

ITEM 633.9720nn25 - MAINTENANCE CLEANING AND WASHING OF THE GRAND ISLAND BRIDGES

1. DESCRIPTION:

1.01 This work shall consist of cleaning the bridges from below the deck. Power wash the structural steel bridge surfaces, bridge seats, pier caps, pier columns, sidewalk fascias and abutments.

1.02 DEFINITIONS:

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| Loose paint chips - | Pieces of coating that are no longer attached to the bridge surface of the steel. |
| Flaking paint chips - | Small pieces of coating that are detached from the surface of the steel. Edges are generally raised up from the surface and the small pieces can be rather easily removed exposing the bare steel. |
| Trash and debris - | Included but not limited to, sand, soil, cinders, silt, dirt, mud, salt, glass, paper, rubber, metal, wood, loose paint chips, loose pieces of concrete and asphalt, rock, stones and bird droppings. |
| Protected Migratory Birds - | Includes all waterfowl, herons, hawks, owls, eagles and songbirds including swallows, robins, and eastern phoebes. Excludes rock doves (pigeons), house sparrows, European starlings and monk parakeets. Their feathers, nests, and eggs are also protected under the MBTA. Although these species are not protected under the Act, they should still be treated as humanely as possible and practicable. |
| Peregrine Falcons - | Peregrine Falcons should be afforded special protection. When encountered, the Division Environmental Specialist and/or Headquarters Environmental Specialist should be contacted immediately. |
| Migratory Bird Treaty Act Of 1918 With Amendments - | Federal law that protects migratory birds and their nests, eggs, and feathers. Conviction of violating the act can result in a fine of \$15,000.00 or imprisonment for six (6) months or both. |

2. MATERIALS:

2.01 Water for power washing shall be clean, fresh water. Detergents or other agents shall not be used. Clean, fresh water drafted from the Niagara River will be allowed for cleaning of the Grand Island Bridge. To further protect aquatic life, water withdrawal shall be accomplished with the use of a screened hose, with a screen size not to exceed 1/4" square.

3. CONSTRUCTION DETAILS:

3.01 Bridge cleaning shall begin at the underside of the deck, sidewalk fascias and proceed downward.

The underside of deck shall be limited to cleaning 10 feet on either side of joint(s). Cleaning of structural steel shall include all structural steel below the deck. Other surfaces to be cleaned are abutments, bridge seats, sidewalk fascias, bearings, pier caps, pier columns, and other surfaces as designated by the Engineer.

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3. CONSTRUCTION DETAILS: (cont'd)

- 3.02 All nests of protected migratory birds on bridges should be presumed to be active and occupied between April 15 and August 15. The areas within three (3) feet laterally to the occupied nest should not be cleaned or washed, pressure washing should start at the three (3) feet line and progress away from the nest.

Before April 15 and after August 15 nests of protected migratory birds on bridges will most likely be inactive and unoccupied. If confirmed to be unoccupied, the nests should be removed as part of the cleaning operation.

Nests of unprotected species should be removed as part of the cleaning operations. However, these species should be treated as humanely as possible, in socially and environmentally sensitive situations, the removal of the young from the nest to be raised by a Wildlife Rehabilitation specialist should be considered. Contact the Division Environmental Specialist for assistance.

- 3.03 The washing of all surfaces of the structural steel as described above shall be adequate to remove all visible dirt, salt, animal waste and similar debris, however if flaking paint exists on the structural steel surfaces, then these areas shall not be washed. In heavily soiled area where bird droppings are in mass, a brush or rag cleaning may be necessary to remove it. This will be done with prior notification to the Engineer.

The cleaning of the structural steel shall begin from the middle highest point on the truss and worked downwards and out towards the ends of the bridges.

- 3.04 The equipment for power washing shall be operated at powers that do not damage adhered coatings on the bridge, undercut the grout, or harm the masonry plates beneath the bearings. At no time shall the power wash exceed 1015 psi. A distance of 1.5 feet to 10 feet shall be maintained between the structural steel and the water nozzle. When washing bridges, the quantity and flow rate of the water used shall be the minimum necessary, as approved by the Engineer, to clean foreign materials from the surfaces where they are encountered. Power washing will not be allowed when ambient temperatures are less than 40°F before the bridge is dry.

The Engineer will be the sole determiner as to when temperatures lower than 40°F are likely to occur.

- 3.05 Work shall be conducted in such a manner so as not to damage or remove existing epoxy protective coatings or existing intact paint coatings or any other protective coating on the bridge. Any damage to the structure being worked on or to surrounding structures and property shall be repaired by the Contractor to the satisfaction of the Engineer and at no cost to the Authority.
- 3.06 The Contractor shall provide access and opportunity for the Engineer to inspect various components of the bridge as they are being cleaned. After all washing is completed; the bridge will receive a general inspection by the Engineer.
- 3.07 Work Zone Traffic Control shall be in accordance with the proposal, Section 619 of the Standard Specifications, or as ordered by Engineer. High power spray and high volume drainage of wash water shall be controlled so as to not present a hazard to traffic or to cause erosion of adjacent ground or drainage ways. Under no circumstances shall high power spray or high volume drainage of wash water be discharged directly into active traffic lanes.
- 3.08 The Contractor shall access the bridge for all operations from below. Access from above that would require any lane closures will not be permitted.

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4. METHOD OF MEASUREMENT:

4.01 The work shall be measured on a lump sum basis.

5. BASIS OF PAYMENT:

5.01 The lump sum price bid shall include the cost of all labor, materials, and equipment necessary to complete the work.

5.02 Payment will be made as follows:

| <u>ITEM NO.</u> | <u>DESCRIPTION</u> | <u>PAY UNIT</u> |
|------------------------|--|------------------------|
| 633.97200125 | Maintenance Cleaning and Washing of the Northbound – North Grand Island Bridge – MP N20.35 | Lump Sum |
| 633.97200225 | Maintenance Cleaning and Washing of the Southbound – North Grand Island Bridge – MP N21.12 | Lump Sum |
| 633.97200325 | Maintenance Cleaning and Washing of the Northbound – South Grand Island Bridge – MP N14.35 | Lump Sum |
| 633.97200425 | Maintenance Cleaning and Washing of the Southbound – South Grand Island Bridge – MP N14.99 | Lump Sum |
| 633.97200525 | Maintenance Cleaning and Washing of the Northbound Off-Ramp Bridge Adjacent to North Grand Island Bridge – MP N21.11 | Lump Sum |