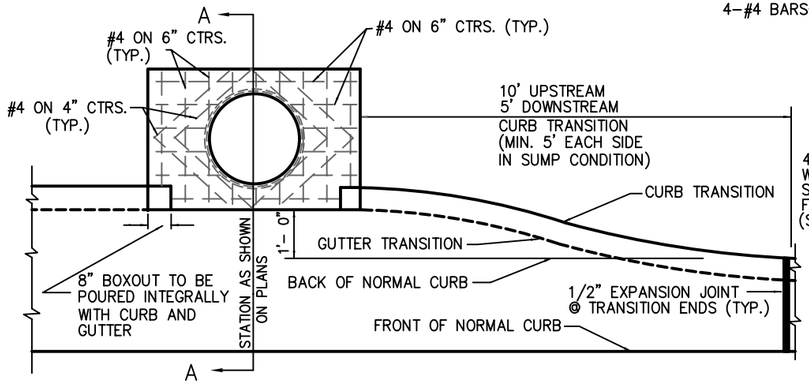
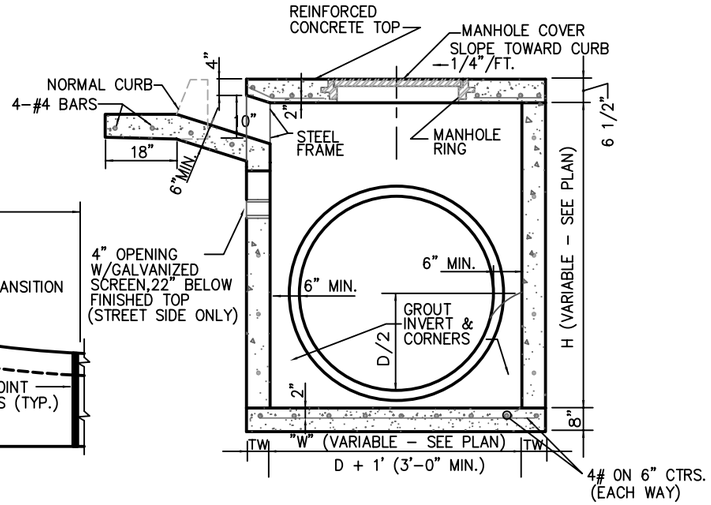
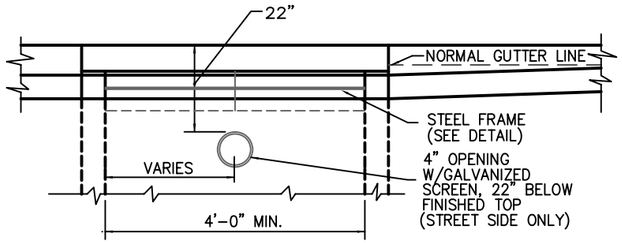
NOTE: IF LIFTING LOOPS ARE LOCATED ON THE TOP OF THE PRECAST INLET TOPS, A MINIMUM OF 2" COVER IS REQUIRED OVER THE LIFTING LOOPS.



PLAN VIEW



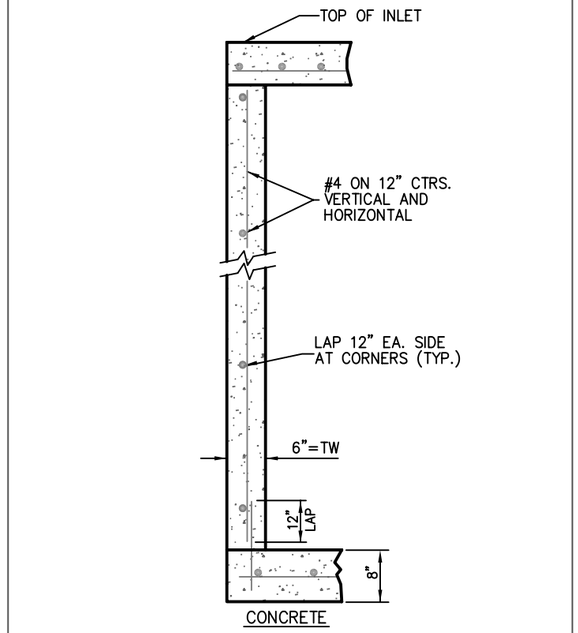
SECTION A-A



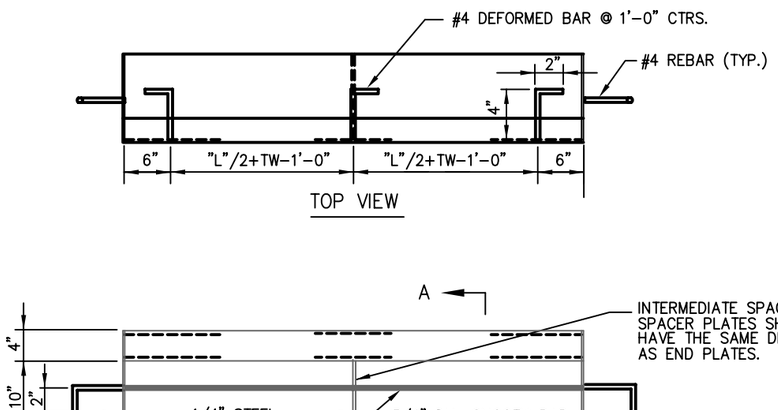
FRONT ELEVATION

NOTES:

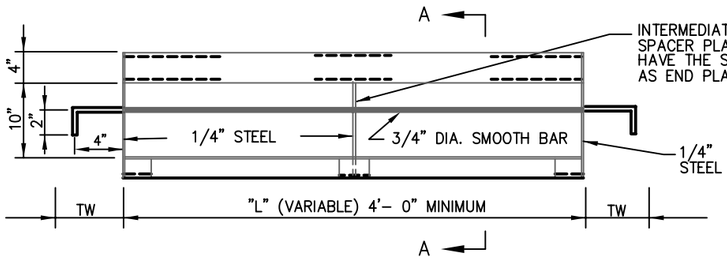
1. CONTRACTOR SHALL PROVIDE STEPS SPACED AT 1'-4" O.C. WHERE INLET OR MANHOLE DEPTH IS GREATER THAN 4'-0". STEPS SHALL BE M.A. INDUSTRIES, INC. MODEL PS-2-PF OR APPROVED EQUAL.
2. USE OF PRECAST CONCRETE REQUIRES CITY ENGINEER'S APPROVAL OF SHOP DRAWINGS
3. ~~MANHOLE RING AND LID SHALL BE CLAY & BAILEY NO. 2020, DEETER 2016 (185 LBS.) OR AN APPROVED EQUAL.~~ (SEE NEW STORM MANHOLE RING & LID DETAIL - REV 2021)
4. SPACER SHALL BE PLACED AT EQUAL INTERVALS ACCORDING TO THE FOLLOWING: L = 4'-0", 2 SPACES; L = 5'-0", 2 SPACES; L = 6'-0", 2 SPACES; L = 7'-0", 2 SPACES; L = 8'-0", 3 SPACES; L=10'-0", 3 SPACES.
5. THE FIRST DIMENSION IN THE PLAN NOTATIONS REFERS TO THE "L" DIMENSION.
6. THE SECOND DIMENSION IN THE PLAN NOTATIONS REFERS TO THE "W" DIMENSION.
7. ALL METAL SURFACES, AFTER BEING CLEANED OF ALL DUST, MILL SCALE AND WELD SCALE SHALL BE COATED UNIFORMLY WITH ONE COAT OF RED EPOXY PRIMER NO. 66-1211 AS MANUFACTURED BY TNEMEC CO., INC. THE PRIMER SHALL BE APPLIED TO A DRY FILM THICKNESS OF 4-6 MILS. APPLIED AT THE RATE RECOMMENDED BY THE MANUFACTURER (APPROX. 250 SQ. FT. PER GALLON), OR METAL SURFACES MAY BE ZINC COATED BY THE HOT DIP PROCESS CONFORMING TO ASTM A123-89.
8. CURB CONTRACTOR SHALL HAND FORM AND FINISH GUTTER WITHIN THE INLET THROAT TO THE REAR OF FRONT INLET WALL AT THE TIME THE FINISHING OF NORMAL CURB IS ACCOMPLISHED.
9. THE INVERT SHALL HAVE A TROWEL FINISH TO SECURE SMOOTH INVERT SLOPING TO OUTLET PIPE.
10. OUTLET OR INLET PIPE SHALL BE PLACED AS SPECIFIED OR AS DIRECTED BY THE ENGINEER. REINFORCING STEEL SHALL BE BENT AROUND PIPE.
11. USE ODOT CL A 3500 PSI CONCRETE FOR ALL STANDARD CATCH BASINS AND INLETS.



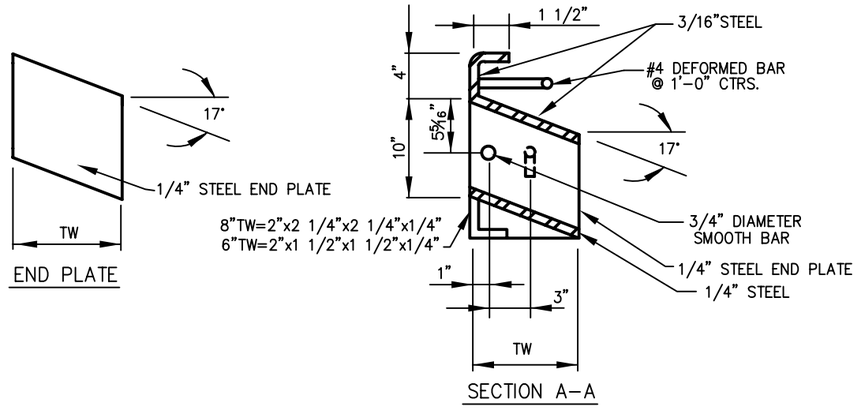
WALL SECTIONS



TOP VIEW



FRONT VIEW

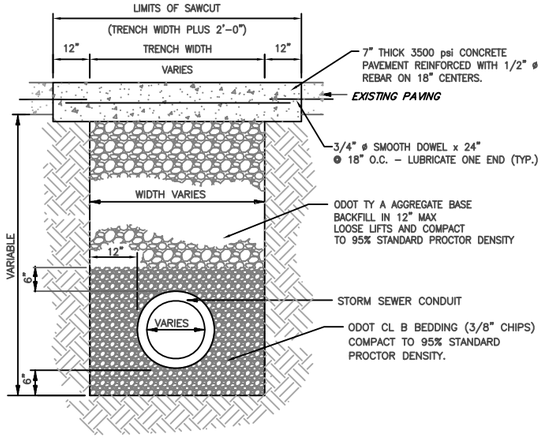


END PLATE

SECTION A-A

STEEL FRAME DETAIL

BARTLESVILLE OKLAHOMA	CITY OF BARTLESVILLE ENGINEERING SERVICES	APPROVED BY CITY ENGINEER REVISED - MAY 2021
	STANDARD CURB INLET DETAIL	

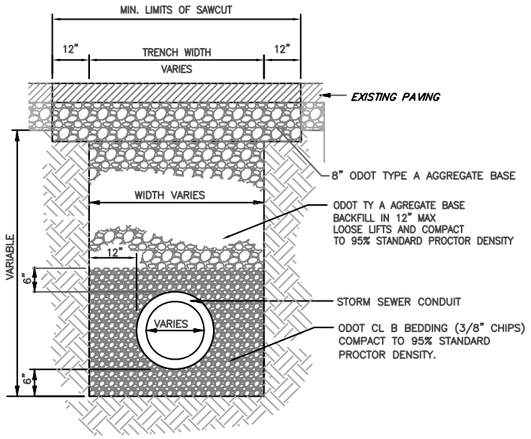


NOTES:
1) SAWCUT CONTRACTION JOINTS TO MATCH THE EXISTING JOINTS ON THE PAVEMENT. SAWCUTTING FOR REMOVAL OF PAVEMENT, CONTRACTION JOINTS AND SEALING SHALL BE SUBSIDIARY TO THE PRICE OF THE PAVEMENT REPAIR.

2) FOR DRIVEWAY CROSSINGS, THE SECTION SHALL BE REDUCED TO 6" THICK 3500 psi NON-REINFORCED CONCRETE DOWELED INTO THE EX. PAVEMENT WITH ½" ø x 24" REBAR ON 18" CENTERS.
3) FOR CONCRETE BOXES, SUBSTITUTE ODOT TY A AGGREGATE FOR THE BEDDING MATERIAL.

PIPE/BOX BEDDING DETAIL AT CONCRETE PAVING CROSSING

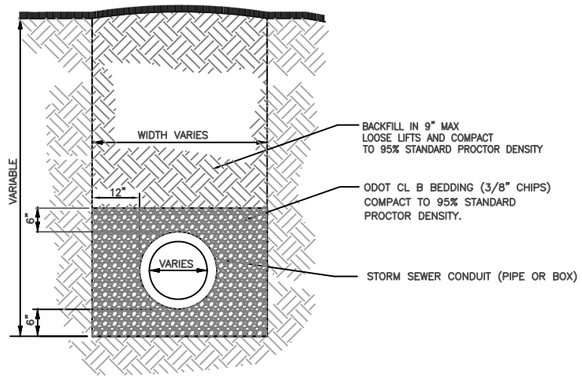
NOT TO SCALE



NOTES:
1. ASPHALT PAVING SECTION SHALL CONSIST OF 5" TY B HMAC PLACED IN 2" LIFTS OVER 8" OF TY A AGGREGATE BASE. PRIME THE SURFACE IN-BETWEEN THE AGGREGATE AND FIRST LIFT OF ASPHALT AND USE A TACK COAT BETWEEN THE LIFTS OF ASPHALT.
2. FOR CONCRETE BOXES, SUBSTITUTE ODOT TY A AGGREGATE FOR BEDDING MATERIAL.

PIPE/BOX BEDDING DETAIL AT ASPHALT PAVING CROSSING

NOT TO SCALE



NOTE:
1. FOR CONCRETE BOXES, SUBSTITUTE ODOT TY A AGGREGATE FOR BEDDING MATERIAL.

PIPE/BOX BEDDING DETAIL AT UNPAVED CROSSING

NOT TO SCALE

FILL CONCRETE SHALL CONTAIN ONE OF THE FOLLOWING OPTIONS OF MATERIAL IN EACH CUBIC YARD:

FILL CONCRETE			
QUICK SET		REGULAR	
RAPID SET CEMENT	100 LBS.	TYPE 1 CEMENT	60 LBS.
FLY ASH	0 LBS.	FLY ASH	290 LBS.
SAND	2970 LBS.	SAND	2750 LBS.
WATER	55 GAL	WATER	55 GAL
AIR	0%	AIR	0%

THE 28 DAY COMPRESSIVE STRENGTH SHOULD BE 65 PSI

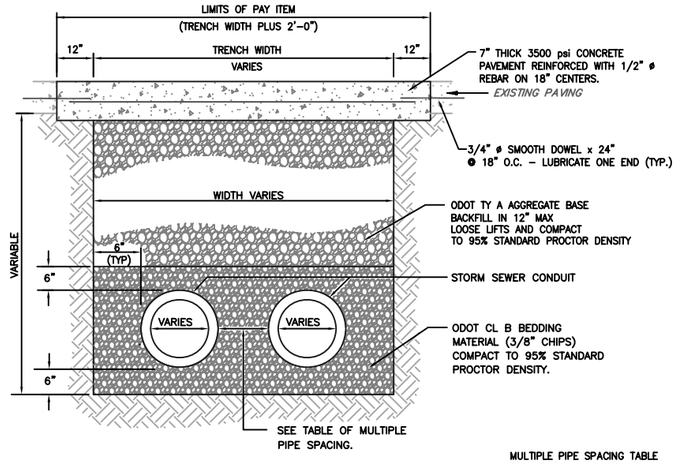
THE SAND SHALL HAVE 100% PASSING THE 3/4" INCH SIEVE AND 0%-20% PASSING THE No. 200 SIEVE.

STANDARD TRENCH WIDTH SHALL VARY WITH PIPE DIAMETER AS FOLLOWS:

PIPE SIZE (IN)	TRENCH WIDTH (IN.)
< I.D. 24"	O.D. + 24"
< I.D. 36"	O.D. + 30"
< I.D. 60"	O.D. + 42"
I.D. ≥ 60"	PER PUBLIC WORKS DEPT.

FLOWABLE FILL GENERAL NOTES

AREA DISTURBED BEYOND THE PAY LIMITS SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE



MULTIPLE PIPE SPACING TABLE

SPAN/DIAMETER	SPACING
UP TO 24"	12"
30" TO 42"	18"
48" TO 60"	24"

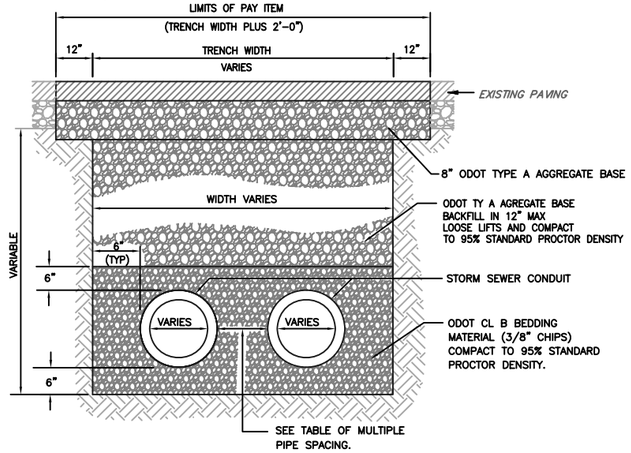
NOTES:
1) SAWCUT CONTRACTION JOINTS TO MATCH THE EXISTING JOINTS ON THE PAVEMENT. SAWCUTTING FOR REMOVAL OF PAVEMENT, CONTRACTION JOINTS AND SEALING SHALL BE SUBSIDIARY TO THE PRICE OF THE PAVEMENT REPAIR.

2) FOR DRIVEWAY/PARKING CROSSINGS, THE SECTION SHALL BE REDUCED TO 6" THICK 3500 psi NON-REINFORCED CONCRETE DOWELED INTO THE EX. PAVEMENT WITH ½" ø x 24" REBAR ON 18" CENTERS.

3) FOR BOXES, USE ODOT TY A AGGREGATE FOR THE BEDDING MATERIAL

PIPE/BOX BEDDING DETAIL AT CONCRETE PAVING CROSSING

NOT TO SCALE

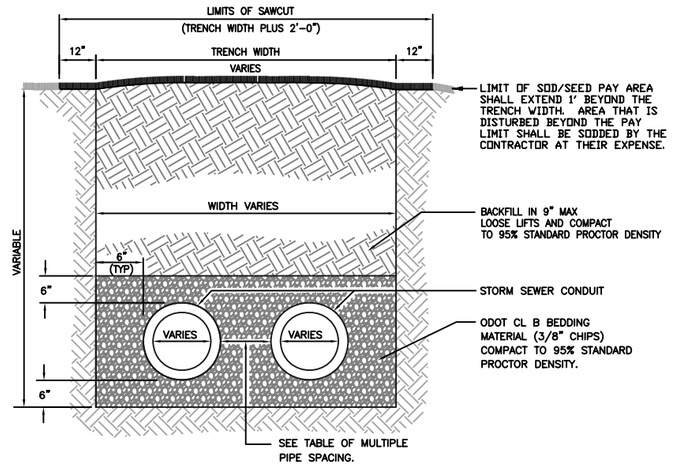


NOTE:
1) ASPHALT PAVING SECTION SHALL CONSIST OF 5" TY B HMAC PLACED IN 2" LIFTS OVER 8" OF TY A AGGREGATE BASE. PRIME THE SURFACE IN-BETWEEN THE AGGREGATE AND FIRST LIFT OF ASPHALT AND USE A TACK COAT BETWEEN THE LIFTS OF ASPHALT.

2) FOR BOXES, USE ODOT TY A AGGREGATE FOR THE BEDDING MATERIAL

PIPE/BOX BEDDING DETAIL AT ASPHALT PAVING CROSSING

NOT TO SCALE



NOTE:
1) FOR BOXES, USE ODOT TY A AGGREGATE FOR THE BEDDING MATERIAL

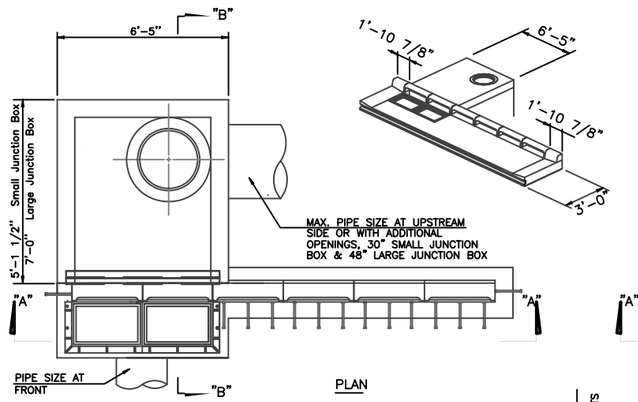
PIPE/BOX BEDDING DETAIL AT UNPAVED CROSSING

NOT TO SCALE

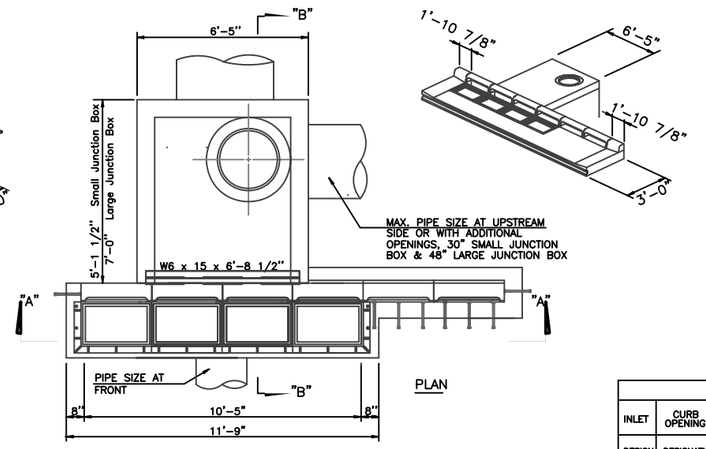
CITY OF BARTLESVILLE
ENGINEERING SERVICES

APPROVED BY CITY ENGINEER
REVISED - JULY 2005

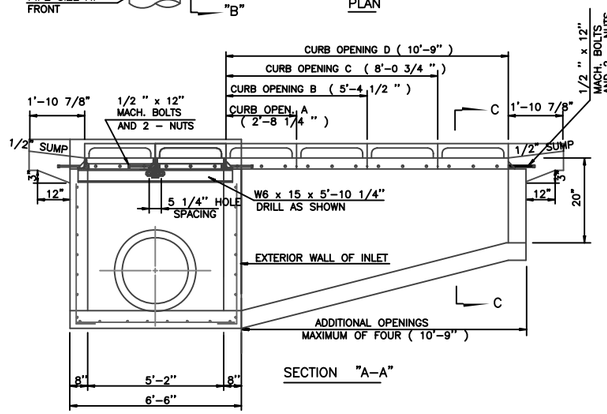
STORM DRAIN DETAILS



PLAN

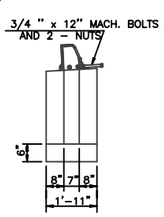


PLAN

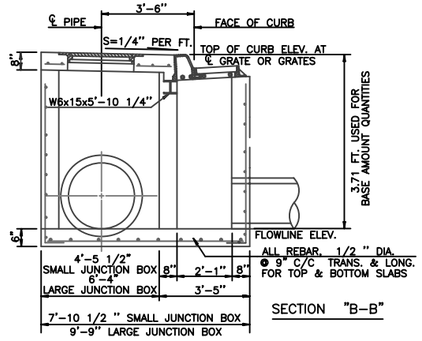


SECTION "A-A"

DOUBLE GRATE CURB INLET WITH JUNCTION BOX
(DESIGN 2-D SHOWN)



SECTION "C-C"



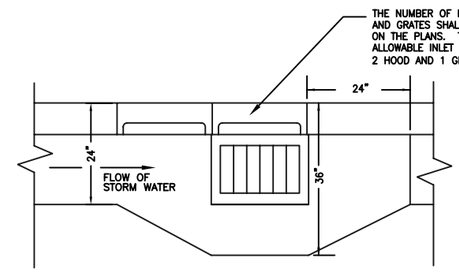
SECTION "B-B"

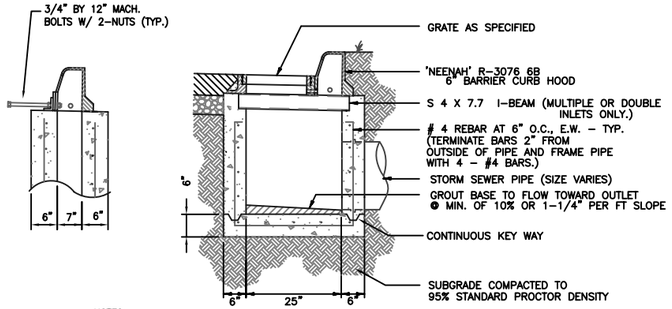
GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 1999 STANDARD SPECIFICATIONS.
2. EXPOSED CONCRETE EDGES SHALL HAVE A 3/4 " CHAMFER. EXPOSED SURFACES SHALL BE FINISHED IN ACCORDANCE WITH SECTION 509 OF THE 1988 STANDARD SPECIFICATIONS.
3. STANDARD SSIF-2 FRAME AND STANDARD CIG-1 GRATES TO BE USED WITH THE INLETS AS DETAILED ON THE SHEET.
4. THE INLET APRON MAY BE BUILT OF THE SIZE SHOWN ON THIS SHEET OR MAY BE PLACED INTEGRALLY WITH CONCRETE PAVEMENT. THE THICKNESS IN EITHER CASE SHALL BE THE SAME AS THE PAVEMENT.
5. THERE WILL BE NO DEDUCTION OF PAYMENT FOR P.C. CONCRETE PAVEMENT OR CONCRETE CURB AND GUTTER THRU THE EXTENT OF THE CAST IRON CURB INLETS. DEDUCTION WILL BE MADE FOR THE PAYMENT OF INTEGRAL CURB THRU THE EXTENTS OF THE CAST IRON CURB INLETS.
6. QUANTITIES SHOWN TABLE 'A' INCLUDE QUANTITIES REQUIRED TO CONSTRUCT GRATED CURB INLET AND ADDITIONAL CURB OPENINGS. INLET QUANTITIES FOR DEPTHS GREATER THAN 3.71 FT. (TOP CURB TO FLOWLINE OF INLET) CAN BE OBTAINED BY THE ADD'L. CU. FT. PER VERT. FT. AMOUNT ADDED TO THE BASE AMOUNT. LEADS LARGER THAN 8" ARE DEDUCTED FROM THE INLET QUANTITIES.
7. THE COST FOR CONCRETE, REINFORCING STEEL, UNCLASSIFIED EXCAVATION AND ALL MISC. ITEMS SHALL BE INCLUDED IN THE AMOUNT BID FOR EACH INLET.

QUANTITIES FOR INLETS

INLET	CURB OPENING	REINFORCING STEEL	CLASS 'A' CONCRETE		INLET FRAME & GRATE	CAST IRON CURB INLET	MH FRAME & COVER
DESIGN	DESIGNATION	LBS.	BASE AM'T. C.Y.	ADD'L C.Y. PER VERT. FT.	EACH	EACH	EACH
		182.00	4.11	0.51	2	2	1
2 WITH SMALL JUNCT. BOX	"A"	193.50	4.51	0.61	2	3	1
	"B"	204.69	4.86	0.71	2	4	1
	"C"	214.25	5.17	0.80	2	5	1
	"D"	225.48	5.49	0.89	2	6	1
		210.56	5.47	0.77	4	4	1
3 WITH SMALL JUNCT. BOX	"B"	247.17	6.23	0.97	4	6	1
	"D"	271.00	6.86	1.15	4	8	1
	"2D"	331.44	8.25	1.53	4	12	1
		213.60	4.45	0.73	2	2	1
2 WITH LARGE JUNCT. BOX	"A"	227.07	4.85	0.87	2	3	1
	"B"	240.25	5.20	1.01	2	4	1
	"C"	251.48	5.51	1.14	2	5	1
	"D"	264.66	5.83	1.27	2	6	1
		247.14	5.81	1.10	4	4	1
3 WITH LARGE JUNCT. BOX	"B"	290.12	6.57	1.38	4	6	1
	"D"	318.12	7.20	1.64	4	8	1

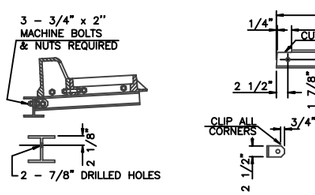




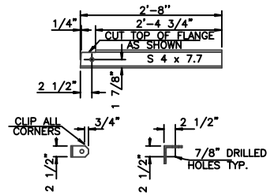
NOTES:
1. WHERE NEW CONCRETE ABUTS EXISTING CONCRETE, INSTALL AN EXPANSION JOINT.
2. THE LONGITUDINAL SLOPE OF THE HOODS AND GRATES SHALL MATCH THE LONGITUDINAL SLOPE OF THE ROAD.

STANDARD CURB INLET DETAIL

NOT TO SCALE

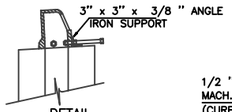


W6 x 15.5 x 4'-8"



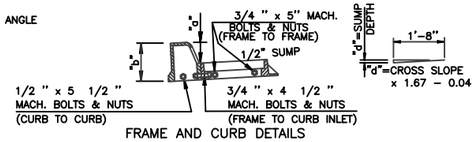
4" x 4" x 3/8" x 2 1/2" CONNECTION CLIPS

DOUBLE GRATE INLET - SUPPORT BEAM DETAIL



ADD'L. CURB OPENING

ANGLE IRON LENGTHS	
OPENING	LENGTH
"A"	2'-5 3/8 "
"B"	5'-1 5/8 "
"C"	7'-9 7/8 "
"D"	10'-6 1/8 "

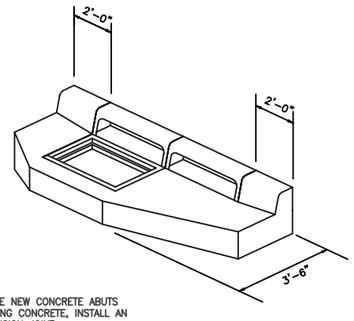


FRAME AND CURB DETAILS

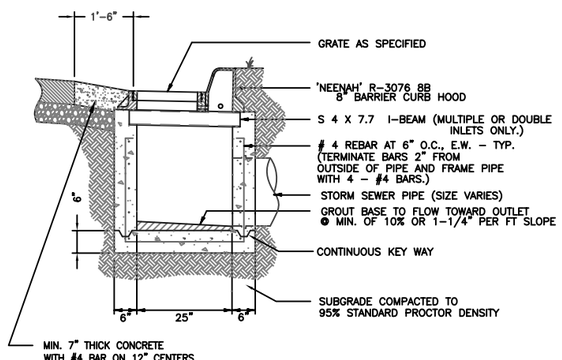
C. I. CURB HEIGHTS				
TYPE	"a"		"b"	
4" MOUNTABLE	4	1/2 "	9	1/2 "
6" MOUNTABLE	6	1/2 "	11	1/2 "
6" BARRIER	6	1/2 "	11	1/2 "
8" BARRIER	8	1/2 "	13	1/2 "

ODOT SPECIAL INLET DETAILS CICI JUNCTION BOX DESIGN 2 & 3

NOT TO SCALE

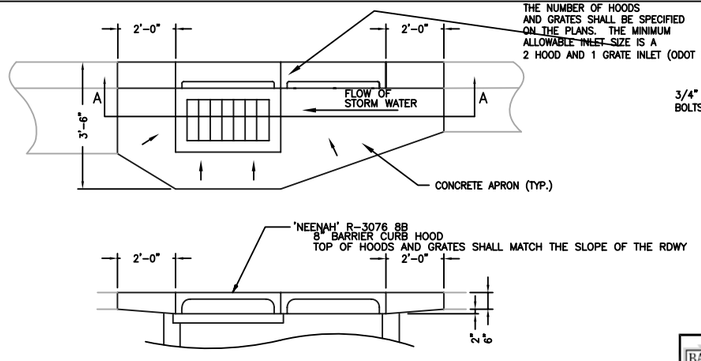


NOTES:
1. WHERE NEW CONCRETE ABUTS EXISTING CONCRETE, INSTALL AN EXPANSION JOINT.
2. THE LONGITUDINAL SLOPE OF THE HOODS AND GRATES SHALL MATCH THE LONGITUDINAL SLOPE OF THE ROAD.

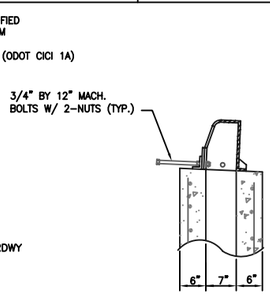


DEPRESSED CURB INLET DETAIL

NOT TO SCALE



SECTION A-A



CITY OF BARTLESVILLE ENGINEERING SERVICES		APPROVED BY CITY ENGINEER REVISED - JULY 2005
STORM DRAIN DETAILS		