



# California Regional Water Quality Control Board San Diego Region



Linda S. Adams  
Acting Secretary for  
Environmental Protection

Over 50 Years Serving San Diego, Orange, and Riverside Counties  
Recipient of the 2004 Environmental Award for Outstanding Achievement from USEPA

Edmund G Brown Jr.  
Governor

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[http:// www.waterboards.ca.gov/sandiego](http://www.waterboards.ca.gov/sandiego)

June 2, 2011

**Certified Mail – Return Receipt Requested**  
Article Number: 7010 1060 0000 4952 8058

Jerry Backoff, Planning Division Director  
City of San Marcos  
1 Civic Center Drive  
San Marcos, CA 92069

**In reply refer to:**  
738365: amonji

**Subject:** Action on Request for Clean Water Act Section 401 Water Quality Certification for the **Borden Road and Bridge Project**, Water Quality Certification No. **09C-041**

Dear Mr. Jerry Backoff:

Enclosed find Clean Water Act section 401 Water Quality Certification and acknowledgment of enrollment under State Water Resources Control Board Order No. 2004-004-DWQ for discharge to non-federal waters of the State for the **Borden Road and Bridge Project** (Project). A description of the Project and Project location can be found in the project information sheet, project location map, and project site maps, which are included as Attachments 1 through 5 to this certification.

Any petition for reconsideration of this Certification must be filed with the State Water Resources Control Board within 30 days of certification action (23 CCR § 3867). If no petition is received, it will be assumed that you have accepted and will comply with all the conditions of this Certification.


Failure to comply with all conditions of this Certification may subject you to enforcement actions by the California Regional Water Quality Control Board, San Diego Region, including administrative enforcement orders requiring you to cease and desist from violations, or to clean up waste and abate existing or threatened conditions of pollution or nuisance; administrative civil liability in amounts of up to \$10,000 per day per violation; referral to the State Attorney General for injunctive relief; and, referral to the District Attorney for criminal prosecution.

**California Environmental Protection Agency**



In the subject line of any response, please include the requested **"In reply refer to:"** information located in the heading of this letter. For questions pertaining to the subject matter, please contact Alan Monji at (858) 637-7140 or [amonji@waterboards.ca.gov](mailto:amonji@waterboards.ca.gov).

Respectfully,



DAVID W. GIBSON  
Executive Officer

Enclosures:

Clean Water Act Section 401 Water Quality Certification No. **09C-041** for **Borden Road and Bridge Project**, with 5 attachments

cc: Refer to Attachment 2 of Certification **09C-041** for Distribution List.

Tech Staff Info & Use	
File No.	09C-041
WDID	9000001931
Reg. Measure ID	366145
Place ID	738365
Party ID	369584
Person ID	508876



# California Regional Water Quality Control Board

## San Diego Region



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

**PROJECT:** Borden Road and Bridge Project,  
Certification Number (09C-041),  
WDID: 9 00001931

**APPLICANT:** Jerry Backoff, Planning Division Director  
City of San Marcos  
1 Civic Center Drive  
San Marcos, CA 92069

CIWQS Reg. Meas. ID: 366145 Place ID: 738365 Party ID: 369584
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**ACTION:**

<input type="checkbox"/> Order for Low Impact Certification	<input type="checkbox"/> Order for Denial of Certification
<input checked="" 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:**

This project will construct a segment of Borden Road over a tributary to San Marcos Creek (Creek) between Twin Oaks Valley Road and Woodward Street, a distance of approximately 700 feet, within the City of San Marcos. The completion of this segment of Borden Road will require the construction of a pre-cast concrete bridge with two 100-foot spans reaching a height of 6 to 9-feet over the Creek and the associated 100-year floodplain, with four traffic lanes, two 5-foot wide shoulders/bike lanes, a 7 ½ to 10 foot-wide equestrian/multi-use trail, and reconfiguration of the Borden Road/Twin Oaks Valley Road and Borden Road/Woodward Street intersections. A culvert is proposed to replace an existing open drainage channel that conveys water from Twin Oaks Valley Road to the Creek within the proposed roadway alignment. Rip-rap will be placed on either side of the Creek to protect the bridge structure from erosion. Approximately 0.096-acre of rip-rap will be placed on the east side of the Creek, and 0.175-acre of rip-rap will be placed on the west side of the Creek. Both bridge abutments

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and the central piers will be located outside the Creek and associated riparian vegetation. The project will result in permanent discharges to 0.234 acre (294 linear feet) wetland and/or riparian habitat and 0.079-acre (235 linear feet) of non-wetland waters of the United States and/or State, and 0.185-acre (142 linear feet) of temporary impacts to wetland and/or riparian habitat waters of the United States and/or State. Mitigation is onsite and consists of 1.314 acres of establishment and 0.483 acres of enhancement.

### **STANDARD CONDITIONS:**

The following three standard conditions apply to all Certification actions, except as noted under Condition 3 for denials (Action 3).

1. This Certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the California Water Code and section 3867 of Title 23 of the California Code of Regulations (23 CCR).
2. This Certification action is not intended and must not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent Certification application was filed pursuant to 23 CCR subsection 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
3. The validity of any non-denial Certification action (Actions 1 and 2) must be conditioned upon total payment of the full fee required under 23 CCR section 3833, unless otherwise stated in writing by the certifying agency.

### **ADDITIONAL CONDITIONS:**

In addition to the three standard conditions, the City of San Marcos must satisfy the following:

#### **A. GENERAL CONDITIONS:**

1. Water Quality Certification No. 09C-041 (Certification) is only valid if the project begins no later than 5 (five) years from the date of issuance. If the project has not begun within 5 years from the date of issuance, then this Certification expires.
2. The City of San Marcos must, at all times, fully comply with the engineering plans, specifications and technical reports submitted to the California Regional Water Quality Control Board, San Diego Region (San Diego Water

- Board), to support this Certification and all subsequent submittals required as part of this Certification and as described in Attachment 1. The conditions within this Certification must supersede conflicting provisions within such plans submitted prior to the Certification action. Any modifications thereto, would require notification to the San Diego Water Board and reevaluation for individual Waste Discharge Requirements and/or Certification amendment.
3. During construction, the City of San Marcos must maintain a copy of this Certification at the project site so as to be available at all times to site personnel and agencies.
  4. The City of San Marcos must permit the San Diego Water Board or its authorized representative at all times, upon presentation of credentials:
    - a. Entry onto project premises, including all areas on which wetland fill or wetland mitigation is located or in which records are kept.
    - b. Access to copy any records required to be kept under the terms and conditions of this Certification.
    - c. Inspection of any treatment equipment, monitoring equipment, or monitoring method required by this Certification.
    - d. Sampling of any discharge or surface water covered by this Order.
  5. The City of San Marcos must report to the San Diego Water Board any noncompliance which may endanger human health or the environment. Any information shall be provided orally **within 24 hours** from the time the City of San Marcos becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the City of San Marcos becomes aware of the circumstances. The written submission shall contain a written description of the incident and its cause, the period of the noncompliance including exact dates and times, and if the 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 reoccurrence of the noncompliance. The San Diego Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours.
  6. The City of San Marcos must, at all times, maintain appropriate types and sufficient quantities of materials onsite to contain any spill or inadvertent release of materials that may cause a condition of pollution or nuisance if the materials reach waters of the United States and/or State.
  7. This Certification is not transferable in its entirety or in part to any person except after notice to the Executive Officer of the San Diego Water Board in accordance with the following terms.

- a. **Transfer of Property Ownership:** The City of San Marcos 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 City of San Marcos 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 Executive Officer of the San Diego Water Board **within 10 days** of the transfer of ownership.
  - b. **Transfer of Mitigation Responsibility:** Any notification of transfer of responsibilities to satisfy the mitigation requirements set forth in this Certification shall 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.
  - c. **Transfer of Post-Construction BMP Maintenance Responsibility:** The City of San Marcos 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 City of San Marcos 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. 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.
8. Upon properly noticed transfers of responsibility, the transferee assumes responsibility for compliance with this Certification and references in this Certification to the City of San Marcos will be interpreted to refer to the transferee as appropriate. Transfer of responsibility does not automatically relieve the City of San Marcos of this Certification in the event that a transferee fails to comply.
  9. In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation must 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.

10. In response to a suspected violation of any condition of this Certification, the San Diego Water Board may, pursuant to Water Code sections 13267 and 13383, require the holder of any permit or license subject to this Certification to investigate, monitor, and report information on the violation. The only restriction is that the burden, including costs of the reports, must bear a reasonable relationship to the need for, and the benefits to be obtained from, the reports.
11. In response to any violation of the conditions of this Certification, the San Diego Water Board may add to or modify the conditions of this Certification as appropriate to ensure compliance.
12. The City of San Marcos must submit annual progress reports describing status of compliance with all requirements of this Certification to the San Diego Water Board prior to **August 1** of each year following the issuance of this Certification until the project has reached completion.
13. The City of San Marcos shall submit a **Final Project Annual Report** to the San Diego Water Board **within 30 days of completion of the project and any associated monitoring**. The report should include as-built drawings no bigger than 11"X17" and photos of the completed project including post-construction BMPs.

#### **B. PROJECT CONDITIONS:**

1. Prior to the start of the project, and annually thereafter, the City of San Marcos must educate all personnel on the requirements in this Certification, pollution prevention measures, spill response, and BMP implementation and maintenance.
2. The City of San Marcos must comply with the requirements of State Water Resources Control Board 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*. These General Waste Discharge Requirements are accessible at: [http://www.waterboards.ca.gov/water\\_issues/programs/cwa401/docs/general\\_orders/go\\_wdr401regulated\\_projects.pdf](http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/general_orders/go_wdr401regulated_projects.pdf).

3. The City of San Marcos must notify the San Diego Water Board in writing at least **5 days** prior to the actual commencement of dredge, fill, and/or discharge activities.
4. The City of San Marcos must enroll in, and comply with the requirements of State Water Resources Control Board Water Quality Order No. 2009-0009-DWQ, the *NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*.
5. The treatment, storage, and disposal of wastewater during the life of the project must be done in accordance with waste discharge requirements established by the San Diego Water Board pursuant to CWC § 13260.
6. Discharges of concentrated flow during construction or after completion must not cause downstream erosion or damage to properties or stream habitat.
7. Water containing mud, silt, or other pollutants from equipment washing or other activities, must not be discharged to waters of the United States and/or the State or placed in locations that may be subjected to storm flows. Pollutants discharged to areas within a stream diversion area must be removed at the end of each work day or sooner if rain is predicted.
8. All surface waters, including ponded waters, must be diverted away from areas undergoing grading, construction, excavation, vegetation removal, and/or any other activity which may result in a discharge to the receiving water. Diversion activities must not result in the degradation of beneficial uses or exceedance of water quality objectives of the receiving waters. Any temporary dam or other artificial obstruction constructed must only be built from materials such as clean gravel which will cause little or no siltation. Normal flows must be restored to the affected stream immediately upon completion of work at that location.
9. All areas that will be left in a rough graded state must be stabilized no later than one week after completion of grading. The City of San Marcos and subsequent owners, are responsible for implementing and maintaining BMPs to prevent erosion of the rough graded areas to prevent flow from this area from causing negative impacts to beneficial uses. After completion of grading, all areas must be revegetated with native species appropriate for the area. The revegetation palette must not contain any plants listed on the California Invasive Plant Council Invasive Plant Inventory, which can be found online at: <http://www.cal-ipc.org/ip/inventory/weedlist.php>.
10. Substances hazardous to aquatic life including, but not limited to, petroleum products, raw cement/concrete, asphalt, and coating materials, must be prevented from contaminating the soil and/or entering waters of the United



States and/or State. BMPs must be implemented to prevent such discharges during each project activity involving hazardous materials.

11. Removal of vegetation must occur by hand, mechanically, or using EPA approved herbicides deployed using applicable BMPs to prevent impacts to beneficial uses of waters of the State. Removal of vegetation must occur outside of the avian breeding season (March 15 through September 15).

### C. RECEIVING WATER MONITORING:

1. Receiving Waters Monitoring Plan: The City of San Marcos shall develop and implement a five-year Receiving Waters Monitoring Plan to evaluate potential project impacts from pollutants/stressors<sup>1</sup> to the tributary to San Marcos Creek (HSA 904.51), San Marcos Creek (904.51) and Lake San Marcos (HSA 904.51) in the Batiquitos watershed. The Receiving Waters Monitoring Plan shall be developed and submitted to the San Diego Water Board for acceptance **prior to construction commencement**. The Receiving Waters Monitoring Plan shall assess conditions before, during, and after impacts have occurred by measuring changes in the benthic macroinvertebrate community and a functional assessment of the health of wetland and riparian habitats in the tributary to San Marcos Creek and San Marcos Creek. The five year receiving water monitoring will begin prior to the start of project construction, and the data and analysis shall be submitted **with the Annual Progress Reports** pursuant to Condition A.12 of this certification.

- a. Benthic Macroinvertebrate Community Analysis: Bioassessment monitoring shall be performed using the professional-level non-point source protocol of the California Stream Bioassessment procedure<sup>2</sup> to assess effects of the project on the biological integrity of receiving waters. At a minimum, bioassessment monitoring shall be performed before project initiation, and three and five years following impacts to water of the United States/State at three sites (assessment stations) on the tributary to San Marcos Creek during the established "index period" for the Batiquitos watershed. The first assessment station is the reference station, which shall be located upstream of the discharge from the project site on the tributary to San Marcos Creek or in San Marcos Creek in an reference area; the second assessment station

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<sup>1</sup> The tributary to San Marcos Creek (HSA 904.51) flows into San Marcos Creek (HSA 904.51). San Marcos Creek (HSA 904.5) is Clean Water Act, section 303(d) listed as impaired for sediment toxicity. San Marcos Creek (HSA 904.51) flows into Lake San Marcos (HSA 904.51). Lake San Marcos is section 303(d) listed as impaired for phosphorous.

<sup>2</sup> Copies of the California Stream Bioassessment Procedure can be obtained at <http://www.dfg.ca.gov/cabw/cabwhome.html>. Additional information on stream bioassessment may be obtained at <http://www.waterboards.ca.gov/sandiego/programs/bioassessment.html>

shall be located immediately upstream of the discharge from the project site on the tributary to San Marcos Creek; the third assessment station shall be located immediately downstream of the discharge from the project site on the tributary to San Marcos Creek. The reference station upstream of the project discharge shall be located and sampled concurrently with second and third assessment stations. The results of the Benthic Macroinvertebrate Community Analysis shall be submitted **with the respective Annual Progress Report** (see Condition A.12).

- b. Health of Wetland and Riparian Habitats: The City of San Marcos shall conduct a quantitative function-based assessment of the health of wetland and riparian habitats in the tributary to San Marcos Creek using the California Rapid Assessment Method (CRAM)<sup>3</sup> at the three assessment stations described above (in section C.1.a, 'Benthic Macroinvertebrate Community Analysis'). The CRAM assessments should be conducted in conjunction with the benthic data schedule (prior to project construction, year 3, and year 5). The results of the CRAM assessment shall be submitted **with the first and last Annual Progress Report** (see Condition A.12).
2. Where procedures are not otherwise specified for the Receiving Water Quality Monitoring Program, sampling, analysis, and quality assurance/quality control shall be conducted in accordance with the Surface Water Ambient Monitoring Program (SWAMP) Quality Assurance Program Plan (QAPP)<sup>4</sup> for the State of California's Surface Water Ambient Monitoring Program, adopted by the State Water Resources Control Board.
  3. Monitoring results shall be uploaded into California Environmental Data Exchange Network (CEDEN) (<http://www.ceden.org/>) within 60 days of annual report submittal.
  4. The San Diego Water Board may make revisions to the Receiving Water monitoring program at any time during the five year monitoring term, and may include a reduction or increase in the number of parameters to be monitored, locations monitored, the frequency of monitoring, or the number and size of samples collected.

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<sup>3</sup> Information on CRAM is available at the California Rapid Assessment Method homepage at <http://www.cramwetlands.org/>

<sup>4</sup> The Quality Assurance Program Plan is available on the State Water Board's SWAMP website at [http://www.waterboards.ca.gov/water\\_issues/programs/swamp/docs/qapp/qaprp082209.pdf](http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/qapp/qaprp082209.pdf)

**D. POST CONSTRUCTION STORM WATER MANAGEMENT**

1. All storm drain inlet structures within the project boundaries must be stamped and/or stenciled (or equivalent) with appropriate language prohibiting non-storm water discharges.
2. The BMPs described in the *City of San Marcos, Improvement Plans for Borden Road*, prepared by the City of San Marcos Engineering Division, dated June 30, 2010 (see Attachment 5) must be installed and functional prior to occupancy and/or planned use of development areas. The post-construction BMPs must be installed and sized to comply with the following numeric sizing criteria and treat 100 percent of the impervious surfaces associated with the project:
  - a. Volume: Volume-based BMPs must be designed to mitigate (infiltrate, filter, or treat) either:
    - i. The volume of runoff produced from a 24-hour 85<sup>th</sup> percentile storm event, as determined from the local historical rainfall record (0.6 inch approximate average for the San Diego County area); or
    - ii. The volume of runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85<sup>th</sup> percentile 24-hour runoff event; or
  - b. Flow: Flow-based BMPs must be designed to mitigate (infiltrate, filter, or treat) either:
    - i. The maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour; or
    - ii. The maximum flow rate of runoff produced by the 85<sup>th</sup> percentile hourly rainfall intensity, as determined from the local historical rainfall record, multiplied by a factor of two; or
    - iii. The maximum flow rate of runoff, as determined from the same reduction in pollutant loads and flows as achieved by mitigation of the 85<sup>th</sup> percentile hourly rainfall intensity multiplied by a factor of two.
3. The City of San Marcos or their designated party must inspect and maintain structural BMPs per the manufacturer's specifications in perpetuity.
4. Records must be kept regarding inspections and maintenance in order to assess the performance of the systems and determine whether adaptations are necessary to protect receiving waters.
5. A final storm water management plan that has been certified in compliance with local Standard Urban Stormwater Mitigation Plan (SUSMP) requirements

by the City of San Marcos storm water program manager must be submitted to the San Diego Water Board **prior to start of construction**.

#### **E. COMPENSATORY MITIGATION FOR LOSS OF WATERS OF THE UNITED STATES/STATE**

1. Mitigation for permanent discharges to 0.234 acre (294 linear feet) wetland and/or riparian habitat and 0.079-acre (235 linear feet) of non-wetland waters of the United States and/or State, and 0.185-acre (142 linear feet) of temporary impacts to wetland and/or riparian habitat waters of the United States and/or State must be achieved as described in the draft *Habitat Mitigation and Monitoring Plan for the Borden Road and Bridge Project, City of San Marcos, San Diego County, California (HMMP)* prepared by HDR Engineering, Inc. dated October 2010 (and any subsequent versions submitted to the San Diego Water Board for review). The total mitigation area encompasses 1.797 acres (see Attachment 4) on-site and must include:
  - a. Establishment of 0.465-acre of wetland in Wetland Creation Areas;
  - b. Enhancement of 0.216-acre of wetland (riparian scrub) under City control;
  - c. Enhancement of 0.267-acre of wetland (riparian scrub) not under City control;
  - d. Establishment of 0.385 acres in the Coastal Sage Scrub Buffer Area; and
  - e. Establishment of 0.464-acre of wetland (riparian scrub) in the Riparian Scrub Creation Area.
2. The City of San Marcos must restore all areas of temporary impacts and all other areas of temporary disturbance which could result in a discharge or a threatened discharge to waters of the United States and/or State. Restoration must include grading of disturbed areas to pre-project contours and revegetation with native species. The City of San Marcos must implement all necessary BMPs to control erosion and runoff from areas associated with this project.
3. The City of San Marcos must notify the San Diego Water Board in writing at **least 5 days prior** to the actual commencement of mitigation installation.
4. The City of San Marcos must salvage leaf litter, coarse woody debris, and upper soil horizons from impacted jurisdictional water sites that are relatively free of invasive exotic species for use in on-site mitigation areas; and salvage large cuttings from appropriate tree species if they exist at the impact site and use them as pole plantings at the mitigation site.

5. The City of San Marcos must submit a report (including topography maps and planting locations) to the San Diego Water Board **within the Mitigation Monitoring report (E.11)** describing as-built status of the mitigation project.
6. The construction of proposed mitigation must be concurrent with project grading and completed no later than 9 months following the initial discharge of dredge or fill material into on-site waters. Delays in implementing mitigation must be compensated for by an increased mitigation implementation of 10 percent of the cumulative compensatory mitigation for each month of delay.
7. Throughout the mitigation monitoring program mitigation areas must be maintained free of perennial exotic plant species including, but not limited to, pampas grass, giant reed, tamarisk, sweet fennel, tree tobacco, castor bean, and pepper tree. Annual exotic plant species must not occupy more than 5 percent of the onsite or offsite mitigation areas.
8. San Diego Water Board acceptance of the final mitigation plan applies only to the site and plan that mitigates for the Borden Road and Bridge Project and must not be construed as approval of the mitigation site or plan for use by other current or future projects that are planning to use the project site for mitigation.
9. Any maintenance activities that do not contribute to the success of the mitigation site and enhancement of beneficial uses and ecological functions and services are prohibited. Maintenance activities are limited to the removal of trash and debris, removal of exotic plant species, replacement of dead native plant species and remedial measures deemed necessary for the success of the restoration program.
10. If at any time during the implementation and establishment of the mitigation area(s), and prior to verification of meeting success criteria, a catastrophic natural event (e.g., fire, flood) occurs and impacts the mitigation area, The City of San Marcos is responsible for repair and replanting of the damaged area(s).
11. A final version of the *Habitat Mitigation and Monitoring Plan for the Borden Road and Bridge Project* must be submitted to the San Diego Water Board prior to **prior to start of construction**.
12. Mitigation Monitoring Reports: Mitigation monitoring reports must be submitted annually until mitigation has been deemed successful. Annual monitoring reports must be submitted prior to **December 1** of each year. Monitoring reports must include, but not be limited to, the following:

- a. Names, qualifications, and affiliations of the persons contributing to the report;
  - b. Tables presenting the raw data collected in the field as well as analyses of the physical and biological data, including at a minimum;
  - c. Topographic complexity characteristics at each mitigation site;
  - d. Upstream and downstream habitat and hydrologic connectivity;
  - e. Source of hydrology;
  - f. Width of native vegetation buffer around the entire mitigation site;
  - g. Qualitative and quantitative comparisons of current mitigation conditions with pre-construction conditions and previous mitigation monitoring results;
  - h. Photo documentation from established reference points;
  - i. A survey report documenting boundaries of mitigation area; and
  - j. Other items specified in the final Habitat Mitigation and Monitoring Plan for the Borden Road and Bridge Project by HDR Engineering, Inc.
13. For the purpose of determining mitigation credit for the removal of exotic/invasive plant species, only the actual area occupied by exotic/invasive plant species must be quantified to comply with mitigation requirements.
14. **Prior to the start of construction**, the City of San Marcos must provide the San Diego Water Board a draft preservation mechanism (e.g. deed restriction, conservation easement, etc.) that will protect all mitigation areas and their buffers in perpetuity. **Within one year of the issuance of this Certification**, the City of San Marcos must submit proof of a completed preservation mechanism that will protect all mitigation areas and their buffers in perpetuity. Construction of the site must not be initiated until a completed preservation mechanism is received. The conservation easement, deed restriction, or other legal limitation on the mitigation property must be adequate to demonstrate that the site will be maintained without future development or encroachment on the site which could otherwise reduce the functions and values of the site for the variety of beneficial uses of waters of the U.S. that it supports. The legal limitation must prohibit, without exception, all residential, commercial, industrial, institutional, and transportation development, and any other infrastructure development that would not maintain or enhance the wetland and streambed functions and values of the site. The preservation mechanism must clearly prohibit activities that would result in soil disturbance or vegetation removal, other than the removal of non-native vegetation. Other infrastructure development to be prohibited includes, but is not limited to, additional utility lines, maintenance roads, and areas of maintained landscaping for recreation.

15. For purposes of this Certification, establishment is defined as the creation of vegetated or unvegetated waters of the United States/State where the resource has never previously existed (e.g. conversion of nonnative grassland to a freshwater marsh). Restoration is divided into two activities, re-establishment and rehabilitation. Re-establishment is defined as the return of natural/historic functions to a site where vegetated or unvegetated waters of the United States/State previously existed (e.g., removal of fill material to restore a drainage). Rehabilitation is defined as the improvement of the general suite of functions of degraded vegetated or unvegetated waters of the United States/State (e.g., removal of a heavy infestation or monoculture of exotic plant species from jurisdictional areas and replacing with native species). Enhancement is defined as the improvement to one or two functions of existing vegetated or unvegetated waters of the United States /State (e.g., removal of small patches of exotic plant species from an area containing predominantly natural plant species). Preservation is defined as the acquisition and legal protection from future impacts in perpetuity of existing vegetated or unvegetated waters of the United States/State (e.g., conservation easement).

#### **F. STREAM PHOTO DOCUMENTATION PROCEDURE**

1. The City of San Marcos must conduct photo documentation of the project site, including all areas of permanent and temporary impact, prior to and after project construction, and mitigation areas, including all areas of permanent and temporary impact, prior to and after project construction. Photo documentation must be conducted in accordance with the State Water Resources Control Board Standard Operating Procedure 4.2.1.4: Stream Photo Documentation Procedure, found at: [http://www.waterboards.ca.gov/water\\_issues/programs/swamp/docs/cwt/guidance/4214.pdf](http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/cwt/guidance/4214.pdf). In addition, photo documentation must include Geographic Positioning System (GPS) coordinates for each of the photo points referenced. The City of San Marcos must submit this information in a photo documentation report to the San Diego Water Board **with the Mitigation Monitoring reports** (see Condition E.11). The report must include a compact disc that contains digital files of all the photos (jpeg file type or similar).

#### **G. POST-CONSTRUCTION BEST MANAGEMENT PRACTICES PHOTO DOCUMENTATION**

1. The City of San Marcos must conduct photo documentation of implemented post-construction BMPs. Photo-documentation must be modeled after the State Water Resources Control Board Standard Operating Procedure 4.2.1.4: Stream Photo Documentation Procedure. See Condition F.1 above for the link to the procedures. In addition, photo documentation must include Global

Positioning System (GPS) coordinates for each of the photo points referenced. The City of San Marcos must submit this information in a photo documentation report to the San Diego Water Board **with the Mitigation Monitoring reports** (see Condition E.11). The report must include a compact disc that contains digital files of all the photos (jpeg file type or similar).

#### **H. GEOGRAPHIC INFORMATION SYSTEM REPORTING**

The City of San Marcos must submit Geographic Information System (GIS) shape files of the impact and mitigation areas **within 1<sup>st</sup> Mitigation and Monitoring Report** (see Condition E.11) of mitigation installation. All impact and mitigation areas shapefiles must be polygons. Two GPS readings (points) must be taken on each line of the polygon and the polygon must have a minimum of 10 points. GIS metadata must also be submitted.

#### **I. REPORTING:**

1. The submittal of information under this Certification is required pursuant to California Water Code (CWC) sections 13267 and 13383. Civil liability may be administratively imposed by the San Diego Water Board for failure to submit required information pursuant to CWC section 13268.
2. All reports and information submitted to the San Diego Water Board must be submitted in both hardcopy and electronic format. The preferred electronic format for each report submission is one file in PDF format that is also Optical Character Recognition (OCR) capable.
3. The City of San Marcos must submit a report to the San Diego Water Board within the Final Project Annual Report (see Condition A.12) of completion of the project. The report should include as-built drawings no bigger than 11" x 17" and photos of the completed project.
4. All applications, reports, or information submitted to the San Diego Water Board must be signed and certified as follows:
  - a. For a corporation, by a responsible corporate officer of at least the level of vice president.
  - b. For a partnership or sole proprietorship, by a general partner or proprietor, respectively.
  - c. For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.



5. A duly authorized representative of a person designated in Items 4.a. through 4.c. above may sign documents if:
  - a. The authorization is made in writing by a person described in Items 4.a. through 4.c. 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.
6. All applications, reports, or information submitted to the San Diego Water Board must be signed and 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."*

7. The City of San Marcos must submit reports required under this Certification, or other information required by the San Diego Water Board, to:

Executive Officer  
California Regional Water Quality Control Board  
San Diego Region  
Attn: 401 Certification; Project No. 09C-041  
9174 Sky Park Court, Suite 100  
San Diego, California 92123

8. Required Reports: The following list summarizes the reports required per the conditions of this Certification to be submitted to the San Diego Water Board.

<b>Report Topic</b>	<b>Certification Condition</b>	<b>Due Date(s)</b>
Unauthorized Discharge	A.5	Within 24 hours
Transfer of Responsibility	A.7.a-c	Within 10 days
Annual Progress Reports	A.12	August 1, annually
Final Project Annual Report	A.13	Within 30 days of completion of the project and any associated monitoring
Commencement of Dredge, Fill, and Discharge	B.3	At least 5 days prior to the actual commencement of dredge, fill, and/or discharge activities
Receiving Waters Monitoring Plan	C.1	Prior to construction commencement
Benthic Macroinvertebrate Community Analysis	C.1.a	With the Annual Progress Reports (Condition A.12)
Health of Wetland and Riparian Habitats	C.1.b	With the Annual Progress Reports (Condition A.12)
Storm Water Management Plan	D.5	Prior to construction commencement
Commencement of Mitigation Installation	E.3	At least 5 days prior to the actual commencement of mitigation installation.
Mitigation As-Built Report	E.5	With the annual report (Condition E.11)
Final Mitigation Plan	E.11	Prior to construction commencement
Mitigation Monitoring Reports	E.12	December 1, annually
Preservation Mechanism	E.14	Prior to construction commencement
Stream Photo Documentation Procedure	F.1	With the Mitigation Monitoring Reports (Condition E.11)
Post-Construction BMP Practices Photo Documentation	G.1	With the Mitigation Monitoring Reports (Condition E.11)
GIS Reporting	H.1	Within 1 <sup>st</sup> Mitigation and Monitoring Report

Report Topic	Certification Condition	Due Date(s)
		(Condition E.11)

**CEQA FINDINGS:**

1. The City of San Marcos is the lead agency under the California Environmental Quality Act [Public Resources Code section 21000, et seq., (CEQA)], and prepared a Final Mitigated Negative Declaration pursuant to CEQA requirements. A Notice of Determination was filed on January 8, 2009 for a Mitigated Negative Declaration (SCH # 2008101009) for the project under CEQA Guidelines, Title 14, California Code of Regulations, 15075 (14 CCR section 15075). The City of San Marcos has determined that the project will not have a significant effect on the environment and mitigation measures were made a condition of the project.
2. The San Diego Water Board has reviewed the lead agency's Mitigated Negative Declaration, and finds that the project, as conditioned, will not have a significant effect on the environment with the incorporation of mitigation measures, and therefore determines that issuance of this Certification is consistent with the Mitigated Negative Declaration.

**PUBLIC NOTIFICATION OF PROJECT APPLICATION:**

On June 6, 2009 receipt of the project application was posted on the San Diego Water Board web site to serve as appropriate notification to the public. No public comments were received.

**SAN DIEGO WATER BOARD CONTACT PERSON:**

Alan Monji  
 California Regional Water Quality Control Board, San Diego Region  
 9174 Sky Park Court, Suite 100  
 San Diego, CA 92123  
 (858) 637-7140  
[amonji@waterboards.ca.gov](mailto:amonji@waterboards.ca.gov)

**WATER QUALITY CERTIFICATION:**

I hereby certify that the proposed discharge from Borden Road and Bridge (Project No. 09C-041) 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 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 and all proposed mitigation being completed in strict compliance with the applicants' project description and/or on the attached Project Information Sheet, and (b) on compliance with all applicable requirements of the *Water Quality Control Plan for the San Diego Basin Region (9)* (Basin Plan).



DAVID W. GIBSON  
Executive Officer  
Regional Water Quality Control Board

6-3-2011

Date

- Attachments:
1. Project Information
  2. Distribution List
  3. Location Map
  4. Site and Mitigation Maps
  5. Improvement Plans – Post Construction BMPs



# ATTACHMENT 1

Project Identifiers	
WDID No:	9 000001931
Reg. Meas. ID:	738365
Place ID:	738365
Party ID:	369584
Person ID:	508876
USACOE No:	SPL-2008001050-MLM
CDFG SAA No.:	1600-2009-0123-R5
Other File No:	<b>09C - 041</b>

PROJECT INFORMATION	
Details	
Application Received Date:	05/15/2009
Application Completed Date:	11/23/2010
Additional Info Completed Date:	02/25/2010, 11/10/2010, 11/23/2010, and 12/16/2010
Applicant:	Jerry Backoff, Planning Division Director 760 744-1050 x 3234, 760 744-7543 fax JBackoff@ci.san-marcos.ca.us City of San Marcos 1 Civic Center Drive San Marcos, CA 92069-2918
Applicant Representative(s):	Scot Chandler 858 712-8366 scot.chandler@hdrinc.com HDR Engineering Inc., 8690 Balboa Ave., Suite 200, San Diego, CA 92123
Project Title:	<b>Borden Road and Bridge</b>
Regulating Water Board:	San Diego Regional Water Quality Control Board
Type of Project:	Transportation, Bridges, and Crossings

Project Description:
<p>This project will construct a segment of Borden Road over a tributary to San Marcos Creek (Creek) between Twin Oaks Valley Road and Woodward Street, a distance of approximately 700 feet, within the City of San Marcos. The completion of this segment of Borden Road will require the construction of a pre-cast concrete bridge with two 100-foot spans reaching a height of 6 to 9-feet over the Creek and the associated 100-year floodplain, with four traffic lanes, two 5-foot wide shoulders/bike lanes, a 7 ½ to 10 foot-wide equestrian/multi-use trail, and reconfiguration of the Borden Road/Twin Oaks Valley Road and Borden Road/Woodward Street intersections. The multi-use trail would connect existing trail segments from Twin Oaks Valley Road and Woodward Street and would be constructed of decomposed granite over compacted sub-base material along the road. A culvert is proposed to replace an existing open drainage channel that conveys water from Twin Oaks Valley Road to the Creek within the proposed roadway alignment. Rip-rap will be placed on either side of the Creek to protect the bridge structure from erosion. Approximately 0.096-acre of rip-rap will be placed on the east side of the Creek and 0.175-acre of rip-rap will be placed on the west side of the Creek. Both bridge abutments and the central piers will be located outside the Creek and associated riparian vegetation. The project will result in permanent discharges to 0.234 acre (294 linear feet) wetland and/or riparian habitat and 0.079-acre (235 linear feet) of non-wetland waters of the United States/State, and 0.185-acre (142 linear feet) of temporary impacts to wetland and/or riparian habitat waters of the United States/State. The total permanent impacts to waters of the United States/State</p>

## ATTACHMENT 1

will be 0.313-acre, and the total temporary impacts to waters of the United States/State will be 0.185-acre (142 linear feet). Mitigation is onsite and consists of 0.483 acres of enhancement and 1.314 acres of establishment.

Location	
<b>City:</b>	City of San Marcos
<b>County:</b>	San Diego
<b>Cross Streets:</b>	Borden Road between Twin Oaks Valley Road and Woodward Street
<b>Section, Township, Range:</b>	T12S, R3W, S11 San Marcos 7.5-min U.S.G.S. quadrangle
<b>Zip code:</b>	92069
<b>Directions:</b>	From Highway 78, exit at Twin Oaks Valley Road and proceed north for 0.9 miles. The project site is directly east of the intersection of West Borden Road and North Twin Oaks Valley Road.
<b>Latitude(s) and Longitude(s):</b>	33° 9' 2.997" latitude, -117° 9' 38.065" longitude (Center Reading) 33° 9' 3.729" latitude, -117° 9' 3.792" longitude 33° 9' 2.863" latitude, -117° 9' 42.108" longitude 33° 9' 3.804" latitude, -117° 9' 34.024" longitude 33° 9' 2.87" latitude, -117° 9' 34.074" longitude

Public Notice	
<b>Water Board Public Notice:</b> Information regarding this project was noticed on the San Diego Water Board's website on 6/1/2010. <input checked="" type="checkbox"/> No Comments were received.	

Fees	
<b>Application Fee Provided:</b> A certification fee of <b>\$640.00</b> (check # 054728) was submitted on <b>05/29/2009</b> as required by 23 CCR §3833b(2)(A) and by 23 CCR § 2200(e). An additional fee of <b>\$1,187.00</b> to offset additional design impacts was received on <b>09/21/2009</b> as required by 23 CCR §3833b(2)(A) and by 23 CCR § 2200(e).	

Hydrologic Information	
<b>Receiving Water(s):</b>	Tributary to San Marcos Creek (HSA 904.51) → San Marcos Creek (HSA 904.51) → Lake San Marcos (HSA 904.51) → Batiquitos Lagoon (HSA 904.51)
<b>Hydrologic Unit(s):</b>	Carlsbad HU, San Marcos HA, Richland HSA
<b>Water Body Type(s):</b>	<b>Riparian, Streambed, and Wetland</b>

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Designated Beneficial Use(s)												
●	AGR		COMM		FRSH		MIGR		RARE		SPWN	
	AQUA		CUL		GWR	+	MUN	●	REC-1	●	WARM	
	ASBS		EST		IND		NAV	●	REC-2		WET	
	BIOL		FISH		LWRM		POW		SAL	●	WILD	
	COLD		FLD		MAR		PRO		SHELL		WQE	

<b>AGR</b>	● Existing	Agricultural Supply
<b>MUN</b>	+ Exempted from MUN by the San Diego Water Board from the municipal use designation under the terms and conditions of State Board Resolution No. 88-63, <i>Sources of Drinking Water Policy</i> .	Municipal and Domestic Supply
<b>REC-1</b>	● Existing	Water Contact Recreation
<b>REC-2</b>	● Existing	Non-Contact Water Recreation
<b>WARM</b>	● Existing	Warm Freshwater Habitat
<b>WILD</b>	● Existing	Wildlife Habitat

Candidate, Sensitive, or Special Status Species
least Bell's vireo ( <i>Vireo bellii pusillus</i> )

Other Permits/Licenses/Agreements/Plans
<b>Federal (Type and Permit/License Number):</b>
U.S. Army Corps of Engineers, 6010 Hidden Valley Road, Suite 105, Carlsbad, CA 92011, Contact: Michelle Mattson, 760 602-4835, <a href="mailto:Michelle.L.Mattson@usace.army.mil">Michelle.L.Mattson@usace.army.mil</a> , Clean Water Act, section 404 permit # SPL-2008001050-MLM
<b>State (Type and Permit/License/Agreement Number):</b>
California Department of Fish and Game, 4949 Viewridge Avenue, San Diego, CA 92123, Contact: Darren Bradford, 858 467-4223, <a href="mailto:DBradford@dfg.ca.gov">DBradford@dfg.ca.gov</a> , Streambed Alteration Agreement # 1600-2009-0123-R5
<b>Other County, City, etc. (Type and Permit/License Number):</b>
City of San Marcos, 1 Civic Center Drive, San Marcos, CA 92069 Contact: Susan Rodriguez, 760 744-1050, <a href="mailto:SVandrew@ci.san-marcos.ca.us">SVandrew@ci.san-marcos.ca.us</a> , Mitigated Negative Declaration, SCH 2008101009
<b>Any Required Documents or Plan Submittals (SWPPP, Mitigation &amp; Monitoring, etc.):</b>
Habitat Mitigation and Monitoring Plan for the Borden Road and Bridge Project, City of San Marcos, San Diego, County, California. October 2010. Revision #1. Prepared for U.S. Army Corps of Engineers, by HDR Engineering, Inc.

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NEPA and/or CEQA Compliance	
Document type:	Mitigated Negative Declaration
Lead Agency:	City of San Marcos 1 Civic Center Drive San Marcos, CA 92069
Date completed:	January 8, 2009
State Clearinghouse Number:	SCH 2008101009

IMPACTS
<b>Describe Potential Water Quality and Beneficial Use Impacts:</b>
<p>Equipment and machinery used to construct the project (wheel loaders, track dozers, scrapers, excavator, pile driver, motor grader, concrete pump, concrete trucks, dump trucks, and other miscellaneous small equipment) could discharge pollutants (e.g., oil, grease, sediment, and/or concrete washings) and pollute nearby waterbodies. Also, equipment and machinery could disturb soil and vegetation, thereby dispersing exotic invasive weed propagules (e.g., tamarisk, pampas grass, giant reed and other invasive exotic species), and/or disturbing soil, which could lead to exotic invasive weed infestation of the project site, and/or adjacent, downstream, and nearby waterbodies.</p>

Final Project Impacts (Fill)*						
Waterbody Type	Permanent			Temporary		
	Acres**	Linear Feet	Cubic Yards	Acres**	Linear Feet	Cubic Yards
<i>Riparian</i> - Southern cottonwood-willow riparian forest - Southern willow scrub	0.198	167	-	0.185	142	-
<i>Wetland</i>	0.036	127	-	-	-	-
<i>Streambed- unvegetated channel</i>	0.079	235	-	-	-	-
<b>TOTALS</b>	0.313	-	-	0.185	-	-

\* Include all three measurements (acres, linear feet and cubic yards) for all federal and non-federal waterbody types.  
 \*\* Provide acres to three decimal places (e.g., 0.006).



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<b>Final Project Impacts (Dredge*/Excavation)**</b>						
<b>Waterbody Type</b>	<b>Permanent</b>			<b>Temporary</b>		
	<b>Acres***</b>	<b>Linear Feet</b>	<b>Cubic Yards</b>	<b>Acres***</b>	<b>Linear Feet</b>	<b>Cubic Yards</b>
<i>Lake</i>	-	-	-	-	-	-
<i>Ocean</i>	-	-	-	-	-	-
<i>Riparian</i>	-	-	-	-	-	-
<i>Streambed</i>	-	-	-	-	-	-
<i>Vernal Pool</i>	-	-	-	-	-	-
<i>ACOE Jurisdictional Wetland</i>	-	-	-	-	-	-
<i>CDFG Jurisdiction Only</i>	-	-	-	-	-	-

\* For projects that will occur annually please provide the total volume to be dredged for the entire certification period (typically 5 years).  
 \*\* Include all three measurements (acres, linear feet and cubic yards) for all federal and non-federal waterbody types.  
 \*\*\* Provide acres to three decimal places (e.g., 0.006).

<b>Impact Comparison*</b>								
	<b>Fill</b>				<b>Dredge</b>			
	<b>Permanent</b>		<b>Temporary</b>		<b>Permanent</b>		<b>Temporary</b>	
	<b>Initial</b>	<b>Final</b>	<b>Initial</b>	<b>Final</b>	<b>Initial</b>	<b>Final</b>	<b>Initial</b>	<b>Final</b>
<i>Impacts (Acres)**</i>	-	-	-	-	-	-	-	-

\* Include impacts to both federal and non-federal waters.  
 \*\* Provide acres to three decimal places (e.g., 0.006).

<b>MITIGATION</b>
<b>Describe Avoidance and Minimization for Impacts to Waters:</b>
<p>To minimize impacts to waters of the United States during project design, instead of a culverted crossing, the Borden Road bridge was designed to span the creek, and the abutments for the bridge were placed outside the limits the streambed.</p> <p>To avoid and minimize impacts to waterbodies, the following measures will be implemented: Silt fencing will be placed around all disturbed areas to control erosion, and gravel bags will be installed at the top of all manufactured slopes and in areas of grade change where erosion is likely to occur. All graded areas that will not be worked for 7-days will be hydroseeded.</p> <p>Protection of water quality will be achieved during the post-construction phase through the use of storm drain filter inserts (e.g., Kristar Flogard Plus catch basin filter inserts, or an equivalent). The Kristar catch basin insert is designed to capture sediment, debris, trash and oils/grease from low (first flush) flows. A (dual) high-flow bypass allows flows to bypass the device while retaining sediment and larger floatables (debris &amp; trash). Seven filter inserts will be utilized which will treat runoff from the bridge and adjacent streets. Water runoff from the horse trail which crosses the bridge will also be treated by filter inserts.</p> <p>Maintenance of the filter inserts will consist of three inspections per year. One inspection will occur before the wet season and two will occur during the wet season. During inspections, sediment and debris will be removed from the catch basin and the absorbent material will be replaced when it is more than 50 percent coated with pollutants.</p>

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A sand filtration basin will be located at the northwest corner of Borden Road and Twin Oaks Valley Road. The sand filtration will treat flows emanating from Borden Road west of Twin Oaks Valley Road. It will use the natural filtering ability of soil to remove pollutants from stormwater runoff. Maintenance of the infiltration basin will involve semiannual inspections, trimming of vegetation, removal of trash and debris, removal of accumulated sediments, and restoration of basin slopes.

A vegetated swale will be located along the north side of Borden Road between Woodward Street and Borden Road bridge. The vegetated swale will treat runoff emanating from the undeveloped land northwest of Borden Road and Woodward Street. The vegetated swale will remove nutrients from runoff before flowing into the creek. Maintenance activities of the vegetated swale involve maintenance of the grass cover, which will consist of monthly mowing, weed control, maintenance irrigation when necessary, reseeding of bare areas, and the removal of trash and debris.

### Describe Compensatory Mitigation for Impacts to Waters (temporary and permanent):

Compensatory mitigation for impacts to waters include the following:

1.314-acre of wetland/riparian forest to be established.

0.483-acre of riparian forest to be enhanced.

### Compensatory Mitigation (Proponent Provided)

Waterbody Type	Acres Established		Acres Restored		Acres Enhanced		Acres Preserved	
	Temp.*	Perm.	Temp.*	Perm.	Temp.*	Perm.	Temp.*	Perm.
<i>Riparian Forest</i>	-	-	-	-		0.483	-	-
<i>Riparian scrub</i>	-		-	-	-	-	-	-
<i>Wetland/ Riparian Forest</i>	-	1.314	-	-	-	-	-	-

\* Report as mitigation for temporary impacts at a 1:1 ratio any required conditions to restore the site (e.g., re-vegetating or re-contouring).

### Compensatory Mitigation (Mitigation Bank)

Waterbody Type	Acres Established	Acres Restored	Acres Enhanced	Acres Preserved
<i>Lake</i>	-	-	-	-
<i>Ocean</i>	-	-	-	-
<i>Riparian</i>	-	-	-	-
<i>Streambed</i>	-	-	-	-
<i>Vernal Pool</i>	-	-	-	-
<i>Wetland</i>	-	-	-	-



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<b>Compensatory Mitigation (In-Lieu)</b>				
<b>Waterbody Type</b>	<b>Acres Established</b>	<b>Acres Restored</b>	<b>Acres Enhanced</b>	<b>Acres Preserved</b>
<i>Lake</i>	-	-	-	-
<i>Ocean</i>	-	-	-	-
<i>Riparian</i>	-	-	-	-
<i>Streambed</i>	-	-	-	-
<i>Vernal Pool</i>	-	-	-	-
<i>Wetland</i>	-	-	-	-

<b>Proponent Provided Mitigation Information (If Applicable)*</b>		
	<b>Site 1</b>	<b>Site 2</b>
Mitigation Site Location(s):	Assessor Parcel Numbers (APNs) 218-120-28 and 220-050-48	Not Applicable
Mitigation Site Lat/Long(s)	The City of San Marcos is in the process of purchasing the necessary portion of properties APNs 218-120-28 and 220-050-48. Lat/Long(s) is not yet known.	"
Name of Watershed & Hydrologic Unit:	Watershed = San Marcos Creek, Hydrologic Unit = Carlsbad, Area = San Marcos, Subarea = Richland	"
Mitigation Site City and County:	City of San Marcos, San Diego County	"

\*If more than two sites, please provide additional information in the additional information table located at the end of this form.

<b>Mitigation Bank Information (If Applicable)*</b>		
	<b>Bank 1</b>	<b>Bank 2</b>
Mitigation Bank Name:	Not Applicable	Not Applicable
Name of Mitigation Bank Operator:	"	"
Address of Mitigation Bank Office:	"	"
Mitigation Bank Location(s):	"	"
Mitigation Bank Lat/Long(s)	"	"
Name of Watershed & Hydrologic Unit:	"	"
Mitigation Bank City and County:	"	"
Mitigation purchase amount (\$):	"	"

\*If more than two sites, please provide additional information in the additional information table located at the end of this form.



## ATTACHMENT 1

<b>In-Lieu Mitigation Information (If Applicable)*</b>		
	<b>Program 1</b>	<b>Program 2</b>
Name of approved in-lieu fee mitigation sponsor:	Not Applicable	Not Applicable
Address of In-lieu mitigation sponsor:	"	"
Description of in-lieu mitigation arrangements:	"	"
In-lieu mitigation location:	"	"
In-lieu mitigation Lat/Long(s):	"	"
In-lieu mitigation City and County:	"	"
Name of Watershed & Hydrologic Unit	"	"
*If more than two sites, please provide additional information in the additional information table located at the end of this form.		

<b>Additional Mitigation Information (Proponent, Bank, or In-Lieu)</b>		
	<b>Site 1</b>	<b>Site 2</b>
Mitigation Site Name:	Not Applicable	Not Applicable
Name of Mitigation Site Operator:	"	"
Address of Mitigation Site Office:	"	"
Mitigation Site Location(s):	"	"
Mitigation Site Lat/Long(s)	"	"
Name of Watershed & Hydrologic Unit:	"	"
Mitigation Site City and County:	"	"
Mitigation purchase amount (\$):	"	"

**ATTACHMENT 2  
DISTRIBUTION LIST**

Michelle Mattson  
U.S. Army Corps of Engineers, Regulatory Branch  
San Diego Field Office  
6010 Hidden Valley Rd, Suite 105  
San Diego, CA 92011-4213  
[Michelle.l.matson@usace.army.mil](mailto:Michelle.l.matson@usace.army.mil)

Darren Bradford  
California Department of Fish and Game  
South Coast Region  
Habitat Conservation Planning – South  
4949 Viewridge Avenue  
San Diego, CA 92123  
[dbradford@dfg.ca.gov](mailto:dbradford@dfg.ca.gov)

U.S. EPA, OWOW, Region 9  
75 Hawthorne St.,  
San Francisco, CA 94105  
[R9-WTR8-Mailbox@epa.gov](mailto:R9-WTR8-Mailbox@epa.gov)

State Water Resources Control Board, Division of Water Quality  
401 Water Quality Certification and Wetlands Unit  
P.O. Box 100  
Sacramento, CA 95812-0100  
[Stateboard401@waterboards.ca.gov](mailto:Stateboard401@waterboards.ca.gov)

Susan Vandrew-Rodriguez  
1 Civic Center Drive  
San Marcos, CA 92069  
[svandrew@ci.san-marcos.ca.us](mailto:svandrew@ci.san-marcos.ca.us)

Scot Chandler  
HDR Engineering, Inc.  
8690 Balboa Ave., Suite 200  
San Diego, CA 92123  
[Scot.Chandler@hdrinc.com](mailto:Scot.Chandler@hdrinc.com)



**ATTACHMENT 3  
LOCATION MAP**

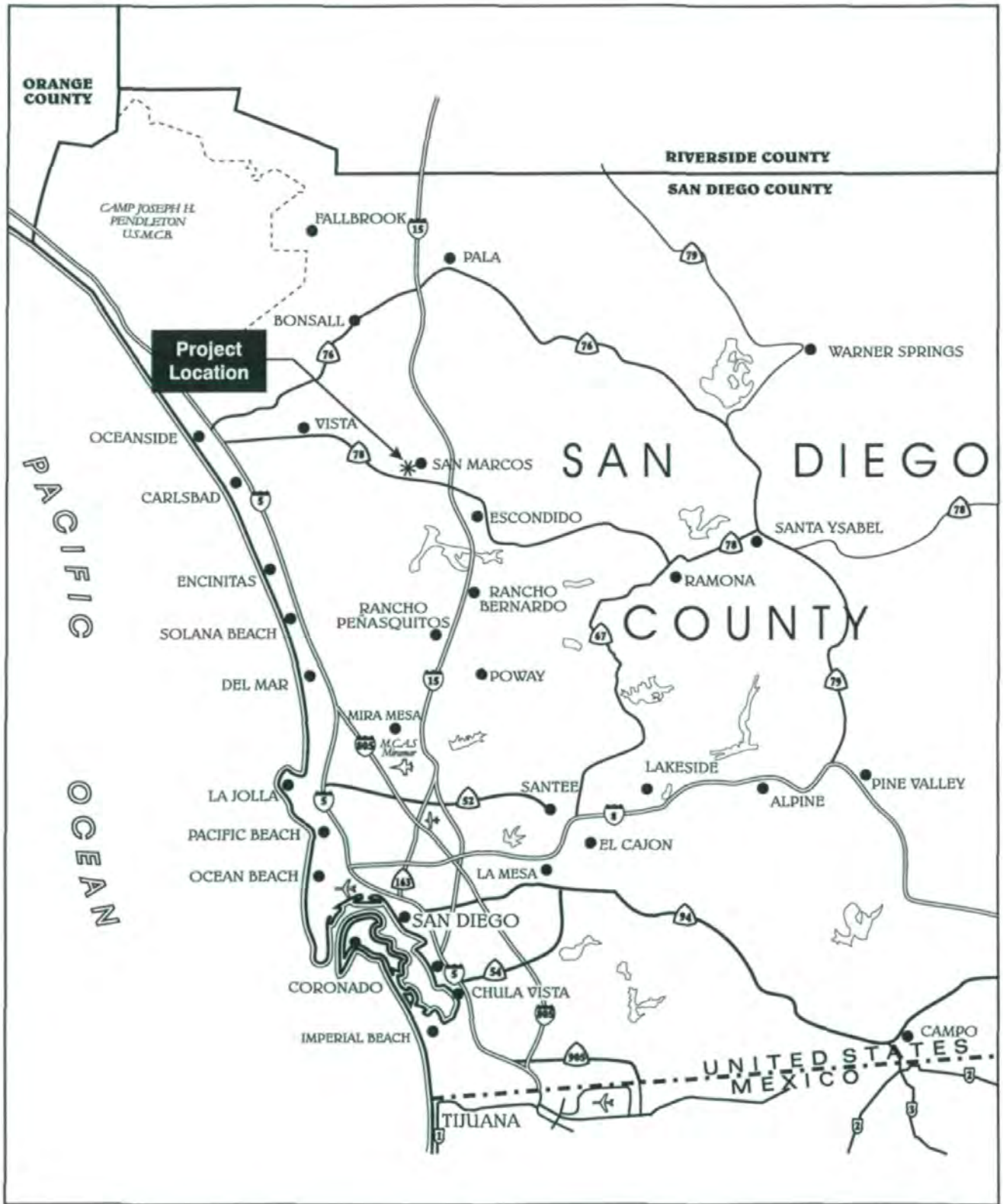


Figure 1  
Regional Location Map





I:\GIS\Production\Projects\CIV\GIS\San Marcos\Planning\_3845337\BordenRoad\_10508214\_00\_GIS\_MODELS\14\_03\_Map\_Docs\14\_03\_Map\_Docs\14\_03\_04\_mxd\Permit\RegionalVicinity.mxd | Created by DTF | Last Updated: 01-29-10

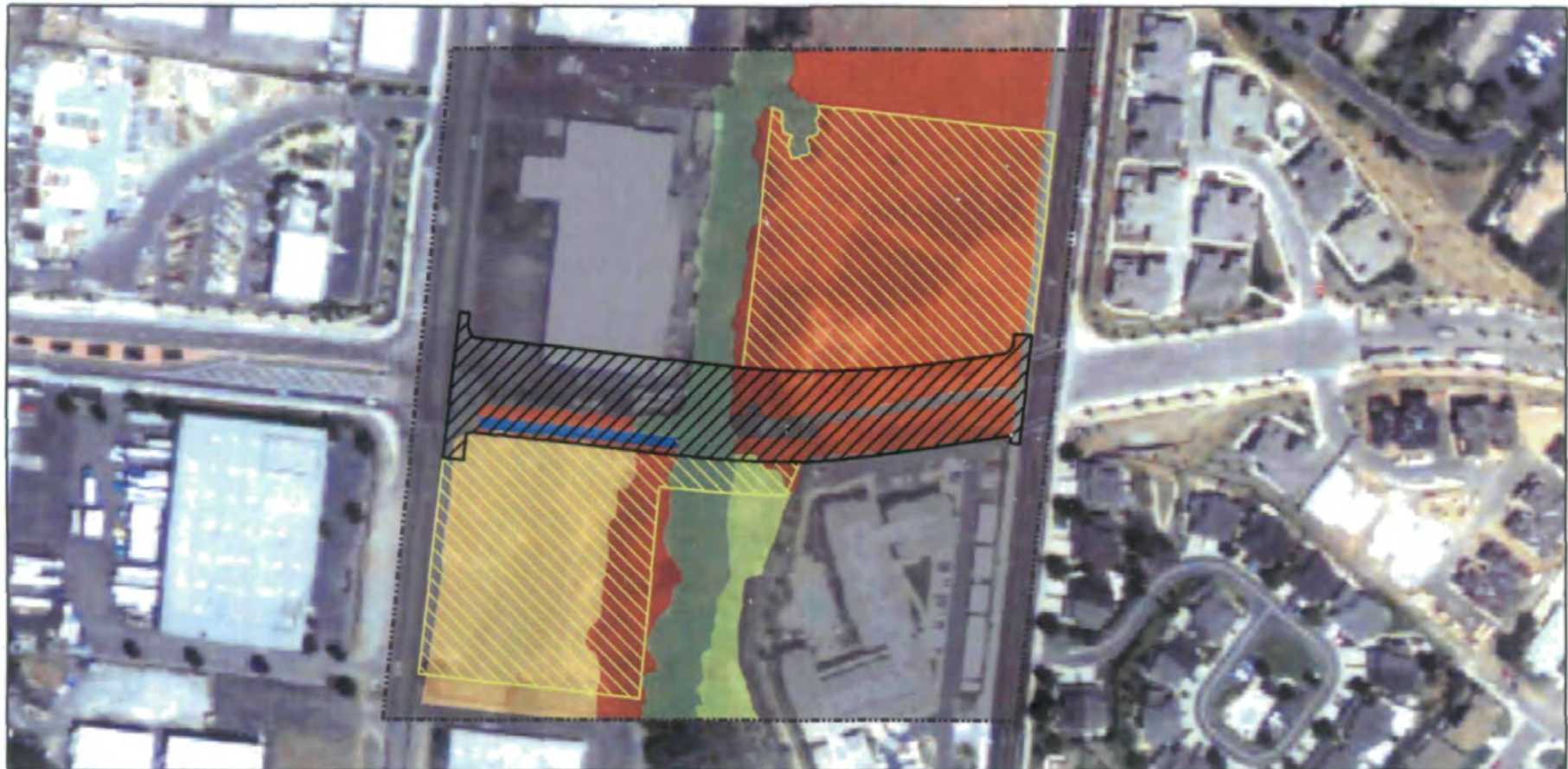












Regional Vicinity

FIGURE 1


City of San Marcos Planning Department | Borden Road | HMAP

**ATTACHMENT 4  
SITE and MITIGATION MAPS**



VEGETATION/LANDCOVER CLASSIFICATION	IMPACT ACREAGES		OTHER FEATURES	NOTES	<p><b>BORDEN ROAD EXTENSION</b></p> <p>IMPACTS TO BIOLOGICAL RESOURCES</p>  <p><b>TIERRA</b> ENVIRONMENTAL SERVICES</p>
	Permanent	Temporary			
 Unvegetated Channel	0.079	None	<p> Study Area</p> <p> Permanent Impact Limit</p> <p> Temporary Impact Limit</p>	<p><b>FIGURE 3</b></p>	
 Developed	0.724	0.136			
 Non-Native Grassland	0.016	1.348			
 Ruderal	0.781	2.573			
 Southern Cottonwood-Willow Riparian Forest	0.182	0.066			
 Southern Willow Scrub Revegetation Area	0.005	0.052			
<b>Total</b>	<b>1.787</b>	<b>4.175</b>			

N



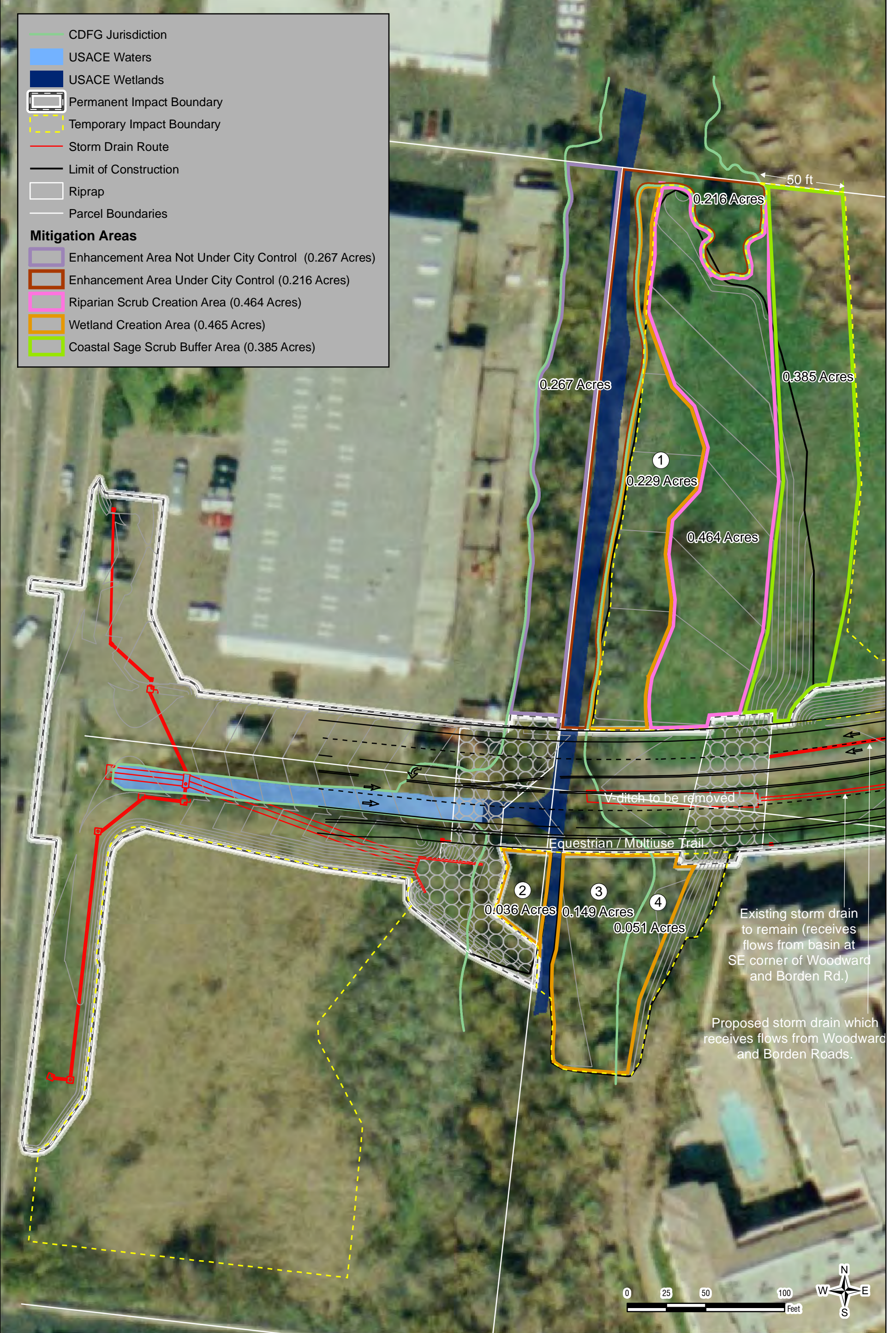
0 60 120

SCALE IN FEET

**NOTES**

- Digital base data provided by Simon Wong Engineering.
- USDA, NAIP Aerial Imagery, 1-m resolution San Diego County, 2005.
- Graphic prepared by Foothill Associates GIS Division (Drawn by EME/SWD, 9/29/06)
- Riparian area in northern temporary impact zone will be avoided, and the acreage is not included in temporary impact calculations.
- Filename = Impacts.mxd

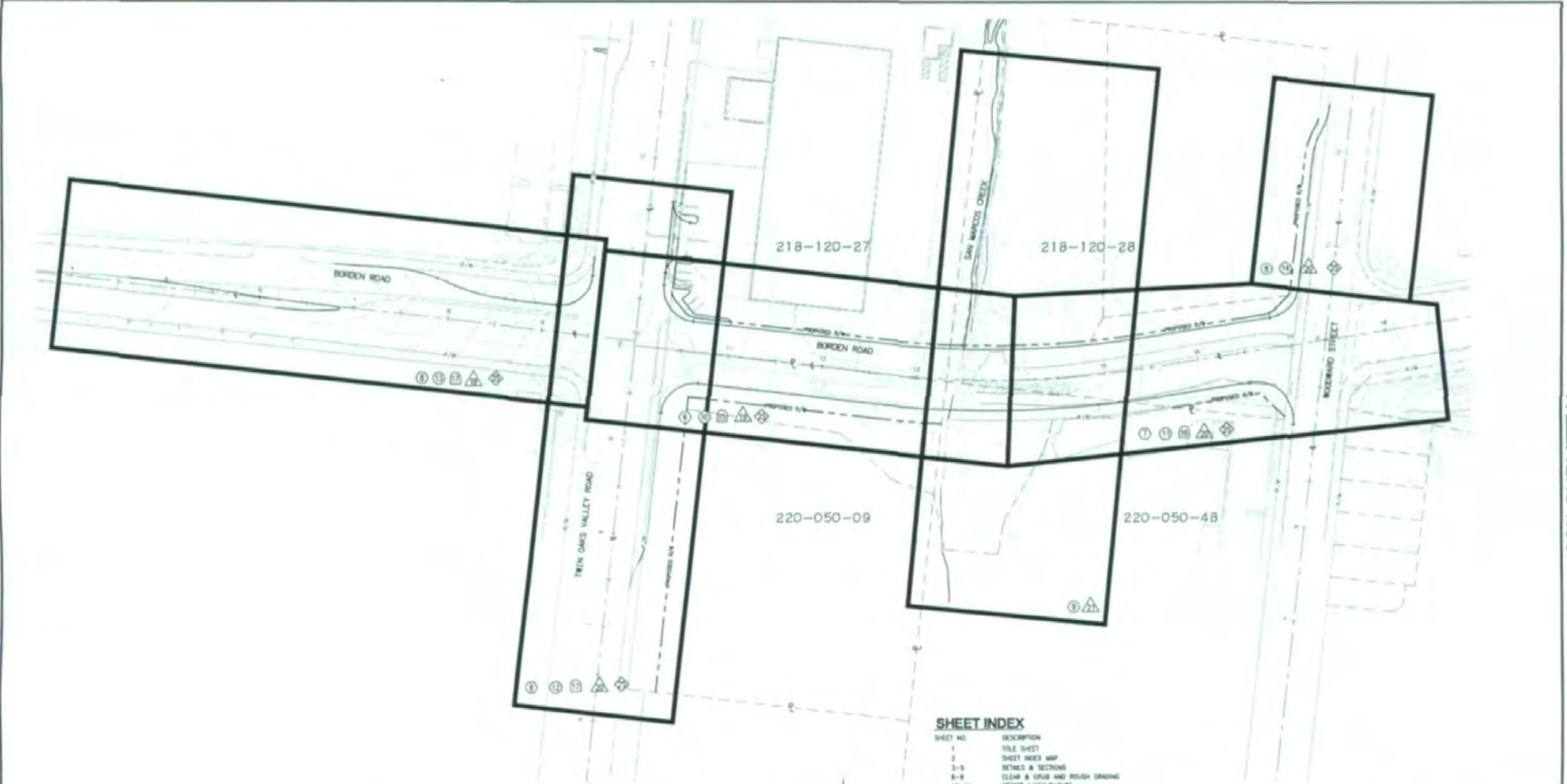




**ATTACHMENT 5  
IMPROVEMENT PLANS FOR BORDEN ROAD**



100% SUBMITTAL



**SHEET INDEX**

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	SHEET INDEX MAP
3-5	DETAILS & SECTIONS
6-9	CLEAR & GRUB AND ROUGH GRADING
10-14	STREET IMPROVEMENTS
15-17	STORM DRAIN PLAN & PROFILES
18-21	EROSION CONTROL
22	IMP. SDC PLAN
23	SIGNAL - BORDEN RD. & TRIN OAKS VALLEY RD.
24	SIGNAL - BORDEN RD. & WOODWARD ST.
25-26	SIGNING & STOPPING
27-42	BRIDGE PLANS
43-44	BORING LOGS
45-48	ELECTRICAL PLANS
49-53	LANDSCAPE PLANS

**INDEX MAP LEGEND**

- CLEAR & GRUB AND ROUGH GRADING PLAN SHEET NUMBER
- IMPROVEMENT PLAN SHEET NUMBER
- EROSION CONTROL SHEET NUMBER
- STOPPING PLAN SHEET NUMBER
- STORM DRAIN PLAN SHEET NUMBER

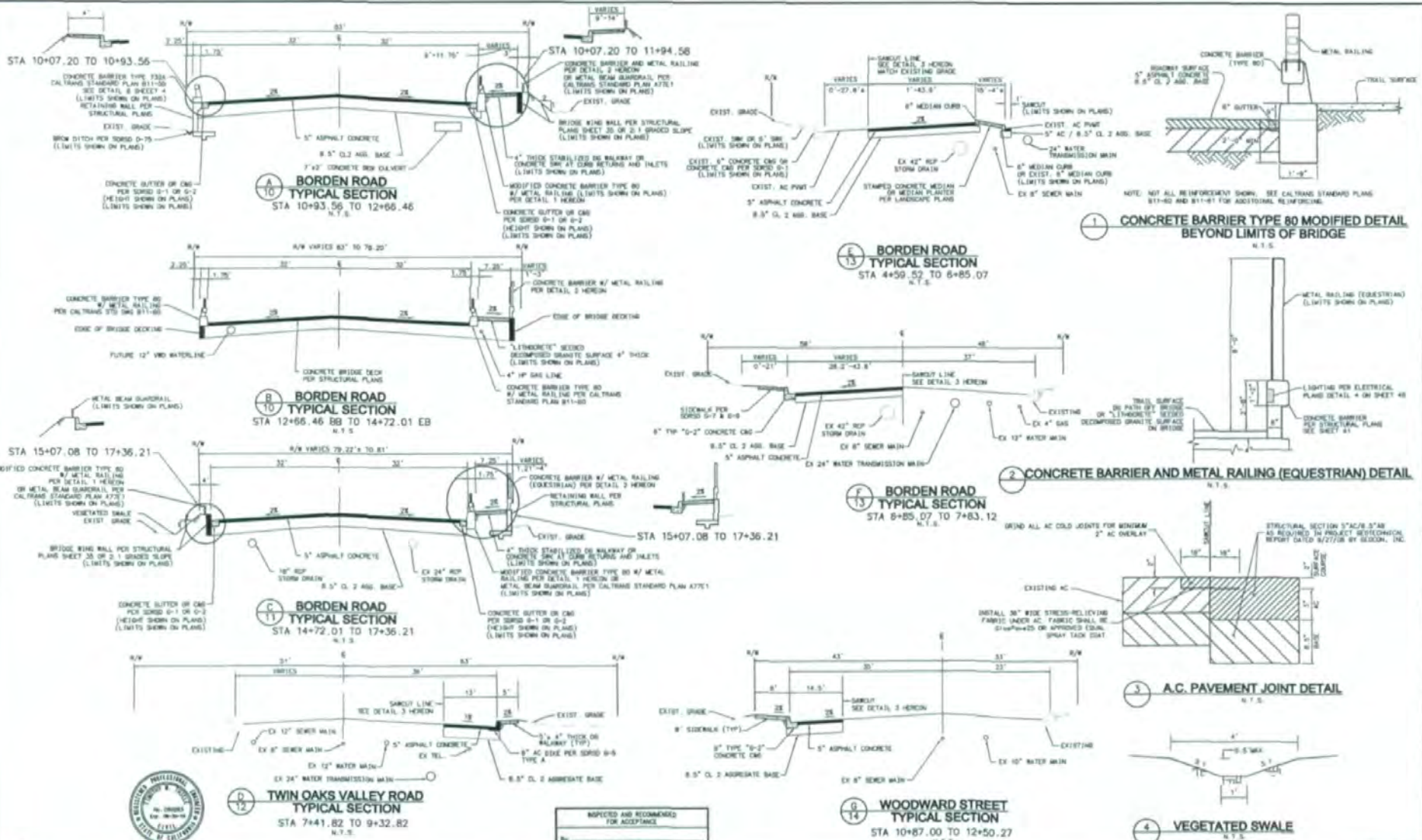
**INDEX MAP**  
SCALE: 1"=40'



INSPECTED AND RECOMMENDED FOR ACCEPTANCE	
By: Public Works Inspector	Date:
RECOMMENDED FOR APPROVAL	
By: [Signature]	Date: [Date]

V.M.D. AD-BULK By: _____ Date: _____ S.C.E. EXP. _____	VALLEJO WATER DISTRICT By: _____ Date: _____	ENGINEER OF WORK By: [Signature] Name: [Name] S.C.E. No. [No.] exp. [Date]	CITY APPROVED CHANGES No. [No.] Date: [Date]	RECOMMENDED FOR APPROVAL By: [Signature] Name: [Name] S.C.E. No. [No.] exp. [Date]	APPROVED FOR CONSTRUCTION By: [Signature] Name: [Name] S.C.E. No. [No.] exp. [Date]	DESIGN MARK Title: [Title] License No. [No.] State: [State]	CITY OF SAN MARCOS ENGINEERING DIVISION <b>BORDEN ROAD INDEX MAP</b> (CIP No. 271)	City Drawing No. IP-4767 Sheet 2 of 2
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5-20-2016



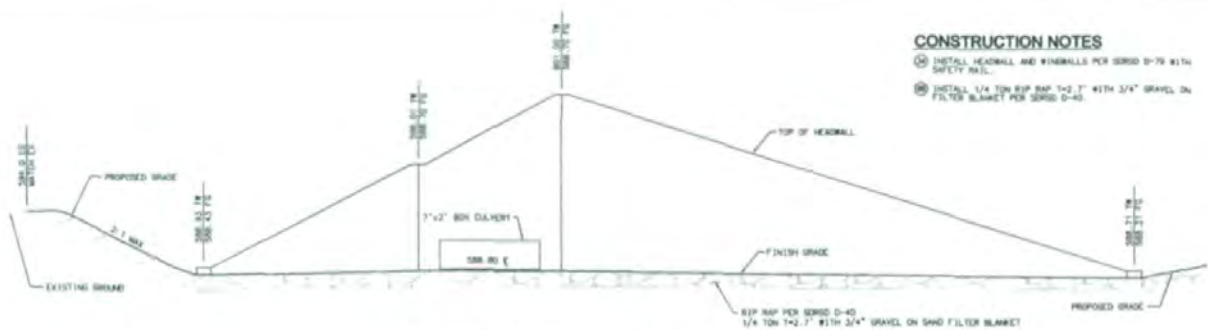
100% SUBMITTAL



INSPECTED AND RECOMMENDED FOR ACCEPTANCE
By: [Signature]
Date: [Date]
RECOMMENDED FOR APPROVAL
By: [Signature]
Date: [Date]
APPROVED FOR CONSTRUCTION
By: [Signature]
Date: [Date]

Y&R: AP-B&C	VALLEJO WATER DISTRICT	ENGINEER OF WORK	CITY APPROVED CHANGES	APPROVED FOR CONSTRUCTION	BOOTH MARK	CITY OF SAN MARCOS ENGINEERING DIVISION	NO. 82 20-25/2010
By: [Signature]	By: [Signature]	By: [Signature]	By: [Signature]	By: [Signature]	By: [Signature]	IMPROVEMENT PLANS FOR	City Drawing No.
S.C.E. [Signature]	CP	By: [Signature]	By: [Signature]	By: [Signature]	By: [Signature]	<b>BORDEN ROAD DETAILS AND SECTIONS</b>	IP-4767
		DATE: 8/20/08	DATE: 8/20/08	DATE: 8/20/08	DATE: 8/20/08	(COP No. 271)	Sheet 3 of





**MODIFIED BOX CULVERT WINGWALL SECTION H-H**  
N.T.S.

**CONSTRUCTION NOTES**  
 (1) INSTALL HEADWALL AND WINGWALLS PER SERIES D-79 WITH SAFETY RAIL.  
 (2) INSTALL 1/4 TON RIP RAP 1-2' WITH 3/4\"/>



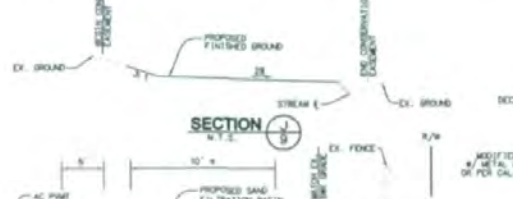
**MODIFIED BOX CULVERT WINGWALL**  
SCALE 1"=10'

- VWD CONNECTION TO ACP NOTES:**
- CONTRACTOR SHALL POTENTIALLY EXISTING ACP WATER MAIN TO DETERMINE EXACT LOCATION, DIMENSIONS, ELEVATION, AND ORIENTATION OF WATER MAIN INCLUDING LOCATION OF EXISTING PIPE JOINTS.
  - HOT TAP OF EXISTING ACP PIPE WILL NOT BE ALLOWED FOR SIZE OR ELIC CONNECTIONS. EXISTING ACP PIPE SHALL BE REMOVED TO NEAREST JOINT. INSTALL NEW TEE, GATE VALVE AND THROTTLE BLOCK.
  - TAPPED CONNECTIONS SHALL NOT BE CLOSER THAN 24" (EDGE TO EDGE) TO AN EXISTING PIPE FITTING OR JOINT.
  - HOT TAP CONNECTION TO EXISTING ACP WATER MAIN SHALL BE COORDINATED WITH VALLECITOS WATER DISTRICT. CONTRACTOR SHALL PROVIDE WARNING AND WORK NOTICE TO VALLECITOS WATER DISTRICT PRIOR TO HOT TAP EVENT.
  - VALLECITOS WATER DISTRICT RESERVES THE RIGHT TO SELECT THE HOUR OF THE DAY AND DAY OF THE WEEK DURING WHICH THE CONNECTION WILL BE MADE.
  - HOT TAP CONNECTIONS FOR FIRE HYDRANTS AND DETECTOR CHECK ASSEMBLIES SHALL INCLUDE 6" TAPPING GATE VALVE, TEE AND THROTTLE BLOCK PER VWD STANDARD DRAWING W-14.
  - REMOVAL OF ACP PIPE SHALL BE PERFORMED BY A CONTRACTOR REGISTERED BY CALIFORNIA AND CERTIFIED BY THE STATE CONTRACTORS LICENSING BOARD FOR ASBESTOS REMOVAL.

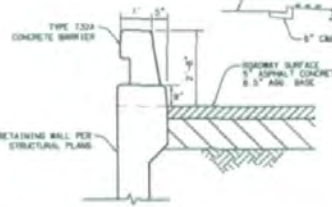
- VALLECITOS WATER DISTRICT GENERAL NOTES (CONT'D)**
- DEVELOPER OR CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ACP PIPE WHICH SHALL BE PERFORMED BY A CONTRACTOR REGISTERED BY CALIFORNIA AND CERTIFIED BY THE STATE CONTRACTORS LICENSING BOARD FOR ASBESTOS REMOVAL.
  - WATER SERVICES WHICH ARE CHANGED DURING CONSTRUCTION SHALL BE REPLACED IN FULL WITH A COPPER SERVICE FOR DISTRICT SPECIFICATIONS AS DIRECTED BY THE DISTRICT. SERVICE LATERALS OR PIPES CHANGED OR REINSTALLED DURING CONSTRUCTION SHALL BE REPLACED IN FULL, AS DIRECTED BY THE DISTRICT.
  - RELOCATION OR EXTENSION OF AN EXISTING WATER METER SHALL MEAN INSTALLATION OF THE METER AT A LOCATION IN CONFORMANCE WITH DISTRICT SPECIFICATIONS AS DIRECTED BY THE DISTRICT AND PERPENDICULAR TO THE MAINLINE CONNECTION. VALVED FIREWATER METER SERVICE LATERALS OTHER THAN COPPER SHALL BE REPLACED TO THE MAIN. MAINS AND SERVICE SHALL BE OTHER THAN BRASS SHALL ALSO BE REPLACED. SIZING OF MAINS MAY BE REQUIRED.
  - PRIOR TO ACCEPTANCE OF ANY SERVICE LINE BY THE DISTRICT, ALL MAINS SHALL BE AIR TESTED, FLOWED CLEAN USING THE "BANK" BALL METHOD OF FACTOR TRACK, AND SHALL PASS A 10 MINUTE THROUGH THE PIPE. ALL TEST MAINS SHALL BE PUMPED. A VIDEO CAMERA INSPECTION OF THE SERVICE MAIN SHALL BE CONDUCTED BY PRIVATE CONTRACTOR OR DISTRICT.
  - THE DISTRICT WILL NOT SUPPLY WATER SERVICE, EXCEPT FOR FIRE PROTECTION, TO ANY PROJECT UNTIL ALL PROVISIONS OF THE DISTRICT STANDARDS AND IMPROVEMENT PLANS HAVE BEEN MET, AND FINAL ACCEPTANCE OF THE PROJECT HAS BEEN GRANTED BY THE DISTRICT BOARD OF DIRECTORS.



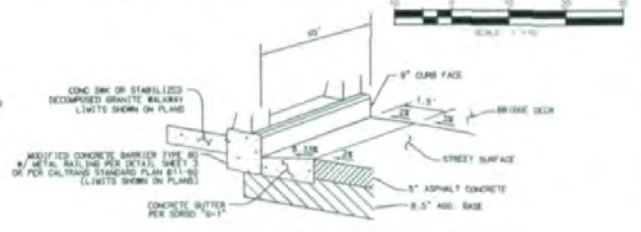
**SECTION I-I**  
N.T.S.



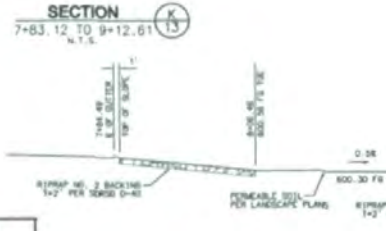
**SECTION J-J**  
N.T.S.



**TYPE 732A BARRIER DETAIL**  
N.T.S.



**GUTTER TRANSITION DETAIL**  
N.T.S.



**SECTION K-K**  
N.T.S.



**SAND FILTRATION BASIN DETAIL**  
N.T.S.

INSPECTED AND RECOMMENDED FOR ACCEPTANCE
By: Public Water Inspector Date: _____
RECOMMENDED FOR APPROVAL
By: _____ Date: _____

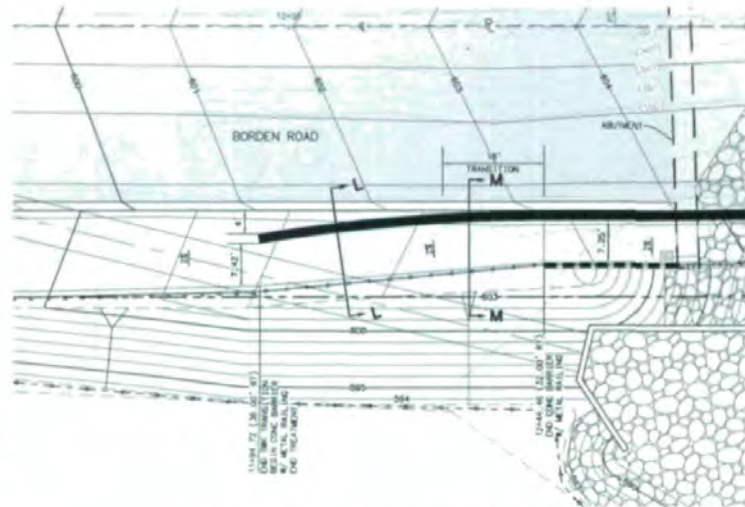
APPROVED FOR CONSTRUCTION
By: _____ Date: _____

NO. 83 3P-C03/03/04
CITY OF SAN MARCOS ENGINEERING DIVISION
IMPROVEMENT PLANS FOR
<b>BORDEN ROAD</b>
<b>DETAILS AND SECTIONS</b>
City Drawing No. IP-4767
Sheet 8 of _____

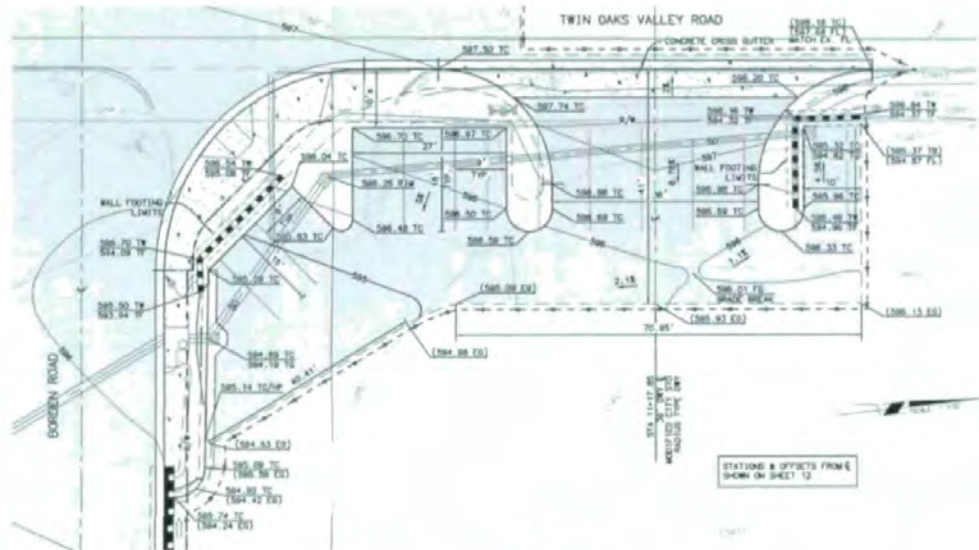
BY: _____	VALLECITOS WATER DISTRICT	ENGINEER OF WORK	NO. APPROVED	DATE TO BE
By: _____	By: _____	By: _____	By: _____	By: _____
Date: _____	Date: _____	Date: _____	Date: _____	Date: _____



100% SUBMITTAL

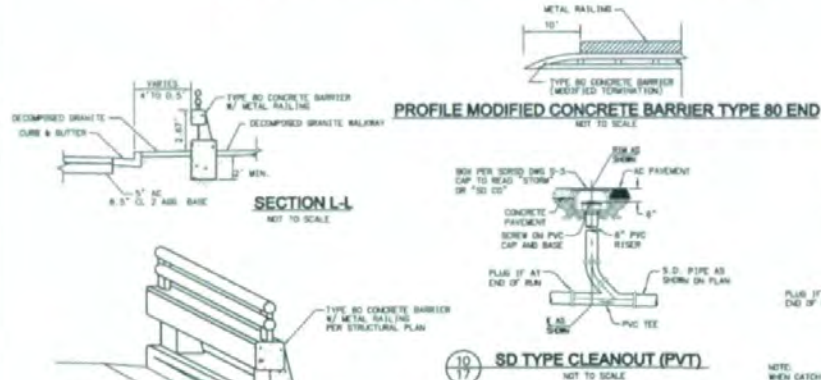


8 MODIFIED CONCRETE BARRIER TYPE 80 END TREATMENT DETAIL  
SCALE 1"=10'



PLAN VIEW  
SCALE 1"=10'

9 APN 218-120-27 DRIVEWAY AND PARKING LOT GRADING  
SCALE 1"=10'

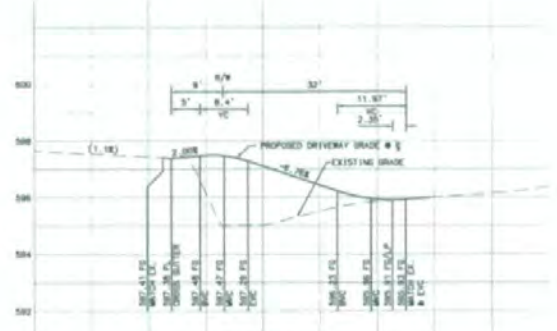


SECTION L-L  
NOT TO SCALE

PROFILE MODIFIED CONCRETE BARRIER TYPE 80 END  
NOT TO SCALE

10 SD TYPE CLEANOUT (PVT)  
NOT TO SCALE

11 24" PRECAST CONCRETE SD INLET (PVT) DETAIL  
NOT TO SCALE



DRIVEWAY PROFILE  
SCALE  
HORIZ. 1"=10'  
VERT. 1"=2'



IMPOSED AND RECOMMENDED FOR ACCEPTANCE

By: [Signature] Date: [Date]

RECOMMENDED FOR APPROVAL

APPROVED FOR CONSTRUCTION

By: [Signature] Date: [Date]



4765 AD-BALT By: [Signature] Date: [Date] R.C.C. [Signature] EXP	VALLEJO WATER DISTRICT By: [Signature] Date: [Date] R.C.C. [Signature] EXP	ENGINEER OF WORK By: [Signature] Date: [Date] R.C.C. [Signature] EXP	CITY APPROVED CHANGES No. [ ] DATE [ ] No. [ ] DATE [ ]	RECOMMENDED FOR APPROVAL By: [Signature] Date: [Date] R.C.C. [Signature] EXP	APPROVED FOR CONSTRUCTION By: [Signature] Date: [Date] R.C.C. [Signature] EXP	BOUND DRAWN [Signature] DATE [ ]	CITY OF SAN MARCOS ENGINEERING DIVISION IMPROVEMENT PLANS FOR <b>BORDEN ROAD</b> <b>DETAILS AND SECTIONS</b> (CLIP No. 273)	City Drawing No. <b>IP-4767</b> Sheet 5 of
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100% SUBMITTAL

218-120-27

218-120-28

220-050-09

220-050-48

NOTE

- 1. LIMITS FOR REMOVAL OF ALL AC AND PCC SHALL BE SHOWN
- 2. ALL PLANTS AND TREES WITHIN THE LIMITS OF WORK SHALL BE REMOVED
- 3. SEE SHEET 6 FOR CHECK GRADING
- 4. \*" REMOVAL OF EXISTING STRUCTURE TO BE COMPLETED CONCURRENTLY WITH INSTALLATION OF NEW REPLACEMENT STRUCTURE.

CONSTRUCTION NOTES

- ① PROTECT IN PLACE
- ② REMOVE ALL EXISTING TREES, SHRUBS, AND BUSHES INTERFERING WITH PROPOSED IMPROVEMENTS
- ③ SAW CUT EXISTING PAVEMENT PER DETAIL 3 SHEET 3
- ④ REMOVE EXISTING AC BERM
- ⑤ REMOVE AND SALVAGE EXISTING FENCE
- ⑥ REMOVE EXISTING CURB, GUTTER, AND SIDEWALK
- ⑦ TO BE REMOVED BY PROPERTY OWNER PRIOR TO CONSTRUCTION
- ⑧ REMOVE EXISTING AC PAVEMENT AND AGGREGATE BASE
- ⑨ REMOVE AND RETURN TO CITY OF SAN MARCOS PUBLIC WORKS DEPARTMENT
- ⑩ REMOVE EXISTING MEDIUM CURB, AC/PCC PAVEMENT
- ⑪ CURBSPOTS TO BE REMOVED BY PROPERTY OWNER PRIOR TO CONSTRUCTION
- ⑫ REMOVE EXISTING TRAFFIC SIGNAL AND PCC YIELD POLE AFTER NEW TRAFFIC SIGNAL POLES ARE FULLY OPERATIONAL, AND RETURN TO CITY OF SAN MARCOS PUBLIC WORKS DEPARTMENT
- ⑬ REMOVE AND RELOCATE EXISTING TRAFFIC SIGNAL PULL BOX (SEE SIGNAL PLAN SHEET 23)
- ⑭ REMOVE EXISTING RETAINING WALL
- ⑮ REMOVE EXISTING 6" PVC SD PIPE
- ⑯ REMOVE EXISTING CURB GUTTER AND PIPE, SEE SHEET 17 FOR LIMITS
- ⑰ REMOVE EX RIP RAMP
- ⑱ REMOVE EXISTING HEADWALL
- ⑳ REMOVE EXISTING FIRE HOBUNT HEAD, BRACKS, BURY (L) BOLARDS AND BARE VALVE, INSTALL IN OLD FLANGE AT TEL. REMOVE OR SLURRY FILL & BURIED PIPE.
- ㉑ EXTEND EXISTING 6" BLOW OFF FROM FACTORY JOINT PER TWO STANDARD OMS P-23.



INSPECTED AND RECOMMENDED FOR ACCEPTANCE	
By: Public Works Inspector	Date: _____
RECOMMENDED FOR APPROVAL	
By: _____	Date: _____

APPROVED FOR CONSTRUCTION	
By: _____	Date: _____

BOND BARR	
By: _____	Date: _____

CITY OF SAN MARCOS ENGINEERING DIVISION  
 REGISTRATION, CLEAR & BUREAU AND TRUST REGISTERED FOR  
**BORDEN ROAD**  
**STA. 9+00.00 TO 14+00.00**  
 (CIP No. 271)

City Drawing No.	IP-4767
Sheet	3 of 4

MATCHLINE STA 9+00.00 BORDEN ROAD SEE SHEET 8

MATCHLINE STA 9+17.50 TWIN OAKS VALLEY ROAD SEE SHEET 8

MATCHLINE STA 14+00.00 BORDEN ROAD SEE SHEET 7

100% SUBMITTAL

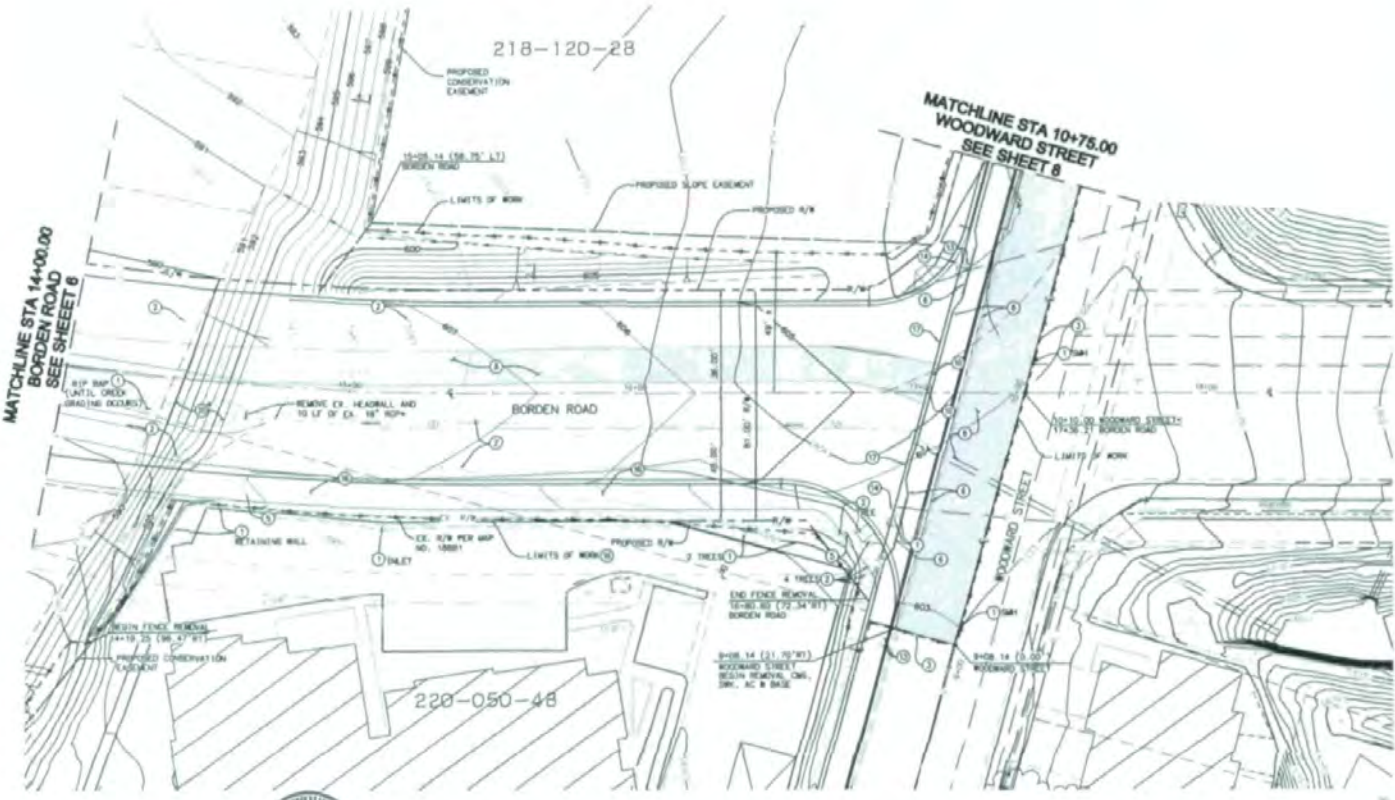
100% SUBMITTAL

**CONSTRUCTION NOTES**

- ① PROJECT IN PLACE.
- ② REMOVE ALL EXISTING TREES, SHRUBS, AND BUSHES (EXCEPT THOSE WITH PROPOSED IMPROVEMENTS).
- ③ GRADOT EXISTING PAVEMENT PER DETAIL 3 SHEET 3.
- ④ REMOVE AND SALVAGE EXISTING FENCE.
- ⑤ REMOVE EXISTING CURB, GUTTER, AND SIDEWALK.
- ⑥ REMOVE EXISTING AC PAVEMENT AND AGGREGATE BASE.
- ⑦ REMOVE EXISTING BELLS AND RETURN TO CITY OF SAN MARCOS PUBLIC WORKS DEPARTMENT.
- ⑧ REMOVE EXISTING TRAFFIC SIGNAL AND PED KING POLE AFTER NEW TRAFFIC SIGNAL POLES ARE FULLY OPERATIONAL AND RETURN TO CITY OF SAN MARCOS PUBLIC WORKS DEPARTMENT.
- ⑨ REMOVE AND RELOCATE EXISTING TRAFFIC SIGNAL PULL BOX (SEE SIGNAL PLAN SHEET 23).
- ⑩ REMOVE EXISTING PLANTING AREA AND IRRIGATION SYSTEM CAP IRRIGATION AT LIMITS OF WORK, COORDINATE WITH OWNER.
- ⑪ REMOVE EXISTING BARRIQUADE AND RETURN TO CITY OF SAN MARCOS PUBLIC WORKS DEPARTMENT.
- ⑫ REMOVE EX 1/4" MAP.

**NOTE:**

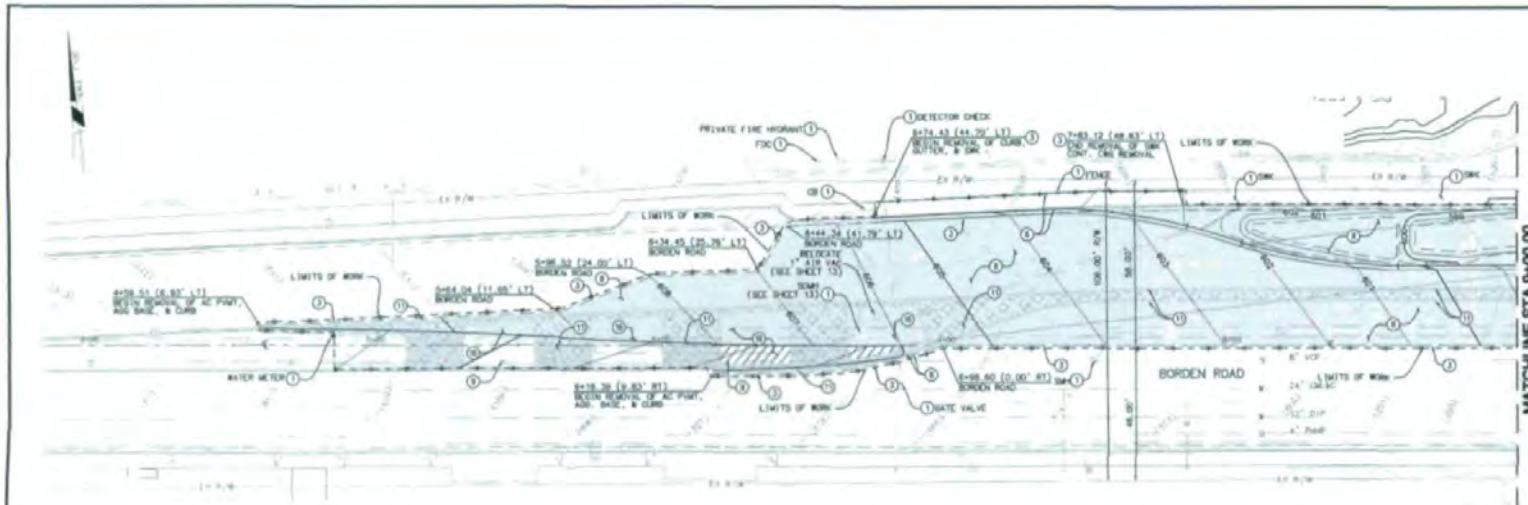
1. LIMITS FOR REMOVAL OF ALL AC AND PCC SHALL BE TAKEN!
2. ALL PLANTS AND TREES WITHIN THE LIMITS OF WORK SHALL BE REMOVED.
3. SEE SHEET 8 FOR CREEK GRADING.
4. "\*" REMOVAL OF EXISTING STRUCTURE TO BE COMPLETED CONCURRENTLY WITH INSTALLATION OF NEW REPLACEMENT STRUCTURE.



INSPECTED AND RECOMMENDED FOR ACCEPTANCE
By: Public Works Inspector
Date: _____
RECOMMENDED FOR APPROVAL
By: _____
Date: _____

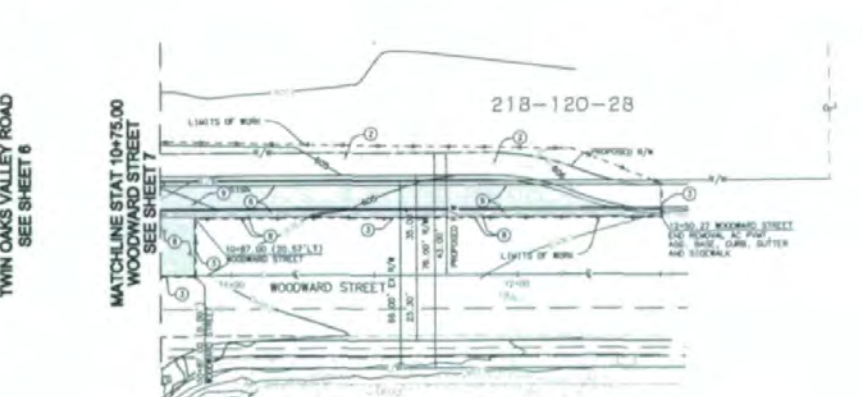
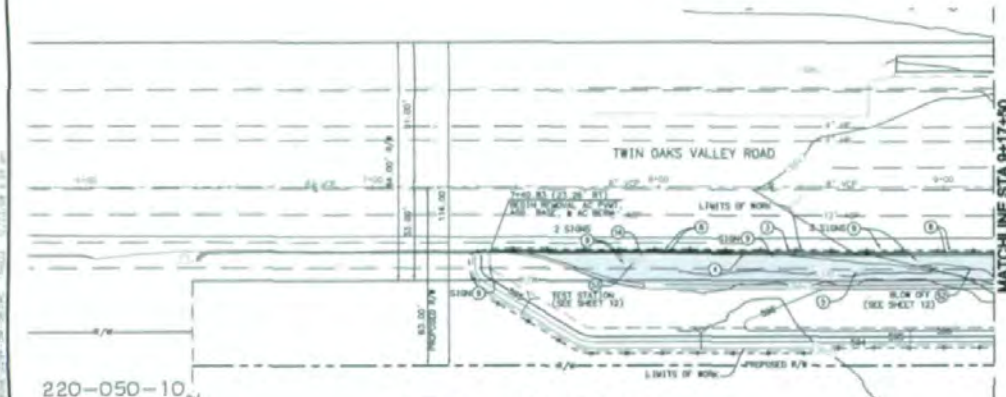
VRS 44-B&T No. 44-B&T Date: _____ R.C.E. EXP	VALLEJO WATER DISTRICT No. _____ Date: _____	ENGINEER OF WORK By: _____ Date: _____ R.C.E. 3034	CITY APPROVED CHANGES No. _____ DATE: _____	INSPECTED AND RECOMMENDED FOR ACCEPTANCE By: _____ Date: _____	RECOMMENDED FOR APPROVAL By: _____ Date: _____	APPROVED FOR CONSTRUCTION By: _____ Date: _____	BORDEN ROAD CITY OF SAN MARCOS ENGINEERING DIVISION STA. 14+00.00 TO 17+21.56	City Drawing No. IP-4767 Sheet 2 of 2
---	--	---	---	--	--	---	---	--

LAWRENCE



- CONSTRUCTION NOTES**
- 1 PROTECT IN PLACE
  - 2 REMOVE ALL EXISTING TREES, SHRUBS, AND BUSHES INTERFERING WITH PROPOSED IMPROVEMENTS
  - 3 SANDLOT EXISTING PAVEMENT PER DETAIL 3 SHEET 3.
  - 4 REMOVE EXISTING AC CURB.
  - 5 REMOVE AND SALVAGE EXISTING FENCE.
  - 6 REMOVE EXISTING CURB, GUTTER, AND STOCKWALK.
  - 7 REMOVE EXISTING AC PAVEMENT AND AGGREGATE BASE.
  - 8 REMOVE AND RETURN TO CITY OF SAN MARCOS PUBLIC WORKS DEPARTMENT.
  - 9 REMOVE EXISTING MEDIAN CURB, AC/PCP PAVEMENT.
  - 10 REMOVE AND RELOCATE EXISTING TRAFFIC SIGNAL PULL BOX (SEE SIGNAL PLAN SHEET 23)
  - 11 REMOVE EXISTING PLANTING AREA AND IRRIGATION SYSTEM. CAP IRRIGATION AT LIMITS OF WORK.
  - 12 EXTEND EXISTING 6" SLOM OFF FROM FACTORY JOINT FOR VMS STANDARD DMS #23.
  - 13 INSTALL NEW COPPER SIGNAL FROM COPM STOP TO NEW LOCATION. RELOCATE EXISTING WATER TEST STATION FOR VMS STANDARD DMS #21. (SEE ALSO VMS GENERAL NOTE 21 RE: 100-WARD SADDLES)

- NOTE:**
- 1 LIMITS FOR REMOVAL OF ALL AC AND PCP SHALL BE SHARLOT
  - 2 ALL PLANTS AND TREES WITHIN THE LIMITS OF WORK SHALL BE REMOVED



220-050-10

220-050-09

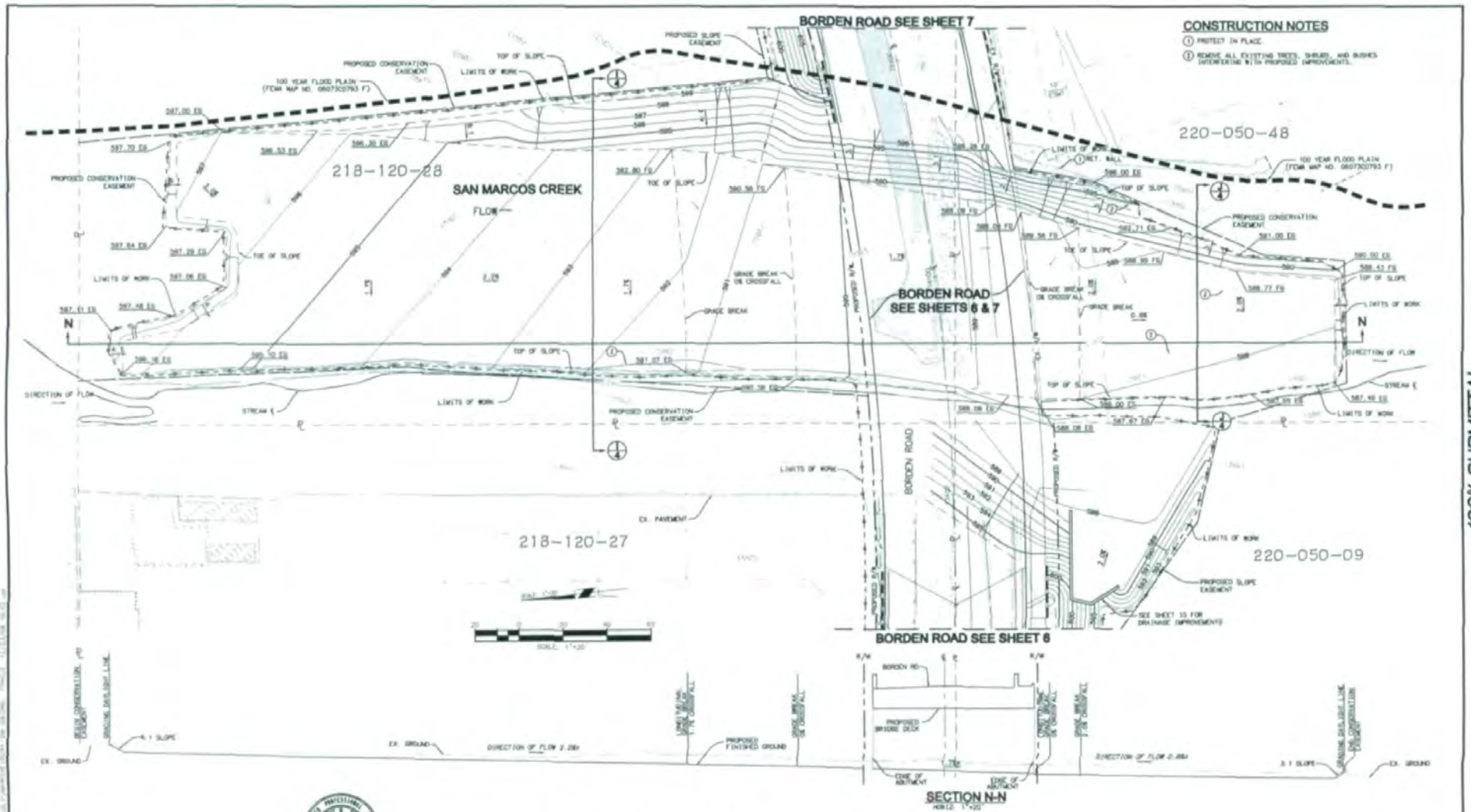
SCALE 1"=20'

PROFESSIONAL ENGINEER  
No. 00000  
STATE OF CALIFORNIA

VMS AS-BUILT By: _____ Date: _____ R.C.E. 2000 Date: _____		VALLEJO WATER DISTRICT ENGINEER OF WORK By: MICHAEL H. TAYLOR Date: 8/26/2010 R.C.E. 2000 Exp. 8/26/2010		CITY APPROVED CHANGES No. Description Date _____ _____		INSPECTED AND RECOMMENDED FOR ACCEPTANCE By: Public Works Inspector Date: _____ RECOMMENDED FOR APPROVAL By: Don E. Salzman, Assistant City Engineer R.C.E. 2014 Exp. 26/26/2015 Date: _____		APPROVED FOR CONSTRUCTION By: Michael E. Corral, City Engineer R.C.E. 2007 Exp. 12/30/2010 Date: _____		BOOK BMM No. _____ _____ _____		CITY OF SAN MARCOS ENGINEERING DIVISION DESIGNED BY: _____ CHECKED BY: _____ DRAWN BY: _____ PROJECT NO.: _____ SHEET NO.: _____		No. 03-20-00000 City Drawing No. IP-4767 Sheet 3 of 3	
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100% SUBMITTAL

5-NOV-2010



- CONSTRUCTION NOTES**
- ① PROTECT IN PLACE.
  - ② REMOVE ALL EXISTING TREES, SHRUBS, AND BUSHES INTERFERING WITH PROPOSED IMPROVEMENTS.

100% SUBMITTAL



INSPECTED AND RECOMMENDED FOR ACCEPTANCE

By: Public Works Inspector  
Date: \_\_\_\_\_

RECOMMENDED FOR APPROVAL

By: \_\_\_\_\_  
Date: \_\_\_\_\_

APPROVED FOR CONSTRUCTION

By: \_\_\_\_\_  
Date: \_\_\_\_\_

RECORD WORK

By: \_\_\_\_\_  
Date: \_\_\_\_\_

CITY OF SAN MARCOS ENGINEERING DIVISION

CONSTRUCTION, CLEAR & GRUB AND ROADWAY GRADING PLANS FOR  
**BORDEN ROAD**  
**SAN MARCOS CREEK**

(CIP No. 271)

City Drawing No. IP-4767  
Sheet 9 of 9

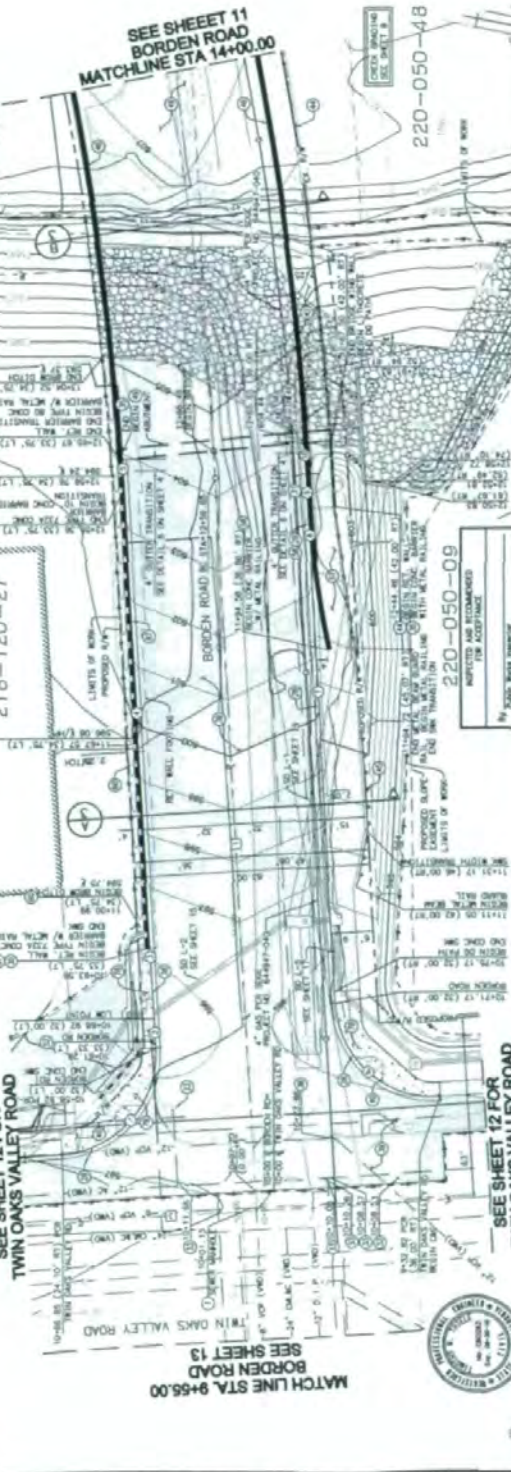
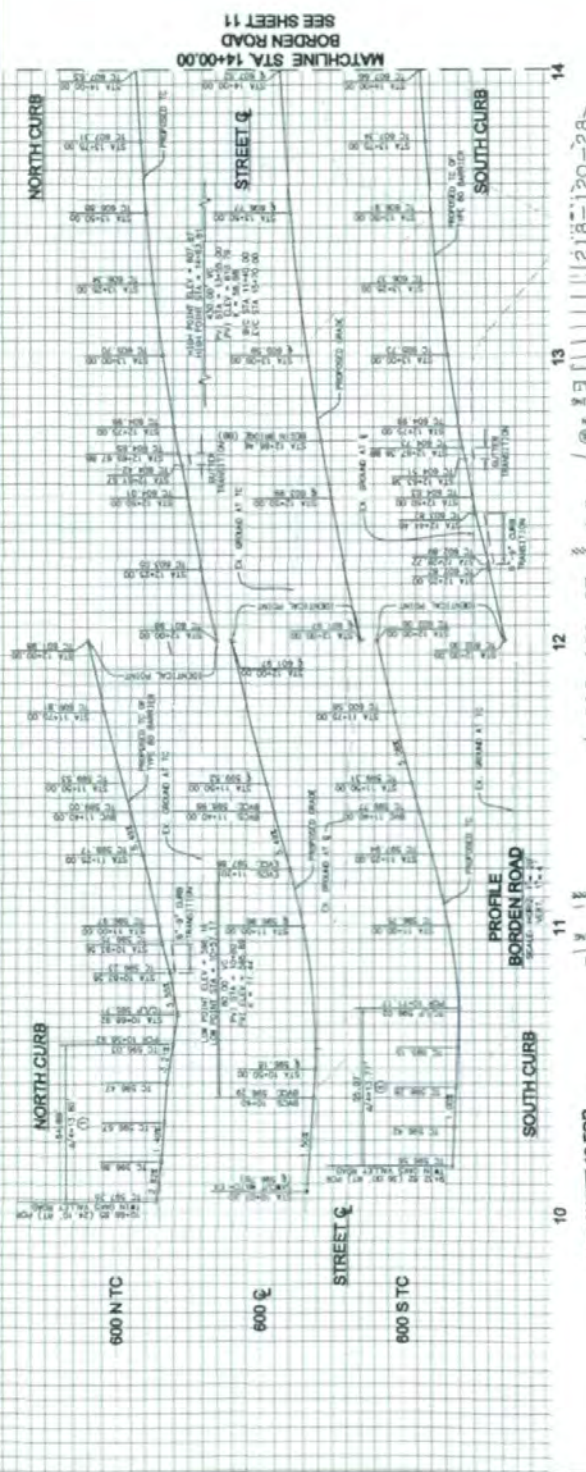
By: _____ Date: _____ R.C.E. 5028	By: _____ Date: _____ R.C.E. 5028	By: _____ Date: _____ R.C.E. 5028	By: _____ Date: _____ R.C.E. 5028
---	---	---	---

VALLEJO WATER DISTRICT	ENGINEER OF WORK	CITY APPROVED CHANGES
By: _____ Date: _____	By: _____ Date: _____	By: _____ Date: _____

UNNOTED

**CONSTRUCTION NOTES**

- 1) PROTECT IN PLACE.
- 2) EXISTING CURB AND GUTTER SHALL BE REPAIRED TO ORIGINAL CROSS SECTION AND FINISH. ALL REPAIRS SHALL BE MATCHED TO EXISTING CURB AND GUTTER.
- 3) INSTALL CONCRETE CURB AND GUTTER PER SCHEDULE 8-2.
- 4) INSTALL CONCRETE INTERIOR PER SCHEDULE 8-1.
- 5) 12" WIDE SIDEWALK OF 150# CONCRETE SHALL BE INSTALLED ON THE INSIDE OF THE CURB AND GUTTER.
- 6) ADJUST WATER TABLE TO GRADE PER SCHEDULE 8-1.
- 7) EXISTING CURB AND GUTTER SHALL BE REPAIRED TO ORIGINAL CROSS SECTION AND FINISH. ALL REPAIRS SHALL BE MATCHED TO EXISTING CURB AND GUTTER.
- 8) CONTRACTOR SHALL PERFORM ALL NECESSARY WORK TO MAINTAIN EXISTING UTILITIES AND STRUCTURES.
- 9) ADJUST AND REPAIR MANHOLE TO GRADE PER SCHEDULE 8-1.
- 10) 12" WIDE SIDEWALK OF 150# CONCRETE SHALL BE INSTALLED ON THE INSIDE OF THE CURB AND GUTTER.
- 11) CONTRACTOR SHALL PERFORM ALL NECESSARY WORK TO MAINTAIN EXISTING UTILITIES AND STRUCTURES.
- 12) CONTRACTOR SHALL PERFORM ALL NECESSARY WORK TO MAINTAIN EXISTING UTILITIES AND STRUCTURES.
- 13) CONTRACTOR SHALL PERFORM ALL NECESSARY WORK TO MAINTAIN EXISTING UTILITIES AND STRUCTURES.
- 14) CONTRACTOR SHALL PERFORM ALL NECESSARY WORK TO MAINTAIN EXISTING UTILITIES AND STRUCTURES.
- 15) CONTRACTOR SHALL PERFORM ALL NECESSARY WORK TO MAINTAIN EXISTING UTILITIES AND STRUCTURES.
- 16) CONTRACTOR SHALL PERFORM ALL NECESSARY WORK TO MAINTAIN EXISTING UTILITIES AND STRUCTURES.
- 17) CONTRACTOR SHALL PERFORM ALL NECESSARY WORK TO MAINTAIN EXISTING UTILITIES AND STRUCTURES.
- 18) CONTRACTOR SHALL PERFORM ALL NECESSARY WORK TO MAINTAIN EXISTING UTILITIES AND STRUCTURES.
- 19) CONTRACTOR SHALL PERFORM ALL NECESSARY WORK TO MAINTAIN EXISTING UTILITIES AND STRUCTURES.
- 20) CONTRACTOR SHALL PERFORM ALL NECESSARY WORK TO MAINTAIN EXISTING UTILITIES AND STRUCTURES.



**STREET & DATA**

STREET	WIDTH	LENGTH	NOTE
STREET G	12.00	100.00	CONCRETE
STREET C	12.00	100.00	CONCRETE

**CURB DATA**

STREET	TYPE	LENGTH	NOTE
STREET G	CONCRETE	100.00	
STREET C	CONCRETE	100.00	



SEE SHEET 12 FOR TWIN OAKS VALLEY ROAD  
 MATCH LINE STA. 9+65.00  
 SEE SHEET 13  
 BORDEN ROAD  
 MATCH LINE STA. 14+00.00  
 SEE SHEET 11  
 BORDEN ROAD  
 MATCHLINE STA 14+00.00

**CITY OF SAN MARCOS ENGINEERING DIVISION**

**BORDEN ROAD**

STA. 9+55.00 TO 14+00.00

IP-4767

Sheet 12 of 27

APPROVED FOR CONSTRUCTION

APPROVED FOR APPROVAL

APPROVED AND RECOMMENDED FOR ACCEPTANCE

DATE: 06/25/2020

DATE: 06/25/2020

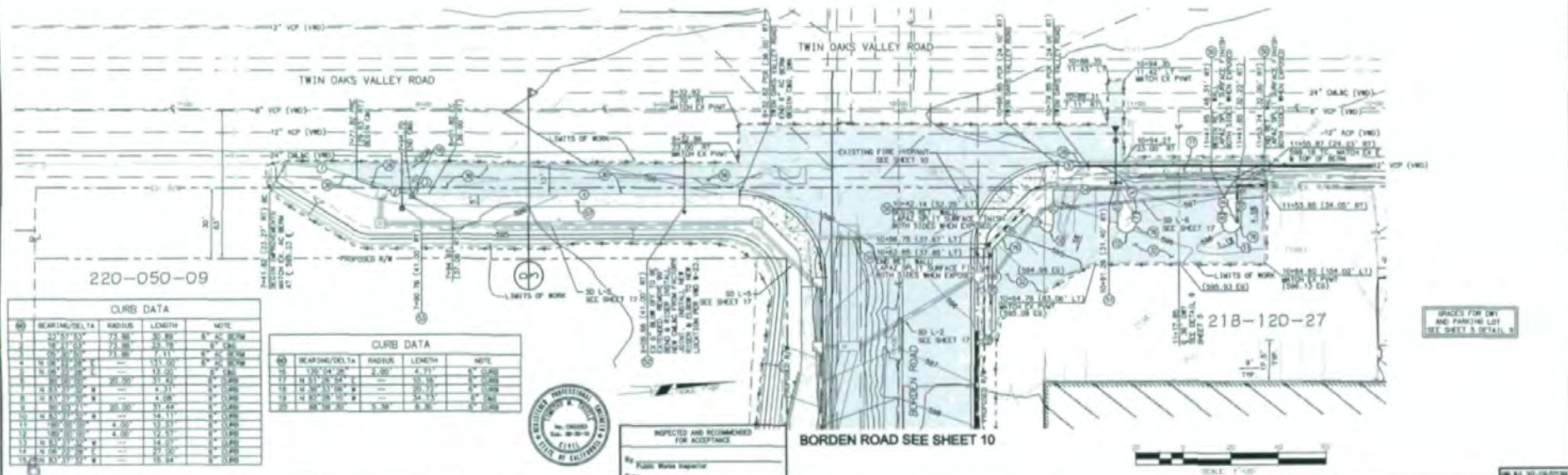
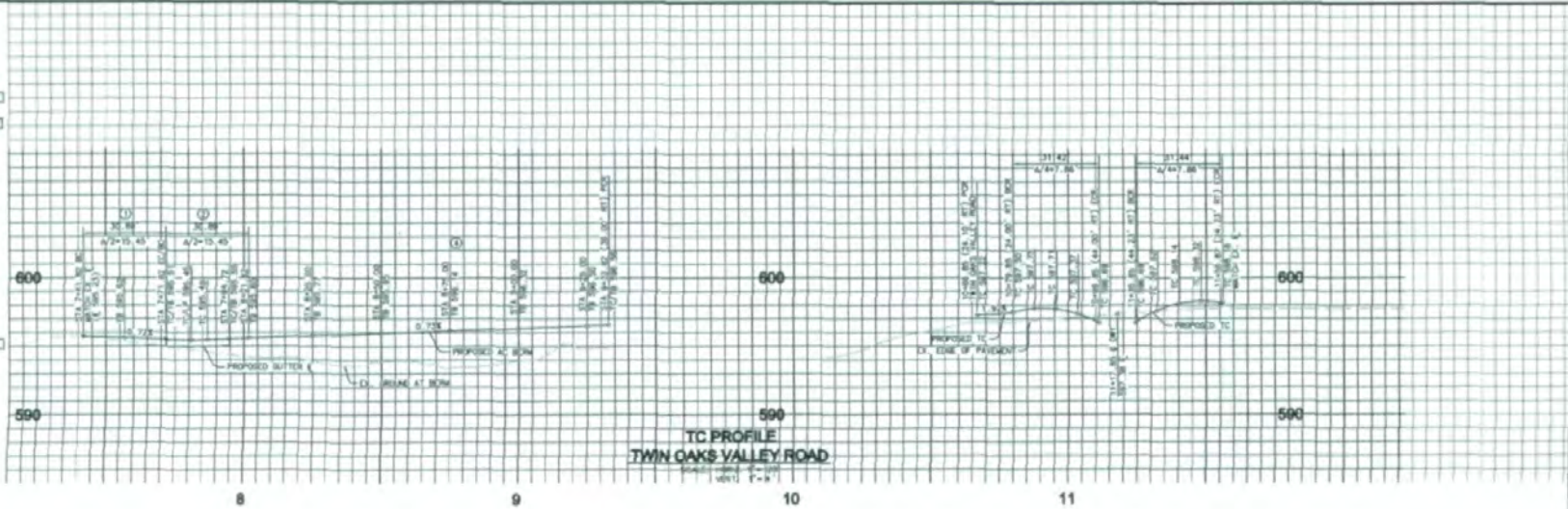
DATE: 06/25/2020





**CONSTRUCTION NOTES**

- 1. INSTALL CONCRETE CURB AND BUTTER PER SPOSD 9-7.
- 2. CONSTRUCT 6" AC BERM TYPE A PER SPOSD 9-5.
- 3. 4" AC OVER 6 1/2" CL-2 AGGREGATE BASE.
- 4. 1" AC PAV OVER 6 1/2" CL-2 AGGREGATE BASE. REFER TO DETAIL 3 ON SHEET 3.
- 5. CONSTRUCT CONCRETE BLOCK RETAINING WALL PER SPOSD C-9, PER DETAIL 9 ON SHEET 1.
- 6. INSTALL NEW FINE HYDRANT ASSEMBLY PER W-4 & W-5. 1" CASTING SP. 1/2" & 1/4" - SEE ACP CONNECTION NOTES.
- 7. EXTEND EXISTING 8" BLOW OFF FROM FACTORY JOINT PER VHD STANDARD DWG #123.
- 8. INSTALL NEW COPPER SERVICE FROM OPEN STOP TO NEW LOCATION. RELOCATE EXISTING WATER TEST (177) ON PER VHD STANDARD DWG #121. (SEE ALSO VHD GENERAL NOTE 21 RE: NEW BRASS SPADLES)
- 9. TELEPHONE WIRELINE TO BE ADJUSTED TO GRADE BY OTHERS.
- 10. 4" THICK STABILIZED DECOMPOSED GRANITE BALLAST.
- 11. RELOCATE TRAFFIC SIGNAL PULL BOX.
- 12. INSTALL 6" CONCRETE CURB PER SPOSD 9-1.
- 13. INSTALL MODIFIED CONCRETE CROSS BUTTER PER SPOSD 9-12.



220-050-09

218-120-27

BORDEN ROAD SEE SHEET 10

GRACES FOR DWG AND PARKING LOT SEE SHEET 3 DETAIL 3

CURB DATA			
NO.	BEARING/DELTA	RADIUS	LENGTH
1	217° 10' 00"	75.00	30.89
2	117° 10' 00"	75.00	30.89
3	117° 10' 00"	75.00	30.89
4	117° 10' 00"	75.00	30.89
5	117° 10' 00"	75.00	30.89
6	117° 10' 00"	75.00	30.89
7	117° 10' 00"	75.00	30.89
8	117° 10' 00"	75.00	30.89
9	117° 10' 00"	75.00	30.89
10	117° 10' 00"	75.00	30.89
11	117° 10' 00"	75.00	30.89
12	117° 10' 00"	75.00	30.89
13	117° 10' 00"	75.00	30.89
14	117° 10' 00"	75.00	30.89
15	117° 10' 00"	75.00	30.89
16	117° 10' 00"	75.00	30.89
17	117° 10' 00"	75.00	30.89
18	117° 10' 00"	75.00	30.89
19	117° 10' 00"	75.00	30.89
20	117° 10' 00"	75.00	30.89

CURB DATA			
NO.	BEARING/DELTA	RADIUS	LENGTH
1	117° 10' 00"	75.00	30.89
2	117° 10' 00"	75.00	30.89
3	117° 10' 00"	75.00	30.89
4	117° 10' 00"	75.00	30.89
5	117° 10' 00"	75.00	30.89
6	117° 10' 00"	75.00	30.89
7	117° 10' 00"	75.00	30.89
8	117° 10' 00"	75.00	30.89
9	117° 10' 00"	75.00	30.89
10	117° 10' 00"	75.00	30.89
11	117° 10' 00"	75.00	30.89
12	117° 10' 00"	75.00	30.89
13	117° 10' 00"	75.00	30.89
14	117° 10' 00"	75.00	30.89
15	117° 10' 00"	75.00	30.89
16	117° 10' 00"	75.00	30.89
17	117° 10' 00"	75.00	30.89
18	117° 10' 00"	75.00	30.89
19	117° 10' 00"	75.00	30.89
20	117° 10' 00"	75.00	30.89



INSPECTED AND RECOMMENDED FOR ACCEPTANCE

By: Public Works Inspector

Date: \_\_\_\_\_

RECOMMENDED FOR APPROVAL

By: \_\_\_\_\_

Date: \_\_\_\_\_

APPROVED FOR CONSTRUCTION

By: \_\_\_\_\_

Date: \_\_\_\_\_

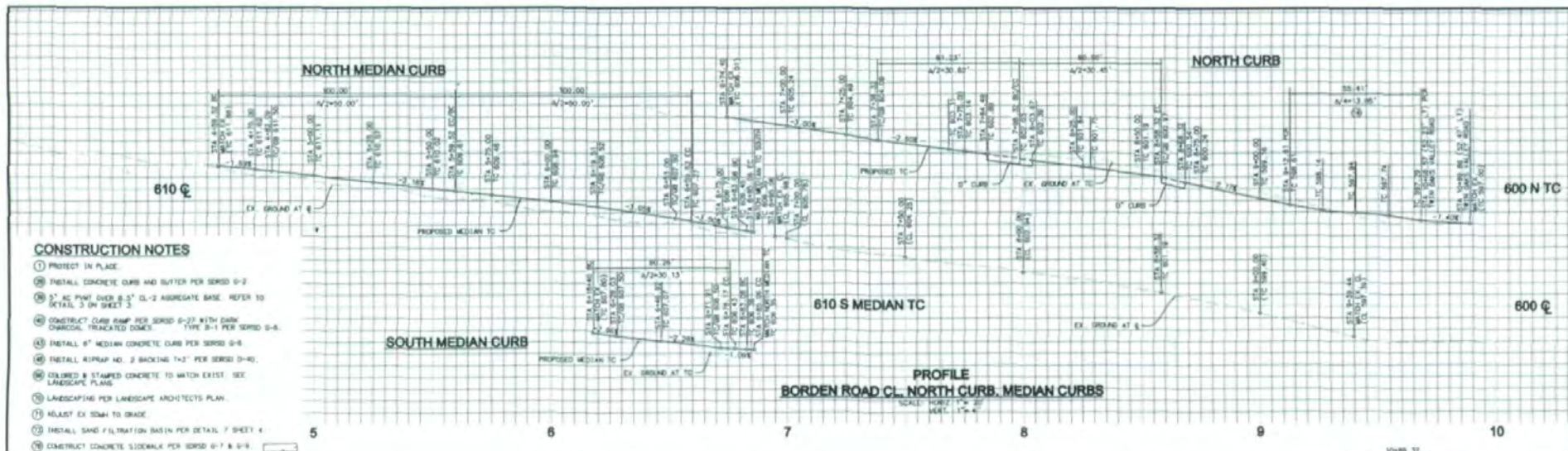
BOOK WORK

By: \_\_\_\_\_

Date: \_\_\_\_\_

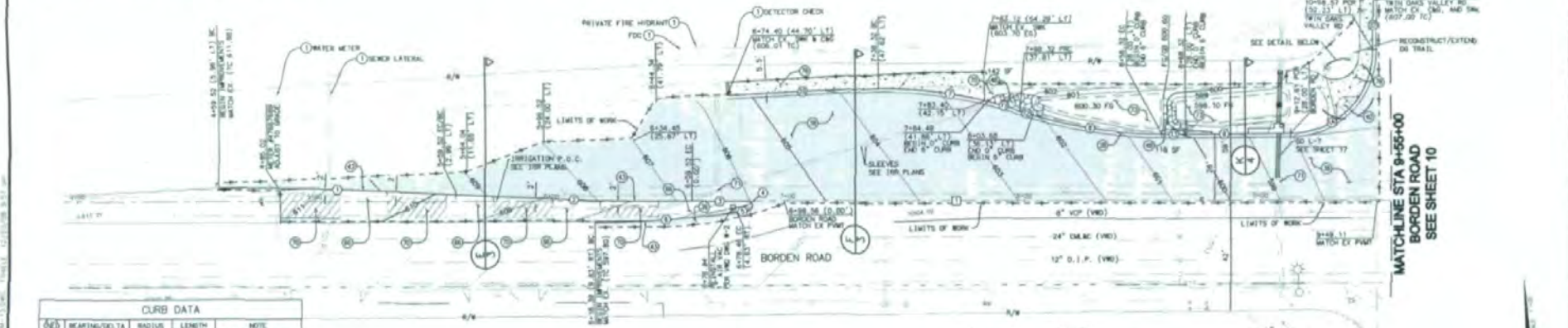
<p>BY: _____</p> <p>DATE: _____</p> <p>A.C.E. _____</p>	<p>VALLEJO WATER DISTRICT</p> <p>ENGINEER OF WORK</p> <p>By: _____</p> <p>Date: _____</p> <p>A.C.E. _____</p>	<p>CITY APPROVED CHANGES</p> <p>No. / Description</p> <p>1 / _____</p>	<p>RECOMMENDED FOR APPROVAL</p> <p>By: _____</p> <p>Date: _____</p>	<p>APPROVED FOR CONSTRUCTION</p> <p>By: _____</p> <p>Date: _____</p>	<p>BOOK WORK</p> <p>By: _____</p> <p>Date: _____</p>	<p>CITY OF SAN MARCOS ENGINEERING DIVISION</p> <p>INDEPENDENT PLANS FOR</p> <p><b>TWIN OAKS VALLEY ROAD</b></p> <p>STA. 7+41.82 TO 11+55.87</p> <p>(CIP No. 275)</p>	<p>City Drawing No.</p> <p><b>IP-4767</b></p> <p>Sheet 12 of _____</p>
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100% SUBMITTAL



**CONSTRUCTION NOTES**

1. PROTECT IN PLACE.
2. INSTALL CONCRETE CURB AND GUTTER PER SERIES 9-2.
3. 3" AC PAVT OVER 8.5" CL-2 AGGREGATE BASE. REFER TO DETAIL 3 ON SHEET 3.
4. CONSTRUCT CLAY RAMP PER SERIES 9-23 WITH DARK CHARCOAL TRUNCATED CONES. TYPE B-1 PER SERIES 9-4.
5. INSTALL 6" MEDIAN CONCRETE CURB PER SERIES 9-8.
6. INSTALL ASPHALT NO. 2 BACKING 1" PER SERIES 2-40.
7. COLORED & STAMPED CONCRETE TO MATCH EXIST. SEE LANDSCAPE PLANS.
8. LANDSCAPING PER LANDSCAPE ARCHITECTS PLAN.
9. RAISE EX SIGN TO GRADE.
10. INSTALL SAND FILTRATION BASIN PER DETAIL 7 SHEET 4.
11. CONSTRUCT CONCRETE SIDEWALK PER SERIES 6-7 & 6-9.



CURB DATA				
NO.	BEARING/Delta	RADIUS	LENGTH	NOTE
1	113° 23' 43"	1500.00	100.00	N MEDIAN CURB
2	113° 23' 43"	1500.00	100.00	N MEDIAN CURB
3	113° 23' 43"	1500.00	100.00	N MEDIAN CURB
4	113° 23' 43"	1500.00	100.00	N MEDIAN CURB
5	113° 23' 43"	1500.00	100.00	N MEDIAN CURB
6	113° 23' 43"	1500.00	100.00	N MEDIAN CURB
7	113° 23' 43"	1500.00	100.00	N MEDIAN CURB
8	113° 23' 43"	1500.00	100.00	N MEDIAN CURB
9	113° 23' 43"	1500.00	100.00	N MEDIAN CURB
10	113° 23' 43"	1500.00	100.00	N MEDIAN CURB
11	113° 23' 43"	1500.00	100.00	N MEDIAN CURB
12	113° 23' 43"	1500.00	100.00	N MEDIAN CURB
13	113° 23' 43"	1500.00	100.00	N MEDIAN CURB
14	113° 23' 43"	1500.00	100.00	N MEDIAN CURB
15	113° 23' 43"	1500.00	100.00	N MEDIAN CURB
16	113° 23' 43"	1500.00	100.00	N MEDIAN CURB
17	113° 23' 43"	1500.00	100.00	N MEDIAN CURB
18	113° 23' 43"	1500.00	100.00	N MEDIAN CURB
19	113° 23' 43"	1500.00	100.00	N MEDIAN CURB
20	113° 23' 43"	1500.00	100.00	N MEDIAN CURB

STREET @ DATA				
NO.	BEARING/Delta	RADIUS	LENGTH	NOTE
1	N 87° 28' 40" W	---	819.33'	BORDEN ROAD



INSPECTED AND RECOMMENDED FOR ACCEPTANCE
By: Public Works Inspector
Date: _____

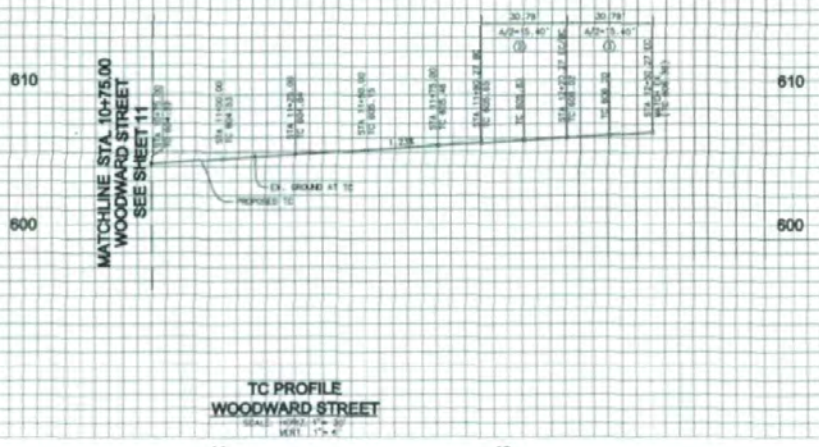
RECOMMENDED FOR APPROVAL
By: Elva E. Salinas, Associate Civil Engineer
Date: 06/20/2012

APPROVED FOR CONSTRUCTION
By: Michael E. Edwards, City Engineer
Date: 06/20/2012

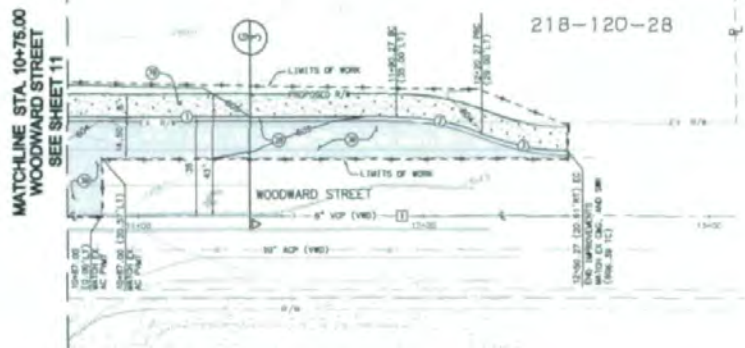
CITY OF SAN MARCOS ENGINEERING DIVISION	IP-4767
BORDEN ROAD STA. 4+59.52 TO 9+55.00	Sheet 13 of 13

100% SUBMITTAL

100% SUBMITTAL



TC PROFILE  
WOODWARD STREET  
SCALE: HORIZ. 1" = 40'  
VERT. 1" = 4'



- CONSTRUCTION NOTES**
- 1. INSTALL CONCRETE CURB AND GUTTER PER SERIES 6-2
  - 2. 3" AC PAVT OVER 8" CL-2 AGGREGATE BASE. REFER TO DETAIL 3 IN SHEET 3.
  - 3. CONSTRUCT CONCRETE SIDEWALK PER SERIES 6-7 & 6-8.

STREET CURB DATA				
ST	BEARING/Delta	RADIUS	LENGTH	NOTE
1	N 96° 24' 48" E	---	175.27'	WOODWARD ST

CURB DATA				
ST	BEARING/Delta	RADIUS	LENGTH	NOTE
1	N 96° 24' 48" E	---	175.27'	6" (30)
2	S 72° 30' 30" W	78.10'	30.78'	6" (30)
3	S 72° 30' 30" W	78.10'	30.78'	6" (30)



INSPECTED AND RECOMMENDED FOR ACCEPTANCE  
By: Public Works Inspector  
Date: \_\_\_\_\_

RECOMMENDED FOR APPROVAL  
By: City Engineer, Attestable Civil Engineer  
R.C.E. 3087  
Date: 06/26/2010

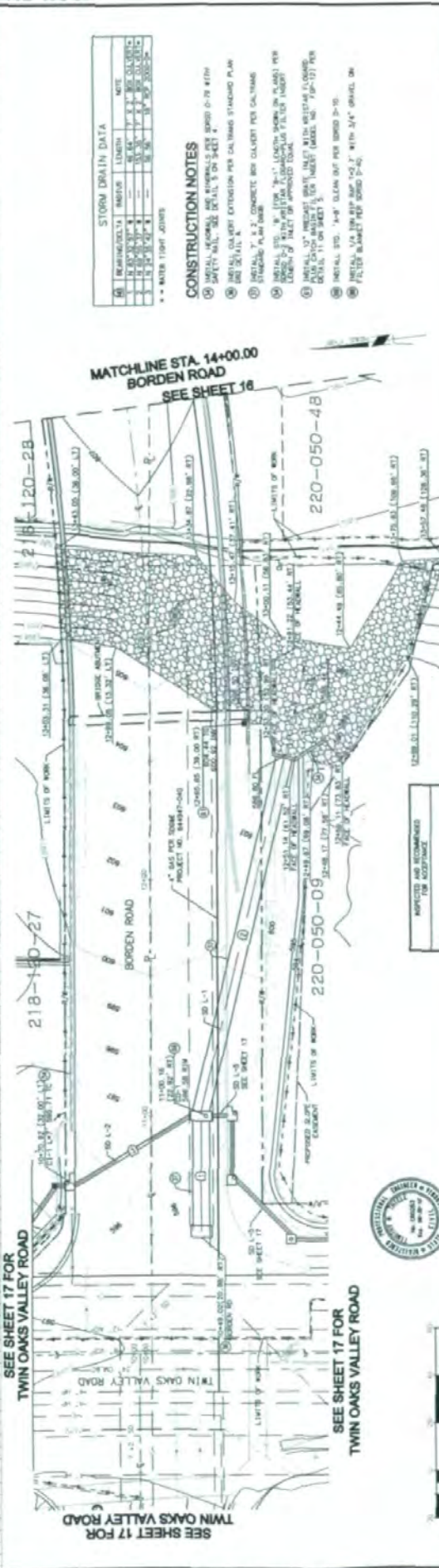
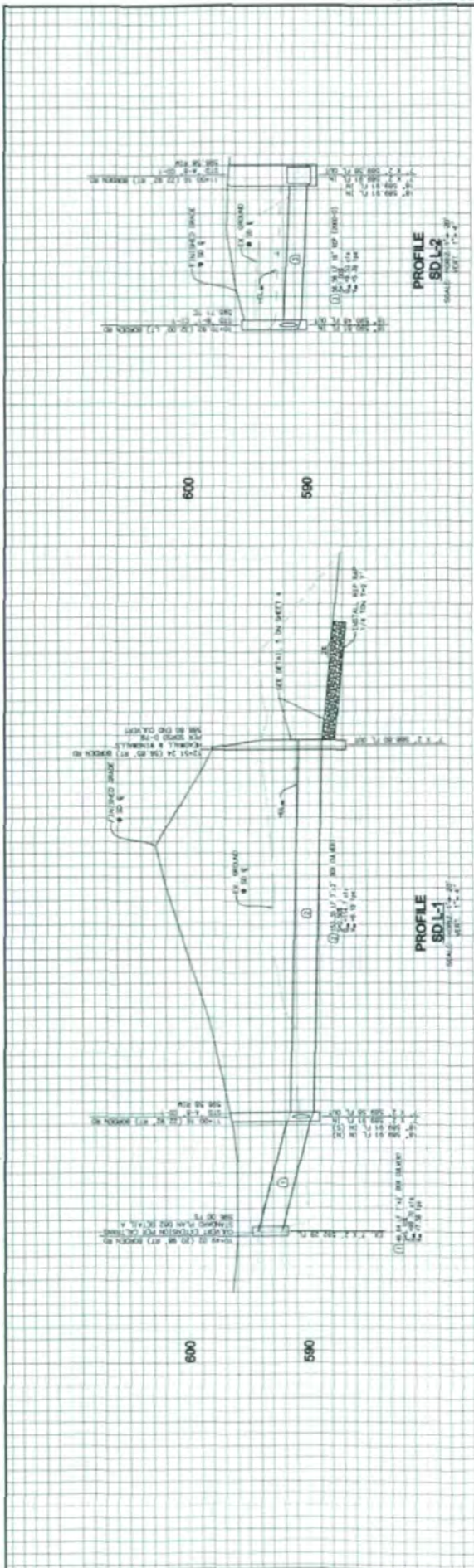
APPROVED FOR CONSTRUCTION  
By: Michael S. Edwards, City Engineer  
R.C.E. 3087  
Date: 06/26/2010

RECORD DRAWING  
BY: [Signature]  
DATE: [Date]

CITY OF SAN MARCOS ENGINEERING DIVISION  
IMPROVEMENT PLANS FOR  
**WOODWARD STREET**  
STA. 10+75.00 TO 12+50.27  
(CSF No. 273)

City Drawing No.  
**IP-4767**  
Sheet 14 of

VWD 40-041 VALLEJO WATER DISTRICT ENGINEER OF WORK By: [Signature] Date: 6/26/10	CITY APPROVED CHANGES No. 1 Date: 6/26/10	RECOMMENDED FOR APPROVAL By: [Signature] Date: 6/26/10	APPROVED FOR CONSTRUCTION By: [Signature] Date: 6/26/10
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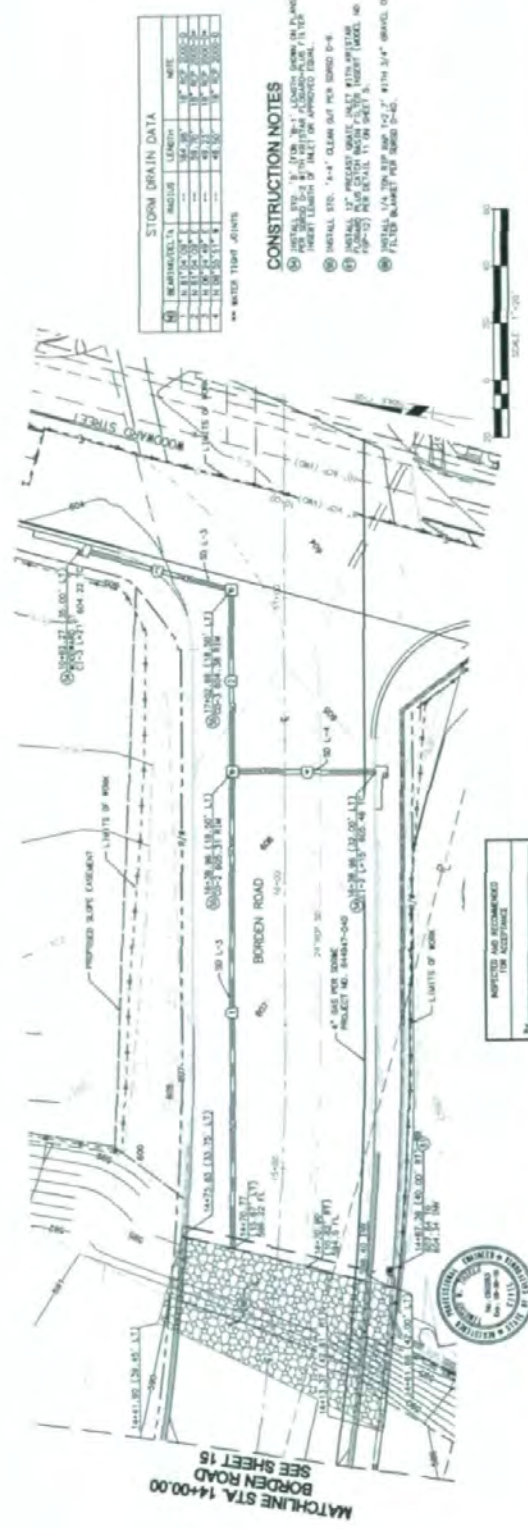
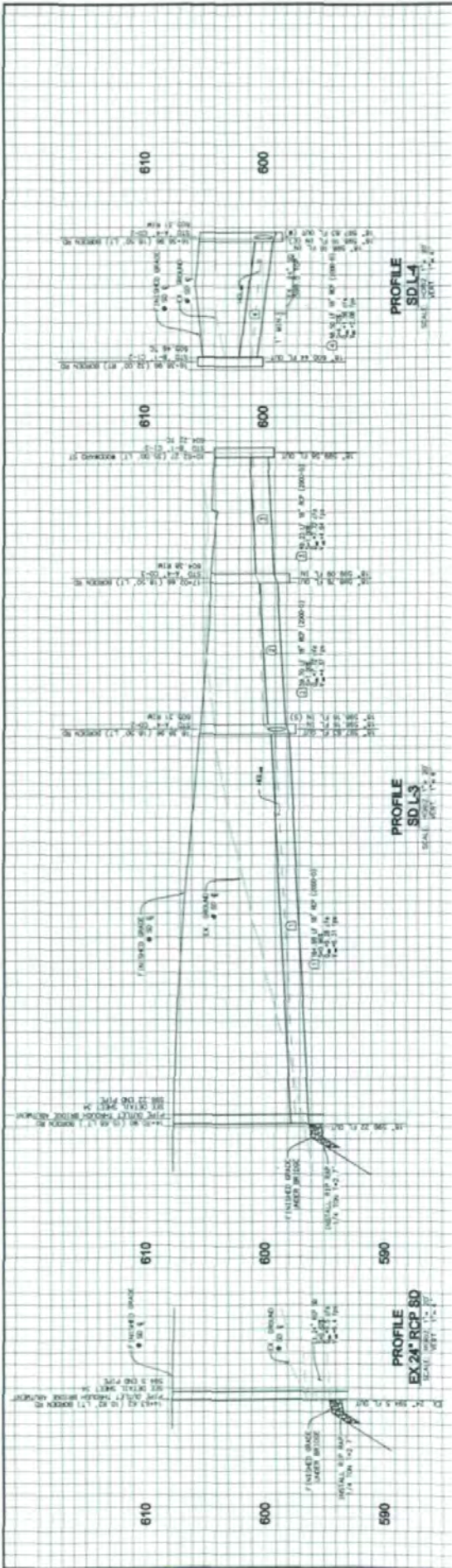
ITEM	DESCRIPTION	AMOUNT	UNIT	NOTE
1	MANHOLE	1	EA	220-050-09
2	MANHOLE	1	EA	220-050-48
3	MANHOLE	1	EA	220-050-87
4	MANHOLE	1	EA	220-050-88
5	MANHOLE	1	EA	220-050-89

CONSTRUCTION NOTES

- 1. INSTALL MANHOLE AND RINGS PER SPEC 0-79 WITH SAFETY RAIL. SEE DETAIL 5 OF SHEET 5.
- 2. SET ALL CURB EXTENSION PER CALTRANS STANDARD PLAN 600-10.1.
- 3. SET ALL CURB TO CONCRETE SET CURB PER CALTRANS STANDARD PLAN 600-10.1.
- 4. INSTALL 12" DIA. 12' LONG 12" DIA. RINGS PER SPEC 0-79 WITH SAFETY RAIL. SEE DETAIL 5 OF SHEET 5.
- 5. ALL 12" DIA. RINGS TO BE SET WITH SAFETY RAIL PER DETAIL 5 OF SHEET 5.
- 6. INSTALL 12" DIA. 12' LONG 12" DIA. RINGS PER SPEC 0-79 WITH SAFETY RAIL. SEE DETAIL 5 OF SHEET 5.
- 7. SET ALL CURB TO CONCRETE SET CURB PER CALTRANS STANDARD PLAN 600-10.1.



PROJECT NO. 100-0000 SHEET NO. 100-0000	CITY OF SAN MARCOS ENGINEERING DIVISION BORDEN ROAD STA. 10+00.00 TO 14+00.00	SHEET NO. 100-0000 CITY ENGINEER (P-4767)
APPROVED FOR CONSTRUCTION By: [Signature] DATE: 10/10/12	APPROVED FOR APPROVAL By: [Signature] DATE: 10/10/12	CITY ENGINEER (P-4767)
AFFECTED AND RECOMMENDED FOR ACCEPTANCE By: [Signature] DATE: 10/10/12	RECOMMENDED FOR APPROVAL By: [Signature] DATE: 10/10/12	CITY ENGINEER (P-4767)
CHECKED BY WORK By: [Signature] DATE: 10/10/12	CITY APPROVED CHANGES By: [Signature] DATE: 10/10/12	CITY ENGINEER (P-4767)
NUCLEATED WATER DRAINAGE By: [Signature] DATE: 10/10/12	DRAWN BY WORK By: [Signature] DATE: 10/10/12	CITY ENGINEER (P-4767)



STORM DRAIN DATA

MANHOLE NO.	INVERT ELEVATION	LENGTH	DIAMETER	DATE
MH 1	598.00	100.00	24"	10/20/00
MH 2	598.00	100.00	24"	10/20/00
MH 3	598.00	100.00	24"	10/20/00

- CONSTRUCTION NOTES**
- INSTALL 24" RCP FOR 75' LENGTHS FROM MH 1 AND 2 TO MH 2 AND 24" RCP FROM MH 2 AND 2 TO MH 3. ALL JOINTS TO BE REINFORCED WITH 2" x 2" x 1/2" STEEL PLATE.
  - INSTALL 24" RCP FOR 100' LENGTHS FROM MH 1 AND 2 TO MH 2 AND 24" RCP FROM MH 2 AND 2 TO MH 3. ALL JOINTS TO BE REINFORCED WITH 2" x 2" x 1/2" STEEL PLATE.
  - INSTALL 24" RCP FOR 100' LENGTHS FROM MH 1 AND 2 TO MH 2 AND 24" RCP FROM MH 2 AND 2 TO MH 3. ALL JOINTS TO BE REINFORCED WITH 2" x 2" x 1/2" STEEL PLATE.
  - INSTALL 24" RCP FOR 100' LENGTHS FROM MH 1 AND 2 TO MH 2 AND 24" RCP FROM MH 2 AND 2 TO MH 3. ALL JOINTS TO BE REINFORCED WITH 2" x 2" x 1/2" STEEL PLATE.
  - INSTALL 24" RCP FOR 100' LENGTHS FROM MH 1 AND 2 TO MH 2 AND 24" RCP FROM MH 2 AND 2 TO MH 3. ALL JOINTS TO BE REINFORCED WITH 2" x 2" x 1/2" STEEL PLATE.
  - INSTALL 24" RCP FOR 100' LENGTHS FROM MH 1 AND 2 TO MH 2 AND 24" RCP FROM MH 2 AND 2 TO MH 3. ALL JOINTS TO BE REINFORCED WITH 2" x 2" x 1/2" STEEL PLATE.
  - INSTALL 24" RCP FOR 100' LENGTHS FROM MH 1 AND 2 TO MH 2 AND 24" RCP FROM MH 2 AND 2 TO MH 3. ALL JOINTS TO BE REINFORCED WITH 2" x 2" x 1/2" STEEL PLATE.
  - INSTALL 24" RCP FOR 100' LENGTHS FROM MH 1 AND 2 TO MH 2 AND 24" RCP FROM MH 2 AND 2 TO MH 3. ALL JOINTS TO BE REINFORCED WITH 2" x 2" x 1/2" STEEL PLATE.
  - INSTALL 24" RCP FOR 100' LENGTHS FROM MH 1 AND 2 TO MH 2 AND 24" RCP FROM MH 2 AND 2 TO MH 3. ALL JOINTS TO BE REINFORCED WITH 2" x 2" x 1/2" STEEL PLATE.
  - INSTALL 24" RCP FOR 100' LENGTHS FROM MH 1 AND 2 TO MH 2 AND 24" RCP FROM MH 2 AND 2 TO MH 3. ALL JOINTS TO BE REINFORCED WITH 2" x 2" x 1/2" STEEL PLATE.



CITY OF SAN MARCOS ENGINEERING DIVISION  
1700 WATER PLANT ROAD, FORT LEE, CA 92034

**BORDEN ROAD**  
STA. 14+00.00 TO 17+00.00

DATE: 10/20/00

PROJECT NO. 04-00-00

SCALE: 1" = 1'-0"

APPROVED FOR CONSTRUCTION:  
By: [Signature] DATE: 10/20/00

RECOMMENDED FOR APPROVAL:  
By: [Signature] DATE: 10/20/00

APPROVED AND RECOMMENDED FOR ACCEPTANCE:  
By: [Signature] DATE: 10/20/00

DESIGNED BY: [Signature] DATE: 10/20/00

DRAWN BY: [Signature] DATE: 10/20/00

CHECKED BY: [Signature] DATE: 10/20/00

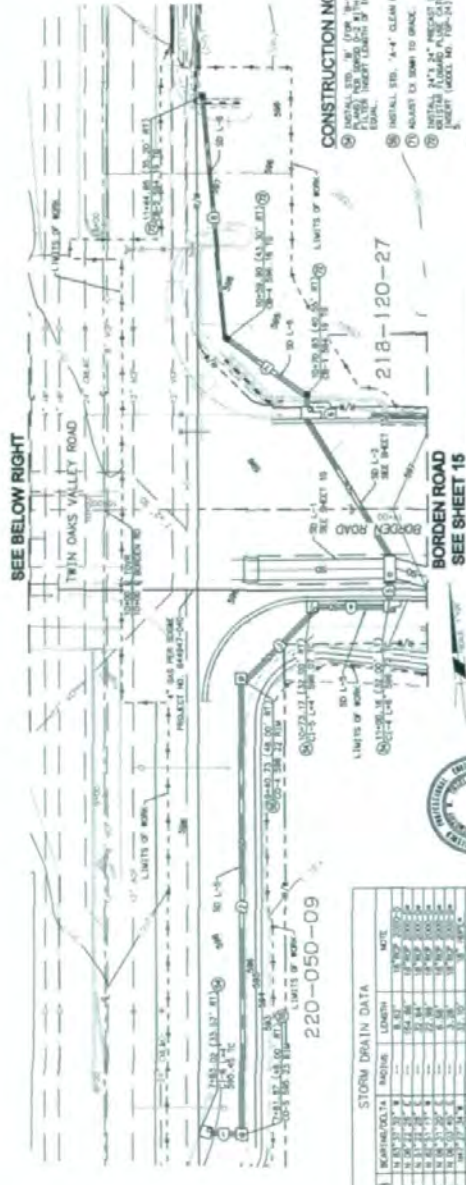
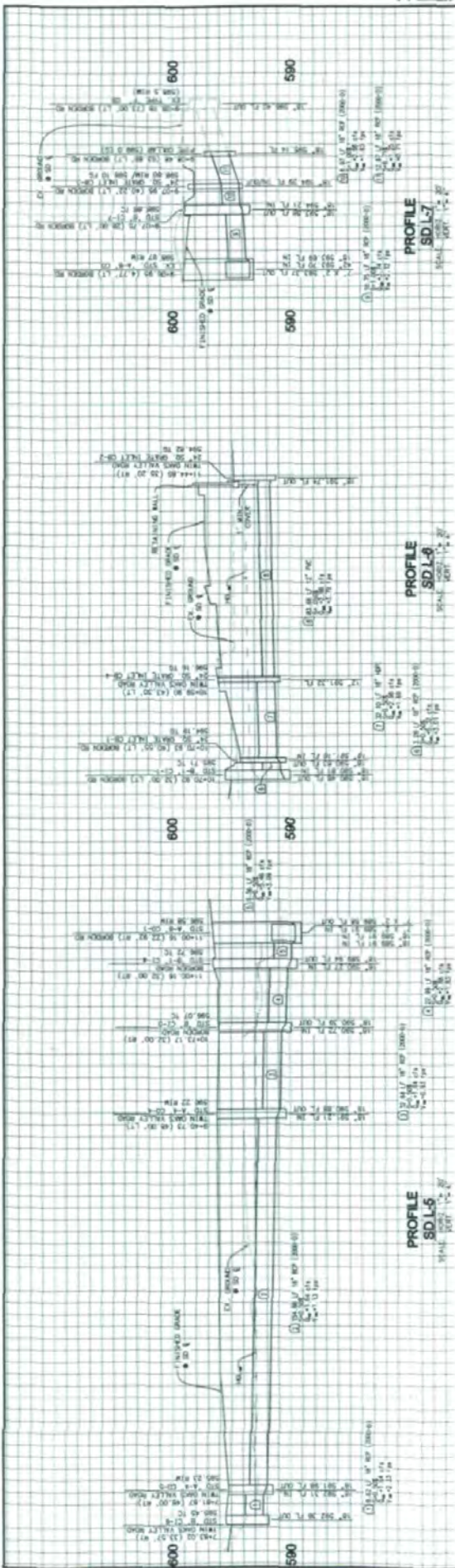
CITY APPROVED CHANGES: [Signature] DATE: 10/20/00

THOUGHT OF WORK: [Signature] DATE: 10/20/00

INVESTIGATED WATER DISTRICT: [Signature] DATE: 10/20/00

1" X 8" (8-BL) [Signature] DATE: 10/20/00

W/NO/NO/NO



STORM DRAIN DATA

NO.	DESCRIPTION	DIAMETER	LENGTH	NOTE
1	18" x 18" VITRIFIED CLAY PIPE	18"	150.00	
2	18" x 18" VITRIFIED CLAY PIPE	18"	100.00	
3	24" x 24" VITRIFIED CLAY PIPE	24"	150.00	
4	24" x 24" VITRIFIED CLAY PIPE	24"	100.00	
5	18" x 18" VITRIFIED CLAY PIPE	18"	100.00	
6	18" x 18" VITRIFIED CLAY PIPE	18"	100.00	
7	18" x 18" VITRIFIED CLAY PIPE	18"	100.00	
8	18" x 18" VITRIFIED CLAY PIPE	18"	100.00	
9	18" x 18" VITRIFIED CLAY PIPE	18"	100.00	
10	18" x 18" VITRIFIED CLAY PIPE	18"	100.00	
11	18" x 18" VITRIFIED CLAY PIPE	18"	100.00	
12	18" x 18" VITRIFIED CLAY PIPE	18"	100.00	
13	18" x 18" VITRIFIED CLAY PIPE	18"	100.00	
14	18" x 18" VITRIFIED CLAY PIPE	18"	100.00	
15	18" x 18" VITRIFIED CLAY PIPE	18"	100.00	
16	18" x 18" VITRIFIED CLAY PIPE	18"	100.00	
17	18" x 18" VITRIFIED CLAY PIPE	18"	100.00	
18	18" x 18" VITRIFIED CLAY PIPE	18"	100.00	
19	18" x 18" VITRIFIED CLAY PIPE	18"	100.00	
20	18" x 18" VITRIFIED CLAY PIPE	18"	100.00	

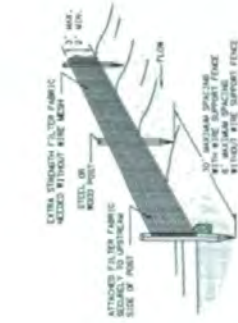
- CONSTRUCTION NOTES
- 1. ALL STORM DRAIN PIPE SHALL BE 18" OR 24" VITRIFIED CLAY PIPE WITH 12" MANHOLES UNLESS OTHERWISE SHOWN.
  - 2. ALL STORM DRAIN PIPE SHALL BE 18" OR 24" VITRIFIED CLAY PIPE WITH 12" MANHOLES UNLESS OTHERWISE SHOWN.
  - 3. ALL STORM DRAIN PIPE SHALL BE 18" OR 24" VITRIFIED CLAY PIPE WITH 12" MANHOLES UNLESS OTHERWISE SHOWN.
  - 4. ALL STORM DRAIN PIPE SHALL BE 18" OR 24" VITRIFIED CLAY PIPE WITH 12" MANHOLES UNLESS OTHERWISE SHOWN.
  - 5. ALL STORM DRAIN PIPE SHALL BE 18" OR 24" VITRIFIED CLAY PIPE WITH 12" MANHOLES UNLESS OTHERWISE SHOWN.
  - 6. ALL STORM DRAIN PIPE SHALL BE 18" OR 24" VITRIFIED CLAY PIPE WITH 12" MANHOLES UNLESS OTHERWISE SHOWN.
  - 7. ALL STORM DRAIN PIPE SHALL BE 18" OR 24" VITRIFIED CLAY PIPE WITH 12" MANHOLES UNLESS OTHERWISE SHOWN.
  - 8. ALL STORM DRAIN PIPE SHALL BE 18" OR 24" VITRIFIED CLAY PIPE WITH 12" MANHOLES UNLESS OTHERWISE SHOWN.
  - 9. ALL STORM DRAIN PIPE SHALL BE 18" OR 24" VITRIFIED CLAY PIPE WITH 12" MANHOLES UNLESS OTHERWISE SHOWN.
  - 10. ALL STORM DRAIN PIPE SHALL BE 18" OR 24" VITRIFIED CLAY PIPE WITH 12" MANHOLES UNLESS OTHERWISE SHOWN.

CITY OF SAN JUAN BOSCO ENGINEERING DIVISION TWIN OAKS VALLEY ROAD STA. 7+80.00 TO 10+78.23 BORDEN ROAD STA. 9+00.00 TO 9+50.00 (CIP No. 271)	SHEET NO. 17 P DRAWING NO. P-4767
APPROVED FOR CONSTRUCTION By: [Signature] Date: [Date]	RECOMMENDED FOR APPROVAL By: [Signature] Date: [Date]
DRAWER OF WORK By: [Signature] Date: [Date]	CITY APPROVED CHECKS [Signature] [Date] [Signature] [Date]
MILLIONAIRE BEST SERVICE By: [Signature] Date: [Date]	SCHEDULED FOR APPROVAL [Signature] [Date]
FOR THE ENGINEER [Signature] Date: [Date]	RECOMMENDED FOR ACCEPTANCE [Signature] Date: [Date]

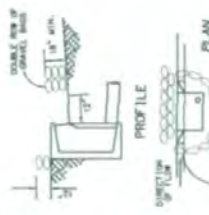
5 100% SUBMITTAL

**EROSION CONTROL NOTES**

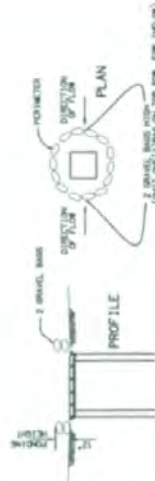
1. SEE EROSION CONTROL PLAN FOR GENERAL EROSION CONTROL MEASURES AS "MINIMUM" MEASURES TO BE IMPLEMENTED.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FOR ALL EROSION CONTROL MEASURES.
3. EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
4. EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
5. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES AS "MINIMUM" MEASURES TO BE IMPLEMENTED.
6. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES AS "MINIMUM" MEASURES TO BE IMPLEMENTED.
7. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES AS "MINIMUM" MEASURES TO BE IMPLEMENTED.
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16. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES AS "MINIMUM" MEASURES TO BE IMPLEMENTED.
17. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES AS "MINIMUM" MEASURES TO BE IMPLEMENTED.
18. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES AS "MINIMUM" MEASURES TO BE IMPLEMENTED.
19. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES AS "MINIMUM" MEASURES TO BE IMPLEMENTED.
20. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES AS "MINIMUM" MEASURES TO BE IMPLEMENTED.
21. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES AS "MINIMUM" MEASURES TO BE IMPLEMENTED.
22. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES AS "MINIMUM" MEASURES TO BE IMPLEMENTED.
23. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES AS "MINIMUM" MEASURES TO BE IMPLEMENTED.
24. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES AS "MINIMUM" MEASURES TO BE IMPLEMENTED.
25. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES AS "MINIMUM" MEASURES TO BE IMPLEMENTED.



**TYPICAL EROSION CONTROL FENCE DETAIL**  
NOT TO SCALE



**TYPICAL CURB INLET DETAIL**  
NOT TO SCALE

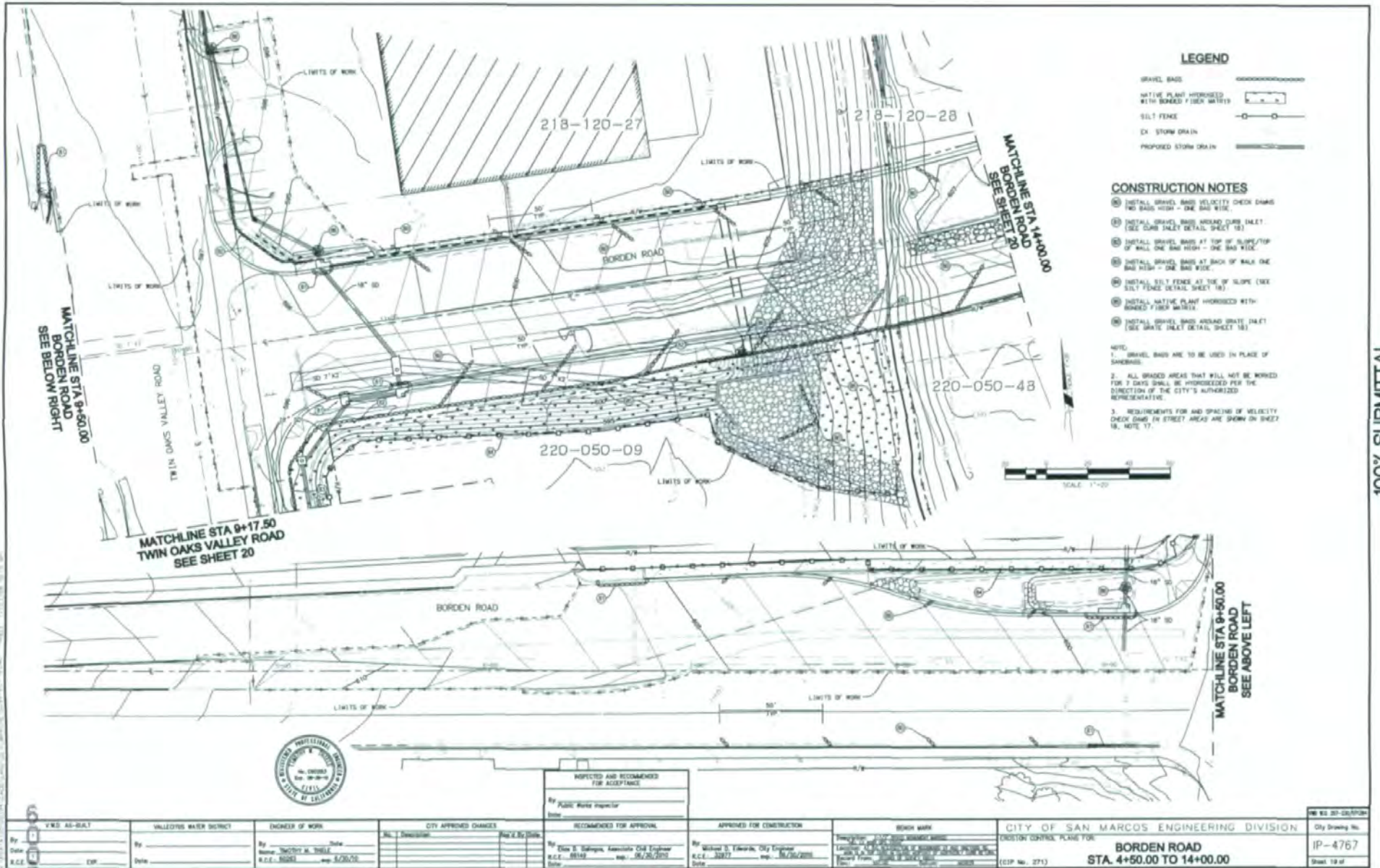


**TYPICAL GRATE INLET DETAIL**  
NOT TO SCALE



DATE OF SUBMITTAL	NO. 11114
CITY OF SAN MARCOS ENGINEERING DIVISION	IP-4767
PROJECT LOCATION	BORDEN ROAD
DATE OF SUBMITTAL	NO. 11114
APPROVED FOR CONSTRUCTION	APPROVED FOR APPROVAL
RECOMMENDED FOR ACCEPTANCE	RECOMMENDED FOR ACCEPTANCE
BY: [Signature]	BY: [Signature]
DATE: [Date]	DATE: [Date]

5/20/2015



**LEGEND**

- GRAVEL BASIN
- NATIVE PLANT HORRIDIZED WITH BONDED FIBER MATRIX
- SILT FENCE
- EX. STORM DRAIN
- PROPOSED STORM DRAIN

**CONSTRUCTION NOTES**

1. INSTALL GRAVEL BASIN VELOCITY CHECK DRAIN NO BAGS HIGH - ONE BAG WIDE.
  2. INSTALL GRAVEL BASIN AROUND CURB INLET. (SEE CURB INLET DETAIL SHEET 18)
  3. INSTALL GRAVEL BASIN AT TOP OF SLOPE/TOP OF WALL ONE BAG HIGH - ONE BAG WIDE.
  4. INSTALL GRAVEL BASIN AT BACK OF WALK ONE BAG HIGH - ONE BAG WIDE.
  5. INSTALL SILT FENCE AT TOE OF SLOPE (SEE SILT FENCE DETAIL SHEET 18)
  6. INSTALL NATIVE PLANT HORRIDIZED WITH BONDED FIBER MATRIX.
  7. INSTALL GRAVEL BASIN AROUND GRATE INLET (SEE GRATE INLET DETAIL SHEET 18)
- NOTE:
1. GRAVEL BASIN ARE TO BE USED IN PLACE OF SANDINGS.
  2. ALL GRADED AREAS THAT WILL NOT BE WORKED FOR 3 DAYS SHALL BE HORRIDIZED PER THE DIRECTION OF THE CITY'S AUTHORIZED REPRESENTATIVE.
  3. REQUIREMENTS FOR AND SPACING OF VELOCITY CHECK DRAIN IN STREET AREAS ARE SHOWN ON SHEET 18. NOTE 17.



INSPECTED AND RECOMMENDED FOR ACCEPTANCE
By: <u>Public Water Inspector</u>
Date: _____
RECOMMENDED FOR APPROVAL
By: <u>Don S. Edgerton, Associate Civil Engineer</u>
R.C.E. 00148 exp. 06/26/2010
Date: _____

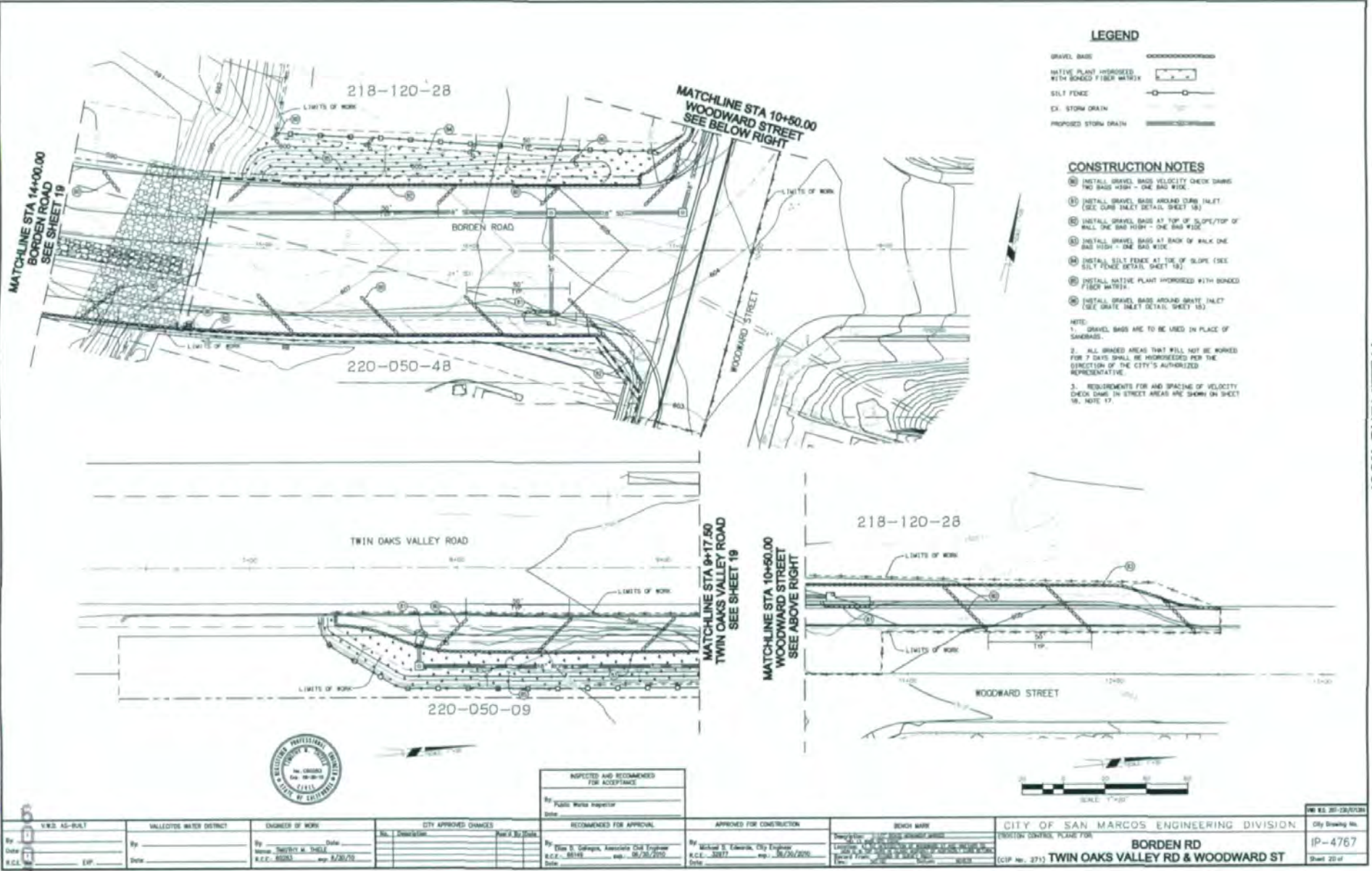
APPROVED FOR CONSTRUCTION
By: <u>Michael S. Edgerton, City Engineer</u>
R.C.E. 32877 exp. 06/26/2010
Date: _____

CITY OF SAN MARCOS ENGINEERING DIVISION
DESIGN CONTROL PLANS FOR
<b>BORDEN ROAD</b>
<b>STA. 4+50.00 TO 14+00.00</b>
(CIP No. 271)

City Drawing No.	IP-4767
Sheet 19 of	

100% SUBMITTAL





**LEGEND**

- GRAVEL BASE
- NATIVE PLANT HORSEREEB WITH BONDED FIBER MATRIX
- SILT FENCE
- EX. STORM DRAIN
- PROPOSED STORM DRAIN

**CONSTRUCTION NOTES**

1. INSTALL GRAVEL BASE VELOCITY CHECK DAMS TWO BARS HIGH - ONE BAR WIDE.
  2. INSTALL GRAVEL BASE AROUND CURB INLET. (SEE CURB INLET DETAIL SHEET 18)
  3. INSTALL GRAVEL BASE AT TOP OF SLOPE/TOP OF WALL ONE BAR HIGH - ONE BAR WIDE.
  4. INSTALL GRAVEL BASE AT BACK OF WALK ONE BAR HIGH - ONE BAR WIDE.
  5. INSTALL SILT FENCE AT TOE OF SLOPE (SEE SILT FENCE DETAIL SHEET 18)
  6. INSTALL NATIVE PLANT HORSEREEB WITH BONDED FIBER MATRIX.
  7. INSTALL GRAVEL BASE AROUND GRATE INLET (SEE GRATE INLET DETAIL SHEET 18)
- NOTE:
1. GRAVEL BASE ARE TO BE USED IN PLACE OF SANDBASE.
  2. ALL GRADED AREAS THAT WILL NOT BE WORKED FOR 7 DAYS SHALL BE HORSEREEB PER THE DIRECTION OF THE CITY'S AUTHORIZED REPRESENTATIVE.
  3. REQUIREMENTS FOR AND SPACING OF VELOCITY CHECK DAMS IN STREET AREAS ARE SHOWN ON SHEET 18, NOTE 17.

100% SUBMITTAL

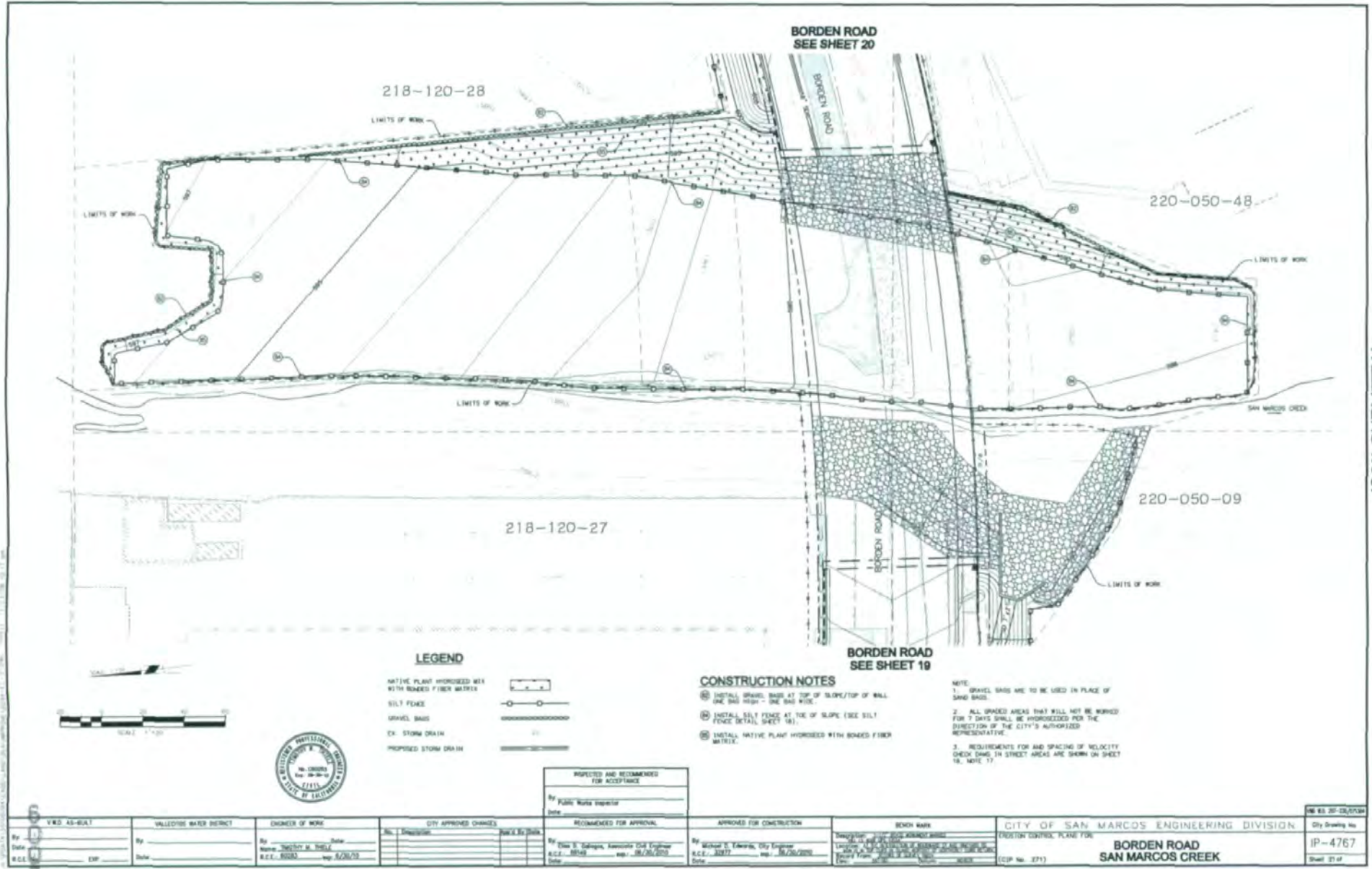


INSPECTED AND RECOMMENDED FOR ACCEPTANCE	
By _____	Public Works Inspector
Date _____	
RECOMMENDED FOR APPROVAL	
By _____	City Engineer
Date _____	

V.E.D. AS-BUILT By _____ Date _____ R.C.E. _____	VALLEJO WATER DISTRICT By _____ Date _____	ENGINEER OF WORK By _____ Date _____ R.C.E. _____	CITY APPROVED CHANGES No. _____ Date _____	INSPECTED AND RECOMMENDED FOR ACCEPTANCE By _____ Date _____	RECOMMENDED FOR APPROVAL By _____ Date _____	APPROVED FOR CONSTRUCTION By _____ Date _____	BOOK NAME PROJECT NO. _____ SHEET NO. _____	CITY OF SAN MARCOS ENGINEERING DIVISION DIVISION CONTROL PLANS FOR <b>BORDEN RD</b> <b>TWIN OAKS VALLEY RD &amp; WOODWARD ST</b> (CIP No. 271)	City Drawing No. IP-4767 Sheet 20 of _____
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LAWSON

100% SUBMITTAL



VWD 45-541 VALLEJOSE WATER DISTRICT By: _____ Date: _____ Title: _____		ENGINEER OF WORK By: MICHAEL W. TAYLOR Date: 8/26/2010 Name: MICHAEL W. TAYLOR R.C.E. 30043 exp. 8/26/10		CITY APPROVED CHANGES No. 1 Description: _____ Date: _____ No. 2 Description: _____ Date: _____ No. 3 Description: _____ Date: _____		PROJECTED AND RECOMMENDED FOR ACCEPTANCE By: _____ Title: Public Works Inspector Date: _____		RECOMMENDED FOR APPROVAL By: _____ Title: _____ Date: _____		APPROVED FOR CONSTRUCTION By: _____ Title: _____ Date: _____		BOND MAIN Description of Work: _____ Amount of Bond: _____ Date: _____		CITY OF SAN MARCOS ENGINEERING DIVISION REGISTERED PROFESSIONAL ENGINEER <b>BORDEN ROAD SAN MARCOS CREEK</b> (C.P. No. 271)		No. 45-541-0104 City Drawing No. IP-4767 Sheet 27 of	
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UNNOTIFIED



100% SUBMITTAL

**BMP SITE MAP LEGEND**

- VEGETATED SLOPE
- WETLAND MIGRATION AREA
- SAND FILTRATION BASIN
- RP BMP

**BMP SITE MAP**  
SCALE 1"=40'



INSPECTED AND RECOMMENDED FOR ACCEPTANCE  
By Public Works Inspector  
Date

RECOMMENDED FOR APPROVAL  
By  
Date

APPROVED FOR CONSTRUCTION  
By  
Date

BENCH MARK  
Elevation  
Date

CITY OF SAN MARCOS ENGINEERING DIVISION  
(CIP No. 271)

City Drawing No.  
Sheet 22 of

VRS AD-BALT By _____ Date _____ R.C.E. 3019	WALLETTON WATER DISTRICT By _____ Date _____	CHANGES BY WORK No. CHANGES Name: MICHAEL M. SHELLEY R.C.E. 3023 exp. 3/26/20 Date _____	CITY APPROVED CHANGES No. CHANGES Name: _____ R.C.E. _____ exp. _____ Date _____
--	--	--	--

By Elm S. Salgado, Associate Civil Engineer  
R.C.E. 3019 exp. 06/30/2017  
Date \_\_\_\_\_

By Miguel E. Echevarria, City Engineer  
R.C.E. 3247 exp. 06/30/2015  
Date \_\_\_\_\_

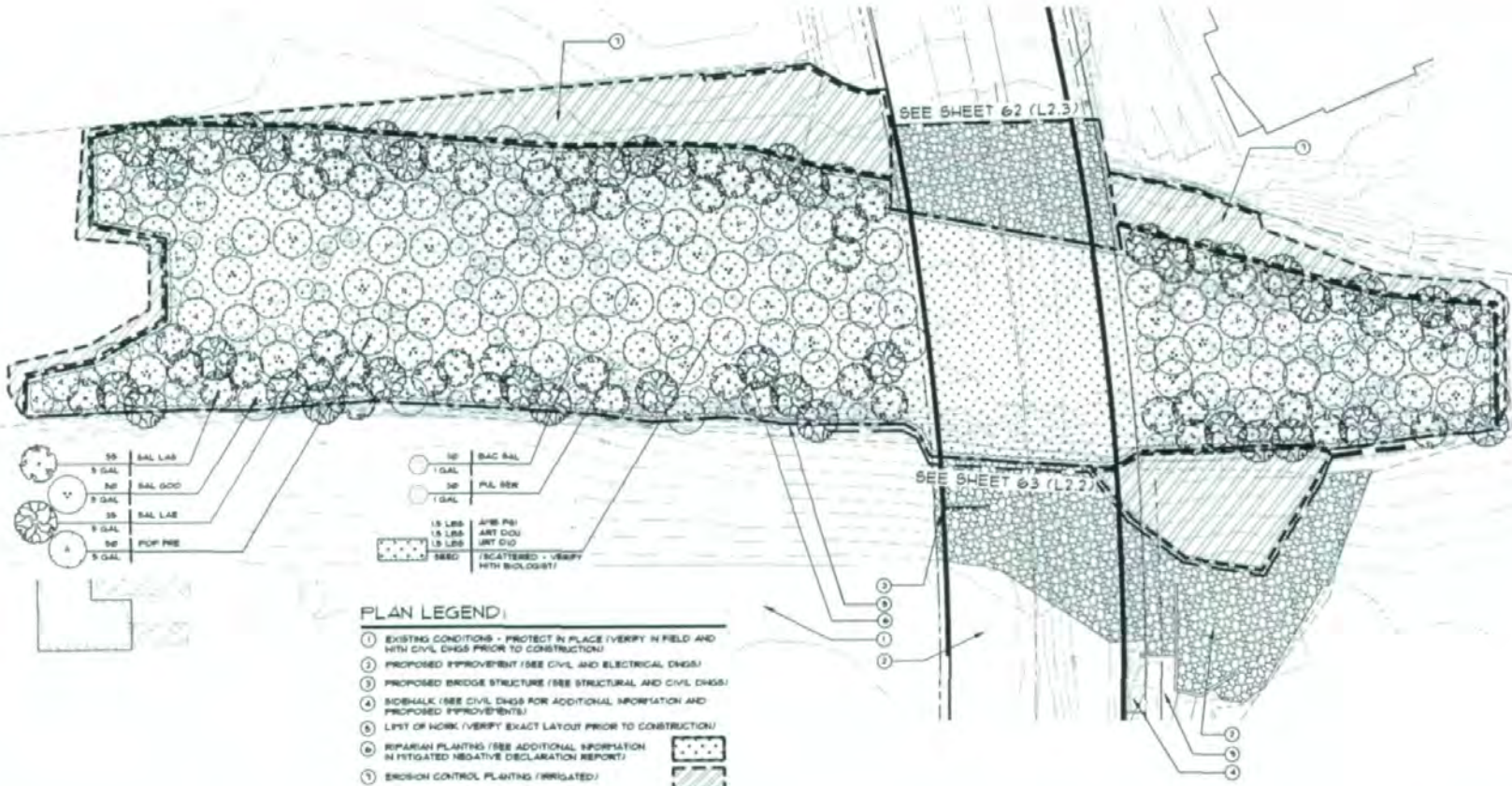
By \_\_\_\_\_  
R.C.E. \_\_\_\_\_ exp. \_\_\_\_\_  
Date \_\_\_\_\_

**BORDEN ROAD  
BMP SITE MAP**

IP-4767  
Sheet 22 of

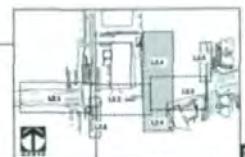
LAWSON

100% SUBMITTAL



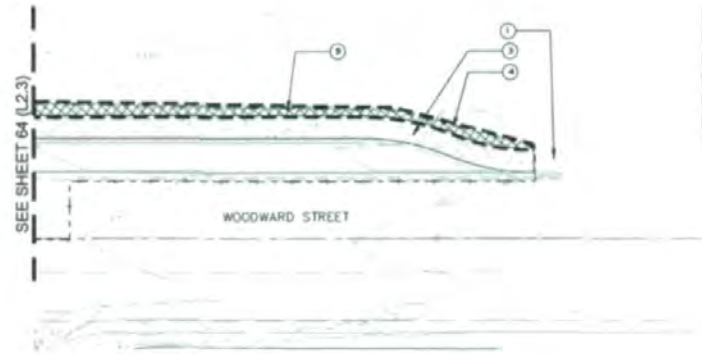
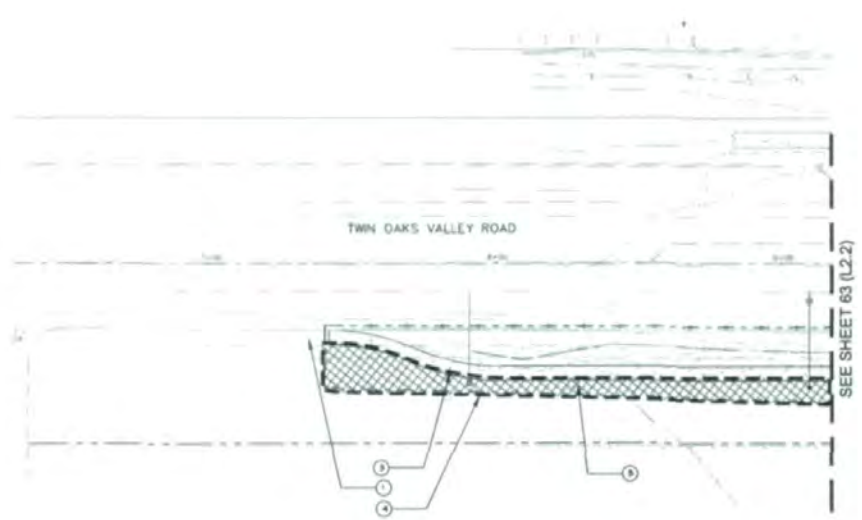
**A PLANTING PLAN**  
SCALE: 1"=20'-0"

**NORTH**



L2.4

PROJECT: 442-43-BALT CLIENT: HALDORNE WATER DISTRICT ENGINEER OF WORK: [Blank] DATE: [Blank]		CITY APPROVED (CHECKED): [Blank] DATE: [Blank]		INSPECTED AND RECOMMENDED FOR ACCEPTANCE: BY: [Blank] DATE: [Blank]		RECOMMENDED FOR APPROVAL: BY: [Blank] DATE: [Blank]		APPROVED FOR CONSTRUCTION: BY: [Blank] DATE: [Blank]		DESIGN NAME: [Blank]		CITY OF SAN MARCOS ENGINEERING DIVISION PLANTING PLANS FOR: <b>BORDEN ROAD SAN MARCOS CREEK</b> (CDP No. 271)		SHEET NO. 65 OF 65 PROJECT NO. IP-4767	
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**PLAN LEGEND:**

- ① EXISTING CONDITIONS - PROTECT IN PLACE (VERIFY IN FIELD AND WITH CIVIL DWS PRIOR TO CONSTRUCTION)
- ② PROPOSED IMPROVEMENT (SEE CIVIL AND ELECTRICAL DWS)
- ③ SIDEWALK (SEE CIVIL DWS FOR ADDITIONAL INFORMATION AND PROPOSED IMPROVEMENTS)
- ④ LIST OF WORK (VERIFY EXACT LAYOUT PRIOR TO CONSTRUCTION)
- ⑤ BARK MULCH (3" DEEP) IN ALL PLANTING AREAS EXCEPT 2:1 SLOPES AND RIPARIAN CHANNEL

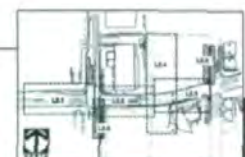


**PLAN LEGEND:**

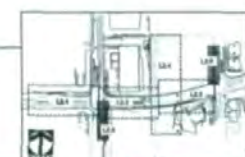
- ① EXISTING CONDITIONS - PROTECT IN PLACE (VERIFY IN FIELD AND WITH CIVIL DWS PRIOR TO CONSTRUCTION)
- ② PROPOSED IMPROVEMENT (SEE CIVIL, STRUCTURAL OR ELECTRICAL DWS)
- ③ SIDEWALK (SEE CIVIL DWS FOR ADDITIONAL INFORMATION AND PROPOSED IMPROVEMENTS)
- ④ LIST OF WORK (VERIFY EXACT LAYOUT PRIOR TO CONSTRUCTION)
- ⑤ BARK MULCH (3" DEEP) IN ALL PLANTING AREAS EXCEPT 2:1 SLOPES AND RIPARIAN CHANNEL



**A PLANTING PLAN**  
SCALE: 1"=20'-0"

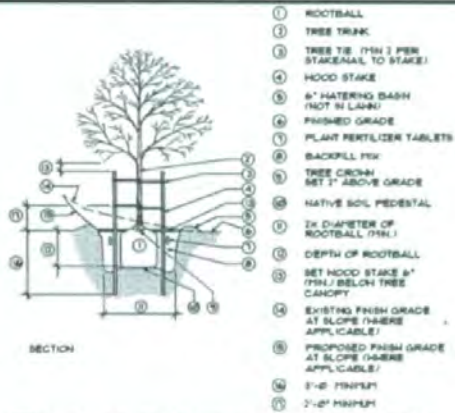


**B PLANTING PLAN**  
SCALE: 1"=20'-0"

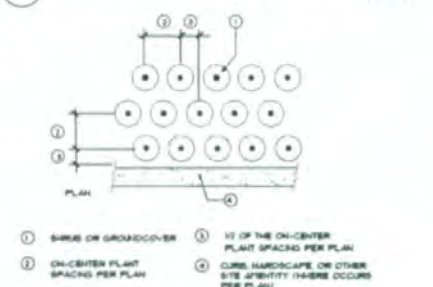


VED 41-547 VALLEJO WATER DISTRICT ENGINEER OF WORK Date: _____ R.C.L. 32877		CITY APPROVED CHANGES No. Description Date _____ _____ _____		RECOMMENDED FOR APPROVAL By: _____ Title: _____ Date: _____		APPROVED FOR CONSTRUCTION By: _____ Title: _____ Date: _____		CITY OF SAN MARCOS ENGINEERING DIVISION PLANTING PLANS FOR <b>TWIN OAKS VALLEY ROAD AND WOODWARD STREET</b> (CIP No. 271)		IP-4767 Sheet 63
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L2.5



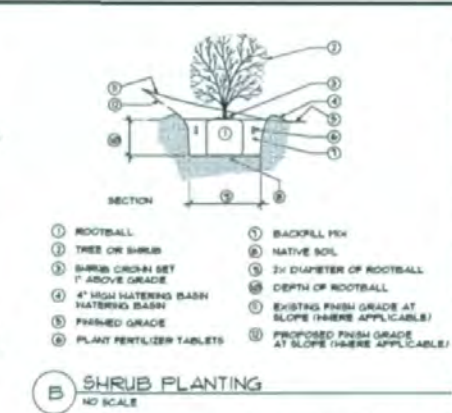
**A TREE PLANTING W/ DOUBLE STAKING**  
NO SCALE



**B SHRUB PLANTING**  
NO SCALE



**C GROUNDCOVER SPACING (TRIANGULAR)**  
NO SCALE



**D VINE PLANTING**  
NO SCALE

**PLANT LEGEND**

GRAPHIC SYMBOL	SYMBOL	BOTANICAL NAME	COMMON NAME	CONTN. QTY	PLN. HT.	SPRD.	REMARKS	DETAIL
(Symbol)	AGA OR	AGAPANTHUS ORIENTALIS	LILY-OF-THE-VALLEY	1 GAL	0'	8"	FULL LEAVES NO 'DEAD-HEADS'; GOOD COLOR	B/L2 &
(Symbol)	AFB PSI	AMBROSIA PSILOSTACHYA	WESTERN KAG-BEED	SEED	..	..	HAND BROADCAST PER BIOLOGIST'S DIRECTION (1 LB PER 2-451-ACRES)	..
(Symbol)	ART DOU	ARTEMISIA DOUGLASSIANA	HIGHWORT	SEED	..	..	HAND BROADCAST PER BIOLOGIST'S DIRECTION (1 LB PER 2-451-ACRES)	..
(Symbol)	BAC SAL	BACCHARIS SALICIFOLIA	FILE'S PAT	1 GAL	6"	2'	FULL AND BUSHY TO THE GROUND; GOOD COLOR	B/L2 &
(Symbol)	DIB BIC	DIBETIS BICOLOR	FOUNTAIN LILY	1 GAL	6"	8"	FULL AND BUSHY TO THE GROUND; GOOD COLOR	B/L2 &
(Symbol)	FC REP	FOCUS REPENS	CREeping FIG	5 GAL	24"	0'	FULL AND BUSHY TO THE GROUND; GOOD COLOR REMOVE NURSERY STAKE; ATTACH TO HALL	D/L2 &
(Symbol)	CAR ALB	CAREX ALBULA	PROCTY GRASS	1 GAL	6"	8"	FULL LEAVES NO 'DEAD-HEADS'; GOOD COLOR	B/C/L2 &
(Symbol)	PNZ 'G.S.'	PHORSTH T. 'GOLD SHED'	NEW ZEALAND FLAX	5 GAL	74"	0'	FULL AND BUSHY TO THE GROUND; GOOD COLOR	B/L2 &
(Symbol)	PNZ 'Y.S.'	PHORSTH TACON 'SUNSHINE'	NEW ZEALAND FLAX	5 GAL	74"	8"	FULL LEAVES BUSHY TO THE GROUND; GOOD COLOR	B/L2 &
(Symbol)	POP PNE	POPULUS FRENCHII	WESTERN COTTONWOOD	5 GAL	5'	2'	FULL AND BUSHY TO THE GROUND; GOOD COLOR	A/L2 &
(Symbol)	PLU SER	PLUCHEA SERICEA	ARRICH REED	1 GAL	0'	8"	FULL AND BUSHY TO THE GROUND; GOOD COLOR	B/L2 &
(Symbol)	RNA 'CLA'	RHAPLOSPIS INDICA 'CLARA'	INDIA HAWTHORNE	5 GAL	6"	8"	FULL AND BUSHY TO THE GROUND; GOOD COLOR	B/L2 &
(Symbol)	SAL GDD	SALIX GOODENII	GOODEN'S HILLOH	5 GAL	6"	2'	FULL AND BUSHY TO THE GROUND; GOOD COLOR	A/L2 &
(Symbol)	SAL LAR	SALIX LAEVIGATA	RED HILLOH	5 GAL	5'	2'	FULL AND BUSHY TO THE GROUND; GOOD COLOR	A/L2 &
(Symbol)	SAL LAB	SALIX LABROLEPIS	ARROYO HILLOH	5 GAL	5'	2'	FULL AND BUSHY TO THE GROUND; GOOD COLOR	A/L2 &
(Symbol)	URT DIO	URTICA DIOICA	STINGING NETTLE	NEED	..	..	HAND BROADCAST PER BIOLOGIST'S DIRECTION (1 LB PER 2-451-ACRES)	..

**PLANTING NOTES**

- ALL PLANTING AREAS WITH SLOPES LESS THAN 2:1 SHALL RECEIVE A MINIMUM 3" THICK LAYER OF BARK MULCH (BUSHY 1/4 C. SAMPLE)
- ALL PLANT MATERIALS SHALL BE SPOTTED IN-PLACE BY THE LANDSCAPE ARCHITECT PRIOR TO CONTRACTOR DIGGING THE PLANTING PITS. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT 3 WORKING DAYS PRIOR TO DELIVERY OF PLANT MATERIALS
- ALL ROCK AND DEBRIS LARGER THAN ONE INCH (1") SHALL BE REMOVED FROM ALL PLANTING AREAS. DISPOSE OF ALL DEBRIS OFF SITE
- CONTRACTOR SHALL SUBMIT A MINIMUM OF (3) 1-PINT SOIL SAMPLES FOR AGRICULTURAL SUSTAINABILITY SOILS TESTING (STANDARD TEST A89-A) AT THE SOIL AND PLANT LABORATORY, ORANGE, CA. (714) 382-8777. COLLECT SOIL SAMPLES WITHIN PROPOSED PLANTER AREAS AFTER THE COMPLETION OF GRADING OPERATIONS. PROVIDE (1) COPY OF THE SOIL REPORTS AND RECOMMENDATIONS TO THE OWNER'S REPRESENTATIVE PRIOR TO CARRYING OUT CORRECTIVE MEASURES PER THE ANALYSIS
- THE HYDROSEED MIXTURE AND CONTAINER STOCK ARE DESIGNED TO BE NATIVE OR NATURALIZED PLANTINGS AND SHALL BE TEMPORARILY IRRIGATED FOR 25 WORKING DAYS AFTER ALL TEMPORARY ABOVE-GRADE SYSTEMS SHALL BE REMOVED.

HYDROSEED MIX	
SPECIES	PURE LIVE SEED LBS/ACRE
ESCHSCHOLIA CALIFORNICA	1.0
LASTHENIA CALIFORNICA	1.0
LUPINUS TRUNCATUS	1.0
LOTUS SCOPARIUS	4.0
PERILUS AURANTIACUS	2.0
EROPHYLLUM CONFERTIFLORUM	1.0
ISOCOMA PENZELII	1.0
ENCHELIA CALIFORNICA	1.0
ARTEMISIA CALIFORNICA	2.0
ERIGONUM FASCICULATUM	2.0
<b>TOTAL # LBS/ACRE</b>	<b>16.0</b>
<b>SLURRY MIX</b>	<b>2000 LBS / ACRE</b>
<b>BINDER</b>	<b>0.5 LBS / ACRE</b>
<b>PRE-PLANT FERTILIZER</b>	<b>6 LBS / ACRE</b>
<b>PRE-EMERGENT HERBICIDE (TUPERSAN)</b>	<b>0 LBS / ACRE</b>

HYDROSEED MIX	
SPECIES	PURE LIVE SEED LBS/ACRE
ESCHSCHOLIA CALIFORNICA	1.0
LASTHENIA CALIFORNICA	1.0
LUPINUS TRUNCATUS	1.0
LOTUS SCOPARIUS	4.0
PERILUS AURANTIACUS	2.0
EROPHYLLUM CONFERTIFLORUM	1.0
ISOCOMA PENZELII	1.0
ENCHELIA CALIFORNICA	1.0
ARTEMISIA CALIFORNICA	2.0
ERIGONUM FASCICULATUM	2.0
<b>TOTAL # LBS/ACRE</b>	<b>16.0</b>
<b>SLURRY MIX</b>	<b>2000 LBS / ACRE</b>
<b>BINDER</b>	<b>0.5 LBS / ACRE</b>
<b>PRE-PLANT FERTILIZER</b>	<b>6 LBS / ACRE</b>
<b>PRE-EMERGENT HERBICIDE (TUPERSAN)</b>	<b>0 LBS / ACRE</b>



100% SUBMITTAL

INSPECTED AND RECOMMENDED FOR ACCEPTANCE

By: \_\_\_\_\_ Date: \_\_\_\_\_

RECOMMENDED FOR APPROVAL

By: \_\_\_\_\_ Date: \_\_\_\_\_

APPROVED FOR CONSTRUCTION

By: \_\_\_\_\_ Date: \_\_\_\_\_

BOSS WITH

By: \_\_\_\_\_ Date: \_\_\_\_\_

**CITY OF SAN MARCOS ENGINEERING DIVISION**

PO BOX 10000, 10000, 10000, 10000

**BORDEN ROAD**

**PLANT LEGEND, DETAILS, & NOTES**

(SP No. 27)

City Drawing No. **IP-4767**

Sheet 67

DATE PLOTTED: 08/05/2010 10:00 AM

PROJECT NO. 102-42-047

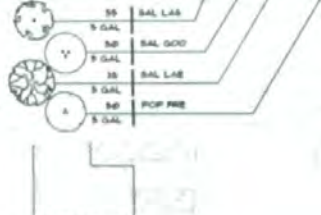
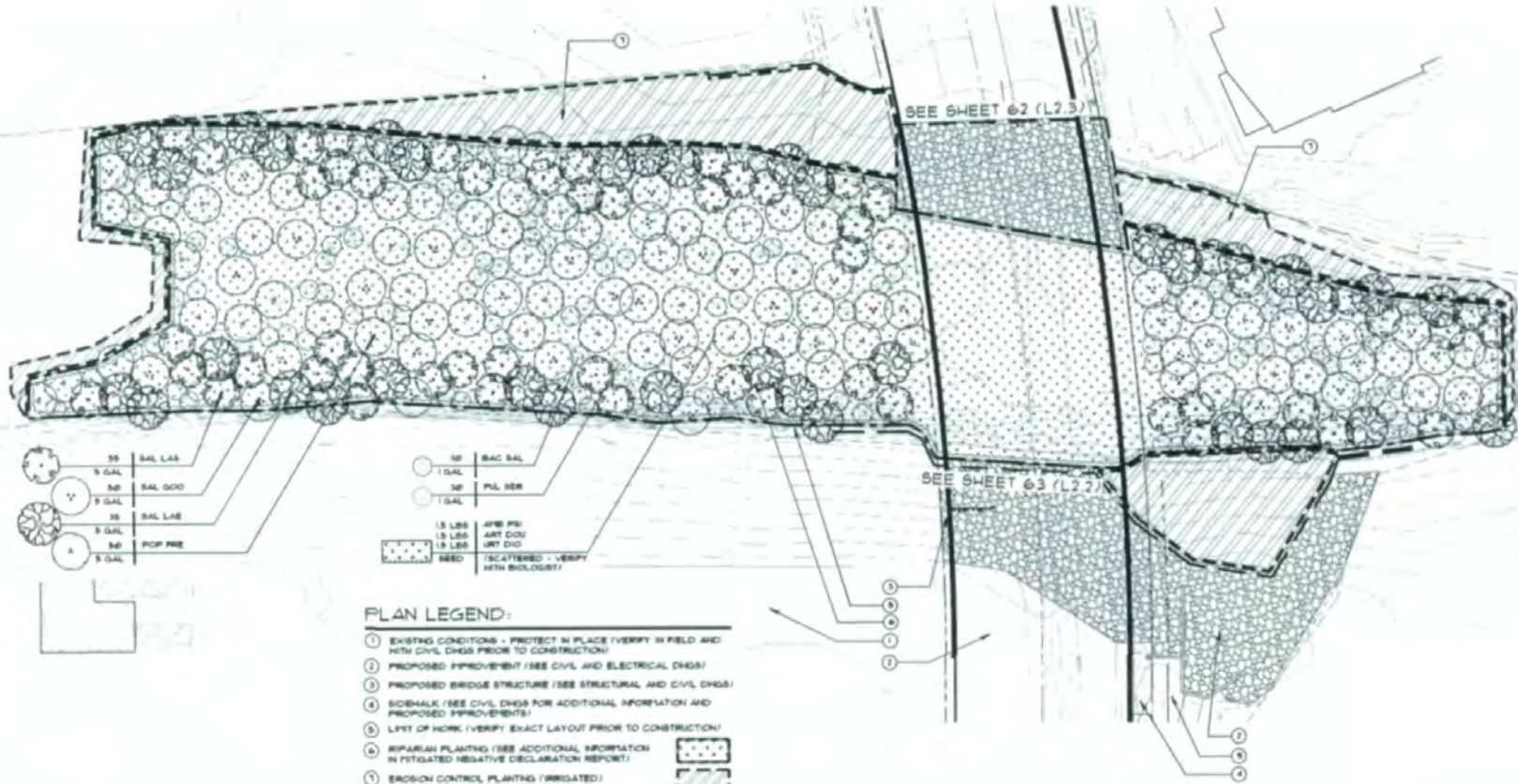
APPROVED BY DISTRICT: \_\_\_\_\_

ENGINEER OF WORK: \_\_\_\_\_

CITY APPROVED CHANGE: \_\_\_\_\_

DATE: \_\_\_\_\_

L2.6

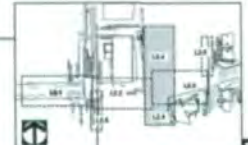


**PLAN LEGEND:**

- ① EXISTING CONDITIONS - PROTECT IN PLACE (VERIFY IN FIELD AND WITH CIVIL CHGS PRIOR TO CONSTRUCTION)
- ② PROPOSED IMPROVEMENT (SEE CIVIL AND ELECTRICAL CHGS)
- ③ PROPOSED BRIDGE STRUCTURE (SEE STRUCTURAL AND CIVIL CHGS)
- ④ SIDEWALK (SEE CIVIL CHGS FOR ADDITIONAL INFORMATION AND PROPOSED IMPROVEMENTS)
- ⑤ LIFT OF HWY (VERIFY EXACT LAYOUT PRIOR TO CONSTRUCTION)
- ⑥ RIPARIAN PLANTING (SEE ADDITIONAL INFORMATION IN FITIGATED NEGATIVE DECLARATION REPORT)
- ⑦ EROSION CONTROL PLANTING (IRRIGATED)
- ⑧ EROSION CONTROL PLANTING (NON-IRRIGATED)



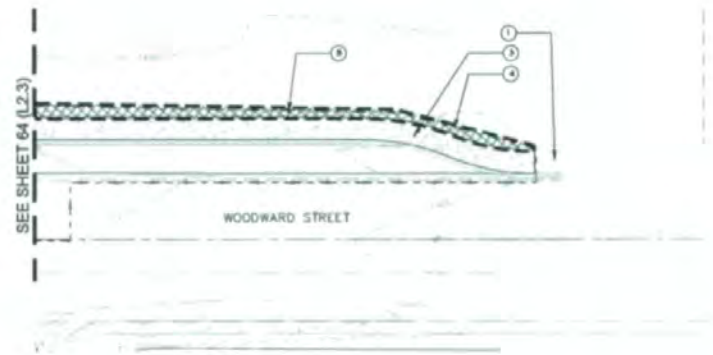
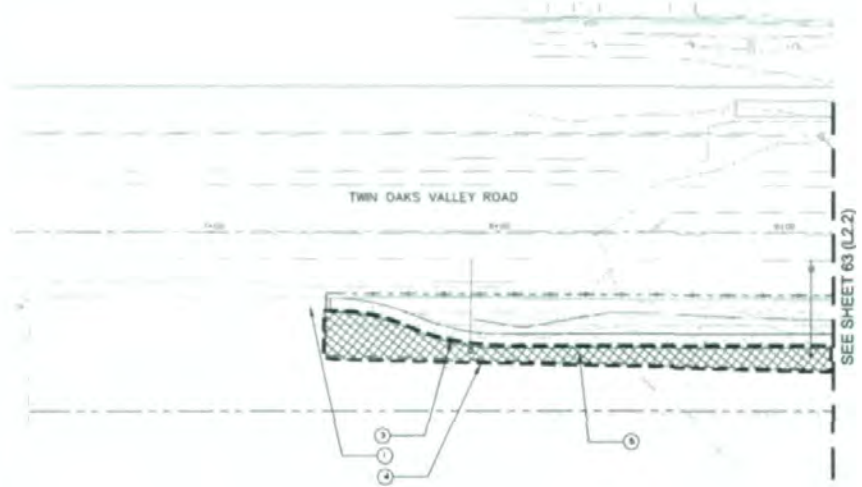
**A PLANTING PLAN**  
SCALE: 1"=20'-0"



L2.4

<p>1.437 40-GAL</p> <p>VALLEJO WATER DISTRICT</p> <p>ENGINEER OF WORK</p> <p>By: <u>                    </u> Date: <u>                    </u></p> <p>By: <u>BARRY W. SHELL</u> Date: <u>                    </u></p> <p>R.C.L. <u>                    </u> No. <u>                    </u></p>	<p>CITY APPROVED CHANGED:</p> <p>By: <u>                    </u> Date: <u>                    </u></p>	<p>RECOMMENDED FOR APPROVAL</p> <p>By: <u>                    </u> Date: <u>                    </u></p>	<p>APPROVED FOR CONSTRUCTION</p> <p>By: <u>                    </u> Date: <u>                    </u></p>	<p>SECHO APPROV:</p> <p>By: <u>                    </u> Date: <u>                    </u></p>	<p><b>CITY OF SAN MARCOS ENGINEERING DIVISION</b></p> <p>PLANTING PLAN FOR:</p> <p><b>BORDEN ROAD</b> <b>SAN MARCOS CREEK</b></p> <p>ESP No. 271</p>	<p>City Drawing No. <b>IP-4767</b></p> <p>Sheet 65</p>
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MWH



**PLAN LEGEND:**

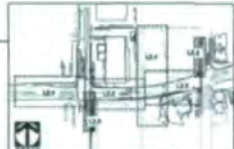
- ① EXISTING CONDITIONS - PROTECT IN PLACE (VERIFY IN FIELD AND WITH CIVIL DWS PRIOR TO CONSTRUCTION)
- ② PROPOSED IMPROVEMENT (SEE CIVIL AND ELECTRICAL DWS)
- ③ SIDEWALK (SEE CIVIL DWS FOR ADDITIONAL INFORMATION AND PROPOSED IMPROVEMENTS)
- ④ LIFT OF WORK (VERIFY EXACT LAYOUT PRIOR TO CONSTRUCTION)
- ⑤ BANK TRENCH (3' DEEP) IN ALL PLANTING AREAS EXCEPT 3:1 SLOPES AND RIPARIAN CHANNEL

**PLAN LEGEND:**

- ① EXISTING CONDITIONS - PROTECT IN PLACE (VERIFY IN FIELD AND WITH CIVIL DWS PRIOR TO CONSTRUCTION)
- ② PROPOSED IMPROVEMENT (SEE CIVIL, STRUCTURAL OR ELECTRICAL DWS)
- ③ SIDEWALK (SEE CIVIL DWS FOR ADDITIONAL INFORMATION AND PROPOSED IMPROVEMENTS)
- ④ LIFT OF WORK (VERIFY EXACT LAYOUT PRIOR TO CONSTRUCTION)
- ⑤ BANK TRENCH (3' DEEP) IN ALL PLANTING AREAS EXCEPT 3:1 SLOPES AND RIPARIAN CHANNEL



**A PLANTING PLAN**  
SCALE: 1"=20'-0"

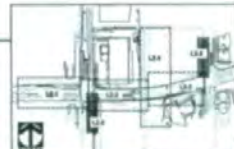


INSPECTED AND RECOMMENDED FOR ACCEPTANCE

By: Public Works Inspector

Date: \_\_\_\_\_

**B PLANTING PLAN**  
SCALE: 1"=20'-0"



APPROVED FOR APPROVAL

By: \_\_\_\_\_

Date: \_\_\_\_\_

APPROVED FOR CONSTRUCTION

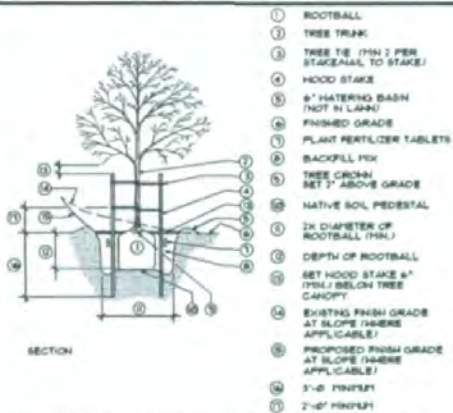
By: Michael S. Edwards, City Engineer

Date: 06/15/2009

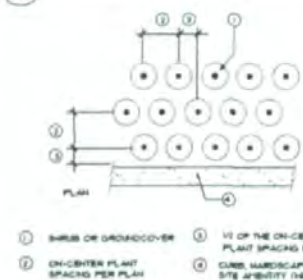
T&E 45-541 No. _____ Date _____	VALLEJO WATER DISTRICT No. _____ Date _____	ENGINEER OF WORK By: _____ Name: MICHAEL S. EDWARDS P.C.E. 30261 exp. 6/30/09	CITY APPROVED DRAWING No. 133004 Date: _____	RECOMMENDED FOR APPROVAL By: _____ Date: _____	CHECK MARK No. _____ Date: _____	CITY OF SAN MARCOS ENGINEERING DIVISION PLANTING PLAN FOR: <b>TWIN OAKS VALLEY ROAD AND WOODWARD STREET</b> (TOP OF 27)	City Drawing No. IP-4767
							Sheet 53

L2.5

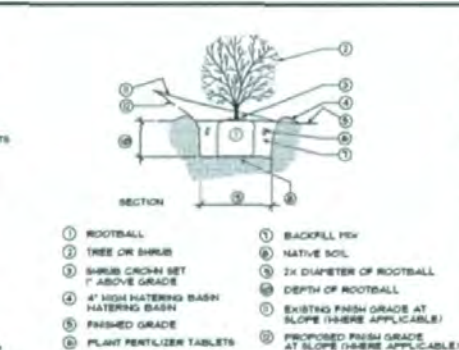




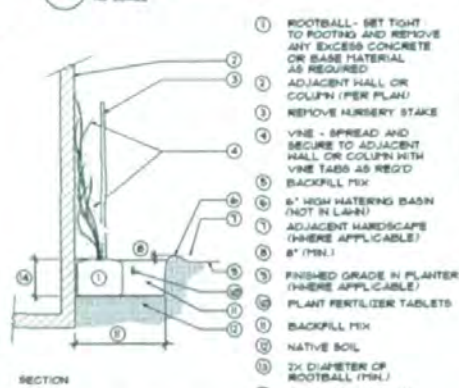
**A TREE PLANTING W/ DOUBLE STAKING**  
NO SCALE



**B GROUNDCOVER SPACING (TRIANGULAR)**  
NO SCALE



**C SHRUB PLANTING**  
NO SCALE



**D VINE PLANTING**  
NO SCALE

**PLANT LEGEND**

GRAPHIC SYMBOL	SYMBOL	BOTANICAL NAME	COMMON NAME	FIN. SIZE	FIN. HT.	SPRD.	RE/MARKS	DETAIL
[Symbol]	AGA OR	AGAPANTHUS ORIENTALIS	LILY-OF-THE-VALLEY	1 GAL	3"	8"	FULL LEAVES NO 'DEAD-HEADS'; GOOD COLOR	B/ L2.6
[Symbol]	AMB PS	APRESIA PSILOSTACHYA	HESTERY RAG-WEED	SEED	"	"	HAND BROADCAST PER BIOLOGIST'S DIRECTION (1 LB PER 2.451-ACRES)	"
[Symbol]	ART DOU	ARTEPSIA DOUGLASSIANA	HIGHWORT	SEED	"	"	HAND BROADCAST PER BIOLOGIST'S DIRECTION (1 LB PER 2.451-ACRES)	"
[Symbol]	BAG BAL	BACCHARIS SALICIFOLIA	FILEE'S FAT	1 GAL	6"	3"	FULL AND BUSHY TO THE GROUND, GOOD COLOR	B/ L2.6
[Symbol]	DIE BIC	DIETES BICOLOR	FORTNIGHT LIT	1 GAL	6"	8"	FULL AND BUSHY TO THE GROUND, GOOD COLOR	B/ L2.6
[Symbol]	FC REP	FCUS REPENS	CREEPING FIG	5 GAL	24"	0"	FULL AND BUSHY TO THE GROUND, GOOD COLOR REMOVE NURSERY STAKE, ATTACH TO HALL	D/ L2.6
[Symbol]	CAR ALB	CAREX ALBULA	FROSTY CURLS	1 GAL	6"	8"	FULL LEAVES NO 'DEAD-HEADS'; GOOD COLOR	B/C L2.6
[Symbol]	PNZ DS	PHORRHIZ T. GOLD SHROU	HEB ZEALAND FLAX	5 GAL	24"	0"	FULL AND BUSHY TO THE GROUND, GOOD COLOR	B/ L2.6
[Symbol]	PNZ TS	PHORRHIZ THORI SARRIS	HYBRID HEB ZEALAND FLAX	5 GAL	24"	6"	FULL LEAVES, BUSHY TO THE GROUND, GOOD COLOR	B/ L2.6
[Symbol]	POP PRE	POPULUS FREYANII	HESTERY COTTONWOOD	5 GAL	8"	2"	FULL AND BUSHY TO THE GROUND, GOOD COLOR	A/ L2.6
[Symbol]	PLU SER	PLUCHEA SERICEA	ARROW WOOD	1 GAL	2"	8"	FULL AND BUSHY TO THE GROUND, GOOD COLOR	B/ L2.6
[Symbol]	NEA CLA	RHAPLOSPIS NOICA CLARA	NEA WARTHORN	5 GAL	6"	8"	FULL AND BUSHY TO THE GROUND, GOOD COLOR	B/ L2.6
[Symbol]	BAL GDD	BALIX GOODENI	GOODEN'S HILLON	5 GAL	6"	1"	FULL AND BUSHY TO THE GROUND, GOOD COLOR	A/ L2.6
[Symbol]	BAL LAB	BALIX LAEVIATA	RED HILLON	5 GAL	8"	2"	FULL AND BUSHY TO THE GROUND, GOOD COLOR	A/ L2.6
[Symbol]	BAL LAB	BALIX LABOEPSIS	ARROYO HILLON	5 GAL	8"	1"	FULL AND BUSHY TO THE GROUND, GOOD COLOR	A/ L2.6
[Symbol]	URT DO	URTICA DIOICA	STINGING NETTLE	SEED	"	"	HAND BROADCAST PER BIOLOGIST'S DIRECTION (1 LB PER 2.451-ACRES)	"

**PLANTING NOTES**

- ALL PLANTING AREAS WITH SLOPES LESS THAN 2:1 SHALL RECEIVE A MINIMUM 3" THICK LAYER OF BARK MULCH (SUBMIT 1/4 C.P. SAMPLE)
- ALL PLANT MATERIALS SHALL BE SPOTTED IN-PLACE BY THE LANDSCAPE ARCHITECT PRIOR TO CONTRACTOR DIGGING THE PLANTING PITS. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT 3 WORKING DAYS PRIOR TO DELIVERY OF PLANT MATERIALS.
- ALL ROCK AND DEBRIS LARGER THAN ONE (1) INCH (1") SHALL BE REMOVED FROM ALL PLANTING AREAS. DISPOSE OF ALL DEBRIS OFF SITE.
- CONTRACTOR SHALL SUBMIT A MINIMUM OF (3) (THREE) SOIL SAMPLES FOR AGRICULTURAL SUITABILITY SOIL TESTING (STANDARD TEST APP-4) AT THE THE SOIL AND PLANT LABORATORY, ORANGE CA. (714) 382-6711. COLLECT SOIL SAMPLES WITHIN PROPOSED PLANTING AREAS. AFTER THE COMPLETION OF GRADING OPERATIONS PROVIDE (1) COPY OF THE SOIL REPORTS AND RECOMMENDATIONS TO THE OWNER'S REPRESENTATIVE PRIOR TO CARRYING OUT CORRECTIVE MEASURES PER THE ANALYSIS.
- THE HYDROSEED MIXTURE AND CONTAINER STOCK ARE DESIGNED TO BE NATIVE OR NATURALIZED PLANTINGS AND SHALL BE TEMPORARILY IRRIGATED FOR 25 HOURS THEN ALL TEMPORARY ABOVE-GRADE SYSTEMS SHALL BE REMOVED.

HYDROSEED MIX	
SPECIES	PURE LIVE SEED LBS/ACRE
ESCHSCHOLZIA CALIFORNICA	1.0
LATHRUNA CALIFORNICA	1.0
LUPINUS TRUNCATUS	1.0
LOTUS SCOPARIUS	4.0
PIFFULUS AURANTIACUS	2.0
ERIGONNILLUM CONFERTIFLORUM	1.0
ISOCOMA MENZIESII	1.0
ENCHELIA CALIFORNICA	1.0
ARTEPSIA CALIFORNICA	2.0
ERIGONNILLUM FASCICULATUM	2.0
<b>TOTAL # LBS/ACRE</b>	<b>16.0</b>
<b>SLURRY MIX</b>	
MULCH	3000 LBS / ACRE
BINDER	0.5 LBS / ACRE
PRE-PLANT FERTILIZER	PER SOILS TEST
SEED RATE	6 LBS / ACRE
PRE-EMERGENT HERBICIDE (TUPERSAU)	2 LBS / ACRE

HYDROSEED MIX	
SPECIES	PURE LIVE SEED LBS/ACRE
ESCHSCHOLZIA CALIFORNICA	1.0
LATHRUNA CALIFORNICA	1.0
LUPINUS TRUNCATUS	1.0
LOTUS SCOPARIUS	4.0
PIFFULUS AURANTIACUS	2.0
ERIGONNILLUM CONFERTIFLORUM	1.0
ISOCOMA MENZIESII	1.0
ENCHELIA CALIFORNICA	1.0
ARTEPSIA CALIFORNICA	2.0
ERIGONNILLUM FASCICULATUM	2.0
<b>TOTAL # LBS/ACRE</b>	<b>16.0</b>
<b>SLURRY MIX</b>	
MULCH	3000 LBS / ACRE
BINDER	0.5 LBS / ACRE
PRE-PLANT FERTILIZER	PER SOILS TEST
SEED RATE	6 LBS / ACRE
PRE-EMERGENT HERBICIDE (TUPERSAU)	2 LBS / ACRE



100% SUBMITTAL

THE AS-BUILT No. _____ Date _____	ILLUSTRIATED WATER DISTRICT No. _____ Date _____	ENGINEER OF WORK No. _____ Name: <u>Barbara A. Smith</u> Title: <u>REGISTERED PROFESSIONAL ENGINEER</u>	CITY APPROVED CHANGE No. _____ Date: <u>5/2/2018</u>	RECOMMENDED FOR APPROVAL No. _____ Name: <u>Barbara A. Smith</u> Title: <u>REGISTERED PROFESSIONAL ENGINEER</u>	APPROVED FOR CONSTRUCTION No. _____ Name: <u>Barbara A. Smith</u> Title: <u>REGISTERED PROFESSIONAL ENGINEER</u>	BOON BARR No. _____ Name: <u>Barbara A. Smith</u> Title: <u>REGISTERED PROFESSIONAL ENGINEER</u>	CITY OF SAN MARCOS ENGINEERING DIVISION PLANT LEGEND, DETAILS, & NOTES (SHEET NO. 27)	City Drawing No. <b>IP-4767</b> Sheet 83
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