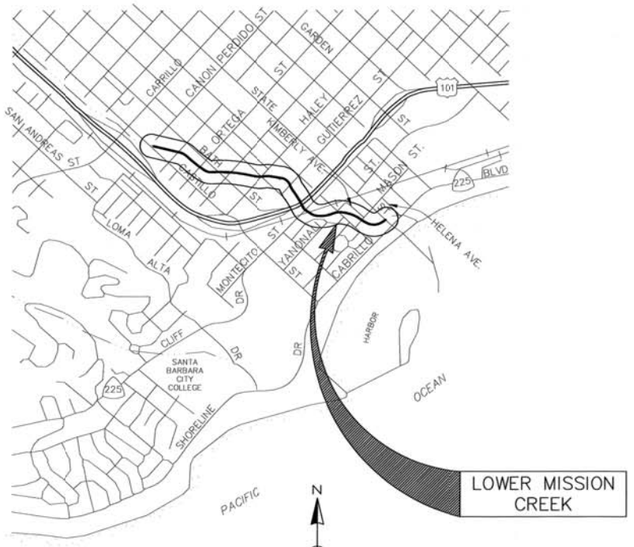
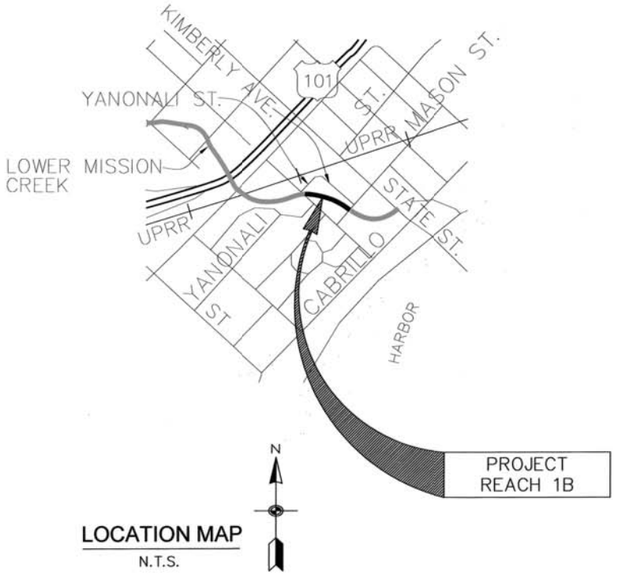


LOCATION MAP
N.T.S.

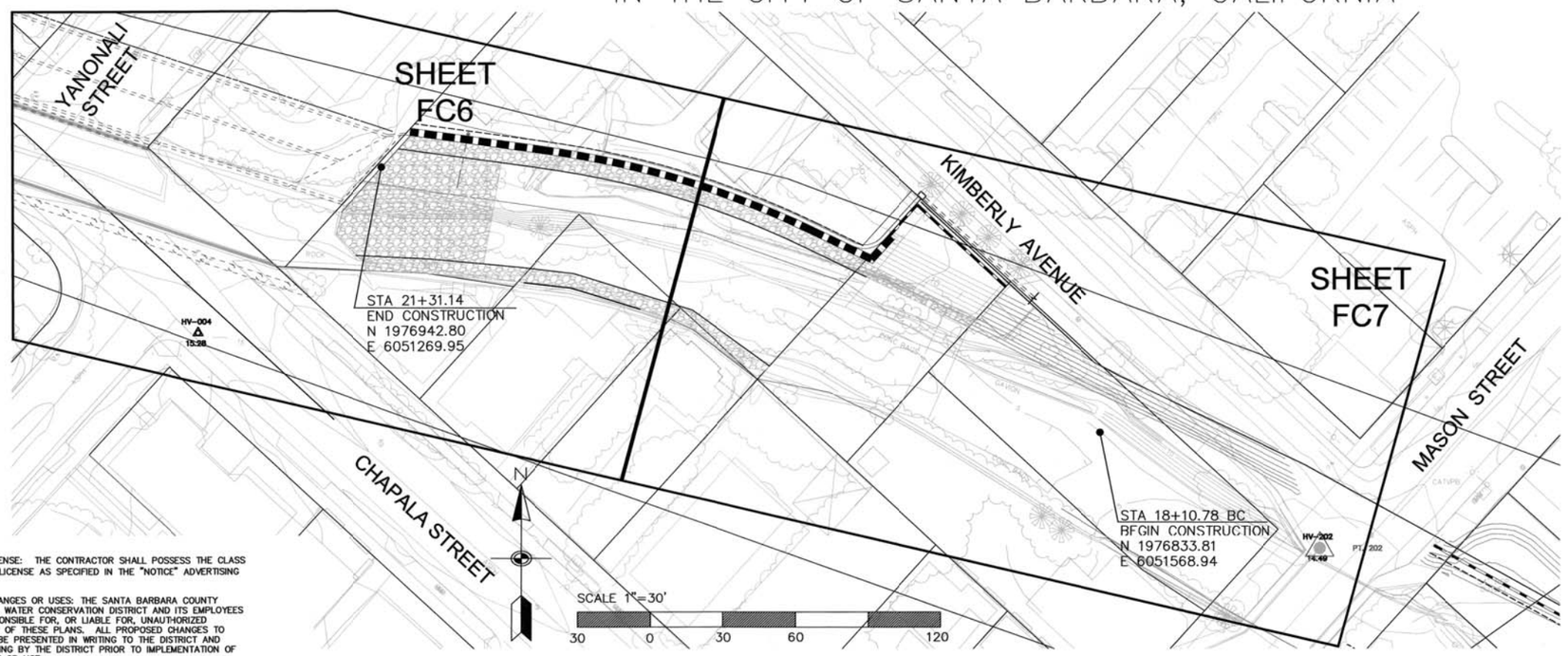
SANTA BARBARA COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT REACH 1B

MASON STREET TO YANONALI STREET
IN THE CITY OF SANTA BARBARA, CALIFORNIA



LOCATION MAP
N.T.S.



SHEET INDEX	SHEET NO.
TITLE	FC1
NOTES	FC2
NOTES, ABBREV., SYMBOLS & CONSTRUCTION NOTES	FC3
HORIZONTAL CONTROL	FC4
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PLAN AND PROFILE (1)	FC6
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FENCING DETAILS AND WALL TREATMENT	FC8
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SECANT PILE WALL	FC17

DISTRICT BOARD OF DIRECTORS

FIRST DISTRICT	SALUD CARBAJAL
SECOND DISTRICT	JANET WOLF
THIRD DISTRICT	DOREEN FARR
FOURTH DISTRICT	PETER ADAM
FIFTH DISTRICT	STEVE LAVAGNINO

CONTRACTOR'S LICENSE: THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE" ADVERTISING FOR BIDS.

UNAUTHORIZED CHANGES OR USES: THE SANTA BARBARA COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT AND ITS EMPLOYEES WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES OR USES OF THESE PLANS. ALL PROPOSED CHANGES TO THE PLANS MUST BE PRESENTED IN WRITING TO THE DISTRICT AND APPROVED IN WRITING BY THE DISTRICT PRIOR TO IMPLEMENTATION OF ANY SUCH CHANGE OR USE.

REGISTERED PROFESSIONAL ENGINEER
ARIC TORREYSON
NO. 66068
EXP. 6-30-16
CIVIL
STATE OF CALIFORNIA

REVISIONS			
MARK	DESCRIPTION	DATE	APPR.

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
123 E. ANAPAMU STREET
SANTA BARBARA, CA 93101
805.568.3440

REVIEWED BY: _____ 2-25-15
FLOOD CONTROL ENGINEERING MANAGER — DATE

REVIEWED BY: _____ 2-25-15
FLOOD CONTROL DEPUTY DIRECTOR — DATE

REVIEWED BY: _____
CITY ENGINEER — DATE

REVIEWED BY: original to be signed
MAINTENANCE SUPERINTENDENT — DATE

REVIEWED BY: Maureen Spencer 2-25-15
ENVIRONMENTAL SERVICES MANAGER — DATE

TETRA TECH
800 WEST SIXTH STREET, SUITE 380
LOS ANGELES, CA 90017 213.327.0800

ARIC M. TORREYSON R.C.E. 66068 — FEB. 24, 2015 DATE

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT REACH 1B

TITLE SHEET

DATE: FEBRUARY 2015
SCALE: AS SHOWN
FILE NAME: T26034FC001.dwg
DESIGNED BY: AG
DRAWN BY: AG
CHECKED BY: YHC

SHEET REFERENCE NUMBER
FC1
SHEET 1 OF 17

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SURVEY NOTES

1. TOPOGRAPHIC MAPPING WAS COMPILED AT A SCALE OF 1"=200', WITH A 1 FOOT CONTOUR INTERVAL, USING STANDARD PHOTOGRAMMETRIC METHODS AND PROCEDURES BY ARROWHEAD MAPPING CORPORATION, FROM AERIAL PHOTOGRAPHY DATED MAY 5, 2003.
2. MAPPING IS SUPPLEMENTED BY DATA COLLECTED IN A FIELD SURVEY USING CONVENTIONAL METHODS AND PROCEDURES IN JUNE 2003 BY PENFIED & SMITH, AND IN AUGUST 2003 BY JOHNSON FRANK & ASSOCIATES.
3. THE AERIAL PHOTOGRAPHY USED AS THE BACKGROUND FOR THIS MAP WAS OBTAINED ON MAY 5, 2003 BY ARROWHEAD MAPPING CORPORATION, THE PHOTOGRAPHY HAS BEEN CONVERTED INTO A DIGITAL FORMAT AND CORRECTED FOR HORIZONTAL AND VERTICAL DISTORTION USING STANDARD PHOTOGRAMMETRIC METHODS.
4. BEARINGS SHOWN ON THIS MAP ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, NAD 83, ZONE 5 GRID (EPOCH 1991.35), DEFINED LOCALLY BY THE SANTA BARBARA CONTROL NETWORK AS SHOWN ON RECORD OF SURVEY FILED WITH THE COUNTY SURVEYOR IN BOOK 147 PAGES 70–74. DISTANCES AND COORDINATES SHOWN AS MEASURED OR CALCULATED ARE EXPRESSED IN CCS, NAD 83, ZONE V GRID US SURVEY FOOT UNITS.
5. ELEVATIONS SHOWN HEREON ARE EXPRESSED IN U.S. SURVEY FEET AND ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), DEFINED LOCALLY BY THE SANTA BARBARA CONTROL NETWORK AS SHOWN ON RECORD OF SURVEY FILED WITH THE COUNTY SURVEYOR IN BOOK 147 PAGES 70–74.

GENERAL NOTES

1. EXISTING UTILITIES INFORMATION WAS ASSEMBLED FROM EXISTING UTILITY COMPANY MAPS.
2. REFERENCE DRAWINGS LISTED ON THE PLANS ARE AVAILABLE TO THE CONTRACTOR (SEE SPECIFICATIONS). THESE REFERENCE DOCUMENTS ARE NOT CONSIDERED EXHAUSTIVE AND COMPLETE, AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT THOROUGH AND COMPLETE RESEARCH ON EXISTING CONDITIONS PRIOR TO COMMENCING WORK.
3. CONTRACTOR SHALL VERIFY SITE CONDITIONS, LOCATION AND SIZE OF UNDERGROUND UTILITIES AS SHOWN ON THE DRAWINGS AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCING WORK.
4. ALL FEES AND PERMITS SHALL BE PAID FOR BY THE CONTRACTOR.
5. THE CONTRACTOR SHALL NOTIFY, IN WRITING, ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES PRIOR TO EXCAVATION WORK AND CALL DIG ALERT 811, PRIOR TO COMMENCING WORK.
6. FOR BORING LOGS AND OTHER GEOTECHNICAL INFORMATION, SEE "GEOTECHNICAL ENGINEERING REPORT FOR LOWER MISSION CREEK CHANNEL IMPROVEMENT PROJECT– PHASE 2 (REACHES 1B AND 3–7)" BY BENGAL ENGINEERING, INC. DATED MARCH 11, 2011 AND "TECHNICAL MEMORANDUM– GEOTECHNICAL RECOMMENDATIONS FOR THE PROPOSED SECANT PILE RETAINING WALLS FOR THE LOWER MISSION CREEK CHANNEL IMPROVEMENT AND RESTORATION PROJECT– REACH 1B", DATED JULY 16, 2011. CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL GEOTECHNICAL REPORT AND UPDATES.
7. CONTRACTOR IS ADVISED ADDITIONAL WORK BY OTHER CONTRACTORS WILL TAKE PLACE WITHIN AND ADJACENT TO THE PROJECT LIMITS. CONTRACTOR IS TO COORDINATE AND COOPERATE WITH OTHER CONTRACTORS AND GOVERNING AGENCIES AS REQUIRED.
8. SITE SECURITY DURING CONSTRUCTION SHOULD CONSIST OF TEMPORARY FENCING TO BE INSTALLED AND MAINTAINED BY THE CONTRACTOR DURING THE ENTIRE CONSTRUCTION OF THE PROJECT.

ENVIRONMENTAL CONTROL AND MAINTENANCE OF SITE CONDITIONS

1. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL AS REQUIRED THROUGHOUT CONSTRUCTION AND INSPECT EROSION CONTROLS ON A MINIMUM WEEKLY BASIS.
2. PRIOR TO THE BEGINNING OF ANY CONSTRUCTION PHASE THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL AND MAKE ANY REPAIRS REQUIRED AS WELL AS CONFIRM THE INSTALLATION OF ANY ADDITIONAL EROSION CONTROL WHICH IS SPECIFIC TO ANY CONSTRUCTION PHASE.
3. THE CONTRACTOR'S STAGING AND STORAGE AREA SHALL CONFORM TO ALL EROSION CONTROL DETAILS AND SPECIFICATIONS. IF TEMPORARY DRAINAGE IS REQUIRED WITHIN THE STAGING AND STORAGE AREA IT SHALL CONFORM TO ALL EROSION CONTROL SPECIFICATIONS AND DETAILS AND APPROVED BY THE GOVERNING AGENCY PRIOR TO INSTALLATION.
4. ALL SOILS STORED WITHIN THE CONTRACTOR STAGING AND STORAGE AREA SHALL BE SURROUNDED BY A SINGLE ROW OF STAKED HAY BALES AND COVERED TO PREVENT WIND EROSION.
5. ALL TREE PROTECTION SHALL BE MAINTAINED AND INSPECTED THROUGHOUT CONSTRUCTION.
6. PRECAUTIONS SHALL BE TAKEN TO PREVENT AND CONTROL DUST FROM CONSTRUCTION OPERATIONS BECOMING A NUISANCE TO ADJACENT AREAS. SURROUNDING STREETS AND WALKWAYS SHALL BE SWEPT AND WASHED CLEAN ON A DAILY BASIS OR AS DIRECTED BY GOVERNING AGENCY. STOCKPILES AND UNSTABILIZED SURFACES SHALL BE KEPT MOIST.
7. CONTRACTOR SHALL MAINTAIN VEHICULAR AND PEDESTRIAN TRAFFIC IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
8. UPON COMPLETION OF TRENCH BACKFILLING OR OTHER INDIVIDUAL ITEMS OF CONSTRUCTION, ALL SURPLUS MATERIALS AND EQUIPMENT NO LONGER NEEDED SHALL BE IMMEDIATELY REMOVED, LEAVING THE CONSTRUCTION SITE AND SURROUNDINGS FREE AND CLEAN.
9. AFTER WORK IS COMPLETE, SEWERS, DRAINS, MANHOLES, CATCH BASINS AND OTHER STRUCTURES SHALL BE CAREFULLY CLEANED OF DIRT, BROKEN MASONRY, MORTAR AND OTHER DEBRIS AND LEFT READY FOR USE.

CONSTRUCTION PHASING

PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL:

1. SUBMIT PLAN OF PROPOSED CONTRACTOR STAGING AND STORAGE AREA FOR REVIEW AND APPROVAL BY GOVERNING AGENCY.
2. SUBMIT FOR APPROVAL A TRAFFIC PLAN SHOWING HOW ALL TRUCK MOVEMENTS TO AND FROM THE SITE ARE TO BE ACCOMPLISHED.
3. REVIEW ALL EXISTING UTILITY INFORMATION PROVIDED IN THE CONTRACT DOCUMENTS AND CONDUCT ALL OTHER ADDITIONAL RESEARCH REQUIRED TO CONFIRM EXISTING UTILITIES. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED.
4. MARK OUT ALL EXISTING UTILITIES ON THE SITE AND COORDINATE WITH EACH UTILITY OWNER OR OPERATOR ON THE WORK THAT WILL AFFECT EACH UTILITY. THE GOVERNING AGENCY SHALL BE NOTIFIED THAT THE UTILITY OWNERS/OPERATORS HAVE BEEN CONTACTED AND SHALL BE PRESENTED FOR ALL SITE MEETINGS.
5. SUBMIT TO THE GOVERNING AGENCY COMPLETE PHASING PLANS FOR REVIEW AND APPROVAL.

SITE PREPARATION AND DEMOLITION

1. CONTRACTOR SHALL DISPOSE OF ALL DEMOLISHED MATERIAL AND DEBRIS IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS HAVING JURISDICTION.
2. CONTRACTOR SHALL RESTORE TO THEIR ORIGINAL CONDITION ANY AREAS ADJACENT TO AND OUTSIDE THE LIMIT OF WORK WHICH ARE DISTURBED DURING CONSTRUCTION, AT THE CONTRACTOR'S OWN EXPENSE.
3. CONTRACTOR SHALL SAW CUT PAVEMENT WHERE PAVEMENT TO BE REMOVED ABUTS PAVEMENT WHICH IS TO REMAIN.
4. CONTRACTOR SHALL STOCKPILE ALL STRIPPED TOPSOIL OFFSITE.
5. UTILITY SERVICES SHALL BE MAINTAINED TO ALL BUILDINGS BEING OCCUPIED AT ALL TIMES.
6. CONTRACTOR SHALL PROVIDE ADEQUATE DRAINAGE AT ALL TIMES WITHIN THE LIMIT OF WORK. THERE SHALL BE NO PONDING OF WATER OR EROSION OF LANDSCAPED AREAS AT ANY TIME.
7. EXISTING UTILITIES, INDICATED TO REMAIN, SHALL BE PROTECTED IN PLACE, AND MAINTAINED IN GOOD WORKING CONDITION.

LAYOUT

1. LABELED DIMENSIONS SUPERSEDE SCALED DIMENSIONS FOR ALL LAYOUT WORK.
2. AT ALL LOCATIONS, STATION AND OFFSETS ARE GIVEN TO REVEAL SIDE OF CURB OR EDGE OF PAVEMENT AS APPROPRIATE.
3. ALL LINES ARE PARALLEL OR PERPENDICULAR UNLESS OTHERWISE INDICATED.
4. ALL HORIZONTAL DRAWING DIMENSIONS SHALL BE MEASURED IN A TRUE VERTICAL PLANE, EXCEPT AS OTHERWISE NOTED.

GRADING

1. THE CONTRACTOR SHALL PROVIDE UNIFORM SLOPE BETWEEN SPOT GRADES AND CONTOURS.
2. THE CONTRACTOR SHALL ADJUST ALL EXISTING UTILITY CASTINGS TO LINE AND GRADE, UNLESS OTHERWISED NOTED.

UTILITY

1. CONTRACTOR SHALL VERIFY LOCATIONS, ELEVATIONS AND SIZES OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. CALL DIG ALERT AT 811, A MINIMUM OF TWO (2) FULL WORKING DAYS PRIOR TO EXCAVATING.
2. CONTRACTOR SHALL FIELD VERIFY EXISTING SEWER AND STORM DRAIN ELEVATIONS WHICH MAY REQUIRE POT–HOLING.
3. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS.
4. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL UTILITY WORK WITH THE APPROPRIATE GOVERNING AGENCIES.

STRUCTURAL NOTES

1. REINFORCED CONCRETE MEMBERS ARE DESIGNED IN ACCORDANCE WITH "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", AMERICAN CONCRETE INSTITUTE, (ACI 318M) STRENGTH DESIGN METHOD.
2. STRUCTURAL STEEL MEMBERS ARE DESIGNED IN ACCORDANCE WITH "MANUAL OF STEEL CONSTRUCTION, ALLOWABLE STRESS DESIGN", AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
3. DESIGN LOADS: DEAD LOADS/MATERIAL DENSITIES

NORMAL WEIGHT CONCRETE	150 PCF
STRUCTURAL STEEL	490 PCF
BACKFILLED SOIL	120 PCF
WATER AND BUOYANCY	62.4 PCF
ALUMINUM	170 PCF
VEHICULAR LIVE LOADS:	AASHTO HS–20 VEHICLE AASHTO HS–25 VEHICLE

4. FOR GEOTECHNICAL DATA, SEE PROJECT GEOTECHNICAL REPORTS FROM BENGAL ENGINEERNING, INC. DATED AUGUST 2010.
5. ALL DIMENSIONS TO REINFORCING SHOWN ON THE DRAWINGS ARE TO CENTERLINES OF BARS UNLESS OTHERWISE NOTED.

FOUNDATIONS:

1. ALL UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE ENGINEER PRIOR TO ANY CONSTRUCTION OR BACKFILL.
2. BACKFILL SHALL BE PLACED AND COMPACTED ON SIDES OF STRUCTURES SIMULTANEOUSLY IN ACCORDANCE WITH THE SPECIFICATIONS.
3. TOP OF ROCK ELEVATION IS DEFINED BY THE GEOTECHNICAL DATA REPORT AT DISCRETE BORING LOCATIONS ONLY.

CONCRETE

1. STRUCTURAL CONCRETE, INCLUDING ALL PRECAST COMPONENTS, SHALL ATTAIN A 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI UNLESS OTHERWISE NOTED ON THE PLANS AND SHALL CONFORM TO THE REQUIREMENTS OF THE PROJECT SPECIFICATION
2. PROVIDE A 3/4" CHAMFER AT ALL EXPOSED CONCRETE EDGES UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
3. CONCRETE WORK SHALL BE COORDINATED AND VERIFIED WITH ALL OTHER WORK TO ENSURE PROPER PROVISIONS FOR DOWELS, INSERTS, EMBEDMENTS, PIPING AND MANHOLE REQUIREMENTS PRIOR TO CONCRETE PLACEMENT.
4. CONSTRUCTION JOINTS SHOWN ON THE DRAWINGS SHALL NOT BE OMITTED WITHOUT PRIOR APPROVAL.
5. CONSTRUCTION JOINTS, IN ADDITION TO THOSE SHOWN ON THE DRAWINGS, SHALL NOT BE PERMITTED UNLESS ACCEPTED IN WRITING BY THE GOVERNING AGENCY.

REINFORCEMENT

1. REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615, GRADE 60 UNLESS OTHERWISE NOTED.
2. WELDED BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM, A706, GRADE 60.
3. EPOXY–COATED REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM A775.
4. THE MINIMUM CONCRETE COVER FOR REINFORCING STEEL SHALL BE 2", EXCEPT IT SHALL BE 3" FOR CONCRETE CAST DIRECTLY AGAINST EARTH.
5. SEE STRUCTURAL SPECIFICATIONS FOR SPECIFIC REINFORCEMENT GUIDELINES
6. BARS SHALL BE MECHANICALLY SPLICED WHERE INDICATED ON THE DRAWINGS AND AS OTHERWISE REQUIRED TO ACCOMMODATE CONSTRUCTION SEQUENCING. MECHANICAL SPLICES SHALL DEVELOP 125% OF THE YIELD STRENGTH OF THE BAR.
7. MECHANICAL SPLICES SHALL BE STAGGERED A MINIMUM OF 12" ADJACENT BARS.

REGISTERED PROFESSIONAL ENGINEER
ARIC TORREYSON
NO. 66068
EXP. 6-30-16
CIVIL
STATE OF CALIFORNIA

2/24/2015 9:42 AM
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REVISIONS

MARK	DESCRIPTION	DATE	APPR.

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
123 E. ANAPAMU STREET
SANTA BARBARA, CA 93101
805.568.3440

TETRA TECH
800 WEST SIXTH STREET, SUITE 380
LOS ANGELES, CA 90017 213.327.0800
ARIC M. TORREYSON R.C.E. 66068
FEB. 24, 2015
DATE

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT
REACH 1B
NOTES

DATE: FEBRUARY 2015
SCALE: AS SHOWN
FILE NAME:
DESIGNED BY: AG
DRAWN BY: AG
CHECKED BY: YHC

SHEET REFERENCE NUMBER
FC2
SHEET 2 OF 17

CONSTRUCTION NOTES

1. REMOVE EXISTING BUILDING STRUCTURE
2. REMOVE EXISTING UTILITY STRUCTURE
3. NOT USED
4. REMOVE EXISTING MISC. CONCRETE
5. REMOVE EXISTING AC PAVEMENT
6. REMOVE EX TREE
7. CONSTRUCT CHANNEL GRADING AS SHOWN HEREON AND CROSS SECTIONS ON SHEET FC11
8. PLACE RIPRAP TOE REVETMENT PER DETAIL G ON SHEET FC9
9. REMOVE EX PORTION OF BLOCK WALL AND PLANTER
10. REMOVE AND RELOCATE EX LIGHT POST AND FIXTURE PER DIRECTION OF FIELD ENGINEER
11. PLACE BOULDER CLUSTERS PER DETAIL F ON SHEET FC9
12. CONSTRUCT COMMERCIAL DRIVEWAY PER CITY OF SANTA BARBARA STANDARD DETAIL H-03.1
13. CONSTRUCT GUARD POST PER CITY OF SANTA BARBARA STD DETAIL W-03.0
14. CONSTRUCT SECANT PILE WALL PER DETAILS ON SHEET FC17
15. PLACE RIPRAP TOE REVENTMENT ALONG EX WALL PER DETAIL ON SHEET FC7
16. CONSTRUCT EXPANDED HABITAT ZONE GRADING PER SHEET FC14
17. CONSTRUCT REINFORCED CONCRETE WALL PER APWA STANDARD PLAN 610-3, TYPE 1. EXPOSED WALL, EXTENDING 2 FEET BELOW FINISH GRADE, SHALL BE INTEGRALLY COLORED DAVIS-COLOR "MESA BUFF" AND TEXTURED WITH FITZGERALD PATTERN 17004 FORMLINER, OR APPROVED EQUIVALENT. MODIFY FORMLINER TO CREATE FAUX SANDSTONE CAP PER DETAIL K ON SHEET FC9.
18. CONSTRUCT 18" CONC. CURB AND GUTTER WITH A 8" CURB PER CITY OF SANTA BARBARA STD DETAIL H-02.0
19. CONSTRUCT ADA RAMP WITH WARNING SURFACE PER DETAIL HEREON
20. CONSTRUCT STAIRS WITH WARNING SURFACE PER DETAIL HEREON AND SPPW 640-3.
21. RELOCATE EX IRRIGATION SYSTEM AS SHOWN ON SHEET FC16
22. RELOCATE EXISTING UTILITY
23. CONSTRUCT ORNAMENTAL STEEL FENCE PER DETAIL D ON SHEET FC8
24. PLACE RIPRAP REVETMENT PER DETAIL H ON SHEET FC9
25. CONSTRUCT NEW 2.5" AC PAVING OVER 6" AGGREGATE BASE
26. REMOVE AND RECONSTRUCT WOODEN FENCE IN KIND (HEIGHT= 8.0')
27. INSTALL HYDROPHILIC WATER STOP PER DETAIL M ON SHEET FC9
28. INSTALL TRAFFIC AND PARKING SIGNS AND PAVEMENT MARKINGS PER MANUAL IN UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS.
29. CONSTRUCT 6" WALL DRAIN PER CALTRANS STD PLAN B3-6
30. CONSTRUCT 6" PVC PIPE
31. CONSTRUCT 6" RODNEY HUNT FV-SPR FLAP GATE OR EQUAL
32. CONSTRUCT CONCRETE SIDEWALK PER CITY OF CITY OF SANTA BARBARA STD DETAIL H-06.0 AND H-06.1
33. CONSTRUCT 18" CONC. CURB AND GUTTER WITH A 6" CURB PER CITY OF SANTA BARBARA STD DETAIL H-02.0
34. CONSTRUCT ASPHALT CONCRETE DIKE PER CALTRANS STD A87B, TYPE A
35. RECONSTRUCT CHAIN LINK FENCE, WOODEN FENCE, AND PIPE GATE IN KIND, AS NECESSARY TO CONSTRUCT PROPOSED IMPROVEMENTS
36. CONSTRUCT WALL JOINT DETAIL ON SHEET FC9
37. AFFIX NEW "ADA ACCESSIBLE", LEFT ARRAY SIGN (9"x6") TO BLOCK WALL REMAINING IN PLACE.

LINETYPES

- OHW — OVERHEAD WIRE
- AS — UNDERGROUND ABANDONED SEWER
- AW — UNDERGROUND ABANDONED WATER
- G — UNDERGROUND GAS
- E — UNDERGROUND ELECTRIC
- FOC — UNDERGROUND FIBER OPTIC CABLE
- RW — UNDERGROUND RECLAIMED WATER
- S — UNDERGROUND SEWER
- SD — UNDERGROUND STORM DRAIN
- SL — UNDERGROUND STREET LIGHT (ELEC.)
- T — UNDERGROUND TELEPHONE
- TR — UNDERGROUND TRAFFIC SIGNAL (ELEC.)
- W — UNDERGROUND WATER
- EXISTING
- ABANDONED IN PLACE
- CONTOUR GRADE LINE
- RIPRAP
- CONCRETE
- SOIL
- RIGHT-OF-WAY (R/W)
- CENTER LINE/CONTROL LINE
- TEMPORARY CONSTRUCTION EASEMENT (TCE)
- SBCFCD EASEMENT
- NEW CHANNEL WALL

STANDARD PLANS AND DETAILS

CITY OF SANTA BARBARA
- STANDARD CURB AND GUTTER- STD DETAIL 1-002.0-06
- COMMERCIAL DRIVEWAY- STD DETAIL 1-003.1-06
- SIDEWALK PLAN- 1-006.0-06
- SIDEWALK SECTION- 1-006.1-06
- FIRE HYDRANT GUARD POST- STD DETAIL 6-003.0-06
- CURB OUTLET DRAIN- TYPE A- STD DETAIL 2-006.0

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION
- REINFORCED CONCRETE RETAINING WALL TYPE 1- STD PLAN 610-3
- REINFORCED CONCRETE STAIRWAY- STD PLAN 640-3

CALTRANS 2010 STANDARD PLANS
- HOT MIX ASPHALT DIKES TYPE A- STD PLAN A87B
- RETAINING WALL DETAIL NO. 2- STD PLAN B3-6

ABBREVIATIONS

ABAND.	ABANDONED	FL	FLOWLINE	PVC	POLYVINYL CHLORIDE
ABC	AGGREGATE BASE COURSE	FS	FINISH SURFACE	R	RADIUS
AC	ASPHALTIC CONCRETE	FT	FEET	RCP	REINFORCED CONCRETE PIPE
APPROX.	APPROXIMATE	FWY	FREEWAY	RD	ROAD
AVE	AVENUE	GALV	GALVANIZED	RET	RETAINING
BC	BEGIN CURVE	GB	GRADE BREAK	ROW	RIGHT-OF-WAY
BLDG	BUILDING	HDPE	HIGH DENSITY POLYETHYLENE PIPE	S=	SLOPE
℄	CENTERLINE	HOR	HORIZONTAL	S	SOUTH
C	CURVE DATA	HT	HEIGHT	SD	STORM DRAIN
CF	CUBIC FEET	INV	INVERT ELEVATION	SDMH	STORM DRAIN MANHOLE
CFS	CUBIC FEET PER SECOND	L	LINE DATA	SF	SQUARE FEET
CH	CHANNEL	LBS	POUNDS	SHT	SHEET
C.J.	CONSTRUCTION JOINT	LF	LINEAR FEET	SS	SANITARY SEWER
CLR	CLEAR	MAX	MAXIMUM	STA	STATION
CMP	CORRUGATED METAL PIPE	MH	MANHOLE	STD	STANDARD
COE	CORPS OF ENGINEERS	MIN	MINIMUM	STR	STRUCTURE
CONC	CONCRETE	MWD	METROPOLITAN WATER DISTRICT	TAD	TOP OF AC DIKE
CONST.	CONSTRUCT	N	NORTH, NORTHING	TBD	TO BE DETERMINED
CY	CUBIC YARD	NAD	NORTH AMERICAN DATUM	TF	TOP OF FOOTING
DIA	DIAMETER	NAVD	NORTH AMERICAN VERTICAL DATUM	TOB	TOP OF BANK
DR	DRIVE	NTS	NOT TO SCALE	TOC	TOP OF CURB
E	EAST, EASTING	OC	ON CENTER	TOW	TOP OF WALL
EA	EACH	OG	ORIGINAL GROUND	TYP	TYPICAL
EC	END CURVE	PED	PEDESTRIAN	UG	UNDERGROUND
EG	EXISTING GRADE	PERF.	PERFORATED	VERT	VERTICAL
EL	ELEVATION	PCC	POINT OF COMPUND CURVE	VLF	VERTICAL LINEAR FEET
EX	EXISTING	PI	POINT OF INTERSECTION	W	WEST
EOP	EDGE OF PAVEMENT	PIP	PROTECT IN PLACE	WS	WATER SURFACE
FG	FINISH GRADE	PRC	POINT OF REVERSE CURVE		

SYMBOLS

- CATCH BASIN
- FIRE HYDRANT
- ICV — IRRIGATION CONTROL
- VALVE METER
- MANHOLE (TYPE INDICATED)
- SURVEY MARKER
- POWER POLE
- PULLBOX (TYPE INDICATED)
- STREET LIGHT
- WATER VALVE
- WATER SURFACE
- SLOPE
- 24 — EXISTING ELEVATION

REGISTERED PROFESSIONAL ENGINEER
ARIC TORREYSON
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2/24/2015 3:20 PM
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REVISIONS

MARK	DESCRIPTION	DATE	APPR.

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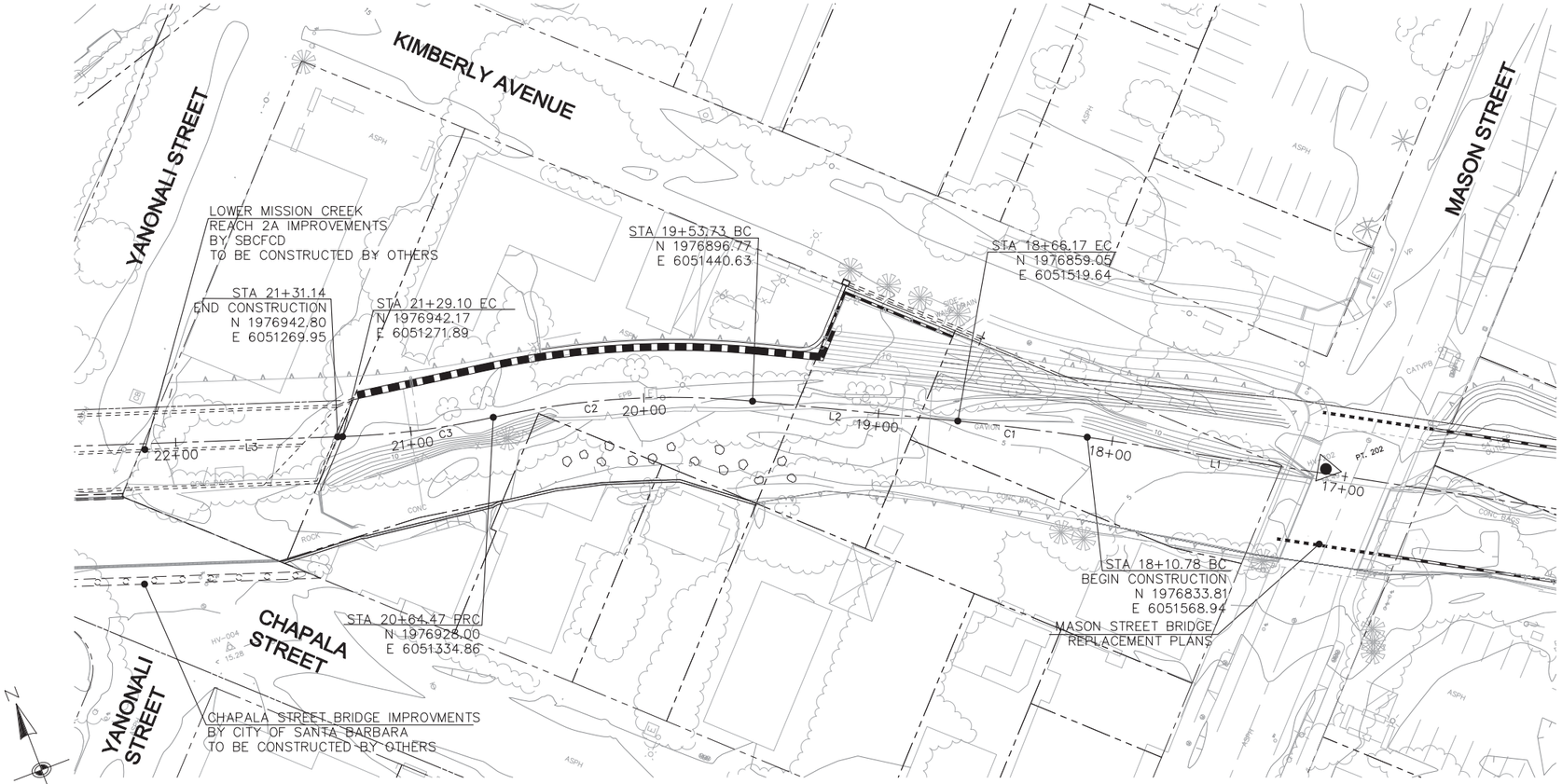
LOWER MISSION CREEK FLOOD CONTROL PROJECT
REACH 1B
NOTES, ABBREV., SYMBOLS & CONSTRUCTION NOTES

DATE: FEBRUARY 2015
SCALE: AS SHOWN
FILE NAME:
DESIGNED BY: AG
DRAWN BY: AG
CHECKED BY: YHC

SHEET REFERENCE NUMBER
FC3
SHEET 3 OF 17

LOWER MISSION CREEK REACH 1B – LINE TABLE								
LINE NO.	BEG. NORTHING	BEG. EASTING	BEG. STATION	END STATION	END NORTHING	END EASTING	LENGTH	BEARING
L1	1976716.82	6051782.71	15+67.09	18+10.78	1976833.81	6051568.94	243.69'	N61°18'29.09"W
L2	1976859.05	6051519.64	18+66.17	19+53.73	1976896.77	6051440.63	87.56'	N64°28'54.79"W
L3	1976942.17	6051271.89	21+29.10	23+21.54	1977001.54	6051088.84	192.44'	N72°01'49.56"W

LOWER MISSION CREEK REACH 1B – CURVE TABLE										
CURVE NO.	BEG. STATION	BEG. NORTHING	BEG. EASTING	END STATION	END NORTHING	END EASTING	LENGTH	RADIUS	DELTA	TANGENT
C1	18+10.78	1976833.81	6051568.94	18+66.17	1976859.05	6051519.64	55.39'	1000.00'	3°10'25.70"	27.70'
C2	19+53.73	1976896.77	6051440.63	20+64.47	1976928.00	6051334.86	110.74'	350.00'	18°07'43.95"	55.84'
C3	20+64.47	1976928.00	6051334.86	21+29.10	1976942.17	6051271.89	64.63'	350.00'	10°34'49.44"	32.41'



UNAUTHORIZED CHANGES OR USES: THE SANTA BARBARA COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT AND ITS EMPLOYEES WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES OR USES OF THESE PLANS. ALL PROPOSED CHANGES TO THE PLANS MUST BE PRESENTED IN WRITING TO THE DISTRICT AND APPROVED IN WRITING BY THE DISTRICT PRIOR TO IMPLEMENTATION OF ANY SUCH CHANGE OR USE.

BENCHMARK

FOUND STANDARD USC&GS BRASS TIDAL STATION DISK (DESIGNATION 941 1340 TIDAL 1) STAMPED "BM 1 1930" NEAR THE INTERSECTION OF HELENA AVENUE AND EAST CABRILLO BLVD., SET IN THE TOP OF THE NE'LY END OF A 4' HIGH CONCRETE GUARDRAIL OF THE BRIDGE OVER MISSION CREEK, 52.5' SE'LY OF THE CENTERLINE OF CABRILLO BLVD.
ELEVATION = 4.921 METERS NAVD88.

SURVEY CONTROL

1. TOPOGRAPHIC MAPPING WAS COMPILED AT A SCALE OF 1"=200', WITH A 1 FOOT CONTOUR INTERVAL, USING STANDARD PHOTOGRAMMETRIC METHODS AND PROCEDURES BY ARROWHEAD MAPPING CORPORATION, FROM AERIAL PHOTOGRAPHY DATED MAY 5, 2003.
2. MAPPING IS SUPPLEMENTED BY DATA COLLECTED IN A FIELD SURVEY USING CONVENTIONAL METHODS AND PROCEDURES IN JUNE 2003 BY PENFIED & SMITH, AND IN AUGUST 2003 BY JOHNSON FRANK & ASSOCIATES.
3. BEARINGS SHOWN ON THIS MAP ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, NAD 83, ZONE 5 GRID (EPOCH 1991.35), DEFINED LOCALLY BY THE SANTA BARBARA CONTROL NETWORK AS SHOWN ON RECORD OF SURVEY FILED WITH THE COUNTY SURVEYOR IN BOOK 147 PAGES 70–74. DISTANCES AND COORDINATES SHOWN AS MEASURED OR CALCULATED ARE EXPRESSED IN CCS, NAD 83, ZONE V GRID US SURVEY FOOT UNITS.
4. ELEVATIONS SHOWN HEREON ARE EXPRESSED IN U.S. SURVEY FEET AND ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), DEFINED LOCALLY BY THE SANTA BARBARA CONTROL NETWORK AS SHOWN ON RECORD OF SURVEY FILED WITH THE COUNTY SURVEYOR IN BOOK 147 PAGES 70–74.
5. THE EXISTING UTILITIES SHOWN HEREON HAVE BEEN COMPILED FROM ATLAS MAPS OBTAINED FROM THE FOLLOWING PUBLIC AND PRIVATE ENTITIES:

   ELECTRIC – SOUTHERN CALIFORNIA EDISON COMPANY
   GAS – SOUTHERN CALIFORNIA GAS COMPANY
   CATV – COX COMMUNICATIONS
   TELEPHONE COMMUNICATIONS – VERIZON
   FIBER OPTIC CABLE – AT&T
   FIBER OPTIC CABLE – U.S. SPRINT
   FIBER OPTIC CABLE – MCI NETWORK SERVICES INC.
   WATER – CITY OF SANTA BARBARA
   SEWER – CITY OF SANTA BARBARA
   STORM DRAIN – CITY OF SANTA BARBARA
6. COMPILED UTILITIES HAVE BEEN GEOREFERENCED TO VISIBLE SURFACE UTILITIES LOCATED BY SAID AERIAL MAPPING AND SUPLEMENTAL FIELD SURVEYS.
7. TETRA TECH INC. DOES NOT ACCEPT ANY RESPONSIBILITY FOR INDICATED SIZES, LOCATIONS, ACCURACY OR COMPLETENESS OF INFORMATION OBTAINED FROM SAID ATLAS MAPS.

REGISTERED PROFESSIONAL ENGINEER
ARIC TORREYSON
NO. 66068
EXP. 6-30-16
CIVIL
STATE OF CALIFORNIA

REVISIONS			
MARK	DESCRIPTION	DATE	APPR.

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTIRCT
123 E. ANAPAMU STREET
SANTA BARBARA, CA 93101
805.568.3440

TETRA TECH
800 WEST SIXTH STREET, SUITE 380
LOS ANGELES, CA 90017 213.327.0800
ARIC M. TORREYSON R.C.E. 66068
FEB. 24, 2015
DATE

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT REACH 1B

HORIZONTAL CONTROL

DATE: FEBRUARY 2015
SCALE: AS SHOWN
FILE NAME:
DESIGNED BY: AG
DRAWN BY: AG
CHECKED BY: YHC

SHEET REFERENCE NUMBER
FC4
SHEET 4 OF 17

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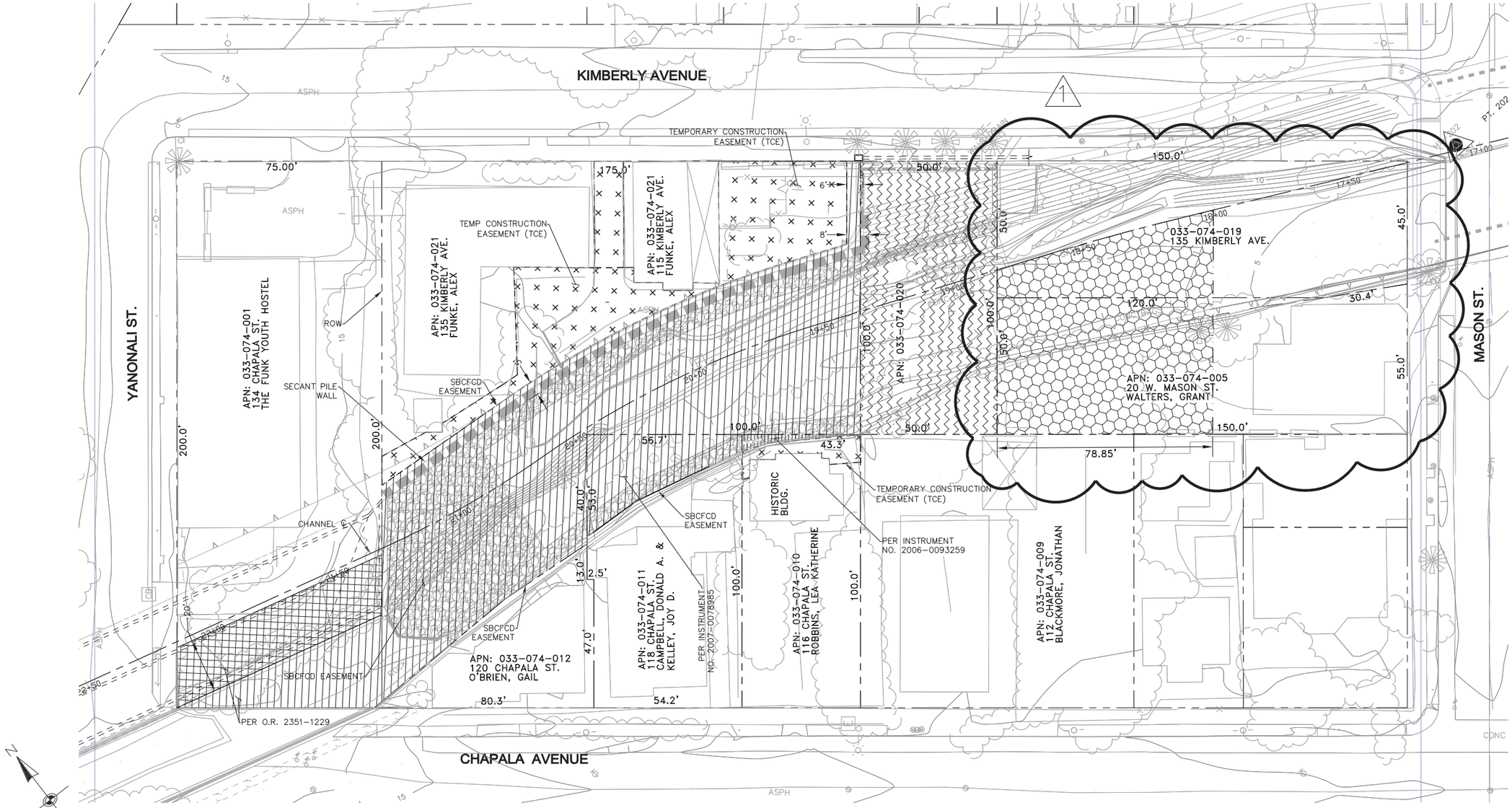

SCALE: 1" = 20'

SHEET LEGEND:

- TEMPORARY CONSTRUCTION EASEMENT (TCE)
- SBCFCD FUTURE CHANNEL EASEMENT (INSTRUMENT NO. OR O.R. NO. INDICATES EXISTING SBFCD EASEMENT)
- SBCFCD ROW
- CITY OF SANTA BARBARA ROW
- SBCFCD INGRESS/EGRESS EASEMENT

PROPERTY NOTES:

1. SANTA BARBARA COUNTY FLOOD CONTROL DISTRICT (SBCFCD) EASEMENTS AND TEMPORARY CONSTRUCTION EASEMENTS (TCE) LINEWORK ARE PROVIDED BY SBCFCD.

REGISTERED PROFESSIONAL ENGINEER
ARIC TORREYSON
NO. 66068
EXP. 6-30-16
CIVIL
STATE OF CALIFORNIA

REVISIONS

MARK	DESCRIPTION	DATE	APPR.
1	ADDENDUM NO. 1	MARCH 6, 2015	A.M.T.

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTIRCT
123 E. ANAPAMU STREET
SANTA BARBARA, CA 93101
805.568.3440

TETRA TECH
800 WEST SIXTH STREET, SUITE 380
LOS ANGELES, CA 90017 213.327.0800

ARIC M. TORREYSON R.C.E. 66068 — FEB. 24, 2015 DATE

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT
REACH 1B

PROPERTY EASEMENTS

DATE: FEBRUARY 2015
SCALE: AS SHOWN
FILE NAME:
DESIGNED BY: AG
DRAWN BY: AG
CHECKED BY: YHC

SHEET REFERENCE NUMBER
FC5
SHEET 5 OF 17

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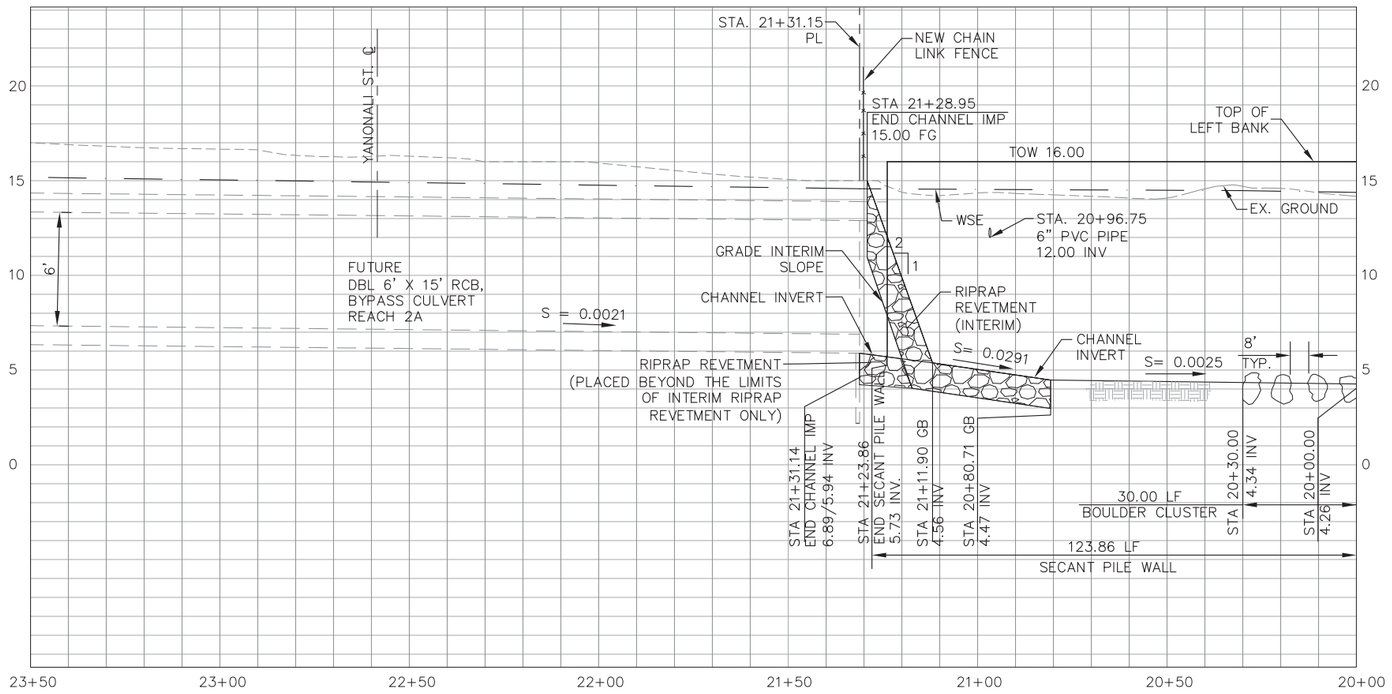


CONSTRUCTION NOTES

- 4 REMOVE EXISTING MISC. CONCRETE
- 5 REMOVE EXISTING AC PAVEMENT
- 7 CONSTRUCT CHANNEL GRADING AS SHOWN HEREON AND CROSS SECTIONS ON SHEET FC11
- 8 PLACE RIPRAP TOE REVETMENT PER DETAIL G ON SHEET FC9
- 11 PLACE BOULDER CLUSTERS PER DETAIL F ON SHEET FC9
- 14 CONSTRUCT SECANT PILE WALL PER DETAILS ON SHEET FC17
- 15 PLACE RIPRAP TOE REVENTMENT ALONG EX WALL PER DETAIL ON SHEET FC7
- 23 CONSTRUCT ORNAMENTAL STEEL FENCE PER DETAIL D ON SHEET FC8
- 24 PLACE RIPRAP REVETMENT PER DETAIL H ON SHEET FC9
- 29 CONSTRUCT 6" WALL DRAIN PER CALTRANS STD PLAN B3-6
- 30 CONSTRUCT 6" PVC PIPE
- 31 CONSTRUCT 6" RODNEY HUNT FV-SPR FLAP GATE OR EQUAL
- 35 RECONSTRUCT CHAIN LINK FENCE, WOODEN FENCE, AND PIPE GATE IN KIND, AS NECESSARY TO CONSTRUCT PROPOSED IMPROVEMENTS

INSIDE CHANNEL WALL LINE TABLE

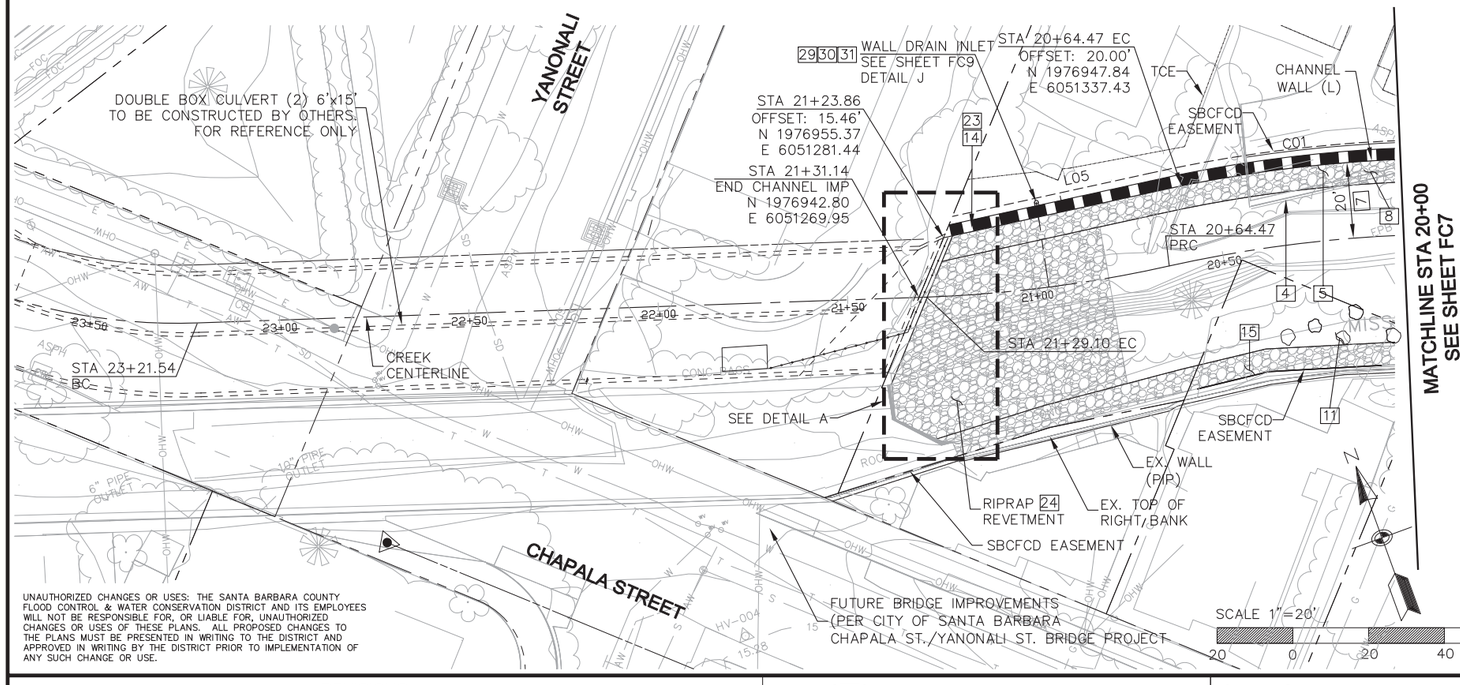
LINE	BEARING	LENGTH
L05	S82°20'22"E	56.50'

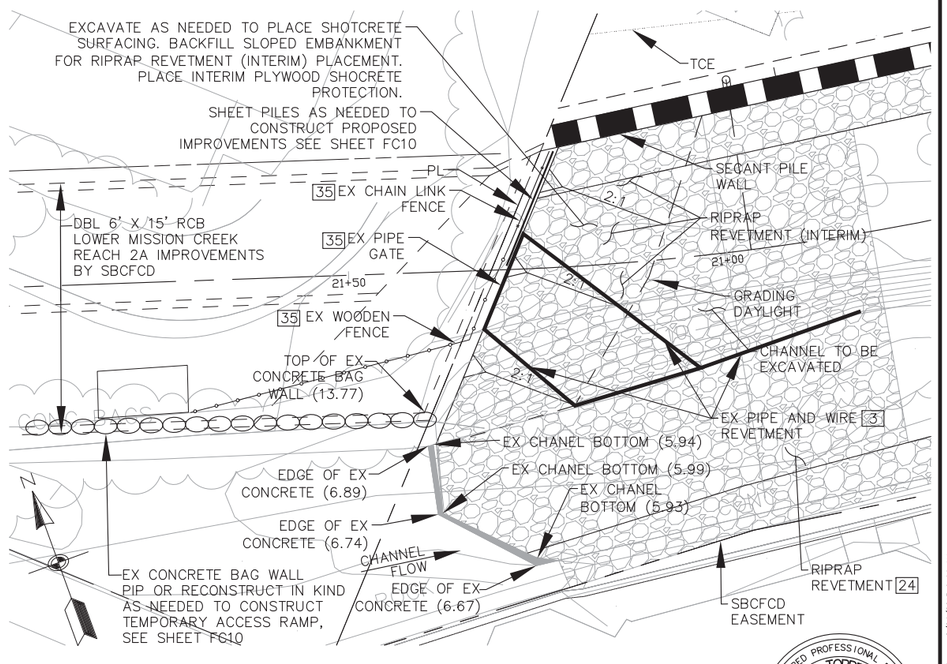
INSIDE CHANNEL WALL CURVE TABLE

CURVE	LENGTH	TAN	DELTA	RADIUS
C01	117.07'	59.03'	18°07'44"	370.00'

HYDRAULIC DESIGN DATA

STATION	Q (CFS)	Vn (FT/S)	WSE (FT)
21+30	1840	6.0/ 8.8	14.57/ 14.11
20+00	3400	6.6	14.05





CONNECTION DETAIL

SCALE 1"=10'

A FC6

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REGISTERED PROFESSIONAL ENGINEER
ARIC TORREYSON
NO. 66068
EXP. 6-30-16
CIVIL
STATE OF CALIFORNIA

REVISIONS

MARK	DESCRIPTION	DATE	APPR.

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
123 E. ANAPAMU STREET
SANTA BARBARA, CA 93101
805.568.3440

TETRA TECH
800 WEST SIXTH STREET, SUITE 380
LOS ANGELES, CA 90017 213.327.0800
ARIC M. TORREYSON R.C.E. 66068
FEB. 24, 2015
DATE

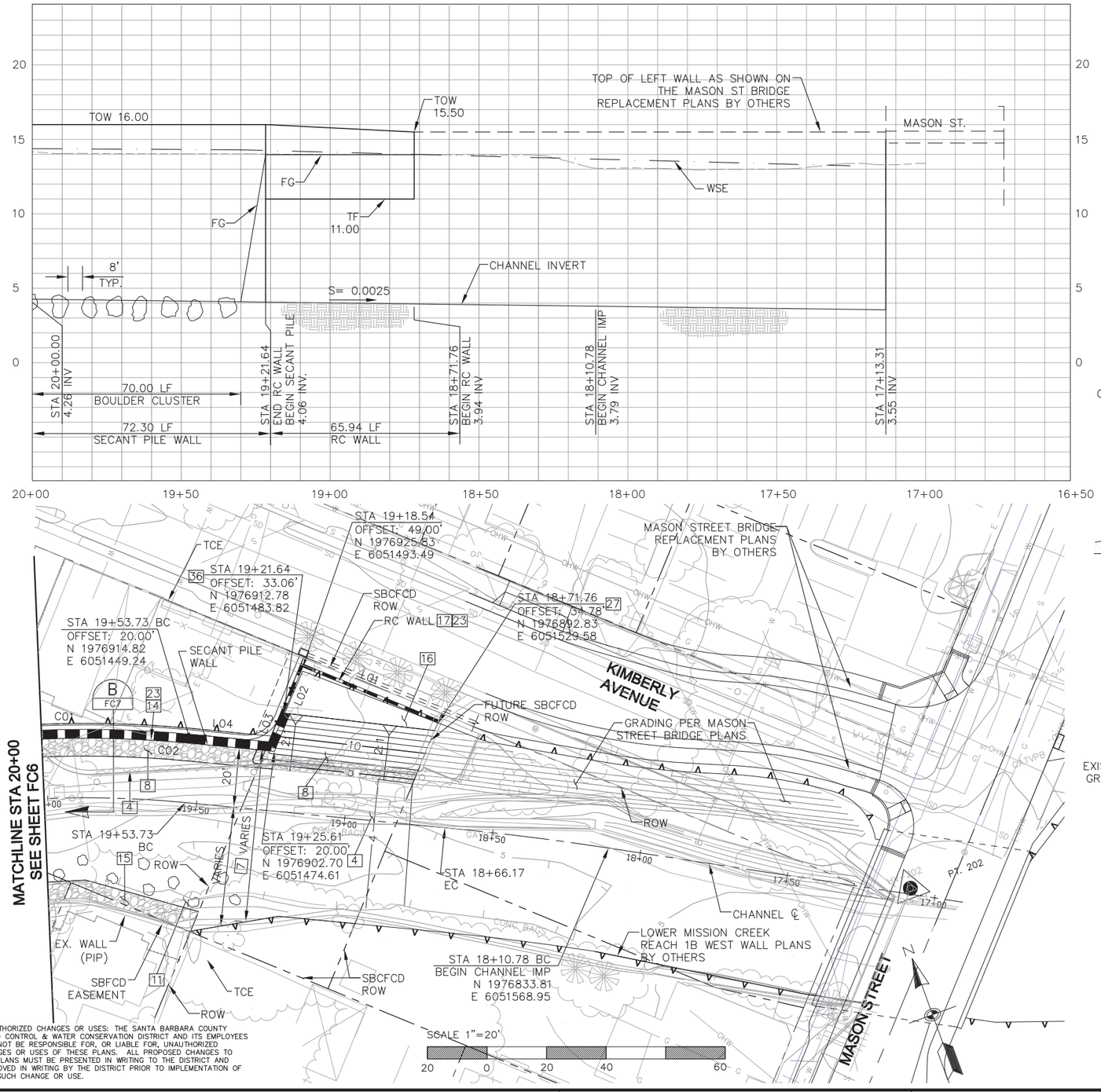
SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT
REACH 1B
PLAN AND PROFILE (1)

DATE: FEBRUARY 2015
SCALE: AS SHOWN
FILE NAME:
DESIGNED BY: AG
DRAWN BY: AG
CHECKED BY: YHC

SHEET REFERENCE NUMBER
FC6
SHEET 6 OF 17

P:\WATR\Y2934Z LOWER MISSION CRK 1B\05 DESIGN\Y2934ZFC006.DWG 2/24/2015 9:44 AM



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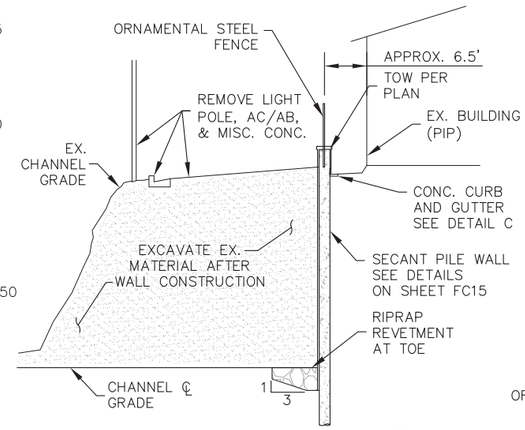
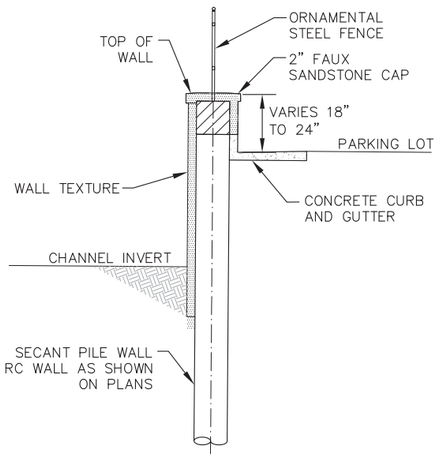
CONSTRUCTION NOTES

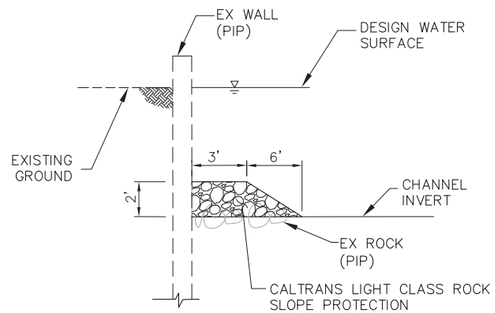
- 4 REMOVE EXISTING MISC. CONCRETE
- 7 CONSTRUCT CHANNEL GRADING AS SHOWN HEREON AND CROSS SECTIONS ON SHEET FC11
- 8 PLACE RIPRAP TOE REVETMENT PER DETAIL G ON SHEET FC9
- 11 PLACE BOULDER CLUSTERS PER DETAIL F ON SHEET FC9
- 14 CONSTRUCT SECANT PILE WALL PER DETAILS ON SHEET FC17
- 15 PLACE RIPRAP TOE REVENTMENT ALONG EX WALL PER DETAIL ON SHEET FC7
- 16 CONSTRUCT EXPANDED HABITAT ZONE GRADING PER SHEET FC14
- 17 CONSTRUCT REINFORCED CONCRETE WALL PER APWA STANDARD PLAN 610–3, TYPE 1. EXPOSED WALL, EXTENDING 2 FEET BELOW FINISH GRADE, SHALL BE INTEGRALLY COLORED DAVIS–COLOR "MESA BUFF" AND TEXTURED WITH FITZGERALD PATTERN 17004 FORMLINER, OR APPROVED EQUIVALENT. MODIFY FORMLINER TO CREATE FAUX SANDSTONE CAP PER DETAIL K ON SHEET FC9.
- 23 CONSTRUCT ORNAMENTAL STEEL FENCE PER DETAIL D ON SHEET FC8
- 27 INSTALL HYDROPHILIC WATER STOP PER DETAIL M ON SHEET FC9
- 36 CONSTRUCT WALL JOINT DETAIL ON SHEET FC9



STA. 19+86.49 SECTION B FC7
NOT TO SCALE



WALL AND CURB DETAIL C FC7
NOT TO SCALE



EX WALL RIPRAP TOE REVETMENT
NOT TO SCALE

INSIDE CHANNEL WALL LINE TABLE		
LINE	BEARING	LENGTH
L01	S47°34'11"E	49.22'
L02	N42°25'49"E	16.72'
L03	N42°25'49"E	13.65'
L04	S64°28'55"E	28.11'

INSIDE CHANNEL WALL LINE TABLE				
CURVE	LENGTH	TAN	DELTA	RADIUS
C01	117.07'	59.03'	18°07'44"	370.00'

HYDRAULIC DESIGN DATA			
STATION	Q (CFS)	Vn (FT/S)	WSE (FT)
20+00	3400	6.6	14.05
19+30	3400	5.7	13.99
17+25	3400	5.9	13.44

REGISTERED PROFESSIONAL ENGINEER ARIC TORREYSON NO. 66068 EXP. 6-30-16 CIVIL STATE OF CALIFORNIA

REVISIONS			
MARK	DESCRIPTION	DATE	APPR.

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
123 E. ANAPAMU STREET
SANTA BARBARA, CA 93101
805.568.3440

TETRA TECH
800 WEST SIXTH STREET, SUITE 380
LOS ANGELES, CA 90017 213.327.0800
ARIC M. TORREYSON R.C.E. 66068
FEB. 24, 2015
DATE

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
LOWER MISSION CREEK FLOOD CONTROL PROJECT REACH 1B
PLAN AND PROFILE (2)

DATE: FEBRUARY 2015
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SHEET REFERENCE NUMBER
FC7
SHEET 7 OF 17

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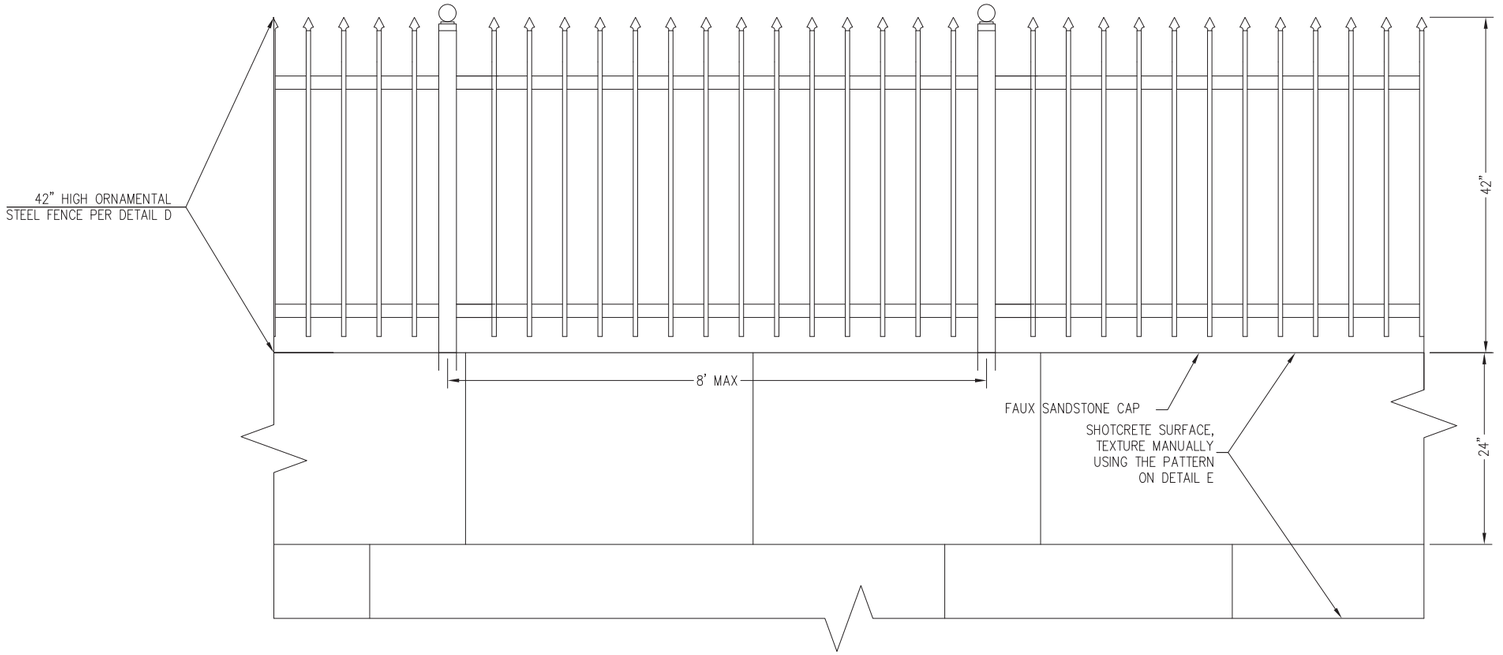
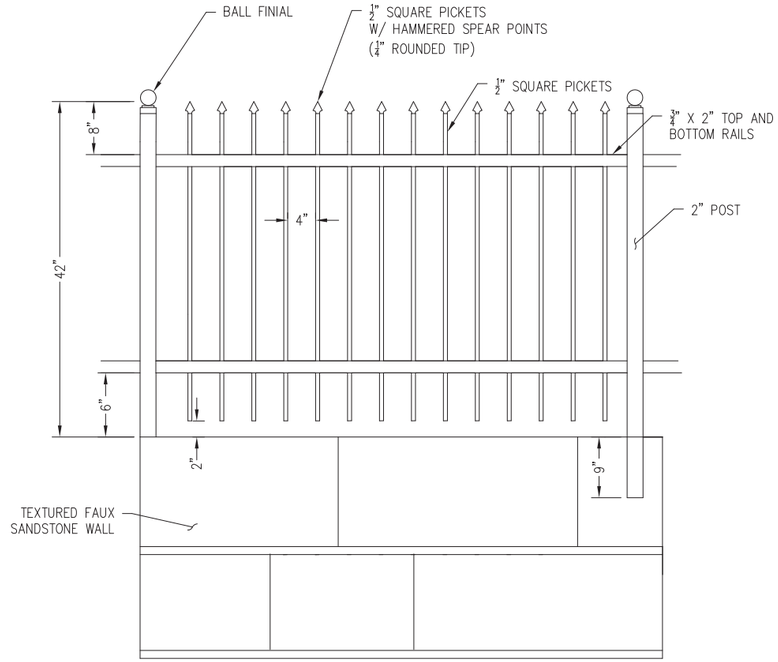


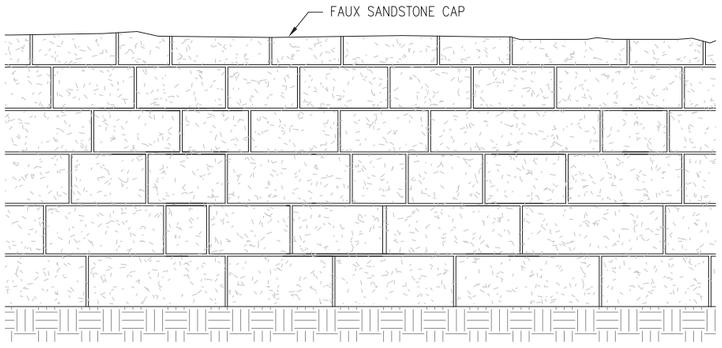
WALL DETAIL ELEVATION VIEW
NOT TO SCALE



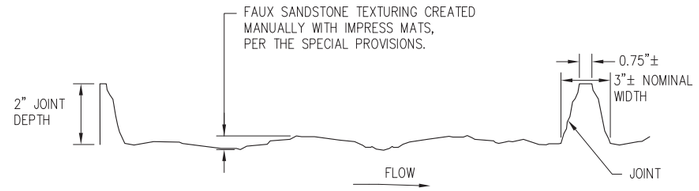
ORNAMENTAL STEEL FENCE D
NOT TO SCALE

FENCING AND WALL TEXTURE NOTES:

1. SANDSTONE BLOCK LENGTHS VARY 12", 18", 34", 40", 43" TYP.
2. SANDSTONE BLOCK HEIGHTS VARY FROM 20" TO 22" TYP. BLOCK HEIGHTS SHALL NOT BE GREATER THAN THE BLOCK HEIGHTS IN THE UNDERLYING ROW.
3. FAUX GROUTED JOINT DIMENSIONS AND TEXTURE VARIATION SHALL BE PER THE DETAIL ON THIS SHEET.
4. SANDSTONE CAP 9"–11" HEIGHT x 40" WIDTH x 24"–30" LENGTH.
5. SHOTCRETE SHALL BE INTERGALLY COLORED DAVIS– COLOR "MESA BLUFF", OR APPROVED EQUIVLANT.
6. ORNAMNETAL STEEL FENCE SHALL BE PAINTED MALAGA GREEN.
7. ORNAMENTAL STEEL FENCE SPEAR POINT TIPS SHALL BE LOCATED BETWEEN THE BOTTOM OF THE BALL FINIAL AND THE MID–POINT OF THE BALL FINIAL.
8. BALL FINIALS SHALL BE 2" DIAMETER.
9. ALL IRON SHALL BE SOLID STOCK AND GALVANIZED PRIOR TO CONSTRUCTION.



WALL TEXTURE DETAIL E
NOT TO SCALE



WALL TEXTURE SECTION VIEW
NOT TO SCALE

REGISTERED PROFESSIONAL ENGINEER
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NO. 66068
EXP. 6-30-16
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ARIC M. TORREYSON R.C.E. 66068
FEB. 24, 2015
DATE

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
LOWER MISSION CREEK FLOOD CONTROL PROJECT
REACH 1B
FENCING DETAILS AND WALL TREATMENT

DATE: FEBRUARY 2015
SCALE: AS SHOWN
FILE NAME:
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SHEET REFERENCE NUMBER
FC8
SHEET 8 OF 17

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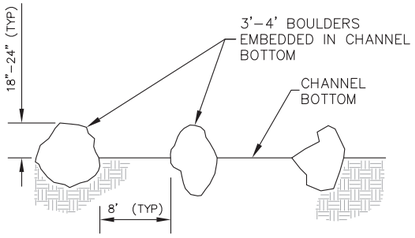
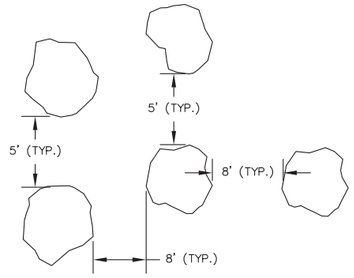
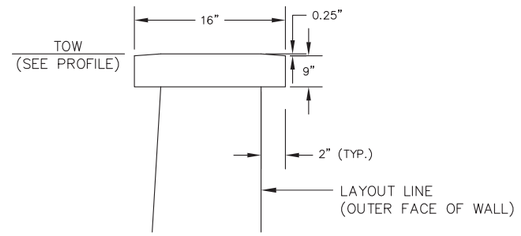


BOULDER CLUSTER DETAIL (F)
NOT TO SCALE



BOULDER CLUSTER PLAN VIEW
NOT TO SCALE



FAUX SANDSTONE CAP (RC WALL) (K)
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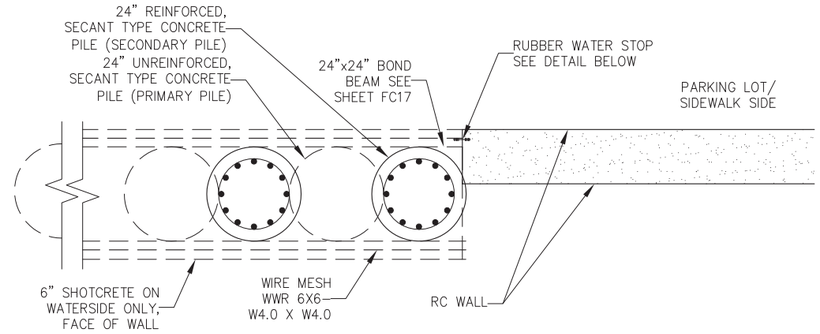
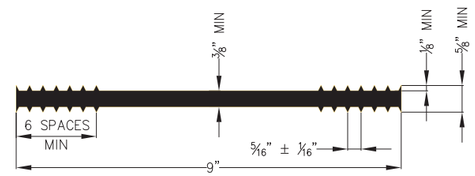
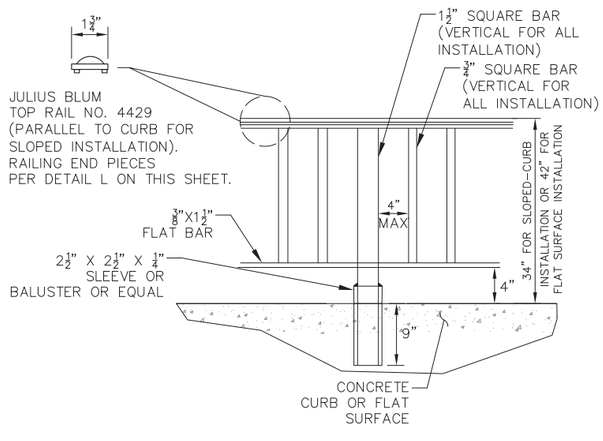


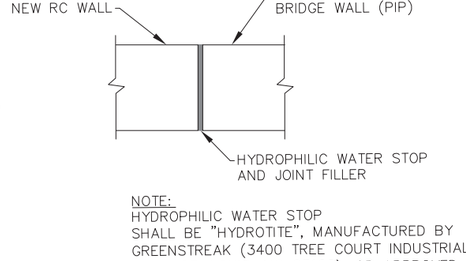
WALL JOINT DETAIL
NTS



LEFT WALL RIPRAP TOE REVETMENT (G)
NOT TO SCALE



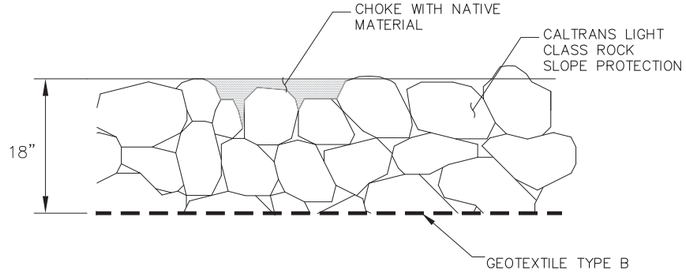
RAILING DETAIL (I)
NTS (TO MATCH EXISTING)



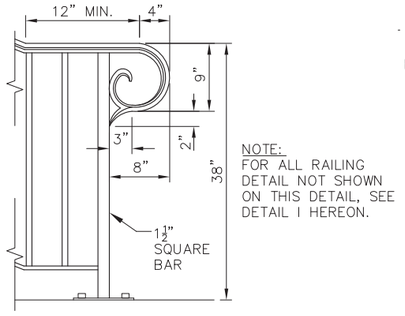
NOTE:
HYDROPHILIC WATER STOP SHALL BE "HYDROTITE", MANUFACTURED BY GREENSTREAK (3400 TREE COURT INDUSTRIAL BLVD, ST. LOUIS. MO 63122), OR APPROVED EQUAL. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION PROCEDURE.

HYDROPHILIC WATER STOP DETAIL (M)
NOT TO SCALE

RUBBER WATER STOP DETAIL
NTS

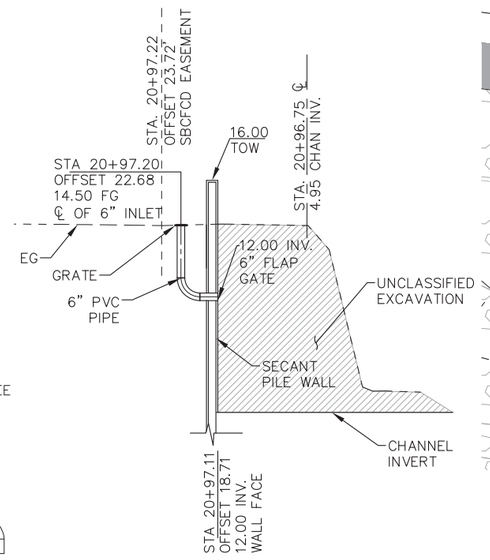


RIPRAP REVETMENT (H)
NOT TO SCALE

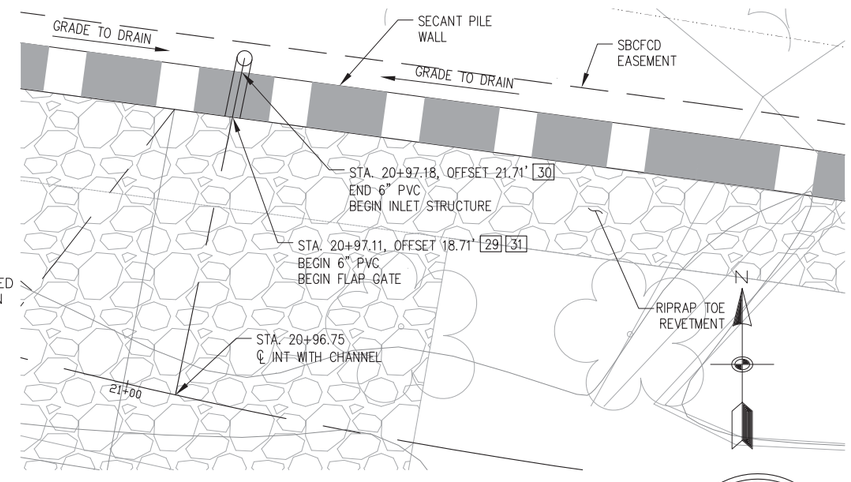


NOTE:
FOR ALL RAILING DETAIL NOT SHOWN ON THIS DETAIL, SEE DETAIL I HEREON.

END RAIL PIECE DETAIL (L)
NOT TO SCALE



WALL DRAIN INLET PROFILE
NTS



WALL DRAIN INLET DETAIL (J)
1"–5'

CONSTRUCTION NOTES
29 CONSTRUCT 6" WALL DRAIN PER CALTRANS STD PLAN B3–6
30 CONSTRUCT 6" PVC PIPE
31 CONSTRUCT 6" RODNEY HUNT FV–SPR FLAP GATE OR EQUAL

REGISTERED PROFESSIONAL ENGINEER
ARIC TORREYSON
NO. 66068
EXP. 6-30-16
CIVIL
STATE OF CALIFORNIA

UNAUTHORIZED CHANGES OR USES: THE SANTA BARBARA COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT AND ITS EMPLOYEES WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES OR USES OF THESE PLANS. ALL PROPOSED CHANGES TO THE PLANS MUST BE PRESENTED IN WRITING TO THE DISTRICT AND APPROVED IN WRITING BY THE DISTRICT PRIOR TO IMPLEMENTATION OF ANY SUCH CHANGE OR USE.

REVISIONS

MARK	DESCRIPTION	DATE	APPR.

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTIRCT
123 E. ANAPAMU STREET
SANTA BARBARA, CA 93101
805.568.3440

TETRA TECH
800 WEST SIXTH STREET, SUITE 380
LOS ANGELES, CA 90017 213.327.0800
ARIC M. TORREYSON R.C.E. 66068
FEB. 24, 2015
DATE

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT
REACH 1B
DETAILS

DATE: FEBRUARY 2015
SCALE: AS SHOWN
FILE NAME: T29342FC008.dwg
DESIGNED BY: AG
DRAWN BY: AG
CHECKED BY: YHC

SHEET REFERENCE NUMBER
FC9
SHEET 9 OF 17

P:\WATR\T29342 LOWER MISSION CRK 1B\05 DESIGN\T29342FC009.DWG 2/24/2015 9:46 AM

CONSTRUCTION NOTES:

SEQUENCE OF CONSTRUCTION

NOTE: THE CONTRACTOR MAY SUBMIT ALTERNATIVE SEQUENCE OF CONSTRUCTION, COFFERDAM ALIGNMENTS, AND DIVERSION PIPE CONFIGUARION FOR REVIEW AND APPROVAL BY THE ENGINEER SO LONG AS THE ALTERNATIVES ARE CONSISTENT WITH THE PROJECT PERMITS AND CONDITIONS OF APPROVAL.

1. INSTALL TEMPORARY SECURITY FENCE

2. CONSTRUCT COFFERDAM (USING SHEET PILE WALL) ALONG THE PROPOSED CREEK BED, OFFSET 1' FROM EXISTING TOE OF BANK, WITH UPSTREAM AND DOWNSTREAM BULKHEADS EXTENDING TO THE LIMITS OF THE PROPOSED IMPROVEMENTS SO THAT THE LEFT HALF OF THE CREEK (AREA 1) IS FULLY ISOLATED FROM THE FLOW BETWEEN THESE TWO BULKHEADS.

NOTE: AS A CONTRACTOR PROPOSED ALTERNATIVE, THE UPSTREAM AND DOWNSTREAM BULKHEADS MY BE CONSTRUCTED OF ALTERNITVE MATERIALS, PROVIDED THAT THE ALTERNAIVE IS SUFFICIENT TO CONTROL WATER INFILTRATION INTO THE WORK AREA FOR THE CONSTRUCTION OPERATIONS AND TECHNIQUES EMPLOYED BY THE CONTRACTOR.

3. INSTALL AND OPERATE DEWATERING SYSTEM AS NECESSARY TO CONSTRUCT PROPOSED IMPROVEMENTS.

4. GRADE AND FILL LEFT BANK AS NECESSARY TO PLACE SECANT PILE WALL WITHIN THE PROJECT LIMITS.

NOTE: THE CONTRACTOR MAY BEGIN PLACEMENT OF SECANT PILE WALLS PRIOR TO THE INSTALLTION OF COFFERDAMS IF SECANT PILE CONSTRUCTION ACTIVITIES CAN BE CONTAINED BEYOND THE EXISTING TOP OF CREEK BANK.

5. EXCAVATE EXCESS SOIL BETWEEN THE COFFER DAM AND THE NEW SEACNT PILE WALL.

6. COMPLETE THE NEW WALL WITH 24" X 24" BOND BEAM, SHOTCRETE (COLORED AND TEXTURED) AND ORNAMENTAL STEEL FENCE.

7. CONSTRUCT RIP-RAP TOE REVETMENT, FINE GRADE THE NEW CREEK BED AND PLACE BOULDER CLUSTERS.

8. RELOCATE DOWNSTREAM BULKHEAD FROM LEFT BANK TO RIGHT BANK OF THE CREEK AND CONSTRUCT UPSTREAM COFFERDAM AND DIVERSION PIPE SO THAT THE RIGHT HALF OF THE CREEK (AREA 2) IS FULLY ISOLATED FROM THE FLOW. CONSTRUCT TEMPORARY ACCESS RAMP FROM THE INGRESS/EGRESS EASEMENT LOCATED ON 134 CHAPALA STREET ACROSS DIVERSION PIPE TO ACCESS AREA 2.

NOTE: BETWEEN THE DATES OF OCT 1ST AND DEC 1ST THE CONTRACTOR MAY BE DIRECTORED BY THE ENGINEER TO REMOVE AND RECONSTRUCT THE UPSTREAM COFFERDAM, DIVERSION PIPE AND TEMPORARY ACCESS RAMP IN THE EVENT OF FORECASTED STORMS RESULTING IN EXCESSIVE CREEK FLOWS, PER THE PROJECT SPECIAL PROVISIONS.

NOTE: AS A CONTRACTOR PROPOSED ALTERNATIVE, AREA 2 MAY BE CONSTRUCTED PRIOR TO AREA 1. SUCH AN ALTERNATIVE SHALL REQUIRE THAT THE LONGITUDINAL SHEET PILE COFFERDAM BE RELOCATED TO APPROXIMATELY THE CENTERLINE OF THE PRE-EXISTING CREEK CHANNEL.

9. INSTALL AND OPERATE DEWATERING SYSTEM AS NECESSARY TO CONSTRUCT PROPOSED IMPROVEMENTS.

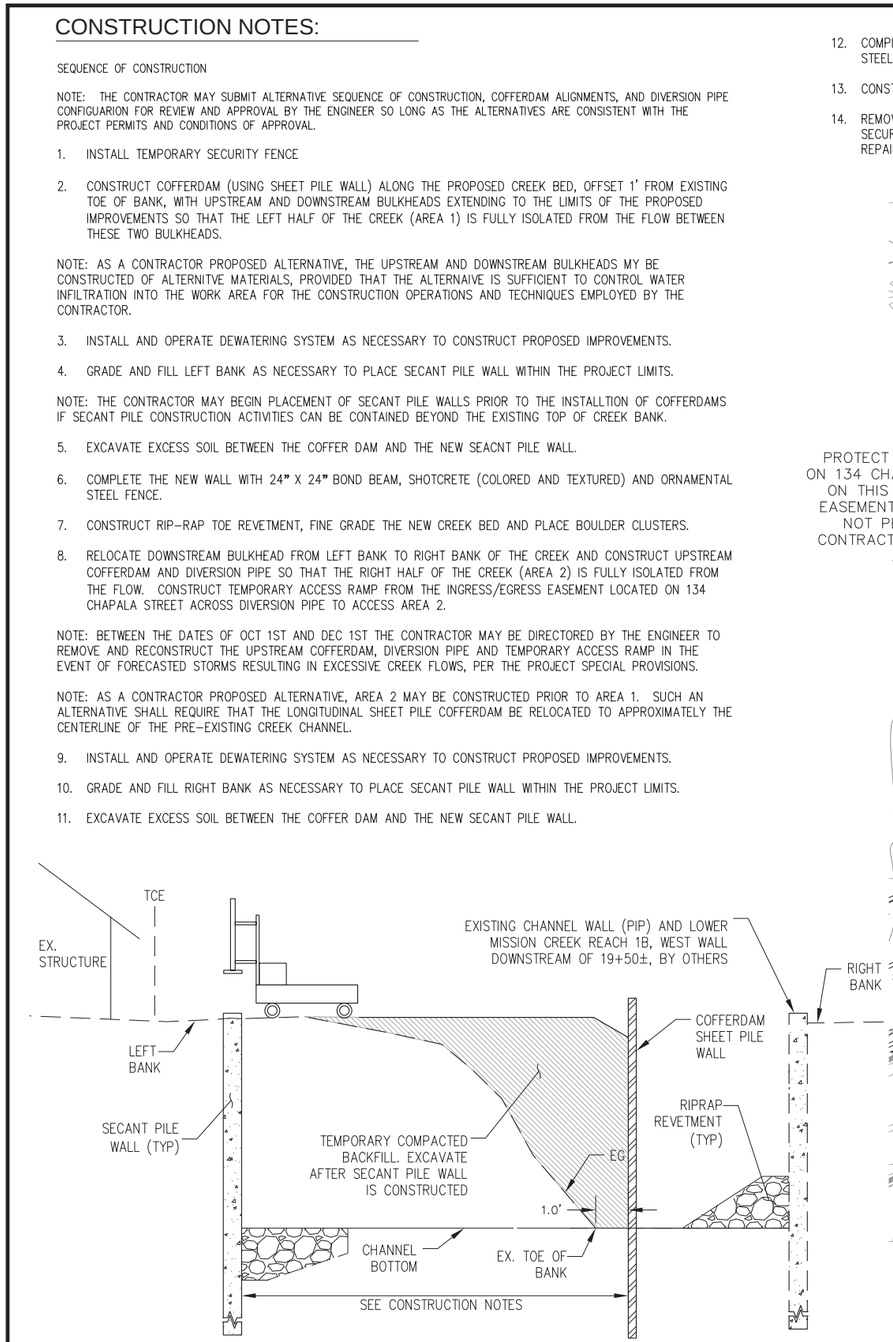
10. GRADE AND FILL RIGHT BANK AS NECESSARY TO PLACE SECANT PILE WALL WITHIN THE PROJECT LIMITS.

11. EXCAVATE EXCESS SOIL BETWEEN THE COFFER DAM AND THE NEW SECANT PILE WALL.

12. COMPLETE THE NEW WALL WITH 24" X 24" BOND BEAM, SHOTCRETE (COLORED AND TEXTURED) AND ORNAMENTAL STEEL FENCE.

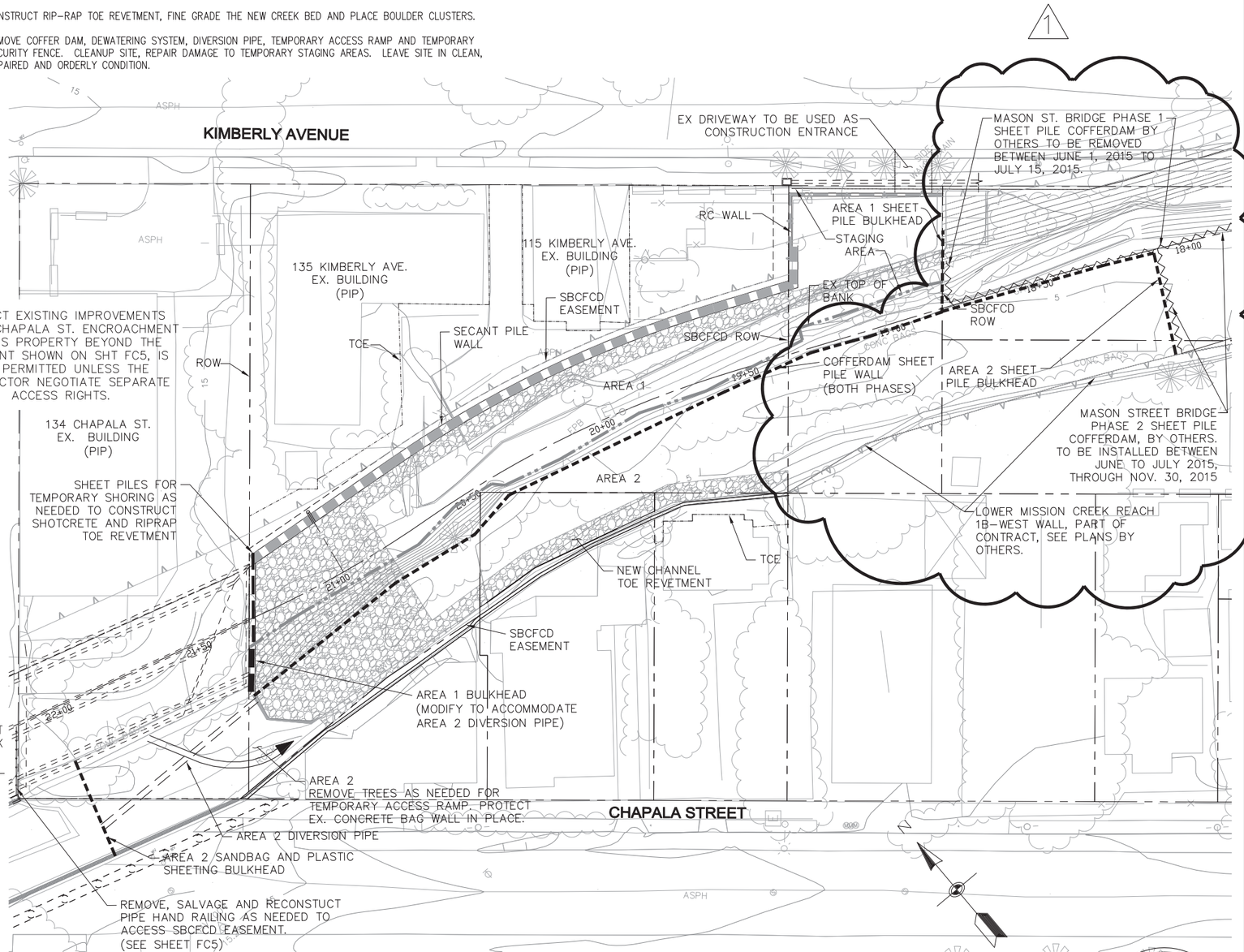
13. CONSTRUCT RIP-RAP TOE REVETMENT, FINE GRADE THE NEW CREEK BED AND PLACE BOULDER CLUSTERS.

14. REMOVE COFFER DAM, DEWATERING SYSTEM, DIVERSION PIPE, TEMPORARY ACCESS RAMP AND TEMPORARY SECURITY FENCE. CLEANUP SITE, REPAIR DAMAGE TO TEMPORARY STAGING AREAS. LEAVE SITE IN CLEAN, REPAIRED AND ORDERLY CONDITION.



TYPICAL CONSTUCTION SECTION

FROM STA. 18+20.00 TO STA. 21+00.00
NOT TO SCALE



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REGISTERED PROFESSIONAL ENGINEER
ARIC TORREYSON
NO. 66068
EXP. 6-30-16
CIVIL
STATE OF CALIFORNIA

REVISIONS

MARK	DESCRIPTION	DATE	APPR.
1	ADDENDUM NO. 1	MARCH 6, 2015	A.M.T.

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
123 E. ANAPAMU STREET
SANTA BARBARA, CA 93101
805.568.3440

TETRA TECH
800 WEST SIXTH STREET, SUITE 380
LOS ANGELES, CA 90017 213.327.0800

ARIC M. TORREYSON R.C.E. 66068 — FEB. 24, 2015 DATE

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT
REACH 1B
STAGING PLAN

DATE: FEBRUARY 2015
SCALE: AS SHOWN
FILE NAME: T29342FC009.dwg
DESIGNED BY: AG
DRAWN BY: AG
CHECKED BY: YHC

SHEET REFERENCE NUMBER
FC10
SHEET 10 OF 17

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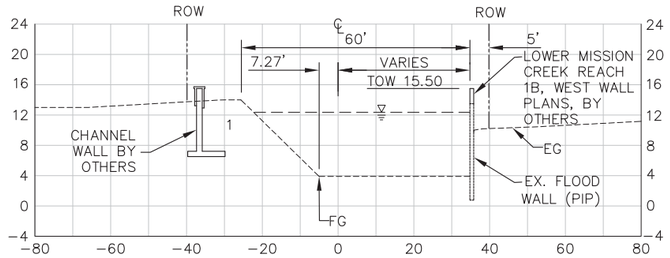

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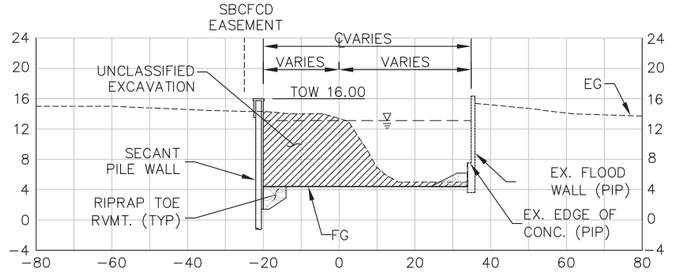

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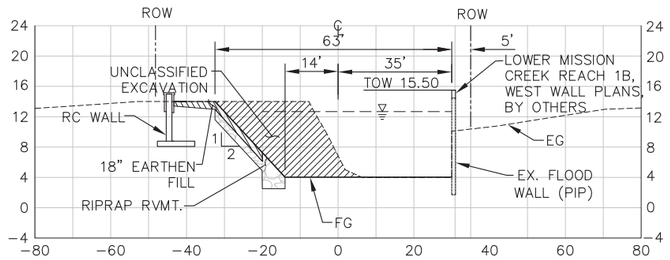

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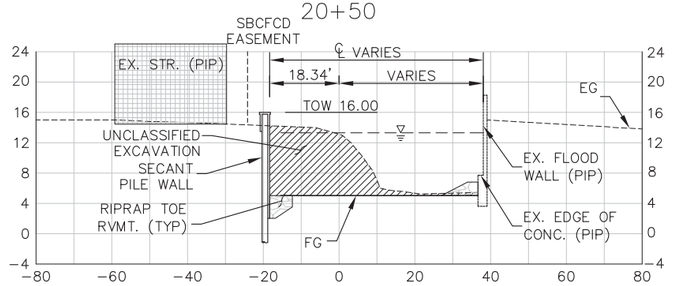
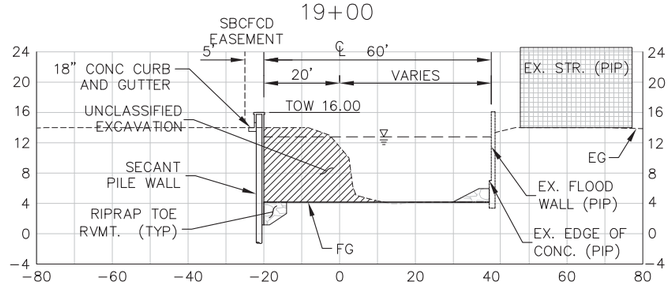


21+00



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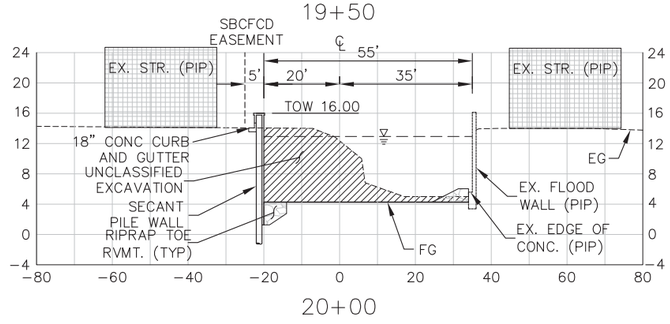

20+00

CROSS SECTION NOTE:

THE CROSS SECTIONS SHOWN HEREON ARE VIEWED LOOKING DOWNSTREAM.

REGISTERED PROFESSIONAL ENGINEER
ARIC TORREYSON
NO. 66068
EXP. 6-30-16
CIVIL
STATE OF CALIFORNIA

REVISIONS

MARK	DESCRIPTION	DATE	APPR.

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTIRCT
123 E. ANAPAMU STREET
SANTA BARBARA, CA 93101
805.568.3440

TETRA TECH
800 WEST SIXTH STREET, SUITE 380
LOS ANGELES, CA 90017 213.327.0800
ARIC M. TORREYSON R.C.E. 66068
FEB. 24, 2015
DATE

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT
REACH 1B
CROSS SECTIONS (1)

DATE: FEBRUARY 2015
SCALE: AS SHOWN
FILE NAME:
DESIGNED BY: AG
DRAWN BY: AG
CHECKED BY: YHC

SHEET REFERENCE NUMBER
FC11
SHEET 11 OF 17

2/24/2015 9:47 AM
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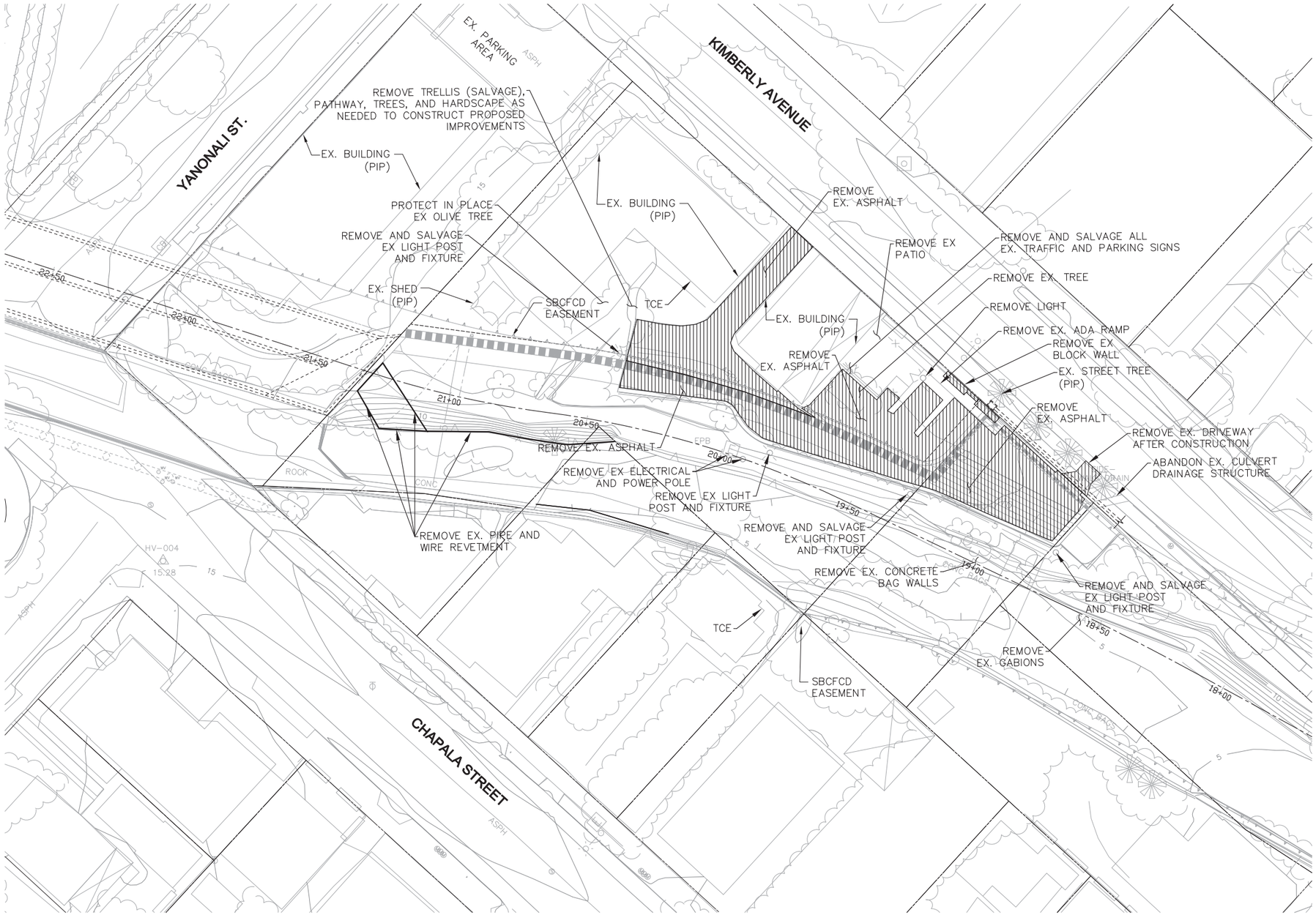

N

SCALE: 1" = 20'

NOTE:

CLEAR AND GRUB ALL TREES AND VEGETATION CONFLICTING WITH PROPOSED IMPROVEMENTS

REGISTERED PROFESSIONAL ENGINEER
ARIC TORREYSON
NO. 66068
EXP. 6-30-16
CIVIL
STATE OF CALIFORNIA

REVISIONS

MARK	DESCRIPTION	DATE	APPR.

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
123 E. ANAPAMU STREET
SANTA BARBARA, CA 93101
805.568.3440

TETRA TECH
800 WEST SIXTH STREET, SUITE 380
LOS ANGELES, CA 90017 213.327.0800
ARIC M. TORREYSON R.C.E. 66068
FEB. 24, 2015
DATE

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT
REACH 1B

DEMOLITION PLAN

DATE: FEBRUARY 2015
SCALE: AS SHOWN
FILE NAME:
DESIGNED BY: AG
DRAWN BY: AG
CHECKED BY: YHC

SHEET REFERENCE NUMBER
FC12
SHEET 12 OF 17

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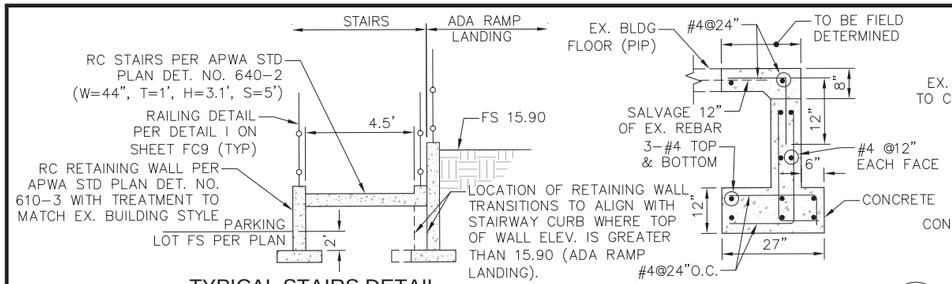
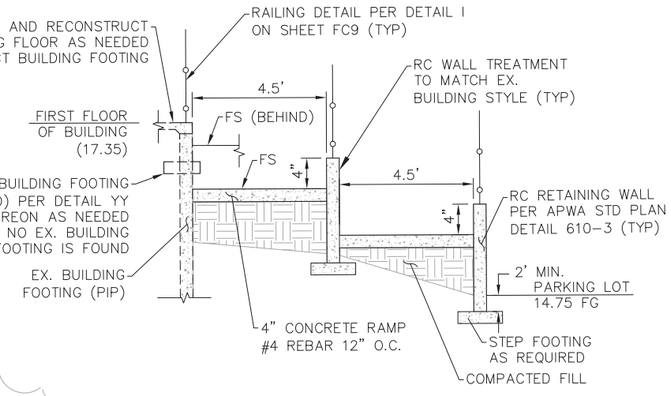


TYPICAL STAIRS DETAIL

NTS

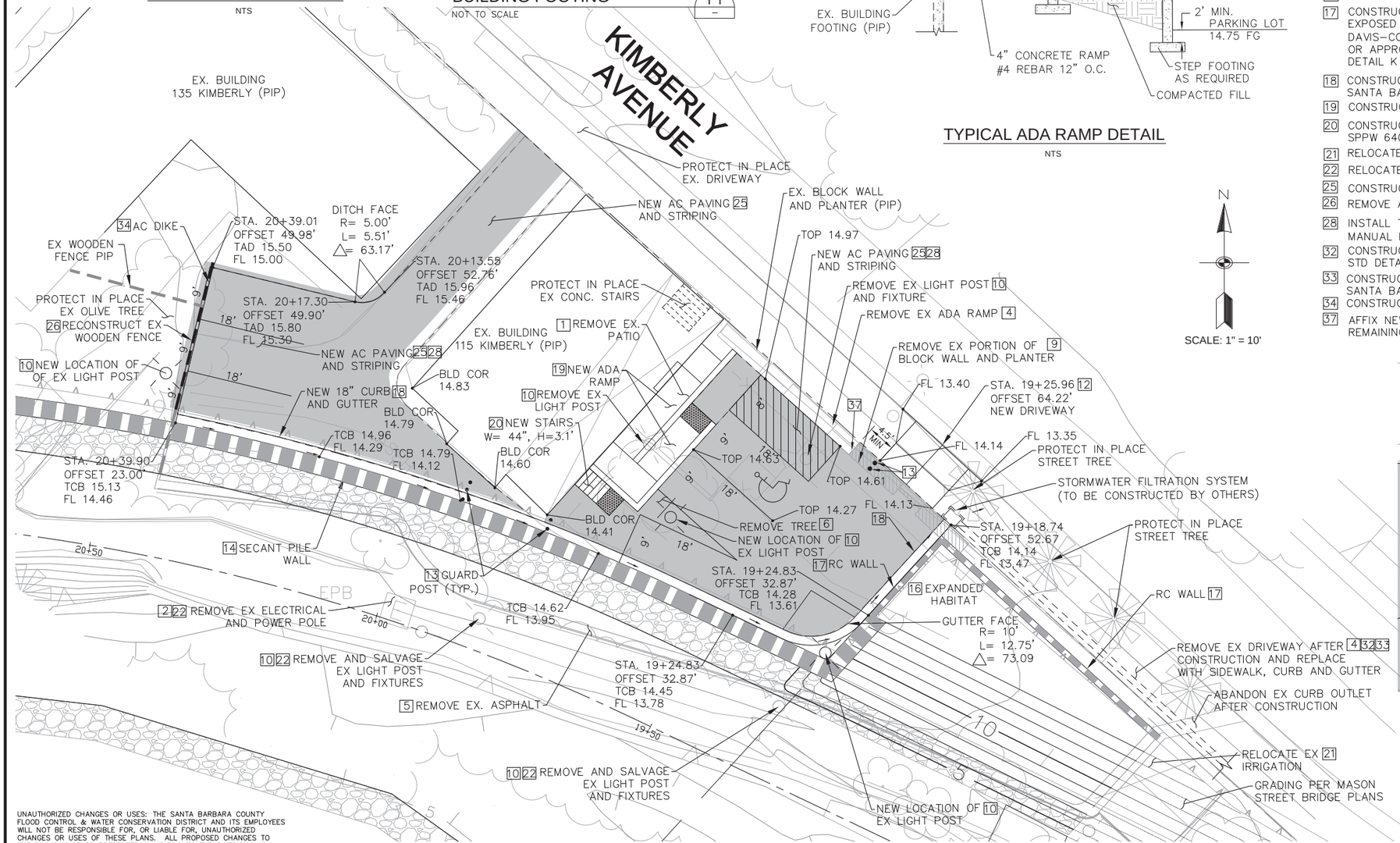
BUILDING FOOTING

NOT TO SCALE



TYPICAL ADA RAMP DETAIL

NTS

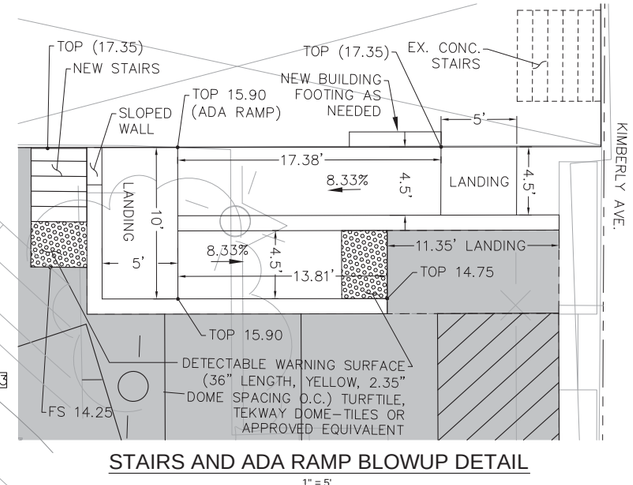


N

SCALE: 1" = 10'

CONSTRUCTION NOTES

1. REMOVE EXISTING BUILDING STRUCTURE
2. REMOVE EXISTING UTILITY STRUCTURE
4. REMOVE EXISTING MISC. CONCRETE
5. REMOVE EXISTING AC PAVEMENT
6. REMOVE EX TREE
9. REMOVE EX PORTION OF BLOCK WALL AND PLANTER
10. REMOVE AND RELOCATE EX LIGHT POST AND FIXTURE PER DIRECTION OF FIELD ENGINEER
12. CONSTRUCT COMMERCIAL DRIVEWAY PER CITY OF SANTA BARBARA STANDARD DETAIL H-03.1
13. CONSTRUCT GUARD POST PER CITY OF SANTA BARBARA STD DETAIL W-03.0
14. CONSTRUCT SECANT PILE WALL PER DETAILS ON SHEET FC17
16. CONSTRUCT EXPANDED HABITAT ZONE GRADING PER SHEET FC14
17. CONSTRUCT REINFORCED CONCRETE WALL PER APWA STANDARD PLAN 610-3, TYPE 1. EXPOSED WALL, EXTENDING 2 FEET BELOW FINISH GRADE, SHALL BE INTEGRALLY COLORED DAVIS-COLOR "MESA BUFF" AND TEXTURED WITH FITZGERALD PATTERN 17004 FORMLINER, OR APPROVED EQUIVALENT. MODIFY FORMLINER TO CREATE FAUX SANDSTONE CAP PER DETAIL K ON SHEET FC9.
18. CONSTRUCT 18" CONC. CURB AND GUTTER WITH A 8" CURB PER CITY OF SANTA BARBARA STD DETAIL H-02.0
19. CONSTRUCT ADA RAMP WITH WARNING SURFACE PER DETAIL HEREON
20. CONSTRUCT STAIRS WITH WARNING SURFACE PER DETAIL HEREON AND SPPW 640-3.
21. RELOCATE EX IRRIGATION SYSTEM AS SHOWN ON SHEET FC16
22. RELOCATE EXISTING UTILITY
25. CONSTRUCT NEW 2.5" AC PAVING OVER 6" AGGREGATE BASE
26. REMOVE AND RECONSTRUCT WOODEN FENCE IN KIND (HEIGHT= 8.0')
28. INSTALL TRAFFIC AND PARKING SIGNS AND PAVEMENT MARKINGS PER MANUAL IN UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS.
32. CONSTRUCT CONCRETE SIDEWALK PER CITY OF CITY OF SANTA BARBARA STD DETAIL H-06.0 AND H-06.1
33. CONSTRUCT 18" CONC. CURB AND GUTTER WITH A 6" CURB PER CITY OF SANTA BARBARA STD DETAIL H-02.0
34. CONSTRUCT ASPHALT CONCRETE DIKE PER CALTRANS STD A87B, TYPE A
37. AFFIX NEW "ADA ACCESSIBLE", LEFT ARRAY SIGN (9"x6") TO BLOCK WALL REMAINING IN PLACE.



STAIRS AND ADA RAMP BLOWUP DETAIL

1" = 5'

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REGISTERED PROFESSIONAL ENGINEER
ARIC TORREYSON
NO. 66068
EXP. 6-30-16
CIVIL
STATE OF CALIFORNIA

2/24/2015 3:21 PM

P:\WATR\129342 LOWER MISSION CRK 1B\05 DESIGN\129342FC013.DWG

REVISIONS

MARK	DESCRIPTION	DATE	APPR.

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
123 E. ANAPAMU STREET
SANTA BARBARA, CA 93101
805.568.3440

TETRA TECH
800 WEST SIXTH STREET, SUITE 380
LOS ANGELES, CA 90017 213.327.0800

ARIC M. TORREYSON R.C.E. 66068

FEB. 24, 2015
DATE

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT REACH 1B

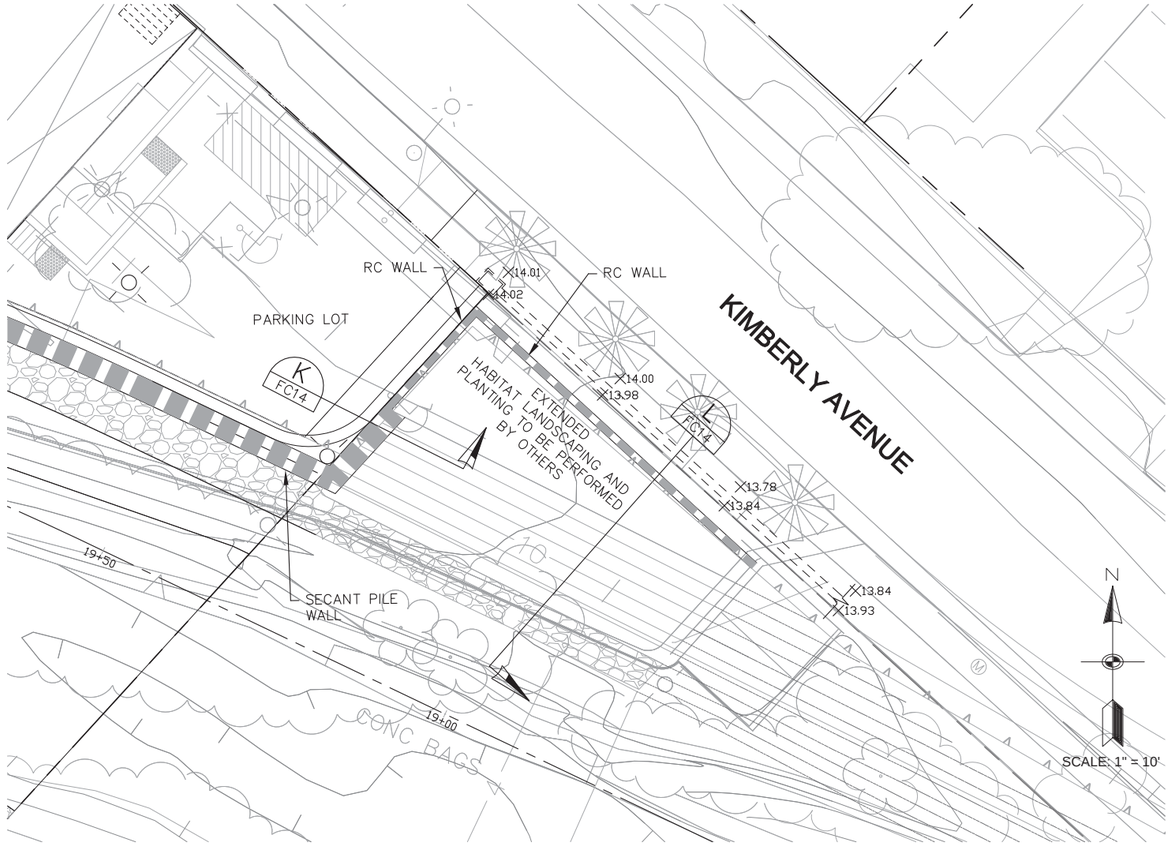
PROPERTY DETAIL PLAN

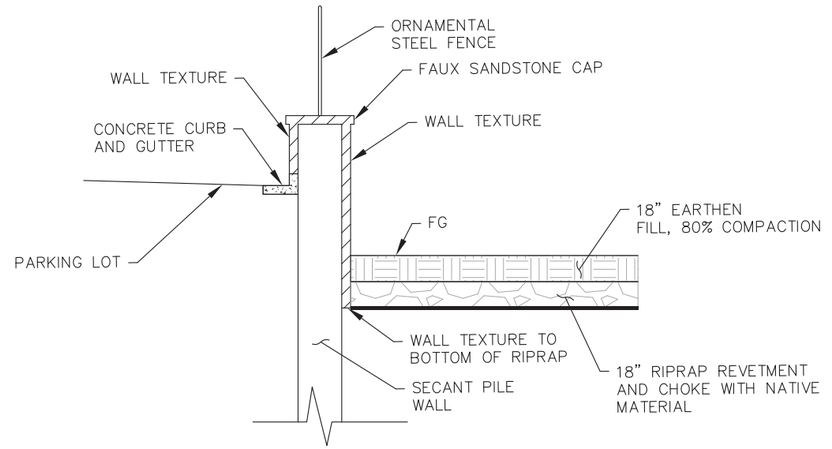
DATE: FEBRUARY 2015
SCALE: AS SHOWN
FILE NAME:
DESIGNED BY: AG
DRAWN BY: AG
CHECKED BY: YHC

SHEET REFERENCE NUMBER

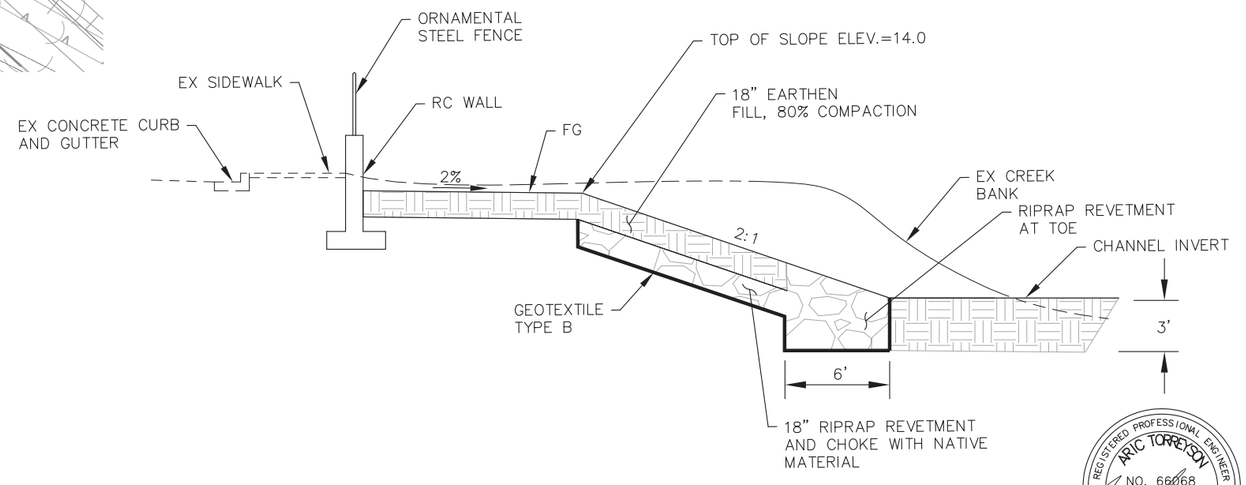
FC13

SHEET 13 OF 17





SECTION K-K
NOT TO SCALE



SECTION L-L
NOT TO SCALE

REGISTERED PROFESSIONAL ENGINEER
ARIC TORREYSON
NO. 66068
EXP. 6-30-16
CIVIL
STATE OF CALIFORNIA

REVISIONS

MARK	DESCRIPTION	DATE	APPR.

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTIRCT
123 E. ANAPAMU STREET
SANTA BARBARA, CA 93101
805.568.3440

TETRA TECH
800 WEST SIXTH STREET, SUITE 380
LOS ANGELES, CA 90017 213.327.0800
ARIC M. TORREYSON R.C.E. 66068
FEB. 24, 2015
DATE

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT
REACH 1B

EXTENDED HABITAT AREA GRADING PLAN

DATE: FEBRUARY 2015
SCALE: AS SHOWN
FILE NAME:
DESIGNED BY: AG
DRAWN BY: AG
CHECKED BY: YHC

SHEET REFERENCE NUMBER
FC14
SHEET 14 OF 17

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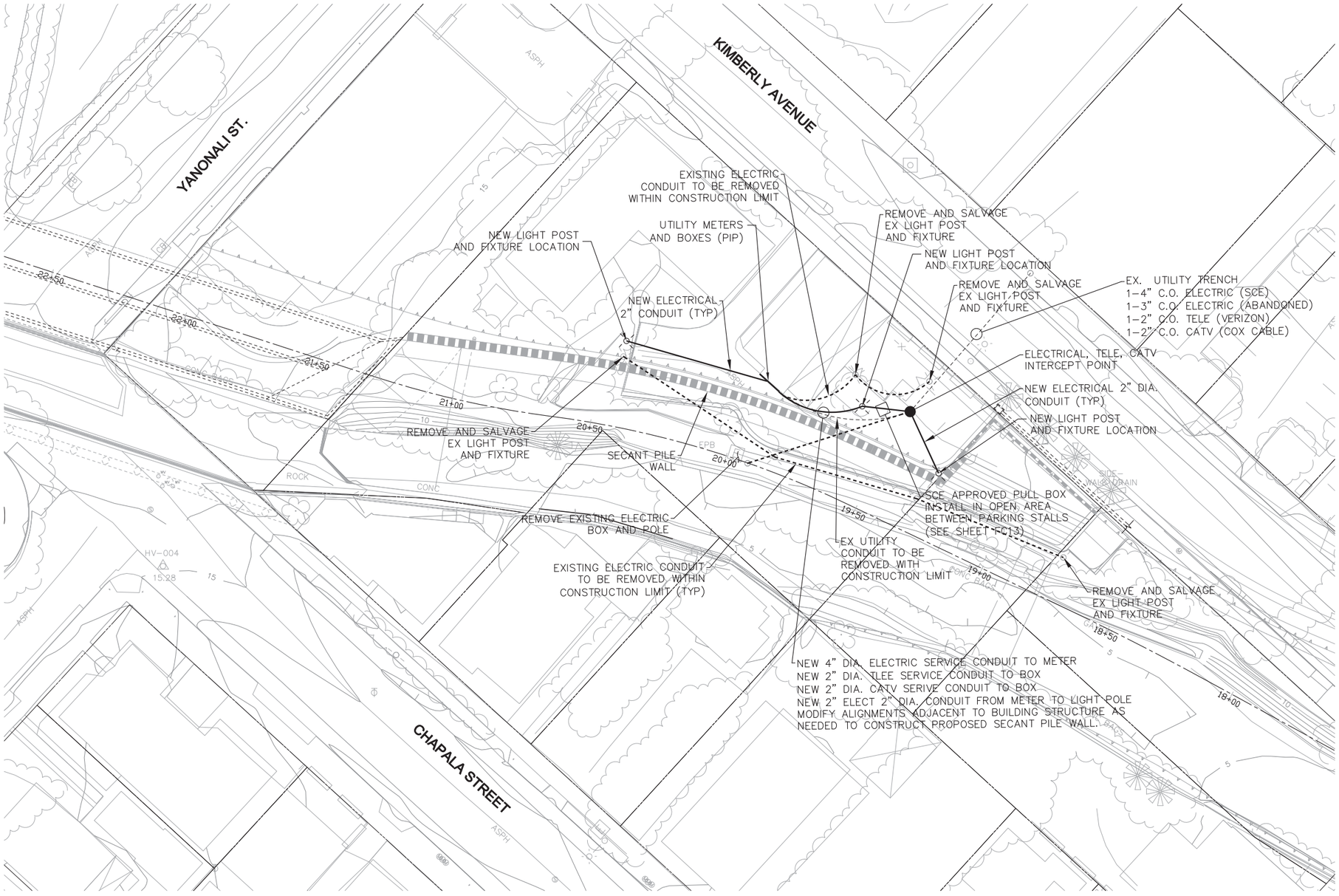

N

SCALE: 1" = 20'

ELECTRICAL NOTES:

CONTRACTOR SHALL COORDINATE SERVICE OUTAGE AND RECONNECTION WITH SCE, VERIZON, COX CABLE AND AFFECTED RESIDENTS.

EXISTING ELECTRICAL CONDUITS AS SHOWN HEREON ARE APPROXIMATE LOCATIONS THAT WERE TAKEN FROM THE AS-BUILT PLANS.

CONTRACTOR IS TO LOCATE AND VERIFY EXISTING ELECTRICAL CONDUITS FOR REMOVAL AND RELOCATION, PER CITY OF SANTA BARBARA BUILDING REQUIREMENTS.

REGISTERED PROFESSIONAL ENGINEER
ARIC TORREYSON
NO. 66068
EXP. 6-30-16
CIVIL
STATE OF CALIFORNIA

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SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTIRCT
123 E. ANAPAMU STREET
SANTA BARBARA, CA 93101
805.568.3440

TETRA TECH
800 WEST SIXTH STREET, SUITE 380
LOS ANGELES, CA 90017 213.327.0800
ARIC M. TORREYSON R.C.E. 66068
FEB. 24, 2015
DATE

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT REACH 1B

ELECTRICAL AND UTILITY RELOCATIONS SITE PLAN

DATE: FEBRUARY 2015
SCALE: AS SHOWN
FILE NAME:
DESIGNED BY: AG
DRAWN BY: AG
CHECKED BY: YHC

SHEET REFERENCE NUMBER
FC15
SHEET 15 OF 17

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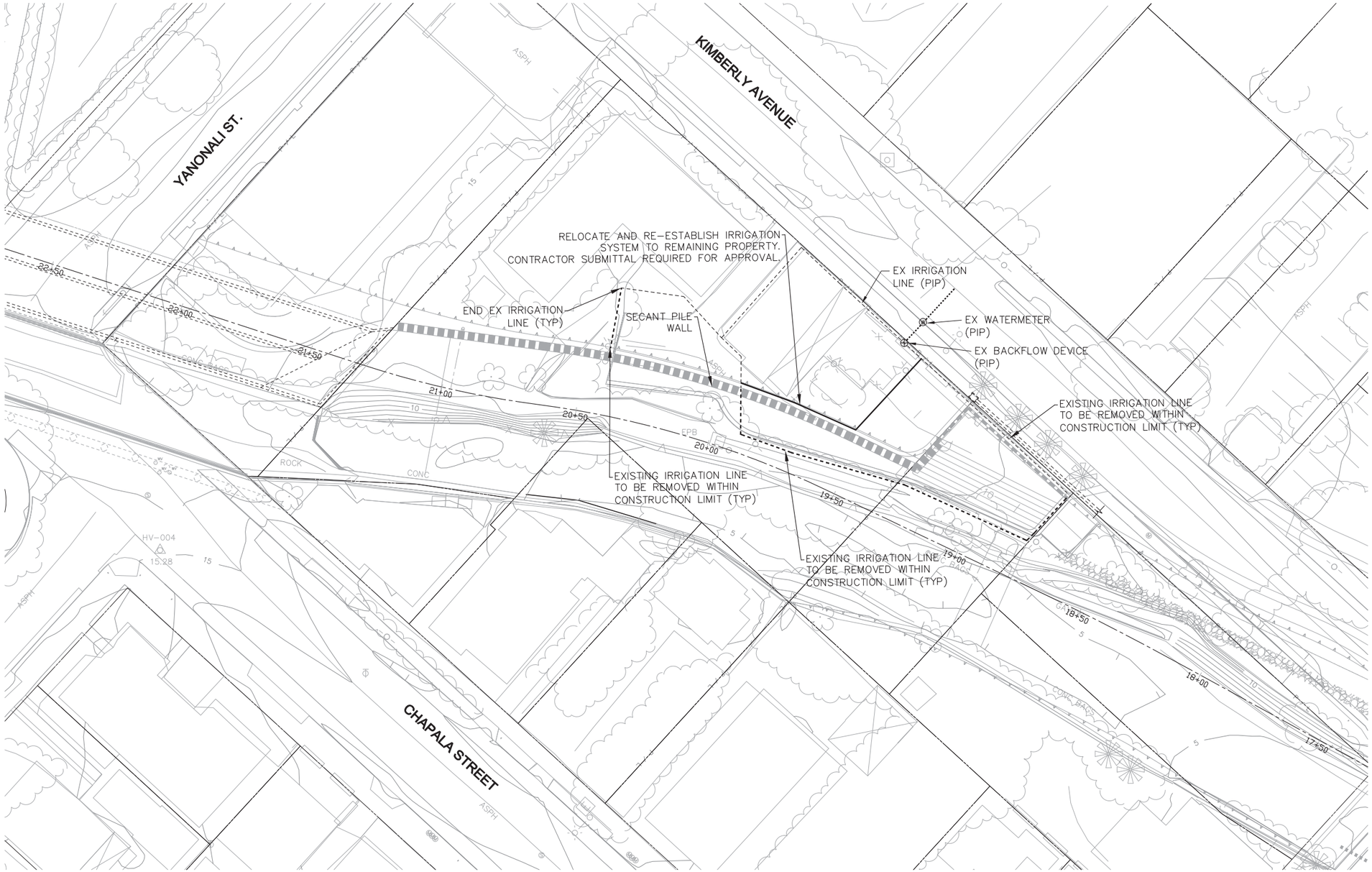


N

SCALE: 1" = 20'

IRRIGATION NOTES:

EXISTING IRRIGATION PIPES AS SHOWN HEREON ARE APPROXIMATE LOCATIONS THAT WERE TAKEN FROM THE AS-BUILT PLANS.

CONTRACTOR IS TO LOCATE AND VERIFY EXISTING IRRIGATION PIPES FOR REMOVAL AND RELOCATION.

CONTRACTOR SHALL SUBMIT A SHOP DRAWING FOR THE REESTABLISHMENT OF THE IRRIGATION SYSTEM, INCLUDING LOCATION OF RELOCATED VALVES AND PRESSURE REDUCER.

REGISTERED PROFESSIONAL ENGINEER
ARIC TORREYSON
NO. 66068
EXP. 6-30-16
CIVIL
STATE OF CALIFORNIA

REVISIONS

MARK	DESCRIPTION	DATE	APPR.

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTIRCT
123 E. ANAPAMU STREET
SANTA BARBARA, CA 93101
805.568.3440

TETRA TECH
800 WEST SIXTH STREET, SUITE 380
LOS ANGELES, CA 90017 213.327.0800
ARIC M. TORREYSON R.C.E. 66068
FEB. 24, 2015
DATE

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT REACH 1B

IRRIGATION SITE PLAN

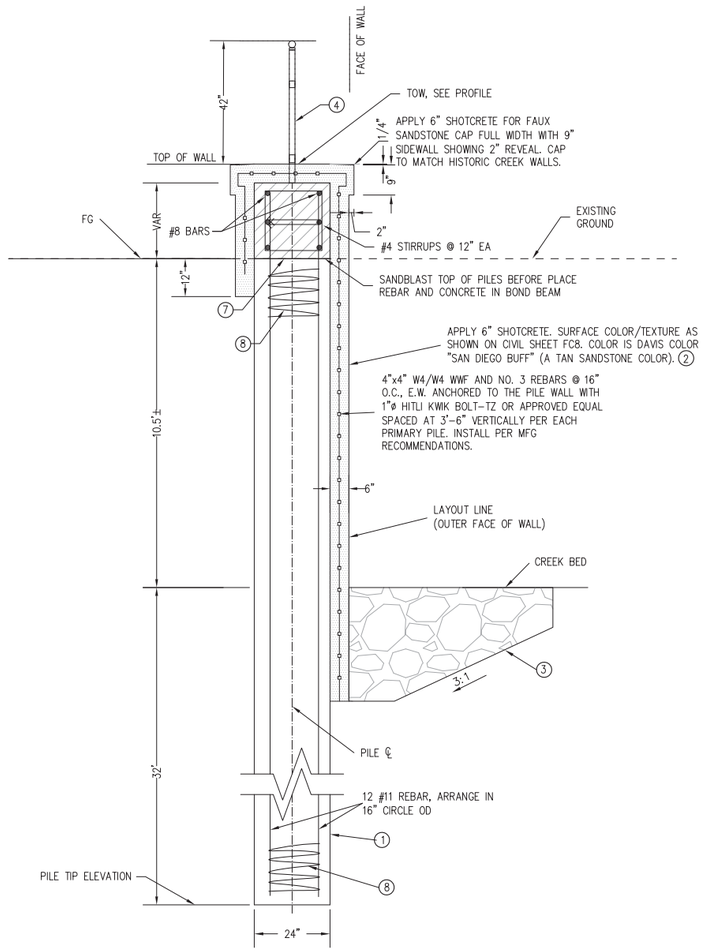
DATE: FEBRUARY 2015
SCALE: AS SHOWN
FILE NAME:
DESIGNED BY: AG
DRAWN BY: AG
CHECKED BY: YHC

SHEET REFERENCE NUMBER
FC16
SHEET 16 OF 17

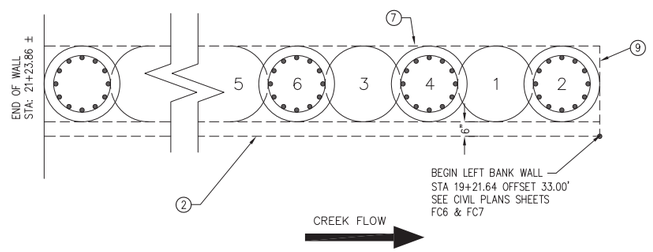
P:\WATR\729342 LOWER MISSION CRK 1B\05 DESIGN\729342FC016.DWG 2/24/2015 9:49 AM

CONSTRUCTION NOTES

1. CONSTRUCT VERTICAL 24" CONCRETE SECANT TYPE DRILLED PILE WALL USING CONTINUOUS FLIGHT AUGER.
2. APPLY 6" SHOTCRETE (6"x6" W4/W4 WWF) OVER PILE SURFACE WATERSIDE. SANDBLAST PILES BEFORE SHOTCRETE; SEE CIVIL SHEET FC8.
3. CONSTRUCT RIPRAP TOE REVETMENT PER DETAILS ON SHEET FC9.
4. CONSTRUCT ORNAMENTAL STEEL FENCE; SEE CIVIL SHEET FC8.
5. NOT USED.
6. NOT USED.
7. CONSTRUCT 24"x24" REINFORCED BOND BEAM AS PER DETAILS HEREON.
8. CONSTRUCT #4 SPIRAL STEEL CAGE WITH 3" PITCH. TOP OF SPIRAL SHALL BE 6" BELOW TOP OF PILE. BOTTOM OF SPIRAL SHALL BE 6" ABOVE BOTTOM OF PILE.
9. PLACE BOND BREAKER BETWEEN THE END OF THE BOND BEAM AND ANY EXISTING CONCRETE SURFACE.

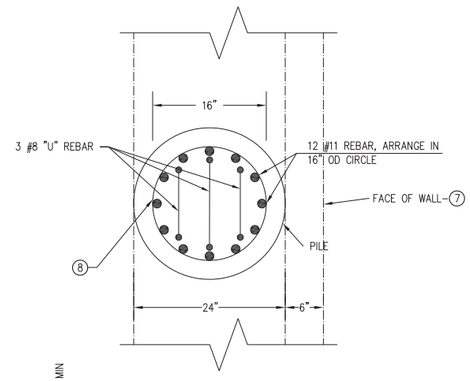


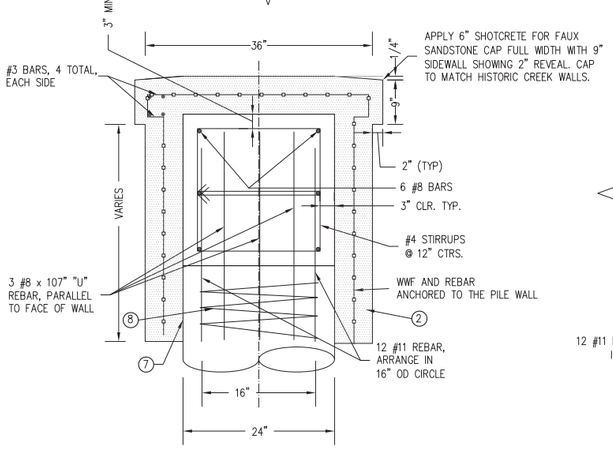
TYPICAL DRILLED PILE RETAINING WALL DETAIL
NTS



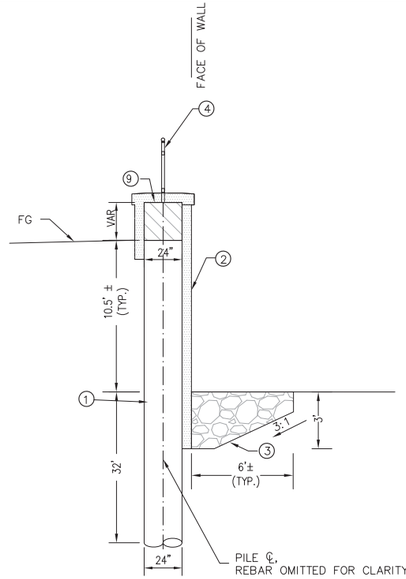
NOTE:
1. ALL PILE WALLS BEGIN AND END WITH A REINFORCED (SECONDARY) PILE.
2. THE CONSTRUCTION STARTS WITH THE DRILLING OF A PRIMARY (UNREINFORCED) PILE BEING #1 IN THE ROW ABOVE.
3. THEN THE FIRST REINFORCED (SECONDARY) PILE IS DRILLED AS #2 IN THE ROW ABOVE.
4. NEXT PRIMARY (UNREINFORCED) PILE IS DRILLED AS #3 IN THE ROW.
5. A REINFORCED (SECONDARY) PILE IS DRILLED AS #4 IN THE ROW BETWEEN THE TWO PRIMARY (UNREINFORCED) PILES.
6. THIS PROCESS CONTINUES UNTIL THE END OF THE WALL WHERE THE LAST PILE IS A REINFORCED (SECONDARY) ONE.
7. FIELD WELDING AND SPLICING IS NOT PERMITTED. ALL STEEL CAGES MUST BE SHOP MANUFACTURED
8. PRIMARY (UNREINFORCED) CONCRETE SHALL ATTAIN A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2,500 PSI.
9. SECONDARY (REINFORCED) CONCRETE SHALL ATTAIN A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5,000 PSI.

PILE DRILLING ORDER
NTS

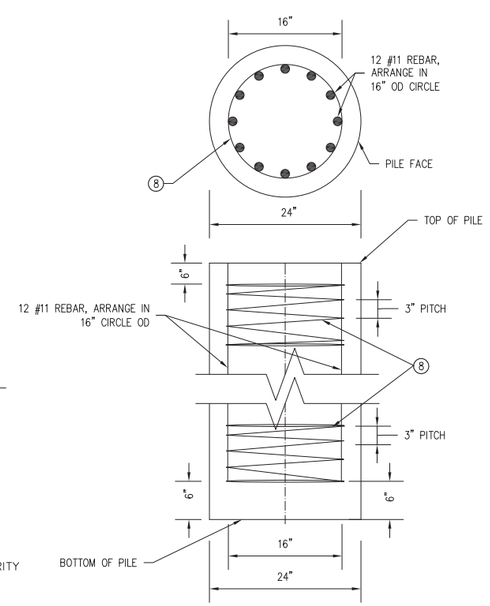




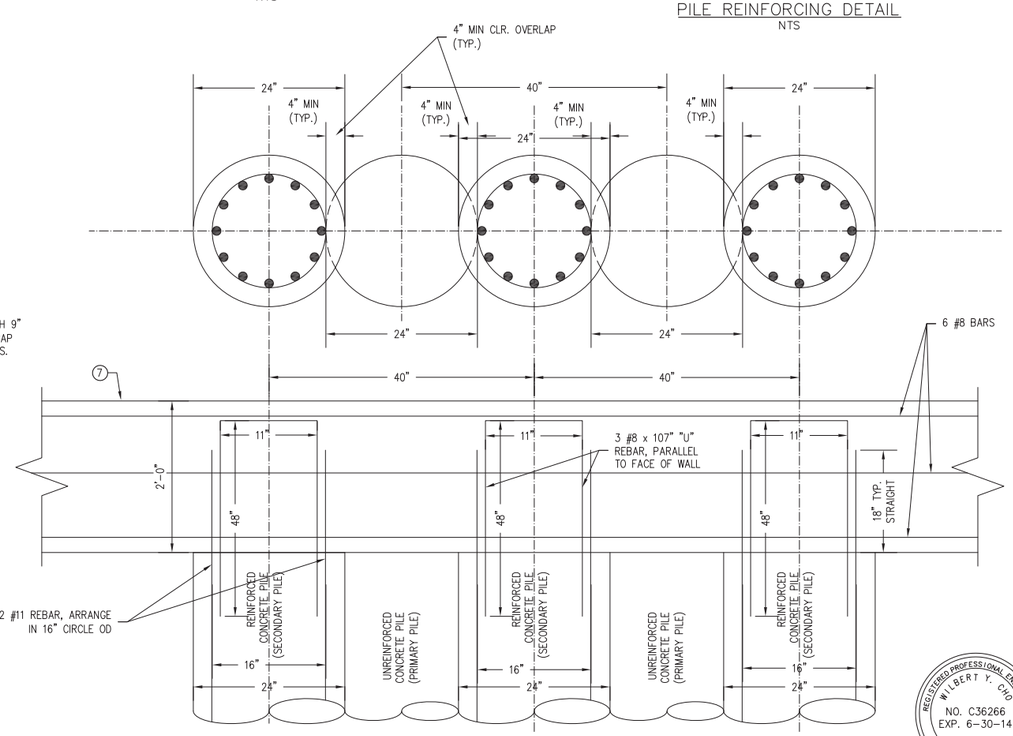
BOND BEAM DETAIL
NTS



DRILLED (SECANT) PILE RETAINING WALL (TYP.)
NTS



PILE REINFORCING DETAIL
NTS



TYPICAL DRILLED PILE RETAINING WALL DETAILS
NTS

UNAUTHORIZED CHANGES OR USES: THE SANTA BARBARA COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT AND ITS EMPLOYEES WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES OR USES OF THESE PLANS. ALL PROPOSED CHANGES TO THE PLANS MUST BE PRESENTED IN WRITING TO THE DISTRICT AND APPROVED IN WRITING BY THE DISTRICT PRIOR TO IMPLEMENTATION OF ANY SUCH CHANGE OR USE.

REVISIONS

MARK	DESCRIPTION	DATE	APPR.

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTIRCT
123 E. ANAPAMU STREET
SANTA BARBARA, CA 93101
805.568.3440

CHO DESIGN ASSOCIATES, INC.
3001 RED HILL AVE. Suite 6-206
COSTA MESA, CA 92626
PHONE: (714) 427-0680
WILBERT Y. CHO R.C.E. 36266
2-25-2015
DATE

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT
REACH 1B

SECANT PILE WALL

DATE: APRIL 2013
SCALE: AS SHOWN
FILE NAME:
DESIGNED BY: WC
DRAWN BY: CC
CHECKED BY: WC

SHEET REFERENCE NUMBER
FC17
SHEET 17 OF 17

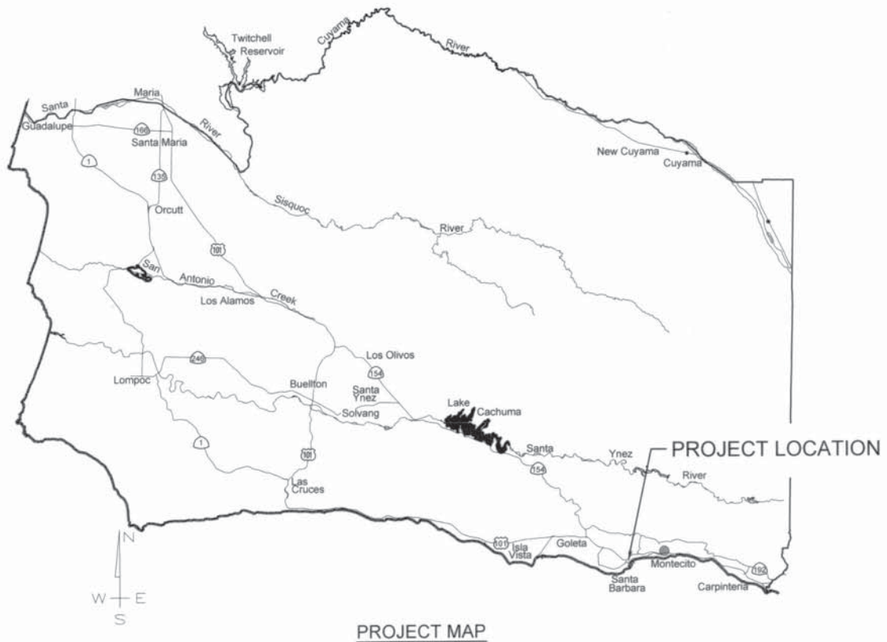
REGISTERED PROFESSIONAL ENGINEER
WILBERT Y. CHO
NO. C36266
EXP. 6-30-14
CIVIL
STATE OF CALIFORNIA

P:\WATR\72942 LOWER MISSION CRK 1B\05 DESIGN\FC17 - STANDARDS-05.DWG 2/25/2014 8:25 AM

SANTA BARBARA COUNTY
FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK
FLOOD CONTROL PROJECT
REACH 1B - WEST WALL

BETWEEN MASON ST. AND YANONALI ST.
IN THE CITY OF SANTA BARBARA

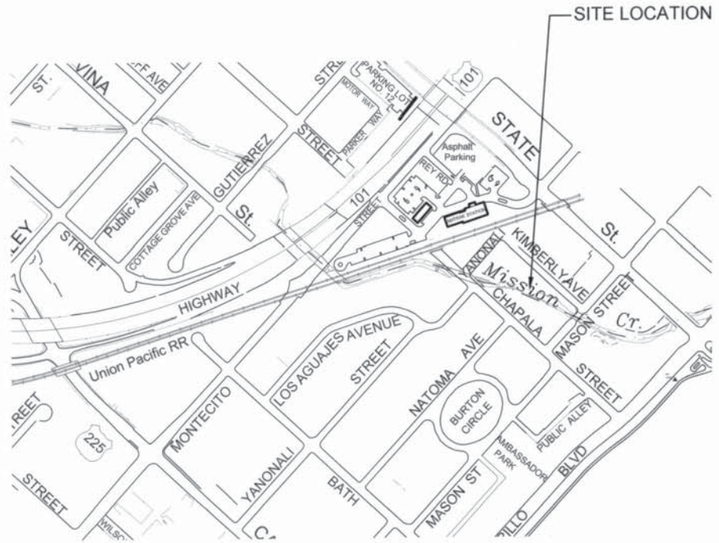


PROJECT MAP
No Scale

DISTRICT BOARD OF DIRECTORS

FIRST DISTRICT	Salud Carbajal
SECOND DISTRICT	Janet Wolf
THIRD DISTRICT	Doreen Farr
FOURTH DISTRICT	Peter Adam
FIFTH DISTRICT	Steve Lavagnino

INDEX TO SHEETS



SITE MAP
No Scale

ALL UNDERGROUND UTILITIES SHOWN ARE PLOTTED BASED ON INFORMATION PROVIDED BY OTHERS, AND ARE APPROXIMATE. OVERHEAD UTILITIES ARE NOT SHOWN.

THE SANTA BARBARA COUNTY FLOOD CONTROL DISTRICT IS NOT RESPONSIBLE FOR THE ACCURACY OF THIS INFORMATION. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT A MINIMUM OF TWO WORKING DAYS PRIOR TO COMMENCEMENT OF ANY EXCAVATION @ 1-800-422-4133.

UNAUTHORIZED CHANGES OR USES:
THE SANTA BARBARA COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT AND ITS EMPLOYEES WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL PROPOSED CHANGES TO THE PLANS MUST BE PRESENTED IN WRITING TO THE DISTRICT AND APPROVED IN WRITING BY THE DISTRICT PRIOR TO IMPLEMENTATION OF ANY SUCH CHANGE OR USE.

BENGAL ENGINEERING INC
Goleta, Ca

T. Conti
No. C73108
Exp. 12/31/15
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

REVISIONS			
NO.	DESCRIPTION	DATE	APR

FLOOD CONTROL ENGINEERING MANAGER — 3-6-15 DATE
FLOOD CONTROL DEPUTY DIRECTOR — 3-6-15 DATE
original to be signed
FLOOD CONTROL MAINTENANCE SUPERINTENDENT DATE
FLOOD CONTROL ENVIRONMENTAL SERVICES MANAGER — 3-6-15 DATE
original to be signed
CITY OF SANTA BARBARA ENGINEER DATE

SANTA BARBARA COUNTY
FLOOD CONTROL AND
WATER CONSERVATION DISTRICT
130 E. VICTORIA STREET
SANTA BARBARA, CA 93101
(805) 568-3440

LOWER MISSION CREEK
REACH 1B - WEST WALL

SANTA BARBARA COUNTY, CALIFORNIA

TITLE SHEET

DESIGNED BY: TC
DRAWN BY: MB
CHECKED BY: SO

FC1

SHEET 1 OF 11

Filename: XXXXXXX.DWG

GENERAL NOTES

1. CONTRACTOR SHALL VERIFY SITE CONDITIONS, LOCATION AND SIZE OF UNDERGROUND UTILITIES AS SHOWN ON THE DRAWINGS AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCING WORK.
2. ALL FEES AND PERMITS SHALL BE PAID FOR BY THE CONTRACTOR.
3. THE CONTRACTOR SHALL CALL DIG ALERT 811, PRIOR TO COMMENCING WORK.
4. FOR BORING LOGS AND OTHER GEOTECHNICAL INFORMATION, SEE "GEOTECHNICAL ENGINEERING REPORT FOR LOWER MISSION CREEK CHANNEL IMPROVEMENT PROJECT- PHASE 2 (REACHES 1B AND 3-7)" BY BENGAL ENGINEERING, INC. DATED MARCH 11, 2011 AND "TECHNICAL MEMORANDUM- GEOTECHNICAL RECOMMENDATIONS FOR THE PROPOSED SECANT PILE RETAINING WALLS FOR THE LOWER MISSION CREEK CHANNEL IMPROVEMENT AND RESTORATION PROJECT- REACH 1B", DATED JULY 16, 2011. CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL GEOTECHNICAL REPORT AND UPDATES.
5. CONTRACTOR IS ADVISED ADDITIONAL WORK BY OTHER CONTRACTORS MAY TAKE PLACE WITHIN AND ADJACENT TO THE PROJECT LIMITS. CONTRACTOR IS TO COORDINATE AND COOPERATE WITH OTHER CONTRACTORS AND GOVERNING AGENCIES AS REQUIRED.
8. SITE SECURITY DURING CONSTRUCTION SHOULD CONSIST OF TEMPORARY FENCING TO BE INSTALLED AND MAINTAINED BY THE CONTRACTOR DURING THE ENTIRE CONSTRUCTION OF THE PROJECT.

ENVIRONMENTAL CONTROL AND MAINTENANCE OF SITE CONDITIONS

1. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL AS REQUIRED THROUGHOUT CONSTRUCTION AND INSPECT EROSION CONTROLS ON A MINIMUM WEEKLY BASIS.
2. PRIOR TO THE BEGINNING OF ANY CONSTRUCTION THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL AND MAKE ANY REPAIRS REQUIRED.
3. THE CONTRACTOR'S STAGING AND STORAGE AREA SHALL CONFORM TO ALL EROSION CONTROL DETAILS AND SPECIFICATIONS. IF TEMPORARY DRAINAGE IS REQUIRED WITHIN THE STAGING AND STORAGE AREA IT SHALL CONFORM TO ALL EROSION CONTROL SPECIFICATIONS AND DETAILS AND APPROVED BY THE GOVERNING AGENCY PRIOR TO INSTALLATION.
4. ALL SOILS STORED WITHIN THE CONTRACTOR STAGING AND STORAGE AREA SHALL BE SURROUNDED BY A SINGLE ROW OF STAKED HAY BALES AND COVERED TO PREVENT WIND EROSION.
5. ALL TREE PROTECTION SHALL BE MAINTAINED AND INSPECTED THROUGHOUT CONSTRUCTION.
6. PRECAUTIONS SHALL BE TAKEN TO PREVENT AND CONTROL DUST FROM CONSTRUCTION OPERATIONS BECOMING A NUISANCE TO ADJACENT AREAS. SURROUNDING STREETS AND WALKWAYS SHALL BE SWEPT AND WASHED CLEAN ON A DAILY BASIS OR AS DIRECTED BY GOVERNING AGENCY. STOCKPILES AND UNSTABILIZED SURFACES SHALL BE KEPT MOIST.
7. CONTRACTOR SHALL MAINTAIN VEHICULAR AND PEDESTRIAN TRAFFIC.
8. UPON COMPLETION OF TRENCH BACKFILLING OR OTHER INDIVIDUAL ITEMS OF CONSTRUCTION, SURPLUS MATERIALS AND EQUIPMENT NO LONGER NEEDED SHALL BE IMMEDIATELY REMOVED, LEAVING THE CONSTRUCTION SITE AND SURROUNDINGS FREE AND CLEAN.
9. AFTER WORK IS COMPLETE, SEWERS, DRAINS, MANHOLES, CATCH BASINS AND OTHER STRUCTURES SHALL BE CAREFULLY CLEANED OF DIRT, BROKEN MASONRY, MORTAR AND OTHER DEBRIS AND LEFT READY FOR USE.

CONSTRUCTION PHASING

PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL:

1. SUBMIT PLAN OF PROPOSED CONTRACTOR STAGING AND STORAGE AREA FOR REVIEW AND APPROVAL BY GOVERNING AGENCY.
2. SUBMIT FOR APPROVAL A TRAFFIC PLAN SHOWING HOW ALL TRUCK MOVEMENTS TO AND FROM THE SITE ARE TO BE ACCOMPLISHED.
3. REVIEW ALL EXISTING UTILITY INFORMATION PROVIDED IN THE CONTRACT DOCUMENTS AND CONDUCT ALL OTHER ADDITIONAL RESEARCH REQUIRED TO CONFIRM EXISTING UTILITIES. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED.
4. SUBMIT TO THE GOVERNING AGENCY COMPLETE PHASING PLANS FOR REVIEW AND APPROVAL.

SITE PREPARATION AND DEMOLITION

1. CONTRACTOR SHALL DISPOSE OF ALL DEMOLISHED MATERIAL AND DEBRIS IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS HAVING JURISDICTION.
2. CONTRACTOR SHALL RESTORE TO THEIR ORIGINAL CONDITION ANY AREAS ADJACENT TO AND OUTSIDE THE LIMIT OF WORK WHICH ARE DISTURBED DURING CONSTRUCTION, AT THE CONTRACTOR'S OWN EXPENSE.
3. CONTRACTOR SHALL SAW CUT PAVEMENT WHERE PAVEMENT TO BE REMOVED ABUTS PAVEMENT WHICH IS TO REMAIN.
4. CONTRACTOR SHALL STOCKPILE ALL STRIPPED TOPSOIL OFFSITE.
5. UTILITY SERVICES SHALL BE MAINTAINED TO ALL BUILDINGS BEING OCCUPIED AT ALL TIMES.
6. CONTRACTOR SHALL PROVIDE ADEQUATE DRAINAGE AT ALL TIMES WITHIN THE LIMIT OF WORK. THERE SHALL BE NO PONDING OF WATER OR EROSION OF LANDSCAPED AREAS AT ANY TIME.
7. EXISTING UTILITIES SHALL BE PROTECTED IN PLACE, AND MAINTAINED IN GOOD WORKING CONDITION.

UTILITY

1. CONTRACTOR SHALL VERIFY LOCATIONS, ELEVATIONS AND SIZES OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. CALL DIG ALERT AT 811, A MINIMUM OF TWO (2) FULL WORKING DAYS PRIOR TO EXCAVATING.
2. CONTRACTOR SHALL FIELD VERIFY EXISTING SEWER AND STORM DRAIN ELEVATIONS WHICH MAY REQUIRE POT-HOLING.
3. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS.
4. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL UTILITY WORK WITH THE ENGINEER.

FOUNDATIONS:

1. ALL UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE ENGINEER PRIOR TO ANY CONSTRUCTION OR BACKFILL.
2. BACKFILL SHALL BE PLACED AND COMPACTED ON SIDES OF STRUCTURES SIMULTANEOUSLY.

CONCRETE

1. STRUCTURAL CONCRETE, INCLUDING ALL PRECAST COMPONENTS, SHALL ATTAIN A 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI UNLESS OTHERWISE NOTED ON THE PLANS AND SHALL CONFORM TO THE REQUIREMENTS OF THE PROJECT SPECIFICATION
2. CONCRETE WORK SHALL BE COORDINATED AND VERIFIED WITH ALL OTHER WORK TO ENSURE PROPER PROVISIONS FOR DOWELS, INSERTS, EMBEDMENTS, PIPING AND MANHOLE REQUIREMENTS PRIOR TO CONCRETE PLACEMENT.
3. CONSTRUCTION JOINTS, IN ADDITION TO THOSE SHOWN ON THE DRAWINGS, SHALL NOT BE PERMITTED UNLESS ACCEPTED IN WRITING BY THE GOVERNING AGENCY.

REINFORCEMENT

1. REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615, GRADE 60 UNLESS OTHERWISE NOTED.
2. WELDED BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM, A706, GRADE 60.
3. THE MINIMUM CONCRETE COVER FOR REINFORCING STEEL SHALL BE 2", EXCEPT IT SHALL BE 3" FOR CONCRETE CAST DIRECTLY AGAINST EARTH UNLESS OTHERWISE NOTED.
4. BARS SHALL BE MECHANICALLY SPLICED WHERE INDICATED ON THE DRAWINGS AND AS OTHERWISE REQUIRED TO ACCOMMODATE CONSTRUCTION SEQUENCING. MECHANICAL SPLICES SHALL DEVELOP 125% OF THE YIELD STRENGTH OF THE BAR.
5. MECHANICAL SPLICES SHALL BE STAGGERED A MINIMUM OF 12" ADJACENT BARS U.O.N.

REGISTERED PROFESSIONAL ENGINEER
T. Conti
No. C73108
Exp. 12/31/1
CIVIL
STATE OF CALIFORNIA

SANTA BARBARA COUNTY
FLOOD CONTROL AND
WATER CONSERVATION DISTRICT
130 E. VICTORIA STREET
SANTA BARBARA, CA 93101
(805) 568-3440

LOWER MISSION CREEK
REACH 1B - WEST WALL

SANTA BARBARA COUNTY, CALIFORNIA

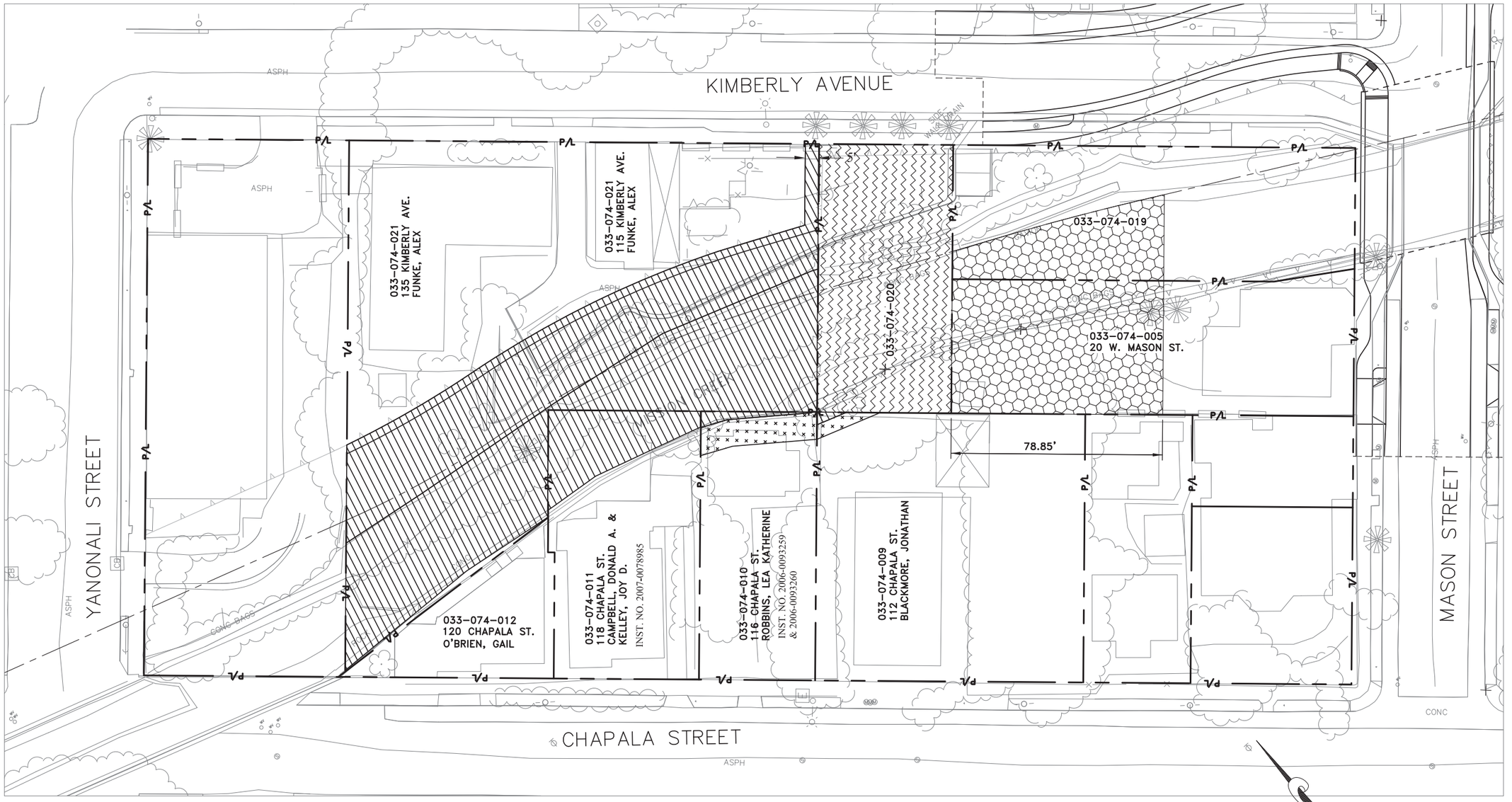
GENERAL INFORMATION

DESIGNED BY: TC
DRAWN BY: MB
CHECKED BY: SO

FC2

SHEET 2 OF 11

Filename: XXXXXXX.DWG



TEMPORARY CONSTRUCTION EASEMENT (TCE)

SBCFCD FUTURE CHANNEL EASEMENT
(INSTRUMENT NO. INDICATES EXISTING SBFCD EASEMENT)

CITY OF SANTA BARBARA ACQUIRED PROPERTY

SBCFCD ACQUIRED PROPERTY

ALL UNDERGROUND UTILITIES SHOWN ARE PLOTTED BASED ON INFORMATION PROVIDED BY OTHERS, AND ARE APPROXIMATE. OVERHEAD UTILITIES ARE NOT SHOWN.

THE SANTA BARBARA COUNTY FLOOD CONTROL DISTRICT IS NOT RESPONSIBLE FOR THE ACCURACY OF THIS INFORMATION. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT A MINIMUM OF TWO WORKING DAYS PRIOR TO COMMENCEMENT OF ANY EXCAVATION @ 1-800-422-4133.

UNAUTHORIZED CHANGES OR USES:
THE SANTA BARBARA COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT AND ITS EMPLOYEES WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL PROPOSED CHANGES TO THE PLANS MUST BE PRESENTED IN WRITING TO THE DISTRICT AND APPROVED IN WRITING BY THE DISTRICT PRIOR TO IMPLEMENTATION

REGISTERED PROFESSIONAL ENGINEER
MATTHEW G. OATES
No. 69822
Exp. 9-30-2023
CIVIL
STATE OF CALIFORNIA

REVISIONS			
NO.	DESCRIPTION	DATE	APR

SANTA BARBARA COUNTY
FLOOD CONTROL AND
WATER CONSERVATION DISTRICT
130 E. VICTORIA STREET
SANTA BARBARA, CA 93101
(805) 568-3440

LOWER MISSION CREEK
REACH 1B - WEST WALL

SANTA BARBARA COUNTY, CALIFORNIA

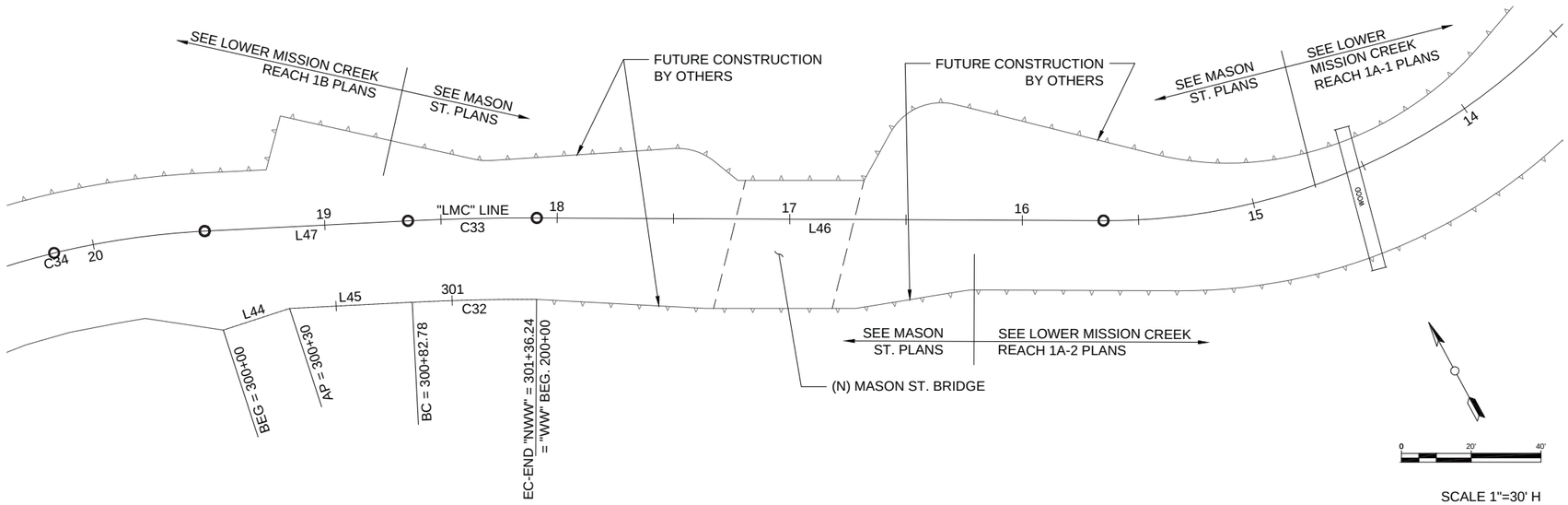
RIGHT OF WAY AND EASEMENTS

DESIGNED BY: MG
DRAWN BY: JT/OR
CHECKED BY: MG

FC3

SHEET 3 OF 11

Filename: LMC Reach 1B-WW_Sht FC3.DWG



SCALE 1"=30' H

"NWW" LINE							
SEGMENT ID	START STATION	LENGTH	END STATION	NORTHING	EASTING	DIRECTION/ DELTA	RADIUS
L44	300+00.00	30.00'	300+30.00	1976855.60	6051427.42	S79° 37' 50.13"E	
L45	300+30.00	52.79'	300+82.78	1976850.20	6051456.93	S64° 28' 54.79"E	
C32	300+82.78	53.45'	301+36.24	1976827.46	6051504.56	003°10'26"	965.00'

"LMC" LINE							
SEGMENT ID	START STATION	LENGTH	END STATION	NORTHING	EASTING	DIRECTION/ DELTA	RADIUS
L46	15+65.05	243.69'	18+08.74	1976716.82	6051782.71	N61° 18' 29.09"W	
C33	18+08.74	55.39'	18+64.13	1976833.81	6051568.94	003°10'26"	1000.00'
L47	18+64.13	87.56'	19+51.69	1976859.05	6051519.64	N64° 28' 54.79"W	
C34	19+51.69	131.04'	20+82.72	1976896.77	6051440.63	021°27'04"	350.00'

BENCHMARK

FOUND STANDARD USC&GS BRASS TIDAL STATION DISK (DESIGNATION 941 1340 TIDAL 1) STAMPED "BM 1 1930" NEAR THE INTERSECTION OF HELENA AVENUE AND EAST CABRILLO BLVD., SET IN THE TOP OF THE NE'LY END OF A 4' HIGH CONCRETE GUARDRAIL OF THE BRIDGE OVER MISSION CREEK, 52.5' SE'LY OF THE CENTERLINE OF CABRILLO BLVD.
ELEVATION = 16.16 FEET NAVD88.

SURVEY CONTROL

1. TOPOGRAPHIC MAPPING WAS COMPILED AT A SCALE OF 1"=200', WITH A 1 FOOT CONTOUR INTERVAL, USING STANDARD PHOTOGRAMMETRIC METHODS AND PROCEDURES BY ARROWHEAD MAPPING CORPORATION, FROM AERIAL PHOTOGRAPHY DATED MAY 5, 2003.
2. MAPPING IS SUPPLEMENTED BY DATA COLLECTED IN A FIELD SURVEY USING CONVENTIONAL METHODS AND PROCEDURES IN JUNE 2003 BY PENFIED & SMITH, AUGUST 2003 BY JOHNSON FRANK & ASSOCIATES AND IN AUGUST 2013 BY SANTA BARBARA COUNTY.
3. BEARINGS SHOWN ON THIS MAP ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, NAD 83, ZONE 5 GRID (EPOCH 1991.35), DEFINED LOCALLY BY THE SANTA BARBARA CONTROL NETWORK AS SHOWN ON RECORD OF SURVEY FILED WITH THE COUNTY SURVEYOR IN BOOK 147 PAGES 70-74. DISTANCES AND COORDINATES SHOWN AS MEASURED OR CALCULATED ARE EXPRESSED IN CCS, NAD 83, ZONE V GRID US SURVEY FOOT UNITS.
4. ELEVATIONS SHOWN HEREON ARE EXPRESSED IN U.S. SURVEY FEET AND ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), DEFINED LOCALLY BY THE SANTA BARBARA CONTROL NETWORK AS SHOWN ON RECORD OF SURVEY FILED WITH THE COUNTY SURVEYOR IN BOOK 147 PAGES 70-74.
5. THIS PORTION OF LMC REACH 1B IS A CONTINUATION OF THE PROPOSED MASON ST. BRIDGE PROJECT. THE DESIGN OF THIS REACH IS PART OF THE GREATER LOWER MISSION CREEK PROJECT.

REGISTERED PROFESSIONAL ENGINEER
T. Conti
No. C73108
Exp. 12/31/14
CIVIL
STATE OF CALIFORNIA

REVISIONS			
NO.	DESCRIPTION	DATE	APR

SANTA BARBARA COUNTY
FLOOD CONTROL AND
WATER CONSERVATION DISTRICT
130 E. VICTORIA STREET
SANTA BARBARA, CA 93101
(805) 568-3440

LOWER MISSION CREEK
REACH 1B - WEST WALL

SANTA BARBARA COUNTY, CALIFORNIA

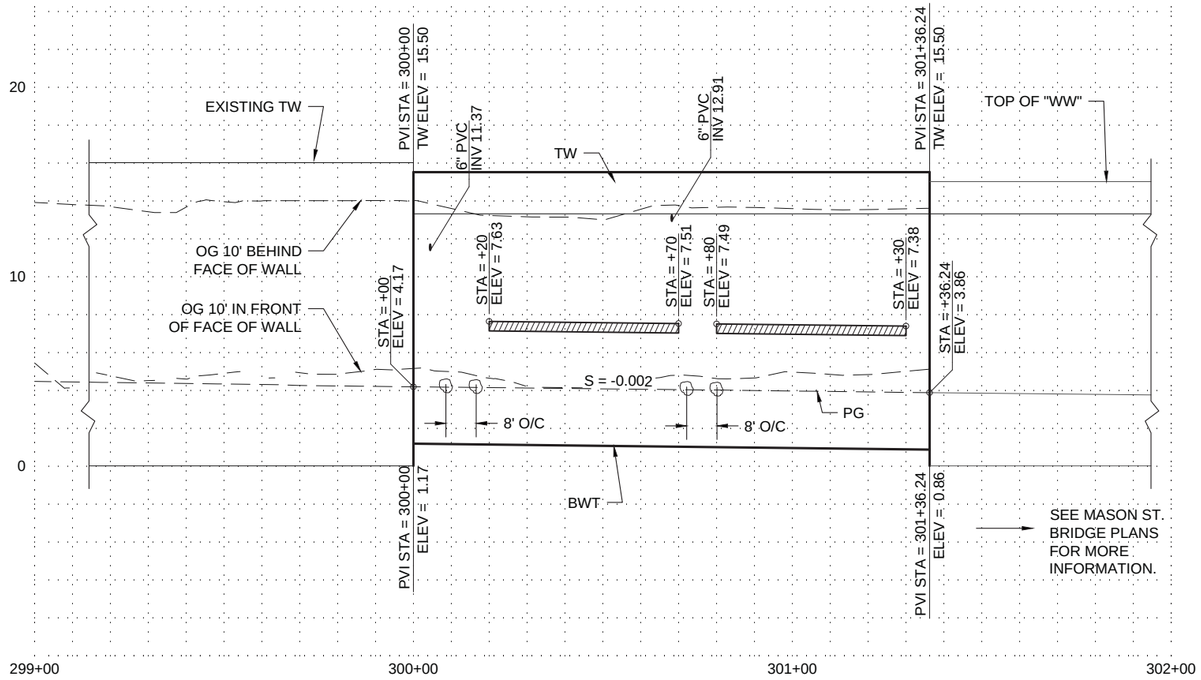
KEY LINE GEOMETRY

DESIGNED BY: TC
DRAWN BY: MB
CHECKED BY: SO

FC4

Filename: XXXXXXX.DWG

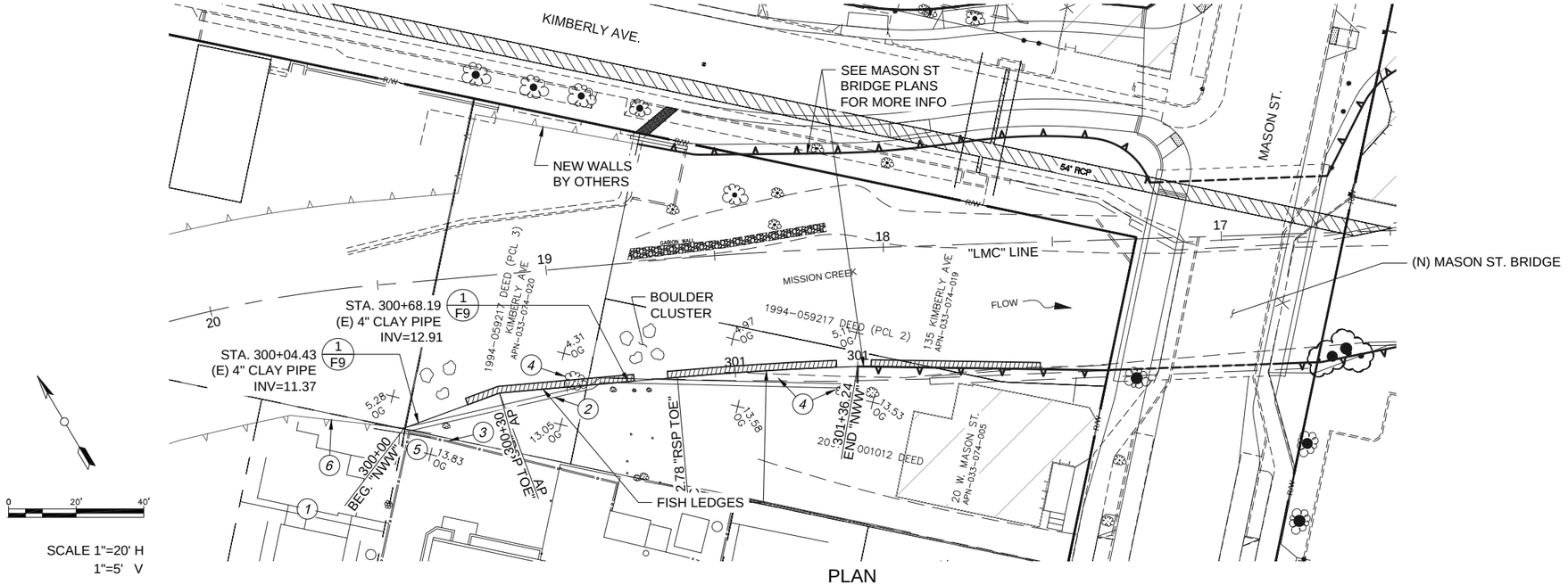
1. NOT USED
2. REMOVE SACRETE WALL
3. REMOVE WOODEN FENCE AS NECESSARY TO CONSTRUCT PROPOSED IMPROVEMENTS
4. REMOVE TREES AND VEGETATION AS NECESSARY TO CONSTRUCT PROPOSED IMPROVEMENTS
5. RECONSTRUCT DRIVEWAY AS NECESSARY TO CONSTRUCT PROPOSED IMPROVEMENTS
6. PROTECT (E) WALL



NOTES:
1. THIS PLAN IS FOR LAYOUT OF CREEK WALLS ONLY.
2. OVERHEAD AND UNDERGROUND UTILITIES EXIST ON SITE. NOT SHOWN HERE, FOR CLARITY.
3. SEE CREEK WALL DETAILS FOR ADDITIONAL INFORMATION.
4. LAYOUT LINE OF CREEK WALLS ARE THE DAYLIGHT FACE OF THE WALL.
5. MOST OF THE EXISTING WALL ADJACENT TO 20 W. MASON TO IS TO REMAIN.
6. SHORING IS NOT SHOWN.
7. PROVIDE ARCHITECTURAL TEXTURE TO FULL HEIGHT OF ALL CREEK WALLS. SEE STRUCTURE PLANS.

LEGEND

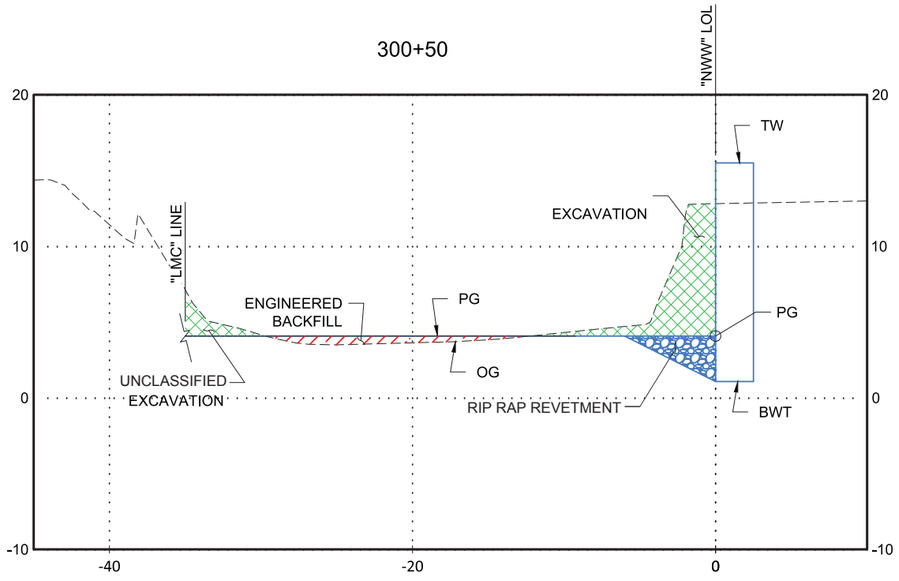
EW	EAST WALL
WW	WEST WALL
US	UP STREAM
DS	DOWN STREAM
BWT	BOTTOM OF WALL TEXTURE
PG	PROPOSED GRADE
TW	TOP OF WALL
OG	ORIGINAL GRADE

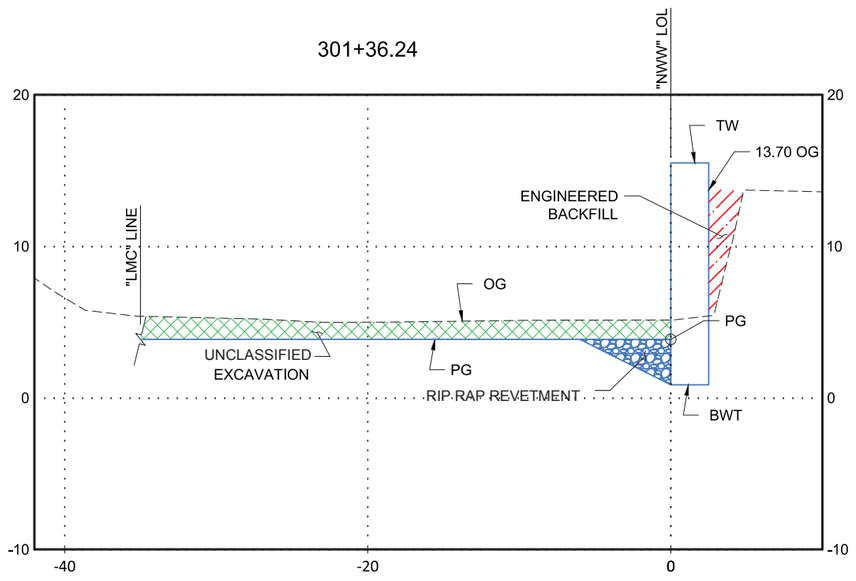


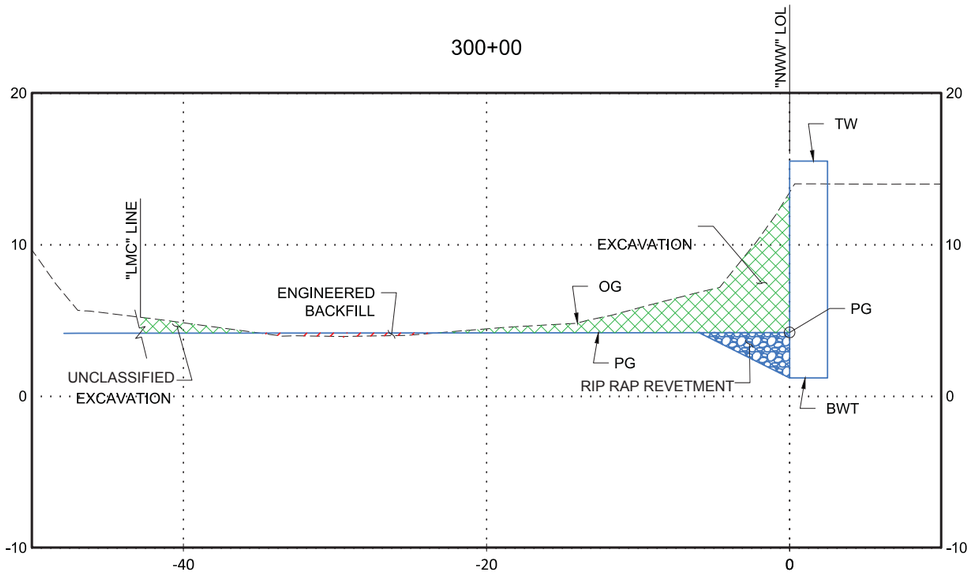
PLAN

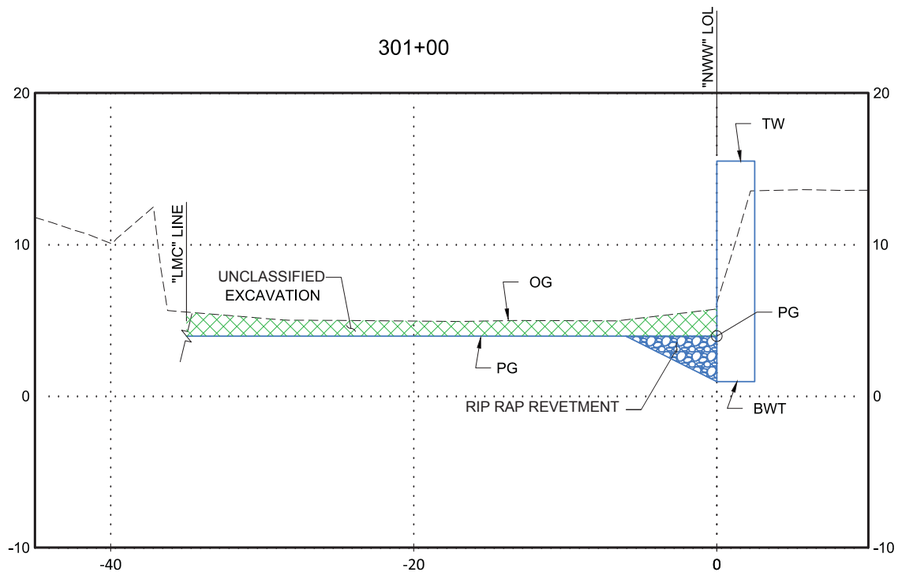
REGISTERED PROFESSIONAL ENGINEER
T. Conti
No. C73108
Exp. 12/31/21
CIVIL
STATE OF CALIFORNIA

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT 130 E. VICTORIA STREET SANTA BARBARA, CA 93101 (805) 568-3440	LOWER MISSION CREEK REACH 1B - WEST WALL SANTA BARBARA COUNTY, CALIFORNIA
MISSION CREEK WALL PLAN AND PROFILE	DESIGNED BY: TC DRAWN BY: MB CHECKED BY: SO
FC5	SHEET 5 OF 11 Filename: XXXXXXX.DWG









LEGEND

BWT	BOTTOM OF WALL TEXTURE
PG	PROFILE GRADE
TW	TOP OF WALL
OG	ORIGINAL GRADE

UNCLASSIFIED EXCAVATION

ENGINEERED BACKFILL

RIP RAP REVETMENT

CHANNEL EARTHWORK QUANTITIES

IN CHANNEL CUT/FILL

	DIST	CUT AREA	FILL AREA	CUT VOL	FILL VOL
300+00		51.8	1.9		1502.4
	50			2200.0	
300+50		36.2	6.6		1166.6
	50			1907.5	
301+00		40.1	0		
	36.24			1725.0	0
301+36.24		55.1	0		
TOTAL VOL (CF)				5832.524	
(CY)				216.0	
					2668.9
					98.8

NOTES:
1. SECANT PILES NOT SHOWN.
2. SEE WALL DETAILS FOR MORE INFORMATION
3. FIL VOLUME INCLUDES WALL REMOVAL AREA (NOT SHOWN IN SECTIONS)

SCALE 1"=5' H&V

0 1 2 3

REGISTERED PROFESSIONAL ENGINEER
T. Conti
No. C73108
Exp. 12/31/
CIVIL
STATE OF CALIFORNIA

REVISIONS			
NO.	DESCRIPTION	DATE	APR

SANTA BARBARA COUNTY
FLOOD CONTROL AND
WATER CONSERVATION DISTRICT
130 E. VICTORIA STREET
SANTA BARBARA, CA 93101
(805) 568-3440

LOWER MISSION CREEK
REACH 1B - WEST WALL

SANTA BARBARA COUNTY, CALIFORNIA

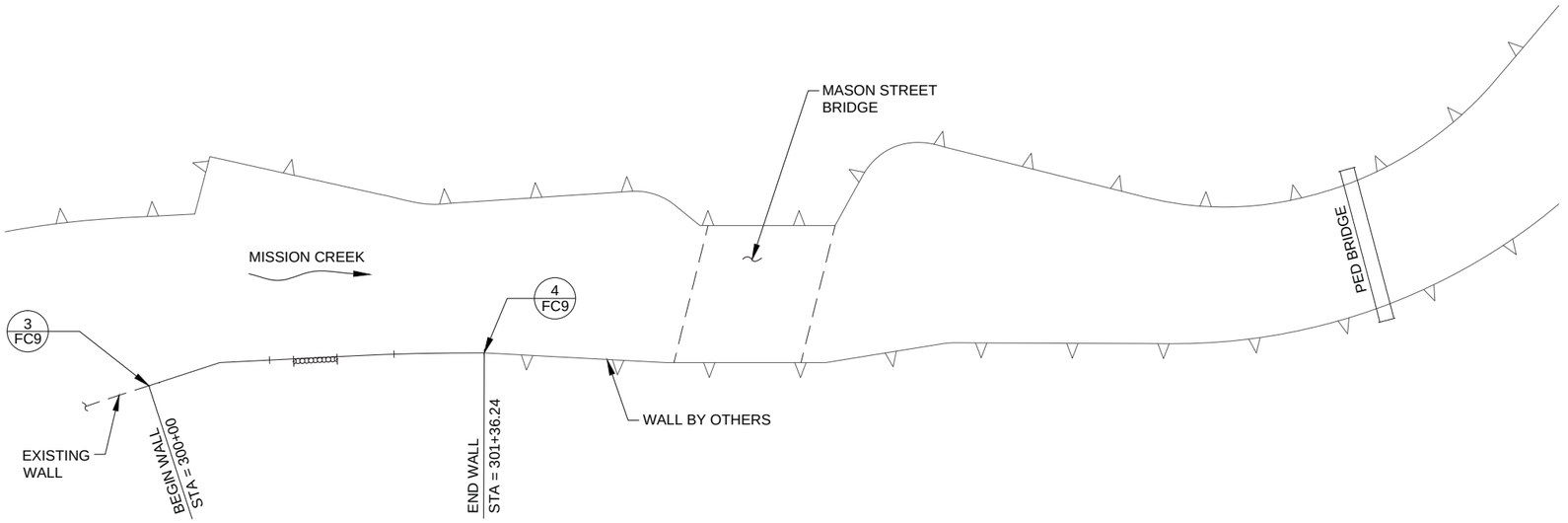
MISSION CREEK CROSS-SECTIONS

DESIGNED BY: TC
DRAWN BY: MB
CHECKED BY: SO

FC6

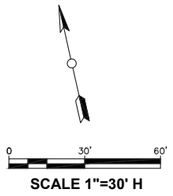
SHEET 6 OF 11

Filename: XXXXXX.DWG



MISSION CREEK WALL LAYOUT PLAN

NOTE:
FOR INFO NOT SHOWN,
SEE KEYLINE GEOMETRY
SHEET FC4



SCALE 1"=30' H

REGISTERED PROFESSIONAL ENGINEER
T. Conti
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Exp. 12/31/17
CIVIL
STATE OF CALIFORNIA

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SANTA BARBARA COUNTY
FLOOD CONTROL AND
WATER CONSERVATION DISTRICT
130 E. VICTORIA STREET
SANTA BARBARA, CA 93101
(805) 568-3440

LOWER MISSION CREEK
REACH 1B - WEST WALL

SANTA BARBARA COUNTY, CALIFORNIA

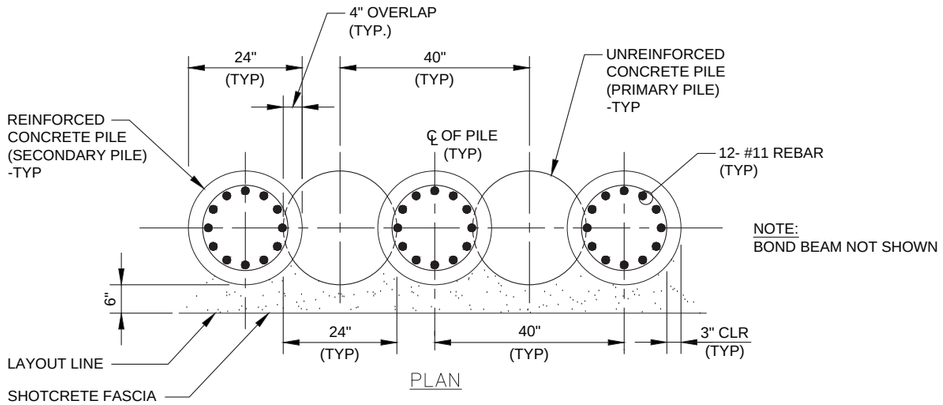
WALL LAYOUT

DESIGNED BY: AI
DRAWN BY: RZ
CHECKED BY: MD

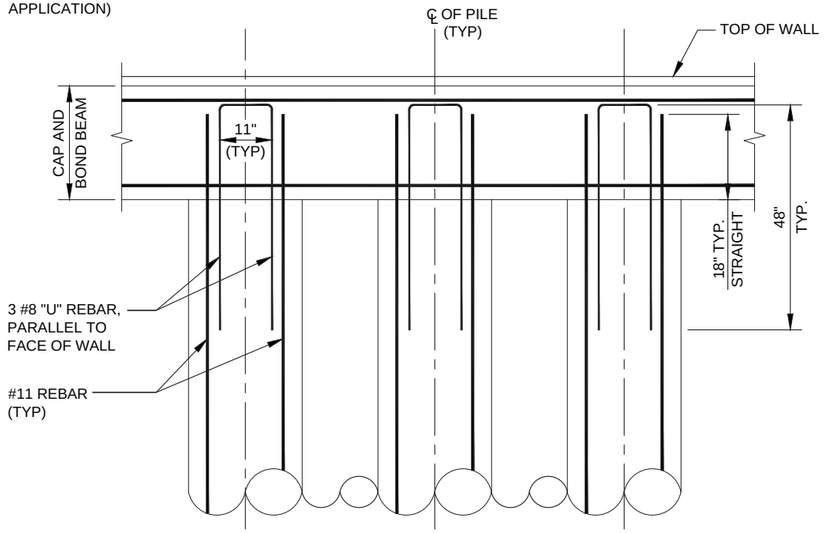
FC7

SHEET 7 OF 11

Filename: XXXXXXX.DWG



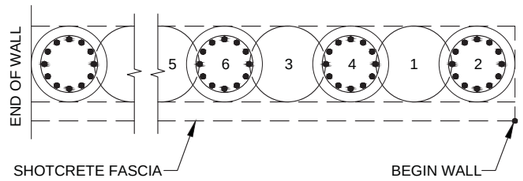
PLAN



ELEVATION

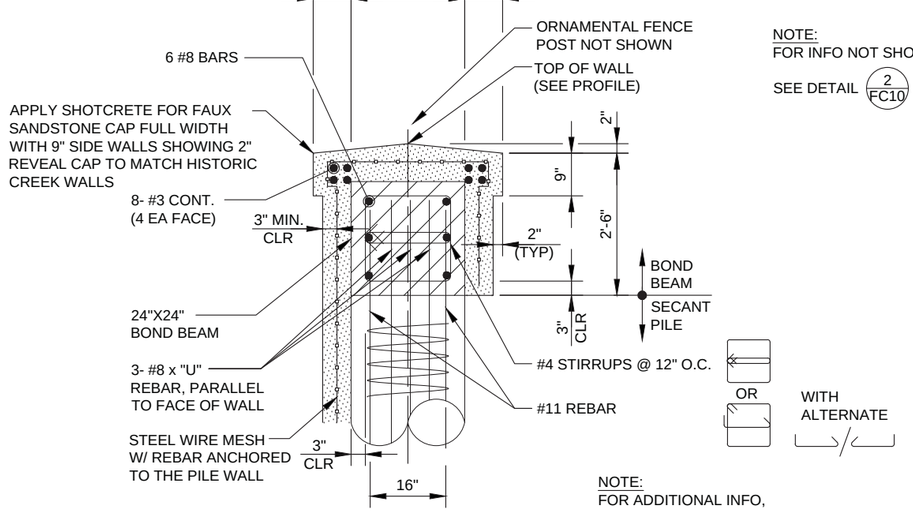
DRILLED (SECANT) PILE RETAINING WALL DETAILS

DETAIL 1 / FC8
SCALE ¾" = 1'-0"



NOTES:
1. ALL PILE WALLS BEGIN AND END WITH A REINFORCED (SECONDARY) PILE.
2. THE CONSTRUCTION STARTS WITH THE DRILLING OF A PRIMARY (UNREINFORCED) PILE BEING #1 IN THE ROW ABOVE.
3. THEN THE FIRST REINFORCED (SECONDARY) PILE IS DRILLED AS #2 IN THE ROW ABOVE.
4. NEXT PRIMARY (UNREINFORCED) PILE IS DRILLED AS #3 IN THE ROW.
5. A REINFORCED (SECONDARY) PILE IS DRILLED AS #4 IN THE ROW BETWEEN THE TWO PRIMARY (UNREINFORCED) PILES.
6. THIS PROCESS CONTINUES UNTIL THE END OF THE WALL WHERE THE LAST PILE IS A REINFORCED (SECONDARY) ONE.
7. FIELD WELDING AND SPLICING IS NOT PERMITTED. ALL STEEL CAGES MUST BE SHOP MANUFACTURED.
8. PRIMARY (UNREINFORCED) CONCRETE SHALL ATTAIN A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2,500 PSI.
9. SECONDARY (REINFORCED) CONCRETE SHALL ATTAIN A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5,000 PSI.

PILE DRILLING ORDER
SCALE = NTS



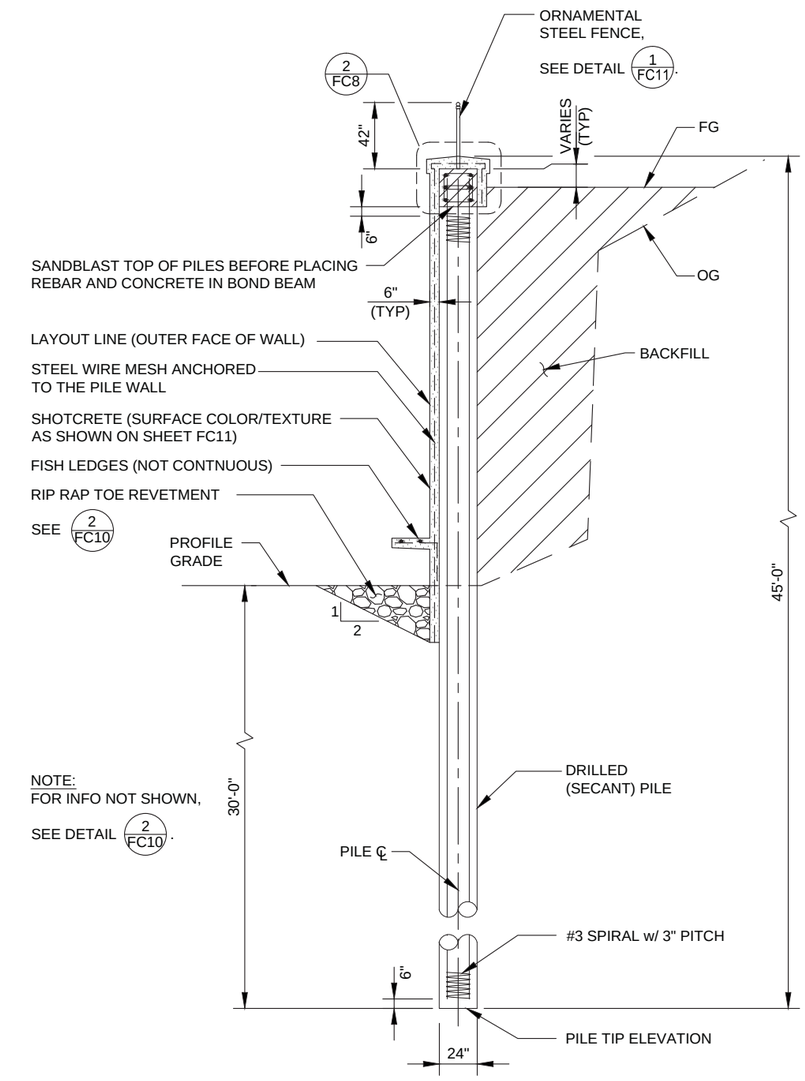
BOND BEAM AND CAP DETAILS

DETAIL 2 / FC8
SCALE ¾" = 1'-0"

NOTE:
FOR INFO NOT SHOWN,
SEE DETAIL 2 / FC10.

OR WITH ALTERNATE

NOTE:
FOR ADDITIONAL INFO,
SEE DETAIL 2 / FC10.



ELEVATION

DRILLED (SECANT) PILE RETAINING WALL (TYPICAL SECTION)

SECTION A / FC8
SCALE ¼" = 1'-0"

REGISTERED PROFESSIONAL ENGINEER
T. Conti
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Exp. 12/31/1
CIVIL
STATE OF CALIFORNIA

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SANTA BARBARA COUNTY
FLOOD CONTROL AND
WATER CONSERVATION DISTRICT
130 E. VICTORIA STREET
SANTA BARBARA, CA 93101
(805) 568-3440

LOWER MISSION CREEK
REACH 1B - WEST WALL

SANTA BARBARA COUNTY, CALIFORNIA

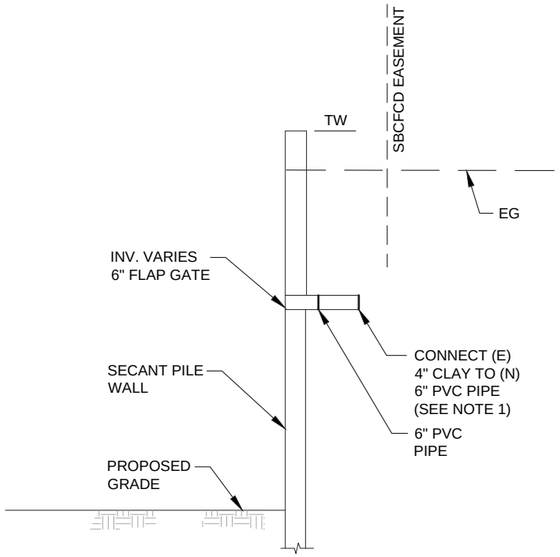
SECTIONS & DETAILS, SHT 1

DESIGNED BY: AI
DRAWN BY: RZ
CHECKED BY: MD

FC8

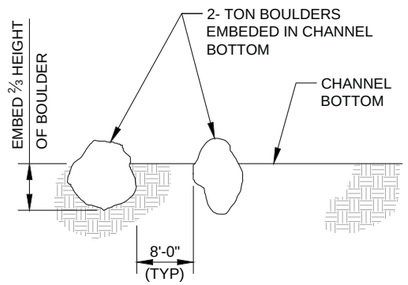
SHEET 8 OF 11

Filename: XXXXXXX.DWG

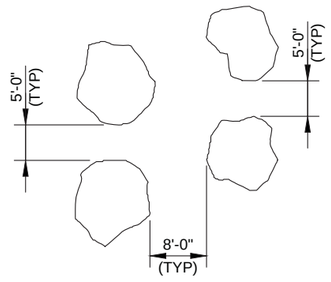


WALL DRAIN OUTLET PROFILE

DETAIL 1 / FC9
SCALE 3/8" = 1'-0"



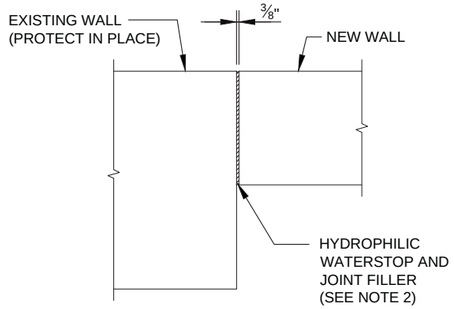
ELEVATION



PLAN

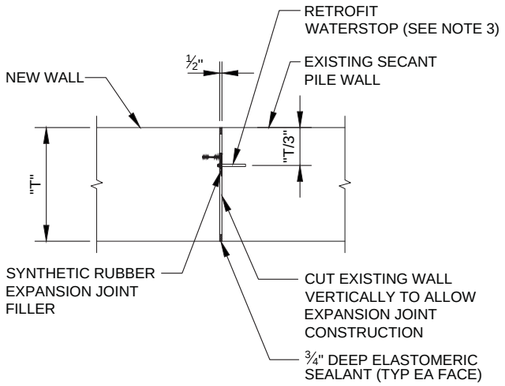
BOULDER CLUSTER DETAILS

DETAIL 2 / FC9
SCALE: NTS



PLAN

DETAIL 3 / FC9 REF FC7
SCALE 3/4" = 1'-0"



PLAN

DETAIL 4 / FC9 REF FC7
SCALE 3/4" = 1'-0"

NOTES:

1. REALIGN PIPE AS NECESSARY TO PENETRATE UN-REINFORCED (PRIMARY) PILE.
2. HYDROPHILIC WATERSTOP SHALL BE "HYDROTITE", MANUFACTURED BY GREENSTREAK (3400 TREE COURT INDUSTRIAL BLVD, ST. LOUIS, MO 63122), OR APPROVED EQUAL. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION PROCEDURE.
3. RETROFIT WATERSTOP SHALL BE "JP320L", MANUFACTURED BY JP SPECIALTIES (551 BIRCH ST, LAKE ELSINORE, CA 92530), OR APPROVED EQUAL. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION PROCEDURE.

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SANTA BARBARA, CA 93101
(805) 568-3440

LOWER MISSION CREEK
REACH 1B - WEST WALL

SANTA BARBARA COUNTY, CALIFORNIA

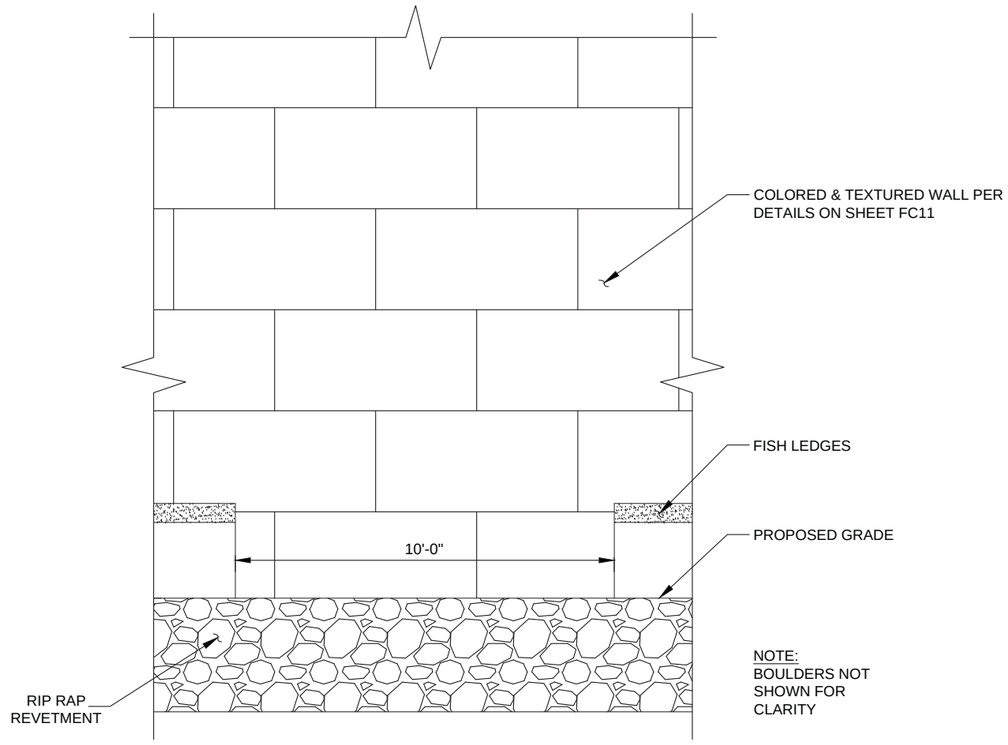
SECTIONS & DETAILS, SHT 2

DESIGNED BY: AI
DRAWN BY: RZ
CHECKED BY: MD

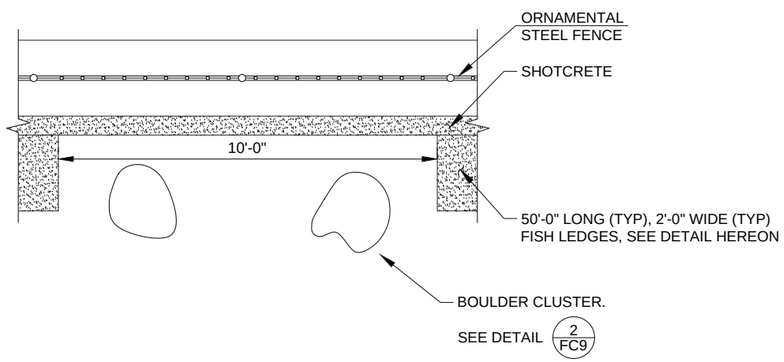
FC9

SHEET 9 OF 11

Filename: XXXXXXX.DWG



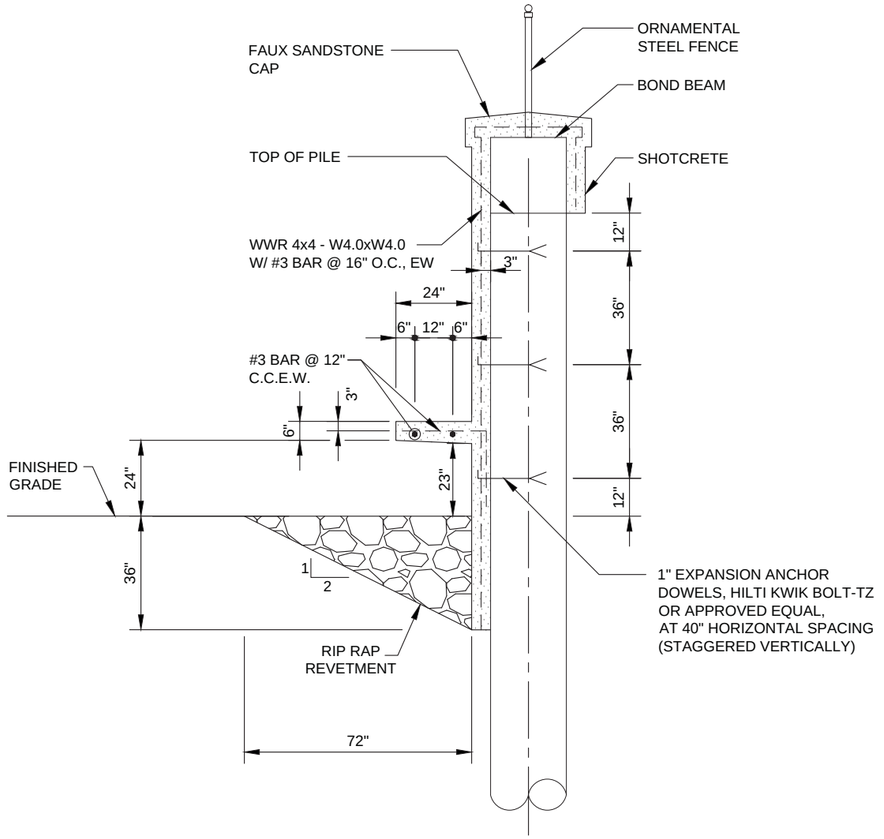
ELEVATION



PLAN

FISH LEDGE LAYOUT

DETAIL 1 FC10
SCALE ½" = 1'-0"



ELEVATION

FISH LEDGE

DETAIL 2 FC10
SCALE ½" = 1'-0"

REGISTERED PROFESSIONAL ENGINEER
T. Conti
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Exp. 12/31/
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(805) 568-3440

LOWER MISSION CREEK
REACH 1B - WEST WALL

SANTA BARBARA COUNTY, CALIFORNIA

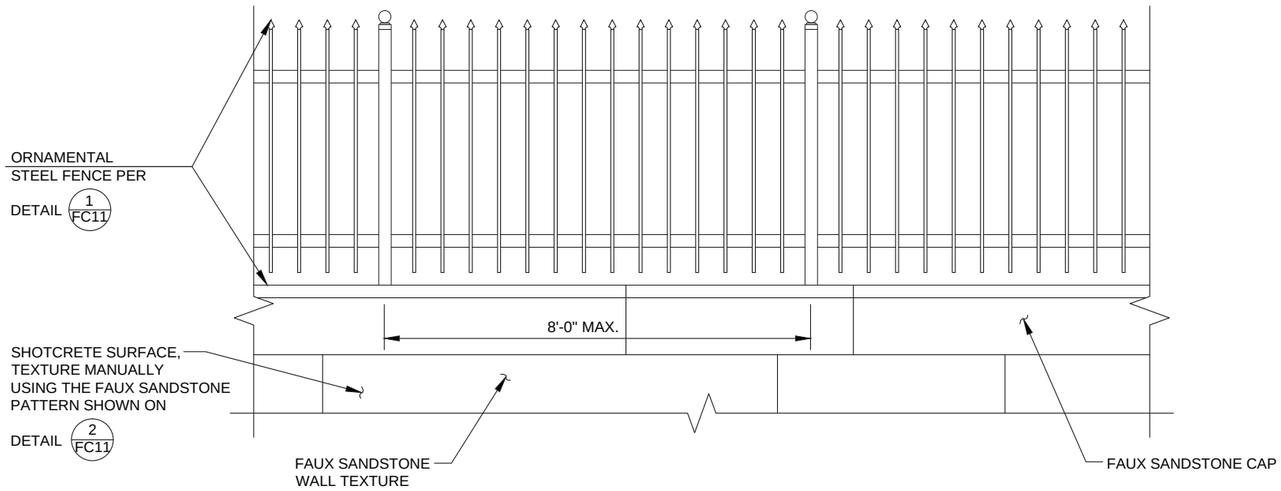
FISH LEDGE DETAILS

DESIGNED BY: AI
DRAWN BY: RZ
CHECKED BY: MD

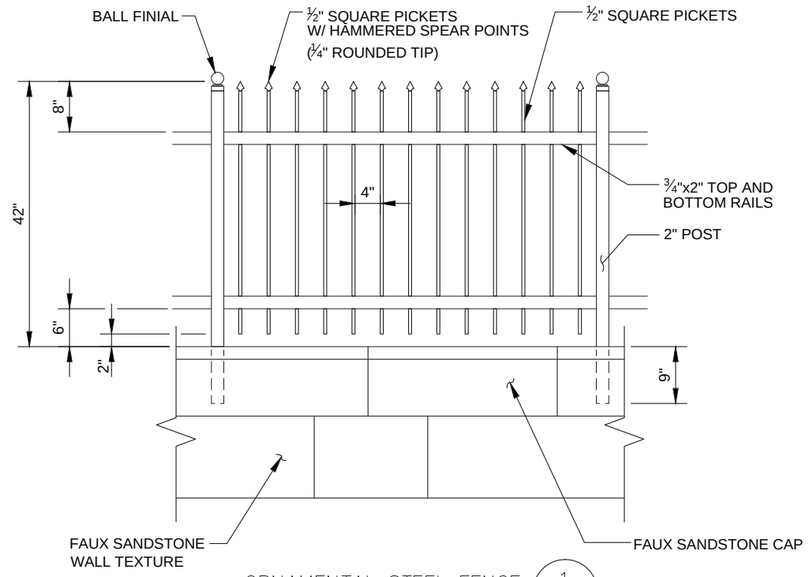
FC10

SHEET 10 OF 11

Filename: XXXXXXX.DWG

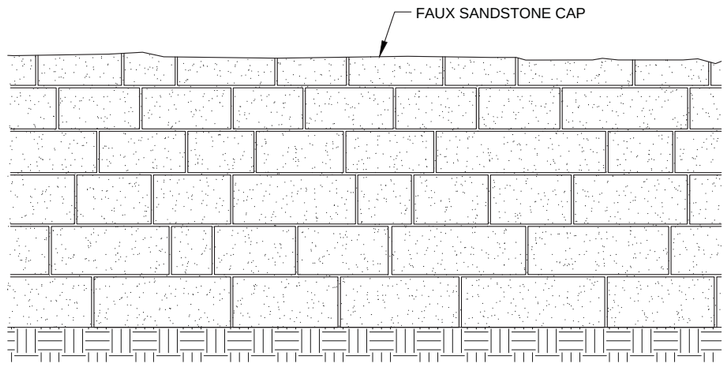


TYPICAL WALL TEXTURE PATTERN–ELEVATION VIEW
SCALE 1" = 1'-0"

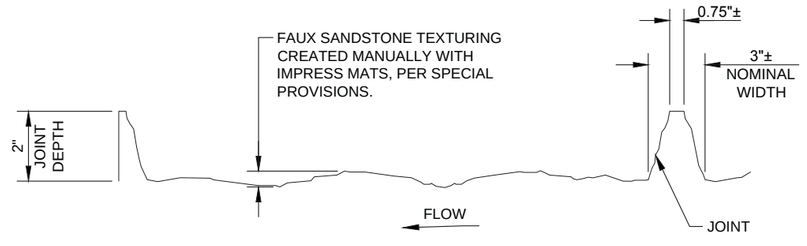


ORNAMENTAL STEEL FENCE 1 FC11
SCALE ½" = 1'-0"

NOTES:
1. THE TEXTURE IS INTENDED TO REPLICATE THE HISTORIC MISSION CREEK SANDSTONE WALLS LOCATED AT THE SANTA BARBARA TRAIN STATION.
2. WALL COLOR SHALL BE DAVIS COLOR, "MESA BUFF" (A TAN SANDSTONE COLOR).
3. SANDSTONE BLOCK HEIGHT VARY FROM 20" TO 22" TYP. BLOCK HEIGHT SHALL NOT BE GREATER THAN BLOCK HEIGHTS IN UNDERLYING ROW.
4. SANDSTONE BLOCK LENGTHS VARY; 18", 34", 40", 43" TYP.
5. FAUX GROUTED JOINT DIMENSIONS AND TEXTURE VARIATION SHALL BE PER THE DETAIL ON THIS SHEET.
6. SANDSTONE CAP, 9"-11" HEIGHT x 40" WIDTH x 24"-30" LENGTH.
7. SEE THE SPECIAL PROVISIONS FOR MORE INFORMATION.
8. ORNAMENTAL STEEL FENCE SHALL BE PAINTED MALAGA GREEN.
9. ORNAMENTAL STEEL FENCE SPEAR POINTS SHALL BE LOCATED BETWEEN BOTTOM OF THE BALL FINIAL AND MID-POINT OF BALL FINIAL.



FAUX SANDSTONE WALL TEXTURE PATTERN
DETAIL 2 FC11
SCALE: NTS



FAUX SANDSTONE WALL TEXTURE SECTION VIEW
SCALE: NTS

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LOWER MISSION CREEK
REACH 1B - WEST WALL

SANTA BARBARA COUNTY, CALIFORNIA

FAUX SANDSTONE WALL DETAILS

DESIGNED BY: AI
DRAWN BY: RZ
CHECKED BY: MD

FC11

SHEET 11 OF 11

Filename: XXXXXXX.DWG