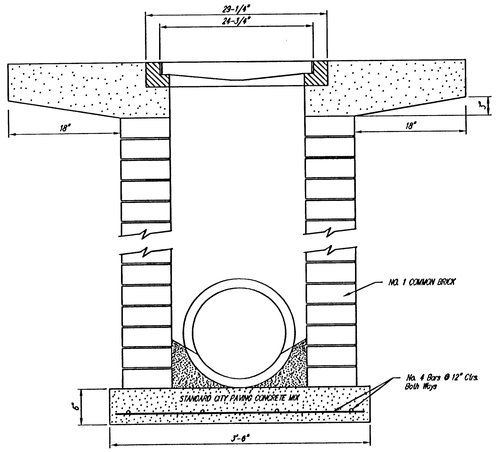
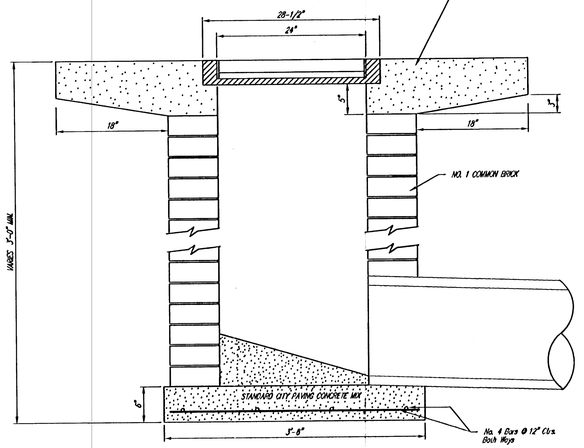
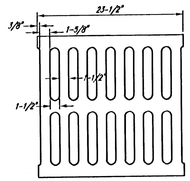
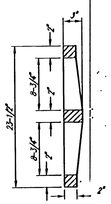






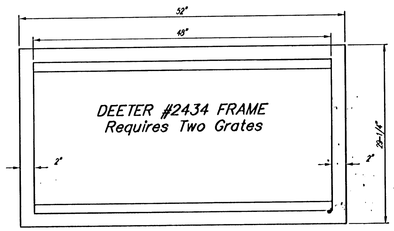


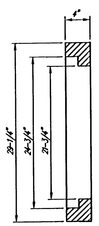
DEETER #2433 GRATE



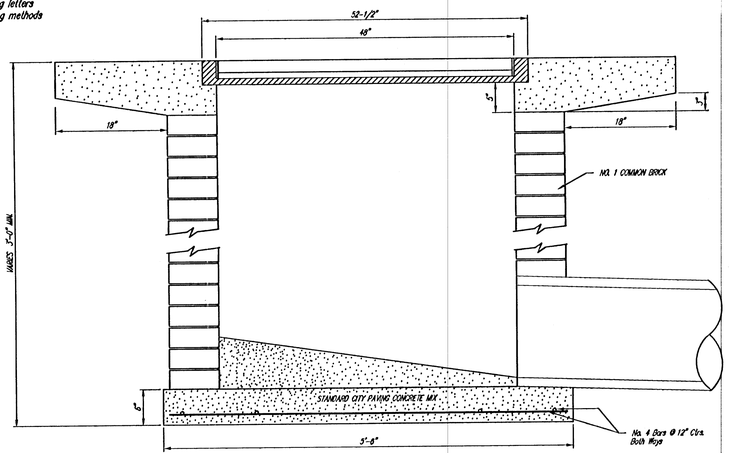
NOTE: Grates shall be imprinted on the top surface with "CITY OF WICHITA" using letters at least 1" in height. Other marking methods may be approved by the engineer.

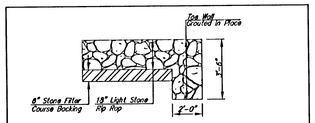
24" x 24" Frame and Grate Detail





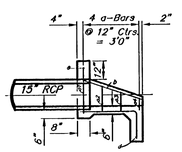
Double 24" x 24" Frame Detail



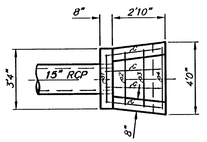


NOTES:
1. TOEWALLS SHALL BE INSTALLED AT LOCATIONS SHOWN IN THE DETAIL.
2. GROUTING OF THE SURFACE RIPRAP SHALL NOT BE PERFORMED.
3. ALL RIPRAP FOR THIS PROJECT SHALL BE NATURAL STONE. NEITHER CONCRETE, FABRIC ENVELOP, NOR PREMIXED DRY PACKAGE CONC. BAG ALTERNATED WILL BE ALLOWED.
4. THE RIPRAP TOEWALL SHALL BE GROUTED IN PLACE FOR THE FULL DEPTH, EXCEPT THE SURFACE.

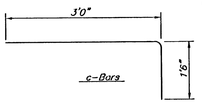
TYPICAL SECTION THRU RIPRAP TOEWALL

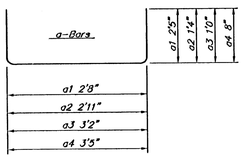


SECTION



PLAN





a1 2'5"	a2 1'4"	a3 1'0"	a4 8"

GENERAL NOTES

1. ALL PIPES SHALL BE FLUSH CUT PRIOR TO BEING CAST INTO CONCRETE HEADWALL
2. CONCRETE USED IN HEADWALL CONSTRUCTION SHALL BE SAME AS PER CITY STANDARD PAVING MIX EXCEPT THAT IT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI.
3. ALL EXPOSED EDGES SHALL BE BEVELED 1/2".
4. REINFORCING STEEL SHALL COMPLY TO A.S.T.M. DESIGNATION A615 GRADE 60. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BAR UNLESS OTHERWISE NOTED.
5. THE "REIN. CONC. HEADWALL" SHALL BE PAID FOR AT THE UNIT PRICE BID PER EACH IN PLACE WHICH SHALL INCLUDE ALL LABOR, MATERIALS, EXCAVATION, CONCRETE, REINFORCING STEEL AND ALL OTHER INCIDENTAL ITEMS NECESSARY TO COMPLETE THE WORK. MATERIAL QUANTITIES SHOWN ARE FOR INFORMATION ONLY.

REBAR SCHEDULE

Bar	Shape	No.	Length	Weight
a1		1	7'6"	5.01
a2		1	5'7"	3.73
a3		1	5'2"	3.45
a4		1	4'9"	3.17
b		2	4'0"	5.34
c		4	5'6"	14.70
d		1	3'5"	2.28
e		1	2'8"	1.78
Total Rebar			39.46 Lbs.	
Concrete			0.67 C.Y.	

A Deduction in Concrete Quantities Has Been Made for Pipe Openings Through the Headwall
* Field Bend or Cut Reinforcing as Required for Clearance.
All Concrete Reinforcement to be #4 Rebar
All Rebar to Have Min. of 1 1/2" Conc. Cover

HEADWALL FOR 15" RCP

Baughman

City of Wichita Standard
Drop Inlet Detail
Headwall & Toewall Detail

Baughman Company, P.A. 315 Elm St. Wichita, KS 67211 P 316.262.7211 F 316.262.0149
ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

PROJECT NUMBER	DESIGN	DRAWN
1696 FPS (607861)	C.O.W.	Staff
REVISIONS	APPROVED	DATE 9/06
	SCALE None	
	SHEET	3 OF 4

Dotson Clinic SWS\Dropinlt 06-08-E642