

WARNING: ALL INDIVIDUALS INTERESTED IN BIDDING ON THIS PROJECT MUST OBTAIN THE FINAL PLANS AND SPECIFICATIONS FROM THE DEPARTMENT MANAGING THE PROJECT OR AS OTHERWISE STATED IN THE ADVERTISEMENT FOR BIDS FOR THE PROJECT. DO NOT USE THE PLANS AND SPECIFICATIONS POSTED ON THE CLERK OF THE BOARD'S WEBSITE FOR BIDDING ON THIS PROJECT.



SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS SOLID WASTE MANAGEMENT DIVISION HEAPS PEAK TRANSFER STATION CIVIL AND STRUCTURAL IMPROVEMENTS NOVEMBER 2021

NOTICE TO CONTRACTOR

- THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITY PIPES, BURIED WASTE, OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THESE LOCATIONS ARE APPROXIMATE AND SHALL BE CONFIRMED IN THE FIELD BY THE CONTRACTOR SO THAT ANY NECESSARY ADJUSTMENT CAN BE MADE IN ALIGNMENT AND/OR GRADE OF THE PROPOSED IMPROVEMENT. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ANY UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE EXACT DETERMINATION AS THE LOCATION OF ALL EXISTING UTILITIES. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, EXCLUDING THE DAY OF NOTIFICATION, THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT AT 1-800-422-4133 AND SHALL PROVIDE THE CONSTRUCTION MANAGER WITH VERIFICATION NUMBERS ISSUED.
- THE FACT THAT ANY UTILITY FACILITY IS SHOWN OR NOT SHOWN UPON THE PLANS SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY UNDER SECTION 402 "UTILITIES," OF THE GREENBOOK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY, PURSUANT THERETO, TO ASCERTAIN THE LOCATION OF ANY UTILITY FACILITY WHICH MAY BE SUBJECT TO DAMAGE BY REASON OF THE CONTRACTOR'S OPERATIONS.
- REGARDING SIGNED DRAWING VERSUS ELECTRONIC COPY: SHOULD THE CONTRACTOR OR CONTRACTOR'S SURVEYOR FIND A CONTOUR LABEL OR ELEVATION DISCREPANCY BETWEEN THE SIGNED DRAWING AND THE ELECTRONIC VERSION (WHICH HAVE BEEN PROVIDED AS A COURTESY FOR EASE OF CONSTRUCTION STAKING), THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF THE DISCREPANCY SO THAT THE DISCREPANCY MAY BE RESOLVED, PRIOR TO CONSTRUCTION. THE SIGNED DRAWING SUPERSEDES THE ELECTRONIC VERSION.

GENERAL SURVEY NOTES

- THE BASIS OF HORIZONTAL AND VERTICAL CONTROL ARE BASED ON THE CALIFORNIA STATE PLANE ZONE 5. THE HORIZONTAL COORDINATES ARE BASED ON NORTH AMERICAN DATUM OF 1983 (NAD83). THE VERTICAL DATUM IS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29).
- EXISTING TOPOGRAPHY SURFACES INFORMATION SHOWN ON THESE DRAWINGS IS BASED SURFACE COLLECTED BY UAS FLIGHT DATED: 09/17/2019 AND 10/08/2019 JL# 7589 WOF R50252.

ABBREVIATIONS

AC	ASPHALT CONCRETE
APPROX	APPROXIMATE
CONC	CONCRETE
CY	CUBIC YARD
EL	ELEVATION
HVC	HORIZONTAL/VERTICAL CONTROL
LF	LINEAL FEET
MAX.	MAXIMUM
MH	MONITORING WELL
MIN.	MINIMUM
NTS	NOT TO SCALE
O.C.	ON CENTER
STA	STATION
TBD	TO BE DETERMINED
TYP	TYPICAL

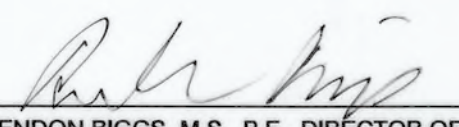
2019 BENCHMARK CONTROL POINTS

POINT	NORTHING	EASTING	ELEVATION
2	1908573.37	6819462.58	6145.80
8	1908591.81	6818212.62	6144.55
9	1909610.71	6819204.12	6014.81
10	1909558.72	6818253.61	5976.50
11	1909088.00	6819272.93	6119.43
15	1910337.70	6817647.50	6084.37
16	1910104.22	6816936.86	6236.40
17	1910379.84	6818902.46	5872.13
20	1909901.00	6819884.11	5788.20
22	1909108.28	6817407.78	6184.32
100	1910627.52	6818144.01	6082.85
101	1910729.14	6818489.64	6018.85
102	1910742.14	6818740.02	5991.34
103	1910814.66	6819001.28	5914.09
105	1910414.14	6817819.58	6075.05
106	1910464.00	6818225.04	6055.37
107	1910432.73	6818451.13	5969.17
108	1910536.71	6818982.76	5937.39
109	1910103.10	6817355.01	6135.68
110	1910146.30	6818388.59	5924.43
111	1910151.72	6818747.14	5816.94
112	1910101.15	6819099.76	5761.21
113	1910125.99	6819432.59	5727.94
114	1909938.11	6817008.34	6174.68
115	1909963.70	6817990.17	5959.07
116	1909960.27	6818602.86	5812.22
117	1909759.32	6817380.79	6030.10
118	1909830.18	6817700.04	5982.68
119	1909838.33	6818803.38	5835.20
120	1909759.43	6819023.23	5921.38
121	1909542.13	6817672.89	6010.84
122	1909572.41	6817948.76	5984.91
123	1909564.42	6818486.65	5984.41
124	1909516.55	6818884.56	5997.21
125	1909425.58	6817850.48	6024.95
126	1909261.23	6818192.63	6050.30
127	1909307.98	6818522.14	6077.97
128	1909327.80	6819082.54	6114.43
129	1909044.83	6817689.13	6173.78
130	1908864.43	6818509.76	6134.58
131	1909105.80	6818988.67	6128.36
132	1908812.46	6819300.23	6130.79
133	1909075.20	6819280.56	6115.67
134	1909338.24	6819091.81	6115.39
135	1908889.70	6819314.53	6131.65



VICINITY MAP
NOT TO SCALE

SAN BERNARDINO COUNTY

APPROVED BY:  12-6-21
BRENDON BIGGS, M.S., P.E., DIRECTOR OF PUBLIC WORKS DATE

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES

PREPARED BY:
Geosyntec consultants
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COSTA MESA, CA 92626
PHONE: 714.969.0800

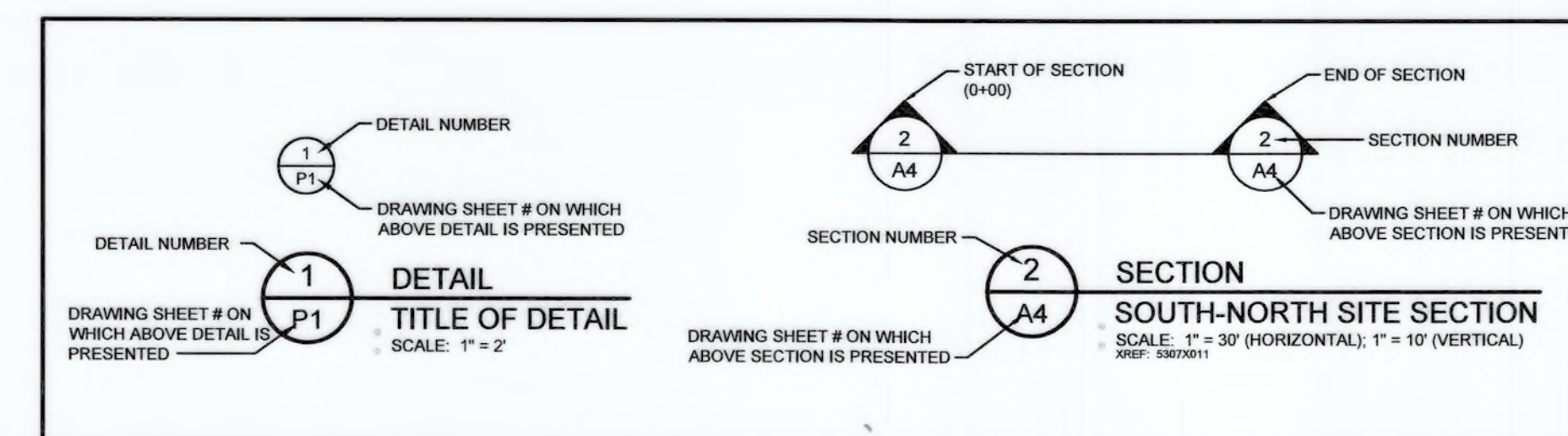


PREPARED UNDER THE SUPERVISION OF

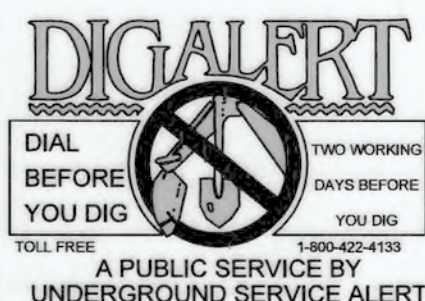
24 NOVEMBER 2021
DATE

SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS				HEAPS PEAK TRANSFER STATION CIVIL AND STRUCTURAL IMPROVEMENTS			
DRAWN BY	DESIGNED BY	PROJ. ENGR.	RECOMMENDED / APPROVED BY	TITLE SHEET			
SUBMITTED BY	DATE	CHIEF ENGINEER	DATE	DATE	DWG NO.	SCALE	SHT. NO.
John Gagnon	12/1/21	12/3/21	12/3/21	NOV 2021	T1	AS SHOWN	1
PROJECT MANAGER	DATE	DEPUTY DIRECTOR	DATE	TOT. SHEETS			
				13			

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5	P2	REAR LOADING DOCK PLAN
6	P3	TIRE BIN STORAGE PLAN
7	P4	RECYCLED METAL BIN STORAGE PLAN
8	S1	STRUCTURAL DETAILS I
9	S2	STRUCTURAL DETAILS II
10	A1	UPPER ACCESS ROAD PLAN
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12	A3	LOWER ACCESS ROAD PLAN AND PROFILE
13	A4	ACCESS ROAD DETAILS



DETAIL IDENTIFICATION LEGEND



GENERAL NOTES

GENERAL NOTES:

1. IN GENERAL, EXISTING STRUCTURES AND FACILITIES ARE SHOWN IN LIGHT LINE WEIGHTS, OR AS SCREENED BACKGROUND. NEW OR PROPOSED CONSTRUCTION IS SHOWN IN HEAVY LINE WEIGHTS. THE EXISTING CONDITIONS, CONSTRAINTS, ELEVATION AND LOCATIONS SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO COMMENCING WORK ON THIS PROJECT
2. LIMITS OF WORK SHOWN ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE SITE AND EVALUATING AND DETERMINING EQUIPMENT AND EFFORT TO COMPLETE THE WORK.
3. MAINTAIN DRAINAGE AND EROSION CONTROL FOR THE DURATION OF CONSTRUCTION. CONDUCT FILLING OPERATIONS TO MINIMIZE PONDING OF STORM WATER OR EROSION.
4. THE CONSTRUCTION DRAWINGS DO NOT INDICATE HAUL ROADS. HAUL ROADS, IF NEEDED MUST BE PROPOSED BY THE CONTRACTOR AND PROPOSED LOCATIONS OF HAUL ROADS IS SUBJECT TO SWMD APPROVAL. THE CONTRACTOR MUST DEVELOP A HAUL ROUTE PLAN AND SUBMIT FOR APPROVAL TO SWMD A MINIMUM OF FIVE WORKING DAYS PRIOR TO THE COMMENCEMENT OF HAULING OPERATIONS.
5. THESE NOTES APPLY TO ALL DRAWINGS AND GOVERN UNLESS OTHERWISE NOTED OR SPECIFIED. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADEQUATELY PROTECT THE PUBLIC FROM ONGOING CONSTRUCTION OPERATIONS.
6. DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN IN THESE DRAWINGS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE LATEST EDITION OF THE GREENBOOK AND ANY APPLICABLE CONTRACT SPECIFICATIONS.
7. ALL DETAILS SHALL BE CONSIDERED "TYPICAL" AT SIMILAR CONDITIONS UNLESS OTHERWISE NOTED. NUMERICAL DIMENSIONS OR VALUES WILL TAKE PRECEDENCE OVER ANY SCALED DIMENSIONS OR VALUES.
8. CONTRACTOR SHALL PROVIDE ALL UTILITIES (WATER, ELECTRICAL, AND TELEPHONE SERVICE) REQUIRED TO SUCCESSFULLY COMPLETE ANY AND ALL CONSTRUCTION ACTIVITIES.
9. ALL EXISTING INFRASTRUCTURE, INCLUDING FENCES, MONITORING WELLS, PIPELINES, GAS LINES, AND PROBES, SHALL BE PROTECTED FROM DAMAGE OR BE REPLACED AT THE CONTRACTOR'S EXPENSE.
10. CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING UTILITIES WHICH ARE TO REMAIN IN PLACE FROM DAMAGE. ANY DAMAGE DONE BY THE CONTRACTOR'S OPERATIONS SHALL BE EXPEDITIOUSLY REPAIRED OR RECONSTRUCTED TO THE CONSTRUCTION QUALITY ASSURANCE (CQA) CONSULTANT/ENGINEER'S SATISFACTION. AT THE CONTRACTOR'S SOLE EXPENSE WITHOUT ADDITIONAL COMPENSATION
11. UTILITIES (BOTH UNDERGROUND AND ABOVEGROUND) ARE INDICATED ON THE DRAWINGS TO SHOW ONLY THEIR APPROXIMATE LOCATIONS AND MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE VARIOUS UTILITY AGENCIES TO BECOME FAMILIAR WITH ALL KNOWN UNDERGROUND AND ABOVEGROUND UTILITIES AND OBSTRUCTIONS BUT THIS WILL NOT RELIEVE THE CONTRACTOR FROM FULL RESPONSIBILITY FOR PROTECTION OF SAID UTILITIES. THE CONTRACTOR SHALL POT HOLE AND ESTABLISH THE HORIZONTAL AND VERTICAL LOCATIONS OF AFFECTED UTILITIES IN THE FIELD AS NEEDED.
12. PROTECT ALL UTILITIES, POLES, SIGNS, AND EXISTING IMPROVEMENTS IN PLACE UNLESS OTHERWISE DIRECTED BY THE CQA CONSULTANT/ENGINEER OR NOTED ON THESE PLANS. WHERE RELOCATION OF THESE UTILITIES ARE REQUIRED, THE CONTRACTOR SHALL COORDINATE CONSTRUCTION AS NECESSARY AND AS APPROVED BY THE CQA CONSULTANT/ENGINEER.
13. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE EXACT DETERMINATION AS TO THE LOCATION OF ALL EXISTING UTILITIES. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, EXCLUDING THE DAY OF NOTIFICATION, THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT AT 1-800-422-4133 AND SHALL PROVIDE THE CONSTRUCTION MANAGER WITH VERIFICATION NUMBERS ISSUED.
14. WASTE EXCAVATION OPERATIONS REQUIRES 40-HOUR TRAINING AS REQUIRED BY OSHA REGULATION 29 CFR 1910.120.
15. CONTRACTOR AGREES THAT THEY SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB-SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY AS REQUIRED BY THE CONTRACT DOCUMENTS.
16. THE CONTRACTOR SHALL KEEP A COPY OF THEIR HEALTH AND SAFETY PLAN ONSITE. ALL CONTRACTOR PERSONNEL AND SUBCONTRACTORS ARE REQUIRED TO READ AND ADHERE TO THE PROVISIONS AS SET FORTH IN THE HEALTH AND SAFETY PLAN AT ALL TIMES.
17. ALL WORK SHALL CONFORM TO THE "STANDARD PLANS AND SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", LATEST EDITION, INCLUDING SUPPLEMENTS, AWWA STANDARD SPECIFICATIONS, LATEST EDITION, ASTM STANDARDS, LATEST EDITIONS, SAN BERNARDINO COUNTY STANDARD DRAWINGS, AND IN CONFORMANCE WITH THE REGULATIONS OF CAL-OSHA.
18. ANY AREA THE CONTRACTOR DISTURBS AS PART OF CONSTRUCTION SHALL BE RESTORED TO ITS ORIGINAL CONDITION UPON COMPLETION OF WORK. IN THE EVENT OF DAMAGE TO PRIOR WORK, THE CONTRACTOR SHALL MAKE REPAIRS AND REPLACEMENTS TO THE SATISFACTION OF THE CQA CONSULTANT/ENGINEER AND AT THE EXPENSE OF THE CONTRACTOR.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING ALL STORM WATER WITHIN AND ENTERING THE CONSTRUCTION AREA. THE CONTRACTOR SHALL CREATE TEMPORARY BERMS, DIKES, STILLING AND DEBRIS BASINS AS NEEDED TO CAPTURE, CONTROL, DE-SILT, AND DETAIN THE STORM WATER.
20. THE CONTRACTOR SHALL PROVIDE DUST CONTROL MEASURES DURING CONSTRUCTION ACTIVITIES.
21. IF THE WORK IS INTERRUPTED FOR REASONS OTHER THAN INCLEMENT WEATHER, THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER A MINIMUM OF 24 HOURS PRIOR TO THE RESUMPTION OF WORK.
22. SURVEY CONTROL SHALL BE PERFORMED BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
23. EXISTING TOPOGRAPHY SURFACES INFORMATION IS BASED SURFACE COLLECTED ON UAS FLIGHT DATED: 09/17/2019 AND 10/08/2019 JL# 7589 WO# R50252 THE EXISTING CONDITIONS, CONSTRAINTS, ELEVATION AND LOCATIONS SHOWN ON THESE CONSTRUCTION DRAWINGS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO COMMENCING WORK ON THIS PROJECT.
25. THE CONTRACTOR SHALL PERFORM THE EARTHWORK CONSTRUCTION TO WITHIN ±0.1 FT.

26. ALL ELEVATIONS ARE REFERENCED TO THE HORIZONTAL/VERTICAL CONTROL (HVC) POINTS SHOWN ON THE EXISTING SITE PLAN. COPIES OF HORIZONTAL VERTICAL CONTROL INFORMATION MAY BE OBTAINED FROM SAN BERNARDINO COUNTY SOLID WASTE MANAGEMENT DIVISION.
27. THE CONTRACTOR IS RESPONSIBLE FOR PREPARING AND SUBMITTING AS-BUILT SURVEY DATA AND DRAWINGS. THE AS-BUILTS SHALL BE SIGNED AND STAMPED BY A CALIFORNIA LICENSED PROFESSIONAL LAND SURVEYOR.
28. THE ENGINEER WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE ENGINEER.
29. PRIOR TO IMPLEMENTING ANY OF THE WORK, THE CONTRACTOR SHALL BECOME THOROUGHLY FAMILIAR WITH THE SITE, THE SITE CONDITIONS, AND ALL PORTIONS OF THE WORK FALLING WITHIN THIS AND OTHER RELATED SECTIONS.
30. ANY DISCREPANCIES FOUND ON THESE PLANS BY THE CONTRACTOR SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND THE PROJECT MANAGER. NO WORK SHALL CONTINUE ON THAT PART OF CONSTRUCTION AFFECTED BY SUCH DISCREPANCY UNTIL IT HAS BEEN RESOLVED TO THE SATISFACTION OF THE ENGINEER AND THE PROJECT MANAGER. FAILURE TO NOTIFY THE ENGINEER AND THE PROJECT MANAGER OR CONTINUANCE OF THE WORK WILL BE CONSTRUED AS THE CONTRACTOR'S ACCEPTANCE OF THE RELATED WORK. IF CONTRACTOR PROCEEDS ON SAID WORK PRIOR TO OBTAINING APPROVAL FROM THE ENGINEER AND THE PROJECT MANAGER, THEY SHALL BE LIABLE FOR ALL DAMAGES RESULTING THEREFROM.
31. HAZARDOUS MATERIALS: UNLESS OTHERWISE PROVIDED, THE ENGINEER AND THEIR CONSULTANTS SHALL HAVE NO RESPONSIBILITY FOR THE DISCOVERY, PRESENCE, HANDLING, REMOVAL OR DISPOSAL OF OR EXPOSURE OF PERSONS TO HAZARDOUS MATERIALS IN ANY FORM AT THE PROJECT SITE, INCLUDING BUT NOT LIMITED TO ASBESTOS, ASBESTOS PRODUCTS, POLYCHLORINATED BIPHENYL (PCB) OR OTHER TOXIC SUBSTANCES.

DEMOLITION NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED PERMITS FOR DEMOLITION WORK.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING ALL REQUIRED PEDESTRIAN PROTECTION, INCLUDING FENCES AND CANOPIES; FOR CAPPING EXISTING SEWER LINES, ELECTRICAL CONDUITS, ETC., AND SHALL HAVE THE ABOVE ITEMS INSPECTED PRIOR TO STARTING ANY DEMOLITION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTING ALL TEMPORARY SHORING, BRACING, ETC., FOR EXISTING CONSTRUCTION TO REMAIN. DESIGN OF ALL TEMPORARY SUPPORTS SHALL CONSIDER ALL DEAD LOADS, LIVE LOADS, IMPACT LOADS, ETC., PER CALIFORNIA BUILDING CODE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE ORDER OF WORK TO BE PERFORMED FOR SHORING, DEMOLITION, AND NEW CONSTRUCTION FOR THE ENTIRE PROJECT. THE CONTRACTOR SHALL COORDINATE AND BE RESPONSIBLE FOR THE DISCONNECTION AND CAPPING OF ALL AFFECTED UTILITY SERVICES. ALL DISCONNECTIONS SHALL BE DONE IN ACCORDANCE WITH THE REGULATIONS OF THE UTILITY CONCERNED. CAP ALL UTILITIES BELOW GRADE. CONTRACTOR SHALL INSTALL METAL TRACER WIRES ABOVE ANY UTILITIES REPLACED.
5. THE CONTRACTOR SHALL COORDINATE THE WORK TO MINIMIZE THE INTERRUPTION OF UTILITY SERVICES, PARTICULARLY WATER, GAS, ELECTRIC, SEWER AND TELEPHONE SERVICES. WHEN POSSIBLE INTERRUPTIONS TO SERVICES SHALL BE MADE DURING NON-OPERATING HOURS. SHOULD IT BE NECESSARY TO SHUT DOWN SERVICES DURING OPERATING HOURS, THE CONTRACTOR IS REQUIRED TO GIVE THE OWNER'S REPRESENTATIVE AND SWMD, 24 HOUR WRITTEN NOTICE, AND BE LIMITED TO 30 MINUTE TIME INTERVALS, UNLESS OTHER ARRANGEMENTS ARE MUTUALLY AGREED UPON IN ADVANCE.
6. CONTRACTOR SHALL COORDINATE WORK WITH THE ONSITE OPERATOR TO MINIMIZE DISRUPTION OF SERVICE OR ACCESS TO THE TIPPING FLOOR. PROVIDE ADEQUATE PROTECTION TO EXISTING FACILITIES, AND AREAS NOT REQUIRED TO BE ALTERED. EXECUTE THE WORK IN SUCH A MANNER SO AS TO AVOID INTERFERENCE WITH THE USE OF, OR PASSAGE TO AND FROM ADJOINING BUILDINGS AND FACILITIES.
7. PERFORM ALL DEMOLITION AND REMOVAL OF WORK INDICATED ON DRAWINGS. CONTRACTOR IS REQUIRED TO PERFORM THE DEMOLITION WORK IN A CLEAN MANNER THAT PROTECT IN PLACE ANY REMAINING FEATURES AT TIE-IN AND/OR BOUNDARIES OF CONCRETE, ASPHALT, AND MASONRY BLOCK WORK, TO BE REMOVED.
8. EXPLOSIVES, BLASTING, BURNING OF MATERIALS AND DEBRIS WILL NOT BE PERMITTED ON THE SITE.
9. ITEMS NOT DESIGNATED FOR RETENTION BY THE OWNER BECOME THE PROPERTY OF THE CONTRACTOR, WHO SHALL REMOVE SAME FROM THE SITE. VERIFY 48 HOURS PRIOR TO COMMENCING DEMOLITION WHETHER THERE ARE ANY ITEMS DESIGNATED TO BE RETAINED BY THE OWNER. REMOVE AND DELIVER ANY OWNER CLAIMED ITEMS TO THE SITE STORAGE AREA DESIGNATED BY THE OWNER.
10. CLEAN-UP: DURING THE DEMOLITION WORK, CONTRACTOR SHALL REMOVE ALL DEMOLISHED PARTS, TRASH AND DEBRIS IN A MANNER WHICH WILL LIMIT THE SPREAD OF DEBRIS AND DUST TO THE OTHER AREAS OF THE SITE. TRASH AND DUST SPREAD TO OTHER AREAS SHALL BE CLEANED AND REMOVED FROM THE SITE BY THE CONTRACTOR. UPON COMPLETION OF WORK HEREIN SPECIFIED, ALL AFFECTED AREAS WILL BE LEFT THOROUGHLY CLEAN AND IN A SAFE CONDITION, FREE FROM MATERIALS OR EQUIPMENT EXCEPT SALVAGED MATERIALS TO BE RETAINED BY THE OWNER.

EARTHWORK NOTES:

1. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER AND THE PROJECT MANAGER A DESCRIPTION OF EQUIPMENT AND METHODS PROPOSED FOR EARTHWORK AT LEAST 7 WORK DAYS PRIOR TO THE START OF ACTIVITIES.
2. THE CONTRACTOR SHALL ENSURE THAT THE MATERIALS AND METHODS USED FOR EARTHWORK MEET THE REQUIREMENTS PROVIDED IN THE SPECIFICATIONS. ANY MATERIAL OR METHOD THAT DOES NOT CONFORM TO THESE DOCUMENTS, OR TO ALTERNATIVES APPROVED IN WRITING BY THE ENGINEER WILL BE REJECTED AND SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT THE EXPENSE OF THE CONTRACTOR.

3. MATERIAL FOR CONSTRUCTION OF THE ENGINEERED FILL SHALL CONSIST OF CLEAN SOIL THAT IS RELATIVELY HOMOGENEOUS AND FREE OF DEBRIS, FOREIGN OBJECTS, LARGE ROCK FRAGMENTS, ROOTS, AND ORGANICS AND BE CLASSIFIED ACCORDING TO THE UNIFIED SOIL CLASSIFICATION SYSTEM (PER ASTM D 2487) AS SC, SM, SP, SM, GM, GC, GC-GM, OR A COMBINATION OF THESE GROUPS.
4. THE SOIL SHALL CONSIST OF NO PARTICLE GREATER THAN 3 INCHES. THE EXPANSION INDEX SHALL BE LESS THAN 20. THE SOIL SHALL HAVE A MINIMUM DRY DENSITY OF 110 POUNDS PER CUBIC FEET (PCF), A MAXIMUM PLASTICITY INDEX OF 15, AND A MAXIMUM LIQUID LIMIT OF 40. THE CONTRACTOR MAY PROPOSE THE USE OF OTHER TYPES OF SOIL, BUT THEN SUCH USE SHALL BE AT THE SOLE DISCRETION OF THE CQA CONSULTANT/ENGINEER.
5. ALL FILL AND BACKFILL MATERIAL SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.
6. FILL AND FOUNDATION EXCAVATION SHALL BE OBSERVED AND APPROVED BY THE ENGINEER PRIOR TO PLACING CONCRETE.
7. LOCALIZED ZONES OF LOOSE AND/OR UNSTABLE SOILS MAY BE ENCOUNTERED DURING GRADING OPERATIONS AND SHALL BE OVER EXCAVATED TO A MINIMUM OF 24 INCHES AND RECOMPACTED TO PLANS AND SPECIFICATIONS.
8. THE CONTRACTOR SHALL FURNISH, OPERATE, AND MAINTAIN COMPACTION EQUIPMENT AS IS NECESSARY TO PRODUCE THE REQUIRED IN-PLACE SOIL DENSITY AND MOISTURE CONTENT.
9. THE EARTHWORK CONTRACTOR SHALL FURNISH, OPERATE AND MAINTAIN TANK TRUCKS, PRESSURE DISTRIBUTORS, OR OTHER EQUIPMENT DESIGNED TO APPLY WATER UNIFORMLY AND IN CONTROLLED QUANTITIES TO VARIABLE SURFACE WIDTHS.
10. MATERIAL USED DURING CONSTRUCTION OF THE ENGINEERED FILL SHALL BE PLACED TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS.
11. WATER SHALL BE ADDED, IF NECESSARY, TO FILL MATERIALS FOR MOISTURE CONDITIONING.
12. DURING WETTING OR DRYING, THE MATERIAL SHALL BE REGULARLY MIXED SO THAT UNIFORM MOISTURE CONDITIONS IN THE APPROPRIATE RANGE ARE OBTAINED. DRYING SHALL BE ACHIEVED BY SPREADING, BLADING, OR OTHER APPROPRIATE METHODS.
13. MATERIAL FOR ENGINEERED FILL SHALL BE SPREAD UNIFORMLY AND COMPACTED WITH APPROPRIATE EQUIPMENT COMPATIBLE WITH THE SOIL TYPE AND LAYER THICKNESS. MATERIALS THAT ARE TO BE COMPACTED AND ARE INACCESSIBLE TO LARGE EQUIPMENT SHALL BE COMPACTED WITH HAND OPERATED OR OTHER SPECIAL COMPACTION EQUIPMENT. IF COMPACTION FAILS TO MEET THE REQUIREMENTS SPECIFIED HEREIN, THE TESTED FILL SHALL BE RECONDITIONED AND RECOMPACTED OR IT SHALL BE REMOVED AND REPLACED AS SPECIFIED HEREIN.
14. MATERIAL USED FOR THE ENGINEERED FILL SHALL BE PLACED IN A LOOSE, UN-COMPACTED LIFTS NOT TO EXCEED 8-INCHES. THE MAXIMUM PERMISSIBLE PRE-COMPACTION SOIL CLOD SIZE IS 3 INCHES. THE CONTRACTOR MAY USE BLADING OR OTHER MEANS TO REDUCE CLOD SIZE.
15. THE CONTRACTOR SHALL COMPACT EACH LIFT TO AT LEAST 95 PERCENT OF ITS MODIFIED PROCTOR MAXIMUM DRY DENSITY WITHIN PLUS OR MINUS 3 PERCENT OF THE OPTIMUM MOISTURE CONTENT OBTAINED IN ACCORDANCE WITH ASTM D1557.
16. IF THE CONTRACTOR CANNOT ACHIEVE THE TARGET DRY DENSITY AND MOISTURE CONTENT SPECIFIED, THE CQA CONSULTANT/ENGINEER MAY RECOMMEND USING THINNER LIFTS FOR CONSTRUCTION OF THE ENGINEERED FILL COVER AND ENGINEERED FILL.
17. QUALITY CONTROL SHALL BE MAINTAINED AND PERFORMED BY THE CONTRACTOR. QUALITY ASSURANCE TESTING WILL BE PERFORMED BY THE CQA CONSULTANT/ENGINEER. THE CONTRACTOR SHALL TAKE THIS TESTING FREQUENCY INTO ACCOUNT IN PLANNING THE CONSTRUCTION SCHEDULE.

NPDES GENERAL NOTES:

1. A STORMWATER POLLUTION PREVENTION PLAN (SWPPP), GOVERNED BY INDUSTRIAL/COMMERCIAL MANAGEMENT PRACTICES IS REQUIRED PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING, CONTROLLING AND REPAIRING DAMAGE DUE TO EXCESSIVE EROSION. THE SWPPP SHALL INCLUDE A SEDIMENT MANAGEMENT AND GENERAL EROSION CONTROL PROGRAM.
2. CONSTRUCTION SITE(S) SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OF MATERIAL OTHER THAN STORM WATER ARE ALLOWED ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD; CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR NUISANCE; OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 & 302. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIMES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS, PAINT FLAKES OR SEALANTS FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; FERTILIZERS, VEHICLE/EQUIPMENT WASH WATER AND CONCRETE WASH WATER; CONCRETE, DETERGENT OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING; AND SUPERCHLORINATED POTABLE WATER LINE FLUSHINGS. DURING CONSTRUCTION, DISPOSAL OF SUCH MATERIALS SHOULD OCCUR IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON SITE, PHYSICALLY SEPARATED FROM POTENTIAL STORM WATER RUN-OFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS. DURING CONSTRUCTION, DISPOSAL OF SUCH MATERIALS SHOULD OCCUR IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON SITE, PHYSICALLY SEPARATED FROM POTENTIAL STORM WATER RUN-OFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.

CONSTRUCTION NOTES

- 1 EXISTING 8" CMU WALL (PROTECT IN-PLACE).
- 2 EXISTING LINE OF CONCRETE RETAINING WALL BELOW (PROTECT IN-PLACE).
- 3 EXISTING 11.5' TALL STEEL PROTECTIVE WALL (PROTECT IN-PLACE).
- 4 EXISTING 16' TALL STEEL PROTECTIVE WALL (PROTECT IN-PLACE).
- 5 EXISTING STEEL GATE LOAD OUT PORT (PROTECT IN-PLACE).
- 6 EXISTING BUILDING COLUMNS (PROTECT IN-PLACE).
- 7 EXISTING CUT OFF BOLLARDS AT GRADE (PROTECT IN-PLACE).
- 8 EXISTING OFFICE AREA (PROTECT IN-PLACE).
- 9 EXISTING 2" #8 HAIRPINS ON EITHER SIDE OF COLUMN ANCHOR BOLTS (PROTECT IN-PLACE).
- 10 EXISTING MONITORING WELLS (PROTECT IN PLACE).
- 11 EXISTING FENCE (PROTECT IN PLACE).
- 12 EXISTING CONTROL POINTS (PROTECT IN PLACE).
- 13 EXISTING ASPHALT CONCRETE CURB (PROTECT IN PLACE).
- 14 EXISTING LIGHT POLE (PROTECT IN PLACE).
- 15 EXISTING CONCRETE V-DITCH (PROTECT IN PLACE).
- 16 EXISTING CONCRETE GUTTER (PROTECT IN PLACE).
- 17 EXISTING CONCRETE PAD (PROTECT IN PLACE).
- 18 EXISTING BURIED ASPHALT CONCRETE CURB (PROTECT IN-PLACE).
- 19 EXISTING ASPHALT CONCRETE DIKE (PROTECT IN-PLACE).
- 20 TRANSFER EXISTING CONTROL POINTS TO A NEW TEMPORARY BENCHMARK ALONG TIPPING FLOOR BUILDING OR TO TOP OF EXISTING AC CURB.
- 21 EXISTING CONTROL POINT TO BE RELOCATED BY OTHERS (SWMD).
- 22 REMOVE EXISTING CONCRETE PAD.
- 23 REMOVE EXISTING BOLLARD.
- 24 CLEAR, GRUB AND GRADE EXISTING SURFACE.
- 25 REMOVE EXISTING ASPHALT AND CONCRETE WITHIN THE PROPOSED ACCESS ROAD LIMITS.
- 26 REMOVE EXISTING STEEL GATE OF LOAD OUT PORT AND REPLACE WITH NEW STEEL GATE PER DETAIL.
- 27 REPLACE EXISTING LOAD OUT PORT SUPPORTS PER DETAIL.
- 28 PROVIDE SHORING AS REQUIRED FOR THIS WORK.
- 29 APPROXIMATE LOCATION OF EXISTING SLAB TRANSITION LINE. TIE-IN TO EXISTING SLAB SHALL BE ESTABLISHED AS SHOWN ON DETAILS.
- 30 SAWCUT AND COMPLETELY REMOVE SLAB ON-GRADE AND REMAINING REINFORCEMENT. PROVIDE NEW 10" CONCRETE SLAB PER DETAILS.
- 31 INSTALL FLOOR WEAR INDICATORS PER DETAIL.
- 32 CONSTRUCT CONTROL/CONTRACTION JOINT @15' C/C MAX EACH WAY PER DETAILS.
- 33 COMPLETELY REMOVE AND REPLACE IN KIND EXISTING TRAPEZOIDAL CONCRETE BARRIERS (4) AND REINFORCEMENT. SEE DETAIL FOR REINFORCEMENT DETAILS.
- 34 INSTALL 10' CALTRANS TYPE K BARRIER RAILS TO SEPARATE WORK AREA FROM DAILY OPERATIONS AREA. SEE DETAIL.
- 35 SAWCUT, DEMOLISH AND REMOVE EXISTING PORTION OF RETAINING WALL AND REMAINING REINFORCEMENT.
- 36 SAWCUT AND REMOVE UPPER 14" OF EXISTING 5' HIGH 8" THICK RETAINING WALL FOR NEW CONCRETE SLAB AND DRY PACK. PER DETAIL.
- 37 SAWCUT AND REMOVE EXISTING ASPHALT CONCRETE AND AGGREGATE BASE. THICKNESS OF EXISTING ASPHALT CONCRETE IS 4" AND AGGREGATE BASE IS 4".
- 38 SCARIFY AND RECOMPACT 12" OF EXISTING SUBGRADE BELOW BOTTOM OF CONCRETE SLAB AND RETAINING WALL. PER REQUIREMENTS OF THE EARTHWORK NOTES PRESENTED IN THE SPECIFICATIONS.
- 39 CONSTRUCT NEW STEP DOWN RETAINING WALL AND TIE-IN TO EXISTING RETAINING WALL PER DETAILS.
- 40 PROVIDE SHORING AS REQUIRED FOR THIS WORK.
- 41 CONSTRUCT NEW 12" CONCRETE SLAB PER DETAILS.
- 42 CONSTRUCT CONTROL/CONTRACTION JOINTS @ 15' C/C MAX. EACH WAY, PER DETAIL.
- 43 SAWCUT AND REPLACE ASPHALT CONCRETE PAVING TO MATCH EXISTING ASPHALT PAVING ELEVATIONS AT SAWCUT LINE. PER DETAIL.
- 44 DAYLIGHT RETAINING WALL FOUNDATION DRAIN NEAR TIE-IN LOCATION OF NEW RETAINING WALL AND EXISTING RETAINING WALL. THE FOUNDATION DRAIN OUTLET SHALL BE COVERED WITH A WIRE MESH TO PREVENT RODENTS FROM BURROWING.
- 45 CONSTRUCT NEW 12" CONCRETE SLAB PER DETAILS.
- 46 SCARIFY AND RECOMPACT 6" OF EXISTING SUBGRADE BELOW BOTTOM OF AGGREGATE BASE PER REQUIREMENTS OF THE EARTHWORK NOTES PRESENTED IN THE SPECIFICATIONS.
- 47 PROVIDE NEW 4" ASPHALT CONCRETE OVER 6" AGGREGATE BASE TO PROPOSED GRADES SHOWN ON PROFILE.
- 48 PROVIDE NEW 4" ASPHALT CONCRETE OVER 6" CLASS II AGGREGATE BASE TO PROPOSED GRADES SHOWN ON PROFILE.
- 49 GRADE TO MATCH EXISTING SURFACE.
- 50 MATCH TO EXISTING ASPHALT CONCRETE PAVING ELEVATIONS. MATCH TO EXISTING CONCRETE ELEVATIONS.

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE
FIELD CHANGES			

PREPARED BY:

Geosyntec
consultants

3530 HYLAND AVENUE, SUITE 100
COSTA MESA, CA 92626
PHONE: 714.969.0800

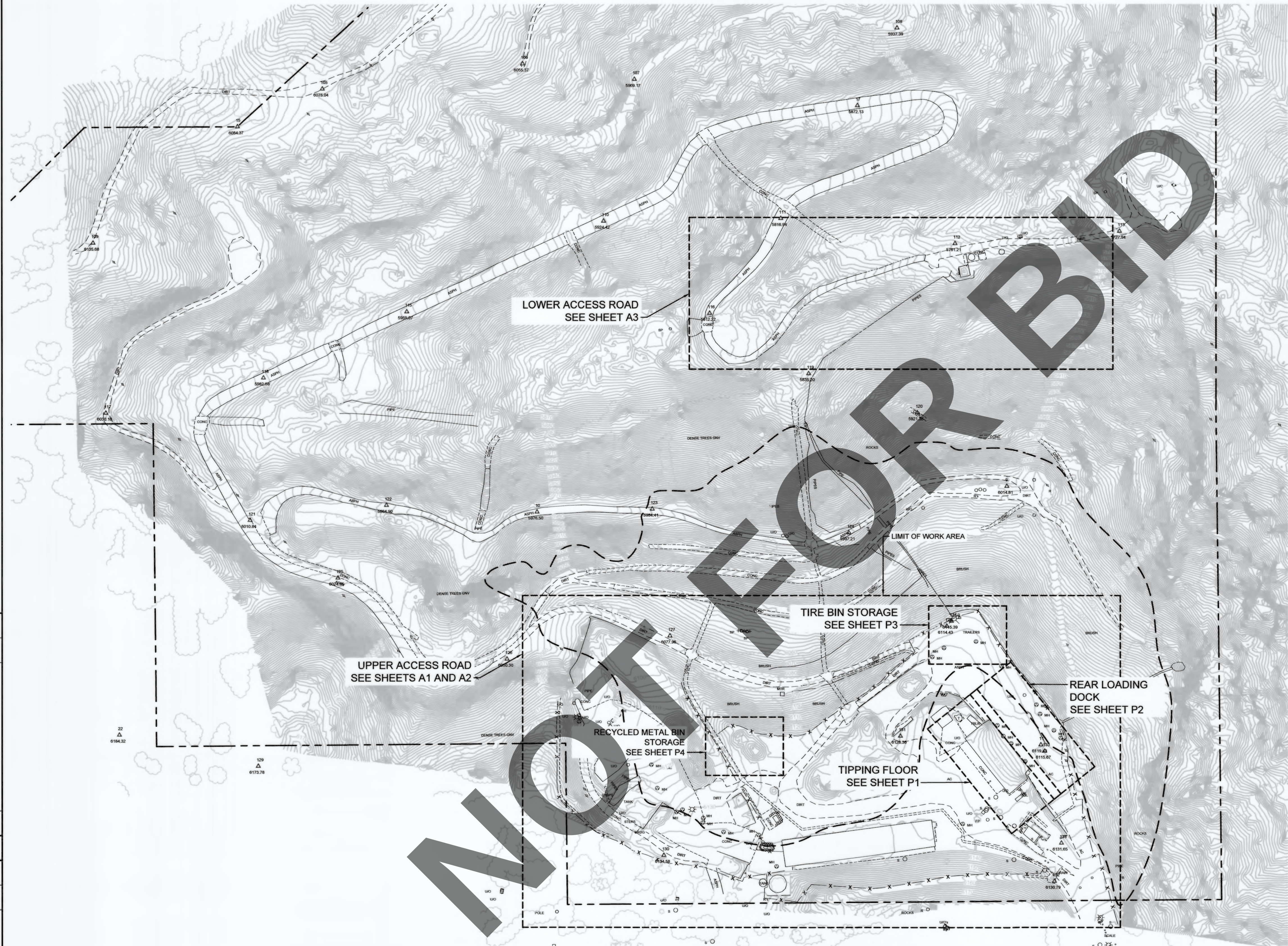


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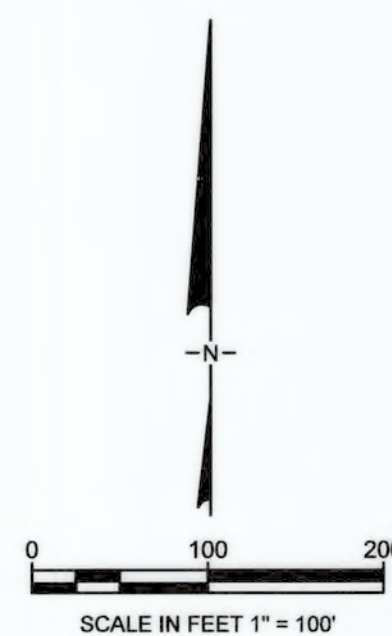
24 NOVEMBER 2021

DATE

SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS			
DRAWN BY	DESIGNED BY	PROJ. ENGR.	RECOMMENDED / APPROVED BY
			<i>Man A. Rodriguez</i> 12/6/21 CHIEF ENGINEER DATE
SUBMITTED BY			
<i>Johnny Gayman</i> 12/1/21 PROJECT MANAGER DATE			<i>James S. Huber</i> 12/3/21 DEPUTY DIRECTOR DATE
HEAPS PEAK TRANSFER STATION CIVIL AND STRUCTURAL IMPROVEMENTS			
GENERAL NOTES			
DATE	DWG NO.	SCALE	SHT. NO.
NOV 2021	T2	AS SHOWN	2
			TOT. SHEETS
			13



- LEGEND**
- 5900— EXISTING GROUND MAJOR CONTOUR (10')
 - EXISTING GROUND MINOR CONTOUR (2')
 - — — — — PROPERTY BOUNDARY
 - x - x - x - EXISTING FENCE
 - ===== EXISTING ASPHALT ROAD
 - ===== EXISTING DIRT ROAD
 - ===== EXISTING CONCRETE
 - ⊙ EXISTING VEGETATION/TREE
 - — — — — APPROXIMATE LIMIT OF REFUSE
 - △ 22 6055.57 BENCHMARK
 - ⊕ WELL MONITORING POINTS (TO BE PROTECTED IN-PLACED)
 - ⊙ MH MONITORING WELLS
 - — — — — LIMIT OF WORK



MARK	REVISIONS	DATE

MARK	REVISIONS	DATE

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		
FIELD CHANGES			

PREPARED BY:

Geosyntec
consultants

3530 HYLAND AVENUE, SUITE 100
COSTA MESA, CA 92626
PHONE: 714.969.0800



PREPARED UNDER THE SUPERVISION OF

24 NOVEMBER 2021

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

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SUBMITTED BY

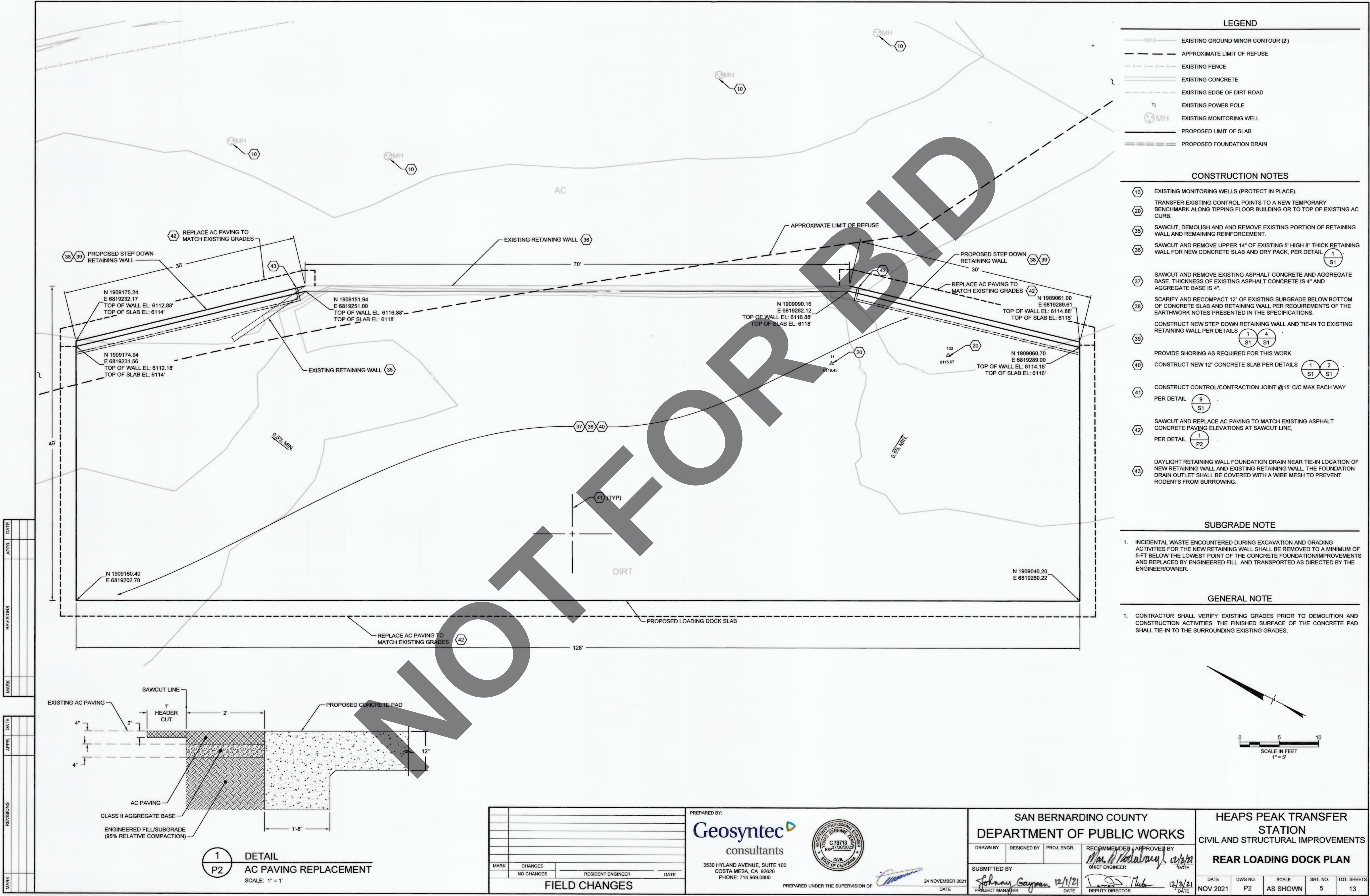
PROJECT MANAGER DATE

DEPUTY DIRECTOR DATE

HEAPS PEAK TRANSFER
STATION
CIVIL AND STRUCTURAL IMPROVEMENTS

SITE PLAN

DATE	DWG NO.	SCALE	SHT. NO.	TOT. SHEETS
NOV 2021	T3	AS SHOWN	3	13



LEGEND	
	EXISTING GROUND MINOR CONTOUR (2)
	APPROXIMATE LIMIT OF REFUSE
	EXISTING FENCE
	EXISTING CONCRETE
	EXISTING EDGE OF DIRT ROAD
	EXISTING POWER POLE
	EXISTING MONITORING WELL
	PROPOSED LIMIT OF SLAB
	PROPOSED FOUNDATION DRAIN

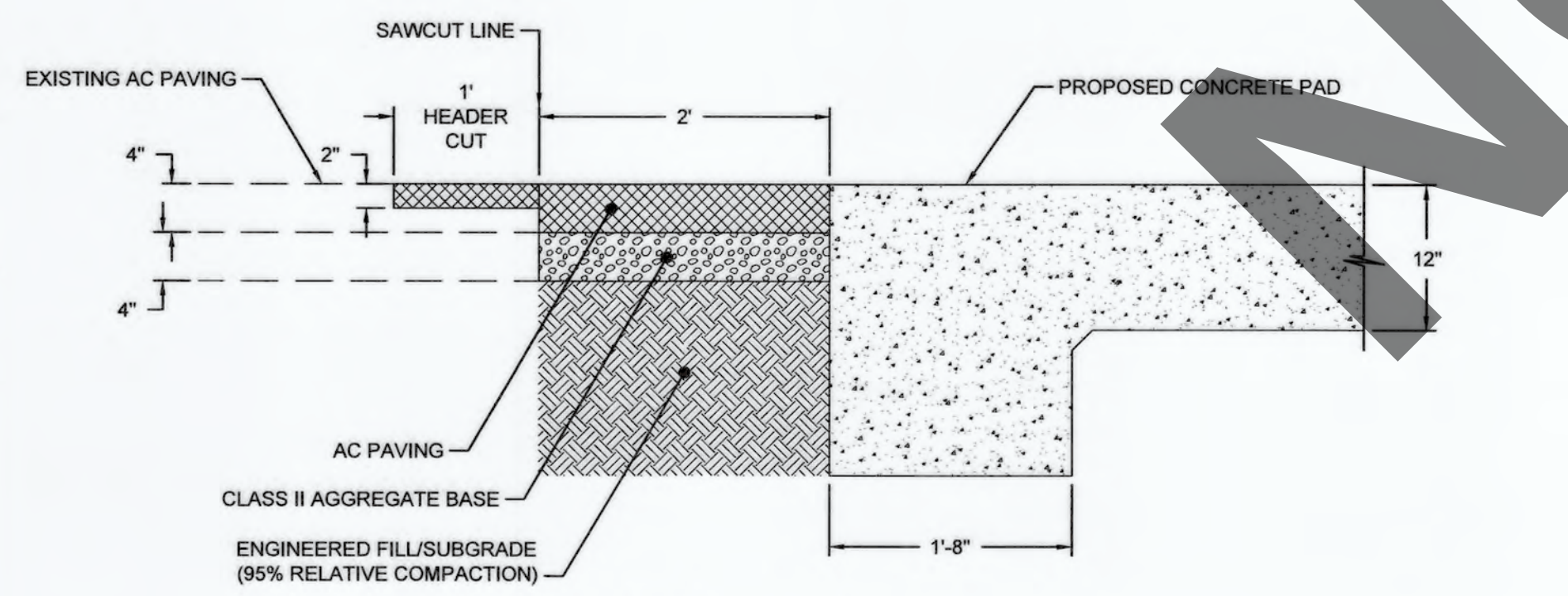
- CONSTRUCTION NOTES**
- 10 EXISTING MONITORING WELLS (PROTECT IN PLACE).
 - 20 TRANSFER EXISTING CONTROL POINTS TO A NEW TEMPORARY BENCHMARK ALONG TIPPING FLOOR BUILDING OR TO TOP OF EXISTING AC CURB.
 - 35 SAWCUT, DEMOLISH AND AND REMOVE EXISTING PORTION OF RETAINING WALL AND REMAINING REINFORCEMENT.
 - 36 SAWCUT AND REMOVE UPPER 14" OF EXISTING 5" HIGH 8" THICK RETAINING WALL FOR NEW CONCRETE SLAB AND DRY PACK, PER DETAIL 1 S1.
 - 37 SAWCUT AND REMOVE EXISTING ASPHALT CONCRETE AND AGGREGATE BASE. THICKNESS OF EXISTING ASPHALT CONCRETE IS 4" AND AGGREGATE BASE IS 4".
 - 38 SCARIFY AND RECOMPACT 12" OF EXISTING SUBGRADE BELOW BOTTOM OF CONCRETE SLAB AND RETAINING WALL PER REQUIREMENTS OF THE EARTHWORK NOTES PRESENTED IN THE SPECIFICATIONS.
 - 39 CONSTRUCT NEW STEP DOWN RETAINING WALL AND TIE-IN TO EXISTING RETAINING WALL PER DETAILS 1 S1, 4 S1.
 - 40 PROVIDE SHORING AS REQUIRED FOR THIS WORK.
 - 40 CONSTRUCT NEW 12" CONCRETE SLAB PER DETAILS 1 S1, 2 S1.
 - 41 CONSTRUCT CONTROL/CONTRACTION JOINT @15' C/C MAX EACH WAY PER DETAIL 9 S1.
 - 42 SAWCUT AND REPLACE AC PAVING TO MATCH EXISTING ASPHALT CONCRETE PAVING ELEVATIONS AT SAWCUT LINE, PER DETAIL 1 P2.
 - 43 DAYLIGHT RETAINING WALL FOUNDATION DRAIN NEAR TIE-IN LOCATION OF NEW RETAINING WALL AND EXISTING RETAINING WALL. THE FOUNDATION DRAIN OUTLET SHALL BE COVERED WITH A WIRE MESH TO PREVENT RODENTS FROM BURROWING.

SUBGRADE NOTE

1. INCIDENTAL WASTE ENCOUNTERED DURING EXCAVATION AND GRADING ACTIVITIES FOR THE NEW RETAINING WALL SHALL BE REMOVED TO A MINIMUM OF 5-FT BELOW THE LOWEST POINT OF THE CONCRETE FOUNDATION IMPROVEMENTS AND REPLACED BY ENGINEERED FILL AND TRANSPORTED AS DIRECTED BY THE ENGINEER/OWNER.

GENERAL NOTE

1. CONTRACTOR SHALL VERIFY EXISTING GRADES PRIOR TO DEMOLITION AND CONSTRUCTION ACTIVITIES. THE FINISHED SURFACE OF THE CONCRETE PAD SHALL TIE-IN TO THE SURROUNDING EXISTING GRADES.



1 P2 DETAIL
AC PAVING REPLACEMENT
SCALE: 1" = 1'

FIELD CHANGES			
MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

PREPARED BY:

Geosyntec
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PREPARED UNDER THE SUPERVISION OF

24 NOVEMBER 2021

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DRAWN BY: DESIGNED BY: PROJ. ENGR. RECOMMENDED / APPROVED BY

SUBMITTED BY: *Johnny Gayman* 12/1/21 DATE: 12/3/21

PROJECT MANAGER: DEPUTY DIRECTOR

HEAPS PEAK TRANSFER
STATION
CIVIL AND STRUCTURAL IMPROVEMENTS

REAR LOADING DOCK PLAN

DATE: NOV 2021 DWG NO.: P2 SCALE: AS SHOWN SHT. NO.: 5 TOT. SHEETS: 13

FOUNDATION NOTES

- SOILS REPORT BY TETRA TECH BAS
DATED: NOVEMBER 16, 2016
PROJECT NUMBER: BAS 16-103E
SHALL BE MADE PART OF THESE PLANS.

DESIGN SOIL BEARING CAPACITY PER RECOMMENDATIONS OF THE SOILS REPORT:
CONTINUOUS FOOTING 7,000 PSF
- A. SPREAD FOOTINGS SHOULD BE SUPPORTED ON AT LEAST 2 FEET OF
STRUCTURAL FILL. ONE THIRD INCREASE OF THE ABOVE CAPACITIES IS
ALLOWED FOR SHORT TERM TRANSIENT LOADS SUCH AS WIND AND SEISMIC
EVENTS. FOOTINGS SHOULD BE UNIFORMLY LOADED.
- B. STRUCTURAL FILL SHOULD EXTEND Laterally BEYOND THE EDGE OF THE
FOOTINGS BY AT LEAST 1/4 THE DEPTH OF FILL PLACED.
- ALL EARTHWORK, EXCAVATIONS, AND SITE PREPARATIONS SHALL BE PERFORMED
AS PER THE RECOMMENDATIONS OUTLINED IN THE SOILS REPORT MENTIONED
ABOVE.
- ALL FOOTINGS SHALL BE FOUNDED ON A MINIMUM OF 18" BELOW FIRM
UNDISTURBED NATURAL SOIL, OR APPROVED COMPACTED FILL AND ADJACENT
FINISH GRADE UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION
PROCEDURES INCLUDING LAGGING, SHORING AND PROTECTION OF ANY
ADJACENT PROPERTY, STRUCTURES, STREETS, AND UTILITIES IN ACCORDANCE
WITH ALL NATIONAL, STATE, AND LOCAL SAFETY ORDINANCES.
- ALL EXISTING UTILITIES THAT INTERFERE WITH THE STRUCTURAL FOUNDATIONS
SHALL BE REMOVED AND RELOCATED.
- NO CONCRETE SHALL BE PLACED UNTIL THE COA INSPECTOR HAS INSPECTED AND
APPROVED THE BOTTOM OF THE FOOTING EXCAVATIONS.

REINFORCING STEEL

- REINFORCED STEEL SHALL BE INTERMEDIATE GRADE DEFORMED BARS AS
FOLLOWS:

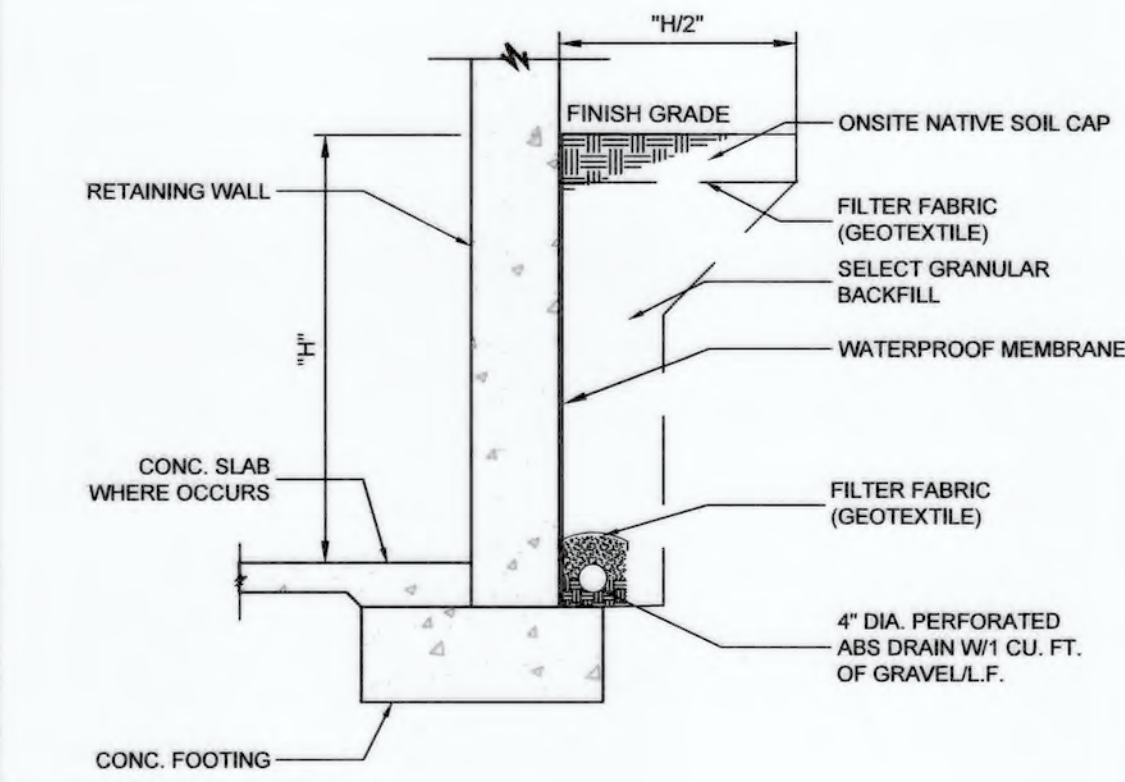
FOOTING SLAB ON GRADE, MASONRY,
AND BENT DOWELS, TIES:
#3 BAR AND SMALLER ASTM A-615, GRADE 40
#4 BAR AND LARGER ASTM A-615, GRADE 60
- DEFORMATION OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM
A-305 AND BENDING IN ACCORDANCE WITH ACI 318-11.
- MINIMUM CONCRETE COVER OVER REINFORCING REBAR FOR:
(EXCEPT AS NOTED OTHERWISE)

NOT EXPOSED TO WEATHER OR EARTH 1"
EXPOSED TO WEATHER 1 1/2"
EXPOSED TO EARTH 2"
PILASTER, BEAM & COLUMN TIES 1 1/2"
FORMED FOOTING AND WALL EXPOSED TO EARTH 2"
UNFORMED FOOTING AND WALL EXPOSED TO EARTH 3"
SLAB ON GRADE 2"
- SPLICE IN MASONRY:
MINIMUM OF 40 BAR DIAMETER OR 24", WHICHEVER IS GREATER.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 AND A-82.
- PLACEMENT OF GRADE 60 REINFORCEMENT STEEL SHALL BE INSPECTED PRIOR
TO PLACEMENT OF CONCRETE BY DEPUTY INSPECTOR.
- ALL DETAILING OF REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS
OF ACI 318-11.
- ALL REINFORCING STEEL, DOWELS, ANCHOR BOLTS, INSERTS, ETC. SHALL BE
SECURED IN PLACE PRIOR TO PLACING ANY CONCRETE OR GROUT.
- ALL REBARS TO BE EPOXY COATED TO RESIST ROAD SALTS.
- EXPOSED ENDS OF REBAR SHALL BE EPOXY COATED IN THE FIELD.

CONCRETE

- ALL CONCRETE UNLESS OTHERWISE NOTED SHALL BE REGULAR WEIGHT HARD
ROCK TYPE (150 MCM. FT.). AGGREGATES SHALL BE NATURAL SAND AND ROCK
CONFORMING TO ASTM C-33 WITH PROVEN SHRINKAGE CHARACTERISTICS OF
LESS THAN 0.05%, 3% ENTRAINED AIR.
- READY MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH
ASTM C-94. PLACEMENT OF CONCRETE SHALL CONFORM TO ACI 301.
- CEMENT FOR ALL CONCRETE SHALL BE PORTLAND CEMENT TYPE V, LOW ALKALI
CONFORMING TO ASTM C-150.
- MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT AGE OF 28 DAYS FOR:
FOOTINGS, GRADE BEAMS 6,000 PSI
MAT SLAB ON GRADE 6,000 PSI
- MAXIMUM SLUMP SHALL NOT EXCEED 4".
- CONCRETE SHALL BE MAINTAINED IN A MOIST CONDITION FOR A MINIMUM OF 5
DAYS AFTER PLACEMENT. ALTERNATIVE METHODS WILL BE APPROVED IF
SATISFACTORY PERFORMANCE CAN BE ASSURED.
- ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS AND OTHER INSERTS SHALL
BE SECURELY FASTENED IN THE FORMS BEFORE CONCRETE IS POURED.
ADEQUATE CLEANOUTS SHALL BE PROVIDED AT BOTTOM OF CONCRETE FORMS
FOR PROPER CLEANOUT AND INSPECTION.
- VIBRATION OF CONCRETE SHALL BE IN ACCORDANCE WITH THE GENERAL
PROVISIONS OUTLINED IN PORTLAND CEMENT ASSOCIATION SPECIFICATIONS
ST-26.
- CYLINDER TEST SHALL BE TAKEN IN CONFORMANCE WITH ACI-318 CHAPTER 4.
- NO PIPES OR DUCTS ARE TO BE PLACED IN CONCRETE SLABS OR WALLS UNLESS
SPECIFICALLY DETAILED.
- CONTINUOUS INSPECTION BY COA INSPECTOR SHALL BE REQUIRED DURING
PLACEMENT OF CONCRETE (UNLESS NOTED OTHERWISE).

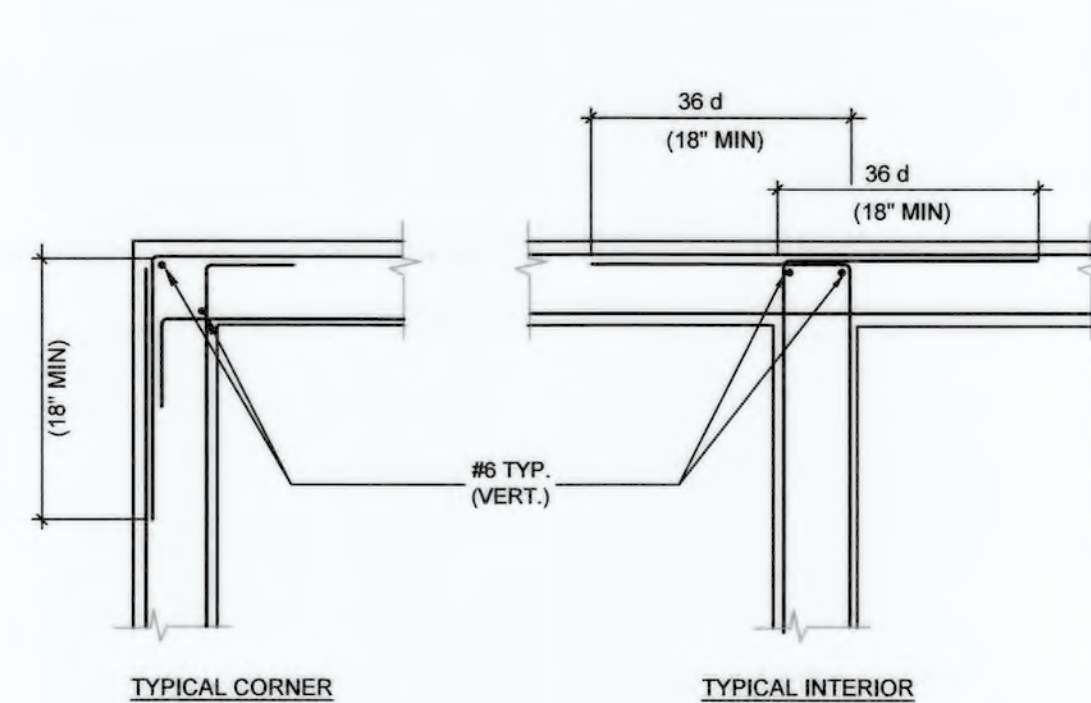
STRUCTURAL NOTES



SEE EARTHWORK NOTES
ON SPECIFICATIONS FOR
MORE INFO.

TYP. WATERPROOFING

8
S1



TYP. DOUBLE LAYER REINF.

5
S1

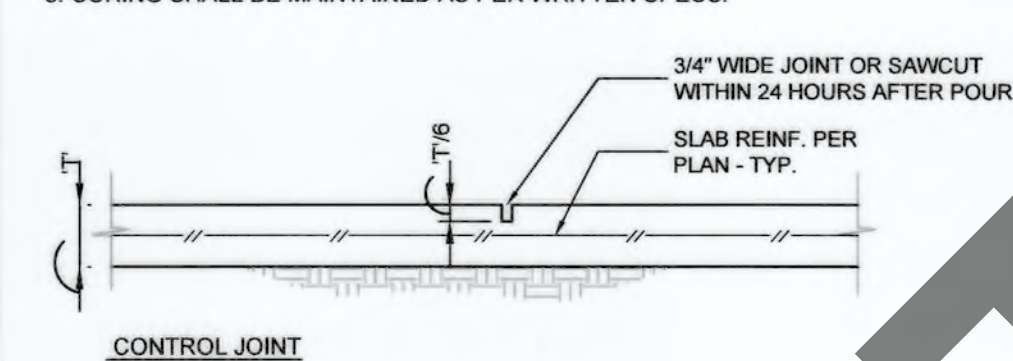
REINFORCING BAR SPLICE LAP										
TENSION SPLICES	F _c (psi)	BAR SIZE	#4	#5	#6	#7	#8	#9	#10	#11
CLASS B TENSION DEVELOPMENT	4000	TOP	32"	40"	48"	70"	80"	90"	102"	113"
		BOTTOM	25"	31"	37"	54"	62"	70"	78"	87"
	5000	TOP	28"	36"	43"	63"	72"	81"	91"	101"
		BOTTOM	22"	28"	33"	48"	55"	62"	70"	78"
6000	6000	TOP	20"	26"	33"	57"	65"	74"	83"	92"
		BOTTOM	15"	20"	25"	44"	50"	57"	64"	71"

- NOTES:
- HORIZONTAL REINFORCEMENT WITH MORE THAN 12" OF CONCRETE BELOW BAR.
 - ALL VERTICAL, ALL HORIZONTAL WALL REINFORCING AND HORIZONTAL REINFORCING WITH LESS THAN 12" OF CONCRETE BELOW BAR.
 - STAGGER SPLICES
 - SPLICED BARS WITH CLEAR COVER > d AND CLEAR SPACING > 3d ARE ONLY PERMITTED. IF SPACING OR CLEAR COVER ARE LESS THAN THE MINIMUMS DESCRIBED, CONTACT THE ENGINEER FOR REVISED LAP SPLICE LENGTHS.

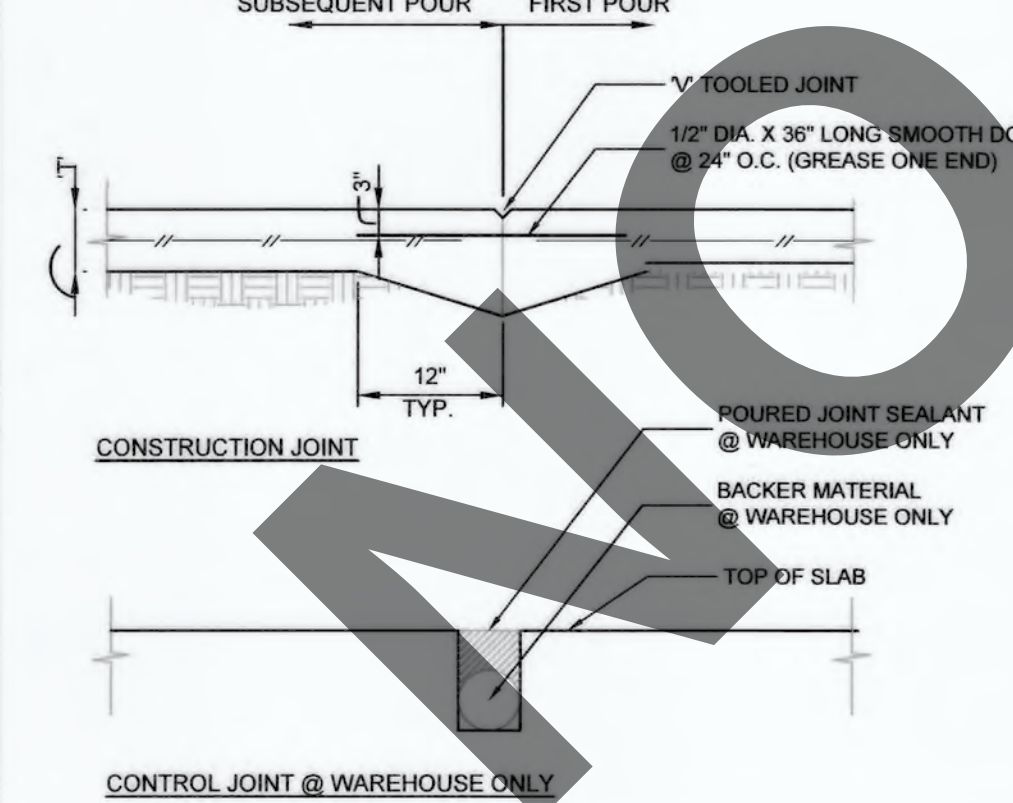
TYP. REBAR LAP

6
S1

- NOTES:
- SLABS SHALL BE POURED IN LONGIT. STRIPS OR SECTIONS.
 - SLABS SHALL BE SUB-DIVIDED BY CONTROL JOINTS HAVING MAX. 220 SQ. FT. AREA.
 - CONTROL JOINTS TO BE PERPENDICULAR TO CONSTRUCTION JOINTS.
 - REINFORCING SHALL BE SECURELY PLACED IN MIDDLE OF THE SLAB.
 - CURING SHALL BE MAINTAINED AS PER WRITTEN SPECS.



CONTROL JOINT



TYP. SINGLE LAYER REINF.

7
S1

CONTROL JOINTS

9
S1

CONTROL JOINTS

CONTROL JOINTS

CONTROL JOINTS

CONTROL JOINTS

CONTROL JOINTS

CONTROL JOINTS

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CONTROL JOINTS

TYP. SINGLE LAYER REINF.

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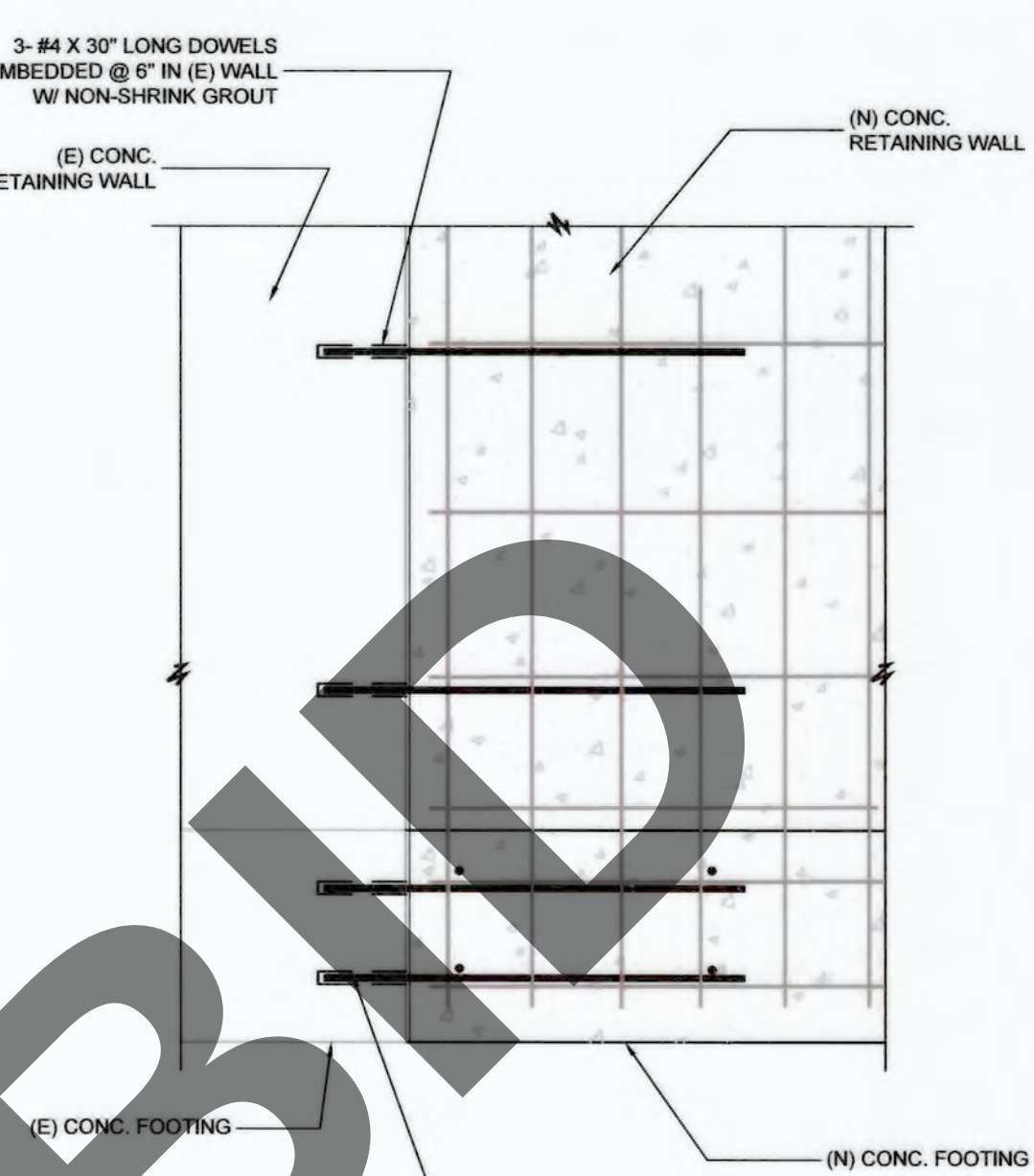
TYP. SINGLE LAYER REINF.

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NEW TO EXIS. RETAINING WALL

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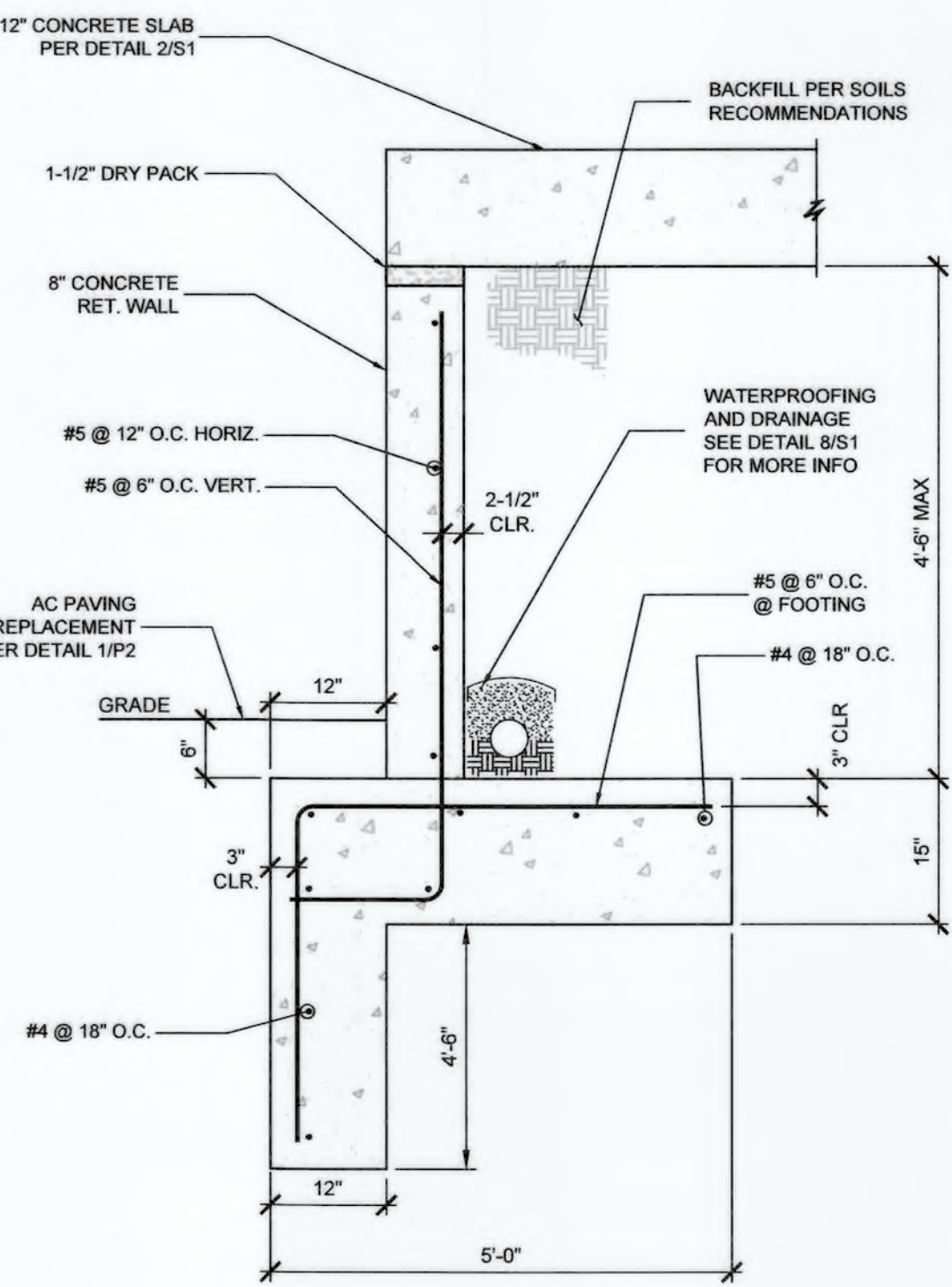
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LOADING DOCK SLAB/RET WALL

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MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES

PREPARED BY:
Geosyntec
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3530 HYLAND AVENUE, SUITE 100
COSTA MESA, CA 92626
PHONE: 714.959.0800

PREPARED UNDER THE SUPERVISION OF _____ DATE _____

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS
DRAWN BY _____ DESIGNED BY _____ PROJ. ENGR. _____
SUBMITTED BY _____ DATE _____
RECOMMENDED / APPROVED BY _____ DATE _____
CHIEF ENGINEER _____
DEPUTY DIRECTOR _____

HEAPS PEAK TRANSFER
STATION
CIVIL AND STRUCTURAL IMPROVEMENTS
STRUCTURAL DETAILS I
DATE NOV 2021 DWG NO. S1 SCALE AS SHOWN SHT. NO. 8 TOT. SHEETS 13

DATE	APPR.	DATE
REVISIONS	MARK	DATE

DATE	APPR.	DATE
REVISIONS	MARK	DATE

FOUNDATION NOTES

- SOILS REPORT BY TETRA TECH BAS
DATED: NOVEMBER 16, 2016
PROJECT NUMBER: BAS 16-103E
SHALL BE MADE PART OF THESE PLANS.

DESIGN SOIL BEARING CAPACITY PER RECOMMENDATIONS OF THE SOILS REPORT:
CONTINUOUS FOOTING 7,000 PSF

A. SPREAD FOOTINGS SHOULD BE SUPPORTED ON AT LEAST 2 FEET OF
STRUCTURAL FILL. ONE THIRD INCREASE OF THE ABOVE CAPACITIES IS
ALLOWED FOR SHORT TERM TRANSIENT LOADS SUCH AS WIND AND SEISMIC
EVENTS. FOOTINGS SHOULD BE UNIFORMLY LOADED.
B. STRUCTURAL FILL SHOULD EXTEND Laterally BEYOND THE EDGE OF THE
FOOTINGS BY AT LEAST 1/4 THE DEPTH OF FILL PLACED.

2. ALL EARTHWORK, EXCAVATIONS, AND SITE PREPARATIONS SHALL BE PERFORMED
AS PER THE RECOMMENDATIONS OUTLINED IN THE SOILS REPORT MENTIONED
ABOVE.

3. ALL FOOTINGS SHALL BE FOUNDED ON A MINIMUM OF 18" BELOW FIRM
UNDISTURBED NATURAL SOIL, OR APPROVED COMPACTED FILL AND ADJACENT
FINISH GRADE UNLESS NOTED OTHERWISE.

4. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION
PROCEDURES INCLUDING LAGGING, SHORING AND PROTECTION OF ANY
ADJACENT PROPERTY, STRUCTURES, STREETS, AND UTILITIES IN ACCORDANCE
WITH ALL NATIONAL, STATE, AND LOCAL SAFETY ORDINANCES.

5. ALL EXISTING UTILITIES THAT INTERFERE WITH THE STRUCTURAL FOUNDATIONS
SHALL BE REMOVED AND RELOCATED.

6. NO CONCRETE SHALL BE PLACED UNTIL THE COA INSPECTOR HAS INSPECTED AND
APPROVED THE BOTTOM OF THE FOOTING EXCAVATIONS.

REINFORCING STEEL

- REINFORCED STEEL SHALL BE INTERMEDIATE GRADE DEFORMED BARS AS
FOLLOWS:

FOOTING SLAB ON GRADE, MASONRY,
AND BENT DOWELS, TIES:
#3 BAR AND SMALLER ASTM A-615, GRADE 40
#4 BAR AND LARGER ASTM A-615, GRADE 60

2. DEFORMATION OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM
A-305 AND BENDING IN ACCORDANCE WITH ACI 318-11.

3. MINIMUM CONCRETE COVER OVER REINFORCING REBAR FOR:
(EXCEPT AS NOTED OTHERWISE)

NOT EXPOSED TO WEATHER OR EARTH 1"
EXPOSED TO WEATHER 1 1/2"
EXPOSED TO EARTH 2"
PILASTER, BEAM & COLUMN TIES 1 1/2"
FORMED FOOTING AND WALL EXPOSED TO EARTH 2"
UNFORMED FOOTING AND WALL EXPOSED TO EARTH 3"
SLAB ON GRADE 2"

4. SPLICE IN MASONRY:
MINIMUM OF 40 BAR DIAMETER OR 24", WHICHEVER IS GREATER.

5. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 AND A-82.

6. PLACEMENT OF GRADE 60 REINFORCEMENT STEEL SHALL BE INSPECTED PRIOR
TO PLACEMENT OF CONCRETE BY DEPUTY INSPECTOR.

7. ALL DETAILING OF REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS
OF ACI 318-11.

8. ALL REINFORCING STEEL, DOWELS, ANCHOR BOLTS, INSERTS, ETC. SHALL BE
SECURED IN PLACE PRIOR TO PLACING ANY CONCRETE OR GROUT.

9. ALL REBARS TO BE EPOXY COATED TO RESIST ROAD SALTS.

10. EXPOSED ENDS OF REBAR SHALL BE EPOXY COATED IN THE FIELD.

CONCRETE

- ALL CONCRETE UNLESS OTHERWISE NOTED SHALL BE REGULAR WEIGHT HARD
ROCK TYPE (150 #CU. FT.), AGGREGATES SHALL BE NATURAL SAND AND ROCK
CONFORMING TO ASTM C-33 WITH PROVEN SHRINKAGE CHARACTERISTICS OF
LESS THAN 0.05%, 3% ENTRAINED AIR.

2. READY MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH
ASTM C-94. PLACEMENT OF CONCRETE SHALL CONFORM TO ACI 301.

3. CEMENT FOR ALL CONCRETE SHALL BE PORTLAND CEMENT TYPE V, LOW ALKALI
CONFORMING TO ASTM C-150.

4. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT AGE OF 28 DAYS FOR:

FOOTINGS, GRADE BEAMS 6,000 PSI
MAT SLAB ON GRADE 6,000 PSI

5. MAXIMUM SLUMP SHALL NOT EXCEED 4".

6. CONCRETE SHALL BE MAINTAINED IN A MOIST CONDITION FOR A MINIMUM OF 5
DAYS AFTER PLACEMENT. ALTERNATIVE METHODS WILL BE APPROVED IF
SATISFACTORY PERFORMANCE CAN BE ASSURED.

7. ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS AND OTHER INSERTS SHALL
BE SECURELY FASTENED IN THE FORMS BEFORE CONCRETE IS POURED.
ADEQUATE CLEANOUTS SHALL BE PROVIDED AT BOTTOM OF CONCRETE FORMS
FOR PROPER CLEANOUT AND INSPECTION.

8. VIBRATION OF CONCRETE SHALL BE IN ACCORDANCE WITH THE GENERAL
PROVISIONS OUTLINED IN PORTLAND CEMENT ASSOCIATION SPECIFICATIONS
ST-26.

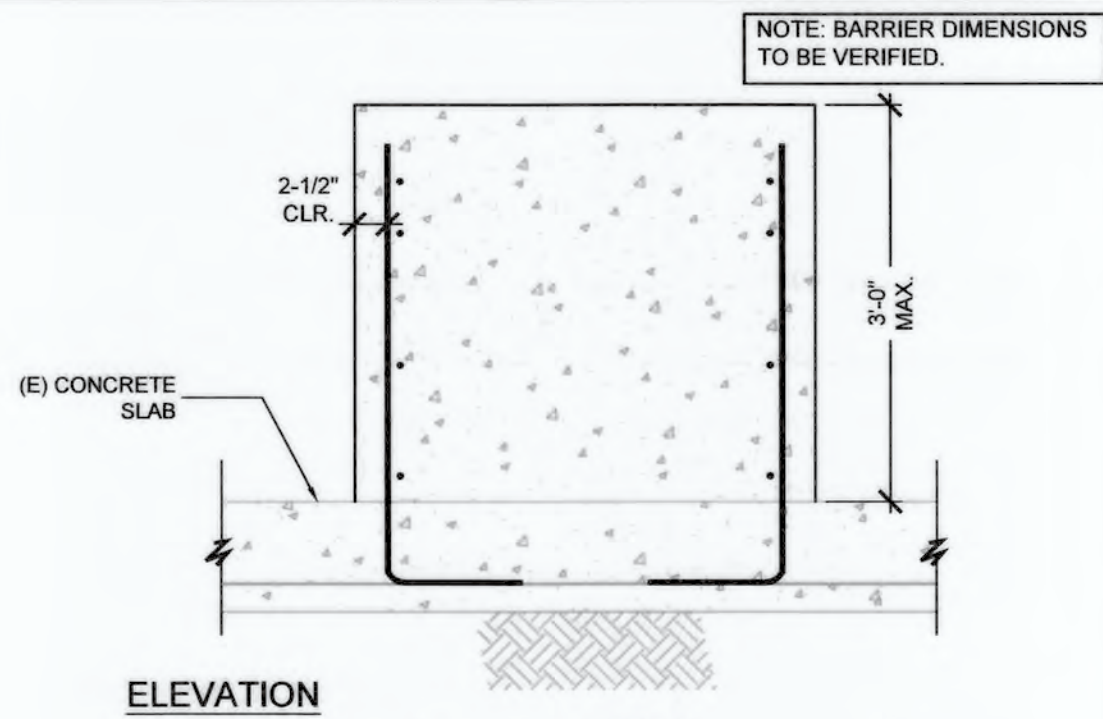
9. CYLINDER TEST SHALL BE TAKEN IN CONFORMANCE WITH ACI-318 CHAPTER 4.

10. NO PIPES OR DUCTS ARE TO BE PLACED IN CONCRETE SLABS OR WALLS UNLESS
SPECIFICALLY DETAILED.

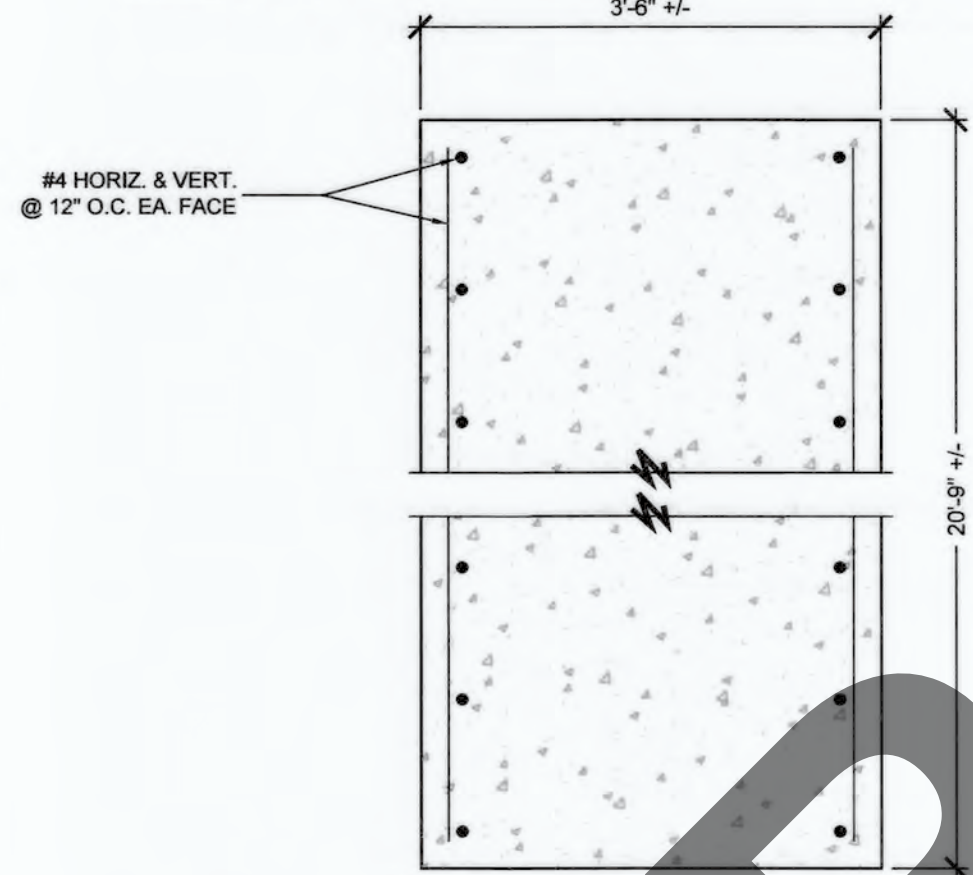
11. CONTINUOUS INSPECTION BY COA INSPECTOR SHALL BE REQUIRED DURING
PLACEMENT OF CONCRETE (UNLESS NOTED OTHERWISE).

STRUCTURAL NOTES

10
S2



ELEVATION

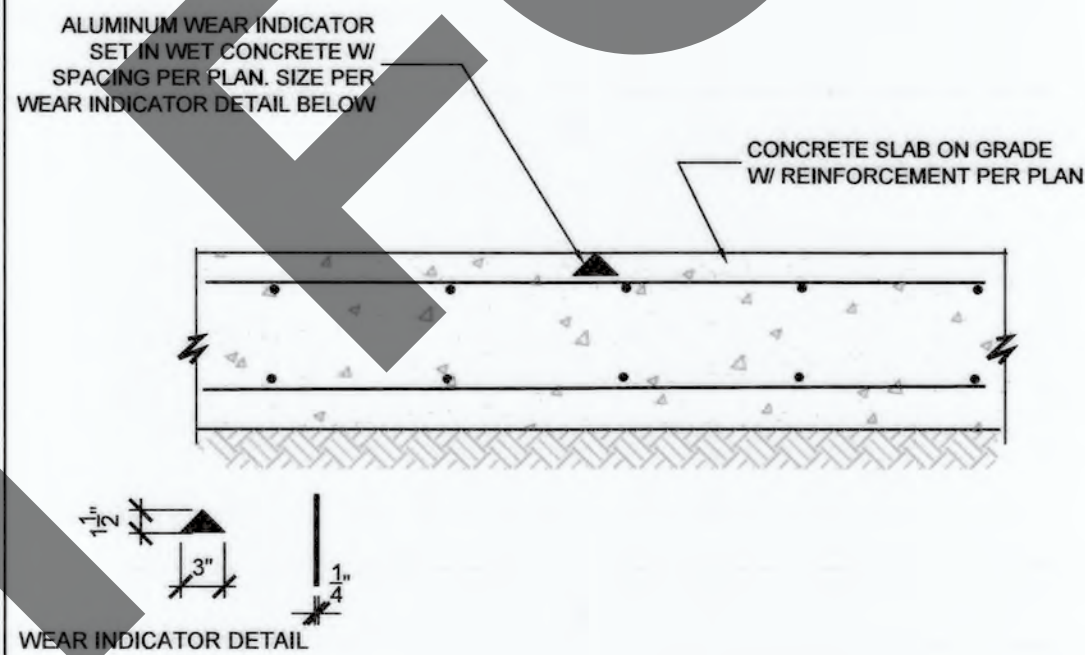


PLAN VIEW

NOTE: EXPOSED EDGES OF CONCRETE
SHALL BE CHAMFERED 3/4".

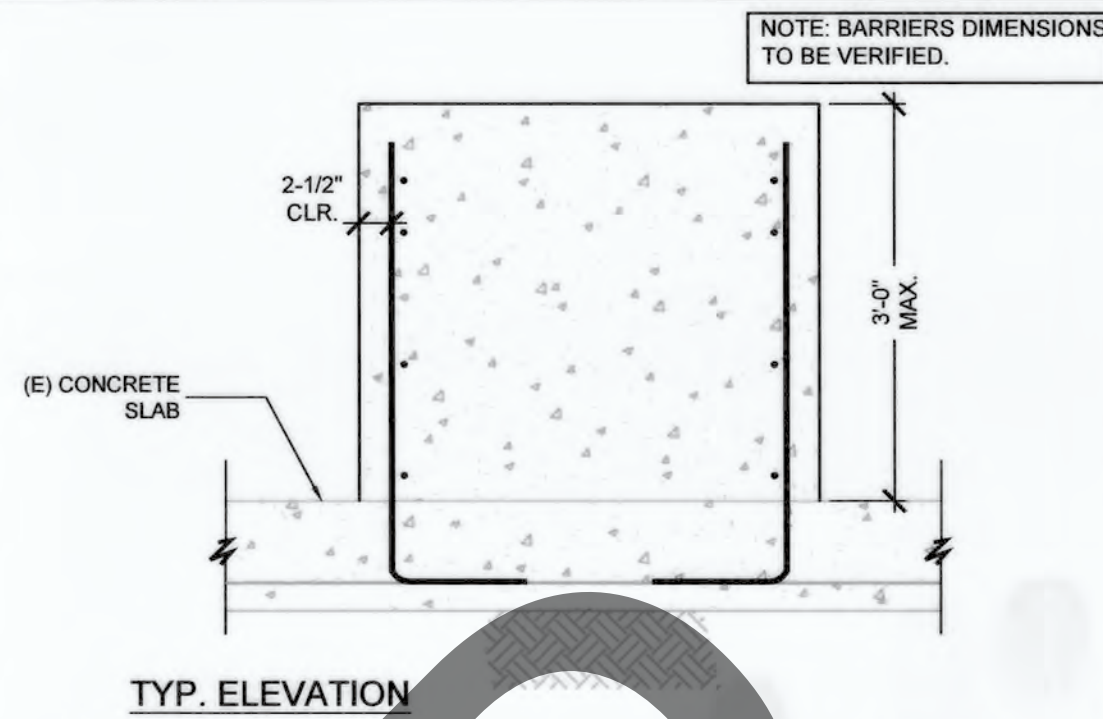
RECTANGULAR CONCRETE BARRIER

6
S2

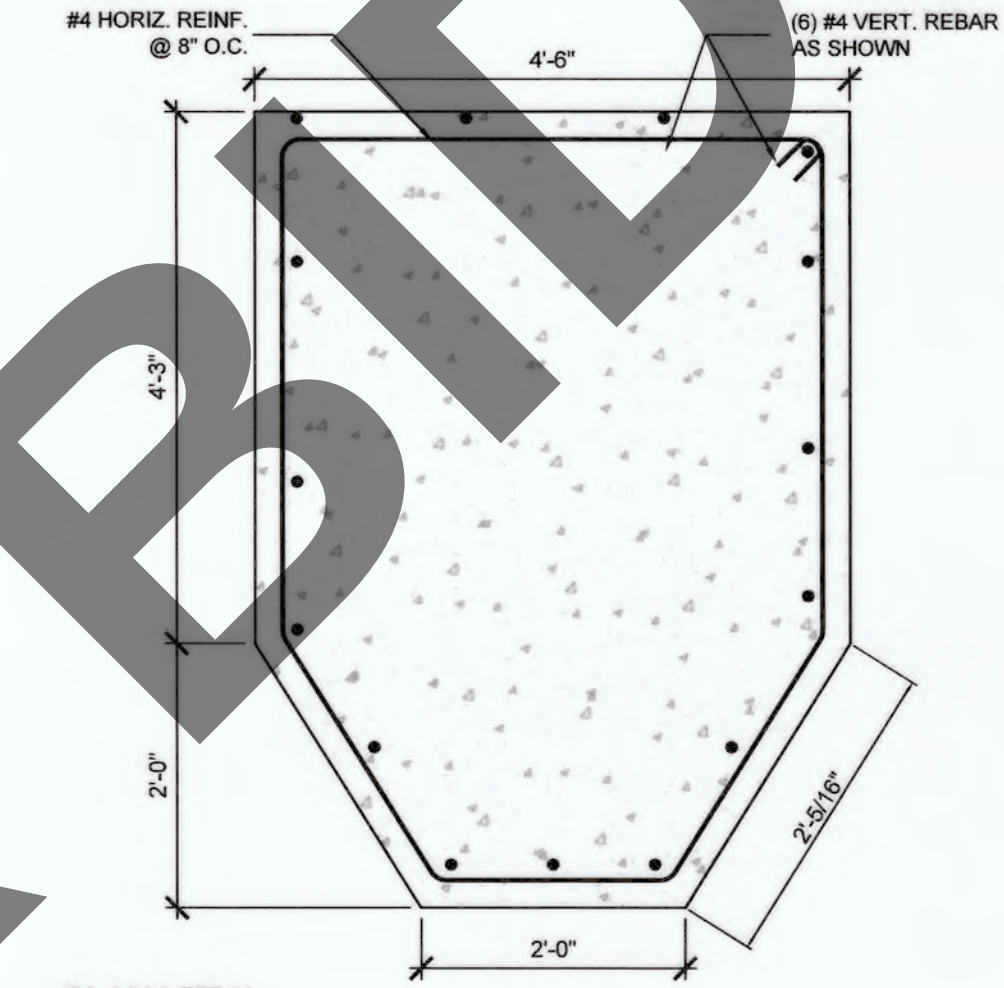


WEAR INDICATOR DETAIL

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S2



TYP. ELEVATION

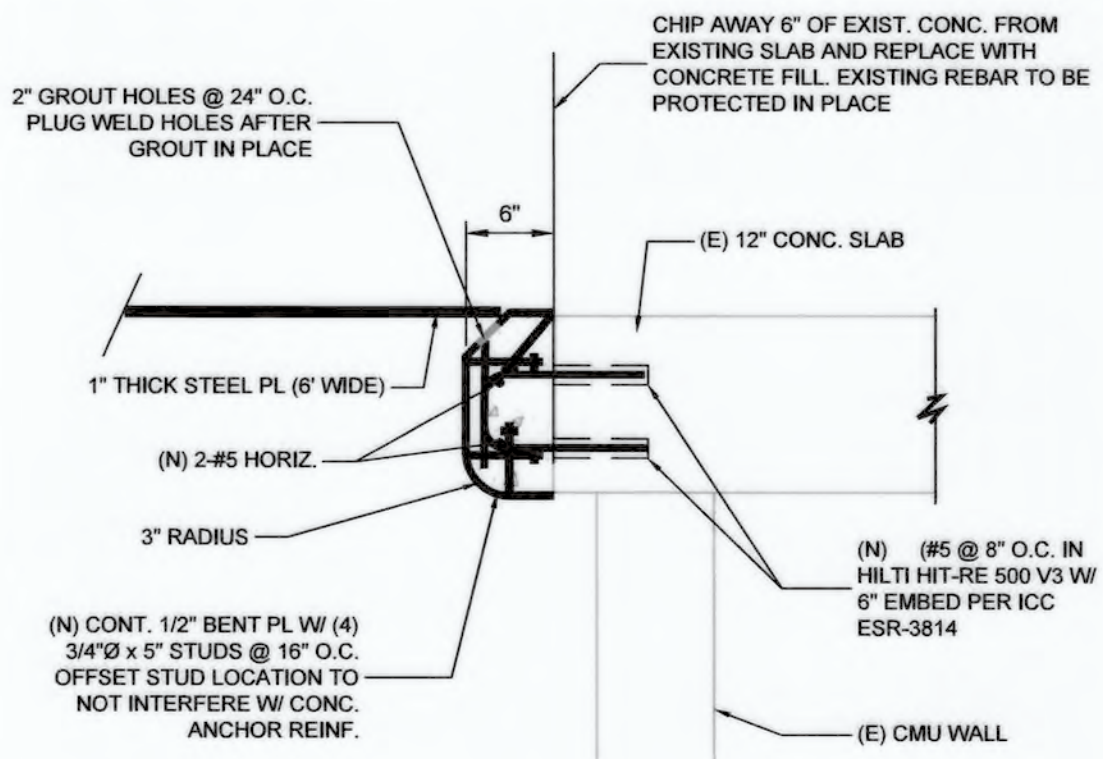


PLAN VIEW

NOTE: EXPOSED EDGES OF CONCRETE
SHALL BE CHAMFERED 3/4".

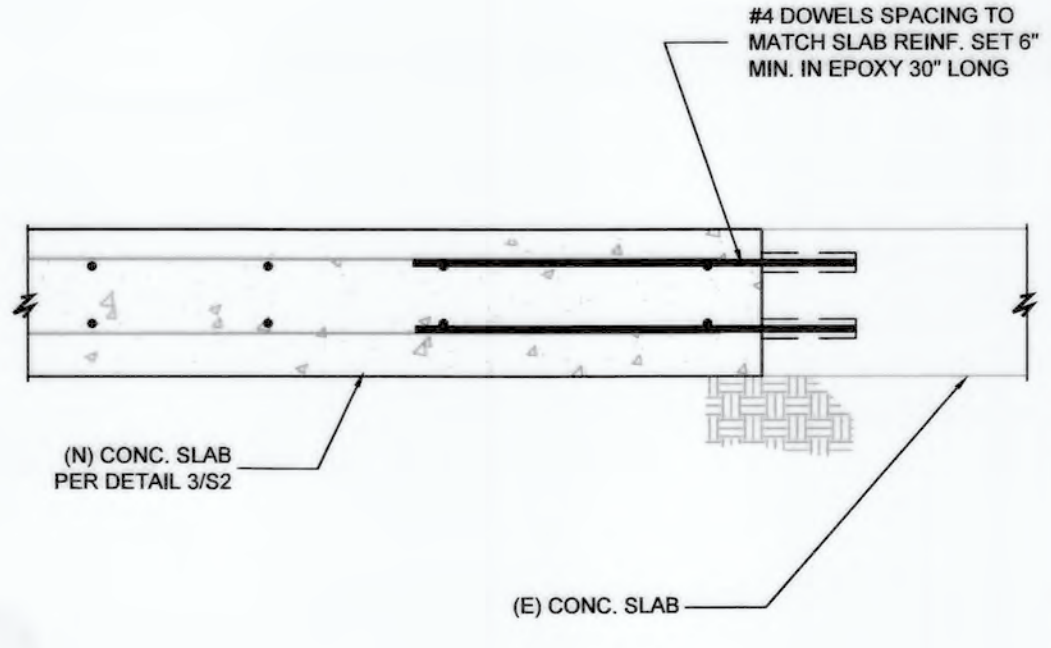
TRAPEZOIDAL CONCRETE BARRIERS

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S2



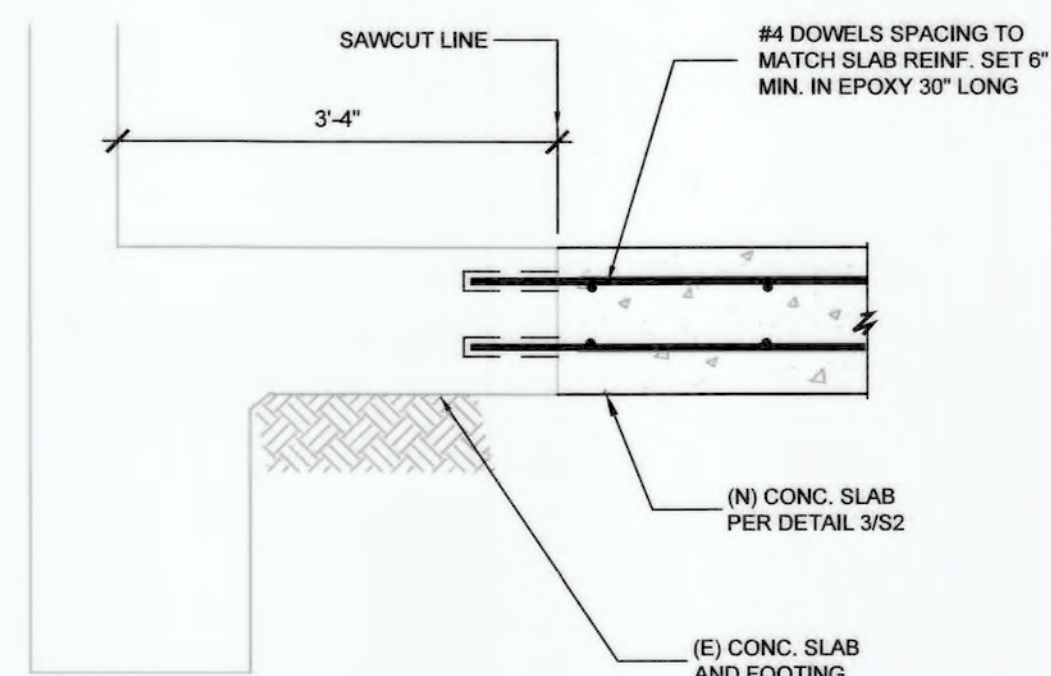
LOAD-OUT PORT GATE

5
S2



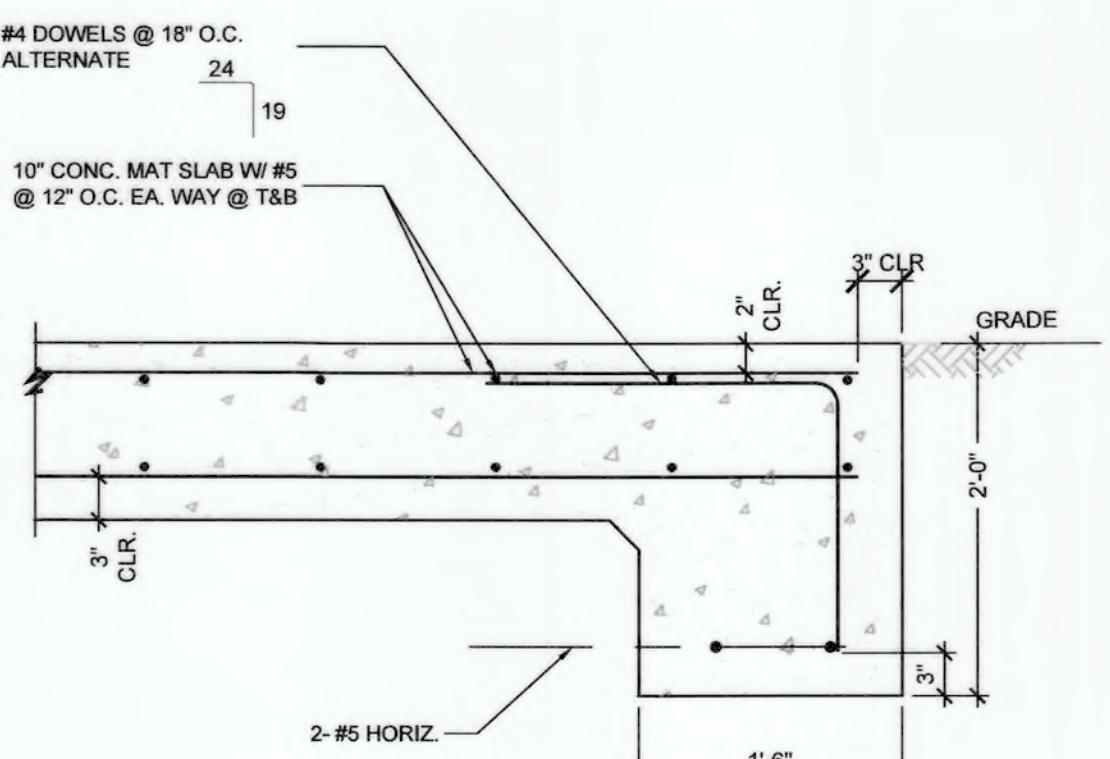
CONSTRUCTION JOINT DETAIL

1
S2



TIPPING FLOOR SLAB DETAIL

2
S2



CONCRETE SLAB DETAIL

3
S2



MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES

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PREPARED UNDER THE SUPERVISION OF

DATE

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DRAWN BY DESIGNED BY PROJ. ENGR. RECOMMENDED/ APPROVED BY

SUBMITTED BY

PROJECT MANAGER

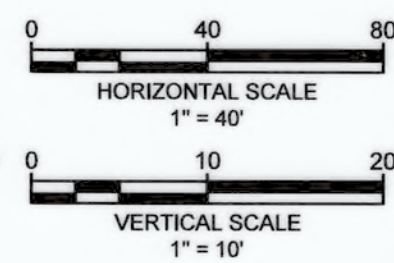
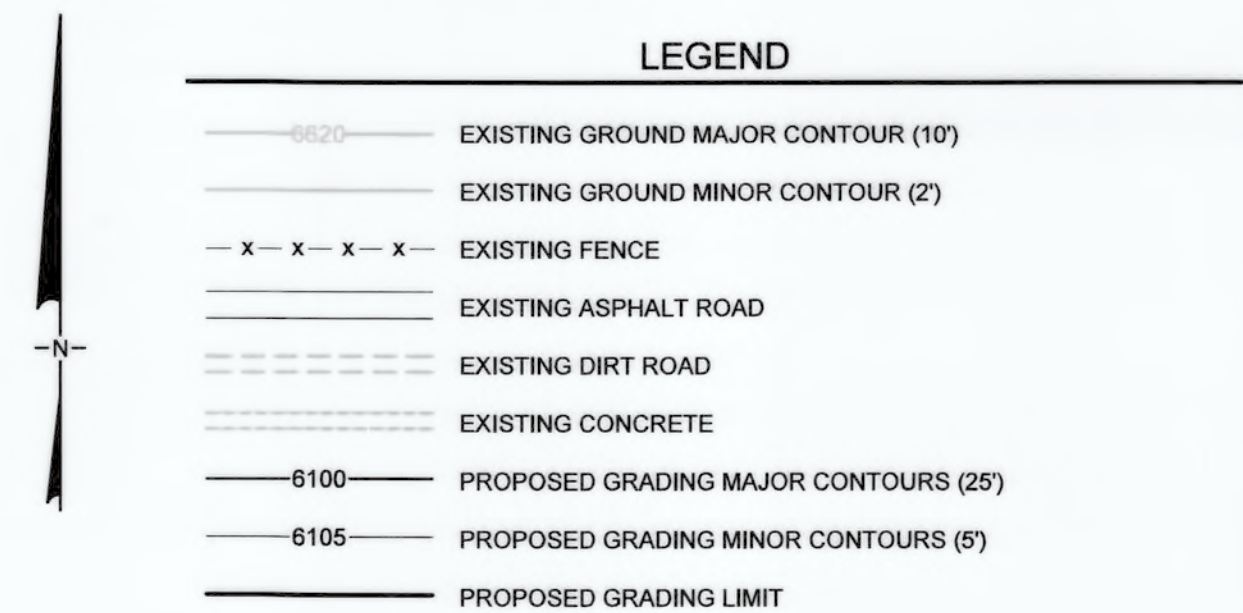
DATE

DEPUTY DIRECTOR

HEAPS PEAK TRANSFER
STATION
CIVIL AND STRUCTURAL IMPROVEMENTS

STRUCTURAL DETAILS II

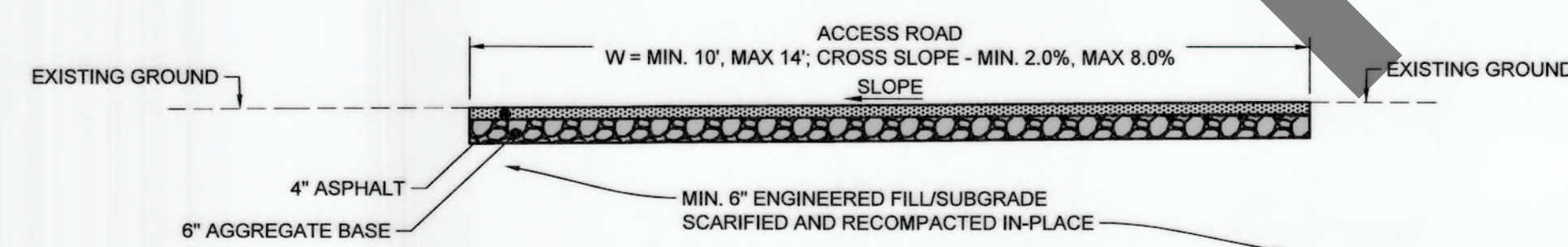
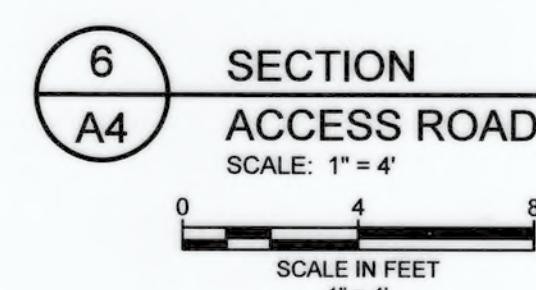
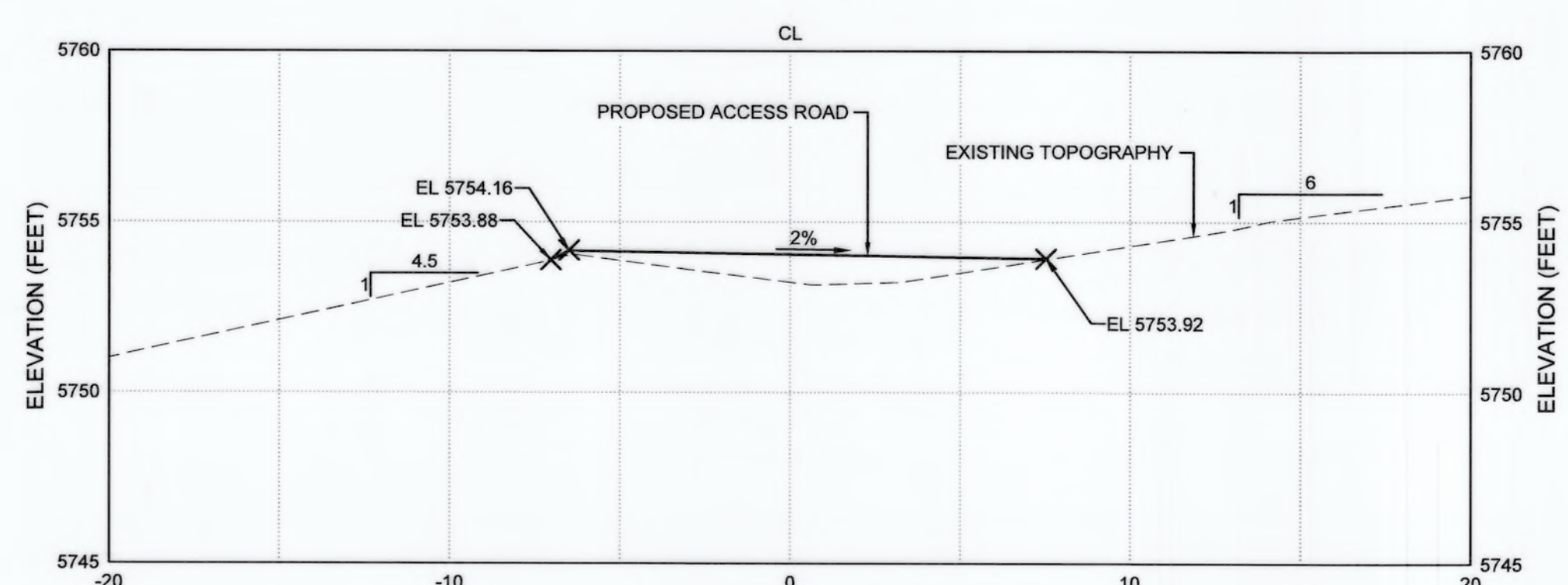
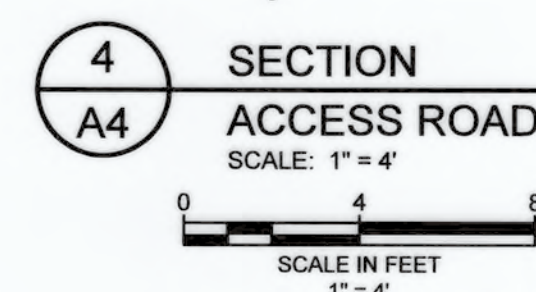
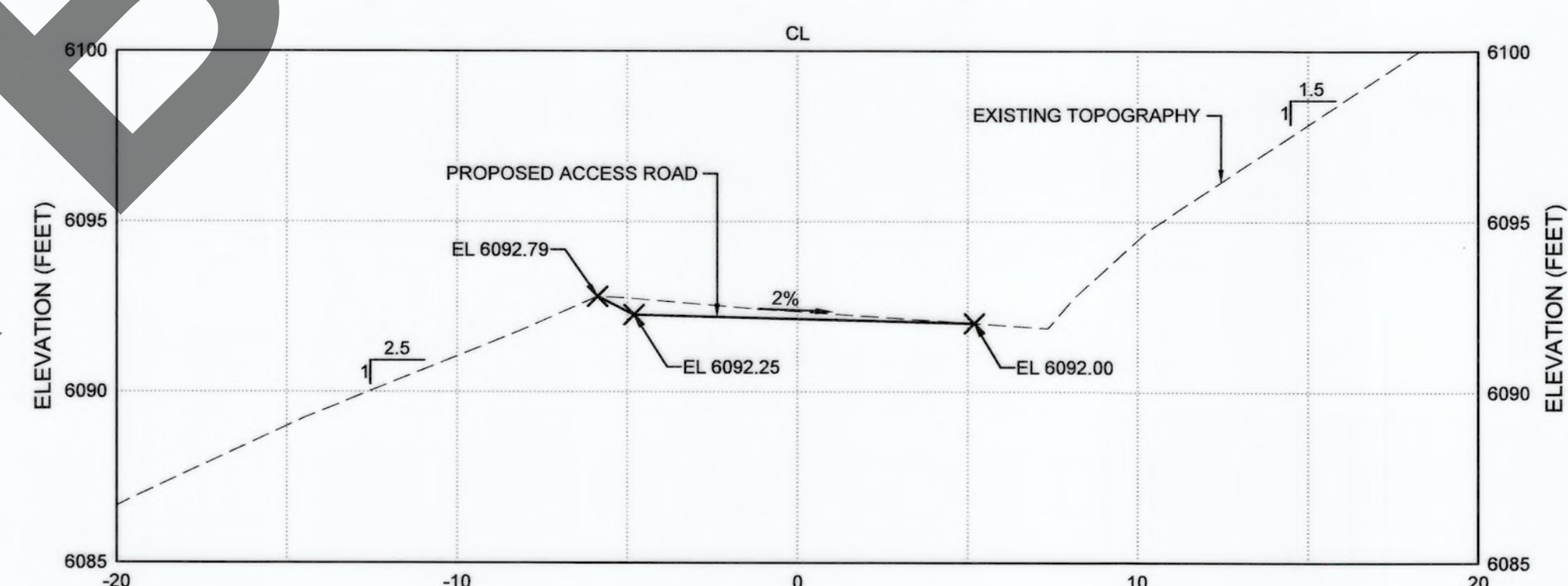
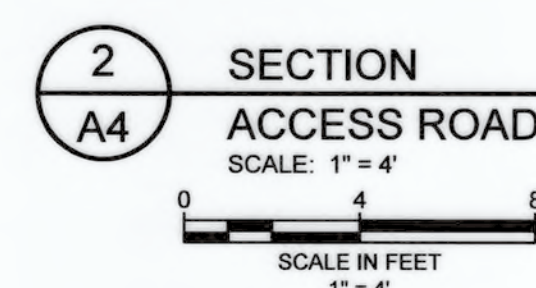
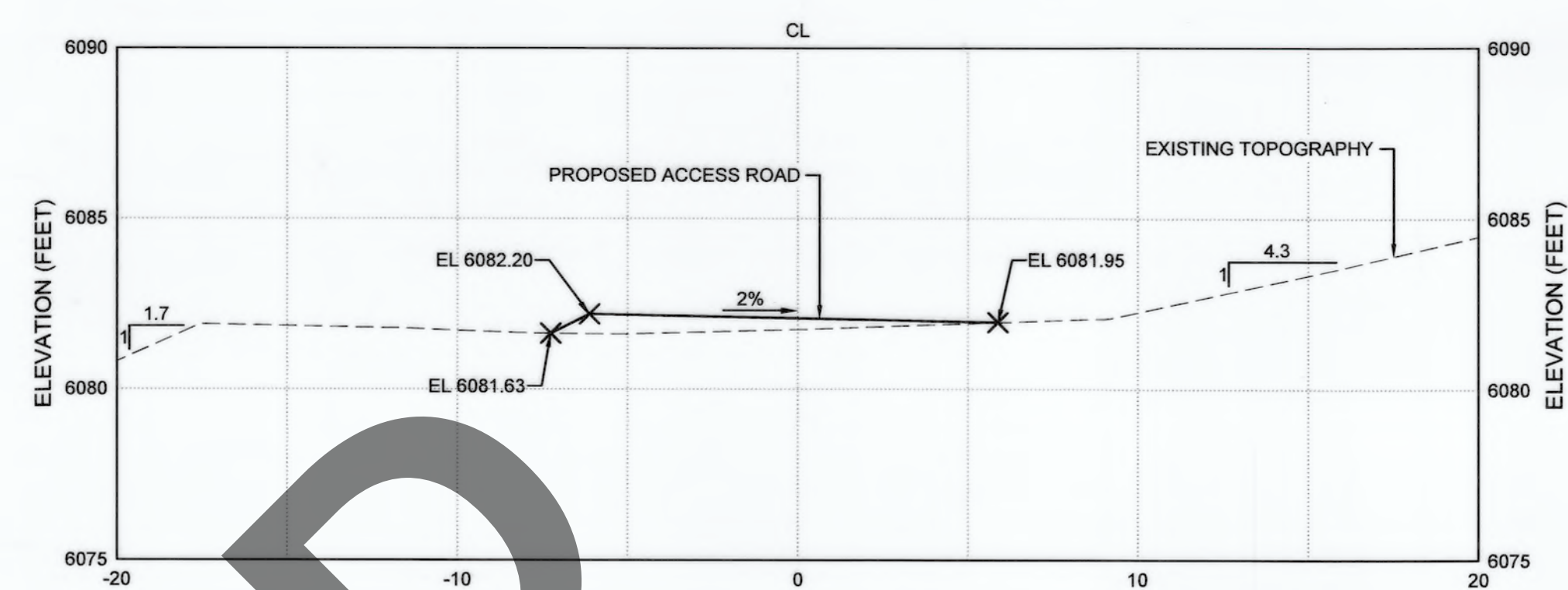
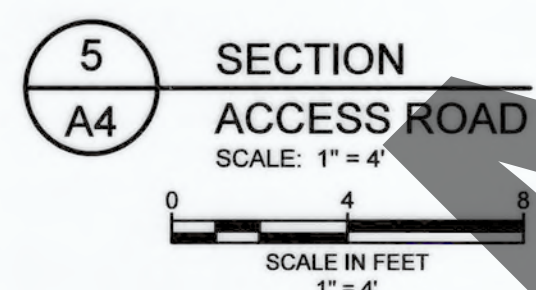
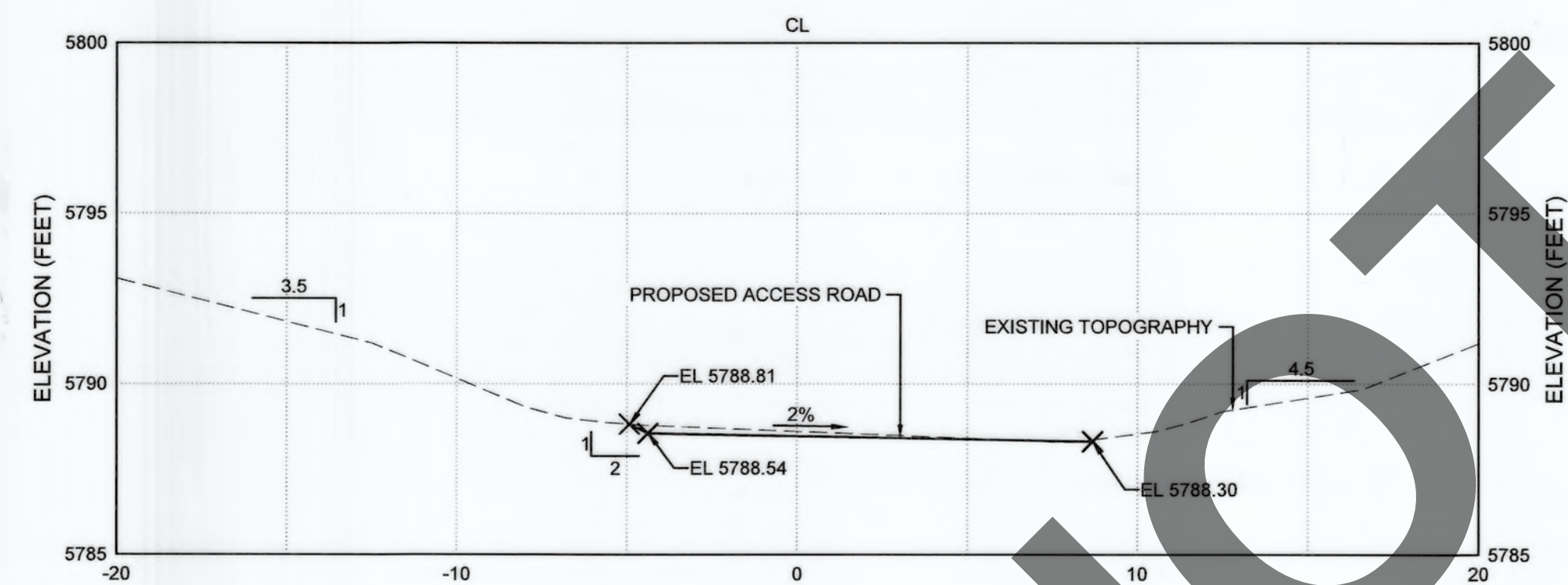
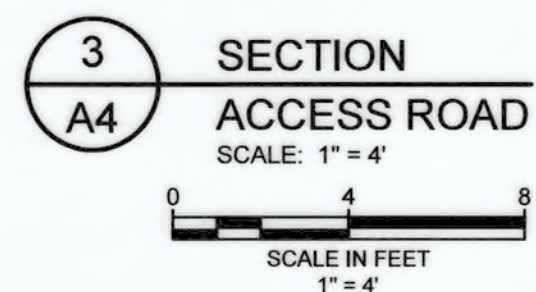
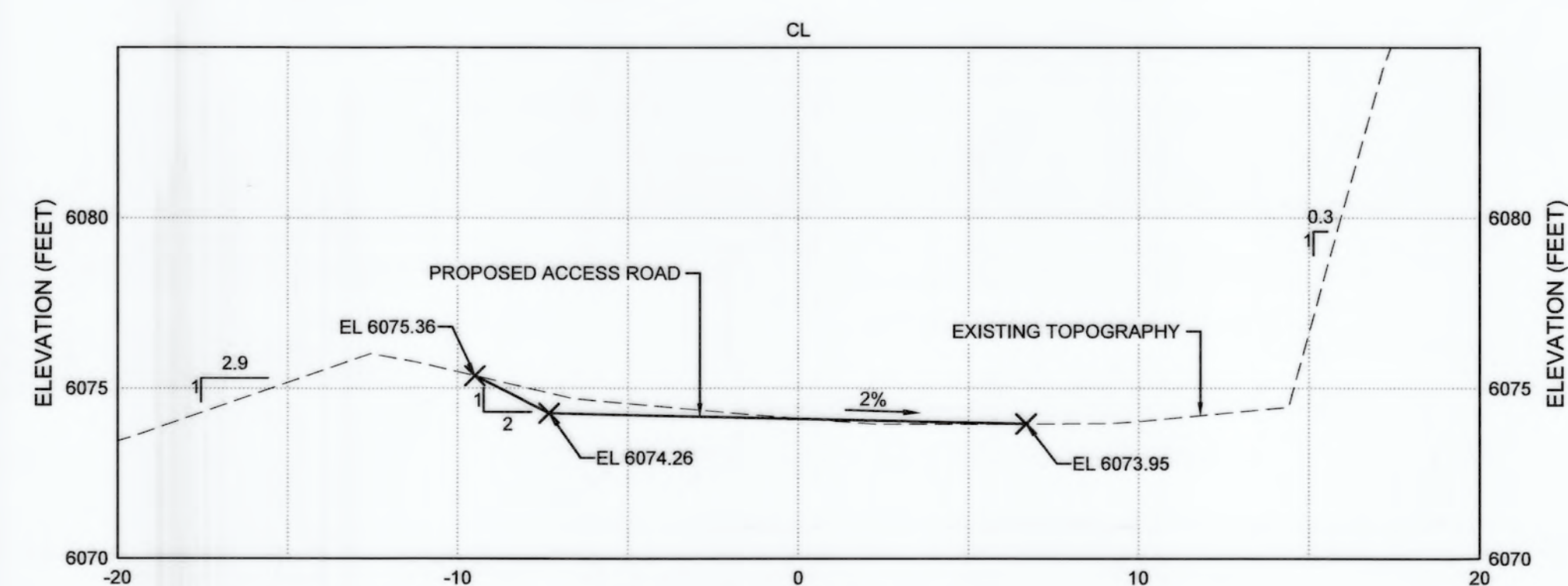
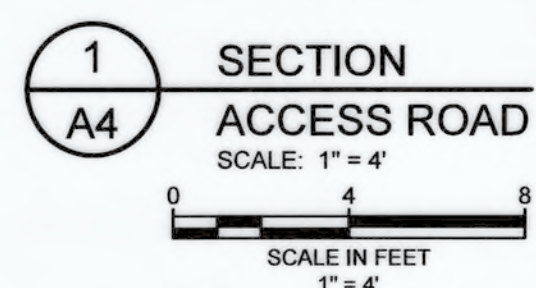
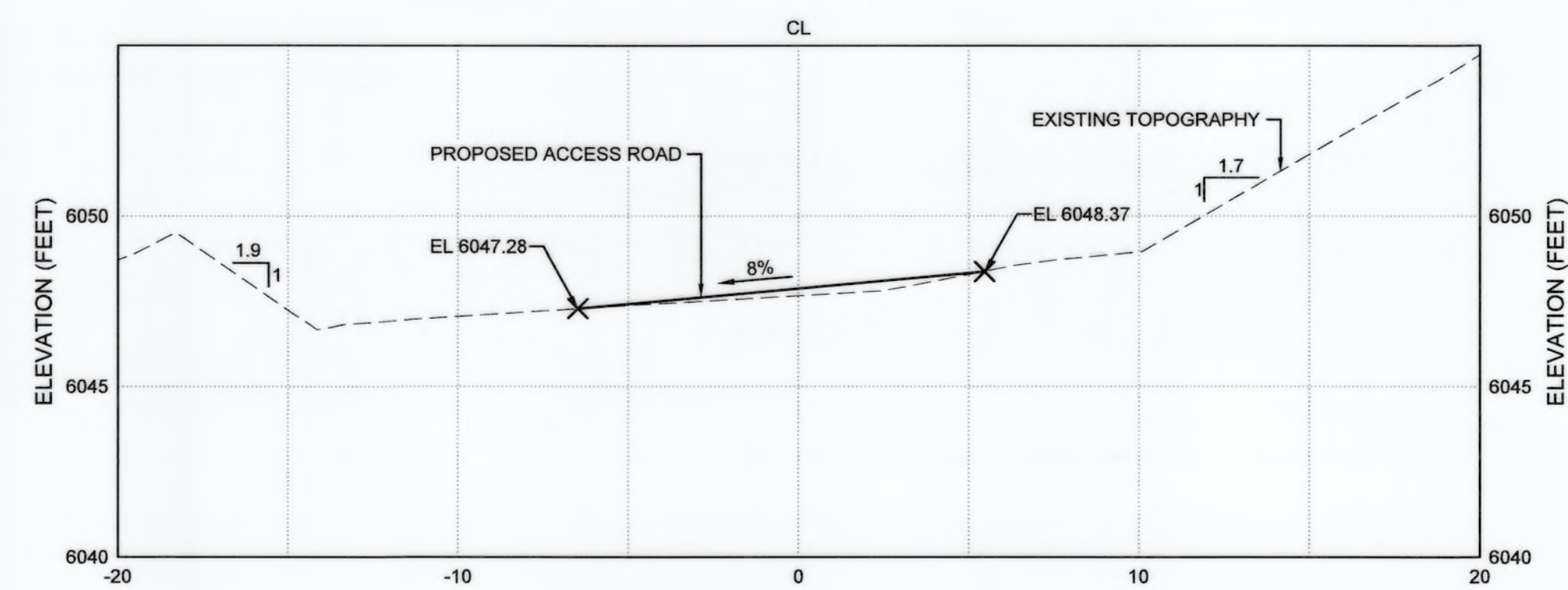
DATE	DWG NO.	SCALE	SHT. NO.	TOT. SHEETS
NOV 2021	S2	AS SHOWN	9	13

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24 NOVEMBER 202

DRAWN BY	DESIGNED BY	PROJ. ENGR.	RECOMMENDED / APPROVED BY	
SUBMIT BY			CHIEF ENGINEER	DATE
Johnny Gaynor 12/1/21			D. S. Mullen 12/3/21	
SUPERVISOR / MANAGER			DEPUTY DIRECTOR	

DATE	DWG NO.	SCALE	SHT. NO.	TOT. SHEETS
NOV 2021	A3	AS SHOWN	12	13



MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES

PREPARED BY:

Geosyntec 
consultants

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PREPARED UNDER THE SUPERVISION OF

24 NOVEMBER 2021

SAN BERNARDINO COUNTY			
DEPARTMENT OF PUBLIC WORKS			
DRAWN BY	DESIGNED BY	PROJ. ENGR.	RECOMMENDED / APPROVED BY
			<i>Max R. Kucharang</i> CHIEF ENGINEER
SUBMITTED BY		DATE	
<i>Johnny Gayman</i>		<i>12/1/21</i>	
POSTED/RECEIVED		DATE	
		<i>12/3/21</i>	

HEAPS PEAK TRANSFER STATION CIVIL AND STRUCTURAL IMPROVEMENTS

ACCESS ROAD DETAILS