INVITATION TO TENDER NO. PS20220112 CONTRACTOR FOR THE REMEDIATION OF THE SOUTHLANDS TIDE GATES

## QUESTIONS AND ANSWERS NO. 5

ISSUED ON MARCH 25, 2022

| Q1 | To confirm the Flap Gate at the Carrington Street Floodbox is owner supplied <br> correct? <br> Also could we obtain shop drawings for this supplied Flap Gate? |
| :---: | :--- |
| A1 | Yes, the flapgate at Carrington Street Floodbox is owner-supplied. <br> We do not have shop drawings to provide so we have attached the specification <br> sheet and a photo of the replacement tide gate for reference. The replacement <br> flapgate at Carrington Street floodbox is the Waterman SSF-41 Drainage Flap Gate <br> (flat back). <br> In 2019, City forces welded tabs onto the procured flapgate flange (see photo <br> attached). These are to be removed as per Carrington IFT Drawings (Dwg No. <br> $2921-00-801$ and 2921-00-802) |
| There is minor warping of the flapgate creating lifting/gaps at the flange when |  |
| lain on a flat surface. The gap for 70\% of the flange is less than 6mm and around |  |
| 30\% has a gap between 6.5-8mm. |  |

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## SSF-41 ROUND DRAINAGE FLAP GATES

## FABRICATED STAINLESS STEEL

## KEY FEATURES

- Spigot back, flatback or flangeback
- Sizes 8" - 84" (Custom spigot sizes available)
- Seating heads to 30 feet
- A corrosion-resistant rust-proof automatic drainage gate designed for flange mounting or wall mounting
- J-Bulb neoprene adjustable seats provide excellent sealing against return flow
- Frame, cover, retainer ring, hinge arm, and pivot lug are of stainless steel. Gate hardware is stainless steel.


SSF-41 Spigotback


SSF-41 Flangeback

- Flatback for mounting to headwall.
- Flangeback to mate with 25 \# or 125 \# pipe flange.


## SPECIFICATIONS

## GENERAL

The flap gate shall be designed to allow free outflow and prevent backflow for maximum seating heads of 30 feet (see size chart below). Gates shall be Waterman Model SSF-41 or equal.

## CONSTRUCTION

The frame shall be stainless steel of flatback, spigotback or flangeback design (or other specified design configuration as required) with seating surface inclined from vertical at a minimum of $2 \not 12^{\circ}$ to assure positive closure. The stainless steel cover shall be attached to the frame in such a manner as to allow proper seating and full opening of cover. Built in stops shall be provided to prevent the cover from rotating sufficiently to become wedged in the open position. A resilient neoprene seal shall be attached to the inside of the frame opening and shall act as a seat for the cover to seal against. The seal shall be retained by a stainless steel ring bolted or welded to the frame. The linkage system shall be of the double pivoted type, attached to fixed pivot points on cover and frame. Hinge links shall be of structural stainless steel shapes. The heavily reinforced hinge arm of the Model SSF-41 is fastened to the pivot lug by means of heavy stainless steel hinge pins inserted through a durable non-metallic bushing. The hinge pin is arranged in a double shear configuration at extremely close tolerances thus severely limiting lateral movement. This, in conjunction with the protruding rubber seat (in lieu of a recessed seat) insures positive seating at all times regardless of the angle of tidal action.

## FINISH

Mill finish on all surfaces.

## MATERIALS

Frame and Cover and Hinge Link - Stainless Steel - ASTM A-276, Type 304 or 316 as specified. Assembly Hardware - Stainless Steel Type 18-8.

RECOMMENDED MAXIMUM SEATING HEADS:<br>8" to 30 " size: 30 feet of head<br>36" to 42" size: 20 feet of head<br>48" to 60" size: 15 feet of head<br>66 " to 84 " size: 10 feet of head

Custom models with higher head ratings available, consult factory.

## SSF-41 ROUND DRAINAGE FLAP GATES

## FABRICATED STAINLESS STEEL

SSF-41 STAINLESS STEEL DRAINAGE (FLAP) GATE - SPIGOTBACK RADIAL ARMS


| PARTS LIST |  |
| :---: | :--- |
| Number | Name |
| 1 | Frame |
| 2 | Seat |
| 3 | Retainer Ring |
| 4 | Hex Hd. Bolt / Nut |
| 5 | Cover |
| 6 | Hinge Arm |
| 7 | Pivot Lug |
| 8 | Hex Hd. Bolt/ Nut |
| 9 | Hinge Pin |
| 10 | Bushing |
| 11 | Washer |
| 12 | Spring Pin |

SSF-41 DRAINAGE (FLAP) GATE FLATBACK (FLANGEBACK SIMILAR BUT with ASA STANDARD FLANGE dImensions)


| DIMENSIONS IN INCHES |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gate Size | A | B | C | D2 | E | O.D. | B.C. | M | P |
| 8 | 91/8 | 101/2 | $81 / 4$ | 83/4 | 4 | 131⁄2 | 113/4 | 1/2 | 2 |
| 10 | 111/8 | $12^{1 / 2}$ | 91/4 | 87/8 | 4 | 151/2 | 133/4 | $1 / 2$ | 2 |
| 14 | 151/8 | 161/2 | 105/16 | 87/8 | 4 | 191/2 | 173/4 | 1/2 | 2 |
| 16 | 171/4 | 18 | 125/16 | 87/8 | 4 | 211/2 | 193/4 | $1 / 2$ | 2 |
| 20 | 211/8 | $221 / 2$ | 1411/4 | 9 | 4 | 261/2 | 243/4 | 1/2 | 2 |
| 12 | 131/8 | $131 / 2$ | 101/4 | 87/8 | 4 | 171/2 | 153/4 | 1/2 | 1 |
| 15 | 161/8 | 17 | 121⁄4 | 87/8 | 4 | 201/2 | 183/4 | 1/2 | 1 |
| 18 | 191/8 | 20 | 141/4 | 87/8 | 4 | 231/2 | 213/4 | 1/2 | 1 |
| 24 | 251/8 | $261 / 2$ | 16 | 87/8 | 4 | 305/8 | 281/4 | 1/2 | $11 / 2$ |
| 30 | 311/8 | $321 / 2$ | 19 | 105/8 | 4112 | 365/8 | 341/4 | 1/2 | $11 / 2$ |
| 36 | 371/8 | $381 / 2$ | 24 | 103/8 | $41 / 2$ | 425/8 | 401/4 | 1/2 | $11 / 2$ |
| 42 | 431/8 | 46 | 28 | 131/8 | $51 / 2$ | 485/8 | 461/4 | 1/2 | $11 / 2$ |
| 48 | 491/8 | 52 | 31 | 133/4 | $51 / 2$ | 545/8 | 521/4 | 1/2 | $11 / 2$ |
| 54 | 551/8 | 58 | 35 | 133/8 | $61 / 2$ | 605/8 | 581/4 | 5/8 | 2 |
| 60 | 611/8 | 64 | 38 | 153/8 | $61 / 2$ | 665/8 | 641/4 | 5/8 | 2 |
| 72 | 731/8 | 76 | 441/2 | 171/4 | 7114 | 785/8 | 761/4 | 5/8 | 2 |
| 84 | Dimensions on Application |  |  |  |  |  |  |  |  |

## MPI - MCWANE PLANT \& INDUSTRIAL

1201 Vanderbilt Road Birmingham, AL 35234 www.mcwanepi.com sales@mcwanepi.com
Kennedy Valve | Tyler Union | McWane Ductile | Waterman



[^0]:    City of Vancouver, Financial Services Group
    Supply Management
    453 West 12th Avenue
    Vancouver, British Columbia V5Y 1V4 Canada tel: 604.873.7263 fax: 604.873.7057
    website: vancouver.ca

