

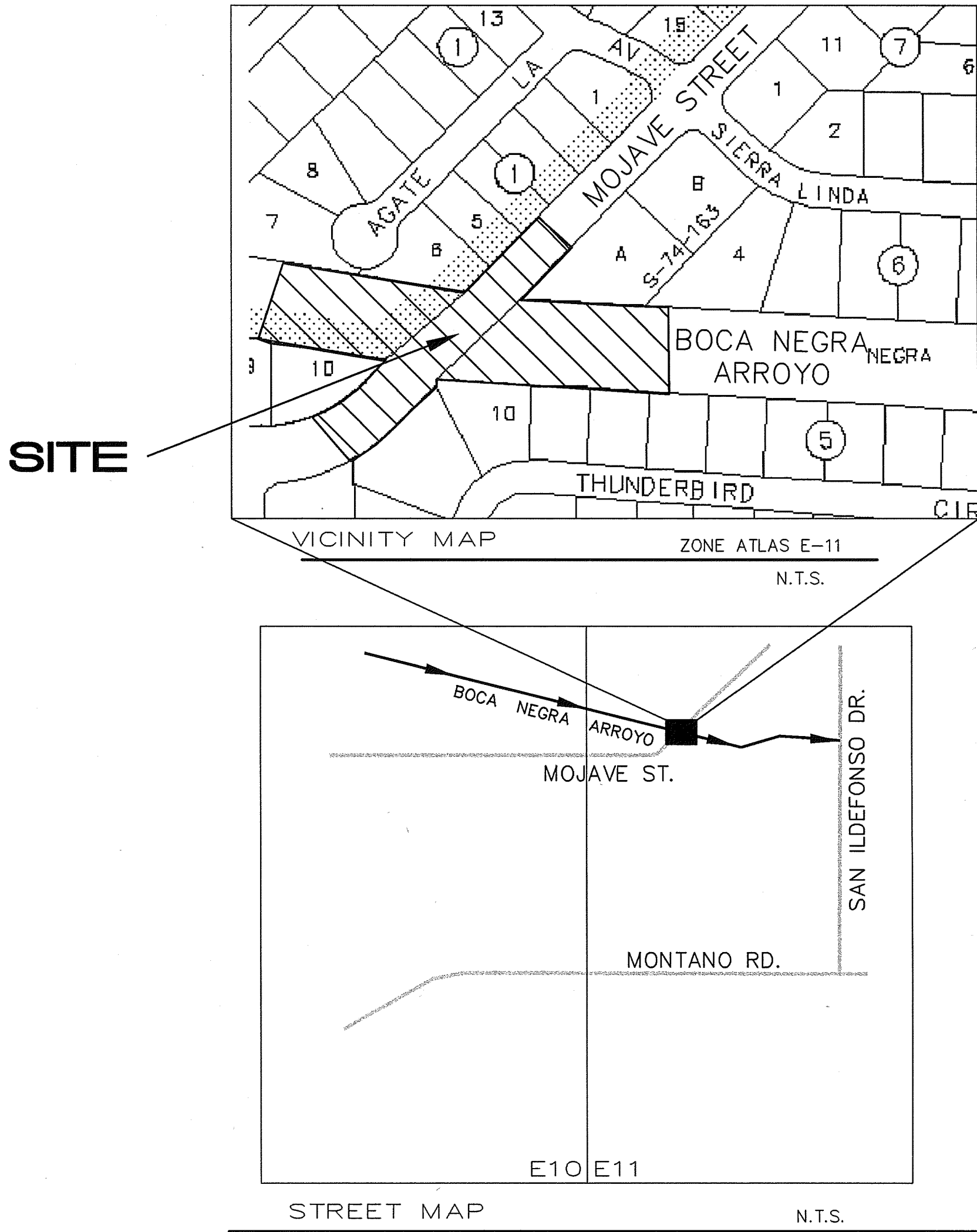
MOJAVE STREET CROSSING OF BOCA NEGRA ARROYO

CONSTRUCTION PLANS
ALBUQUERQUE, NEW MEXICO



INDEX OF SHEETS

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1	COVER
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3	SURVEY CONTROL AND EXISTING UTILITIES LAYOUT
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5	BOCA NEGRA ARROYO PLAN AND PROFILE
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7	LOCATION PLAN
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9	CBC DETAILS (2 OF 2)
10	RETAINING WALL PROFILES
11	RETAINING WALL DETAILS
12	MISCELLANEOUS SECTIONS AND DETAILS



Resource Technology, Inc.
Civil Engineering 5501 Jefferson Blvd. NE, Suite 200
Environmental Sciences Albuquerque, New Mexico 87109
Water Resources E-mail: rti@nm.net
Landscape Architecture Telephone: (505) 243-7300
Planning Facsimile: (505) 243-7400

REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE		APPROVALS		ENGINEER	DATE	APPROVED FOR CONSTRUCTION	
		DRC CHAIR		<i>[Signature]</i>	2-19-07	<i>[Signature]</i> 2-19-07 CITY ENGINEER DATE	
		TRANSPORTATION		<i>[Signature]</i>	10-26-06		
		WATER/WASTEWATER		<i>[Signature]</i>	10/30/06		
		HYDROLOGY		<i>[Signature]</i>	10-25-06		
		PARKS					
		CONSTR. COORD.					
		AMAFCA		N/A			
		CITY PROJECT NO.		7179-03		SHEET 1 OF 12	



UTILITY LOCATION DATA PROVIDED BY
ABASTO UTILITY LOCATING CO. INC.

NOTE POT HOLE SPOT LOCATIONS ARE NOT SURVEYED.
LOCATIONS ARE BASED ON RADIUS FROM 3 MARKERS.
THE RADII DO NOT ALWAYS INTERSECT.

CURVE TABLE					
CURVE	LENGTH	RADIUS	TANGENT	CHORD	CHORD DIR.
C1	215.53	295.34	112.82	210.78	N65°22'12"E

LINE TABLE		
LINE	LENGTH	BEARING
BN1	64.80	N86°03'34"W
BN2	209.94	N85°22'52"W
BN3	125.25	N78°59'43"W

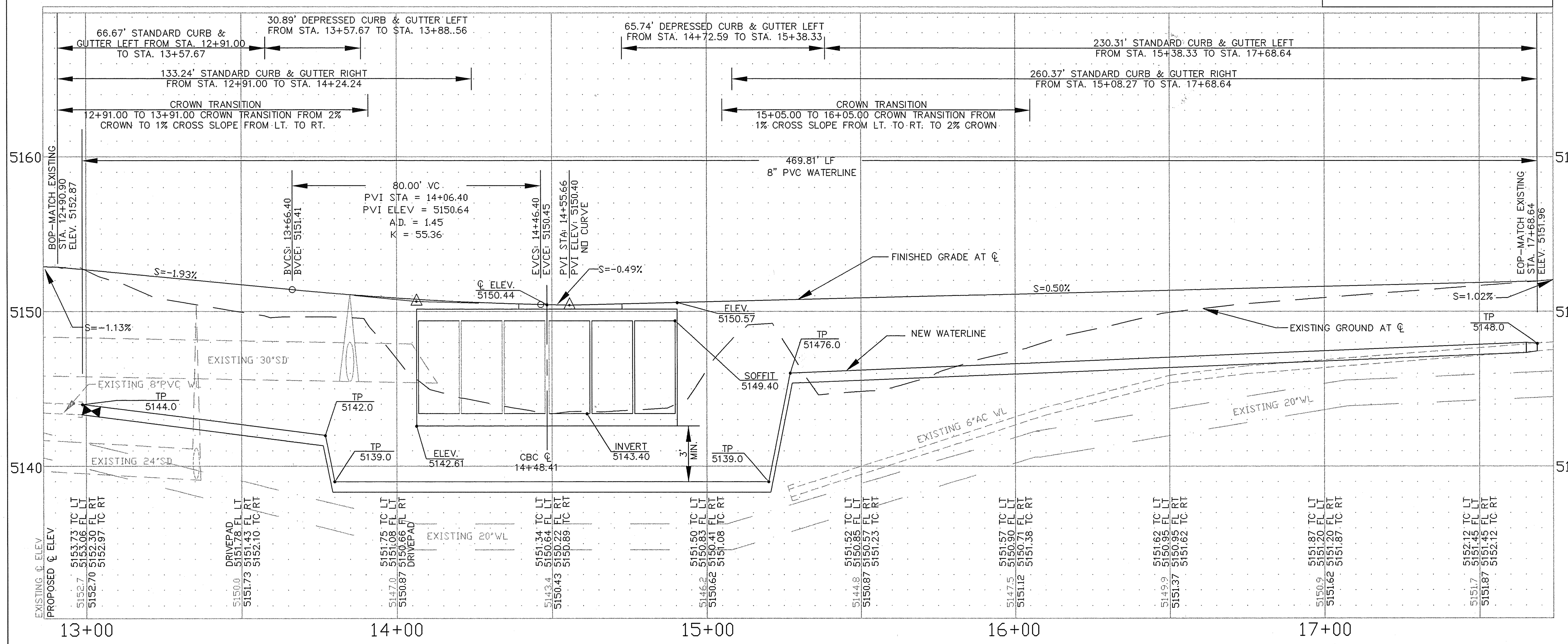
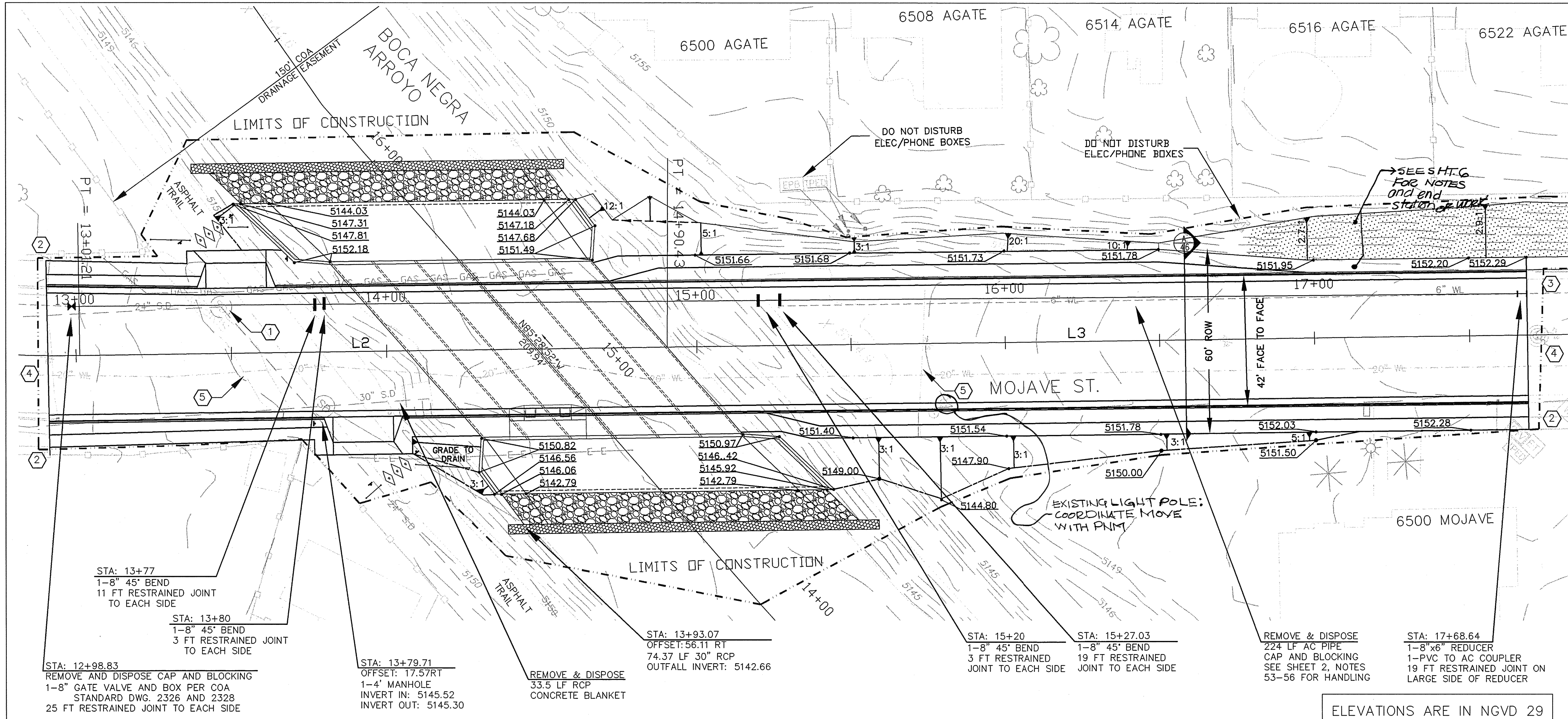
BOCA NEGRA ARROYO
STA: 13+50 TO 17+50

STORM DRAIN ALIGNMENT

LINE TABLE		
LINE	LENGTH	BEARING
SD1	81.06	N76°16'37"E

GROUND MODIFIED COORDINATES FROM NAD 27, NM STATE PLANE CENTRAL ZONE
NGVD 29. GROUND TO GRID COMBINED SCALE FACTOR: 0.99966821 (SC-28-27-33-34)

[illegible]



GENERAL NOTES

- SEE SHEET 5 FOR FENCING LOCATION EXTENTS
- SEE SHEET 6 FOR DETAILS ON PAVEMENT, TRAILS, DRIVE PADS, AND SIDEWALKS
- CURB AND GUTTER PER COA STANDARD DWG 2415A
- REMOVE "NO OUTLET SIGN" AT STA. 18+83
REMOVE "DEAD END" SIGN AT STA. 11+04
- VALVE BOX CONCRETE COLLAR PER COA STANDARD DWG. 2461
- INSTALL ELECTRONIC MARKER DISKS (EMD) PER COA STANDARD SPEC. 170

NUMBERED NOTES

- ADJUST MANHOLE ELEVATION TO NEW GRADE
- MATCH EXISTING SIDEWALK TO NEAREST JOINT
BEGIN STA. 12+90.90 END STA. 17+68.64
- SIDEWALK ON WEST SIDE CONTINUES TO CORNER
SEE SHEET 6 FOR CORNER DETAIL
- SAWCUT PAVEMENT
BEGIN STA. 12+90.90 END STA. 17+68.64
- REMOVE AND DISPOSE OF BARRICADES

WATER VALVE SHUT OFF PLANS

NOTIFY ALBUQUERQUE/BERNALILLO COUNTY WATER UTILITY AUTHORITY SEVEN (7) WORKING DAYS IN ADVANCE OF NEEDING EXECUTION OF THE 6" AND 8" WATER SHUT OFF PLAN. ONLY WATER UTILITY AUTHORITY PERSONNEL ARE AUTHORIZED TO OPERATE VALVES. 20" VALVES SHOWN FOR EMERGENCY SHUT OFF ONLY.

WATER SYSTEM DRAWING NOT TO SCALE

AS-BUILT INFORMATION	
CONTRACTOR	DATE
USGLO MONUMENT SC 21-22-28-27 <td></td>	
BENCH MARKS	
CONTRACTOR	DATE

SURVEY INFORMATION	
FIELD NOTES	DATE
BY	
ENGINEER'S SEAL	
NO.	

REVISIONS

No.	Date	By
1	09/06	MDS
2	09/06	RAO
3	09/06	EVD

DESIGNED BY: MDS
DRAWN BY: RAO
CHECKED BY: EVD

DATE: 09/06
DATE: 09/06
DATE: 09/06

APPROVED
FEB 19 2007
DESIGN REVIEW COMMITTEE

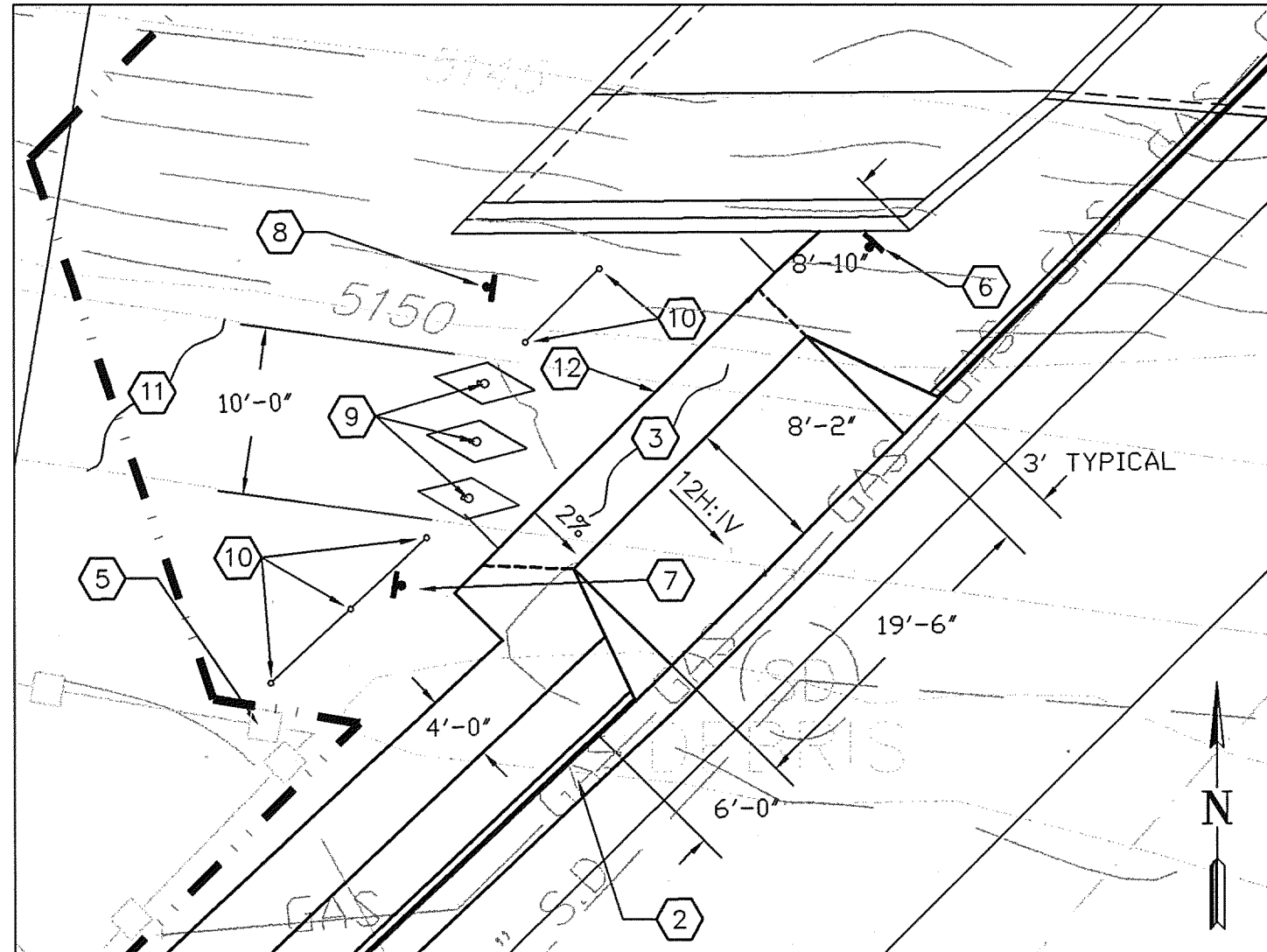
APPROVED
FEB 19 2007
CITY ENGINEER

City Project No. 7179-03

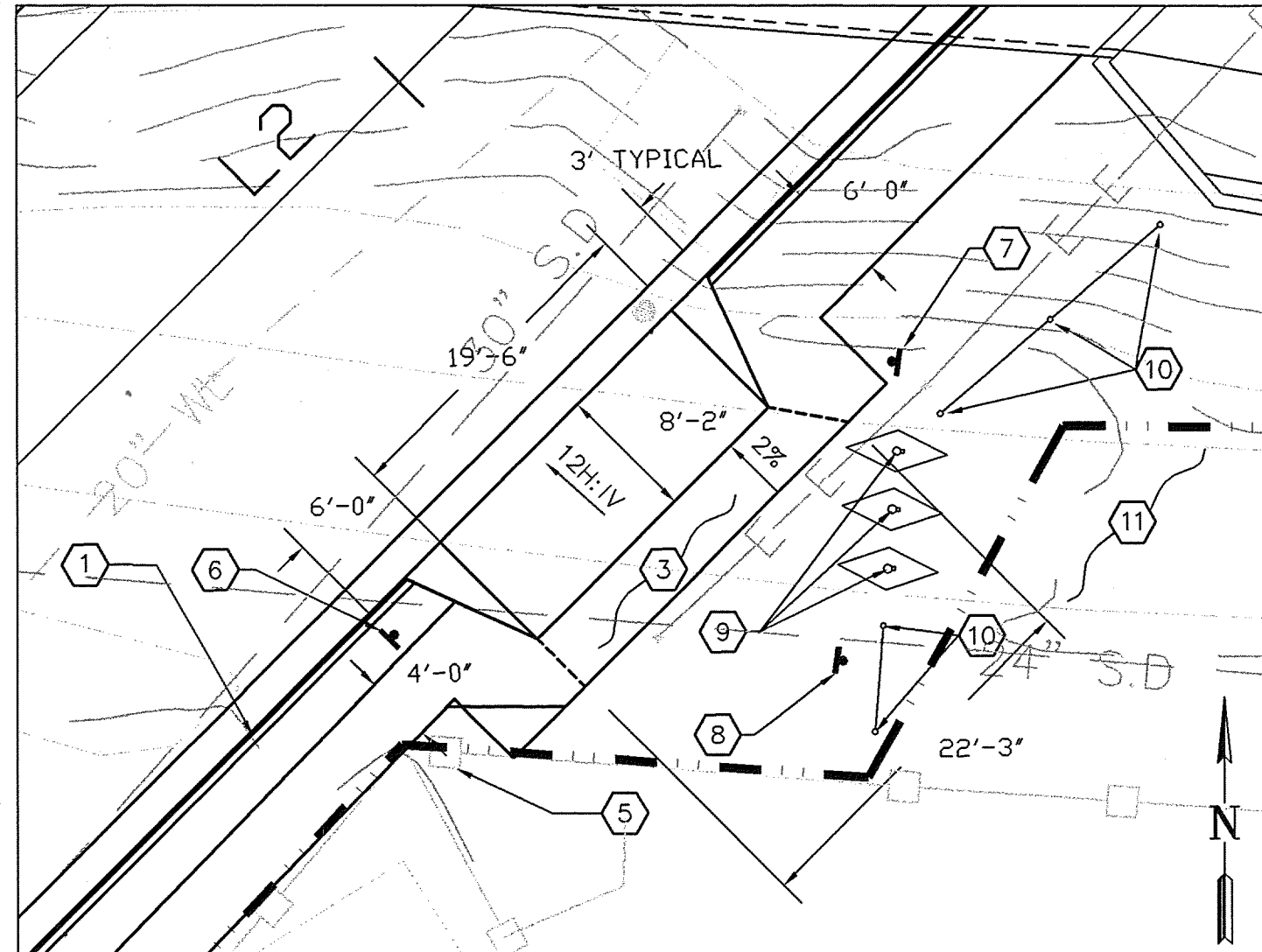
Zone Map No. E-11

Sheet 4 Of 12

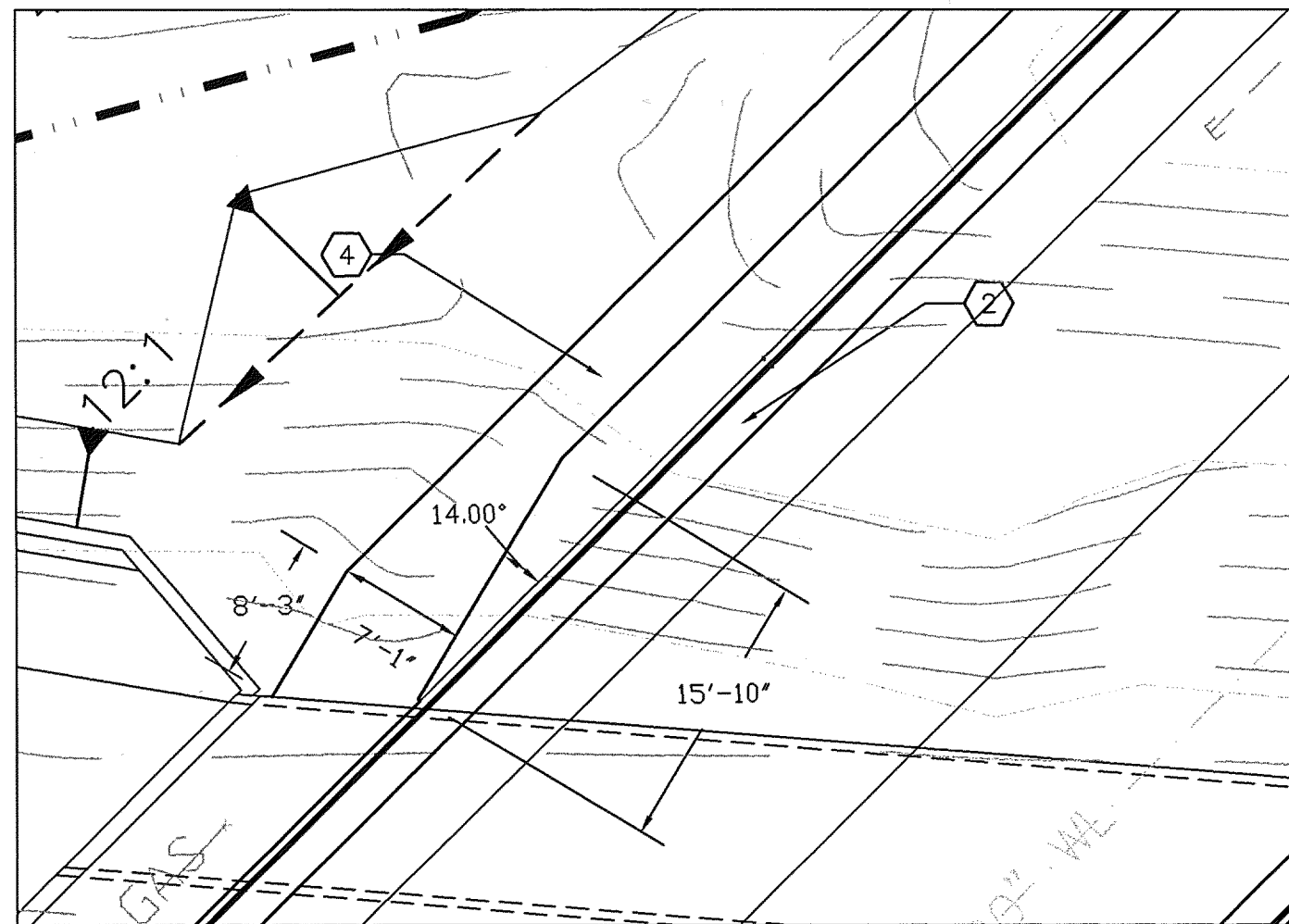
C:\Users\mike\OneDrive\Documents\MOJAVE\MOJAVE.dwg, 10/20/2006 10:42 AM, 11



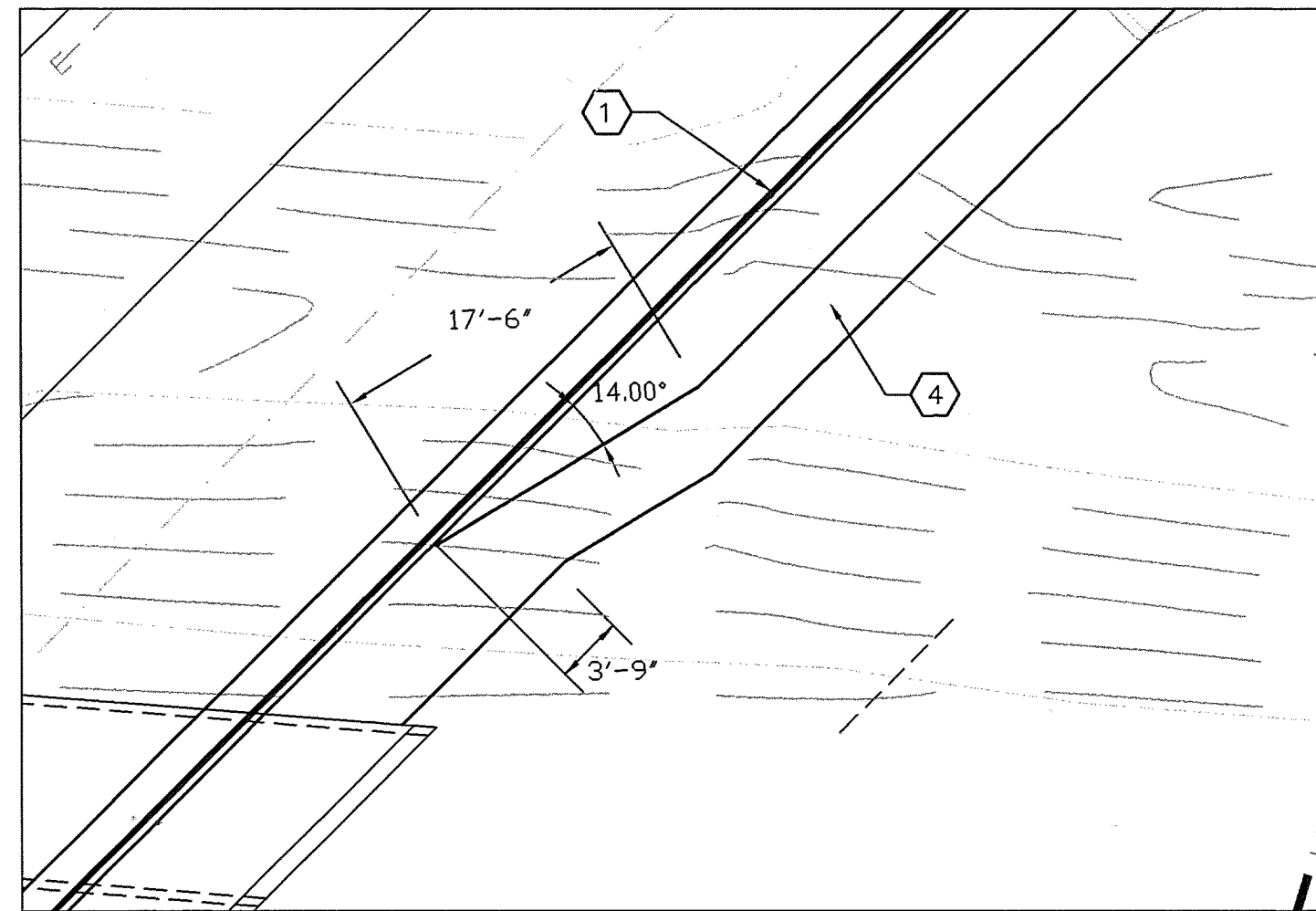
WEST MAINTENANCE ROAD/TRAIL
ENTRANCE PER COA STANDARD DWG. 2425
SCALE: 1"=10'



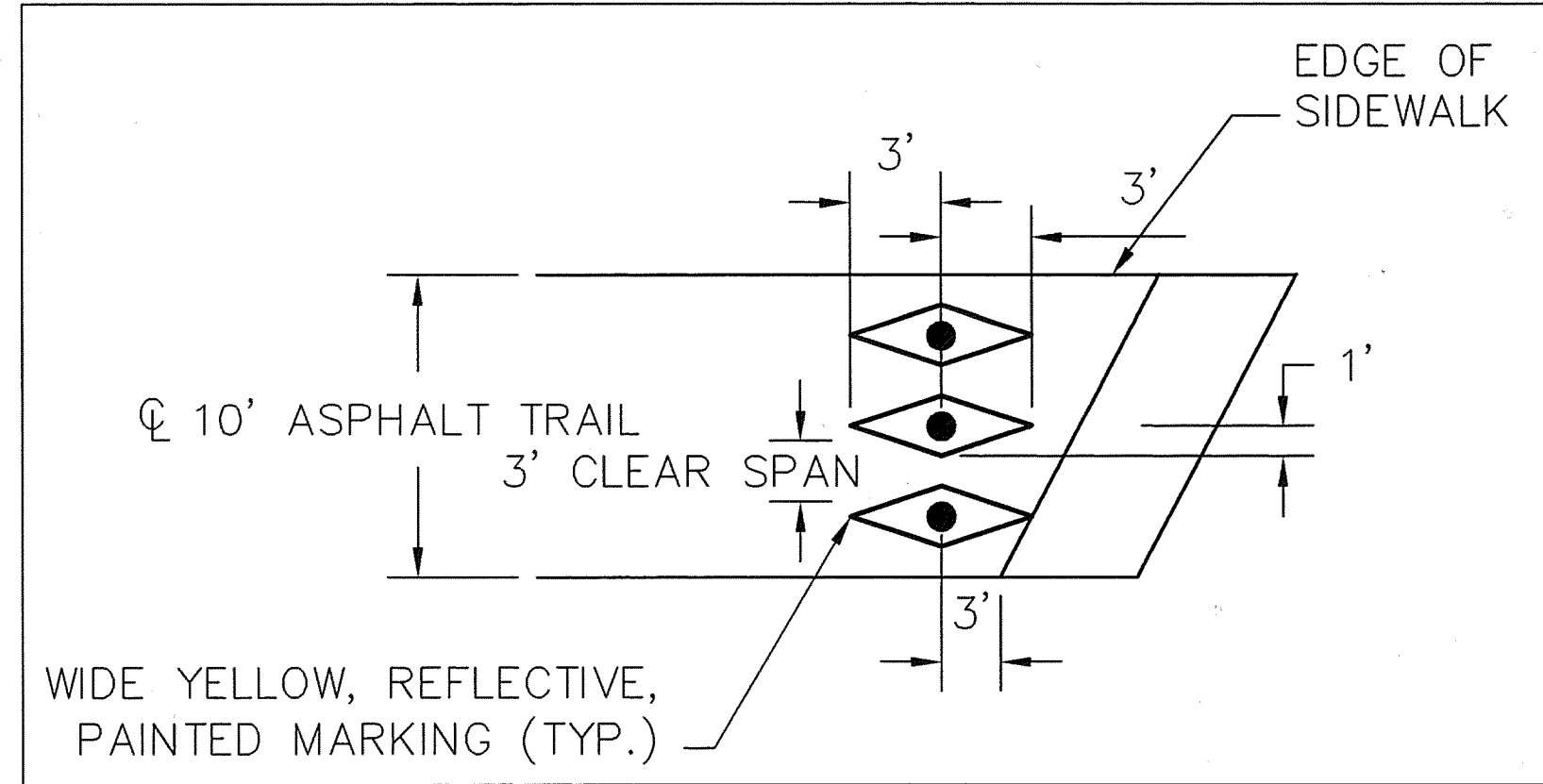
EAST MAINTENANCE ROAD/TRAIL
ENTRANCE PER COA STANDARD DWG. 2425
SCALE: 1"=10'



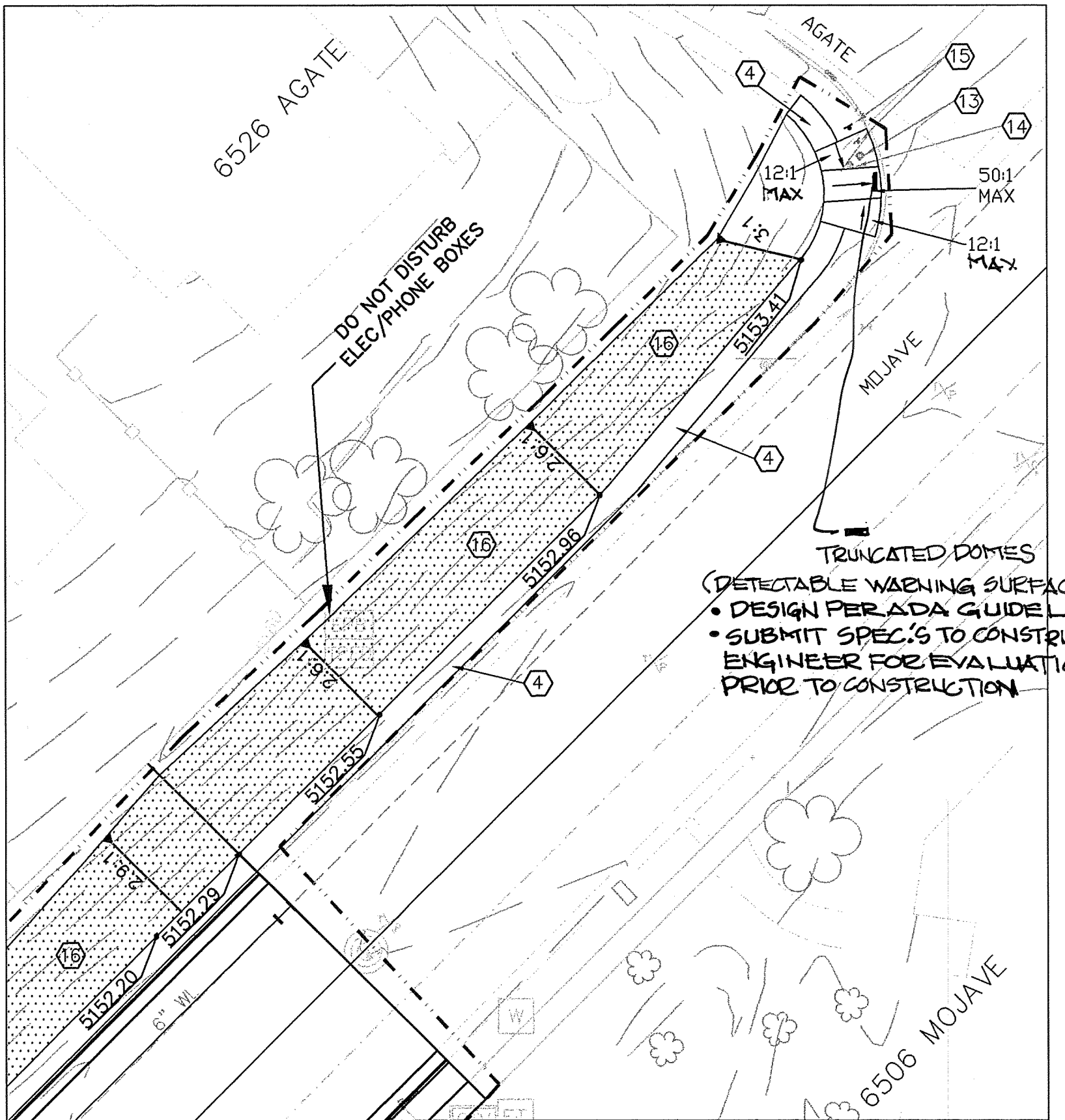
WEST SIDEWALK TRANSITION
SCALE: 1"=10'



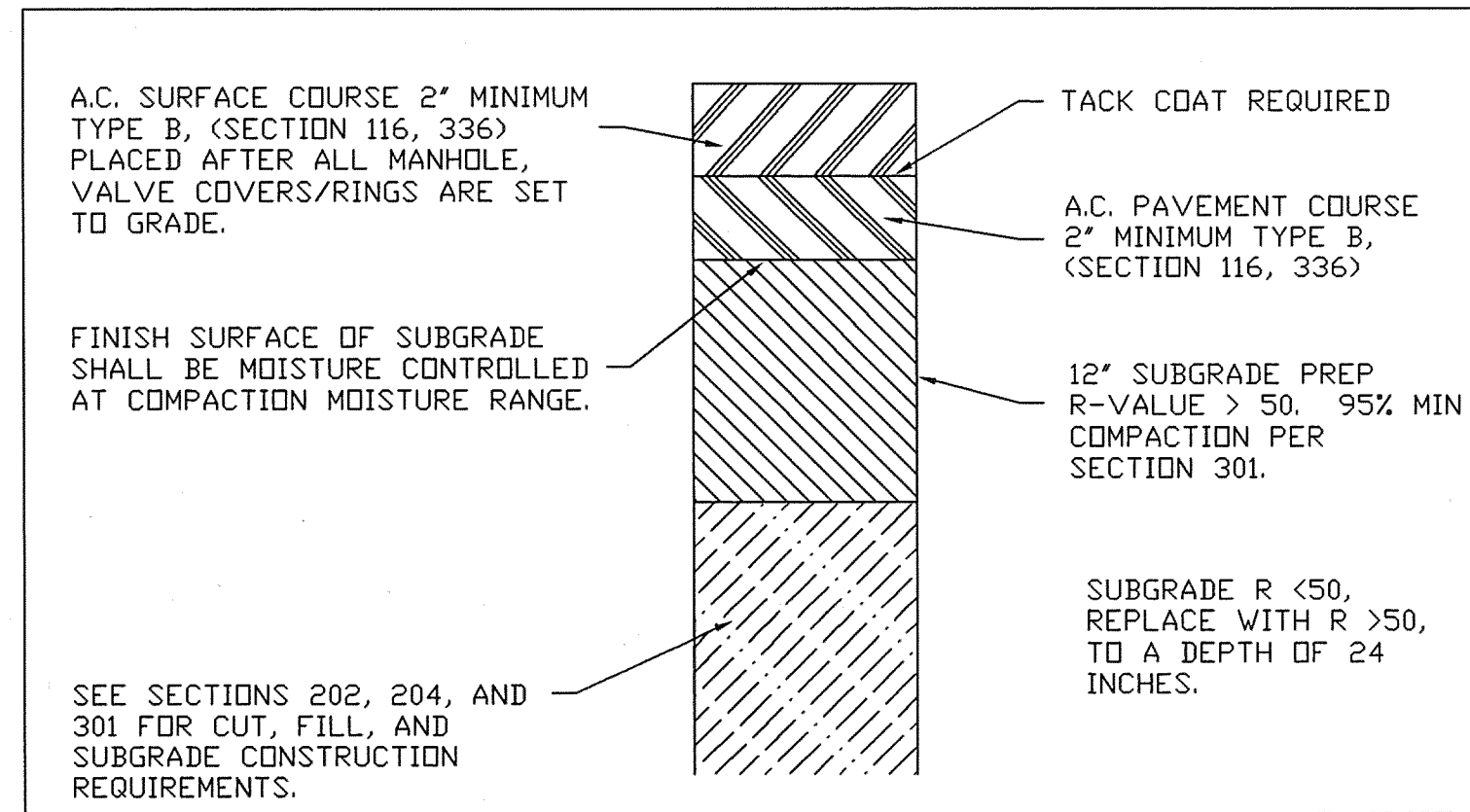
EAST SIDEWALK TRANSITION
SCALE: 1"=10'



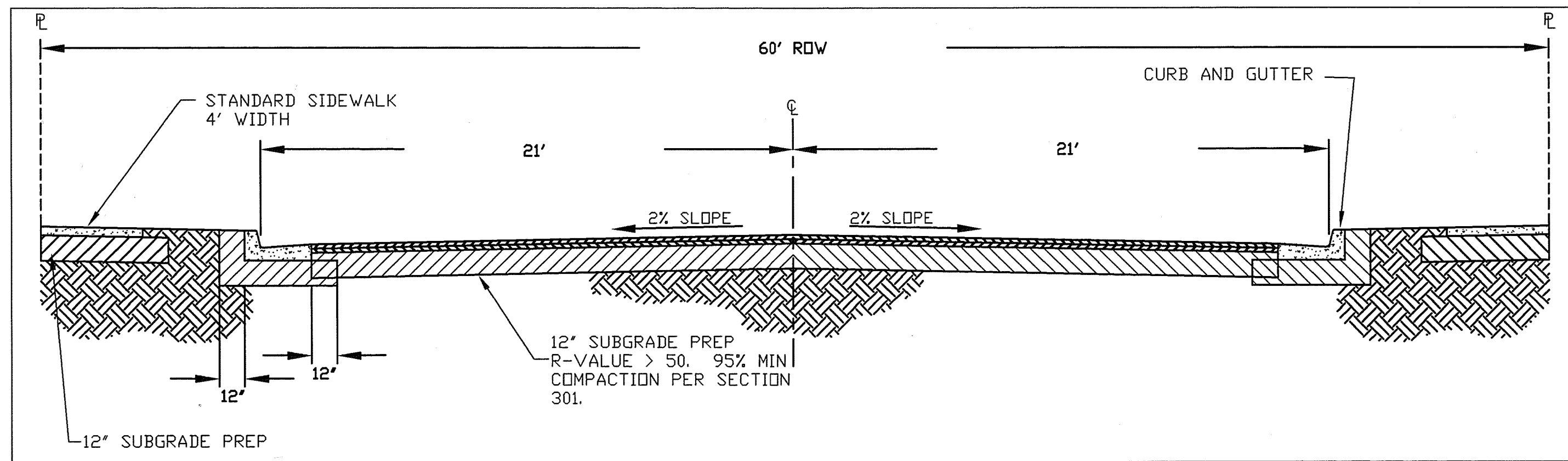
TYPICAL DETAIL OF PAINTED STRIPE
AROUND REMOVABLE BOLLARDS
SCALE: 1"=6'



SIDEWALK & RAMP DETAIL AT
MOJAVE/AGATE INTERSECTION
PER COA STANDARD DWG. 2441, CASE II
SCALE: 1"=20'



NEW MOJAVE ROAD SECTION
PER COA STANDARD DWG 2405A
SCALE: N.T.S.



STREET SECTION PER COA STANDARD DWG 2405A
SCALE: N.T.S.

GENERAL NOTES

- ALL SIGNS SHALL BE ACCORDING TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCO) MILLENNIUM EDITION AS REVISED OR AMENDED
- ALL SIGNS ADJACENT TO TRAIL SHALL HAVE A MINIMUM OF 3 FT CLEAR SPAN FROM EDGE OF PLAQUE TO EDGE OF TRAIL. BOTTOM OF PLAQUE SHALL BE 4'-5' ABOVE TRAIL GRADE.
- SIGNS BETWEEN ROAD AND SIDEWALK SHALL BE CENTERED IN AVAILABLE SPACE.

NUMBERED NOTES

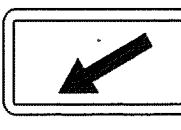
- STANDARD CURB AND GUTTER PER COA STANDARD DWG 2415A
- DEPRESSED CURB AND GUTTER PER COA STANDARD DWG 2415A
- CONCRETE FOR THIS 4' ADA ACCESS SIDEWALK SHALL BE CONSTRUCTED PER DRIVE PAD COA STANDARD DWG 2425
- STANDARD 4' SIDEWALK PER COA STANDARD DWG. 2430
- BLOCK WALL
- 10 FT BREAK AWAY SIGN POST WITH SIGN W11-1 30"x30" SIGN W16-7 30"x15"
- 8 FT SIGN POST WITH SIGN: R1-1 18"x18"
- 8 FT SIGN POST WITH SIGN R5-3 24"x24"
- REMOVABLE BOLLARD IN TRAIL PER COA STANDARD DWG. 2250 SEE STRIPING DETAIL THIS SHEET
- STATIONARY BOLLARDS WITH CROSS BAR PER COA STANDARD DWG 2250
- EXISTING ASPHALT TRAIL
- SAWCUT EXISTING TRAIL AND PLACE FELT BOARD BETWEEN EXISTING ASPHALT AND NEW CONCRETE
- EXISTING UTILITY BOX TO BE RELOCATED BY OTHERS
- COORDINATE MOVE OF EXISTING LIGHT POLE WITH PNM
- RELOCATE STOP SIGN TO WEST AS INDICATED
- SEEDING WITH GRAVEL MULCH PER COA STANDARD SPECIFICATION 1012



W11-1
30' X 30'



R1-1
18' X 18'



W16-7
30' X 15'



R5-3
24' X 24'

LEGEND AND BACKGROUND
PER MUTCD

SIGN FACE DETAILS

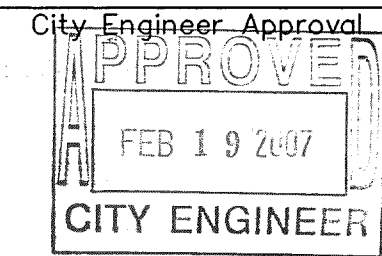
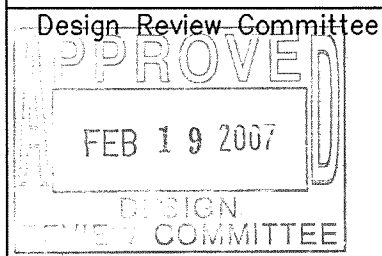
SCALE: N.T.S.

Resource Technology, Inc.



CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT

ROADWAY, DRIVE PAD, SIDEWALK,
AND TRAIL DETAILS



City Project No.

7179-03

Zone Map No.

E-11

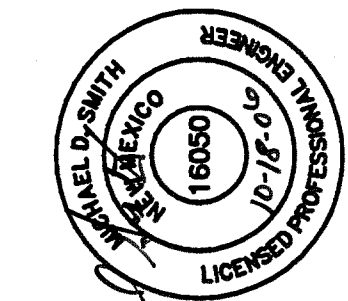
Sheet

Of

6

12

AS-BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	USGLO MONUMENT	DATE	NO.	BY	NO.	BY
INSPECTOR'S	DATE	GEOGRAPHIC POSITION (NAD 1927)	DATE				
FIELD	DATE	N.M. STATE PLANE COORDINATES (CENTRAL ZONE)	DATE				
ADJUSTED BY	DATE	X= 357,530.605 Y= 1,514,280.423	DATE				
CORRECTED BY	DATE	GROUND-TO-GRID FACTOR = 0.99966821	DATE				
MICRO-FILM INFORMATION	DATE	NOVD 1929 ELEVATION = 5327.314	DATE				
RECORDED BY	DATE		DATE				
NO.							



By

REVISIONS

DESIGN

No. Date

Designed By: MDS

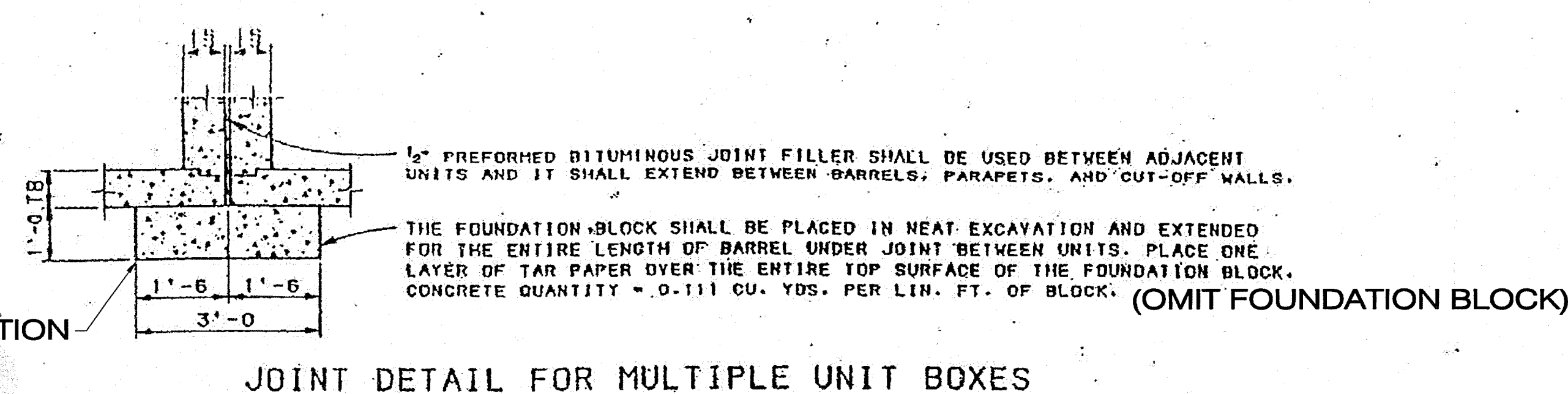
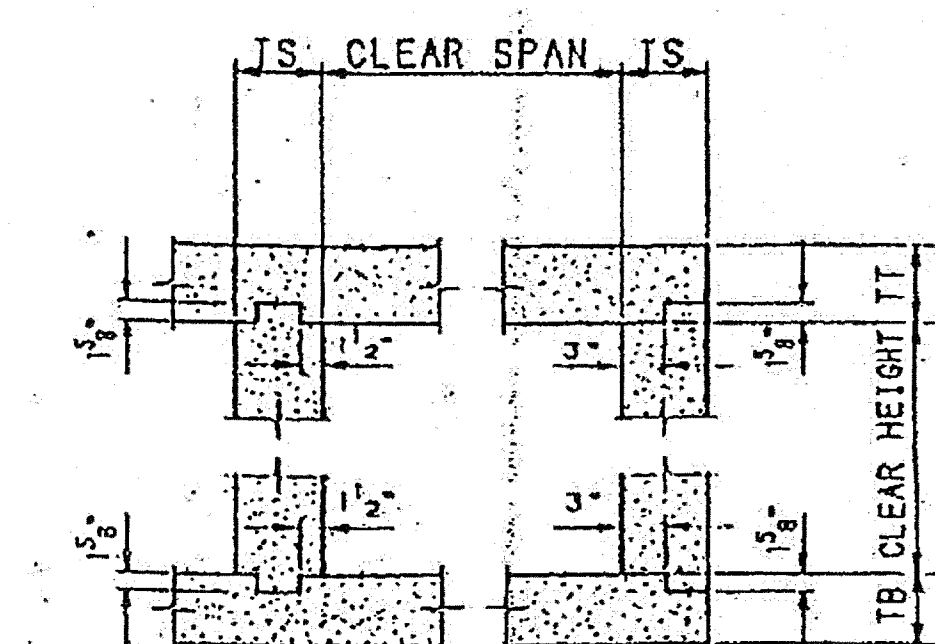
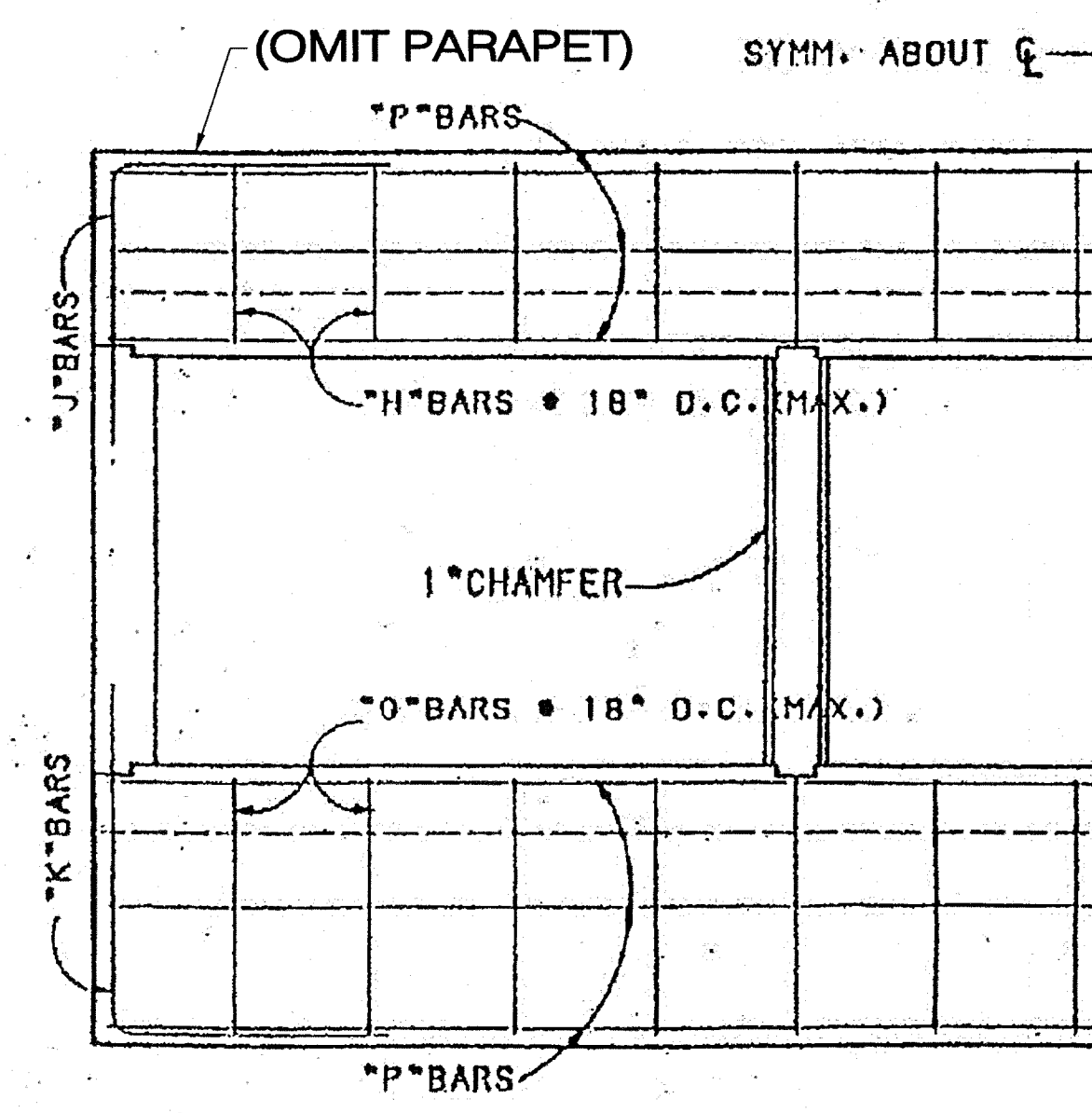
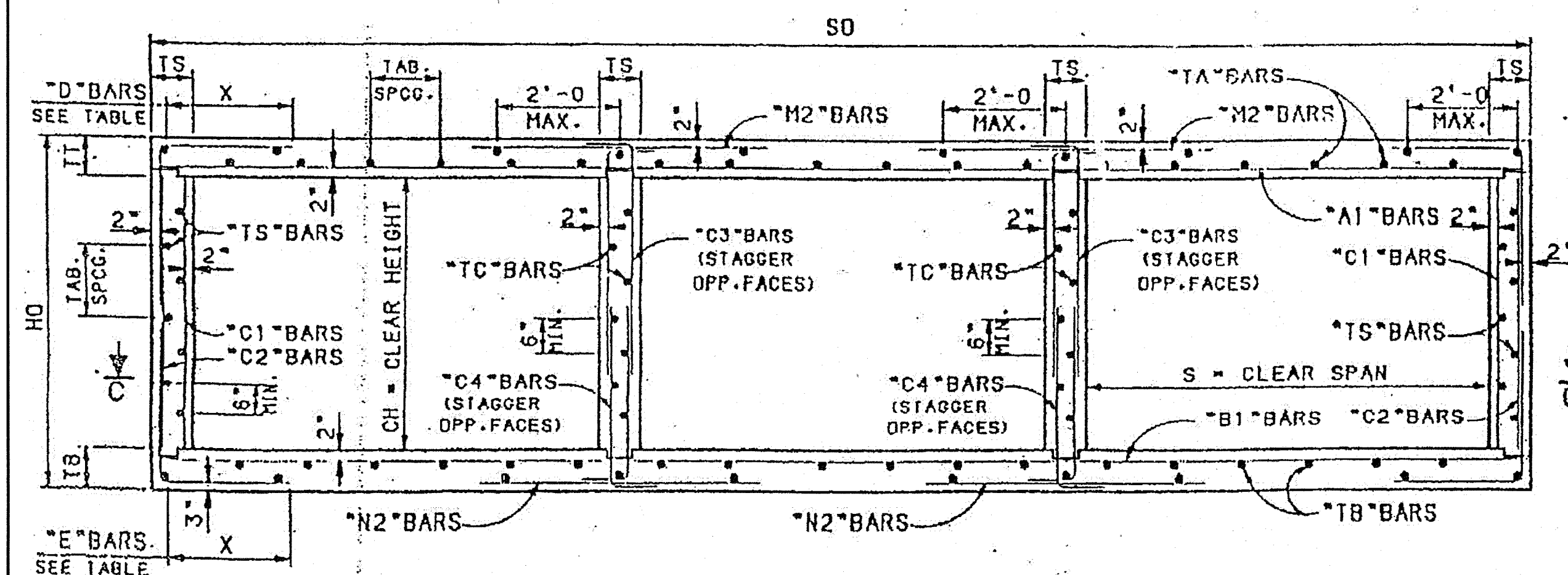
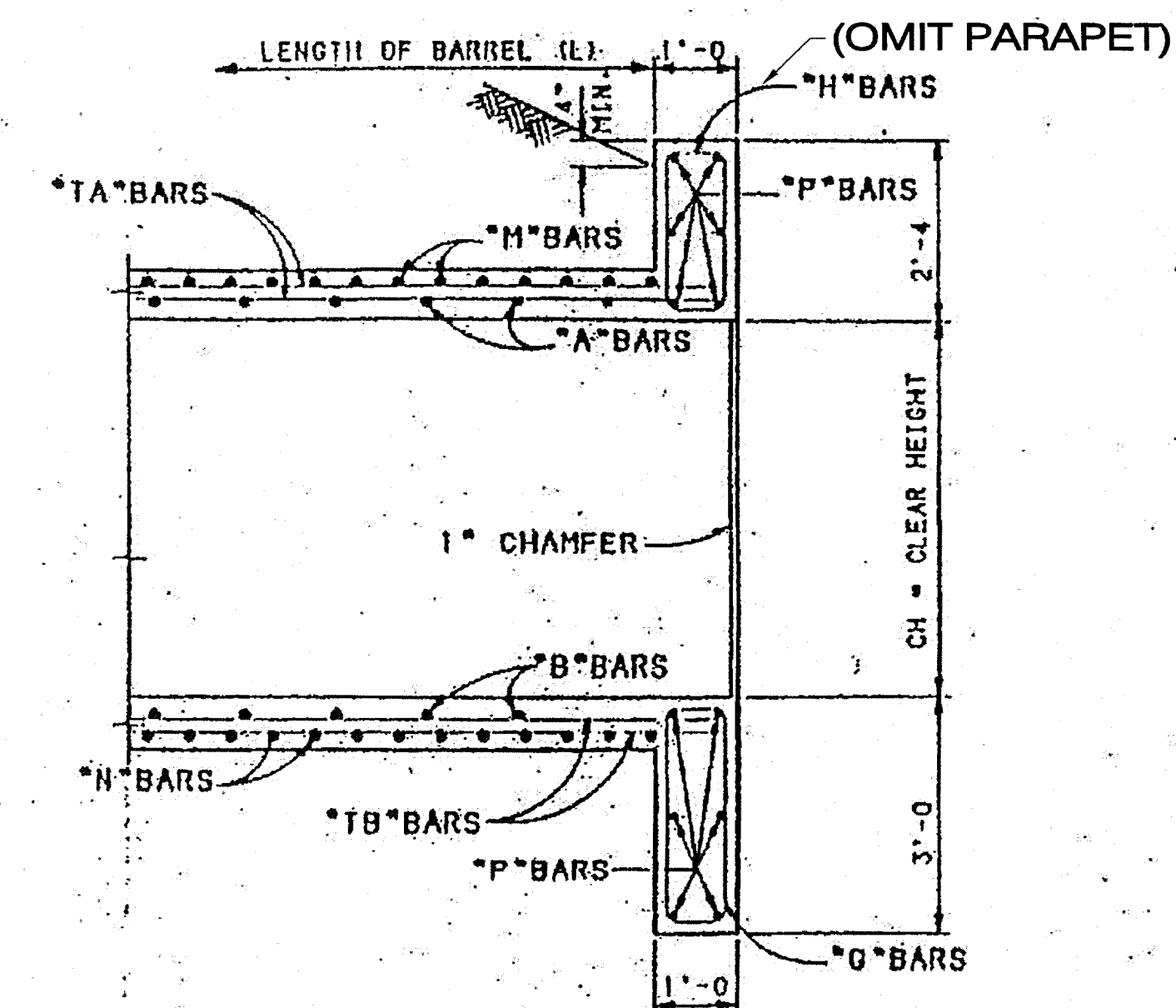
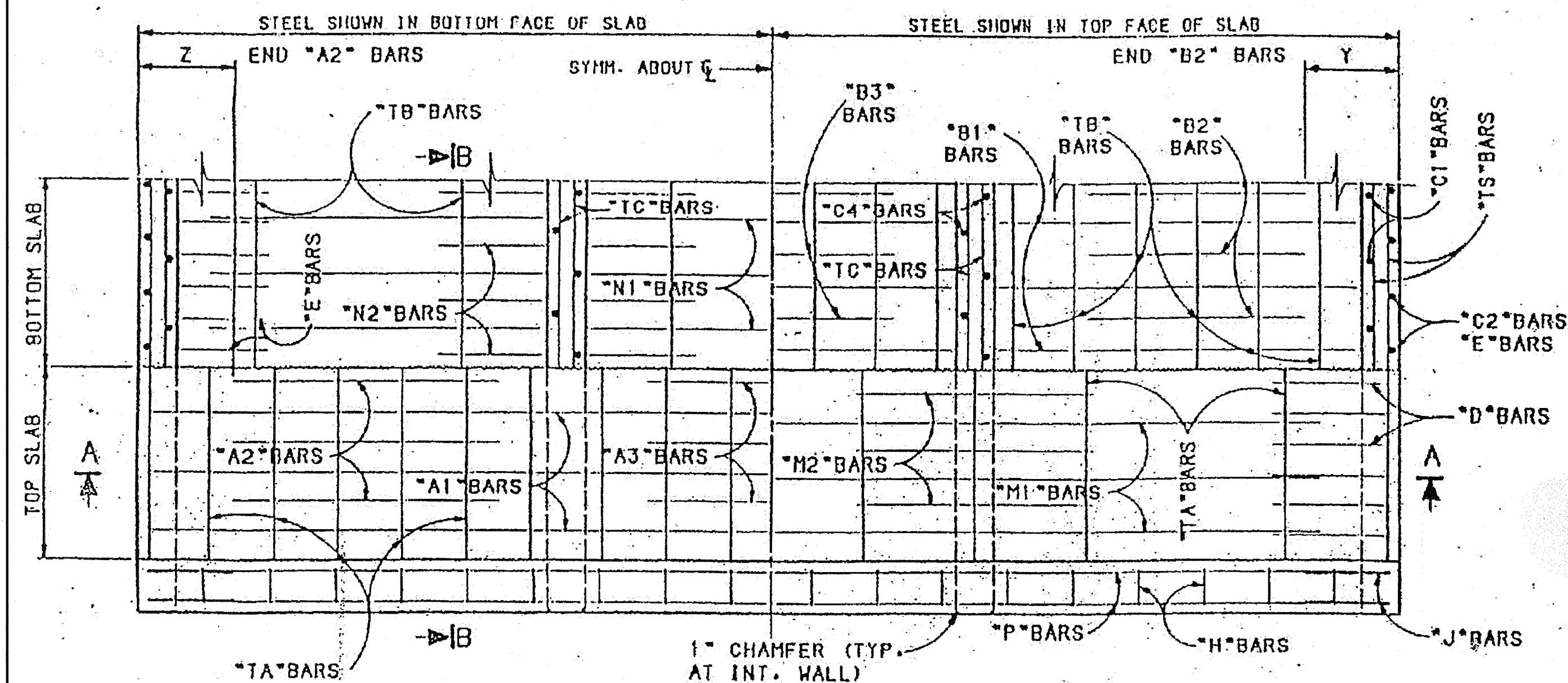
Drawn By: RAO

Checked By: EVO

DATE: 04/06

DATE: 04/06

DATE: 04/06



NOTE:
THIS INFORMATION IS BASED ON NMDOT STD. DWG. CB-33, SHEET 1 OF 5.
SEE SHEET 9 FOR SKEWED-END REINFORCING DETAILS.

GENERAL NOTES

1. ALL CONCRETE SHALL BE CLASS "A". DIAMETER ALL THE EXPOSED EDGES 3/4".
2. ALL REINFORCING STEEL SHALL BE DEFORMED BARS, CONFORMING TO AASHTO M-31, GRADE 60. ALL DIMENSIONS REFER TO THE CENTERLINE OF BAR.
3. WHEN NECESSARY, "T" BARS MAY BE SPLICED BY LAPPING AT LEAST 20 BAR DIAMETERS. PAY WEIGHT FOR REINFORCING STEEL DOES NOT INCLUDE SPLICES. THE COST OF THE SPLICE MATERIAL IS TO BE INCLUDED IN THE UNIT PRICE BID FOR REINFORCING STEEL.
4. VOLUME OF CONCRETE = (L) x (CONCRETE QUANTITY/LIN. FT.) PLUS CONCRETE AT ENDS.
5. WEIGHT OF REINFORCING STEEL = (L) x (WEIGHT OF REINF./LIN.FT.) PLUS WEIGHT AT ENDS.
6. PLACE "TA" BARS ON "A" BARS AND "TB" BARS UNDER "B" BARS, SPACED AS SHOWN IN THE TABLE. THE REMAINING "TA" BARS, AND "TB" BARS ARE TO BE PLACED ADJACENT TO THE "D", "E", "F", "G", AND "H" BARS AS INDICATED IN "SECTION A-A", AT 2'-0 MAX.
7. PLACE "TS" BARS NEXT TO "C1" BARS, SPACED AS SHOWN IN THE TABLE. THE REMAINING "TS" BARS SHALL BE PLACED IN SIDEWALL NEXT TO "C2", "D", AND "E" BARS. WHEN "C1" BARS ARE NOT REQUIRED, PLACE ALL "TS" BARS NEXT TO "C2", "D", AND "E" BARS.
8. PLACE "A1", "A3", "B1", "B3", "M1", AND "N1" BARS SYMMETRICAL TO THE CENTERLINE OF THE BOX. PLACE "H2" AND "N2" BARS SYMMETRICAL TO THE CENTERLINE OF THE WALLS.
9. "COVER" IS HEIGHT OF FILL FROM TOP OF THE BOX TO THE FINISHED GRADE.

DESIGN DATA

DESIGN ACCORDING TO A.A.S.H.O. SPECIFICATIONS, 1957.
LIVE LOAD: H20-S16-44 & INTERSTATE ALTERNATE LOADING
WEIGHT OF FILL ON TOP OF BOX: 844/CU.FT.
HORIZONTAL EARTH PRESSURE: 304/CU.FT.², 2' SURCHARGE
DESIGN STRESSES: $f'_c = 3000$ psi, $f_s = 1200$ psi,
 $f_e = 20,000$ psi, $n = 10$.

(OMIT PARAPET)

(OMIT FOUNDATION BLOCK)

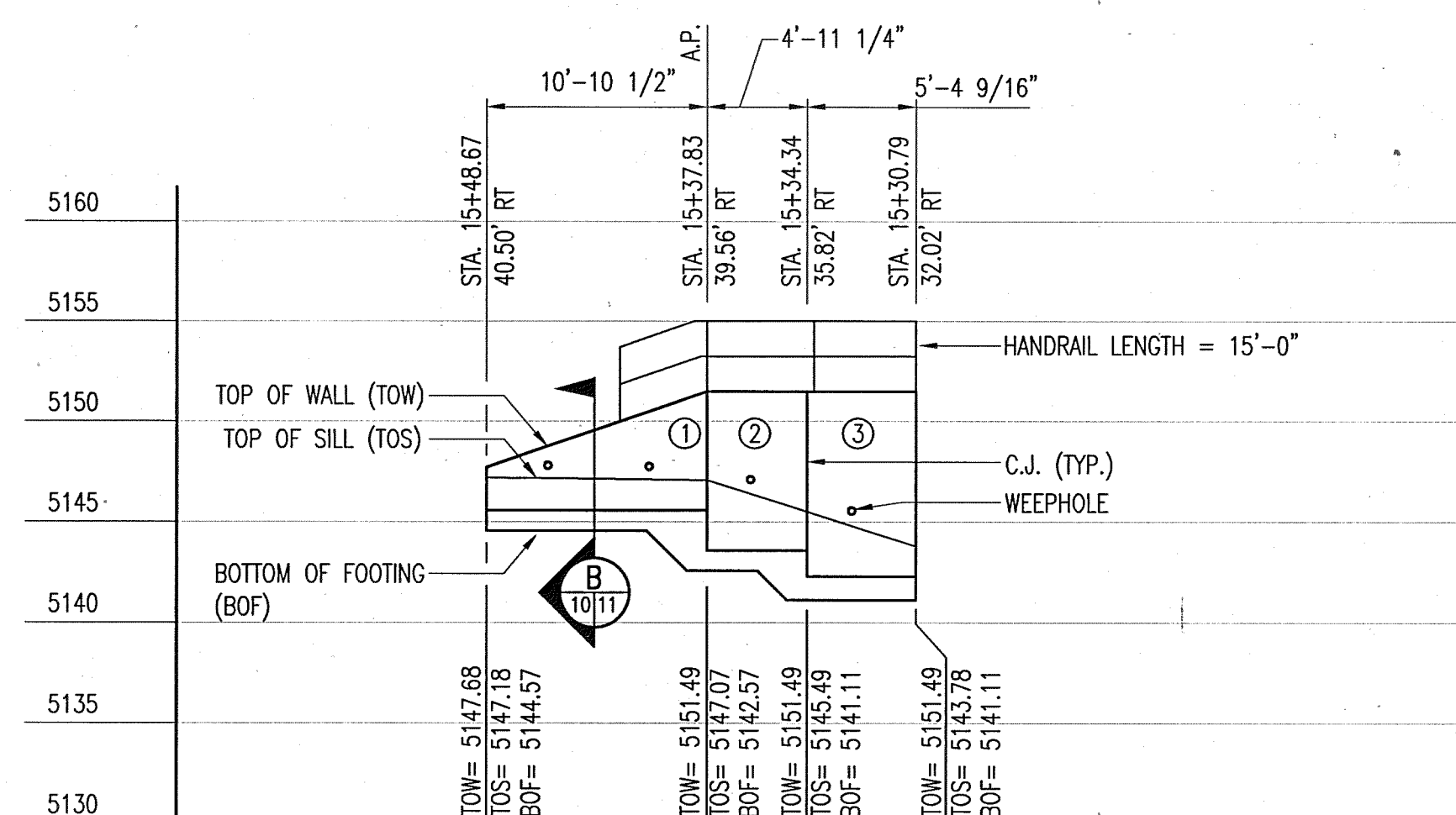
Bohannon  **Huston** INC.

Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335

ENGINEERING  **SPATIAL DATA**  **ADVANCED TECHNOLOGIES**

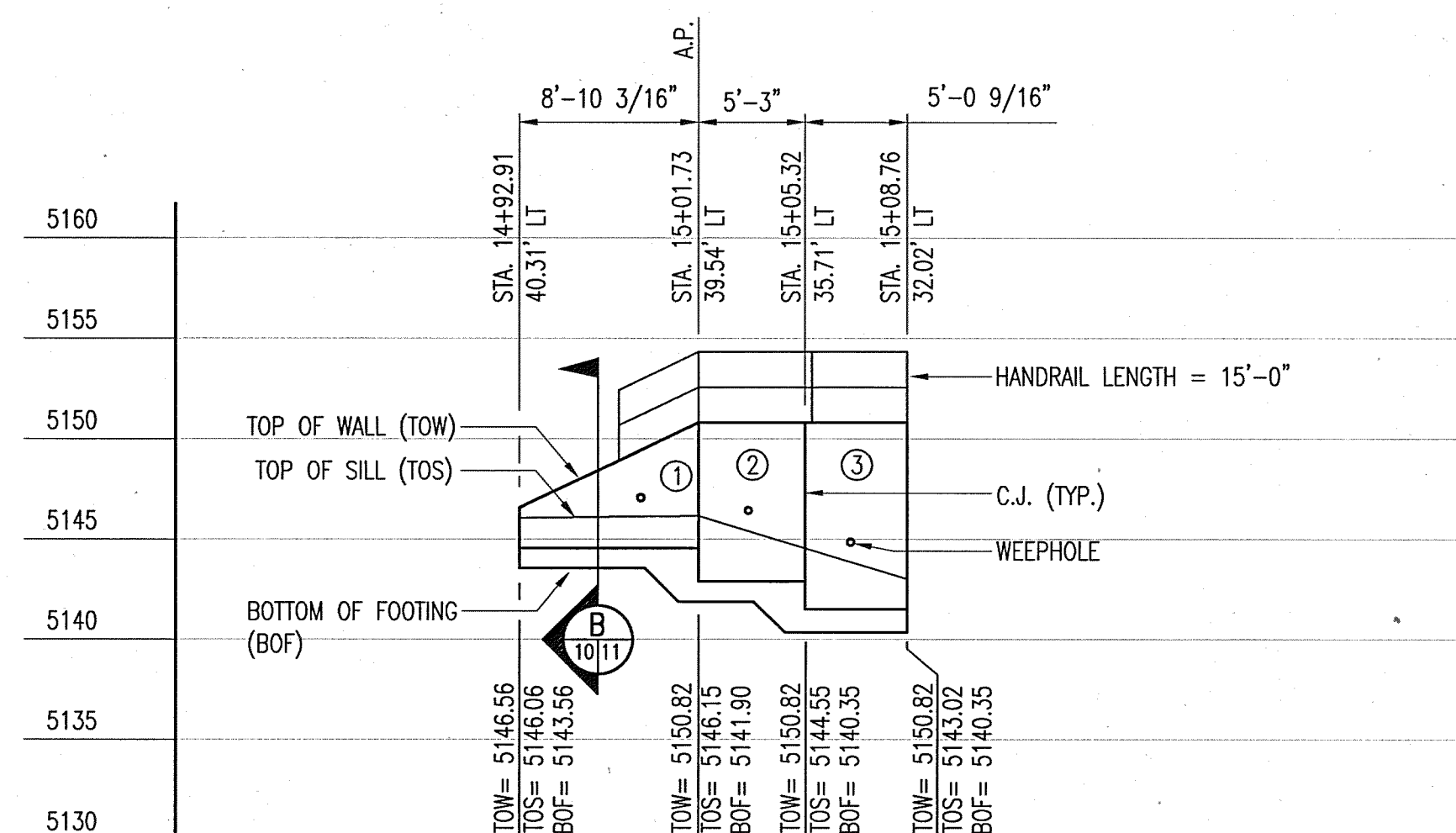
Resource Technology, Inc.

	CITY OF ALBUQUERQUE DEPARTMENT OF MUNICIPAL DEVELOPMENT			
BOCA NEGRA / MOJAVE CROSSING CONCRETE BOX CULVERT DETAILS SHEET 1 OF 2				
Design Review Committee 	City Engineer Approval 	Last Design Update 	Mo./Day/Yr. 	Mo./Day/Yr.
City Project No. 7179-02		Zone Map No. E-11	Sheet 8	Of 12



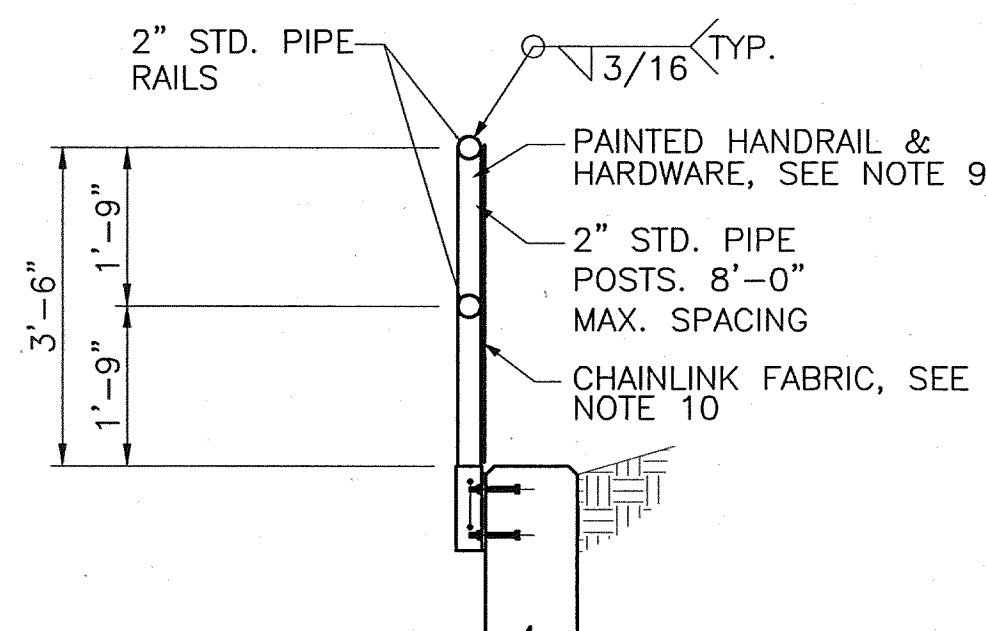
WALL 'A' PROFILE

SCALE: 1/8"=1'-0"

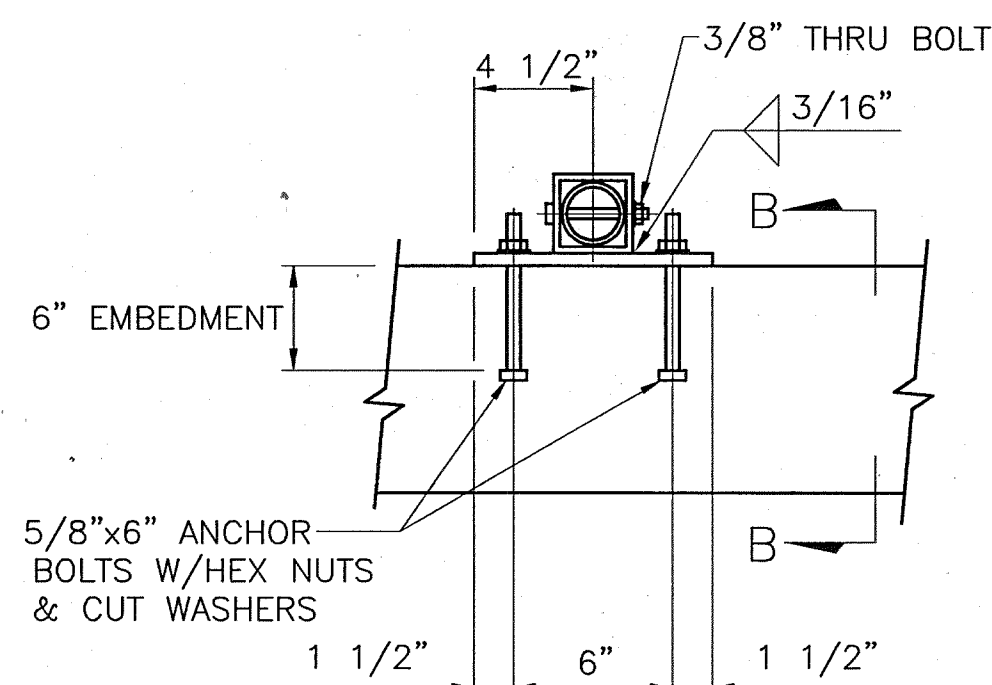


WALL 'C' PROFILE

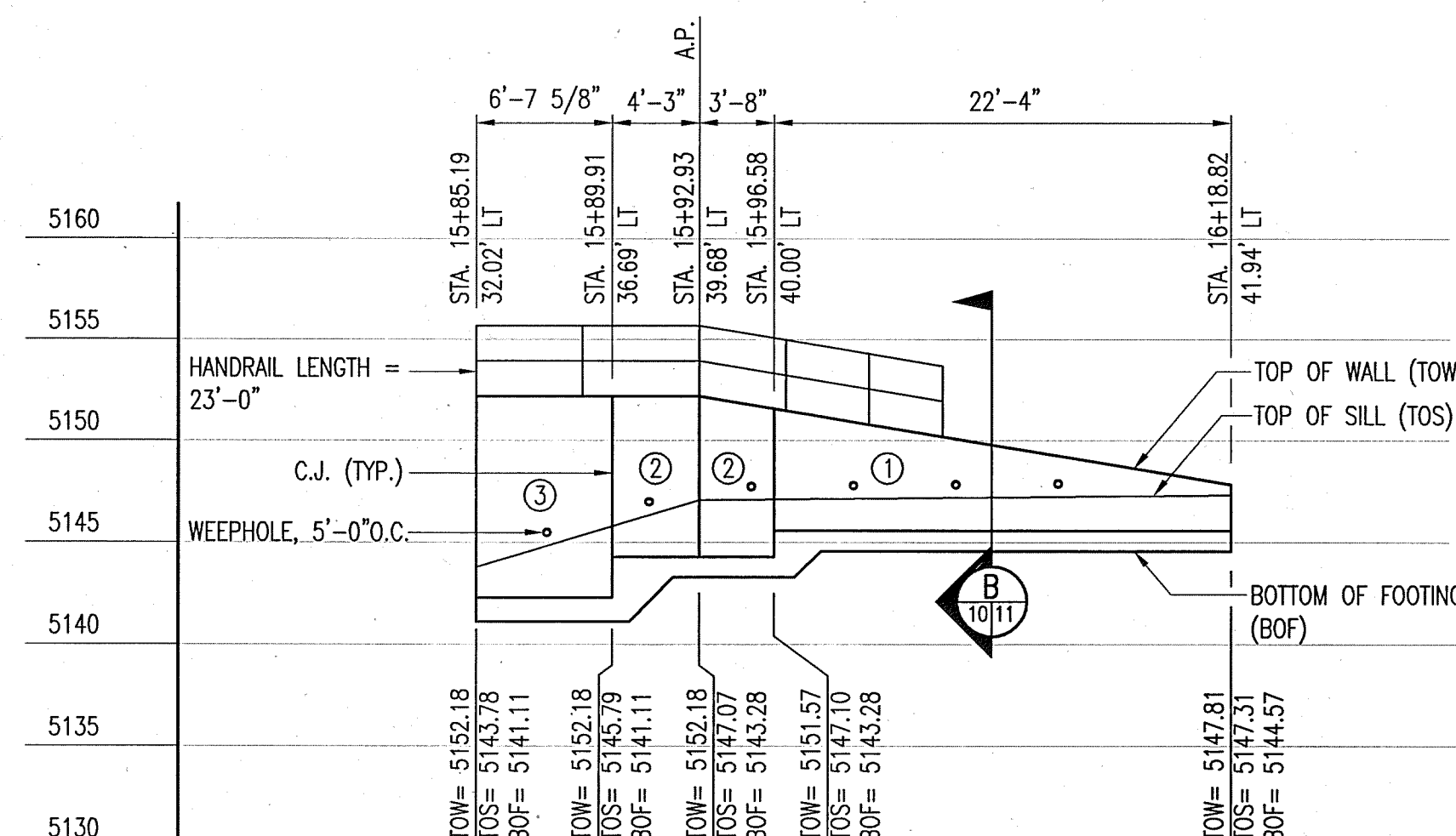
SCALE: 1/8"=1'-0"



TYPICAL SECTION

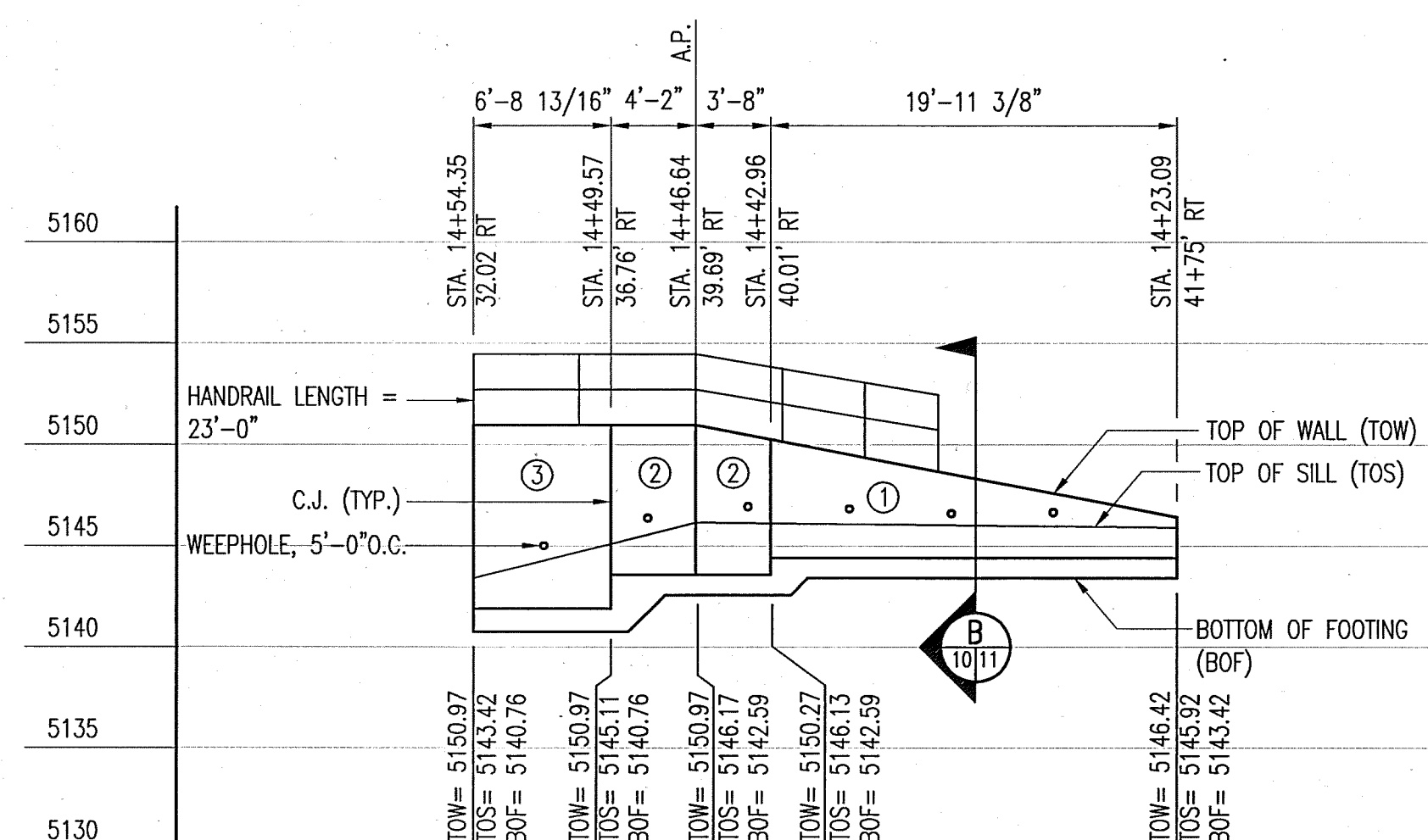


PLAN



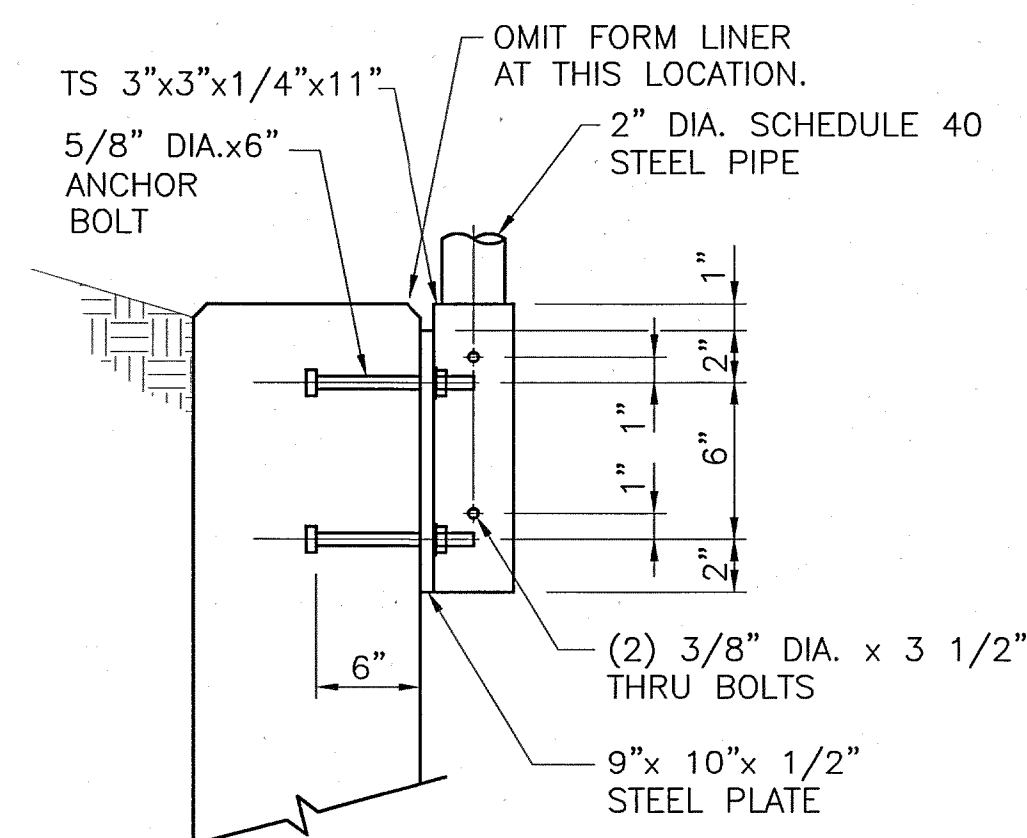
WALL 'B' PROFILE

SCALE: 1/8"=1'-0"



WALL 'D' PROFILE

SCALE: 1/8"=1'-0"



SECTION B-B

NOTES:

1. STATIONS AND OFFSETS ARE TAKEN FROM CHANNEL CENTERLINE.
2. DO NOT DOWEL WALLS INTO CBC.
3. C.J. INDICATES CONSTRUCTION JOINT.
4. SEE SHEET 11 FOR SECTION AND REINFORCEMENT.
5. ①, ②, ③ DENOTES WALL TYPE. SEE SHEET 11
6. ALL EXPOSED VERTICAL SURFACES OF RETAINING WALLS SHALL RECEIVE A FORM LINER SURFACE. USE SCOTT SYSTEM- OREGON BALSALT #175 (OR APPROVED EQUAL).
7. CONCRETE FOR VERTICAL PORTIONS OF RETAINING WALLS AND CONCRETE CHAINLINK LINING SHALL BE TINTED WITH ENTRAINED COLOR. USE "TAUPE" BY DAVIS COLORS AT A RATE OF 2 POUNDS PER SACK OF CEMENT (OR APPROVED EQUAL).
8. A.P. INDICATES ANGLE POINT IN WALL.
9. HANDRAIL AND ALL ASSOCIATED HARDWARE SHALL BE PAINTED WITH A DARK TAUPE COLOR IN CONFORMANCE WITH C.O.A. SPEC. 157. COLOR SHALL BE APPROVED BY THE PROJECT ENGINEER.
10. CHAINLINK FABRIC AND ALL ASSOCIATED HARDWARE SHALL BE COLORED/COATED WITH A DARK TAUPE COLOR TO BE APPROVED BY THE PROJECT ENGINEER.

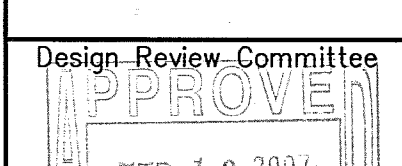
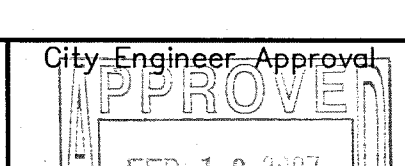
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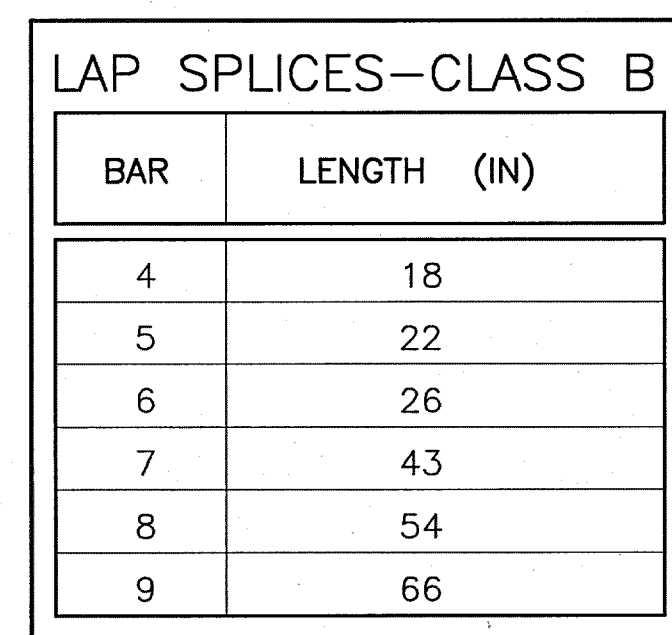
Bohannon  **Huston** INC.

Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335

ENGINEERING ▴ SPATIAL DATA ▴ ADVANCED TECHNOLOGIES

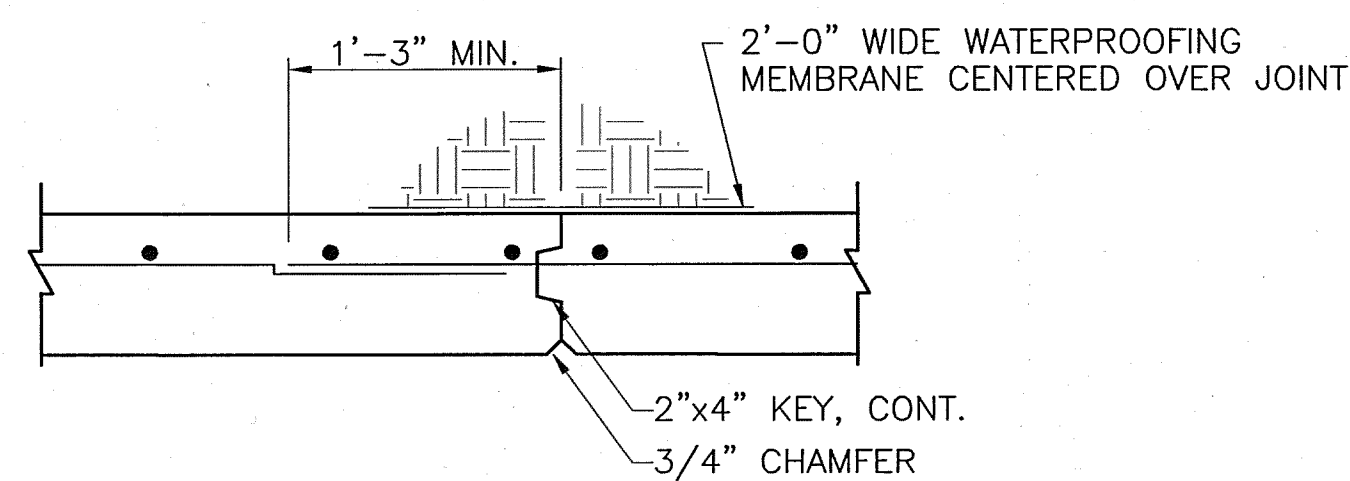
Resource Technology, Inc.

	CITY OF ALBUQUERQUE DEPARTMENT OF MUNICIPAL AFFAIRS	
BOCA NEGRA / MOJAVE RETAINING WALL PROJECT		
Design Review Committee 	City Engineer Approval 	
City Project No. 7179-02		Zone Map No. E-11

[illegible]

DESIGN LOADS

EFP (ACTIVE, FOR LEVEL BACKFILL) =35 PCF
EFP (ACTIVE, FOR 3:1 BACKFILL) =46 PCF
EFP (PASSIVE) =300 PCF
SOIL UNIT WEIGHT =120 PCF
ALLOWABLE BEARING PRESSURE =2000 PSF
COEFFICIENT OF FRICTION FOR SLIDING =0.40
SOIL INTERNAL FRICTION ANGLE =30.0 DEGREES
NOTE: WALLS ARE DESIGNED FOR 3:1 BACKFILL OR
120 PCF SURCHARGE (NON-CONCURRENT).



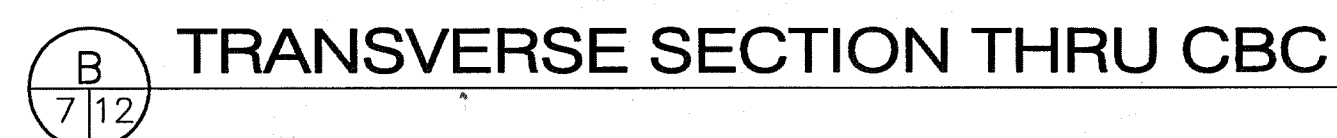
VERTICAL CONSTRUCTION JOINT PLAN DETAIL

[illegible]

NOTES FOR CAST IN PLACE RETAINING WALLS

1. WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION.
2. STRUCTURAL CAST-IN-PLACE CONCRETE: STRUCTURAL CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 101, TABLE 101.C, EXTERIOR CONCRETE, $F_c=3000$ PSI. (AUG. 19, 2005)
3. REINFORCING STEEL: STEEL REINFORCEMENT AND PLACEMENT SHALL BE IN ACCORDANCE WITH SECTION 102-STEEL REINFORCEMENT, AND SHALL CONFORM TO ASTM A615, GRADE 60. ALL LAP SPLICES SHALL BE AS SHOWN ON THE PLANS.
4. SUBGRADE PREPARATION BELOW CONCRETE STRUCTURES: OVER EXCAVATION AND SUBGRADE PREPARATIONS SHALL BE DONE IN ACCORDANCE WITH SECTION 301. ON-SITE MATERIAL SHALL BE PREPARED BY PROOF ROLLING A MINIMUM OF 20 PASSES WITH A 20-TON VIBRATORY SHEEP'S FOOT ROLLER. COMPACTION TESTS SHALL BE TAKEN FOR EACH 100 SQUARE YARDS. ALL FOUND SOFT SPOTS SHALL BE REMEDIED AND RECOMPACTED. THE MEASUREMENT FOR SUBGRADE PREPARATION SHALL CONSIST OF THE ORIGINAL SURFACE AREA FOR SUBGRADE PREPARATION AND SHALL NOT DOUBLE COUNT THE SURFACE AREA OF SOFT SPOTS. COSTS ASSOCIATED WITH SAID REMEDIES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SUBGRADE PREPARATION. NO ADDITIONAL PAYMENT WILL BE MADE FOR SAID REMEDIES.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFE AND ADEQUATE SHORING FOR ALL PARTS OF THE WALL AND ANY ADJACENT STRUCTURES DURING CONSTRUCTION , AS WELL AS WORKER SAFETY AND COMPLIANCE WITH OSHA OR OTHER AGENCY SAFETY GUIDELINES.
6. VERTICAL CONSTRUCTION JOINTS SHALL BE PLACED AS SHOWN ON THE PROFILE, SHEET 10.
7. THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO THE CONCRETE FOOTING PLACEMENT, FOR THE REVIEW OF SUBGRADE, FOOTING DEPTH AND WIDTH, THE WALL STEEL SPACING, FINAL INSPECTION OF THE FOOTING AND WALL WILL BE REQUIRED.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CODE ADMINISTRATION APPROVAL AND FEES ASSOCIATED WITH IT.
9. THE CONTRACTOR SHALL BE RESPONSIBLE TO SEE THAT ALL REBAR IS PROPERLY ALIGNED AND TIED IN PLACE BEFORE PLACING CONCRETE. ALL STEEL SHALL BE ACCURATELY LOCATED AND SECURED IN PLACE SO THAT IT REMAINS IN POSITION DURING THE PLACEMENT OF THE CONCRETE. ANY REBAR IMPROPERLY INSTALLED SHALL BE CORRECTED AT NO ADDITIONAL COST TO THE OWNER.
10. THE CONTRACTOR SHALL CLEAN ALL CONSTRUCTION DEBRIS FROM THE AREA.
11. TOP BARS H1 SHALL RUN PARALLEL TO THE TOP OF THE WALL. SPACING BETWEEN TOP BARS AND ADJACENT HORIZONTAL SHALL VARY.
12. WATER PROOFING: SONNEBORN HML 5000 (T.S. OR R USE CONTRACTOR OPTION) WET MILL THICKNESS 55-65 MIL. SONNEBORN 50 MIL. PROTECTION COURSE II TO PROTECT WATERPROOFING DURING BACKFILL.
13. TINTED CONCRETE: CONCRETE FOR EXPOSED VERTICAL PORTION OF WALLS WILL HAVE ENTRAINED TINT. SEE NOTE 7 ON SHEET 10.

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