

PUBLIC IMPROVEMENT PLANS
FOR
SIERRA VISTA SHOPPING CENTER
PUBLIC WATERLINE EXTENSION
ALBUQUERQUE, NEW MEXICO

APRIL 2005

PREPARED FOR:
NEW MEXICO BANK & TRUST
302 GOLD AVE. SW
ALBUQUERQUE, NM 87102

PREPARED BY:
ISAACSON & ARFMAN, P.A.
128 MONROE ST. NE
ALBUQUERQUE, NM 87108

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FOR INFORMATION ONLY

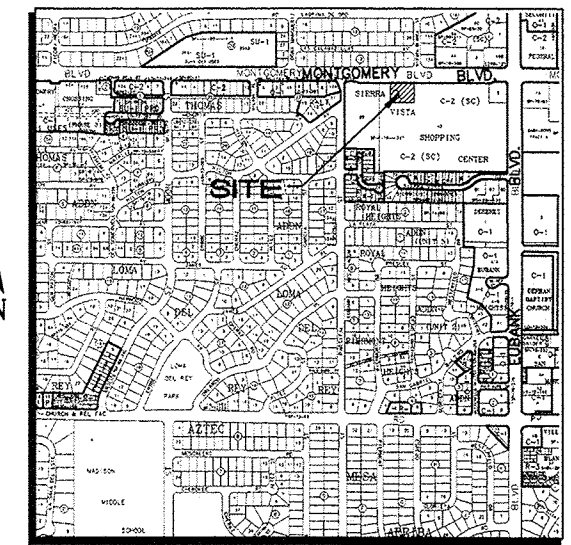
As-builts and Closeout package not submitted.
Construction verified by aerial imagery.

Hydrant visible on street view image

By: Jim Roeder Date: 12.26-19

GENERAL NOTES

- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION 1986 EDITION AS AMENDED WITH UPDATE NO. 7.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE & 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 MINIMUM DELAY.
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, NM ONE CALL SYSTEMS, INC. @ 280-1990 FOR LOCATION OF EXISTING UTILITIES.
- CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN A MANNER WHICH WILL MINIMIZE INTERFERENCE WITH LOCAL TRAFFIC. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS, AND ORDERS OF ANY PUBLIC BODY HAVING JURISDICTION FOR THE SAFETY OF PERSONS OR PROPERTY, AND TO PROTECT THEM FROM DAMAGE, INJURY, OR LOSS. CONTRACTOR SHALL ERECT AND MAINTAIN, AS REQUIRED BY THE CONDITIONS AND PROGRESS OF THE WORK, ALL NECESSARY SAFEGUARDS FOR SAFETY CONTINUOUSLY AND NOT LIMITED TO NORMAL WORKING HOURS, THROUGHOUT THE DURATION OF THE PROJECT. CONTRACTOR SHALL ADHERE TO SECTION 19 OF THE GENERAL CONDITIONS OF THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986, AS AMENDED WITH UPDATE NO. 7.
- THE CONTRACTOR AGREES THAT HE SHALL ASSUME THE SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD HARMLESS THE OWNER & ENGINEER FROM ANY AND ALL LIABILITY REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
- TRAFFIC CONTROL: FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL SUBMIT TO THE CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (924-3400) PRIOR TO OCCUPYING AN INTERSECTION. SEE SECTION 19 OF THE SPECIFICATIONS. ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED WITH PLASTIC REFLECTORIZED PAVEMENT MARKINGS BY CONTRACTOR TO LOCATION AS EXISTING OR AS SHOWN IN THIS PLAN SET.
- WHEN ABUTTING EXISTING PAVEMENT TO NEW, SAWCUT 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.
- EXISTING CURB AND GUTTER NOT TO BE REMOVED UNDER THE CONTRACT WHICH IS DAMAGED OR DISPLACED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT HIS EXPENSE.
- ALL FINAL BACKFILL FOR TRENCHES SHALL BE COMPACTED TO A MINIMUM 90% MAXIMUM DENSITY PER ASTM D-1557 AND AS DIRECTED BY SECTION 701.14.2 AND STANDARD DRAWING NUMBER 2315.
- THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY OR PRIVATE ROADWAY EASEMENTS SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET OR INTO ANY PUBLIC DRAINAGE FACILITY.
- PROPOSED WATERLINE MATERIALS SHALL BE EITHER PVC PIPE MEETING AWWA C900 REQUIREMENTS (6"-12") OR DUCTILE IRON PIPE, THICKNESS CLASS 50 (6"-16").
- ALL WATER LINE STATIONING REFERS TO WATER LINE CENTERLINE STATIONING.
- ALL FITTINGS ON WATERLINES SHALL HAVE RESTRAINED JOINTS AS NOTED ON THE PLANS.
- CONTRACTOR SHALL SUPPORT ALL EXISTING, UNDERGROUND UTILITY LINES WHICH BECOME EXPOSED DURING CONSTRUCTION. PAYMENT FOR SUPPORTING WORK SHALL BE INCIDENTAL TO WATER-LINE AND/OR SEWERLINE COSTS.
- CONTRACTOR SHALL ASSIST THE ENGINEER/INSPECTOR IN THE RECORDING OF DATA ON ALL UTILITY LINES AND ACCESSORIES AS REQUIRED BY THE CITY OF ALBUQUERQUE FOR THE PREPARATION OF RECORD DRAWINGS. CONTRACTOR SHALL NOT COVER UTILITY LINES AND ACCESSORIES UNTIL ALL DATA HAS BEEN RECORDED.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE ENGINEER MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE ENGINEER AND SHALL NOTIFY THE ENGINEER AND BEAR THE EXPENSE OF REPLACING 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.
- 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.
- WARNING--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. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF ANY DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY, AND PRESERVE ANY AND ALL EXISTING UTILITIES. THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES, IN PLANNING AND CONDUCTING EXCAVATION, WHETHER BY CALLING OR NOTIFYING THE UTILITIES, COMPLYING WITH "BLUE STAKES" PROCEDURES, OR OTHERWISE.
- ANY WORK OCCURRING WITHIN A FULLY DEVELOPED ARTERIAL ROADWAY REQUIRES 24 HR. CONSTRUCTION.
- ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE ACCOMPLISHED IN ACCORDANCE WITH OSHA 29CFR 1926.650 SUBPART P.
- CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORK SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY AND ALL GRAFFITI FROM EQUIPMENT, WHETHER PERMANENT OR TEMPORARY.

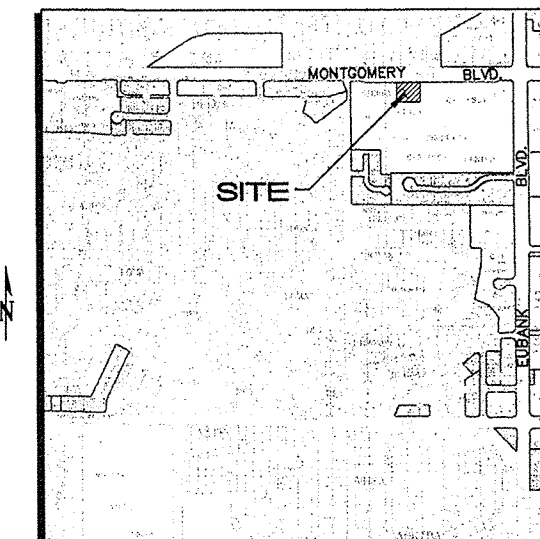


G-20 VICINITY MAP 1"=750'±

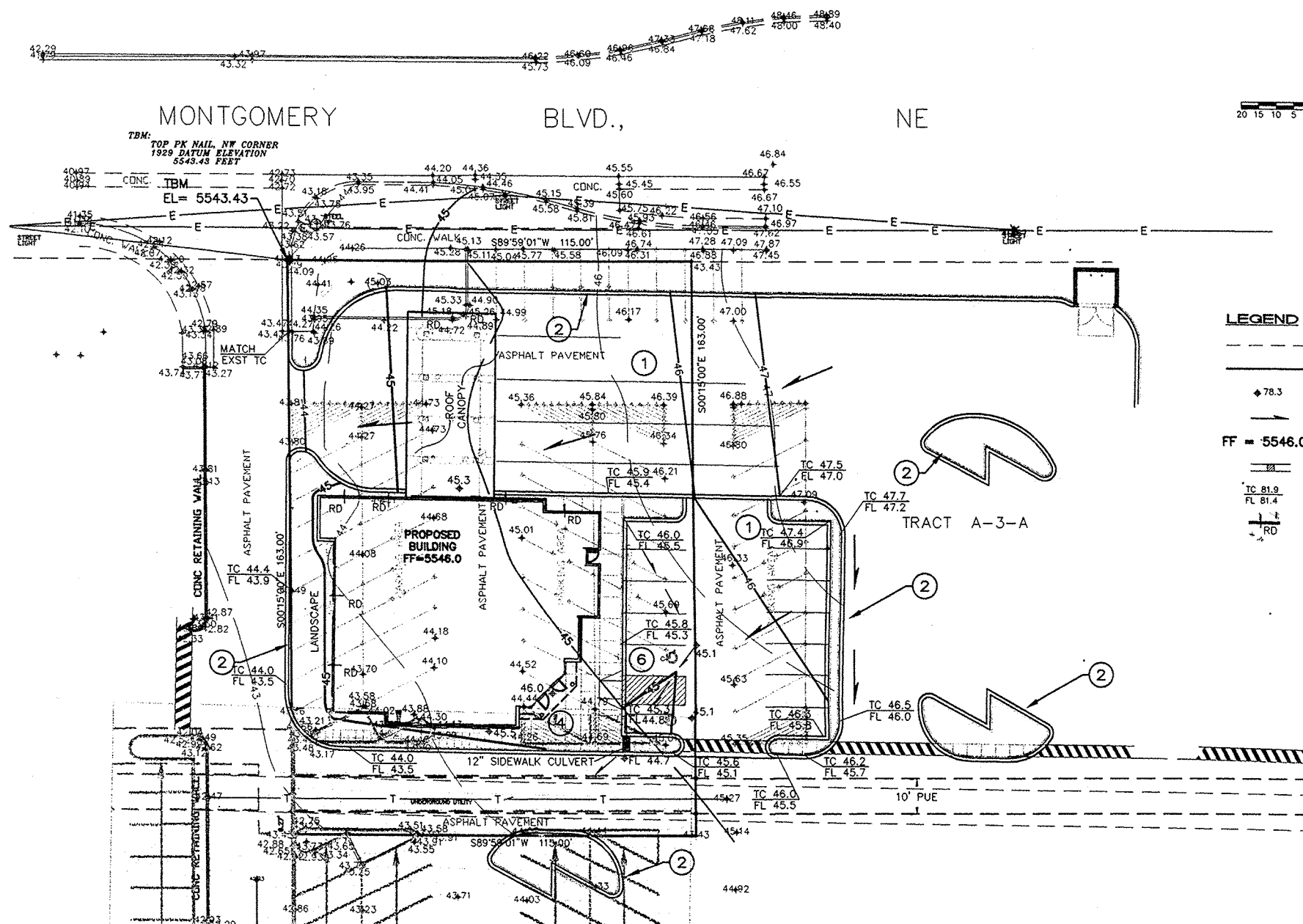
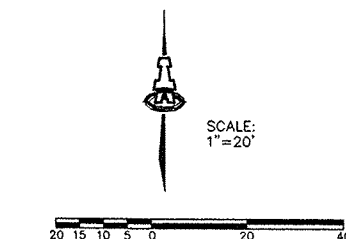
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REV.	SHEETS	CITY ENGINEER	DATE	USER	DEPARTMENT	DATE	USER	DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE		APPROVALS		ENGINEER		DATE	*****		
		DRC Chairman		<u>[Signature]</u>		5-3-05	APPROVED FOR CONSTRUCTION		
		Transportation		<u>[Signature]</u>		4/28/05			
		Water/Wastewater		<u>[Signature]</u>		4/28/05			
		Hydrology		<u>[Signature]</u>		4/28/05			
		AMAFCA		<u>[Signature]</u>		4/28/05			
Constr. Mngmt.							<u>[Signature]</u> 6-03-05 City Engineer Date		
Constr. Coord.									
City Project No.		758281		Sheet		1		Of 4	



G-20 VICINITY MAP 1"=750'±



- LEGEND**
- EXISTING CONTOUR
 - PROPOSED CONTOUR
 - ◆ 78.3 PROPOSED SPOT ELEVATION
 - FLOW ARROW
 - FF = 5546.0 FINISH FLOOR ELEVATION
 - SIDEWALK CULVERT
 - TC 81.9 FL 81.4 TOP OF CURB ELEVATION
 - RD ROOF DRAIN

LEGAL DESCRIPTION: TRACT A-3-B, SIERRA VISTA SHOPPING CENTER.

AREA: 0.43 Ac. (18,745 SF.)

SURVEYOR: TYREE SURVEYING INC. DATED 5-16-04.

(NMPLS No. 3516).

BENCHMARK: ACS "12-F20A", PUBLISHED ELEVATION= 5225.11.

TEMP BENCHMARK: PK NAIL LOCATED AT NW PROPERTY CORNER.

ELEVATION= 5543.43 (1929 DATUM)

FLOOD HAZARD: PER FEMA PANEL 143, THE SITE IS DETERMINED TO BE

IN ZONE "X", LOCATED OUTSIDE THE 500-YEAR FLOOD PLAIN BOUNDARY.

OFF-SITE DRAINAGE: A PORTION OF THE SHOPPING CENTER'S PAVED

PARKING AREA DRAINS THROUGH THIS SITE. PROPOSED DEVELOPMENT WILL

ALLOW RUNOFF TO CONTINUE TO DRAIN THROUGH THE SITE PER

HISTORICAL CONDITIONS.

DRAINAGE: THE SITE IS ALMOST ENTIRELY PAVED WITH ASPHALT AS IT IS

A PORTION OF THE SHOPPING CENTER PARKING LOT. THE PROPOSED

DEVELOPMENT INCLUDES A 4,500 SF BANK BUILDING WITH DRIVE THROUGH

LANES. DRAINAGE CONTINUES TO FLOW EAST TO WEST THROUGH THE SITE.

RUNOFF RATES WILL NOT INCREASE WITH THE PROPOSED DEVELOPMENT.

CALCULATIONS: 1366 : New Mexico Bank and Trust : June 29, 2004

Calculations are based on the Drainage Design Criteria for City of Albuquerque Section 22.2, DPM, Vol 2, dated Jan., 1993

ON-SITE

AREA OF SITE: 18745 SF = 0.43 Ac.

HISTORIC FLOWS:

On-Site Historic Land Condition

Area a = 562 SF

Area b = 562 SF

Area c = 562 SF

Area d = 18183 SF

Total Area = 18745 SF

DEVELOPED FLOWS:

On-Site Developed Land Condition

Area a = 562 SF

Area b = 562 SF

Area c = 562 SF

Area d = 17420 SF

Total Area = 18745 SF

EXCESS PRECIPITATION:

Precip Zone 3

Ea = 0.66

Eb = 0.92

Ec = 1.29

Ed = 2.36

On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)

Weighted E = EaAa + EbAb + EcAc + EdAd

As + Ab + Ac + Ad

Historic E = 2.32 in. | Developed E = 2.28 in.

On-Site Volume of Runoff: V360 = E²A/12

Historic V360 = 3619 CF | Developed V360 = 3569 CF

On-Site Peak Discharge Rate: Qp = QpAa + QpAb + QpAc + QpAd / 43,560

For Precipitation Zone 3

Qpa = 1.87

Qpb = 2.60

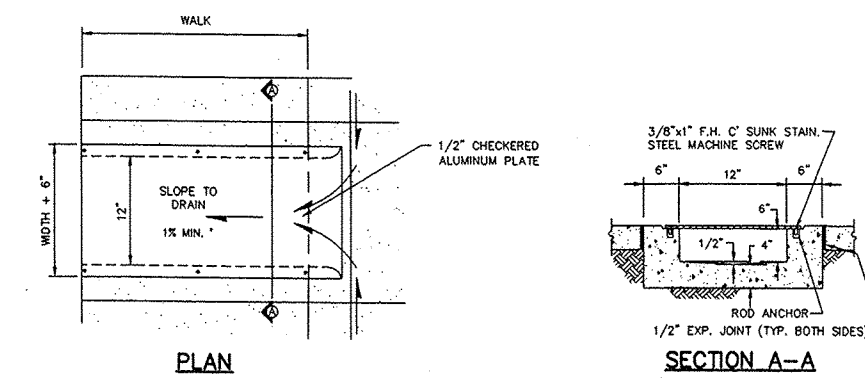
Qpc = 3.45

Qpd = 5.02

Historic Qp = 2.1 CFS | Developed Qp = 2.1 CFS

KEYED NOTES

- CONSTRUCT ASPHALT PAVED CIRCULATION LANDS AND PARKING. SEE ARCHITECTURAL FOR INFORMATION REGARDING PARKING LAYOUT, DIMENSIONS, STRIPING, ETC.
- CONSTRUCT 6" HIGH CURB AT ALL ON-SITE CURB LOCATIONS. SEE ARCHITECTURAL FOR DETAIL. MATCH EXISTING ASPHALT GRADE WITH FLOWLINE, TYPICAL.
- ALL SPOT ELEVATIONS WITHIN PAVED AREA REFERENCE TOP OF PAVING UNLESS NOTED OTHERWISE. ADD 0.5' FOR TOP OF CURB / TOP OF WALK DATA.
- CONSTRUCT CONCRETE WALK THIS AREA. SEE ARCHITECTURAL DETAILS, RAMP LOCATIONS / DIMENSIONS AND ADDITIONAL INFORMATION.
- ROOF FLOWS TO BE RELEASED TO SIDEWALK/ PAVING THIS AREA. PROVIDE POSITIVE DRAINAGE (MIN. SLOPE 0.0100'/') AWAY FROM BUILDING.
- CONSTRUCT HANDICAP PARKING THIS AREA AT ELEVATIONS SHOWN (MAX. SLOPE = 0.0200'/'). SEE ARCHITECTURAL FOR ACCESSIBLE RAMP DETAILS.



PLAN

SECTION A-A

SIDEWALK CULVERT

NTS

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LEGEND

- SINGLE WATER METER & BOX
- GATE VALVE W/ VALVE BOX
- FIRE HYDRANT
- EXISTING SAS MANHOLE

KEYED CONSTRUCTION NOTES

- BUILD NEW PUBLIC FIRE HYDRANT PER COA STD DWG #2340.
- INSTALL NEW 1" WATER METER & SERVICE PER COA STD DWG #'S 2362 & 2366.
- REMOVE EXISTING ASPHALT PAVEMENT & REPLACE WITH 2-2" LIFTS (4" TOTAL) AC PAVING 1500 LBS STABILITY OVER COMPACTED SUBGRADE.
- CONSTRUCT SAS SERVICE PER COA STD DWG #2125.

RESTRAINED JOINT LENGTHS, L_r, FOR TEES, (FT.) ALL JOINTS AT THE TEE MUST BE RESTRAINED.

SIZE	RUN	BRANCH
8x8x8	9	20
8x8x6	5	17
8x8x4	2	15
6x6x6	6	20
6x6x4	2	20

THIS TABLE IS BASED UPON THE FOLLOWING CRITERIA:

DEPTH OF BURY 3.0 FT. MINIMUM
FACTOR OF SAFETY 1.25
MATERIAL PVC PIPE
SOL TYPE: GW/SM - SILTY GRAVELS AND SILTY SANDS, GRAVEL-SAND-SILT MIXTURES.
TEST PRESSURE 150 PSI
TRENCH TYPE 4: PIPE BEDDED IN SAND, GRAVEL, OR CRUSHED STONE TO DEPTH OF 1/8 PIPE DIAMETER, 4 INCH MINIMUM. BACKFILL COMPACTED TO TOP OF PIPE.

DIFFERENT CRITERIA, E.G. DUCTILE IRON PIPE, GREATER DEPTH OF BURY, ETC., WILL REQUIRE DIFFERENT RESTRAINED LENGTHS. THESE MUST BE CALCULATED BY A QUALIFIED PROFESSIONAL ENGINEER AND APPROVED BY THE PUBLIC WORKS DEPARTMENT.

RESTRAINED JOINT LENGTHS, L_r, FOR HORIZONTAL BENDS, VALVES, AND DEAD ENDS, (FT.)

SIZE	HORZ. BENDS					VALVES & DEAD ENDS
	90°	45°	22 1/2°	11 1/4°		
8	22	9	4	2		60
6	17	7	3	2		46
4	12	5	2	1		32

RESTRAINED JOINT LENGTHS, L_r, FOR REDUCERS, (FT.) MINIMUM UNOBSTRUCTED, STRAIGHT-RUN LENGTH: RESTRAIN EITHER LARGE PIPE, OR SMALL PIPE.

SIZE	LARGE SIDE		SIZE	SMALL SIDE	
	25	30		44	73
12x10	25	30	10x8	44	73
12x8	45	58	10x4	58	141
12x6	62	121	8x6	25	33
12x4	74	213	8x4	43	83
10x8	24	30	6x4	24	35

NOTES:

- ALL MECHANICAL JOINTS SHALL BE RESTRAINED AT THE FITTING.
- THE CONTRACTOR SHALL PROVIDE A MINIMUM PIPE LENGTH OF 20 LF FROM ALL MECHANICAL JOINTS. ALL PIPE JOINTS WITHIN 20 LF OF A MECHANICAL JOINT SHALL BE RESTRAINED AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL RESTRAIN ALL PIPE JOINTS IN THE SPECIFIED DISTANCE LISTED IN THE TABLE ON THIS SHEET.
- THE CONTRACTOR SHALL RESTRAIN ALL FIRE HYDRANT JOINTS FROM THE TEE ON THE MAIN TO THE FIRE HYDRANT FLANGE.

RESTRAINED JOINT LENGTHS FOR WATERLINE FITTINGS

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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: PUBLIC WATERLINE EXTENSION
UTILITY PLAN & PROFILE

Design Review Committee
APPROVE
MAY 3 2005
DESIGN REVIEW COMMITTEE

City Engineer Approval
APPROVE
JUN - 3 2005
CITY ENGINEER

City Project No. 758281

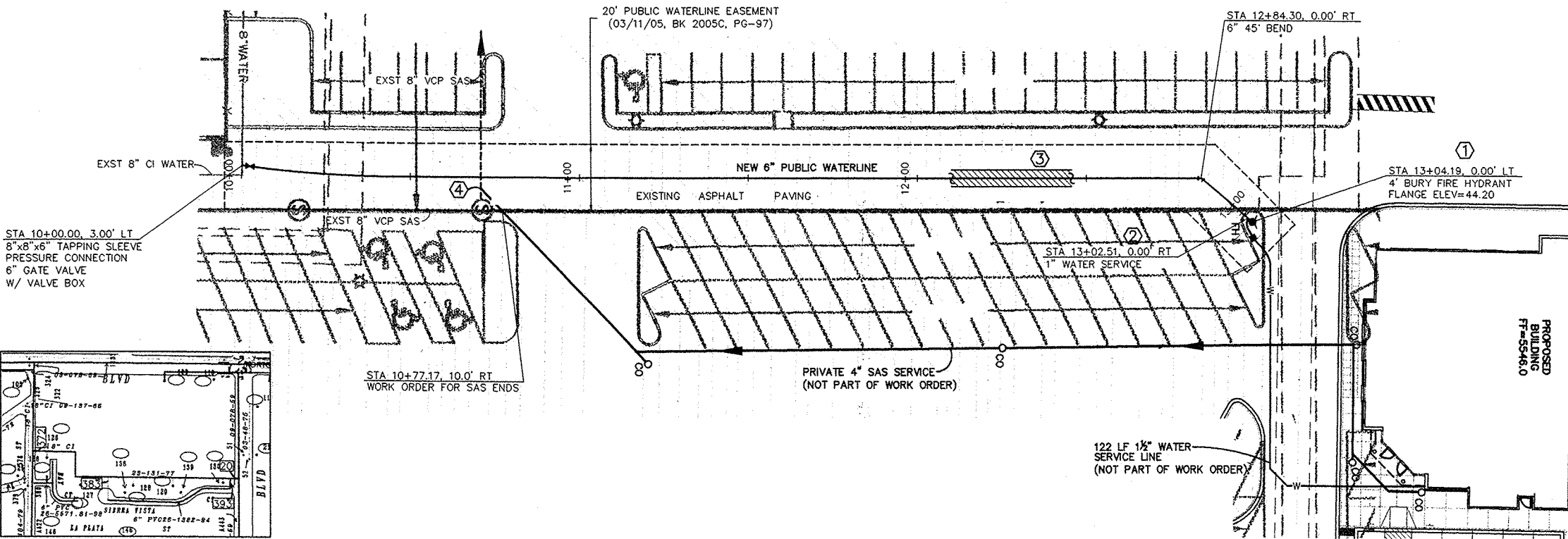
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PUBLIC WATERLINE EXTENSION

SCALES:
1"=20' HOR.
1"=5' VERT.

Elevation Datum: NGVD 29



WATER SHUT-OFF PLAN

FOR PRESSURE CONNECTION TO 8" WL IN PARKING LOT, TURN OFF VALVES 372, 383, 393 & 20. THE CONTRACTOR SHALL CONTACT WATER SYSTEMS DIVISION (857-8200) 7 WORKING DAYS PRIOR TO SHUT-OFF OR TURN-ON AT VALVES. ONLY CITY PERSONNEL ARE ALLOWED TO OPERATE VALVES.

EXISTING PAVEMENT GRADE • WL

3'-0" MIN BURY

10+00.00 EXISTING 8" WL
BEGN 8" WL
10+02.53
8" GATE VALVE
W/ VALVE BOX
TP= 40.69

12+84.30
6" 45° BEND
TP= 38.5

13+04.19
FIRE HYDRANT
TP= 38.5

TP=40.3

TP=39.4

TP=38.5

TP=38.5

TP=38.5

TP=38.5