

CONSTRUCTION PLANS
FOR:
SAN JUAN CHAMA
DRINKING WATER PROJECT
TRANSMISSION PIPELINE #4
-MIDDLE SEGMENT-

54" & 60" WATER LINE FROM:
COLLEGE RESERVOIR TO SEQUOIA RD/ATRISCO RD
COA PROJECT NO. 6811 - 04



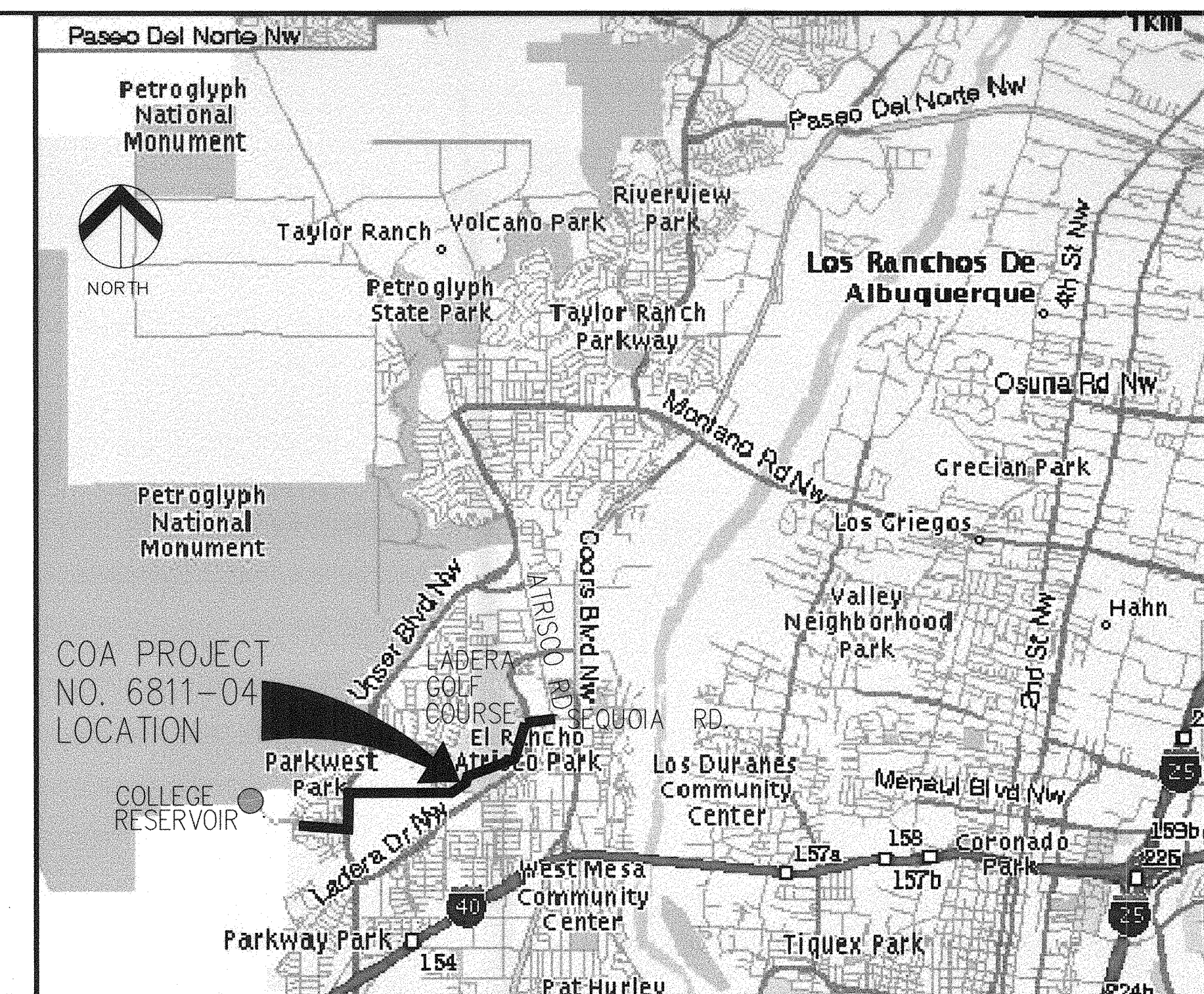
ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

---RECORD DRAWINGS---

CONTRACTOR: RMCI, INC. (NOTE THAT PORTION OF TRANSMISSION PIPELINE
ON SHEETS 18, 19, 19A & 21 [EAST OF STA 333+00] WAS CONSTRUCTED
BY AUI, INC. SEPARATELY AS PART OF COA PROJECT NO. 6810-03)

INDEX

1	TITLE SHEET, LOCATION MAP, SHEET INDEX	22 - 24	CORROSION MONITORING DETAILS
2 - 4	GENERAL NOTES AND LEGEND	25 - 28	MISCELLANEOUS DETAILS
5	OVERALL SITE / LAYOUT PLAN & SURVEY CONTROL	29 - 30	STEEL PIPE DETAILS
6	LOCATION MAP & KEY MAP PLAN	31	CONCRETE CYLINDER PIPE DETAILS
7	HYDRAULIC PROFILE	32 - 46	TRAFFIC CONTROL PLANS (NOT INCLUDED IN RECORD DRAWINGS)
8	WATER SHUT-OFF PLAN		
9 - 19	PLAN AND PROFILE SHEETS - TRANSMISSION PIPELINE		
20	OURAY ROAD CROSSING PLAN AND PROFILE & MISCELLANEOUS DETAILS		
21	LADERA DAM 15 EMBANKMENT CROSSING PLAN & DETAILS		



VICINITY MAP
ZONE ATLAS MAPS H-9, H-10, G-10 & G-11

NTS

RECORD DOCUMENTS

THESE RECORD DOCUMENTS WERE PREPARED BASED UPON HARD COPY MARKUPS PROVIDED BY RMCI, INC. AND AUI, INC. HDR DID NOT VERIFY THE INFORMATION PROVIDED BY RMCI, INC. AND AUI, INC., AND THE PREPARATION OF THESE RECORD DOCUMENTS IS LIMITED TO INCORPORATING SUCH CHANGES INDICATED BY RMCI, INC. AND AUI, INC. NEITHER HDR NOR OUR SUBCONSULTANTS MAKE ANY REPRESENTATIONS, WARRANTIES OR GUARANTEES, EXPRESSED OR IMPLIED, AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION CONTAINED ON THESE RECORD DOCUMENTS. THE USER OF INFORMATION PROVIDED ON THESE RECORD DOCUMENTS ASSUMES ALL RISK; ALWAYS FIELD VERIFY THE ACTUAL LOCATIONS OF ALL INFORMATION PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.

NOTE: RECORD INFORMATION INDICATED BY A CLOUD.



THIS SET OF DRAWINGS IS ACCEPTED FOR RECORD PURPOSES BY _____ ON _____

26 - 6811 . 04 - 06

APPROVAL OF RECORD DRAWINGS
CHIEF CONSTRUCTION ENGINEER
DATE _____

HDR

2155 LOUISIANA BLVD., NE
SUITE 9500
ALBUQUERQUE, NM 87110
MAIN: (505) 830-5400
FAX: (505) 830-5454

R	ALL SHEETS	N/A RECORD DRAWINGS	3/30/06					
REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE	
ENGINEER'S STAMP & SIGNATURE		ENGINEER'S STAMP & SIGNATURE		APPROVALS	ENGINEER	DATE	APPROVED FOR CONSTRUCTION	
				DRC Chairman	Jane Rael	11/5/04	Richard Dourte City Engineer	11/5/ Date
				Transportation	Nilo E. Salgado	11/5/04		
				Water/Wastewater	William J. Balch	11/5/04		
				Hydrology	Bradley L. Bingham	11/5/04		
				Water Resources	James Chavez	11/5/04		
				Water Utility				
				Constr. Coord.	Joe Luehring	11/4/04		
				City Project No.				
				6811 - 04				
				Sheet Of 1 46				

NEW	EXISTING	DESCRIPTION
		SANITARY SEWER MANHOLE
		STORM DRAIN MANHOLE
		TELEPHONE MANHOLE
		SANITARY SEWER LINE w/ SIZE & TYPE
		STORM DRAIN LINE w/ SIZE & TYPE
		WATER LINE w/ SIZE & TYPE
		OVERHEAD ELECTRICAL LINE
		UNDERGROUND ELECTRICAL/TRAFFIC CONTROL
		UNDERGROUND TELEPHONE
		OVERHEAD TELEPHONE
		GAS LINE w/ SIZE & TYPE
		CABLE TELEVISION LINE
		ENCASEMENT
		STORM INLET (GRADE ELEVATION GIVEN IN PLANS IS EXTENDED FLOW LINE)
		WATER VALVE
		BUTTERFLY VALVE
		FIRE HYDRANT
		REDUCER
		SAS SERVICE CONNECTION
		WATER SERVICE CONNECTION
		TEES
		CROSSES
		BENDS
		CAPS & PLUGS
		WATER METER
		GAS METER
		GAS RISER
		VALVE BOX
		POWER POLE
		TRAFFIC SIGNAL
		TRAFFIC CONTROL BOX
		PULL BOX
		TELEPHONE RISER
		CURB & GUTTER
		SIDEWALK
		BLOCK WALL
		CHAIN LINK FENCE
		FIELD FENCE
		RIGHT OF WAY LINES
		PROPERTY LINES (SIDE)
		PUBLIC EASEMENT
		POWER POLE W/ LIGHT
		DRIVEPAD
		MOBILITY IMPAIRED ACCESS RAMP
		C.O.A. PROJECT CONTROL POINT OR A.C.S. MONUMENT DO NOT DISTURB
		SOIL TEST BORING
		HORZ. & VERT. CONTROL
		ASPHALT PAVEMENT REMOVAL AND REPLACEMENT

GENERAL NOTES:

- THE CONTRACTOR SHALL ABIDE BY ALL LOCAL, STATE AND FEDERAL RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS.
- THE CONTRACTOR SHALL NOT INSTALL ITEMS AS SHOWN ON THESE PLANS WHEN FIELD CONDITIONS ARE DIFFERENT THAN SHOWN IN THE PLANS. SUCH CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN A TIMELY MANNER. IN THE EVENT THE CONTRACTOR DOES NOT NOTIFY THE ENGINEER A TIMELY MANNER, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY AND EXPENSE FOR ANY REVISIONS NECESSARY, INCLUDING ENGINEERING DESIGN FEES.
- PRIOR TO FABRICATION OF WATERLINE PIPE, CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS WITH POTENTIAL TO CHANGE THE PIPE ALIGNMENT. THIS WORK IS INCIDENTAL TO COST OF PIPE INSTALLATION. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH MINIMAL DELAY. POTHOLING DATA IS REFLECTED ON THE PROFILES. IF THE LOCATION OF A UTILITY IS UNKNOWN, ELEVATION IS INDICATED "UNK".
- THE TERM "REMOVE" USED IN THIS PLAN SET INCLUDES THE DISPOSAL OF SAID MATERIAL IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS, LATEST EDITION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING OF ALL DEBRIS AND OTHER SUCH WASTE MATERIAL AT DISPOSAL SITES APPROVED BY GOVERNMENTAL AGENCIES REGULATING THE DISPOSAL OF SUCH MATERIALS.
- THE CONTRACTOR SHALL PROVIDE INGRESS AND EGRESS TO LOCAL BUSINESSES AND RESIDENCES FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL ADVISE OF AND SCHEDULE ACCESS CLOSURES, AT LEAST 48 HOURS IN ADVANCE, WITH PROPERTY OWNERS AND THE ENGINEER.
- THE CONTRACTOR SHALL MAINTAIN AN UP TO DATE SET OF AS-BUILT PLANS FOR THE PROJECT, PROMPTLY RECORDING DATA, INCLUDING HORIZONTAL AND VERTICAL LOCATION, FOR ALL UTILITY LINES AND ACCESSORIES, EXISTING OR NEW, REQUIRED BY THE COA FOR THE PREPARATION OF RECORD DRAWINGS BY THE ENGINEER. CONTRACTOR SHALL NOT COVER UTILITY LINES AND ACCESSORIES UNTIL ALL DATA HAS BEEN RECORDED. THESE PLANS SHALL BE KEPT CURRENT AND AT THE PROJECT SITE AT ALL TIMES AND SHALL BE AVAILABLE TO THE OWNER AND ENGINEER AT ANY TIME DURING CONSTRUCTION AND WILL BE CHECKED BY THE ENGINEER FOR ACCURACY AND COMPLETENESS AT LEAST ONCE EVERY 30-DAYS. THE FINAL AS-BUILT PLANS SHALL BE SUBMITTED TO THE PROJECT MANAGER PRIOR TO FINAL PAYMENT.
- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER THIS CONTRACT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE COA STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THROUGH UPDATE NO. 7 ALONG WITH SPECIFIC NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, LATEST EDITION, AND SUPPLEMENTAL TECHNICAL SPECIFICATIONS IDENTIFIED IN THE CONTRACT DOCUMENTS, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREIN.

SCHEDULES:

- SEE THE SPECIFICATIONS FOR CONTRACTOR'S RESPONSIBILITIES.

DESIGN SURVEY:

- THIS DESIGN IS BASED ON SURVEY INFORMATION PROVIDED BY OTHERS. THE ENGINEER CANNOT VALIDATE OR WARRANTY THIS INFORMATION. ANY DISCREPANCIES BETWEEN THE DESIGN AND SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY. SEE SHEET 5.

PERMITTING:

- SEE THE SPECIFICATIONS FOR CONTRACTOR'S RESPONSIBILITIES.

ABBREVIATIONS:

AC	ASBESTOS CEMENT PIPE	DEFL	DEFLECTION	PC	POINT OF CURVATURE
AHD	AHEAD	EL	ELEVATION	PT	POINT OF TANGENCY
ARV	AIR RELEASE VALVE	EMD	ELECTRONIC MARKER DISK	(R)	REMOVE
BK	BACK	EOP	END OF PROJECT	R/W	RIGHT OF WAY
BOP	BEGINNING OF PROJECT	EXIST	EXISTING	SF	SQUARE FEET
CAV	COMBINATION AIR/VACUUM VALVE	FL	FLOWLINE	SY	SQUARE YARD
CI	CAST IRON PIPE	HGL	HYDRAULIC GRADE LINE	STA	STATION
CL	CENTERLINE	HORZ	HORIZONTAL	TYP	TYPICAL
C&G	CURB AND GUTTER	(I)	INSTALL	VERT	VERTICAL
CCP	CONCRETE CYLINDER PIPE	MIN	MINIMUM		
COA	CITY OF ALBUQUERQUE	NO	NUMBER		

BUSINESS

NAME

PHONE

AT&T
RESOURCE SUPERVISOR
111 3RD STREET NW
ALBUQUERQUE, NM 87103

CROWEL, DAVID

HAIKIN, GLEN

OFFICE PHONE: (505) 842-2911
OFFICE FAX: 842-2890
DCROWEL@ATT.COM

OFFICE PHONE: (505) 768-3614
OFFICE FAX: (505) 768-2502

CITY OF ALBUQUERQUE
CITY SURVEYOR
P.O. BOX 1293
ALBUQUERQUE, NM 87103

STUART, ARTHUR

OFFICE PHONE: (505) 587-8239
OFFICE FAX: (505) 857-8264
ASTUART@CABQ.GOV

CITY OF ALBUQUERQUE
WATER UTILITY DIVISION
P.O. BOX 1293
ALBUQUERQUE, NM 87103

OLSON, GREG

OFFICE PHONE: (505) 587-8239
OFFICE FAX: (505) 768-3629
GOLSON@CABQ.GOV

CITY OF ALBUQUERQUE
SENIOR UTILITY ENGINEER
P.O. BOX 1293
ALBUQUERQUE, NM 87103

MORTUS, MIKE

OFFICE PHONE: (505) 761-6252
OFFICE FAX: (505) 761-0599
MIKE_MORTUS@CABLE.COMCAST.COM

COMCAST
CONSTRUCTION COORDINATOR
4611 MONTBEL PLACE NE
ALBUQUERQUE, NM 87107

DARNELL, ANDY

OFFICE PHONE: (505) 346-4470
OFFICE FAX: 346-4481
ANDY.DARNELL@MCI.COM

MCI WORLDCOM
OPERATIONS MANAGER
6001 MIDWAY PARK NE
ALBUQUERQUE, NM 87109

MUELLER, RICK

OFFICE PHONE: (505) 244-3161
OFFICE FAX: 244-0094
MOBILE: 228-3329
RDMUELLER@MCLEODUSA.COM

MCLEOD USA
SUPERVISOR OF OUTSIDE TECHS.
505 MARQUETTE NW (COMPASS
BANK) SUITE 1600
ALBUQUERQUE, NM 87102

BATES, STEVE

OFFICE PHONE: (505) 898-2661
OFFICE FAX: 898-6379 X 48
STEEVBATES@CORESOURCES.COM

NEW MEXICO UTILITIES
OPERATIONS SUPERINTENDENT
4700 IRVING BLVD. NW SUITE 201
ALBUQUERQUE, NM 87114

ROMANOWSKI, JEFF

OFFICE PHONE: (505) 241-7703
OFFICE FAX: (505) 241-7753
JROMANO@PNM.COM

PNM GAS
PROJECT ENGINEER
4625 EDITH BLVD. NE
ALBUQUERQUE, NM 87107

GOLO, TOMAS

OFFICE PHONE: (505) 241-3487
OFFICE FAX: (505) 241-3415
TGOLO@PNM.COM

PNM ELECTRIC
4201 EDITH BLVD. NE
MS-ES10
ALBUQUERQUE, NM 87107

KELLY, LARRY

OFFICE PHONE: (505) 244-4062
OFFICE FAX: (505) 244-4058
LARRY.KELLY@QWEST.COM

QWEST LONG DISTANCE
SR. OPERATIONS TECH
400 TIJERAS NW SUITE 570
ALBUQUERQUE, NM 87102

WHITLOW, BILLIE

OFFICE PHONE: (505) 245-6142
OFFICE FAX: 245-6733
BLWILL1@QWEST.COM

QWEST/US WEST
CAPACITY PROVISIONING SPECIALIST
400 TIJERAS AVE. NW SUITE 710
ALBUQUERQUE, NM 87102

HARRISON, ROYAL

OFFICE PHONE: (505) 938-7339
OFFICE FAX: 938-7380
ROYAL.HARRISON@TWTELECOM.COM

TIME WARNER TELECOM
PLANT MANAGER
3830 SINGER BLVD. NE SUITE 1000
ALBUQUERQUE, NM 87109

PRICE, BRYAN

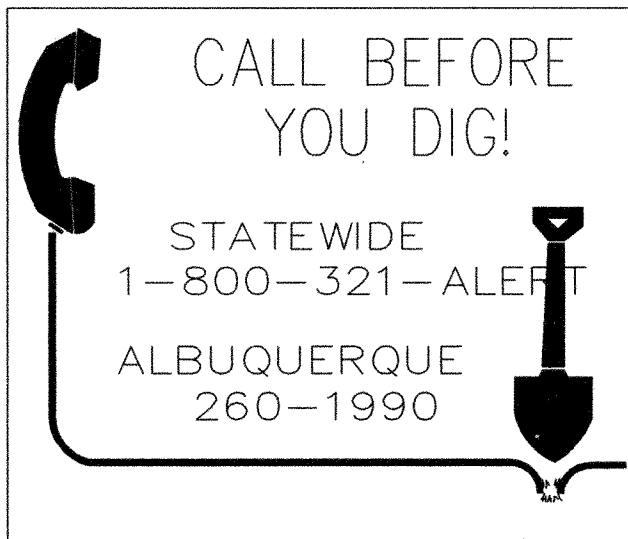
OFFICE PHONE: (312) 660-6476
OFFICE FAX: (312) 660-5052
BPRICE@UNIVERSALACCESS.NET

UNIVERSAL ACCESS, INC.
233 S WACKER DR., SUITE 600
CHICAGO, IL 60606

BENJAMIN, STEVE

OFFICE PHONE: (505) 998-2220
OFFICE FAX: (505) 998-2200
STEVE.BENJAMIN@ESPIRE.NET

XSPEDIUS MANAGEMENT CO.
OPERATIONS SUPPORT MANAGER
505 MARQUETTE NW STE 1605
ALBUQUERQUE, NM 87102



ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

TITLE: SJC DWP TRANSMISSION PIPELINE #4- MIDDLE SEG.
GENERAL NOTES
AND LEGEND

Design Review Committee	City Engineer Approval	Last Design Update	Mo. / Day / Yr.	Mo. / Day / Yr.
City Project No.	Zone Map No.	Sheet	Of	
6811-04		2	46	

SURVEY MONUMENTS, PROPERTY CORNERS, AND BENCHMARKS:

1. CONTRACTOR SHALL NOTIFY THE OWNER AT LEAST SEVEN (7) DAYS BEFORE BEGINNING ANY CONSTRUCTION ACTIVITY THAT COULD DAMAGE OR DISPLACE SURVEY MONUMENTS, PROPERTY CORNERS, OR PROJECT BENCHMARKS IN ORDER THAT THE CITY SURVEYOR MAY TAKE NECESSARY MEASURES TO ENSURE THE PRESENTATION OF THESE ITEMS. 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. REPLACEMENT SHALL BE DONE ONLY BY THE CITY SURVEYOR. REFER TO SECTION 4 OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS.
2. CONTRACTOR SHALL SURVEY AND LOG EXISTING ELEVATIONS OF CURB AND GUTTER, SIDEWALK, AND PAVEMENT WHICH SHALL BE REMOVED FOR CONSTRUCTION OF IMPROVEMENTS. CONTRACTOR SHALL REPLACE REMOVED CURB AND GUTTER, SIDEWALK, DRIVE PADS, AND PAVEMENT TO ELEVATIONS PRIOR TO REMOVAL UNLESS OTHERWISE INDICATED ON THE PLANS.

DIMENSIONS:

- 1 ALL STATIONING AND ELEVATIONS SHOWN ARE TO THE CENTERLINE OF PIPELINE, UNLESS OTHERWISE NOTED.
2 ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES.

CONSTRUCTION LIMITS:

- 1 CONTRACTOR SHALL WORK WITHIN THE CONSTRUCTION LIMITS AS SHOWN ON THE PLANS. EQUIPMENT TRAFFIC
2 OUTSIDE THESE LIMITS SHALL NOT BE PERMITTED WITHOUT WRITTEN PERMISSION OF THE ENGINEER.
- 3 PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES WITHIN ADJACENT RIGHT-OF-WAYS OR WITHIN PROPERTY NOT
4 OWNED BY THE OWNER OF THE PROJECT SITE, THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND PERMISSIONS IN
WRITING.
- 5 OVERNIGHT PARKING OF CONSTRUCTION VEHICLES ON PRIVATE PROPERTY IS THE SOLE RESPONSIBILITY OF THE
CONTRACTOR.
- 6 CONTRACTOR SHALL PARK EQUIPMENT AND VEHICLES SO AS NOT TO INTERFERE WITH NORMAL ACTIVITIES OF
7 RESIDENTS OR OTHER CONTRACTORS ON SITE.

SAFETY:

1. CONTRACTOR SHALL COMPLY WITH APPLICABLE FEDERAL, STATE, LOCAL, LAWS, ORDINANCES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
2. ONLY THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY AND OF ALL WORK. ALL WORK, INCLUDING WORK WITHIN TRENCHES, SHALL BE IN ACCORDANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA).
3. CONTRACTOR SHALL TAKE NECESSARY SAFETY PRECAUTIONS AS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES TO PROTECT PEDESTRIAN AND VEHICULAR TRAFFIC IN THE CONSTRUCTION AREA, WHICH INCLUDE BUT ARE NOT LIMITED TO: MAINTAINING ADEQUATE WARNING SIGNS, BARRICADES, LIGHTS, GUARD FENCES, WALKS AND BRIDGES.
4. CONTRACTOR SHALL MAINTAIN ALL CONSTRUCTION BARRICADES AND SIGNAGE AT ALL TIMES AND SHALL VERIFY THE PROPER LOCATION OF ALL BARRICADING AT THE BEGINNING AND END OF EACH DAY.
5. ALL EXCAVATION, TRENCHING, AND SHORING ACTIVITIES SHALL BE CARRIED OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P AS A MINIMUM STANDARD.
6. IF A PAVEMENT DROP-OFF IS CREATED DURING CONSTRUCTION, THE CONTRACTOR SHALL INITIATE PROTECTIVE ACTION IN ACCORDANCE WITH THE NMDOT'S CURRENT "DROP-OFF GUIDELINE". THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COMPLETION OF THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE THEREFOR.

INSPECTION AND TESTING:

- 1 THE OWNER WILL EMPLOY THE SERVICES OF A REGISTERED, LICENSED GEOTECHNICAL ENGINEER TO OBSERVE AND TEST ALL CONTROLLED EARTHWORK. THE GEOTECHNICAL ENGINEER WILL PROVIDE ON-SITE OBSERVATION DURING CONSTRUCTION OF CONTROLLED EARTHWORK. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST TWO (2) WORKING DAYS IN ADVANCE OF ANY FIELD OPERATIONS OF CONTROLLED EARTHWORK OR OF ANY RESUMPTION OF OPERATIONS AFTER STOPPAGE. TESTS OF FILL MATERIALS AND EMBANKMENTS WILL BE MADE IN ACCORDANCE WITH COA STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, THROUGH UPDATE NO. 7, SECTION 701.
- 2 CONTRACTOR SHALL PROVIDE THE PROPOSED HYDROSTATIC TESTING PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO BEGINNING TESTING OPERATIONS.
- 3 CONTRACTOR SHALL INSPECT ALL TRENCH EXCAVATIONS DAILY AND WHENEVER A CHANGE OF CONDITIONS OCCURS IN ACCORDANCE WITH OSHA GUIDELINES. AT MINIMUM, INSPECTION OF TRENCH EXCAVATIONS SHALL INCLUDE:
- A) INSPECTION OF THE SIDE OF THE OPENED EXCAVATION AND SUBSURFACE AREA ADJACENT TO THE EXCAVATION FOR THE OCCURRENCE OF TENSION CRACKS, SOIL SPALL, OR OTHER EVIDENCE OF SOIL MOVEMENT.
- B) INSPECTION OF THE AREA AROUND THE EXCAVATION AND THE EXCAVATION ITSELF FOR EVIDENCE OF EXISTING UTILITIES AND PREVIOUSLY DISTURBED SOILS.
- C) INSPECTION OF THE EXCAVATION AND AREAS ADJACENT TO THE EXCAVATION FOR THE PRESENCE OF WATER SEEPING INTO THE EXCAVATION, SURFACE WATER AND THE LEVEL OF THE EXISTING WATER TABLE.

PAVEMENT, SIDEWALKS, CURB & GUTTER:

- 1 ALL ASPHALTIC CONCRETE PAVEMENT SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE SUPERPAVE DESIGN (GYRATORY DESIGN) SPECIFICATIONS OUTLINED IN SECTIONS 116 AND 2400 OF THE COA STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, UPDATE NO. 7.
- 2 PAVEMENT SUBGRADE COMPACTION SHALL CONFORM TO THE SPECIFICATIONS OUTLINED IN SECTION 701 OF THE COA STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, UPDATE NO. 7.
- 3 WHEN ABUTTING NEW PAVEMENT TO EXISTING PAVEMENT, SAWCUT EXISTING PAVEMENT EDGE TO A CONTINUOUS, NEAT, STRAIGHT LINE AS NECESSARY TO REMOVE ANY BROKEN OR CRACKED PAVEMENT AND MATCH NEW PAVEMENT ELEVATION TO EXISTING. CONTRACTOR SHALL TAKE CARE TO AVOID DAMAGING SAWCUT EDGE WITH EQUIPMENT OR OTHER OPERATIONS, AND SHALL RE-SAWCUT A CONTINUOUS, NEAT, STRAIGHT LINE AS NECESSARY SHOULD SAWCUT EDGE BE DAMAGED. SPRAY SAWCUT EDGE WITH TACK COAT PRIOR TO PAVEMENT PLACEMENT PER COA STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, UPDATE NO. 7. NO SEPARATE PAYMENT WILL BE MADE FOR SAWCUTTING.
- 4 THE REPLACEMENT OF THE EXISTING UTILITIES AND THE INSTALLATION OF NEW UTILITY LINES SHALL BE COMPLETED IN ADVANCE OF STARTING THE PAVEMENT WORK. TEMPORARY PAVEMENT SHALL BE PLACED IN ALL TRENCHES REQUIRED FOR THE UTILITY REPLACEMENTS IN THOSE AREAS THAT MUST MAINTAIN TRAFFIC UNTIL THE FINAL PAVEMENT WORK STARTS IN EACH AREA. TEMPORARY STRIPING SHALL BE THE CONTRACTOR'S RESPONSIBILITY. MAINTENANCE OF THE TEMPORARY PAVING AND STRIPING SHALL BE AT THE CONTRACTOR'S EXPENSE.
- 5 EXISTING MEDIAN CURB AND GUTTER AND STANDARD CURB AND GUTTER, NOT DISTURBED BY CONTRACTOR, BUT OUT OF ALIGNMENT, DISPLACED VERTICALLY, BADLY BROKEN AND/OR DETERIORATED, SHALL BE REPLACED AS DIRECTED BY THE ENGINEER AND PAID FOR AT CONTRACT UNIT PRICES.
- 6 CONTRACTOR SHALL NOT PAVE OVER ANY SURFACE FEATURE, I.E., GAS VALVE, MANHOLE COVER, ETC. WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.
- 7 ALL SUBGRADE AND SUBBASE MATERIAL ENCOUNTERED IN PAVEMENT REMOVAL AND REPLACEMENT THAT IS DETERMINED BY THE ENGINEER TO MEET THE SPECIFICATIONS, MAY BE REUSED. HOWEVER, THE MATERIAL SHALL BE PROCESSED AND COMPACTED TO MEET MOISTURE CONTENT AND PERCENT COMPACTION REQUIRED BY THE SPECIFICATIONS.
- 8 WHEN REMOVAL OF EXISTING CURB AND GUTTER OR SIDEWALK IS REQUIRED, REMOVE BACK TO NEAREST SUITABLE JOINT UNLESS OTHERWISE DIRECTED BY THE ENGINEER. CURB AND GUTTER REPLACEMENT SHALL CONFORM TO COA STD DWG 2415A. SIDEWALK REPLACEMENT SHALL CONFORM TO COA STD DWG 2430.
- 9 CONTRACTOR SHALL PLACE BITUMINOUS MATERIAL WITH THE USE OF A LAYDOWN MACHINE WHERE PAVEMENT IS 8- FEET IN WIDTH OR WIDER.
- 10 ALL NEW STREET PAVING, DRIVEWAYS, SIDEWALKS, AND CURB AND GUTTERS, ABUTTING EXISTING AREAS SHALL MATCH THE ELEVATION OF THOSE AREAS.
- 11 CONTRACTOR SHALL REPLACE ALL PERMANENT PAVEMENT STRIPING AND MARKINGS. ROAD SHALL NOT BE OPENED TO TRAFFIC UNTIL IT IS STRIPED. ALL STRIPING, PAVEMENT MARKINGS INCLUDING CROSSWALKS, ARROWS AND LINE MARKING ARE TO BE CONSTRUCTED OF HOT PLASTIC OR COLD PLASTIC IN ACCORDANCE WITH THE MANUAL OF "UNIFORM" TRAFFIC CONTROL DEVICES.
- 12 ALL ASPHALTIC CONCRETE SHALL BE MINIMUM 1,800 LB. STABILITY AND COMPACTED TO 93-97% MODIFIED MARSHALL DENSITY UNLESS OTHERWISE NOTED ON THE PLANS.
- 13 ALL STREET STRIPING REMOVED OR DAMAGED MUST BE REPLACED WITH PLASTIC REFLECTORIZED PAVEMENT MARKING TO THE SAME LOCATION AS WAS EXISTING, OR AS INDICATED BY THIS PLAN SET. STRIPING EROSION SHALL BE ACCOMPLISHED BY WATER BLASTING OR SURFACE PLANING OF THE ROADWAY TO A MAXIMUM DEPTH OF 0.25 INCHES AND FOR A WIDTH EQUAL TO TWO TIMES THE WIDTH OF THE STRIPE OR MARKING TO BE REMOVED. CONTRACTOR SHALL REPLACE IN KIND ALL EXISTING PERMANENT PAVEMENT MARKINGS AND TRAFFIC SIGNAGE DAMAGED BY CONSTRUCTION, AND SHALL FURNISH SUCH ITEMS.E
- 14 SUBGRADE PREPARATION UNDER SIDEWALKS AND DRIVE PADS, AND SUBGRADE AND SUBBASE PREPARATION UNDER CURB AND GUTTER IS CONSIDERED INCIDENTAL TO THE CONSTRUCTION, AND NO SEPARATE PAYMENT WILL BE MADE.
- 15 CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING COA INFRASTRUCTURE (C & G, PAVING MARKINGS, PAVING, SIDEWALKS, WHEEL CHAIR RAMPS, DRIVE PADS, ETC.) DURING CONSTRUCTION, APART FROM THOSE SECTIONS INDICATED FOR REMOVAL ON THE PLANS. REPAIR OR REPLACEMENT OF SAME SHALL BE AT THE CONTRACTOR'S OWN EXPENSE. CONTRACTOR SHALL SUITABLY PROTECT THE CURB AND GUTTER FROM INCIDENTAL SPLASHING DURING THE TACK COAT APPLICATION AND CLEANING SHALL BE AT THE CONTRACTOR'S OWN EXPENSE SHOULD SPLASHING OCCUR.
- 16 CONTRACTOR SHALL SURVEY AND LOG EXISTING ELEVATIONS OF CURB AND GUTTER, SIDEWALK, AND PAVEMENT TO BE REMOVED DURING CONSTRUCTION. CONTRACTOR SHALL REPLACE SAME TO SUCH ELEVATIONS UNLESS OTHERWISE INDICATED ON THE PLANS.
- 17 CONTRACTOR SHALL CONSTRUCT TEMPORARY ASPHALT PAVEMENT AS DIRECTED BY THE ENGINEER TO PROVIDE ACCESS TO LOCAL RESIDENCES, BUSINESSES, ETC. TEMPORARY PAVEMENT SHALL BE REMOVED AND DISPOSED OF PRIOR TO PLACEMENT OF FULL WIDTH PAVEMENT SECTION. TEMPORARY PAVING SHALL BE PER COA STD. DWG. 2415B AND PAID FOR PER COA STD. SPECIFICATIONS.
- 18 CONTRACTOR SHALL BE RESTRICTED TO THE USE OF 35 TON NON-VIBRATING ROLLER MAXIMUM TO OBTAIN THE REQUIRED COMPACTION IN PAVEMENT STRUCTURE, ROADWAY BACKFILL, EMBANKMENT, AND SUBGRADES IN URBAN AREAS WHERE THE USE OF HEAVIER EQUIPMENT COULD DAMAGE RESIDENCES UNDERGROUND UTILITIES OR OTHER PERMANENT STRUCTURES.
- 19 REMOVAL OF THE EXISTING CURB & GUTTER SHALL BE AS PER COA STD DWG 2415. (SAWCUT ONLY).
- 20 WHEELCHAIR RAMPS SHALL BE CONSTRUCTED PRIOR TO ACCEPTANCE OF CURB & GUTTER. IF EXISTING WHEELCHAIR RAMP IS DAMAGED, CONTRACTOR SHALL REPLACE ENTIRE RAMP PER COA STD DWG 2441, CASE 2.
- 21 PAVEMENT DESIGN WILL BE REEVALUATED IF THE R-VALUE OF THE SUBGRADE SOIL IS FOUND TO BE LESS THAN 50. WHERE THE EXISTING PAVEMENT IS THICKER THAN THE COA STD., REPLACEMENT PAVEMENT SHALL MATCH THE EXISTING PAVEMENT.
- 22 ANY ADDITIONAL GRADING REQUIRED TO MATCH PROPOSED STREET GRADES SHALL BE INCIDENTAL TO PAVING ITEMS.
- 23 WHEN ABUTTING NEW CURB AND GUTTER TO EXISTING PAVEMENT, THE CONTRACTOR SHALL SAWCUT, REMOVE, AND REPLACE A 1' WIDE SECTION OF EXISTING PAVEMENT ADJACENT TO THE CURB AND GUTTER PER THE COA STANDARD SPECIFICATIONS.
- 24 CONTRACTOR SHALL USE PARALLEL OR ORTHOGONAL PAVEMENT CUTS ONLY, NO DIAGONAL CUTS IN EXISTING PAVEMENT WILL BE PERMITTED PER COA STD DWG 2465.
- 25 IF VALLEY GUTTER IS DAMAGED, CONTRACTOR SHALL REPLACE ENTIRE GUTTER PER COA STD DWG 2420.

CONCRETE:

- 1 CONTRACTOR SHALL UTILIZE 4,000 PSI STRUCTURAL CONCRETE UNLESS OTHERWISE NOTED IN PLANS OR SPECIFICATIONS.
- 2 ALL REINFORCING STEEL TO BE GRADE 60 UNLESS OTHERWISE NOTED.
- 3 ALL EXPOSED EDGES ON CAST-IN-PLACE CONCRETE STRUCTURES SHALL HAVE A 1" CHAMFER UNLESS OTHERWISE NOTED.
- 4 ALL SPLICES IN REINFORCING STEEL SHALL BE 2-FOOT 6-INCH MINIMUM UNLESS OTHERWISE NOTED.

EROSION CONTROL AND ENVIRONMENTAL PROTECTION:

- 3 THE CONTRACTOR SHALL CONFORM TO ALL OWNER AND FEDERAL DISTRICT AND EROSION CONTROL REGULATIONS. THE CONTRACTOR SHALL PREPARE AND OBTAIN ANY DUST CONTROL OR EROSION CONTROL PERMITS FROM THE REGULATORY AGENCIES.
- 2 THE CONTRACTOR SHALL SECURE NPDES PERMITS REQUIRED BY APPLICABLE CITY, STATE, AND FEDERAL REGULATIONS.
- 3 THE CONTRACTOR SHALL PROMPTLY REMOVE ANY MATERIAL EXCAVATED WITH THE PUBLIC RIGHT-OF-WAY OR ADJACENT PROPERTY TO KEEP IT FROM WASHING OFF THE PROJECT SITE.
- 4 THE CONTRACTOR SHALL INSTALL ANY TEMPORARY DRAINAGE CONTROL MEASURES NECESSARY TO SAFELY CONVEY STORM WATER RUNOFF TO EXISTING OUTFALLS. CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE ON ADJACENT PROPERTY BY CONSTRUCTION OF TEMPORARY EROSION CONTROL BERMS OR INSTALLING SILT FENCES AT THE PROPERTY LINES (OR LIMITS OF CONSTRUCTION IF DESIGNATED) AND WETTING SOIL TO PREVENT IT FROM BLOWING. ANY DAMAGE TO PRIVATE PROPERTY OR IMPROVEMENTS CONSTRUCTED BY THE CONTRACTOR RESULTING FROM STORM WATER FLOWS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 5 WATERING, AS REQUIRED FOR CONSTRUCTION DUST CONTROL, SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION AND NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE. CONSTRUCTION AREAS SHALL BE WATERED FOR DUST CONTROL IN COMPLIANCE WITH GOVERNMENT ORDINANCES. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR WATER AVAILABILITY AND USE. THE CONTRACTOR SHALL SUPPLY ALL EQUIPMENT AND MATERIALS NECESSARY FOR PROVIDING WATER.
- 6 ANY AREAS DISTURBED BY CONSTRUCTION AND NOT IDENTIFIED FOR SPECIFIC PERMANENT TREATMENT BY THE PROJECT LANDSCAPING PLAN OR IMPERVIOUS SURFACES ON THE SITE PLAN SHALL BE REVEGETATED WITH GRASS SO IF PREVIOUSLY GRASSED OR RECLAMATION SEEDING IF AREA WAS NATIVE BEFORE CONSTRUCTION STARTED. CONTRACTOR SHALL COORDINATE SPECIFIC TREATMENT WITH THE ENGINEER.
- 7 ALL WASTE PRODUCTS FROM THE CONSTRUCTION SITE, INCLUDING ITEMS DESIGNATED FOR REMOVAL, CONSTRUCTION WASTE, CONSTRUCTION EQUIPMENT WASTE PRODUCTS (OIL, GAS, TIRES, ETC.), GARBAGE, GRUBBING, EXCESS CUT MATERIAL, VEGETATIVE DEBRIS, ETC. SHALL BE APPROPRIATELY DISPOSED OF OFFSITE AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR HAUL OR DISPOSAL OF WASTE PRODUCTS, AND TO ENSURE THAT THE WASTE DISPOSAL SITE COMPLIES WITH GOVERNMENT REGULATIONS REGARDING THE ENVIRONMENT, ENDANGERED SPECIES, AND ARCHAEOLOGICAL RESOURCES.
- 8 ALL EXCAVATED MATERIAL THAT IS NOT REQUIRED TO BE REUSED MUST BE REMOVED FROM THE PROJECT AREA WITHIN A TIMELY MANNER AS APPROVED BY ENGINEER. SPOIL PILES WILL BE ALLOWED ONLY AS DIRECTED BY THE ENGINEER.
- 9 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANUP AND REPORTING OF SPILLS OF HAZARDOUS MATERIALS ASSOCIATED WITH THE CONSTRUCTION SITE. HAZARDOUS MATERIALS, INCLUDES GASOLINE, DIESEL FUEL, MOTOR OIL, SOLVENTS, CHEMICALS, PAINT, ETC. WHICH MAY BE A THREAT TO THE ENVIRONMENT. THE CONTRACTOR SHALL REPORT THE DISCOVERY OF PAST OR PRESENT SPILLS TO THE NEW MEXICO EMERGENCY RESPONSE AT 1-800-219-6157 AND THE ENVIRONMENT DEPT. AT (505) 867-4533.
- 10 THE CONTRACTOR SHALL PROPERLY HANDLE AND DISPOSE OF ALL ASPHALT REMOVED ON THE PROJECT BY HAULING TO AN APPROVED DISPOSAL SITE IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEW MEXICO SOLID WASTE ACT.
- 11 THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS CONCERNING CONSTRUCTION NOISE AND HOURS OF OPERATION AS STATED IN THE SPECIFICATIONS.
- 12 THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS CONCERNING SURFACE AND UNDERGROUND WATER, CONTACT WITH SURFACE WATER BY CONSTRUCTION EQUIPMENT AND PERSONNEL SHALL BE MINIMIZED, EQUIPMENT MAINTENANCE AND REFUELING OPERATIONS SHALL BE PERFORMED IN AN ENVIRONMENTALLY SAFE MANNER IN COMPLIANCE WITH GOVERNMENT AND OWNER REGULATIONS.
- 13 CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY AND ALL GRAFFITI FROM EQUIPMENT, WHETHER PERMANENT OR TEMPORARY.
- 14 ALL RIPRAP MATERIAL USED ON THIS PROJECT SHALL BE A NATURAL ROCK MATERIAL CONFORMING TO THE SIZE AND MATERIAL PROPERTY REQUIREMENTS SET FORTH IN THE C.O.A. STANDARD SPECIFICATIONS. NO BROKEN CONCRETE OR RUBBLE WILL BE ACCEPTED.

SEEDING & LANDSCAPING:

- 1 CONTRACTOR SHALL MAINTAIN AS MUCH OF THE EXISTING LANDSCAPING AS FEASIBLE.
2 RESEED TO MATCH EXISTING LANDSCAPING. CONTRACTOR TO SUBMIT SEEDING AND FERTILIZER SCHEDULE FOR APPROVAL PRIOR TO RESEEDING.

[illegible]

GENERAL UTILITIES:

- 1

ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES SHOWN ON THE PLANS ARE SHOWN IN AN APPROXIMATE LOCATION ONLY BASED ON THE INFORMATION PROVIDED TO THE ENGINEER BY OTHERS THAT MAY BE INACCURATE OR INCOMPLETE. ADDITIONALLY, UNDERGROUND LINES MAY EXIST THAT ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK. ANY DAMAGE TO ANY OTHER UTILITIES OR COLLATERAL DAMAGE CAUSED BY THE CONTRACTOR SHALL BE THE FULL RESPONSIBILITY OF THE CONTRACTOR.
- 2

CONTRACTOR SHALL CONTACT THE STATEWIDE UTILITY LOCATOR SERVICE AT 800-321-2537/260-1990 AT LEAST TWO WORKING DAYS BEFORE BEGINNING CONSTRUCTION. AFTER THE UTILITIES ARE SPOTTED, THE CONTRACTOR SHALL EXPOSE ALL PERTINENT UTILITIES TO VERIFY THEIR VERTICAL AND HORIZONTAL LOCATION. IF A CONFLICT EXISTS BETWEEN EXISTING UTILITIES AND PROPOSED CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH MINIMAL DELAY.
- 3

CONTRACTOR SHALL EXERCISE DUE CARE TO AVOID DISTURBING ANY EXISTING UTILITIES, ABOVE OR BELOW GROUND, UTILITIES THAT ARE DAMAGED BY CARELESS CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES TO PREVENT DISRUPTION TO SERVICE. SEE SECTION 18 "UTILITIES" COA STANDARD SPECIFICATIONS FOR CONTRACTOR REQUIREMENTS.
- 4

ALL UTILITY LINES NOT SPECIFICALLY DESIGNATED TO BE REMOVED AND REPLACED ON THE PLANS, SHALL BE MAINTAINED IN SERVICE. SHORING, SHEETING AND OTHER MEANS OF SUPPORT SHALL BE EMPLOYED BY THE CONTRACTOR TO PREVENT DAMAGE OR LOSS OF THESE EXISTING UTILITIES. BEAM AND CABLE OR OTHER ADEQUATE SUPPORTS SHALL BE USED FOR TEMPORARY SUPPORT OF ALL UTILITY LINES AS NECESSARY.
- 5

CONTRACTOR SHALL PROVIDE A UTILITY SUPPORT DESIGN FOR ALL LARGE AND/OR CRITICAL SERVICES (E.G. COMMUNICATIONS AND ELECTRIC DUCT BANKS, EXPOSED GRAVITY LINE JOINTS, PRESSURIZED WATER LINES, SEWER FORCE MAINS, ETC.) SUPPORT FOR THESE CRITICAL SERVICES SHALL BE DESIGNED AND SEALED BY REGISTERED PROFESSIONAL ENGINEER AND SUBMITTED TO OWNER FOR APPROVAL. THE DESIGN AND INSTALLATION OF BOTH CRITICAL AND NONCRITICAL SUPPORTS SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE. ANY DAMAGE TO EXISTING UTILITIES SHALL PROMPTLY BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY SIGNIFICANT DEVIATION OF EXPOSED UTILITIES FROM THE LOCATIONS SHOWN ON THE PLANS SO THAT CONFLICTS CAN BE RESOLVED IN A TIMELY MANNER.
- 6

CONTRACTOR SHALL COORDINATE WITH PERTINENT UTILITY COMPANIES OF ALL EXISTING UTILITY LINES AND APPURTENANCES ENCOUNTERED DURING CONSTRUCTION THAT REQUIRE RELOCATION. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR DELAYS OR INCONVENIENCES CAUSED BY UTILITY COMPANY WORK CREWS. THE CONTRACTOR SHALL RESCHEDULE HIS ACTIVITIES AS NECESSARY TO ALLOW UTILITY CREWS TO PERFORM THEIR REQUIRED WORK.
- 7

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL POTENTIAL CONFLICTING UTILITIES AT NO ADDITIONAL COST TO THE OWNER. SHOULD A CONFLICT EXIST BETWEEN THE FIELD INFORMATION AND THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THE CONFLICT CAN BE RESOLVED WITH MINIMUM DELAY.
- 8

ALL INTERFERING PORTIONS OF ABANDONED UTILITY LINES WHICH ARE EXPOSED AS A RESULT OF CONSTRUCTION SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

CONTRACTOR SHALL COORDINATE ANY REQUIRED UTILITY INTERRUPTIONS WITH THE AFFECTED UTILITY COMPANY A MINIMUM OF THREE WORKING DAYS BEFORE THE INTERRUPTION.
- 9

EXISTING VALVES SHALL ONLY BE OPERATED BY THE APPROPRIATE UTILITY COMPANY. CONTRACTOR SHALL NOTIFY THE UTILITY A MINIMUM OF SEVEN (7) WORKING DAYS BEFORE ANY VALVE, NEW OR EXISTING, NEEDS TO BE OPERATED.
- 10

ANY DAMAGE TO THE EXISTING FACILITIES (CURB & GUTTER, PAVEMENT, CONDUITS, LANDSCAPING, UTILITY LINES, ETC.) DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTORS' EXPENSE.
- 11

EXIST UTILITIES IN EXCESS OF THAN 25' FROM NEW WATERLINE NOT SHOWN IN PROFILE VIEW FOR CLARITY.

WATER SYSTEM:

- 1

THE CONTRACTOR SHALL NOTIFY THE WATER SYSTEMS DIVISION (857-8200) AT LEAST SEVEN (7) WORKING DAYS IN ADVANCE OF ANY WORK WHICH MAY AFFECT THE EXISTING PUBLIC WATER UTILITIES. EXISTING VALVES TO BE OPERATED BY COA PERSONNEL ONLY. CONTRACTOR SHALL CONTACT WATER SYSTEMS DIVISION SEVEN (7) WORKING DAYS PRIOR TO NEEDING VALVES OPENED OR CLOSED. REFER TO SECTION 18 OF STANDARD SPECIFICATIONS.
- 2

CONTRACTOR SHALL ADJUST ALL WATER VALVE BOXES, VAULT LIDS AND OTHER APPURTENANCES TO FINISH GRADE PER COA STANDARD DETAIL 2326.
- 3

CONTRACTOR SHALL MAKE ALL WATER VALVES AND VAULT LIDS ACCESSIBLE TO THE OWNER AT ALL TIMES.
- 4

ALL WATER VALVES AND FIRE HYDRANTS REMOVED SHALL BE SALVAGED AND RETURNED TO THE OWNER.
- 5

IF A WATER SERVICE LINE IS DAMAGED, CONTRACTOR SHALL REPLACE FROM MAIN TO METER BOX WITHOUT SPLICING AT NO ADDITIONAL COST TO THE OWNER.
- 6

ELECTRONIC MARKER DISKS (EMDs) SHALL BE INSTALLED ON ALL BENDS, VALVES, FITTINGS AND TEES PER SECTION 170 OF COA STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND MANUFACTURER'S RECOMMENDATIONS.

GAS:

- 1

ALL GAS VALVES AND GAS MANHOLES, SHALL BE ADJUSTED TO GRADE BY THE APPROPRIATE UTILITY COMPANY. CONTRACTOR SHALL COORDINATE WITH APPROPRIATE UTILITY COMPANY.
- 2

PNM HAS SPECIFIC REQUIREMENTS FOR CROSSING GAS TRANSMISSION LINES AS IDENTIFIED IN THEIR ENCROACHMENT AGREEMENT, AND CONTRACTOR SHALL COMPLY WITH ALL SUCH REQUIREMENTS.

TELECOMMUNICATIONS:

- 1

ALL TELEPHONE MANHOLES, PEDESTALS, POLES AND OTHER APPURTENANCES SHALL BE ADJUSTED TO GRADE BY THE APPROPRIATE UTILITY COMPANY. CONTRACTOR SHALL COORDINATE WITH APPROPRIATE UTILITY COMPANY.
- 2

CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING OR WORKING ADJACENT TO FIBER OPTIC LINES. CONTRACTOR SHALL SUPPORT EXPOSED FIBER OPTIC LINES AS NECESSARY, AND AS APPROVED BY APPROPRIATE UTILITY COMPANY.

ELECTRICAL:

- 1

ALL ELECTRICAL MANHOLES, PEDESTALS, POLES AND OTHER APPURTENANCES SHALL BE ADJUSTED TO GRADE BY THE APPROPRIATE UTILITY COMPANY. CONTRACTOR SHALL COORDINATE WITH APPROPRIATE UTILITY COMPANY.
- 2

PNM HAS SPECIFIC REQUIREMENTS FOR CROSSING ELECTRICAL TRANSMISSION LINES, BOTH ABOVE AND BELOW GROUND, AS IDENTIFIED IN THEIR ENCROACHMENT AGREEMENT, AND CONTRACTOR SHALL COMPLY WITH ALL SUCH REQUIREMENTS.

SANITARY SEWER SYSTEM:

- 1

THE CONTRACTOR SHALL NOTIFY THE WATER SYSTEMS DIVISION (857-8200) AT LEAST SEVEN (7) WORKING DAYS IN ADVANCE OF ANY WORK WHICH MAY AFFECT THE EXISTING PUBLIC SEWER UTILITIES. REFER TO SECTION 18 OF STANDARD SPECIFICATIONS.
- 2

ALL DISTURBED SANITARY SEWER MANHOLES SHALL BE ADJUSTED TO FINISH GRADE.
- 3

ELECTRONIC MARKER DISKS (EMDs) SHALL BE INSTALLED ON ALL SEWER LATERALS EXPOSED BY CONSTRUCTION AT PROPERTY LINE OR END OF REPLACEMENT PIPE, PER SECTION 170 OF COA STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- 4

IN ADDITION TO THE REQUIREMENTS INCLUDED IN THE STANDARD SPECIFICATIONS, OWNER HAS SPECIFIC REQUIREMENTS FOR CROSSING EXISTING SEWER LATERALS - SEE SEWER LATERAL CROSSING DETAIL.

STORM DRAIN:

- 1

ALL DISTURBED STORM DRAIN MANHOLES, CATCH BASINS, INLETS, OR OTHER APPURTENANCES SHALL BE ADJUSTED TO FINISH GRADE.

TRAFFIC:

- 1

SEE TRAFFIC CONTROL SHEETS.

EXCAVATION, BACKFILL & EARTHWORK:

- 1

A GEOTECHNICAL INVESTIGATION WAS CONDUCTED FOR THIS PROJECT AND IS AVAILABLE FROM THE ENGINEER. NEITHER THE ENGINEER NOR THE OWNER ASSUMES RESPONSIBILITY FOR THE COMPLETENESS OR INTERPRETATION OF SUCH SUPPLEMENTARY INFORMATION. ALL EARTHWORK SHALL CONFORM WITH RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL INVESTIGATION. CONTRACTOR IS RESPONSIBLE FOR EXAMINATION OF THE SITE AND DETERMINATION OF THE CHARACTER OF MATERIALS TO BE ENCOUNTERED. NO ADDITIONAL ALLOWANCES WILL BE MADE FOR ROCK REMOVAL, SITE CLEARING AND GRADING, FILLING, COMPACTION, DISPOSAL, OR REMOVAL OF ANY UNCLASSIFIED MATERIALS.
- 2

ALL EXCAVATION STANDARD SPECIFICATION WILL BE GOVERNED BY FEDERAL, STATE AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- 3

FOR PIPELINE TRENCH EXCAVATION, CONTRACTOR SHALL COMPLY WITH THE OSHA REGULATIONS STANDARD NO. 1926. TRENCH SUPPORT AND TEMPORARY SHORING SHALL BE REQUIRED FOR PROTECTION OF LIFE AND LIMB DURING TRANSMISSION PIPELINE CONSTRUCTION TO SATISFY CONSTRAINTS IDENTIFIED IN THE DRAWINGS FOR LIMITS OF DISTURBANCE, PROTECTION OF EXISTING UTILITIES, TRAFFIC CONTROL, ETC. AND SHALL BE DESIGNED BY CONTRACTOR IN ACCORDANCE WITH OSHA STANDARDS.
- 4

ALL EXCAVATED MATERIAL THAT IS NOT REQUIRED TO BE REUSED SHALL BE REMOVED FROM THE PROJECT AREA WITHIN FOUR (4) DAYS OF EXCAVATION. SPOIL PILES WILL BE ALLOWED ONLY AS DIRECTED BY THE ENGINEER.
- 5

MINIMUM BOTTOM WIDTH OF TRENCHES FOR RIGID AND NON-RIGID PIPE SHALL BE AS SHOWN IN THE TRENCH DETAIL.
- 6

DESIGN AND CONSTRUCTION OF ALL FORMS, SHORING, AND TEMPORARY BRACING SHALL COMPLY WITH 29 CFR 1926 AND THESE COSTS SHALL BE CONSIDERED INCIDENTAL TO THE TRENCHING AND BACKFILL COSTS.
- 7

POTHOLE DATA ON THESE PLANS ARE FOR INFORMATION ONLY AND ARE NOT TO RELIEVE THE CONTRACTOR FROM RESPONSIBILITY TO CONDUCT POTHOLE EXCAVATION IN ADVANCE OF CONSTRUCTION.
- 8

NO MATERIAL PITS HAVE BEEN DESIGNATED FOR THIS PROJECT. THE CONTRACTOR MAY OBTAIN SPECIFIED BORROW OR SURFACING MATERIAL FROM ANY ACCEPTABLE SOURCE.
- 9

ALL TRENCH EXCAVATION BACKFILL WITHIN THE ROADWAY PRISM SHALL BE COMPACTED TO 95% OF THE MODIFIED PROCTOR PER ASTM D-698 OR D-1557 AS APPLICABLE.
- 10

ANY EARTHWORK HAUL ON THIS PROJECT WILL BE CONSIDERED AS INCLUDED IN THE CONTRACT PRICE FOR EXCAVATE AND DISPOSE OF UNCLASSIFIED MATERIAL AND NO SEPARATE PAYMENT WILL BE MADE THEREFOR.
- 11

CONTRACTOR SHALL UTILIZE FLOWABLE FILL WHEREVER BACKFILL MATERIAL CANNOT BE PLACED AND COMPACTED BETWEEN THE NEW PIPE LINE AND EXISTING UTILITIES OR IF THE VERTICAL SEPARATION BETWEEN THE NEW PIPE LINE AND EXISTING UTILITY IS LESS THAN 12-INCHES. THIS COST IS INCIDENTAL TO BACKFILL COSTS.
- 12

CONTRACTOR SHALL USE CAUTION NEAR ALL EXISTING STRUCTURES INCLUDING MASONRY WALLS, BUILDINGS, ETC. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO STRUCTURES CAUSED BY CONTRACTOR'S OPERATIONS.
- 13

FOR TRENCH DEPTHS EXCEEDING 20- FEET, CONTRACTOR SHALL SUBMIT VERIFICATION TO ENGINEER THAT TRENCH SUPPORT IS DESIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
- 14

CONTRACTOR SHALL RETURN ALL GRADES TO EXISTING ELEVATIONS AND CONDITIONS AFTER CONSTRUCTION OF THE TRANSMISSION PIPELINE, UNLESS OTHERWISE INDICATED.



ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

TITLE: SJC DWP TRANSMISSION PIPELINE #4 - MIDDLE SEG.

GENERAL NOTES

Design Review Committee	City Engineer Approval	Last Design Update	Mo. / Day / Yr.		Mo. / Day / Yr.	
City Project No. 6811-04		Zone Map No.	Sheet 4	Of 46		

ENGINEER'S SEAL	SURVEY INFORMATION		FIELD NOTES		BENCH MARKS		AS-BUILT INFORMATION	
	NO.	BY	DATE	US&GS STANDARD BENCH MARK DISK	CONTRACTOR	WORK STARTED BY	DATE	
				ELEVATION = 5098.75 NAVD83, in U.S. feet		INSPECTED BY	DATE	
ENGINEER'S SEAL		REVISIONS		DESIGN		MICRO-FILM INFORMATION		
ENGINEER'S SEAL		REVISIONS		DESIGN		MICRO-FILM INFORMATION		
ENGINEER'S SEAL		REVISIONS		DESIGN		MICRO-FILM INFORMATION		
ENGINEER'S SEAL		REVISIONS		DESIGN		MICRO-FILM INFORMATION		
ENGINEER'S SEAL		REVISIONS		DESIGN		MICRO-FILM INFORMATION		
ENGINEER'S SEAL		REVISIONS		DESIGN		MICRO-FILM INFORMATION		
ENGINEER'S SEAL		REVISIONS		DESIGN		MICRO-FILM INFORMATION		
ENGINEER'S SEAL		REVISIONS		DESIGN		MICRO-FILM INFORMATION		
ENGINEER'S SEAL		REVISIONS		DESIGN		MICRO-FILM INFORMATION		
ENGINEER'S SEAL		REVISIONS		DESIGN		MICRO-FILM INFORMATION		
ENGINEER'S SEAL		REVISIONS		DESIGN		MICRO-FILM INFORMATION		
ENGINEER'S SEAL		REVISIONS		DESIGN		MICRO-FILM INFORMATION		
ENGINEER'S SEAL		REVISIONS		DESIGN		MICRO-FILM INFORMATION		
ENGINEER'S SEAL		REVISIONS		DESIGN		MICRO-FILM INFORMATION		
ENGINEER'S SEAL		REVISIONS		DESIGN		MICRO-FILM INFORMATION		
ENGINEER'S SEAL		REVISIONS		DESIGN		MICRO-FILM INFORMATION		
ENGINEER'S SEAL		REVISIONS		DESIGN		MICRO-FILM INFORMATION		
ENGINEER'S SEAL		REVISIONS		DESIGN		MICRO-FILM INFORMATION		
ENGINEER'S SEAL		REVISIONS		DESIGN		MICRO-FILM INFORMATION		
ENGINEER'S SEAL		REVISIONS		DESIGN		MICRO-FILM INFORMATION		
ENGINEER'S SEAL		REVISIONS		DESIGN		MICRO-FILM INFORMATION		

SURVEY CONTROL DATA

CONTROL NUMBER	NORTHING	EASTING	ELEVATION
HV-108	1503047.543	1503570.923	5115.309
HV-109	1503333.688	1504439.139	5113.307
HV-110	1501916.118	1504494.839	5121.290
HV-111	1502644.239	1501574.545	5119.658
HV-112	1501854.739	1501624.972	5118.082
HV-113	1501867.416	1502449.374	5109.037
HV-114	1500460.062	1501678.093	5114.389
HV-115	1499127.525	1501216.917	5115.618
HV-116	1497678.830	1500508.891	5124.767
HV-117	1497378.235	1501259.684	5115.951
HV-118	1496602.669	1500933.597	5124.157
HV-119	1497097.607	1499081.900	5161.463
HV-120	1497421.543	1496358.126	5225.372
HV-121	1496636.036	1497478.710	5199.089
HV-122	1496406.402	1496520.270	5216.020
HV-123	1495683.460	1497602.178	5193.996
HV-124	1496192.907	1495505.269	5240.367
HV-125	1496852.137	1494205.921	5293.313
HV-126	1497670.292	1493131.360	5320.483
HV-127	1496482.384	1493027.787	5323.562
HV-128	1495344.977	1493799.120	5278.346
HV-130	1494487.071	1493509.122	5285.414
CP-16	1502736.227	1504464.420	5117.200
CP-21	1501492.919	1502043.417	5117.676
CP-22	1499483.143	1501650.068	5115.535
CP-23	1498507.389	1501251.898	5112.366
CP-24	1497304.264	1500722.731	5130.458
CP-25	1496997.058	1500176.923	5140.680
CP-26	1497035.236	1498550.813	5178.091
CP-27	1497010.854	1496981.105	5211.026
CP-28	1496108.142	1497027.298	5209.876
CP-29	1496095.708	1496231.109	5222.864
CP-30	1496269.842	1494792.790	5257.597
CP-31	1497110.142	1493916.531	5319.769
CP-32	1495087.496	1493093.890	5333.792



*COORDINATES ARE BASED ON A LOCAL PROJECT COORDINATE SYSTEM.
ELEVATIONS ARE REFERRED TO SEA LEVEL, NAVD 88.

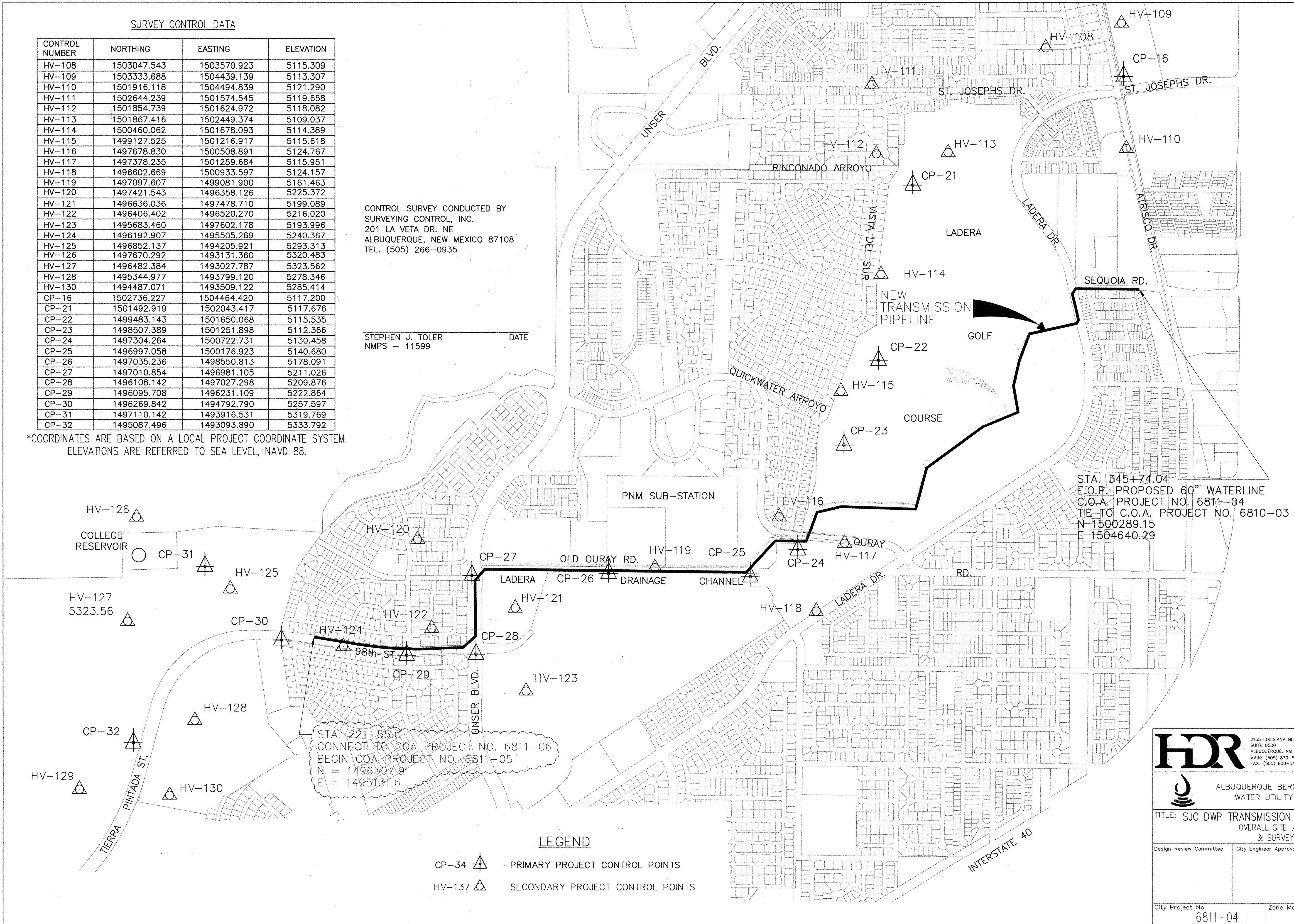
CONTROL SURVEY CONDUCTED BY
SURVEYING CONTROL, INC.
201 LA VETA DR. NE
ALBUQUERQUE, NEW MEXICO 87108
TEL. (505) 266-0935

STEPHEN J. TOLER
NMPS - 11599

DATE

LEGEND

- CP-34  PRIMARY PROJECT CONTROL POINTS
HV-137  SECONDARY PROJECT CONTROL POINTS



STA. 345+74.04
E.O.P. PROPOSED 60" WATERLINE
C.O.A. PROJECT NO. 6811-04
TIE TO C.O.A. PROJECT NO. 6810-03
N 1500289.15
E 1504640.29

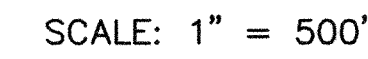
STA. 221+55.0
CONNECT TO COA PROJECT NO. 6811-06
BEGIN COA PROJECT NO. 6811-05
N = 1496307.9
E = 1495131.6



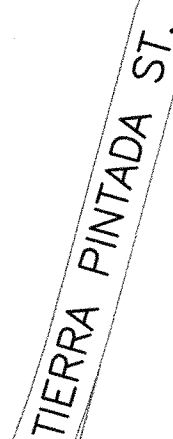
ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY
TITLE: SJC DWP TRANSMISSION PIPELINE #4 - MIDDLE SEG.
OVERALL SITE / LAYOUT PLAN
& SURVEY CONTROL

Design Review Committee	City Engineer Approval	Last Design Update	Mo. / Day / Yr.	Mo. / Day / Yr.
City Project No. 6811-04	Zone Map No.	Sheet 5	Of 46	

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	WORK BY	BRASS CAP STAMPED "L424 1982"	DATE	NO.	BY	CMA	REVISIONS
INSPECTOR'S ACCEPTANCE BY	DATE	ELEVATION = 5098.75 NAVD88, in U.S. feet	DATE			RAG	REMARKS
VERIFICATION BY	DATE	FROM THE JUNCTION OF I-40 & ST. HWY. 448, IN TOP OF AND 0.3' EAST OF THE WEST END OF	DATE			BY	DESIGN
DRAWING	DATE	THE SO. CONC. ABUTMENT OF THE SO. BOUND	DATE			DATE	2/08/06
MICRO-FILM INFORMATION	DATE	OVERPASS OF I-40 & 22.0' WEST OF THE	DATE			DATE	2/08/06
		CENTER OF THE SO. BOUND LANES OF THE HWY.				DATE	2/08/06
		448. THE BM IS 3.94' BELOW THE STATE HWY.					



● VAULT (SEE SHEET 7 AND PLAN & PROFILE SHEETS FOR TYPE & EXACT LOCATION)



STA. 221+55.0
CONNECT TO COA PROJECT NO. 6811-06
BEGIN COA PROJECT NO. 6811-05
N = 1496307.9
E = 1495131.6

ST. JOSEPH'S DR.

ST. JOSEPH'S DR.

RINCONADO ARROYO

LADERA
GOLF
COURSE

SHEET 18
LADERA DAM 15 CROSSING

SHEET 19 SHEET 19a

SEQUOIA RD.

NEW
TRANSMISSION
PIPELINE

/SHEET 17

SHEET 16

SHEET 20/

SHEET 15

PNM SUB-
STATION

SHEET 12

OLD OURAY RD.

SHEET 13

SHEET 9

98th ST

SHEET 10

UNSER BLVD.

SHEET 14

~~OURAY~~

RD.

E.O.P. PROPOSED 60" WATERLINE
C.O.A. PROJECT NO. 6811-04
TIE TO C.O.A. PROJECT NO. 6810-03
N 1500289.15
E 1504640.29

HDR

2155 LOUISIANA BLVD., NE
SUITE 9500
ALBUQUERQUE, NM 87110
MAIN: (505) 830-5400
FAX: (505) 830-5454



ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

TITLE: SJC DWP TRANSMISSION PIPELINE #4 – MIDDLE SEG.

LOCATION MAP & KEY MAP PLAN

Design Review Committee	City Engineer Approval	Date	Mo. / Day / Yr.	Mo. / Day / Yr.
-------------------------	------------------------	------	-----------------	-----------------

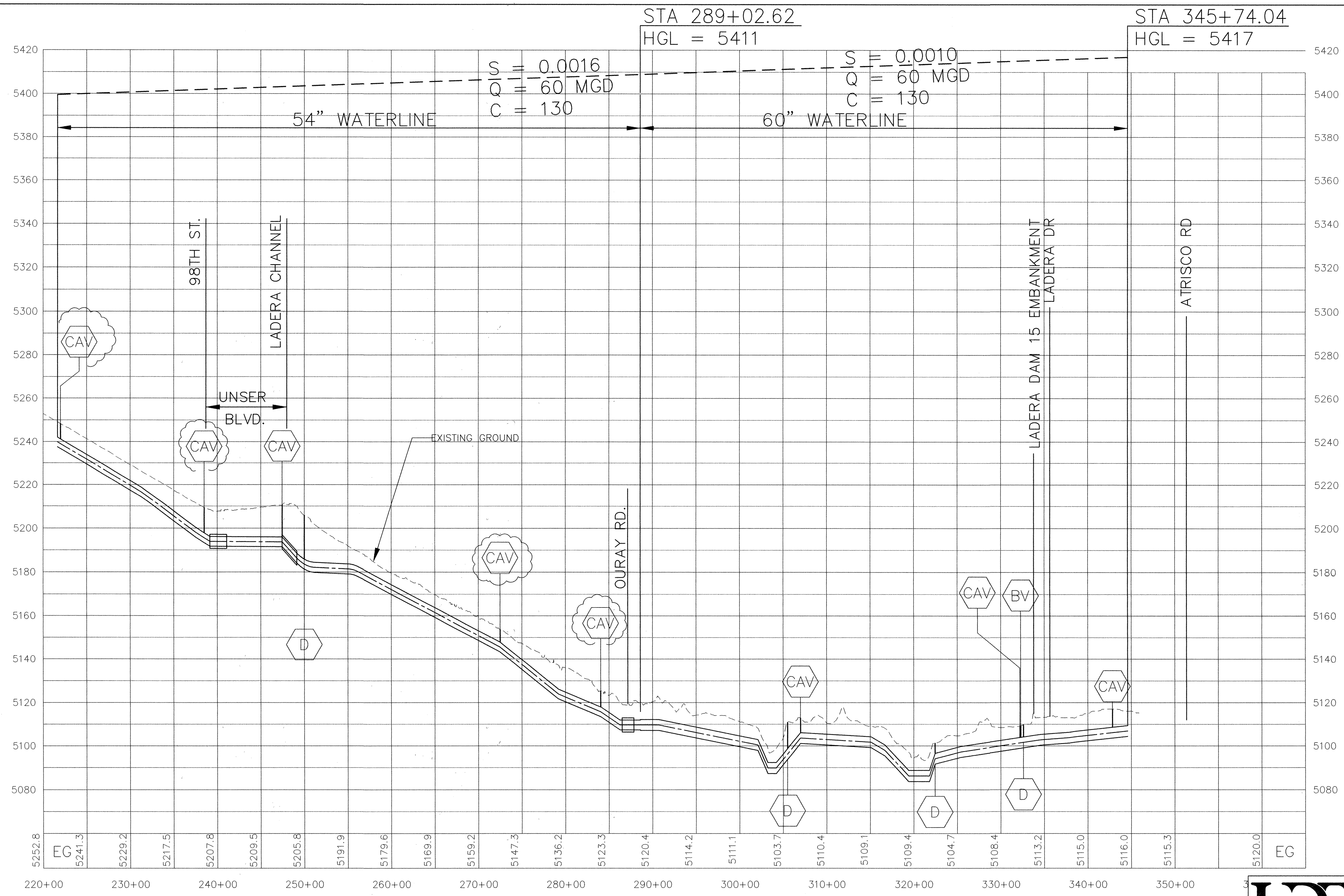
[illegible][illegible]

		Last			
--	--	------	--	--	--

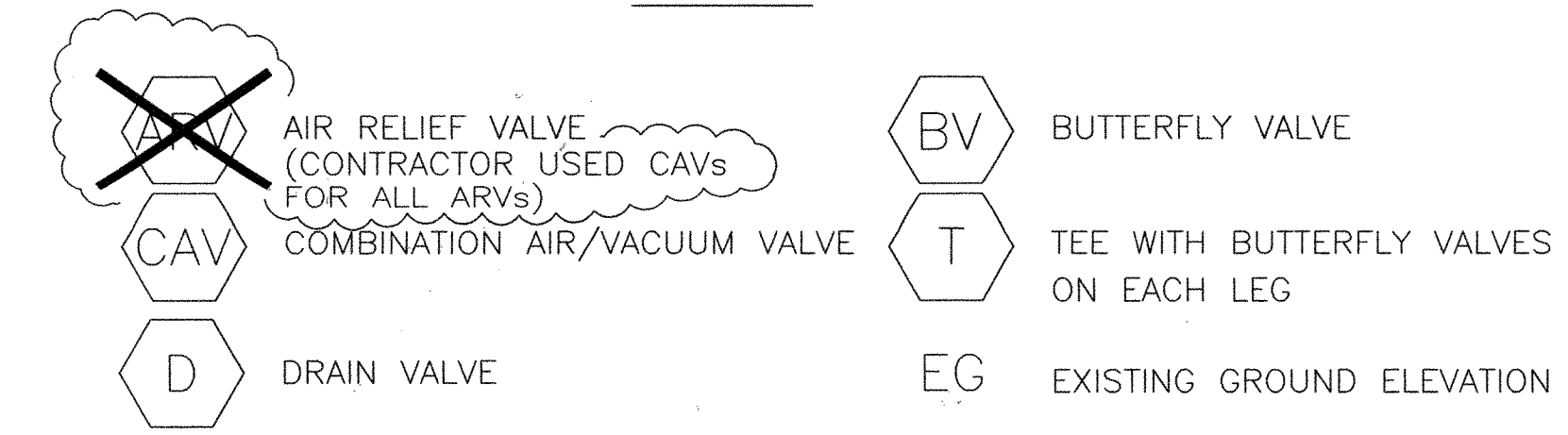
City Project No. 6811-04	Zone Map No.	Sheet 6 Of 46
-----------------------------	--------------	---------------

0011-04		
---------	--	--

[illegible]



- DESIGN HGL & TESTING REQUIREMENTS:
1. DESIGN HGL = ELEV 5510' BASED ON SURGE ANALYSIS PROVIDED BY CH2MHILL, MAY 12, 2004.
 2. TEST WATER LINE AT 50' ABOVE DESIGN HGL.



THESE RECORD DOCUMENTS WERE PREPARED BASED UPON HARD COPY MARKUPS PROVIDED BY RMCI, INC. HDR DID NOT VERIFY THE INFORMATION PROVIDED BY RMCI, INC. AND THE PREPARATION OF THESE RECORD DOCUMENTS IS LIMITED TO INCORPORATING SUCH CHANGES INDICATED BY RMCI, INC. NEITHER HDR NOR OUR SUBCONSULTANTS MAKE ANY REPRESENTATIONS, WARRANTIES OR GUARANTEES, EXPRESSED OR IMPLIED, AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION CONTAINED ON THESE RECORD DOCUMENTS. THE USER OF INFORMATION PROVIDED ON THESE RECORD DOCUMENTS ASSUMES ALL RISK: ALWAYS FIELD VERIFY THE ACTUAL LOCATIONS OF ALL INFORMATION PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.

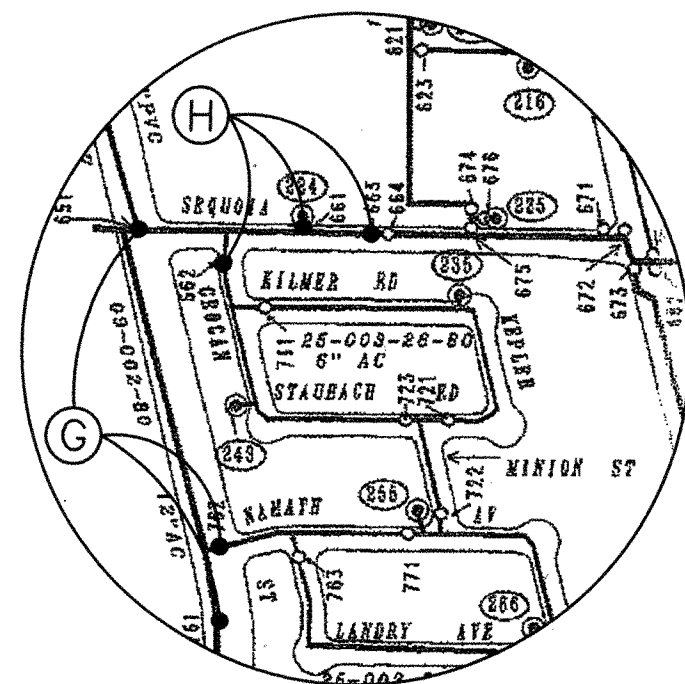
RECORD DOCUMENTS

HDR		2155 LOUISIANA BLVD., NE SUITE 8500 ALBUQUERQUE, NM 87110 MAIN: (505) 830-5400 FAX: (505) 830-5454	
ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY			
TITLE: SJC DWP TRANSMISSION PIPELINE #4 - MIDDLE SEG.			
HYDRAULIC PROFILE			
Design Review Committee	City Engineer Approval	Last Design Update	Mo. / Day / Yr.
City Project No. 6811-04	Zone Map No.	Sheet 7	Of 46

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
		NO.	BY	DATE	CONTRACTOR	WORK	DATE
					BRASS CAP STAMPED "L424 1982"	INSPECTED BY	DATE
					US&GS STANDARD BENCH MARK DISK	INSPECTOR'S FIELD VERIFICATION BY	DATE
					ELEVATION = 5098.75 NAVD88, in U.S. feet	INSPECTED BY	DATE
					FROM THE JUNCTION OF I-40 & ST. HWY. 448,	INSPECTED BY	DATE
					IN TOP OF AND 0.3' EAST OF THE WEST END OF	INSPECTED BY	DATE
					THE SO. CONC. ABUTMENT OF THE SO. BOUND	INSPECTED BY	DATE
					OVERPASS OF I-40 & 22.0' WEST OF THE	INSPECTED BY	DATE
					CENTER OF THE SO. BOUND LANES OF THE HWY.	INSPECTED BY	DATE
					448. THE BM IS 3.94' BELOW THE STATE HWY.	INSPECTED BY	DATE

SCALE: 1" = 500'

DETAIL OF C.O.A. WATER MAP G-11



- (G) 12" AC - CLOSE VALVES: 761, 762, & 651
(H) UNKNOWN - CLOSE VALVES: 651, 662 & 663

STA. 221+55.0
CONNECT TO COA PROJECT NO. 6811-06
BEGIN COA PROJECT NO. 6811-05
N = 1496307.9
E = 1495131.6

COLLEGE
RESERVOIR

PNM SUB-
STATION

OLD OURAY RD.

LADERA DRAINAGE CHANNEL

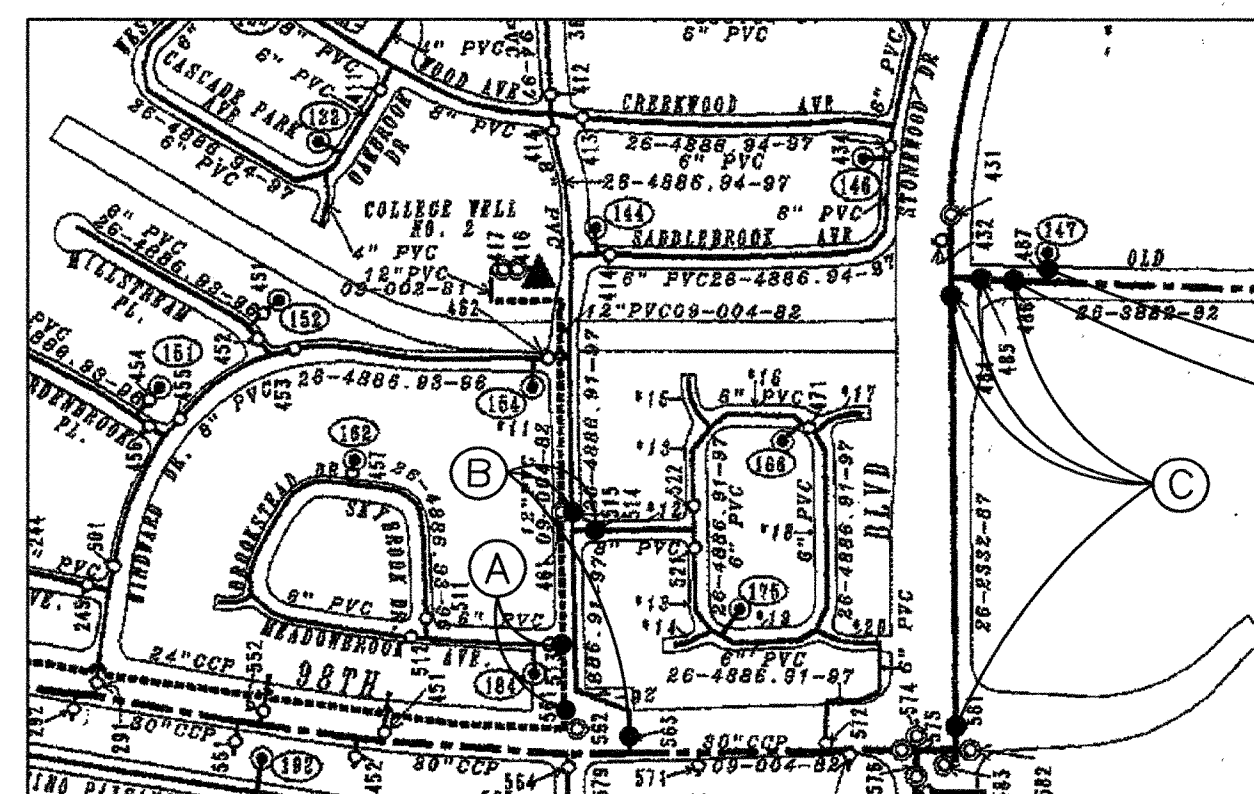
COURSE

NEW
TRANSMISSION
PIPELINE

GOLF

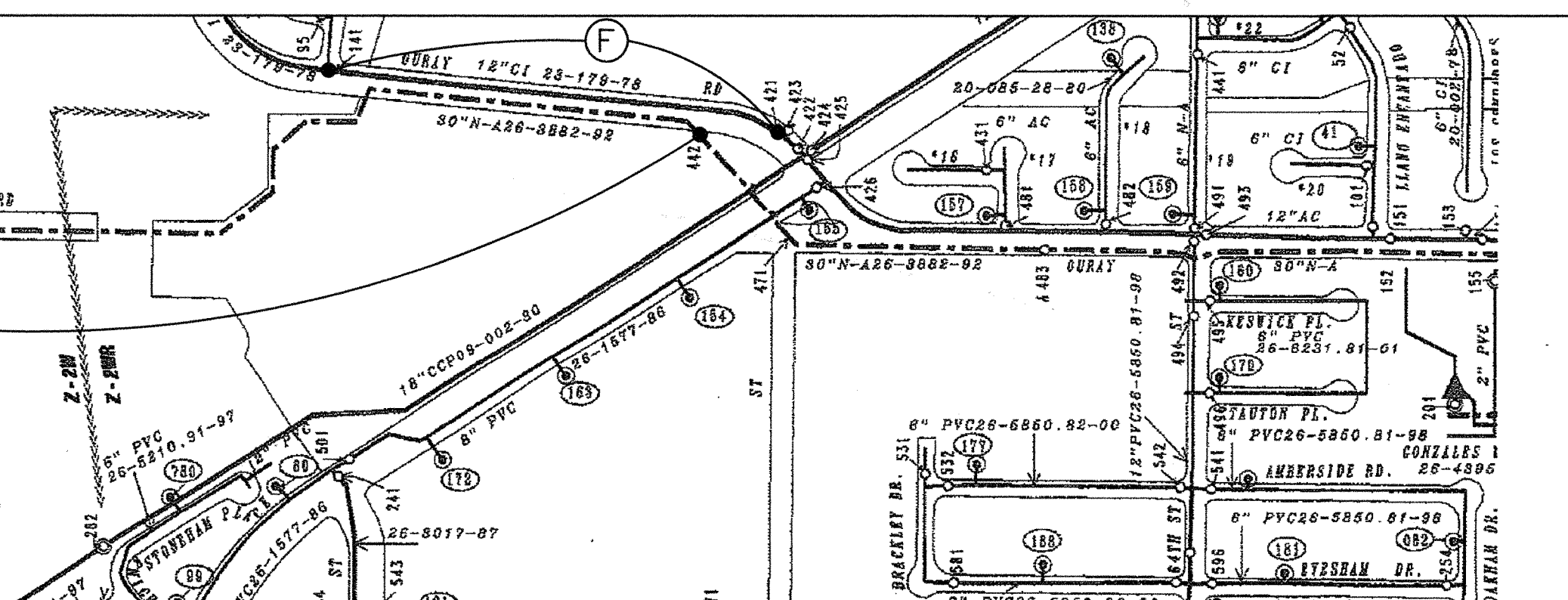
STA. 345+74.04
E.O.P. PROPOSED 60" WATERLINE
C.O.A. PROJECT NO. 6811-04
TIE TO C.O.A. PROJECT NO. 6810-03
N 1500289.15
E 1504640.29

DETAIL OF C.O.A. WATER MAP H-09



- (A) 12" CCP - CLOSE VALVES: 561 & 513
(B) 6" - CLOSE VALVES: 563, 514 & 515
(C) 30" CCP - CLOSE VALVES: 581, 484, 485, & 486

DETAIL OF C.O.A. WATER MAP H-10



- (D) 30" CCP - CLOSE VALVES: 486, 487 & 442
(E) 30" CCP - CLOSE VALVES: 486, 487 & 442
(F) 12" CI - CLOSE VALVES: 141 & 421

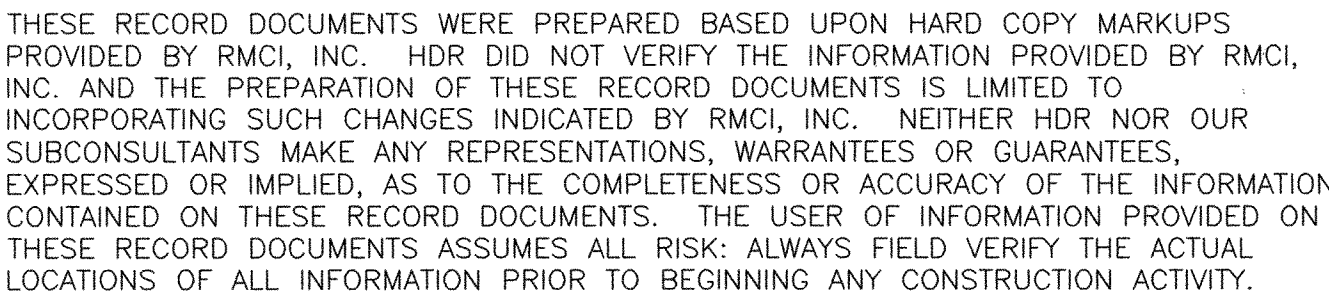
HDR
2155 LOUISIANA BLVD., NE
SUITE 9500
ALBUQUERQUE, NM 87110
MAIN: (505) 830-5400
FAX: (505) 830-5454



ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

TITLE: SJC DWP TRANSMISSION PIPELINE #4 - MIDDLE SEG.
WATER SHUT-OFF PLAN

Design Review Committee	City Engineer Approval	Mo. / Day / Yr.	Mo. / Day / Yr.
City Project No.	Zone Map No.	Sheet	of
6811-04		8	46



ALL ELEVATIONS ARE IN INTERIM NAVD 88 DATUM. TO CONVERT FROM INTERIM NAVD 88 TO NGVD 29 SUBTRACT 2.70 FEET ±0.02 FEET.




CONCRETE CYLINDER PIPE (CCP)

STA 226+50 to STA 229+75-CL 125
STA 229+75 to STA 239+00-CL 150

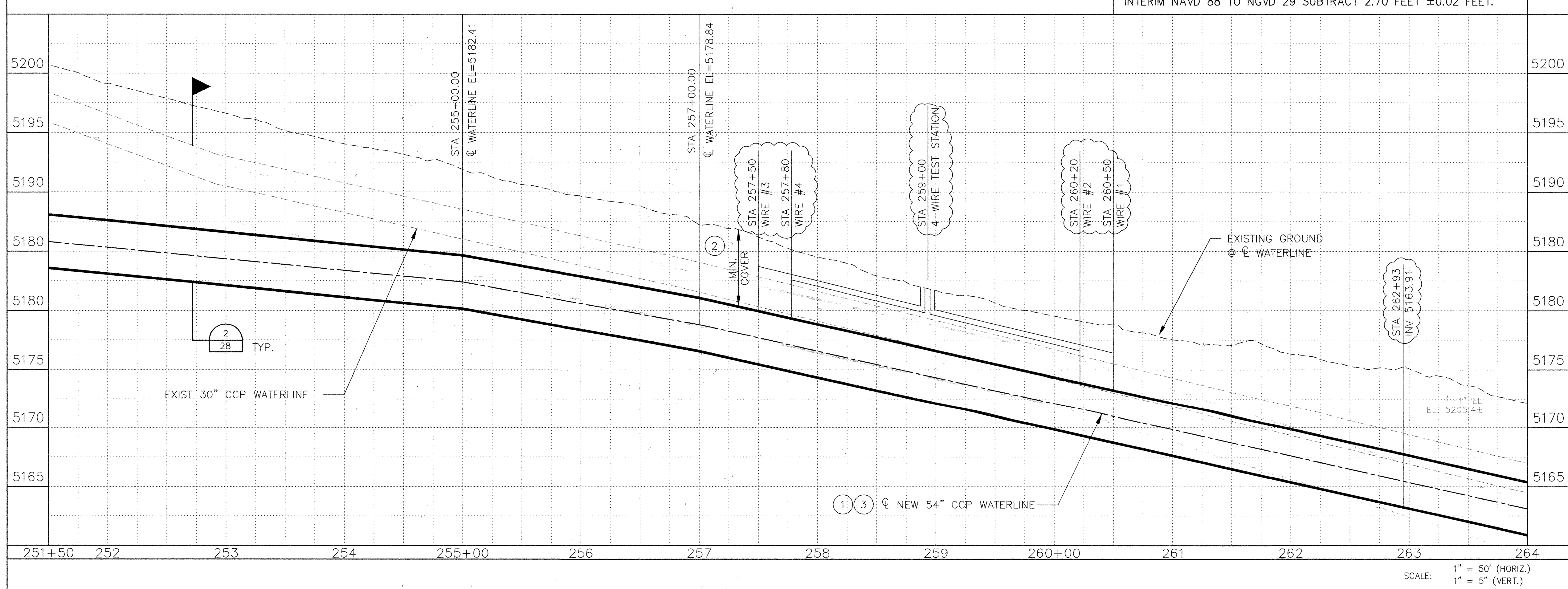
RESTRAINED JOINTS - CCP

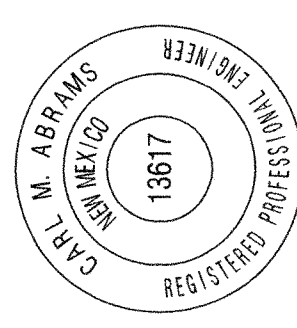
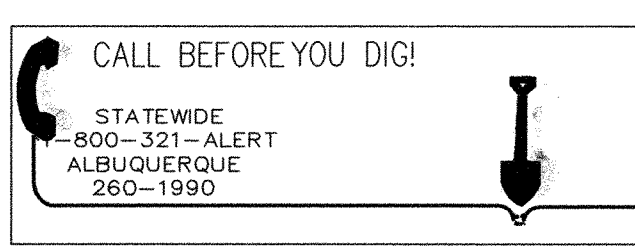

STA 238+75 to 239+00


HDR 2155 LOUISIANA BLVD., N.
SUITE 9500
ALBUQUERQUE, NM 87111
MAIN: (505) 884-6065
FAX: (505) 884-5969

 ALBUQUERQUE BERNALILLO
WATER UTILITY AUTHORITY

Design Review Committee	City Engineer Approval	Last Design Update	Mo. / Day / Yr.	Mo. / Day / Yr.
City Project No.	Zone Map No.	Sheet	Of	
6811-04	H-9-Z	10	46	



<input type="radio"/> KEYED NOTES:		AS BUILT INFORMATION	
1. DEFLECT PIPE JOINTS HORIZONTALLY AND/OR VERTICALLY, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS, TO MATCH ALIGNMENT. 2. CONTRACTOR TO MAINTAIN A MINIMUM COVER OVER THE TRANSMISSION PIPELINE OF 4' PLUS THE PAVING SECTION FOR 36"-48" PIPE, 4.5' PLUS THE PAVING SECTION FOR 54" PIPE, AND 5' PLUS THE PAVING SECTION FOR 60" PIPE. 3. FOR CORROSION MONITORING REQUIREMENTS SEE CORROSION MONITORING SHEETS.	CONTRACTOR WORK BY INSPECTOR'S ACCEPTANCE BY FIELD VERIFICATION BY DRAWINGS CORRECTED BY MICRO-FILM INFORMATION RECORDED BY NO.		
REMOVAL & REPLACEMENT 1. STA 251+50 TO 264+00 - NONE ANTICIPATED		BENCH MARKS BRASS CAP STAMPED "L424 1982" USC&GS STANDARD BENCH MARK DISK ELEVATION = 5088.75 NAVD83, IN U.S. feet FROM THE JUNCTION OF I-40 & ST. HWY. 448, IN TOP OF AND 0.3' EAST OF THE WEST END OF THE SO. CONC. ABUTMENT OF THE SO. BOUND OVERPASS OF I-40 & 22.0' WEST OF THE CENTER OF THE SO. BOUND LANES OF THE HWY. 448. THE BM IS 3.94' BELOW THE STATE HWY.	
CONCRETE CYLINDER PIPE (CCP) STA 251+50 TO STA 264+00-CL 150		SURVEY INFORMATION FIELD NOTES NO. BY DATE	
RESTRAINED JOINTS - CCP NONE REQUIRED		ENGINEER'S SEAL <div style="text-align: center;">  </div>	
TRAFFIC CONTROL: FOR TRAFFIC CONTROL. SEE TRAFFIC CONTROL SHEETS.		<div style="text-align: center;">  </div>	
<div style="display: flex; align-items: center;">  <div> 2155 LOUISIANA BLVD., NE SUITE 9500 ALBUQUERQUE, NM 87110 MAIN: (505) 884-6065 FAX: (505) 884-5969 </div> </div>		<div style="display: flex; justify-content: space-between;"> <div> R NO. </div> <div> 3/30/05 DATE </div> <div> RECORD DRAWINGS REMARKS </div> <div> CMA BY </div> </div>	
<div style="display: flex; justify-content: space-between;"> <div> DESIGNED BY DRAWN BY CHECKED BY </div> <div> CMA RAG WFZ </div> <div> REVISIONS DESIGN </div> <div> DATE DATE DATE </div> </div>		<div style="display: flex; justify-content: space-between;"> <div> 4/20/05 DATE </div> <div> 4/20/05 DATE </div> <div> 4/20/05 DATE </div> </div>	



ALBUQUERQUE BERNALILLO COUNTY
 WATER UTILITY AUTHORITY

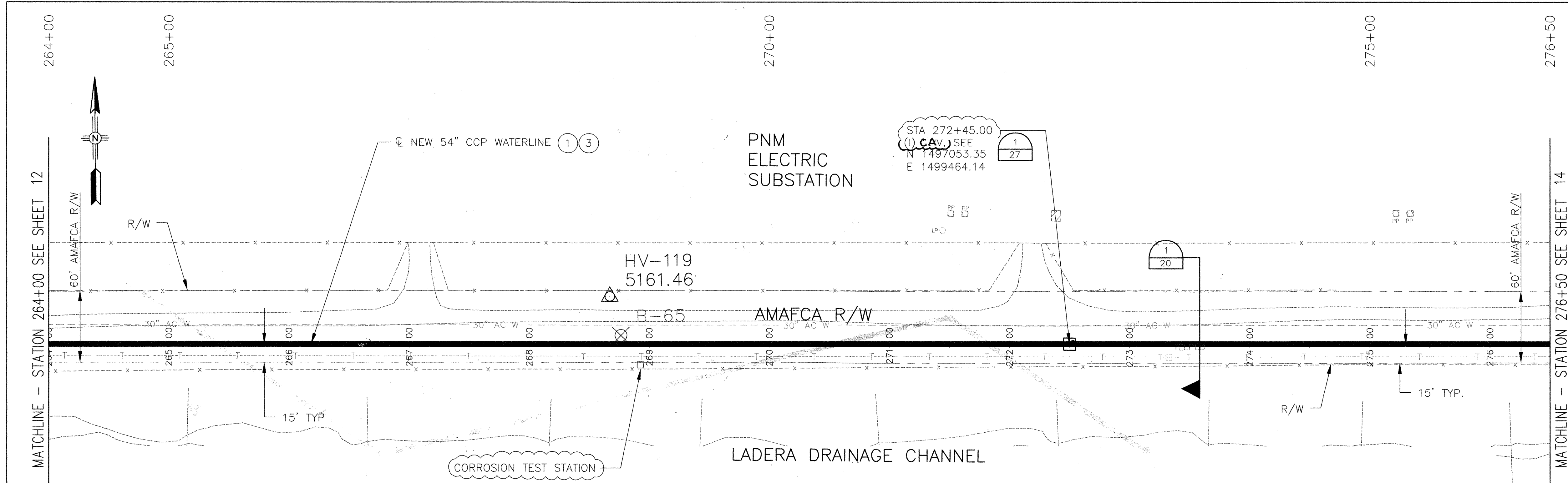
TITLE: SJC DWP TRANSMISSION PIPELINE #4 - MIDDLE SEG.
OLD OURAY RD. PLAN & PROFILE
STA 251+50 TO STA 264+00

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

City Project No. 6811-04

Zone Map No. H-10-Z

Sheet 12 Of 46

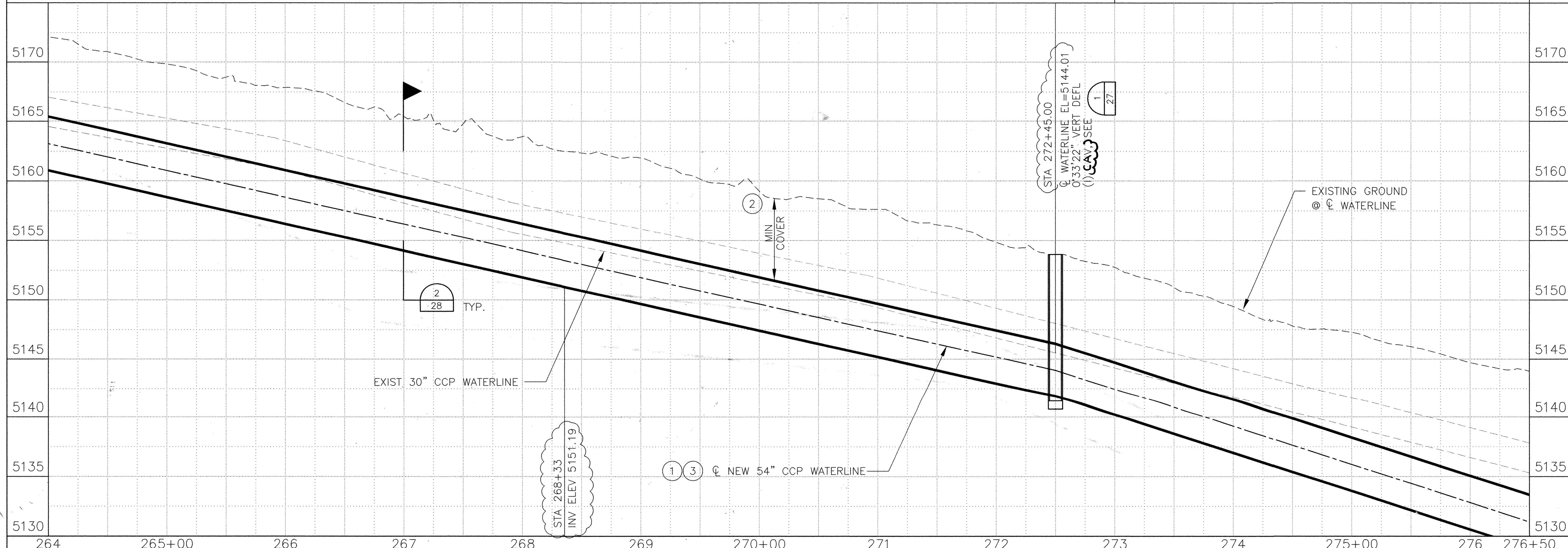


RECORD DOCUMENTS

THESE RECORD DOCUMENTS WERE PREPARED BASED UPON HARD COPY MARKUPS PROVIDED BY RMCI, INC. HDR DID NOT VERIFY THE INFORMATION PROVIDED BY RMCI, INC. AND THE PREPARATION OF THESE RECORD DOCUMENTS IS LIMITED TO INCORPORATING SUCH CHANGES INDICATED BY RMCI, INC. NEITHER HDR NOR OUR SUBCONSULTANTS MAKE ANY REPRESENTATIONS, WARRANTIES OR GUARANTEES, EXPRESSED OR IMPLIED, AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION CONTAINED ON THESE RECORD DOCUMENTS. THE USER OF INFORMATION PROVIDED ON THESE RECORD DOCUMENTS ASSUMES ALL RISK: ALWAYS FIELD VERIFY THE ACTUAL LOCATIONS OF ALL INFORMATION PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.

OLD OURAY ROAD

ALL ELEVATIONS ARE IN INTERIM NAVD 88 DATUM. TO CONVERT FROM INTERIM NAVD 88 TO NGVD 29 SUBTRACT 2.70 FEET ±0.02 FEET.



SCALE: 1" = 50' (HORIZ.)
1" = 5" (VERT.)

KEYED NOTES:

- DEFLECT PIPE JOINTS HORIZONTALLY AND/OR VERTICALLY, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS, TO MATCH ALIGNMENT.
- CONTRACTOR TO MAINTAIN A MINIMUM COVER OVER THE TRANSMISSION PIPELINE OF 4' PLUS THE PAVING SECTION FOR 36"-48" PIPE, 4.5' PLUS THE PAVING SECTION FOR 54" PIPE, AND 5' PLUS THE PAVING SECTION FOR 60" PIPE.
- FOR CORROSION MONITORING REQUIREMENTS SEE CORROSION MONITORING SHEETS.

REMOVAL & REPLACEMENT

1. STA 264+00 TO 276+50 - NONE ANTICIPATED

CONCRETE CYLINDER PIPE (CCP)

STA 264+00 TO STA 272+50-CL 150
STA 272+50 TO STA 276+50-CL 175

RESTRAINED JOINTS - CCP

NONE REQUIRED

TRAFFIC CONTROL:

FOR TRAFFIC CONTROL. SEE TRAFFIC CONTROL SHEETS.

CALL BEFORE YOU DIG!

STATEWIDE
800-321-ALERT
ALBUQUERQUE
260-1990

HDR

2155 LOUISIANA BLVD., NE
SUITE 9500
ALBUQUERQUE, NM 87110
MAIN: (505) 884-6065
FAX: (505) 884-5969

ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

TITLE: SJC DWP TRANSMISSION PIPELINE #4- MIDDLE SEG.
OLD OURAY ROAD PLAN & PROFILE
STA 264+00 TO STA 276+50

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

City Project No. 6811-04

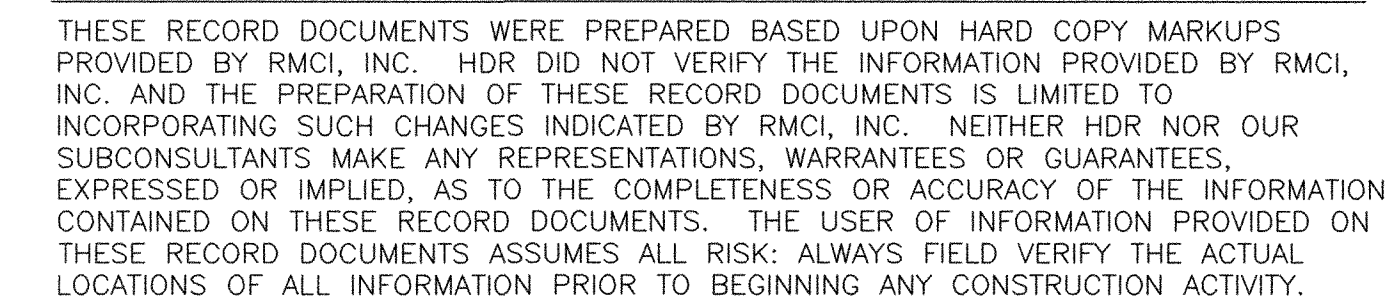
Zone Map No. H-10-Z

Sheet 13 of 46

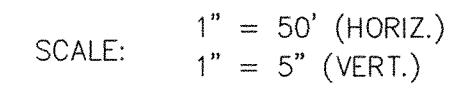
BENCH MARKS		AS-BUILT INFORMATION	
BRASS CAP STAMPED 1/4" 1982"	CONTRACTOR	WORK	DATE
USCGS STANDARD BENCH MARK DISK <td></td> <td>STAKED BY</td> <td>DATE</td>		STAKED BY	DATE
ELEVATION = 5098.75 NAVD88, in U.S. feet <td></td> <td>ACCEPTANCE BY</td> <td>DATE</td>		ACCEPTANCE BY	DATE
FROM THE JUNCTION OF I-40 & ST. HWY. 44B, <td></td> <td>FIELD BY</td> <td>DATE</td>		FIELD BY	DATE
IN TOP OF AND 0.3' EAST OF THE WEST END OF <td></td> <td>DRAWINGS</td> <td>DATE</td>		DRAWINGS	DATE
THE SO. CONC. ABUTMENT OF THE SO. BOUND <td></td> <td>CORRECTED BY</td> <td>DATE</td>		CORRECTED BY	DATE
OVERPASS OF I-40 & 22.0' WEST OF THE <td></td> <td>RECORDED BY</td> <td>DATE</td>		RECORDED BY	DATE
CENTER OF THE SO. BOUND LANES OF THE HWY. <td></td> <td></td> <td></td>			
44B. THE BW IS 3.94' BELOW THE STATE HWY. <td></td> <td></td> <td></td>			

ENGINEER'S SEAL

CAL M. ABRAMS
REGISTERED PROFESSIONAL ENGINEER
13817



ALL ELEVATIONS ARE IN INTERIM NAVD 88 DATUM. TO CONVERT FROM
INTERIM NAVD 88 TO NGVD 29 SUBTRACT 2.70 FEET ±0.02 FEET.



STA 278+88 to STA 279+50
STA 283+64 to STA 289+00

[illegible]



THESE RECORD DOCUMENTS WERE PREPARED BASED UPON HARD COPY MARKUPS PROVIDED BY RMCI, INC. HDR DID NOT VERIFY THE INFORMATION PROVIDED BY RMCI, INC. AND THE PREPARATION OF THESE RECORD DOCUMENTS IS LIMITED TO INCORPORATING SUCH CHANGES INDICATED BY RMCI, INC. NEITHER HDR NOR OUR SUBCONSULTANTS MAKE ANY REPRESENTATIONS OR WARRANTIES OR GUARANTEES, EXPRESSED OR IMPLIED, CONCERNING THE ACCURACY OF THE INFORMATION CONTAINED ON THESE RECORD DOCUMENTS. THE USER OF INFORMATION PROVIDED ON THESE RECORD DOCUMENTS ASSUMES ALL RISK; ALWAYS FIELD VERIFY THE ACTUAL LOCATIONS OF ALL INFORMATION PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.



○ KEYED NOTES:

1. DEFLECT PIPE JOINTS HORIZONTALLY AND/OR VERTICALLY, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS, TO MATCH ALIGNMENT.
2. CONTRACTOR TO MAINTAIN A MINIMUM COVER OVER THE TRANSMISSION PIPELINE OF 4' PLUS THE PAVING SECTION FOR 36"-48" PIPE, 4.5' PLUS THE PAVING SECTION FOR 54" PIPE, AND 5' PLUS THE PAVING SECTION FOR 60" PIPE.
3. STA 289+00 TO STA 290+70.50 - COMPACT BACKFILL TO 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557. MOISTURE CONTENT SHALL BE $\pm 2\%$ OF OPTIMUM.
4. FOR CORROSION MONITORING REQUIREMENTS SEE CORROSION MONITORING SHEETS.

REMOVAL & REPLACEMENT

1. STA 289+00 TO 301+50 - 4,167 SY
NATIVE LANDSCAPING.

CONCRETE CYLINDER PIPE (CCP)

STA 289+00 to STA 301+50-CL 200

RESTRAINED JOINTS – CCP

STA 289+00 to STA 291+21

STA 293+43 to STA 293+64

STA 300+89 to STA 301+50

[illegible]

RECORD DOCUMENTS

THESE RECORD DOCUMENTS WERE PREPARED BASED UPON HARD COPY MARKUPS PROVIDED BY RMCI, INC. HDR DID NOT VERIFY THE INFORMATION PROVIDED BY RMCI, INC. AND THE PREPARATION OF THESE RECORD DOCUMENTS IS LIMITED TO INCORPORATING SUCH CHANGES INDICATED BY RMCI, INC. NEITHER HDR NOR OUR SUBCONSULTANTS MAKE ANY REPRESENTATIONS, WARRANTIES OR GUARANTEES, EXPRESSED OR IMPLIED, AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION CONTAINED ON THESE RECORD DOCUMENTS. THE USER OF INFORMATION PROVIDED ON THESE RECORD DOCUMENTS ASSUMES ALL RISK; ALWAYS FIELD VERIFY THE ACTUAL LOCATIONS OF ALL INFORMATION PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.

LADERA GOLF COURSE

STA 301+50 - STA 303+08.87
WELDED RESTRAINED JOINTS

STA 302+11.15
(I) 60"x76'51'26" HORZ BEND
x04'53'03" VERT BEND
N 1497765.63
E 1502074.16

STA 303+20.33
(I) VERT BEND
N 1497874.91
E 1502103.61

STA 304+17.97
(I) VERT BEND
N 1497969.19
E 1502129.01

STA 305+52.00
(I) DRAIN VAULT - SEE
N 1498094.74
E 1502162.85
OUTLET LOCATION
N 1498052
E 1502174
ELEV 5104

STA 306+96.31
WELDED RESTRAINED JOINT

STA 307+00.84
(I) 60"x38'31'10" HORZ BEND
x02'58'02" VERT BEND
N 1498238.45
E 1502201.57
(I) CAV VAULT TO NORTH - SEE

STA 310+07 8" PVC IRRIGATION

NEW 60" CCP WATERLINE (1) (4)

1" PVC WATER

4" PVC WATER

2-WIRE CORROSION TEST STATION

B-107

15' S-45'

MATCHLINE - STATION 301+50 SEE SHEET 15

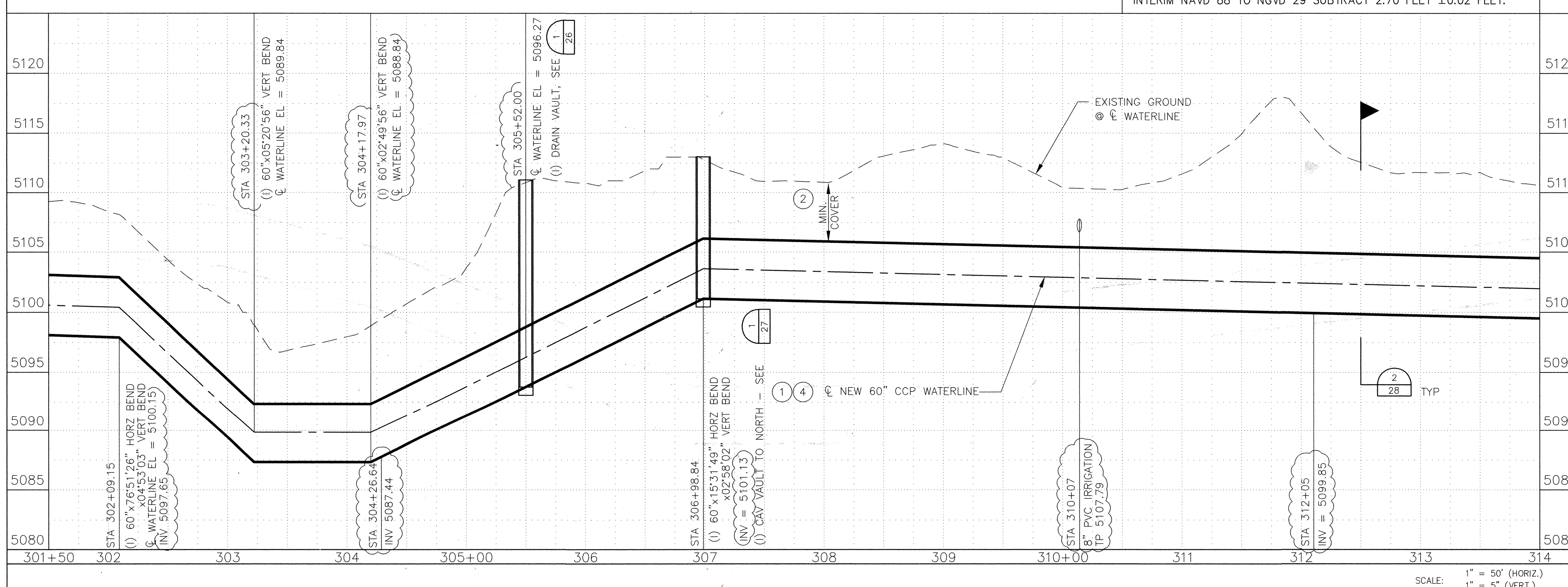
MATCHLINE - STATION 314+00 SEE SHEET 17

LADERA GOLF COURSE

LADERA GOLF COURSE

ALL ELEVATIONS ARE IN INTERIM NAVD 88 DATUM. TO CONVERT FROM INTERIM NAVD 88 TO NAVD 20, SUBTRACT 2.70 FEET +0.03 FEET

THESE RECORD DOCUMENTS WERE PREPARED BASED UPON HARD COPY MARKUPS PROVIDED BY RMCI, INC. HDR DID NOT VERIFY THE INFORMATION PROVIDED BY RMCI, INC. AND THE PREPARATION OF THESE RECORD DOCUMENTS IS LIMITED TO INCORPORATING SUCH CHANGES INDICATED BY RMCI, INC. NEITHER HDR NOR OUR SUBCONSULTANTS MAKE ANY REPRESENTATIONS, WARRANTIES OR GUARANTEES, EXPRESSED OR IMPLIED, AS TO THE ACCURACY, COMPLETENESS OR ACTUAL INFORMATION CONTAINED ON THESE RECORD DOCUMENTS. THE USER OF INFORMATION PROVIDED ON THESE RECORD DOCUMENTS ASSUMES ALL RISK; ALWAYS FIELD VERIFY THE ACTUAL LOCATIONS OF ALL INFORMATION PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.



○ KEYED NOTES:

1. DEFLECT PIPE JOINTS HORIZONTALLY AND/OR VERTICALLY, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS, TO MATCH ALIGNMENT.
2. CONTRACTOR TO MAINTAIN A MINIMUM COVER OVER THE TRANSMISSION PIPELINE OF 4' PLUS THE PAVING SECTION FOR 36"-48" PIPE, 4.5' PLUS THE PAVING SECTION FOR 54" PIPE, AND 5' PLUS THE PAVING SECTION FOR 60" PIPE.
3. NOT USED
4. FOR CORROSION MONITORING REQUIREMENTS SEE CORROSION MONITORING SHEETS.

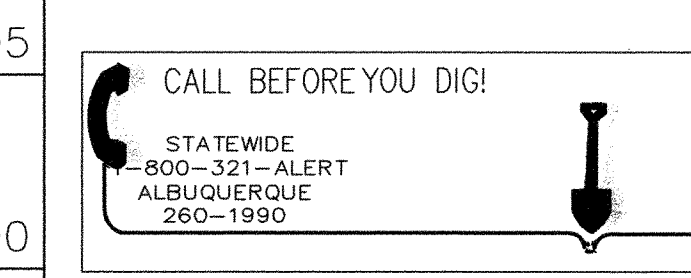
REMOVAL & REPLACEMENT

1. STA 301+50 TO 314+00 - 4,167 SY
NATIVE LANDSCAPING.

CONCRETE CYLINDER PIPE (CCP)
STA 301+50 to STA 314+00-CL 200
RESTRAINED JOINTS - CCP
STA 301+50 to STA 303+30
STA 306+88 to STA 307+10

TRAFFIC CONTROL:

0 1. FOR TRAFFIC CONTROL. SEE TRAFFIC CONTROL SHEETS.



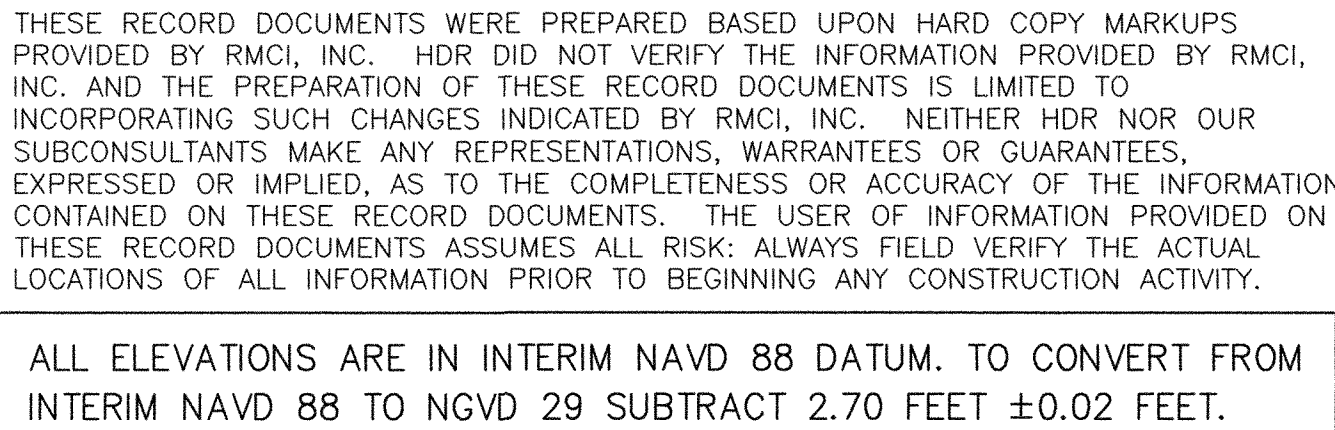
HDR 2155 LOUISIANA BLVD., NE
SUITE 9500
ALBUQUERQUE, NM 87110
MAIN: (505) 884-6065
FAX: (505) 884-5969

0  ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

TITLE: SJC DWP TRANSMISSION PIPELINE #4 - MIDDLE SEG.
LADERA GOLF COURSE PLAN & PROFILE
STA 711+50 TO STA 714+00

SIA 301+50 TO SIA 314+00			
Design Review Committee	City Engineer Approval	Last Design Update:	Mo. / Day / Yr.
City Project No.	Zone Map No.	Sheet	Of
6811-04	H-10-7	16	46

MALILLO COUNTY AUTHORITY		PIPELINE #4 - MIDDLE SEG. PLAN & PROFILE STA 314+00		SHEET 16 OF 46	
Lost Design Update No. _____ Date _____	Mo. / Day / Yr. _____ _____ _____	Mo. / Day / Yr. _____ _____ _____			
ENGINEER'S SEAL <div style="text-align: center;"> </div>			SURVEY INFORMATION FIELD NOTES NO. _____ BY _____ DATE _____		
REMARKS REVISIONS DESIGN			AS BUILT INFORMATION CONTRACTOR _____ WORK STARTED BY _____ DATE _____ INSPECTOR'S FIELD CHANGE BY _____ DATE _____ FIELD VERIFICATION BY _____ DATE _____ CORRECTED BY _____ DATE _____ MICRO-FILM INFORMATION RECORDED BY _____ DATE _____ NO. _____		




CONCRETE CYLINDER PIPE (CCP)
STA 314+00 to STA 326+50-CL 200

RESTRAINED JOINTS - CCP
STA 314+97 to STA 315+20
STA 318+39 to STA 320+40
STA 322+24 to STA 322+65
STA 325+28 to STA 325+40

CALL BEFORE YOU DIG!

STATEWIDE
-800-321-ALERT
ALBUQUERQUE
260-1990

HDR 2155 LOUISIANA BLVD., NE
SUITE 9500
ALBUQUERQUE, NM 87110
MAIN: (505) 884-6065
FAX: (505) 884-5969



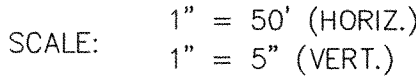
ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

TITLE: SJC DWP TRANSMISSION PIPELINE #4 – MIDDLE SEG.
LADERA GOLF COURSE PLAN & PROFILE
STA 314+00 TO STA 326+50

Design Review Committee	City Engineer Approval	Last Design Update	Mo. / Day / Yr.	Mo. / Day / Yr.
City Project No. 6811-04	Zone Map No. G-10-Z	Sheet 17	Of 46	



THESE RECORD DOCUMENTS WERE PREPARED BASED UPON HARD COPY MARKUPS PROVIDED BY AUI, INC., COMPILED UNDER THE SUPERVISION OF KEVIN DALY, NM PROFESSIONAL SURVEYOR #11008. HDR DID NOT VERIFY THE INFORMATION PROVIDED BY AUI, INC. NOR DID HDR CONDUCT ANY FIELD SURVEY. HDR DOES NOT INTEND TO INCORPORATING SUCH CHANGES INDICATED BY AUI, INC. NEITHER HDR NOR OUR SUBCONSULTANTS MAKE ANY REPRESENTATIONS, WARRANTIES OR GUARANTEES, EXPRESSED OR IMPLIED, AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION CONTAINED ON THESE RECORD DOCUMENTS. THE USER OF INFORMATION PROVIDED ON THESE RECORD DOCUMENTS ASSUMES ALL RISKS AND LIES AT HIS/HER OWN RISK. THE LOCATIONS OF ALL INFORMATION PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY



- KEYED NOTES:
1. DEFLECT PIPE JOINTS HORIZONTALLY AND/OR VERTICALLY, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS, TO MATCH ALIGNMENT.
 2. CONTRACTOR TO MAINTAIN A MINIMUM COVER OVER THE TRANSMISSION PIPELINE OF 4' PLUS THE PAVING SECTION FOR 36"-48" PIPE, 4.5' PLUS THE PAVING SECTION FOR 54" PIPE, AND 5' PLUS THE PAVING SECTION FOR 60" PIPE.
 3. FOR CASING DETAILS SEE SHEET 21.
 4. NOT USED
 5. FOR CORROSION MONITORING REQUIREMENTS SEE CORROSION MONITORING SHEETS.

REMOVAL & REPLACEMENT

- STA 320+20 TO STA 332+00
REMOVE & REPLACE 1,233 SF OF SOD
- STA 332+40L, REMOVE & REPLACE 8"
THICK
- STA 337+95 TO 339+00 - REMOVE &
REPLACE 495± SY ASPHALT IN
ACCORDANCE WITH COA STD. DWG. 2465
- ALL PAVEMENT CUTS SHALL BE
ORTHOGONAL AND/OR PARALLEL TO
TRAFFIC FLOW. NO DIAGONAL CUTS SHALL
BE ALLOWED.
- STD. CURB & GUTTER WORK PER COA STD.
DWG. 2415A.
- MEDIAN CURB & GUTTER WORK PER COA
STD. DWG. 2415B
- SIDEWALK WORK PER COA STD. 2430.
- IF ANY PORTION OF WHEELCHAIR RAMP IS
IMPACTED BY CONSTRUCTION THE WHOLE
SEGMENT SHALL BE REPLACED PER COA
STD. DWG. 2441.
- ANY MEDIAN LANDSCAPING IMPACTED BY
CONSTRUCTION SHALL BE REPLACED IN
KIND.

CONCRETE CYLINDER PIPE (CCP)

STA 326+50 to STA 339+00-CL 200

RESTRAINED JOINTS – CCP

STA 328+12 to STA 335+12
STA 337+34 to STA 339+00

DUCTILE IRON PIPE (DIP)

STA. 326+50 to STA. 339+00-CL 150

RESTRAINED JOINTS - DIP

STA. 326+50 to STA. 339+00

TRAFFIC CONTROL:

1. FOR TRAFFIC CONTROL. SEE TRAFFIC CONTROL SHEETS.

 CALL BEFORE YOU DIG

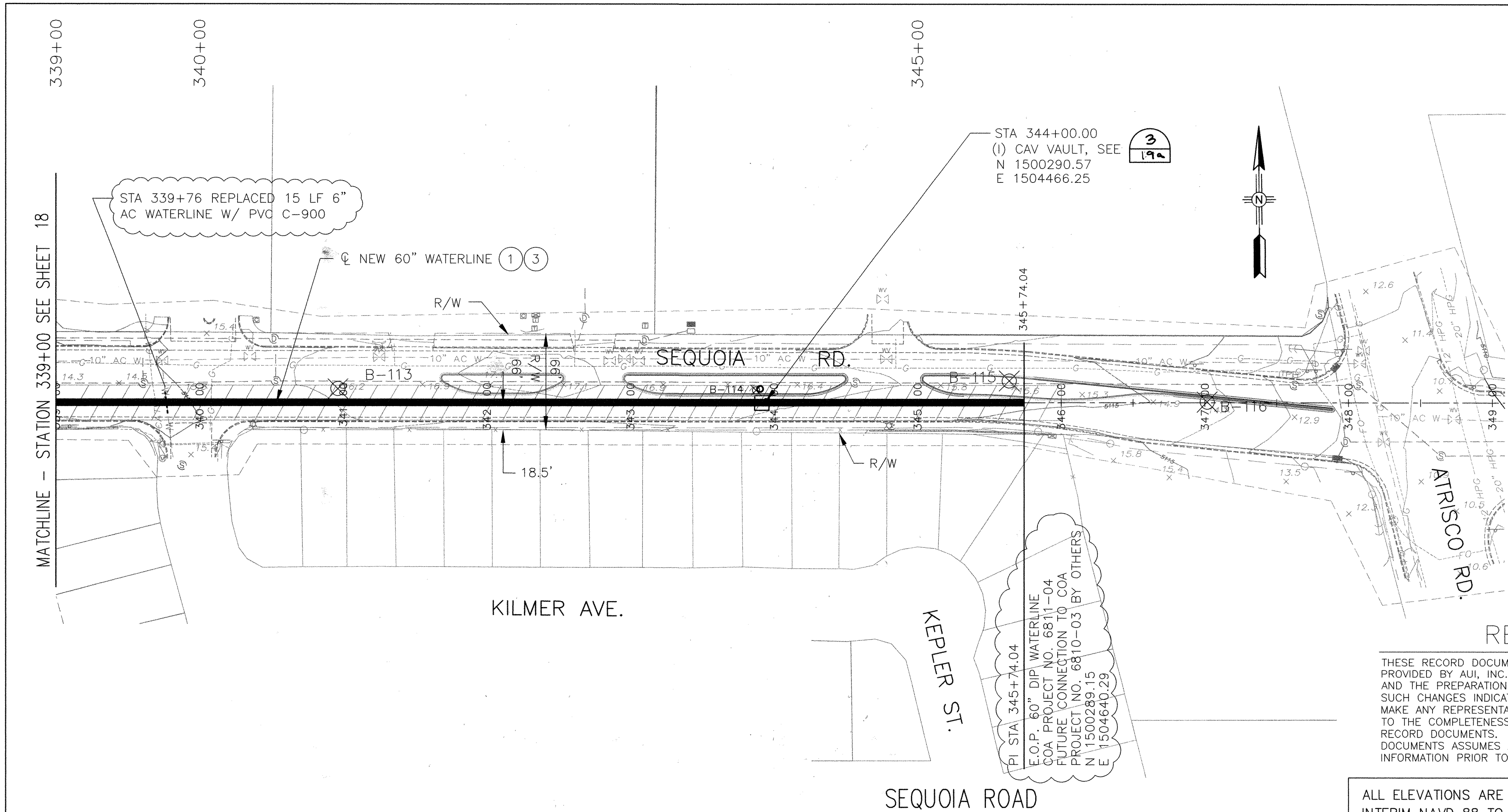
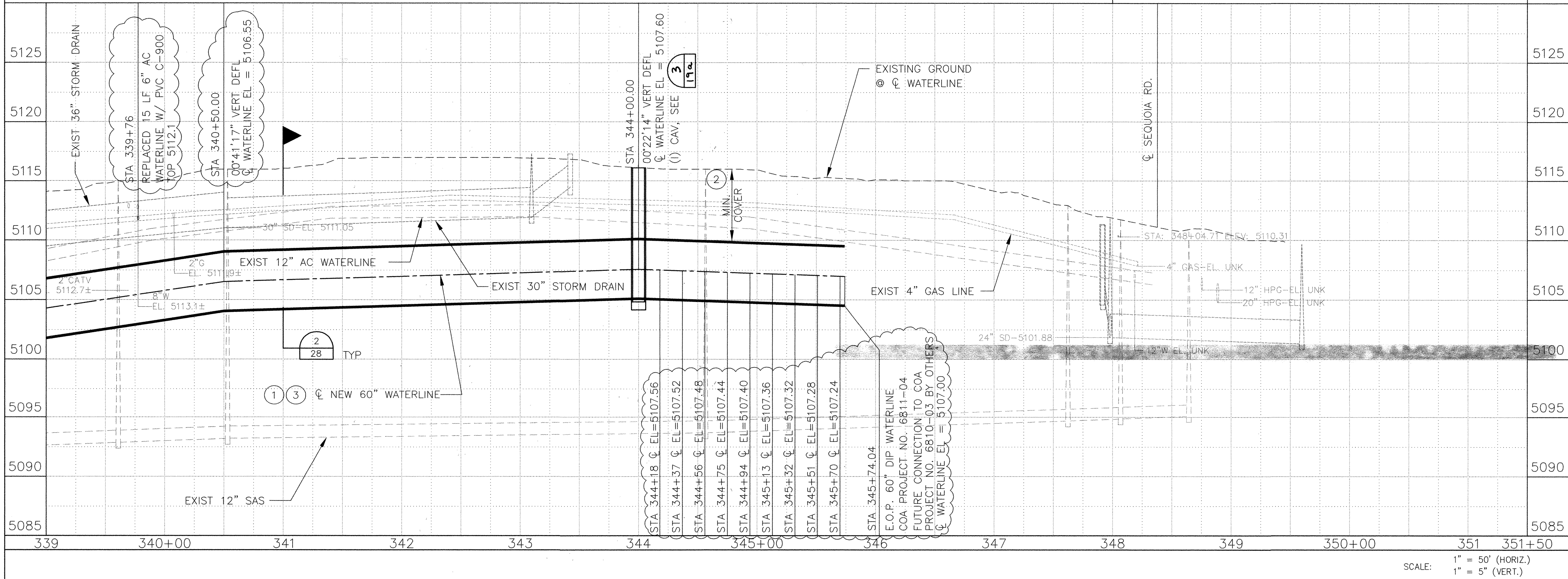
STATEWIDE
1-800-321-ALERT
ALBUQUERQUE
866-1000



ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

TITLE: SJC DWP TRANSMISSION PIPELINE #4 - MIDDLE SEG.
LADERA GOLF COURSE / LADERA DR. PLAN & PROFILE
STA 326+50 TO STA 339+00

Design Review Committee	City Engineer Approval	Last Design Update	Mo. / Day / Yr.	Mo. / Day / Yr.
City Project No. 6811-04	Zone Map No. G-10-Z	Sheet 18	Of 46	



THESE RECORD DOCUMENTS WERE PREPARED BASED UPON HARD COPY MARKUPS PROVIDED BY AUI, INC. HDR DID NOT VERIFY THE INFORMATION PROVIDED BY AUI, INC., AND THE PREPARATION OF THESE RECORD DOCUMENTS IS LIMITED TO INCORPORATING SUCH CHANGES INDICATED BY AUI, INC. NEITHER HDR NOR OUR SUBCONSULTANTS MAKE ANY REPRESENTATIONS, WARRANTIES OR GUARANTEES, EXPRESSED OR IMPLIED, AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION CONTAINED ON THESE RECORD DOCUMENTS. THE USER OF INFORMATION PROVIDED ON THESE RECORD DOCUMENTS ASSUMES ALL RISK. ALWAYS FIELD VERIFY THE ACTUAL LOCATIONS OF ALL INFORMATION PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.

ALL ELEVATIONS ARE IN INTERIM NAVD 88 DATUM. TO CONVERT FROM INTERIM NAVD 88 TO NGVD 29 SUBTRACT 2.70 FEET ±0.02 FEET.

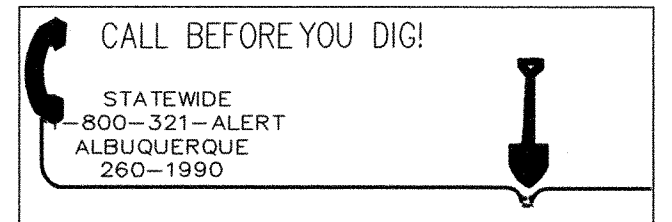
- KEYED NOTES:
1. DEFLECT PIPE JOINTS HORIZONTALLY AND/OR VERTICALLY, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS, TO MATCH ALIGNMENT.
 2. CONTRACTOR TO MAINTAIN A MINIMUM COVER OVER THE TRANSMISSION PIPELINE OF 4' PLUS THE PAVING SECTION FOR 36"-48" PIPE, 4.5' PLUS THE PAVING SECTION FOR 54" PIPE, AND 5' PLUS THE PAVING SECTION FOR 60" PIPE.
 3. FOR CORROSION MONITORING REQUIREMENTS SEE CORROSION MONITORING SHEETS.

- REMOVAL & REPLACEMENT
1. STA 339+00 TO 346+00 - REMOVE & REPLACE 1867 SY ASPHALT IN ACCORDANCE WITH COA STD. DWG. 2465
 2. ALL PAVEMENT CUTS SHALL BE ORTHOGONAL AND/OR PARALLEL TO TRAFFIC FLOW. NO DIAGONAL CUTS SHALL BE ALLOWED.
 3. STD. CURB & GUTTER WORK PER COA STD. DWG. 2415A.
 4. MEDIAN CURB & GUTTER WORK PER COA STD. DWG. 2415B
 5. SIDEWALK WORK PER COA STD. 2430.
 6. VALLEY GUTTER WORK PER COA STD. 2420.
 7. IF ANY PORTION OF WHEELCHAIR RAMP IS IMPACTED BY CONSTRUCTION THE WHOLE SEGMENT SHALL BE REPLACED PER COA STD. DWG. 2441.

DUCTILE IRON PIPE (DIP)
STA 339+00 TO STA 345+74.04-CL 150

RESTRAINED JOINTS - DIP
STA 339+00 TO STA 345+74.04

TRAFFIC CONTROL:
1. FOR TRAFFIC CONTROL. SEE TRAFFIC CONTROL SHEETS.



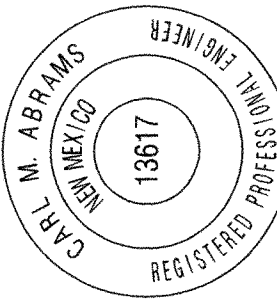
ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY

TITLE: SJC DWP TRANSMISSION PIPELINE #4 - MIDDLE SEG. SEQUOIA ROAD PLAN & PROFILE STA 339+00 TO STA 345+74.04

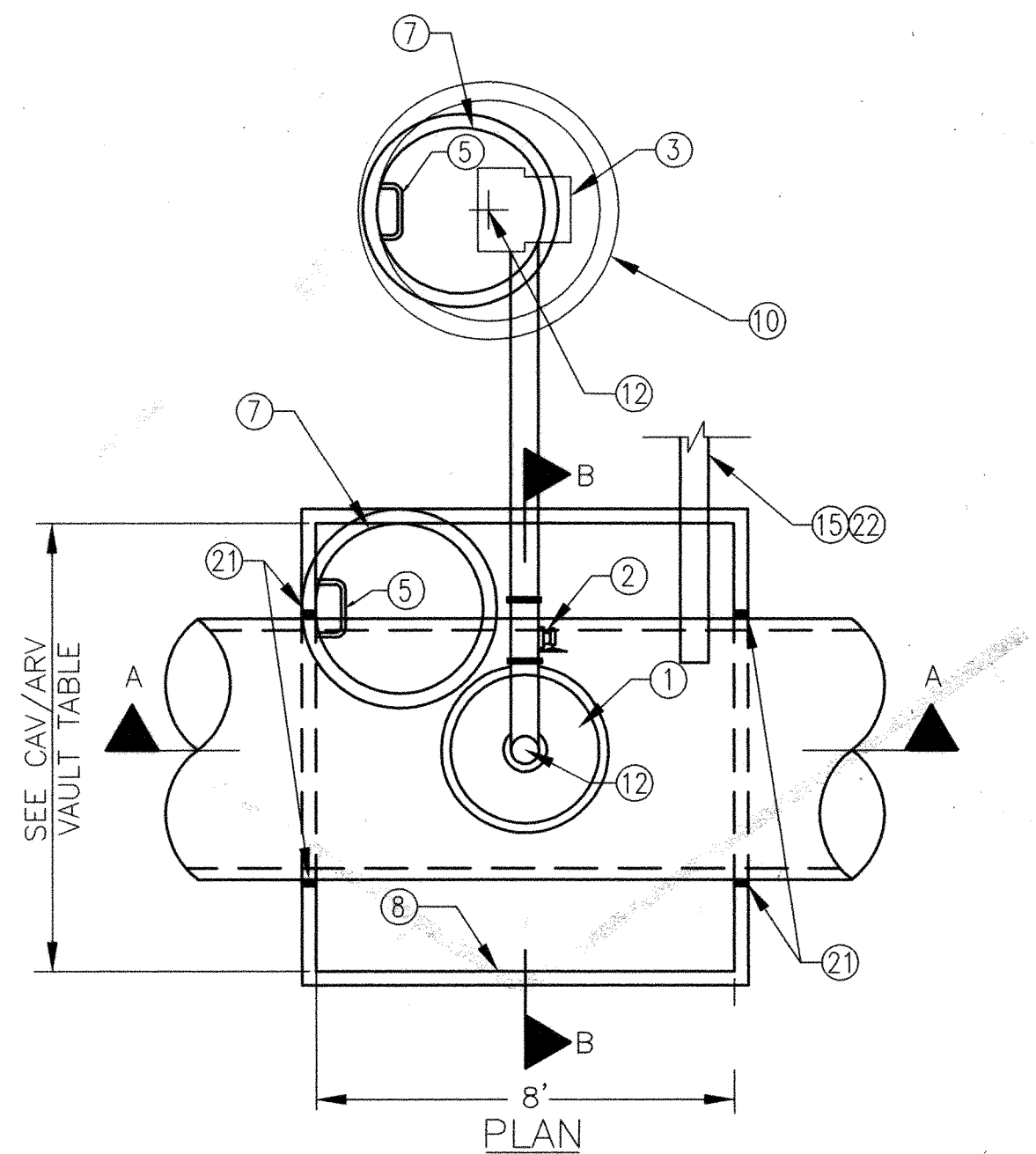
Design Review Committee	City Engineer Approval	Mo. / Day / Yr.	Mo. / Day / Yr.
City Project No. 6811-04	Zone Map No. G-10-Z	Sheet 19	Of 46

AS-BUILT INFORMATION			
CONTRACTOR	BRASS CAP STAMPED "L424 1982"	DATE	DATE
WORK STAKED BY	USC&GS STANDARD BENCH MARK DISK	DATE	DATE
ACCEPTANCE BY	ELEVATION = 5088.75 NAVD88, in U.S. feet	DATE	DATE
FIELD VERIFICATION BY	FROM THE JUNCTION OF I-40 & ST. HWY. 448, IN TOP OF AND 0.3' EAST OF THE WEST END OF	DATE	DATE
DRAWINGS CORRECTED BY	THE SO. CONC. ABUTMENT OF THE SO. BOUND OVERPASS OF I-40 & 22.0' WEST OF THE CENTER OF THE SO. BOUND LANES OF THE HWY. 448. THE BM IS 3.94' BELOW THE STATE HWY.	DATE	DATE

SURVEY INFORMATION		ENGINEER'S SEAL	
NO.	BY	DATE	DATE



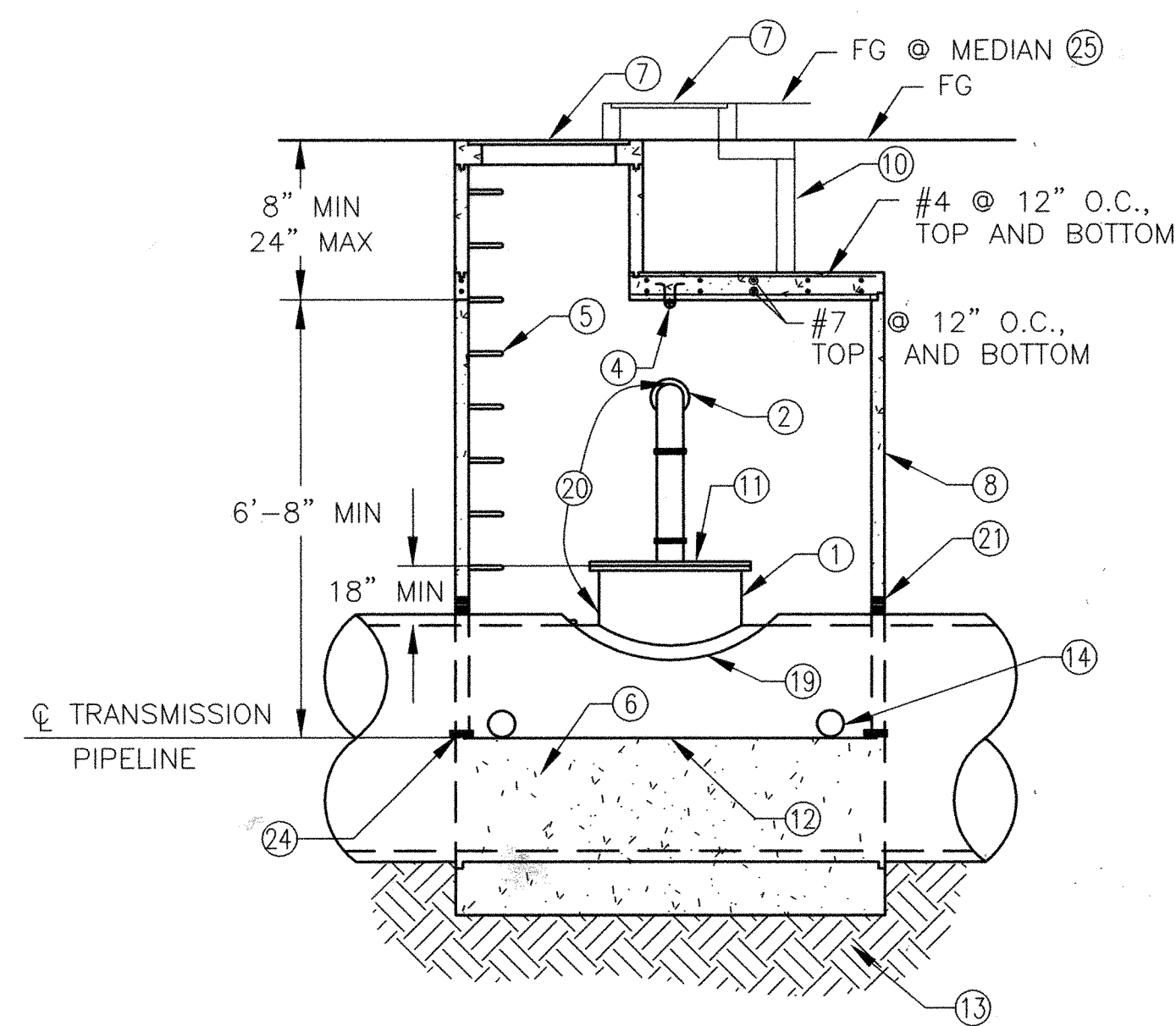
REVISIONS		DESIGN	
NO.	DATE	DATE	DATE
1	3/30/06	4/20/05	4/20/05
2	3/22/05	4/20/05	4/20/05



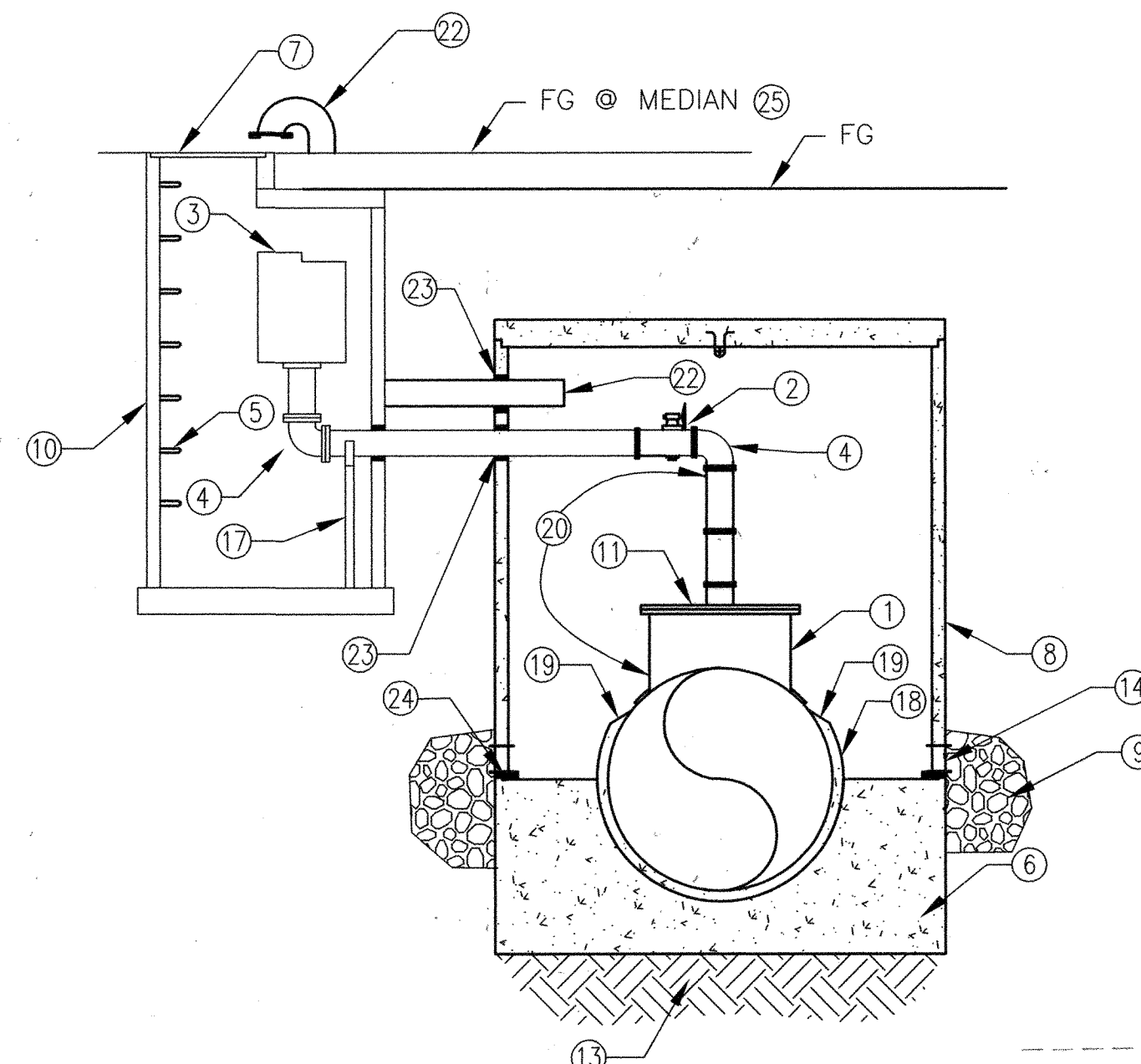
NOTES:

1. SEE CAV/ARV VAULT SCHEDULE FOR AIR RELEASE VALVE ORIFICE SIZES.
2. PROVIDE THREADED JOINTS FOR PIPE 2" NPS AND SMALLER.
3. ALL JOINTS ON STEEL PIPE SHALL BE DOUBLE WELDED.

CAV/ARV VAULT TABLE		
PIPE SIZE	MINIMUM VAULT WIDTH	MINIMUM VAULT HEIGHT
60"	10'	9'-6"



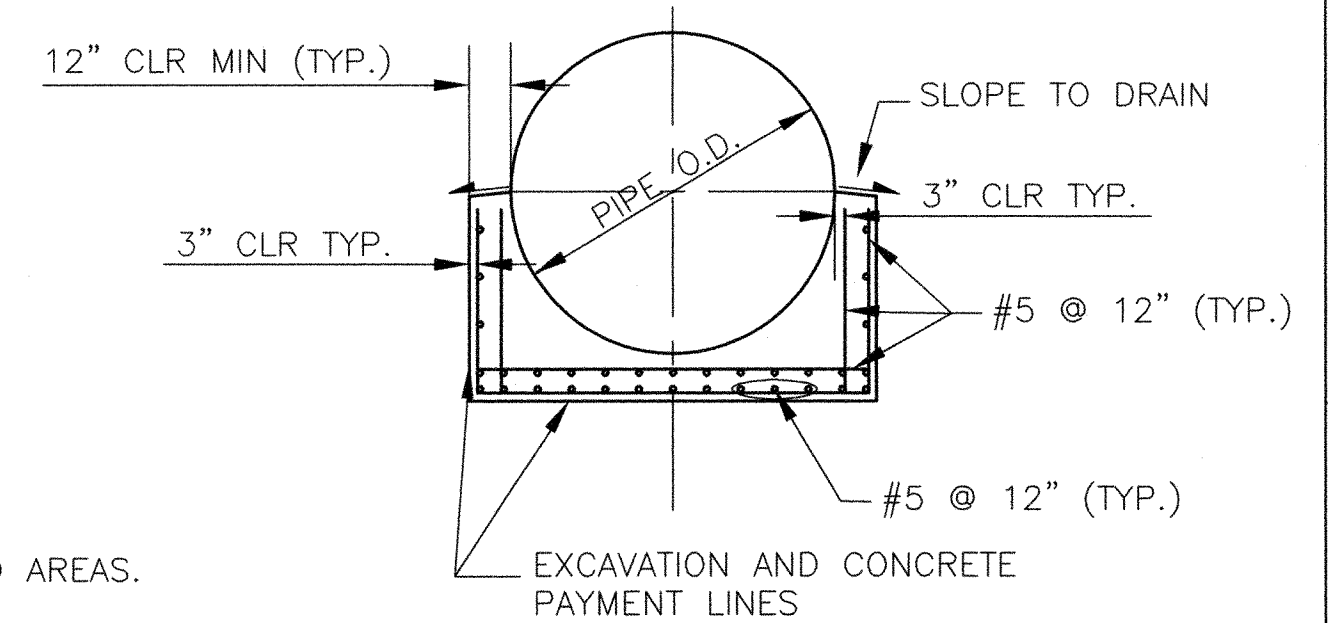
SECTION A-A
CAV/ARV VAULT
N.T.S.



SECTION B-B

KEYED NOTES:

- 1 30" MANWAY.
- 2 6" PLUG VALVE.
- 3 COMBINATION AIR RELEASE/VACUUM VALVE OR AIR RELEASE VALVE, SEE CAV/ARV SCHEDULE FOR SIZE.
- 4 6" 90-DEGREE BENDS AS NECESSARY.
- 5 MANHOLE LADDER - PROVIDE MIN CLEARANCE BEHIND LADDER PER OSHA.
- 6 CONCRETE ENCASEMENT TO SPRINGLINE OF TRANSMISSION PIPELINE - SEE $\frac{4}{1}$
- 7 36" FRAME AND MANHOLE COVER, NEENAH FOUNDRY, R-1640-D, TYPE C, FLUSH WITH PAVEMENT, OR MAX. 6" ABOVE FINAL GRADE IN LANDSCAPED AREAS.
- 8 8' x WIDTH IN CAV/ARV TABLE x 6'-8" VERT. PRECAST VAULT & LID W/ (2) BLOCKOUTS FOR TRANSMISSION PIPELINE SIZE, MODEL #2334/MOD2 BY HYDRA-CRETE, INC. OR ENGINEER-APPROVED EQUAL.
- 9 12"x12"x18" (MIN.) 1" CLEAN GRAVEL (ASTM C33, NO. 57 GRAVEL).
- 10 4' DIAMETER TYPE "C" MANHOLE PER COA STD. DETAIL 2101 W/ 36"Ø RING & COVER.
- 11 BLIND FLANGE WITH WELDED STEEL OUTLET - SEE $\frac{1}{25}$
- 12 LOCATION OF CAV/ARV VAULT AS INDICATED ON PLAN.
- 13 SUBGRADE COMPACTION PER SPECIFICATIONS.
- 14 6"Ø SCHED. 40 PVC DRAIN (4) TYP.
- 15 EXTEND VENT TO 2' EAST OF CAV MANHOLE OR LOCATION AS APPROVED BY ENGINEER.
- 16 NOT USED.
- 17 PIPE SUPPORT - SEE $\frac{4}{25}$
- 18 TYPICAL PIPE COATING.
- 19 TAPER COATING TO DRAIN.
- 20 PAINT PER SPECIFICATIONS.
- 21 SEAL SPACE WITH NON-SHRINK GROUT.
- 22 10" DIA. VENT IF REQ'D. SEE CAV/ARV SCHEDULE AND $\frac{2}{27}$
- 23 LINK SEAL, SEE $\frac{3}{20}$
- 24 6" WIDE STRIP OF 3/4" THICK ASPHALT IMPREGNATED EXPANSION JOINT MATERIAL.
- 25 GRADE MEDIAN LANDSCAPING AS NECESSARY TO MATCH RIM ELEVATION.

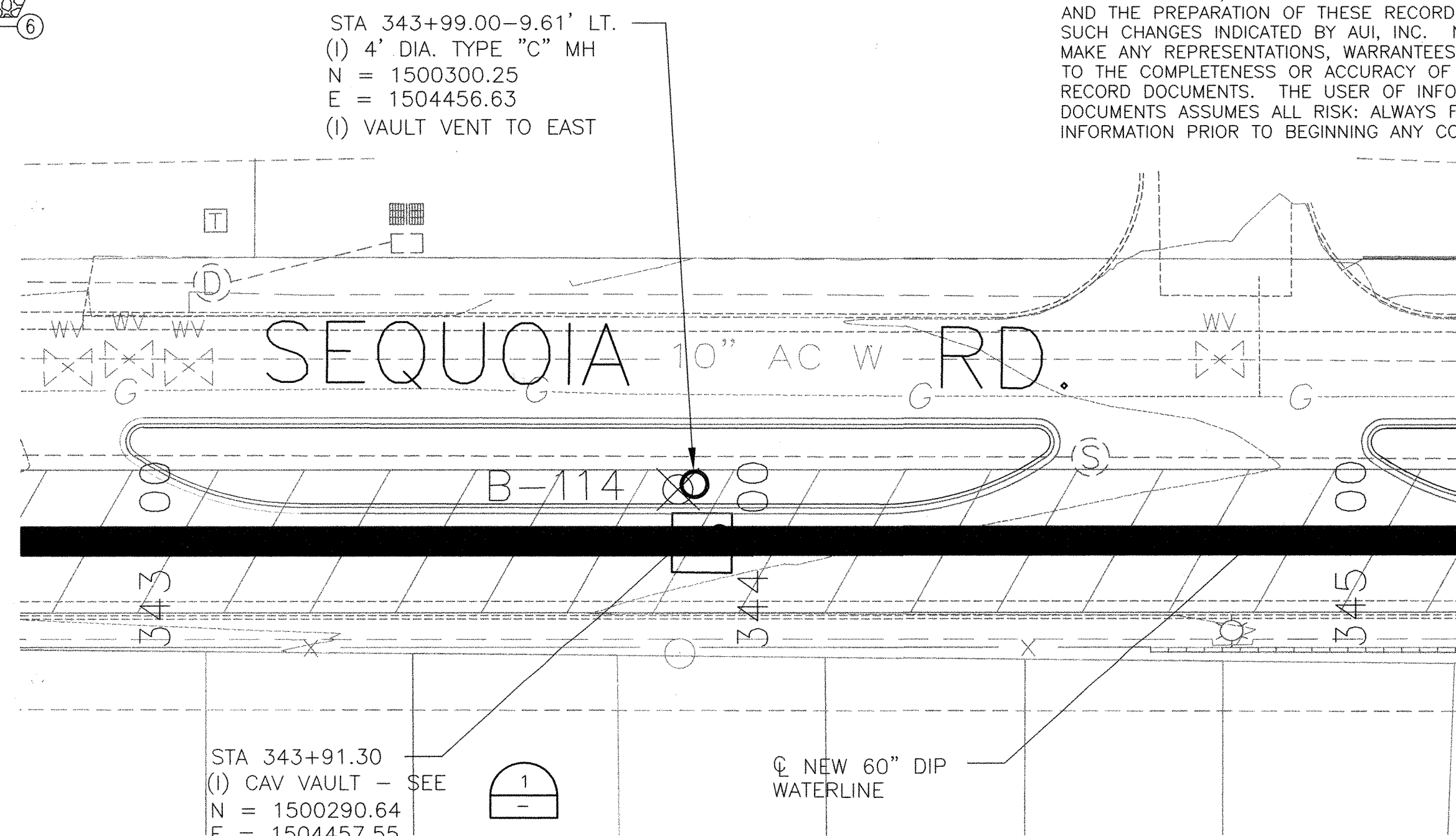


REINFORCED CONCRETE HALF ENCASEMENT
N.T.S.

CAV / ARV Schedule							
Station	Transmission Pipeline Size	Operating Pressure (psi)	CAV / ARV Valve				Vault Vent Req'd
			Type	Size	Capacity (scfm)	Orifice Size	
343+91.30	60"	174	CAV	6"	111	1/4"	YES

RECORD DOCUMENTS

THESE RECORD DOCUMENTS WERE PREPARED BASED UPON HARD COPY MARKUPS PROVIDED BY AUI, INC. HDR DID NOT VERIFY THE INFORMATION PROVIDED BY AUI, INC., AND THE PREPARATION OF THESE RECORD DOCUMENTS IS LIMITED TO INCORPORATING SUCH CHANGES INDICATED BY AUI, INC. NEITHER HDR NOR OUR SUBCONSULTANTS MAKE ANY REPRESENTATIONS, WARRANTIES OR GUARANTEES, EXPRESSED OR IMPLIED, AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION CONTAINED ON THESE RECORD DOCUMENTS. THE USER OF INFORMATION PROVIDED ON THESE RECORD DOCUMENTS ASSUMES ALL RISK: ALWAYS FIELD VERIFY THE ACTUAL LOCATIONS OF ALL INFORMATION PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.



CAV TYPE 'C' MAHMHOLE PLAN

1" = 20'

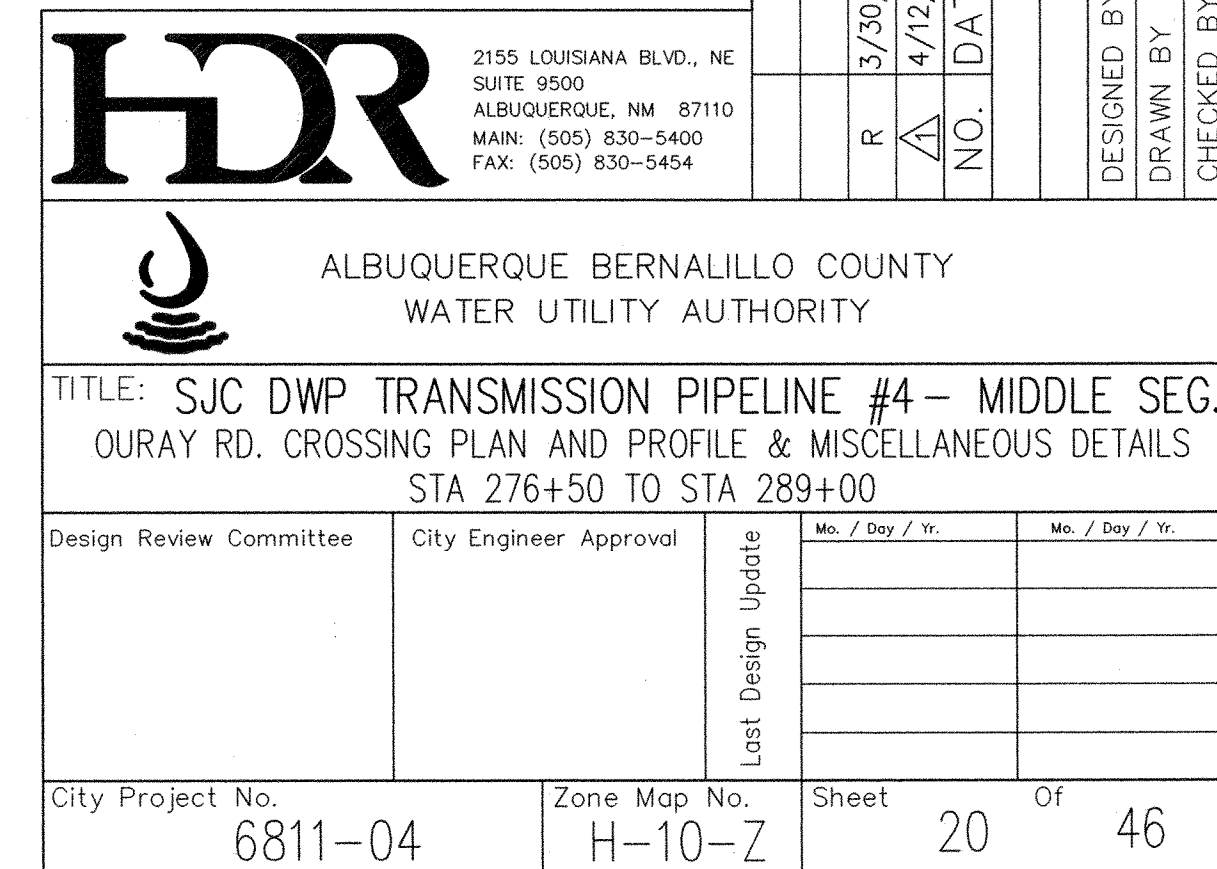
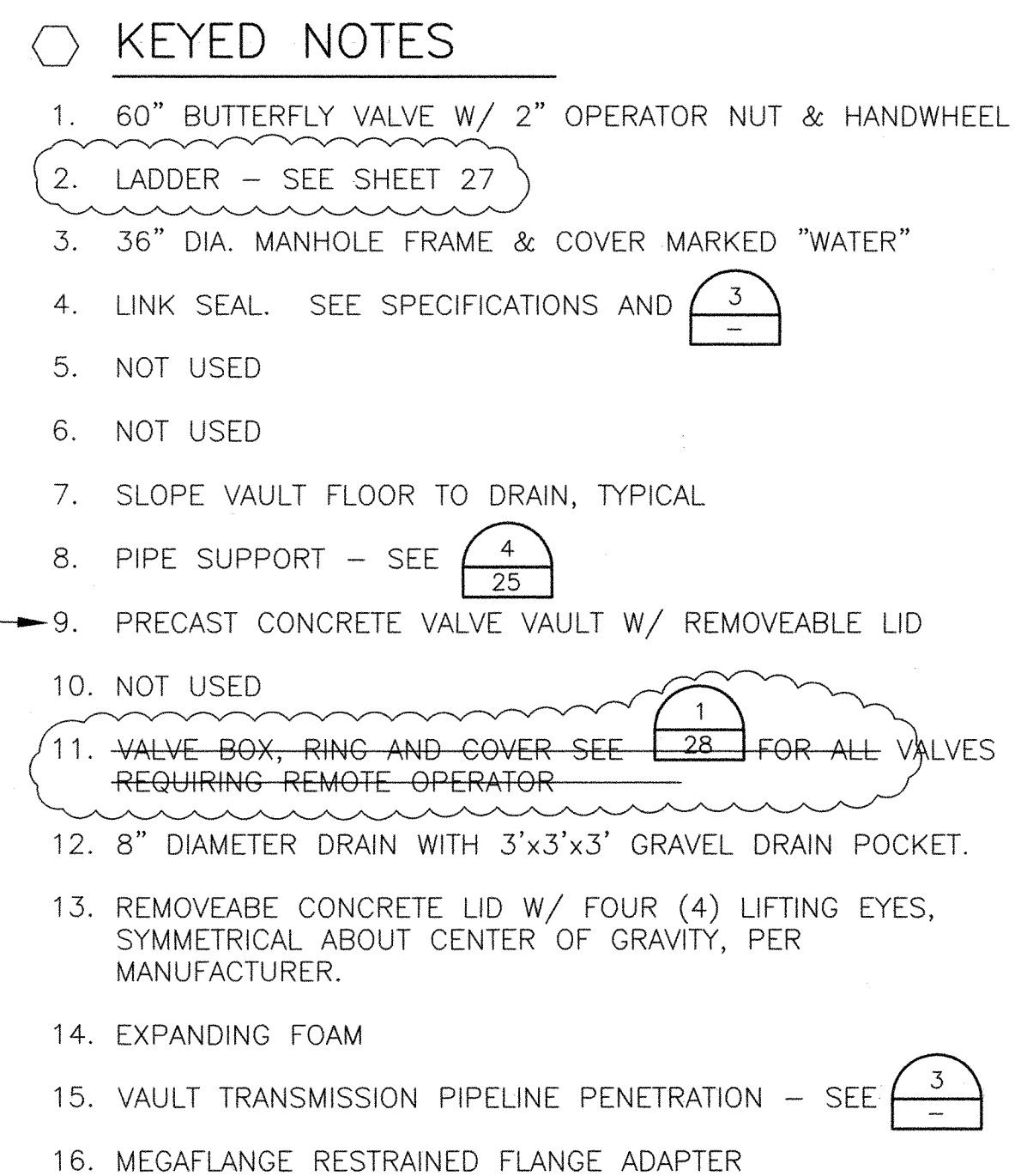
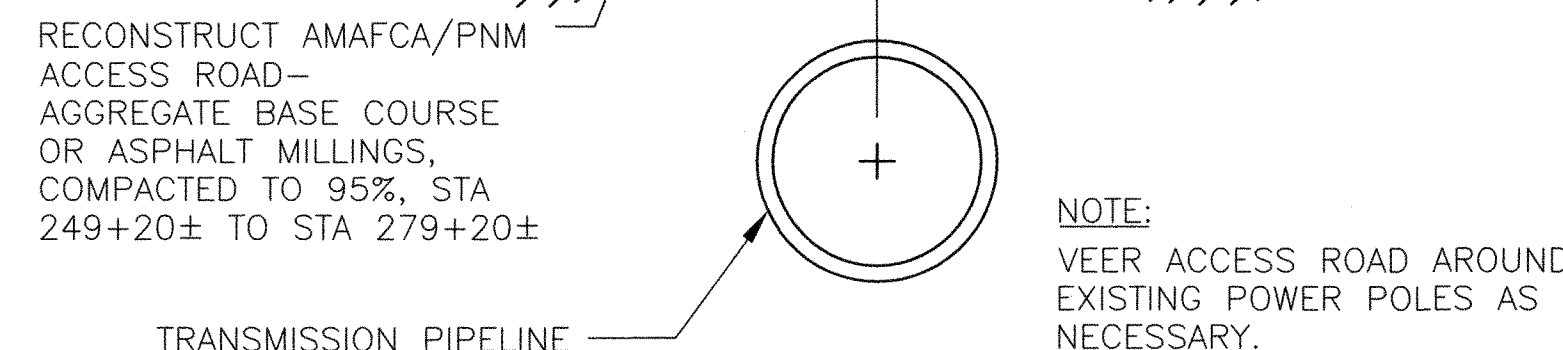
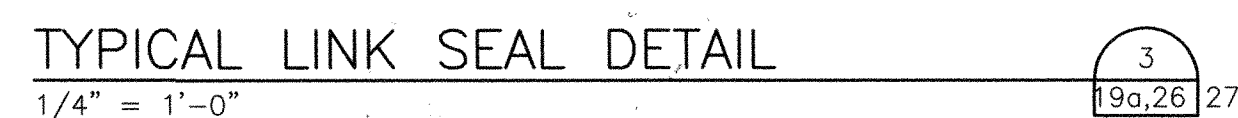
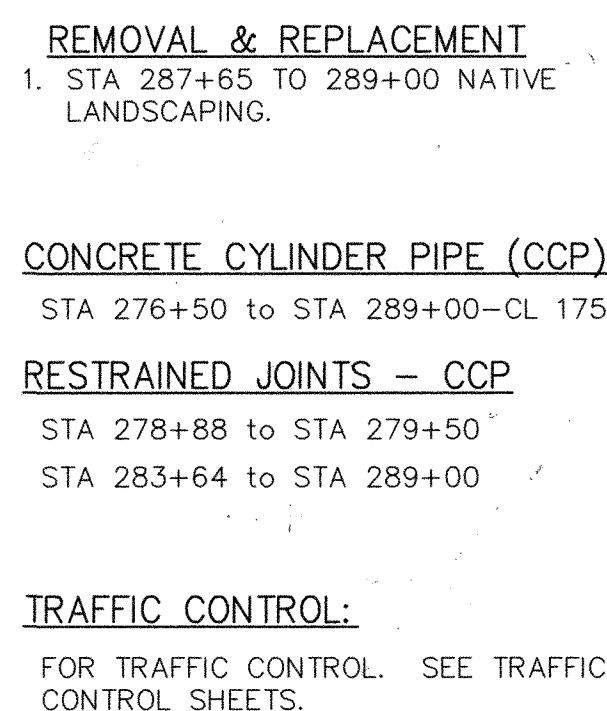
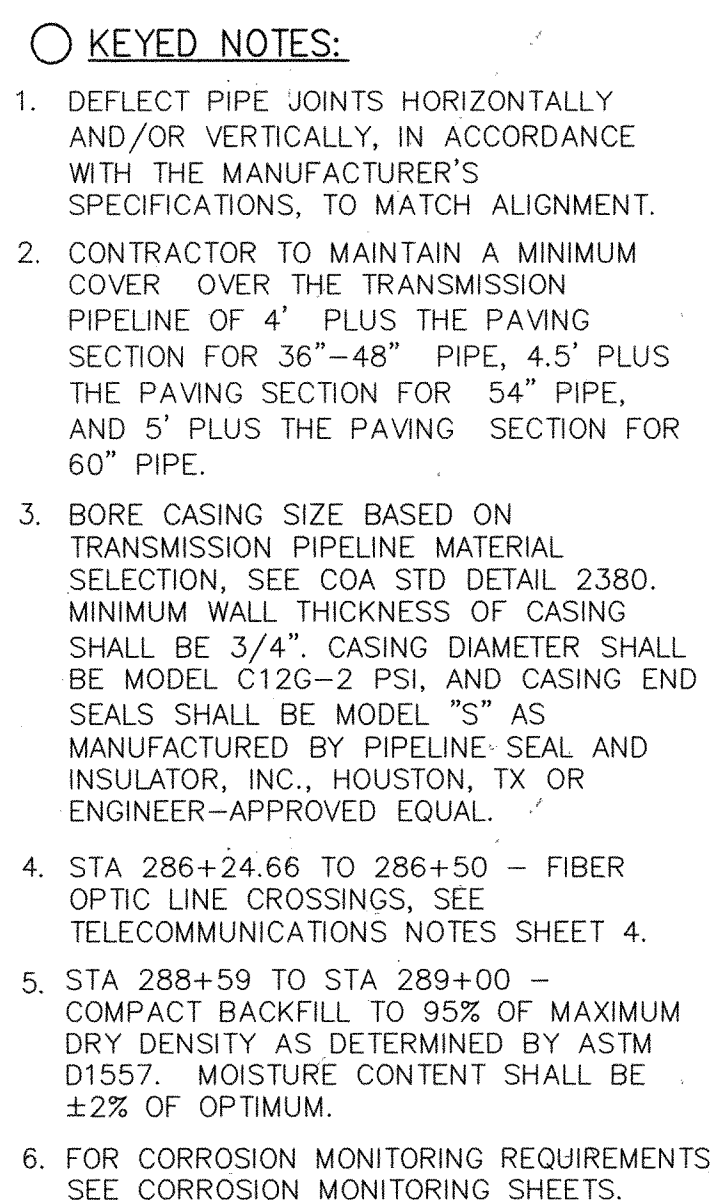
NOT USED
N.T.S.

AS-BUILT INFORMATION				BENCH MARKS				SURVEY INFORMATION				ENGINEER'S SEAL			
CONTRACTOR	DATE	WORK STARTED BY	DATE	BRASS CAP STAMPED "L424 1982"	DATE	NO.	BY	NO.	BY	NO.	BY				
USC&GS STANDARD BENCH MARK DISK	DATE	USC&GS STANDARD BENCH MARK DISK	DATE	USC&GS STANDARD BENCH MARK DISK	DATE	NO.	BY	USC&GS STANDARD BENCH MARK DISK	DATE	NO.	BY	DESIGNED BY	DATE	DRAWN BY	DATE
USC&GS STANDARD BENCH MARK DISK	DATE	USC&GS STANDARD BENCH MARK DISK	DATE	USC&GS STANDARD BENCH MARK DISK	DATE	NO.	BY	USC&GS STANDARD BENCH MARK DISK	DATE	NO.	BY	CHECKED BY	DATE	CHECKED BY	DATE
USC&GS STANDARD BENCH MARK DISK	DATE	USC&GS STANDARD BENCH MARK DISK	DATE	USC&GS STANDARD BENCH MARK DISK	DATE	NO.	BY	USC&GS STANDARD BENCH MARK DISK	DATE	NO.	BY	DESIGNED BY	DATE	DRAWN BY	DATE
USC&GS STANDARD BENCH MARK DISK	DATE	USC&GS STANDARD BENCH MARK DISK	DATE	USC&GS STANDARD BENCH MARK DISK	DATE	NO.	BY	USC&GS STANDARD BENCH MARK DISK	DATE	NO.	BY	CHECKED BY	DATE	CHECKED BY	DATE

HDR
2155 LOUISIANA BLVD., NE
SUITE 9500
ALBUQUERQUE, NM 87110
MAIN: (505) 830-5400
FAX: (505) 830-5454

ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY
TITLE: SJC DWP TRANSMISSION PIPELINE #4- MIDDLE SEG.
MISCELLANEOUS DETAILS

Design Review Committee	City Engineer Approval	Last Design Update	Mo. / Day / Yr.	Mo. / Day / Yr.
City Project No.	Zone Map No.	Sheet	Of	
6811-04	G-10-Z	19a	46	



RECORD DOCUMENTS

THESE RECORD DOCUMENTS WERE PREPARED BASED UPON HARD COPY MARKUPS PROVIDED BY RMCI, INC. HDR DID NOT VERIFY THE INFORMATION PROVIDED BY RMCI, INC. AND THE PREPARATION OF THESE RECORD DOCUMENTS IS LIMITED TO INCORPORATING SUCH CHANGES INDICATED BY RMCI, INC. NEITHER HDR NOR OUR SUBCONSULTANTS MAKE ANY REPRESENTATIONS, WARRANTIES OR GUARANTEES, EXPRESSED OR IMPLIED, AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION CONTAINED ON THESE RECORD DOCUMENTS. THE USER OF INFORMATION PROVIDED ON THESE RECORD DOCUMENTS ASSUMES ALL RISK; ALWAYS FIELD VERIFY THE ACTUAL LOCATIONS OF ALL INFORMATION PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.

CONCRETE:

DESIGN STRESSES

- A. CONCRETE, $f'_c = 4,000$ PSI ULTIMATE COMPRESSIVE STRESS AT 28 DAYS, UNLESS OTHERWISE NOTED.
- B. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.

MATERIALS

ALL CONCRETE MATERIALS SHALL MEET THE REQUIREMENTS OF SECTION 100 OF THE NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (1987)

CHAMFERS

EXCEPT AS OTHERWISE REQUIRED, EXPOSED CONCRETE CORNERS AND EDGES SHALL HAVE 3/4" CHAMFERS. REENTRANT CORNERS SHALL NOT HAVE FILLETS.

ANCHOR BOLTS

ANCHOR BOLTS SHALL BE DESIGNED PER IBC REQUIREMENTS. ALL BOLTS, STUDS AND MISCELLANEOUS METALWORK SHALL BE GALVANIZED STEEL UNLESS OTHERWISE NOTED. BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 307

CONCRETE COVER

UNLESS OTHERWISE NOTED, PROVIDE COVERING FOR REINFORCING AS FOLLOWS:

- (I) CONCRETE DEPOSITED AGAINST EARTH: 3"
- (II) ALL OTHER: 2"

GENERAL NOTES:

WORKMANSHIP AND MATERIAL SHALL CONFORM TO CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND PROJECT SPECIFICATIONS.

DIMENSIONS

STRUCTURAL DIMENSIONS CONTROLLED BY OR RELATED TO MECHANICAL OR ELECTRICAL EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. STRUCTURAL DRAWINGS SHOULD NOT BE SCALED.

PROVISIONS FOR EQUIPMENT

MECHANICAL AND ELECTRICAL EQUIPMENT SUPPORTS, ANCHORAGES, OPENINGS, RECESSES AND REVEALS NOT SHOWN ON THE STRUCTURAL DRAWINGS BUT REQUIRED BY OTHER CONTRACT DRAWINGS SHALL BE PROVIDED PRIOR TO CASTING CONCRETE.

CONSTRUCTION LOADS

STRUCTURES HAVE BEEN DESIGNED FOR OPERATIONAL LOADS ON COMPLETED STRUCTURES. DURING CONSTRUCTION, STRUCTURES SHALL BE PROTECTED BY BRACING WHERE EVER EXCESSIVE CONSTRUCTION LOADS OR INSTABILITY MAY OCCUR.

REINFORCING STEEL DETAILS

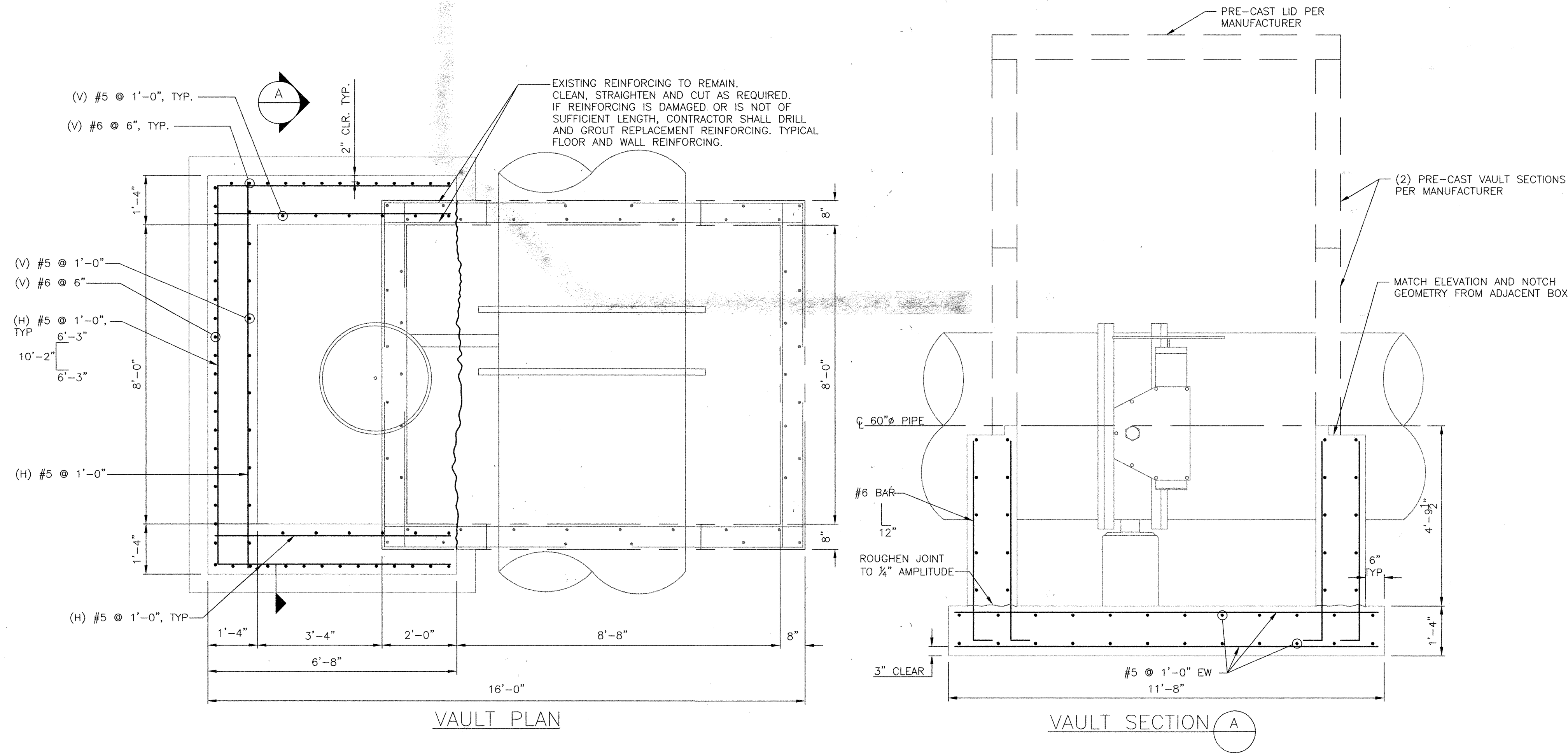
ALL DETAILING, FABRICATION, AND ERECTION OF REINFORCING BARS, SHALL BE IN ACCORDANCE WITH THE ACI MANUAL OF STANDARD PRACTICE, UNLESS OTHER WISE NOTED.

CONSTRUCTION JOINTS

UNLESS OTHERWISE SHOWN, LOCATION OF ALL CONSTRUCTION JOINTS MUST BE THE APPROVED BY THE ENGINEER, PRIOR TO CONSTRUCTION.

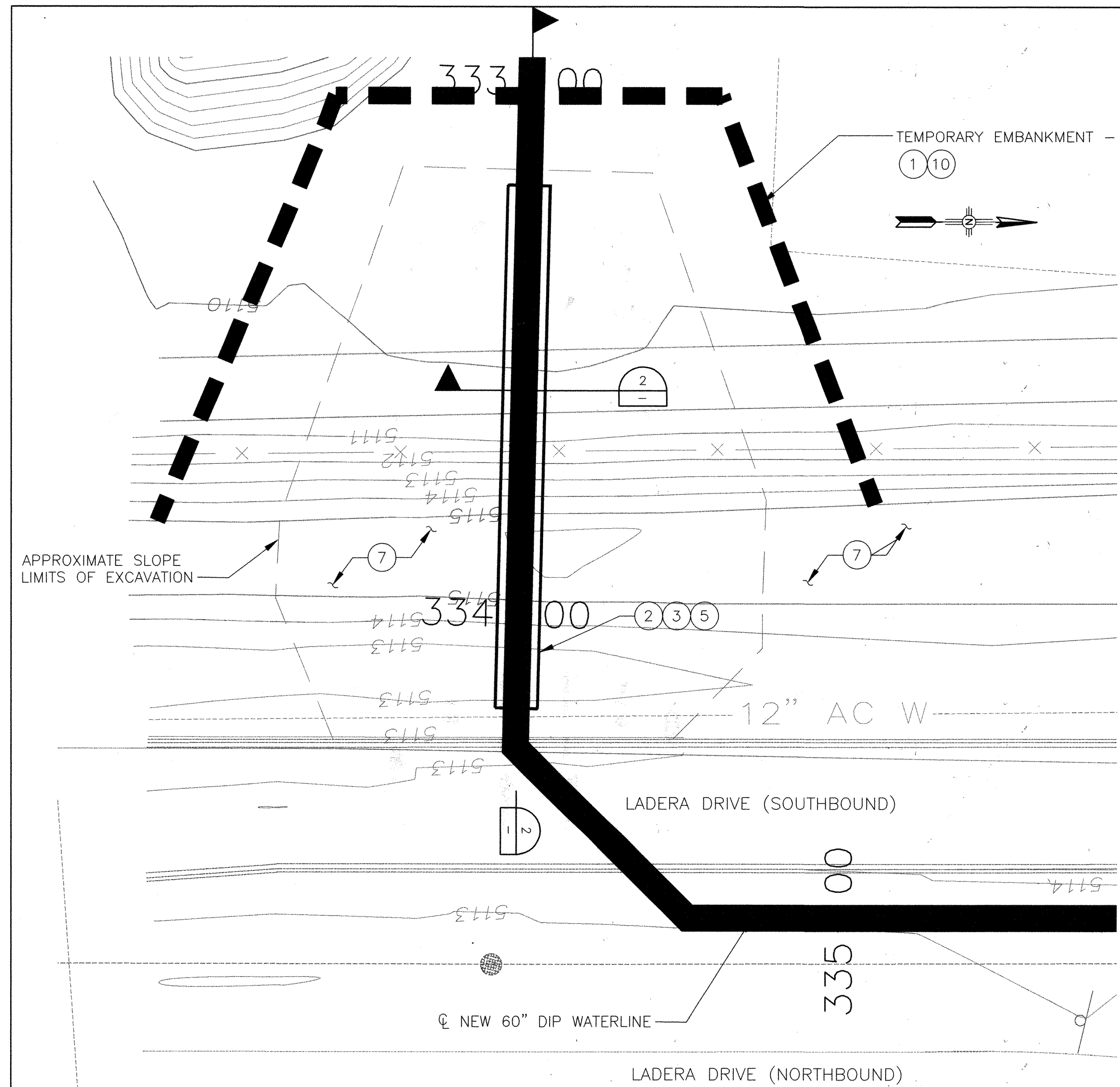
FOUNDATIONS

1. ALL FILL, BACKFILL SUBGRADE PREPARATION, AND DRAIN ROCK MATERIAL SHALL BE AS DEFINED IN THE SPECIFICATIONS FOR THIS PROJECT.
2. EXCAVATIONS SHALL BE SHORED AS REQUIRED TO PREVENT SUBSIDENCE OR DAMAGE TO ADJACENT EXISTING STRUCTURES, STREETS, UTILITIES, ETC.
3. WHERE BACKFILL IS REQUIRED ON BOTH SIDES OF A FOUNDATION WALL, BACKFILL SHALL BE PLACED TO THE SAME ELEVATION ON EACH SIDE OF THE WALL.
4. ALL REQUIRED BASE COURSE SHALL MEET THE REQUIREMENTS OF SECTION 302 OF THE NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (1987)
5. A MINIMUM OF 4" OF BASE COURSE SHALL BE PLACED BELOW ALL CONCRETE SLABS.
6. 95% MATERIAL COMPACTION REQUIRED UNDER ALL CONCRETE SLABS. COMPACTION TO BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS.



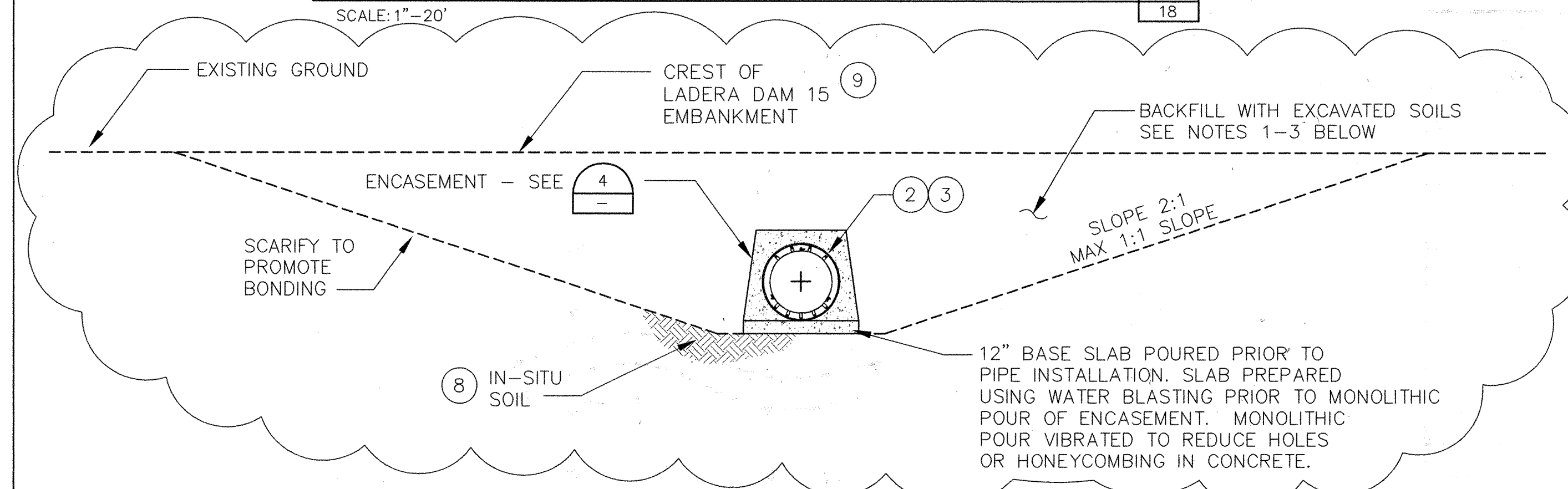
AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL		REVISIONS		DESIGN		DATE		DATE		DATE	
CONTRACTOR		BRASS CAP STAMPED "L424 1982"		DATE		C.A.M. ABRAMS REGISTERED PROFESSIONAL ENGINEER 13817		NO.		DATE		DESIGNED BY		DRAWN BY		CHECKED BY	
WORK STAKED BY		USCGS STANDARD BENCH MARK DISK		BY				R		3/30/06		CMA		2/08/06		2/08/06	
DATE		ELEVATION = 5098.75 NAVD88, in U.S. feet		NO.				NO.		DATE		CMA		2/08/06		2/08/06	
DATE		FROM THE JUNCTION OF I-40 & ST. HWY. 448,		BY				REMARKS		DATE		CMA		2/08/06		2/08/06	
DATE		IN TOP OF AND 0.3' EAST OF THE WEST END OF		BY				DESIGN		DATE		CMA		2/08/06		2/08/06	
DATE		DRAWINGS		BY				REVISIONS		DATE		CMA		2/08/06		2/08/06	
DATE		THE SO. CONC. ABUTMENT OF THE SO. BOUND		BY				DESIGN		DATE		CMA		2/08/06		2/08/06	
DATE		OVERPASS OF I-40 & 22.0' WEST OF THE		BY				DESIGN		DATE		CMA		2/08/06		2/08/06	
DATE		CENTER OF THE SO. BOUND LANES OF THE HWY.		BY				DESIGN		DATE		CMA		2/08/06		2/08/06	
DATE		448. THE BM IS 3.94' BELOW THE STATE HWY.		BY				DESIGN		DATE		CMA		2/08/06		2/08/06	

HDR		2155 LOUISIANA BLVD., NE SUITE 9500 ALBUQUERQUE, NM 87110 MAIN: (505) 830-5400 FAX: (505) 830-5454	
ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY			
TITLE: SJC DWP TRANSMISSION PIPELINE #4- MIDDLE SEG. ISOLATION VALVE VAULT			
Design Review Committee		City Engineer Approval	
City Project No. 6811-04		Zone Map No. H-10-Z	
Sheet 20a		Of 46	



LADERA DAM 15 EMBANKMENT CROSSING PLAN

SCALE: 1" = 20'



CROSS-SECTION

RECORD DOCUMENTS

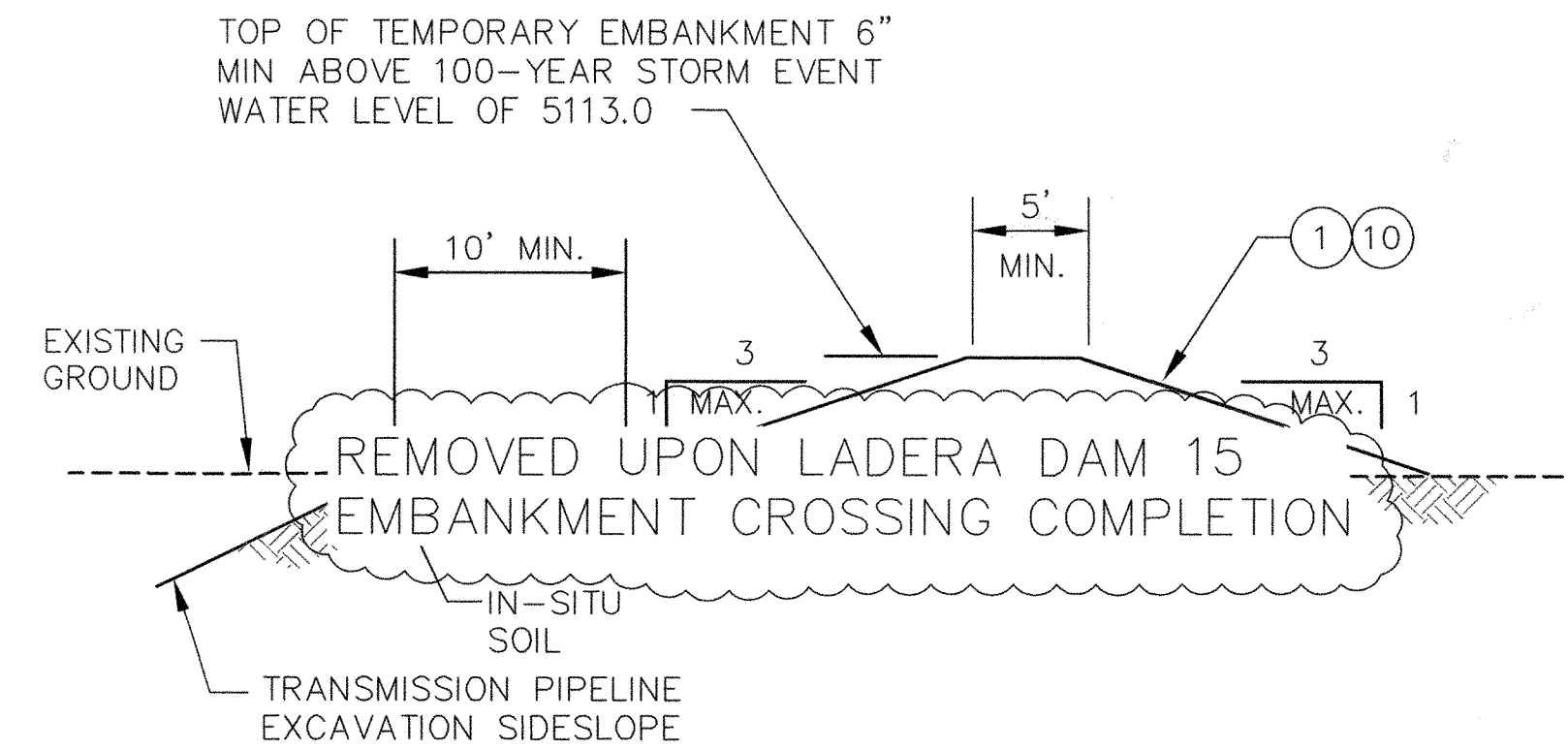
THESE RECORD DOCUMENTS WERE PREPARED BASED UPON HARD COPY MARKUPS PROVIDED BY AUI, INC., COMPILED UNDER THE SUPERVISION OF KEVIN DALY, NM PROFESSIONAL SURVEYOR #11008. HDR DID NOT VERIFY THE INFORMATION PROVIDED BY AUI, INC., AND THE PREPARATION OF THESE RECORD DOCUMENTS IS LIMITED TO INCORPORATING SUCH CHANGES INDICATED BY AUI, INC. NEITHER HDR NOR OUR SUBCONSULTANTS MAKE ANY REPRESENTATIONS, WARRANTIES OR GUARANTEES, EXPRESSED OR IMPLIED, AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION CONTAINED ON THESE RECORD DOCUMENTS. THE USER OF INFORMATION PROVIDED ON THESE RECORD DOCUMENTS ASSUMES ALL RISK: ALWAYS FIELD VERIFY THE ACTUAL LOCATIONS OF ALL INFORMATION PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.

NOTES:

1. COMPACT TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557. MOISTURE CONTENT SHALL BE $\pm 2\%$ OF OPTIMUM. LOOSE LIFT THICKNESS SHALL NOT EXCEED 8".
2. SIDESLOPES NOT TO EXCEED RECOMMENDATIONS IN GEOTECHNICAL INVESTIGATION AND OSHA REQUIREMENTS.
3. TRENCH BACKFILL SHALL CONSIST OF NON-EXPANSIVE MATERIAL FREE FROM VEGETATION AND DEBRIS, AND CONTAIN NO ROCKS LARGER THAN 4". THE GRADATION OF BACKFILL MATERIAL, AS DETERMINED BY ASTM D-422, SHALL MATCH EXISTING EMBANKMENT MATERIALS. THE PLASTICITY INDEX SHALL BE NO GREATER THAN 15 WHEN TESTED IN ACCORDANCE WITH ASTM D-4318.

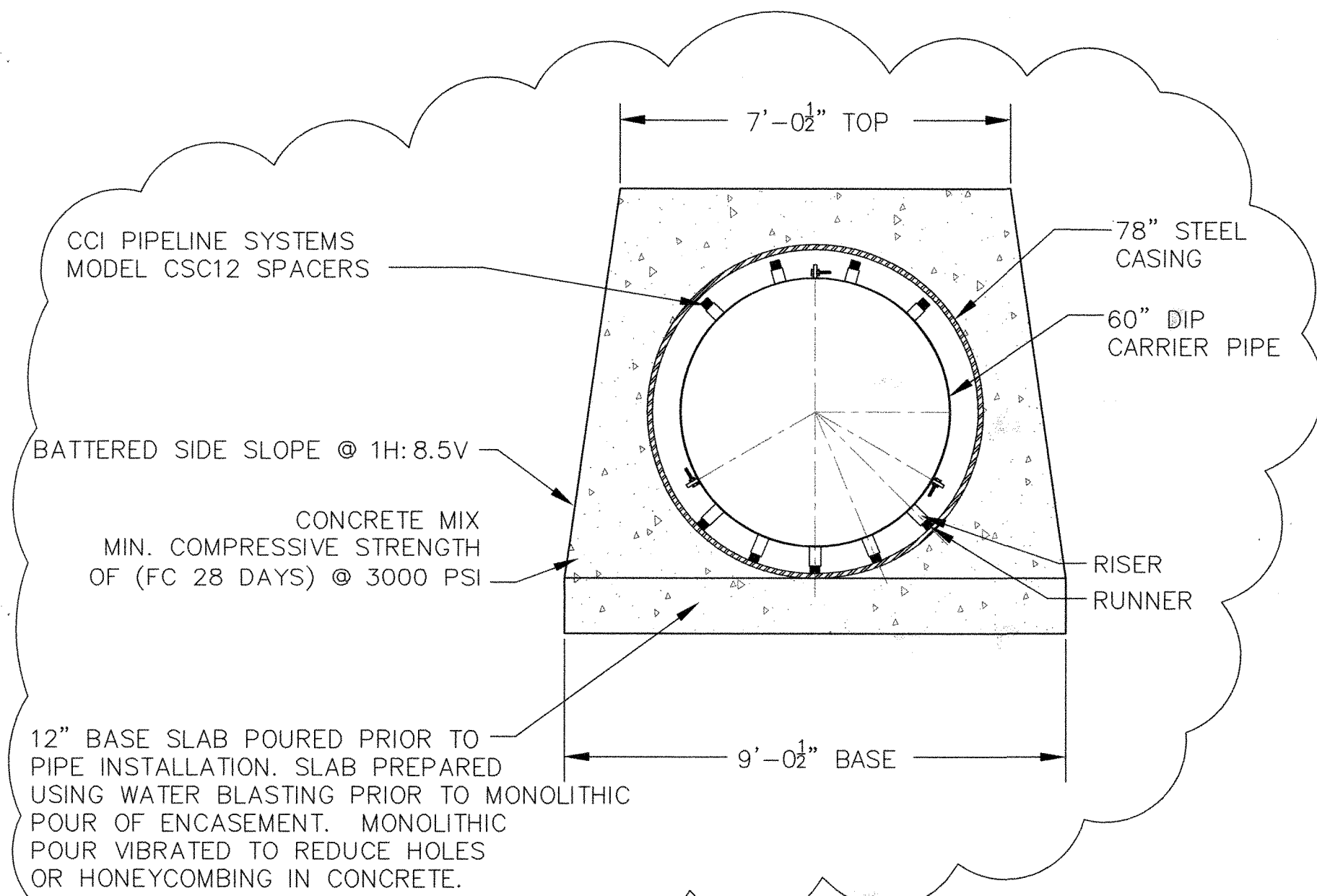
EXCAVATION DETAILS THROUGH LADERA DAM 15 EMBANKMENT

SCALE: NTS



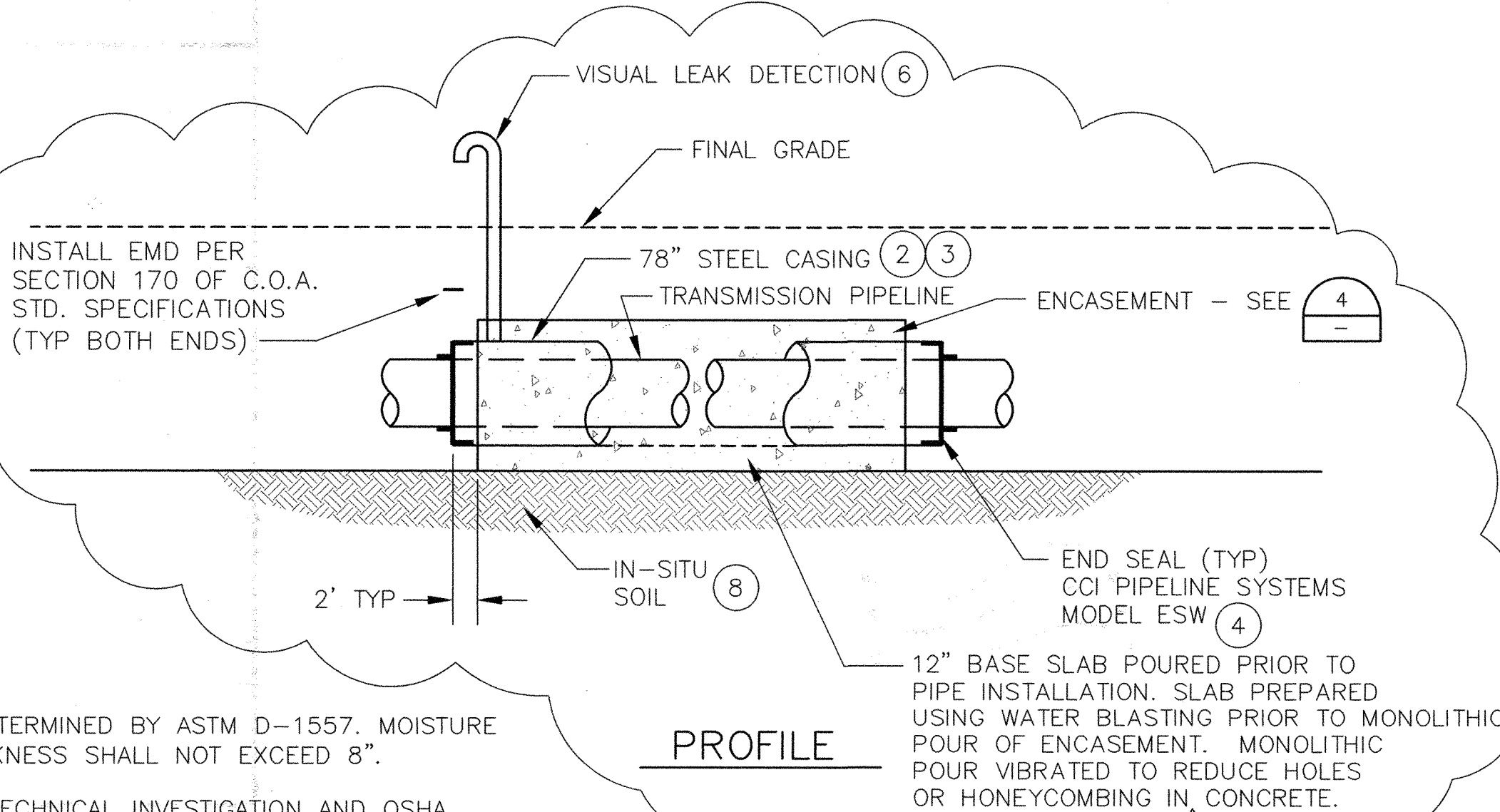
TEMPORARY EMBANKMENT

NTS



ENCASEMENT DETAIL

NTS



PROFILE

KEYED NOTES:

1. COMPACTED FILL TEMPORARY EMBANKMENT TO BE CONSTRUCTED PRIOR TO BREACHING EXISTING LADERA DAM 15 EMBANKMENT & TO REMAIN IN PLACE UNTIL LADERA DAM 15 EMBANKMENT HAS BEEN RECONSTRUCTED.
2. 78" BORE CASING. SEE COA STD DETAIL 2380. MINIMUM WALL THICKNESS OF CASING SHALL BE $\frac{3}{4}$ ". CASING SHALL NOT BE FILLED WITH CLSM.
3. CASING PRESSURE-RATED AND TESTED TO SAME CRITERIA AS THE WATER TRANSMISSION PIPELINE.
4. END SEAL TYPICAL, BOTH ENDS TO BE WATERTIGHT. ~~SEE PRESSURE RATED~~
5. END OF CASING SHALL EXTEND BEYOND TOE OF LADERA DAM 15 EMBANKMENT.
6. VISUAL LEAK DETECTION - 6" ϕ WELDED STEEL RISER, PRESSURE-RATED AND TESTED TO SAME CRITERIA AS WATER TRANSMISSION PIPELINE, COATING PER SPECIFICATIONS.
7. REPLACE CRUSHER FINE/BASALT EMBANKMENT EROSION PROTECTION/AMAFCA ACCESS ROAD - MATCH EXISTING.
8. AFTER EXCAVATION, PRIOR TO BACKFILLING, CONTRACTOR SHALL SCARIFY AND MOISTURE CONDITION SOIL TO A DEPTH OF 1' AND COMPACT TO 95% OF ASTM D-1557 MAXIMUM DRY DENSITY TO ENSURE EXISTING SOIL IS CONSOLIDATED.
9. RECONSTRUCT LADERA DAM 15 EMBANKMENT TO THE EXACT GRADES AND DIMENSIONS THAT EXISTED PRIOR TO CONSTRUCTION +4" ALLOWANCE FOR LONG-TERM SETTLEMENT.
10. TEMPORARY EMBANKMENT REMOVED AFTER COMPLETION OF LADERA DAM CROSSING.

AS BUILT INFORMATION				BENCH MARKS				SURVEY INFORMATION				ENGINEER'S SEAL			
CONTRACTOR	WORK STARTED BY	DATE	DATE	BRASS CAP STAMPED "1424 1982"	US&GS STANDARD BENCH MARK DISK	DATE	DATE	FIELD NO.	BY	DATE	DATE	NO.	BY	DATE	DATE
	ASSIGNED BY	DATE	DATE		ELEVATION = 5098.75 NAVD88, in U.S. feet										
	FIELD NO.	DATE	DATE		FROM THE JUNCTION OF I-40 & ST. HWY. 448,										
	DRAWN BY	DATE	DATE		IN TOP OF AND 0.3' EAST OF THE WEST END OF										
	CHECKED BY	DATE	DATE		THE SO. CONC. ABUTMENT OF THE SO. BOUND										
	RECORDED BY	DATE	DATE		OVERPASS OF I-40 & 22.0' WEST OF THE										
		DATE	DATE		CENTER OF THE SO. BOUND LANES OF THE HWY.										
		DATE	DATE		448. THE BM IS 3.94' BELOW THE STATE HWY.										

ALL ELEVATIONS ARE IN INTERIM NAVD 88 DATUM. TO CONVERT FROM INTERIM NAVD 88 TO NGVD 29 SUBTRACT 2.70 FEET ± 0.02 FEET.

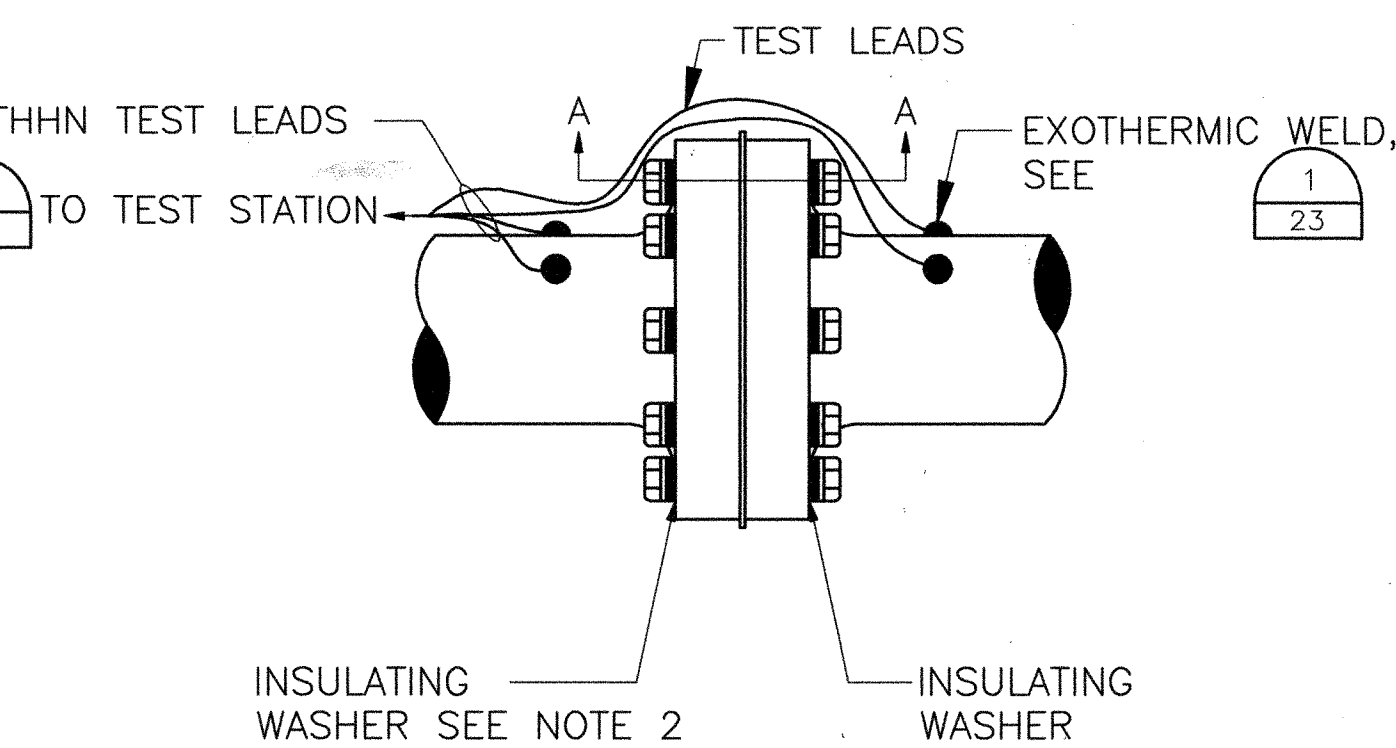
HDR 2155 LOUISIANA BLVD., NE SUITE 9500 ALBUQUERQUE, NM 87110 MAIN: (505) 830-5400 FAX: (505) 830-5454

ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY

TITLE: SJC DWP TRANSMISSION PIPELINE #4 - MIDDLE SEG. LADERA DAM 15 EMBANKMENT CROSSING PLAN AND DETAILS

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

City Project No. 6811-04 Zone Map No. Sheet 21 Of 46



3	26
---	----



1. HARDWARE QUANTITIES IN INSULATING FLANGE KIT WILL VARY BASED ON GASKET PATTERN AND PIPE SIZE.
2. SEE SPECIFICATIONS FOR ISOLATION GASKET, SLEEVE AND WASHER MATERIALS.
3. FOR CONNECTIONS TO FOREIGN INSTALLATIONS, INSTALL SINGLE-WASHER KITS WITH THE ISOLATING WASHERS ONLY ON THE FOREIGN SIDE OF THE FLANGES.
4. FOR NON-FOREIGN INSTALL DOUBLE - WASHER KITS WITH ISOLATING WASHERS ON BOTH SIDES OF THE FLANGES.
5. DO NOT APPLY METALLIC OR OTHER NON-INSULATING PAINTS TO INSULATING PARTS OR OTHER EDGES OF FLANGES.
6. INSULATING SLEEVE TO BE 1/64" SHORTER THAN DISTANCE BETWEEN SST WASHERS WHEN BOLT IS FULLY TIGHTENED.

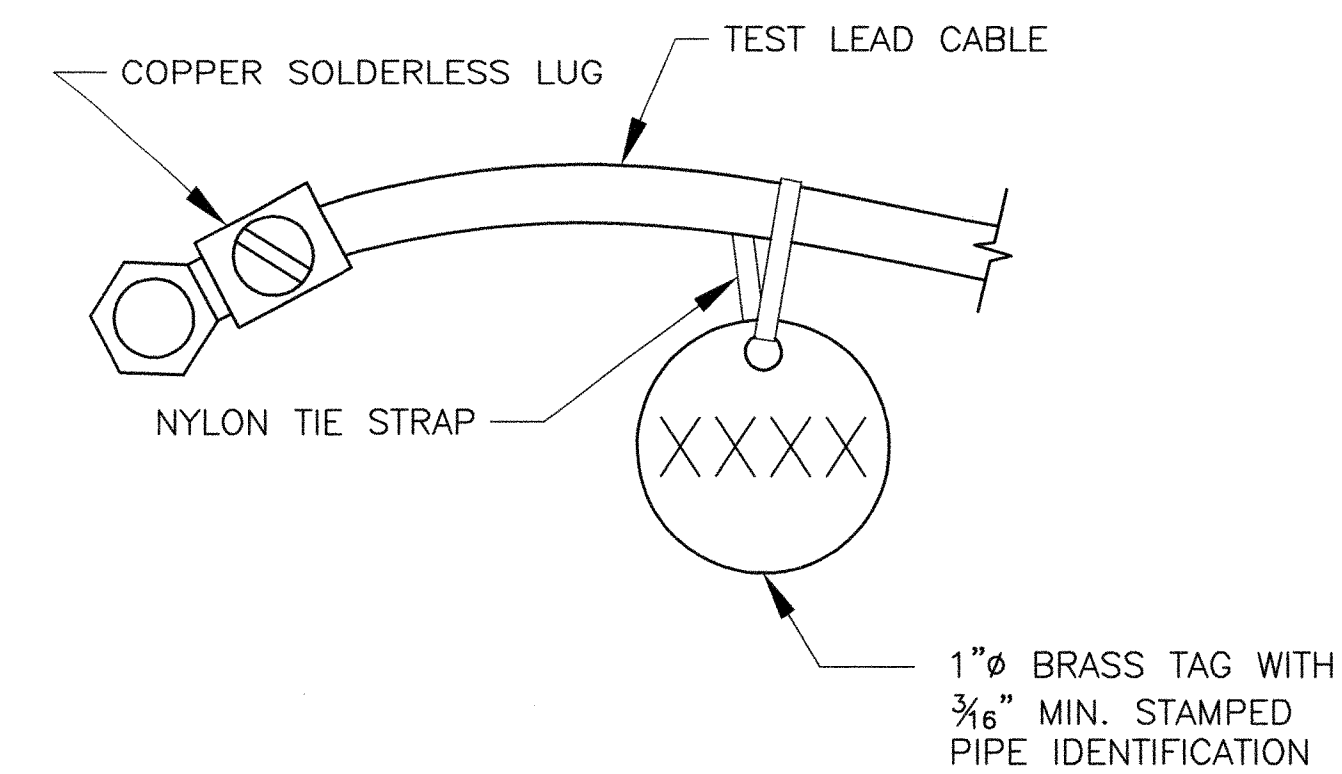
RECORD DOCUMENTS

THESE RECORD DOCUMENTS WERE PREPARED BASED UPON HARD COPY MARKUPS PROVIDED BY RMCI, INC. AND AUI, INC. HDR DID NOT VERIFY THE INFORMATION PROVIDED BY RMCI, INC. AND AUI, INC., AND THE PREPARATION OF THESE RECORD DOCUMENTS IS LIMITED TO INCORPORATING SUCH CHANGES INDICATED BY RMCI, INC. AND AUI, INC. RMCI, INC. AND AUI, INC. MAKE NO SUCH REPRESENTATIONS, WARRANTIES OR GUARANTEES, EXPRESSED OR IMPLIED, AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION CONTAINED ON THESE RECORD DOCUMENTS. THE USER OF INFORMATION PROVIDED ON THESE RECORD DOCUMENTS ASSUMES ALL RISK: ALWAYS FIELD VERIFY ALL LOCATIONS OF ALL INFORMATION PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.

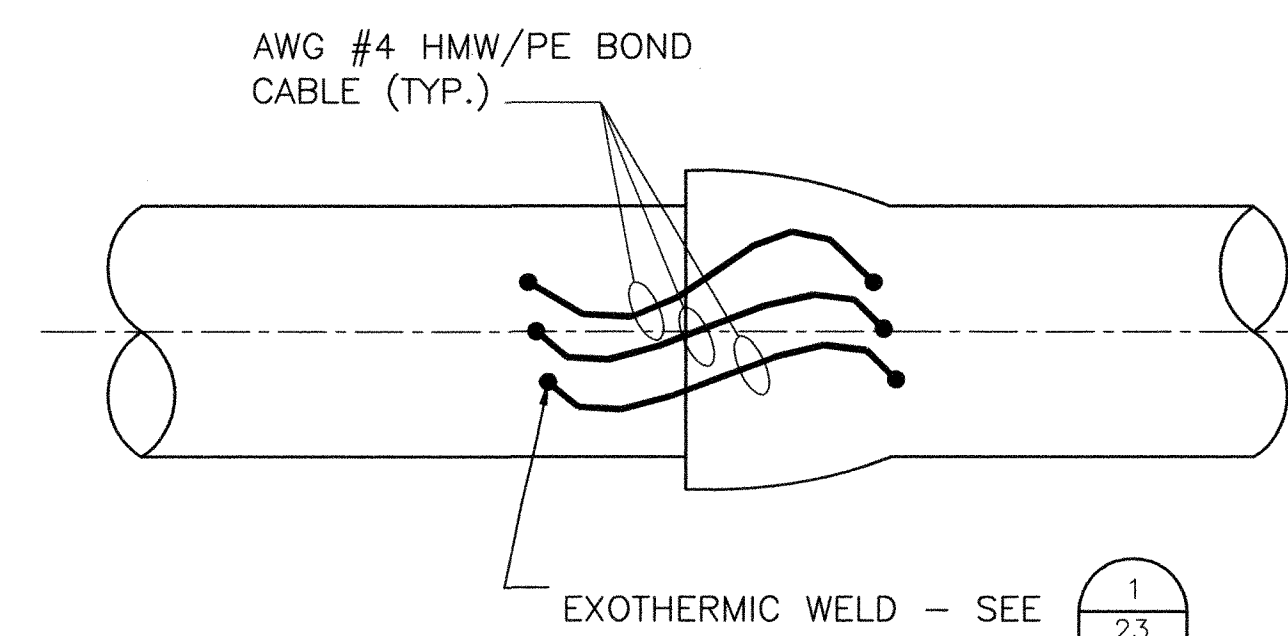
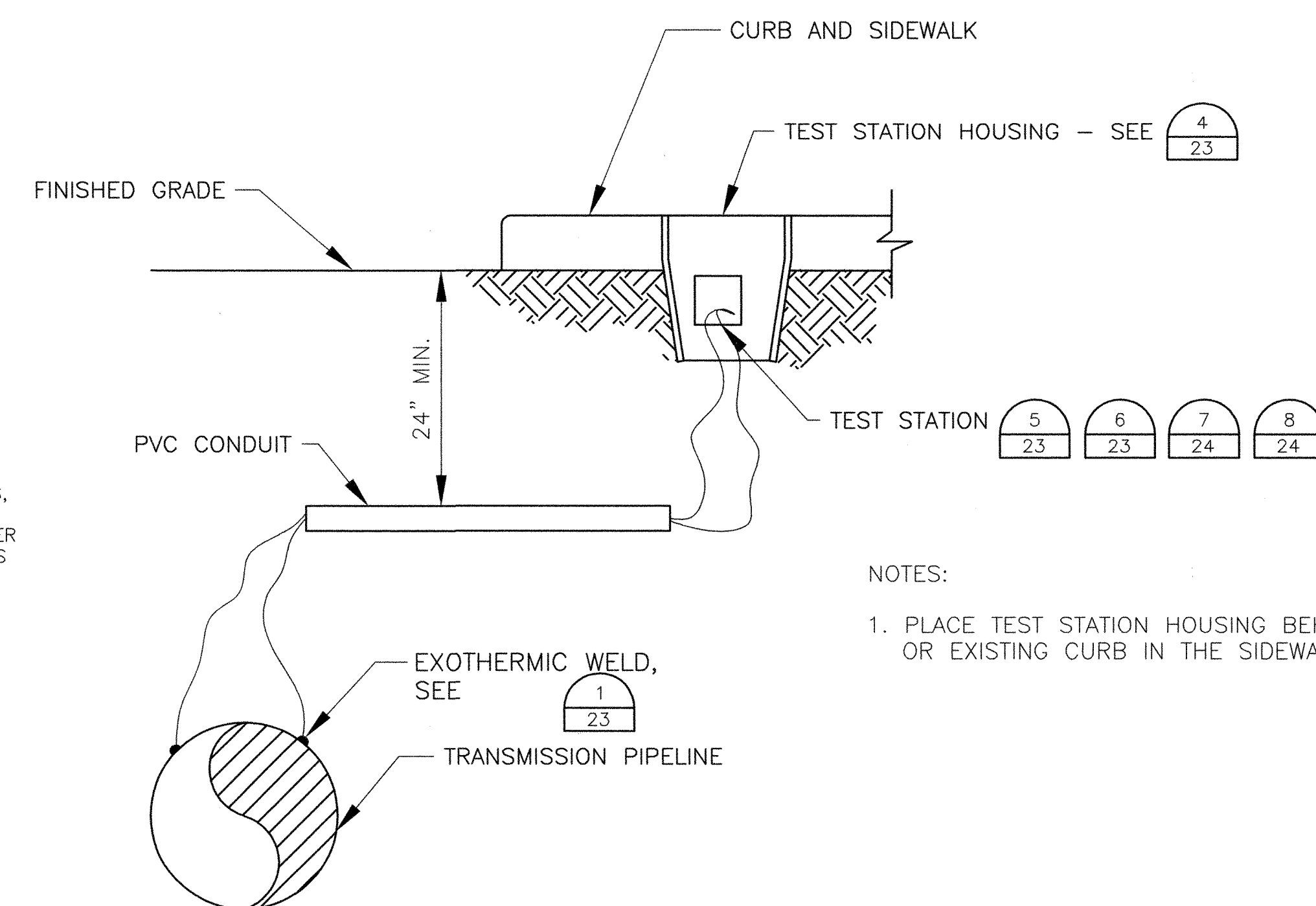
CORROSION MONITORING

TEST STATION SCHEDULE

STA	TYPE
221+90	ISOLATION
228+00	2 WIRE
239+40	CASING
241+00	CASING
247+55	CASING
249+05	CASING
259+00	4 WIRE
269+00	2 WIRE
279+00	2 WIRE
287+65	CASING
288+80	CASING
297+00	2 WIRE
306+75	2 WIRE
320+50	2 WIRE
331+50	4 WIRE
333+00	ISOLATION
334+25	CASING



5	23,24
---	-------



M. J. Schiff &
Associates

MJS&A 431 West Baseline Road
Claremont, CA 91711-1608
(909) 626-0967

HDR 2155 LOUISIANA BLVD., NE
SUITE 9500
ALBUQUERQUE, NM 87110
MAIN: (505) 830-5400
FAX: (505) 830-5454



ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

TITLE: SJC DWP TRANSMISSION PIPELINE #4 – MIDDLE SEG.

CORROSION MONITORING DETAILS

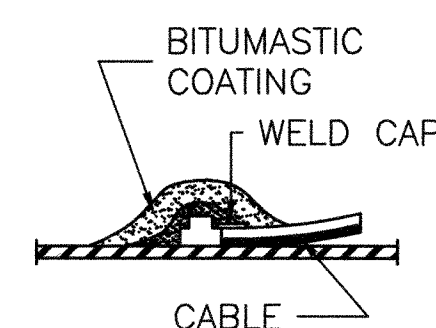
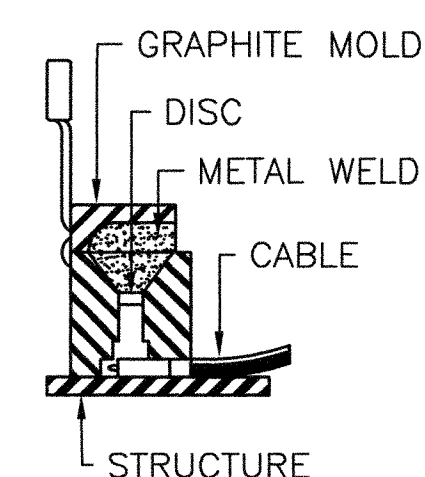
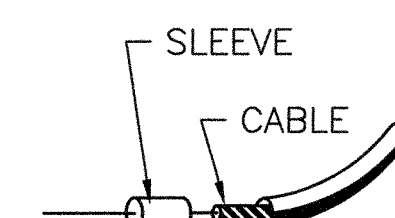
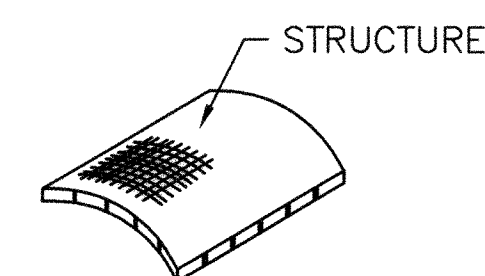
Design Review Committee	City Engineer Approval	Fast Design Update	Mo. / Day / Yr.	Mo. / Day / Yr.

City Project No.	6811-04
------------------	---------

Zone Map No.	
--------------	--

Sheet	22	Of	46
-------	----	----	----

BENCH MARKS	BRASS CAP STAMPED "L 424 1982"		CONTRACTOR		AS BUILT INFORMATION	
	USC&GS STANDARD BENCH MARK DISK		WORKED BY	DATE	WORKED BY	DATE
448. THE BM IS 3.94' BELOW THE STATE HWY.	ELEVATION = 5098.75 NAVD88, in U.S. feet		INSPECTOR'S ACCEPTANCE BY	DATE	INSPECTOR'S ACCEPTANCE BY	DATE
	FROM THE JUNCTION OF 1-40 & ST. HWY. 448, IN TOP OF AND 0.3' EAST OF THE WEST END OF THE SO. CONC. ABUTMENT OF THE SO. BOUND OVERPASS OF 1-40 & 22.0' WEST OF THE CENTER OF THE SO. BOUND LANES OF THE HWY.		VERIFICATION BY	DATE	VERIFICATION BY	DATE
			DRAWINGS COMPLETED BY	DATE	DRAWINGS COMPLETED BY	DATE
			RECORDED BY	DATE	RECORDED BY	DATE
			NO.		NO.	



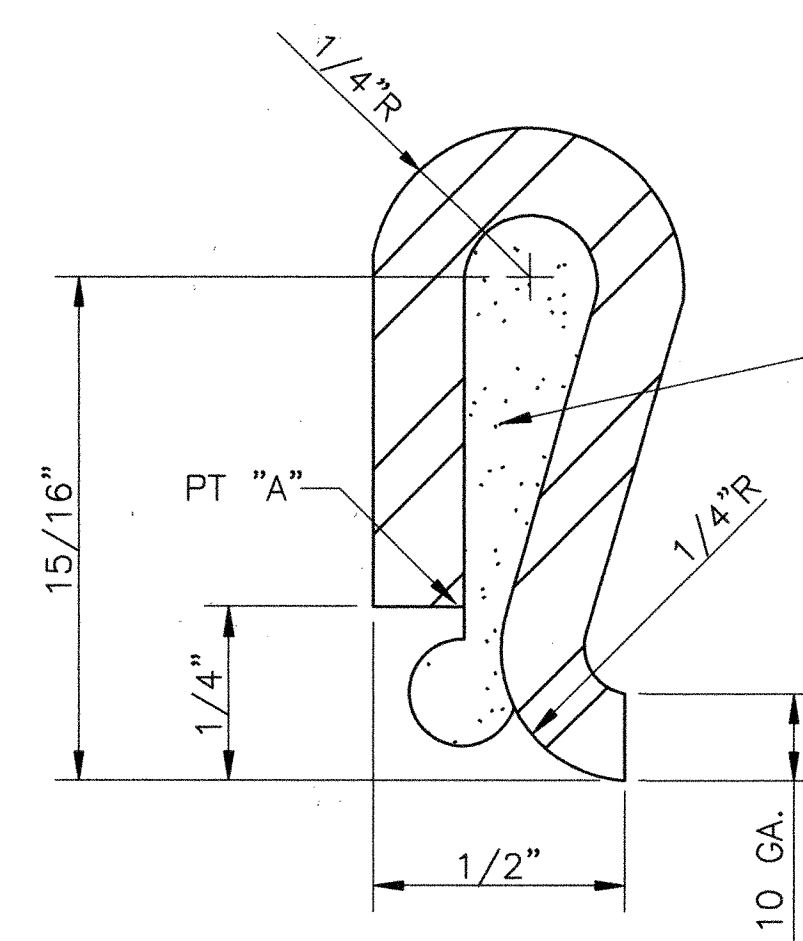
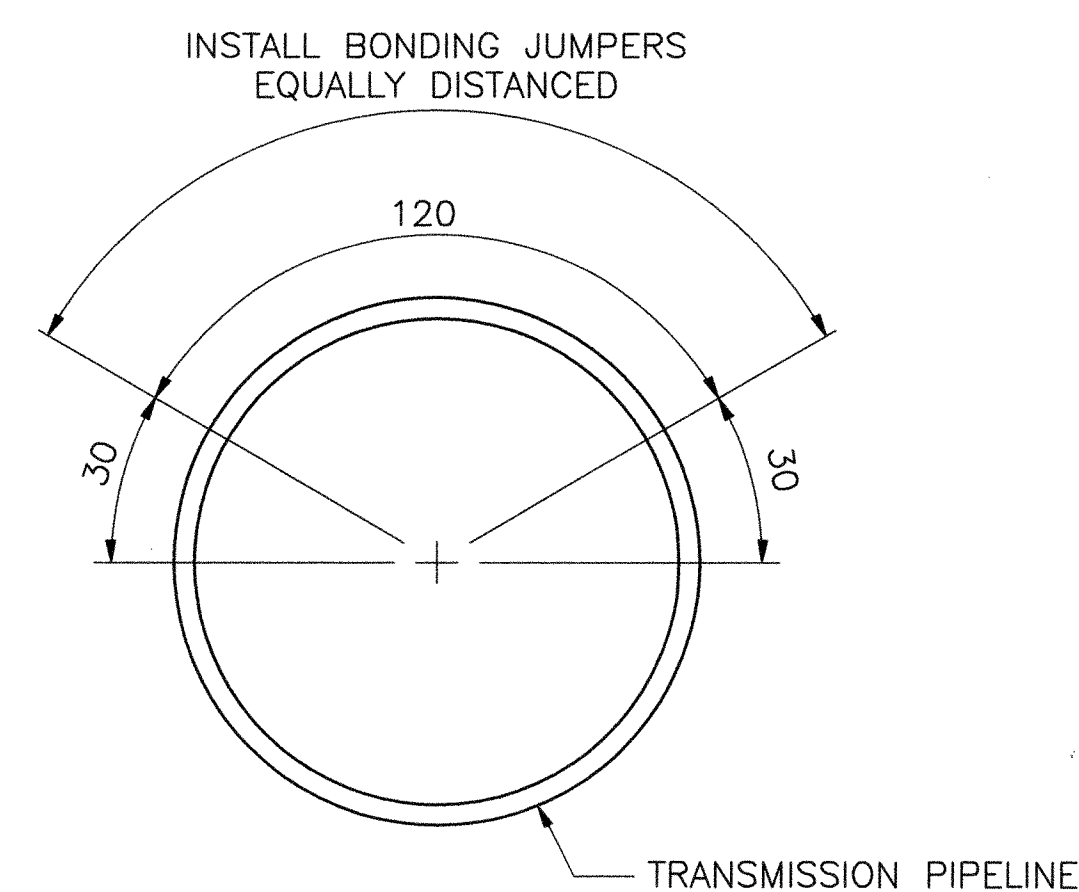
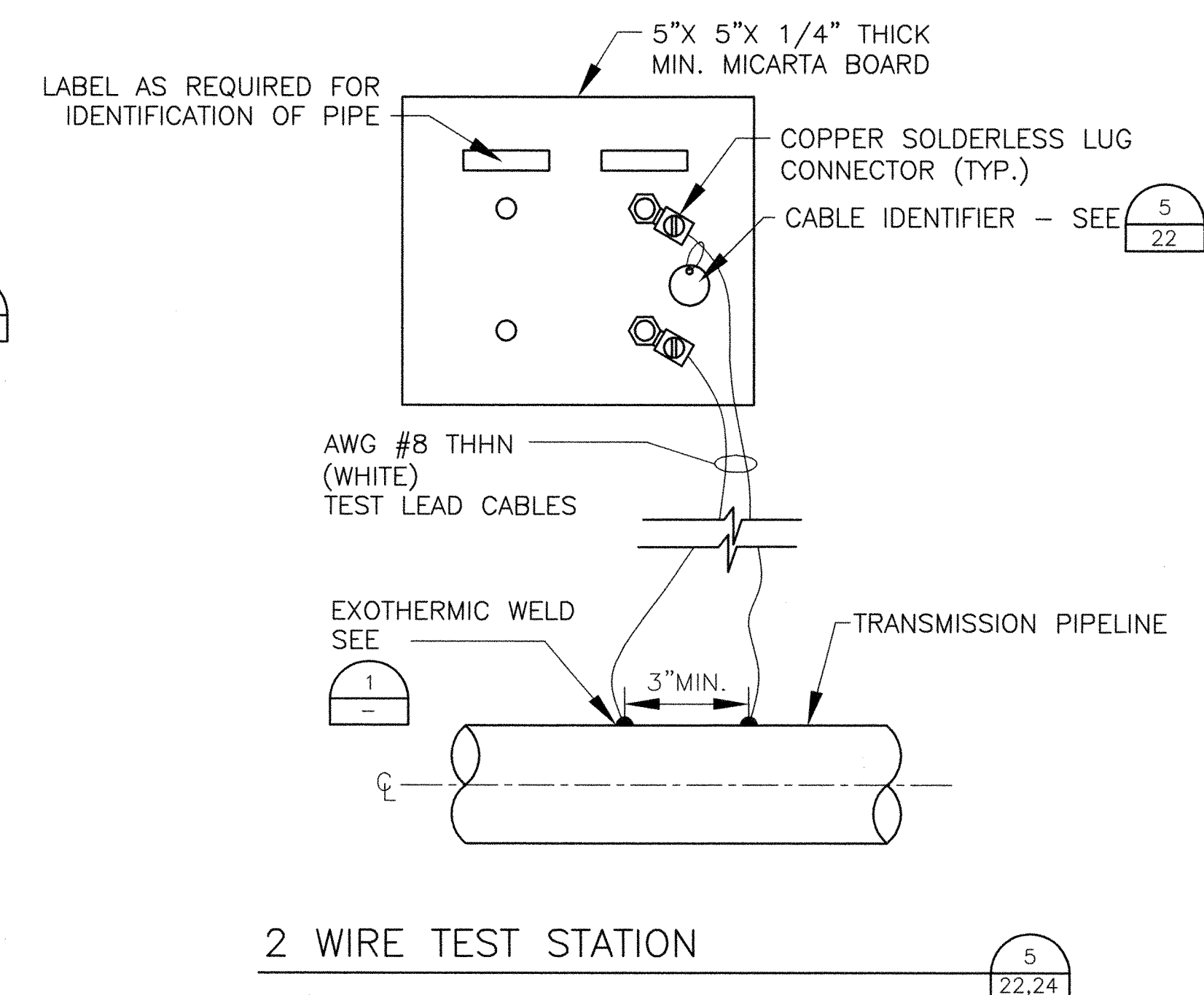
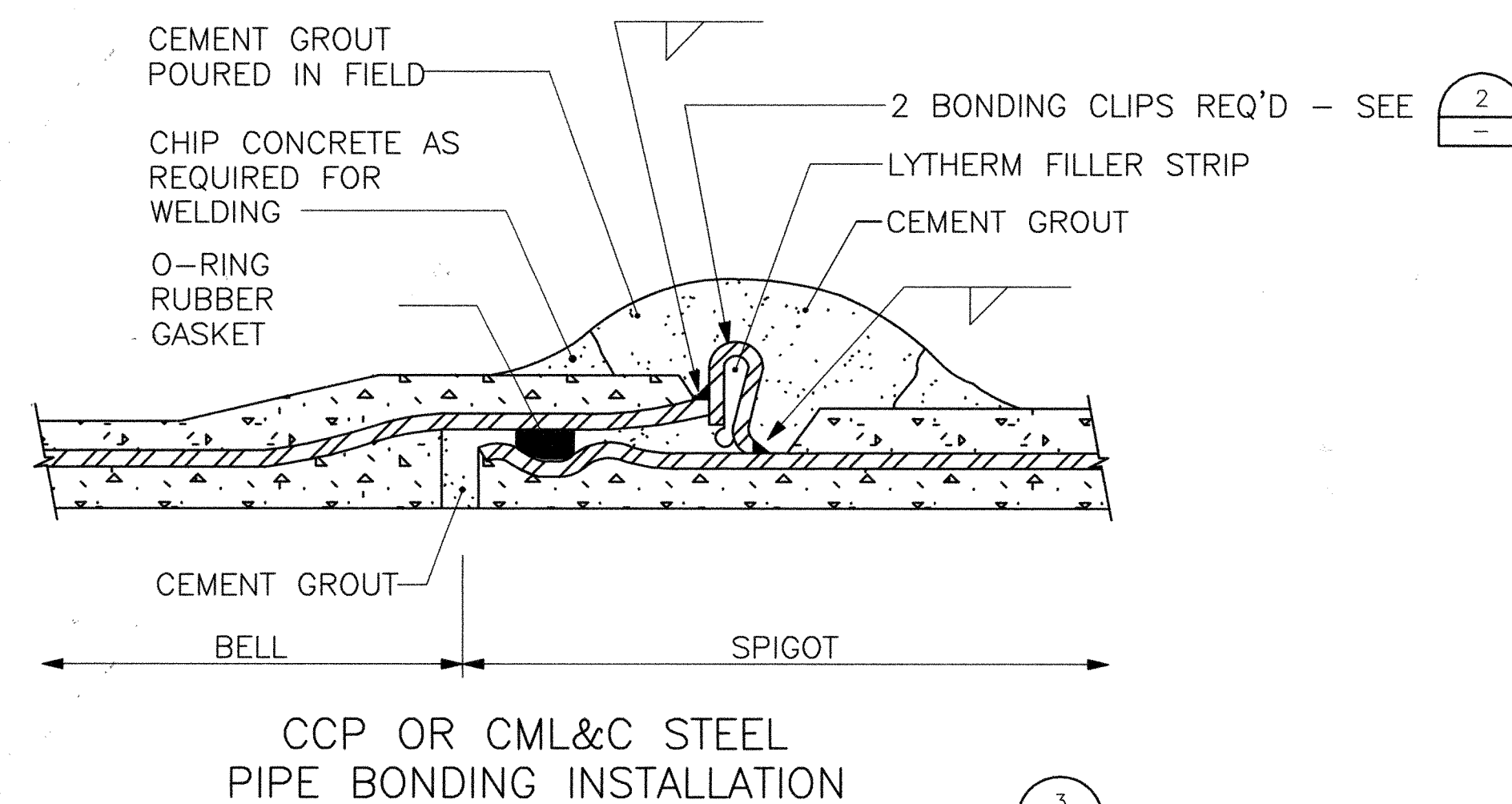
- 1) FILE STRUCTURE TO BARE METAL AND CLEAN SURFACE

- 2) STRIP INSULATION
FROM WIRE AND ATTACH
SLEEVE

- 3) HOLD MOLD FIRMLY WITH
OPENING AWAY FROM
OPERATOR. IGNITE WITH
FLINT GUN

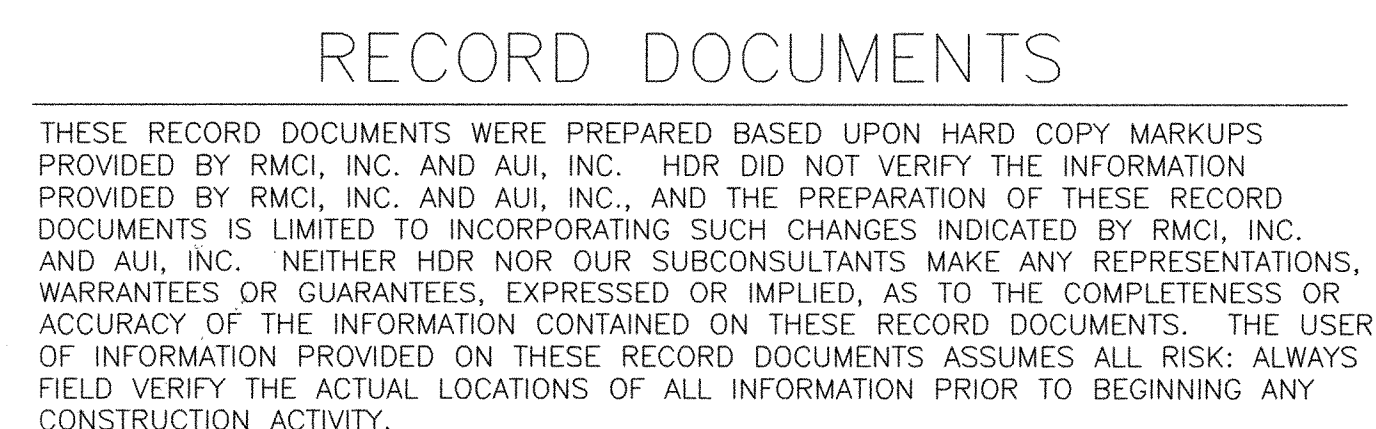
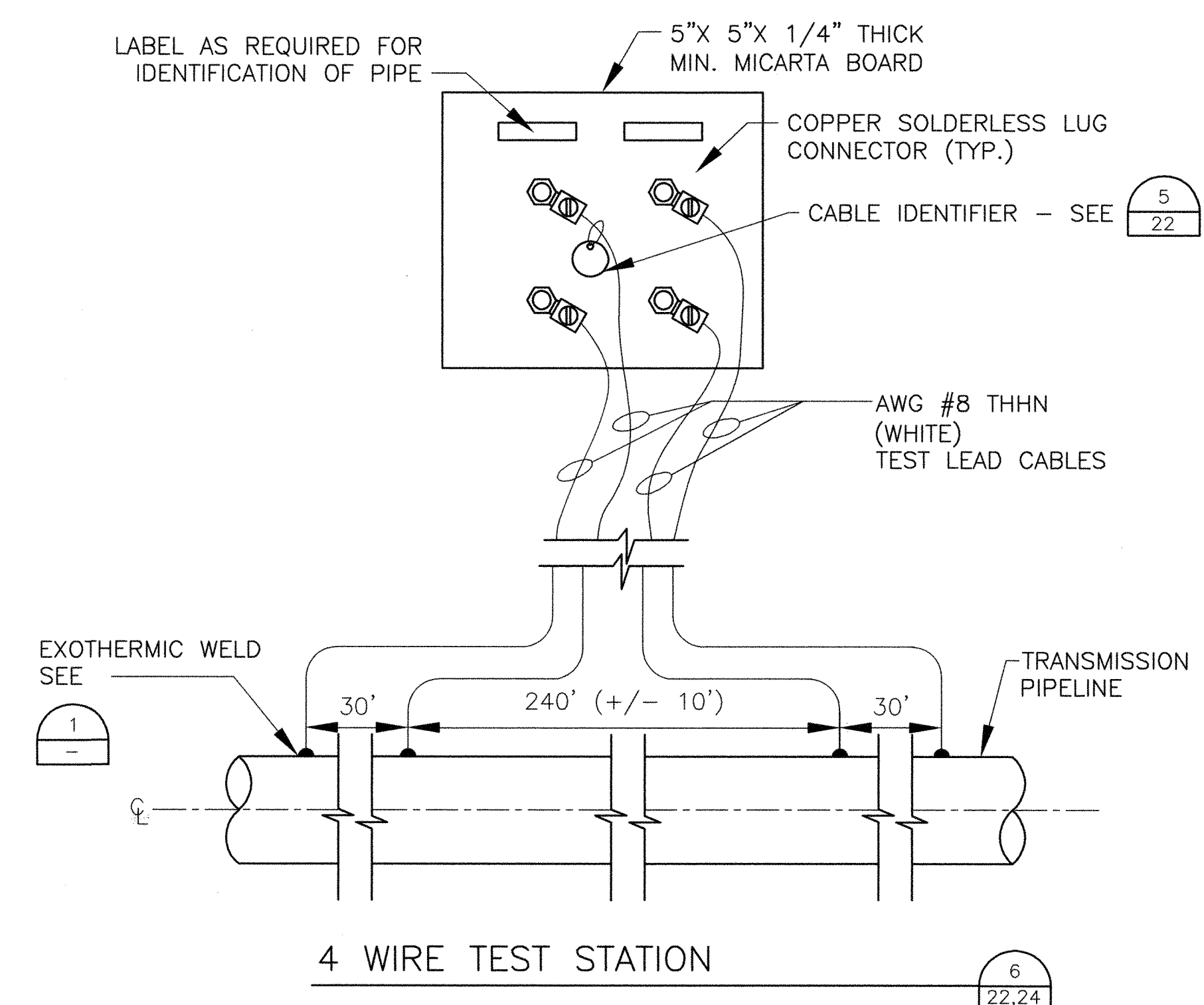
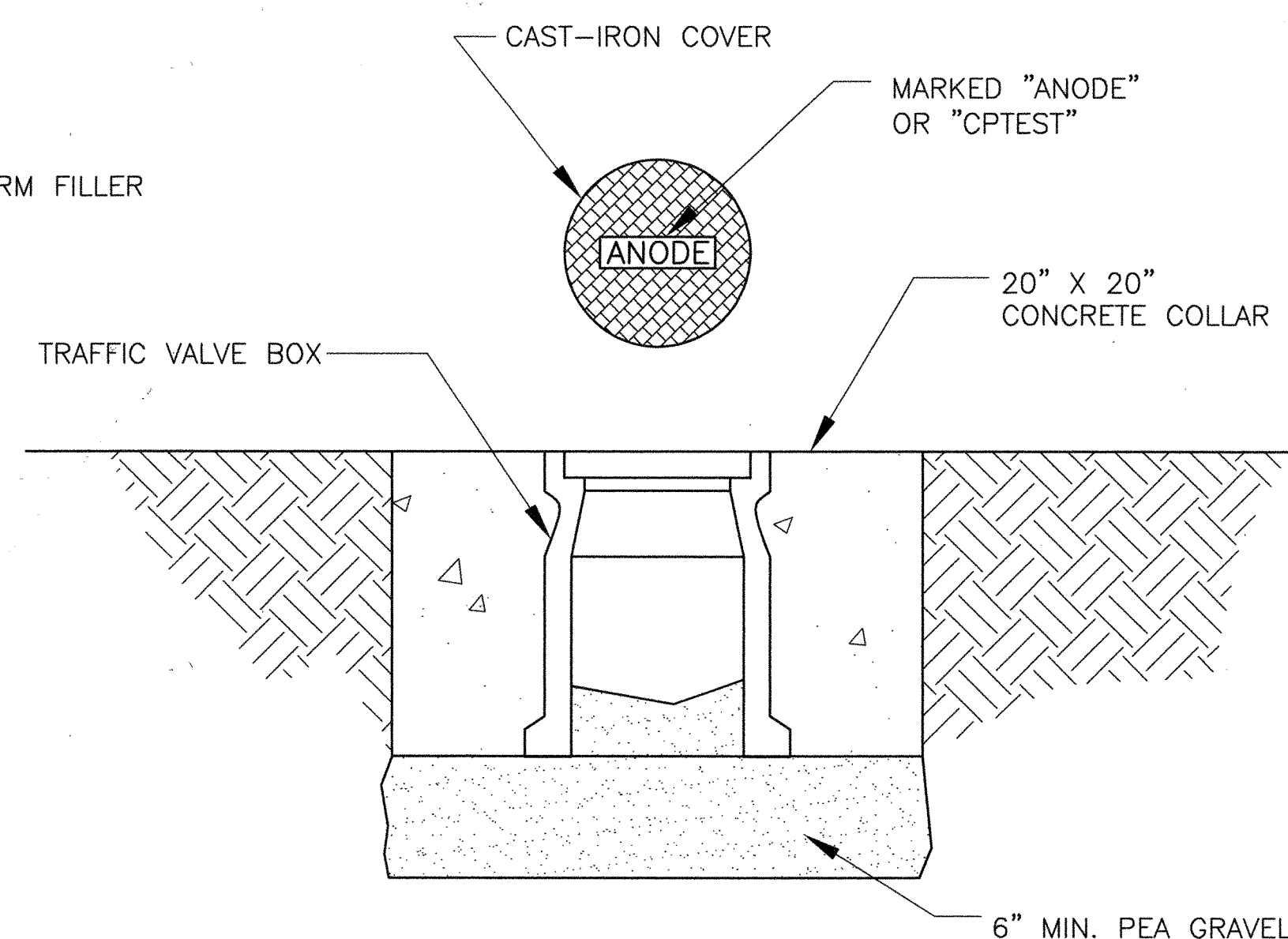
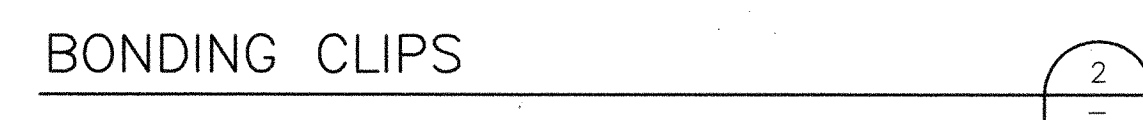
- 4) REMOVE SLAG FROM CONNECTION WITH CHIPPING HAMMER

- 5) COVER CONNECTION WITH
BITUMASTIC COATING
OVER ALL EXPOSED
METAL



- NOTES:

1. MATERIAL SPECIFICATION - ASTM A336 (COMMERCIAL QUALITY)
CUT LENGTH - $2 \frac{1}{2}$ " \pm $\frac{1}{16}$ "
WIDTH - $1 \frac{1}{4}$ " \pm $\frac{1}{16}$ "
2. LYTHERM FILLER STRIP TO BE 1" X $1 \frac{1}{2}$ " WIDE TO OVERLAP SIDES OF JUMPER.
3. CRIMP BONDING JUMPER OVER FILLER AT PT "A" TO COMPRESS FILLER.



No.	Last Design Update							
Sheet	Mo. / Day / Yr.							
Of	Mo. / Day / Yr.							
23								
46								

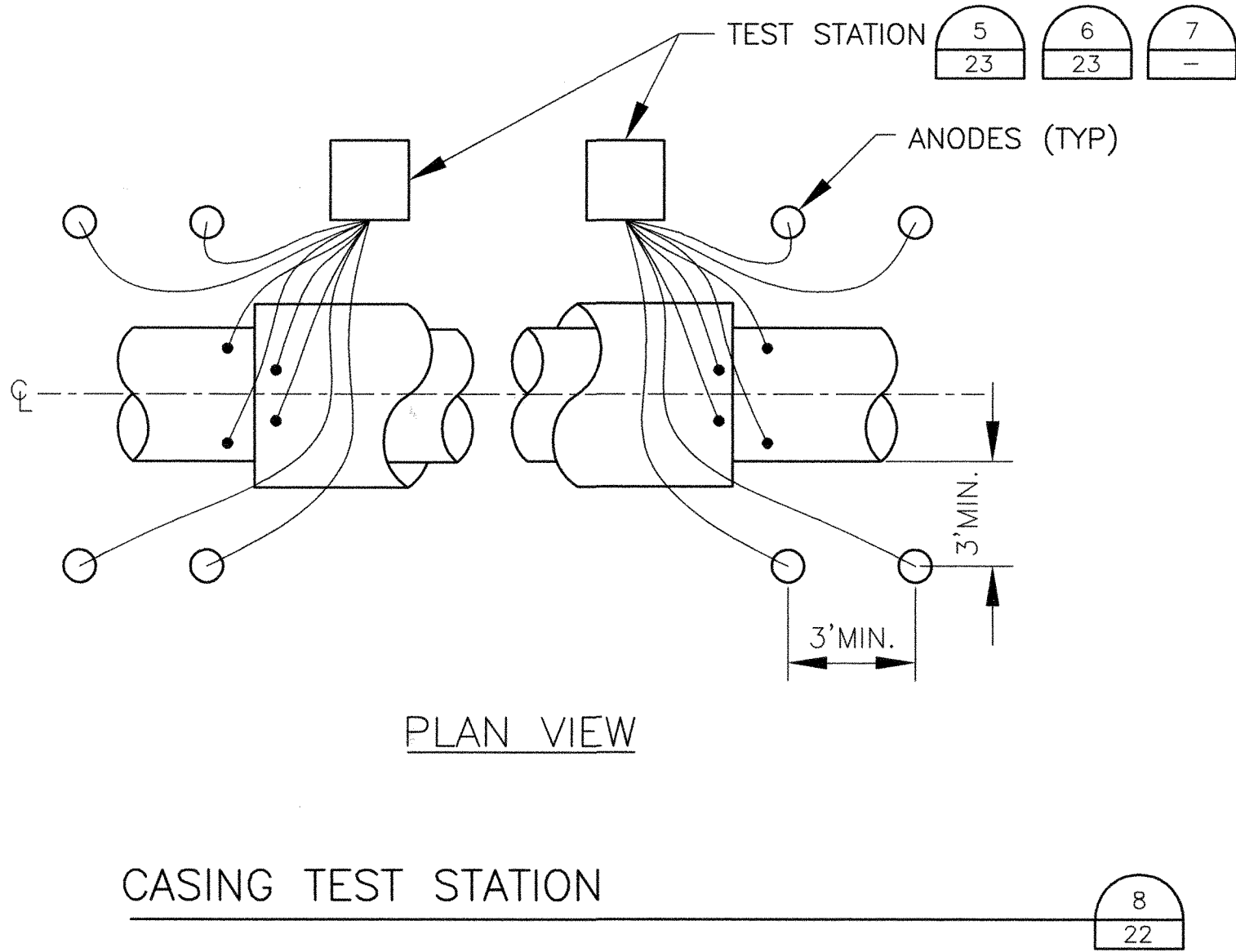
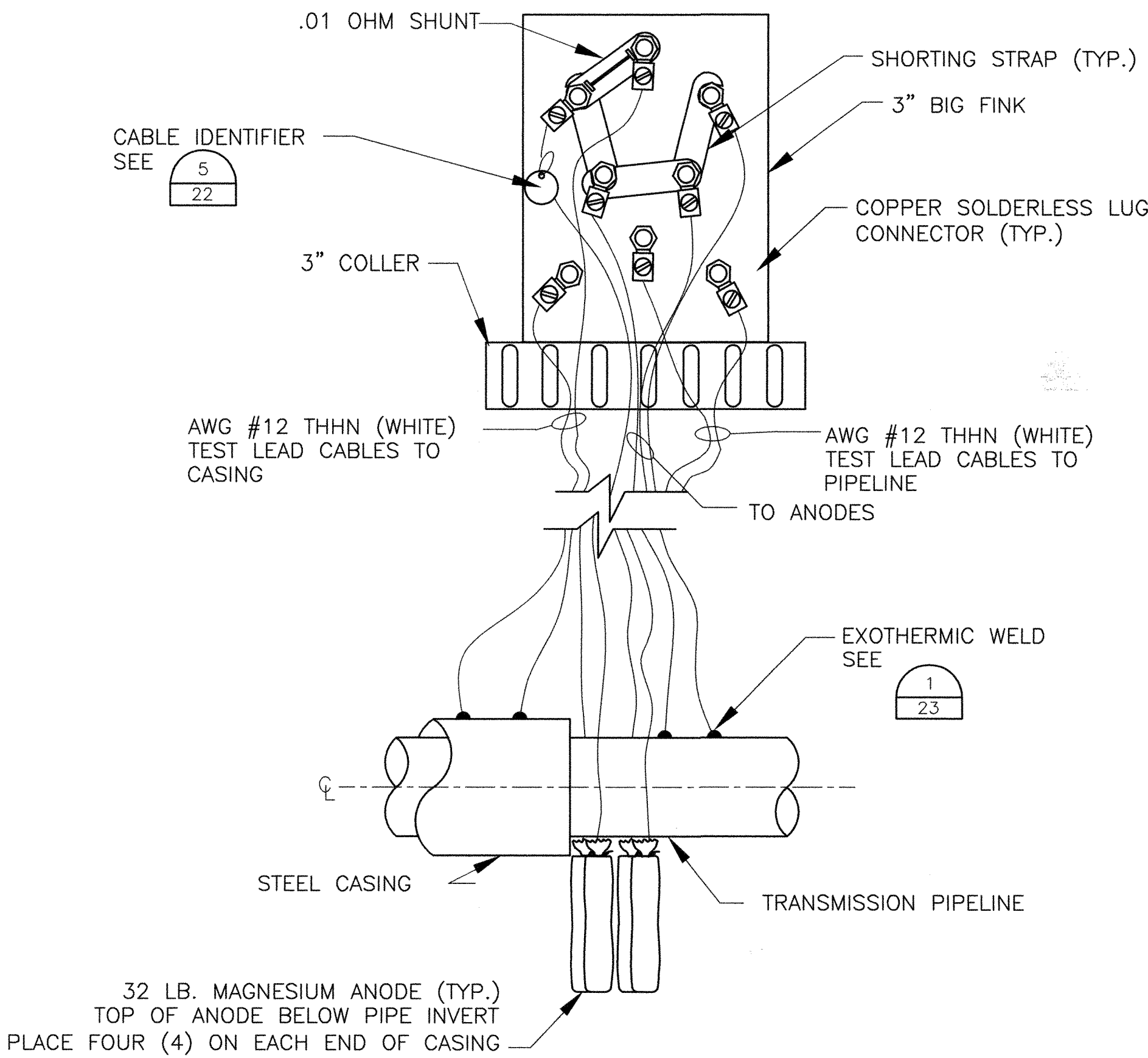
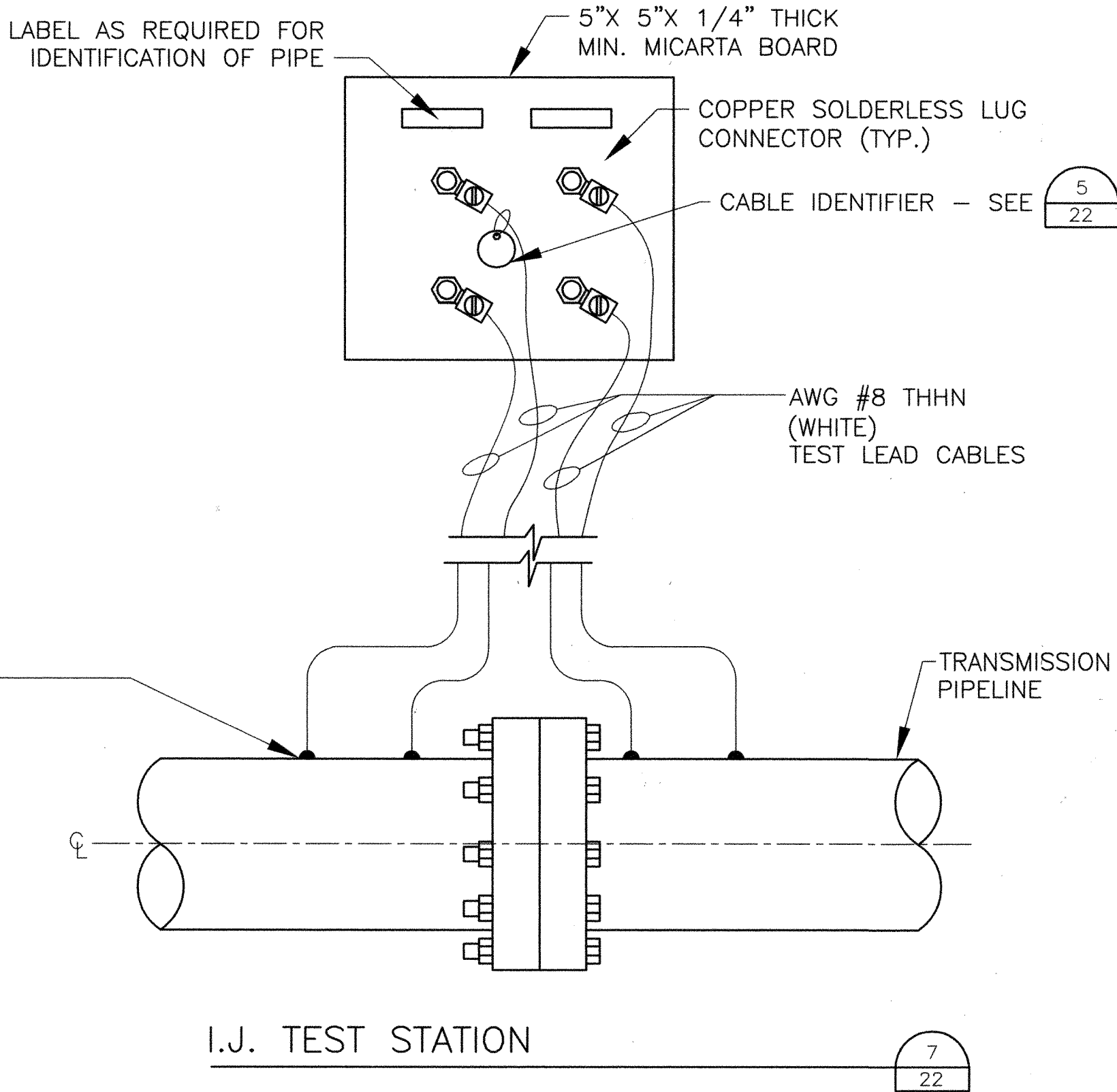
PIPELINE #4 – MIDDLE SEC.
 RECORDING DETAILS

ENGINEER'S SEAL			SURVEY INFORMATION		BENCH MARKS	AS-BUILT INFORMATION
			FIELD NOTES		BRASS CAP STAMPED "L424 1982"	CONTRACTOR
			NO.	DATE		WORK DONE BY
R	3/30/06	RECORD DRAWINGS	CMAA		ELEVATION = 5098.75 NAVD83, in U.S. feet	INSPECTOR'S ACCEPTANCE BY DATE
NO.	DATE	REMARKS	BY		FROM THE JUNCTION OF I-40 & ST. HWY. 448,	DATE
DESIGN <i>REVISIONS</i>					IN TOP OF AND 0.3' EAST OF THE WEST END OF	DATE
					THE SO. CONC. ABUTMENT OF THE SO. BOUND	DATE
DESIGNED BY	CMAA	DATE	2/08/06		OVERPASS OF I-40 & 22.0' WEST OF THE	RECORDED BY
DRAWN BY	RAG	DATE	2/08/06		CENTER OF THE SO. BOUND LANES OF THE HWY.	NO.
CHECKED BY	WFFZ	DATE	2/08/06		448. THE BM IS 3.94' BELOW THE STATE HWY.	

RECORD DOCUMENTS

THESE RECORD DOCUMENTS WERE PREPARED BASED UPON HARD COPY MARKUPS PROVIDED BY RMCI, INC. AND AUI, INC., AND THE PREPARATION OF THESE RECORD DOCUMENTS IS LIMITED TO INCORPORATING SUCH CHANGES INDICATED BY RMCI, INC. AND AUI, INC. NEITHER HDR NOR OUR SUBCONSULTANTS MAKE ANY REPRESENTATIONS, WARRANTIES OR GUARANTEES, EXPRESSED OR IMPLIED, AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION CONTAINED ON THESE RECORD DOCUMENTS. THE USER OF INFORMATION PROVIDED ON THESE RECORD DOCUMENTS ASSUMES ALL RISK; ALWAYS FIELD VERIFY THE ACTUAL LOCATIONS OF ALL INFORMATION PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.

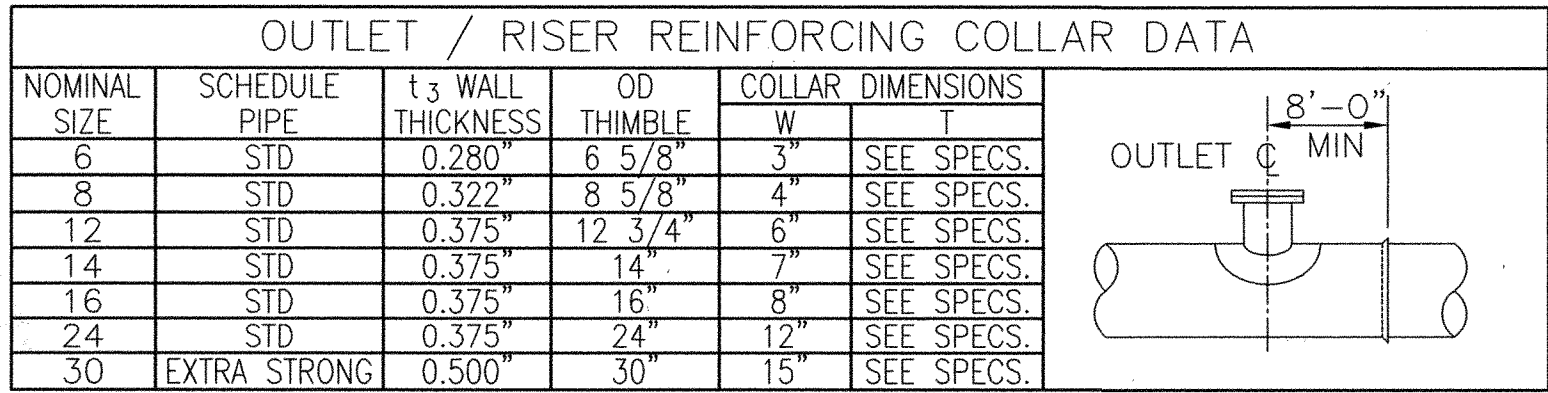
AS BUILT INFORMATION				BENCH MARKS				SURVEY INFORMATION				ENGINEER'S SEAL				REVISIONS			
CONTRACTOR	WORK STARTED BY	DATE	DATE	BRASS CAP STAMPED "1424 1982"	US&GS STANDARD BENCH MARK DISK	DATE	BY	NO.	DATE	BY	NO.	CMA	BY	DATE	DATE	DESIGNED BY	DATE	DRAWN BY	DATE
					ELEVATION = 5098.75 NAVD83, in U.S. feet														
					FROM THE JUNCTION OF I-40 & ST. HWY. 44B,														
					IN TOP OF AND 0.3' EAST OF THE WEST END OF														
					THE SO. CONC. ABUTMENT OF THE SO. BOUND														
					OVERPASS OF I-40 & 22.0' WEST OF THE														
					CENTER OF THE SO. BOUND LANES OF THE HWY.														
					44B. THE BM IS 3.94' BELOW THE STATE HWY.														



M. J. Schiff & Associates
431 West Baseline Road
Claremont, CA 91711-1608
(909) 626-0967

HDR
2155 LOUISIANA BLVD., NE
SUITE 9500
ALBUQUERQUE, NM 87110
MAIN: (505) 830-5400
FAX: (505) 830-5454

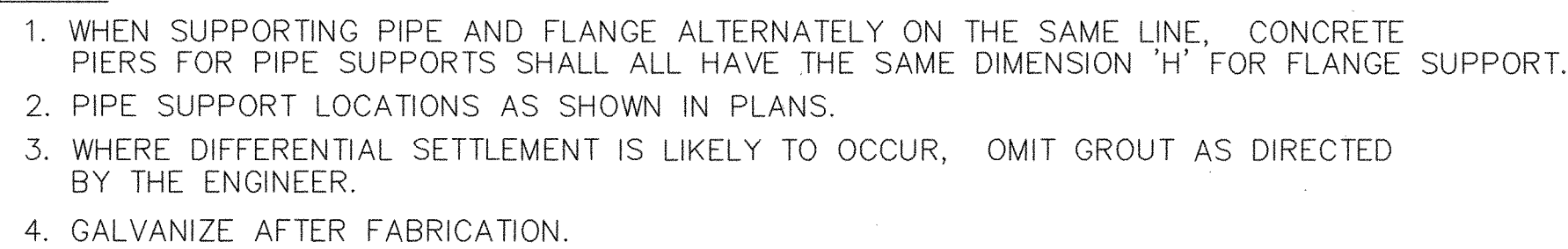
ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY			
TITLE: SJC DWP TRANSMISSION PIPELINE #4 - MIDDLE SEG. CORROSION MONITORING DETAILS			
Design Review Committee	City Engineer Approval	Last Design Update	Mo. / Day / Yr.
City Project No.	Zone Map No.	Sheet	Of
6811-04		24	46



2 DIP OUTLET RISER/MANWAY TO BE STANDARD DIP TEE PER MANUFACTURER OR WELDED STEEL PIPE PER THIS DETAIL.

NTS

² PROVIDE LARGER OF MIN WELDING PER AWS OR SCHEDULED VALUE



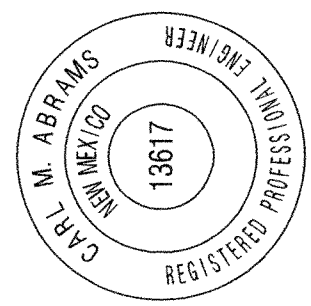
NTS



THESE RECORD DOCUMENTS WERE PREPARED BASED UPON HAND COPY MARKUPS PROVIDED BY RMCI, INC. HDR DID NOT VERIFY THE INFORMATION PROVIDED BY RMCI, INC. AND THE PREPARATION OF THESE RECORD DOCUMENTS IS LIMITED TO INCORPORATING SUCH CHANGES INDICATED BY RMCI, INC. NEITHER HDR NOR OUR SUBCONSULTANTS MAKE ANY REPRESENTATIONS, WARRANTIES OR GUARANTEES, EXPRESSED OR IMPLIED, AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION CONTAINED ON THESE RECORD DOCUMENTS. USE OF INFORMATION PROVIDED ON THESE RECORD DOCUMENTS ASSUMES ALL RISK; ALWAYS FIELD VERIFY THE ACTUAL LOCATIONS OF ALL INFORMATION PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.



NTS

ENGINEER'S SEAL

			R	3/30/06	RECORD DRAWINGS	CMA
			NO.	DATE	REMARKS	BY
					REVIEWS	
					DESIGN	
			DESIGNED BY	CMA	DATE	2/08/06
			DRAWN BY	RAG	DATE	2/08/06
			CHECKED BY	WZ	DATE	2/08/06

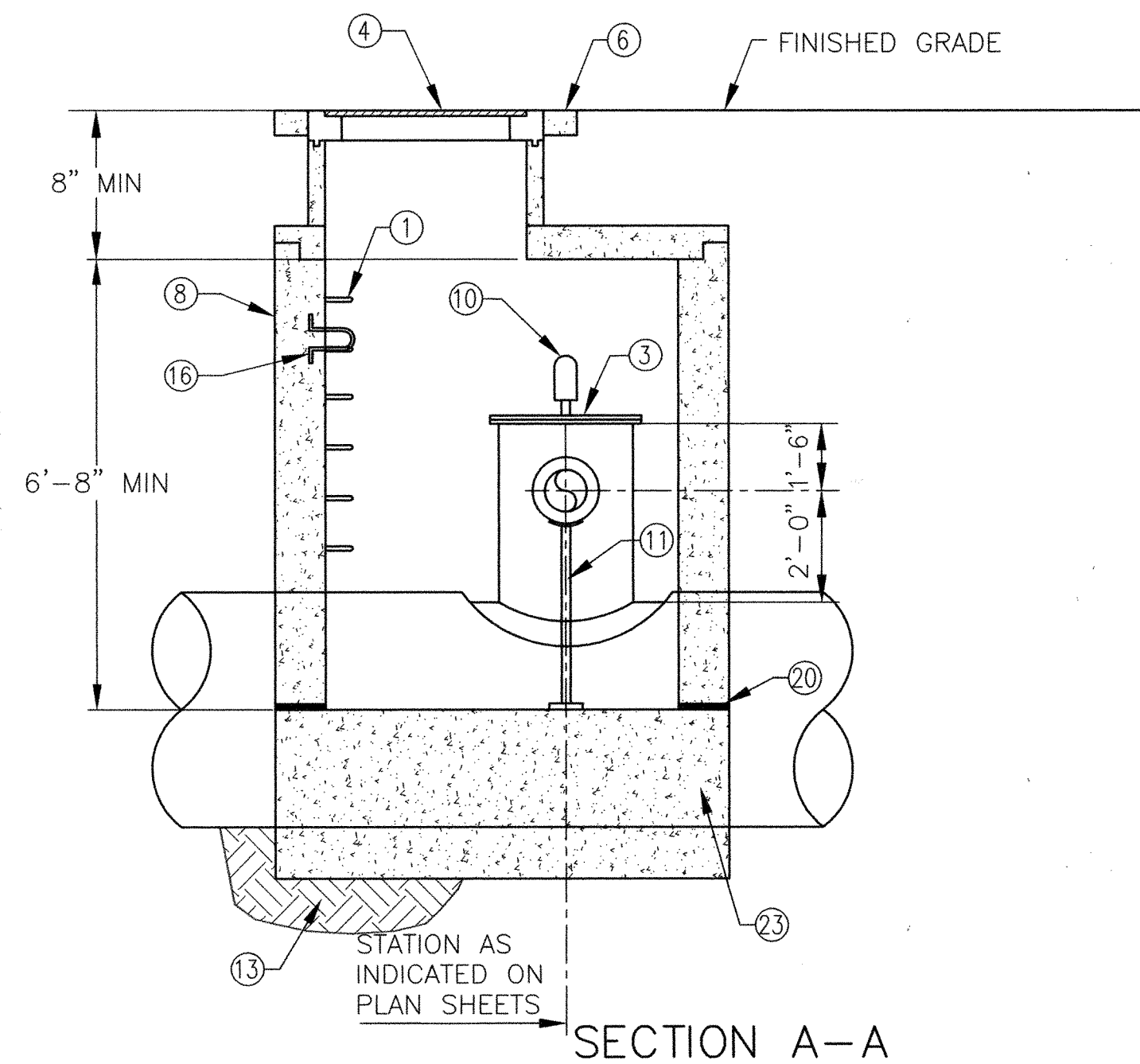
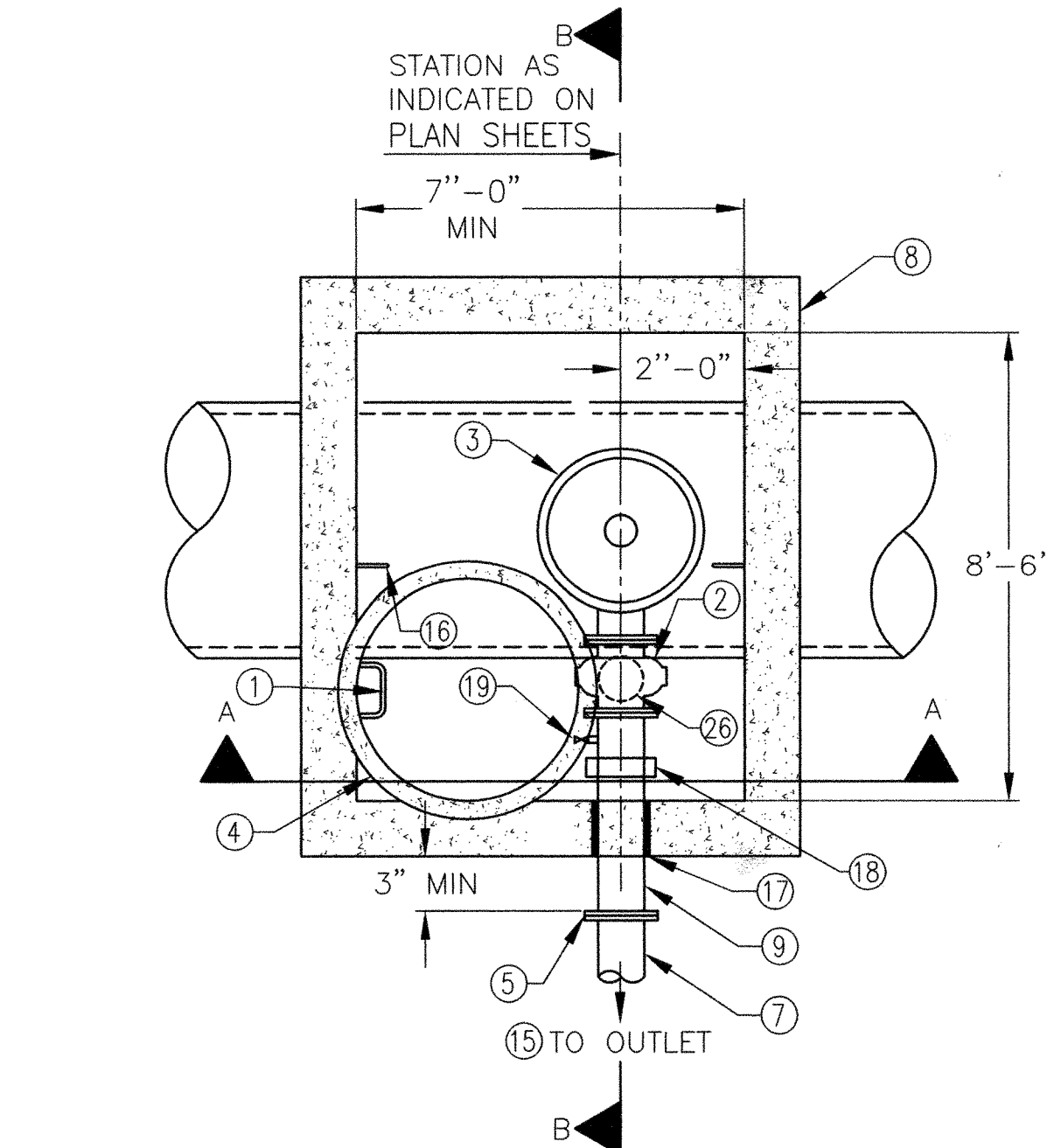


2155 LOUISIANA BLVD., NE
SUITE 9500
ALBUQUERQUE, NM 87110
MAIN: (505) 830-5400
FAX: (505) 830-5454

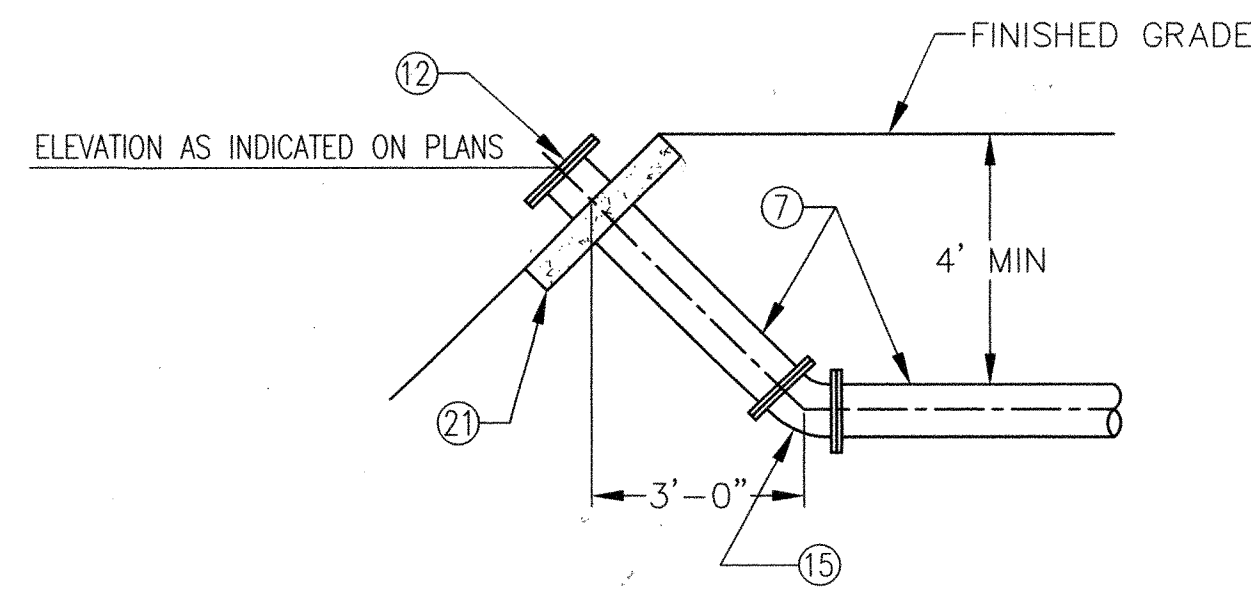
ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

TITLE: SJC DWP TRANSMISSION PIPELINE #4 - MIDDLE SEG.
MISCELLANEOUS DETAILS

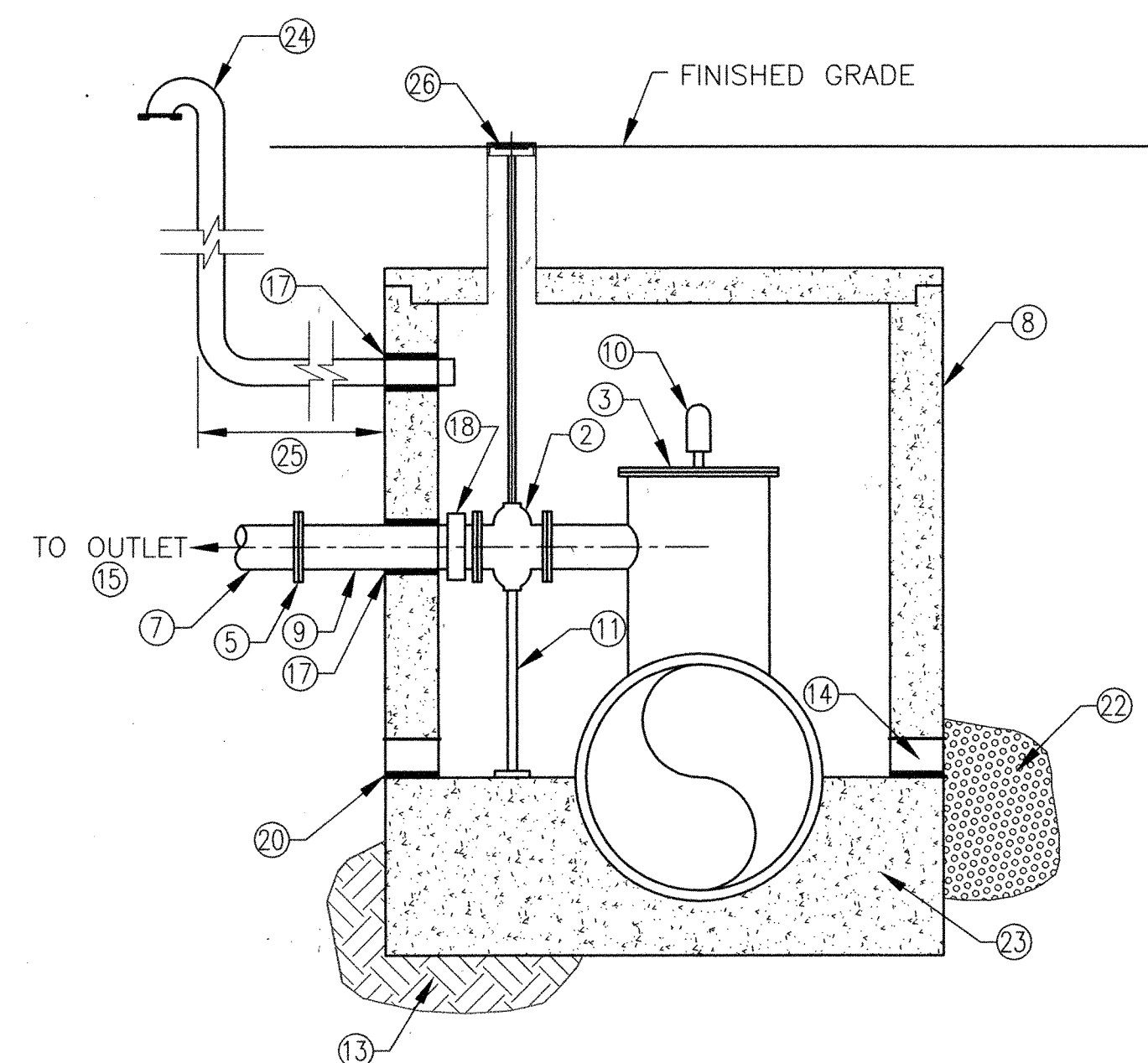
Design Review Committee	City Engineer Approval	Last Design Update	Mo. / Day / Yr.	Mo. / Day / Yr.
City Project No. 6811-04	Zone Map No.	Sheet 25	Of 46	



SECTION A-A
DRAIN VALVE, VAULT AND OUTLET
N.T.S.



OUTLET DETAIL

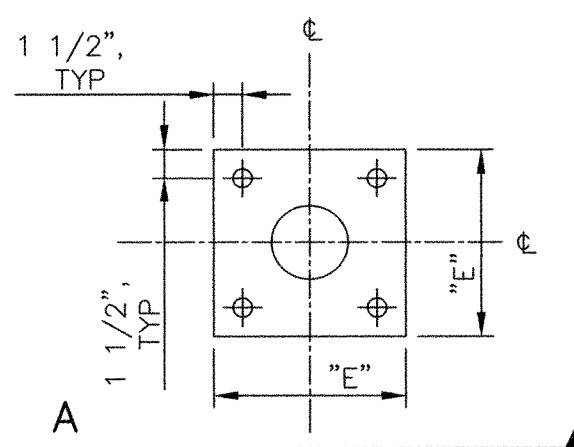
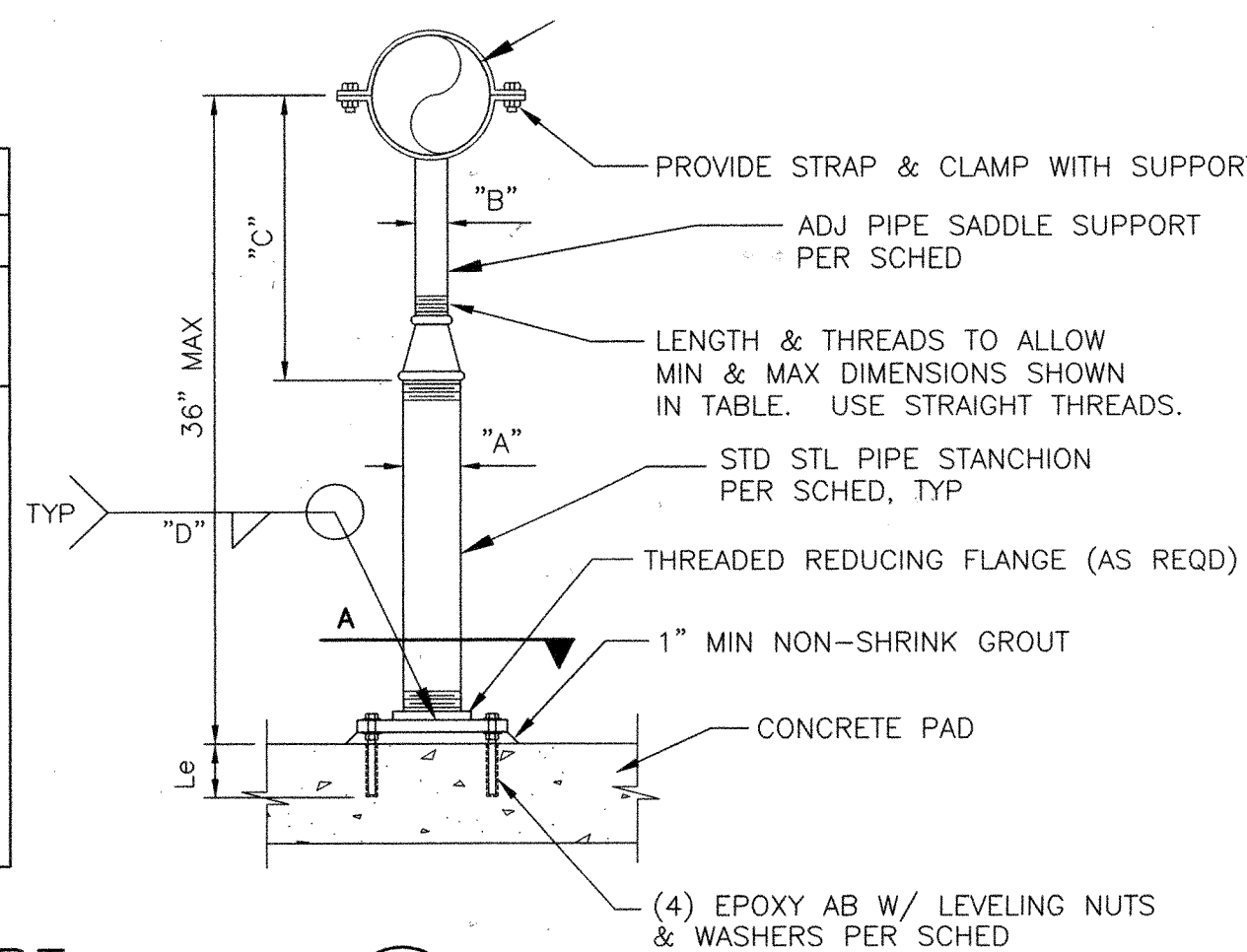


SECTION B-B

ADJUSTABLE PIPE SUPPORT SCHEDULE										
PIPE SIZE	MAX SUPPORT SPACING (FT)	"A" (IN)	"B" (IN)	"C" (IN)		"D" 2	BASE PLATE SPECS			
				MINIMUM	MAXIMUM		WIDTH, "E" (IN)	THICKNESS (IN)	BOLT ϕ	BOLT EMBED, Le (IN)
< 2 1/2	5	2 1/2	1 1/2	8	13	3/16	6	1/4	1/2	6
2 1/2	10	2 1/2	1 1/2	8	13	3/16	8	3/8	1/2	6
3	10	2 1/2	1 1/2	8 1/2	13 1/2	3/16	8	3/8	1/2	6
3 1/2	10	2 1/2	1 1/2	8 1/2	13 1/2	3/16	8	3/8	1/2	6
4	10	3	2 1/2	9 1/2	14 1/2	3/16	8	3/8	5/8	7
5	15	4	2 1/2	10 1/2	15 1/2	1/4	8	1/2	5/8	7
6	15	4	2 1/2	10 1/2	15 1/2	5/16	10	1/2	5/8	7
8	15	4	2 1/2	11 1/2	16 1/2	5/16	12	1/2	5/8	8
10	20	6	2 1/2	13 1/2	18 1/2	3/8	14	5/8	3/4	8
12	20	6	2 1/2	15	19 1/2	3/8	16	3/4	3/4	8

1 ALL DIMENSIONS ARE IN INCHES
2 PROVIDE LARGER OF MIN WELDING PER AWS OR SCHEDULED VALUE

ADJUSTABLE PIPE SUPPORT
N.T.S.



NOTES:
1. HOT-DIP GALVANIZE AFTER FABRICATION.
2. PIPE SHALL BE SCHEDULE 40.

KEYED NOTES:

- 1 LADDER - PROVIDE MIN CLEARANCE BEHIND STEPS PER OSHA. SEE $\frac{5}{27}$
- 2 12" GATE VALVE W/ HANDWHEEL OPERABLE FROM INSIDE THE VAULT ONLY.
- 3 30" DIA. RISER W/ BLIND FLANGE & WELDED STEEL OUTLET - SEE $\frac{1}{25}$
- 4 48" FRAME AND MANHOLE COVER, NEENAH FOUNDRY R-1741-F, TYPE C, FLUSH WITH PAVEMENT OR 6" ABOVE FINAL GRADE IN UNIMPROVED AREAS
- 5 ISOLATION FLANGE - SEE $\frac{3}{22}$ (LOCATION MOVED TO INSIDE VAULT TO DOWNSTREAM SIDE OF GATE VALVE)
- 6 6" CONCRETE COLLAR W/#4@12" EACH WAY, SLOPE TO DRAIN
- 7 12" DIP
- 8 PRECAST VAULT & LID W/(2) BLOCKOUTS FOR TRANSMISSION PIPELINE SIZE MODEL #2334/MOD2 BY HYDRA-CRETE OR ENGINEER-APPROVED EQUAL.
- 9 12" STEEL PIPE
- 10 AIR RELEASE VALVE OR COMBINATION AIR VALVE - SEE DRAIN VALVE SCHEDULE. (ADDED PLUG VALVE BELOW CAV/ARV SIM TO $\frac{1}{27}$)
- 11 ADJUSTABLE PIPE SUPPORT - SEE $\frac{2}{-}$
- 12 BLIND FLANGE PER SPECIFICATIONS.
- 13 SUBGRADE COMPACTION PER SPECIFICATIONS.
- 14 6" SCHED. 40 PVC DRAIN (4) TYP
- 15 DAYLIGHT TO LOCATION INDICATED ON PLAN SHEET W/ BENDS AND FITTINGS AS NECESSARY. (JOINT RESTRAINT LENGTH EACH SIDE OF FITTING PER MANUFACTURER'S RECOMMENDATIONS. JOINT RESTRAINT TO BE FLANGED OR MECHANICALLY RESTRAINED. SEE OUTLET DETAIL THIS SHEET.
- 16 HANDLING EYE, SEE $\frac{3}{27}$ OR PER VAULT MANUFACTURER
- 17 LINK SEAL, SEE $\frac{3}{20}$
- 18 VICTAULIC NO. 77 COUPLING, TYP
- 19 NOT USED
- 20 6" WIDE STRIP OF 3/4" THICK ASPHALT IMPREGNATED EXPANSION JOINT MATERIAL
- 21 3'x3'x6" CONCRETE COLLAR W/#4@12" O.C. EACH WAY
- 22 12"x12"x18" (MIN) 1" CLEAN GRAVEL (ASTM C33, NO. 57 GRAVEL)
- 23 CONCRETE ENCASEMENT TO SPRINGLINE OF TRANSMISSION PIPELINE - SEE $\frac{4}{27}$
- 24 VENT IF REQUIRED - SEE DRAIN VALVE SCHEDULE AND $\frac{2}{27}$
- 25 EXTEND VENT TO 2' FROM PROPERTY LINE OR LOCATION AS APPROVED BY ENGINEER.
- 26 VALVE BOX, RING AND COVER SEE $\frac{1}{28}$ FOR ALL VALVES REQUIRING REMOTE OPERATION.

Drain Valve Schedule

Station	Transmission Pipeline Size	Operating Pressure (psi)	Drain Valve Size	CAV / ARV Valve				Vault Vent Req'd
				Type	Size	Capacity (scfm)	Orifice Size	
250+00	54"	142	12"	CAV	6"	111	1/4"	YES
305+50	60"	177	12"	CAV	6"	111	1/4"	YES
322+44	60"	180	12"	CAV	6"	111	1/4"	YES
332+60	60"	177	12"	CAV	6"	111	1/4"	YES

NOTE: CONTRACTOR USED CAVs FOR ALL ARVs

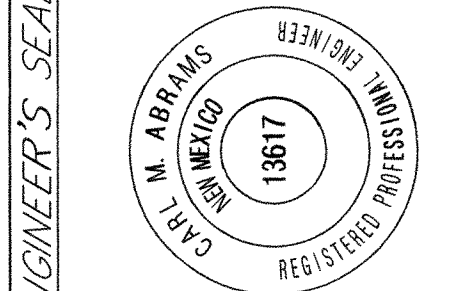
RECORD DOCUMENTS

THESE RECORD DOCUMENTS WERE PREPARED BASED UPON HARD COPY MARKUPS PROVIDED BY RMCI, INC. HDR DID NOT VERIFY THE INFORMATION PROVIDED BY RMCI, INC. AND THE PREPARATION OF THESE RECORD DOCUMENTS IS LIMITED TO INCORPORATING SUCH CHANGES INDICATED BY RMCI, INC. NEITHER HDR NOR OUR SUBCONSULTANTS MAKE ANY REPRESENTATIONS, WARRANTIES OR GUARANTEES, EXPRESSED OR IMPLIED, AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION CONTAINED ON THESE RECORD DOCUMENTS. THE USER OF INFORMATION PROVIDED ON THESE RECORD DOCUMENTS ASSUMES ALL RISK: ALWAYS FIELD VERIFY THE ACTUAL LOCATIONS OF ALL INFORMATION PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.



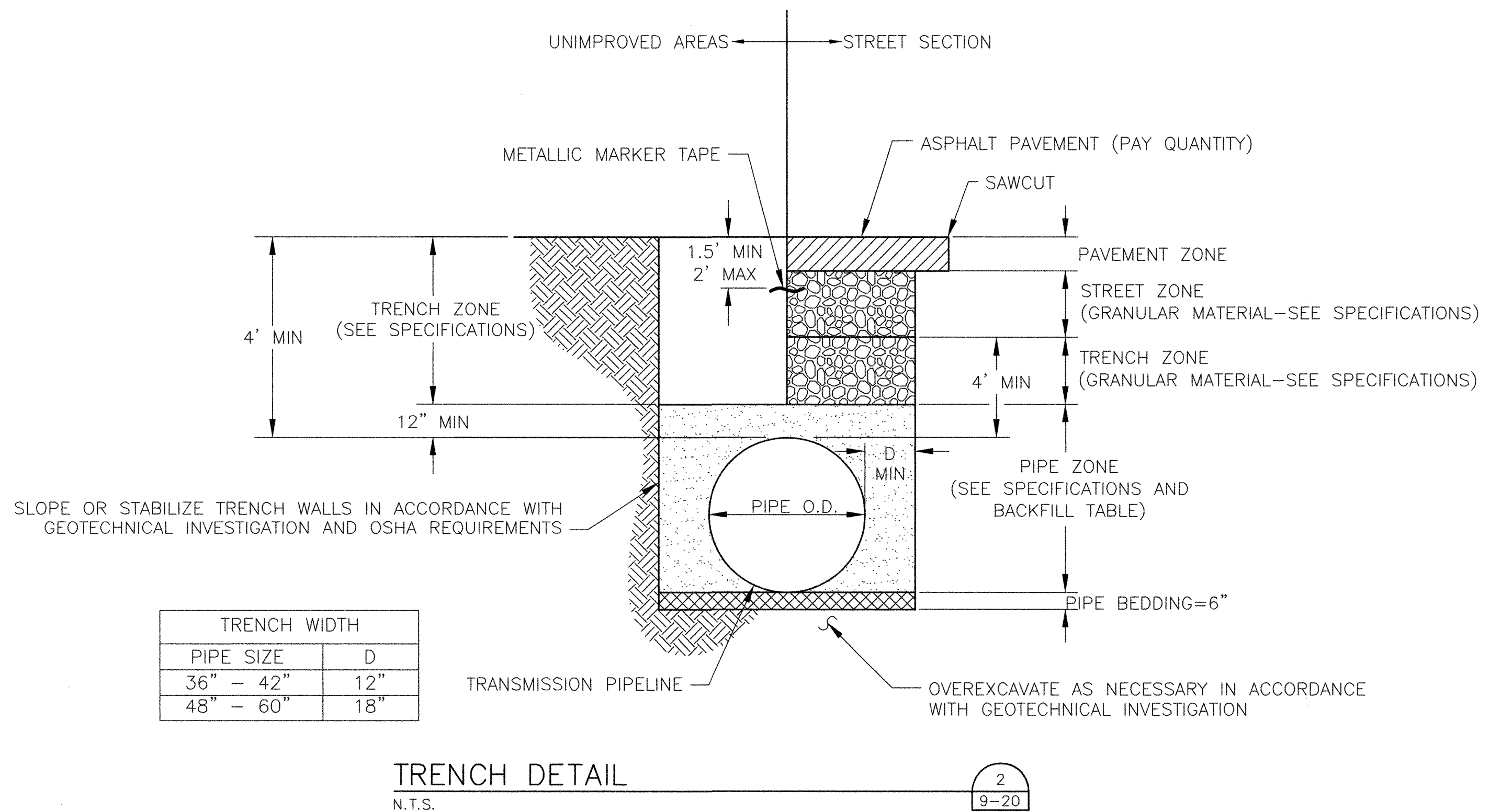
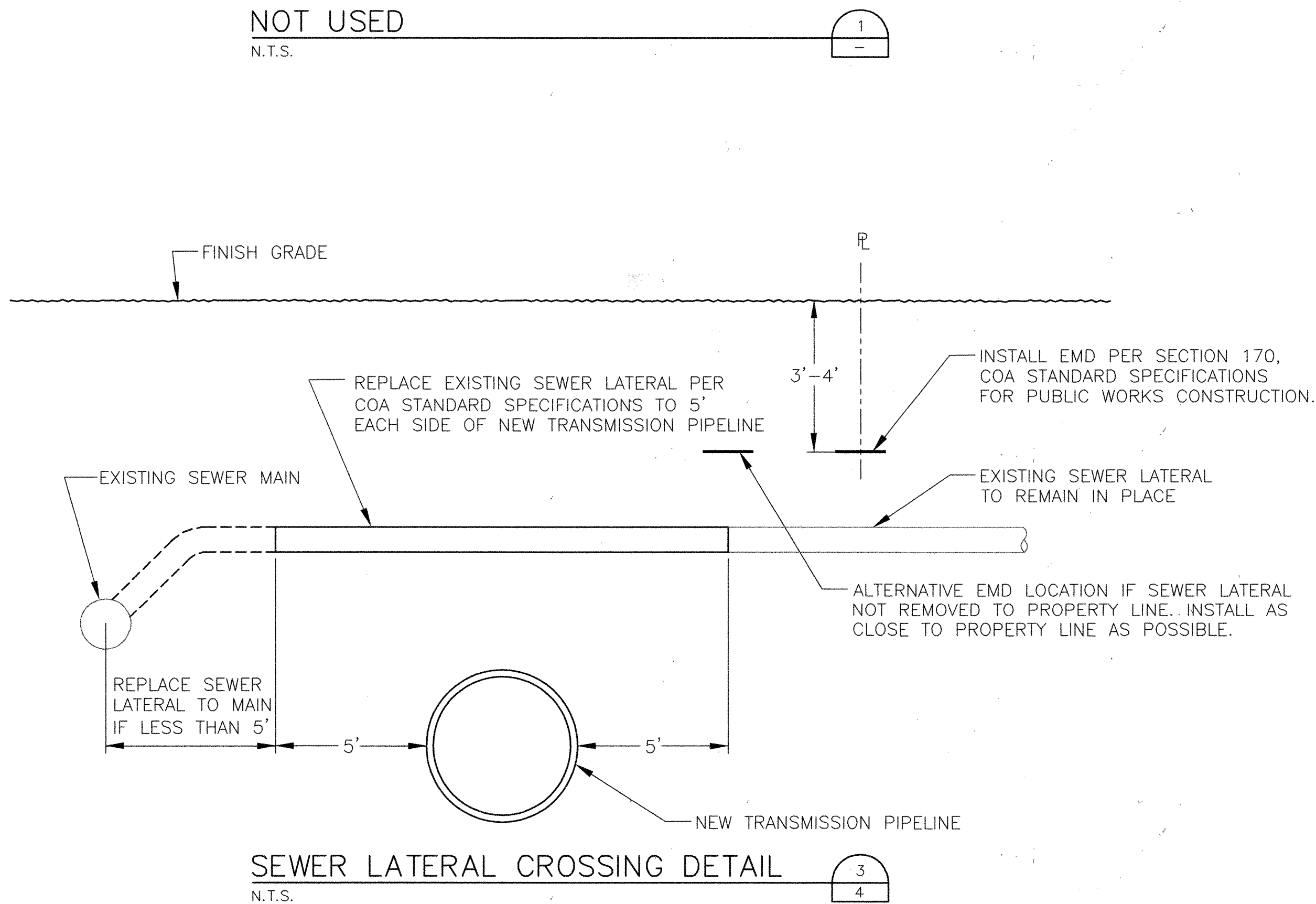
ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY
TITLE: SJC DWP TRANSMISSION PIPELINE #4 - MIDDLE SEG.
MISCELLANEOUS DETAILS

Design Review Committee		City Engineer Approval		Last Design Update	Mo. / Day / Yr.	
City Project No.		Zone Map No.		Sheet	Of	
6811-04				26	46	



REVISIONS		DESIGN	
NO.	DATE	BY	DATE
1	3/30/06	RECORD DRAWINGS	2/08/06
2			2/08/06
3			2/08/06
4			2/08/06

[illegible]



RECORD DOCUMENTS

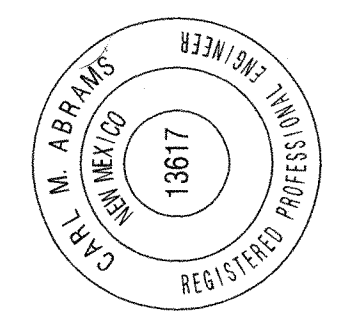
THESE RECORD DOCUMENTS WERE PREPARED BASED UPON HARD COPY MARKUPS PROVIDED BY RMCI, INC. HDR DID NOT VERIFY THE INFORMATION PROVIDED BY RMCI, INC. AND THE PREPARATION OF THESE RECORD DOCUMENTS IS LIMITED TO INCORPORATING SUCH CHANGES INDICATED BY RMCI, INC. NEITHER HDR NOR OUR SUBCONSULTANTS MAKE ANY REPRESENTATIONS, WARRANTIES OR GUARANTEES, EXPRESSED OR IMPLIED, AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION CONTAINED ON THESE RECORD DOCUMENTS. THE USER OF INFORMATION PROVIDED ON THESE RECORD DOCUMENTS ASSUMES ALL RISK: ALWAYS FIELD VERIFY THE ACTUAL LOCATIONS OF ALL INFORMATION PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.

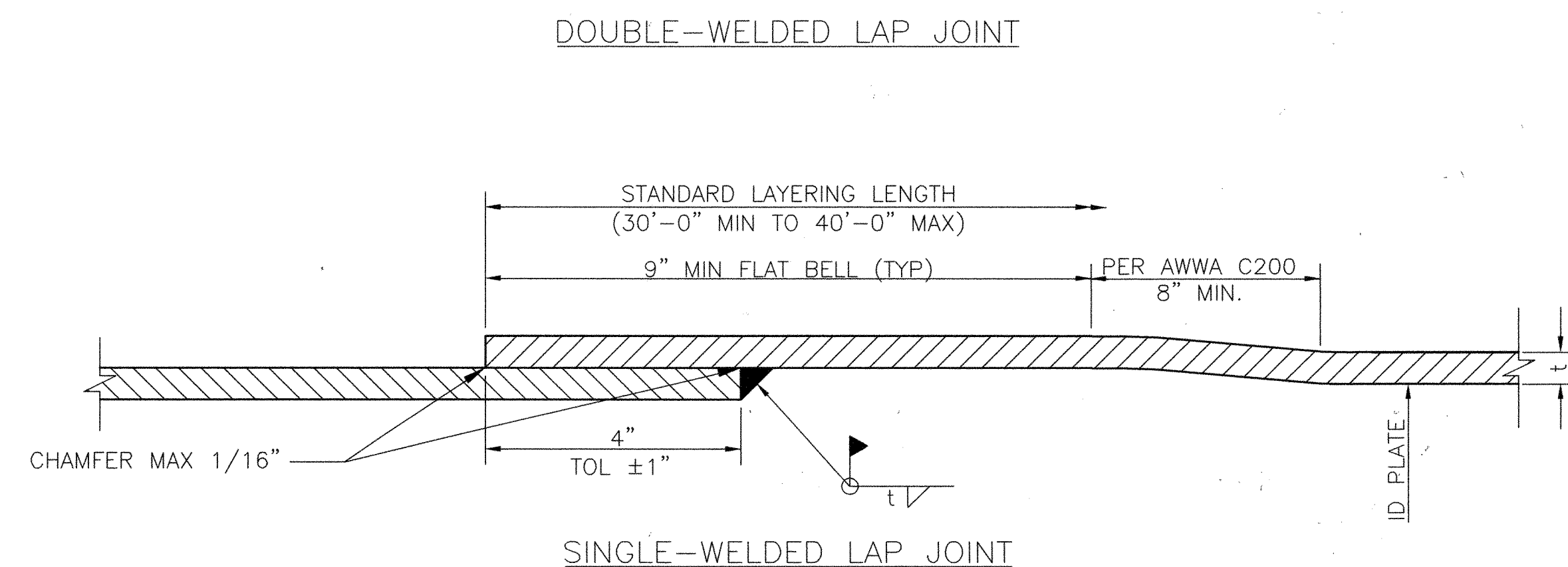


		ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY	
TITLE: SJC DWP TRANSMISSION PIPELINE #4 - MIDDLE SEG. MISCELLANEOUS DETAILS			
Design Review Committee	City Engineer Approval	Last Design Update	Mo. / Day / Yr. Mo. / Day / Yr. _____ _____ _____
City Project No. 6811-04	Zone Map No.	Sheet 28	Of 46

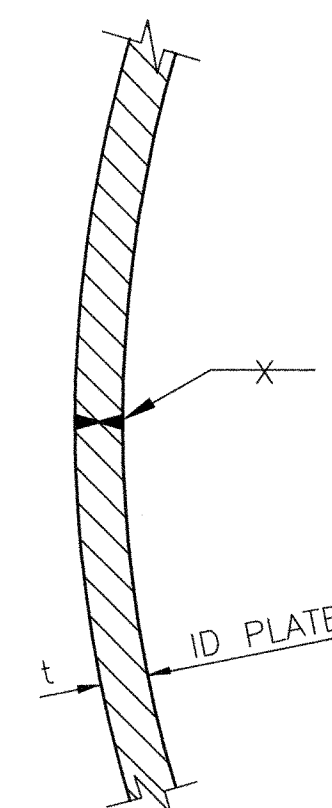
ENGINEER'S SEAL			SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
				FIELD NOTES				
			NO.	BY	DATE			
						BRASS CAP STAMPED "L424 1982"		
						USCGS STANDARD BENCH MARK DISK		
						ELEVATION = 5098.75 NAVD88, in U.S. feet	WORK STAKED BY DATE	
						FROM THE JUNCTION OF I-40 & ST. HWY. 448,	INSPECTOR'S ACCEPTANCE BY DATE	
						IN TOP OF AND 0.3' EAST OF THE WEST END OF	FIELD DRAWINGS VERIFICATION BY DATE	
						THE SO. CONC. ABUTMENT OF THE SO. BOUND	CORRECTED BY DATE	
						OVERPASS OF I-40 & 22.0' WEST OF THE	MICRO-FILM INFORMATION	
						CENTER OF THE SO. BOUND LANES OF THE HWY.		
						448. THE BM IS 3.94' BELOW THE STATE HWY.	RECORDED BY	DATE
							NO.	

																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							</
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	----





TYPICAL JOINTS—WELDED STEEL PIPE



SHOP WELD DETAIL	2
N.T.S.	-


NOTES:

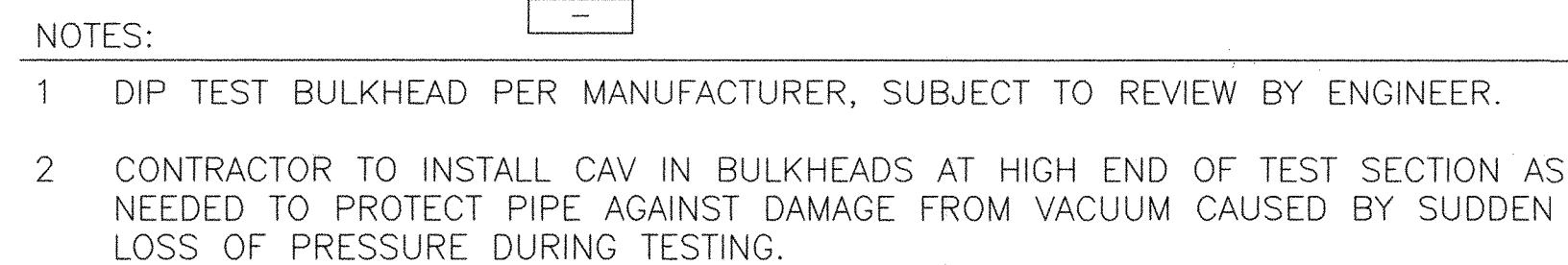
1. CONTRACTOR SHALL USE LAYERS OF 125 MIL SEALANT TAPE PER TAPE MANUFACTURERS RECOMMENDATIONS BETWEEN OD OF BELL AND SPIGOT PRIOR TO APPLICATION OF PROTECTIVE WRAPS.
2. FOR INSIDE DIAMETER AND PLATE THICKNESS OF WELDED STEEL PIPE AND LOCATION OF DOUBLE WELDED LAP JOINTS, SEE PLAN AND PROFILE SHEETS.
3. "t" INDICATES THE THICKNESS OF THE STEEL PLATE AT THE STATION WHERE USED.
4. CONTRACTOR SHALL BEVEL ENDS OF BACKING PLATE AT BUTT-STRAP PRIOR TO WELDING OR BACK-GOUGE AT CONTACT WITH ADJACENT CYLINDER PRIOR TO COMPLETING INSIDE FILLET WELD.
5. BEFORE WELDING, CONTRACTOR SHALL DRILL AND TAP HOLES AS NOTED FOR 1/4" PIPE NIPPLE. CONTRACTOR SHALL AIR AND SOAP TEST AFTER WELDING IS COMPLETED. CONTRACTOR SHALL PLUG WELD HOLES AFTER SUCCESSFUL COMPLETION OF JOINT TESTS.
6. MAX PULL 3/4".

RECORD DOCUMENTS

THESE RECORD DOCUMENTS WERE PREPARED BASED UPON HAND COPY MARKUPS PROVIDED BY RMCI, INC. HDR DID NOT VERIFY THE INFORMATION PROVIDED BY RMCI, INC. AND THE PREPARATION OF THESE RECORD DOCUMENTS IS LIMITED TO INCORPORATING SUCH CHANGES INDICATED BY RMCI, INC. NEITHER HDR NOR OUR SUBCONSULTANTS MAKE ANY REPRESENTATIONS, WARRANTIES OR GUARANTEES, EXPRESSED OR IMPLIED, AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION CONTAINED OR OBTAINED FROM THESE RECORD DOCUMENTS. THE USER OF INFORMATION ON THE RECORD DOCUMENTS ASSUMES ALL RISK. AFIELD WILL VERIFY THE ACTUAL LOCATIONS OF ALL INFORMATION PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.

HDR 2155 LOUISIANA BLVD., NE
SUITE 9500
ALBUQUERQUE, NM 87110
MAIN: (505) 830-5400
FAX: (505) 830-5454

	ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY														
TITLE: SJC DWP TRANSMISSION PIPELINE #4 – MIDDLE SEG. STEEL PIPE DETAILS															
Design Review Committee	City Engineer Approval	Last Design Update	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Mo. / Day / Yr.</th> <th style="width: 50%;">Mo. / Day / Yr.</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	Mo. / Day / Yr.	Mo. / Day / Yr.										
Mo. / Day / Yr.	Mo. / Day / Yr.														
City Project No. <div style="font-size: 24px; font-weight: bold; margin-top: 10px;">6811-04</div>	Zone Map No.	Sheet <div style="font-size: 24px; font-weight: bold; margin: 0 10px;">29</div> Of <div style="font-size: 24px; font-weight: bold; margin: 0 10px;">46</div>													



NTS



NTS



1. RADIUS SHOWN FOR TEST BULKHEAD APPLIES TO TORISPHERICAL HEAD ONLY.
2. CONTRACTOR SHALL HAVE THE OPTION OF TYPE 1 OR TYPE 2 BULKHEAD INSTALLATION.
3. CONTRACTOR SHALL USE LAYERS OF 125 MIL SEALANT TAPE PER TAPE MANUFACTURER'S RECOMMENDATIONS BETWEEN OD OF BELL AND SPIGOT PRIOR TO APPLICATION OF PROTECTIVE WRAPS.
4. FOR INSIDE DIAMETER AND PLATE THICKNESS OF WELDED STEEL PIPE AND LOCATION OF DOUBLE WELDED LAP JOINTS, SEE PLAN AND PROFILE SHEETS.
5. "t" INDICATES THE THICKNESS OF THE STEEL PLATE AT THE STATION WHERE USED.
6. BEFORE WELDING, CONTRACTOR SHALL DRILL AND TAP HOLES AS NOTED FOR 1/4" PIPE NIPPLE. CONTRACTOR SHALL AIR AND SOAP TEST AFTER WELDING IS COMPLETED. CONTRACTOR SHALL PLUG WELD HOLES AFTER SUCCESSFUL COMPLETION OF JOINT TESTS.
7. CONTRACTOR SHALL BEVEL ENDS OF BACKING PLATE AT BUTT-STRAP PRIOR TO WELDING OR BACK-GOUGE AT CONTACT WITH ADJACENT CYLINDER PRIOR TO COMPLETING INSIDE FILLET WELD.



TYPE II

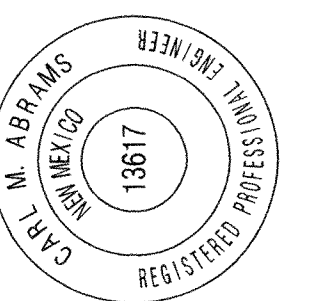
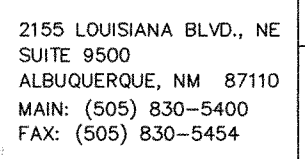
NTS

A diagram of a semi-circular arch. Inside the arch, the number 5 is written.



6

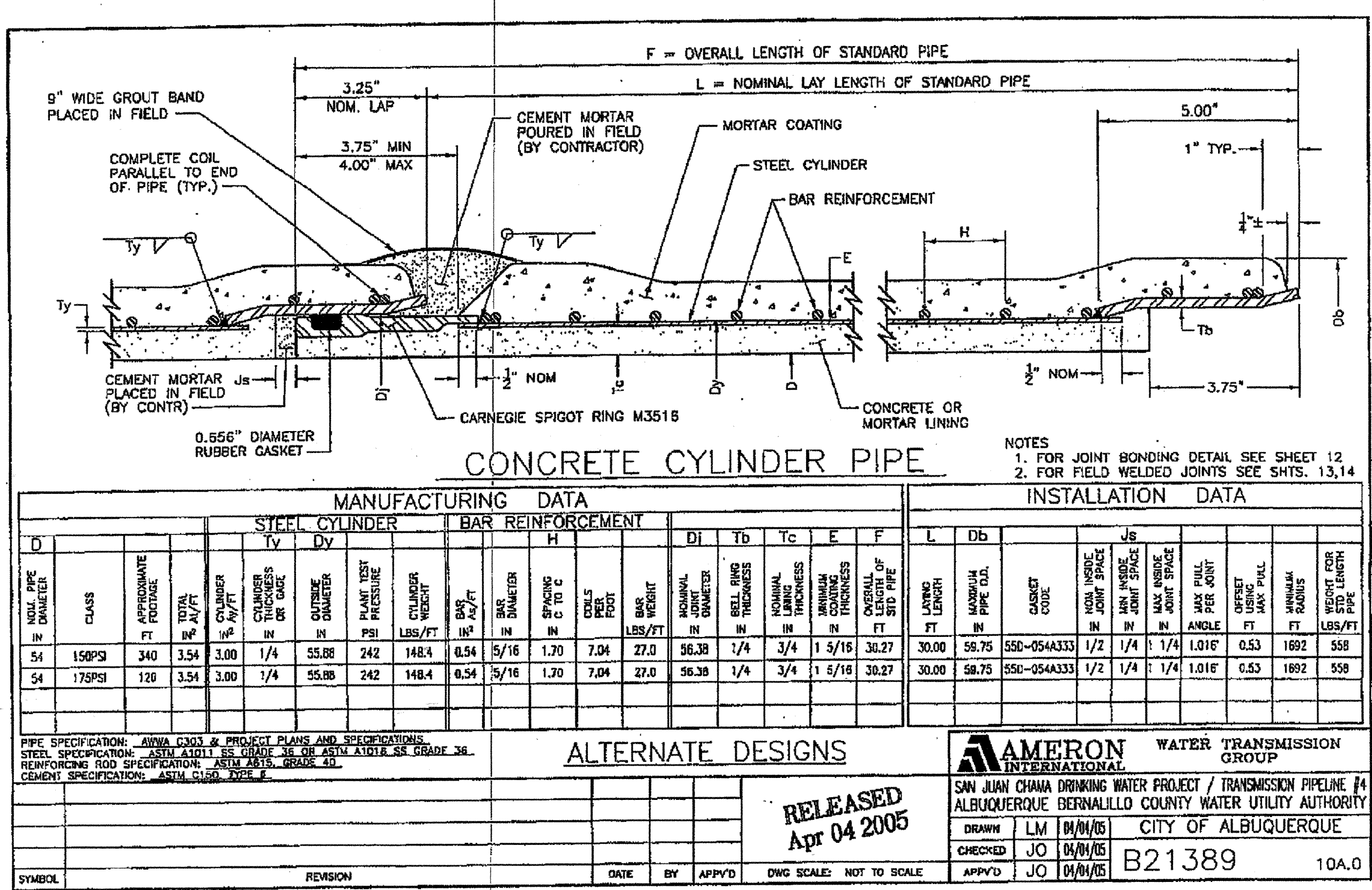
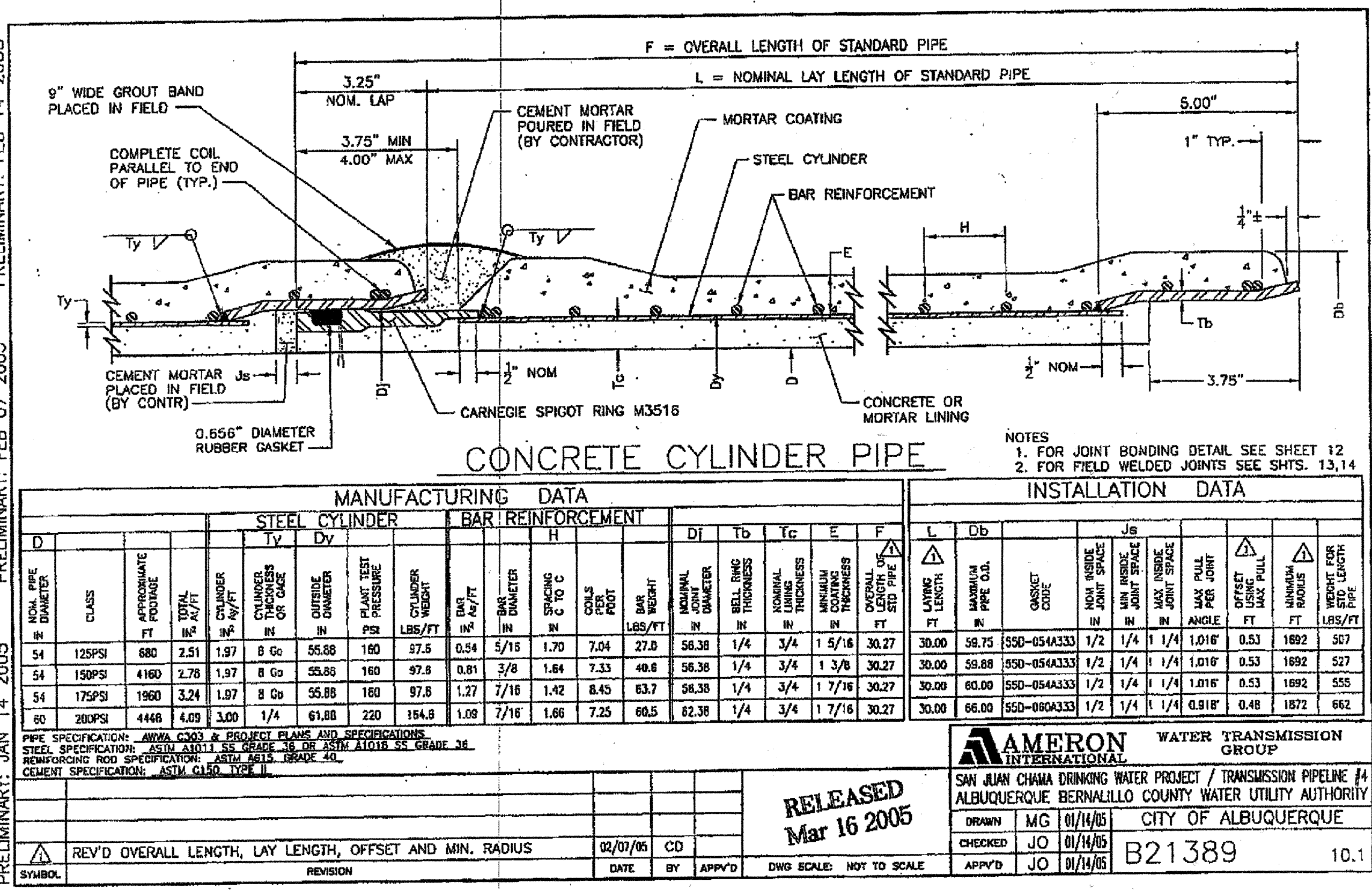
THESE RECORD DOCUMENTS WERE PREPARED BASED UPON HARD COPY MARKUPS PROVIDED BY RMCI, INC. HDR DID NOT VERIFY THE INFORMATION PROVIDED BY RMCI, INC. AND THE PREPARATION OF THESE RECORD DOCUMENTS IS LIMITED TO INCORPORATING SUCH CHANGES INDICATED BY RMCI, INC. NEITHER HDR NOR OUR SUBCONSULTANTS MAKE ANY REPRESENTATIONS, WARRANTIES OR GUARANTEES, EXPRESSED OR IMPLIED, AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION CONTAINED ON OR REFERRED TO IN THESE RECORD DOCUMENTS. THE INFORMATION ON THESE RECORD DOCUMENTS ASSUMES ALL RISK; ALWAYS FIELD VERIFY THE ACTUAL LOCATIONS OF ALL INFORMATION PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.

[illegible][illegible]

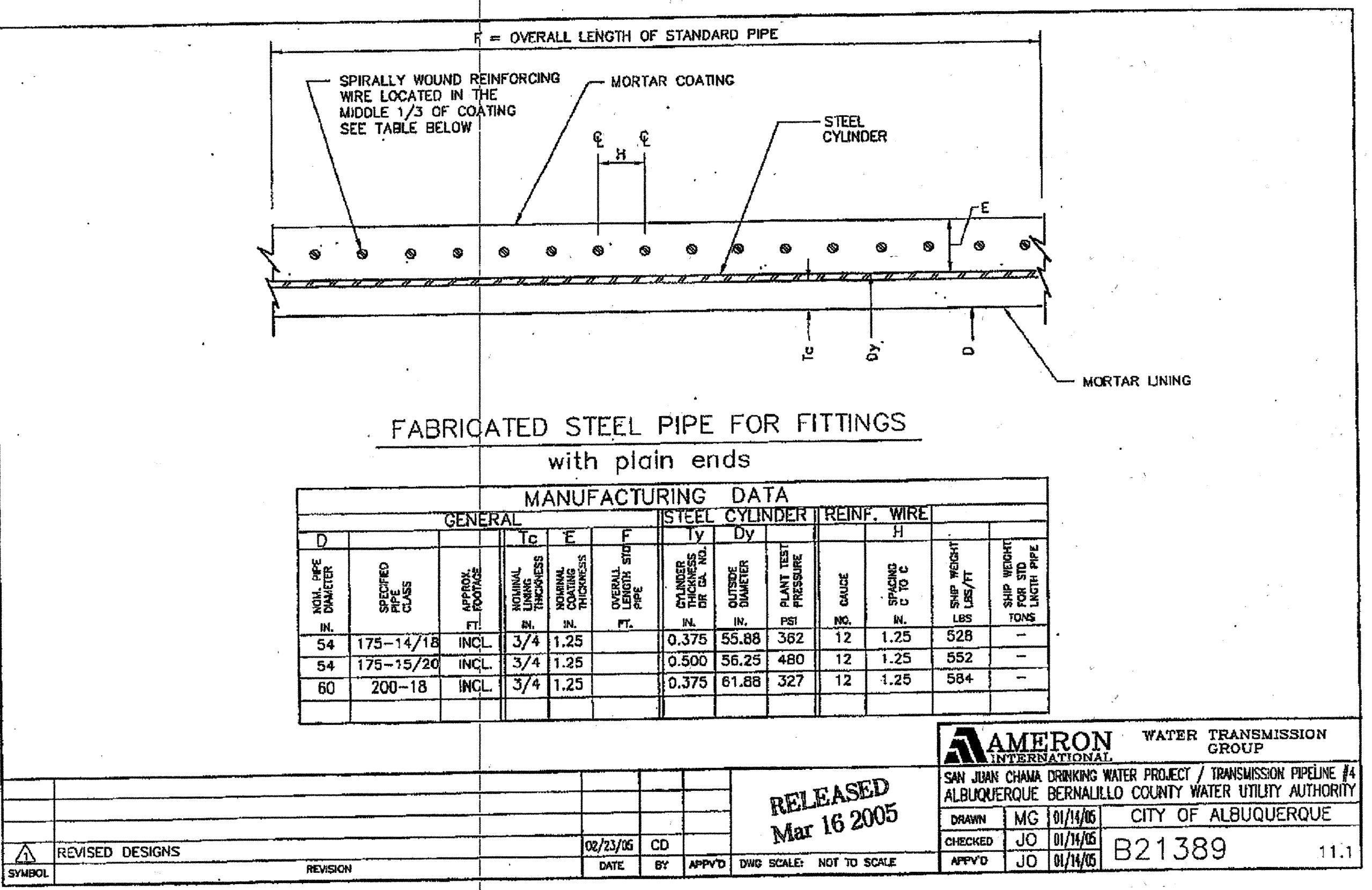
TITLE: SJC DWP TRANSMISSION PIPELINE #4 - MIDDLE SEG.
STEEL PIPE DETAILS

Design Review Committee	City Engineer Approval	Last Design Update	Mo. / Day / Yr.	Mo. / Day / Yr.
City Project No. 6811-04	Zone Map No.	Sheet	30	Of 46

PRELIMINARY: FEB 14 2005
PRELIMINARY: FEB 07 2005
PRELIMINARY: FEB 24 2005
PRELIMINARY: JAN 14 2005



PRELIMINARY: FEB 24 2005
PRELIMINARY: FEB 14 2005
PRELIMINARY: FEB 14 2005
PRELIMINARY: JAN 14 2005



RECORD DOCUMENTS

THESE RECORD DOCUMENTS WERE PREPARED BASED UPON HARD COPY MARKUPS PROVIDED BY RMCI, INC. HDR DID NOT VERIFY THE INFORMATION PROVIDED BY RMCI, INC. AND THE PREPARATION OF THESE RECORD DOCUMENTS IS LIMITED TO INCORPORATING SUCH CHANGES INDICATED BY RMCI, INC. NEITHER HDR NOR OUR SUBCONSULTANTS MAKE ANY REPRESENTATIONS, WARRANTIES OR GUARANTEES, EXPRESSED OR IMPLIED, AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION CONTAINED ON THESE RECORD DOCUMENTS. THE USER OF INFORMATION PROVIDED ON THESE RECORD DOCUMENTS ASSUMES ALL RISK; ALWAYS FIELD VERIFY THE ACTUAL LOCATIONS OF ALL INFORMATION PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.



ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

TITLE: SJC DWP TRANSMISSION PIPELINE #4 - MIDDLE SEG.
CONCRETE CYLINDER PIPE DETAILS

Design Review Committee	City Engineer Approval	Mo. / Day / Yr.	Mo. / Day / Yr.
City Project No.	Zone Map No.	Sheet	Of
6811-04		31	46

AS BUILT INFORMATION			
CONTRACTOR	WORK	DATE	DATE
USC&GS STANDARD BENCH MARK DISK	STAKED BY	DATE	DATE
ELEVATION = 5098.75 NAVD88, in U.S. feet	ACCEPTANCE BY	DATE	DATE
FROM THE JUNCTION OF I-40 & ST. HWY. 448,	FIELD CATION BY	DATE	DATE
IN TOP OF AND 0.3' EAST OF THE WEST END OF	DRAWINGS	DATE	DATE
THE SO. CONC. ABUTMENT OF THE SO. BOUND	CORRECTED BY	DATE	DATE
OVERPASS OF I-40 & 22.0' WEST OF THE	RECORDED BY	DATE	DATE
CENTER OF THE SO. BOUND LANES OF THE HWY.	NO.	DATE	DATE
448. THE BM IS 3.94' BELOW THE STATE HWY.			

SURVEY INFORMATION			
FIELD NOTES	DATE	BY	DATE
NO.			

ENGINEER'S SEAL			
NO.	DATE	BY	DATE

REVISIONS	DATE	BY	DATE
DESIGN	2/05/06	CMA	2/05/06
DRAWN BY	2/05/06	RAC	2/05/06
CHECKED BY	2/05/06	WFZ	2/05/06