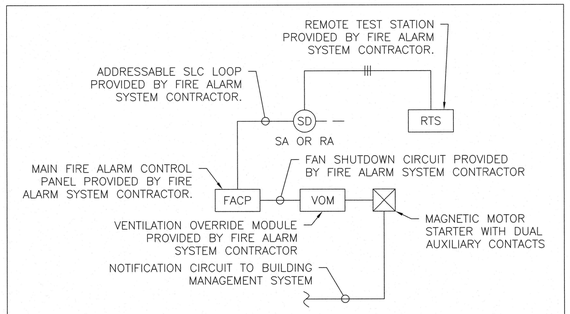
KEY NOTES

1. EXISTING NURSE CALL SYSTEM TO REMAIN, SHOWN FOR REFERENCE ONLY.
2. EXISTING SECURITY PANEL TO REMAIN, SHOWN FOR REFERENCE ONLY.
3. EXISTING EDWARDS EST3X FIRE ALARM PANEL TO REMAIN, SHOWN FOR REFERENCE ONLY.
4. EXISTING NAC (NOTIFICATION APPLIANCE CIRCUIT) PANEL TO REMAIN, SHOWN FOR REFERENCE ONLY.
5. EXISTING FIRE ALARM BATTERY SUPPLY TO REMAIN, SHOWN FOR REFERENCE ONLY.
6. THE FIRE ALARM CONTRACTOR SHALL DISCONNECT AND EXTEND THE EXISTING "END OF LOOP" FIRE ALARM FIBER OPTIC CABLE TO THE NEW FIBER OPTIC CABLE TRANSITION CABINET IN THE NEW ADHC BUILDING.
7. EXISTING PUBLIC ADDRESS AMPLIFIER TO REMAIN, THE PUBLIC ADDRESS CONTRACTOR SHALL ROUTE NEW PUBLIC ADDRESS CABLING TO NEW PUBLIC ADDRESS PANEL LOCATED IN THE NEW ADHC.
8. EXISTING CONDUIT SYSTEM TO REMAIN (TYPICAL).
9. THE FIRE ALARM CONTRACTOR SHALL PROVIDE NEW EDWARDS EST3X FIRE ALARM CONTROL PANEL AS INDICATED, THE CONTRACTOR SHALL EXTEND THE 'END OF LOOP" FIBER OPTIC CABLE TO NEW FIBER OPTIC CABLE TRANSITION CABINET AS INDICATED.
10. THE CONTRACTOR SHALL PROVIDE NEW PUBLIC ADDRESS PANEL AS INDICATED, THE NEW P.A. PANEL SHALL CONNECT TO THE EXISTING AMPLIFIER IN BUILDING NO. 116, ROUTE NEW CABLING VIA THE UTILITY TUNNEL SYSTEM.
11. PROVIDE NEW NAC PANEL AS INDICATED, SHALL BE COMPATIBLE WITH NEW FIRE ALARM SYSTEM.
12. PROVIDE UL RATED FIRE STOP ASSEMBLY AT ALL RATED PENETRATIONS (TYPICAL).
13. PROVIDE NEW FIBER OPTIC CABLE TRANSITION CABINET AS INDICATED, CONNECT "END OF LOOP" FIBER OPTIC CABLE TO NEW F.O.C. PANEL.



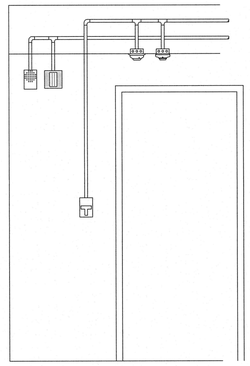
C5 AIR HANDLING SYSTEM SHUTDOWN WIRING DIAGRAM
NO SCALE

MANUAL PULL STATIONS SHALL BE MOUNTED AT 48" A.F.F. PER ADA.

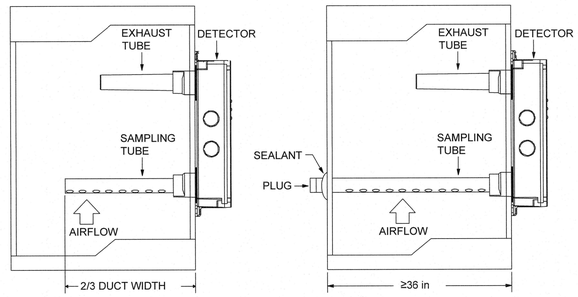
PROVIDE JUNCTION BOX (SIZE AS NEEDED FOR DEVICE) AND EMT CONDUIT (3/4" MINIMUM) BETWEEN DEVICES AND BACK TO FIRE ALARM CONTROL PANEL.

WALL MOUNTED NOTIFICATION APPLIANCES SHALL BE MOUNTED BETWEEN 80" AND 96" A.F.F. PER NFPA 72

CEILING MOUNTED SMOKE AND HEAT DETECTORS SHALL BE INSTALLED IN A CEILING MOUNTED JUNCTION BOX (SIZE AS NEEDED FOR DEVICE) AND SHALL BE LOCATED NO CLOSER THAN 4" TO ANY WALL.



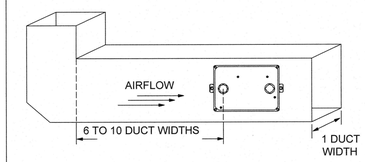
B5 FIRE ALARM DEVICE MOUNTING DETAIL
NOT TO SCALE



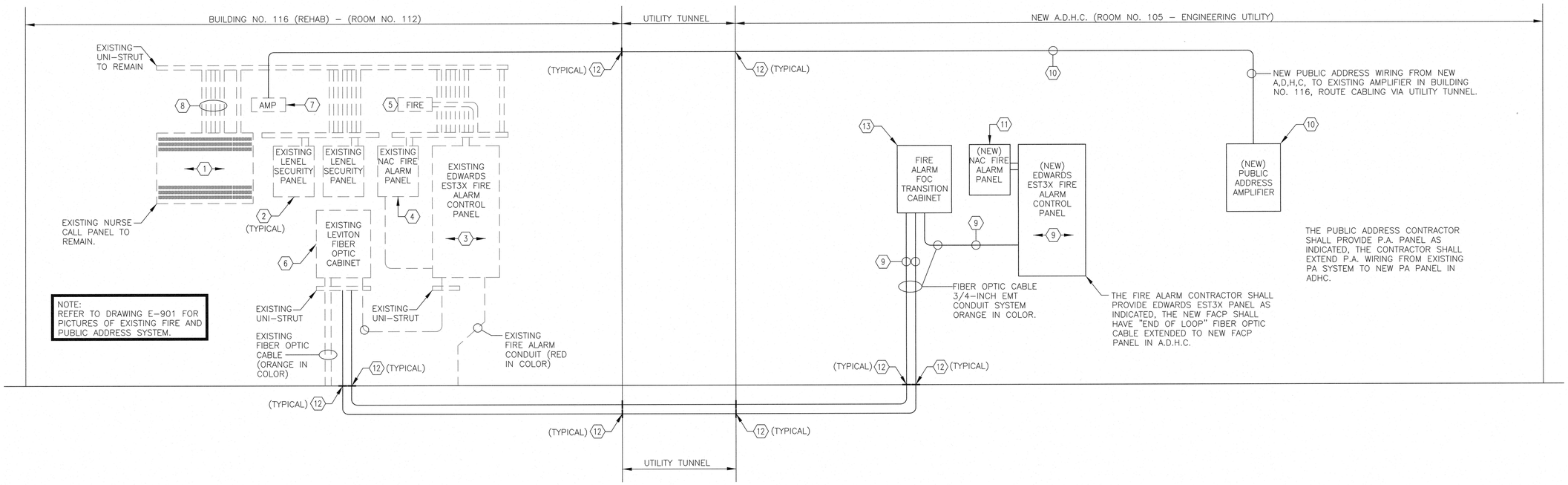
DUCT SMOKE DETECTORS SHALL BE MOUNTED SO THAT THE SAMPLE TUBE IS POSITIONED 6 TO 10 DUCT-WIDTHS FROM ANY BEND OR OBSTRUCTION.

SAMPLING TUBE SHALL EXTEND NO LESS THAN TWO-THIRDS OF THE WAY INTO THE DUCT, AND SHALL BE SUPPORTED ON BOTH ENDS IN DUCTS WITH A WIDTH GREATER THAN 36 INCHES.

PROVIDE EMT CONDUIT (3/4" MINIMUM) BACK TO FIRE ALARM CONTROL PANEL.



F4 DUCT SMOKE DETECTOR INSTALLATION DETAIL
NOT TO SCALE



F1 FIRE ALARM AND PUBLIC ADDRESS RISER DIAGRAM
NOT TO SCALE

FULLY SPRINKLED
BID DOCUMENTS
FOR CONSTRUCTION

Revisions	Date
⚠1 ADDENDUM 1 – BID AND CONSTRUCTION DOCUMENTS	05/29/20

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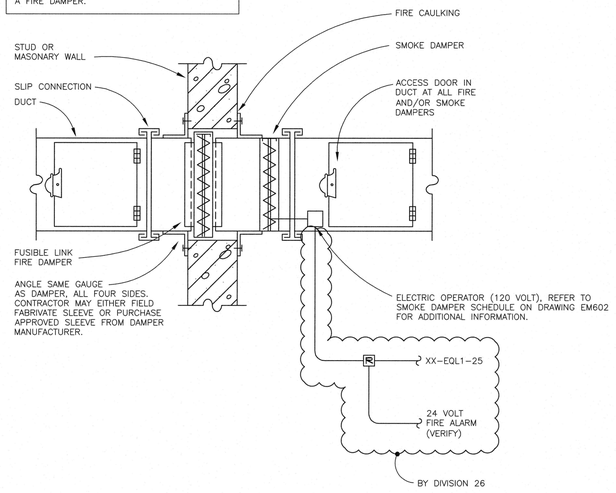
17 May 2020
STATE OF KENTUCKY
BLAINE CAMIEL VAN GANSBEKE
24,788
LICENSED PROFESSIONAL ENGINEER

Drawing Title	FIRE ALARM DETAILS
Approved Project Director	
Project Title	ST CLOUD ADH AND EC SUPPORT
Location	ST CLOUD VA HEALTH CARE SYSTEM, 4801 VETERANS DRIVE, ST. CLOUD MN 56303
Date	12-27-2019
Checked	WLM
Drawn	MMF
Project Number	656-343
Building Number	---
Drawing Number	FA501

Office of Construction and Facilities Management
Department of Veterans Affairs

VA FORM 08-6231

NOTE:
ALL SMOKE DAMPERS ARE EITHER COMBINATION FIRE/SMOKE DAMPERS OR ARE PARALLEL WITH A FIRE DAMPER.



2C SECTION THRU SMOKE DAMPER INSTALLATION
NOT TO SCALE

Battery Calculations for Panel: P2

Part No:3X-SFS1R - EST3X LIFE SAFETY CONTROL PANEL, RED

Part No.	Qty.	Description	Standby	Total Standby	Alarm	Total Alarm
		Panel Equipment				
SFS1-CPU	1	MAIN CPU BOARD	115.0000mA	115.0000mA	115.0000mA	115.0000mA
SFS1	1	CONTROL/DISPLAY MODULE	2.0000mA	2.0000mA	2.0000mA	2.0000mA
PS10-4B	1	POWER SUPPLY CARD	50.0000mA	50.0000mA	50.0000mA	50.0000mA
3-SSDC1	1	SIGNATURE SINGLE DRIVER CONTROLLER FOR EST3	144.0000mA	144.0000mA	204.0000mA	204.0000mA
CLA-PS10	1	CLASS A ADAPTER CARD	0.0000mA	0.0000mA	0.0000mA	0.0000mA
3X-FIB	1	3X FIBER COMMUNICATION CARD, CLASS B/A NET, CLASS B AUDIO	105.0000mA	105.0000mA	105.0000mA	105.0000mA
3-IDC 8/4	3	INITIATING / INDICATING DEVICE CIRCUIT MODULE	53.0000mA	159.0000mA	350.0000mA	1050.0000mA
	1	Card: 11 Circuit: SLC1 Signaling line	0.0000mA	0.0000mA	0.0000mA	0.0000mA
			Total Panel Stby	575.0000mA	Total Panel Alarm	1526.0000mA
		Peripheral Devices				
SIGA-MCR	4	CONTROL RELAY MODULE - UIO MOUNT (Power)	0.0000mA	0.0000mA	0.0000mA	0.0000mA
EG1F-VM	27	STROBE, M-C, FIRE, WH, WALL (Notification)	0.0000mA	0.0000mA	103.0000mA	2781.0000mA
G4HFWF-S2VMC	28	SPEAKER/STROBE, 520Hz, 25V, FIRE, WH, 15, 30, 75, 110 CD (Notification)	0.0000mA	0.0000mA	130.0000mA	3640.0000mA
G4HFWF-S2VMC	3	SPEAKER/STROBE, 520Hz, 25V, FIRE, WH, 15, 30, 75, 110 CD (Notification)	0.0000mA	0.0000mA	96.0000mA	288.0000mA
SIGA-SD	2	SUPERDUCT PHOTOELECTRIC DUCT SMOKE DETECTOR (Signaling line)	0.0450mA	0.0900mA	0.0000mA	0.0000mA
SIGA2-HFS	2	FIXED HEAT DETECTOR (Signaling line)	0.0450mA	0.0900mA	0.0000mA	0.0000mA
SIGA-WTM	1	DUAL INPUT WATERFLOW / SUPERVISORY MODULE (Signaling line)	0.2500mA	0.2500mA	0.0000mA	0.0000mA
SIGA-MCR	4	CONTROL RELAY MODULE - UIO MOUNT (Signaling line)	0.1000mA	0.4000mA	0.0000mA	0.0000mA
SD-TRK	2	SUPERDUCT, REMOTE TEST/RESET STATION, KEYED (Test Switch)	5.0000mA	10.0000mA	0.0000mA	0.0000mA
270-SPO	6	PULL STATION, TERMINALS (Initiating)	0.0000mA	0.0000mA	0.0000mA	0.0000mA
G4HFWF-S2VMC	31	SPEAKER/STROBE, 520Hz, 25V, FIRE, WH, 15, 30, 75, 110 CD (Audio)	0.0000mA	0.0000mA	0.0000mA	0.0000mA
			Total Peripheral Stby	10.8300mA	Total Periph Alarm	6709.0000mA
			Total Standby Amps	585.8300mA	Total Alarm Amps	8235.0000mA

Standby time: 24 Hrs	14.06Ah
Alarm time: 5 Min	0.686Ah
Battery requirement:	14.746Ah
Compensation Factors - Standby: 1.2 Alarm: 1.2 Requirement with compensation:	17.695Ah

GENERAL FIRE ALARM PLAN NOTES

A. REFER TO SHEET FA001 FOR LEGEND, ABBREVIATIONS, SCHEDULES AND GENERAL NOTES.

B. THE ELECTRICAL CONTRACTOR SHALL PROVIDE JUNCTION BOX WITH 3/4 INCH EMPTY CONDUIT ROUTED UP INTO THE ACCESSIBLE CEILING SPACE AND OVER TO THE FIRE ALARM CONTROL PANEL, PROVIDE PULL STRINGS WITHIN THE EMPTY CONDUIT SYSTEM.

C. THE FIRE ALARM CONTRACTOR SHALL PULL FIRE ALARM CABLE FROM JUNCTION BOX (FIRE ALARM DEVICE) TO FACP AND NAC PANEL.

D. THE FIRE ALARM CONTRACTOR SHALL PROVIDE FINISH COVER PLATE AT EACH FIRE ALARM DEVICE.

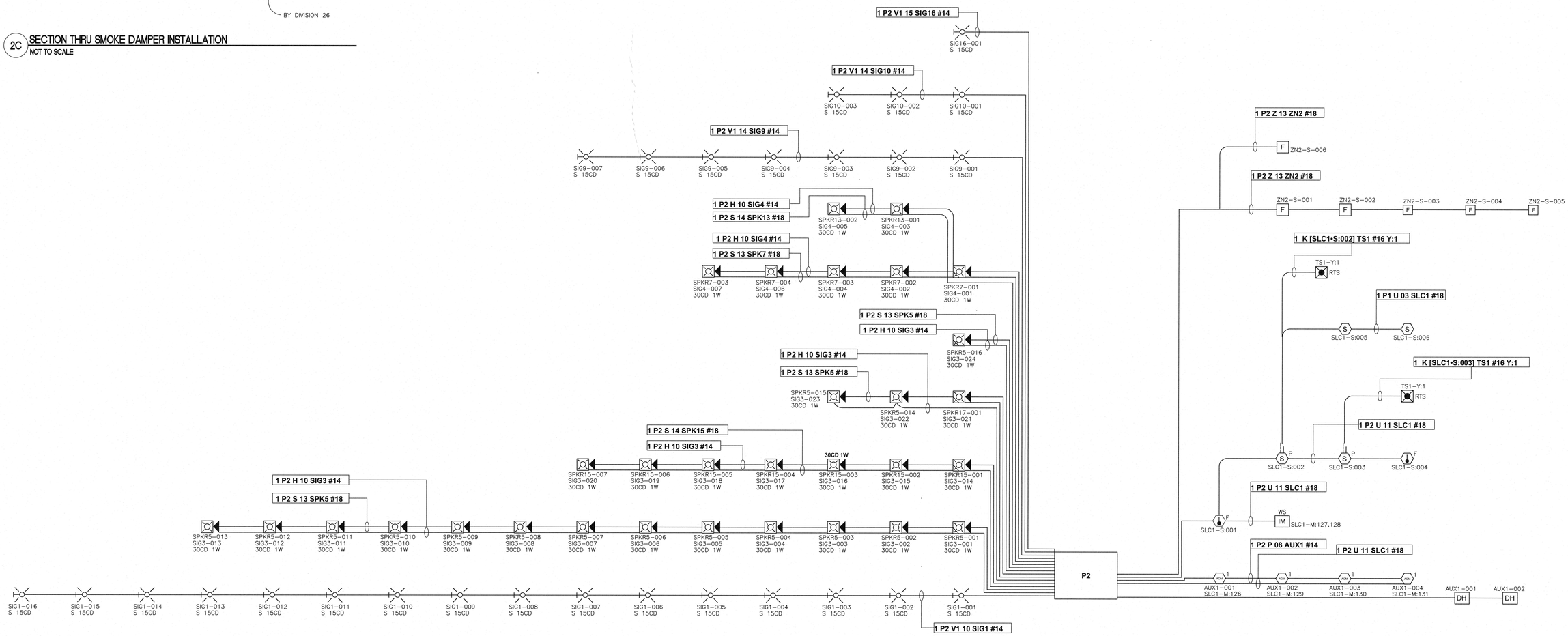
E. THE FIRE ALARM CONTRACTOR SHALL PROVIDE FULLY ENGINEERED SHOP DRAWING SUBMITTALS OF THE PROPOSED WORK PRIOR TO BEGINNING CONSTRUCTION. THE SHOP DRAWINGS SUBMITTALS SHALL INCLUDE BUT NOT LIMITED TO: VOLTAGE DROP CALCULATIONS, BATTERY CALCULATIONS, INSULATION VALUE, LENGTH OF FIRE ALARM WIRE, SLC WIRING, NAC WIRING ETC.

F. ALL CONDUIT SHALL BE ROUTED IN 3/4 INCH CONDUIT.

G. FIRE ALARM CONDUIT SHALL BE PAINTED RED IN COLOR.

H. THE ELECTRICAL CONTRACTOR SHALL INCLUDE IN BID NUMBER ALL ASSOCIATED COST OF PROVIDING A FULLY FUNCTIONAL FIRE ALARM SYSTEM.

I. THE FIRE ALARM SYSTEM SHALL BE MANUFACTURED BY: EDWARDS, MODEL NO. EST3X.



F1 FIRE ALARM RISER DIAGRAM
NOT TO SCALE

FULLY SPRINKLED
BID DOCUMENTS
FOR CONSTRUCTION

Revisions:	Date
1 ADDENDUM 1 - BID AND CONSTRUCTION DOCUMENTS	05/29/20

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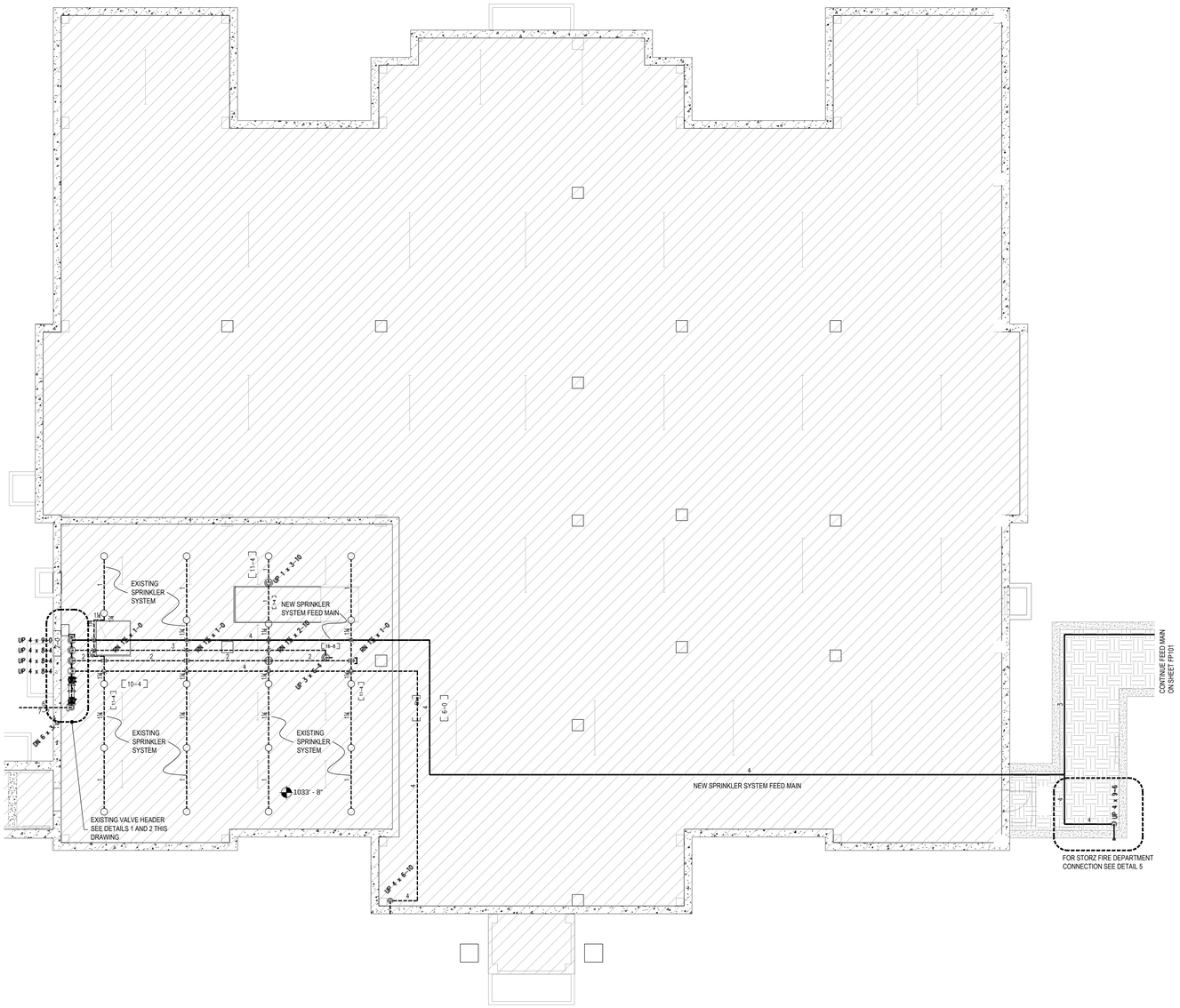
27 May 2020
STATE OF KENTUCKY
BLAINE CAMIEL VAN GANSBEKE
24,788
LICENSED PROFESSIONAL ENGINEER

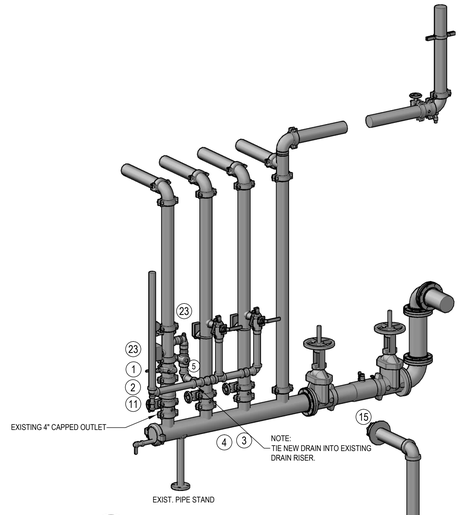
Drawing Title	FIRE ALARM RISER AND BATTERY CALCULATIONS
Approved Project Director	
Project Title	ST CLOUD ADH AND EC SUPPORT
Location	ST CLOUD VA HEALTH CARE SYSTEM, 4801 VETERANS DRIVE, ST. CLOUD MN 56303
Date	12-27-2019
Checked	WLM
Drawn	MMF
Project Number	656-343
Building Number	---
Drawing Number	FA502

Office of Construction and Facilities Management
Department of Veterans Affairs

VA FORM 08-6231



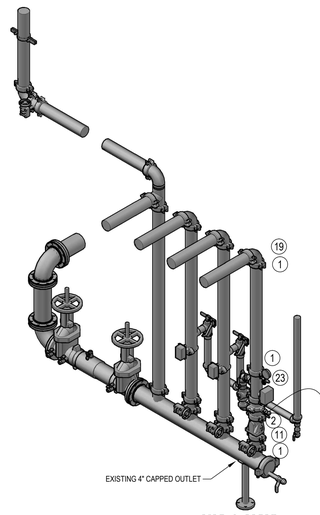
1 FP100 BUILDING 116 – SPRINKLER HEADER LOCATION
SCALE : 1/8" = 1Ft



2 FP100 EXISTING VALVE HEADER – BACK
SCALE : 1/2" = 1Ft

Legend		
ID		Description
1	4	VIC LT–CPLG #75
2	4	VIC FLK CHECK VLV #717
3	2"	BLK. M.I. UNION
4	2	TEE
5	2	C I ELL
6	2"TEST&DR 3/4"OR MOD#2511A AGF	
7	2	X 7 RED FLANGE CI
8	6"	PIPE SUPPORT
9	6	X 1 DRAIN CAP
10	1	X 1/2 CI HEX BUSHING
11	4	VIC BFLY W/TAM&TAP #705
12	4	VIC DRAIN 90 #10–DR
13	4"	RISER CLAMP
14	1"	PLUG
15	6"	BFP DBLCHK OSYRW BOTH COLT (C200)
16	6"	FLG ELL
17	4"	WATER FLOW SWITCH
18	4	VIC TEE #20
19	4	VIC 90 #10
20	6"	VIC CPLG #77
21	1"	BALL VALVE
22	2	X 1 X 2 RED TEE
23	4"	FLOOR CONTROL ASSY G/G

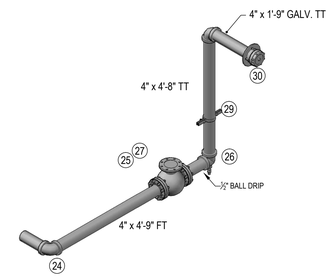
3 FP100 VALVE HEADER LEGEND
SCALE : N.T.S.



NOTES:

1. USE THE EXISTING VALVE HEADER IN BUILDING 116 TO FEED THE SYSTEM FOR THE ADULT DAYCARE CENTER. USE THE EXISTING 4" CAPPED OUTLET FOR THE NEW SYSTEM.
2. AN ADDITIONAL FIRE DEPARTMENT STORZ CONNECTION IS TO BE PROVIDED AS SHOWN.
3. NITROGEN WET INERTING SYSTEM
   - 3.1. SUPPLY AND INSTALL:
     - 3.1.1. NITROGEN TANK
     - 3.1.2. POTTER NITROGEN CYLINDER PRESSURE REGULATOR WITH HOSE
     - 3.1.3. POTTER WET PIPE SYSTEM INERTING KIT
       - 3.1.3.• INSTALL NITROGEN INJECTION MANIFOLD ON HEADER BELOW FLOW SWITCH
       - 3.1.3.• INSTALL QUICK-X-HAUST VENT IN REMOTE ACCESSIBLE AREA
     - 3.1.4. POTTER PAAR-B AUTOMATIC FLOAT TYPE AIR VENT

4 FP100 EXISTING VALVE HEADER – FRONT
SCALE : 1/2" = 1Ft



Legend		
ID	Qty	Description
24	1	4 C I ELL
25	2	4" GASKET PACK 125# FLANGE
26	1	4 X 1 X 4 RED TEE
27	1	4" CHECK VALVE F/F KENNEDY
28	1	1 X 1/2 CI HEX BUSHING
29	1	4" RISER CLAMP
30	1	4x5" STORZ CONNECTION

5 FP100 FIRE DEPARTMENT CONNECTION
SCALE : 1/2" = 1Ft

FULLY SPRINKLED
BID DOCUMENTS
NOT FOR CONSTRUCTION

Revisions: Date

CONSULTANTS:

I hereby certify that this plan, specification or report was prepared by me or under my supervision and that I am a NICET IV Senior Engineering Technicion

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Drawing Title: FIRE PROTECTION SYSTEM SUPPLY AND HEADER DETAILS

Approved Project Director

Project Title: ST CLOUD ADH AND EC SUPPORT

Location: ST CLOUD VA HEALTH CARE SYSTEM
4801 VETERANS DRIVE, ST. CLOUD MN 56303

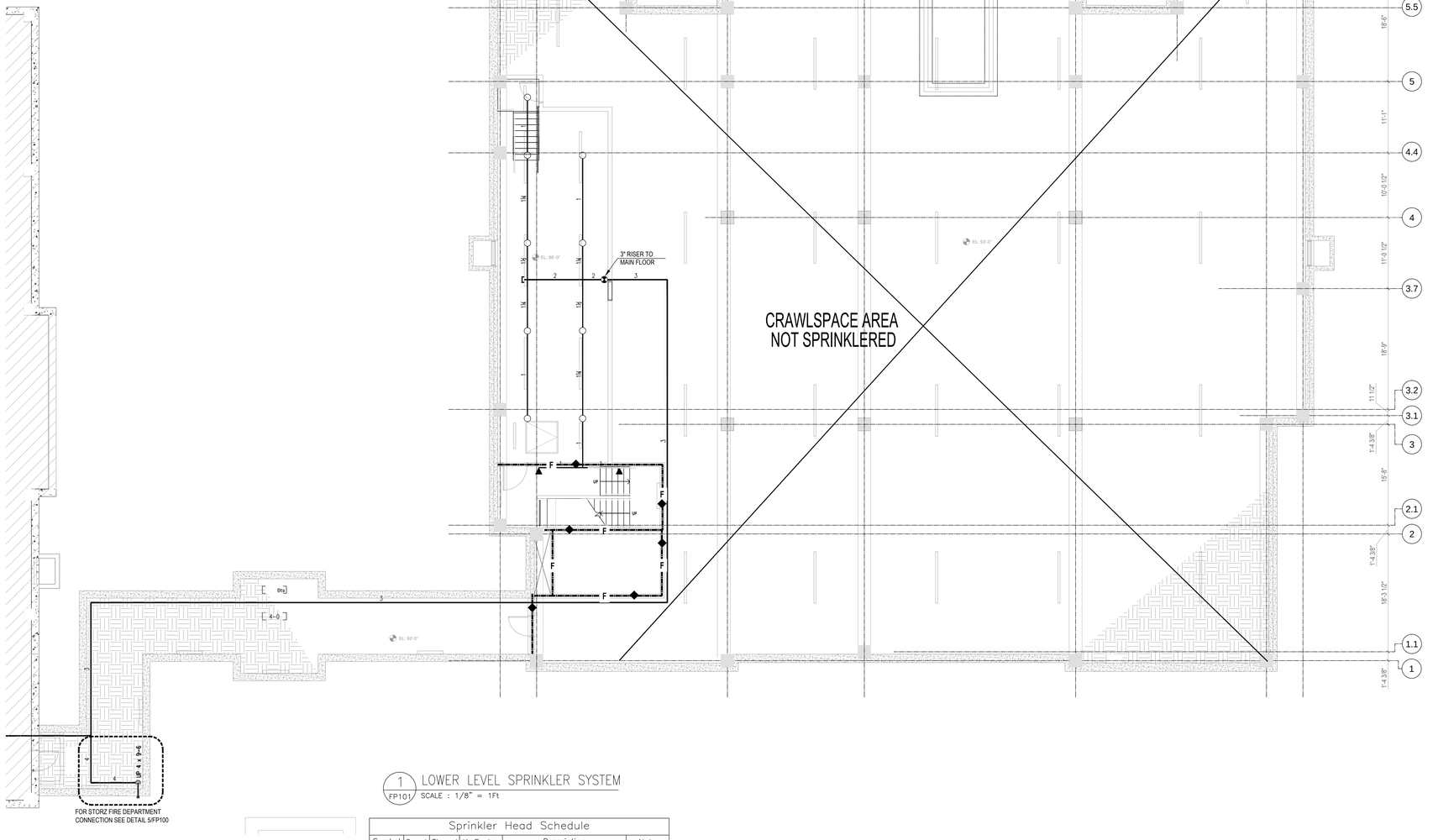
Date: 05-27-2020 | Checked | Drawn: EM

Project Number: 656-343
Building Number: ---
Drawing Number: FP100

Office of Construction and Facilities Management
Department of Veterans Affairs

VA FORM 08-6231

05/14/202
REVISION



1 FP101 LOWER LEVEL SPRINKLER SYSTEM
SCALE : 1/8" = 1Ft

Sprinkler Head Schedule

Symbol	Count	Thread	K-Factor	Description	Note
○	9	1/2"	5.6	TY3131 1/2 QR 155 B UP	
◀	2	1/2"	5.6	TY3331 1/2 QR 155 B HSW	
11 = Total Number of Heads Basement					

FULLY SPRINKLED
BID DOCUMENTS
NOT FOR CONSTRUCTION

Revisions: Date

CONSULTANTS:

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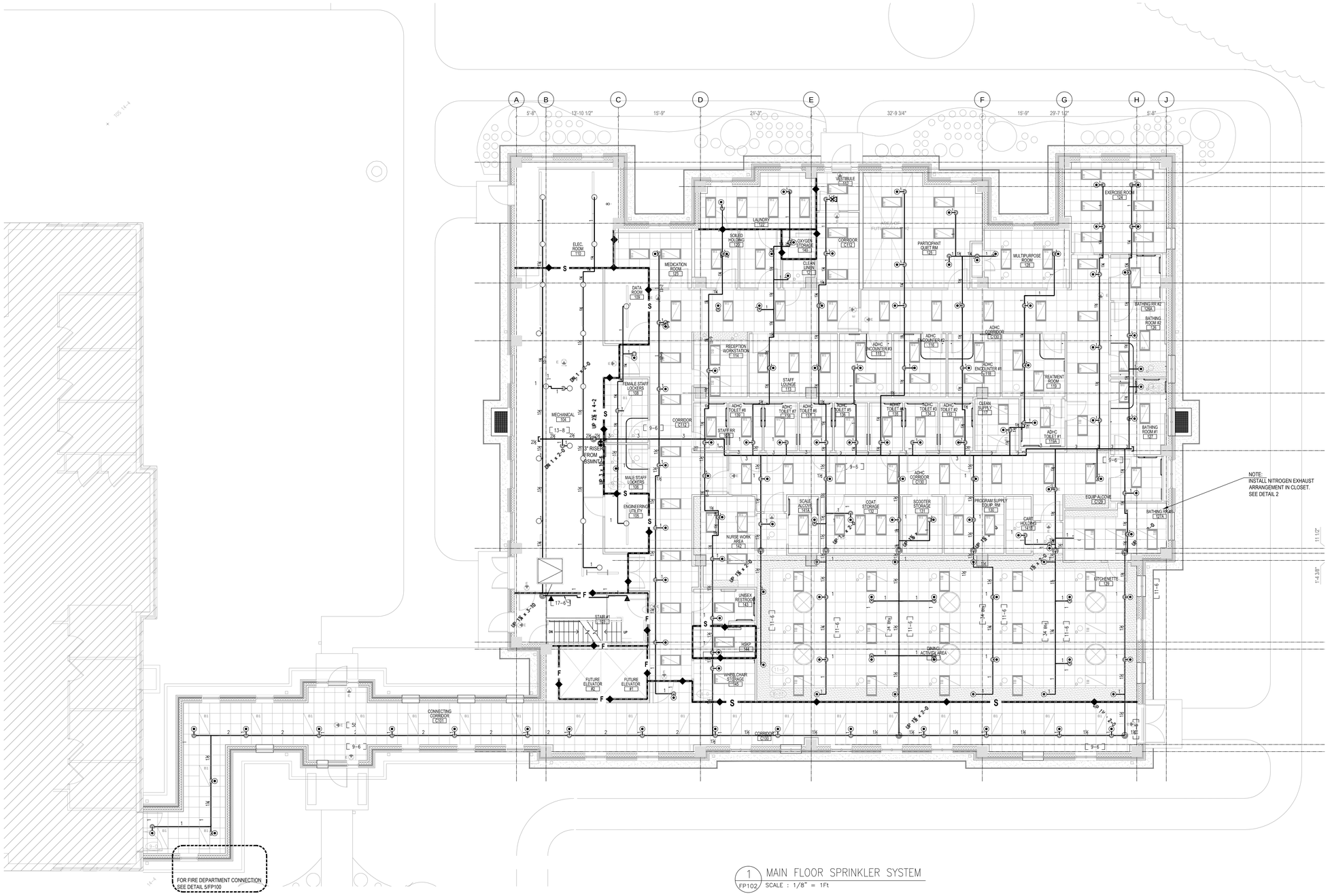
Drawing Title: LOWER LEVEL FIRE PROTECTION SYSTEM
Approved Project Director

Project Title: ST CLOUD ADH AND EC SUPPORT
Location: ST CLOUD VA HEALTH CARE SYSTEM
4801 VETERANS DRIVE, ST. CLOUD MN 56303
Date: 05-27-2020 Checked: Drawn: EM

Project Number: 656-343
Building Number: ---
Drawing Number: FP101

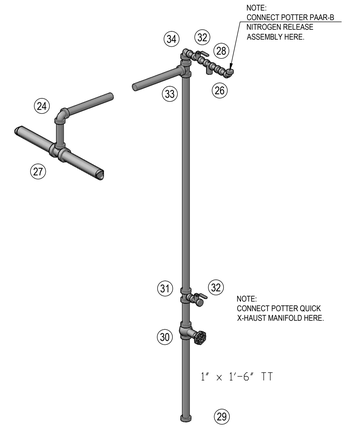
Office of Construction and Facilities Management
Department of Veterans Affairs

VA FORM 08-6231



1 FP102 MAIN FLOOR SPRINKLER SYSTEM
SCALE : 1/8" = 1Ft

Legend		
ID	Qty	Description
24	1	1 C I ELL
25	1	1/2 CI ELL
26	1	1/2" BLK. M.I. UNION
27	1	1 1/2 X 1 1/2 X 1 RED TEE
28	1	WYE STRAINER 1/2 100 MESH UBW
29	1	1" CAP
30	1	1" GLOBE VALVE NIBCO
31	1	1 X 1 X 1/2 RED TEE
32	2	1/2 UL/FM BALL VLV FULL PORT
33	1	1 TEE
34	1	1 X 1/2 CI RED ELL



2 FP102 NITROGEN EXHAUST DETAIL
SCALE : 1/2" = 1Ft

Sprinkler Head Schedule					
Symbol	Count	Thread	K-Factor	Description	Note
⊙	124	1/2"	5.6	TY323 1/2 QR 155 WH PDR	on Drop
○	20	1/2"	5.6	TY3131 1/2 QR 155 B UP	
⊗	1	1"	5.6	TY3235 1/2 Q-12.00 155 B PR	
◀	2	1/2"	5.6	TY3331 1/2 QR 155 B HSW	
147 = Total Number of Heads Main Floor					

FULLY SPRINKLED
BID DOCUMENTS
NOT FOR CONSTRUCTION

Revisions: Date

CONSULTANTS:

I hereby certify that this plan, specification or report was prepared by me or under my supervision and that I am a NICET IV Senior Engineering Technician

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Drawing Title: MAIN FLOOR FIRE PROTECTION SYSTEM AND NITROGEN DETAIL

Approved Project Director

Project Title: ST CLOUD ADH AND EC SUPPORT

Location: ST CLOUD VA HEALTH CARE SYSTEM
4801 VETERANS DRIVE, ST. CLOUD MN 56303

Date: 05-27-2020 | Checked | Drawn: EM

Project Number: 656-343

Building Number: ---

Drawing Number: FP102

Office of Construction and Facilities Management

Department of Veterans Affairs

VA FORM 08-6231