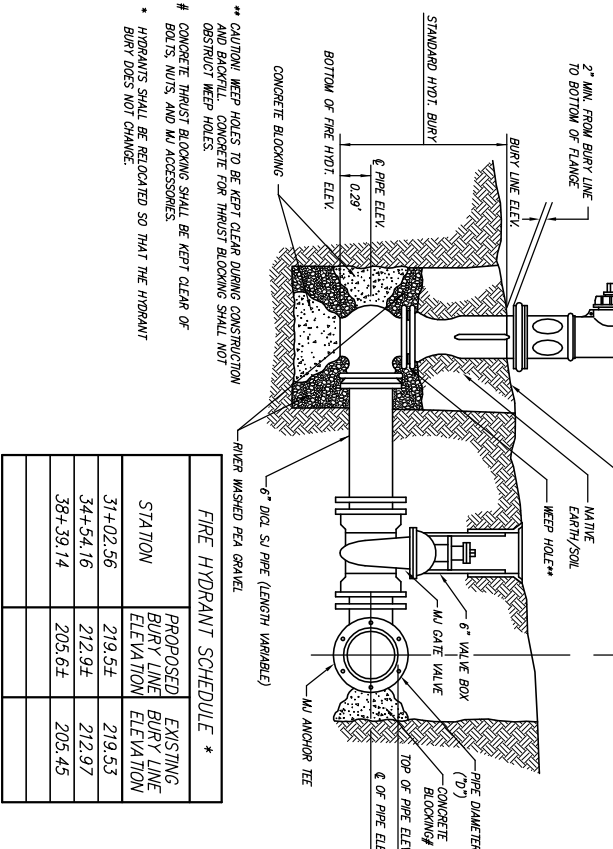


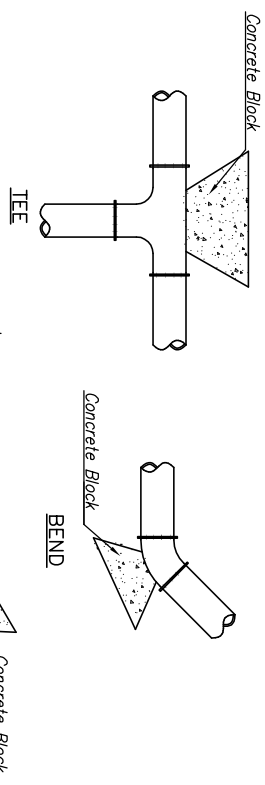
- MATERIALS LIST**
- 1-MU ANCHOR TEE (20" x 6")
 - 1-6" MU GATE VALVE
 - 1-6" DIA. SI PIPE (LENGTH VARIABLE)
 - 1-FIRE HYDRANT CONCRETE BLOCKING (AS NEEDED)



FIRE HYDRANT SCHEDULE *

STATION	PROPOSED BURY LINE ELEVATION	EXISTING BURY LINE ELEVATION
31+02.56	219.54	219.53
34+54.16	212.94	212.97
38+39.14	205.64	205.45

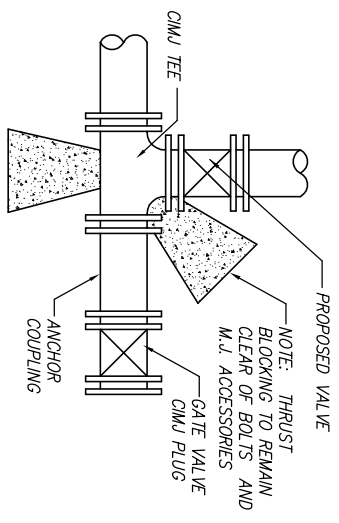
FIRE HYDRANT ASSEMBLY
PER CITY OF WICHITA SPECIFICATIONS



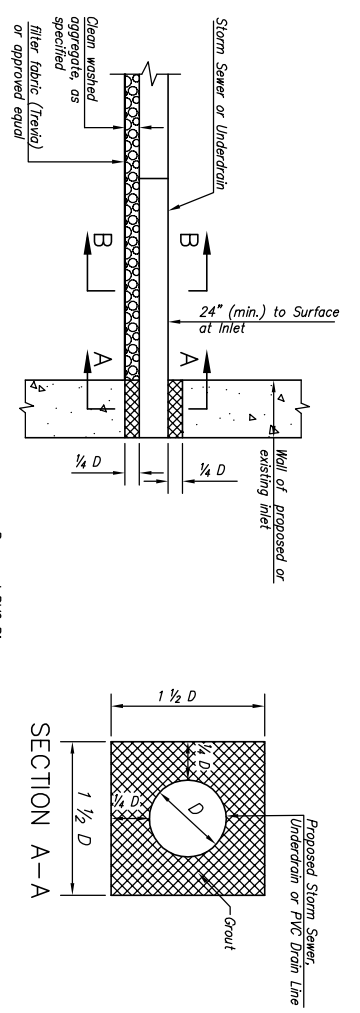
THRUST AT FITTINGS IN TONS - AT 150#/IN² F

PIPE SIZE	THRUST AT FITTINGS IN TONS - AT 150#/IN ² F
90°	45
12 1/2"	1.4
TEE	
6"	2.8
3.95	2.15
1.09	.55
2.8	
4.9	6.95
3.75	1.90
4.9	
12"	11.4
16.1	8.75
4.45	2.25
11.4	
16"	20.15
28.5	15.4
7.85	3.95
20.15	
31.15	44.0
23.85	12.15
6.10	31.15
24"	44.55
63.0	34.1
17.4	8.75
44.55	

TYPICAL THRUST BLOCKS

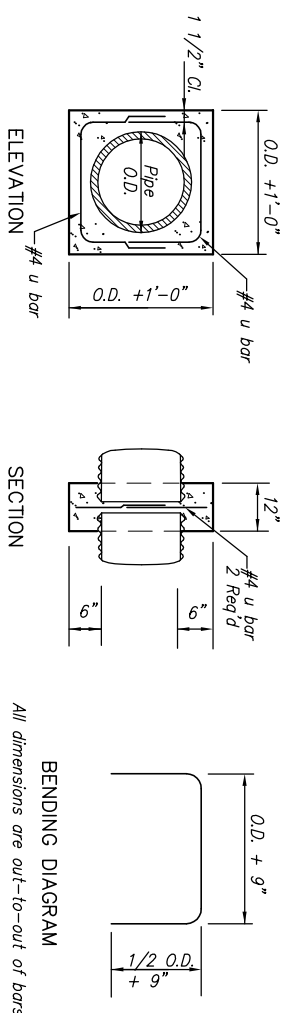


KEY BLOCK DETAIL



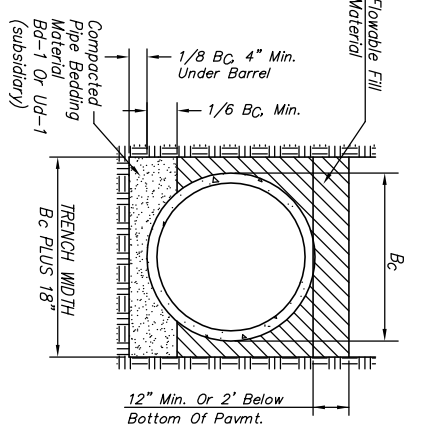
PIPE CONNECTION DETAIL

NOTE: A hole shall be made through existing structures as shown to accommodate pipe connections. Round holes are acceptable. Clean grovel and filter fabric around pipe will not be required around concrete storm sewer pipe.

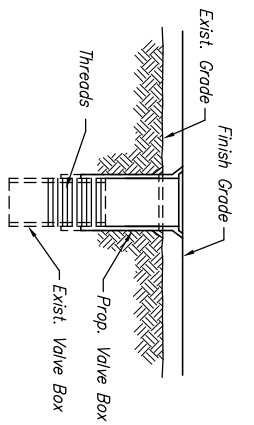


COLLAR DETAIL

All dimensions are out-to-out of bars

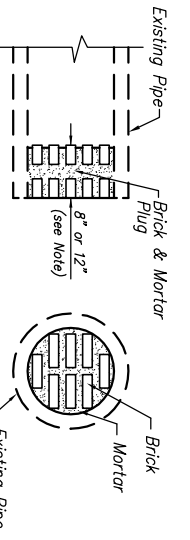


FLOWABLE FILL DETAIL
(FOR STORM SEWER PIPE)



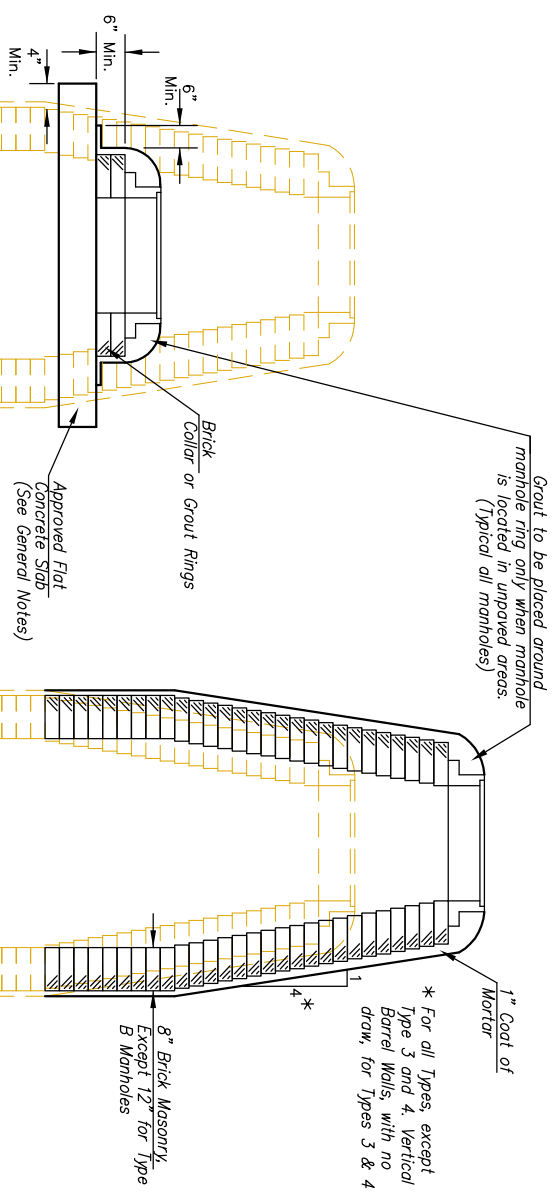
WATER VALVE BOX ADJUSTMENT DETAIL

Valve Adjustment Shall Be Paid As "Valve Adjustment".



PIPE PLUGGING DETAIL

Note: Pipe Plugs Shall Be Constructed Of Brick Masonry, With Construction Requirements And Materials Conforming To The Std. Specs. Pipes Having Diameters Of 18" Or Smaller Shall Be Plugged With 8" Thick Plug. Pipes Having Diameters Larger Than 18" Shall Be Plugged With 12" Thick Plug. The Construction Of Pipe Plugs Shall Not Be Paid For Directly, But Shall Be Considered Subsidiary To Pipe Installation.
The Contractor May Use Other Methods To Plug Existing Pipe If Approved By The Project Engineer.



DOWNWARD ADJUSTMENT
(GREATER THAN 12")
All Types

UPWARD ADJUSTMENT
(GREATER THAN 12")
All Types

The Appropriate Portions Of The Draw And Barrel Of Type A, B, C, D, 1 And 2 Manholes Shall Be Removed. A Flat Concrete Slab Shall Be Placed And The Ring And Cover Reset. All Work And Materials Shall Conform To The Details Shown And The General Notes.

The Entire Draw Of Types A, B, C, D, 1 And 2 Manholes Shall Be Removed. The Manhole Barrel Raised The Appropriate Amount, A New Draw Constructed, And The Ring And Cover Reset. The Upper Portion Of Type 3 Manholes Shall Be Removed To The Bottom Of The Flat Concrete Slab. The Brick Masonry Barrel Supporting The Slab Shall Be Raised The Appropriate Amount, And The Slab And Ring And Cover Reset. The Wide Flange Ring And Cover Of Type 4 Manholes Shall Be Removed. The Brick Masonry Barrel Supporting The Ring Shall Be Raised The Appropriate Amount And The Ring And Cover Reset. All Work Required For A Greater Than Twelve Inch (12") Upward Adjustment Of Any Manhole Shall Be Accomplished With Brick Masonry In Accordance With The Details Shown And The General Notes.

MANHOLE ADJUSTMENTS

- NOTES:**
- Adjustments Less Than 12" Shall Be Achieved By Adding Or Removing The Required Thicknesses Of Brick And/or Grout Rings.
 - Brick Masonry Stacks May Be Substituted With Pre-Cast Barrel Sections and Concentric Cones Conforming to the Requirements of Pre-Cast Manholes.

STATE	PROJECT NO.	YEAR	SHEET NO.	SHEETS
KANSAS	87 N-0190-01	2005	45	96

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KANSAS DEPARTMENT OF TRANSPORTATION
MISCELLANEOUS DETAILS
PROJECT NO. 87 N-0190-01 SEDGWICK CO.
M K E C ENGINEERING CONSULTANTS, INC.
WICHITA, KANSAS

DESIGNED BY: JRA	CHECKED BY: JRA
DRAWN BY: WJU	DATE: 3/17/05
	SHEET: 45 OF 96