

ITEM 690.6230--25 - INSTALLATION OF TOLL TREADLE FRAME AND INSERT AT COXSACKIE OPEN ROAD TOLLING TEST SITE

1. DESCRIPTION:

- 1.01 The work shall consist of providing and casting toll treadle frames into the toll lane concrete as shown on the plans and as directed by the Engineer. The treadle frames will be fabricated by one of the manufacturers listed below. Under this item number, the Contractor will also supply and install the additional materials listed in this Specification under Materials.

2. MATERIALS:

- 2.01 Each treadle frame installation will require the following:

- A. **Galvanized Steel Drainage Pipe and Fittings:** 3" diameter, Schedule 40 galvanized steel pipe, galvanized elbows and couplings as required. Materials shall meet ASTM A53, A197 and A153.
- B. **Polyethylene Drainage Fittings:** (wyes, tees, reducing fittings, etc.): Fittings are to be sized as required for connection to existing highway drainage system. Where required, fittings are to be supplied with the appropriate Type 301 stainless steel adjustable bands. Polyethylene fittings shall meet ASTM F-405.
- C. **Galvanized Steel Conduit and Fittings:** [REDACTED]

- 2.02 Treadle Frame; reference contract, Drawings [REDACTED], manufactured by:



No substitution shall be permitted.

- 2.03 The Contractor should note that treadle frames have precise tolerances and he/she should take this into consideration when ordering and scheduling inspections to prevent delays in case the frame is rejected.

- 2.04 Treadle Fiber Optic Sensor Insert shall be part number [REDACTED] from [REDACTED]. No substitutions shall be permitted.



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3. CONSTRUCTION DETAILS:

- 3.01 The Contractor shall be responsible for damage of any nature. Such responsibility for damage shall continue until the official opening by the Authority of the lane in which the treadle frame is installed.

The Contractor shall supply and install the treadle frames, supply and install treadle frame drain piping with connection drain system and supply and install treadle frame conduit indicated on the plans or as directed by the Engineer.

When placing concrete at the treadle frame, extreme care shall be taken to prevent concrete from encroaching above the bottom bars of the treadle pads recess. Concrete must be flush with the top of these bars to provide full support for pad.

All work shall be accomplished as shown on the plans and as directed by the Engineer.

- 3.02 The frames shall be set so as to conform to the adjacent transverse pavement grade (i.e., cross-slope).
- 3.03 The treadle frames shall be secured to prevent movement during concrete pouring operations.
- 3.04 Prior to concrete pouring operations, it will be the Contractor's responsibility to connect all necessary drains and conduits. These items are to be provided as indicated on the drawings.
- 3.05 Verify treadle frame bushing alignment and spacing prior to setting in concrete. Thread size and pitch shall be in English units.
- 3.06 After concrete pouring operations, the treadle frames shall be cleaned and prepared as directed by the Engineer for receipt of the treadle body to be supplied and installed by others.
- 3.07 The Contractor shall install the Fiber Optic Axle Sensor Insert into the frame via bolting the insert within the frame and apply an anti-seize compound such as LUBRIPLATE No. 107 on each bolt. The fiber optic axle sensor leadouts shall be coiled and placed within the adjacent pull box.

4. METHOD OF MEASUREMENT:

- 4.01 The work shall be measured on an each basis for supplying and installing of the treadle frame units, treadle frame drain piping, and treadle frame conduit.

5. BASIS OF PAYMENT:

- 5.01 The unit price bid shall include the cost of furnishing all labor, materials, and equipment necessary to satisfactory complete the work.