

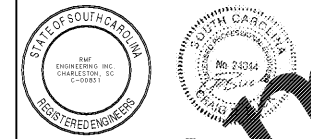
THROUGH PENETRATION FIRESTOP SCHEDULE

- A. THIS SCHEDULE IDENTIFIES REQUIREMENTS FOR ACCEPTABLE THROUGH PENETRATION FIRESTOPS FOR THIS PROJECT BASED ON BARRIER TYPE, BASIS OF BARRIER CONSTRUCTION, AND PENETRANT TYPE.  
 B. THROUGH PENETRATION FIRESTOPS ARE NOT REQUIRED FOR FLOOR PENETRATIONS CONTAINED TOTALLY WITHIN A RATED SHAFT ENCLOSURE.  
 C. FOR EACH PENETRATION, SELECT A THROUGH PENETRATION FIRESTOP BASED ON ACTUAL FIELD CONDITIONS, WHICH INCLUDE BUT ARE NOT LIMITED TO PENETRATION SIZE, PENETRATION SHAPE, PENETRANT MATERIAL(S), QUANTITY OF PENETRANTS PER PENETRATION, AND LOCATION(S) OF PENETRANT(S) WITHIN PENETRATION.  
 D. NOMENCLATURE OF UL CLASSIFIED FIRESTOP ASSEMBLIES USED IN THIS SCHEDULE IS IDENTICAL TO THAT USED IN CATALOGS OF APPROVED FIRESTOP MANUFACTURERS (SEE DIVISION 15) AND IN UNDERWRITERS LABORATORIES' FIRE RESISTANCE DIRECTORY.'

| RATED BARRIER |  | PENETRANT TYPE                 |                     |  |   |  |   |   |   |
|---------------|--|--------------------------------|---------------------|--|---|--|---|---|---|
| TYPE          | BASIS OF CONSTRUCTION  | FIRESTOP ASSEMBLY REQUIREMENTS | NO PENETRANTS       | METALLIC, UNINSULATED PIPE OR TUBING (EX. COPPER, IRON, STEEL) | NONMETALLIC, UNINSULATED PIPE OR TUBING (EX. PVC, PP, FRPP) | INSULATED PIPES (EX. COPPER, IRON, PLASTIC, STEEL) IN SYSTEMS OPERATING BETWEEN 32°F AND 122°F | INSULATED PIPES (EX. COPPER, IRON, PLASTIC, STEEL) IN SYSTEMS OPERATING ABOVE 122°F | METAL DUCT (NOTE 1)                           |   |
| WALL          | METAL STUDS & GYPSUM WALLBOARD (U400 SERIES)                                     | UL CLASSIFIED SERIES           | SINGLE PENETRANT    | W-L-0000 SERIES OR NOTE 2                                      | W-L-1000 SERIES   | W-L-2000 SERIES  | W-L-5000 SERIES   | W-L-8000 SERIES (NOTE 3)                      | W-L-7000 SERIES                               |
|               |  |                                | MULTIPLE PENETRANTS |  | W-L-8000 SERIES (NOTE 3)                                    |  | W-L-8000 SERIES (NOTE 3)  | W-L-8000 SERIES (NOTE 3)                      | N/A   |
|               |  |                                | F RATING            | EQUAL TO WALL RATING   | EQUAL TO WALL RATING  | EQUAL TO WALL RATING   | EQUAL TO WALL RATING  | EQUAL TO WALL RATING                          | EQUAL TO WALL RATING                          |
|               |  |                                | T RATING            | NOTE 5   | NOTE 5  | NOTE 5   | NOTE 5  | NOTE 5  | NOTE 5  |
|               | EXCEPTIONS/ ADDED REQUIREMENTS   | NONE                           | NOTE 8              | NOTE 8   | NOTE 8  | NOTE 4   | NOTE 4  | NONE  |   |
| WALL          | POURED CONCRETE, CONCRETE BLOCK OR MASONRY (BLOCK & U900 SERIES) (ANY THICKNESS) | UL CLASSIFIED SERIES           | SINGLE PENETRANT    | W-J-0000 SERIES OR NOTE 2                                      | C-AJ-1000 OR W-J-1000 SERIES                                | C-AJ-2000 OR W-J-2000 SERIES   | C-AJ-5000 OR W-J-5000 SERIES  | C-AJ-8000 OR W-J-8000 SERIES (NOTE 3)         | C-AJ-7000 OR W-J-7000 SERIES                  |
|               |  |                                | MULTIPLE PENETRANTS |  | C-AJ-8000 OR W-J-8000 SERIES (NOTE 3)                       |  | C-AJ-8000 OR W-J-8000 SERIES (NOTE 3)   | C-AJ-8000 OR W-J-8000 (NOTE 3)                | N/A   |
|               |  |                                | F RATING            | EQUAL TO WALL RATING   | EQUAL TO WALL RATING  | EQUAL TO WALL RATING   | EQUAL TO WALL RATING  | EQUAL TO WALL RATING                          | EQUAL TO WALL RATING                          |
|               |  |                                | T RATING            | NOTE 5   | NOTE 5  | NOTE 5   | NOTE 5  | NOTE 5  | NOTE 5  |
|               | EXCEPTIONS/ ADDED REQUIREMENTS   | NONE                           | NOTES 7 & 8         | NOTE 5   | NOTE 5  | NOTE 4   | NOTE 4  | NONE  |   |
| FLOOR         | POURED CONCRETE (ANY THICKNESS)  | UL CLASSIFIED SERIES           | SINGLE PENETRANT    | C-AJ-0000 SERIES F-A-0000 SERIES OR NOTE 2                     | C-AJ-1000 OR F-A-1000 SERIES                                | C-AJ-2000 OR F-A-2000 SERIES   | C-AJ-5000 OR F-A-5000 SERIES  | C-AJ-8000 OR F-A-8000 SERIES (NOTE 3)         | C-AJ-7000 OR F-A-7000 SERIES                  |
|               |  |                                | MULTIPLE PENETRANTS |  | C-AJ-8000 OR F-A-8000 SERIES (NOTE 3)                       |  | C-AJ-8000 OR F-A-8000 (NOTE 3)  | C-AJ-8000 OR F-A-8000 (NOTE 3)                | N/A   |
|               |  |                                | F RATING            | EQUAL TO FLOOR RATING, BUT NOT LESS THAN 1 HR                  | EQUAL TO FLOOR RATING, BUT NOT LESS THAN 1 HR               | EQUAL TO FLOOR RATING, BUT NOT LESS THAN 1 HR  | EQUAL TO FLOOR RATING, BUT NOT LESS THAN 1 HR                                       | EQUAL TO FLOOR RATING, BUT NOT LESS THAN 1 HR | EQUAL TO FLOOR RATING, BUT NOT LESS THAN 1 HR |
|               |  |                                | T RATING            | NOTE 6   | NOTE 6  | NOTE 6   | NOTE 6  | NOTE 6  | NOTE 6  |
|               | EXCEPTIONS/ ADDED REQUIREMENTS   | NONE                           | NOTE 6              | NOTE 6   | NOTE 6  | NOTE 4   | NOTE 4  | NONE  |   |

NOTES:

- THIS SCHEDULE'S DATA APPLY ONLY TO PENETRATIONS WITHOUT DAMPERS. FOR DAMPERED PENETRATIONS, REFER TO SPECIFICATIONS. AT DAMPERS, DO NOT APPLY MATERIAL THAT IS NOT INCLUDED IN THE DAMPER'S CLASSIFICATION.
- SEAL OPENING USING BARRIER'S ORIGINAL CONSTRUCTION.
- WHERE A SERIES 8000 CLASSIFIED SYSTEM IS NOT AVAILABLE, INSTALL PENETRANTS SINGLY, AND PROVIDE SINGLE-PENETRANT SYSTEMS.
- FOR SYSTEMS THAT OPERATE BELOW 32°F OR ABOVE 122°F, COMPLY WITH THE FOLLOWING ADDITIONAL REQUIREMENTS:
  - PROVIDE TPFS SYSTEM USING INTUMESCENT ELASTOMERIC WRAP STRIP AS ITS FILL, VOID, OR CAVITY MATERIAL.
  - DO NOT USE SERIES 8000 PENETRATIONS. PROVIDE ONLY SINGLE PENETRATIONS.
- TEMPERATURE (T) RATINGS OF ASSEMBLIES IN WALLS MAY EQUAL ZERO.
- TEMPERATURE (T) RATINGS OF ASSEMBLIES IN FLOORS SHALL EQUAL THE GREATER OF EITHER THE BARRIER RATING OR ONE HOUR EXCEPT AS FOLLOWS:
  - AN ASSEMBLY'S T RATING MAY EQUAL ZERO WHEN THE PENETRANT ABOVE THE FLOOR PENETRATION IS CONTAINED AND LOCATED WITHIN THE CAVITY OF A WALL.
- CLASSIFIED TPFS ASSEMBLY IS NOT REQUIRED WHEN ALL THE FOLLOWING CONDITIONS ARE MET:
  - PENETRANT HAS A MAXIMUM NOMINAL DIAMETER OF 6-INCHES.
  - PENETRATION HAS A MAXIMUM AREA OF 144 SQUARE INCHES.
  - ANNULAR SPACE IS COMPLETELY FILLED WITH CONCRETE, GROUT, OR MORTAR THE FULL THICKNESS OF THE BARRIER.



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NOTES:

**MUSC**  
 MEDICAL UNIVERSITY  
 of SOUTH CAROLINA  
 PROJECT NUMBER: H51-50068  
 DHEC PROJECT NUMBER: 580145

CONSTRUCTION DOCUMENTS

STORM EYE INSTITUTE  
 OPTICAL SHOP  
 H51-50068  
 167 ASHLEY AVE  
 CHARLESTON, SC 29425

**ROSENBLUM COE ARCHITECTS, INC.**  
 1643 MEANS STREET  
 CHARLESTON, SC 29412  
 843.577.6073

FIRE PROTECTION SCHEDULES

|                |             |
|----------------|-------------|
| SHEET NAME     |             |
| PROJECT NUMBER | 17016       |
| DRAWN BY       | TSN         |
| CHECKED BY     | CRB         |
| DATE           | 05/09/2018  |
| SCALE          | 12" = 1'-0" |

FP201

Order Plans @