**BASIN TYPE A**

**SECTION B-B**

- 1'-6" MIN CONVENIENCE STRIP (SEE NOTE 12)
- 2:1 MAX SIDE SLOPE TYP. (SEE NOTES 6 & 7)
- MAX DEPTH 12"
- TYP. VEGETATION AND MULCH COVER (SEE NOTES 11 & 12)

**BASIN TYPE B**

**SECTION B-B**

- 1'-6" MIN CONVENIENCE STRIP (SEE NOTE 12)
- 2:1 MAX SIDE SLOPE TYP. (SEE NOTES 6 & 7)
- MAX DEPTH 12"
- TYP. VEGETATION AND MULCH COVER (SEE NOTES 11 & 12)

**PLAN**

- CURB INLETS NOT SHOWN (SEE NOTE 8)

**SECTION C-C**

- CURB REMOVAL LIMIT
- 2'-10" TYPE 1 & 2
- 2'-0" TYPE 3

**DETAIL 1 - CURB OPENING**

- CURB INLETS NOT SHOWN (SEE NOTE 8)

**NOT TO SCALE**

**STANDARD PLAN NO.** S-488-0

**VAULT INDEX NUMBER** B-4756
SECTION D-D (INLET TYPE 2 SHOWN)

1% SLOPE

2'-0" MIN

PLAN

SECTION E-E CURB INLET TYPE 1

CAST IRON COVER PLATE OPTION

CAST IRON TROUGH CURB INLET

1.5"

STEEL ANGLE PERIMETER FRAME. SIZE TO MATCH GRATE THICKNESS

#3 BAR @18" OC EMBEDMENT ANCHOR 4-IN LONG TYP.

APPROVED 24" SLIP RESISTANT CAST IRON TRENCH GRATE WITH INSPECTION OPENINGS

1" X 1" X 3/8" THICK STEEL COVER PLATE WITH APPROVED SLIP RESISTANCE COATING

4" ROD ANCHORS DRILLED AND TAPPED FOR 3/8" MACHINE SCREWS (TOTAL 6)

INSPECTION SLOTS CENTERED BTW. STIFFNERS

SECTION E-E CURB INLET TYPE 2

STEEL COVER PLATE OPTION

1" X 1" X 3/8" THICK STEEL COVER PLATE WITH 1.5" THICK STEEL COVER PLATE (TOTAL 6) INLET SHOWN)

INSPECTION SLOTS CENTERED BTW. STIFFNERS

INSPECTION SLOTS CENTERED BTW. STIFFNERS

INLET TYPE 1 & 2 CURB INLET TYPE 1 & 2

CONCRETE TROUGH

(OPTIONAL SKEW ANGLE NOT SHOWN FOR TYPE 2)

EXISTING CURB & GUTTER

SEE CURB OPENING DETAIL1 (SHEET 2 OF 5)

3/8" FLATHEAD MACHINE SCREW COUNTERSUNK (TOT. 4) TYP.

2" X 1" INSPECTION OPENINGS SPACED @ 4" CLEAR EACH WAY (TOTAL 6)

HORIZONTAL STIFFNER STEEL ANGLES 1" X 1" X 3/8" TYP. CENTERED BETWEEN INSPECTION OPENINGS

HORIZONTAL STIFFNER STEEL ANGLES 1" X 1" X 3/8" TYP. CENTERED BETWEEN INSPECTION OPENINGS

V" INVERT

90% COMPACTED SOIL TYP.

90% COMPACTED SOIL TYP.

1/2" INLET TYPE 2 SHOWN)

SEE CURB OPENING DETAIL1 (SHEET 2 OF 5)

1.5"

2'-0"

4" R

SEE CURB OPENING DETAIL1 (SHEET 2 OF 5)
CURB INLET TYPE 3
STEEL TROUGH

(SEE NOTE 14)
1. All work shall conform to the latest edition of standard specification for public works construction (SSPWC) as amended by the brown book, latest edition, to the requirements of standard plan S-480 as listed hereon below, and latest residential parkway landscape guideline. All concrete class shall be 525-C-2500 (minimum strength 2,500 psi).

2. The work in this standard plan is intended for parkways serving residential (R, R-1, R-2, and R-3) zones. In addition, basin construction shall only be permitted where there exists a concrete sidewalk in good condition, separating the property from the parkway and a concrete curb and gutter in good condition along the roadway parallel to the parkway area.

3. Residential parkway basins shown on this standard plan have curb inlets to allow for capture of street-run-off. They are depressions created in the areas between the street and sidewalks intended for stormwater harvesting, function as on-site source of irrigation, and capture stormwater run-off.

4. Parkway basins shall not be constructed in locations where the longitudinal street slope is greater than five (5) percent. The length of the basin shall be greater than 20 feet and less than 10 feet.

5. Parkway basin shall be located so as not to require any relocation of existing utilities such as street lights, traffic lights, utility poles, power poles, traffic signals, fire hydrants, sanitary sewer laterals, storm drains, connections, and other similar utilities and their associated conduits. A minimum of five feet radial setback shall be provided between the parkway and any components of such utilities. Contact Dig-Alert at 811 at least 72 hours prior to commencing work to identify utility locations. If utilities exist or unmarked utilities are discovered in or within proposed excavation, parkway basin shall not be constructed. See standard plan S-480 for additional requirements.

6. Unless otherwise noted, cobbles stones shall be natural angular stones, 9-in minimum in diameter. Embed a minimum of 5-inches into the ground in an interlocking pattern. With the most rounded portion oriented outwardly.

7. A. All basin slopes exceeding (vertical): 3 (horizontal) shall be reinforced with cobbles.
B. Top of convenient strip and any buffer zone along perimeter of basin shall be 1-inch below adjacent curb, sidewalk or hardscape.
C. Where no parking is permitted, convenience strip may be reduced to a one(1) foot buffer zone.

8. Curb inlets shall meet the following criteria:
A. Curb inlets shall be performed by a licensed contractor.
B. Curb inlets shall be separated from driveway aprons and other curb openings by a minimum distance of 5 feet.
C. Curb inlets shall be located a minimum of 50 feet from intersections, traffic signals and stop or yield signs.
D. Curb inlets shall be located a minimum of 10 feet upstream of an existing roadway stormwater catch basin. Openings within 100 feet downstream of catch basin are permitted.

9. Curb openings at curb inlets shall be made by a saw cut method and final grading as needed.

10. Parkway basins shall not be constructed within existing tree canopy dripline. Cutting into or otherwise damaging existing tree roots is permitted. Urban forestry division permit is required for root pruning. Street tree permit is required for all trees planted within the public right-of-way. Contact the bureau of street services, urban forestry division for street tree permit and for listing of approved tree species. When optional new tree is proposed within basin, a tree shelf shall be provided and located mid-height between the flowline and sidewalk.

11. Basin soil: Parkway basins shall only be constructed in areas with well draining soils. The minimum site soil permeation rate shall be 0.5 inches per hour. However, basins shall be designed to fully drain their maximum capacity within 24 hours. Conduct simplified testing for soil permeability as follows: Dig a hole 1 ft wide and 1 ft deep. Scratch the sides and bottom with the tip of the shovel. Fill hole slowly with water and let it drain completely. Place a ruler or measuring tape in the hole and refill the hole slowly with water in the presence of the inspector. After 15 minutes, measure how many inches or fraction of an inch the water level has dropped. Multiply this value by four, and report this final value as "inch per hour" to the inspector.

12. Fill in bottom of basin and 1/6 max sloped areas with 2" to 4" of mulch. Mulch shall conform to standard plan S-480. Note 5. G. (12).

13. Basin vegetative material:
A. Use drought tolerant, low water use vegetation. Native plants generally provide the best options for green streets infrastructure. When making selection, comply with limits outlined in the residential parkway landscape guideline.
B. Vegetative material selected shall conform to standard plan S-480. Note 5. G (10) and in general conformance with plant listing in standard plan S-484 although alternate plants may be considered. Options may consist of shrubs, wildflowers, native bunch grasses, etc. Final design shall be reviewed by the bureau of street services (BSS) for final approval.
C. For convenient strip, provide drought tolerant turf-substitute ground cover per the residential parkway landscape guideline (RPLG) with appropriate header strip. Unless adjacent cobbles are also installed. Final design shall be reviewed by the bureau of street services (BSS) for final approval.
D. Choose plants that minimize or eliminate the use of fertilizers or pesticides and that are able to sustain growth where the continuous low base flow and flat slopes are likely to result in saturated soil conditions. Use species that would be able to withstand periodic wetting, including total submergence for short periods in summer and occasional periods of submergence in winter time.
E. Provide appropriate irrigation for plant establishment.

14. Structural steel:
A. Structural steel shall conform to ASTM A36. The contractor shall verify all dimensions and conditions in the field before starting work and shall submit shop drawings to the engineer for approval prior to fabrication.
B. All welding shall be done using appropriate E70XX electrodes.
C. Structural steel shall be hot-dip galvanized after fabrication.