



INVITATION FOR BIDS

2009-3393-1524

December 1, 2008

City of Newport News

OFFICE OF THE PURCHASING DIRECTOR

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CONSTRUCTION OF LEE HALL WATER TREATMENT PLANT (WTP) RAW WATER SLUICE GATE REPLACEMENT PROJECT

ADDENDUM 1

It is agreed and understood that the following changes shall be made part of the original Invitation for Bids (IFB)

This published addendum consists of seventeen (17) pages as follows:

- 1. Addendum Cover page (1) - Addendum announcement and description.*
- 2. Section C (Technical Specifications) replacement pages (3) - Replace original IFB pages 11289-4, 11289-5 & 11289-6 with addendum 1 pages 11289-4 through 11289-6. The sluice gates will NOT be of the self-contained type and will NOT utilize a flush bottom closure seal. All references and descriptions in paragraph 2.2 DETAILS OF CONSTRUCTION, pertaining to these two attributes have been deleted.*
- 3. Exhibits A-E are posted separately in an upgraded software version that facilitates zooming in without distortion.*

Bid Due: December 16, 2008 @ 2:30 p.m.

Contract Officer:

Marie-Therese (Mimi) M. Gartner, CPPB, Buyer, (757) 926-8040, email: mgartner@mngov.com

PLEASE INCLUDE THIS SIGNED ADDENDUM PAGE WITH YOUR SUBMITTAL

Company Name: _____

Print Name: _____ Title: _____

Signature: _____ Date: _____

(This Form Must Be Signed. Signature must be original, not photocopied)

conditions described below.

1. Gates shall be cast iron, fully bronze mounted.
2. Design sluice gates for a minimum of 20 feet unseating head.
3. Gates shall be substantially watertight with leakage rate not to exceed 0.2 gpm of clean water per foot of gate perimeter (testing will be performed in unseating condition).
4. Gates shall have manufacturer's name cast in raised letters on body.
5. Flange drilling if required shall conform to ANSI B16.1.
6. Gasket material and installation shall conform to manufacturer's recommendations.
7. The new sluice gates must be compatible with the existing wall thimble and anchor bolt pattern, stems, stem guides, and electric operators.

2.2 DETAILS OF CONSTRUCTION

A. Materials of Construction:

1. Iron Castings: ASTM A 126, Class B for wall thimbles, frames, discs, ~~yoke~~, guides, floorstands, gear housings and other items.
2. Bronze Castings: For wedges, thrust nut, lift nut and couplings: ASTM 98.
3. Bronze: For seat facings in frame and disc, stem guide and stem guide liners. ASTM B 139.
4. For adjusting screws and other fasteners, ASTM B 98.
5. Stainless Steel: For stems, stem couplings, and fasteners, ASTM A 276, Type 304.
6. **ITEM DELETED.**
7. **ITEM DELETED.**

B. Frames:

1. Frame shall be cast iron, one-piece construction of the flanged or flat type as required and with opening as required to serve existing wall thimble openings.
2. Frame shall have machined dovetailed grooves on the front face into which bronze seat facings shall be driven and then machined.
3. Back flange of the frame shall be machined to bolt directly to the machined face of the existing wall thimbles.
4. All surfaces forming joints or bearings shall be machined.
5. Frames shall have integrally cast pads machined with keyways to receive top and bottom wedge seats.
6. Frame drilling if required for attachment to thimble shall be as shown, specified or otherwise required for proper connection.
7. Gaskets shall be furnished as recommended by manufacturer.

C. Disc:

1. Disc shall be of cast iron, one-piece construction, rectangular with integrally cast vertical and horizontal ribs. A reinforcing rib along each side shall be

- provided to ensure rigidity between the side wedges.
2. Disc shall have machined dovetailed grooves on the seating face into which bronze seat facings shall be driven and then machined. The disc and frame bronze seat facings shall be accurately machined and shall be in contact with one another across their entire width. Wedge pads for side, top, and bottom wedges shall be cast integrally on the disc and then machined to receive the adjustable bronze wedges. Each disc shall have a tongue on each side extending its full length into a recess in the disc guides. These tongues shall be accurately machined on contact surfaces. The maximum allowable clearance between the disc and disc guide shall be 1/16-inch.
 3. Cast a heavily reinforced nut pocket integrally on the vertical centerline and above the horizontal center to receive the thrust nut.

D. Guides:

1. Guides shall be cast iron, one or two piece construction, or may be cast integrally with the frame, designed to withstand the total thrust caused by water pressure and wedging action. Two piece guides shall have flanged upper and lower sections which shall be machine bolted and doweled for perfect alignment of the guide grooves.
2. Guides shall be machined on all contact surfaces. Guides shall be of such length as to retain and support at least one-half of the vertical height of the disc in the full open position.
3. Guides shall be integral or attached to the frame with silicon bronze studs and nuts, and shall be doweled to prevent any relative motion between the guides and the frame. Wedges shall be attached to the guides at points, where in the closed position, they will make full contact with the wedging surfaces on the disc.

E. Wedges:

1. Wedges shall be solid cast bronze, machined on all contact surfaces, keyed to the cast iron pads to maintain adjustment by preventing undesirable rotation or lateral motion. Attach wedges to the disc with silicon bronze studs and nuts. Provide silicon bronze adjusting screws with lock nuts.
2. Securely attach bronze wedge seats to machined pads on the guides.

F. Seat Facings:

1. All seat facings shall be bronze of a composition which will resist dezincification and shall increase in wearing ability with cold working.
2. Retain facings in a dovetail groove.

G. PARAGRAPH DELETED.

H. PARAGRAPH DELETED.

2.3 APPURTENANCES

- A. Bolts, Nuts and Studs: Bolts, nuts and studs embedded in concrete and studs and nuts required for wall thimbles, special wall fittings, and wall pipes shall be of Type 304 stainless steel. Bolts shall have hexagon heads and nuts shall be hexagonal.
- B. Identification: Identify each sluice gate with a brass or stainless steel nameplate stamped with the approved designation. Nameplate shall be permanently fastened to the gate at the factory.

2.4 PAINTING

- A. Clean and prime coat ferrous metal surfaces of equipment in the shop. Surface preparation shall be as recommended by the manufacturer for the product used and service application. Primer must be compatible with top coat specified herein. Primer dry mil thickness shall be 2.0 to 4.0 mils.
- B. Top coats shall be applied by the sluice gate manufacturer with field touch-up by the CONTRACTOR.
 - 1. Top coat shall consist of Tnemec Series 20 Potapox – color 1255 (beige).
 - 2. Apply two coats with a dry mil thickness of 4.0 to 6.0 mils each.
 - 3. If coating is damaged prior to installation, CONTRACTOR shall make proper repairs to coating in the field as recommended by coating manufacturer. Gate manufacturer shall provide one gallon of touch-up coating to CONTRACTOR.

2.5 ANCHOR BOLTS

- A. Furnish anchor bolts and nuts of ample size and strength for the purpose intended, sized by the equipment manufacturer as required for additional anchoring of sluice gate assemblies or appurtenances. Anchor bolts installed into existing concrete shall be of the two-part adhesive system type unless submerged conditions are unavoidable