

CITY OF WICHITA, KANSAS

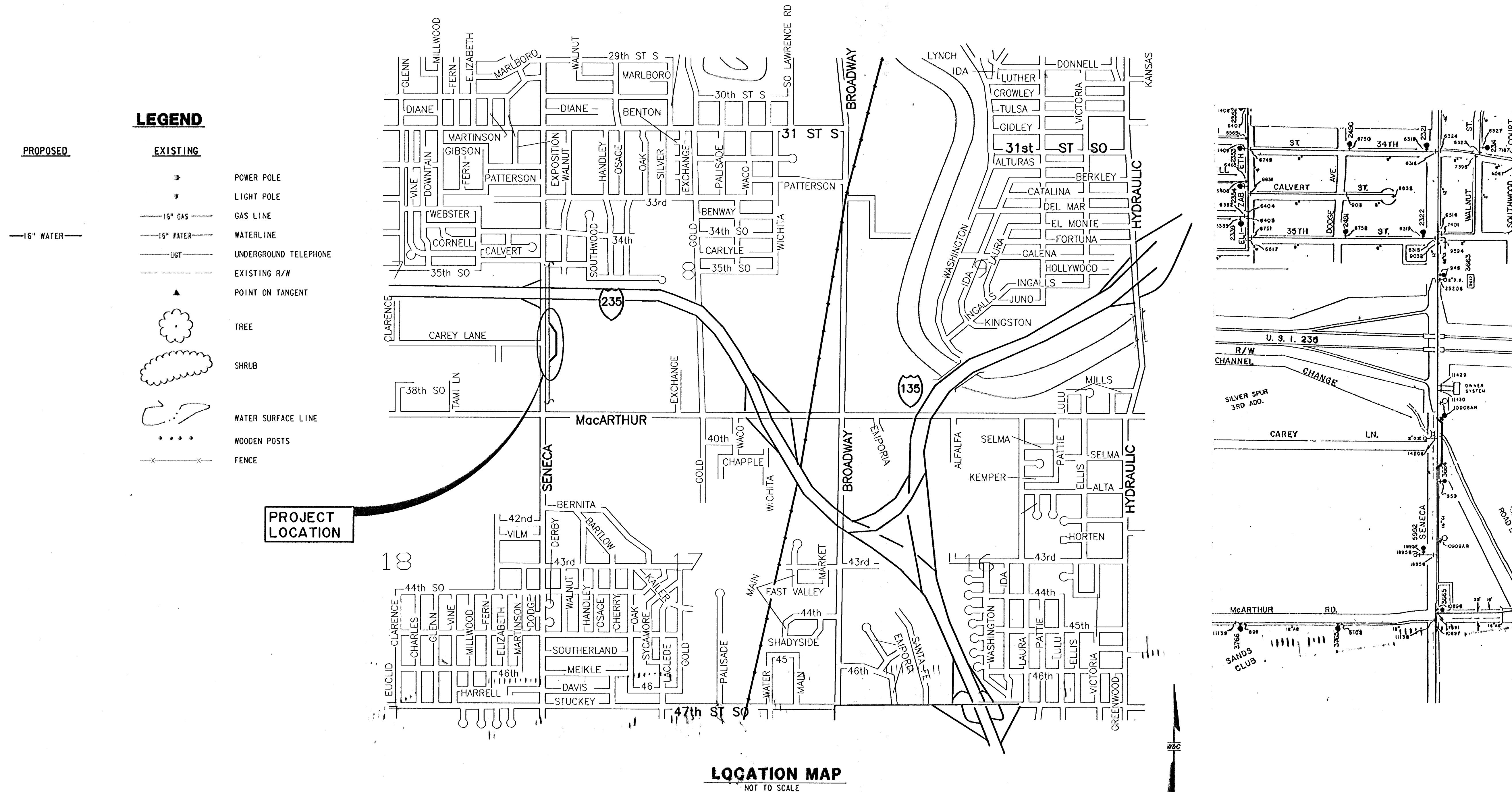
I-235/SENECA

16" WATERLINE RELOCATION

MICHAEL E. LINDEBAK, CITY ENGINEER

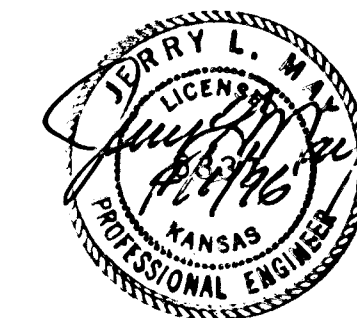
INDEX CODE 635037

PROJECT NUMBER 448-88977



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WILSON
& COMPANY
 Wichita, Kansas

Revised 7-19-96

WATERLINE GENERAL NOTES

1. CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF TWENTY-FOUR (24) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:

KANSAS ONE-CALL 687-2470

THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

MULTIMEDIA CABLEVISION, INC. 262-4270 OR 263-2061

KG&E GAS 263-7511

KG&E ELECTRIC 264-1141

SOUTHWESTERN BELL, TELEPHONE COMPANY 1-316-571-2611

CITY OF WICHITA WATER DEPARTMENT 268-4908

CITY OF WICHITA SEWER MAINTENANCE 268-4071

2. ALL WATER MAINS AND APPURTENANCES SHALL BE INTALLED IN ACCORDANCE WITH CITY OF WICHITA, KANSAS STANDARD SPECIFICATIONS FOR WATER MAIN INSTALLATIONS NO. 14533., AND APPLICABLE STANDARD SPECIAL PROVISIONS.

3. THE WATER MAIN SHALL BE CONSTRUCTED ON THE ALIGNMENT SHOWN BY THE PLANS. UNLESS OTHERWISE NOTED ON PLANS, TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE CONSTRUCTION PROJECT ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE. THE COST FOR ANY NECESSARY TREE TRIMMING, CLEARING, AND/OR GRUBBING SHALL BE INCLUDED IN THE PRICE BID FOR THE INSTALLED WATER MAIN PIPE.

4. OPENING AND CLOSING WATER VALVES SHALL BE DONE SLOWLY TO PREVENT DAMAGE TO THE WATER DISTRIBUTION SYSTEM FROM WATER HAMMER. ALL VALVES CLOSED BY THE CONTRACTOR MUST BE REOPENED AS NEW CONSTRUCTION PERMITS. PROJECT INSPECTOR MUST ASCERTAIN THAT ANY VALVE CLOSED BY THE CONTRACTOR IS REDPENED. CONTRACTOR WILL BE PERMITTED TO OPERATE WATER VALVES ONLY WHEN THE PROJECT INSPECTOR ASSIGNED TO THE PROJECT IS PRESENT.

5. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING SERVICE CUSTOMERS OF ANY SERVICE DISRUPTION. CONTRACTOR SHALL COORDINATE WATERLINE SHUTDOWNS WITH SERVICE CUSTOMERS. ANY SERVICE DISRUPTION SHOULD NOT EXCEED 8 HOURS AND SHOULD OCCUR DURING THE TIME OF DAY WHEN WATER USE IS LOWEST.

6. LOCAL BUSINESS OR RESIDENTIAL TRAFFIC GENERATED WITHIN THE PROJECT AREA IS TO BE CARRIED THROUGH CONSTRUCTION AS FURTHER PROMULGATED BY PROJECT SPECIAL PROVISIONS.

7. UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY UTILITY PERSONNEL PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR OR UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY THE UTILITY OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. THE CONTRACTOR SHALL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.

8. A SAW CUT OF AT LEAST ONE-HALF THE DEPTH OF EXISTING SURFACE COURSE OR ONE-FOURTH THE DEPTH OF THE EXISTING TOTAL PAVEMENT THICKNESS SHALL BE PROVIDED AT LOCATIONS WHERE PROPOSED CONSTRUCTION ABUTS AN EXISTING SURFACE COURSE OR PAVEMENT FOR WHICH PARTIAL REMOVAL OF THAT SURFACE OR PAVEMENT IS REQUIRED. WHEN SUCH SAW CUTS ARE WITHIN THREE (3) FEET OF AN EXISTING JOINT, THE LIMITS OF REMOVAL SHALL BE EXTENDED TO THE EXISTING JOINTS. SUCH SAW CUTS WILL NOT BE PAID FOR DIRECTLY AND THIS COST SHALL BE CONSIDERED SUBSIDIARY TO THE REMOVAL OF THE SURFACE OR PAVEMENT.

9. THE CONTRACTOR SHALL NOTIFY PIPELINE COMPANIES AT LEAST 24 HOURS IN ADVANCE OF ANY WORK BEING PERFORMED ACROSS AND/OR ADJACENT TO PIPELINES.

10. MAILBOXES WITHIN THE LIMITS OF THE PROJECT SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AS APPROVED BY THE CONSTRUCTION PROJECT ENGINEER. CONTRACTOR WILL BE REQUIRED TO MAKE SATISFACTORY PROVISIONS FOR MAIL DELIVERY TO PROPERTIES AFFECTED BY THIS PROJECT DURING ITS CONSTRUCTION.

11. THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY DIRECTLY ABUTTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS ADVANCE NOTICE PRIOR TO START OF CONSTRUCTION.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR OR A LICENSED PROFESSIONAL ENGINEER IN ACCORDANCE WITH STATE LAWS.

13. ALL DIMENSIONS CALLED OUT ARE FROM PIPE CENTER-TO-CENTER.

14. ABANDON AND PLUG EXISTING WATER LINES IN ACCORDANCE WITH CITY OF WICHITA SPECIFICATIONS.

15. APPROVED PIPE MATERIALS FOR THIS PROJECT SHALL INCLUDE:
C905 DR18 PVC PIPE WITH CONCRETE THRUST BLOCKING
C905 DR18 PVC PIPE WITH RESTRAINED JOINTS (SUCH AS CERTA-LOK)
PRESSURE CLASS 250 D1CL SJ PIPE WITH CONCRETE THRUST BLOCKING
PRESSURE CLASS 250 D1CL RJ PIPE WITH RESTRAINED JOINTS MANUFACTURED INTEGRAL TO THE PIPE.

16. CONTRACTOR IS TO CONTACT CONSTRUCTION ENGINEERING 24 HOURS PRIOR TO WATER LINE CONSTRUCTION. CONTACT LARRY SCHALLER AT 268-4049.

WATERLINE CONSTRUCTION SEQUENCING*

1. CONSTRUCT NEW 16" WATERLINE ALIGNMENT PRIOR TO MAKING THE CONNECTION TO THE EXISTING WATERLINE.

2. PERFORM PRESSURE AND LEAK TESTS AND CHLORINATION PROCEDURES ON THE NEW WATERLINE IN ACCORDANCE WITH C.Q.W. SPECIFICATIONS.

3. CUT AND ABANDON EXISTING 16" WATERLINE NORTH OF STA. 0+00 (SEE GENERAL NOTES THIS SH.). CONNECT NEW WATERLINE TO EXISTING WATERLINE.

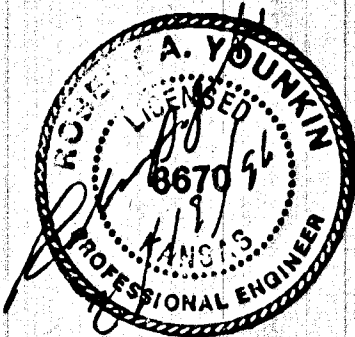
4. CUT AND ABANDON EXISTING 16" WATERLINE SOUTH OF STA. 2+79.08 (SEE GENERAL NOTES THIS SH.). CONNECT NEW WATERLINE TO EXISTING WATERLINE.

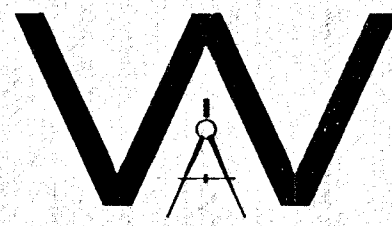
* THE CONTRACTOR HAS THE OPTION OF SUBMITTING AN ALTERNATE CONSTRUCTION SEQUENCE TO THE CONSTRUCTION PROJECT ENGINEER FOR APPROVAL.

SUMMARY OF QUANTITIES - WATERLINE INSTALLATION		
DESCRIPTION	UNIT	QUANTITY
16" PIPE	L.F.	280
16" D1CL PIPE	L.F.	2
16" VALVE ASSEMBLY	EACH	2
FIRE HYDRANT ASSEMBLY	EACH	1
WATERLINE ABANDONED OR REMOVED	L.F.	260
2" SERVICE RECONNECTED	EACH	1

QUANTITIES ARE FOR INFORMATION ONLY.
WATER LINE IS TO BE BID AS LUMP SUM.

WATER LINE CONSTRUCTION IS TO CONFORM TO
CITY OF WICHITA STANDARD SPECIFICATIONS



THE CITY OF WICHITA  CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 268-4501 (316) 268-4114 FAX		I-235/SENECA 16" WATER LINE RECONSTRUCTION	
M. E. LINDEBAK P.E. - CITY ENGINEER			
PROJECT NUMBER 488-88977		INDEX CODE 635037	
DATE 8-9-96		SHEET OF	

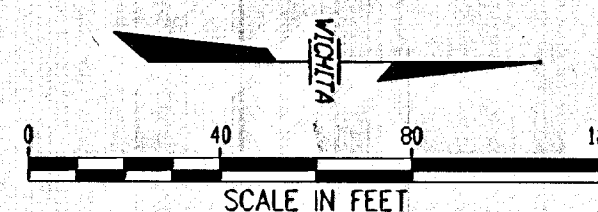
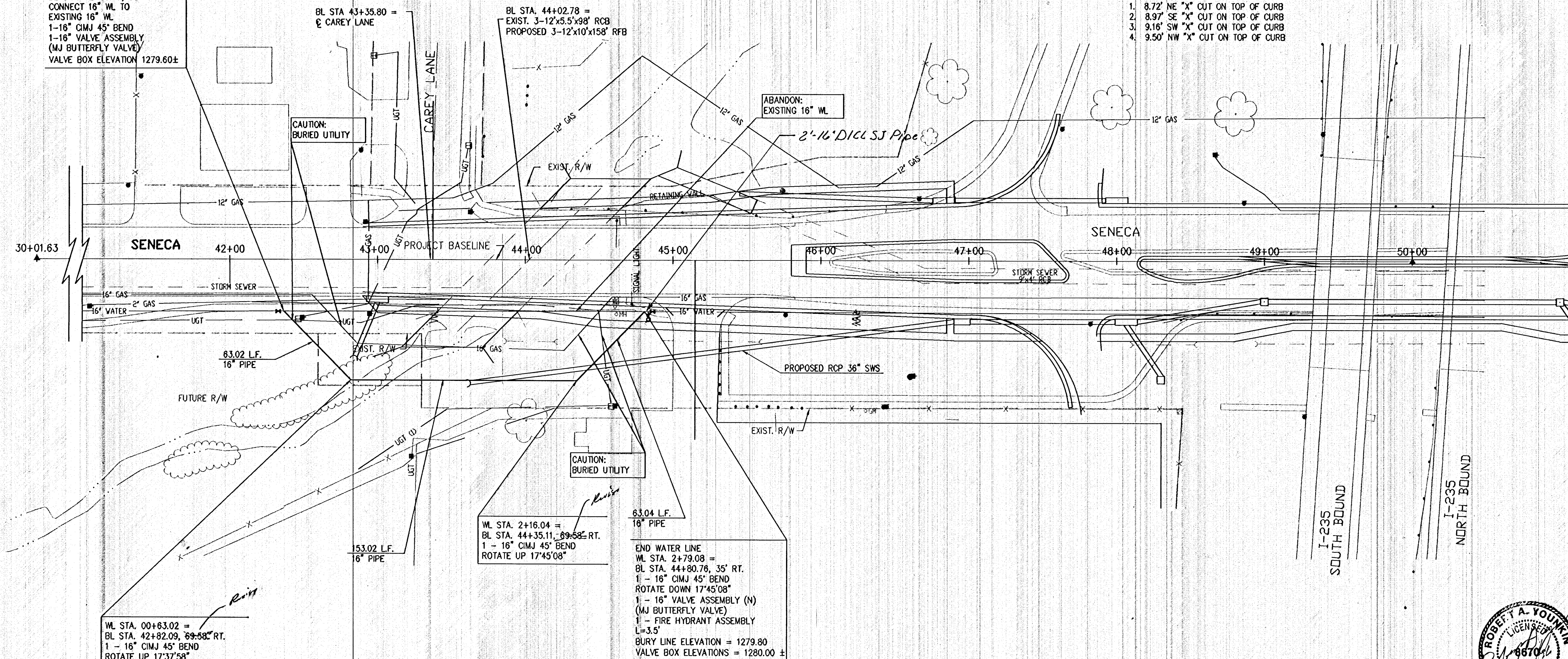
- POT BL STA. 30+01.63
SW CORNER SEC. 8 T285 R1E
1. FOUND A BAR OR PIPE IN THIMBLE
 2. 45.92' ESE "X" CUT ON NW CORNER OR CONC. BASE OF SIGNAL LIGHT GUYPOLE
 3. 48.80' SE CHAIN LINK FENCE CORNER (AT THE BASE)
 4. 37.50' SE "X" CUT ON S. EDGE CONC. RETURN E. SIDE ON SENECA ST.
 5. IN E OF SENECA ST. ON S. EDGE OF McARTHUR.

BEGIN WATERLINE,
WL STA. 0+00.00 =
BL STA. 42+36.47, 35' RT.
CONNECT 16" WL TO
EXISTING 16" WL.
1-16" CIMJ 45° BEND
1-16" VALVE ASSEMBLY
(MJ BUTTERFLY VALVE)
VALVE BOX ELEVATION 1279.60±

BL STA. 43+35.80 =
E CAREY LANE

BL STA. 44+02.78 =
EXIST. 3-12"x5.5"x98' RCB
PROPOSED 3-12"x10"x158' RFB

- POT BL STA. 50.00.00
FOUND 1" REBAR 2' DEEP
1. 8.72' NE "X" CUT ON TOP OF CURB
 2. 8.97' SE "X" CUT ON TOP OF CURB
 3. 9.16' SW "X" CUT ON TOP OF CURB
 4. 9.50' NW "X" CUT ON TOP OF CURB

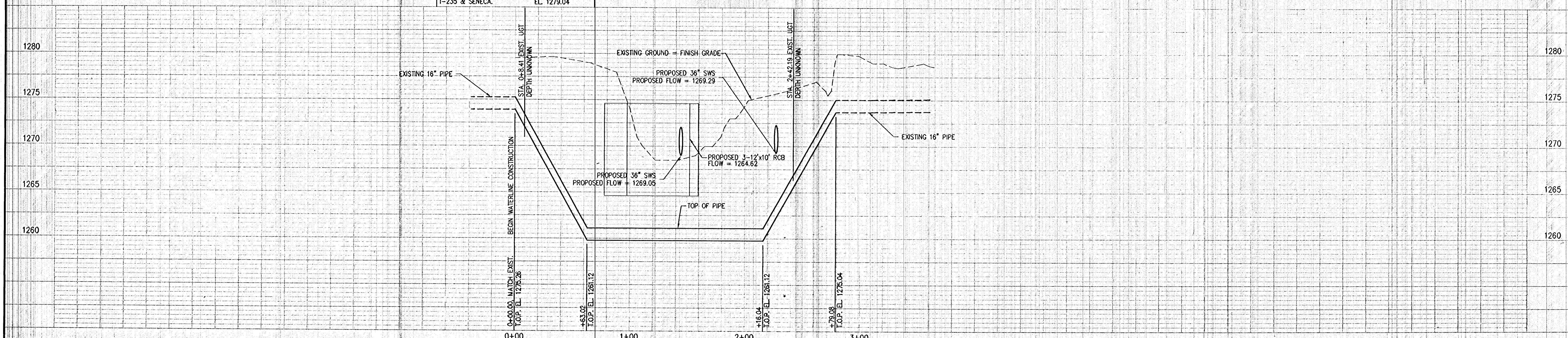
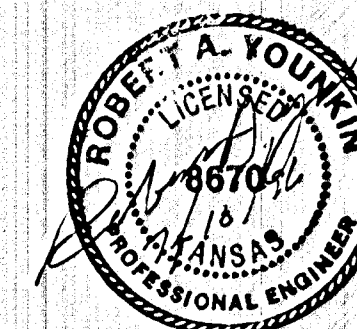


WL STA. 00+63.02 =
BL STA. 42+82.09, 89°58' RT.
1 - 16" CIMJ 45° BEND
ROTATE UP 17°37'58"

B.M. #1030 "X" CUT ON LIGHT POLE BASE
LOWER END OF ON-RAMP (N.B. LANE) OF
I-235 & SENECA. EL. 1279.04

WL STA. 24+16.04 =
BL STA. 44+35.11, 89°58' RT.
1 - 16" CIMJ 45° BEND
ROTATE UP 17°45'08"

END WATER LINE
WL STA. 24+79.08 =
BL STA. 44+80.76, 35' RT.
1 - 16" CIMJ 45° BEND
ROTATE DOWN 17°45'08"
1 - 16" VALVE ASSEMBLY (N)
(MJ BUTTERFLY VALVE)
1 - FIRE HYDRANT ASSEMBLY
L=3.5'
BURY LINE ELEVATION = 1279.80
VALVE BOX ELEVATIONS = 1280.00 ±



REVISIONS				REVISIONS			
DATE	BY	DATE	BY	DATE	BY	DATE	BY

WICHITA, KS

I-235/SENECA

16" WATERLINE RELOCATION

WATERLINE PLAN AND PROFILE

SCALE

1"=40' HORIZ.

1"=5' VERT.

DESIGN RY

CHECKED

DRAWN JL

APPROVED

CITY OF WICHITA

PUBLIC WORKS - ENGINEERING

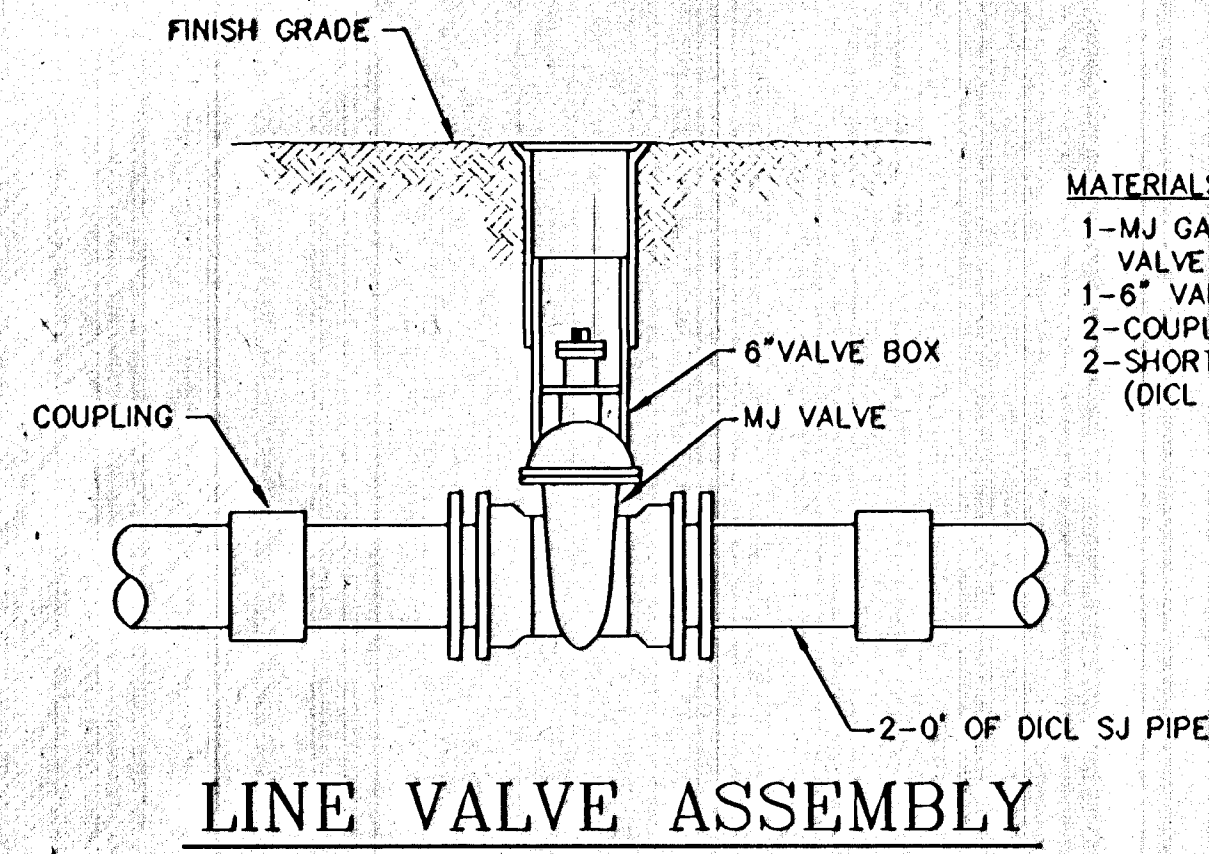
M. E. LINDSEAK P.E.

CITY ENGINEER

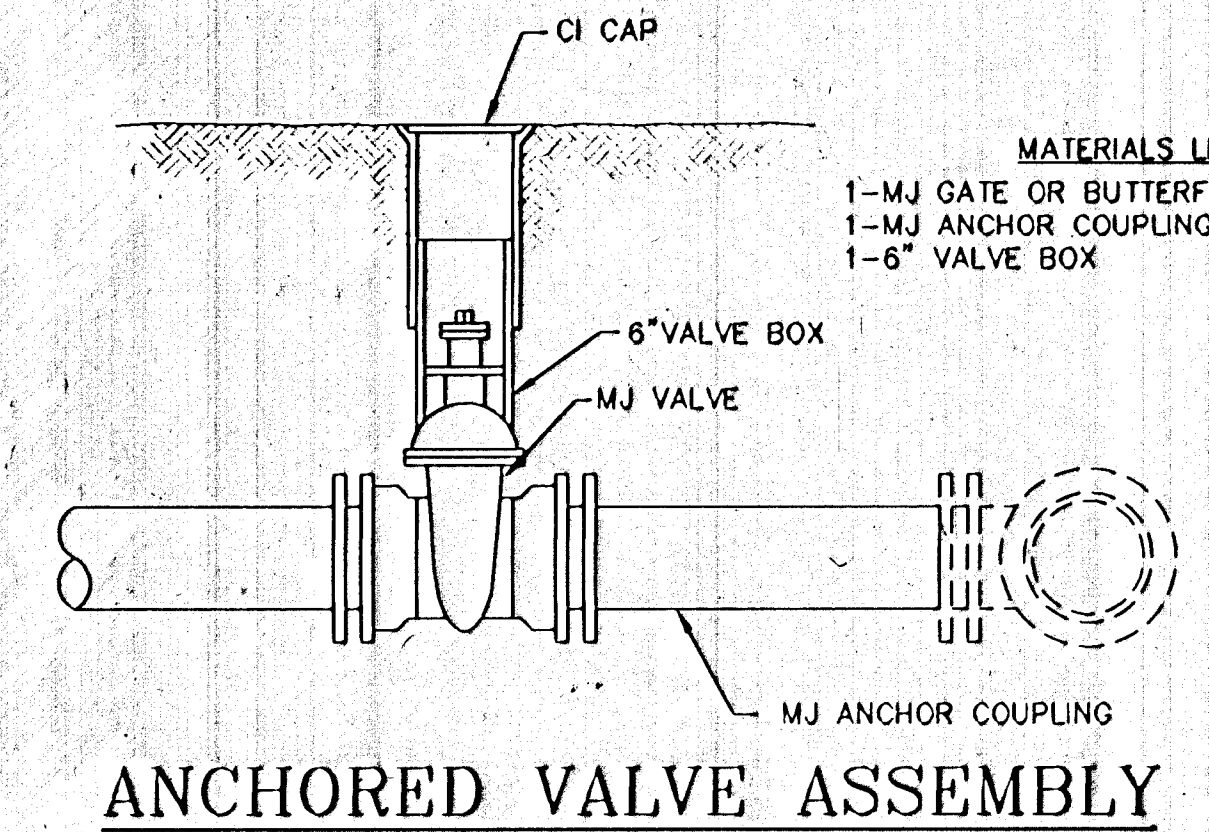
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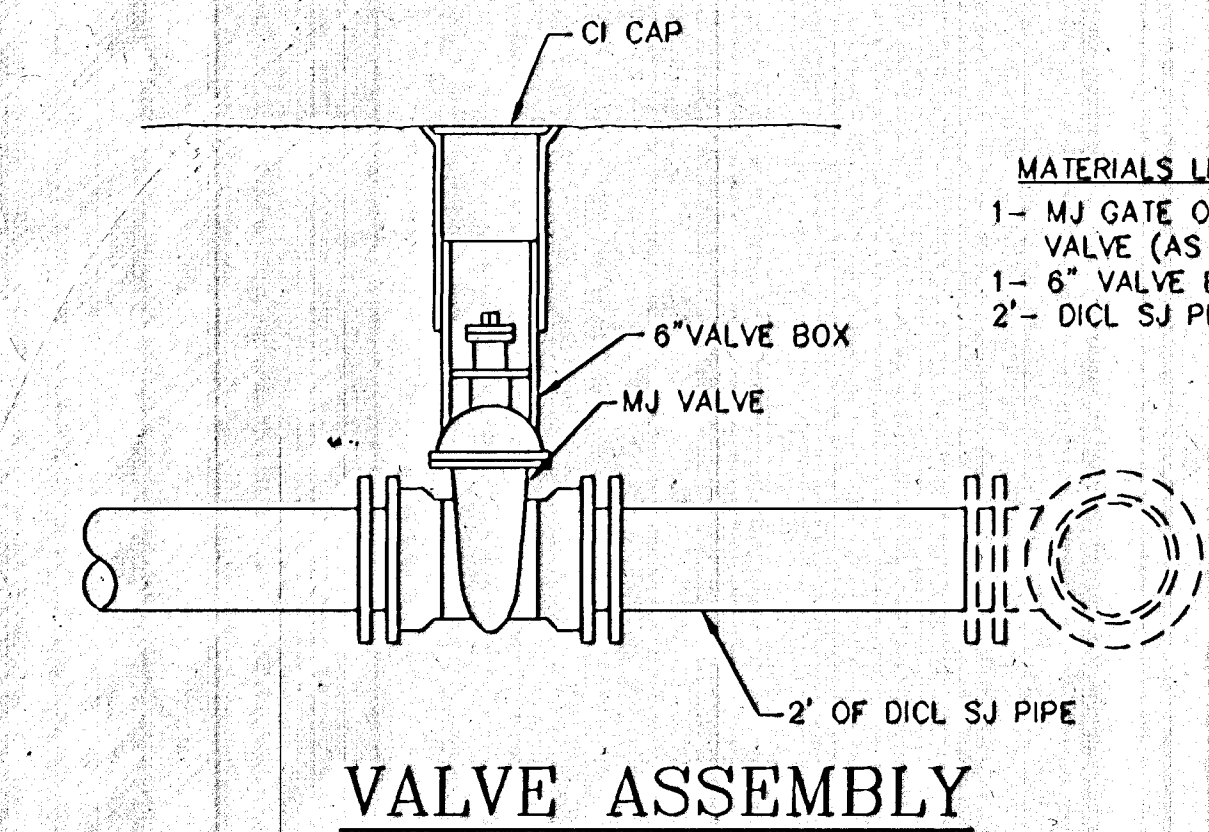
REVISED SHEET 3A of 4



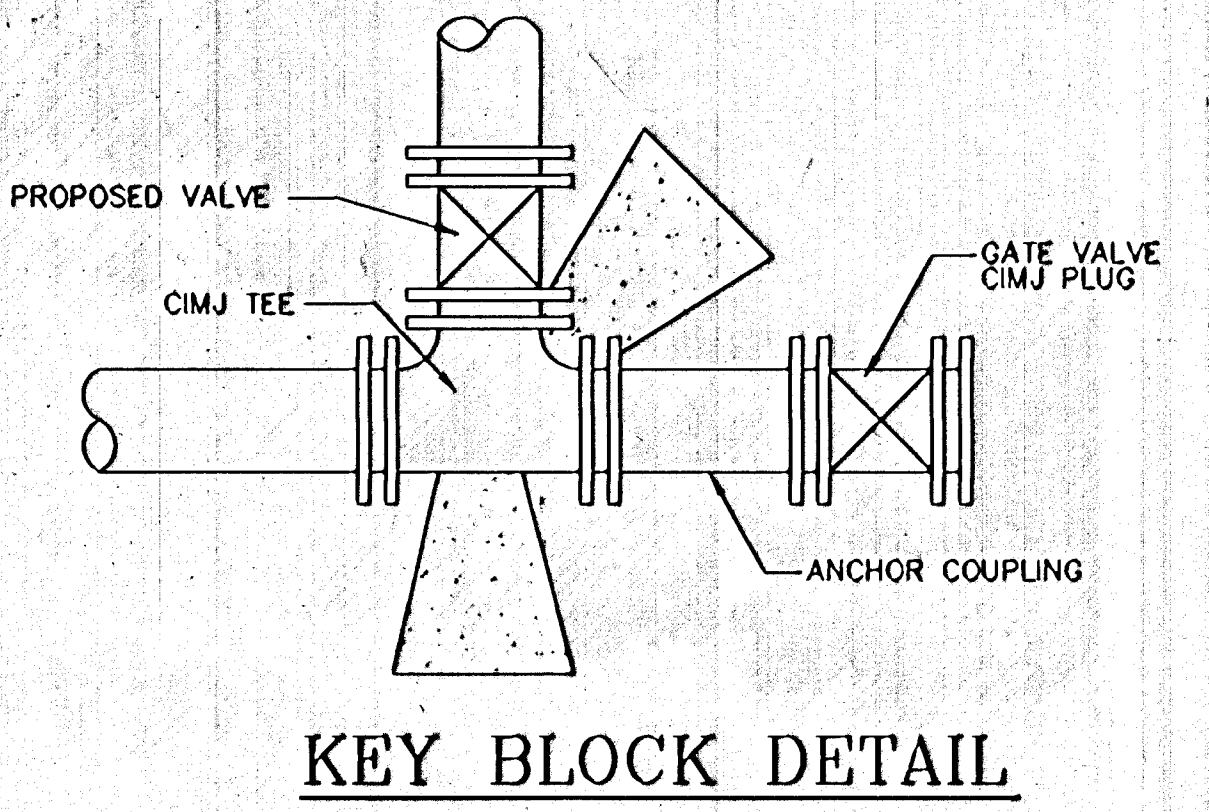
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 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 1-6\"/>



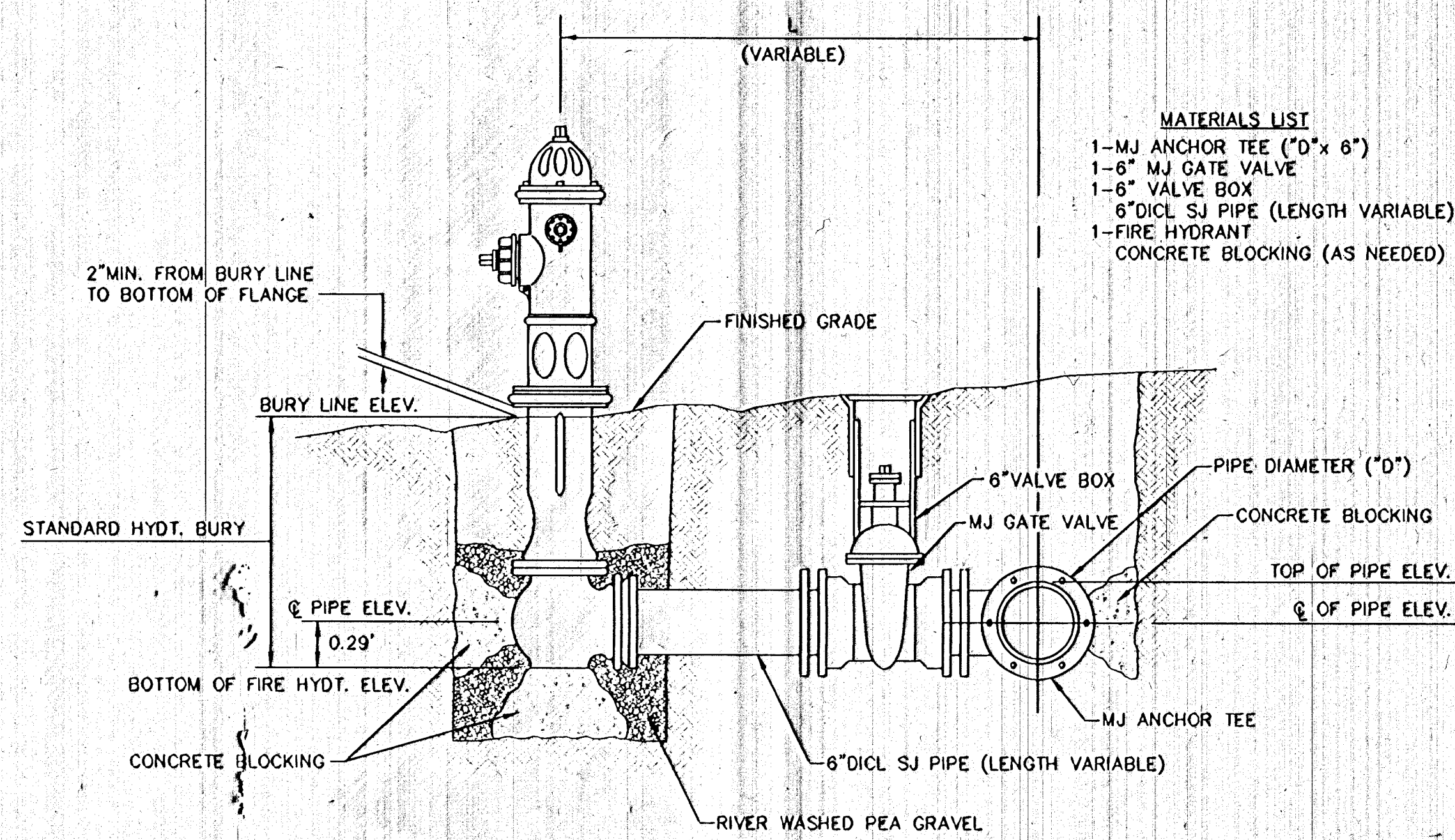
- MATERIALS LIST**
 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 1-MJ ANCHOR COUPLING (12\"/>



- MATERIALS LIST**
 1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 1- 6\"/>



KEY BLOCK DETAIL

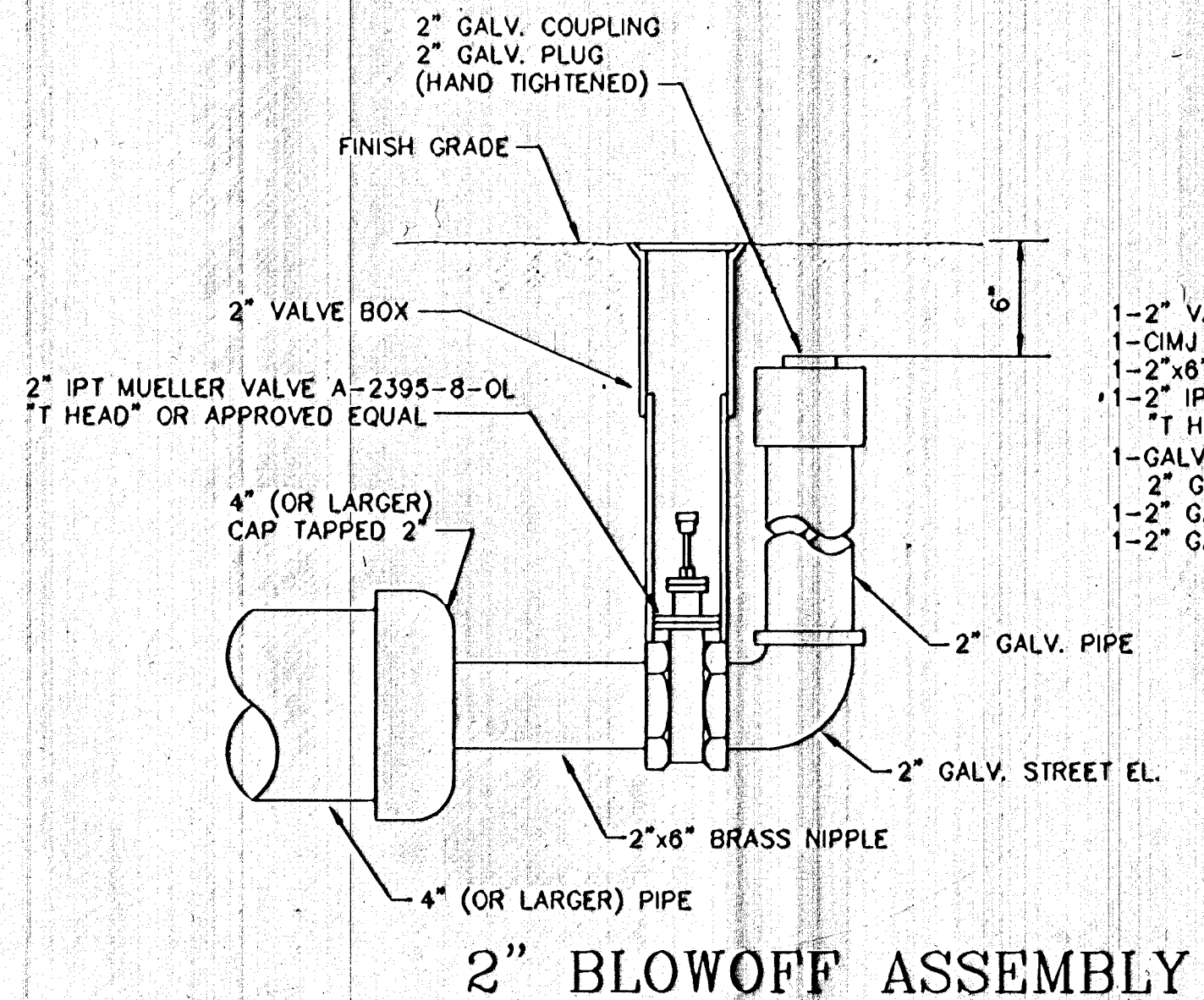


- MATERIALS LIST**
 1-MJ ANCHOR TEE (\"/>

FIRE HYDRANT ASSEMBLY
 PER CITY OF WICHITA SPECIFICATIONS

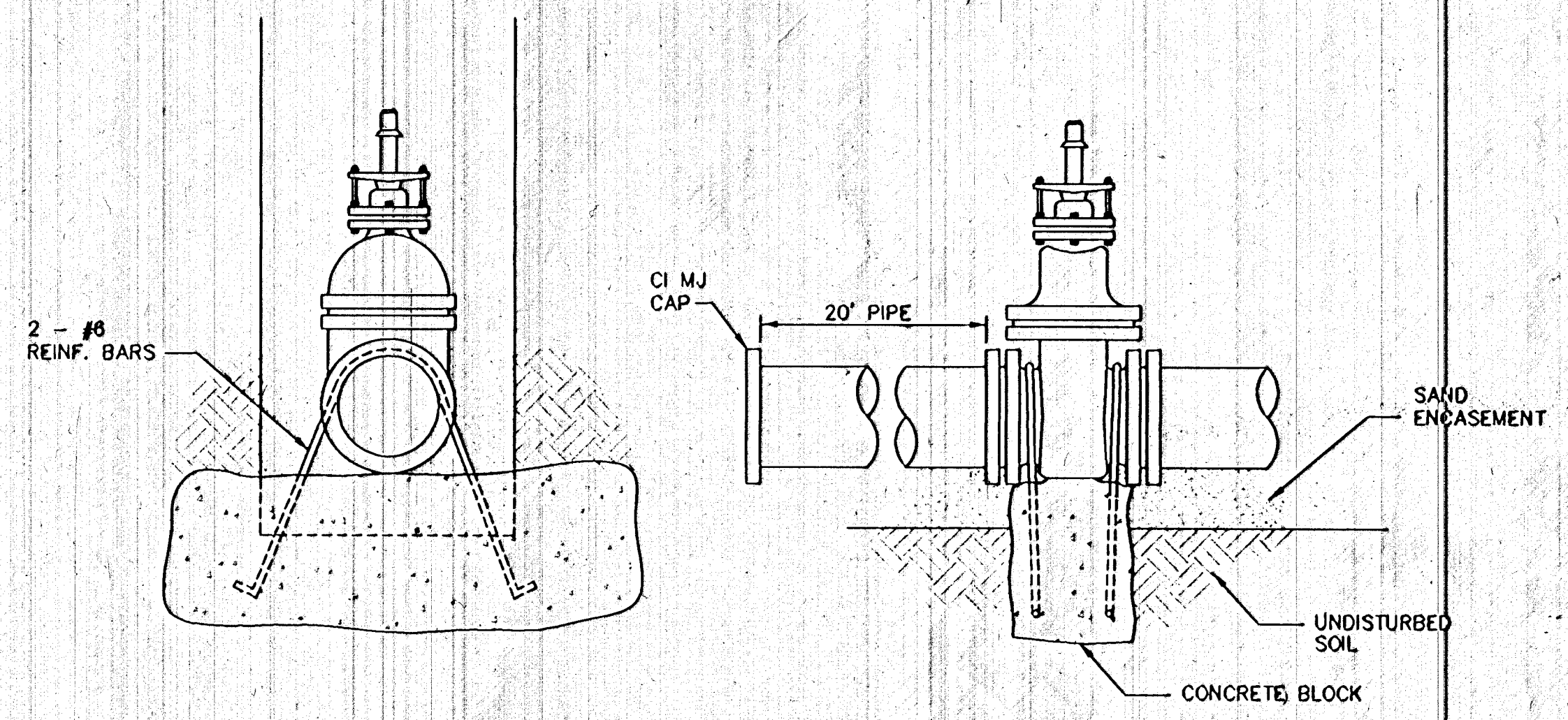
FIRE HYDRANTS REQUIRED			
WL STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED
3+56.00	1279.8	1275.09	6.00'
2+79.08	1279.8	1275.04	4.0

IF HYDRANT BURY IS IN EXCESS OF 5', CONTRACTOR SHALL USE STANDARD 5' HYDRANT BURY AND HYDRANT BARREL EXTENSIONS AS NECESSARY.



- MATERIALS LIST**
 1-2\"/>

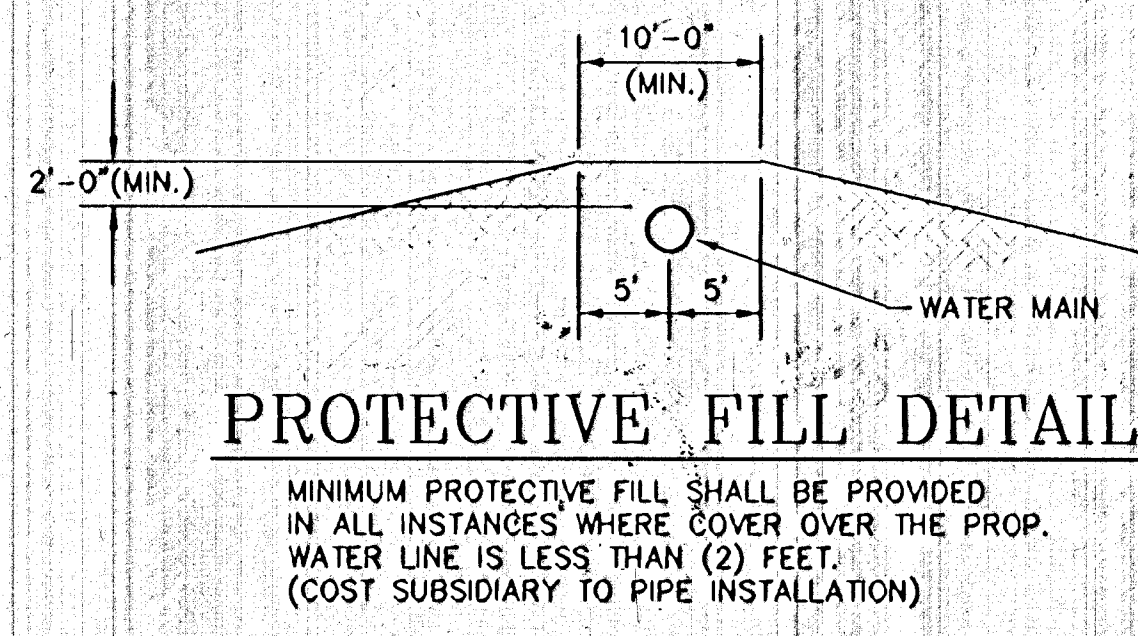
2\"/>



- Notes:**
 1. Concrete Block at Valve to have sufficient bearing in undisturbed soil to prevent thrust movement as shown in table at right. Field Engineer to determine thrust loading of undisturbed soil and final size of thrust block.
 2. Provide clearance around flanges to M.J. accessories.
 3. Valve block to be included in bid item of Concrete for thrust blocks.
 4. All valves at dead ends and at other locations as called out on the plans shall be blocked as shown here.

THRUST AT VALVES	
VALVE	THRUST AT 150 P.S.I.
4"	1809 lbs.
6"	4245 lbs.
8"	7540 lbs.
12"	16965 lbs.

ANCHORED VALVE ASSEMBLY, SPECIAL



PROTECTIVE FILL DETAIL
 MINIMUM PROTECTIVE FILL SHALL BE PROVIDED IN ALL INSTANCES WHERE COVER OVER THE PROP. WATER LINE IS LESS THAN (2) FEET. (COST SUBSIDIARY TO PIPE INSTALLATION)

INDEX CODE 65037 PROJECT NUMBER 448-88977

STANDARD WATER ASSEMBLY DETAILS

CITY OF WICHITA
 February 1996