

GENERAL NOTES

1. ALL WATER LINE STATIONING REFERS TO SURVEY CENTERLINE STATIONING.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1987 EDITION, AS PREPARED BY THE NEW MEXICO CHAPTER, AMERICAN PUBLIC WORKS ASSOCIATION AND IN ACCORDANCE WITH THE CONTRACT DOCUMENTS FOR GOLF COURSE ROAD WATERLINE RECONSTRUCTION DATED APRIL 1990.
3. 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.
4. PRIOR TO CUTTING INTO OR BORING UNDER EXISTING ASPHALT PAVEMENT IN THE STREETS, THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS FROM THE CITY ENGINEER OF RIO RANCHO, NEW MEXICO.
5. 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.
6. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 260-1990, FOR LOCATION OF EXISTING UTILITIES. RIO RANCHO CABLE TELEVISION SHOULD BE CONTACTED SEPARATELY AT 892-5114 FOR LOCATION OF THEIR FACILITIES.
7. ALL EXISTING WATERLINES ARE BELIEVED TO BE ASBESTOS CEMENT PIPE. PRIOR TO ORDERING TRANSITION COUPLINGS, THE CONTRACTOR SHALL EXPOSE THE WATERLINE AND VERIFY THE PIPE'S OUTSIDE DIAMETER AND MATERIAL TYPE. TRANSITION COUPLINGS SHALL BE CONSIDERED INCIDENTAL TO THE WATERLINE CONSTRUCTION AND NO SEPARATE PAYMENT SHALL BE MADE FOR THEIR INSTALLATION.
8. CONTRACTOR WARRANTS BY THE SUBMISSION OF HIS BID FOR THE WORK THAT HE HAS INSPECTED THE PROJECT SITE AND IS CAPABLE, WITHOUT EXTRA WORK CHARGES, OF BUILDING THE WATERLINE AND APPURTENANCES TO THE LINES, GRADES, AND DETAILS PRESENTED IN THESE PLANS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, PRESERVING, AND RECONNECTING ALL WATER SERVICE LINES USING APPROVED MATERIALS LISTED ON THE ALBUQ. UTILITIES CORP. STD. DWG. W-4 INCLUDED ON SHEET 9 OF THESE PLANS. RECONNECTIONS AND TRANSFERS SHALL BE PAID FOR IN ACCORDANCE WITH THE UNIT PRICE BID AMOUNT ESTABLISHED ON THE BID PROPOSAL. ANY CONNECTIONS DAMAGED WHILE PERFORMING THE WORK UNDER THIS PROJECT SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.
10. CONTRACTOR SHALL SUPPORT ALL EXISTING, UNDERGROUND UTILITY LINES WHICH BECOME EXPOSED DURING CONSTRUCTION. PAYMENT FOR SUPPORTING WORK SHALL BE INCIDENTAL TO WATERLINE COST.
11. PROPOSED WATERLINE MATERIALS SHALL BE EITHER PVC PIPE MEETING AWWA C900 REQUIREMENTS (6"-12") OR DUCTILE IRON PIPE, THICKNESS CLASS 50 (6"-16").
12. THE CONTRACTOR SHALL CLEAN ALL SEDIMENT AND DEBRIS FROM THE EXISTING CULVERTS SHOWN TO BE REMOVED AND REPLACED. SHOULD A CULVERT NOT BE SUITABLE FOR RE-USE, IT SHALL BE REPLACED WITH A NEW CORRUGATED METAL PIPE CULVERT AT NO ADDITIONAL EXPENSE TO THE OWNER.
13. THE EXISTING WATERLINE & APPURTENANCES SHALL BE REMOVED & DISPOSED OF AS NECESSARY TO INSTALL THE NEW WATERLINE. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE WATERLINE CONSTRUCTION.

# GOLF COURSE ROAD

# WATERLINE RECONSTRUCTION

PREPARED FOR  
ALBUQUERQUE UTILITIES  
CORPORATION

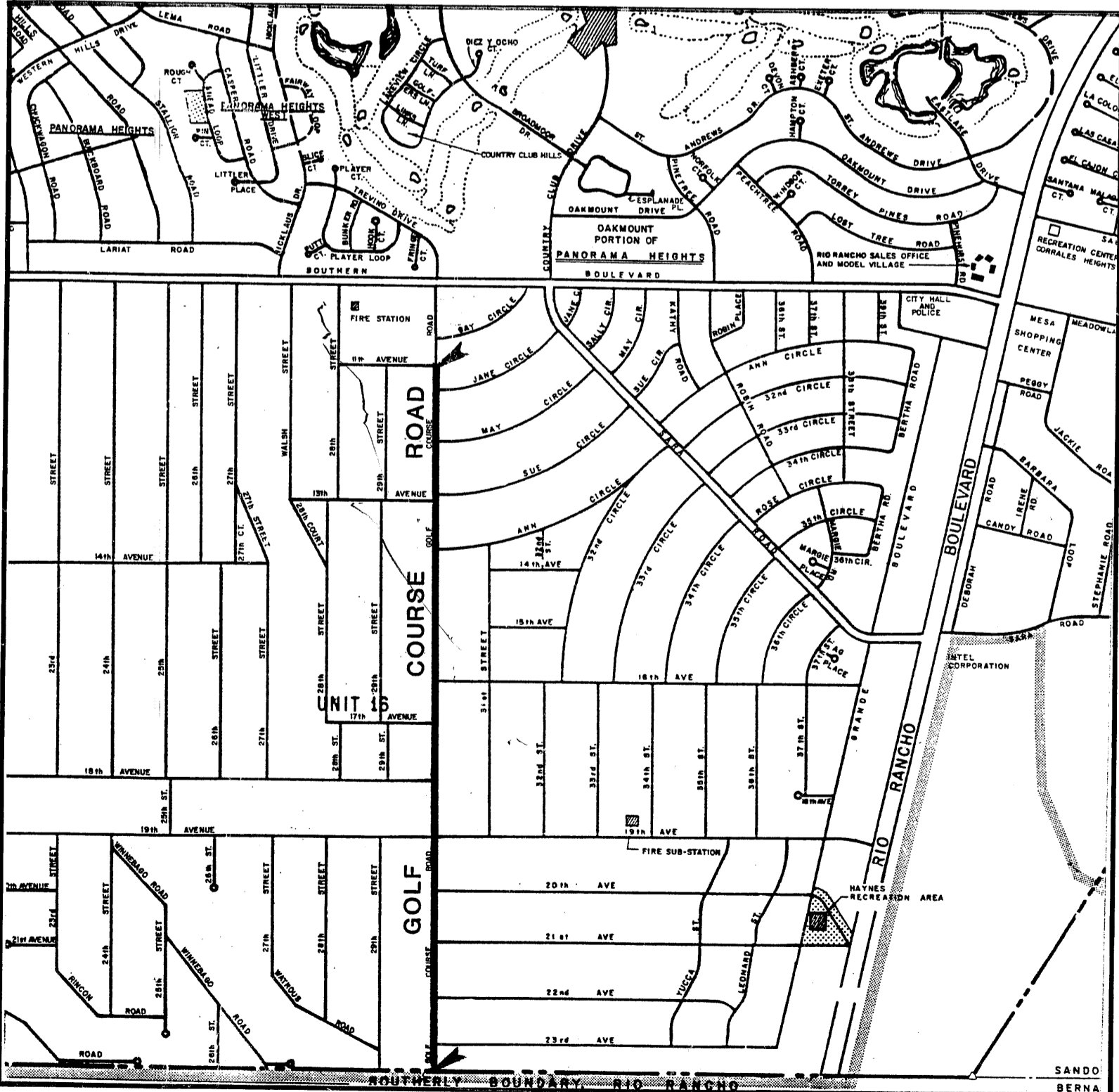
RIO RANCHO NEW MEXICO

APRIL, 1990

PLANS PREPARED BY  
ISAACSON & ARFMAN, P.A.  
128 MONROE STREET, NE  
ALBUQUERQUE, NM 87108  
(505) 268-8828

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 AND 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.



VICINITY MAP  
1"=1500'

DRAWING INDEX

SHEET NO.	TITLE
1	COVER SHEET
2	WATER VALVE SHUT-OFF PLAN
3-8	PLAN & PROFILE SHEETS
9	WATERLINE DETAILS

RECORD DRAWING

**WARNING**  
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APPROVED FOR CONSTRUCTION

*Calvin D. Ray*  
ALBUQUERQUE UTILITIES CORP. 5-24-90  
DATE

B-8 & C-8

CONNECTIONS

1.-4. BEFORE CONSTRUCTING THE NEW WATERLINE IN GOLF COURSE ROAD, THE CONTRACTOR SHALL FIRST INSTALL THE NEW 6" (10" IN 23RD AVENUE WATERLINE) GATE VALVES SHOWN 60 FEET RIGHT OF THE SURVEY CENTERLINE. EXISTING MAINS LABELED "C" AND "D" SHALL BE SLOWLY CLOSED TO ISOLATE THE BRANCH MAINS. AFTER THE NEW VALVE HAS BEEN INSTALLED IN THE OPEN POSITION, VALVES "C" AND "D" SHALL BE SLOWLY RE-OPENED, USING EXISTING FIRE HYDRANTS TO FLUSH THE LINE. TO MINIMIZE WATER SERVICE DISRUPTION, THESE VALVE INSERTIONS SHALL NOT BE PERFORMED CONCURRENTLY.

ONCE THE NEW WATERLINE HAS BEEN INSTALLED, THE CONTRACTOR SHALL ACCOMPLISH THE CONNECTIONS TO THE EXISTING BRANCH MAINS AS FOLLOWS:

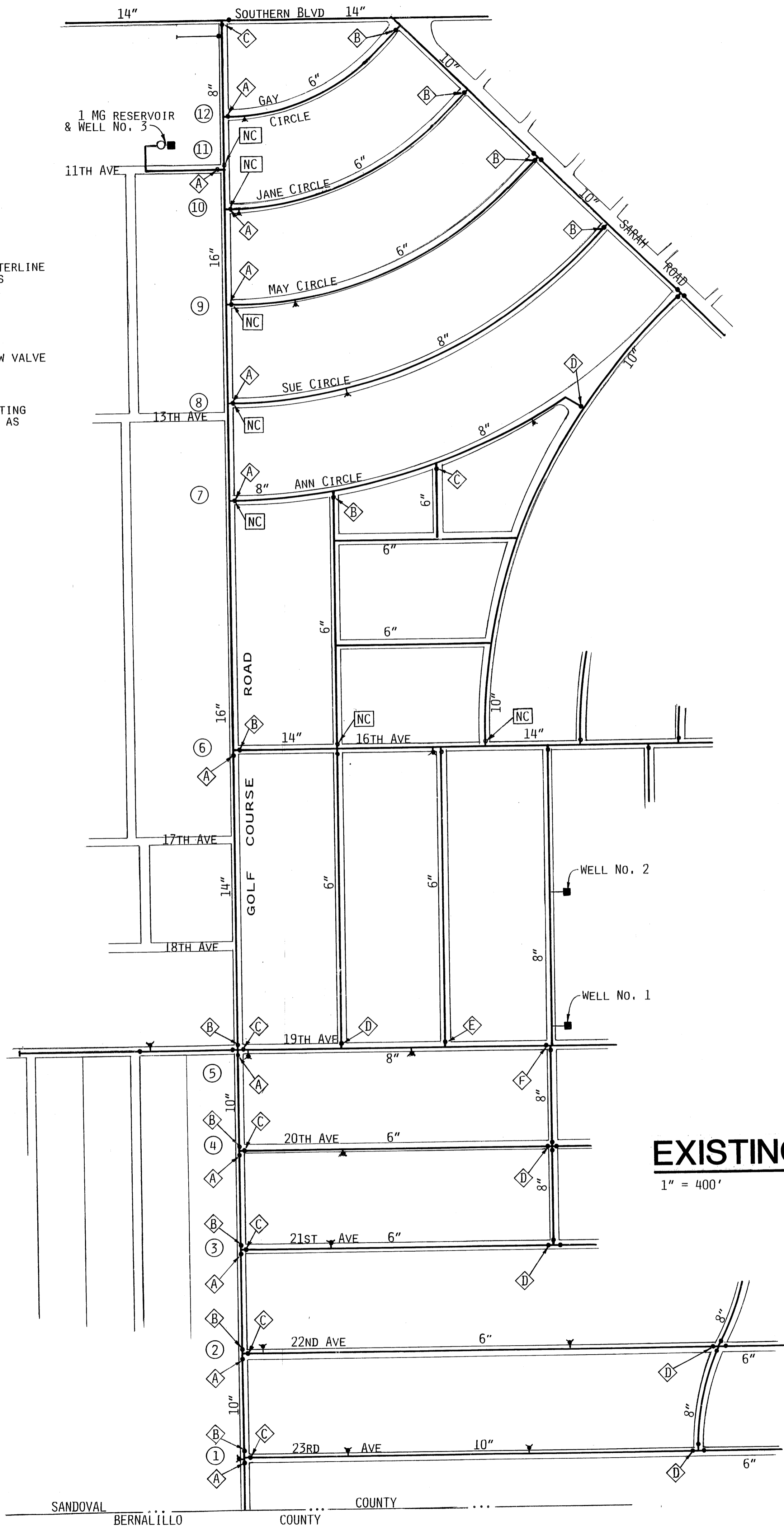
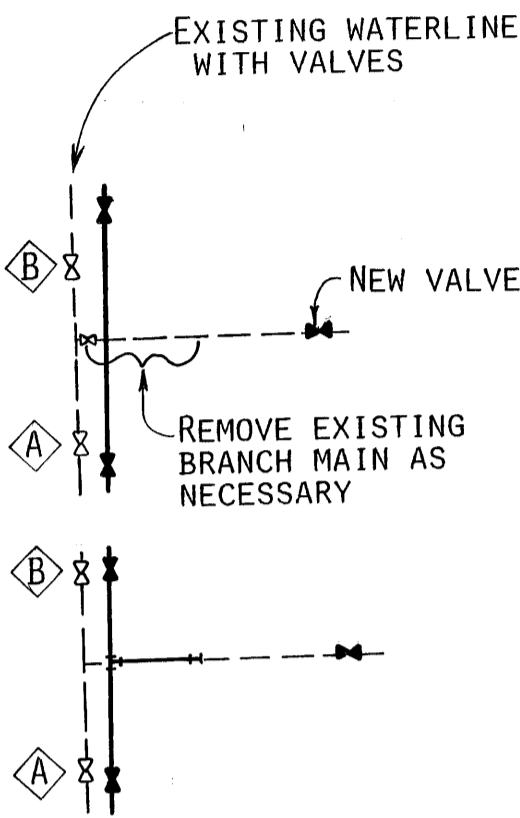
- SLOWLY CLOSE VALVES "A" AND "B" ALONG WITH THE NEWLY INSTALLED VALVE LOCATED 60 FEET RIGHT OF THE SURVEY C.
- CONNECT THE NEW WATERLINE TO THE BRANCH MAIN RUNNING EAST PER THE CONNECTION DETAIL ON SHEET 9 & AS SHOWN AT THE RIGHT.
- WHEN WORKING FROM THE SOUTH (NORTH), SLOWLY OPEN THE NEW VALVE INSTALLED IN THE GOLF COURSE ROAD WATERLINE LOCATED SOUTH (NORTH) OF THE CONNECTION POINT, ONLY AFTER CLOSING THE NEW VALVE LOCATED NORTH (SOUTH) OF THE CONNECTION POINT BEYOND WHICH A MINIMUM OF TWO LENGTHS OF PIPE SHALL BE INSTALLED AND COMPLETELY BACKFILLED.

5. EXISTING VALVES "C", "D", "E", & "F" SHALL BE SLOWLY CLOSED PRIOR TO INSTALLING THE NEW 8" GATE VALVE IN 19TH AVENUE, SHOWN 60 FEET EAST OF THE SURVEY CENTERLINE. THE STEPS OUTLINED ABOVE SHALL THEN BE PERFORMED USING REQUIRED FITTINGS TO COMPLETE THE CONNECTIONS TO EXISTING BRANCH MAINS RUNNING BOTH EAST AND WEST. THE PROPOSED WATER SHUT-OFF SHALL BE COORDINATED WITH PERSONNEL AT THE LDS CHURCH TO MINIMIZE THE IMPACT TO THEIR FACILITY.

6. & 11. THE 16" WATERLINE SERVES AS A TRANSMISSION LINE BETWEEN THESE TWO CONNECTION POINTS AS SYSTEM PRESSURES ARE INADEQUATE FOR DISTRIBUTION TO SERVICES. CONNECTIONS TO THE 16" LINE ARE NOT REQUIRED AT POINTS 7, 8, 9, OR 10. TIE-INS SHALL BE PERFORMED AT CONNECTION POINTS 6 AND 11 SIMULTANEOUSLY, REQUIRING ONLY ONE WATER SHUT-OFF. THIS WILL BE ACCOMPLISHED BY SLOWLY CLOSING VALVES "6A", "6B", AND "11A", WHICH ARE TO BE RE-OPENED WHEN THE TIE-IN IS COMPLETED. THIS SHUT-OFF CAN NOT BE PERFORMED UNTIL ALBUQUERQUE UTILITIES CORPORATION HAS A PROPOSED PRESSURE REDUCING VALVE IN SARAH ROAD INSTALLED AND OPERATIONAL.

7.-10. NEW VALVES SHALL BE INSTALLED IN EXISTING BRANCH MAINS IN A MANNER SIMILAR TO THAT DESCRIBED ABOVE. THE NEW 8" WATERLINE SHALL THEN BE INSTALLED & CONNECTED TO THE EXISTING BRANCH MAINS PER THE DETAIL ON SHEET 9.

12. BY CLOSING EXISTING VALVES LABELED "12A" AND "12C" (LOCATED AT SOUTHERN BLVD), THE PROPOSED 8" WATERLINE SHALL BE CONNECTED TO THE EXISTING 8" WATERLINE RUNNING NORTH IN GOLF COURSE ROAD.



LEGEND  
Plan & Profile Sheets 3-8

- SURVEY CENTERLINE
- EXISTING PAVEMENT EDGE
- RIGHT-OF-WAY LINE
- EXISTING WATERLINE WITH SIZE
- PROPOSED WATERLINE
- EXISTING VALVE
- PROPOSED VALVE
- POWER POLE WITH GUY
- EXISTING CULVERT
- EXISTING TELEPHONE LINE
- WATER SERVICE & METER
- STREET SIGN
- DOUBLE WATER SERVICE



- LEGEND
- EXISTING WATERLINE W/VALVE
  - NORMALLY CLOSED
  - CONNECTION POINT
  - VALVE NOTATION
  - FIRE HYDRANT

EXISTING WATERLINE NETWORK

1" = 400'

RECORD DRAWING

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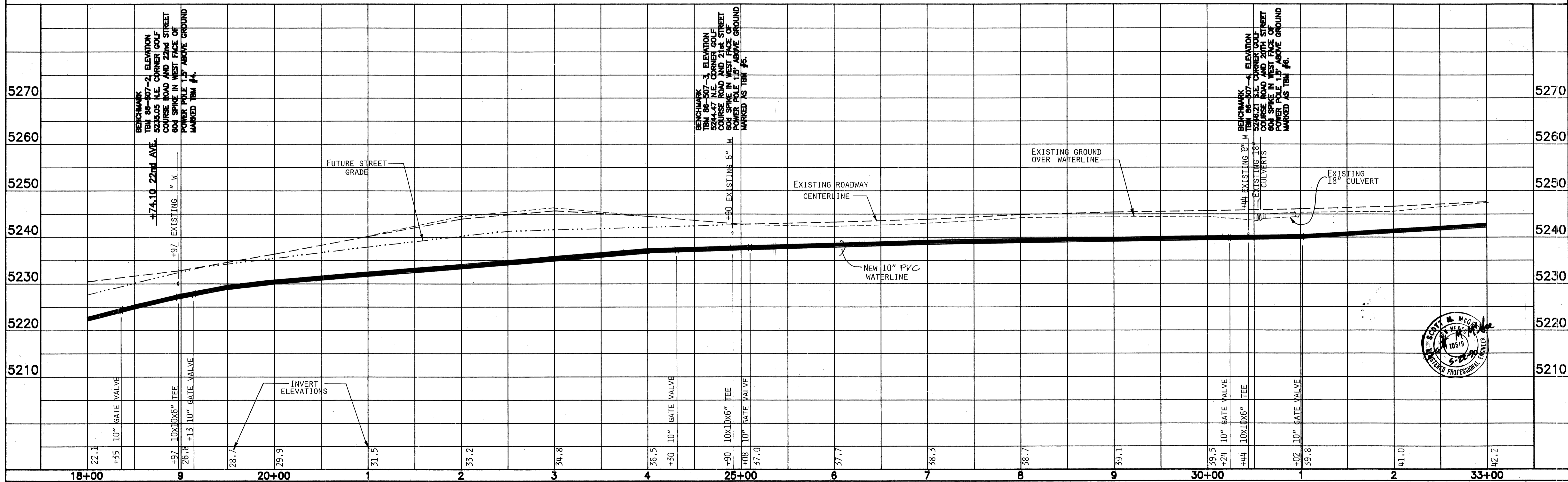
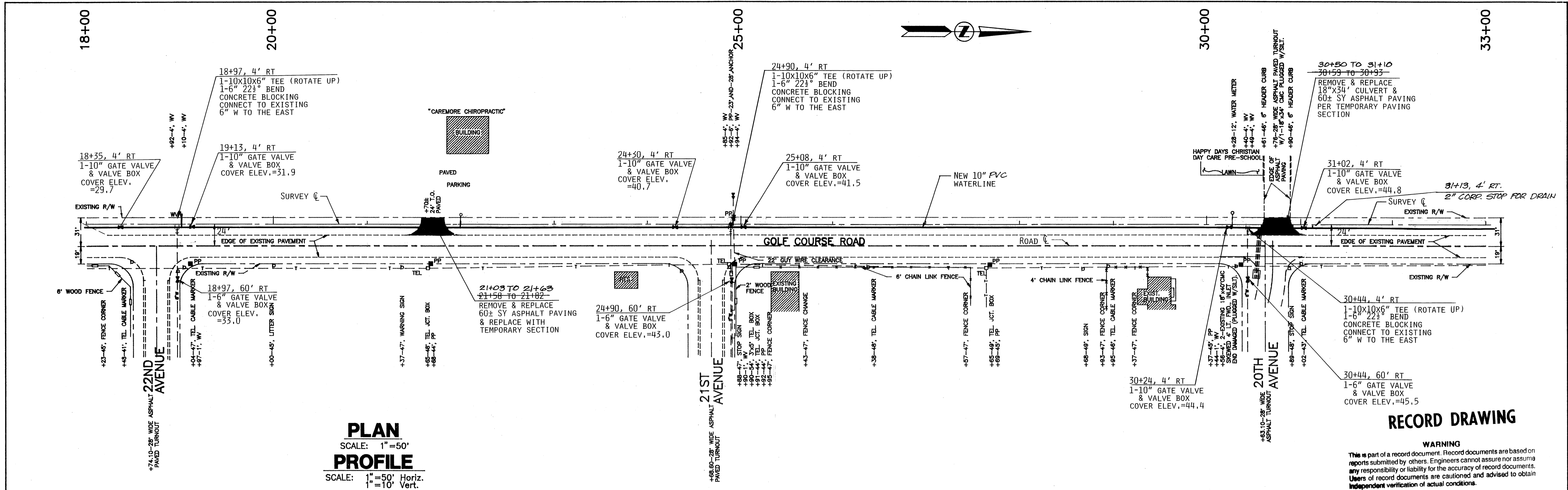
WATER SHUT-OFF NOTES

- THE COORDINATION OF ALL WATER SHUT-OFFS, TIE-INS, AND SERVICE RE-CONNECTIONS TO BOTH RESIDENTIAL AND COMMERCIAL WATER USERS, SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL PROVIDE A WRITTEN NOTICE, A MINIMUM OF SEVEN (7) DAYS PRIOR TO INTERRUPTING SERVICE TO ANY WATER USERS. THIS NOTICE SHALL INCLUDE THE DATE, TIME, & DURATION OF THE PROPOSED WATER SHUT-OFF ALONG WITH THE CONTRACTOR'S EMERGENCY PHONE NUMBER.
- THE CONTRACTOR IS HEREBY NOTIFIED THAT NIGHT-TIME OR WEEKEND WORK MAY BE REQUIRED TO AVOID INTERRUPTING WATER SERVICE TO COMMERCIAL USERS DURING BUSINESS HOURS.



GOLF COURSE ROAD  
WATERLINE RECONSTRUCTION  
WATER VALVE SHUT-OFF PLAN





33+00

35+00

40+00

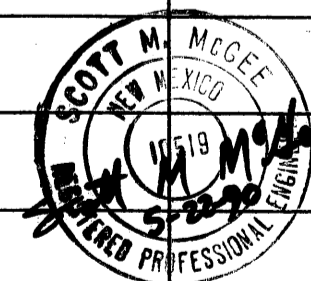
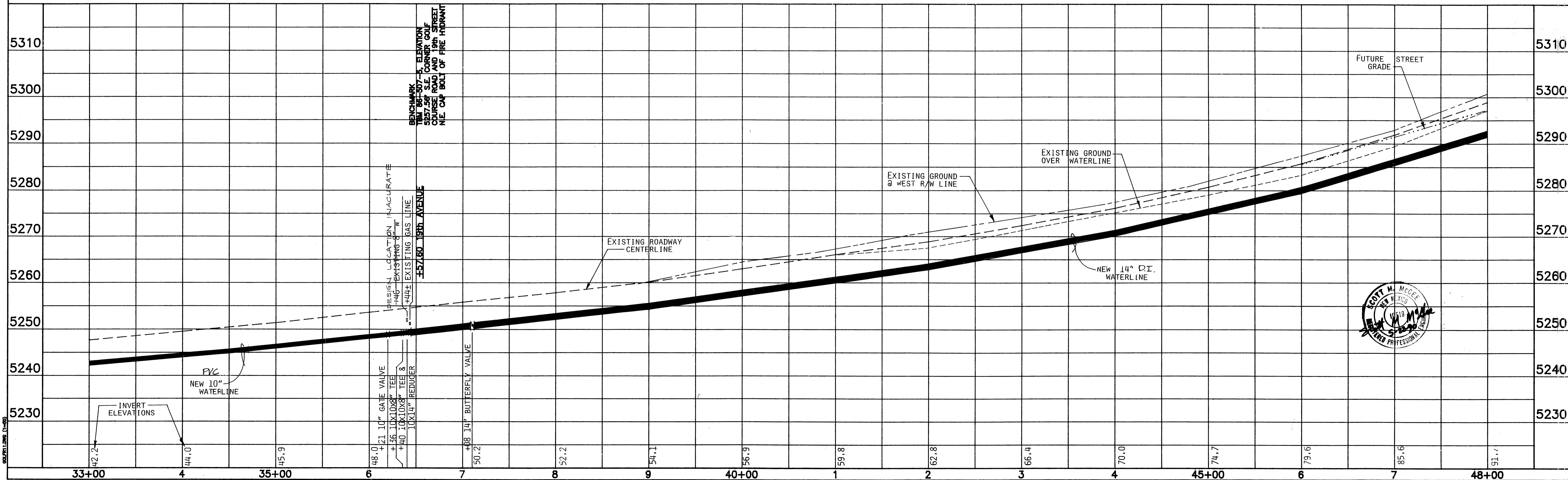
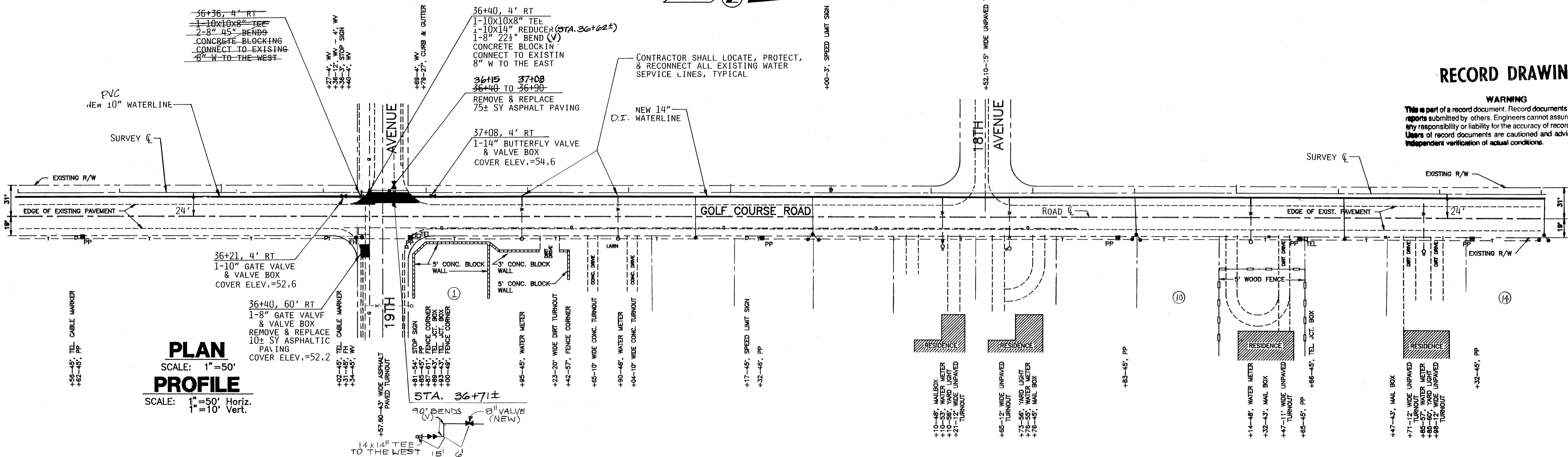
45+00

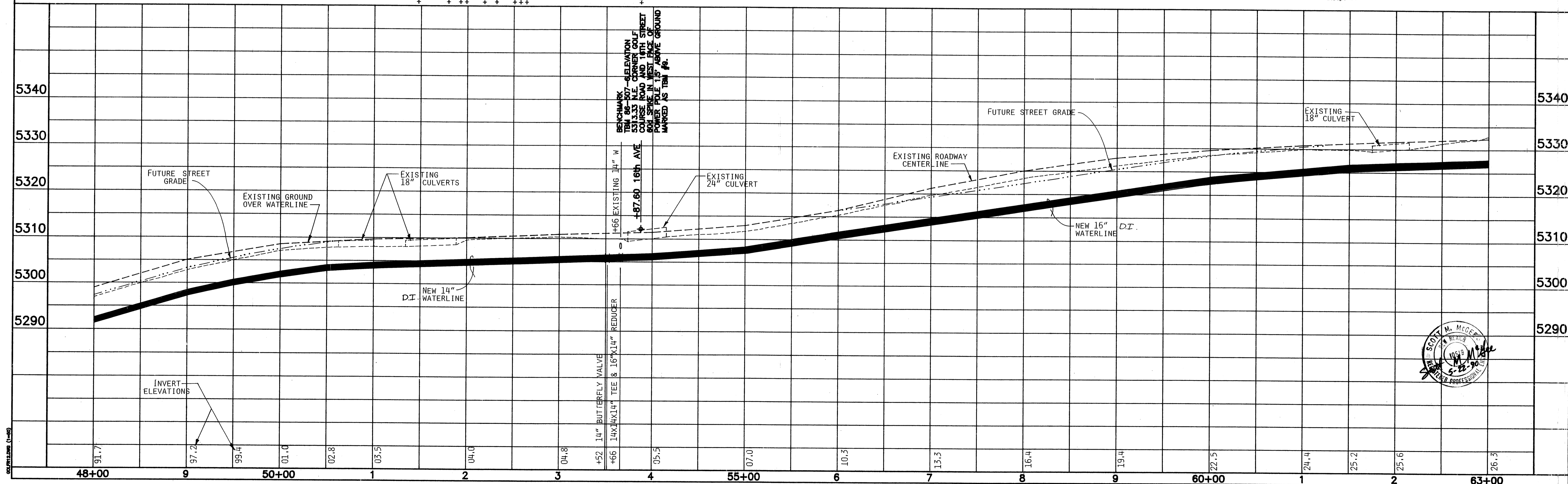
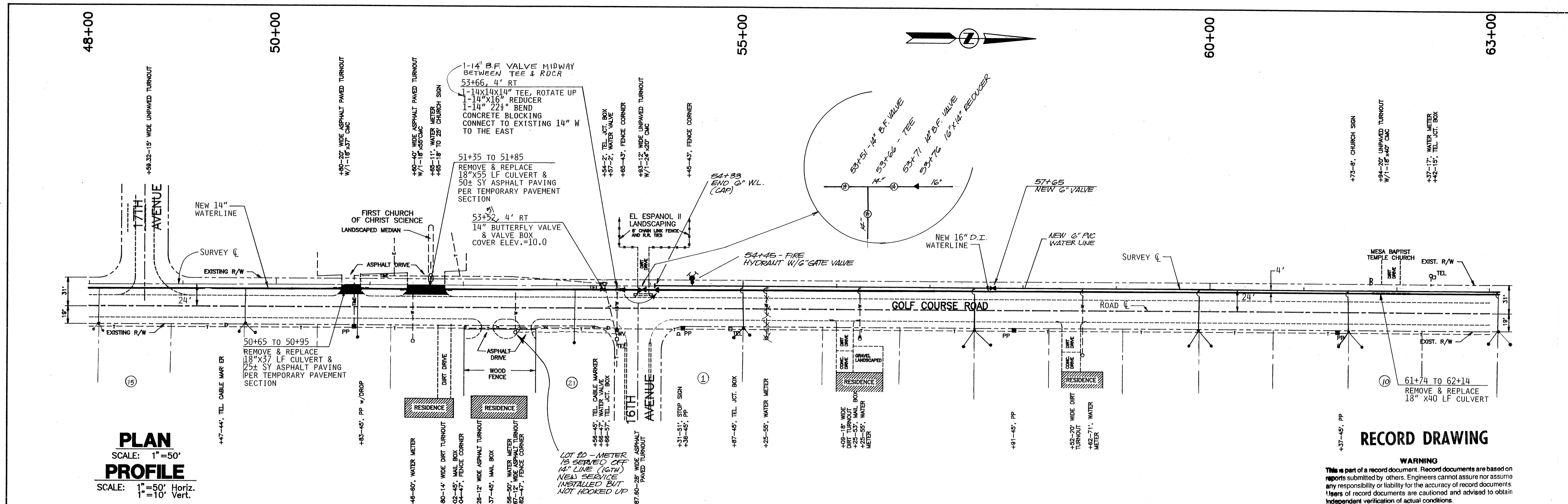
48+00



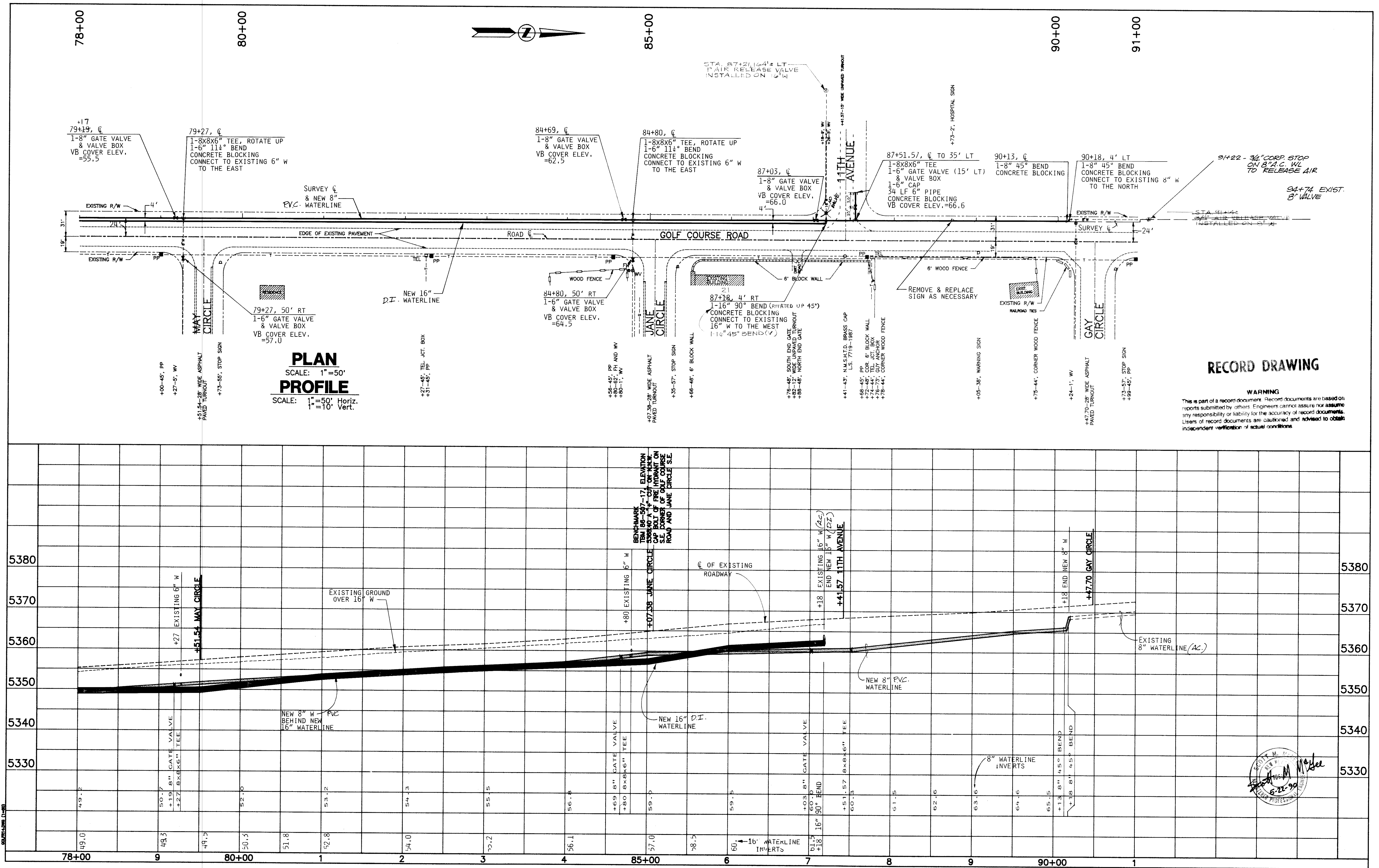
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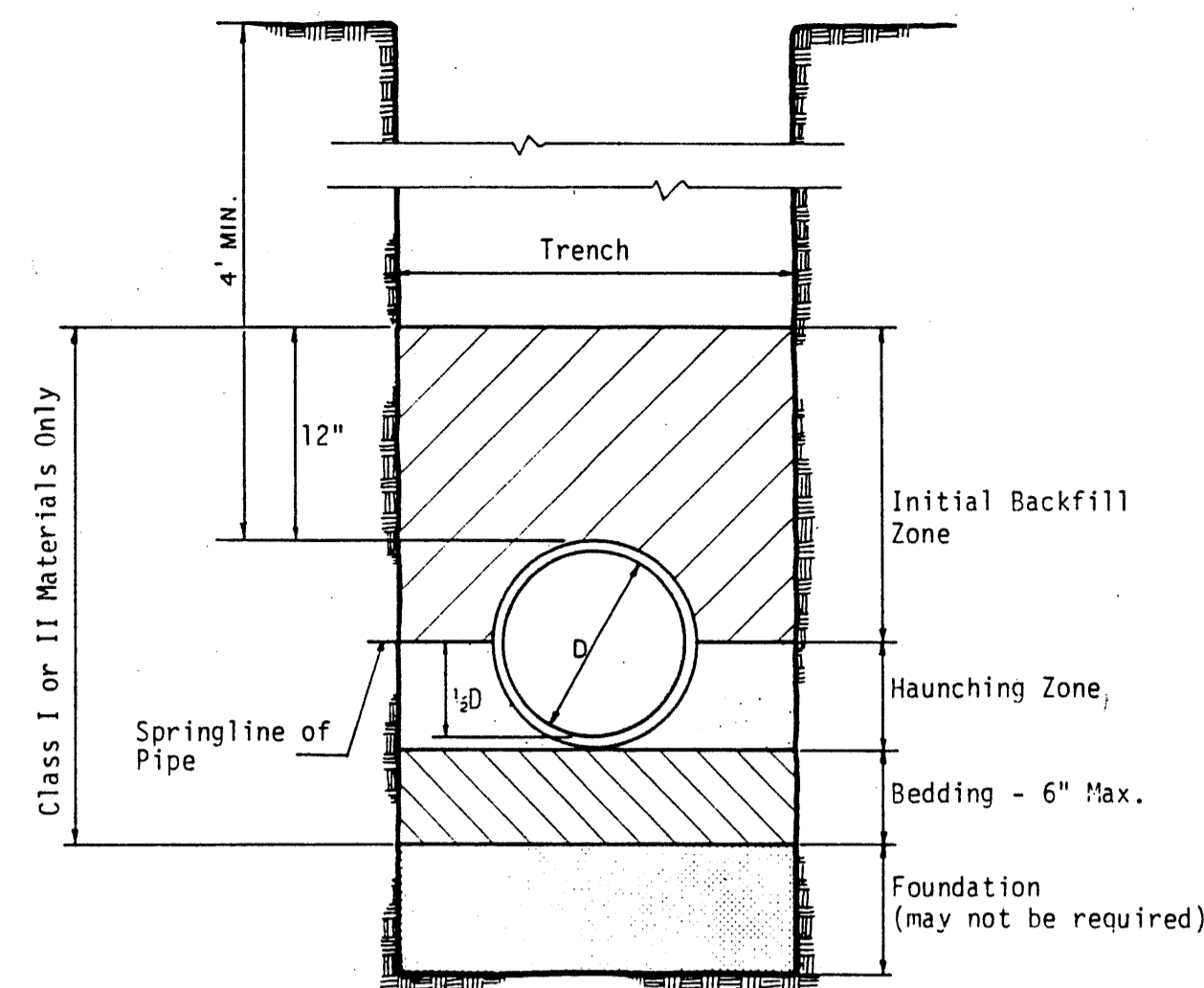
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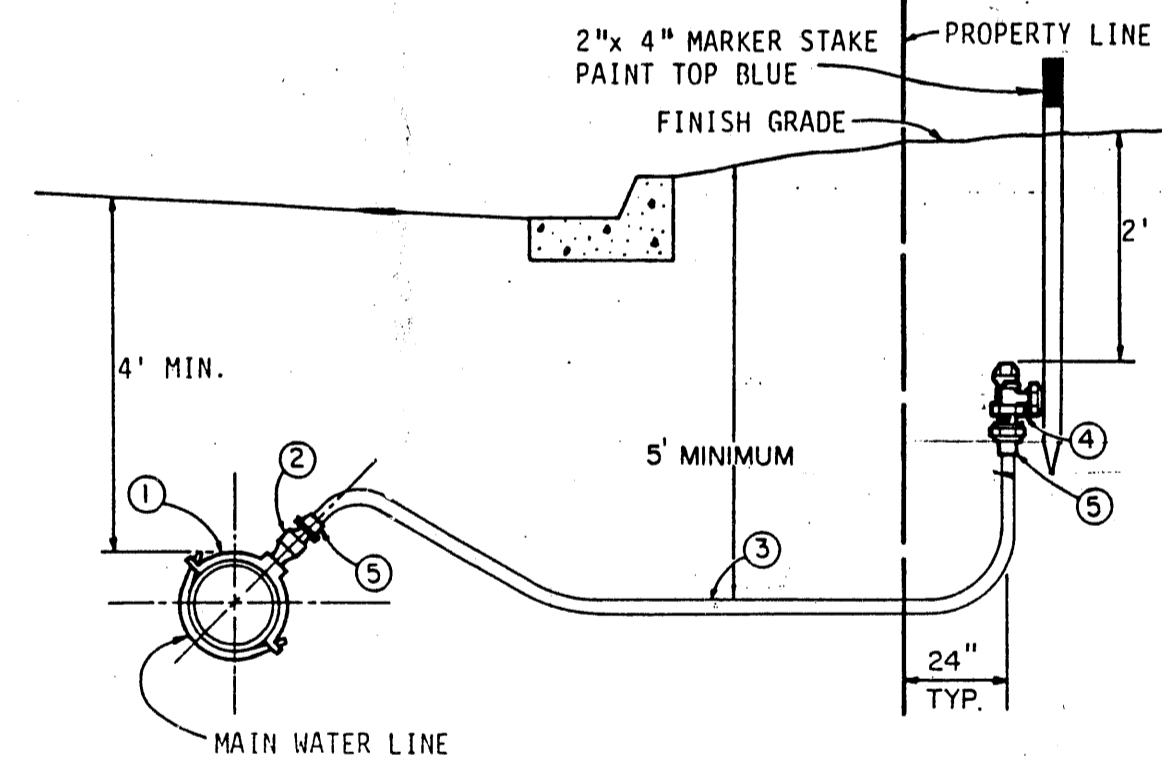
BEDDING MATERIALS SHALL BE CLASSED AS DEFINED IN ASTM D-2321

ALBUQUERQUE UTILITIES CORP. - RIO RANCHO, NEW MEXICO

## PIPE BEDDING

REV. BY: A.S.I.E.D.  
DATE: 3/14/88

STANDARD DRAWING W-6



- ① SERVICE SADDLE OR HEAVY DUTY BRASS TAPPED COUPLING
- ② CORPORATION STOP, BRONZE (ONLY WHEN SPECIFIED ON PLANS OR FOR PRESSURE TAP)
- ③ 3/4" POLYETHYLENE PIPE (NORMAL INSTALLATION)
- ④ 1" POLYETHYLENE PIPE (WHEN SPECIFIED)
- ⑤ 1 1/2" POLYETHYLENE PIPE (WHEN SPECIFIED)
- ⑥ ANGLE PATTERN METER STOP
- ⑦ ADAPTOR FOR POLYETHYLENE PIPE

### NOTES:

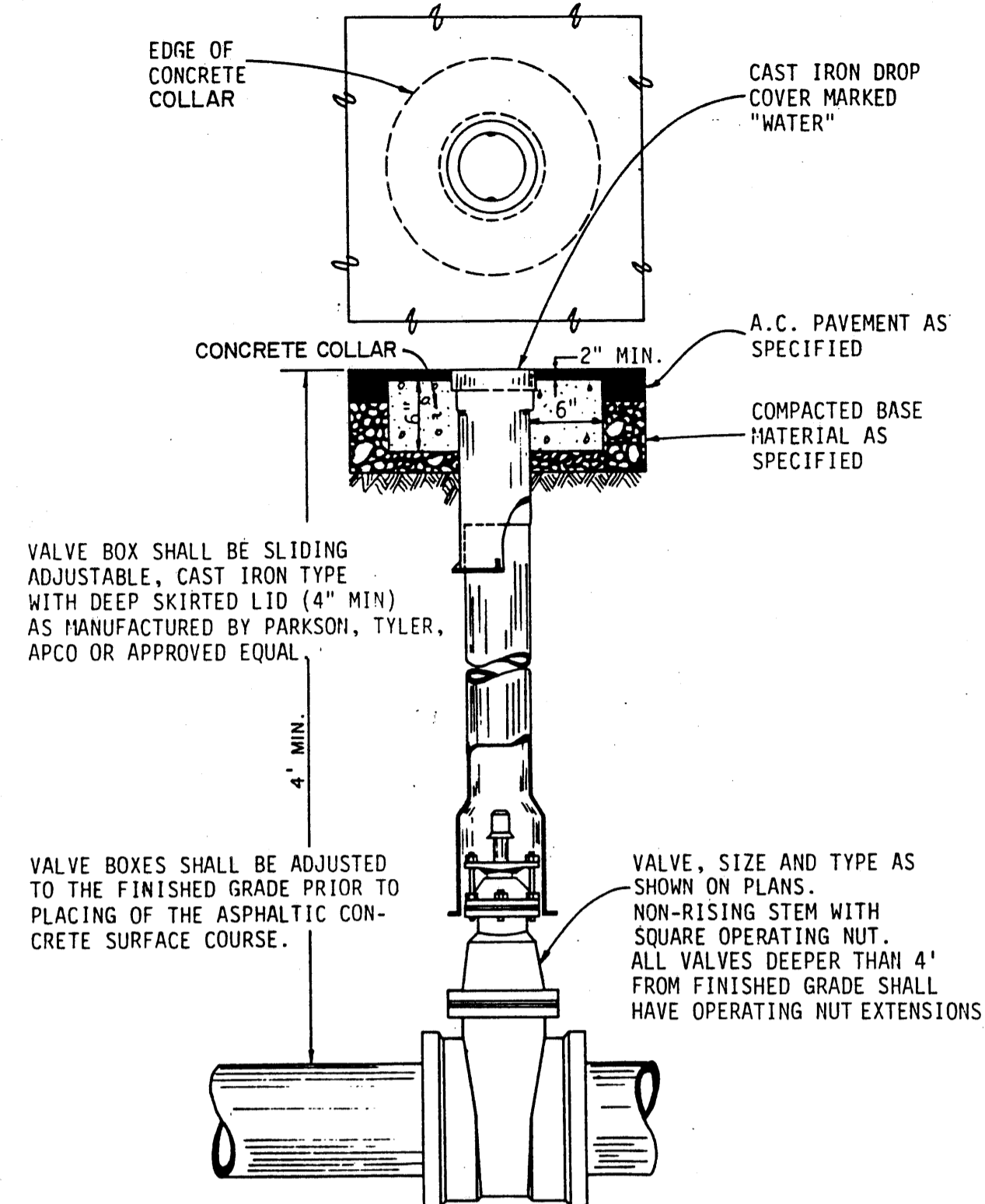
1. WATER SERVICE SHALL BE FLUSHED AFTER INSTALLATION.
2. TRENCH FOR LATERAL LINE SHALL BE MINIMUM 8" WIDE.
3. SNAKE LATERAL PIPE IN TRENCH TO ALLOW FOR CONTRACTION. ALLOW A MINIMUM OF 12" PER 100 FT LENGTH.
4. WATER SERVICE SHOULD BE INSTALLED ON THE CENTER OF THE BUILDING LOT UNLESS OTHERWISE INDICATED ON DRAWINGS.
5. LINE SIZES FOR ③ ABOVE ARE FOR SINGLE FAMILY RESIDENTIAL LOTS.
6. MULTI-FAMILY LOTS SHALL HAVE SERVICES AS FOLLOWS:  
Duplex - 1 1/4", with header and two 3/4" curb stop connections  
Four-Plex - 1 1/2", with header and four 3/4" curb stop connections  
Six-Plex - 2", with header and six 3/4" curb stop connections  
Eight-Plex - 3", with header and eight 3/4" curb stop connections  
HEADER CONFIGURATION TO BE APPROVED BY ALBUQUERQUE UTILITIES CORPORATION PRIOR TO CONSTRUCTION.
7. SEE STD. DRW. W-9 FOR SERVICES LARGER THAN 1 1/2"

ALBUQUERQUE UTILITIES CORP. - RIO RANCHO, NEW MEXICO

## RESIDENTIAL SERVICE LATERAL

REV. BY: A.S.I.E.D.  
DATE: 7/11/88

STANDARD DRAWING W-4



VALVE BOX SHALL BE SLIDING ADJUSTABLE, CAST IRON TYPE WITH DEEP SKIRTED LID (4" MIN) AS MANUFACTURED BY PARKSON, TYLER, APCO OR APPROVED EQUAL.

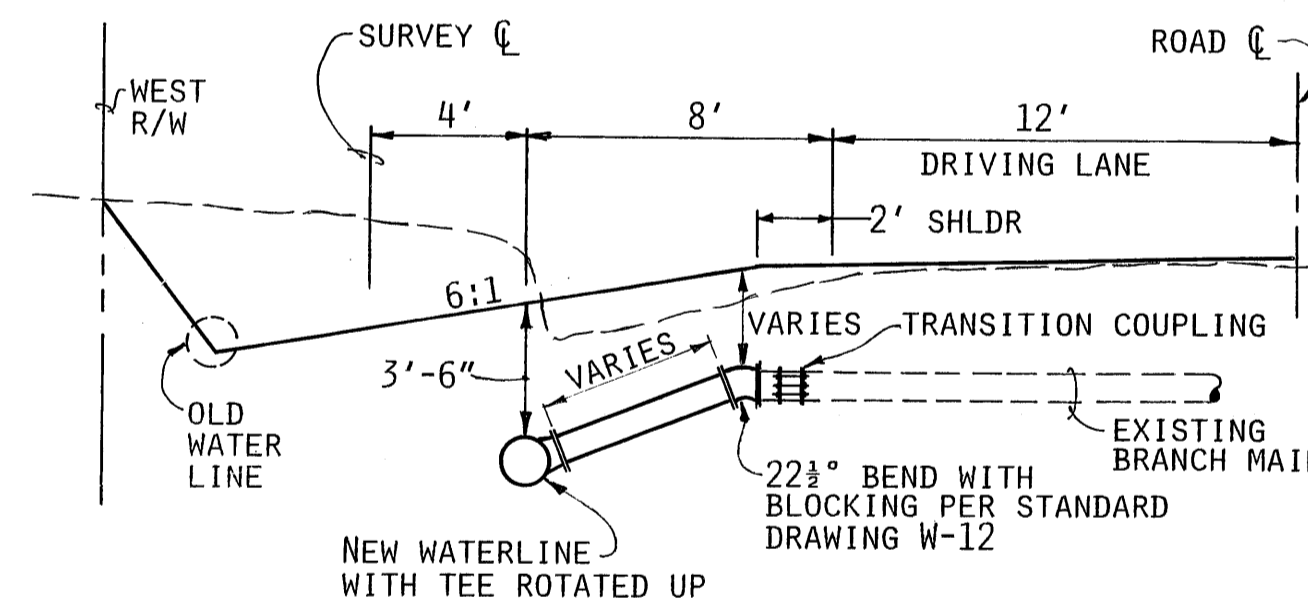
VALVE, SIZE AND TYPE AS SHOWN ON PLANS. NON-RISING STEM WITH SQUARE OPERATING NUT. ALL VALVES DEEPER THAN 4' FROM FINISHED GRADE SHALL HAVE OPERATING NUT EXTENSIONS.

ALBUQUERQUE UTILITIES CORP. - RIO RANCHO, NEW MEXICO

## VALVE BOX ASSEMBLY

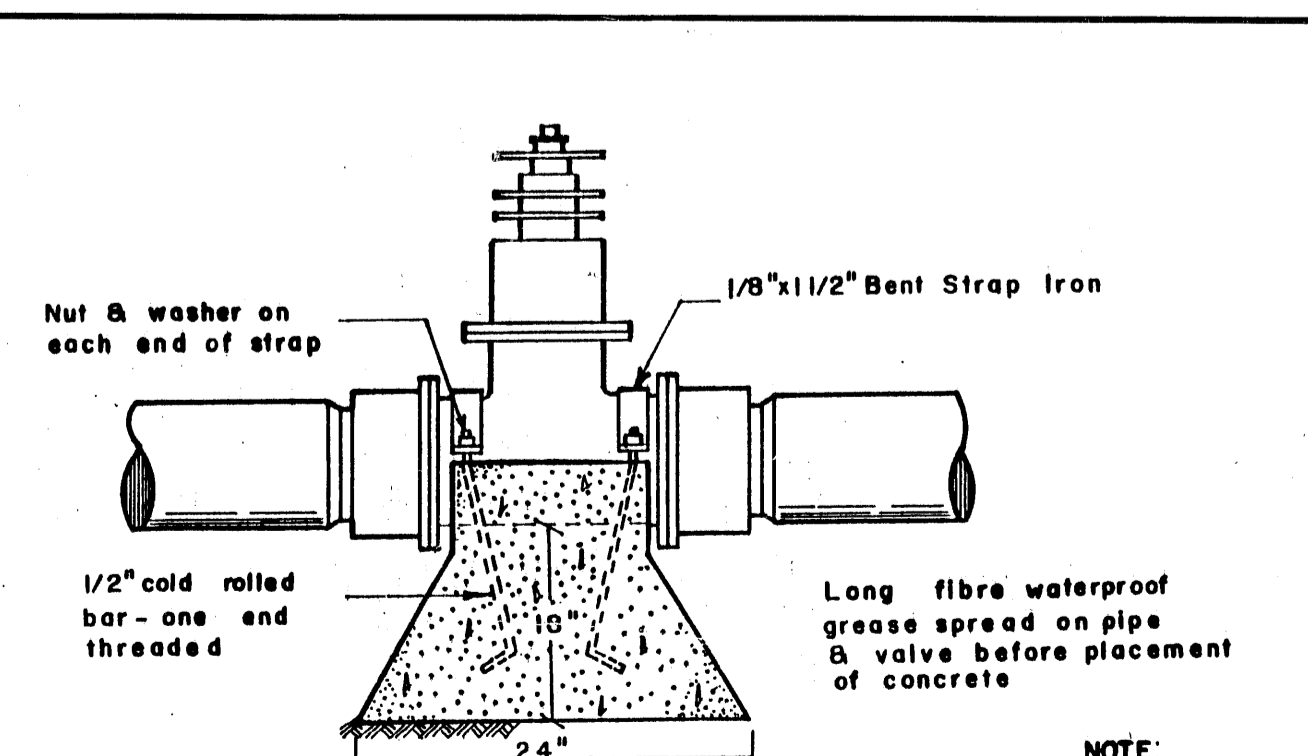
REV. BY: A.S.I.E.D.  
DATE: 3/14/88

STANDARD DRAWING W-3



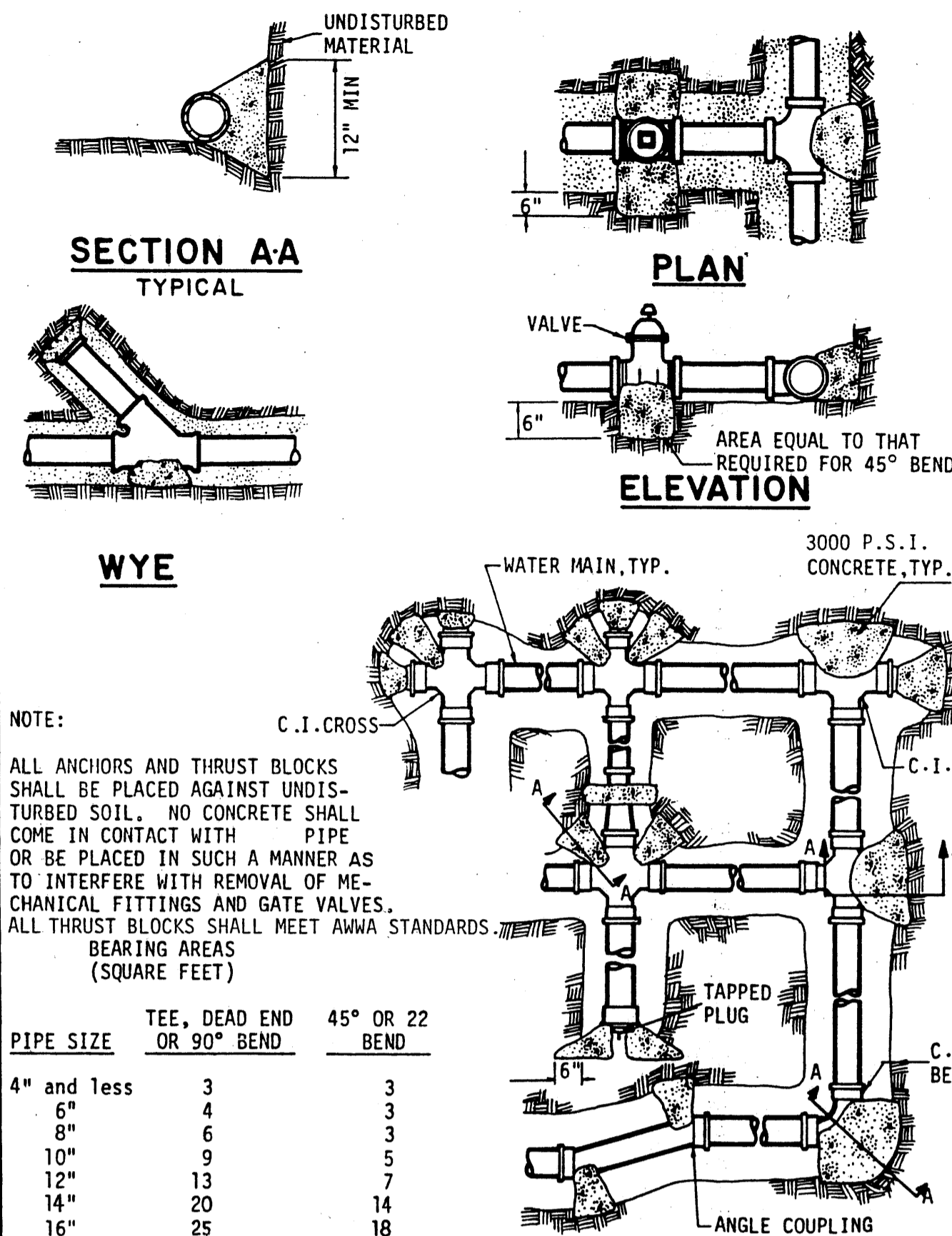
## Waterline Re-connection

1"=5'-0"



## Valve Anchorage Detail

NOTE:  
Build anchor for all valves 3" and larger



### NOTE:

ALL ANCHORS AND THRUST BLOCKS SHALL BE PLACED AGAINST UNDISTURBED SOIL. NO CONCRETE SHALL COME IN CONTACT WITH PIPE OR BE PLACED IN SUCH A MANNER AS TO INTERFERE WITH REMOVAL OF MECHANICAL FITTINGS AND GATE VALVES. ALL THRUST BLOCKS SHALL MEET AWWA STANDARDS.

PIPE SIZE	TEE, DEAD END OR 90° BEND	45° OR 22° BEND
4" and less	3	3
6"	4	3
8"	6	3
10"	9	5
12"	13	7
14"	20	14
16"	25	18

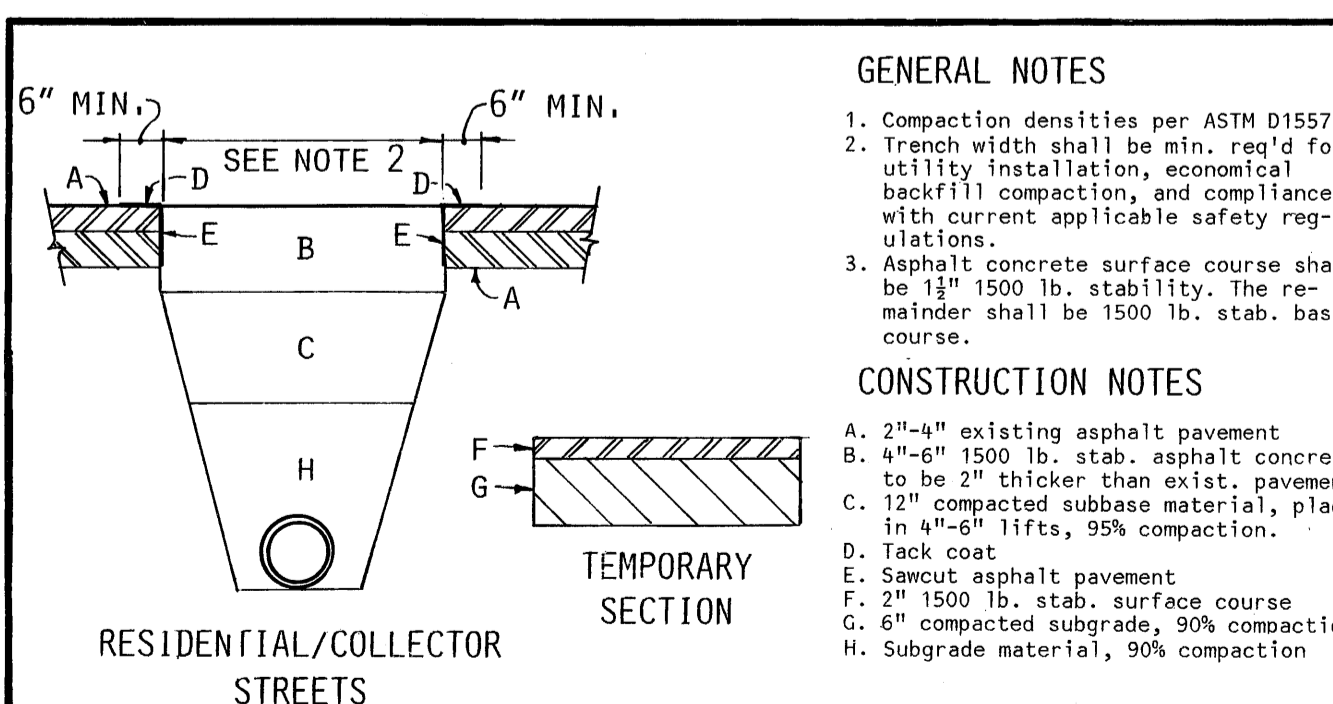
ALBUQUERQUE UTILITIES CORP. - RIO RANCHO, NEW MEXICO

## TYPICAL CONCRETE THRUST BLOCKS

REV. BY: A.S.I.E.D.  
DATE: 3/14/88

## Section (Sta 67+55 to Sta 87+18)

1"=5'-0"



## Pavement Replacement

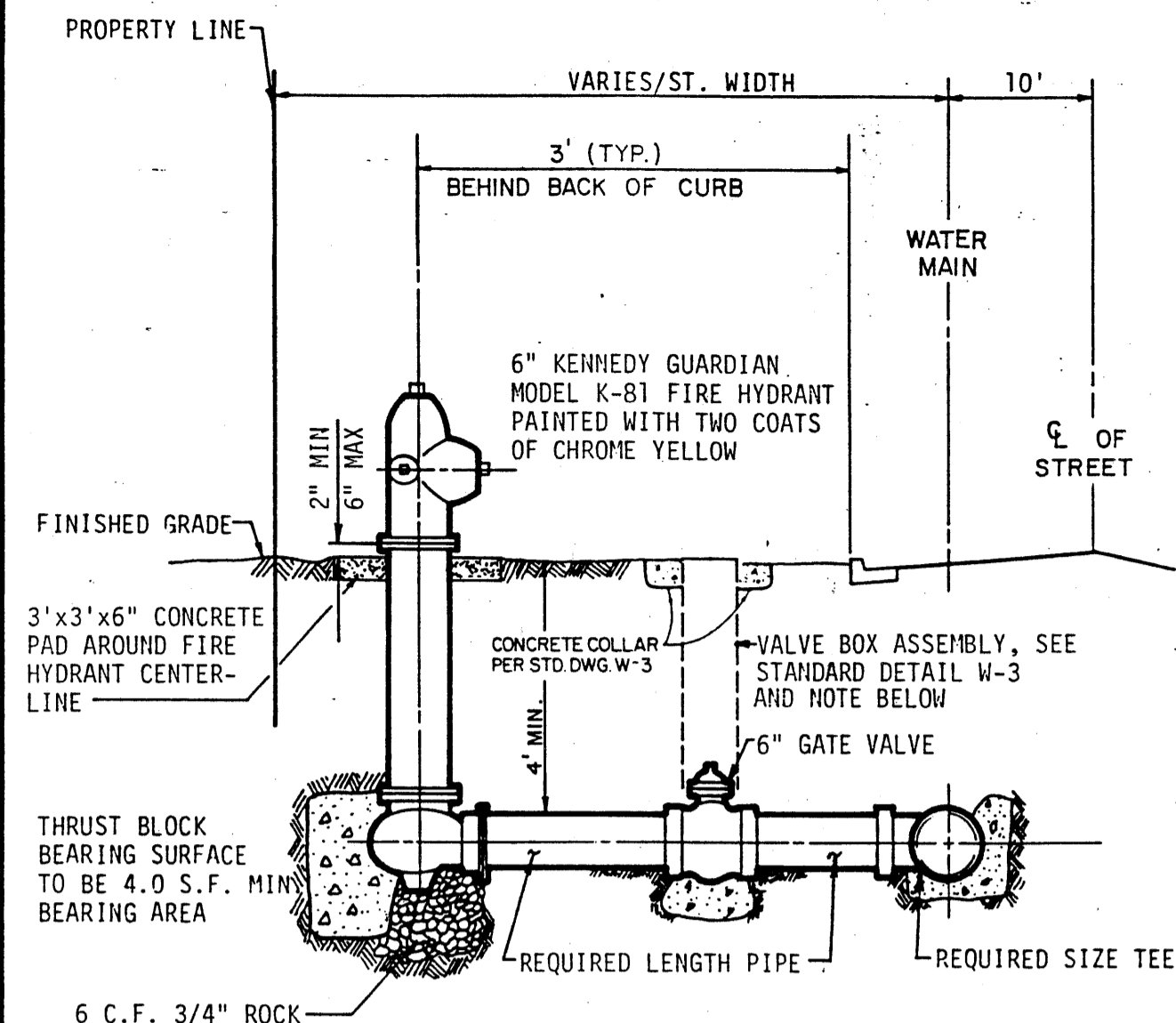
NO SCALE

### GENERAL NOTES

1. Compaction densities per ASTM D1557.
2. Trench width shall be min. req'd for utility installation, economical backfill compaction, and compliance with current applicable safety regulations.
3. Asphalt concrete surface course shall be 1 1/2" 1500 lb. stab. base course. The remainder shall be 1500 lb. stab. base course.

### CONSTRUCTION NOTES

- A. 2"-4" existing asphalt pavement
- B. 4"-6" 1500 lb. stab. asphalt concrete to be 2" thicker than exist. pavement.
- C. 12" compacted subbase material, placed in 4"-6" lifts, 95% compaction.
- D. Tack coat
- E. Sawcut asphalt pavement
- F. 2" 1500 lb. stab. surface course
- G. 6" compacted subgrade, 90% compaction
- H. Subgrade material, 90% compaction



## FIRE HYDRANT

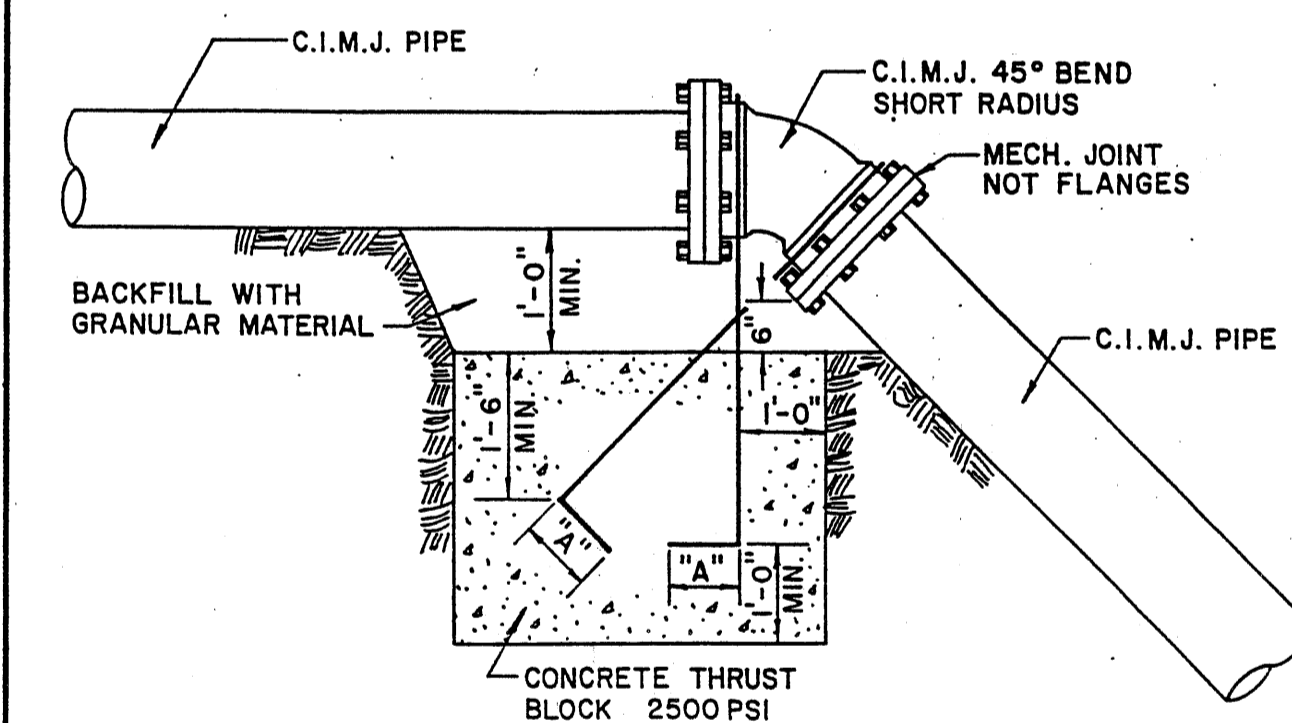
NOTE: Gate Valve with Valve Box is Required in Commercial and Industrial Zoned Areas Only.

ALBUQUERQUE UTILITIES CORP. - RIO RANCHO, NEW MEXICO

## STANDARD FIRE HYDRANT ASSEMBLY

REV. BY: A.S.I.E.D.  
DATE: 3/14/88

STANDARD DRAWING W-2



PIPE SIZE	MIN. BAR SIZE	"A"-DIMENSION (HOOK)	MIN. # BLOCK DIM.
6"	*6	6"	3' X 3' X 3'
8"	*6	9"	4' X 4' X 2.5'
10" & 12"	*8	9"	4' X 5' X 5'
14"	*8	9"	6' X 5' X 5'

\* FOR 125 PSI WORKING PRESSURE

### NOTES:

1. BARS TO CONCRETE THRUST BLOCK TO BE COATED WITH 2 COATS HOT COAL TAR ENAMEL & KRAFT PAPER WRAP BARS TO HAVE 90° HOOK ON LOWER END, AS PER TABLE.
2. DUCTILE IRON PIPE SHALL BE USED WHEN INDICATED ON THE PLANS.

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## ANCHOR BLOCK FOR VERTICAL BENDS

REV. BY: A.S.I.E.D.  
DATE: 3/14/88

STANDARD DRAWING W-12

SCOTT M. MACE  
NEW MEXICO  
REGISTERED PROFESSIONAL ENGINEER  
5-22-90

GOLF COURSE ROAD  
WATERLINE RECONSTRUCTION