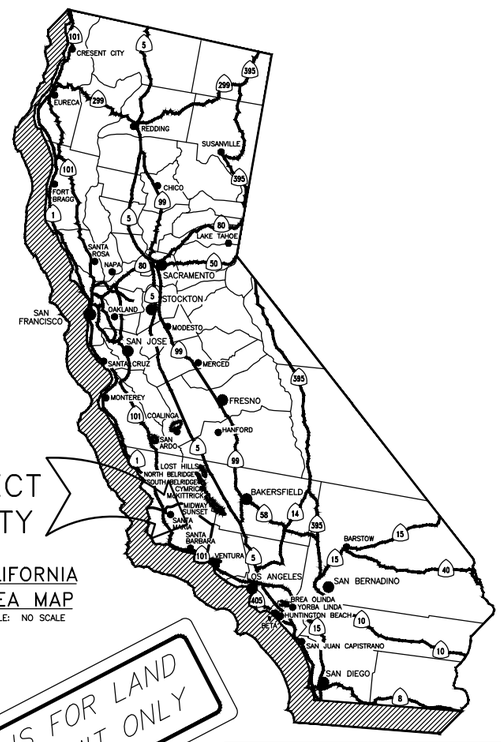
TITLE SHEET/VICINITY MAP/DRAWING INDEX – CIVIL FIELD ENTRANCES
FIELD REDEVELOPMENT PROJECT
SECTIONS 20/29 & 30 T9N R32W
EAST CAT CANYON FIELD – SANTA BARBARA COUNTY – CALIFORNIA



PROJECT VICINITY

CALIFORNIA AREA MAP

SCALE: NO SCALE

THIS IS FOR LAND USE PERMIT ONLY

	DRAWING INDEX		
	FILE NO.	REV.	DESCRIPTION
REV 1	072–13–013A	1	TITLE SHEET/DRAWING INDEX/VICINITY MAP – CIVIL FIELD ENTRANCES
	072–13–014A	0	CONSTRUCTION NOTES
	072–13–014B	0	CONSTRUCTION NOTES – SANTA BARBARA
	072–13–015A	0	SITE LOCATION PLAN
REV 1	072–13–016A	1	PLAN & PROFILE – LONG CANYON ROAD ENTRANCE 1
	072–13–016B	0	PLAN & PROFILE – LONG CANYON ROAD ENTRANCE 2
	072–13–016C	0	PLAN & PROFILE – LONG CANYON ROAD ENTRANCE 3
	072–13–016D	0	PLAN & PROFILE – CAT CANYON ENTRANCE
	072–13–016E	0	PLAN & PROFILE – CAT CANYON ENTRANCE
	072–13–016F	0	PLAN & PROFILE – CAT CANYON ENTRANCE
	072–13–016G	0	PLAN & PROFILE – CENTRAL PROCESSING AREA ACCESS ROAD
	072–13–017A	0	PAVING PLAN – LONG CANYON ROAD ENTRANCE 1
	072–13–017B	0	PAVING PLAN – LONG CANYON ROAD ENTRANCE 2
	072–13–017C	0	PAVING PLAN – LONG CANYON ROAD ENTRANCE 3
	072–13–017D	0	PAVING PLAN – CAT CANYON ENTRANCE
	072–13–018A	0	GRADING DETAILS
	072–13–019A	0	PAVING DETAILS

PROJECT OWNER

AERA ENERGY LLC
10000 MING AVENUE
BAKERSFIELD, CA 93311
ENGINEER: ERIC PAULSON
PH.: 661–665–5359

ENGINEER

T.J. CROSS ENGINEERS, INC.
200 NEW STINE ROAD, SUITE 270
BAKERSFIELD, CALIFORNIA 93309
ROBIN DICKERSON, P.E.
PH.: 661–831–8782 x217
FAX: 661–831–5019

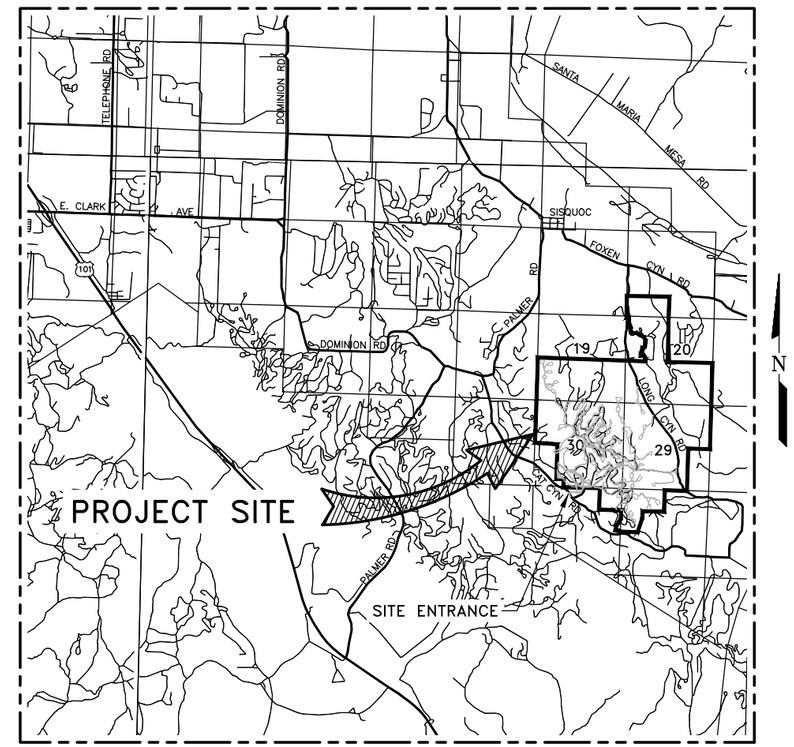
GEOTECH

FUGRO CONSULTANTS, INC.
4820 McGRATH STREET, SUITE 100
BAKERSFIELD, CALIFORNIA 93003
PH.: 805–650–7000
FAX: 805–650–7010

NOT ISSUED FOR CONSTRUCTION

NOTE:

PROJECT SITE IS LOCATED WITHIN AREA OF POTENTIAL H_2S GAS CONCENTRATIONS. ALL PERSONNEL, CONTRACTORS AND VISITORS MUST BE EQUIPPED WITH AN APPROPRIATE MONITORING DEVICE OR ACCOMPANIED BY AERA PERSONNEL.



VICINITY MAP

SCALE: NO SCALE

PROJECT LOCATION DESCRIPTION

FROM HIGHWAY 101, TAKE PALMER RD. NORTH APPROX. 4.5 MILES TO CAT CANYON RD. TURN RIGHT ON CAT CANYON RD. AND GO SOUTH APPROX. 1.8 MILES. TURN LEFT ONTO OIL FIELD ROAD AND GO PAST GATE AND TURN LEFT. GO NORTH APPROX. 0.25 MILES TO AREA FIELD OFFICE.

PROPERTY / PROJECT INFORMATION

PROJECT PURPOSE:	**GRADING FOR FIELD REDEVELOPMENT**
ADDRESS:	6516 CAT CANYON ROAD
APN:	129–210–017, 101–040–005, 101–040–006, 101–050–042, 101–040–011, 101–040–012, 101–040–013, 101–040–014, 101–050–013, 101–040–019, 101–040–020, 101–050–014, 101–070–007, 101–050–002
GRADING DESIGNATION:	ENGINEERED GRADING
EXCAVATION QUANTITY:	7,749 (CU. YDS.)
FILL QUANTITY:	40,548 (CU. YDS.)
DISTURBED AREA:	4.1 ACRES
DESIGN CODE:	CURRENT ISSUE OF SANTA BARBARA COUNTY GRADING & BUILDING CODE
ZONING:	ZONE "Ag–II–100 & AC" / AGRICULTURE & AGRICULTURAL COMMERCIAL
LAND USE DESIGNATION:	OIL AND GAS EXPLORATION AND PRODUCTION

DWG NUMBER	TITLE
072–013–015A	SITE LOCATION PLAN
072–13–013A	TITLE SHEET/DRAWING INDEX/VICINITY MAP

REFERENCE DRAWINGS

TJCROSS ENGINEERS

T.J. CROSS AUTOCAD CONTROL

SCALE: NONE	FILE: 13186/072–13–013A
PLOT AT: 1=1	LAYER(S):
ENGINEER: RSD	CHANGED BY: IDU
DATE STARTED: 04/17/14	LAST CHANGED: 09/17/14

DATE	REV	DESCRIPTION	BY	APPR	AERA ENG
09/17/14	1	RE–ISSUED FOR PERMIT (LNG CYN CULVERT SIZE)	IDU	RSD	EP
08/01/14	0	ISSUED FOR PERMIT	IDU	RSD	EP
06/03/14	A	ISSUED FOR REVIEW	IDU	RSD	EP

AERA

TITLE SHEET/DRAWING INDEX/VICINITY MAP – CIVIL FIELD ENTRANCES
FIELD REDEVELOPMENT PROJECT
SECTIONS 20/29 & 30 T9N R32W
EAST CAT CANYON FIELD – SANTA BARBARA COUNTY – CALIFORNIA

AERA ENGINEER:	ERIC PAULSON	DATE: 09/17/14	SCALE: NO SCALE
CO. ENGINEER:	TJCROSS ENGINEERS, INC	ORIGINAL DWG NO.	
PROJ. MGR:	ALI GOKGOZ	NO. 072–13–013A	REV. 1
DESIGNED BY:	ROBIN DICKERSON		
DRAFTED BY:	ISAC URBINA		
ECCN NO.	EAR99	CAD FILE NO. 072–13–013A	

:FUNCTIONAL LOCATION NO.

CONSTRUCTION NOTES

SITE PREPARATION AND GRADING PLAN

ESTIMATED CONSTRUCTION QUANTITIES:
AREA DISTURBED – ~4.1 ACRES
EXCAVATION – 7,749 CUBIC YARDS
FILL – 40,548 CUBIC YARDS

EARTHWORK NOTES:

A. EARTHWORK QUANTITIES SHOWN FOR PERMIT PURPOSES ONLY.
B. CONTRACTOR SHALL CALCULATE THE EARTHWORK QUANTITIES TO THEIR SATISFACTION PRIOR TO START OF CONSTRUCTION OR BIDDING. CONSOLIDATION, LOSSES DUE TO CLEARING OPERATIONS, UTILITY TRENCHES, SUBGRADE STABILIZATION, OR FACTORS FOR GRADING MEANS AND METHODS ARE NOT INCLUDED AND EARTHWORK QUANTITIES MAY VARY ACCORDING TO THESE FACTORS.
C. EARTHWORK VOLUMES DO NOT INCLUDE OVEREXCAVATION OR SCARIFICATION.

1. EQUIPMENT, SERVICES AND MATERIALS BY CONTRACTOR

CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND SUPERVISION NECESSARY TO PERFORM THE WORK SHOWN ON THE PLANS WHICH INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:

A. EXCAVATION, BACKFILL AND COMPACTION.
B. WATER FOR MOISTURE CONDITIONING AND DUST CONTROL.
C. MEASURES NECESSARY TO PREVENT EROSION AND PONDING.
D. ALL SURVEYING ASSOCIATED WITH THIS WORK.

2. EQUIPMENT, SERVICES AND MATERIAL PROVIDED BY AERA APPROVED CONTRACTOR.

A. MATERIAL FOR USE AS ENGINEERED FILL.
B. ALL SOILS TESTING.

3. CODES AND STANDARDS

CONTRACTOR SHALL PERFORM AND COMPLETE CONSTRUCTION IN COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES, LAWS, ORDINANCES AND REGULATIONS.

A. AMERICAN SOCIETY OF TESTING AND MATERIALS (ASTM)

- D–1556 DENSITY OF SOIL IN PLACE BY SAND–CONE METHOD.
- D–1557 MOISTURE–DENSITY RELATIONSHIP OF SOIL AND SOIL–AGGREGATE MIXTURES USING A 10–LB. HAMMER AND 18–INCH DROP.
- D–2937 DENSITY OF SOIL IN PLACE BY THE DRIVE CYLINDER METHOD.
- D–3017 MOISTURE CONTENT OF SOIL AND SOIL–AGGREGATE MIXTURES IN PLACE BY NUCLEAR METHOD.
- D–6938 DENSITY OF SOIL AND SOIL–AGGREGATE MIXTURES IN PLACE BY NUCLEAR METHOD.

B. SANTA BARBARA COUNTY CODE.

- CHAPTER 10 BUILDING CODE (ORDINANCE # 4766).
- CHAPTER 14 GRADING CODE (ORDINANCE # 4776).
- CHAPTER 25 PETROLEUM CODE (ORDINANCE # 9794).
- CHAPTER 35 ZONING SECTION 35–1 COUNTY LAND USE & DEVELOPMENT CODE.

C. 2013 CALIFORNIA BUILDING CODE.

D. IN ADDITION TO THE REQUIREMENTS SPECIFIED IN THESE DRAWINGS, THE CONTRACTOR SHALL REFER TO THE "GEOTECHNICAL ENGINEERING INVESTIGATION" REPORT PROVIDED BY FUGRO COONSULTANTS, INC. PROJECT NO. 04.62130155, DATED JANUARY 10, 2014.

4. GENERAL PROVISIONS REQUIRED OF CONTRACTOR

A. PROTECTION OF EXISTING FACILITIES

- EXISTING COMPANY FACILITIES SHALL BE PROTECTED.IF DAMAGED BY CONTRACTOR, FACILITIES SHALL BE REPAIRED AND/OR RESTORED AT CONTRACTOR'S EXPENSE.
- COMPANY RESERVES THE RIGHT TO ENTER THE SITE TO MAKE ANY REPAIRS OR ALTERATIONS TO EXISTING EQUIPMENT.
- EXTREME CARE SHALL BE EXERCISED WHEN EXCAVATING AT THIS SITE. UNDERGROUND UTILITIES ENCOUNTERED DURING EXCAVATION SHALL BE BROUGHT TO THE ATTENTION OF COMPANY REPRESENTATIVE. THESE FACILITIES SHALL NOT BE DISTURBED UNTIL INSTRUCTION IS RECEIVED FROM COMPANY REPRESENTATIVE.

B. SAFETY

- CONTRACTOR SHALL PROVIDE PROTECTIVE EQUIPMENT AND ENSURE THAT THIS EQUIPMENT IS PROPERLY USED WHEN REQUIRED.AT A MINIMUM, HARD HATS, SAFETY SHOES, AND SAFETY GLASSES WITH SIDE SHIELDS SHALL BE WORN AT ALL TIMES ON THE CONSTRUCTION SITE.
- WORK SHALL BE PERFORMED ACCORDING TO THE TERMS AND CONDITIONS OF THE CONTRACT AND APPLICABLE STATE AND FEDERAL REGULATIONS.
- EXTREME CARE MUST BE EXERCISED WHEN OPERATING ANY EQUIPMENT NEAR OVERHEAD POWER LINES.CONTRACTOR MUST NOT ALLOW ANY EQUIPMENT OR PERSONNEL TO OPERATE NEAR ANY OVERHEAD POWER LINE.
- EXCAVATING MUST BE ACCOMPLISHED SO AS TO AVOID ALL UNDERGROUND UTILITIES AND LINES.
- THE SIZE, NUMBER, LOCATION AND DEPTH OF ANY BURIED UTILITIES SHOWN ON THE DRAWINGS ARE BASED ON THE BEST INFORMATION AVAILABLE, EXTREME CARE SHALL BE TAKEN DURING EXCAVATION AS LOCATION AND DEPTH ALLOWANCES MAY NOT BE SHOWN ON THE SOURCE PLANS FOR THIS DRAWING.
- NO PERSON SHALL ENTER ANY EXCAVATION UNLESS PROTECTED FROM CAVE–INS IN ACCORDANCE WITH THE REQUIREMENTS OF "CFR 29 (OSHA), PART 1926.652 (REQUIREMENTS FOR PROTECTIVE SYSTEMS)" AND "OCR TITLE 8 (Aloha) SECTION 1541.1 (REQUIREMENTS FOR PROTECTIVE SYSTEMS)". DESIGN OF THE PROTECTIVE SYSTEM SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- IN EXCAVATION AREAS IMMEDIATELY ADJACENT TO EXISTING FOUNDATIONS WHERE VERTICAL CUT SIDE SLOPES ARE REQUIRED, EXCAVATION WIDTH SHALL NOT EXCEED 7'. THESE AREAS SHALL BE BACKFILLED AS SOON AS POSSIBLE TO MINIMIZE EXPOSURE OF THE EXISTING FOUNDATION(S). IF THESE AREAS ARE LEFT UNATTENDED AT ANY POINT DURING THE EXCAVATION OR BACKFILL, THE AREA SHALL BE CORDONED OFF WITH CAUTION TAPE AND BARRICADES TO PREVENT UNAUTHORIZED ACCESS.

C. INJURIES

- CONTRACTOR SHALL IMMEDIATELY NOTIFY COMPANY REPRESENTATIVES OF ANY INJURY OCCURRING ON COMPANY PROPERTY. A WRITTEN REPORT CONCERNING THE INJURY SHALL BE PROVIDED TO COMPANY WITHIN 24 HOURS OF OCCURRENCE OF INJURY.
- CONTRACTOR SHALL PROVIDE ALL FIRST AID AND EMERGENCY TREATMENT, AMBULANCE, HOSPITAL SERVICES, ETC. FOR ANY INJURY OCCURRING TO HIS EMPLOYEES ON COMPANY PROPERTY.

D. PERSONNEL FACILITIES

- CONTRACTOR SHALL PROVIDE ALL FACILITIES REQUIRED FOR HIS PERSONNEL.THESE FACILITIES INCLUDE PORTABLE TOILETS, DRINKING WATER,CLEAN–UP FACILITIES, ETC.

E. GRADES, LINES, LEVELS AND BENCHMARKS REFERENCES

- SITE BENCHMARKS ARE PROVIDED TO THE CONTRACTOR. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING PROPER ELEVATIONS AND HORIZONTAL OFFSETS AS REFERENCED TO THE BENCHMARKS.
- CONTRACTOR SHALL LAYOUT ALL WORK, ESTABLISH MARKERS, STAKES, ETC. AND BE RESPONSIBLE FOR THEIR ACCURACY. COMPANY MAY CHOOSE TO USE AN INDEPENDENT SURVEYOR TO CHECK CONTRACTOR'S WORK.

F. COMPANY OPERATION OF EXISTING FACILITIES

- COMPANY INTENDS TO OPERATE EXISTING EQUIPMENT AND FACILITIES IN THE VICINITY OF THE SITE DURING CONSTRUCTION.CONTRACTOR SHALL COORDINATE HIS WORK WITH COMPANY FIELD OPERATIONS THROUGH COMPANY REPRESENTATIVE.
- CONTRACTOR SHALL COORDINATE AND FULLY COOPERATE WITH ANY TESTING AGENCY TO ENSURE ALL TESTS ARE COMPLETED AND DOCUMENTED IN A TIMELY AND EFFICIENT MANNER.

5. GRADING AND EXCAVATION – CIVIL

A. GENERAL GRADING

- ELEVATIONS PRESENTED ON THE DRAWINGS INDICATE FINAL GRADE ELEVATIONS. FINAL GRADED SURFACE SHALL BE SLOPED UNIFORMLY BETWEEN SUCH POINTS AND NATURAL GRADE.
- TOLERANCES FROM FINAL GRADE SHALL BE +–0.1 FOOT. IN NO CASE HOWEVER SHOULD FINAL GRADE ALLOW PONDING OR DRAINAGE IF NOT INDICATED ON THE PLANS.
- ALL DEBRIS, VEGETATION, ROCK AND LUMPS GREATER THAN 3 INCHES IN ITS LARGEST DIMENSION AND OTHER OBJECTIONABLE MATERIAL SHALL BE COLLECTED, PILED AND DISPOSED OF BY THE CONTRACTOR SO AS TO LEAVE THE AREAS THAT HAVE BEEN CLEARED WITH A NEAT AND FINISHED APPEARANCE. SITE STRIPPING SHALL EXTEND TO A MIN. DEPTH OF 4–INCHES, OR UNTIL ALL ORGANICS IN EXCESS OF 3% BY VOLUME HAS BEEN REMOVED.

B. GRADING INSPECTION

- PROFESSIONAL INSPECTION OF GRADING OPERATIONS AS REQUIRED IN THESE SPECIFICATIONS SHALL BE PROVIDED BY A CALIFORNIA REGISTERED CIVIL ENGINEER AND REGISTERED SOILS ENGINEER.
- A REGISTERED CIVIL ENGINEER SHALL INSPECT SITE AT COMPLETION OF ALL GRADING ACTIVITIES.
- GRADING OPERATIONS FOR WHICH A PERMIT IS REQUIRED SHALL BE SUBJECT TO INSPECTION BY A GRADING OFFICIAL.
- BUILDING PADS SHALL HAVE A DRAINAGE GRADIENT OF 2 PERCENT TOWARD APPROVED DRAINAGE FACILITIES, UNLESS WAIVED BY A GRADING OFFICIAL.

C. EXCAVATIONS

- EXCAVATIONS SHALL BE PERFORMED IN A MANNER TO ASSURE DRAINAGE DURING THE COURSE OF THE WORK. FLOODED EXCAVATIONS SHALL BE DEWATERED AND ALL MUCK REMOVED BEFORE PROCEEDING WITH WORK.
- AFTER EXCAVATION, SCARIFY THE ENTIRE AREA EXPOSED TO A 6–INCH DEPTH, MOISTURE CONDITION OF 0–3% ABOVE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D–1557 AND RECOMPACT TO A MINIMUM OF 95% PRIOR TO PLACEMENT OF ENGINEERED FILL.
- OVER–EXCAVATE EXISTING SOIL IN LOCATIONS WHERE UNSUITABLE MATERIAL EXISTS AS DIRECTED BY THE COMPANY REPRESENTATIVE AND SOILS ENGINEER. MOISTURE CONDITION OF 0–3% ABOVE OPTIMUM MOISTURE CONTENT AND BACKFILL WITH ENGINEERED FILL COMPACTED TO A MINIMUM 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D–1557.
- SOILS ENGINEER SHALL INSPECT THE BOTTOM OF EXCAVATION PRIOR TO PLACEMENT OF BACKFILL. FINAL DEPTH OF EXCAVATION TO BE DETERMINED BY SOILS ENGINEER. CIVIL ENGINEER AND SOILS ENGINEER SHALL INSPECT SITE AT COMPLETION OF ALL GRADING ACTIVITIES.

6. FILLS

A. PREPARATION OF GROUND

- FILL SLOPES SHALL NOT BE CONSTRUCTED ON NATURAL SLOPES STEEPER THAN 1 UNIT VERTICAL IN 2 UNITS HORIZONTAL (50% SLOPE).THE GROUND SURFACE SHALL BE PREPARED TO RECEIVE FILL BY REMOVING VEGETATION, NON–COMPLYING FILL, TOPSOIL AND OTHER UNSUITABLE MATERIALS SCARIFYING TO PROVIDE A BOND WITH NEW FILL AND, WHERE SLOPES ARE STEEPER THAN 1 UNIT VERTICAL IN 5 UNITS HORIZONTAL (20% SLOPE) AND THE HEIGHT IS GREATER THAN 5 FEET, BY BENCHING INTO SOUND BEDROCK OR OTHER COMPETENT MATERIAL AS DETERMINED BY THE SOILS ENGINEER. THE BENCH UNDER THE TOE OF A FILL ON A SLOPE STEEPER THAN 1 UNIT VERTICAL IN 5 UNITS HORIZONTAL (20% SLOPE) SHALL BE AT LEAST 10 FEET WIDE. FIVE FEET OF THE LOWERMOST BENCH SHALL BE EXPOSED BEYOND THE TOE OF HILLSIDE FILLS. THE AREA BEYOND THE TOE OF FILL SHALL BE SLOPED FOR SHEET OVERFLOW OR A PAVED DRAIN SHALL BE PROVIDED. WHEN FILL IS TO BE PLACED OVER A CUT, THE BENCH UNDER THE TOE OF FILL SHALL BE AT LEAST 10 FEET WIDE. THE CUT SHALL BE MADE BEFORE PLACING THE FILL AND THE CUT SHALL BE APPROVED BY THE SOILS ENGINEER OR ENGINEERING GEOLOGIST OR BOTH AS A SUITABLE FOUNDATION FOR FILL.

B. FILL MATERIAL & PLACEMENT

- ALL IMPORTED FILL MATERIAL SHALL BE APPROVED BY THE SOIL ENGINEER PRIOR TO PLACEMENT AT THE SITE.
- DETRIMENTAL AMOUNTS OF ORGANIC MATERIAL SHALL NOT BE PERMITTED IN FILLS. EXCEPT AS PERMITTED BY THE GRADING OFFICIAL, NO ROCK OR SIMILAR IRREDUCIBLE MATERIAL WITH A MAXIMUM DIMENSION GREATER THAN 3 INCHES SHALL BE BURIED OR PLACED IN FILLS.
- PLACE FILL SOIL IN CONTINUOUS HORIZONTAL LOOSE LIFTS APPROXIMATELY 6 INCHES THICK. DO NOT PLACE FILL UNTIL REMOVAL OF UNSUITABLE MATERIAL HAS BEEN INSPECTED AND APPROVED BY THE SOIL ENGINEER.

C. COMPACTION

- FILL SHALL BE MOISTURE–CONDITIONED 0–3% ABOVE OPTIMUM MOISTURE CONTENT, AND COMPACTED TO AT LEAST 90% MAXIMUM, DENSITY BASED ON ASTM D–1557.

D. SLOPES

- THE SLOPE OF FILL SURFACES SHALL BE NO STEEPER THAN IS SAFE FOR THE INTENDED USE. FILL SLOPES SHALL BE NO STEEPER THAN 1 UNIT VERTICAL IN 2 UNITS HORIZONTAL (50% SLOPE).
- WHERE EXISTING SLOPES ARE STEEPER THAN 5 HORIZONTAL:1 VERTICAL AND THE HEIGHT IS GREATER THAN 5 FEET, THE SURFACE SHALL BE PREPARED FOR FILL BY BENCHING INTO COMPETENT MATERIAL AS DETERMINED BY THE SOILS ENGINEER.

7. DRAINAGE AND TERRACING

- UNLESS OTHERWISE INDICATED ON THE APPROVED GRADING PLAN, DRAINAGE FACILITIES AND TERRACING SHALL CONFORM TO THE PROVISIONS OF CHAPTER 14 (SANTA BARBARA COUNTY GRADING CODE)FOR CUT OR FILL SLOPES STEEPER THAN 1 UNIT VERTICAL IN 3 UNITS HORIZONTAL (33.3% SLOPE).
- TERRACES AT LEAST 8 FEET IN WIDTH SHALL BE ESTABLISHED AT NOT MORE THAN 25–FOOT VERTICAL INTERVALS ON ALL CUT OR FILL SLOPES TO CONTROL SURFACE DRAINAGE AND DEBRIS EXCEPT THAT WHERE ONLY ONE TERRACE IS REQUIRED, IT SHALL BE AT MID–HEIGHT. NO FILL SLOPE SHALL EXCEED A VERTICAL HEIGHT OF ONE HUNDRED FEET UNLESS HORIZONTAL BENCHES WITH A MINIMUM WIDTH OF THIRTY FEET ARE INSTALLED AT EACH ONE HUNDRED FEET VERTICAL HEIGHT.

8. EROSION, DUST, AND RUNOFF CONTROL

A. EROSION CONTROL MEASURES

- THE FACES OF CUT AND FILL SLOPES SHALL BE PREPARED AND MAINTAINED TO CONTROL AGAINST EROSION. SLOPE PROTECTION SHALL BE INSTALLED AS SOON AS PRACTICABLE AND PRIOR TO CALLING FOR FINAL APPROVAL.
- WHERE REQUIRED, CONTRACTOR SHALL PROVIDE SUFFICIENT EROSION CONTROL MEASURES INCLUDING, BUT NOT LIMITED TO, INSTALLATION OF ENERGY DISSIPATING RIP–RAP, SILT FENCING AND/OR HAY BALES.
- A STORM WATER POLLUTION PREVENTION PLAN HAS BEEN PREPARED FOR PHASE 1 OF THIS PROJECT. THE WDID # (WILL BE OBTAINED). THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN THE SWPPP.
- CONSTRUCTION WITHIN BLUE LINE CHANNELS SHALL NOT BE PERMITTED DURING THE RAINY SEASON (OCT. 15 TO APRIL 15).

B. DUST CONTROL MEASURES

- CONTRACTOR SHALL IMPLEMENT DUST CONTROL MEASURES, WHICH CONSIST OF WATER SPRAYING ALL GRADED AREAS AND ROADWAYS TO ALLEVIATE OR PREVENT DUST NUISANCE.

C. RUNOFF CONTROL MEASURES

- ALL STORMWATER TO BE RETAINED ON SITE DURING CONSTRUCTION. IMPLEMENT RUNOFF CONTROL AS INDICATED ON PLANS AND IN ACCORDANCE WITH SANTA BARBARA COUNTY GRADING ORDINANCE.

9. PAVEMENTS

A. ASPHALTIC CONCRETE (AC)

- 1/2" OR 3/4" MAXIMUM, PG64–10 OR PG70–10 TYPE A OR B PER SECTION 39 "ASPHALT CONCRETE" STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATION, MAY 2010.
- MIX DESIGN SHALL BE SUBMITTED TO TJ CROSS ENGINEERS, INC. FOR APPROVAL.

B. AGGREGATE BASE

- CLASS 2 AGGREGATE BASE SHALL BE PER SECTION 26 "AGGREGATE BASE", STATE OF CALIFORNIA, STANDARD SPECIFICATION, MAY 2010.
- USE EITHER 1 1/2" OR 3/4" AGGREGATE GRADING.

C. CLASS 2 RIP–RAP

- NO MORE THAN 10% OF THE STONE WILL HAVE A DIAMETER GREATER THAN SIXTEEN (16) INCHES; NO MORE THAN 50% OF THE STONE WILL HAVE A DIAMETER LESS THAN TWELVE (12) INCHES; AND NO MORE THAN 10% OF THE STONE WILL HAVE A DIAMETER OF LESS THAN SIX (6) INCHES. THE THICKNESS OF THE RIP–RAP LINER WILL BE NO LESS THAN EIGHTEEN (18) INCHES.

NOT ISSUED FOR CONSTRUCTION

THIS IS FOR LAND USE PERMIT ONLY

DWG NUMBER	TITLE
072–013–015A	SITE LOCATION PLAN
072–013–013A	TITLE SHEET/DRAWING INDEX/VICINITY MAP

REFERENCE DRAWINGS

TJCROSS ENGINEERS

T.J. CROSS AUTOCAD CONTROL
SCALE: NONE
FILE: 13186/072–13–014A
PLOT AT: 1=1
LAYER(S): .
ENGINEER: RSD
CHANGED BY: IDU
DATE STARTED: 04/17/14
LAST CHANGED: 08/01/14

DATE	REV	DESCRIPTION	BY	APPR	AERA ENG
08/01/14	0	ISSUED FOR PERMIT	IDU	RSD	EP
06/03/14	A	ISSUED FOR REVIEW	IDU	RSD	EP

AERA

CONSTRUCTION NOTES
FIELD REDEVELOPMENT PROJECT
SECTIONS 20/29 & 30 T9N R32W
EAST CAT CANYON FIELD – SANTA BARBARA COUNTY – CALIFORNIA

AERA ENGINEER: ERIC PAULSON
DATE: 08/01/14
SCALE: AS SHOWN
CO. ENGINEER: TJCROSS ENGINEERS, INC
ORIGINAL DWG NO.
PROJ. MGR: ALI GOKGOZ
DESIGNED BY: ROBIN DICKERSON
DRAFTED BY: ISAC URBINA
ECCN NO. EAR99
NO. 072–13–014A
REV. 0
CAD FILE NO. 072–13–014A

:FUNCTIONAL LOCATION NO.

GRADING NOTES

SANTA BARBARA COUNTY
STANDARD GRADING NOTES

1. ALL GRADING SHALL CONFORM WITH SANTA BARBARA COUNTY CODE CHAPTER 14 AND STANDARDS AND REQUIREMENTS PERTAINING THERETO, THESE CONSTRUCTION DRAWINGS AND THE RECOMMENDATIONS OF THE SOILS ENGINEER AND ENGINEERING GEOLOGIST.

2. CONTRACTOR TO NOTIFY THE COUNTY GRADING INSPECTOR AND SOILS LABORATORY AT LEAST 48 HOURS BEFORE START OF GRADING WORK OR ANY PRE-CONSTRUCTION MEETING.

3. CONTRACTOR SHALL EMPLOY ALL LABOR, EQUIPMENT AND METHODS REQUIRED TO PREVENT HIS OPERATIONS FROM PRODUCING DUST IN AMOUNTS DAMAGING TO ADJACENT PROPERTY, CULTIVATED VEGETATION AND DOMESTIC ANIMALS OR CAUSING A NUISANCE TO PERSONS OCCUPYING BUILDINGS IN THE VICINITY OF THE JOB SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE CAUSED BY DUST FROM HIS GRADING OPERATION.

4. BEFORE BEGINNING WORK REQUIRING EXPORTING OR IMPORTING OF MATERIALS, THE CONTRACTOR SHALL OBTAIN APPROVAL FROM PUBLIC WORKS ROAD DIVISION FOR HAUL ROUTES USED AND METHODS PROVIDED TO MINIMIZE THE DEPOSIT OF SOILS ON COUNTY ROADS. GRADING/ROAD INSPECTORS SHALL MONITOR THIS REQUIREMENT WITH THE CONTRACTOR.

5. THE GEOTECHNICAL ENGINEER SHALL PROVIDE OBSERVATION AND TESTING DURING GRADING OPERATIONS IN THE FIELD AND SHALL SUBMIT A FINAL REPORT STATING THAT ALL EARTHWORK WAS PROPERLY COMPLETED AND IS IN SUBSTANTIAL CONFORMANCE WITH THE REQUIREMENTS OF THE GRADING ORDINANCE.

6. AREAS TO BE GRADED SHALL BE CLEARED OF ALL VEGETATION INCLUDING ROOTS AND OTHER UNSUITABLE MATERIAL FOR A STRUCTURAL FILL, THEN SCARIFIED TO A DEPTH OF 6" PRIOR TO PLACING OF ANY FILL. CALL GRADING INSPECTOR FOR INITIAL INSPECTION.

7. A THOROUGH SEARCH SHALL BE MADE FOR ALL ABANDONED MAN-MADE FACILITIES SUCH AS SEPTIC TANK SYSTEMS, FUEL OR WATER STORAGE TANKS, AND PIPELINES OR CONDUITS. ANY SUCH FACILITIES ENCOUNTERED SHALL BE REMOVED AND THE DEPRESSION PROPERLY FILLED AND COMPACTED UNDER OBSERVATION OF THE GEOTECHNICAL ENGINEER.

8. AREAS WITH EXISTING SLOPES WHICH ARE TO RECEIVE FILL MATERIAL SHALL BE KEYED AND BENCHED. THE DESIGN AND INSTALLATION OF THE KEYWAY SHALL BE PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATION OR PER COUNTY STANDARD DETAIL NO. G-13.

9. FILL MATERIAL SHALL BE SPREAD IN LIFTS NOT EXCEEDING 6" IN COMPACTED THICKNESS, MOISTENED OR DRIED AS NECESSARY TO NEAR OPTIMUM MOISTURE CONTENT AND COMPACTED BY AN APPROVED METHOD. FILL MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 90% MAXIMUM DENSITY AS DETERMINED BY 1957 ASTM D-1557-91 MODIFIED PROCTOR (AASHO) TEST OR SIMILAR APPROVED METHODS. SOME FILL AREAS MAY REQUIRE COMPACTION TO A GREATER DENSITY IF CALLED FOR IN THE CONSTRUCTION DOCUMENTS. SOIL TESTS SHALL BE CONDUCTED AT NOT LESS THAN ONE TEST FOR EACH 18" OF FILL AND/OR FOR EACH 500 CUBIC YARDS OF FILL PLACED.

10. CUT SLOPES SHALL NOT EXCEED A GRADE OF 1 1/2 HORIZONTAL TO 1 VERTICAL. FILL AND COMBINATION FILL AND CUT SLOPES SHALL NOT EXCEED 2 HORIZONTAL TO 1 VERTICAL. SLOPES OVER THREE FEET IN VERTICAL HEIGHT SHALL BE PLANTED WITH APPROVED PERENNIAL OR TREATED WITH EQUALLY APPROVED EROSION CONTROL MEASURES PRIOR TO FINAL INSPECTION.

11. SURFACE DRAINAGE SHALL BE PROVIDED AT A MINIMUM OF 2% FOR 5 FEET AWAY FROM THE FOUNDATION LINE OR ANY STRUCTURE.

12. ALL TREES THAT ARE TO REMAIN ON SITE SHALL BE TEMPORARILY FENCED AND PROTECTED AROUND THE DRIP LINE DURING GRADING OPERATION.

13. AN EROSION AND SEDIMENT CONTROL PLAN SHALL BE REQUIRED AS PART OF THE GRADING PLAN AND PERMIT REQUIREMENTS.

14. "BEST MANAGEMENT PRACTICES FOR CONSTRUCTION ACTIVITIES: ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ONSITE AND MAY NOT BE TRANSPORTED FROM SITE VIA SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES, OR WIND. STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER. FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM WEATHER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO PUBLIC WAY OR NAY OTHER DRAINAGE SYSTEM. PROVISIONS MUST BE MADE TO RETAIN CONCRETE WASTE ON SITE UNTIL THEY CAN BE DISPOSED AS SOLID WASTE. TRASH AND CONSTRUCTION RELATED SOLID WASTE MUST BE DEPOSITED INTO A COVERED WASTE RECEPTACLE TO PREVENT CONTAMINATION OF RAINWATER AND DISPERSAL BY WIND. SEDIMENTS AND OTHER MATERIAL MAY NOT BE TRACKED FROM TO THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAY MUST BE STABILIZED AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC WAY. ACCIDENTAL DEPOSITION MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR THER MEANS. ANY SLOPES WITH DISTURBED SOILS OR DENUDED OF VEGETATION MUST BE STABILIZED SO AS TO MINIMIZE EROSION BY WIND AND WATER."

15. IF GRADING OCCURS DURING NOV 1 THROUGH APRIL 15, NO GRADING SHALL OCCUR UNLESS APPROVED EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE. DISCHARGES OF SEDIMENT FROM THE PROJECT SITE MAY RESULT IN A "STOP WORK ORDER."

16. ALL EARTHWORK ON HILLSIDES, SLOPING OR MOUNTAINOUS TERRAIN SHALL BE STABILIZED TO PROTECT AND PREVENT LOSS OF SOILS, AS NECESSARY, YEAR-ROUND.

EARTHWORK ESTIMATES:

EXCAVATION:	7,749 CUBIC YARDS
IMPORT:	32,799 CUBIC YARDS
EXPORT:	0 CUBIC YARDS
FILL:	40,548 CUBIC YARDS

EARTHWORK NOTES:

A. EARTHWORK QUANTITIES SHOWN FOR PERMIT PURPOSES ONLY.
B. CONTRACTOR SHALL CALCULATE THE EARTHWORK QUANTITIES TO THEIR SATISFACTION PRIOR TO START OF CONSTRUCTION OR BIDDING. CONSOLIDATION, LOSSES DUE TO CLEARING OPERATIONS, UTILITY TRENCHES, SUBGRADE STABILIZATION, OR FACTORS FOR GRADING MEANS AND METHODS ARE NOT INCLUDED AND EARTHWORK QUATITITES MAY VARY ACCORDING TO THESE FACTORS.
C. EARTHWORK VOLUMES DO NOT INCLUDE OVEREXCAVATION OR SCARIFICATION.

AIR POLLUTION CONTROL NOTES

1. DURING CONSTRUCTION, THE CONTRACTOR SHALL IMPLEMENT THE FOLLOWING PARTICULATE (DUST) CONTROL MEASURES:

   A. REDUCE THE AMOUNT OF DISTURBED AREA WHERE POSSIBLE;
   B. USE WATER TRUCKS OR SPRINKLER SYSTEMS IN SUFFICIENT QUANTITIES TO PREVENT AIRBORNE DUST LEAVING THE SITE. INCREASED WATERING FREQUENCY WILL BE REQUIRED WHENEVER WIND SPEEDS EXCEED 15 MPH.
   C. EXPOSED GROUND AREAS THAT ARE PLANNED TO BE REWORKED AT DATES GREATER THAN ONE MONTH AFTER INITIAL GRADING SHOULD BE SOWN WITH A FAST-GERMINATING NATIVE GRASS SEED UNTIL VEGETATION IS ESTABLISHED;
   D. ALL DISTURBED SOIL AREAS SHOULD BE STABILIZED PER EROSION CONTROL NOTE #3.
   E. VEHICLE SPEED FOR ALL CONSTRUCTION VEHICLES SHALL NOT EXCEED 15 MPH ON ANY UNPAVED SURFACE AT THE CONSTRUCTION SITE.

EROSION CONTROL NOTES

1. PROJECT: THE CONTRACTOR WILL DISTURB AREAS SUBJECT TO EROSION DURING THE SITE PREPARATION, EXCAVATION, AND FILL PLACEMENT. IF FILL PLACEMENT IS NOT COMPLETED AND GROUND COVER IS NOT ESTABLISHED BY OCTOBER 15, THE CONTRACTOR SHALL CONSTRUCT, MONITOR, AND MAINTAIN THE NECESSARY EROSION AND SEDIMENTATION MITIGATION MEASURES ON ALL SUCH AREAS.

2. EROSION AND SEDIMENTATION CONTROL PROGRAM: THE LOCATION OF EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN ON THESE PLANS MAY VARY ACCORDING TO THE SEASON AND PHASE OF CONSTRUCTION. THE OBJECTIVE OF THESE MEASURES IS TO MITIGATE THE EROSION AND SEDIMENTATION IMPACTS. THIS PROGRAM CONSISTS OF THE INSTALLATION AND MAINTENANCE OF GROUND COVER, EROSION CONTROL MAT, STRAW WATTLES AND SILT FENCES. THE CONTRACTOR SHALL ONLY DISTURB THE AREAS NECESSARY TO COMPLETE THE WORK SHOWN IN THESE PLANS.

3. INSTALLATION

   A. ALL DISTURBED SOIL AREAS, INCLUDING ROADs, SHALL RECEIVE LANDSCAPE/EROSION CONTROL COVER IN ACCORDANCE WITH THE FOLLOWING:

   STEP 1: SEED AND SLURRY

SEED MIX	PURE LIVE SEED LBS/ACRE	HYDROSEED SLURRY ADDITIVES	LBS/ACRE
ARTEMISIA CALIFORNICA	0.2	CONWED 100% WOOD FIBER	2000
BROMUS CARINATUS	8.0	AM-120 MYCORRHIZAL INOCULUM	60
ELYMUS GLAUCUS	6.0	ECOLOGY CONTROLS M-BINDER	150
ESCHSCHOLZIA CALIFORNICA	1.5	15-15-15 FERTILIZER	200
HORDEUM INTERCEDENS	4.0		
ISOCOMA MENZIESII	1.0		
LOTUS SCOPARIUS	4.0		
LUPINUS NANUS	2.0		
MIMULUS AURANTIACUS AURANTIACUS	0.1		
NASSELLA PULCHRA	6.0		
SALVIA MELLIFERA	2.0		
VULPIA MICROSTACHYS	6.0		
	40.8		

   STEP 2: APPLY STRAW MULCH AT 4000 LBS/ACRE

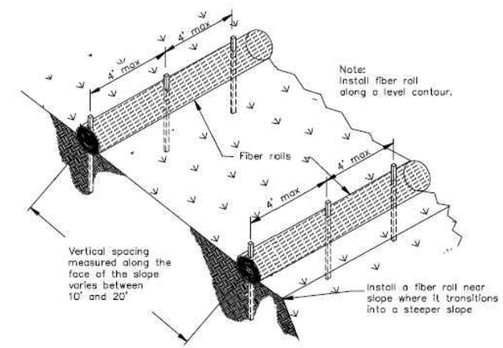
   STEP 3: TACK STRAW

FIBER	500
BINDER	100

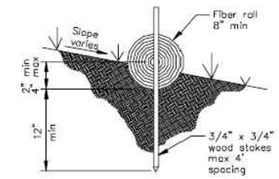
   B. ALL LANDSCAPE/HYDROSEED/EROSION CONTROL SHALL BE INSTALLED PER COUNTY REQUIREMENTS AND INDUSTRIAL STANDARDS. STRAW MULCH SHALL BE PLACED OVER ALL SEEDED AREAS AND SHALL BE CRIMPED INTO SOIL OR HELD IN PLACE BY A LIQUID TACKIFIER.
   C. SILT FENCE TO BE INSTALLED ON DOWNHILL SIDE OF ALL DISTURBED AREAS, TO REMAIN IN PLACE UNTIL TOTAL REVEGETATION IS ACHIEVED.
   D. ALL DISTURBED AREAS SHALL BE REVEGETATED. TEMPORARY SILTATION MITIGATION DEVICES SHALL BE IN PLACE OCTOBER 15 TO APRIL 15.

4. MAINTENANCE PROGRAM: THE CONTRACTOR SHALL INSPECT AND MAINTAIN THE EROSION AND SEDIMENTATION MITIGATION MEASURES ON ALL DISTURBED AREAS BEFORE, DURING AND AFTER STORM. THE CONTRACTOR SHALL ENSURE THAT THE EROSION AND SEDIMENTATION MEASURES ARE INSTALLED IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS PRIOR TO EACH STORM. ALSO, THE CONTRACTOR SHALL REMOVE THE SEDIMENTS COLLECTED IN STRAW WATTLES AND DEPOSIT THESE SEDIMENTS ON AREAS WHERE THEY WILL NOT RE-ENTER THE DISTURBED AREAS.

SE-5 **Fiber Rolls**



TYPICAL FIBER ROLL INSTALLATION
N.T.S.



ENTRENCHMENT DETAIL
N.T.S.

THIS IS FOR LAND USE PERMIT ONLY

NOT ISSUED FOR CONSTRUCTION

DWG NUMBER	TITLE
072-013-015A	SITE LOCATION PLAN
072-013-013A	TITLE SHEET/DRAWING INDEX/VICINITY MAP

REFERENCE DRAWINGS

TJCROSS ENGINEERS

T.J. CROSS AUTOCAD CONTROL
SCALE: NONE
PLOT AT: 1=1
ENGINEER: RSD
DATE STARTED: 04/17/14
FILE: 13186/072-13-014B
LAYER(S): .
CHANGED BY: IDU
LAST CHANGED: 08/01/14

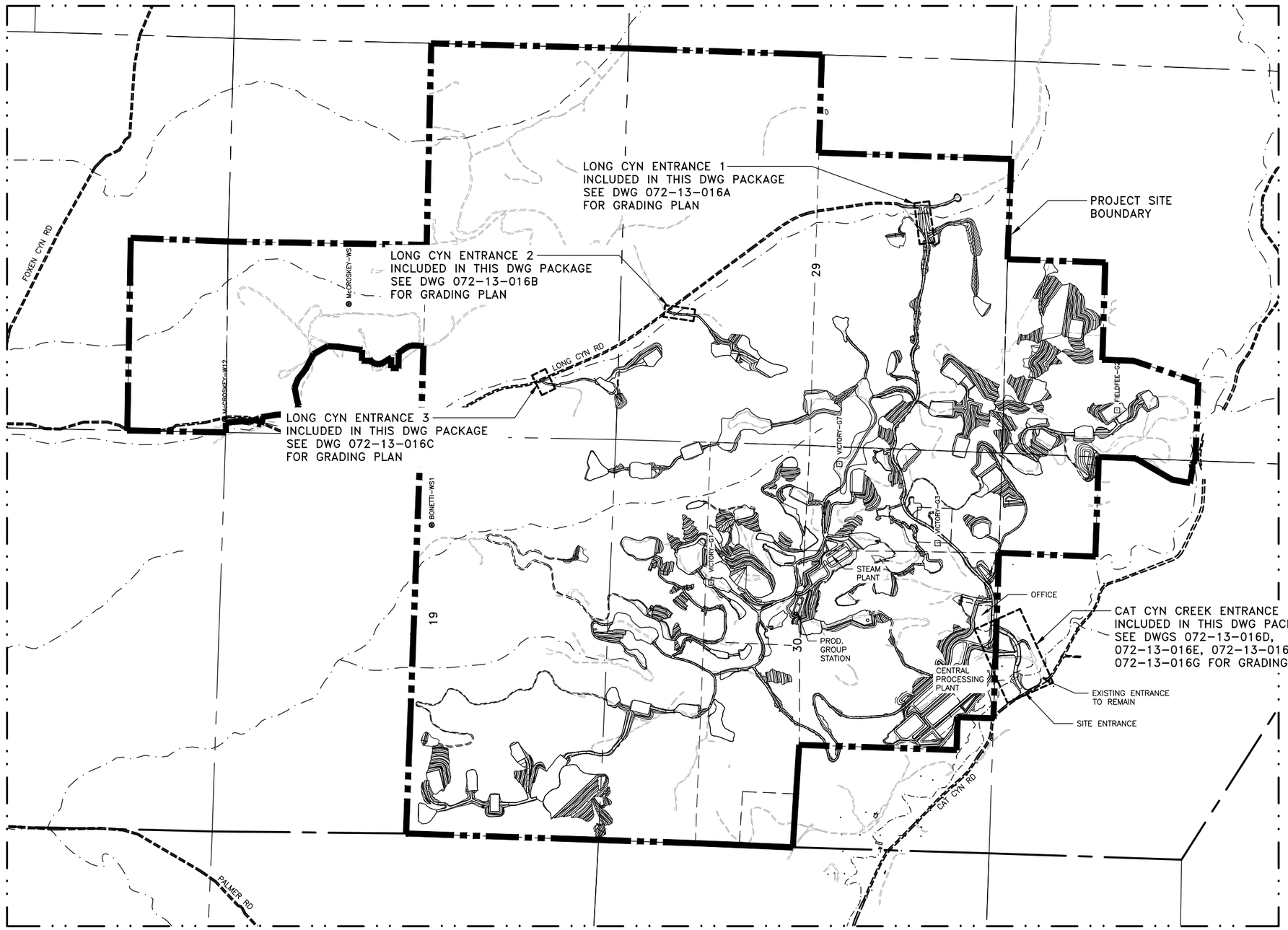
DATE	REV	DESCRIPTION	BY	APPR	AERA ENG
08/01/14	0	ISSUED FOR PERMIT	IDU	RSD	EP
06/03/14	A	ISSUED FOR REVIEW	IDU	RSD	EP

AERA

CONSTRUCTION NOTES – SANTA BARBARA
FIELD REDEVELOPMENT PROJECT
SECTIONS 20/29 & 30 T9N R32W
EAST CAT CANYON FIELD – SANTA BARBARA COUNTY – CALIFORNIA

AERA ENGINEER:	ERIC PAULSON	DATE: 08/01/14	SCALE: AS SHOWN
CO. ENGINEER:	TJCROSS ENGINEERS, INC	ORIGINAL DWG NO.	
PROJ. MGR:	ALI GOKGOZ	NO. 072-13-014B	REV. 0
DESIGNED BY:	ROBIN DICKERSON		
DRAFTED BY:	ISAC URBINA		
ECCN NO.	EAR99	CAD FILE NO. 072-13-014B	

:FUNCTIONAL LOCATION NO.



THIS IS FOR LAND USE PERMIT ONLY

NOT ISSUED FOR CONSTRUCTION

N

LEGEND:

- INTERMITTENT CREEKS
- TOWNSHIP LINES
- SECTION LINES
- LEASE LINES
- PROPERTY LINE

APN:
129-210-017, 101-040-005,
101-040-006, 101-050-042,
101-040-011, 101-040-012,
101-040-013, 101-040-014,
101-050-013, 101-040-019,
101-040-020, 101-050-014,
101-070-007, 101-050-002

NOTES:

1. THIS PLAN GENERATED FROM AERIAL SURVEY AS PROVIDED BY CENTRAL COAST AERIAL MAPPING, INC., THEIR FILENAME/DATE – 2011-1719/APRIL 16, 2011. THIS SURVEY COLLECTED IN THE NAD 83, ZONE 5 STATE PLANE COORDINATE SYSTEM.

GRAPHIC SCALE

700' 0 350' 700' 1400' 2800'

(IN FEET)
1"=700'-0"

DWG NUMBER	TITLE
072-013-015A	SITE LOCATION PLAN
072-013-013A	TITLE SHEET/DRAWING INDEX/VICINITY MAP

REFERENCE DRAWINGS

TJCROSS ENGINEERS

T.J. CROSS AUTOCAD CONTROL
SCALE: 1" = 700'
PLOT AT: 1=1
ENGINEER: RSD
DATE STARTED: 04/17/14
FILE: 13186/072-13-015A
LAYER(S):
CHANGED BY: IDU
LAST CHANGED: 08/01/14

DATE	REV	DESCRIPTION	BY	APPR	AERA ENG
08/01/14	0	ISSUED FOR PERMIT	IDU	RSD	EP
06/03/14	A	ISSUED FOR REVIEW	IDU	RSD	EP

AERA

SITE LOCATION PLAN
FIELD REDEVELOPMENT PROJECT
SECTIONS 20/29 & 30 T9N R32W
EAST CAT CANYON FIELD – SANTA BARBARA COUNTY – CALIFORNIA

AERA ENGINEER:	ERIC PAULSON	DATE: 08/01/14	SCALE: 1" = 700'
CO. ENGINEER:	TJCROSS ENGINEERS, INC	ORIGINAL DWG NO.	
PROJ. MGR:	ALI GOKGOZ	NO. 072-13-015A	REV. 0
DESIGNED BY:	ROBIN DICKERSON		
DRAFTED BY:	ISAC URBINA		
ECCN NO.	EAR99	CAD FILE NO. 072-13-015A	

:FUNCTIONAL LOCATION NO.

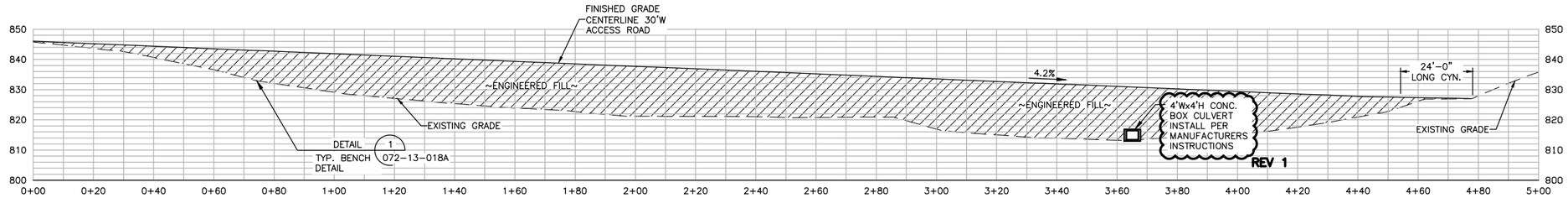
QUANTITIES:

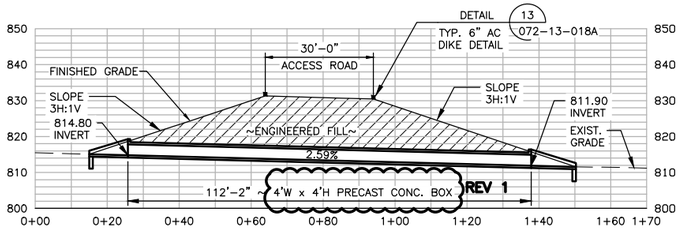
ROUGH GRADE QUANTITIES:

CUT (CU. YDS.)	+1.00
FILL* (CU. YDS.)	−21,626
TOTAL CUT (CU. YDS.)	+1.00
TOTAL FILL* (CU. YDS.)	−21,626
NET (CU. YDS.)	−21,625

* INCLUDES 30% SHRINKAGE

4'W x 4'H CONC. PRECAST BOX CULVERT (REV 1)	112'−2" L.F.
WING WALLS	2 REQ'D





SECTION D
VIEW LOOKING WESTERLY
SCALE: VERT.& HORIZ.(1"=20')
072−13−016A

SECTION C
VIEW LOOKING NORTHERLY
SCALE: VERT.& HORIZ.(1"=20')
072−13−016A

EARTHWORK NOTES:

A. EARTHWORK QUANTITIES SHOWN FOR PERMIT PURPOSES ONLY.
B. SEE EARTHWORK NOTES B AND C ON SHEET 072−13−014A UNDER EARTHWORK NOTES.

NOTE TO SURVEYOR:
AFTER SETTING UP ON THE NGS MONUMENT IN THIS AREA PLEASE CHECK THE COORDINATES IN THE COORDINATE CONFIRMATION SCHEDULE. IF THE COORDINATES CANNOT BE CONFIRMED, PLEASE CONTACT T.J. CROSS IMMEDIATELY.

NOTES:

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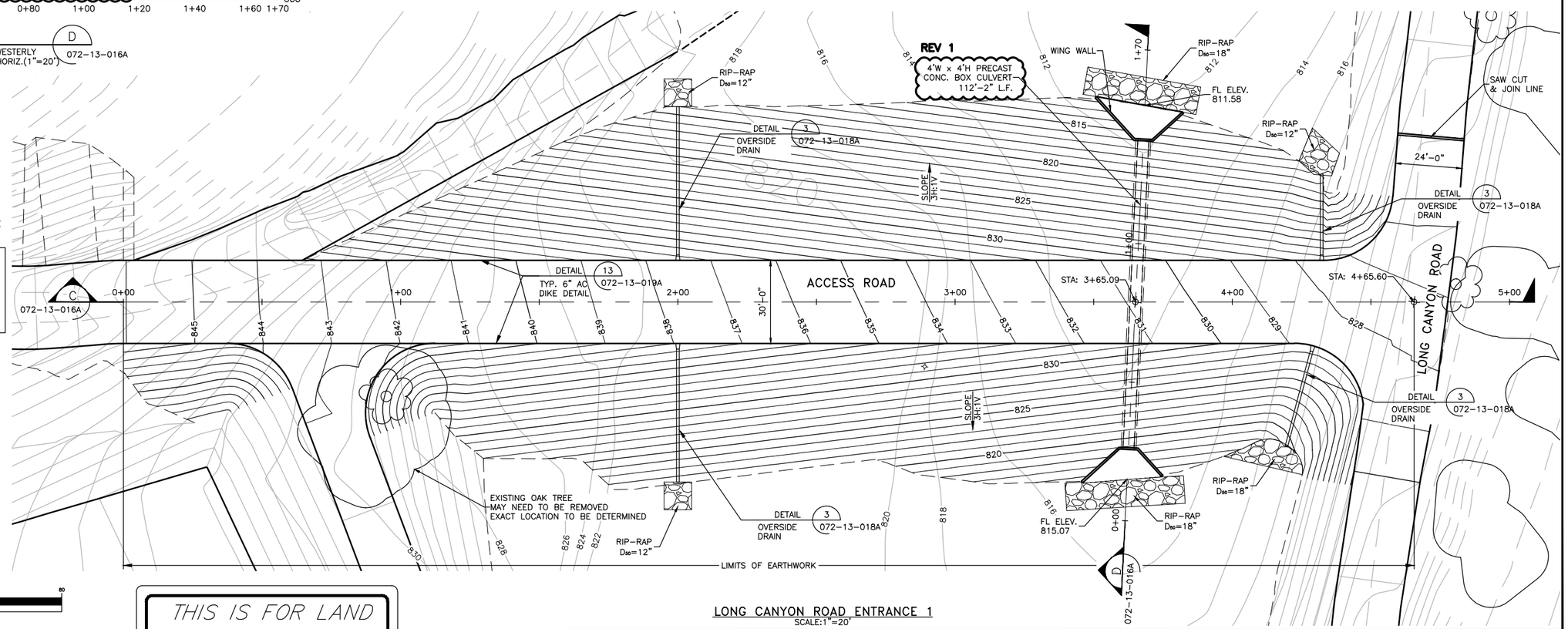
EXISTING GRADE CONTOUR INTERVAL = 2'−0"
DESIGN GRADE CONTOUR INTERVAL = 1'−0"



LONG CANYON ROAD ENTRANCE 1
SCALE:1"=20'

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

DWG NUMBER	TITLE
072−13−015A	SITE LOCATION PLAN
072−13−013A	TITLE SHEET/ DRAWING INDEX/ VICINITY MAP

REFERENCE DRAWINGS

THIS IS FOR LAND USE PERMIT ONLY

PRELIMINARY NOT FOR CONSTRUCTION

TJCROSS ENGINEERS

T.J. CROSS AUTOCAD CONTROL
SCALE: 1"=20' FILE: 13186/072−13−016A
PLOT AT: 1=1 LAYER(S): .
ENGINEER: RSD CHANGED BY: IDU
DATE STARTED: 04/07/14 LAST CHANGED: 09/17/14

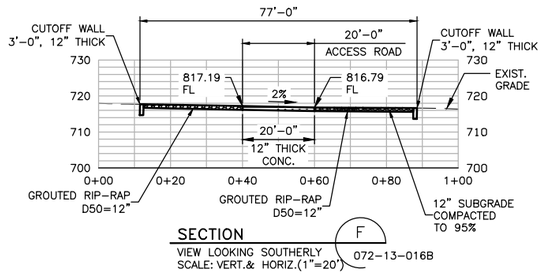
DATE	REV	DESCRIPTION	BY	APPR	AERA ENG
09/17/14	1	RE−ISSUED FOR PERMIT (LNG CYN CULVERT SIZE)	IDU	RSD	EP
08/01/14	0	ISSUED FOR PERMIT	IDU	RSD	EP
06/03/14	A	ISSUED FOR REVIEW	IDU	RSD	EP

AERA

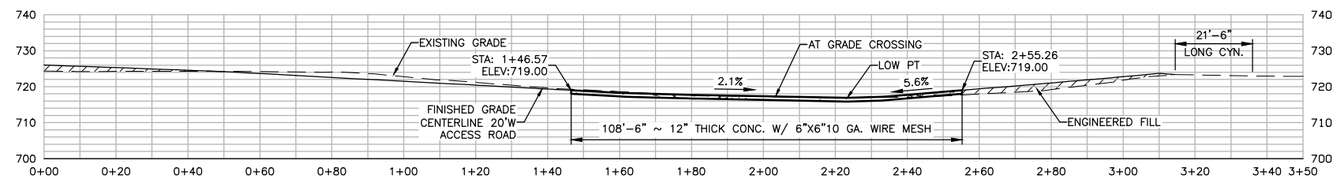
PLAN & PROFILE − LONG CANYON ROAD ENTRANCE 1
FIELD REDEVELOPMENT PROJECT
SECTIONS 20/29 & 30 T9N R32W
EAST CAT CANYON FIELD − SANTA BARBARA COUNTY − CALIFORNIA

AERA ENGINEER:	ERIC PAULSON	DATE: 09/17/14	SCALE: 1"=20'
CO. ENGINEER:	TJCROSS ENGINEERS, INC	ORIGINAL DWG NO.	
PROJ. MGR:	ALI GOKGOZ	NO. 072−13−016A	REV. 1
DESIGNED BY:	ROBIN DICKERSON		
DRAFTED BY:	ISAC URBINA		
ECCN NO.	EAR99	CAD FILE NO. 072−13−016A	

:FUNCTIONAL LOCATION NO.



SECTION F
VIEW LOOKING SOUTHERLY
SCALE: VERT.& HORIZ.(1"=20')
072-13-016B



SECTION E
VIEW LOOKING WESTERLY
SCALE: VERT.& HORIZ.(1"=20')
072-13-016B

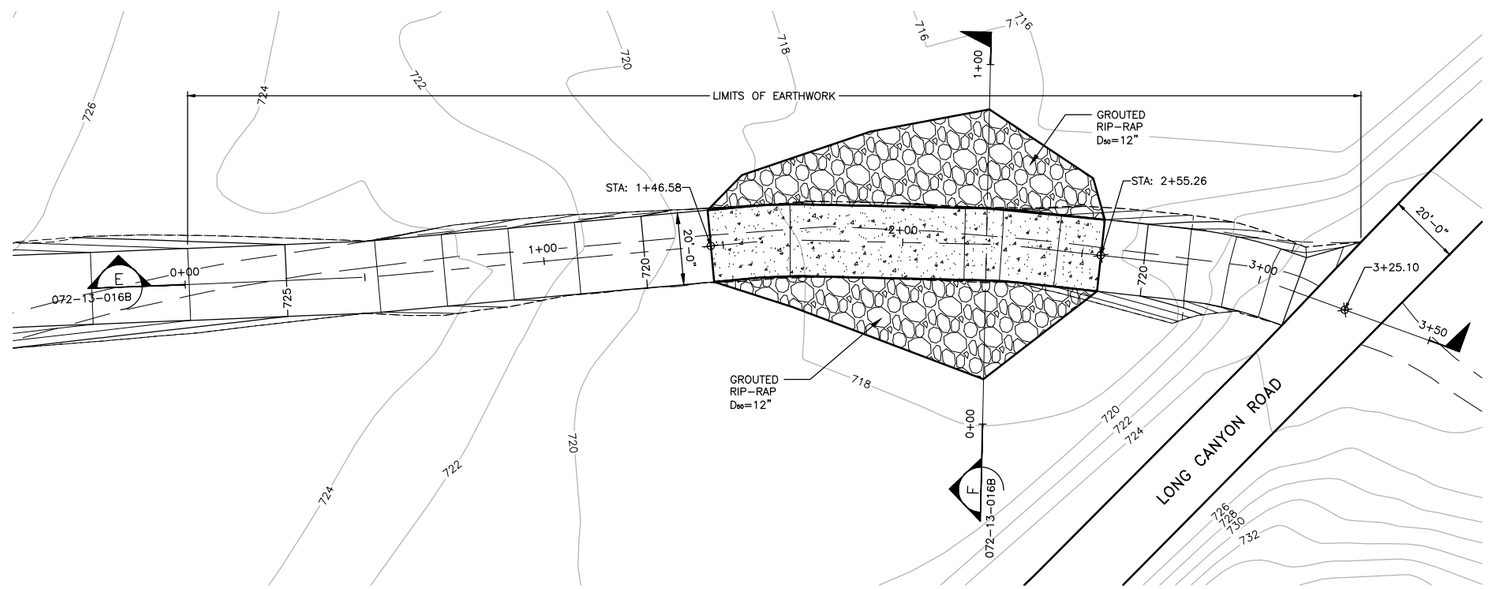
QUANTITIES:

CROSSING (CONCRETE)	81 CU. YDS.
GROUTED RIP-RAP	127 CU. YDS.
CUTOFF WALL (CONCRETE)	28 CU. YDS.
ROAD	CUT-60 CU. YDS. FILL-155 CU. YDS.
CUT (EARTHWORK) FILL (EARTHWORK)	296 CU. YDS. 155 CU. YDS.

* CONCRETE TO BE 4000 PSI @ 28 DAYS

EARTHWORK NOTES:

A. EARTHWORK QUANTITIES SHOWN FOR PERMIT PURPOSES ONLY.
B. SEE EARTHWORK NOTES B AND C ON SHEET 072-13-014A UNDER EARTHWORK NOTES.



LONG CANYON ROAD ENTRANCE 2
SCALE:1"=20'

NOTE TO SURVEYOR:
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N

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

NOTES:

1. THIS PLAN GENERATED FROM AERIAL SURVEY AS PROVIDED BY CENTRAL COAST AERIAL MAPPING, INC., THEIR FILENAME/DATE – 2011-1719/APRIL 16, 2011. THIS SURVEY COLLECTED IN THE NAD 83, ZONE 5 STATE PLANE COORDINATE SYSTEM.

EXISTING GRADE CONTOUR INTERVAL = 2'-0"
DESIGN GRADE CONTOUR INTERVAL = 1'-0"

THIS IS FOR LAND USE PERMIT ONLY

PRELIMINARY NOT FOR CONSTRUCTION

DWG NUMBER	TITLE
072-13-015A	SITE LOCATION MAP
072-13-013A	TITLE SHEET/ DRAWING INDEX/ VICINITY MAP

REFERENCE DRAWINGS

TJCROSS ENGINEERS

T.J. CROSS AUTOCAD CONTROL
SCALE: 1"=20' FILE: 13186/072-13-016B
PLOT AT: 1=1 LAYER(S): .
ENGINEER: RSD CHANGED BY: IDU
DATE STARTED: 04/07/14 LAST CHANGED: 08/01/14

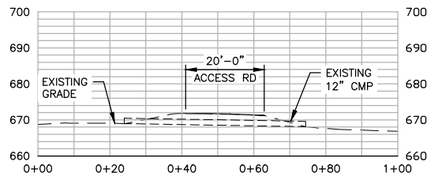
DATE	REV	DESCRIPTION	BY	APPR	AERA ENG
08/01/14	0	ISSUED FOR PERMIT	IDU	RSD	EP
06/03/14	A	ISSUED FOR REVIEW	IDU	RSD	EP

AERA

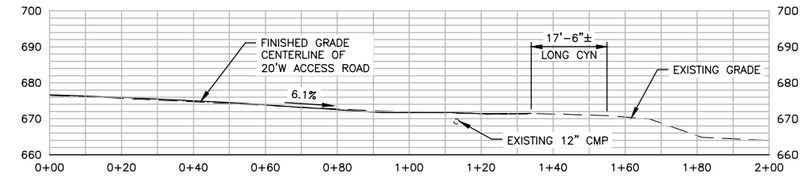
PLAN & PROFILE – LONG CANYON ROAD ENTRANCE 2
FIELD REDEVELOPMENT PROJECT
SECTIONS 20/29 & 30 T9N R32W
EAST CAT CANYON FIELD – SANTA BARBARA COUNTY – CALIFORNIA

AERA ENGINEER:	ERIC PAULSON	DATE: 08/01/14	SCALE: 1"=20'
CO. ENGINEER:	TJCROSS ENGINEERS, INC	ORIGINAL DWG NO.	
PROJ. MGR:	ALI GOKGOZ	NO. 072-13-016B	REV. 0
DESIGNED BY:	ROBIN DICKERSON		
DRAFTED BY:	ISAC URBINA		
ECCN NO.	EAR99	CAD FILE NO. 072-13-016B	

:FUNCTIONAL LOCATION NO.

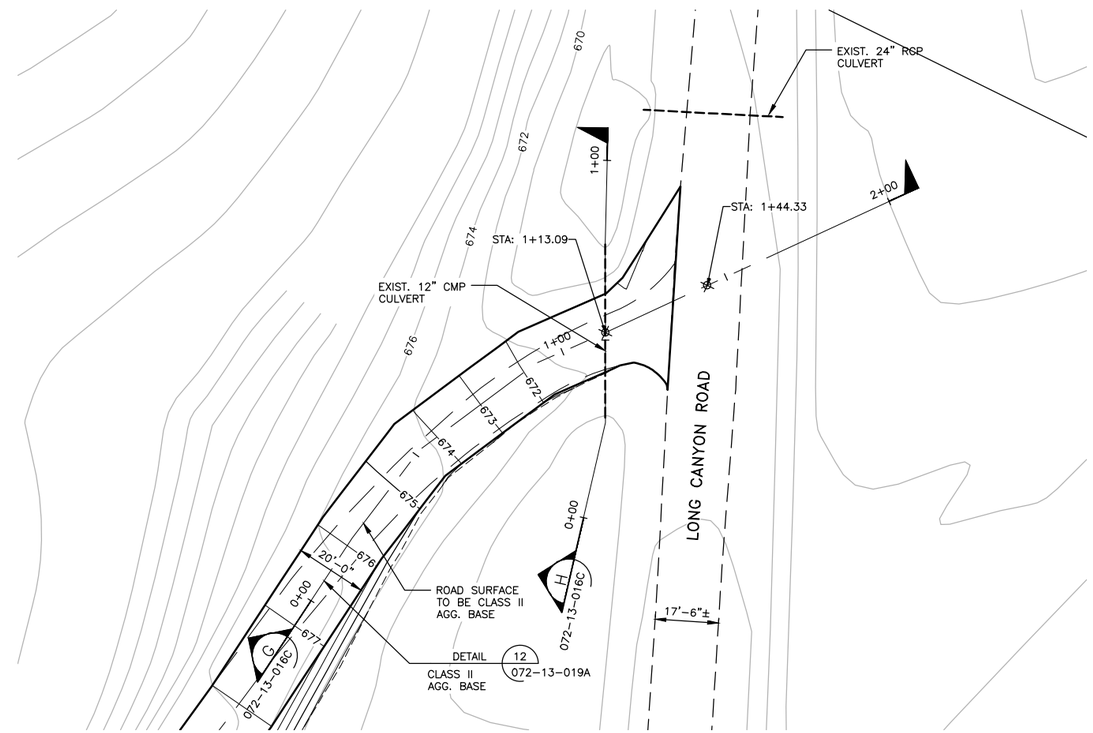


SECTION H 072-13-016C
VIEW LOOKING SOUTHWEST
SCALE: VERT.& HORIZ.(1"=20')



SECTION G 072-13-16C
VIEW LOOKING WESTERLY
SCALE: VERT.& HORIZ.(1"=20')

NOTE:
NO CUT OR FILL. USING EXISTING ROADWAY



LONG CANYON ROAD ENTRANCE 3
SCALE:1"=20'

NOTE TO SURVEYOR:
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NOTES:

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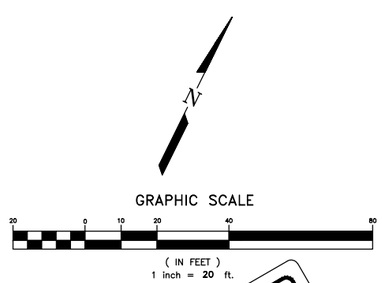
EXISTING GRADE CONTOUR INTERVAL = 2'-0"
DESIGN GRADE CONTOUR INTERVAL = 1'-0"



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PRELIMINARY NOT FOR CONSTRUCTION

DWG NUMBER	TITLE
072-13-015A	SITE LOCATION PLAN
072-13-013A	TITLE SHEET/ DRAWING INDEX/ VICINITY MAP

REFERENCE DRAWINGS

TJCROSS ENGINEERS

T.J. CROSS AUTOCAD CONTROL
SCALE: 1"=20' FILE: 13186/072-13-016C
PLOT AT: 1=1 LAYER(S): .
ENGINEER: RSD CHANGED BY: IDU
DATE STARTED: 04/07/14 LAST CHANGED: 08/01/14

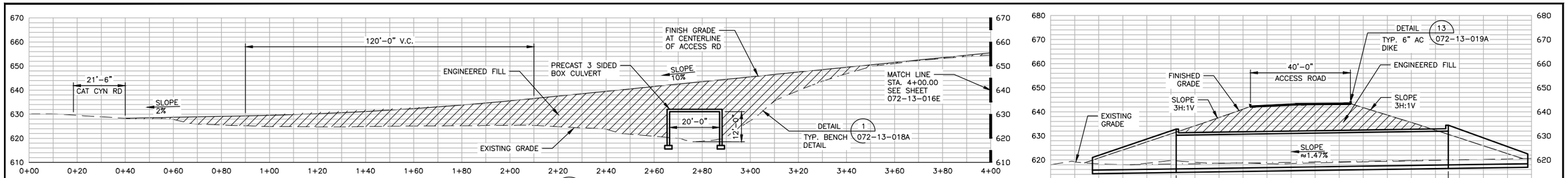
DATE	REV	DESCRIPTION	BY	APPR	AERA ENG
08/01/14	0	ISSUED FOR PERMIT	IDU	RSD	EP
06/03/14	A	ISSUED FOR REVIEW	IDU	RSD	EP

AERA

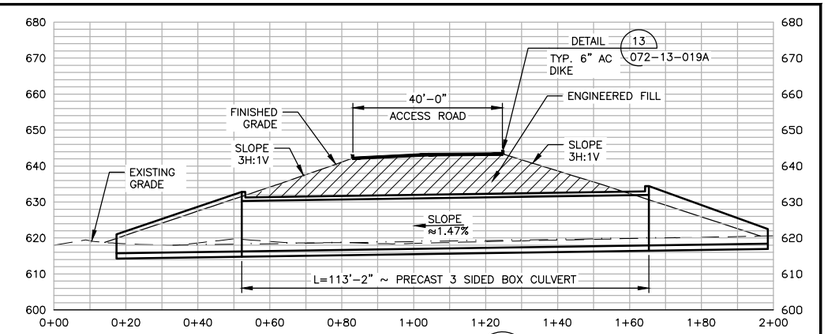
PLAN & PROFILE – LONG CANYON ROAD ENTRANCE 3
FIELD REDEVELOPMENT PROJECT
SECTIONS 20/29 & 30 T9N R32W
EAST CAT CANYON FIELD – SANTA BARBARA COUNTY – CALIFORNIA

AERA ENGINEER:	ERIC PAULSON	DATE: 08/01/14	SCALE: 1"=20'
CO. ENGINEER:	TJCROSS ENGINEERS, INC	ORIGINAL DWG NO.	
PROJ. MGR:	ALI GOKGOZ	NO. 072-13-016C	REV. 0
DESIGNED BY:	ROBIN DICKERSON		
DRAFTED BY:	ISAC URBINA		
ECCN NO.	EAR99	CAD FILE NO. 072-13-016C	

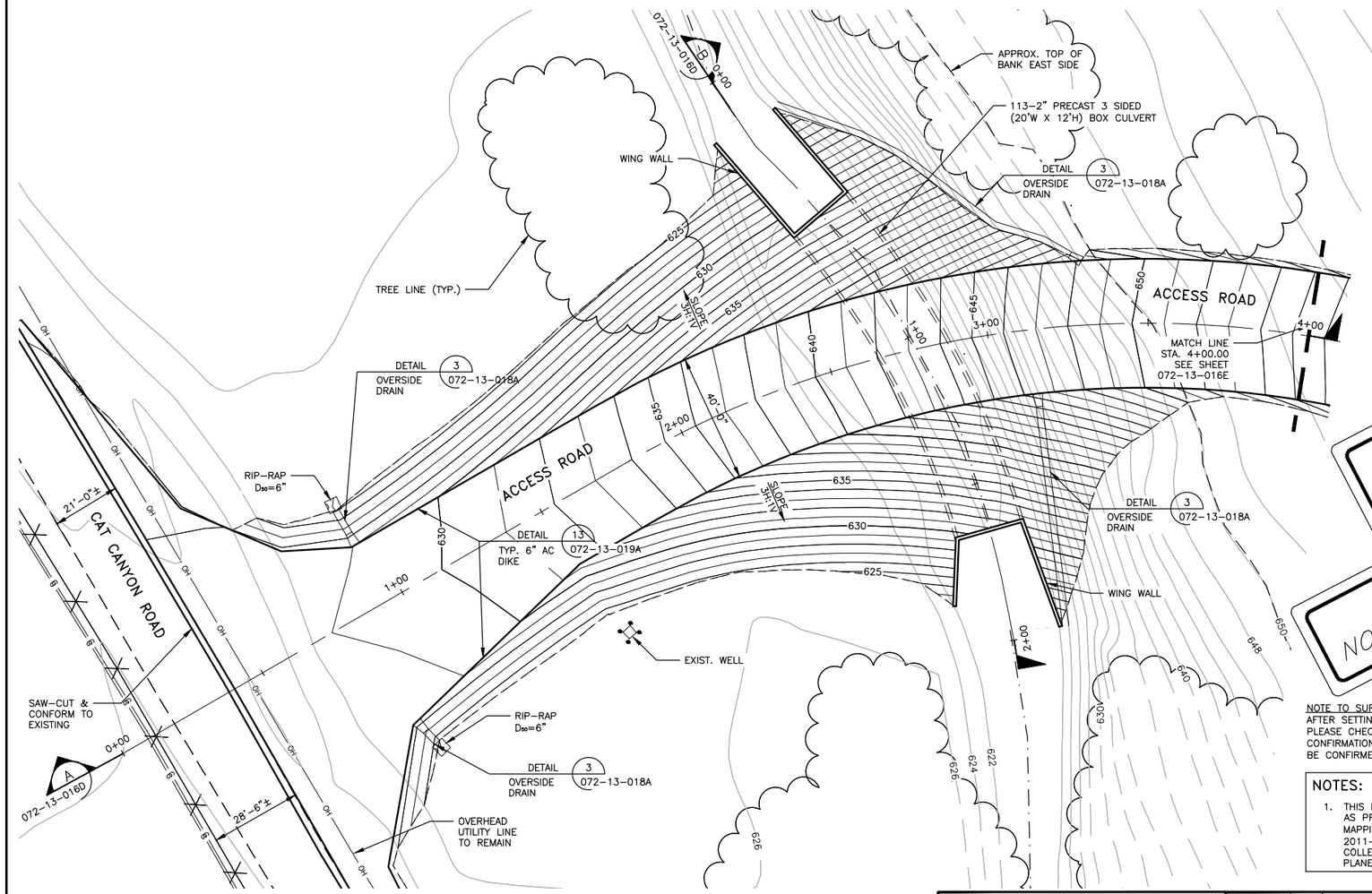
:FUNCTIONAL LOCATION NO.



SECTION A 072-13-016D
VIEW LOOKING NORTHERLY
SCALE: VERT.& HORIZ.(1"=20')



SECTION B 072-13-016D
VIEW LOOKING EASTERLY
SCALE: VERT.& HORIZ.(1"=20')



CAT CANYON ENTRANCE
SCALE:1"=20'

THIS IS FOR LAND USE PERMIT ONLY

PRELIMINARY NOT FOR CONSTRUCTION

QUANTITIES:

ROUGH GRADE QUANTITIES (FOR SHEETS -016D THRU -016G):

CUT (CU. YDS.)	+7,452
FILL* (CU. YDS.)	-18,767
TOTAL CUT (CU. YDS.)	+7,452
TOTAL FILL* (CU. YDS.)	-18,767
NET (CU. YDS.)	-11,315

* INCLUDES 30% SHRINKAGE

PRECAST 3 SIDED (20'Wx12'H) BOX CULVERT	113'-2" L.F.
WING WALLS	2 REQ'D

EARTHWORK NOTES:

A. EARTHWORK QUANTITIES SHOWN FOR PERMIT PURPOSES ONLY.
B. SEE EARTHWORK NOTES B AND C ON SHEET 072-13-014A UNDER EARTHWORK NOTES.

NOTE:

USING A 3 SIDED PRECAST BOX CULVERT WITH A CLEAR SPAN OF 20 FT. WIDE, 12 FT. HIGH.

THE CULVERT WILL BE CENTERED ALONG THE BLUE LINE CHANNEL.

FOOTINGS WILL BE CONSTRUCTED ON BOTH SIDES OF THE BOX CULVERT FOR PLACEMENT OF THE PRECAST 3 SIDED CULVERT.

BOTTOM WILL REMAIN NATURAL.

DESIGN AND INSTALLATION PER MANUFACTURER

THIS PLAN GENERATED FROM AERIAL SURVEY AS PROVIDED BY CENTRAL COAST AERIAL MAPPING, INC., THEIR FILENAME/DATE - 2011-1719/APRIL 16, 2011. THIS SURVEY COLLECTED IN THE NAD 83, ZONE 5 STATE PLANE COORDINATE SYSTEM.

NOTE TO SURVEYOR:
AFTER SETTING UP ON THE NGS MONUMENT IN THIS AREA PLEASE CHECK THE COORDINATES IN THE COORDINATE CONFIRMATION SCHEDULE. IF THE COORDINATES CANNOT BE CONFIRMED, PLEASE CONTACT T.J. CROSS IMMEDIATELY.

NOTES:

1. THIS PLAN GENERATED FROM AERIAL SURVEY AS PROVIDED BY CENTRAL COAST AERIAL MAPPING, INC., THEIR FILENAME/DATE - 2011-1719/APRIL 16, 2011. THIS SURVEY COLLECTED IN THE NAD 83, ZONE 5 STATE PLANE COORDINATE SYSTEM.

N

GRAPHIC SCALE
20 0 10 20 40 100
(IN FEET)
1 inch = 20 ft.

DWG NUMBER	TITLE
REFERENCE DRAWINGS	

EXISTING GRADE CONTOUR INTERVAL = 2'-0"
DESIGN GRADE CONTOUR INTERVAL = 1'-0"

TJCROSS ENGINEERS

T.J. CROSS AUTOCAD CONTROL
SCALE: 1"=20' FILE: 13186/072-13-016D
PLOT AT: 1=1 LAYER(S): .
ENGINEER: RSD CHANGED BY: IDU
DATE STARTED: 04/07/14 LAST CHANGED: 08/01/14

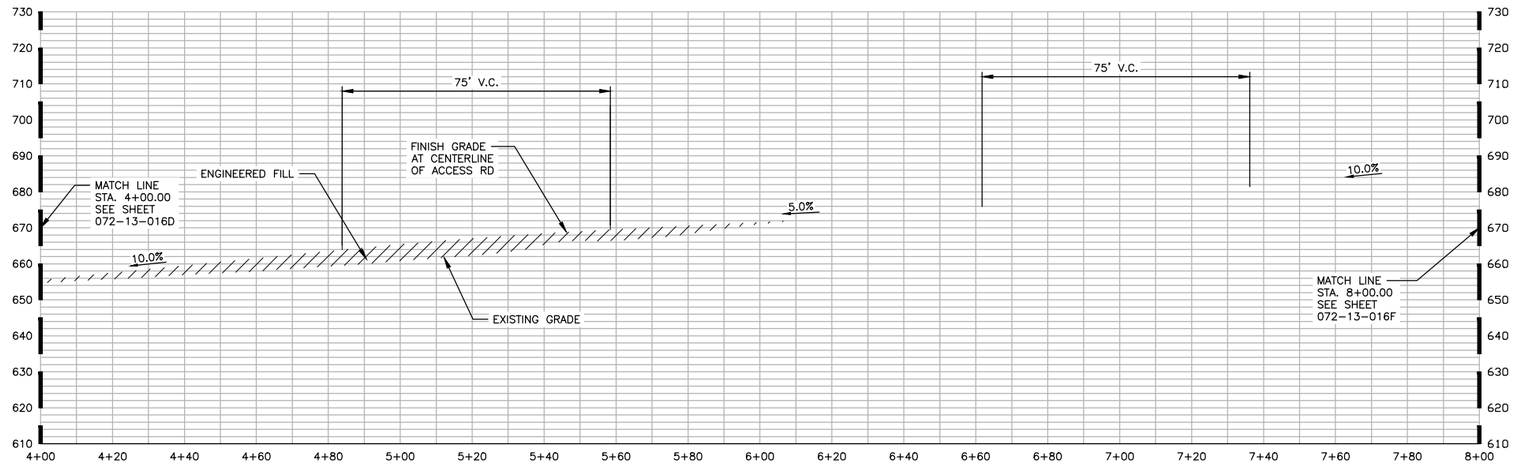
DATE	REV	DESCRIPTION	BY	APPR	AERA ENG
08/01/14	0	ISSUED FOR PERMIT	IDU	RSD	EP
06/03/14	A	ISSUED FOR REVIEW	IDU	RSD	EP

AERA

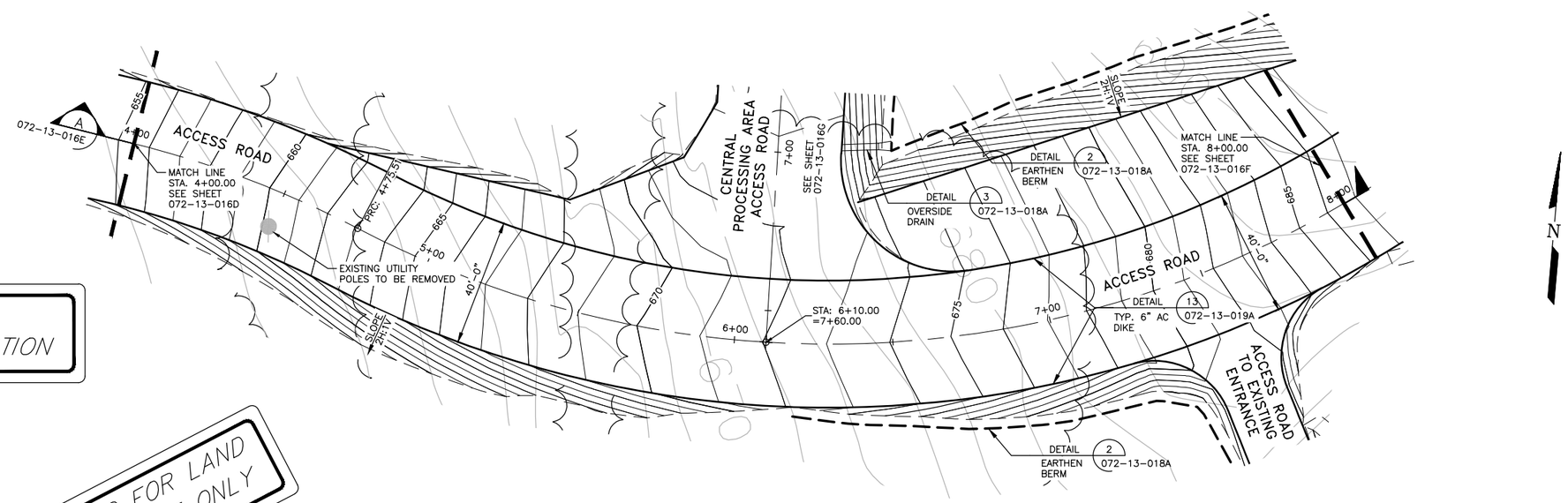
PLAN & PROFILE - CAT CANYON ENTRANCE
FIELD REDEVELOPMENT PROJECT
SECTIONS 20/29 & 30 T9N R32W
EAST CAT CANYON FIELD - SANTA BARBARA COUNTY - CALIFORNIA

AERA ENGINEER:	ERIC PAULSON	DATE: 08/01/14	SCALE: 1"=20'
CO. ENGINEER:	TJCROSS ENGINEERS, INC	ORIGINAL DWG NO.	
PROJ. MGR:	ALI GOKGOZ	NO. 072-13-016D	REV. 0
DESIGNED BY:	ROBIN DICKERSON		
DRAFTED BY:	ISAC URBINA		
ECCN NO.	EAR99	CAD FILE NO. 072-13-016D	

:FUNCTIONAL LOCATION NO.



SECTION (CONT.) A 072-13-016E
VIEW LOOKING NORTHERLY
SCALE: VERT.& HORIZ.(1"=20')



CAT CANYON ENTRANCE
SCALE:1"=20'

PRELIMINARY
NOT FOR CONSTRUCTION

THIS IS FOR LAND USE PERMIT ONLY

NOTE TO SURVEYOR:
AFTER SETTING UP ON THE NGS MONUMENT IN THIS AREA PLEASE CHECK THE COORDINATES IN THE COORDINATE CONFIRMATION SCHEDULE. IF THE COORDINATES CANNOT BE CONFIRMED, PLEASE CONTACT T.J. CROSS IMMEDIATELY.

NOTES:

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DWG NUMBER	TITLE
072-13-015A	SITE LOCATION PLAN
072-13-013A	TITLE SHEET/DRAWING INDEX/VICINITY MAP

REFERENCE DRAWINGS

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

EXISTING GRADE CONTOUR INTERVAL = 2'-0"
DESIGN GRADE CONTOUR INTERVAL = 1'-0"

TJCROSS ENGINEERS

T.J. CROSS AUTOCAD CONTROL
SCALE: 1"=20'
PLOT AT: 1=1
ENGINEER: RSD
DATE STARTED: 04/07/14
FILE: 13186/072-13-016E
LAYER(S): .
CHANGED BY: IDU
LAST CHANGED: 08/01/14

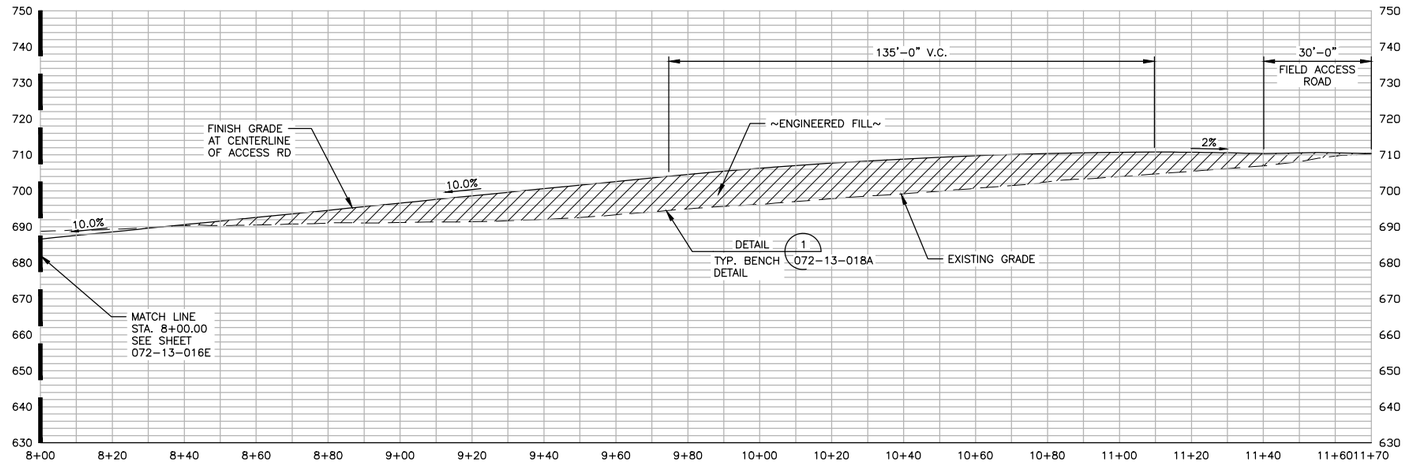
DATE	REV	DESCRIPTION	BY	APPR	AERA ENG
08/01/14	0	ISSUED FOR PERMIT	IDU	RSD	EP
06/03/14	A	ISSUED FOR REVIEW	IDU	RSD	EP

AERA

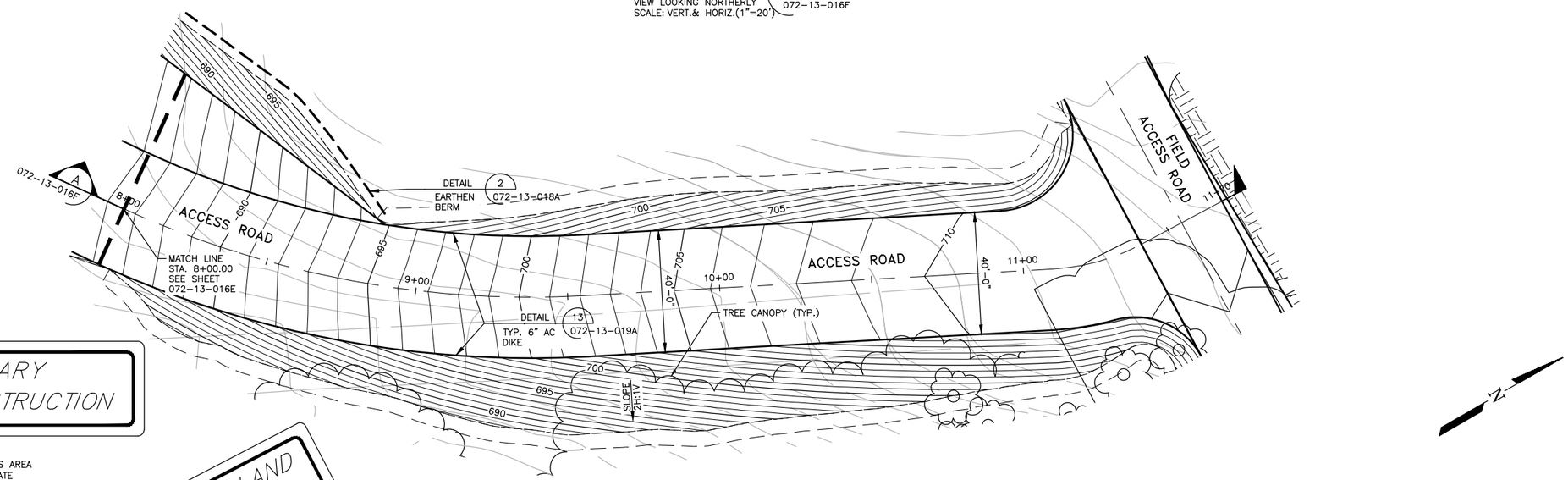
PLAN & PROFILE – CAT CANYON ENTRANCE
FIELD REDEVELOPMENT PROJECT
SECTIONS 20/29 & 30 T9N R32W
EAST CAT CANYON FIELD – SANTA BARBARA COUNTY – CALIFORNIA

AERA ENGINEER:	ERIC PAULSON	DATE: 08/01/14	SCALE: AS SHOWN
CO. ENGINEER:	TJCROSS ENGINEERS, INC	ORIGINAL DWG NO.	
PROJ. MGR:	ALI GOKGOZ	NO. 072-13-016E	REV. 0
DESIGNED BY:	ROBIN DICKERSON		
DRAFTED BY:	ISAC URBINA		
ECCN NO.	EAR99	CAD FILE NO. 072-13-016E	

:FUNCTIONAL LOCATION NO.



SECTION (CONT.) A
VIEW LOOKING NORTHERLY
SCALE: VERT.& HORIZ.(1"=20')
072-13-016F



CAT CANYON ENTRANCE
SCALE:1"=20'

PRELIMINARY
NOT FOR CONSTRUCTION

THIS IS FOR LAND USE PERMIT ONLY

NOTE TO SURVEYOR:
AFTER SETTING UP ON THE NGS MONUMENT IN THIS AREA PLEASE CHECK THE COORDINATES IN THE COORDINATE CONFIRMATION SCHEDULE. IF THE COORDINATES CANNOT BE CONFIRMED, PLEASE CONTACT T.J. CROSS IMMEDIATELY.

NOTES:

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DWG NUMBER	TITLE
072-13-015A	SITE LOCATION MAP
072-13-013A	TITLE SHEET/DRAWING INDEX/VICINITY MAP

REFERENCE DRAWINGS

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

EXISTING GRADE CONTOUR INTERVAL = 2'–0"
DESIGN GRADE CONTOUR INTERVAL = 1'–0"

TJCROSS ENGINEERS

T.J. CROSS AUTOCAD CONTROL
SCALE: 1"=20' FILE: 13186/072-13-016F
PLOT AT: 1=1 LAYER(S): .
ENGINEER: RSD CHANGED BY: IDU
DATE STARTED: 04/07/14 LAST CHANGED: 08/01/14

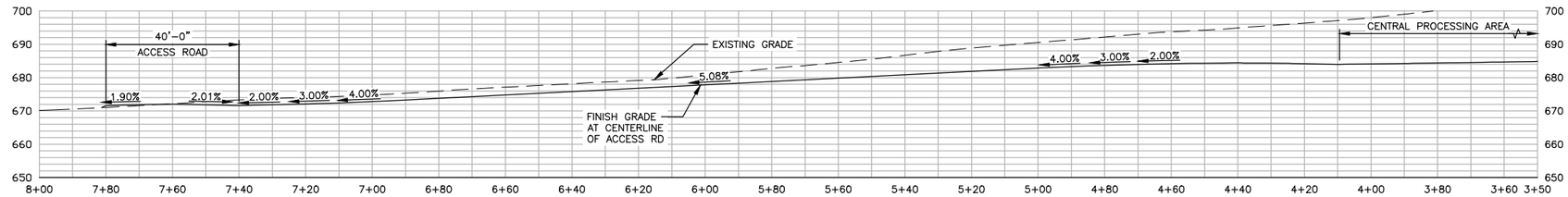
DATE	REV	DESCRIPTION	BY	APPR	AERA ENG
08/01/14	0	ISSUED FOR PERMIT	IDU	RSD	EP
06/03/14	A	ISSUED FOR REVIEW	IDU	RSD	EP

AERA

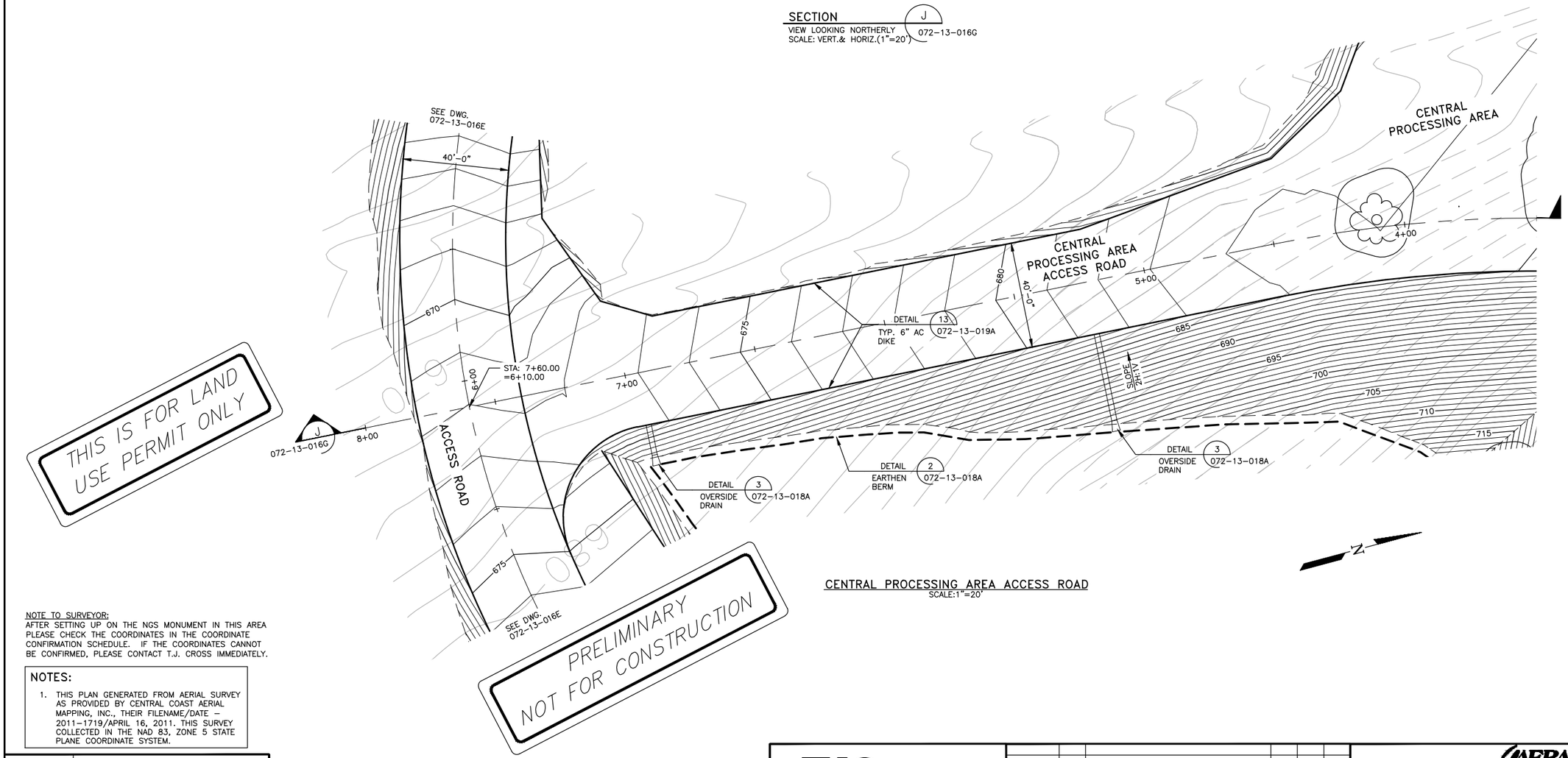
PLAN & PROFILE – CAT CANYON ENTRANCE
FIELD REDEVELOPMENT PROJECT
SECTIONS 20/29 & 30 T9N R32W
EAST CAT CANYON FIELD – SANTA BARBARA COUNTY – CALIFORNIA

AERA ENGINEER:	ERIC PAULSON	DATE: 08/01/14	SCALE: AS SHOWN
CO. ENGINEER:	TJCROSS ENGINEERS, INC	ORIGINAL DWG NO.	
PROJ. MGR:	ALI GOKGOZ	NO. 072-13-016F	REV. 0
DESIGNED BY:	ROBIN DICKERSON		
DRAFTED BY:	ISAC URBINA		
ECCN NO.	EAR99	CAD FILE NO. 072-13-016F	

:FUNCTIONAL LOCATION NO.



SECTION J 072-13-016G
VIEW LOOKING NORTHERLY
SCALE: VERT.& HORIZ.(1"=20')



CENTRAL PROCESSING AREA ACCESS ROAD
SCALE:1"=20'

NOTE TO SURVEYOR:
AFTER SETTING UP ON THE NGS MONUMENT IN THIS AREA PLEASE CHECK THE COORDINATES IN THE COORDINATE CONFIRMATION SCHEDULE. IF THE COORDINATES CANNOT BE CONFIRMED, PLEASE CONTACT T.J. CROSS IMMEDIATELY.

NOTES:

1. THIS PLAN GENERATED FROM AERIAL SURVEY AS PROVIDED BY CENTRAL COAST AERIAL MAPPING, INC., THEIR FILENAME/DATE – 2011-1719/APRIL 16, 2011. THIS SURVEY COLLECTED IN THE NAD 83, ZONE 5 STATE PLANE COORDINATE SYSTEM.

DWG NUMBER	TITLE
072-13-015A	SITE LOCATION MAP
072-13-013A	TITLE SHEET/DRAWING INDEX/ VICINITY MAP

REFERENCE DRAWINGS

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

EXISTING GRADE CONTOUR INTERVAL = 2'-0"
DESIGN GRADE CONTOUR INTERVAL = 1'-0"

TJCROSS ENGINEERS

T.J. CROSS AUTOCAD CONTROL
SCALE: 1"=20'
PLOT AT: 1=1
ENGINEER: RSD
DATE STARTED: 04/07/14
FILE: 13186/072-13-016G
LAYER(S): .
CHANGED BY: IDU
LAST CHANGED: 08/01/14

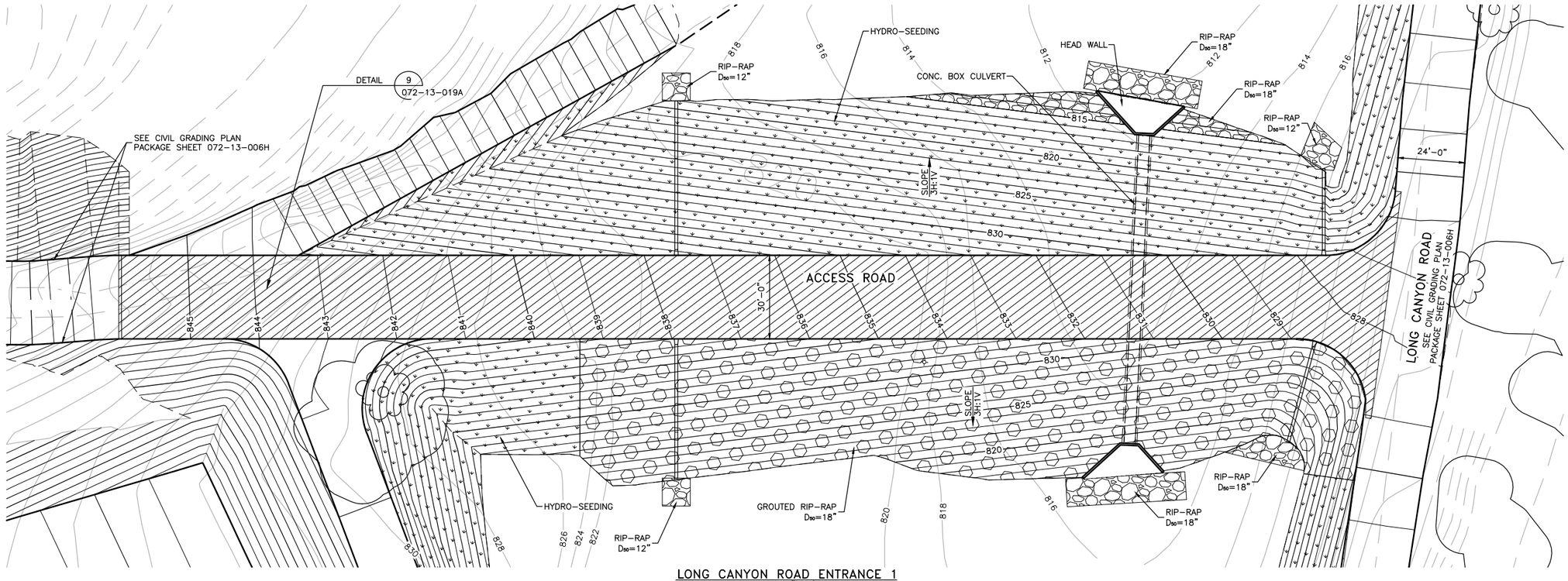
DATE	REV	DESCRIPTION	BY	APPR	AERA ENG
08/01/14	0	ISSUED FOR PERMIT	IDU	RSD	EP
06/03/14	A	ISSUED FOR REVIEW	IDU	RSD	EP

AERA

PLAN & PROFILE – CENTRAL PROCESSING AREA ACCESS ROAD
FIELD REDEVELOPMENT PROJECT
SECTIONS 20/29 & 30 T9N R32W
EAST CAT CANYON FIELD – SANTA BARBARA COUNTY – CALIFORNIA

AERA ENGINEER: ERIC PAULSON
CO. ENGINEER: TJCROSS ENGINEERS, INC
PROJ. MGR: ALI GOKGOZ
DESIGNED BY: ROBIN DICKERSON
DRAFTED BY: ISAC URBINA
ECCN NO. EAR99
DATE: 08/01/14
SCALE: 1"=20'
ORIGINAL DWG NO.
NO. 072-13-016G
REV. 0
CAD FILE NO. 072-13-016G

:FUNCTIONAL LOCATION NO.



LONG CANYON ROAD ENTRANCE 1
SCALE:1"=20'

LEGEND

- ASPHALT/ CONCRETE
- CLASS II AGGREGATE BASE
- RIP-RAP
- GROUTED RIP-RAP
- HYDRO-SEEDING

N

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

NOTES:

1. THIS PLAN GENERATED FROM AERIAL SURVEY AS PROVIDED BY CENTRAL COAST AERIAL MAPPING, INC., THEIR FILENAME/DATE – 2011–1719/APRIL 16, 2011. THIS SURVEY COLLECTED IN THE NAD 83, ZONE 5 STATE PLANE COORDINATE SYSTEM.

EXISTING GRADE CONTOUR INTERVAL = 2'–0"
DESIGN GRADE CONTOUR INTERVAL = 1'–0"

THIS IS FOR LAND USE PERMIT ONLY

PRELIMINARY NOT FOR CONSTRUCTION

DWG NUMBER	TITLE
072–13–015A	SITE LOCATION PLAN
072–13–013A	TITLE SHEET/ DRAWING INDEX/ VICINITY MAP

REFERENCE DRAWINGS

TJCROSS ENGINEERS

T.J. CROSS AUTOCAD CONTROL
SCALE: 1"=20' FILE: 13186/072–13–017A
PLOT AT: 1=1 LAYER(S): .
ENGINEER: RSD CHANGED BY: IDU
DATE STARTED: 04/07/14 LAST CHANGED: 08/01/14

DATE	REV	DESCRIPTION	BY	APPR	AERA ENG
08/01/14	0	ISSUED FOR PERMIT	IDU	RSD	EP
06/03/14	A	ISSUED FOR REVIEW	IDU	RSD	EP

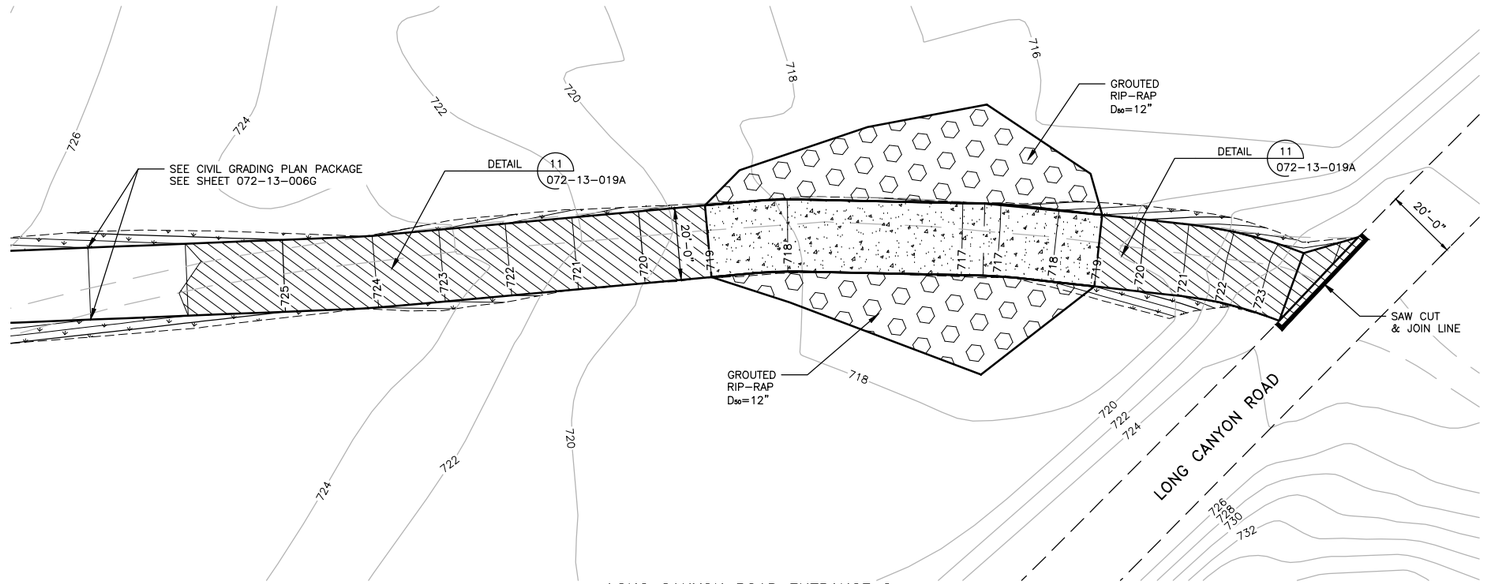
AERA

PAVING PLAN – LONG CANYON ROAD ENTRANCE 1
FIELD REDEVELOPMENT PROJECT
SECTIONS 20/29 & 30 T9N R32W
EAST CAT CANYON FIELD – SANTA BARBARA COUNTY – CALIFORNIA

AERA ENGINEER: ERIC PAULSON
CO. ENGINEER: TJCROSS ENGINEERS, INC
PROJ. MGR: ALI GOKGOZ
DESIGNED BY: ROBIN DICKERSON
DRAFTED BY: ISAC URBINA
ECCN NO. EAR99

DATE: 08/01/14 SCALE: 1"=20'
ORIGINAL DWG NO.
NO. 072–13–017A REV. 0
CAD FILE NO. 072–13–017A

:FUNCTIONAL LOCATION NO.



LONG CANYON ROAD ENTRANCE 2

SCALE:1"=20'

EXISTING GRADE CONTOUR INTERVAL = 2'-0"
DESIGN GRADE CONTOUR INTERVAL = 1'-0"

LEGEND

- ASPHALT/ CONCRETE
- CLASS II AGGREGATE BASE
- RIP-RAP
- GROUTED RIP-RAP
- HYDRO-SEEDING

N

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

THIS IS FOR LAND USE PERMIT ONLY

PRELIMINARY NOT FOR CONSTRUCTION

NOTES:

1. THIS PLAN GENERATED FROM AERIAL SURVEY AS PROVIDED BY CENTRAL COAST AERIAL MAPPING, INC., THEIR FILENAME/DATE – 2011-1719/APRIL 16, 2011. THIS SURVEY COLLECTED IN THE NAD 83, ZONE 5 STATE PLANE COORDINATE SYSTEM.

DWG NUMBER	TITLE
072-13-015A	SITE LOCATION MAP
072-13-013A	TITLE SHEET/ DRAWING INDEX/ VICINITY MAP

REFERENCE DRAWINGS

TJCROSS ENGINEERS

T.J. CROSS AUTOCAD CONTROL
SCALE: 1"=20' FILE: 13186/072-13-017B
PLOT AT: 1=1 LAYER(S): .
ENGINEER: RSD CHANGED BY: IDU
DATE STARTED: 04/07/14 LAST CHANGED: 08/01/14

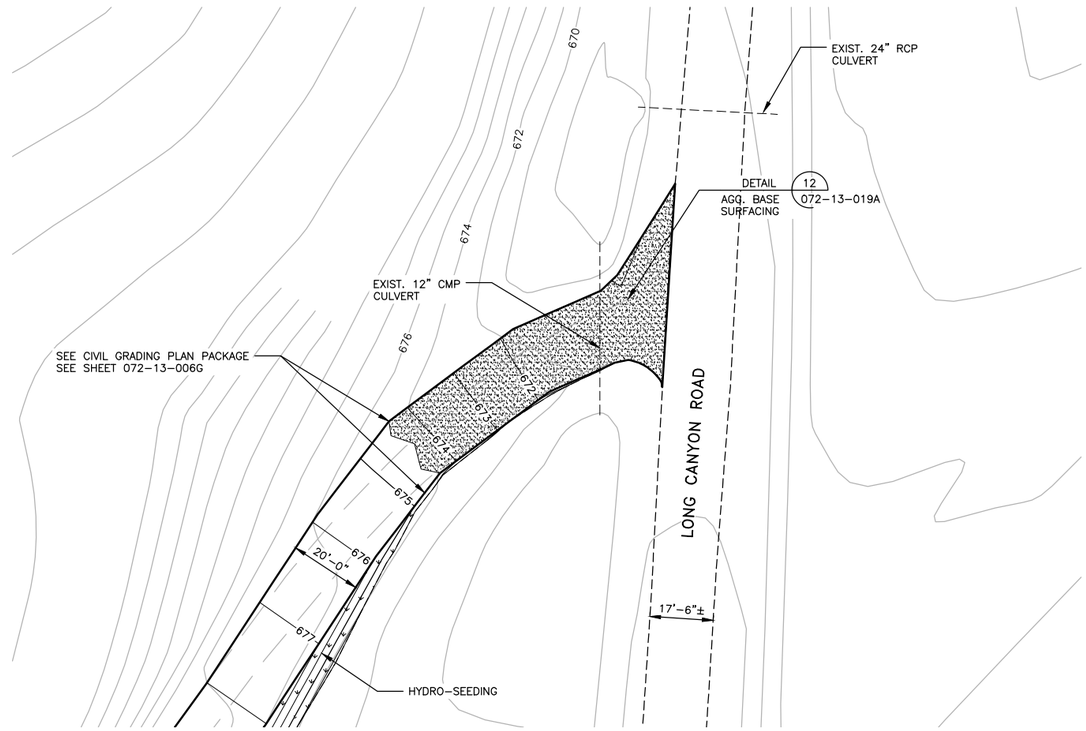
DATE	REV	DESCRIPTION	BY	APPR	AERA ENG
08/01/14	0	ISSUED FOR PERMIT	IDU	RSD	EP
06/03/14	A	ISSUED FOR REVIEW	IDU	RSD	EP

AERA

PAVING PLAN – LONG CANYON ROAD ENTRANCE 2
FIELD REDEVELOPMENT PROJECT
SECTIONS 20/29 & 30 T9N R32W
EAST CAT CANYON FIELD – SANTA BARBARA COUNTY – CALIFORNIA

AERA ENGINEER:	ERIC PAULSON	DATE: 08/01/14	SCALE: 1"=20'
CO. ENGINEER:	TJCROSS ENGINEERS, INC	ORIGINAL DWG NO.	
PROJ. MGR:	ALI GOKGOZ	NO. 072-13-017B	REV. 0
DESIGNED BY:	ROBIN DICKERSON		
DRAFTED BY:	ISAC URBINA		
ECCN NO.	EAR99	CAD FILE NO. 072-13-017B	

:FUNCTIONAL LOCATION NO.



LONG CANYON ROAD ENTRANCE 3
SCALE:1"=20'

LEGEND

- ASPHALT/ CONCRETE
- CLASS II AGGREGATE BASE
- RIP-RAP
- GROUTED RIP-RAP
- HYDRO-SEEDING

N

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

THIS IS FOR LAND USE PERMIT ONLY

PRELIMINARY NOT FOR CONSTRUCTION

NOTES:

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DWG NUMBER	TITLE
072-13-015A	SITE LOCATION PLAN
072-13-013A	TITLE SHEET/ DRAWING INDEX/ VICINITY MAP

REFERENCE DRAWINGS

TJCROSS ENGINEERS

T.J. CROSS AUTOCAD CONTROL
SCALE: 1"=20' FILE: 13186/072-13-017C
PLOT AT: 1=1 LAYER(S): .
ENGINEER: RSD CHANGED BY: IDU
DATE STARTED: 04/07/14 LAST CHANGED: 08/01/14

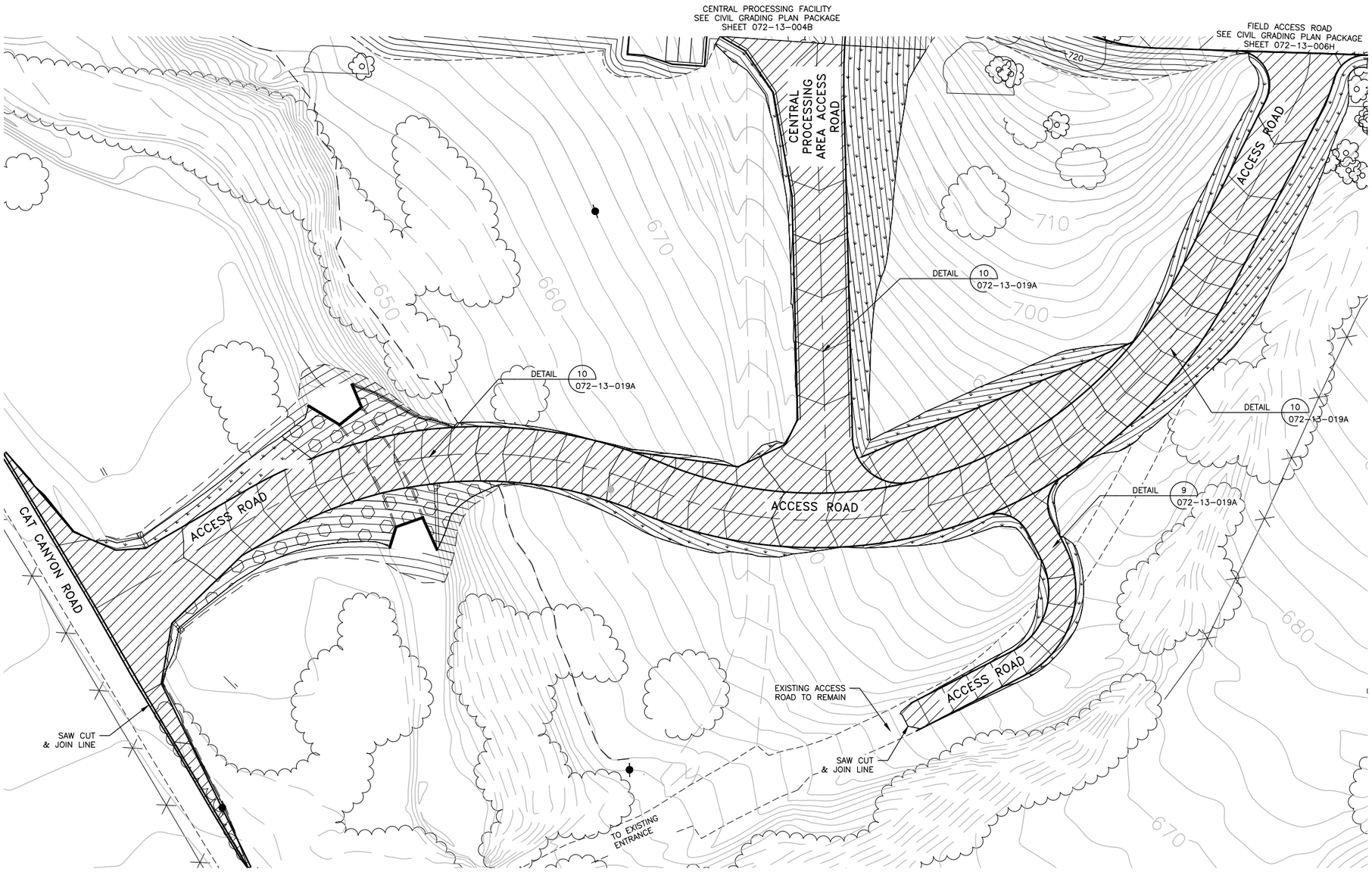
DATE	REV	DESCRIPTION	BY	APPR	AERA ENG
08/01/14	0	ISSUED FOR PERMIT	IDU	RSD	EP
06/03/14	A	ISSUED FOR PROGRESS PRINT	IDU	RSD	EP

AERA

PAVING PLAN – LONG CANYON ROAD ENTRANCE 3
FIELD REDEVELOPMENT PROJECT
SECTIONS 20/29 & 30 T9N R32W
EAST CAT CANYON FIELD – SANTA BARBARA COUNTY – CALIFORNIA

AERA ENGINEER:	ERIC PAULSON	DATE: 08/01/14	SCALE: 1"=20'
CO. ENGINEER:	TJCROSS ENGINEERS, INC	ORIGINAL DWG NO.	
PROJ. MGR:	ALI GOKGOZ	NO. 072-13-017C	REV. 0
DESIGNED BY:	ROBIN DICKERSON		
DRAFTED BY:	ISAC URBINA		
ECCN NO.	EAR99	CAD FILE NO. 072-13-017C	

:FUNCTIONAL LOCATION NO.



CAT CANYON ENTRANCE
SCALE:1"=40'

PRELIMINARY
NOT FOR CONSTRUCTION

THIS IS FOR LAND USE PERMIT ONLY

LEGEND

- ASPHALT/ CONCRETE
- CLASS II AGGREGATE BASE
- RIP-RAP
- GROUTED RIP-RAP
- HYDRO-SEEDING

N

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

NOTES:

1. THIS PLAN GENERATED FROM AERIAL SURVEY AS PROVIDED BY CENTRAL COAST AERIAL MAPPING, INC., THEIR FILENAME/DATE – 2011-1719/APRIL 16, 2011. THIS SURVEY COLLECTED IN THE NAD 83, ZONE 5 STATE PLANE COORDINATE SYSTEM.

DWG NUMBER	TITLE
072-13-015A	SITE LOCATION PLAN
072-13-013A	TITLE SHEET/DRAWING INDEX/VICINITY MAP

REFERENCE DRAWINGS

EXISTING GRADE CONTOUR INTERVAL = 2'-0"
DESIGN GRADE CONTOUR INTERVAL = 1'-0"

TJCROSS ENGINEERS

T.J. CROSS AUTOCAD CONTROL
SCALE: 1"=40' FILE: 13186/072-13-017D
PLOT AT: 1=1 LAYER(S): .
ENGINEER: RSD CHANGED BY: IDU
DATE STARTED: 04/07/14 LAST CHANGED: 08/01/14

DATE	REV	DESCRIPTION	BY	APPR	AERA ENG
08/01/14	0	ISSUED FOR PERMIT	IDU	RSD	EP
06/03/14	A	ISSUED FOR REVIEW	IDU	RSD	EP

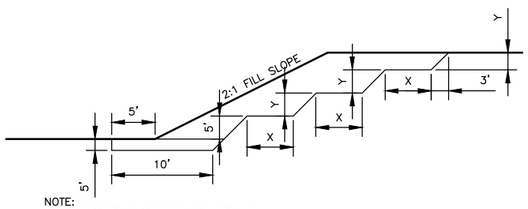
AERA

PAVING PLAN – CAT CANYON ENTRANCE
FIELD REDEVELOPMENT PROJECT
SECTIONS 20/29 & 30 T9N R32W
EAST CAT CANYON FIELD – SANTA BARBARA COUNTY – CALIFORNIA

AERA ENGINEER: ERIC PAULSON
CO. ENGINEER: TJCROSS ENGINEERS, INC
PROJ. MGR: ALI GOKGOZ
DESIGNED BY: ROBIN DICKERSON
DRAFTED BY: ISAC URBINA
ECCN NO. EAR99

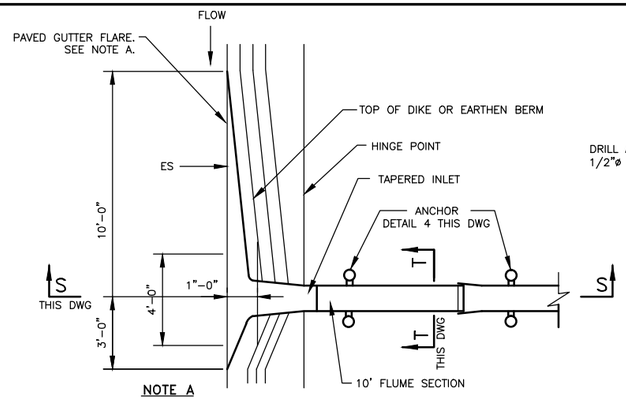
DATE: 08/01/14 SCALE: 1"=40'
ORIGINAL DWG NO.
NO. 072-13-017D REV. 0
CAD FILE NO. 072-13-017D

:FUNCTIONAL LOCATION NO.



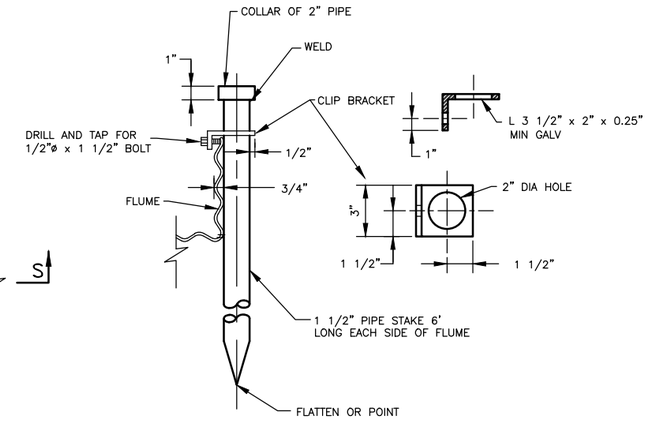
NOTE:
A. BENCHES SLOPE AT 2% INTO HILL.
B. SLOPE BETWEEN BENCHES NOT TO EXCEED 1:1.
C. NUMBER OF BENCHES TO BE DETERMINED BY HEIGHT OF FILL
D. BENCH DIMENSIONS & NUMBER ARE APPROXIMATE. CONTRACTOR TO FIELD FIT TO EX SLOPE. Y NOT TO EXCEED X.

DETAIL 1
TYP. BENCH DETAIL
SCALE: N.T.S.
072-13-016A
072-13-016D

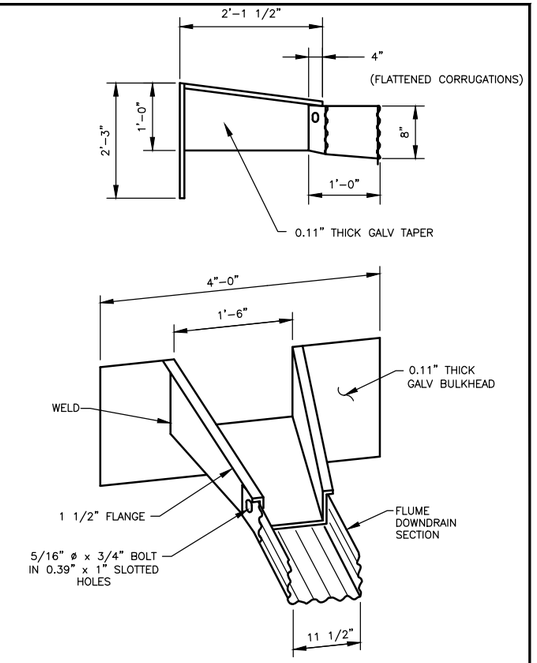


NOTE A
IN SAG LOCATION, USE 10' LENGTH OF PAVED GUTTER FLARE ON BOTH SIDES OF INLET

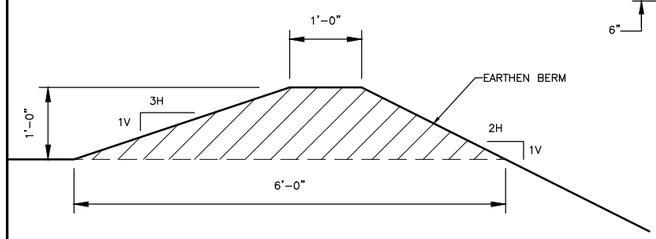
DETAIL 3
TYP. OVERSIDE DRAIN
SCALE: N.T.S.
072-13-016A
072-13-016D



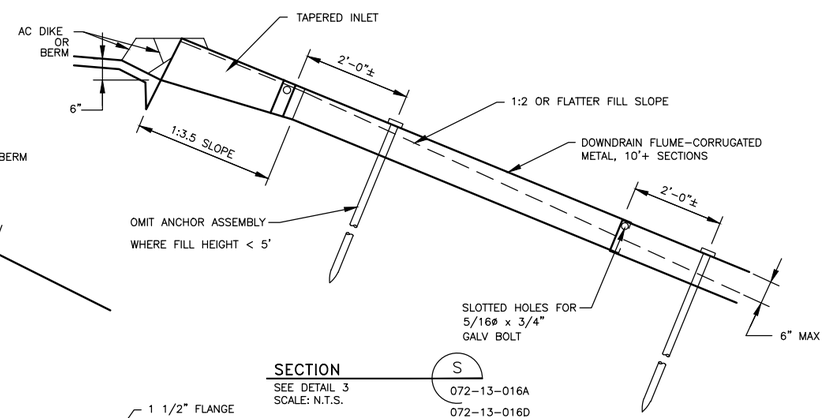
DETAIL 4
PIPE STAKE ANCHOR
SCALE: N.T.S.
072-13-016A
072-13-016D



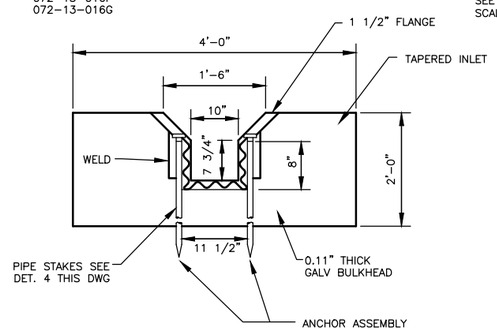
DETAIL 5
TAPERED INLET
SCALE: N.T.S.
072-13-016A
072-13-016D



DETAIL 2
EARTHEN BERM
SCALE: N.T.S.
072-13-016E
072-13-016F
072-13-016G



SECTION S
SEE DETAIL 3
SCALE: N.T.S.
072-13-016A
072-13-016D



SECTION T
SEE DETAIL 3
SCALE: N.T.S.
072-13-016A
072-13-016D

THIS IS FOR LAND USE PERMIT ONLY

NOT ISSUED FOR CONSTRUCTION

DWG NUMBER	TITLE
072-13-015A	SITE LOCATION PLAN
072-13-001A	TITLE SHEET/VICINITY MAP/DRAWING INDEX

REFERENCE DRAWINGS

TJCROSS ENGINEERS

T.J. CROSS AUTOCAD CONTROL
SCALE: AS SHOWN — FILE: 13186/072-13-008A
PLOT AT: 1=1 — LAYER(S): _
ENGINEER: RSD — CHANGED BY: IDU
DATE STARTED: 01/21/14 — LAST CHANGED: 08/01/14

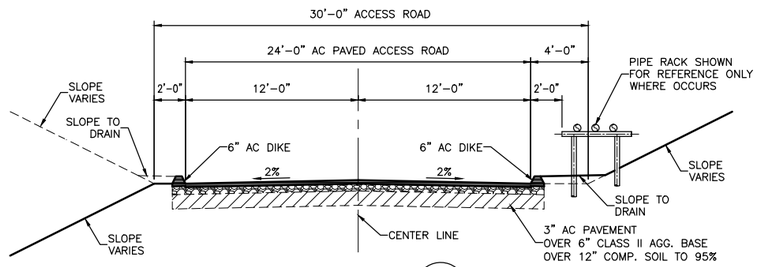
DATE	REV	DESCRIPTION	BY	APPR	AERA ENG
08/01/14	0	ISSUED FOR PERMIT	IDU	RSD	EP
06/03/14	A	ISSUED FOR REVIEW	IDU	RSD	EP

AERA

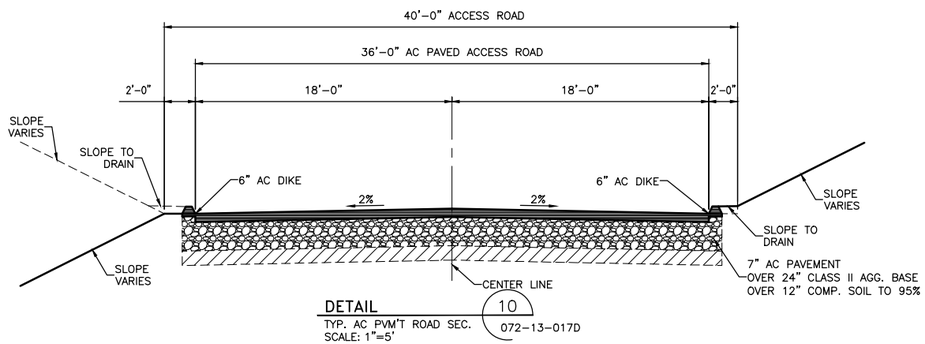
GRADING DETAILS
FIELD REDEVELOPMENT PROJECT
SECTIONS 20/29 & 30 T9N R32W
EAST CAT CANYON FIELD – SANTA BARBARA COUNTY – CALIFORNIA

AERA ENGINEER:	ERIC PAULSON	DATE: 08/01/14	SCALE: AS SHOWN
CO. ENGINEER:	TJCROSS ENGINEERS, INC	ORIGINAL DWG NO.	
PROJ. MGR:	ALI GOKGOZ	NO. 072-13-018A	REV. 0
DESIGNED BY:	ROBIN DICKERSON		
DRAFTED BY:	ISAC URBINA		
ECCN NO.	EAR99	CAD FILE NO. 072-13-018A	

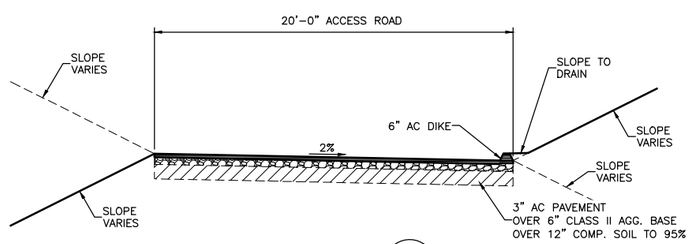
:FUNCTIONAL LOCATION NO.



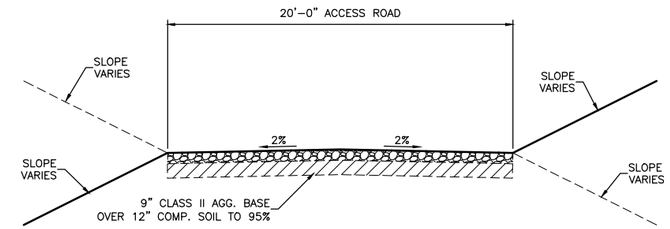
DETAIL 9
TYP. AC PVM'T ROAD SEC.
SCALE: 1"=5'
072-13-017A
072-13-017D



DETAIL 10
TYP. AC PVM'T ROAD SEC.
SCALE: 1"=5'
072-13-017D



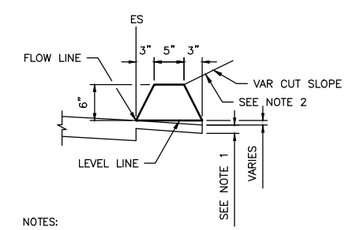
DETAIL 11
TYP. AGG. BASE ROAD SEC.
SCALE: 1"=5'
072-13-17B



DETAIL 12
TYP. AGG. BASE ROAD SEC.
SCALE: 1"=5'
072-13-016C
072-13-017C

THIS IS FOR LAND USE PERMIT ONLY

PRELIMINARY
NOT FOR CONSTRUCTION



NOTES:

1. FOR AC SHOULDERS ONLY, EXTEND TOP LAYER OF AC PLACED ON THE SHOULDER UNDER DIKE WITH NO JOINT AT THE ES.
2. FILL AND COMPACT WITH EXCAVATED MATERIAL TO TOP OF DIKE.

DETAIL 13
TYP. 6" AC DIKE
SCALE: 1"=1'
072-13-016A
072-13-016D
072-13-016E
072-13-016F
072-13-016G

DWG NUMBER	TITLE
072-13-015A	SITE LOCATION PLAN
072-13-013A	TITLE SHEET/ DRAWING INDEX/ VICINITY MAP

REFERENCE DRAWINGS

TJCROSS ENGINEERS

T.J. CROSS AUTOCAD CONTROL
SCALE: AS SHOWN
PLOT AT: 1=1
ENGINEER: RSD
DATE STARTED: 11/19/13
FILE: 13186/072-13-018A
LAYER(S):
CHANGED BY: IDU
LAST CHANGED: 08/01/14

DATE	REV	DESCRIPTION	BY	APPR	AERA ENG
08/01/14	0	ISSUED FOR PERMIT	IDU	RSD	EP
06/03/14	A	ISSUED FOR REVIEW	IDU	RSD	EP

AERA

PAVING DETAILS
FIELD REDEVELOPMENT PROJECT
SECTIONS 20/29 & 30 T9N R32W
EAST CAT CANYON FIELD – SANTA BARBARA COUNTY – CALIFORNIA

AERA ENGINEER:	ERIC PAULSON	DATE: 08/01/14	SCALE: AS SHOWN
CO. ENGINEER:	TJCROSS ENGINEERS, INC	ORIGINAL DWG NO.	
PROJ. MGR:	ALI GOKGOZ	NO. 072-13-019A	REV. 0
DESIGNED BY:	ROBIN DICKERSON		
DRAFTED BY:	ISAC URIBINA		
ECCN NO.	EAR99	CAD FILE NO. 072-13-019A	

:FUNCTIONAL LOCATION NO.