

Request for Proposal

MILL CREEK DIVERSION AND DEBRIS MANAGEMENT IMPROVEMENT PROJECT

Construction Survey Services



San Bernardino Valley Water Conservation District

Helping Nature Store Our Water

**Filing Deadline:
May 25, 2023 – 4:00 p.m.**

**San Bernardino Valley Water Conservation District
Attn Katelyn Scholte (909) 793-2503**

**Mailing Address/Street Address:
1630 W. Redlands Blvd., Ste. A Redlands, CA 92373**

INTRODUCTION

Background and Project Description

The San Bernardino Valley Water Conservation District (Conservation District) is soliciting sealed proposals for construction phase services for the Mill Creek Diversion and Debris Management Improvement Project (Project). The Project proposes to replace and upgrade a portion of the Conservation District's existing Mill Creek water diversion facilities. The project site encompasses an approximately 300-foot reach of Mill Creek in the unincorporated area of San Bernardino County, California. Conservation District staff will serve as the construction manager. The selected consultant will be responsible for providing construction field surveys. A detailed description of the work is included in the Scope of Services.

The construction project consists of re-constructing diversion and channel features along a segment of Mill Creek. The purpose of the Project is to reconstruct the facility to minimize the accumulation of debris and possible clogging of the diversion structure. The Project will include the removal and reconstruction of the existing concrete diversion structure and approach channel. The reconstruction will include increasing the size of the gate structures, adding grouted and non-grouted rip-rap slope protection and adding a drivable concrete rip-rap access road. Access to the site is extremely limited. Access will be through an existing dirt access road and through a pedestrian door within the levee flood wall. The work area within the channel is limited to the footprint of the improvements as shown on the project plans.

A copy of the Conservation District's standard services agreement is attached to this RFP. Any requested changes or modifications should be specifically highlighted as exceptions in the RFP phase. The Consultant will work under the direction of the Conservation District General Manager or other Conservation District Staff as appointed by the General Manager. Funding for the Consultant's services will be provided by the Conservation District utilizing local funding sources and potentially future grant opportunities / awards.

PROJECT SCHEDULE

The project construction phase working days is currently 80 days as listed in the Special Provisions. A total of 100 inspection days should be included in the fee proposal. The project is estimated to be advertised for construction in May with construction completed in October 2023.

SCOPE OF WORK

Project Plans are attached for reference. The Scope of Work includes the following tasks:

1. Preconstruction staking to delineate all proposed facilities using spray paint to delineate the following:
 - Outline of Wall A and B (beyond the existing diversion structure walls)
 - Outline of the Diverter Walls
 - Outline of limits of levee rock that is to be removed
 - Outline of new channel invert
 - Outline of limits of work (beyond the levee removal limits)
 - Outline of grouted rock
2. Establish temporary benchmarks and horizontal control. Note all staking information will be taken from the AUTOCADD files and / or the Horizontal Control Plan (see sheet 10)
3. Stake the project limits of work within Mill Creek and within the staging area.

4. Provide 2 sets of construction stakes for the major items to be constructed. Offset is to be determined but will need a minimum of 5 feet and maximum of 15 feet beyond the top / toe of slopes. The major items of work are estimated to be:
 - Rough and fine grading top of subgrade
 - Limits of removal of grouted rock levee
 - Diversion structure walls A and B footings (See Sheet 7)
 - Diverter walls footings (See Sheet 5)
 - Toe of ungrouted rock (See notes 35 and 37)
 - Limits of drivable grouted rip rap (See note 32)
 - Limits of grouted rock immediately downstream of diversion outlet including toe down (see note 26)
 - Concrete by-pass Berm (See note 25)
 - PCC slab (See note 25)
5. Perform pre and post field survey with ground shots at a sufficient interval to calculate earthwork quantities.
6. The fee proposal should also include any other services that are deemed necessary to provide sufficient survey information to the contractor.

Note, vehicular traffic within the construction zone is limited to the access roads and the limits of work shown on the plans.

SUBMITTAL REQUIREMENTS

The Proposal is expected to be concise, direct and without excessive support material, such as general company information or extensive curriculum vitae. The following minimum information should be provided in each Proposal and will be utilized in evaluating each Proposal submitted.

- A. A company brochure or statement of work history that includes similar projects,
- B. A list of any subconsultants that may be used on the Project.
- C. A detailed Fee Schedule. The Fee Schedule should be generally organized to follow the tasks as they are broken down in the Scope of Services section above. Services outlined in each proposal shall comply with all requirements set forth in this RFP. The costs shall include a supported breakdown of services, hourly rates, and hours to complete each task, including any sub-consultants hourly rates and hours, and any other costs for a complete project. The level of effort and associated costs must be clearly stated, and easily understood.
- D. Company Standard Fee Schedule
- E. One (1) electronic copy of the proposal or three (3) hard copies of the proposal shall be submitted to the District office, 1630 W. Redlands Blvd., Ste A Redlands, CA 92373, by May 25, 2023, at 4pm. Electronic proposals can be emailed to engineering@sbvwcd.org. The Conservation District is not responsible for receipt of electronic proposals. Proposers are encouraged to call Katelyn Scholte to confirm receipt.

GENERAL CONDITIONS

Limitations

This RFP does not commit the Conservation District to award a contract, to pay any costs incurred in the

preparation of the Proposal in response to this request, or to procure or contract for services or supplies. The Conservation District expressly reserves the right to reject any and all Proposals or to waive any irregularity or information in any Proposal or in the RFP procedure, and shall be the sole judge of the responsiveness of the Proposal to this RFP, the capability and responsibility of any firm proposing, and of the suitability of the materials and/or services to be rendered. The Conservation District reserves the right to withdraw this RFP at any time without prior notice. Further, the Conservation District reserves the right to modify the RFP schedule described above. The Conservation District shall retain its authority to provide oversight and direction to the Project, monitor the progress and recommend acceptance of final submissions.

Consultant's Responsibilities

If selected, execute the Conservation District's Professional Services Agreement. Maintain insurance per the attached Conservation District Standard Services Agreement. Selected firms and/or individuals shall provide a certificate of coverage prior to the Conservation District issuing a notice to proceed. Conform to the Conservation District's Procurement Policy. Meet with Conservation District Staff and selected individuals to discuss the approach and method to proceed. Meet as needed with the General Manager, Administrative Staff, Engineers, and selected individuals to review the progress of the work, to discuss any changes in direction or needed details, and in general to ensure that work is proceeding as required. The Conservation District shall make available to the selected Consultant all relevant plans, studies, reports or documents, as appropriate, for background information and research purposes.

The Consultant shall keep itself informed of all local, State and Federal laws and regulations, including but not limited to those pertaining to conflicts of interest, which in any manner affect those employed by it or in any way affect the performance of its duties under the scope of work. The Consultant shall at all times observe and comply with all such laws and regulations.

Verbal Agreement

No prior, current, or post-award verbal conversations or agreement(s) with any officer, agent, or employee of the Conservation District shall affect or modify any terms or obligations of the RFP, or any contract resulting from this RFP.

Costs for Statement of Proposal Preparation and Pre-contractual Expenses

Pre-contractual expenses are defined as expenses incurred by applicants and the selected Consultant in:

- 1) Preparing Proposal in response to this RFP
- 2) Submitting Proposal to Conservation District
- 3) Preparing and submitting responses to future RFPs.
- 4) Negotiations with Conservation District on any matter related to Proposal
- 5) Review or inspection of the Project site or site conditions
- 6) Other expenses incurred by a Consultant or proposer prior to the date of award of any agreement.

In any event, the Conservation District shall not be liable for any pre-contractual expenses incurred by any applicant or selected Consultant. Applicants shall not include any such expenses as part of the price proposed in response to this RFP or any future RFPs. The Conservation District shall be held harmless and free from any and all liability, claims, or expenses whatsoever incurred by, or on behalf of, any person or organization responding to this RFP.

Signature

The Proposal will also provide the following information: name, title, address, telephone number and email of the individual(s) with authority to represent the company and designated contact(s) during the period of proposal evaluation and be the contact person for future RFPs.

Term

The term of the list is expected to be up to two (2) years and will be updated and modified over the term.

ATTACHMENTS

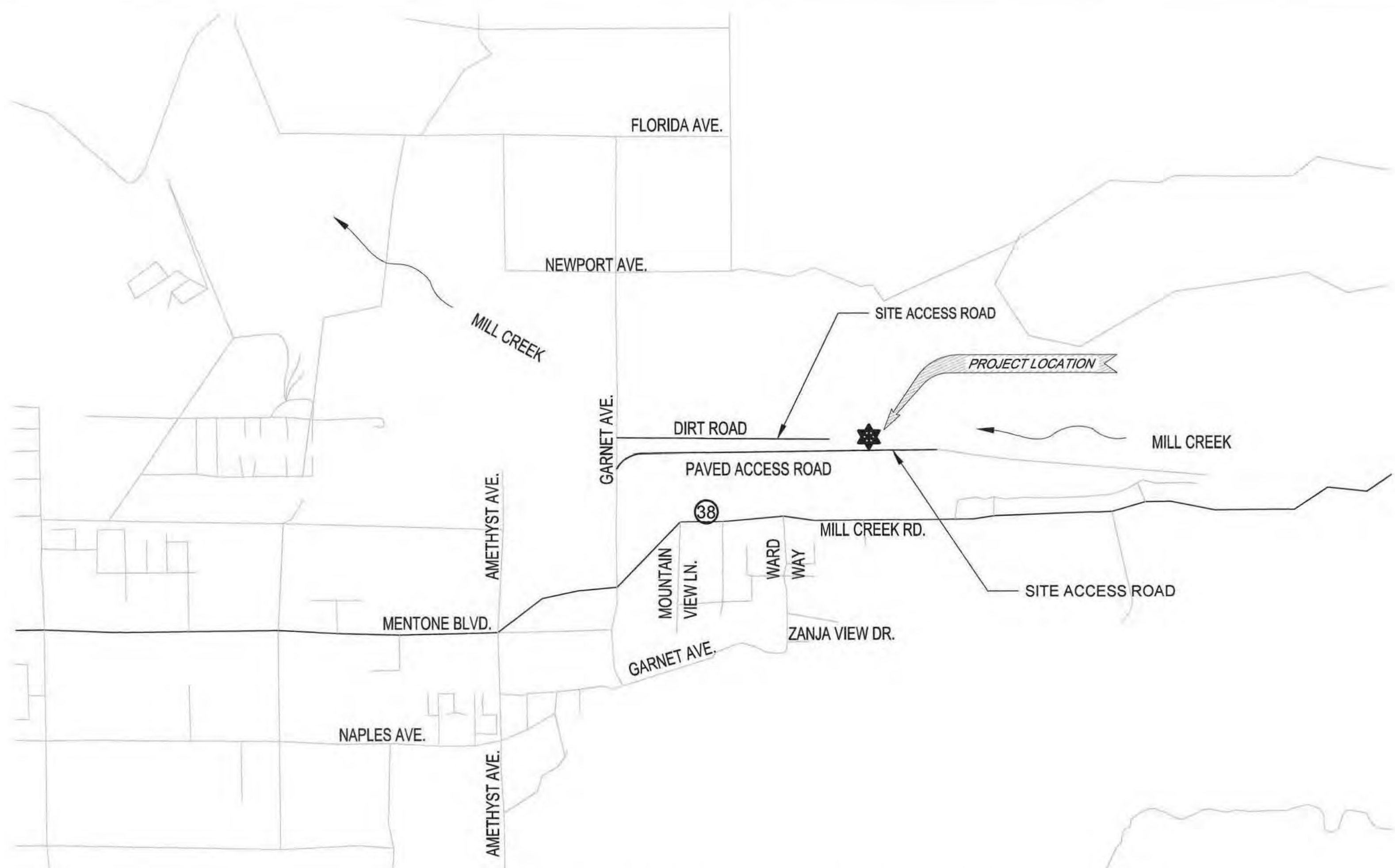
1. Mill Creek Diversion and Debris Management Improvement Project plans
2. Conservation District Standard Services Agreement

SAN BERNARDINO VALLEY WATER CONVERSATION DISTRICT

MILL CREEK DIVERSION AND DEBRIS MANAGEMENT IMPROVEMENT



VICINITY MAP



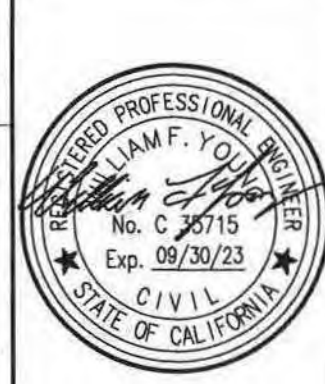
LOCATION MAP



BENCH MARK
BM NO. NGS 449 (EV1475) ELEVATION = 2021.83 FEET
(NAVD. 83) YUCAIPA (1996)
BENCH MARK DISK STAMPED S 449 1949 SET IN BUILDING WALL, 2 MILES E. FROM MENTONE, 1.95 MILES E. ALONG
STATE HWY 38 FROM THE POST OFFICE AT MENTONE, 4.1 MILES E/O THE CURRIER GYMNASIUM OF THE UNIVERSITY
OF REDLANDS AT REDLANDS. AT THE INT. OF GARNET ST, AT THE GREEN SPOT TRADING POST FLYING SERVICE
STATION. SET VERTICALLY IN THE N.W. FACE OF THE SERVICE STATION BUILDING, 1.3' S.W. OF THE N.W. CORNER OF
THE BUILDING, AND 2.6' ABOVE THE GROUND.
COORDINATES ARE BASED UPON NAD 83, STATE PLAN COORDINATE SYSTEM, CALIFORNIA ZONE 5, EPOCH 2007.

NO.	DATE	REVISIONS	APPROVED	DATE
7				
6				
5				
4				
3				
2				
1				

SUBMITTED BY: *William F. Young* DATE: 2-23-22
WILLIAM F. YOUNG, P.E. RCE No. 35715
SAN BERNARDINO VALLEY
WATER CONSERVATION DISTRICT
REVIEWED AND
APPROVED BY: *C. Pendroy* DATE: 2-23-22
C. PENDROY, P.E. RCE No. 49060



PREPARED BY: 1561 E. ORANGETHORPE AVE., SUITE 240
FULLERTON, CA 92831
TEL (714) 526-7500
www.cwecorp.com
DRAWN BY: M. NGUYEN DATE: 2-23-22
DESIGNED BY: C. PENDROY DATE: 2-23-22
CHECKED BY: W. YOUNG DATE: 2-23-22

SAN BERNARDINO VALLEY
WATER CONSERVATION DISTRICT
MILL CREEK DIVERSION AND
DEBRIS MANAGEMENT IMPROVEMENT
TITLE SHEET AND GENERAL NOTES

PROJECT NO.
15129
SHEET
1
OF
10

SBCFCD PERMIT NO. P-3201-7069
USACE 408 PERMIT SPL-408-2018-30

FINAL SUBMITTAL

GENERAL GRADING NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF:
- A. THE SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT STANDARDS.
- B. THE COUNTY OF SAN BERNARDINO STANDARD PLANS.
- C. STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREEN BOOK).
2. THE CONTRACTOR SHALL NOTIFY THE DISTRICT WHEN THE GRADING OPERATION IS READY FOR EACH OF THE FOLLOWING INSPECTIONS:
- A. INITIAL INSPECTION. WHEN THE PERMITEE IS READY TO BEGIN WORK, BUT NOT LESS THAN TWO DAYS BEFORE ANY CLEARING OR GRADING IS STARTED.
- B. TOE INSPECTION. AFTER THE NATURAL GROUND OR BEDROCK IS EXPOSED AND PREPARED TO RECEIVE FILL, BUT BEFORE FILL.
- C. EXCAVATION INSPECTION. AFTER THE EXCAVATION IS STARTED, BUT BEFORE THE VERTICAL DEPTH OF THE EXCAVATION.
- D. ROUGH GRADING INSPECTION. WHEN ALL ROUGH GRADING HAS BEEN COMPLETED. THIS INSPECTION MAY BE CALLED FOR AT THE COMPLETION OF ROUGH GRADING WITHOUT THE INSPECTOR NECESSARILY HAVING PREVIOUSLY REVIEWED AND APPROVED THE REQUIRED REPORTS.
- E. FINAL GRADING AND IMPROVEMENT INSPECTION. WHEN ALL WORK (INCLUDING INSTALLATION OF ALL DRAINAGE STRUCTURES, OTHER PROTECTIVE DEVICES AND ALL OTHER IMPROVEMENTS) HAS BEEN COMPLETED AND THE AS-GRADED PLAN, PROFESSIONAL CERTIFICATIONS AND THE REQUIRED REPORTS HAVE BEEN SUBMITTED.
3. CUT AND FILL SLOPES SHALL BE NO STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL.
4. FILLS SHALL BE COMPACTED THROUGHOUT TO A MINIMUM OF 90% (OR 95% WHERE REQUIRED) OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM D1557. COMPACTED FILLS SHALL BE CERTIFIED BY THE DISTRICT.
5. AREAS TO RECEIVE FILL SHALL BE PROPERLY PREPARED AND APPROVED BY THE DISTRICT PRIOR TO PLACING OF FILL.
6. FILLS SHALL BE BENCHED INTO APPROVED MATERIAL AS DEEMED SUITABLE BY THE DISTRICT.
7. THE STOCKPILING OF EXCESS MATERIAL SHALL BE APPROVED BY THE DISTRICT PRIOR TO EXCAVATION.
8. ALL TRENCH BACK FILLS SHALL BE TESTED AND APPROVED BY THE DISTRICT.
9. ALL CUT SLOPES SHALL BE EVALUATED BOTH DURING AND AFTER GRADING BY THE DISTRICT TO DETERMINE IF ANY SLOPE STABILITY PROBLEM EXISTS. SHOULD EXCAVATION DISCLOSE ANY GEOLOGICAL HAZARDS OR POTENTIAL GEOLOGICAL HAZARDS, THE DISTRICT SHALL RECOMMEND NECESSARY TREATMENT TO THE CONTRACTOR.
10. NOTIFICATION OF NONCOMPLIANCE: IF, IN THE COURSE OF FULFILLING THEIR RESPONSIBILITY, THE DISTRICT FINDS THAT THE WORK IS NOT BEING DONE IN CONFORMANCE WITH THE APPROVED GRADING PLANS, THE DISCREPANCIES SHALL BE REPORTED IMMEDIATELY IN WRITING TO THE CONTRACTOR FOR RECOMMENDATION OF CORRECTIVE MEASURES.
11. THE SAN BERNARDINO VALLEY WATER CONSERVATION DISTRICT (DISTRICT) SHALL PROVIDE WRITTEN APPROVAL THAT THE GRADING OPERATION IS IN COMPLIANCE WITH THE APPROVED PLANS, SPECIFICATIONS AND APPLICABLE CODES AT COMPLETION OF THE GRADING OPERATION.
12. DUST SHALL BE CONTROLLED BY WATERING USING AN APPROVED METHOD WITHOUT CREATING ANY RUNOFF FROM THE AREA.
13. SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE.
14. THE LOCATION AND PROTECTION OF ALL UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
15. ALL EXISTING DRAINAGE COURSES ON THE PROJECT SITE MUST CONTINUE TO FUNCTION, WHILE PROTECTED, ESPECIALLY DURING STORM CONDITIONS. APPROVED PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS MUST BE USED TO PROTECT ADJOINING PROPERTIES DURING THE GRADING PROJECT. IN ALL CASES, THE CONTRACTOR SHALL BE HELD LIABLE FOR ANY DAMAGE DUE TO OBSTRUCTING NATURAL OR MANMADE DRAINAGE PATTERNS.
16. PRIOR TO FINAL APPROVAL, THE DESIGN CIVIL ENGINEER OR CONTRACTOR SHALL CERTIFY TO THE DISTRICT THE NUMBER OF CUBIC YARDS OF CUT, FILL, IMPORT, OR EXPORT MOVED DURING THE GRADING OPERATION.
17. EXPORT SOILS MUST GO TO A LEGAL DUMPSITE OR TO A LEGAL PERMITTED SITE

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT
SOUTHERN CALIFORNIA AREA
CHANNEL DESIGN CAPACITY REQUIREMENTS

IN ORDER TO ASSURE THAT THE PROPOSED LOCAL CHANNEL MODIFICATION DOES NOT REDUCE THE CURRENT CHANNEL DESIGN CONVEYANCE CAPACITY OR INTRODUCE POTENTIALLY UNTABLE FLOW CONDITIONS IN THE CHANNEL DURING CONSTRUCTION, THE FOLLOWING MINIMUM CHANNEL CAPACITIES ARE REQUIRED:

- FROM 15 APRIL TO 31 MAY AND 1 SEPTEMBER TO 15 OCTOBER, 33% OF THE ORIGINAL CHANNEL DESIGN CAPACITY MUST BE PRESERVED.
- FROM 15 OCTOBER TO 15 APRIL, 100% OF THE ORIGINAL CHANNEL DESIGN CAPACITY MUST BE MAINTAINED, I.E., NO WORK IN THE CHANNEL WILL BE ALLOWED UNLESS A WAIVER IS OBTAINED THROUGH THE LOS ANGELES DISTRICT CORPS OF ENGINEERS' ENGINEERING DIVISION (CESPL-ED).
- FROM 1 JUNE TO 31 AUGUST, 5% OF THE ORIGINAL CHANNEL DESIGN CAPACITY IS REQUIRED.
- IN THE EVENT THAT THE PERMIT APPLICANT PROPOSES TO AFFECT A SECTION OF THE CHANNEL THAT IS DOWNSTREAM OFF A CORPS REGULATED FLOOD CONTROL BASIN, THE APPLICANT MUST AS A MINIMUM, COORDINATE THEIR IN-CHANNEL ACTIVITIES WITH THE CORPS OF ENGINEERS' RESERVOIR REGULATION SECTION (CESPL-ED-HR).

APPROVED BY THE DISTRICT.

18. THE FEMA LEVEE CERTIFICATION IS CONSIDERED AS THE GEOTECHNICAL REPORT AND SHALL BE CONSIDERED A PART OF THE APPROVED GRADING PLAN.
19. NO DIRT, ROCK OR CONSTRUCTION MATERIAL MAY BE TRACKED OR DROPPED WITHIN THE PUBLIC RIGHTS-OF-WAY DURING THE TRANSPORTATION OF SAID MATERIAL OR EQUIPMENT ASSOCIATED WITH THE PROJECT. ANY DEBRIS IN THE PUBLIC RIGHT-OF-WAY SHALL BE REMOVED IMMEDIATELY AND/OR AS DEEMED NECESSARY BY THE DISTRICT.
20. PRIOR TO ANY CONSTRUCTION THAT INVOLVES HAZARDOUS CONDITIONS, THE CONTRACTOR SHALL FIRST OBTAIN A PERMIT FROM THE STATE DIVISION OF OCCUPATIONAL SAFETY AND HEALTH (DOSH).
21. GRADING OPERATIONS SHALL OCCUR ONLY BETWEEN THE HOURS OF 7:00 A.M. AND 5:00 P.M. MONDAY THROUGH FRIDAY. NO CONSTRUCTION ACTIVITIES SHALL BE PERMITTED OUTSIDE OF THESE PERMITTED HOURS OR ON SUNDAYS AND FEDERAL HOLIDAYS, UNLESS A TEMPORARY WAIVER HAS BEEN GRANTED BY THE DISTRICT. ANY WAIVERS SHALL TAKE INTO ACCOUNT THE IMPACT UPON THE COMMUNITY.
22. THE CONTRACTOR IS RESPONSIBLE FOR ANY SEPARATE PERMITS REQUIRED FOR WORK IN THE PUBLIC RIGHT-OF-WAY.
23. CONSTRUCTION MATERIAL AND EQUIPMENT SHALL NOT OCCUPY ANY PORTION OF THE PUBLIC RIGHT-OF-WAY, SUCH AS STREET, ALLEY OR PUBLIC SIDEWALK AT ANY TIME. TEMPORARY USE OF PUBLIC RIGHT-OF-WAY, WHENEVER REQUESTED, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
24. THE CONTRACTOR IS RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ALL EXISTING DAMAGED OR ALTERED PUBLIC IMPROVEMENTS AS REQUIRED BY THE DISTRICT AND THE SBCFCD PERMIT.
25. THE CONTRACTOR IS RESPONSIBLE FOR THE PRESERVATION AND OR PERPETUATION OF ALL EXISTING MONUMENTS AND STAKES WITHIN THE CONTRACTOR'S AREA OF WORK. THE CONTRACTOR SHALL NOT DISTURB OR REMOVE ANY MONUMENTS OR STAKES WITHOUT THE PERMISSION OF THE DISTRICT, AND SHALL BEAR THE EXPENSE OF RESETTling ANY MONUMENTS OR STAKES WHICH MAY BE DISTURBED OR REMOVED WITH OR WITHOUT PERMISSION. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 15 WORKING DAYS NOTICE TO THE DISTRICT PRIOR TO DISTURBANCE OR REMOVAL OF EXISTING MONUMENTS OR STAKES. THE CONTRACTOR SHALL UTILIZE THE SERVICES OF A CALIFORNIA LICENSED LAND SURVEYOR TO RESET ALL DISTURBED OR REMOVED MONUMENTS AND STAKES OR PROVIDE WITNESS MONUMENTS, AND FILE THE REQUIRED DOCUMENTATION WITH THE COUNTY SURVEYOR PURSUANT TO THE BUSINESS AND PROFESSIONS CODE SECTION 8771.
26. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UTILITIES OR STRUCTURES ABOVE OR BELOW GROUND, SHOWN OR NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL EXCAVATE INSPECTION HOLES "ROT HOLES" AND DETERMINE THE LOCATION AND DEPTH OF ALL UNDERGROUND STRUCTURES AND UTILITIES THAT ARE IN THE VICINITY OF AND/OR MAY BE AFFECTED BY THE PROPOSED IMPROVEMENT WORK PRIOR TO ANY CONSTRUCTION WORK WHICH COULD DAMAGE OR CONFLICT WITH SAID STRUCTURES AND/OR UTILITIES.
27. THE DISTRICT SHALL EXERCISE SUFFICIENT CONTROL DURING GRADING AND CONSTRUCTION TO INSURE COMPLIANCE WITH THE PLANS, SPECIFICATIONS, AND CODE REQUIREMENTS WITHIN HIS PURVIEW.
28. REVISIONS TO THE PLANS ARE TO BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL. AN "AS-BUILT" GRADING PLAN SHALL BE SUBMITTED AT THE COMPLETION OF WORK.
29. COMPACTION EQUIPMENT USED TO PLACE BACKFILL BEHIND CHANNEL WALL MUST NOT EXCEED 35,000 POUNDS INCLUDING DYNAMIC FORCES FROM VIBRATOR COMPACTOR.
30. NO EQUIPMENT IN EXCESS OF H-10 HIGHWAY LOADING (AASHTO), AND NO STOCKPILING OF MATERIAL WILL BE PERMITTED ALONG THE CHANNEL WITHIN A DISTANCE OF ONE-HALF WALL HEIGHT.
31. NO EQUIPMENT IN EXCESS OF H-20 HIGHWAY LOADING WILL BE PERMITTED TO OPERATE ON THE INVERT OF THE CHANNEL. ONLY RUBBER Tired, LEGALLY LOADED EQUIPMENT SHALL BE OPERATED ON THE EXPOSED CHANNEL INVERT. IF STEEL CRAWLER TYPE EQUIPMENT IS USED, WOODEN MATTING SHALL BE PROVIDED OVER THE INVERT IN THE OPERATING AREA. LOADS FROM TRUCK VEHICLES SHALL NOT EXCEED 300 PSF ON A SURFACE AT THE BOTTOM OF THE INVERT SLAB.
32. PROVISIONS SHALL BE MADE TO PREVENT DEBRIS FROM FALLING INTO THE CHANNEL DURING CONSTRUCTION.
33. ALL STRUCTURAL DRAWINGS AND CALCULATIONS SHOULD BE STAMPED BY A PROFESSIONAL ENGINEER.

PRIVATE ENGINEER'S NOTICE TO CONTRACTOR(S)

1. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES AND/OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. APPROVAL OF THESE PLANS BY THE SAN BERNARDINO VALLEY WATER CONSERVATION DISTRICT DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OR COMPLETENESS OF THE LOCATION OR THE EXISTENCE OR NON-EXISTENCE OF ANY UTILITY AND/OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THE CONTRACTOR IS REQUIRED TO TAKE ALL DUE PRECAUTIONARY MEANS TO PROTECT THE UTILITIES OF RECORD OR NOT OF RECORD OR NOT SHOWN ON THESE PLANS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL OTHER REQUIRED PERMITS PRIOR TO COMMENCEMENT OF GRADING OPERATIONS.
3. UNAUTHORIZED CHANGES AND USES: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS AND THE SAN BERNARDINO VALLEY WATER CONSERVATION DISTRICT.

GENERAL STRUCTURAL NOTES
CONCRETE EXPOSURE REQUIREMENTS

ACI 318 TABLE 4.2.1 — EXPOSURE CATEGORIES AND CLASSES				
CATEGORY	SEVERITY	CLASS	CONDITION	
F FREEZING AND THAWING	NOT APPLICABLE	F0	CONCRETE NOT EXPOSED TO FREEZING AND THAWING CYCLES	
	MODERATE	F1	CONCRETE EXPOSED TO FREEZING AND THAWING CYCLES AND OCCASIONAL EXPOSURE TO MOISTURE	
	SEVERE	F2	CONCRETE EXPOSED TO FREEZING AND THAWING CYCLES AND IN CONTINUOUS CONTACT WITH MOISTURE	
	VERY SEVERE	F3	CONCRETE EXPOSED TO FREEZING AND THAWING AND IN CONTINUOUS CONTACT WITH MOISTURE AND EXPOSED TO DEICING CHEMICALS	
S SULFATE	NOT APPLICABLE	S0	WATER SOLUBLE SULFATE (SO ₄) IN SOLUTION PERCENT BY WEIGHT	DISSOLVED SULFATE (SO ₄) IN WATER, PPM
	MODERATE	S1	SO ₄ < 0.10	SO ₄ < 150
	SEVERE	S2	0.10 ≤ SO ₄ < 0.20	150 ≤ SO ₄ < 1500
	VERY SEVERE	S3	0.20 ≤ SO ₄ ≤ 2.0	1500 ≤ SO ₄ ≤ 10,000
P REQUIRED LOW PERMEABILITY	NOT APPLICABLE	P0	IN CONTACT W/ WATER WHERE LOW PERMEABILITY IS NOT REQUIRED	
C CORROSION PROTECTION OF REINFORCEMENT	REQUIRED	P1	IN CONTACT W/ WATER WHERE LOW PERMEABILITY IS REQUIRED	
	NOT APPLICABLE	C0	CONCRETE DRY OR PROTECTED FROM MOISTURE	
	MODERATE	C1	CONCRETE EXPOSED TO MOISTURE BUT NOT TO EXTERNAL SOURCES OF CHLORIDES	
	SEVERE	C2	CONCRETE EXPOSED TO MOISTURE AND AN EXTERNAL SOURCES OF CHLORIDES FROM DEICING CHEMICALS, SALT BRACKISH WATER, SEAWATER, OR SPRAY FROM THESE SOURCES	

ACI 318 TABLE 4.3.1 — REQUIREMENTS FOR CONCRETE BY EXPOSURE CLASS						
EXPOSURE CLASS	MAX W/C	MIN f _c	ADDITIONAL MINIMUM REQUIREMENTS			
			AIR CONTENT		LIMITS ON CEMENTITIOUS MATERIALS	
F0	N/A	2500	N/A		N/A	
F1	0.45	4500	PER TABLE 4.4.1 — ACI 318–08		N/A	
F2	0.45	4500	PER TABLE 4.4.1 — ACI 318–08		N/A	
F3	0.45	4500	PER TABLE 4.4.1 — ACI 318–08		PER TABLE 4.4.2 ACI 318–08	
			CEMENTITIOUS MATERIALS — TYPES			CALCIUM CHLORIDE ADMIXTURE
			ASTM C595		ASTM C1157	
S0	N/A	2500	NO TYPE RESTRICTION	NO TYPE RESTRICTION	NO TYPE RESTRICTION	NO RESTRICTION
S1	0.50	4000	I _{h,3}	IP (MS) IS(<70) (MS)	MS	NO RESTRICTION
S2	0.45	4500	V ₃	IP (HS) IS(<70) (HS)	HS	NOT PERMITTED
S3	0.45	4500	V PLUS POZZOLAN OR SLAG ₄	IP(HS) PLUS POZZOLAN OR SLAG ₄ OR IS(<70) (HS) PLUS POZZOLAN OR SLAG ₄	HS PLUS POZZOLAN OR SLAG ₄	NOT PERMITTED
P0	N/A	2500	NONE			
P1	0.50	4000	NONE			
			MAXIMUM WATER SOLUBLE CHLORIDE ION (CL ⁻) CONTENT IN CONCRETE, PERCENT BY WEIGHT OF CEMENTS		RELATED PROVISIONS	
			REINFORCED CONCRETE	REINFORCED CONCRETE		
C0	N/A	2500	1.00	0.06	NONE	
C1	N/A	2500	0.30	0.06		
C2	0.40	5000	0.15	0.06	ACI 318, 7.7.6 & 16.16 ₆	
1. ALTERNATIVE COMBINATIONS OF CEMENTITIOUS MATERIALS OF THOSE LISTED IN TABLE 4.3.1 SHALL BE PERMITTED WHEN TESTED FOR SULFATE RESISTANCE AND MEETING CRITERIA IN 4.5.1.						
2. FOR SEAWATER OR BRACKISH WATER EXPOSURE, OTHER TYPES OF PORTLAND CEMENTS WITH TRICALCIUM ALUMINATE (C3A) CONTENTS UP TO 10 PERCENT ARE PERMITTED IF THE W/C DOES NOT EXCEED 0.40.						
3. OTHER AVAILABLE TYPES OF CEMENT SUCH AS TYPE III OR TYPE I ARE PERMITTED IN EXPOSURE CLASSES S1 OR S2 IF THE C3A CONTENTS ARE LESS THAN 8 OR 5 PERCENT, RESPECTIVELY.						
4. THE AMOUNT OF THE SPECIFIC SOURCE OF THE POZZOLAN OR SLAG TO BE USED SHALL NOT BE LESS THAN THE AMOUNT THAT HAS BEEN DETERMINED BY SERVICE RECORD TO IMPROVE SULFATE RESISTANCE WHEN USED IN CONCRETE CONTAINING TYPE V CEMENT. ALTERNATIVELY, THE AMOUNT OF THE SPECIFIC SOURCE OF THE POZZOLAN OR SLAG TO BE USED SHALL NOT BE LESS THAN THE AMOUNT TESTED IN ACCORDANCE WITH ASTM C1012 AND MEETING THE CRITERIA IN 4.5.1.						
5. WATER-SOLUBLE CHLORIDE ION CONTENT THAT IS CONTRIBUTED FROM THE INGREDIENTS INCLUDING WATER, AGGREGATES, CEMENTITIOUS MATERIALS, AND ADMIXTURES SHALL BE DETERMINED ON THE CONCRETE MIXTURE BY ASTM C1218 AT AGE BETWEEN 28 AND 42 DAYS.						
6. REQUIREMENTS OF 7.7.6 SHALL BE SATISFIED. SEE 18.16 FOR UNBOUNDED TENDONS.						

REINFORCING STEEL

1. REINFORCING STEEL SHALL BE ASTM A615, GRADE 60
2. SHOP DRAWINGS SHALL COMPLY WITH ACI 315, PART B. SHOW REINFORCING STEEL PLACEMENT INCLUDING SIZES, QUANTITIES, SPACING, CLEARANCES, SPLICE LOCATIONS, LAP LENGTHS, AND CONCRETE COVERAGE AND SUBMIT TO DISTRICT. PROMPTLY NOTIFY DISTRICT PRIOR TO DEVELOPING SHOP DRAWINGS IF INSUFFICIENT CLEAR DISTANCES BETWEEN REINFORCING STEEL AND OTHER CONGESTION IS ENCOUNTERED. NOTIFY DISTRICT OF ADJUSTMENTS MADE FROM APPROVED CONTRACT DOCUMENTS WHICH ARE INDICATED ON ACCEPTED SHOP DRAWINGS THAT FACILITATE FIELD PLACEMENT OF REINFORCING STEEL AND CONCRETE.
3. DIMENSIONS FROM FACE OF CONCRETE TO STEEL ARE TO THE NEAREST EDGE OF THE BAR AND SHALL BE AS INDICATED ON THE DRAWINGS.
4. MINIMUM REINFORCING STEEL CLEAR COVER IN CONCRETE SHALL CONFORM TO TABLE 2-1 OF THE USACE EM 1110-2-2104. THE DIVERTER WALLS SHALL HAVE 4" MINIMUM COVER. ALL OTHER WALLS AND SLAB FOUNDATION SHALL HAVE 3" MINIMUM COVER.
5. ALL LAP SPLICES SHALL CONFORM TO ACI 318-95. LONGITUDINAL STEEL SHALL BE LAPSED 24 BAR DIAMETERS AT SPLICES. TRANSVERSE STEEL SHALL BE LAPSED 50 BAR DIAMETERS AT SPLICES.
6. MINIMUM CLEARANCES BETWEEN PARALLEL REINFORCING STEEL INCLUDING DISTANCE BETWEEN SETS OF SPLICED BARS SHALL BE 1" OR 1 BAR DIAMETER, WHICHEVER IS GREATER.

CONCRETE

1. CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
2. CONCRETE AGGREGATE SHALL BE NATURAL SAND AND ROCK (150 LB/CU. FT) CONFORMING TO ASTM C33. AGGREGATE SHALL HAVE PROVEN SHRINKAGE CHARACTERISTICS OF LESS THAN 0.04% PER ASTM C-157. DO NOT CHANGE SOURCE OF AGGREGATE DURING COURSE OF WORK WITHOUT WRITTEN CONSENT OF ENGINEER.
3. CEMENT SHALL BE PORTLAND CEMENT CONFORMING TO ASTM C150. CEMENT SHALL BE TYPE V OR AS REQUIRED TO SATISFY SITE SOIL CONDITIONS. REFER TO ACI 318 TABLES 19.3.1.1 OR 19.3.2.1 FOR EXPOSURE CATEGORIES, CLASSES AND REQUIREMENTS FOR CONCRETE BY EXPOSURE CLASS RESPECTIVELY. USE MINIMUM OF SIX (6) SACKS OF CEMENT PER CUBIC YARD OF CONCRETE, OR AS DIRECTED IN SPECIFICATIONS.
4. VIBRATION OF CONCRETE SHALL BE IN ACCORDANCE WITH GENERAL PROVISIONS OUTLINED IN PORTLAND CEMENT ASSOCIATION SPECIFICATION ST26.
5. CONCRETE CURING SHALL BE MAINTAINED AT A MOIST CONDITION FOR A MINIMUM OF FIVE DAYS AFTER PLACEMENT. FOR CONCRETE OTHER THAN SLAB ON GRADE, APPROVED CURING COMPOUNDS MAY BE USED IN LIEU OF MOIST CURING ONLY IF APPROVED BY THE ENGINEER
6. ANCHOR BOLTS SHALL BE FIXED AT LOCATIONS NOTED ON THE DRAWINGS AND SHALL BE HAMMER DRILLED DRY AND CEMENTED IN PLACE WITH HILTI HIT-HY 200 MORTAR INJECTION SYSTEM (OR EQUIVALENT).
7. CONSTRUCTION AND POUR JOINTS LOCATIONS SHALL BE APPROVED BY ENGINEER PRIOR TO POURING CONCRETE.
8. FORMWORK TOLERANCE SHALL BE IN ACCORDANCE WITH THE CALIFORNIA BUILDING CODE AND ACI STANDARDS.

WELDING

1. ALL WELDING TO COMPLY WITH THE SPECIFICATIONS OF THE AWS CODE, 1.5.
2. ALL WELDS SHALL BE SHOP FABRICATED PER SUBMITTED SHOP DRAWINGS UNLESS FIELD CONDITIONS DICTATE FIELD WELDS
3. SHOP DRAWINGS MUST CONTAIN THE PROPER WELDING PROCEDURE SPECIFICATION (WPS) FOR SHOP FABRICATION AND FIELD WELDING.

PLAN INDEX

DESCRIPTION	SHT. NO.
TITLE SHEET	1
GENERAL NOTES	2
DEMOLITION PLAN	3
GRADING PLAN	4
CROSS SECTION AND DETAILS	5
CATWALK PLAN AND DETAILS	6
WALLS PLAN AND DETAILS	7
DETAILS	8
TRASH RACK DETAILS	9
HORIZONTAL CONTROL PLAN	10

LEGEND

	2.5' THICK LAYER DRIVEABLE RIPRAP
	2.5' THICK LAYER UN-GROUTED LOCAL ROCK
	2.5' THICK LAYER GROUTED RIPRAP
	1/2 TON LOOSE RIPRAP
	PCC SLAB
	CATWALK GRATING
	TRASH RACK
	LIMITS OF WORK
	LIMITS OF GRADING
	PCC CUT-OFF WALL
	RIPRAP TOE DOWN AND LIMITS OF GROUTED RIPRAP
	LIMITS OF UNGROUTED RIPRAP
	EXISTING PCC DIVERSION CHANNEL WALL

ABBREVIATIONS

CLR	CLEAR
CONC	CONCRETE
CJ	CONSTRUCTION JOINT
E	EASTING
ELEVATION	ELEVATION
EX	EXISTING
FS	FINISHED SURFACE
INV	INVERT
L	LEFT
LOL	LAYOUT LINE
MIN	MINIMUM
N	NORTHING
O.C.	ON CENTER
OFF	OFFSET
OG	ORIGINAL GROUND
PCC	PORTLAND CONCRETE CEMENT
PR	PROPOSED
REIN.	REINFORCED
SBCFCD	SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT
SPPPWC	STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION
STA	STATION
STD	STANDARD
TF	TOP OF FOOTING
TW	TOP OF WALL
(TYP)	TYPICAL
Z	ELEVATION

SBCFCD PERMIT NO. P-3201-7069
USACE 408 PERMIT SPL-408-2018-30

SAN BERNARDINO VALLEY
WATER CONVERSATION DISTRICT

MILL CREEK DIVERSION AND
DEBRIS MANAGEMENT IMPROVEMENT

GENERAL NOTES

PROJECT NO.
15129

SHEET 2

OF 10

FINAL SUBMITTAL

UNDERGROUND SERVICE
ALERT



BENCH MARK

BM NO. NGS 449 (EV1475) ELEVATION = 2021.83 FEET
(NAVD 88) YUCAIPA (1996)
BENCH MARK DISK STAMPED S 449 1949 SET IN BUILDING WALL 2 MILES E. FROM MENTONE, 1.95 MILES E. ALONG STATE HWY 38 FROM THE POST OFFICE AT MENTONE, 4.1 MILES E/O THE CURRIER GYMNASIUM OF THE UNIVERSITY OF REDLANDS AT REDLANDS. AT THE INT. OF GARNET ST, AT THE GREEN SPOT TRADING POST FLYING SERVICE STATION, SET VERTICALLY IN THE N.W FACE OF THE SERVICE STATION BUILDING, 1.3" S.W. OF THE N.W. CORNER OF THE BUILDING, AND 2.6' ABOVE THE GROUND.

COORDINATES ARE BASED UPON NAD 83, STATE PLAN COORDINATE SYSTEM, CALIFORNIA ZONE 5, EPOCH 2007.

7					
6					
5					
4					
3					
2					
1					
NO.	DATE	REVISIONS	APPROVED	DATE	

SUBMITTED BY:
WILLIAM F. YOUNG, PE, RCE NO. 36715 DATE: 2-23-22

SAN BERNARDINO VALLEY
WATER CONSERVATION DISTRICT

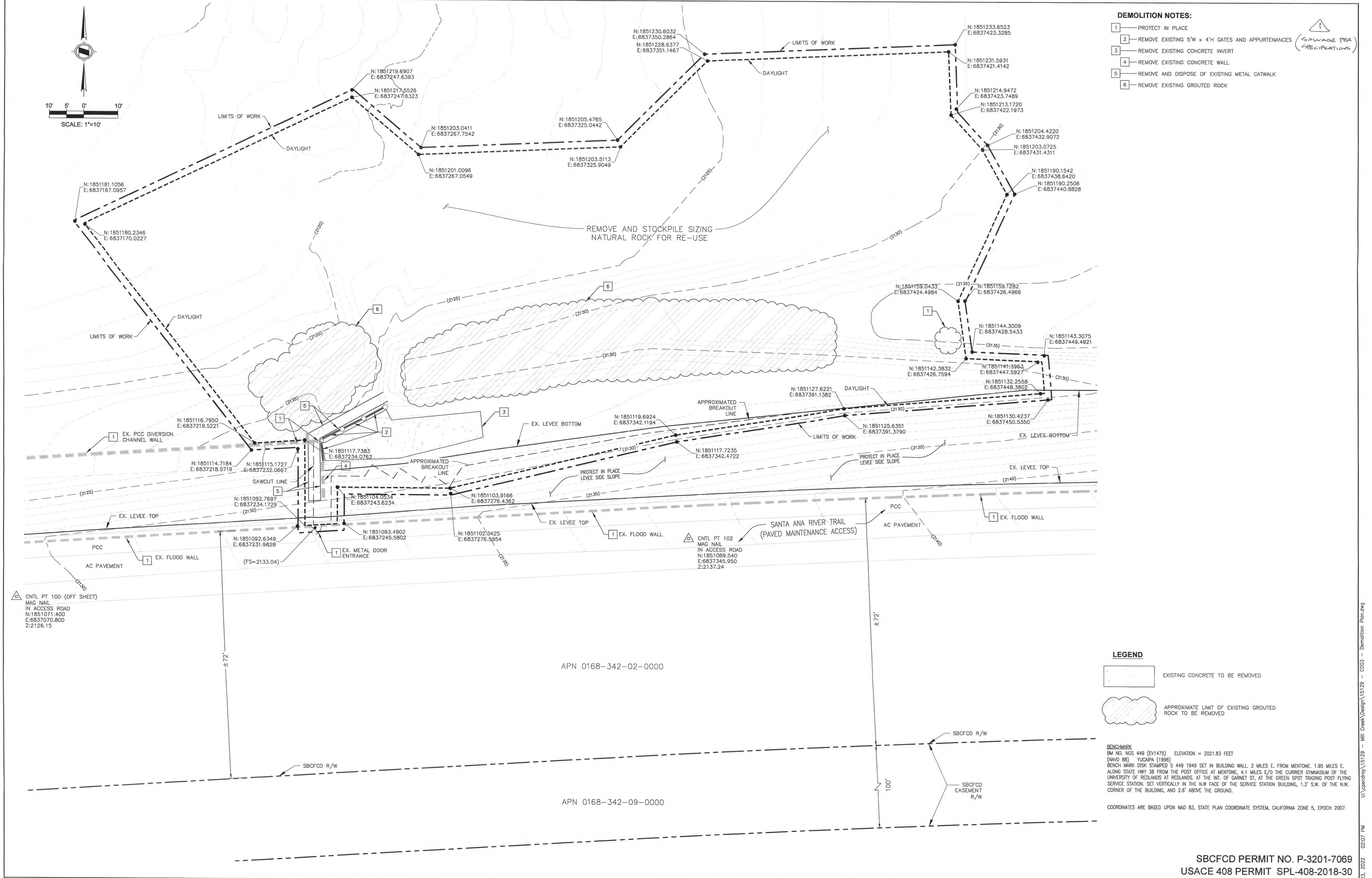
REVIEWED AND
APPROVED BY:
EDWIN EGGESON, PE, RCE NO. 45960 DATE: 2-23-22



PREPARED BY:

1561 E. ORANGECORPSE AVE.
SUITE 240
FULLERTON, CA 92831
TEL (714) 526-7500
www.cwecorp.com

DRAWN BY: M. NGUYEN	DATE 2-23-22
DESIGNED BY: C. PENDROY	DATE 2-23-22
CHECKED BY: W. YOUNG	DATE 2-23-22



- DEMOLITION NOTES:**
- 1 PROTECT IN PLACE
 - 2 REMOVE EXISTING 5'W x 4'H GATES AND APPURTENANCES (SALVAGE PER SPECIFICATIONS)
 - 3 REMOVE EXISTING CONCRETE INVERT
 - 4 REMOVE EXISTING CONCRETE WALL
 - 5 REMOVE AND DISPOSE OF EXISTING METAL CATWALK
 - 6 REMOVE EXISTING GROUTED ROCK

LEGEND

EXISTING CONCRETE TO BE REMOVED

APPROXIMATE LIMIT OF EXISTING GROUTED ROCK TO BE REMOVED

BENCHMARK
BM NO. NGS 449 (EV1475) ELEVATION = 2021.83 FEET (NAVD 88) YUCAIPA (1996)
BENCH MARK DISK STAMPED S 449 1949 SET IN BUILDING WALL 2 MILES E. FROM MENTONE, 1.95 MILES E. ALONG STATE HWY 38 FROM THE POST OFFICE AT MENTONE, 4.1 MILES E/O THE CURRIER GYMNASIUM OF THE UNIVERSITY OF REDLANDS AT REDLANDS, AT THE INT. OF GARNET ST, AT THE GREEN SPOT TRADING POST FLYING SERVICE STATION. SET VERTICALLY IN THE N.W. FACE OF THE SERVICE STATION BUILDING, 1.3' S.W. OF THE N.W. CORNER OF THE BUILDING, AND 2.6' ABOVE THE GROUND.

COORDINATES ARE BASED UPON NAD 83, STATE PLAN COORDINATE SYSTEM, CALIFORNIA ZONE 5, EPOCH 2007.

UNDERGROUND SERVICE ALERT
CALL TOLL FREE
1-800-227-2600
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
BM NO. NGS 449 (EV1475) ELEVATION = 2021.83 FEET (NAVD 88) YUCAIPA (1996)
BENCH MARK DISK STAMPED S 449 1949 SET IN BUILDING WALL 2 MILES E. FROM MENTONE, 1.95 MILES E. ALONG STATE HWY 38 FROM THE POST OFFICE AT MENTONE, 4.1 MILES E/O THE CURRIER GYMNASIUM OF THE UNIVERSITY OF REDLANDS AT REDLANDS, AT THE INT. OF GARNET ST, AT THE GREEN SPOT TRADING POST FLYING SERVICE STATION. SET VERTICALLY IN THE N.W. FACE OF THE SERVICE STATION BUILDING, 1.3' S.W. OF THE N.W. CORNER OF THE BUILDING, AND 2.6' ABOVE THE GROUND.

COORDINATES ARE BASED UPON NAD 83, STATE PLAN COORDINATE SYSTEM, CALIFORNIA ZONE 5, EPOCH 2007.

NO.	DATE	REVISIONS	APPROVED	DATE
7				
6				
5				
4				
3				
2				
1	7/28/22	ADDED SALVAGE TO NOTE	EPF	7/28/22

SUBMITTED BY: *William F. Young* DATE: 2-23-22
WILLIAM F. YOUNG, P.E. RCE No. 35715

SAN BERNARDINO VALLEY
WATER CONSERVATION DISTRICT

REVIEWED AND APPROVED BY: *C. Pendroy* DATE: 2-23-22
C. PENDROY, P.E. RCE No. 49090

PREPARED BY: 1561 E. ORANGETHORPE AVE. SUITE 240 FULLERTON, CA 92831 TEL (714) 526-7500 www.cwecorp.com

CWE

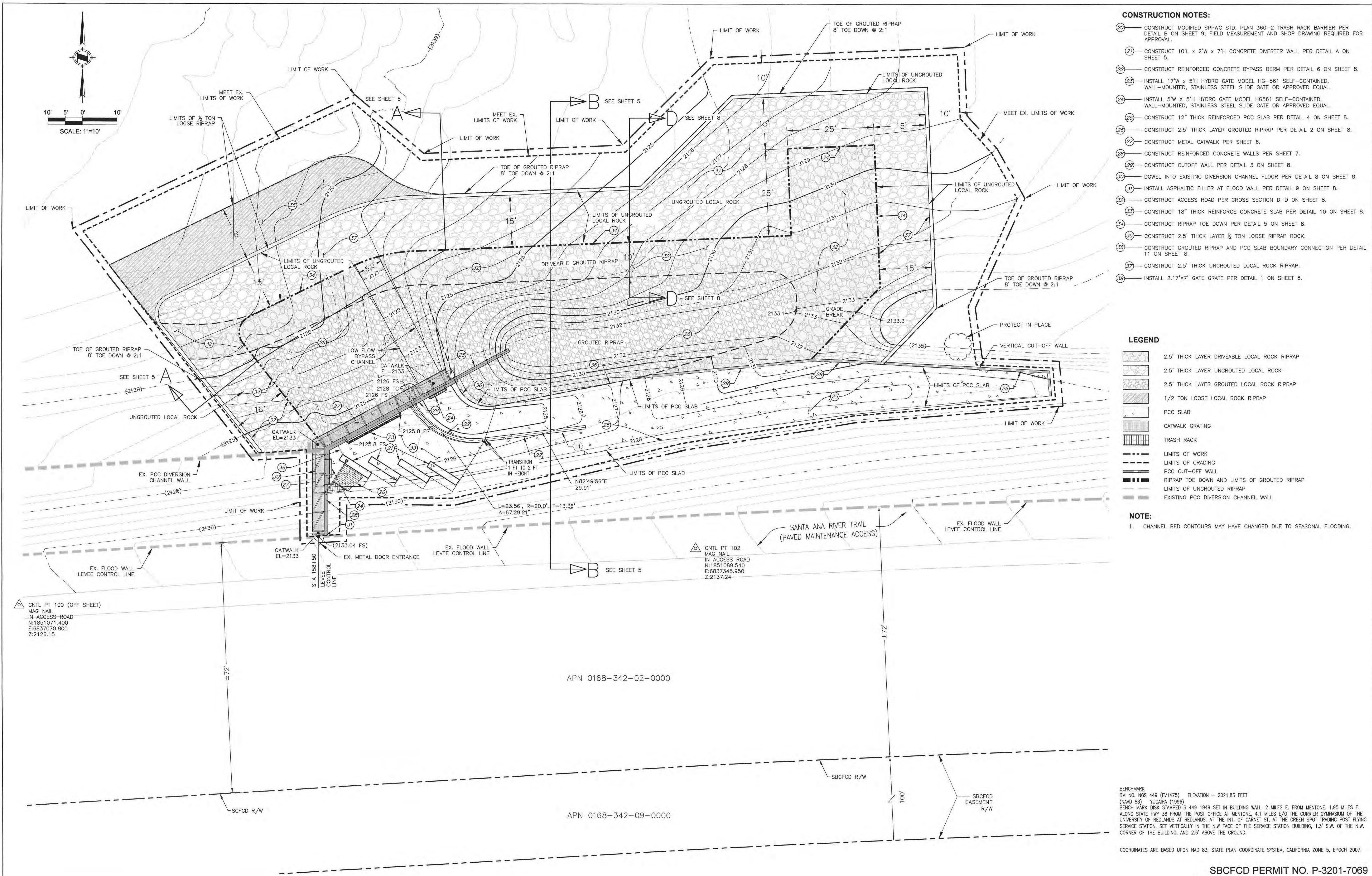
DRAWN BY: M. NGUYEN DATE: 2-23-22
DESIGNED BY: C. PENDROY DATE: 2-23-22
CHECKED BY: W. YOUNG DATE: 2-23-22

**SAN BERNARDINO VALLEY
WATER CONSERVATION DISTRICT**

**MILL CREEK DIVERSION AND
DEBRIS MANAGEMENT IMPROVEMENT
DEMOLITION PLAN**

PROJECT NO.
15129

SHEET **3**
OF **10**



- CONSTRUCTION NOTES:**
- CONSTRUCT MODIFIED SPWVC STD. PLAN 360-2 TRASH RACK BARRIER PER DETAIL B ON SHEET 8; FIELD MEASUREMENT AND SHOP DRAWING REQUIRED FOR APPROVAL.
 - CONSTRUCT 10'L x 2'W x 7'H CONCRETE DIVERTER WALL PER DETAIL A ON SHEET 5.
 - CONSTRUCT REINFORCED CONCRETE BYPASS BERM PER DETAIL 6 ON SHEET 8.
 - INSTALL 17'W x 5'H HYDRO GATE MODEL HG-561 SELF-CONTAINED, WALL-MOUNTED, STAINLESS STEEL SLIDE GATE OR APPROVED EQUAL.
 - INSTALL 5'W x 5'H HYDRO GATE MODEL HG561 SELF-CONTAINED, WALL-MOUNTED, STAINLESS STEEL SLIDE GATE OR APPROVED EQUAL.
 - CONSTRUCT 12" THICK REINFORCED PCC SLAB PER DETAIL 4 ON SHEET 8.
 - CONSTRUCT 2.5' THICK LAYER GROUDED RIPRAP PER DETAIL 2 ON SHEET 8.
 - CONSTRUCT METAL CATWALK PER SHEET 6.
 - CONSTRUCT REINFORCED CONCRETE WALLS PER SHEET 7.
 - CONSTRUCT CUTOFF WALL PER DETAIL 3 ON SHEET 8.
 - DOWEL INTO EXISTING DIVERSION CHANNEL FLOOR PER DETAIL 8 ON SHEET 8.
 - INSTALL ASPHALTIC FILLER AT FLOOD WALL PER DETAIL 9 ON SHEET 8.
 - CONSTRUCT ACCESS ROAD PER CROSS SECTION D-D ON SHEET 8.
 - CONSTRUCT 18" THICK REINFORCED CONCRETE SLAB PER DETAIL 10 ON SHEET 8.
 - CONSTRUCT RIPRAP TOE DOWN PER DETAIL 5 ON SHEET 8.
 - CONSTRUCT 2.5' THICK LAYER 1/2 TON LOOSE RIPRAP ROCK.
 - CONSTRUCT GROUDED RIPRAP AND PCC SLAB BOUNDARY CONNECTION PER DETAIL 11 ON SHEET 8.
 - CONSTRUCT 2.5' THICK UNGROUTED LOCAL ROCK RIPRAP.
 - INSTALL 2.17'x7' GATE GATE PER DETAIL 1 ON SHEET 8.

- LEGEND**
- 2.5' THICK LAYER DRIVEABLE LOCAL ROCK RIPRAP
 - 2.5' THICK LAYER UNGROUTED LOCAL ROCK
 - 2.5' THICK LAYER GROUDED LOCAL ROCK RIPRAP
 - 1/2 TON LOOSE LOCAL ROCK RIPRAP
 - PCC SLAB
 - CATWALK GRATING
 - TRASH RACK
 - LIMITS OF WORK
 - LIMITS OF GRADING
 - PCC CUT-OFF WALL
 - RIPRAP TOE DOWN AND LIMITS OF GROUDED RIPRAP
 - LIMITS OF UNGROUTED RIPRAP
 - EXISTING PCC DIVERSION CHANNEL WALL

NOTE:

- CHANNEL BED CONTOURS MAY HAVE CHANGED DUE TO SEASONAL FLOODING.

BENCHMARK
BM NO. NGS 449 (EV1475) ELEVATION = 2021.83 FEET
(NAVD 88) YUCAIPA (1996)
BENCH MARK DISK STAMPED S 449 1949 SET IN BUILDING WALL, 2 MILES E. FROM MENTONE, 1.95 MILES E. ALONG STATE HWY 38 FROM THE POST OFFICE AT MENTONE, 4.1 MILES E/O THE CURRIER GYMNASIUM OF THE UNIVERSITY OF REDLANDS AT REDLANDS. AT THE INT. OF GARNET ST, AT THE GREEN SPOT TRADING POST FLYING SERVICE STATION. SET VERTICALLY IN THE N.W. FACE OF THE SERVICE STATION BUILDING, 1.3' S.W. OF THE N.W. CORNER OF THE BUILDING, AND 2.6' ABOVE THE GROUND.

COORDINATES ARE BASED UPON NAD 83, STATE PLAN COORDINATE SYSTEM, CALIFORNIA ZONE 5, EPOCH 2007.

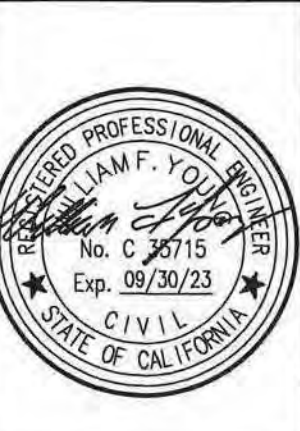
SBCFCD PERMIT NO. P-3201-7069
USACE 408 PERMIT SPL-408-2018-30



BENCHMARK
BM NO. NGS 449 (EV1475) ELEVATION = 2021.83 FEET
(NAVD 88) YUCAIPA (1996)
BENCH MARK DISK STAMPED S 449 1949 SET IN BUILDING WALL, 2 MILES E. FROM MENTONE, 1.95 MILES E. ALONG STATE HWY 38 FROM THE POST OFFICE AT MENTONE, 4.1 MILES E/O THE CURRIER GYMNASIUM OF THE UNIVERSITY OF REDLANDS AT REDLANDS. AT THE INT. OF GARNET ST, AT THE GREEN SPOT TRADING POST FLYING SERVICE STATION. SET VERTICALLY IN THE N.W. FACE OF THE SERVICE STATION BUILDING, 1.3' S.W. OF THE N.W. CORNER OF THE BUILDING, AND 2.6' ABOVE THE GROUND.
COORDINATES ARE BASED UPON NAD 83, STATE PLAN COORDINATE SYSTEM, CALIFORNIA ZONE 5, EPOCH 2007.

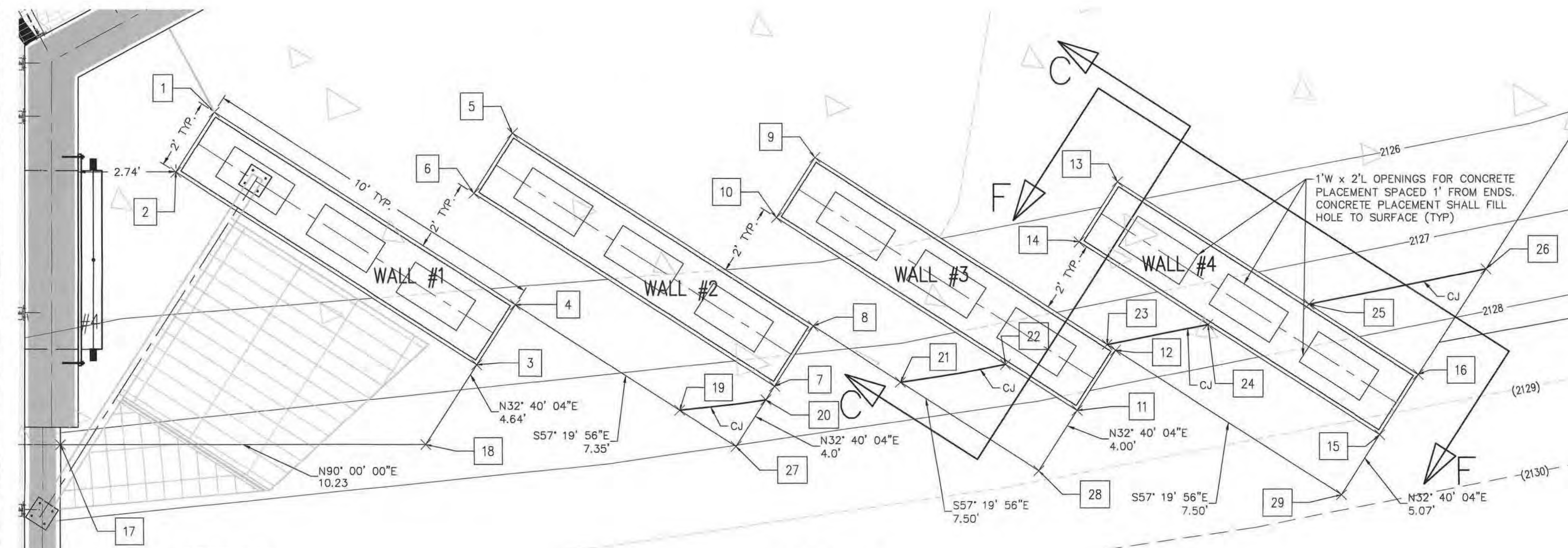
NO.	DATE	REVISIONS	APPROVED	DATE
7				
6				
5				
4				
3				
2				
1				

SUBMITTED BY: *William F. Young* DATE: 2-23-22
WILLIAM F. YOUNG, P.E. REG. NO. 36715
SAN BERNARDINO VALLEY
WATER CONSERVATION DISTRICT
REVIEWED AND APPROVED BY: *C. Pendroy* DATE: 2-23-22
C. PENDROY, P.E. REG. NO. 49060



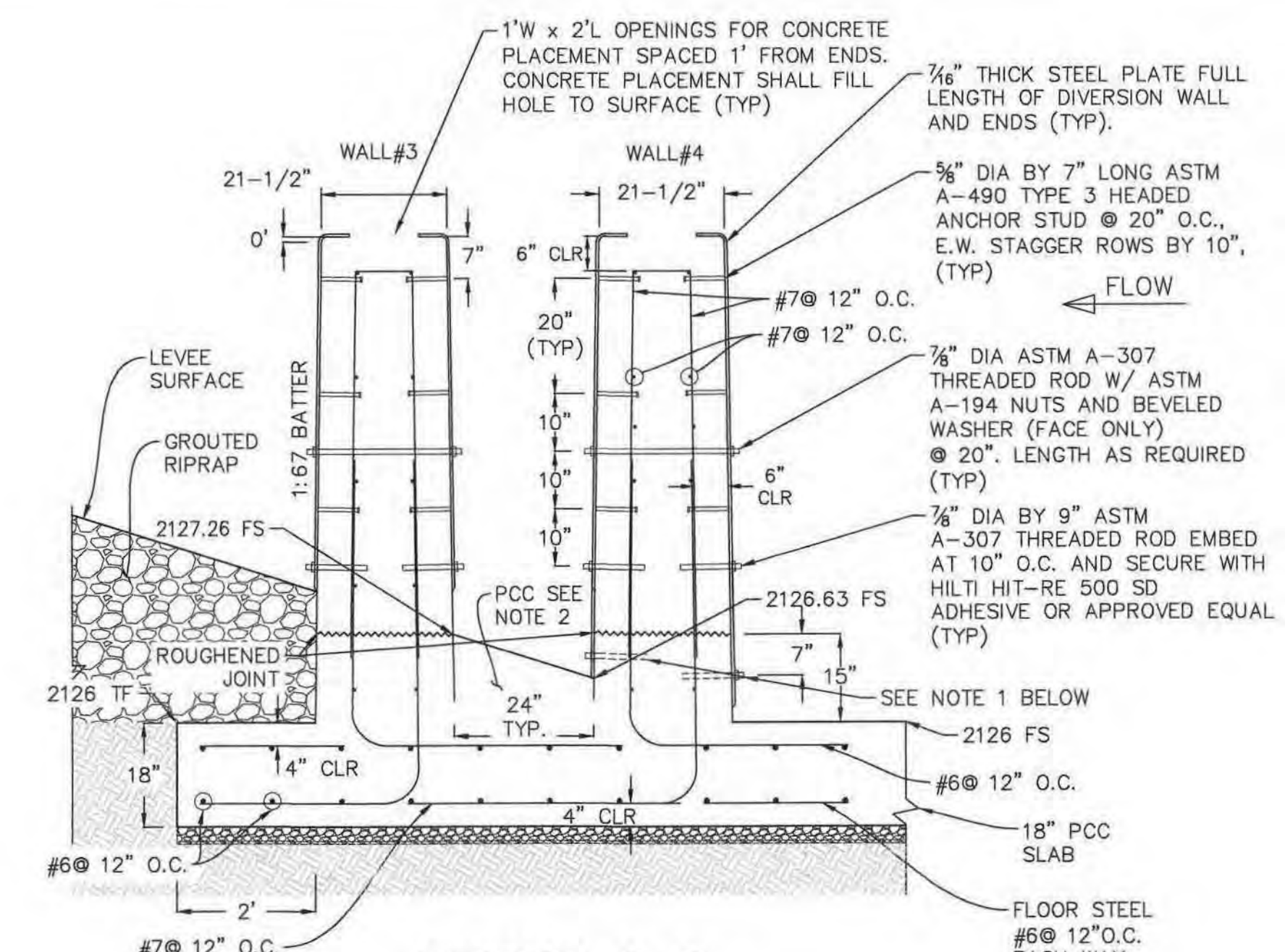
PREPARED BY: 1561 E. ORANGETHORPE AVE., SUITE 240, FULLERTON, CA 92831, TEL (714) 526-7500, www.cwecorp.com
DRAWN BY: M. NGUYEN DATE: 2-23-22
DESIGNED BY: C. PENDROY DATE: 2-23-22
CHECKED BY: W. YOUNG DATE: 2-23-22

**SAN BERNARDINO VALLEY
WATER CONSERVATION DISTRICT**
MILL CREEK DIVERSION AND
DEBRIS MANAGEMENT IMPROVEMENT
GRADING PLAN
PROJECT NO. 15129
SHEET 4 OF 10
FINAL SUBMITTAL



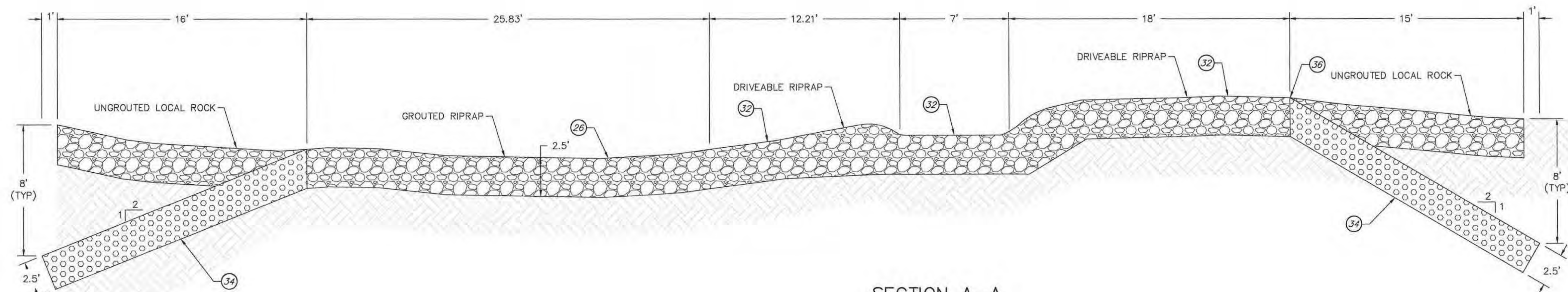
DETAIL A
SCALE: 1" = 2'

Point #	FS Elevation	Northing	Easting
1	2126.00	1851116.57	6837244.44
2	2126.00	1851114.88	6837243.36
3	2126.72	1851109.48	6837251.78
4	2126.17	1851111.17	6837252.86
5	2126.00	1851115.97	6837252.78
6	2126.00	1851114.29	6837251.70
7	2127.36	1851108.89	6837260.12
8	2126.70	1851110.57	6837261.20
9	2126.00	1851115.29	6837261.26
10	2126.00	1851113.60	6837260.18
11	2128.22	1851108.21	6837268.60
12	2127.60	1851109.89	6837269.67
13	2126.00	1851114.61	6837269.73
14	2126.29	1851112.92	6837268.65
15	2129.22	1851107.53	6837277.07
16	2128.60	1851109.21	6837278.15
17	2127.13	1851107.26	6837240.12
18	2127.60	1851107.26	6837250.35
19	2127.50	1851108.21	6837257.47
20	2127.50	1851108.51	6837259.88
21	2127.50	1851109.00	6837263.65
22	2127.50	1851109.49	6837266.59
23	2127.50	1851110.05	6837269.43
24	2127.50	1851110.61	6837272.26
25	2127.50	1851111.17	6837275.09
26	2127.50	1851112.16	6837280.04
27	2128.03	1851107.20	6837259.04
28	2128.87	1851106.52	6837267.52
29	2129.82	1851105.84	6837275.99

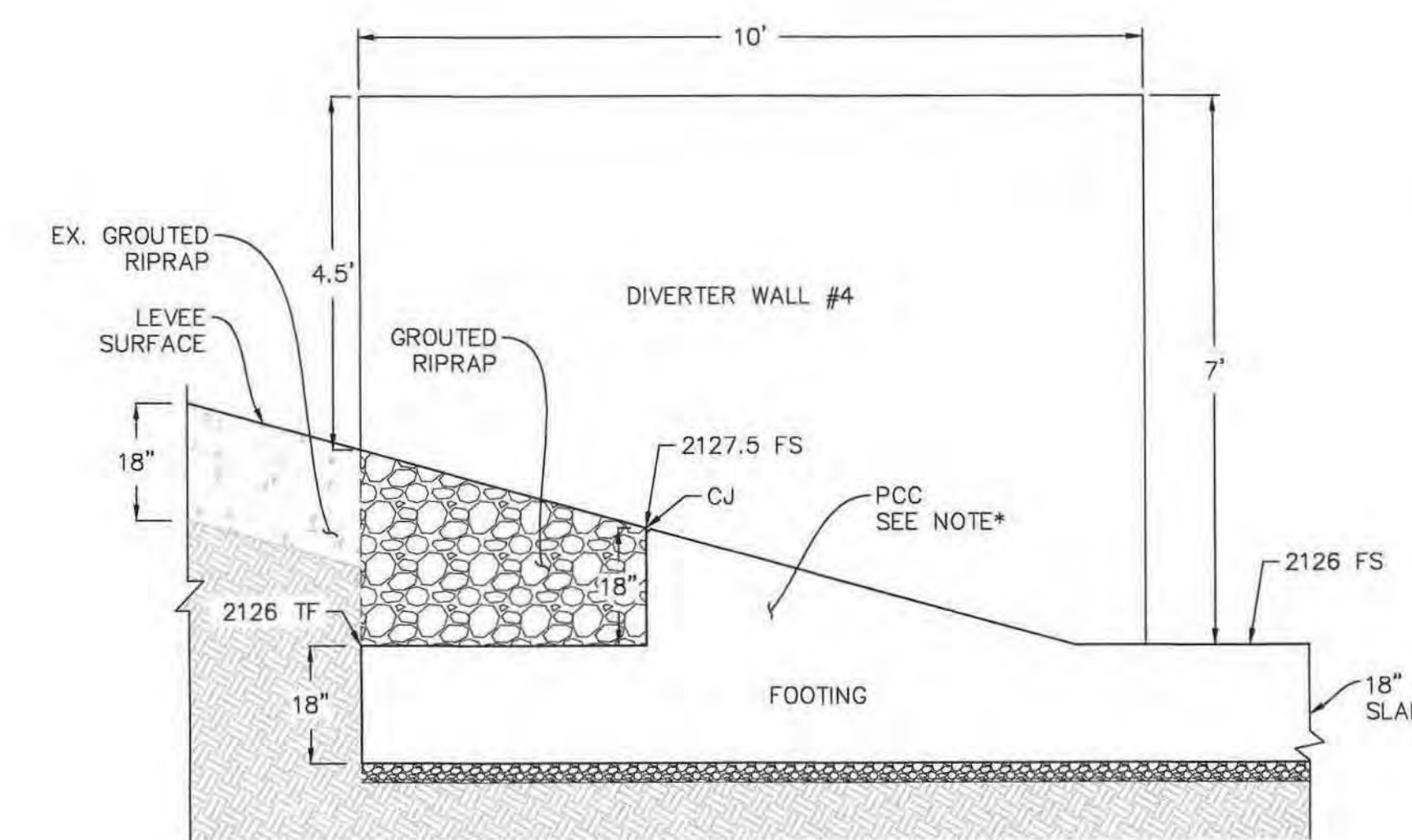


SECTION C-C
SCALE: 1" = 2'
SHEET 5

- 3/4" DIA BY 7" LONG ASTM A-490 TYPE 3 HEADED ANCHOR STUD @ 20" O.C., E.W. STAGGER ROWS BY 10", (TYP)
- 3/4" DIA BY 9" ASTM A-307 THREADED ANCHOR ROD EMBED AT 10" O.C. AND OFFSET FROM VERTICAL REINFORCEMENT. TYPICAL FOR ALL 4 WALLS. DIMENSIONS VARY ABOVE PCC SLAB AS SHOWN.
- 18" MIN. GROUDED ROCK POCKET, <18" USE CONTINUOUS POUR PCC

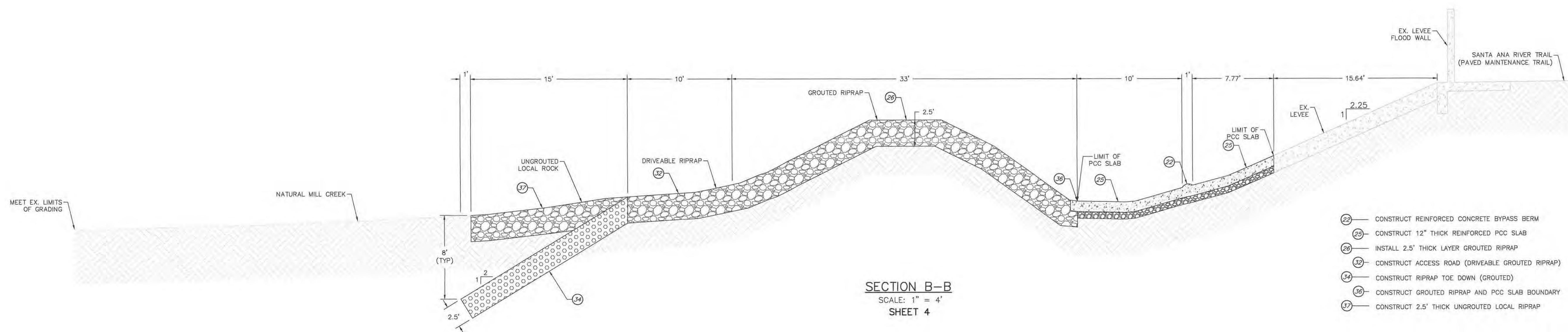


SECTION A-A
SCALE: 1" = 4'
SHEET 4



SECTION F-F
SCALE: 1" = 2'
SHEET 5

- *18" MIN GROUDED ROCK POCKET < 18" USE CONTINUOUS POUR PCC



SECTION B-B
SCALE: 1" = 4'
SHEET 4

- 22 - CONSTRUCT REINFORCED CONCRETE BYPASS BERM
- 25 - CONSTRUCT 12" THICK REINFORCED PCC SLAB
- 26 - INSTALL 2.5' THICK LAYER GROUDED RIPRAP
- 32 - CONSTRUCT ACCESS ROAD (DRIVEABLE GROUDED RIPRAP)
- 34 - CONSTRUCT RIPRAP TOE DOWN (GROUDED)
- 36 - CONSTRUCT GROUDED RIPRAP AND PCC SLAB BOUNDARY
- 37 - CONSTRUCT 2.5' THICK UNGROUDED LOCAL RIPRAP

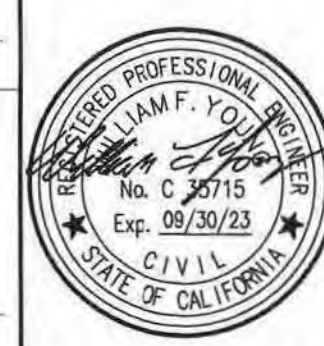
SBCFCD PERMIT NO. P-3201-7069
USACE 408 PERMIT SPL-408-2018-30



BENCH MARK
BM NO. NGS 449 (EV1475) ELEVATION = 2021.83 FEET
(NAVD 88) YUCAIPA (1996)
BENCH MARK DISK STAMPED S 449 1949 SET IN BUILDING WALL 2 MILES E. FROM MENTONE, 1.95 MILES E. ALONG STATE HWY 38 FROM THE POST OFFICE AT MENTONE, 4.1 MILES E/O THE CURRIER GYMNASIUM OF THE UNIVERSITY OF REDLANDS AT REDLANDS. AT THE INT. OF GARNET ST. AT THE GREEN SPOT TRADING POST FLYING SERVICE STATION. SET VERTICALLY IN THE N.W. FACE OF THE SERVICE STATION BUILDING, 1.3' S.W. OF THE N.W. CORNER OF THE BUILDING, AND 2.6' ABOVE THE GROUND.
COORDINATES ARE BASED UPON NAD 83, STATE PLANE COORDINATE SYSTEM, CALIFORNIA ZONE 5, EPOCH 2007.

NO.	DATE	REVISIONS	APPROVED	DATE
7				
6				
5				
4				
3				
2				
1				

SUBMITTED BY: *William F. Young* DATE: 2-23-22
WILLIAM F. YOUNG, P.E. RCE No. 35715
SAN BERNARDINO VALLEY
WATER CONSERVATION DISTRICT
REVIEWED AND
APPROVED BY: *C. Pendroy* DATE: 2-23-22
C. PENDROY, P.E. RCE No. 49060



PREPARED BY: 1561 E. ORANGETHORPE AVE. SUITE 240
FULLERTON, CA 92831
TEL (714) 526-7500
www.cwecorp.com
DRAWN BY: M. NGUYEN DATE: 2-23-22
DESIGNED BY: C. PENDROY DATE: 2-23-22
CHECKED BY: W. YOUNG DATE: 2-23-22

SAN BERNARDINO VALLEY
WATER CONSERVATION DISTRICT
MILL CREEK DIVERSION AND
DEBRIS MANAGEMENT IMPROVEMENT
CROSS SECTION & DIVERTER WALL DETAILS

PROJECT NO.
15129
SHEET 5
OF 10

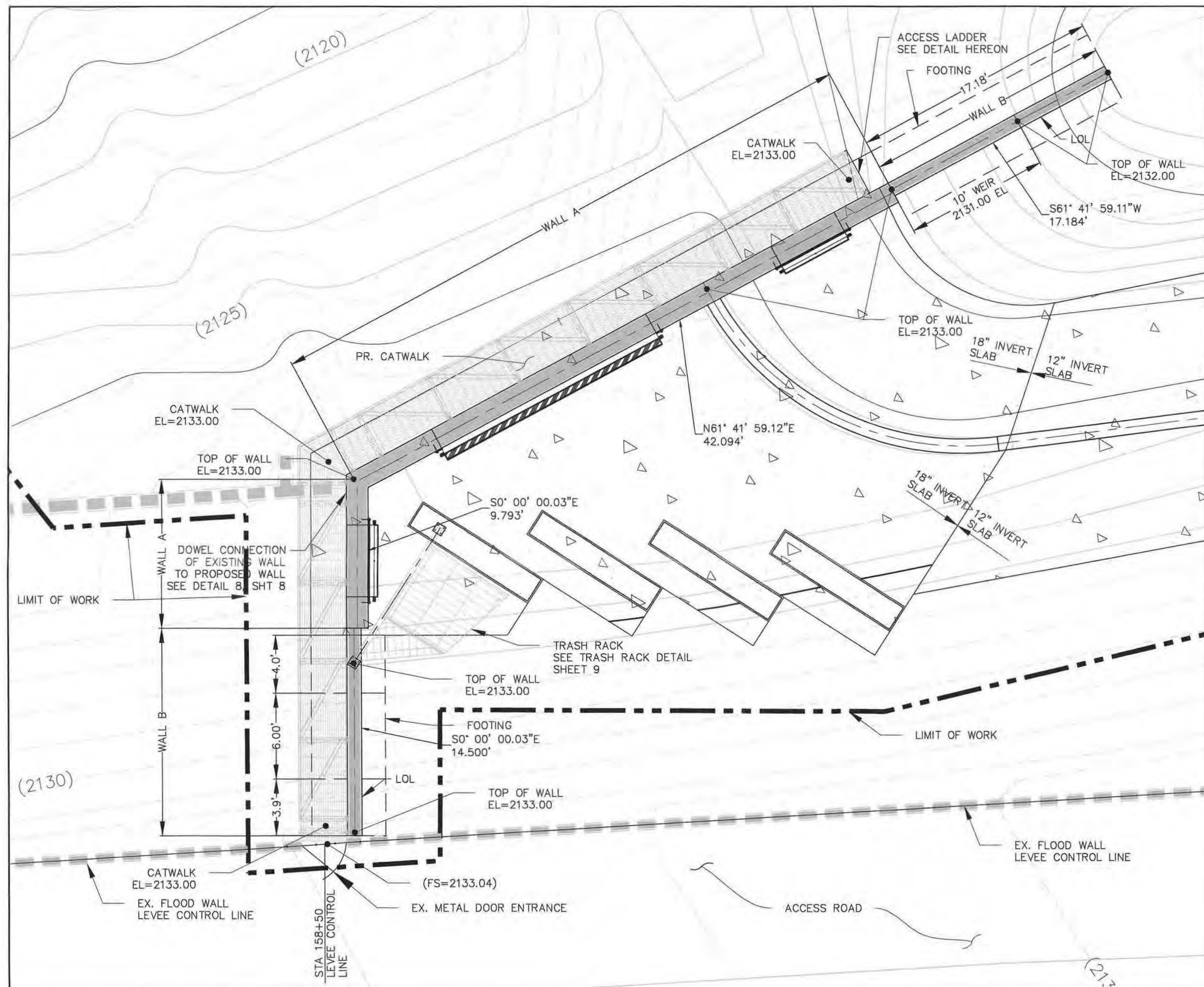
FINAL SUBMITTAL

Feb. 23, 2022 02:10 PM
U:\pendroy\15129 - Mill Creek Design\15129 - X-Section and Diverter Wall.rvt.dwg
Plotted by: Cpendroy



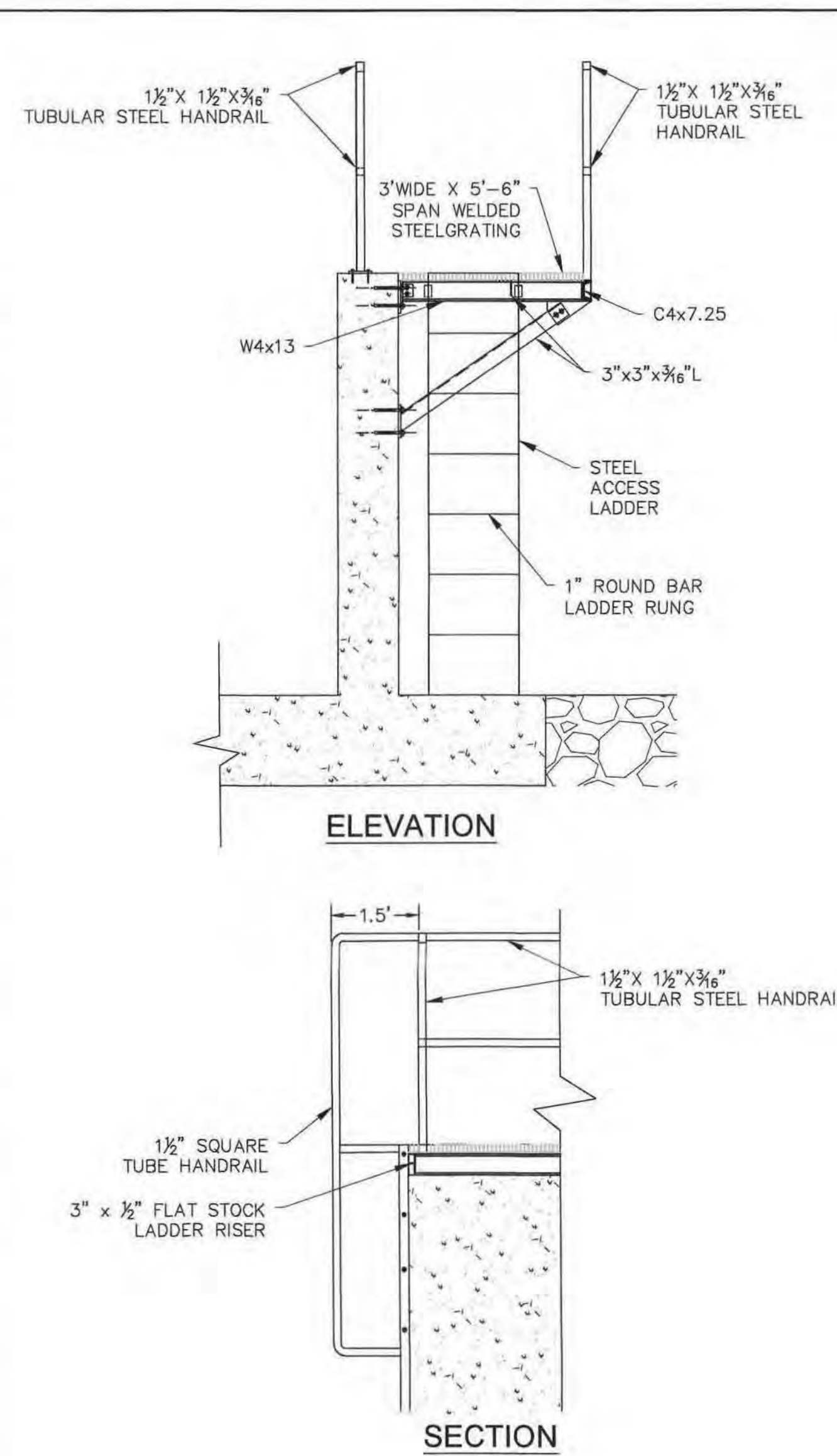
<div style="text-align: center;"> <h1>SAN BERNARDINO VALLEY WATER CONVERSATION DISTRICT</h1> </div>	<div style="text-align: center;"> PROJECT NO. 15129 </div>
	<div style="display: flex; justify-content: space-between;"> <div> <div style="text-align: center;"> MILL CREEK DIVERSION AND DEBRIS MANAGEMENT IMPROVEMENT </div> <div style="text-align: center;"> CATWALK PLAN AND DETAILS </div> </div> <div> <div style="text-align: right;"> SHEET 6 </div> <div style="text-align: right;"> OF 10 </div> </div> </div>

FINAL SUBMITTAL



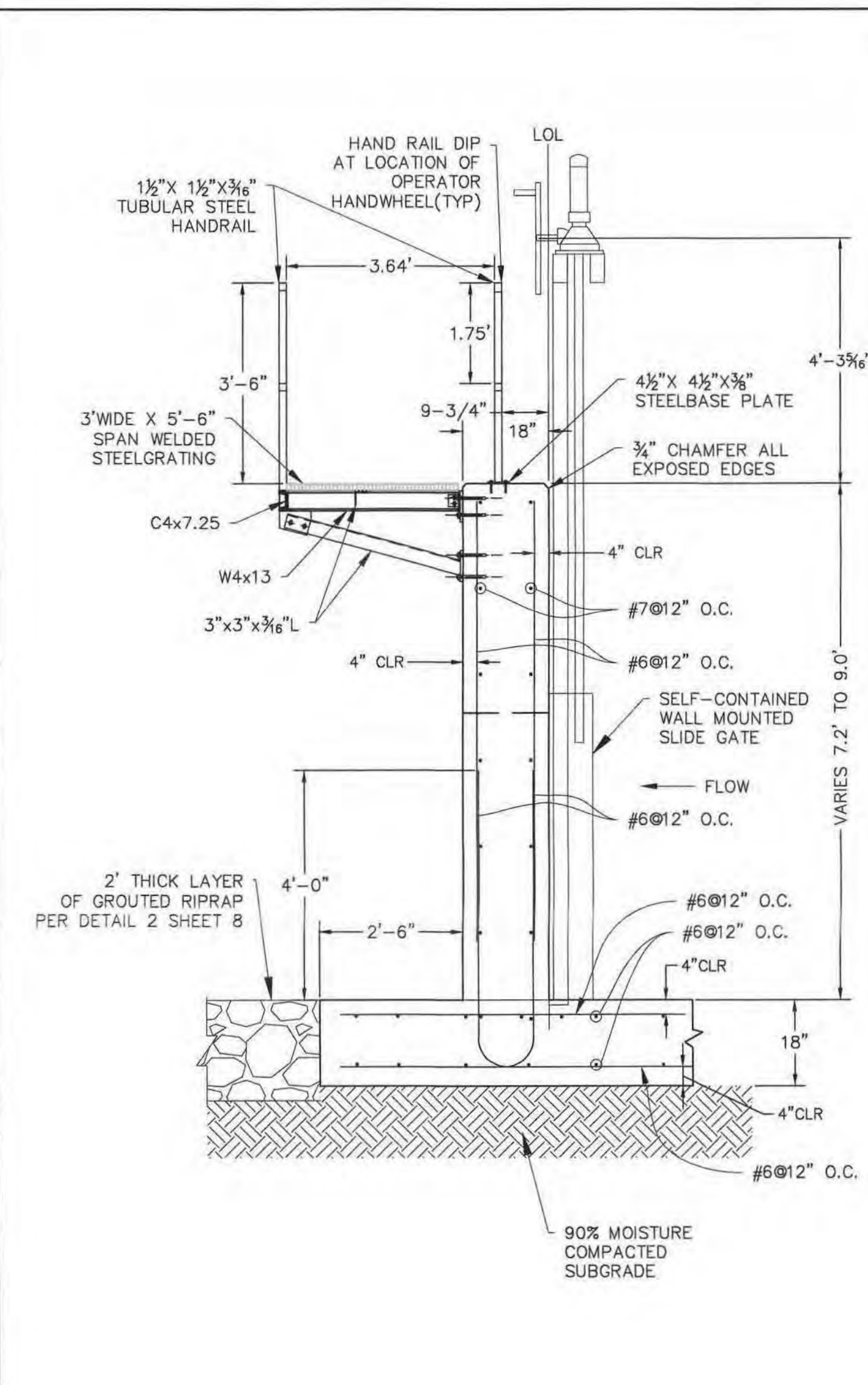
GATE WALL - SITE PLAN

SCALE: 1"=5'



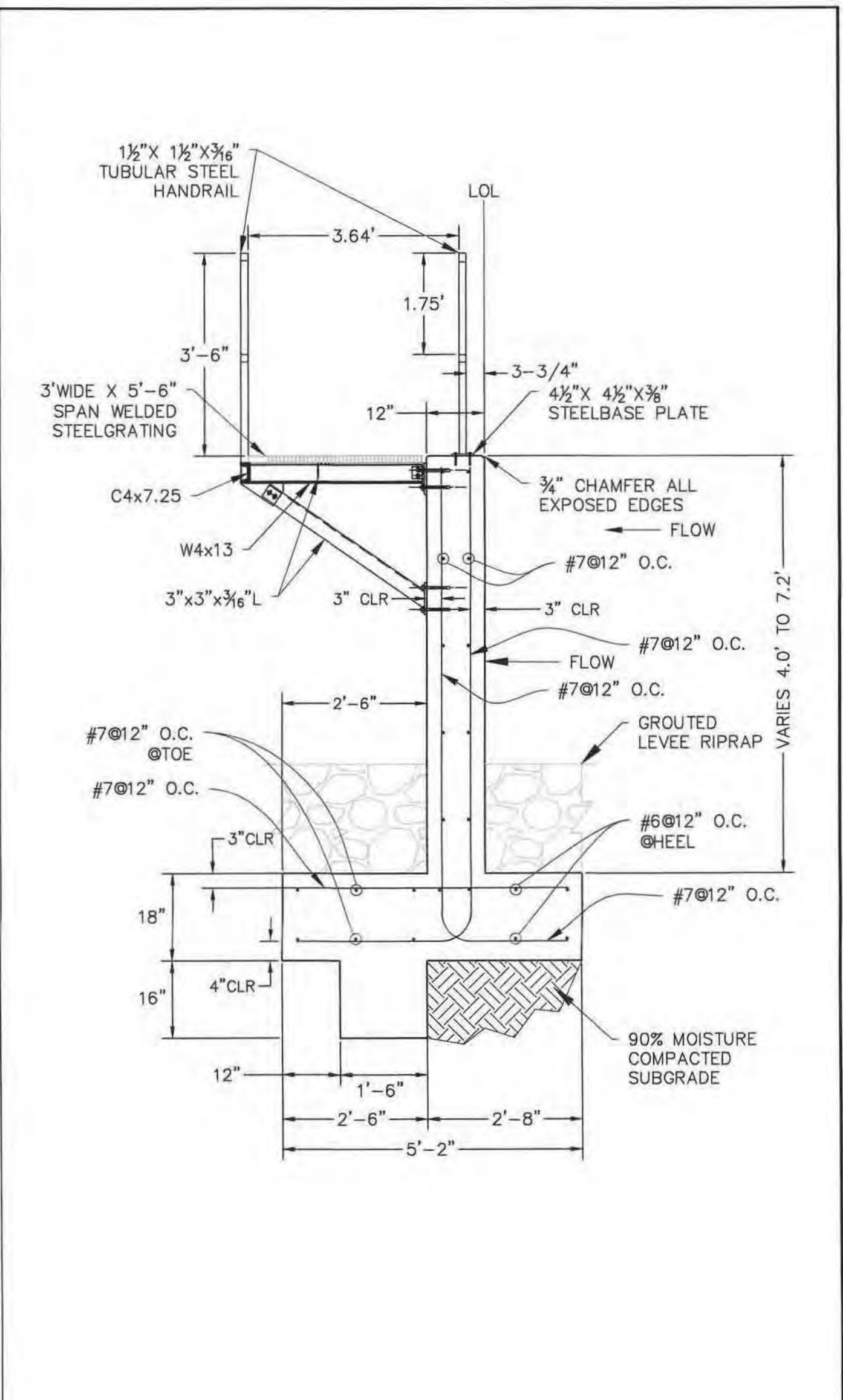
LADDER DETAIL

SCALE: 1"=2'



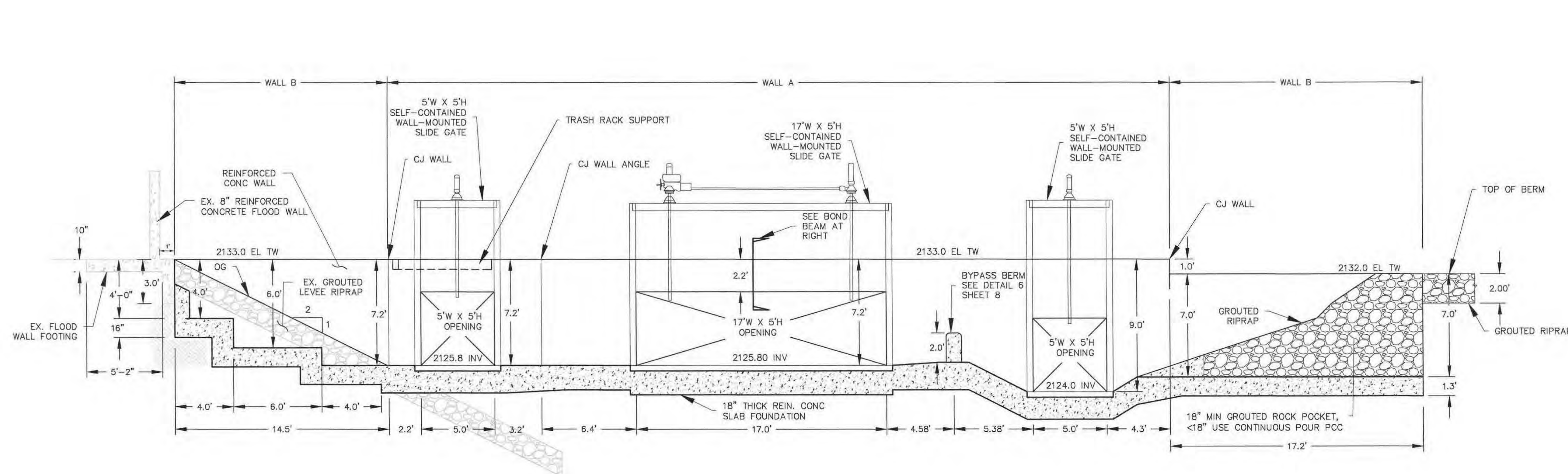
WALL - A

SCALE: 1"=2'



WALL - B

SCALE: 1"=2'



REINFORCED CONCRETE WALL PROFILE

SCALE: 1"=4'

SBCFCD PERMIT NO. P-3201-7069
USACE 408 PERMIT SPL-408-2018-30



BENCH MARK
BM NO. NGS 449 (EV1475) ELEVATION = 2021.83 FEET
(NAVD 83) YUCAIPA (1996)
BENCH MARK DISK STAMPED S 449 1949 SET IN BUILDING WALL 2 MILES E. FROM MENTONE, 1.95 MILES E. ALONG STATE HWY 38 FROM THE POST OFFICE AT MENTONE, 4.1 MILES E/O THE CURRIER GYMNASIUM OF THE UNIVERSITY OF REDLANDS AT REDLANDS. AT THE INT. OF GARNET ST. AT THE GREEN SPOT TRADING POST FLYING SERVICE STATION, SET VERTICALLY IN THE N.W. FACE OF THE SERVICE STATION BUILDING, 1.3' S.W. OF THE N.W. CORNER OF THE BUILDING, AND 2.6' ABOVE THE GROUND.
COORDINATES ARE BASED UPON NAD 83, STATE PLAN COORDINATE SYSTEM, CALIFORNIA ZONE 5, EPOCH 2007.

7					
6					
5					
4					
3					
2					
1					
NO.	DATE	REVISIONS	APPROVED	DATE	

SUBMITTED BY: *William F. Young* DATE: 2-23-22
WILLIAM F. YOUNG, P.E. REG. NO. 35715

SAN BERNARDINO VALLEY
WATER CONSERVATION DISTRICT

REVIEWED AND
APPROVED BY: *C. Pendroy* DATE: 2-23-22
CIVIL ENGINEER, P.E. REG. NO. 49060



PREPARED BY: **CW** 1561 E. ORANGETHORPE AVE. SUITE 240 FULLERTON, CA 92831 TEL (714) 526-7500 WWW.CWCDP.COM
DRAWN BY: M. NGUYEN DATE: 2-23-22
DESIGNED BY: C. PENDROY DATE: 2-23-22
CHECKED BY: W. YOUNG DATE: 2-23-22

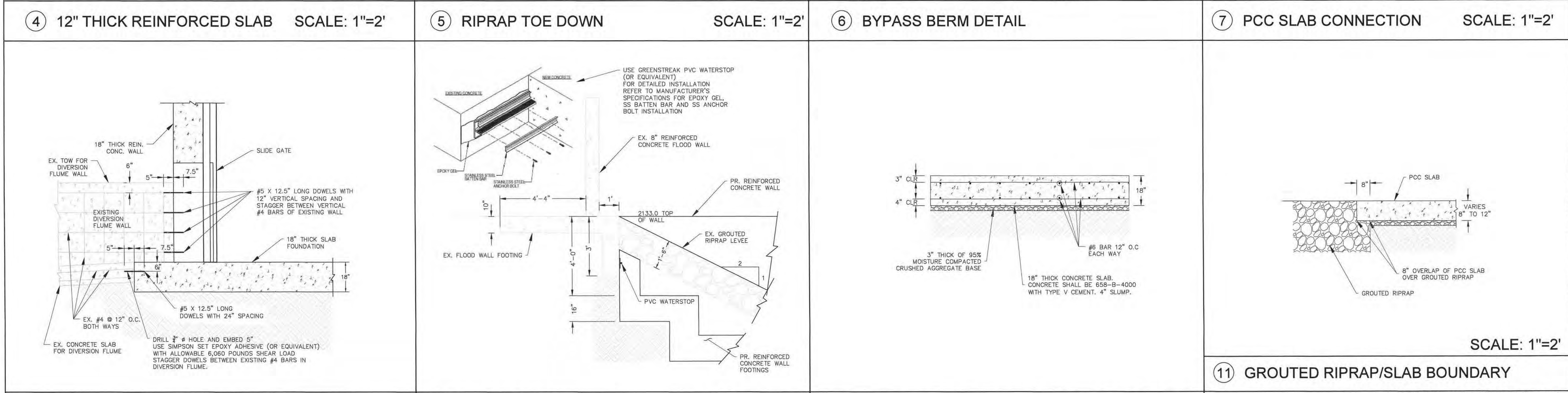
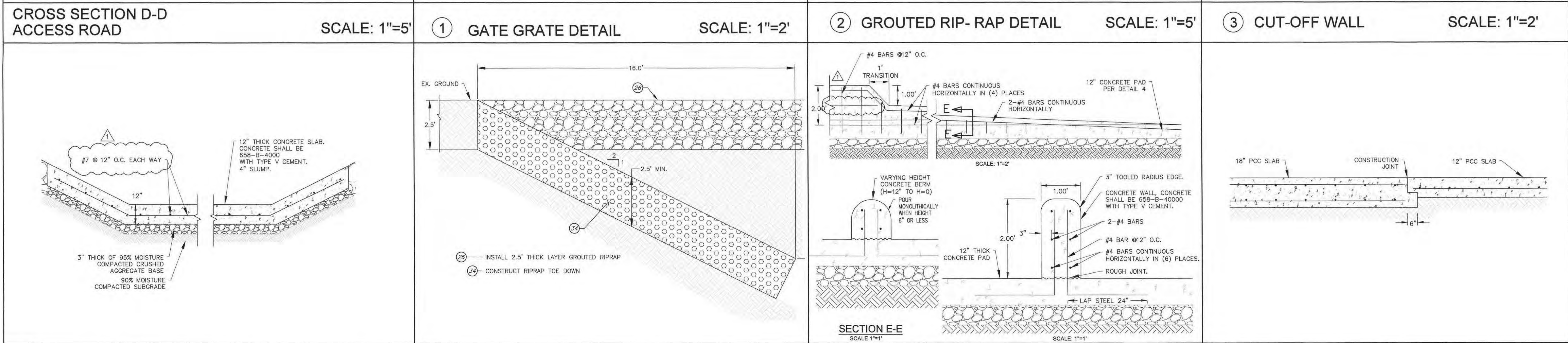
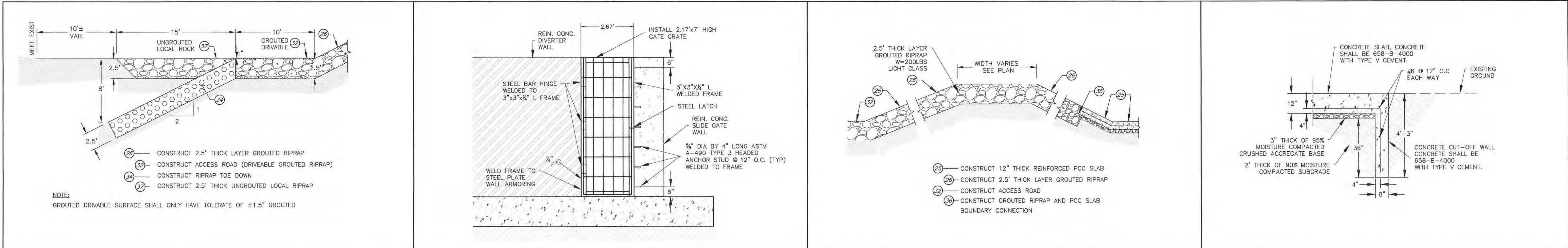
**SAN BERNARDINO VALLEY
WATER CONSERVATION DISTRICT**

MILL CREEK DIVERSION AND
DEBRIS MANAGEMENT IMPROVEMENT

WALLS AND DETAILS

PROJECT NO.
15129
SHEET **7**
OF **10**

FINAL SUBMITTAL



UNDERGROUND SERVICE ALERT

CALL TOLL FREE 1-800-227-2800

TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK

BM NO. NGS 449 (EV1475) ELEVATION = 2021.83 FEET (NAVD 88) YUCAIPA (1996)

BENCH MARK DISK STAMPED S 449 1949 SET IN BUILDING WALL 2 MILES E. FROM MENTONE, 1.95 MILES E. ALONG STATE HWY 38 FROM THE POST OFFICE AT MENTONE, 4.1 MILES E/O THE CURRIER GYMNASIUM OF THE UNIVERSITY OF REDLANDS AT REDLANDS. AT THE INT. OF GARNET ST, AT THE GREEN SPOT TRADING POST FLYING SERVICE STATION. SET VERTICALLY IN THE N.W. FACE OF THE SERVICE STATION BUILDING, 1.3' S.W. OF THE N.W. CORNER OF THE BUILDING, AND 2.6' ABOVE THE GROUND.

COORDINATES ARE BASED UPON NAD 83, STATE PLAN COORDINATE SYSTEM, CALIFORNIA ZONE 5, EPOCH 2007.

NO.	DATE	REVISIONS	APPROVED	DATE
7				
6				
5				
4				
3				
2				
1				

SUBMITTED BY: *William F. Young* DATE: 2-23-22

WILLIAM F. YOUNG, P.E. REG. NO. 35715

SAN BERNARDINO VALLEY WATER CONSERVATION DISTRICT

REVIEWED AND APPROVED BY: *Chris Fagan* DATE: 2-23-22

CHRIS FAGAN, P.E. REG. NO. 49060

PREPARED BY: **CWE**

1561 E. ORANGETHORPE AVE. SUITE 240 FULLERTON, CA 92831 TEL (714) 526-7500 www.cwecorp.com

DRAWN BY: M. NGUYEN DATE: 2-23-22

DESIGNED BY: C. PENDROY DATE: 2-23-22

CHECKED BY: W. YOUNG DATE: 2-23-22

SAN BERNARDINO VALLEY WATER CONSERVATION DISTRICT

MILL CREEK DIVERSION AND DEBRIS MANAGEMENT IMPROVEMENT

DETAILS

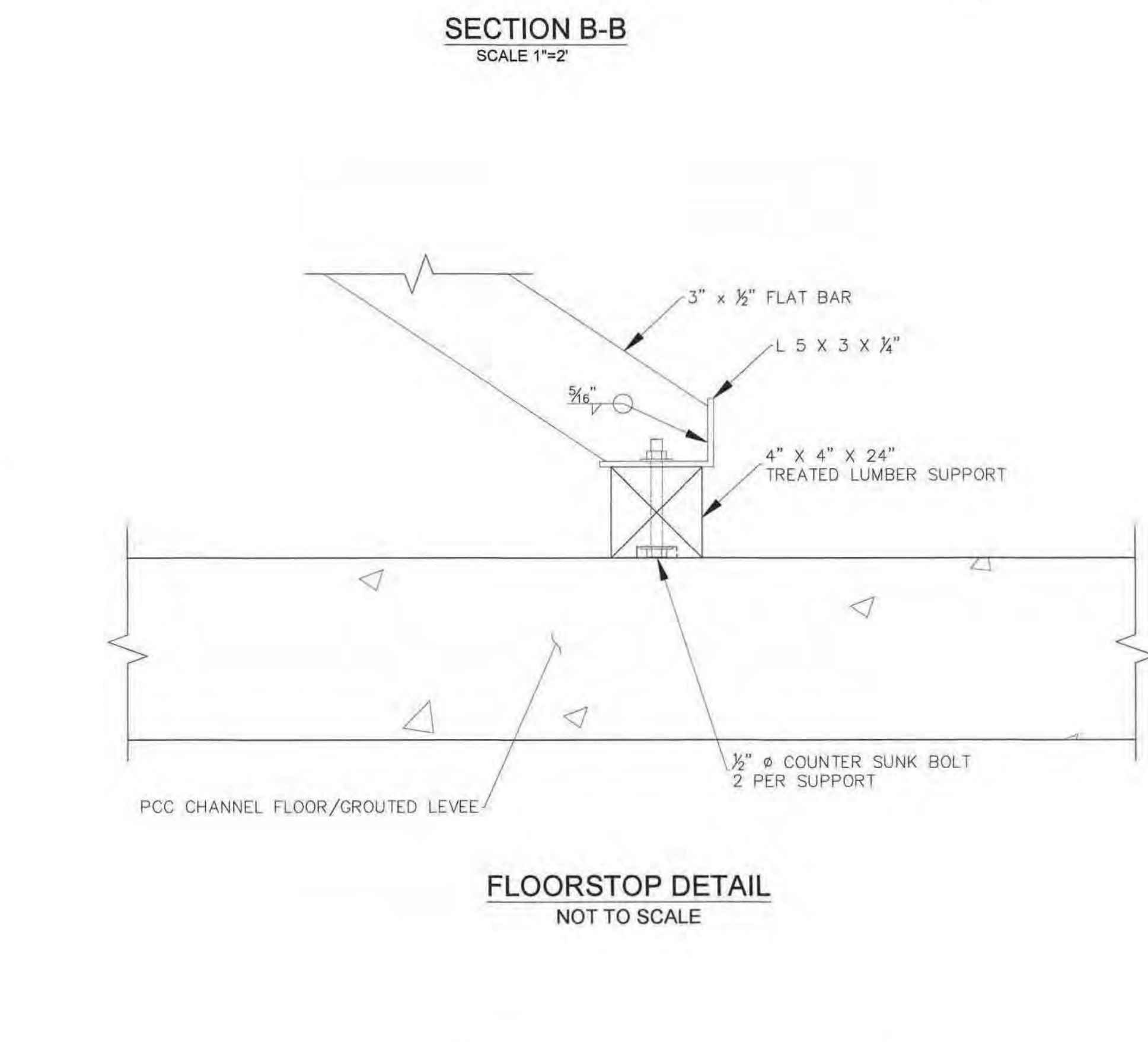
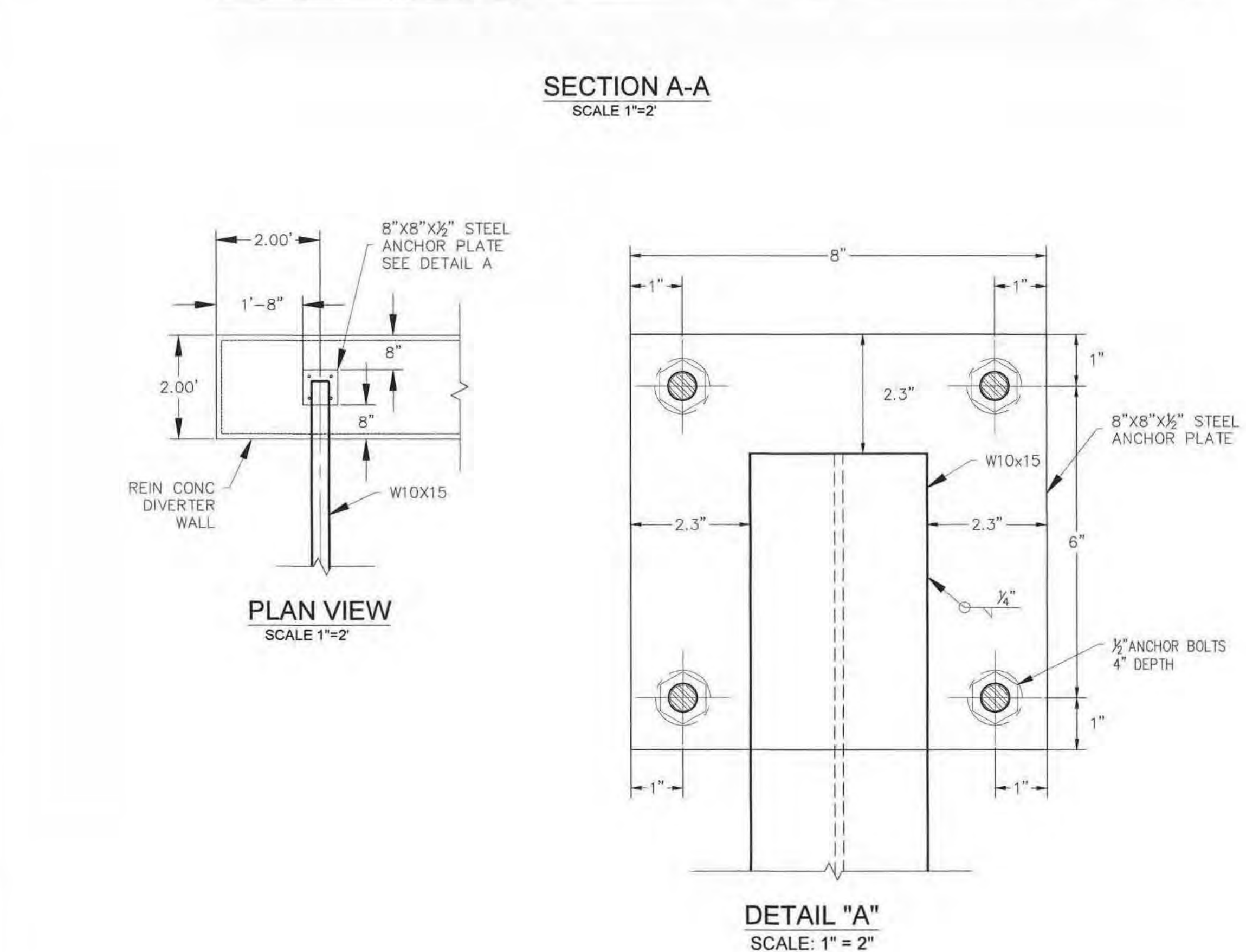
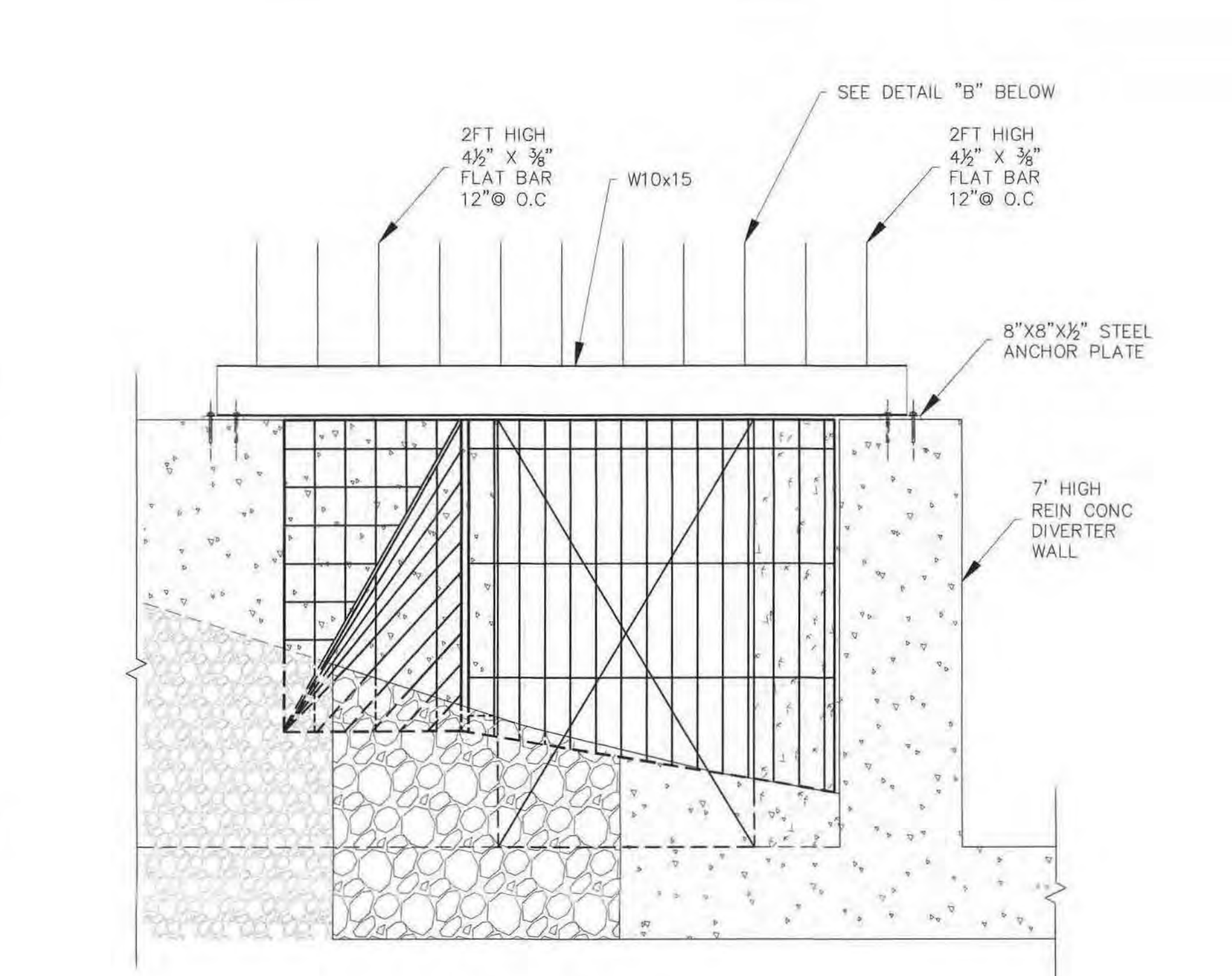
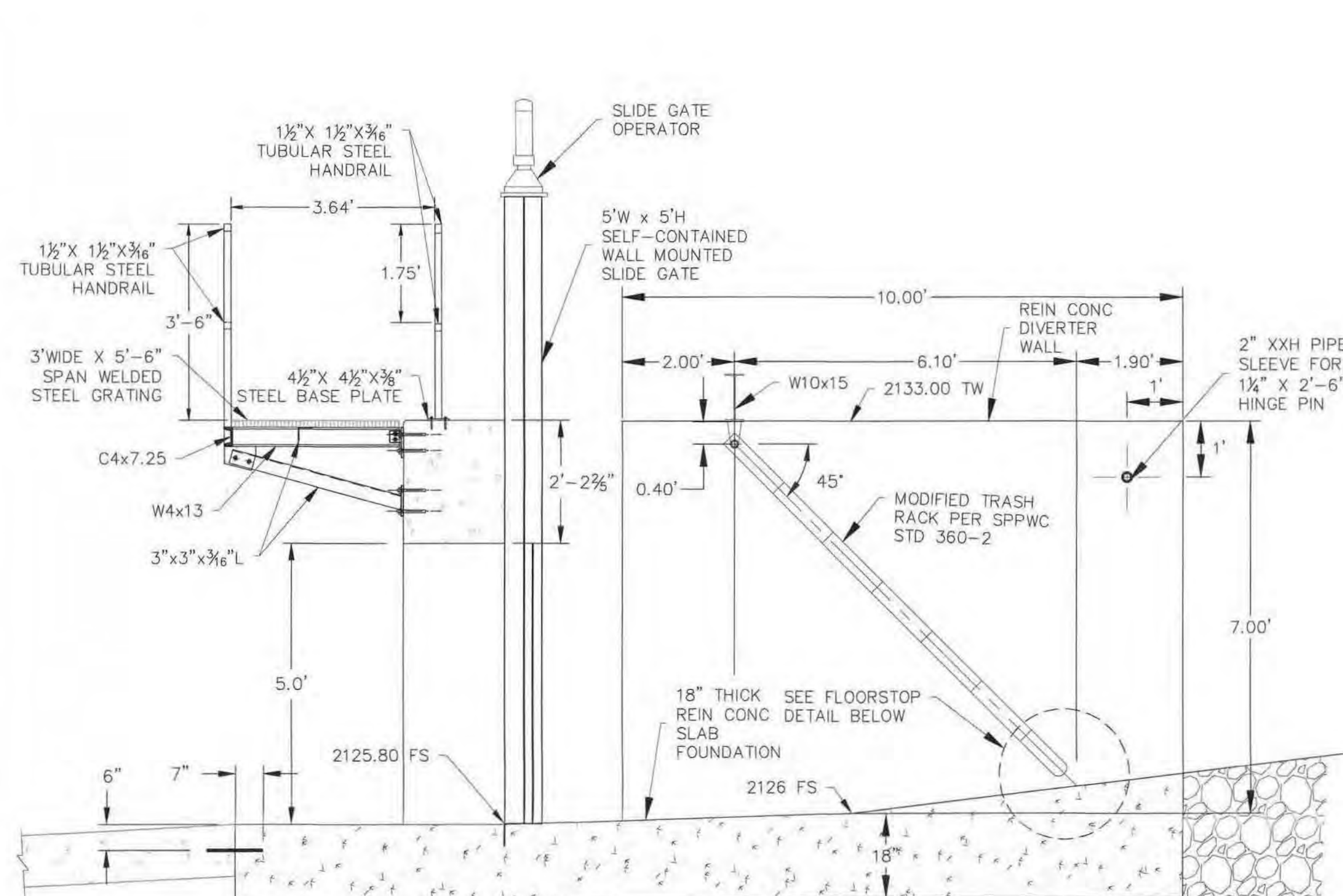
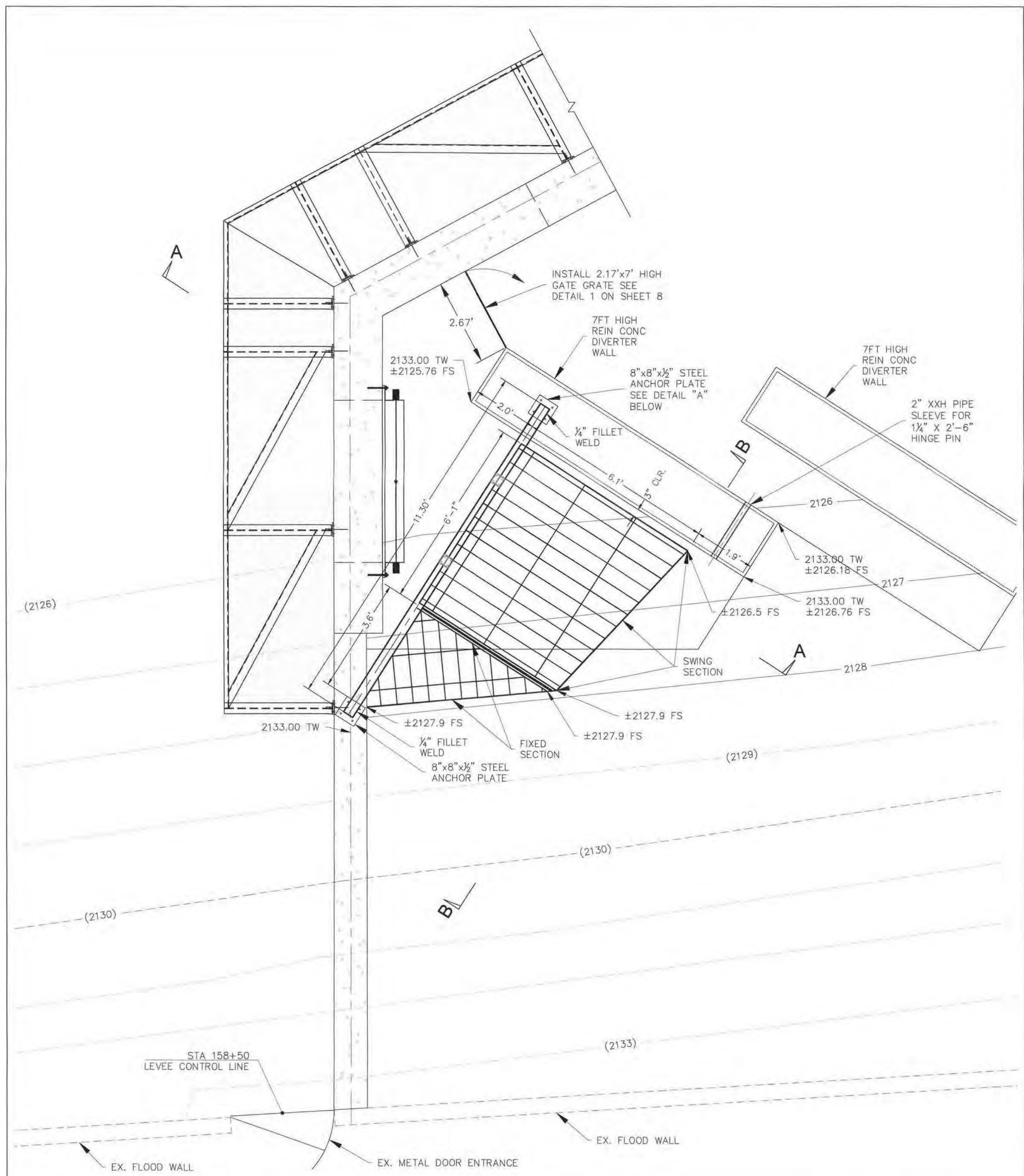
SBCFCD PERMIT NO. P-3201-7069
USACE 408 PERMIT SPL-408-2018-30

PROJECT NO. 15129

SHEET 8 OF 10

FINAL SUBMITTAL

U:\pendroy\15129 - Mill Creek\Design\15129 - CD08 - Details_r1.dwg
Feb. 23, 2022 02:15 PM
Plotted by: Cpendroy



B DETAIL - TRASH RACK SCALE: 1"=2'

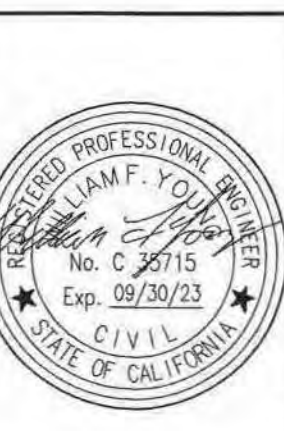
- NOTES:**
1. CONTRACTOR SHALL FIELD MEASURE PRIOR TO SUBMITAL OF SHOP DRAWING OF THE TRASH RACK
 2. CONTRACTOR SHALL SHOP FABRICATE THE GRATE AND HINGES PER MODIFIED SPPWC STANDARD PLAN NUMBER 360-2.
 3. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR THE TRASH RACK AND HINGES PER SPECIAL PROVISIONS SECTION 2-5.3.



BENCHMARK
 BM NO. NGS 449 (EV1475) ELEVATION = 2021.83 FEET
 (NAVD 83) YUCAIPA (1996)
 BENCHMARK DISK STAMPED S 449 1949 SET IN BUILDING WALL 2 MILES E. FROM MENTONE, 1.95 MILES E. ALONG STATE HWY 38 FROM THE POST OFFICE AT MENTONE, 4.1 MILES E/O THE CURRIER GYMNASIUM OF THE UNIVERSITY OF REDLANDS AT REDLANDS. AT THE INT. OF GARNET ST, AT THE GREEN SPOT TRADING POST FLYING SERVICE STATION. SET VERTICALLY IN THE N.W. FACE OF THE SERVICE STATION BUILDING, 1.3' S.W. OF THE N.W. CORNER OF THE BUILDING, AND 2.6' ABOVE THE GROUND.
 COORDINATES ARE BASED UPON NAD 83, STATE PLAN COORDINATE SYSTEM, CALIFORNIA ZONE 5, EPOCH 2007.

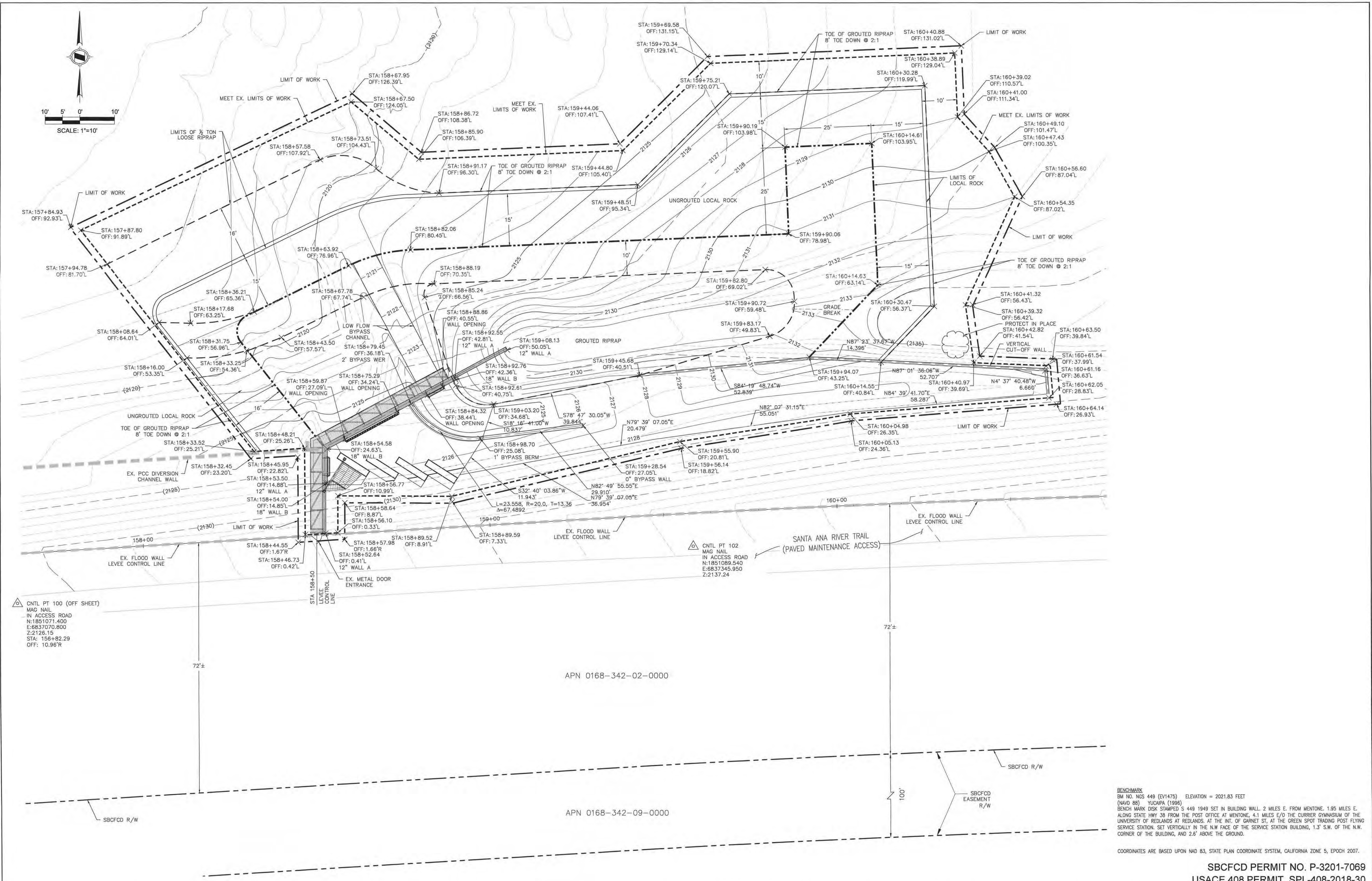
NO.	DATE	REVISIONS	APPROVED	DATE
7				
6				
5				
4				
3				
2				
1				

SUBMITTED BY: *William F. Young* DATE: 2-23-22
 WILLIAM F. YOUNG, P.E. RCE No. 35715
 SAN BERNARDINO VALLEY
 WATER CONSERVATION DISTRICT
 REVIEWED AND APPROVED BY: *William F. Young* DATE: 2-23-22
 WILLIAM F. YOUNG, P.E. RCE No. 35715



PREPARED BY: **CWE**
 1561 E. ORANGETHORPE AVE., SUITE 240
 FULLERTON, CA 92831
 TEL (714) 526-7500
 www.cwecorp.com
 DRAWN BY: M. NGUYEN DATE: 2-23-22
 DESIGNED BY: C. PENDROY DATE: 2-23-22
 CHECKED BY: W. YOUNG DATE: 2-23-22

**SAN BERNARDINO VALLEY
 WATER CONSERVATION DISTRICT**
 MILL CREEK DIVERSION AND
 DEBRIS MANAGEMENT IMPROVEMENT
 TRASH RACK DETAILS
 PROJECT NO. 15129
 SHEET 9 OF 10
 SBCFCD PERMIT NO. P-3201-7069
 USACE 408 PERMIT SPL-408-2018-30



UNDERGROUND SERVICE ALERT
CALL TOLL FREE
1-800-227-2600
TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK
BM NO. NGS 449 (EV1475) ELEVATION = 2021.83 FEET
(NAVD 88) YUCAIPA (1996)
STATE HWY 39 FROM THE POST OFFICE AT MENTONE, 4.1 MILES E/O THE CURRIER GYMNASIUM OF THE UNIVERSITY OF REDLANDS AT REDLANDS. AT THE INT. OF GARNET ST. AT THE GREEN SPOT TRADING POST FLYING SERVICE STATION. SET VERTICALLY IN THE N.W. FACE OF THE SERVICE STATION BUILDING, 1.3' S.W. OF THE N.W. CORNER OF THE BUILDING, AND 2.6' ABOVE THE GROUND.
COORDINATES ARE BASED UPON NAD 83, STATE PLAN COORDINATE SYSTEM, CALIFORNIA ZONE 5, EPOCH 2007.

NO.	DATE	REVISIONS	APPROVED	DATE
7				
6				
5				
4				
3				
2				
1				

SUBMITTED BY: *William F. Young* DATE: 2-23-22
WILLIAM F. YOUNG, P.E. RCE No. 35715
SAN BERNARDINO VALLEY WATER CONSERVATION DISTRICT
REVIEWED AND APPROVED BY: *C. Pendroy* DATE: 2-23-22
BRYAN FERGUSON, P.E. RCE No. 49060

PREPARED BY: 1561 E. ORANGETHORPE AVE., SUITE 240, FULLERTON, CA 92831, TEL (714) 526-7500, www.cwecorp.com
CWE
DRAWN BY: M. NGUYEN DATE: 2-23-22
DESIGNED BY: C. PENDROY DATE: 2-23-22
CHECKED BY: W. YOUNG DATE: 2-23-22

SAN BERNARDINO VALLEY WATER CONSERVATION DISTRICT
PROJECT NO. 15129
SHEET 10 OF 10
MILL CREEK DIVERSION AND DEBRIS MANAGEMENT IMPROVEMENT HORIZONTAL CONTROL PLAN
BENCHMARK: BM NO. NGS 449 (EV1475) ELEVATION = 2021.83 FEET (NAVD 88) YUCAIPA (1996). BENCHMARK DISK STAMPED S 449 1949 SET IN BUILDING WALL, 2 MILES E. FROM MENTONE, 1.95 MILES E. ALONG STATE HWY 39 FROM THE POST OFFICE AT MENTONE, 4.1 MILES E/O THE CURRIER GYMNASIUM OF THE UNIVERSITY OF REDLANDS AT REDLANDS. AT THE INT. OF GARNET ST. AT THE GREEN SPOT TRADING POST FLYING SERVICE STATION. SET VERTICALLY IN THE N.W. FACE OF THE SERVICE STATION BUILDING, 1.3' S.W. OF THE N.W. CORNER OF THE BUILDING, AND 2.6' ABOVE THE GROUND.
COORDINATES ARE BASED UPON NAD 83, STATE PLAN COORDINATE SYSTEM, CALIFORNIA ZONE 5, EPOCH 2007.
SBCFCD PERMIT NO. P-3201-7069
USACE 408 PERMIT SPL-408-2018-30
FINAL SUBMITTAL

CONTRACT SERVICES AGREEMENT FOR PROFESSIONAL SERVICES

THIS PROFESSIONAL SERVICES AGREEMENT FOR CONSTRUCTION SUPPORT SERVICES FOR THE MILL CREEK DIVERSION IMPROVEMENT PROJECT ("Agreement") by and between the **SAN BERNARDINO VALLEY WATER CONSERVATION DISTRICT**, a California Special District ("SBVWCD" or "District"), and _____. ("Consultant"), is effective upon the date on which this Agreement is signed by both District and Consultant ("Effective Date").

NOW THEREFORE, the parties hereto agree as follows:

1.0 SERVICES OF CONSULTANT

1.1 Scope of Services. In compliance with all of the term and conditions of this Agreement, the Consultant shall provide Construction Support Services for the Mill Creek Diversion Improvement Project (Project) consistent with the Scope of Work appended hereto as Attachment 1. Consultant warrants that all work and services will be performed in a competent, professional, and satisfactory manner.

1.2 Authorization to Begin, Schedule and Retention Tenn. Consultant's term to begin work or services, shall initiate upon receipt of a Notice to Proceed by District. Further, no work or services other than that described in the Scope of Work shall be initiated by the Consultant without written authorization of the District and documented as a Change Order to this agreement.

1.3 Compliance With Law. All work and services rendered hereunder shall be provided consistent with the professional skill and care ordinarily provided by firms practicing in the same or similar locality for the same type of work (herein the "Standard of Care") and in accordance with applicable ordinances, resolutions, statutes, rules, and regulations of the District and any Federal, State, or local governmental agency of competent jurisdiction.

1.4 Licenses, Permits, Fees and Assessments. Consultant shall obtain at its sole cost and expense such licenses, permits, and approvals as may be required by law for the performance of the services required by this Agreement.

2.0 COMPENSATION

2.1 Contract Sum. For the services rendered pursuant to this Agreement, the Consultant shall be paid an amount not to exceed a total payment of \$_____ (_____ Dollars).

2.2 Method of Payment. Provided that Consultant is not in default under the terms of this Agreement, the Consultant shall be paid monthly for each task described in the Scope of Work, under submission of an invoice, provided that prior to payment of the final invoice, all

work authorized by the District shall be completed, including delivery of final work product, and supporting documentation.

2.3 Content of Invoices. Each invoice submitted by the Consultant shall reflect the amount of time; a detailed narrative description of the work performed within that time by each employee or sub-consultant for each task, and any materials or other direct costs. Invoices without this information shall not be paid.

3.0 COORDINATION OF WORK

3.1 Representative of Consultant _____ is hereby designated as the principal representative of the Consultant, authorized under all applicable laws to act in its behalf with respect to the work and services specified herein and to make all decisions in connection therewith.

3.2 Contract Officer. The General Manager is hereby designated as the representative of the District, authorized to act in its behalf with respect to the work and services specified herein and make all decisions in connection therewith ("Contract Officer").

3.3 Prohibition Against Subcontracting or Assignment. Consultant shall not contract with any entity to perform in whole or in part Consulting Work required of Consultant herein without the prior express written approval of the District. Neither this Agreement nor any interest herein may be assigned or transferred, voluntarily or by operation of law, without the prior written approval of the District. Any such prohibited assignment or transfer shall be void.

3.4 Independent Consultant. Consultant shall perform all work and services required herein as an independent contractor of the District, and shall remain under only such obligations as are consistent with that role. Consultant shall not at any time or in any manner represent that it or any of its agents or employees are agents or employees of the District.

4.0 INSURANCE AND INDEMNIFICATION

4.1 Insurance. The Consultant shall procure and maintain, at its sole cost and expense, in a form and content satisfactory to District, during the entire term of this Agreement including any extension thereof, the following policies of insurance:

4.1-01 Workers' Compensation Insurance. By signature hereunder, Consultant certifies that Consultant is aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and Consultant will comply with such provisions before commencing the performance or the work of this Agreement.

4.1-02 Workers' Compensation and Employer's Liability Insurance. The Consultant and all sub consultants shall cover or insure under the applicable laws relating to workers compensation insurance, each of their employees involved in any way in carrying out the work contemplated under this Agreement, all in accordance with the "Worker's Compensation and Insurance Act," Division IV of the Labor Code of the State of California and any Acts amendatory thereof. The Consultant shall provide employer's liability insurance in the amount of, at least, \$1,000,000 per accident for bodily injury and disease.

4.1-03 Liability Insurance. The Consultant shall provide and maintain at all times during the performance of this Agreement, the following commercial general liability insurance:

4.1-03.01 Coverage. Coverage shall be at least as broad as the following:

Commercial General Liability Commercial General Liability coverage (Occurrence Form CG 0001) in the amount of two million dollars (\$2,000,000) per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to the project/location (with the ISO CG 25 03 or insurer's equivalent endorsement provided to the District) or the general aggregate limit shall be twice the required occurrence limit.

Professional Liability. Professional Liability appropriate to the Consultant's profession covering Consultant's wrongful acts, negligent actions, errors or omission in the amount of one million dollars (\$1,000,000) per claim and annual aggregate.

4.1-03.02 Required Provisions. The policies specified in Section 4.1-03.01 is to state or be endorsed to state that coverage shall not be canceled by either party, except after thirty (30) days (10 days for nonpayment of premium) prior written notice by U.S. mail has been given to the District.

4.1-03.03 Required Format. All of the liability insurance shall be provided on policy forms satisfactory to the District. All insurance correspondence, notations, certificates, or other documents from the insurance carrier or agent/broker shall each separately reference the District project number.

4.1-03.04 Deductibles and Self-Insured Retention. Any deductible or self- insurance retention must be declared to and approved by the District. At the option of the District, the insurer shall reduce or eliminate such deductibles or self-insured retention.

4.1-03.05 Acceptability of Insurers. Insurance is to be placed with insurers having a current AM. Best's rating of no less than A-:VII or equivalent or as otherwise approved by the District.

4.1-03.06 Evidences and Cancellation of Insurance. Prior to execution of the Agreement, the Consultant shall file with the District evidence of insurance satisfactory to the District. The insurer will give by U.S. mail written notice to the District at least thirty (30) days prior to the effective date of any cancellation, except for nonpayment of premium for which ten (10) days prior written notice will be given. The Consultant shall, upon demand of the District, deliver to the District all such policy or policies of insurance and the receipts of payment of premiums thereon.

4.1-03.07 Errors and Omissions/Professional Negligence. Consultant shall procure and maintain errors and omissions insurance, or professional liability insurance, at all times this Agreement is in effect, covering the services to be provided hereunder in the amount of one million dollars per claim and annual aggregate.

4.1-03.08 Sub-Consultants . In the event that Consultant employs other consultants as part of the services covered by this Agreement, consistent with Section 3.3 above, it shall be the Consultant's responsibility to confirm that each sub-consultant meets the minimum insurance requirements specified above.

4.2 Indemnification. To the fullest extent permitted by law, Consultant shall indemnify and hold harmless and defend the District, its directors, officers, employees, or designated volunteers, and each of them from and against:

4.2-01 Any and all third party tort claims, demands, lawsuits, or causes of action (the "Claims"), and the damages, costs, expenses, losses, or liabilities arising out of such Claims, in law or in equity, of every kind and nature whatsoever for, but not limited to, injury to or death of any person including District and/or Consultant , or any directors, officers, employees or designated volunteers of District or Consultant, and damages to or destruction of property of any person, including but not limited to, District and/or Consultant and their directors, officers, employees or designated volunteers, arising out of or in any manner directly or indirectly connected with the work to be performed under this Agreement, due to the Consultant's negligent acts, errors or omissions committed or alleged to have been committed, except in those cases where the District is liable.

4.2-02 Any and all actions, proceedings, damages, costs, expenses, penalties or liabilities, in law or equity, of every kind of nature whatsoever, arising out of, resulting from, or caused by the willful or negligent violation of any governmental law or regulation, compliance with which is the responsibility of Consultant, except in those cases where the District is liable.

4.2-03 Consultant shall defend, subject to the terms of 4.2 above, at its own cost, expense and risk, with Counsel of District's choice, any and all such aforesaid suits, actions or other legal proceedings of every kind that may be brought or instituted against District or District's directors, officers, employees or designated volunteers.

4.2-04 Consultant shall pay and satisfy any judgment, award or decree that may be rendered against District or its directors, officers, employees or designated volunteers, in any and all such aforesaid suits, actions or other legal proceeding.

4.2-05 Consultant shall reimburse District and its directors, officers, employees or designated volunteers, for any and all reasonable legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein provided.

4.2-06 Consultant's obligation to indemnify shall not be restricted to insurance

proceeds, if any, received by the District, or its directors, officers, employees or designated volunteers.

4.3 Laws Regulations and Permits. The Consultant shall exercise all professional care to give all notices required by law and exercise the Standard of Care to comply with all laws, ordinances, rules and regulations pertaining to the conduct of the work. The Consultant shall be liable for all negligent or intentional violations of the law in connection with work furnished by the Consultant. If the Consultant negligently or intentionally performs any work contrary to such laws, ordinances, rules and regulations, the Consultant shall bear all costs and penalties, civil or criminal, arising therefrom.

4.4 Safety. The Consultant shall execute and maintain Consultant's work so as to avoid injury or damage to any person or property. In carrying out the work, the Consultant shall at all times, exercise all necessary precautions for the safety of its employees appropriate to the nature of the work and the conditions under which the work is to be performed, and be in compliance with all federal, state and local statutory and regulatory requirements including State of California, Division of Industrial Safety (Cal/OSHA) regulations, and the U.S. Department of Transportation Omnibus Transportation Employee Testing Act (as applicable).

5.0 TERM OF AGREEMENT

5.1 Term. This Agreement shall be effective from date of signature of both parties and shall continue in full force and effect until completion and approval of the work and services described hereunder, unless extended by mutual consent, or until otherwise terminated under Section 6.11 below. In no event, however, shall this contract extend beyond December 31, 2024, unless expressly extended by both parties in writing.

6.0 MISCELLANEOUS

6.1 Covenant Against Discrimination. The Consultant covenants that, by and for itself, its heirs, executors, assigns and all persons claiming under or through it, that there shall be no discrimination against, or segregation of, any person or group of persons on account of race, color, creed, religion, sex, marital status, national origin, or ancestry in the performance of this Agreement.

6.2 Non-liability of District Officers and Employees. No officer or employee of the District shall be personally liable to Consultant, or a successor in interest, in the event of any default or breach by the District or for any amount that may become due to the Consultant or to its successor, or for breach of any obligation of the terms of this Agreement.

6.3 Conflict of Interest. No director, officer, agent, employee or designated volunteer of the District shall have any financial interest, direct or indirect, in this Agreement, nor shall any such person participate in any decision relating to the Agreement which affects his or her financial interest or the financial interest of any corporation, partnership or association in which he or she is, directly or indirectly, interested, in violation of any State statute or

regulation. The Consultant warrants that it has not paid or given and will not pay or give, any third party any money or other consideration for obtaining this Agreement.

6.4 Notice. Any notice, demand, request, document, consent, approval, or communication either party desires or is required to give to the other party or any other person shall be in writing and either served personally or sent by prepaid, first-class mail, in the case of the District, to the General Manager and to the attention of the General Manager, San Bernardino Valley Water Conservation District, 1630 W. Redlands Boulevard, Suite A, Redlands, CA 92373-0581, and in the case of the Consultant, to the person at the address designated on the execution page of this Agreement.

6.5 Interpretation. The terms of this Agreement shall be construed in accordance with the meaning of the language used and shall not be construed for or against either party by reason of the authorship of this Agreement.

6.6 Integration; Amendment. It is understood that there are no oral agreements between the parties hereto affecting this Agreement and this Agreement supersedes and cancels any and all previous negotiations, arrangements, agreements, and understandings, if any, between the parties and none shall be used to interpret this Agreement. This Agreement may be amended at any time only by the mutual consent of the parties and only by an instrument in writing.

6.7 Severability. In the event that part of this Agreement shall be declared invalid or unenforceable by a valid judgment or decree of a court of competent jurisdiction, such invalidity or inability to enforce shall not affect any of the remaining portions of this Agreement, which are hereby declared as severable and shall be interpreted to carry out the intent of the parties hereunder unless the invalid provision is so material that its invalidity deprives either party of the basic benefit of their bargain or renders this Agreement meaningless.

6.8 Waiver. No delay or omission in the exercise of any right or remedy by a non-defaulting party on any default shall impair such right or remedy or be construed as a waiver. A party's consent to or approval of any act by the other party requiring the party's consent or approval shall not be deemed to waive or render unnecessary the other party's consent to or approval of any subsequent act. Any waiver by either party of any default must be in writing and shall not be a waiver of any other default concerning the same or any other provision of this Agreement.

6.9 Attorney's Fees. If either party to this Agreement is required to initiate or defend or is made a party to any action or proceeding in any way connected with this Agreement, the prevailing party in such action or proceeding, in addition to any other relief which may be granted, whether legal or equitable, shall be entitled to reasonable attorney's fees, whether or not the matter proceeds to judgment.

6.10 Ownership of Work. All work performed by the Consultant hereunder shall be the exclusive property of the District, and shall be kept confidential by the Consultant unless otherwise directed by the District. The Consultant shall provide to the District all notes,

maps, schedules, graphs, worksheets, reports, computer databases and programs, or any other analysis or analytical tools created or produced by the Consultant in connection with its work performed hereunder ("Work"), no later than the time of the completion of the Consultant's Work or earlier termination of this Agreement under Section 6. 11 below. The Consultant shall not disclose or utilize its Work under this Contract in any other assignment or for any other purpose, or otherwise disclose or utilize such Work, without the prior written consent of the District, which consent shall not be unreasonably withheld.

6.11 Termination. This Agreement may be terminated by either party giving 30 days' notice in writing to the other party and sent by registered mail to the principal place of business that such notice is addressed. The right, duties, and responsibilities of the parties shall continue in full force during the period of this 30-day notice. After the expiration of the 30-day interval following notice, no rights or liabilities shall arise out of this relationship, regardless of expenses which may have been incurred, except that the indemnification provisions of Section 4.2 above shall survive termination, and any task undertaken by Consultant on written District authorization, and still uncompleted at the expiration of the notice period, shall be carried to completion by Consultant and paid for by District at rates provided hereunder, unless mutually agreed in writing to the contrary, in accordance with the provisions herein.

6.12 Mediation. In the event of disagreement as to termination procedures, the Consultant and District shall meet and confer to resolve the issue. If the meet and confer process fails to resolve any controversy or claim arising out of or related to work performed under this Agreement, within 10 business days after written notice by one party to the other identifying the nature of the dispute and requesting a meet and confer conference, such claim or controversy shall be submitted to non-binding mediation unless the parties mutually agree otherwise. The submission to non-binding mediation shall be upon such terms, conditions, and procedures as the parties might mutually agree, and shall not preclude the initiation or exercise of any other remedy, legal, equitable, or otherwise, available to any party. The mediation proceedings shall take place in San Bernardino County, California.

6.13 Corporate Authority. The persons executing this Agreement on behalf of the parties hereto warrant that (i) such party is duly organized and existing, (ii) they are duly authorized to execute and deliver this Agreement on behalf of said party, (iii) by so executing this Agreement, such party is formally bound to the provisions of this Agreement, and (iv) the entering into this Agreement does not violate any provision of any other Agreement to which said party is bound.

IN WITNESS WHEREOF, the parties have executed and entered into this Agreement and by signature below:

**SAN BERNARDINO VALLEY WATER
CONSERVATION DISTRICT**

By: _____
Betsy Miller, General Manager

Date: _____

CONSULTANT

By: _____

Address:

Phone:

Date: _____

Attachment 1
Scope of Services

Attachment 2
Schedule of Rates