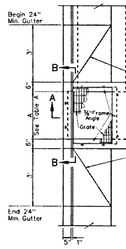
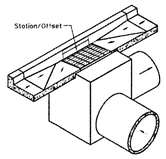
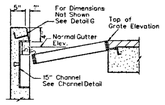
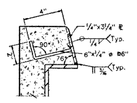


PLAN

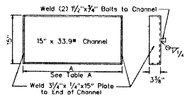




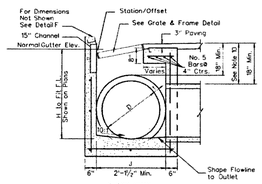
DETAIL F



DETAIL G



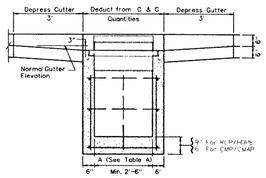
CHANNEL DETAIL



S FOR CMAP
D FOR CMP

D=18" FOR RCP/HDPE 24" OR LESS
D=21"+CR RCP/HDPE 30" OR MORE
S=21 FOR LO-HED RCP

SECTION A-A
(FOR CMAP, CMP, RCP, HDPE & LO-HED RCP)



S FOR CMAP
D FOR CMP

D=18" FOR RCP/HDPE 42" OR LESS
D=21"+CR RCP/HDPE 48" OR MORE
S=18" FOR LO-HED RCP 29"x45" OR LESS
S=21 FOR LO-HED RCP 34"x53" OR MORE

SECTION B-B
(FOR CMAP, CMP, RCP, HDPE & LO-HED RCP)

SHEET 1 OF 2

NEVADA DEPARTMENT OF TRANSPORTATION

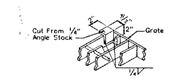
DROP INLET
TYPE 3

Signed Original On File | R-4.2.3 | (609)
CHIEF HYDRAULICS ENGINEER | ADOPTED 10/85 | REVISION 3/09

R-45

TABLE A - STRUCTURAL STEEL

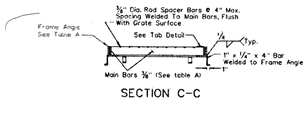
PIPE SIZE			A	MAIN BARS	FRAME ANGLES	FRAME BAR	GRATE LBS.	FRAME LBS.	CHANNEL & PLATES, LBS.	TOTAL LBS.
CMAP	CMP	RCP/ HDPE	LO-HED							
29" x 18"	30"	24"	14" x 23"	2'-6"	4½ x ½	5" x 3" x ⅜"	5" x ⅜"	279	88	93	459
OR LESS	OR LESS	OR LESS	OR LESS								
36" x 22"	36"	30"	18" x 30"	3'	4½" x ½	5" x 3" x ⅜	5" x ⅜"	265	96	107	468
43" x 27"	42"	36"	22" x 34"	3'-6"	4½" x ⅜"	5" x 3" x ⅜"	5" x ⅜"	330	104	126	530
	48"	42"	27" x 34"	4'	5½" x ½	6" x 4½" x ⅜"	6" x ⅜"	409	134	143	685
	54"		29" x 45"	4'-6"	5½" x ⅝"	6" x 3½" x ⅜"	6" x ⅜"	451	144	160	755



TAB DETAIL

TABLE B

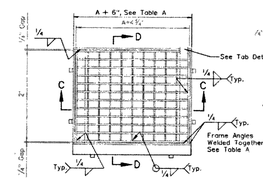
CMAP	MAXIMUM H	
	J OR A	H
29" x 18" OR LESS	30" OR LESS	21"
36" x 22"	36"	16"
43" x 27"	42"	12"
	48"	9"
	54"	7"
	60"	4
		(WITH #4 BARS @ 12" CENTERS)



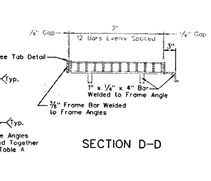
SECTION C-C

NOTES:

1. ALL CONCRETE SHALL BE CLASS A OR AA.
2. ALL REINFORCING STEEL SHALL BE TIGHTLY WIRED AND EMBEDDED 1½" CLEAR OF CONCRETE SURFACE, EXCEPT AS NOTED. ALL REINFORCING SHALL BE NO. 4 BARS WITH MAXIMUM SPACING OF 12" CENTERS, FOR ALL VALUES OF H TO THE MAXIMUM AS SHOWN IN TABLE B. IF H EXCEEDS THESE MAXIMUMS, DROP INLET WILL REQUIRE SPECIAL DESIGN.
3. EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1".
4. WHERE PIPE INTERSECTS DROP INLET ON A 12" OR LARGER SKEW INCREASE J TO $\frac{J}{\cos \text{ SKEW } \angle}$, REDESIGN FOR SKEWS AT A.
5. WHERE PIPE INTERSECTS DROP INLET ON A 12" OR LARGER SKEW INCREASE S TO $\frac{S}{\cos \text{ SKEW } \angle}$, REDESIGN FOR SKEWS AT A.
6. FOR VALUES OF "H" SEE PLANS.
7. "H" IS THE DIFFERENCE IN ELEVATION BETWEEN THE OUT FLOW PIPE AND THE NORMAL GUTTER GRADE LINE AT THE CURB FACE.
8. PIPE(S) CAN BE PLACED IN ANY WALL.
9. FOR DROP INLET, CONFIGURATIONS WITH 2 PIPES-INFLOW PIPE INVERT ELEVATION SHALL BE ≥ 0.1' ABOVE OUTFLOW PIPE INVERT ELEVATION.
10. EXTREME LOW COVER SITUATIONS TO BE REVIEWED BY THE HYDRAULICS ENGINEER.
11. SLOPE CATCH BASIN FLOORS 10:1 FROM ALL DIRECTIONS TOWARD OUTLET PIPE. IF BASIN IS USED AS A JUNCTION, SHAPE FLOW LINE(S) TO OUTLET PIPE, AND PROVIDE A 10:1 SLOPE TO FLOW LINE(S).
12. STATION/OFFSET DISTANCE LISTED IN PLANS IS MEASURED TO THE FACE OF CURB AT THE GUTTER FLOW LINE.
13. SEE SHEET R-2.9.1 FOR DETAILS IF CONNECTING TO HDPE PIPE.



PLAN



SECTION D-D

GRATE AND FRAME DETAIL

SHEET 2 OF 2

NEVADA DEPARTMENT OF TRANSPORTATION

DROP INLET
TYPE 3

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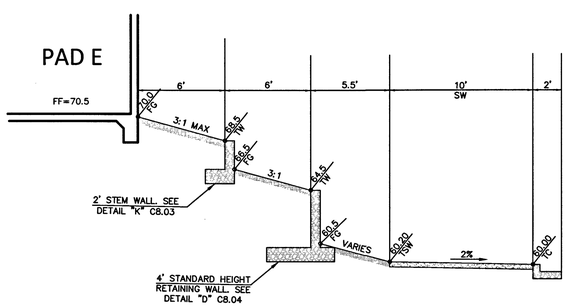
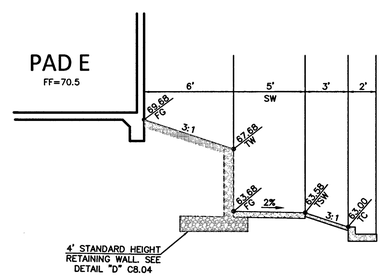
CHIEF HYDRAULICS ENGINEER | ADOPTED 10/85 | REVISION 3/09

R-46

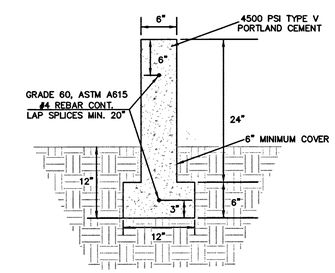
G C8.03 — TYPE 3 DROP INLET
NTS



H C8.03 — RETAINING WALL
NTS



J C8.03 — RETAINING WALL
NTS



K C8.03 — STEM WALL
NTS

107V6734

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LAS VEGAS, NV 89117
PHONE: (702) 248-8000
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www.collinsengr.com

PROFESSIONAL ENGINEER — STATE OF NEVADA — THOMAS D. MILLER — EXP. 12-31-17 — CIVIL — NO. 15776 — 6-1-17

IMPROVEMENT PLANS FOR DC PLAZA

APN:125-17-613-001

DETAIL SHEET

8451 FARM ROAD
LAS VEGAS, NEVADA

NO.	DATE	DESIGN BY	DESCRIPTION
1	01-15-17	APPD: JDM 5/15/17	REVISED DETAILS "H", "J" & "K"

CEI PROJECT:	4136
DESIGN BY:	JDM SR
DRAWN BY:	JDM SR
CHECKED BY:	TDM P.E.
DATE:	03/13/17
SCALE:	1"=30'
SHEET NUMBER	C8.03
SHEET 34 OF 45	
H # 64486	

H:\CAD\LAND\4136-DELTA\DWG\SHEETS\4136-C8.01-DET-D.DWG 04/28/2017 01:30:52 PM