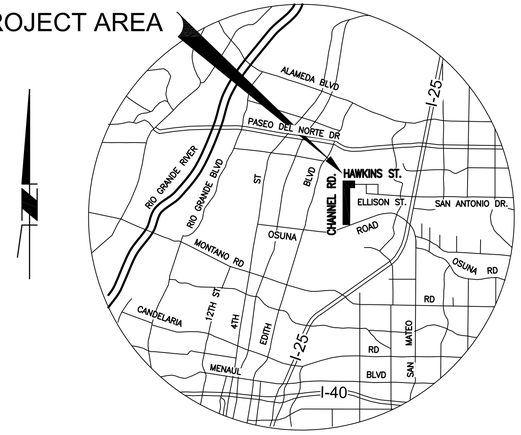
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CITY OF ALBUQUERQUE NEW MEXICO

DEPARTMENT OF MUNICIPAL DEVELOPMENT CONSTRUCTION PLANS

FOR



VICINITY MAP

N.T.S

ZONE ATLAS – E16, D16, D17

CHANNEL ROAD - PHASE I

OSUNA ROAD TO HAWKINS STREET

COA PROJECT NO. 6920.91

Two working days before you dig
CALL NEW MEXICO ONE CALL SYSTEM
260-1990

UTILITY COMPANY CONTACTS:

COMMUNICATION:

COMCAST
4611 MONTBEL PLACE NE
ALBUQUERQUE, NM 87107
CONTACT: MIKE MORTUS
(505) 271–3644

QWEST
400 TIJERAS AVE. NW SUITE 570
ALBUQUERQUE, NM 87102
CONTACT: RITA JARAMILLO
(505) 243–6296

TW TELECOM OF NEW MEXICO LLC.
5411 JEFFERSON ST. NE SUITE 200
ALBUQUERQUE, NM 87109
CONTACT: ROYAL HARRISON
(505) 938–7339

ELECTRIC:

PNM ELECTRIC
4625 EDITH BLVD. NE
ALBUQUERQUE, NM 87107
CONTACT: ANTHONY KOZLOWSKI
(505) 246–5700

FLOOD CONTROL:

AMAFCA
2600 PROSPECT AVE. NE
ALBUQUERQUE, NM 87107
CONTACT: KURT WAGENER
(505) 884–2215

GAS:

NEW MEXICO GAS
MAIL STOP GS66
4625 EDITH BLVD. NE
ALBUQUERQUE, NM 87107
CONTACT: EARL HOSKINS
(505) 401–7542

WATER / SEWER:

ABCWUA
P.O. BOX 1293
ALBUQUERQUE, NM 87103
CONTACT: ANTHONY MONTOYA
(505) 768–2713

AMAFCA

APPROVED FOR CONSTRUCTION
IN AMAFCA RIGHT–OF–WAY: _____
AMAFCA ENGINEER

APPROVED FOR RECORD DRAWING: _____
ABCWUA ENGINEER

T·Y· LIN INTERNATIONAL
engineers | planners | scientists
500 4th Street NW Suite 403
Bank of America Centre
Albuquerque, NM 87102

REV.	DATE	CITY ENGINEER	DATE	USER DEPARTMENT DATE	USER DEPARTMENT	DATE

ENGINEERS STAMP & SIGNATURE	APPROVALS	ENGINEER	DATE
ERIC J. FROBERG NEW MEXICO 18855 PROFESSIONAL ENGINEER 07/30/2012	DCR Chairman		
	Transportation		
	Water/Wastewater		
	Hydrology		
	Parks		
	Constr. Mngmt.		
	Constr. Coord.		

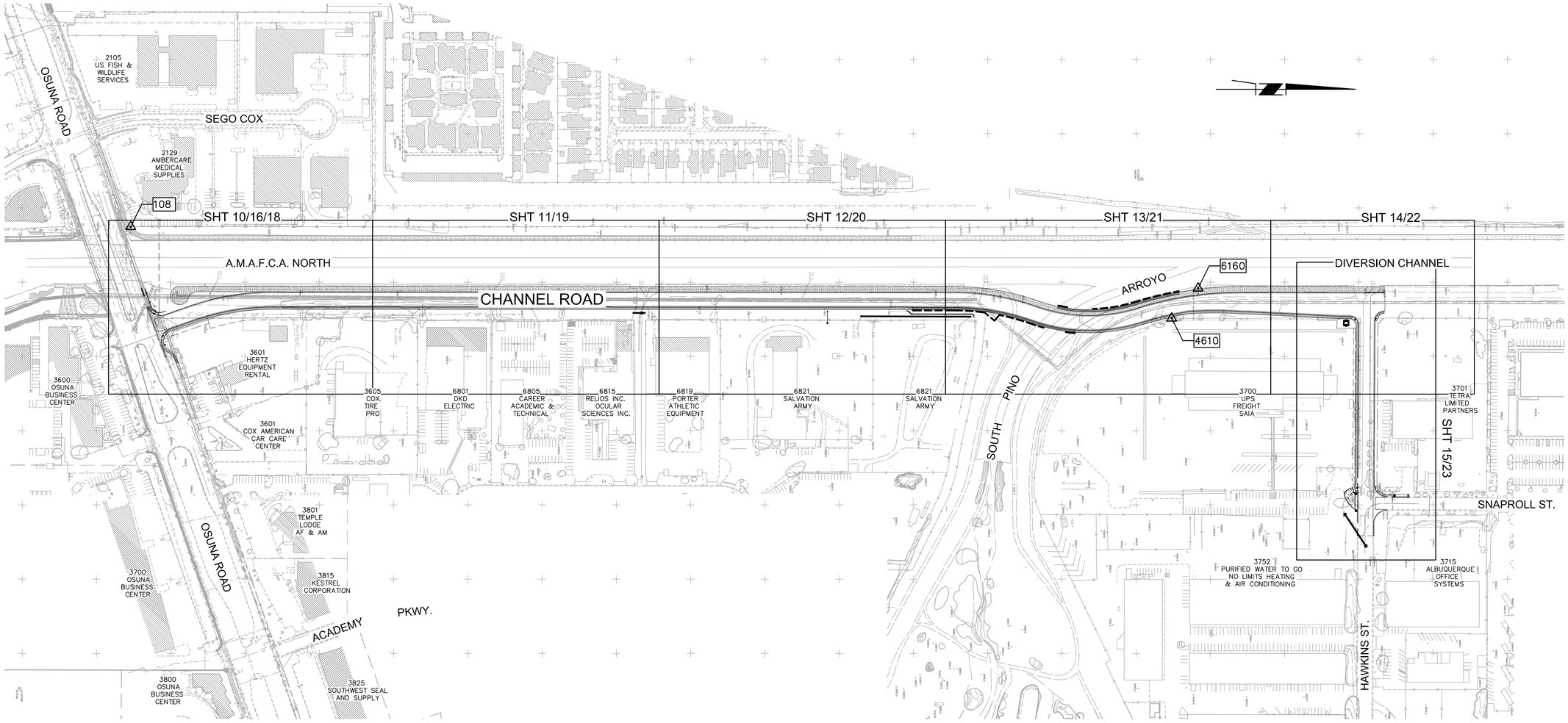
****
APPROVED FOR CONSTRUCTION
City Engineer Date

City Project No. 6920.91

Sheet 1 Of 66

P:\221706.00 – Osuna Road City of Albuquerque\CADD\DLV\ 1706–ChannelRD – C01 Cover.dwg

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KEY MAP

SCALE: 1"=150'

△ SURVEY CONTROL POINT NUMBERS

Earthwork					
Sheet	Excavation (CY)	Embankment (CY)	Drainage Excavation (CY)	Excavate Unsuitable Material (CY)	Haul-In Suitable Material (CY)
10	663	1298	750	–	–
11	1352	531	1415	1375	1375
12	979	915	945	1986	1986
13	266	5213	–	2565	2565
14	380	312	–	1173	1173
15	456	459	–	–	–
Total	4096	8728	3110	7099	7099
Net		−1522			
Haul-Off Unsuitable Material		7099			
Roadway Borrow		8621			
Structure Excavation		5450			
Structure Backfill		2650			
Recompact Structure Excavation		2540			
Overall		8361 Import			

Note: Earthwork quantities are in-place and do not adjust for shrink/swell.

PROJECT CONTROL POINTS				
NO.	NORTHING	EASTING	ELEVATION	DERSCRIPTION
108	1,511,892.2260	1,534,650.5610	5091.82	FND_BC_AMAFCA NDC R/W
4610	1,514,695.7050	1,534,897.2440	5082.65	FND_BC_AMAFCA R/W
6160	1,514,766.7490	1,534,816.3560	5082.52	FND_BC_AMAFCA 8P-C

SHEET INDEX:

1	COVER SHEET
2	SHEET INDEX & KEY MAP
3–4	GENERAL NOTES & LEGEND
5–7	TYPICAL SECTIONS
8	DEBRIS FENCE DETAILS & FIRE HYDRANT RELOCATION
9	QUANTITY SUMMARY SHEET
10–16	ROADWAY PLAN AND PROFILES
17	INTERSECTION STAKING
18–23	DRAINAGE PLAN & PROFILES
24–25	CULVERT PLAN & PROFILES
26–33	DETAIL SHEETS
34–37	SIGNING AND STRIPING PLANS
38–58	STRUCTURAL PLANS
59–60	RETAINING WALL PLANS
61–65	ITS INTERCONNECT PLANS
66	UTILITY RELOCATIONS

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM

15_E16 (1 3/4" ALUMINUM DISK)

NM STATE PLANE COORDINATES

CENTRAL ZONE NAD 1983

ELEVATION= 5092.856 (NAVD 1988)

SW QUADRANT OF OSUNA RD. NE. & THE NORTH DIVISION CHANNEL EPOXIED TO TOP OF CONCRETE BASE OF STREET LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR DATE

WORK STAKED BY DATE

FIELD WORK ACCEPTANCE BY DATE

FIELD VERIFICATION BY DATE

DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION

RECORDED BY DATE

NO.

ENGINEER'S SEAL

ERIC J. FROBERG NEW MEXICO 18855 PROFESSIONAL ENGINEER

07/30/2012

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY: R.STRICKLAND	DATE: 05/25/2012
		DRAWN BY: D.RAY, J.SCHENKMAN	DATE: 05/25/2012
		CHECKED BY: E.FROBERG	DATE: 05/25/2012

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990

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engineers | planners | scientists
500 4th Street NW Suite 403
Bank of America Centre
Albuquerque, NM 87102

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD - PHASE I
SHEET INDEX AND KEY MAP

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 2 Of 66

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GENERAL NOTES:

1. THE CONTRACTOR SHALL ABIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS.

2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION, THROUGH UPDATE #8, AND WILL BE REFERRED TO HEREIN AS "STANDARD SPECIFICATIONS".

3. VIBRATION MONITORING AND VIDEO TAPING DOCUMENTATION SHALL BE PERFORMED IN AND AROUND ALL STRUCTURES AS SHOWN ON THE DRAWINGS. "STRUCTURE" IS DEFINED AS BUILDINGS, RETAINING AND PRIVACY WALLS, END WALLS, DROP INLETS, CATCH BASINS, SEWER AND SERVICE PIPES, DRAINS AND OTHER FEATURES THAT MAY BE ENCOUNTERED DURING CONSTRUCTION. THE CONSTRUCTION AREA AND AREAS ADJACENT TO THE LIMITS OF CONSTRUCTION SHALL ALSO BE VIDEO TAPED. VIBRATION MONITORING AND VIDEO TAPING DOCUMENTATION SHALL BE PAID FOR AS A SEPARATE LUMP SUM PAY ITEM UNDER THE APPROPRIATE SPECIFICATION(S) LISTED ABOVE.

4. ALL CONSTRUCTION WITHIN CITY AND AMAFCA RIGHT-OF-WAY OR EASEMENTS MUST BE DONE FROM APPROVED WORK ORDER DOCUMENTS FROM THE CITY.

5. THE CONTRACTOR AGREES THAT HE SHALL ASSUME THE SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD HARMLESS THE OWNER AND ENGINEER FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.

6. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.

7. THE CONTRACTOR SHALL NOTIFY THE CITY SURVEYOR NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE CITY SURVEYOR MAY TAKE NECESSARY MEASURES TO ENSURE THE PRESERVATION OF SURVEY MONUMENTS. THE CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE CITY SURVEYOR AND SHALL NOTIFY THE CITY SURVEYOR AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. ONLY THE CITY SURVEYOR SHALL REPLACE SURVEY MONUMENTS. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATIONS OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED.

8. ALL STREET STRIPING, ALTERED OR DESTROYED, SHALL BE REPLACED WITH THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS BY THE CONTRACTOR TO SAME LOCATION AS EXISTING, OR AS INDICATED BY THIS PLAN SET.

9. SEVEN (7) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO DMD, CONSTRUCTION SERVICES DIVISION, A DETAILED CONSTRUCTION SCHEDULE. OBTAIN EXCAVATION AND BARRICADE PERMIT TWO (2) DAYS PRIOR TO CONSTRUCTION.

10. NO PAVING ACTIVITIES SHALL BE STARTED UNTIL THE LOCATION AND SERVICEABILITY OF ALL UNDERGROUND UTILITIES WITHIN THE ROADWAY ARE APPROVED BY THE UTILITY OWNER AND THE CITY.

11. PNM WILL PROVIDE AT NO COST TO THE CITY OR THE CONTRACTOR THE REQUIRED PERSONNEL FOR INSPECTION OR OBSERVATION DEEMED NECESSARY BY PNM WHILE THE CONTRACTOR IS EXPOSING PNM'S CABLES. HOWEVER, THE CONTRACTOR SHALL BE CHARGED THE TOTAL COST ASSOCIATED WITH REPAIRS TO ANY DAMAGED CABLES OR FOR ANY COST ASSOCIATED WITH SUPPORTING OR RELOCATING THE POLES AND CABLES DURING CONSTRUCTION.

12. THE ENGINEER HAS UNDERTAKEN NO FIELD VERIFICATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UNDERGROUND UTILITY LINES, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY, AND PRESERVE ANY AND ALL EXISTING UTILITIES.

13. THE CONTRACTOR IS TO SUPPORT AND MAINTAIN THE INTEGRITY OF ALL UNDERGROUND TELEPHONE, ELECTRIC CABLES AND CABLE TELEVISION UTILITIES AT NO ADDITIONAL COST TO THE OWNER. CABLE IS TO BE SUPPORTED AT A MAXIMUM OF EVERY FIFTEEN (15) FEET. THE CONTRACTOR SHALL COORDINATE WITH AND MAKE NECESSARY PAYMENT (IF ANY) TO UTILITY OWNER FOR DE-ENERGIZATION OF CABLES OR SUPPORT OF CABLES BY THE UTILITY OWNER.

14. THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY OR PRIVATE ROADWAY EASEMENTS SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET OR INTO ANY PUBLIC DRAINAGE FACILITY.

15. ANY WORK AFFECTING AN ARTERIAL ROADWAY REQUIRES CONTINUOUS TWENTY-FOUR (24) HOUR CONSTRUCTION.

16. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AND MAINTAIN ALL CONSTRUCTION SIGNING UNTIL THE PROJECT HAS BEEN ACCEPTED BY THE CITY OF ALBUQUERQUE AND AMAFCA.

17. ALL EXCAVATION, TRENCHING, AND SHORING ACTIVITES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P AND COA STD. DWG. 2465.

18. IF A PAVEMENT DROP-OFF IS CREATED DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL INITIATE PROTECTIVE ACTION TO MAINTAIN A SMOOTH TRANSITION. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO PROJECT COMPLETION.

19. A FOG SEAL COAT SHALL BE APPLIED TO ALL NEW AND EXISTING PAVEMENTS PRIOR TO FINAL STRIPING OF THE PROJECT. LIMITS OF THE COAT SHALL BE THROUGHOUT THE ENTIRE PROJECT.

20. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR CONSTRUCTION OBSERVER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.

21. ALL ELECTRICAL, TELEPHONE, CABLE TV, GAS AND OTHER UTILITY LINES, CABLES AND APPURTENANCES ENCOUNTERED DURING CONSTRUCTION THAT REQUIRE RELOCATION, SHALL BE COORDINATED WITH THAT UTILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL NECESSARY UTILITY ADJUSTMENTS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR DELAYS OR INCONVENIENCES CAUSED BY UTILITY COMPANY WORK CREWS. THE CONTRACTOR MAY BE REQUIRED TO RESCHEDULE HIS ACTIVITIES TO ALLOW UTILITY CREWS TO PERFORM THEIR REQUIRED WORK.

22. DISPOSAL SITE FOR ALL EXCESS EXCAVATION MATERIAL, AND UNSUITABLE MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS AND APPROVED BY THE CONSTRUCTION OBSERVER. IDENTIFICATION OF A SITE AND VERIFICATION OF SITE SUITABILITY IS CONSIDERED INCIDENTAL TO THE COST OF PROJECT BID ITEM.

23. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING THE EXISTING UTILITY LINES WITHIN THE CONSTRUCTION AREA. ANY DAMAGE TO EXISTING FACILITIES CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AND APPROVED BY THE CONSTRUCTION OBSERVER.

24. CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PROPERTY AND/OR PROJECT LIMITS. ANY DAMAGE TO ADJACENT PROPERTIES RESULTING FROM THE CONSTRUCTION PROCESS IS THE RESPONSIBLITY OF THE CONTRACTOR. ANY COSTS INCURRED FOR REPAIRS SHALL BE THE COST OF THE CONTRACTOR.

25. OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAYS OR DESIGNATED TRAFFIC LANES. THE CONTRACTOR SHALL NOT STORE ANY EQUIPMENT OR MATERIAL WITHIN THE PUBLIC RIGHT-OF-WAY.

26. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE AT HIS EXPENSE ANY AND ALL PROPERTY CORNERS DESTROYED DURING CONSTRUCTION. ALL PROPERTY CORNERS MUST BE RESET BY A REGISTERED LAND SURVEYOR.

27. ALL BARRICADES AND CONSTRUCTION SIGNING SHALL CONFORM TO APPLICABLE SECTIONS OF THE M.U.T.C.D., U.S. DEPARTMENT OF TRANSPORTATION, LATEST EDITION.

28. THE CONTRACTOR SHALL MAINTAIN ALL CONSTRUCTION BARRICADES AND SIGNING AT ALL TIMES. THE CONTRACTOR SHALL VERIFY THE PROPER LOCATION OF ALL BARRICADING AT THE END AND BEGINNING OF EACH DAY.

29. THE CONTRACTOR SHALL ASSUME RESPONSIBLITY FOR ANY DAMAGE TO EXISTING PAVEMENTS, PAVEMENT MARKINGS, CURB & GUTTER, DRIVEPADS, WHEELCHAIR RAMPS, AND SIDEWALK DURING CONSTRUCTION, APART FROM THOSE SECTIONS INDICATED FOR REMOVAL ON THE PLANS AND SHALL REPAIR OR REPLACE PER COA STANDARDS, AT HIS OWN EXPENSE.

30. CONTRACTOR IS RESPONSIBLE FOR DRAINAGE MANAGEMENT AND EROSION CONTROL AT ALL TIMES DURING THE CONSTRUCTION PERIOD.

31. CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.

32. THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE AND FEDERAL DUST CONTROL MEASURES AND REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.

33. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE PROJECT SITE INTO PUBLIC RIGHT-OF-WAY.

34. CONTRACTOR SHALL COMPLETELY COVER OPEN SECTION OF CHANNEL WITH 20 MIL PLASTIC OR CONCRETE BLANKETS AT ALL TIMES WHEN NOT WORKING IN AREA. WATER OF ANY KIND OR SOURCE SHALL NOT BE ALLOWED TO GET UNDER CHANNEL LINING. ANCHOR COVER WITH SUFFICIENT SANDBAGS TO RETAIN COVER IN PLACE WITHOUT EXCEPTION. CONTRACTOR SHALL TAKE ANY AND ALL MEASURES TO KEEP WATER FROM FLOWING DOWN TRENCH PATH/OPEN EXCAVATION AND GETTING UNDER CHANNEL LINING.

35. ANY DAMAGE TO THE EXISTING FACILITIES (CURB & GUTTER, PAVEMENT, CONDUITS, LANDSCAPING, UTILITY LINES ETC.) DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

36. CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL CONSTRUCTION SIGNING UNTIL PROJECT HAS BEEN ACCEPTED BY THE COA.

37. ANY DISTURBED OR CONSTRUCTED SLOPE EXCEEDING 3:1 SHALL BE RE-VEGETATED/SEEDED WITH CLASS "A" NATIVE SEED WITH STRAW MULCH.

38. GUARDS SHALL BE LOCATED ALONG OPEN-SIDED WALKING SURFACES THAT ARE LOCATED MORE THAN 30 INCHES MEASURED VERTICALLY TO THE FLOOR OR GRADE BELOW AT ANY POINT WITHIN 36 INCHES HORIZONTALLY TO THE EDGE OF THE OPEN SIDE. GUARDS SHALL BE IN ACCORDANCE WITH SECTION 1013 OF THE 2009 IBC.

39. CONTRACTOR SHALL TRANSPORT ALL REMOVED AND SALVAGED SIGNS TO PINO YARDS OR LOCATION DIRECTED BY THE CITY'S PROJECT MANAGER AT NO ADDITIONAL COST.

SURVEY INFORMATION

NO.	BY	FIELD NOTES DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_F16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR DATE
WORK STAKED BY DATE
INSPECTED BY
ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION

RECORDED BY DATE
NO.

ENGINEER'S SEAL

ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER
07/30/2012

NO.	DATE	REMARKS
		REVISIONS
		DESIGN

DESIGNED BY: R.STRICKLAND DATE: 05/25/2012
DRAWN BY: D.RAY, J.SCHENKMAN DATE: 05/25/2012
CHECKED BY: E.FROBERG DATE: 05/25/2012

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990

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500 4th Street NW Suite 403
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CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD - PHASE I
LEGEND AND NOTES

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 3 Of 66

LEGEND

- TCE — TEMPORARY CONSTRUCTION EASEMENT
- ▲ — BENCHMARK
- ⊙ — NEW SURVEY MONUMENT
- COMBINED CURB & GUTTER/MEDIAN CURB – C.O.A. DETAIL 2415A/2415B
- EXISTING ASPHALT CONCRETE PAVEMENT
- NEW ASPHALT CONCRETE
- EXISTING CONCRETE PAVEMENT OR SIDEWALK
- NEW CONCRETE SIDEWALK – C.O.A. DETAIL 2430
- NEW CONCRETE DRIVEWAY OR ALLEY ENT. PER DETAIL NO. ON PLANS
- CONCRETE MEDIAN PAVING PER C.O.A. DETAIL 2408/2502
- NEW CONCRETE SIDEWALK RAMP – C.O.A. DETAIL 2440/2441
- EXISTING DITCH
- NEW CLASS "A" NATIVE SEED WITH STRAW MULCH
- 12" DIP W — EXISTING WATER LINE W/SIZE & TYPE (12" AND SMALLER)
- 36" DIP W — EXISTING WATER LINE W/SIZE & TYPE (GREATER THAN 12")
- EXISTING IRRIGATION VALVE
- EXISTING FIRE HYDRANT
- NEW OR RELOCATED FIRE HYDRANT BY CONTRACTOR
- EXISTING WATER VALVE
- EXISTING WATER METER
- 8" VCP S — EXISTING SANITARY SEWER LINE W/SIZE & TYPE (12" AND SMALLER)
- 30" VCP S — EXISTING SANITARY SEWER LINE W/SIZE & TYPE (GREATER THAN 12")
- Ⓓ — EXISTING STORM DRAIN MANHOLE
- Ⓢ — EXISTING SEWER MANHOLE
- Ⓜ — NEW MANHOLE
- CATCH BASIN, GUTTER INLET (LENGTH TO SCALE)
- SD — EXISTING STORM DRAIN LINE (12" OR LESS)
- EXISTING STORM DRAIN LINE (GREATER THAN 12")
- EXISTING GAS VALVE
- 4"G — EXISTING GAS LINE W/SIZE
- E — EXISTING UNDERGROUND ELECTRIC CABLE OR SINGLE CONDUIT
- Ⓔ — EXISTING ELECTRICAL MANHOLE
- E — EXISTING ELECTRICAL BOX/PEDESTAL
- Ⓣ — EXISTING TELEPHONE MANHOLE
- T — EXISTING TELEPHONE BOX/PEDESTAL
- T — EXISTING TELEPHONE BURIED CABLE OR SINGLE CONDUIT
- CATV — EXISTING UNDERGROUND CABLE TV
- FO — EXISTING UNDERGROUND FIBER OPTIC LINE
- EXISTING TRAFFIC SIGNAL POLE W/MAST ARM & SIGNAL INDICATIONS
- TS — EXISTING TRAFFIC SIGNAL BOX
- EXISTING STREET OR TRAFFIC SIGN
- EXISTING UTILITY POLE W/LINE INDICATING WIRE DIRECTION
- EXISTING WIRE FENCE
- EXISTING GUARDRAIL
- MAIL BOX
- EXISTING POWER POLE DOWN GUY ANCHOR
- EXISTING STREET LIGHT & POLE
- EXISTING TREE OR STUMP TO BE REMOVED – MORE THAN 12" DIA.
- EXISTING TREE TO BE TRANSPLANTED BY CONTRACTOR
- EASEMENT LINE
- EXISTING OR NEW R/W LINE
- EXISTING R/W CORNER
- PAVEMENT CENTER LINE OR MONUMENT LINE
- EXISTING TREE OR STUMP TO BE REMOVED 12" DIA. OR LESS
- EXISTING TREE TO REMAIN

WATER AND SEWER NOTES

1. THE CONTRACTOR SHALL COORDINATE WITH THE WATER AUTHORITY SEVEN (7) WORKING DAYS IN ADVANCE OF PERFORMING ANY WORK THAT WILL AFFECT THE PUBLIC WATER OR SANITARY SEWER INFRASTRUCTURE. WORK REQUIRING SHUTOFF OF FACILITIES DESIGNATED AS MASTER PLAN FACILITIES MUST BE COORDINATED WITH THE WATER AUTHORITY 14 DAYS IN ADVANCE OF PERFORMING SUCH WORK. ONLY WATER AUTHORITY CREWS ARE AUTHORIZED TO OPERATE PUBLIC VALVES. SHUT OFF REQUESTS MUST BE MADE ONLINE AT HTTP://ABCWUA.ORG/CONTECT/VIEW/463/729/.

2. UTILITY WORK WITHIN THE SERVICE AREA OF ABCWUA SHALL BE CONSTRUCTED IN ACCORDANCE WITH ABCWUA SPECIFICATIONS FOR WATER AND WASTEWATER FACILITIES (MOST RECENT REVISIONS).

3. CONTRACTOR TO OBTAIN SAN JUAN CHAMA WATERLINE PERMIT PRIOR TO START OF CONSTRUCTION PER ADMINISTRATIVE INSTRUCTION #9.

4. PROPOSED WATERLINE MATERIALS SHALL BE PVC PIPE MEETING AWWA C-900: DR18 REQUIREMENTS (6" – 12"), DUCTILE IRON PIPE MEETING AWWA C-150 REQUIREMENTS (6" – 64").

5. ALL FITTINGS ON WATERLINE SHALL HAVE RESTRAINED JOINTS AS NOTED ON THE PLANS OR AS SPECIFIED UNDER SECTION 801.12-13.

6. ELECTRONIC MARKER SPHERES (EMS) WILL BE PLACED ACCORDING TO SECTION 801.9.10 and 170 OF THE CITY OF ALBUQUERQUE SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THROUGH UPDATE #8.

7. CONTRACTOR SHALL MARK THE LOCATION OF THE 72" SAN JUAN CHAMA RAW WATERLINE AND/OR IT RELATED FACILITIES, INCLUDING THE FIBER OPTIC CONDUIT, PRIOR TO EXCAVATION. WHILE EVERY ATTEMPT HAS BEEN MADE TO ACCURATELY LOCATE THE FACILITIES ON THE PLANS THE LOCATIONS SHOWN ARE APPROXIMATE AND DO NOT RELIEVE THE CONTRACTORS RESPONSIBILITY. CONTRACTOR SHALL EXCAVATE BY HAND WHEN WITHIN 18" OF SAID FACILITIES.

8. CONTRACTOR SHALL LIMIT EQUIPMENT OPERATION OVER THE SAN JUAN CHAMA RAW WATERLINE TO HS-20 OR LESS. CONTRACTOR TO HAVE A LICENSED PROFESSIONAL ENGINEER DEVELOP , STAMP, AND SEAL LOADING CALCULATIONS FOR CONSTRUCTION EQUIPMENT AND PROVIDE TO THE CITY AND WATER AUTHORITY PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.

9. CONTRACTOR SHALL MARK THE LOCATION OF THE CATHODIC PROTECTION TEST STATIONS AND CONDUIT PRIOR TO EXCAVATION. WHILE EVERY ATTEMPT HAS BEEN MADE TO ACCURATELY LOCATE THE FACILITIES ON THE PLANS THE LOCATIONS SHOWN ARE APPROXIMATE AND DO NOT RELIEVE THE CONTRACTORS RESPONSIBILITY. CONTRACTOR SHALL EXCAVATE BY HAND WHEN WITHIN 12" OF SAID FACILITIES.

10. TESTING OF THE CATHODIC PROTECTIONS TEST STATIONS SHALL OCCUR IMMEDIATELY PRIOR TO CONSTRUCTION, PRIOR TO PLACEMENT OF THE PAVEMENT SECTIONS, AND DURING FINAL INSPECTION.

11. CONTRACTOR SHALL BE REQUIRED TO PLACE "LOW CLEARANCE" BANNERS WITH CLEARANCE HEIGHT INDICATED ON EACH SIDE OF THE SAN JUAN CHAMA RAW WATERLINE BRIDGE CROSSING OF THE SOUTH PINO ARROYO. TELLTALES SHALL ALSO BE UTILIZED 25' ON BOTH SIDES IN ADVANCE OF THE CROSSING STRUCTURE.

12. CONSTRUCTION THAT MAY JEOPARDIZE THE SAN JUAN CHAMA RAW WATERLINE MAY NOT OCCUR BETWEEN APRIL 1ST AND SEPTEMBER 30TH.

13. A REPRESENTATIVE OF THE WATER AUTHORITY SHALL BE PRESENT WHEN CONSTRUCTION IS TO OCCUR WITHIN THE PROXIMITY OF THE SAN JUAN CHAMA RAW WATERLINE.

STORM DRAIN NOTES

1. RCP SHALL BE INSTALLED SO THAT THE JOINT CAP AT THE HOME POSITION SHALL CONFORM TO THE APPROVED MANUFACTURER'S RECOMMENDATIONS. MANUFACTURER'S RECOMMENDED JOINING GAP TOLERANCES FOR EACH PIPE SIZE AND TYP ESHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PLACEMENT OF PIPE. RCP JOINTS SHALL NOT BE GROUTED UNLESS DIRECTED BY THE ENGINEER AFTER APPROVAL.

2. STORM DRAIN LINES ARE REFLECTED FROM ASBUILT PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING STORM DRAIN CONFLICTS DURING CONSTRUCTION.

3. IN THE CASE OF A CONFLICT BETWEEN CONDUIT OR EQUIPMENT PLACEMENT AND STORM DRAIN, CONTRACTOR SHALL INFORM THE CONSTRUCTION MANAGEMENT TEAM AND THE CITY PROJECT MANAGER, RICHARD COSTALES, PE (505-768-2774) BEFORE PROCEEDING WITH ANY DEVIATIONS FROM THE PLANS.

4. SHOULD ANY IMPACT OCCUR TO STORM DRAIN PIPE DURING CONSTRUCTION EFFORTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE CITY OF ALBUQUERQUE STORM DRAIN MAINTENANCE TO INSPECT THE IMPACTED PIPE.

5. REPAIRS TO IMPACTED PIPE REQUIRED BY THE CITY OF ALBUQUERQUE STORM DRAIN MANAGEMENT PERSONNEL SHALL BE THE FINANCIAL AND CONSTRUCTION RESPONSIBILITY OF THE CONTRACTOR.

6. ALL REINFORCED CONCRETE PIPE (RCP) STORM DRAIN CROSSINGS OF THE SAN JUAN CHAMA SHALL BE FITTED WITH RUBBER GASKETS AT THE JOINTS FOR A DISTANCE OF 20' ON EITHER SIDE OF THE SAN JUAN CHAMA. THE RUBBER GASKETS SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF SAID STORM DRAIN.

AMAFCA NOTES

1. AMAFCA FIELD ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY WORK WITHIN THE AMAFCA R/W. TELEPHONE (505) 884-2215.

2. NO WORK SHALL BE PERFORMED IN THIS AMAFCA R/W BETWEEN MAY 15 AND OCTOBER 15 WITHOUT WRITTEN PERMISSION FROM AMAFCA.

3. ALL SUB-GRADE, BACKFILL, AND EMBANKMENT SHALL BE COMPACTED TO 95% (±2% OF OPTIMUM MOISTURE PER ASTM D-1557) WITHIN THE AMAFCA R/W. TESTING REPORTS SHALL BE PROVIDED TO AMAFCA FIELD ENGINEER.

4. AMAFCA FIELD ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO FINAL INSPECTION OF ANY FACILITIES WITHIN THE AMAFCA R/W.

5. ALL DISTURBED GROUND AREAS SHALL BE REVEGETATED IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SECTION 1012 NATIVE GRASS SEEDING, AS CURRENTLY UPDATED.

6. ANY MONUMENTS DISTURBED OR DESTROYED SHALL BE REPLACED BY A NM LICENSED SURVEYOR AT THE CONTRACTOR'S EXPENSE. AMAFCA SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY MONUMENT PLACEMENT.

7. THE MAXIMUM WHEEL LOAD ALLOWED IN AMAFCA CHANNELS IS 12,000 POUNDS.

8. NO TRACKED VEHICLES ARE ALLOWED IN AMAFCA CHANNELS REGARDLESS OF LOCATION WITHOUT WRITTEN PERMISSION FROM AMAFCA.

9. CRANES OPERATING IN AMAFCA CHANNELS WITH OUTRIGGERS SHALL LIMIT OUTRIGGER FOOTPRINT LOAD AREA TO LESS THAN 12,000 POUNDS.

10. TO ENSURE REPAIRS OF DAMAGES CAUSED BY CONSTRUCTION ACTIVITIES, THE CONTRACTOR IS REQUIRED TO PURCHASE STANDARD FORM OWNER'S PROTECTIVE LIABILITY INSURANCE NAMING AMAFCA AS ADDITIONALLY NAMED INSURED IN THE AMOUNTS SPECIFIED IN SECTION 107.25 "INSURANCE REQUIREMENTS" OF THE COA STANDARD SPECIFICATIONS.

11. ALL CONSTRUCTION DEBRIS, INCLUDING REMOVAL ITEMS, SHALL BE REMOVED FROM THE BOTTOM OF THE CHANNEL PRIOR TO THE END OF EACH DAY. DEBRIS SHALL NOT REMAIN IN THE CHANNEL OVERNIGHT OR WHEN FLOW IS PRESENT IN THE CHANNEL.

SURVEY INFORMATION — FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR — DATE
WORK STAKED BY — DATE
INSPECTED BY — ACCEPTANCE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION

RECORDED BY — DATE
NO.

ENGINEER'S SEAL

ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER

07/30/2012

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY: R.STRICKLAND	DATE: 05/25/2012
		DRAWN BY: D.RAY, J.SCHENKMAN	DATE: 05/25/2012
		CHECKED BY: E.FROBERG	DATE: 05/25/2012

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990

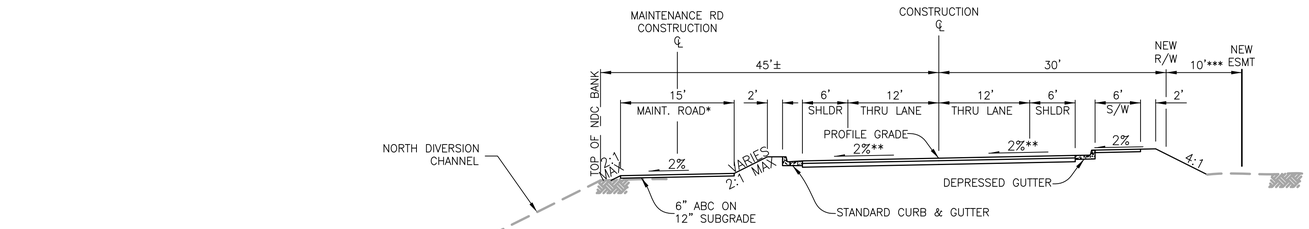
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Albuquerque, NM 87102

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD - PHASE I
LEGEND AND NOTES

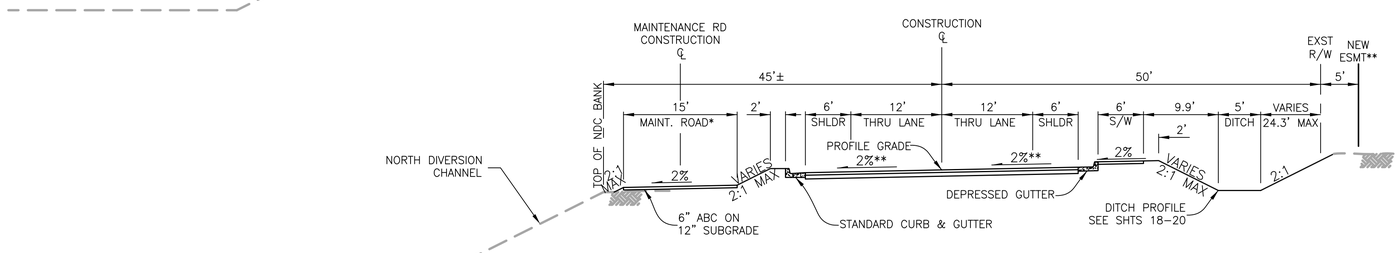
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 4 Of 66



CHANNEL ROAD

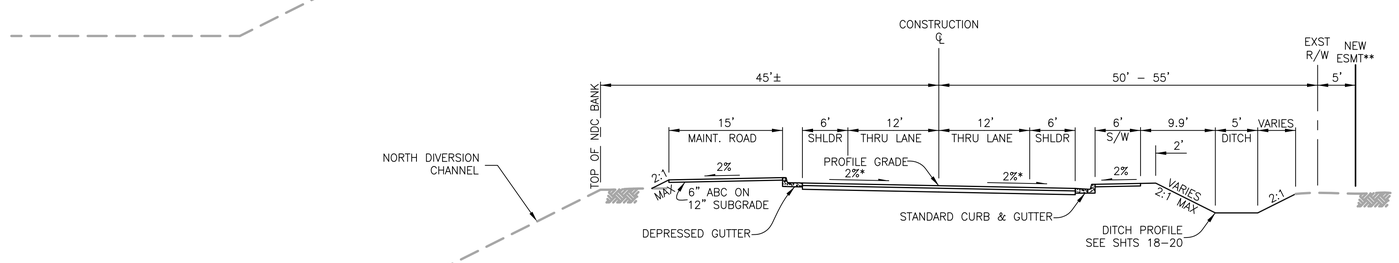
STA 11+15 TO STA 12+00
*NOTE: SEE MAINTENANCE ROAD DETAILS SHEET 16
** VARIES 11+15 TO 11+60
*** 24.4' 11+90 TO 12+00



CHANNEL ROAD

STA 12+00 TO STA 13+23.55
*NOTE: SEE MAINTENANCE ROAD DETAILS SHEET 16
** VARIES 13+00 TO 13+23.55

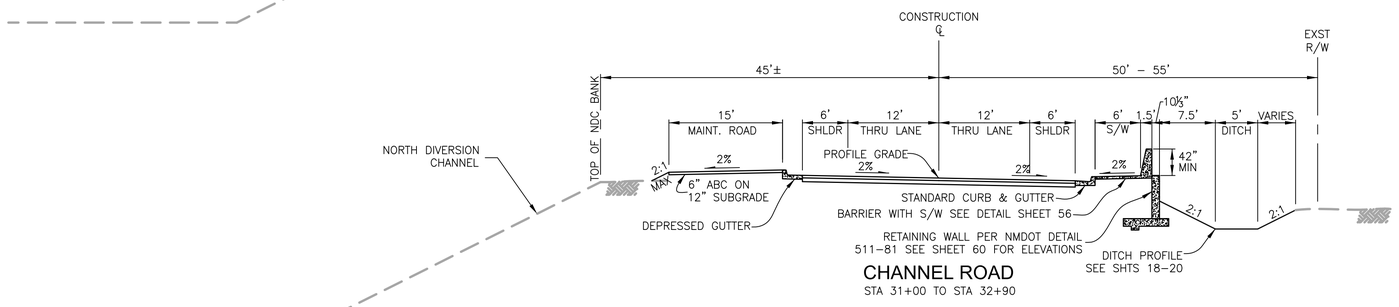
DRAINAGE EASEMENT DOC #



CHANNEL ROAD

STA 13+23.55 TO STA 31+00
*NOTE: VARIES 13+23.55 TO 14+00
** 13+23.55 TO 14+66

DRAINAGE EASEMENT DOC #



CHANNEL ROAD

STA 31+00 TO STA 32+90

NOTE: DEPRESSED GUTTER SHALL BE UTILIZED ON SECTIONS WHERE THE EDGE OF THE ROADWAY IS ABOVE THE ROADWAY CENTERLINE. THE DEPRESSED GUTTER SLOPE SHALL MATCH THE SLOPE OF THE ADJACENT ROADWAY.

SEE INTERSECTION STAKING SHEETS FOR ADDITIONAL INFORMATION.

3" AC (ARTERIAL ASPHALT SP–III)
TACK COAT
3" AC (ARTERIAL ASPHALT SP–III)
12" ABC (95% COMPACTION)
12" SUBGRADE PREPARATION (95% COMPACTION)

R–VALUE ≥ 23
TOTAL THICKNESS = 18 INCHES

PAVEMENT STRUCTURAL SECTION A

CHANNEL ROAD STA 10+00 TO 20+50
CHANNEL ROAD STA 26+50 TO 32+25

3" AC (ARTERIAL ASPHALT SP–III)
TACK COAT
3" AC (ARTERIAL ASPHALT SP–III)
12" ABC (95% COMPACTION)
24" BORROW MATERIAL (R–VALUE ≥ 23)
12" SUBGRADE PREPARATION (95% COMPACTION)

R–VALUE ≈ 13
TOTAL THICKNESS = 18 INCHES

PAVEMENT STRUCTURAL SECTION B

CHANNEL ROAD STA 20+50 TO 26+50

2.5" AC (ARTERIAL ASPHALT SP–III)
TACK COAT
2.5" AC (ARTERIAL ASPHALT SP–III)
12" ABC (95% COMPACTION)
12" SUBGRADE PREPARATION (95% COMPACTION)

R–VALUE ≥ 31
TOTAL THICKNESS = 17 INCHES

PAVEMENT STRUCTURAL SECTION C

CHANNEL ROAD STA 43+00 TO 43+82.34

2.5" AC (ARTERIAL ASPHALT SP–III)
TACK COAT
2.5" AC (ARTERIAL ASPHALT SP–III)
12" ABC (95% COMPACTION)
24" BORROW MATERIAL (R–VALUE > 31)
12" SUBGRADE PREPARATION (95% COMPACTION)

R–VALUE ≈ 13
TOTAL THICKNESS = 17 INCHES

PAVEMENT STRUCTURAL SECTION D

CHANNEL ROAD STA 32+25 TO 43+00

1.75" AC (ARTERIAL ASPHALT TYPE SP–IV)
TACK COAT
1.75" AC (ARTERIAL ASPHALT SP–IV)
12" ABC (95% COMPACTION)
12" SUBGRADE PREPARATION (95% COMPACTION)

R–VALUE ≥ 31
TOTAL THICKNESS = 15.5 INCHES

PAVEMENT STRUCTURAL SECTION E

HAWKINS ROAD

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CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: **CHANNEL ROAD - PHASE I**
ROADWAY TYPICAL SECTIONS

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
6920.91	E16, D16, D17	5	66

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
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CONTRACTOR — DATE
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ACCEPTANCE BY — DATE
FIELD DETERMINATION BY — DATE
DRAWINGS CORRECTED BY — DATE

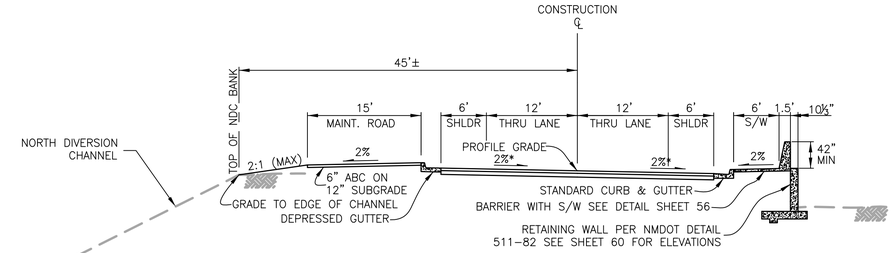
MICRO–FILM INFORMATION

RECORDED BY — DATE
NO.

ENGINEER'S SEAL

ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER
07/30/2012

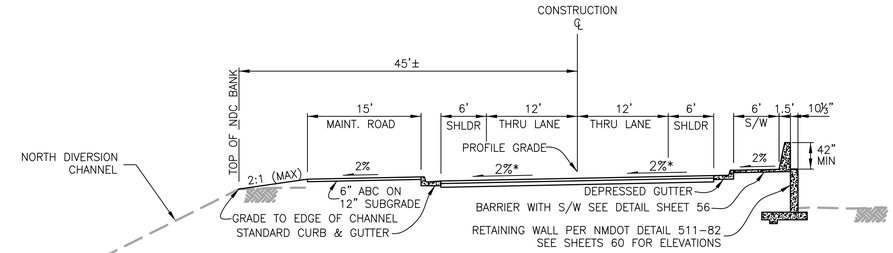
NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	DESIGNED BY: R.STRICKLAND — DATE: 05/25/2012
			DRAWN BY: D.RAY, J.SCHENKMAN — DATE: 05/25/2012
			CHECKED BY: E.FROBERG — DATE: 05/25/2012



CHANNEL ROAD

STA 32+90 TO STA 34+00

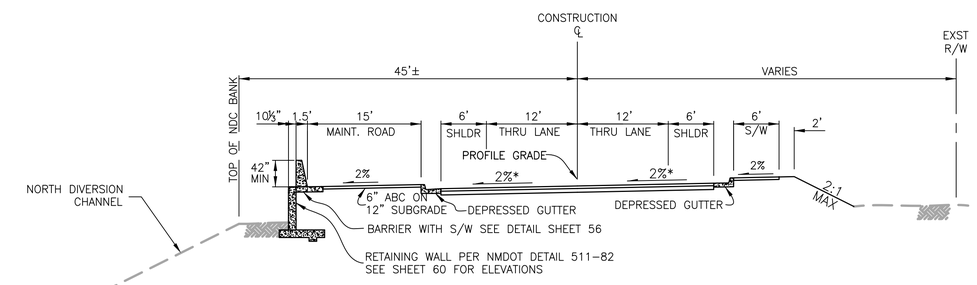
*NOTE: VARIES 33+55 TO 34+00



CHANNEL ROAD

STA 34+00 TO STA 35+50

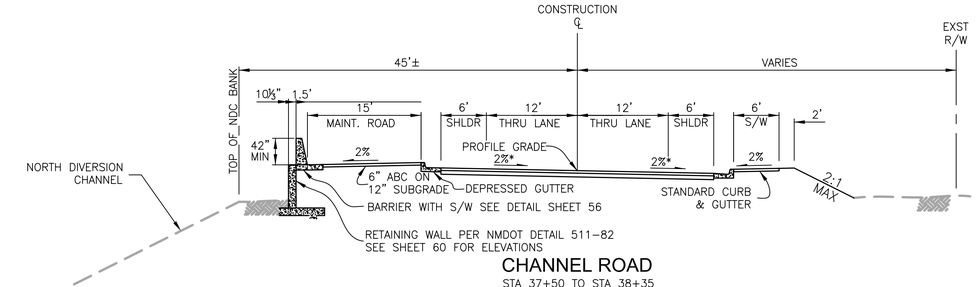
*NOTE: VARIES 34+00 TO 34+45



CHANNEL ROAD

STA 35+50 TO STA 37+50

*NOTE: VARIES 37+05 TO 37+50



CHANNEL ROAD

STA 37+50 TO STA 38+35

*NOTE: VARIES 37+50 TO 37+95

NOTE: DEPRESSED GUTTER SHALL BE UTILIZED ON SECTIONS WHERE THE EDGE OF THE ROADWAY IS ABOVE THE ROADWAY CENTERLINE. THE DEPRESSED GUTTER SLOPE SHALL MATCH THE SLOPE OF THE ADJACENT ROADWAY.

SEE INTERSECTION STAKING SHEETS FOR ADDITIONAL INFORMATION.

SEE SOUTH PINO BOX CULVERT SHEETS FOR ADDITIONAL INFORMATION BETWEEN STATIONS 35+00 & 35+50.

3" AC (ARTERIAL ASPHALT SP-III)
TACK COAT
3" AC (ARTERIAL ASPHALT SP-III)
12" ABC (95% COMPACTION)
12" SUBGRADE PREPARATION (95% COMPACTION)

R-VALUE ≥ 23
TOTAL THICKNESS = 18 INCHES

PAVEMENT STRUCTURAL SECTION A

CHANNEL ROAD STA 10+00 TO 20+50
CHANNEL ROAD STA 26+50 TO 32+25

3" AC (ARTERIAL ASPHALT SP-III)
TACK COAT
3" AC (ARTERIAL ASPHALT SP-III)
12" ABC (95% COMPACTION)
24" BORROW MATERIAL (R-VALUE ≥ 23)
12" SUBGRADE PREPARATION (95% COMPACTION)

R-VALUE ≈ 13
TOTAL THICKNESS = 18 INCHES

PAVEMENT STRUCTURAL SECTION B

CHANNEL ROAD STA 20+50 TO 26+50

2.5" AC (ARTERIAL ASPHALT SP-III)
TACK COAT
2.5" AC (ARTERIAL ASPHALT SP-III)
12" ABC (95% COMPACTION)
12" SUBGRADE PREPARATION (95% COMPACTION)

R-VALUE ≥ 31
TOTAL THICKNESS = 17 INCHES

PAVEMENT STRUCTURAL SECTION C

CHANNEL ROAD STA 43+00 TO 43+82.34

2.5" AC (ARTERIAL ASPHALT SP-III)
TACK COAT
2.5" AC (ARTERIAL ASPHALT SP-III)
12" ABC (95% COMPACTION)
24" BORROW MATERIAL (R-VALUE > 31)
12" SUBGRADE PREPARATION (95% COMPACTION)

R-VALUE ≈ 13
TOTAL THICKNESS = 17 INCHES

PAVEMENT STRUCTURAL SECTION D

CHANNEL ROAD STA 32+25 TO 43+00

1.75" AC (ARTERIAL ASPHALT TYPE SP-IV)
TACK COAT
1.75" AC (ARTERIAL ASPHALT SP-IV)
12" ABC (95% COMPACTION)
12" SUBGRADE PREPARATION (95% COMPACTION)

R-VALUE ≥ 31
TOTAL THICKNESS = 15.5 INCHES

PAVEMENT STRUCTURAL SECTION E

HAWKINS ROAD

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SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

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SW QUADRANT OF OSUNA RD. NE. &
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TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR — DATE
WORK STAKED BY — DATE
STAKING CHECKED BY
ACCEPTANCE — DATE
FIELD DRAWINGS BY — DATE
CORRECTED BY — DATE

MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

ENGINEER'S SEAL
ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER
07/30/2012

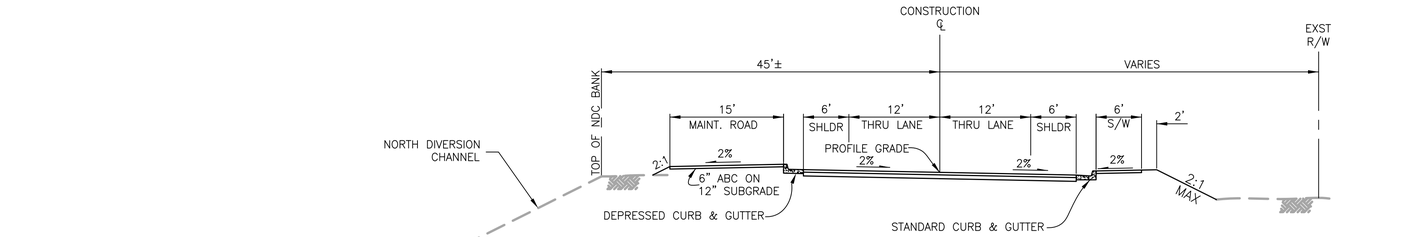
NO.	DATE	REMARKS / REVISIONS	BY
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CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD - PHASE I
ROADWAY TYPICAL SECTIONS

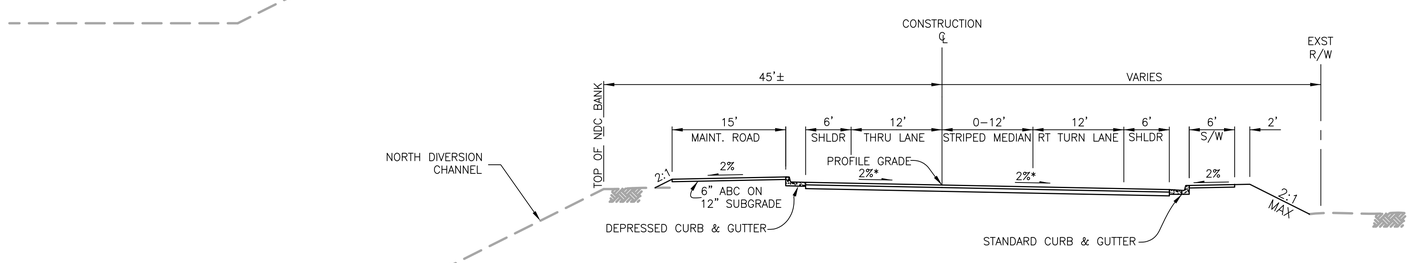
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 6 Of 66



CHANNEL ROAD

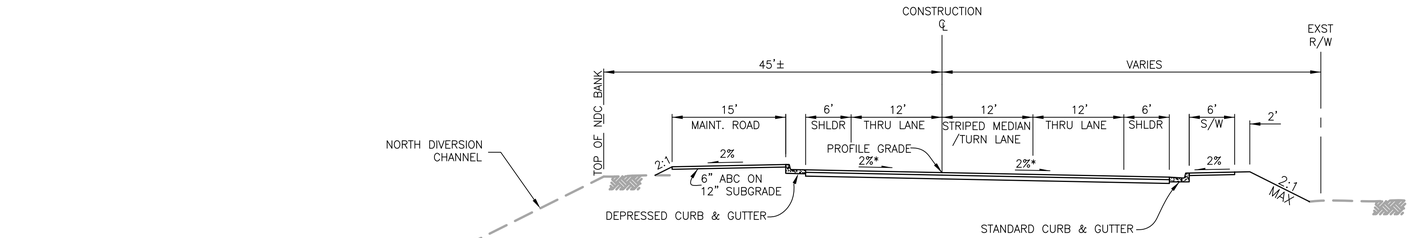
STA 38+35 TO STA 38+49.29



CHANNEL ROAD

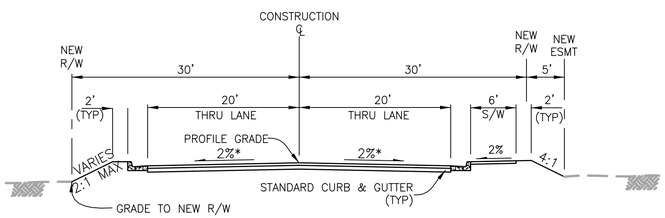
STA 38+49.29 TO STA 42+58.22

*NOTE: VARIES 41+20 TO 42+50



CHANNEL ROAD

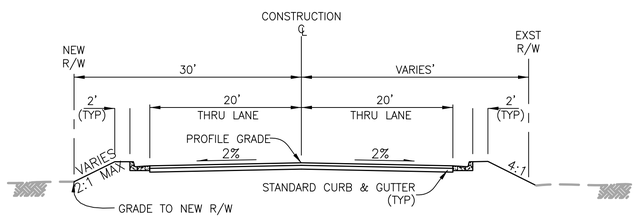
STA 42+58.22 TO STA 43+82.34



HAWKINS ROAD

STA 100+44.76 TO 105+71.53

*NOTE: VARIES 100+44.76 TO 105+71.53



HAWKINS ROAD

STA 105+71.53 TO 106+35.88

NOTE: DEPRESSED GUTTER SHALL BE UTILIZED ON SECTIONS WHERE THE EDGE OF THE ROADWAY IS ABOVE THE ROADWAY CENTERLINE. THE DEPRESSED GUTTER SLOPE SHALL MATCH THE SLOPE OF THE ADJACENT ROADWAY.

SEE INTERSECTION STAKING SHEETS FOR ADDITIONAL INFORMATION.

3" AC (ARTERIAL ASPHALT SP-III)
TACK COAT
3" AC (ARTERIAL ASPHALT SP-III)
12" AB (95% COMPACTION)
12" SUBGRADE PREPARATION (95% COMPACTION)

R-VALUE ≥ 23
TOTAL THICKNESS = 18 INCHES

PAVEMENT STRUCTURAL SECTION A

CHANNEL ROAD STA 10+00 TO 20+50
CHANNEL ROAD STA 26+50 TO 32+25

3" AC (ARTERIAL ASPHALT SP-III)
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3" AC (ARTERIAL ASPHALT SP-III)
12" ABC (95% COMPACTION)
24" BORROW MATERIAL (R-VALUE ≥ 23)
12" SUBGRADE PREPARATION (95% COMPACTION)

R-VALUE ≈ 13
TOTAL THICKNESS = 18 INCHES

PAVEMENT STRUCTURAL SECTION B

CHANNEL ROAD STA 20+50 TO 26+50

2.5" AC (ARTERIAL ASPHALT SP-III)
TACK COAT
2.5" AC (ARTERIAL ASPHALT SP-III)
12" ABC (95% COMPACTION)
12" SUBGRADE PREPARATION (95% COMPACTION)

R-VALUE ≥ 31
TOTAL THICKNESS = 17 INCHES

PAVEMENT STRUCTURAL SECTION C

CHANNEL ROAD STA 43+00 TO 43+82.34

2.5" AC (ARTERIAL ASPHALT SP-III)
TACK COAT
2.5" AC (ARTERIAL ASPHALT SP-III)
12" ABC (95% COMPACTION)
24" BORROW MATERIAL (R-VALUE > 31)
12" SUBGRADE PREPARATION (95% COMPACTION)

R-VALUE ≈ 13
TOTAL THICKNESS = 17 INCHES

PAVEMENT STRUCTURAL SECTION D

CHANNEL ROAD STA 32+25 TO 43+00

1.75" AC (ARTERIAL ASPHALT TYPE SP-IV)
TACK COAT
1.75" AC (ARTERIAL ASPHALT SP-IV)
12" ABC (95% COMPACTION)
12" SUBGRADE PREPARATION (95% COMPACTION)

R-VALUE ≥ 31
TOTAL THICKNESS = 15.5 INCHES

PAVEMENT STRUCTURAL SECTION E

HAWKINS ROAD

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ELEVATION= 5092.856 (NAVD 1988)	
SW QUADRANT OF OSUNA RD. NE. &	
THE NORTH DIVISION CHANNEL EPOXIED	DATE
TO TOP OF CONCRETE BASE OF STREET	NO.
LIGHT STANCHION	

MICRO-FILM INFORMATION

RECORDED BY	
DATE	
NO.	

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

ENGINEER'S SEAL

ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER

07/30/2012

REMARKS

REVISIONS

NO.	DATE	BY
DESIGN	05/25/2012	R.STRICKLAND
DRAWN BY:	05/25/2012	D.RAY, J.SCHENKMAN
CHECKED BY:	05/25/2012	E.FROBERG

CITY OF ALBUQUERQUE
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ENGINEERING DIVISION

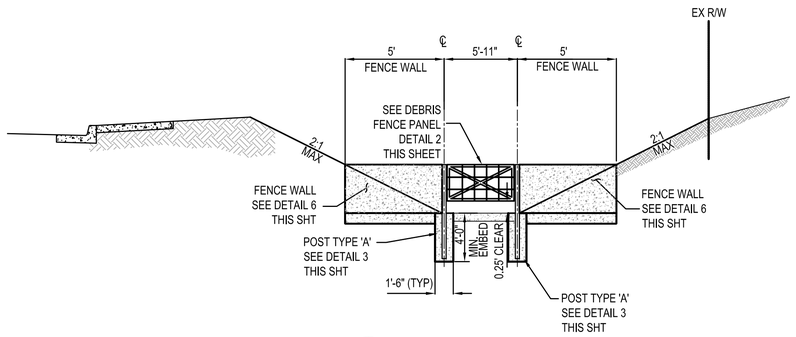
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ROADWAY TYPICAL SECTIONS

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

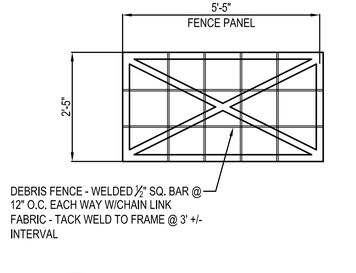
City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 7 | Of 66

NOTES:

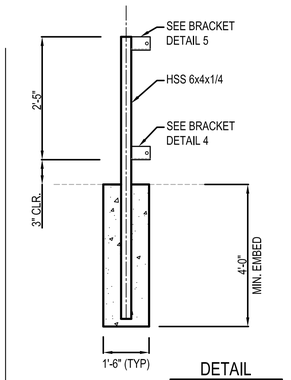
1. WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION AND SUPPLEMENTAL SPECIFICATIONS, 2007 EDITION.
2. CHAINLINK SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M181, WITH A CLASS C COATING OR BETTER. THE WIRE SHALL BE GALVANIZED, 9 GAUGE, WITH A 2" MESH. SELVAGE ON TOP AND BOTTOM TO BE KNUCKLE/KNUCKLE. THE CHAINLINK SHALL BE TACK WELDED AT 3 PLACES PER POST AND 2 PLACES PER RAIL.
3. ALL RAILS, PIPES, PLATES AND TUBING TO BE COLOR COATED. COLOR COATING SHALL BE DUNN-EDWARDS SYN-LUSTRO RUST PREVENTION ALKYD SEMI-GLOSS ENAMEL 9V SERIES OR PITTSBURG PAINT AND GLASS PITTHANE ULTRA URETHANE ENAMEL COATINGS OR APPROVED EQUAL. PRIOR TO COLOR COATING, PRIME WITH 2 COATS OF PRIMER BY THE RESPECTIVE MANUFACTURER. COLOR OF FINAL COATING TO BE SELECTED BY THE OWNER.
4. GALVANIZED TENSION BARS AND CLAMPS SHALL BE INSTALLED ON ALL ENDS AND AT ALL CORNERS AND ANGLE POINTS WHERE CHAINLINK IS REQUIRED.
5. NEW MATERIAL SHALL BE USED THROUGHOUT.
6. ALL ANCHOR BOLTS SHALL BE 5/8" DIAMETER EXPANSION ANCHOR WITH A MINIMUM OF 4" EMBEDMENT. PROVIDE HILTI KWIK BOLT II EXPANSION ANCHOR (KB II) OR ENGINEER APPROVED EQUAL. PROVIDE FLAT WASHERS BETWEEN ALL NUTS AND BASE PLATES.
7. BOLTS SHALL CONFORM TO ASTM A325, WASHERS SHALL BE INSTALLED UNDER NUTS OF FASTENERS.
8. BASE PLATES SHALL CONFORM TO ASTM A36. TUBE STEEL SHALL CONFORM TO ASTM A500 GRADE B.
9. ALL WELDING OR GAS CUTTING SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS OF THE AMERICAN WELDING SOCIETY D1.1-2000. ALL WELDING SHALL USE E70XX ELECTRODES.
10. PROVIDE EXPANDING POLYSTYRENE FOAM PLUG (2" MIN.) AT THE BASE OF ALL POSTS ON THE WALL MOUNTED PIPE RAIL.



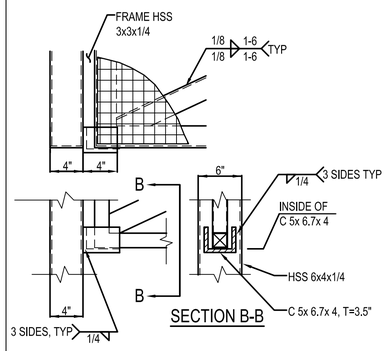
1 ELEVATION / SECTION @ DEBRIS FENCE
SCALE: NONE



2 DETAIL- DEBRIS FENCE PANEL
SCALE: NONE

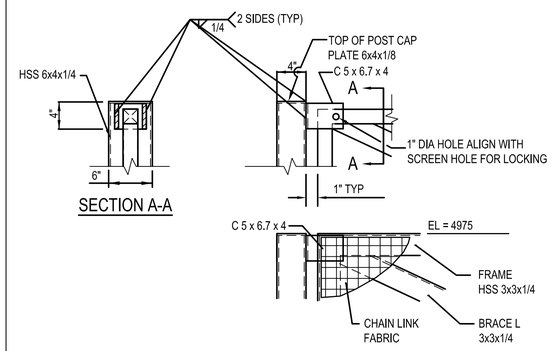


DETAIL
3 POST TYPE 'A'
SCALE: NONE



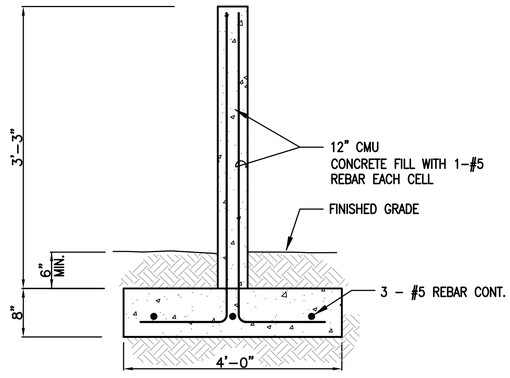
SECTION B-B

4 DETAIL
SCALE: NONE



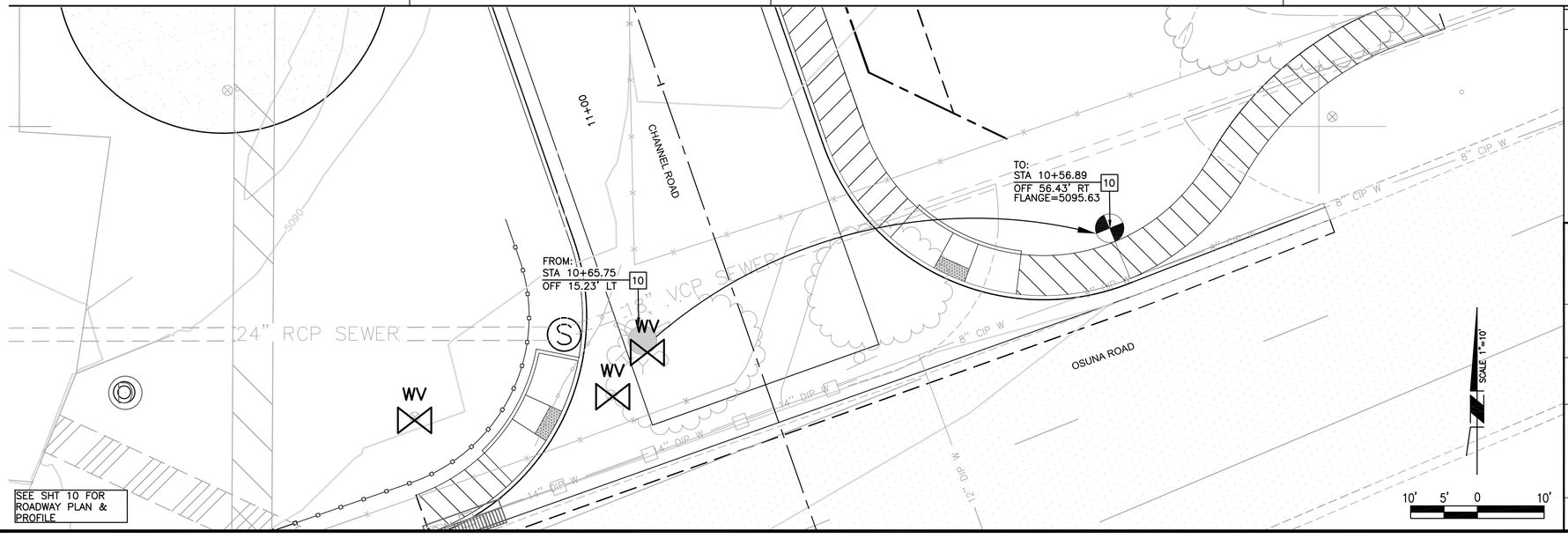
SECTION A-A

5 DETAIL
SCALE: NONE



6 WALL SECTION
SCALE: NONE

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM
260-1990



REMOVAL/RELOCATE

10 RELOCATE EXISTING FIRE HYDRANT FROM STA 10+64.75, 15.23' LT TO STA 10+56.89, 56.43' RT. EXISTING FIRE HYDRANT STUB TO BE CAPPED AND TO REMAIN IN PLACE. RELOCATED FIRE HYDRANT TO BE INSTALLED WITH 6" X 8" TAPPING SLEEVE AND PER COA DWG 2340 & 2347 MODIFIED TO LOCATE VALVE BEHIND SIDEWALK.

NOTE:
THE FIRE HYDRANT RELOCATION DETAILED HEREIN SHALL BE PAID FOR BY LUMP SUM AND SHALL BE COMPENSATION FOR THE RELOCATION COMPLETE AND IN PLACE. INCLUDED IN THIS WORK (BUT NOT LIMITED TO) IS REMOVAL OF THE EXISTING FIRE HYDRANT, CAPPING OF THE EXISTING STUB, CONNECTION TO THE EXISTING WATERLINE MAIN VIA A TAPPING SLEEVE, PLACEMENT OF A NEW COMPLETE FIRE HYDRANT STUB, AND FINISHING. ANY TRENCHING AND/OR PAVEMENT IMPROVEMENTS SHALL BE INCIDENTAL TO THE RELOCATION.

T·Y· LIN INTERNATIONAL
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Albuquerque, NM 87102

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE:
CHANNEL ROAD - PHASE I
DEBRIS FENCE DETAILS AND FIRE HYDRANT RELOCATION DETAILS

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
6920.91	E16, D16, D17	8	66

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR DATE
WORK STAKED BY DATE
FIELD VERIFICATION BY DATE
ACCEPTANCE BY DATE
DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION

RECORDED BY DATE
NO.

ENGINEER'S SEAL
ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER
07/30/2012

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY: R.STRICKLAND	DATE: 05/25/2012
		DRAWN BY: D.RAY, J.SCHENKMAN	DATE: 05/25/2012
		CHECKED BY: E.FROBERG	DATE: 05/25/2012

ESTIMATED QUANTITIES

ITEM ID NO.	ITEM DESCRIPTION	UNIT	TOTAL	10	11	12	13	14	15	18	19	20	21	22	23	24	25	59	66
201.020	TREES, 12" TO 30" CIRCUMFERENCE, REMOVE & DISPOSE, COMPL.	EA	2	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
201.07X	DEBRIS FENCE, COMPL. PER DETAILS ON PLANS	EA	2	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–
202.011	EXCAVATE & DISPOSE UNSUITABLE MATERIAL, COMPL.	CY	7099	–	1375	1986	2565	1173	–	–	–	–	–	–	–	–	–	–	–
204.010	FILL, CONSTRUCTION, INCL. EXCAVATION, PLACEMENT & COMPACTION OF UNCLASSIFIED MATERIAL, OVER 2 FT. DEEP, CIP.	CY	8728	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
205.010	BORROW, HAULING & COMPACTION OF SUITABLE FILL MATERIAL, 24" COMPL	CY	9088	–	2062	1032	3918	2076	–	–	–	–	–	–	–	–	–	–	–
301.020	SUBGRADE PREP. 12" AT 95% COMPACTION, CIP	SY	33762	6093	6955	6990	6734	3209	3781	–	–	–	–	–	–	–	–	–	–
302.010	AGGREGATE BASE COURSE, CRUSHED, 6" AT 95% COMPACTION, CIP. SD 2408	SY	5407	1160	1333	1340	1103	471	–	–	–	–	–	–	–	–	–	–	–
302.01X	AGGREGATE BASE COURSE, CRUSHED, 12" AT 95% COMPACTION, CIP. SD 2408	SY	19754	3104	3666	3667	3918	2076	3323	–	–	–	–	–	–	–	–	–	–
336.02X	ARTERIAL ASPHALT CONCRETE, SP IV, 1 3/4" THICK, MACHINE LAYDOWN, CIP.	SY	5810	–	–	–	–	–	5810	–	–	–	–	–	–	–	–	–	–
336.023	ARTERIAL ASPHALT CONCRETE, SP III, 2½" THICK, MACHINE LAYDOWN, CIP.	SY	11332	–	–	600	6902	3830	–	–	–	–	–	–	–	–	–	–	–
336.024	ARTERIAL ASPHALT CONCRETE, SP III, 3" THICK, MACHINE LAYDOWN, CIP.	SY	17444	5244	6400	5800	–	–	–	–	–	–	–	–	–	–	–	–	–
336.120	TACK COAT, CATIONIC EMULSIFIED ASPHALT, CIP.	SY	17293	2622	3200	3200	3451	1915	2905	–	–	–	–	–	–	–	–	–	–
340.010	SIDEWALK, 4" THICK, PORTLAND CEMENT CONCRETE, INCL. SUBGRADE COMPACTION, CIP. SD 2430	SY	2515	683	533	400	370	147	382	–	–	–	–	–	–	–	–	–	–
340.020	DRIVEPAD, 6" THICK, PORTLAND CEMENT CONCRETE, INCL. SUBGRADE COMPACTION, CIP. SD 2425	SY	48	–	–	–	–	–	48	–	–	–	–	–	–	–	–	–	–
340.025	WHEELCHAIR ACCESS RAMP, 4" PCC, STD. CURB., CIP. SD 2418 (INCL. DETECTABLE WARNINGS)	EA	6	2	–	–	–	2	2	–	–	–	–	–	–	–	–	–	–
340.030	VALLEY GUTTER & CURB, PORTLAND CEMENT CONCRETE, INCL. REINFORCEMENT AND SUBGRADE COMPACTION, CIP. SD 2420	SY	246	120	–	–	–	–	112	–	7	7	–	–	–	–	–	–	–
340.050	CURB & GUTTER, STANDARD, PORTLAND CEMENT CONCRETE, INCL. SUBGRADE PREPARATION, CIP. SD 2415A	LF	4195	695	775	775	800	122	1028	–	–	–	–	–	–	–	–	–	–
340.05X	CURB & GUTTER, DEPRESSED CURB, PORTLAND CEMENT CONCRETE, INCL. SUBGRADE PREPARATION, CIP. SD 2415A	LF	3048	565	650	650	800	347	36	–	–	–	–	–	–	–	–	–	–
340.06X	CURB & GUTTER, MOUNTABLE, PC CONCRETE, INCL. SUBGRADE PREP., CIP. SD 2415	LF	480	50	175	175	–	80	–	–	–	–	–	–	–	–	–	–	–
340.06X	MOUNTABLE CURB TRANSITIONS	EA	14	2	4	4	–	4	–	–	–	–	–	–	–	–	–	–	–
340.21X	24" SIDEWALK CULVERT, CIP	EA	2	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–
343.030	EXISTING PAVEMENT, ASPHALT CONCRETE, MORE THAN 4" THICK, SAWCUT, REMOVE & DISPOSE, COMPL.	SY	984	32	–	–	–	–	952	–	–	–	–	–	–	–	–	–	–
343.040	EXISTING PAVEMENT, PC CONCRETE, UP TO 4" THICK, SAWCUT, REMOVE & DISPOSE, COMPL.	SY	425	127	298	–	–	–	–	–	–	–	–	–	–	–	–	–	–
343.04X	REMOVE CONCRETE DRAINAGE APRON, COMPL.	SY	1461	8	–	–	–	353	1108	–	–	–	–	–	–	–	–	–	–
343.080	EXISTING CURB & GUTTER OR VALLEY GUTTER, PC CONCRETE, REMOVE & DISPOSE, COMPL.	LF	497	143	–	–	–	–	354	–	–	–	–	–	–	–	–	–	–
343.085	EXISTING SIDEWALK, 4" PC CONCRETE, REMOVE & DISPOSE, COMPL.	SY	108	108	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
401.06X	EXISTING CONCRETE JERSEY BARRIER, REMOVE & DISPOSE, COMPL.	LF	30	30	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
410.030	EXISTING CHAIN LINK FENCE, REMOVE & REINSTALL, COMPL.	SF	9006	2670	–	–	–	810	5526	–	–	–	–	–	–	–	–	–	–
425.10X	FIBER OPTIC VAULT, REMOVE AND RELOCATE, CIP.	EA	1	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–
450.101	SIGN, POST & BASE POST, REMOVE & SALVAGE, COMPL.	EA	4	1	–	–	–	–	3	–	–	–	–	–	–	–	–	–	–
540.02X	RETAINING WALL PER NMDOT DETAIL 511–82	SF	3594	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3594	–
540.02X	7.5' (HT) X 10' (L) RETAINING WALL PER NMDOT STD DWG 511–82 WITH PIPE RAIL	LF	20	–	–	–	–	–	–	–	–	–	–	–	–	20	–	–	–
540.02X	10' X 3' RCBC PER NMDOT 511.60	LF	90	–	–	–	–	–	–	–	–	–	–	–	–	90	–	–	–
543.10X	PIPE RAILING, CIP.	LF	81	–	–	–	–	–	–	–	–	–	–	–	–	31	50	–	–
570.00X	REMOVE CHANNEL LINING AND CONSTRUCT CHANNEL PENETRATIONS, COMPL.	SF	3791	–	–	–	–	–	–	–	800	1189	–	1802	–	–	–	–	–
602.01X	CONCRETE SPILLWAY, CIP. PER DETAILS ON PLANS	EA	2	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–
701.01X	TRENCHING, BACKFILLING, & COMPACTION, FOR 4" TO 15" STORM DRAIN, 8' OR LESS IN DEPTH, PIPE NOT INCL., COMPL.	LF	157	–	–	–	–	–	157	–	–	–	–	–	–	–	–	–	–
701.11X	TRENCHING, BACKFILLING, & COMPACTION, FOR 18" TO 36" STORM DRAIN, OVER 8' TO 12', PIPE NOT INCL., COMPL.	LF	1338	–	–	–	–	–	–	–	–	–	191	184	822	–	141	–	–
701.16X	TRENCHING, BACKFILLING, & COMPACTION, FOR 42" TO 60" STORM DRAIN, OVER 8' TO 12', PIPE NOT INCL., COMPL.	LF	260	–	–	–	–	–	–	–	–	–	–	–	–	260	–	–	–
801.005	12" WATERLINE PIPE EXCL. FITTINGS, (STD. SPEC. SEC. 801), INCL, TRENCH & COMPACTED BACKFILL TO 6' DEPTH, CIP.	LF	185	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	185
801.05X	EXISTING WATERLINE, 12", WITH FITTINGS, REMOVE & DISPOSE, INCL. TRENCH & COMPACTED BACKFILL TO 6' DEPTH, CIP.	LF	201	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	201
801.04X	VERTICAL REALIGNMENT OF EXISTING WATERLINE PER ABCWUA DWG 2381 & DETAIL ON SHEET 66	EA	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
801.06X	45° MECHANICAL JOINT DUCTILE IRON FITTING (12"), CIP.	EA	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4
801.111	VALVE BOX, ADJUST TO GRADE, CIP. SD 2460	EA	8	3	–	2	–	–	3	–	–	–	–	–	–	–	–	–	–
801.118	FIRE HYDRANT, EXISTING, REMOVE & RELAY, COMPL.	EA	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
801.131	CONCRETE CAP OR ENCASEMENT, PC CONCRETE, CIP. SD 2320 & DETAILS ON PLANS	CY	8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	8
901.030	8" PVC PIPE, FURNISH & PLACE IN OPEN TRENCH, CIP	LF	146	–	–	–	–	–	98	–	–	–	–	–	24	–	24	–	–
901.050	12" SEWER PIPE,(STD. SPEC. SEC. 901), FURNISH & PLACE IN OPEN TRENCH, CIP.	LF	295	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	295
901.7XX	SEWERLINE, ANY SIZE, REMOVE & DISPOSE, INCL. TRENCHING, BACKFILL & COMPACTION, ANY SEWER, 8' OR LESS. SD 2125	LF	436	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	436
905.03X	4" SEWER SERVICE PIPE, (STD. SPEC. SEC. 901), FURNISH & PLACE IN OPEN TRENCH, CIP.	LF	59	–	–	–	–	–	59	–	–	–	–	–	–	–	–	–	–
910.005	18" REINFORCED CONCRETE PIPE, CLASS III, FURNISH & PLACE IN OPEN TRENCH, CIP	LF	30	–	–	–	–	–	–	–	–	–	–	–	30	–	–	–	–
910.009	24" REINFORCED CONCRETE PIPE, CLASS III, FURNISH & PLACE IN OPEN TRENCH, CIP	LF	162	–	–	–	–	–	–	–	–	–	4	7	125	–	26	–	–
910.017	36" REINFORCED CONCRETE PIPE, CLASS III, FURNISH & PLACE IN OPEN TRENCH, CIP	LF	534	–	–	–	–	–	–	–	–	–	187	177	–	170	–	–	–
910.021	48" REINFORCED CONCRETE PIPE, CLASS III, FURNISH & PLACE IN OPEN TRENCH, CIP	LF	219	–	–	–	–	–	–	–	–	–	–	–	111	–	108	–	–
910.025	60" REINFORCED CONCRETE PIPE, CLASS III, FURNISH & PLACE IN OPEN TRENCH, CIP	LF	514	–	–	–	–	–	–	–	–	–	–	–	514	–	–	–	–
910.06X	60"x24" RCP TEE, CLASS III	EA	1	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–
915.010	CATCH BASIN, TYPE "A", SINGLE GRATE, CIP, SD 2201	EA	5	–	–	–	–	–	–	–	–	–	1	1	3	–	–	–	–
915.01X	9' TYPE 'A' INLET WING WITH 6' CURB OPENING PER COA 2201 & 2202, CIP.	EA	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–
915.01X	REMOVE EXISTING CURB OPENING AND 3' WING, COMPL.	EA	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–
915.110	INLET PER NMDOT 623.06	EA	2	–	–	–	–	–	–	–	–	–	1	–	–	–	1	–	–
915.11X	INLET APRON PER DETAILS ON PLANS	EA	2	–	–	–	–	–	–	–	–	–	1	–	–	–	1	–	–
915.2XX	TRENCH DRAIN AND CURB INLETS PER DETAILS ON PLANS	EA	2	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–
920.010	MANHOLE, 4' DIA., TYPE "C", LESS THAN 6' DEEP, CIP. SD 2101	EA	2	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–
920.130	MANHOLE, 6' DIA., TYPE "C" OR "E", LESS THAN 6' DEEP, CIP. SD2101	EA	1	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–
920.140	MANHOLE, 6' DIA., TYPE "C" OR "E", 6' TO 10' DEEP, CIP, SD 2101	EA	3	–	–	–	–	–	–	–	–	–	–	–	1	–	2	–	–
920.210	MANHOLE, 8' DIA. TYPE "C" OR "E", 6' TO 10' DEEP, CIP. SD2101	EA	3	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–	–
920.400	EXISTING MANHOLE FRAME & COVER, ADJUST TO GRADE WITH METAL RINGS, 2" OR LESS, CIP. SD 2111	EA	2	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
920.410	EXISTING MANHOLE FRAME & COVER, ADJUST TO GRADE WITH MASONRY, OVER 2", CIP. SD 2111	EA	5	–	4	–	–	1	–	–	–	–	–	–	–	–	–	–	–
920.4XX	ADJUST SANITARY SEWER MANHOLE WITH WATERTIGHT LID	EA	3	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
920.570	EXISTING MANHOLE, REMOVE & DISPOSE, ALL DEPTHS, 4' TO 6' DIA., CIP.	EA	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
950.15X	MANHOLE, 6' DIA. TYPE "C" OR "E", 10' TO 14' DEEP, CIP. SD2101 (STORM WATER QUALITY MANHOLE)	EA	2	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–
1011.010	SEEDING, CLASS "A", NATIVE WITH STRAW MULCH, CIP.	AC	3	–	–	–	–	–	–	0.55	0.61	0.61	0.42	0.08	–	–	–	–	–

NOTE:

SEE SHEET 28 FOR SPILLWAY QUANTITIES.

SEE SHEET 33 FOR GUARDRAIL QUANTITIES.

SEE SHEET 34 FOR SIGNING AND STRIPING QUANTITIES.

SEE SHEET 42 FOR STRUCTURAL QUANTITIES.

SEE SHEET 61 FOR INTERCONNECT QUANTITIES.

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
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BENCH MARKS

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FIELD DRAFTING BY DATE
DRAWINGS CORRECTED BY DATE
RECORDED BY DATE
NO.

ENGINEER'S SEAL

ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER

07/30/2012

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY: R.STRICKLAND DATE: 05/25/2012	
		DRAWN BY: D.RAY, J.SCHENKMAN DATE: 05/25/2012	
		CHECKED BY: E.FROBERG DATE: 05/25/2012	

Two working days before you dig, CALL NEW MEXICO ONE CALL SYSTEM
260-1990

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Albuquerque, NM 87102

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

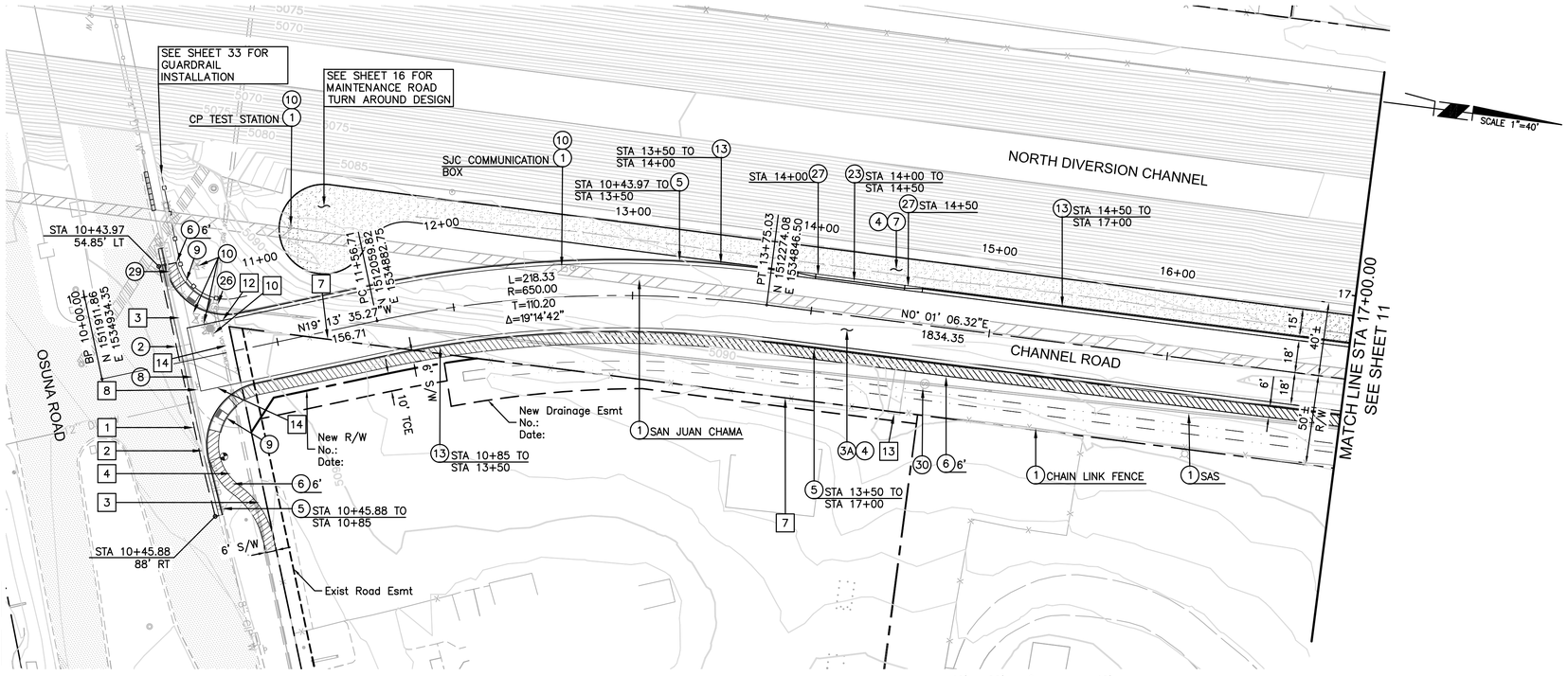
TITLE: CHANNEL ROAD - PHASE I
QUANTITY SUMMARY SHEET

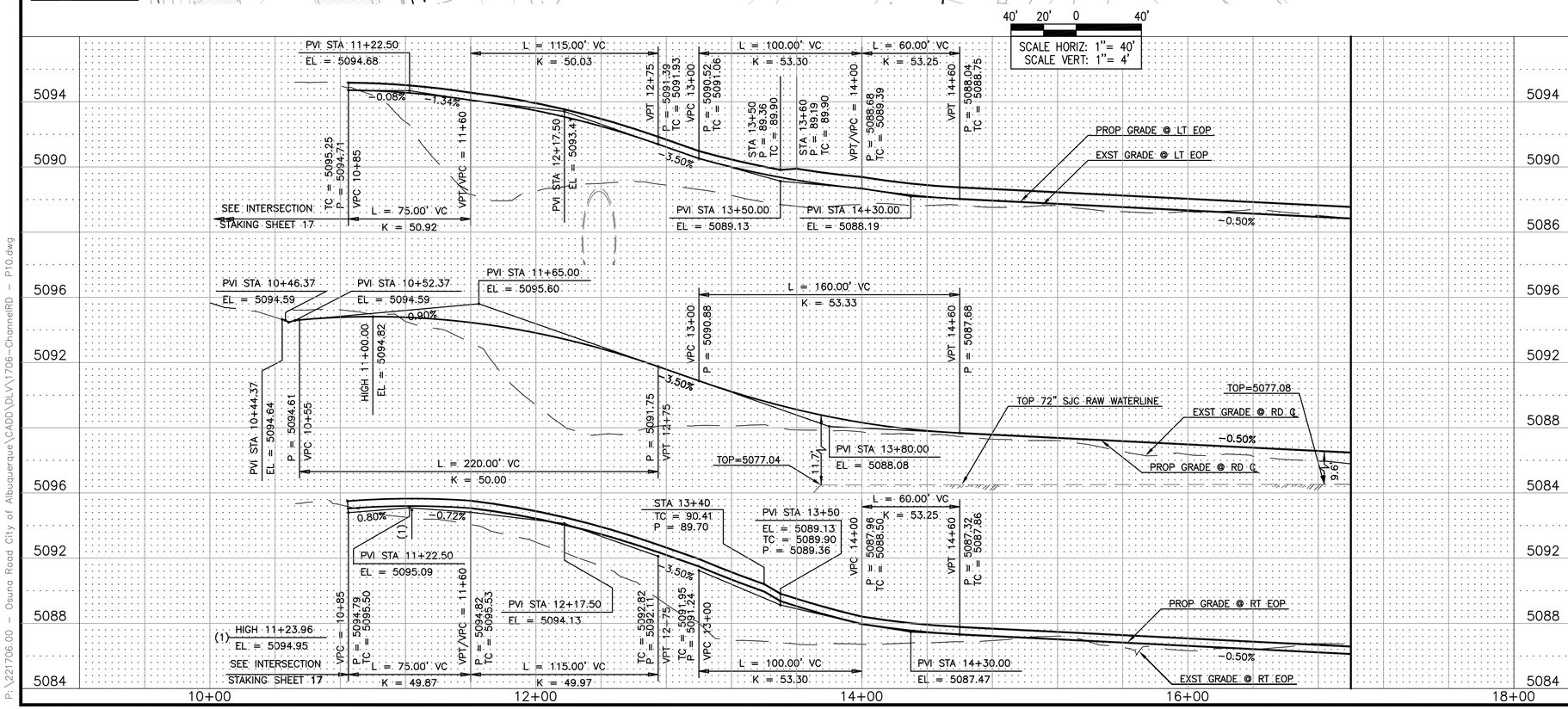
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 9 Of 66

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REMOVAL/RELOCATE

1	REMOVE ASPHALT PAVEMENT	32 SY
2	REMOVE EXISTING CURB	143 LF
3	REMOVE EXISTING S/W	108 SY
4	REMOVE EXISTING CONCRETE DRIVEWAY	127 SY
7	REMOVE & RE-INSTALL EXISTING FENCE	2670 SF
8	REMOVE EXISTING SIGN	1 EA
10	RELOCATE EXISTING FIRE HYDRANT PER DETAIL ON SHEET 8	1 EA
12	REMOVE CONCRETE JERSEY BARRIER	30 LF
13	REMOVE CONCRETE RUNDOWN	8 SY
14	REMOVE EXISTING TREE	2 EA

CONSTRUCTION NOTES

1	PROTECT IN PLACE	
2	SAWCUT AND MATCH EXISTING	143 LF
3A	CONSTRUCT NEW PVMT PER TYP SECTIONS 3" AC (SUPER PAVE III) TACK COAT 3" AC (SUPER PAVE III) 12" ABC (95% COMPACTION)	 2,622 SY 2,622 SY 2,622 SY 3,104 SY
4	SUBGRADE PREPARATION	6,093 SY
5	CONSTRUCT NEW STANDARD CURB & GUTTER PER COA DWG 2415A	695 LF
6	CONSTRUCT SIDEWALK PER COA DWG 2430	683 SY
7	CONSTRUCT MAINTENANCE ROAD PER TYPICAL SECTIONS, 6" ABC (95% COMPACTION)	1,160 SY
8	CONSTRUCT 6' NEW CONCRETE VALLEY GUTTER PER COA DWG 2420	120 SY
9	CONSTRUCT CURB ACCESS RAMP WITH DETECTABLE WARNINGS PER COA DWG 2440, 2441, CASE II	2 EA
10	ADJUST VALVE BOX PER COA DWG 2460	3 EA
13	CONSTRUCT NEW DEPRESSED CURB & GUTTER PER COA DWG 2415A	565 LF
23	CONSTRUCT NEW MOUNTABLE CURB PER COA DWG 2415	50 LF
26	ADJUST MANHOLE PER COA DWG 2460	1 EA
27	CONSTRUCT MOUNTABLE TRANSITION PER COA DWG 2418	2 EA
29	MODIFY EXISTING INLET PER DETAIL ON SHT 25	1 EA
30	ADJUST MANHOLE PER COA DWG 2460 WITH WATERTIGHT MANHOLE LID	1 EA

SURVEY INFORMATION — FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_F16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. & CHANNEL ROAD
THE NORTH DIVISION CHANNEL EPOXIED TO TOP OF CONCRETE BASE OF STREET LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR — DATE
WORK STAKED BY — DATE
CONSTRUCTION ACCEPTANCE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION

RECORDED BY — DATE
NO.

ENGINEER'S SEAL

ERIC J. FROBERG NEW MEXICO 18855 PROFESSIONAL ENGINEER
07/30/2012

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGNED BY: R. STRICKLAND	DATE: 05/25/2012
		DRAWN BY: D. RAY, J.SCHENKMAN	DATE: 05/25/2012
		CHECKED BY: E. FROBERG	DATE: 05/25/2012

Two working days before you dig, CALL NEW MEXICO ONE CALL SYSTEM 260-1990

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ENGINEERING DIVISION

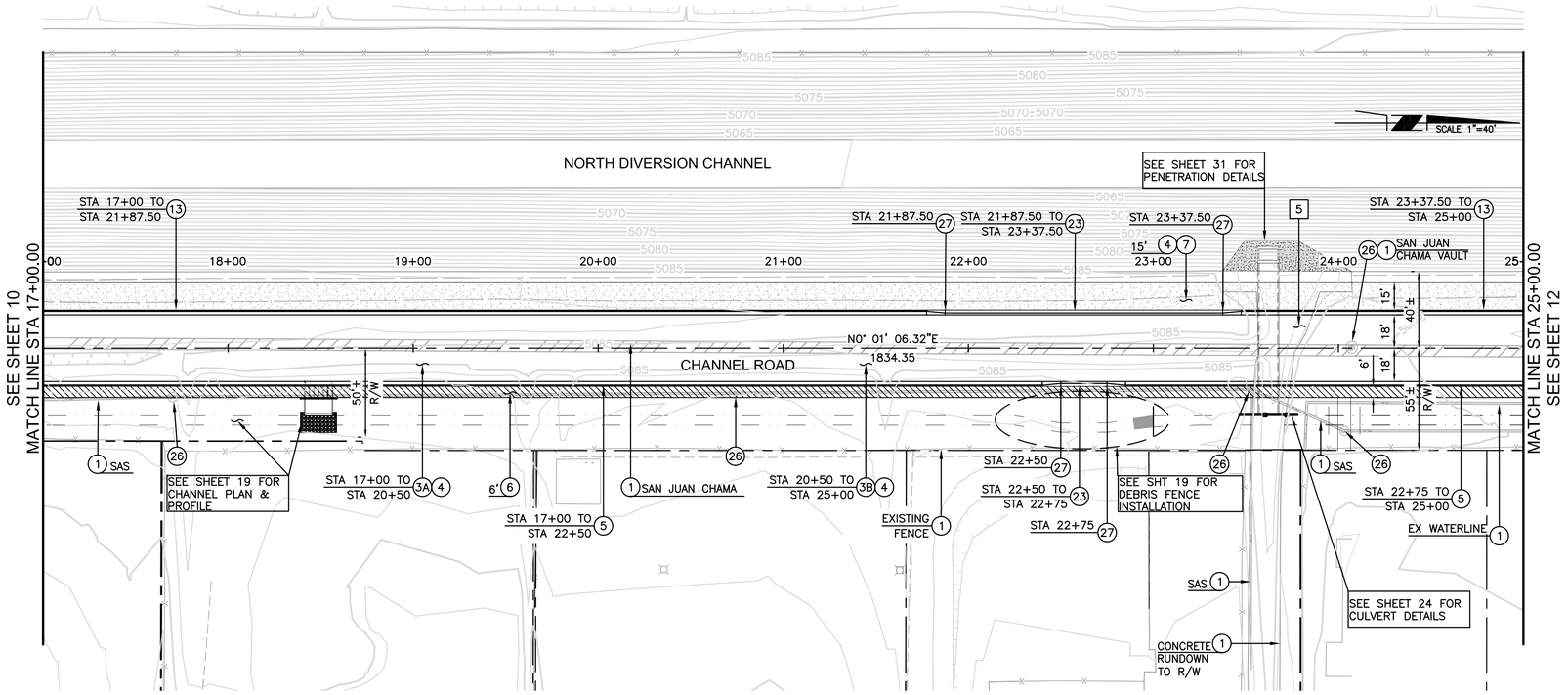
TITLE: CHANNEL ROAD - PHASE I
ROADWAY PLAN & PROFILE
STA 10+00 TO STA 17+00

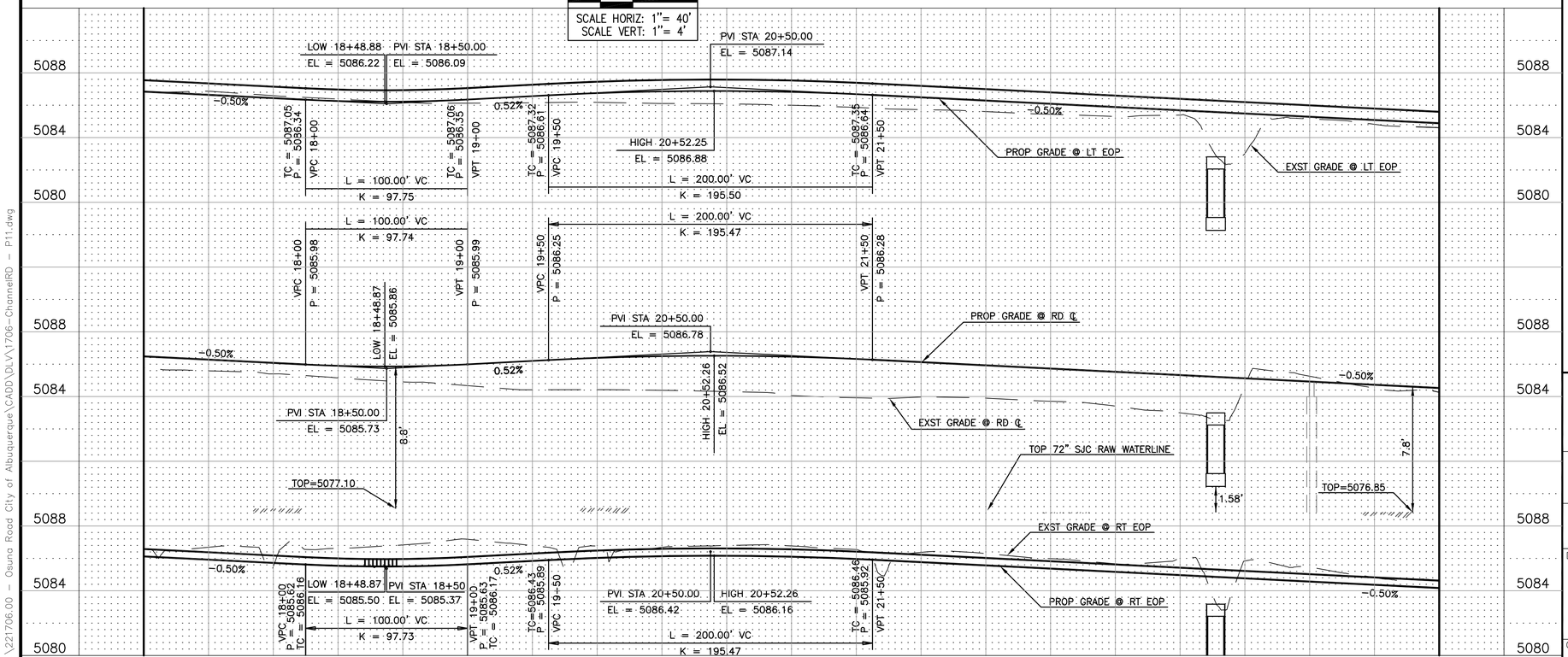
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 10 | Of 66

P:\221706.00 - Osuna Road City of Albuquerque\CADD\DLV\1706-ChannelRD - P10.dwg

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REMOVAL/RELOCATE

5	REMOVE CONCRETE DRAINAGE APRON	298 SY

CONSTRUCTION NOTES

1	PROTECT IN PLACE	
3A	CONSTRUCT NEW PVMT PER TYP SECTIONS 3" AC (SUPER PAVE III) TACK COAT 3" AC (SUPER PAVE III) 12" ABC (95% COMPACTION)	1,400 SY 1,400 SY 1,400 SY 1,604 SY
3B	CONSTRUCT NEW PVMT PER TYP SECTIONS 3" AC (SUPER PAVE III) TACK COAT 3" AC (SUPER PAVE III) 12" ABC (95% COMPACTION) 24" BORROW MATERIAL	1,800 SY 1,800 SY 1,800 SY 2,062 SY 2,062 SY
4	SUBGRADE PREPARATION	6,955 SY
5	CONSTRUCT NEW STANDARD CURB & GUTTER PER COA DWG 2415A	775 LF
6	CONSTRUCT SIDEWALK PER COA DWG 2430	533 SY
7	CONSTRUCT MAINTENANCE ROAD PER TYPICAL SECTIONS, 6" ABC (95% COMPACTION)	1,333 SY
13	CONSTRUCT NEW DEPRESSED CURB & GUTTER PER COA DWG 2415A	650 LF
23	CONSTRUCT NEW MOUNTABLE CURB PER COA DWG 2415	175 LF
26	ADJUST MANHOLE PER COA DWG 2460	5 EA
27	CONSTRUCT MOUNTABLE TRANSITION PER COA DWG 2418	4 EA

AS BUILT INFORMATION

CONTRACTOR — DATE
WORK STAKED BY — DATE
SURVEYED BY
ACCEPTANCE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION

RECORDED BY — DATE
NO.

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

ENGINEER'S SEAL

ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER
07/30/2012

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
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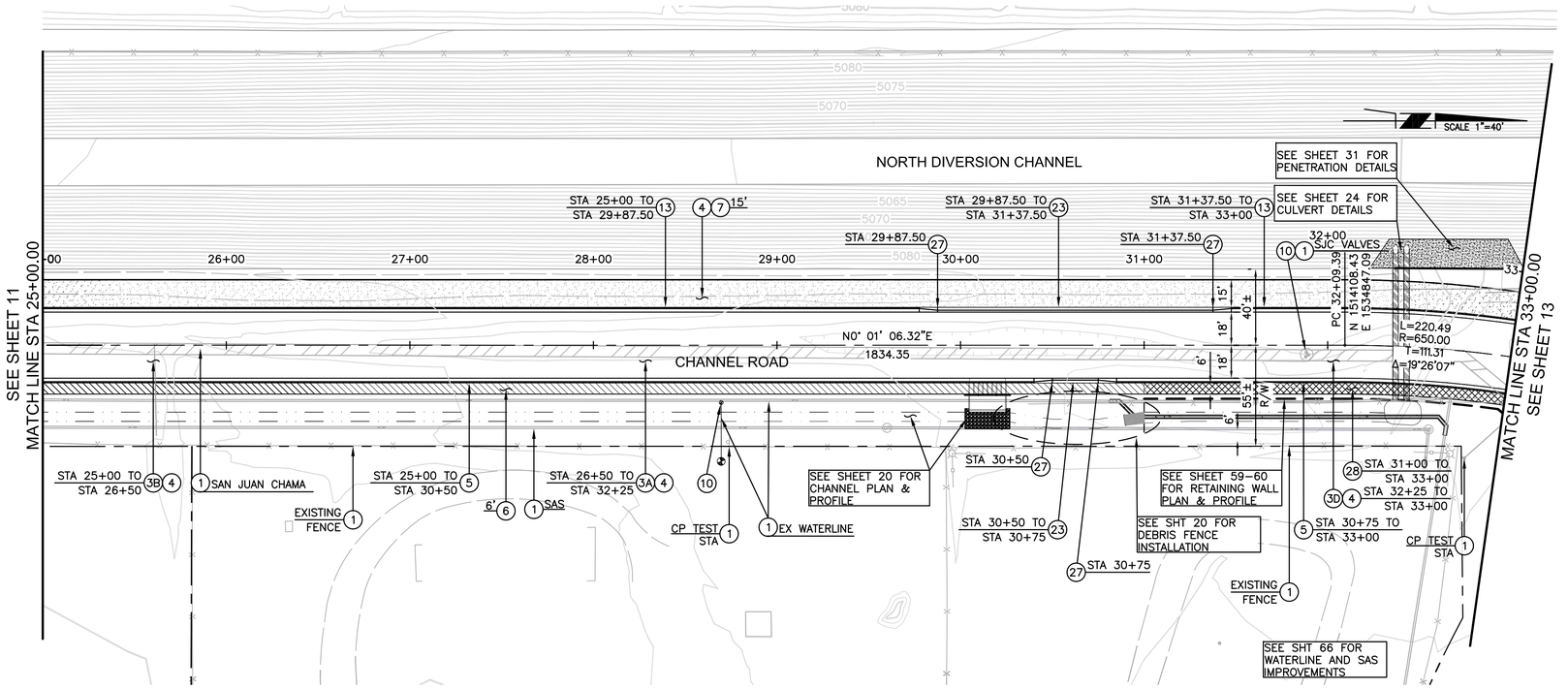
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE:
CHANNEL ROAD - PHASE I
ROADWAY PLAN & PROFILE
STA 17+00 TO STA 25+00

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
6920.91	E16, D16, D17	11	66

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CONSTRUCTION NOTES

(1)	PROTECT IN PLACE	
(3A)	CONSTRUCT NEW PVMT PER TYP SECTIONS 3" AC (SUPER PAVE III) TACK COAT 3" AC (SUPER PAVE III) 12" ABC (95% COMPACTION)	 2,300 SY 2,300 SY 2,300 SY 2,635 SY
(3B)	CONSTRUCT NEW PVMT PER TYP SECTIONS 3" AC (SUPER PAVE III) TACK COAT 3" AC (SUPER PAVE III) 12" ABC (95% COMPACTION) 24" BORROW MATERIAL	 600 SY 600 SY 600 SY 688 SY 688 SY
(3D)	CONSTRUCT NEW PVMT PER TYP SECTIONS 2.5" AC (SUPER PAVE III) TACK COAT 2.5" AC (SUPER PAVE III) 12" ABC (95% COMPACTION) 24" BORROW MATERIAL	 300 SY 300 SY 300 SY 344 SY 344 SY
(4)	SUBGRADE PREPARATION	6,990 SY
(5)	CONSTRUCT NEW STANDARD CURB & GUTTER PER COA DWG 2415A	775 LF
(6)	CONSTRUCT SIDEWALK PER COA DWG 2430	400 SY
(7)	CONSTRUCT MAINTENANCE ROAD PER TYPICAL SECTIONS, 6" ABC (95% COMPACTION)	1,340 SY
(10)	ADJUST VALVE BOX PER COA DWG 2460	2 EA
(13)	CONSTRUCT NEW DEPRESSED CURB & GUTTER PER COA DWG 2415A	650 LF
(23)	CONSTRUCT NEW MOUNTABLE CURB PER COA DWG 2415	175 LF
(27)	CONSTRUCT MOUNTABLE TRANSITION PER COA DWG 2418	4 EA
(28)	CONSTRUCT COMBINATION 6' SIDEWALK/ MOMENT SLAB AND 42" BARRIER PER DETAILS ON SHEET 56	1200 SF

AS BUILT INFORMATION

CONTRACTOR — DATE
WORK STAKED BY — DATE
STAKING CHECKED BY — DATE
ACCEPTANCE BY — DATE
FIELD DRAWINGS BY — DATE
CORRECTED BY — DATE

MICRO-FILM INFORMATION

RECORDED BY — DATE
NO.

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_F16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

ENGINEER'S SEAL

ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER

07/30/2012

REVISIONS

NO.	DATE	REMARKS	BY
		DESIGN	DATE: 05/25/2012
		DESIGNED BY: R. STRICKLAND	
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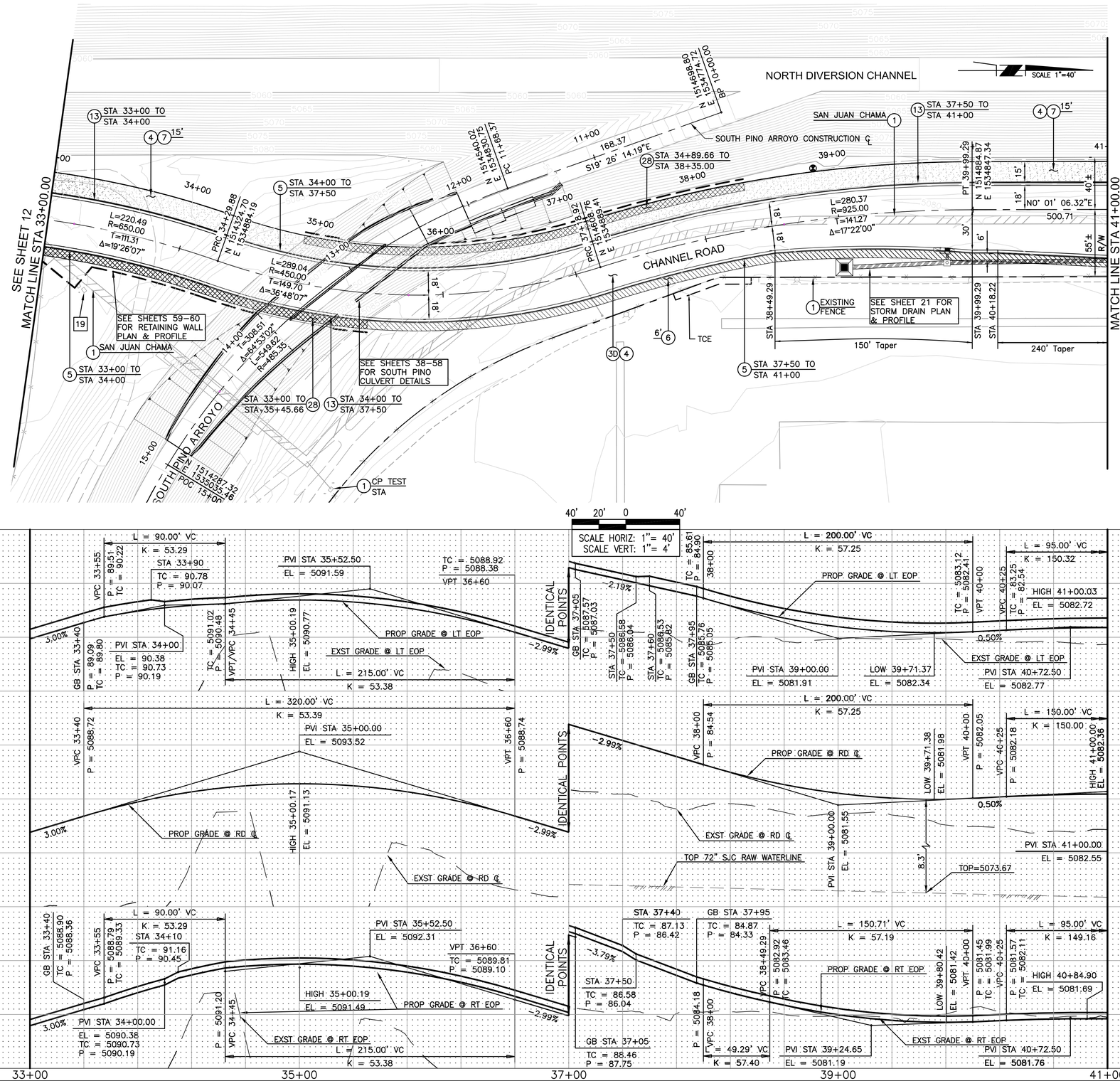
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CHANNEL ROAD - PHASE I
ROADWAY PLAN & PROFILE
STA 25+00 TO STA 33+00

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 12 | Of 66

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REMOVAL/RELOCATE

19	RELOCATE FIBER OPTIC ACCESS VAULT	1 EA

CONSTRUCTION NOTES

1	PROTECT IN PLACE	
3D	CONSTRUCT NEW PVMT PER TYP SECTIONS 2.5" AC (SUPER PAVE III) TACK COAT 2.5" AC (SUPER PAVE III) 12" ABC (95% COMPACTION) 24" BORROW MATERIAL	 3,451 SY 3,451 SY 3,451 SY 3,918 SY 3,918 SY
4	SUBGRADE PREPARATION	6,734 SY
5	CONSTRUCT NEW STANDARD CURB & GUTTER PER COA DWG 2415A	800 LF
6	CONSTRUCT SIDEWALK PER COA DWG 2430	370 SY
7	CONSTRUCT MAINTENANCE ROAD PER TYPICAL SECTIONS, 6" ABC (95% COMPACTION)	1103 SY
13	CONSTRUCT NEW DEPRESSED CURB & GUTTER PER COA DWG 2415A	800 LF
28	CONSTRUCT COMBINATION 6' SIDEWALK/ MOMENT SLAB AND 42" BARRIER PER DETAILS ON SHEET 56	3546 SF

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_F16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR DATE
WORK STAKED BY DATE
INSPECTED BY
ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION

RECORDED BY DATE
NO.

ENGINEER'S SEAL

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NEW MEXICO
18855
PROFESSIONAL ENGINEER
07/30/2012

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TITLE:

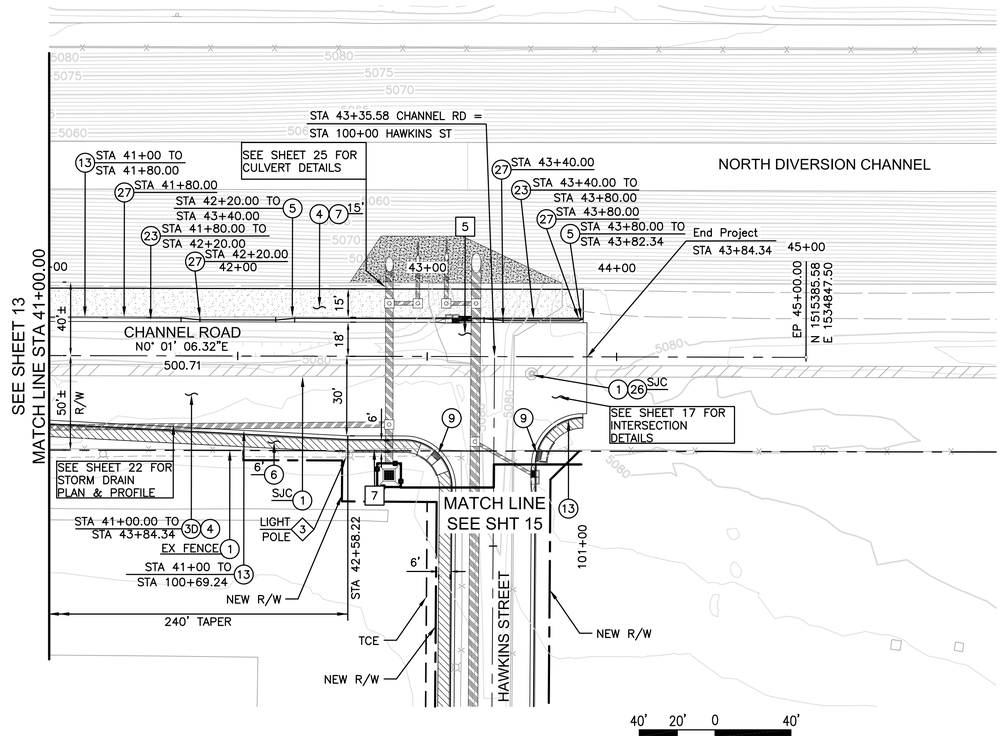
CHANNEL ROAD - PHASE I
ROADWAY PLAN & PROFILE
STA STA 33+00 TO 41+00

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 13 | Of 66

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REMOVAL/RELOCATE

5	REMOVE CONCRETE DRAINAGE APRON	353 SY
7	REMOVE & RE-INSTALL EXISTING FENCE	810 SF

REMOVAL/RELOCATE BY OTHERS

3	RELOCATE EXISTING LIGHT POLE (BY OTHERS)	

CONSTRUCTION NOTES

1	PROTECT IN PLACE	
3D	CONSTRUCT NEW PVMT PER TYP SECTIONS 2.5" AC (SUPER PAVE III) TACK COAT 2.5" AC (SUPER PAVE III) 12" ABC (95% COMPACTION) 24" BORROW MATERIAL	 1,915 SY 1,915 SY 1,915 SY 2,076 SY 2,076 SY
4	SUBGRADE PREPARATION	3,209 SY
5	CONSTRUCT NEW STANDARD CURB & GUTTER PER COA DWG 2415A	122 LF
6	CONSTRUCT SIDEWALK PER COA DWG 2430	147 SY
7	CONSTRUCT MAINTENANCE ROAD PER TYPICAL SECTIONS, 6" ABC (95% COMPACTION)	471 SY
9	CONSTRUCT CURB ACCESS RAMP WITH DETECTABLE WARNINGS PER COA DWG 2440, 2441, CASE II	2 EA
13	CONSTRUCT NEW DEPRESSED CURB & GUTTER PER COA DWG 2415A	347 LF
23	CONSTRUCT NEW MOUNTABLE CURB PER COA DWG 2415	80 LF
26	ADJUST MANHOLE PER COA DWG 2460	1 EA
27	CONSTRUCT MOUNTABLE TRANSITION PER COA DWG 2418	4 EA

SURVEY INFORMATION — FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS — AS BUILT INFORMATION

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 3/4" ALUMINUM DISK)
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SW QUADRANT OF OSUNA RD. NE. &
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TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

CONTRACTOR — DATE
WORK STAKED BY — DATE
WORK ACCEPTANCE BY — DATE
FIELD DRAWINGS BY — DATE
DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

ENGINEER'S SEAL

ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER

07/30/2012

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	DRAWN BY:	D. RAY, J.SCHENKMAN	05/25/2012
	CHECKED BY:	E. FROBERG	05/25/2012

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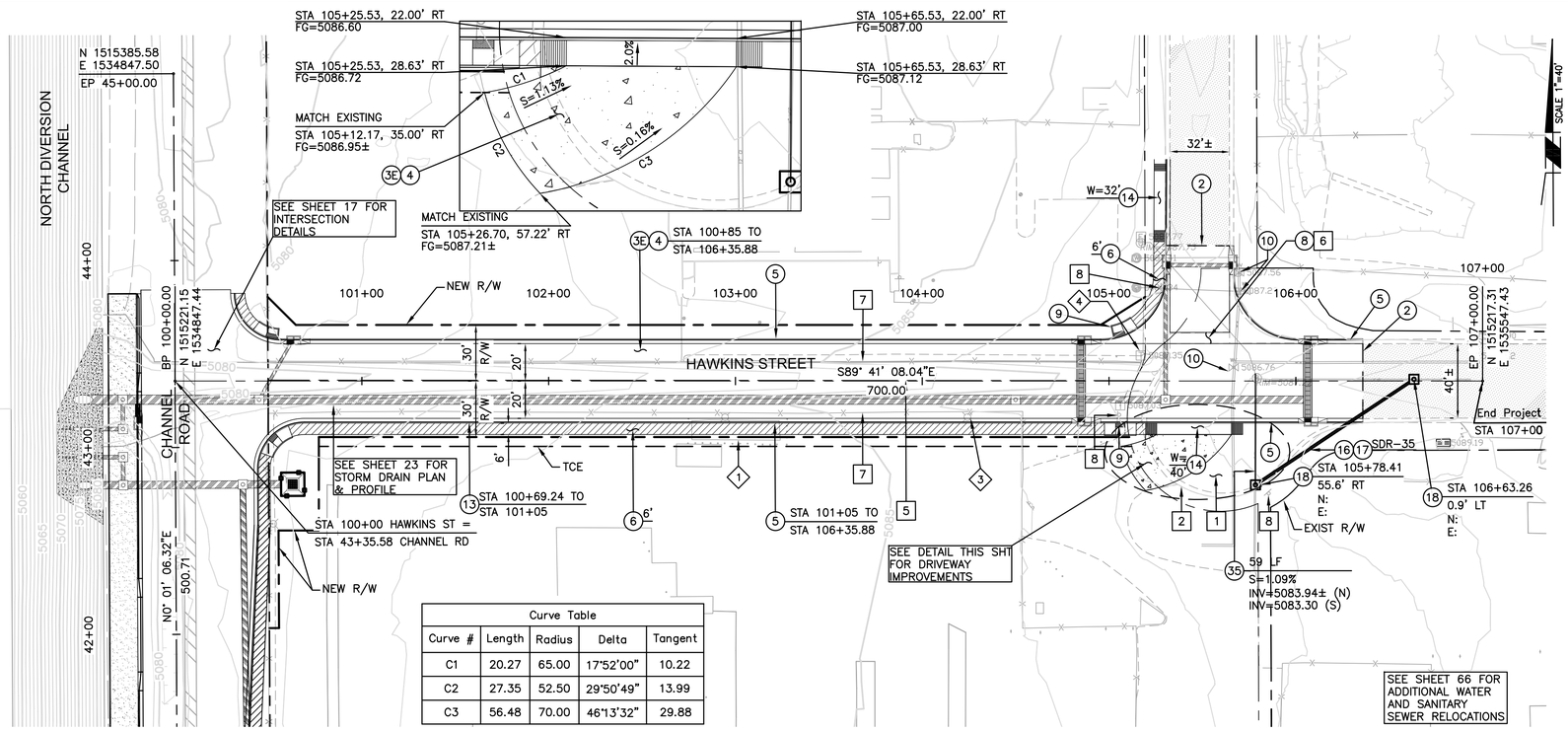
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD - PHASE I
ROADWAY PLAN & PROFILE
STA 41+00 TO STA 45+00

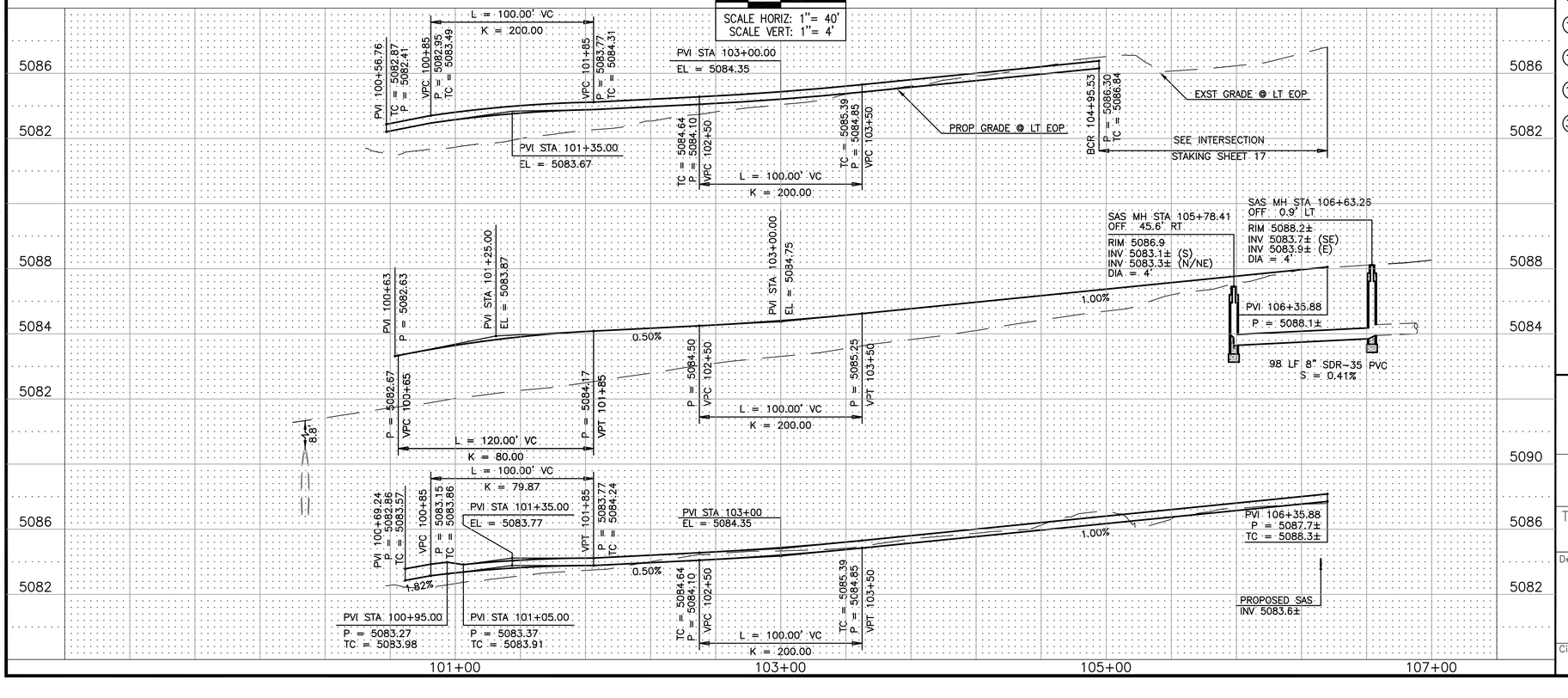
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 14 Of 66

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Curve Table				
Curve #	Length	Radius	Delta	Tangent
C1	20.27	65.00	17°52'00"	10.22
C2	27.35	52.50	29°50'49"	13.99
C3	56.48	70.00	46°13'32"	29.88



REMOVAL/RELOCATE

1	REMOVE ASPHALT PAVEMENT	952 SY
2	REMOVE EXISTING CURB	354 LF
5	REMOVE CONCRETE DRAINAGE APRON	1108 SY
6	REMOVE EXISTING CONCRETE VALLEY GUTTER	58 SY
7	REMOVE & RE-INSTALL EXISTING FENCE	5526 SF
8	REMOVE EXISTING SIGN	3 EA

REMOVAL/RELOCATE

1. REMOVE & RELOCATE FUEL TANKS (BY OTHERS)
3. RELOCATE EXISTING LIGHT POLE (BY OTHERS)
4. RELOCATE EXISTING TELEPHONE PEDESTRAL (BY OTHERS)

CONSTRUCTION NOTES

2	SAWCUT AND MATCH EXISTING	72 LF
3E	CONSTRUCT NEW PVMT PER TYP SECTIONS 1.75" AC (SUPER PAVE IV) TACK COAT 1.75" AC (SUPER PAVE IV) 12" ABC (95% COMPACTION)	2,904 SY 2,904 SY 2,904 SY 3,323 SY
4	SUBGRADE PREPARATION	3,781 SY
5	CONSTRUCT NEW STANDARD CURB & GUTTER PER COA DWG 2415A	1,028 LF
6	CONSTRUCT SIDEWALK PER COA DWG 2430	382 SY
8	CONSTRUCT 6' NEW CONCRETE VALLEY GUTTER PER COA DWG 2420	112 SY
9	CONSTRUCT CURB ACCESS RAMP WITH DETECTABLE WARNINGS PER COA DWG 2440, 2441, CASE II	2 EA
10	ADJUST VALVE BOX PER COA DWG 2460	3 EA
13	CONSTRUCT NEW DEPRESSED CURB & GUTTER PER COA DWG 2415	36 LF
14	CONSTRUCT CONCRETE DRIVEPAD PER COA DWG 2425	48 SY
16	INSTALL PVC SANITARY SEWER LINE (SIZE & TYPE PER PLAN)	98 LF
17	TRENCH, BACKFILL, AND COMPACT FOR SAS INSTALLATION PER COA DWG 2465	157 LF
18	CONSTRUCT MANHOLE, TYPE 'C' PER COA DWG 2101	2 EA
35	CONSTRUCT 4" SEWER SERVICE PER COA DWG 2118 AND 2125. EXTEND EXISTING SERVICE TO PROPOSED MANHOLE.	59 LF

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS
ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
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SW QUADRANT OF OSUNA RD. NE. & THE NORTH DIVISION CHANNEL EPOXIED TO TOP OF CONCRETE BASE OF STREET LIGHT STANCHION

AS BUILT INFORMATION
CONTRACTOR DATE
WORK STAKED BY DATE
INSPECTION BY DATE
ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

ENGINEER'S SEAL
ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER
07/30/2012

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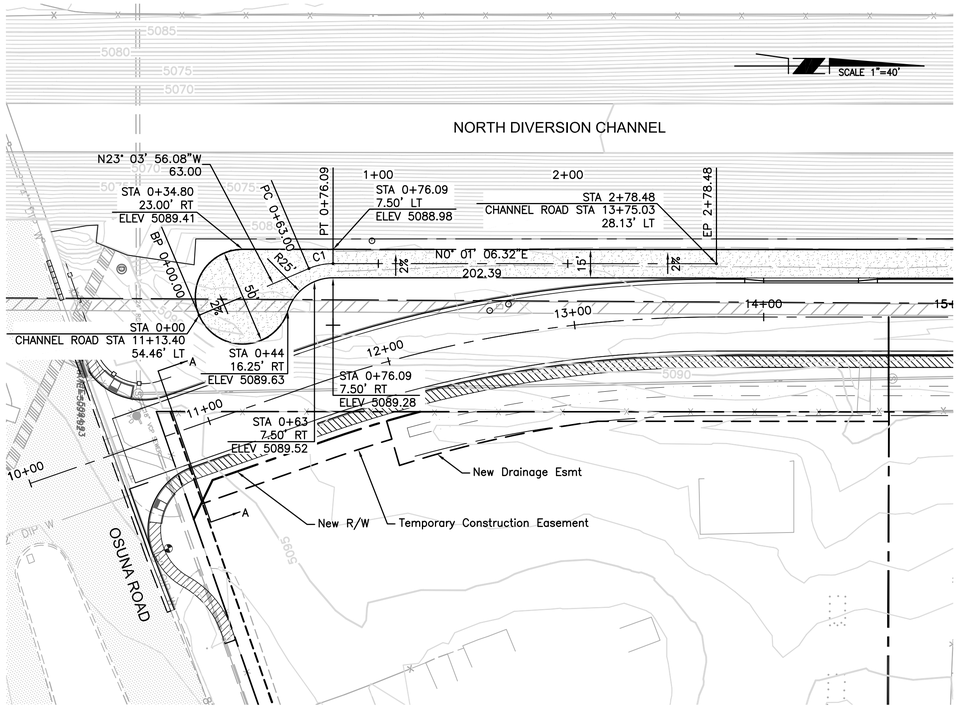
TITLE: CHANNEL ROAD - PHASE I
ROADWAY PLAN & PROFILE
STA 100+00 TO STA 107+00

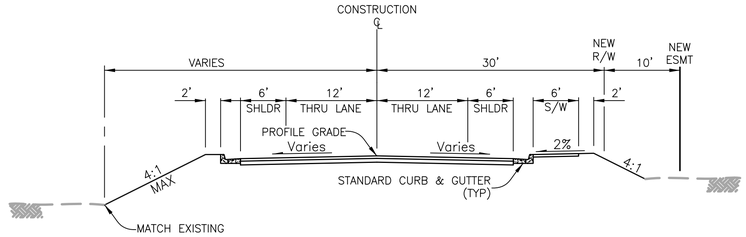
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 15 | Of 66

P:\221706.00 - Osuna Road City of Albuquerque\CADD\DLV\1706-ChannelRD - P15.dwg
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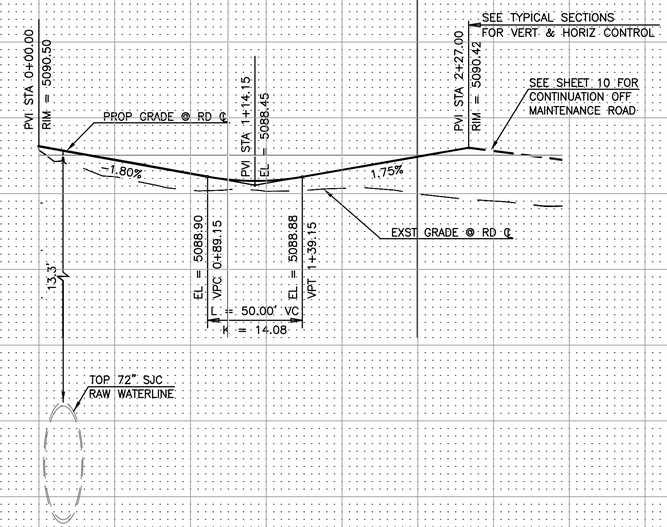
CHANNEL ROAD SECTION A-A

STA 10+85 TO STA 11+15

CURVE TABLE				
CURVE #	DELTA	TANGENT	LENGTH	RADIUS
C1	23°05'02"	6.64'	13.09'	32.50'

SEE SHEET 10 FOR CONSTRUCTION NOTES & QUANTITIES

SCALE HORIZ: 1"= 40'
SCALE VERT: 1"= 4'



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SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

AS BUILT INFORMATION

	DATE
CONTRACTOR WORK STAKED BY	
CONSTRUCTION WORK ACCEPTANCE BY	
FIELD VERIFICATION BY	
AS-BUILT DRAWINGS CORRECTED BY	

MICRO-FILM INFORMATION

RECORDED BY
NO.

ENGINEER'S SEAL

ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER

07/30/2012

NO.	REMARKS	DATE	BY
	REVISIONS		
	DESIGN	DATE: 05/25/2012	DESIGNED BY: R. STRICKLAND
		DATE: 05/25/2012	DRAWN BY: D. RAY, J.SCHENKMAN
		DATE: 05/25/2012	CHECKED BY: E. FROBERG

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990

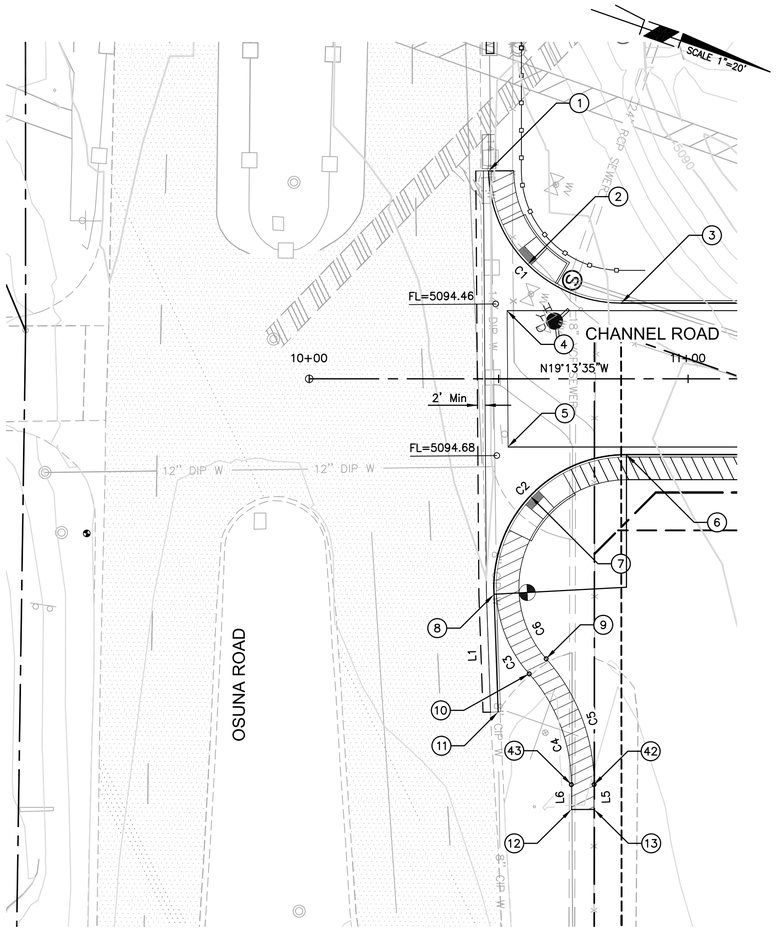
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MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE:
CHANNEL ROAD - PHASE I
MAINTENANCE ROAD PLAN & PROFILE
STA 0+00 TO STA 2+27

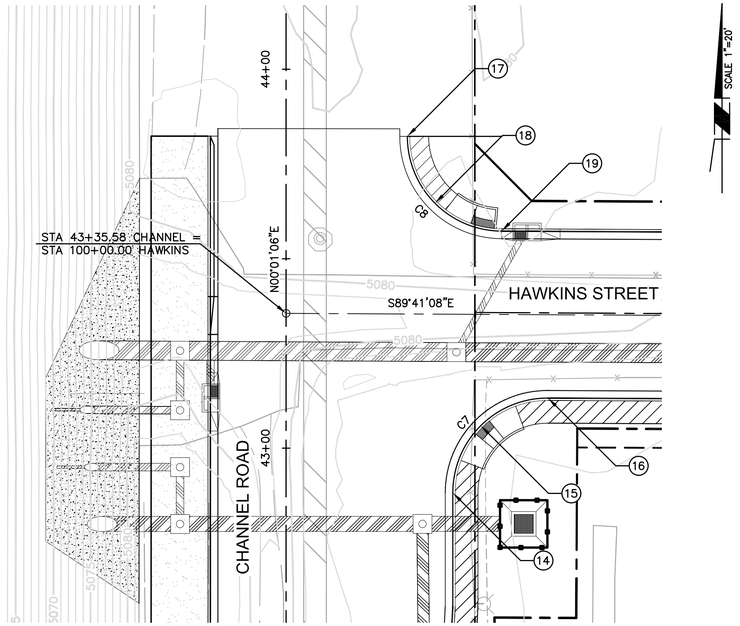
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
6920.91	E16, D16, D17	16	66

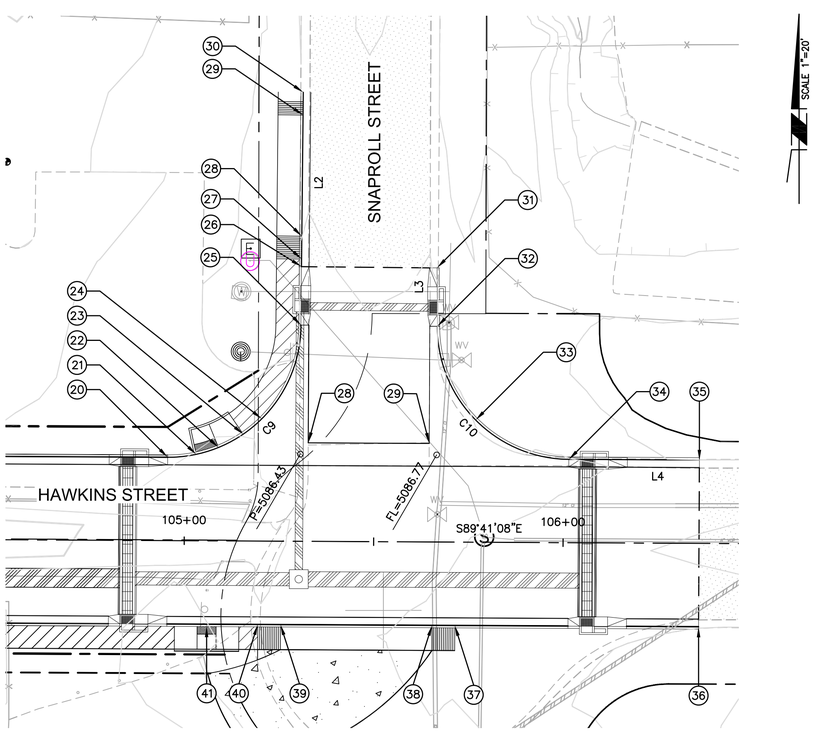


CHANNEL ROAD / OSUNA ROAD

CHANNEL ROAD / OSUNA ROAD CONTROL TABLE					
NO.	STA.	OFFSET	TC ELEV.	P ELEV.	FL ELEV.
1	10+47.37	54.88' LT	5094.56	5094.1±	5094.0±
2	10+57.66	30.21' LT	5094.56	5094.56	–
3	10+82.37	20.00' LT	5095.24	5094.70	5094.58
4	10+52.24	18.00' LT	–	5094.59	–
5	10+52.50	18.00' RT	–	5094.81	–
6	10+83.73	20.00' RT	5095.49	5094.78	5094.66
7	10+58.33	30.92' RT	5094.78	5094.78	–
8	10+48.78	56.86' RT	5095.48	5094.94	5094.82
9	10+62.54	73.87' RT	5096.0±	–	–
10	10+58.06	77.86' RT	5096.0±	–	–
11	10+49.88	87.91' RT	5095.6±	5095.2±	–
12	10+69.20	113.66' RT	5096.2±	–	–
13	10+75.20	113.65' RT	5096.2±	–	–
42	10+75.19	107.10' RT	5095.1±	–	–
43	10+69.19	107.09' RT	5095.1±	–	–



CHANNEL ROAD / HAWKINS STREET



HAWKINS STREET / SNAPROLL STREET

CHANNEL ROAD / HAWKINS STREET CONTROL TABLE					
NO.	STA.	OFFSET	TC ELEV.	P ELEV.	FL ELEV.
14	42+88.22	44.00' RT	5083.16	5082.45	–
15	43+05.94	52.37' RT	5082.71	5082.66	–
16	100+69.24	22.00' RT	5083.57	5082.86	5082.74
17	43+82.34	32.00' RT	5082.44	5081.74	–
18	43+63.24	39.86' RT	5082.13	5082.08	–
19	100+56.76	22.00 LT	5082.95	5082.41	5082.29

HAWKINS STREET / SNAPROLL STREET CONTROL TABLE					
20	104+95.53	22.00' LT	5086.84	5086.3	5086.18
21	105+03.05	32.82' LT	5086.92	5086.38	–
22	105+08.93	34.67' LT	5087.00	5086.46	–
23	105+15.43	38.21' LT	5087.09	5086.55	–
24	105+20.31	32.28' LT	5087.17	5086.63	–
25	105+30.53	57.08' LT	5087.23	5086.69	5086.57
26	105+30.59	72.52' LT	5087.5±	5087.0±	–
27	105+30.60	74.52' LT	5087.01	5086.56	–
28	105+30.63	80.52' LT	5087.2±	5086.7±	–
29	105+30.78	112.52' LT	5087.5±	5087.0±	–
30	105+30.81	118.52' LT	5088.0±	5087.5±	–
31	105+66.36	72.37' LT	5087.6±	5087.1±	–
32	105+66.51	56.93' LT	5087.54	5087.00	5086.88
33	105+76.74	32.25' LT	5087.44	5086.90	–
34	106+01.51	21.97' LT	5087.90	5087.36	5087.24
35	106+35.88	21.87' LT	5088.3±	5087.8±	5086.88±
36	106+35.88	22.00' RT	5088.2	5087.7	5087.6
37	105+71.53	22.00' RT	5087.60	5087.06	–
38	105.65.53	22.00' RT	5087.54	5087.00	–
39	105+25.53	22.00' RT	5087.14	5086.60	–
40	105+19.53	22.00' RT	5087.08	5086.54	–
41	105+06.00	22.00' RT	5086.95	5086.41	–

LINE/CURVE DATA TABLE				
NO.	BEARING/DELTA	TANGENT	LENGTH	RADIUS
C1	89°47'59"	34.88'	54.86'	35.00'
C2	93°02'35"	36.91'	56.84'	35.00'
C3	38°38'06"	12.05'	23.18'	34.38'
C4	41°38'59"	16.74'	31.99'	44.00'
C5	41°38'59"	19.02'	36.35'	50.00'
C6	38°38'06"	9.95'	19.13'	28.38'
C7	90°17'46"	25.13'	39.40'	25.00'
C8	89°42'14"	24.87'	39.14'	25.00'
C9	90°07'30"	35.08'	55.05'	35.00'
C10	89°45'36"	34.85'	54.83'	35.00'
L1	N68°45'02"E	–	31.04'	–
L2	N00°34'35"E	–	61.45'	–
L3	N00°15'01"W	–	15.42'	–
L4	S89°31'09"E	–	34.36'	–
L5	N70°44'42"W	–	6.57'	–
L6	N70°44'42"W	–	6.57'	–

NOTE: ALL LINE/CURVE DATA TO FACE OF CURB OR SIDEWALK

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR — DATE
WORK STAKED BY — DATE
FINAL INSPECTION & ACCEPTANCE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION

RECORDED BY — DATE
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ENGINEER'S SEAL

ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER

07/30/2012

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		DESIGNED BY: R.STRICKLAND	DATE: 05/25/2012
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		CHECKED BY: E.FROBERG	DATE: 05/25/2012

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ENGINEERING DIVISION

TITLE: CHANNEL ROAD - PHASE I
INTERSECTION STAKING

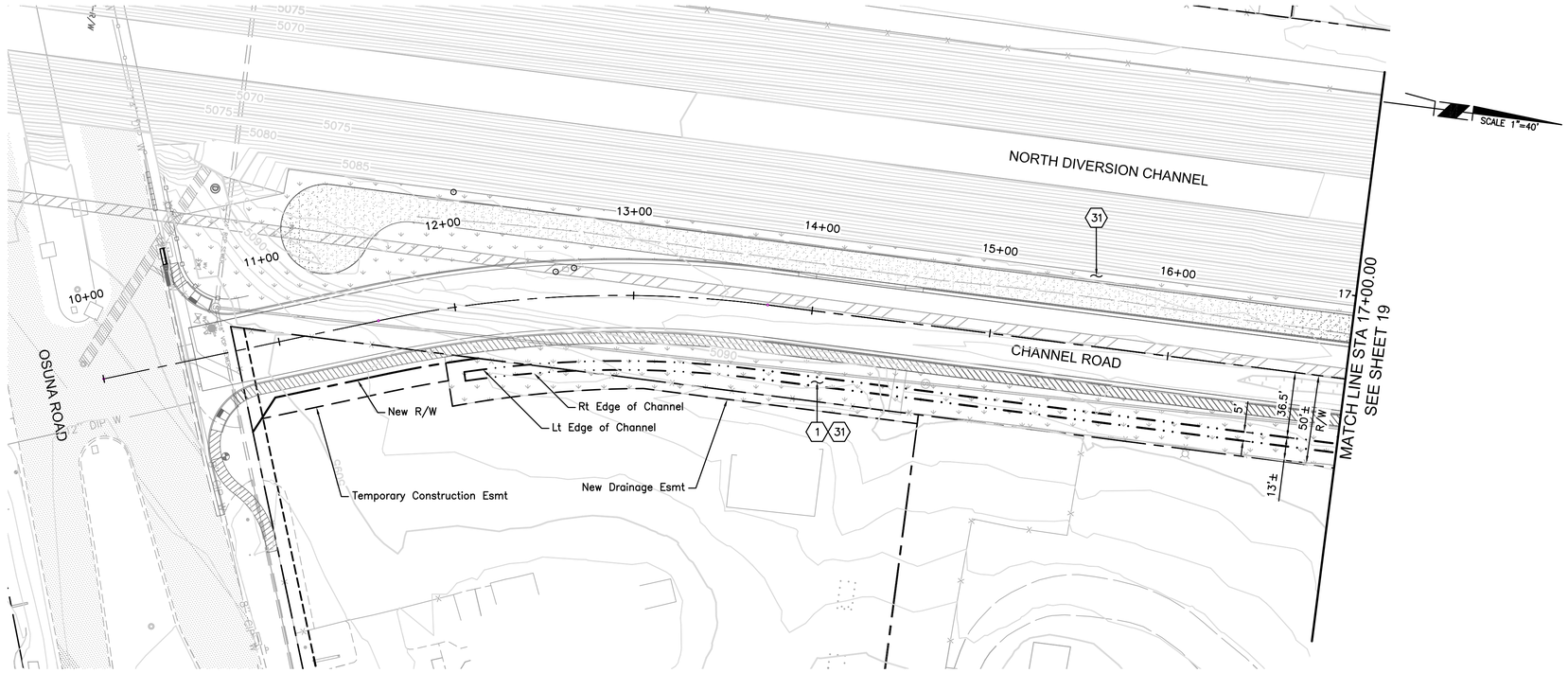
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 17 Of 66

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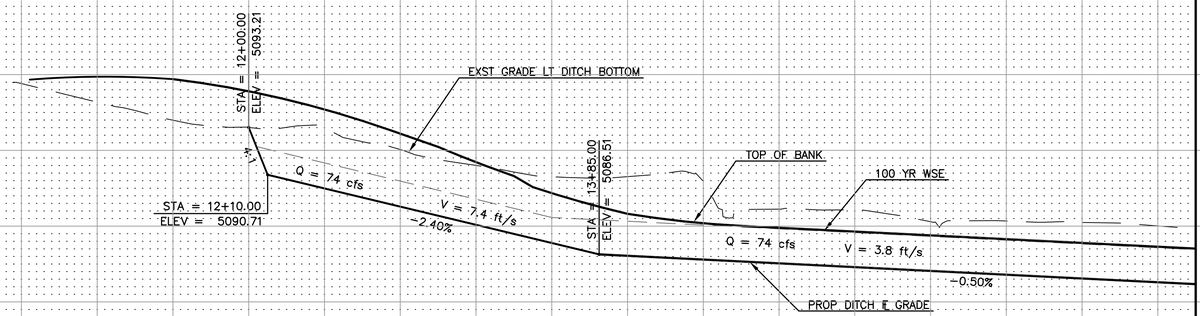
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40' 20' 0 40'

SCALE HORIZ: 1"= 40'
SCALE VERT: 1"= 4'



DRAINAGE NOTES

1	EXCAVATE DRAINAGE CHANNEL PER TYPICAL SECTIONS AND PROFILE	750 CY
31	REVEGETATE DISTURBED/CONSTRUCTED SLOPES WITH CLASS "A" NATIVE SEED WITH STRAW MULCH	0.55 AC

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR DATE
WORK STAKED BY DATE
INSPECTIONS ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION

RECORDED BY DATE
NO.

ENGINEER'S SEAL

ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER

07/30/2012

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY: R. STRICKLAND	DATE: 05/25/2012
		DRAWN BY: D. RAY, J.SCHENKMAN	DATE: 05/25/2012
		CHECKED BY: E. FROBERG	DATE: 05/25/2012

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ENGINEERING DIVISION

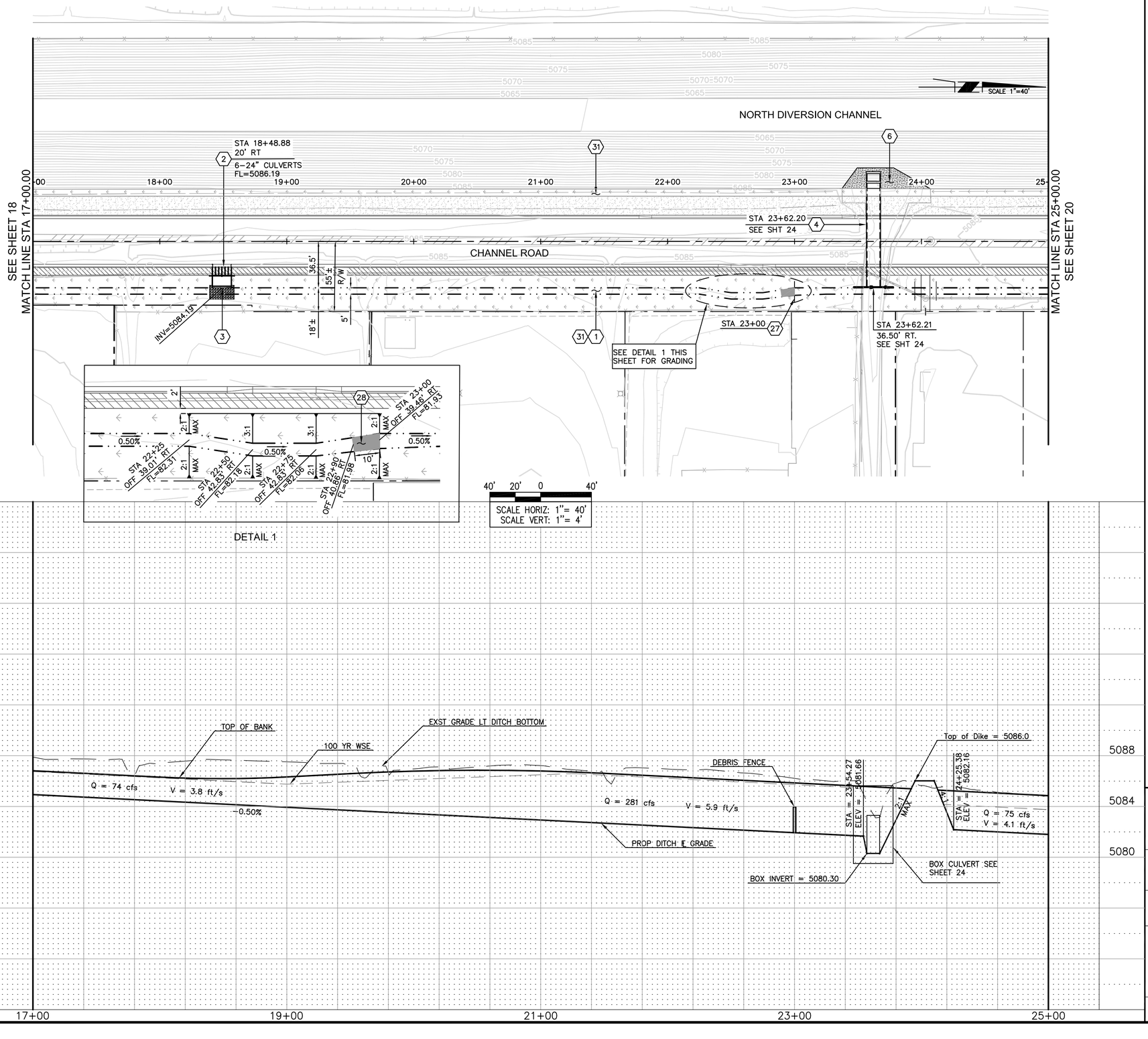
TITLE:
CHANNEL ROAD - PHASE I
DRAINAGE PLAN & PROFILE
STA 10+00 TO STA 17+00

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 18 Of 66

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DETAIL 1

40' 20' 0 40'
SCALE HORIZ: 1"= 40'
SCALE VERT: 1"= 4'

DRAINAGE NOTES

1	EXCAVATE DRAINAGE CHANNEL PER TYPICAL SECTIONS AND PROFILE	1415 CY
2	CONSTRUCT SIDEWALK CULVERT PER COA DWG 2236 NUMBER OF 24" CULVERTS PER PLANS, SLOPE TO DRAIN STREET CONTRACTOR TO TACK WELD BOLTS AND STEEL PLATE.	1 EA
3	CONSTRUCT CONCRETE SPILLWAY WITH PIPE RAILING PER DETAIL SHT 28	1 EA
4	CONSTRUCT CONCRETE BOX/PIPE CULVERT PER DETAIL SHTS 24-25	
6	RECONSTRUCT CHANNEL LINING PER DETAIL SHT 31	800 SF
27	CONSTRUCT DEBRIS FENCE PER DETAILS ON SHEET 8	1 EA
28	CONSTRUCT 6' WIDE CONCRETE VALLEY GUTTER PER COA DWG 2420	7 SY
31	REVEGETATE DISTURBED/CONSTRUCTED SLOPES WITH CLASS "A" NATIVE SEED WITH STRAW MULCH	0.61 AC

AS BUILT INFORMATION

CONTRACTOR — DATE
WORK STAKED BY — DATE
ACCEPTANCE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION

RECORDED BY — DATE
NO.

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
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LIGHT STANCHION

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

ENGINEER'S SEAL

ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER
07/30/2012

NO.	REMARKS	BY	DATE
	REVISIONS		
	DESIGN		
	DESIGNED BY: R. STRICKLAND		DATE: 05/25/2012
	DRAWN BY: D. RAY, J.SCHENKMAN		DATE: 05/25/2012
	CHECKED BY: E. FROBERG		DATE: 05/25/2012

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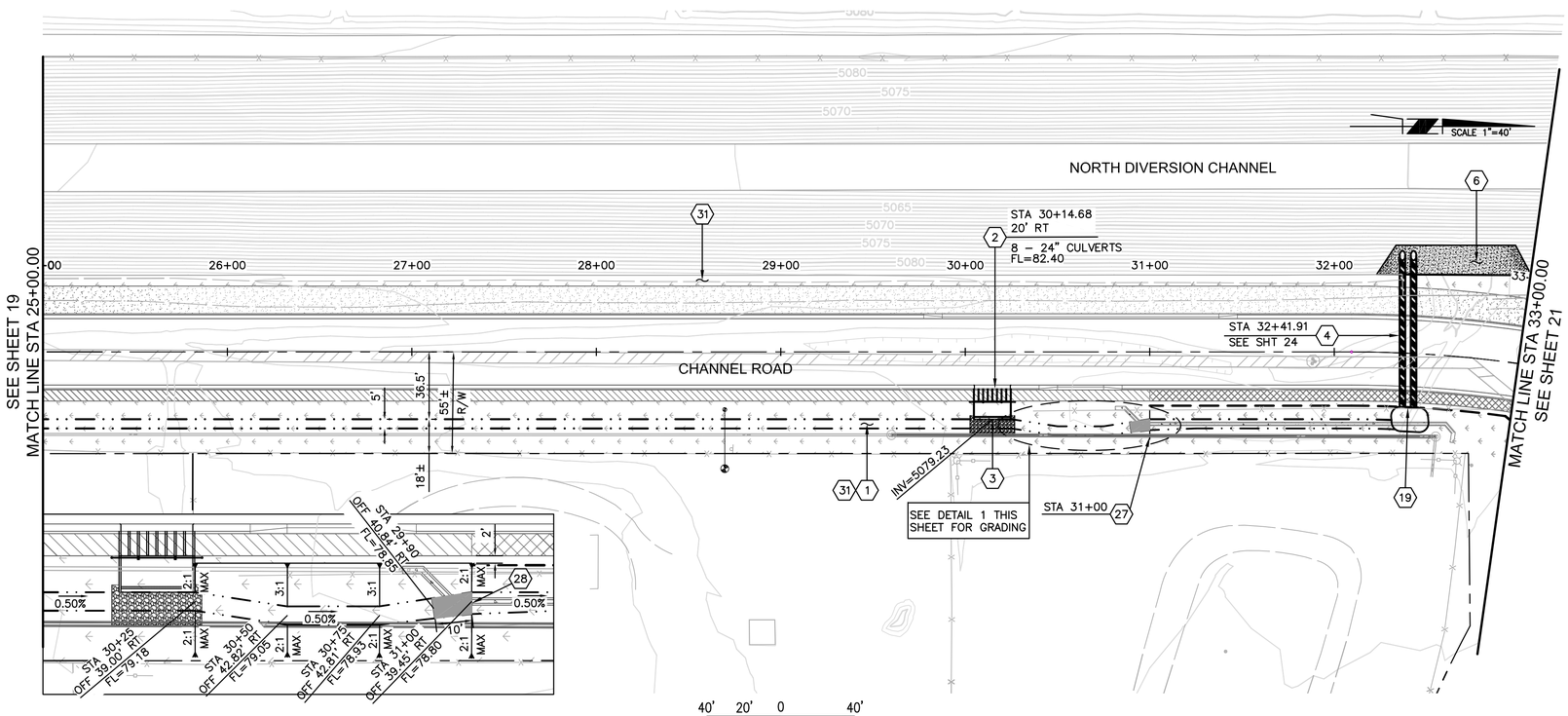
TITLE:
CHANNEL ROAD - PHASE I
DRAINAGE PLAN & PROFILE
STA 17+00 TO STA 25+00

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

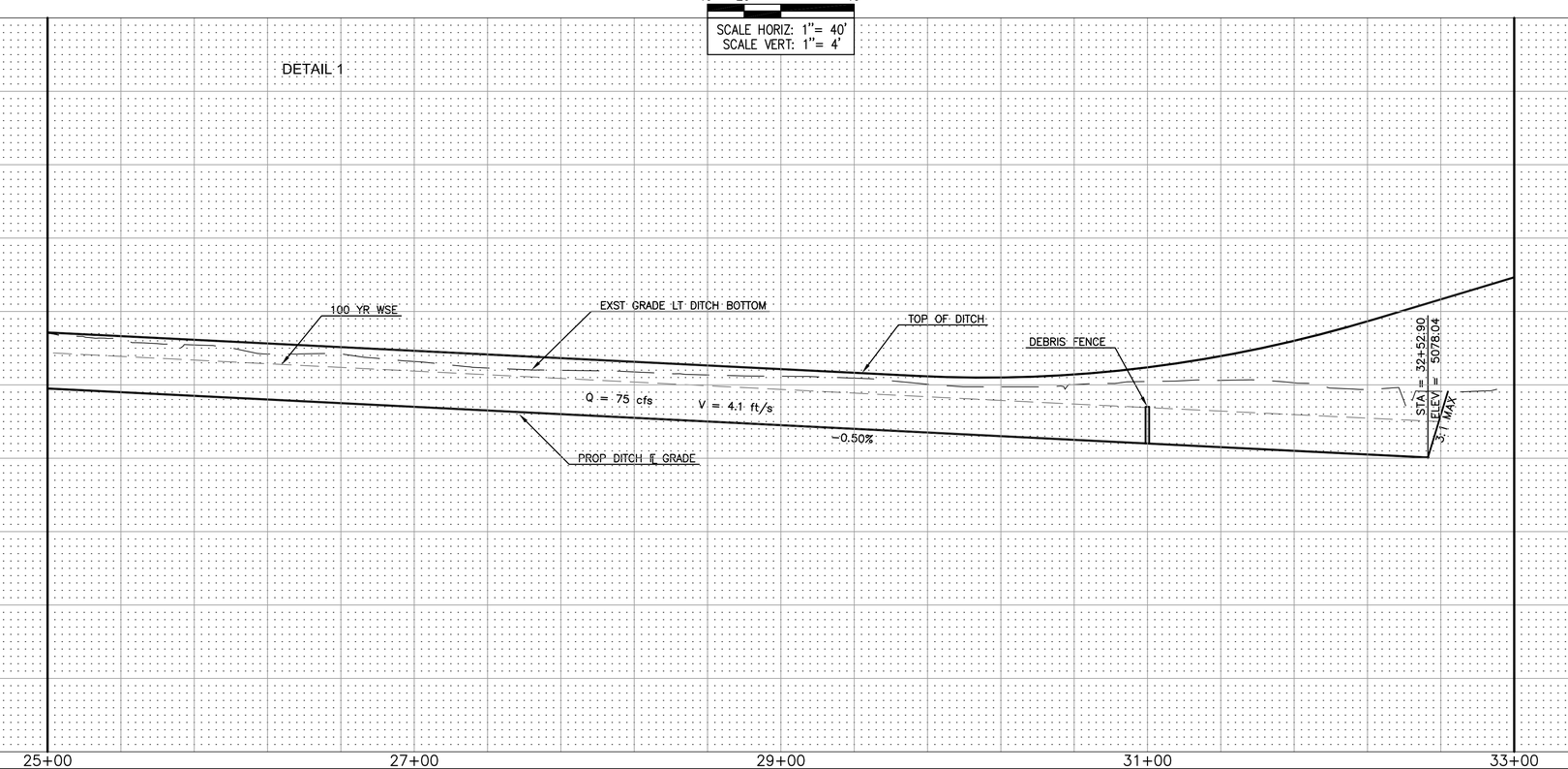
City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 19 Of 66

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DETAIL 1



DRAINAGE NOTES

1	EXCAVATE DRAINAGE CHANNEL PER TYPICAL SECTIONS AND PROFILE	945 CY
2	CONSTRUCT SIDEWALK CULVERT PER COA DWG 2236 NUMBER OF 24" CULVERTS PER PLANS, SLOPE TO DRAIN STREET CONTRACTOR TO TACK WELD BOLTS AND STEEL PLATE.	1 EA
3	CONSTRUCT CONCRETE SPILLWAY WITH PIPE RAILING PER DETAIL SHT 28	1 EA
4	CONSTRUCT CONCRETE BOX/PIPE CULVERT PER DETAIL SHTS 24–25	
6	RECONSTRUCT CHANNEL LINING PER DETAIL SHT 31	1189 SF
19	EXTEND CULVERT THROUGH RETAINING WALL PER DETAIL SHTS 24 & 26	
27	CONSTRUCT DEBRIS FENCE PER DETAILS ON SHEET 8	1 EA
28	CONSTRUCT 6' WIDE CONCRETE VALLEY GUTTER PER COA DWG 2420	7 SY
31	REVEGETATE DISTURBED/CONSTRUCTED SLOPES WITH CLASS "A" NATIVE SEED WITH STRAW MULCH	0.61 AC

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
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AS BUILT INFORMATION

CONTRACTOR DATE
WORK STAKED BY DATE
CONSTRUCTION ACCEPTANCE BY DATE
FIELD DRAWINGS CORRECTED BY DATE
MICRO–FILM INFORMATION
RECORDED BY DATE
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NEW MEXICO
18855
PROFESSIONAL ENGINEER
07/30/2012

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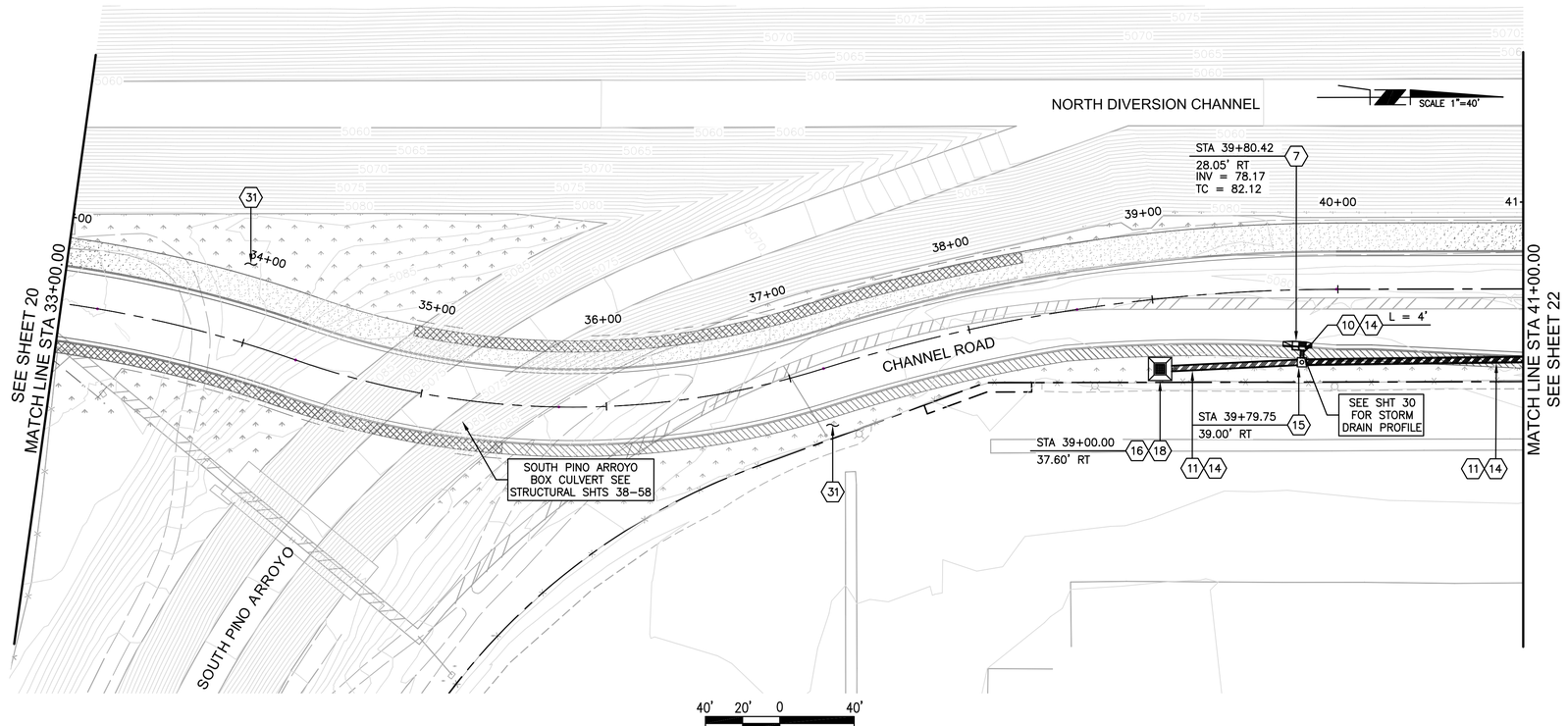
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ENGINEERING DIVISION

TITLE:
CHANNEL ROAD - PHASE I
DRAINAGE PLAN & PROFILE
STA 25+00 TO STA 33+00

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
6920.91	E16, D16, D17	20	66

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DRAINAGE NOTES

7	CONSTRUCT STORM INLET, TYPE 'A' PER COA DWG 2201, 2202 & 2220	1 EA
10	INSTALL 24" R.C.P., CLASS III	4 LF
11	INSTALL 36" R.C.P., CLASS III	187 LF
14	TRENCH, BACKFILL, AND COMPACT FOR STORM DRAIN INSTALLATION PER COA DWG 2465	191 LF
15	CONSTRUCT MANHOLE, TYPE 'C' PER COA DWG. 2101	1 EA
16	CONSTRUCT INLET PER NMDOT DETAIL 623-06. SEE DETAIL ON SHT 26	1 EA
18	CONSTRUCT INLET APRON PER DETAIL SHT 26	1 EA
31	REVEGETATE DISTURBED/CONSTRUCTED SLOPES WITH CLASS "A" NATIVE SEED WITH STRAW MULCH	0.42 AC

AS BUILT INFORMATION

CONTRACTOR — DATE
WORK STAKED BY — DATE
INSPECTION BY — DATE
ACCEPTANCE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE

BENCH MARKS

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LIGHT STANCHION

MICRO-FILM INFORMATION

RECORDED BY — DATE
NO.

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

ENGINEER'S SEAL

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18855
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MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

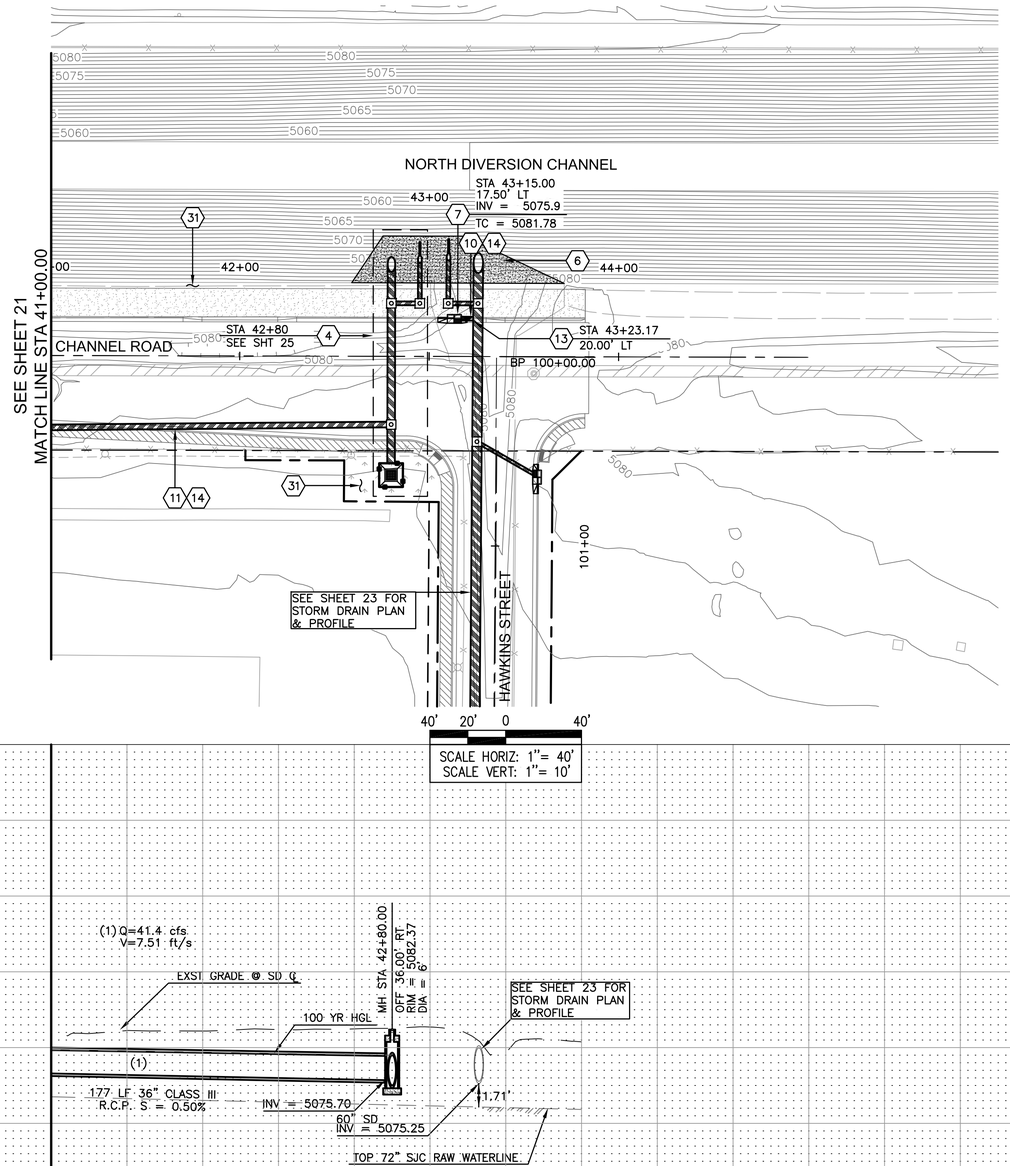
TITLE:
CHANNEL ROAD - PHASE I
DRAINAGE PLAN & PROFILE
STA 33+00 TO STA 41+00

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
6920.91	E16, D16, D17	21	66

7/27/2012 4:14:43 PM Jennifer Schenkman Phoenix Full Scale.ctb
P:\221706.00 - Osuna Road City of Albuquerque\CADD\DLV\1706-ChannelRD - DR21.dwg

7/27/2012 4:24:14 PM Jennifer Schenkman Phoenix Full Scale.ctb



SCALE 1"=40'

DRAINAGE NOTES

4	CONSTRUCT CONCRETE BOX/PIPE CULVERT PER DETAIL SHTS 24–25	
6	RECONSTRUCT CHANNEL LINING PER DETAIL SHT 31	1802 SF
7	CONSTRUCT STORM INLET, TYPE 'A' PER COA DWG 2201, 2202 & 2220	1 EA
10	INSTALL 24" R.C.P., CLASS III	7 LF
11	INSTALL 36" R.C.P., CLASS III	177 LF
13	INSTALL 60"x24" R.C.P. TEE, CLASS III	1 EA
14	TRENCH, BACKFILL, AND COMPACT FOR STORM DRAIN INSTALLATION PER COA DWG 2465	184 LF
31	REVEGETATE DISTURBED/CONSTRUCTED SLOPES WITH CLASS "A" NATIVE SEED WITH STRAW MULCH	0.08 AC

AS BUILT INFORMATION

CONTRACTOR DATE

WORK STAKED BY DATE

AS BUILT WORKS ACCEPTANCE BY DATE

FIELD VERIFICATION BY DATE

DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION

RECORDED BY DATE

NO.

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM

15_E16 (1 3/4" ALUMINUM DISK)

NM STATE PLANE COORDINATES

CENTRAL ZONE NAD 1983

ELEVATION= 5092.856 (NAVD 1988)

SW QUADRANT OF OSUNA RD. NE. & THE NORTH DIVISION CHANNEL EPOXIED TO TOP OF CONCRETE BASE OF STREET LIGHT STANCHION

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

ENGINEER'S SEAL

ERIC J. FROBERG NEW MEXICO 18855 PROFESSIONAL ENGINEER

07/30/2012

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	DATE: 05/25/2012
		DESIGNED BY: R. STRICKLAND	
		DRAWN BY: D. RAY, J.SCHENKMAN	DATE: 05/25/2012
		CHECKED BY: E. FROBERG	DATE: 05/25/2012

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990

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MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE:

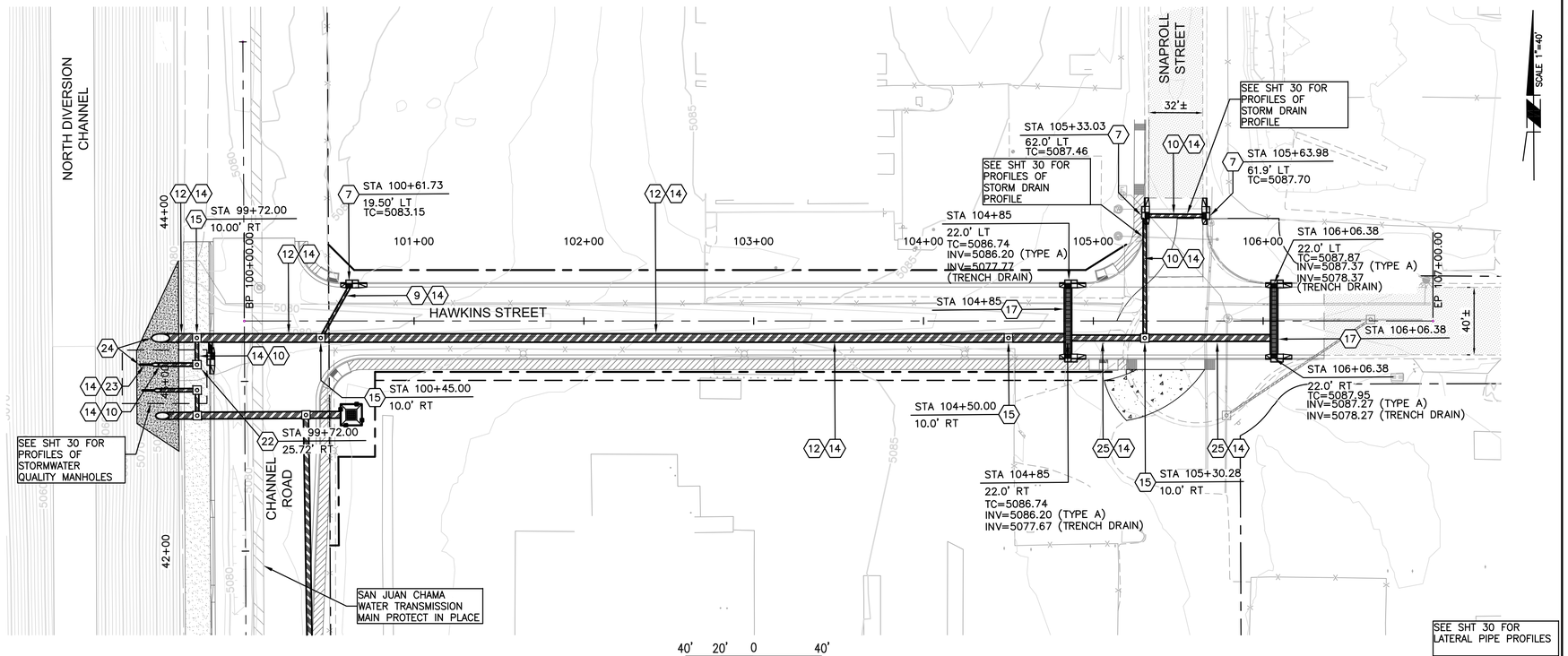
CHANNEL ROAD - PHASE I
DRAINAGE PLAN & PROFILE
STA 41+00 TO STA 43+82.34

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

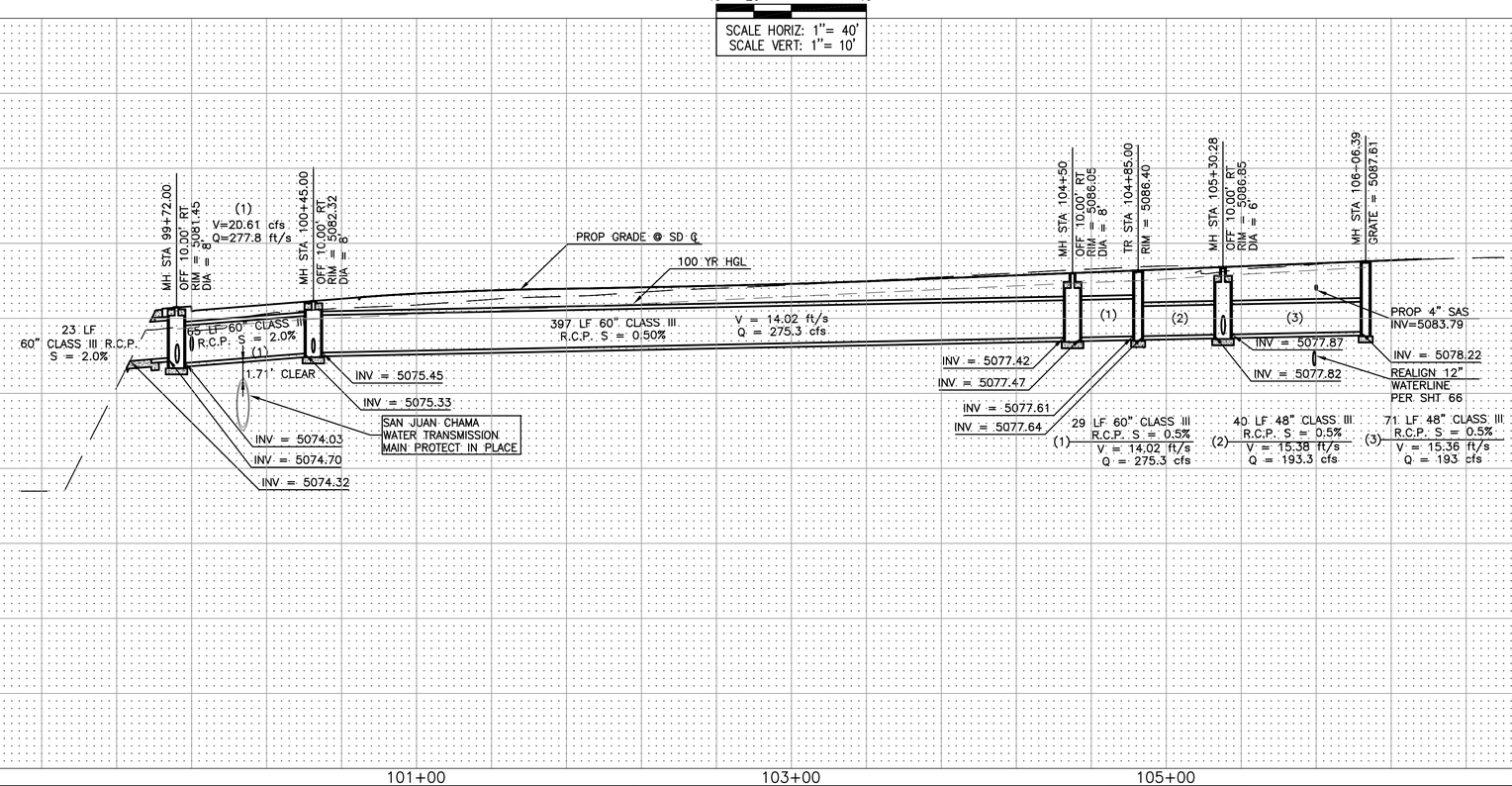
City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 22 | Of 66

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40' 20' 0 40'
SCALE HORIZ: 1"= 40'
SCALE VERT: 1"= 10'



DRAINAGE NOTES

7	CONSTRUCT STORM INLET, TYPE 'A' PER COA DWG 2201, 2202 & 2220	3 EA
9	INSTALL 18" R.C.P., CLASS III	30 LF
10	INSTALL 24" R.C.P., CLASS III	125 LF
12	INSTALL 60" R.C.P., CLASS III	514 LF
14	TRENCH, BACKFILL, AND COMPACT FOR STORM DRAIN INSTALLATION PER COA DWG 2465	822 LF
15	CONSTRUCT MANHOLE, TYPE 'C' PER COA DWG. 2101	4 EA
17	CONSTRUCT TRENCH DRAIN AND CURB INLETS PER DETAIL SHT 27	2 EA
22	CONSTRUCT WATER QUALITY MANHOLE PER DETAIL SHT 29	1 EA
23	INSTALL 8" PVC DRAIN PIPE	24 LF
24	CONSTRUCT CHANNEL LINING PIPE PENETRATION PER DETAIL SHT 31	2 EA
25	INSTALL 48" R.C.P., CLASS III	111 LF

AS BUILT INFORMATION

CONTRACTOR — DATE
WORK STAKED BY — DATE
CONSTRUCTION ACCEPTANCE BY — DATE
FIELD DETERMINATION BY — DATE
DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION

RECORDED BY — DATE
NO.

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

ENGINEER'S SEAL

ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER
07/30/2012

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	DESIGNED BY: R. STRICKLAND — DATE: 05/25/2012
			DRAWN BY: D. RAY, J.SCHENKMAN — DATE: 05/25/2012
			CHECKED BY: E. FROBERG — DATE: 05/25/2012

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ENGINEERING DIVISION

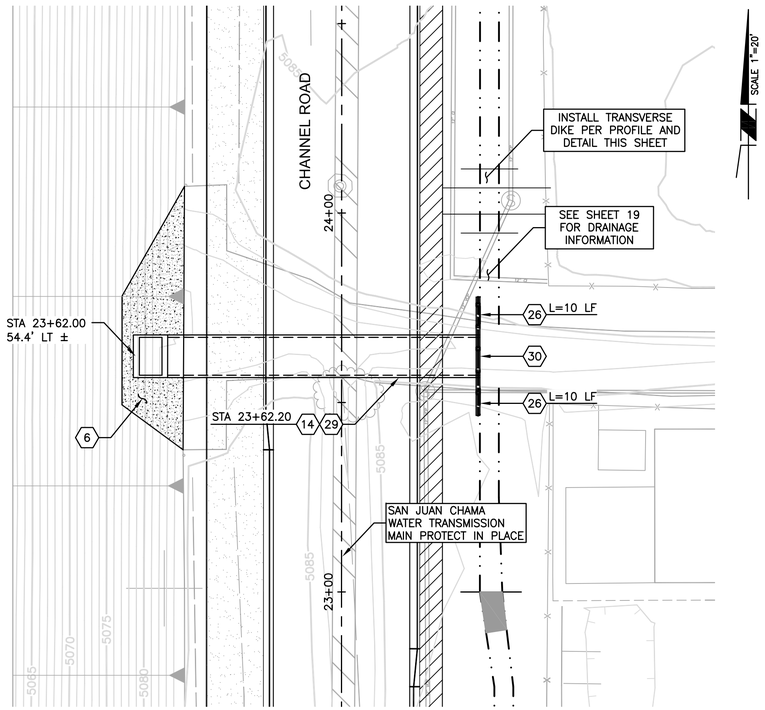
TITLE:
CHANNEL ROAD - PHASE I
HAWKINS STREET
DRAINAGE PLAN & PROFILE

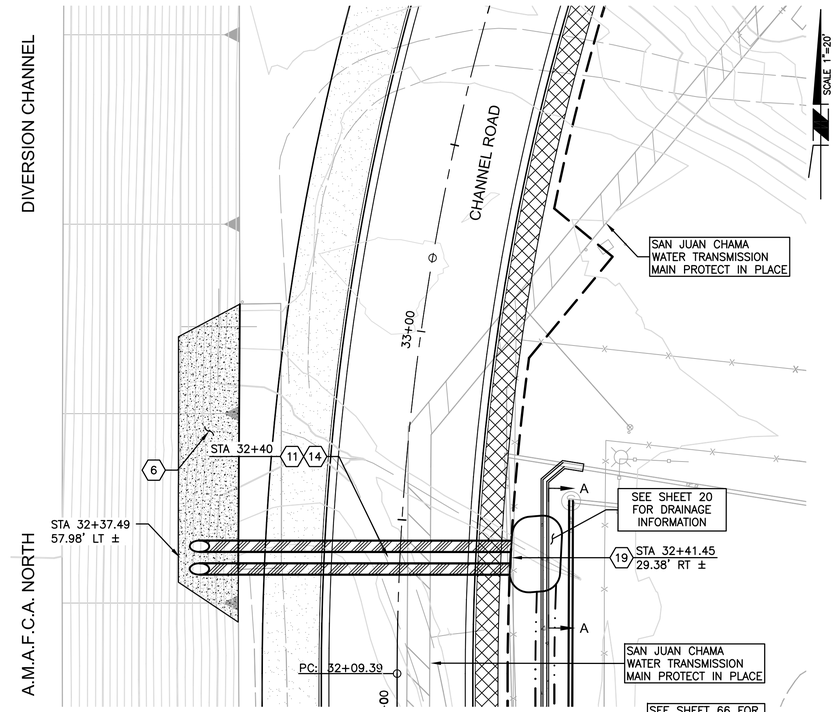
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
6920.91	E16, D16, D17	23	66

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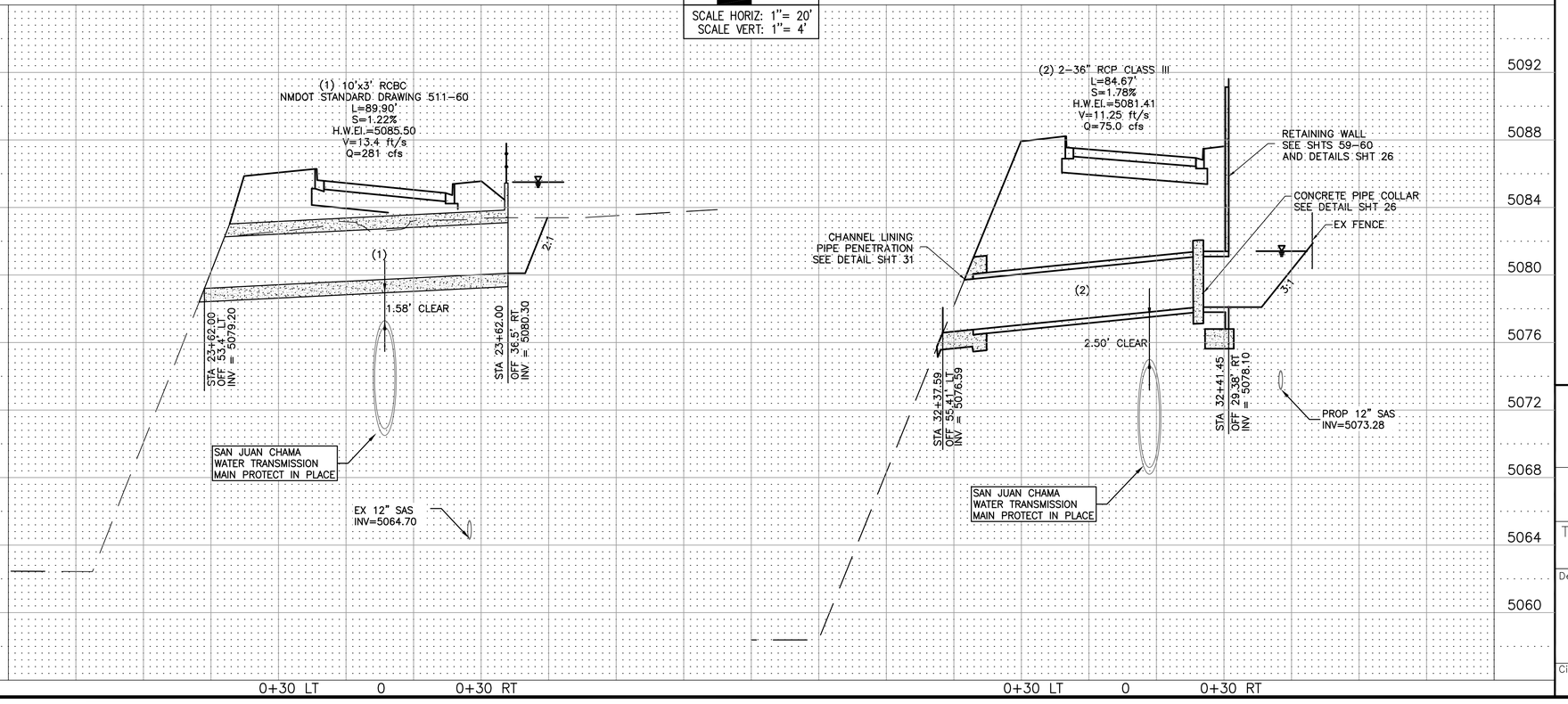
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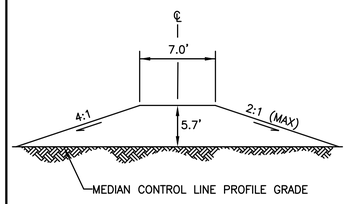
20' 10' 0 20'

SCALE HORIZ: 1"= 20'
SCALE VERT: 1"= 4'

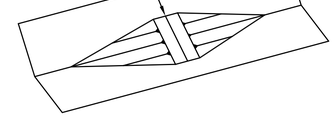


DRAINAGE NOTES

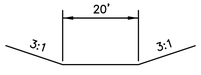
6	**RECONSTRUCT** CHANNEL LINING PER DETAIL SHT 31	
11	INSTALL 36" R.C.P., CLASS III	170 LF
14	**TRENCH, BACK**FILL, AND COMPACT FOR STORM DRAIN INSTALLATION PER COA DWG 2465	260 LF
19	**EXTEND** CULVERT THROUGH RETAINING WALL PER DETAIL SHTS 24 & 26	
26	**CONSTR**UCT 7.5'(HT) X 10'(L) RETAINING WALL PER NMDOT STD DWG 511-82 WITH PIPE RAIL PER DETAILS ON SHT 59	20 LF
29	INSTALL 10'X3' R.C.B.C. PER NMDOT DTS DWG 511-60	90 LF
30	INSTALL PIPE RAIL PER DETAILS SHT 49	31 LF



TRANSVERSE DIKE
NO SCALE



TYPICAL TRANSVERSE DIKE INSTALLATION
NO SCALE



SECTION A-A
NO SCALE

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MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: **CHANNEL ROAD - PHASE I**
CULVERT PLAN & PROFILE
STA 23+62.00 AND STA 32+90.00

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
6920.91	E16, D16, D17	24	66

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR — DATE
WORK STAKED BY — DATE
INSPECTION BY — DATE
ACCEPTANCE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION

RECORDED BY — DATE
NO. —

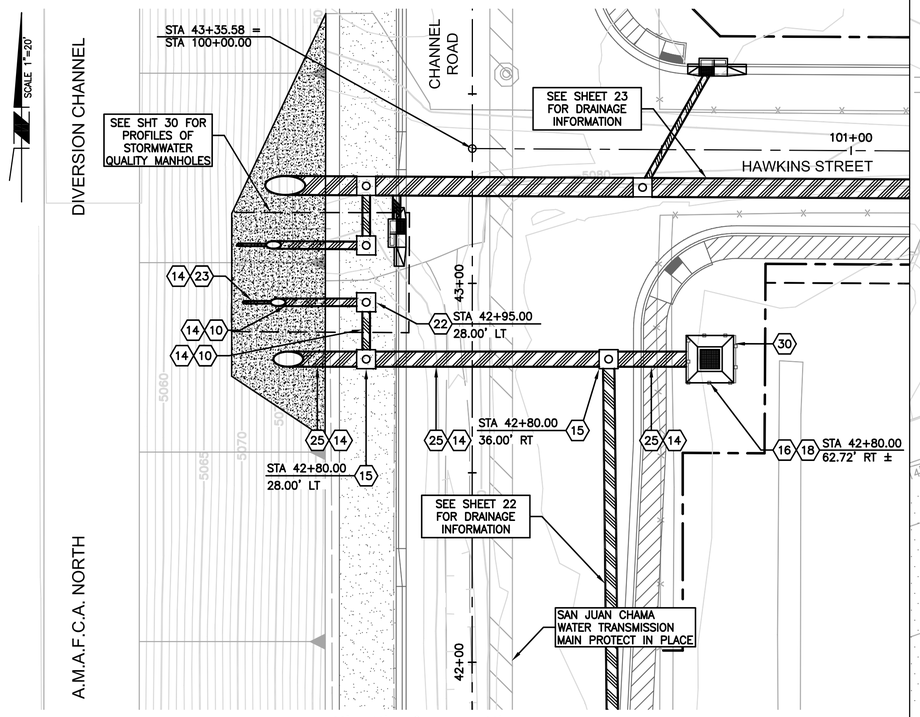
ENGINEER'S SEAL

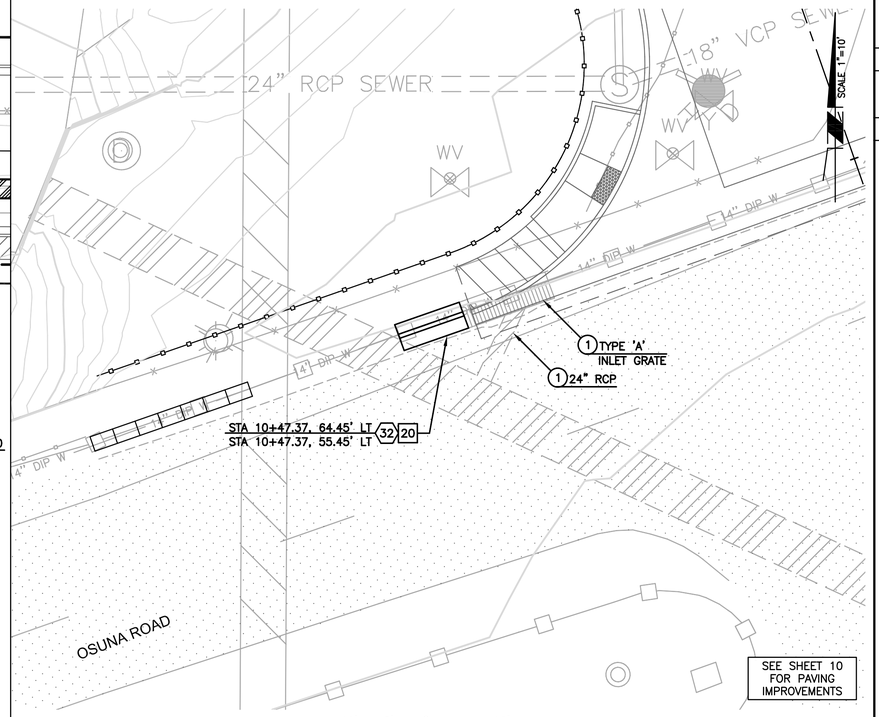
ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER
07/30/2012

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	DESIGNED BY: R. STRICKLAND DATE: 05/25/2012
			DRAWN BY: D. RAY, J.SCHENKMAN DATE: 05/25/2012
			CHECKED BY: E. FROBERG DATE: 05/25/2012

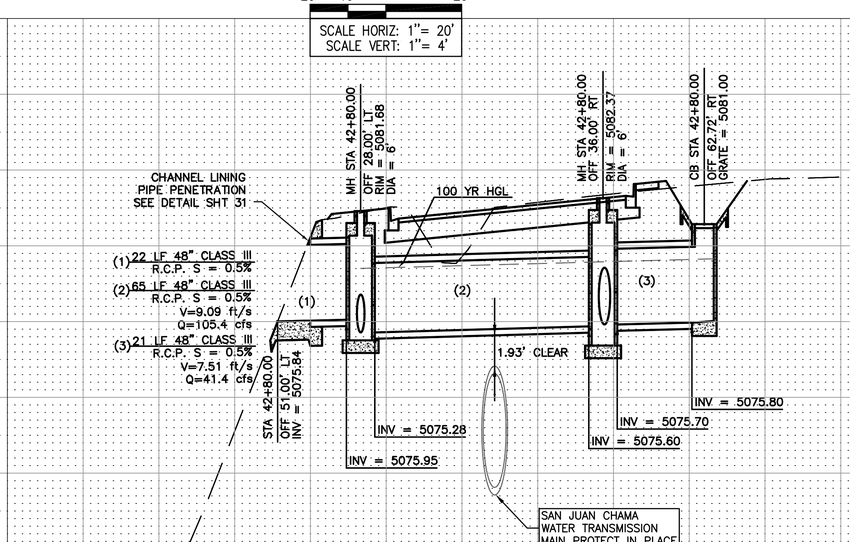
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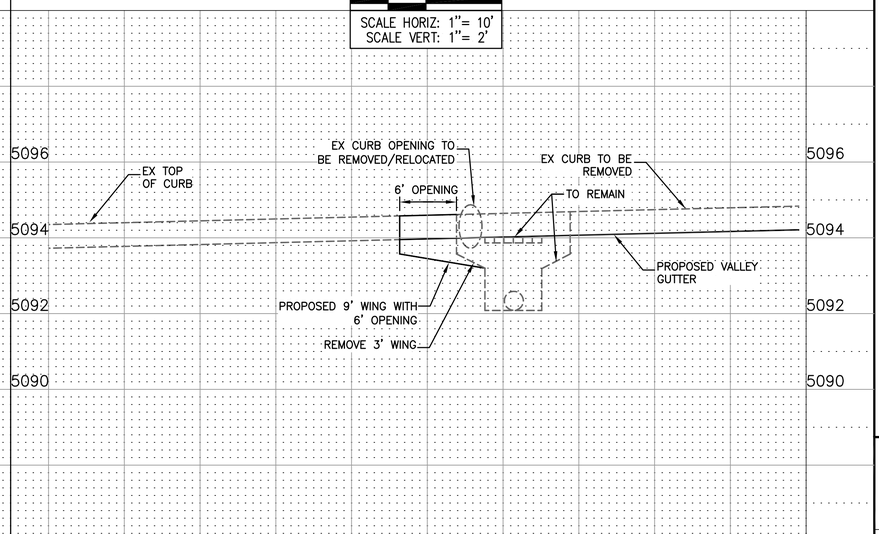




20' 10' 0 20'
SCALE HORIZ: 1"= 20'
SCALE VERT: 1"= 4'



10' 5' 0 10'
SCALE HORIZ: 1"= 10'
SCALE VERT: 1"= 2'



REMOVAL/RELOCATE

20	REMOVE EXISTING CURB OPENING AND 3' WING. TYPE "A" INLET AND GRATE TO REMAIN.	1 EA

CONSTRUCTION NOTES

1	PROTECT IN PLACE	

DRAINAGE NOTES

10	INSTALL 24" R.C.P., CLASS III	26 LF
14	TRENCH, BACKFILL, AND COMPACT FOR STORM DRAIN INSTALLATION PER COA DWG 2465	141 LF
15	CONSTRUCT MANHOLE, TYPE 'C' PER COA DWG. 2101	2 EA
16	CONSTRUCT INLET PER NMDOT DETAIL 623-06. SEE DETAIL ON SHT 26	1 EA
18	CONSTRUCT INLET APRON PER DETAIL SHT 26	1 EA
22	CONSTRUCT WATER QUALITY MANHOLE PER DETAIL SHT 29	1 EA
23	INSTALL 8" PVC DRAIN PIPE	24 LF
25	INSTALL 48" R.C.P., CLASS III	108 LF
30	INSTALL PIPE RAIL PER DETAILS SHT 49	50 LF
32	CONSTRUCT 9' TYPE "A" INLET WING WITH 6' CURB OPENING PER COA DWG 2201 & 2202.	1 EA

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS
ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_F16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
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TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

AS BUILT INFORMATION

	DATE
CONTRACTOR	
WORK STAKED BY	
WORK INSPECTED & ACCEPTANCE BY	
FIELD VERIFICATION BY	
DRAWINGS CORRECTED BY	
MICRO-FILM INFORMATION	
RECORDED BY	
NO.	

ENGINEER'S SEAL

ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER

07/30/2012

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY: R. STRICKLAND	DATE: 05/25/2012
		DRAWN BY: D. RAY, J.SCHENKMAN	DATE: 05/25/2012
		CHECKED BY: E. FROBERG	DATE: 05/25/2012

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ENGINEERING DIVISION

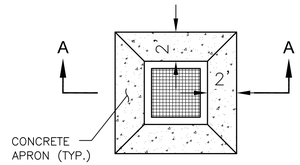
TITLE:
CHANNEL ROAD - PHASE I
CULVERT PLAN & PROFILE
STA 42+80.00

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

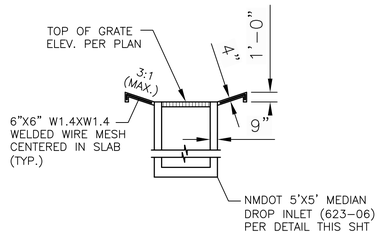
City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 25 Of 66

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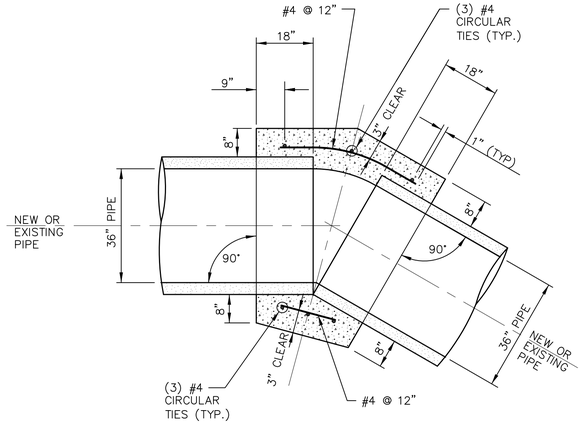
PLAN



SECTION A-A

INLET APRON

NO SCALE

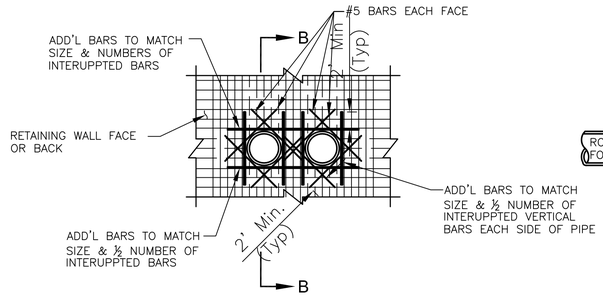


PIPE COLLAR

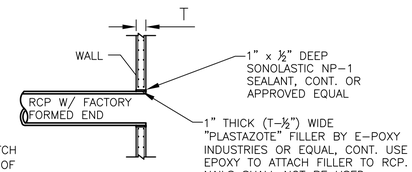
NO SCALE

NOTES:

1. SEE NMDOT DWG NO. 511-82 FOR WALL REINFORCING DETAILS.
2. REINFORCING STEEL SHALL CONFORM TO NMDOT STANDARD SPECIFICATIONS.



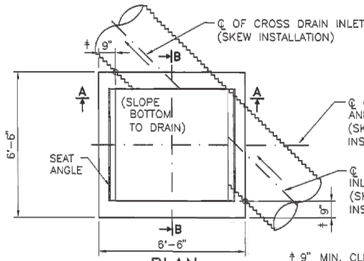
ELEVATION



SECTION B-B

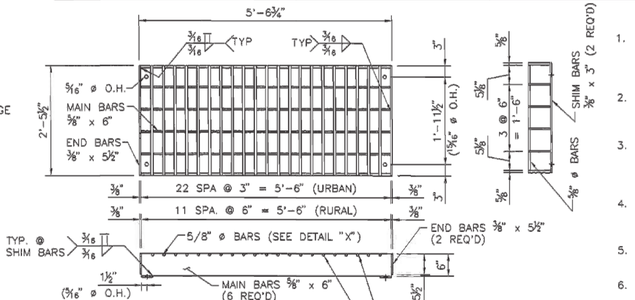
RCP WALL PENETRATION

NO SCALE



PLAN

† 9" MIN. CLEARANCE REQUIRED AT ALL INSTALLATIONS.



GRATE DETAILS

(2 REQUIRED)

GENERAL NOTES

1. WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, CURRENT EDITION.
2. ALL CONCRETE SHALL BE CLASS "A." CHAMFER EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED ON ON THE DETAILS.
3. REINFORCING BARS SHALL CONFORM TO AASHTO SPECIFICATION M 31, GRADE 60. DIMENSIONS REFER TO THE CENTERLINE OF BAR UNLESS OTHERWISE NOTED ON THE DETAILS.
4. STRUCTURAL STEEL SHALL CONFORM TO AASHTO SPECIFICATION M 183 AND SHALL BE GIVEN A PROTECTIVE COATING IN CONFORMANCE WITH THE SPECIFICATIONS.
5. DROP INLETS MAY BE USED WITH EITHER R.C.P. OR C.M.P. C.M.P. IS SHOWN IN THE DETAILS.
6. PIPES MAY BE LOCATED ON ANY WALL AND MAY BE ANY SHAPE. DIAMETER OR SPAN OF THE PIPES WILL BE DETERMINED BY THE SKEW ANGLE AND THE REQUIRED CLEARANCE AS SHOWN ON THE PLAN VIEW.

DESIGN DATA

DESIGN ACCORDING TO AASHTO SPECIFICATIONS CURRENT EDITION.

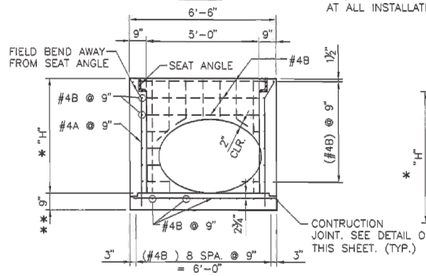
DESIGN STRESSES:

REINFORCED CONCRETE:	f'c=3,000 psi, fy=60,000 psi, n=10.
STRUCTURAL STEEL; EARTH PRESSURE:	fs=20,000 psi, fy=36,000 psi. 36lbs./cu.ft. EQUIV. FLUID PRESSURE 2'-0" SURCHARGE.
LIVE LOAD ON STANDARD GRATING:	ONE 16,000 lbs. WHEEL PLUS 30% IMPACT, 15% OVERSTRESS.

DRAWINGS REQUIRED

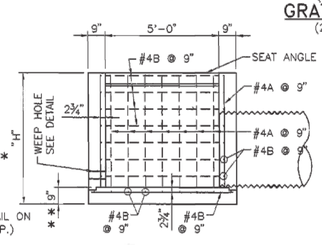
ROADWAY DESIGN DRAWINGS: FOR PIPE TYPE, LOCATION, HEIGHT, SKEW ANGLE, AND NUMBER REQUIRED.

NOTE: MEDIAN DROP INLETS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE UNIT PRICE BID PER EACH.



SECTION A-A

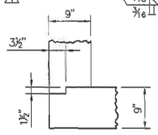
NOTE: FIELD CUT AND BEND REBAR AS REQUIRED TO CLEAR SEAT ANGLES AND PIPE OPENINGS.



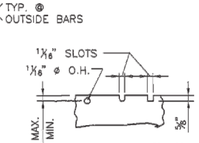
SECTION B-B

** AVERAGE BOTTOM THICKNESS USE 8 1/2" AT OUTLET AND 9 1/2" AT HIGH SIDE.

* "H" = DIA. OR RISE OF PIPE + 1'-3" MINIMUM, AND 15'-0" MAXIMUM.



CONST. JOINT DETAIL



DETAIL "X"

(ALTERNATE METHODS)

#4A	"H" PLUS 6"	REQ'D. 28
#4B	6'-3"	REQ'D. 18 + 5.33 "H" ▲

REINFORCING STEEL DETAILS

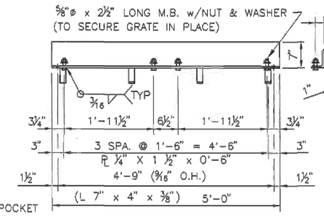
▲ NOTE: ROUND OFF "H" TO THE NEAREST FOOT, USE SHORTER LENGTH WHEN DIMENSION FALLS ON 6".

ESTIMATED QUANTITIES

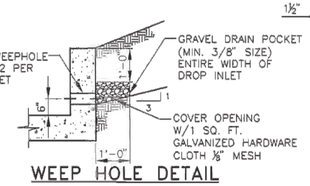
(FOR CONTRACTOR'S INFORMATION ONLY, NOT A BID ITEM)

CLASS "A" CONCRETE	1.102 + 0639 "H" CU.YDS
REINFORCING STEEL	84.50 + 40.96 "H" LBS.
STRUCTURAL STEEL (URBAN)	1198 LBS.
STRUCTURAL STEEL (RURAL)	1140 LBS.

NOTE: TO OBTAIN CLASS "A" CONCRETE QUANTITY, USE VALUE TABULATED ABOVE AND DEDUCT THE VOLUME OF THE PIPE OPENINGS FROM THE QUANTITY TABULATED.



SEAT ANGLE DETAILS



WEEP HOLE DETAIL

RAY M. TRUJILLO NEW MEXICO 11/6/09 REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REV.BY	DESCRIPTION
			REVISIONS (OR CHANGE NOTICES)
1	5/20/09	YML	CORRECTED 4 REQ'D TO 2 REQ'D

NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING

MEDIAN DROP INLET 5'-0" x 5'-0" DETAILS AND QUANTITIES

DESIGNED BY____ DRAWN BY SKL CHECKED BY YML/TM

623-06-1/1 1 of 1

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR — DATE
WORK STAKED BY — DATE
INSPECTION & ACCEPTANCE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION

RECORDED BY — DATE
NO.

ENGINEER'S SEAL

ERIC J. FROBERG NEW MEXICO 18855 PROFESSIONAL ENGINEER
07/30/2012

NO.	DATE	REMARKS	BY
		REVISIONS DESIGN	
		DESIGNED BY: R.STRICKLAND	DATE: 05/25/2012
		DRAWN BY: D.RAY, J.SCHENKMAN	DATE: 05/25/2012
		CHECKED BY: E.FROBERG	DATE: 05/25/2012

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990

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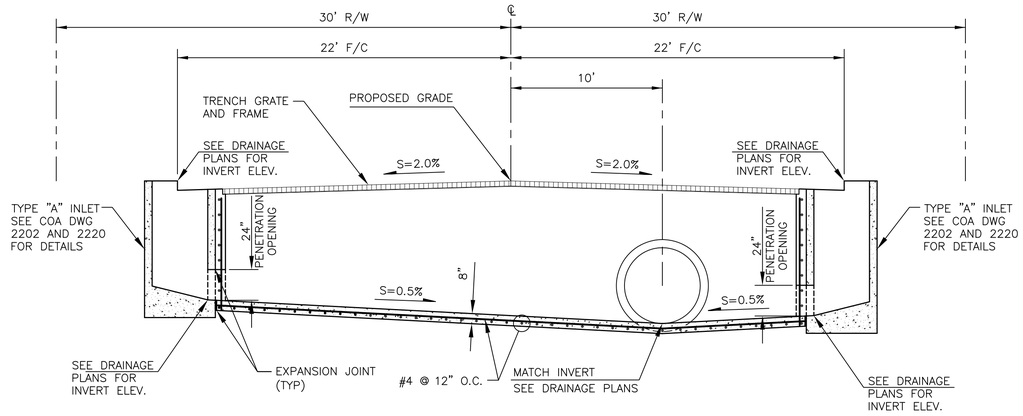
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD - PHASE I
STORM DRAIN DETAILS

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

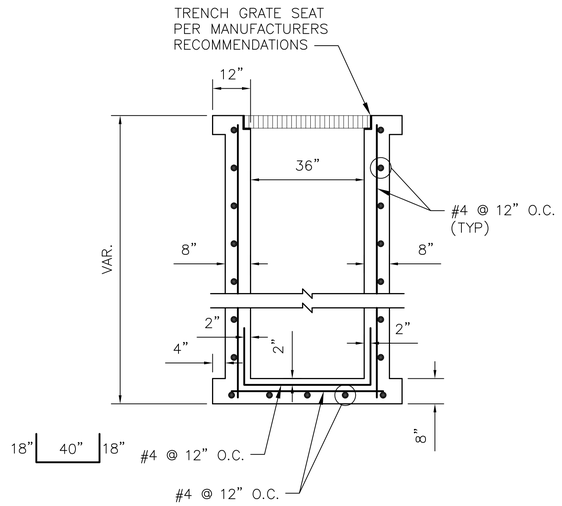
City Project No.	Zone Map No.	Sheet	Of
6920.91	E16, D16, D17	26	66

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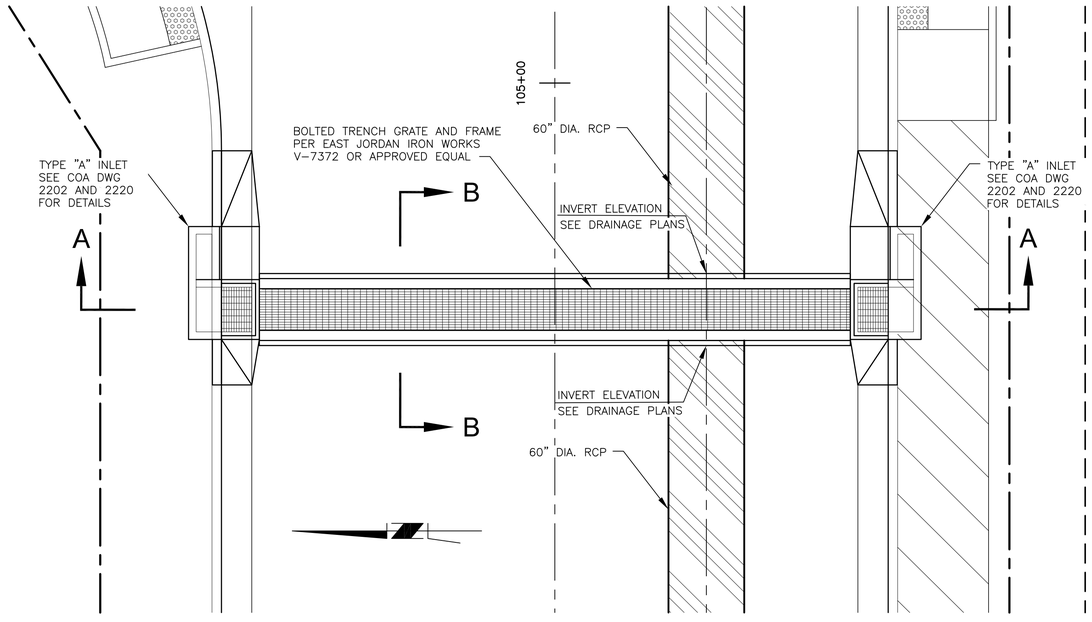
SECTION A-A

SCALE: HORIZ. 1"=5'
VERT. 1"=5'



SECTION B-B

SCALE: 1/2"=1'-0"



TRENCH GRATE AND INLETS

SCALE: 1"=5'

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7/27/2012 11:35:40 AM Jennifer Schenkman Phoenix Full Scale.ctb

AS BUILT INFORMATION

CONTRACTOR DATE
WORK STAKED BY DATE
INSPECTION BY
ACCEPTANCE BY DATE
FIELD LOCATION BY DATE
DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION

RECORDED BY DATE
NO.

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
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LIGHT STANCHION

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

ENGINEER'S SEAL

ERIC J. FROBERG NEW MEXICO 18855 PROFESSIONAL ENGINEER

07/30/2012

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		DESIGN	DATE: 05/25/2012
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		CHECKED BY: E.FROBERG	DATE: 05/25/2012

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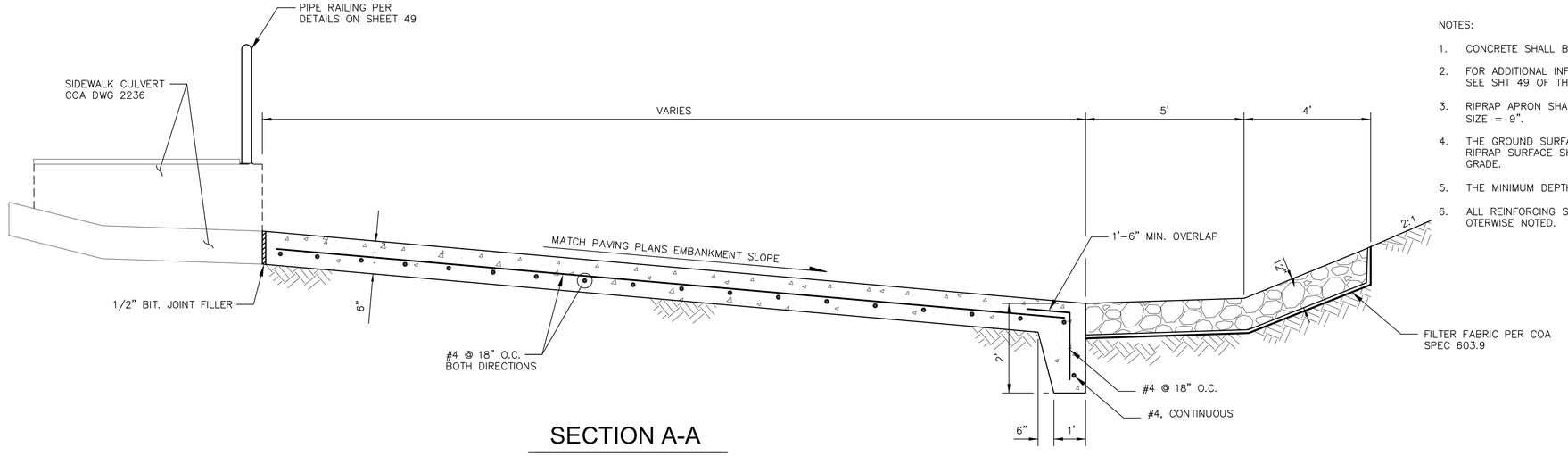
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MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD - PHASE I
TRENCH GRATE DETAILS

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 27 Of 66

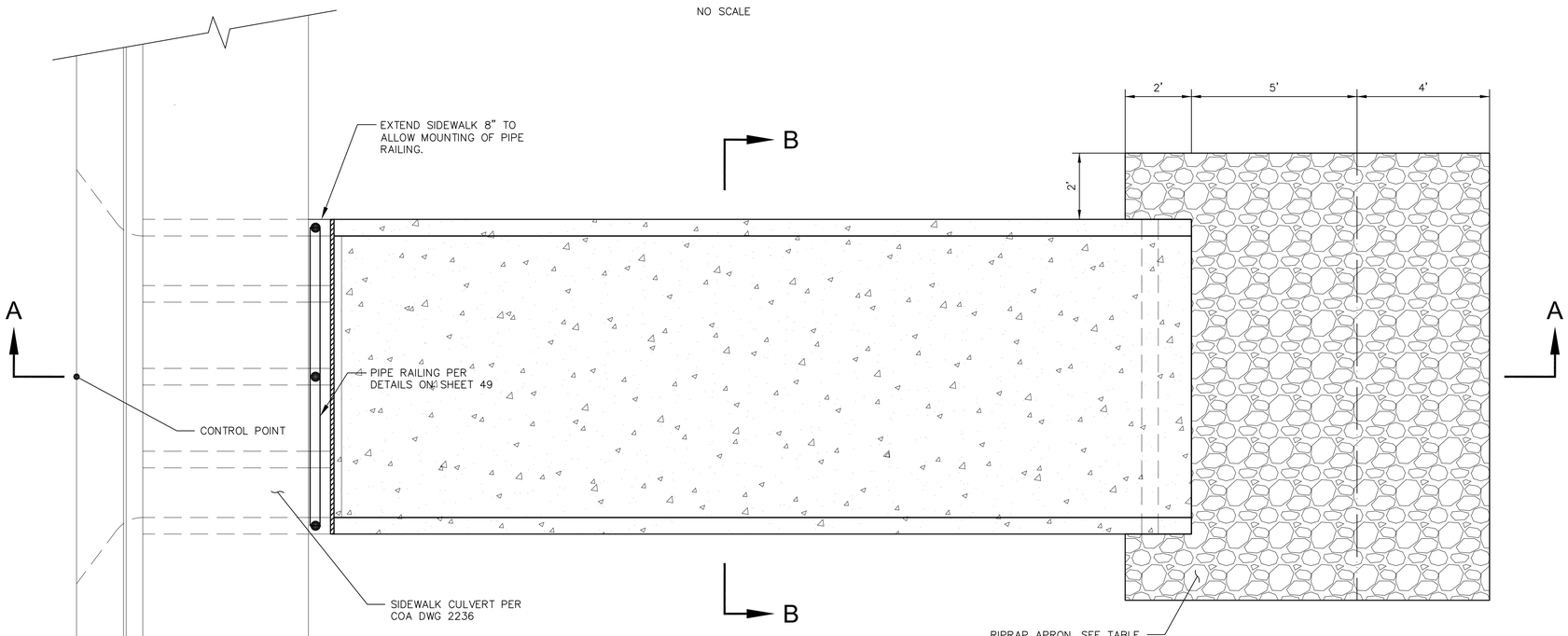


SECTION A-A

NO SCALE

NOTES:

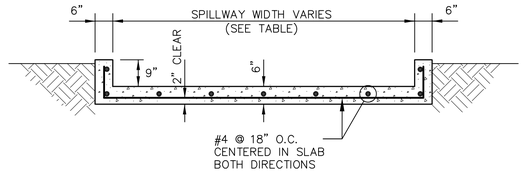
1. CONCRETE SHALL BE f'c=3000 PSI.
2. FOR ADDITIONAL INFORMATION ON PIPE RAILING SEE SHT 49 OF THIS SET.
3. RIPRAP APRON SHALL USE RIPRAP D50=6". NOMINAL MAX SIZE = 9".
4. THE GROUND SURFACE SHALL BE EXCAVATED SO THAT RIPRAP SURFACE SHALL BE FLUSH WITH THE FINISHED GRADE.
5. THE MINIMUM DEPTH OF RIPRAP PLACEMENT SHALL BE 12"
6. ALL REINFORCING STEEL SHALL HAVE 2" CLEAR UNLESS OTERWISE NOTED.



SPILLWAY

NO SCALE

CONTROL POINT STA	SPILLWAY WIDTH (FT.)	RIPRAP VOLUME (C.Y.)	FILTER FABRIC (S.F.)	PIPE RAIL (L.F.)
18+48.87	13	6.3	170	14
30+10.71	17.5	7.8	211	18.5



SECTION B-B

NO SCALE

AS BUILT INFORMATION

CONTRACTOR — DATE
WORK STAKED BY — DATE
INSPECTION & ACCEPTANCE BY — DATE
FIELD CORRECTION BY — DATE
DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION

RECORDED BY — DATE
NO.

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
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TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
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ENGINEER'S SEAL

ERIC J. FROBERG — NEW MEXICO — 18855 — PROFESSIONAL ENGINEER

07/30/2012

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	DESIGNED BY: R.STRICKLAND — DATE: 05/25/2012
			DRAWN BY: D.RAY, J.SCHENKMAN — DATE: 05/25/2012
			CHECKED BY: E.FROBERG — DATE: 05/25/2012

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CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

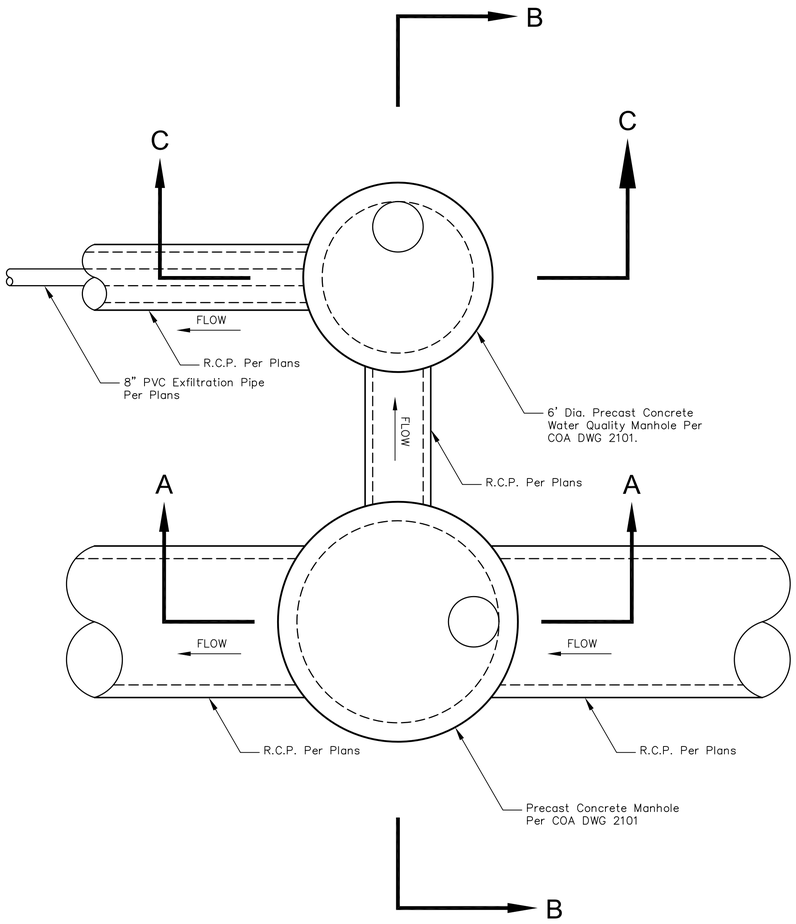
TITLE: CHANNEL ROAD - PHASE I
SPILLWAY DETAILS

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 28 Of 66

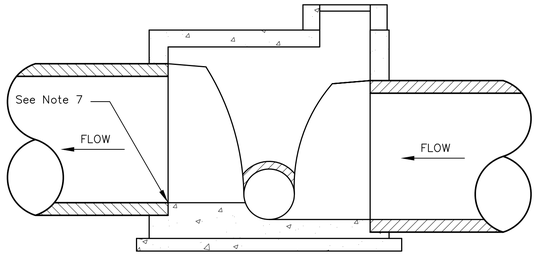
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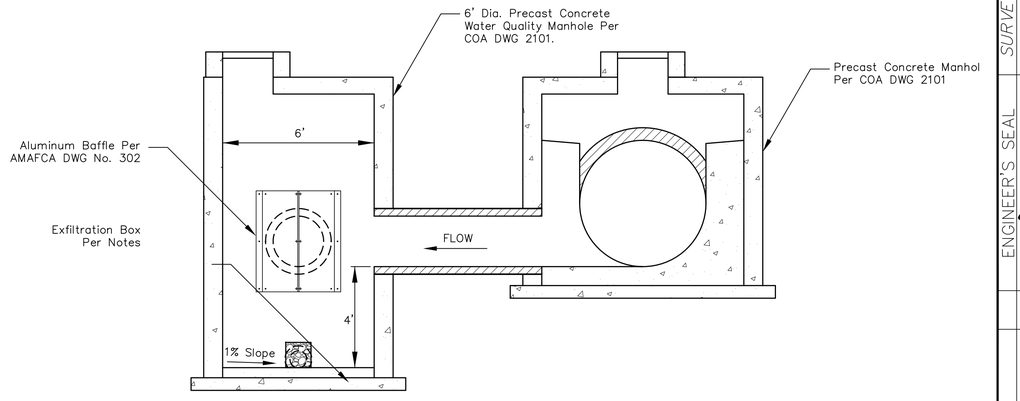
DEBRIS TREATMENT MANHOLE SYSTEM

NO SCALE



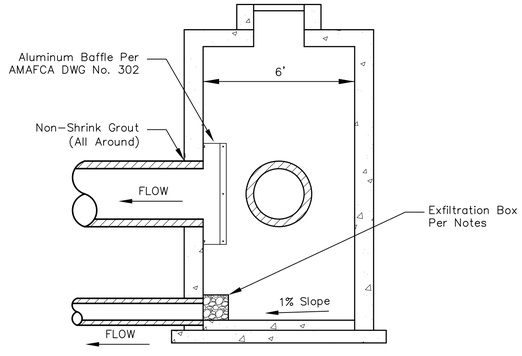
SECTION A-A

NO SCALE



SECTION B-B

NO SCALE



SECTION C-C

NO SCALE

Notes:
1. See AMAFCA Standard Detail 301 for additional information.

2. See AMAFCA Standard Detail 302 for Aluminum baffle details.

3. See Storm Drain Plan and Profiles for pipe sizes, lengths, and inverts.

4. Exfiltration box shall be 1" gravel encased in ½" galvanized wire mesh.

5. Secure Exfiltration box to Water Quality Manhole using 1" galvanized angle bracket and ½" stainless steel bolts and expansion anchors.

6. Slope Water Quality Manhole floor to invert of the exfiltration pipe (Slope=1%±).

7. Inverts of Inlet and outlet pipes shall be as shown on plans. Invert of outflow pipe of trunkline shall be a minimum of 8" above the invert of the inflow pipe.

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

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LIGHT STANCHION

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INSPECTION BY
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DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION

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ENGINEER'S SEAL

ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER
07/30/2012

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY: R.STRICKLAND	DATE: 05/25/2012
		DRAWN BY: D.RAY, J.SCHENKMAN	DATE: 05/25/2012
		CHECKED BY: E.FROBERG	DATE: 05/25/2012

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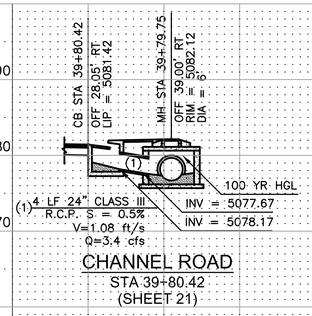
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD - PHASE I
STORM WATER QUALITY MANHOLE DETAILS

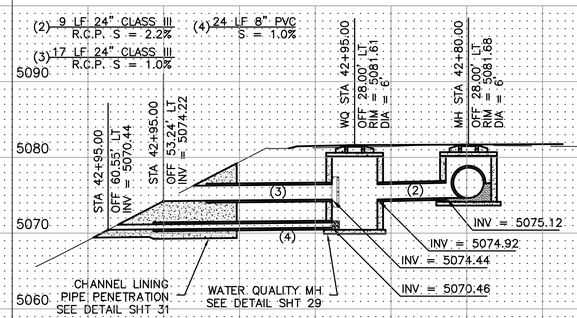
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 29 Of 66

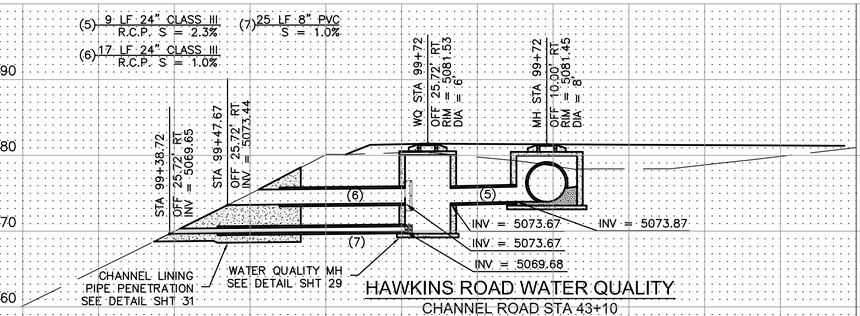
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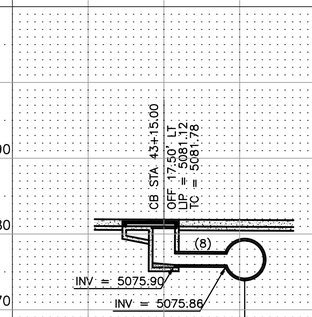
CHANNEL ROAD
STA 39+80.42
(SHEET 21)



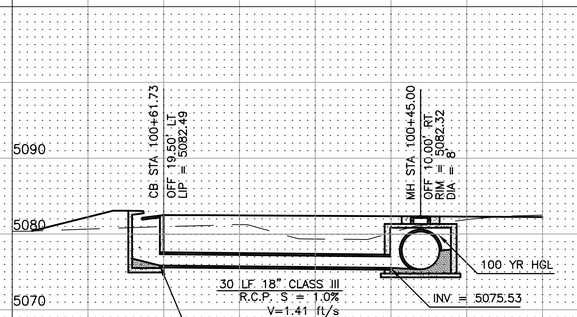
CHANNEL ROAD WATER QUALITY
STA 42+95
(SHEET 23 & 25)



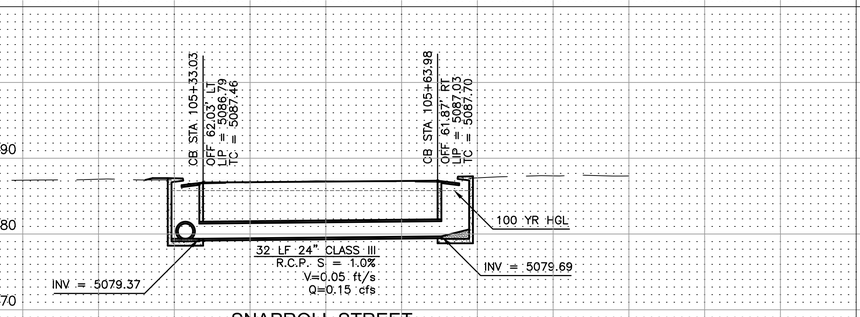
HAWKINS ROAD WATER QUALITY
CHANNEL ROAD STA 43+10
(SHEET 23)



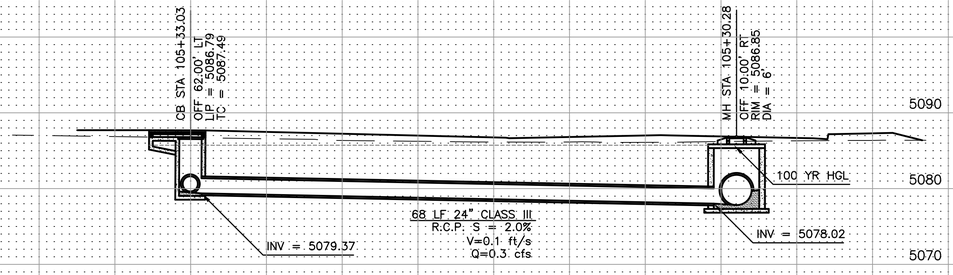
CHANNEL ROAD
STA 43+15.00
(SHEET 22)



HAWKINS ROAD
STA 100+61.73
(SHEET 23)



SNAPROLL STREET
(SHEET 23)



HAWKINS ROAD
STA 105+33.03
(SHEET 23)

SURVEY INFORMATION

NO.	FIELD NOTES BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 3/4" ALUMINUM DISK)
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AS BUILT INFORMATION

CONTRACTOR DATE
WORK STAKED BY DATE
SURVEY ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION

RECORDED BY DATE
NO.

ENGINEER'S SEAL

ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER
07/30/2012

NO.	REMARKS / REVISIONS	DATE	BY
	DESIGNED BY: R. STRICKLAND	DATE: 05/25/2012	
	DRAWN BY: D. RAY, J.SCHENKMAN	DATE: 05/25/2012	
	CHECKED BY: E. FROBERG	DATE: 05/25/2012	

10' 5' 0 10'
SCALE HORIZ: 1"= 10'
SCALE VERT: 1"= 10'

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ENGINEERING DIVISION

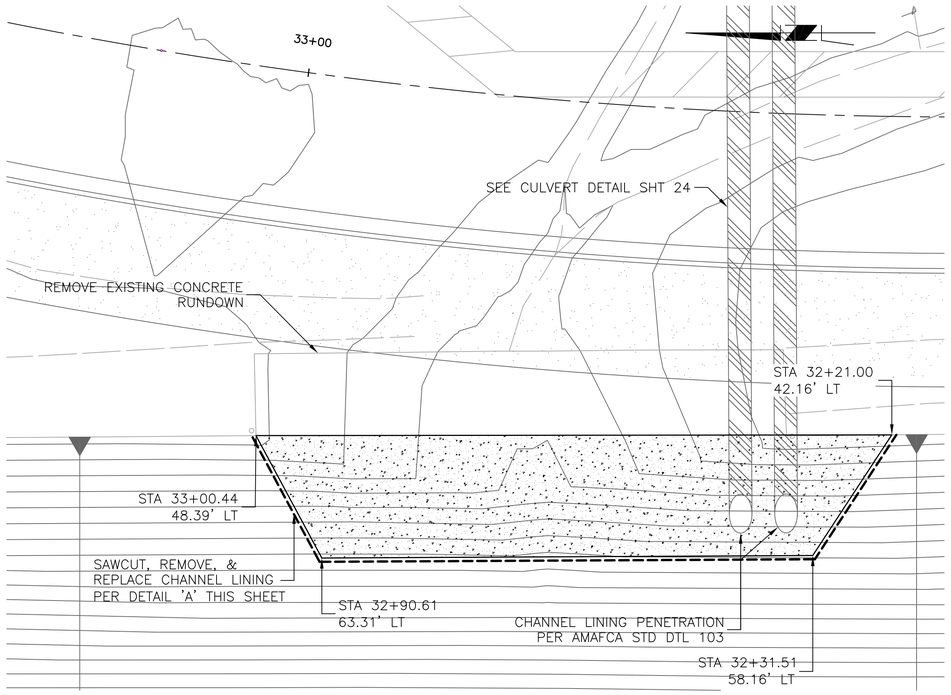
TITLE: CHANNEL ROAD - PHASE I
DRAINAGE PIPE LATERAL PROFILES/DETAILS

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
6920.91	E16, D16, D17	30	66

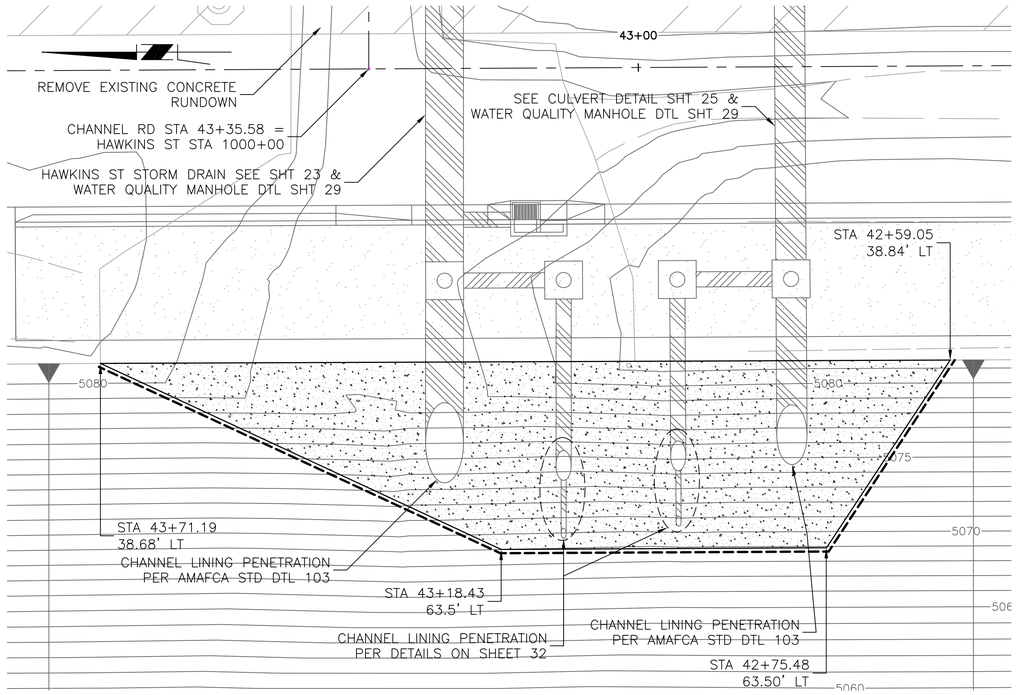
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7/27/2012 2:13:38 PM Jennifer Schenkman Phoenix Full Scale.ctb



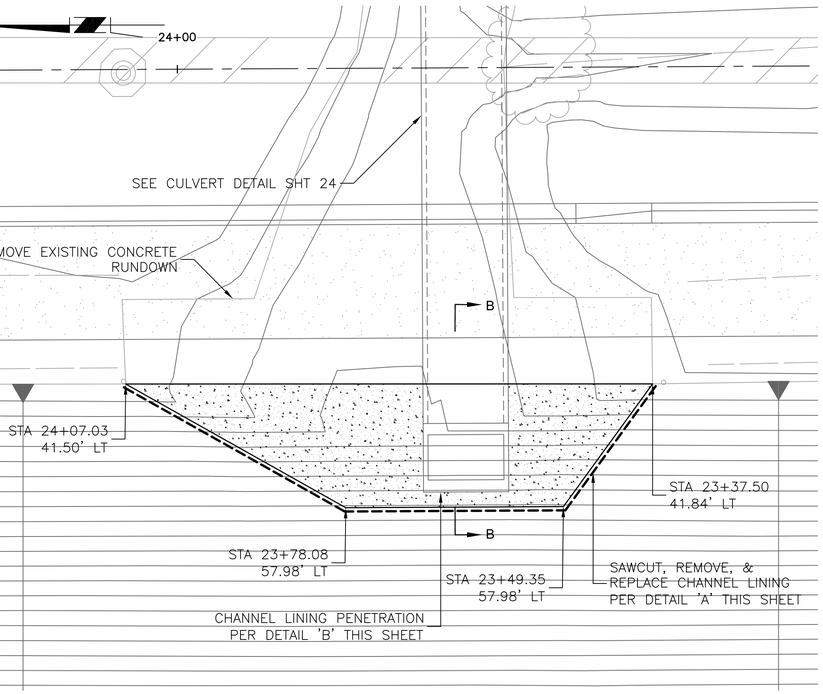
CHANNEL LINING AT 2-36" RCP

SCALE: 1"=5'



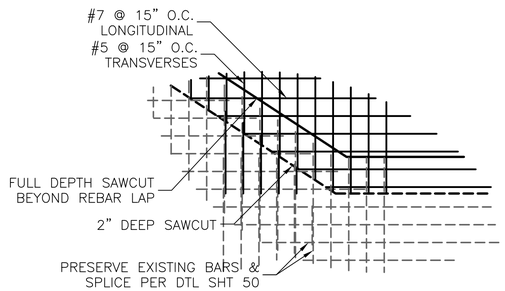
CHANNEL LINING AT HAWKINS STREET

SCALE: 1"=5'

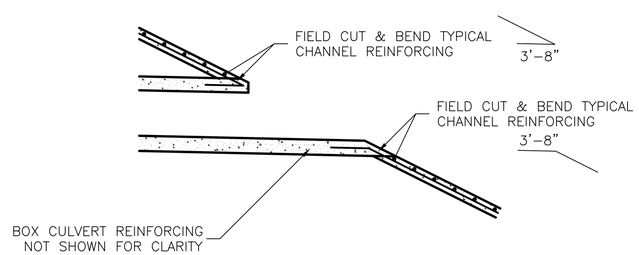


CHANNEL LINING AT 10'X3' BOX CULVERT

SCALE: 1"=5'



Detail 'A'



SECTION C–C

Detail 'B'

GENERAL NOTES:

1. SEE SHEET 32 FOR ADDITIONAL NOTES & DETAILS FOR CHANNEL LINING REPLACEMENT.

2. THE PIPE PENETRATION DETAILED HEREIN SHALL BE PAID FOR BY LUMP SUM (ON A SQUARE FOOT BASIS) AND SHALL BE COMPENSATION FOR THE PENETRATION COMPLETE AND IN PLACE. INCLUDED IN THIS WORK (BUT NOT LIMITED TO) IS GRADING, SUBGRADE PREPARATION, REINFORCED CONCRETE, CONSTRUCTION JOINTS, CONCRETE PLACEMENT, AND FINISHING. NOTE THE MEASUREMENT FOR THE 8" CHANNEL LINING IS CONTINUOUS AND UNINTERRUPTED AT THE PENETRATION LOCATION.

3. REINFORCING STEEL AND PLACEMENT SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SHALL CONFORM TO ASTM A615, GRADE 60. ALL LAP SPLICES SHALL BE CLASS 'B' UN3ESS OTHERWISE NOTED. REINFORCING STEEL SHALL BE INCIDENTAL TO THE PIPE PENETRATION.

4. UNLESS OTHERWISE NOTED ALL STEEL SHALL BE A MIN. OF 3" CLEAR.

5. END OF BOX CULVERT AND CHANNEL LINING TO BE PLACED MONOLITHICALLY.

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AS BUILT INFORMATION
CONTRACTOR DATE
WORK STAKED BY DATE
SURVEYED BY
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BENCH MARKS
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MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

ENGINEER'S SEAL
ERIC J. FROBERG NEW MEXICO 18855 PROFESSIONAL ENGINEER
07/30/2012

NO.	REMARKS	BY	DATE
	REVISIONS		
	DESIGN		
	DESIGNED BY: R.STRICKLAND		DATE: 05/25/2012
	DRAWN BY: D.RAY, J.SCHENKMAN		DATE: 05/25/2012
	CHECKED BY: E.FROBERG		DATE: 05/25/2012

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Albuquerque, NM 87102

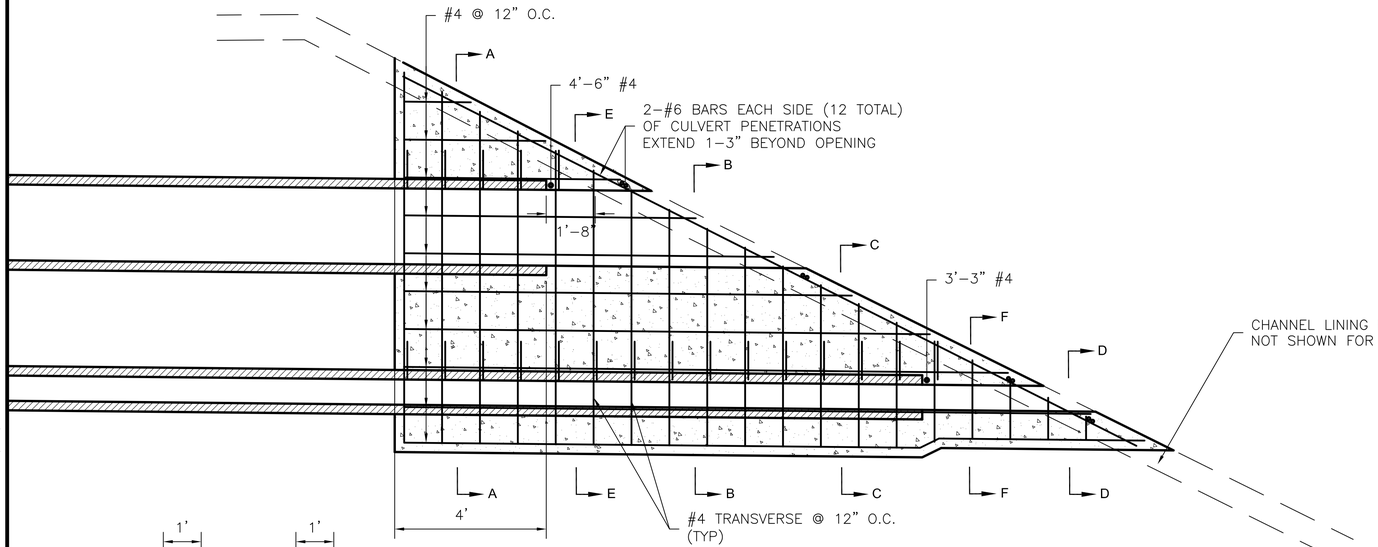
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

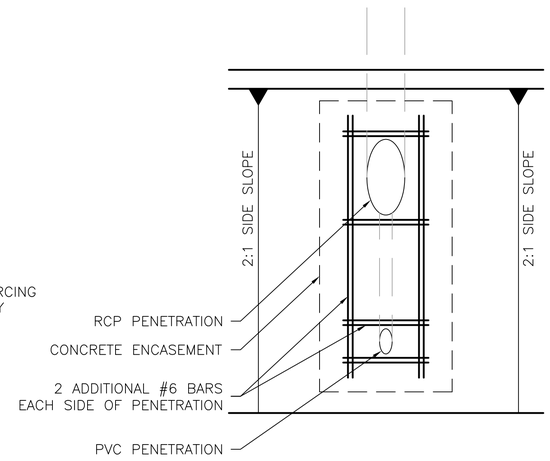
TITLE: CHANNEL ROAD - PHASE I
CHANNEL LINING REPLACEMENT DETAILS

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 31 Of 66

P:\221706.00 – Osuna Road City of Albuquerque\CADD\DLV\1706-ChannelRD – DT31.dwg





PIPE PENETRATION (PLAN VIEW)

NOTES

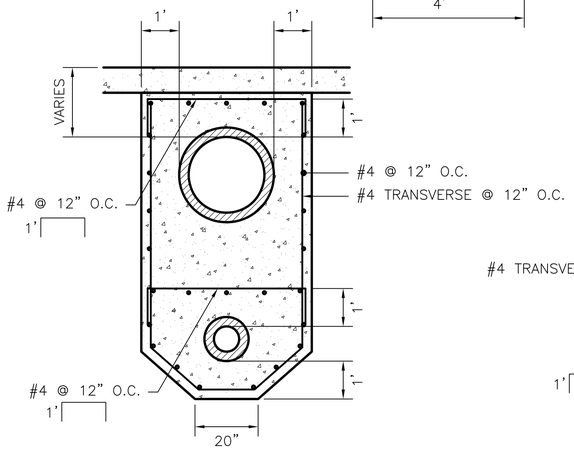
1. THE PIPE PENETRATION DETAILED HEREIN SHALL BE PAID FOR BY LUMP SUM (ON A SQUARE FOOT BASIS) AND SHALL BE COMPENSATION FOR THE PENETRATION COMPLETE AND IN PLACE. INCLUDED IN THIS WORK (BUT NOT LIMITED TO) IS GRADING, SUBGRADE PREPARATION, REINFORCED CONCRETE, CONSTRUCTION JOINTS, CONCRETE PLACEMENT, AND FINISHING. NOTE THE MEASUREMENT FOR THE 8" CHANNEL LINING IS CONTINUOUS AND UNINTERRUPTED AT THE PENETRATION LOCATION.

2. SEE DETAIL SHEET 30 FOR ADDITIONAL INFORMATION.

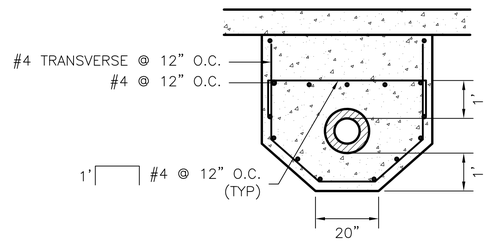
3. CONCRETE FROM THE BOTTOM OF THE CHANNEL LINING TO THE EXPOSED SURFACE SHALL BE TINTED WITH SAN DIEGO BUFF (DAVIS COLOR 5237) AT THE REDUCED DOSAGE OF 1 LB PER SACK OF CEMENT, OR APPROVED EQUAL. TINT SHALL BE INCIDENTAL TO THE COST OF THE RESPECTIVE CONCRETE.

4. REINFORCING STEEL AND PLACEMENT SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SHALL CONFORM TO ASTM A615, GRADE 60. ALL LAP SPLICES SHALL BE CLASS 'B' UNLESS OTHERWISE NOTED. REINFORCING STEEL SHALL BE INCIDENTAL TO THE PIPE PENETRATION.

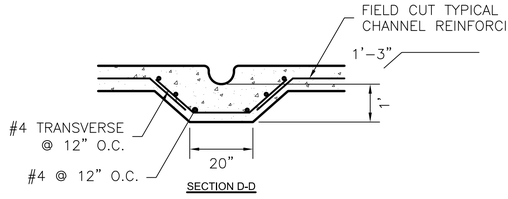
5. UNLESS OTHERWISE NOTED ALL STEEL SHALL BE A MIN. OF 3" CLEAR.



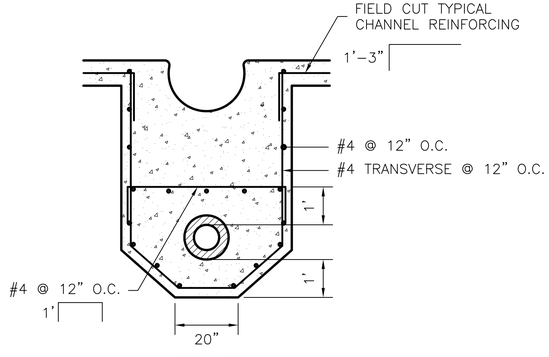
SECTION A-A



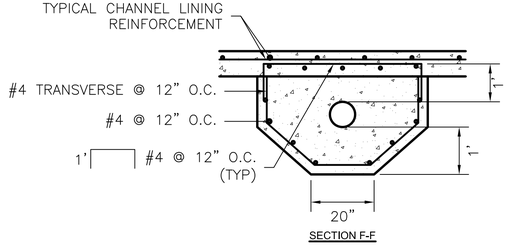
SECTION C-C



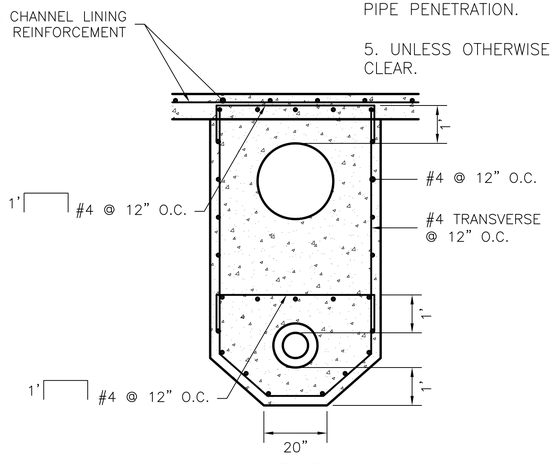
SECTION D-D



SECTION B-B



SECTION F-F



SECTION E-E

Two working days before you dig,
CALL NEW MEXICO ONE CALL SYSTEM
260-1990

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CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: **CHANNEL ROAD - PHASE I**
STORM WATER QUALITY
PENETRATION DETAILS

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 32 Of 66

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR DATE
WORK STAKED BY DATE
FIELD WORKS ACCEPTANCE BY DATE
FIELD DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION

RECORDED BY DATE
NO.

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	

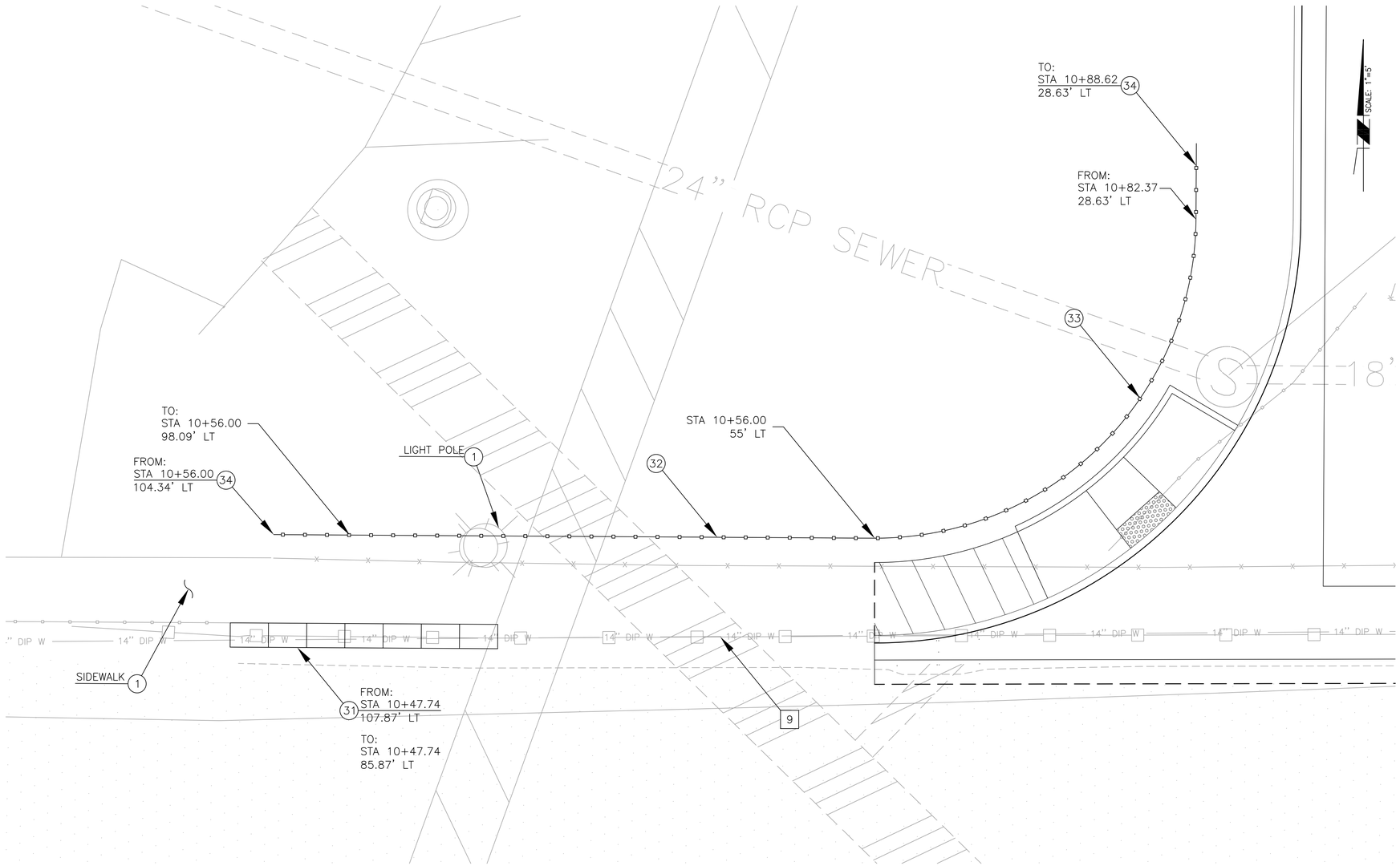
DESIGNED BY: R.STRICKLAND DATE: 05/25/2012
DRAWN BY: D.RAY, J.SCHENKMAN DATE: 05/25/2012
CHECKED BY: E.FROBERG DATE: 05/25/2012

ENGINEER'S SEAL

ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER
07/30/2012

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BARRIER INSTALLATION AT OSUNA ROAD

SCALE: 1"=5'

ITEM	DESCRIPTION	QTY
401.01	GUARDRAIL, NMDOT 606-01	43 LF
401.03X	GUARD RAIL END ANCHOR TYPE 'B', NMDOT 606-06	2 EA
401.04X	CURVED GUARD RAIL, NMDOT 606-06	41 LF
401.05X	ABSORB 350 CRASH ATTENUATOR	1 EA
401.060	EX GUARD RAIL, REMOVE & DISPOSE, INCL ANCHORS	135 LF

NOTES

1. ABSORB 350 ATTENUATOR SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. REMOVE CURB & GUTTER AND SIDEWALK AS NECESSARY TO ALLOW APPROPRIATE ATTACHMENT TO EXISTING BRIDGE BARRIER END. CURB & GUTTER SHALL BE REMOVED BY NEATLY SAWCUTTING THE C&G, ASPHALT PAVEMENT, AND SIDEWALK. ONLY THE AMOUNT REQUIRED TO CORRECTLY INSTALL THE ATTENUATOR SHALL BE REMOVED.

ONCE THE CURB & GUTTER IS REMOVED THE SUBGRADE SHALL BE ADJUSTED TO THE PROVIDE A FLAT SURFACE FOR THE INSTALLATION OF THE ATTENUATOR. REMOVAL AND ADJUSTMENT OF CURB & GUTTER, PAVEMENT, & SIDEWALK SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF THE ATTENUATOR SYSTEM.

2. ADJUSTMENTS TO THE ROADSIDE REQUIRED TO INSTALL THE GUARDRAIL ACCORDING TO THE NMDOT DETAIL SHALL BE CONSIDERED INCIDENTAL TO THE GUARDRAIL INSTALLATION.

3. THE ABSORB 350 ATTENUATOR SYSTEM SHALL MEET NCHRP 350 TL-2 TEST CRITERIA.

REMOVAL/RELOCATE

9	REMOVE EXISTING GUARDRAIL	135 LF

CONSTRUCTION NOTES

1	PROTECT IN PLACE	
31	INSTALL ABSORB 350 (TL-2) ATTENUATOR. SEE NOTES 1.	1 EA
32	INSTALL NEW W-BEAM GUARDRAIL PER NMDOT DETAIL 606-01.	43 LF
33	INSTALL NEW CURVED GUARDRAIL PER NMDOT 606-06	41 LF
34	INSTALL NEW TYPE 'B' END ANCHOR PER NMDOT DETAIL 606-06	2 EA

SURVEY INFORMATION — FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR — DATE
WORK STAKED BY — DATE
INSPECTED BY — ACCEPTANCE — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION

RECORDED BY — DATE
NO.

ENGINEER'S SEAL

ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER
07/30/2012

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY: R.STRICKLAND	DATE: 05/25/2012
		DRAWN BY: D.RAY, J.SCHENKMAN	DATE: 05/25/2012
		CHECKED BY: E.FROBERG	DATE: 05/25/2012

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990

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Albuquerque, NM 87102

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE:
CHANNEL ROAD - PHASE I
DETAILS
BARRIER AT OSUNA ROAD

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
6920.91	E16, D16, D17	33	66

7/27/2012 2:36:53 PM Jennifer Schenkman Phoenix Full Scale.ctb
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SIGNING AND PAVEMENT MARKING NOTES:

1. ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH THE LATEST VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS, AND THESE PLANS.

2. ALL SIGNS SHALL BE MADE OF TYPE IV PRISMATIC SHEETING WITH SHEETING TYPE ASTM D4956-04 AS PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 2009 EDITION.

3. AT ALL INTERSECTIONS, SIGNALIZED AND NON-SIGNALIZED, STRIPING SHALL BE REFRESHED 100' EAST AND WEST OF CHANNEL ROAD. ON STREETS WHERE THE EXISTING STRIPING IS LESS THAN 100', THE STRIPING SHALL BE REFRESHED TO THE EXISTING LENGTH AS SHOWN IN THE PLANS.

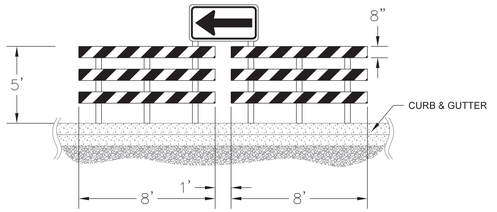
4. ANY SILK SCREENED SIGNS SHALL HAVE AN ANTI-GRAFFITI FILM APPLIED.

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT
441.001	REFLECTORIZED PLASTIC PAVEMENT MARKINGS, 4" WIDTH YELLOW, CIP	7,940	LF
441.002	REFLECTORIZED PLASTIC PAVEMENT MARKINGS, 6" WIDTH WHITE, CIP	6,510	LF
441.004	REFLECTORIZED PLASTIC PAVEMENT MARKINGS, 8" WIDTH YELLOW, CIP	460	LF
441.005	REFLECTORIZED PLASTIC PAVEMENT MARKINGS, 24" WIDTH WHITE, CIP	110	LF
441.010	REFLECTORIZED PLASTIC ARROW, RIGHT, CIP	4	EA
441.020	REFLECTORIZED PLASTIC WORD, "ONLY" CIP	2	EA
450.001	ALUMINUM PANEL SIGN, CIP	133	SF
450.010	SQUARE TUBE STEEL POSTS & BASE POSTS FOR ALUMINUM PANEL SIGN, CIP	20	EA
450.020	PERMANENT BARRICADE, TYPE III, 8' CIP	6	EA

PAVEMENT MARKING DETAILS - CROSSWALK AND APPROACH

A. 24" X 10' LONGITUDINAL CROSSWALK MARKINGS SHALL BE INSTALLED CENTERED AT EACH DRIVING LANE AS SHOWN ABOVE TO AVOID THE WHEEL PATHS. LAYOUT AT EACH INTERSECTION SHALL REQUIRE APPROVAL BY THE CITY PROJECT MANAGER PRIOR TO INSTALLATION.

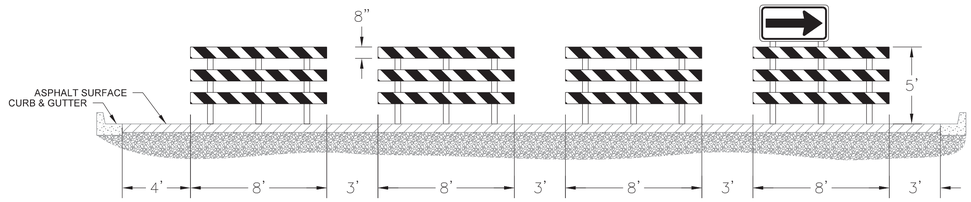


TYPE III BARRICADE DETAIL - 1

A. TWO (2) TYPE III BARRICADE SHALL CONSIST OF 6" RED AND WHITE STIPRES AT A 45-DEGREE ANGLE AS SHOWN ABOVE.

B. EACH BARRICADE SHALL BE 5 FEET IN HEIGHT AND 8 FEET IN WIDTH.

C. A W1-6L 48"X24" SHALL BE INSTALLED ABOVE THE BARRICADES AS SHOWN ABOVE.

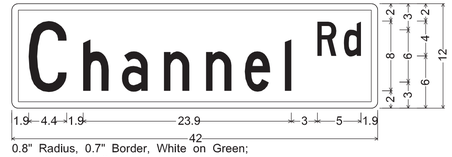


TYPE III BARRICADE DETAIL - 2

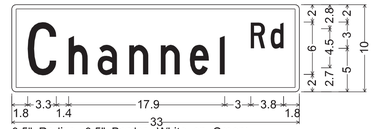
A. Four (4) TYPE III BARRICADE SHALL CONSIST OF 6" RED AND WHITE STIPRES AT A 45-DEGREE ANGLE AS SHOWN ABOVE.

B. EACH BARRICADE SHALL BE 5 FEET IN HEIGHT AND 8 FEET IN WIDTH.

C. A W1-6R 48"X24" SHALL BE INSTALLED ABOVE THE RIGHT BARRICADE AS SHOWN ABOVE.



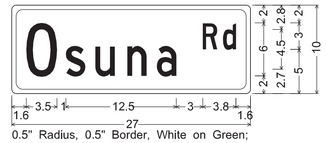
0.8" Radius, 0.7" Border, White on Green;
[Channel] C; [Rd] C;



0.5" Radius, 0.5" Border, White on Green;
[Channel] C; [Rd] C;



0.5" Radius, 0.5" Border, White on Green;
[Hawkins] C; [St] C;



0.5" Radius, 0.5" Border, White on Green;
[Osuna] C; [Rd] C;

STREET NAME SIGN LAYOUT

A. "CHANNEL ROAD" STREET NAME TO BE DETERMINED. CONTRACTOR TO CONFIRM PRIOR TO INSTALLATION.

AS BUILT INFORMATION

CONTRACTOR DATE
WORK PERFORMED BY:
INSPECTOR'S ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION

RECORDED BY DATE

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

ENGINEER'S SEAL

BASIL PATRICK LEE 7744 REGISTERED PROFESSIONAL ENGINEER NEW MEXICO

NO.	DATE	REMARKS
		REVISIONS
		DESIGN

DESIGNED BY: A. SINGH DATE: 12/16/2011
DRAWN BY: A. SINGH DATE: 12/16/2011
CHECKED BY: P. BYRD/P. BARRICKLOW DATE: 12/16/2011

8220 SAN PEDRO DRIVE NE
SUITE 150
ALBUQUERQUE, NM 87113
505/338-0988 FAX 505/338-0989
LEE ENGINEERING

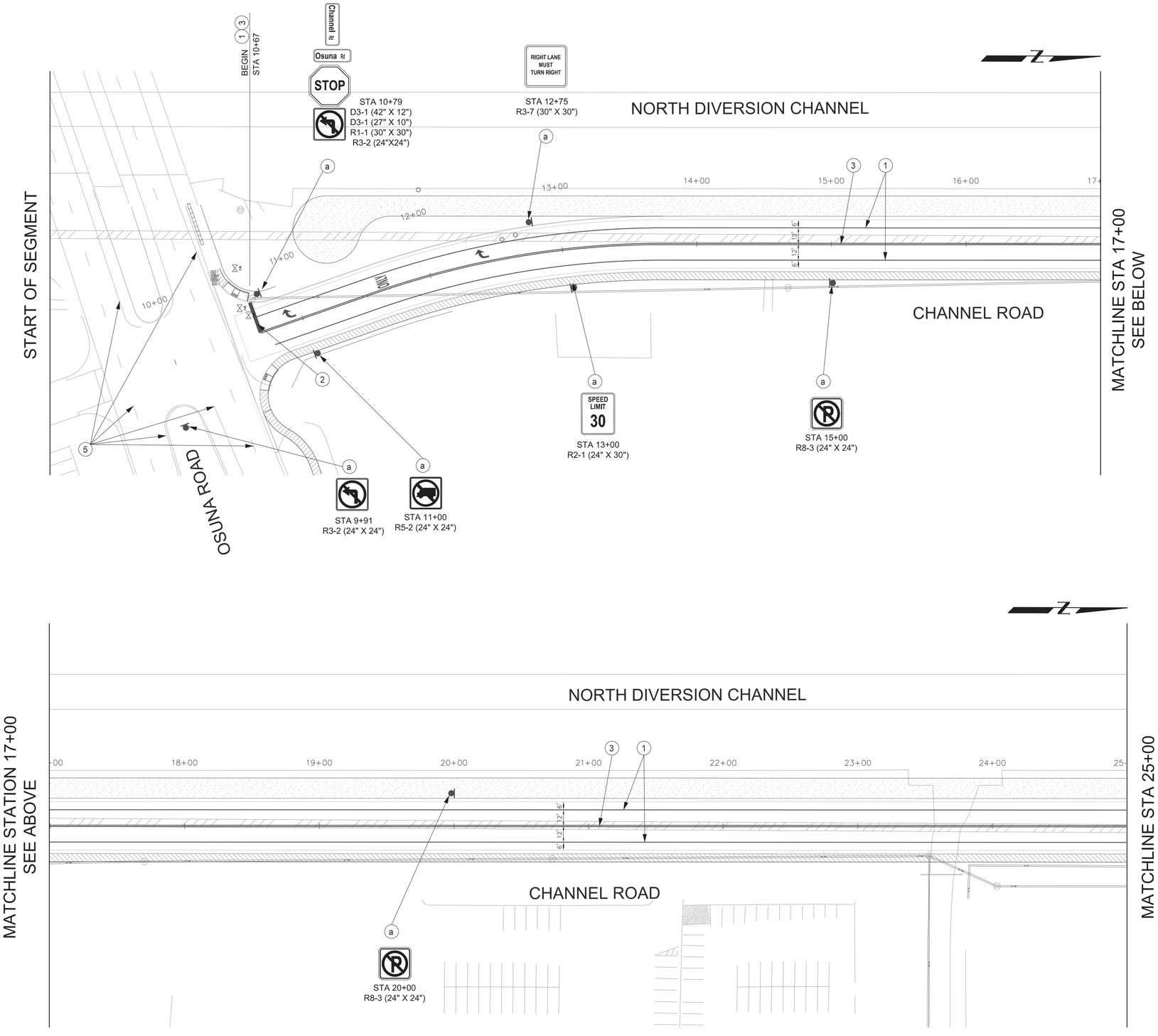
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CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD - PHASE I
SIGNING & PAVEMENT MARKING
NOTES AND DETAILS

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 34 Of 66



STRIPING:

(1)	INSTALL 6" SOLID WHITE THERMOPLASTIC PAVEMENT MARKINGS	2,860 LF
(2)	INSTALL 24" SOLID WHITE THERMOPLASTIC PAVEMENT MARKINGS	25 LF
(3)	INSTALL 4" SOLID YELLOW THERMOPLASTIC PAVEMENT MARKINGS (DOUBLE YELLOW)	2,870 LF
(5)	EXISTING STRIPING TO REMAIN	

PAVEMENT MARKING SYMBOLS:

INSTALL PREFORMED THERMOPLASTIC RIGHT TURN ARROW	2 EA
INSTALL PREFORMED THERMOPLASTIC "ONLY" LEGEND	1 EA

SIGNING:

(a)	INSTALL NEW SIGN	43 SF
	INSTALL SQUARE TUBE STEEL POSTS & BASE POSTS	7 EA

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM

15_E16 (1 3/4" ALUMINUM DISK)

NM STATE PLANE COORDINATES

CENTRAL ZONE NAD 1983

ELEVATION= 5092.856 (NAVD 1988)

SW QUADRANT OF OSUNA RD. NE. & THE NORTH DIVISION CHANNEL EPOXIED TO TOP OF CONCRETE BASE OF STREET LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR DATE

WORK STAKED BY: DATE

INSPECTOR'S ACCEPTANCE BY DATE

FIELD VERIFICATION BY DATE

DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION

RECORDED BY DATE

ENGINEER'S SEAL

FABIAN BARRICKLOW NEW MEXICO 7744 REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	

DESIGNED BY: A. SINGH DATE: 12/16/2011

DRAWN BY: A. SINGH DATE: 12/16/2011

CHECKED BY: P. BYRD/P. BARRICKLOW DATE: 12/16/2011

8220 SAN PEDRO DRIVE NE
SUITE 150
ALBUQUERQUE, NM 87113
505/338-0988 FAX 505/338-0989
LEE ENGINEERING

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Albuquerque, NM 87102

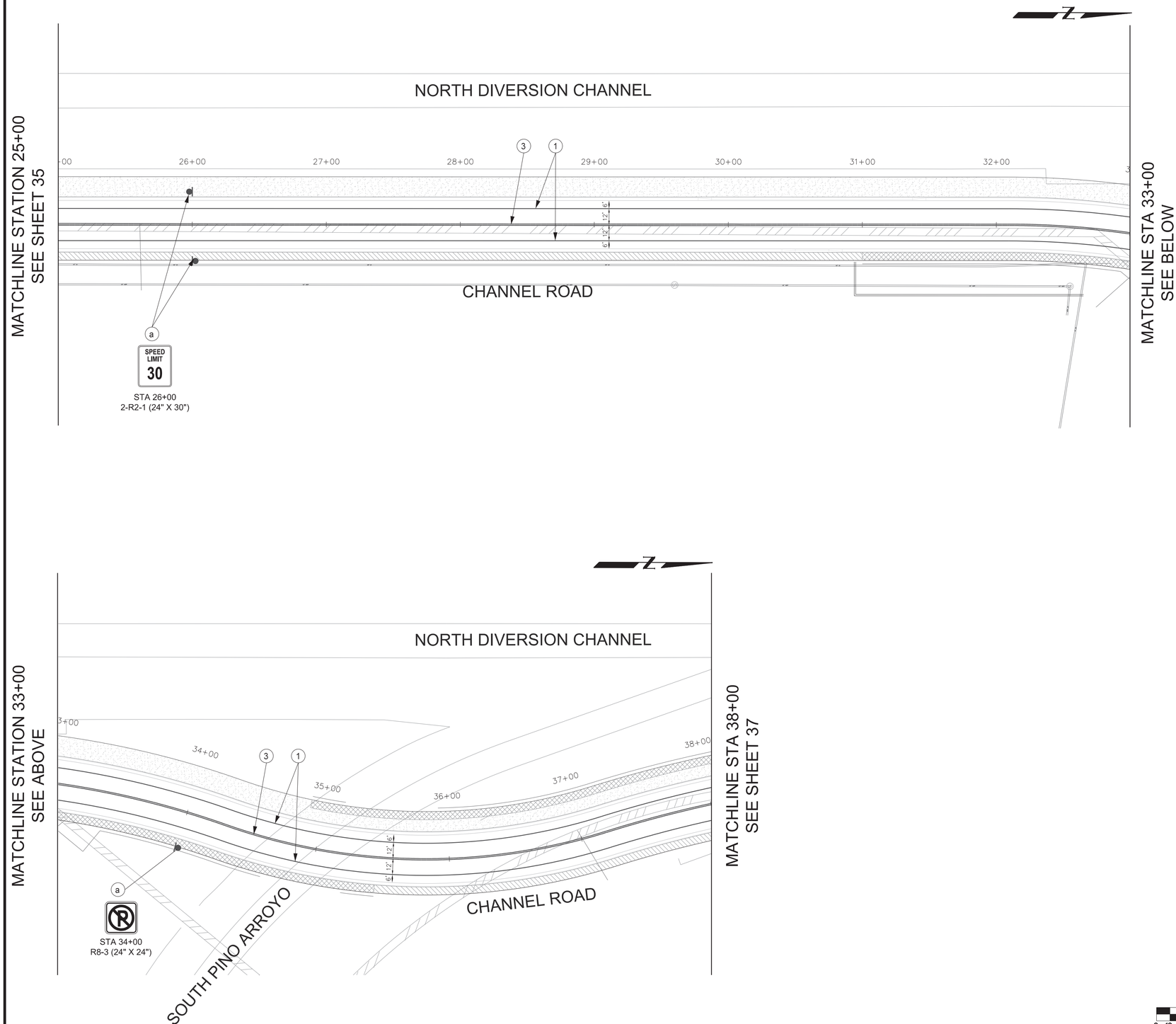
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE:

CHANNEL ROAD - PHASE I
SIGNING & STRIPING PLAN
STA 10+00 TO STA 25+00

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
6920.91	E16, D16, D17	35	66



STRIPING:

(1)	INSTALL 6" SOLID WHITE THERMOPLASTIC PAVEMENT MARKINGS	2,600 LF
(3)	INSTALL 4" SOLID YELLOW THERMOPLASTIC PAVEMENT MARKINGS (DOUBLE YELLOW)	2,600 LF

SIGNING:

(a)	INSTALL NEW SIGN INSTALL SQUARE TUBE STEEL POSTS & BASE POSTS	14 SF 3 EA

0 10 20 40 80

AS BUILT INFORMATION

CONTRACTOR DATE

WORK STAKED BY:
INSPECTOR'S ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION

RECORDED BY DATE

TO TOP OF CONCRETE BASE OF STREET LIGHT STANCHION NO.

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15, E16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

ENGINEER'S SEAL

PAUL A. BARRICKLOW NEW MEXICO 7744 REGISTERED

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY: A. SINGH DATE: 12/16/2011	
		DRAWN BY: A. SINGH DATE: 12/16/2011	
		CHECKED BY: P. BYRD/P. BARRICKLOW DATE: 12/16/2011	

8220 SAN PEDRO DRIVE NE
SUITE 150
ALBUQUERQUE, NM 87113
505/338-0988 FAX 505/338-0989
LEE ENGINEERING

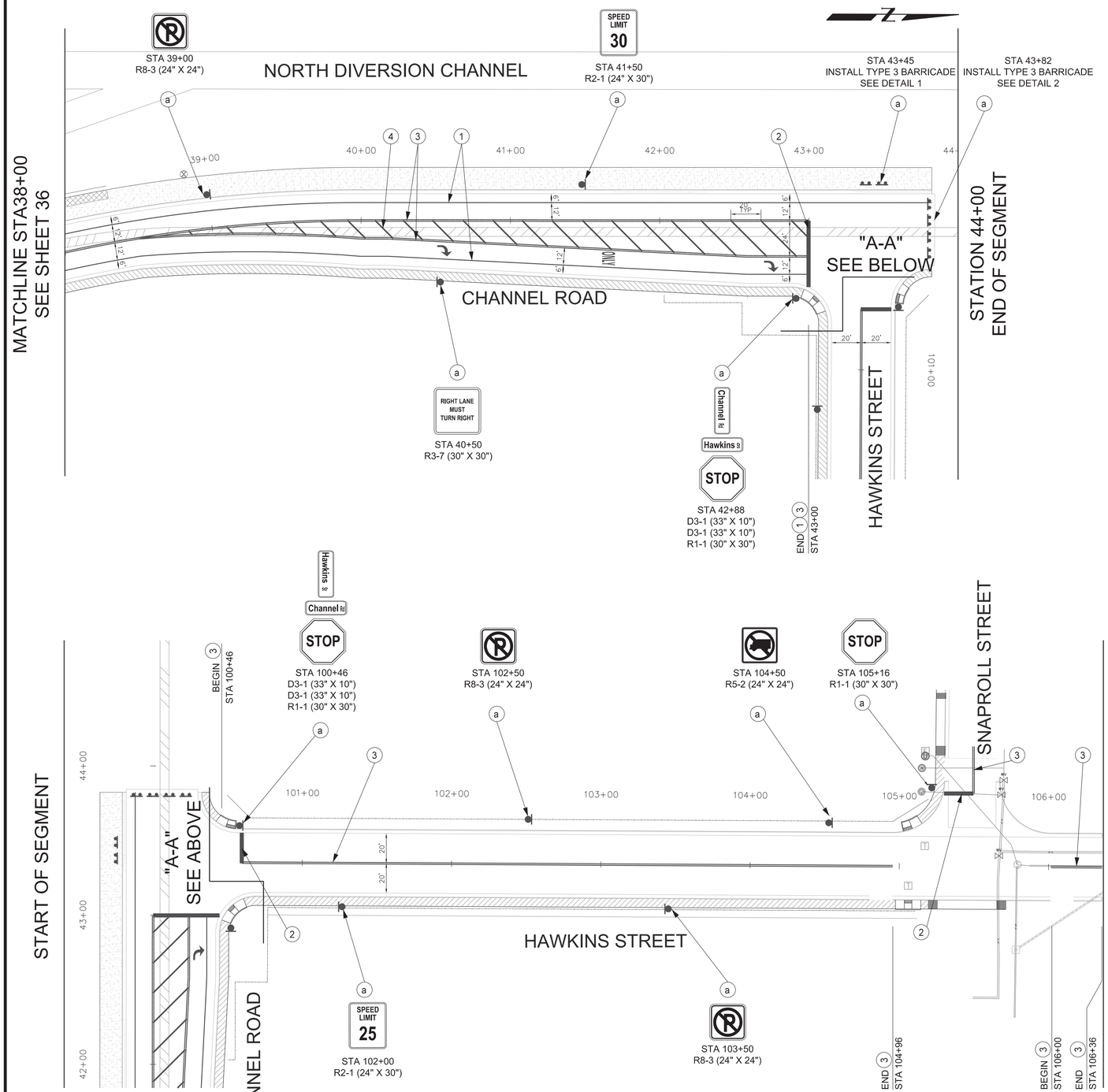
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Albuquerque, NM 87102

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE:
CHANNEL ROAD - PHASE I
SIGNING & STRIPING PLAN
STA 25+00 TO STA 38+00

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 36 Of 66



STRIPING:

1	INSTALL 6" SOLID WHITE THERMOPLASTIC PAVEMENT MARKINGS	1,050 LF
2	INSTALL 24" SOLID WHITE THERMOPLASTIC PAVEMENT MARKINGS	85 LF
3	INSTALL 4" SOLID YELLOW THERMOPLASTIC PAVEMENT MARKINGS (DOUBLE YELLOW)	2,470LF
4	INSTALL 8" SOLID YELLOW THERMOPLASTIC PAVEMENT MARKINGS	460 LF

PAVEMENT MARKING SYMBOLS:

INSTALL PREFORMED THERMOPLASTIC RIGHT TURN ARROW	2 EA
INSTALL PREFORMED THERMOPLASTIC "ONLY" LEGEND	1 EA

SIGNING:

a	INSTALL NEW SIGN	76 SF
	INSTALL SQUARE TUBE STEEL POSTS & BASE POSTS	10 EA
	INSTALL TYPE 3 BARRICADE	6 EA

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR DATE
WORK PERFORMED BY:
INSPECTOR'S ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE
MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

ENGINEER'S SEAL

FAMELA A. BARRICKLOW NEW MEXICO 7744 REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY: A. SINGH	DATE: 12/16/2011
		DRAWN BY: A. SINGH	DATE: 12/16/2011
		CHECKED BY: P. BYRD/P. BARRICKLOW	DATE: 12/16/2011

8220 SAN PEDRO DRIVE NE
SUITE 150
ALBUQUERQUE, NM 87113
505/338-0988 FAX 505/338-0989
LEE ENGINEERING

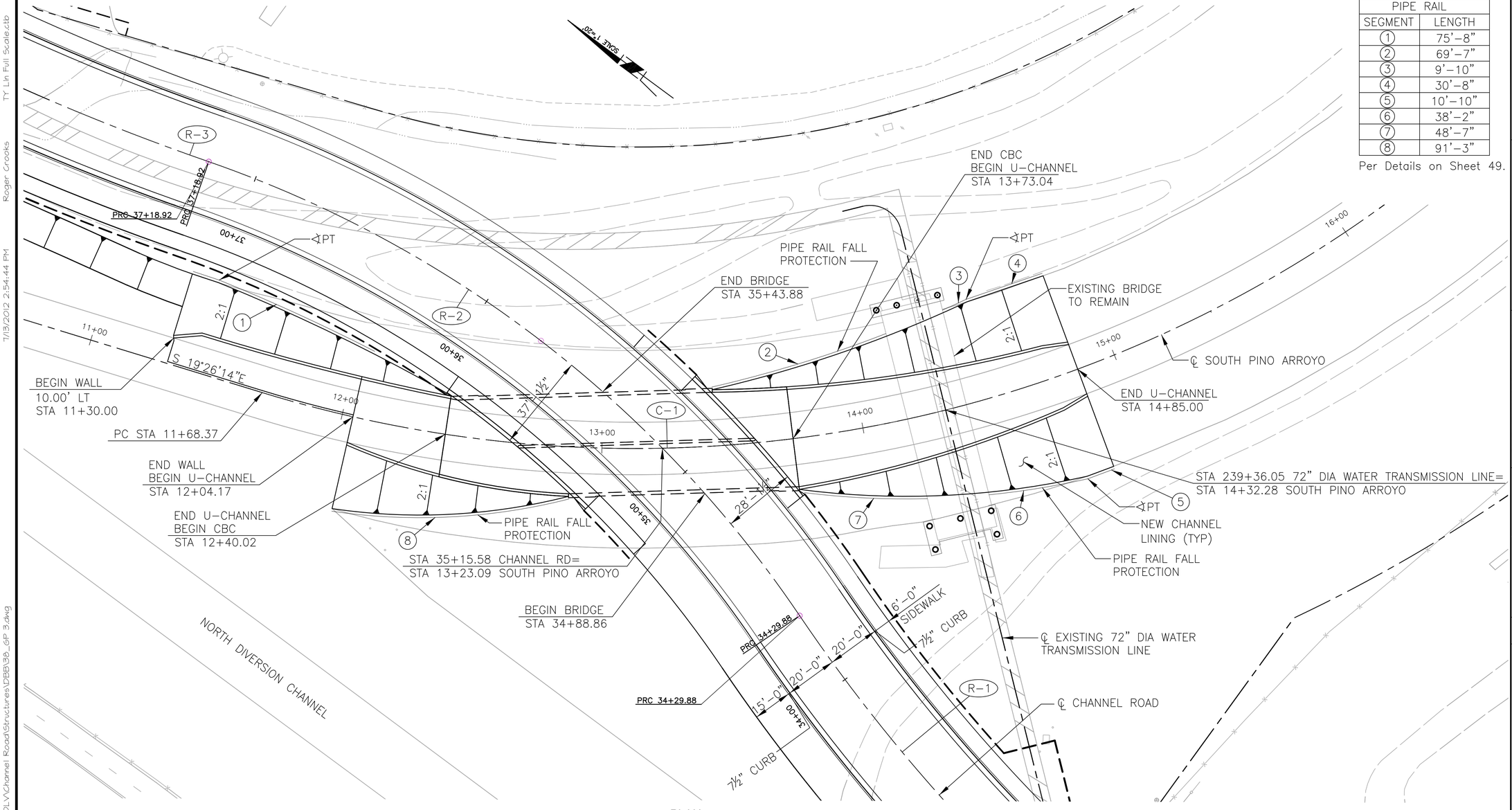
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Albuquerque, NM 87102

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE:
CHANNEL ROAD - PHASE I
SIGNING & STRIPING PLAN
STA 38+00 TO END OF SEGMENT

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
6920.91	E16, D16, D17	37	66



PIPE RAIL	
SEGMENT	LENGTH
1	75'-8"
2	69'-7"
3	9'-10"
4	30'-8"
5	10'-10"
6	38'-2"
7	48'-7"
8	91'-3"

Per Details on Sheet 49.

PLAN

NEW 18' X 13' DOUBLE BARREL BOX CULVERT
SKEW = 43°13'39" LT
SCALE: 1"=20'-0"

CURVE R-1	CURVE R-2	CURVE R-3	CURVE C-1
R = 650.000	R = 450.000	R = 925.000	R = 485.346
L = 220.487	L = 289.043	L = 280.373	L = 549.624
T = 111.31	T = 149.70	T = 141.27	T = 308.51
△ = 19°26'07" RT	△ = 36°48'08" LT	△ = 17°22'00" RT	△ = 64°53'02" LT

INDEX OF SHEETS

38	GENERAL PLAN	49	CHANNEL FLOOR DETAILS 1 / PIPE RAIL DETAILS
39	ELEVATION 1	50	CHANNEL FLOOR DETAILS 2
40	ELEVATION 2	51	CHANNEL DETAILS 1
41	TYPICAL SECTIONS	52	CHANNEL DETAILS 2
42	NOTES & QUANTITIES	53	CHANNEL DETAILS 3
43	REMOVAL DETAILS	54	CHANNEL DETAILS 4
44	FOUNDATION PLAN	55	RETAINING WALL DETAILS
45	BOX CULVERT DETAILS 1	56	CHANNEL RD RETAINING WALL DETAILS 1
46	BOX CULVERT DETAILS 2	57	CHANNEL RD RETAINING WALL DETAILS 2
47	BOX CULVERT DETAILS 3	58	CHANNEL RD RETAINING WALL DETAILS 3
48	BOX CULVERT DETAILS 4		

AS BUILT INFORMATION
CONTRACTOR DATE
WORK STAKED BY DATE
INSPECTORS ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE
MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

BENCH MARKS
ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
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LIGHT STANCHION

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

ENGINEER'S SEAL
DANIEL N. HELLER NEW MEXICO (13009) PROFESSIONAL ENGINEER

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY: J. PYNE	DATE: 07/13/2012
		DRAWN BY: R. CROOKS	DATE: 07/13/2012
		CHECKED BY: L. HOE	DATE: 07/13/2012

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Albuquerque, NM 87102

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

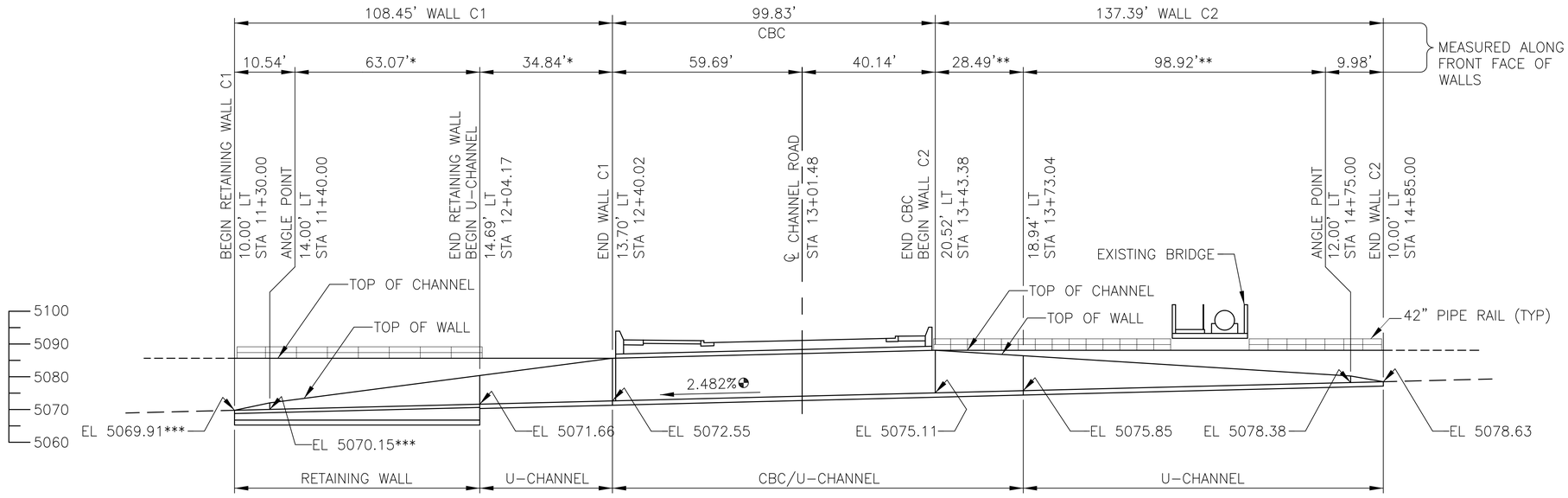
TITLE: CHANNEL ROAD-PHASE I
SOUTH PINO ARROYO
GENERAL PLAN

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16,D16,D17 | Sheet 38 Of 66

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990

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7/13/2012 2:54:44 PM Roger Crooks TY Lin Full Scale.ctb



ELEVATION - LT WALL

SCALE: 1"=20'-0"

NOTES:

* RADIUS = 958.97'

** RADIUS = 525.77'

*** TOP OF NEW CHANNEL TO MATCH EXISTING CHANNEL ELEVATION

MEASURED ALONG ℄ SOUTH PINO ARROYO

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM

15_E16 (1 ¾" ALUMINUM DISK)

NM STATE PLANE COORDINATES

CENTRAL ZONE NAD 1983

ELEVATION= 5092.856 (NAVD 1988)

SW QUADRANT OF OSUNA RD. NE. &

THE NORTH DIVISION CHANNEL EPOXIED

TO TOP OF CONCRETE BASE OF STREET

LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR DATE

WORK STAKED BY DATE

INSPECTORS ACCEPTANCE BY DATE

FIELD VERIFICATION BY DATE

DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION

RECORDED BY DATE

NO.

ENGINEER'S SEAL

DANIEL N. HELLER NEW MEXICO 13009 PROFESSIONAL ENGINEER

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		REVISIONS	
		DESIGN	

DESIGNED BY: J. PYNE DATE: 07/13/2012

DRAWN BY: R. CROOKS DATE: 07/13/2012

CHECKED BY: L. HOE DATE: 07/13/2012

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CITY OF ALBUQUERQUE

MUNICIPAL DEVELOPMENT DEPARTMENT

ENGINEERING DIVISION

TITLE: CHANNEL ROAD-PHASE I
SOUTH PINO ARROYO
ELEVATION 1

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91

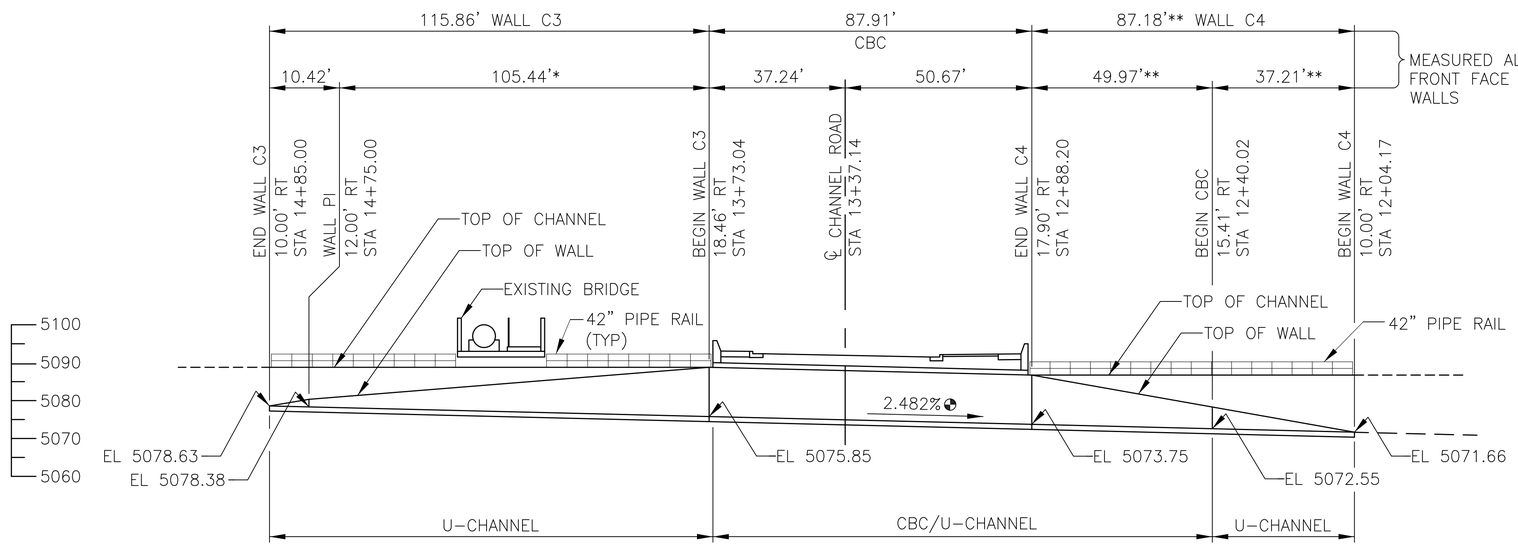
Zone Map No. E16,D16,D17

Sheet 39 Of 66

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990

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NOTES:

* RADIUS = 421.23'
** RADIUS = 238.93'
MEASURED ALONG ℄ SOUTH PINO ARROYO

ELEVATION - RT WALL
SCALE: 1"=20'-0"

SURVEY INFORMATION FIELD NOTES		
NO.	BY	DATE

BENCH MARKS	
ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM	
15_E16 (1 ¾" ALUMINUM DISK)	
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FIELD VERIFICATION BY	DATE
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MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	

ENGINEER'S SEAL

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CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD-PHASE I
SOUTH PINO ARROYO
ELEVATION 2

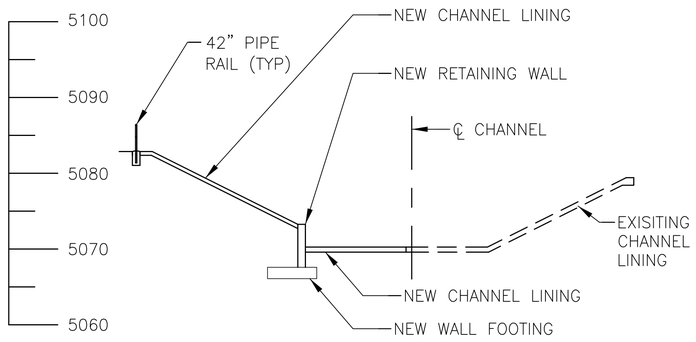
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
6920.91	E16,D16,D17	40	66

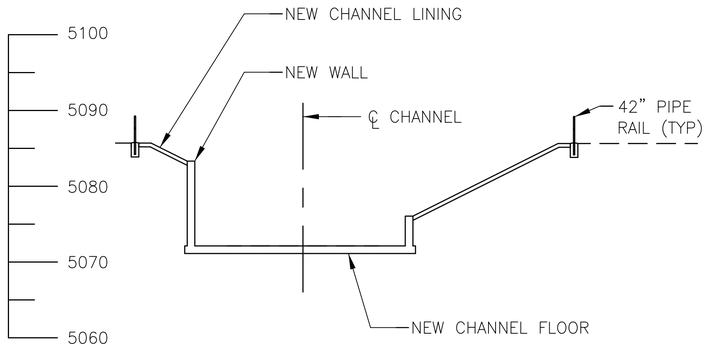
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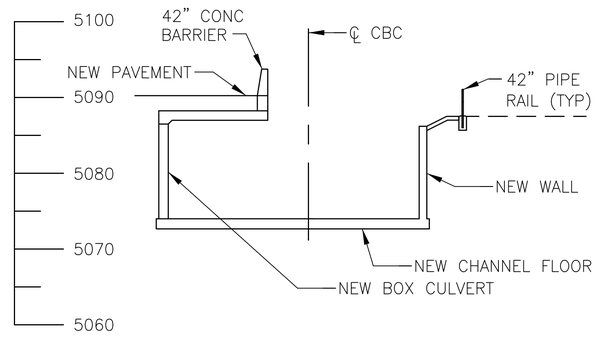
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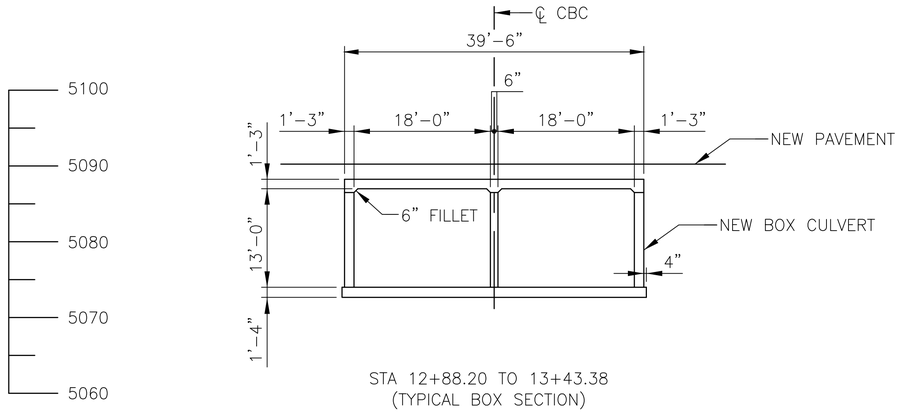
STA 11+30 TO 12+04.17



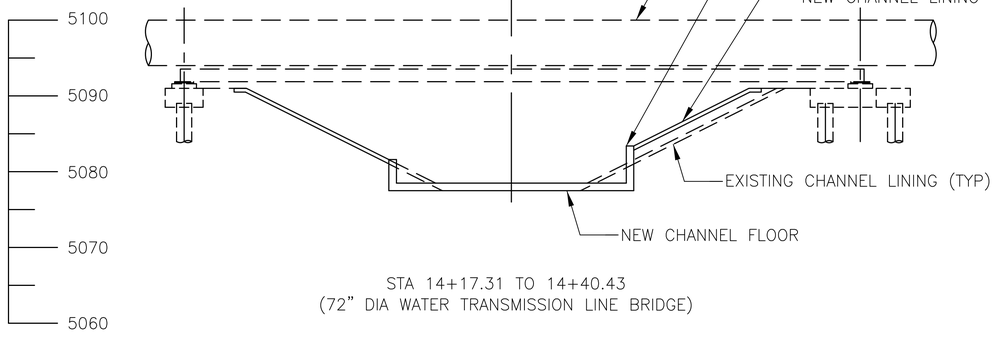
STA 12+04.17 TO 12+40.02
STA 13+73.04 TO 14+17.31
STA 14+40.43 TO 14+85.00



STA 12+40.02 TO 12+88.20
STA 13+43.38 TO 13+73.04 (REVERSED)



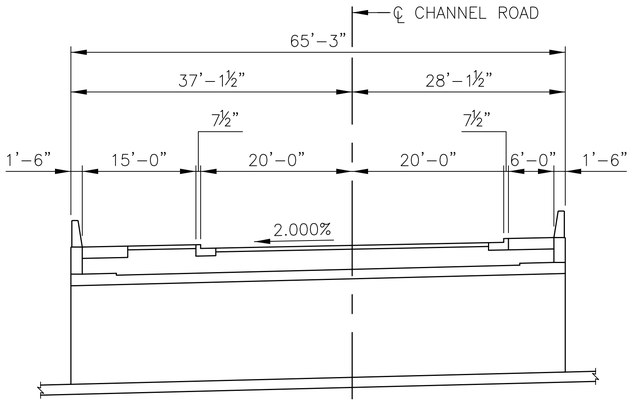
STA 12+88.20 TO 13+43.38
(TYPICAL BOX SECTION)



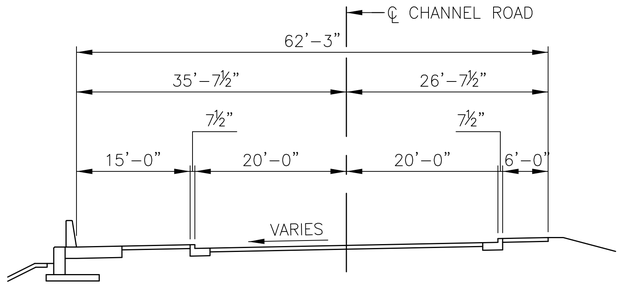
STA 14+17.31 TO 14+40.43
(72" DIA WATER TRANSMISSION LINE BRIDGE)

CHANNEL TYPICAL SECTIONS

SCALE: 1"=10'-0"



STA 35+25
(TYPICAL ROADWAY SECTION @ CBC)



STA 36+50
(TYPICAL ROADWAY SECTION)

ROADWAY TYPICAL SECTIONS

SCALE: 1"=10'-0"

AS BUILT INFORMATION
CONTRACTOR DATE
WORK STAKED BY DATE
INSPECTORS ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE
MICRO-FILM INFORMATION
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NO.

BENCH MARKS
ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 ¾" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. & THE NORTH DIVISION CHANNEL EPOXIED TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

ENGINEER'S SEAL
DANIEL N. HELLER NEW MEXICO (13009) PROFESSIONAL ENGINEER

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	

DESIGNED BY: J. PYNE DATE: 07/13/2012
DRAWN BY: R. CROOKS DATE: 07/13/2012
CHECKED BY: L. HOE DATE: 07/13/2012

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Albuquerque, NM 87102

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD-PHASE I
SOUTH PINO ARROYO
TYPICAL SECTIONS

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16,D16,D17 | Sheet 41 Of 66

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990

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GENERAL NOTES

1. WORKMANSHIP AND MATERIALS: SHALL CONFORM TO CITY OF ALBUQUERQUE (COA) 1986 STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND THE NEW MEXICO STATE DEPARTMENT OF TRANSPORTATION (NMDOT) 2007 STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, AND APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS. COA SPECIFICATIONS SUPERSEDES NMDOT SPECIFICATIONS.

2. CONCRETE: CBC, U–CHANNEL, RETAINING WALL, MOMENT SLAB AND CHANNEL LINING CONCRETE SHALL BE CLASS "AA". FOUNDATION CONCRETE SHALL BE TYPE II PORTLAND CEMENT AND BE DESIGNED FOR MODERATE SULFATE EXPOSURE IN ACCORDANCE WITH THE PROVISIONS OF THE ACI DESIGN MANUAL, SECTION 318, CHAPTER 4. CHAMFER ALL EXPOSED EDGES OF STRUCTURES ¾ INCH UNLESS OTHERWISE NOTED.

3. REINFORCING BARS: SHALL CONFORM TO ASTM A615, GRADE 60. DIMENSIONS SHOWN REFER TO THE CENTERLINE OF BARS UNLESS NOTED OTHERWISE.

4. STRUCTURAL STEEL: SHALL COMFORM TO ASTM A709, GRADE 50 AND SHALL BE GALVANIZED IN ACCORDANCE TO ASTM A123.

5. WELDING: SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN WELDING SOCIETY. ANSI/AASHTO/AWS D1.5–02 BRIDGE WELDING CODE, AND THE 2003, 2005 INTERIMS.

6. PRINTS OF AS–BUILT PLANS OF EXISTING BRIDGES AND CHANNEL: WILL BE AVAILABLE TO THE CONTRACTOR UPON REQUEST BY THE PROJECT MANAGER. UNDER PROJECT NO. SP(M)–4052(200).

7. CARE SHALL BE TAKEN DURING ALL REPAIR AND REMOVAL OPERATIONS TO PREVENT DAMAGE TO EXISTING STRUCTURES. ANY DAMAGED TO REMAINING STRUCTURES CAUSE BY THE CONTRACTOR OPERATIONS SHALL BE SATISFACTORILY REPAIRED AT NO COST TO THE CITY.

INCIDENTAL WORK AND MATERIALS

1. EXPANDED POLYSTYRENE

2. WATER REPELLENT TREATMENT

ITEMS LISTED ABOVE ARE ONLY A GENERAL DESCRIPTION OF THE REQUIRED WORK AND MATERIALS AND MAY NOT BE COMPLETE. THIS LIST DOES NOT INCLUDE ANY INCIDENTAL WORK REQUIRED BY SUPPLEMENTAL SPECIFICATIONS, STANDARD SERIALS, SPECIAL PROVISIONS, OR THE STANDARD SPECIFICATIONS.

DESIGN DATA

DESIGN IS IN ACCORDANCE WITH AASHTO LFRD STANDARD SPECIFICATIONS FOR BRIDGES, 5TH EDITION OF 2010.

REINFORCED CONCRETE: F'c = 4,000 psi @ 28 DAYS (CBC, CHANNEL LINING, U–CHANNEL, RETAINING WALLS & MOMENT SLAB)
n = 8
Fy = GRADE 60

LIVE LOAD: HL93

HORIZONAL EARTH PRESSURE: ACTIVE:

35 lbs/cu. ft. EQUIVALENT FLUID PRESSURE AND 2 ft. SURCHARGE

AT REST:
55 lbs/cu. ft. EQUIVALENT FLUID PRESSURE AND 2 ft SURCHARGE FOR LEVEL SURFACE.

75 lbs/cu. ft. EQUIVALENT FLUID PRESSURE FOR 2:1 SLOPES.

ALLOWANCE FOR FUTURE WEARING SURFACE = 30 psf

STANDARD SPECIFICATIONS *

TITLE	SECTION
CONCRETE STRUCTURES	510 (COA) 511
SUPERSTRUCTURE CONCRETE	512
CONCRETE BARRIER RAILINGS FOR BRIDGES	514
REMOVAL OF STRUCTURES AND OBSTRUCTIONS	601
STEEL REINFORCEMENT	540
EXCAVATION AND BACKFILL FOR STRUCTURES	501 (COA)

CAPACITY RATING

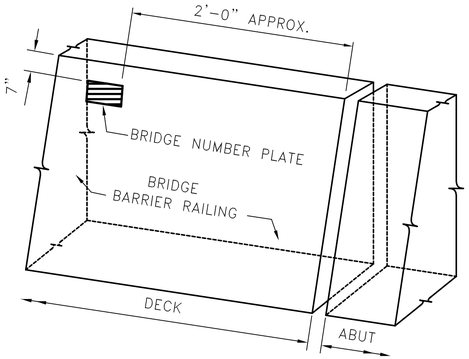
BRIDGE	CBC
INVENTORY RATING	HS 32.1
OPERATING RATING	HS 41.2

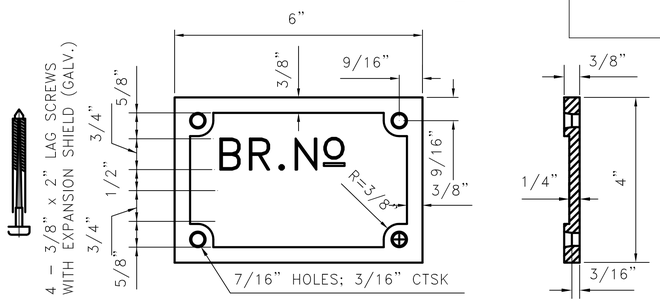
BY LOAD FACTOR METHOD

ESTIMATED QUANTITIES (CBC, CHANNEL & DS WALL)

NUMBER	ITEM	UNIT	TOTAL
501.010	EXCAVATION	C.Y.	5,450
501.010	BACKFILL	C.Y.	2,650
510.110	REINFORCED CONCRETE, CLASS AA, 4000 PSI,INCL FORMWORK, CIP	C.Y.	1626
514.042	42" BRIDGE BARRIER RAILING	L.F.	775
540.060	REINFORCING BARS	LBS	193,640
501.020	CHANNEL LINING REMOVAL	C.Y.	663
543.10X	PIPE RAIL	L.F.	429
510.12X	48"DRILLED SHAFT PER DETAILS ON PLANS	L.F.	245
343.15X	SAWCUT – FULL DEPTH	L.F.	351
343.150	SAWCUT – 2" DEPTH	L.F.	351
511.01X	LITHIUM NITRATE PER DETAILS ON PLANS	S.F.	586
450.00X	BRIDGE PLATE PER DETAILS ON PLANS	EA	2

* ALL SPECIFICATIONS PER NMDOT U.N.O.





BRIDGE NUMBER PLATE DETAILS

NOTE: EACH PLATE IS TO BE PLACED AT EACH END OF THE BRIDGE ON THE ROADWAY FACE OF THE BRIDGE BARRIER RAILING AT THE END OF DECK; AND LOCATED ON THE RIGHT–HAND SIDE AS ONE APPROACHES THE BRIDGE.

NMDOT STANDARD DRAWINGS REQUIRED

DRAWING NO.	DRAWING TITLE	DATED
210–01–1/1	EXCAVATION & BACKFILL FOR BRIDGES, WALLS, & CBCs	11/29/04
514–03–1/5 THRU 5/5	42" BRIDGE BARRIER RAILING	09/15/06
606–13–1/1	TRANSITION DETAILS BARRIER RAILING TO THRIE BEAM	01/11/05

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ENGINEER'S SEAL
DANIEL N. HELLER NEW MEXICO 13009 PROFESSIONAL ENGINEER

NO. DATE REMARKS BY
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DESIGN
DESIGNED BY: J. PYNE DATE: 07/13/2012
DRAWN BY: R. CROOKS DATE: 07/13/2012
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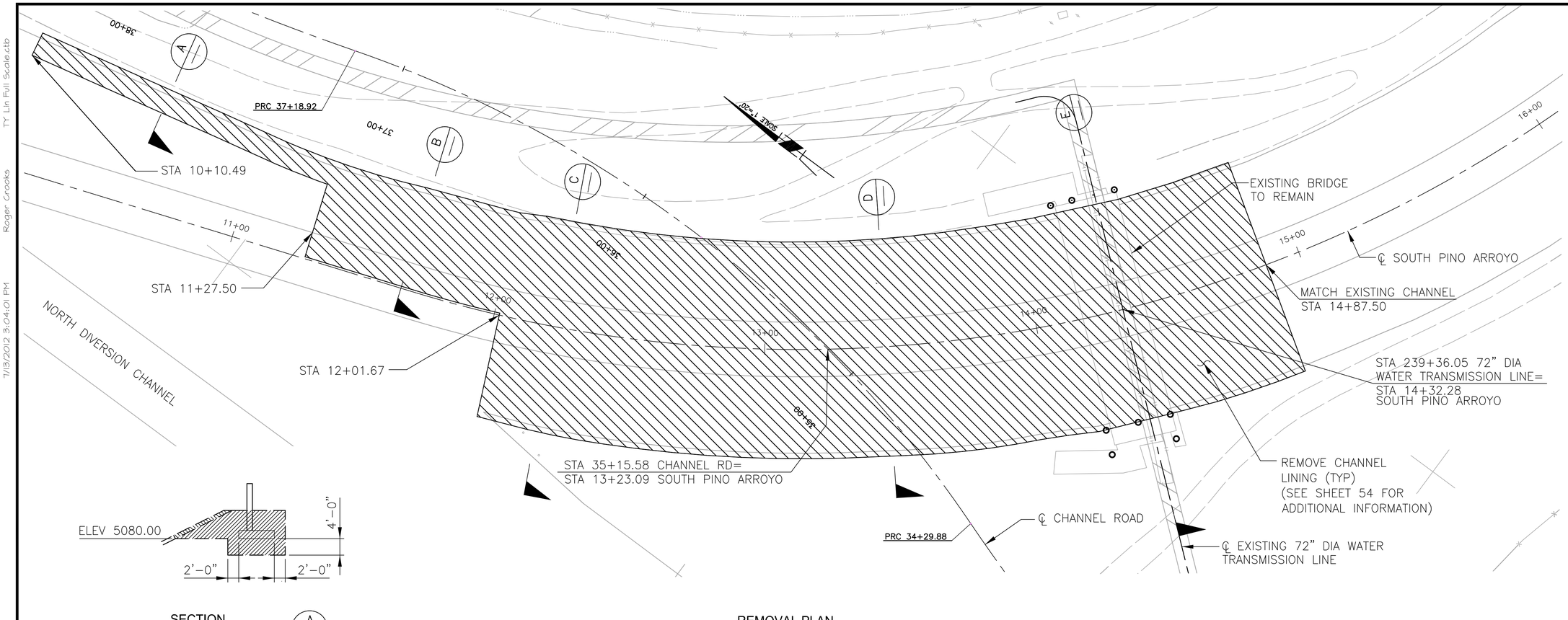
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD-PHASE I
SOUTH PINO ARROYO
NOTES & QUANTITIES

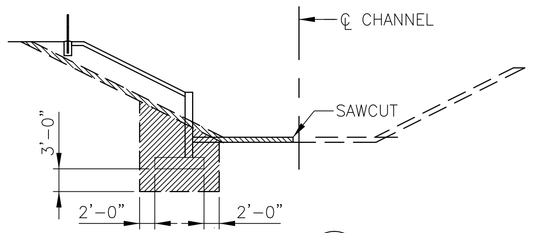
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16,D16,D17 | Sheet 42 | Of 66

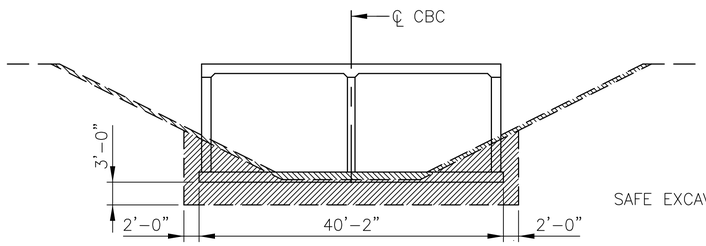
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SECTION A
SCALE: 1"=10'-0"

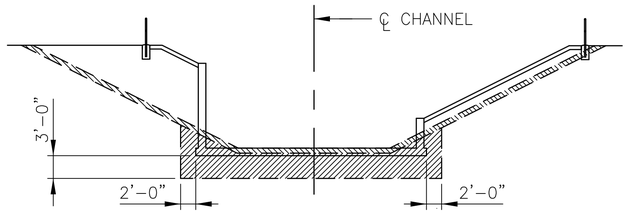


SECTION B
SCALE: 1"=10'-0"

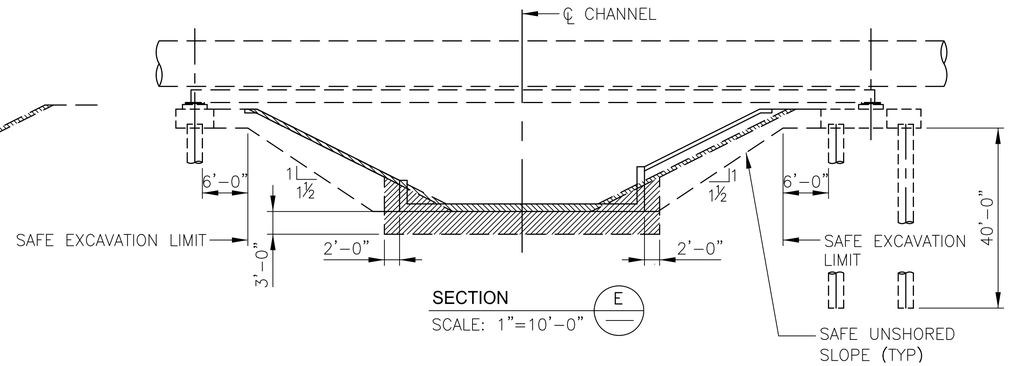


SECTION D
SCALE: 1"=10'-0"

REMOVAL PLAN
SCALE: 1"=20'-0"



SECTION C
SCALE: 1"=10'-0"



SECTION E
SCALE: 1"=10'-0"

NOTES:

1. CONTRACTOR SHALL NOT REMOVE ANY SOIL BEYOND SAFE EXCAVATION LIMIT SHOWN IN SECTION E. SHORING OR SOIL STABILIZATION WILL BE REQUIRED IN THIS REGION.
2. OVEREXCAVATE SOIL TO LIMITS SHOWN. SEE SHEET 44 FOR MATERIAL SPECIFICATIONS.

LEGEND:

CONCRETE REMOVAL

SOIL EXCAVATION LIMITS PER NMDOT STD 210-01-1/1 UNLESS NOTED OTHERWISE.

Two working days before you dig
CALL NEW MEXICO ONE CALL SYSTEM
260-1990

AS BUILT INFORMATION
CONTRACTOR DATE
WORK STAKED BY DATE
INSPECTORS ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE

BENCH MARKS
ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 ¾" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

ENGINEER'S SEAL
DANIEL N. HELLER
NEW MEXICO
13009
PROFESSIONAL ENGINEER

NO.	DATE	REMARKS
		REVISIONS
		DESIGN

DESIGNED BY: J. PYNE DATE: 07/13/2012
DRAWN BY: R. CROOKS DATE: 07/13/2012
CHECKED BY: L. HOE DATE: 07/13/2012

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500 4th Street NW Suite 403
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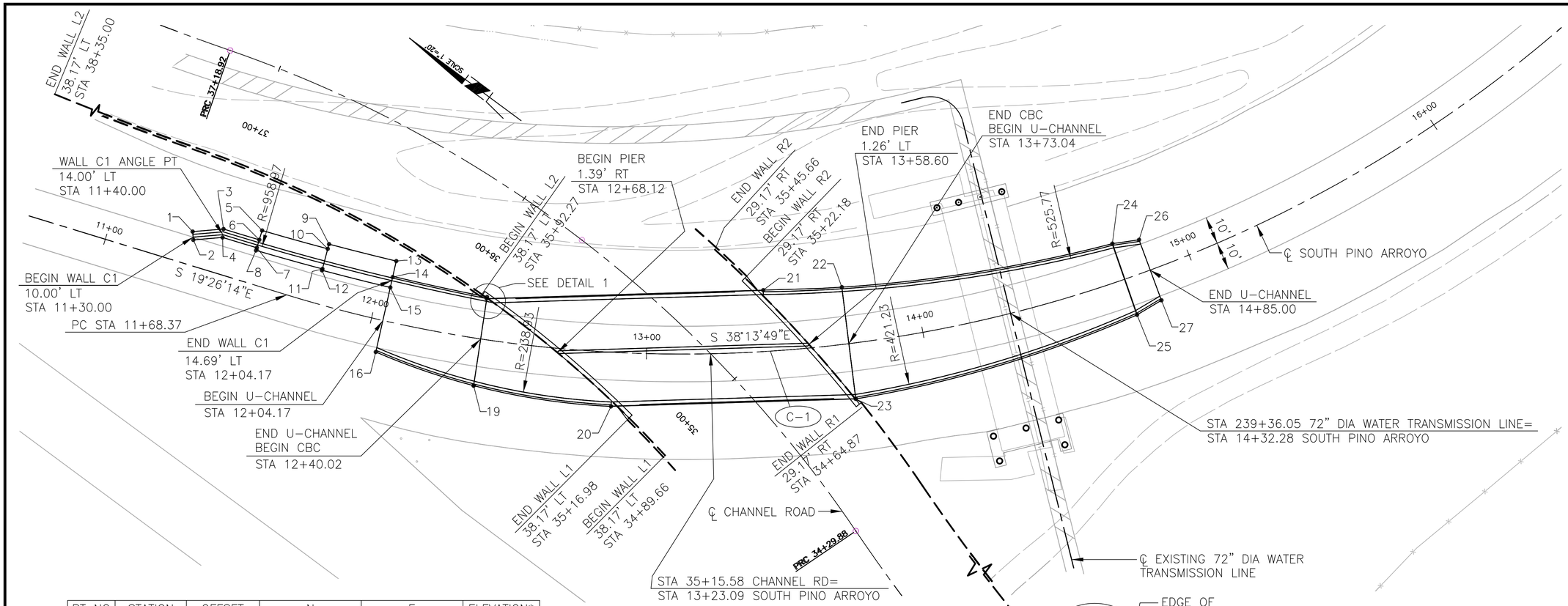
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD-PHASE I
SOUTH PINO ARROYO
REMOVAL DETAILS

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91
Zone Map No. E16,D16,D17
Sheet 43 Of 66

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PT NO	STATION	OFFSET	N	E	ELEVATION*
1	11+29.26	11.86' LT	1514580.8507	1534828.9178	5067.91
2	11+30.37	9.07' LT	1514578.8731	1534826.6619	5067.91
3	11+39.62	16.00' LT	1514572.4606	1534836.2728	5067.91
4	11+40.19	13.00' LT	1514570.9195	1534833.6342	5067.91
5	11+53.07	19.57' LT	1514560.9610	1534844.1135	5067.91
6	11+53.07	16.07' LT	1514559.7962	1534840.8127	5067.91
7	11+53.07	13.07' LT	1514558.7978	1534837.9835	5067.91
8	11+53.07	12.07' LT	1514558.4650	1534837.0404	5067.91
9	11+78.36	21.83' LT	1514538.6767	1534854.4798	5067.91
10	11+78.36	20.09' LT	1514538.0324	1534852.8527	5067.91
11	11+78.36	12.59' LT	1514535.2713	1534845.8795	5067.91
12	11+78.36	12.09' LT	1514535.0872	1534845.4146	5067.91
13	12+04.17	21.94' LT	1514515.5807	1534863.9773	5067.91
14	12+04.17	16.02' LT	1514513.2951	1534858.7916	5071.66
15	12+04.17	12.19' LT	1514511.6482	1534855.0548	5067.91
16	12+04.17	11.36' RT	1514502.0466	1534833.2698	5071.66
17	12+40.02	15.29' LT	1514481.6104	1534872.9969	5072.55
18	12+40.02	14.70' LT	1514481.3356	1534872.4778	5072.55
19	12+40.02	17.00' RT	1514466.5054	1534844.4626	5072.55
20	12+88.20	19.49' RT	1514422.2783	1534867.8687	5073.75
21	13+43.38	20.52' LT	1514403.0857	1534934.1215	5075.11
22	13+73.04	20.51' LT	1514380.9776	1534951.8027	5075.85
23	13+73.04	20.04' RT	1514353.0464	1534922.4083	5075.85
24	14+75.22	13.57' LT	1514311.9758	1535022.3124	5078.39
25	14+75.22	13.57' RT	1514289.5666	1535006.9998	5078.39
26	14+85.00	11.62' LT	1514305.0601	1535029.1462	5078.63
27	14+85.00	11.62' RT	1514285.6191	1535016.4312	5078.63

* TOP OF FOOTING

POINTS 1–13 AND 15 ARE TOP OF RETAINING WALL FOOTINGS.
ALL OTHER POINTS ARE TOP OF CHANNEL FLOOR.

CURVE (C-1)

R = 485.346
L = 549.624
T = 308.51
△ = 64°53'02" LT

FOUNDATION PLAN
SCALE: 1"=20'–0"

DETAIL 1
NOT TO SCALE

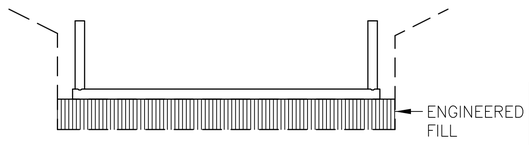
GRADATION

PERCENT FINER BY WEIGHT (ASTM C136)

6".....100
3".....70 – 100
NO. 4 SIEVE.....50 – 100
NO. 200 SIEVE.....50 (MAX)
LIQUID LIMIT.....30 (MAX)
PLASTIC INDEX.....15 (MAX)
D–VALUE.....23/31 (MIN)

ENGINEERED FILL SHOULD BE PLACED AND COMPACTED IN HORIZONTAL LIFTS, USING EQUIPMENT AND PROCEDURES THAT WILL PRODUCE RECOMMENDED MOISTURE CONTENTS AND DENSITY THROUGHOUT THE LIFT. FILL LIFTS SHOULD NOT EXCEED EIGHT (8) INCHES LOOSE THICKNESS.

SOILS BENEATH FOUNDATIONS SHALL HAVE A MINIMUM COMPACTION OF 95% WITH A ± 2% RANGE OF MOISTURE CONTENT FOR COMPACTION PER MODIFIED PROCTOR TEST (ASTM D 1557).



OVER EXCAVATION LIMITS
NOT TO SCALE

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990

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CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD-PHASE I
SOUTH PINO ARROYO
FOUNDATION PLAN

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16,D16,D17 | Sheet 44 Of 66

ENGINEER'S SEAL
DANIEL N. HELLER NEW MEXICO 13009 PROFESSIONAL ENGINEER

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	

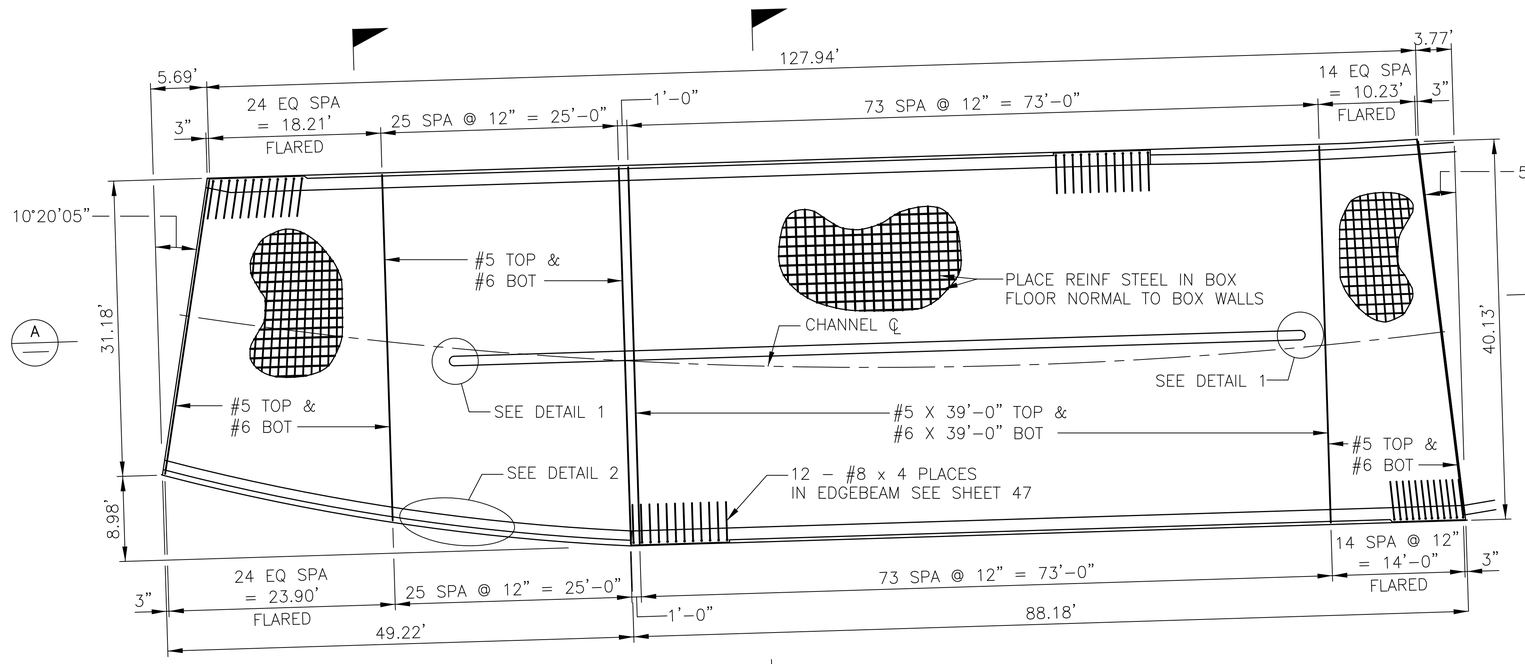
DESIGNED BY: J. PYNE DATE: 07/13/2012
DRAWN BY: R. CROOKS DATE: 07/13/2012
CHECKED BY: L. HOE DATE: 07/13/2012

AS BUILT INFORMATION
CONTRACTOR DATE
STAKED BY DATE
INSPECTORS
ACCEPTANCE BY DATE
FIELD
VERIFICATION BY DATE
DRAWINGS
CORRECTED BY DATE
MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

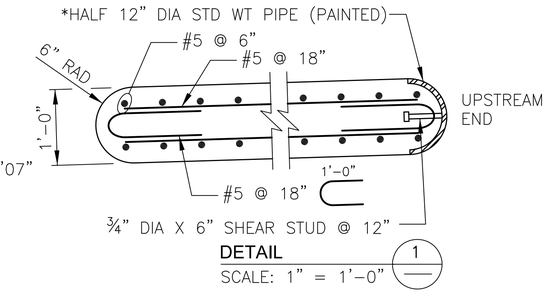
BENCH MARKS
ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 ¾" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

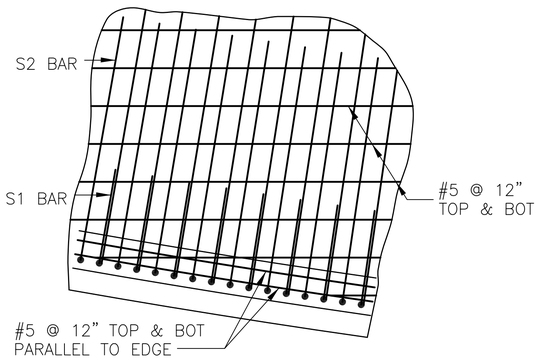
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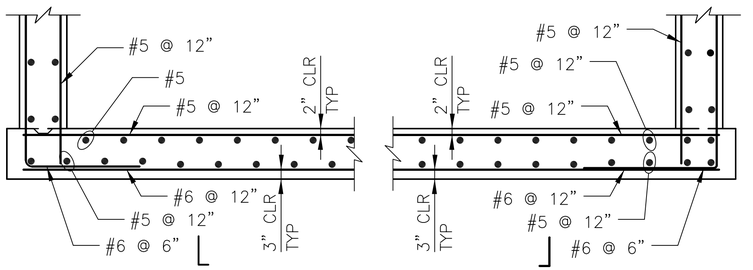
CBC FLOOR PLAN
STA 12+40.02 TO 13+73.04
SCALE: ⅛"=1'-0"



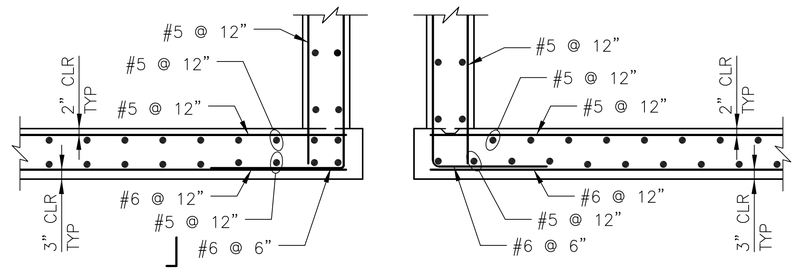
DETAIL 1
SCALE: 1" = 1'-0"

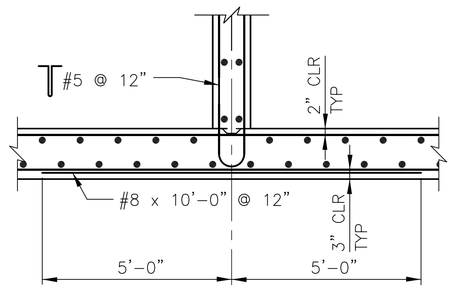


DETAIL 2
SCALE: ½" = 1'-0"

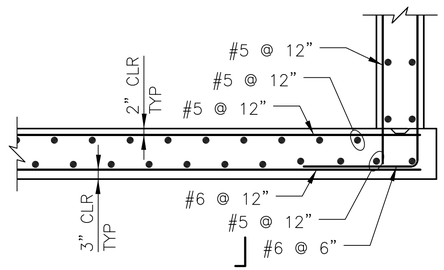


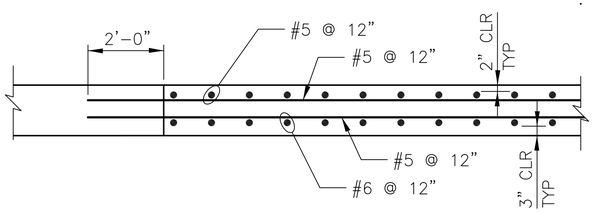
SECTION B
SCALE: ½" = 1'-0"

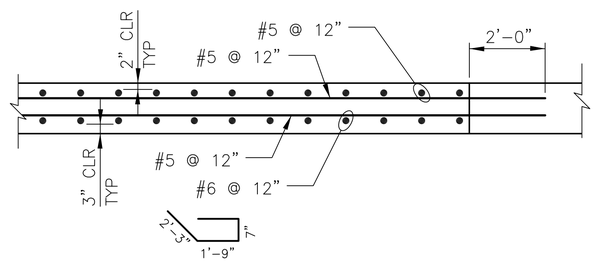




SECTION C
SCALE: ½" = 1'-0"







SECTION A
SCALE: ½" = 1'-0"

* NO BID ITEM FOR NOSE PLATE.
COST TO BE INCIDENTAL TO
COST OF CBC.

Two working days before you dig
CALL NEW MEXICO ONE CALL SYSTEM
260-1990

AS BUILT INFORMATION
CONTRACTOR DATE
WORK STAKED BY DATE
INSPECTORS ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE
MICRO-FILM INFORMATION
RECORDED BY DATE
NO.
LIGHT STANCHION

BENCH MARKS
ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 ¾" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

ENGINEER'S SEAL
DANIEL N. HELLER
NEW MEXICO
13009
REGISTERED PROFESSIONAL ENGINEER

NO. DATE REMARKS BY
REVISIONS
DESIGNED BY: J. PYNE DATE: 07/13/2012
DRAWN BY: R. CROOKS DATE: 07/13/2012
CHECKED BY: L. HOE DATE: 07/13/2012

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Albuquerque, NM 87102

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

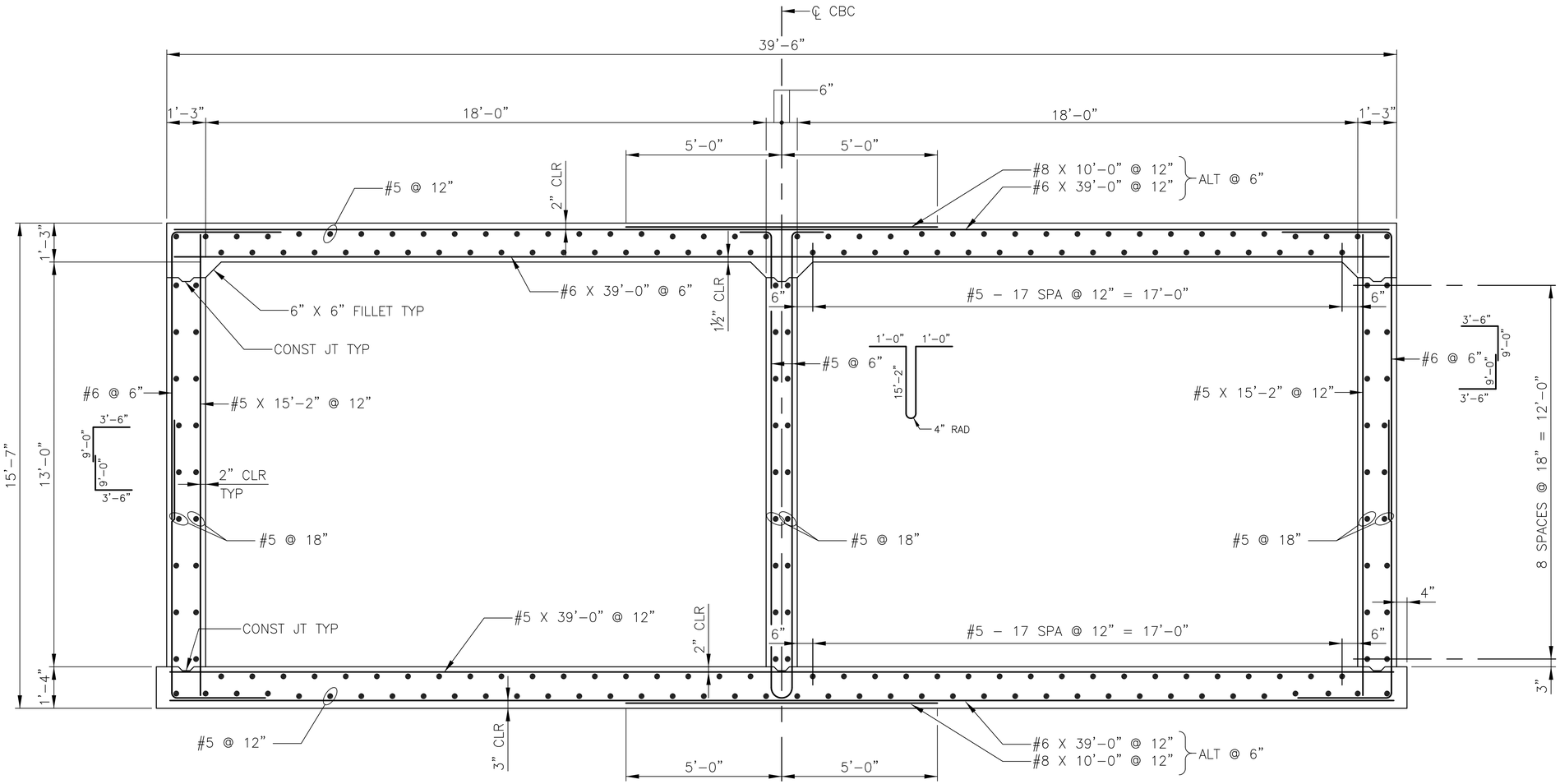
TITLE: CHANNEL ROAD-PHASE I
SOUTH PINO ARROYO
BOX CULVERT DETAILS 1

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
6920.91	E16,D16,D17	45	66

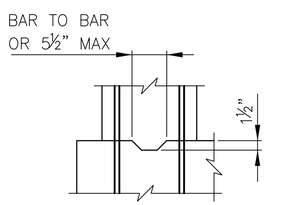
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CBC TYPICAL SECTION

SCALE: ½"=1'-0"



CONSTRUCTION JOINT DETAIL

SCALE: 1"=1'-0"

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990

AS BUILT INFORMATION

CONTRACTOR DATE

WORK STAKED BY DATE

INSPECTORS ACCEPTANCE BY DATE

FIELD VERIFICATION BY DATE

DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION

RECORDED BY DATE

NO.

LIGHT STANCHION

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM

15_E16 (1 ¾" ALUMINUM DISK)

NM STATE PLANE COORDINATES

CENTRAL ZONE NAD 1983

ELEVATION= 5092.856 (NAVD 1988)

SW QUADRANT OF OSUNA RD. NE. & THE NORTH DIVISION CHANNEL EPOXIED TO TOP OF CONCRETE BASE OF STREET

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE

ENGINEER'S SEAL

DANIEL N. HELLER NEW MEXICO 13009 PROFESSIONAL ENGINEER

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	DESIGNED BY: J. PYNE DATE: 07/13/2012
			DRAWN BY: R. CROOKS DATE: 07/13/2012
			CHECKED BY: L. HOE DATE: 07/13/2012

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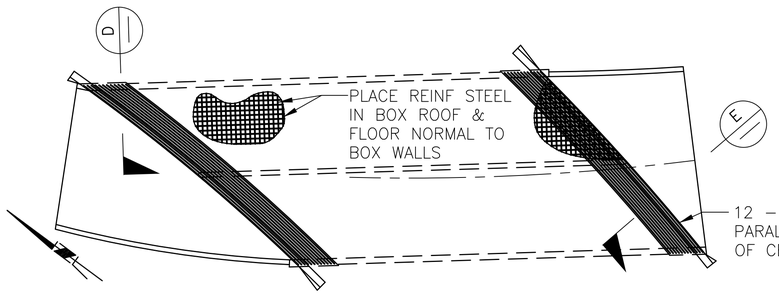
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD-PHASE I
SOUTH PINO ARROYO
BOX CULVERT DETAILS 2

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

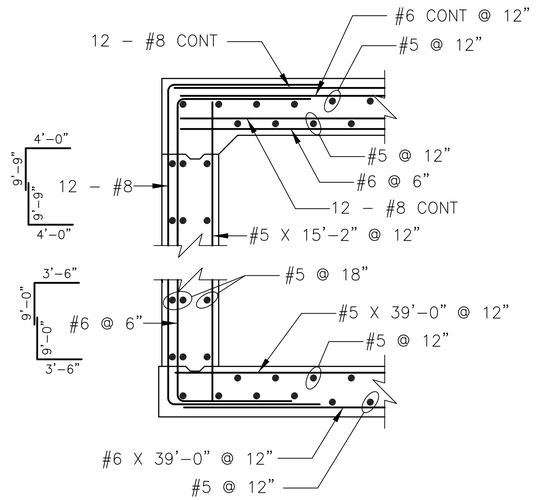
City Project No. 6920.91 | Zone Map No. E16,D16,D17 | Sheet 46 | Of 66

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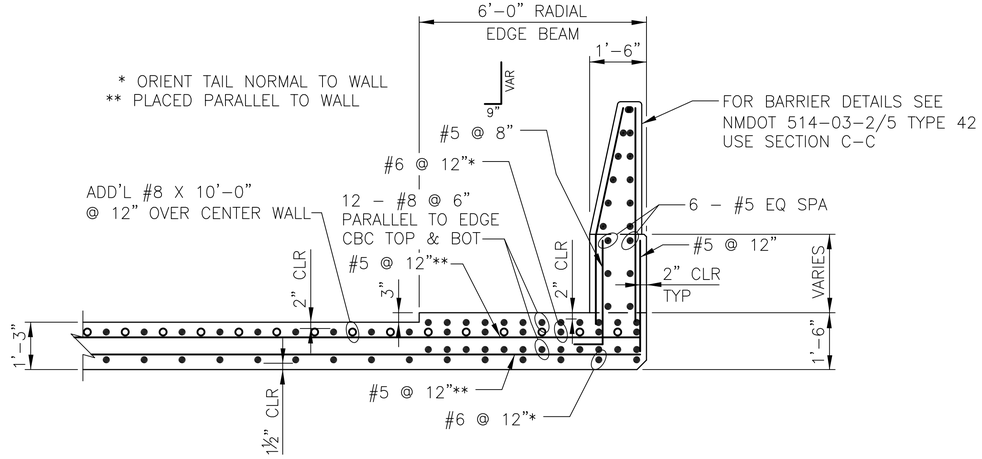
CBC ROOF PLAN

SCALE: 1/16"=1'–0"



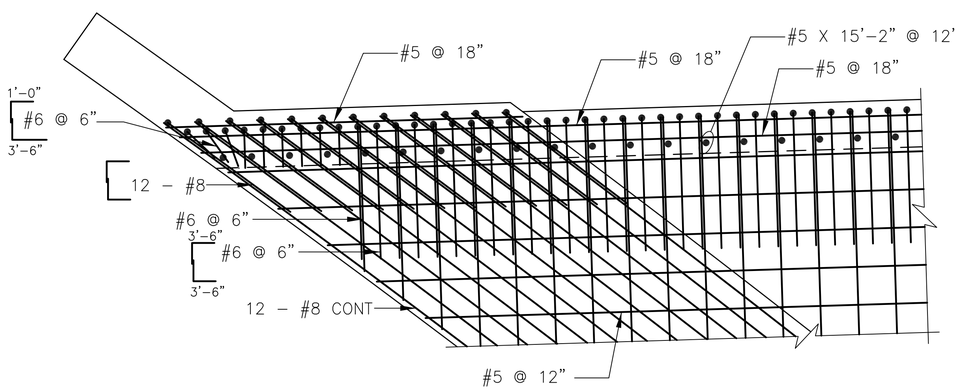
SECTION D

SCALE: ½" = 1'–0"



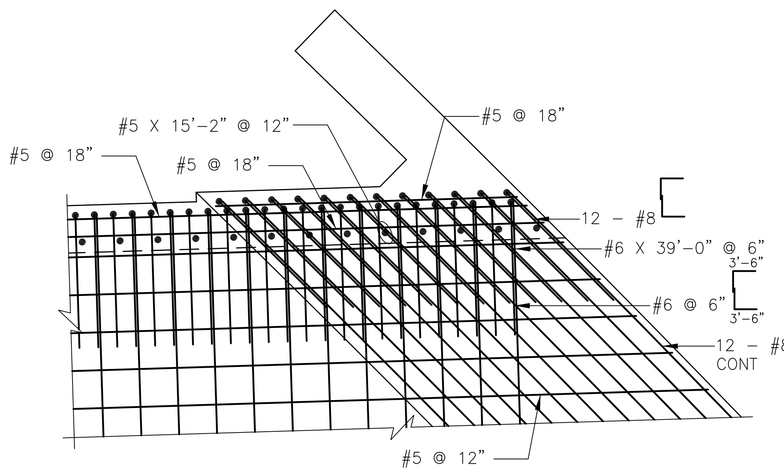
SECTION E

SCALE: ½" = 1'–0"



PARTIAL ACUTE CORNER CBC ROOF PLAN SHOWING TOP REINF

SCALE: ½"=1'–0"



PARTIAL OBTUSE CORNER CBC ROOF PLAN SHOWING TOP REINF

SCALE: ½"=1'–0"

Two working days before you dig
CALL NEW MEXICO ONE CALL SYSTEM
260-1990

AS BUILT INFORMATION

CONTRACTOR DATE

WORK STARTED BY DATE

INSPECTORS ACCEPTANCE BY DATE

FIELD VERIFICATION BY DATE

DRAWINGS CORRECTED BY DATE

MICRO–FILM INFORMATION

RECORDED BY DATE

NO.

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM

15_E16 (1 ¾" ALUMINUM DISK)

NM STATE PLANE COORDINATES

CENTRAL ZONE NAD 1983

ELEVATION= 5092.856 (NAVD 1988)

SW QUADRANT OF OSUNA RD. NE. &

THE NORTH DIVISION CHANNEL EPOXIED

TO TOP OF CONCRETE BASE OF STREET

LIGHT STANCHION

SURVEY INFORMATION

FIELD NOTES

NO. BY DATE

ENGINEER'S SEAL

DANIEL N. HELLER NEW MEXICO 13009 REGISTERED PROFESSIONAL ENGINEER

NO. DATE REMARKS BY

REVISIONS

DESIGN

DESIGNED BY: J. PYNE DATE: 07/13/2012

DRAWN BY: R. CROOKS DATE: 07/13/2012

CHECKED BY: L. HOE DATE: 07/13/2012

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Albuquerque, NM 87102

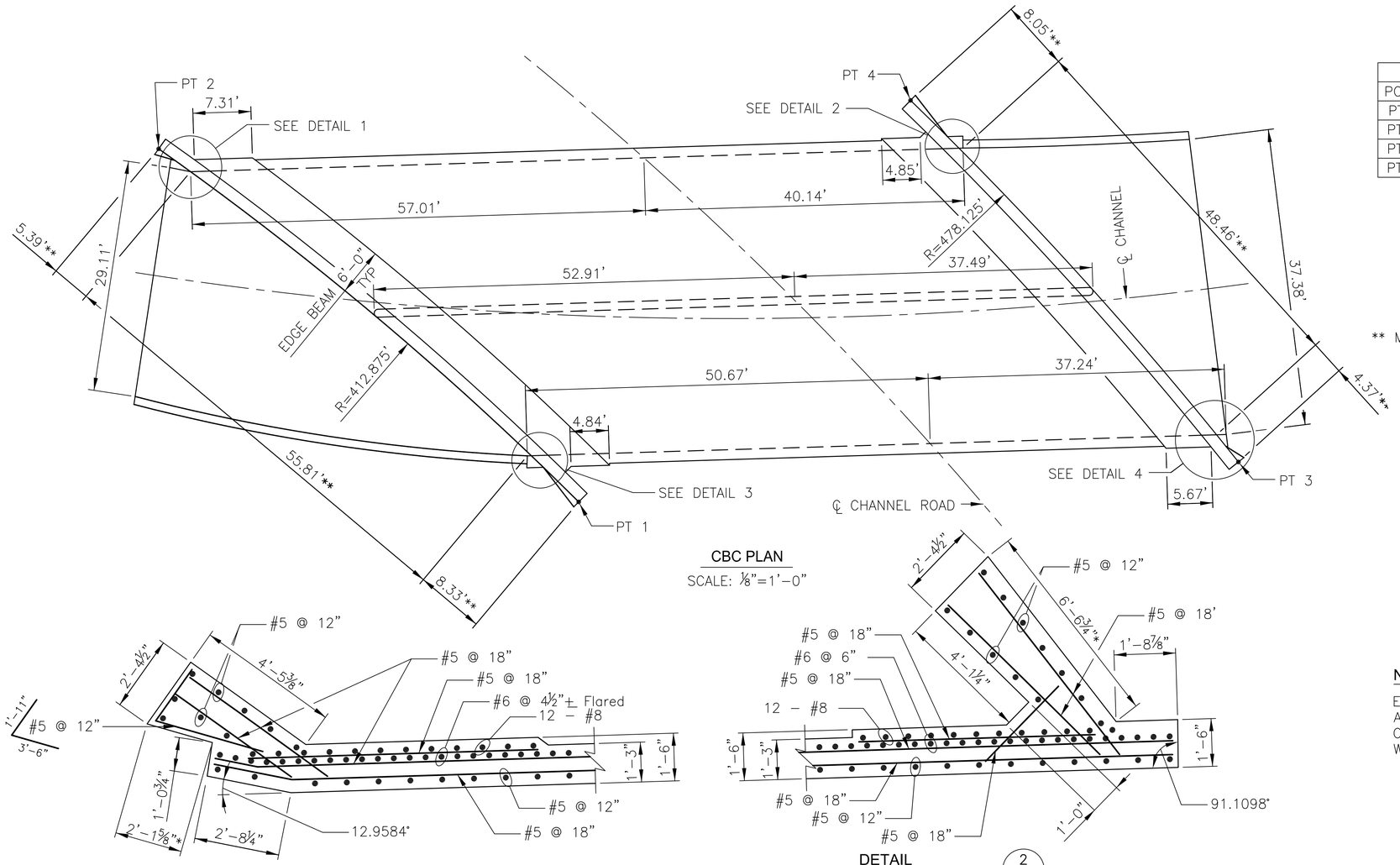
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD-PHASE I
SOUTH PINO ARROYO
BOX CULVERT DETAILS 3

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16,D16,D17 | Sheet 47 Of 66

7/13/2012 3:14:14 PM Roger Crooks TY Lin Full Scale.ctb
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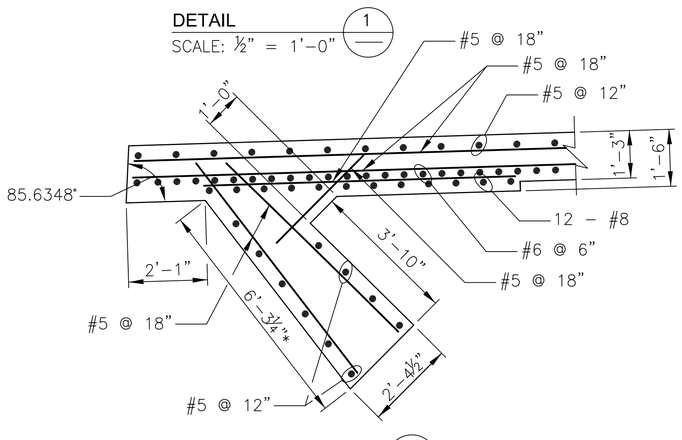
CHANNEL ROAD			
POINT	LOCATION	OFFSET	ELEV
PT 1	STA 35+16.98	37.125' LT	5090.54
PT 2	STA 35+92.27	37.125' LT	5089.77
PT 3	STA 34+64.87	28.125' RT	5092.56
PT 4	STA 35+22.18	28.125' RT	5092.63

** MEASURED ALONG OUTSIDE EDGE

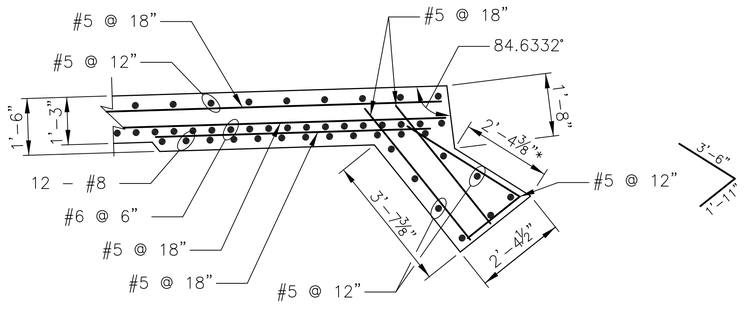
CBC PLAN
SCALE: ⅛"=1'-0"

DETAIL 1
SCALE: ½" = 1'-0"

DETAIL 2
SCALE: ½" = 1'-0"



DETAIL 3
SCALE: ½" = 1'-0"



DETAIL 4
SCALE: ½" = 1'-0"

NOTE:

EXTERIOR WINGWALLS DENOTED WITH AN "*" ARE TANGENT. INSIDE WALLS TO BE CONTRUCTED ALONG CURVES CONCENTRIC WITH CHANNEL ROAD ℄.

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE

BENCH MARKS
ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 ¾" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. & THE NORTH DIVISION CHANNEL EPOXIED TO TOP OF CONCRETE BASE OF STREET LIGHT STANCHION

AS BUILT INFORMATION
CONTRACTOR DATE
WORK STAKED BY DATE
INSPECTORS ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

ENGINEER'S SEAL
DANIEL N. HELLER NEW MEXICO 13009 PROFESSIONAL ENGINEER

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY: J. PYNE	DATE: 07/13/2012
		DRAWN BY: R. CROOKS	DATE: 07/13/2012
		CHECKED BY: L. HOE	DATE: 07/13/2012

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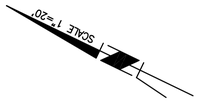
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

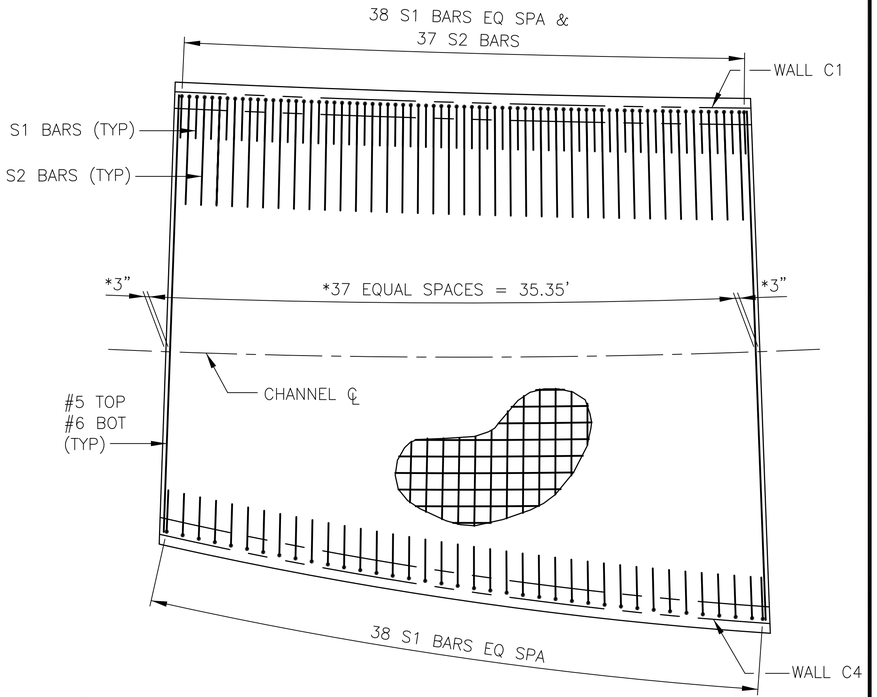
TITLE: CHANNEL ROAD-PHASE I
SOUTH PINO ARROYO
BOX CULVERT DETAILS 4

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16,D16,D17 | Sheet 48 Of 66

Q:\221706.00 - Osuna Road City of Albuquerque\CADD\DLV\Channel Road\Structures\DBB148_BOX D15 4.dwg
7/13/2012 3:15:04 PM Roger Crooks TY Lin Full Scale.ctb





*MEASURED ALONG CHANNEL ℄

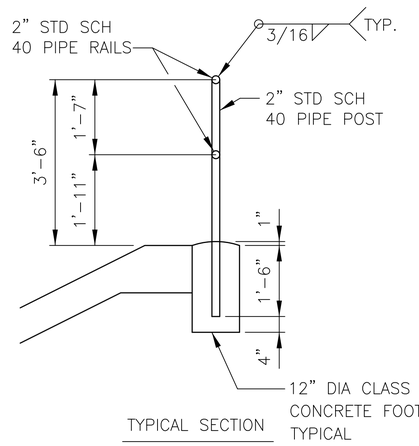
U-CHANNEL FLOOR PLAN
STA 12+04.17 TO STA 12+40.02
SCALE: 7/32"=1'-0"

NOTE:

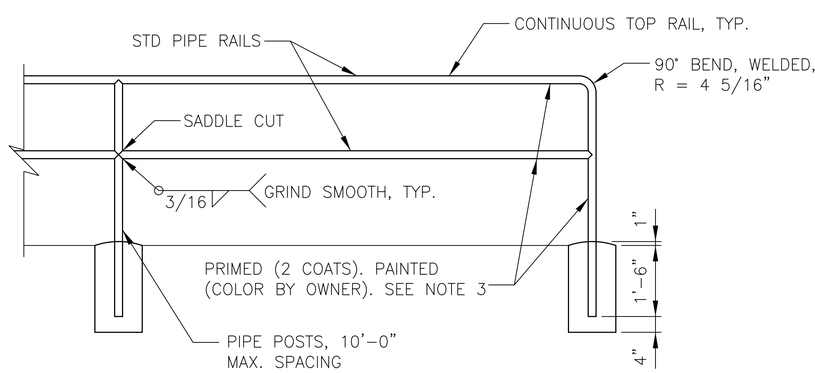
ORIENT TRANSVERSE REINFORCEMENT RADIAL TO CHANNEL ℄.
LAP BOTTOM LEG OF S1 BARS TO #6 BOTTOM BARS.
ORIENT LONGITUDINAL REINFORCEMENT CONCENTRIC TO CHANNEL ℄.
SEE CHANNEL DETAILS 3 (SHEET 53) FOR TYPICAL SECTION.

NOTES FOR PIPE RAILS

1. WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION AND SUPPLEMENTAL SPECIFICATIONS, 2007 EDITION.
2. ALL PIPE SHALL BE 2" SCHEDULE 40 STEEL PIPE AND CONFORM WITH ASTM A53 GRADE B. THE TOP RAIL SHALL BE CONTINUOUS, WITH POSTS, MIDDLE RAIL AND BOTTOM RAILS SADDLE CUT, WELD ALL AROUND AND GRIND BEFORE PAINTING.
3. ALL RAILS, PIPES, PLATES AND TUBING TO BE COLOR COATED. COLOR COATING SHALL BE DUNN-EDWARDS SYN-LUSTRO RUST PREVENTION ALKYD SEMI-GLOSS ENAMEL 9V SERIES OR PITTSGURGH PAINT AND GLASS PITTHANE ULTRA URETHANE ENAMEL COATINGS OR APPROVED EQUAL. PRIOR TO COLOR COATING, RAIL IS TO BE PRIMED WITH 2 COATS OF PRIMER BY THE RESPECTIVE MANUFACTURER. COLOR OF FINAL COATING TO BE SELECTED BY THE OWNER.
4. NEW MATERIAL SHALL BE USED THROUGHOUT.
5. ALL WELDING OR GAS CUTTING SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS OF THE AMERICAN WELDING SOCIETY D1.1-2000. ALL WELDING SHALL USE E70XX ELECTRODES.
6. END POST SHALL BE LOCATED A MINIMUM OF 6 INCHES AND A MAXIMUM OF 12 INCHES FROM THE EXISTING 72" DIA WATER TRANSMISSION LINE BRIDGE AND NEW CBC.



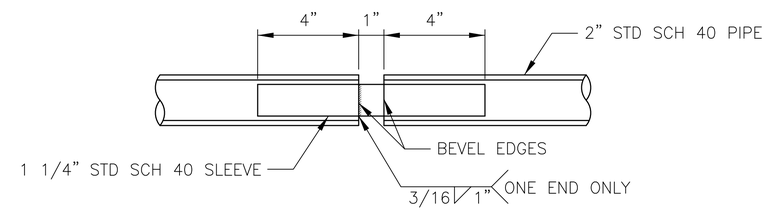
TYPICAL SECTION



TYPICAL FRAME ELEVATION

TYPICAL PIPE RAIL MOUNTED ON GRADE

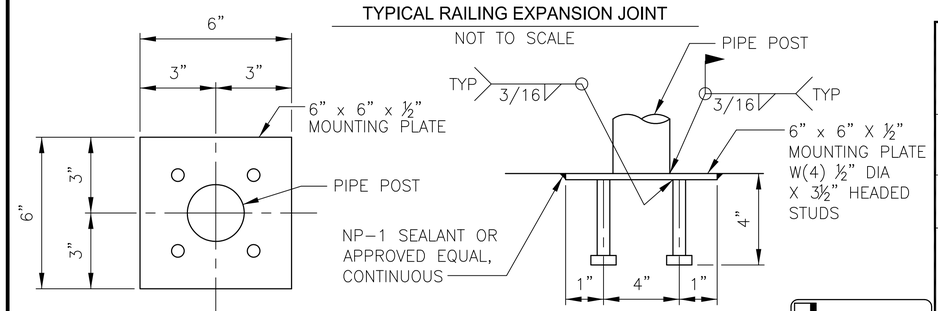
SCALE: 5/8"=1'-0"



FOR RAILING LONGER THAN 50'-0" INSTALL EXPANSION JOINTS EQUALLY SPACED BUT NOT MORE THAN 40'-0" O.C. ON ALL HORIZONTAL RAILS.

TYPICAL RAILING EXPANSION JOINT

NOT TO SCALE



RAIL SURFACE MOUNTING DETAILS

NOT TO SCALE

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990

AS BUILT INFORMATION
CONTRACTOR DATE
WORK STARTED BY DATE
INSPECTORS ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE
MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

BENCH MARKS
ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 ¾" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

ENGINEER'S SEAL
DANIEL N. HELLER NEW MEXICO 13009 REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	

DESIGNED BY: J. PYNE DATE: 07/13/2012
DRAWN BY: R. CROOKS DATE: 07/13/2012
CHECKED BY: L. HOE DATE: 07/13/2012

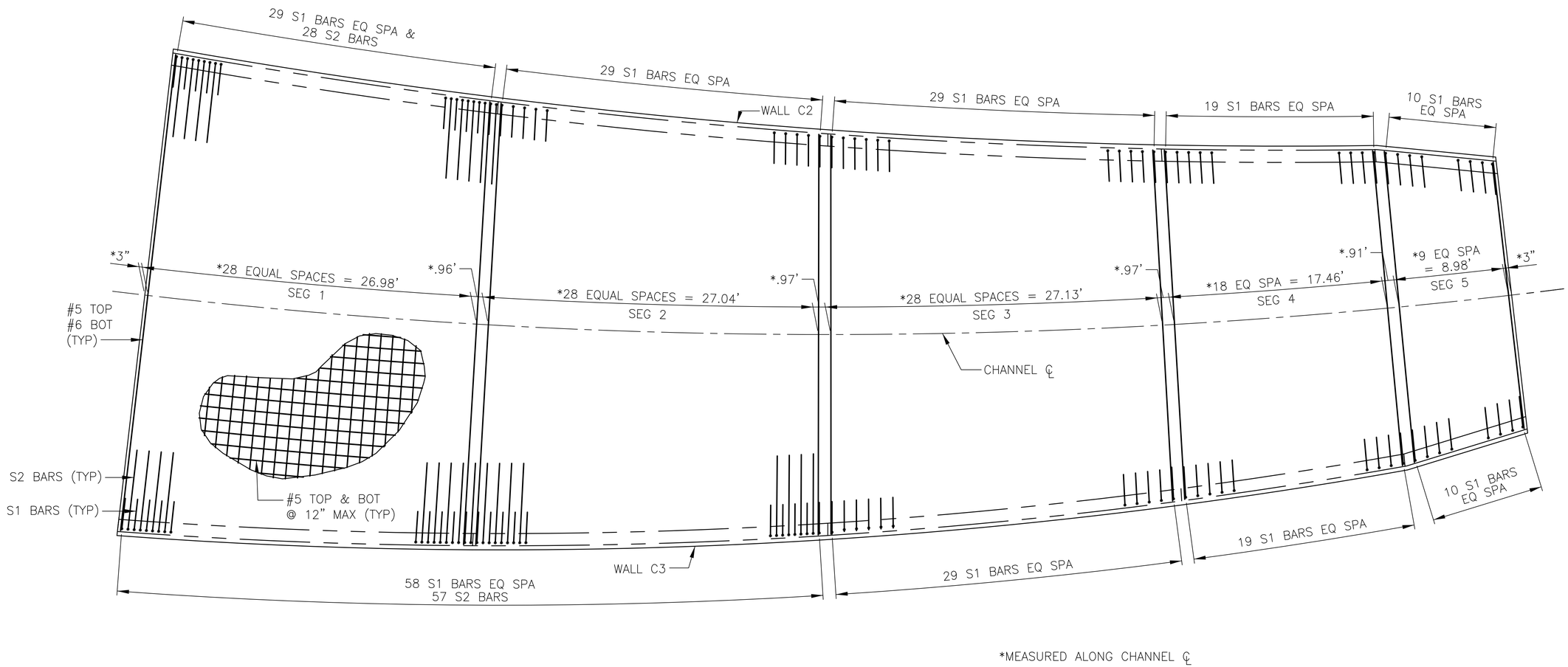
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CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD-PHASE I
SOUTH PINO ARROYO
CHANNEL FLOOR DETAILS 1 / PIPE RAIL DETAILS

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16,D16,D17 | Sheet 49 | Of 66



*MEASURED ALONG CHANNEL ℄

NOTE:

ORIENT TRANSVERSE REINFORCEMENT RADIAL TO CHANNEL ℄.
LAP BOTTOM LEG OF S1 BARS TO #6 BOTTOM BARS.
ORIENT LONGITUDINAL REINFORCEMENT CONCENTRIC TO CHANNEL ℄.
SEE CHANNEL DETAILS 3 (SHEET 53) FOR TYPICAL SECTION.

U-CHANNEL FLOOR PLAN
STA 13+73.04 TO STA 14+85.00
SCALE: 7/32"=1'-0"

AS BUILT INFORMATION
CONTRACTOR DATE
WORK STAKED BY DATE
INSPECTORS ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE
MICRO-FILM INFORMATION
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NO.

BENCH MARKS
ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 ¾" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
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LIGHT STANCHION

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

ENGINEER'S SEAL
DANIEL N. HELLER NEW MEXICO 13009 PROFESSIONAL ENGINEER

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	

DESIGNED BY: J. PYNE DATE: 07/13/2012
DRAWN BY: R. CROOKS DATE: 07/13/2012
CHECKED BY: L. HOE DATE: 07/13/2012

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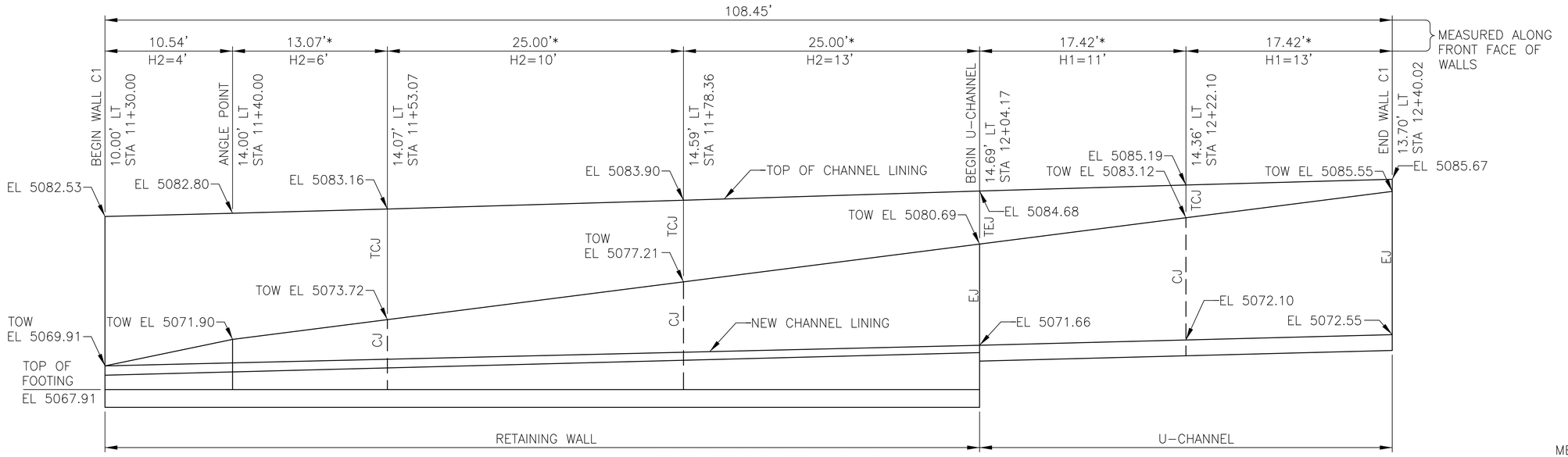
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD-PHASE I
SOUTH PINO ARROYO
CHANNEL FLOOR DETAILS 2

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

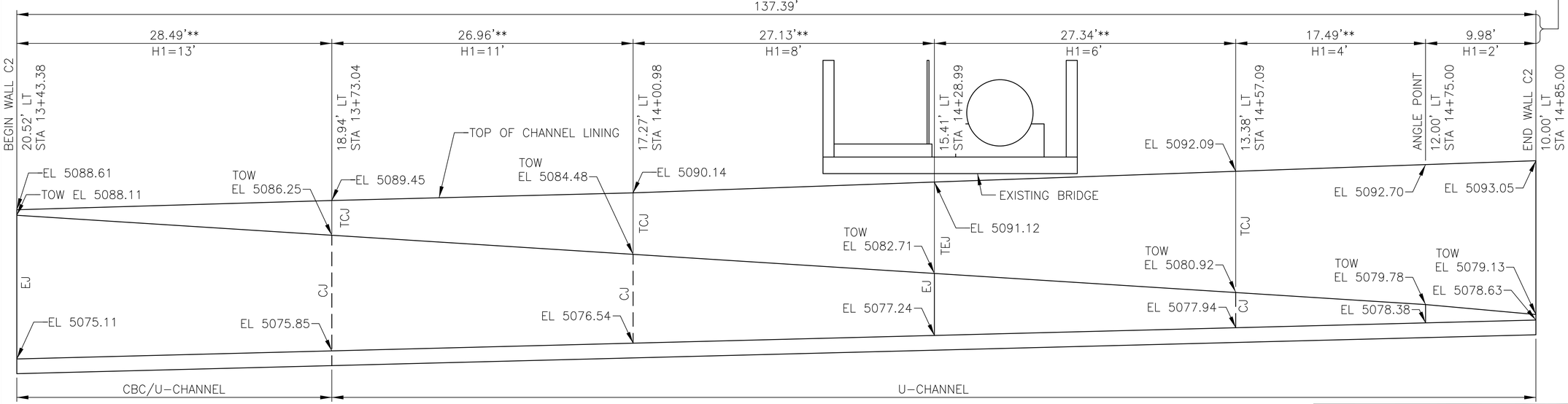
City Project No. 6920.91 | Zone Map No. E16,D16,D17 | Sheet 50 Of 66

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990



DEVELOPED ELEVATION - WALL C1

SCALE: 1"=5'-0"



DEVELOPED ELEVATION - WALL C2

SCALE: 1"=5'-0"

NOTES:

CJ = CONSTRUCTION JOINT (SEE DETAILS SHEET 53)
EJ = EXPANSION JOINT (SEE DETAILS SHEET 53)
* RADIUS = 958.97'
** RADIUS = 525.77'
H1 = DESIGN HEIGHT FOR USE WITH TABLE ON SHEET 53
H2 = DESIGN HEIGHT FOR USE WITH TABLE ON SHEET 55
TCJ = TRANSVERSE CST JOINT IN CHANNEL LINING (SEE SHEET 54)
TEJ = TRANSVERSE EXP JOINT IN CHANNEL LINING (SEE SHEET 54)
TOW = TOP OF WALL

TOP OF CHANNEL LINING ELEVATIONS ARE BASED ON SURVEY DATA. ACTUAL TOP OF CHANNEL LINING ELEVATIONS SHALL MATCH EXISTING GROUND ELEVATIONS.

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE

BENCH MARKS
ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 ¾" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
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TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

AS BUILT INFORMATION
CONTRACTOR DATE
WORK STARTED BY DATE
INSPECTORS ACCEPTANCE BY DATE
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DRAWINGS CORRECTED BY DATE
MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

ENGINEER'S SEAL
DANIEL N. HELLER NEW MEXICO 13009 REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REMARKS
		REVISIONS
		DESIGN
	DATE: 07/13/2012	DESIGNED BY: J. PYNE
	DATE: 07/13/2012	DRAWN BY: R. CROOKS
	DATE: 07/13/2012	CHECKED BY: L. HOE

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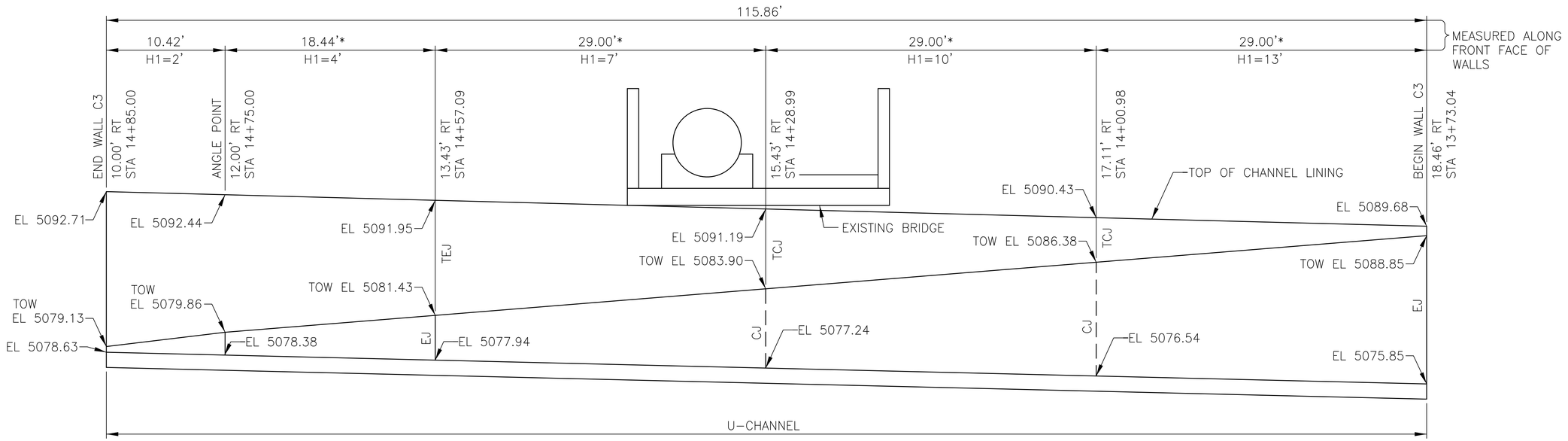
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD-PHASE I
SOUTH PINO ARROYO
CHANNEL DETAILS 1

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

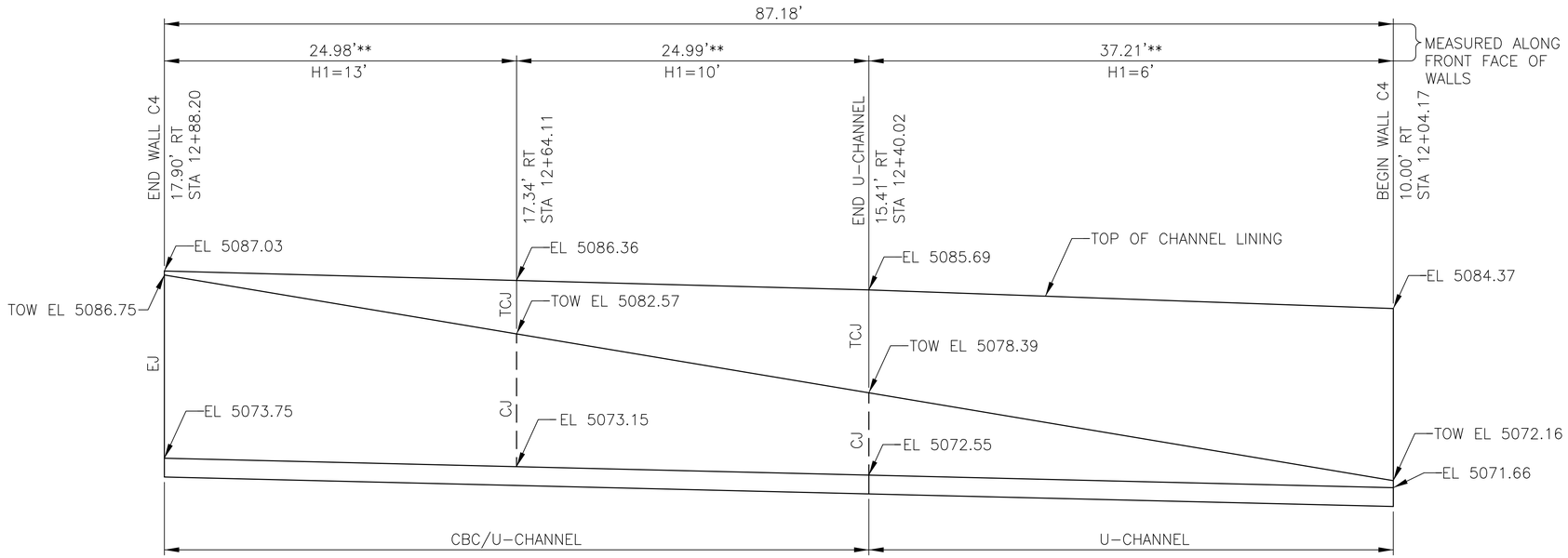
City Project No.	Zone Map No.	Sheet	Of
6920.91	E16,D16,D17	51	66

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DEVELOPED ELEVATION - WALL C3

SCALE: 1"=5'-0"



DEVELOPED ELEVATION - WALL C4

SCALE: 1"=5'-0"

NOTES:

CJ = CONSTRUCTION JOINT (SEE DETAILS SHEET 53)
EJ = EXPANSION JOINT (SEE DETAILS SHEET 53)
* RADIUS = 421.23'
** RADIUS = 238.93'
H1 = DESIGN HEIGHT FOR USE WITH TABLE ON SHEET 53
TCJ = TRANSVERSE CST JOINT IN CHANNEL LINING (SEE SHEET 54)
TEJ = TRANSVERSE EXP JOINT IN CHANNEL LINING (SEE SHEET 54)
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TOP OF CHANNEL LINING ELEVATIONS ARE BASED ON SURVEY DATA. ACTUAL TOP OF CHANNEL LINING ELEVATIONS SHALL MATCH EXISTING GROUND ELEVATIONS.

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM

15_E16 (1 ¾" ALUMINUM DISK)

NM STATE PLANE COORDINATES

CENTRAL ZONE NAD 1983

ELEVATION= 5092.856 (NAVD 1988)

SW QUADRANT OF OSUNA RD. NE. & THE NORTH DIVISION CHANNEL EPOXIED TO TOP OF CONCRETE BASE OF STREET LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR DATE

WORK STAKED BY DATE

INSPECTORS ACCEPTANCE BY DATE

FIELD VERIFICATION BY DATE

DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION

RECORDED BY DATE

NO.

ENGINEER'S SEAL

DANIEL N. HELLER NEW MEXICO 13009 REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REMARKS	BY
		DESIGN	DESIGNED BY: J. PYNE DATE: 07/13/2012
		REVISIONS	DRAWN BY: R. CROOKS DATE: 07/13/2012
			CHECKED BY: L. HOE DATE: 07/13/2012

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MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD-PHASE I
SOUTH PINO ARROYO
CHANNEL DETAILS 2

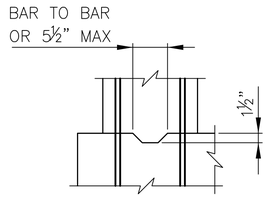
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16,D16,D17 | Sheet 52 | Of 66

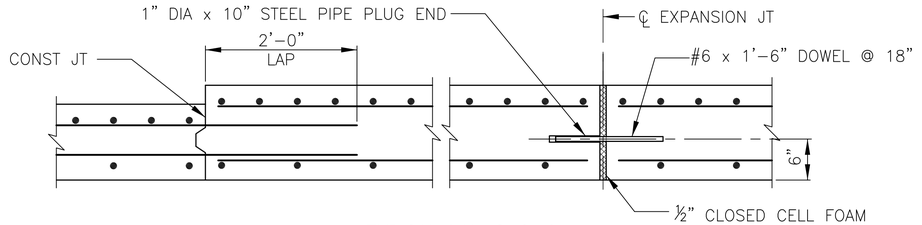
Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990

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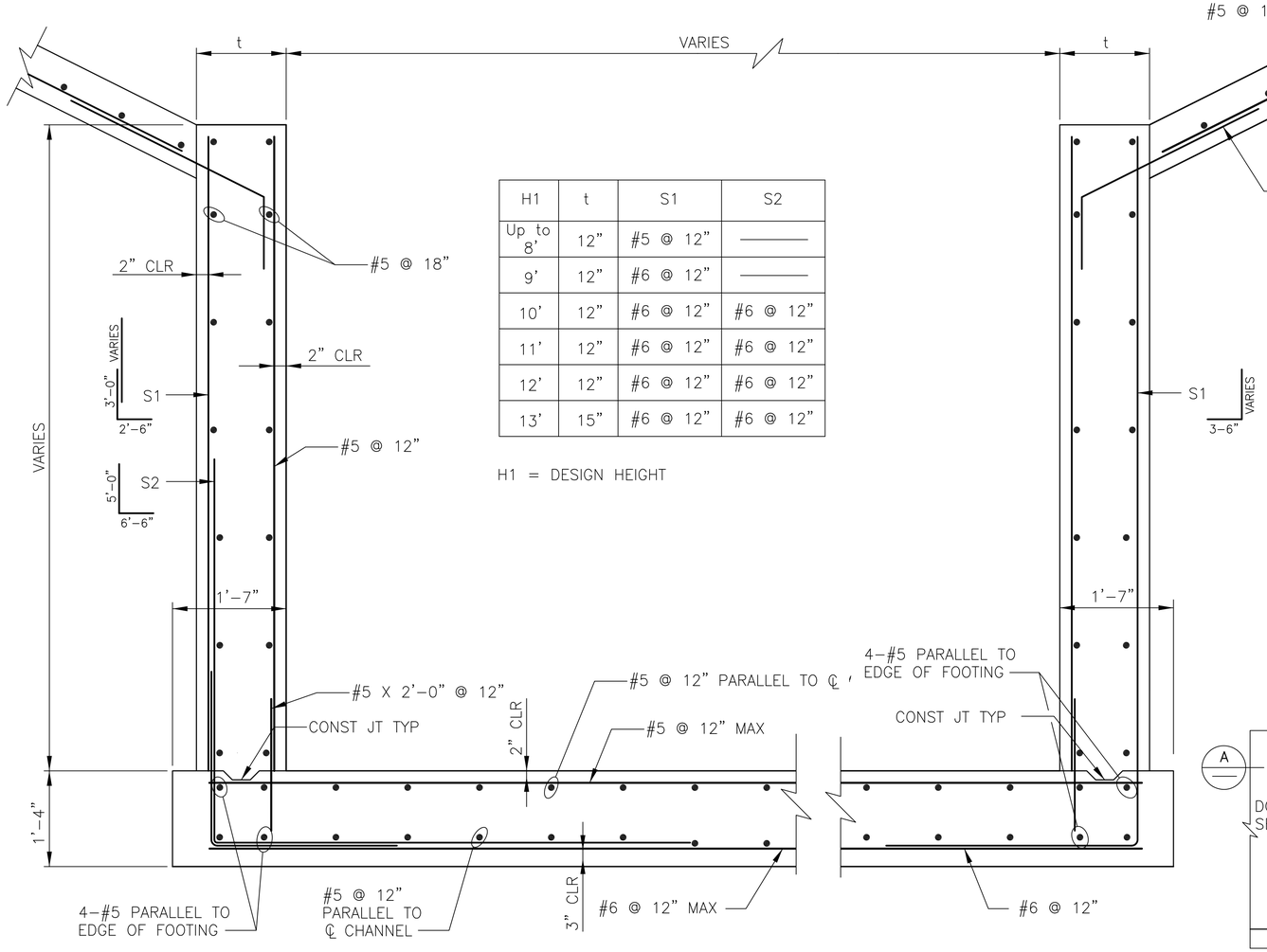
G:\221706.00 - Osuna Road City of Albuquerque\CADD\LV\Channel Road\Structures\DBB\S2_WALL DTS 2.dwg



CONSTRUCTION JOINT DETAIL
SCALE: 1"=1'-0"



TYPICAL WALL SECTION
SCALE: 1"=1'-0"



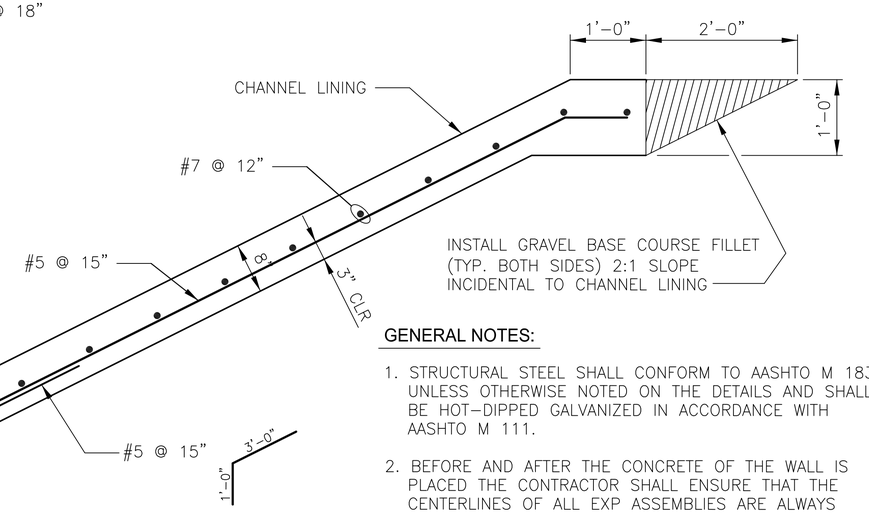
H1	t	S1	S2
Up to 8'	12"	#5 @ 12"	———
9'	12"	#6 @ 12"	———
10'	12"	#6 @ 12"	#6 @ 12"
11'	12"	#6 @ 12"	#6 @ 12"
12'	12"	#6 @ 12"	#6 @ 12"
13'	15"	#6 @ 12"	#6 @ 12"

H1 = DESIGN HEIGHT

H=10' TO 13'

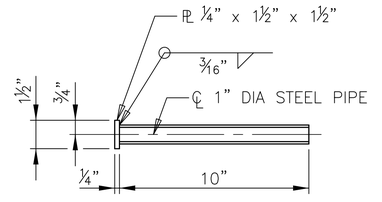
H=0' TO 9'

U-CHANNEL TYPICAL SECTION
SCALE: 1"=1'-0"

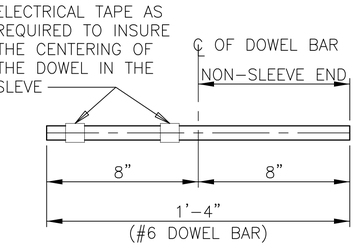


GENERAL NOTES:

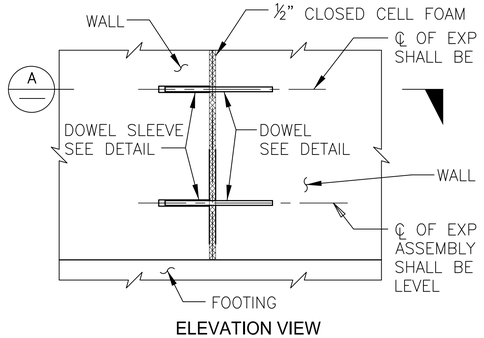
1. STRUCTURAL STEEL SHALL CONFORM TO AASHTO M 183 UNLESS OTHERWISE NOTED ON THE DETAILS AND SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH AASHTO M 111.
2. BEFORE AND AFTER THE CONCRETE OF THE WALL IS PLACED THE CONTRACTOR SHALL ENSURE THAT THE CENTERLINES OF ALL EXP ASSEMBLIES ARE ALWAYS KEPT LEVELED AND 6" AWAY FROM THE OUTSIDE FACE OF THE WALL AS SHOWN IN THIS DRAWING.
3. THE MATERIAL AND INSTALLATION COSTS OF ½" CLOSED CELL FOAM AND EXPANSION ASSEMBLIES SHALL BE CONSIDERED INCIDENTAL TO THE COST OF RETAINING WALL CONSTRUCTION AND NO DIRECT PAYMENT WILL BE MADE THEREFOR.



DOWEL SLEEVE DETAIL



DOWEL DETAIL



ELEVATION VIEW
SCALE: 1"=1'-0"

AS BUILT INFORMATION	DATE
CONTRACTOR	
WORK STAKED BY	
INSPECTORS ACCEPTANCE BY	
FIELD VERIFICATION BY	
DRAWINGS CORRECTED BY	
MICRO-FILM INFORMATION	
RECORDED BY	
NO.	

BENCH MARKS
ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 ¾" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
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TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE

ENGINEER'S SEAL
DANIEL N. HELLER NEW MEXICO 13009 PROFESSIONAL ENGINEER

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		DESIGNED BY: J. PYNE	DATE: 07/13/2012
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CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

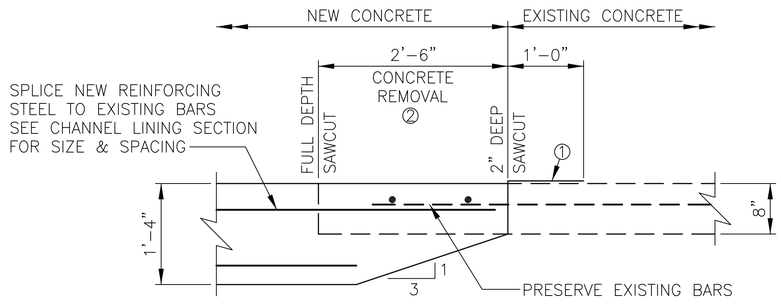
TITLE: CHANNEL ROAD-PHASE I
SOUTH PINO ARROYO
CHANNEL DETAILS 3

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

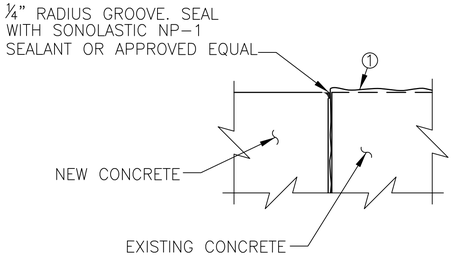
City Project No.	Zone Map No.	Sheet	Of
6920.91	E16,D16,D17	53	66

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990

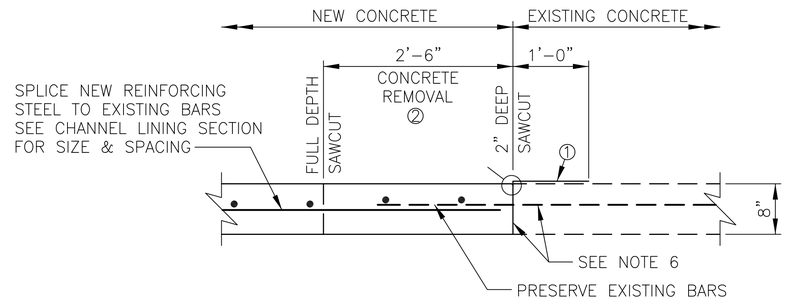
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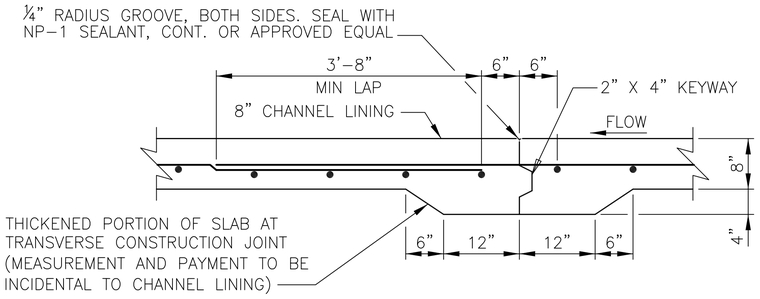
NEW U-CHANNEL FLOOR TO EXISTING CHANNEL FLOOR TRANSITION DETAIL
SCALE: 1"=1'–0"



DETAIL A
NOT TO SCALE



NEW TO EXISTING CHANNEL LINING CONSTRUCTION JOINT DETAIL
SCALE: 1"=1'–0"



TYPICAL TRANSVERSE CONSTRUCTION JOINT DETAIL
SCALE: 1"=1'–0"

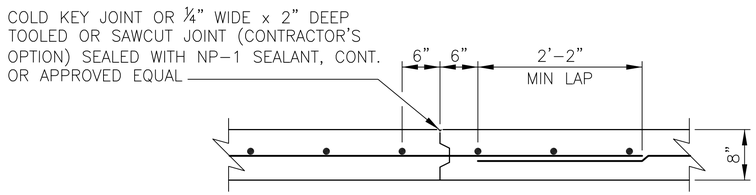
NOTES FOR CHANNEL CONSTRUCTION:

1. REINFORCING STEEL: STEEL REINFORCEMENT AND PLACEMENT SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS AND SHALL CONFORM TO ASTM A615, GRADE 60. ALL LAP SPLICES SHALL BE CLASS "B" UNLESS NOTED OTHERWISE.
2. ALL EXPOSED CHANNEL SURFACES SHALL BE GIVEN A CLASS 3 FLOAT & TINE FINISH. TINE SHALL BE TRANSVERSE TO FLOW.
3. ALL EXPOSED CONCRETE SHALL BE TINTED WITH SAN DIEGO BUFF (DAVIS COLOR 5237) AT THE REDUCED DOSAGE OF 1 lb PER SACK OF CEMENT, OR APPROVED EQUAL. TINT SHALL BE INCIDENTAL TO THE COST OF THE RESPECTIVE CONCRETE.
4. NEW TO EXISTING CHANNEL CONSTRUCTION: EUCO ARC LITHIUM NITRATE TREATMENT IS REQUIRED FOR ANY EXISTING CONCRETE CHANNELS. SEE DETAILS FOR INSTALLATION REQUIREMENTS, THIS SHEET.
5. MINIMUM REBAR LAP LENGTH (CLASS B LAPS):
   #5 = 22"
   #7 = 43"
   #8 = 54"
6. AMAFCA SHALL BE NOTIFIED TO INSPECT EXISTING CHANNEL LINING AND STEEL PRIOR TO CONCRETE PLACEMENT. EXISTING CONCRETE SHALL BE SOUNDED WITH A HAMMER AND ANY DELAMANATED AREAS OR UNSOUND CONCRETE SHALL BE REMOVED PRIOR TO APPLICATION OF "EUCO" COATING. NEW DOWELS SHALL BE DRILLED 8" DEEP AND EPOXIED IF THE EXISTING REINFORCING STEEL IS NOT OF SUFFICEINT LENGTH OR IS DAMAGED.

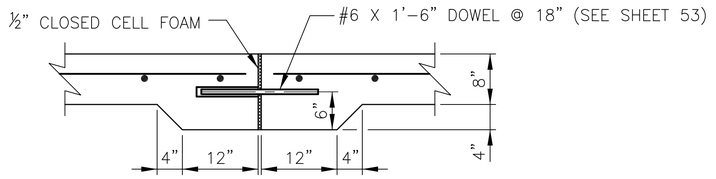
○ KEYED NOTES:

1 EUCO ARC LITHIUM NITRATE COATING OR APPROVED EQUAL APPLIED TO VERTICAL SURFACE AND 12" OF TOP SURFACE OF EXISTING CONCRETE TO REMAIN.

2 REMOVAL OF CONCRETE ADJACENT TO THE 2" SAWCUT WILL BE WITH A 30 LB. MAX PNEUMATIC HAMMER. IN THE EVENT OF DAMAGE TO THE CONCRETE TO REMAIN, THE CONTRACTOR SHALL RESAW THE 2" JOINT AND REMOVE AND REPLACE THAT CONCRETE AT NO COST TO AMAFCA OR THE OWNER.



TYPICAL LONGITUDINAL CONSTRUCTION JOINT DETAIL
SCALE: 1"=1'–0"



TYPICAL TRANSVERSE EXPANSION JOINT DETAIL
SCALE: 1"=1'–0"

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM	
15_E16 (1 ¾" ALUMINUM DISK)	
NM STATE PLANE COORDINATES	
CENTRAL ZONE NAD 1983	
ELEVATION= 5092.856 (NAVD 1988)	
SW QUADRANT OF OSUNA RD. NE. & THE NORTH DIVISION CHANNEL EPOXIED TO TOP OF CONCRETE BASE OF STREET	
LIGHT STANCHION	

AS BUILT INFORMATION

CONTRACTOR	DATE
WORK STAKED BY	DATE
INSPECTORS ACCEPTANCE BY	DATE
FIELD VERIFICATION BY	DATE
DRAWINGS CORRECTED BY	DATE
RECORDED BY	DATE
NO.	

MICRO–FILM INFORMATION

ENGINEER'S SEAL

DANIEL N. HELLER, NEW MEXICO, 13009, PROFESSIONAL ENGINEER

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	DESIGNED BY: J. PYNE DATE: 07/13/2012
			DRAWN BY: R. CROOKS DATE: 07/13/2012
			CHECKED BY: L. HOE DATE: 07/13/2012

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MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

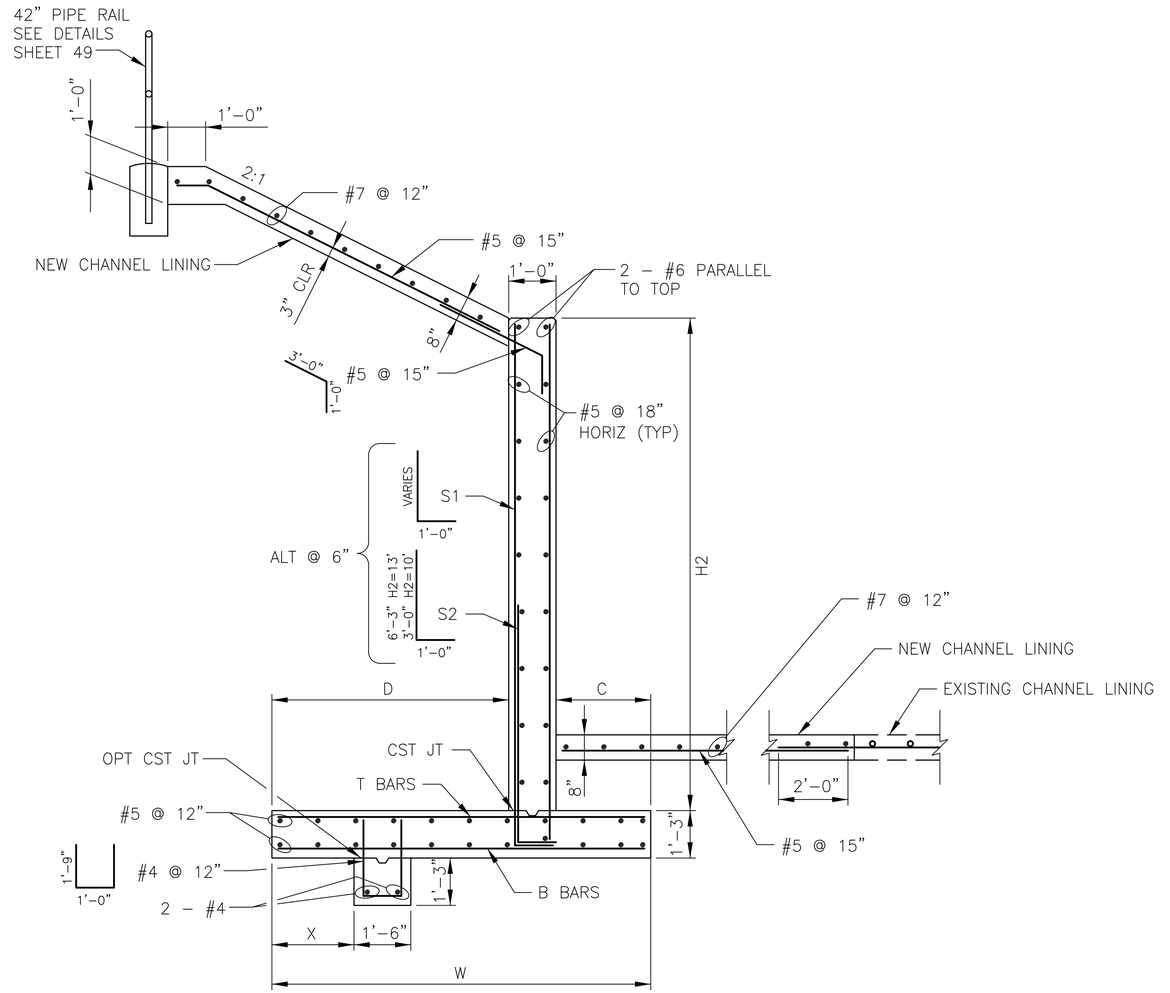
TITLE: CHANNEL ROAD-PHASE I
SOUTH PINO ARROYO
CHANNEL DETAILS 4

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
6920.91	E16,D16,D17	54	66

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990

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TYPICAL SECTION - CHANNEL
STA 11+30.00 TO STA 12+04.17
SCALE: 1/2"=1'-0"

TABLE 2								
H2	C	D	W	X	S1	S2	T	B
6'	1'-0"	2'-6"	4'-6"	1'-0"	#5@12"	———	#5@12"	#5@12"
10'	2'-0"	5'-6"	8'-6"	1'-0"	#6@12"	#6@12"	#7@9"	#5@12"
13'	2'-6"	7'-3"	10'-9"	2'-9"	#6@12"	#6@12"	#7@6"	#6@12"

NOTE: H2 IS THE HEIGHT FOR DETERMINING WALL DIMENSIONS
FROM THE TABLES. ACTUAL WALL HEIGHTS WILL VARY AS SHOWN IN ELEVATIONS.

Two working days before you dig
CALL NEW MEXICO ONE CALL SYSTEM
260-1990

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE

BENCH MARKS
ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 ¾" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

AS BUILT INFORMATION
CONTRACTOR DATE
WORK STAKED BY DATE
INSPECTORS ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE
MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

ENGINEER'S SEAL
DANIEL N. HELLER NEW MEXICO 13009 PROFESSIONAL ENGINEER

NO.	DATE	REMARKS
		REVISIONS
		DESIGN
		DESIGNED BY: J. PYNE DATE: 07/13/2012
		DRAWN BY: R. CROOKS DATE: 07/13/2012
		CHECKED BY: L. HOE DATE: 07/13/2012

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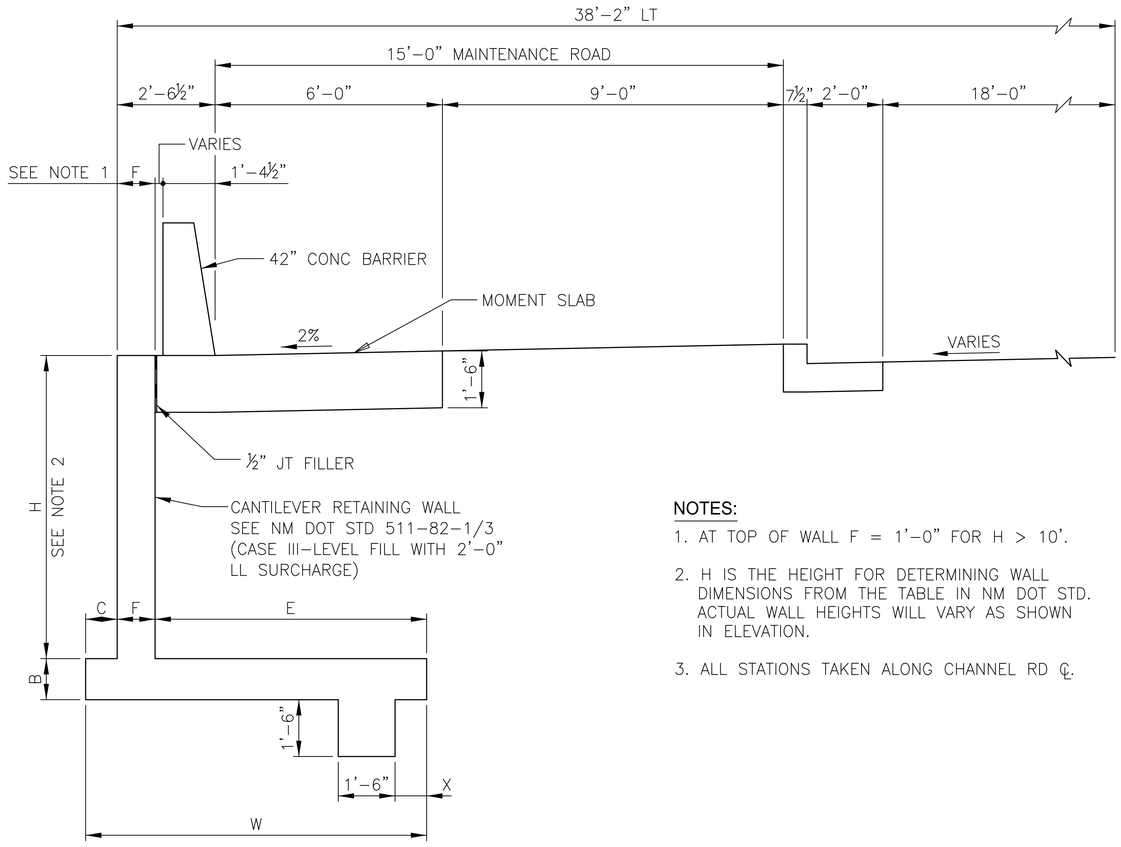
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD-PHASE I
SOUTH PINO ARROYO
RETAINING WALL DETAILS

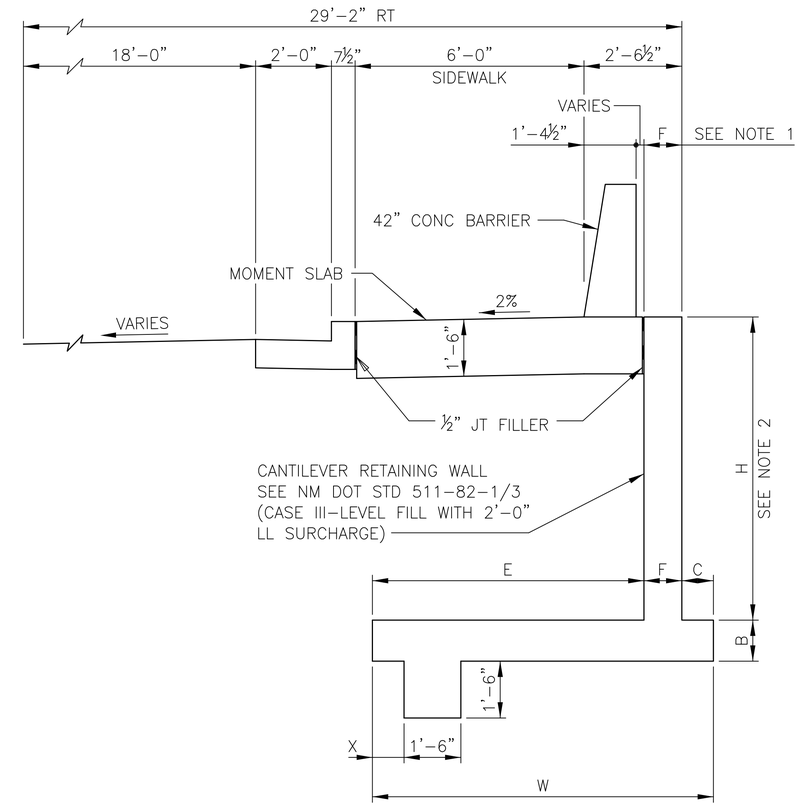
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16,D16,D17 | Sheet 55 Of 66

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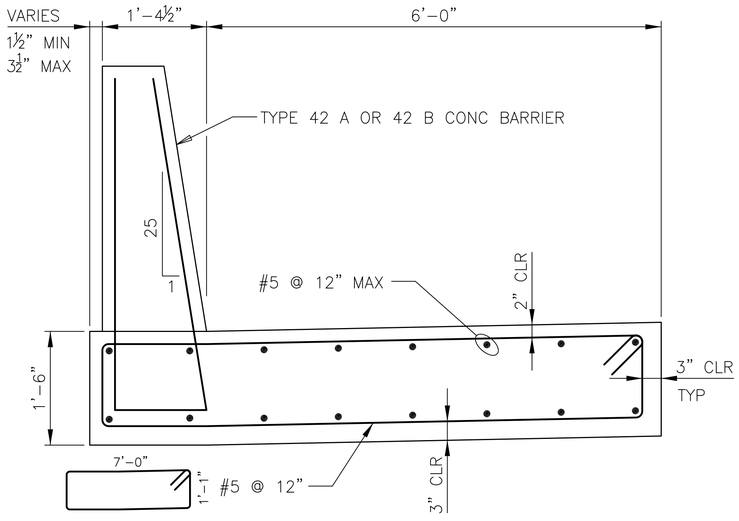
SECTION THRU RETAINING WALL LT
STA 34+89.66 TO 35+16.98
STA 35+92.27 TO 38+35.00
SCALE: 1/2"=1'-0"



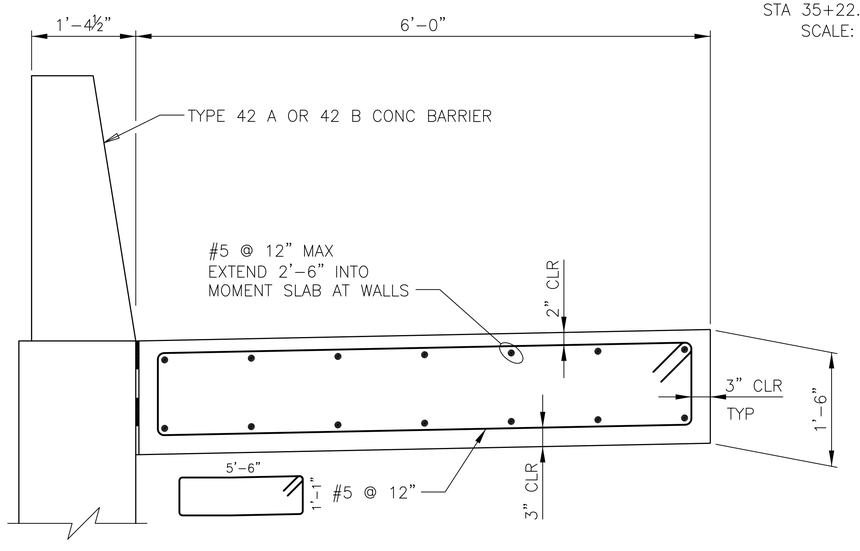
SECTION THRU RETAINING WALL RT
STA 31+00.00 TO 34+64.87
STA 35+22.18 TO 35+45.66
SCALE: 1/2"=1'-0"

NOTES:

1. AT TOP OF WALL F = 1'-0" FOR H > 10'.
2. H IS THE HEIGHT FOR DETERMINING WALL DIMENSIONS FROM THE TABLE IN NM DOT STD. ACTUAL WALL HEIGHTS WILL VARY AS SHOWN IN ELEVATION.
3. ALL STATIONS TAKEN ALONG CHANNEL RD ℄.



SECTION THRU MOMENT SLAB
SCALE: 1"=1'-0"



SECTION THRU MOMENT SLAB OVER BOX CULVERT
LT: STA 35+16.98 TO 35+92.27
RT: STA 34+64.87 TO 35+22.18
SCALE: 1"=1'-0"

Two working days before you dig
CALL NEW MEXICO ONE CALL SYSTEM
260-1990

AS BUILT INFORMATION
CONTRACTOR DATE
WORK STAKED BY DATE
INSPECTORS ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE

BENCH MARKS
ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 ¾" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

ENGINEER'S SEAL
DANIEL N. HELLER NEW MEXICO 13009 PROFESSIONAL ENGINEER

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY: J. PYNE	DATE: 07/13/2012
		DRAWN BY: R. CROOKS	DATE: 07/13/2012
		CHECKED BY: L. HOE	DATE: 07/13/2012

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Albuquerque, NM 87102

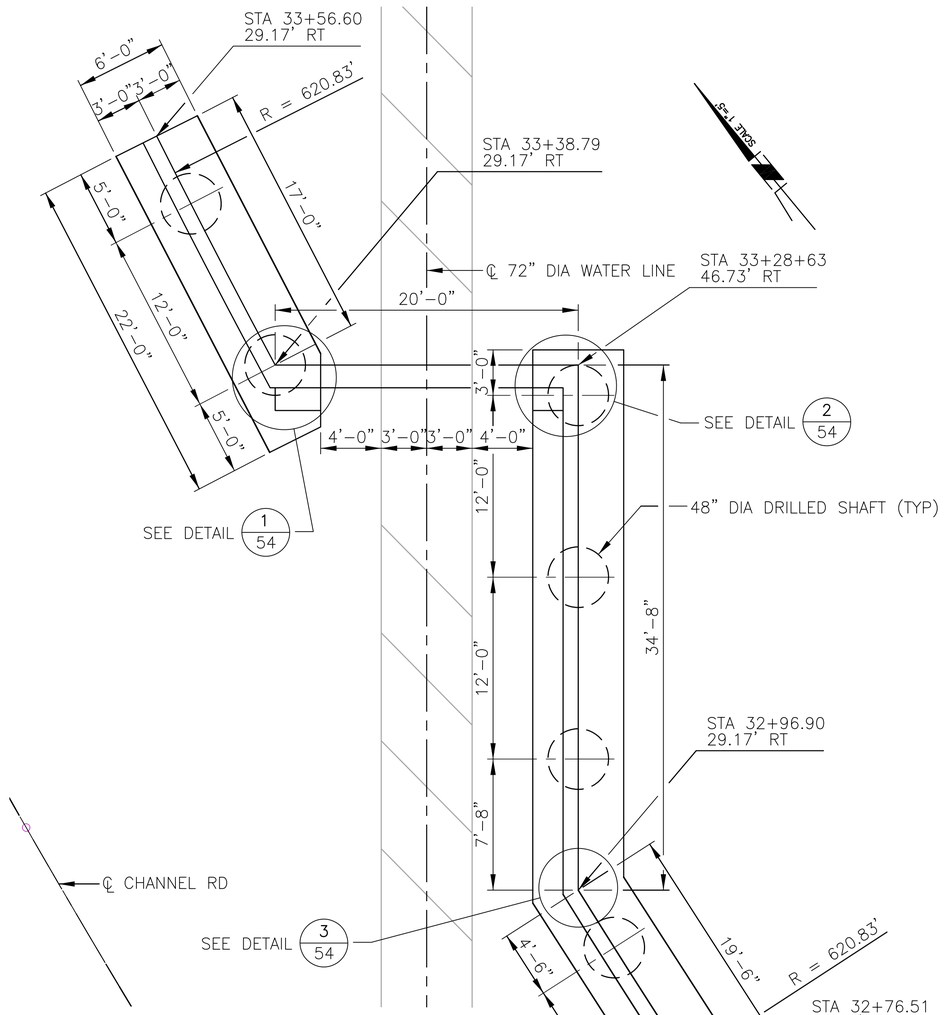
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD-PHASE I
SOUTH PINO ARROYO
CHANNEL RD RETAINING WALL DETAILS 1

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

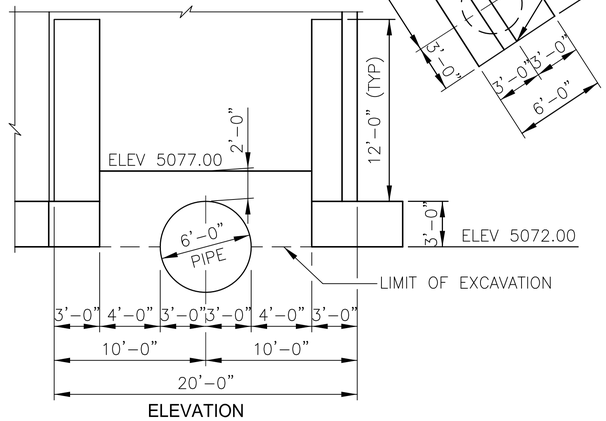
City Project No. 6920.91 | Zone Map No. E16,D16,D17 | Sheet 56 Of 66

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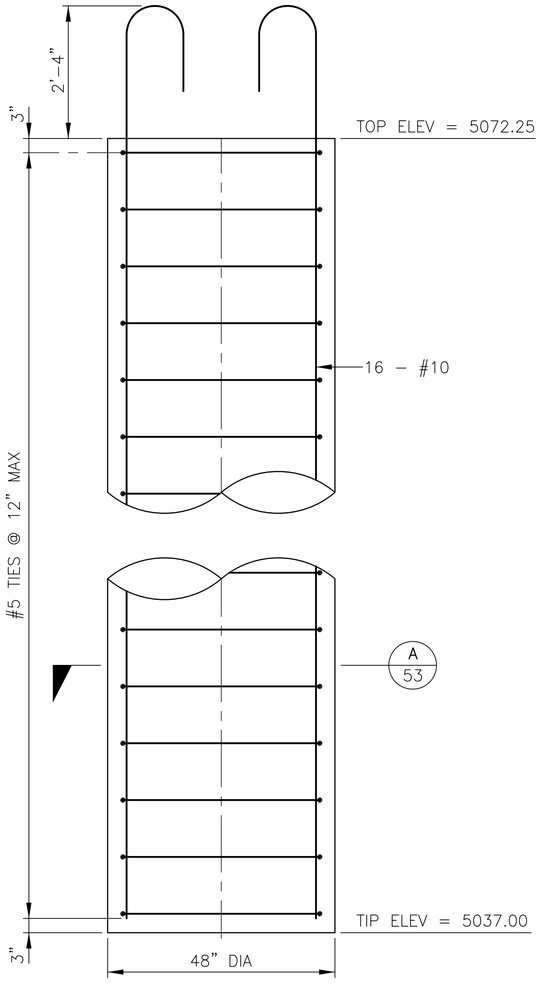
WALL PLAN

SCALE: 1"=5'-0"



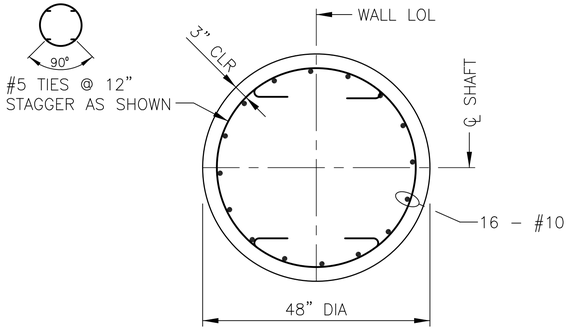
ELEVATION

SCALE: 1"=5'-0"



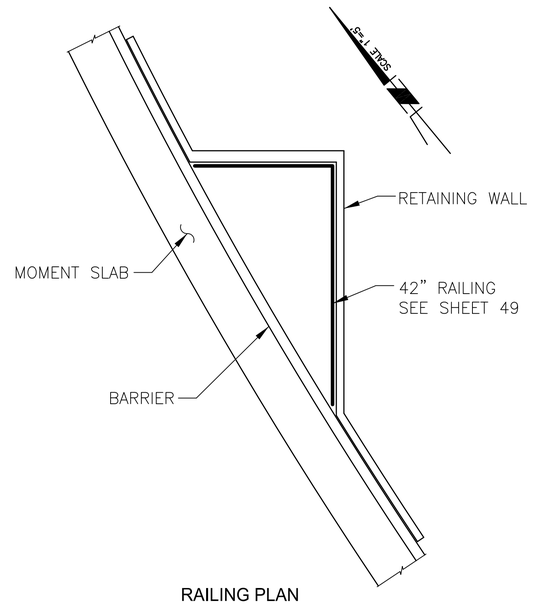
TYPICAL DRILLED SHAFT

SCALE: 3/4"=1'-0"



SECTION A/53

SCALE: 3/4"=1'-0"



RAILING PLAN

SCALE: 1"=10'-0"

DRILLED SHAFT NOTES:

1. THE CONTRACTOR SHALL TAKE DUE CARE TO AVOID DAMAGE TO THE 72 INCH DIAMATER WATER LINE EITHER BY DIRECT CONTACT OR BY DAMAGE CAUSED BY VIBRATION FROM THE DRILLING OPERATION.
2. IN THE EVENT OF A WEAK LAYER (SILT, CLAY, LOOSE SAND, ECT) AT THE RECOMMENDED ELEVATION OF THE SHAFT BOTTOM THE SHAFT SHALL BE EXTENDED TO BEAR ON FIRM SOIL AS DETERMINED BY THE ENGINEER.
3. CONCRETE SHALL BE PLACED IMMEDIATELY AFTER EXCAVATION HAS BEEN COMPLETED AND THE REINFORCING CAGE PLACED IN IT'S POSITION.

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM

15_E16 (1 ¾" ALUMINUM DISK)

NM STATE PLANE COORDINATES

CENTRAL ZONE NAD 1983

ELEVATION= 5092.856 (NAVD 1988)

SW QUADRANT OF OSUNA RD. NE. &

THE NORTH DIVISION CHANNEL EPOXIED

TO TOP OF CONCRETE BASE OF STREET

LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR DATE

WORK STAKED BY DATE

INSPECTORS ACCEPTANCE BY DATE

FIELD VERIFICATION BY DATE

DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION

RECORDED BY DATE

NO.

ENGINEER'S SEAL

DANIEL N. HELLER NEW MEXICO 13009 PROFESSIONAL ENGINEER

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	DATE: 07/13/2012
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ENGINEERING DIVISION

TITLE: CHANNEL ROAD-PHASE I
SOUTH PINO ARROYO
CHANNEL RD RETAINING WALL DETAILS 2

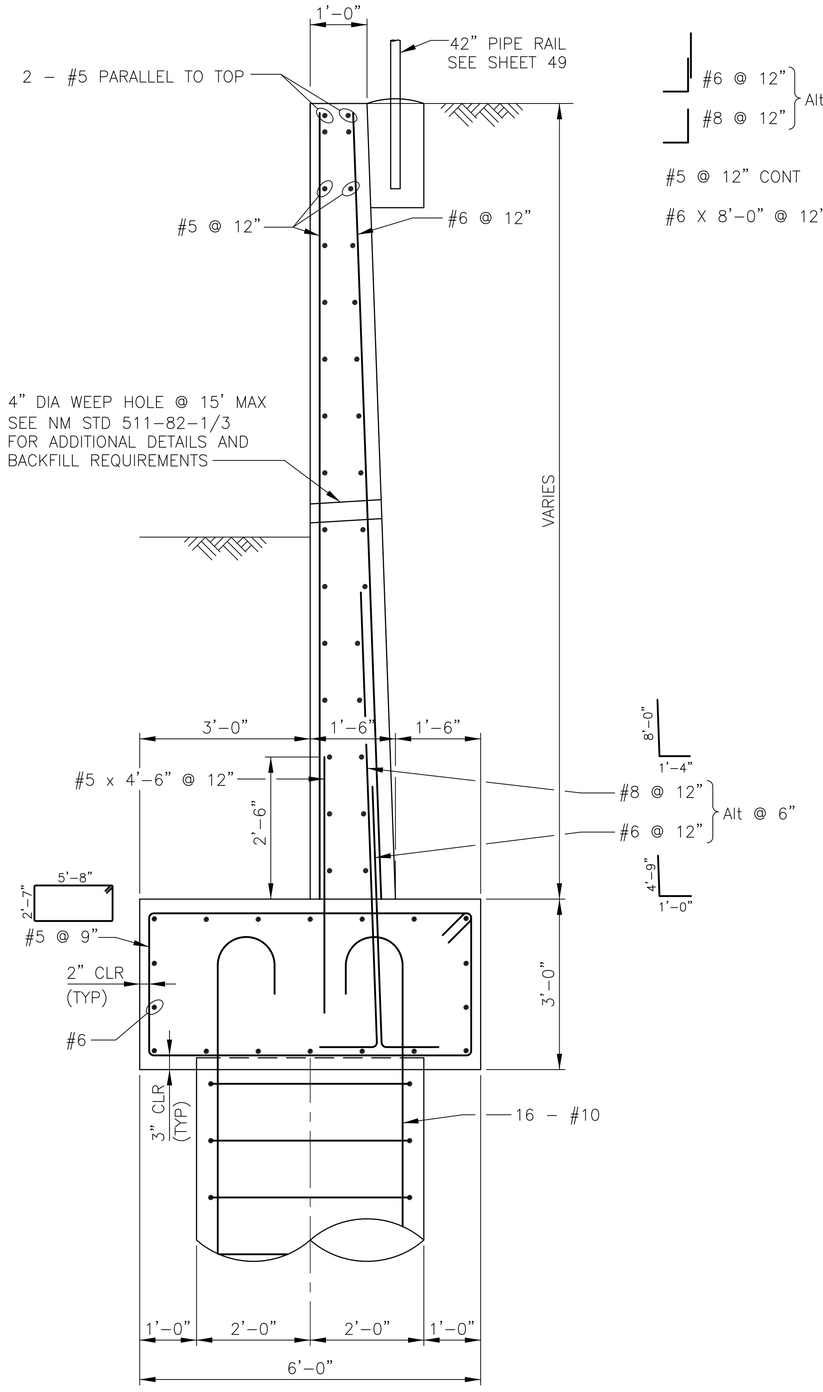
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990

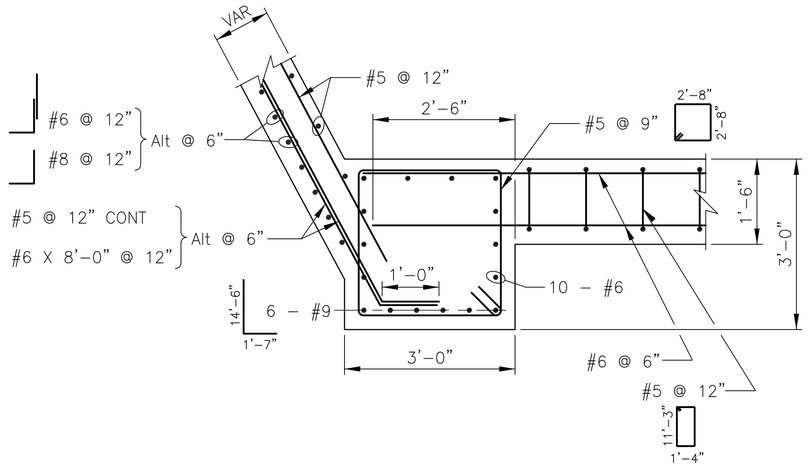
City Project No. 6920.91 | Zone Map No. E16,D16,D17 | Sheet 57 Of 66

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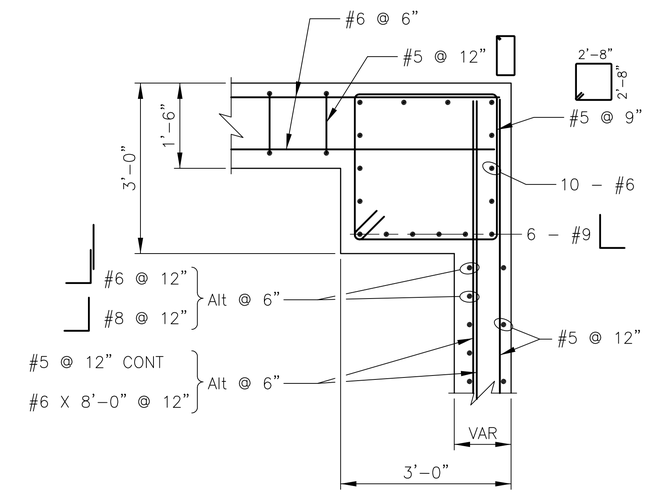
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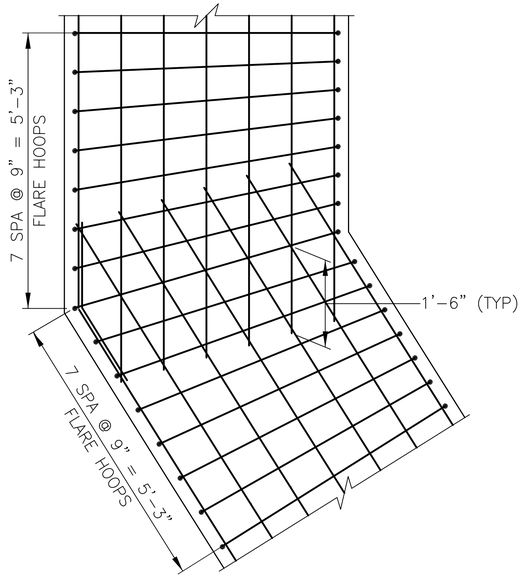
SECTION THRU WALL
SCALE: 3/4"=1'-0"



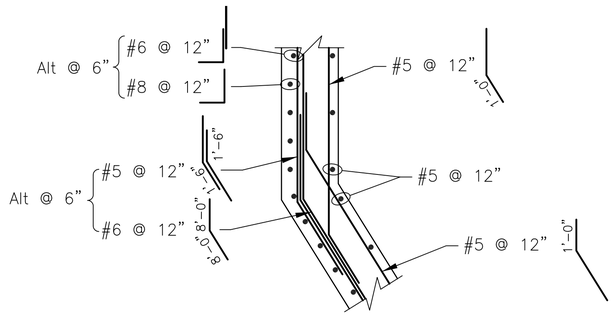
DETAIL 1
SCALE: 3/4" = 1'-0"



DETAIL 2
SCALE: 3/4" = 1'-0"



PARTIAL FOOTING PLAN
SCALE: 3/4"=1'-0"



DETAIL 3
SCALE: 3/4" = 1'-0"

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MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD-PHASE I
SOUTH PINO ARROYO
CHANNEL RD RETAINING WALL DETAILS 3

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
6920.91	E16,D16,D17	58	66

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM	
15_E16 (1 ¾" ALUMINUM DISK)	
NM STATE PLANE COORDINATES	
CENTRAL ZONE NAD 1983	
ELEVATION= 5092.856 (NAVD 1988)	
SW QUADRANT OF OSUNA RD. NE. &	
THE NORTH DIVISION CHANNEL EPOXIED	
TO TOP OF CONCRETE BASE OF STREET	
LIGHT STANCHION	

AS BUILT INFORMATION

	DATE
CONTRACTOR	
WORK STAKED BY	
INSPECTORS	
ACCEPTANCE BY	
FIELD VERIFICATION BY	
DRAWINGS CORRECTED BY	
MICRO-FILM INFORMATION	
RECORDED BY	
NO.	

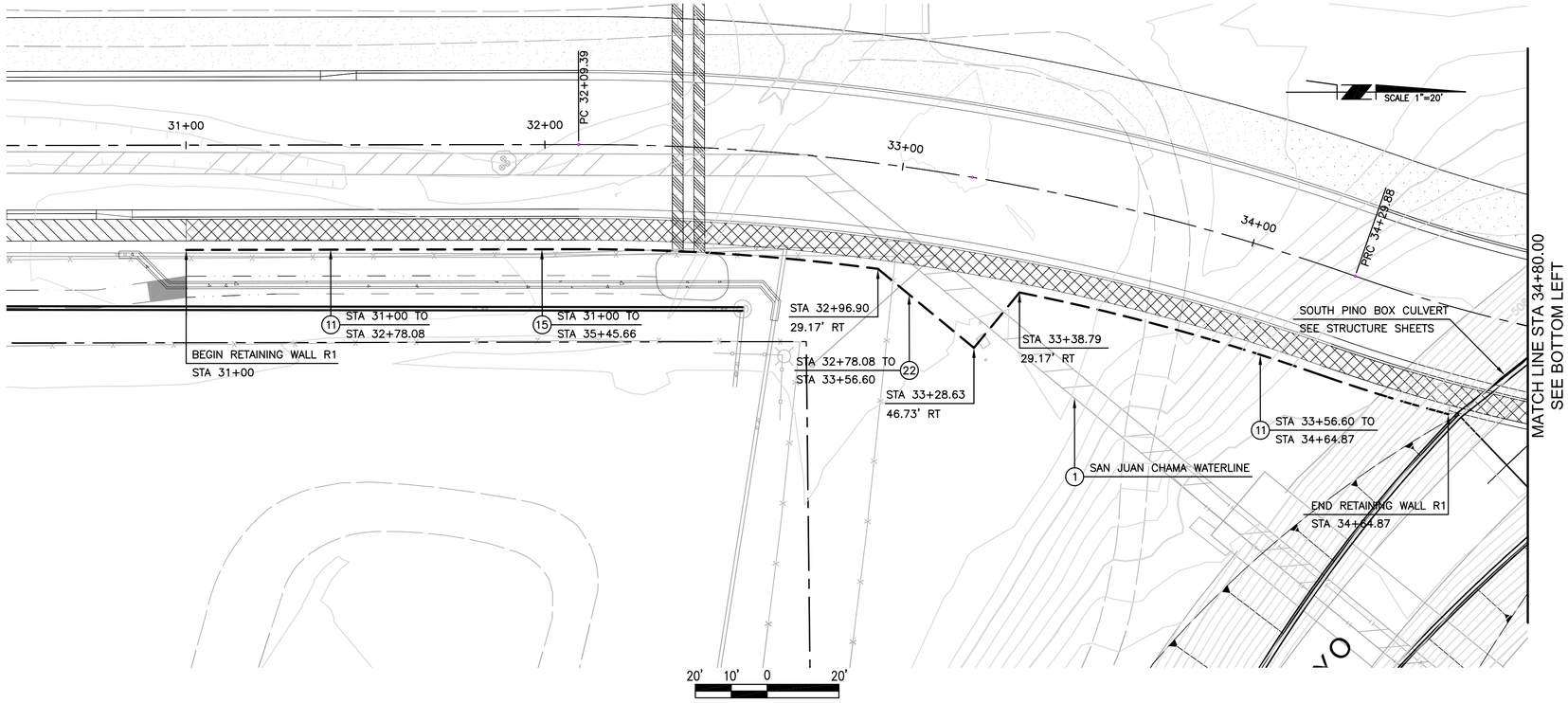
ENGINEER'S SEAL

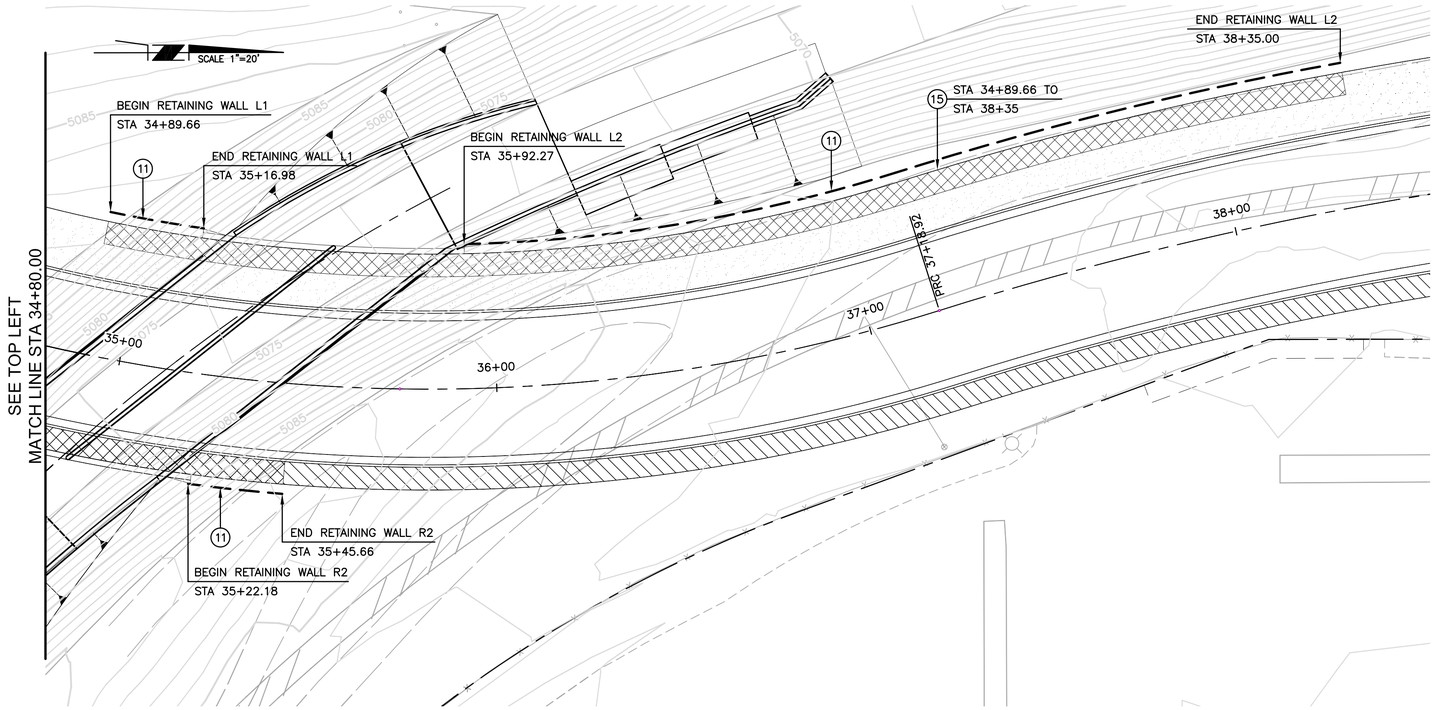
DANIEL N. HELLER
NEW MEXICO
13009
PROFESSIONAL ENGINEER

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	

DESIGNED BY: J. PYNE DATE: 07/13/2012
DRAWN BY: R. CROOKS DATE: 07/13/2012
CHECKED BY: L. HOE DATE: 07/13/2012

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CONSTRUCTION NOTES

1	PROTECT IN PLACE	
11	CONSTRUCT RETAINING WALL PER NMDOT DETAIL 511-82	3,594 SF
15	CONSTRUCT BARRIER WITH SIDEWALK PER DETAIL SHT 56	781 LF
22	CONSTRUCT RETAINING WALL PER DETAIL SHT 57	747 SF

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
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AS BUILT INFORMATION

CONTRACTOR — DATE
WORK STAKED BY — DATE
CONSTRUCTION ACCEPTANCE BY — DATE
FIELD LOCATION BY — DATE
DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION

RECORDED BY — DATE
NO.

ENGINEER'S SEAL

ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER

07/30/2012

NO.	REMARKS	BY	DATE
	REVISIONS		
	DESIGN		
	DESIGNED BY: R.STRICKLAND		DATE: 05/25/2012
	DRAWN BY: D.RAY, J.SCHENKMAN		DATE: 05/25/2012
	CHECKED BY: E.FROBERG		DATE: 05/25/2012

Two working days before you dig
CALL NEW MEXICO ONE CALL SYSTEM
260-1990

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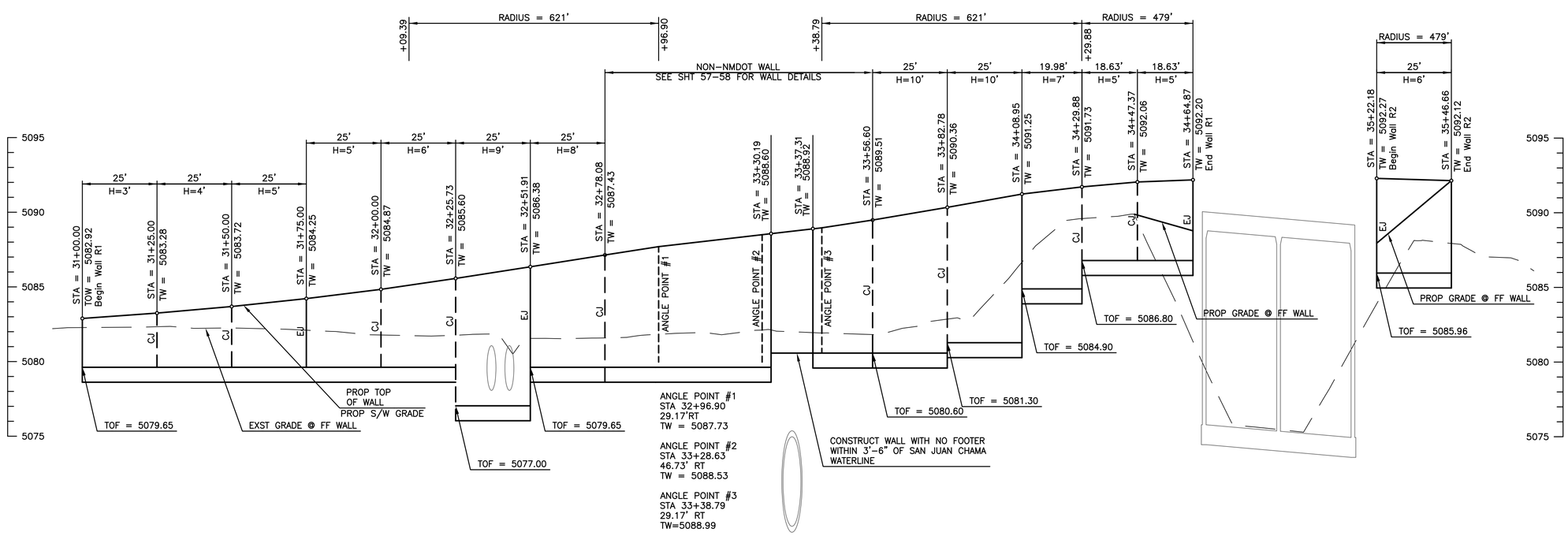
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD - PHASE I
RETAINING WALL LOCATION SHEET

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

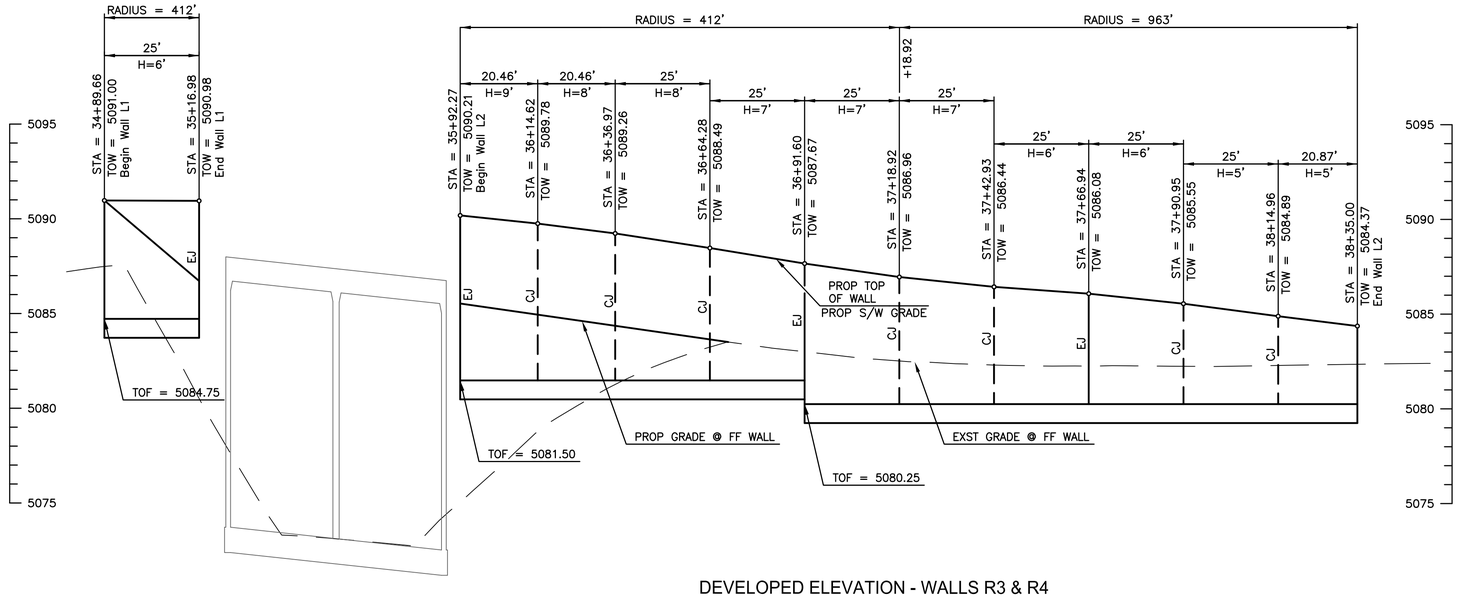
City Project No.	Zone Map No.	Sheet	Of
6920.91	E16, D16, D17	59	66

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P:\221706.00 - Osuna Road City of Albuquerque\CADD\DLV\1706-ChannelRD - RW01.dwg



DEVELOPED ELEVATION - WALLS R1 & R2

SCALE: 1"=20'



DEVELOPED ELEVATION - WALLS R3 & R4

SCALE: 1"=20'

NOTES:

CJ = CONSTRUCTION JOINT (SEE DETAILS SHEETS 53 & 54)
EJ = EXPANSION JOINT (SEE DETAILS SHEETS 53 & 54)
H = DESIGN HEIGHT FOR USE WITH TABLE ON SHEETS 53)
TOW = TOP OF WALL
TOF = TOP OF FOOTER

NOTE:

ALL JOINS SHOWN ARE REQUIRED. ADDITIONAL MAY BE ADDED PER THE CONTRACTOR'S DISCRESION, WITH APPROVAL OF THE ENGINEER, AT NO ADDITIONAL COST TO THE PROJECT.

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_F16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR DATE
WORK STAKED BY DATE
FIELD WORK ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION

RECORDED BY DATE
NO.

ENGINEER'S SEAL

ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER
07/30/2012

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY: R.STRICKLAND	DATE: 05/25/2012
		DRAWN BY: D.RAY, J.SCHENKMAN	DATE: 05/25/2012
		CHECKED BY: E.FROBERG	DATE: 05/25/2012

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990

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CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD - PHASE I
RETAINING WALL ELEVATION SHEET

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
6920.91	E16, D16, D17	60	66

P:\221706.00 - Osuna Road City of Albuquerque\CADD\DLV\1706-ChannelRD - RW02.dwg
7/27/2012 2:50:51 PM Jennifer Schenkman Phoenix Full Scale.ctb

INTERCONNECT NOTES:

1. ALL WORK ON THESE PLANS TO BE PERFORMED UNDER THIS CONTRACT SHALL CONFORM TO THE CURRENT NATIONAL ELECTRIC CODE, THE STANDARDS OF THE NATIONAL BOARD OF FIRE UNDERWRITERS FOR ELECTRICAL WIRING AND APPARATUS, AND THE CITY'S STANDARD SPECIFICATIONS.
2. NO CONNECTION TO THE EXISTING CONDUIT ON OSUNA ROAD WILL BE MADE AT THIS TIME. THE CONTRACTOR SHALL INSTALL A NEW PULL BOX IN THE MEDIAN ON OSUNA ROAD FOR A FUTURE CONNECTION AT THIS LOCATION.
3. ALL CONDUIT BORED OR TRENCHED SHALL BE A MINIMUM OF 36" BELOW FINISH GRADE.
4. CONTRACTOR SHALL INSTALL A #8 COATED COPPER WIRE IN ALL CONDUIT PLACED FOR CONDUIT LOCATING PURPOSES.
5. ANY DISTURBED EXISTING LANDSCAPING SHALL BE REPLACED IN KIND.

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT
424.011	ELECTRICAL CONDUIT, 3" INCL. TRENCHING, BACKFILL, PUSHING, BORING, & JACKING	3,950	LF
424.012	RIGID 3" ELECTRICAL CONDUIT	120	LF
425.003	TRAFFIC SIGNAL PULL BOX, LARGE	6	LF
425.004	TRAFFIC RATED TYPE C PULL BOX	9	LF
425.600	SPLICE VAULT	1	LF

AS BUILT INFORMATION

CONTRACTOR DATE
WORK PERFORMED BY:
INSPECTOR'S ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION

RECORDED BY DATE

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
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SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

SEAL

ENGINEER'S SEAL

PAUL R. BARRICKLOW NEW MEXICO 7744 REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	

DESIGNED BY: A. SINGH DATE: 12/16/2011
DRAWN BY: A. SINGH DATE: 12/16/2011
CHECKED BY: P. BYRD/P. BARRICKLOW DATE: 12/16/2011

8220 SAN PEDRO DRIVE NE
SUITE 150
ALBUQUERQUE, NM 87113
505/338-0988 FAX 505/338-0989
LEE ENGINEERING

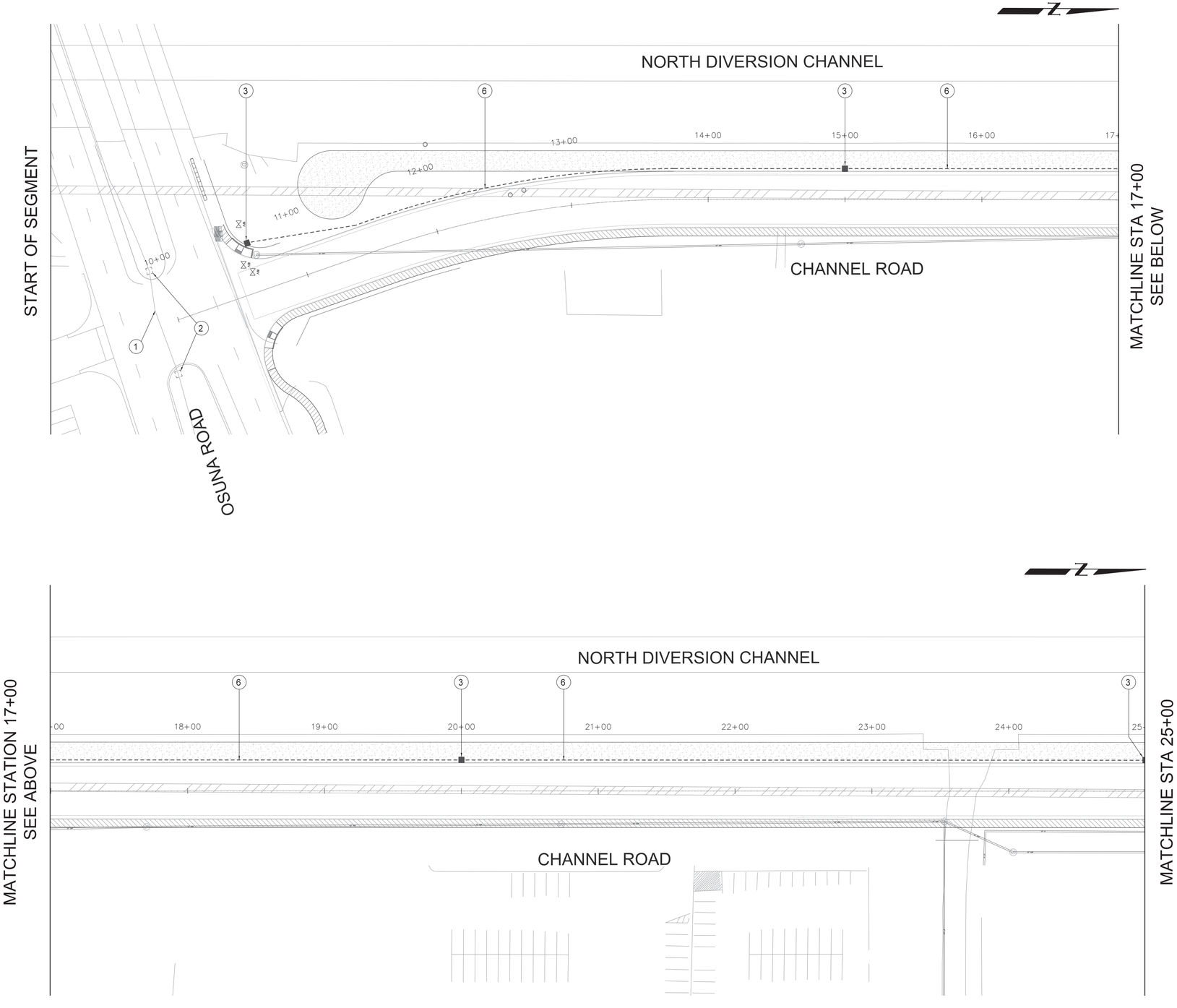
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CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD - PHASE I
INTERCONNECT PLAN
NOTES AND DETAILS

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 61 Of 66



FIBER KEY NOTES:

1. EXISTING CONDUIT
2. EXISTING PULL BOX OR MANHOLE
3. INSTALL TYPE C PULL BOX
4. INSTALL LARGE SIGNAL PULL BOX
5. INSTALL SPLICE VAULT
6. INSTALL 3" CONDUIT WITH TRACER WIRE
7. INSTALL 3" RIGID METAL OR FLEXIBLE ELECTRICAL CONDUIT WITH TRACER WIRE

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM

15_E16 (1 3/4" ALUMINUM DISK)

NM STATE PLANE COORDINATES

CENTRAL ZONE NAD 1983

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AS BUILT INFORMATION

CONTRACTOR DATE

WORK STARTED BY DATE

INSPECTOR'S ACCEPTANCE BY DATE

FIELD VERIFICATION BY DATE

DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION

RECORDED BY DATE

ENGINEER'S SEAL

PAUL A. BARRICKLOW NEW MEXICO 7744 REGISTERED

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	

DESIGNED BY: A. SINGH DATE: 12/16/2011

DRAWN BY: A. SINGH DATE: 12/16/2011

CHECKED BY: P. BYRD/P. BARRICKLOW DATE: 12/16/2011

8220 SAN PEDRO DRIVE NE
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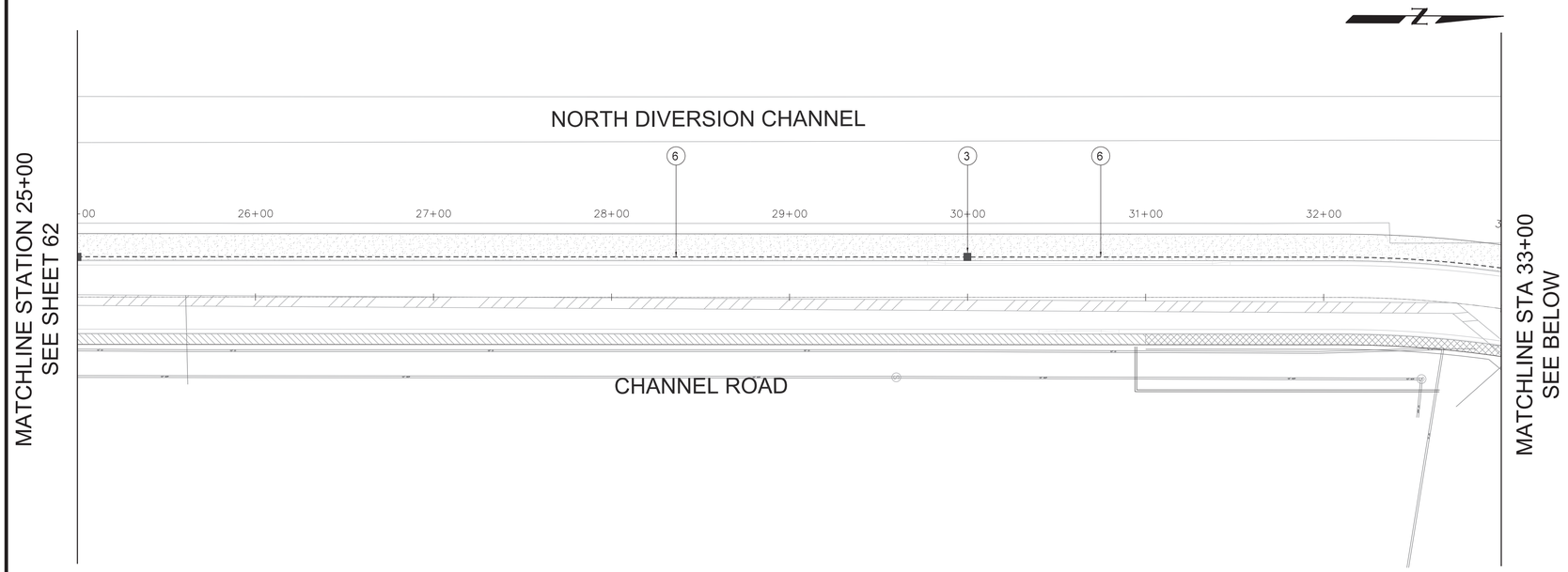
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

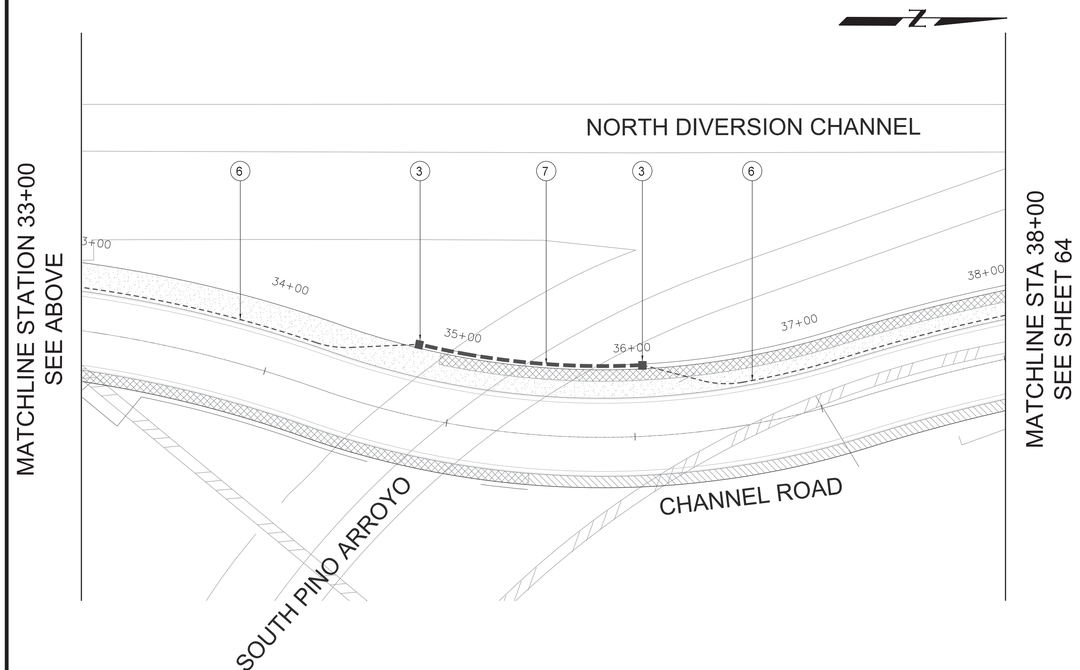
TITLE:

CHANNEL ROAD - PHASE I
INTERCONNECT PLAN
STA 10+00 TO STA 25+00

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 62 Of 66





FIBER KEY NOTES:

1. EXISTING CONDUIT
2. EXISTING PULL BOX OR MANHOLE
3. INSTALL TRAFFIC RATED TYPE C PULL BOX
4. INSTALL LARGE SIGNAL PULL BOX
5. INSTALL SPLICE VAULT
6. INSTALL 3" CONDUIT WITH TRACER WIRE
7. INSTALL 3" RIGID METAL OR FLEXIBLE ELECTRICAL CONDUIT WITH TRACER WIRE

0 10 20 40 80

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_E16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
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LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR DATE
WORK PERFORMED BY:
INSPECTOR'S ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE

MICRO-FILM INFORMATION

RECORDED BY DATE
NO.

ENGINEER'S SEAL

PAUL A. BARRICKLOW NEW MEXICO 7744 REGISTERED

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY: A. SINGH	DATE: 12/16/2011
		DRAWN BY: A. SINGH	DATE: 12/16/2011
		CHECKED BY: P. BYRD/P. BARRICKLOW	DATE: 12/16/2011

8220 SAN PEDRO DRIVE NE
SUITE 150
ALBUQUERQUE, NM 87113
505/338-0988 FAX 505/338-0989
LEE ENGINEERING

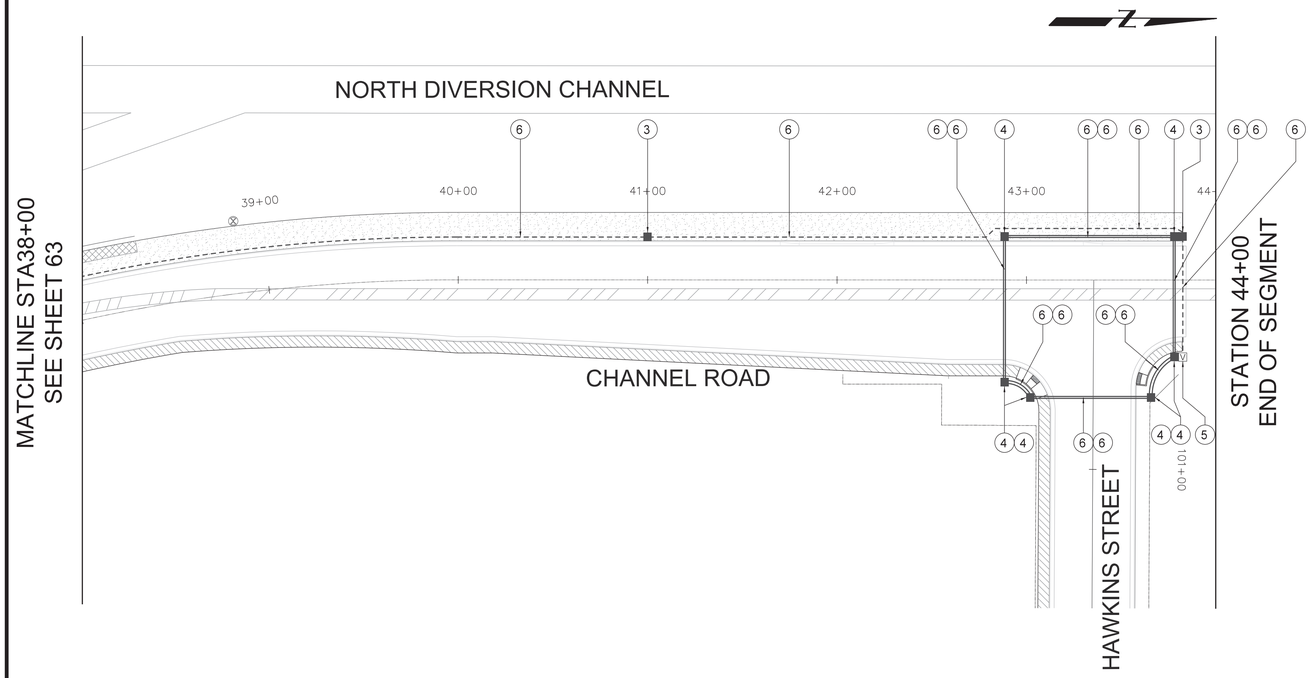
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Albuquerque, NM 87102

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE:
CHANNEL ROAD - PHASE I
INTERCONNECT PLAN
STA 25+00 TO STA 38+00

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

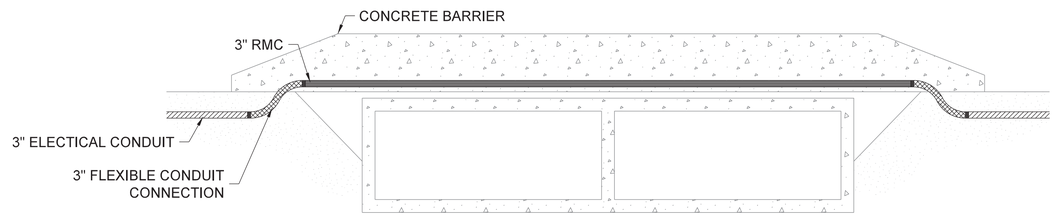
City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 63 Of 66



NOTE: DO NOT MIX SIGNAL CONDUIT
WITH INTERCONNECT CONDUIT IN PULL BOXES

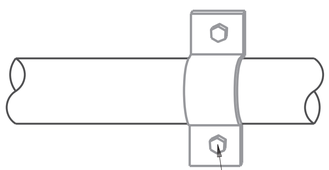
FIBER KEY NOTES:

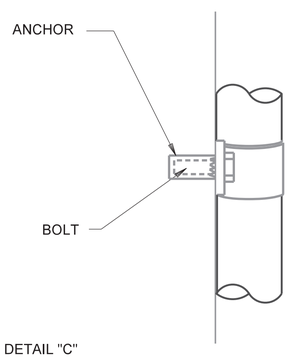
1. EXISTING CONDUIT
2. EXISTING PULL BOX OR MANHOLE
3. INSTALL TRAFFIC RATED TYPE C PULL BOX
4. INSTALL LARGE SIGNAL PULL BOX
5. INSTALL SPLICE VAULT
6. INSTALL 3" CONDUIT WITH TRACER WIRE
7. INSTALL 3" RIGID METAL OR FLEXIBLE ELECTRICAL CONDUIT WITH TRACER WIRE



BARRIER RAIL ATTACHMENT

RMC BRIDGE MOUNTING DETAILS





DETAIL "C"

TWO-HOLE STRAP ALONG
CONCRETE BOX SEGMENT
(SEE NOTE 1)

NOTES:

1. FOR BRIDGE ABUTMENT, USE APPLETON CF-200, BRIDGEPORT 1906, OR EQUIVALENT STRAP, B-LINE F-14, STAR 3415, OR EQUIVALENT ANCHOR AND 1"x1/4" BOLT FOR RMC.
2. MAXIMUM STRAP SPACING PER NEC. PLACE STRAP 36" MIN. FROM ANY CONDUIT FITTING, COUPLING OR BOX.
3. CONTRACTOR IS RESPONSIBLE FOR LOCATING REBAR PRIOR TO PLACING ANCHOR BOLTS ON BRIDGE STRUCTURE OR ATTACHING BOLTS TO BRIDGE ABUTMENT.

0 10 20 40 80

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
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NM STATE PLANE COORDINATES
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ELEVATION= 5092.856 (NAVD 1988)
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LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR DATE
WORK PERFORMED BY:
INSPECTOR'S ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE
MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

ENGINEER'S SEAL

PAUL A. BARRICKLOW 9330 NEW MEXICO 17744 REGISTERED

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY: A. SINGH	DATE: 12/16/2011
		DRAWN BY: A. SINGH	DATE: 12/16/2011
		CHECKED BY: P. BYRD/P. BARRICKLOW	DATE: 12/16/2011

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ALBUQUERQUE, NM 87113
505/338-0988 FAX 505/338-0989
LEE ENGINEERING

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Albuquerque, NM 87102

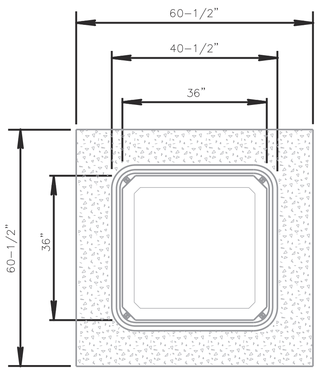
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE:

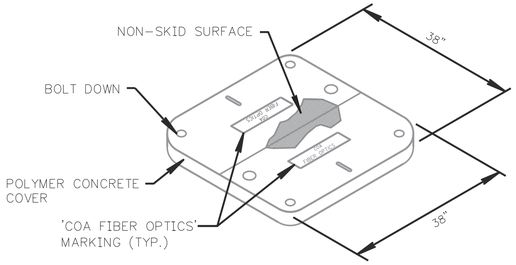
CHANNEL ROAD - PHASE I
INTERCONNECT PLAN
STA 38+00 TO END OF SEGMENT

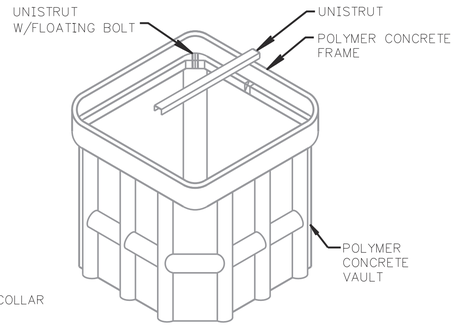
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

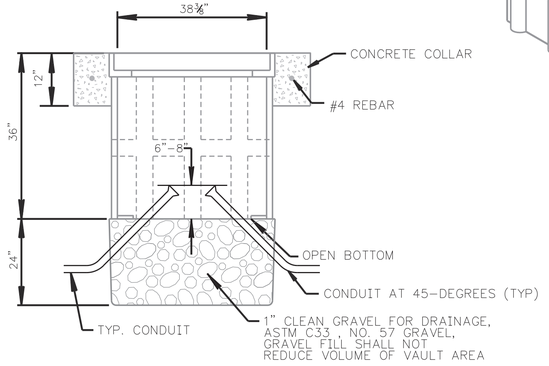
City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 64 Of 66



TOP VIEW







SIDE VIEW

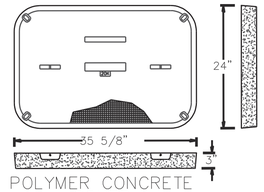
SPLICE VAULT DETAIL

POLYMER MORTAR VAULT AND COVER NOTES:

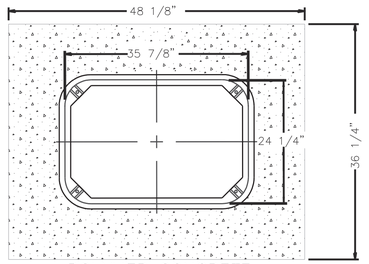
1. MATERIAL TO BE AN AGGREGATE CONSISTING OF SAND AND GRAVEL BOUND TOGETHER WITH A POLYMER AND REINFORCED WITH CONTINUOUS WOVEN GLASS STRANDS. THE MATERIAL MUST HAVE THE FOLLOWING MECHANICAL PROPERTIES: COMPRESSIVE STRENGTH – 11,000 PSI, TENSILE STRENGTH – 1,700 PSI, FLEXURAL STRENGTH – 7,500 PSI.
2. ALL VAULT COVERS SHALL BE HEAVY DUTY REINFORCED POLYMER MORTAR, HAVING A SERVICE LOAD OF 22,568 LBS OVER 10" SQUARE (225 PSI).
3. VAULT MARKINGS SHALL BE APPROVED BY THE PROJECT MANAGER.
4. THE DIMENSIONS OF THE VAULT ARE NOMINAL DIMENSIONS AND MAY VARY AS TO THE MANUFACTURER'S RECOMMENDATIONS. ALL DIMENSIONS SHALL BE VERIFIED BY THE PROJECT MANAGER.
5. VAULT SHALL HAVE A TWO PIECE COVER.

CONCRETE COLLAR NOTES:

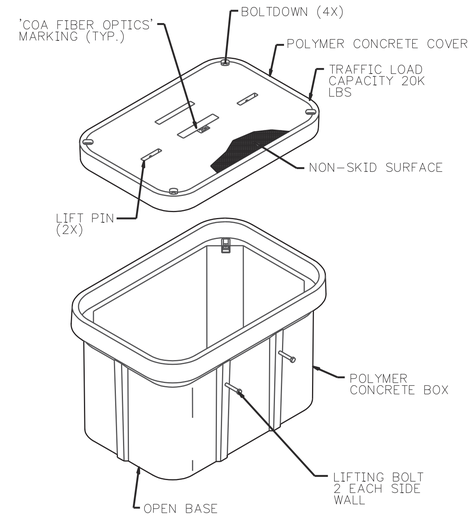
1. ELEVATION OF TOP OF VAULT SHALL BE EQUAL WITH TOP OF CURB, OR PAVEMENT EDGE IN LOCATIONS WITHOUT CURB.
2. THE CONCRETE IN THE COLLAR SHALL BE PER SEC 101, EXTERIOR CONCRETE, f'c=3500 PSI AT 28 DAYS
3. THE CONCRETE COLLAR SHALL BE CONSIDER INCIDENTAL TO THE VAULT BID ITEM



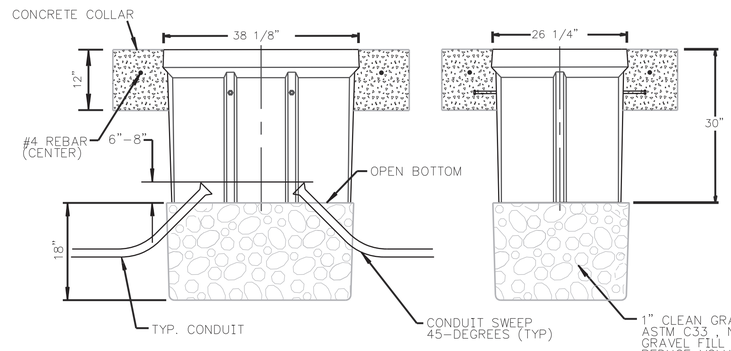
POLYMER CONCRETE COVER



POLYMER CONCRETE BOX PLAN VIEW



APPROX. WT. 376 LBS.



SIDE VIEW END VIEW

TYPE C PULLBOX DETAIL

POLYMER MORTAR PULL BOX AND COVER NOTES:

1. MATERIAL TO BE AN AGGREGATE CONSISTING OF SAND AND GRAVEL BOUND TOGETHER WITH A POLYMERAND REINFORCED WITH CONTINUOUS WOVEN GLASS STRANDS. THE MATERIAL MUST HAVE THE FOLLOWING MECHANICALPROPERTIES: COMPRESSIVE STRENGTH – 11,000 PSI, TENSILE STRENGTH– 1,700 PSI, FLEXURAL STRENGTH – 7,500 PSI.
2. ALL PULL BOX COVERS SHALL BE HEAVY DUTY REINFORCED POLYMERMORTAR, HAVING A SERVICE LOAD OF 22,568 LBS OVER 10" SQUARE(225 PSI).
3. PULL BOX MARKINGS SHALL BE APPROVED BY THE PROJECT MANAGER.
4. THE DIMENSIONS OF THE PULL BOXES ARE NOMINAL DIMENSIONS AND MAY VARY AS TO THE MANUFACTURER'S RECOMMENDATIONS. ALL DIMENSIONS SHALL BE VERIFIED BY THE PROJECT MANAGER.
5. ELECTRICAL PULL BOX SHALL BE A HEAVY DUTY REINFORCED POLYMER MORTAR PULL BOX AND COVER MEASURING 24" X 35 5/8" X 3".

CONCRETE COLLAR NOTES:

1. ELEVATION OF TOP OF VAULT SHALL BE EQUAL WITH TOP OF CURB, OR PAVEMENT EDGE IN LOCATIONS WITHOUT CURB.
2. THE CONCRETE IN THE COLLAR SHALL BE PER SEC 101, EXTERIOR CONCRETE, f'c=3500 PSI AT 28 DAYS
3. THE CONCRETE COLLAR SHALL BE CONSIDER INCIDENTAL TO THE PULL BOX BID ITEM

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15, E16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
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ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
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TO TOP OF CONCRETE BASE OF STREET
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WORK INSPECTED BY
INSPECTOR'S ACCEPTANCE BY DATE
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MICRO-FILM INFORMATION
RECORDED BY DATE

ENGINEER'S SEAL

PROFESSIONAL ENGINEER IN RESPONSIBLE CHARGE NEW MEXICO 7744 REGISTERED

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY: A. SINGH DATE: 12/16/2011	
		DRAWN BY: A. SINGH DATE: 12/16/2011	
		CHECKED BY: P. BYRD/P. BARRICKLOW DATE: 12/16/2011	

LEE ENGINEERING
8220 SAN PEDRO DRIVE NE
SUITE 150
ALBUQUERQUE, NM 87113
505/338-0988 FAX 505/338-0989

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500 4th Street NW Suite 403
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Albuquerque, NM 87102

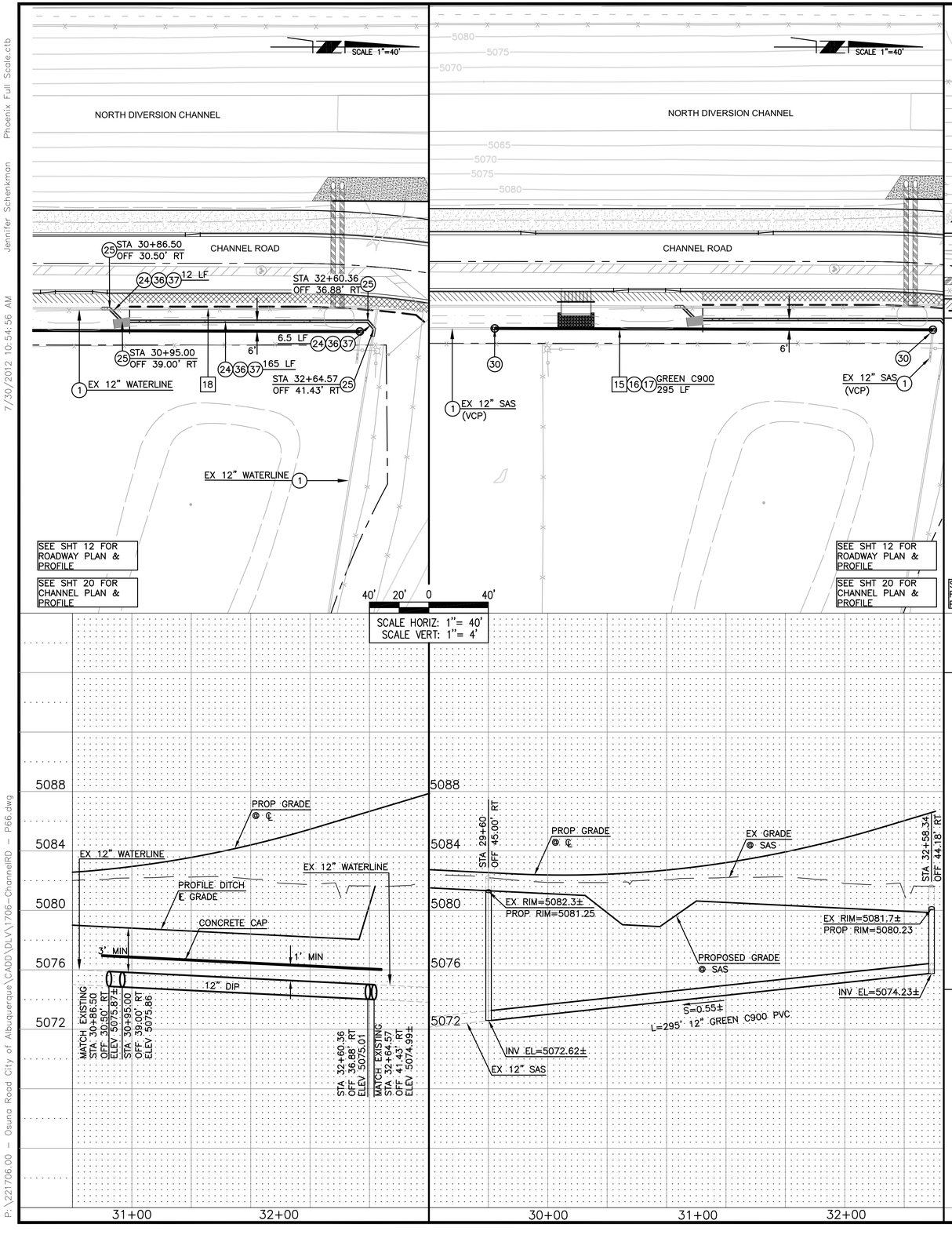
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

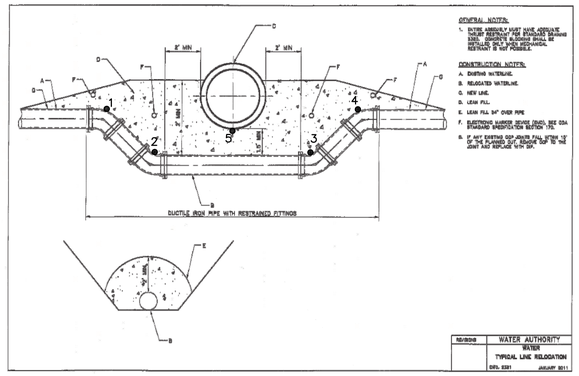
TITLE: CHANNEL ROAD - PHASE I
INTERCONNECT PLAN
PULLBOX AND VAULT DETAILS

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 6920.91 | Zone Map No. E16, D16, D17 | Sheet 65 Of 66

P:\221706.00 - Osuna Road City of Albuquerque\CADD\DLV\1706-ChannelRD - P66.dwg
7/30/2012 10:54:56 AM Jennifer Schenkman Phoenix Full Scale.ctb





CONTROL ELEVATIONS

	1	2	3	4	5	
LOCATION 1 (HAWKINS OFF 10' LT)	5083.9± STA 105+93	5075.65	5075.65	5083.8± STA 106+20	5077.65	TRENCH GRATE
LOCATION 2 (HAWKINS STA 105+66)	5083.0± OFF 3' LT	5075.60	5075.60	5083.6± OFF 23' LT	5077.60	48" RCP

REMOVAL/RELOCATE

15	REMOVE EXISTING SANITARY SEWER PIPE	436 LF
16	REMOVE EXISTING SANITARY SEWER MANHOLE	1 EA
18	REMOVE EXISTING 12" WATERLINE INCL TRENCHING, BACKFILL & COMPACTION, COMPL.	201 LF

CONSTRUCTION NOTES

1	PROTECT IN PLACE	
16	INSTALL PVC SANITARY SEWER LINE (SIZE & TYPE PER PLAN)	295 LF
17	TRENCH, BACKFILL, AND COMPACT FOR SAS INSTALLATION PER COA DWG 2465	436 LF
19	CONSTRUCT VERTICAL 12" WATERLINE REALIGNMENT PER ALBUQUERQUE WATER AUTHORITY DWG 2381 & DTLS ON SHT 66	2 EA
24	INSTALL 12" DUCTILE IRON PIPE WITH MECHANICAL JOINTS PER COA SPEC 129, 130, AND 801.	185 LF
25	INSTALL 45° MECHANICAL JOINT DUCTILE IRON FITTING	4 EA
30	ADJUST MANHOLE PER COA DWG 2460 WITH WATERTIGHT MANHOLE LID	2 EA
36	CONSTRUCT CONCRETE CAP 195'(L) X 2'(W) X 6" (HT)	195 LF
37	TRENCH, BACKFILL, AND COMPACT FOR WATERLINE INSTALLATION PER COA DWG 2465	185 LF

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	PRECISION SURVEYS	2009

BENCH MARKS

ALBUQUERQUE GEOGRAPHIC REFERENCE SYSTEM
15_F16 (1 3/4" ALUMINUM DISK)
NM STATE PLANE COORDINATES
CENTRAL ZONE NAD 1983
ELEVATION= 5092.856 (NAVD 1988)
SW QUADRANT OF OSUNA RD. NE. &
THE NORTH DIVISION CHANNEL EPOXIED
TO TOP OF CONCRETE BASE OF STREET
LIGHT STANCHION

AS BUILT INFORMATION

CONTRACTOR — DATE
WORK STAKED BY — DATE
SURVEYED BY — DATE
ACCEPTANCE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION

RECORDED BY — DATE
NO.

ENGINEER'S SEAL

ERIC J. FROBERG
NEW MEXICO
18855
PROFESSIONAL ENGINEER
07/30/2012

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY: R. STRICKLAND	DATE: 05/25/2012
		DRAWN BY: D. RAY, J.SCHENKMAN	DATE: 05/25/2012
		CHECKED BY: E. FROBERG	DATE: 05/25/2012

Two working days before you dig CALL NEW MEXICO ONE CALL SYSTEM 260-1990

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CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CHANNEL ROAD - PHASE I
UTILITY RELOCATIONS

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
6920.91	E16, D16, D17	66	66