

- 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.
- 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.
- 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.
- 6. IT IS THE CONTRACTOR'S RESPONSIBILTY, PRIOR TO SUBMITTING THEIR BID, TO PERFORM, AT THEIR SOLE EXPENSE, ANY/ALL SITE INSPECTIONS REQUIRED TO ASSURE THAT THE SURVEY INFORMATION WHICH SERVES AS THE BASIS FOR DESIGN, INCLUDING, BUT NOT LIMITED TO, FEATURE LOCATIONS, REMOVALS, PROTECTION AND.OR, CONSTRAINTS IS REPRESENTATIVE OF THE CONDITIONS ANTICIPATED TO BE ENCOUNTERED WITHIN THE LIMITS OF THE PROJECT. SUCH INSEPCTIONS SHALL BE UNDERTAKEN ONLY UPON PREAPPROVAL FROM THE SBCFCWCD.

#### GENERAL NOTES

- EXISTING UTILITIES INFORMATION WAS ASSEMBLED FROM EXISTING UTILITY COMPANY MAPS.
- 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
- 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 OBTAINED AND 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 PROJECT GEOTECHNICAL REPORTS BY BENGAL ENGINEERING, INC. DATED AUGUST 2010. CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL GEOTECHNICAL REPORT UPDATES. THE AFOREREFERENCED GEOTECHNICAL AND/OR SUBSURFACE INFORMATION IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY AND IS NOT TO BE CONSIDERED A PART OF THE CONSTRUCTION DOCUMENTS OR CONTRACT. NEITHER THE SBCFCWCD NOR THE DESIGN ENGINEER WARRANT OR GUARANTEE THE RESULTS OF ANY GEOTECHNICAL OR SUBSURFACE INVESTIGATIONS AS BEING REPRESENTATIVE OF THE SITE BEYOND THE ACTUAL LOCATION OF THE TEST SPECIMEN(S) AND ASSUME NO RESPONSIBILITY FOR THE MANNER IN WHICH THIS INFORMATION MAY BE USED OR THE CONCLUSIONS REACHED IN UTILIZING THE INFORMATION CONTAINED IN THE CONTRACT

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.

DOCUMENTS. FURTHER, SBCFCWCD AND THE DESIGN ENGINEER NEITHER WARRANT NOR GUARANTEE THE CONCLUSIONS REACHED. RECOMMENDATIONS MADE OR TEST RESULTS PRESENTED AS PART OF THE GEOTECHNICAL AND OR SUBSURFACE INVESTIGATIONS AS BEING REPRESENTATIVE OF THE ENTIRE SITE. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO SUPPLEMENT ANY INFORMATION PROVIDED WITH ADDITIONAL SUBSURFACE INVESTIGATIONS AND TESTING, AT THEIR SOLE EXPENSE, IN ORDER TO ASSURE THEMSELVES THE INFORMATION PROVIDED IN THE CONSTRUCTION DOCUMENTS IS REPRESENTATIVE OF THE CONDITIONS TO BE ENCOUNTERED WITHIN THE LIMITS OF THE PROJECT AT THE TIME OF CONSTRUCTION. SUCH INVESTIGATIONS SHALL COMMENCE ONLY UPON OBTAINING APPROVAL FROM SBCFCWCD.

- 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. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DEVELOP A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE CONSTRUCTION AREA. SWPPP ELEMENTS AND WORK SHALL BE CONFINED WITHIN THE ROW AND/OR EASEMENT LIMITS, WITH A MINIMUM INTERIOR BUFFER OF ONE FOOT. THE SWPPP SHALL BE SUBMITTED TO THE COR PRIOR TO COMMENCEMENT OF ANY WORK ON THE PROJECT.
- 2. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL AS REQUIRED THROUGHOUT CONSTRUCTION AND INSPECT EROSION CONTROLS ON A MINIMUM WEEKLY BASIS.
- 3. 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.
- 4. 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.
- 5. 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.
- 6. ALL TREE PROTECTION SHALL BE MAINTAINED AND INSPECTED THROUGHOUT CONSTRUCTION.
- 7. ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDED AS SOON AS POSSIBLE. CONTRACTOR SHALL WATER AS REQUIRED BY CONTRACT DOCUMENTS TO ASSURE PROPER GROWTH.
- 8. 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.
- 9. CONTRACTOR SHALL MAINTAIN VEHICULAR AND PEDESTRIAN TRAFFIC IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 10. 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.
- 11. 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.

12. DISCHARGES OF STORMWATER FROM THE PROJECT MUST COMPLY WITH NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES (ORDER NO. 2012-0006-DWQ NPDES NO. CASO00002).

#### 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. TRAFFIC CONTROL SHALL BE PROVIDED AND MAINTAINED IN ACCORDANCE WITH PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (1988 EDITION, INCLUDING REVISION J, DATED SEPTEMBER 3, 1993) AS WELL AS ANY CALTRANS AND LOCAL JURISDICTION MODIFICATIONS THERETO.
- 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 PRESENT 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.

# <u>LAYOUT</u>

- 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

# <u>GRADING</u>

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

#### <u>UTILITY</u>

- 1. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES IN THE FIELD, SOME UTILITIES MAY BE RELOCATED AS PART OF THE CHAPALA STREET BRIDGE REPLACEMENT PROJECT, PROJECT NO. 7890. REFER TO GENERAL NOTE NO. 7. THIS SHEET.
- 2. 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.
- 3. CONTRACTOR SHALL FIELD VERIFY EXISTING SEWER AND STORM DRAIN ELEVATIONS WHICH MAY REQUIRE POT-HOLING.
- 4. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS.
- 5. 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 170 PCF ALUMINUM 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.

# (NOTES TO BE CONTINUED ON FC3)





	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 17885 VON KARMAN AVENUE, SUITE 500

IRVINE, CA 9,2614 (949) 809-5000 ARIC M. TORREYSON R.C. 66068

JUNE 15, 2016 DATE

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT REACH 2A - BYPASS CULVERT

**NOTES** 

DATE: JUNE 2016 SCALE: AS SHOWN

FILE NAME: T26034FC002.dwg DESIGNED BY: AG DRAWN BY: AG

CHECKED BY: YHC

SHEET 2 OF 18

- 2 LIMIT TOTAL PATIO CONCRETE AND AC PARKING LOT REMOVAL AND REPLACEMENT TO 500 SF OR LESS.
- 3 CONSTRUCT PARAPET WALL PER DETAILS ON SHEET FC12
- 4 CONSTRUCT 18" RCP (D-LOAD 2000) PER CITY OF SANTA BARBARA STANDARD DETAILS U-01.0 AND U-01.1.
- [5] CONSTRUCT CUTOFF WALL PER CALTRANS STD PLAN NO. D86A
- 6 REMOVE EXISTING STORM DRAIN AND CATCH BASIN
- 7 REMOVE EXISTING TREES AND LANDSCAPING
- 8 SAW CUT, REMOVE, AND DISPOSE OF EXISTING PAVEMENT,
- CURB, GUTTER, AND SIDEWALK 9 COORDINATE INSTALLATION OF 6" SPLIT STEEL CONDUIT TO BE DONE BY THE FIBER OPTIC CARRIERS. CONSTRUCT FIBER OPTIC LINE CONCRETE
- 10 REMOVE ABANDONED WATER LINE AS NEEDED TO CONSTRUCT PROPOSED **IMPROVEMENTS**
- [11] EXISTING UTILITY POLE TO BE PROTECTED IN PLACE

ENCASEMENT PER DETAIL ON SHEET FC7.

- 12 EXISTING ELECTRICAL VAULT TO BE PROTECTED IN PLACE
- 13 REMOVE EXISTING BULKHEAD
- [14] CONSTRUCT ORNAMENTAL STEEL FENCE PER DETAIL D ON SHEET FC13
- 15 REMOVE AND REPLACE TRAFFIC SIGN
- CONSTRUCT JUNCTION STRUCTURE- PIPE TO RCB PER APWA STANDARD PLAN 333-2
- [17] CONSTRUCT CURBSIDE GRATING CATCH BASIN PER APWA STANDARD PLAN 303-3, H=2" 2 GRATES
- 18 CONSTRUCT COMMERCIAL DRIVEWAY PER CITY OF SANTA BARBARA STD DETAIL H-03.1
- [19] CONSTRUCT NEW 2.5" AC PAVING OVER 6" AGGREGATE BASE
- 20 CONSTRUCT CONCRETE SIDEWALK PER CITY OF SANTA BARBARA STD DETAIL H-06.0 AND H-06.1
- 21 CONSTRUCT 18" CONC. CURB AND GUTTER WITH A 6" CURB PER CITY OF SANTA BARBARA STD DETAIL H-03.1
- 22 EXISTING CATCH BASIN PROTECT IN PLACE REMOVE INTERFERING PORTION OF 12" RCP
- TEMPORARY SHORING ARE REQUIRED TO CONSTRUCT RCB CULVERT
- 24 RECONSTRUCT IRRIGATION PER BACKPACKERS HOSTEL RECORD DRAWINGS
- 25 REMOVE AND SALVAGE EX. PIPE HANDRAILING ON BRIDGE. CONTRACTOR MAY REFURBISH AND INCORPORATE INTO THE NEW WORK.
- 26 REMOVE EXISTING STRUCTURE
- 27 CONSTRUCT MODIFIED 15' WIDE SLOPED PROTECTION BARRIER AND LIFTING LUG PER APWA STANDARD PLAN 360-2
- 28 CONSTRUCT PIPE HANDRAILING PER DETAILS ON SHEET FC13.
- 29 CONSTRUCT TRANSITION STRUCTURE-PIPE TO PIPE PER APWA STANDARD PLAN 340-2
- 30 CONSTURCT NEW LANDSCAPE PLANTER IN KIND

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ANY SUCH CHANGE OR USE.

- [31] CONSTRUCT CELLULAR GRASSCRETE PAVERS OR APPROVED EQUAL TO BE USED WITH WITH AGGREGATE BASE
- 32 REMOVE AND SALVAGE EXISTING LANDSCAPING LIGHTS TO BE INSTALLED AFTER CONSTRUCTION PER ENGINEERS DIRECTION.
- 33 PLACE RIPRAP REVETMENT PER DETAIL H ON SHEET FC17
- 34 CONSTRUCT EXPOSED EXTERIOR WALL AND PARAPET WALL FINISHING WITH COLORED CONCRETE, DAVIS-COLOR "MESA BUFF," TEXTURED WITH SPEC FORMLINERS, INC. CABRILLO ROCK PATTERN, OR APPROVED EQUIVLANT, ON FC17. CONSTRUCT REAL SANDSTONE CAP PER DETAIL G ON SHEET FC17.

- 35 REMOVE, SALVAGE, AND RECONSTRUCT EXISTING DECOMPOSED GRANITE AND ROCK BORDERS.
- CONSTRUCT LOCAL DEPRESSIONS AT CATCH BASINS PER APWA STANDARD PLAN 313-3, CASE F, K=3
- [37] CONSTRUCT MONOLITHIC CATCH BASIN CONNECTION PER APWA STANDARD PLAN 308-2
- [38] CONSTRUCT 6' WIDE TEMPORARY DG WALKWAY (12" THICK)
- CONSTRUCT DROP INLET THROUGH THE TOP OF THE RCB PER MANHOLE STRUCTURE TO RCB PER APWA DETAIL 323—2 WITH A 36" DIA. TRAFFIC RATED METAL GRATE
- 40 CONSTRUCT PATIO COLUMN AND BASE PER DETAIL ON SHEET FC10
- CONSTRUCT 30" ROLLED CURB AND GUTTER PER CITY OF SANTA BARBARA STANDARD DETAIL H-02.1
- 42 CONSTRUCT GRATED LINE DRAIN (NEEHAH FRAME AND GRATE R-3928 OR APPROVED EQUAL) AND PER DETAIL ON SHEET FC8.
- 43 RECONSTRUCT PATIO CONCRETE SLAB PER BACKPACKERS HOSTEL RECORD DRAWINGS

# (NOTES CONTINUATION FROM SHEET FC2)

#### **CONCRETE**

- 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
- 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.

# ABBREVIATIONS

ABANDONED ABAND. OC AGGREGATE BASE COURSE ASPHALTIC CONCRETE PED **APPROXIMATE** APPROX. AVENUE

ON CENTER

PEDESTRIAN

PERFORATED

PROPOSED

RADIUS

ROAD

SLOPE

SOUTH

SHEET

STATION

STANDARD

STRUCTURE

SIDEWALK

TEMPORARY

TOP OF BANK

TOP OF WALL

UNDERGROUND

WATER SURFACE

UNION PACIFIC RAILROAD

VERTICAL LINEAR FEET

TYPICAL

VERTICAL

S=

RETAINING

RIGHT-OF-WAY

STORM DRAIN

SQUARE FEET

SANITARY SEWER

TO BE DETERMINED

TOP OF FOOTING

STORM DRAIN MANHOLE

ORIGINAL GROUND

POINT OF COMPUND CURVE

POINT OF REVERSE CURVE

REINFORCED CONCRETE PIPE

POINT OF INTERSECTION

PROTECT IN PLACE

POLYVINYL CHLORIDE

- BEGIN CURVE BLDG BUILDING BACK OF WALK
- CENTERLINE CURVE DATA
- CUBIC FEET
- CUBIC FEET PER SECOND CURB AND GUTTER
- CHANNEL CONSTRUCTION JOINT
- CORRUGATED METAL PIPE
- CORPS OF ENGINEERS CONCRETE

CUBIC YARD

- CONSTRUCT
- DIAMETER
- EAST, EASTING
- EACH
- END CURVE EXISTING GRADE
- ELEVATION
- **EXISTING** EDGE OF PAVEMENT
- FINISH GRADE FLOWLINE
- FINISH SURFACE
- FT FEET FREEWAY
- GALVANIZED GRADE BREAK
- HDPE HIGH DENSITY
- POLYETHYLENE PIPE HORIZONTAL
- HEIGHT INVERT ELEVATION
- LINE DATA
- POUNDS LINEAR FEET
- MAXIMUM
- MANHOLE MINIMUM
- METROPOLITAN WATER DISTRICT
- NORTH, NORTHING NORTH AMERICAN DATUM
- NORTH AMERICAN VERTICAL DATUM
- NOT TO SCALE

# LINETYPES

- ----- OHW ----- OVERHEAD WIRE — AS <del>————</del> Underground abandoned sewer UNDERGROUND ABANDONED WATER — G ———— UNDERGROUND GAS —— UNDERGROUND ELECTRIC — FOC ———— UNDERGROUND FIBER OPTIC CABLE — RW ———— UNDERGROUND RECLAIMED WATER
- S UNDERGROUND SEWER
- SL UNDERGROUND STREET LIGHT (ELEC.)

— SD ———— UNDERGROUND STORM DRAIN

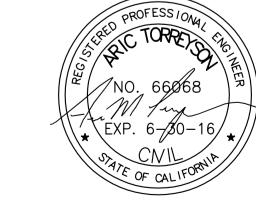
- ----- UNDERGROUND TELEPHONE TR — UNDERGROUND TRAFFIC SIGNAL (ELEC.)
- UNDERGROUND WATER
  - ---- EXISTING
  - ——∕— ABANDONED IN PLACE CONTOUR GRADE LINE
  - RIP-RAP
  - SOIL
- \_\_\_\_\_ RIGHT-OF-WAY (R/W)
- —————— CENTER LINE/CONTROL LINE

PROPOSED CONCRETE

- $-\cdots -\cdots -$  TCE  $-\cdots -\cdots -$  TEMPORARY CONSTRUCTION EASEMENT (TCE)
- ---- LIMITS OF CONSTRUCTION
- <u>SYMBOLS</u>
- CATCH BASIN
  - WATER VALVE
- FIRE HYDRANT
- IRRIGATION CONTROL SLOPE
- VALVE METER 24 EXISTING ELEVATION
- MANHOLE (TYPE INDICATED)
  - POWER POLE
- PULLBOX (TYPE INDICATED)



SURVEY MARKER



WATER SURFACE

	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 17885 VON KARMAN AVENUE, SUITE 500 IRVINE, CA 9,2614 (949) 809-5000

ARIC M. TORREYSON R.C. 66068

JUNE 15, 2016

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT REACH 2A - BYPASS CULVERT

NOTES, ABBREV., SYMBOLS & **CONSTRUCTION NOTES** 

DATE:	JUNE 2016
SCALE:	AS SHOWN
FILE NAME:	T26034FC003.dwg
DESIGNED BY:	AG
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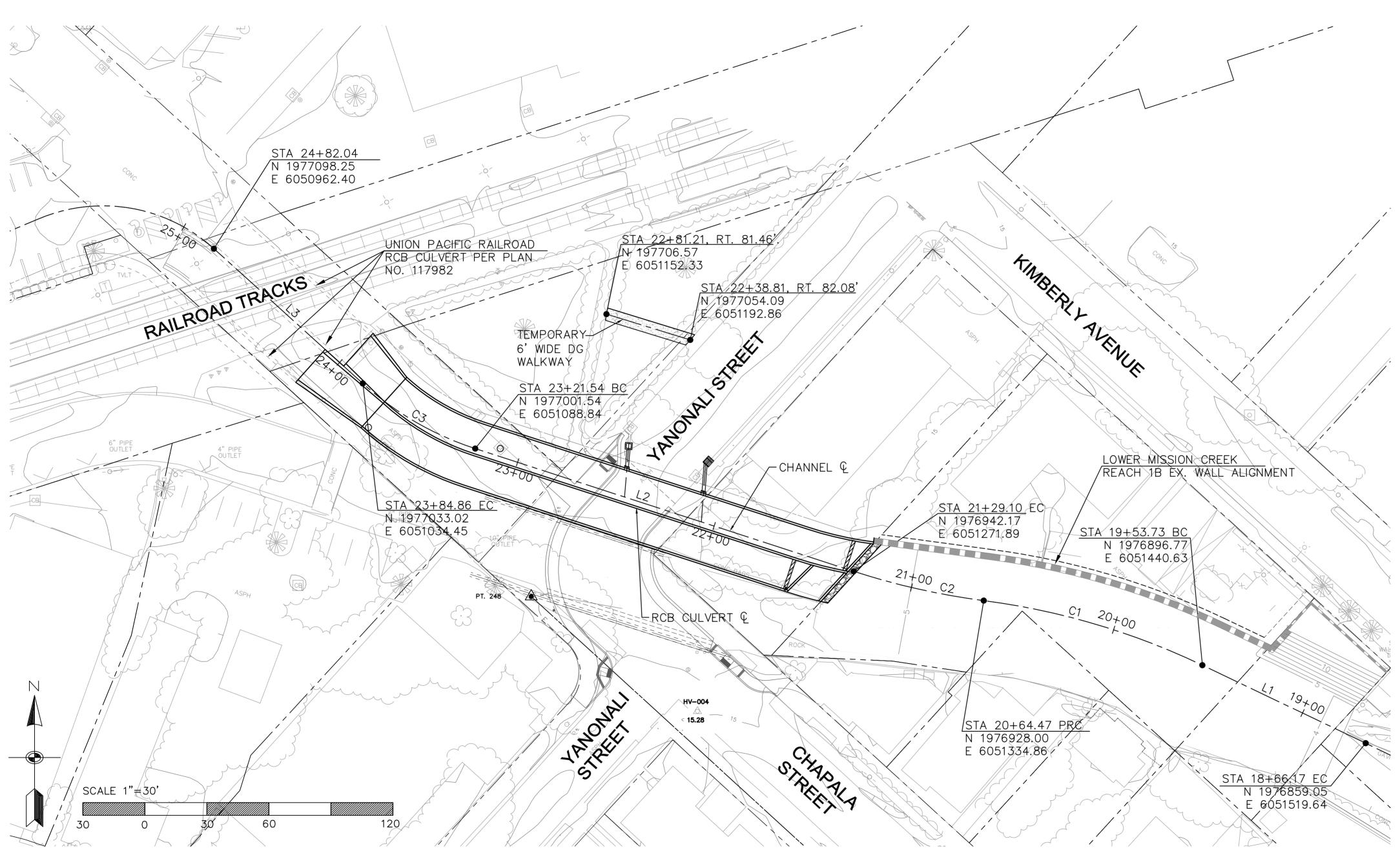
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REFERENCE NUMBER FC3

SHEET 3 OF 18

SHEET

LOWER MISSION CREEK BYPASS CULVERT — CURVE TABLE										
CURVE NO.	BEG. STATION	BEG. NORTHING	BEG. EASTING	END STATION	END NORTHING	END EASTING	LENGTH	RADIUS	DELTA	TANGENT
C1	19+53.73	1976896.77	6051440.63	20+64.47	1976928.00	6051334.86	110.74	350.00	18°07'43.95"	55.84
C2	20+64.47	1976928.00	6051334.86	21+29.10	1976942.17	6051271.89	64.63	350.00	10°34'49.44"	32.41
С3	23+21.54	1977001.54	6051088.84	23+84.86	1977033.02	6051034.45	63.32	150.00	24°11'09.96"	32.14



# **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.

FLOOD CONTROL & V WILL NOT BE RESPON CHANGES OR USES O THE PLANS MUST BE	GES OR USES: THE SANTA BARBARA COUNTY WATER CONSERVATION DISTRICT AND ITS EMPLOYEES USIBLE FOR, OR LIABLE FOR, UNAUTHORIZED OF THESE PLANS. ALL PROPOSED CHANGES TO PRESENTED IN WRITING TO THE DISTRICT AND OF BY THE DISTRICT PRIOR TO IMPLEMENTATION OF DIR USE.
	REVISIONS
MARK	DESCRIPTION



APPR.

DATE

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



TETRA TECH

17885 VON KARMAN AVENUE, SUITE 500 IRVINE, CA 9,2614 (949) 809-5000 JUNE 15, 2016 DATE ARIC M. TORREYSON R.C. 66068

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT REACH 2A - BYPASS CULVERT

HORIZONTAL CONTROL

DATE.	IIINE 2016
SCALE:	AS SHOWN
FILE NAME:	T26034FC004.dwg
DESIGNED BY:	AG

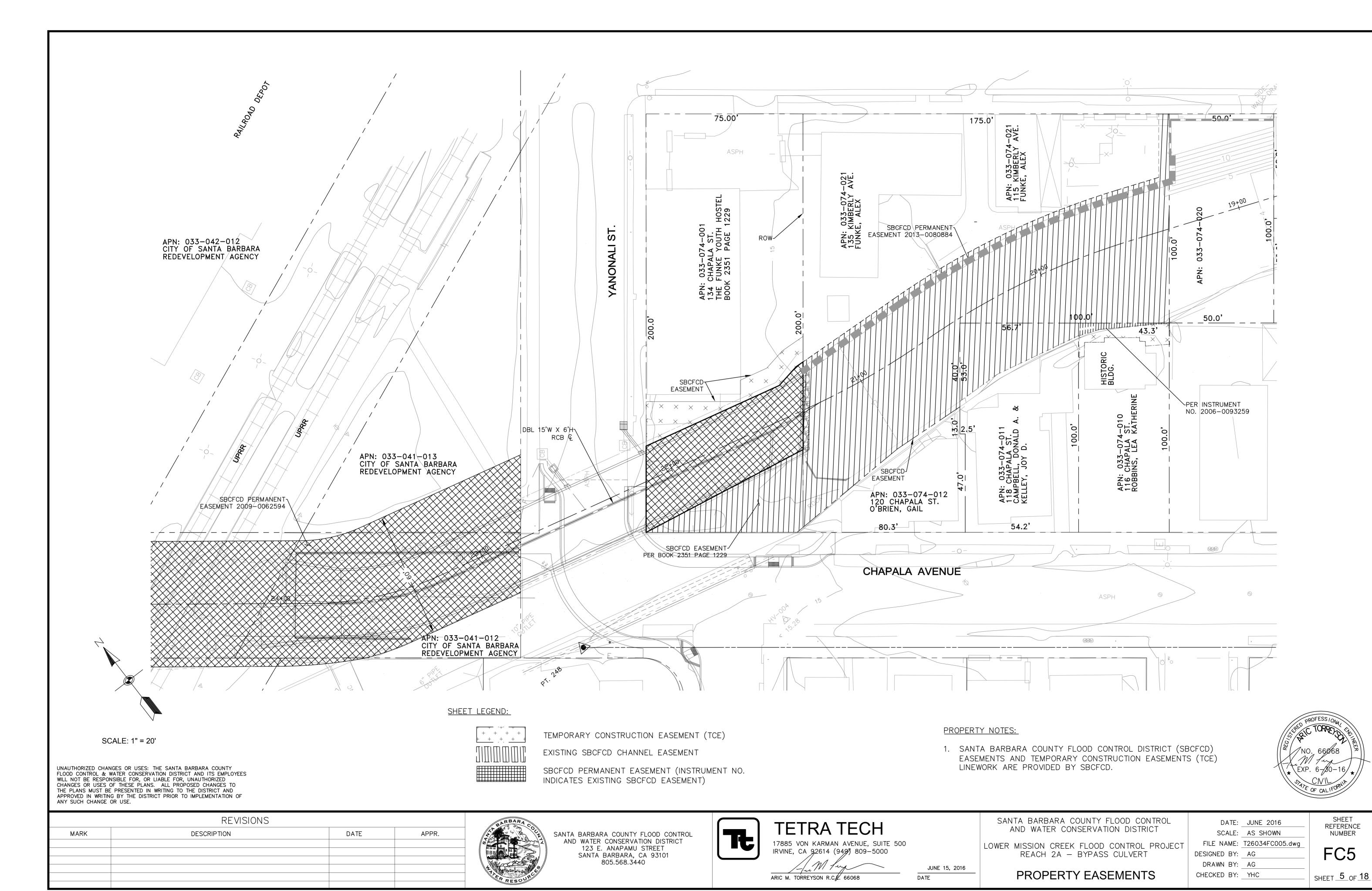
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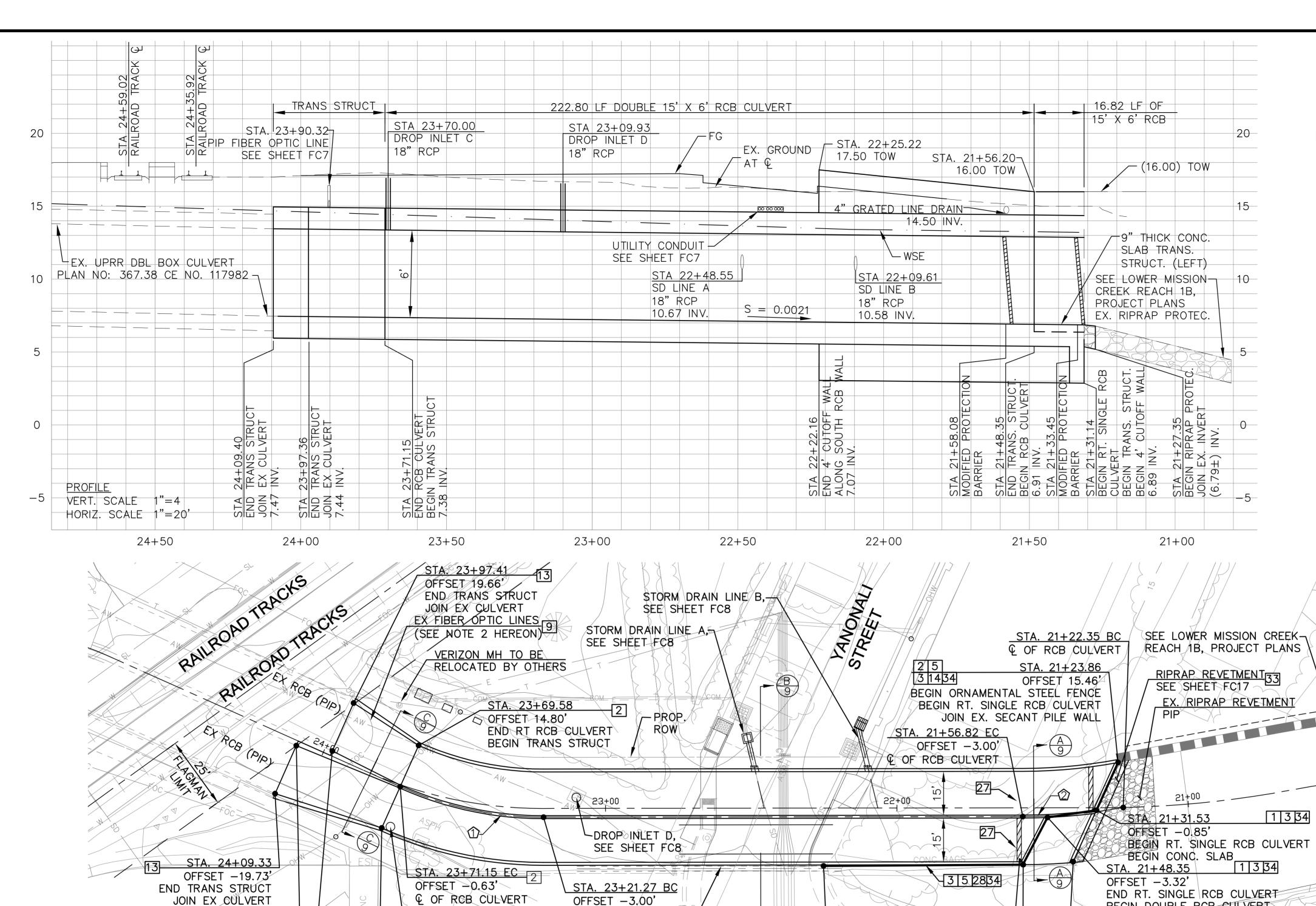
CHECKED BY: YHC

NUMBER

SHEET REFERENCE

SHEET 4 OF 18





#### CONSTRUCTION NOTES

- CONSTRUCT DOUBLE 15'W X 6'H RCB PER DETAIL ON SHEET FC12
- 3 CONSTRUCT PARAPET WALL PER DETAILS ON SHEET FC12
- 5 CONSTRUCT CUTOFF WALL PER CALTRANS STD PLAN NO. D86A
- COORDINATE INSTALLATION OF 6" SPLIT STEEL CONDUIT TO BE DONE BY THE FIBER OPTIC CARRIERS. CONSTRUCT FIBER OPTIC LINE CONCRETE ENCASEMENT PER DETAIL ON SHEET FC7.
- 13 REMOVE EXISTING BULKHEAD
- [14] CONSTRUCT ORNAMENTAL STEEL FENCE PER DETAIL D ON SHEET FC13
- 27 CONSTRUCT MODIFIED 15' WIDE SLOPED PROTECTION BARRIER AND LIFTING LUG PER APWA STANDARD PLAN 360-2
- 28 CONSTRUCT PIPE HANDRAILING PER DETAILS ON SHEET FC13.
- 33 PLACE RIPRAP REVETMENT PER DETAIL H ON SHEET FC17
- 34 CONSTRUCT EXPOSED EXTERIOR WALL AND PARAPET WALL FINISHING WITH COLORED CONCRETE, DAVIS-COLOR "MESA BUFF," TEXTURED WITH SPEC FORMLINERS, INC. CABRILLO ROCK PATTERN, OR APPROVED EQUIVLANT, ON FC17. CONSTRUCT REAL SANDSTONE CAP PER DETAIL G ON SHEET FC17.
- 40 CONSTRUCT PATIO COLUMN AND BASE PER DETAIL ON SHEET FC10
- 42 CONSTRUCT GRATED LINE DRAIN (NEEHAH FRAME AND GRATE R-3928 OR APPROVED EQUAL) AND PER DETAIL ON SHEET FC8

#### NOTES:

- 1. SEE SHEET FC7 FOR DEMO PLAN
- 2. USE EXTREME CAUTION WHEN WORKING AROUND FIBER OPTIC LINES. FIBER OPTIC LINES WILL BE RELOCATED BY VERIZON.
- 3. CONTRACTOR SHALL COORDINATE WITH AMTRAK AND UNION PACIFIC RAILROAD PRIOR TO CONSTRUCTION ACTIVITIES.
- A FLAGMEN IS REQUIRED IF WORK IS DONE WITH 25 FEET OF THE CENTERLINE OF THE NEAREST RAIL

RCB © CURVE ALIGNMENT						
CURVE	RADIUS	LENGTH	TANGEN	DELTA		
$\langle 1 \rangle$	120.00'	50.66'	25.71'	24°11'10"		
2	195.22'	34.65'	17.37'	10°10'13"		

		HYDRAULIC	DESIGN DATA	A	
Q (CFS)	E.G. SLOPE (FT/FT)	Vn (FT/S)	Yn (FT)	Yc (FT)	FROUDE. NO.
1840	0.0038	10.22	7.92	4.89	0.65

	REVISIONS		
MARK	DESCRIPTION	DATE	APPR.

STA: 24+09.40

JOIN EX CULVERT

END TRANS STRUCT

∕JOIN EX CULVERT

END TRANS STRUCT

UNAUTHORIZED CHANGES OR USES: THE SANTA BARBARA COUNTY

ANY SUCH CHANGE OR USE.

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

OFFSET -1.72'

STA. 23+97.36

OFFSET 1.66'



RCB CULVERT

EX. CHAPALA BRIDGE -

LDROP INLETEC,

END LT RCB/CULVERT

BEGIN TRANS STRUCT

STA. 23+72.42

OFFSET -16.07'

SEE SHEET FC8

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

28STA. 22+25.22, OFFSET -19.84'

END PIPE HANDRAILING FENCE



STA. 21+57.90

OFFSET -17.64'

GRATED LINE DRAIN

CHAPALA STREET

TETRA TECH 17885 VON KARMAN AVENUE, SUITE 500 IRVINE, CA 9,2614 (949) 809-5000 JUNE 15, 2016 DATE ARIC M. TORREYSON R.C. 66068

STA. 21+39.70

END 9" THICK CONC. SLAB

BEGIN PIPE HANDRAILING

\$7A. 21 + 56.20

OFFSET -18.50

END CONC. SLAB

20

OFFSET -18.81'

END ORNAMENTAL STEEL FENCE BEGIN DOUBLE RCB CULVERT

SCALE 1"=20'

BEGIN 9" THICK CONC. SLAB

BEGIN DOUBLE RCB CULVERT

20

25

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT REACH 2A - BYPASS CULVERT

PLAN AND PROFILE

DATE:	JUNE 2016	
SCALE:	AS SHOWN	
FILE NAME:	T26034FC006.dwg	
DESIGNED BY:	AG	
DRAWN BY:	AG	

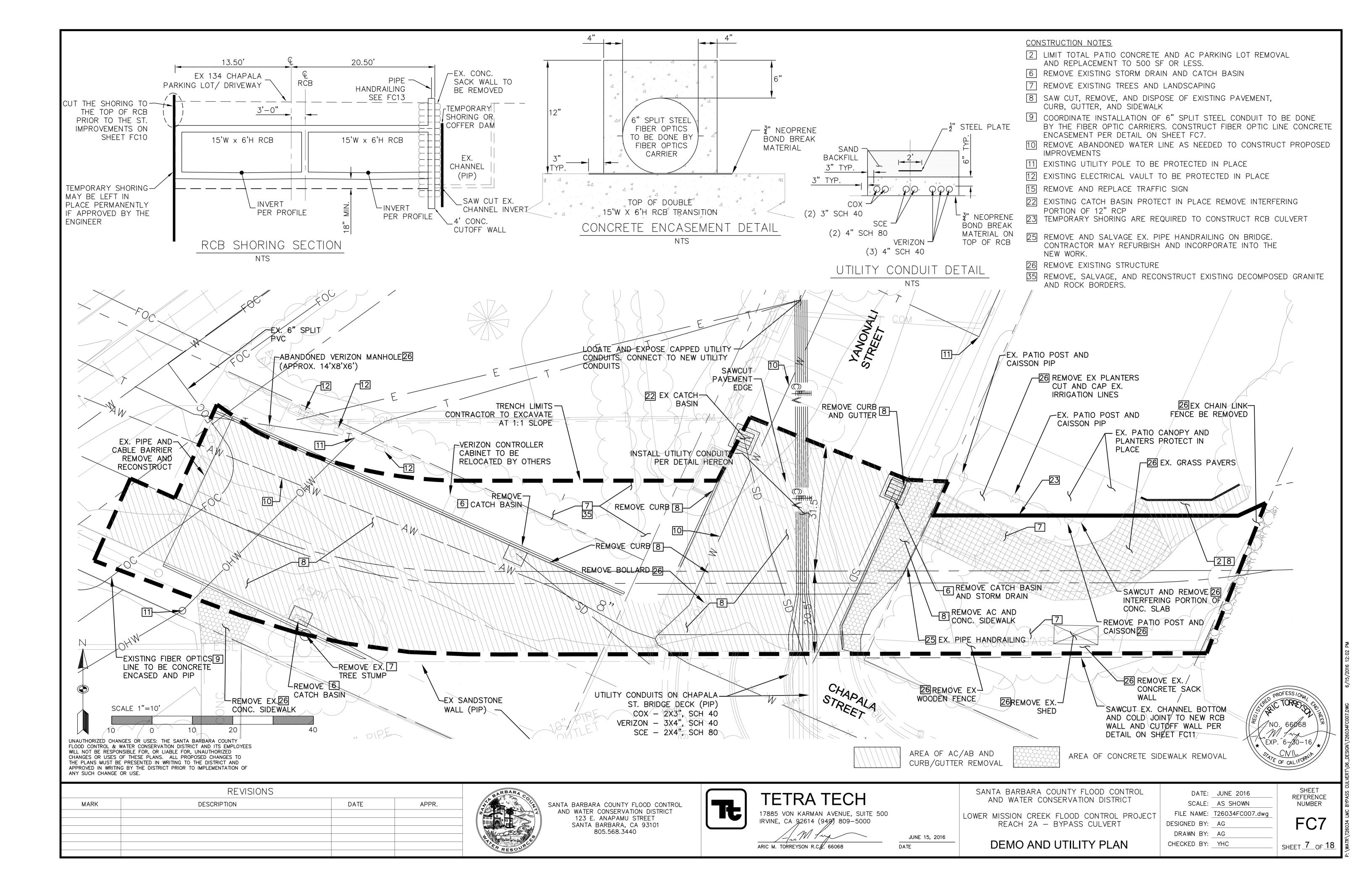
CHECKED BY: YHC

FC6

SHEET REFERENCE

NUMBER

SHEET 6 OF 18



EX CATCH

BASIN (PIP)

(RIP)

\_EX 12" RCP

STA.\_1+26.41 SD LINE A

STA. 1+23.08 SD LINE A

BEGIN TRANS, STRUCTURE

END STRUCTURE

END 18" RCP

BEGIN 18" RCP

STA. 1+00.00

/=STA. 22+45.60/ €

=STA. 22+51.71, RT. 25.71°

STA. 1+45.55 52 =STA. 22+50.90, RT. 22,46"

STA. 1+14.47 SD LINE A 4 16 = STA. 22+48.92, RT. 14.08

-STREET IMPROVEMENTS,

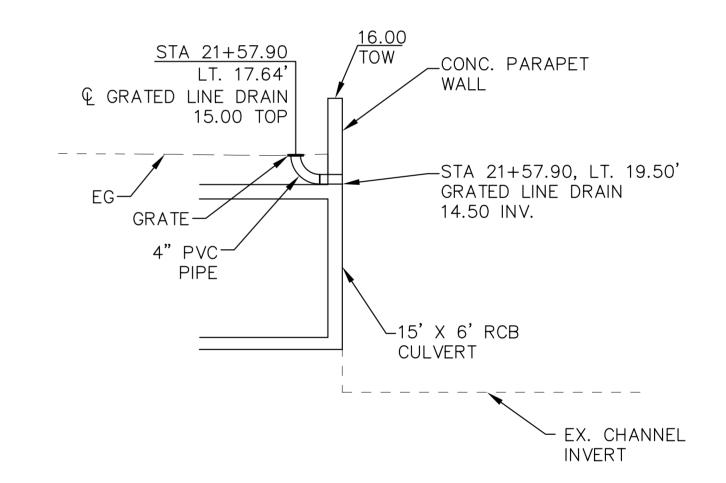
SEE SHEET FC10

STA, 23+70.00, LT. 14.71' 3639

# CONSTRUCTION NOTES

- 4 CONSTRUCT 18" RCP (D-LOAD 2000) PER CITY OF SANTA BARBARA STANDARD DETAILS U-01.0 AND U-01.1.
- [16] CONSTRUCT JUNCTION STRUCTURE— PIPE TO RCB PER APWA STANDARD PLAN 333-2
- [17] CONSTRUCT CURBSIDE GRATING CATCH BASIN PER APWA STANDARD PLAN 303-3, H=2" 2 GRATES
- 29 CONSTRUCT TRANSITION STRUCTURE-PIPE TO PIPE PER APWA STANDARD PLAN 340-2
- 36 CONSTRUCT LOCAL DEPRESSIONS AT CATCH BASINS PER APWA STANDARD PLAN 313-3, CASE F, K=3'
- [37] CONSTRUCT MONOLITHIC CATCH BASIN CONNECTION PER APWA STANDARD PLAN 308-2
- 39 CONSTRUCT DROP INLET THROUGH THE TOP OF THE RCB PER MANHOLE STRUCTURE TO RCB PER APWA DETAIL 323-2 WITH A 36" DIA. TRAFFIC RATED METAL GRATE
- 42 CONSTRUCT GRATED LINE DRAIN (NEEHAH FRAME AND GRATE R-3928 OR APPROVED EQUAL) AND PER DETAIL ON SHEET FC8.

JUNCTION STRUCTURE DESIGN VALUES, PER APWA STANDARD PLAN 340-2						
JUNCTION STRUCTURE	ANGLE, A	В	С			
STORM DRAIN LINE A	76.74°	18"	2.05			
STORM DRAIN LINE B	76.34°	18"	2.05'			
	JUNCTION STRUCTURE STORM DRAIN LINE A	STANDARD PLAN 340  JUNCTION STRUCTURE ANGLE, A  STORM DRAIN LINE A 76.74°	STANDARD PLAN 340-2  JUNCTION STRUCTURE ANGLE, A B  STORM DRAIN LINE A 76.74° 18"			



GRATED LINE DRAIN DETAIL NTS

SCALE 1"=20'

PROFESS/ONA/	
PROFESSIONAL CIED NO. 66068	
In M lug t	
EXP. 6-30-16/*  OF CALIFORNIA	

SHEET REFERENCE

NUMBER

	REVISIONS		
MARK	DESCRIPTION	DATE	APPR.

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.

36|39| STA. 23+10.02, RT. 3,74

DROP INLET D 17.04 TOP

17.09 TOP



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

STA. 1+00.00

GRADE TO DRAIN

STA. 21+57.90, LT. 17.64 GRATED LINE DRAIN

⇒STA. 22+06.58 €



=STA. 22+13.15, RT. 27.05, 173637

=STA. 22+10.00, RT. 14.08 4 16

END 18" RCP

BEGIN 18" RCP

STA. 1+14.49 SD LINE B



ARIC M. TORREYSON R.C. 66068

17885 VON KARMAN AVENUE, SUITE 500 IRVINE, CA 9,2614 (949) 809-5000 JUNE 15, 2016 DATE

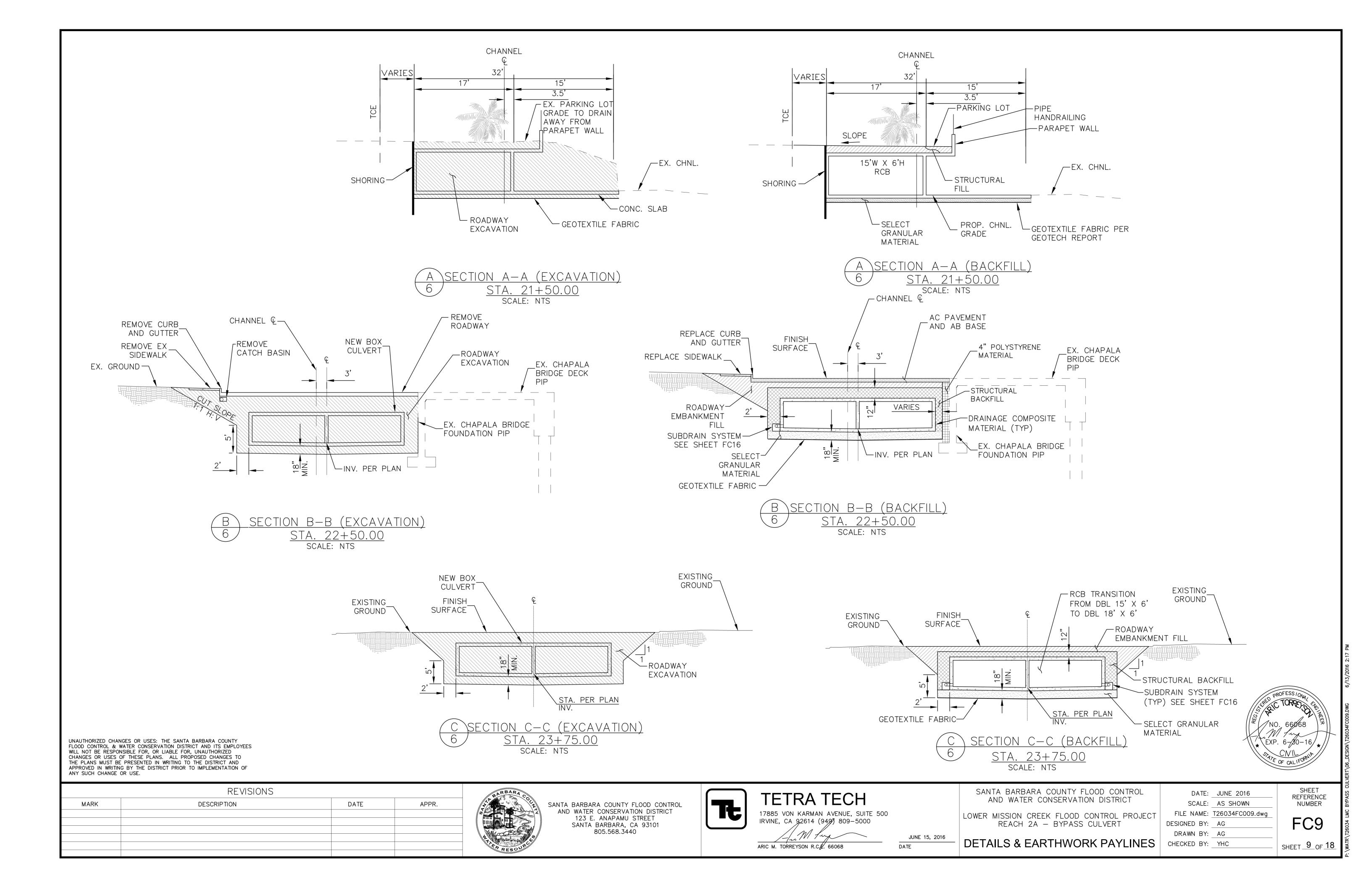
SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

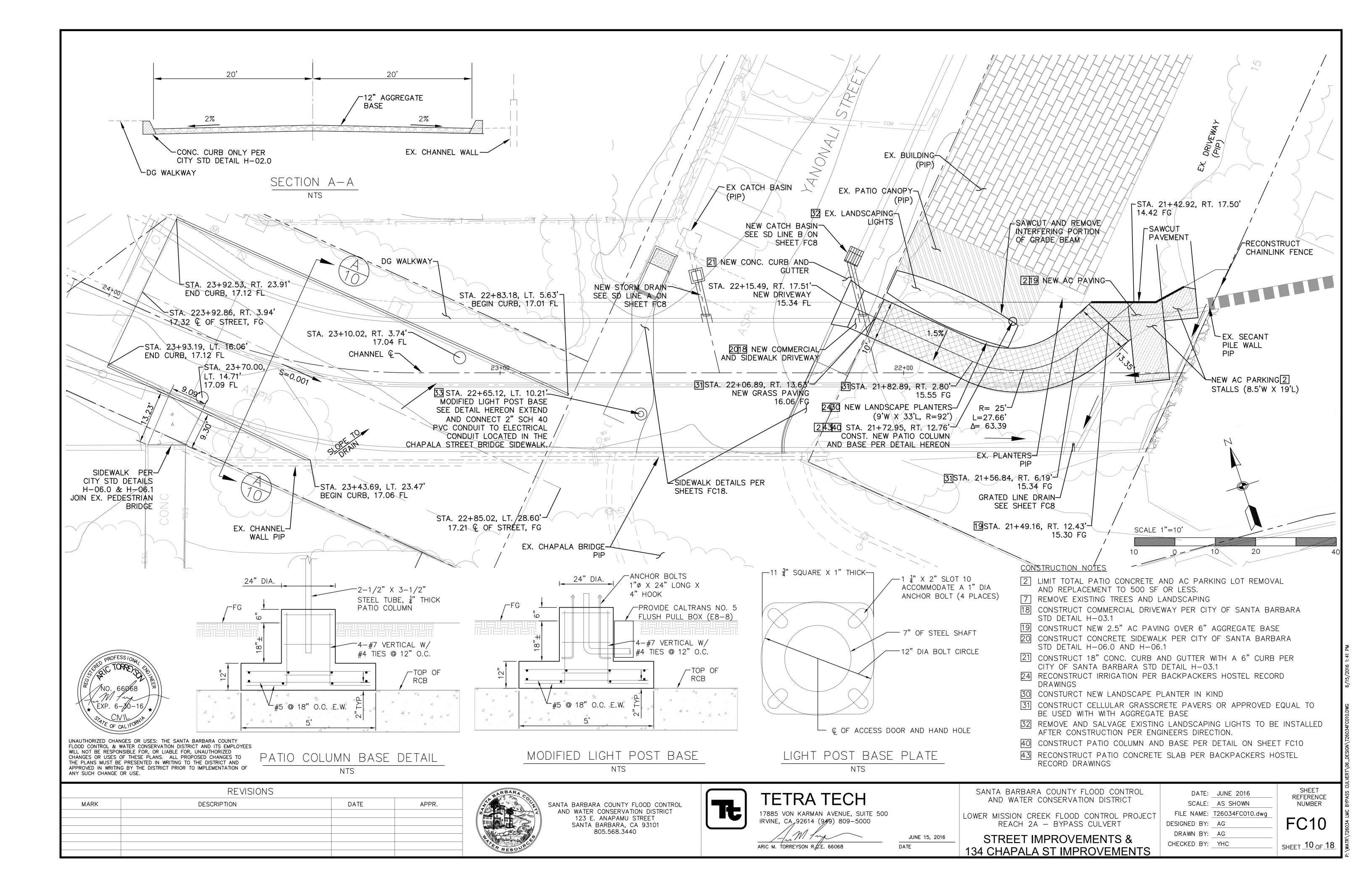
LOWER MISSION CREEK FLOOD CONTROL PROJECT REACH 2A - BYPASS CULVERT

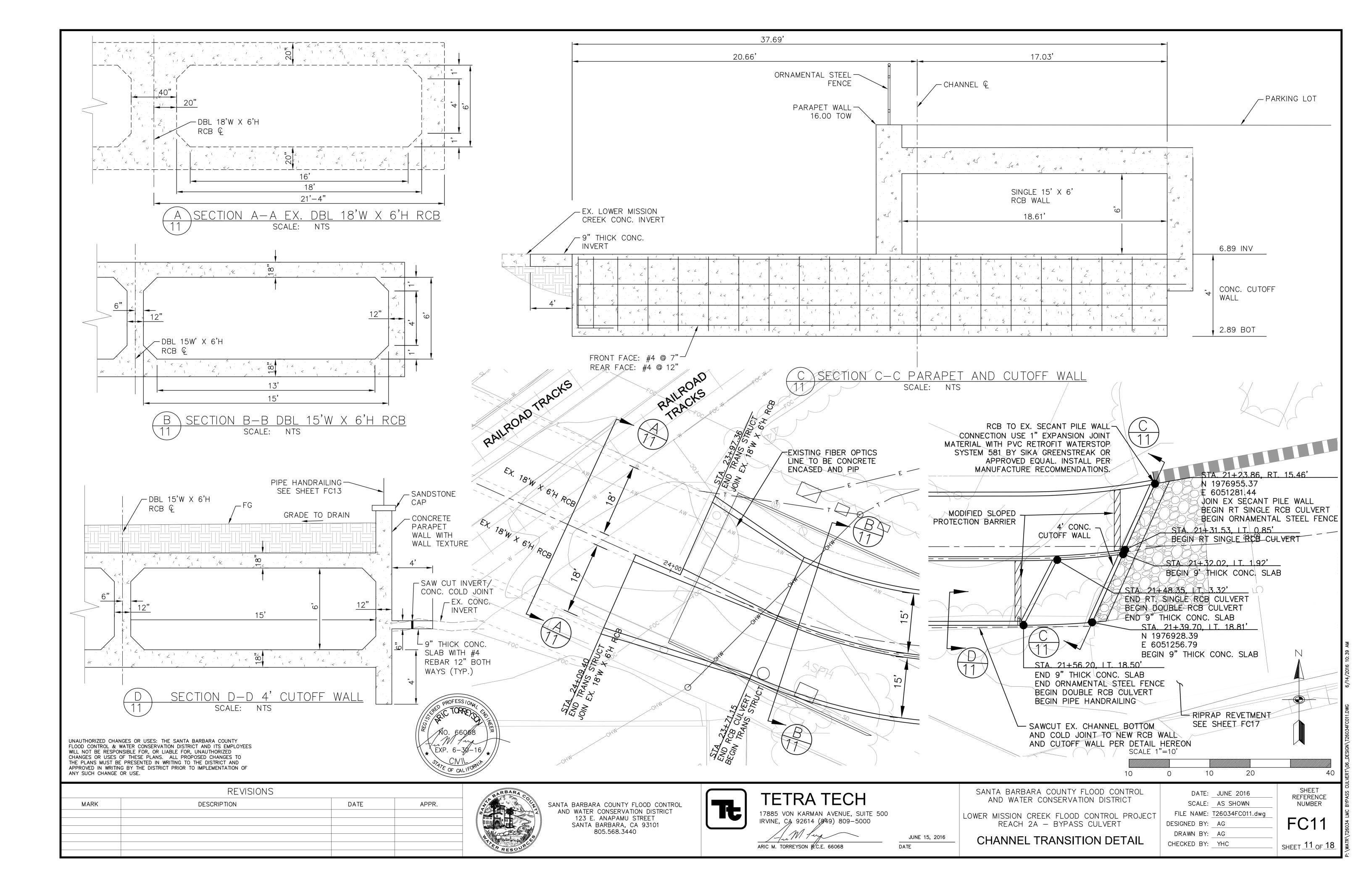
STORM DRAIN LATERAL
PLAN AND PROFILE

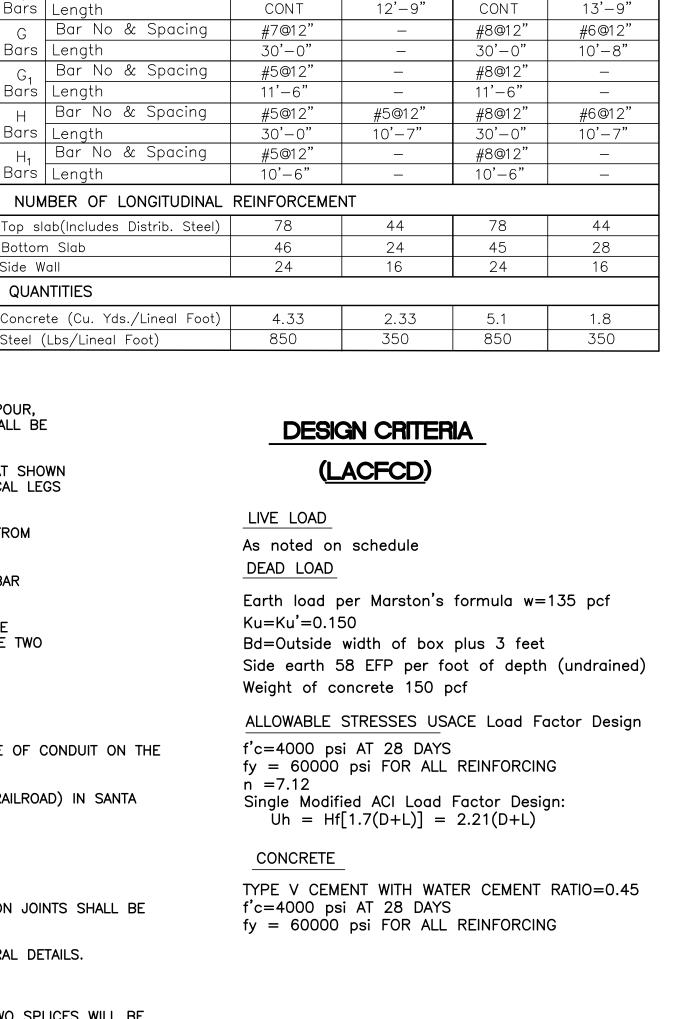
JUNE 2016
AS SHOWN
T26034FC008.dwg
AG

DRAWN BY: AG CHECKED BY: YHC SHEET 8 OF 18









SINGLE

LMC

15'-0"

HS 20-44

18"

18"

#6@12"

CONT

#5@12<sup>'</sup>

10'-7"

#5@12"

#7@12"

5'-6"

#5@12"

#7@12"

7'-0"

#5@12<sup>°</sup>

CONT

#6@12"

CONT

#5@12"

6'-0"

DOUBLE

15'-0"

6'-0"

HS 20-44

#6@12"

CONT

#5@12<sup>'</sup>

CONT

#5@12<sup>'</sup>

7'-4"

7'-9"

#5@12'

4'-1"

7'-9'

4'-5'

3'-8" 4'-5"

**#5@12** 

#5@12"

#5@12<sup>°</sup>

#6@12"

#5@12"

CONT

CONT

DOUBLE

LMC

6'-0"

#6@12'

CONT

#8@12

CONT

#5@12"

7'-4"

7'-9"

#6@12"

4'-1"

7'-9"

#5@12"

4'-5"

3'-8"

4'-5"

#5@12"

CONT

#6@12"

#6@12"

CONT

#5@12"

HS 20-44

SINGLE

LMC

3'-0"

18'-0"

6'-0"

HS 20-44

18"

12"

18"

#7@12"

CONT

#6@12

13'-7'

#6@12'

8'-4"

7'-10"

5'-6"

8'-1"

#6@12'

8'-6"

4'-11"

#7@12"

6'-2"

7'-0"

#5@12"

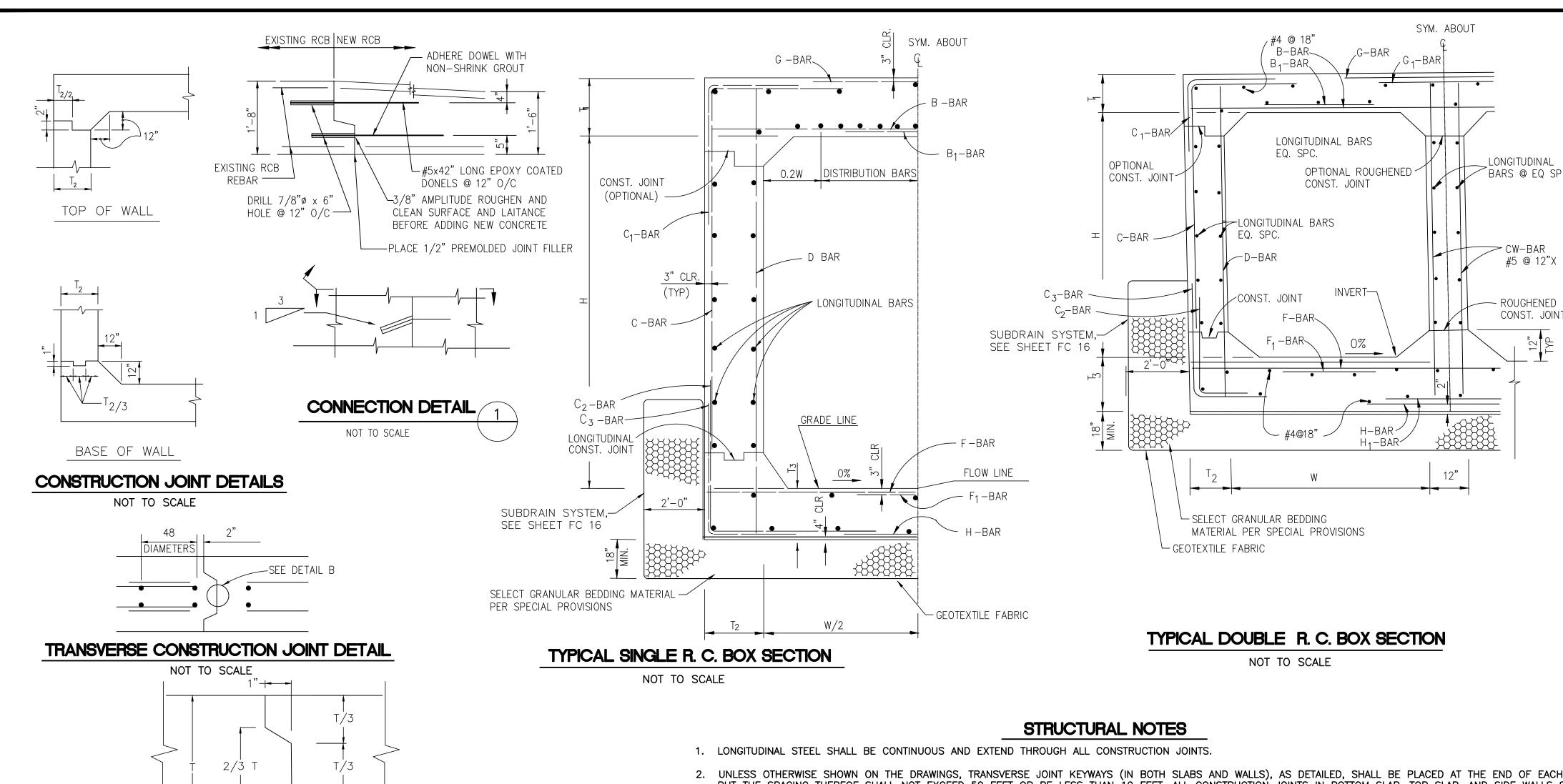
CONT

#7@12"

CONT

#6@12"

#7@12"



- 2. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, TRANSVERSE JOINT KEYWAYS (IN BOTH SLABS AND WALLS), AS DETAILED, SHALL BE PLACED AT THE END OF EACH POUR, BUT THE SPACING THEREOF SHALL NOT EXCEED 50 FEET OR BE LESS THAN 10 FEET. ALL CONSTRUCTION JOINTS IN BOTTOM SLAB, TOP SLAB, AND SIDE WALLS SHALL BE IN THE SAME PLANE, NO STAGGERING OF JOINTS WILL BE PERMITTED.
- UNLESS OTHERWISE SHOWN ON THE DETAILS, IN CURVED SECTIONS TRANSVERSE BARS SHALL BE PLACED RADIAL TO CENTERLINE WITH SPACING NOT TO EXCEED THAT SHOWN ON SCHEDULE STRAIGHT BARS AND L-BARS IN WALLS SHALL BE SPACED AS SHOWN ON THE TYPICAL SECTIONS, WITH THE SPACING MEASURED BETWEEN THE VERTICAL LEGS OF BARS.
- 4. AT THE BEGINNING AND ENDING OF ALL POURS, A CURTAIN OF REINFORCEMENT COMPOSED OF B, C, C2, D, F, G, AND H BARS SHALL BE PLACED THREE INCHES FROM THE TRANSVERSE CONSTRUCTION JOINT, MAINTAIN 1.5" CLEARANCE FROM KEY OF CONSTRUCTION JOINT,
- 5. THE VERTICAL WALL STEEL IN THE INTERIOR FACE OF WALLS MAY BE SPLICED AT THE CONSTRUCTION JOINT AT THE BASE OF THE WALL THE SPLICE SHALL BE 49 BAR
- 6. IN ALL SECTIONS LAP C AND C2 BARS. THE VERTICAL LENGTH OF C AND C2 BARS HAS BEEN CALCULATED FOR A FOUR INCH STARTER WALL. IF THE HEIGHT OF THE STARTER WALL IS VARIED, THE VERTICAL LENGTH OF THE C AND C2 BARD SHALL BE CORRESPONDINGLY SO AS TO MAINTAIN A 49 BAR DIAMETERS LAP BETWEEN THE TWO BARS. THE LAPS SHALL BE BASED ON THE SMALLER BAR.
- 7. INVERT FINISH: CHANNEL INVERT SURFACE SHALL BE GIVEN A STEEL TROWEL FINISH.
- 8. DIMENSIONS FROM FACE OF CONCRETE TO STEEL SHALL BE 3" CLEAR UNLESS OTHERWISE SHOWN
- CONCRETE DIMENSIONS SHALL BE MEASURED HORIZONTALLY OR VERTICALLY ON THE PROFILE, AND PARALLEL TO OR AT RIGHT ANGLES (OR RADIALLY) TO CENTERLINE OF CONDUIT ON THE PLAN EXCEPT AS OTHERWISE SHOWN.
- 10. SOIL DESIGN CRITERIA PER BENGAL ENGINEERING, INC. "GEOTECHNICAL REPORT FOR LOWER MISSION CREEK BYPASS CULVERT (YANONALI STREET TO UNION PACIFIC RAILROAD) IN SANTA BARBARA, CALIFORNIA", DATED AUGUST, 2010.
- 11. LONGITUDINAL STEEL SHALL BE LAPPED 49 BAR DIAMETERS AT SPLICES. TRANSVERSE STEEL SHALL BE LAPPED 49 BAR DIAMETERS AT SPLICES.
- 12. TRANSVERSE CONSTRUCTION JOINTS SHALL NOT BE PLACED WITHIN 4 FEET OF MANHOLE OR JUNCTION STRUCTURE OPENINGS.
- 13. TRANSVERSE CONSTRUCTION JOINTS IN WALLS AND SLABS SHALL BE IN THE SAME PLANE, NO STAGGERING OF JOINTS WILL BE PERMITTED. TRANSVERSE CONSTRUCTION JOINTS SHALL BE NORMAL OR RADIAL TO THE CENTERLINE OF CONSTRUCTION.
- 14. THE TRANSVERSE REINFORCING STEEL SHALL TERMINATE ONE AND ONE-HALF INCHES FROM THE CONCRETE SURFACES UNLESS OTHERWISE SHOWN ON THE STRUCTURAL DETAILS.
- 15. EXPOSED EDGES OF CONCRETE MEMBERS SHALL BE ROUNDED, BEVELED, OR CHAMFERED.
- 16. NO SPLICES IN TRANSVERSE STEEL REINFORCEMENT WILL BE PERMITTED OTHER THAN SHOWN ON THE DRAWING WITHOUT APPROVAL OF ENGINEER. NO MORE THAN TWO SPLICES WILL BE PERMITTED IN ANY LONGITUDINAL BAR BETWEEN TRANSVERSE JOINTS. SPLICES SHALL BE STAGGERED, AND STAGGERS SHALL NOT BE IN THE SAME PLANE.
- 17. WATERSTOP AT CHAPALA ST BRIDGE SHALL BE PVC RETROFIT WATERSTOP SYSTEM 581 BY SIKA GREENSTREAK OR APPROVED EQUAL. INSTALL PER MANUFACTURER RECOMMENDATIONS.

# REVISIONS DESCRIPTION APPR. MARK DATE

-CHAMFER, CHANNEL

@ 12"-

1" CHAMFER-

**DETAIL B** FACE

-RCB REINF

NOT TO SCALE

<del>~</del>#4@12"

**CLOSURE WALL AT** 

CHAPALA ST BRIDGE

NOT TO SCALE

#4@12"

UNAUTHORIZED CHANGES OR USES: THE SANTA BARBARA COUNTY

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

FLOOD CONTROL & WATER CONSERVATION DISTRICT AND ITS EMPLOYEES WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED

2'-0" MAX

FIELD VERIFY

EX. CHAPALA ST-

(BY OTHERS)

BRIDGE ABUTMENT

OFFSET AS REQ'D

FIELD VERIFY

NOTE 17

ANY SUCH CHANGE OR USE.

WATERSTOP, SEE -

1" EXP JT MATERIAL

9"---

-- PIPE HANDRAILING

OR ORNAMENTAL

CIVIL PLANS

(6 TOT)

RCB PARAPET DETAIL

NOT TO SCALE

STEEL FENCE PER

FG PER CIVIL PLANS

-RCB REINF



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



WILBERT Y. CHO R.C.E. NO. C36266



JUNE 2016

DATE

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

**BOX SECTION** 

Design Cover

Width

Height

LIVE LOAD

Bars | Lenath

Bars |

Bars

Top Slab Thickness

Side Wall Thickness

nvert Slab Thickness

nterior Wall Thickness 74

Horiz. Length

Vert. Length

Horiz. Length

Vert. Length

Horiz. Length

Horiz. Length

Vert. Length

Bars | Length

Bars | Length

Bars | Lenath

Bars | Length

Bars | Length

Bars | Length

Bars | Length

Bottom Slab

**QUANTITIES** 

Side Wall

Vert. Length

Bar No & Spacing

LOWER MISSION CREEK FLOOD CONTROL PROJECT REACH 2A - BYPASS CULVERT

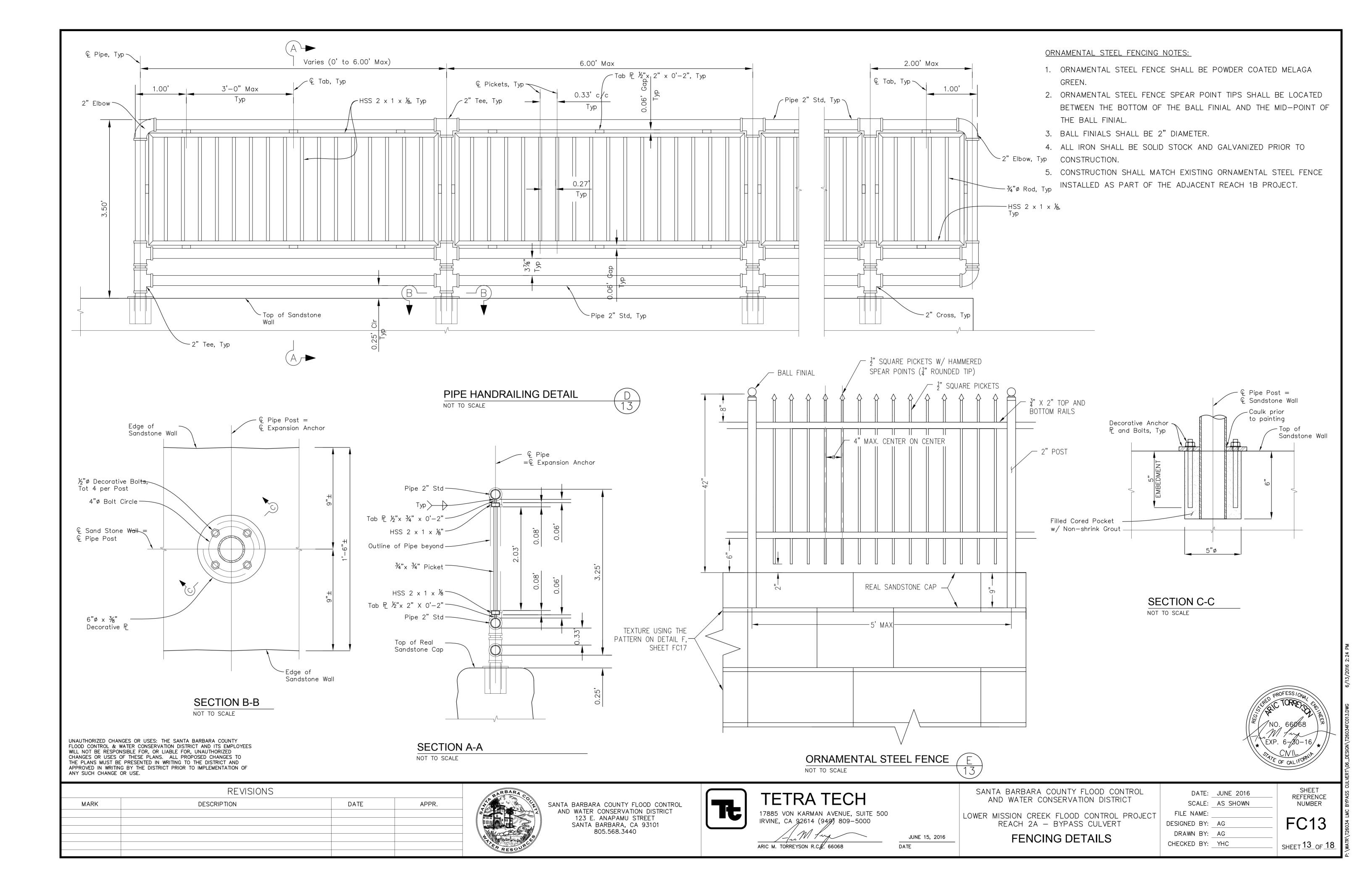
RCB DETAILS

DATE: JULY 2013 SCALE: AS SHOWN FILE NAME: DESIGNED BY: AG DRAWN BY: AG CHECKED BY: YHC

NUMBER SHEET 12 OF 17

SHEET

REFERENCE





# CONSTRUCTION NOTES:

	CONSTRUCTION	N AREA SIGNS
SIGN #	SIGN CODE	DESCRIPTION
1	W20-1	ROAD WORK AHEAD
2	W20-3	ROAD CLOSED AHEAD
3	R11-2	ROAD CLOSED
4	_	PLACE TYPE III BARRICADE WITH SIGN, AS SHOWN (2 BARRICADES IN EACH LOCATION).
5	W20-3	ROAD CLOSED AHEAD
6	R11-3a	ROAD CLOSED AHEAD LOCAL TRAFFIC ONLY
7	M4-10 AND GUIDE SIGN	DETOUR RIGHT AND "TO YOUTH HOSTEL"
8	M4-10 AND GUIDE SIGN	DETOUR LEFT AND "TO YOUTH HOSTEL"

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.



PLAN NTS

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



TETRA TECH 17885 VON KARMAN AVENUE, SUITE 500 IRVINE, CA 92614 (949) 809-5000

ARIC M. TORREYSON R.C. 66068

JUNE 15, 2016 DATE

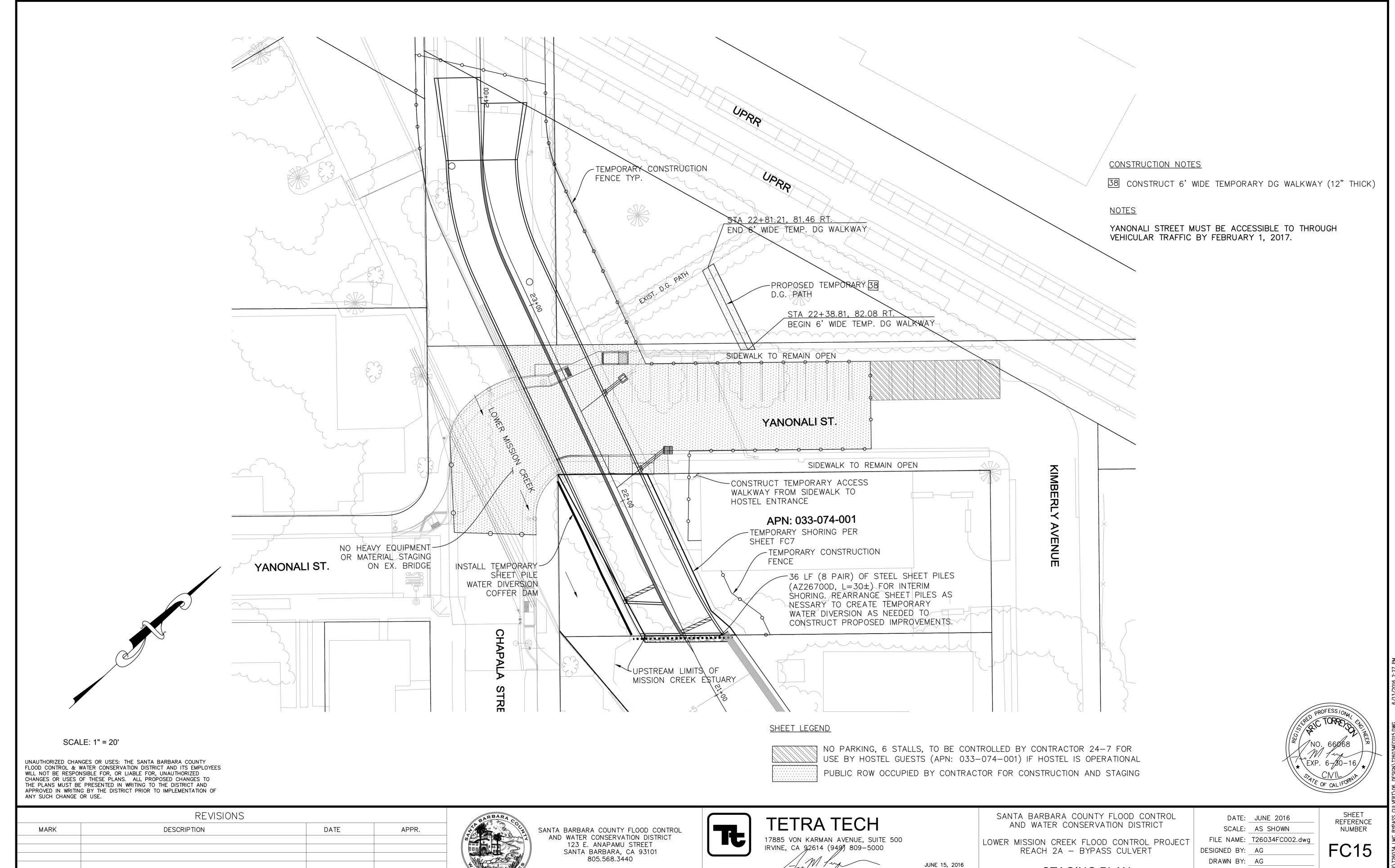
SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT REACH 2A - BYPASS CULVERT

DATE:	JUNE 2016
SCALE:	AS SHOWN
FILE NAME:	T26034FC010.dwg
DESIGNED BY:	AG

DRAWN BY: AG CHECKED BY: YHC

SHEET REFERENCE NUMBER FC14 SHEET 14 OF 18



SHEET 15 OF 18

STAGING PLAN

DATE

ARIC M. TORREYSON R.C. 66068

CHECKED BY: YHC

CONSTRUCTION—

5" MAX. CLEANOUT AND OUTLET END DETAIL

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 DISTRICT 123 E. ANAPAMU STREET SANTA BARBARA, CA 93101 805.568.3440



SCALE: NTS

TETRA TECH 17885 VON KARMAN AVENUE, SUITE 500 IRVINE, CA 9,2614 (949) 809-5000

DATE ARIC M. TORREYSON R.C. 66068

JUNE 15, 2016

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT REACH 2A - BYPASS CULVERT

SUBDRAIN	DETAILS
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	DATE:	JUNE 2016
	SCALE:	AS SHOWN
Т	FILE NAME:T	26034FC016.
	DESIGNED BY:	AG

SECTION B-B

4 4 4 4 4 4

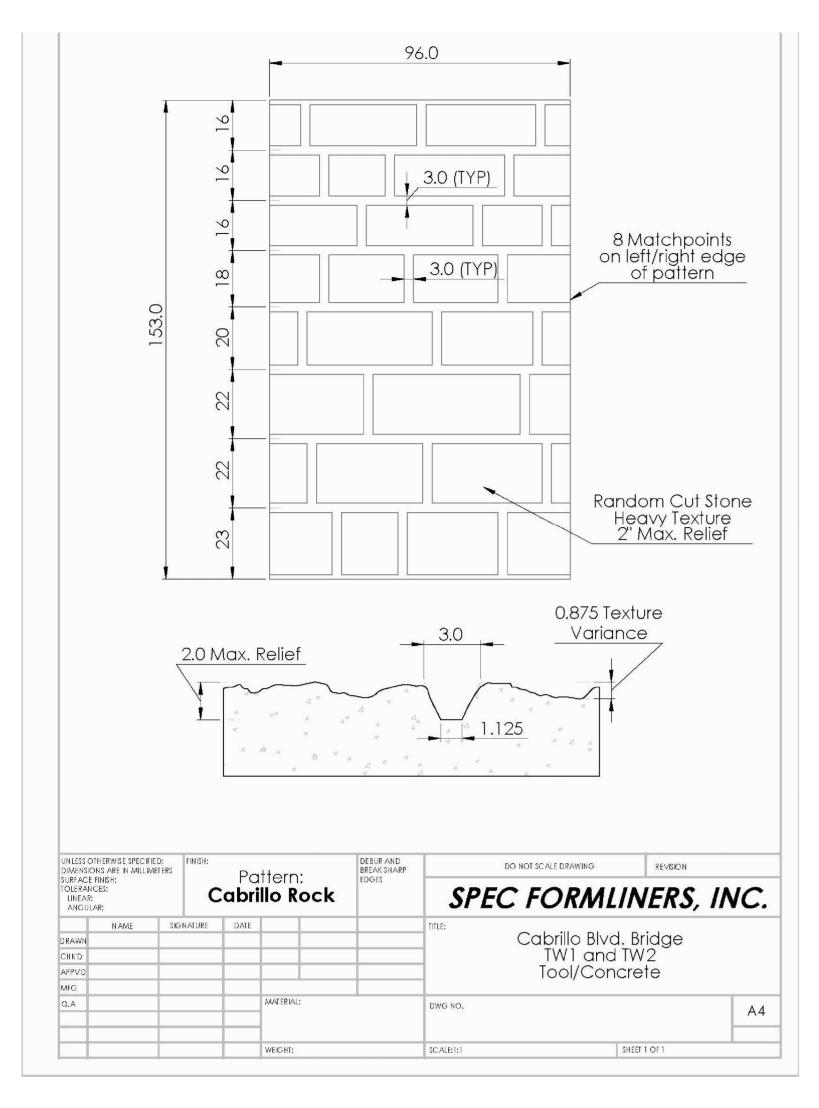
-- SELECT GRANUALR

MATERIAL

DRAWN BY: AG CHECKED BY: YHC

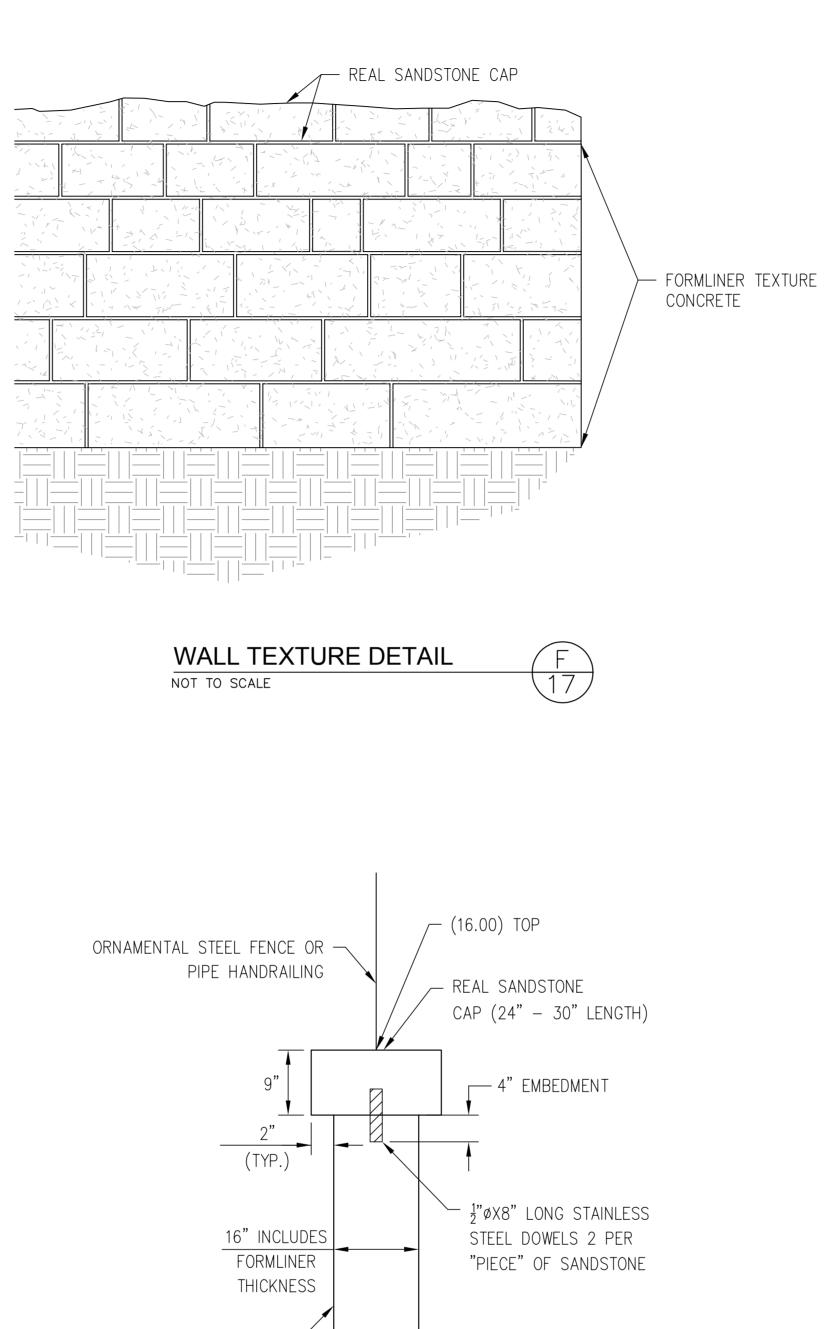
SHEET REFERENCE NUMBER

SHEET 16 OF 18

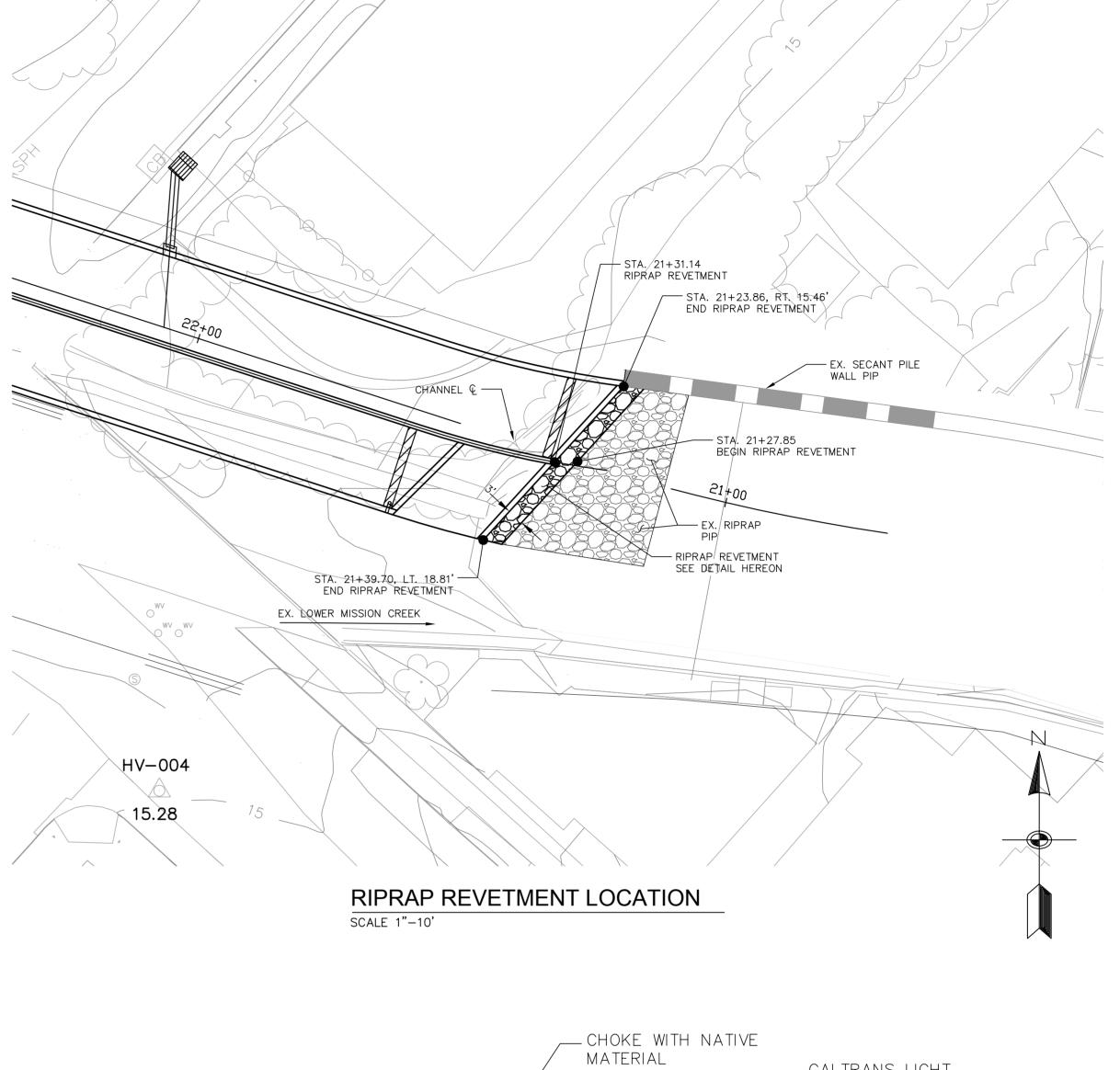


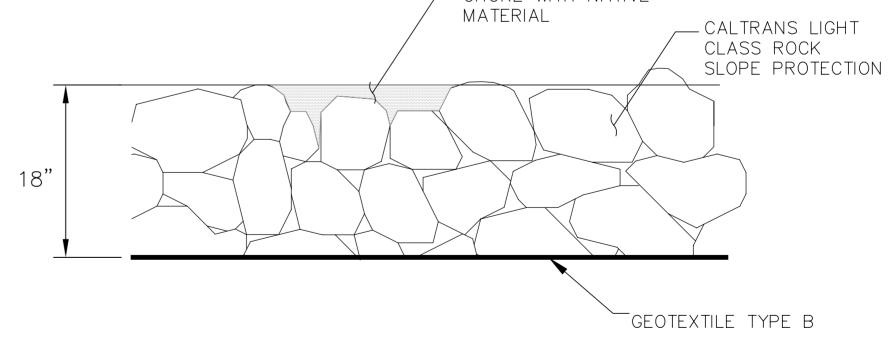
# WALL TEXTURE NOTES:

- 1. SANDSTONE BLOCK LENGTHS VARY 12", 18", 34", 40", 43" TYP.
- 2. FORMLINER TEXTURED CONCRETE SHALL BE INTEGRALLY COLORED DAVIS- COLOR "MESA BLUFF", OR APPROVED EQUIVALENT.



TOP OF PARAPET WALL REAL SANDSTONE CAP NOT TO SCALE





RIPRAP REVETMENT NOT TO SCALE

	H	\
abla	6	J

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.



PARAPET WALL

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



TETRA TECH
17885 VON KARMAN AVENUE, SUITE 500 IRVINE, CA 92614 (949) 809-5000

ARIC M. TORREYSON R.C. 66068

JUNE 15, 2016

DATE

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT LOWER MISSION CREEK FLOOD CONTROL PROJECT

REACH 2A - BYPASS CULVERT
WALL TREATMENT &
MISC. DETAILS

DATE:	JUNE 2016
SCALE:	AS SHOWN
FILE NAME:	
ESIGNED BY:	AG
DRAWN BY:	AG

SHEET REFERENCE NUMBER FC17 CHECKED BY: YHC SHEET 17 OF 18



DATE

BC CURB

APPR.

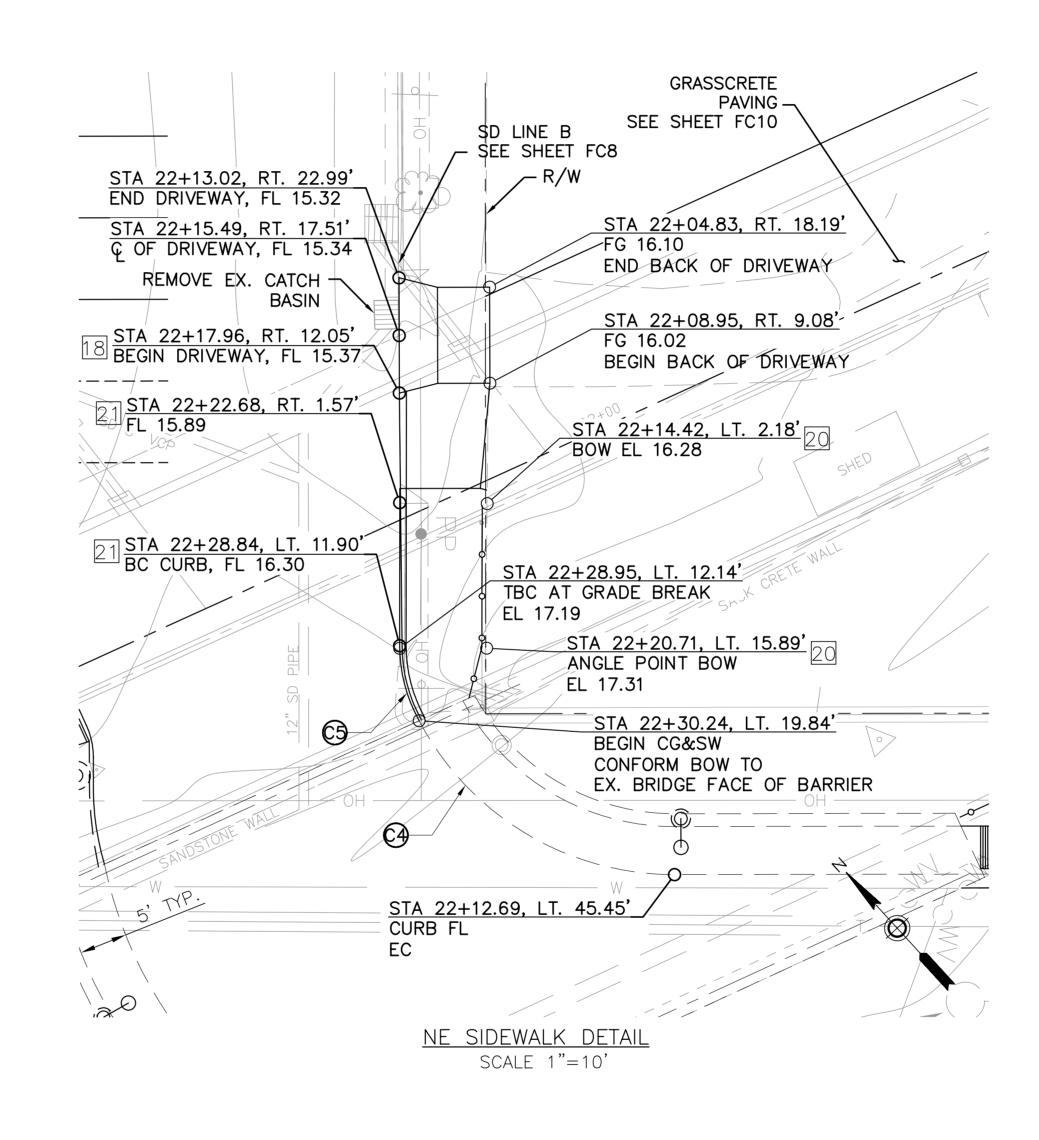
FL 16.59

CURB FLOW LINE CURVE DATA CURVE NO. RADIUS LENGTH TANGENT DELTA 24°32'10" 10.00 4.28 2.17 3.43 1.74 24°32'10" 8.00 18°01'11" 44.25 8.98 4.50 32.73 62°30'37" 30.00 18.21 15.98 8.06 4.12 28°53'57"

#### CONSTRUCTION NOTES

- [18] CONSTRUCT COMMERCIAL DRIVEWAY PER CITY OF SANTA BARBARA STD DETAIL H-03.1
- [20] CONSTRUCT CONCRETE SIDEWALK PER CITY OF SANTA BARBARA STD DETAIL H-06.0 AND H-06.1
- 21 CONSTRUCT 18" CONC. CURB AND GUTTER WITH A 6" CURB PER CITY OF SANTA BARBARA STD DETAIL H-03.1
- [41] CONSTRUCT 30" ROLLED CURB AND GUTTER PER CITY OF SANTA BARBARA STANDARD DETAIL H-02.1.

AC ROADWAY NOTE: YANONALI STREET SECTION TO BE 6" AC OVER 12" OF AB. MATCH ROADWAY CROWNS.



NOTE: CONTRACTOR TO VERIFY EXISTING AND PROPOSED ELEVATIONS PRIOR TO CONSTRUCTION OF STREET IMPROVEMENTS. IF THERE ARE ANY DISCREPANCIES CONTRACTOR TO REPORT CONFLICT TO THE ENGINEER FOR RESOLUTION.

APPROVED IN WRITING BY THE DISTRICT PRIOR TO IMPLEMENTATION OF ANY SUCH CHANGE OR USE.			
REVISIONS			
MARK	DESCRIPTION		

UNAUTHORIZED CHANGES OR USES: THE SANTA BARBARA COUNTY

CHANGES OR USES OF THESE PLANS. ALL PROPOSED CHANGES TO THE PLANS MUST BE PRESENTED IN WRITING TO THE DISTRICT AND

FLOOD CONTROL & WATER CONSERVATION DISTRICT AND ITS EMPLOYEES WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED

EL 17.03



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



TETRA TECH

17885 VON KARMAN AVENUE, SUITE 500

IRVINE, CA 9,2614 (94%) 809-5000 ARIC M. TORREYSON R.C. 66068

JUNE 15, 2016

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK FLOOD CONTROL PROJECT REACH 2A - BYPASS CULVERT

STREET	IMPROVEMENT DETAILS	

	SHEET REFERENCE
AS SHOWN	NUMBER
	<b>-</b> 040
AG	FC18
AG	
YHC	SHEET 18 OF 18
	JUNE 2016 AS SHOWN  AG AG YHC

FERENCE