

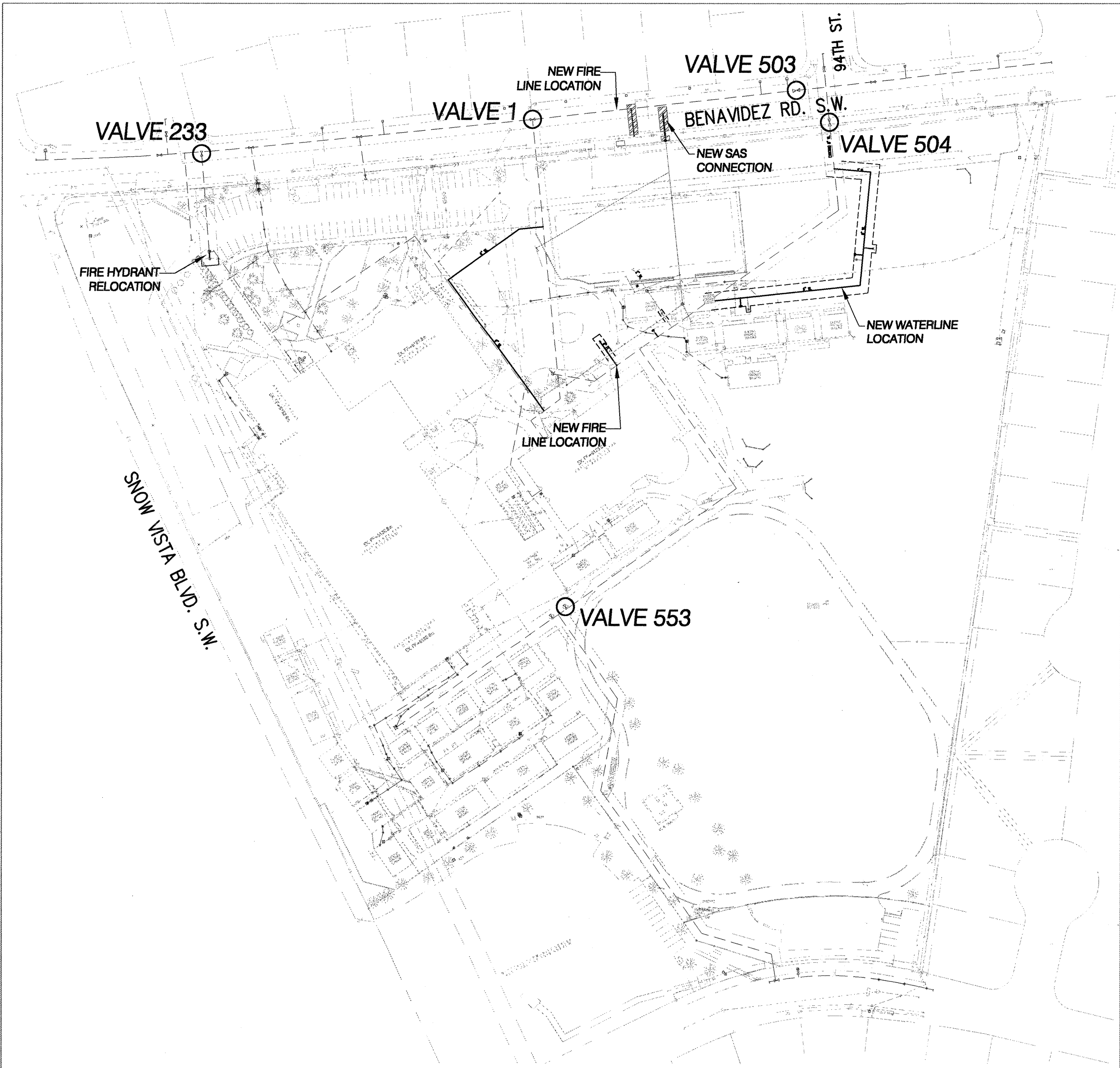
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26-645679-2011

SCANNED BY  
PLANNING

CONSTRUCTION PLAN FOR  
TRUMAN MIDDLE SCHOOL  
WATERLINE IMPROVEMENTS  
ALBUQUERQUE, NEW MEXICO

INDEX

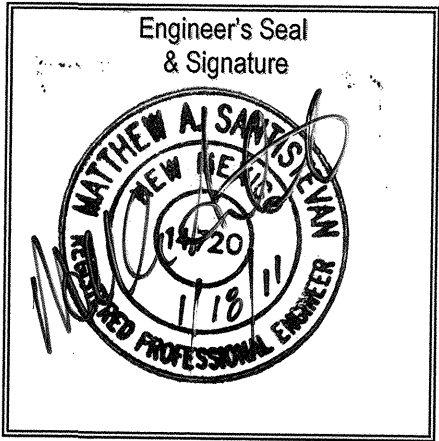
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	OVERALL SITE PLAN AND SURVEY CONTROL
3-4	WATERLINE PLAN AND PROFILE SHEETS
5	FIRE HYDRANT RELOCATION, 6" FIRE LINE AND 6" SAS SERVICE CONNECTION



APPROVED AS RECORD DRAWINGS  
DESIGN REVIEW SECTION  
CITY ENGINEER  
*[Signature]*  
DATE: 8-17-11

CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

I, Matthew A. Santistevan of the firm of Bohannon Huston, Inc., 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 shown on these drawings (Truman Middle School Waterline Improvements) 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 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 and survey information provided by the contractor, T.A. Cole & Sons General Contractors, Inc. and their contractor, Will Plotner, Jr., NMPS 14271.



SURVEYOR'S CERTIFICATION

I, WILL PLOTNER JR., A DULY QUALIFIED, REGISTERED, PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THE 'AS-BUILT' INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM FIELD CONSTRUCTION AND 'AS-BUILT' SURVEYS PERFORMED BY ME OR UNDER MY SUPERVISION, THAT THE 'AS-BUILT' INFORMATION SHOWN ON THESE DRAWINGS WAS ADDED BY ME OR UNDER MY SUPERVISION, AND THAT THIS 'AS-BUILT' INFORMATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. CARTESIAN SURVEYS IS NOT RESPONSIBLE FOR ANY OF THE DESIGN CONCEPTS, CALCULATIONS, ENGINEERING, OR INTENT OF THE RECORD DRAWINGS.

WILL PLOTNER JR., NMPS 14271



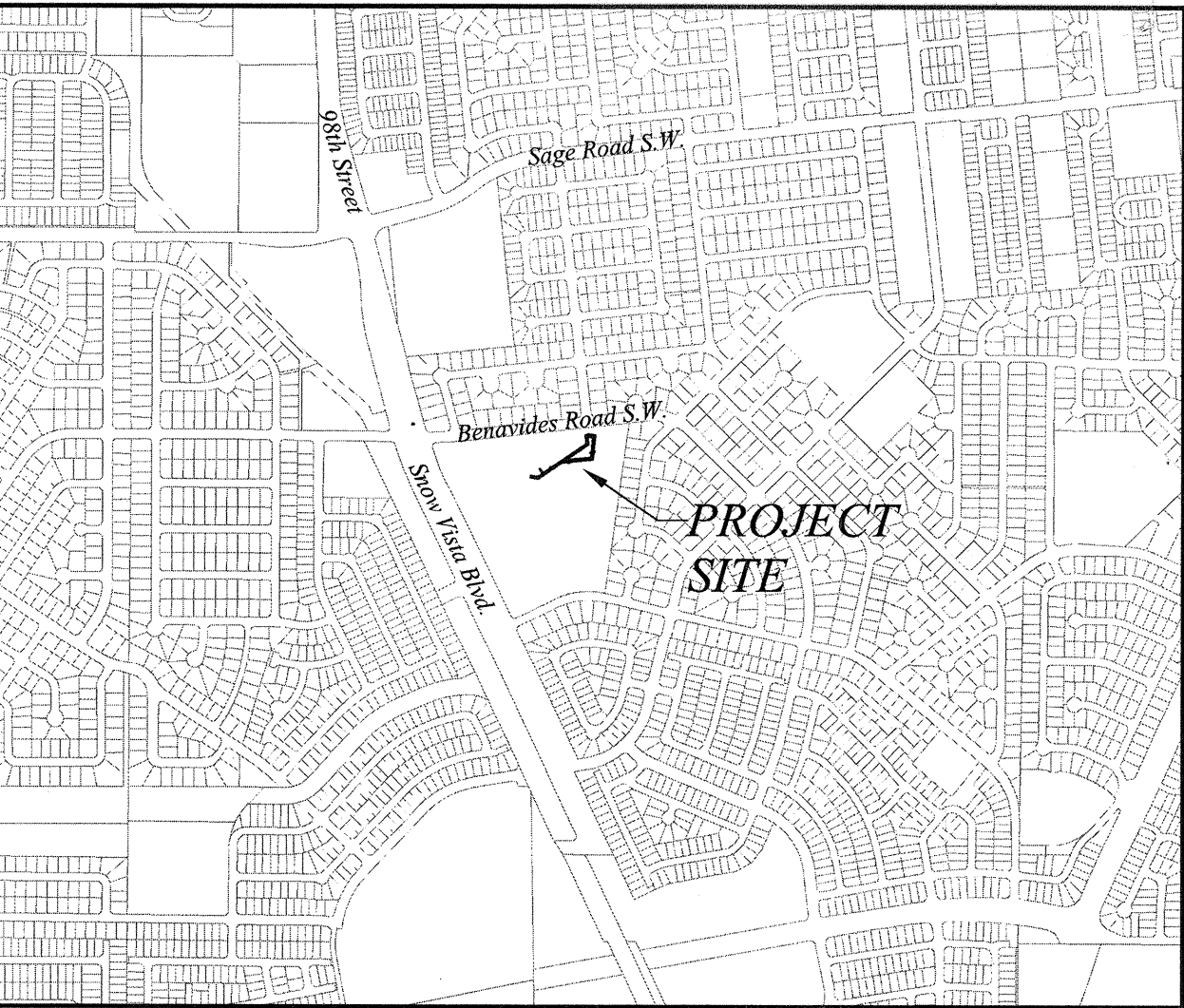
WATER SHUT-OFF PLAN:

FOR CONNECTION	VALVE CLOSED
BENAVIDEZ RD. ENTRANCE	VALVE # 504
INTERIOR OF SITE SW END	VALVE # 553
FIRE HYDRANT RELOCATION	VALVE #233
BENAVIDEZ NEW FIRE LINE	VALVES #1 & 503

CONTRACTOR WILL BE RESPONSIBLE FOR FLUSHING, DISINFECTING, AND TESTING THE LINES AS REQUIRED BY THE ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY (ABCWUA).

WATER SHUT-OFF REQUIREMENTS:

CONTRACTOR WILL BE RESPONSIBLE FOR THE TIMING AND COORDINATION OF THE WATER SHUT-OFF REQUIREMENTS IN CONJUNCTION WITH THE COMPLETION OF CONNECTIONS. AT LEAST SEVEN (7) WORKING DAYS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY (ABCWUA) 857-8200 TO INITIATE IMPLEMENTATION OF THIS WATER SHUT-OFF PLAN. CONTRACTOR SHALL NOT OPERATE VALVES ON THE PROJECT.



VICINITY MAP  
ZONE ATLAS MAP NO. M-9-Z

GENERAL NOTES

- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, SHALL 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, AND WILL BE REFERRED TO HEREIN AS "STANDARD SPECIFICATIONS".
- THE CONTRACTOR SHALL ABIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS, INCLUDING EPA REQUIREMENTS WITH RESPECT TO STORM WATER DISCHARGE.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL POTENTIAL OBSTRUCTIONS INCLUDING ALL UNDERGROUND UTILITIES. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION OBSERVER OR ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT NEW MEXICO ONE CALL SYSTEM (260-1990) FOR LOCATION OF EXISTING UTILITIES.
- ALL ELECTRICAL, TELEPHONE, CABLE TV, GAS AND OTHER UTILITY LINES, CABLES, AND APPURTENANCES ENCOUNTERED DURING CONSTRUCTION THAT REQUIRE RELOCATION, SHALL BE COORDINATED WITH THAT UTILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL NECESSARY UTILITY ADJUSTMENTS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR DELAYS OR INCONVENIENCES CAUSED BY UTILITY COMPANY WORK CREWS. THE CONTRACTOR MAY BE REQUIRED TO RESCHEDULE HIS ACTIVITIES TO ALLOW UTILITY CREWS TO PERFORM THEIR REQUIRED WORK.
- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITY LINES WITHIN THE CONSTRUCTION AREA. ANY DAMAGE TO EXISTING FACILITIES CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AND APPROVED BY THE CONSTRUCTION OBSERVER.
- CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PROPERTY AND/OR PROJECT LIMITS. ANY DAMAGE TO ADJACENT PROPERTIES RESULTING FROM THE CONSTRUCTION PROCESS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAYS OR DESIGNATED TRAFFIC LANES. THE CONTRACTOR SHALL NOT STORE ANY EQUIPMENT OR MATERIAL WITHIN THE PUBLIC RIGHT-OF-WAY.
- THE CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS FOR THE PROJECT PRIOR TO COMMENCING CONSTRUCTION (I.E., BARRICADING, TOPSOIL DISTURBANCE, EXCAVATION PERMITS, EPA STORM WATER PERMITS, ETC.).
- ALL PROPERTY CORNERS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ALL PROPERTY CORNERS MUST BE RESET BY A REGISTERED LAND SURVEYOR.
- THE CONTRACTOR SHALL PREPARE A CONSTRUCTION TRAFFIC CONTROL AND SIGNING PLAN AND OBTAIN APPROVAL OF SUCH PLAN FROM THE CITY OF ALBUQUERQUE, TRAFFIC ENGINEERING DEPARTMENT, PRIOR TO BEGINNING ANY CONSTRUCTION WORK ON OR ADJACENT TO EXISTING STREETS.
- ALL BARRICADES AND CONSTRUCTION SIGNING SHALL CONFORM TO APPLICABLE SECTIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), US DEPARTMENT OF TRANSPORTATION, LATEST EDITION.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL CONSTRUCTION BARRICADES AND SIGNING UNTIL PROJECT HAS BEEN ACCEPTED BY THE CITY. THE CONTRACTOR SHALL VERIFY THE PROPER LOCATION OF ALL BARRICADING AT THE END AND BEGINNING OF EACH DAY.
- THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO CONFORM WITH EPA REQUIREMENTS, INCLUDING COMPLIANCE WITH NPDES PHASE 2 REQUIREMENTS.
- ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE ACCOMPLISHED IN ACCORDANCE WITH OSHA 29CFR 1926.650 SUBPART P.
- IN LIEU OF EMDs, ELECTRONIC MARKER SPHERES (EMS) WILL BE PLACED ACCORDING TO SECTION 170 OF THE "STANDARD SPECIFICATIONS".

REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE		APPROVALS	ENGINEER	DATE	*****		
		DRC Chairman	<i>[Signature]</i>	5/21/10	APPROVED FOR CONSTRUCTION <i>[Signature]</i> 11-9-10 City Engineer Date		
		Transportation	<i>[Signature]</i>	05/20/10			
		Water/Wastewater	<i>[Signature]</i>	5-20-10			
		Hydrology	<i>[Signature]</i>	5/20/10			
		Parks					
City Project No.		845679	Sheet		1 of 5		



PROJECT BENCHMARK  
A.C.S. "11\_M9"  
N=6,159.25  
E=4,422.05  
ELEV.=5139.30

T.B.M. #1  
N=6,047.27  
E=4,473.84  
ELEV.=5138.72

T.B.M. #2  
N=6,211.07  
E=5,665.40  
ELEV.=5111.94

FIRE HYDRANT RELOCATION

OVERALL SITE PLAN AND SURVEY CONTROL

PROJECT BENCHMARK  
ACS 3 1/4" ALUMINUM DISK STAMPED "11-M9 2002",  
SET FLUSH ON TOP OF THE SOUTHEAST CORNER OF A  
CONCRETE DROP INLET NEAR THE NORTHWEST INTERSECTION  
OF 98TH STREET AND BENAVIDES ROAD S.W.  
ELEVATION = 5139.276 FEET (NAVD 1988)  
TEMPORARY BENCHMARK (T.B.M.) #1  
SET P.K. NAIL  
ELEVATION = 5138.72 FEET (NAVD 1988)  
TEMPORARY BENCHMARK (T.B.M.) #2  
A CHISELED "4"  
ELEVATION = 5111.94 FEET (NAVD 1988)

# GENERAL NOTES

- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
- ALL CURVE DATA AND DIMENSIONS ARE CALCULATED FROM CENTERLINE OF PIPE OR MANHOLE. ALL SAS & SD SLOPES ARE CALCULATED TO TRUE PIPE DIMENSIONS FROM INVERT TO INVERT. (PAY ITEMS ARE SHOWN IN PARENTHESES)
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- CONTRACTOR IS TO INSTALL A 4" X 4" X 5' POST AND EMD AT THE END OF EACH SANITARY SEWER SERVICE.
- CONTRACTOR IS RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ALL UTILITY CONDUITS AND EXISTING LINES.
- CONTRACTOR SHALL PROVIDE THE INSPECTORS WITH THE PROPOSED HYDROSTATIC TESTING PLAN. THE PLAN MUST BE APPROVED BEFORE TESTING OPERATIONS BEGIN.
- CONTRACTOR SHALL PARK EQUIPMENT AND VEHICLES AS NOT TO INTERFERE WITH NORMAL ACTIVITIES OF RESIDENTS OR OTHER CONTRACTORS ON SITE.
- ANY DAMAGE TO THE EXISTING FACILITIES (CURB & GUTTER, PAVEMENT, CONDUITS, LANDSCAPING, UTILITY LINES, ETC.) DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- MH RIMS & CATCH BASIN INLET ELEVATIONS, FIRE HYDRANT & FLANGE ELEVATIONS ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY AND ADJUST TO FINAL PAVEMENT GRADES.
- ALL WATERLINE APPURTENANCES SHALL USE JOINT RESTRAINTS.
- 20' PUBLIC WATERLINE EASEMENT GRANTED BY DOCUMENT FILED 09-21-1990, BOOK 90-15, PAGES 7122-7125, DOC. #9073815 TO BE RELEASED
- WATERLINE EASEMENT GRANTED BY DOCUMENT FILED: 09-21-1990, BOOK 90-15, PAGES 7122-7125, DOC. #9073815 TO BE RELEASED

DATE: \_\_\_\_\_  
DOC # \_\_\_\_\_

## LEGEND

- DOUBLE WATER METER
- SINGLE WATER METER
- WATER LINE SHUTOFF VALVE
- WATER LINE TEE
- SAS LATERAL
- SAS MANHOLE
- STORM DRAIN MANHOLE
- STORM DRAIN INLET
- PROPOSED FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING WATER LINE TO BE REMOVED AREA

## MATERIALS:

SAS LINE: SDR-35 PVC  
WATER LINE: C900-PVC DR18

## RESTRAINED JOINT TABLE

MECHANICAL JOINTS	LENGTH OF RESTRAINED JOINTS		
	(4")	(6")	(8")
11.25' H BEND	2'	2'	3'
22.50' H BEND	4'	4'	5'
45' H BEND	8'	8'	11'
90' H BEND	18'	20'	26'
GATE VALVE/CAP	39'	55'	72'

- NOTE:
- ALL MECHANICAL JOINTS SHALL BE RESTRAINED AT THE FITTING.
  - THE CONTRACTOR SHALL PROVIDE A MINIMUM PIPE LENGTH OF 20 LF FROM ALL MECHANICAL JOINTS, UNLESS SPECIFIED DIFFERENTLY IN THE PLANS. ALL PIPE JOINTS WITHIN 20 LF OF A MJ SHALL BE RESTRAINED AT THE CONTRACTOR'S EXPENSE.
  - THE CONTRACTOR SHALL RESTRAIN ALL PIPE JOINTS IN THE SPECIFIED DISTANCE LISTED IN THE TABLE ABOVE.
  - THE CONTRACTOR SHALL RESTRAIN ALL FIRE HYDRANT JOINTS FROM THE TEE ON THE MAIN TO THE FIRE HYDRANT FLANGE.

**Bohannon & Huston**

Courtyard | 7500 Jefferson St. NE Albuquerque, NM 87109-4395  
ENGINEERING & SPATIAL DATA & ADVANCED TECHNOLOGIES



**CITY OF ALBUQUERQUE**  
**DEPARTMENT OF**  
**MUNICIPAL DEVELOPMENT**

TRUMAN MIDDLE SCHOOL  
OVERALL SITEPLAN AND SURVEY CONTROL

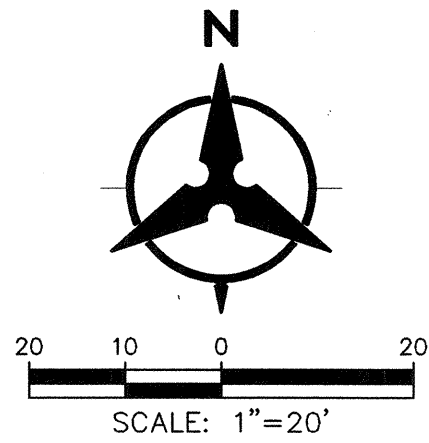
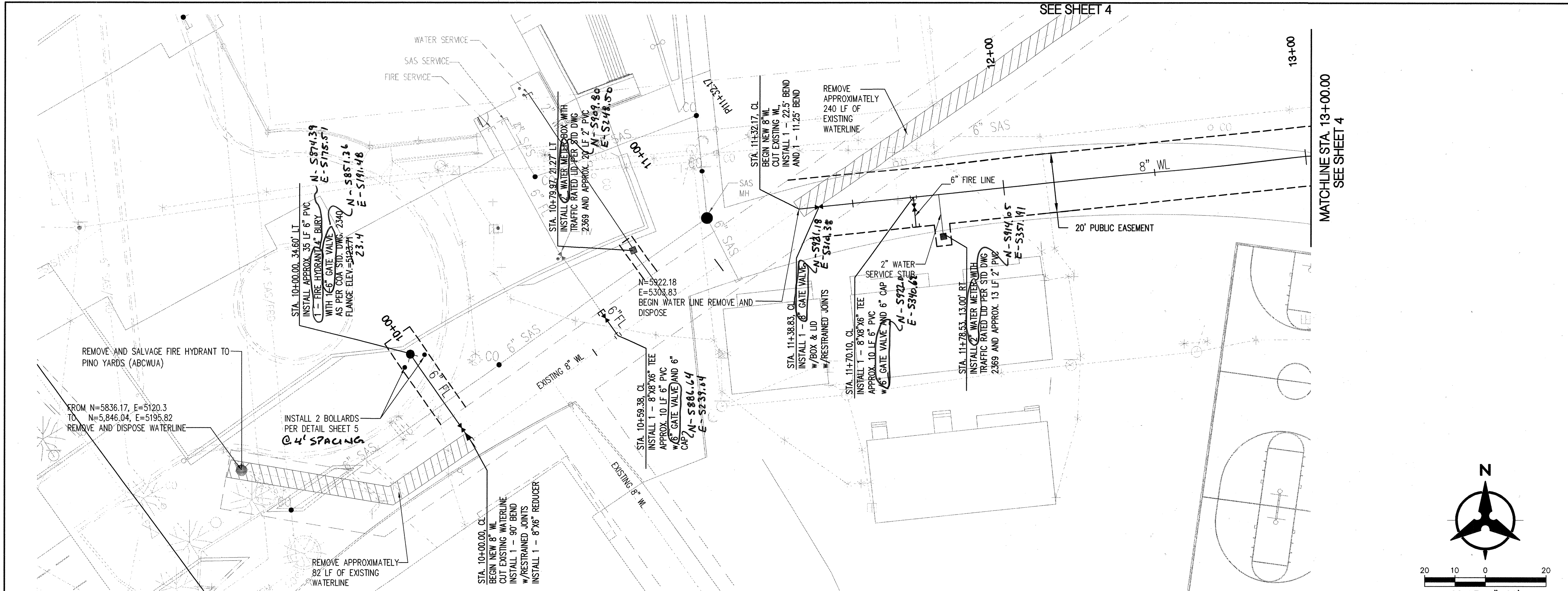
DESIGN REVIEW COMMITTEE  
**APPROVED**  
MAY 21 2010  
DESIGN REVIEW COMMITTEE

CITY ENGINEER APPROVAL  
**APPROVED**  
NOV 09 2010  
CITY ENGINEER

MO./DAY/YR.  
LAST DESIGN UPDATE  
MO./DAY/YR.

CITY PROJECT NO. 645679 ZONE MAP NO. M-9-Z DRAWING NO. SHEET 2 OF 5





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THE CHANGES SHOWN HEREON ARE BASED UPON A FIELD SURVEY CONDUCTED BY ME OR UNDER MY SUPERVISION AND REFLECT THE LOCATIONS (VERTICALLY AND HORIZONTALLY) TO THE BEST OF MY KNOWLEDGE AND BELIEF.

*Will Phil*

LEGEND

- DOUBLE WATER METER
- SINGLE WATER METER
- WATER LINE SHUTOFF VALVE
- WATER LINE TEE
- SAS LATERAL
- SAS MANHOLE
- STORM DRAIN MANHOLE
- STORM DRAIN INLET
- PROPOSED FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING WATER LINE TO BE REMOVED AREA

MATERIALS:

SAS LINE: SDR-35 PVC  
WATER LINE: C900-PVC D18

RESTRAINED JOINT TABLE

MECHANICAL JOINTS	LENGTH OF RESTRAINED JOINTS		
	(4')	(6')	(8')
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NOTE:

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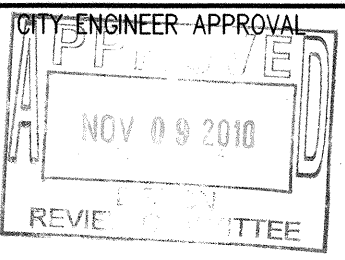
**Bohannon & Huston**

Courtyard | 7800 Jefferson St. NE Albuquerque, NM 87109-4395  
ENGINEERING & SPATIAL DATA & ADVANCED TECHNOLOGIES



**CITY OF ALBUQUERQUE**  
**DEPARTMENT OF**  
**MUNICIPAL DEVELOPMENT**

TRUMAN MIDDLE SCHOOL  
8" WATER LINE  
PLAN AND PROFILE



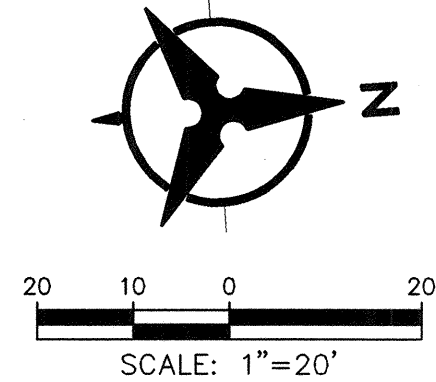
LAST DESIGN UPDATE












MO./DAY/YR.	MO./DAY/YR.

PROJECT NO. 645679 ZONE MAP NO. M-9-Z DRAWING NO. SHEET 3 OF 5

SCALE: 1"=20' (HORIZ.)  
1"=5' (VERT.)





	DOUBLE WATER METER
	SINGLE WATER METER
	WATER LINE SHUTOFF VALVE
	WATER LINE TEE
	SAS LATERAL
	SAS MANHOLE
	STORM DRAIN MANHOLE
	STORM DRAIN INLET
	PROPOSED FIRE HYDRANT
	EXISTING WATER VALVE
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NOTE:

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**Bohannon** ▲ **Huston**   
 1700 1<sup>st</sup> NE 75001-1700 Albuquerque, NM 87102  
 505-261-1700 FAX 505-261-1701  
 SURVEYING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGY

**CITY OF ALBUQUERQUE**  
**DEPARTMENT OF**  
**MUNICIPAL DEVELOPMENT**

TRUMAN MIDDLE SCHOOL  
8" WATER LINE  
PLAN AND PROFILE

DESIGN REVIEW COMMITTEE

**APPROVE**

MAY 21 2010

DESIGN REVIEW COMMITTEE

CITY ENGINEER APPROVAL  
APPROVED  
NOV 09 2010  
REVIEWED  
DATE

LAST DESIGN  
UPDATE

MO./DAY/YR.	MO./DAY/YR.
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CITY PROJECT NO.  
645679

ZONE MAP NO.  
M-9-Z

DRAWING NO.

SHEET 4 OF 5

P: \20100353\CDP\Plans\DRC Review\20100353upnp02.dwg  
Wed, 19-May-2010 - 3:25:pm, Plotted by: KMURTAGH

SCALE: 1"=20' (HORIZ.)  
1"=5' (VERT.)



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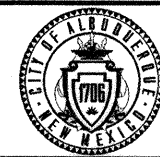
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NOTE:

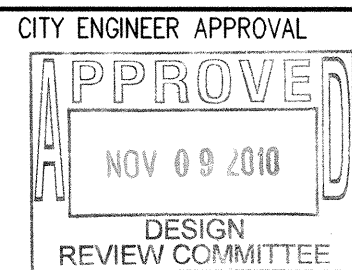
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3. THE CONTRACTOR SHALL RESTRAIN ALL PIPE JOINTS IN THE SPECIFIED DISTANCE LISTED IN THE TABLE ABOVE.
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**Bohannon & Huston**  
Courtney I 7800 Jefferson St. NE Albuquerque, NM 87109-4336  
ENGINEERING & SPATIAL DATA & ADVANCED TECHNOLOGIES



**CITY OF ALBUQUERQUE**  
**DEPARTMENT OF**  
**MUNICIPAL DEVELOPMENT**

TRUMAN MIDDLE SCHOOL  
FIRE HYDRANT RELOCATION, 6" FIRE LINE  
AND 6" SAS CONNECTION



LAST DESIGN  
UPDATE

MC / DAY / YR.	MC / DAY / YR.

CITY PROJECT NO. <b>645679</b>	ZONE MAP NO. <b>M-9-Z</b>	DRAWING NO.	SHEET <b>5</b>	OF <b>5</b>
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REMOVE AND SALVAGE EXISTING FIRE  
HYDRANT TO PINO YARDS (ABCWUA)

N=5,972.18  
E=4,715.21  
INSTALL APPROX. 9 LF 6" PVC  
NEW FIRE HYDRANT 4" BURY  
AS PER COA STD. DWG. 2340  
FLANGE ELEV.=5124.64  
33.3

FIRE HYDRANT RELOCATION

N=6,153.05  
E=5,212.80  
CONNECT NEW 6" FIRELINE  
TO EX. 6" WATERLINE  
INSTALL 1 - 6"x6"x6" TEE  
1 - 6" GATE VALVE  
w/RESTRAINED JOINTS

N=6,150.51  
E=5,211.84

N=6,146.84  
E=5,249.99  
CONNECT NEW 6" SAS  
TO EX. MAIN  
INV=5112.22

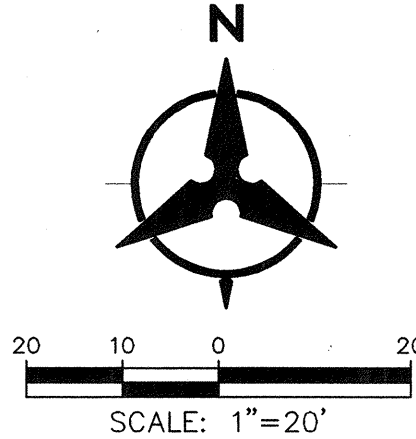
SAWCUT, REMOVE AND REPLACE EXISTING  
ASPHALT PER COA STD DWG 2465, AND  
CURB & GUTTER PER 2415B, AND  
SIDEWALK PER 2430

BUILD APPROX. 32 LF  
6" PVC @ S=1.00%  
INSTALL 1 - 6" SAS PLUG  
INV=5112.54

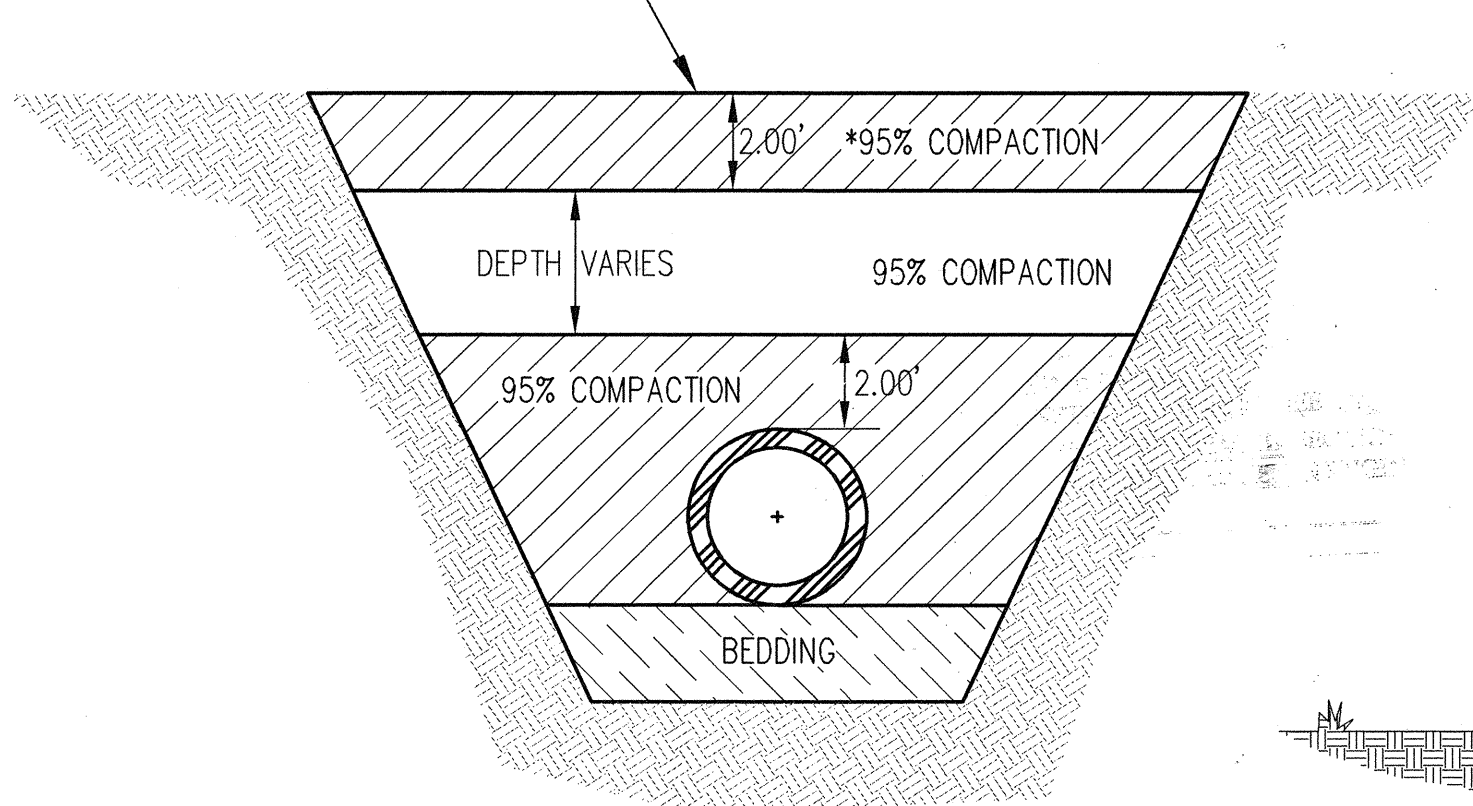
INSTALL APPROX. 30 LF 6" PVC  
1 - FIRE HYDRANT 4" BURY  
AS PER COA STD. DWG. 2340  
FLANGE ELEV.=5124.97  
22.2

N=6,120.78  
E=5,214.87

NEW 6" FIRE LINE AND 6" SAS CONNECTION



FINISHED GRADE



\*NOTE: IF TRENCH IS WITHIN PROPOSED  
ROADWAY, OTHERWISE, COMPACT TO 90%.

TYPICAL TRENCH COMPACTION DETAIL  
N.T.S.

4" O.D. CONCRETE FILLED  
PIPE BOLLARD

PAINT OSHA YELLOW  
FILL POST w/ CONCRETE

PAVEMENT OR  
FINISHED GRADE

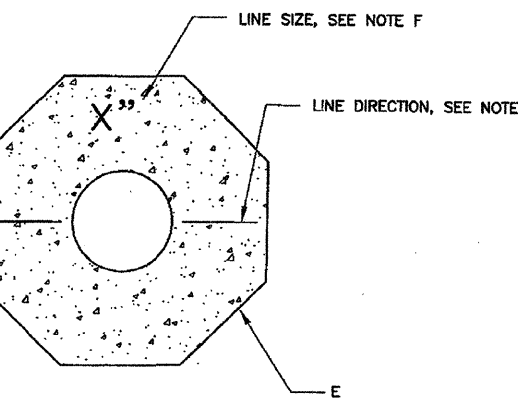
2500 PSI P.C.  
CONCRETE MINIMUM  
(TYP.)

3" MIN.

BOLLARD DETAIL  
NOT TO SCALE

GENERAL NOTES:

- A. VALVE BOX RING AND COVER PER C.O.A. STD. DWG. 2338.
- B. 12" DIAMETER CORRUGATED METAL PIPE (CMP), TAR COATED.
- C. NEW OR EXISTING VALVE.
- D. COMPACTED BACKFILL, SOIL OR BASE COURSE MATERIAL (SEE COMPACTOR). SEE SECTION 701.
- E. CONCRETE COLLAR PER C.O.A. STD. DWG. 2461.
- F. TOP OF CONCRETE COLLAR SHALL BE STAMPED WITH LINE SIZE AND DIRECTION. MINIMUM LETTER SIZE SHALL BE 3" IN HEIGHT. ADD "LT" FOR VALVES ON FIRE LINES.
- G. MIN. 6" OR MATCH EXISTING.
- H. ELECTRONIC MARKER DEVICE (EMD), SEE COA STANDARD SPECIFICATION SECTION 170.



LABEL REQUIREMENTS

REVISIONS	WATER AUTHORITY
	WATER VALVE BOX
DWG. 2338	JANUARY 2010