

GENERAL NOTES

1. ALL STATIONING & DISTANCES INDICATED ON THE DRAWINGS ARE BASED ON HORIZONTAL MEASUREMENTS IN FEET.
2. THE CONTRACTOR SHALL NOTIFY THE MPWMD AND CALIFORNIA AMERICAN WATER REPRESENTATIVES AT LEAST 2 WORKING DAYS IN ADVANCE OF ANY WORK WHICH WILL REQUIRE THE INSPECTION SERVICES.
3. "OWNER" SHALL MEAN THE MPWMD. "UTILITY" SHALL MEAN CALIFORNIA AMERICAN WATER COMPANY. "ENGINEER" IS THE MPWMD PROJECT ENGINEER, PUEBLO WATER RESOURCES.
4. AT LEAST 2 WORKING DAYS PRIOR TO ANY EXCAVATION WORK THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT AT 1-800-642-2444 FOR LOCATING AND MARKING UNDERGROUND UTILITIES IN THE AREAS OF WORK.
5. THE EXISTING UTILITIES SHOWN AND INDICATED ON THE DRAWINGS ARE APPROXIMATE AND FOR GENERAL INFORMATION ONLY, AND ARE BASED ON AVAILABLE UTILITY INFORMATION PROVIDED BY THE UTILITY OWNER AND SELECTED FIELD LOCATING. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR VERIFICATION OF EXISTING UNDERGROUND UTILITIES, WHETHER INDICATED OR NOT ON THE DRAWINGS, PRIOR TO ANY CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL PROTECT ALL EXISTING OR NEWLY PLACED UTILITY STRUCTURES AND LINES FROM DAMAGE OR DISRUPTION OF SERVICE DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE NECESSARY TEMPORARY UTILITY SERVICES AND SHALL RESTORE PERMANENT UTILITY SERVICES DISRUPTED BY CONSTRUCTION ACTIVITY.
6. THE CONTRACTOR SHALL EXPOSE ALL EXISTING UTILITY LINES AT LEAST ONE WORKING DAY AHEAD OF PIPE LAYING OPERATION TO VERIFY LOCATION AND DEPTH OF EXISTING UTILITIES. ANY CONFLICTS WILL BE RESOLVED BY THE MPWMD REPRESENTATIVE PRIOR TO PIPE INSTALLATION. IF ANY UNDERGROUND UTILITIES ARE DISCOVERED, THE CONTRACTOR SHALL SUBMIT ACCURATE STAMPED, SIGNED AND DATED DOCUMENTS DESCRIBING THE QUANTITY, SIZE, LOCATION, DEPTH, AND TYPE OF MATERIAL OF FOUND BURIED UTILITIES.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING FOR THE PRESENCE OF CONTAMINATED SOIL AND/OR GROUNDWATER DURING THE COURSE OF THE WORK. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE MPWMD REPRESENTATIVE IF ANY SUSPECT MATERIALS ARE ENCOUNTERED. CONTACT SHALL BE MADE IMMEDIATELY BY TELEPHONE, WITH WRITTEN NOTIFICATION WITHIN 3 WORKING DAYS.
8. ALL TRENCHING OPERATIONS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF TITLE 8 (CAL/OSHA).
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE ON OR OFF THE PROJECT SITE AS A RESULT OF CONSTRUCTION ACTIVITIES INCLUDING THE LACK OF DUST CONTROL AND TRAFFIC CONTROL.
10. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL CERTIFY THAT ALL WORK WAS PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. VARIATIONS SHALL BE DECLARED AND PRESENTED TO THE MPWMD IN WRITING UPON COMPLETION OF CONSTRUCTION, IN THE FORM OF MARKED UP PLANS SHOWING ALL CHANGES.
11. THE ENGINEER AND/OR THE MPWMD REPRESENTATIVE WILL NOT DIRECTLY CONTROL THE PHYSICAL ACTIVITIES OF THE CONTRACTOR OR ANY SUBCONTRACTORS. CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR WORKING CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
12. THE CONTRACTOR SHALL VERIFY WORK IN FIELD AND SHALL SATISFY HIMSELF AS TO THE ACCURACY BETWEEN WORK SET FORTH ON THESE PLANS AND THE WORK REQUIRED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE MPWMD REPRESENTATIVE PRIOR TO THE START OF CONSTRUCTION.
13. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE PROJECT ENGINEER FOR APPROVAL AND SHALL COORDINATE ALL WORK TO ALLOW VEHICLE ACCESS TO RESIDENCES AND/OR BUSINESSES NEAR THE PROJECT AREA. EXCEPT WHEN A LANE CLOSURE IS IN EFFECT IN ACCORDANCE WITH THE CONTRACTOR'S APPROVED TRAFFIC CONTROL PLAN, NO VEHICLES, EQUIPMENT OR MACHINERY ARE ALLOWED TO PARK ON THE SHOULDER OF GENERAL JIM MOORE BOULEVARD AT ANY TIME.
14. ANY AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO ORIGINAL CONDITIONS AND HYDROSEEDDED SO AS TO RESTORE NATURAL GROWTH, THIS INCLUDES ALL CUT OR FILL SLOPES. HYDROSEED MUST BE NATIVE MIX IN ACCORDANCE WITH REQUIREMENTS ON THE FORMER FORT ORD. A LAYER OF CRETIPIED WEED FREE MULCH, WEED FREE RICE, STERILE BARLEY STRAW, OR OTHER SIMILAR FUNCTIONING PRODUCT SHALL BE INSTALLED FOR EROSION CONTROL. CLEARED DELETERIOUS MATERIAL MUST BE WOODCHIPPED AND USED ON THE SITE AS MULCH.
15. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TEMPORARY CONSTRUCTION WATER APPLICATION FOR WATER USE AND METERING FROM MARINA COAST WATER DISTRICT PHONE NUMBER IS (831) 384-6131.
16. CONSTRUCTION SHALL COMPLY WITH THE 2006 STANDARD PLANS AND SPECIFICATIONS OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION, STATE OF CALIFORNIA, AND THE CITY OF SEASIDE STANDARD DETAILS AS NOTED ON THE CONSTRUCTION PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING COPIES OF SAID DOCUMENTS AND SHALL HAVE THEM AVAILABLE ON THE PROJECT SITE AT ALL TIMES DURING CONSTRUCTION.
17. WATER LINES, VALVES, AND WATER APPURTENANCES SHALL CONFORM TO THE 2017 STANDARD SPECIFICATIONS AND STANDARD PLANS OF THE CALIFORNIA AMERICAN WATER COMPANY.
18. ALL CONCRETE, REGARDLESS OF USE, SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.
19. ALL EARTHWORK AND FOUNDATION CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE GEOTECHNICAL INVESTIGATION. CONTACT THE GEOTECHNICAL ENGINEER AT LEAST 48 HOURS PRIOR TO REQUESTING ON-SITE OBSERVATION OR TESTING SERVICES.
20. THE CONTRACTOR'S WORK SHALL CONFORM TO THE CITY OF SEASIDE'S ORDNANCE ORDINANCE REGARDING MUNITIONS & EXPLOSIVES OF CONCERN (MEC).
21. ELECTRICAL AND/OR COMMUNICATIONS CONDUITS SHALL BE NONMETALLIC SCHEDULE 40 P.V.C. PLASTIC RATED 90° C WITH GLUE ON P.V.C. COUPLINGS AND FACTORY MADE ELBOWS AND SWEEPS: CARLON "PLUS40".
22. "OWNER" IS THE MONTEREY PENINSULA WATER MANAGEMENT DISTRICT (MPWMD), 5 HARRIS COURT BUILDING G, MONTEREY, CA. 94940. MPWMD SHALL REFER TO TO MPWMD OR MPWMD REPRESENTATIVE.
23. CONTRACTOR SHALL ENSURE THAT SITE SECURITY IS MAINTAINED THROUGHOUT CONSTRUCTION, AT A LEVEL EQUAL TO OR GREATER THAN PRECONSTRUCTION SITE CONDITIONS. SITE SECURITY SHALL INCLUDE TEMPORARY FENCING, GATES, AND ANY OTHER MEANS NEEDED TO PREVENT UNAUTHORIZED ACCESS TO SITE AT ALL TIMES, WHETHER DURING ACTIVE CONSTRUCTION OR IDLE/NON-WORKING HOURS. CONTRACTOR'S RESPONSIBILITY FOR MAINTAINING EFFECTIVE SITE SECURITY SHALL COMMENCE ON THE DAY OF NOTICE TO PROCEED THROUGH NOTICE OF COMPLETION.

THE CONTRACTOR'S WORK SHALL CONFORM TO THE CITY OF SEASIDE'S ORDNANCE REGARDING MUNITIONS & EXPLOSIVES OF CONCERN (MEC).

UNAUTHORIZED CHANGES & USES CAUTION:  
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.

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B	8/31/18	MAC		BID CLARIFICATION
A	8/24/18	MAC		ISSUED FOR BID
REV	DATE	BY		DESCRIPTION

SCALE:  
HOR. N/A  
VER. N/A

WARNING  
0 1/2 1  
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DESIGNED MAC  
DRAWN TLA  
CHECKED SPT

MAC Design Associates  
CIVIL ENGINEERING \* LAND PLANNING \* BRIDGE DESIGN  
1933 CLIFF DRIVE, SUITE 6, SANTA BARBARA, CALIF. 93109 (805) 957-4748



Pueblo Water Resources  
4478 Market St., Suite 705  
Ventura, CA 93003  
(805) 644-0470

GRADING AND PAVING NOTES

1. ALL WORK SHALL BE IN CONFORMANCE WITH THE FOLLOWING:  
(A) PROJECT PLANS AND SPECIFICATIONS  
(B) STANDARD SPECIFICATIONS AND STANDARD DETAILS, LATEST EDITION OF THE CITY OF SEASIDE.  
(C) APPLICABLE SECTIONS OF THE CALTRANS STANDARD SPECIFICATIONS, LATEST EDITION.  
(D) APPLICABLE SWPPP, NOI, AND NPDES REQUIREMENTS FOR THE PROJECT.  
(E) FORT ORD REUSE AUTHORITY RIGHT OF ENTRY, CITY OF SEASIDE DIGGING AND EXCAVATING ON THE FORMER FORT ORD PERMIT  
(F) AQUIFER STORAGE AND RECOVERY MITIGATION MONITORING PLAN
2. CONTRACTOR SHALL NOTIFY MPWMD, CAL-AM, & THE CITY OF SEASIDE AT LEAST TWO (2) WORKING DAYS BEFORE STARTING GRADING WORK.
3. WORK SHALL CONSIST OF ALL EARTHWORK RELATED TO THE SITE: ALL CLEARING, GRUBBING, STRIPPING, ROUGH GRADING, PREPARATION OF FOUNDATION AND MATERIALS FOR RECEIVING FILLS, EXCAVATION, IMPORT AND/OR EXPORT OF FILL, PROCESSING, PLACEMENT AND COMPACTION OF FILL MATERIALS, PLACEMENT OF SUBSURFACE DRAINS, PLACEMENT OF AGGREGATE BASE MATERIAL, ASPHALT CONCRETE (AC) AND/OR PORTLAND CEMENT CONCRETE (PCC) PAVING, AND ALL SUBSIDIARY WORK NECESSARY TO COMPLETE THE GRADING AND PAVING TO CONFORM TO THE LINES, GRADES AND SLOPES, AS SHOWN ON THESE PLANS.
4. SITE CONDITIONS: THE CONTRACTOR SHALL VISIT THE SITE, EXAMINE AND NOTE ALL CONDITIONS AS TO THE CHARACTER AND EXTENT OF WORK INVOLVED.
5. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS OR CERTIFICATES AS REQUIRED BY THE CITY.
6. ALL EARTHWORK SHALL BE CONSTRUCTED PER THE GRADING SPECIFICATIONS IN THE GEOTECHNICAL REPORT. ALL SOIL SHALL BE COMPACTED TO A MINIMUM OF 90% RELATIVE COMPACTION, AS REQUIRED BY THE ASTM TEST DESIGNATIONS D1557, D1556 AND D2992, EXCEPT THE PAVEMENT SUB-GRADE. THE UPPER LAYER OF SUBGRADE SHALL BE COMPACTED TO 95% RELATIVE COMPACTION, THE EXACT DEPTH SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER AND/OR AS SHOWN ON THESE PLANS.
7. BACKFILL FOR UNDERGROUND UTILITIES PLACED ON THE SITE SHALL CONSIST OF CLEAN SAND MATERIAL (MINIMUM S.E. = 30) TO A MINIMUM OF 12 INCHES OVER THE CONDUIT, UNLESS SHOWN OTHERWISE ON THE PLAN. BACKFILL FOR UNDERGROUND UTILITIES PLACED IN EXISTING STREETS SHALL CONSIST OF CLEAN, IMPORTED SAND MATERIAL (MINIMUM S.E. = 30) AND MEETING THE REQUIREMENTS OF SECTION 19-3.06C(1) FOR THE FULL TRENCH DEPTH TO THE PAVEMENT SUBGRADE, UNLESS SHOWN OTHERWISE ON THE PLAN. A SAMPLE SHALL BE SUBMITTED FOUR (4) DAYS BEFORE INTENDED USE, FOR REVIEW BY THE ENGINEER. BACKFILL WITHIN THE UTILITY TRENCHES SHALL BE COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 90% OR 95% DEPENDING UPON THE LOCATION AND BASED UPON THE ASTM TEST DESIGNATIONS D1557, D1556 AND D2992.
8. AT ALL TIMES DURING CONSTRUCTION AND UNTIL FINAL COMPLETION, THE CONTRACTOR, WHEN HE OR HIS SUBCONTRACTORS ARE OPERATING EQUIPMENT ON THE SITE, SHALL PREVENT THE FORMATION OF AN AIRBORNE DUST NUISANCE BY WATERING AND/OR TREATING THE SITE OF THE WORK IN SUCH A MANNER THAT WILL CONFINE DUST PARTICLES TO THE IMMEDIATE SURFACE OF THE WORK. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE DONE BY THE DUST FROM HIS OR HER SUBCONTRACTOR'S ACTIVITIES IN PERFORMING THE WORK UNDER THIS CONTRACT. THE PRICES FOR THE VARIOUS ITEMS OF WORK SHALL COVER THIS DUST CONTROL.
9. ALL AGGREGATE SUBBASE AND AGGREGATE BASE MATERIAL AND THE HANDLING AND PLACEMENT THEREOF, SHALL BE IN CONFORMANCE WITH CALTRANS STANDARD SPECIFICATIONS. AGGREGATE SUBBASE SHALL BE CLASS 1. AGGREGATE BASE SHALL BE CLASS 2. (RECLAIMED MATERIAL IS NOT APPROVED FOR USE IN THE CITY). COMPACT TO A MINIMUM OF 95% RELATIVE COMPACTION.
10. A PRIME COAT OF LIQUID ASPHALT, GRADE MC-70, CONFORMING TO CALTRANS STANDARD SPECIFICATIONS, MAY BE APPLIED AT THE APPROXIMATE TOTAL RATE OF 0.25+ GALLONS PER SQUARE YARD TO THE SURFACE OF AGGREGATE BASE PRIOR TO PLACEMENT OF ASPHALT CONCRETE, IF THERE IS TO BE DELAY IN PLACING THE ASPHALT CONCRETE PAVEMENT.
11. ASPHALT CONCRETE (AC) SHALL CONSIST OF A MIXTURE OF SAND, MINERAL AGGREGATE, AND LIQUID ASPHALT, DESIGNATED AS CALTRANS STANDARD SPECIFICATIONS, TYPE B, 1/2" MAXIMUM, MEDIUM GRADING. MIXED IN SUCH PROPORTIONS THAT THE PERCENTAGE BY WEIGHT WILL BE WITHIN:
- |             |                             |
|-------------|-----------------------------|
| SIEVE SIZES | OPERATING RANGE (% PASSING) |
| 3/4"        | 100%                        |
| 1/2"        | 95%                         |
| 3/8"        | 80-95%                      |
| NO.4        | 59-66%                      |
| NO.6        | 43-49%                      |
| NO.30       | 22-27%                      |
| NO.200      | 3-8%                        |
- PLUS PAVING ASPHALT, VISCOSITY GRADE AR4000 AT 5 TO 6-1/2% OF THE COMBINED DRY AGGREGATES.
- ACTUAL MIX DESIGN SHALL BE SUBMITTED TO THE OWNER'S CIVIL ENGINEER FOR APPROVAL AT LEAST 10 WORKING DAYS PRIOR TO STARTING ANY PAVING WORK.
12. PAINT BINDER OF ASPHALT EMULSION, GRADE CRS-1, CONFORMING TO CALTRANS STANDARD SPECIFICATIONS, SHALL BE APPLIED TO EXISTING ASPHALT CONCRETE SURFACES AND VERTICAL CONCRETE SURFACES TO RECEIVE ASPHALT CONCRETE.
13. MATERIALS AND INSTALLATION OF PORTLAND CEMENT CONCRETE CURB, GUTTER AND SIDEWALK SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE CALTRANS STANDARD SPECIFICATIONS AND THE CITY STANDARD SPECIFICATIONS AND DETAILS.
14. EXISTING A.C. SURFACE SHALL BE SAW CUT TO A NEAT STRAIGHT LINE PARALLEL WITH THE STREET CENTERLINE AND THE EXPOSED EDGE SHALL BE TACKED WITH EMULSION PRIOR TO PAVING. WHEN TRENCHING THROUGH CURB, GUTTER AND SIDEWALK, A SAW CUT WILL BE USED. WHERE EXISTING PAVEMENT IS TRENCHED, REPLACE WITH 4" THICK HMA-3/4" MEDIUM MIX OVER 12" THICK A.B. OR MATCH EXISTING SECTION, WHICHEVER IS GREATER. THE EXPOSED BASE MATERIAL SHALL BE GRADED, RECOMPACTED AND RESEALED PRIOR TO REPAVING. CONFORM SHALL BE MINIMUM WIDTH OF 2'. TRENCH SECTION AND PAVEMENT RESTORATION SHALL BE IN ACCORDANCE WITH CITY OF SEASIDE STANDARD S-601.
15. ALL VALVE BOXES AND MANHOLES TO BE SET FLUSH WITH FINISHED GRADE, UNLESS OTHERWISE NOTED.
16. APPROVAL OF THE CITY ENGINEER OR HIS AUTHORIZED REPRESENTATIVE, IS REQUIRED ON COMPLETED WORK PRIOR TO (A) PLACING OF ANY CONCRETE, (B) PLACING OF AGGREGATE BASE, (C) PLACING OF ASPHALTIC CONCRETE, (D) BACK FILLING TRENCHES FOR PIPE. WORK DONE WITHOUT SUCH APPROVAL, SHALL BE AT THE CONTRACTOR'S RISK. SUCH APPROVAL SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF PERFORMING THE WORK IN AN ACCEPTABLE MANNER. REVIEW MAY INCLUDE SURVEY OF SUBBASE, BASE, AND AC/PCC FINISHED GRADE TO VERIFY GRADES.
- GRADING TOLERANCES SHALL BE AS FOLLOWS:
- |                 |           |
|-----------------|-----------|
| AREA            | TOLERANCE |
| CURB & GUTTER   | 0.01 FEET |
| PAVEMENT        | 0.02 FEET |
| BASE OR SUBBASE | 0.05 FEET |
17. PRIOR TO PERFORMING THE FINAL GRADING AND SUB-GRADE COMPACTION FOR THE PAVED AREAS, THE CONTRACTOR SHALL REVIEW THE PROPOSED GRADES WITH THE MPWMD'S ENGINEER AND COMPLY WITH HIS REQUESTS FOR ANY MINOR GRADE CHANGES.
18. NOT USED
19. PAVEMENT MARKERS SHALL CONFORM TO SECTION 85 OF THE CALTRANS STANDARD SPECIFICATIONS AND THE SUPPLEMENTARY CONDITIONS.
20. ALL GRADING SHALL CONFORM TO APPROVED SPECIFICATIONS PRESENTED HEREON OR ATTACHED HERETO IN THE SPECIAL PROVISIONS. ALL GRADING WORK SHALL BE OBSERVED AND APPROVED BY THE GEOTECHNICAL ENGINEER. THE GEOTECHNICAL ENGINEER SHALL BE NOTIFIED AT LEAST TWO (2) WORKING DAYS BEFORE BEGINNING ANY GRADING. UNOBSERVED AND UNAPPROVED GRADING WORK SHALL BE REMOVED AND REPLACED UNDER OBSERVATION.
21. QUALITY ASSURANCE: FIELD OBSERVATION AND TESTING OF THE EARTHWORK CONSTRUCTION SHALL BE COORDINATED BY THE OWNER'S CIVIL ENGINEER. EARTHWORK THAT IN THE OPINION OF THE ENGINEER, DOES NOT CONFORM TO THE PLANS, SHALL BE REMOVED AND REPLACED OR REWORKED UNTIL, IN THE OPINION OF THE ENGINEER, SATISFACTORY EARTHWORK CONSTRUCTION HAS BEEN OBTAINED. REWORKING, OR REMOVAL AND REPLACEMENT OF EARTHWORK CONSTRUCTION AS DISCUSSED IN THIS PARAGRAPH SHALL BE AT THE SOLE EXPENSE OF THE CONTRACTOR.
22. CAPE SEAL SHALL BE INSTALLED PER CAL TRANS SPECIFICATIONS FOR "DOUBLE SEAL COAT" PER SECTION 37-1.

GENERAL WATER FACILITIES NOTES

1. CONTRACTOR REPRESENTATIVE. CONTRACTOR SHALL ASSIGN AND PROVIDE UTILITY WITH THE NAME AND CONTACT INFORMATION OF A REPRESENTATIVE (JOB FOREMAN) AT THE JOB SITE WHERE THE WORK WILL BE PERFORMED ON UTILITY FACILITIES. CONTRACTOR'S REPRESENTATIVE IS REQUIRED TO ATTEND ANY PRE-CONSTRUCTION WALK-THROUGH MEETINGS. CONTRACTOR REPRESENTATIVE IS REQUIRED TO BE ON THE JOBSITE DURING ALL PHASES OF WORK, INCLUDING INSPECTIONS, AND CONTRACTOR SHALL NOT REPLACE THE REPRESENTATIVE WITHOUT PRIOR APPROVAL FROM MPWMD.
2. IDENTIFICATION OF BURIED UTILITIES. BEFORE ANY WORK ON UNDERGROUND FACILITIES, CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) OR IDENTIFYING ANY BURIED UTILITIES NEAR THE WORK AREA. USA (PHONE 1-800-642-2444) MUST BE GIVEN A 48 HOUR ADVANCE NOTICE. MPWMD IS ONLY RESPONSIBLE FOR MARKING THOSE WATER FACILITIES OWNED BY MPWMD AND SHALL NOT BE RESPONSIBLE FOR MARKING NEW FACILITIES UNTIL MPWMD ACCEPTS OWNERSHIP. ANY CALLS TO THE MPWMD REGARDING SUCH FACILITIES WILL BE FORWARDED TO THE CONTRACTOR. ANY DAMAGES TO WATER FACILITIES TO BE OWNED BY MPWMD MUST BE REPORTED TO MPWMD IMMEDIATELY AND MPWMD MUST BE ALLOWED TO INSPECT THE APPROVED REPAIRS OR REPLACEMENTS.
3. INSPECTION NOTICES. WHEN APPLICABLE, CONTRACTOR SHALL GIVE UTILITY AND CITY OF SEASIDE INSPECTORS 48 HOURS NOTICE (MINIMUM) BEFORE SCHEDULING ANY MEETING OR STARTING CONSTRUCTION, AND 24 HOURS NOTICE (MINIMUM) FOR INSPECTION.
4. VERIFICATION OF DATA AND INFORMATION PROVIDED BY UTILITY. NOTICE IS HEREBY GIVEN TO THE CONTRACTOR THAT MPWMD HAS MADE ALL REASONABLE EFFORTS TO IDENTIFY THE TYPES, LOCATIONS, SIZES AND DEPTHS OF EXISTING OR PLANNED UNDERGROUND OR ABOVEGROUND UTILITIES, STRUCTURES, ROADS, PIPELINES, HARD ROCK, STRATA, TOPOGRAPHY, ETC. SUCH ITEMS, WHEN DEPICTED ON THE PLANS, HAVE BEEN OBTAINED FROM SOURCES OF VARYING RELIABILITY. THEREFORE, MPWMD AND ASSOCIATED COMPANIES CANNOT ASSUME RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF SAID INFORMATION. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL EXISTING FACILITIES BY POT-HOLING ALL PROXIMATE WATER LINES TO CONFIRM SIZE, DEPTH AND MATERIAL TYPE OF EXISTING FACILITIES. IN CASE OF CONFLICT/S, CONTRACTOR SHALL BRING THE MATTER TO THE ATTENTION OF UTILITY FOR RESOLUTION BEFORE CONTINUING WORK.
5. SURVEYING AND LOCATING. CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED SURVEYING AND STAKING, SHOWING THE LOCATION AND GRADES FOR WORK ON THE WATER SYSTEM. CONTRACTOR IS RESPONSIBLE FOR PROTECTING AND MAINTAINING ALL SURVEY MONUMENTS AND STAKING WHETHER EXISTING OR DISCOVERED DURING CONSTRUCTION.
6. JOBSITE SAFETY. CONTRACTOR IS SOLELY RESPONSIBLE FOR ANY CURRENTLY APPLICABLE SAFETY LAW OF ANY JURISDICTIONAL AGENCY. CONTRACTOR IS ALSO RESPONSIBLE FOR PROJECT SITE SAFETY AND FOR PUBLIC SAFETY INCLUDING TRAFFIC CONTROL, 24-HOURS PER DAY FOR ALL DAYS FROM THE NOTICE TO PROCEED THROUGH THE NOTICE OF COMPLETION.
7. PIPE AND FITTINGS. PIPING 12-INCH DIAMETER AND SMALLER SHALL BE AWWA C-900 CLASS 150 OR 200 PVC, UNLESS OTHERWISE NOTED (CLASS 200 PIPE IS REQUIRED WHEN WATER MAIN IS NEAR SEWERS). ALL FITTINGS SHALL BE DUCTILE IRON WITH CEMENT LINED INSIDE AND BITUMINOUS COATED OUTSIDE, WHICH SHALL BE PAINTED WITH POLYGUARD #14 MASTIC. CONTRACTOR SHALL PROVIDE PIPE AND FITTING MATERIALS SUBMITTAL TO MPWMD FOR APPROVAL BEFORE BEGINNING WORK.
8. FLANGED FITTINGS. ALL FLANGED FITTINGS SHALL BE BOLTED TOGETHER WITH ZINC COATED STEEL NUTS AND BOLTS, GRADE 5 OR BETTER.
9. MECHANICAL JOINTS. USE EBAA MECHANICAL JOINT MEGA-LUGS ON ALL MECHANICAL JOINT FITTINGS.
10. CONCRETE THRUST BLOCKS. THRUST BLOCKS SHALL BE INSTALLED WHERE PIPE DEFLECTIONS EXCEED 4 DEGREES PER COUPLING/FITTINGS, AS SPECIFIED BY PIPE MANUFACTURER. USE EBAA MECHANICAL JOINT MEGA-LUGS ON ALL MECHANICAL JOINT FITTINGS. USE EBAA SERIES 1600 PIPE RESTRAINTS IN LIEU OF CONC. THRUST BLOCKS. UTILITY ENGINEER TO ADVISE CONTRACTOR OF REQUIRED LENGTH OF PIPE TO BE RESTRAINED. CONCRETE THRUST BLOCKS TO BE USED IF RESTRAINTS CANNOT BE UTILIZED.
11. RETURNING PROPERTY TO ORIGINAL CONDITION. CONTRACTOR SHALL PHOTOGRAPH OR VIDEOTAPE JOB SITE AREA TO DOCUMENT EXISTING CONDITIONS BEFORE BEGINNING WORK TO MINIMIZE UNDEE CLAIMS. CONTRACTOR IS RESPONSIBLE TO RETURN ALL PROPERTY TO ORIGINAL OR BETTER CONDITION, INCLUDING TRAFFIC MARKINGS. ALL CLAIMS SHALL BE BORNE AND RESOLVED BY CONTRACTOR OR MPWMD SHALL ADDRESS SAID CLAIM AND MAY DEDUCT ANY COSTS FRO FINAL PAYMENT/RETENTION. A COPY OF THE CLAIM DOCUMENTS SHALL BE SUBMITTED TO MPWMD WITHIN 48 HOURS AFTER RECEIVING ANY SUCH CLAIMS.

LEGEND

---	16"W---	EXIST. WATER LINE	BLDG	BUILDING
---	EV	EXIST. ELECT. VAULT	C.L.	CENTERLINE
---	---	EXIST. WATER VALVE	CONT	CONTINUOUS
---	---	EXIST. FENCE LINE	CTR	CENTER
---	---	PROPERTY LINE	CMP	CORRIGATED METAL PIPE
---	---	PROPOSED FENCE	CMU	CEMENT MORTOR UNIT
---	---	PROPOSED RETAINING WALL	DIA.	DIAMETER
---	---		DET	DETAIL
---	---		ELEV	ELEVATION
---	---		FLG	FLANGE
---	---		STL	STEEL
---	---		SHT	SHEET
---	---		TF	TOP OF FOOTING
---	---		TW	TOP OF WALL
---	---		TYP	TYPICAL

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- ARCHITECTURAL
- A-111 SITE DETAILS



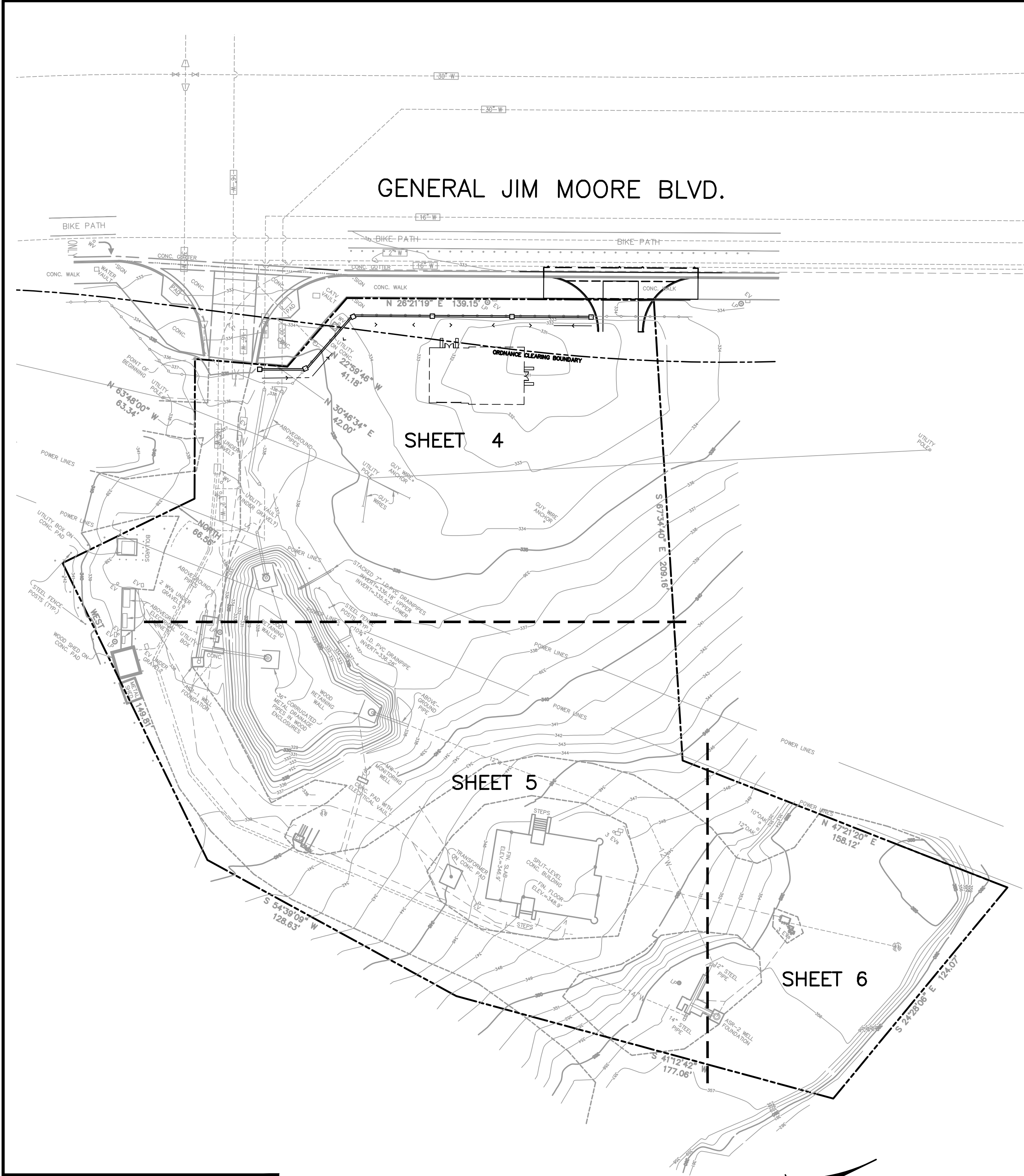
DATE SIGNED \_\_\_\_\_

GENERAL INFORMATION  
MONTEREY PENINSULA WATER MANAGEMENT DISTRICT  
SANTA MARGARITA ASR FACILITY SITE EXPANSION  
1910 GENERAL JIM MOORE BOULEVARD

PROJECT NO.  
W.O. 0451

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### EARTHWORK

ESTIMATED EARTHWORK QUANTITIES:	CUT	FILL
SITE GRADING	2570 C.Y.	2175 C.Y.
TRENCH GRADING	10 C.Y.	5 C.Y.
SUBTOTAL	2580 C.Y.	2180 C.Y.
SHRINKAGE @ 15%	-400 C.Y.	
TOTAL	2180 C.Y.	2180 C.Y.
	IMPORT = 0 C.Y. EXPORT = 0 C.Y.	

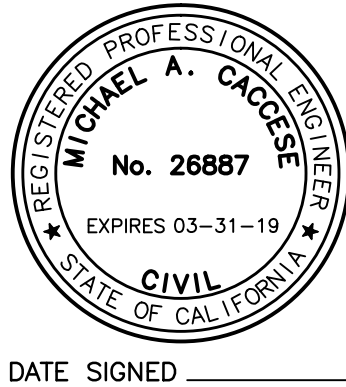
- (1) ESTIMATED QUANTITIES SHOWN ABOVE ARE COMPUTED FROM EXISTING GROUND ELEVATIONS TO THE PROPOSED ELEVATIONS ON THIS PLAN.
- (2) MATERIAL GENERATED THROUGH CLEARING & GRUBBING OPERATIONS WILL BE MULCHED AND SPREAD ON SITE AS DESIGNATED BY PROJECT ENGINEER AND NOT BE REMOVED FROM THE SITE.
- (3) FOR THE PURPOSE OF THESE EARTHWORK CALCULATIONS, THE PAVEMENT STRUCTURAL SECTION IS ASSUMED TO BE 0.75'.
- (4) NO MATERIAL WILL BE EXPORTED OR IMPORTED FROM THE SITE. THE BERMS LOCATED EASTERLY OF GENERAL JIM MOORE BOULEVARD AND NORTHERLY OF THE PROPOSED POND EXPANSION WILL BE ADJUSTED AS REQUIRED TO ENSURE EARTHWORK WILL BALANCE ONSITE.

### LEGEND

--- 16"W ---	EXIST. WATER LINE	BLDG	BUILDING
□ EV	EXIST. ELECT. VAULT	C.L.	CENTERLINE
○	EXIST. WATER VALVE	CONT	CONTINUOUS
—○—	EXIST. FENCE LINE	CTR	CENTER
—x—x—x—x—	PROPERTY LINE	CMP	CORRIGATED METAL PIPE
—x—x—x—x—	PROPOSED FENCE	CMU	CEMENT MORTOR UNIT
—x—x—x—x—	PROPOSED RETAINING WALL	DIA.	DIAMETER
		DET	DETAIL
		ELEV	ELEVATION
		FL	FLOW LINE (GROUND)
		FLG	FLANGE
		HP	HIGH POINT
		INV	INVERT
		LP	LOW POINT
		STL	STEEL
		SHT	SHEET
		TF	TOP OF FOOTING
		TG	TOP OF GRATE
		TW	TOP OF WALL
		TYP	TYPICAL

UNAUTHORIZED CHANGES & USES CAUTION:  
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KEY MAP  
SCALE: 1"=30'



REV	DATE	BY	DESCRIPTION
B	8/31/18	MAC	BID CLARIFICATION
A	8/24/18	MAC	ISSUED FOR BID

SCALE:  
HOR. 1"=30'  
VER. N/A

WARNING  
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DESIGNED MAC  
DRAWN TLA  
CHECKED SPT

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(805) 644-0470

**KEY MAP**  
**MONTEREY PENINSULA WATER MANAGEMENT DISTRICT**  
SANTA MARGARITA ASR FACILITY SITE EXPANSION  
1910 GENERAL JIM MOORE BOULEVARD

PROJECT NO.  
W.O. 0451

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LEGEND

REMOVE EXIST. UTILITY LINE.

DEMOLITION & FENCING CONSTRUCTION NOTES

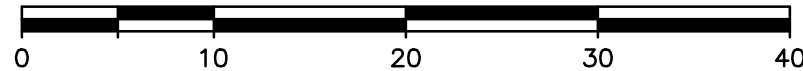
- 1 REMOVE AND SALVAGE EXISTING FENCE,
- 2 RELOCATED LOCATION OF SALVAGED FENCE. CONTRACTOR TO PROVIDE ADDITIONAL FENCE MATERIALS AS REQUIRED (APPROX. 30'). POSTS AND FENCE MESH TO MATCH EXISTING.
- 3 PROTECT EXISTING GATE IN PLACE.
- 4 EXISTING HDPE OVERFLOW PIPE TO BE REMOVED.
- 5 INSTALL GATE TO MATCH EXISTING GATE (SEE NOTE 3) IF ADDITIONAL CONSTRUCTION ENTRANCE IS INSTALLED.
- 6 INSTALL TEMPORARY CONSTRUCTION FENCE TO PROTECT EXISTING ABOVE GRADE PIPING. FENCING MATERIAL TO BE AT CONTRACTOR'S OPTION.

FENCING NOTES

1. FENCE REMOVAL, SALVAGE AND RELOCATION SHALL BE COMPLETED AS THE FIRST ORDER OF WORK FOR SITE SECURITY.
2. SITE SECURITY SHALL BE MAINTAINED AT ALL TIMES.
3. RELOCATED FENCE SHALL NOT BE REMOVED UNTIL RETAINING WALL, WROUGHT IRON FENCE AND NEW CHAIN LINK FENCE HAS BEEN INSTALLED AND ACCEPTED BY OWNER.



SCALE: 1"=10'



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SCALE:  
HOR. 1"=10'

VER. 1"=N/A



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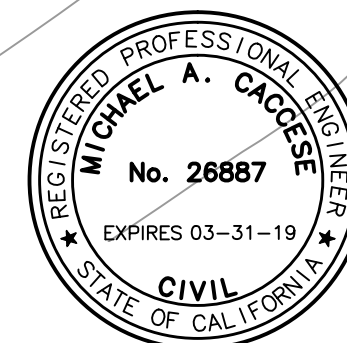


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**DEMOLITION & FENCING PLAN**  
**MONTEREY PENINSULA WATER MANAGEMENT DISTRICT**  
SANTA MARGARITA ASR FACILITY SITE EXPANSION  
1910 GENERAL JIM MOORE BOULEVARD

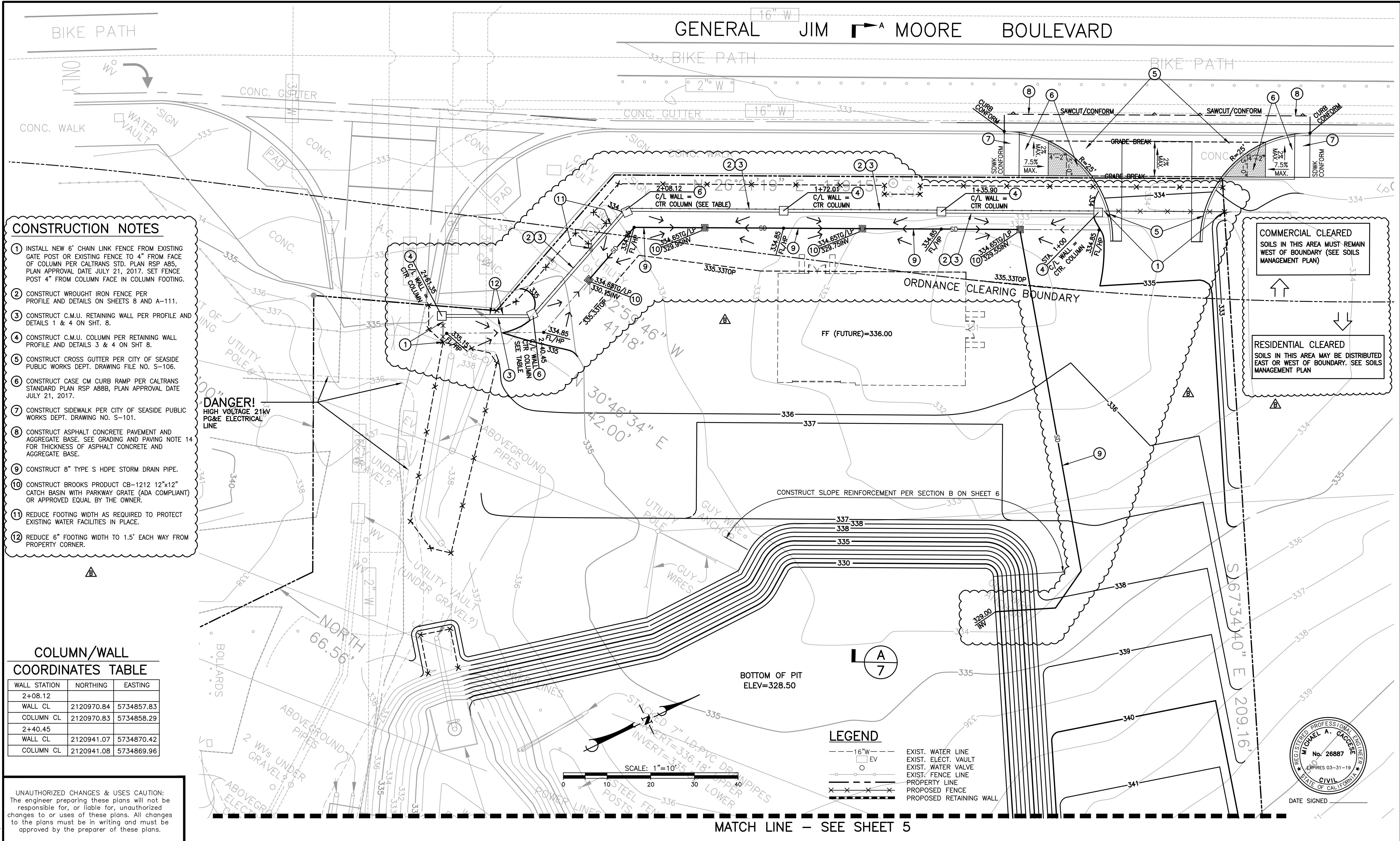
PROJECT NO.  
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DATE SIGNED \_\_\_\_\_





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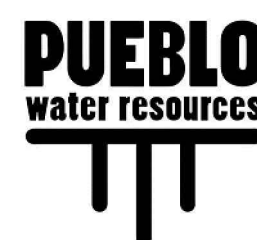
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SCALE:  
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VER. N/A

WARNING  
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**FINAL GRADING PLAN**  
**MONTEREY PENINSULA WATER MANAGEMENT DISTRICT**  
SANTA MARGARITA ASR FACILITY SITE EXPANSION  
1910 GENERAL JIM MOORE BOULEVARD

PROJECT NO.  
W.O. 0451

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MATCH LINE - SEE SHEET 4

## CONSTRUCTION NOTES

- 1 LOCATE AND CUT EXISTING 12" C-900 PVC BLOWOFF LINE APPROXIMATELY AS SHOWN. RELOCATE EXISTING 12" DIP RISER, EXTENSION PIPE, AND 36" ENERGY DIFFUSER WITH ROCK FILL AND REDWOOD HEADER APPROXIMATELY 45' TO THE EAST AS SHOWN. PROVIDE NEW EBBA-IRON MEGALUS FITTING, GLAND, AND HARDWARE AS NECESSARY TO RECONNECT RISER PIPE TO CUT C-900 PVC BLOWOFF LINE.
- 2 REMOVE AND RELOCATE EXISTING ENERGY DISSIPATOR SEE DETAIL 1 SHEET 6.

MATCH LINE - SEE SHEET 6



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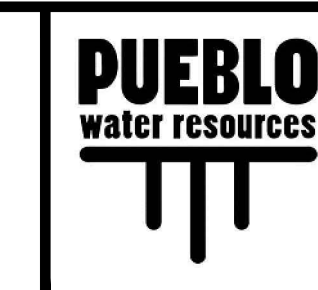
REV	DATE	BY	DESCRIPTION
A	8/24/18	MAC	ISSUED FOR BID

SCALE:  
HOR. 1"=10'  
VER. N/A

WARNING  
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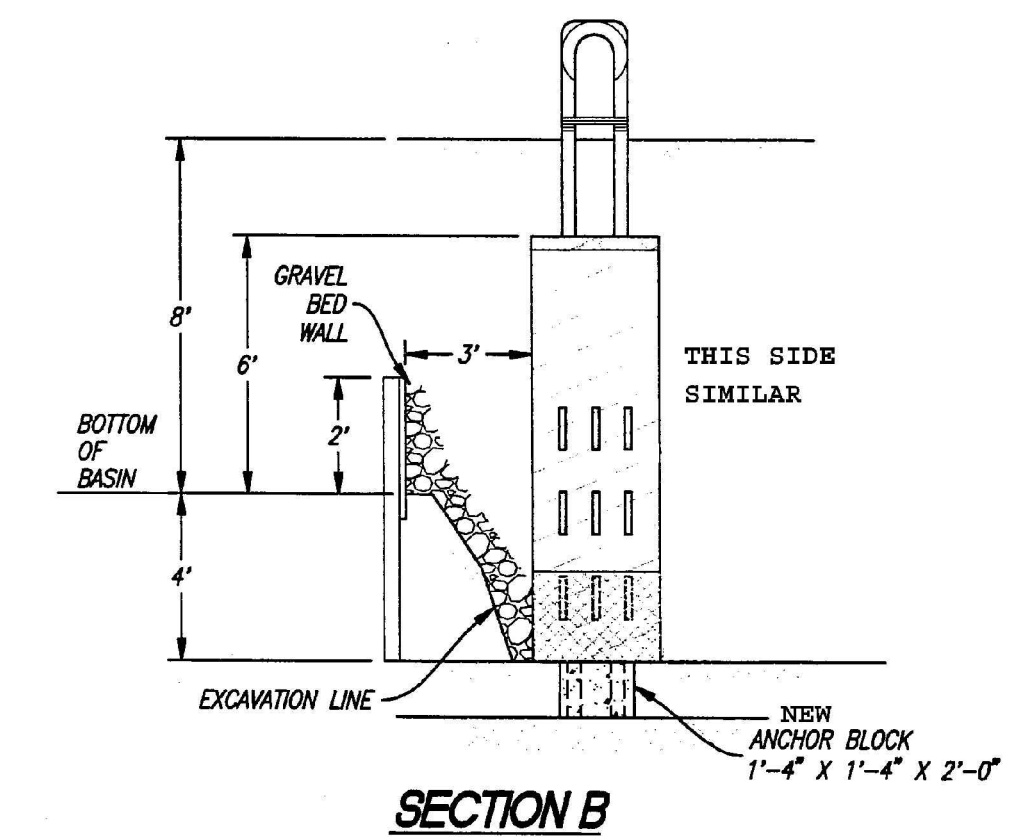
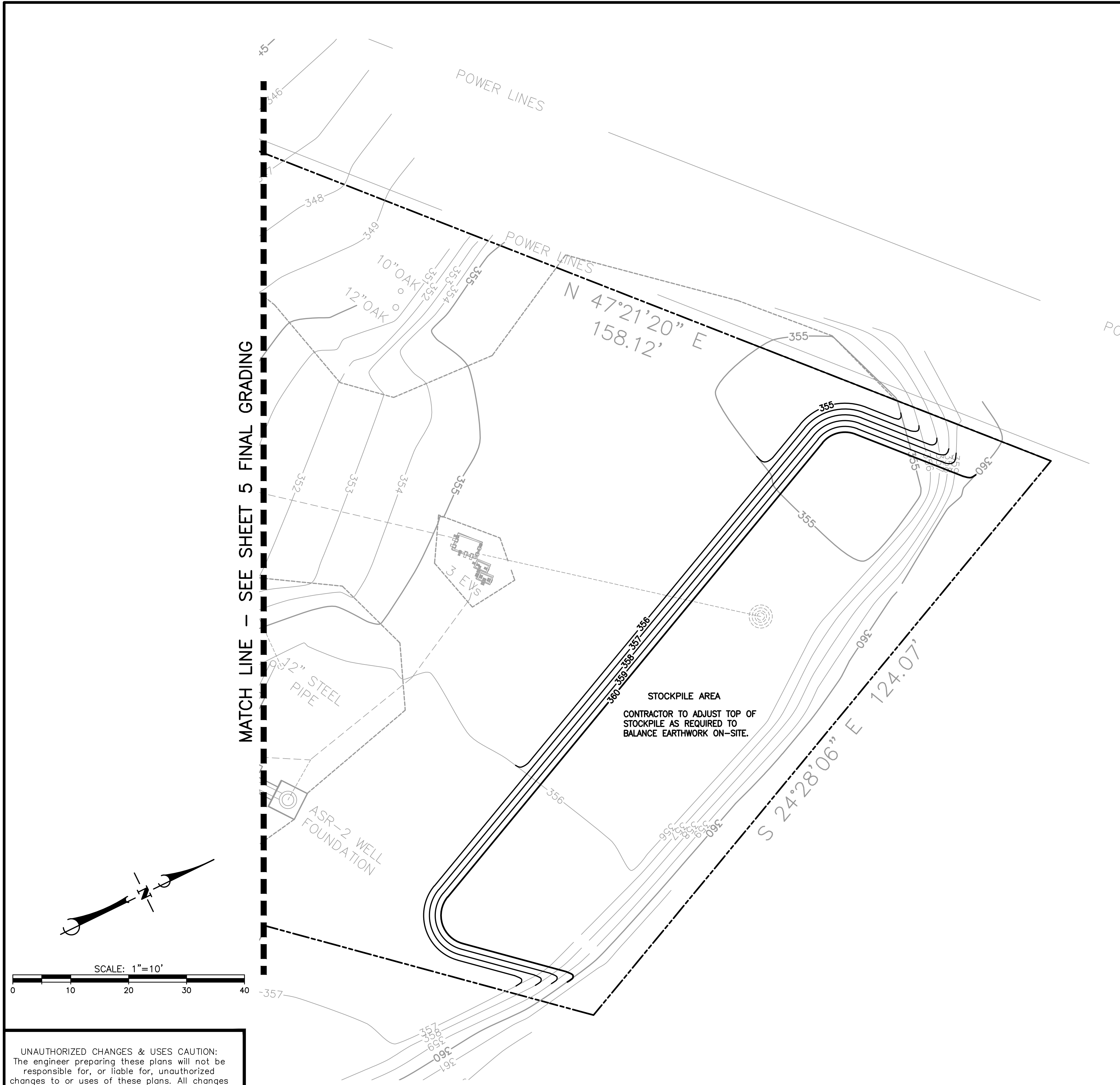
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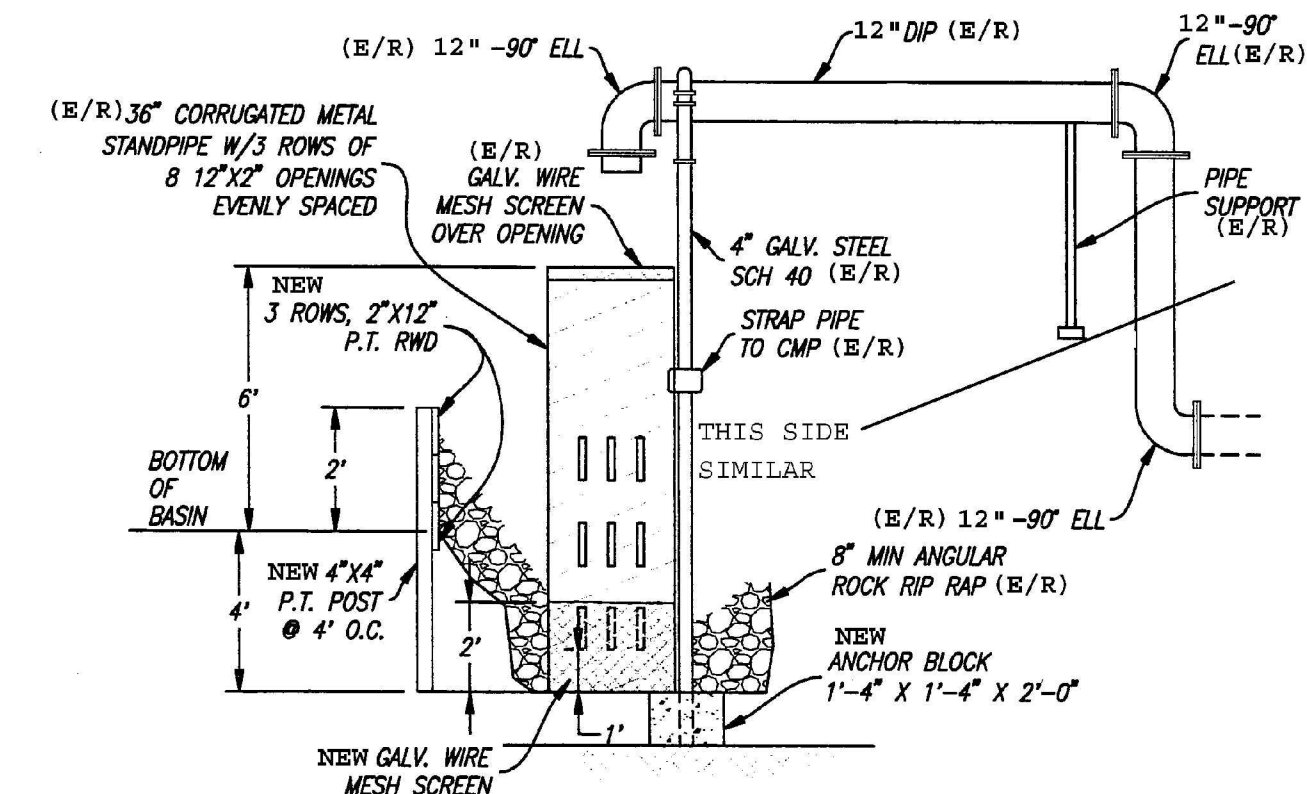
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**DEMOLITION AND FINAL GRADING PLAN**  
**MONTEREY PENINSULA WATER MANAGEMENT DISTRICT**  
SANTA MARGARITA ASR FACILITY SITE EXPANSION  
1910 GENERAL JIM MOORE BOULEVARD

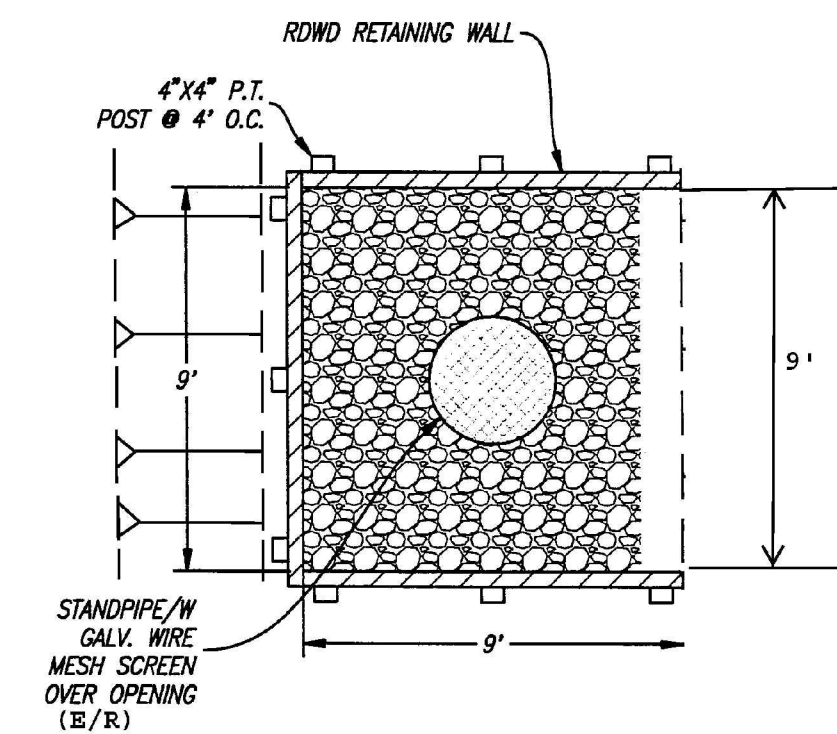
PROJECT NO. W.O. 0451  
6 of 9



1 ENERGY DISSIPATION CAN AND PIPE SUPPORT  
NTS

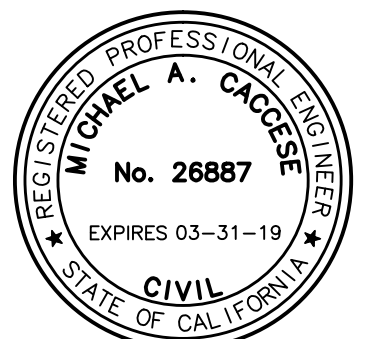


ABBREV.  
E/R EXISTING/REUSE

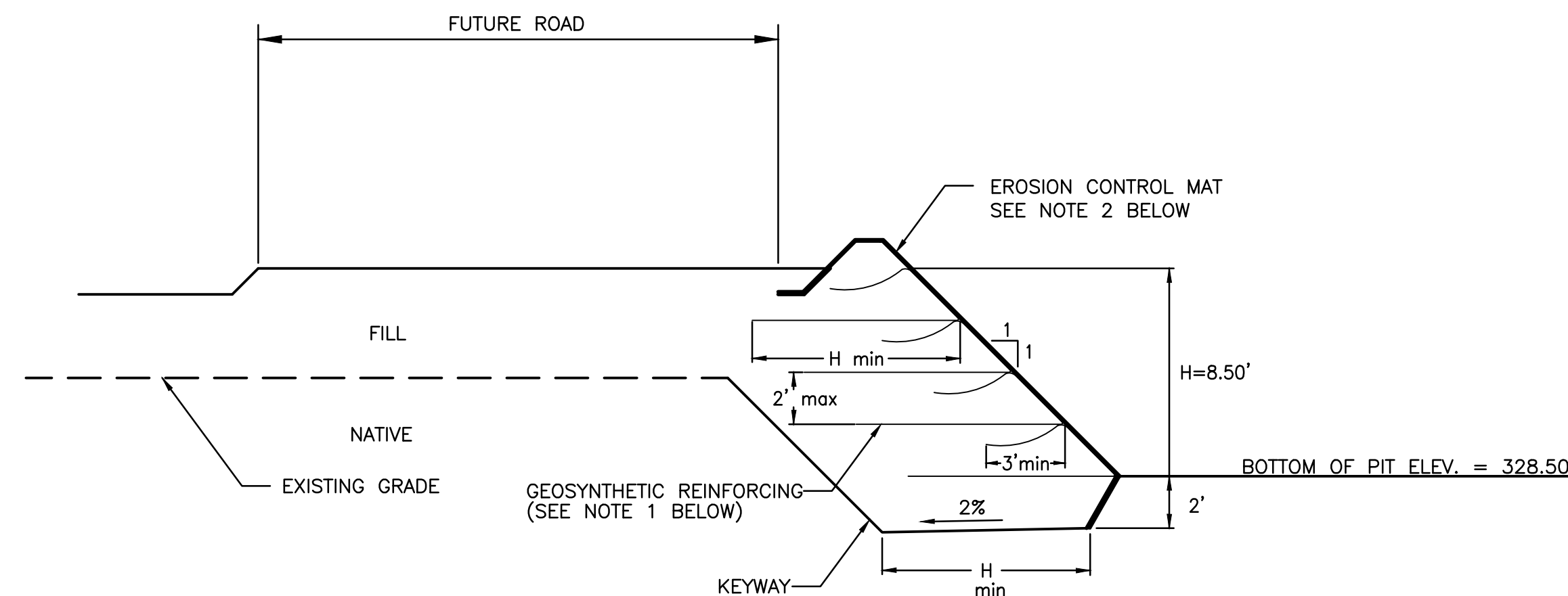


PLAN-STANDPIPE & RETAINING WALL

ABBREV.  
E/R EXISTING/REUSE

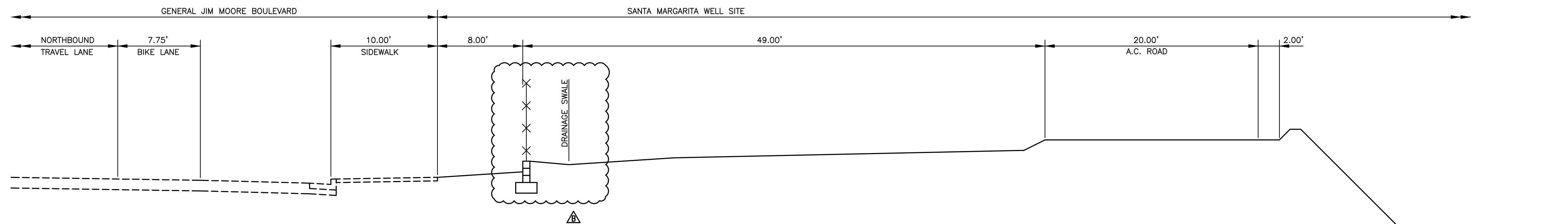


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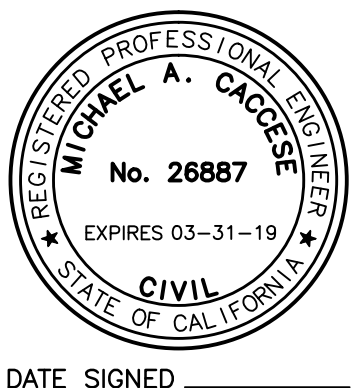
- EROSION CONTROL MAT NOTES
1. GEOSYNTHETIC REINFORCING. MIRAFI 5XT MIRAGRID, 12 FEET MINIMUM LENGTH FROM FACE OF SLOPE (AND WRAPPED PER GEOTECH REPORT), 5 LAYERS SPACED 2 FEET APART, UPPER LAYER SHOULD BE A MINIMUM OF 1.5 FEET BELOW THE ROAD SURFACE.
  2. EROSION CONTROL MAT. NORTH AMERICAN GREEN SC250 INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

**B**  
7 SECTION B  
SCALE: 1"=5'



**A**  
7 SECTION A-A  
SCALE: 1"=5'

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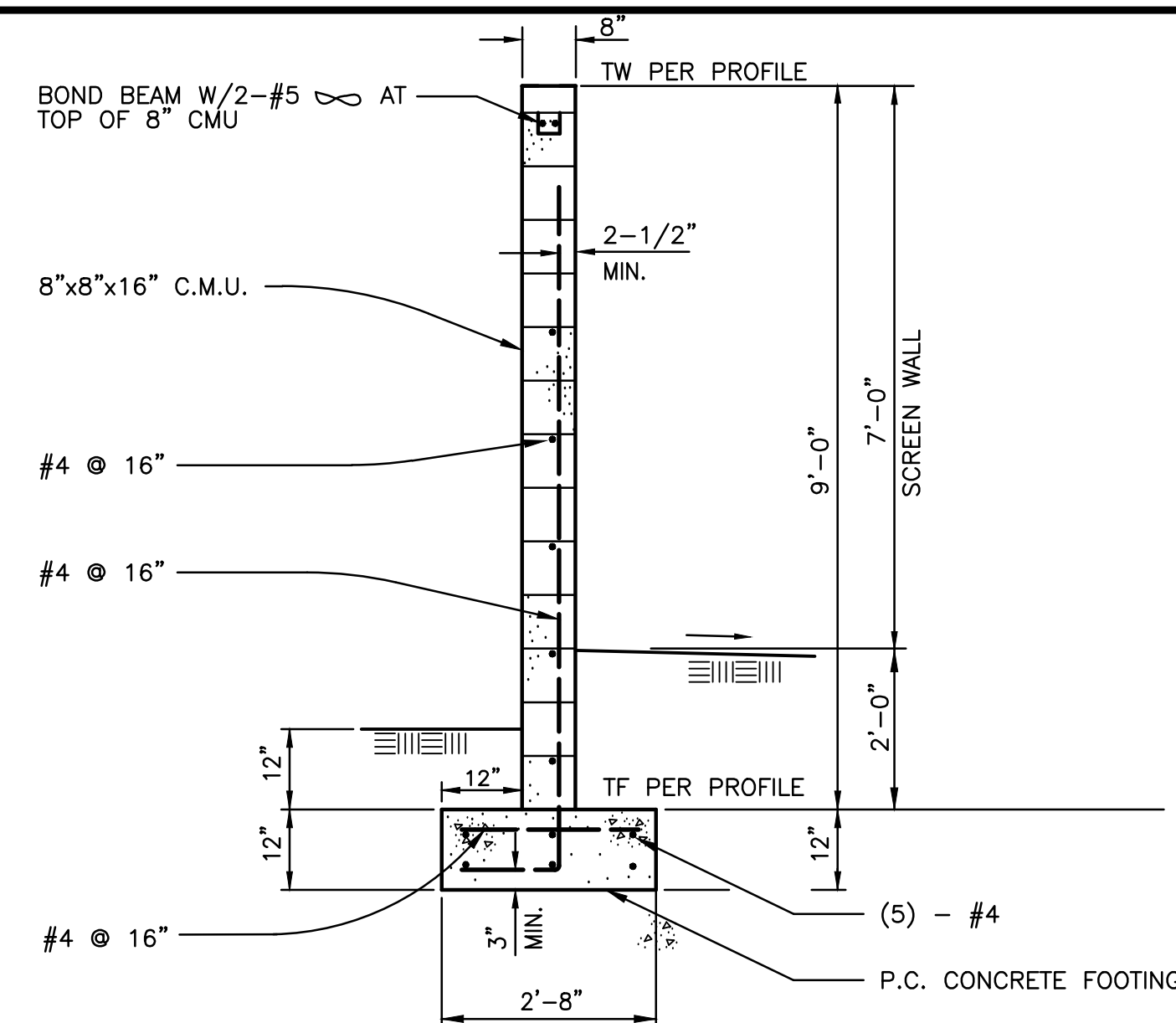
**CROSS SECTION AND DETAILS**  
**MONTEREY PENINSULA WATER MANAGEMENT DISTRICT**  
SANTA MARGARITA ASR FACILITY SITE EXPANSION  
1910 GENERAL JIM MOORE BOULEVARD

PROJECT NO.  
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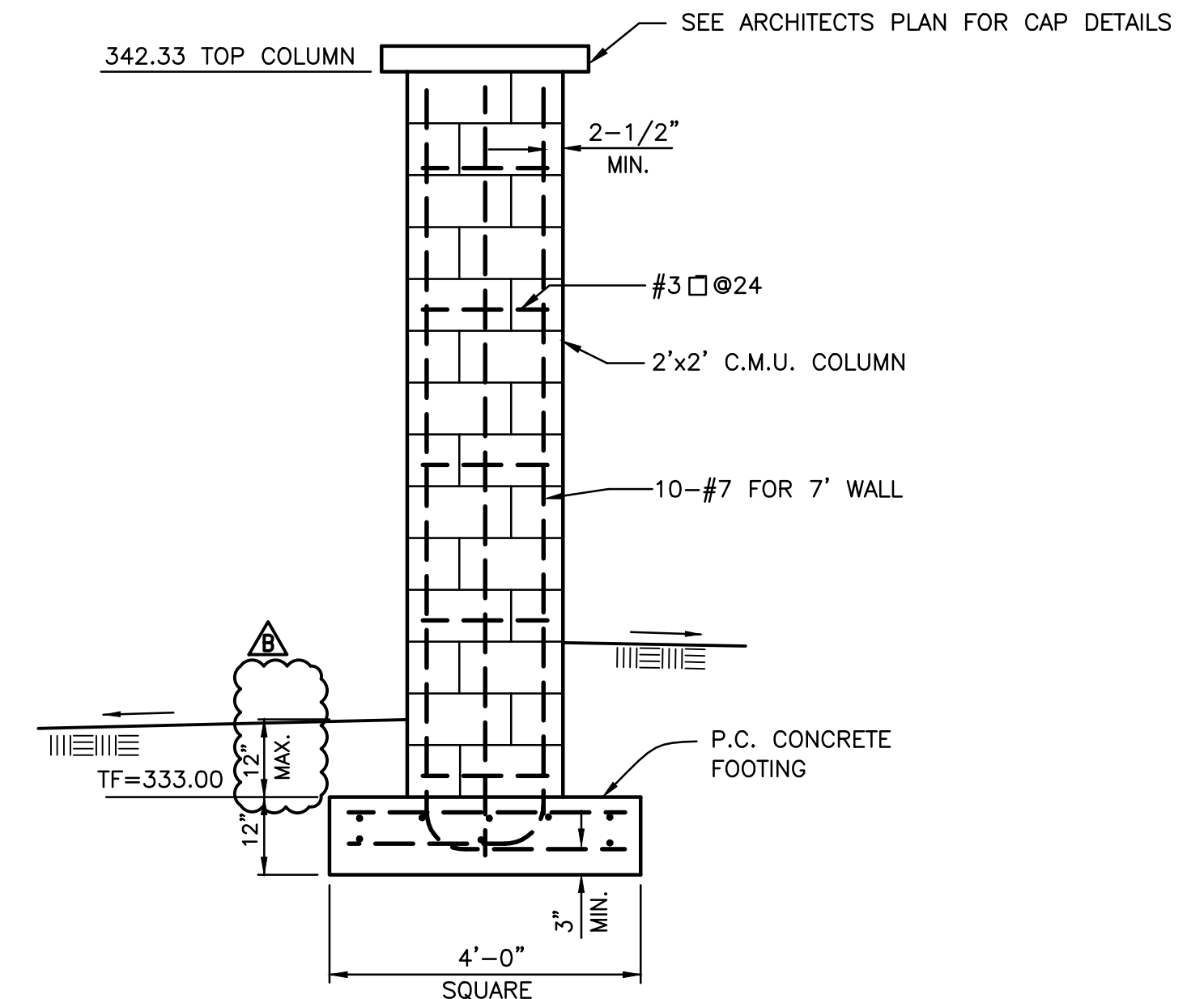
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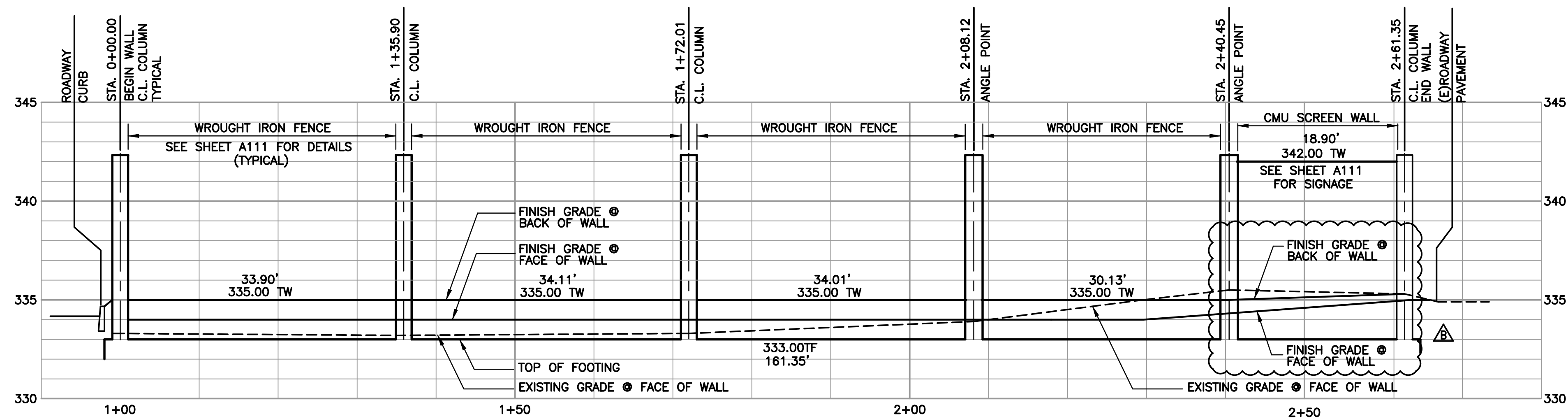


NOTE  
SEE SHEET A111 FOR PLASTER COATING  
AND FINISH DETAILS  
**1**  
**8** SCREEN WALL DETAIL  
NO SCALE

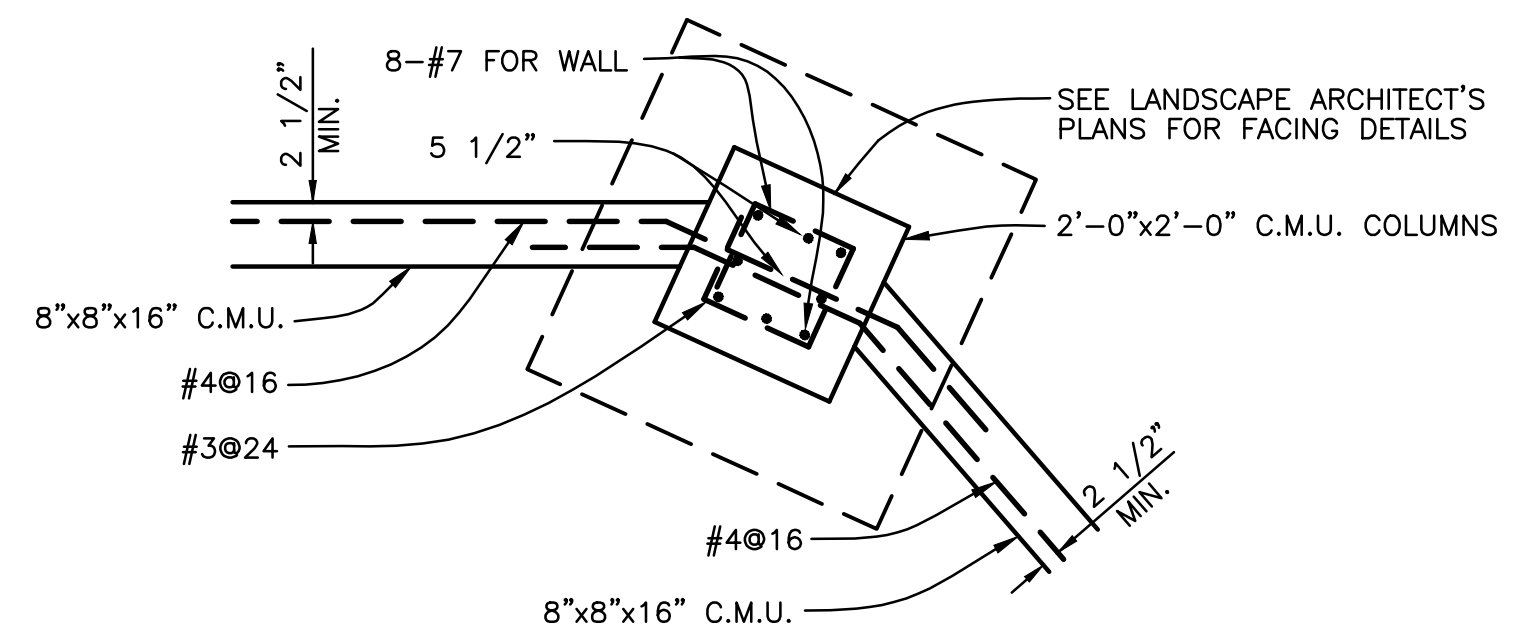


NOTES:  
1. HORIZONTAL REINFORCEMENT FOR COLUMN IS NOT SHOWN.  
SEE COLUMN TYPICAL SECTION (DETAIL "A" THIS SHEET) FOR DETAILS  
2. SEE SHEET A111 FOR PLASTER COATING  
AND FINISH DETAILS

**3**  
**8** COLUMN DETAIL  
SCALE: 1" = 2'-0"



**2**  
**8** SCREEN WALL/WROUGHT IRON FENCE PROFILE  
SCALE: HORIZ. 1" = 10'  
VERT. 1" = 4'



NOTES:  
1. HORIZONTAL REINFORCEMENT IN WALL MUST BE CONTINUOUS THROUGH COLUMN. LAP REINFORCEMENT 40 BAR DIAMETERS MINIMUM.  
2. VERTICAL REINFORCEMENT IN WALL IS NOT SHOWN. SEE SCREEN WALL DETAILS FOR INFORMATION.

**4**  
**8** COLUMN TYPICAL SECTION  
SCALE: 1" = 2'-0"



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REV	DATE	BY	DESCRIPTION
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A	8/24/18	MAC	ISSUED FOR BID

SCALE:  
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VER. 1"=2'

WARNING  
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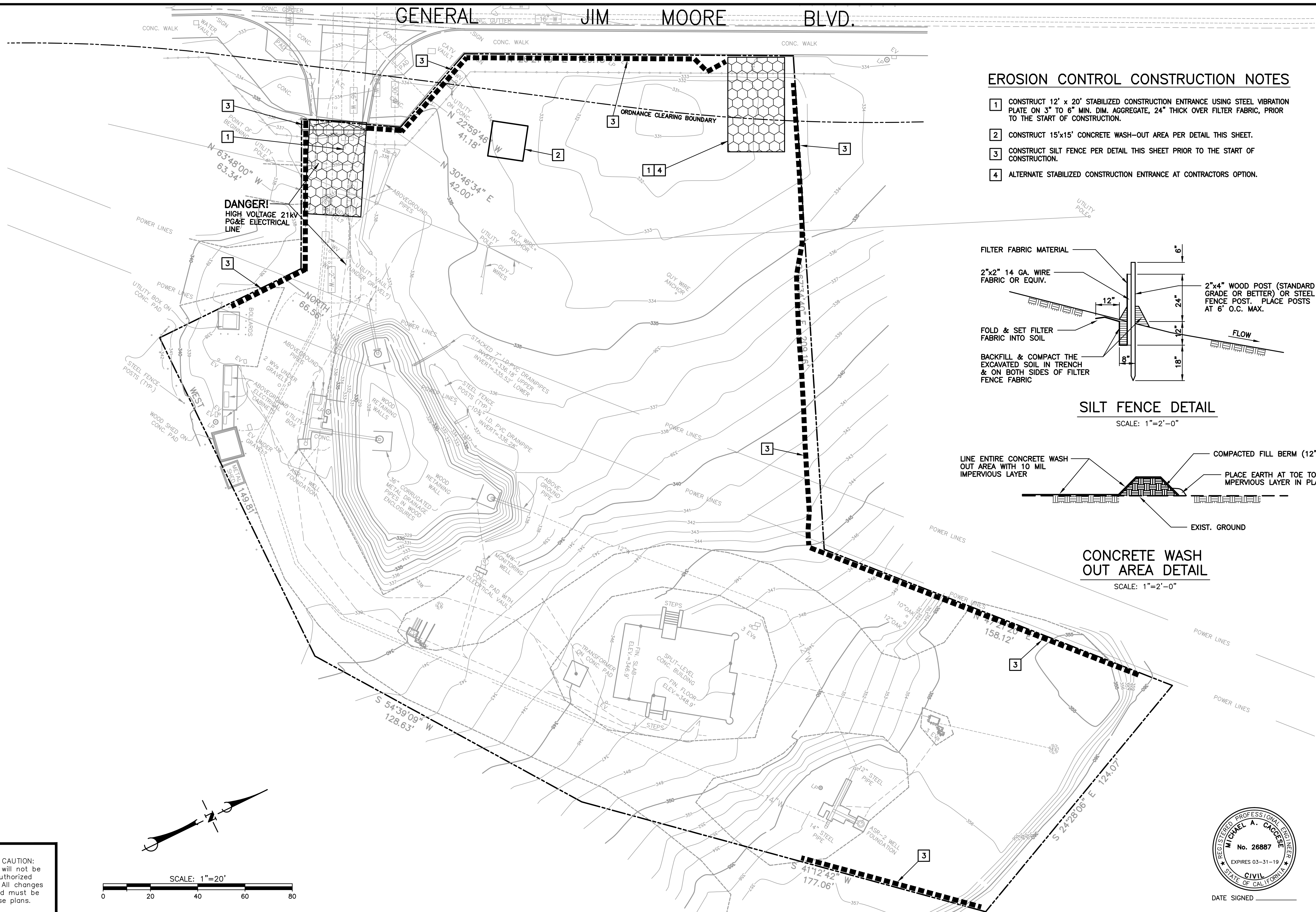


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**SCREENING WALL PROFILE AND DETAILS**  
**MONTEREY PENINSULA WATER MANAGEMENT DISTRICT**  
SANTA MARGARITA ASR FACILITY SITE EXPANSION  
1910 GENERAL JIM MOORE BOULEVARD

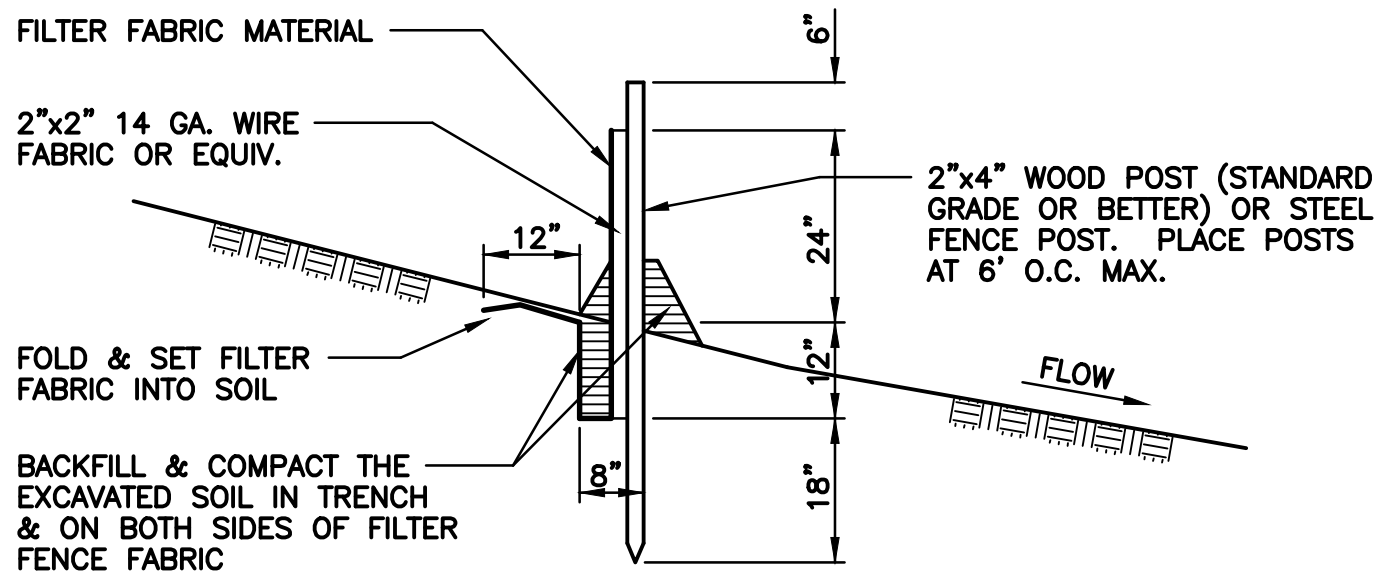
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**8 of 9**





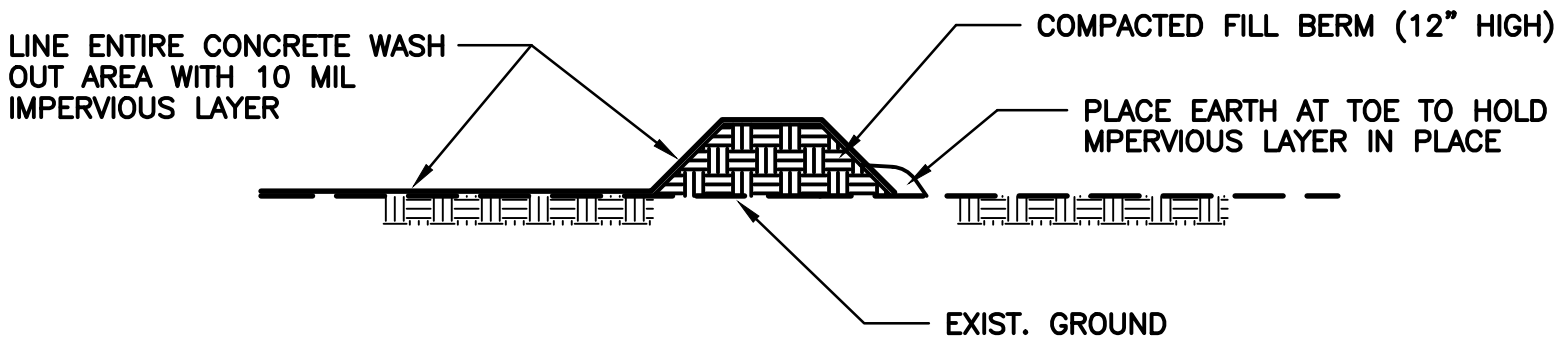
EROSION CONTROL CONSTRUCTION NOTES

- 1 CONSTRUCT 12' x 20' STABILIZED CONSTRUCTION ENTRANCE USING STEEL VIBRATION PLATE ON 3" TO 6" MIN. DIM. AGGREGATE, 24" THICK OVER FILTER FABRIC, PRIOR TO THE START OF CONSTRUCTION.
- 2 CONSTRUCT 15'x15' CONCRETE WASH-OUT AREA PER DETAIL THIS SHEET.
- 3 CONSTRUCT SILT FENCE PER DETAIL THIS SHEET PRIOR TO THE START OF CONSTRUCTION.
- 4 ALTERNATE STABILIZED CONSTRUCTION ENTRANCE AT CONTRACTORS OPTION.



SILT FENCE DETAIL

SCALE: 1"=2'-0"



CONCRETE WASH OUT AREA DETAIL

SCALE: 1"=2'-0"

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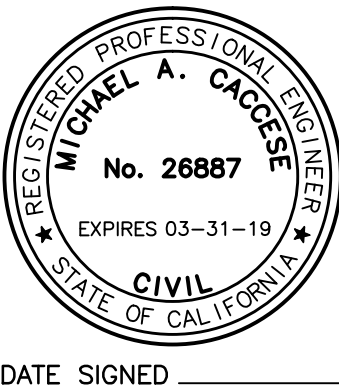
DESIGNED SPT  
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EROSION CONTROL  
MONTEREY PENINSULA WATER MANAGEMENT DISTRICT  
SANTA MARGARITA ASR FACILITY SITE EXPANSION  
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PROJECT NO.  
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**AMERISTAR® PERIMETER SECURITY USA INC.**  
**AEGIS II® - Heavy Industrial Steel Ornamental Fence System – Internally Secured**  
**Construction Specification – SECTION 32 31 19**

**PART 1 - GENERAL**

**1.01 WORK INCLUDED**

The contractor shall provide all labor, materials and appurtenances necessary for installation of the industrial ornamental steel fence system defined herein at (specify project site).

**1.02 RELATED WORK**

Section \_\_\_\_ - Earthwork

Section \_\_\_\_ - Concrete

**1.03 SYSTEM DESCRIPTION**

The manufacturer shall supply a total industrial ornamental steel fence system of the Ameristar® Aegis II® (specify Classic™, Majestic™, Genesis™ or Invincible™) design. They system shall include all components (i.e., pickets, rails, posts, gates and hardware) required.

**1.04 QUALITY ASSURANCE**

The contractor shall provide laborers and supervisors who are thoroughly familiar with the type of construction involved and materials and techniques specified.

**1.05 REFERENCES**

- ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
- ASTM B117 - Practice for Operating Salt-Spray (Fog) Apparatus.
- ASTM D523 - Test Method for Specular Gloss.
- ASTM D714 - Test Method for Evaluating Degree of Blistering in Paint.
- ASTM D822 - Practice for Conducting Tests on Paint and Related Coatings and Materials using Filtered Open-Flame Carbon-Arc Light and Water Exposure Apparatus.
- ASTM D1654 - Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments.
- ASTM D2244 - Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates.
- ASTM D2794 - Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
- ASTM D3359 - Test Method for Measuring Adhesion by Tape Test.
- ASTM F2408 – Ornamental Fences Employing Galvanized Steel Tubular Pickets.

**1.06 SUBMITTAL**

The manufacturer's submittal package shall be provided prior to installation.

**1.07 PRODUCT HANDLING AND STORAGE**

Upon receipt at the job site, all materials shall be checked to ensure that no damages occurred during shipping or handling. Materials shall be stored in such a manner to ensure proper ventilation and drainage, and to protect against damage, weather, vandalism and theft.

**1.08 PRODUCT WARRANTY**

**A.** All structural fence components (i.e. rails, pickets, and posts) shall be warranted within specified limitations, by the manufacturer for a period of 10 years from date of original purchase. Warranty shall cover any defects in material finish, including cracking, peeling, chipping, blistering or corroding.

**B.** Reimbursement for labor necessary to restore or replace components that have been found to be defective under the terms of manufactures warranty shall be guaranteed for five (5) years from date of original purchase.

**PART 2 - MATERIALS**

**2.01 MANUFACTURER**

The fence system shall conform to Ameristar Aegis II, (specify Classic, Majestic, Genesis, or Invincible) design, (specify 2-Rail, 3-Rail, or 3-Rail with Rings) style manufactured by Ameristar Fence Products, Inc. in Tulsa, Oklahoma.



## **2.02 MATERIAL**

**A.** Steel material for fence framework (i.e. tubular pickets, rails and posts), shall be galvanized prior to forming in accordance with the requirements of ASTM A653/A653M, with minimum yield strength of 45,000 psi (310 MPa). The steel shall be hot-dip galvanized to meet the requirements of ASTM A653/A653M with a minimum zinc coating weight of 0.90 oz/ft<sup>2</sup> (276 g/m<sup>2</sup>), Coating Designation G-90.

**B.** Material for pickets shall be 1" square x 14 Ga. tubing. The cross-sectional shape of the rails shall conform to the manufacturer's ForeRunner™ double wall design with outside cross-section dimensions of 1.75" square and a minimum thickness of 14 Ga. Picket holes in the ForeRunner rail shall be spaced 4.715" o.c., except for Invincible style 6' long, which shall be, spaced 4.98" o.c. Picket retaining rods shall be 0.125" diameter galvanized steel. High quality PVC grommets shall be supplied to seal all picket-to-rail intersections. Fence posts and gateposts shall meet the minimum size requirements of Table 1.

## **2.03 FABRICATION**

**A.** Pickets, rails and posts shall be precut to specified lengths. ForeRunner rails shall be prepunched to accept pickets. Pickets shall be predrilled to accept retaining rods.

**B.** Grommets shall be inserted into the prepunched holes in the rails and pickets shall be inserted through the grommets so that predrilled picket holes align with the internal upper raceway of the ForeRunner rails (Note: This can best be accomplished by making an alignment jig). Retaining rods shall be inserted into each ForeRunner rail so that they pass through the predrilled holes in each picket.

**C.** The manufactured galvanized framework shall be subjected to the PermaCoat® thermal stratification coating process (high-temperature, in-line, multi-stage, multi-layer) including, as a minimum, a six-stage pretreatment/wash, an electrostatic spray application of an epoxy base, and a separate electrostatic spray application of a polyester finish. The base coat shall be a thermosetting epoxy powder coating (gray in color) with a minimum thickness of 2 mils (0.0508mm). The topcoat shall be a "no-mar" TGIC polyester powder coat finish with a minimum thickness of 2 mils (0.0508mm). The color shall be (specify Black, Bronze, White, or Desert Sand). The stratification-coated framework shall be capable of meeting the performance requirements for each quality characteristic shown in Table 2.

**D.** Completed sections (i.e., panels) shall be capable of supporting a 600 lb. load applied at midspan without permanent deformation. Panels shall be biasable to a 25% change in grade.

**E.** Swing gates shall be fabricated using 1.75" x 14ga Forerunner double channel rail, 2" sq. x 12ga. gate ends, and 1" sq. x 14ga. pickets. Gates that exceed 6' in width will have a 1.75" sq. x 14ga. intermediate upright. All rail and upright intersections shall be joined by welding. All picket and rail intersections shall also be joined by welding. Gusset plates will be welded at each upright to rail intersection. Cable kits will be provided for additional trussing for all gates leaves over 6'.

**F.** Pedestrian swing gates shall be self-closing, having a gate leaf no larger than 48" width. Integrated hinge-closer set (2 qty) shall be ADA compliant that shall include a variable speed and final snap adjustment with compact design (no greater than 5" x 6" footprint). Hinge-closer set (2 qty) shall be tested to a minimum of 500,000 cycles and capable of self-closing gates up to a maximum gate weight of 260 lbs. and maximum weight load capacity of 1,500 lbs. Hinge-closer device shall be externally mounted with tamper-resistant security fasteners, with full range of adjustability, horizontal (.5" - 1.375") and vertical (0 - .5"). Maintenance free hinge-closer set shall be tested to operate in temperatures of negative 20 F to 200 F degrees, and swings to negative 2 degrees to ensure reliable final lock engagement.

## **PART 3 - EXECUTION**

### **3.01 PREPARATION**

All new installation shall be laid out by the contractor in accordance with the construction plans.

### **3.02 FENCE INSTALLATION**

Fence post shall be spaced according to Table 3, plus or minus ½". For installations that must be raked to follow sloping grades, the post spacing dimension must be measured along the grade. Fence panels shall be attached to posts with brackets supplied by the manufacturer. Posts shall be set in concrete footers having a minimum depth of 36" (Note: In some cases, local restrictions of freezing weather conditions may require a greater depth). The "Earthwork" and "Concrete" sections of this specification shall govern material requirements for the concrete footer. Posts setting by other methods such as plated posts or grouted core-drilled footers are permissible only if shown by engineering analysis to be sufficient in strength for the intended application.



### **3.03 FENCE INSTALLATION MAINTENANCE**

When cutting/drilling rails or posts adhere to the following steps to seal the exposed steel surfaces; 1) Remove all metal shavings from cut area. 2) Apply zinc-rich primer to thoroughly cover cut edge and/or drilled hole; let dry. 3) Apply 2 coats of custom finish paint matching fence color. Failure to seal exposed surfaces per steps 1-3 above will negate warranty. Ameristar spray cans or paint pens shall be used to prime and finish exposed surfaces; it is recommended that paint pens be used to prevent overspray. Use of non-Ameristar parts or components will negate the manufactures' warranty.

### **3.04 GATE INSTALLATION**

Gate posts shall be spaced according to the manufacturers' gate drawings, dependent on standard out-to-out gate leaf dimensions and gate hardware selected. Type and quantity of gate hinges shall be based on the application; weight, height, and number of gate cycles. The manufacturers' gate drawings shall identify the necessary gate hardware required for the application. Gate hardware shall be provided by the manufacture of the gate and shall be installed per manufacturer's recommendations.

### **3.05 CLEANING**

The contractor shall clean the jobsite of excess materials; post-hole excavations shall be scattered uniformly away from posts.



Table 1 – Minimum Sizes for Aegis II Posts				
Fence Posts	Panel Height			
2-1/2" x 12 Ga.	Up to & Including 6' Height			
3" x 12 Ga.	Over 6' Up to & Including 10' Height			
4" x 11 Ga.	Over 10' Height			
Gate Leaf	Gate Height			
	Up to & Including 6'	Over 6' Up to & Including 8'	Over 8' Up to & Including 10'	Over 12'
Up to 4'	3" x 12Ga.	3" x 12 Ga.	4" x 11 Ga.	4" x 11 Ga.
4'1" to 6'	3" x 12Ga.	3" x 12 Ga.	4" x 11 Ga.	4" x 11 Ga.
6'1" to 8'	4" x 11 Ga.	6" x 3/16"	6" x 3/16"	6" x 3/16"
8'1" to 10'	4" x 11 Ga.	6" x 3/16"	6" x 3/16"	6" x 3/16"
10'1" to 12'	6" x 3/16"	6" x 3/16"	6" x 3/16"	8" x 1/4"
12'1" to 16'	6" x 3/16"	6" x 3/16"	8" x 1/4"	8" x 1/4"

Table 2 – Coating Performance Requirements		
Quality Characteristics	ASTM Test Method	Performance Requirements
Adhesion	D3359 – Method B	Adhesion (Retention of Coating) over 90% of test area (Tape and knife test).
Corrosion Resistance	B117, D714 & D1654	Corrosion Resistance over 3,500 hours (Scribed per D1654; failure mode is accumulation of 1/8" coating loss from scribe or medium #8 blisters).
Impact Resistance	D2794	Impact Resistance over 60 inch lb. (Forward impact using 0.625" ball).
Weathering Resistance	D822 D2244, D523 (60° Method)	Weathering Resistance over 1,000 hours (Failure mode is 60% loss of gloss or color variance of more than 3 delta-E color units).

Table 3 – Aegis II – Post Spacing By Bracket Type								
Span	For INVINCIBLE® 8' Nominal (91.25" Rail)		For CLASSIC, GENESIS, & MAJESTIC 8' Nominal (92.625" Rail)					
Post Size	2-1/2"	3"	2-1/2"	3"	2-1/2"	3"	2-1/2"	3"
Bracket Type	Industrial Flat Mount (BB301)		Industrial Universal (BB302)	Industrial Universal (BB303)	Industrial Flat Mount (BB301)		Industrial Swivel (BB304)*	
Post Settings ± 1/2" O.C.	94-1/2"	95"	96"	96.5"	96"	96-1/2"	*97-1/2"	*98"
Span	For INVINCIBLE® 6' Nominal (67.75" Rail)		For CLASSIC, GENESIS, & MAJESTIC 6' Nominal (71.375" Rail)					
Post Size	2-1/2"	3"	2-1/2"	3"	2-1/2"	3"	2-1/2"	3"
Bracket Type	Industrial Flat Mount (BB301)		Industrial Universal (BB302)	Industrial Universal (BB303)	Industrial Flat Mount (BB301)		Industrial Swivel (BB304)*	
Post Settings ± 1/2" O.C.	75"	75.5"	71.5"	72"	71.5"	72"	*73"	*73.5"
*Note: When using BB304 swivel brackets on either or both ends of a panel installation, care must be taken to ensure the spacing between post and adjoining pickets meets applicable codes. This will require trimming one or both ends of the panel.								



## **AEGIS II® | WARRANTY**

### **INDUSTRIAL STEEL ORNAMENTAL FENCE**

Aegis II® Industrial Steel Ornamental Fence System by Ameristar® is manufactured from the highest quality materials by skilled craftsmen to meet the highest standards of workmanship in the industry. Galvanized steel framework shall be subject to a six stage pretreatment/wash (with zinc phosphate) followed by an electrostatic spray application of PermaCoat® Color System, a two coat powder system. The base coat is a thermosetting epoxy powder coating (gray in color). The top coat is a “no-mar” TGIC polyester powder coat finish, which provides the protection necessary to withstand adverse environmental conditions.

The powder coated surface on all framework (i.e., pickets, rails and posts) by Ameristar is guaranteed under normal and proper usage, against cracking, peeling, chipping, blistering or corroding for a period of ten (10) years from the original purchase date. Normal and proper usage does not include physical damage, abrasion or exposure to salty environments to the protective coating.

Aegis II Industrial Steel Ornamental Fence System framework is also guaranteed for the same period of time against defects in workmanship or materials.

Should any ornamental fence framework manufactured by Ameristar Fence Products fail in accordance with any of the above conditions, Ameristar Fence Products warrants to the original purchaser their redemption through replacement, renewal or issuance of a pro-rated credit. The decision as to which method of redemption is allowed is solely at the discretion of Ameristar. If pro-rated allowance is the chosen alternative, the amount will be based on the total number of years under warranty from date of purchase to date of claim, based on the original cost of framing materials found to be defective. Notice of failure under the conditions of this warranty shall be sent to Ameristar Fence Products or its authorized representative, in writing, together with proof of purchase and shall specify the nature of the defect and when it was first observed. When cutting Aegis II components immediately seal the exposed surfaces by 1) Removing all metal shavings from cut area 2) Apply zinc-rich primer to thoroughly cover cut edge and drilled hole; let dry 3) Apply 2 coats of custom finish paint matching fence color. Failure to seal exposed surfaces per steps 1-3 above will negate warranty. If the contractor uses non Ameristar parts/components this will negate the warranty. Should the fence be improperly installed, Ameristar Fence Products shall not be responsible for guaranteed performance or appearance of the material. Neither does this guarantee apply when failure or damage is due to improper use or application, abuse or misuse, salty environments, vandalism or acts of God. Ameristar Fence Products reserves the right to inspect the material to determine validity of the claim.

Upon validation of the claim by Ameristar Fence Products or its authorized representative, redemption by replacement, renewal or issuance of a pro-rated credit shall be made by Ameristar Fence Products. Reimbursement for labor necessary to restore and/or replace components that have been found defective under the terms of this warranty is guaranteed to the original purchaser for a period of five (5) years from the original purchase date. Ameristar reserves the right to select the qualified company or individual to perform the labor to repair or replace the components that are deemed to be defective under the terms of this warranty.

The above constitutes the complete warranty by the manufacturer. No other agreement, written or implied, is valid. Ameristar Fence Products does not authorize any other person or agent to make any other express warranties. Ameristar Fence Products neither assumes nor authorizes any other person or agent to assume any other liability in connection with Aegis II Industrial Steel Ornamental Fence System. Some jurisdictions do not allow limitations on how long an implied warranty lasts, nor do they allow an exclusion or limitation of incidental or consequential damages; therefore, the limitations and exclusions noted herein may not apply.



**AMERISTAR®**  
**FENCE PRODUCTS**

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