

# EJMT FFSS Maintenance & Operations Manual

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**Project Number: C 0703-360**  
**Sub-Account: 17810**

Revision 3  
March 9, 2016

February 20, 2015

Christi Hurelle  
ICO: CDOT West Program  
Colorado Department of Transportation  
425A Corporate Circle  
Golden, CO 80204

christi.hurelle@parsons.com  
Phone: (303) 503-7296

RE: EJMT Emergency Response & Monitoring

Dear Mrs. Hurelle,

In accordance with Contract Book 2, Section 19.17, Barnard Construction will monitor and respond to failures at the EJMT Fixed Fire Suppression System Project as described below.

In the event of a routine failure, priority failure, or emergency failure as defined by Book 2, Section 19.17, Colorado Department of Transportation shall notify Western States Fire Protection’s Call Center at (303) 792-0022. The Call Center will maintain 24-hour, 7 days-per-week service to receive and transmit notifications from CDOT. While WSFP’s Call Center will be CDOT’s first means of communication, Barnard will remain the responsible party in event of all response conditions.

Once the Call Center is notified, Barnard will be alerted of the condition via telephone and email from WSFP. Barnard will then route all information to the responsible subcontractor according to the chart below. Barnard will maintain a log of all notifications from CDOT. The log will also include documentation of actions that are taken to resolve response conditions. Barnard shall respond to failures and complete repairs to restore system function so as to adhere to response times listed in Book 2, Section 19.17.

| System            | Responsible Subcontractor      |
|-------------------|--------------------------------|
| Fire Suppression  | Western States Fire Protection |
| Fire Alarm / CCTV | Systems Group                  |
| Mechanical        | Braconier Plumbing & Heating   |
| Electrical        | Sturgeon Electric              |

Sincerely,



Digitally signed by Joe Silvestri  
DN: cn=Joe Silvestri, c=US,  
o=Barnard Construction Company  
Inc., email=joe.silvestri@barnard-  
inc.com  
Date: 2016.02.22 07:40:24 -0700

Joe Silvestri  
Barnard Construction Company, Inc.

Tom Coakley

Digitally signed by Tom Coakley  
DN: c=US, E=tom.coakley@wsp.us,  
OU=wsp-denver, CN=Tom Coakley  
Date: 2016.02.22 08:34:49 -0700

Tom Coakley  
Western States Fire Protection

**Eisenhower/Johnson Memorial Tunnel  
Fixed Fire Suppression System  
Design Build Project, NO. C 0703-360**

## Warranty Information


Warranty Begins: March 31, 2016

Warranty Ends: March 31, 2021

For all warranty claims contact Western States Fire Protection's Call Center at  
(303) 792-0022.

For Terms and Conditions of Warranty please see the next page.

\*Warranty start and end dates contingent upon Interim Acceptance. 5-year warranty  
will start on date Interim Acceptance is officially issued.

 Digitally signed by Joe Silvestri  
DN: cn=Joe Silvestri, c=US,  
o=Barnard Construction Company  
Inc., email=joe.silvestri@barnard-  
inc.com  
Date: 2016.02.18 11:34:13 -0700

Joe Silvestri  
BARNARD Project Manager

## **21.0 Warranties**

### **21.1 Warranties by the Contractor**

#### **21.1.1 Project Warranties and Representations**

The Contractor warrants and the lead designer represents that:

1. All design Work furnished pursuant to the Contract Documents shall conform to all professional engineering principles generally accepted as standards of the industry in Colorado.
2. The completed Project shall be free of defects (including design Errors except to the extent that such defects are inherent in prescriptive specifications included in the Basic Configuration, unless: (i) the Contractor has actual or constructive knowledge of such defects; and (ii) the Contractor fails to request a change thereto by CDOT).
3. Materials and equipment furnished under the Contract Documents shall be of good quality and, when installed, shall be new.
4. The Work shall meet all of the requirements of the Contract Documents.
5. The specifications and/or drawings selected or prepared for use during construction are appropriate for their intended use.
6. The Project shall be fit for use for the intended function.
7. It shall be a condition to achieving Interim Acceptance that the Contractor shall assign all warranties to the person who has contracted with CDOT or any division thereof for the operation, maintenance, and/or repair of the Project.

#### **21.1.2 Transfer of Title**

The Contractor warrants that it owns, or will own, and has, or will have, good and marketable title to all materials, equipment, tools, and supplies furnished, or to be furnished, by it and its Subcontractors that become part of the Project or are purchased for CDOT for the operation, maintenance, or repair thereof, free and clear of all Liens. Title to all of such materials, equipment, tools, and supplies which shall have been delivered to the Site shall pass to CDOT, free and clear of all Liens, upon the sooner of: (i) incorporation into the Project; or (ii) payment by CDOT to the Contractor of invoiced amounts pertaining thereto. Notwithstanding any such passage of title, the Contractor shall retain sole care, custody, and control of such materials, equipment, tools, and supplies, and shall exercise due care with respect thereto as part of the Work until Interim Acceptance or until the Contractor is removed from the Project.

#### **21.1.3 Project Warranty Term**

The Warranty term for each element of the Project shall commence upon Interim Acceptance thereof by CDOT or acceptance thereof by the appropriate Person who will own such element. Subject to extension under Book 1, Section 1.1, the Warranties regarding all elements of the Project, with the exception of the Tunnel Enhanced Fire Safety System and Landscaping, shall remain in effect until one year after Interim Acceptance, whichever is applicable, provided that the Warranty term for elements of the Project that will be owned by Persons other than CDOT (such as Utility Owners) shall remain in effect as long as may be required under the applicable agreement. The Tunnel Enhanced Fire Safety System shall have a maintenance and operation period of five years following Interim Acceptance. If CDOT determines that any of the Work has not met the standards set forth in this Section 21.1 at any time within the Warranty period, then the Contractor shall correct such Work as specified below, even if the performance of such corrective Work extends beyond the stated Warranty period.

### **21.1.4 Corrective Work**

Within seven days of receipt by the Contractor of notice from CDOT specifying a failure of any of the Work to satisfy the Contractor's Warranties, or of any Subcontractor representation, warranty, guarantee, or obligation which the Contractor is responsible to enforce, the Contractor and CDOT shall mutually agree when and how the Contractor shall remedy such violation; provided, however, that in case of an emergency as indicated by CDOT in its notice requiring immediate curative action, the Contractor and CDOT shall agree on a remedy immediately upon notice by CDOT of such emergency. If the Contractor does not use its best efforts to proceed to effectuate such remedy within the agreed time, or if the Contractor and CDOT fail to reach such an agreement within such seven day period (or immediately, in the case of emergency conditions), then CDOT, after notice to the Contractor, shall have the right to perform or have performed by third parties the necessary remedy, and the costs thereof shall be borne by the Contractor. CDOT may agree to Accept Nonconforming Work in accordance with Book 1, Section 5.7.2.

CDOT and the Contractor shall conduct a walkthrough of the Site prior to expiration of the Warranty period and shall produce a Punch List of those items requiring Warranty Work.

### **21.1.5 Costs of Correction of Work**

All costs of correcting such rejected Work, including additional testing and inspections, shall be deemed included in the Contract Price. The Contractor shall reimburse CDOT and pay CDOT's expenses made necessary thereby within 10 days after the Contractor's receipt of invoice. The Contractor shall be responsible for obtaining any required Governmental Approvals or other consents from any other Person in connection with the Warranty Work.

## **21.2 Subcontractor Warranties**

### **21.2.1 Assignment**

Without in any way derogating the Contractor's own representations and warranties (including the Warranties) and other obligations with respect to all of the Work, the Contractor shall obtain from all Subcontractors and cause to be extended to CDOT, appropriate representations, warranties, guarantees, and obligations with respect to the design, materials, workmanship, equipment, tools, and supplies furnished by such Subcontractors, including all such representations, warranties, guarantees, and obligations required to be furnished by the Subcontractors under Book 2. All representations, warranties, guarantees, and obligations of Subcontractors shall: (i) be written so as to survive all CDOT and the Contractor inspections, tests, and approvals; and (ii) run directly to and be enforceable by the Contractor and/or CDOT and their respective successors and assigns. The Contractor hereby assigns to CDOT all of the Contractor's rights and interest in all extended warranties for periods exceeding the applicable Warranty period which are received by the Contractor from any of its Subcontractors.

### **21.2.2 Enforcement**

Upon receipt from CDOT of notice of a failure of any of the Work to satisfy any Subcontractor warranty, representation, guarantee, or obligation, the Contractor shall enforce or perform any such representation, warranty, guarantee, or obligation, in addition to the Contractor's other obligations hereunder. CDOT's rights under this Section 21.3.2 shall commence at the time such representation, warranty, guarantee, or obligation is furnished, and shall continue until the expiration of the Contractor's relevant Warranty (including extensions thereof under Book 1, Section 1.1). Until such expiration, the Contractor shall be responsible for the cost of any equipment, material, labor (including re-engineering) or shipping, and the Contractor shall be required to replace or repair defective equipment, material, or workmanship furnished by any Subcontractor.

### **21.3 No Limitation of Liability**

The foregoing warranties are in addition to all rights and remedies available under the Contract Documents or applicable law, and shall not limit the Contractor's liability or responsibility imposed by the Contract Documents or applicable law with respect to the Work, including liability for design defects, latent construction defects, strict liability, negligence or fraud; provided, however, that, upon expiration of the Warranties, the Contractor shall have no further liability to CDOT hereunder for patent construction defects.

### **21.4 Warranty Beneficiaries**

In addition to benefiting CDOT and its successors and assigns, the Warranties and Subcontractor warranties provided under this Section 21 shall inure to the benefit of, and shall be directly enforceable by, any local agencies and Utility Owners with respect to those portions of the Work owned or controlled by each such Person.

### **21.5 Remedies for Breach of Warranty**

In addition to CDOT's other rights and remedies hereunder, at law or in equity, the Contractor shall be liable for actual damages resulting from any breach of an express or implied warranty or any defect in the Work.

### **21.6 Disputes**

Any disagreement between CDOT and the Contractor relating to this Section 21 shall be subject to the dispute resolution provisions contained in Book 1, Section 20, provided that the Contractor shall proceed as directed by CDOT pending resolution of the dispute.

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Sturgeon Electric Company, Inc.  
12150 East 112<sup>th</sup> Avenue  
Henderson, CO 80640  
303-286-8000  
303-286-1811 fax

Equal Opportunity Employer

October 29, 2015  
Barnard Construction Company  
P.O. Box 99  
Bozeman, MT 59771-0099

Subject: Sturgeon Warranty Letter for Eisenhower Tunnel Fire Suppression Project

To representatives of CDOT and Barnard Construction Company:

This letter certifies that Sturgeon Electric Company, Inc will warranty their work for the Eisenhower/Johnson Memorial Tunnel Fire Suppression Retrofit Project for five years, in accordance with the contract, from the date of substantial completion (~~December 1, 2015~~).

Warranty corrections will be undertaken within one week following written notification to the Contractor. Specified materials are under warranty to the Owner as they are under warranty by the manufacturer. Correction of damage resulting from improper maintenance is excluded from this warranty.

Repairs or replacements, as provided by the foregoing paragraph, shall constitute fulfillment of all Sturgeon Electric Company's obligations with respect to this warranty. This warranty will not apply to products, or parts thereof, that have been subject to accident, misuses, or unauthorized alterations, or where Sturgeon Electric Company's installation and service requirements have not been followed. Warranty does not include maintenance of equipment unless specifically included elsewhere.

Sturgeon provides this warranty to both the Colorado Department of Transportation and Barnard Construction Company.

Sincerely,

**STURGEON ELECTRIC COMPANY, INC.**

A handwritten signature in blue ink, appearing to read "Jason Willis".

Jason Willis  
Project Manager

\*This warranty shall default to the Prime Contractor's Warranty.



7026 SOUTH TUCSON WAY  
CENTENNIAL, CO 80112  
(303)792-0022 (303)790-3875 FAX

**Fire Protection Systems**  
Design • Fabrication • Installation  
Commercial • Industrial • Residential • Institutional  
Special Hazards • High Tech • Defense • Hangars  
Retrofit • Service • Inspection • Maintenance

November 2, 2015

Barnard Construction  
Attn: Joe Silvestri  
701 Gold Avenue  
Bozeman, MT 59715

Subj: EJMT Fixed Fire Suppression System

Re: Warranty

Dear Mr. Silvestri:

Western States Fire Protection Company guarantees to Barnard and CDOT that, should any defects develop during the Guarantee Period, as hereinafter defined, due to improper materials or workmanship, such defects shall, upon notice, be made good by Western States Fire Protection Company without expense to the owner, unless modified or changed by others, including CDOT and other sprinkler contractor's.

Warranty corrections will be undertaken within one week following written notification to the Western States Fire Protection Co. Correction of damage resulting from improper maintenance is excluded from this warranty.

Repairs or replacements, as provided by the foregoing paragraph, shall constitute fulfillment of all WSFP's obligations with respect to this warranty. This warranty will not apply to products, or parts thereof, that have been subject to accident, misuses, or unauthorized alterations.

The aforesaid Guarantee shall cover work installed by Western States Fire Protection Company for a period of five years starting: ~~1 December 2015~~ the day Interim Acceptance is granted.

Sincerely,

John L. Hulett  
Project Manager  
Cell 720-284-2472

[John.Hulett@WSFP.US](mailto:John.Hulett@WSFP.US)

JLH/jlh:Warranty.doc

\*This warranty shall default to the Prime Contractor's Warranty.



## WARRANTY

This letter certifies that Braconier Plumbing and Heating Co., Inc. will warranty their work for the Eishenhower/Johnson Memorial Tunnel Fire Suppression Retrofit Project (*as applies to the Tunnel Enhanced Fire Safety System*) for five years, in accordance with the Contract, from the date of substantial completion (~~December 1, 2015~~).

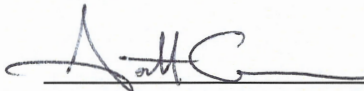
Warranty corrections will be undertaken within one week following written notification to the Contractor. Specified materials are under warranty to the Owner as they are under warranty by the manufacturer. Correction of damage resulting from improper maintenance is excluded from this warranty.

Repairs or replacements, as provided by the foregoing paragraph, shall constitute fulfillment of all Braconier's obligations with respect to this warranty. This warranty will not apply to products, or parts thereof, that have been subject to accident, misuses, or unauthorized alterations, or where Braconier's installation and service requirements have not been followed. Warranty does not include maintenance of equipment unless specifically included elsewhere.

This agreement shall remain in full force and effect until ~~December 1, 2020~~. 5 years from Interim Acceptance.

**BRACONIER PLUMBING AND HEATING CO., INC.**

2626 S. Raritan Circle  
Englewood, CO 80110

By: 

Title: Vice President of Operations

Date: December 1, 2015

\*This warranty shall default to the Prime Contractor's Warranty.



November 22, 2015

Barnard Construction  
701 Gold Avenue  
Bozeman, MT 59715

Attn: Mr. Joe Silvestri

RE: Eisenhower Johnson Memorial Tunnel  
Fixed Fire Suppression System - Warranty

Systems Group warrants the EST Fire Alarm, Avigilon Fire Alarm CCTV, and LIOS Fiber Optic Linear Heat Detection Systems installed for the Fixed Fire Suppression System Project C0703-360 Code 17810 to be free of defects in materials, programming, and workmanship performed by Systems Group; for a period of five (5) years from the date of acceptance ~~of December 1, 2015~~. This warranty is extended to Barnard Construction and Colorado Dept of transportation (CDOT).

Warranty shall pertain to any and all materials, programming, and workmanship provided by Systems Group that fail during normal use and operation of the said system. This warranty will not apply to work installed by other contractors, specifically the material and installation labor provided by Sturgeon Electric Company as the installation subcontractor for said systems; and shall not apply to parts and workmanship that are subjected to accident, misuse, unauthorized labor, unauthorized modifications to the said systems; wear and tear due to abnormal operating conditions, or acts of God.

Sincerely,  
Systems Group

John G. Ballman  
Operations Manager

Cc: Project File

\*This warranty shall default to the Prime Contractor's Warranty.



People building for People.

P.O. Box 99 • Bozeman, MT 59771-0099 • (406) 586-1995 • FAX (406) 586-3530

**Eisenhower/Johnson Memorial Tunnel  
Fixed Fire Suppression System  
Design Build Project, NO. C 0703-360**

## **Barnard Contact Information**

Joe Silvestri  
Project Manager  
Barnard Construction Company, Inc.  
701 Gold Ave.  
Bozeman, MT 59718  
Office: 406-586-1995  
E-Mail: [joe.silvestri@barnard-inc.com](mailto:joe.silvestri@barnard-inc.com)



# **PROVIDED SPARE PARTS** **MASTER LIST**

**Operations & Maintenance Manual**  
**December 2015**

Eisenhower/Johnson Memorial Tunnel - EJMT  
 Fixed Fire Suppression System Project  
 Provided Parts List

WSFP

| Number | System     | Part Description                      | Part #          | Manufacturer    | Supplier   | QTY     | Location                   |
|--------|------------|---------------------------------------|-----------------|-----------------|------------|---------|----------------------------|
| 1      | Deluge     | 4" Eisenhower Flow Control Valve      | FP-400-UF       | Bermad          | Victaulic  | 4       | West Fan Deck              |
| 2      | Deluge     | 4" Johnson Flow Control Valve         | FP-400-UF       | Bermad          | Victaulic  | 4       | West Fan Deck              |
| 3      | Deluge     | 4" Flow Control Valve Trim Kit Only   | Assembly        | Bermad          | Victaulic  | 8       | West Fan Deck              |
| 4      | Deluge     | Eisenhower Insulated Valve Enclosure  | Custom          | Grunau          | WSFP       | 2       | West Fan Deck              |
| 5      | Deluge     | Johnson Insulated Valve Enclosure     | Custom          | Grunau          | WSFP       | 2       | West Fan Deck              |
| 6      | Deluge     | 4" Grv. Butterfly Valve with Tamper   | 705W            | Victaulic       | WSFP       | 1       | West Fan Deck              |
| 7      | Portal     | 3/4" EC Horizontal Sidewall Sprinkler | VK630           | Viking          | Supply Net | 12      | Boiler Room Cabinet        |
| 8      | Bete       | 1" Brass Full Cone Nozzle             | N6 120 degree   | Bete            | WSFP       | 31      | Boiler Room Cabinet        |
| 9      | Bete       | 1 1/2" Brass Full Cone Nozzle         | TF72 150 degree | Bete            | WSFP       | 10      | Boiler Room Cabinet        |
| 10     | Pump Room  | 8" Grv. BF Valve w/ Tamper Switch     | #705W           | Victaulic       | Victaulic  | 1       | West Fan Deck              |
| 11     | High Point | 1/2" Air Relief Valve                 |                 |                 |            | 2       | West Fan Deck              |
| 12     | Gauges     | 1/4" SOG Valve for Gauge              |                 |                 |            | 2       | West Fan Deck              |
| 13     | Gauges     | 1/4" 300 psi Gauge for IVE            |                 |                 |            | 19      | West Fan Deck              |
| 14     | Gauges     | 1/4" 300 psi Gauge for Pump Room      |                 |                 |            | 2       | West Fan Deck              |
| 15     | Relief     | 4" Pressure Relief Valve              |                 | Bermad          | Victaulic  | 1       | West Fan Deck              |
| 16     | IVE        | Bolts and nuts for IVE                |                 |                 |            | 1/2 Box | West Fan Deck              |
| 17     | IVE        | 1/2 Box Versa Cleat                   |                 |                 |            | 1/2 Box | West Fan Deck              |
| 18     | IVE        | IVE Insulation Strip                  |                 |                 |            | 3 Rolls | West Fan Deck              |
| 19     | IVE        | Insulation Sleeves                    |                 |                 |            | 8       | West Fan Deck              |
| 20     | Johnson    | 1 1/2" Grv. Cap                       | #006            | Victaulic       | WSFP       | 4       | West Fan Deck              |
| 21     | Johnson    | 1 1/2" Grv. Coup.                     | #009            | Victaulic       | WSFP       | 8       | West Fan Deck              |
| 22     | Eisenhower | 2" Grv. Tee                           | #002            | Victaulic       | WSFP       | 1       | West Fan Deck              |
| 23     | Eisenhower | 2" Grv. Cap                           | #006            | Victaulic       | WSFP       | 2       | West Fan Deck              |
| 24     | Eisenhower | 2" Grv. 45                            | #003            | Victaulic       | WSFP       | 2       | West Fan Deck              |
| 25     | Eisenhower | 2" Grv. 90                            | #001            | Victaulic       | WSFP       | 2       | West Fan Deck              |
| 26     | Portal     | 2" Galv. Flex. Coup.                  | #005            | Victaulic       | WSFP       | 3       | West Fan Deck              |
| 27     | Portal     | 2" Galv. Flex. Coup.                  | #005            | Victaulic       | WSFP       | 1       | West Fan Deck              |
| 28     | Eisenhower | 2" Grv. Rigid Coup.                   | #009            | Victaulic       | WSFP       | 6       | West Fan Deck              |
| 29     | Eisenhower | 2 1/2" Grv. Cap                       | #006            | Victaulic       | WSFP       | 5       | West Fan Deck              |
| 30     | IVE        | 4" Grv. Coup.                         | #005            | Victaulic       | WSFP       | 16      | West Fan Deck              |
| 31     | IVE        | 4" Grv. Flex. Coup                    | #75             | Victaulic       | WSFP       | 5       | West Fan Deck              |
| 32     | Pump Room  | 8" Grv. 90                            | #001            | Victaulic       | WSFP       | 1       | West Fan Deck              |
| 33     | Pump Room  | 8" Grv. Cap                           | #006            | Victaulic       | WSFP       | 2       | West Fan Deck              |
| 34     | Loop       | 6" Grv. Coup.                         | #009            | Victaulic       | WSFP       | 3       | West Fan Deck              |
| 35     | Loop       | 6" Grv. Flex. Coup.                   | #75             | Victaulic       | WSFP       | 1       | West Fan Deck              |
| 36     | Loop       | 6" Grv. Cap                           | #006            | Victaulic       | WSFP       | 1       | West Fan Deck              |
| 37     | Deluge     | 4" Grv. 90                            | #001            | Victaulic       | WSFP       | 9       | West Fan Deck              |
| 38     | Deluge     | 4" Grv. Drain 90                      | #10dr           | Victaulic       | WSFP       | 3       | West Fan Deck              |
| 39     | Deluge     | 4" Grv. Tee                           | #002            | Victaulic       | WSFP       | 2       | West Fan Deck              |
| 40     | Deluge     | 6" Grv. 45                            | #003            | Victaulic       | WSFP       | 1       | West Fan Deck              |
| 41     | Deluge     | 4" Grv. Cap                           | #006            | Victaulic       | WSFP       | 4       | West Fan Deck              |
| 42     | Deluge     | 4" Drain Cap                          |                 | Victaulic       | WSFP       | 1       | West Fan Deck              |
| 43     | IVE        | Pressure Switch                       | PS10-1          | Potter Electric | WSFP       | 3       | West Fan Deck              |
| 44     | IVE        | 10' Cable for IVE                     |                 |                 | WSFP       | 16      | West Fan Deck              |
| 45     |            | Ball Drips and Nipple                 |                 |                 | WSFP       | 3       | West Fan Deck              |
| 46     |            | Pro Shield Calcium Support            |                 |                 | WSFP       | Box     | West Fan Deck              |
| 47     |            | Pro Shield Calcium Support - Heavy    |                 |                 | WSFP       | Box     | West Fan Deck              |
| 48     |            | 4" Unistrut Clamp                     |                 |                 | WSFP       | 5       | West Fan Deck              |
| 49     |            | 2 1/2" Unistrut Clamp                 |                 |                 | WSFP       | 6       | West Fan Deck              |
| 50     |            | 2" Unistrut Clamp                     |                 |                 | WSFP       | 3       | West Fan Deck              |
| 51     |            | 1 1/2" Unistrut Clamp                 |                 |                 | WSFP       | 9       | West Fan Deck              |
| 52     | IVE        | 1/2" Union                            |                 | Victaulic       | Victaulic  | 9       | West Fan Deck              |
| 53     | Loop       | 6" Grv. 90                            |                 | Victaulic       | Victaulic  | 1       | West Fan Deck              |
| 54     | Loop       | 8" Pipe                               |                 |                 | WSFP       | 10 LF   | West Fan Deck on Pipe Rack |
| 55     | Loop       | 6" Pipe                               |                 |                 | WSFP       | 10 LF   | West Fan Deck on Pipe Rack |
| 56     | Loop       | 4" Pipe                               |                 |                 | WSFP       | 20 LF   | West Fan Deck on Pipe Rack |

Sturgeon

| Number | System          | Part Description                | Part #   | Manufacturer | Supplier     | QTY | Location      |
|--------|-----------------|---------------------------------|----------|--------------|--------------|-----|---------------|
| 1      | FOLHD Hanger    | FOLHD Hanger                    |          |              | Systems Gro  | 60  | West Fan Deck |
| 2      | FOLHD Hanger    | ITW Buildex 14-14 x 1-1/4 Screw |          | ITW          | Systems Grou | 100 | West Fan Deck |
| 3      | FPC/RCP Cabinet | ATQR Ferraz Shawmit Fuses       | ATQR8/10 | ATQR         | Sturgeon     | 60  | West Fan Deck |

|   |                   |                           |       |      |          |    |               |
|---|-------------------|---------------------------|-------|------|----------|----|---------------|
| 4 | FPC/RCP Cabinet   | ATQR Ferraz Shawmit Fuses | ATDR4 | ATQR | Sturgeon | 24 | West Fan Deck |
| 5 | FPC/RCP Cabinet   | Sola 500va XFMR           |       | Sola | Sturgeon | 30 | West Fan Deck |
| 6 | Boiler Room Light | 4' 32W T8 Lamps           |       | Sola | Sturgeon | 34 | West Fan Deck |
| 7 | Boiler Room Light | Fixtures                  |       | Sola | Sturgeon | 2  | West Fan Deck |
| 8 | Boiler Room Light | Reflectors                |       | Sola | Sturgeon | 2  | West Fan Deck |
| 9 | Boiler Room Light | Ballasts                  |       | Sola | Sturgeon | 5  | West Fan Deck |

## Systems Group

None

## Braconier

None

## Barnard

| Number | System            | Part Description           | Part # | Manufacturer     | Supplier         | QTY     | Location      |
|--------|-------------------|----------------------------|--------|------------------|------------------|---------|---------------|
| 1      | Plenum Ramps      | Anchor Bolts               |        | Hilti            | Fastenal         | 25      | West Fan Deck |
| 2      | Plenum Ramps      | Wood Screws                |        |                  | Lowe's           | 2000    | West Fan Deck |
| 3      | Plenum Doors      | Paint                      |        | Sherwin Williams | Sherwin Williams | 0.5 gal | West Fan Deck |
| 4      | Plenum Doors      | Primer - Primer & Hardener |        | Sherwin Williams | Sherwin Williams | 2 gal   | West Fan Deck |
| 5      | Generator Barrier | Paint                      |        | Sherwin Williams | Sherwin Williams | 0.5 gal | West Fan Deck |
| 6      | Inlets            | Parking Blocks             |        |                  | Barnard          | 4       | West Fan Deck |

## Classic

| Number | System | Part Description             | Part # | Manufacturer | Supplier | QTY      | Location                     |
|--------|--------|------------------------------|--------|--------------|----------|----------|------------------------------|
| 1      | Loop   | Coupling Elbow Insulation    |        |              | Classic  | 47       | Under Fan 2 on West Fan Deck |
| 2      | Loop   | 45 Elbow Coupling Insulation |        |              | Classic  | 3        | Under Fan 2 on West Fan Deck |
| 3      | Loop   | Silicone Tube Insulation     |        |              | Classic  | 12 Boxes | Under Fan 2 on West Fan Deck |
| 4      | Loop   | Elbow Insulation             |        |              | Classic  | 4 Boxes  | Under Fan 2 on West Fan Deck |
| 5      | Loop   | Insulation Tape              |        |              | Classic  | 1 Box    | Under Fan 2 on West Fan Deck |
| 6      | Loop   | 6" Fiberglass Insulation     |        |              | Classic  | 4 bags   | Under Fan 2 on West Fan Deck |
| 7      | Loop   | 4" Fiberglass Insulation     |        |              | Classic  | 1 bag    | Under Fan 2 on West Fan Deck |
| 8      | Loop   | Fire Caulk                   |        | Hilti        | Classic  | 2 Boxes  | Under Fan 2 on West Fan Deck |

**Eisenhower/Johnson Memorial Tunnel  
Fixed Fire Suppression System  
Design Build Project, NO. C 0703-360**

## **Sole-Sourced & Proprietary Parts**

There are no sole-sourced or proprietary parts on this entire project and as such, no compatible or alternative parts need to be identified.

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