

| STRUCTURAL DATA   |             |              |   |
|---|-------------|--------------|---|
| WALL AND SLAB DIMENSIONS AND REINFORCEMENT REQUIREMENTS |             |              |   |
| NO. OF<br>GRATES  | MAX<br>V    | t            | REINFORCEMENT<br>FOR<br>WALLS AND SLABS |
| 1-2   | 4' (1.2 m)  | 6" (150 mm)  | NOT REQUIRED                            |
| 1-2   | 8' (2.4 m)  | 8" (200 mm)  |   |
| 1-2   | 10' (3.0 m) | 10" (250 mm) |   |
| 1-2   | 12' (3.5 m) | 10" (250 mm) | REQUIRED                                |
| 3-4   | 4' (1.2 m)  | 6" (150 mm)  | NOT REQUIRED                            |
| 3-4   | 7' (2.0 m)  | 8" (200 mm)  |   |
| 3-4   | 8' (2.4 m)  | 8" (200 mm)  | REQUIRED                                |
| 3-4   | 12' (3.5 m) | 10" (250 mm) |   |
| 5-6   | 4' (1.2 m)  | 6" (150 mm)  | NOT REQUIRED                            |
| 5-6   | 6' (1.8 m)  | 8" (200 mm)  |   |
| 5-6   | 8' (2.4 m)  | 8" (200 mm)  |   |
| 5-6   | 12' (3.5 m) | 10" (250 mm) |   |
| > 6   | 4' (1.2 m)  | 6" (150 mm)  | REQUIRED                                |
| > 6   | 8' (2.4 m)  | 8" (200 mm)  |   |
| > 6   | 12' (3.5 m) | 10" (250 mm) |   |

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1984 REV. 1992, 1996, 2009, 2021 GRATING CATCH BASIN - ALLEY (LONGITUDINAL)

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN

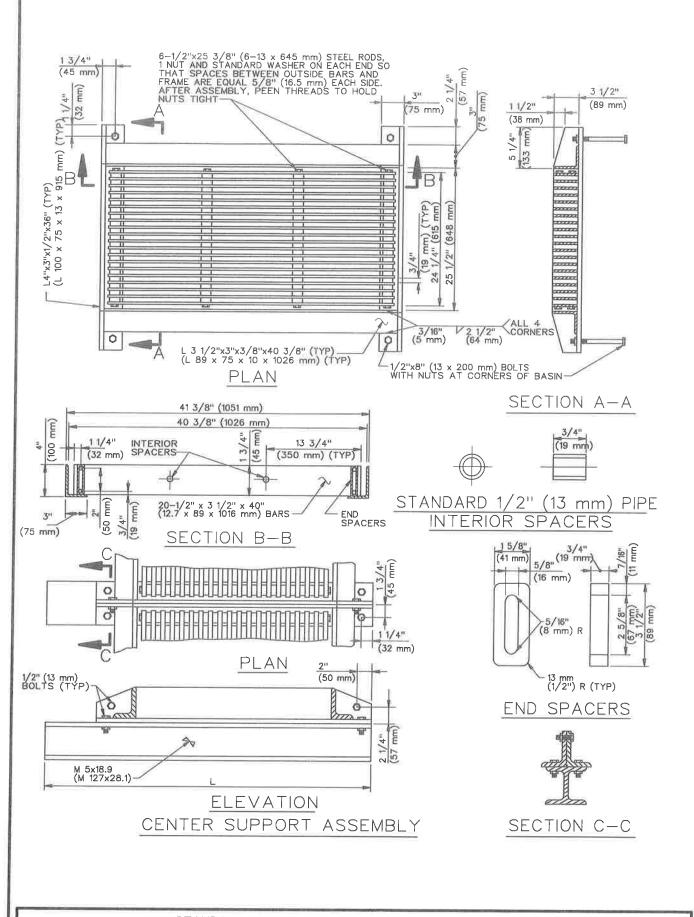
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## NOTES:

- 1. ALL CURVED CONCRETE SURFACES SHALL BE FORMED BY CURVED FORMS, AND SHALL NOT BE SHAPED BY PLASTERING.
- 2. ONE GRATING IS REQUIRED UNLESS OTHERWISE SHOWN ON THE PLANS.
- 3. FLOOR OF BASIN SHALL BE GIVEN A STEEL TROWEL FINISH AND SHALL HAVE A LONGITUDINAL AND LATERAL SLOPE OF 1V:12H MINIMUM AND 1V:3H MAXIMUM, EXCEPT WHERE THE SURFACE GRADE EXCEEDS 8%, IN WHICH CASE THE LONGITUDINAL SLOPE OF THE FLOOR SHALL BE THE SAME AS THE SURFACE GRADE, SLOPE FLOOR FROM ALL DIRECTIONS TO THE OUTLET.
- 4. DIMENSIONS:
  - V = 3'-6'' (1.0 m)
  - VU= THE DEPTH AT THE UPSTREAM END OF THE BASIN. IT SHALL BE DETERMINED BY THE REQUIREMENTS OF NOTE 3, BUT SHALL NOT BE LESS THAN 2.5' (750 mm).
  - VI = THE DEPTH AT THE INVERT OF THE INLET. NOTED ON THE PLANS.
  - $W_G = 2'-11 \ 3/8'' \ (900 \ mm)$  FOR ONE GRATING; ADD 3'-5 3/8" (1051 mm) FOR EACH ADDITIONAL GRATING.
  - 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.
- PLACE CONNECTOR PIPES AS INDICATED ON THE PLANS. UNLESS OTHERWISE SPECIFIED, PLACE CONNECTOR PIPES AS INDICATED ON THE PLANS. UNLESS OTHERWISE SPECIFIED, THE CONNECTOR PIPE SHALL BE LOCATED AT THE DOWNSTREAM END OF THE BASIN. WHERE THE CONNECTOR PIPE IS SHOWN AT A CORNER, THE CENTERLINE OF THE PIPE SHALL INTERSECT THE INSIDE CORNER OF THE BASIN. THE PIPE MAY BE CUT AND TRIMMED AT A SKEW NECESSARY TO ENSURE MINIMUM 3" (75 mm) PIPE EMBEDMENT, ALL AROUND, WITHIN THE CATCH BASIN WALL, AND 3" (75 mm) RADIUS OF ROUNDING OF STRUCTURE CONCRETE, ALL AROUND, ADJACENT TO PIPE ENDS. A MONOLITHIC CATCH BASIN CONNECTION SHALL BE USED TO JOIN THE CONNECTOR PIPE TO THE CATCH BASIN WHENEVER ANGLE "A" IS LESS THAN 70° OR GREATER THAN 110°, OR WHENEVER THE CONNECTOR PIPE IS LOCATED IN A CORNER. THE OPTIONAL USE OF A MONOLITHIC CATCH BASIN CONNECTION IN ANY CASE IS PERMITTED. MONOLITHIC CATCH BASIN CONNECTIONS MAY BE CONSTRUCTED TO AVOID CUTTING STANDARD LENGTHS OF PIPE.
- 6. STEPS SHALL BE LOCATED AS SHOWN. IF THE CONNECTOR PIPE INTERFERES WITH THE STEPS, THEY SHALL BE LOCATED ON THE OPPOSITE WALL AT THE CENTERLINE OF THE DOWNSTREAM GRATING. STEPS SHALL BE BE SPACED 12" (300 mm) APART. THE TOP STEP SHALL BE 7" (175 mm) BELOW THE TOP OF THE GRATING AND PROJECT 2 1/2" (65 mm). ALL OTHER STEPS SHALL PROJECT 5" (130 mm).
- 7. THE FOLLOWING SPPWC ARE INCORPORATED HEREIN:
  - 308 MONOLITHIC CATCH BASIN CONNECTION
  - 309 CATCH BASIN REINFORCEMENT
  - 311 FRAME AND GRATING FOR CATCH BASINS 635 STEEL STEP

  - 636 POLYPROPYLENE PLASTIC STEP



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CATCH BASINS
USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN

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SHEET 1 OF 2

## NOTES:

- 1. ALL PARTS SHALL BE STEEL, EXCEPT THAT END SPACERS MAY BE CAST IRON.
- 2. ALL PARTS SHALL BE GALVANIZED AFTER FABRICATION, EXCEPT THAT GRATINGS SHALL BE ASSEMBLED AFTER COMPONENT PARTS ARE GALVANIZED.
- 3. ALL DIMENSIONS ARE FINISHED DIMENSIONS AND INCLUDE GALVANIZING.
- 4. ALL BOLT HOLES SHALL BE 16 mm (5/8") DIAMETER.
- 5. ALL THREADS SHALL BE NATIONAL COARSE SERIES (NC).
- 6. CENTER SUPPORT ASSEMBLY REQUIRED WHEN TWO OR MORE GRATINGS ARE SPECIFIED ON PLANS.
  - L = 64" (1626 mm) FOR CURB OPENING CATCH BASIN WITH GRATING(S) AND DEBRIS SKIMMER (SPPWC 301).
  - L = 44" (1118 mm) FOR CURB OPENING CATCH BASIN WITH GRATING(S) (SPPWC 302.)
  - L = 36" (914 mm) FOR CURBSIDE GRATING CATCH BASIN (SPPWC 303).
  - L = 36" (914 mm) FOR GRATING CATCH BASIN-ALLEY (LONGITUDINAL) (SPPWC 304).

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

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