

PLAN

SUPPORT PLATE CHORD LENGTHS ON CURVES (SEE NOTE 13)

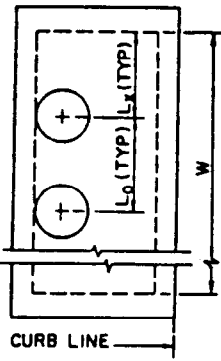
MINIMUM RADII	MAX. CHORD LENGTH
1200'	28'
650'	21'
300'	14'
35'	7'
(35')	3.5'

**STRUCTURAL DATA**

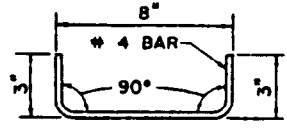
WALL AND SLAB DIMENSIONS AND REINFORCEMENT REQUIREMENTS

MAX W	MAX V	t	l <sub>F</sub>	REINFORCEMENT REQUIRED IN			
				FRONT WALL	REAR WALL	BOTTOM SLAB	SIDE WALL
3.5'	8'	5"	6"	NO REINFORCEMENT REQUIRED	REINFORCEMENT	CURB	DEPR-COMR
3.5'	12'	8"	8"				
7'	6'	6"	6"				
7'	12'	8"	8"				
14'	4'	6"	6"				
14'	8'	6"	8"				
14'	12'	8"	10"				
28'	4'	6"	6"				
28'	6'	6"	8"				
28'	8'	8"	9"				
28'	10'	8"	10"				
28'	12'	8"	10"				

FOR W>28' OR V>12' SEE PROJECT PLANS



W	NO OF MANHOLES REQUIRED	Lx	Lo
35'	1	1.75'	-
7'	1	3.5'	-
10'	1	5'	-
14'	2	4'	6'
21'	2	5'	11'
28'	3	5'	9'
>28'	SEE PROJECT PLANS		



MANHOLE FRAME & COVER LOCATION AND SPACING

DOWEL DETAIL

DEPARTMENT OF PUBLIC WORKS

BUREAU OF ENGINEERING

CITY OF LOS ANGELES

**SIDE OPENING CATCH BASINS**

**STANDARD PLAN S-351-1**

SUBMITTED *May 22, 1974*

APPROVED *June 4, 1974*

REVISIONS					SUPERSEDES	REFERENCES
NO	DATE	DESCRIPTION	ENGR OF DESIGN	CITY ENGR.		
1	10/15/75	CORRECTED DIMENSIONS, CALL OUTS, NOTES	<i>Robert M. Blum</i>	<i>W. J. Williams</i>	B-2539 B-2638 B-2640 B-3968	S-311 S-312 S-331 S-340 S-341 S-345 S-346 S-348 S-349

DESIGNED BY: LIE    DRAWN BY: RGM    CHECKED BY: LJM

VAULT INDEX NUMBER B-3986

SHEET 1 OF 2 SHEETS

NOTES FOR SIDE OPENING CATCH BASINS

1. CONCRETE SHALL BE THE CLASS SPECIFIED IN SECTION 201 OF THE STANDARD SPECIFICATIONS, EXCEPT, WHERE THE BASIN IS TO BE CONSTRUCTED WITHIN THE LIMITS OF A PROPOSED SIDEWALK OR IS CONTIGUOUS TO SUCH A SIDEWALK, THE TOP SLAB OF THE BASIN SHALL BE POURED MONOLITHIC WITH THE SIDEWALK, USING THE SAME CLASS OF CONCRETE AS IN THE SIDEWALK. THE SIDEWALK SHALL BE PROVIDED WITH A WEAKENED PLANE OR A 1 INCH DEEP SAWCUT CONTINUOUSLY AROUND THE EXTERNAL PERIMETER OF THE CATCH BASIN WALLS, INCLUDING ACROSS THE FULL WIDTH OF THE SIDEWALK. SURFACE OF ALL EXPOSED CONCRETE SHALL CONFORM IN SLOPE, GRADE, COLOR, FINISH, AND SCORING TO EXISTING OR PROPOSED CURB AND WALK ADJACENT TO THE BASIN.
2. ALL CURVED CONCRETE SURFACES SHALL BE FORMED BY CURVED FORMS, AND SHALL NOT BE SHAPED BY PLASTERING.
3. FLOOR OF BASIN SHALL BE GIVEN A STEEL TROWEL FINISH AND SHALL HAVE A LONGITUDINAL AND LATERAL SLOPE OF 1:12, EXCEPT WHERE THE GUTTER GRADE EXCEEDS 8 PERCENT, IN WHICH CASE THE LONGITUDINAL SLOPE OF THE FLOOR SHALL BE THE SAME AS THE GUTTER GRADE. SLOPE FLOOR FROM ALL DIRECTIONS TO THE OUTLET.

▽ 4. DIMENSIONS:

B = 3 FEET 2 INCHES

V = 4.5 FEET. (WHERE CATCH BASINS ARE IN SERIES "V<sub>0</sub>" SHALL BE THE DEPTH TO THE INVERT OF THE INLET PIPE AND "V" SHALL BE THE DEPTH TO THE INVERT OF THE OUTLET PIPE.)

W = 7 FEET UNLESS OTHERWISE INDICATED ON THE PROJECT PLANS.

I & I<sub>r</sub> - SEE STRUCTURAL DATA HEREON.

I<sub>r</sub> = 4-1/2 INCHES FOR STANDARD SIDEWALK, AND 6 INCHES FOR SPECIAL SIDEWALK. (SEE PROJECT PLANS)

A = THE ANGLE, IN DEGREES, INTERCEPTED BY THE CENTERLINE OF THE CONNECTOR PIPE AND THE CATCH BASIN WALL TO WHICH THE CONNECTOR PIPE IS ATTACHED.

5. PLACE CONNECTOR PIPES AS INDICATED ON THE PROJECT PLANS. UNLESS OTHERWISE DETAILED ON THE PROJECT PLANS, A CONNECTOR PIPE CENTERLINE SHALL INTERSECT THE MID POINT OF THE INSIDE FACE OF THE INDICATED CATCH BASIN WALL, OR IF INDICATED AT A CORNER, IT SHALL INTERSECT THE INSIDE CORNER. THE PIPE MAY BE CUT AND TRIMMED AT A SKEW NECESSARY TO INSURE MINIMUM 3 INCH PIPE EMBEDMENT, ALL AROUND, WITHIN THE CATCH BASIN WALL, AND 3 INCH RADIUS OF ROUNDING OF STRUCTURE CONCRETE, ALL AROUND, ADJACENT TO PIPE ENDS. A MONOLITHIC CONNECTION PER STANDARD PLAN S-331 SHALL BE USED TO JOIN THE CONNECTOR PIPE TO THE CATCH BASIN WHENEVER ANGLE "A" IS LESS THAN 70 DEGREES OR GREATER THAN 110 DEGREES, OR WHENEVER THE CONNECTOR PIPE IS LOCATED IN A CORNER. THE OPTIONAL USE OF A MONOLITHIC CONNECTION IN ANY CASE, IS PERMITTED. MONOLITHIC CONNECTIONS MAY BE EXTENDED UP TO 4 FEET IN LENGTH TO AVOID CUTTING STANDARD LENGTHS OF PIPE. CONNECTOR PIPE MAY NOT BE CUT FOR ANY REASON EXCEPT TO AVOID CONSTRUCTION OF A MONOLITHIC CONNECTION.
6. STEPS SHALL CONFORM TO STANDARD PLAN S-348 AND SHALL BE DIRECTLY BELOW THE MANHOLE FRAME AND COVER. WHERE A CATCH BASIN HAS MORE THAN ONE MANHOLE FRAME AND COVER, STEPS SHALL ONLY BE INSTALLED BELOW THE MANHOLE WHERE THE DEPTH TO THE CATCH BASIN FLOOR IS THE GREATEST.
7. DOWELS SHALL BE REQUIRED AT EACH CORNER AND AT 7 FEET O.C. (MAXIMUM) ALONG THE BACKWALL WHEN THE TOP SLAB IS POURED SEPARATELY. WHEN TOP SLAB IS POURED MONOLITHIC WITH ADJACENT SIDEWALK, THE DOWELS MAY BE OMITTED.
8. CURB INLET, SUPPORT PLATE, SUPPORT BOLTS, AND ANCHORS SHALL CONFORM TO STANDARD PLAN S-340.
9. PROTECTION BAR AND SUPPORTS SHALL CONFORM TO STANDARD PLANS S-340 AND S-349.
10. CATCH BASIN MANHOLE FRAMES AND COVERS SHALL CONFORM TO STANDARD PLAN S-346, EXCEPT THAT WHERE THE PROJECT PLANS INDICATE SPECIAL SIDEWALK, CATCH BASIN SQUARE MANHOLE FRAMES AND PAN COVERS AND IDENTIFICATION PLATES CONFORMING TO STANDARD PLAN S-345 SHALL BE INSTALLED. THE FRAMES AND COVERS SHALL BE INSTALLED AT LOCATIONS AND SPACINGS AS SHOWN HEREON, AND IN SUCH MANNER THAT THE INSIDE OF THE FRAMES SHALL BE FLUSH WITH THE INSIDE OF THE BACK WALL OF THE CATCH BASIN.
11. WALL AND BOTTOM SLAB THICKNESSES SHALL BE AS SHOWN HEREON. REINFORCEMENT, WHEN REQUIRED, SHALL CONFORM TO STANDARD PLAN S-341. FOR ANY VALUE OF "W" OR "V" NOT INDICATED HEREON, USE THE VALUE FOR THE NEXT HIGHER "W" OR "V" THAT IS INDICATED.
12. ALL CONSTRUCTION JOINTS SHALL HAVE ROUGH SURFACES. (SEE SECTION 303-1.8.6 OF THE STANDARD SPECIFICATIONS.)
13. CATCH BASINS LOCATED ON A CURVE, MAY, AT THE OPTION OF THE CONTRACTOR, BE CONSTRUCTED ON CHORDS AS INDICATED HEREON. IF MORE THAN ONE CHORD IS USED ON ANY CATCH BASIN, THE CHORD LENGTHS SHALL BE IDENTICAL. THE SUPPORT PLATE SEGMENTS SHALL BE SPLICED AS SHOWN ON STANDARD PLAN S-340.
14. UNLESS OTHERWISE INDICATED ON THE PROJECT PLANS:
  - A) CONSTRUCT WARPED GUTTER TO CONFORM TO STANDARD PLAN S-311.
  - B) ANY EXISTING PAVEMENT SHALL BE REMODELED IN CONFORMANCE WITH STANDARD PLAN S-312.