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26-67977.82-2011

SCANNED BY
PLANNING

CONSTRUCTION PLANS
FOR
JACK IN THE BOX 1267
PENNSYLVANIA ST & MENAUL BLVD
PAVING & UTILITY IMPROVEMENTS
ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO
FEBRUARY 2010

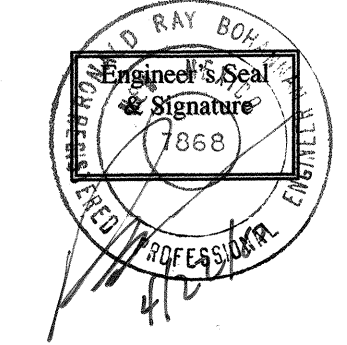
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INDEX TO DRAWINGS

1. TITLE SHEET
2. GRADING PLAN (FOR REFERENCE ONLY)
3. PAVING IMPROVEMENTS
4. DETAILS

CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

I, Ronald R. Bohannon, of the firm of Tierra West LLC, a Registered Professional Engineer in the State of New Mexico, do hereby certify, to the best of my knowledge and belief, that the infrastructure installed as part of this project has been inspected by me or by a qualified person under my direct supervision and has been constructed in accordance with the plans and specifications approved by the City Engineer and that the original design intent of the approved plans has been met, except as noted by me on the as-built construction drawings. This Certification is based on site inspections by me, or personnel under my direction with survey information provided by Will Plotner, Jr., of Cartesian Survey, NMPS number 14271.



APPROVED AS RECORD DRAWINGS
DESIGN REVIEW SECTION
CITY CONSTRUCTION ENGINEER
DATE: 07/15/11

TIERRA WEST, LLC
5571 MIDWAY PARK PL NE
ALBUQUERQUE, NEW MEXICO 87109
(505) 858-3100

REV	SHEETS	CITY ENGINEER	DATE	USER DEPT.	DATE	SER DEPT.	DATE
ENGINEERS STAMP & SIGNATURE		APPROVALS		ENGINEER		DATE	
		DRC Chairman		3/4/10		DATE	
		Transportation		2/24/10		DATE	
		Water/Wastewater		2-24-10		DATE	
		Hydrology		2-24-10		DATE	
		AEHD				DATE	
Constr. Mngmt.						DATE	
Constr. Coord.						DATE	
CITY PROJECT NO.		679782		1 OF 4			

RECORD DRAWING

VICINITY MAP ZONE ATLAS H-19-Z

NOTICE TO CONTRACTORS

1. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FROM HERE ON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THROUGH UPDATE #7 INCLUDING AMENDMENT 1.
2. TWO WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (260-1990) FOR LOCATION OF EXISTING UTILITIES.
3. SEVEN (7) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION; CONTRACTOR SHALL NOTIFY THE CONSTRUCTION COORDINATION ENGINEER (924-3400) PRIOR TO OCCUPYING AN INTERSECTION. REFER TO SECTION 19 OF THE GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS.
4. 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 REPLACE ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL 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, CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 4.4 OF THE GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS UPDATE NO. 7.
5. FOR STORM DRAIN CONSTRUCTION, RCP PIPE JOINTS SHALL NOT BE GROUTED PRIOR TO FINAL INSPECTION. FINAL INSPECTION WILL DETERMINE JOINTS TO BE GROUTED FOR FINAL ACCEPTANCE OF THE CONSTRUCTION.
6. THE CONTRACTOR SHALL COORDINATE WITH ABCWUA (857-8200) SEVEN (7) WORKING DAYS PRIOR TO ANY WORK IN WHICH MAY AFFECT THE EXISTING ABCWUA PUBLIC WATER OR SEWER UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR TIMING AND COORDINATION OF WATER SHUTOFF. EXISTING PUBLIC VALVES TO BE OPERATED BY ABCWUA PERSONNEL ONLY. REFER TO SECTION 18 OF THE STANDARD SPECIFICATIONS.
7. ALL EXCAVATION, TRENCHING, AND SHORING ACTIVITIES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P.
8. ELECTRONIC MARKER SPHERES (EMS) WILL BE PLACED ACCORDING TO SECTION 170 OF THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THROUGH UPDATE #7 INCLUDING AMENDMENT #1.
9. THE CONTRACTOR WILL BE RESPONSIBLE FOR DISPOSING OF ALL DEBRIS, INCLUDING, NOT LIMITED TO HAZARDOUS WASTE AT DISPOSAL SITES APPROVED BY GOVERNMENTAL AGENCIES REGULATING THE DISPOSAL OF SUCH MATERIALS.
10. TACK COAT FOR SURFACE COURSE REQUIREMENTS SHALL BE DETERMINED BY THE ENGINEER.
11. PERMANENT PAVEMENT STRIPING AND MARKINGS WILL BE PLACED BY THE CONTRACTOR. THE ROAD SHALL NOT BE OPENED TO THE TRAFFIC UNTIL ALL STRIPING, PAVEMENT MARKINGS INCLUDING CROSSWALKS, ARROWS AND LINE MARKINGS ARE TO BE CONSTRUCTED OF PLASTIC OR COLD PLASTIC IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
12. CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORK SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY AND ALL GRAFFITI FROM EQUIPMENT, WHETHER PERMANENT OR TEMPORARY.
13. ALL WATER VALVE BOXES MANHOLES IN THE STREET SHALL BE ADJUSTED TO FINISH GRADE AND SHALL BE MEASURED AND PAID PER HOUR.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL CONSTRUCTION SIGNING UNTIL PROJECT HAS BEEN ACCEPTED BY THE CITY OF ALBUQUERQUE.

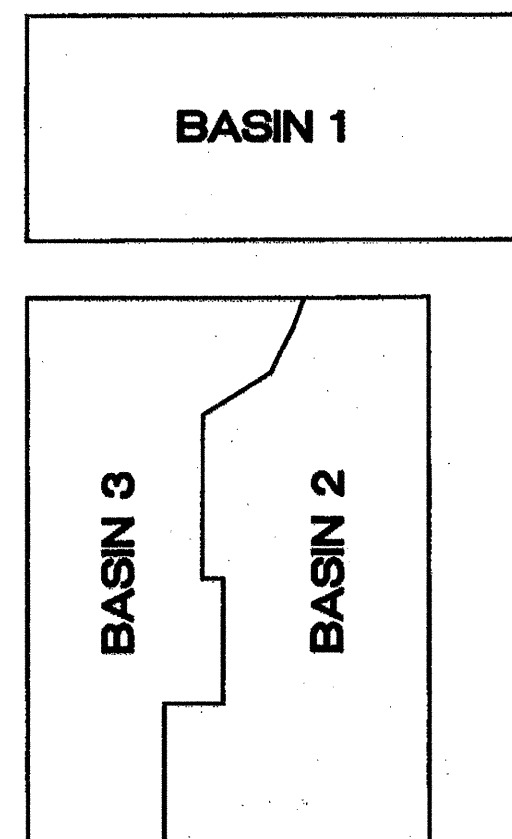
THE FOLLOWING NOTES ALSO APPLY WHEN CHECKED

- ☒ ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING.
- ☒ BACKFILL COMPACTION SHALL BE ACCORDING TO SPECIFIED STREET USE.
- ☒ TACK COAT REQUIREMENTS SHALL BE DETERMINED BY THE PROJECT ENGINEER.
- ☒ SIDEWALKS AND WHEELCHAIR RETURNS SHALL BE CONSTRUCTED WITHIN THE CURB OR A NEW CURB RETURN IS CONSTRUCTED.
- ☒ IF CURB IS DEPRESSES DRIVEPAD, THE DRIVEPAD SHALL BE CONSTRUCTED TO ACCEPTANCE OF CURB AND GUTTER.
- ☒ ALL STORM DRAINAGE SHALL BE COMPLETED PRIOR TO FINAL ACCEPTANCE.

SCANNED BY
PLANNING

**EROSION CONTROL PLAN, NPDES PERMIT
AND POLLUTION PREVENTION NOTES**

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT OUT OF EXISTING RIGHT-OF-WAY.
3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL STORM RUN OFF ON SITE.
4. REPAIR OF DAMAGED FACILITIES AND CLEAN-UP OF SEDIMENT ACCUMULATION ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.
6. ALL SITES OVER 1 ACRE DISTURBANCE REQUIRE FEDERAL NPDES PERMIT.



PROPOSED BASIN MAP

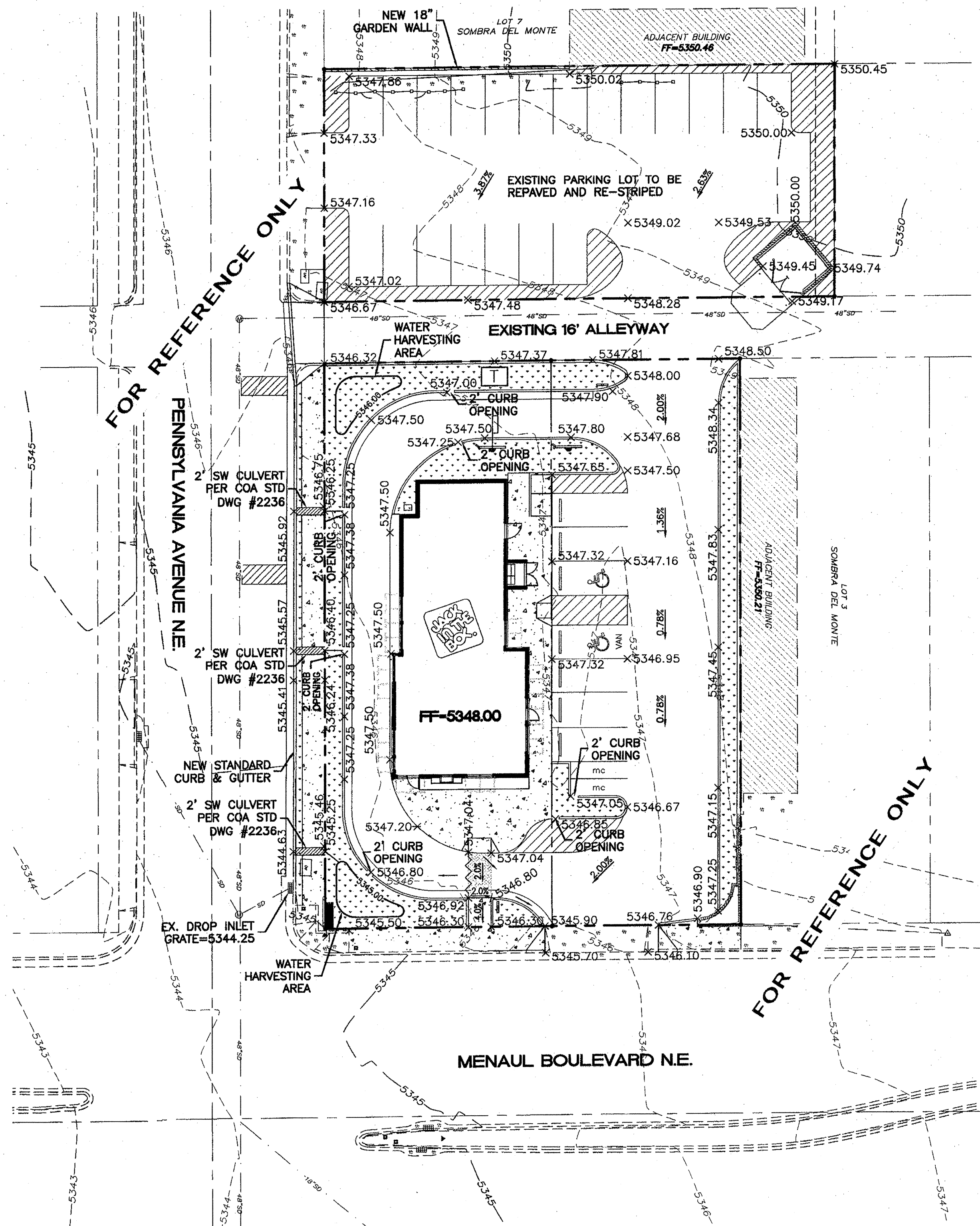
EXISTING DRAINAGE

The site is located on the northeast corner of Menaul Boulevard and Pennsylvania Avenue and currently consists of a vacant building and parking lot with little if any landscaping. The site is approximately 0.57 acres and currently drains from the northeast to the southwest with the flows draining to the street and into a drop inlet located in Pennsylvania Avenue. The site is surrounded by existing buildings and parking lots and there is no off-site drainage coming into the site. The total historic discharge from this site is 2.68 cfs.

PROPOSED DRAINAGE

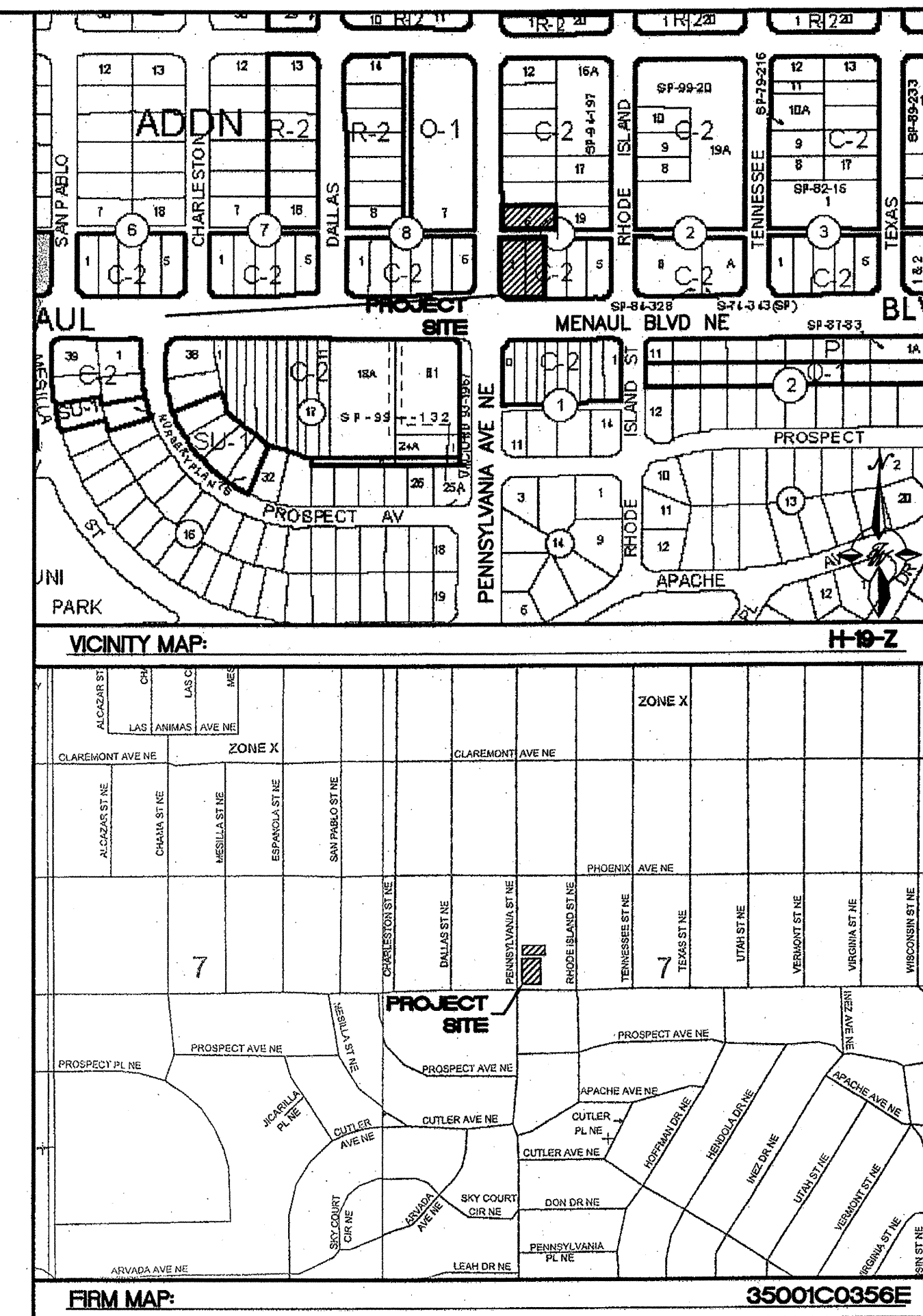
The existing building and parking lot will be demolished to make room for the new building. The site was divided into three basins with each basin flowing from the northeast to the southwest following the historical drainage pattern. Landscape areas were added to the site and the water from the parking lot will be allowed to drain through those areas to provide passive water harvesting. Any excess flows will continue to drain to the existing drop inlet in Pennsylvania Avenue. As shown in the table below the total proposed drainage is 2.49 cfs, which is 0.19 cfs less than the historical flow of 2.68 cfs.

Weighted E Method													
Existing On-Site Basins													
Basin	Area (sf)	Area (acres)	Treatment A %	Treatment B %	Treatment C %	Treatment D %	Weighted E (ac-ft)	Volume (ac-ft)	Flow (cfs)	Weighted E (ac-ft)	Volume (ac-ft)	Flow (cfs)	
1	8,357	0.19	0%	0%	0%	0%	0.00	0.19	2.120	0.034	0.90	1.340	0.021
2	8,936	0.21	0%	0%	0%	0%	0.00	0.21	2.120	0.036	0.98	1.340	0.023
3	7,257	0.17	0%	0%	0%	0%	0.00	0.17	2.120	0.031	0.81	1.340	0.019
TOTAL									2.68				
Proposed On-Site Basins													
Basin	Area (sf)	Area (acres)	Treatment A %	Treatment B %	Treatment C %	Treatment D %	Weighted E (ac-ft)	Volume (ac-ft)	Flow (cfs)	Weighted E (ac-ft)	Volume (ac-ft)	Flow (cfs)	
1	8,357	0.19	0%	0%	0%	0%	0.00	0.19	2.120	0.034	0.90	1.340	0.021
2	8,936	0.21	0%	0%	0%	0%	0.00	0.21	2.120	0.036	0.98	1.340	0.023
3	7,257	0.17	0%	0%	0%	0%	0.00	0.17	2.120	0.031	0.81	1.340	0.019
TOTAL									2.49				
Equations:													
Weighted E = Ea * Aa + Eb * Ab + Ec * Ac + Ed * Ad / (Total Area)							Excess Precipitation, E (inches)		Peak Discharge (cfs/acre)				
							Zone 2, 100-Year		Zone 2, 100-Year				
							10-Year		10-Year				
							E _a	E _b	E _c	E _d	Q _a	Q _b	Q _c
							0.53	0.13	0.78	1.13	1.56	0.38	0.95
							0.78	0.28	1.13	1.56	0.38	0.95	1.71
							1.13	0.82	1.56	2.12	0.95	1.71	3.14
							2.12	1.34	3.14	4.70	1.71	3.14	4.70
Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad													



LEGEND

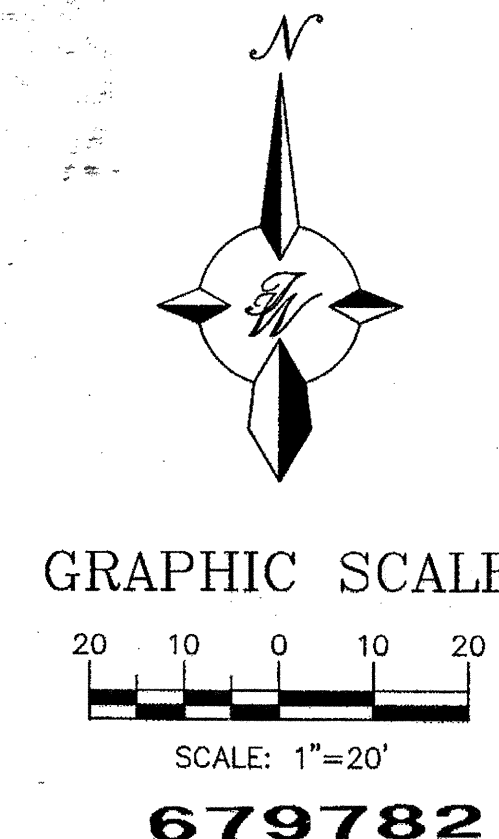
- CURB & GUTTER
- BOUNDARY LINE
- EASEMENT
- CENTERLINE
- RIGHT-OF-WAY
- BUILDING
- SIDEWALK
- SCREEN WALL
- RETAINING WALL
- 5010 — CONTOUR MAJOR
- 5011 — CONTOUR MINOR
- x 5048.25 — SPOT ELEVATION
- FLOW ARROW
- EXISTING CURB & GUTTER
- EXISTING BOUNDARY LINE
- EXISTING CONTOUR MAJOR
- EXISTING CONTOUR MINOR
- x 5048.25 — EXISTING SPOT ELEVATION
- WATER BREAK



NOTICE TO CONTRACTORS

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1985.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

APPROVAL	NAME	DATE
INSPECTOR		



CAUTION:

ALL EXISTING UTILITIES SHOWN WERE OBTAINED FROM RESEARCH, AS-BUILTS, SURVEYS OR INFORMATION PROVIDED BY OTHERS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO AND INCLUDING ANY EXCAVATION, TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS, PRIOR TO STARTING THE WORK. ANY CHANGES FROM THIS PLAN SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.

ROUGH GRADING APPROVAL

DATE

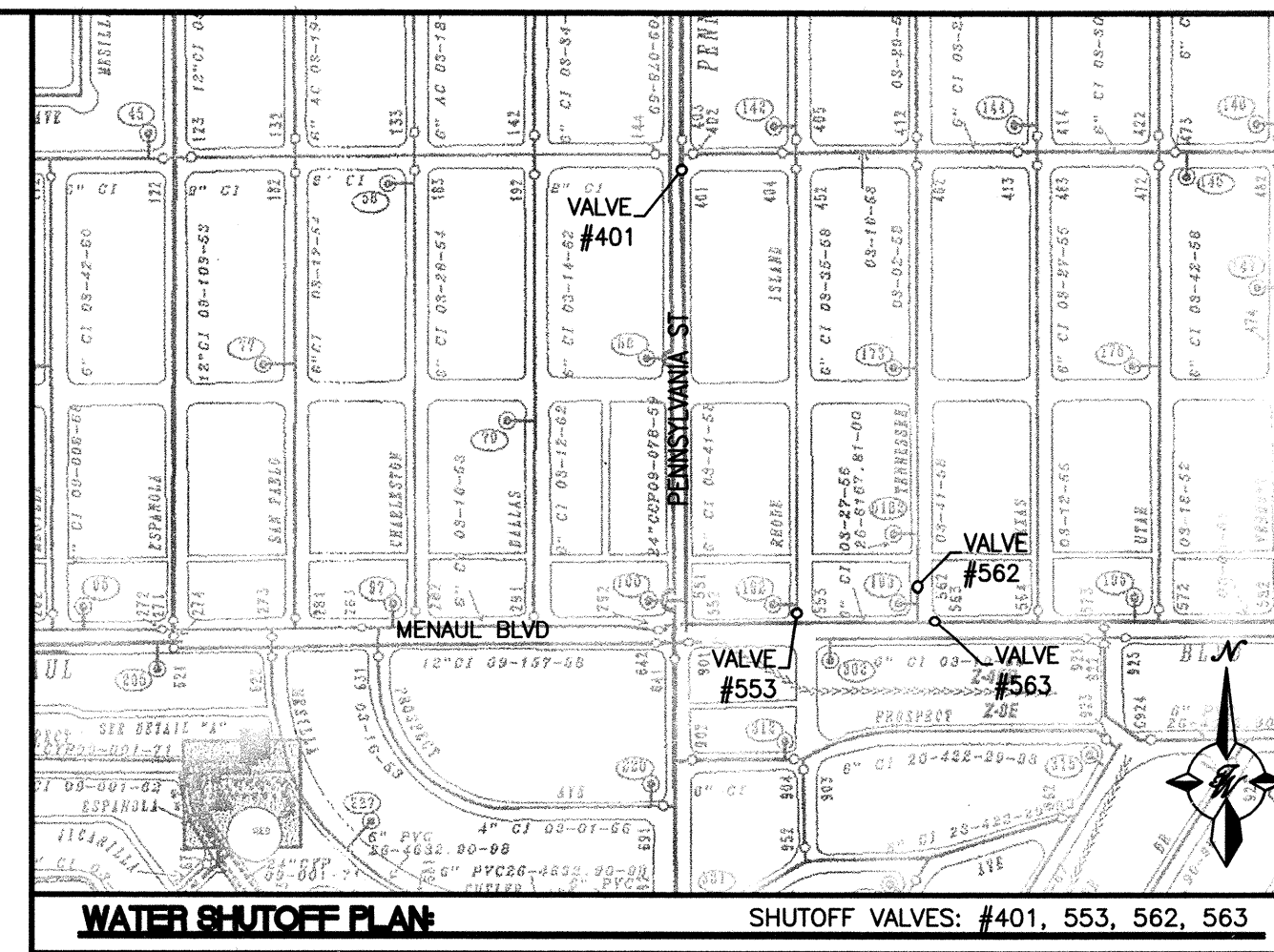
ENGINEER'S SEAL		DRAWN BY	
JACK IN THE BOX 1267 PENNSYLVANIA & MENAUL		DY	
GRADING AND DRAINAGE PLAN		DATE	
		03-24-09	
		28102-GRE	
		SHEET #	
		2	
		JOB #	
		28102	



1. 4' MINIMUM BURY REQUIRED FOR ALL UTILITIES UNLESS NOTED.
2. REFERENCE ARCHITECTURAL PLANS FOR WATER LINE RISER LOCATION.
3. ALL STUBS AND UTILITY LOCATIONS MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
4. CLEAN OUTS TO BE BUILT PER UNIFORM PLUMBING CODE STANDARDS.
5. SEE ARCHITECTURAL PLANS FOR LIGHTING CONDUITS AND TELEPHONE LINES.
6. ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P.
7. BUILDING CONSTRUCTION TYPE IS V-N AND IS SPRINKLED.
8. ADJUST ALL EXISTING UTILITY BOXES TO NEW SIDEWALK ELEVATIONS.

LEGEND

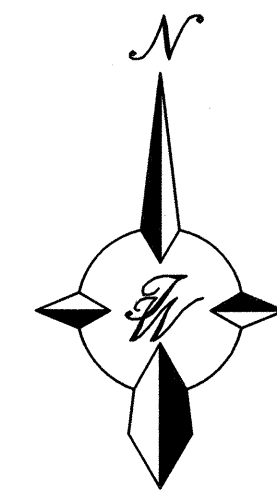
- | | |
|--|------------------------|
| | CURB & GUTTER |
| | BOUNDARY LINE |
| | EASEMENT |
| | CENTERLINE |
| | RIGHT-OF-WAY |
| | BUILDING |
| | SIDEWALK |
| | SCREEN WALL |
| | STREET LIGHTS |
| | LANE |
| | STRIPING |
| | EXISTING CURB & GUTTER |
| | EXISTING BOUNDARY LINE |
| | EXISTING SIDEWALK |
| | EXISTING LANE |
| | EXISTING STRIPING |
| | LANDSCAPING |
| | HEADER CURB |
| | EXISTING WATER LINE |
| | EXISTING FIRE HYDRANT |
| | EXISTING WATER METER |
| | EXISTING VALVE |
| | EXISTING VALVE W/BOX |
| | PROPOSED METER |
| | PROPOSED VALVE W/BOX |
| | PROPOSED FIRE HYDRANT |
| | WATERLINE |



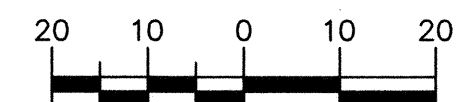
1. ONLY ABCWUA PERSONNEL ARE AUTHORIZED TO OPERATE VALVES.
2. NOTIFY ABCWUA (PHONE 857-8200) SEVEN (7) WORKING DAYS IN ADVANCE OF NEEDING EXECUTION OF THE WATER SHUT OFF PLAN
3. APPROXIMATE SHUT OFF TIME WILL BE 24 HOURS.
4. SHUTOFF THE VALVES INDICATED IN THE PLAN ABOVE.

NOTICE TO CONTRACTORS

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1985.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 260-1990 (OR DIAL 811 LOCALLY), FOR LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACK FILL COMPACTION SHALL BE ACCORDING TO ARTERIAL STREET USE.
6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.



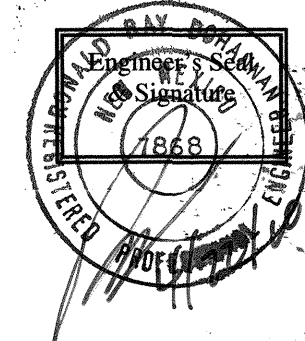
GRAPHIC SCALE



SCALE: 1"=20'

CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

I, **Ronald R. Bohannon**, of the firm of **Tierra West LLC**, a Registered Professional Engineer in the State of New Mexico, do hereby certify, to the best of my knowledge and belief, that the infrastructure installed as part of this project has been inspected by me or by a qualified person under my direct supervision and has been constructed in accordance with the plans and specifications approved by the City Engineer and that the original design intent of the approved plans has been met, except as noted by me on the as-built construction drawings. This Certification is based on site inspections by me, or personnel under my direction with survey information provided by Will Plotner Jr., of Cartesian Surveys, NMPs number 14271.



CAUTION:



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[illegible]

TIERRA WEST, LLC
5571 MIDWAY PARK PL NE
BUQUERQUE, NEW MEXICO 87
(505)858-3100
www.tierrawestllc.com

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: **JACK IN THE BOX 1267**
PENNSYLVANIA ST & MENAUL BLVD
PAVING & UTILITY IMPROVEMENTS

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL		MO./DAY/YR.	MO./DAY/YR.
		<div style="writing-mode: vertical-rl; transform: rotate(180deg);">LAST DESIGN UPDATE</div>		

CITY PROJECT NO.	ZONE MAP NO.	SHEET	OF
679782	H-19-7	3	4

SCANNED BY
PLANNING

THE FOLLOWING TABLES WERE CREATED USING EBAA IRON INC.
SOFTWARE FOR RESTRAINING JOINTS WITH THESE CRITERIA:

DEPTH OF BURY: 3.0' MINIMUM
SAFETY FACTOR: 1.5 TO 1
PIPE MATERIAL: PVC
SOIL TYPE: GM/SM-SILTY GRAVEL/SILTY SAND, GRAVEL-SAND MIXTURES
TEST PRESSURE: 150 PSI
TRENCH TYPE 3: PIPE BEDDED IN 4" MINIMUM LOOSE SOIL
BACKFILL LIGHTLY CONSOLIDATED TO TOP OF PIPE

THESE LENGTHS WILL BE AFFECTED IF THE TYPE OF MATERIAL,
GREATER DEPTH OF BURY, ETC. CHANGES. THESE MUST BE
RECALCULATED BY THE DESIGN ENGINEER PRIOR TO
CONSTRUCTION.

RESTRAINER JOINT LENGTHS FOR TEES*						
SIZE	LENGTH ALONG RUN**					
	10'	8'	6'	4'	2'	0'
8x8x6	6	15	25	34	43	53
6x6x6	7	24	31	39	46	53
6x6x4	1	1	6	17	27	37

*RESTRAINTS ONLY PLACED ON THE BRANCH
**LENGTH ALONG RUN REFERS TO THE LENGTH OF PIPE ON
EITHER SIDE OF THE TEE BEFORE THE NEXT JOINT.

RESTRAINER JOINT LENGTHS FOR HORIZONTAL BENDS, VALVES, AND DEAD ENDS (EACH SIDE)					
SIZE	HORIZONTAL BENDS				VALVES DEAD END
	90°	45°	22-1/2°	11-1/4°	
6	25	10	5	2	55

RESTRAINER JOINT LENGTHS FOR REDUCERS***				
SIZE	L. SIDE	SIZE	L. SIDE	
12x6	74	8x6	30	
10x6	53	6x4	28	

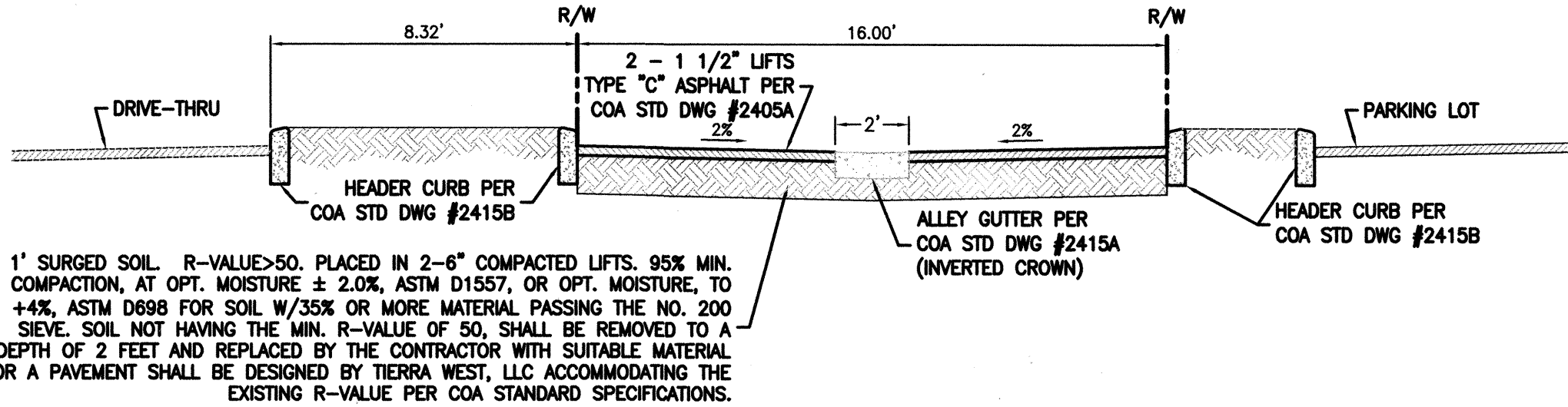
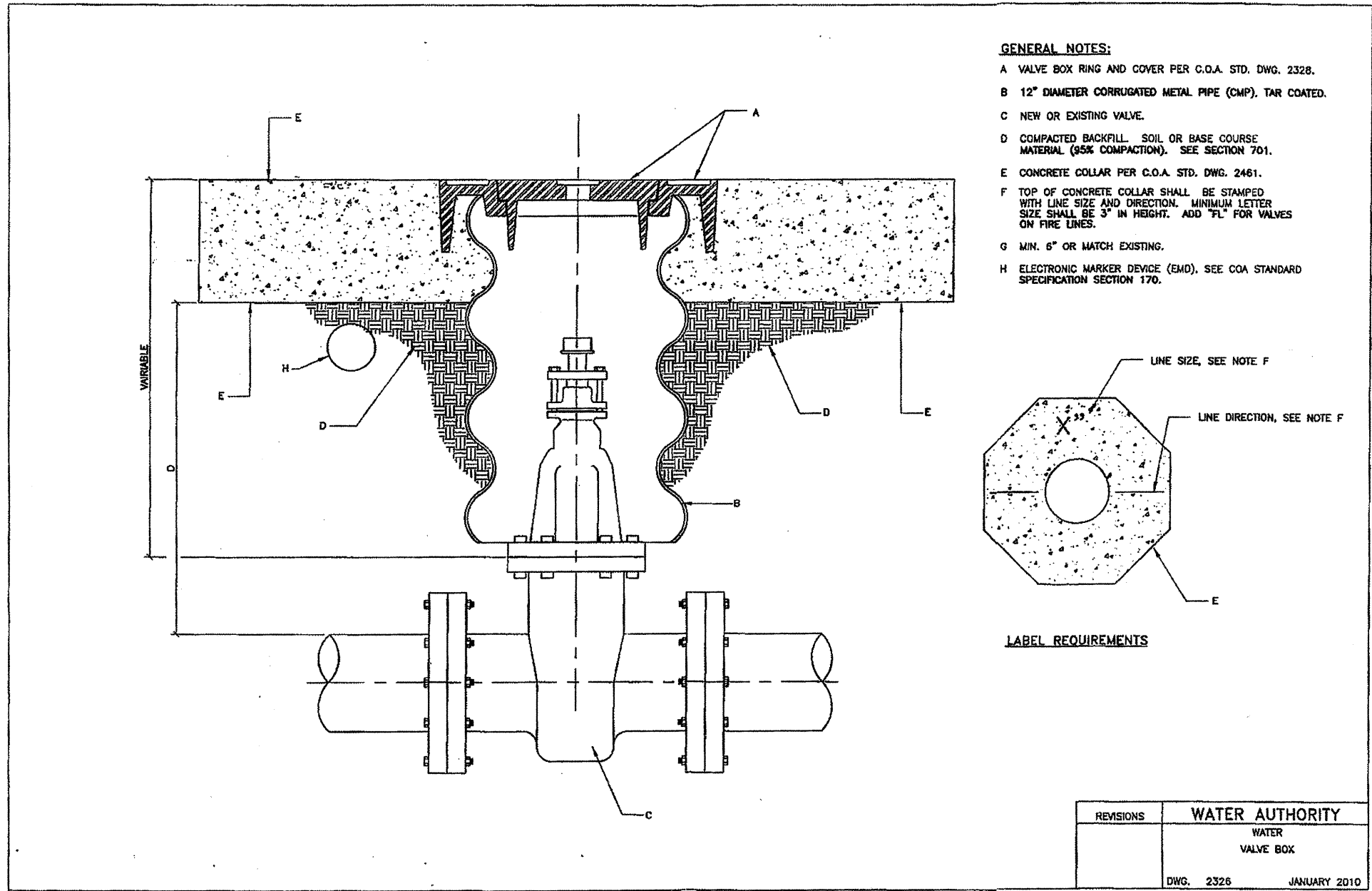
***RESTRAINTS ONLY PLACED ON LARGE SIDE

THE FOLLOWING TABLES WERE CREATED USING EBAA IRON INC.
SOFTWARE FOR RESTRAINING JOINTS WITH THESE CRITERIA:

DEPTH OF BURY: 3.0' MINIMUM TO 6.0'
SAFETY FACTOR: 1.5 TO 1
PIPE MATERIAL: PVC
SOIL TYPE: GM/SM-SILTY GRAVEL/SILTY SAND, GRAVEL-SAND MIXTURES
TEST PRESSURE: 150 PSI
TRENCH TYPE 3: PIPE BEDDED IN 4" MINIMUM LOOSE SOIL
BACKFILL LIGHTLY CONSOLIDATED TO TOP OF PIPE

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CONSTRUCTION.

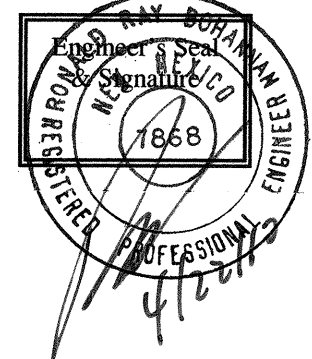
RESTRAINER JOINT LENGTHS FOR VERTICAL OFFSETS/BENDS (EACH SIDE)				
SIZE	HORIZONTAL BENDS			
	90°	45°	22-1/2°	11-1/4°
6 UPPER	DON'T	23	11	5
6 LOWER	USE	5	3	1



SECTION A-A
PROPOSED PAVING SECTION FOR EXISTING ALLEY
(C.O.A. STD. DWG. #2411)
SC: 1-4

CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

I, Ronald R. Bohannon, of the firm of Tierra West LLC, a Registered Professional Engineer in the State of New Mexico, do hereby certify, to the best of my knowledge and belief, that the infrastructure installed as part of this project has been inspected by me or by a qualified person under my direct supervision and has been constructed in accordance with the plans and specifications approved by the City Engineer and that the original design intent of the approved plans has been met, except as noted by me on the as-built construction drawings. This Certification is based on site inspections by me, or personnel under my direction with survey information provided by Will Plotner Jr., of Cartesian Surveys, NMPs number 14271.



TIERRA WEST, LLC 5571 MIDWAY PARK PL NE ALBUQUERQUE, NEW MEXICO 87109 (505)858-3100 www.tierrawestllc.com	
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP	
TITLE: JACK IN THE BOX 1267 PENNSYLVANIA ST & MENAUL BLVD DETAILS	
DESIGN REVIEW COMMITTEE APPROVED MAR 9 4 2010 DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL APPROVED MAR 2 2 2010 CITY ENGINEER
CITY PROJECT NO. 679782	ZONE MAP NO. H-19-Z
SHEET 4 OF 4	