

IMPROVEMENT NOTES

- The structural sections shown on these plans are based on R-value tests or minimum structural standards required by the City, whichever is greater. Actual structural sections will be determined after the "R" value test has been conducted by a qualified geotechnical engineer on the prepared sub-base material. The "R" value test and recommended engineered structural section must be approved by the Public Works Director prior to the installation of base and paving materials. Structural sections shall be designed in accordance with Chapter 600 of the Caltrans Highway Design Manual. Structural sections shall be noted on the "as-built" drawings.
- This note will not apply to those areas where grading is minimal and "R" values can be obtained prior to plan approval. All existing streets shall be core tested to determine the existing structural section and to determine the extent of overlay or reconstruction necessary to achieve the required "R" values, tests shall be performed at locations approved by the Public Works Director.
- All electrical, telephone and cable television utilities shall be constructed/converted to underground. The relocation and/or undergrounding of existing and new utilities shall be done by the developer of the property at no cost to the City.
- All underground utilities and laterals shall be installed before construction of the curb and gutter or surfacing of streets.
- A permit shall be obtained from the City of San Marcos for any excavation and/or construction within the proposed project and public right-of-way.
- Contractor shall notify the assigned City of San Marcos Engineering Inspector 48-hours prior to the beginning of any grading/construction.
- Precise locations/elevations of the existing underground utilities are not known. The Contractor shall be solely responsible for making sufficient explorations to locate all utilities and substructures whether shown on the plans or not and to protect them from any possible damage prior to and during construction. The expense of repair or replacement of solid utilities and substructures shall be borne by the Contractor. Contractor shall notify the Engineer-of-Work of any potential conflicts sufficiently in time for construction changes to be made and approved.
- The Contractor shall contact the Underground Service Alert at 1-800-422-4133 at least 48 hours prior to excavating to verify the locations of underground facilities of the following utilities:

Cox Communications
AT&T
San Diego Gas & Electric
Vallecitos Water District
Bueno Sanitation District
Vista Irrigation District

A Dig Alert Identification Number must be issued before a "Permit to Excavate" is valid per Government Code section 4216/4217.

- An AS-BUILT drawing shall be submitted for all public improvements prior to acceptance of said improvements.
- The Engineer-of-Work shall be notified when construction commences.
- Contractor shall be responsible for all construction/grading of slopes, pads, street grades, and infrastructure improvements according to these plans. The Engineer-of-Work shall be contacted when changes or additions are made during the progress of construction or if there is a misunderstanding of these plans or field stakes and an interpretation is needed.
- Certification from the registered civil engineer stating that the grading has been completed per the approved plan, and the compaction report from the geotechnical engineer on any required fill areas shall be provided prior to building permits being issued.
- Contractor shall be responsible for protecting any monumentation and/or benchmarks. Any monumentation and/or benchmarks which are disturbed or destroyed by construction shall be replaced at the contractor's expense. Such points shall be referenced and replaced with appropriate monumentation by a licensed land surveyor or a registered civil engineer authorized to practice land surveying. A Corner Record or Record of Survey, as appropriate, shall be filed by the licensed land surveyor or registered civil engineer as required by the Land Surveyor's Act.
- All existing features and structures in conflict with these plans shall be relocated or removed at the developer's expense.
- Minimum 90% compaction is required in all on-site fill areas with a minimum of 95% compaction twelve inches (12") below finished subgrade in a public street.
- All public improvements shown on these improvement plans shall be constructed to the satisfaction of the Engineering Director prior to occupancy of any building.
- All operations conducted on the premises, including the warming up, repair, arrival, departure or running of any equipment shall be limited to the hours of 7:00 a.m. to 4:30 p.m., Monday through Friday. No work shall be performed on the premises on Saturday, Sunday or holidays.
- No private irrigation mains or control valves shall be placed within the public right-of-way.
- Curb ramps shall be installed at all curb returns per Title 24, Part 2, State Chapter 71, Site Development Requirements for Handicapped Accessibility, Section 7103, Curb Ramps, of the California Building Code.
- Excavation, fills, and obstructions in Public Places shall conform to the requirements of City Ordinance 2022-1521 subject to the approval of the Director.
- These plans have been examined by the City's Engineering Division to insure compliance with general engineering standards and the City's design standards and specifications.
- The Engineer-of-Work shall bear the sole responsibility of the mathematical data and accuracy of design shown herein.
- If the improvements shown on this plan have not been constructed and accepted by the City within two (2) years of the date of plan approval by the City Engineer, these plans will be subject to review by the City's Engineering Division for conformance with current City standards, policies and/or additional requirements.
- The Contractor shall be responsible for the installation, relocation or replacement of all striping, signing or traffic detector loops as required by the Engineering Director.
- Street signing and striping are the responsibility of the contractor and are subject to City of San Marcos Engineering Department approval.
- Dust control measures, such as the periodic wetting down of the bare and exposed areas, shall be used at all times during construction to the satisfaction of the Engineering and/or Building Inspectors.

CONT. IMPROVEMENT NOTES

- The Contractor is responsible for maintaining the adjoining public streets and right-of-ways in a clean and dust free condition within the limitation of the City Municipal Code Section 14.15.030 "Illicit Discharges Prohibited." This section of the Code prohibits the "washing down" of a street into a public storm drain. The continuous use of street sweeping machines may be advisable.
- The Engineer-of-Work is not responsible for grading operations or grading done. The Contractor is solely responsible.
- A permit must be obtained from the San Marcos Fire Department prior to any blasting. City permits are required prior to any construction, excavation, storage of materials, or any other encroachments.
- Contractor shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including the safety of all persons and property. This requirement shall apply continually and not be limited to normal working hours. The Contractor shall defend, indemnify, and hold the owner, the engineer, and the City harmless from any and all liability, real or alleged, in connection with the performance of work on this project excepting for liability arising from the sole negligence of the owner, engineer, or City.
- Erosion control, including rip-rap, interim slope protection, sandbags or other erosion control measures shall be provided as necessary to control sediment and silt from the project. The Contractor shall be responsible for maintaining all erosion control facilities throughout the development of the project.
- A traffic control plan, including the layout of construction warning and detour signs, shall be submitted to the Engineering Department for approval a minimum of 14 days prior to the commencement of construction. Traffic control shall be implemented before any work is started.
- In no case shall the City be responsible for construction costs for these improvements, including the undergrounding of existing and new dry utilities, or any necessary repairs.

FIRE NOTES

- Fire sprinklers are required on all homes on lots _____ through _____.
- All lots requiring fire sprinklers must have a minimum _____" water meter.
- Fire hydrants shall be CLOW Model 865 with Two 4" and One 2.5" port.
- The tops and nozzle caps of the fire hydrant shall be color coded per NFPA 291 based on fire flow:
 - Class AA - Light Blue Point - 150 GPM or greater
 - Class A - Green Point - 100 to 1499 GPM
 - Class B - Orange point - 500 to 999 GPM
 - Class C - Red Point - Less than 500 GPM
- Color coding shall be from FSC Coatings, Ametco Silicon Poly Plus.

LIST OF EASEMENTS & ENCUMBRANCES			
EASEMENT/ENCUMBRANCE TYPE	GRANTEE	RECORDED DOCUMENT NO.	RECORDATION DATE
CC&RS	XXXXXX XXXXXX	1234-0001234	XX/XX/XXXX
PUBLIC DRAINAGE ESMT FOR ACCESS AND MAINTENANCE	CITY OF SAN MARCOS	2345-0002345	XX/XX/XXXX
RECIPROCAL ACCESS EASEMENT TO THE BENEFIT OF XXX-XXX-XX	XXXXXX XXXXXX	1234-0001234	XX/XX/XXXX

EARTHWORK SCHEDULE

CUT: XXXX CY
FILL: XXXX CY
OVEREXCAVATION: XXXX CY
IMPORT/EXPORT: XXXX CY

EASEMENTS + ENCUMBRANCES

SEE TABLE ON SHEET 2

SITE ADDRESS AND ASSESSOR PARCEL NUMBERS

SITE ADDRESS LINE 1
SITE ADDRESS LINE 2
ASSESSOR PARCEL NO(S): XXX-XXX-XX-XX & XXX-XXX-XX-XX

OWNER

OWNER NAME/COMPANY NAME
ADDRESS LINE 1
ADDRESS LINE 2
TELEPHONE NO.
EMAIL

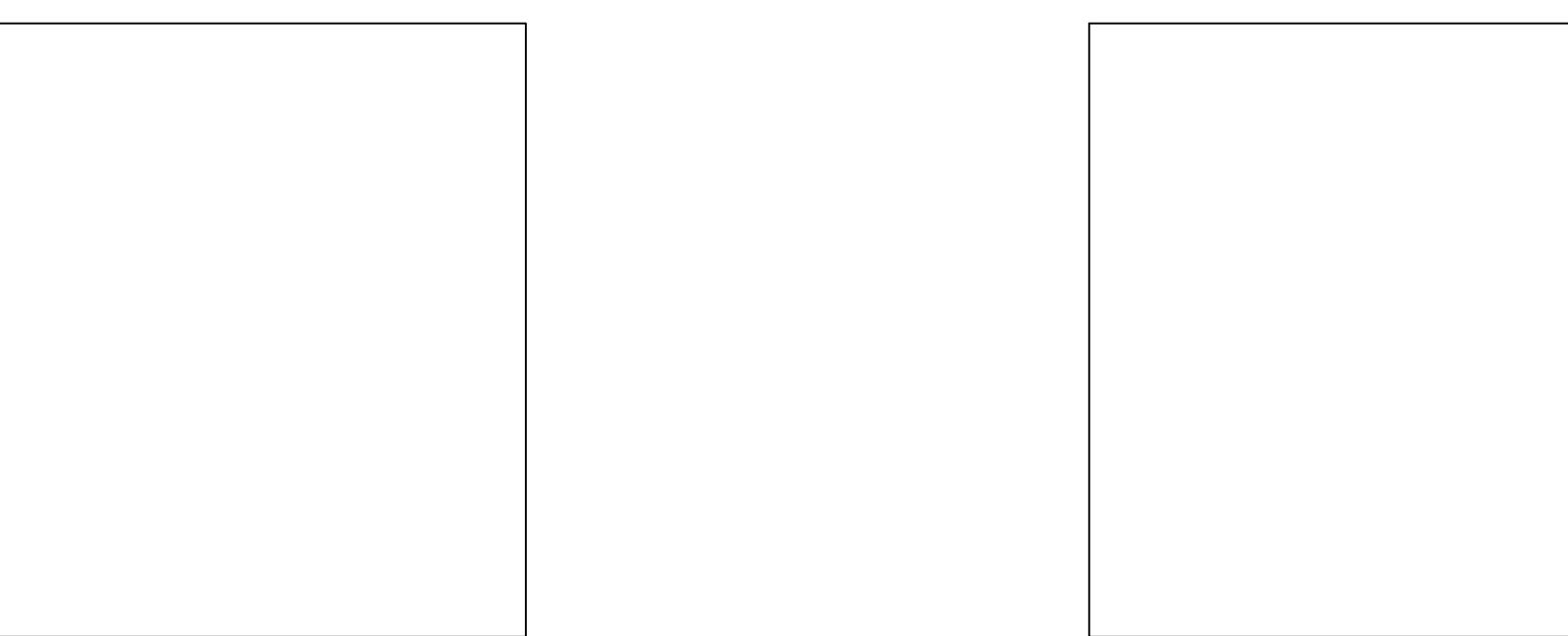
DATE: _____
TITLE/COMPANY

STORM WATER SUMMARY

WDID:
PROJECT AREA:
DISTURBED AREA:
IMPERVIOUS AREA:
STORM WATER DEVELOPMENT PROJECT TYPE: PRIORITY/ STANDARD/ EXEMPT
CITY BMP ID NO: XX THRU XX
FACILITY TYPE: MIXED USE/ RESIDENTIAL/ COMMERCIAL/ INDUSTRIAL
MAINTENANCE AGREEMENT DOC #:

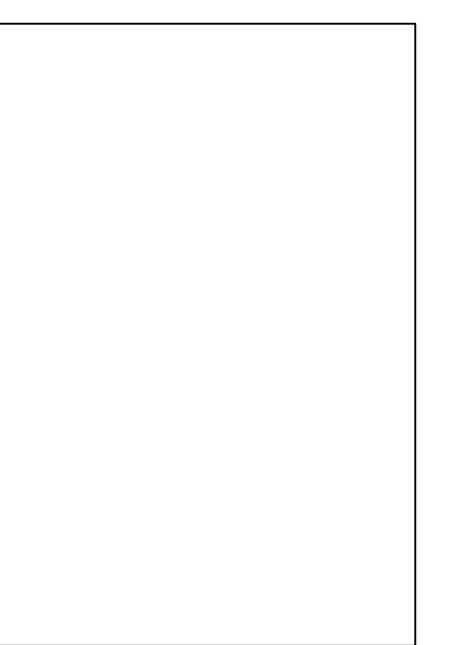
CITY OF SAN MARCOS

IMPROVEMENT PLANS FOR XXXXXXXXXXXXXX



VICINITY MAP

N.T.S.



LOCATION MAP

N.T.S.

WORK TO BE DONE

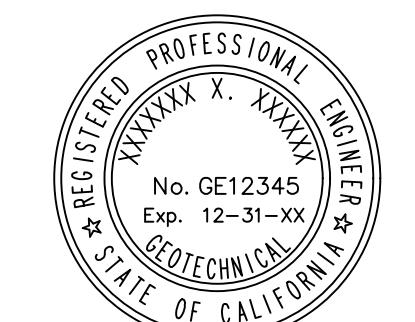
THE IMPROVEMENTS CONSISTS OF THE FOLLOWING WORK TO BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING DOCUMENTS:

- 1) SAN DIEGO AREA REGIONAL STANDARD DRAWINGS
- 2) STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREEN BOOK")
- 3) CITY OF SAN MARCOS SUPPLEMENT TO THE GREENBOOK ("STANDARD SPECIAL PROVISIONS")
- 4) CITY OF SAN MARCOS MUNICIPAL CODE
- 5) STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARDS PLANS
- 6) STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD SPECIFICATIONS
- 7) STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION SUPPLEMENTAL TO MUTCD
- 8) VALLECITOS WATER DISTRICT STANDARD DRAWINGS AND SPECIFICATIONS
- 9) CITY OF SAN MARCOS BMP DESIGN MANUAL

SPECIFIC REPORT NAME	PREPARED BY	DATE	UPDATES
GEOTECHNICAL			
SWAMP			
SWPPP			
HYDROLOGY/HYDRAULIC			
BIOLOGICAL			

LEGEND

ITEM	QTY	STD DWG	SYMBOL
PROPERTY LINE			PL
RIGHT OF WAY LINE			R/W
AC PAVING			
REMOVE EXISTING PAVEMENT			
PROPOSED CURB AND GUTTER	XXX LF	SDRSD G-2	
PROPOSED CONCRETE SIDEWALK	XXX SF	G-7 & G-9	
PROPOSED DRIVEWAY APPROACH	XXX SF	G-14	
PROPOSED PED. RAMP	XX EA	SDRSD G-27	
6" DIP WATERLINE			W
FIRE HYDRANT	XX EA	VWD W-4 & W-5	
STORM DRAIN PIPE			SD
STORM DRAIN TRENCH	XXXX SF	SDRSD D-60	
TYPE 'A'-4' CLEANOUT	XX EA	SDRSD D-9	
TYPE 'A' INLET	XX EA	SDRSD D-1	
TYPE 'B' INLET	XX EA	SDRSD D-2	
TYPE 'B-1' INLET	XX EA	SDRSD D-2	
RETAINING WALL			
FENCE			
EXISTING CURB AND GUTTER			
EXISTING BERM			
EXISTING WALL			
EXISTING FENCE			
EXISTING PED. RAMP			
EXISTING STREET LIGHT			
EXISTING WATER			
EXISTING FIRE HYDRANT			
EXISTING SEWER			
EXISTING GAS			
EXISTING TELECOMMUNICATIONS			
EXISTING ELECTRICAL			
EXISTING CABLE TV			



XXXXXX GE 12345 EXP. 12/31/XX DATE: _____

XXXXXX GE 12345 EXP. 12/31/XX DATE: _____

FIRM: _____
ADDRESS: _____
TELEPHONE #: _____

GEOTECHNICAL ENGINEER CERTIFICATE

THESE PLANS HAVE BEEN REVIEWED BY THE UNDERSIGNED RELATIVE TO GEOTECHNICAL ASPECTS OF THE PLANS AND HAVE BEEN FOUND TO BE IN CONFORMANCE WITH INTENTIONS OF THE FINDINGS AND RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT BY JXXXXXXXXXXXXXXXXXXXXXX (GE XXXX) DATED XXXXXXXX XX, XXXX.

XXXXXX GE 12345 EXP. 12/31/XX DATE: _____

XXXXXX GE 12345 EXP. 12/31/XX DATE: _____

FIRM: _____
ADDRESS: _____
TELEPHONE #: _____

SOURCE OF TOPO

FIELD SURVEY CONDUCTED BY XXXXXXXXXX ON XXXX XX, 20XX.

BASIS OF BEARING

BASIS OF BEARING PER XXXXXXXXX

REFERENCE DRAWINGS:

VWD DWG. XXXX
SM DWG. NO. XX-XXXX

LEGAL DESCRIPTION

LOT XX PER FINAL MAP XXXXXX RECORDED ON XX/XX/XXXX

ENGINEER OF WORK

By: FIRST LAST NAME
R.C.E.: _____ exp.: _____

Date: _____

RECOMMENDED FOR APPROVAL

By: Kyrenne Chua, Principal Civil Engineer
R.C.E.: 91911 exp.: 3/31/2027

Date: _____

APPROVED FOR CONSTRUCTION

By: Isaac Etchamendy, City Engineer
R.C.E.: 81294 exp.: 9/30/2027

Date: _____

ENGINEER OF WORK AS-BUILT CERTIFICATE

AS THE ENGINEER OF WORK, I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE IMPROVEMENTS SHOWN ON THIS SET OF CONSTRUCTION PLANS, SHEET XXXX THROUGH SHEET XXXX, HAVE BEEN INSTALLED AND CONSTRUCTED IN SUBSTANTIAL CONFORMANCE WITH THESE AS-BUILT PLANS, INCLUDING ALL APPROPRIATE STANDARDS AND ANY DISCRETIONARY APPROVAL(S) FOR THE PROJECT.

FIRST LAST NAME RCE 12345 EXP. 6/30/XX DATE: _____

Engineering Inspector Date

ISAAC ETCHAMENDY 81294 9/30/2027

DATE: _____

Engineering Inspector Date

ISAAC ETCH

VALLECITOS WATER DISTRICT GENERAL NOTES

- All water and sewer lines shall be installed according to the current standard specifications drawings and approved material list of the Vallecitos Water District for the construction of water and sewer facilities. Any changes or revisions therefrom shall be approved by the City Engineer and Vallecitos Water District Engineer prior construction.
- Water lines shall have a minimum cover of 42 inches. Sewer lines shall have a minimum cover of 5 feet.
- Contractor shall notify the following agencies 48 hours prior to construction. A valid Underground Service Alert Ticket shall be on file.

1-760-744-0460
Cox Communication
S.D.G. & E.
AT&T
Underground Service Alert
811
- It shall be the responsibility of the contractor to verify the location of all substructures, whether shown on the plans or not, and protect them from damage. The actual location and depth of all existing water and sewer lines is to be verified by the contractor and any discrepancy is to be brought to the attention of the engineer of work for correction and then submitted to the District for approval.
- Neither the engineer, owner nor the Vallecitos Water District shall be responsible for the enforcement of safety standards.
- A pre-construction conference meeting with Vallecitos Water District personnel shall be held a minimum of three (3) working days prior to construction.
- A signed set of improvement plans does not imply that construction may begin. The contractor must contact the Vallecitos Water District engineering department.
- Any proposed changes in the approved improvement plans must be reviewed and approved by the District prior to the installation of such changes and the changes shall be shown on the improvement plans.
- It shall be the responsibility of the developer to maintain at all times on the job site, an "as-built" record of all water and sewer mains and appurtenances installed under his contract and provide said record to the engineer at the completion of the contract. The engineer shall provide two (2) red-lined sets of "as-builts" to the District prior to the water and sewer system being placed into service, and a final "as-built" mylar as a condition of acceptance of the water and sewer system.
- All contractors working in the public rights-of-way shall obtain a separate encroachment permit or excavation permit from the appropriate agency. Inspection of all work is required. Forty-eight (48) hours advance notice is required for inspection. (No work shall be performed in the public right-of-way or District easements or on District facilities on Saturdays, Sundays or legal holidays observed by the District and/or the City without the express permission of the District.
- Contractor shall pothole (excavate and expose) all utilities along construction excavation corridor as shown on plans or identified by USA mark-out. The pothole information (utility size, type, location, elevation, grade and alignment) shall be submitted to Vallecitos Water District prior to construction. Potholing shall not be scheduled for Mondays or Fridays. In addition, potential conflicts with existing utilities, as identified by contractor, shall be submitted prior to construction. Consequences of contractor's failure to pothole and provide information to District shall be the contractor's full responsibility and liability.
- A blasting plan shall be submitted for District approval prior to the use of explosives near District facilities.
- Streets and easements shall be constructed to compacted sub grade prior to installation of the public water or sewer system unless approved by District Engineer. Any existing water and sewer facilities must remain accessible and at grade at all times.
- All water lines shall be PVC, C900 DR14, or as noted. All fittings are to be push on, unless otherwise shown and approved by the District Engineer. No deflection will be allowed for PVC pipe. The use of high deflection couplings may be allowed at the discretion of the District Engineer. All sewer lines shall be bell and spigot SDR35 PVC green pipe, or as noted. Laterals may be white or green.
- A 10-gauge insulated tracer wire (blue) with warning tape shall be installed in a continuous run along PVC water mains to and from Snake Pit CD-14 tracer boxes located in fire hydrant pads. No splices unless approved by Vallecitos Water District (VWD).
- The contractor shall test his lines against his own blocking and not against District valves.
- Upon connection of the new water system to the existing system, all valves on the existing and new system shall be operated only by District personnel. The developer or contractor shall notify District Inspector in writing a minimum of 6 working days prior to a planned shutdown. Shutdowns shall not be scheduled for Mondays or Fridays. All shutdowns require State certified bacteria test.
- Unless otherwise shown, sewer laterals and water services shall be run perpendicular to the main.
- The minimum size for water services shall be one-inch (1"). All water services shall be marked with a "W" on the curb and shall be shown on the "as-built" drawings.
- All installations with static pressure greater than 175 psi for 1/4" & 1" meters or 200 psi for 1 1/4" & 2" meters will require a pressure regulating valve to be installed before the water meter. 1" high pressure water services will require a #68 meter box. An additional pressure regulating valve may be installed after the meter as deemed necessary by the owner/developer to protect on-site fixtures.
- All materials shall be utilized only within the pressure rating of the device.
- Sewer mains shall be constructed with a consistent grade between manholes. The use of horizontal or vertical curves shall not be allowed.

GENERAL NOTES

VALLECITOS WATER DISTRICT	SAN MARCOS FIRE PROTECTION DISTRICT	CITY APPROVED CHANGES																					
APPROVAL OF THESE IMPROVEMENT PLANS DOES NOT COMMIT DISTRICT TO SUPPLYING WASTEWATER SERVICES TO THIS PROJECT OR GUARANTEE THAT WATER WILL BE AVAILABLE		△ NO.	DESCRIPTION	AFFECTED SHEETS	EOW APP'D	APP'D BY	DATE																
By: JASON NAILON, FIRE MARSHAL Date: REQUIRED FIRE HYDRANT FLOW _____ (GPM)																							
By: ELIZABETH LOPEZ, P.E. Date: DISTRICT ENGINEER R.C.E. NO. 79789 exp: 6/30/2026			<input type="checkbox"/> APPROVED FIRE HYDRANT FLOW _____ (GPM)																				
APPROVAL VALID FOR EIGHTEEN (18) MONTHS FROM DATE SIGNED			<input type="checkbox"/> APPROVED FIRE FLOW INCLUDES MITIGATION MEASURES GALLON PER MINUTE																				
VALLECITOS WATER DISTRICT IS NOT RESPONSIBLE FOR MAINTENANCE, REPAIR, OR REPLACEMENT OF FIRE HYDRANTS UNLESS SPECIFIED UNDER SEPARATE AGREEMENT WITH THE JURISDICTIONAL FIRE AGENCY																							
VALLECITOS WATER DISTRICT			VWD AS-BUILT																				
PRESSURE ZONE: _____ HGL			By: NAME (ENGINEER OF WORK)	Date: _____																			
PUMP ZONE: _____			R.C.E. NO. _____	exp: 6/30/20XX																			
<table border="1"> <tr> <td>RECOMMENDED FOR APPROVAL</td> <td>ENGINEER OF WORK</td> <td>INSPECTED AND RECOMMENDED FOR ACCEPTANCE</td> <td>ENGINEER OF WORK AS-BUILT CERTIFICATE</td> </tr> <tr> <td>By: Kyrenne Chua, Principal Civil Engineer R.C.E.: 91911 exp.: 3/31/2027 Date: _____</td> <td>By: FIRST LAST NAME R.C.E.: _____ exp.: _____ Date: _____</td> <td>Engineering Inspector</td> <td>Date: _____</td> </tr> <tr> <td>APPROVED FOR CONSTRUCTION</td> <td>BENCH MARK</td> <td colspan="2">CITY OF SAN MARCOS</td> </tr> <tr> <td>By: Isaac Etchamendy, City Engineer R.C.E. NO. 81294 exp.: 9/30/2027 Date: _____</td> <td>Description: _____ Location: _____ Record From: Record of Survey 23731 Datum: NAVD88 Elev.: _____</td> <td colspan="2">IMPROVEMENT PLANS FOR: XXXXXX XXXXXXXX XXXXXX PLANNING OPXX-XXXX XXXXXX XXXXXXXX XXXXXX PROJECT NO. SDPXX-XXXX XXXXXX XXXXXXXX XXXXXX MF XXXX</td> </tr> </table>								RECOMMENDED FOR APPROVAL	ENGINEER OF WORK	INSPECTED AND RECOMMENDED FOR ACCEPTANCE	ENGINEER OF WORK AS-BUILT CERTIFICATE	By: Kyrenne Chua, Principal Civil Engineer R.C.E.: 91911 exp.: 3/31/2027 Date: _____	By: FIRST LAST NAME R.C.E.: _____ exp.: _____ Date: _____	Engineering Inspector	Date: _____	APPROVED FOR CONSTRUCTION	BENCH MARK	CITY OF SAN MARCOS		By: Isaac Etchamendy, City Engineer R.C.E. NO. 81294 exp.: 9/30/2027 Date: _____	Description: _____ Location: _____ Record From: Record of Survey 23731 Datum: NAVD88 Elev.: _____	IMPROVEMENT PLANS FOR: XXXXXX XXXXXXXX XXXXXX PLANNING OPXX-XXXX XXXXXX XXXXXXXX XXXXXX PROJECT NO. SDPXX-XXXX XXXXXX XXXXXXXX XXXXXX MF XXXX	
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** INSERT NOTES ON EROSION CONTROL SHEET **

EROSION CONTROL NOTES

- In case emergency work is required, contact _____ at _____, phone no. _____ Available 24-hr.
- Equipment and workers for emergency work shall be made available at all times during the rainy season. All necessary materials shall be stockpiled on site at convenient locations to facilitate rapid construction of temporary erosion control devices when rain is imminent.
- Erosion control devices shown on plans shall not be moved or modified without the approval of the Engineering Inspector.
- The Contractor shall restore all erosion control devices to working order, including silt and other debris removal, to the satisfaction of the Engineering Inspector after each run-off producing rainfall.
- The Contractor shall install additional erosion control measures as may be required by the Engineering Inspector due to uncompleted grading operations or unforeseen circumstances which may arise.
- The Contractor shall be responsible and shall take necessary precautions to prevent public trespass onto areas where impounded waters create a hazardous condition.
- All erosion control measures provided per the approved grading plan and/or SWPPP shall be incorporated hereon.
- Graded areas around the project perimeter must drain away from the face of slope at the conclusion of each working day.
- All removable protective erosion control devices shown shall be in place at the end of each working day when the five-day rain probability forecast exceeds 40%.
- All gravel bags shall be burlap type with 3/4" inch minimum aggregate.
- Should germination of hydroseeded slopes fail to provide effective coverage (90%) of graded slopes prior to November 15, the slopes shall be stabilized by punch straw.
- For projects covered by state SWPPP/WDID, in accordance with the constructions order issued by the California Regional Water Quality Control Board, the Contractor's Qualifies SWPPP Practitioner (QSP) shall update and maintain the water pollution control (WPC) plan to address updated site conditions of the project.
- The updated WPC plan and updated SWPPP shall be kept on the project site and made available to the City Inspector.
- Additional constructions BMP's beyond the original approved SWPPP shall be provided by the contractor to address the site conditions not anticipated. The QSP shall report BMP deficiencies to the City Inspector.
- The QSP shall obtain approval from the Contractor's Qualified SWPPP designer/developer for any changes to the WPC.

TEMPORARY EROSION CONTROL (PLANTING AND IRRIGATION)

- ALL PERMANENT AND TEMPORARY EROSION CONTROL PLANTING AND IRRIGATION SHALL BE INSTALLED AND MAINTAINED AS REQUIRED IN SECTION 212 OF THE STANDARD SPECIFICATIONS AND THE FOLLOWING.
- HYDROSEEDING SHALL BE APPLIED TO:
 - ALL SLOPES THAT ARE GRADED 6:1 (HORIZONTAL TO VERTICAL) OR STEEPER WHEN THAT ARE:
 - THREE FEET OR MORE IN HEIGHT AND ADJACENT TO A PUBLIC WALL OR STREET,
 - ALL SLOPES 4 FEET MORE IN HEIGHT.
- AREAS GRADED FLATTER THAN 6:1 WHEN ANY OF THE FOLLOWING CONDITIONS EXIST:
 - NOT SCHEDULED FOR IMPROVEMENTS (CONSTRUCTION OR GENERAL LANDSCAPING) WITHIN 60 DAYS OF ROUGH GRADING,
 - IDENTIFIED BY THE PARKS AND RECREATION DIRECTOR AS HIGHLY VISIBLE TO THE PUBLIC, HAVE ANY SPECIAL CONDITION IDENTIFIED BY THE CITY ENGINEER THAT WARRANTS IMMEDIATE TREATMENT.
- HYDROSEEDED AREAS SHALL BE IRRIGATED IN ACCORDANCE WITH THE FOLLOWING CRITERIA:
 - ALL SLOPES THAT ARE GRADED 6:1 OR STEEPER THAT ARE:
 - THREE TO EIGHT FEET IN HEIGHT SHALL BE IRRIGATED BY HAND WATERING FROM QUICK COUPLERS/HOSE BIDS OR A CONVENTIONAL SYSTEM OF LOW PRECIPITATION SPRINKLER HEADS PROVIDING 100% COVERAGE,
 - GREATER THAN 8 FEET IN HEIGHT SHALL BE WATERED BY A CONVENTIONAL SYSTEM OF LOW PRECIPITATION SPRINKLER HEADS PROVIDING 100% COVERAGE.
- AREAS SLOPED LESS THAN 6:1 SHALL BE IRRIGATED AS APPROVED BY THE CITY ENGINEER, PRIOR TO THE HYDROSEEDING. THE DEVELOPER SHALL SUBMIT A PROPOSED SCHEME TO PROVIDE IRRIGATION TO THE CITY ENGINEER. THE PROPOSAL SHALL BE SPECIFIC REGARDING THE NUMBERS, TYPES AND COSTS OF THE ELEMENTS OF THE PROPOSED SYSTEM.
- IRRIGATION SHALL MAINTAIN THE MOISTURE LEVEL OF THE SOIL AT THE OPTIMUM LEVEL FOR THE GROWTH OF THE HYDROSEED GROWTH.
- HYDROSEEDING MIX SHALL CONSIST OF THE FOLLOWING:
- SEED MIX SHALL CONSIST OF ALL OF THE FOLLOWING:
 - 20 lbs PER ACRE OF ROSE CLOVER
 - 20 lbs PER ACRE OF ZORRO FESCUE
 - 3 lbs PER ACRE OF E SCHOOL CLOVER
 - 4 lbs PER ACRE OF ACHILLEA MILLEFOU
 - 3 lbs PER ACRE OF ALYSUM (CARPET OF SNOW)
 - 1/2 lb PER ACRE OF DIMORPHOLICA
 - ITEMS c,d,e, and f OF THIS SUBSECTION MAY BE OMITTED ON LOCATIONS WHERE THE AREA BEING HYDROSEDED IS NOT VISIBLE FROM EITHER THE PUBLIC STREET RESIDENTIAL STRUCTURES
 - ITEM 1.1 OF THIS SUBSECTION MUST BE INOCULATED WITH A NITROGEN FIXING BACTERIA AND APPLIED DRY EITHER BY DRILLING OR BROADCASTING BEFORE HYDROSEEDING
 - ALL SEED MATERIALS SHALL BE TRANSPORTED TO THE JOBSITE IN UNOPENED CONTAINERS WITH THE CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE CERTIFICATION TAG ATTACHED TO, OR PRINTED ON CONTAINERS
 - NON-PHOTO-TOXIC WETTING AGENTS MAY BE ADDED TO THE HYDROSEED SLURRY AT THE DISCRETION OF THE CONTRACTOR
- TYPE 1 MULCH APPLIED AT THE RATE OF NO LESS THAN 2000 lbs PER ACRE. TYPE 6 MULCH (STRAW) MAY BE SUBSTITUTED, ALL OR PART, FOR HYDRAULICALLY APPLIED FIBER MATERIAL. WHEN STRAW IS USED IT MUST BE ANCHORED TO THE SLOPE BY MECHANICALLY PUNCHING NO LESS THAN 50% OF THE STRAW INTO THE SOIL.
- FERTILIZER CONSISTING OF AMMONIUM PHOSPHATE SULFATE, 16-20-0, WITH 15% SULPHUR APPLIED AT THE RATE OF 500 lbs PER ACRE.
- AREAS TO BE HYDROSEDED SHALL BE PREPARED PRIOR TO HYDROSEEDING BY:
 - ROUGHENING THE SURFACE TO BE PLANTED BY ANY OR A COMBINATION OF:
 - TRACK WALKING SLOPES STEEPER THAN 6:1
 - HARROWING AREAS 6:1 OR FLATTER THAT ARE SUFFICIENTLY FRIABLE
 - RIPPING AREAS THAT WILL NOT BREAK UP USING ITEMS a OR b ABOVE
- CONDITIONING THE SOILS SO THAT IT IS SUITABLE FOR PLANTING BY:
 - ADJUSTING THE SURFACE SOIL MOISTURE TO PROVIDE A DAMP BUT NOT SATURATED SEED BED
 - THE ADDITION OF SOIL AMENDMENTS, PH ADJUSTMENT, LEACHING COVERING SALINE SOILS TO PROVIDE Viable CONDITIONS FOR GROWTH.
- HYDROSEDED AREAS SHALL BE MAINTAINED TO PROVIDE A VIGOROUS GROWTH UNTIL THE PROJECT IS PERMANENTLY LANDSCAPED OR, FOR AREAS WHERE HYDROSEEDING IS THE PERMANENT LANDSCAPING, UNTIL THE PROJECT IS COMPLETED AND ALL BONDS RELEASED.



AS-BUILT

City Drawing No. **IP25-XXXXXX**
Sheet 2 of X
VWD WO#

TRAFFIC SIGNAL GENERAL NOTES

- The location of all existing underground utilities is approximate. The Contractor shall determine the location and depth of all utilities including those not shown in these plans. Verification of the location and depth of underground utilities and digging for foundations shall be done by hand excavation methods until clear of all underground facilities. All underground utilities shall be protected during construction and expense of repair or replacement of utilities damaged during construction shall be borne by the Contractor.
- The Contractor shall obtain all necessary permits and notify all utilities, agencies, and the City of San Marcos (760) 752-7550 at least 48 hours in advance of construction.
- Before excavating the Contractor shall verify locations of underground facilities of the following utilities by contacting the Underground Service Alert at 1-800-277-2600:

AT&T
San Diego Gas & Electric
Vallecitos Water District
Cox Communications
Burnt Sanitation District
Vista Irrigation District

Utility mark-outs shall be conducted using a temporary paint that can be removed by power wash, if necessary. Add to the plans "the Contractor shall remove all mark out paint upon completion of the work."

- All property corner monuments shall be undisturbed by construction or improvements. Disturbed monuments shall be reset or replaced by a licensed land surveyor or registered civil engineer authorized to set monuments.
- Pole, detector, and equipment locations are approximate. The City of San Marcos' Engineering Department Inspectors and/or Traffic Signal Lighting Supervisor shall field verify and approve the exact equipment locations prior to installation.
- The Contractor shall provide all necessary traffic control devices during traffic signal installation. A traffic control plan, including the layout of construction warning and detour signs, working hours, and construction schedule shall be submitted to the Engineering Department for approval a minimum of 14 calendar days prior to the commencement of construction. Traffic control shall be implemented before any work is started.
- All traffic signal conduit fittings (after the electric meter pedestal) shall be minimum three inch (3") Schedule 80 PVC. Street crossings shall be four inches (4") minimum, encased in a minimum of twelve inches (12") of 56-C-3250 psi concrete (8" minimum concrete cover to top of pipe). All conduits shall be buried with a minimum of thirty inches (30") of total cover from the top of pipe to finished grade. All conduits shall be sealed upon completion. Street crossings by bore method shall be approved by the City Engineer. All directional bore raceways shall be HDPE typical.
- All signal conductors, communication cables, and other associated wiring shall be labeled (with the Brother P-touch waterproof labels or City approved equal) in the cabinet with associated assignments (lane, phases, channel numbers, and communication functions).
- Curb ramps shall be installed at all curb returns per Title 24, Part 2, State Chapter 71, Site Development Requirements for Handicapped Accessibility, Section 7103, Curb Ramps of the California Building Code, and shall include truncated domes (type and color as directed by the Engineer).
- All trench excavation and backfill in the public right-of-way shall conform to the requirements of the City of San Marcos' Excavation Ordinance. Minimum 95% compaction is required in all on-site fill areas within ultimate right-of-way.
- A new slurry coat or overlay shall be applied a minimum of 20 feet either side of patch work resulting from excavation work (trenching or potholing) on new streets (slurry coated within three years) or street with clean and uniform pavements. The determination of existing pavement condition shall be made by the Engineering Division Inspector.
- The Contractor shall be responsible for service coordination with SDG&E. The Contractor shall apply for a new service meter and obtain an SDG&E service order. The City shall provide new building addresses for the new service meters.
- Existing traffic signal facilities, signals, and communication shall remain operational until new facilities are cutover or connected or as long as approved by the project inspector. The Contractor shall be responsible for installation, maintenance, and removal of any temporary wiring necessary to maintain signal operational during construction.
- Luminaires shall conform to the latest City of San Marcos Street Lighting Standards with GE Evolve TM LED Roadway Scalable Cobrehead fixtures for safety lighting.
- The Contractor shall be responsible for the installation, relocation, or replacement of all striping and signing as required by the City Traffic Engineer. All signs and traffic striping shall conform to the California Manual on Uniform Traffic Control Devices (CAMUTCD) and City of San Marcos Signing and Striping Standards.
- An "AS-BUILT" drawing shall be submitted for all public improvements prior to the acceptance of said improvements.
- These plans have been examined by the City of San Marcos Engineering Division to ensure compliance with general engineering standards and the City's design standards and specification. The Engineer-of-Work shall bear the sole responsibility of the mathematical data and accuracy of design shown hereon.
- Traffic signal construction shall not commence until all materials including poles, mast arms, and controller are on-hand unless otherwise approved by the project inspector.
- The Contractor shall be responsible for the installation, relocation, or replacements of all traffic loop detectors as required by the Traffic Engineer within 48 hours of direction, or install temporary video detection loop detector work is completed. Existing traffic signal detector loops damaged during construction shall be replaced within 48 hours of date and time damaged or temporary video detection shall be installed until the damaged loops are replaced. The Contractor shall furnish and install temporary video detection cameras, detection cards, and other equipment as necessary for full perpetuation. Approval is required by the City's Traffic Signal Supervisor prior to operation. The Contractor shall repair asphalt paving and supply slurry seal coat after installation of loops.

TRAFFIC SIGNAL GENERAL NOTES CONT.

- When performing a traffic signal modification work, the Contractor shall be responsible for ensuring continued operation of the traffic signal throughout project. If any damaged occur, the Contractor shall respond within 3 hours and restore the operation within 48 hours.
- TRAFFIC STRIPING NOTES:**
 - All striping and pavement markings shall be the responsibility of the CONTRACTOR. Traffic striping, pavement legends and raised pavement markers shall be installed in accordance with the latest version of the CAMUTCD and Caltrans Standard Plans.
 - All arrows, whether in turn lanes, bike lanes or otherwise, shall conform to Caltrans Standard Plan A24A.
 - Symbols and Numerals: Symbols and numerals shall conform to the Caltrans Standard Plan A24C. The City of San Marcos has designated the "Bike Lane Symbol with Person" (facing left to the roadway) to be used in all bike lane applications. All other bike lane symbols shall be excluded. All bike lane symbols and speed limit legends shall be thermoplastic.
 - Striping alignment and layout, including "cat-tracks" shall be the responsibility of the CONTRACTOR and is subject to the approval of the City Engineer or their assignee prior to final installation. CONTRACTOR shall notify the City Engineer or their assignee to inspect "cat-tracks" minimum two working days prior to final striping.
 - Paint shall be applied under suitable weather conditions and per the paint manufacturer label recommendations for pavement and ambient temperature requirements. Paint shall not be applied if rain is forecasted within 24 hours.
 - Thinning of paint is not allowed.
 - All striping materials shall conform to Caltrans Standard Specifications Section 84-2.02 "Materials".
 - All striping shall include raised pavement markers (RPMs) per the appropriate CAMUTCD details.
 - Raised pavement markers (RPMs) and placement of RPMs shall be installed per Caltrans Standard Specifications Section 81-3 "Pavement Markers".
 - The CONTRACTOR shall remove all conflicting painted lines, markings and pavement legends by sand blasting within 24-hours of conflict. Grinding may be used if equipment and methodology is approved by the City. Sandblasting or grinding debris shall be removed as soon as possible but no later than before the end of each workday. "Blocking out" of existing striping is not allowed. Where traffic striping or pavement markings are to be removed by sandblasting or grinding, the pavement shall be repaired and slurry sealed (Type I or II Slurry) at the discretion of the City Inspector.
 - The CONTRACTOR shall notify the City of San Marcos, Development Services upon completion of striping.
 - Two coats of paint shall be applied on new surfaces and one on existing surfaces. Paint and legends shall be installed after (7) days and no more than (14) days after installation of new surface.
 - Signalized intersections shall have marked pedestrian crosswalks. All crosswalks, limit lines, stop bars, pavement arrows, school legends, and STOP pavement legends shall be installed with thermoplastic unless otherwise noted on the plan.
 - All new or modified crosswalks shall be "Continental" style marked crosswalks with a limit bar setback of 4-feet minimum.
 - A minimum of 100-feet Detail 22 (double yellow) centerline striping shall be installed along all knuckles and horizontal curvatures with the radius of 100-feet or less. Red curb or R26(CA) "NO PARKING ANYTIME" signs shall be installed on the inside of the roadway curvature.
 - All Detail 40 and Detail 41 lane extension striping through intersections shall be installed with thermoplastic, unless otherwise noted on the plans.
 - The "Bike Lane Symbol with Person" legend and arrow combination per the CAMUTCD shall be installed as part of on-street bike lane striping at the beginning of each block.
 - The diagonal and chevron striping within buffer bike lanes shall be six-inch white installed with thermoplastic, unless otherwise noted on the plans. When the buffer is two-to-four-feet in width, the single diagonal "/" marking shall be used; when the buffer is equal to four-feet in width or greater, the chevron "V" marking shall be used. When the buffer is less than two-feet, no chevron striping is used.
 - GREEN painted bike facilities:**
 - Shall be installed at bike facilities approaching intersecting roadways or as directed by the City Traffic Engineer;
 - Shall be methyl methacrylate (MMA); glass beads shall not be installed in GREEN painted bike facilities.

TRAFFIC SIGNING NOTES:

- Signage shall be the responsibility of the CONTRACTOR and shall be subject to City of San Marcos Development Services approval. All signs shall conform to the latest edition of the California Manual on Uniform Traffic Control Devices (CAMUTCD).
- Sign posts in the public right-of-way:
 - shall be, Tubular break-away posts (Telspar or Unistrut), 1 3/4" galvanized steel or equal;
 - shall have seven feet (7') vertical clearance above finished grade;
 - shall not have more than a maximum of two signs (with different meanings) on each;
 - located in the median, shall be set in an eight-inch diameter (8") by twenty-four inch (24") (8" x 24") deep PVC sleeve and backfilled with native soil, decomposed granite, or sand to the top of the sleeve;
 - located in the sidewalk, a four-inch diameter core (4") shall be drilled. Backfill shall be four inches (4") of concrete above twenty inches (20") of native soil, decomposed granite or sand;
 - shall be new;
 - shall be rejected if damaged, bent or splintered;
 - locations shall be marked by CONTRACTOR and approved by the City Engineer or their assignee prior to final placement;
 - shall have a minimum of forty-eight inches (48") horizontal distance between post and back edge of sidewalk;
 - shall be 2-7/8" aluminum posts for street name signs and STOP (R1-1) signs;
 - shall be wrapped with 10-mil polyethylene wrapping tape or approved equal around base of breakaway post below subgrade;
 - shall comply with installation details for Break-Away Sign Post per San Diego Regional Standard Drawing M-45;
 - Wood posts used for Class II or III barricades shall be painted white.
- Signs:
 - shall be aluminum and meet Caltrans Standard Specifications Section 82-2.02C "Retroreflective Sheeting";
 - shall have a minimum of twelve inches (12") horizontal clearance behind the curb face;
 - thirty-six inches (36") wide shall be strapped on the back of the sign with sign strap hardware;
 - larger than thirty-six inches (36") wide shall be set on two posts;
 - if mounted on:
 - new or existing street lights standards shall use a 3/4" "band it" steel strapping with fasteners;
 - aluminum posts shall use 2-7/8" post caps for single signs and 2-7/8" cross saddle for two signs;
 - mounted on power/utility poles are prohibited;
 - size shall comply with the latest edition of the CAMUTCD, Part 2 - Signs.
- Street name signs shall have 9-inch extruded aluminum blades, high intensity sheeting with 3M Blue Electrocute film, 6-inch Highway Gothic lettering with first letter in Capitals and the rest lower case, block address, and road designations.
- Where an R4-7 sign and OM1-3 object marker sign are to be installed in a median width less than 42-inches, the R4-7 sign shall be mounted 7-feet vertically from the existing curb surface. The R4-7 sign shall be 18" x 24" and the OM1-3 object marker shall be 18" x 18".
- Where an R6-1 sign ("One Way") sign is to be installed in a median island, the R6-1 sign shall be mounted 18-inches vertically from the existing ground. If a landscaped planter is present and vegetation interferes with sign location, the R6-1 sign shall be mounted 4-feet vertically from the existing ground.
- The CONTRACTOR shall notify the City of San Marcos, Development Services upon completion of sign installations.
- Existing signs shall be salvaged and delivered to the Public Works Department located at 201 Mata Way.
- STOP sign installation shall include the sign, post, limit line, STOP legend and a minimum of 50-feet of Detail 22 (double yellow) centerline striping unless adjacent to median. Placement of STOP sign shall be in accordance with the CAMUTCD.
- NO OUTLET signs shall be posted where there is no legal outlet when the street exceeds 800 feet or when the terminus of the roadway is not visible from the intersection.
- All school area signs shall be Fluorescent Yellow Green (FYG) background colored in accordance with the latest edition of the CAMUTCD.
- If it is necessary to prohibit certain pedestrian movements at a traffic signal-controlled intersection CONTRACTOR shall install a TYPE I Pedestrian Barricade per Caltrans Standard Plan ES-70; if site constraints prevent installation of Pedestrian Barricade, CONTRACTOR shall install (R9-3) "NO PEDESTRIAN CROSSING" signs.

RECOMMENDED FOR APPROVAL
By: Kyrenne Chua, Principal Civil Engineer
R.C.E.: 91911 exp.: 3/31/2027
Date:

ENGINEER OF WORK
By: FIRST LAST NAME
R.C.E.: exp.:
Date:

INSPECTED AND RECOMMENDED FOR ACCEPTANCE
Engineering Inspector Date

ENGINEER OF WORK AS-BUILT CERTIFICATE
FIRST LAST NAME R.C.E. 12345 EXP. 6/30/XX
Date:

REGISTERED PROFESSIONAL ENGINEER
No. RCE12345
Exp. 06-30-xx
CIVIL STATE OF CALIFORNIA

APPROVED FOR CONSTRUCTION
By: Isaac Etchamendy, City Engineer
R.C.E.: 81294 exp.: 9/30/2027
Date:

BENCH MARK
Description: _____
Location: _____
Record From: Record of Survey 23731
Elev.: _____ Datum: NAVD88

CITY OF SAN MARCOS
IMPROVEMENT PLANS FOR:
XXXXXX XXXXXXXX XXXXXX PLANNING GPXX-XXXX
PROJECT NO. SDPXX-XXXX MF XXXX
XXXXXX XXXXXXXX XXXXXX Sheet 3 of X

AS-BUILT

VALLECITOS WATER DISTRICT		SAN MARCOS FIRE PROTECTION DISTRICT		CITY APPROVED CHANGES					
APPROVAL OF THESE IMPROVEMENT PLANS DOES NOT COMMIT DISTRICT TO SUPPLYING WASTEWATER SERVICES TO THIS PROJECT OR GUARANTEE THAT WATER WILL BE AVAILABLE				△NO.	DESCRIPTION	AFFECTED SHEETS	EOW APP'D	APP'D BY	DATE
By: ELIZABETH LOPEZ, P.E. DISTRICT ENGINEER R.C.E. NO. 79789 exp.: 6/30/2026 APPROVAL VALID FOR EIGHTEEN (18) MONTHS FROM DATE SIGNED									
VALLECITOS WATER DISTRICT									
PRESSURE ZONE: _____ HGL		VWD AS-BUILT							
By: NAME (ENGINEER OF WORK) R.C.E. NO. _____ exp.: 6/30/20XX									

RECOMMENDED FOR APPROVAL By: Kyrenne Chua, Principal Civil Engineer R.C.E.: 91911 exp.: 3/31/2027 Date:	ENGINEER OF WORK By: FIRST LAST NAME R.C.E.: exp.: Date:	INSPECTED AND RECOMMENDED FOR ACCEPTANCE Engineering Inspector Date	ENGINEER OF WORK AS-BUILT CERTIFICATE FIRST LAST NAME R.C.E. 12345 EXP. 6/30/XX Date:
APPROVED FOR CONSTRUCTION By: Isaac Etchamendy, City Engineer R.C.E.: 81294 exp.: 9/30/2027 Date:	BENCH MARK Description: _____ Location: _____ Record From: Record of Survey 23731 Elev.: _____ Datum: NAVD88	CITY OF SAN MARCOS IMPROVEMENT PLANS FOR: XXXXXX XXXXXXXX XXXXXX PLANNING GPXX-XXXX PROJECT NO. SDPXX-XXXX MF XXXX XXXXXX XXXXXXXX XXXXXX Sheet 3 of X	VWD WO#