

UNIVERSE BOULEVARD TRANSMISSION LINE

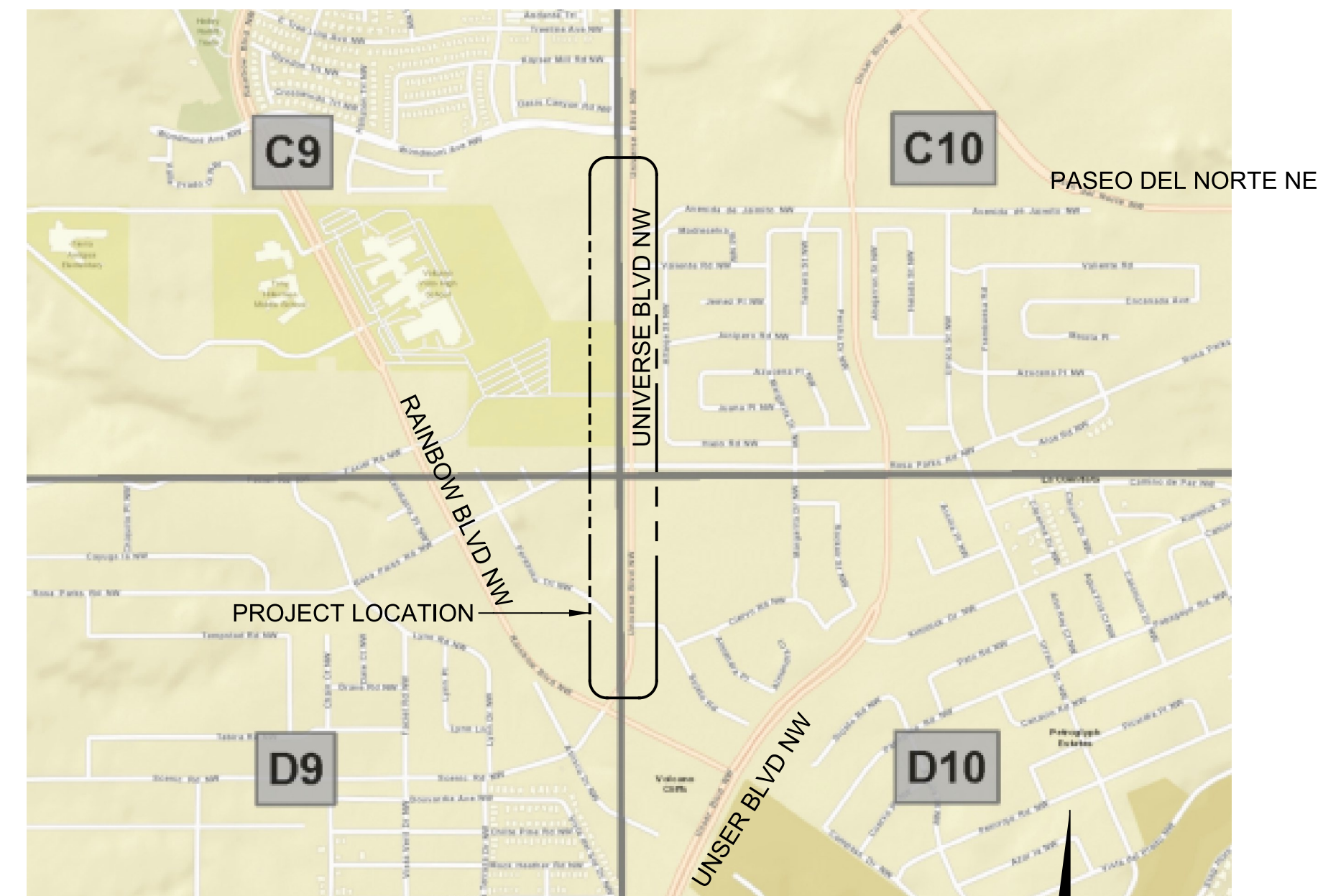


JANUARY 2017

DRAWING INDEX

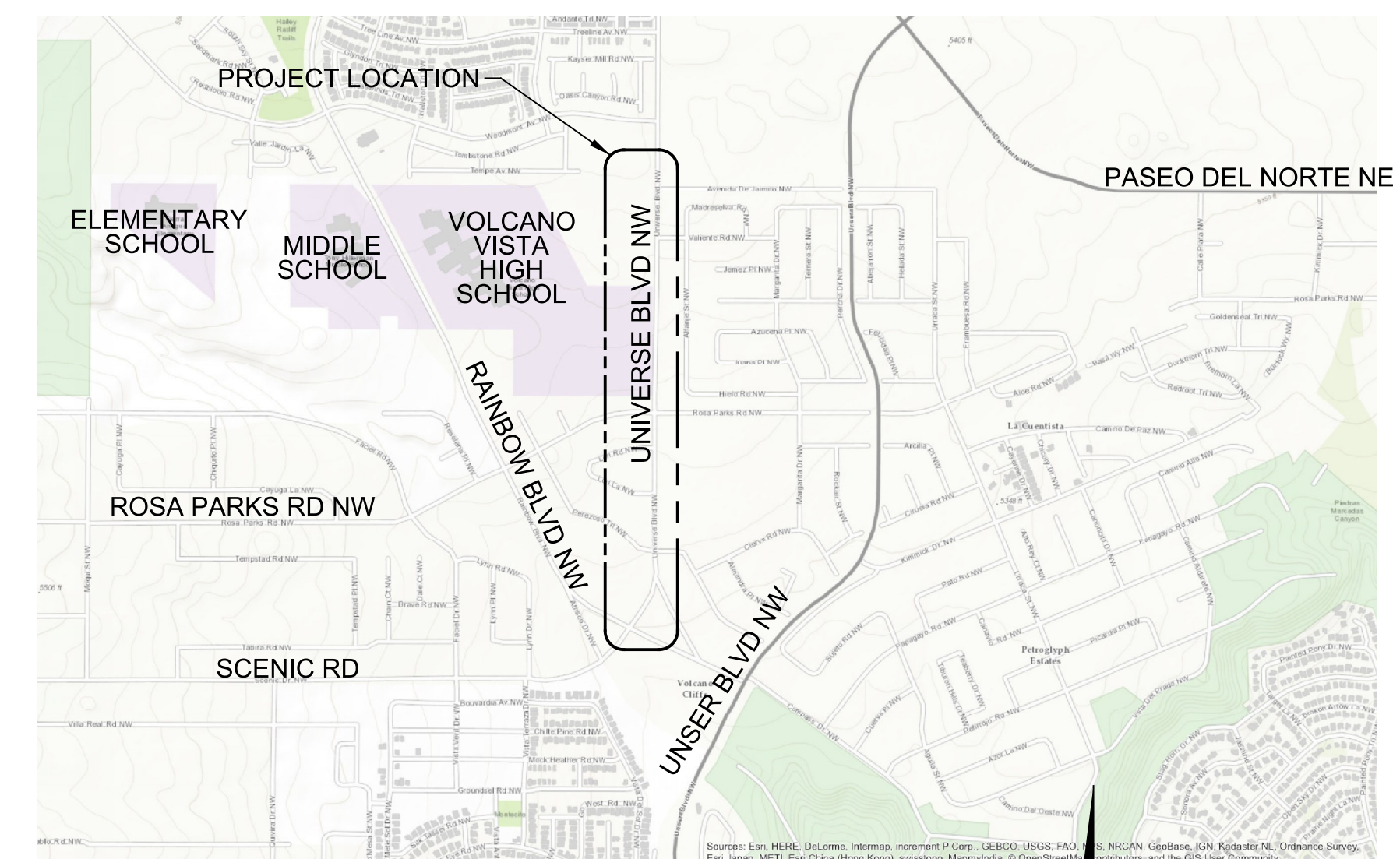
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90% SUBMITTAL FOR BID ONLY



VICINITY MAP

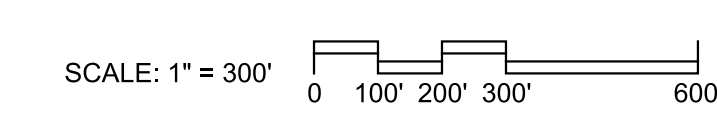
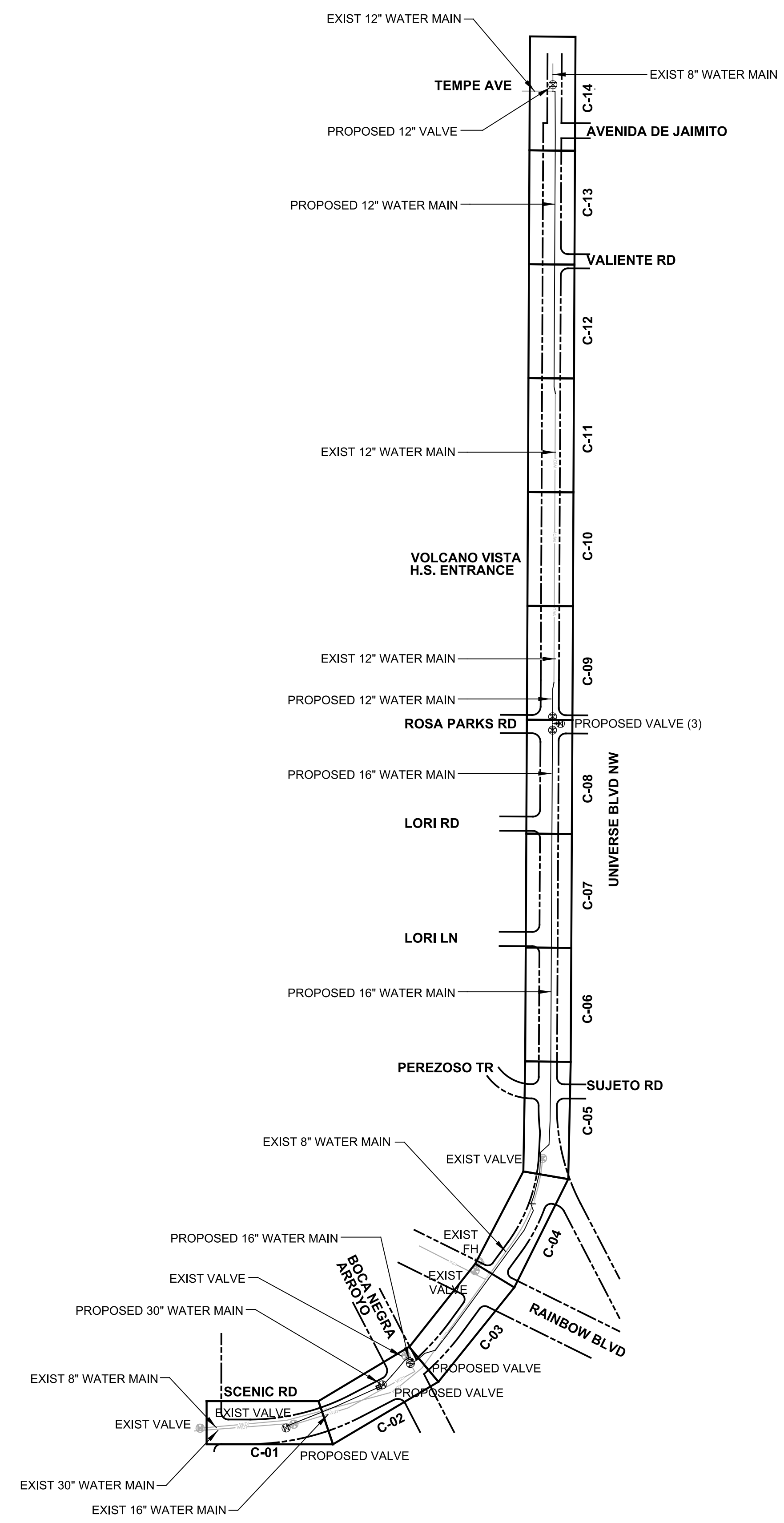
NOT TO SCALE



LOCATION MAP

NOT TO SCALE

REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE		APPROVALS	ENGINEER	DATE	*****		
		DRG Chairman			APPROVED FOR CONSTRUCTION		
		Transportation					
		Water/Wastewater					
		Hydrology			ABCWUA Engineer Date		
		Water Resources			City Engineer Date		
		Construct. Mgmt.					
		Construct. Coord.					
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		DRB Project No. 761261		G-01			
		1/12/2017					



ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

UNIVERSE BOULEVARD TRANSMISSION LINE
GENERAL
KEY MAP

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

WUA Project No. 1201.026	Zone Map No. C-9, C-10, D-9, D-10	Sheet 2 Of 32
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AS BUILT INFORMATION	
CONTRACTOR	DATE
WORKED BY	DATE
INSPECTOR'S ACCEPTANCE BY	DATE
VERIFICATION BY	DATE
DRAWINGS CORRECTED BY	DATE
MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	

ENGINEER'S SEAL

1/12/2017

NO.	DATE	REMARKS	BY

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GENERAL NOTES

- ALL WORK DETAILED ON THESE PLANS SHALL BE PERFORMED UNDER THIS CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREIN, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS OR DETAILS FOR PUBLIC WORKS CONSTRUCTION THROUGH UPDATE NO. 9 DATED 08-27-2015 REFERRED TO HEREAFTER AS THE "STANDARD SPECIFICATIONS". THE WORK SHALL ALSO REFERENCE PART 14, SUPPLEMENTAL TECHNICAL SPECIFICATIONS, OF THE ON-CALL CONSTRUCTION SERVICES CONTRACT UNLESS OTHERWISE STATED OR PROVIDED HEREIN.
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTACT NEW MEXICO ONE-CALL SYSTEM, PH. 811 OR 260-1990, FOR LOCATION OF EXISTING OFF-SITE UTILITIES.
- PRIOR TO CONSTRUCTION, EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS, SHOULD A CONFLICT EXIST, NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- COORDINATE CONSTRUCTION ACTIVITIES WITH OTHER CONTRACTORS AND UTILITY COMPANIES WORKING IN THE SAME AREA.
- ALL PERMANENT ROW AND CONSTRUCTION EASEMENTS ON PRIVATE PROPERTY WILL BE OBTAINED BY THE OWNER PRIOR TO THE BEGINNING OF CONSTRUCTION, AS APPLICABLE.
- WHEN ABUTTING NEW PAVEMENT TO EXISTING, SAWCUT EXISTING PAVEMENT TO A STRAIGHT LINE, AS REQUIRED, TO REMOVE ANY BROKEN OR CRACKED PAVEMENT APPLY TACK COAT AND MATCH NEW TO EXISTING.
- EXERCISE DUE CARE TO AVOID DISTURBING EXISTING UNDERGROUND UTILITIES, COORDINATE WITH THE UTILITY COMPANIES IN ORDER TO PREVENT ANY SERVICE DISRUPTION.
- TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION, OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION, NOTIFY BARRICADE ENGINEER (924-3400) PRIOR TO OCCUPYING STREET.
- REPLACE ALL STREET STRIPING ALTERED OR DESTROYED WITH PLASTIC REFLECTORIZED PAVEMENT MARKINGS PER SPEC SECTION 441 TO EXISTING LOCATION OR AS INDICATED BY THIS PLAN SET.
- NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) CALENDAR DAYS PRIOR TO STARTING WORK SO THAT THE ENGINEER MAY TAKE NECESSARY MEASUREMENTS TO INSURE PRESERVATION OF SURVEY MONUMENTS. DO NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE ENGINEER, NOTIFY THE ENGINEER AND BEAR THE EXPENSE OF REPLACING ANY SURVEY MONUMENTS THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT WILL BE DONE ONLY BY THE CITY SURVEYOR. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATIONS OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, ADJUST, AT THE CONTRACTOR'S EXPENSE, THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED, REFER TO SECTION 4.4 OF THE GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS.
- PLACE EXCAVATED MATERIALS AS APPROVED BY THE ENGINEER.
- THE REMOVAL AND REPLACEMENT OF PRIVATE SIGNS AND OBSTRUCTIONS SHALL BE PERFORMED BY THE RESPECTIVE PROPERTY OWNERS UNLESS OTHERWISE NOTED. COORDINATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- WHERE TRENCHING EXPOSES EXISTING UTILITY LINES, THE CONTRACTOR IS RESPONSIBLE FOR SUPPORTING THE LINE DURING CONSTRUCTION AND ASSURING THAT IT IS BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
- AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING WORK WITHIN THE CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
- BACKFILL AND COMPACT IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND SUPPLEMENTAL TECHNICAL SPECIFICATIONS.
- ANY AREA NOT PAVED OR LANDSCAPED WHICH IS DISTURBED DURING CONSTRUCTION SHALL BE SEEDDED WITH NATIVE GRASS. THE COST OF SEEDING SHALL BE CONSIDERED INCIDENTAL TO THE WORK.
- ALL EXISTING REGULATORY SIGNS THAT NEED TO BE REMOVED, RELOCATED OR REINSTALLED WILL BE PERFORMED BY THE CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT CONSTRUCTION COORDINATOR. NOTIFY THE CITY CONSTRUCTION COORDINATOR THREE (3) WORKING DAYS IN ADVANCE OF ANY REQUIRED WORK.
- REPLACE ALL TRAFFIC SIGNS REMOVED IN KIND OR ORIGINAL LOCATIONS OR AS INDICATED BY THIS PLAN SET. THE CONTRACTOR SHALL NOTIFY THE CITY CONSTRUCTION COORDINATOR THREE (3) WORKING DAYS IN ADVANCE OF ANY REQUIRED WORK.
- TO OBTAIN A WATER SHUT OFF, FOLLOW PROCEDURES ON: [HTTP://WWW.ABCWUA.ORG/WATER_SHUT_OFF_AND_TURN_ON_PROCEDURES.ASPX](http://www.abcwua.org/water_shut_off_and_turn_on_procedures.aspx) ON THE ABCWUA.ORG WEBSITE
- CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO EXISTING FACILITIES, PAVEMENTS, PAVEMENT MARKINGS, CURB AND GUTTER, DRIVEPADS, SIGNAGE, WHEELCHAIR RAMPS, SIDEWALK, AND ANY OTHER IMPROVEMENTS DURING CONSTRUCTION EXCEPT FOR THOSE SECTIONS INDICATED FOR REMOVAL ON THE PLANS. REPAIR OR REPLACE DAMAGED IMPROVEMENTS PER COA STANDARDS AT CONTRACTOR'S EXPENSE. PROTECT CURB AND GUTTER FROM INCIDENTAL SPLASHING DURING THE TACK COAT APPLICATION AND CLEAN SAME AT CONTRACTOR'S EXPENSE SHOULD SPLASHING OCCUR.
- MAINTAIN A GRAFFITI-FREE WORK SITE. PROMPTLY REMOVE ANY AND ALL GRAFFITI FROM EQUIPMENT, WHETHER PERMANENT OR TEMPORARY. THE COST OF THIS WORK IS INCIDENTAL TO THE PROJECT AND NO ADDITIONAL PAYMENT WILL BE MADE.
- PERFORM ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P.
- PRIOR TO THE REMOVAL OF ANY PAVEMENT, CURB AND GUTTER, SIGNAGE AND OTHER IMPROVEMENTS, SURVEY TO ENSURE RESTORATION OF PROPER GRADES, CROWN AND ELEVATIONS. REMOVE AND REPLACE SHORT (LESS THAN 6') EXISTING SECTIONS OF PAVEMENT AND CURB AND GUTTER REMAINING AFTER PRIMARY REMOVALS ARE COMPLETED.
- MINOR ADJUSTMENTS TO HORIZONTAL AND VERTICAL LOCATIONS OF PIPING APPURTENANCES AND RELATED COMPONENTS IS CONSIDERED INCIDENTAL TO THE WORK.
- ALL REFERENCES TO CITY STANDARD DRAWINGS WILL BE PER THE STANDARD SPECIFICATIONS.
- CONTRACTOR SHALL FOLLOW SAFETY REQUIREMENTS DEFINED IN SPEC SECTION 01329.
- ALL CONSTRUCTION SHALL BE WITHIN RIGHT OF WAY.

ADDITIONAL GENERAL NOTES

- MAINTAIN ONE RECORD COPY OF ALL SPECIFICATIONS, DRAWINGS, ADDENDA, MODIFICATIONS AND SHOP DRAWINGS AT THE SITE IN GOOD ORDER. THESE DOCUMENTS SHALL BE ANNOTATED TO SHOW ALL CHANGES MADE DURING THE CONSTRUCTION PROCESS. THE DOCUMENTS SHALL BE AVAILABLE TO THE ENGINEER AT ALL TIMES. WITHIN 25 DAYS OF THE COMPLETION OF THE PROJECT, THE DOCUMENTS SHALL BE COLLATED INTO ONE PACKAGE AND SHALL BE CERTIFIED BY THE CONTRACTOR AS A COMPLETE SET OF AS-BUILT RECORD DOCUMENTS AND DELIVERED TO THE ENGINEER.
- DISPOSAL SITE FOR ALL EXCESS EXCAVATION MATERIAL AND UNSUITABLE MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS. ALL COSTS INCURRED IN OBTAINING A DISPOSAL SITE AND HAUL THERETO SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE.
- VIDEO THE WORK AREA INCLUDING ALL BUILDINGS, HOMES, AND STRUCTURES THAT FRONT THE WORK AREAS PRIOR TO BEGINNING CONSTRUCTION AND SUBMIT A COPY TO THE ENGINEER.
- LIMIT CONSTRUCTION ACTIVITY TO THE PROJECT LIMITS. ANY DAMAGE TO ADJACENT PROPERTIES AND IMPROVEMENTS RESULTING IS THE RESPONSIBILITY OF THE CONTRACTOR. COST INCURRED FOR REPAIRS ARE INCIDENTAL TO THE COST OF THE WORK.
- REPLACE AT CONTRACTOR'S EXPENSE ANY AND ALL PROPERTY CORNERS DESTROYED DURING CONSTRUCTION. ALL PROPERTY CORNERS SHALL BE RESET BY A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR.
- PLANS SHOW THE GENERAL LOCATION OF FENCES, WALLS, AND OTHER IMPROVEMENTS OR SURFACE FEATURES. VERIFY AND PROTECT EXISTING FEATURES WHICH MAY IMPACT CONSTRUCTION. COST FOR VERIFICATION AND PROTECTION ARE INCIDENTAL TO THE WORK AND NO SEPARATE PAYMENT WILL BE MADE.

WATER SYSTEM

- REMOVE AND REINSTALL EXISTING COPPER WATER SERVICE LINES TO ALLOW INSTALLATION OF UTILITY LINES AS NECESSARY. NO SPLICES ARE ALLOWED BETWEEN METER AND MAIN FOR REINSTALLATION OF COPPER SERVICE LINES. THE COST OF THIS WORK IS INCIDENTAL TO THE PROJECT AND NO SEPARATE PAYMENT WILL BE MADE UNLESS OTHERWISE NOTED ON THE PLANS.
- REMOVE AND REPLACE EXISTING GALVANIZED STEEL AND HDPE WATER SERVICE LINES FROM WATER MAIN TO WATER METER TO ALLOW INSTALLATION OF UTILITY LINES. INSTALL COPPER SERVICE LINES OF SAME SIZE. WHERE FEASIBLE, USE TRENCHLESS INSTALLATION METHODS.
- REMOVE AND DISPOSE OF ASBESTOS CEMENT WATERLINES WHEN DIRECTED BY THE ENGINEER. PERMITTING, HANDLING AND DISPOSAL SHALL BE PER NEW MEXICO ENVIRONMENT DEPARTMENT REGULATIONS. COSTS FOR PERMITTING, EXCAVATION, REMOVAL, HANDLING, AND DISPOSAL SHALL BE INCLUDED IN THE PRICE FOR REMOVAL OF THE EXISTING WATERLINES.
- WATER SERVICE LINES ARE SHOWN IN PLAN VIEW ONLY AT AN APPROXIMATE LOCATION.
- FIRE HYDRANT ASSEMBLY: INCLUDES FIRE HYDRANT, MAIN LINE TEE, 6" FIRE HYDRANT LEG PIPE AND FITTINGS, RESTRAINTS, DRAIN POCKET, COMPLETE IN PLACE PER STD DWG 2340.
- WATER SERVICE SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT.

SANITARY SEWER SYSTEM

- IF WET SOILS ARE ENCOUNTERED WHILE EXCAVATING NEAR SANITARY SEWER LINES, NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY FOR POTENTIAL SANITARY SEWER LINE REPLACEMENT.
- SEWER SERVICE SHALL BE MAINTAINED FOR DURATION OF THE PROJECT.

STORM DRAINAGE SYSTEM

- WHEN CROSSING UNDER STORM DRAINS, REMOVE AFFECTED STORM DRAIN SECTIONS AND REPLACE WITH NEW STORM DRAIN PIPE SECTIONS AFTER TRANSMISSION LINE INSTALLATION. CONNECT TO EXISTING STORM DRAIN WITH CONCRETE COLLAR.
- CONTACT JASON RODRIQUEZ AT COA 505-235-8016 (MOBILE) FOR STORM DRAINAGE SYSTEM COORDINATION.
- INSTALL TEMPORARY DRAINAGE MEASURES NECESSARY TO SAFELY CONVEY STORM WATER RUNOFF TO EXISTING OUTFALLS. INSTALL SILT FENCES AND SEDIMENT CONTROL MEASURES PRIOR TO BEGINNING WORK. ANY DAMAGES TO PRIVATE PROPERTY OR IMPROVEMENTS RESULTING FROM STORM WATER FLOWS RELATED TO CONSTRUCTION ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- PRIOR TO REMOVAL OF EXISTING STORM DRAINS, SURVEY LOCATION AND GRADES, RESTORE STORM DRAINS TO ORIGINAL LOCATION AND GRADES.

GAS SYSTEM

- COORDINATE PROTECTION OF EXISTING GAS SERVICE LINES WITH NEW MEXICO GAS.
- CONTACT NEW MEXICO GAS CO, ROBERT HOOVER, AT 697-3615 FOR COORDINATION OF GAS FACILITY PROTECTION AND RELOCATIONS.
- REPORT HIT OR DAMAGED GAS LINES IMMEDIATELY BY CALLING 246-7300.
- IN ADDITION TO CONTACTING NEW MEXICO ONE CALL, CONTACT JAMES STANOVACK AT 241-7751 FOR LINE SPOTTING OF GAS LINES.
- GAS SERVICE LINE LOCATIONS SHOWN ARE APPROXIMATE. MAINTAIN THESE LINES IN SERVICE DURING UTILITY LINES INSTALLATION.
- FOR GAS LINES REQUIRING RELOCATION, PROVIDE 4 WEEKS MINIMUM NOTICE TO NEW MEXICO GAS.
- LOCATIONS OF GAS SERVICE LINES ARE APPROXIMATE BASED ON NEW MEXICO ON-CALL FIELD IDENTIFICATION.

TELEPHONE SYSTEM

- PROTECT EXISTING FIBER OPTIC AND TELEPHONE LINES.

ELECTRICAL SYSTEM

- COORDINATE PROTECTION OF EXISTING ELECTRICAL LINES WITH PNM ELECTRIC SERVICES.
- NOTIFY PNM AT LEAST 5 DAYS AHEAD OF CONSTRUCTION ACTIVITIES FOR SHIELDING OVERHEAD DISTRIBUTION LINES AND PROTECTING POWER POLES AND GUY WIRES.
- NOTIFY PNM AT LEAST 4 WEEKS AHEAD OF CONSTRUCTION ACTIVITIES FOR RELOCATION OF PNM ELECTRIC LINES.

TRAFFIC AND STREET

- PRIOR TO EXCAVATION, OBTAIN THE NECESSARY SURVEY DATA FOR RESTORATION OF EXISTING STREETS, CURB AND GUTTER, DRIVEWAYS AND OTHER IMPROVEMENTS TO THE ORIGINAL GRADES.
- REPLACE IN KIND ALL EXISTING PAVEMENT MARKINGS AND TRAFFIC SIGNING DAMAGED BY CONSTRUCTION.
- WHEN ABUTTING NEW CURB AND GUTTER TO EXISTING PAVEMENT, SAWCUT, REMOVE, AND REPLACE A 1' WIDE SECTION OF EXISTING PAVEMENT ADJACENT TO THE CURB AND GUTTER PER STANDARD SPECIFICATIONS.
- USE PARALLEL OR ORTHOGONAL PAVEMENT CUTS ONLY, NO DIAGONAL CUTS IN EXISTING PAVEMENT PER COA. STD DWG 2465, UNLESS SHOWN ON PLANS.
- RESTORE STREET CROWNS, CROWN TRANSITIONS, CURB AND GUTTER, AND OTHER AFFECTED IMPROVEMENTS IN ACCORDANCE WITH APPLICABLE STANDARD DRAWINGS.
- COORDINATE WITH TRAFFIC OPERATIONS FOR REMOVAL AND REPLACEMENT OF UNDERGROUND CONDUIT, STREET LIGHTS AND RELATED COMPONENTS.
- CONTRACTOR SHALL MAINTAIN SIDEWALK ACCESS AND EXISTING ADA ACCESSIBLE ROUTES.
- TWO WEEKS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHOULD NOTIFY THE TRANSIT DEPARTMENT OF ANY IMPACT THE PROPOSED PROJECT WILL HAVE ON THE TRANSIT SYSTEM SUCH AS CAUSING A DETOUR, OR CAUSE THE CLOSING OR RELOCATION OF THE BUS STOP. THE CONTACT PERSON IS DOUGLAS GOFF, OFFICE PHONE 550-724-3137, CELL PHONE 505-206-0151, AND E-MAIL DGOFF@CABQ.GOV
- ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED WITH PLASTIC REFLECTORIZED PAVEMENT MARKING BY CONTRACTOR TO THE SAME LOCATION AS EXISTING OR AS INDICATED BY THIS PLAN SET.
- CONTRACTOR TO TEST SUBGRADE R VALUE PRIOR TO CONSTRUCTION. IN THE EVENT THE R VALUE IS LESS THAN 50, REMOVE 2 FEET OF SUBGRADE MATERIAL AND IMPORT MATERIAL WITH R VALUE GREATER THAN 50 OR CONTACT THE ENGINEER IMMEDIATELY SO THE PAVEMENT SECTION CAN BE MODIFIED.

WORK ZONE LIMITS

- WORK ZONE IS LIMITED TO THREE BLOCKS OR A MAXIMUM OF 1000 FEET AT ANY ONE TIME; ONE BLOCK (300±) AHEAD OF PIPE INSTALLATION, ONE BLOCK (300±) FOR INSTALLATION, AND ONE BLOCK (300±) FOR BACKFILL AND REPAVING EFFORT.
- OPEN TRENCH IS LIMITED TO 100 FEET PER SPEC SECTION 01734.

ELECTRONIC MARKER DISKS

- ELECTRONIC MARKER DISKS (EMD) ARE REQUIRED FOR ALL TRANSMISSION LINES, WELL COLLECTOR LINES, DISTRIBUTION LINES AND SANITARY SEWER SYSTEM COMPONENTS IN ACCORDANCE TO SECTION 170. THE COST OF THIS WORK IS INCIDENTAL TO THE PROJECT AND NO ADDITIONAL PAYMENT WILL BE MADE.

GEOTECHNICAL INVESTIGATION

- A GEOTECHNICAL INVESTIGATION WAS CONDUCTED FOR THIS PROJECT. AND IS AVAILABLE FOR REVIEW. NEITHER THE ENGINEER NOR THE OWNER ASSUMES RESPONSIBILITY FOR COMPLETENESS OR INTERPRETATION OF SUCH INFORMATION.

UTILITIES BACKFILL

- UTILIZE LEAN FILL WHENEVER BACKFILL CANNOT BE PLACED AND COMPACTED BETWEEN NEW AND EXISTING UTILITIES OR IF THE VERTICAL SEPARATION BETWEEN THE NEW AND EXISTING UTILITY IS LESS THAN 24 INCHES.
- IDENTIFY BACKFILL COMPACTION TESTING LOCATIONS BY STATIONING AND OFFSET DISTANCE FROM THE CENTERLINE OF THE ALIGNMENT. THE DEPTH OF TESTING SHALL BE REFERENCED FROM FINISHED GRADE. RETESTS SHALL BE NUMBERED AS THE TEST NUMBER OF THE FAILING TEST WITH THE NEXT LETTER OF THE ALPHABET (EX: 15A, 15B, 15C, ETC.).

CONSTRUCTION SURVEYING AND AS-BUILTS


- PROVIDE ALL CONSTRUCTION SURVEYING. SURVEYING SHALL BE CONDUCTED UNDER THE DIRECTION AND SUPERVISION OF A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR.
- SURVEY AND RECORD THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING IMPROVEMENTS TO BE DISTURBED AS A RESULT OF CONSTRUCTION ACTIVITIES. RESTORE IMPROVEMENTS TO THEIR ORIGINAL LOCATION AND GRADES. SURVEYING SHALL INCLUDE, BUT NOT BE LIMITED TO, STREETS, CURB AND GUTTER, SIDEWALKS, DRIVEWAYS, SURFACE AND BURIED UTILITIES, DRAINAGE CHANNELS AND OTHER AFFECTED IMPROVEMENTS.
- THROUGHOUT THE CONSTRUCTION PERIOD AND AT ALL WORK AREAS, UTILIZE THE PROJECT COORDINATE SYSTEM AND BENCH MARKS TO SURVEY AND RECORD THE HORIZONTAL AND VERTICAL LOCATION OF NEW AND EXISTING UTILITIES WITHIN THE WORK AREA. ANNOTATE THE DIAMETER, MATERIAL AND TYPE OF UTILITY ENCOUNTERED. ASSIGN EACH UTILITY TYPE OT A UNIQUE DRAWING LAYER.
- IN ADDITION TO THE AS-BUILT DRAWINGS DESCRIBED IN SPECIFICATION SECTION 01010-SUMMARY OF WORK, PROVIDE AN ELECTRONIC AS-BUILT FILE IN AUTOCAD RELEASE 2013 FOLLOWING THE SPECIFIED REQUIREMENTS IN NOTE 3 ABOVE. AT THE PRECONSTRUCTION CONFERENCE, THE ENGINEER WILL PROVIDE TO THE CONTRACTOR AN ELECTRONIC COPY OF THE PROJECT DIGITAL MAPPING DATABASE FOR USE.
- THE ELECTRONIC AS-BUILT FILE SHALL BE SUBJECT TO REQUIREMENTS OF SPECIAL PROVISION SECTION 6.10. THE ELECTRONIC AS-BUILT FILE SHALL BE PROVIDED ON CD AND HARD COPY SIGNED AND STAMPED BY NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR


POTHOLING

- THE COST OF POTHOLING IS INCIDENTAL TO THE CONSTRUCTION OF SANITARY SEWER INTERCEPTORS, SANITARY SEWER COLLECTION LINES AND WATERLINES. NO ADDITIONAL PAYMENT SHALL BE MADE FOR POTHOLING.

ENGINEER'S GENERAL NOTES

- CONSTRUCTION STAKING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONCRETE SIDEWALK, CURB, CURB & GUTTER SHALL BE SAWCUT, REMOVED & REPLACED TO THE NEAREST JOINT.
- EXISTING UTILITIES AND OTHER FACILITIES HAVE BEEN SHOWN ON THE CONTRACT DRAWINGS BASED ON FIELD SURVEYS, EXISTING MAPS, AND OTHER INFORMATION GATHERED BY THE ENGINEER DURING DESIGN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT LOCATIONS OF ALL UTILITIES IMPACTING CONSTRUCTION AND PROTECTION OF SAID UTILITIES. IF RELOCATION OF UTILITIES IS REQUIRED, THE CONTRACTOR SHALL COORDINATE THE RELOCATION WITH THE OWNER. UTILITIES DAMAGED BY CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED WITH NEW MATERIALS AT NO COST TO THE OWNER AND TO THE OWNER'S SATISFACTION.
- CONTRACTOR'S WORK ACTIVITIES SHALL BE SCHEDULED AND PHASED SO AS NOT TO UNDULY IMPEDE OR PREVENT ACCESS TO PRIVATE RESIDENCES, PUBLIC FACILITIES, SCHOOLS, OR BUSINESS EXCEPT BY PRIOR WRITTEN AGREEMENT WITH THE IMPACTED OWNER(S) OR OPERATORS.
- FLOODING AND/OR JETTING SHALL NOT BE USED AS A COMPACTION METHOD.
- POTABLE WATER MATERIALS SHALL COMPLY WITH NSF 60, 61 AND 372.
- CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF UTILITIES PRIOR TO CONSTRUCTION.
- DUCTILE IRON PIPE SHALL BE WRAPPED IN TWO LAYERS OF POLYWRAP PER COA SPEC SECTION 129.
- ALL FITTINGS ARE TO BE PRESSURE RATED TO 250 PSI UNLESS OTHERWISE NOTED.

CONTRACTOR WORKED BY		DATE		CONTRACTOR WORKED BY		DATE	
INSPECTOR'S ACCEPTANCE BY		DATE		INSPECTOR'S ACCEPTANCE BY		DATE	
DRAWINGS CORRECTED BY		DATE		DRAWINGS CORRECTED BY		DATE	
MICRO-FILM INFORMATION		RECORDED BY		MICRO-FILM INFORMATION		RECORDED BY	
NO.		NO.		NO.		NO.	
ENGINEER'S SEAL				BENCH MARKS			
USGLO BRASS DISK IN CONCRETE, CP-1 0.6 MILES SOUTH OF UNIVERSE/PASEO DEL NORTE INTX., 10' E OF P.W.MT. EDGE				CONTRACTOR WORKED BY			
NORTHING 1521076.443 (NAD 83)				DATE			
EASTING 1497693.917 (NAD 83)				INSPECTOR'S ACCEPTANCE BY			
ELEVATION = 5417.8 (NAVD 88)				DATE			
				REVISIONS			
				NO. DATE			
DESIGNED BY JMC				DATE			
DRAWN BY GD				DATE			
CHECKED BY RFB				DATE			
				1/12/2017			
				1/17			



ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

UNIVERSE BOULEVARD TRANSMISSION LINE
GENERAL
GENERAL NOTES

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

WUA Project No. 1201.026 Zone Map No. C-9, C-10 Sheet 4 Of 32
DRB Project No. 761261 D-9, D-10 G-04



VICINITY MAP
(NOT TO SCALE)

GENERAL NOTES:

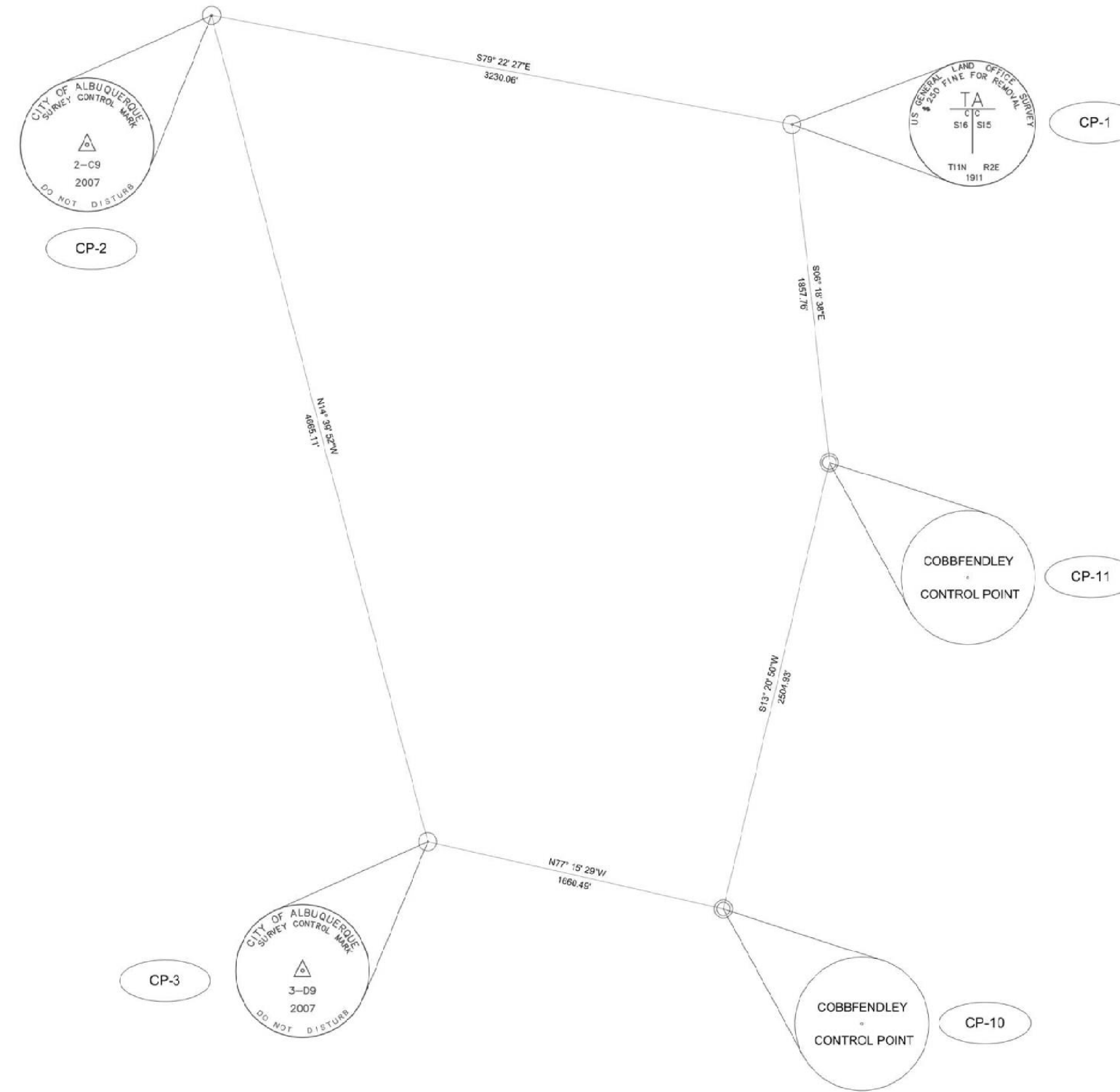
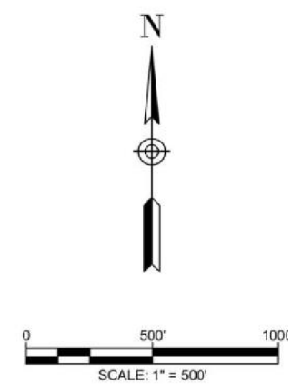
- ALL SURVEY POINTS WERE FOUND OR SET BY COBBFENDLEY & ASSOCIATES, INC. IN OCTOBER OF 2016.
- THE STATE PLANE COORDINATES SHOWN HEREON ARE REFERRED TO THE NEW MEXICO COORDINATE SYSTEM - CENTRAL ZONE, NORTH AMERICAN DATUM OF 1983 - AND WERE DERIVED USING GPS DIFFERENTIAL POSITIONING TECHNIQUES REFERENCED TO THE EXISTING ACS CONTROL NETWORK. THE FINAL STATE PLANE COORDINATES SHOWN HEREON ARE BASED UPON THE PUBLISHED COORDINATES FOR THE ACS CONTROL STATIONS "CC_TA_16_15_11N_2E", "2_C9" AND "3_D9" AND ARE THEREBY INCORPORATED INTO THIS CONTROL NETWORK.
- THE ELEVATIONS SHOWN HEREON ARE REFERRED TO NAVD 88 AND ARE BASED UPON THE PUBLISHED ELEVATIONS FOR THE ABOVE-MENTIONED ACS CONTROL STATIONS. ELEVATIONS WERE DERIVED USING GPS ELLIPSOID HEIGHT DIFFERENCES COMBINED WITH THE NGS GEOID MODELING PROGRAM "GEOID12A".
- ALL DISTANCES SHOWN HEREON ARE HORIZONTAL GRID DISTANCES USING THE STATE PLANE COORDINATES SHOWN HEREON. ALL COORDINATES AND ELEVATIONS ARE EXPRESSED IN U.S. SURVEY FEET.

GEOGRAPHIC/STATE PLANE (NAD 83) COORDINATES AND NAVD 88 ELEVATIONS

STATION	LATITUDE	LONGITUDE	NORTHING (U.S. FEET)	EASTING (U.S. FEET)	ZONE	ELEVATION (U.S. FEET)	DESCRIPTION	LOCATION
CP-1	35°10'47.21088"	-105°43'39.45952"	1521376.443	1473935.617	NM C	5417.809	USGLO BRASS DISK IN CONCRETE	34.61 M. S. OF UNIVERSE/PASEO DEL NORTE INTX., 10' E. OF P.V.M.T. EDGE
CP-2	35°10'53.44876"	-105°44'11.24076"	1521523.052	1465193.241	NM C	5454.600	CITY OF ALBUQUERQUE ALUM. CAP IN CONCRETE	SW QUAD. OF RAINBOWWOODMONT INTX., 50' W. OF CURB AT BACK SOWK.
CP-3	35°10'54.46692"	-105°44'03.24788"	1517156.005	1465700.251	NM C	5375.468	CITY OF ALBUQUERQUE ALUM. CAP IN CONCRETE	APPROX. 0.3 MI. W. OF UNIVERSE/RAINBOW INTX., 700' N. OF SCENIC RD.
CP-10	35°10'54.52190"	-105°43'43.71766"	1518792.687	1473135.848	NM C	5336.276	SET REBAR WITH COBBFENDLEY PC	APPROX. 200' SW. OF UNIVERSE/RAINBOW INTX., 12' SE. OF CURB BACK.
CP-11	35°10'29.85581"	-105°43'36.89294"	1519029.637	1473968.115	NM C	5336.433	SET REBAR WITH COBBFENDLEY PC	APPROX. 0.45 MI. N. OF UNIVERSE/RAINBOW INTX., 230' E. OF P.V.M.T. EDGE

LEGEND

- SET 5/8" REBAR & PLASTIC CAP "COBBFENDLEY CONTROL POINT"
- FOUND ACS CONTROL STATION (AS NOTED)



I, RANDOLPH C. HEWITT, N.M.P.S. 14730, DO HEREBY CERTIFY THAT THIS CONTROL SURVEY MAP AND REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION BASED ON AN ACTUAL SURVEY ON THE GROUND AS DESCRIBED HEREIN, THAT I AM RESPONSIBLE FOR THIS SURVEY, AND THAT THE SURVEY AND REPORT MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

R.C. Hewitt
November 29, 2016
DATE

RANDOLPH C. HEWITT N.M.P.S. 14730
COBB, FENDLEY & ASSOCIATES, INC.
3500 ROCKWELL PARKWAY NORTH N.E.
ALBUQUERQUE, N.M. 87109
PH. (505) 258-0788



**UNIVERSE BOULEVARD
TRANSMISSION LINE PROJECT
CONTROL MAP**
UNIVERSE BLVD. N.W.
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO
SCALE 1"= 500' SHEET 1 OF 1

ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

UNIVERSE BOULEVARD TRANSMISSION LINE
GENERAL
SURVEY CONTROL MAP

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.	
Last Design Update				
WUA Project No. 1201.026		Zone Map No. C-9, C-10 D-9, D-10		Sheet 5 Of 32 G-05
DRB Project No. 761261				

AS BUILT INFORMATION

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

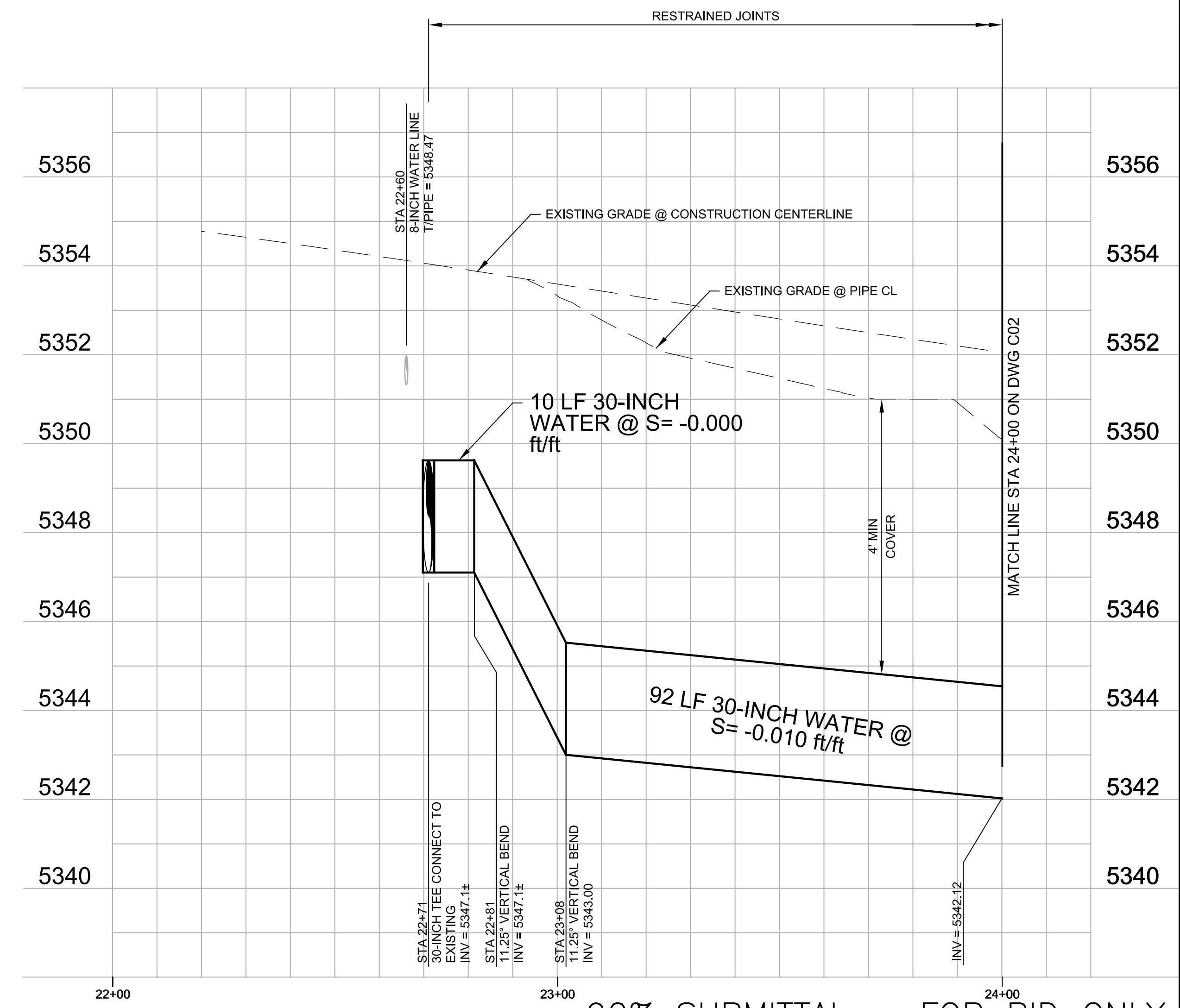
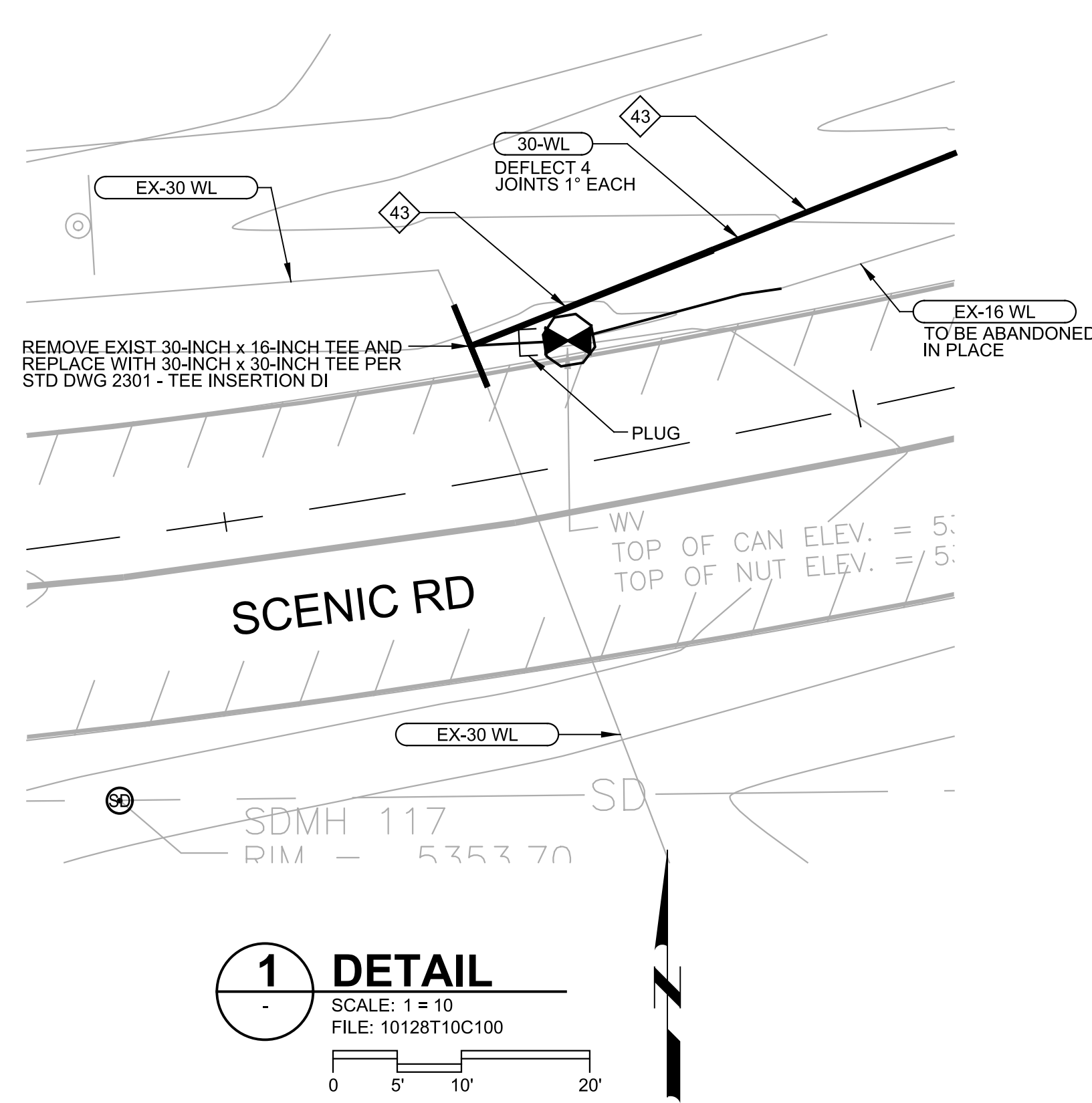
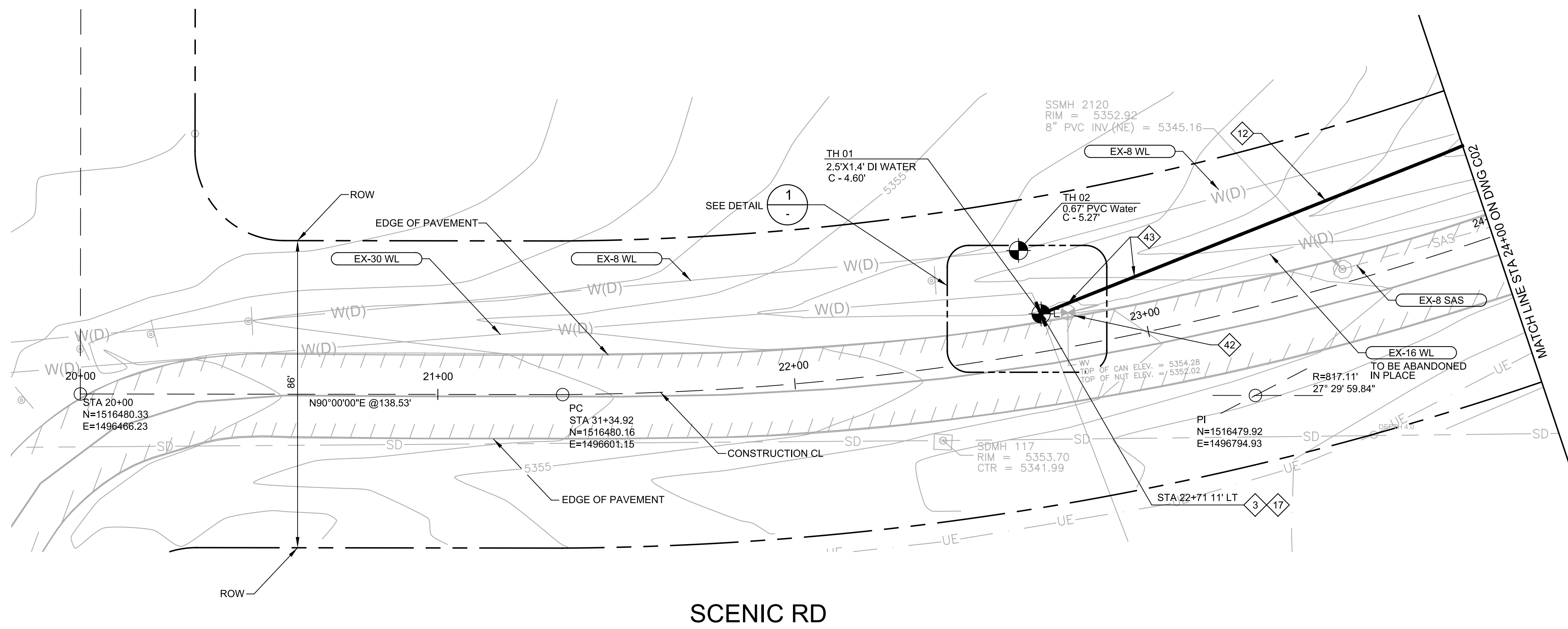
BENCH MARKS

USGLO BRASS DISK IN CONCRETE, CP-1 0.6 MILES SOUTH OF UNIVERSE/PASEO DEL NORTE INTX., 10' E OF P.V.M.T. EDGE
NORTHING 1521076.443 (NAD 83)
EASTING 1497693.917 (NAD 83)
ELEVATION = 5417.8 (NAVD 88)

ENGINEER'S SEAL

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NO.	DATE	REMARKS	BY
REVISIONS			
DESIGNED BY JMC		DATE	
DRAWN BY GD		DATE	
CHECKED BY RFB		DATE 1/17	



- GENERAL NOTES:**
- CONTRACTOR SHALL VERIFY HORIZONTAL & VERTICAL LOCATION OF UTILITIES PRIOR TO CONSTRUCTION & SHALL SUPPORT EACH UTILITY UNTIL BACKFILL IS COMPLETE.
 - ELECTRONIC MARKER DISKS (EMD) ARE REQUIRED FOR ALL TRANSMISSION LINES, WELL COLLECTOR LINES, DISTRIBUTION LINES AND SANITARY SEWER SYSTEM COMPONENTS IN ACCORDANCE TO SECTION 170. THE COST OF THIS WORK IS INCIDENTAL TO THE PROJECT AND NO ADDITIONAL PAYMENT WILL BE MADE.

- KEY NOTES:**
- CONNECT TO EXISTING WATER MAIN PER COA STD DWG 2301 AND DETAIL ON DWG C15
 - FURNISH & INSTALL 30-INCH WATER MAIN DIP, PC 200
 - FURNISH & INSTALL 30-INCH TEE
 - CLOSE EXISTING VALVE AFTER PIPE DRAINED. ABANDON PIPE IN PLACE. FURNISH AND INSTALL RESTRAINED PLUG
 - FURNISH & INSTALL 30-INCH 11.25" BEND, VERTICAL

AS BUILT INFORMATION	
CONTRACTOR	DATE
WORKED BY	DATE
INSPECTOR'S ACCEPTANCE BY	DATE
VERIFICATION BY	DATE
DRAWINGS CORRECTED BY	DATE
MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	DATE

ENGINEER'S SEAL

ROBERT F. BUSS
NEW MEXICO
19168
PROFESSIONAL ENGINEER

1/12/2017

NO.	DATE	REMARKS	BY
DESIGNED BY	DATE		
JMC			
DRAWN BY	DATE		
GD			
CHECKED BY	DATE		
RFB	1/17		



ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

UNIVERSE BOULEVARD TRANSMISSION LINE

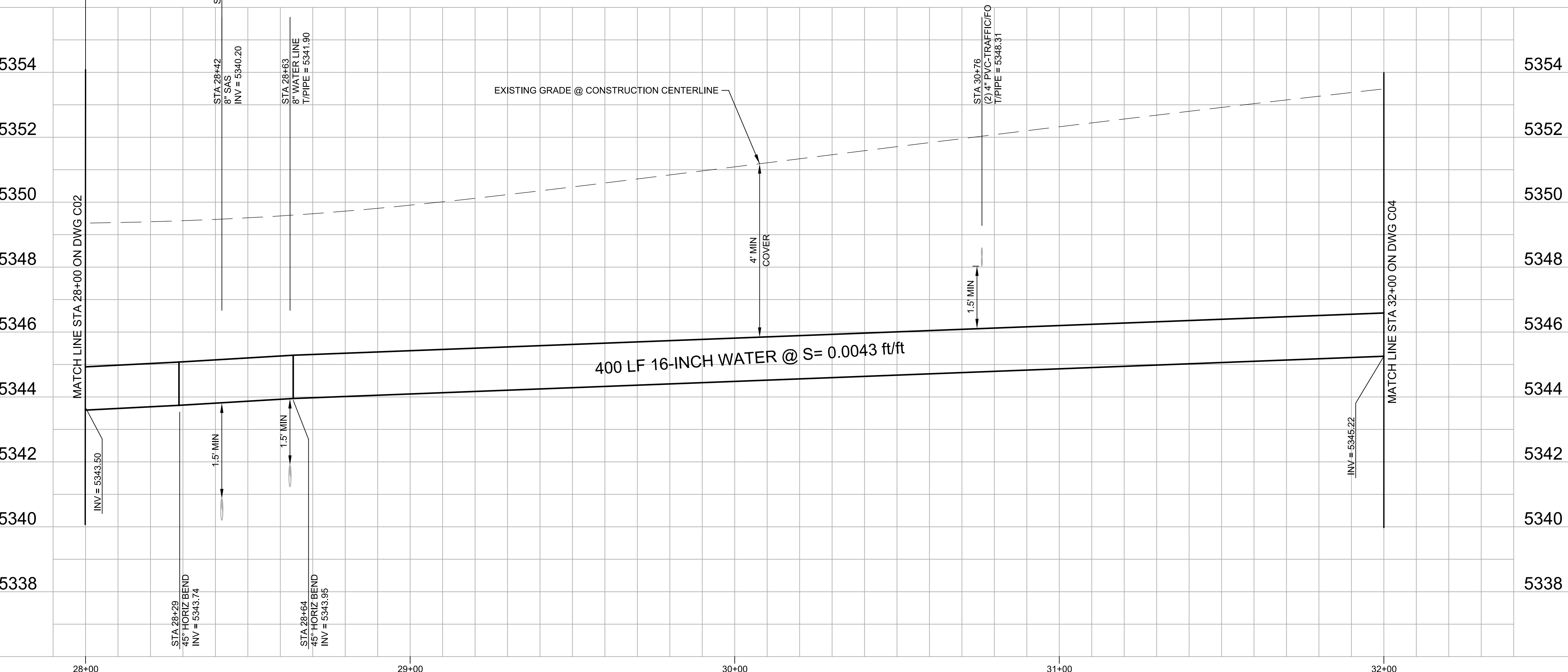
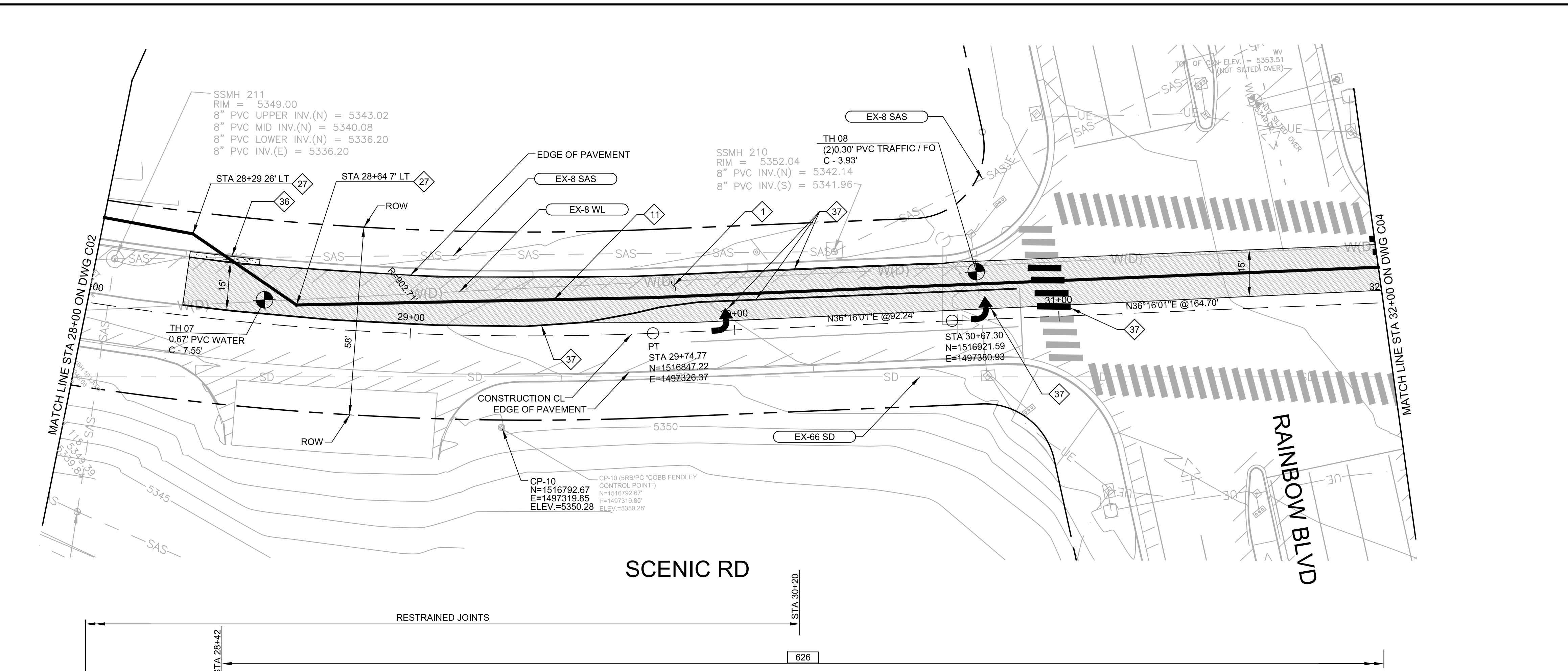
CIVIL
**PLAN AND PROFILE
STA 22+71 TO 24+00**

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

WUA Project No. 1201.026
DRB Project No. 761261

Zone Map No. C-9, C-10, D-9, D-10

Sheet 6 Of 32
C01



- GENERAL NOTES:**
- CONTRACTOR SHALL VERIFY HORIZONTAL & VERTICAL LOCATION OF UTILITIES PRIOR TO CONSTRUCTION & SHALL SUPPORT EACH UTILITY UNTIL BACKFILL IS COMPLETE.
 - ELECTRONIC MARKER DISKS (EMD) ARE REQUIRED FOR ALL TRANSMISSION LINES, WELL COLLECTOR LINES, DISTRIBUTION LINES AND SANITARY SEWER SYSTEM COMPONENTS IN ACCORDANCE TO SECTION 170. THE COST OF THIS WORK IS INCIDENTAL TO THE PROJECT AND NO ADDITIONAL PAYMENT WILL BE MADE.
 - REMOVE AND REPLACE TRAFFIC SIGNAL DETECTOR LOOPS AS NECESSARY.

- KEY NOTES:**
- 1 SAWCUT, REMOVE & REPLACE ASPHALT CONCRETE TO MATCH EXISTING IN KIND, IN ACCORDANCE WITH COA STD DWG 2407 AND
 - 11 FURNISH & INSTALL 16-INCH WATER MAIN DIP, PC 250
 - 27 FURNISH & INSTALL 16-INCH 45° BEND, HORIZONTAL
 - 36 REMOVE AND REPLACE CURB AND GUTTER PER COA STD DWG 2415A, TO THE NEAREST JOINT, MATCH EXISTING AT JOINTS
 - 37 REPLACE ALL STREET STRIPING ALTERED OR DESTROYED WITH PLASTIC REFLECTORIZED PAVEMENT MARKINGS PER SPEC SECTION 441. REPLACE AT EXISTING LOCATION.

ENGINEER'S SEAL

ROBERT F. BUSS
NEW MEXICO
19168
PROFESSIONAL ENGINEER

1/12/2017

NO.	DATE	REMARKS	BY

DESIGNED BY: JMC
DRAWN BY: GD
CHECKED BY: RFB

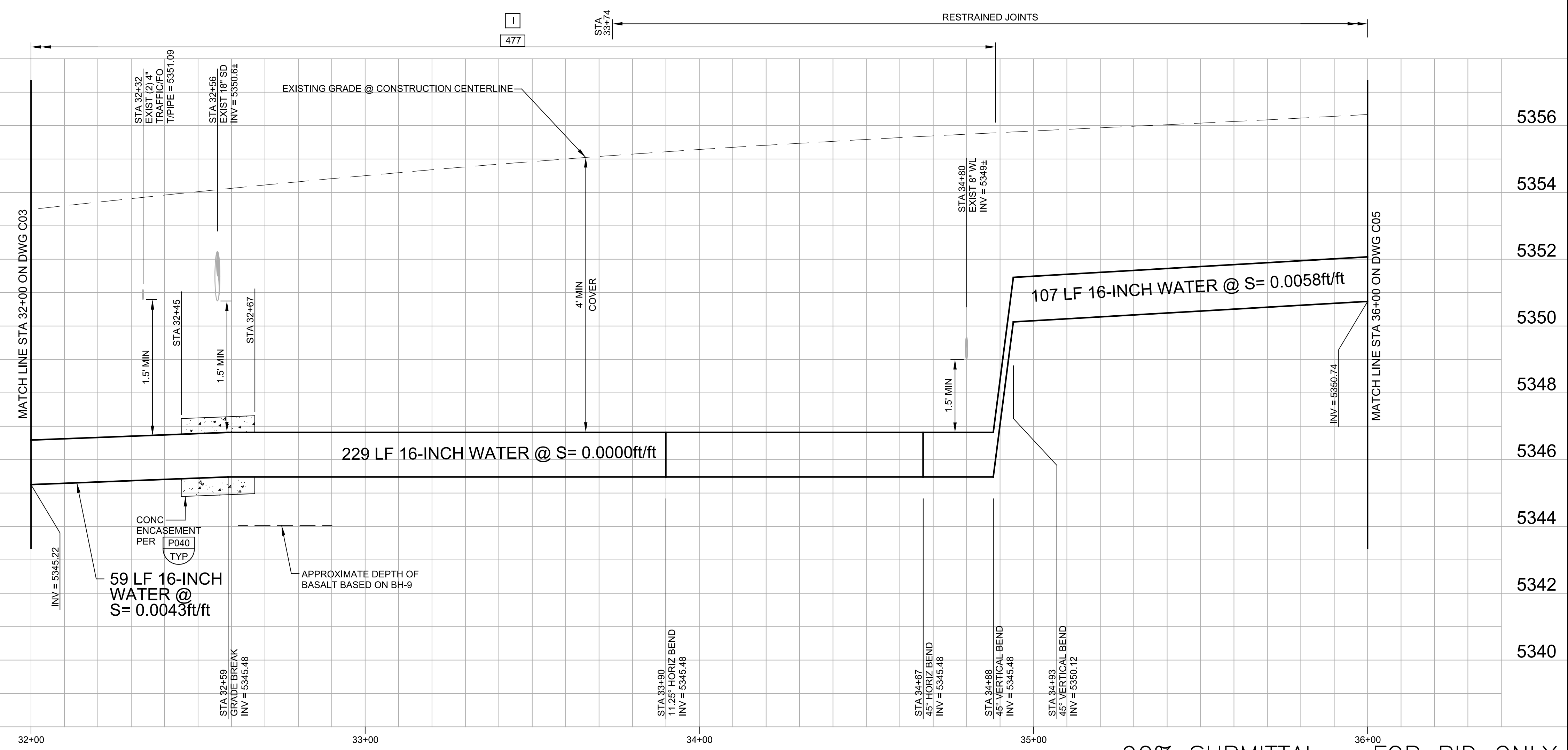
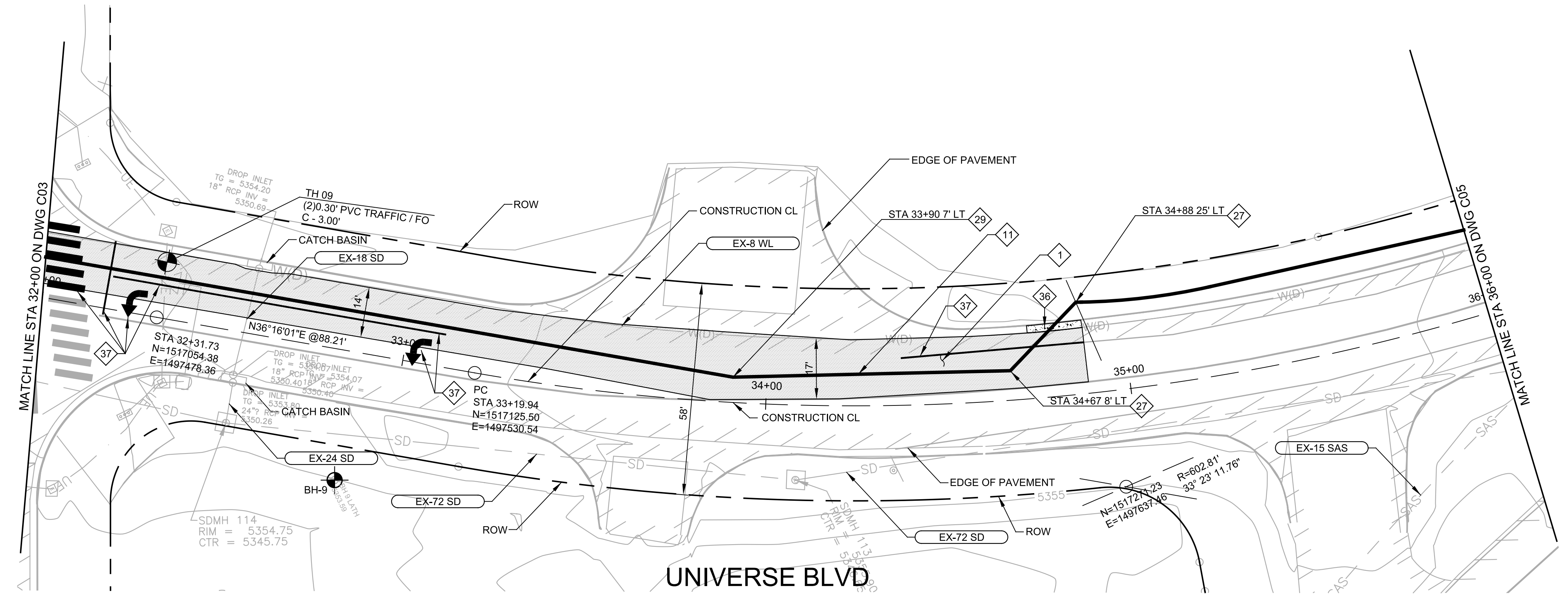


ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

UNIVERSE BOULEVARD TRANSMISSION LINE
CIVIL
**PLAN AND PROFILE
STA 28+00 TO 32+00**

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

AS BUILT INFORMATION	
CONTRACTOR	DATE
BENCH MARKS	
USGLO BRASS DISK IN CONCRETE, CP-1 0.6 MILES SOUTH OF UNIVERSE/PASEO DEL NORTE INTX., 10' E OF P.W.M. EDGE	DATE
MICRO-FILM INFORMATION	
DRAWINGS CORRECTED BY	DATE
RECORDED BY	DATE



- GENERAL NOTES:**
- CONTRACTOR SHALL VERIFY HORIZONTAL & VERTICAL LOCATION OF UTILITIES PRIOR TO CONSTRUCTION & SHALL SUPPORT EACH UTILITY UNTIL BACKFILL IS COMPLETE.
 - ELECTRONIC MARKER DISKS (EMD) ARE REQUIRED FOR ALL TRANSMISSION LINES, WELL COLLECTOR LINES, DISTRIBUTION LINES AND SANITARY SEWER SYSTEM COMPONENTS IN ACCORDANCE TO SECTION 170. THE COST OF THIS WORK IS INCIDENTAL TO THE PROJECT AND NO ADDITIONAL PAYMENT WILL BE MADE.
 - ADD TEMPORARY PAVEMENT WITHIN RIGHT-OF-WAY AS NECESSARY TO MAINTAIN 2 LANES OF TRAFFIC AT ALL TIMES.
 - REMOVE AND REPLACE TRAFFIC SIGNAL DETECTOR LOOPS AS NECESSARY.

- KEY NOTES:**
- SAWCUT, REMOVE & REPLACE ASPHALT CONCRETE TO MATCH EXISTING IN KIND, IN ACCORDANCE WITH COA STD DWG 2407 AND
 - FURNISH & INSTALL 16-INCH WATER MAIN DIP, PC 250
 - FURNISH & INSTALL 16-INCH 45° BEND, HORIZONTAL
 - FURNISH & INSTALL 16-INCH 11.25° BEND, HORIZONTAL
 - REMOVE AND REPLACE CURB AND GUTTER PER COA STD DWG 2415A, TO THE NEAREST JOINT, MATCH EXISTING AT JOINTS
 - REPLACE ALL STREET STRIPING ALTERED OR DESTROYED WITH PLASTIC REFLECTORIZED PAVEMENT MARKINGS PER SPEC SECTION 441. REPLACE AT EXISTING LOCATION.

AS BUILT INFORMATION	
CONTRACTOR	DATE
INSPECTOR'S ACCEPTANCE BY	DATE
VERIFICATION BY	DATE
DRAWINGS CORRECTED BY	DATE
MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	

BENCH MARKS

USGL0 BRASS DISK IN CONCRETE, CP-1 0.6 MILES SOUTH OF UNIVERSE/PASEO DEL NORTE INTX., 10' E OF P.W.M. EDGE

NORTHING 1521076.443 (NAD 83)
EASTING 1497693.917 (NAD 83)
ELEVATION = 5417.8 (NAVD 88)

ENGINEER'S SEAL

ROBERT F. BUSS
NEW MEXICO
19168
PROFESSIONAL ENGINEER

1/12/2017

NO.	DATE	REMARKS	BY

carollo

ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

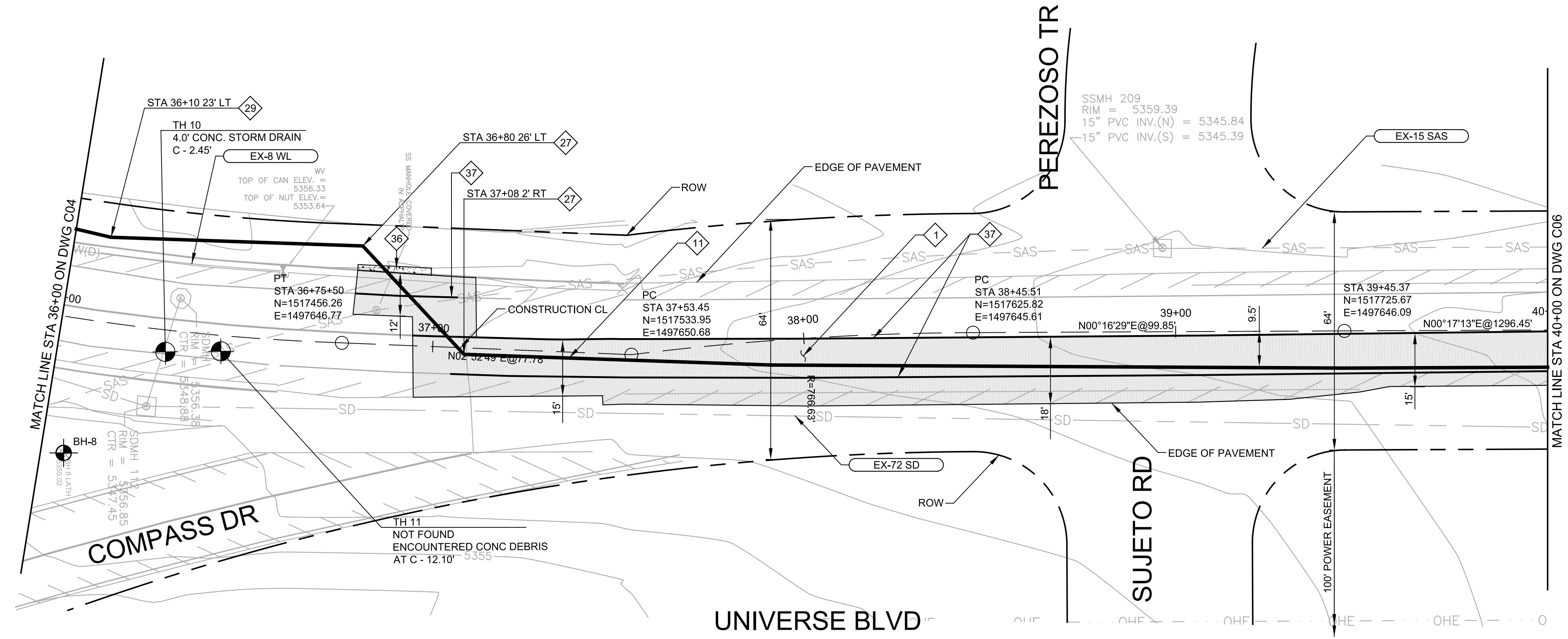
UNIVERSE BOULEVARD TRANSMISSION LINE
CIVIL
**PLAN AND PROFILE
STA 32+00 TO 36+00**

Design Review Committee City Engineer Approval

Mo./Day/Yr. Mo./Day/Yr.

WUA Project No.	Zone Map No.	Sheet	Of
1201.026	C-9, C-10 D-9, D-10	9	32

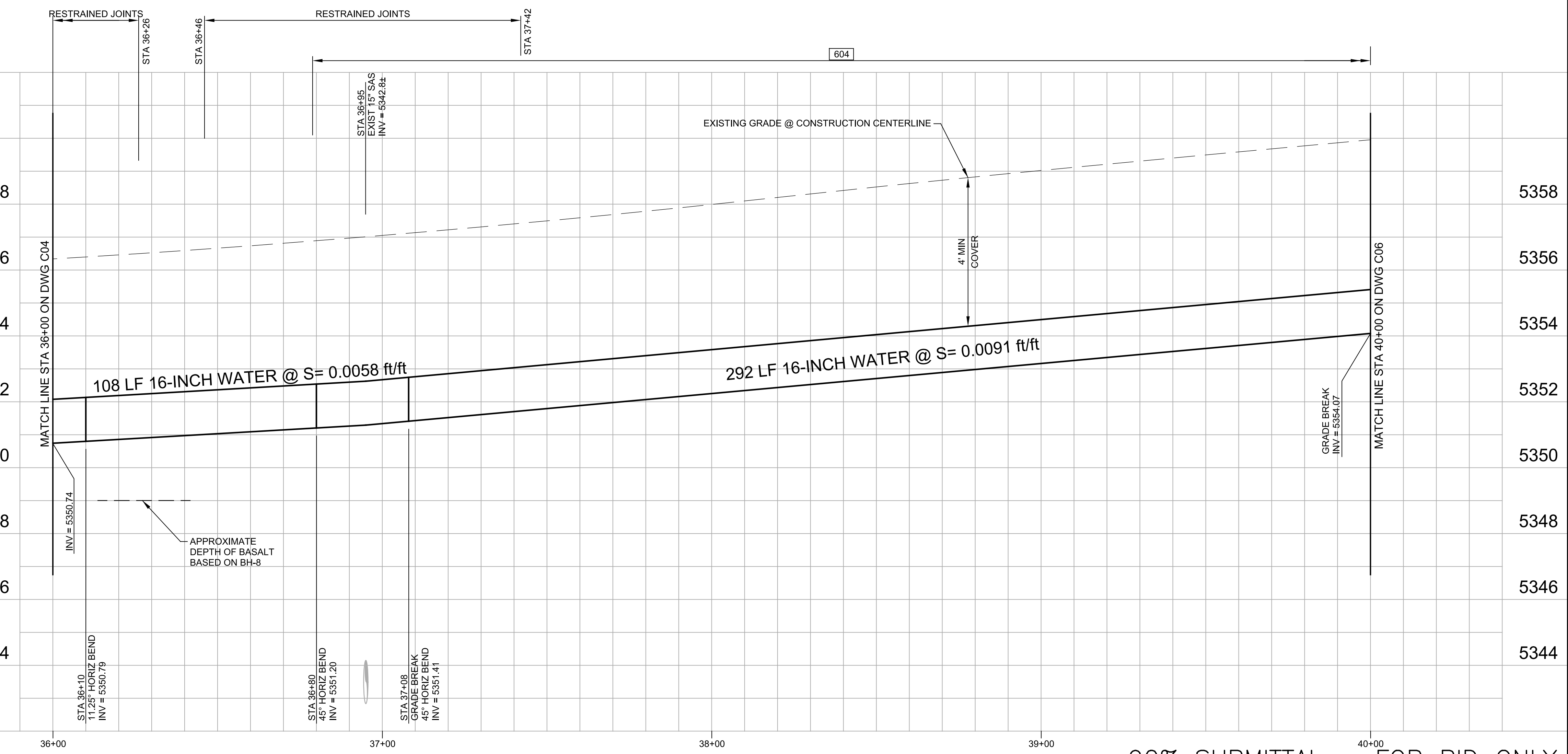
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- GENERAL NOTES:**
- CONTRACTOR SHALL VERIFY HORIZONTAL & VERTICAL LOCATION OF UTILITIES PRIOR TO CONSTRUCTION & SHALL SUPPORT EACH UTILITY UNTIL BACKFILL IS COMPLETE.
 - ELECTRONIC MARKER DISKS (EMD) ARE REQUIRED FOR ALL TRANSMISSION LINES, WELL COLLECTOR LINES, DISTRIBUTION LINES AND SANITARY SEWER SYSTEM COMPONENTS IN ACCORDANCE TO SECTION 170. THE COST OF THIS WORK IS INCIDENTAL TO THE PROJECT AND NO ADDITIONAL PAYMENT WILL BE MADE.
 - ADD TEMPORARY PAVEMENT WITHIN RIGHT-OF-WAY AS NECESSARY TO MAINTAIN 2 LANES OF TRAFFIC AT ALL TIMES.

- KEY NOTES:**
- 1 SAWCUT, REMOVE & REPLACE ASPHALT CONCRETE TO MATCH EXISTING IN KIND, IN ACCORDANCE WITH COA STD DWG 2407 AND
 - 11 FURNISH & INSTALL 16-INCH WATER MAIN DIP, PC 250
 - 27 FURNISH & INSTALL 16-INCH 45° BEND, HORIZONTAL
 - 29 FURNISH & INSTALL 16-INCH 11.25° BEND, HORIZONTAL
 - 36 REMOVE AND REPLACE CURB AND GUTTER PER COA STD DWG 2415A, TO THE NEAREST JOINT, MATCH EXISTING AT JOINTS
 - 37 REPLACE ALL STREET STRIPING ALTERED OR DESTROYED WITH PLASTIC REFLECTORIZED PAVEMENT MARKINGS PER SPEC SECTION 441. REPLACE AT EXISTING LOCATION.

AS BUILT INFORMATION	
CONTRACTOR	DATE
WORKED BY	DATE
INSPECTOR'S ACCEPTANCE BY	DATE
VERIFICATION BY	DATE
DRAWINGS CORRECTED BY	DATE
MICRO-FILM INFORMATION	DATE
RECORDED BY	NO.



ENGINEER'S SEAL

ROBERT F. BUSS
 NEW MEXICO
 19168
 PROFESSIONAL ENGINEER

NO.	DATE	REMARKS	BY

1/12/2017



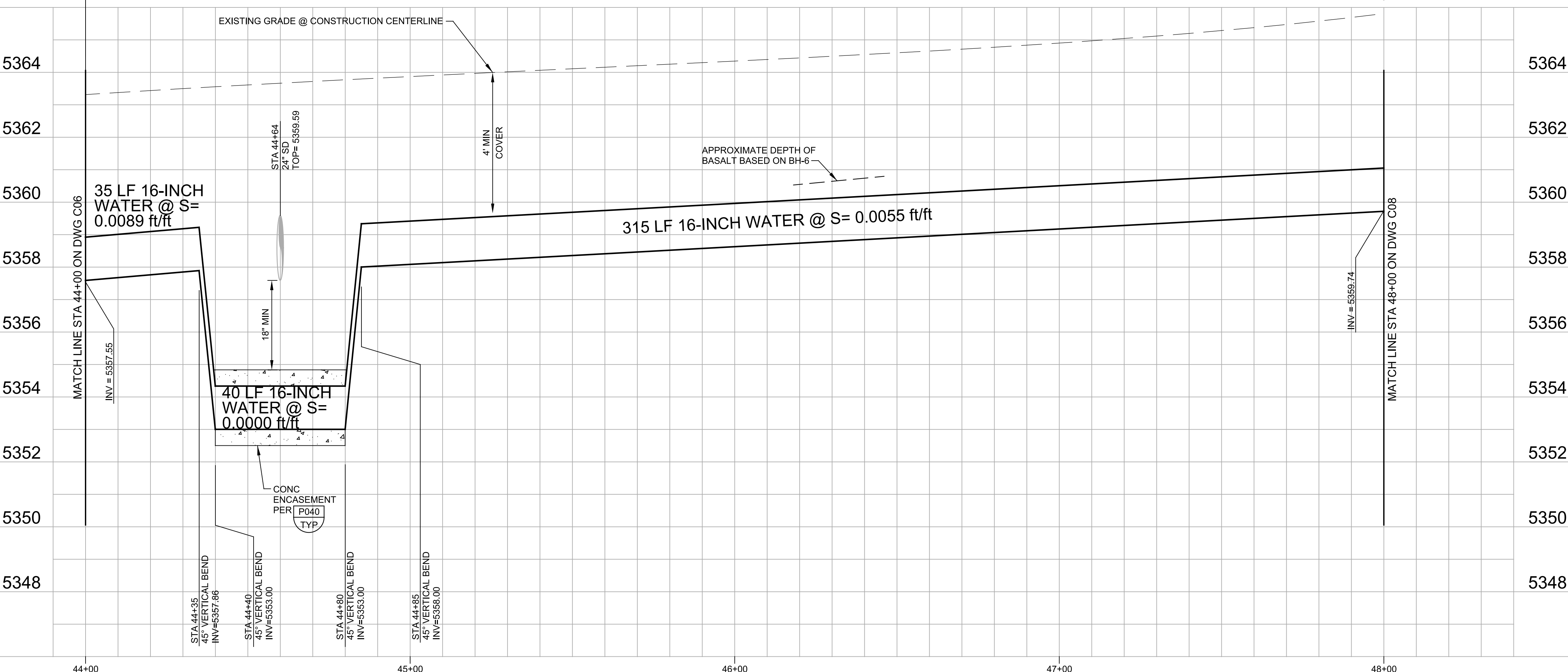
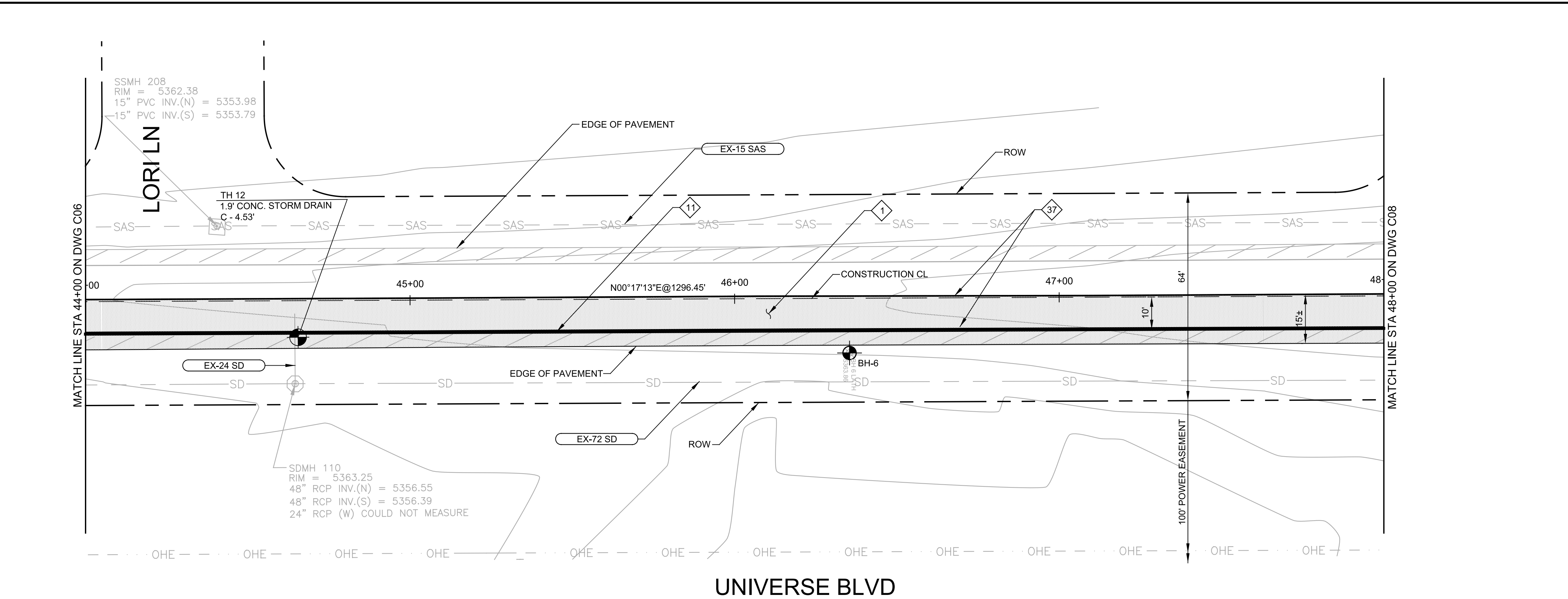
ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

UNIVERSE BOULEVARD TRANSMISSION LINE
CIVIL
**PLAN AND PROFILE
STA 36+00 TO 40+00**

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

WUA Project No. 1201.026 Zone Map No. C-9, C-10
 DRB Project No. 761261 D-9, D-10 Sheet 10 Of 32
 C05

90% SUBMITTAL — FOR BID ONLY



- GENERAL NOTES:**
- CONTRACTOR SHALL VERIFY HORIZONTAL & VERTICAL LOCATION OF UTILITIES PRIOR TO CONSTRUCTION & SHALL SUPPORT EACH UTILITY UNTIL BACKFILL IS COMPLETE.
 - ELECTRONIC MARKER DISKS (EMD) ARE REQUIRED FOR ALL TRANSMISSION LINES, WELL COLLECTOR LINES, DISTRIBUTION LINES AND SANITARY SEWER SYSTEM COMPONENTS IN ACCORDANCE TO SECTION 170. THE COST OF THIS WORK IS INCIDENTAL TO THE PROJECT AND NO ADDITIONAL PAYMENT WILL BE MADE.
 - ADD TEMPORARY PAVEMENT WITHIN RIGHT-OF-WAY AS NECESSARY TO MAINTAIN 2 LANES OF TRAFFIC AT ALL TIMES.

- KEY NOTES:**
- 1 SAWCUT, REMOVE & REPLACE ASPHALT CONCRETE TO MATCH EXISTING IN KIND, IN ACCORDANCE WITH COA STD DWG 2407 AND
 - 11 FURNISH & INSTALL 16-INCH WATER MAIN DIP, PC 250
 - 37 REPLACE ALL STREET STRIPING ALTERED OR DESTROYED WITH PLASTIC REFLECTORIZED PAVEMENT MARKINGS PER SPEC SECTION 441. REPLACE AT EXISTING LOCATION.

AS BUILT INFORMATION	
CONTRACTOR	DATE
WORKED BY	DATE
INSPECTOR'S ACCEPTANCE BY	DATE
VERIFICATION BY	DATE
DRAWINGS CORRECTED BY	DATE
MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	

ENGINEER'S SEAL

ROBERT F. BUSS
NEW MEXICO
19168
PROFESSIONAL ENGINEER

Robert F. Buss

NO.	DATE	REMARKS	BY

DESIGNED BY: JMC
DRAWN BY: GD
CHECKED BY: RFB

DATE: 1/12/2017



ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

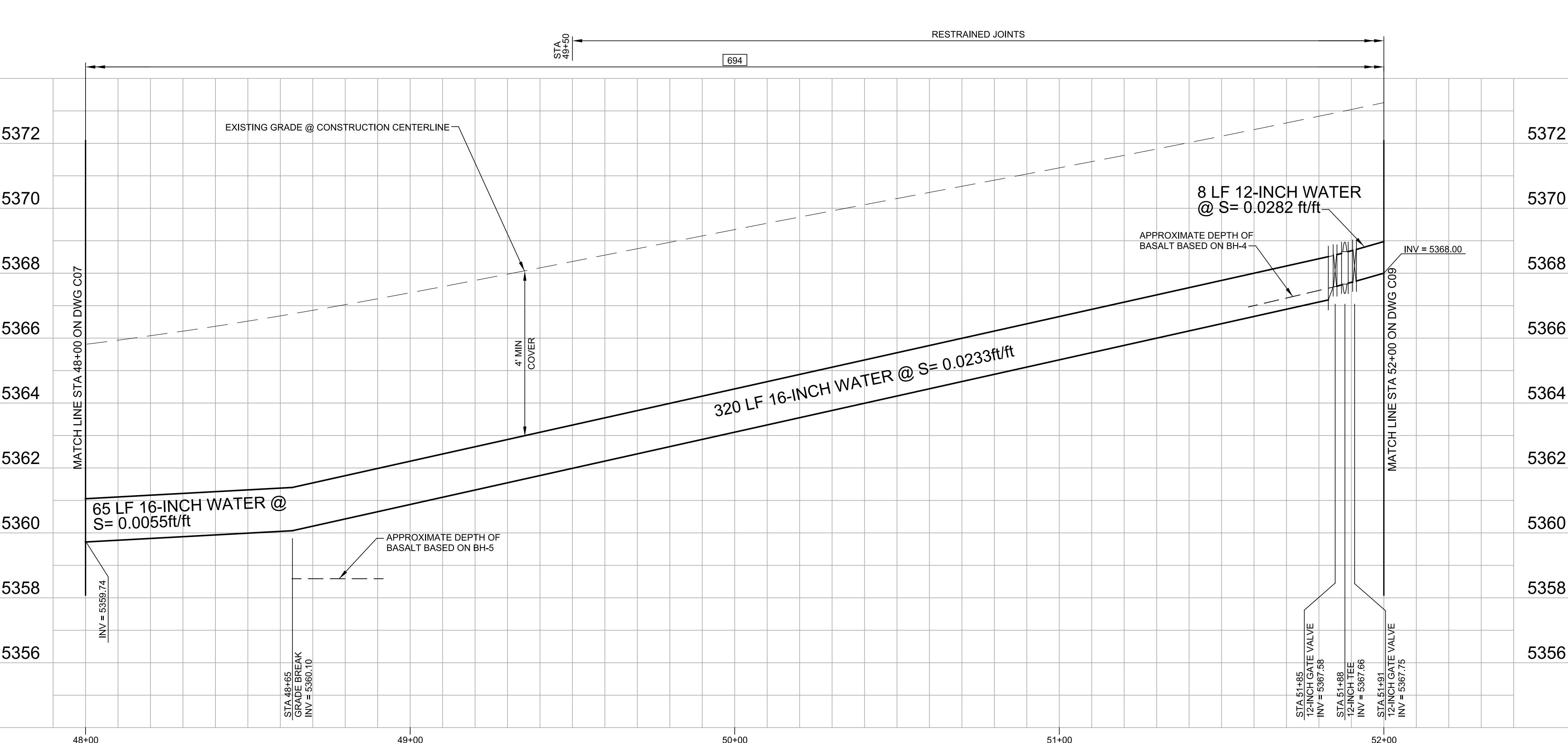
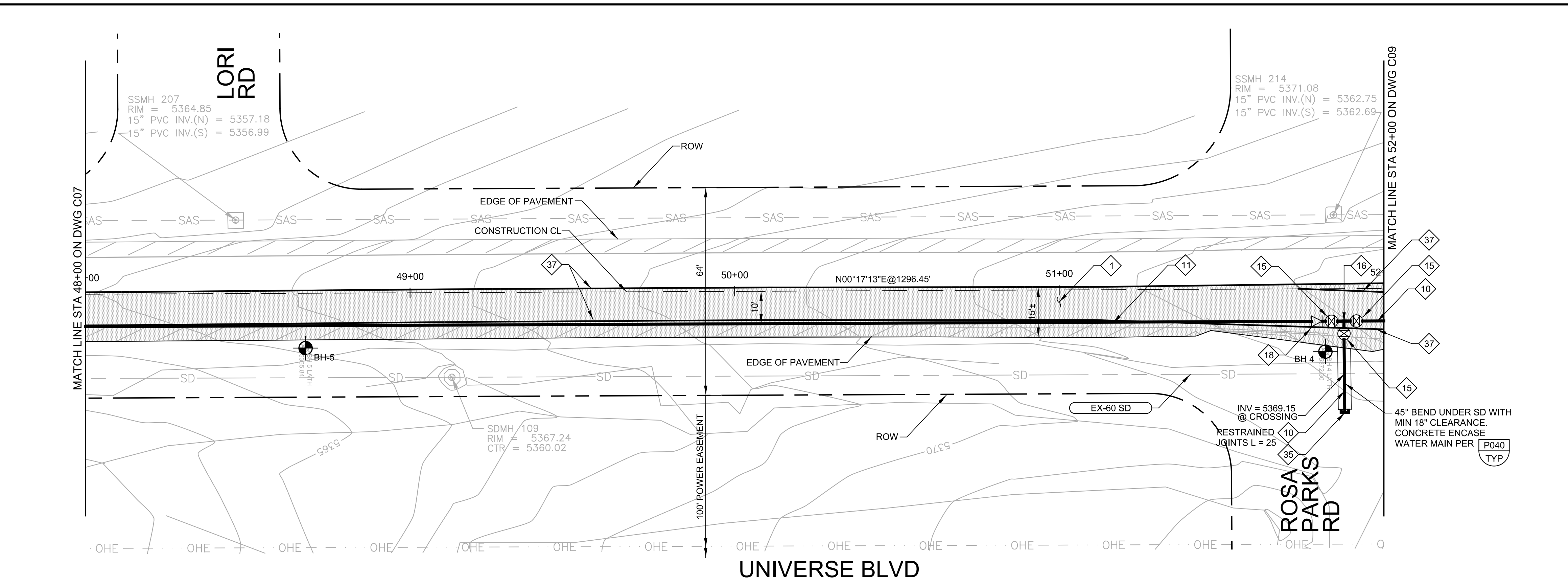
UNIVERSE BOULEVARD TRANSMISSION LINE
CIVIL
**PLAN AND PROFILE
STA 44+00 TO 48+00**

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

WUA Project No. 1201.026
DRB Project No. 761261

Zone Map No. C-9, C-10, D-9, D-10

Sheet 12 Of 32
C07



- GENERAL NOTES:**
- CONTRACTOR SHALL VERIFY HORIZONTAL & VERTICAL LOCATION OF UTILITIES PRIOR TO CONSTRUCTION & SHALL SUPPORT EACH UTILITY UNTIL BACKFILL IS COMPLETE.
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 - ADD TEMPORARY PAVEMENT WITHIN RIGHT-OF-WAY AS NECESSARY TO MAINTAIN 2 LANES OF TRAFFIC AT ALL TIMES.

- KEY NOTES:**
- 1 SAWCUT, REMOVE & REPLACE ASPHALT CONCRETE TO MATCH EXISTING IN KIND, IN ACCORDANCE WITH COA STD DWG 2407 AND A
 - 10 FURNISH & INSTALL 12-INCH WATER MAIN PVC, DR 18
 - 11 FURNISH & INSTALL 16-INCH WATER MAIN DIP, PC 250
 - 15 FURNISH & INSTALL 12-INCH GATE VALVE WITH VALVE BOX AND COVER PER COA STD DWG 2326
 - 16 FURNISH & INSTALL 12-INCH TEE
 - 18 FURNISH & INSTALL 12-INCH X 16-INCH REDUCER
 - 35 FURNISH & INSTALL 12-INCH PLUG
 - 36 CONCRETE ENCASE PIPE
 - 37 REPLACE ALL STREET STRIPING ALTERED OR DESTROYED WITH PLASTIC REFLECTORIZED PAVEMENT MARKINGS PER SPEC SECTION 441. REPLACE AT EXISTING LOCATION.

AS BUILT INFORMATION	
CONTRACTOR	
WORKED BY	
INSPECTOR'S ACCEPTANCE BY	
DATE	
DATE	
DATE	
DATE	
DATE	
DATE	
MICRO-FILM INFORMATION	
RECORDED BY	
NO.	

BENCH MARKS

USGLO BRASS DISK IN CONCRETE, CP-1 0.6 MILES SOUTH OF UNIVERSE/PASEO DEL NORTE INTX., 10' E OF P.W.M. EDGE

NORTHING 1521076.443 (NAD 83)
EASTING 1497693.917 (NAD 83)
ELEVATION = 5417.8 (NAVD 88)

ENGINEER'S SEAL

ROBERT F. BUSS
NEW MEXICO
19168
PROFESSIONAL ENGINEER

1/12/2017

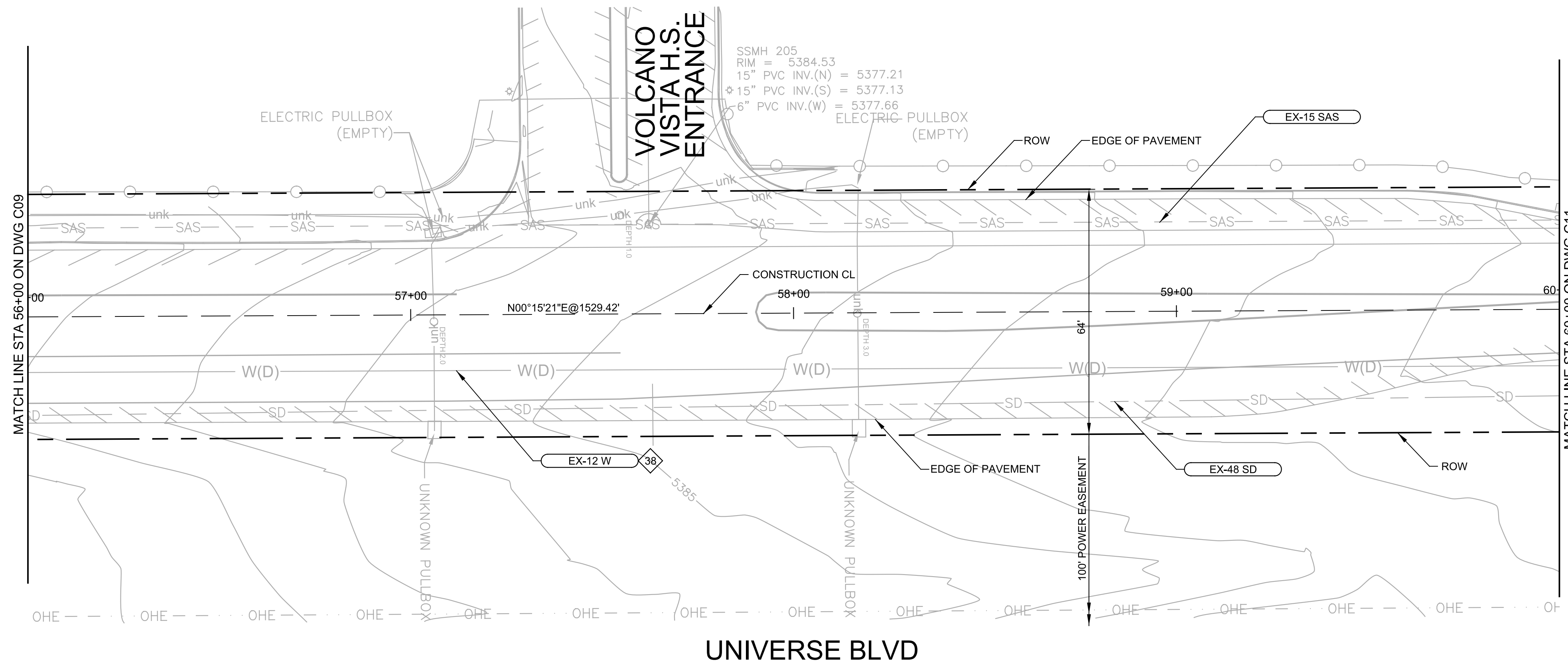
NO.	DATE	REMARKS	BY



ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY

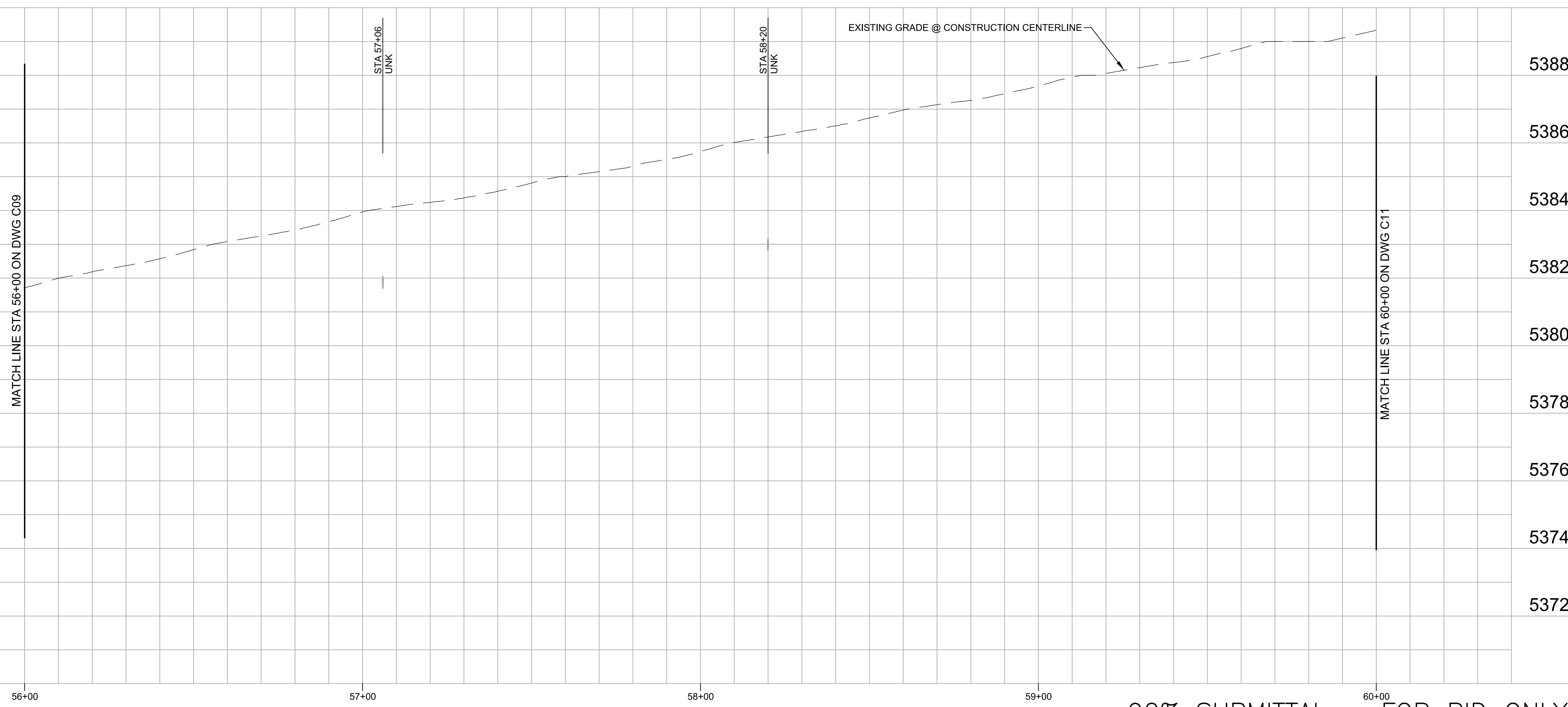
UNIVERSE BOULEVARD TRANSMISSION LINE
CIVIL
**PLAN AND PROFILE
STA 48+00 TO 52+00**

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



- GENERAL NOTES:**
- CONTRACTOR SHALL VERIFY HORIZONTAL & VERTICAL LOCATION OF UTILITIES PRIOR TO CONSTRUCTION & SHALL SUPPORT EACH UTILITY UNTIL BACKFILL IS COMPLETE.
 - ELECTRONIC MARKER DISKS (EMD) ARE REQUIRED FOR ALL TRANSMISSION LINES, WELL COLLECTOR LINES, DISTRIBUTION LINES AND SANITARY SEWER SYSTEM COMPONENTS IN ACCORDANCE TO SECTION 170. THE COST OF THIS WORK IS INCIDENTAL TO THE PROJECT AND NO ADDITIONAL PAYMENT WILL BE MADE.

- KEY NOTES:**
- 38 FLUSH AND DISINFECT EXISTING WATER MAIN PER COA SPEC SECTION 801



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

BENCH MARKS	
USGLO BRASS DISK IN CONCRETE, CP-1 0.6 MILES SOUTH OF UNIVERSE/PASEO DEL NORTE INTX., 10' E OF P.W.M. EDGE	
NORTHING 1521076.443 (NAD 83)	
EASTING 1497693.917 (NAD 83)	
ELEVATION = 5417.8 (NAVD 88)	

ROBERT F. BUSS
NEW MEXICO
19168
PROFESSIONAL ENGINEER

1/12/2017

NO.	DATE	REMARKS	BY

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

VERT SCALE: 1" = 2'
0 1' 2' 4'

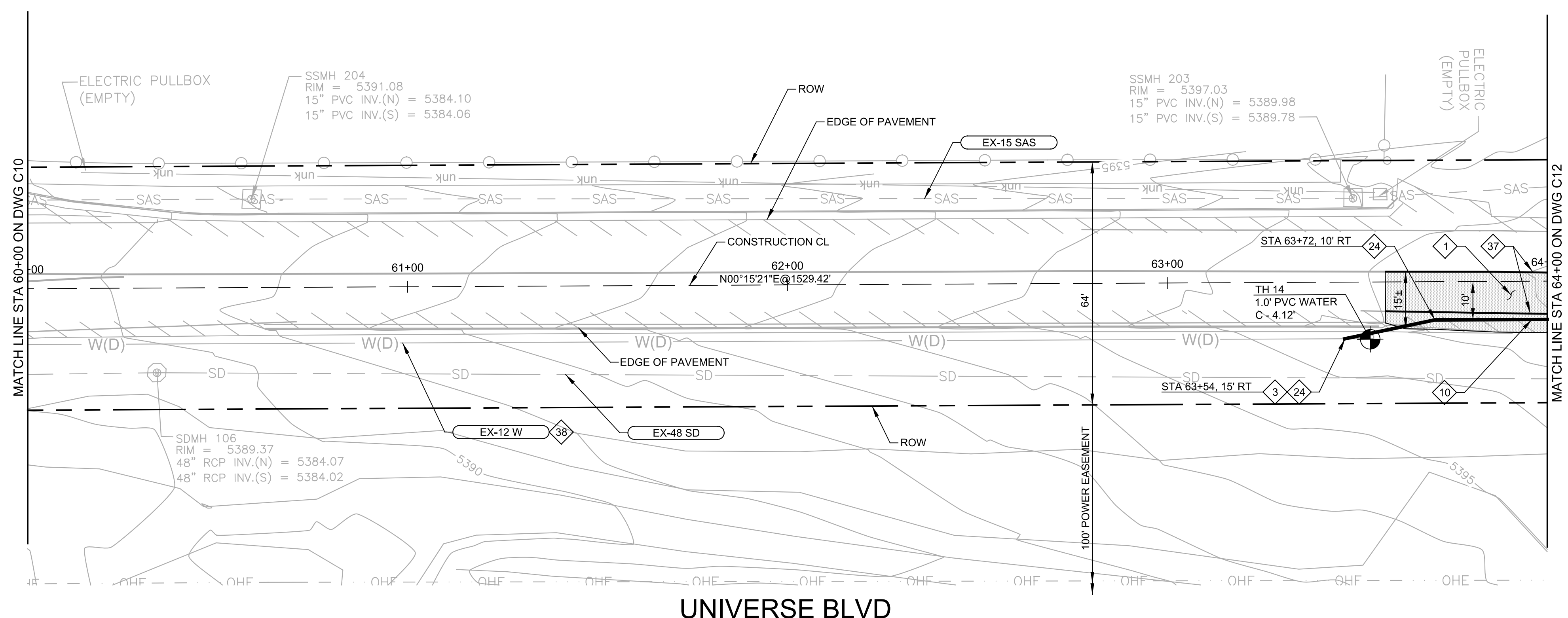
ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

UNIVERSE BOULEVARD TRANSMISSION LINE

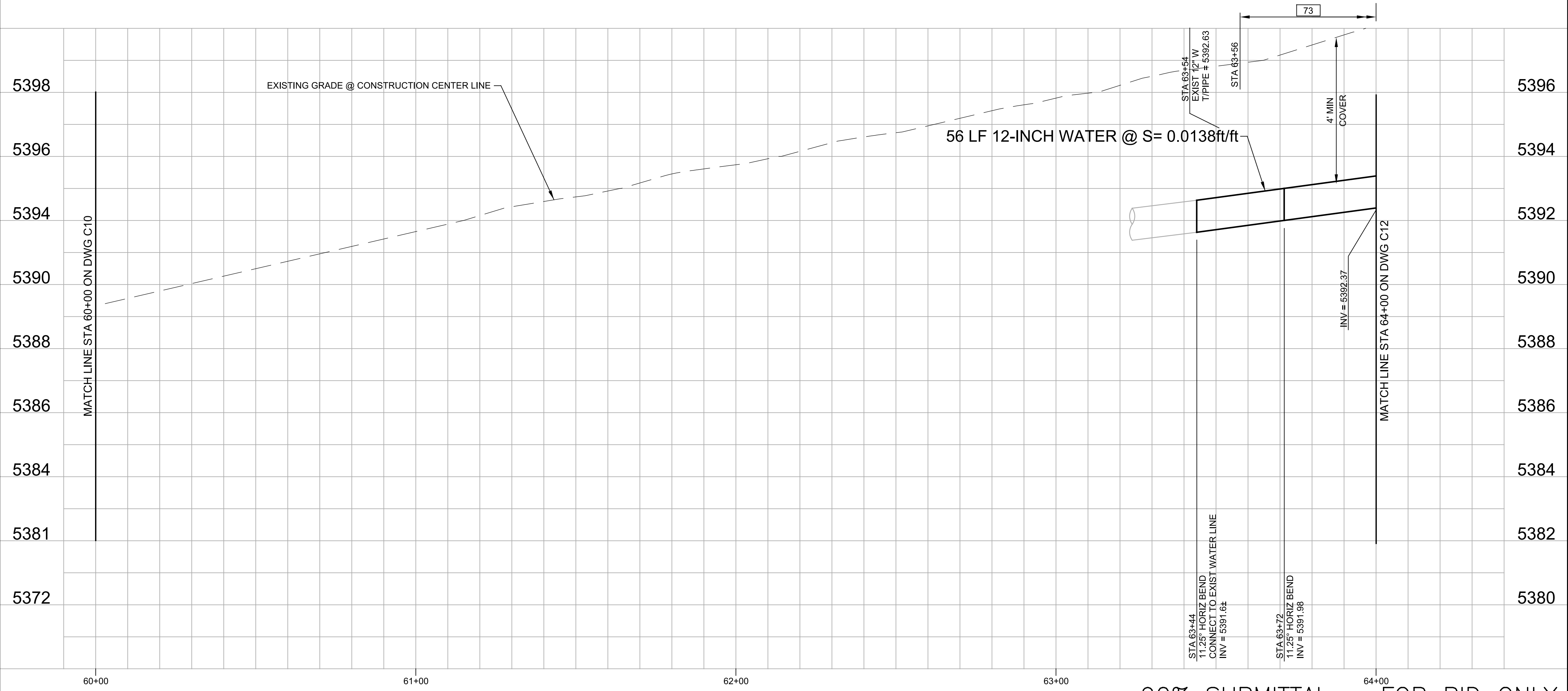
CIVIL
**PLAN AND PROFILE
STA 56+00 TO 60+00**

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

WUA Project No. 1201.026	Zone Map No. C-9, C-10	Sheet 15 Of 32
DRB Project No. 761261	D-9, D-10	C10



UNIVERSE BLVD



90% SUBMITTAL - FOR BID ONLY

GENERAL NOTES:

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KEY NOTES:

- SAWCUT, REMOVE & REPLACE ASPHALT CONCRETE TO MATCH EXISTING IN KIND, IN ACCORDANCE WITH COA STD DWG 2407 AND **A C15**
- CONNECT TO EXISTING WATER MAIN PER COA STD DWG 2301
- FURNISH & INSTALL 12-INCH WATER MAIN PVC, DR 18.
- FURNISH & INSTALL 12-INCH 11.25° BEND, HORIZONTAL
- REPLACE ALL STREET STRIPING ALTERED OR DESTROYED WITH PLASTIC REFLECTORIZED PAVEMENT MARKINGS PER SPEC SECTION 441. REPLACE AT EXISTING LOCATION.
- FLUSH AND DISINFECT EXISTING WATER MAIN PER COA SPEC SECTION 801

AS BUILT INFORMATION	
CONTRACTOR	DATE
INSPECTOR'S ACCEPTANCE BY	DATE
VERIFICATION BY	DATE
DRAWINGS CORRECTED BY	DATE
MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	

BENCH MARKS

USGLO BRASS DISK IN CONCRETE, CP-1 0.6 MILES SOUTH OF UNIVERSE/PASEO DEL NORTE INTX., 10' E OF P.W.M. EDGE

NORTHING 1521076.443 (NAD 83)
EASTING 1497693.917 (NAD 83)
ELEVATION = 5417.8 (NAVD 88)

ENGINEER'S SEAL

ROBERT F. BUSS
NEW MEXICO
19168
PROFESSIONAL ENGINEER

1/12/2017

NO.	DATE	REMARKS	BY



ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

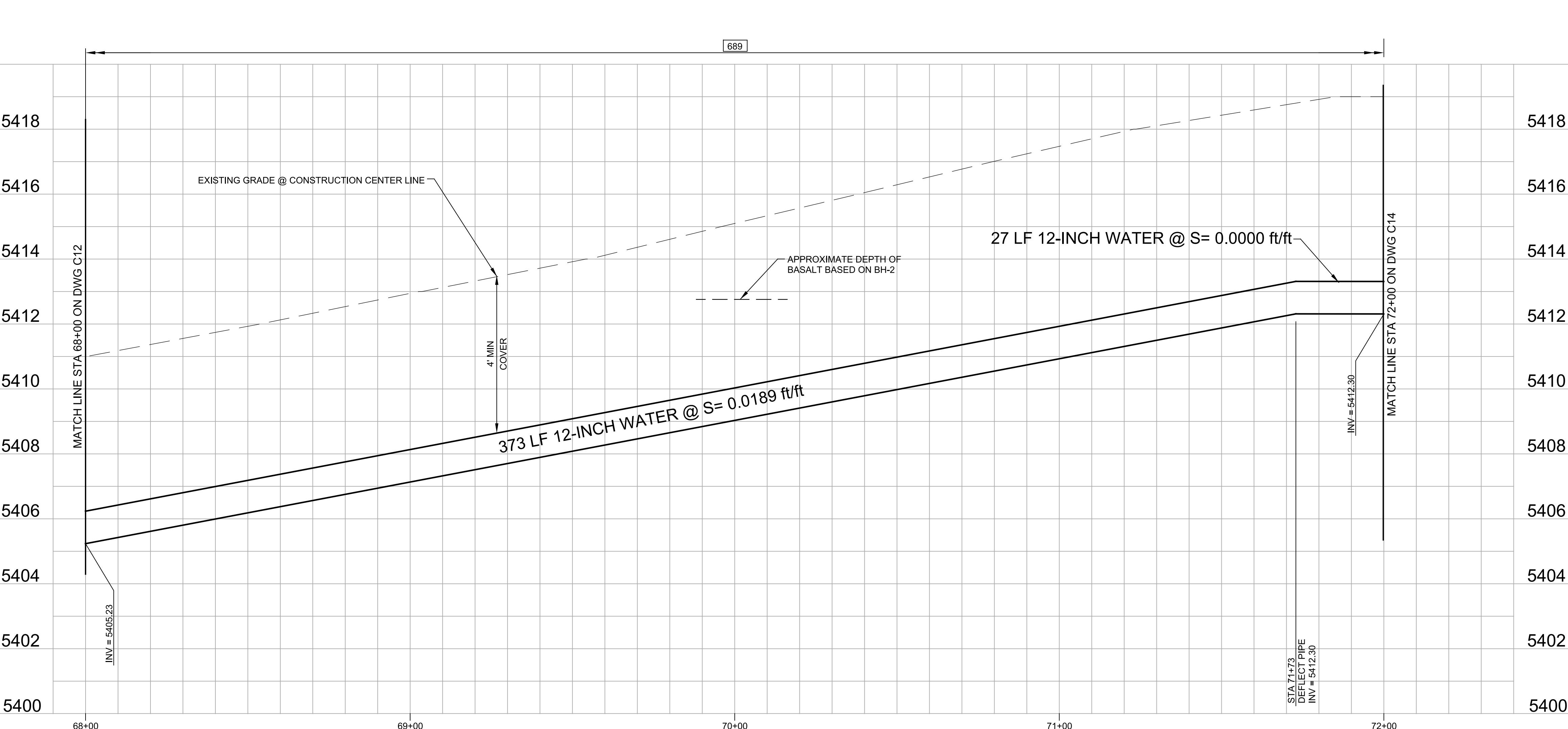
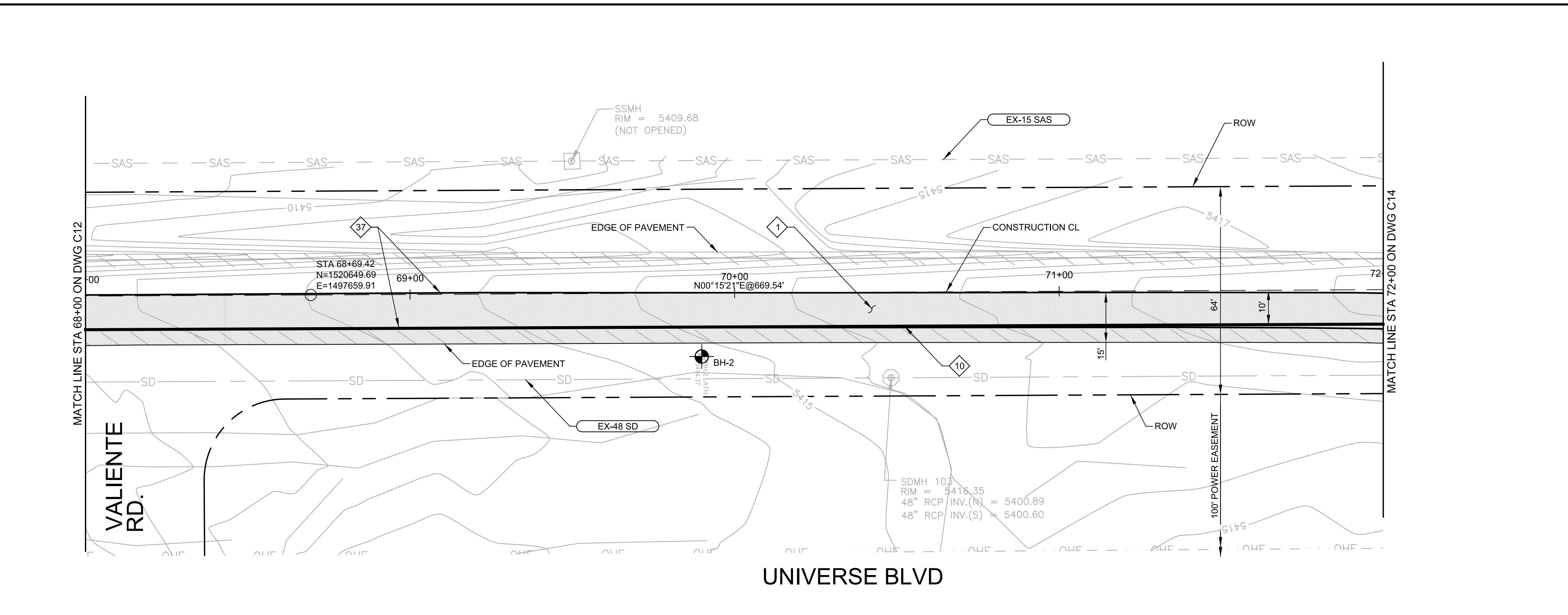
UNIVERSE BOULEVARD TRANSMISSION LINE
CIVIL
**PLAN AND PROFILE
STA 60+00 TO 64+00**

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

WUA Project No. 1201.026
DRB Project No. 761261

Zone Map No.
C-9, C-10
D-9, D-10

Sheet **16** Of **32**
C11



- GENERAL NOTES:**
- CONTRACTOR SHALL VERIFY HORIZONTAL & VERTICAL LOCATION OF UTILITIES PRIOR TO CONSTRUCTION & SHALL SUPPORT EACH UTILITY UNTIL BACKFILL IS COMPLETE.
 - ELECTRONIC MARKER DISKS (EMD) ARE REQUIRED FOR ALL TRANSMISSION LINES, WELL COLLECTOR LINES, DISTRIBUTION LINES AND SANITARY SEWER SYSTEM COMPONENTS IN ACCORDANCE TO SECTION 170. THE COST OF THIS WORK IS INCIDENTAL TO THE PROJECT AND NO ADDITIONAL PAYMENT WILL BE MADE.
 - ADD TEMPORARY PAVEMENT WITHIN RIGHT-OF-WAY AS NECESSARY TO MAINTAIN 2 LANES OF TRAFFIC AT ALL TIMES.

- KEY NOTES:**
- 1 SAWCUT, REMOVE & REPLACE ASPHALT CONCRETE TO MATCH EXISTING IN KIND, IN ACCORDANCE WITH COA STD DWG 2407 AND (A) C15
 - 10 FURNISH & INSTALL 12-INCH WATER MAIN PVC, DR 18
 - 37 REPLACE ALL STREET STRIPING ALTERED OR DESTROYED WITH PLASTIC REFLECTORIZED PAVEMENT MARKINGS PER SPEC SECTION 441 TO EXISTING LOCATION OR AS INDICATED BY THIS PLAN SET. REPLACE AT EXISTING LOCATION.

AS BUILT INFORMATION	
CONTRACTOR	DATE
WORKED BY	DATE
INSPECTOR'S ACCEPTANCE BY	DATE
VERIFICATION BY	DATE
DRAWINGS CORRECTED BY	DATE
MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	

BENCH MARKS

USGLO BRASS DISK IN CONCRETE, CP-1 0.6 MILES SOUTH OF UNIVERSE/PASEO DEL NORTE INTX., 10' E OF P.W.M. EDGE

NORTHING 1521076.443 (NAD 83)
EASTING 1497693.917 (NAD 83)
ELEVATION = 5417.8 (NAVD 88)

ENGINEER'S SEAL

ROBERT F. BUSS
NEW MEXICO
19168
PROFESSIONAL ENGINEER

1/12/2017

HORIZ SCALE: 1" = 20'
VERT SCALE: 1" = 2'



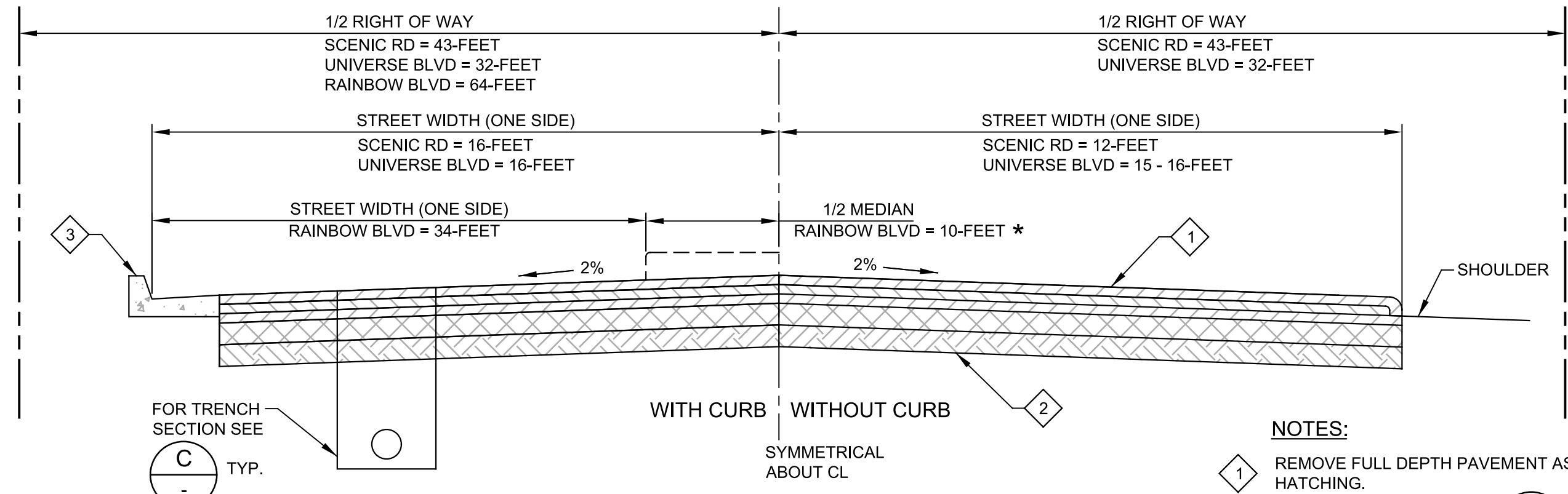
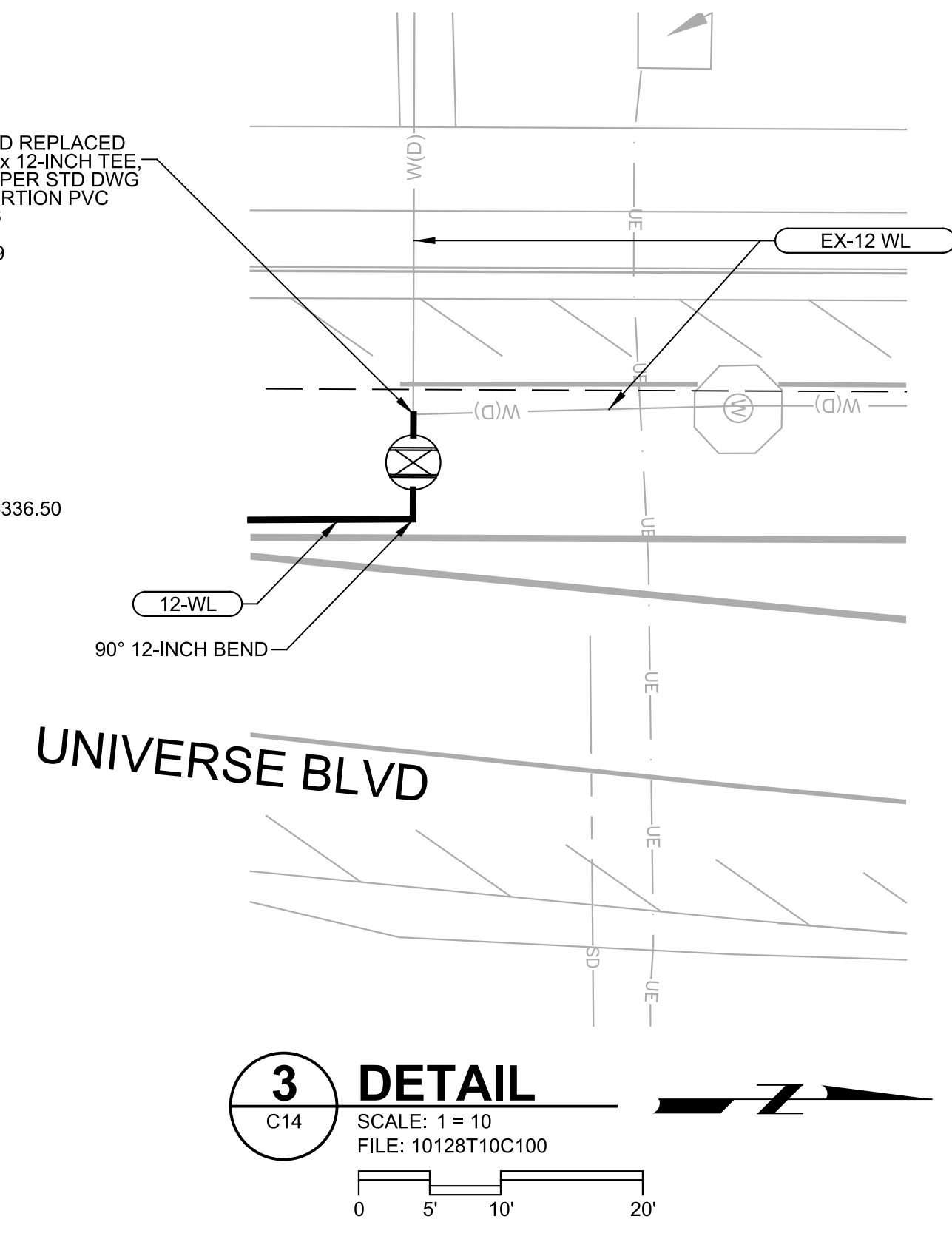
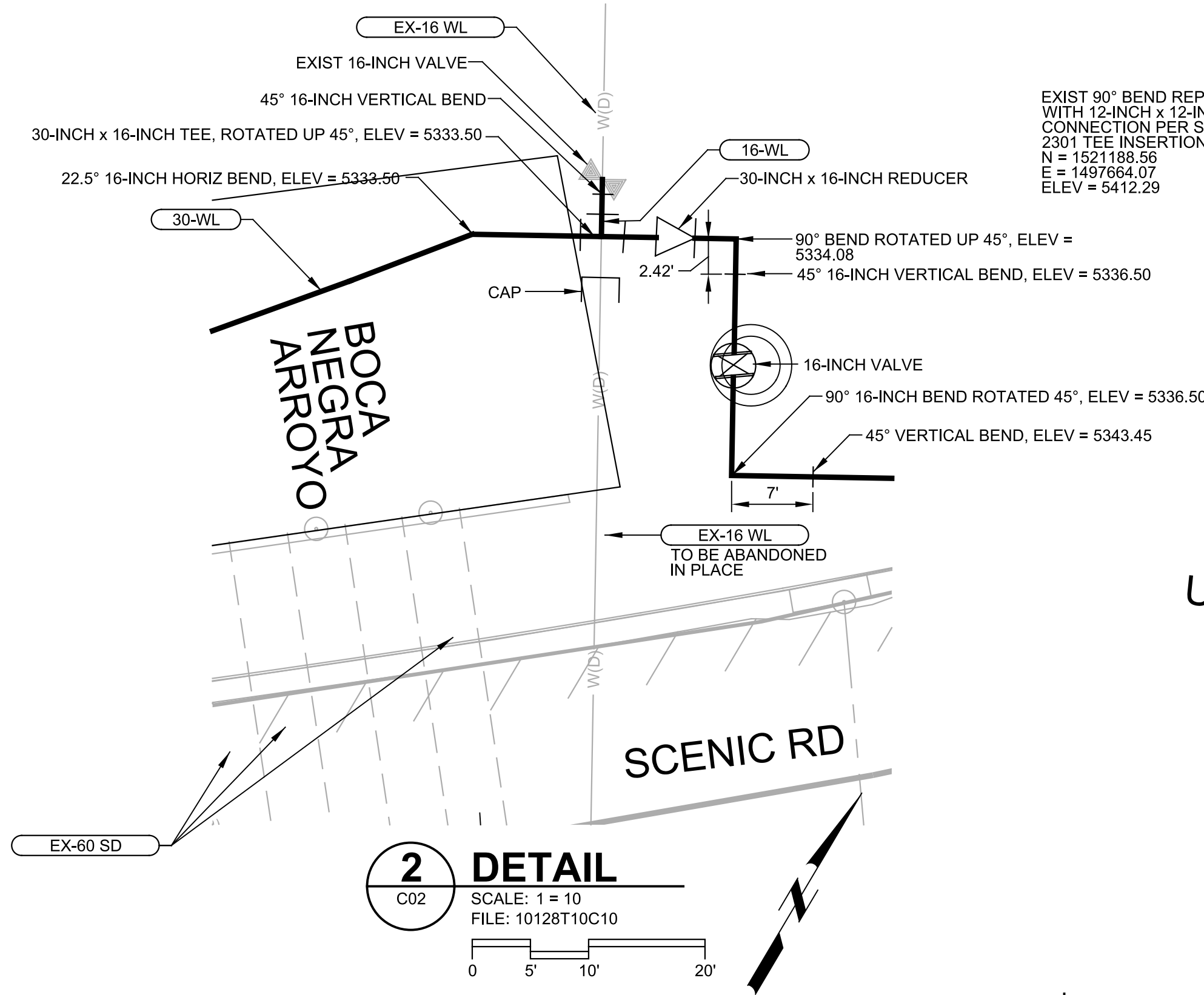
ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

CIVIL
**PLAN AND PROFILE
STA 68+00 TO 72+00**

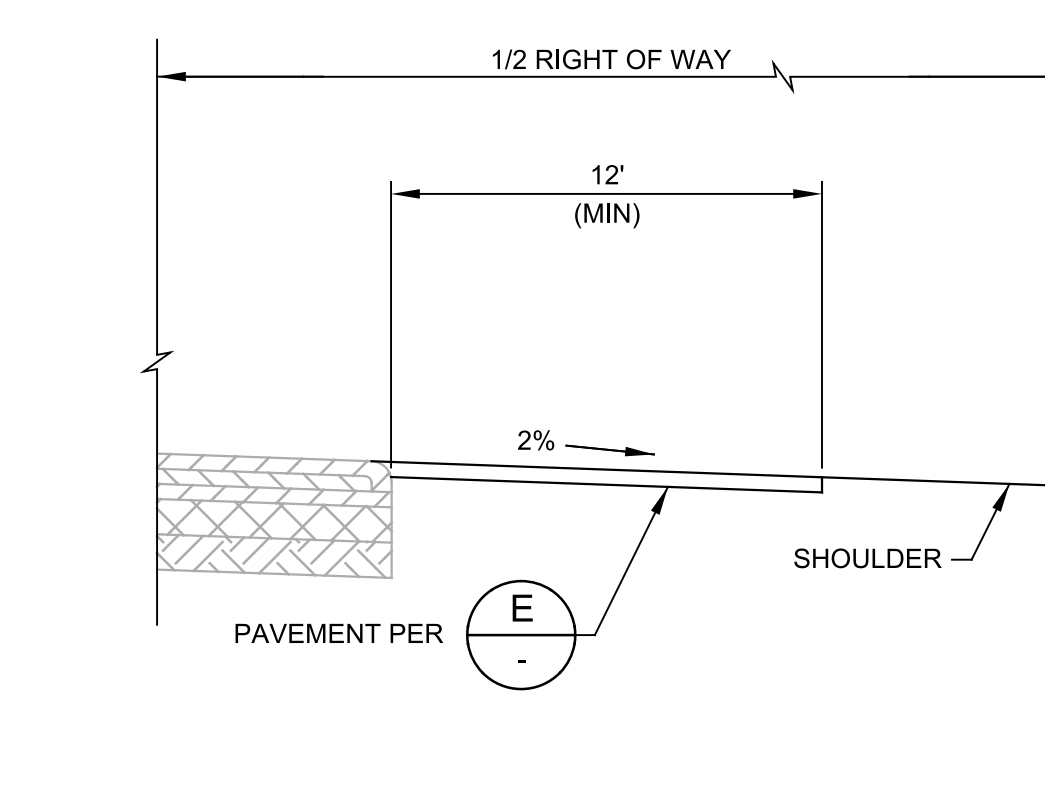
Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.

WUA Project No. 1201.026
DRB Project No. 761261

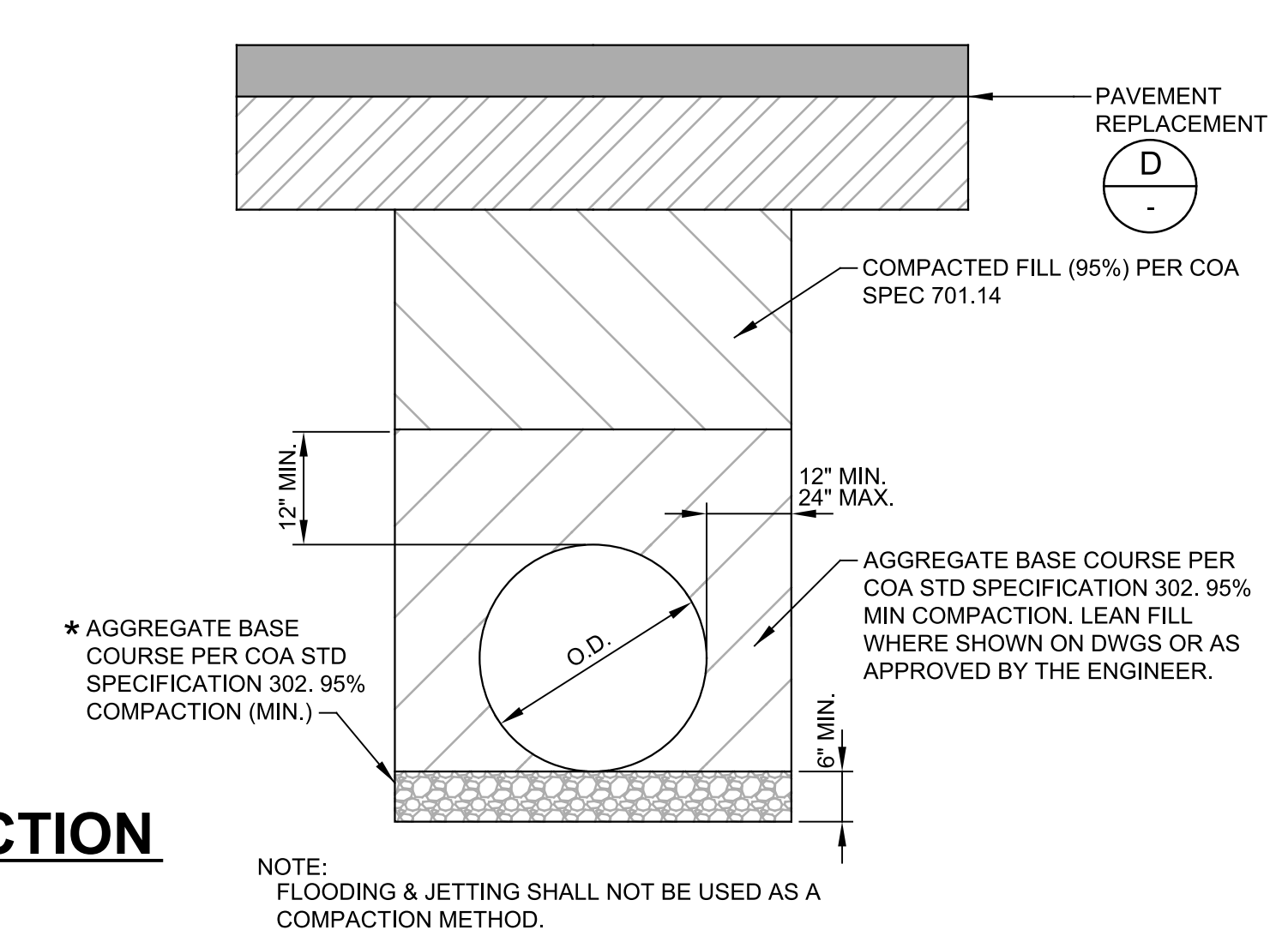
Zone Map No. C-9, C-10 D-9, D-10
Sheet 18 Of 32
C13



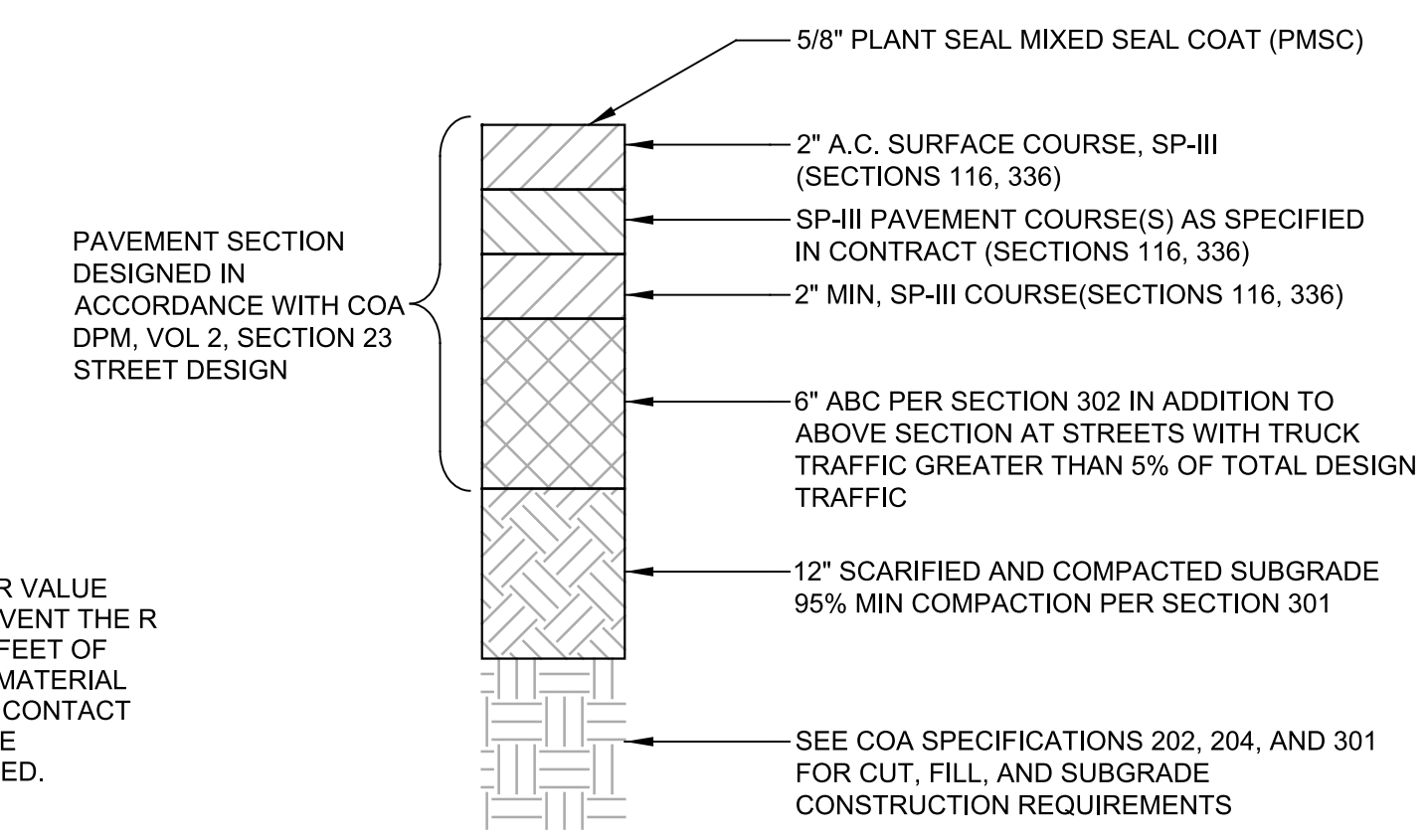
A ARTERIAL STREET PAVEMENT REPLACEMENT SECTION (COA STD DWG 2407 & 2408)
SCALE: NTS
FILE: -



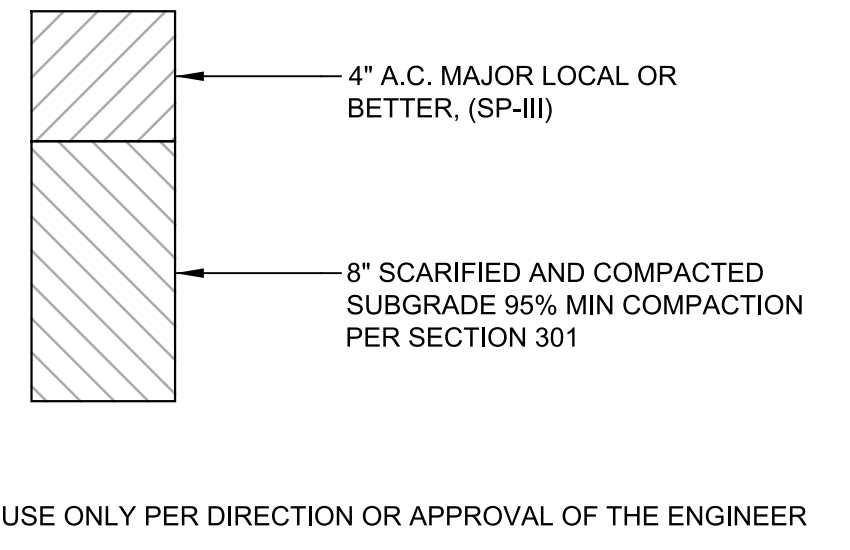
B TEMPORARY ROADWAY SECTION
SCALE: NTS
FILE: -



C TRENCH SECTION
SCALE: NTS
FILE: -



D ARTERIAL STREET FLEXIBLE PAVEMENT SECTION (COA STD DWG 2407)
SCALE: NTS
FILE: -



E TEMPORARY ROADWAY PAVEMENT SECTION (COA STD DWG 2415B)
SCALE: NTS
FILE: -

- NOTES:**
- 1 REMOVE FULL DEPTH PAVEMENT AS SHOWN ON DWG BY HATCHING.
 - 2 PAVEMENT SECTION PER
 - 3 EXISTING CURB, GUTTER AND SIDEWALK TO REMAIN WHERE EXISTING. (REMOVE & REPLACE TO NEAREST JOINTS CALLED OUT ON DRAWINGS)
- * MEDIAN WIDTH REDUCED TO 8- FEET AT INTERSECTION FOR LEFT TURN LANE

* USE ONLY PER DIRECTION OR APPROVAL OF THE ENGINEER

AS BUILT INFORMATION	
CONTRACTOR	DATE
WORKED BY	DATE
INSPECTOR'S ACCEPTANCE BY	DATE
VERIFICATION BY	DATE
DRAWINGS CORRECTED BY	DATE
MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	

ENGINEER'S SEAL

1/12/2017

NO.	DATE	REMARKS	BY

ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY

UNIVERSE BOULEVARD TRANSMISSION LINE

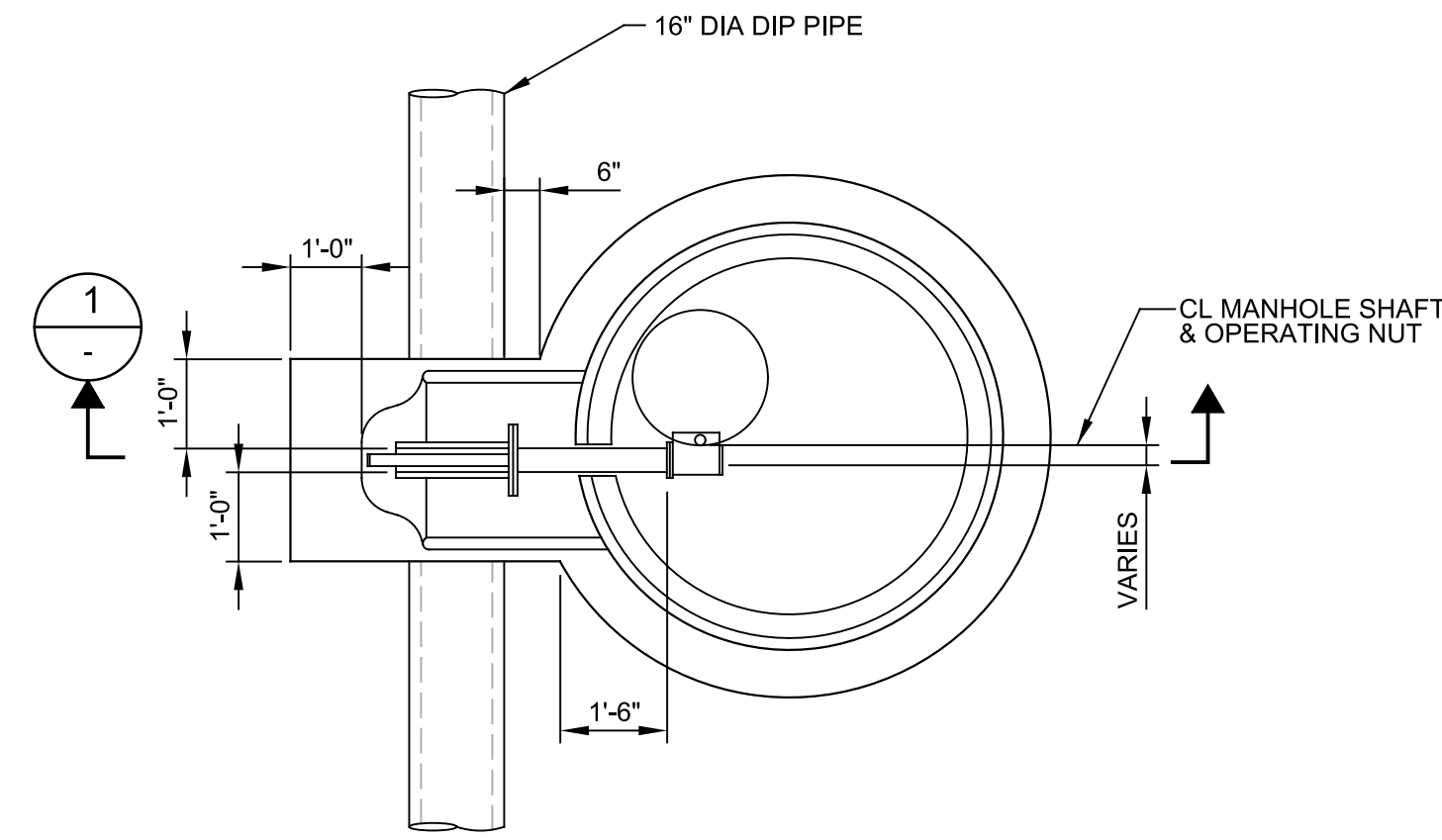
CIVIL DETAILS I

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

WUA Project No. 1201.026
DRB Project No. 761261

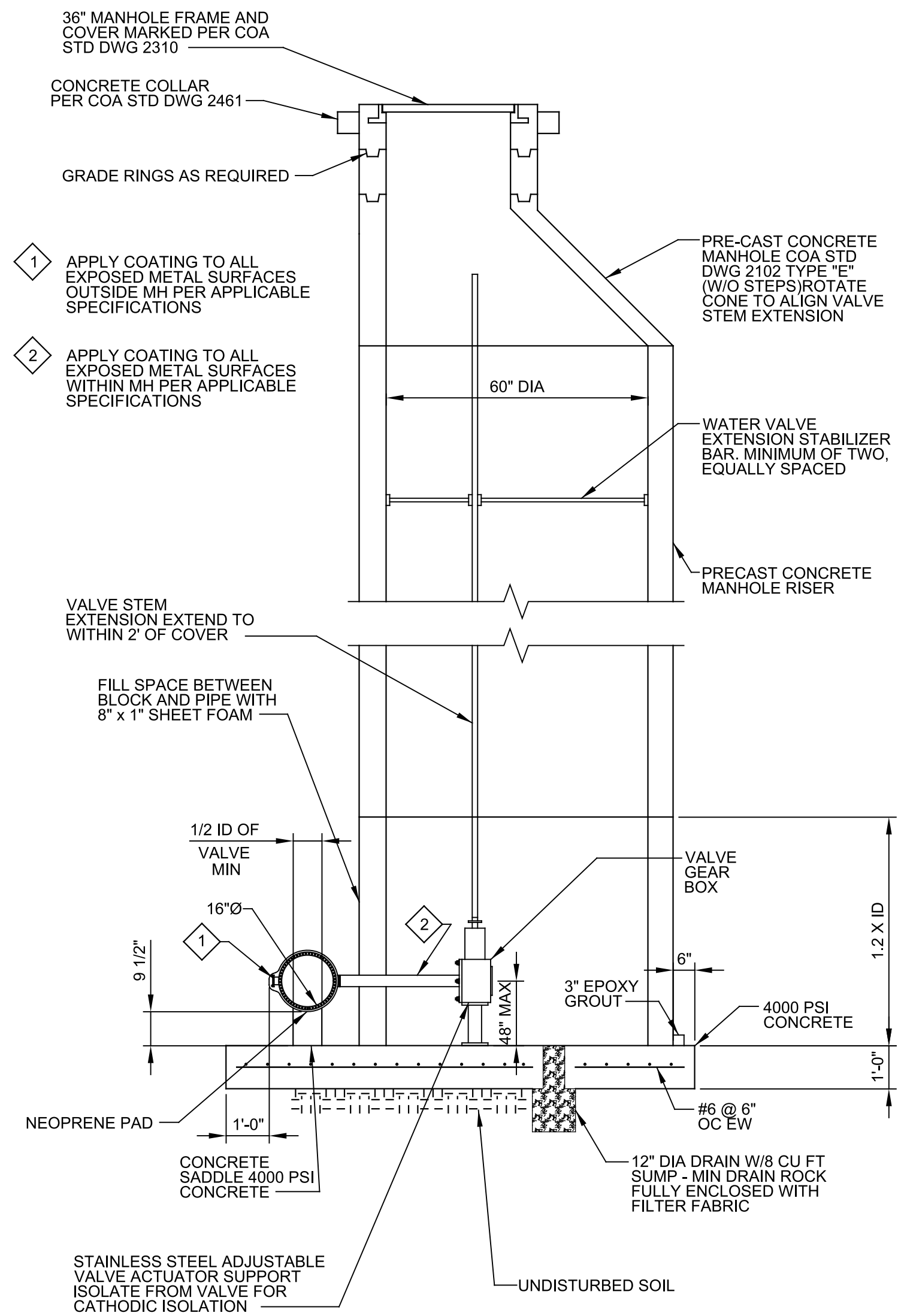
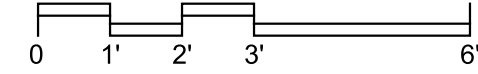
Zone Map No. C-9, C-10, D-9, D-10

Sheet 20 Of 32
C15



BUTTERFLY VALVE ACTUATOR MANHOLE PLAN

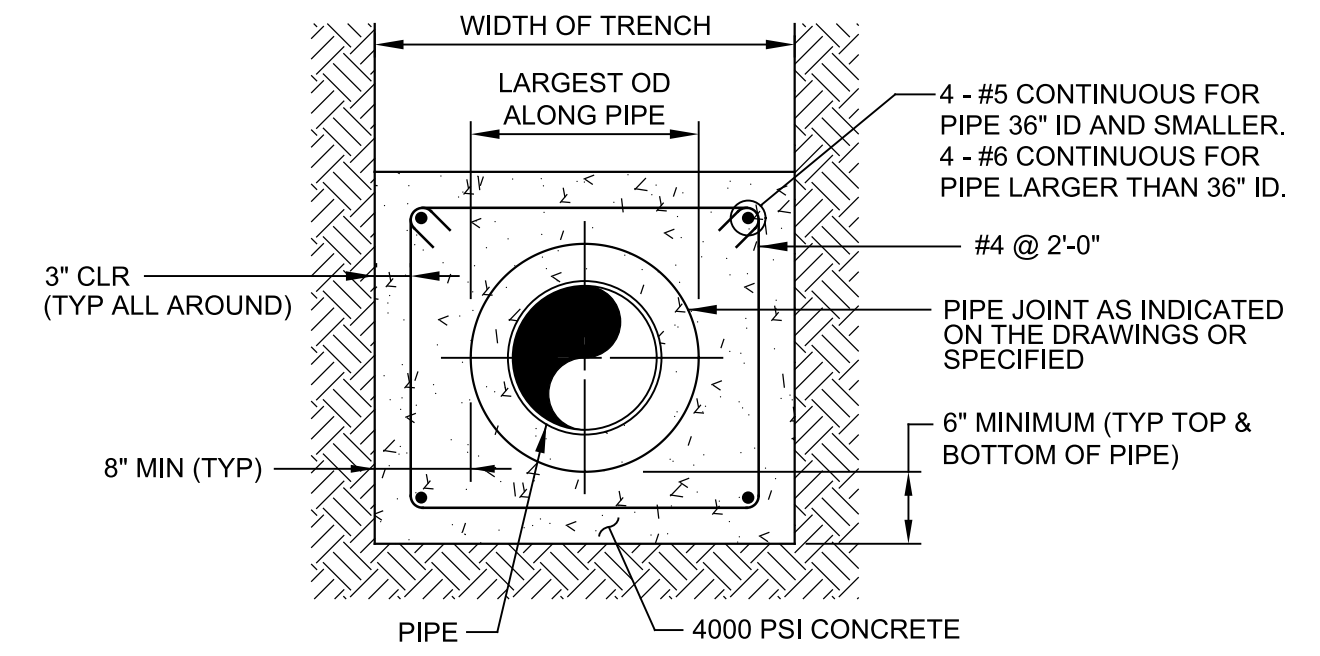
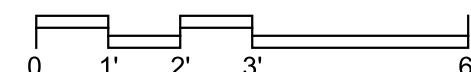
SCALE: 3/8" = 1'-0"
FILE: 10128T10C16



NOTE:
1. HS20 - 44 LOADING REQUIRED
2. SHOP DRAWING REQUIRED

1 SECTION

SCALE: 3/8" = 1'-0"
FILE:



NOTE:

1. TYPE OF PIPE AND TYPE OF PIPE JOINT OR COUPLER AS INDICATED ON THE DRAWINGS.

P040 CONCRETE ENCASEMENT OF PIPE
TYP R

1/11/17

AS BUILT INFORMATION

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

MICRO-FILM INFORMATION

RECORDED BY	DATE
NO.	

BENCH MARKS

USGLO BRASS DISK IN CONCRETE, CP-1 0.6 MILES SOUTH OF UNIVERSE/PASEO DEL NORTE INTX., 10' E OF P.V.M.T. EDGE
NORTHING 1521076.443 (NAD 83)
EASTING 1497693.917 (NAD 83)
ELEVATION = 5417.8 (NAVD 88)

ENGINEER'S SEAL

ROBERT F. BUSS
NEW MEXICO
19168
PROFESSIONAL ENGINEER

1/12/2017

NO.	DATE	REVISIONS	BY

CAROLLO ENGINEERS
DESIGNED BY JMC
DRAWN BY GD
CHECKED BY RFB



ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY

UNIVERSE BOULEVARD TRANSMISSION LINE
CIVIL
CIVIL DETAILS II

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

WUA Project No. 1201.026
DRB Project No. 761261

Zone Map No. C-9, C-10, D-9, D-10

Sheet 21 Of 32
C16

90% SUBMITTAL - FOR BID ONLY

EROSION AND SEDIMENT CONTROL (ESC) PLAN FOR UNIVERSE BOULEVARD TRANSMISSION LINE

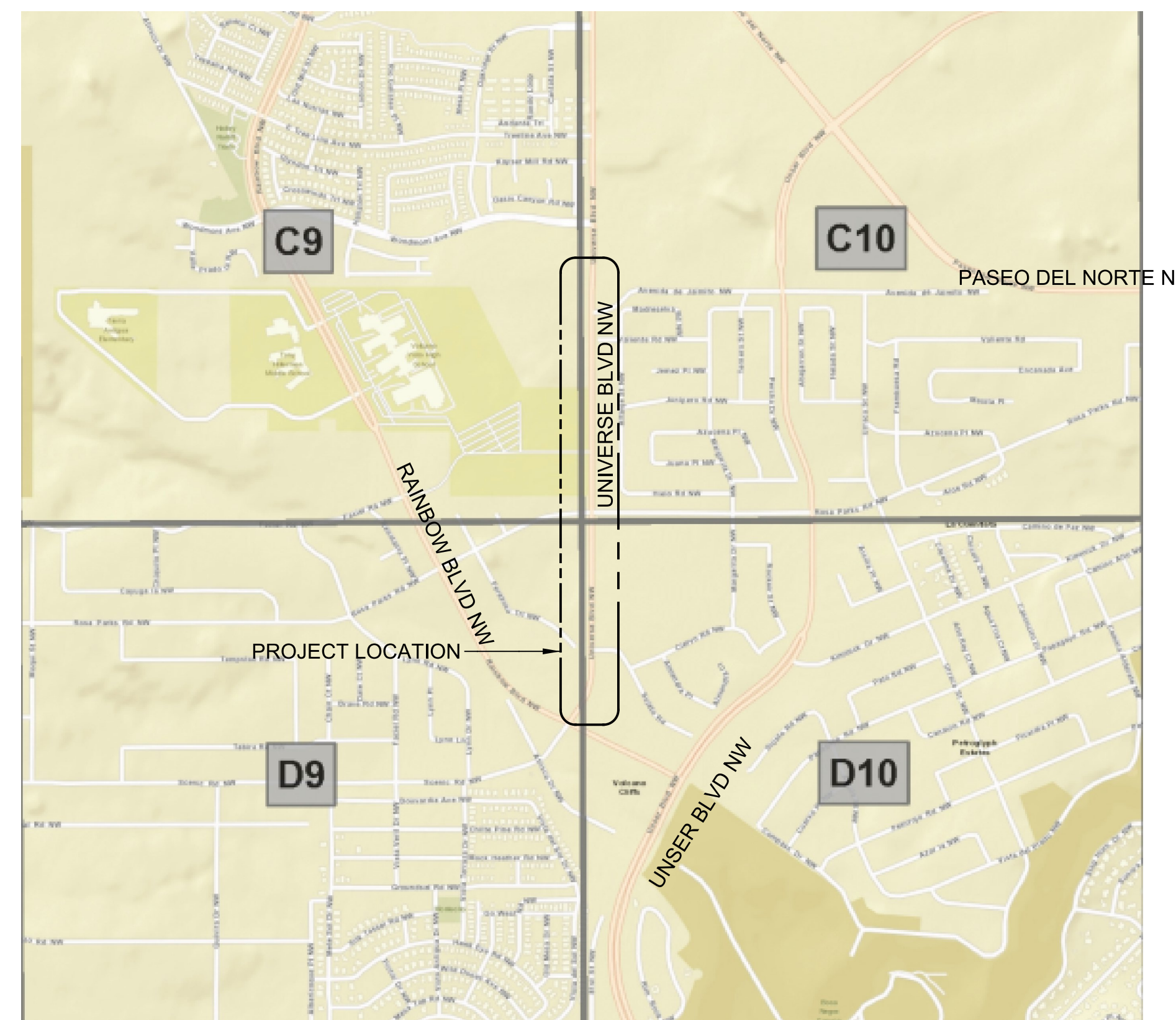


Albuquerque Bernalillo County
Water Utility Authority

JANUARY 2017

DRAWING INDEX

DRAWING NO.	DRAWING TITLE
GENERAL DRAWINGS - (G)	
22	SWPPP-G01 EROSION AND SEDIMENT CONTROL COVER SHEET
23	SWPPP-G02 EROSION AND SEDIMENT CONTROL GENERAL NOTES & LEGEND
CIVIL DRAWINGS - (C)	
24	SWPPP-C01 EROSION AND SEDIMENT CONTROL PLAN
25	SWPPP-C02 EROSION AND SEDIMENT CONTROL PLAN
26	SWPPP-C03 EROSION AND SEDIMENT CONTROL PLAN
27	SWPPP-C04 EROSION AND SEDIMENT CONTROL PLAN
28	SWPPP-C05 EROSION AND SEDIMENT CONTROL PLAN
29	SWPPP-C06 EROSION AND SEDIMENT CONTROL PLAN
30	SWPPP-C07 EROSION AND SEDIMENT CONTROL PLAN
31	SWPPP-C08 EROSION AND SEDIMENT CONTROL PLAN
32	SWPPP-C09 EROSION AND SEDIMENT CONTROL DETAILS



VICINITY MAP

NOT TO SCALE

90% SUBMITTAL
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REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE						*****	
						APPROVED FOR CONSTRUCTION	
						ABCWUA Engineer Date	
						City Engineer Date	
		WUA Project No. 1201.026				Sheet 22 Of 32	
		DRB Project No. 761261				SWPPP-G01	
		1/12/2017					

GENERAL NOTES:

- IF THERE IS A LAYDOWN OR SIMILAR YARD, BMPS SHOULD BE INCLUDED FOR THIS AREA (TRACK-OUT PAD).
- IF DIRT IS PRESENT IN THE STREET, THE STREET SHOULD BE SWEEPED EVERY FEW DAYS OR THE SAME DAY IF RAIN IS IMMINENT.
- DIRT SHOULD BE PLACED ON THE UPHILL SIDE OF THE STREET CUT AND THE AREA SWEEPED AFTER THE WORK IS COMPLETE. FOR LONGITUDINAL STREET CUTS A SEDIMENT BMP (E.G. WADDLE OR SIMILAR) MAY BE NECESSARY AT THE DOWNHILL END OF THE SECTION BEING WORKED.
- IF DIRT PILE IS TO BE LEFT IN THE STREET FOR MORE THAN A FEW DAYS OR IF RAIN IS IMMINENT, A WADDLE OR SIMILAR BMP SHOULD BE PLACED AT THE TOE OF DIRT PILE.
- CONTRACTOR IS RESPONSIBLE TO MONITOR WEATHER CONDITIONS AND ENSURE ALL BMP ARE IN PLACE AND OPERATIONAL PRIOR TO ANY RAINFALL EVENT.

LEGEND:

- = CULVERT PROTECTION
- = DROP INLET PROTECTION
- = CONSTRUCTION AREA, PROTECTION PER DETAIL ON SHEET SWPPP-C09
- = STRAW BALE
- = STRAW WATTLE

PRECIPITATION FREQUENCY ESTIMATES (INCH)

NOAA Atlas 14, Volume 1, Version 5
 Location name: Albuquerque, New Mexico, USA*
 Latitude: 35.1686°, Longitude: -106.7284°
 Elevation: 5350.15 ft**
 * source: ESRI Maps
 ** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Parica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Malaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dals Umuh, Fonglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aerials](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.160 (0.137-0.187)	0.207 (0.177-0.242)	0.279 (0.236-0.327)	0.336 (0.286-0.392)	0.413 (0.349-0.481)	0.473 (0.399-0.549)	0.538 (0.450-0.623)	0.606 (0.503-0.702)	0.698 (0.575-0.811)	0.773 (0.631-0.897)
10-min	0.243 (0.208-0.284)	0.315 (0.269-0.368)	0.424 (0.360-0.497)	0.512 (0.435-0.596)	0.629 (0.530-0.732)	0.720 (0.607-0.836)	0.818 (0.685-0.948)	0.922 (0.765-1.07)	1.06 (0.874-1.23)	1.18 (0.959-1.37)
15-min	0.301 (0.258-0.352)	0.390 (0.333-0.456)	0.525 (0.446-0.616)	0.634 (0.540-0.739)	0.780 (0.657-0.908)	0.892 (0.753-1.04)	1.01 (0.849-1.18)	1.14 (0.948-1.33)	1.32 (1.08-1.53)	1.46 (1.19-1.69)
30-min	0.405 (0.347-0.474)	0.526 (0.449-0.614)	0.707 (0.600-0.829)	0.854 (0.726-0.995)	1.05 (0.885-1.22)	1.20 (1.01-1.40)	1.37 (1.14-1.58)	1.54 (1.28-1.78)	1.77 (1.46-2.06)	1.96 (1.60-2.28)
60-min	0.501 (0.430-0.586)	0.650 (0.555-0.760)	0.876 (0.743-1.03)	1.06 (0.899-1.23)	1.30 (1.10-1.51)	1.49 (1.25-1.73)	1.69 (1.42-1.96)	1.90 (1.58-2.21)	2.20 (1.81-2.55)	2.43 (1.98-2.82)
2-hr	0.590 (0.510-0.678)	0.753 (0.649-0.868)	1.00 (0.859-1.15)	1.20 (1.03-1.37)	1.48 (1.26-1.68)	1.70 (1.44-1.93)	1.94 (1.63-2.20)	2.19 (1.83-2.48)	2.54 (2.10-2.88)	2.83 (2.31-3.21)
3-hr	0.627 (0.554-0.722)	0.800 (0.703-0.920)	1.05 (0.926-1.20)	1.26 (1.10-1.44)	1.53 (1.33-1.75)	1.76 (1.52-2.00)	2.00 (1.72-2.27)	2.26 (1.92-2.57)	2.62 (2.20-2.97)	2.91 (2.41-3.32)
6-hr	0.725 (0.641-0.823)	0.919 (0.819-1.05)	1.19 (1.06-1.35)	1.41 (1.24-1.59)	1.70 (1.49-1.92)	1.93 (1.69-2.17)	2.17 (1.89-2.45)	2.42 (2.09-2.72)	2.77 (2.37-3.12)	3.07 (2.59-3.46)
12-hr	0.808 (0.719-0.909)	1.02 (0.908-1.15)	1.30 (1.15-1.46)	1.53 (1.35-1.71)	1.82 (1.60-2.04)	2.05 (1.79-2.30)	2.29 (1.99-2.56)	2.55 (2.19-2.84)	2.88 (2.47-3.22)	3.16 (2.68-3.54)
24-hr	0.929 (0.820-1.06)	1.17 (1.03-1.32)	1.47 (1.30-1.67)	1.71 (1.51-1.93)	2.03 (1.79-2.29)	2.28 (2.00-2.57)	2.54 (2.22-2.86)	2.81 (2.44-3.15)	3.17 (2.73-3.56)	3.45 (2.95-3.87)
2-day	0.967 (0.863-1.08)	1.21 (1.09-1.36)	1.53 (1.37-1.71)	1.77 (1.58-1.98)	2.10 (1.87-2.35)	2.36 (2.09-2.63)	2.63 (2.32-2.93)	2.90 (2.55-3.23)	3.27 (2.85-3.64)	3.56 (3.09-3.97)
3-day	1.13 (1.02-1.25)	1.41 (1.28-1.56)	1.75 (1.58-1.93)	2.01 (1.82-2.22)	2.38 (2.14-2.62)	2.65 (2.38-2.92)	2.93 (2.63-3.23)	3.22 (2.87-3.54)	3.60 (3.19-3.97)	3.89 (3.44-4.30)
4-day	1.29 (1.18-1.41)	1.60 (1.47-1.76)	1.97 (1.80-2.15)	2.26 (2.06-2.46)	2.65 (2.41-2.89)	2.94 (2.67-3.21)	3.24 (2.93-3.53)	3.53 (3.19-3.86)	3.93 (3.53-4.29)	4.22 (3.78-4.62)
7-day	1.48 (1.36-1.61)	1.84 (1.68-2.00)	2.24 (2.05-2.44)	2.55 (2.34-2.77)	2.96 (2.71-3.21)	3.26 (2.98-3.55)	3.57 (3.26-3.88)	3.86 (3.52-4.20)	4.25 (3.86-4.62)	4.53 (4.10-4.93)
10-day	1.64 (1.51-1.79)	2.04 (1.87-2.22)	2.50 (2.29-2.71)	2.86 (2.62-3.09)	3.33 (3.05-3.60)	3.69 (3.37-3.99)	4.05 (3.69-4.37)	4.40 (4.00-4.76)	4.86 (4.40-5.26)	5.19 (4.69-5.63)
20-day	2.06 (1.89-2.25)	2.56 (2.35-2.79)	3.11 (2.86-3.38)	3.52 (3.23-3.83)	4.05 (3.71-4.40)	4.43 (4.06-4.81)	4.80 (4.39-5.21)	5.15 (4.70-5.58)	5.59 (5.09-6.06)	5.90 (5.36-6.41)
30-day	2.47 (2.26-2.67)	3.06 (2.81-3.31)	3.68 (3.38-3.98)	4.14 (3.80-4.47)	4.72 (4.33-5.09)	5.13 (4.69-5.53)	5.52 (5.05-5.95)	5.88 (5.37-6.34)	6.32 (5.76-6.81)	6.62 (6.03-7.15)
45-day	3.02 (2.78-3.26)	3.73 (3.44-4.04)	4.45 (4.10-4.81)	4.96 (4.57-5.35)	5.58 (5.15-6.02)	6.01 (5.54-6.47)	6.39 (5.89-6.88)	6.73 (6.20-7.25)	7.12 (6.56-7.66)	7.36 (6.78-7.92)
60-day	3.46 (3.20-3.75)	4.29 (3.96-4.64)	5.11 (4.72-5.52)	5.70 (5.26-6.16)	6.41 (5.92-6.92)	6.89 (6.36-7.44)	7.33 (6.77-7.92)	7.73 (7.14-8.34)	8.17 (7.55-8.83)	8.46 (7.83-9.14)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

AS BUILT INFORMATION	
CONTRACTOR	DATE
WORKED BY	DATE
INSPECTORS	DATE
ACCEPTANCE BY	DATE
VERIFICATION BY	DATE
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MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	

BENCH MARKS	
USGLO BRASS DISK IN CONCRETE, CP-1 0.6 MILES SOUTH OF UNIVERSE/PASEO DEL NORTE INTX., 10' E OF P.V.M.T. EDGE	
NORTHING 1521076.443 (NAD 83)	
EASTING 1497693.917 (NAD 83)	
ELEVATION = 5417.8 (NAVD 88)	

ENGINEER'S SEAL

1/12/2017

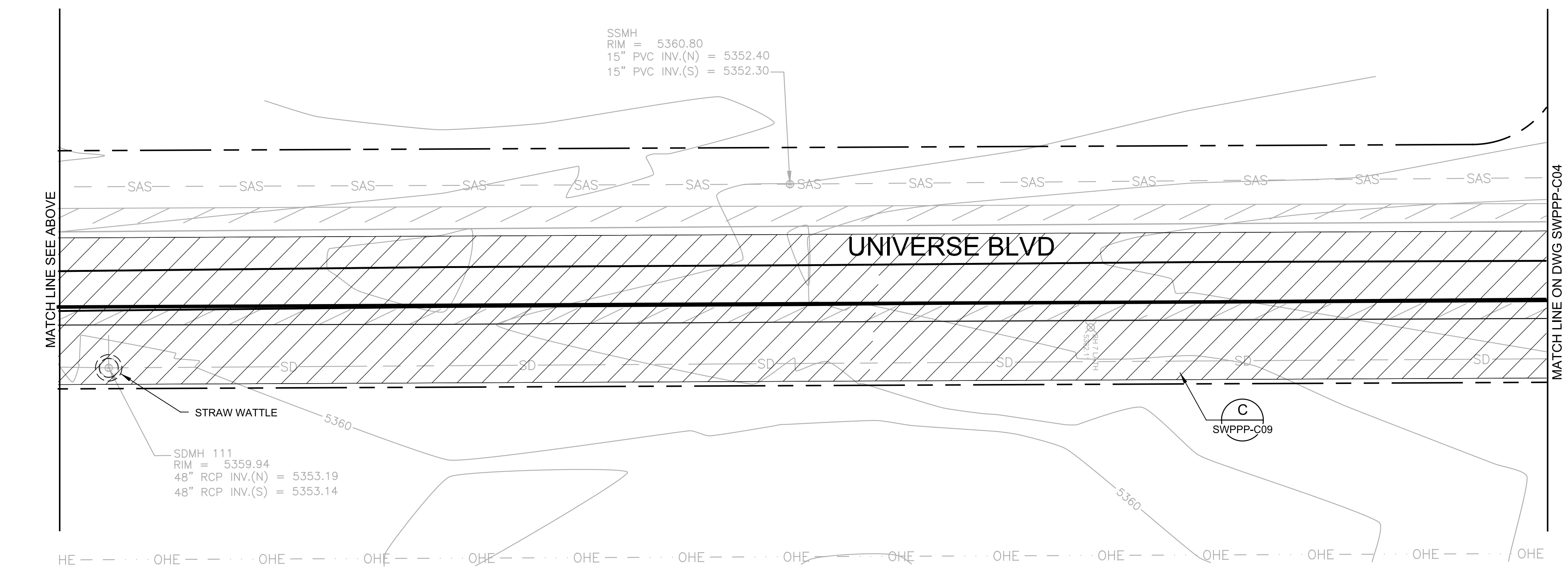
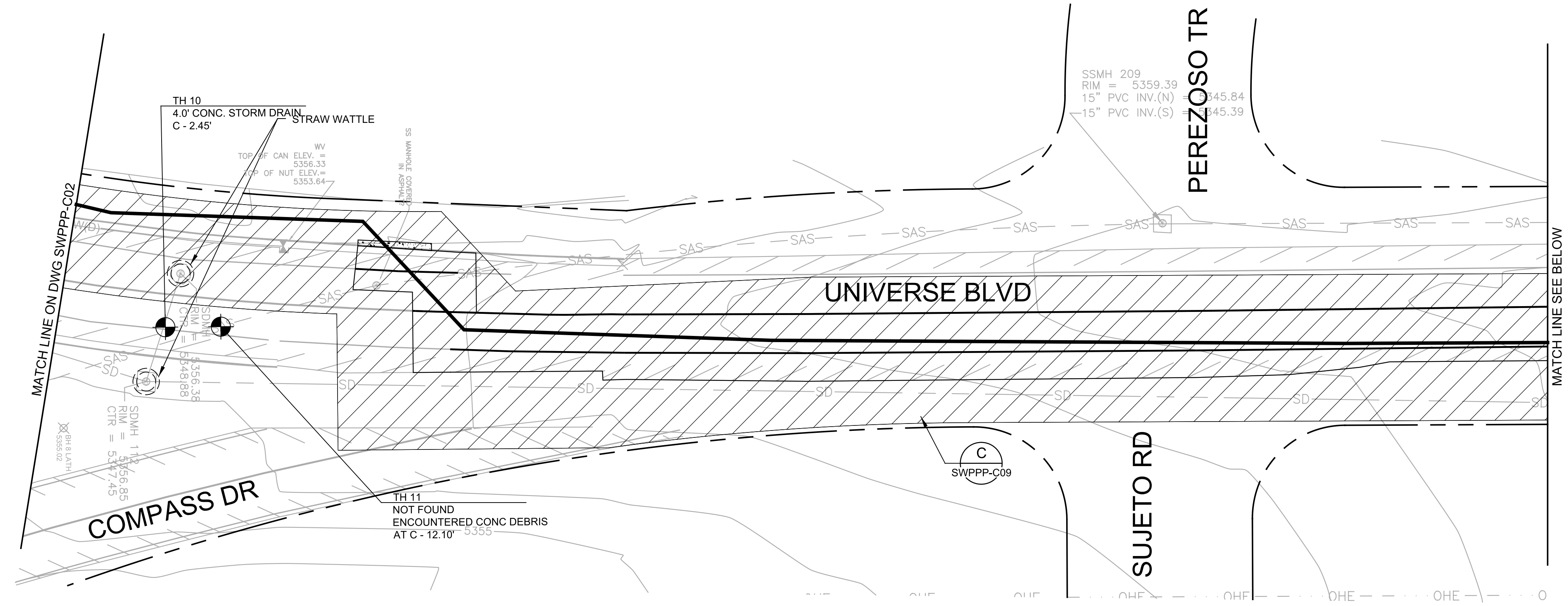
NO.	DATE	REMARKS	BY
		REVISIONS	
CAROLLO ENGINEERS			
DESIGNED BY	MLH	DATE	
DRAWN BY	MLH	DATE	
CHECKED BY	JM	DATE	1/17


ALBUQUERQUE BERNALILLO COUNTY
 WATER UTILITY AUTHORITY

UNIVERSE BOULEVARD TRANSMISSION LINE
 EROSION AND SEDIMENT CONTROL
 GENERAL NOTES & LEGEND

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
WUA Project No. 1201.026		Zone Map No. C-9, C-10	Sheet 23 Of 32
DRB Project No. 761261		D-9, D-10	SWPP-G02

90% SUBMITTAL – FOR BID ONLY

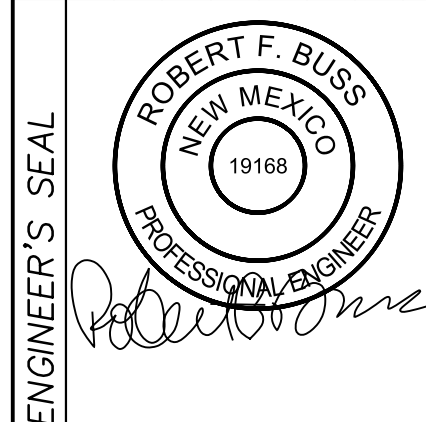
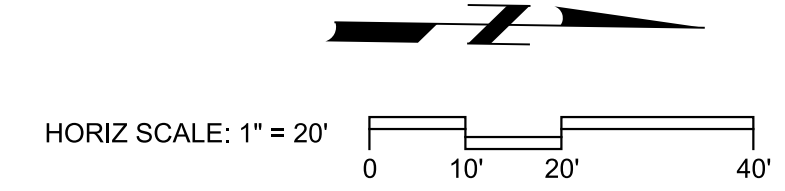




ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

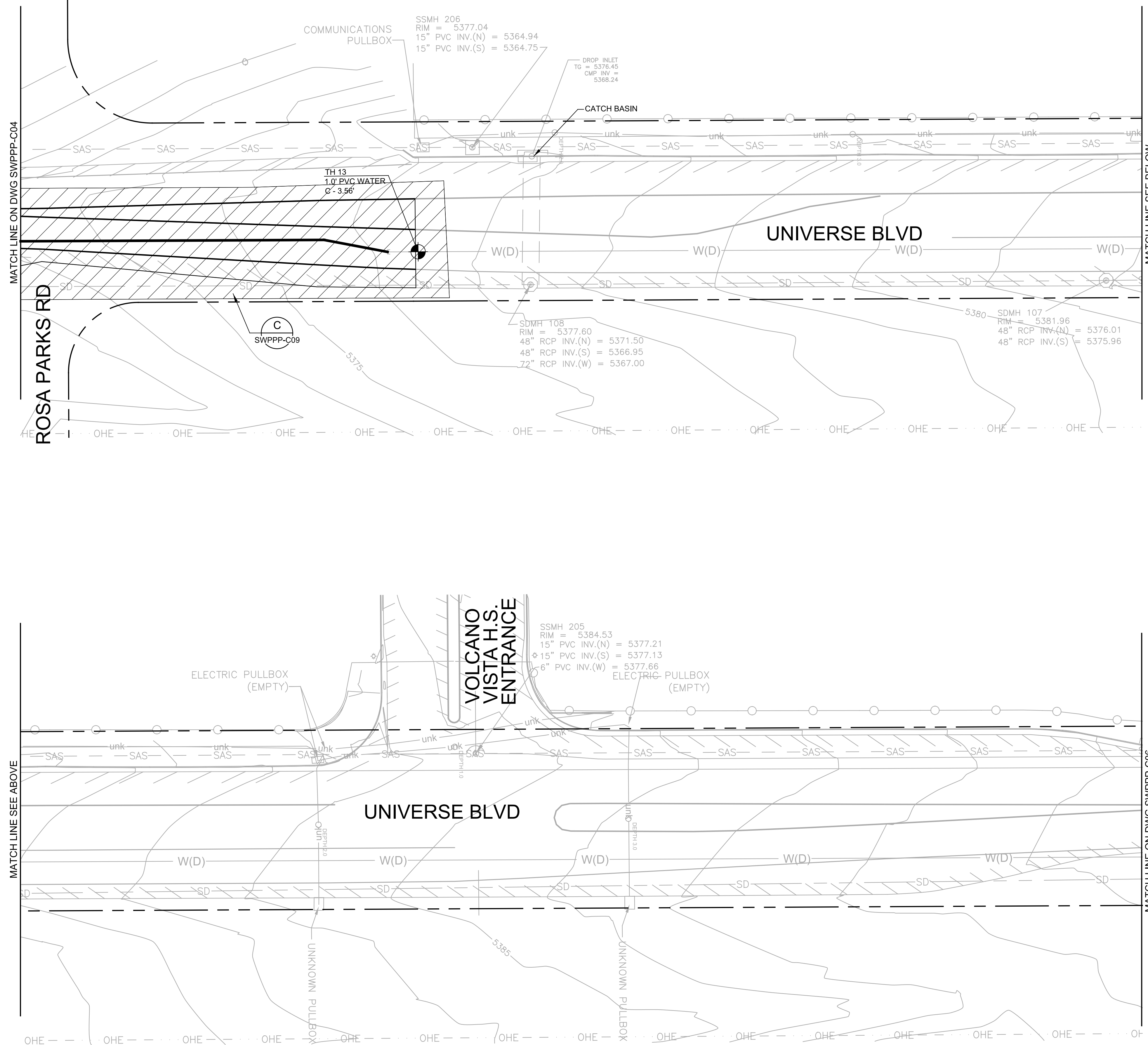
UNIVERSE BOULEVARD TRANSMISSION LINE
CIVIL
EROSION AND SEDIMENT CONTROL PLAN

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
Last Design Update			
WUA Project No. 1201.026		Zone Map No. C-9, C-10	Sheet 26 Of 32
DRB Project No. 761261		D-9, D-10	SWPPP-C03



ENGINEER'S SEAL		1/12/2017	
NO.	DATE	REMARKS	BY
DESIGNED BY: JMC			
DRAWN BY: GD			
CHECKED BY: RFB			
			1/17

BENCH MARKS		AS BUILT INFORMATION	
USGLO BRASS DISK IN CONCRETE, CP-1 0.6 MILES SOUTH OF UNIVERSE/PASEO DEL NORTE INTX., 10' E OF P.W.T. EDGE			
CONTRACTOR	DATE	INSPECTED BY	DATE
NORTHING 1521076.443 (NAD 83)		DRAWINGS CORRECTED BY	
EASTING 1497693.917 (NAD 83)		MICRO-FILM INFORMATION	
ELEVATION = 5417.8 (NAVD 88)			

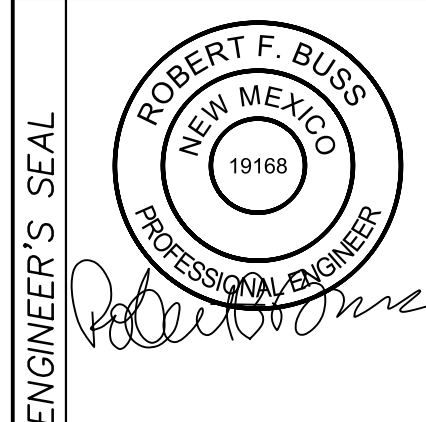


ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

UNIVERSE BOULEVARD TRANSMISSION LINE
CIVIL
EROSION AND SEDIMENT CONTROL PLAN

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

WUA Project No. 1201.026 Zone Map No. C-9, C-10 Sheet 28 Of 32
 DRB Project No. 761261 D-9, D-10 SWPPP-C05



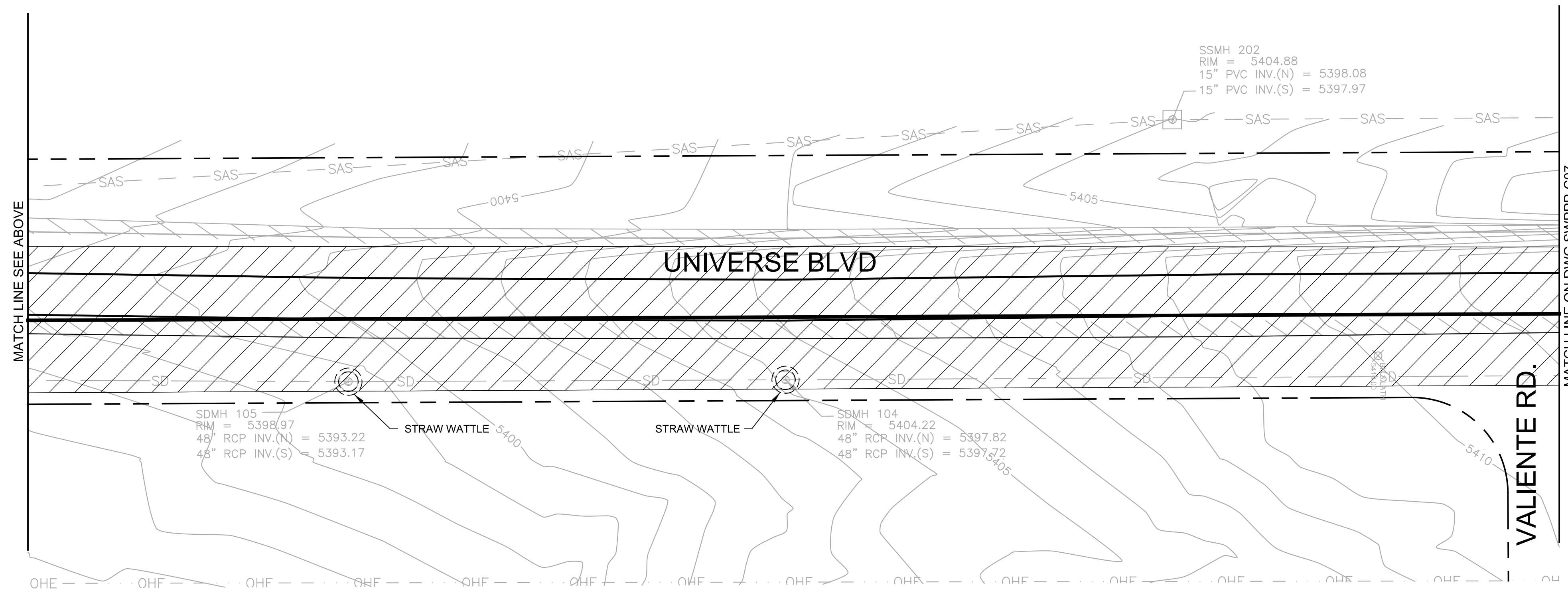
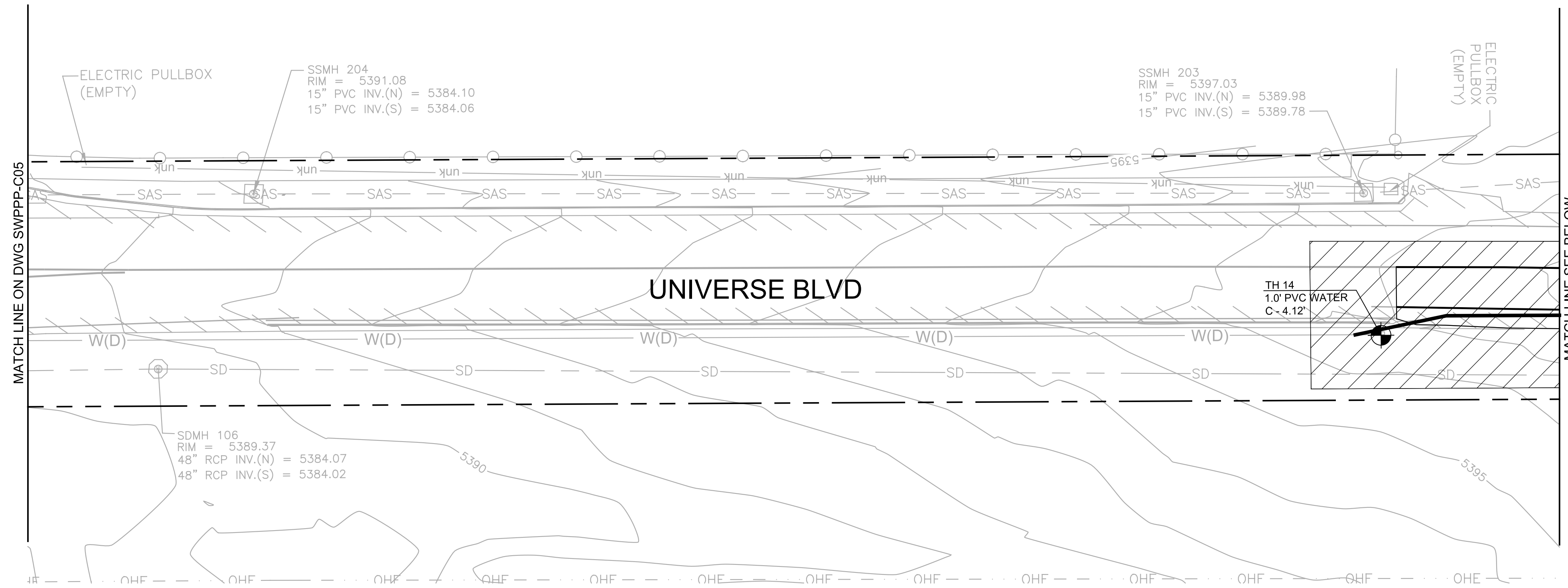
1/12/2017

NO.	DATE	REMARKS	BY

DESIGNED BY		DATE	
JMC			
DRAWN BY		DATE	
GD			
CHECKED BY		DATE	
RFB			1/17

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

90% SUBMITTAL - FOR BID ONLY



ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

UNIVERSE BOULEVARD TRANSMISSION LINE
CIVIL
EROSION AND SEDIMENT CONTROL PLAN

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

WUA Project No. 1201.026
DRB Project No. 761261

Zone Map No.
C-9, C-10
D-9, D-10

Sheet **29** Of **32**
SWPPP-C06

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

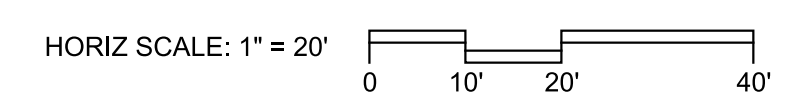
ENGINEER'S SEAL

ROBERT F. BUSS
NEW MEXICO
19168
PROFESSIONAL ENGINEER

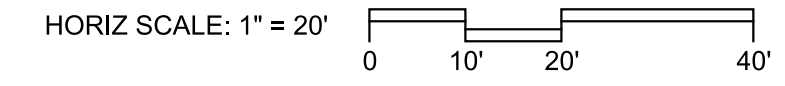
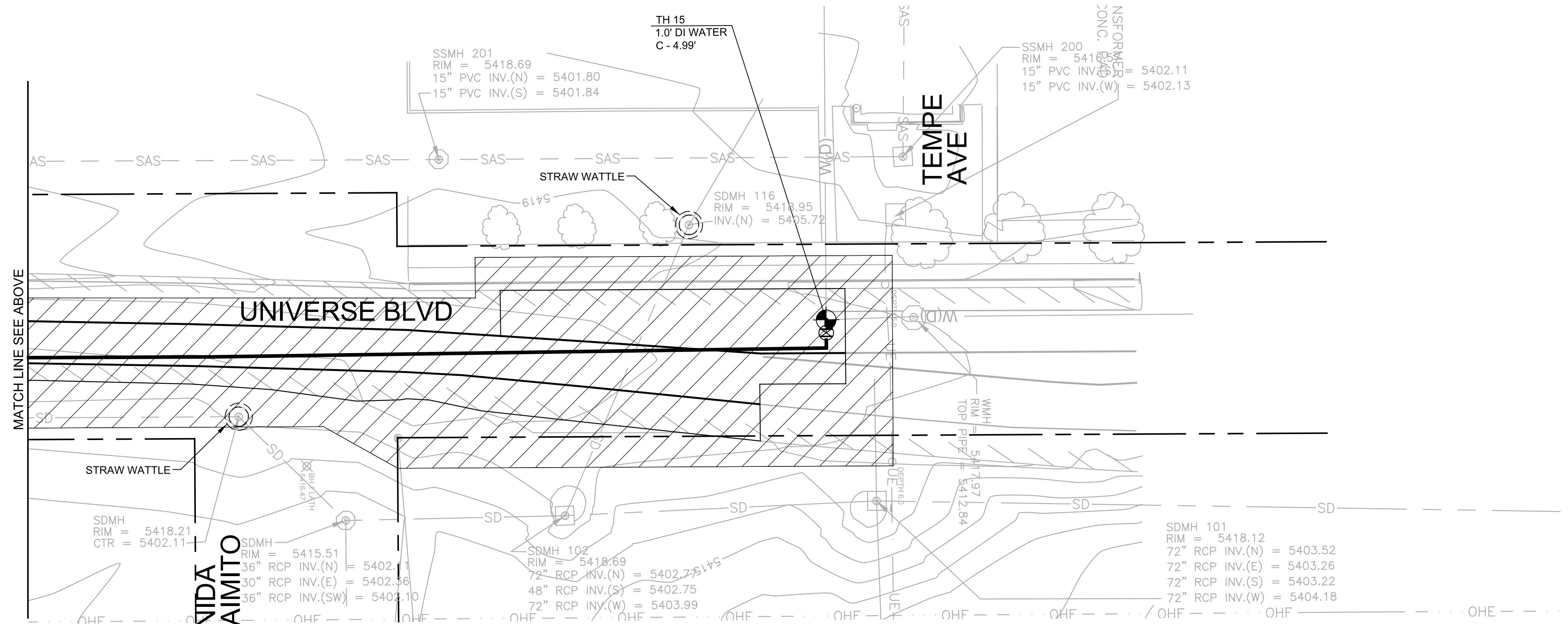
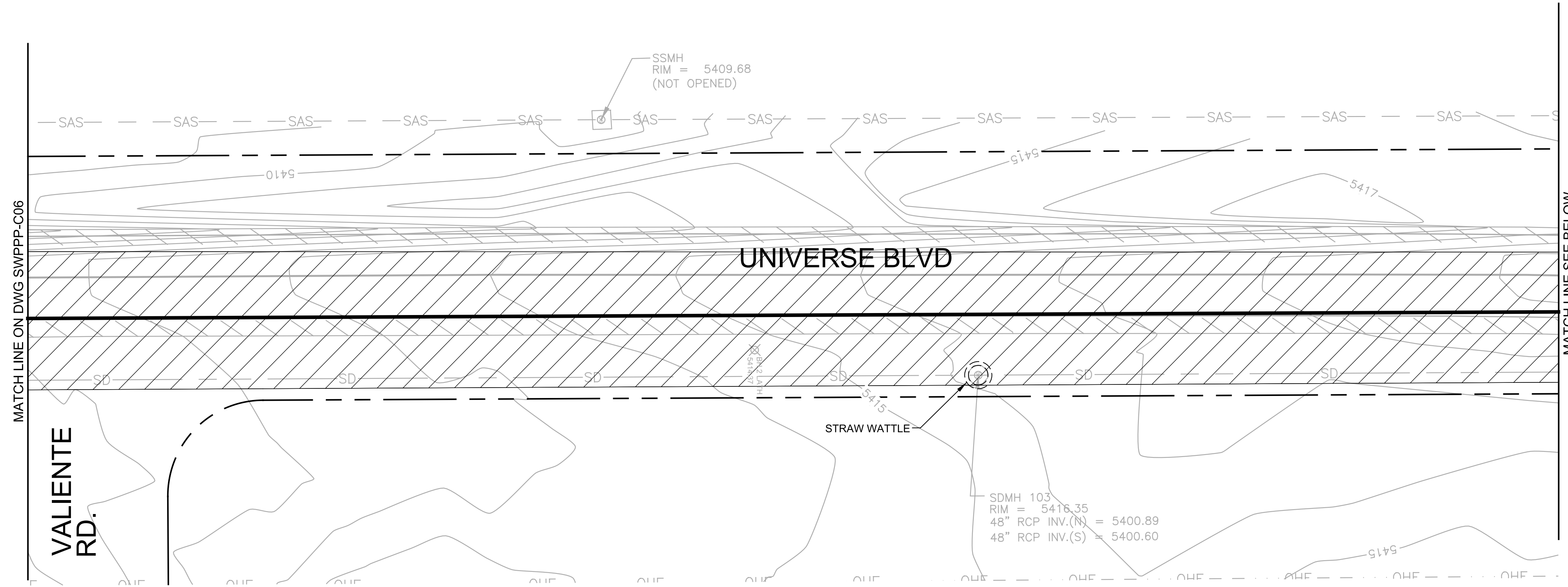
NO.	DATE	REMARKS	BY

DESIGNED BY: JMC
DRAWN BY: GD
CHECKED BY: RFB

DATE: 1/12/2017



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ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

UNIVERSE BOULEVARD TRANSMISSION LINE
CIVIL
EROSION AND SEDIMENT CONTROL PLAN

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

WUA Project No. 1201.026 Zone Map No. C-9, C-10
DRB Project No. 761261 D-9, D-10

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SWPPP-C07

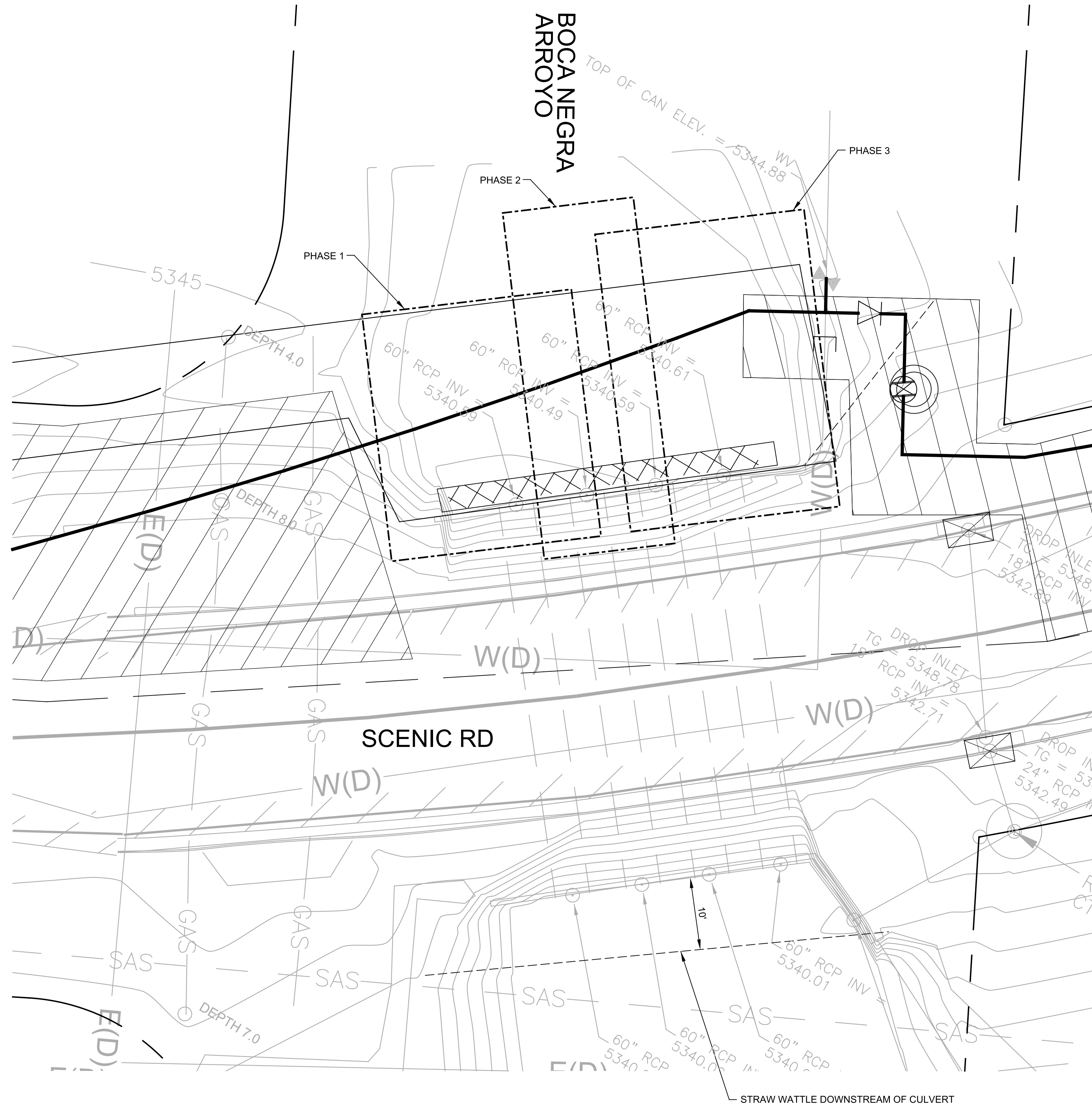
AS BUILT INFORMATION	
CONTRACTOR	DATE
WORK PERFORMED BY	DATE
INSPECTOR'S ACCEPTANCE BY	DATE
VERIFICATION BY	DATE
DRAWINGS CORRECTED BY	DATE
MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	

ENGINEER'S SEAL

1/12/2017

NO.	DATE	REMARKS	BY

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GENERAL NOTES:

1. NO MORE THAN 2 CULVERTS TO BE OBSTRUCTED AT ANY ONE TIME DURING CONSTRUCTION. FLOW IS TO BE DIRECTED TO OTHER CULVERTS.
2. IF MATERIAL EXCAVATED FROM THE TRENCH IS TO BE STORED IN THE WASH IT IS TO BE SURROUNDED BY A STRAW WATTLE OR SIMILAR BMP.
3. CONTRACTOR IS RESPONSIBLE TO MONITOR WEATHER CONDITIONS AND AVOID CONSTRUCTION IN ARROYO DURING STORMS.

HORIZ SCALE: 1" = 10'



ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY

UNIVERSE BOULEVARD TRANSMISSION LINE CIVIL EROSION AND SEDIMENT CONTROL PLAN

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

WUA Project No. 1201.026 Zone Map No. C-9, C-10 Sheet 31 Of 32
 DRB Project No. 761261 D-9, D-10 SWPPP-C08

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

ENGINEER'S SEAL

1/12/2017

NO.	DATE	REMARKS	BY

