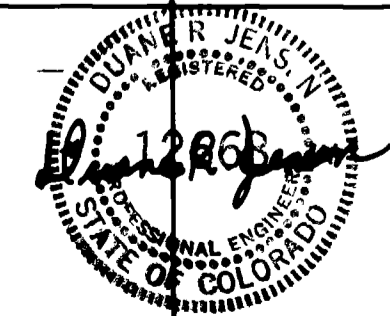


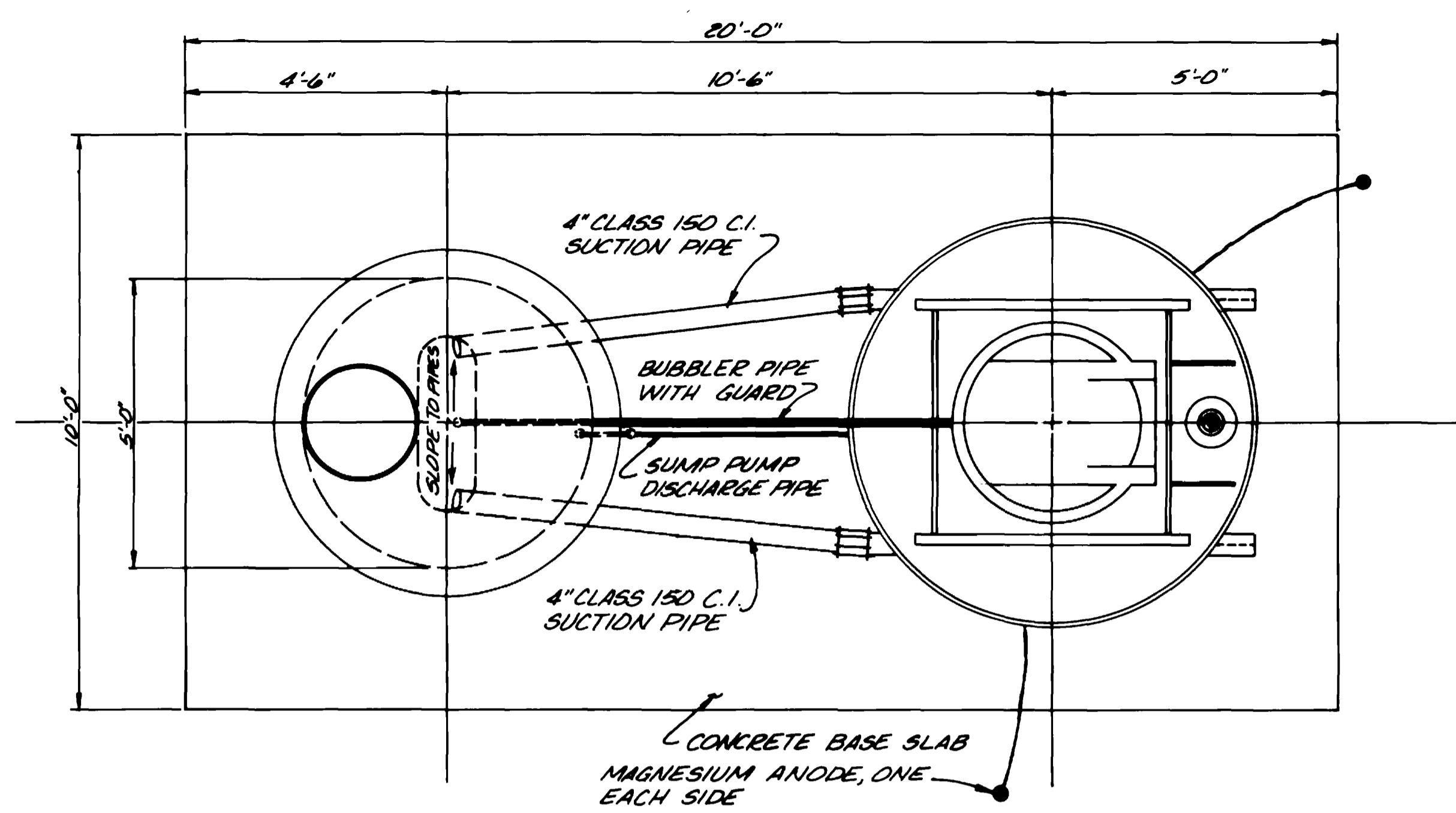
# SUMMARY OF APPROXIMATE QUANTITIES

INDEX	CONTRACT ITEM NO	CONTRACT ITEM	UNIT	QUANTITY														
	1	FURNISH AND INSTALL 8" DUCTILE IRON PIPE (WITH RESTRAINED JOINTS)	LN FT	895														
	2	FURNISH AND INSTALL 10" DUCTILE IRON PIPE (WITH RESTRAINED JOINTS)	LN FT	895														
	3	FURNISH AND INSTALL 8" PVC SIPHON PIPES	LN FT	560														
	4	FURNISH AND INSTALL 10" PVC SIPHON PIPES	LN FT	560														
	5	FURNISH AND INSTALL 4" GATE VALVE	EACH	2														
	6	FURNISH AND INSTALL 8" GATE VALVE	EACH	1														
	7	FURNISH AND INSTALL 10" GATE VALVE	EACH	1														
	8	FURNISH AND INSTALL 4' DIA MANHOLE	EACH	1														
	9	PUMP STATION INSTALLATION	LUMP SUM															

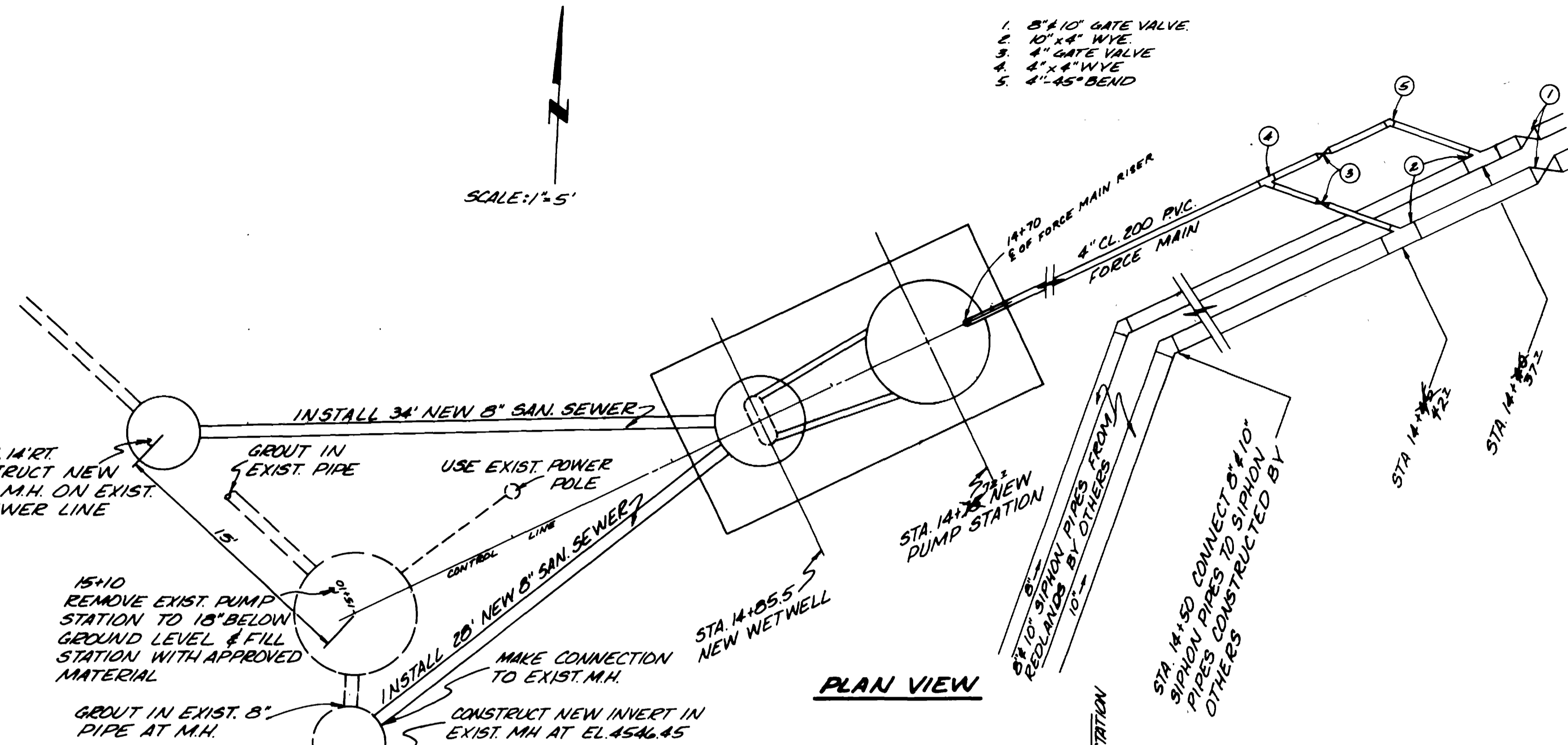
DEPARTMENT OF PUBLIC WORKS AND UTILITIES  
 ENGINEERING DIVISION  
 CITY OF GRAND JUNCTION, COLORADO



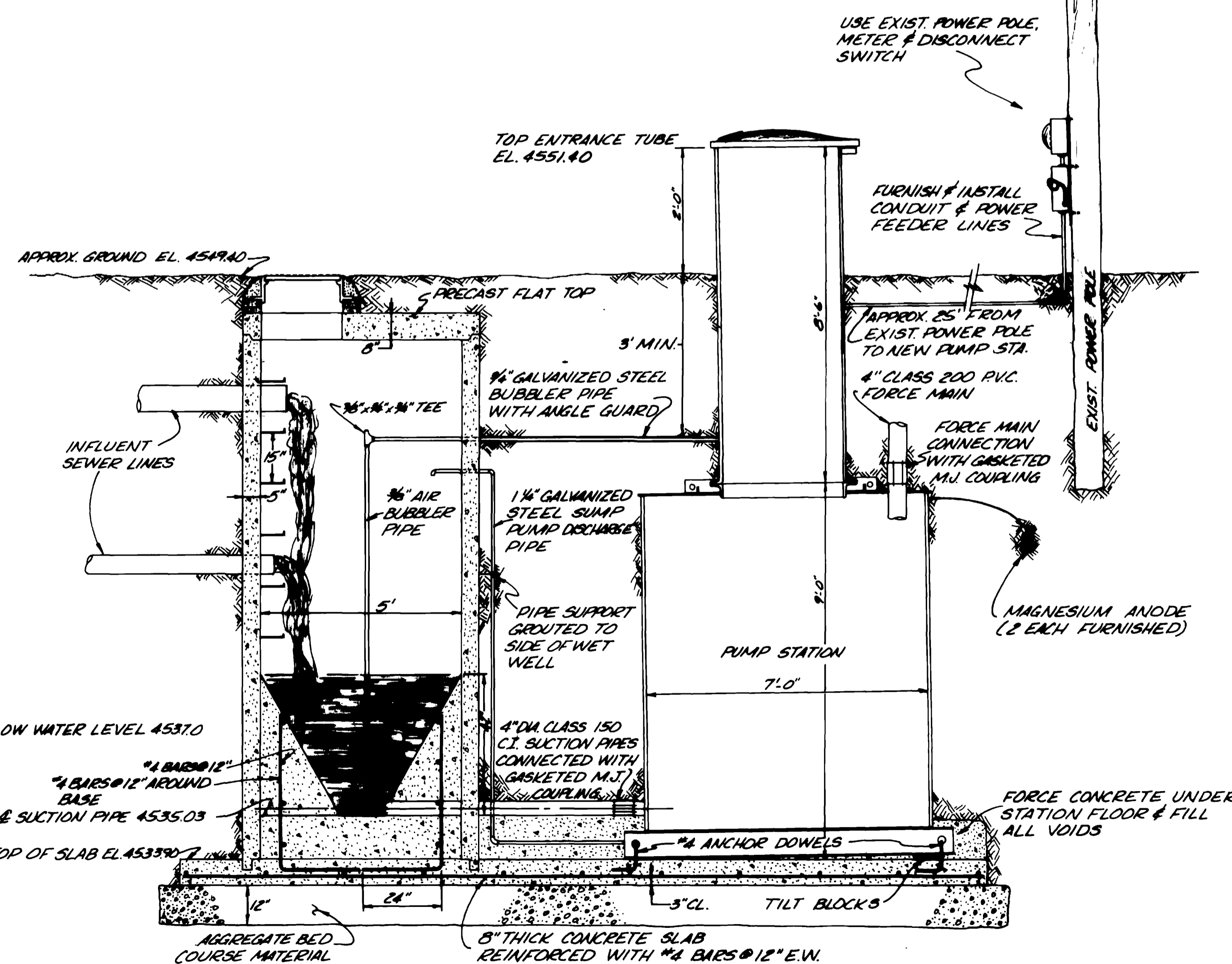
SANITARY SEWER SYSTEM  
 CROSSING COLORADO RIVER  
 AT HIGHWAY 940



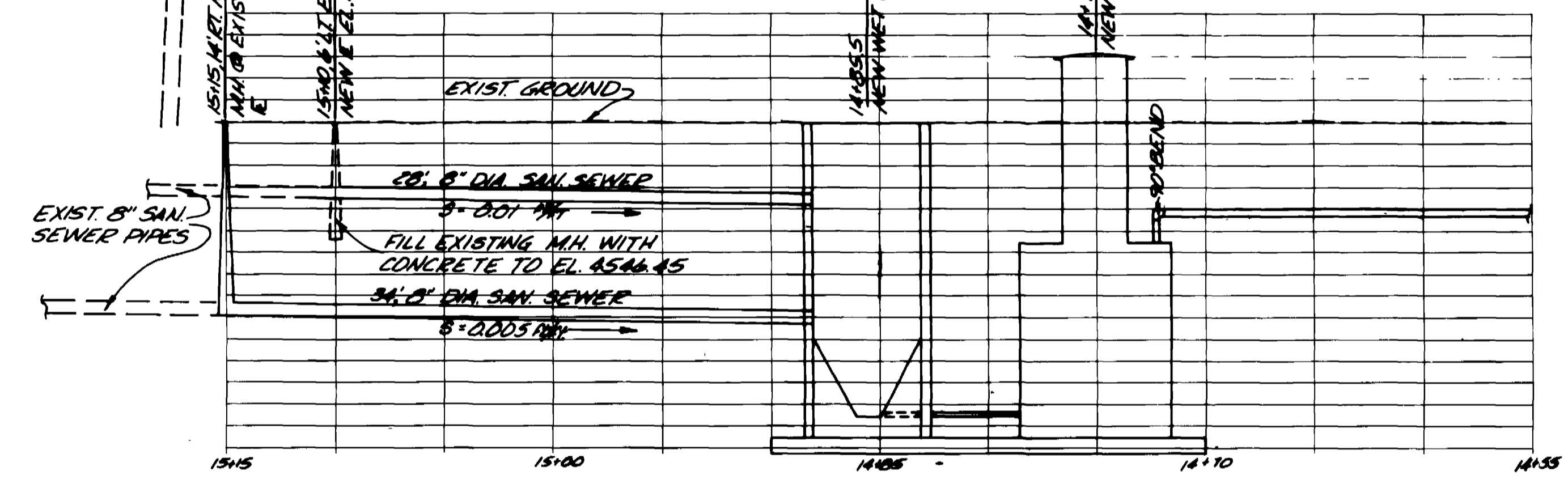
**PLAN VIEW**



**PLAN VIEW**



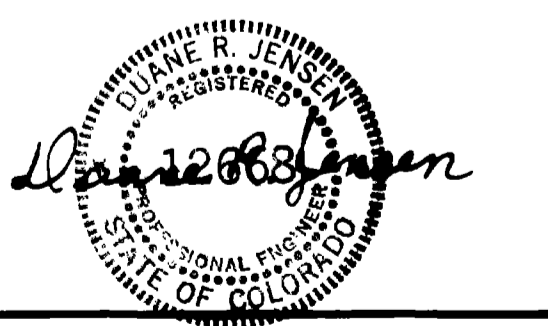
**PUMP STATION AND WET WELL DETAILS  
ELEVATION VIEW**



**PUMP STATION LAYOUT AND CONNECTIONS  
ELEVATION VIEW  
(N.T.S.)**

**NOTES:**

1. ONE COMPLETE FACTORY BUILT PUMP STATION TO BE FURNISHED BY THE CITY & INSTALLED BY THE CONTRACTOR.
2. SUCTION, FORCE MAIN, BUBBLER, & SUMP PUMP PIPING TO BE FURNISHED & INSTALLED BY CONTRACTOR.
3. ALL ELECTRICAL WORK SHALL BE DONE BY A LICENSED ELECTRICIAN IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
4. THE CONTRACTOR SHALL APPLY A COAT OF EPOXY RESIN (FURNISHED) TO ALL SCRATCHES ON THE SURFACES OF THE PUMP STATION BEFORE BACKFILLING.
5. THE WET WELL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 202 OF THE CONSTRUCTION SPECIFICATIONS AND THE STANDARD M.H. DETAIL ON SHEET 4.
6. ALL CONCRETE SHALL BE READY MIXED WITH TYPE II PORTLAND CEMENT & SHALL REACH A COMPRESSIVE STRENGTH OF 3000 P.S.I. AT 28 DAYS OF AGE.
7. EXISTING PUMP STATION SHALL REMAIN OPERABLE UNTILL NEW PUMPS ARE PLACED IN SERVICE. THE EXISTING PUMP STATION SHALL BE REMOVED TO 18" BELOW GROUND LEVEL & FILLED WITH PIPE EMBEDMENT MATERIAL.



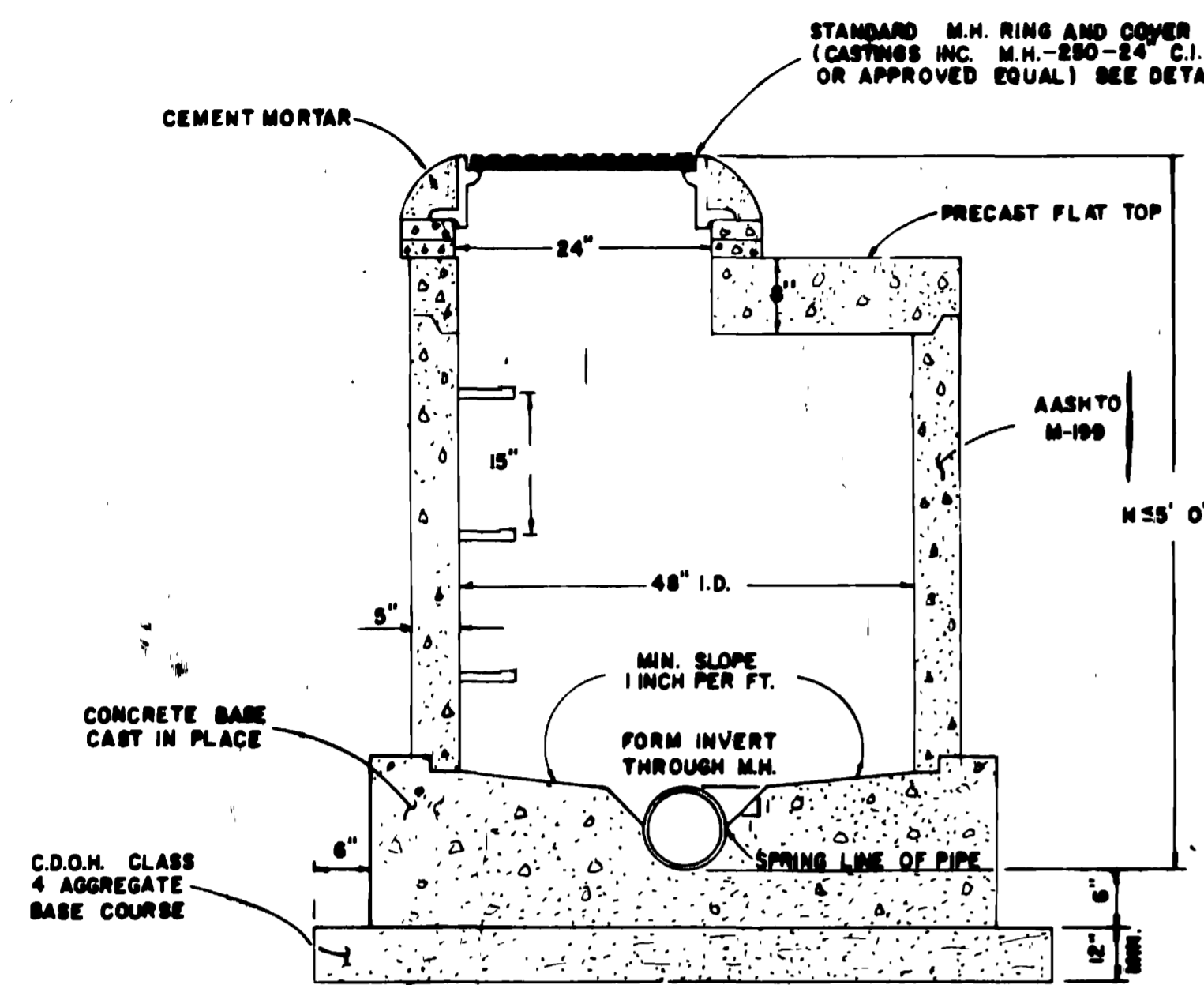
DEPARTMENT OF PUBLIC WORKS AND UTILITIES  
ENGINEERING DIVISION  
**CITY OF GRAND JUNCTION, COLORADO**

**PUMP STATION DETAIL FOR SANITARY SEWER SYSTEM CROSSING THE COLORADO RIVER AT STATE HIGHWAY 340**

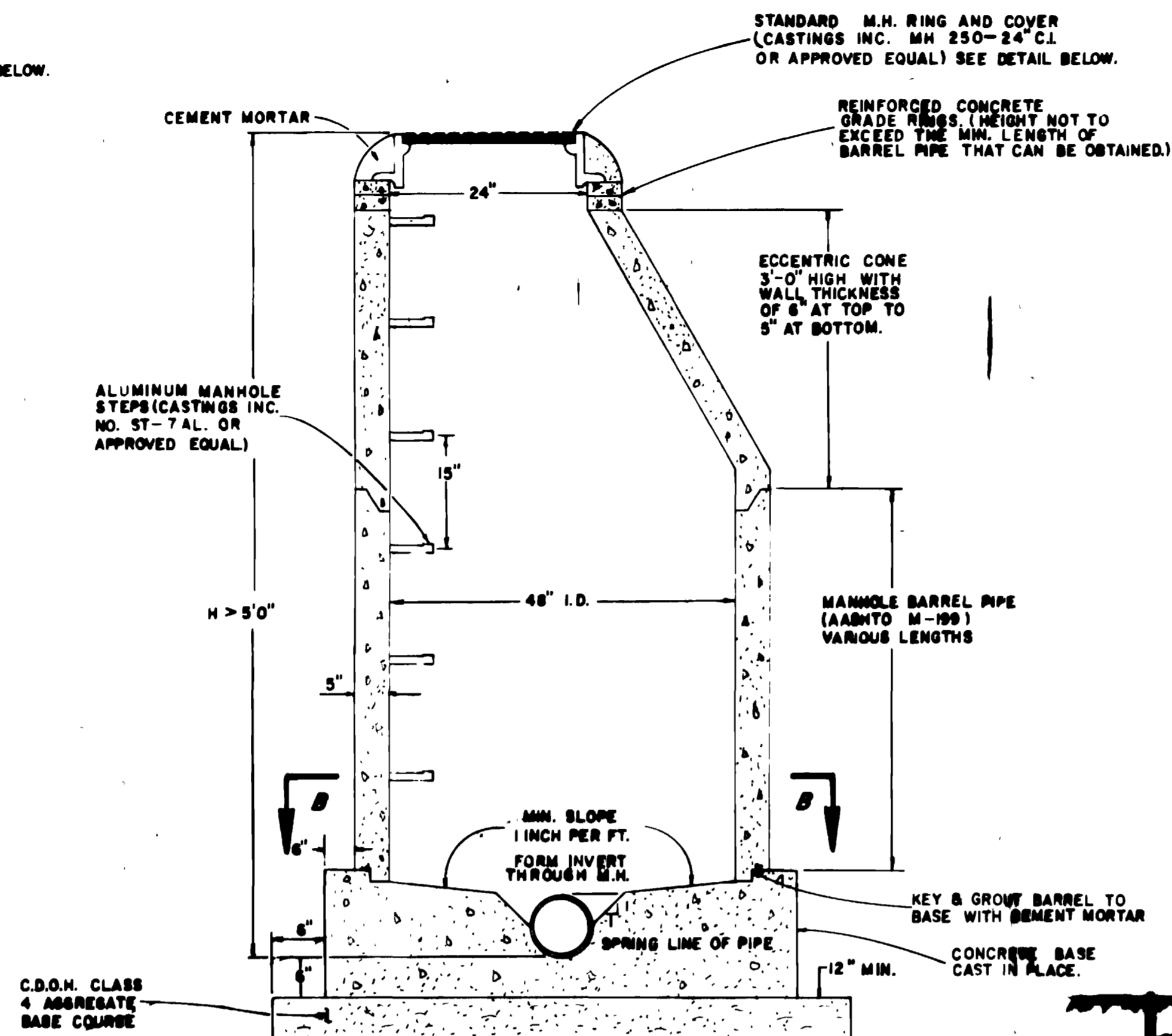
DRAWN BY: JDS  
CHECKED BY: JDA  
APPROVED BY: JDC

FIELD BOOK: \_\_\_\_\_  
PAGE NO.: \_\_\_\_\_  
DATE: 5-11-77

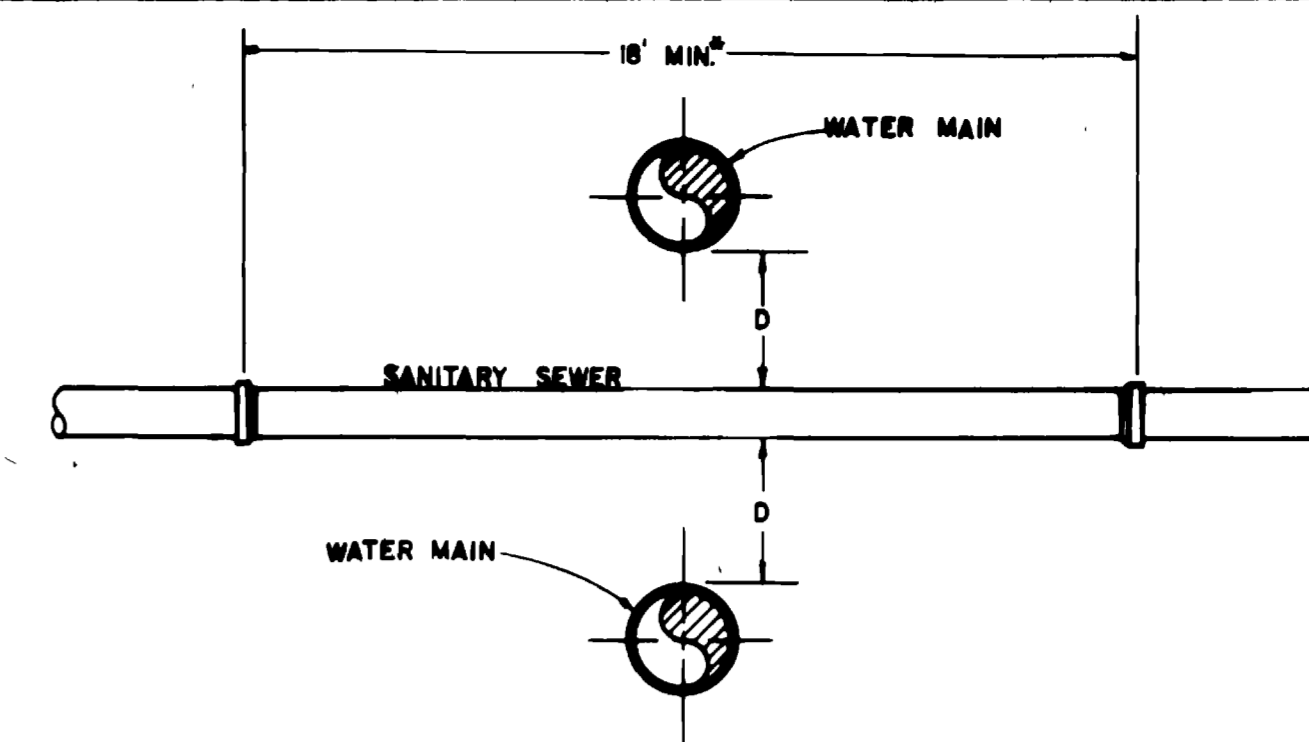
DWG. NO.: 3  
SHEET 3 OF 4



**STANDARD SHALLOW MANHOLE**

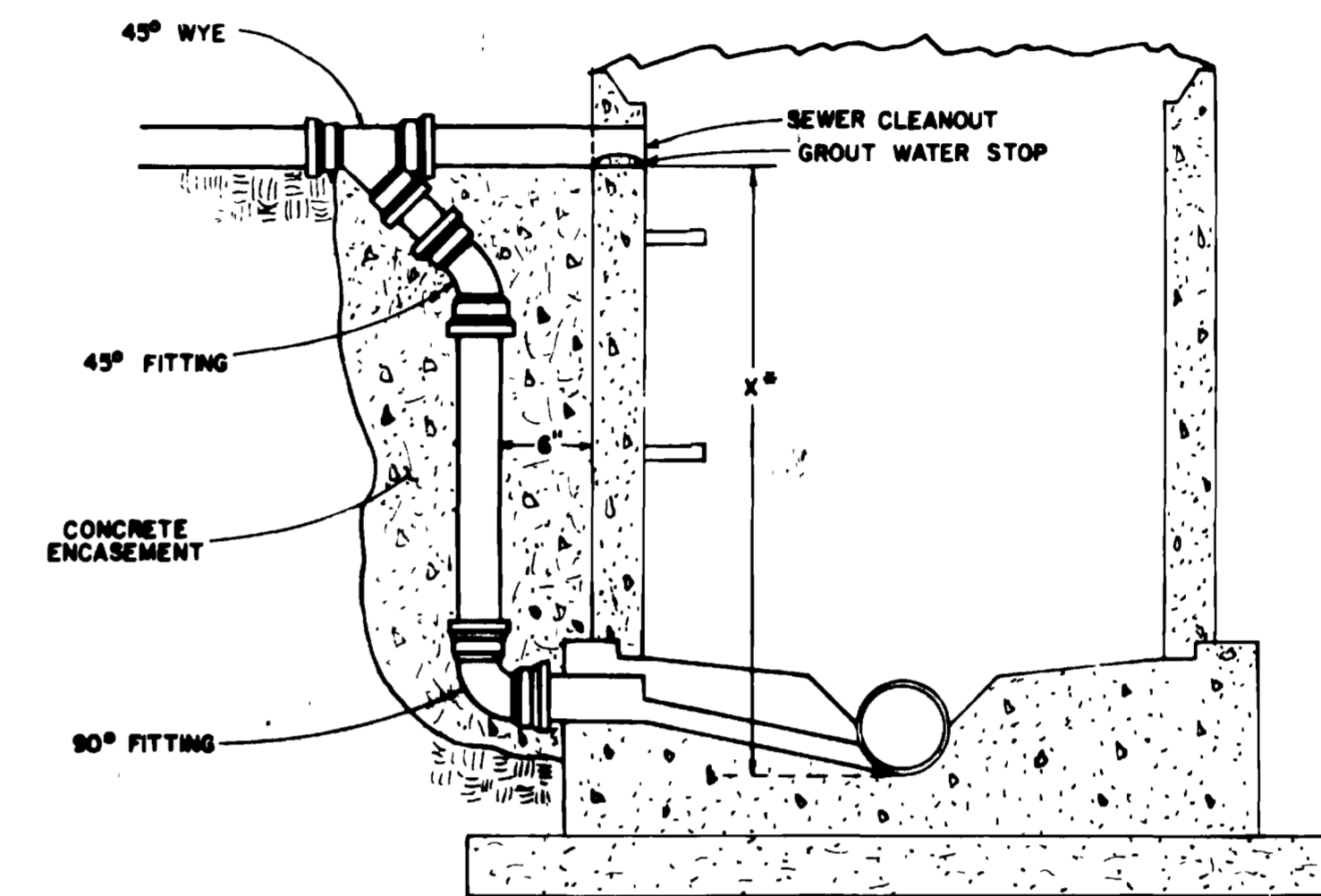


**STANDARD MANHOLE**



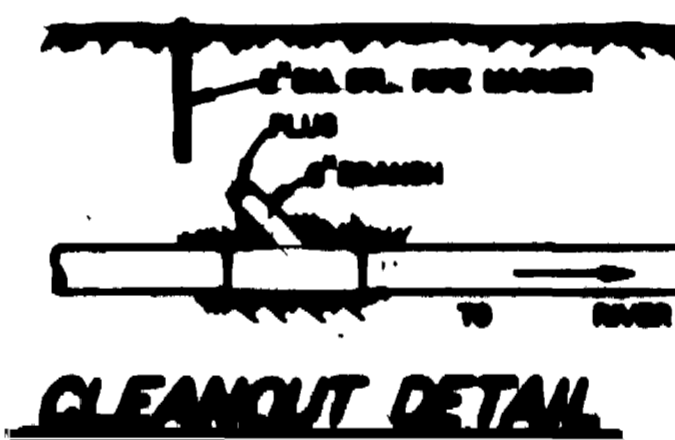
**SANITARY SEWER-WATER MAIN CROSSING**

\* 15\"/>

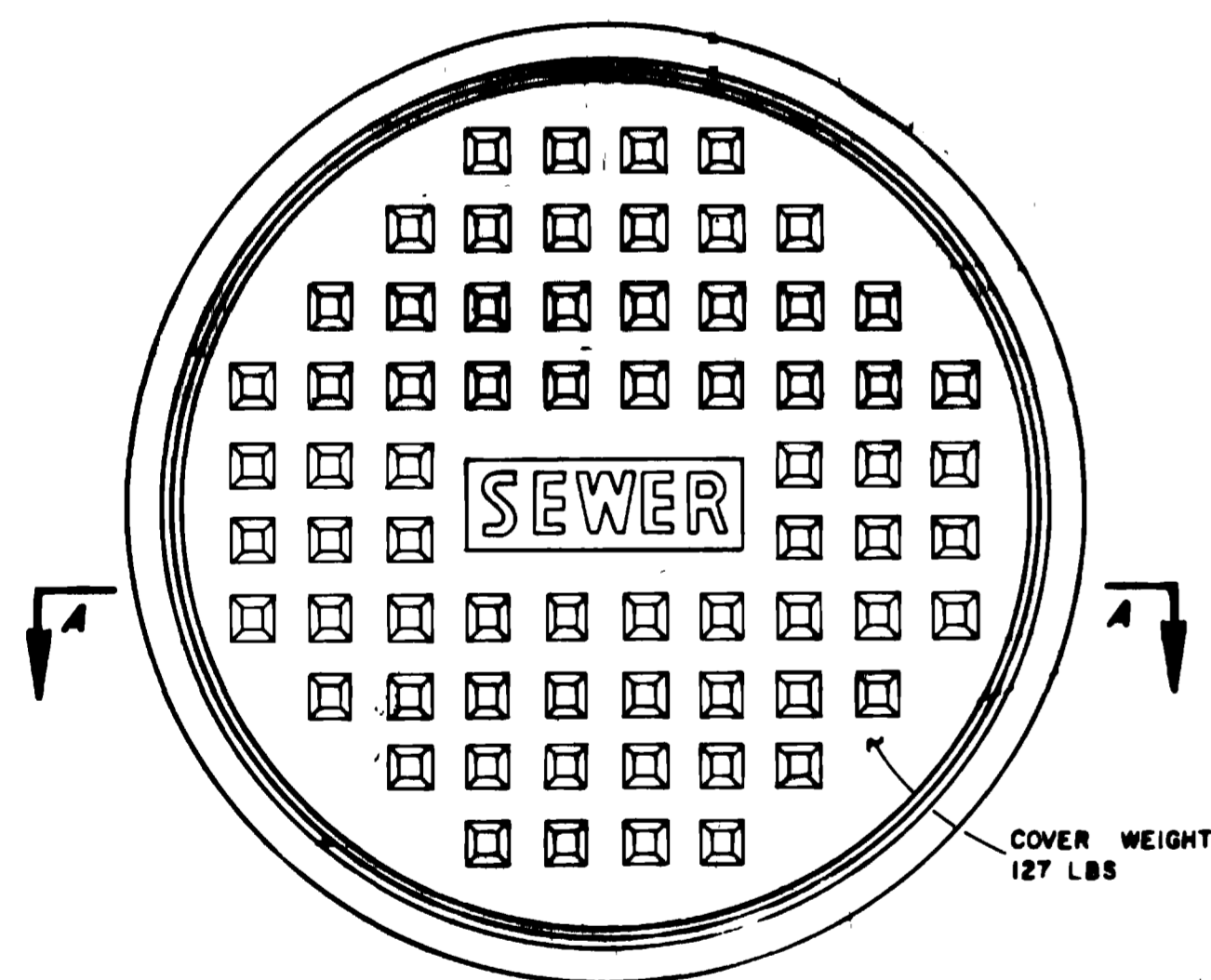


**DROP INLET INTO MANHOLE**

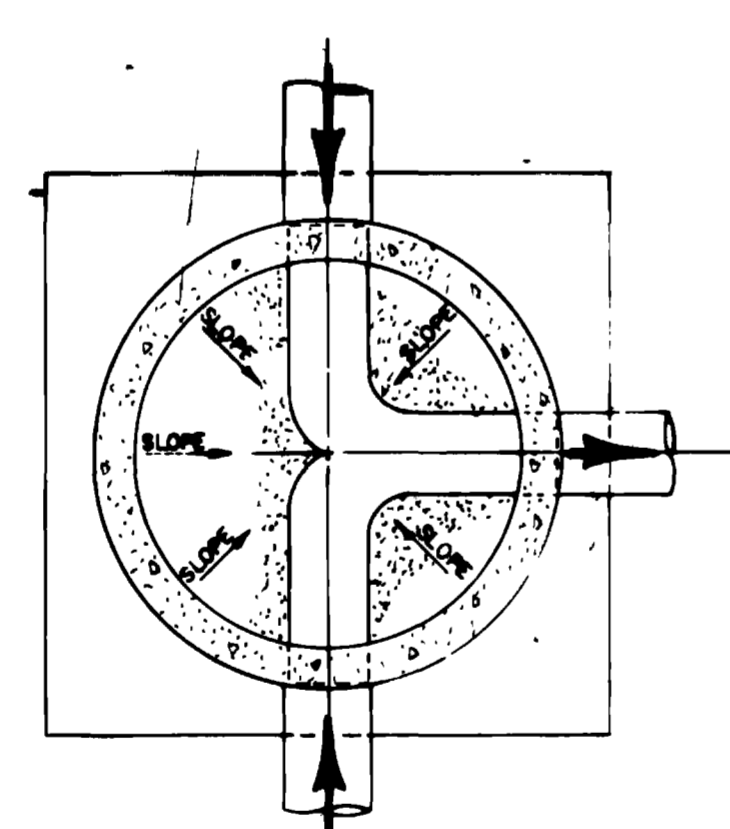
\* DROP MANHOLE REQUIRED WHEN  $X > 24'$ . WHEN  $X < 24'$  FORM CONCRETE INVERT FROM FLOWLINE OF PIPE TO FLOWLINE OF MANHOLE.



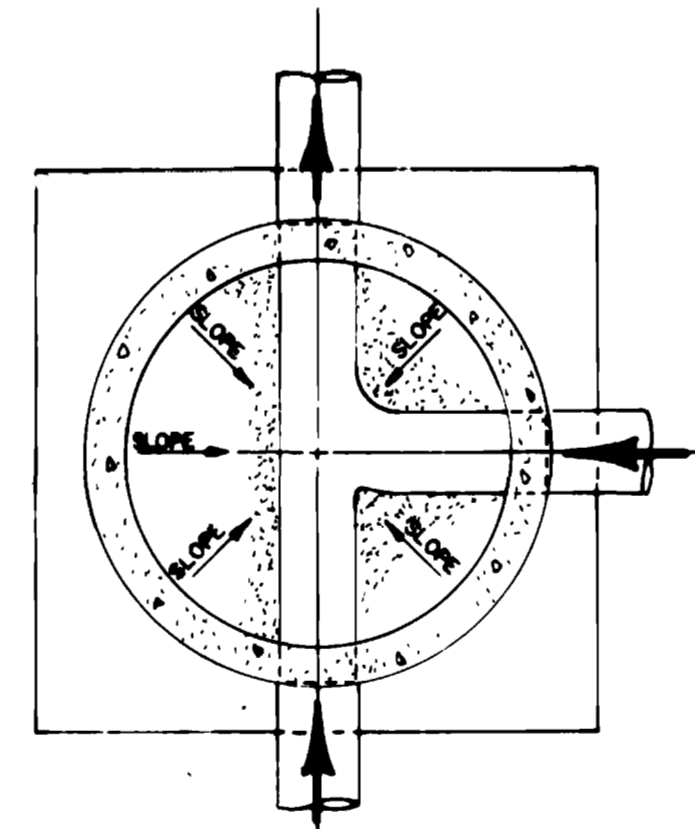
**CLEANOUT DETAIL**



**COVER**

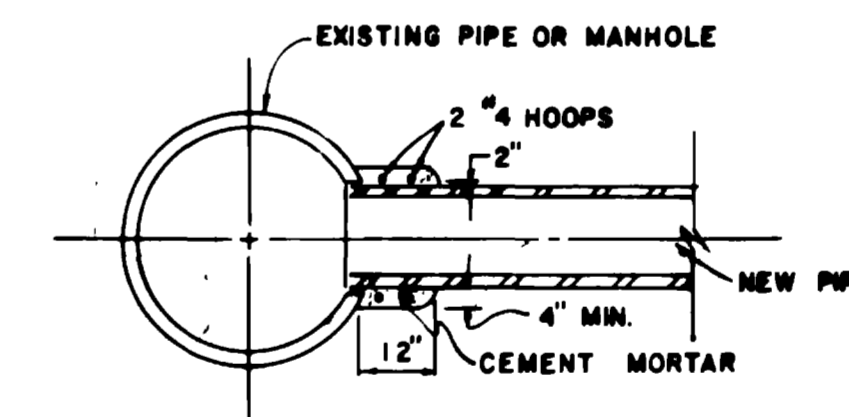


**"T" JUNCTION**

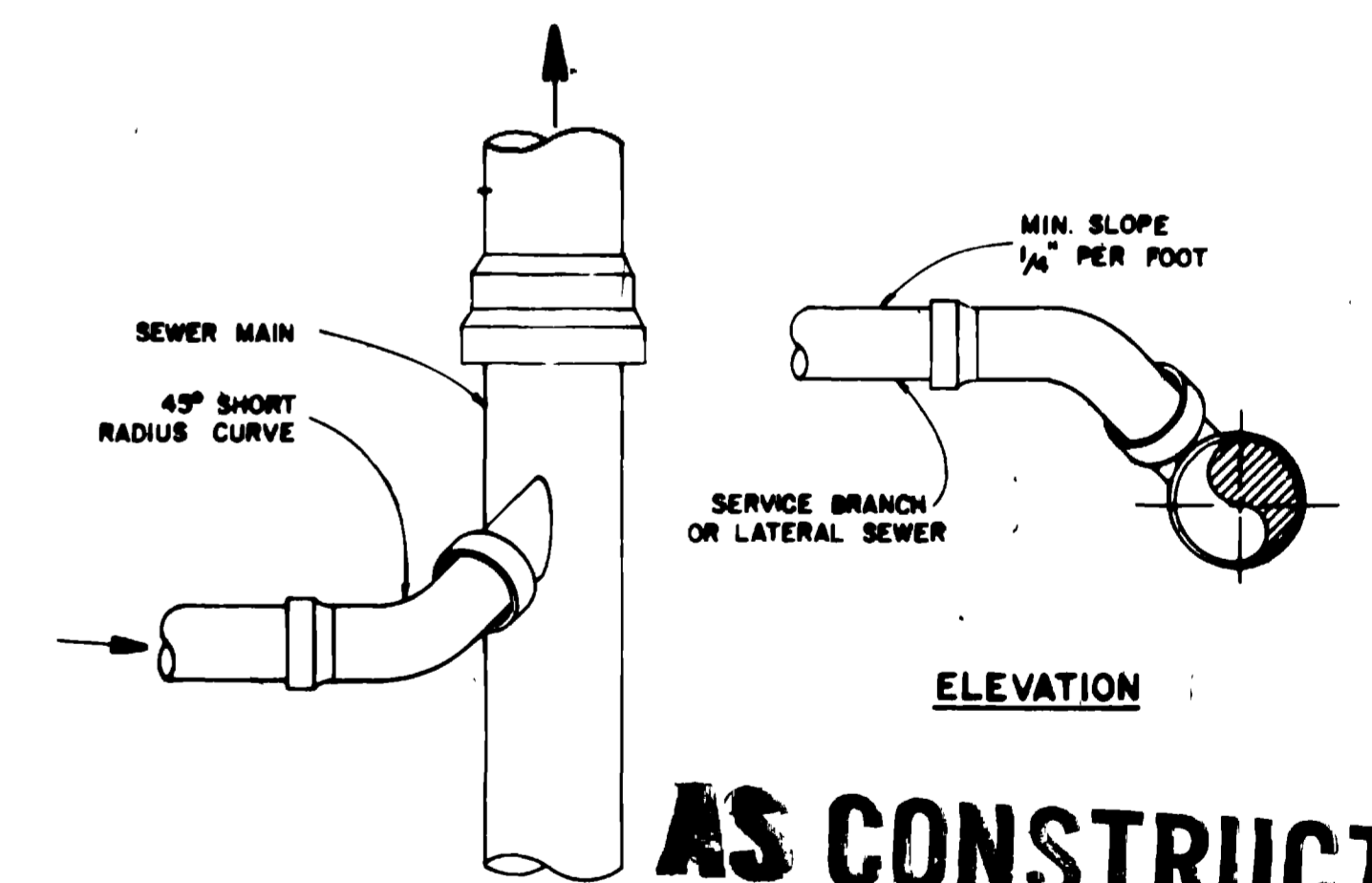


**"Y" JUNCTION**

**SECTION B-B**



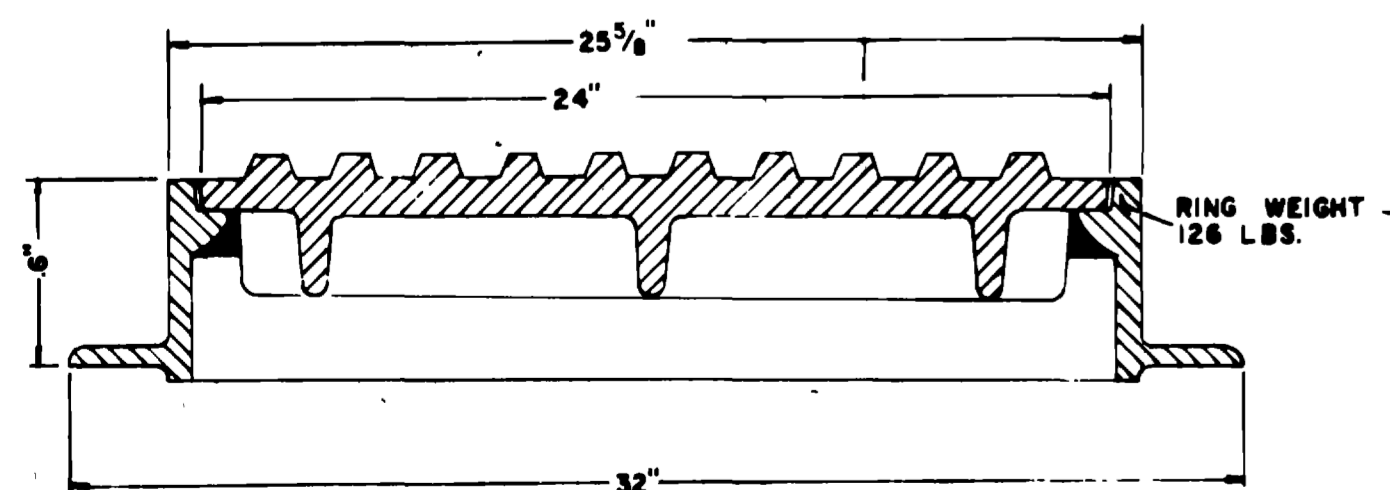
**CONNECTION TO EXISTING MANHOLE OR PIPE**



**ELEVATION**

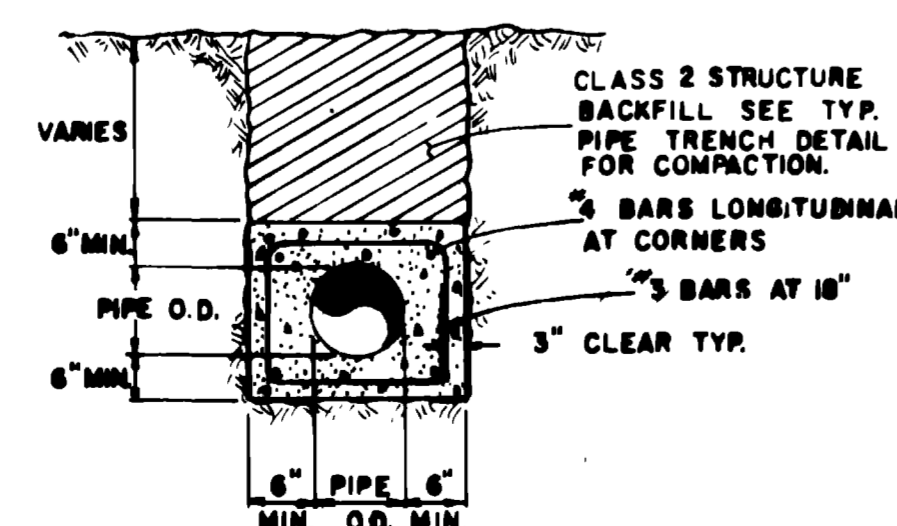
**AS CONSTRUCTED**

**TYPICAL LATERAL "Y" CONNECTION**



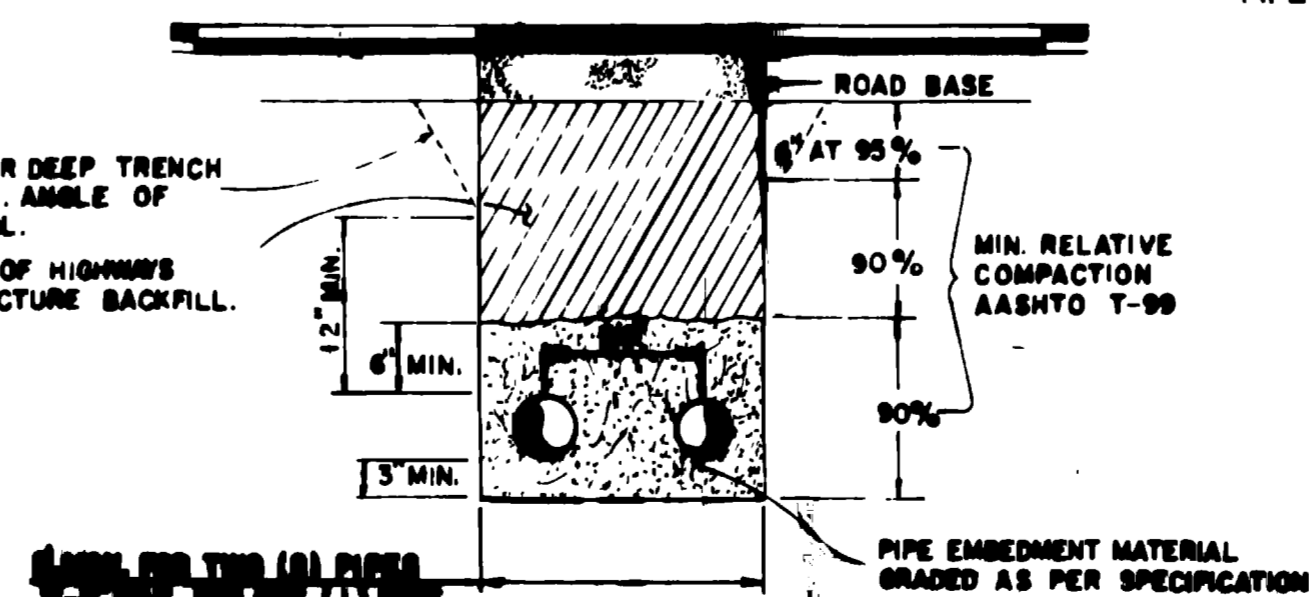
**SECTION A-A (RING)**

**STANDARD CAST IRON MANHOLE RING AND COVER**



**CONCRETE ENCASEMENT DETAIL**

ALTERNATE FOR DEEP TRENCH OR LOOSE SOIL. ANGLE OF REPOSE OF SOIL. COLD DIVISION OF HIGHWAY'S CLASS 2 STRUCTURE BACKFILL.



**PIPE TRENCH DETAIL**

PIPE TRENCH NOTES:

1. ALL BACKFILL MATERIAL SHALL BE PLACED FULL WIDTH AND COMPACTIONED IN 12" MAX. LIFTS TO THE MIN. RELATIVE COMPACTIONS SHOWN IN DETAIL.
2. VERTICAL TRENCH WALLS ARE DESIRED. IF THIS IS NOT PRACTICAL THE SIDES MAY BE SLOPED BACK FROM 1' ABOVE THE TOP OF PIPE WHERE APPROVED BY THE ENGINEER.

CITY ENGINEER - UTILITIES

DEPARTMENT OF PUBLIC WORKS  
ENGINEERING DIVISION  
CITY OF GRAND JUNCTION, COLORADO

STANDARD SANITARY SEWER  
DETAILS

DRAWN BY: [Signature] DATE: 2-28-71  
CHECKED BY: [Signature] DATE: 3-16-71  
APPROVED BY: [Signature] DATE: 2-16-71

12668