

WATER UTILITY IMPROVEMENTS

PHASE 1B



EXPO NEW MEXICO
NEW MEXICO STATE FAIR
300 SAN PEDRO NE
ALBUQUERQUE, NM 87108

INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
C-001	COVER SHEET AND INDEX TO DRAWINGS
C-101	WATER LINE SITE PLAN
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C-301	WATER LINE ADDITION
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C-303	WATER LINE ADDITION
C-501	CIVIL DETAILS
E-101	WATER LINE ELECTRICAL

LEGEND

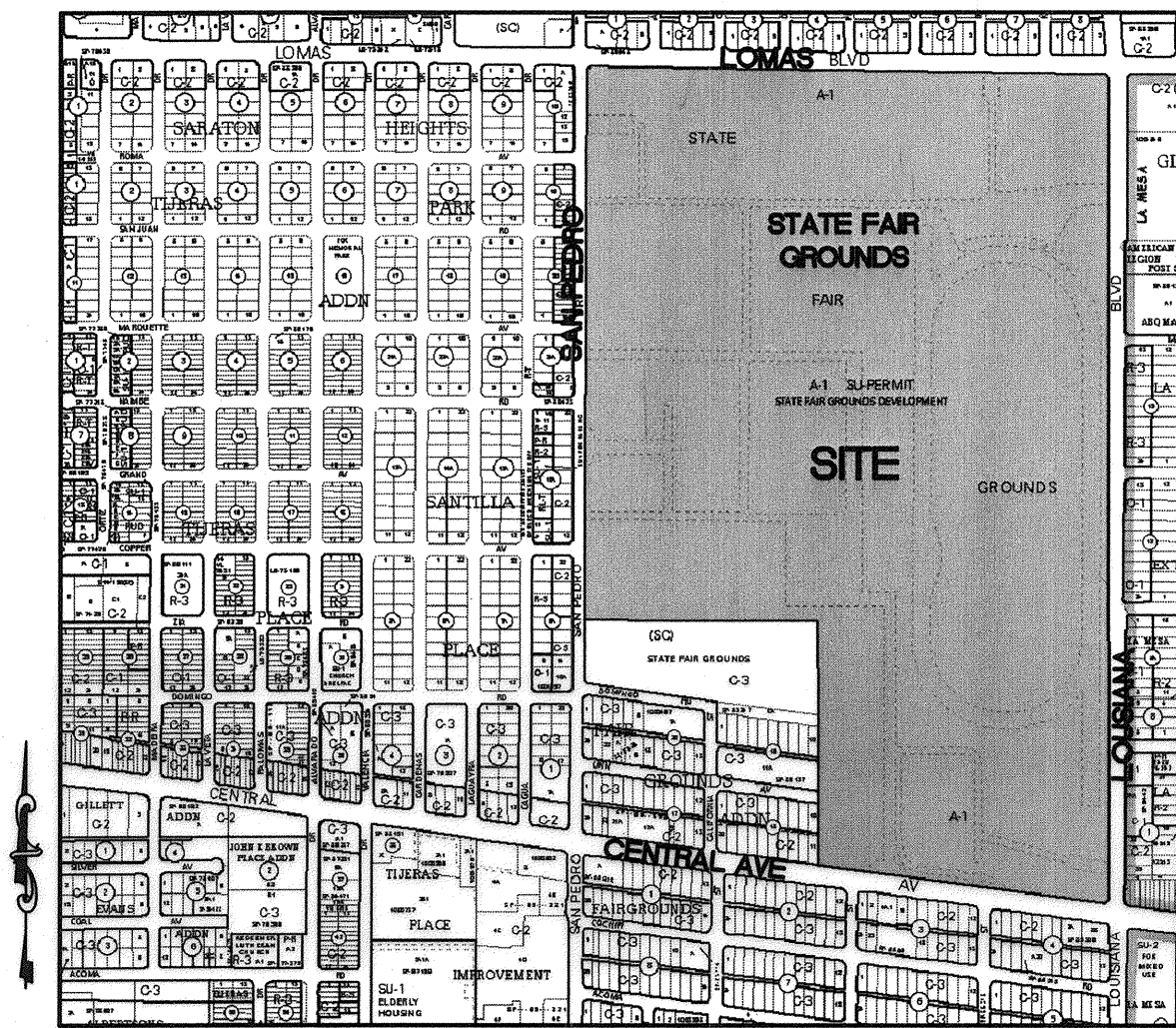
▲ MOUNTABLE CURB
▬ STANDARD CURB
● PROPOSED FIRE HYDRANT
✕ PROPOSED WATER VALVE
— PROPERTY LINE

⊙ PROPOSED SD MH
● PROPOSED SAS MANHOLE
■ PROPOSED WATER METER
— PROPOSED SANITARY SEWER SERVICE
(S 83°39'25" W) RECORD BEARING AND DISTANCES

— 8" SAS — PROPOSED SANITARY SEWER LINE
— 8" SAS — EX SANITARY SEWER LINE
— 6" WL — PROPOSED WATER LINE
— 8" W — EX WATER LINE
N 00°07'27" W MEASURED BEARING AND DISTANCES

GENERAL NOTES

- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION (UPDATE #7) THROUGH MOST RECENT UPDATE (#7) AND WILL BE REFERRED TO HEREIN AS "STANDARD SPECIFICATIONS".
- ALL CONSTRUCTION WITHIN CITY RIGHT-OF-WAY OR EASEMENTS MUST BE DONE FROM APPROVED WORK ORDER DOCUMENTS FROM THE CITY.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, ORDINANCES, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- CONTRACTOR AGREES THAT HE SHALL ASSUME THE SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD HARMLESS THE OWNER AND ENGINEER FROM ANY AND ALL LIABILITY REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
- ALL EXCAVATION, TRENCHING, AND SHORING ACTIVITIES MUST BE ACCOMPLISHED IN ACCORDANCE WITH OSHA 29CFR 1926.650 SUBPART P.
- AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
- CONTRACTOR SHALL SECURE A "TOPSOIL DISTURBANCE PERMIT" PRIOR TO BEGINNING CONSTRUCTION (IF REQUIRED BY CITY OF ALBUQUERQUE PUBLIC WORKS).
- PERMIT REQUESTS MAY BE DENIED OR DELAYED DUE TO CONFLICTS WITH OTHER PROJECTS IN THE AREA.
- CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE CITY SURVEYOR MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE CITY SURVEYOR AND SHALL NOTIFY THE CITY SURVEYOR AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. ONLY THE CITY SURVEYOR SHALL REPLACE SURVEY MONUMENTS. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATIONS OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO STANDARD SPECIFICATIONS SECTION 4.4.
- CONTRACTOR SHALL COORDINATE WITH THE WATER AUTHORITY (857-8200) SEVEN (7) WORKING DAYS PRIOR TO ANY WORK THAT MAY AFFECT EXISTING CITY PUBLIC WATER OR SEWER UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR TIMING AND COORDINATION OF WATER SHUTOFF. EXISTING WATER AUTHORITY VALVES TO BE OPERATED BY WATER AUTHORITY PERSONNEL ONLY. REFER TO SHUT-OFF PLAN, SHEET C-201.
- CONTRACTOR IS RESPONSIBLE FOR BARRICADING AND SAFETY SIGNAGE AND SHALL COORDINATE WITH CITY AND COMPLY WITH CITY OF ALBUQUERQUE STANDARD DWG SECTION 2800, STANDARD DETAILS FOR TEMPORARY TRAFFIC CONTROL. FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR SHALL SUBMIT TO CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION, CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (924-3400) PRIOR TO OCCUPYING AN INTERSECTION. REFER TO SECTION 19 OF STANDARD SPECIFICATIONS.
- CONTRACTOR SHALL DETERMINE IN ADVANCE OF HIS CONSTRUCTION IF OVERHEAD UTILITY LINES, SUPPORT STRUCTURES, POLES, GUY, ETC. ARE AN OBSTRUCTION TO CONSTRUCTION OPERATIONS. IF ANY OBSTRUCTION TO CONSTRUCTION OPERATIONS IS EVIDENT, CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE APPROPRIATE UTILITY OWNER TO REMOVE OR SUPPORT THE UTILITY OBSTRUCTION. ANY COST ASSOCIATED WITH THIS EFFORT SHALL BE THE RESPONSIBILITY OF CONTRACTOR.
- PNM WILL PROVIDE AT NO COST TO THE CITY OR THE CONTRACTOR THE REQUIRED PERSONNEL FOR INSPECTION OR OBSERVATION DEEMED NECESSARY BY PNM WHILE THE CONTRACTOR IS EXPOSING PNM'S CABLES. HOWEVER, THE CONTRACTOR SHALL BE CHARGED THE TOTAL COST ASSOCIATED WITH REPAIRS TO ANY DAMAGED CABLES OR FOR ANY COST ASSOCIATED WITH SUPPORTING OR RELOCATING THE POLES AND CABLES DURING CONSTRUCTION.
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (260-1990) FOR LOCATION OF EXISTING UTILITIES.
- PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL PERTINENT EXISTING UTILITIES AND/OR OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- EXISTING UTILITY LINE LOCATIONS ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. THE LOCATION OF ANY SUCH EXISTING LINES IS BASED UPON INFORMATION PROVIDED BY THE UTILITY COMPANY, THE OWNER, OR BY OTHERS, AND THE INFORMATION MAY BE INCOMPLETE OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES.
- THE ENGINEER HAS UNDERTAKEN NO FIELD VERIFICATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UNDERGROUND UTILITY LINES, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY, AND PRESERVE ANY AND ALL EXISTING UTILITIES.
- CONTRACTOR SHALL SUPPORT ALL EXISTING, UNDERGROUND UTILITY LINES WHICH BECOME EXPOSED DURING CONSTRUCTION. PAYMENT FOR SUPPORTING WORK SHALL BE INCIDENTAL TO WATERLINE AND/OR SEWER LINE COSTS.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL CONSTRUCTION SIGNING UNTIL THE PROJECT HAS BEEN ACCEPTED BY THE CITY OF ALBUQUERQUE AND THE WATER AUTHORITY.



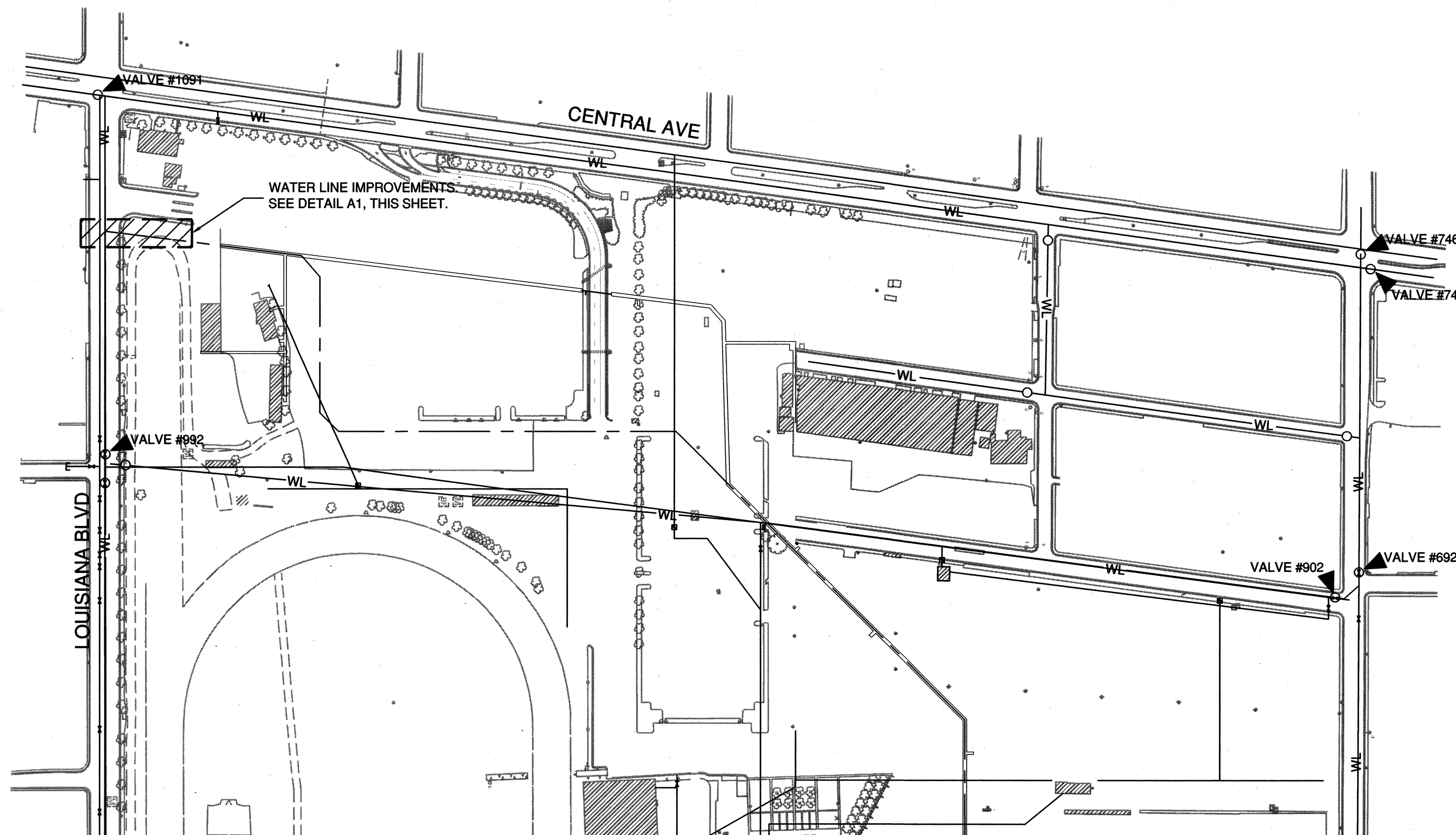
VICINITY MAP

ZONE ATLAS
K-18-Z

- CONTRACTOR IS TO SUPPORT AND MAINTAIN THE INTEGRITY OF ALL UNDERGROUND TELEPHONE, ELECTRIC CABLES AND CABLE TELEVISION UTILITIES AT NO ADDITIONAL COST TO THE OWNER. CABLE IS TO BE SUPPORTED AT A MAXIMUM OF EVERY FIFTEEN (15) FEET. CONTRACTOR SHALL COORDINATE WITH AND MAKE NECESSARY PAYMENT (IF ANY) TO UTILITY OWNER FOR DE-ENERGIZATION OF CABLES OR SUPPORT OF CABLES BY THE UTILITY OWNER.
- CONTRACTOR SHALL ASSIST THE ENGINEER/INSPECTOR IN THE RECORDING OF DATA ON ALL UTILITY LINES AND ACCESSORIES AS REQUIRED BY THE CITY OF ALBUQUERQUE AND THE WATER AUTHORITY FOR THE PREPARATION OF "AS CONSTRUCTED" DRAWINGS. CONTRACTOR SHALL NOT COVER UTILITY LINES AND ACCESSORIES UNTIL ALL DATA HAS BEEN RECORDED.
- ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING.
- ALL FINAL BACKFILL FOR TRENCHES SHALL BE COMPACTED TO A MINIMUM OF 95% MAXIMUM DENSITY PER ASTM D-1557 AND AS DIRECTED BY STANDARD SPECIFICATIONS SECTION 701.14.2 AND STANDARD DRAWING NUMBER 2315.
- CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY OR PRIVATE ROADWAY EASEMENTS SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET OR INTO ANY PUBLIC DRAINAGE FACILITY.
- REMOVALS SHALL BE DISPOSED OF OFF-SITE AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL DISPOSE OF ALL UNSUITABLE MATERIAL IN AN ENVIRONMENTALLY ACCEPTABLE MANNER AT A LOCATION OPERATIONS IS EVIDENT, CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE APPROPRIATE UTILITY OWNER TO REMOVE OR SUPPORT THE UTILITY OBSTRUCTION. ANY COST ASSOCIATED WITH THIS EFFORT SHALL BE THE RESPONSIBILITY OF CONTRACTOR.
- CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN A MANNER WHICH WILL MINIMIZE INTERFERENCE WITH LOCAL TRAFFIC.
- ANY WORK AFFECTING AN ARTERIAL ROADWAY REQUIRES TWENTY-FOUR (24) HOURS OF CONSTRUCTION. THIS PROJECT REQUIRES 24-HOUR CONSTRUCTION.
- ALL EXISTING SIGNS, MARKERS, DELINEATORS, ETC., WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED, STORED AND RE-SET BY THE CONTRACTOR.
- WHEN ABUTTING EXISTING PAVEMENT TO NEW, SAW CUT EXISTING PAVEMENT TO A STRAIGHT EDGE AND AT A RIGHT ANGLE, OR AS APPROVED BY THE FIELD ENGINEER. REMOVAL OF BROKEN OR CRACKED PAVEMENT WILL ALSO BE REQUIRED.
- REMOVAL OF EXISTING CURB AND GUTTER OR SIDEWALK SHALL BE TO THE NEAREST JOINT OR SAW CUT.
- AT HIS OWN EXPENSE, CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY DAMAGE TO EXISTING PAVEMENT, PAVEMENT MARKINGS, CURB AND GUTTER, HANDICAP RAMPS, AND SIDEWALK DURING CONSTRUCTION APART FROM THOSE SECTIONS INDICATED FOR REMOVAL ON THE PLANS AND SHALL REPAIR OR REPLACE, PER STANDARD SPECIFICATIONS.
- ALL STREET STRIPING, ALTERED OR DESTROYED, SHALL BE REPLACED WITH PLASTIC REFLECTORIZED PAVEMENT MARKINGS BY CONTRACTOR TO SAME LOCATION AS EXISTING, OR AS INDICATED BY THIS PLAN SET.
- CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORK SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY AND ALL GRAFFITI FROM EQUIPMENT, WHETHER PERMANENT OR TEMPORARY.
- FOR STORM DRAIN CONSTRUCTION RCP JOINTS SHALL NOT BE GROUTED PRIOR TO INSPECTION. FINAL INSPECTION WILL DETERMINE JOINTS TO BE GROUTED FOR FINAL ACCEPTANCE OF CONSTRUCTION.
- THE THE WATER AUTHORITY WATER SYSTEM DIVISION (857-8200) WILL BE NOTIFIED BY THE CONTRACTOR SEVEN (7) WORKING DAYS IN ADVANCE OF ANY WORK WHICH MAY AFFECT THE EXISTING PUBLIC WATER FACILITIES. REFER TO SECTION 18 OF THE STANDARD SPECIFICATIONS.

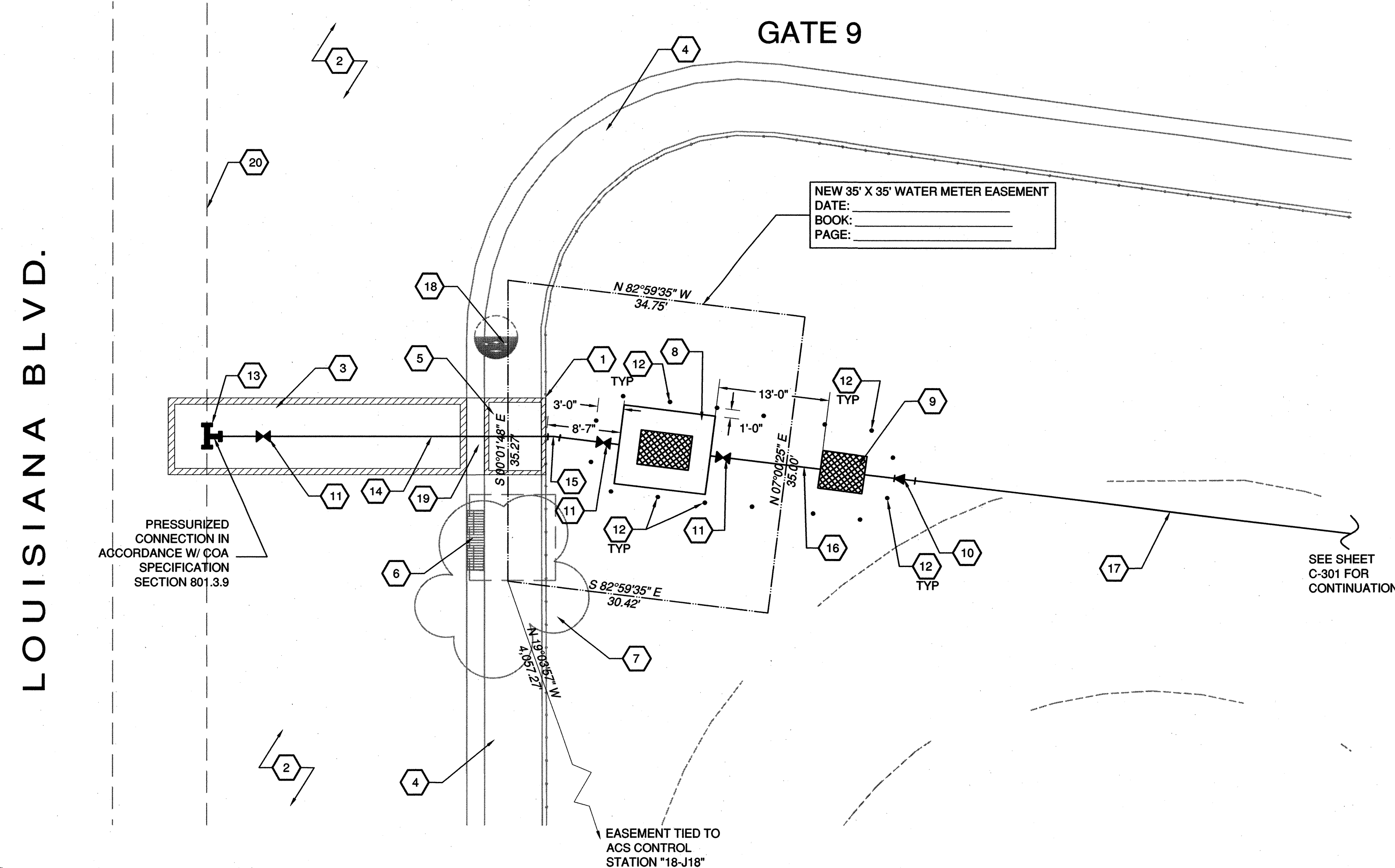
REV.	SHEETS	CITY ENGINEER	DATE	USER DEPT.	DATE	USER DEPT.	DATE
ENGINEER'S SEAL		APPROVALS	ENGINEER	DATE	APPROVED FOR CONSTRUCTION		
		DRC CHAIRMAN	<i>Skogdell</i>	1-9-09			
		TRANSPORTATION	<i>Mr. [Signature]</i>	6-17-08			
		WATER/WASTEWATER	<i>Mr. [Signature]</i>	6-17-08			
		HYDROLOGY	<i>N/A</i>				
		PARKS					
		CONSTR. MANAGER					
		PROJECT NO. 6850-86			SHEET C-001		





- SHUT OFF PLAN NOTES:
1. CONTACT THE WATER AUTHORITY (857-8200) AT LEAST 7 WORKING DAYS IN ADVANCE OF CONSTRUCTION. ONLY CITY CREWS MAY OPERATE VALVES.
 2. SHUT OFF VALVES # 692,742,746,992 AND 1091 AS SHOWN ABOVE.

C1 EMERGENCY WATER SHUT OFF PLAN
NTS



A1 NEW WATERLINE EASEMENT
SCALE 1" = 10'

WATER LINE-JOINT RESTRAINT TABLE

FITTINGS			LENGTH	
TYPE	MATERIAL	SIZE	RUN	BRANCH
TEE TO EXST.	DI	20 x 20 x 10	5'	13'
TEE	PVC	14 x 14 x 10	10'	10'
TEE	PVC	14 x 14 x 8	7'	6'
TEE	PVC	14 x 14 x 4	2'	3'
TEE	PVC	10 x 10 x 8	9'	11'
TEE	PVC	8 x 8 x 6	7'	6'
REDUCER	PVC	16 x 14	23' ON L SIDE	
REDUCER	PVC	14 x 10	41' ON L SIDE	
REDUCER	PVC	10 x 18	22' ON L SIDE	
CAPPED END	PVC	8"	53'	
CAPPED END	PVC	6"	41'	
CAPPED END	PVC	4"	29'	
45° BEND	PVC	14"	16'	
11 1/4° BEND	DI	10"	3'	
45° BEND	PVC	10"	12'	

* LARGE DIAMETER SIDE

ASSUMPTIONS	
PIPE MATERIAL	DUCTILE IRON OR PVC. SEE TABLE ABOVE
TEST PRESSURE	150 PSI
MINIMUM COVER	4'-0"
FACTOR OF SAFETY	1.5
SOIL TYPE	POORLY GRADED SANDS AND GRAVELY SANDS, LITTLE OR NO FINES.
TRENCH TYPE	PIPE BEDDED IN 4 INCHES MINIMUM LOOSE SOIL. BACKFILL LIGHTLY CONSOLIDATED TO TOP OF PIPE.

GENERAL NOTES

1. ALL FITTINGS SHALL BE DUCTILE IRON W/ RESTRAINT.
2. CONTRACTOR SHALL COORDINATE WITH THE ABCWUA WATER SYSTEMS DIVISION (857-8200) SEVEN (7) WORKING DAYS IN ADVANCE OF ANY WORK THAT MAY AFFECT EXISTING PUBLIC WATER OR SEWER UTILITIES. EXISTING VALVES TO BE OPERATED BY ABCWUA PERSONNEL ONLY.

SHEET KEYNOTES

1. REMOVE AND REPLACE EXISTING CHAIN LINK FENCE AS NECESSARY. CONTRACTOR MUST SECURE FENCE OUTSIDE OF WORK HOURS.
2. EXISTING ASPHALT PAVEMENT TO REMAIN, PROTECT DURING CONSTRUCTION.
3. CONSTRUCT ARTERIAL STREET ASPHALT PAVEMENT PATCH. SEE CITY OF ALBUQUERQUE STD DWG 2465. ALSO SEE DETAIL D1, C-501.
4. EXISTING SIDEWALK TO REMAIN, PROTECT DURING CONSTRUCTION.
5. CONSTRUCT SIDEWALK CONCRETE PATCH. SEE CITY OF ALBUQUERQUE STD DWGS 2430 AND 2465.
6. EXISTING CATCH BASIN TO REMAIN, PROTECT DURING CONSTRUCTION.
7. EXISTING TREE TO REMAIN, PROTECT DURING CONSTRUCTION.
8. NEW METER VAULT. SEE DETAIL B4, SHEET C-501.
9. NEW BACK FLOW PREVENTER RPS W/ HOTBOX. SEE DETAIL D3, SHEET C-501.
10. NEW 14" DIA TO 10" DIA REDUCER.
11. NEW 10" DIA GATE VALVE W/ VALVE BOX AND VALVE RESTRAINT. SEE COA STD DWGS 2326, 2328, AND 2333.
12. NEW BOLLARD. SEE DETAIL A1, SHEET C501. LOCATE BOLLARDS APPROXIMATELY 3'-0" AWAY FROM HOT BOX.
13. NEW 20" x 10" SADDLE OR TAPPING TEE TO EXISTING 20" LINE (TOPAZ WELD-ON TAPPING TEE OR EQUIVALENT). IF PIPE MATERIAL DOES NOT ALLOW SADDLE/TAPPING TEE, INSERT NEW TEE. SEE COA STD DWG 2301.
14. NEW 10" DUCTILE IRON WATER LINE WITH 4'-0" COVER MIN.
15. NEW 10" DIA 11-1/4" DUCTILE IRON BEND.
16. NEW 10" DIA PVC WATER LINE WITH 4'-0" COVER MIN.
17. NEW 14" DIA PVC WATER LINE WITH 4'-0" COVER MIN.
18. EXISTING LIGHT POLE TO REMAIN. PROTECT DURING CONSTRUCTION.
19. REMOVE AND REPLACE EXISTING STANDARD CURB AND GUTTER. SEE COA STD DWG 2415A.
20. EXISTING 20" STEEL WATER LINE.

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	STATION	DATE	FIELD NOTES	NO.	REMARKS	BY
INSPECTOR'S	DATE	STATION	DATE	DATE			
VERIFICATION BY	DATE	STATION	DATE				
CORRECTED BY	DATE	STATION	DATE				
MICRO-FILM INFORMATION	DATE	STATION	DATE				
RECORDED BY	DATE	STATION	DATE				
NO.		STATION					



NEW MEXICO STATE FAIR ALBUQUERQUE, NEW MEXICO	
TITLE: WATER LINE EASEMENT	
Design Review Committee APPROVE JAN 09 2008	City Engineer Approval APPROVE JAN 29 2009 CITY ENGINEER
City Project No. 6850-86	Zone Map No. K-18-Z
Sheet C-201	

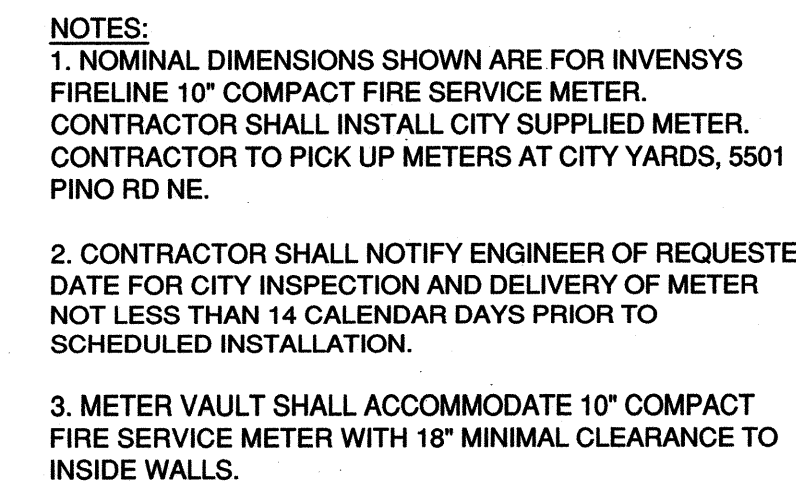


ASPHALT PAVEMENT SECTION ON FAIRGROUNDS



BOLLARD

- NOTE:**
1. MECHANICAL TAMPERS NOT TO BE USED IN THE INITIAL BACKFILL SECTION FOR FLEXIBLE PIPE.
 2. MINIMUM CLASS "C" BEDDING WILL BE USED.
 3. TRENCH SIDE SLOPES MUST CONFORM WITH OSHA REQUIREMENTS.



TITLE:

DETAILS

[illegible]

6850-86

Zone Map No.	K-18-Z
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C-501

THE
group

The Hensley Engineering Group
2340 Menaul Boulevard, NE - Suite 150
Albuquerque, New Mexico 87107
Phone: 505/686-1000 FAX: 505/686-1006

BOLLARD

TRENCHING DETAIL

COMPACT FIRE SERVICE METER ASSEMBLIES