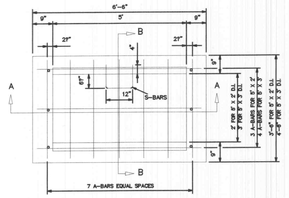
DETAILS

PERUQUE CROSSING PHILLIPS 66

00-11282M 6-12-06

9-21-06 CITY COMMENTS
10-24-06 CITY COMMENTS
10-25-06 LIGHTING
11-14-06 CITY COMMENTS



TYPICAL PLAN

QUANTITIES

D	TYPE S-1 5' X 2' CONC CY	TYPE S-1 5' X 2' STEEL LBS.	TYPE S-1 5' X 3' CONC CY	TYPE S-1 5' X 3' STEEL LBS.	TYPE S-2 5' X 2' CONC CY	TYPE S-2 5' X 2' STEEL LBS.	TYPE S-2 5' X 3' CONC CY	TYPE S-2 5' X 3' STEEL LBS.	TYPE S-3 5' X 2' CONC CY	TYPE S-3 5' X 2' STEEL LBS.	TYPE S-3 5' X 3' CONC CY	TYPE S-3 5' X 3' STEEL LBS.
1'-0"									1.42	61	1.58	74
1'-3"									1.54	64	1.82	77
1'-6"					1.67	77	1.86	92	1.66	79	1.95	94
1'-9"					1.69	80	2.02	95	1.78	82	2.08	97
2'-0"	1.69	77	1.98	92	1.80	83	2.13	98	1.90	84	2.31	100
2'-3"	1.81	80	2.12	95	2.04	101	2.40	107	2.03	87	2.46	103
2'-6"	1.93	90	2.26	112	2.14	109	2.42	119	2.15	102	2.54	120
2'-9"	2.43	101	2.51	118	2.27	108	2.68	124	2.37	108	2.74	128
3'-0"	2.45	113	2.76	138	2.51	124	2.94	144	2.60	138	3.00	148
3'-3"	2.64	132	3.04	152	2.75	127	3.21	158	2.84	138	3.27	160
3'-6"	2.87	150	3.30	172	2.98	155	3.47	178	3.08	157	3.53	180
3'-9"	3.11	159	3.57	182	3.22	165	3.73	188	3.31	164	3.80	190
4'-0"	3.35	177	3.83	202	3.48	183	4.00	208	3.55	184	4.06	210
4'-3"	3.58	188	4.10	213	3.69	193	4.25	219	3.78	195	4.33	221
4'-6"	3.82	206	4.36	233	3.93	211	4.53	239	4.02	213	4.59	241
4'-9"	4.05	215	4.62	243	4.16	222	4.79	249	4.26	222	4.85	251
5'-0"	4.29	233	4.89	263	4.40	236	5.05	269	4.49	240	5.13	272
5'-3"	4.53	242	5.15	283	4.63	248	5.32	289	4.73	252	5.39	293
5'-6"	4.80	260	5.42	293	4.87	268	5.58	300	4.96	267	5.64	303
5'-9"	5.00	270	5.66	303	5.11	276	5.85	310	5.20	277	5.91	313
6'-0"	5.27	288	5.94	333	5.34	293	6.11	330	5.44	295	6.17	333
10'-0"	5.47	297	6.21	333	5.56	303	6.37	340	5.67	304	6.43	342

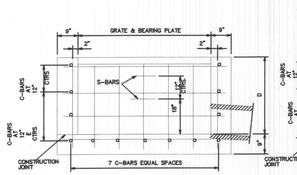
CONCRETE DEDUCTION FOR PIPE OPENINGS
18" PIPE = 0.04 CY 24" PIPE = 0.11 CY
30" PIPE = 0.06 CY 36" PIPE = 0.14 CY
48" PIPE = 0.08 CY 54" PIPE = 0.21 CY

QUANTITIES INCLUDE 0.05 CU. YDS. CONCRETE FOR INVERT

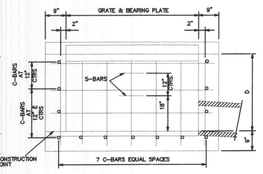
BAR BILLS

D	TYPE S-1 5' X 2' A-BARS	B-BARS	C-BARS	TYPE S-1 5' X 3' A-BARS	B-BARS	C-BARS	TYPE S-2 5' X 2' A-BARS	B-BARS	C-BARS	TYPE S-2 5' X 3' A-BARS	B-BARS	C-BARS	TYPE S-3 5' X 2' A-BARS	B-BARS	C-BARS	TYPE S-3 5' X 3' A-BARS	B-BARS	C-BARS	STEPS
	16 AT	6"-0" NO.	3"-0" NO.	16 AT	6"-0" NO.	4"-0" NO.	8 AT	7 NO.	6"-0" NO.	10 AT	7 NO.	6"-0" NO.	3 AT	4 NO.	6"-0" NO.	3 AT	4 NO.	6"-0" NO.	
1'-0"													2'-3"	1'-6"	5	10	2'-3"	1'-6"	8
1'-3"													2'-6"	2'-0"	5	10	2'-6"	2'-0"	9
1'-6"							1'-9"	2'-0"	8	11	1'-9"	2'-0"	2'-9"	2'-0"	7	12	2'-9"	2'-0"	10
1'-9"							2'-0"	2'-3"	8	11	2'-0"	2'-6"	3'-0"	2'-6"	7	12	3'-0"	2'-6"	11
2'-0"	2'-3"	7	11	2'-3"	8	11	2'-3"	2'-6"	8	11	2'-3"	2'-9"	3'-3"	2'-9"	7	12	2'-3"	2'-9"	12
2'-3"	2'-6"	7	11	2'-6"	8	11	2'-6"	2'-9"	8	11	2'-6"	3'-0"	3'-6"	3'-0"	7	12	3'-6"	3'-0"	12
2'-6"	2'-9"	8	12	2'-9"	10	13	2'-9"	3'-0"	10	13	2'-9"	3'-3"	3'-9"	3'-3"	8	14	3'-9"	3'-3"	13
2'-9"	3'-0"	9	13	3'-0"	10	13	3'-0"	3'-6"	10	13	3'-0"	3'-6"	4'-0"	3'-6"	8	14	4'-0"	3'-6"	14
3'-0"	3'-3"	9	13	3'-3"	10	13	3'-3"	3'-9"	10	13	3'-3"	3'-9"	4'-3"	3'-9"	8	14	4'-3"	3'-9"	14
3'-3"	3'-6"	11	15	3'-6"	12	15	3'-6"	4'-0"	12	15	3'-6"	4'-0"	4'-6"	4'-0"	9	14	4'-6"	4'-0"	15
3'-6"	3'-9"	11	15	3'-9"	12	15	3'-9"	4'-3"	12	15	3'-9"	4'-3"	4'-9"	4'-3"	9	14	4'-9"	4'-3"	16
3'-9"	4'-0"	11	15	4'-0"	12	15	4'-0"	4'-6"	12	15	4'-0"	4'-6"	5'-0"	4'-6"	11	16	5'-0"	4'-6"	16	2
4'-0"	4'-3"	13	17	4'-3"	14	17	4'-3"	4'-9"	14	17	4'-3"	4'-9"	5'-3"	4'-9"	11	16	5'-3"	4'-9"	18	2
4'-3"	4'-6"	13	17	4'-6"	14	17	4'-6"	5'-0"	14	17	4'-6"	5'-0"	5'-6"	5'-0"	13	18	5'-6"	5'-0"	18	3
4'-6"	4'-9"	15	19	4'-9"	16	19	4'-9"	5'-3"	16	19	4'-9"	5'-3"	6'-0"	5'-3"	13	20	6'-0"	5'-3"	20	3
4'-9"	5'-0"	15	19	5'-0"	16	19	5'-0"	5'-6"	16	19	5'-0"	5'-6"	6'-3"	5'-6"	15	20	6'-3"	5'-6"	20	4
5'-0"	5'-3"	17	21	5'-3"	18	21	5'-3"	6'-0"	18	21	5'-3"	6'-0"	6'-9"	6'-0"	15	22	6'-9"	6'-0"	22	4
5'-3"	5'-6"	17	21	5'-6"	18	21	5'-6"	6'-3"	18	21	5'-6"	6'-3"	7'-0"	6'-3"	17	22	7'-0"	6'-3"	22	5
5'-6"	5'-9"	19	23	5'-9"	20	23	5'-9"	6'-6"	20	23	5'-9"	6'-6"	7'-3"	6'-6"	17	24	7'-3"	6'-6"	24	5
5'-9"	6'-0"	19	23	6'-0"	20	23	6'-0"	6'-9"	20	23	6'-0"	6'-9"	7'-6"	6'-9"	19	24	7'-6"	6'-9"	24	6
6'-0"	6'-3"	21	25	6'-3"	22	25	6'-3"	7'-0"	22	25	6'-3"	7'-0"	8'-0"	7'-0"	19	26	8'-0"	7'-0"	26	6
6'-3"	6'-6"	21	25	6'-6"	22	25	6'-6"	7'-3"	22	25	6'-6"	7'-3"	8'-3"	7'-3"	21	26	8'-3"	7'-3"	26	7
6'-6"	6'-9"	23	27	6'-9"	24	27	6'-9"	7'-6"	24	27	6'-9"	7'-6"	8'-6"	7'-6"	21	28	8'-6"	7'-6"	28	7
6'-9"	7'-0"	23	27	7'-0"	24	27	7'-0"	7'-9"	24	27	7'-0"	7'-9"	8'-9"	7'-9"	23	28	8'-9"	7'-9"	28	7
7'-0"	10'-0"	23	27	10'-0"	24	27	10'-0"	10'-0"	24	27	10'-0"	10'-0"	10'-0"	10'-0"	23	28	10'-0"	10'-0"	28	7
10'-0"	10'-0"	23	27	10'-0"	24	27	10'-0"	10'-0"	24	27	10'-0"	10'-0"	10'-0"	10'-0"	23	28	11'-3"	10'-0"	28	7

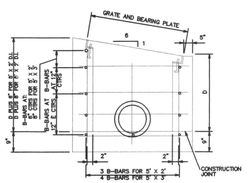
A, B, AND C BARS #4 S-BARS #8



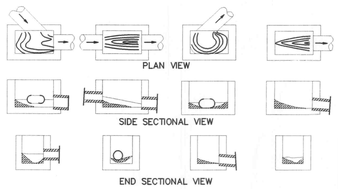
TYPE S-1
SECTION A-A



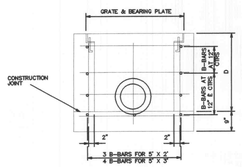
TYPE S-2
SECTION A-A



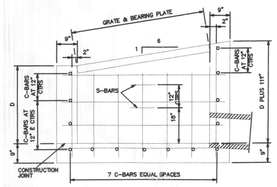
TYPE S-2
SECTION B-B



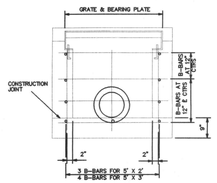
TYPICAL INVERTS



TYPE S-1
SECTION B-B



TYPE S-3
SECTION A-A



TYPE S-3
SECTION B-B

GENERAL NOTES:

THE TYPE OF DROP INLET, "S-1", "S-2", OR "S-3" WILL BE DESIGNATED ON THE PLANS. TYPICAL LOCATION DETAILS ARE INDICATED ON SHEET 3 OF 3.

NO DIRECT PAYMENT WILL BE MADE FOR CUTTING OR BENDING THE REINFORCING STEEL OR CUTTING PIPE AT PIPE OPENINGS.

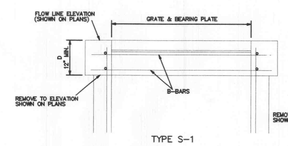
THE CONCRETE FOR INVERTS SHALL BE PLACED AFTER COMPLETION OF THE DROP INLET BOX.

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

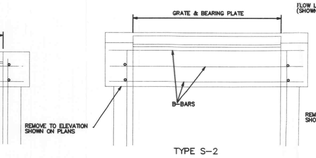
DROP INLET

TYPE S

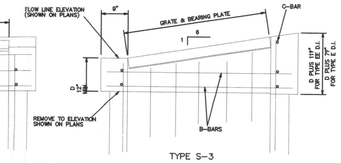
EFFECTIVE: 05-01-1997 604.27E 1/3



TYPE S-1
SECTION A-A

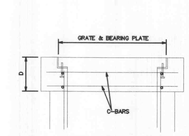


TYPE S-2
SECTION A-A

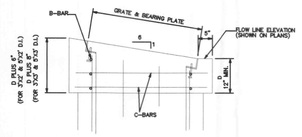


TYPE S-3
SECTION A-A

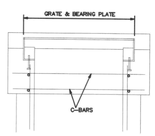
BAR BILL			S-1		S-2		S-3	
TYPE OF MODIFICATION DROP INLET	BAR	LGTH.	FOR 1 EACH ADD'L. DI	FOR 1 EACH ADD'L. DI	FOR 1 EACH ADD'L. DI	FOR 1 EACH ADD'L. DI	FOR 1 EACH ADD'L. DI	FOR 1 EACH ADD'L. DI
E 3' X 2'	B	4'-3"	4	2	4	2	4	2
	C	3'-3"	4	2	4	2	5	2
E 3' X 3'	B	4'-3"	4	2	4	2	4	2
	C	4'-3"	4	2	4	2	5	2
EE 3' X 2'	B	6'-3"	4	2	5	2	4	2
	C	3'-3"	4	2	4	2	5	2
EE 3' X 3'	B	6'-3"	4	2	5	2	4	2
	C	4'-3"	4	2	4	2	5	2
ALL BARS ARE #4								



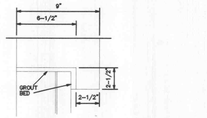
TYPE S-1
SECTION B-B



TYPE S-2
SECTION B-B

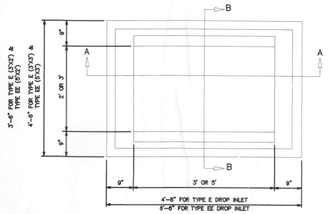


TYPE S-3
SECTION B-B



THE CONTRACTOR MAY, SUBJECT TO THE APPROVAL OF THE ENGINEER, PROVIDE A PRECAST UNIT IN LIEU OF CAST-IN-PLACE MODIFICATION. THE PRECAST UNIT SHALL BE FABRICATED AND SHALL CONFORM IN ALL RESPECTS TO THE REQUIREMENTS FOR CAST-IN-PLACE UNITS INCLUDING DIMENSIONS AND REINFORCEMENT. EXCEPT THAT A 12" 2-1/2" X 2-1/2" SHALL BE FORMED ON THE BOTTOM OF THE UNIT. EXISTING REINFORCING BARS SHALL BE CUT OFF FLUSH WITH THE REMAINING PORTION OF THE EXISTING INLET AND THE PRECAST UNIT SET ON A FULL BED CEMENT GROUT.

CONCRETE LIP FOR PRECAST UNIT



TYPICAL PLAN

GENERAL NOTES:

THE TYPE OF MODIFICATION, "S-1", "S-2", OR "S-3" SHALL BE AS SHOWN ON THE PLANS.

DOTTED LINES INDICATE EXISTING CONSTRUCTION. SOLID LINES INDICATE NEW WORK.

EXISTING REINFORCING BARS EXPOSED AFTER THE REMOVAL OF OLD CONCRETE SHALL BE CUT-OFF TO FIT THE NEW CONSTRUCTION. THAT PORTION OF THE REINFORCING BARS REMAINING WITHIN THE LIMITS OF THE NEW CONSTRUCTION SHALL BE CLEANLY STRIPPED BEFORE PLACING NEW CONCRETE.

WHEN THE EXISTING STRUCTURE IS REMOVED TO EXPOSE ANY CONNECTING PIPE, 1 LAYER OF 55 LB. SMOOTH ROLL ROOFING SHALL BE USED TO FORM A JOINT BETWEEN THE EXISTING PIPE AND THE NEW CONSTRUCTION.

ANY PORTION OF A CONNECTING PIPE THAT IS DAMAGED IN MODIFYING A DROP INLET SHALL BE REPAIRED OR REPLACED WITH NEW MATERIAL MATCHING THE OLD AT THE CONTRACTOR'S EXPENSE.

SAWING WILL NOT BE REQUIRED TO REMOVE NECESSARY PORTION OF EXISTING STRUCTURE.

FOR TYPICAL GRADING, LOCATION AND DITCH BLOCK DETAILS. SEE SHEET 3 OF 3.

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

DROP INLET

TYPE S

(TYPE E AND TYPE EE MODIFICATION)

EFFECTIVE: 05-01-1997 604.27E 2/3

CITY FILE NUMBER #2001.10.01

14/21

E:\DWG\A11000PLUS\11282M-MIKE JONES PERUQUE\CONSTRUCTION\11282MCON.DWG, DETAILS 14, 11/15/2006 9:03:18 AM, 11, Sta 36 SWR