.

The water quality basin will have a bioretention soil mix layer, gravel layer, subdrain and an outlet structure sized for overflow (i.e. – for runoff greater than the water quality volume provided within the basin, up to and including a 100-year storm event). The proposed project should significantly reduce the pollutant loads that are currently being conveyed to the downstream channels and water bodies. The project will follow the guidelines and requirements set forth in the City of San Diego’s 2016 “Storm Water Standards,” (herein “2016 Storm Water Standards”).

Based on discussions with the City of San Diego and the project biologist, it is our understanding that the project will not have any direct or indirect impacts on any federal, state, or City jurisdictional waters or wetlands; therefore, a 401 or 404 Permit is not required for this project.

Figure 1: Vicinity Map



VICINITY MAP
NOT TO SCALE

2.0 IDENTIFICATION OF POLLUTANTS OF CONCERN

Even though this project is a “Standard Development Project,” and not considered a Priority Development Project (PDP), based on the 2016 Storm Water Standards, identification of the pollutants of concern is provided in order to show the benefits of this regional water quality basin.

2.1 Identification of Anticipated Project Pollutants

Table 4-1 of the 2016 Storm Water Standards, “Anticipated and Potential Pollutants Generated by Land Use Type,” identifies general pollutant categories that are either anticipated or potential pollutants for general project categories. The following general project categories listed in Table 4-1 apply to the project: “Detached Residential Housing Development”, “Commercial Development”, and “Parking Lots”. Table 4-1 of the 2016 Storm Water Standards is renamed as Table 2.1 and reproduced on the following page, with the project categories applicable to the project highlighted.

Table 2.1: Anticipated and Potential Pollutants Generated by Land Use Type

General Project Categories	General Pollutant Categories								
	Sediments	Nutrients	Heavy Metals	Organic Compounds	Trash & Debris	Oxygen Demanding Substances	Oil & Grease	Bacteria & Viruses	Pesticides
Detached Residential Housing Development	X	X			X	X	X	X	X
Attached Residential Development	X	X			X	P ⁽¹⁾	P ⁽²⁾	P ⁽¹⁾	X
Commercial Development	P ⁽¹⁾	P ⁽¹⁾		P ⁽²⁾	X	P ⁽⁵⁾	X	P ⁽³⁾	P ⁽⁵⁾
Industrial Development	X		X	X	X	X	X		
Automotive Repair Shops			X	X ⁽⁴⁾⁽⁵⁾	X		X		
Restaurants					X	X	X	X	P(1)
Steep Hillside Developments	X	X			X	X	X		X
Parking Lots	P ⁽¹⁾	P ⁽¹⁾	X		X	P ⁽¹⁾	X		P ⁽¹⁾
Streets, Highways & Freeways	X	P ⁽¹⁾	X	X ⁽⁴⁾	X	P ⁽⁵⁾	X	X	P ⁽¹⁾
Retail Gasoline Outlets (RGO)			X	X	X	X	X		

X = anticipated
P = potential
(1) A potential pollutant if landscaping exists on-site.
(2) A potential pollutant if the project includes uncovered parking areas.
(3) A potential pollutant if land use involves food or animal waste products.
(4) Including petroleum hydrocarbons.
(5) Including solvents.

Based on the highlighted rows, the tributary area can be expected to generate: sediment, nutrients, heavy metals, trash and debris, oxygen demanding substances, oil and grease, bacteria & virus, and pesticides.

2.2 Identification of Pollutants of Concern for the Receiving Water

Based on Section 4.1.5 and 4.1.6 of the 2016 Storm Water Standards, to identify pollutants of concern in receiving waters, the following analysis shall be conducted and reported: (1) for each of the proposed project discharge points, identify the receiving water(s), including hydrologic unit basin number(s), as identified in the most recent version of the “Water Quality Control Plan for the San Diego Basin,” prepared by the SDRWQCB; (2) identify any receiving waters included in the 2010 CWA Section 303(d) List of Water Quality Limited Segments, approved by the State Water Resources Control Board on November 12, 2010. List all pollutants for which the receiving waters are impaired; and (3) identify any receiving waters for which Total Maximum Daily Loads (TMDL) have been developed. List all pollutants for which the TMDL was developed.

2.2.1 Identification of Receiving Waters

According to the “Water Quality Control Plan for the San Diego Basin (9),” adopted by the California Regional Water Quality Control Board San Diego Region on September 8, 1994 approved by the SWRCB on December 13, 1994 (Basin Plan), the proposed project is located in the following hydrologic basin planning area:

Hydrologic Unit – Los Peñasquitos (906)

Hydrologic Area – Miramar Reservoir (.1)

Hydrologic Subarea – not applicable

The corresponding number designation is 906.10 (Region '9', Hydrologic Unit '06', Hydrologic Area '1', Hydrologic Subarea 'not applicable'). The project discharges to Carmel Valley Creek, which is tributary to Los Penasquitos Creek and Los Penasquitos Lagoon, which is ultimately tributary to the Pacific Ocean.

2.2.2 Identification of Receiving Water Impairments

Runoff from the project will discharge into Carmel Valley Creek. However, Carmel Valley Creek is not currently listed as impaired based on the 2010 303(d) List. Carmel Valley Creek will discharge into Los Penasquitos Creek. Los Penasquitos Creek from Hydrologic Unit 906.10 is listed on CWA 303(d) list as impaired for: Toxicity (organic compounds), total coliform (pathogens), copper (metals/metaloids), salinity, and nutrients.

2.2.3 Pollutants of Concern for the Project

Based on the Anticipated Project Pollutants and those of the Receiving Waters, the most significant pollutants of concern for the project are those that both are anticipated, and are a concern for the receiving water (as described by Section 4.4.1 of the 2016 Storm Water Standards). Based on Table 2.1 and the 2010 CWA Section 303(d) List of Water Quality Limited Segments, the following are the project's pollutants of concern: heavy metals, nutrients, and bacteria & viruses. This information will be utilized in the selection procedure for Treatment BMPs, described in the following section.

3.0 PERMANENT STORM WATER BEST MANAGEMENT PRACTICES (BMPS)

Sections 3.1 will discuss the storm water LID water quality basin proposed for the project.

3.1 Treatment Control BMP

The proposed treatment control BMP is designed to infiltrate, filter, and/or treat runoff from the tributary area. As discussed in Section 2.0, the most significant pollutants of concern for the project are those that both are anticipated, and are a concern for the receiving water (as described by Section 4.4.1 of the 2016 Storm Water Standards). They are heavy metals, nutrients, and bacteria & viruses. The 2016 Storm Water Standards states that the minimum performance for the most significant pollutants of concern is “medium removal efficiency.” It was determined that the most practicable and effective treatment BMP will be:

- One (1) Bioretention Basin (w/ Partial Infiltration)

The bioretention basin was selected primarily based on the following considerations:

- The bioretention basin will be located in Type B soils; therefore, infiltration is feasible. A subdrain will be included to provide conveyance for runoff that is not infiltrated and to allow for the basin to treat and release runoff throughout a storm event which provides a greater volume of water being treated by the basin.
- A bioretention basin will treat for sediments, trash & debris, heavy metals, bacteria & viruses, oil & grease, and organics at a high level of removal efficiency and treat for nutrients at a medium level of efficiency. Since a dead storage layer is being provided to promote “partial infiltration” (i.e. – below the perforated subdrain), nutrients associated with smaller storm events would still be treated at a high level of removal efficiency as well.
- A bioretention basin provides a higher level of treatment for several pollutants of concern in comparison to alternative treatment control BMPs.

3.1.1 Numeric Sizing Requirements for Treatment Control BMPs

For volume-based Bioretention Basin and Permeable Paver design:

- Rational method equation: $V = R_F P A$
- 'V' is the treatment volume in acre-feet (ac-ft),
- 'R_F' is the weighted runoff factor for the drainage area,
- 'P' is the 85th percentile precipitation in inches (in) [85th percentile storm event per volume based numeric sizing criteria], converted to feet (ft) and
- 'A' is the drainage area in acres (ac).

3.1.2 Drawdown Time Requirements

The County of Department of Environmental Health enforces the 96-hour drawdown time requirement to prevent from potential vector issues as well potential safety issues resulting from long-term standing water. It also goes on to state that the County of San Diego's Department of Environmental Health has stated that the drawdown requirement would be applied to surface ponding areas of LID facilities.

The drawdown time for the bioretention basin is located in the Water Quality Sizing Calculations in Appendix B. The drawdown calculation is provided to show that the ponding (standing) water within the above-ground portion of the bioretention basin will drain down to the bioretention amended soil layer within the 96 hours. The Transportation and Storm Water Department will be responsible for monitoring and maintaining the bioretention basin to meet the 96-hour drawdown time requirement. The surrounding development may at times produce dry weather flow; however, this dry weather flow is not expected to saturate the aggregate and amended soil layer such that there is surface ponding, or appreciable ponding above the subdrain flowline.

3.1.3 Results for Treatment Control BMPs

One (1) bioretention basin will be provided to meet the water quality requirements only for the project. The water quality treatment calculations are included in Appendix B of this report. A typical detail of the selected Treatment Control BMP is also included in Appendix B. In order to maximize the pollutant removal capabilities and water quality volume “provided”, the basin allows for up to 30-inches of surface ponding depth.

The storage volume has been maximized to include the voids within the subgrade (i.e. – 40% for the gravel layer, 20% for the media layer, and 10% for media retention) as well as the surface ponding volume; however, the total volume provided still falls short of the 85th percentile storm event for the entire 92.6 acre drainage area that will ultimately have low flows conveyed into the basin. Despite this, there is still a significant water quality benefit to direct as much of the existing development area into the basin for partial water quality treatment, rather than allowing untreated runoff from the additional areas to bypass all together. The size, depth, and volume of the basin has been maximized based on the horizontal and vertical constraints along the perimeter of the basin and due to the existing storm drain flow lines which control the inflow and outflow elevations for the basin and it’s perforated subdrain.

The location of the bioretention basin is shown on the exhibit titled “Drainage Management Area Map for Ashley Falls Large Scale Storm Flow Storage LID Project” located in Map Pocket 1.

4.0 HYDROLOGY & HYDRAULICS

4.1 Hydrology

A hydrologic condition for the portion of the project area tributary to the proposed water quality basin has been analyzed for pre-project condition and ultimate condition.

4.1.1 Methodology

The 100-year, 6-hour pre-project and ultimate condition flow rates have been computed using the Modified Rational Method. The hydrologic methodology utilized for the project has been taken from the City of San Diego Drainage Design Manual, dated April 1984. The Rational Method computer program developed by Advanced Engineering Software (AES 2003) was used for this study because it satisfies the City of San Diego's design criteria.

4.1.2 AES Rational Method Computer Model

The AES hydrologic model is developed by creating independent node-link models of each interior drainage basin and linking these sub-models together at confluence points. The AES program has the capability to perform calculations for 15 hydrologic processes. These processes are assigned code numbers that appear in the results. The code numbers and their significance are as follows:

Subarea Hydrologic Processes (Codes)

- Code 1: Confluence analysis at node
- Code 2: Initial subarea analysis
- Code 3: Pipe flow travel time (computer-estimate pipe sizes)
- Code 4: Pipe flow travel time (user-specified pipe size)
- Code 5: Trapezoidal channel travel time

- Code 6: Street flow analysis through a subarea
- Code 7: User-specified information at a node
- Code 8: Addition of the subarea runoff to mainline
- Code 9: V-Gutter flow through subarea
- Code 10: Copy mainstream data onto memory bank
- Code 11: Confluence a memory bank with the mainstream memory
- Code 12: Clear a memory bank
- Code 13: Clear the mainstream memory
- Code 14: Copy a memory bank onto the mainstream memory
- Code 15: Hydrologic data bank storage functions

In order to perform the hydrologic analysis; base information for the study area is required. This information includes the existing drainage facility locations and sizes, existing land uses, flow patterns, drainage basin boundaries, and topographic elevations. Drainage basin boundaries, flow patterns, and topographic elevations are shown on the drainage exhibits located in the map pockets.

4.1.3 Criteria

The hydrologic conditions were analyzed in accordance with the City of San Diego's design criteria as follows:

Design Storm:	Varies
Runoff Coefficients:	
Industrial (Paved)	C = 0.95
Natural/ Landscaped	C = 0.45
Rainfall Intensity:	Based on time-intensity criteria per City of San Diego

4.1.4 Hydrologic Results

For the purpose of this report, the hydrology for the pre-project and the ultimate condition was determined. The overall tributary acreage tributary to the basin in the pre-project condition is 6.9-acres from the existing open space area. For the post-project or ultimate condition, the tributary area includes the 6.9-acres from the pre-project condition in combination with low-flows being directed from the existing storm drain system for approximately 85.7 acres of additional area. Refer to the pre-project and ultimate condition maps located in Map Pockets 2 and 3 for reference, however, the exhibit provided in Map Pocket 1 provides a color depiction of the Drainage Management Areas tributary to the basin.

The results are shown below in Table 4.1-1. Calculations are provided in Appendix D of this report.

Table 4.1-1: Summary of Hydrologic Results

	Area (acres)	100-year Storm Event	
		Time of Concentration, T _c (minutes)	Peak Flow Rate, Q ₁₀₀ (cfs)
Pre-Project	6.9	14	9.4
Ultimate Condition	6.9 + (low-flow from 85.7-acres)	14	37.4

Although an increase in the amount of runoff entering the open space area where the BMP is located occurs, the total runoff being conveyed in the existing storm drain system downstream of the intersection will remain the same from pre-project to post-project / ultimate conditions. As a result, there are no adverse impacts anticipated for downstream drainage facilities.

4.2 Hydraulics

4.2.1 Pipe Flow Design

The AES Pipe Flow Hydraulics computer program was used to calculate the hydraulic and energy grade lines for the proposed storm drain systems. The program performs gradually varied flow and pressure flow profile computations. The results are provided in an incremental and summarized form, and indicate reaches of open channel and pressure flow within a given reach of pipe. The program also accounts for losses that may occur due to friction, junction structures, pipe bends, etc. The codes and an explanation of their function are as follows:

Pipe Flow Hydraulic Processes (Codes)

Code 1:	Friction Losses
Code 2:	Manhole Losses
Code 3:	Pipe-bend Losses
Code 4:	Sudden Pipe-enlargement
Code 5:	Junction Losses
Code 6:	Angle-point Losses
Code 7:	Sudden Pipe-reduction
Code 8:	Catch Basin Entrance Losses
Code 9:	Transition Losses

The storm drain system will be constructed of Reinforced Concrete (RCP) or equivalent. The Manning's roughness coefficient “n” used for the hydraulic calculations for RCP is 0.013.

Pipe Flow Results

The AES Pipe Flow computer outputs for the ultimate condition are provided in Appendix E of this report. Node numbering used in the AES Pipe Flow computer analyses corresponds to the rational method node numbering used on the drainage study map, located in Map Pocket 3. The AES pipe flow program was used to determine the maximum flow rates conveyed in the proposed low-flow pipes draining into the water quality basin. During the ultimate condition one (1) 18-inch RCP lateral will convey low-flows from the 36-inch mainline system in Carmel Knolls Drive and one (1) 12-inch RCP will convey low-flows from the system in Pearlman Way. Low-flows will be conveyed by dropping the low-flow pipe flowline in the cleanout structure 1.5-feet below the mainline flowline in Carmel Knolls Drive and 1.0-foot below the mainline flowline in Pearlman Way. The mainline flowlines will remain the same. The low-flow value was achieved by running the pipe flow program and confirming the HGL is equal to or less than the mainline flowline for the water quality treatment flowrate. The 100-year flow was determined by running the pipe flow program and confirming the HGL is equal to the top of the mainline pipe. A summary table is provided below to outline the low-flows and HGL's at key points along the proposed pipe systems and it represents the ultimate conditions.

Table 4.2-1: Summary of Hydraulic Results (Ultimate Conditions)

Node #’s	Q_{LOW-FLOW} (cfs)	Q₁₀₀ (cfs)	HGL for Q_{LOW-FLOW} (ft)	HGL for Q₁₀₀ (ft)
430-431	9.1	21.0	175.1	178.0
305-310	2.8	6.0	174.0	175.5
435-436	n/a	37.4	n/a	171.7

4.2.2 Inlet Design

Inlet design calculations were completed using a spreadsheet based on the following equations for grated inlets in a sump.

Grate Inlet and Type F Inlet in a Sump

Type B inlet and Type F inlet calculations were performed based on the following Weir and Orifice equations for each sump inlet:

Weir Equation:
$$Q = CLH^{3/2}$$

Where: C = 3.0, weir coefficient

L = effective length (ft)

H = distance from grate to ponded WSEL, in feet (ft)

Q = inlet capacity, in cubic feet per second (cfs)

Orifice Equation:
$$Q = C A (2 * g * h)^{1/2}$$

Where: C = 0.6, orifice coefficient

A = effective orifice area, in square feet (ft²)

g = gravitational constant, in square feet per second (ft²/s)

h = distance from grate to ponded WSEL, in feet (ft)

Q = inlet capacity, in cubic feet per second (cfs)

Type B Inlets on a Grade

$$Q = 0.7 L (a + y)^{3/2}$$

Where: y = depth of flow approaching the curb inlet, in feet (ft)

a = depth of depression of curb at inlet, in feet (ft)

L = length of clear opening of inlet for total interception, in feet (ft)

Q = interception capacity of the curb inlet, in cubic feet per second (cfs)

Inlet Results

The inlet design calculations along with back-up information are provided in Appendix C. Inlets associated with collection of low flows only were sized for the water quality storm event only (i.e. – allowing larger storm events to bypass), with the exception of the overflow inlet within the basin which is sized for the 100-year storm event. The Type F inlet, with four (4) openings, located in the water quality basin, provides conveyance for overflow into the downstream system where the same drainage is conveyed in pre-project conditions.

4.2.3 Open Channel Design

The proposed cobble-lined channel that will convey flow from the north and into the basin was designed using Manning's equation. The anticipated runoff was determined by the Rational Method.

Channel Results

The channel depth provided is 0.50-feet and the normal depth required is 0.35-feet. The results of the cobble-lined channel calculations are provided in Appendix C of this report.

5.0 WATER QUALITY EQUIVALENCY

This project is a voluntary project where the City of San Diego intends to reserve the earned credit for pollutant control and hydromodification management flow control for the alternative compliance record. The date of construction for this project will commence after 2015, therefore, it is eligible for earned credits under the City's alternative compliance program (which is in its initial stages of development).

The water quality equivalency (WQE) has been determined using the WQE Automated Worksheets (v1.0); however, a more detailed analysis may still be performed using continuous simulation to help demonstrate that it's benefits are in fact larger and warrant further credit (pursuant to City and RWQCB approval). Based on recent information presented in the City of San Diego's Technical Advisory Committee (TAC) meeting, specific to this project, it's understood that the current credits for WQE for this particular project design are very conservative and significantly underestimate its effectiveness. Continuous simulation modeling, such as EPA SWMM, can be performed to help quantify the average annual (long term) runoff volume that will be 'retained' (through infiltration and evapotranspiration), as well as how much volume will be 'biofiltered' (through biofiltration soil mix and exiting through the perforated subdrain system). This will help show that the actual amount of stormwater volume treated by the biofiltration basin will be greater than what the static volume calculations indicate (i.e. – since runoff is being treated and released throughout a storm event, allowing it to treat additional inflow). This information can then be used to determine the appropriate amount of 'credit' that could be made available to the City under its Alternative Compliance Program (ACP). These credits will be used retroactively by the City after its program is more established; however, by constructing the project in advance of the demand, there is also a temporal benefit as compared to the allowable four (4) year timeframe for implementation.

In addition to the Earned Credit for Pollutant Control, based on Water Quality volume, WQE calculations could be done to back out a prorated amount of Earned Credit for Hydromodification Management, based on impervious surface area. At the time of final design and modeling, there wasn't any regional guidance on how best to document "partial hydromodification management credit"; however, we understand it may be in the works. Without additional guidance, the project intent is to utilize the post-project continuous simulation model and compared to a pre-development condition to determine how much of the overall impervious area could be considered 'offset' by the flow control benefits already being provided by the basin, and therefore made available as an HMP 'credit'. The results of the more detailed analysis for WQE credits will be incorporated into a revised design report; however, the project design, approval, and construction should not be contingent upon these additional analyses specific to WQE and the City's ACP.

6.0 OPERATION AND MAINTENANCE PLAN (OMP)

6.1 Maintenance Responsibility

The Contractor shall be responsible for the installation and maintenance of the bioretention basin during construction. A contractor provided 25-month establishment period is required per Section IV: Revegetation and Erosion Control Guidelines in the Landscape Standards of the Land Development Code. Once the establishment period is complete and accepted by Park and Recreation Open Space Division, the Park and Recreation Department shall assume responsibility for the Landscape Assets associated with the BMP to provide recreational and/or aesthetic levels of service per the MOU between the City's Transportation and Storm Water Department and the Park and Recreation Department dated 10/3/14 (hereafter referred to as MOU), with the City of San Diego TSW Department O&M Division will be responsible for the remaining components (i.e. – storm drain facilities) in accordance with the MOU.

6.2 Inspection and Maintenance Activities

The landscaped areas for the project require permanent maintenance essential to the drainage and/or treatment design performance of the BMP. A Department Operations and Maintenance Schedule has been provided detailing the responsible department for all maintenance tasks and responsibilities based on the MOU between the City's Transportation and Stormwater Department and Park and Recreation Department. The schedule for inspection and maintenance activities are discussed throughout this section of the design report, and have also been provided in tabular format on the Construction Drawings for ease of reference. This schedule will be utilized upon final acceptance of the project. The discussions below provide inspection criteria, maintenance indicators, and maintenance activities for the project BMPs that require permanent maintenance.

Landscaped Areas

The inspection and maintenance activities described herein for landscaped areas are inclusive of the LID vegetated areas provided for the project.

During inspection, the inspector shall check for the maintenance indicators given below:

- Erosion in the form of rills or gullies
- Ponding water
- Bare areas or less than 70% vegetation cover, except within the basin where lower thresholds have been identified
- Animal burrows, holes, or mounds
- Trash
- Sediment or debris accumulation
- Weed accumulation

Routine maintenance of vegetated areas shall include identification and removal of invasive (non-native) plant species, trimming vegetation, and removal and proper disposal of trash.

If erosion, ponding water, bare areas, poor vegetation establishment, or disturbance by animals are identified during the inspection, additional (non-routine) maintenance will be required to correct the problem.

As applicable, Integrated Pest Management (IPM) procedures must be incorporated in any corrective measures that are implemented in response to damage by pests. This may include using physical barriers to keep pests out of landscaping; physical pest elimination techniques, such as, weeding, squashing, trapping, washing, or pruning out pests; relying on natural enemies to eat pests; or proper use of pesticides as a last line of defense. More information can be obtained at the UC Davis website (<http://www.ipm.ucdavis.edu/WATER/U/index.html>).

Outlet Protection

Routine maintenance of outlet protection shall include removing trash, debris, and leaves. This would specifically include areas of riprap and/or landscape cobble rock for locations of concentrated flows entering landscape or bioretention areas. If soil erosion is found, reposition or increase limits of riprap or landscape rock to fully cover eroded area.

Concrete Stamping

Inspection/maintenance of the concrete stamping shall be performed. During inspection, the inspector(s) shall check for the maintenance indicators given below:

- Faded, vandalized, or otherwise unreadable concrete stamping.

There are no routine maintenance activities for the concrete stamping. If inspection indicates the concrete stamping is intact, no action is required. If inspection indicates the concrete stamping is not legible, the concrete stamping shall be repaired or replaced as applicable.

6.2.1 Inspection and Maintenance Activities for the Treatment Control BMP

Bioretention Basin

During inspection, the inspector shall check for the maintenance indicators given below:

- Accumulation of sediment, litter and/or debris at the inlets/outlets
- Standing water in the storage and draining layer indicating clogging in the underdrains
- Dislodged energy dissipaters or erosion
- Overgrown vegetation, and/or weed accumulation

- Lack of vegetation (i.e. – is vegetation/mulch/cobble rock coverage less than 50% of the basin, and is vegetation still present). Per Sheet L-2 of the construction drawings, the success criteria is 50% for revegetated areas (including basin side slopes), and 45% for the basin bottom (however full coverage should still occur via the combination of mulch/cobble/vegetation)

Routine maintenance of the Bioretention Basins shall include removal and proper disposal of accumulated materials (e.g., sediment, litter), trimming vegetation, and replenishing mulch every one (1) to two (2) years. After installation inspection should occur once a month for 4-6 months. After this time period inspection should occur annually, particularly after there has been heavy rain or storms. If inspection indicates that the underdrains for the Bioretention Basin are clogged, the additional non-routine maintenance will be required to backwash and clear the underdrains.

As stipulated by the MOU, referenced earlier, the Storm Water Department will be responsible for the purchase of all replacement plant material and the replanting of any required revegetation associated with the performance and/or maintenance of the BMP.

6.3 Inspection and Maintenance Frequency

The Table below lists the BMPs to be inspected and maintained and the minimum frequency of inspection and maintenance activities. A set of O&M tables have also been provided on the Construction Drawings identifying the responsible City department (P&R or TSW, as applicable) for Site Design and Source Control BMPs, as well as the Green Infrastructure elements for the Biofiltration Basin.

Table 6.3: Summary Table of Inspection and Maintenance Frequency

GREEN INFRASTRUCTURE LONG-TERM OPERATION AND MAINTENANCE PROCEDURES						
O&M RESPONSIBLE PARTY DESIGNEE: CITY OF SAN DIEGO - TSW DEPT AND P&R DEPT, AS INDICATED BELOW						
BMP DESCRIPTION	INSPECTION FREQUENCY	MAINTENANCE FREQUENCY	MAINTENANCE METHOD	QUANTITY	SHEET NUMBER	RESPONSIBILITY
LANDSCAPE AND IRRIGATION IN BASIN	MONTHLY	MONTHLY, OR AS-NEEDED BY MAINTENANCE NEEDS	ROUTINE TRIMMING AND CHECKING IRRIGATION SYSTEM	N/A	L-2	P&R
MULCH	MONTHLY	EVERY 1-2 YRS	RE-COVER BARE AREAS AS-NEEDED; REPLENISH EVERY 1-2 YEARS	BASIN BOTTOM	L-2	P&R
TRASH AND DEBRIS	MONTHLY	MONTHLY	REMOVE ACCUMULATION OF LITTER AND/OR DEBRIS ON SURFACE (P&R); SEDIMENT ON SURFACE AND LITTER/DEBRIS W/IN STRUCTURES AND/OR BLOCKAGES (TSW)	N/A	L-2, C-2	P&R, TSW
COBBLE/RIPRAP IN BASIN	MONTHLY	AS-NEEDED	REPOSITION OR INCREASE LIMITS OF ROCK IF SOIL EROSION HAS OCCURRED	N/A	L-2/3, C-3	TSW
INLETS/OUTLETS	MONTHLY	AS-NEEDED	REMOVE ACCUMULATION OF SEDIMENT, LITTER, AND/OR DEBRIS W/IN STRUCTURES; BLOCKAGES	3 SD OUTFALLS TO BASIN, 1 TYPE 'F' OUTLET STRUCTURE	C-2	TSW
STANDING WATER (SURFACE, OR IN MEDIA/AGGREGATE STORAGE LAYER)	MONTHLY, AFTER MAJOR STORM EVENTS	AS-NEEDED	TILL SOILS (IF SURFACE COMPACTION), CLEAN UNDERDRAINS (IF BLOCKAGE). ADHERE TO 96 HOUR DRAW DOWN REQUIREMENTS FOR VECTOR CONTROL	N/A	C-2	TSW
LACK OF VEGETATION	MONTHLY	AS-NEEDED	50% COVERAGE OF SIDE SLOPES; 45% COVERAGE OF BASIN BOTTOM, FULL COVERAGE VIA MULCH/COBBLE/VEGETATION	N/A	L-2	TSW
NOTES:						
1 - IN GENERAL, P&R IS RESPONSIBLE FOR PASSIVE PARK AMENITIES, AND FOR MAINTAINING SURFACE VEGETATION AND REMOVAL OF SURFACE TRASH/DEBRIS; WHEREAS TSW IS RESPONSIBLE FOR THE BIOFILTRATION SOIL MEDIA, AGGREGATE LAYER, SUBDRAIN, AND ASSOCIATED DRAINAGE SYSTEMS; INCLUDING TRASH/DEBRIS WITHIN DRAINAGE INLETS/OUTLETS.						
2 - EACH DEPARTMENT CONDUCTING A REPAIR OR REPLACEMENT TO THE FACILITY IS RESPONSIBLE FOR DAMAGE CAUSED TO BASIN COMPONENTS, REGARDLESS OF O&M RESPONSIBILITIES. NOTE THERE IS PERMANENT IRRIGATION ON THIS PROJECT.						
3 - IT IS IMPORTANT TO NOTE THAT THE INTENT ON THE PROPOSED BASIN IS FOR IT TO PROVIDE WATER QUALITY BENEFITS FOR STORM WATER RUNOFF ENTERING AND EXITING THE BASIN. THE PROPOSED BIOFILTRATION BASIN WILL REQUIRE MAINTENANCE OVER THE LONG-TERM TO ENSURE CONTINUED EFFECTIVENESS, AND IS INTENDED TO BE "MAINTAINED" ACROSS THE FULL PROJECT FOOTPRINT. IN THE PRE-PROJECT CONDITION, THE AREA IS CONSIDERED UPLAND. IF WETLAND HABITAT BECOMES ESTABLISHED WITHIN THE BASIN AND IT'S DETERMINED THAT STATE AND/OR FEDERAL AGENCY PERMITS ARE REQUIRED, THEN THE TSW DEPARTMENT WILL BE RESPONSIBLE FOR SECURING APPLICABLE PERMITS. HOWEVER, AS STATED ABOVE, THE INTENDED PURPOSE IS TO SERVE AS A WATER QUALITY BMP WITHIN THE SURROUNDING PASSIVE PARK AND EXPECTED TO BE REGULARLY IMPACTED DUE TO ROUTINE MAINTENANCE AND INFREQUENT NON-ROUTINE MAINTENANCE ACTIVITIES OVER THE LONG-TERM, AS DESCRIBED THROUGHOUT THE O&M PLAN.						

The frequencies given in the Summary Table of Inspection and Maintenance Frequency are minimum recommended frequencies for inspection and maintenance activities for the project. Typically, the frequency of maintenance required for permanent BMPs is site and drainage area specific. If it is determined during the regularly scheduled inspection and/or routine maintenance that a BMP requires more (or less) frequent maintenance (e.g., to remove accumulated trash), it may be necessary to increase (or decrease) the frequency of inspection and/or routine maintenance.

6.4 Other O&M Considerations

It is important to note that the intent on the proposed basin is for it to provide water quality benefits for storm water runoff entering and exiting the basin. The proposed biofiltration basin will require maintenance over the long-term to ensure continued effectiveness, and is intended to be “maintained” across the full project footprint. In the pre-project condition, the area is considered upland. If wetland habitat becomes established within the basin and it’s determined that State and/or Federal agency permits are required, then the TSW Department will be responsible for securing applicable permits. However, as stated above, the intended purpose is to serve as a water quality BMP within the surrounding passive park and expected to be regularly impacted due to routine maintenance and infrequent non-routine maintenance activities over the long-term, as described throughout the O&M Plan.

7.0 CONCLUSION

This final design report summarizes the design approach and criteria utilized to address drainage and water quality treatment components of the LID project. This project includes construction of an LID water quality basin to be located in the open space parcel that will collect water quality low-flows from approximately 92.6-acres of existing development area to provide water quality treatment for water quality storm events (i.e. – 85th Percentile Storm Events).

The project is not categorized as a “Priority Development Project” according to Table 2-1 within the 2016 Storm Water Standards Manual. Its sole purpose is to be an LID Retrofit for runoff from existing development areas. There are no proposed impervious surfaces and the only removal and replacement of impervious area is associated with the trenching and resurfacing necessary to install the low flow storm drains to direct runoff into the proposed facility. Based on the anticipated pollutants of concern that may be generated on-site and identification of receiving waters that are listed as impaired on the 2010 CWA Section 303(d) List of Water Quality Limited Segments, the following are the project’s most significant pollutants of concern: heavy metals, nutrients, and bacteria & viruses.

The water quality basin will have a bioretention soil mix layer, gravel layer, subdrain and an outlet structure sized for overflow (i.e. – for runoff greater than the water quality volume provided within the basin, up to and including a 100-year storm event). The proposed project should significantly reduce the pollutant loads that are currently being conveyed to the downstream channels and water bodies. The project has used the guidelines and requirements set forth in the City of San Diego’s 2016 “Storm Water Standards”. The project is also eligible to serve as “Earned Credits” for the City’s Alternative Compliance Program (ACP), specifically Pollutant Control Credits based on water quality volume and the Hydromodification Management Credits, based on impervious surface area.

The project requires permanent maintenance to be provided by the City of San Diego, including: landscaped areas, outlet protection, concrete stamping, and the biofiltration basin itself; as detailed in Section 6.0 of this Design Report.

APPENDIX A

Storm Water Requirements Applicability Checklist



City of San Diego
 Development Services
 1222 First Ave., MS-302
 San Diego, CA 92101
 (619) 446-5000

Storm Water Requirements Applicability Checklist

FORM
DS-560
 OCTOBER 2016

Project Address: **Carmel Knolls Drive & Pearlman Way**

Project Number *(for City Use Only)*:

SECTION 1. Construction Storm Water BMP Requirements:

All construction sites are required to implement construction BMPs in accordance with the performance standards in the Storm Water Standards Manual. Some sites are additionally required to obtain coverage under the State Construction General Permit (CGP)¹, which is administered by the State Water Resources Control Board.

For all projects complete PART A: If project is required to submit a SWPPP or WPCP, continue to PART B.

PART A: Determine Construction Phase Storm Water Requirements.

1. Is the project subject to California's statewide General NPDES permit for Storm Water Discharges Associated with Construction Activities, also known as the State Construction General Permit (CGP)? (Typically projects with land disturbance greater than or equal to 1 acre.)

- Yes; SWPPP required, skip questions 2-4 No; next question

2. Does the project propose construction or demolition activity, including but not limited to, clearing, grading, grubbing, excavation, or any other activity resulting in ground disturbance and contact with storm water runoff?

- Yes; WPCP required, skip 3-4 No; next question

3. Does the project propose routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility? (Projects such as pipeline/utility replacement)

- Yes; WPCP required, skip 4 No; next question

4. Does the project only include the following Permit types listed below?

- Electrical Permit, Fire Alarm Permit, Fire Sprinkler Permit, Plumbing Permit, Sign Permit, Mechanical Permit, Spa Permit.
- Individual Right of Way Permits that exclusively include only ONE of the following activities: water service, sewer lateral, or utility service.
- Right of Way Permits with a project footprint less than 150 linear feet that exclusively include only ONE of the following activities: curb ramp, sidewalk and driveway apron replacement, pot holing, curb and gutter replacement, and retaining wall encroachments.

- Yes; no document required

Check one of the boxes below, and continue to PART B:

- If you checked "Yes" for question 1, **a SWPPP is REQUIRED. Continue to PART B**
- If you checked "No" for question 1, and checked "Yes" for question 2 or 3, **a WPCP is REQUIRED.** If the project proposes less than 5,000 square feet of ground disturbance AND has less than a 5-foot elevation change over the entire project area, a Minor WPCP may be required instead. **Continue to PART B.**
- If you checked "No" for all questions 1-3, and checked "Yes" for question 4 **PART B does not apply and no document is required. Continue to Section 2.**

1. More information on the City's construction BMP requirements as well as CGP requirements can be found at: www.sandiego.gov/stormwater/regulations/index.shtml

PART B: Determine Construction Site Priority

This prioritization must be completed within this form, noted on the plans, and included in the SWPPP or WPCP. The city reserves the right to adjust the priority of projects both before and after construction. Construction projects are assigned an inspection frequency based on if the project has a "high threat to water quality." The City has aligned the local definition of "high threat to water quality" to the risk determination approach of the State Construction General Permit (CGP). The CGP determines risk level based on project specific sediment risk and receiving water risk. Additional inspection is required for projects within the Areas of Special Biological Significance (ASBS) watershed. **NOTE:** The construction priority does **NOT** change construction BMP requirements that apply to projects; rather, it determines the frequency of inspections that will be conducted by city staff.

Complete PART B and continued to Section 2

- 1. **ASBS**
a. Projects located in the ASBS watershed.
- 2. **High Priority**
a. Projects 1 acre or more determined to be Risk Level 2 or Risk Level 3 per the Construction General Permit and not located in the ASBS watershed.
b. Projects 1 acre or more determined to be LUP Type 2 or LUP Type 3 per the Construction General Permit and not located in the ASBS watershed.
- 3. **Medium Priority**
a. Projects 1 acre or more but not subject to an ASBS or high priority designation.
b. Projects determined to be Risk Level 1 or LUP Type 1 per the Construction General Permit and not located in the ASBS watershed.
- 4. **Low Priority**
a. Projects requiring a Water Pollution Control Plan but not subject to ASBS, high, or medium priority designation.

SECTION 2. Permanent Storm Water BMP Requirements.

Additional information for determining the requirements is found in the [Storm Water Standards Manual](#).

PART C: Determine if Not Subject to Permanent Storm Water Requirements.

Projects that are considered maintenance, or otherwise not categorized as "new development projects" or "redevelopment projects" according to the [Storm Water Standards Manual](#) are not subject to Permanent Storm Water BMPs.

If "yes" is checked for any number in Part C, proceed to Part F and check "Not Subject to Permanent Storm Water BMP Requirements".

If "no" is checked for all of the numbers in Part C continue to Part D.

- 1. Does the project only include interior remodels and/or is the project entirely within an existing enclosed structure and does not have the potential to contact storm water? Yes No
- 2. Does the project only include the construction of overhead or underground utilities without creating new impervious surfaces? Yes No
- 3. Does the project fall under routine maintenance? Examples include, but are not limited to: roof or exterior structure surface replacement, resurfacing or reconfiguring surface parking lots or existing roadways without expanding the impervious footprint, and routine replacement of damaged pavement (grinding, overlay, and pothole repair). Yes No

PART D: PDP Exempt Requirements.

PDP Exempt projects are required to implement site design and source control BMPs.

If "yes" was checked for any questions in Part D, continue to Part F and check the box labeled "PDP Exempt."

If "no" was checked for all questions in Part D, continue to Part E.

1. Does the project ONLY include new or retrofit sidewalks, bicycle lanes, or trails that:

- Are designed and constructed to direct storm water runoff to adjacent vegetated areas, or other non-erodible permeable areas? Or;
- Are designed and constructed to be hydraulically disconnected from paved streets and roads? Or;
- Are designed and constructed with permeable pavements or surfaces in accordance with the Green Streets guidance in the City's Storm Water Standards manual?

Yes; PDP exempt requirements apply No; next question

2. Does the project ONLY include retrofitting or redeveloping existing paved alleys, streets or roads designed and constructed in accordance with the Green Streets guidance in the City's Storm Water Standards Manual?

Yes; PDP exempt requirements apply No; project not exempt.

PART E: Determine if Project is a Priority Development Project (PDP).

Projects that match one of the definitions below are subject to additional requirements including preparation of a Storm Water Quality Management Plan (SWQMP).

If "yes" is checked for any number in PART E, continue to PART F and check the box labeled "Priority Development Project".

If "no" is checked for every number in PART E, continue to PART F and check the box labeled "Standard Development Project".

1. **New Development that creates 10,000 square feet or more of impervious surfaces collectively over the project site.** This includes commercial, industrial, residential, mixed-use, and public development projects on public or private land.

Yes No

2. **Redevelopment project that creates and/or replaces 5,000 square feet or more of impervious surfaces on an existing site of 10,000 square feet or more of impervious surfaces.** This includes commercial, industrial, residential, mixed-use, and public development projects on public or private land.

Yes No

3. **New development or redevelopment of a restaurant.** Facilities that sell prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC 5812), and where the land development creates and/or replace 5,000 square feet or more of impervious surface.

Yes No

4. **New development or redevelopment on a hillside.** The project creates and/or replaces 5,000 square feet or more of impervious surface (collectively over the project site) and where the development will grade on any natural slope that is twenty-five percent or greater.

Yes No

5. **New development or redevelopment of a parking lot that creates and/or replaces 5,000 square feet or more of impervious surface (collectively over the project site).**

Yes No

6. **New development or redevelopment of streets, roads, highways, freeways, and driveways.** The project creates and/or replaces 5,000 square feet or more of impervious surface (collectively over the project site).

Yes No


- 7. **New development or redevelopment discharging directly to an Environmentally Sensitive Area.** The project creates and/or replaces 2,500 square feet of impervious surface (collectively over project site), and discharges directly to an Environmentally Sensitive Area (ESA). "Discharging directly to" includes flow that is conveyed overland a distance of 200 feet or less from the project to the ESA, or conveyed in a pipe or open channel any distance as an isolated flow from the project to the ESA (i.e. not commingled with flows from adjacent lands). Yes No
- 8. **New development or redevelopment projects of a retail gasoline outlet (RGO) that create and/or replaces 5,000 square feet of impervious surface.** The development project meets the following criteria: (a) 5,000 square feet or more or (b) has a projected Average Daily Traffic (ADT) of 100 or more vehicles per day. Yes No
- 9. **New development or redevelopment projects of an automotive repair shops that creates and/or replaces 5,000 square feet or more of impervious surfaces.** Development projects categorized in any one of Standard Industrial Classification (SIC) codes 5013, 5014, 5541, 7532-7534, or 7536-7539. Yes No
- 10. **Other Pollutant Generating Project.** The project is not covered in the categories above, results in the disturbance of one or more acres of land and is expected to generate pollutants post construction, such as fertilizers and pesticides. This does not include projects creating less than 5,000 sf of impervious surface and where added landscaping does not require regular use of pesticides and fertilizers, such as slope stabilization using native plants. Calculation of the square footage of impervious surface need not include linear pathways that are for infrequent vehicle use, such as emergency maintenance access or bicycle pedestrian use, if they are built with pervious surfaces of if they sheet flow to surrounding pervious surfaces. Yes No

PART F: Select the appropriate category based on the outcomes of PART C through PART E.

- 1. The project is **NOT SUBJECT TO PERMANENT STORM WATER REQUIREMENTS.**
- 2. The project is a **STANDARD DEVELOPMENT PROJECT.** Site design and source control BMP requirements apply. See the [Storm Water Standards Manual](#) for guidance.
- 3. The project is **PDP EXEMPT.** Site design and source control BMP requirements apply. See the [Storm Water Standards Manual](#) for guidance.
- 4. The project is a **PRIORITY DEVELOPMENT PROJECT.** Site design, source control, and structural pollutant control BMP requirements apply. See the [Storm Water Standards Manual](#) for guidance on determining if project requires a hydromodification plan management

Brendan Hastie
Name of Owner or Agent (Please Print)

Associate Principal
Title


Signature

06/27/2017
Date

APPENDIX B

Water Quality Treatment Calculations and BMP Details

WATER QUALITY BASIN SIZING CALCULATIONS - REQUIRED FLOW AND VOLUME

DMA Name	BMP Type	Drainage Management Area (acres)	Drainage Management Area (ft ²)	% Impervious	Impervious Area (ft ²)	Pervious Area (ft ²)	Runoff Factor for Impervious Area	Runoff Factor for Pervious Area	Effective Impervious Area (ft ²)	WQ Flow Rate (cfs)	Water Quality Calculations (Volume-based)	
											24-hour 85th Percentile Precipitation (inches)	Required WQ Volume (ft ³)
1A	Water Quality Basin	21.6	942,841	52%	490,277	452,564	0.9	0.3	577,019	2.65	0.62	29,813
1B	Water Quality Basin	45.4	1,979,145	70%	1,385,402	593,744	0.9	0.3	1,424,984	6.54	0.62	73,624
2	Water Quality Basin	12.3	537,308	70%	376,116	161,192	0.9	0.3	386,862	1.78	0.62	19,988
3	Water Quality Basin	0.6	26,646	36%	9,593	17,053	0.9	0.3	13,749	0.06	0.62	710
4	Water Quality Basin	6.9	300,496	0%	0	300,496	0.9	0.3	90,149	0.41	0.62	4,658
5	Water Quality Basin	1.0	41,734	90%	37,561	4,173	0.9	0.3	35,057	0.16	0.62	1,811
6	Water Quality Basin	4.7	205,921	65%	133,849	72,072	0.9	0.3	142,085	0.65	0.62	7,341
Totals:		92.6	4,034,091		2432796	1601295			2669905	12.3		137,945

WATER QUALITY BASIN SIZING CALCULATIONS - PROVIDED VOLUME

Side Slope (H:V)	Basin Ponding Depth (ft)	Ponding Surface Area (ft ²)	Bottom Surface Area (ft ²)	Surface Ponding Volume (ft ³)	Bioretention Soil Layer (ft)	Porosity for Bioretention Soil	Gravel Layer (ft)	Porosity for Gravel	Perforated Pipe Diameter (in)	Subsurface Volume (ft ³)	Infiltration Rate (in/hr)	Q through Native Soil (cfs)	24 Hour Infiltration Volume (ft ³)	Volume Retained by Basin (ft ³)	Provided WQ Volume (ft ³)	Q through BSM (cfs)	Surface Ponding Drawdown Time [@ 5 in/hr] (hr)
3	2.5	11,754	8,665	25,524	2.0	0.20	2.50	0.40	8	12,131	0.6	0.12	10,398	3,995	52,047	1.00	7.1

at FG 171.5

Notes:

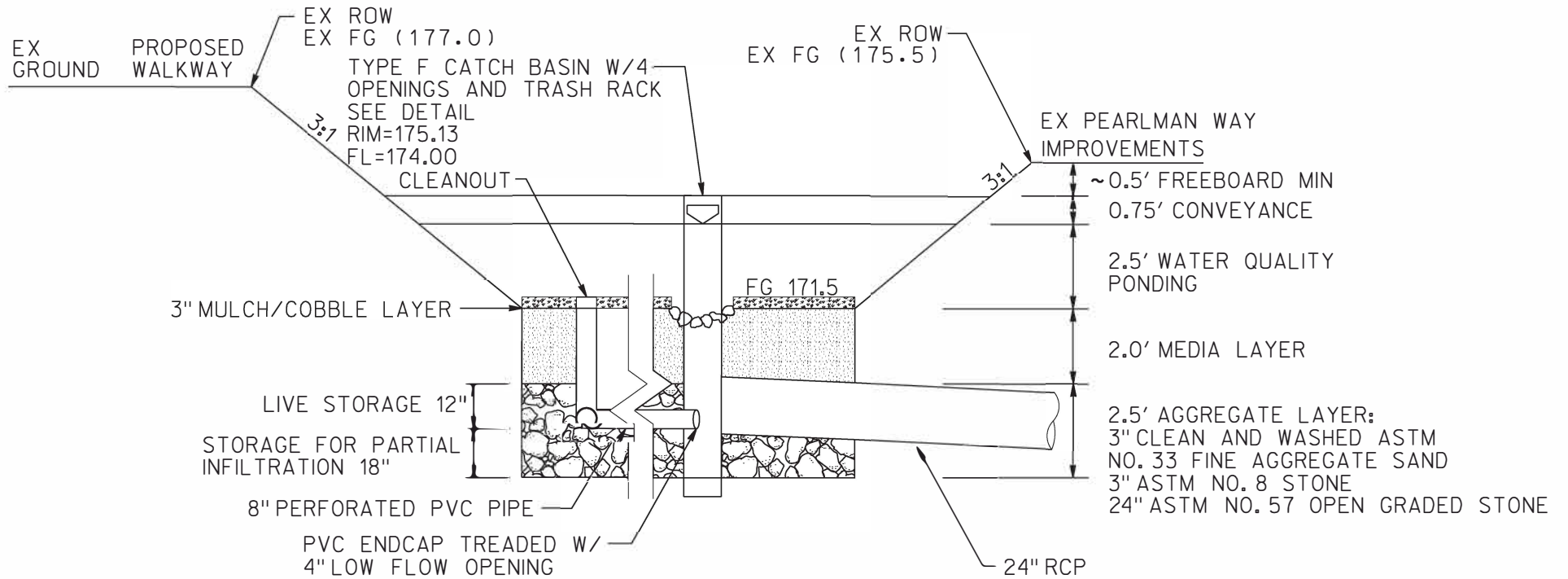
1. Infiltration Rate of 0.6 in/hr per Geotechnical Report, used for the "dead storage" layer drawdown and for the "Retention Volume" that is infiltrated throughout a storm event.
2. The Q through Native Soil reflects the flow rate of infiltrated storm water runoff during a storm event, whereas the majority of treated storm water runoff will occur as 'biofiltration' through the Bioretention Soil Mix layer with an assumed percolation rate of 5 in/hr.
3. Total Provided WQ Volume = Surface Ponding Volume + Subsurface Volume (per Porosity) + Infiltration Volume (that occurs over a 24 hour storm event).
4. Surface Ponding Drawdown Time based on an assumed infiltration rate of 5 in/hr for Bioretention Soil Mix. This may vary over time, therefore, the actual DDT could be longer. For example, if only 1 in/hr occurred, the DDT would be 35 hours, which is still acceptable per vector control concerns (i.e. - <= 96 hours maximum).

SUMMARY OF WATER QUALITY BASIN SIZING CALCULATIONS

DMA's to be Treated	Drainage Management Area (acres)	WQ Flow Rate (cfs)	Required WQ Volume (ft³)	Provided WQ Volume (ft³)	% of 85th Percentile Storm Event Treated
DMA 1A, 1B, 2, 3, 4, 5, & 6 (30-inch surface ponding)	92.6	12.3	137,945	52,047	38

Notes:

1. The percentage of annual storm water runoff treated by the LID Bioretention/Biofiltration Basin **will likely exceed the 38% indicated above** for several reasons, including a) since this does not consider the amount of storm water runoff treated and released through the perforated subdrain during the event itself; b) during smaller 'first flush' events that are less than the 85th percentile event, the basin will be able to treat a much larger percentage of the runoff (i.e. - including 100% of runoff from storm events equal to 0.23 inches).
2. A hydrograph model would need to be run to demonstrate the full treatment capacity of the system during a single 'water quality storm event' and/or a continuous simulation model for a series of events throughout a year (or more).



DETAIL A-A
BIOFILTRATION BASIN DETAIL

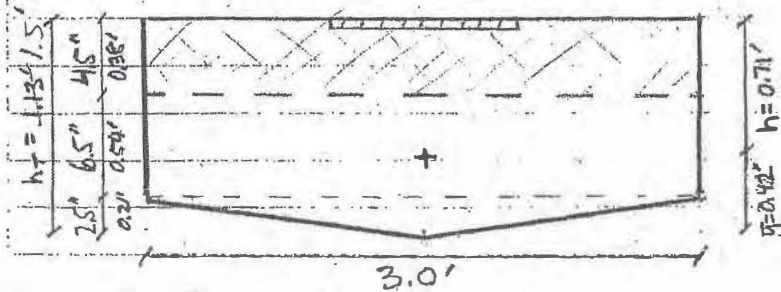
APPENDIX C

Inlet Sizing Calculations and Open Channel Sizing

(OVERFLOW STRUCTURE)

TYPE F CATCH BASIN @ NODE 435
CAPACITY CHECK

CAPACITY OF STANDARD BASIN:



$$A = (3.0' \times 0.54') + \frac{1}{2}(3.0' \times 0.21')$$

$$A = 1.94 \text{ ft}^2$$

$$\bar{y} = \frac{\sum A_i y_i}{\sum A_i}$$

$$\bar{y} = \frac{(3.0' \times 0.54' \times 0.48') + \frac{1}{2}(3.0')(0.21' \times 0.1')}{1.94 \text{ ft}^2}$$

$$\bar{y} = 0.42' \text{ to centroid}$$

Orifice Flow: $Q = 0.6A\sqrt{2gh}$

where A = effective orifice area

h = distance from centroid

to top of basin (or WSEL)

$$Q = 0.6(1.94 \text{ ft}^2) \sqrt{2(32.2 \text{ ft/s}^2)(0.71 \text{ ft})} = 7.9 \text{ cfs} = 9.7 \text{ cfs}$$

For two openings $Q = 2(7.9) = 15.8 \text{ cfs}$

FOR FOUR OPENINGS $Q = 4(9.7) = \underline{\underline{38.8 \text{ cfs}}}$

POST-PR 051 CT $Q_{100} \text{ TO BASIN} = 37.4 \text{ cfs} < 38.8 \text{ cfs}$

∴ OK

WATER QUALITY INLET SIZING FOR TYPE-B INLET

DMA-5 WQ Curb Inlet On Grade

Project Description

Solve For Efficiency

Input Data

Discharge	0.17 ft ³ /s
Slope	0.06780 ft/ft
Gutter Width	1.50 ft
Gutter Cross Slope	0.08 ft/ft
Road Cross Slope	0.02 ft/ft
Roughness Coefficient	0.015
Curb Opening Length	4.00 ft
Local Depression	2.00 in
Local Depression Width	1.50 ft

4.00 ft → STANDARD TYPE B INLET W/ 2" DEPRESSION
2.00 in → CLEAR OPENING = 4 FT
 ∴ USE A 5-FT TYPE B INLET

Results

Efficiency	99.51 %
Intercepted Flow	0.17 ft ³ /s
Bypass Flow	0.00 ft ³ /s
Spread	1.04 ft
Depth	0.09 ft
Flow Area	0.05 ft ²
Gutter Depression	0.09 ft
Total Depression	0.26 ft
Velocity	3.78 ft/s
Equivalent Cross Slope	0.19441 ft/ft
Length Factor	0.95
Total Interception Length	4.22 ft

WATER QUALITY INLET SIZING FOR TYPE-B INLET

DMA-6-WQ Curb Inlet On Grade

Project Description

Solve For Efficiency

Input Data

Discharge	0.65 ft ³ /s
Slope	0.06780 ft/ft
Gutter Width	1.50 ft
Gutter Cross Slope	0.08 ft/ft
Road Cross Slope	0.02 ft/ft
Roughness Coefficient	0.015
Curb Opening Length	6.00 ft
Local Depression	4.00 in
Local Depression Width	1.50 ft

} TYPE B-1 INLET w/ 4" DEPRESSION
 CLEAR OPENING = 6 FT
 ∴ USE A 7-FT TYPE B-1 INLET

Results

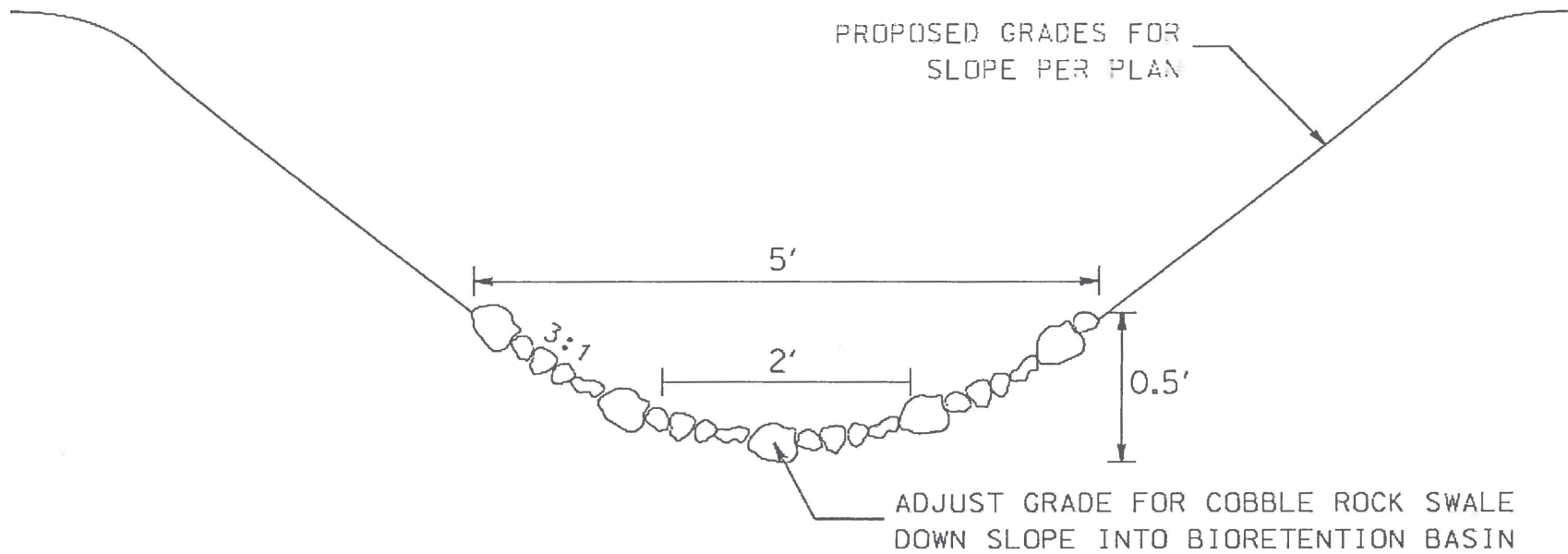
Efficiency	100.00 %
Intercepted Flow	0.65 ft ³ /s
Bypass Flow	0.00 ft ³ /s
Spread	2.38 ft
Depth	0.14 ft
Flow Area	0.13 ft ²
Gutter Depression	0.09 ft
Total Depression	0.43 ft
Velocity	5.09 ft/s
Equivalent Cross Slope	0.30111 ft/ft
Length Factor	1.05
Total Interception Length	5.70 ft

(CHECK CAPACITY OF ROCK-LINED CHANNEL / SPILLWAY INTO BASIN)

NORMAL DEPTH FOR TRAPEZOIDAL CHANNELS
ROCK LINED CHANNEL

DISCHARGE IS =	9.40	CFS	SLOPE IS =	0.3333	FT/FT
BOTTOM WIDTH IS =	2.00	FT	SIDE SLOPE (Z1) =	3.00	
MANNING'S N =	0.0400		SIDE SLOPE (Z2) =	3.00	
NORMAL DEPTH IS =	0.35	FT	FROUDE NUMBER IS =	2.97	
VELOCITY IS =	8.65	FPS	VELOCITY HEAD IS =	1.16	FT
AREA IS =	1.09	SQ FT	CRITICAL DEPTH =	0.64	FT
HYDRAULIC RADIUS =	0.26	FT	CRITICAL VELOCITY =	3.73	FPS
WETTED PERIMETER =	4.24	FT	TOP WIDTH FOR		
TOP WIDTH IS =	4.13	FT	CRITICAL DEPTH =	5.85	FT

ROCK-LINED OPEN CHANNEL CROSS-SECTION DETAIL



DETAIL B-B

NOT TO SCALE

APPENDIX D

Modified Rational Method Analyses (100-year, 6-hour) (Pre-project and Ultimate Condition)

ASHLEY FALLS HYDROLOGY

PRE-PROJECT - BASIN 400 (RUN OFF FROM DMA-4)

AREA = 6.9 AC
T_c = 14.2 min
Q₁₀₀ = 9.4 cfs

} See Attached AES Rat'l Method

POST-PROJECT - BASIN 400

RUN OFF FROM DMA-4 (same as pre-project)

plus:

↳ = 9.4 cfs (DMA 4)

Q₁₀₀ FROM LOW FLOW PIPES: (DETERMINED FROM PIPEFLOW)

18" = Q₁₀₀ = 21.0 cfs (FROM DMA 1A & 1B)

12" = Q₁₀₀ = 6.0 cfs (FROM DMA 2 & 3)

12" = Q₁₀₀ = 1.0 cfs (FROM DMA 5 & 6)

TOTAL POST-PROJECT Q₁₀₀ = 9.4 + 21.0 + 6.0 + 1.0 = 37.4 cfs
TO WQ BASIN

RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
Reference: SAN DIEGO COUNTY FLOOD CONTROL DISTRICT
2003,1985,1981 HYDROLOGY MANUAL
(c) Copyright 1982-2003 Advanced Engineering Software (aes)
Ver. 1.5A Release Date: 01/01/2003 License ID 1261

Analysis prepared by:

RICK ENGINEERING COMPANY
5620 Friars Road
San Diego, California 92110
619-291-0707 Fax 619-291-4165

***** DESCRIPTION OF STUDY *****
* J-17208-C ASHLEY FALLS *
* 100-YEAR STORM EVENT *
* BASIN 400 PRE-PROJECT & ULTIMATE *

FILE NAME: AF4HE00.RAT
TIME/DATE OF STUDY: 15:32 09/30/2015

USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:

USER SPECIFIED STORM EVENT (YEAR) = 100.00
SPECIFIED MINIMUM PIPE SIZE (INCH) = 12.00
SPECIFIED PERCENT OF GRADIENTS (DECIMAL) TO USE FOR FRICTION SLOPE = 0.90
RAINFALL-INTENSITY ADJUSTMENT FACTOR = 1.000
*USER SPECIFIED:
NUMBER OF [TIME,INTENSITY] DATA PAIRS = 9

- 1) 5.000; 4.400
- 2) 10.000; 3.450
- 3) 15.000; 2.900
- 4) 20.000; 2.500
- 5) 25.000; 2.200
- 6) 30.000; 2.000
- 7) 40.000; 1.700
- 8) 50.000; 1.500
- 9) 60.000; 1.300

SAN DIEGO HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
NOTE: ONLY PEAK CONFLUENCE VALUES CONSIDERED

USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL

NO.	HALF-	CROWN TO	STREET-CROSSFALL:			CURB	GUTTER-GEOMETRIES:		MANNING	
	WIDTH	CROSSFALL	IN-	/	OUT-/PARK-	HEIGHT	WIDTH	LIP	HIKE	FACTOR
	(FT)	(FT)	SIDE	/	SIDE/	(FT)	(FT)	(FT)	(FT)	(n)
1	20.0	15.0	0.020	/	0.020/0.020	0.50	2.00	0.0100	0.125	0.0180
2	18.0	13.0	0.020	/	0.020/0.020	0.50	1.50	0.0313	0.125	0.0180
3	17.0	12.0	0.020	/	0.020/0.020	0.50	1.50	0.0100	0.125	0.0180

GLOBAL STREET FLOW-DEPTH CONSTRAINTS:

- 1. Relative Flow-Depth = -0.10 FEET
as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
- 2. (Depth)*(Velocity) Constraint = 10.0 (FT*FT/S)

*SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

FLOW PROCESS FROM NODE 400.00 TO NODE 405.00 IS CODE = 21

>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<

=====

*USER SPECIFIED(SUBAREA):
RURAL DEVELOPMENT RUNOFF COEFFICIENT = .4500
S.C.S. CURVE NUMBER (AMC II) = 0
INITIAL SUBAREA FLOW-LENGTH(FEET) = 96.00
UPSTREAM ELEVATION(FEET) = 264.00
DOWNSTREAM ELEVATION(FEET) = 260.00
ELEVATION DIFFERENCE(FEET) = 4.00
URBAN SUBAREA OVERLAND TIME OF FLOW(MIN.) = 7.124
*CAUTION: SUBAREA SLOPE EXCEEDS COUNTY NOMOGRAPH
DEFINITION. EXTRAPOLATION OF NOMOGRAPH USED.
100 YEAR RAINFALL INTENSITY(INCH/HOUR) = 3.996
SUBAREA RUNOFF(CFS) = 0.36
TOTAL AREA(ACRES) = 0.20 TOTAL RUNOFF(CFS) = 0.36

FLOW PROCESS FROM NODE 405.00 TO NODE 410.00 IS CODE = 51

>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<

=====

ELEVATION DATA: UPSTREAM(FEET) = 260.00 DOWNSTREAM(FEET) = 172.00
CHANNEL LENGTH THRU SUBAREA(FEET) = 1196.00 CHANNEL SLOPE = 0.0736
CHANNEL BASE(FEET) = 10.00 "Z" FACTOR = 5.000
MANNING'S FACTOR = 0.040 MAXIMUM DEPTH(FEET) = 5.00
100 YEAR RAINFALL INTENSITY(INCH/HOUR) = 2.989
*USER SPECIFIED(SUBAREA):
RURAL DEVELOPMENT RUNOFF COEFFICIENT = .4500
S.C.S. CURVE NUMBER (AMC II) = 0
TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) = 4.97
TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) = 2.82
AVERAGE FLOW DEPTH(FEET) = 0.16 TRAVEL TIME(MIN.) = 7.07
Tc(MIN.) = 14.19
SUBAREA AREA(ACRES) = 6.70 SUBAREA RUNOFF(CFS) = 9.01
TOTAL AREA(ACRES) = 6.90 PEAK FLOW RATE(CFS) = 9.37

END OF SUBAREA CHANNEL FLOW HYDRAULICS:
DEPTH(FEET) = 0.23 FLOW VELOCITY(FEET/SEC.) = 3.59
LONGEST FLOWPATH FROM NODE 400.00 TO NODE 410.00 = 1292.00 FEET.

=====

END OF STUDY SUMMARY:
TOTAL AREA(ACRES) = 6.90 TC(MIN.) = 14.19
PEAK FLOW RATE(CFS) = 9.37

=====

END OF RATIONAL METHOD ANALYSIS

APPENDIX E

AES Pipe Flow Hydraulic Analyses (Ultimate Condition 100-year Analysis) (Outflow Pipe Analysis)

PIPE-FLOW HYDRAULICS COMPUTER PROGRAM PACKAGE
 (Reference: LACFCD, LACRD, AND OCEMA HYDRAULICS CRITERION)
 (c) Copyright 1982-2014 Advanced Engineering Software (aes)
 Ver. 21.0 Release Date: 06/01/2014 License ID 1261

Analysis prepared by:

RICK ENGINEERING COMPANY
 5620 Friars Road
 San Diego, California 92110
 619-291-0707 Fax 619-291-4165

***** DESCRIPTION OF STUDY *****

* ASHLEY FALLS
 * ULTIMATE CONDITION 100-YEAR ANALYSIS } TO DETERMINE MAX Q OUT OF LOW *
 * J-17208-C } FLOW PIPE ASSUMING HGL UP TO *
 * } TOP OF 18" PIPE. *

FILE NAME: 310C.PIP
 TIME/DATE OF STUDY: 19:49 04/28/2016

GRADUALLY VARIED FLOW ANALYSIS FOR PIPE SYSTEM
 NODAL POINT STATUS TABLE
 (Note: "*" indicates nodal point data used.)

NODE NUMBER	MODEL PROCESS	UPSTREAM RUN		DOWNSTREAM RUN	
		PRESSURE HEAD(FT)	PRESSURE+ MOMENTUM(POUNDS)	FLOW DEPTH(FT)	PRESSURE+ MOMENTUM(POUNDS)
310.00-	} FRICTION	1.00	113.33	0.71*	128.34
307.00-		0.96* _{DC}	112.58	0.95* _{DC}	112.58
307.00-	} JUNCTION				
307.00-	} FRICTION	1.66*	131.43	0.83	100.63
305.00-		1.62*	129.36	0.94 DC	98.11
305.00-	} CATCH BASIN				
305.00-		2.53*	99.50	0.94 DC	21.55

 MAXIMUM NUMBER OF ENERGY BALANCES USED IN EACH PROFILE = 25

NOTE: STEADY FLOW HYDRAULIC HEAD-LOSS COMPUTATIONS BASED ON THE MOST CONSERVATIVE FORMULAE FROM THE CURRENT LACRD, LACFCD, AND OCEMA DESIGN MANUALS.

DOWNSTREAM PIPE FLOW CONTROL DATA:

NODE NUMBER = 310.00 FLOWLINE ELEVATION = 171.10
 PIPE FLOW = 6.00 CFS PIPE DIAMETER = 12.00 INCHES
 ASSUMED DOWNSTREAM CONTROL HGL = 172.100 FEET

 NODE 310.00 : HGL = < 171.812>; EGL = < 173.373>; FLOWLINE = < 171.100>

FLOW PROCESS FROM NODE 310.00 TO NODE 307.00 IS CODE = 1
 UPSTREAM NODE 307.00 ELEVATION = 172.67 (FLOW IS SUPERCRITICAL)

 CALCULATE FRICTION LOSSES(LACFCD):

PIPE FLOW = 6.00 CFS PIPE DIAMETER = 12.00 INCHES
 PIPE LENGTH = 35.90 FEET MANNING'S N = 0.01300

 NORMAL DEPTH(FT) = 0.68 CRITICAL DEPTH(FT) = 0.96
 =====

310C.RES
 UPSTREAM CONTROL ASSUMED FLOWDEPTH(FT) = 0.95

GRADUALLY VARIED FLOW PROFILE COMPUTED INFORMATION:

DISTANCE FROM CONTROL (FT)	FLOW DEPTH (FT)	VELOCITY (FT/SEC)	SPECIFIC ENERGY(FT)	PRESSURE+ MOMENTUM(POUNDS)
0.000	0.954	7.764	1.891	112.58
0.045	0.943	7.813	1.892	112.62
0.162	0.932	7.867	1.894	112.73
0.350	0.921	7.927	1.898	112.90
0.609	0.910	7.991	1.903	113.13
0.942	0.899	8.060	1.909	113.43
1.351	0.888	8.134	1.916	113.78
1.842	0.877	8.213	1.925	114.19
2.422	0.866	8.296	1.936	114.66
3.099	0.855	8.384	1.948	115.19
3.883	0.845	8.477	1.961	115.79
4.790	0.834	8.575	1.976	116.44
5.834	0.823	8.678	1.993	117.16
7.037	0.812	8.785	2.011	117.94
8.426	0.801	8.899	2.031	118.80
10.036	0.790	9.017	2.053	119.72
11.914	0.779	9.141	2.077	120.71
14.121	0.768	9.271	2.103	121.77
16.746	0.757	9.407	2.132	122.91
19.920	0.746	9.549	2.163	124.13
23.843	0.735	9.698	2.196	125.43
28.855	0.724	9.853	2.232	126.82
35.588	0.713	10.016	2.271	128.30
35.900	0.712	10.021	2.273	128.34

NODE 307.00 : HGL = < 173.624>;EGL= < 174.561>;FLOWLINE= < 172.670>

 FLOW PROCESS FROM NODE 307.00 TO NODE 307.00 IS CODE = 5
 UPSTREAM NODE 307.00 ELEVATION = 172.77 (FLOW UNSEALS IN REACH)

CALCULATE JUNCTION LOSSES:

PIPE	FLOW (CFS)	DIAMETER (INCHES)	ANGLE (DEGREES)	FLOWLINE ELEVATION	CRITICAL DEPTH(FT.)	VELOCITY (FT/SEC)
UPSTREAM	5.50	12.00	41.50	172.77	0.94	7.003
DOWNSTREAM	6.00	12.00	-	172.67	0.96	7.762
LATERAL #1	0.50	12.00	90.00	172.77	0.29	0.637
LATERAL #2	0.00	0.00	0.00	0.00	0.00	0.000
Q5	0.00===Q5 EQUALS BASIN INPUT===					

LACFCD AND OCEMA FLOW JUNCTION FORMULAE USED:

$DY = (Q2 \cdot V2 - Q1 \cdot V1 \cdot \cos(\Delta A1) - Q3 \cdot V3 \cdot \cos(\Delta A3) - Q4 \cdot V4 \cdot \cos(\Delta A4)) / ((A1 + A2) \cdot 16.1) + \text{FRICTION LOSSES}$
 UPSTREAM: MANNING'S N = 0.01300; FRICTION SLOPE = 0.02383
 DOWNSTREAM: MANNING'S N = 0.01300; FRICTION SLOPE = 0.02463
 AVERAGED FRICTION SLOPE IN JUNCTION ASSUMED AS 0.02423
 JUNCTION LENGTH = 4.00 FEET
 FRICTION LOSSES = 0.097 FEET ENTRANCE LOSSES = 0.000 FEET
 JUNCTION LOSSES = (DY + HV1 - HV2) + (ENTRANCE LOSSES)
 JUNCTION LOSSES = (0.629) + (0.000) = 0.629

NODE 307.00 : HGL = < 174.429>;EGL= < 175.190>;FLOWLINE= < 172.770>

 FLOW PROCESS FROM NODE 307.00 TO NODE 305.00 IS CODE = 1
 UPSTREAM NODE 305.00 ELEVATION = 173.00 (FLOW IS UNDER PRESSURE)

310C.RES
 CALCULATE FRICTION LOSSES(LACFCD):
 PIPE FLOW = 5.50 CFS PIPE DIAMETER = 12.00 INCHES
 PIPE LENGTH = 7.88 FEET MANNING'S N = 0.01300
 $SF=(Q/K)**2 = ((5.50)/(35.628))**2 = 0.02383$
 $HF=L*SF = (7.88)*(0.02383) = 0.188$

 NODE 305.00 : HGL = < 174.617>;EGL= < 175.378>;FLOWLINE= < 173.000>

FLOW PROCESS FROM NODE 305.00 TO NODE 305.00 IS CODE = 8
 UPSTREAM NODE 305.00 ELEVATION = 173.00 (FLOW IS UNDER PRESSURE)

 CALCULATE CATCH BASIN ENTRANCE LOSSES(LACFCD):
 PIPE FLOW = 5.50 CFS PIPE DIAMETER = 12.00 INCHES
 FLOW VELOCITY = 7.00 FEET/SEC. VELOCITY HEAD = 0.761 FEET
 CATCH BASIN ENERGY LOSS = .2*(VELOCITY HEAD) = .2*(0.761) = 0.152

 NODE 305.00 : HGL = < 175.530>;EGL= < 175.530>;FLOWLINE= < 173.000>

UPSTREAM PIPE FLOW CONTROL DATA:
 NODE NUMBER = 305.00 FLOWLINE ELEVATION = 173.00
 ASSUMED UPSTREAM CONTROL HGL = 173.94 FOR DOWNSTREAM RUN ANALYSIS

=====
 END OF GRADUALLY VARIED FLOW ANALYSIS

‡

PIPE-FLOW HYDRAULICS COMPUTER PROGRAM PACKAGE
 (Reference: LACFCD, LACRD, AND OCEMA HYDRAULICS CRITERION)
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Analysis prepared by:

RICK ENGINEERING COMPANY
 5620 Friars Road
 San Diego, California 92110
 619-291-0707 Fax 619-291-4165

***** DESCRIPTION OF STUDY *****

* ASHLEY FALLS
 * ULTIMATE CONDITION 100-YEAR ANALYSIS } To Determine Max Q during Q100 *
 * J-17208-C } in Mainline, that goes out low flow pipe *

Assuming HGL up to top of 3' pipe.

FILE NAME: 431C.PIP
 TIME/DATE OF STUDY: 19:37 04/28/2016

GRADUALLY VARIED FLOW ANALYSIS FOR PIPE SYSTEM

NODAL POINT STATUS TABLE

(Note: "*" indicates nodal point data used.)

NODE NUMBER	MODEL PROCESS	UPSTREAM RUN		DOWNSTREAM RUN	
		PRESSURE HEAD(FT)	PRESSURE+ MOMENTUM(POUNDS)	FLOW DEPTH(FT)	PRESSURE+ MOMENTUM(POUNDS)
431.00-	} FRICTION	1.50*	566.31	1.47 Dc	565.32
429.00-		2.21*	644.35	1.47 Dc	565.32
429.00-	} CATCH BASIN	4.84*	450.90	1.47 Dc	79.74

 MAXIMUM NUMBER OF ENERGY BALANCES USED IN EACH PROFILE = 25

NOTE: STEADY FLOW HYDRAULIC HEAD-LOSS COMPUTATIONS BASED ON THE MOST CONSERVATIVE FORMULAE FROM THE CURRENT LACRD, LACFCD, AND OCEMA DESIGN MANUALS.

DOWNSTREAM PIPE FLOW CONTROL DATA:

NODE NUMBER = 431.00 FLOWLINE ELEVATION = 171.10
 PIPE FLOW = 21.00 CFS PIPE DIAMETER = 18.00 INCHES
 ASSUMED DOWNSTREAM CONTROL HGL = 172.600 FEET

 NODE 431.00 : HGL = < 172.600>; EGL = < 174.793>; FLOWLINE = < 171.100>

FLOW PROCESS FROM NODE 431.00 TO NODE 429.00 IS CODE = 1
 UPSTREAM NODE 429.00 ELEVATION = 173.21 (FLOW IS UNDER PRESSURE)

 CALCULATE FRICTION LOSSES(LACFCD):

PIPE FLOW = 21.00 CFS PIPE DIAMETER = 18.00 INCHES
 PIPE LENGTH = 70.50 FEET MANNING'S N = 0.01300
 $SF = (Q/K)**2 = ((21.00)/(105.044))**2 = 0.03997$
 $HF = L*SF = (70.50)*(0.03997) = 2.818$

 NODE 429.00 : HGL = < 175.418>; EGL = < 177.611>; FLOWLINE = < 173.210>

FLOW PROCESS FROM NODE 429.00 TO NODE 429.00 IS CODE = 8

431C.RES
UPSTREAM NODE 429.00 ELEVATION = 173.21 (FLOW IS UNDER PRESSURE)

CALCULATE CATCH BASIN ENTRANCE LOSSES(LACFCD):
PIPE FLOW = 21.00 CFS PIPE DIAMETER = 18.00 INCHES
FLOW VELOCITY = 11.88 FEET/SEC. VELOCITY HEAD = 2.193 FEET
CATCH BASIN ENERGY LOSS = .2*(VELOCITY HEAD) = .2*(2.193) = 0.439

NODE 429.00 : HGL = < 178.049>;EGL= < 178.049>;FLOWLINE= < 173.210>

UPSTREAM PIPE FLOW CONTROL DATA:
NODE NUMBER = 429.00 FLOWLINE ELEVATION = 173.21
ASSUMED UPSTREAM CONTROL HGL = 174.68 FOR DOWNSTREAM RUN ANALYSIS

=====
END OF GRADUALLY VARIED FLOW ANALYSIS

♀

PIPE-FLOW HYDRAULICS COMPUTER PROGRAM PACKAGE
 (Reference: LACFCD, LACRD, AND OCEMA HYDRAULICS CRITERION)
 (c) Copyright 1982-2014 Advanced Engineering Software (aes)
 Ver. 21.0 Release Date: 06/01/2014 License ID 1261

Analysis prepared by:

RICK ENGINEERING COMPANY
 5620 Friars Road
 San Diego, California 92110
 619-291-0707 Fax 619-291-4165

***** DESCRIPTION OF STUDY *****

* ASHLEY FALLS *
 * ULTIMATE CONDITION 100-YEAR ANALYSIS } CAPACITY CHECK FOR 24" *
 * J-17208-C } OUTFLOW PIPE *

FILE NAME: 436.PIP
 TIME/DATE OF STUDY: 20:07 04/28/2016

GRADUALLY VARIED FLOW ANALYSIS FOR PIPE SYSTEM
 NODAL POINT STATUS TABLE

(Note: "*" indicates nodal point data used.)

NODE NUMBER	MODEL PROCESS	UPSTREAM RUN		DOWNSTREAM RUN	
		PRESSURE HEAD(FT)	PRESSURE+ MOMENTUM(POUNDS)	FLOW DEPTH(FT)	PRESSURE+ MOMENTUM(POUNDS)
436.00-	} FRICTION	2.00*	1058.86	1.94 Dc	1054.74
435.00-		2.13*	1084.94	1.94 Dc	1054.74
435.00-	} CATCH BASIN	4.77*	739.80	1.94 Dc	183.89

 MAXIMUM NUMBER OF ENERGY BALANCES USED IN EACH PROFILE = 25

NOTE: STEADY FLOW HYDRAULIC HEAD-LOSS COMPUTATIONS BASED ON THE MOST CONSERVATIVE FORMULAE FROM THE CURRENT LACRD, LACFCD, AND OCEMA DESIGN MANUALS.

DOWNSTREAM PIPE FLOW CONTROL DATA:

NODE NUMBER = 436.00 FLOWLINE ELEVATION = 166.48
 PIPE FLOW = 37.40 CFS PIPE DIAMETER = 24.00 INCHES
 ASSUMED DOWNSTREAM CONTROL HGL = 168.480 FEET

 NODE 436.00 : HGL = < 168.480>; EGL = < 170.681>; FLOWLINE = < 166.480>

FLOW PROCESS FROM NODE 436.00 TO NODE 435.00 IS CODE = 1
 UPSTREAM NODE 435.00 ELEVATION = 166.91 (FLOW IS UNDER PRESSURE)

 CALCULATE FRICTION LOSSES(LACFCD):

PIPE FLOW = 37.40 CFS PIPE DIAMETER = 24.00 INCHES
 PIPE LENGTH = 20.60 FEET MANNING'S N = 0.01300
 $SF = (Q/K)**2 = ((37.40)/(226.224))**2 = 0.02733$
 $HF = L * SF = (20.60) * (0.02733) = 0.563$

 NODE 435.00 : HGL = < 169.043>; EGL = < 171.244>; FLOWLINE = < 166.910>

FLOW PROCESS FROM NODE 435.00 TO NODE 435.00 IS CODE = 8

```

                                436.RES
UPSTREAM NODE  435.00      ELEVATION =  166.91  (FLOW IS UNDER PRESSURE)
-----
CALCULATE CATCH BASIN ENTRANCE LOSSES(LACFCD):
PIPE FLOW =      37.40 CFS      PIPE DIAMETER =  24.00 INCHES
FLOW VELOCITY =  11.90 FEET/SEC.  VELOCITY HEAD =  2.201 FEET
CATCH BASIN ENERGY LOSS = .2*(VELOCITY HEAD) = .2*( 2.201) =  0.440
-----
NODE   435.00 : HGL = < 171.684>;EGL= < 171.684>;FLOWLINE= < 166.910>
*****
UPSTREAM PIPE FLOW CONTROL DATA:
NODE NUMBER =  435.00      FLOWLINE ELEVATION =  166.91
ASSUMED UPSTREAM CONTROL HGL =  168.85 FOR DOWNSTREAM RUN ANALYSIS
=====
END OF GRADUALLY VARIED FLOW ANALYSIS
♀

```

LOW-FLOW (WATER QUALITY) FOR DMA'S 5 & 6
PIPE SIZING

Worksheet for Circular Orifice - 8" < 12" ✓ OK

Project Description

Solve For Discharge

Input Data

Headwater Elevation	0.67	ft
Centroid Elevation	0.33	ft
Tailwater Elevation	0.00	ft
Discharge Coefficient	0.60	
Diameter	0.67	ft

Results

Discharge	0.99	ft ³ /s	> 0.65 cfs ∴ 8" PIPE & 12"
Headwater Height Above Centroid	0.34	ft	HAS CAPACITY BASED ON
Tailwater Height Above Centroid	-0.33	ft	INLET CONTROL CONDITION
Flow Area	0.35	ft ²	
Velocity	2.81	ft/s	

APPENDIX F

Water Quality Equivalency Analysis

Water Quality Equivalency Calculations

Using Equation 2-1: Calculation of ACP Earned Stormwater Pollutant Control Volume

$$V_E = L (\Delta V + V_2 B_2 - V_1 B_1)$$

Where:

V_E : Earned Stormwater Pollutant Control Volume (ft³)

L: Land Use Factor

ΔV : Change in Design Capture Volume (V1 - V2)

V_1 : Impacted Condition Design Capture Volume for ACP

V_2 : Mitigated Condition Design Capture Volume for ACP

B_1 : Impacted Condition BMP Efficacy Factor

B_2 : Mitigated Condition BMP Efficacy Factor

BMP ID	BMP Type	L (-)	V_1 (ft ³)	V_2 (ft ³)	B_1 (-)	B_2 (-)	V_E (ft ³)
Ashley Falls Basin	INF-2: Bioretention	0.88	137,945	137,945	0	0.41	49,827

Note:

1. The Design Capture Volume in both the impacted and mitigated conditions will remain the same because no changes are proposed to remove impervious area.
2. Under pre-project conditions, there are no BMPs providing water quality treatment for these off-site drainage areas; therefore, B_1 equals zero.

Automated Spreadsheet Calculation for Worksheet A.3: Partial Retention BMP Efficacy Factor Determination for Water Quality Equivalency (Version 1.0)

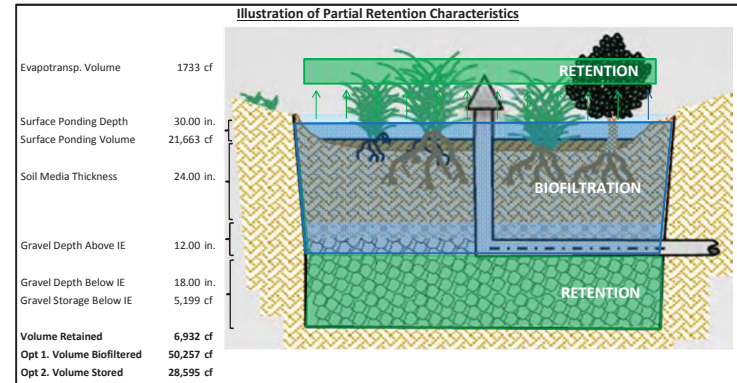
Category	#	Description	Value	Units	Notes
BMP Inputs	0	Effective Tributary Area	4,034,091	sq-ft	User Input (Tributary Runoff Coefficient x Tributary Area)
	1	Design Capture Volume Tributary to BMP	137,945	cubic-feet	User Input from BMPDM
	2	Provided BMP Surface Area	8,665	sq-ft	User Input, must be ≥ 3% of Effective Tributary Area.
	3	Provided Surface Ponding Depth	30.0	inches	User Input
	4	Provided Soil Media Thickness	24.0	inches	User Input, 18 inches minimum
	5	Provided Depth of Gravel Above Underdrain Invert	12.0	inches	User Input, use a value of zero if gravel does not cover entire bottom.
	6	Hydromodification Orifice Diameter of Underdrain	6.0	inches	User Input, select n/a if no hydromodification flow control is provided
	7	Provided Depth of Gravel Below the Underdrain	18.0	inches	User Input
Retention Calculations	8	Native Soil Infiltration Rate	0.60	in/hr	User Input from BMPDM
	9	Soil Media Pore Space Available for Retention	0.10	-	Default = 0.10 for Retention Portion of Partial Retention BMP
	10	Gravel Pore Space Available for Retention	0.40	-	Default = 0.40
	11	Effective Retention Depth	9.60	inches	[(Line 4 x Line 9) + (Line 7 x Line 10)]
	12	Calculated Drawdown for Gravel Below Underdrain	12	hours	Maximum of 6 or [(Line 7 x Line 10) / Line 8]
	13	Volume Retained by BMP	6,932	cubic-feet	[(Line 11/12) x Line 2]
	14	Fraction of DCV Retained	0.05	ratio	[Line 13/Line 1]
	15	Provided Capture for Specified Retention BMP	0.16	ratio	Look up value from Retention Provided Capture Curves, Maximum of 1.00.
	16	BMP Efficacy Factor for Retention Element	0.16	ratio	[Line 15 x 1.00]
	17	Equivalent Fraction of DCV Retained with 36-hr Drawdown	0.08	ratio	Look up value from Retention Provided Capture Curves, Maximum of 1.00.
Biofiltration Calculations	18	Design Capture Volume Remaining for Biofiltration	126,909	cubic-feet	[Line 1 x (1.00 - Line 17)]
	19	Max Hydromod Flow Rate through Underdrain	2.166	CF5	If flow controls are provided, calculate per orifice equation below
	20	Max Soil Filtration Rate Allowed by Underdrain Orifice	10.80	in/hr	If flow controls are provided, calculate as [(Line 19 x 12 x 3600)/Line 2]
	21	Soil Media Filtration Rate per Specifications	5.00	in/hr	Default = 5.00
	22	Soil Media Filtration Rate to be used for Sizing	5.00	in/hr	Minimum of Line 20 or Line 21
	23	Depth Biofiltered Over 6 Hour Storm	30.00	inches	[Line 22 x 6]
	24	Soil Media Pore Space Available for Biofiltration	0.20	-	Default = 0.20 for Biofiltration Portion of Partial Retention BMP
	25	Effective Depth of Biofiltration Storage	39.60	inches	[Line 3 + (Line 4 x Line 24) + (Line 5 x Line 10)]
	26	Drawdown Time for Surface Ponding	6	hours	Minimum of [Line 3/5.00] or [Line 3/(Line 8 + Line 22)]
	27	Drawdown Time for Effective Biofiltration Depth	8	hours	Minimum of [Line 25/5.00] or [Line 25/(Line 8 + Line 22)]
	28	Total Depth Biofiltered	69.60	inches	[Line 23 + Line 25]
	29	Option 1 - Biofilter 1.50 DCV: Target Volume	190,364	cubic-feet	[1.50 x Line 18]
	30	Option 1 - Provided Biofiltration Volume	50,257	cubic-feet	[Minimum of Line 29 or [(Line 28/12) x Line 2]]
	31	Option 2 - Store 0.75 DCV: Target Volume	95,182	cubic-feet	[0.75 x Line 18]
	32	Option 2 - Provided Storage Volume	28,595	cubic-feet	[Minimum of Line 31 or [(Line 25/12) x Line 2]]
	33	Provided Capture for Specified Biofiltration BMP	0.45	ratio	[Maximum of (1.50 x Line 30/Line 29) or (1.50 x Line 32/Line 31)]
	34	BMP Efficacy Factor for Biofiltration Element	0.25	ratio	[(1.00 - Line 16) x Line 33 x 0.666]
	BMP Factor	35	Partial Retention BMP Efficacy Factor for Use in WQE Formula	0.41	ratio

Notes:

- Applicants must provide user input for yellow shaded cells. Values for all other cells will be automatically generated.
- Refer to [Section 2.3.1.3](#) of the guidance document for additional discussion of BMP Efficacy Factors.
- Orifice Equation: $Q = CA\sqrt{2gh}$
Where Q: Flow Rate (cfs), C: Discharge Coefficient (0.60), A: Area of Orifice Opening (ft²), g: acceleration of gravity (ft/s²), and h: head difference across orifice (ft)

Attention!

- Provided Biofiltration surface area must be at least 3% of the effective tributary area.



Automated Spreadsheet Calculation for Worksheet A.5: Land Use Factor Determination (Version 1.0)

Land Use Designation	ACP Tributary Characteristics		Reference Tributary Characteristics ²		Relative Pollutant Concentrations by Land Use ³						
	Area (Acres)	Runoff Factor ₁	Area (Acres)	Runoff Factor ₁	TSS	TP	TN	TCu	TPb	TZn	FC
Agriculture	0.0	0.10	718	0.10	0.45	1.00	1.00	1.00	1.00	0.59	1.00
Commercial	0.0	0.80	2,043	0.80	0.13	0.16	0.16	0.56	0.48	1.00	0.87
Education	16.0	0.50	2,492	0.50	0.13	0.20	0.11	0.14	0.25	0.39	0.13
Industrial	0.0	0.90	4,270	0.90	0.13	0.19	0.15	0.54	0.68	0.89	0.49
Multi Family Residential	0.0	0.60	1,865	0.60	0.10	0.13	0.13	0.14	0.15	0.29	0.27
Orchard	0.0	0.10	101	0.10	0.18	0.17	0.67	1.00	1.00	0.59	0.11
Rural Residential	0.0	0.30	2,563	0.30	1.00	0.51	0.14	0.10	0.71	0.13	0.19
Single Family Residential	69.0	0.40	12,041	0.40	0.13	0.20	0.15	0.27	0.43	0.35	0.63
Transportation	0.0	0.90	7,114	0.90	0.11	0.26	0.12	0.53	0.31	0.62	0.12
Vacant / Open Space	7.0	0.10	0	0.10	0.16	0.10	0.10	0.12	0.10	0.10	0.10
Water	0.0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	92.0	-	33,207	-	-	-	-	-	-	-	-
Relative Pollutant Concentration for ACP Tributary ⁴					0.13	0.20	0.14	0.24	0.38	0.35	0.51
Relative Pollutant Concentration for Reference Tributary ⁴					0.16	0.22	0.14	0.41	0.43	0.59	0.39
Watershed Management Area					San Diego River						
Hydrologic Unit					San Diego (907.00)						
Land Use Factor ⁵					-	0.88	1.00	-	-	-	1.30

Notes:

- * Applicants must provide user input for yellow shaded cells. Values for all other cells will be automatically generated.
- 1. Revisions to default runoff factors must be supported to the satisfaction of the applicable Copermittee.
- 2. Applicant-Implemented ACPs must identify reference tributary characteristics that are representative of their specific PDP. Independent ACPs must reference **Table 2-3** for appropriate area and runoff factor information applicable to their watershed management area.
- 3. Relative Pollutant Concentrations by Land Use have been identified through examination of available EMC data. Additional information on how these relative concentrations were developed is provided in **Appendix B**.
- 4. Relative Pollutant Concentrations for ACP and Reference Tributaries are calculated for each WQE Pollutant of Concern per **Equation 2-2**.
- 5. Calculate the Land Use Factor for each priority pollutant by dividing the Relative Pollutant Concentration for the ACP Tributary by the Relative Pollutant Concentration for the Reference Tributary. Land Use Factors may never be lower than 0.10 and may never exceed 10.0.

Example: An ACP Tributary with 5.25 acres of Commercial, 1.63 Acres of Education, and 2.65 acres of Transportation land uses produces a relative pollutant concentration 0.12 for Total Suspended Solids (assumes default runoff factors are applied).

Equation 2-2:

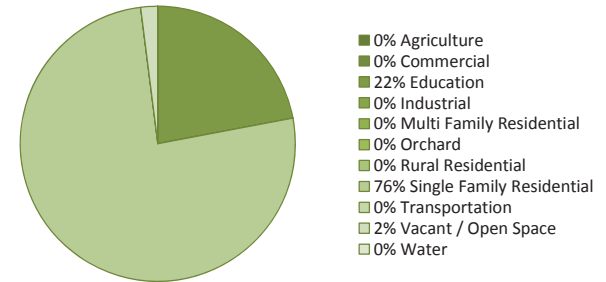
$$P_1 = \frac{\sum P_{1a}A_aC_a + P_{1b}A_bC_b + \dots + P_{1k}A_kC_k}{\sum A_aC_a + A_bC_b + \dots + A_kC_k}$$

Equation 2-2 Applied to Example:

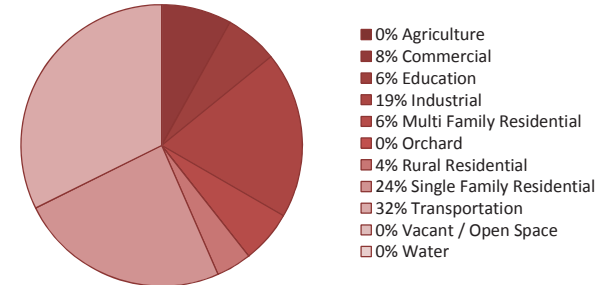
$$P_{TSS} = \frac{(0.13 \times 5.25 \times 0.80) + (0.13 \times 1.63 \times 0.50) + (0.11 \times 2.65 \times 0.90)}{(5.25 \times 0.80) + (1.63 \times 0.50) + (2.65 \times 0.90)} = 0.12$$

Effective area composition graphics are for illustrative purposes only.

Effective Area Composition - ACP Tributary



Effective Area Composition - Reference Tributary

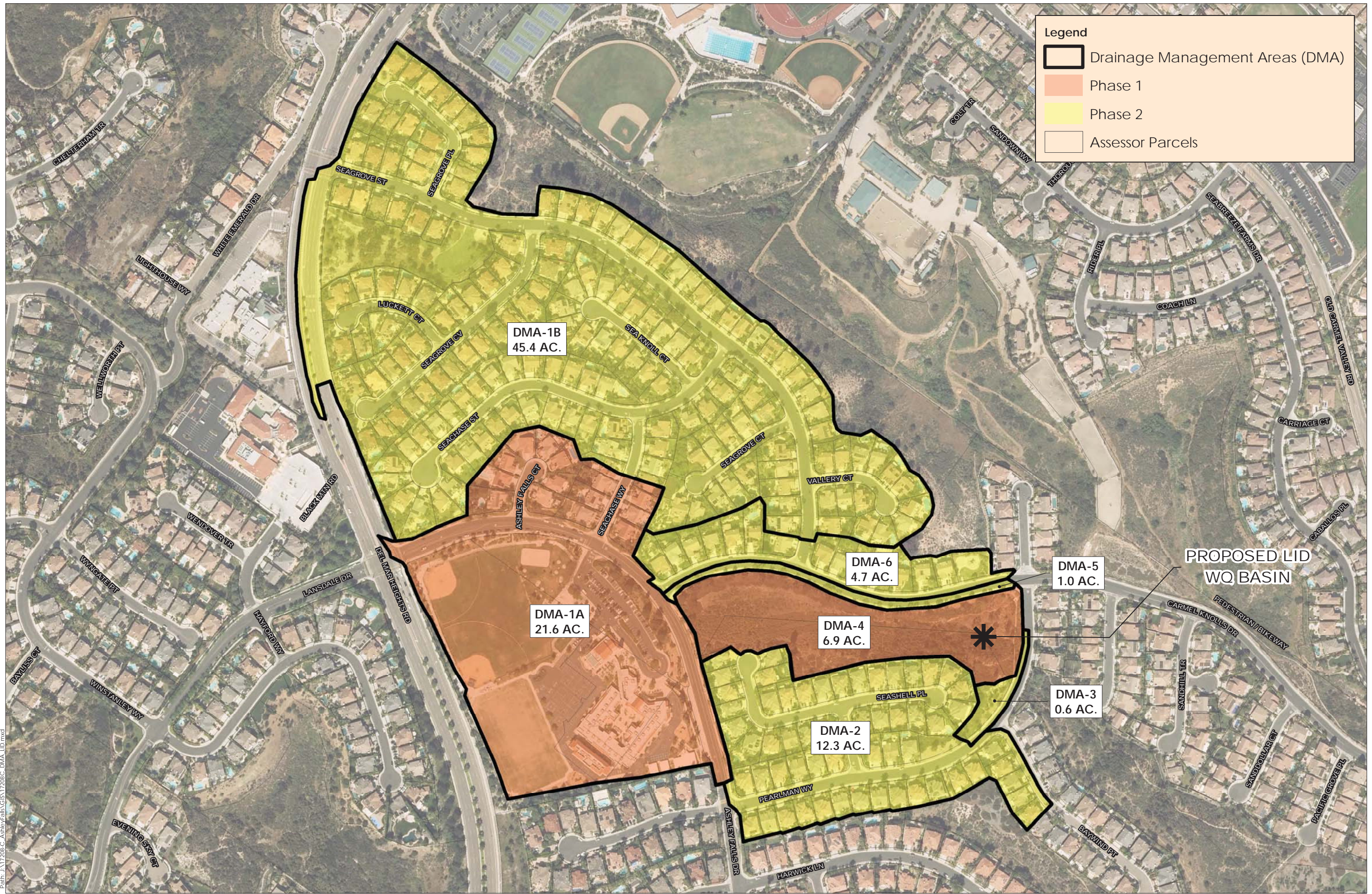


MAP POCKET 1

Drainage Management Area Map

for

Ashley Falls Large Scale Storm Flow Storage LID Project



Legend

- Drainage Management Areas (DMA)
- Phase 1
- Phase 2
- Assessor Parcels

Path: J:\17208\C_AshleyFalls\GIS\17208C_DMA_LID.mxd

RICK
ENGINEERING COMPANY

Scale in Feet

North

J-17208C
Date of Exhibit: 10/28/2015
Eagle Aerial Image: 04/2013
Parcels and Utilities: SANGIS

MAP POCKET 2

Drainage Map

For

Ashley Falls Large Scale Storm Flow Storage LID Project

[Pre-project]



LEGEND:
 MAJOR BASIN BOUNDARY
 SUB-BASIN BOUNDARY
 BASIN AREA
 NODE NUMBER

**DRAINAGE MAP FOR
 ASHLEY FALLS LARGE SCALE STORM
 FLOW STORAGE LID PROJECT
 (PRE-PROJECT)**

CITY OF SAN DIEGO, CALIFORNIA
 PUBLIC WORKS DEPARTMENT
 SHEET OF SHEETS

CONSTRUCTION CHANGE / ADDENDUM		
CHANGE	DATE	AFFECTED OR ADDED SHEET NUMBERS

WARNING

 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

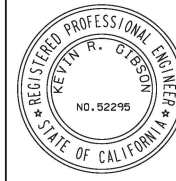
**CITY OF SAN DIEGO
 PUBLIC WORKS PROJECT**



RICK
 ENGINEERING COMPANY
 San Diego

5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 619.291.0707
 (FAX) 619.291.4165

J- 17208C



APPROVED FOR CITY ENGINEER _____ DATE _____		SUBMITTED BY _____	
DESCRIPTION ORIGINAL		BY REC	PROJECT ENGINEER
APPROVED	DATE	FILMED	CS27 COORDINATE
			CS83 COORDINATE
CONTRACTOR _____ DATE STARTED _____		INSPECTOR _____ DATE COMPLETED _____	

J:\17208-C_AshleyFalls\WaterResources\17208Cdrn_pre_01.dgn

28-APR-2016 22:03 eelmore

NOT FOR CONSTRUCTION

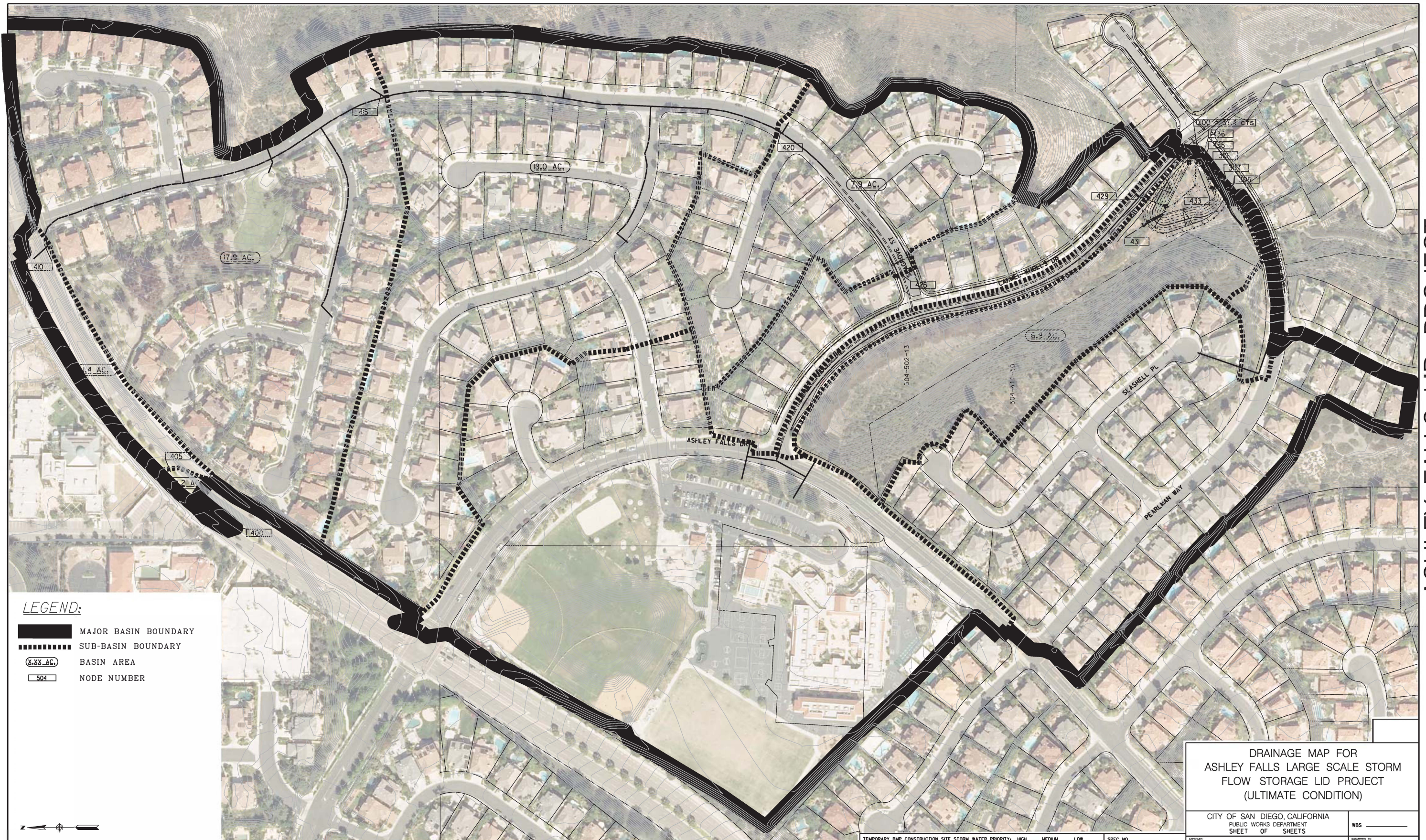
MAP POCKET 3

Drainage Map

For

Ashley Falls Large Scale Storm Flow Storage LID Project

[Ultimate Condition]



LEGEND:
 [Thick Black Line] MAJOR BASIN BOUNDARY
 [Dashed Line] SUB-BASIN BOUNDARY
 [Box with XX.AC] BASIN AREA
 [Box with 504] NODE NUMBER

DRAINAGE MAP FOR
 ASHLEY FALLS LARGE SCALE STORM
 FLOW STORAGE LID PROJECT
 (ULTIMATE CONDITION)

CITY OF SAN DIEGO, CALIFORNIA
 PUBLIC WORKS DEPARTMENT
 SHEET OF SHEETS

CONSTRUCTION CHANGE / ADDENDUM			
CHANGE	DATE	AFFECTED OR ADDED SHEET NUMBERS	APPROVAL NO.

WARNING
 0' 100'
 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

**CITY OF SAN DIEGO
 PUBLIC WORKS PROJECT**

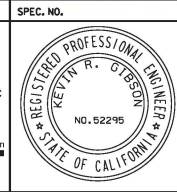


TEMPORARY BMP CONSTRUCTION SITE STORM WATER PRIORITY: HIGH MEDIUM LOW.....

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 5630 FRIARS ROAD
 SAN DIEGO, CA 92110
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 (FAX) 619.291.4165
 rickengineering.com

San Diego Riverside - Orange - San Luis Obispo - Bakersfield - Sacramento - Phoenix - Tucson

J- 17208C



APPROVED FOR CITY ENGINEER _____ DATE _____	SUBMITTED BY _____ PROJECT MANAGER _____
DESCRIPTION ORIGINAL	BY REC
APPROVED	DATE
FILED	PROJECT ENGINEER _____
CONTRACTOR _____ DATE STARTED _____	CCS27 COORDINATE _____
INSPECTOR _____ DATE COMPLETED _____	CCS83 COORDINATE _____

J:\17208-C_AshleyFalls\WaterResources\17208Cdrn_post_01.dgn
 04-MAY-2016 18:04 eelmore

NOT FOR CONSTRUCTION

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 Southland Paving, Inc., herein called "Contractor" for construction of **Ashley Falls Lg Scale Storm Flow Storage**; Bid No. **K-19-1786-DBB-3** in the amount of **Seven Hundred Sixty One Thousand Five Hundred Sixty Seven Dollars and Zero Cents (\$761,567.00)**, which is comprised of the Base Bid.

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) Phased Funding Schedule Agreement, Long-Term Maintenance and Monitoring Agreement.
 - (e) That certain documents entitled **Ashley Falls Lg Scale Storm Flow Storage**, on file in the office of the Public Works Department as Document No. **B-14007**, 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 **Ashley Falls Lg Scale Storm Flow Storage**, Bid No. **K-19-1786-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 Municipal Code §22.3102 authorizing such execution.

THE CITY OF SAN DIEGO

APPROVED AS TO FORM

Mara W. Elliott, City Attorney

By Stephen Samara

By Davin A. Widgerow

Print Name: Stephen Samara
Principal Contract Specialist
Public Works Department

Print Name: Davin A. Widgerow
Deputy City Attorney

Date: 6/13/2019

Date: July 9, 2019

CONTRACTOR

By Richard J. Fleck

Print Name: Richard J. Fleck

Title: President

Date: May 29, 2019

City of San Diego License No.: B19860000196

State Contractor's License No.: 451191

DEPARTMENT OF INDUSTRIAL RELATIONS (DIR) REGISTRATION NUMBER: 33-0010538

CERTIFICATIONS AND FORMS

The Bidder, by submitting its electronic bid or proposal, 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 submission 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, "California Building Code, California Code of Regulations Title 24 and 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 and Pledge of Compliance"), 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.

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:

Ashley Falls Lg Scale Storm Flow Storage

(Project Title)

as particularly described in said contract and identified as Bid No. **K-19-1786-DBB-3**; SAP No. **B-14007**; 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 [ⓐ]	WHERE CERTIFIED [ⓑ]	CHECK IF JOINT VENTURE PARTNERSHIP
Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____							
Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____							

- ⓐ 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 | | |
- ⓑ 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 SOUTHLAND PAVING, INC. as Principal, and LIBERTY MUTUAL INSURANCE COMPANY 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

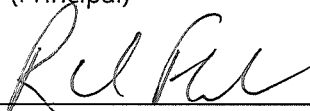
ASHLEY FALLS LG SCALE STORM FLOW STORAGE

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 28TH day of MARCH, 2019

SOUTHLAND PAVING, INC. (SEAL)
(Principal)

LIBERTY MUTUAL INSURANCE COMPANY (SEAL)
(Surety)

By: 
(Signature)

By: 
(Signature)

RICHARD FLECK, PRESIDENT

MARK D. IATAROLA, ATTORNEY-IN-FACT

(SEAL AND NOTARIAL ACKNOWLEDGEMENT OF SURETY)

ACKNOWLEDGMENT

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

State of California
County of San Diego

On April 9, 2019 before me, Danielle Maxwell, Notary Public

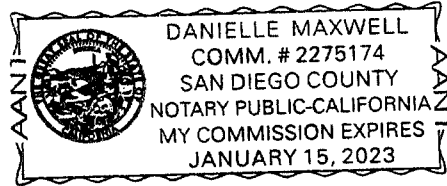
(insert name and title of the officer)

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

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

WITNESS my hand and official seal.

Signature Danielle Maxwell (Seal)



CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

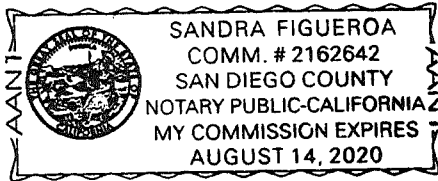
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California }
County of SAN DIEGO

On 3/28/2019 before me, SANDRA FIGUEROA, NOTARY PUBLIC
Date Here Insert Name and Title of the Officer

personally appeared MARK D. IATAROLA
Name(s) of Signer(s)

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



Place Notary Seal and/or Stamp Above

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

WITNESS my hand and official seal.

Signature *Sandra Figueroa*
Signature of Notary Public

OPTIONAL

Completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: MARK D. IATAROLA

Signer's Name: _____

Corporate Officer – Title(s): _____

Corporate Officer – Title(s): _____

Partner – Limited General

Partner – Limited General

Individual Attorney in Fact

Individual Attorney in Fact

Trustee Guardian of Conservator

Trustee Guardian of Conservator

Other: _____

Other: _____

Signer is Representing: _____

Signer is Representing: _____



This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No: 8196922

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Sandra Figueroa, Mark D. Iatarola, Helen Maloney, John G. Maloney, LeNasa Deshon Scott

all of the city of Escondido state of CA each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 27th day of September, 2018.



Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: David M. Carey
David M. Carey, Assistant Secretary

Not valid for mortgage, loan, letter of credit, currency rate, or residual value guarantees.

State of PENNSYLVANIA ss
County of MONTGOMERY

On this 27th day of September, 2018 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Upper Merion Twp., Montgomery County
My Commission Expires March 28, 2021
Member, Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII - Execution of Contracts: Section 5. Surety Bonds and Undertakings.

Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 28TH day of MARCH, 2019.



By: Renee C. Llewellyn
Renee C. Llewellyn, Assistant Secretary

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

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
<i>Not</i>	<i>Applicable</i>				

Contractor Name: Southland Paving, Inc.

Certified By Richard Fleck Title President
Name

R. Fleck Date April 1, 2019
Signature

USE ADDITIONAL FORMS AS NECESSARY

Mandatory Disclosure of Business Interests Form

BIDDER/PROPOSER INFORMATION

Legal Name Southland Paving, Inc. DBA _____
 Street Address 361 North Hale Ave. City Escondido State CA Zip 92029
 Contact Person, Title Robert Kennedy, Vice President Phone (760) 747-0895 Fax (760) 747-1008

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.

Richard Fleck Name President Title/Position
Escondido CA City and State of Residence Same Employer (if different than Bidder/Proposer)
Prime Contractor 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 Purchasing Agent with written notice is grounds for Contract termination.

Richard Fleck Print Name, Title President Signature [Signature] Date 1/9/19

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: _____	<i>No known subcontractors other than first tier.</i>			
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 **

Bid Results

Bidder Details

Vendor Name Southland Paving, Inc.
Address 361 North Hale Avenue
 Escondido, CA 92029
 United States
Respondee Bob Kennedy
Respondee Title Estimator
Phone 760-747-6895 Ext.
Email bobk@southlandpaving.com
Vendor Type CADIR,PQUAL,Local
License # 451191
CADIR 1000001814

Bid Detail

Bid Format Electronic
Submitted April 9, 2019 1:57:12 PM (Pacific)
Delivery Method
Bid Responsive
Bid Status Submitted
Confirmation # 174201
Ranking 0

Respondee Comment

Buyer Comment

Attachments

File Title	File Name	File Type
Ashley Falls - Contractor's Cert of Pending Actions	Ashley Falls - Contractor's Cert of Pending Actions.pdf	CONTRACTOR'S CERTIFICATION OF PENDING ACTIONS
Ashley Falls - Mandatory Disclosure of Business Interests	Ashely Falls - Mandatory Disclosure of Business Interests.pdf	MANDATORY DISCLOSURE OF BUSINESS INTERESTS FORM
Ashley Falls - Subcontractor Listing - Other Than First Tier	Ashley Falls - Subcontractor Listing - Other Than First Tier.pdf	SUBCONTRACTOR LISTING (OTHER THAN FIRST TIER)
Ashley Falls - Bid Bond	Ashley Falls - Bid Bond.pdf	Bid Bond

Line Items

Type	Item Code	UOM	Qty	Unit Price	Line Total	Comment
Main Bid						
1	Bonds (Payment and Performance)					
	524126	LS	1	\$9,000.00	\$9,000.00	
2	Paleontological Monitoring Program					
	541690	LS	1	\$5,250.00	\$5,250.00	
3	WPCP Implementation					
	238990	LS	1	\$7,500.00	\$7,500.00	

Bid Results

Type	Item Code	UOM	Qty	Unit Price	Line Total	Comment
4	WPCP Development					
	541330	LS	1	\$1,700.00	\$1,700.00	
5	Mobilization					
	237110	LS	1	\$48,000.00	\$48,000.00	
6	Field Orders (EOC Type II)					
		AL	1	\$15,000.00	\$15,000.00	
7	Clearing and Grubbing					
	238910	SF	30850	\$0.40	\$12,340.00	
8	Earthwork and Export					
	237310	CY	5500	\$38.00	\$209,000.00	
9	Storm Drain Cleanout (Type A-4)					
	237110	EA	2	\$6,700.00	\$13,400.00	
10	Curb Inlet (Type B)					
	237110	EA	3	\$9,500.00	\$28,500.00	
11	Catch Basin (Type F)					
	237110	EA	2	\$5,050.00	\$10,100.00	
12	Drainage Ditch					
	237110	LF	30	\$56.00	\$1,680.00	
13	Modified 18" Wing Type Headwall for 12" RCP					
	237110	EA	2	\$4,200.00	\$8,400.00	
14	18" Wing Type Headwall					
	237110	EA	1	\$4,200.00	\$4,200.00	
15	Pedestrian Bridge					
	237110	LS	1	\$11,750.00	\$11,750.00	
16	Rip Rap / Cobble Rock Energy Dissipator (~No. 2 Backing)					
	237110	CY	10	\$132.00	\$1,320.00	
17	Curb and Gutter (6" Inch Curb, Type G)					
	237310	LF	45	\$73.00	\$3,285.00	
18	Remove and Replace Existing Sidewalk					
	237310	SF	170	\$22.50	\$3,825.00	
19	Curb Ramp (Type A) with Detectable Warning Tiles					
	237310	EA	1	\$9,500.00	\$9,500.00	

Bid Results

Type	Item Code	UOM	Qty	Unit Price	Line Total	Comment
20	Perforated PVC Plastic Pipe (Underdrain Pipe, 8 inch)					
	237110	LF	120	\$66.00	\$7,920.00	
21	Storm Drain (1350-D) (12 inch, RCP)					
	237110	LF	35	\$210.00	\$7,350.00	
22	Storm Drain (2000-D) (12 inch, RCP)					
	237110	LF	90	\$210.00	\$18,900.00	
23	Storm Drain (2000-D) (18 inch, RCP)					
	237110	LF	65	\$225.00	\$14,625.00	
24	Storm Drain (2000-D) (24 inch, RCP)					
	237110	LF	30	\$250.00	\$7,500.00	
25	Water Service Transfer					
	237110	EA	1	\$560.00	\$560.00	
26	Underdrain Cleanout					
	237110	EA	2	\$500.00	\$1,000.00	
27	Traffic Control					
	237310	LS	1	\$28,000.00	\$28,000.00	
28	Landscaping and Permanent Irrigation					
	561730	LS	1	\$85,000.00	\$85,000.00	
29	Biofiltration Soil Mix					
	561730	CY	642	\$75.00	\$48,150.00	
30	Biofiltration Aggregate Layer (3" No. 33, 3" No. 8, 24" No. 57)					
	561730	CY	803	\$62.00	\$49,786.00	
31	Interpretive Sign / Sign Holder					
	561730	LS	1	\$2,800.00	\$2,800.00	
32	Rock Cobble / Boulders					
	561730	SF	3900	\$6.00	\$23,400.00	
33	Decomposed Granite Trail					
	561730	SF	3400	\$6.00	\$20,400.00	
34	Cobble Edge					
	561730	LF	700	\$15.00	\$10,500.00	
35	Mulch					
	561730	SF	9575	\$0.56	\$5,362.00	

Bid Results

Type	Item Code	UOM	Qty	Unit Price	Line Total	Comment
36	Tree (5 Gallon)					
	561730	EA	22	\$62.00	\$1,364.00	
37	Biological Monitoring and Reporting					
	541330	LS	1	\$10,000.00	\$10,000.00	
38	25-Month Revegetation Maintenance and Monitoring Program					
	541330	LS	1	\$15,200.00	\$15,200.00	
Subtotal					\$761,567.00	
Total					\$761,567.00	

Subcontractors

Name & Address	Description	License Num	CADIR	Amount	Type
Red Tail Environmental 328 State Place Escondido, CA 92029 United States	Paleontological Mitigation	N/A - Consultant	1000031633	\$4,635.00	
H&D Construction Company PO Box 12859 El Cajon, CA 92022 United States	Curb, Gutter, Sidewalk	504788	1481000	\$16,600.00	CADIR
Western Gardens Landscaping, Inc. 4616 Pannonia Rd. Carlsbad, CA 92008 United States	Landscape SLBE 13WG0811 LB 1660380	662550	1000004289	\$118,000.00	CADIR,ELBE
Leopold Biological Services 11160 Portobelo Drive San Diego, CA 92124 United States	Biological Services	N/A - Consultant	N/A	\$8,885.00	CAU,FEM,SLBE,DBE,SDB,WBE,WOSB
Solid Structures, Inc. P. O. Box 848 La Mesa, CA 91944 United States	Concrete Structures	758791	1000015100	\$44,200.00	PQUAL

Line Totals (Unit Price * Quantity)								
Item Num	Section	Item Code	Description	Reference	Unit of Measure	Quantity	Southland Paving, Inc. - Unit Price	Southland Paving, Inc. - Line Total
1	Main Bid	524126	Bonds (Payment and Performance)	1-7.2.1	LS	1	\$9,000.00	\$9,000.00
2	Main Bid	541690	Paleontological Monitoring Program	6-6.2.2.1	LS	1	\$5,250.00	\$5,250.00
3	Main Bid	238990	WPCP Implementation	1001-4.2	LS	1	\$7,500.00	\$7,500.00
4	Main Bid	541330	WPCP Development	1001-4.2	LS	1	\$1,700.00	\$1,700.00
5	Main Bid	237110	Mobilization	7-3.4.1	LS	1	\$48,000.00	\$48,000.00
6	Main Bid		Field Orders (EOC Type II)	7-3.9	AL	1	\$15,000.00	\$15,000.00
7	Main Bid	238910	Clearing and Grubbing	300-1.4	SF	30850	\$0.40	\$12,340.00
8	Main Bid	237310	Earthwork and Export	300-6.6	CY	5500	\$38.00	\$209,000.00
9	Main Bid	237110	Storm Drain Cleanout (Type A-4)	303-1.12	EA	2	\$6,700.00	\$13,400.00
10	Main Bid	237110	Curb Inlet (Type B)	303-1.12	EA	3	\$9,500.00	\$28,500.00
11	Main Bid	237110	Catch Basin (Type F)	303-1.12	EA	2	\$5,050.00	\$10,100.00
12	Main Bid	237110	Drainage Ditch	303-1.12	LF	30	\$56.00	\$1,680.00
13	Main Bid	237110	Modified 18" Wing Type Headwall for 12" RCP	303-1.12	EA	2	\$4,200.00	\$8,400.00
14	Main Bid	237110	18" Wing Type Headwall	303-1.12	EA	1	\$4,200.00	\$4,200.00
15	Main Bid	237110	Pedestrian Bridge	303-1.12	LS	1	\$11,750.00	\$11,750.00
16	Main Bid	237110	Rip Rap / Cobble Rock Energy Dissipator (~No. 2 Backing)	303-1.12	CY	10	\$132.00	\$1,320.00
17	Main Bid	237310	Curb and Gutter (6" Inch Curb, Type G)	303-5.9	LF	45	\$73.00	\$3,285.00
18	Main Bid	237310	Remove and Replace Existing Sidewalk	303-5.9	SF	170	\$22.50	\$3,825.00
19	Main Bid	237310	Curb Ramp (Type A) with Detectable Warning Tiles	303-5.10.2	EA	1	\$9,500.00	\$9,500.00
20	Main Bid	237110	Perforated PVC Plastic Pipe (Underdrain Pipe, 8 inch)	306-15.11	LF	120	\$66.00	\$7,920.00
21	Main Bid	237110	Storm Drain (1350-D) (12 inch, RCP)	306-15.1	LF	35	\$210.00	\$7,350.00
22	Main Bid	237110	Storm Drain (2000-D) (12 inch, RCP)	306-15.1	LF	90	\$210.00	\$18,900.00
23	Main Bid	237110	Storm Drain (2000-D) (18 inch, RCP)	306-15.1	LF	65	\$225.00	\$14,625.00
24	Main Bid	237110	Storm Drain (2000-D) (24 inch, RCP)	306-15.1	LF	30	\$250.00	\$7,500.00
25	Main Bid	237110	Water Service Transfer	306-15.8	EA	1	\$560.00	\$560.00
26	Main Bid	237110	Underdrain Cleanout	306-15.11	EA	2	\$500.00	\$1,000.00
27	Main Bid	237310	Traffic Control	601-7	LS	1	\$28,000.00	\$28,000.00
28	Main Bid	561730	Landscaping and Permanent Irrigation	801-9	LS	1	\$85,000.00	\$85,000.00
29	Main Bid	561730	Biofiltration Soil Mix	801-9	CY	642	\$75.00	\$48,150.00
30	Main Bid	561730	Biofiltration Aggregate Layer (3" No. 33, 3" No. 8, 24" No. 57)	801-9	CY	803	\$62.00	\$49,786.00
31	Main Bid	561730	Interpretive Sign / Sign Holder	801-9	LS	1	\$2,800.00	\$2,800.00
32	Main Bid	561730	Rock Cobble / Boulders	801-9	SF	3900	\$6.00	\$23,400.00
33	Main Bid	561730	Decomposed Granite Trail	801-9	SF	3400	\$6.00	\$20,400.00
34	Main Bid	561730	Cobble Edge	801-9	LF	700	\$15.00	\$10,500.00
35	Main Bid	561730	Mulch	801-9	SF	9575	\$0.56	\$5,362.00
36	Main Bid	561730	Tree (5 Gallon)	801-9	EA	22	\$62.00	\$1,364.00
37	Main Bid	541330	Biological Monitoring and Reporting	802-4	LS	1	\$10,000.00	\$10,000.00
38	Main Bid	541330	25-Month Revegetation Maintenance and Monitoring Program	802-4	LS	1	\$15,200.00	\$15,200.00
							Subtotal	\$761,567.00
							Total	\$761,567.00