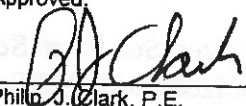


SUPERSEDED BY EB 15-031 EFFECTIVE 9/28/15		New York State Department of Transportation ENGINEERING INSTRUCTION	EI 06-014
Title: CULVERT-END SAFETY GRATES (REVISED SECTION 603 STANDARD ITEMS)			
Distribution: ☒ Manufacturers (18) ☒ Local Govt. (31) ☒ Agencies (32) ☐ Surveyors (33) ☒ Consultants (34) ☒ Contractors (39) ☐ _____ ()		Approved:  Philip J. Clark, P.E. Deputy Chief Engineer, Design  Date	

ADMINISTRATIVE INFORMATION:

- This Engineering Instruction (EI) is effective beginning with projects submitted for the letting of 01/11/07.
- This EI does not supersede any issuances.
- These revisions will be incorporated into a future update of the Standard Specifications.

PURPOSE: The purpose of this EI is to transmit Standard Specifications and Standard Items for culvert-end safety grates.

TECHNICAL INFORMATION:

- These culvert-end safety grates enhance roadside safety by enhancing traversability for errant vehicles and mowing machines.
- Four (4) Special Specification Items are hereby disapproved and two Standard Items are being issued by this EI. See the Implementation section for details.
- This EI will be issued concurrently with EB 06-025, which announces the availability of a new Standard Sheet entitled "Culvert-End Safety Grates," and EI 06-015, which issues design guidance.

IMPLEMENTATION:

- Main Office Design Quality Assurance Bureau will insert the Standard Specification shelf note into contract documents beginning with projects submitted for the letting of 01/11/07.
- The following special specification contract pay items are disapproved:
 - 04603.19 – Culvert-Bar Grate System.
 - 03603.98 – Culvert-End Bar Grate System.
 - 15603.98 – Culvert-End Safety Grate.
 - 04603.9910 – Culvert-Bar Grate System.
- The following standard specification contract pay items are approved:
 - 603.0101 – Culvert-End Safety Grate.
 - 603.0102 – Culvert-End Safety Grate (Heavy-Duty).

- The following existing special specifications are still approved:

603.14xxxx04 – Galvanized Steel End Sections-Pipe Arch with Bars for 1:4 Slopes

603.16xxxx04 – Galvanized Steel End Sections-Pipe Arch with Bars for 1:6 Slopes

603.1714xx01 – Galvanized Steel End Sections-Pipe with Bars for 1:4 Slopes

603.1716xx01 – Galvanized Steel End Sections-Pipe with Bars for 1:6 Slopes

Note: these special specifications require details to be shown on plan sheets. Detailed drawings can be obtained from the Regional Special Specifications Coordinator.

TRANSMITTED MATERIALS: This EI transmits a standard specification shelf note for
Section 603 – Culverts and Storm Drains.

CONTACT: For additional information contact Pratip Lahiri at plahiri@dot.state.ny.us or Bob Lohse at rlohse@dot.state.ny.us of the Design Quality Assurance Bureau at (518) 457-3528.

Make the following changes to the Standard Specifications of January 2, 2002:

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Under 603-2.01 General, *insert* the following:

"Galvanized Coatings and Repair Methods	719-01
Bar Reinforcement, Grade 420	709-01"

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Between Lines 24 and 25, under 603-3 CONSTRUCTION DETAILS, *insert* the following:

"603-3.10 Culvert-End Safety Grates. Culvert-end safety grates shall be fabricated in accordance with the Standard Sheets.

The grate shall lay flat on the embankment slope, overlap the opening equally on each side, and at the top as indicated in the contract documents. The Contractor shall perform any necessary excavation, backfill, and final slope shaping and grading to ensure proper grate support and smooth uniform slopes in the area surrounding the grate. All disturbed areas will be reestablished to the satisfaction of the Engineer."

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Between Lines 37 and 38, under 603-4 METHOD OF MEASUREMENT, *insert* the following:

"603-4.05 Culvert-End Safety Grates. Culvert-end safety grates will be measured in square meters to the nearest 0.1 square meter of safety-grate installed, using payment areas shown on the Standard Sheet. For sizes that are not shown on the Standard Sheet, the area will be computed as the product of the overall length and width. "

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Between Lines 22 and 23, under 603-5 BASIS OF PAYMENT, *insert* the following:

"603-5.04 Culvert-End Safety Grates. The unit price bid shall include the cost of all labor, materials, and equipment necessary to complete the work, including excavation, topsoil, seeding and mulching."

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Between Lines 12 and 13 *insert* the following:

"603.0101	M	Culvert-End Safety Grate	Square Meter
603.0102	M	Culvert-End Safety Grate (Heavy-Duty)	Square Meter"