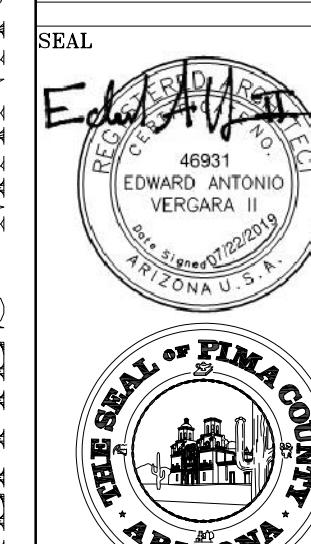


## ADMIN WEST FIFTH FLOOR TI TYPICAL FIRESTOP DETAILS

## ADMINISTRATION WEST BUILDING 150 WEST CONGRESS TUCSON, AZ



REV: DATE:

DRWN BY: SS

CKD BY: EAV

DATE: 07/22/19

SCALE: N.T.S.

SHEET NO:

G1.2

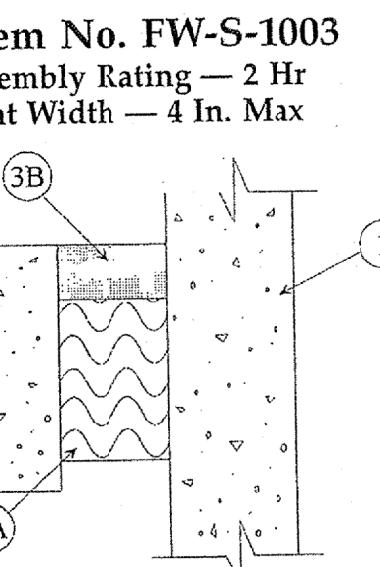
3 OF 48

W.O. NUMBER

19\*10427

ADMINISTRATION WEST BUILDING, 150 WEST CONGRESS, TUCSON, ARIZONA 85701 (520) 740-3085

ADMINISTRATION WEST BUILDING  
150 WEST CONGRESS  
TUCSON, AZ

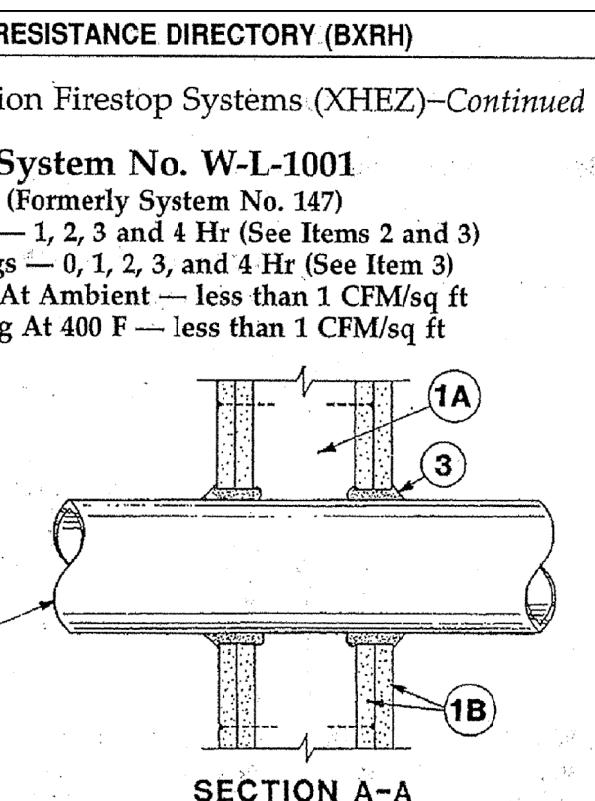


1. Wall Assembly — Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) structural concrete. Wall may also be constructed of any UL Classified Concrete Blocks\*. Diam of circular through opening in floor or wall assembly to be 3/4 in. to 1-1/2 in. larger than diam of through penetrating product (Item 2) installed in through opening. Max diam of opening is 3 in. See Concrete Block (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Floor Assembly — Min 4-1/2 in. thick steel-reinforced lightweight or normal weight (100-150 pcf) structural concrete.
3. Joint System — Max separation between edge of floor and face of wall is 4 in. The joint system shall consist of the following:
  - A. Packing Material — Min 4 in. thickness of min 4 pcf mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor to accommodate the required thickness of fill material.
  - B. Fill, Void or Cavity Material\* — Min 1/2 in. thickness of fill material applied within the joint, flush with top surface of floor.
4. NELSON FIRESTOP PRODUCTS — CLK S/L (Self Leveling) or CLK N/S (Non-Sag) Caulk

\*Bearing the UL Classification Marking

### 6 FIRESTOP DETAIL @ WALL/FLOOR JOINT

Scale: N.T.S.



1. Wall Assembly — The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
  - A. Studs — Wall framing may consist of either wood studs (max 2 hr fire rated assemblies) or steel channel studs. Wood stud to consist of nom 2 by 4 in. lumber spaced 16 OC with nom 2 by 4 in. lumber end plates and cross braces. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in. OC.
  - B. Wallboard, Gypsum — Nom 1/2 or 5/8 in. thick, 4 ft. wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 1-1/2 in.

2. Pipe or Conduit — Nom 12 in. diam (or smaller) Schedule 10 (or heavier) steel pipe, nom 12 in. diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. diam (or smaller) Class 50 (or heavier) ductile iron pressure pipe, nom 6 in. diam (or smaller) steel conduit, nom 4 in. diam (or smaller) steel electrical metallic tubing, nom 6 in. diam (or smaller) Type L or (or heavier) copper tubing or nom 1 in. diam (or smaller) flexible steel conduit. When copper pipe is used, max F Rating of firestop system (Item 3) is 2 hr. Steel pipe or conduits larger than nom 4 in. diam may only be used in walls constructed using steel channel studs. A max of one pipe or conduit is permitted in the firestop system. Pipe or conduit to be installed near center of stud cavity width and to be rigidly supported on both sides of wall assembly.

3. Fill, Void or Cavity Material\* — Caulk fill material installed to completely fill annular space between pipe or conduit and gypsum wallboard and with a min 1/4 in. diam bead of caulk applied to perimeter of pipe or conduit at its egress from the wall. Caulk installed symmetrically on both sides of wall assembly. The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

Pipe Type	Nom Pipe Diam	Min Wall or Floor Thkns	Wrap Strip Width	Min Wrap Strip Layers	T Rating Hr
PVC, ccPVC or CPVC	1/2 to 1-1/2	2-1/2	1	1	0
ABS, ccABS or FRPP(a)	1/2 to 1-1/2	2-1/2	1	1	1
PVC, ccPVC or CPVC	1/2 to 2	2-1/2	2	1	0
ABS, ccABS or FRPP(a)	2	2-1/2	1	2	1
PVC, ccPVC or CPVC	2-1/2 to 3	2-1/2	2	2	0
PVC, ccPVC or CPVC	3-1/2 to 4	2-1/2	2	3	0
PVC, ccPVC or CPVC	1/2 to 1-1/2	4-1/2	1	1	2
PVC, ccPVC or CPVC, ABS	2	4-1/2	1	2	2
ABS, ccABS or FRPP(a)	2-1/2 to 3	4-1/2	1	3	2
PVC, ccPVC or CPVC	3-1/2 to 4	4-1/2	2	2	2
PVC, ccPVC or CPVC, ABS, ccABS, PB or FRPP(a)	2-1/2 to 3	4-1/2	2	2	2
PVC, ccPVC or CPVC, ABS, ccABS, PB or FRPP(a)	3-1/2 to 4	4-1/2	2	3	1-1/2
PVC, ccPVC or CPVC, ABS, ccABS or FRPP(b)	3-1/2 to 4	4-1/2	2	3	2
PVC	6(c)	4-1/2	3	3	0

4. Firestop Device\* — As an alternate to Items A and C when nom 1-1/2, 2, 3, 4 or 6 in. diam nonmetallic pipes are used, a firestop device consisting of a sheet-steel split collar fitted with intumescent material and provided with steel clips for attachment may be used. Firestop device to be installed on underside of floor or on both sides of wall in accordance with the accompanying installation instructions. The firestop device type to be used is dependent upon the wall of floor thickness, the pipe type and nom pipe diam, as tabulated below:

Pipe Type	Nom Pipe Diam	Min Wall or Floor Thkns	Firestop Device
PVC, ccPVC or CPVC	1-1/2	2-1/2	PPD 1.5 or PPD 150
ABS, ccABS or FRPP(a)	2	2-1/2	PPD 2 or PPD 200
PVC, ccPVC or CPVC	3	2-1/2	PPD 300
PVC, ccPVC or CPVC	4	2-1/2	PPD 400
PB	1-1/2	4-1/2	PPD 150
PB	2	4-1/2	PPD 200
PVC, ccPVC or CPVC	3	4-1/2	PPD 3 or PPD 300
ABS, ccABS or FRPP(a)	3	4-1/2	PPD 300
PB	4	4-1/2	PPD 400
PVC, ccPVC or CPVC	4	4-1/2	PPD 400
ABS, ccABS or FRPP(a)	4	4-1/2	PPD 400
PVC	6	4-1/2	PPD 6

5. Form (Rigid Sheet Steel Not Shown) — Used at underside to prevent leakage of conc. fill material during installation. May be removed after the fill material has cured.

6. Existing Concrete Slab — 4000 PSI CONCRETE INFILL #4 x 12" LONG EPOXY DOWEL AT 12" O.C. ALL AROUND RECTANGULAR OPENING

7. SECTION A-A

8. FIRE RESISTANCE DIRECTORY (BXRH) — Through-Penetration Firestop Systems (XHEZ) — Continued

System No. W-L-1001  
(Formerly System No. 147)

F Ratings — 1, 2, 3 and 4 Hr (See Items 2 and 3)

T Ratings — 0, 1, 2, 3 and 4 Hr (See Item 3)

L Rating At Ambient — less than 1 CFM/sq ft

L Rating At 400 F — less than 1 CFM/sq ft

See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

1. Wall Assembly — The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

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2. Pipe or Conduit — Nom 12 in. diam (or smaller) Schedule 10 (or heavier) steel pipe, nom 12 in. diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. diam (or smaller) Class 50 (or heavier) ductile iron pressure pipe, nom 6 in. diam (or smaller) steel conduit, nom 4 in. diam (or smaller) steel electrical metallic tubing, nom 6 in. diam (or smaller) Type L or (or heavier) copper tubing or nom 1 in. diam (or smaller) flexible steel conduit. When copper pipe is used, max F Rating of firestop system (Item 3) is 2 hr. Steel pipe or conduits larger than nom 4 in. diam may only be used in walls constructed using steel channel studs. A max of one pipe or conduit is permitted in the firestop system. Pipe or conduit to be installed near center of stud cavity width and to be rigidly supported on both sides of wall assembly.

3. Fill, Void or Cavity Material\* — Caulk fill material installed to completely fill annular space between pipe or conduit and gypsum wallboard and with a min 1/4 in. diam bead of caulk applied to perimeter of pipe or conduit at its egress from the wall. Caulk installed symmetrically on both sides of wall assembly. The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

Max Pipe or Conduit Diam In.	Annual Space	F Rating Hr	T Rating Hr
1	0 to 3/16	1 or 2	0+, 1 or 2
1	1/4 to 1/2	3 or 4	3 or 4
4	0 to 1-1/2	1 or 2	0
6	1/4 to 1/2	3 or 4	0
12	3/16 to 3/8	1 or 2	0

\*When copper pipe is used, T Rating is 0 hr.

MINNESOTA MINING & MFG CO — CP 25WB+.

\*Bearing the UL Classification Marking

4. SECTION A-A

5. FIRE RESISTANCE DIRECTORY (BXRH) — Conduit Firestop Detail Thru Floor

Scale: N.T.S.

6. FIRESTOP DETAIL @ (E) SLAB INFILL

Scale: N.T.S.

7. FIRESTOP DETAIL @ (E) CORE DRILL

Scale: N.T.S.

8. FIRE RESISTANCE DIRECTORY (BXRH) — Conduit Firestop Detail Thru Floor

Scale: N.T.S.

9. FIRE RESISTANCE DIRECTORY (BXRH) — Firestop Detail @ Wall/Floor Joint

Scale: N.T.S.

10. FIRE RESISTANCE DIRECTORY (BXRH) — Firestop Detail @ (E) Slab Infill

Scale: N.T.S.

11. FIRE RESISTANCE DIRECTORY (BXRH) — Firestop Detail @ (E) Core Drill

Scale: N.T.S.

12. FIRE RESISTANCE DIRECTORY (BXRH) — Firestop Detail @ Wall/Floor Joint

Scale: N.T.S.

13. FIRE RESISTANCE DIRECTORY (BXRH) — Firestop Detail @ (E) Slab Infill

Scale: N.T.S.

14. FIRE RESISTANCE DIRECTORY (BXRH) — Firestop Detail @ (E) Core Drill

Scale: N.T.S.

15. FIRE RESISTANCE DIRECTORY (BXRH) — Firestop Detail @ Wall/Floor Joint

Scale: N.T.S.

16. FIRE RESISTANCE DIRECTORY (BXRH) — Firestop Detail @ (E) Slab Infill

Scale: N.T.S.

17. FIRE RESISTANCE DIRECTORY (BXRH) — Firestop Detail @ (E) Core Drill

Scale: N.T.S.

18. FIRE RESISTANCE DIRECTORY (BXRH) — Firestop Detail @ Wall/Floor Joint

Scale: N.T.S.

19. FIRE RESISTANCE DIRECTORY (BXRH) — Firestop Detail @ (E) Slab Infill

Scale: N.T.S.

**ADMIN WEST FIFTH FLOOR TI  
DEMOLITION FLOOR PLAN**

**ADMINISTRATION WEST BUILDING  
150 WEST CONGRESS  
TUCSON, AZ**



REVS: DATE:

DRWN BY: SS

CKD BY: EAV

DATE: 07/22/19

SCALE: 1/8"=1'-0"

SHEET NO:

D1.0

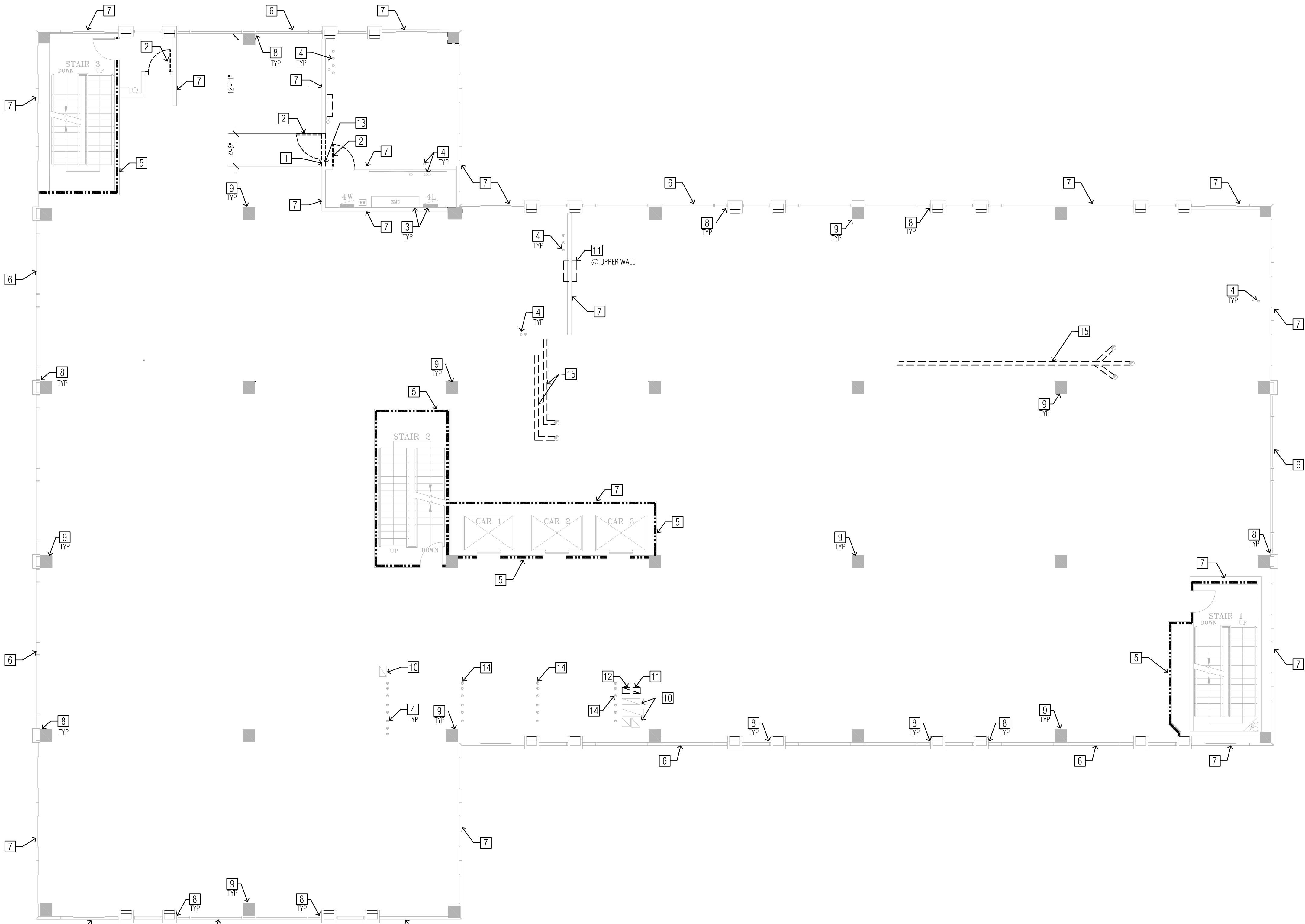
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W.O. NUMBER

19\*10427

**DEMOLITION FLOOR PLAN KEYNOTES**

1. REMOVE WALL WITH PLASTER OR GWB FINISH. BOTTOM OF FINISHED HEADER TO BE 8-10". PROVIDE BRACING IF REQUIRED.
2. REMOVE DOOR FRAMES AND DOORS.
3. EXISTING ELECTRICAL PANELS AND GEAR TO REMAIN, SEE ELECTRICAL SHEETS
4. VERTICAL FLOOR TO FLOOR PIPING TO REMAIN.. CONTROL / SHUT-OFF VALVES TO REMAIN SEE PLUMBING SHEETS FOR ADDITIONAL DEMOLITION.
5. DASHED LINE DENOTES EXISTING 2 HOUR RATED WALL TO BE REMAIN
6. EXISTING EXTERIOR WINDOWS TO REMAIN
7. EXISTING WALL TO REMAIN
8. SAFING CONDITION AND REPLACE TO MATCH EXISTING. PROVIDE NEW BACKER-ROD AND CAULK ALL VERTICAL WINDOW JOINTS AND FULL HEIGHT PRE-CAST PANELS TO MAKE WATER TIGHT AND AIRTIGHT - WORK TO BE COMPLETED FROM INTERIOR. SEE DETAIL 2/D1. TYPICAL ALL WINDOW FRAME / PRE-CAST LOCATIONS..
9. EXISTING COLUMN TO REMAIN.
10. VERTICAL FLOOR TO FLOOR DUCTWORK TO REMAIN. SEE MECHANICAL SHEETS FOR ADDITIONAL INFORMATION.
11. MECHANICAL DUCTWORK TO BE REMOVED. SEE MECHANICAL SHEETS FOR ADDITIONAL DEMOLITION.
12. SEE DETAIL 3/G1.2 FOR CONCRETE INFILL.
13. REMOVE ANY ELECTRICAL IN AREA OF DEMOLITION, SEE ELECTRICAL PLANS FOR ADDITIONAL DEMO INFORMATION.
14. REMOVE UNUSED PLUMBING WATER, WASTE AND VENT PIPING IN THIS AREA. SEE PLUMBING PLANS FOR ADDITIONAL DEMO INFORMATION.
15. REMOVE UNUSED 4" PLUMBING WASTE PIPING OVERHEAD BACK TO VERTICAL. CAP. SEE PLUMBING PLANS FOR ADDITIONAL DEMO INFORMATION.

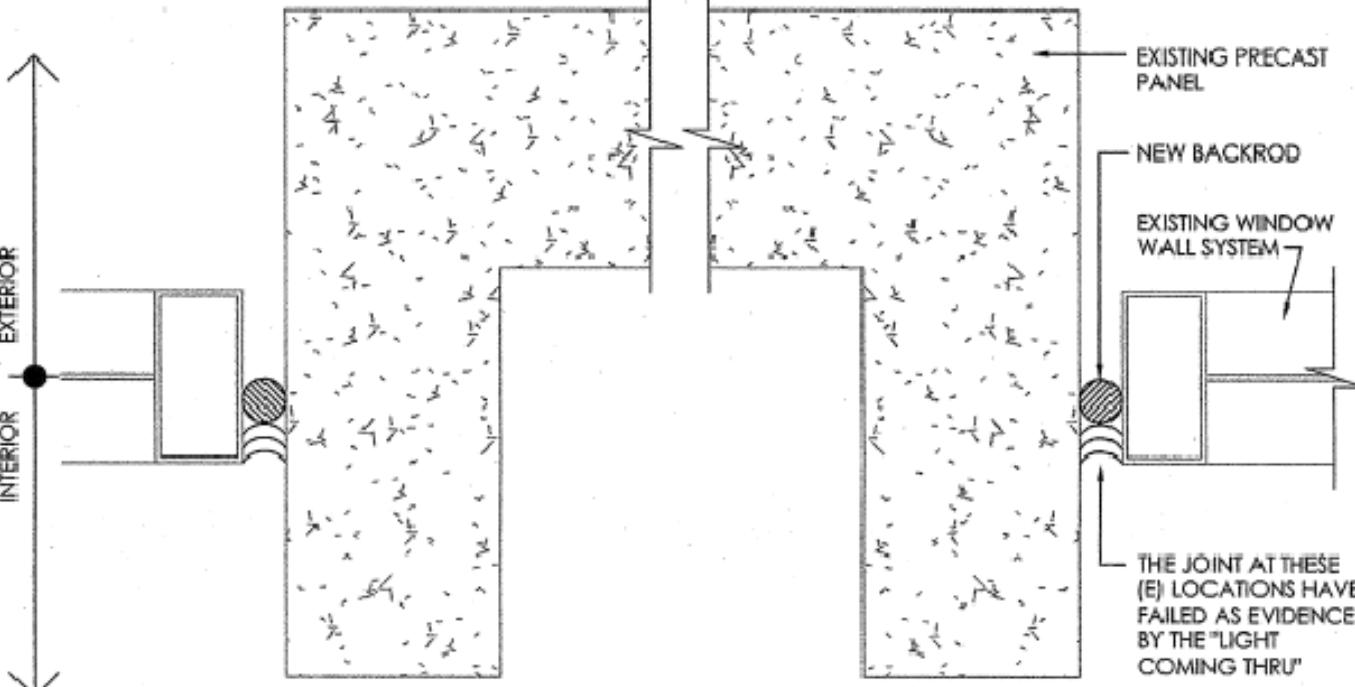


1 DEMOLITION FLOOR PLAN

Scale: 1/8" = 1'-0"

NOTES:

1. REMOVE EXISTING CAULKING AND BACKROD.
2. CLEAN AND PREP FOR NEW BACKROD AND CAULKING
3. INSTALL BACKROD CONTINUOUS, THOROUGHLY CAULK
4. CAULK COLOR TO MATCH FRAME, SEE SPECS ADDITIONAL INFORMATION.



2 EXISTING COND. @ WINDOW/PRECAST

Scale: 1-1/2" = 1'-0"

PIMA COUNTY FACILITIES MANAGEMENT, 150 WEST CONGRESS, TUCSON ARIZONA 85701 (520)740-3085