NDS, Inc. July 2020

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Product Guide Specification

Specifier Notes: This product guide specification is written in Construction Specifications Institute (CSI) 3-Part Format in accordance with *The CSI Construction Specifications Practice Guide,* including *MasterFormat, SectionFormat,* and *PageFormat.*

This section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with Division 1, other specification sections, and the Drawings. Delete all Specifier Notes after editing this section.

Section numbers and titles are based on *MasterFormat 2014 Update.*

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CATCH BASINS

Specifier Notes: This section covers NDS, Inc. catch basins. Consult NDS, Inc. for assistance in editing this section for the specific application.

Use of catch basins may contribute to LEED credits. Consult NDS, Inc. for more information.

* 1. GENERAL
     1. SECTION INCLUDES
        1. Catch basins.
     2. RELATED REQUIREMENTS

Specifier Notes: Edit the following list of related sections as necessary. Limit the list to sections with specific information that the reader might expect to find in this section, but is specified elsewhere.

* + - 1. Section 03 30 00 – Cast-in-Place Concrete: Concrete collars.
      2. Section 31 23 00 – Excavation and Fill.
      3. Section 33 41 00 – Storm Utility Drainage Piping.
    1. PREINSTALLATION MEETINGS

Specifier Notes: Edit preinstallation meetings as necessary. Delete if not required.

* + - 1. Convene preinstallation meeting [1 week] [2 weeks] before start of Work of this Section.
      2. Require attendance of parties directly affecting Work of this Section, including Contractor, Architect, installer, and manufacturer’s representative.
      3. Review the Following:
         1. Materials.
         2. Installation.
         3. Adjusting.
         4. Cleaning.
         5. Protection.
         6. Coordination with other Work.
    1. SUBMITTALS

Specifier Notes: Edit submittal requirements as necessary. Delete submittals not required.

* + - 1. Comply with Division 1.
      2. Product Data: Submit manufacturer’s product data, including installation instructions.
      3. Shop Drawings: Submit manufacturer's shop drawings, indicating layout, dimensions, materials, components, and accessories.
      4. Manufacturer’s Certification: Submit manufacturer’s certification that materials comply with specified requirements and are suitable for intended application.
      5. Sustainable Design Submittals: Submit manufacturer’s sustainable design submittals for catch basins.
         1. Recycled Content: Certify percentages of post-consumer and pre-consumer recycled content.
         2. Regional Materials: Certify distance between manufacturer and Project, in miles.
      6. Manufacturer’s Project References: Submit manufacturer’s list of successfully completed catch basin projects, including project name and location, name of architect, and type and quantity of catch basins furnished.
      7. Installer’s Project References: Submit installer’s list of successfully completed catch basin projects, including project name and location, name of architect, and type and quantity of catch basins installed.
      8. Warranty Documentation: Submit manufacturer’s standard warranty.
    1. QUALITY ASSURANCE
       1. Manufacturer’s Qualifications: Manufacturer regularly engaged, for a minimum of 10 years, in the manufacturing of catch basins of similar type to that specified.
       2. Installer's Qualifications:
          1. Installer regularly engaged, for a minimum of 5 years, in installation of catch basins of similar type to that specified.
          2. Employ persons trained for installation of catch basins.
    2. DELIVERY, STORAGE, AND HANDLING
       1. Delivery Requirements: Deliver materials to site in manufacturer’s original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
       2. Storage and Handling Requirements:
          1. Store and handle materials in accordance with manufacturer’s instructions.
          2. Keep materials in manufacturer’s original, unopened containers and packaging until installation.
          3. Store materials in clean areas, protected from exposure to harmful weather conditions.
          4. Store materials out of direct sunlight.
          5. Protect materials during storage, handling, and installation to prevent damage.
    3. AMBIENT CONDITIONS
       1. During Cold Weather:
          1. Do not use frozen materials.
          2. Do not use materials mixed or coated with ice or frost.
          3. Do not build on frozen Work.
       2. During Wet Weather: Do not build on wet, saturated, or muddy subgrade.
  1. PRODUCTS
     1. MANUFACTURERS
        1. Manufacturer: NDS, Inc., 851 North Harvard Avenue, Lindsay, California 93247. Toll Free 800-726-1994. Phone 559-562-9888. Toll Free Fax 800-726-1998. Fax 559-562-4488. Website [www.ndspro.com](http://www.ndspro.com). Email nds@ndspro.com.

Specifier Notes: Specify if substitutions will be permitted.

* + - 1. Substitutions: [Not permitted] [Comply with Division 1].
      2. Single Source: Provide catch basins, grates, and components from single manufacturer.

Specifier Notes: Specify catch basins, grates, and components required for the Project. Choose from NDS 9-inch, 12-inch, 18-inch, and 24-inch Catch Basin Series. Delete catch basins, grates, and components not required.

* + 1. 9-INCH CATCH BASIN SERIES
       1. 9-Inch-Square Tapered Catch Basins:
          1. Part Number and Openings: [900, 2 openings] [900-4, 4 openings].
          2. Color: Black.
          3. Material: Polypropylene.
          4. Height: 10-1/8 inches.
       2. 9-Inch-Square Catch Basin Risers:
          1. Part Number: 916.
          2. Color: Black.
          3. Material: Styrene.
          4. 6-inch riser.
          5. Height: 7-3/8 inches.
       3. 9-Inch Catch Basin Filters:
          1. Part Number: 900FF.
          2. Color: Blue frame and black bag.
          3. Material:

Frame: Polypropylene.

Filter Bag: Nonwoven, spunbonded, polypropylene geotextile.

* + - * 1. Height: 9.15 inches.
      1. 9-Inch-Square Dome Atrium Grates:
         1. Part Number and Color: [981, Black] [991, Green].
         2. Material: Structural-foam polyolefin with UV inhibitor.
         3. Height: 4-3/4 inches.
         4. Grate Openings: 3/8 inch.
         5. Open Surface Area: 31.50 square inches.
         6. Inlet Capacity: 96.36 gpm.
      2. 9-Inch-Square Grates:
         1. Part Number and Color: [980, Black] [990, Green] [999, Gray] [999S, Sand].
         2. Material: Structural-foam polyolefin with UV inhibitor.
         3. Load Rating: Class B, 61 to 175 psi.
         4. ADA compliant.
         5. Height: 1-1/8 inches.
         6. Grate Openings: 7/16 inch.
         7. Open Surface Area: 37.49 square inches.
         8. Inlet Capacity: 114.69 gpm.
      3. 9-Inch-Square Grates:
         1. Part Number: 930B.
         2. Color: Brass.
         3. Material: Brass.
         4. Load Rating: Class B, 61 to 175 psi.
         5. ADA compliant.
         6. Height: 1-1/8 inches.
         7. Grate Openings: 7/16 inch.
         8. Open Surface Area: 34.00 square inches.
         9. Inlet Capacity: 104.01 gpm.
      4. 9-Inch-Square Grates:
         1. Part Number: 913.
         2. Color: Black.
         3. Material: Heavy-duty ductile iron.
         4. Load Rating: Class C, 176 to 325 psi.
         5. Height: 1-1/8 inches.
         6. Grate Openings: 9/16 inch.
         7. Open Surface Area: 21.70 square inches.
         8. Inlet Capacity: 66.38 gpm.
      5. 9-Inch-Square Grates:
         1. Part Number: 915.
         2. Color: Galvanized steel.
         3. Material: Heavy-duty galvanized steel.
         4. Load Rating: Class D, 326 to 575 psi.
         5. Height: 1-1/8 inches.
         6. Grate Openings: 3/4 inch.
         7. Open Surface Area: 61.94 square inches.
         8. Inlet Capacity: 189.48 gpm.
      6. 9-Inch-Square Downspout Defender Grate:
         1. Part Number: 900DSG
         2. Color: Black
         3. Material: HDPE
         4. Load Rating: Class A, 1 to 60 psi.
         5. Height: 6-7/16” total, 5-5/8” Installed
         6. Grate Openings: 0.25”
         7. Open Surface Area: 36.8 square inches
         8. Inlet Capacity: 146 GPM
      7. 9-Inch-Square Low-Profile Adapters:
         1. Part Number: 930.
         2. Color: Black.
         3. Material: Styrene.
         4. Height: 2-1/16 inches.
      8. 9-Inch-Square Deep-Housing Spigot Adapters:
         1. Part Number: 931.
         2. Color: Black.
         3. Material: Styrene.
         4. Height: 8 inches.
      9. Adapter Bushings:
         1. Part Number: 933.
         2. Color: Black.
         3. Material: Styrene.
      10. 9-Inch-Square Low-Profile Housing Adapters:
          1. Part Number: 932.
          2. Color: Black.
          3. Material: Styrene.
          4. Height: 4-1/4 inches.
    1. 12-INCH CATCH BASIN SERIES
       1. 12-Inch-Square Adjustable-Outlet Catch Basins:
          1. Part Number: [1200NGBKIT, 2 open slides] [1200NGB].
          2. Slide Part Number: [1207, open slide] [1208, plug slide].
          3. Color: Black.
          4. Material: Polypropylene basin and styrene slides.
          5. Height: 12-15/16 inches.
       2. 12-Inch-Square Tapered Catch Basins:
          1. Part Number and Openings: [1200BLKIT, 2 open sides] [1200, 2 openings] [1203, 3 openings] [1204, 4 openings].
          2. Color: Black.
          3. Material: Polypropylene.
          4. Height: 12-15/16 inches.
       3. 12-Inch-Square Catch Basin Risers:
          1. Part Number: 1216.
          2. Color: Black.
          3. Material: Styrene.
          4. 6-inch riser.
          5. Height: 7-1/8 inches.
       4. 12-Inch-Square Catch Basin Risers with 2 Openings:
          1. Part Number: 1217.
          2. Color: Black.
          3. Material: Styrene.
          4. 12-inch riser.
          5. Height: 11 inches.
       5. 12-Inch-Square Catch Basin Sump Boxes.
          1. Part Number: 1225.
          2. Color: Black.
          3. Material: Styrene.
          4. Height: 14-1/2 inches.
       6. 12-Inch Catch Basin Filters:
          1. Part Number: 1200FF.
          2. Color: Blue frame and black bag.
          3. Material:

Frame: Polypropylene.

Filter Bag: Nonwoven, spunbonded, polypropylene geotextile.

* + - * 1. Height: 12.16 inches.
      1. 12-Inch-Square Dome Atrium Grates:
         1. Part Number and Color: [1280, Green] [1290, Black].
         2. Material: Structural-foam polyolefin with UV inhibitor.
         3. Height: 6 inches.
         4. Grate Openings: 3/8 inch.
         5. Open Surface Area: 50.60 square inches.
         6. Inlet Capacity: 154.79 gpm.
      2. 12-Inch-Square Grates:
         1. Part Number and Color: [1210, Gray] [1211, Black] [1212, Green] [1212S, Sand].
         2. Material: Structural-foam polyolefin with UV inhibitor.
         3. Load Rating: Class B, 61 to 175 psi.
         4. ADA compliant.
         5. Height: 1-1/8 inches.
         6. Grate Openings: 3/8 inch.
         7. Open Surface Area: 50.76 square inches.
         8. Inlet Capacity: 15.28 gpm.
      3. 12-Inch-Square Grates:
         1. Part Number: 1230B.
         2. Color: Brass.
         3. Material: Brass.
         4. ADA compliant.
         5. Height: 1-1/8 inches.
         6. Grate Openings: 3/8 inch.
         7. Open Surface Area: 42.87 square inches.
         8. Inlet Capacity: 131.14 gpm.
      4. 12-Inch-Square Botanical Grates:
         1. Part Number and Color: [1218S, Sand] [1218GR, Green] [1218GY, Gray] [1218, Black].
         2. Material: Structural-foam polyolefin with UV inhibitor.
         3. Load Rating: Class B, 61 to 175 psi.
         4. ADA compliant.
         5. Height: 1-1/8 inches.
         6. Grate Openings: 3/8 inch.
         7. Open Surface Area: 24.44 square inches.
         8. Inlet Capacity: 74.77 gpm.
      5. 12-Inch-Square Botanical Grates:
         1. Part Number: 1218 CI.
         2. Color: Raw iron.
         3. Material: Cast iron.
         4. Load Rating: Class B, 61 to 175 psi.
         5. ADA compliant.
         6. Height: 1-1/8 inches.
         7. Grate Openings: 3/8 inch.
         8. Open Surface Area: 24.44 square inches.
         9. Inlet Capacity: 74.77 gpm.
      6. 12-Inch-Square Wave Grates:
         1. Part Number and Color: [1224S, Sand] [1224GR, Green] [1224GY, Gray] [1224, Black].
         2. Material: Structural-foam polyolefin with UV inhibitor.
         3. Load Rating: Class B, 61 to 175 psi.
         4. ADA compliant.
         5. Height: 1-1/8 inches.
         6. Grate Openings: 3/8 inch.
         7. Open Surface Area: 25.67 square inches.
         8. Inlet Capacity: 78.53 gpm.
      7. 12-Inch-Square Wave Grates:
         1. Part Number: 1224CI.
         2. Color: Raw iron.
         3. Material: Cast iron.
         4. Load Rating: Class B, 61 to 175 psi.
         5. ADA compliant.
         6. Height: 1-1/8 inches.
         7. Grate Openings: 3/8 inch.
         8. Open Surface Area: 25.60 square inches.
         9. Inlet Capacity: 78.31 gpm.
      8. 12-Inch-Square Grates:
         1. Part Number: 1213.
         2. Color: Black.
         3. Material: Heavy-duty ductile iron.
         4. Load Rating: Class C, 176 to 325 psi.
         5. ADA compliant.
         6. Height: 1 inch.
         7. Grate Openings: 3/8 inch.
         8. Open Surface Area: 37.20 square inches.
         9. Inlet Capacity: 113.80 gpm.
      9. 12-Inch-Square Grates:
         1. Part Number: 1215.
         2. Color: Galvanized steel.
         3. Material: Heavy-duty galvanized steel.
         4. Load Rating: Class C, 176 to 325 psi.
         5. Height: 1-1/8 inches.
         6. Grate Openings: 3/4 inch.
         7. Open Surface Area: 113.78 square inches.
         8. Inlet Capacity: 348.07 gpm.
      10. 12-Inch-Square Downspout Defender Grate:
          1. Part Number: 1200DSG
          2. Color: Black
          3. Material: HDPE
          4. Load Rating: Class A, 1 to 60 psi.
          5. Height: 9” total, 7-3/4” Installed
          6. Grate Openings: 0.25”
          7. Open Surface Area: 54.54 square inches
          8. Inlet Capacity: 247 GPM
      11. 12-Inch-Square Sump Pump Boxes:
          1. Part Number: 1220.
          2. Color: Black.
          3. Material: Structural-foam polyolefin with UV inhibitor.
          4. Height: 3/4 inch.
          5. Solid cover.
      12. 12-Inch-Square Low-Profile Adapters:
          1. Part Number: 1230.
          2. Color: Black.
          3. Material: Styrene.
          4. Height: 3-7/16 inches.
      13. 12-Inch-Square Low-Profile Adapters:
          1. Part Number: 1221.
          2. Color: Black.
          3. Material: Styrene.
          4. Height: 5-15/16 inches.
      14. 12-Inch-Square Low-Profile Spigot Adapters:
          1. Part Number: 1222.
          2. Color: Black.
          3. Material: Styrene.
          4. Height: 5-15/16 inches.
    1. 18-INCH CATCH BASIN SERIES
       1. 18-Inch-Square 1-Piece Tapered Catch Basins:
          1. Part Number and Openings: [1882, 2 openings] [1884, 4 openings].
          2. Color: Black.
          3. Material: Structural-foam polyolefin with UV inhibitor.
          4. Height: 18-9/16 inches.
       2. 18-Inch-Square Modular Catch Basins with Locking Tabs:
          1. Part Number and Openings: [1800, 2 openings] [1804, 4 openings].
          2. Color: Black.
          3. Material: Styrene.
          4. Height: 19-1/4 inches.
       3. 18-Inch-Square Catch Basin Risers:
          1. Part Number: 1816.
          2. Color: Black.
          3. Material: Styrene.
          4. 8-inch riser.
          5. Height: 9 inches.
       4. 18-Inch-Square Dome Atrium Grates:
          1. Part Number and Color: [1881, Black] [1891, Green].
          2. Material: Structural-foam polyolefin with UV inhibitor.
          3. Height: 6 inches.
          4. Grate Openings: 1/2 inch.
          5. Open Surface Area: 89.40 square inches.
          6. Inlet Capacity: 273.49 gpm.
       5. 18-Inch-Square Grates:
          1. Part Number and Color: [1810, Gray] [1811, Black] [1812, Green].
          2. Material: Structural-foam polyolefin with UV inhibitor.
          3. Load Rating: Class B, 61 to 175 psi.
          4. ADA compliant.
          5. Height: 1 inch.
          6. Grate Openings: 7/16 inch.
          7. Open Surface Area: 86.31 square inches.
          8. Inlet Capacity: 264.03 gpm.
       6. 18-Inch-Square Grates:
          1. Part Number: 1813.
          2. Color: Black.
          3. Material: Heavy-duty cast iron.
          4. Load Rating: Class C, 176 to 325 psi.
          5. ADA compliant.
          6. Height: 1 inch.
          7. Grate Openings: 1 inch.
          8. Open Surface Area: 110.70 square inches.
          9. Inlet Capacity: 338.65 gpm.
       7. 18-Inch-Square Grates:
          1. Part Number: 1815.
          2. Color: Galvanized steel.
          3. Material: Heavy-duty galvanized steel.
          4. Load Rating: Class C, 176 to 325 psi.
          5. Height: 1 inch.
          6. Grate Openings: 1 inch.
          7. Open Surface Area: 239.00 square inches.
          8. Inlet Capacity: 731.13 gpm.
       8. 18-Inch-Square Frames:
          1. Part Number: 1840.
          2. Color: Black.
          3. Material: Styrene.
          4. Height: 1-1/4 inches.
       9. 18-Inch-Square Low-Profile Adapters:
          1. Part Number: 1830.
          2. Color: Black.
          3. Material: Styrene.
          4. Height: 3-5/8 inches.
       10. 18-Inch-Square Catch Basin Sides:
           1. Part Number: 1820.
           2. Color: Black.
           3. Material: Styrene.
           4. Height: 19-1/4 inches.
           5. Opening: None.
       11. 18-Inch-Square Catch Basin Sides:
           1. Part Number: 1821.
           2. Color: Black.
           3. Material: Styrene.
           4. Height: 19-1/4 inches.
           5. Opening: 8 inches.
       12. 18-Inch-Square Catch Basin Sides:
           1. Part Number: 1822.
           2. Color: Black.
           3. Material: Styrene.
           4. Height: 19-1/4 inches.
           5. Opening: 6 or 8 inches.
       13. 18-Inch-Square Catch Basin Bottoms:
           1. Part Number: 1828.
           2. Color: Black.
           3. Material: Styrene.
           4. Height: 1-1/8 inches.
    2. 24-INCH CATCH BASIN SERIES
       1. 24-Inch-Square 1-Piece Tapered Catch Basins:
          1. Part Number and Openings: [2400, 2 openings] [2404, 4 openings].
          2. Color: Black.
          3. Material: HDPE with structural-foam polyolefin with UV inhibitor.
          4. Height: 24 inches.
       2. 24-Inch-Square Catch Basin Extensions:
          1. Part Number: 2418.
          2. Color: Black.
          3. Material: HDPE with structural-foam polyolefin with UV inhibitor.
          4. 8-inch extension.
          5. Height: 12-1/4 inches.
       3. 24-Inch-Square Grates:
          1. Part Number and Color: [2411, Black] [2412, Green].
          2. Material: HDPE with structural-foam with UV inhibitor.
          3. Load Rating: Class B, 61 to 175 psi.
          4. Height: 2 inches.
          5. Grate Openings: 7/8 inch.
          6. Open Surface Area: 231.69 square inches.
          7. Inlet Capacity: 708.77 gpm.
       4. 24-Inch-Square Grates:
          1. Part Number: 2413.
          2. Color: Black.
          3. Material: Heavy-duty cast iron.
          4. Load Rating: Class C, 176 to 325 psi.
          5. Height: 2 inches.
          6. Grate Openings: 1 inch.
          7. Open Surface Area: 197.00 square inches.
          8. Inlet Capacity: 602.65 gpm.
       5. 24-Inch-Square Grates:
          1. Part Number: 2415.
          2. Color: Galvanized steel.
          3. Material: Heavy-duty galvanized steel.
          4. Load Rating: Class C, 176 to 325 psi.
          5. Height: 2 inches.
          6. Grate Openings: 1-1/4 inches.
          7. Open Surface Area: 422.45 square inches.
          8. Inlet Capacity: 1,292.33 gpm.
  1. EXECUTION
     1. EXAMINATION
        1. Examine areas to receive catch basins.
        2. Notify Architect of conditions that would adversely affect installation or subsequent use.
        3. Do not begin installation until unacceptable conditions are corrected.
     2. INSTALLATION
        1. Install catch basins in accordance with manufacturer’s instructions at locations indicated on the Drawings.
        2. Install catch basins and grates level, plumb, square, and to elevations indicated on the Drawings.
        3. Install catch basins on top of compacted gravel base as indicated on the Drawings.
        4. Recess top of grates 1/8 inch below finish grade.
        5. Connect drainage piping to catch basins in accordance with manufacturer’s instructions.
        6. Backfill evenly around catch basins with specified material.
        7. Ensure no large stones or debris are in contact with catch basins.

Specifier Notes: Specify concrete collars for locations where the channels will experience vehicular loading.

* + - 1. Concrete Collars:
         1. Encase catch basins with concrete collars as indicated on the Drawings.
         2. Concrete: Specified in Section 03 30 00.
      2. Keep concrete, sediment, and debris out of catch basins during installation.
    1. ADJUSTING
       1. Remove and replace with new material, damaged components that cannot be successfully repaired.
    2. CLEANING
       1. Clean catch basins of accumulated sediment and debris before final project completion.
    3. PROTECTION
       1. Protect Work of this Section to ensure that Work will be without damage or deterioration at time of Substantial Completion.

END OF SECTION