

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

2375 Northside Drive, Suite. 100, San Diego, CA 92108
Phone (619) 516-1990 • Fax (619) 516-1994
<http://www.waterboards.ca.gov/sandiego/>

Clean Water Act Section 401 Water Quality Certification
and Waste Discharge Requirements
for Discharge of Dredged and/or Fill Materials

**PROJECT: Van Dyke Storm Drain Replacement Project
Certification Number R9-2019-0027
WDID: 9000002889**

Reg. Meas. ID: 421458
Place ID: 847301
Party ID: 528888
Person ID: 549084

**APPLICANT: City of San Diego – Public Works Department
525 B Street
San Diego, CA 92101**

ACTION:

<input checked="" type="checkbox"/> Order for Low Impact Certification	<input type="checkbox"/> Order for Denial of Certification
<input type="checkbox"/> Order for Technically-conditioned Certification	<input type="checkbox"/> Waiver of Waste Discharge Requirements
<input checked="" type="checkbox"/> Enrollment in SWRCB GWDR Order No. 2003-017-DWQ	<input type="checkbox"/> Enrollment in Isolated Waters Order No. 2004-004-DWQ

PROJECT DESCRIPTION

An application dated April 26, 2018 was submitted by the City of San Diego (hereinafter Applicant), for Water Quality Certification pursuant to section 401 of the Clean Water Act (33 U.S.C. § 1341) for the proposed Van Dyke Storm Drain Replacement Project (Project). The applicant qualifies for a non-notify Nationwide Permit No. 12 under the Clean Water Act section 404 from the United States Army Corps of Engineers for the Project.

The Project proposes to abandon and upgrade storm drain pipes near Van Dyke Avenue and Ethelda Place. The Project's center reading is 32° 45' 29.56" latitude and -117° 6' 8.93" longitude.

The Applicant has paid all required fees for this Certification in the amount of \$1500.00. On December 7, 2018, the San Diego Water Board provided public notice of the Project application pursuant to California Code of Regulations, title 23, section 3858 by posting information describing the Project on the San Diego Water Board's web site and providing a period of twenty-one days for public review and comment. No comments were received.

The Applicant proposes to abandon and upgrade storm drain pipes with a new system. The new storm drain system will be split into two systems. Each of these two new systems are proposed to be collected by another new system that replaces an old system that discharges down an existing steep slope into an existing channel. The new system will include a curb inlet, cleanout, and headwall as well as the installation of a ½ ton of riprap. A portion of the riprap will be installed with concrete grout. The steep slope will be graded and the old system will be

removed resulting in permanent impacts of 0.002 acres and temporary impacts of 0.0007 acres to non-wetland waters of the United States and/or State.

Receiving waters potentially affected by the Project are protected in accordance with water quality standards in the *Water Quality Control Plan for the San Diego Basin (9)* (Basin Plan). This Certification authorizes permanent and temporary impacts to waters of the United States and/or State affected by the Project and requires compensatory mitigation to offset adverse impacts as described in section VI of the Certification. The temporary impacts will be restored by the Applicant to pre-Project conditions and do not include physical loss of aquatic resource area or degradation of ecological conditions. Compensatory mitigation to offset the permanent loss of jurisdictional waters will be achieved through the Applicant's purchase of mitigation bank credits from the San Luis Rey Mitigation Bank (Bank) in advance of Project construction. Mitigation credit parcels, purchased from the Bank to satisfy compensatory mitigation requirements, are required to be protected, monitored and maintained in perpetuity by the Bank pursuant to a federal and State approved bank enabling instrument and a recorded conservation easement. Based on all of these considerations, the Applicant's compliance with the terms and conditions of this Certification will ensure that the water quality standards for all waters of the United States and/or State impacted by the Project are met.

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Attachments:

1. Definitions
2. Project Figures and Plans

The San Diego Water Board has independently reviewed the record of the Project to analyze the extent and nature of proposed Project impacts to the water quality and beneficial uses of waters of the United States and/or State and associated compensatory mitigation required to offset impacts attributed to the Project. In accordance with this Certification, the Applicant may proceed with the Project under the following terms and conditions:

I. STANDARD CONDITIONS

Pursuant to section 3860 of title 23 of the California Code of Regulations, the following three standard conditions apply to all water quality certification actions:

- A. This Certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the Water Code and chapter 28, article 6 (commencing with title 23, section 3867), of the California Code of Regulations.
- B. This Certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility and requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent Certification application was filed pursuant to California Code of Regulations title 23, section 3855 subdivision (b), and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
- C. This Certification action is conditioned upon total payment of any fee required under title 23, chapter 28 (commencing with section 3830) of California Code of Regulations and owed by the applicant.

II. GENERAL CONDITIONS

- A. **Term of Certification.** Water Quality Certification No. R9-2019-0027 (Certification) shall expire upon a) the expiration or retraction of the Clean Water Act section 404 (33 U.S.C. §1344) permit issued by the U.S. Army Corps of Engineers for this Project, or b) five (5) years from the date of issuance of this Certification, whichever occurs first.
- B. **Duty to Comply.** The Applicant must comply with all conditions and requirements of this Certification. Any Certification noncompliance constitutes a violation of the Water Code and is grounds for enforcement action or Certification termination, revocation and reissuance, or modification.
- C. **General Waste Discharge Requirements.** The requirements of this Certification are enforceable through Water Quality Order No. 2003-0017-DWQ, *Statewide General Waste Discharge Requirements for Discharges of Dredged or Fill Material that have Received State Water Quality Certification* (Water Quality Order No. 2003-0017-DWQ). This provision shall apply irrespective of whether a) the federal permit for which

the Certification was obtained is subsequently retracted or is expired, or b) the Certification is expired. Water Quality Order No. 2003-0017-DWQ is accessible at:

http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/generalorders/gowdr401regulated_projects.pdf.

- D. Project Conformance with Application.** All water quality protection measures and BMPs described in the application and supplemental information for water quality certification are incorporated by reference into this Certification as if fully stated herein. Notwithstanding any more specific conditions in this Certification, the Applicant shall construct, implement and comply with all water quality protection measures and BMPs described in the application and supplemental information. The conditions within this Certification shall supersede conflicting provisions within the application and supplemental information submitted as part of this Certification action.
- E. Project Conformance with Water Quality Control Plans or Policies.** Notwithstanding any more specific conditions in this Certification, the Project shall be constructed in a manner consistent with the Basin Plan and any other applicable water quality control plans or policies adopted or approved pursuant to the Porter Cologne Water Quality Act (Division 7, commencing with Water Code Section 13000) or section 303 of the Clean Water Act (33 U.S.C §1313.). The Basin Plan is accessible on-line at:
- http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/index.shtml
!
- F. Project Modification.** The Applicant must submit any changes to the Project, including Project operation, which would have a significant or material effect on the findings, conclusions, or conditions of this Certification, to the San Diego Water for prior review and written approval. If the San Diego Water Board is not notified of a significant change to the Project, it will be considered a violation of this Certification
- G. Certification Distribution Posting.** During Project construction, the Applicant must maintain a copy of this Certification at the Project site. This Certification must be available at all times to site personnel and agencies. A copy of this Certification shall also be provided to any contractor or subcontractor performing construction work, and the copy shall remain in their possession at the Project site.
- H. Inspection and Entry.** The Applicant must allow the San Diego Water Board or the State Water Resources Control Board, and/or their authorized representative(s) (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents as may be required under law, to:
1. Enter upon the Project or Compensatory Mitigation site(s) premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Certification;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Certification;
 3. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Certification; and
 4. Sample or monitor, at reasonable times, for the purposes of assuring Certification compliance, or as otherwise authorized by the Clean Water Act or Water Code, any substances or parameters at any location.
- I. **Enforcement Notification.** In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under State law. For purposes of section 401(d) of the Clean Water Act, the applicability of any State law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Certification.
- J. **Certification Actions.** This Certification may be modified, revoked and reissued, or terminated for cause including but not limited to the following:
1. Violation of any term or condition of this Certification;
 2. Monitoring results indicate that continued Project activities could violate water quality objectives or impair the beneficial uses of the unnamed tributary to the San Diego River, or its tributaries;
 3. Obtaining this Certification by misrepresentation or failure to disclose fully all relevant facts;
 4. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; and
 5. Incorporation of any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act.
- The filing of a request by the Applicant for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Certification condition.
- K. **Duty to Provide Information.** The Applicant shall furnish to the San Diego Water Board, within a reasonable time, any information which the San Diego Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Certification or to determine compliance with this Certification.

- L. **Property Rights.** This Certification does not convey any property rights of any sort, or any exclusive privilege.

- M. **Petitions.** Any person aggrieved by this action of the San Diego Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with the California Code of Regulations, title 23, sections 3867 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Certification. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

III. CONSTRUCTION AND POST CONSTRUCTION BEST MANAGEMENT PRACTICES

- A. **Construction Requirements.** Prior to start of Project construction, the Applicant must, as applicable, obtain coverage under, and comply with, the requirements of State Water Resources Control Board Water Quality Order No. 2009-0009-DWQ, the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activity (General Construction Storm Water Permit) and any reissuance. If Project construction activities do not require coverage under the General Construction Storm Water Permit, the Applicant must develop and implement a pollution control plan, construction BMP plan, and/or erosion and sediment control plan to prevent the discharge of sediment and other pollutants during construction activities.

- B. **Post Construction Requirements.** The Project must meet all the Post-Construction requirements of the San Diego Water Board Order No. R9-2013-0001, National Pollutant Discharge Elimination Systems Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4) Draining the Watersheds within the San Diego Region (Regional MS4 Permit).

IV. PROJECT IMPACTS AND COMPENSATORY MITIGATION

- A. **Project Impacts and Compensatory Mitigation.** Unavoidable Project impacts to an unnamed tributary to the San Diego River and its unnamed tributaries within San Diego Watershed must not exceed the type and magnitude of impacts described in the table below. At a minimum, compensatory mitigation required to offset unavoidable temporary and permanent Project impacts to waters of the United States and/or State must be achieved as described in the table below:

	Impacts (acres)	Impacts (linear ft.)	Mitigation for Impacts (acres)	Mitigation Ratio (area mitigated :area impacted)	Mitigation for Impacts (linear ft.)	Mitigation Ratio (linear feet mitigated :linear feet impacted)
Permanent Impacts						
Streambed	0.002 ¹	131	0.02 Re-establishment ²	1:1	NA ³	NA ³
Temporary Impacts⁴						
Streambed	0.0007 ⁴	18 ⁴	N/A	NA	N/A	N/A

NA – Not applicable

1. Permanent impacts associated from placement of rip rap into the stream channel.
2. Project compensatory mitigation non-wetland waters of the United States re-establishment credits will be deducted from the Stadium Mitigation Site, San Diego, CA. The Stadium Mitigation Site is an advanced permittee mitigation site owned by the City of San Diego.
3. Compensatory mitigation is being provided in a contiguous area at the Stadium site; therefore, compensatory mitigation for linear feet is not being calculated on a project by project basis.
4. All areas of temporary impacts must be restored to pre-project contours and re-vegetated with native species.

B. Mitigation Credit Purchase. Prior to the start of construction, the Applicant must provide documentation to the San Diego Water Board verifying the deduction of 0.002 acre of riparian scrub (non-wetland waters of the United States and/or State) credit from the Stadium Mitigation Site, San Diego, CA.

C. Temporary Project Impact Areas. The Applicant must restore all areas of temporary impacts and all other areas of temporary disturbance which could result in a discharge or a threatened discharge of pollutants to waters of the United States and/or State. Restoration must include grading of disturbed areas to pre-project contours and re-vegetation with native species. The Applicant must implement all necessary BMPs to control erosion and runoff from areas associated with the Project.

V. MONITORING AND REPORTING REQUIREMENTS

A. Annual Project Progress Reports. The Applicant must submit annual Project progress reports describing compliance with all requirements of this Certification to the San Diego Water Board prior to **March 1** of each year following the issuance of this Certification, until the Project has reached completion. The report must include the following information:

1. The names, qualifications, and affiliations of the persons contributing to the report;
2. The status, progress, and anticipated schedule for completion of Project construction activities;

3. A description of Project construction delays encountered or anticipated that may affect the schedule for construction completion; and
 4. A description of each incident of noncompliance during the annual monitoring period and its cause, the period of the noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
- B. Final Project Completion Report.** The Applicant must submit a Final Project Completion Report to the San Diego Water Board **within 30 days of completion of the Project**. The final report must include the following information:
1. Date of construction initiation;
 2. Date of construction completion;
 3. As-built drawings of the Project, no bigger than 11”X17”; and
 4. Photo documentation of implemented post-construction BMPs and all areas of permanent and temporary impacts, prior to and after project construction. Photo documentation must be conducted in accordance with guidelines posted at http://www.waterboards.ca.gov/sandiego/water_issues/programs/401_certification/docs/401c/401PhotoDocRB9V713.pdf. In addition, photo documentation must include Global Positioning System (GPS) coordinates for each of the photo points referenced.
- C. Reporting Authority.** The submittal of information required under this Certification, or in response to a suspected violation of any condition of this Certification, is required pursuant to Water Code section 13267 and 13383. Civil liability may be administratively imposed by the San Diego Water Board for failure to submit information pursuant to Water Code sections 13268 or 13385.
- D. Electronic Document Submittal.** The Applicant must submit all reports and information required under this Certification in electronic format via e-mail to SanDiego@waterboards.ca.gov. Documents over 50 megabytes will not be accepted via e-mail and must be placed on a disc and delivered to:

California Regional Water Quality Control Board
San Diego Region
Attn: 401 Certification No. R9-2019-0027:847301:ngergans
2375 Northside Drive, Suite 100
San Diego, California, 92108

Each electronic document must be submitted as a single file, in Portable Document Format (PDF), and converted to text searchable format using Optical Character Recognition (OCR). All electronic documents must include scanned copies of all signature pages; electronic signatures will not be accepted. Electronic documents submitted to the San Diego Water Board must include the following identification

numbers in the header or subject line: Certification No. R9-2019-0027:847301:ngergans.

E. Document Signatory Requirements. All applications, reports, or information submitted to the San Diego Water Board must be signed as follows:

1. For a corporation, by a responsible corporate officer of at least the level of vice president.
2. For a partnership or sole proprietorship, by a general partner or proprietor, respectively.
3. For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.
4. A duly authorized representative may sign applications, reports, or information if:
 - a. The authorization is made in writing by a person described above.
 - b. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated activity.
 - c. The written authorization is submitted to the San Diego Water Board Executive Officer.

If such authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the Project, a new authorization satisfying the above requirements must be submitted to the San Diego Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative.

F. Document Certification Requirements. All applications, reports, or information submitted to the San Diego Water Board must be certified as follows:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

VI. NOTIFICATION REQUIREMENTS

- A. Twenty Four Hour Non-Compliance Reporting.** The Applicant shall report any noncompliance which may endanger health or the environment. Any such information shall be provided orally to the San Diego Water Board within **24 hours** from the time the Applicant becomes aware of the circumstances. A written submission shall also be provided within five days of the time the Applicant becomes aware of the circumstances.

The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The San Diego Water Board, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

- B. Anticipated Noncompliance.** The Applicant shall give advance notice to the San Diego Water Board of any planned changes in the Project or the Compensatory Mitigation project which may result in noncompliance with Certification conditions or requirements.
- C. Transfers.** This Certification is not transferable in its entirety or in part to any person or organization except after notice to the San Diego Water Board in accordance with the following terms:
- 1. Transfer of Property Ownership:** The Applicant must notify the San Diego Water Board of any change in ownership of the Project area. Notification of change in ownership must include, but not be limited to, a statement that the Applicant has provided the purchaser with a copy of the Section 401 Water Quality Certification and that the purchaser understands and accepts the certification requirements and the obligation to implement them or be subject to liability for failure to do so; the seller and purchaser must sign and date the notification and provide such notification to the San Diego Water Board **within 10 days of the transfer of ownership.**
 - 2. Transfer of Mitigation Responsibility:** Any notification of transfer of responsibilities to satisfy the mitigation requirements set forth in this Certification must include a signed statement from an authorized representative of the new party (transferee) demonstrating acceptance and understanding of the responsibility to comply with and fully satisfy the mitigation conditions and agreement that failure to comply with the mitigation conditions and associated requirements may subject the transferee to enforcement by the San Diego Water Board under Water Code section 13385, subdivision (a). Notification of transfer of responsibilities meeting the above conditions must be provided to the San Diego Water Board **within 10 days of the transfer date.**
 - 3. Transfer of Post-Construction BMP Maintenance Responsibility:** The Applicant assumes responsibility for the inspection and maintenance of all post-construction structural BMPs until such responsibility is legally transferred to another entity. At the time maintenance responsibility for post-construction BMPs is legally transferred the Applicant must submit to the San Diego Water Board a copy of such documentation and must provide the transferee with a copy of a long-term BMP maintenance plan that complies with manufacturer specifications. The Applicant must provide such notification to the San Diego Water Board **within 10 days** of the transfer of BMP maintenance responsibility.

Upon properly noticed transfers of responsibility, the transferee assumes responsibility for compliance with this Certification and references in this Certification to the Applicant

will be interpreted to refer to the transferee as appropriate. Transfer of responsibility does not necessarily relieve the Applicant of this Certification in the event that a transferee fails to comply.

- D. **Discharge Commencement.** The Applicant must notify the San Diego Water Board in writing **at least 5 days prior to** the start of Project construction.

VII. CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

- A. The City of San Diego is the Lead Agency under the California Environmental Quality Act (CEQA) (Public Resources Code section 21000, et seq.) section 21067, and CEQA Guidelines (California Code of Regulations, title 14, section 15000 et seq.) section 15367, and has filed a Notice of Determination dated October 26, 2018 for Mitigated Negative Declaration (MND) titled Mitigated Negative Declaration Project No. 330736 (MND). The Lead Agency has determined the Project will have a significant effect on the environment and mitigation measures were made a condition of the Project.
- B. The San Diego Water Board is a Responsible Agency under CEQA (Public Resources Code section 21069; CEQA Guidelines section 15381). The San Diego Water Board has considered the Lead Agency's MND and finds that the Project as proposed will have a significant effect on resources within the San Diego Water Board's purview.
- C. The San Diego Water Board has required mitigation measures as a condition of this Certification to avoid or reduce the environmental effects of the Project to resources within the Board's purview to a less than significant level.
- D. As a Responsible Agency under CEQA, the San Diego Water Board will file a Notice of Determination in accordance with CEQA Guidelines section 15096 subdivision(i).

VIII. SAN DIEGO WATER BOARD CONTACT PERSON

Nicole Gergans, Environmental Scientist
California Regional Water Quality Control Board, San Diego Region
2375 Northside Drive, Suite 100
San Diego, California 92108
Telephone: 619-521-3969
Email: nicole.gergans@waterboards.ca.gov

IX. WATER QUALITY CERTIFICATION

I hereby certify that the proposed discharge from the **Van Dyke Storm Drain Replacement** (Certification No. R9-2019-0027) will comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. This discharge is also regulated under State Water Board Order No. 2003-0017-DWQ, "*Statewide General Waste Discharge Requirements for Dredged or Fill Discharges that have Received State Water Quality Certification (General WDRs)*," which requires compliance with all conditions of this Water Quality Certification. Please note that enrollment under Order No. 2003-017-DWQ is conditional and, should new information

come to our attention that indicates a water quality problem, the San Diego Water Board may issue individual waste discharge requirements at that time.

Except insofar as may be modified by any preceding conditions, all Certification actions are contingent on (a) the discharge being limited to, and all proposed mitigation being completed in strict compliance with, the applicants' Project description and/or the description in this Certification, and (b) compliance with all applicable requirements of the Basin Plan.

I, David W. Gibson, Executive Officer, do hereby certify the forgoing is a full, true, and correct copy of Certification No. R9-2019-0027 issued on January 24, 2019.



DAVID W. GIBSON
Executive Officer
San Diego Water Board

24 January 2019
Date

ATTACHMENT 1

DEFINITIONS

Activity - when used in reference to a permit means any action, undertaking, or project including, but not limited to, construction, operation, maintenance, repair, modification, and restoration which may result in any discharge to waters of the state.

Buffer - means an upland, wetland, and/or riparian area that protects and/or enhances aquatic resource functions associated with wetlands, rivers, streams, lakes, marine, and estuarine systems from disturbances associated with adjacent land uses.

California Rapid Assessment Method (CRAM) - is a wetland assessment method intended to provide a rapid, scientifically-defensible and repeatable assessment methodology to monitor status and trends in the conditions of wetlands for applications throughout the state. It can also be used to assess the performance of compensatory mitigation projects and restoration projects. CRAM provides an assessment of overall ecological condition in terms of four attributes: landscape context and buffer, hydrology, physical structure and biotic structure. CRAM also includes an assessment of key stressors that may be affecting wetland condition and a "field to PC" data management tool (eCRAM) to ensure consistency and quality of data produced with the method.

Compensatory Mitigation Project - means compensatory mitigation implemented by the Applicant as a requirement of this Certification (i.e., applicant -responsible mitigation), or by a mitigation bank or an in-lieu fee program.

Discharge of dredged material – means any addition of dredged material into, including redeposit of dredged material other than incidental fallback within, the waters of the United States and/or State.

Discharge of fill material – means the addition of fill material into waters of the United States and/or State.

Dredged material – means material that is excavated or dredged from waters of the United States and/or State.

Ecological Success Performance Standards – means observable or measurable physical (including hydrological), chemical, and/or biological attributes that are used to determine if a compensatory mitigation project meets its objectives.

Enhancement – means the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment – means the manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist. Creation results in a gain in aquatic resource area.

Fill material – means any material used for the primary purpose of replacing an aquatic area with dry land or of changing the bottom elevation of a water body.

Isolated wetland – means a wetland with no surface water connection to other aquatic resources.

Mitigation Bank – means a site, or suite of sites, where resources (e.g., wetlands, streams, riparian areas) are restored, established, enhanced, and/or preserved for the purpose of providing mitigation for impacts authorized by this Certification.

Preservation - means the removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/ historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/ historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Start of Project Construction - For the purpose of this Certification, "start of Project construction" means to engage in a program of on-site construction, including site clearing, grading, dredging, landfilling, changing equipment, substituting equipment, or even moving the location of equipment specifically designed for a stationary source in preparation for the fabrication, erection or installation of the building components of the stationary source within waters of the United States and/or State.

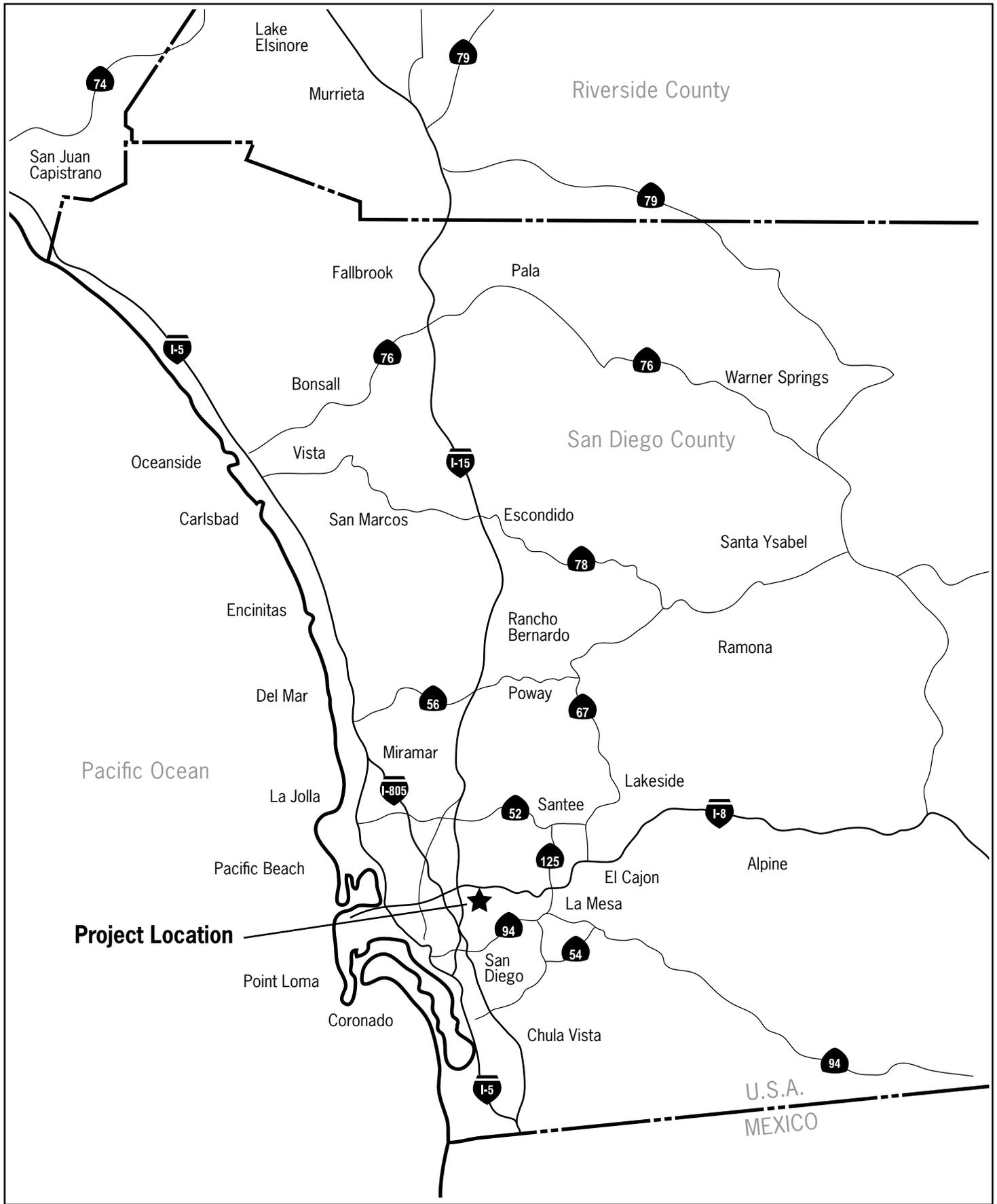
Uplands - means non-wetland areas that lack any field-based indicators of wetlands or other aquatic conditions. Uplands are generally well-drained and occur above (i.e., up-slope) from nearby aquatic areas. Wetlands can, however, be entirely surrounded by uplands. For example, some natural seeps and constructed stock ponds lack aboveground hydrological connection to other aquatic areas. In the watershed context, uplands comprise the landscape matrix in which aquatic areas form. They are the primary sources of sediment, surface runoff, and associated chemicals that are deposited in aquatic areas or transported through them.

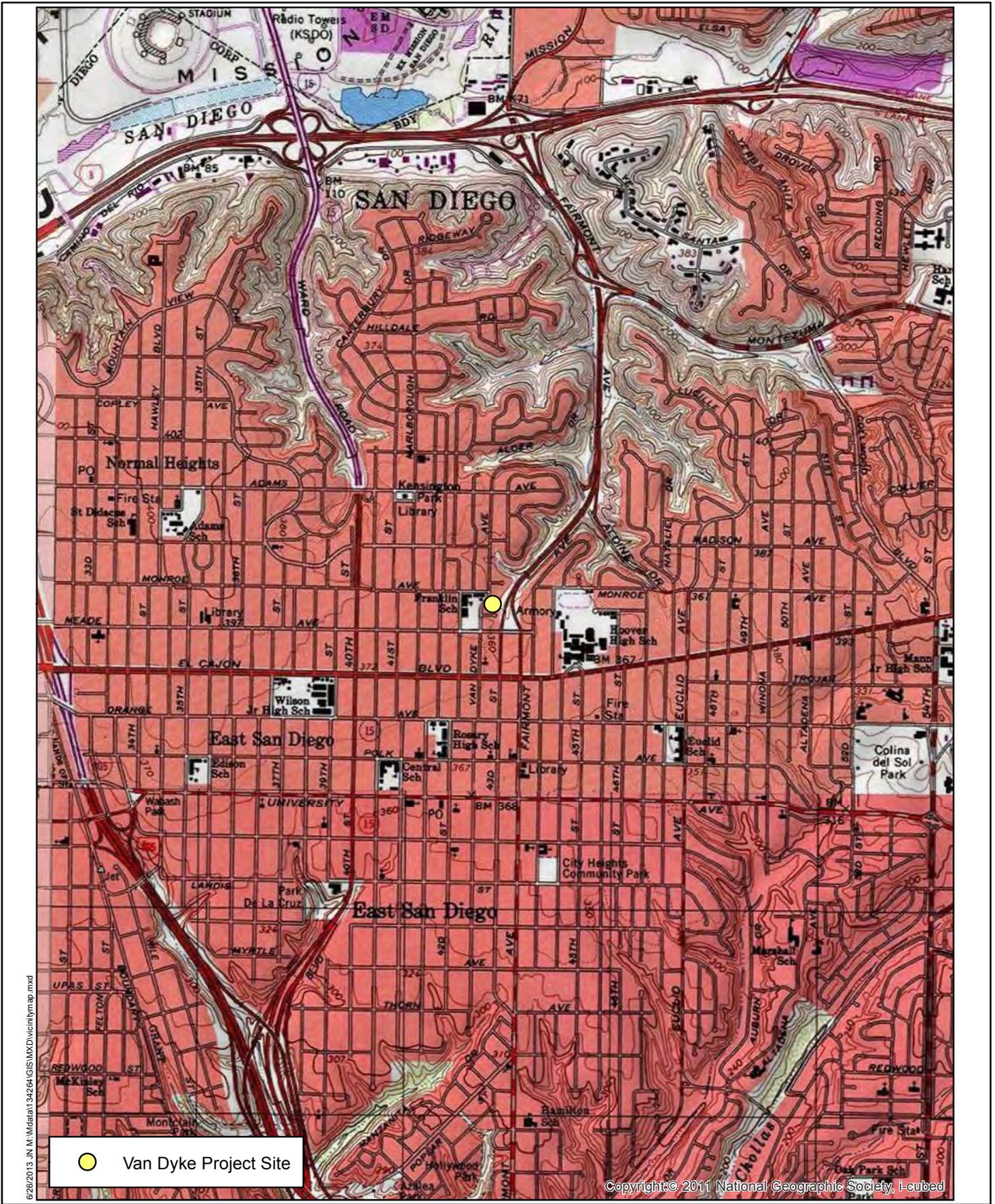
Water quality objectives and other appropriate requirements of state law – means the water quality objectives and beneficial uses as specified in the appropriate water quality control plan(s); the applicable provisions of sections 301, 302, 303, 306, and 307 of the Clean Water Act; and any other appropriate requirement of state law.

City of San Diego
Van Dyke Storm Drain Replacement
Certification No. R9-2019-0027

**ATTACHMENT 2
PROJECT FIGURES AND PLANS**

- 1) Figure 1 - Regional Location Map**
- 2) Figure 2 - USGS Map**
- 3) Van Dyke Storm Drain Replacement**
- 4) Upland Habitat and Jurisdictional Impacts**
- 5) Construction Plans**





● Van Dyke Project Site

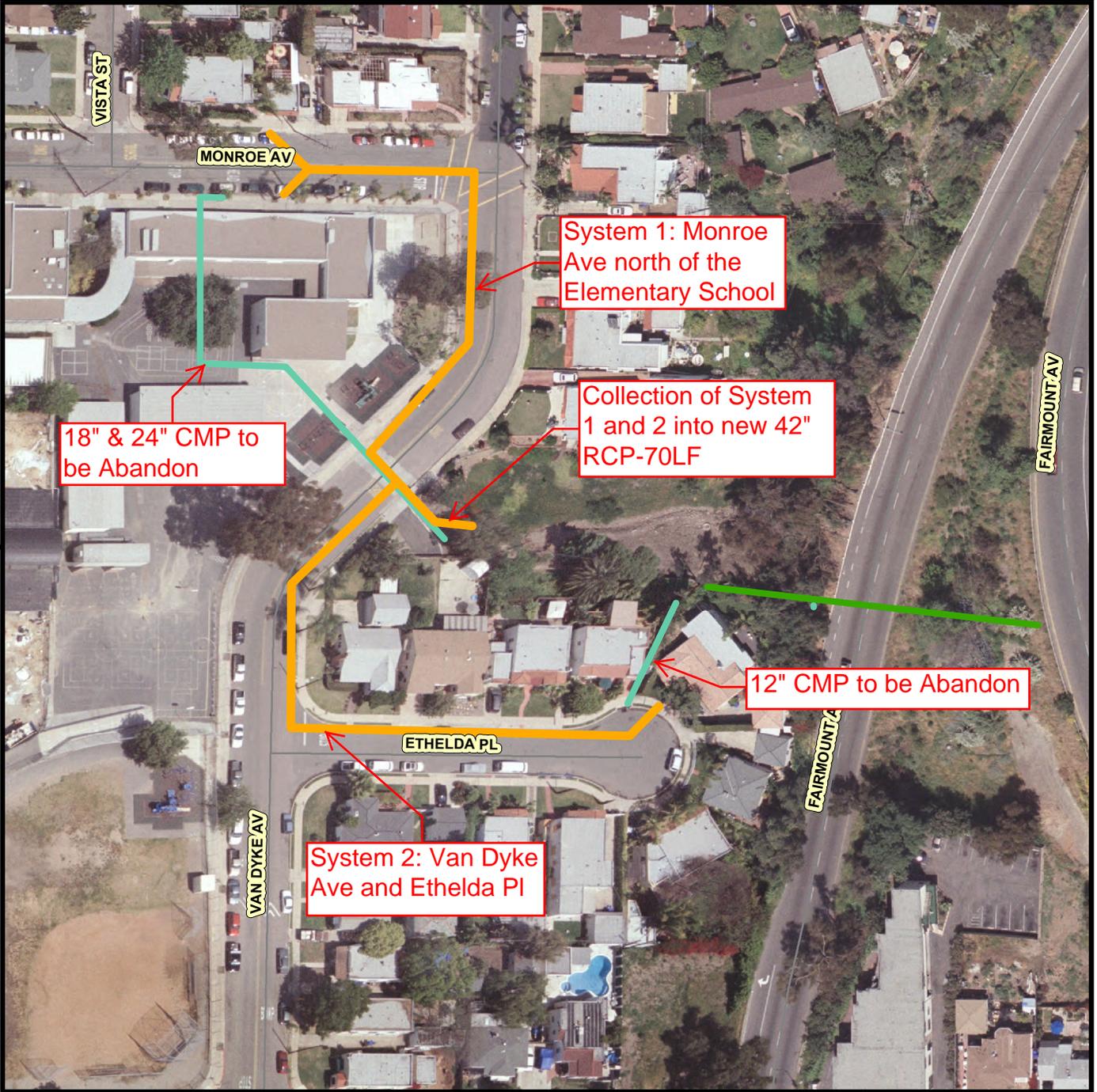
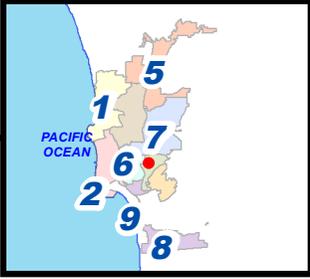
VAN DYKE AVE. STORM DRAIN REPLACEMENT

SENIOR ENGINEER
JAMAL BATTA
(619) 533-7482

PROJECT MANAGER
MICHAEL HANDAL
(619) 533-7588

PROJECT ENGINEER
BILAL ORIQAT
(619) 533-6676

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



Legend

- B12034 Van Dyke Storm Drain Sewer
- GJ 835 (Not Part of this Project)
- Exist. Storm Drain



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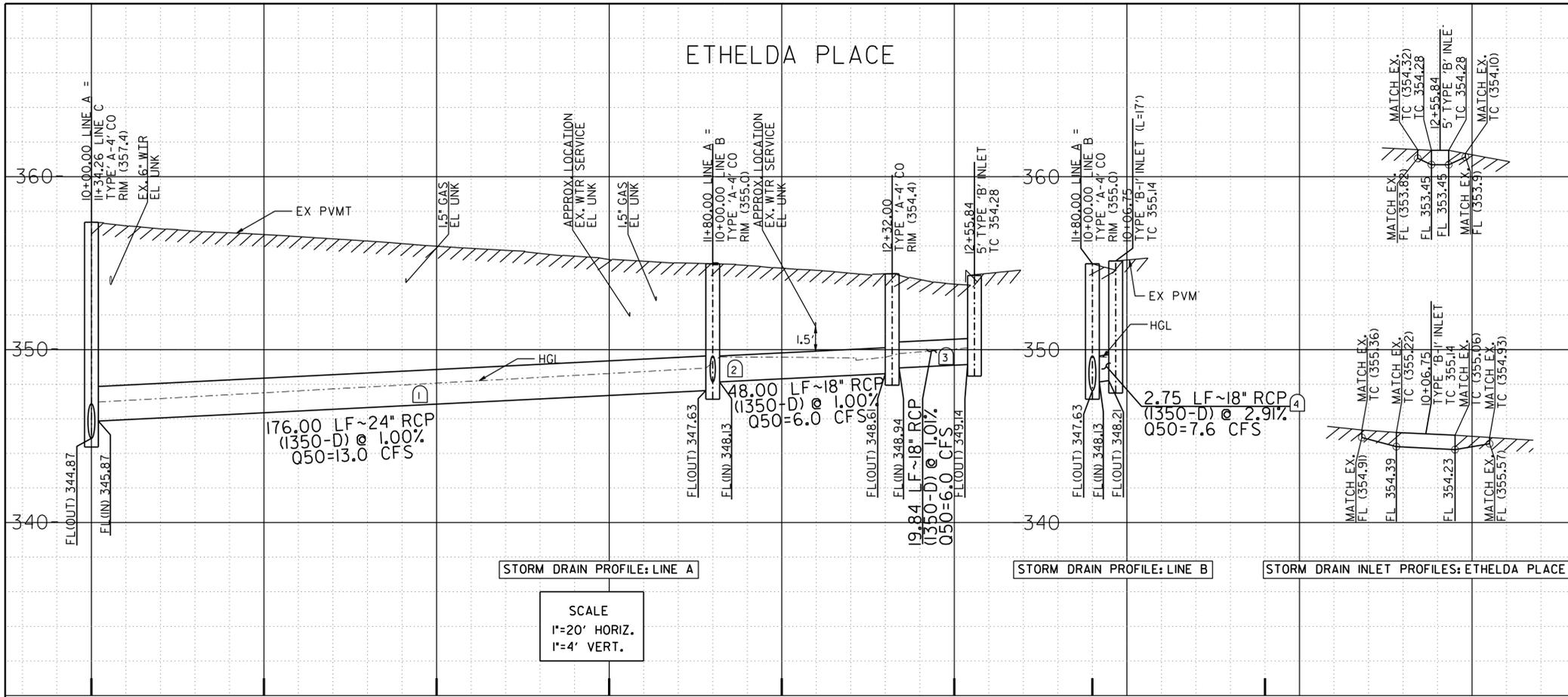


Van Dyke Storm Drain Replacement

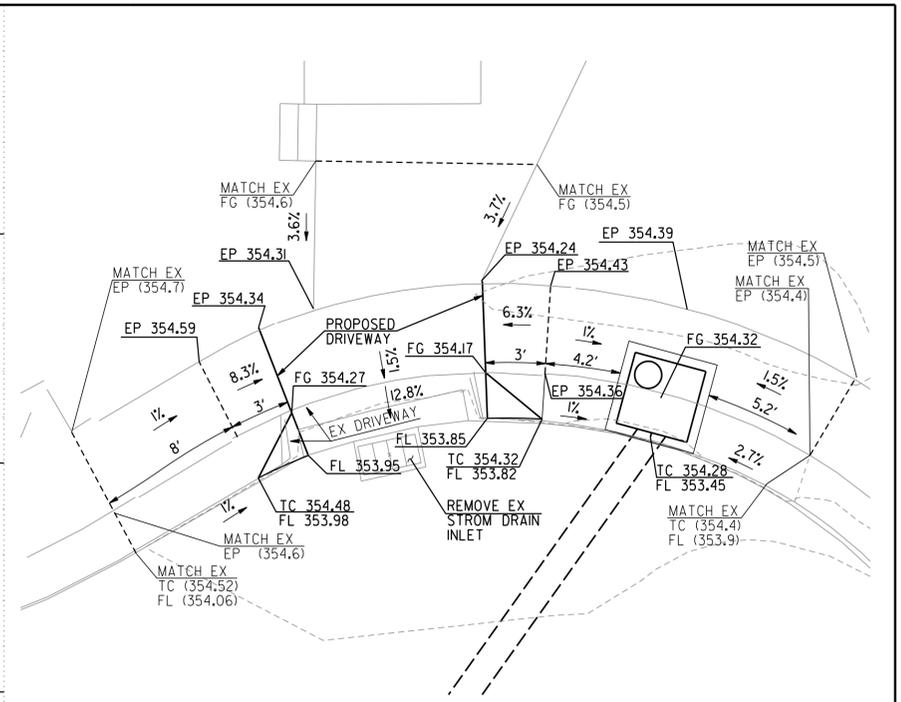
Updated Habitat and Jurisdictional Impacts

-  Pipe
-  Riprap
-  Construction Footprint
-  USACE/CDFW Jurisdiction
-  Ornamental
-  Urban

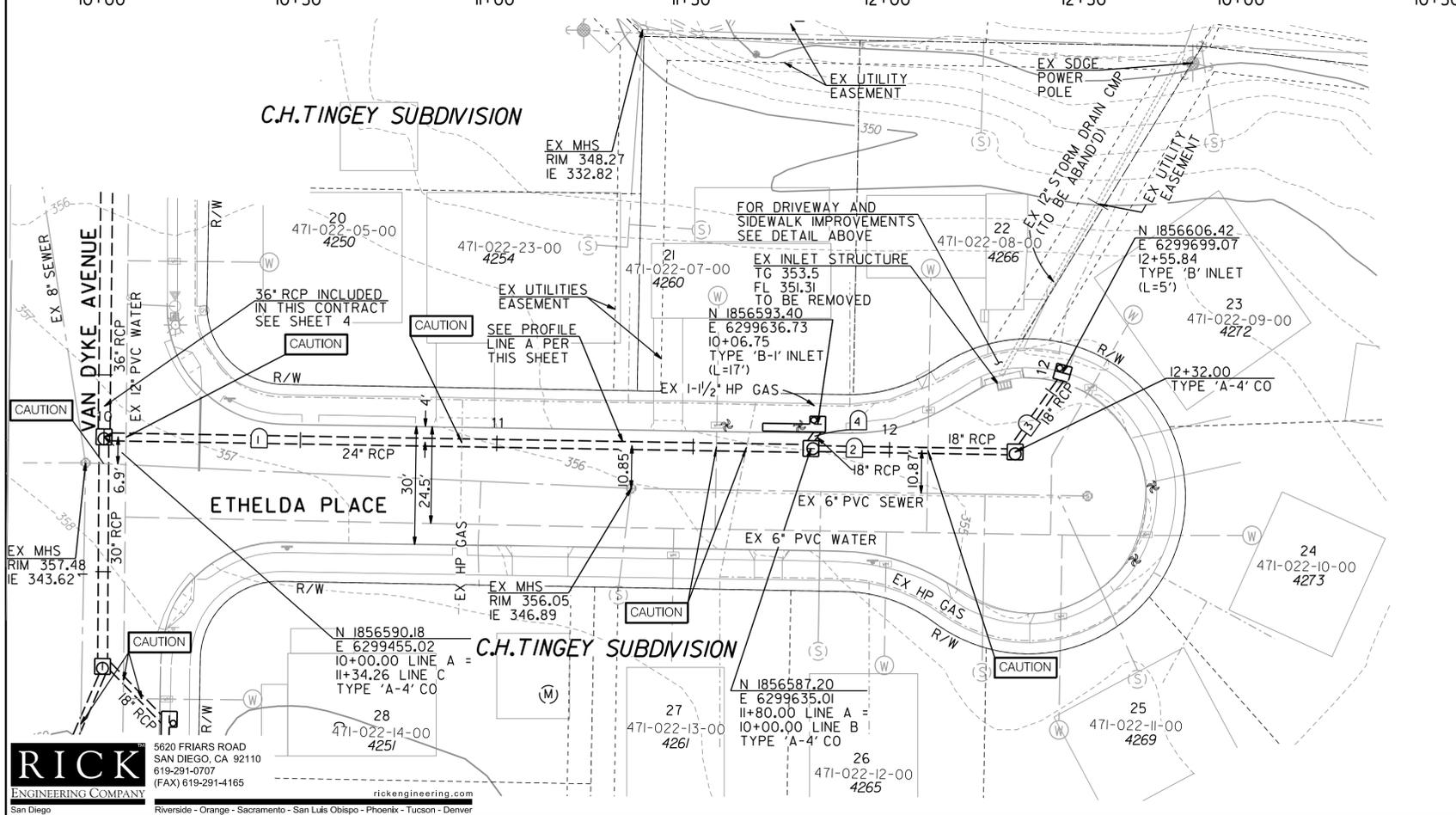




SCALE
1"=20' HORIZ.
1"=4' VERT.



DRIVEWAY DETAIL: ETHELDA PLACE
SCALE 1"=5'



CONTRACTOR TO PROTECT EX WATER AND GAS LATERALS IN PLACE OR REPLACE EXISTING LATERAL(S). ELEVATION UNKNOWN.

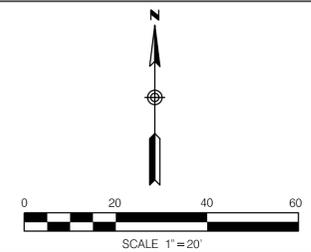
REFERENCE:
WATER: 19360-D
SEWER: 3387-L
STORM DRAIN: 3387-L

STORM DRAIN DATA				
NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARKS
1	N89° 03' 01" W		176.00'	24" RCP (1350-D)
2	N89° 03' 01" W		48.00'	18" RCP (1350-D)
3	N35° 28' 01" E		19.84'	18" RCP (1350-D)
4	N36° 53' 35" E		2.75'	18" RCP (1350-D)

ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERAL, AND OTHER TRENCHING ACTIVITIES)		
BEGINNING STATION	ENDING STATION	APPROXIMATE LF
10+00.00	12+55.84	260
10+00.00	10+06.75	10

ESTIMATED PALEONTOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERAL, AND OTHER TRENCHING ACTIVITIES)		
BEGINNING STATION	ENDING STATION	APPROXIMATE LF
10+63.64	12+55.84	200

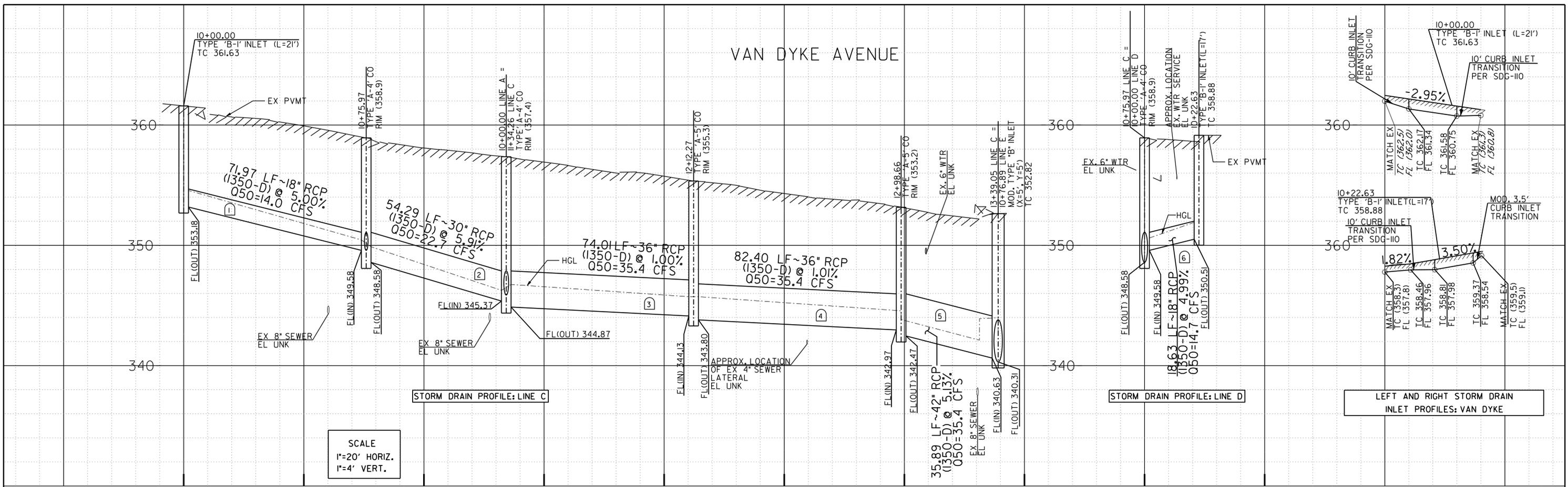
ACTUAL LIMITS SHALL BE DETERMINED BY THE PI/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE MITIGATION AND MONITORING PROGRAM (MMRP) FOR THE PROJECT.



C-1
VAN DYKE STORM DRAIN REPLACEMENT
ETHELDA PLACE
VAN DYKE AVENUE TO ETHELDA PLACE

CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 03 OF 11 SHEETS		WBS	B-12034
FOR CITY ENGINEER MAHMOUD ORIQAT PRINT DCE NAME		DATE C55970 RCE#	SUBMITTED BY SHAWN KRAUSE PROJECT MANAGER
DESCRIPTION ORIGINAL	BY REC	APPROVED	DATE 214-1737 CCS27 COORDINATE
1854-6297 CCS83 COORDINATE		99829-03-D	

VAN DYKE AVENUE



SCALE
1"=20' HORIZ.
1"=4' VERT.

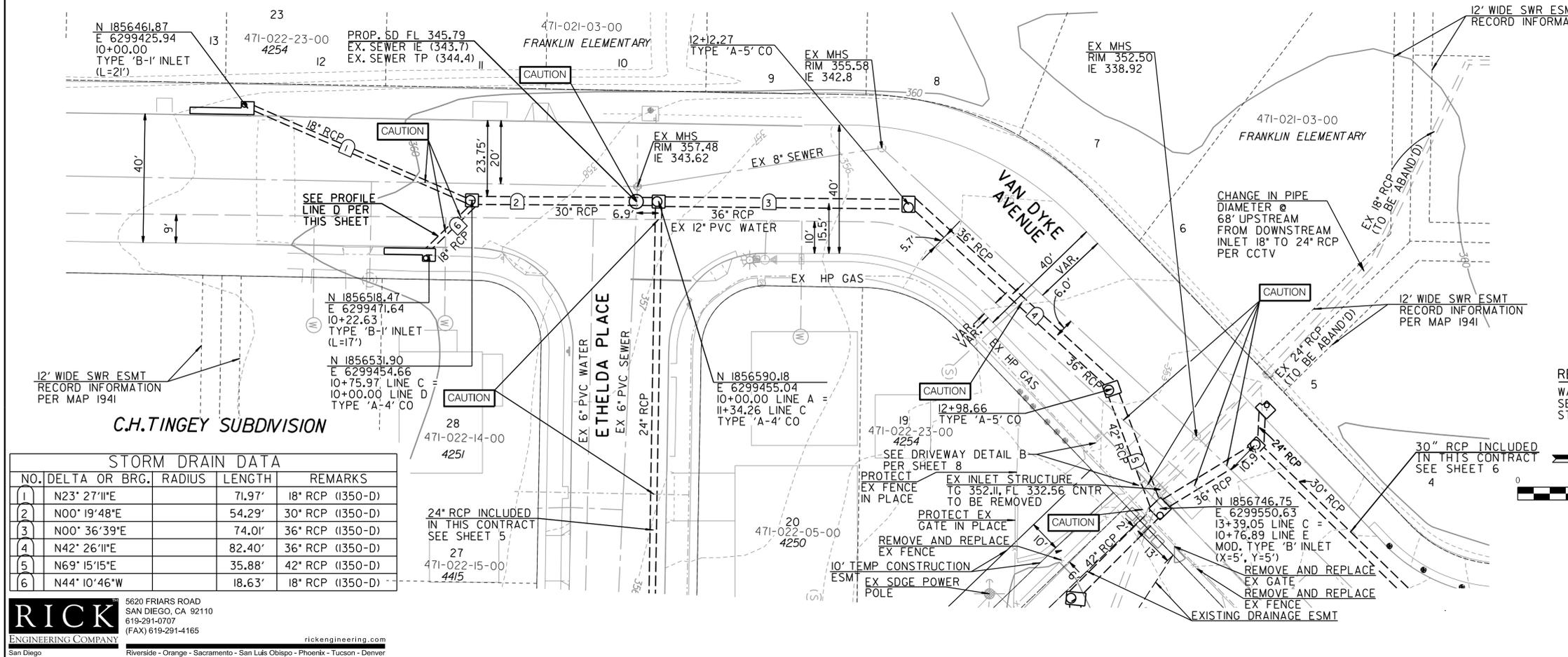
ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS
(INCLUDES MAIN, LATERAL, AND OTHER TRENCHING ACTIVITIES)

BEGINNING STATION	ENDING STATION	APPROXIMATE LF
10+00.00	13+39.05	350
10+00.00	10+22.63	30

ESTIMATED PALEONTOLOGICAL MONITORING LIMITS
(INCLUDES MAIN, LATERAL, AND OTHER TRENCHING ACTIVITIES)

BEGINNING STATION	ENDING STATION	APPROXIMATE LF
10+73.97	13+39.05	270
10+00.00	10+02.00	10

ACTUAL LIMITS SHALL BE DETERMINED BY THE PI/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE MITIGATION AND MONITORING PROGRAM (MMRP) FOR THE PROJECT.

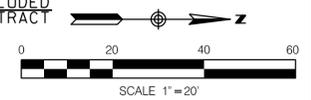


STORM DRAIN DATA

NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARKS
1	N23° 27' 11"E		71.97'	18" RCP (1350-D)
2	N00° 19' 48"E		54.29'	30" RCP (1350-D)
3	N00° 36' 39"E		74.01'	36" RCP (1350-D)
4	N42° 26' 11"E		82.40'	36" RCP (1350-D)
5	N69° 15' 15"E		35.88'	42" RCP (1350-D)
6	N44° 10' 46"W		18.63'	18" RCP (1350-D)

24" RCP INCLUDED IN THIS CONTRACT SEE SHEET 5

REFERENCE:
WATER: 19360-D
SEWER: 3387-L
STORM DRAIN: 3388-L



VAN DYKE STORM DRAIN REPLACEMENT
VAN DYKE AVENUE
ETHELMA PLACE TO VAN DYKE AVENUE

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 04 OF 11 SHEETS

WBS B-12034

APPROVED: MAHMOUD ORIQAT, PROJECT ENGINEER (C55970)

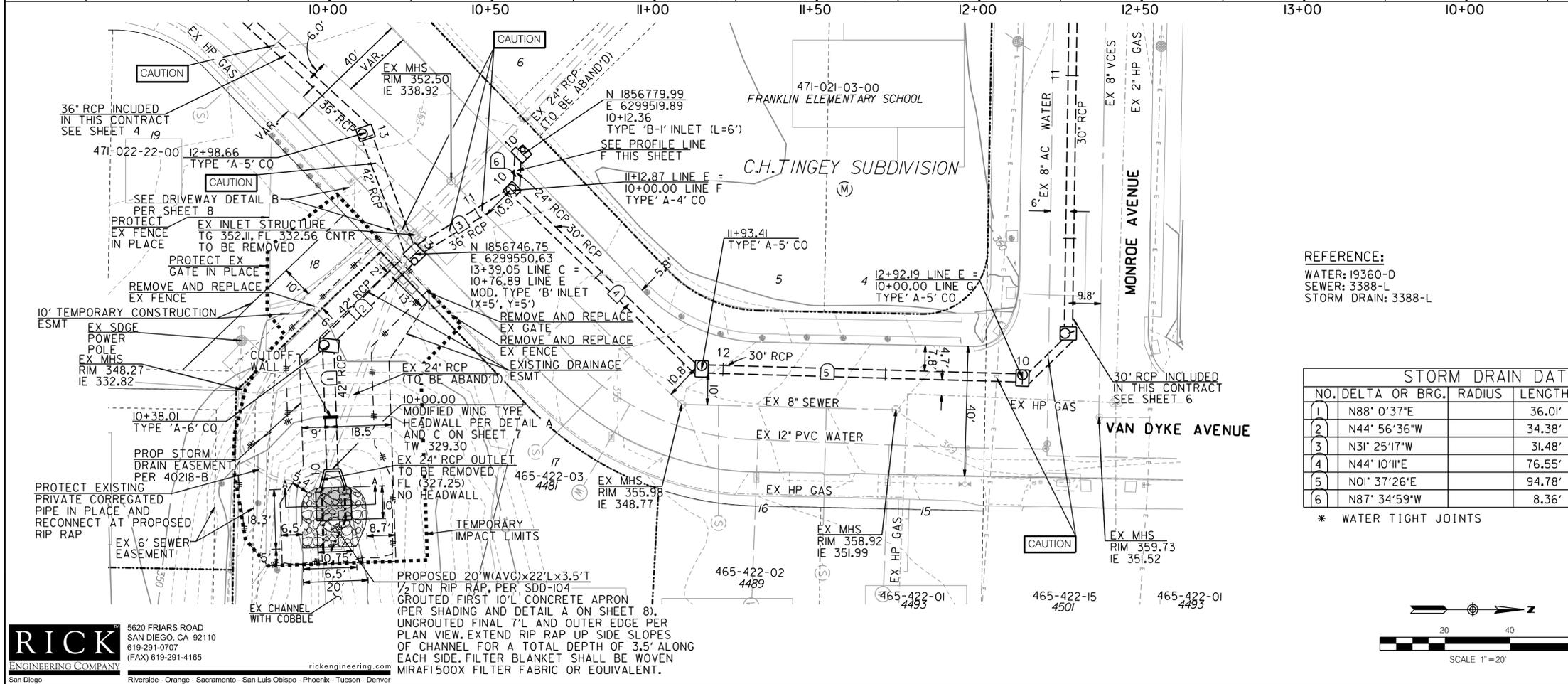
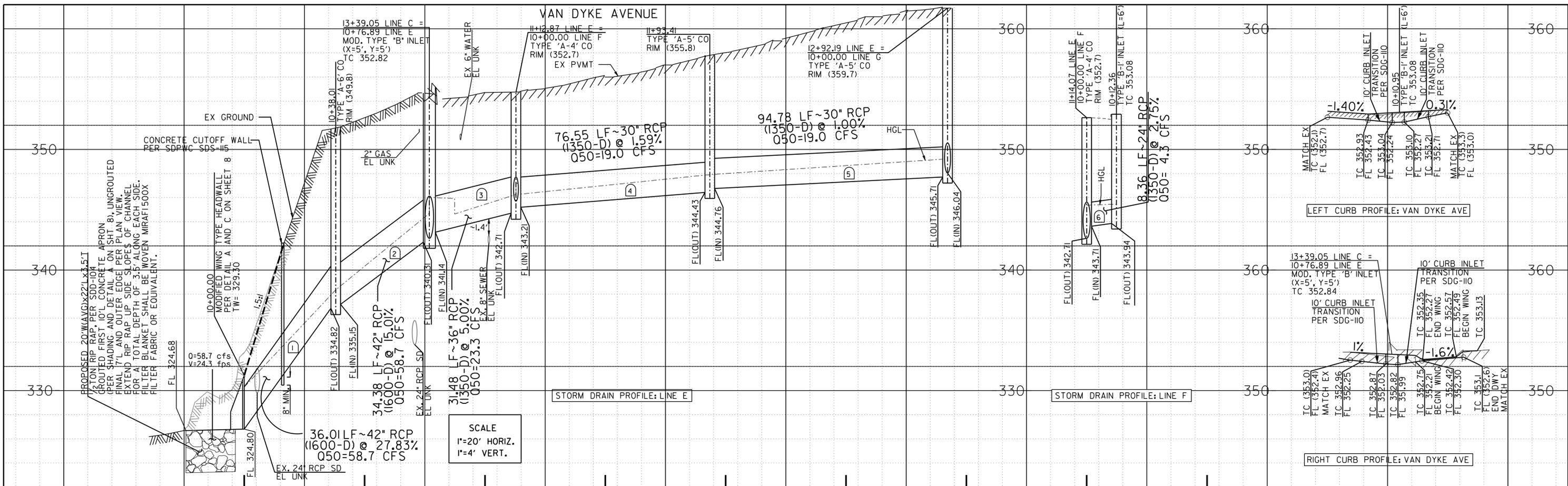
FOR CITY ENGINEER: SHAWN KRAUSE, PROJECT MANAGER

DATE: 1854-6297

CONTRACTOR: 39829-04-D

RICK ENGINEERING COMPANY
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619-291-0707
(FAX) 619-291-4165
rickengineering.com

VAN DYKE AVENUE



ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS
(INCLUDES MAIN, LATERAL, AND OTHER TRENCHING ACTIVITIES)

BEGINNING STATION	ENDING STATION	APPROXIMATE LF
10+00.00	12+92.19	300
10+00.00	10+12.63	20

ESTIMATED PALEONTOLOGICAL MONITORING LIMITS
(INCLUDES MAIN, LATERAL, AND OTHER TRENCHING ACTIVITIES)

BEGINNING STATION	ENDING STATION	APPROXIMATE LF
10+13.80	12+92.19	280
10+00.00	10+02.00	10

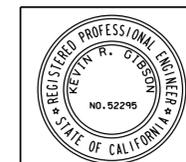
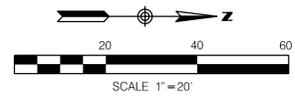
ACTUAL LIMITS SHALL BE DETERMINED BY THE PI/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE MITIGATION AND MONITORING PROGRAM (MMRP) FOR THE PROJECT.

REFERENCE:
 WATER: 19360-D
 SEWER: 3388-L
 STORM DRAIN: 3388-L

STORM DRAIN DATA

NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARKS
1	N88° 0' 37" E		36.01'	* 42" RCP (1600-D)
2	N44° 56' 36" W		34.38'	* 42" RCP (1600-D)
3	N31° 25' 17" W		31.48'	36" RCP (1350-D)
4	N44° 10' 11" E		76.55'	30" RCP (1350-D)
5	N01° 37' 26" E		94.78'	30" RCP (1350-D)
6	N87° 34' 59" W		8.36'	24" RCP (1350-D)

* WATER TIGHT JOINTS



C-3

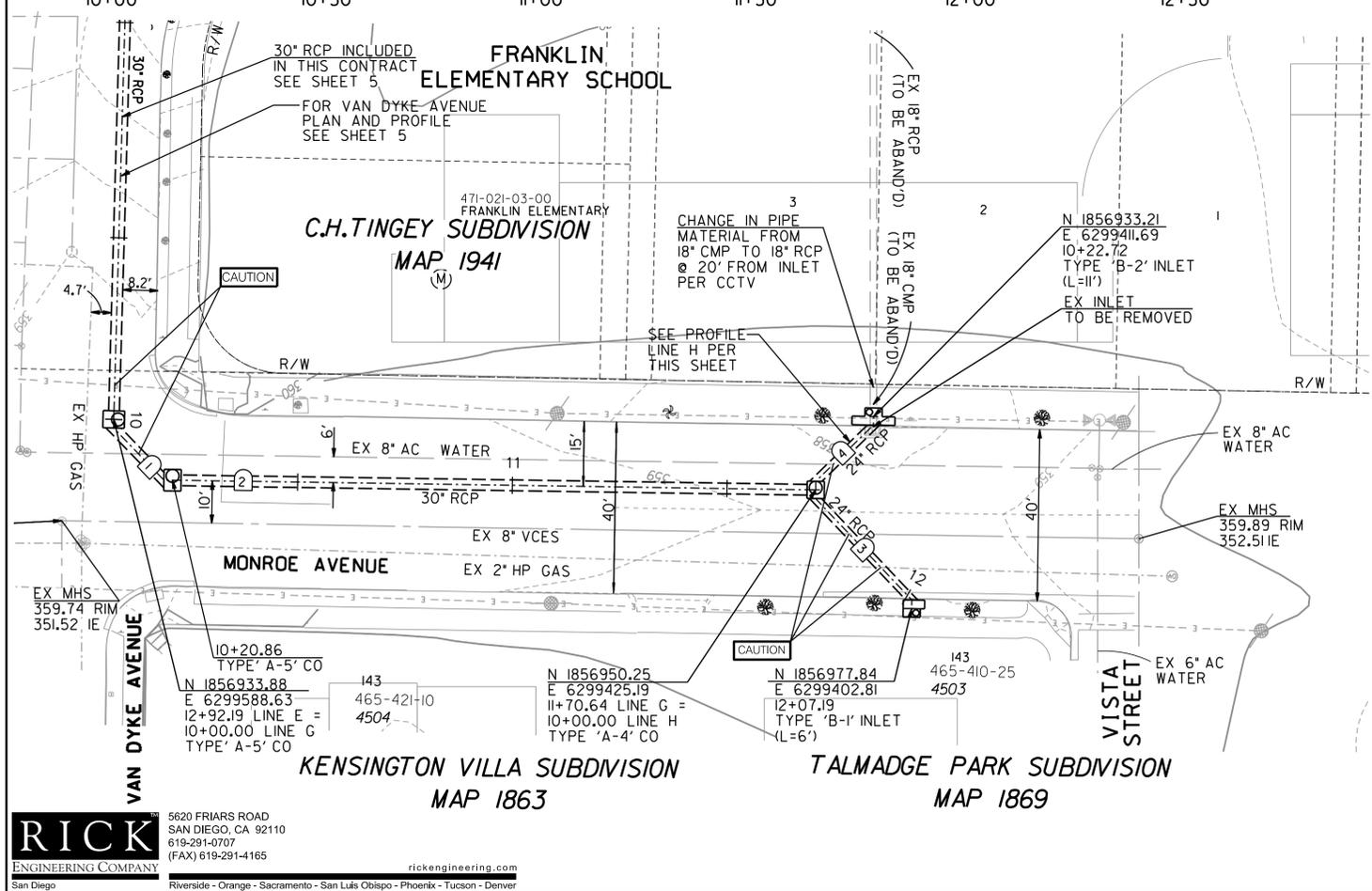
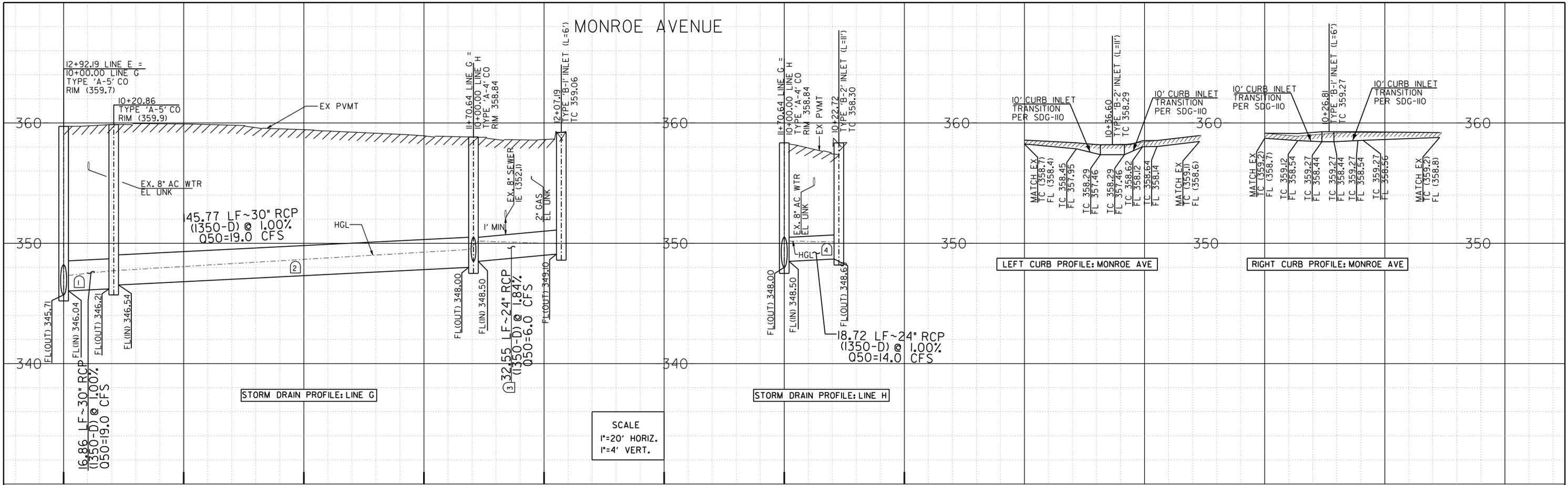
VAN DYKE STORM DRAIN REPLACEMENT
 VAN DYKE AVENUE
 VAN DYKE AVENUE TO MONROE AVENUE

CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 05 OF 11 SHEETS		WBS B-12034
FOR CITY ENGINEER MAHMOUD ORIQAT PRINT DCE NAME	DATE C55970 RCE#	SUBMITTED BY SHAWN KRAUSE PROJECT MANAGER
DESCRIPTION ORIGINAL	BY REC	DATE 214-1737
APPROVED	DATE	FILMED
CONTRACTOR INSPECTOR		DATE STARTED DATE COMPLETED
1854-6297 CCS83 COORDINATE		99829-05 -D

RICK
 ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 619-291-0707
 (FAX) 619-291-4165

rickengineering.com

Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver



ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS
(INCLUDES MAIN, LATERAL, AND OTHER TRENCHING ACTIVITIES)

BEGINNING STATION	ENDING STATION	APPROXIMATE LF
10+00.00	12+07.19	210
10+00.00	10+22.72	30

ESTIMATED PALEONTOLOGICAL MONITORING LIMITS
(INCLUDES MAIN, LATERAL, AND OTHER TRENCHING ACTIVITIES)

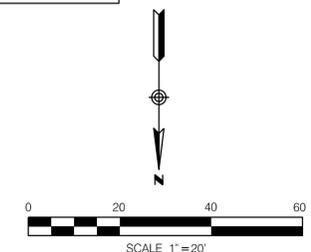
BEGINNING STATION	ENDING STATION	APPROXIMATE LF
10+00.00	11+80.00	180
10+00.00	10+02.00	10

ACTUAL LIMITS SHALL BE DETERMINED BY THE PI/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE MITIGATION AND MONITORING PROGRAM (IMMP) FOR THE PROJECT.

REFERENCE:
WATER: 19360-D
SEWER: 3388-L
STORM DRAIN: 3388-L

STORM DRAIN DATA

NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARKS
1	N44° 08' 31"W		16.86'	30" RCP (1350-D)
2	N89° 08' 31"W		145.77'	30" RCP (1350-D)
3	N43° 34' 30"W		32.55'	24" RCP (1350-D)
4	N45° 51' 30"E		18.72'	24" RCP (1350-D)



C-4

VAN DYKE STORM DRAIN REPLACEMENT
MONROE AVENUE
VAN DYKE AVENUE TO VISTA STREET

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 06 OF 11 SHEETS

WBS B-12034

APPROVED: MAHMOUD ORIQAT, C55970
DATE: _____
PRINT NAME: _____
RECEIVED: _____

FOR CITY ENGINEER: _____
DATE: _____

PROJECT MANAGER: SHAWN KRAUSE
PROJECT ENGINEER: LAM VAN
CHECKED BY: _____

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	REC			

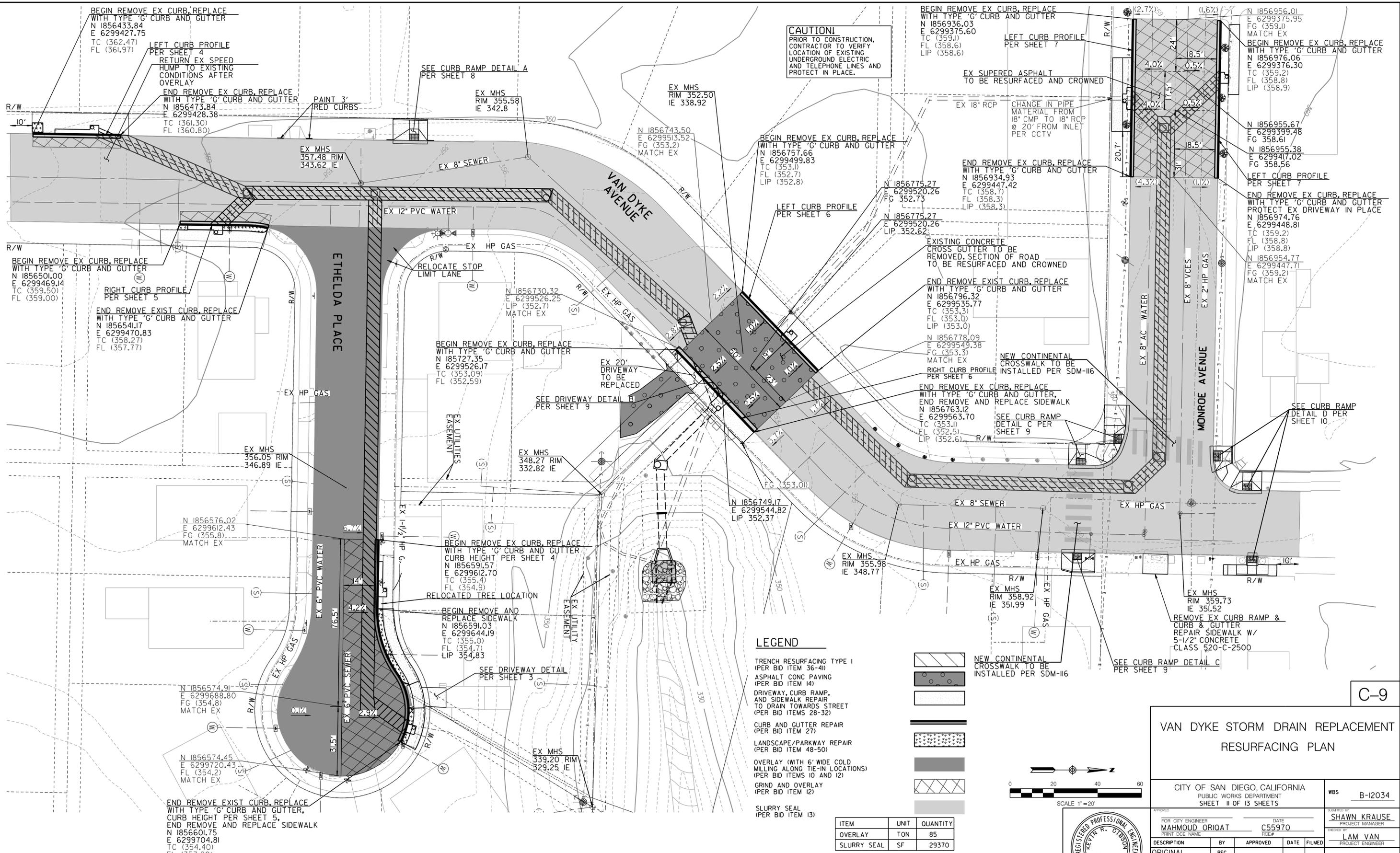
DATE STARTED: _____
DATE COMPLETED: _____

CONTRACTOR: _____
INSPECTOR: _____

1854-6297
CCS83 COORDINATE

39829-06-D

MONROE AVENUE



CAUTION!
PRIOR TO CONSTRUCTION,
CONTRACTOR TO VERIFY
LOCATION OF EXISTING
UNDERGROUND ELECTRIC
AND TELEPHONE LINES AND
PROTECT IN PLACE.

LEGEND

- TRENCH RESURFACING TYPE I (PER BID ITEM 36-41)
- ASPHALT CONC PAVING (PER BID ITEM 14)
- DRIVEWAY, CURB RAMP, AND SIDEWALK REPAIR TO DRAIN TOWARDS STREET (PER BID ITEMS 28-32)
- CURB AND GUTTER REPAIR (PER BID ITEM 27)
- LANDSCAPE/PARKWAY REPAIR (PER BID ITEM 48-50)
- OVERLAY (WITH 6" WIDE COLD MILLING ALONG TIE-IN LOCATIONS) (PER BID ITEMS 10 AND 12)
- GRIND AND OVERLAY (PER BID ITEM 12)
- SLURRY SEAL (PER BID ITEM 13)

NEW CONTINENTAL CROSSWALK TO BE INSTALLED PER SDM-II6



ITEM	UNIT	QUANTITY
OVERLAY	TON	85
SLURRY SEAL	SF	29370

C-9

**VAN DYKE STORM DRAIN REPLACEMENT
RESURFACING PLAN**

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 11 OF 13 SHEETS

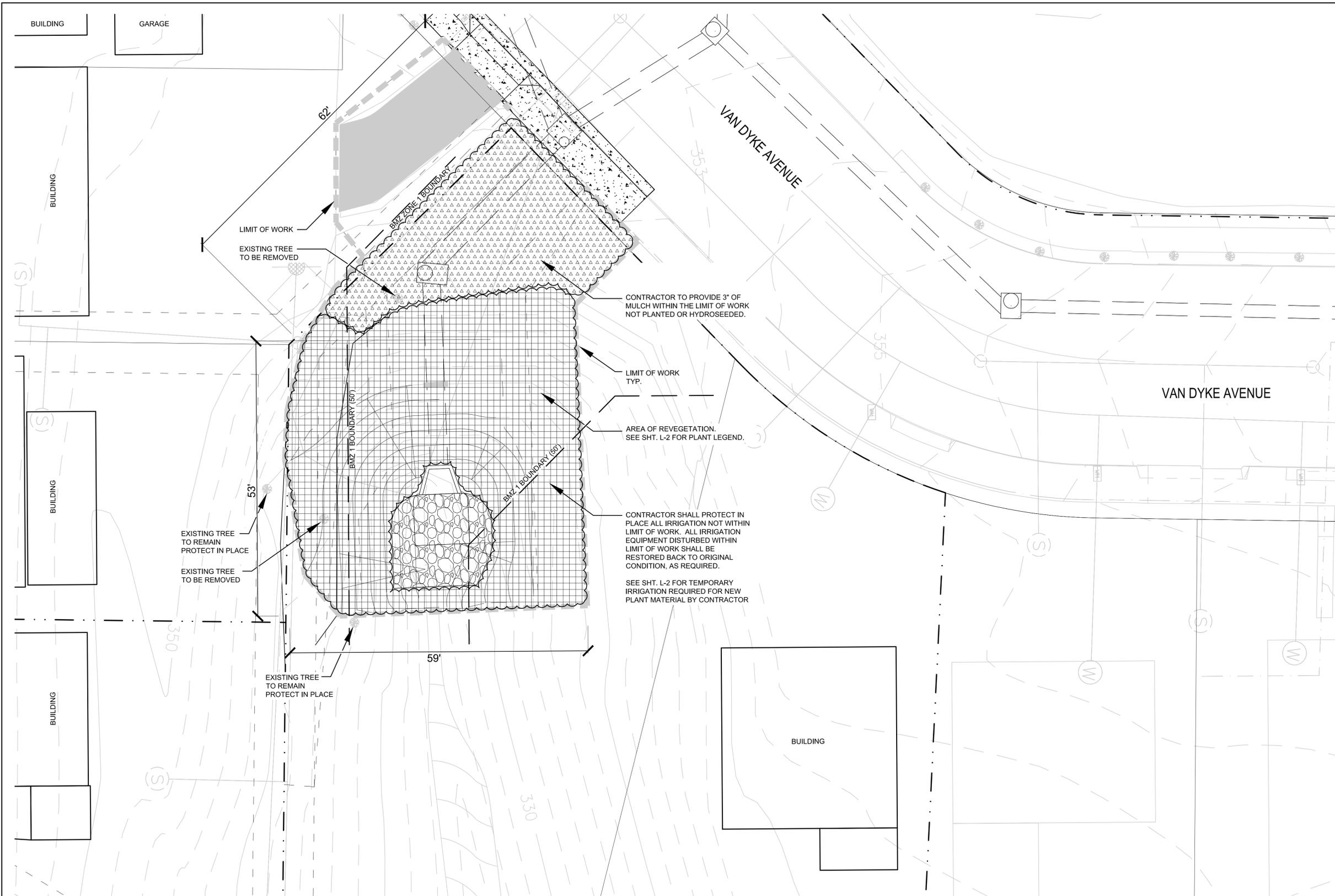
WBS B-12034



APPROVED FOR CITY ENGINEER MAHMOUD ORIQAT PRINT DCE NAME	DATE C55970 RCE#	PROJECT MANAGER SHAWN KRAUSE
DESCRIPTION ORIGINAL	BY REC	PROJECT ENGINEER LAM VAN
	APPROVED	DATE
		FILMED
		214-1737
		CCS27 COORDINATE
		1854-6297
		CCS83 COORDINATE

CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

39829- 11 -D

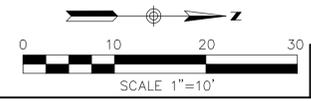


PLANTING LEGEND

- MULCH
 - HYDROSEED MIX W/ 1 GALLON PLANTS
- NOTE: SEE SHEET L-2 FOR FULL PLANTING LEGEND

LANDSCAPE NOTES

1. ALL LANDSCAPE AND IRRIGATION SHALL CONFORM TO THE STANDARDS OF THE CITY-WIDE LANDSCAPE REGULATIONS AND THE CITY OF SAN DIEGO LAND DEVELOPMENT MANUAL LANDSCAPE STANDARDS AND ALL OTHER LANDSCAPE RELATED CITY AND REGIONAL STANDARDS.
2. CONTRACTOR SHALL PROTECT IN PLACE ALL IRRIGATION NOT WITHIN LIMIT OF WORK. ALL IRRIGATION DISTURBED WITHIN LIMIT OF WORK SHALL BE RESTORED BACK TO ORIGINAL CONDITION, AS REQUIRED.
3. ONE GALLON PLANT MATERIAL SPACING IS 36" O.C. SEE NOTE 42 ON SHT. L-2.



L-1

PLANS FOR THE CONSTRUCTION OF VAN DYKE STORM DRAIN REPLACEMENT REVEGETATION PLAN

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 12 OF 13 SHEETS

APPROVED FOR CITY ENGINEER		DATE	SUBMITTED BY	
PRINT DCE NAME		RCE#	SHAWN KRAUSE PROJECT MANAGER	
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	REC			
			214-1737	CCS27 COORDINATE
			1854-6297	CCS83 COORDINATE
CONTRACTOR		DATE STARTED	1854-6297	
INSPECTOR		DATE COMPLETED	39829-12-D	



VAN DYKE STORM DRAIN REPLACEMENT

GENERAL REVEGETATION NOTES:

- Revegetation of the project area shall be in accordance with the latest edition of the City of San Diego Whitebook, City Landscape Standards, and City Specifications under the direction of the Resident Engineer (RE) and Project Biologist.
- The upper eight inches (8") of topsoil from the site shall be salvaged, if soil is removed, and/or as directed by the RE and Project Biologist. Project Biologist shall ensure that soil will be stockpiled within the limits of the project, no more than three feet high when possible. BMPs, silt fencing, and/or cover shall be installed around the stockpile to prevent erosion and as a barrier to preclude any unauthorized access, or as recommended by the Project Biologist.
- Prior to revegetation and/or plant installation, the Project Biologist shall provide written recommendations to the RE as to the salvaged soil relocation, re-compaction (e.g. max 75 percent within the top 8 inches), and/or preparation for revegetation purposes to be done by the contractor. If topsoil cannot be salvaged, clean and weed-free class "A" topsoil will be provided and installed by contractor.
- All erosion control measures (i.e. jute netting, straw wattles, gravel bags) will be installed immediately following the completion of construction activities. Revegetation activities such as installation of container plants, hydroseed application, and temporary irrigation should be conducted during the rainy season (October to April) following completion of construction activities.
- The Contractor is responsible for maintaining and replacing all BMPs throughout the 120 day PEP and 25 Month Maintenance and Monitoring period. The Contractor is responsible for ensuring the project area is free of erosion throughout the 120 Day PEP and 25 Month Maintenance and Monitoring period, and is responsible for repairing all soil erosion improvements.
- Orange construction fence (or if in a wildlife area, a yellow rope barrier as directed by the RE) shall be installed to prevent unauthorized access to the project area. The contractor is responsible for maintaining the fence/barrier throughout the duration of the project, from the installation of all revegetation plant materials through the 120 day PEP, and until the end of the 25 months maintenance and monitoring period. Following acceptance of the 25 months maintenance and monitoring period by the City Representative and Project Biologist the contractor shall remove all fencing.
- Contractor is responsible for removal and properly disposing of all trash and/or debris from the project area throughout the duration of the project.
- Contractor shall remove all temporary irrigation lines, non-biodegradable (plastic mesh) BMPs (e.g. silt fencing, straw wattles, gravel bags, etc), and all appurtenances following acceptance of revegetation by the RE and the City Representative.

Weed Abatement

- The Project Biologist shall inspect the revegetation site for weed coverage prior to planting and throughout the Project. The project area shall be clean and free of all weed/invasive plant material prior to installation of container plants and seed.
- Invasive plant species including, but not limited to those listed in the City's Landscape Standards and California Invasive Plant Council Invasive Plant Inventory Database, are prohibited and shall be eradicated and removed by contractor.
- The Contractor shall verify weeds to be removed with Project Biologist prior to proceeding.
- Throughout the duration of the revegetation project, all areas where weed removal creates bare areas in excess of 25-foot x 25-foot (7.6 meters x 7.6 meters) shall be replanted at the direction of the Project Biologist via the Engineer.
- Pulled weeds and debris shall be transported and disposed of legally offsite immediately to prevent any seed dispersal on the Site.
- Herbicides shall be applied under the direction of the Biologist and shall contain green dye.
- All weedy species should be cleared approximately two weeks following herbicide application.
- Weed seedlings and sprouts shall be removed before attaining 6-inches in height and/or before producing seed.

Temporary Irrigation [Under the direction of the RE and Project Biologist, temporary irrigation will be applied as follows]:

- Hydroseed and/or container plants shall be planted between October 1 and February 15 during rainy season, to greatest extent possible.
- Hydroseed and/or container plants planted February 15 - October 1 shall require a comprehensive irrigation plan and approval by City Representative and Project Biologist. Contractor shall prepare and submit the plan to the RE for approval. Contractor shall provide all irrigation lines and appurtenances to function automatically and in accordance with the plan and make any adjustments necessary to meet the success criteria per Project Biologist recommendations.
- Temporary irrigation via irrigation lines and appurtenances (or alternate method approved by the RE and Project Biologist) shall be provided by the contractor for a period sufficient to establish plant material and to provide vegetative cover that prevents soil erosion and meets cover success criteria. The amount of irrigation must be adjusted when warranted by site conditions. Project Biologist and landscape contractor shall monitor to determine success and added requirement for temporary irrigation.
- Irrigation shall be performed in a manner that avoids runoff, seepage, and overspray onto adjacent properties, non-irrigated areas, walls, roadways, waterways, or structures. The water delivery rate shall be matched to the slope gradient and the percolation rate of the soil.
- Irrigation shall deliver water sufficiently and uniformly and shall be appropriate to the needs of the plant materials. Recommended reference materials for irrigation system design are listed in appendix "A of the City's Landscape Standards.
- Overwatering as evidenced by soggy soils, continually wet pavement, standing water, runoff in street gutters and other similar conditions shall be managed and prevented.
- If the Project Biologist recommends an alternative irrigation method such as truck watering, all vehicles shall stay on the permanent access routes and shall not irrigate beyond the revegetation boundary.
- Temporary irrigation materials shall be placed so that they can be driven over or do not impede access to utilities (i.e. manholes).

Erosion Control:

- Erosion Control Material should be selected based on the slope and use of the area (i.e. Construction corridors steeper than a 3:1 slope shall receive erosion control matting immediately after grading).
- Erosion Control Materials, such as straw wattles and jute cloth, shall be composed of all natural materials that are biodegradable.
- The Construction Contractor shall Maintain BMPs (weekly maintenance/replacement, preparation for storm events) during 120-day PEP period. The Landscape Contractor shall assume responsibility of BMP maintenance once the PEP period has ended.

Seed Mixes:

- The seed mix shown in the table(s) shall be applied in all non-hardscaped areas disturbed by the project. The seed shall be installed via hydroseed methods, unless otherwise directed by the Project Biologist. Seed applied between November - March shall be covered by contractor with suitable biodegradable cover as approved by the Project Biologist.
- All seeds shall meet the minimum % pure live seed (PLS) as noted in tables. If minimum % PLS cannot be met contractor to coordinate and obtain written approval from the Project Biologist for alternative compliance.
- All seeds shall originate from San Diego County and no more than 25-miles from the coast. Contractor shall retain and submit all seed tags for seed products to be used to the RE and Project Biologist prior to application. If seed cannot be procured that meets this criteria, the contractor shall provide evidence that the seed is not available and notify the City Representative and the Project Biologist for alternative compliance.

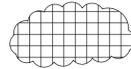
Hydroseed Procedures:

- Seeding shall occur only after the Project Biologist has observed and approved that the site has been properly prepared.
- Hydroseed will be applied in a two-step process. Hydroseed will be applied first to ensure adequate seed - soil contact. A hydromulch application will follow hydroseed application to stabilize the soil.
- A wetting agent consisting of one ton per acre agricultural gypsum (95% Alkyl Polyethylene Glycol Ether or as approved by the Biologist) shall be applied as per manufacturer's recommendations, or as recommended by the Biologist.
- Equipment used for the application of slurry shall have a built-in agitation system to suspend and homogeneously mix the slurry, the slurry mix shall be dyed green. The equipment must have a pump capable of applying slurry uniformly.

Container Plant Procedures:

- Planting pits for container plants shall be approximately 1.5 times as deep and 3 times as wide as the container size. All planting pits shall be filled with water and allowed to completely drain prior to plant installation. After the planting pits have been presoaked, the Contractor shall backfill the hole to the appropriate planting depth and set plants in the center of the hole, backfill the hole, and thoroughly apply more water.
- A watering basin, approximately twice the size of the plant canopy shall be created. The Contractor shall apply 3-inches of weed free mulch inside the watering basin.
- Stakes shall be installed on all trees for stabilization.
- Container plant material must be delivered to the project site at the appropriate time, in a healthy and vigorous condition and labeled clearly. The Project Biologist will reject plant material delivered prior to its planting date. Specimens showing evidence of disease, mishandling, defects or damage, over or under-watering, or other deficiency at the time of delivery will be rejected.
- Container plants will be placed by the Contractor for the review and approval by the Project Biologist in the revegetation areas. Container plants shall be arranged by the Contractor in a naturally random manner, observing minimum spacing as indicated in the planting palette.

PRODUCT	LBS/ACRE
Hydropost Compost	2,000
Humate Tri-C Organic Soil Conditioner	500
SoilBuster Pelletized Calcium Sulfate (Gypsum Alternative)	1,200
Cellulose Fiber Mulch	2,000
Super Tack	150



REVEGETATION PLANT LEGEND

Species	Common Name	Density Lbs./Acre	Minimum % PLS	Total Seed Qty. Required (Lbs.)
<i>Acmispon glaber var. glaber</i>	Coastal Deerweed	2	85	0.14
<i>Artemisia californica</i>	California Sagebrush	4	7.5	0.28
<i>Bromus carinatus "Cucamonga"</i>	Cucamonga brome	4	85	0.28
<i>Deinandra fasciculata</i>	Fascicled Tarplant	4	2.5	0.28
<i>Encelia californica</i>	California Encelia	4	24	0.28
<i>Eriogonum fasciculatum</i>	Flat-Top Buckwheat	8	6.5	0.56
<i>Eriophyllum confertiflorum</i>	Golden Yarrow	3	25	0.21
<i>Eschscholzia californica</i>	California Poppy	1	73.5	.07
<i>Festuca microstachys</i>	Small Fescue	2	85	0.14
<i>Lupinus succulentus</i>	Arroyo Lupine	2	83.3	0.14
<i>Salvia mellifera</i>	Black Sage	2	35	0.14
<i>Stipa pulchra</i>	Purple Needlegrass	4	42	0.28
Total:		40		2.8 Lbs.

*AREA TO BE HYDROSEEDDED IS .07 ACRES.

Species	Common Name	Unit Size	Spacing	Total Plant Qty. Require (Each)
<i>Acmispon glaber var. glaber</i>	Coastal Deerweed	1-gallon	8' O.C.	10
<i>Encelia californica</i>	California Encelia	1-gallon	10' O.C.	8
<i>Eriogonum fasciculatum</i>	Flat-Top Buckwheat	1-gallon	12' O.C.	4
<i>Mimulus aurantiacus</i>	Sticky Monkey Flower	1-gallon	12' O.C.	6
<i>Salvia mellifera</i>	Black Sage	1-gallon	12' O.C.	4
Total:				32

*AREA TO BE PLANTED IS .07 ACRES.

Maintenance Requirements:

- Revegetation area shall be maintained for a period of not less than 25 months (Table 2) or as determined by the RE and Project Biologist. All revegetated areas shall be maintained by the contractor until final approval by the City. The maintenance period begins on the first day following acceptance (at the end of 120 day PEP) and may be extended at the determination of the City Representative and RE.
- The 120 day PEP begins following completion of hydroseed application and plant installation. The completion of the 120 Day PEP will be determined by the City representative in consultation with the Project Biologist. Once it has been determined that the 120 PEP has been successfully completed, the 25 Month Maintenance Monitoring Period will begin. Completion of the 25 Month Maintenance and Monitoring Period will be determined by the City representative in consultation with the Project Biologist.
- Prior to final approval, the City Representative may require corrective action including but not limited to weed eradication and removal, replanting, the provision or modification of irrigation systems, and the repair of any soil erosion or slope slippage, in consultation with the Project Biologist.
- Weeding, herbicide, and/or pesticide application shall be done regularly by contractor. Weeding shall be done at a minimum of bi-weekly until the end of the 120 day PEP, and monthly throughout the 25 months of maintenance. Weeds shall be properly disposed of offsite. Contractor shall obtain approval from City Representative and Project Biologist prior to herbicide/pesticide application, and shall apply herbicide/pesticide per manufacturer's recommendation and any State or California guidelines. Contractor must possess a valid state pesticide and/or herbicide license at all times.

Brush Management Zone Revegetation Requirements

- The maximum performance standard for native shrub cover will not exceed fifty (50) percent after 2 years.

Table 2: Success Criteria

Upland Scrub Revegetation	Performance Standard			Container Plant Survival
	Percent Cover Native Vegetation	Percent Cover Nonnative Vegetation		
		Herbaceous	CAL-IPC Listed Species	
Year 1	25	<10	0	100
Year 2 (25-Month)	50	<10	0	80

Notes:

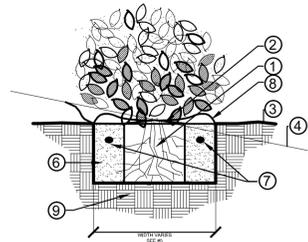
- Final success criteria may be lowered by Biologist if natural site conditions prevent the establishment of vegetation.

Table 3: Summary and Schedule for Maintenance, Monitoring and Reporting for Project

Period	Contractor Responsibilities	Project Biologist Responsibilities	Reporting and Submittals
Installation	Contractor is responsible for preparation of site, implementation of the revegetation plan, and installation of container plants and seed as shown on the plans or as directed by the Project Biologist.	Project Biologist is responsible for monitoring installation, as needed, to ensure successful installation and implementation of the revegetation plan.	Project Biologist to submit memo to City Representative within 7 days of installation completion. Contractor to notify MMC.
120 Day PEP	Contractor is responsible for all necessary maintenance (watering, weed abatement, replacement planting, maintain BMP's) to ensure establishment of vegetation and site remains erosion free. Maintenance activities shall occur as-needed, but not less than bi-weekly.	Project Biologist is responsible for monitoring revegetation and providing maintenance recommendations. Monitoring shall occur bi-weekly for the first two months, then monthly thereafter.	Contractor to notify MMC prior to the completion of the 120 Day PEP for site inspection. Project Biologist to submit monitoring memo to City Representative following each site visit and completion memo within 7 days of completion.
25 Month Maintenance and Monitoring	Contractor is responsible for all necessary maintenance (watering, weed abatement, replacement planting, maintain BMP's) to meet success criteria. Maintenance activities shall occur as-needed, but not less than monthly.	Project Biologist is responsible for monitoring revegetation and providing maintenance recommendations. Monitoring shall occur quarterly.	Project Biologist to submit quarterly monitoring memo to City Representative. Prior to completion of the 25 Month, Contractor to contact MMC for final site visit. Project Biologist to submit final memo within 14 days of completion of the 25 Month monitoring period.

Notes:

- If 25 month success criteria are not met, the Maintenance and Monitoring (M&M) Program will be extended as required. Maintenance and monitoring with reporting shall continue as needed.



- ① ROOTBALL
- ② CROWN 1" ABOVE FINISH GRADE
- ③ FINISH GRADE
- ④ FINISH GRADE AT SLOPE
- ⑤ 2 X ROOTBALL DIAMETER
- ⑥ BACKFILL (SEE SPECS)
- ⑦ PLANT TABLETS (SEE SPECS)
- ⑧ 4" WATERING BASIN (IF REQ'D)
- ⑨ UNDISTURBED NATIVE SOIL

(A) SHRUB DETAIL

NTS

L-2

PLANS FOR THE CONSTRUCTION OF VAN DYKE STORM DRAIN REPLACEMENT REVEGETATION SPECIFICATIONS

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 13 OF 13 SHEETS

WBS B-12034

APPROVED FOR CITY ENGINEER	DATE	SUBMITTED BY SHAWN KRAUSE PROJECT MANAGER
PRINT DCE NAME	RCE#	CHECKED BY LAM VAN PROJECT ENGINEER
DESCRIPTION BY	APPROVED DATE FILMED	214-1737 CCS27 COORDINATE
ORIGINAL REC		1854-6297 CCS83 COORDINATE



CONTRACTOR INSPECTOR DATE STARTED DATE COMPLETED 39829-13-D