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SECTION _____
ALUMINUM STOP LOGS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The CONTRACTOR shall furnish all labor, materials, equipment and incidentals required to install and ready for operation aluminum stop logs, guide frames and stop log lifters as shown on the Contract Drawings and as specified herein.

1.02 SUBMITTALS

- A. Provide the following information to confirm compliance with the specification in addition to the submittal requirements specified in Section _____.
 - 1. Complete description of all materials including the material thickness of all structural components of the stop logs, guide frames and stop log lifter.
 - 2. Installation drawings showing all details of construction, details required for installation, dimensions and anchor bolt locations.
 - 3. Maximum bending stress and deflection of the stop logs under the maximum design head.
 - 4. The location of the company headquarters and the location of the principle manufacturing facility. Provide the name of the company that manufactures the equipment if the supplier utilizes an outside source.

1.03 QUALITY ASSURANCE

- A. Qualifications
 - 1. All of the equipment specified under this Section shall be furnished by a single manufacturer with a minimum of 20 years experience designing and manufacturing stop logs. The manufacturer shall have manufactured stop logs for a minimum of 100 projects.
 - 2. The specification is based on the Series 509-511 Aluminum Stop Log as manufactured by Whipps, Inc. of Athol, Massachusetts.

PART 2 EQUIPMENT

2.01 GENERAL

- A. Stop log assemblies shall be as specified herein and have the characteristics and dimensions shown on the Contract Drawings.
- B. Leakage shall not exceed 0.05 gpm/ft of wetted seal perimeter.
- C. The stop logs shall be provided with a continuous resilient seal along the bottom and both sides. The guide frames shall not incorporate seals.
- D. Stop logs shall be of the height as shown in the Contract Drawings and they shall be designed to function properly when stacked in any order.

- E. Stop logs shall be designed to drop into place under their own weight without any downward pressure necessary. Stacking stop plates are not acceptable in lieu of stop logs.
- F. All structural components of the stop logs shall be fabricated of aluminum and shall have adequate strength to prevent distortion during normal handling, during installation and while in service.
- G. All structural components of the guide frames shall be fabricated of (aluminum)(stainless steel) and shall have adequate strength to prevent distortion during normal handling, during installation and while in service.
- H. All welds shall be performed by welders with AWS certification.
- I. Finish: Mill finish on aluminum and stainless steel. All aluminum in contact with concrete shall be shop coated with a heavy coat of bitumastic paint. Welds on aluminum shall be cleaned to provide a uniform finish. Welds on stainless steel shall be sandblasted to remove weld burn and scale.
- J. Materials:

<u>Components</u>	<u>Materials</u>
Frame Guides and Invert	(Stainless Steel, Type 304L, ASTM A240) (6061-T6 Aluminum)
Stop Logs	6061-T6 Aluminum
Lip Seal	Urethane, EPDM or Neoprene ASTM D-2000
Anchor Studs, Fasteners and Nuts	Stainless Steel, Type 316, ASTM A276

2.02 FRAME GUIDES

- A. The frame guides or grooves and invert member shall be constructed of (stainless steel)(extruded aluminum) with a minimum thickness of 1/4-inch.
 - 1. Frame design shall allow for embedded mounting or mounting directly to a wall with stainless steel anchor bolts and grout. Mounting style shall be as shown on the Contract Drawings.
 - 2. An invert member shall be provided across the bottom of the guides. The invert member shall be of the flushbottom type.
 - 3. Frame mounted seals are not acceptable.

2.03 STOP LOGS

- A. The stop logs shall be constructed of extruded aluminum shapes with a minimum thickness of 5/16-inch.
 - 1. Each stop log shall be 18 inches tall unless otherwise indicated on the Contract Drawings.
 - 2. Maximum bending stress shall not exceed 7600 psi at the maximum operating head.
 - 3. Adequate drainage shall be provided for each stop log.
 - 4. Two slots shall be provided in the top of each stop log for removal and installation via the stop log lifter.
 - 5. Each stop log shall be outfitted with a welded or otherwise securely attached identification tag indicating the manufacturer and the width of the opening at a minimum.

2.04 SEALS

- A. Each stop log shall be outfitted with a continuous resilient lip seal along the bottom and both sides to restrict leakage in accordance with the requirements listed in this specification.
 - 1. The continuous lip seal shall be constructed of urethane or rubber and shall be mechanically retained to the stop log.

2. The lip seal shall be activated by a combination of the weight of the stop log and the differential water pressure, which pushes the seal against the inside of the groove assembly.
3. Stop logs that utilize rubber “J” seals or “P” seals are not acceptable.

3.05 LIFTER

- A. One stop log lifter shall be provided for each different guide frame width.
 1. The lifter shall be constructed of aluminum and shall be outfitted with UHMW guide bars and stainless steel fasteners.
 2. The lifter shall be provided with lifting hooks designed to engage the slots in the top of the stop logs. A lanyard release will be incorporated into the design.
 3. The lifter shall be capable of installing and removing all stop logs of the same width whether they are installed or at the operating floor level.

3.06 (STORAGE RACKS)

- A. Storage racks, if shown on the Contract Drawings, shall be provided to house stop logs while they are not in use.
 1. Storage racks shall be constructed of aluminum and shall be mounted as shown on the Contract Drawings.

3.07 ANCHOR BOLTS

- A. Anchor bolts shall be provided by the stop log manufacturer for mounting the guide frames and storage racks (if applicable).
 1. Quantity and location shall be determined by the stop log manufacturer.
 2. If epoxy type anchor bolts are provided, the stop log manufacturer shall provide the studs and nuts.
 3. Anchor bolts shall have a minimum diameter of 1/2-inch.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Installation of the stop logs, guide frames and appurtenances shall be done in a workmanlike manner. It shall be the responsibility of the CONTRACTOR to handle, store and install the equipment specified in this Section in strict accordance with the manufacturer's recommendations.
- B. The CONTRACTOR shall review the installation drawings and installation instruction prior to installing the guide frames.
- C. The guide frames shall be installed in a true vertical plane, square and plumb.
- D. The CONTRACTOR shall fill the void in between the guide frames and the wall with non-shrink grout as shown on the installation drawing and in accordance with the manufacturer's recommendations.

3.02 FIELD TESTING

- A. After installation, all stop logs shall be field tested in the presence of the ENGINEER and OWNER to ensure that all items of equipment are in full compliance with this Section. The stop logs shall be inserted into the guide frames to confirm that they operate in accordance with the specification. Each stop log assembly shall be water tested by the CONTRACTOR,

at the discretion of the ENGINEER and OWNER, to confirm that leakage does not exceed the specified allowable leakage.

END OF SECTION