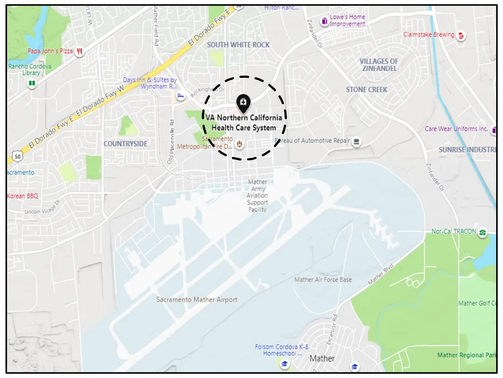
DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3

RENOVATION OF OUTPATIENT PHARMACY AND HVAC

MATHER VAMC
10535 HOSPITAL WAY
MATHER, CA 95655

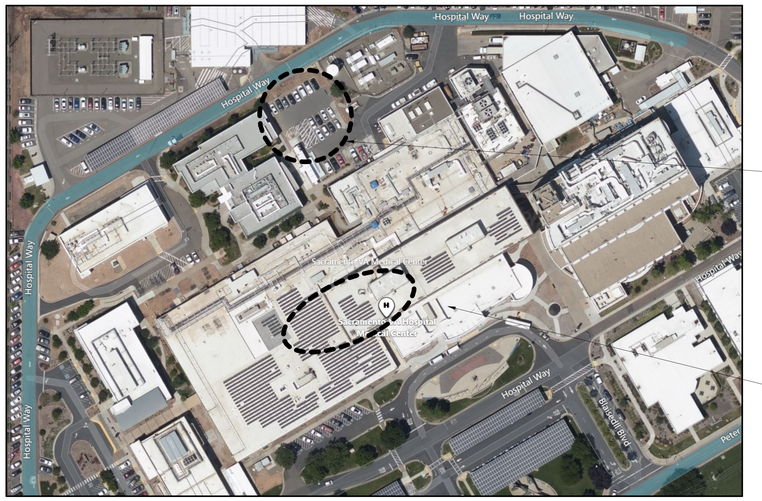
VA PROJECT #: 612A4-19-016

PROJECT SITE MAP



PROJECT LOCATION MAP

PROJECT IMAGE



TEMPORARY TRAILER LOCATION

PROJECT LOCATION AT FIRST FLOOR - BLDG. 650

DRAWING LIST

GENERAL			
G-001	COVER	1	7
G-002	GENERAL INFORMATION	2	7
G-003	INFECTION CONTROL MATRIX	3	7
G-004	ICRA INFORMATION AND DETAILS	4	7
G-005	FIRST FLOOR INFECTION CONTROL AND PHASING PLAN	5	7
G-006	TRAILER LOCATION - SITE PLAN AND FLOOR PLAN	6	7
LS101	FIRST FLOOR LIFE SAFETY PLAN	7	7
STRUCTURAL			
S-001	ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL STRUCTURAL NOTES	1	6
S-002	SPECIAL INSPECTIONS	2	6
S-101	DEMO, FOUNDATION PLAN, VAULT ROOF PLAN	3	6
S-102	ROOF FRAMING PLAN	4	6
S-501	DETAILS	5	6
S-502	DETAILS	6	6
ARCHITECTURAL			
A-001	ARCHITECTURAL SYMBOLS, ABBREVIATIONS AND NOTES	1	7
AD101	FIRST FLOOR DEMOLITION AND ICRA PLAN AND REFLECTED CEILING PLAN	2	7
A-101	FIRST FLOOR PLAN AND REFLECTED CEILING PLAN	3	7
A-104	ROOF PLAN	4	7
A-501	PARTITION TYPES AND TRANSITION DETAILS	5	7
A-601	DOOR SCHEDULE, ELEVATIONS AND DETAILS	6	7
A-701	PLAN AND SECTION DETAILS	7	7
INTERIORS			
I-001	PRODUCT SCHEDULES, SYMBOLS AND ABBREVIATIONS	1	14
I-101	FIRST FLOOR FINISH AND FLOOR PATTERN PLANS	2	14
I-131	FIRST FLOOR WALL PROTECTION PLAN AND DETAILS	3	14
I-141	FIRST FLOOR SIGNAGE PLAN	4	14
I-201	CASEWORK ELEVATIONS AND ENLARGED PLAN	5	14
I-202	CASEWORK DETAILS	6	14
I-401	INTERIOR ELEVATIONS - WALL PROTECTION	7	14
I-402	INTERIOR ELEVATIONS - EQUIPMENT	8	14
I-411	FIRST FLOOR OVERALL EQUIPMENT PLAN	9	14
I-421	FIRST FLOOR ENLARGED EQUIPMENT PLAN - A	10	14
I-422	FIRST FLOOR ENLARGED EQUIPMENT PLAN - B	11	14
I-423	ENLARGED EQUIPMENT PLANS	12	14
I-431	ENLARGED TOILET PLANS AND ELEVATIONS	13	14
I-601	EQUIPMENT SCHEDULE	14	14
FIRE SUPPRESSION			
FX001	FIRE SUPPRESSION GENERAL INFORMATION	1	2
FX101	FIRST FLOOR FIRE SUPPRESSION PLAN	2	2
PLUMBING			
P-001	PLUMBING GENERAL INFORMATION	1	3
P-101	FIRST FLOOR PLUMBING PLAN	2	3
P-501	PLUMBING DETAILS	3	3
MECHANICAL			
M-001	MECHANICAL GENERAL INFORMATION	1	11
MD101	FIRST FLOOR MECHANICAL DEMOLITION PLAN	2	11
MH101	FIRST FLOOR HVAC PLAN	3	11
MH102	ROOF HVAC PLAN	4	11
MP101	FIRST FLOOR MECHANICAL PIPING PLAN	5	11
M-301	MECHANICAL SECTIONS	6	11
M-501	MECHANICAL DETAILS	7	11
M-502	MECHANICAL DETAILS	8	11
M-503	MECHANICAL DETAILS	9	11
M-504	MECHANICAL CONTROLS	10	11
M-601	MECHANICAL SCHEDULES	11	11
ELECTRICAL			
E-001	ELECTRICAL GENERAL NOTES, SYMBOL LEGENDS, AND ABBREVIATIONS	1	12
ES101	ELECTRICAL SITE PLAN	2	12
ED101	FIRST FLOOR ELECTRICAL AND TECHNOLOGY DEMOLITION PLAN	3	12
E-101	ELECTRICAL OVERALL WORK PLAN	4	12
EP101	FIRST FLOOR POWER PLAN	5	12
EL101	FIRST FLOOR LIGHTING PLAN	6	12
EM101	FIRST FLOOR MECHANICAL POWER AND TECHNOLOGY SYSTEMS PLAN	7	12
E-501	ELECTRICAL AND TECHNOLOGY DETAILS	8	12
E-601A	SINGLE-LINE DIAGRAM	9	12
E-601B	SINGLE-LINE DIAGRAM	10	12
E-602	EXISTING ELECTRICAL PANEL SCHEDULES	11	12
E-603	ELECTRICAL PANEL SCHEDULES	12	12
TECHNOLOGY			
TK001	TECHNOLOGY GENERAL NOTES, SYMBOL LEGENDS, AND ABBREVIATIONS	1	3
TK101	FIRST FLOOR TECHNOLOGY PLAN	2	3
TK501	TECHNOLOGY DETAILS	3	3
FIRE ALARM			
FA001	FIRE ALARM GENERAL NOTES, SYMBOL LEGEND, AND RISER	1	4
FA101	FIRST FLOOR FIRE ALARM PLAN	2	4
FA102	ROOF FIRE ALARM PLAN	3	4
FA501	FIRE ALARM DETAILS	4	4

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Submissions:	Date
10	100% BID DOCUMENTS	10/13/2023
9	100% CONSTRUCTION DOCUMENTS	7/25/2023
8	95% CONSTRUCTION DOCUMENTS REV. 1	7/27/2022
7	95% CONSTRUCTION DOCUMENTS	4/25/2022
6	95% CONSTRUCTION DOCUMENTS	11/17/2021
5	65% DESIGN DEVELOPMENT	8/25/2021
4	35% SCHEMATIC DESIGN	11/7/2020
3	35% SCHEMATIC DESIGN	9/14/2020
2	25% SCHEMATIC DESIGN	5/12/2020
1	PRE-DESIGN	3/17/2020

CONSULTANTS:

Calibre

Calibre Engineering, Inc.
9090 South Ridgeline Boulevard, Suite 105
Highlands Ranch, CO 80129 (303) 730-0434
www.calibre-engineering.com
Construction Management Civil Engineering Surveying

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

RENEE M. CLARK LICENSED ARCHITECT 24514 STATE OF MINNESOTA
10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511

www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: COVER

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved

Date: OCTOBER 13, 2023 | Checked: RMC | Drawn: ANP

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

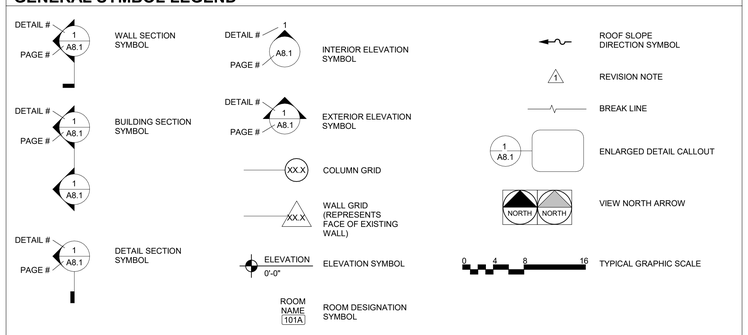
Drawing Number: G-001

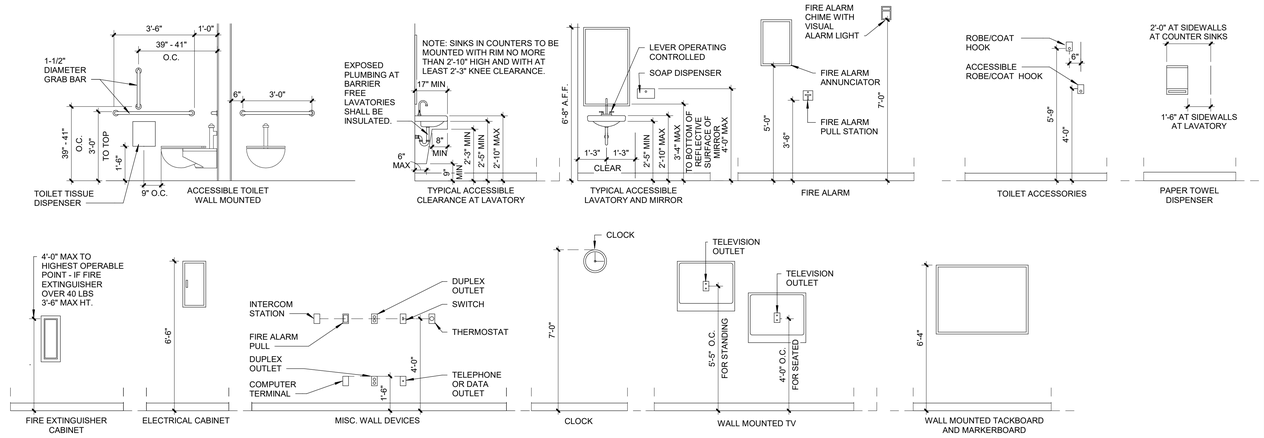
Dwg 1 of 7

10/11/2023 11:10:38 AM C:\Users\apullen\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apullen\DXT7.rvt

DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3

GENERAL SYMBOL LEGEND





1 **STANDARD MOUNTING HEIGHTS**

Scale: 3/8" = 1'-0"

CODE STANDARDS AND EXECUTIVE ORDERS

PURPOSE: THE PUBLIC BUILDINGS AMENDMENT ACT OF 1988, PUBLIC LAW (PUB. L.) 100-678 REQUIRES FEDERAL AGENCIES TO FOLLOW NATIONAL RECOGNIZED "MODEL" BUILDING CODES. THE FEDERAL PARTICIPATION IN THE DEVELOPMENT AND USE OF VOLUNTARY STANDARDS, OFFICE OF MANAGEMENT AND BUDGET (OMB) CIRCULAR A-119, REQUIRES ALL EXECUTIVE AGENCIES TO RELY ON VOLUNTARY STANDARDS, BOTH DOMESTIC AND INTERNATIONAL, WHENEVER FEASIBLE, AND TO PARTICIPATE IN VOLUNTARY STANDARD BODIES.

GENERAL: VA HAS ADOPTED THE LATEST EDITION OF THE FOLLOWING CODES AND STANDARDS AS A MINIMUM FOR ALL PROJECTS PERFORMED IN THE MODERNIZATION, ALTERATION, ADDITION, OR IMPROVEMENT OF ITS REAL PROPERTY AND THE CONSTRUCTION OF NEW STRUCTURES. VA DESIGN MANUALS AND MASTER SPECIFICATIONS SPECIFY OTHER CODES AND STANDARDS THAT VA FOLLOWS ON ITS PROJECTS:

• VA DIRECTIVES, DESIGN MANUALS, MASTER SPECIFICATIONS, VA NATIONAL CAD STANDARD APPLICATION GUIDE, AND OTHER GUIDANCE ON THE TECHNICAL INFORMATION LIBRARY (TIL) (HTTP://WWW.CFM.VA.GOV/TIL/).

Codes, Standards and Design References

1. VA Sustainable Design Manual, August 2017
2. VA Parking Design Manual, November 2016
3. VA Site Development Design Manual February 2013
4. VA VHA Directive 1061, February 2021
5. VA Directive 7512, 3 August 2017
6. VA Fire Protection Design Manual, 2021
7. VA Plumbing Design Manual, May 2021
8. VA HVAC Design Manual, March 2022
9. VA Physical Security and Resiliency Design Manual, 2022
10. VA Lighting Design Manual, December 2022
11. VA Electrical Design Manual, December 2019
12. VA Interior Design Manual, November 2020
13. VA Physical Security Design Manual for VA Mission Critical Facilities, January 2020
14. VA Office of information & Technology Design Guide, February 2019
15. VA Telecommunications and Special Telecommunications Systems Design Manual, February 2016
16. VA Infrastructure Standard for Telecommunications Spaces Design Guide, August 2020
17. VA TIL Design Guide Chapter 268-Pharmacy Services, 2022-03
18. PG 18-13 VA Barrier Free Design Standard, February 2022
19. PG 18-4 VA Standard Details and Specifications
20. PG 18-3: VA Design Guidelines; Chapter 268-Pharmacy
21. PG-18-1: VA Master Construction Specifications
22. NFPA 101, Life Safety Code, 2021
23. NFPA 99, Health Care Facilities Code, 2021
24. NFPA 90A, Installation of Air Conditioning and Ventilating Systems, 2021
25. NFPA 88A, Standard for Parking Structure, 2019
26. NFPA 72, National Fire Alarm Code, 2022
27. NFPA 70, National Electrical Code, 2020
28. NFPA 13, Installation of Sprinkler Systems, 2022
29. ADA Standards for Accessible Design 2010,
30. 2021 International Code Council (ICC) , Uniform Building Code
31. International Standards for Hematopoietic Cellular Therapy Product Collection, Processing, and Administration, Eighth Edition
32. International Building Code, 2021
33. International Fire Code, 2021
34. International Mechanical Code, 2021
35. International Plumbing Code, 2021
36. International Energy Conservation Code, 2018
37. International Fuel Gas Code, 2021
38. Illuminating Engineering Society (IES) Lighting Handbook, 10th Edition
39. TVHS Energy Requirements and Design Guide, September 2014
40. Facilities Guidelines Institute: Guidelines for the Design and Construction of Hospitals 2018
41. ASME B31.9, Building Services Piping
42. ASHRAE Standard 170, Ventilation for Health Care Facilities, 2021
43. ASHRAE Handbooks, 2017 Fundamentals, 2019 HVAC Applications, 2020 HVAC Systems and Equipment
44. ASHRAE 90.1 – 2019 Energy Standard for Buildings Except Low-Rise Residential Buildings
45. SMACNA, HVAC Duct Construction Standards, Metal and Flexible
46. SMACNA, HVAC Air Duct Leakage Test Manual
47. ANSI/TIA/EIA 568-2019 Commercial Building Cabling Standards
48. ANSI/TIA/EIA 569-C-2015 Commercial Building Standards for Telecommunications Pathways and Spaces
49. ANSI/TIA-1179-2017, Telecommunications Spaces for Healthcare Facilities
50. BICSI, Telecommunications Distribution Methods Manual, 2014
51. Federal Information Processing Standards-FIBS-201-1 Personal Identity Verification (PIV) of Federal Employees and Contractors
52. U.S. Department of Veterans Affairs, H-18-8 Seismic Design Requirements, 1 November 2019, revised May 1, 2020
53. ACI 318-14, Building Code Requirements for Reinforced Concrete
54. ACI 360R-10, Specifications Guide to Design of Slabs-On-Ground
55. ASCE 7-16 Minimum Design Loads for Building and Other Structures
56. AISC 360-16, American Institute of Steel Construction Inc
57. AISC 325-17, Steel Construction Manual, 15th Edition
58. AISC 341-16, American Institute of Steel Construction Inc., Seismic Provisions for Structural Steel Buildings
59. AWS D1.1, Structural Welding Code – Steel
60. TMS 402/602-16, Building Code Requirements and Specifications for Masonry Structures

LOCAL CODES: AS AN AGENCY OF THE FEDERAL GOVERNMENT, VA IS NOT SUBJECT TO LOCAL IMPOSITION OF CODE ENFORCEMENT PROCEDURES (DRAWING REVIEWS, BUILDING PERMITS, INSPECTIONS, FEES, ETC.). VA MUST FUNCTION AS THE AUTHORITY HAVING JURISDICTION (AHJ) AND THUS HAS THE RESPONSIBILITY TO GUARD PUBLIC HEALTH AND SAFETY THROUGH ENFORCING ITS ADOPTED CODES. HOWEVER, LOCAL AUTHORITIES SHOULD BE NOTIFIED ABOUT PLANNED PROJECTS AND GIVEN OPPORTUNITY TO REVIEW DRAWINGS PROVIDED THAT VA DOES NOT PAY FOR REVIEW OR INSPECTION FEES.

NOTES:

1. NFPA 101 PRIMARILY ADDRESSES LIFE SAFETY AND FIRE PROTECTION FEATURES WHILE THE IBC ADDRESSES A WIDE RANGE OF CONSIDERATIONS, INCLUDING, BUT NOT LIMITED TO, STRUCTURAL STRENGTH, SEISMIC STABILITY, SANITATION, ADEQUATE LIGHT AND VENTILATION, AND ENERGY CONSERVATION. VA BUILDINGS MUST MEET THE REQUIREMENTS OF NFPA 101 AND DOCUMENTS REFERENCED BY NFPA 101 IN ORDER TO COMPLY WITH THE ACCREDITATION REQUIREMENTS OF THE JOINT COMMISSION. THEREFORE, DESIGNS SHALL COMPLY WITH THE REQUIREMENTS OF THE LATEST EDITION OF NFPA 101 AND DOCUMENTS REFERENCED THEREIN. DESIGN FEATURES NOT ADDRESSED BY NFPA 101 OR.DOCUMENTS REFERENCED THEREIN SHALL COMPLY WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE IBC OR AS OTHERWISE ADDRESSED ABOVE IN THIS PROGRAM GUIDE. FOR DESIGN FEATURES THAT ARE ADDRESSED BY BOTH THE IBC AS WELL AS NFPA 101 OR A DOCUMENT REFERENCED BY NFPA 101, THE REQUIREMENTS OF NFPA 101 OR THE DOCUMENT REFERENCED BY NFPA 101 SHALL BE USED EXCLUSIVELY (THIS APPLIES EVEN IF THE IBC REQUIREMENTS ARE DIFFERENT).

2. CONFLICTS BETWEEN NATIONALLY RECOGNIZED CODES AND STANDARDS AND VA REQUIREMENTS – SHOULD A CONFLICT EXIST BETWEEN VA REQUIREMENTS AND VA ADOPTED NATIONALLY RECOGNIZED CODES AND STANDARDS, THE CONFLICT SHALL BE BROUGHT TO THE ATTENTION OF VA. THE RESOLUTION OF THE CONFLICT SHALL BE MADE BY THE AUTHORITY HAVING JURISDICTION FOR VA TO ENSURE A CONSISTENCY SYSTEM WIDE.

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

RENEE M. CLARK Renee Clark LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: GENERAL INFORMATION

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved

Date: OCTOBER 13, 2023 | Checked: RMC | Drawn: ANP

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Drawing Number G-002

Dwg 2 of 7

C:\Users\apofien\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apofien\0XT7.rvt
10/11/2023 11:11:25 AM
VA FORM 08-6231

DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3

Infection Control Risk Assessment (ICRA)

Project Name: Renovate Outpatient Pharmacy and HVAC	Planned Project Start Date:
Project Number: 612A4-19-016	
PM / COR P.O.C. : Andy Malone	P.O.C extension: 9129
Location of Construction: Mather B650 1st floor, existing pharmacy	Estimated Duration:

Type: Choose an item. D

Using the following table, *identify* the Type of Construction Project Activity (Type A-D) and enter is blank above.

TYPE A	**Inspection and Non-Invasive Activities**. Includes, but is not limited to: ▪ removal of ceiling tiles for visual inspection only, e.g., limited to 1 tile per 50 square feet ▪ painting (but not sanding) ▪ wall covering, electrical trim work, minor plumbing, and activities which do not generate dust or require cutting of walls or access to ceilings other than for visual inspection.
TYPE B	**Small scale, short duration activities which create minimal dust** Includes, but is not limited to: ▪ installation of telephone and computer cabling ▪ access to chase spaces ▪ cutting of walls or ceiling where dust migration can be controlled.
TYPE C	**Work that generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies** Includes, but is not limited to: ▪ sanding of walls for painting or wall covering ▪ removal of floorcoverings, ceiling tiles and casework ▪ new wall construction ▪ minor duct work or electrical work above ceilings ▪ major cabling activities ▪ any activity which cannot be completed within a single work shift.
TYPE D	**Major demolition and construction projects** Includes, but is not limited to: ▪ activities which require consecutive work shifts ▪ requires heavy demolition or removal of a complete cabling system ▪ new construction.
TYPE E	**All projects which are external/detached from patient care areas and existing facility buildings.**

Step 2: Choose an item. High

Using the following table, *identify* the Patient Risk Groups (*Low, Medium, High, Highest*) that will be affected and enter in the blank above. If more than one risk group will be affected, select the higher risk group.

Low Risk	Medium Risk	High Risk	Highest Risk
▪ Office areas ▪ All external/detached projects that have no physical communication with patient care areas or existing facility buildings	▪ Cardiology ▪ Echocardiography ▪ Endoscopy ▪ Nuclear Medicine ▪ Physical Therapy ▪ Radiology/MRI ▪ Respiratory Therapy ▪ Primary Care ▪ Inpatient/Outpatient Behavioral Health	▪ Emergency Room ▪ Laboratories (specimen) ▪ Medical/Surgical and telemetry units ▪ Outpatient Surgery ▪ Pharmacy ▪ Post Anesthesia Care Unit	▪ Any area caring for immunocompromised patients ▪ Cardiac Cath Lab ▪ Central Sterile Supply ▪ Intensive Care Units ▪ Negative pressure isolation rooms ▪ Hematology/Oncology ▪ Operating rooms ▪ Sterile Processing Services

Step 3: Choose an item. IV

***Match* the:**
Patient Risk Group (***Low, Medium, High, Highest***) with the planned **…**
Construction Project Type (***A, B, C, D, E***) on the following matrix, to find the **…**
Class of Precautions (***I, II, III, IV***) or level of infection control activities required.
Class I-IV or Color-Coded Precautions are delineated on page 7's *Infection Control Construction Permit*.

Patient Risk Group	TYPE A	TYPE B	TYPE C	TYPE D	TYPE E
LOW Risk Group	I	II	II	III/IV	I
MEDIUM Risk Group	I	II	III	IV	N/A
HIGH Risk Group	I	II	III/IV	IV	N/A
HIGHEST Risk Group	II	III/IV	III/IV	IV	N/A

Step 4: Identify the areas surrounding the project area, assessing potential impact.

Unit Below	Unit Above	Lateral	Lateral	Behind	Front
III/IV	III/IV	lab IV	primary care IV	primary care IV	office/hallway III/IV
Risk Group	Risk Group	Risk Group	Risk Group	Risk Group	Risk Group

Step 5: Identify any other potential requirements by using the following checklist.

INFECTION CONTROL REQUIREMENTS CHECKLIST	*YES*	*NO*	*N/A*
INFECTION CONTROL EDUCATION: Identified site specific activity and met with Services/Sections surrounding construction site to inform them of impact/precautions to be taken & to instruct them in basic I/C requirements?	✔		
INFECTION CONTROL EDUCATION: Met with the Construction Manager, Construction Crews, and Sub-Contractors to inform them of impact/precautions to be taken & to instruct them in Basic I/C requirements?	✔		
OUTAGE EVENTS: Identified any issues related to ventilation, plumbing and electrical in terms probable outage events?	✔		
CONTAINMENT MEASURES: What types of barriers, i.e., solids, wall barriers? Will HEPA filtration be required?	✔		
CONTAINMENT MEASURES: Discussed containment issues with the project team like traffic flow, housekeeping and debris removal (how and when)?	✔		
CONTAINMENT MEASURES: Informed the Project Coordinator that barriers are not to be removed from work area until completed project is inspected by the Safety and Infection Control Sections and thoroughly cleaned by Environmental Management Service?	✔		
WATER DAMAGE RISK: Is there a risk due to compromising structural integrity, i.e., wall, ceiling and/or roof? (Note: Renovation/construction area will be isolated from occupied areas and negative with respect to surrounding areas)		✔	
WORK HOURS: Can or will the work be done during non-patient care hours?		✔	
ISOLATION/NEGATIVE AIRFLOW: Do plans allow for adequate number of isolation/negative airflow rooms?	✔		
HAND HYGIENE: Does the plan allow for the required number and type of hand washing sinks?	✔		
HAND HYGIENE: Does the infection prevention & control staff agree with the minimum number of sinks for this project? (Note: Verify against FGI Design and Construction Guidelines for types and area)	✔		
CLEAN/SOILED UTILITY: Does the infection prevention & control staff agree with the plans relative to clean and soiled utility rooms?			✔
TUBERCULOSIS RISK ASSESSMENT: Does this project involve risk of airborne exposure to known or suspected TB case. Is construction near patient care areas? **NO:** Baseline TB skin testing is not required for contractors **YES:** The Contractor will provide written certification that all contract staff have a pre-placement TB screen within 90 days prior to assignment to the worksite and have been found to have negative TB screening reactions. Contract staff manifesting positive screening reactions to TB must show proof of being on treatment prior to working on VHA property.	✔		
LEGIONELLA IMPACT: Will this project involve disturbing or breaking water systems, or result in stagnation of the water systems for greater than 7 days? 1. All hot/cold water systems will be flushed until flow clear and without air in the system. NOT LESS THAN 10 MINUTES. 2. All faucets and showerheads will be removed and cleaned. 3. Temperatures will be measured to insure hot water is within limits identified above. 4. Water samples will be taken to verify: levels of chlorine/safety of water for human use. 5. Take a representative sample at affected distal fixtures and send for culture testing. (Note: It is not necessary to wait for sample prior to returning the area to service)		✔	

Please describe, in the brief, the nature of the work to be undertaken and detail all infection control mitigation measures:
Demolition of the interior pharmacy and renovation of the interior space. New shelving, furniture, and work stations and new vault. Check in stations moved to the main hallway in building 650. Work zone contained by floor to ceiling barriers while maintainoing hallway access of patients,staff to primary care sections and to lab waiting room.

Signature of Project Manager Date

Signature of Project Manager's Supervisor Date

When the Construction Activity and Risk Level indicate Class III or [redacted], control procedures are necessary and the following signatures are required. **The *Infection Control Construction Permit* on page 7 of this attachment is also required and MUST BE POSTED AT SITE.**

Signature of VANCHCS Infection Control Nurse Date

Signature of VANCHCS Safety Designee Date

Infection Control Construction Permit

	Permit No:
Location of Construction: Outpatient Pharmacy Building 650 1st floor	Project Start Date: 1/1/23
Project COR: Andy Malone	Estimated Duration: 12 months
Contractor Performing Work: TBD	Permit Expiration Date:
Supervisor: Jonathan Bassignani	Telephone: 916-843-9129

YES	NO	CONSTRUCTION ACTIVITY	YES	NO	INFECTION CONTROL RISK GROUP
		TYPE A: Inspection, non-invasive activity			GROUP 1: Low Risk
		TYPE B: Small scale, short duration, moderate to high levels			GROUP 2: Medium Risk
		TYPE C: Activity generates moderate to high levels of dust, requires greater 1 work shift for completion			GROUP 3: Medium/High Risk
		TYPE D: Major duration and construction activities Requiring consecutive work shifts			GROUP 4: Highest Risk

CLASS I	1. Execute work by methods to minimize raising dust from construction operations. 2. Immediately replace any ceiling tile displaced for visual inspection.	3. Minor demolition for remodeling.
CLASS II	1. Provides active means to prevent air-borne dust from dispersing into atmosphere. 2. Water mist work surfaces to control dust while cutting. 3. Seal unused doors with duct tape. 4. Block off and seal air vents. 5. Wipe surfaces with disinfectant.	6. Contain construction waste before transport in tightly covered containers. 7. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work area. 8. Place dust mat at entrance and exit of work area. 9. Remove or isolate HVAC system in areas where work is being performed.
CLASS III Date Initial	1. Obtain infection control permit before construction begins. 2. Isolate HVAC system in area where work is being done to prevent contamination of the duct system. 3. Complete all critical barriers or implement control cube method before construction begins. 4. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. 5. Do not remove barriers from work area until complete project is thoroughly cleaned.	6. Vacuum work with HEPA filtered vacuums. 7. Wet mop with disinfectant. 8. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. Contain construction waste before transport in tightly covered containers. 9. Cover transport receptacles or carts. Tape covering. 10. Remove or isolate HVAC system in areas where work is being performed.
CLASS IV Date Initial	1. Obtain infection control permit before construction begins. 2. Isolate HVAC system in area where work is being done to prevent contamination of duct system. 3. Complete all critical barriers or implement control cube method before construction begins. 4. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. 5. Seal holes, pipes, conduits, and punctures appropriately. 6. Construct anteroom and require all personnel to pass through this room so they can be vacuumed using a HEPA vacuum cleaner before leaving work site or they can wear cloth or paper coveralls that are removed each time they leave the work site.	7. All personnel entering work site are required to wear shoe covers. 8. Do not remove barriers from work area until completed project is thoroughly cleaned. 9. Vacuum work area with HEPA filtered vacuums. 10. Wet mop with disinfectant. 11. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 12. Contain construction waste before transport in tightly covered containers. 13. Cover transport receptacles or carts. Tape covering. 14. Remove or isolate HVAC system in areas where construction is being done.

Additional Requirements:

Date Initials

Exceptions/Additions to this permit are noted by attached memoranda.
Date Initials

Permit Requested By:	Permit Authorized By:
Date:	Date:

FULLY SPRINKLERED
100% BID DOCUMENTS

#	Submissions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

LICENSED ARCHITECT 24514 STATE OF MINNESOTA — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: INFECTION CONTROL MATRIX

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved

Date: OCTOBER 13, 2023 | Checked: RMC | Drawn: ANP

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

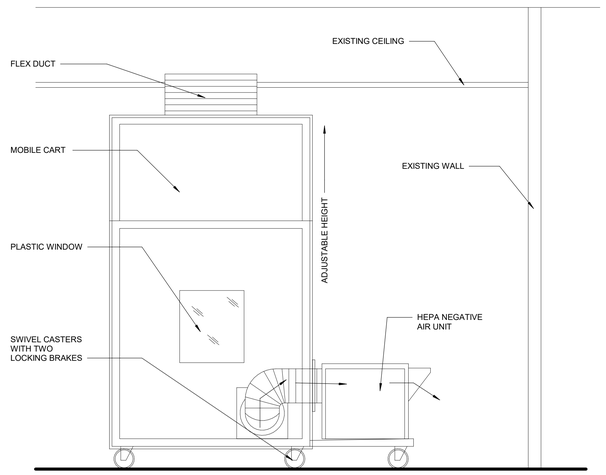
Drawing Number G-003

Dwg 3 of 7

10/11/2023 11:11:28 AM C:\Users\apudien\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apudien\DXT7.rvt

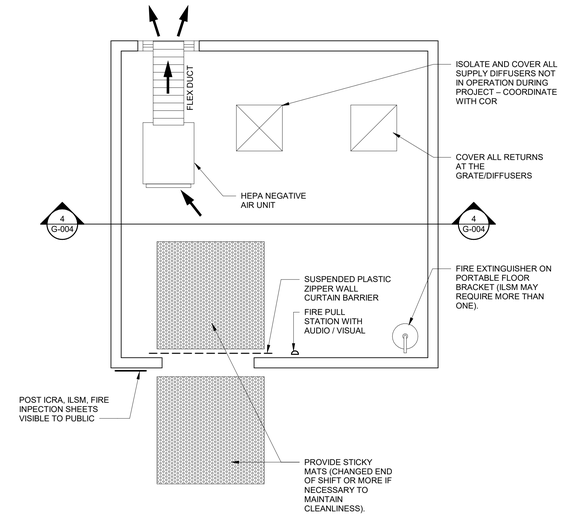
VA FORM 08-6231

DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3



3 ICRA MOBILE CONTAINMENT CART

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

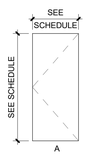


1 TYPICAL CONSTRUCTION PLAN LAYOUT

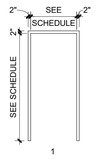
Scale: 1/2" = 1'-0"

DOOR SCHEDULE

	DOOR					DOOR FRAME		
NO.	WIDTH	HEIGHT	THICK	MAT'L	ELEV	MAT'L	ELEV	HDWR SET
FIRST FLOOR								
100-1	3' - 6"	7' - 0"	1 3/4"	WD	A	HM	1	1
100-2	3' - 6"	7' - 0"	1 3/4"	WD	A	HM	1	1
100-3	3' - 6"	7' - 0"	1 3/4"	WD	A	HM	1	1

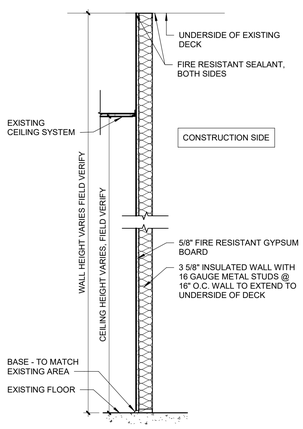


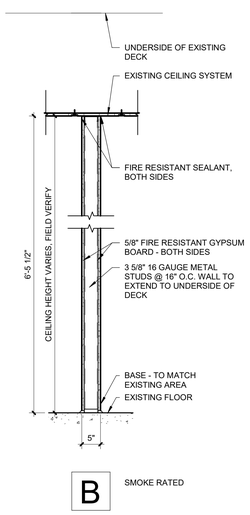
DOOR ELEVATION



FRAME ELEVATION

DOOR HARDWARE SET NO. 1:
HINGES: 3 BUTT HINGES
LOCKSET: 1 STORAGE FUNCTION LOCKSET

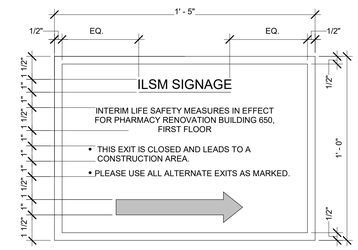




2 ICRA BARRIER WALL TYPE

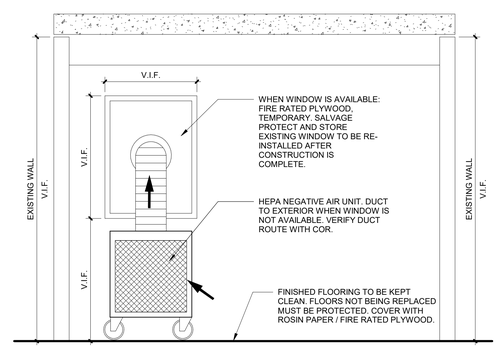
Scale: 3/4" = 1'-0"

ISLM TEMPORARY BARRIER TAG	
PROJECT:	
PRIME CONTRACTOR:	
SUB CONTRACTOR:	
EMERGENCY CONTACT NO.:	
BARRIER INSTALLATION DATE:	
BARRIER EXPIRATION DATE:	



5 ILSM CONSTRUCTION EGRESS SIGNAGE

Scale: 3" = 1'-0"



4 SECTION AT CONSTRUCTION PLAN

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

ICRA NOTES

DUST CONTROL PLAN NOTES

1. THE VAMC INFECTION CONTROL GROUP HAS CONFIRMED THE DESIGNATION FOR THIS PROJECT IS LEVEL IV FOR THE CLASS OF PRECAUTIONS OR LEVEL OF INFECTION CONTROL ACTIVITIES. HARD SURFACE BARRIERS SHALL BE USED EXCEPT IN THE AREA INDICATED ON THE PHASING PLAN WITH PLASTIC BARRIERS (MINIMUM 4MIL) TO SEAL AREA FROM NON-WORK AREA AS LONG AS THE SPRINKLER SYSTEM IS INTACT AND ACTIVE.

1A. TIGHT SEALS SHALL BE MAINTAINED AT THE FULL PERIMETER OF WALLS AND WALL PENETRATIONS. ANY DUST SHALL BE IMMEDIATELY CLEANED IF TRACKED OUTSIDE OF THE CONSTRUCTION BARRIER. UPON COMPLETION OF THE CONSTRUCTION PHASE, DUST BARRIERS SHALL BE REMOVED CAREFULLY TO MINIMIZE SPREADING OF DUST AND THE CONTRACTOR SHALL HAVE TEMPORARY DUST PROTECTION IN PLACE BEFORE REMOVAL OF A PERMANENT BARRIER.

AFTER EACH PHASE, PERFORM TASKS STATED IN NOTE 6A.

2. PROVIDE STICKY MATS AND BLANKET AT THE PLASTIC BARRIER ENTRANCE SPACES (CONSTRUCTION ANTEROOM) AND CHANGE DAILY OR MORE OFTEN AS NEEDED TO PREVENT THE SPREAD OF DUST AND DEBRIS INTO ADJACENT CLEAN SPACE.

INTERNAL DEMOLITION AND CONSTRUCTION ACTIVITIES DUST AND DEBRIS CONTROL

3. USE CORRIDOR C1-208 AS PRIMARY CONSTRUCTION ACCESS.

3A. TRAFFIC CONTROL: DESIGNATED ENTRY AND EXIT PROCEDURES SHALL BE DEFINED. EGRESS PATHS SHALL BE FREE OF DEBRIS; DESIGNATED ELEVATORS SHALL BE USED DURING SCHEDULED TIMES; AND ONLY AUTHORIZED PERSONNEL SHALL BE ALLOWED TO ENTER THE CONSTRUCTION ZONE. SIGNAGE SHALL DIRECT PEDESTRIAN TRAFFIC AWAY FROM THE CONSTRUCTION AREA AND MATERIALS.

4. CONTRACTOR SHALL USE TWO CARTS TO TRANSFER CONSTRUCTION MATERIAL IN AND OUT OF THE PROJECT - A CLEAN CART SHALL BE USED; THE NOT-SO-CLEAN CART SHALL BE USED BETWEEN THE MAIN ENTRY AND THE CONSTRUCTION STAGING/PREP AREA.

4A. DEMOLITION DEBRIS: DEBRIS SHALL BE REMOVED IN CARTS WITH TIGHTLY FITTED COVERS, USING DESIGNATED TRAFFIC ROUTES.
EFFORTS SHALL BE MADE TO MINIMIZE USE OF ELEVATORS WITH AN EMPHASIS ON TRANSPORT DURING THE LOWEST PERIOD OF ACTIVITY. DEBRIS SHALL BE REMOVED DAILY AND AT TIMES SPECIFIED BY THE VAMC. IF CHUTES ARE USED TO DIRECT DEBRIS OUTSIDE, HIGH EFFICIENCY PARTICULATE AIR (HEPA) FILTERED NEGATIVE AIR MACHINES SHALL BE USED, AND THE CHUTE OPENING SHALL BE SEALED WHEN NOT IN USE. FILTERS SHALL BE BAGGED AND SEALED BEFORE BEING TRANSPORTED OUT OF THE CONSTRUCTION AREA. THE CONTRACTOR SHALL NOT HAUL DEBRIS THROUGH PATIENT-CARE AREAS WITHOUT PRIOR APPROVAL OF THE COR.

4B. EXTERIOR WINDOWS: WINDOWS SHALL BE SEALED TO MINIMIZE INFILTRATION FROM ANY ADJACENT EXCAVATION DEBRIS.

4C. ALL EQUIPMENT REMAIN IN THE ORs AND ASSOCIATED ROOMS SHALL BE COVERED AND PROTECTED PRIOR STARTING EACH CONSTRUCTION PHASE.

VENTILATION AND ENVIRONMENTAL CONTROLS

5. AIR SYSTEM FLOW: THE COR VERIFY AND ACKNOWLEDGE CONTRACTOR WHETHER THE CONSTRUCTION AREA USES FRESH/OUTSIDE OR RE-CIRCULATED AIR; FILTERS SHALL BE ADDED OR RETURN VENTS COVERED AS NEEDED WITH FILTER MATERIAL OR PLASTIC. AIR MUST FLOW FROM CLEAN TO DIRTY AREAS.

5A. NEGATIVE AIR PRESSURE: THE AIR WITHIN THE CONSTRUCTION AREA SHALL BE NEGATIVE WITH RESPECT TO SURROUNDING AREAS AND WITH NO DISRUPTION OF AIR SYSTEMS OF ADJACENT AREAS. USE OF THE NEGATIVE AIR PRESSURE SYSTEM WITHIN THE ENCLOSURE TO REMOVE DUST SHALL PASS AIR THROUGH AN INDUSTRIAL GRADE, PORTABLE HEPA FILTER CAPABLE OF FILTRATION RATES OF 300-800 CUBIC FEET PER MINUTE (FT3/MIN), OR EXHAUST AIR DIRECTLY TO THE OUTSIDE IF APPROVED BY VAMC. IF EXHAUST SHALL BE TIED INTO A RE-CIRCULATED AIR SYSTEM, A PRE-FILTER AND HEPA FILTER SHALL BE USED BEFORE EXHAUST TO PREVENT CONTAMINATION OF THE DUCTS.

5B. ADJACENT AREAS: THE STATUS OF SEALED PENETRATIONS AND INTACT CEILING SHALL BE VERIFIED DAILY.

5C. AIR EXCHANGE RATES AND PRESSURE RELATIONSHIPS: VAMC AND CONTRACTOR SHALL VERIFY AND MAINTAIN PROPER RATES IN CRITICAL AREAS NEAR CONSTRUCTION ACTIVITY AND ENSURE AIR IS NOT BEING RE-CIRCULATED WITHOUT FILTRATION FROM THE CONSTRUCTION AREA ELSEWHERE. PROVIDE AIR PRESSURE TESTING THROUGHOUT THE PROJECT IN THE FREQUENCY AS IDENTIFIED BY THE COR.

CONTAMINATION OF PATIENT ROOMS, SUPPLIES, EQUIPMENT AND RELATED AREAS

6. WORKSITE CLOTHING: CONTRACTOR PERSONNEL CLOTHING SHALL BE FREE OF LOOSE SOIL AND DEBRIS BEFORE LEAVING THE CONSTRUCTION AREA. IF PROTECTIVE APPAREL IS NOT WORN (E.G., COVERALLS, FOOTGEAR AND HEADGEAR) A HEPA-FILTERED VACUUM SHALL BE USED TO REMOVE DUST FROM CLOTHING BEFORE LEAVING THE BARRICADE. IF PROTECTIVE APPAREL IS UTILIZED, THE CONTRACTOR SHALL CONSTRUCT A SPACE OR ANTEROOM FOR CHANGING CLOTHING AND STORING EQUIPMENT (DESIGNATED AREA. ALL EQUIPMENT, TOOLS, TOOL CARTS, AND MATERIALS TRANSPORTED THROUGH OCCUPIED AREAS SHALL BE MADE FREE FROM DUST AND MOISTURE BY VACUUMING AND WET WIPING BEFORE THEIR REMOVAL FROM THE CONSTRUCTION ZONE OR WORK AREA.

6A. POST CONSTRUCTION: DO NOT REMOVE BARRIERS AND KEEP ALL HVAC ISOLATION UNTIL CONTRACTOR HAS CLEANED CONSTRUCTION SITE, VA EMS STAFF HAS DONE A TERMINAL CLEANING, AND VA INFECTIOUS DISEASE CONTROL HAS INSPECTED AND APPROVED THE CLEANING.

POLICY LETTER EC-51

7. REFER TO SPEC SECTION 01 01 10 FOR EC-51 SAFETY AND HEALTH POLICY AND PROCEDURES DURING CONSTRUCTION ACTIVITIES.

8. CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH ALL ICRA REQUIREMENTS INCLUDING THE SUBMITTAL OF ICRA PERMITS AND/OR FORMS TO THE COR PRIOR TO THE COMMENCEMENT OF ANY WORK.

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, N.C.

RENEE M. CLARK LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ICRA INFORMATION AND DETAILS

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Approved

Date: OCTOBER 13, 2023 | Checked: RMC | Drawn: ANP

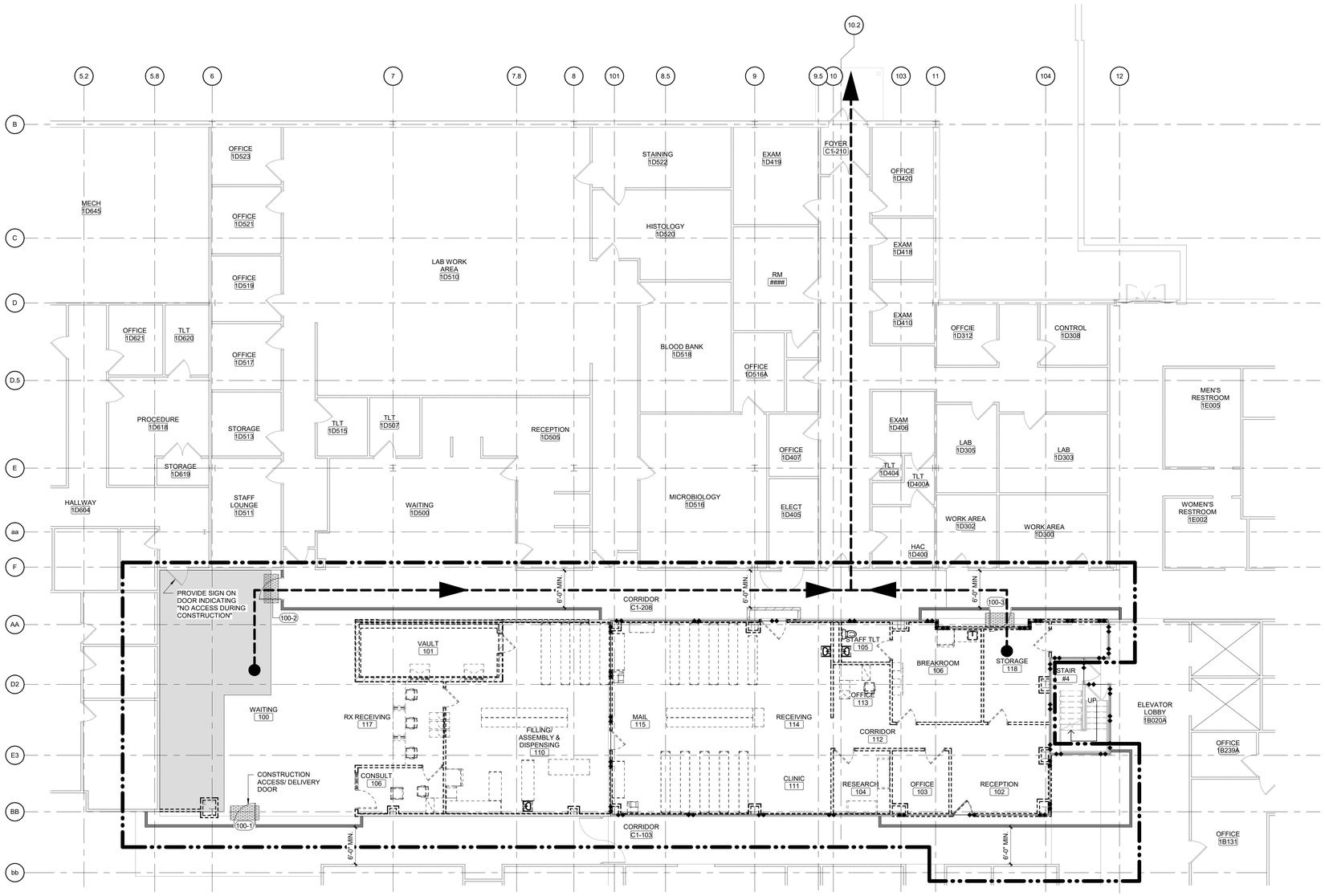
Drawing Number G-004

Dwg 4 of 7

10/11/2023 11:11:27 AM C:\Users\apufien\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apufien!X7.rvt

VA FORM 08-6231

DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3



1 FIRST FLOOR INFECTION CONTROL PLAN

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

0 4 8 16

NORTH

SHEET NOTES:

A. SEE SHEET G-003 FOR ICRA DETAILS, NOTES AND INTERSTITIAL ICRA NOTES.

B. KEY NOTES AND DRAWINGS ARE INTENDED TO GRAPHICALLY REPRESENT GENERAL WORK AND DO NOT PORTRAY FULL SCOPE OF THE PROJECT IN ACCORDANCE WITH SPECIFICATION. SEE SPECIFICATIONS FOR DETAILED REQUIREMENTS.

C. REMOVE EXISTING CONSTRUCTION AS DESIGNATED HEREIN AND CLEAR AREA OF DEBRIS PRIOR TO PROCEEDING WITH NEW CONSTRUCTION.

D. EXISTING EQUIPMENT REMOVED SHALL BE PROPERLY DISPOSED OF OFF MEDICAL CENTER GROUNDS.

E. PATCH WALL OPENING SHALL MATCH THE INTEGRITY AND FINISH OF ADJACENT CONSTRUCTION UNLESS INDICATED OTHERWISE.

F. NOTIFY COR OF ANY DEMOLITION REQUIRED AND NOT INDICATED FOR INSTALLATION OF ELECTRICAL OR DATA ITEMS. AFTER SUCH DEMOLITION AND INSTALLATION, PATCH OR REPLACE MATERIALS AND FINISHES TO MATCH EXISTING. SEE DEMOLITION SPECIFICATION.

G. THE INFORMATION CONTAINED IN THESE DEMOLITION DOCUMENTS DEFINES GENERAL SCOPE ONLY AND DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF PROVIDING ALL DEMOLITION REQUIRED FOR THE COMPLETION OF THE PROJECT.

H. REFER TO THE ELECTRICAL DRAWINGS FOR FURTHER INFORMATION REGARDING DEMOLITION OF ELECTRICAL SYSTEMS.

I. BEFORE THE START OF WORK, IDENTIFY ANY REQUIRED DEMOLITION BEYOND THE IDENTIFIED PROJECT SCOPE WHETHER ABOVE, BELOW OR OUTSIDE PROJECT AREA. NOTIFY AND COORDINATE WITH THE COR, PROVIDE DEMOLITION OF THESE AREAS AND PATCH THE SAME AS A PART OF THE SCOPE OF THE PROJECT.

J. ALL DEMOLITION WORK SHALL BE PERFORMED WITH DUE CARE AND DILIGENCE IN ORDER TO PREVENT ARBITRARY DAMAGE OR INTERRUPTION OF SERVICE OR CONCEALED UTILITIES INTENDED TO REMAIN IN SERVICE. DISCOVERY OF UTILITIES OR CONDITIONS LOCATED DIFFERENTLY FROM THAT INDICATED OR THAT ARE NOT IDENTIFIED. SHALL BE REPORTED TO THE CONTRACTING OFFICER.

K. VERIFY CONSTRUCTION ROUTE WITH COR PRIOR TO CONSTRUCTION.

L. EXISTING 2 HOUR FIRE RATED WALLS TO BE REDUCED TO ONE HOUR FIRE RATED WALLS AT PHARMACY.

M. PLAN ALL UTILITY SHUT DOWNS AND DEMOLITION TO INCLUDE NEW VALVES AND ATTACHMENTS FOR NEW WORK AT THE RENOVATION SITE.

ICRA LEGEND

- EXISTING WALL TO REMAIN
- EXISTING DOOR TO REMAIN
- EXISTING WINDOW TO REMAIN
- DEMOLISH WALL
- TYPE "D" TEMPORARY WALL
- TYPE "B" TEMPORARY WALL
- TEMPORARY DOOR
- DEMOLISH DOOR
- DEMOLISH WINDOW
- AREA OF WORK
- STICKY MAT LOCATION
- CONSTRUCTION ACCESS ROUTE
- INITIAL PHASE

KEY PLAN

SCALE: NO SCALE

AREA OF WORK

WALL RATING LEGEND

- 1 HR - FIRE SEPARATION
- 2 HR - FIRE SEPARATION
- S S S S SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

RENEE M. CLARKE Renee Clarke LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR INFECTION CONTROL AND PHASING PLAN

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Approved

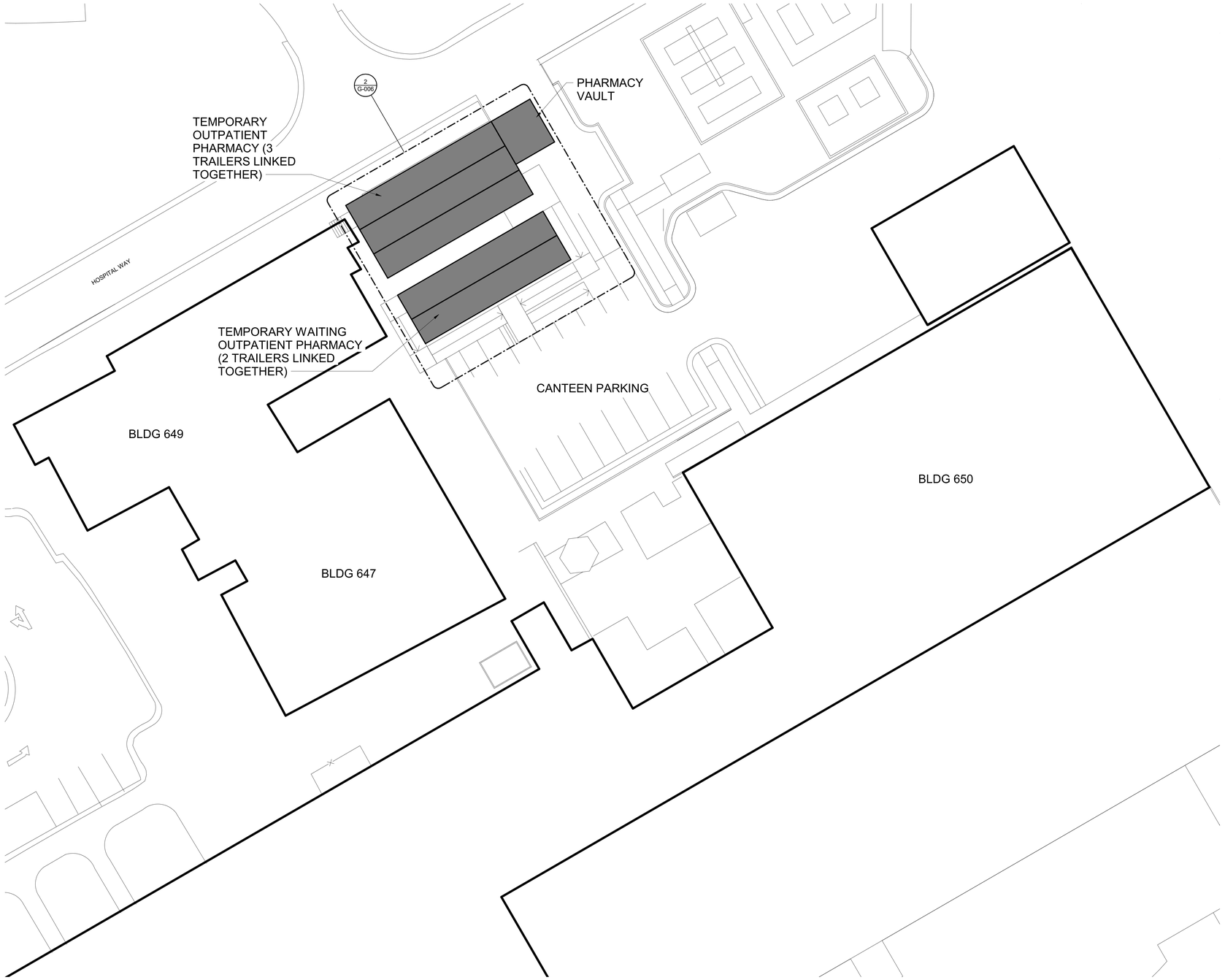
Date: OCTOBER 13, 2023 | Checked: RMC | Drawn: ANP

Drawing Number G-005

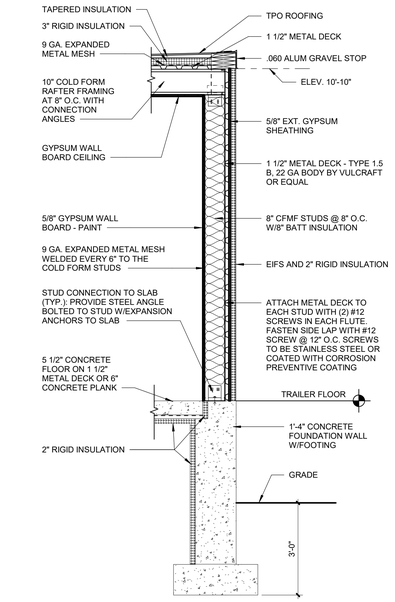
Dwg 5 of 7

10/11/2023 11:11:30 AM C:\Users\apoliem\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apoliem\0XT7.rvt

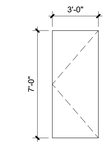
DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3



3 **SITE PLAN**
Scale: 1/16" = 1'-0"

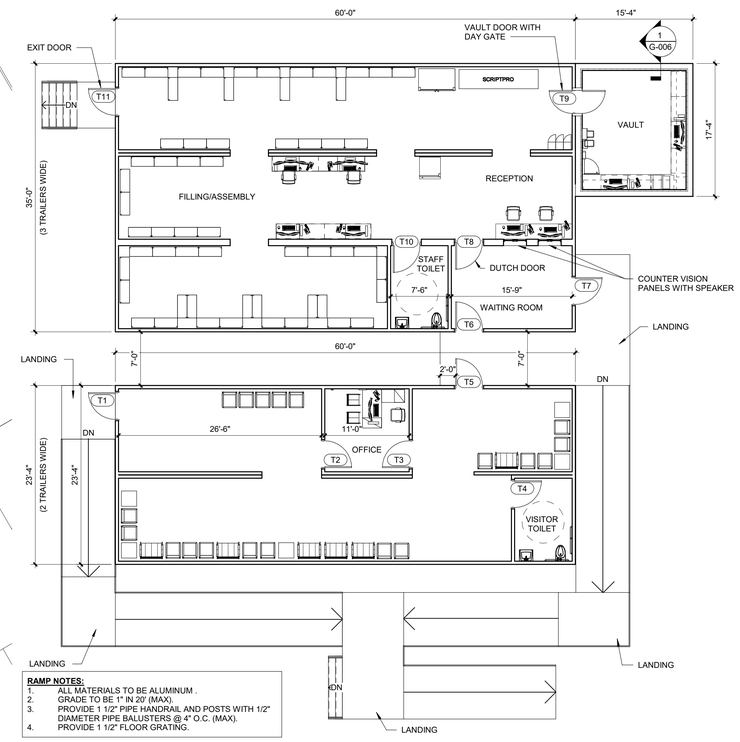


1 **TYPICAL SECTION AT VAULT**
Scale: 1/2" = 1'-0"



NOTES:
1. PROVIDE 16 GA. HM DOOR & FRAME AT EXTERIOR DOORS
2. PROVIDE SOLID CORE WOOD LAMINATE AT INTERIOR DOORS
3. SEE SPECIFICATIONS SECTION 015000 FOR REMAINDER OF DOOR REQUIREMENTS

DOOR ELEVATION



2 **TEMPORARY TRAILER FLOOR PLAN**
Scale: 1/8" = 1'-0"

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

RENEE M. CLARK LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511

www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: TRAILER LOCATION - SITE PLAN AND FLOOR PLAN

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved

Date: OCTOBER 13, 2023 | Checked: RMC | Drawn: ANP

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Drawing Number G-006

Dwg 6 of 7

10/11/2023 11:17:56 AM C:\Users\apuflen\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apuflen\DXT7.rvt

DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3

EGRESS PATH "A"		
PATH ID		189' - 0"

EGRESS PATH "B"		
PATH ID		221' - 6"

EGRESS PATH "C"		
PATH ID		284' - 4"

CODE INFORMATION

PROJECT NAME: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

PROJECT ADDRESS: MATHER VAMC
10535 HOSPITAL WAY
MATHER, CA 95655

OWNER OR AGENT: VA MATHER

PROPOSED USE: PHARMACY

OWNED BY: ☐ PRIVATE
■ FEDERAL GOVERNMENT
☐ CITY/COUNTY
☐ STATE

CODE ENFORCEMENT JURISDICTION: ☐ CITY
☐ COUNTY
■ VA

GENERAL CODE INFORMATION:
CONSTRUCTION TYPE:IIB
PRIMARY OCCUPANCY: BUSINESS
SECONDARY OCCUPANCY:N/A
■ RENOVATION (EXISTING BUILDING)
■ SPRINKLERED

SHEET NOTES:

A. EXISTING 2 HOUR FIRE SEPARATION TO BE REDUCED TO ONE HOUR FIRE SEPARATION AT PHARMACY.

B. ONE HOUR FIRE RATED WALL ENCLOSURE WITH 9 GAUGE EXPANDED METAL MESH REQUIRED AT PHARMACY ENCLOSURE AS PER VA PHYSICAL SECURITY MANUAL.

LIFE SAFETY LEGEND

EGRESS PATH

EXIT IDENTIFICATION — EXTERIOR EXIT DOOR CAPACITY XX" ### — EGRESS CAPACITY
EGRESS CLEAR WIDTH

HAZARDOUS LOCATION

FEB FIRE EXTINGUISHER BRACKET

FEC FIRE EXTINGUISHER CABINET

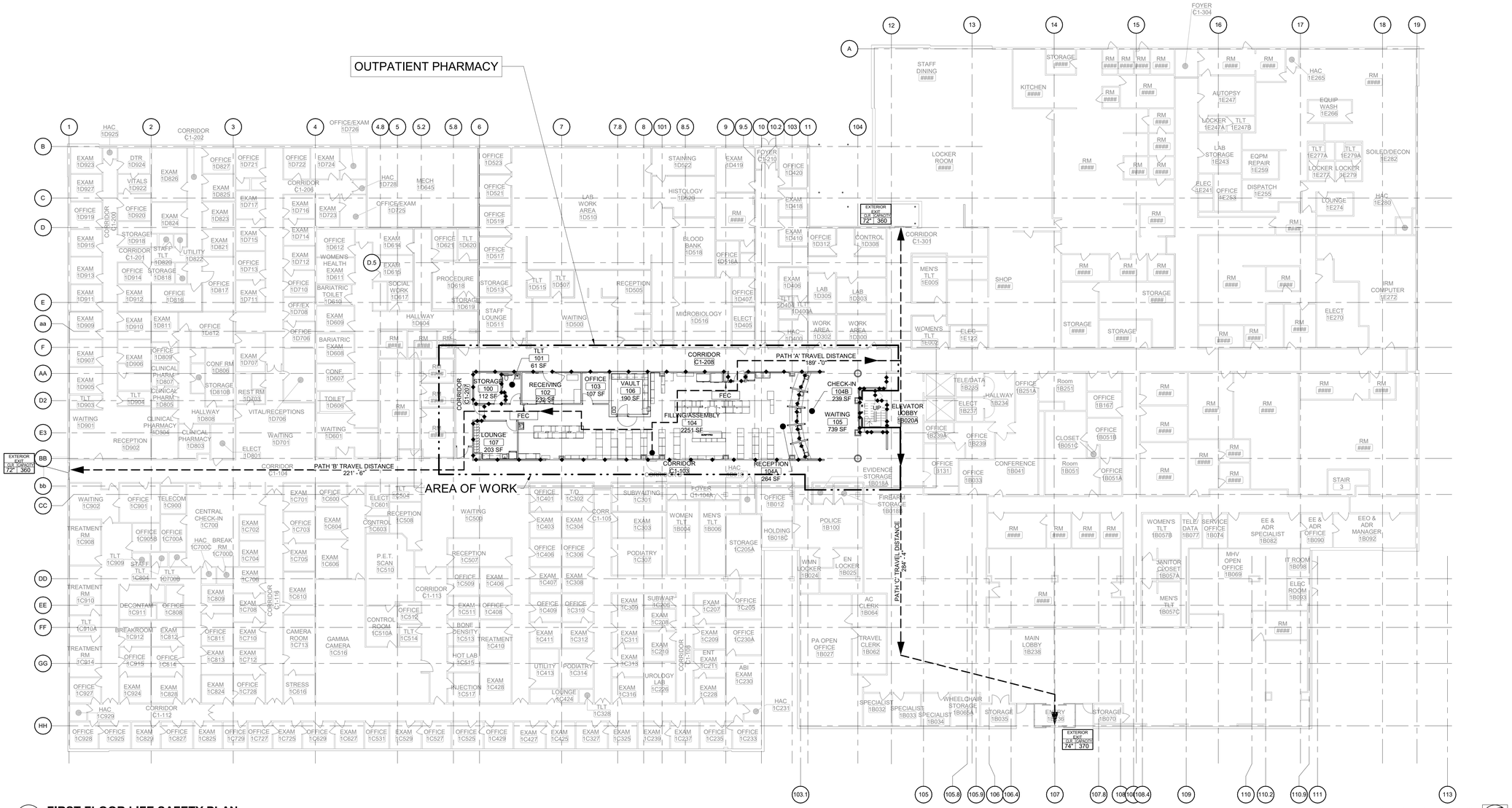
FBC FIRE BLANKET CABINET

(#) EMERGENCY RESPONSE REFERENCE

CA CONTROLLED ACCESS - ALWAYS UNLOCKED IN DIRECTION OF EGRESS

KB KNOX BOX

DE DELAYED EGRESS W/ ALARM


OUTPATIENT PHARMACY
AREA OF WORK
PATH 'A' TRAVEL DISTANCE 189' - 0"
PATH 'B' TRAVEL DISTANCE 221' - 6"
PATH 'C' TRAVEL DISTANCE 284' - 4"
EXTERIOR EXIT DOOR CAPACITY 72" 360
EXTERIOR EXIT DOOR CAPACITY 74" 370
CORRIDOR C1-202
CORRIDOR C1-301
CORRIDOR C1-208
CORRIDOR C1-105
CORRIDOR C1-112
CORRIDOR C1-113
CORRIDOR C1-109
CORRIDOR C1-200
CORRIDOR C1-206
CORRIDOR C1-201
CORRIDOR C1-209
CORRIDOR C1-119
CORRIDOR C1-103
FOYER C1-304
FOYER C1-210
FOYER C1-104A
FOYER C1-104B
STAFF DINING ####
KITCHEN ####
LOCKER ROOM ####
LAB WORK AREA 1D510
SHOP ####
STAIRWELL 1D500
WAITING 1D500
RECEPTION 1D505
MICROBIOLOGY 1D516
HALLWAY 1D804
HALLWAY 1D808
HALLWAY 1D234
HALLWAY 1D701
HALLWAY 1D904
HALLWAY 1D903
HALLWAY 1D905
HALLWAY 1D907
HALLWAY 1D906
HALLWAY 1D910
HALLWAY 1D911
HALLWAY 1D913
HALLWAY 1D915
HALLWAY 1D914
HALLWAY 1D912
HALLWAY 1D909
HALLWAY 1D901
HALLWAY 1D902
HALLWAY 1D803
HALLWAY 1D801
HALLWAY 1D804
HALLWAY 1D808
HALLWAY 1D803
HALLWAY 1D801
HALLWAY 1D804

GENERAL STRUCTURAL NOTES

CODE AND DESIGN CRITERIA

1. BUILDING CODE: LATEST EDITION OF U.S. DEPARTMENT OF VETERANS AFFARIS DESIGN GUIDES, STANDARDS, AND MANUALS. 2018 INTERNATIONAL BUILDING CODE (IBC)
2. DESIGN LIVE LOADS:
   A. ROOF LL: 20 PSF
3. WIND DESIGN DATA:
   A. BASIC WIND SPEED: 104 MPH (ULTIMATE)
   B. EXPOSURE: C
   C. INTERNAL PRESSURE COEFFICIENT: ±0.18
4. SEISMIC DESIGN DATA
   A. BUILDING RISK CATEGORY: IV
   B. IMPORTANCE FACTOR: 1.5
   C. S_S: 0.460g
   D. S_1: 0.225g
   E. SITE CLASS: C
   F. S_{DS}: 0.439g
   G. S_{D1}: 0.293g
   H. SEISMIC DESIGN CATEGORY: D
   I. SFRS:
      a. SPECIAL REINFORCED MASONRY SHEAR WALLS
      b. RESPONSE MODIFICATION FACTOR (R): 5
      c. SEISMIC RESPONSE COEFFICIENT (C_S): 0.132

GENERAL

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. NOTIFY COR OF ANY DISCREPANCIES
2. DO NOT SCALE THE DRAWINGS.
3. GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS APPLY UNLESS NOTED OTHERWISE ON PLANS, ELEVATIONS, DETAILS AND SPECIFICATIONS. IN CASE OF CONFLICT THE GREATER REQUIREMENT GOVERNS.
4. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION.
5. THE STRUCTURAL ENGINEER SHALL NOT HAVE CONTROL OR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OF OMISSIONS OF THE CONTRACTOR, SUB-CONTRACTORS OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
6. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO BRACING AND SHORING FOR LOADS DUE TO HYDROSTATIC, EARTH, WIND OR SEISMIC FORCES, CONSTRUCTION EQUIPMENT, ETC. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
7. NOTIFY THE STRUCTURAL ENGINEER THROUGH THE COR WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN THE STRUCTURAL MEMBER.
8. ALL SPECIFICATIONS AND CODES NOTED SHALL BE THE LATEST APPROVED EDITIONS AND REVISIONS BY THE GOVERNMENTAL AGENCY HAVING JURISDICTION OVER THIS PROJECT.
9. COST OF ADDITIONAL FIELD AND OFFICE WORK NECESSITATED BY REQUESTS BY THE CONTRACTOR FOR AN OPTION OR DUE TO ERRORS OR OMISSIONS IN CONSTRUCTION SHALL BE BORNE BY THE CONTRACTOR. OPTIONS ARE FOR CONTRACTOR'S CONVENIENCE. HE SHALL BE RESPONSIBLE FOR ALL CHANGES NECESSARY IF HE CHOOSES AN OPTION AND SHALL COORDINATE ALL DETAILS.
10. ANY ENGINEERING DESIGN PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW SHALL BEAR THE SEAL OF AN ENGINEER REGISTERED IN CALIFORNIA.
11. UNLESS NOTED OTHERWISE, DETAILS ON STRUCTURAL DRAWINGS ARE TYPICAL AS INDICATED BY CUTS, REFERENCES OR TITLE.
12. CONTRACTOR SHALL VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
13. FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO THE START OF SHOP DRAWINGS OR CONSTRUCTION.
14. EXISTING CONDITIONS REQUIRING MODIFICATIONS TO DOCUMENTS FOR PROPOSED CONSTRUCTION SHALL BE IMMEDIATELY SUBMITTED TO THE COR.

FOUNDATION

1. FOUNDATION:
   A. FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL REPORT #3746.04 PREPARED BY WALLACE KUHL ASSOC. DATED 06/09/1999
   B. FOOTING SHALL BEAR ON FIRM UNDISTURBED SOIL AT 12" MIN BELOW FINISH GRADE OR NATURAL GRADE, WHICHEVER IS LOWER. ALLOWABLE BEARING = DL 1500 PSF, DL + LL 2300 PSF, DL + LL + SEISMIC.
2. SEE PLAN FOR TOP OF FOOTING ELEVATIONS. CONTRACTOR SHALL VERIFY AND LOWER FOOTINGS AS REQUIRED TO MAINTAIN 1' - 6" MINIMUM BELOW FINISH GRADE OR FINISH FLOOR (THE LOWER) AT FOOTINGS.
3. CONTRACTOR SHALL PROVIDE FOR PROPER DEWATERING OF EXCAVATIONS FROM SURFACE WATER, GROUND WATER, SEEPAGE, ETC.
4. CONTRACTOR SHALL PROVIDE FOR THE DESIGN AND INSTALLATION OF ALL CRIBBING, SHEATHING AND SHORING REQUIRED TO SAFELY AND ADEQUATELY RETAIN THE EARTH BANKS AND ANY EXISTING STRUCTURE.
5. ALL EARTHWORK, FOOTING DEPTHS, AND EXCAVATIONS FOR FOUNDATIONS SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER TO VERIFY ASSUMED ALLOWABLE SOIL BEARING PRESSURE AND TO MAKE ANY ADDITIONAL RECOMMENDATIONS.
6. EXCAVATIONS FOR FOOTINGS SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING THE REINFORCING AND CONCRETE. THE CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER WHEN THE EXCAVATIONS ARE READY FOR INSPECTION. THE GEOTECHNICAL ENGINEER SHALL SUBMIT A LETTER OF COMPLIANCE TO THE COR.
7. ALL EXCAVATIONS SHALL BE PROPERLY BACKFILLED. DO NOT PLACE BACKFILL BEHIND RETAINING WALLS BEFORE CONCRETE OR MASONRY HAS ATTAINED FULL DESIGN STRENGTH. CONTRACTOR SHALL BRACE OR PROTECT ALL BUILDING AND PIT WALLS BELOW GRADE FROM LATERAL LOADS UNTIL ATTACHING FLOORS ARE COMPLETELY IN PLACE AND HAVE ATTAINED FULL DESIGN STRENGTH. CONTRACTOR SHALL PROVIDE FOR DESIGN, PERMITS AND INSTALLATION OF SUCH BRACING AND PROTECTION.
8. FOOTING BACKFILL AND UTILITY TRENCH BACKFILL WITHIN THE BUILDING PERIMETER SHALL BE MECHANICALLY COMPACTED IN LAYERS, TO THE APPROVAL OF THE GEOTECHNICAL ENGINEER. FLOODING WILL NOT BE PERMITTED.
9. ALL ABANDONED FOOTINGS, UTILITIES, ETC., THAT INTERFERE WITH THE NEW CONSTRUCTION SHALL BE REMOVED

REINFORCING STEEL

1. ALL REINFORCING STEEL SHALL BE DETAILED AND PLACED IN CONFORMANCE WITH THE 'BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE' (ACI 318) AND THE 'MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION' BY CRSI AND WCRSI, AS MODIFIED BY THE PROJECT DRAWINGS AND SPECIFICATIONS.
2. DEFORMED REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60.
3. WELDING OF REINFORCING SHALL BE WITH LOW HYDROGEN ELECTRODES IN CONFORMANCE WITH 'RECOMMENDED PRACTICES FOR WELDING REINFORCING STEEL, ETC.', AMERICAN WELDING SOCIETY, AWS D1.4. WELDING OF REINFORCING STEEL IS LIMITED TO A706 REBAR.
4. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
5. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A1064.
6. MINIMUM LAP OF WELDED WIRE FABRIC SHALL BE 6 INCHES OR ONE FULL MESH AND ONE HALF, WHICH EVER IS GREATER.
7. SPLICES SHALL BE MADE ONLY AS AND WHERE INDICATED ON THE STRUCTURAL DRAWINGS.
8. DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL BE THE SAME GRADE, SIZE, SPACING AND NUMBER AS THE SPECIFIED VERTICAL REINFORCING, U.N.O.
9. ALL BARS SHALL BE MARKED SO THEIR IDENTIFICATION CAN BE MADE WHEN THE FINAL IN-PLACE INSPECTION OCCURS.
10. PROVIDE SHOP DRAWINGS AND FABRICATE AFTER THE COR'S REVIEW. ALL SPLICE LOCATIONS ARE SUBJECT TO APPROVAL. PLACE REBAR PER CRSI STANDARDS.

CONCRETE

1. ALL PHASES OF WORK PERTAINING TO THE CONCRETE CONSTRUCTION SHALL CONFORM TO THE 'BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE', ACI 318, AND THE 'SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS', ACI 301, LATEST EDITIONS, WITH MODIFICATIONS AS NOTED ON THE DESIGN DRAWINGS OR SPECIFICATIONS.
2. REINFORCED CONCRETE DESIGN IS BY THE ULTIMATE STRENGTH DESIGN METHOD.
3. CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY AND SHALL BEAR THE SEAL OF A CIVIL ENGINEER LICENSED IN THE STATE OF CALIFORNIA.
4. SCHEDULE OF STRUCTURAL CONCRETE 28-DAY STRENGTHS AND TYPES:

LOCATION IN STRUCTURE	STRENGTH (PSI)	TYPE
CONCRETE SLAB	4000	HARD ROCK
ALL CONCRETE UNO	4000	HARD ROCK

5. PORTLAND CEMENT SLAL CONFORM TO ASTM C150, TYPE II.
6. AGGREGATE FOR HARD ROCK CONCRETE SHALL CONFORM TO ALL REQUIREMENTS AND TESTS OF ASTM C33 AND PROJECT SPECIFICATIONS. EXCEPTIONS MAY BE USED ONLY WITH PERMISSION OF THE STRUCTURAL ENGINEER THROUGH THE COR.
7. CONCRETE MIXING OPERATIONS, ETC., SHALL CONFORM TO ASTM C94.
8. PLACEMENT OF CONCRETE SHALL CONFORM TO ACI STANDARD 304 AND PROJECT SPECIFICATIONS. SANDBLAST ALL CONCRETE SURFACES AGAINST WHICH CONCRETE IS TO BE PLACED.
9. PLACING OF CONCRETE SHALL CONFORM TO ACI 305 "HOT WEATHER CONCRETING" AND ACI 306 "COLD WEATHER CONCRETE" WHEN APPLICABLE.
10. CLEAR COVERAGE OF CONCRETE OVER REINFORCING BARS BE AS FOLLOWS:
    A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
    B. CONCRETE EXPOSED TO EARTH OR WEATHER:
       1. NO. 6 THROUGH NO. 18 BAR: 2"
       2. NO. 5 BAR AND SMALLER: 1 1/2"
    C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND
       1. SLABS, WALLS, JOISTS:
          A. NO. 14 AND NO. 18 BAR: 1 1/2"
          B. NO. 11 BAR AND SMALLER: 3/4
       2. BEAMS, COLUMNS:
          1. PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS: 1 1/2"
    D. SLABS ON GRADE (FROM TOP): 1 1/2"
11. ALL REINFORCING BARS, ANCHOR BOLTS AND OTHER CONCRETE INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE.
12. MECHANICAL PIPES AND ELECTRICAL CONDUITS WHICH PASS THROUGH SLAB ON GRADE, CONCRETE ON STEEL DECK, FRAMED CONCRETE FLOORS AND WALLS DO NOT REQUIRE SLEEVES, UNLESS OTHERWISE INDICATED IN THE PROJECT SPECIFICATIONS, MECHANICAL OR ELECTRICAL DRAWINGS. IF SLEEVES ARE REQUIRED, INSTALL SLEEVES BEFORE PLACING CONCRETE. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT. CORING OPENINGS IN CONCRETE IS NOT PERMITTED. NOTIFY THE STRUCTURAL ENGINEER THROUGH THE COR IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. NO PIPES OR ELECTRICAL CONDUIT SHALL PASS THROUGH CONCRETE BEAMS OR COLUMNS UNLESS SPECIFICALLY DETAILED.
13. PROJECTING CORNERS OF BEAMS, WALLS, COLUMNS, ETC., SHALL BE FORMED WITH A 3/4 IN. CHAMFER, UNLESS OTHERWISE NOTED ON ARCHITECTURAL DRAWINGS.
14. CURING COMPOUNDS USED ON CONCRETE THAT IS TO RECEIVE A RESILIENT TILE FINISH SHALL BE APPROVED BY THE FINISH APPLICATOR BEFORE USE.
15. MODULUS OF ELASTICITY OF CONCRETE, WHEN TESTED IN ACCORDANCE WITH ASTM C469, SHALL BE AT LEAST THE VALUE GIVEN BY THE EQUATIONS IN SECTION 8.5.1 OF ACI 318 FOR THE SPECIFIED CONCRETE 28-DAY STRENGTH.
16. MINIMUM STRENGTH FOR REMOVAL OF FORMS AND SHORING SHALL BE 75% OF SPECIFIED STRENGTH AT 28 DAYS.
17. ALL CONCRETE NOT SPECIFICALLY SHOWN WITH REINFORCEMENT SHALL BE REINFORCED IN THE SAME MANNER AS SIMILAR CONDITIONS OR WITH REINFORCEMENT MEETING THE MINIMUM REQUIREMENTS OF ACI-318.
18. CONCRETE SLAB SHALL BE WET MAT, MOIST CURED FOR A MINIMUM OF 7 DAYS.
19. CONCRETE MIXES MAY CONTAIN FLY ASH AS NOTED PER SPECIFICATIONS.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL BE DESIGNED, DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC 'SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS' AND 'CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES' (LATEST EDITION AND SUPPLEMENTS).
2. ALL WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992.
3. ALL CHANNELS, ANGLES, PLATES & BARS SHALL CONFORM TO ASTM A36. UNLESS NOTED OTHERWISE
4. ALL PIPE COLUMNS SHALL CONFORM TO ASTM A53 (TYPES E OR S), GRADE B OR ASTM A501.
5. ALL SQUARE OR RECTANGULAR TUBING SECTIONS SHALL CONFORM TO ASTM A500, GRADE C, OR ASTM A501 WITH Fyn 50 KSI.
6. ALL SIMPLE BEAM TO BEAM OR COLUMN CONNECTION PLATE MATERIAL, INCLUDING BEARING PLATES, GUSSET PLATES, STIFFENER PLATES, FILLER PLATES, ETC. SHALL CONFORM TO A36, UNLESS NOTED OTHERWISE.
7. ALL CONNECTION ANGLE MATERIAL SHALL CONFORM TO ASTM A36 UNLESS NOTED OTHERWISE.
8. CONNECTING OR SPLICING OF STRUCTURAL STEEL NOT SHOWN ON THE DRAWINGS IS PROHIBITED WITHOUT PRIOR WRITTEN APPROVAL OF THE COR/ ENGINEER-OF-RECORD.
9. THE STRUCTURAL STEEL FABRICATOR SHALL FURNISH SHOP DRAWINGS OF ALL STRUCTURAL STEEL, FOR COR'S REVIEW BEFORE FABRICATION. SHOP DRAWINGS SHALL SHOW THE ERECTION PROCEDURES AND DETAILS. THE ICC REPORT, INCLUDING VERTICAL LOAD AND DIAPHRAGM SHEAR CAPACITY SHALL BE FURNISHED.
10. BOLT HOLES IN STEEL SHALL BE 1/16 INCH LARGER THAN NOMINAL SIZE OF BOLT USED. HOLE SIZES FOR ASTM F1554 GRADE 36 ANCHOR BOLTS MAY BE MADE OVERSIZE TO FACILITATE ERECTION AS FOLLOWS:
    A. BOLTS 3/4 TO 1 INCH: 5/16" LARGER THAN NORMAL SIZE OF BOLT.
    B. BOLTS 1 TO 2 INCH: 1/2" LARGER THAN NORMAL SIZE OF BOLT
    C. BOLTS OVER 2 INCHES: 1" LARGER THAN NORMAL SIZE OF BOLT.
11. SEE SPECIFICATIONS FOR FINISH/PAINTING REQUIREMENTS FOR STRUCTURAL STEEL SURFACES. VERIFY WITH ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
12. WELDED JOINTS SHALL CONFORM TO THE PREQUALIFIED JOINT DETAILS AS INDICATED IN THE STRUCTURAL WELDING CODE (AWS D1.1) BY THE AMERICAN WELDING SOCIETY.
13. ALL WELDING SHALL BE BY WELDERS HOLDING CURRENT VALID CERTIFICATES AND HAVING CURRENT EXPERIENCE IN TYPE OF WELD CALLED FOR. WELDING RODS TO BE LOW HYDROGEN TYPE, E70.
14. ALL GROOVE WELDS TO BE FULL PENETRATION UNLESS NOTED. FULL PENETRATION WELDS AND ALL BUTT WELDED SPLICES OR CONNECTIONS SHALL BE ULTRASONICALLY TESTED AND INSPECTED BY AN INDEPENDENT TESTING LABORATORY TO CERTIFY ALL SPLICES AS MEETING OR EXCEEDING STRENGTH OF MATERIALS SPLICED. REDUCTION IN TESTING MAY BE MADE IN ACCORDANCE WITH THE BUILDING CODE WITH APPROVAL OF THE ENGINEER. TWO COPIES OF ALL TEST REPORTS AND A LETTER OF SUCH CERTIFICATION SHALL BE SUBMITTED TO THE COR.
15. WELDS MAY BE MADE IN SHOP OR FIELD WITH APPROVAL.
16. WELD LENGTHS CALLED FOR ON PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. WELD SIZE SHALL BE AISC MINIMUM PER AISC SECTION J2.1b AND 2.2b UNLESS A LARGER SIZE IS NOTED.
17. WELD TEST AND INSPECTIONS, SEE SPECIFICATIONS.
18. EXCEPT AS SUBSEQUENTLY NOTED, HIGH STRENGTH BOLTS NEED NOT BE TIGHTENED BEYOND THE SNUG-TIGHT CONDITION, AS DEFINED IN SECTION 8 (c) OF THE SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM F1325 GRADE A325 OR GRADEA490 BOLTS. FOR CONNECTIONS SUBJECT TO DIRECT TENSION, CONNECTIONS FOR BRACED FRAMES, AND OTHER CONNECTIONS SHOWN OR NOTED ON THE PLANS AS SC (SLIP CRITICAL) OR FULLY TENSIONED, BOLTS SHALL BE TIGHTENED BY ONE OF THE METHODS DESCRIBED IN SECTION 8.(d) AND TO THE MINIMUM TENSION SPECIFIED IN SECTION 8.(d), TABLE 4.
19. SEE MECHANICAL DRAWINGS FOR MECHANICAL EQUIPMENT SUPPORT FRAMING.

MASONRY

1. THE MASONRY UNITS SHALL CONFORM TO ASTM C90 GRADE N-1 AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28-DAYS ON THE NET AREA OF 2000 PSI FOR A DESIGN STRENGTH OF f'm = 1500 PSI.
2. CEMENT SHALL BE AS SPECIFIED FOR CONCRETE.
3. REINFORCING BARS - SEE NOTES UNDER 'REINFORCING STEEL' FOR REQUIREMENTS. ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE.
4. MORTAR MIX FOR MASONRY CONSTRUCTION SHALL CONFORM TO REQUIREMENTS FOR ASTM 270 AND ARTICLES 2.1 AND 2.6A OF TMS 602, TYPE S, AND PROJECT SPECIFICATIONS. MORTAR SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 1800 PSI AT 28 DAYS.
5. GROUT SHALL CONFORM TO REQUIREMENTS OF SECTION 2103 OF IBC FOR COARSE GROUT. USE SUFFICIENT WATER FOR GROUT TO FLOW INTO ALL JOINTS OF THE MASONRY WITHOUT SEGREGATION. GROUT SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS. FLY ASH WILL NOT BE PERMITTED IN GROUT.
6. GROUT AND MORTAR MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY AND SHALL BEAR THE WET SEAL OF A CIVIL ENGINEER LICENSED IN THE STATE OF WYOMING AND SHALL BE SUBMITTED FOR REVIEW. GROUT, MORTAR AND BLOCK STRENGTHS MAY HAVE TO BE INCREASED IN ORDER TO OBTAIN AN f'm = 1500 PSI.
7. PROVIDE A MINIMUM OF 1/2 INCH GROUT BETWEEN VERTICAL REINFORCING AND MASONRY UNITS.
8. FOR GROUT LIFT CONSTRUCTION REFER TO THE ACI 530-02 SECTION 1.15.1 AND ACI 530.1 SECTION 3.5.
9. ALL CELLS IN CONCRETE BLOCKS SHALL BE FILLED SOLID WITH GROUT, UNLESS NOTED OTHERWISE IN THE DRAWINGS OR SPECIFICATIONS.
10. MECHANICALLY VIBRATE GROUT IN VERTICAL SPACES IMMEDIATELY AFTER POURING.
11. CELLS SHALL BE IN VERTICAL ALIGNMENT. DOWELS IN FOOTINGS SHALL BE SET TO ALIGN WITH CORES CONTAINING REINFORCING STEEL.
12. REFER TO ARCHITECTURAL DRAWINGS FOR SURFACE AND HEIGHT OF UNITS, LAYING PATTERN AND JOINT TYPE.
13. ALL REINFORCING SHALL HAVE A MINIMUM LAP SPLICE LENGTH AS FOLLOWS:

LAP SPLICE LENGTH (INCHES)
8" CMU

a. (1) #4 IN CELL	20"
b. (2) #4 IN CELL	24"
c. (1) #5 IN CELL	25"
d. (2) #5 IN CELL	38"
e. (1) #6 IN CELL	44"

STAGGER ALL HORIZONTAL REBAR SPLICES

14. MECHANICAL PIPES AND ELECTRICAL CONDUITS WHICH PASS THROUGH MASONRY WALLS DO NOT REQUIRE SLEEVES, UNLESS OTHERWISE INDICATED IN THE PROJECT SPECIFICATIONS, MECHANICAL OR ELECTRICAL DRAWINGS. IF SLEEVES ARE REQUIRED, INSTALL SLEEVES BEFORE GROUTING. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT. CORING OPENINGS IN GROUTED MASONRY IS NOT PERMITTED. NOTIFY THE STRUCTURAL ENGINEER THROUGH THE COR IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. NO PIPES OR ELECTRICAL CONDUIT SHALL PASS THROUGH MASONRY LINTELS UNLESS SPECIFICALLY DETAILED.
15. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR EXPANSION AND CONTROL JOINTS. CONTRACTOR SHALL VERIFY AND PROVIDE ADDITIONAL CONTROL JOINTS WHERE SPACING SHOWN ON PLANS EXCEEDS 32 FEET UNLESS NOTED OTHERWISE ON PLANS AND ELEVATIONS. IF ADDITIONAL CONTROL JOINTS ARE REQUIRED OR LOCATIONS REQUIRE ADJUSTMENTS, CONTRACTOR SHALL COORDINATE AND OBTAIN COR'S AND STRUCTURAL ENGINEER'S APPROVAL PRIOR TO PLACING REBAR DOWELS FOR WALL.
16. REINFORCE WALLS PER PLANS AND DETAILS. PROVIDE CONTINUOUS HORIZONTAL BOND BEAMS AND REINFORCING AS FOLLOWS:
    A. AT BOTTOM OF WALLS, IN FIRST COURSE OF MASONRY, PROVIDE (1) #4 IN 8" DEEP GROUTED BOND BEAM.
    B. AT TOP OF WALLS, STOP BELOW AND ARE ANCHORED TO ROOFS OR FLOORS, PROVIDE (2) #5 IN 8" DEEP GROUTED BOND BEAM. AT TOP OF PARAPETS, PROVIDE (2) #4 IN 8" DEEP GROUTED BOND BEAM.
    C. PROVIDE ADDITIONAL HORIZONTAL REINFORCING WHERE SHOWN ON PLANS AND DETAILS.

ABBREVIATIONS

AB	Anchor Bolt
ADD	Addition
AGGR	Aggregate
A/C	Air Condition
ALT	Alternate
AL	Aluminum
ACI	American Concrete Institute
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ASTM	American Society for Testing and Materials
ANSI	American National Standards Institute
AWS	American Welding Society
&	And
L	Angle
APPROX	Approximate
ARCH	Architect or Architectural
ASPH	Asphalt
ASSY	Assembly
AVG	Average
B PL	Base Plate
BRG	Bearing
M	Bending Moment
BOT	Bottom
BLDG	Building
B/D	Bottom of Deck
CC	Carried Column
CIP	Cast In Place
CG	Center of Gravity
CLG	Ceiling
CEN	Center
C/C	Center to Center
C	Channel
CLR	Clear
COL	Column
CJ	Control Joint
CONC	Concrete
CONN	Connection
CONST	Construction
CONT	Continuous
CMP	Corrugated Metal Pipe
CMU	Concrete Masonry Units
CF	Cubic Foot
CY	Cubic Yard
DBL	Double
DET	Detail
DIAG	Diagonal
DIA	Diameter
DIM	Dimensions
DO	Ditto
2L	Double Angle
DF	Douglas Fir
DWG	Drawing

EA	Each
EF	Each face
EW	Each way
ELECT	Electric or Electrical
E	East
ELEV	Elevation
ENGR	Engineer
EQ	Equal
EQUIP	Equipment
EST	Estimate
ETC	Etcetera
EXCAV	Excavate
EXIST	Existing
EJ	Expansion Joint
EXT	Exterior
X-HVY	Extra Heavy
X-STR	Extra Strong
FAB	Fabrication
FF	Far Face
FS	Far Side
FT or '	Feet or Foot
FBM	Feet Board Measure
FIG	Figure
FIN	Finish
FLR	Floor
FD	Floor Drain
FTG	Footing
FND	Foundation
FRMG	Framing
GA	Gage or Gauge
GALV	Galvanize
GI	Galvanized Iron
GEN	General (Notes)
GLB	Glu lam Beam
GR	Grade
GRND	Ground
GSN	General Structural Notes
HGT	Height
HEX	Hexagon
HORIZ	Horizontal
S	I Beam
IN or "	Inches
INCL	Include or Included
ID	Inside Diameter
JST	Joist
JT	Joint
K	Kip (1,000 lbs)
KO	Knockout

LAM	Laminated
LGTH	Length
LT	Light
LG	Long
LONGIT	Longitudinal
LHE	Low Hydrogen Electrode
LLBB	Long Leg Back To Back
LLH	Long Leg Horizontal
LLV	Long Leg Vertical
MB	Machine Bolt
MFR	Manufacturer
MK	Mark
MAX	Maximum
MET	Metal
MATL	Material
MAX	Maximum
MECH	Mechanical
MED	Medium
MEZZ	Mezzanine
MIN	Minimum
MIN	Minute
MISC	Miscellaneous
MIX	Mixture
MULT	Multiple
NF	Near Face
NS	Near Side
NOM	Nominal
N	North
NTS	Not to Scale
#	Number
OC	On Center
OPNG	Opening
OPP	Opposite
ORIG	Original
OD	Outside Diameter
d	Penny (Nails, etc)
PERM	Permanent
PERP	Perpendicular
PC	Piece, Pile Cap
PL	Plate
PLYWD	Plywood
PT	Point
LB	Pound
PCF	Pounds Per Cubic Foot
PSF	Pounds Per Square Foot
PSI	Pounds Per Square Inch
PROJ	Project

QTR	Quarter
RAD	Radius
REF	Reference
REINF	Reinforce, Reinforced, Reinforcement, or Reinforcing
REQD	Required
REV	Revise or Revision
RD	Round
SCHED	Schedule
SECT	Section
SHT	Sheet
SIM	Similar
S	South
SPECS	Specifications
SQ	Square
STD	Standard
STL	Steel
STK	Stock
STRUCT	Structural
SYM	Symmetrical
SF	Strut Force
TAN	Tangent
THK	Thick
THRU	Through
TOL	Tolerance
T & G	Tongue & Groove
T & B	Top and Bottom
T/C	Top of Concrete
T/F	Top of Footing or Top of Foundation
T/W	Top of Concrete Wall
T/M	Top of Masonry
T/S	Top of Steel
TOT	Total
TRANS	Transverse
TYP	Typical
UN	Unless Noted
UNO	Unless Noted Otherwise
VIF	Verify in the Field
VERT	Vertical
WWF	Welded Wire Fabric
W	West
W	Wide Flange
W/	With
W/O	Without
WP	Work Point
YD	Yard

SYMBOL LEGEND

LEGEND:

	SLOPE DIRECTION DOWN
	SPAN DIRECTION
(00'-0")	STEEL ELEVATION
00'-0"	MISCELLANEOUS ELEVATION
00'-0"	FLOOR OR STEEL ELEVATION
[00]	REQUIRED NUMBER OF HEADED SHEAR STUDS
	RIGID CONNECTION
C=0"	CAMBER UP

GSN = GENERAL STRUCTURAL NOTES

UNO = UNLESS NOTED OTHERWISE

	INDICATES TUBE COLUMN
	INDICATES WIDE FLANGE COLUMN
	INDICATES STD PIPE COLUMN
	INDICATES BEAM SPLICE
F1	INDICATES FOOTING SIZE. SEE SCHEDULE.

SYMBOLS AND ABBREVIATIONS FOR CONCRETE (as per ACI)

#	To Indicate Size of Deformed Bar.
◊	Plain Rounds, as Spirals
@ AT	Spacing Center to Center
	Direction in Which Bars Extend
	Limits of Area Covered By Bars

BT	Bent
BOT	Bottom
CL	Clear
CT	Column Tie
EF	Each Face
EW	Each Way
FF	Far Face
IF	Inside Face
NF	Near Face
OF	Outside Face
PL	Plain Bar
STIR	Stirrup
SP	Spiral
STR	Straight
T	Top

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

Calibre

Calibre Engineering, Inc.
9090 South Ridgeline Boulevard, Suite 105
Highlands Ranch, CO 80129 (303) 730-0434
www.calibre-engineering.com
Construction Management Civil Engineering Surveying

REGISTERED PROFESSIONAL ENGINEER GREGORY M. GORDON 5649 10/9/23 STRUCTURAL STATE OF CALIFORNIA

EXP: 09/30/24

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511

www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL STRUCTURAL NOTES

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Approved

Date: OCTOBER 13, 2023 | Checked: GMG | Drawn: MBT

Drawing Number: S-001

Dwg 1 of 6

C:\Users\benjamin\Documents\Mather_VAMC_Pharmacy Vault_STRUCT_benjamincGOUND.rvt

10/9/2023 3:30:47 PM

VA FORM 08-6231

QUALITY ASSURANCE PLAN AND STATEMENT OF SPECIAL INSPECTION

1. SPECIAL INSPECTION. PER THE 2018 INTERNATIONAL BUILDING CODE CHAPTER 17. SECTION 1704 AND 1705. SEE PROJECT SPECIFICATIONS AND STATEMENT OF SPECIAL INSPECTIONS BELOW FOR SPECIFIED REQUIREMENTS.

2. STATEMENT OF SPECIAL INSPECTIONS
THIS STATEMENT OF SPECIAL INSPECTIONS IS IN ACCORDANCE WITH SECTIONS 1704.3 OF THE IBC 2018 CODE. THE INTENT OF THIS SECTION IS THAT ALL SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISIONS OF CHAPTER 17 OF THE 2018 IBC UNLESS SPECIFICALLY NOTED OTHERWISE.
SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING:

a. STEEL CONSTRUCTION (IBC 1705.2, AISC 360-16)
   i. WELDING:
   ii. HIGH STRENGTH BOLTS:

b. CONCRETE CONSTRUCTION (IBC 1705.3, ACI 318)

c. SOILS (IBC 1705.6)

d. ANCHORAGE OF PLUMBING, MECHANICAL, AND ELECTRICAL EQUIPMENT (IBC 1705.12.6)
   i. PERIODIC PER IBC 1705.12.6

e. VERIFY THAT THE COMPONENT LABEL, ANCHORAGE, AND MOUNTING CONFORMS TO THE CERTIFICATE OF COMPLIANCE FOR ELEMENTS OF THE DESIGNATED SEISMIC SYSTEMS REQUIRING SEISMIC QUALIFICATION (IBC 1705.12.4)
   i. PERIODIC PER IBC 1705.12.4

3. THE SPECIAL INSPECTOR (SI) SHALL BE RETAINED BY THE CONTRACTOR AND APPROVED BY THE CONTRACTING OFFICER AS HAVING THE COMPETENCE NECESSARY TO INSPECT A PARTICULAR TYPE OF CONSTRUCTION REQUIRING SPECIAL INSPECTIONS. THE SI MUST BE AN INDEPENDENT THIRD PARTY HIRED DIRECTLY BY THE PRIME CONTRACTOR.

4. ITEMS SPECIFIED AS QUALITY CONTROL (QC) IN THE FOLLOWING TABLES SHALL BE PROVIDED BY THE CONTRACTOR'S FABRICATOR AND ERECTOR AS REQUIRED PER AISC 360.

5. ITEMS NOTED AS QUALITY ASSURANCE (QA) SHALL BE PROVIDED BY THE CONTRACTOR'S SPECIAL INSPECTOR

REQUIRED SPECIAL INSPECTIONS AND TESTS OF STRUCTURAL STEEL - REFERENCE 2018 IBC 1705.2
INSPECTION TASKS PRIOR TO WELDING - REFERENCE AISC 360-16 SPECIFICATION, TABLE N5.4-1

INSPECTION TASKS PRIOR TO WELDING	QC	QA
Welder qualification records and continuity records	P	O
WPS available	P	P
Manufacturer certifications for welding consumables available	P	P
Material identification (type/grade)	O	O
Welder identification system	O	O
Fit-up of groove welds (including joint geometry) • Joint preparation • Dimensions (alignment, root opening, root face, bevel) • Cleanliness (condition of steel surfaces) • Tacking (tack weld quality and location) • Backing type and fit (if applicable)	O	O
Fit-up of CJP groove welds of HSS T-, Y-, and K-joints without backing (including joint geometry) • Joint preparation • Dimensions (alignment, root opening, root face, bevel) • Cleanliness (condition of steel surfaces) • Tacking (tack weld quality and location)	P	O
Configuration and finish of access holes	O	O
Fit-up of fillet welds • Dimensions (alignment, gaps at root) • Cleanliness (condition of steel surfaces) • Tacking (tack weld quality and location)	O	O
Check welding equipment	O	-

O – Observe these items on a random basis. Operations need not be delayed pending these inspections.
P – Perform these tasks for each welded joint or member.

REQUIRED SPECIAL INSPECTIONS AND TESTS OF STRUCTURAL STEEL - REFERENCE 2018 IBC 1705.2
INSPECTION TASKS DURING WELDING - REFERENCE AISC 360-16 SPECIFICATION, TABLE N5.4-2

INSPECTION TASKS DURING WELDING	QC	QA
Control and handling of welding consumables • Packaging • Exposure control	O	O
No welding over cracked tack welds	O	O
Environmental conditions • Wind speed within limits • Precipitation and temperature	O	O
WPS followed • Settings on welding equipment • Travel speed • Selected welding materials • Shielding gas type/flow rate • Preheat applied • Interpass temperature maintained (min./max.) • Proper position (F, V, H, OH)	O	O
Welding techniques • Interpass and final cleanin • Each pass within profile limitations • Each pass meets quality requirements	O	O
Placement and installation of steel headed stud anchors	P	P

O- Observe these items on a random basis. Operations need not be delayed pending these inspections.
P – Perform these tasks for each welded joint or member.

REQUIRED SPECIAL INSPECTIONS AND TESTS OF STRUCTURAL STEEL - REFERENCE 2018 IBC 1705.2
INSPECTION TASKS AFTER WELDING - REFRENCE AISC 360-16 SPECIFICATION, TABLE N5.4-3

INSPECTION TASKS AFTER WELDING	QC	QA
Welds cleaned	O	O
Size, length and location of welds	P	P
Welds meet visual acceptance criteria • Crack prohibition • Weld/base-metal fusion • Crater cross section • Weld profiles • Weld size • Undercut • Porosity	P	P
Arc strikes	P	P
k-area	P	P
Weld access holes in rolled heavy shapes and built up heavy shapes	P	P
Backing removed and weld tabs removed (if required)	P	P
Repair activities	P	P
Document acceptance or rejection of welded joint or member	P	P
No prohibited welds have been added without the approval or EOR	O	O

O – Observe these items on a random basis. Operations need not be delayed pending these inspections.
P – Perform these tasks for each welded joint or member.

REQUIRED SPECIAL INSPECTIONS AND TESTS OF STRUCTURAL STEEL - REFERENCE 2018 IBC 1705.2
INSPECTION TASKS PRIOR TO BOLTING - REFERENCE AISC 360-16 SPECIFICATION, TABLE N5.6-1

INSPECTION TASKS PRIOR TO BOLTING	QC	QA
Manufacturer's certificates available for fastener materials	O	P
Fasteners marked in accordance with ASTM requirements	O	P
Correct fasteners selected for the joint detail (grade, type, bolt length if threads are to be excluded from shear plane)	O	O
Correct bolting procedure selected for joint detail	O	O
Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements	O	O
Pre-installation verification testing by installation personnel observed and documented for fastener assemblies and methods used	P	O
Proper storage provided for bolts, nuts, washers and other fastener comp	O	O

O – Observe these items on a random basis. Operations need not be delayed pending these inspections.
P – Perform these tasks for each bolted connection.

REQUIRED SPECIAL INSPECTIONS AND TESTS OF STRUCTURAL STEEL - REFERENCE 2018 IBC 1705.2
INSPECTION TASKS DURING BOLTING - REFERENCE AISC 360-16 SPECIFICATION, TABLE N5.6-2

INSPECTION TASKS DURING BOLTING	QC	QA
Fastener assemblies placed in all holes and washers and nuts are positioned as required	O	O
Joint brought to the snug-tight condition prior to the pretensioning operation	O	O
Fastener component not turned by the wrench prevented from rotating	O	O
Fasteners are pretensioned in accordance with the RCSC Specification, progressing systematically from the most rigid point toward the free edges	O	O

O- Observe these items on a random basis. Operations need not be delayed pending these inspections.
P – Perform these tasks for each bolted connection.

REQUIRED SPECIAL INSPECTIONS AND TESTS OF STRUCTURAL STEEL - REFERENCE 2018 IBC 1705.2
INSPECTION TASKS AFTER BOLTING - REFERENCE AISC 360-16 SPECIFICATION, TABLE N5.6-3

INSPECTION TASKS AFTER BOLTING	QC	QA
Document acceptance or rejection of bolted connections	P	P

O- Observe these items on a random basis. Operations need not be delayed pending these inspections.
P – Perform these tasks for each bolted connection.

REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION - REFERENCE 2018 IBC TABLE 1705.3

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCE STANDARD	IBC REFERENCE
1. Inspect reinforcement and verify placement.		x	ACI 318 CH. 20, 25.2, 25.3, 26.6.1, 26.6.3	1908.4
2. Inspect anchors cast in concrete.		x	ACI 318: 17.8.2	
3. Inspect anchors post-installed in hardened concrete members.	x		ACI 318: 17.8.2.4 ACI 318: 17.8.2	
4. Verify use of required design mix.		x	ACI 318: CH. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
5. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	x		ASTM C172 ASTM C31 ACI 318: 26.4, 26.12	1908.1
6. Inspect concrete placement for proper application techniques.	x		ACI 318: 26.5	1908.6, 1908.7, 1908.8
7. Verify maintenance of specified curing temperature techniques.		x	ACI 318: 26.5.3-26.5.5	1908.9

REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS - REFERENCE 2018 IBC TABLE 1705.6

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1. Verify materials below shallow foundations are adequate to achieve the design capacity.		x
2. Verify excavations are extended to proper depth and have reached proper material.		x
3. Perform classification and testing of compacted fill materials.		x
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	x	
5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.		x

REQUIRED SPECIAL INSPECTIONS AND TESTS OF MASONRY CONSTRUCTION - REFERENCE 2018 IBC TABLE 1705.4

INSPECTION TASK	FREQUENCY	REFERENCE FOR CRITERIEA	
	LEVEL 2	TMS 402	TMS 602
1. As masonry construction begins, verify that the following are in compliance:			
a. Proportions of site-prepared mortar	P		Art. 2.1, 2.6 A, & 2.6 C
b. Grade and size of prestressing tendons and anchorages	P		Art. 2.4 B & 2.4 H
c. Grade, type and size of reinforcement, connectors, anchor bolts, and prestressing tendons and anchorages.	P		Art. 3.4 & 3.6 A
d. Prestressing technique	P		Art. 3.6 B
e. Properties of thin-bed mortar for AAC masonry	C		Art. 2.1 C.1
f. Sample panel construction	P		Art. 1.6 D
2. Prior to grouting, verify that the following are in compliance:			
a. Grout space	P		Art. 3.2 D & 3.2 F
b. Placement of prestressing tendons and anchorages	P	Sec. 10.8 & 10.9	Art. 2.4 B & 3.6
c. Placement of reinforcement, connectors, and anchor bolts	P	Sec. 6.1, 6.3.1, 6.3.6, & 6.3.7	Art. 3.2 E & 3.4
d. Proportions of site-prepared grout and prestressing grout for bonde tendons	P		Art. 2.6 B & 2.4 G.1 b
3. Verify compliance of the following during construction:			
a. Materials and procedures with the approved submittals	P		Art. 1.5
b. Placement of masonry units and mortar joint construction	P		Art. 3.3 B
c. Size and location of structural members	P		Art. 3.3 F
d. Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction	P	Sec. 1.2.1.e, 6.2.1, & 6.3.1	
e. Welding of reinfercement	C	Sec. 6.1.6.1.2	
f. Preparation, construction, and protection of masonry during cold weather (temperature below 40deg F (4.4deg C)) or hot weater (temperature above 90deg F (32.2deg C))	P		Art. 1.8 C & 1.8 D
g. Application and measurtement of prestressing force	C		Art. 3.6 B
h. Placement of grout and prestressing grout for bonded tendons is in compliance	C		Art. 3.5 & 3.6 C
i. Placement of AAC masonry units and construction of thin-bed mortar joints	C P		Art. 4.4 B.9 & 3.3 F.1 b
4. Observe preparation of grout specimens, mortar specimens, and/or prisms	P		Art. 1.4 B.2.a.3, 1.4 B.2.b.3, 1.4 B.2.c.3, 1.4 B.3, & 1.4 B.4

REQUIRED VERIFICATION OF MASONRY CONSTRUCTION - REFERENCE 2018 IBC TABLE 1705.4

MINIMUM VERIFICATION	FREQUENCY	REFERENCE FOR CRITERIA
	LEVEL 2	TMS 602
Prior to construction, verification of compliance of submittals.	R	Art. 1.5
Prior to construction, verification of F'm and F'AAC, except where specifically exempted by the code.	R	Art. 1.4 B
During construction, verification of Slump flow and Visual Stability Index (VSI) when self-consolidating grout is delivered to the project site.	R	Art. 1.5 & 1.6.3
During Construction, verification of F'm and F'AAC for every 5,000 sq. Ft. (465 sq. m)	NR	Art. 1.4 B
During construction, verification of proportions of materials as delivered to the project site for premixed or preblended mortar, prestressing grout, and grout other than self consolidating grout.	NR	Art. 1.4 B

FULLY SPRINKLERED
100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

Calibre
Calibre Engineering, Inc.
9090 South Ridgeline Boulevard, Suite 105
Highlands Ranch, CO 80129 (303) 730-0434
www.calibre-engineering.com
Construction Management Civil Engineering Surveying

REGISTERED PROFESSIONAL ENGINEER
GREGORY M. GORDON
5649
10/9/23
STRUCTURAL
STATE OF CALIFORNIA
EXP: 09/30/24

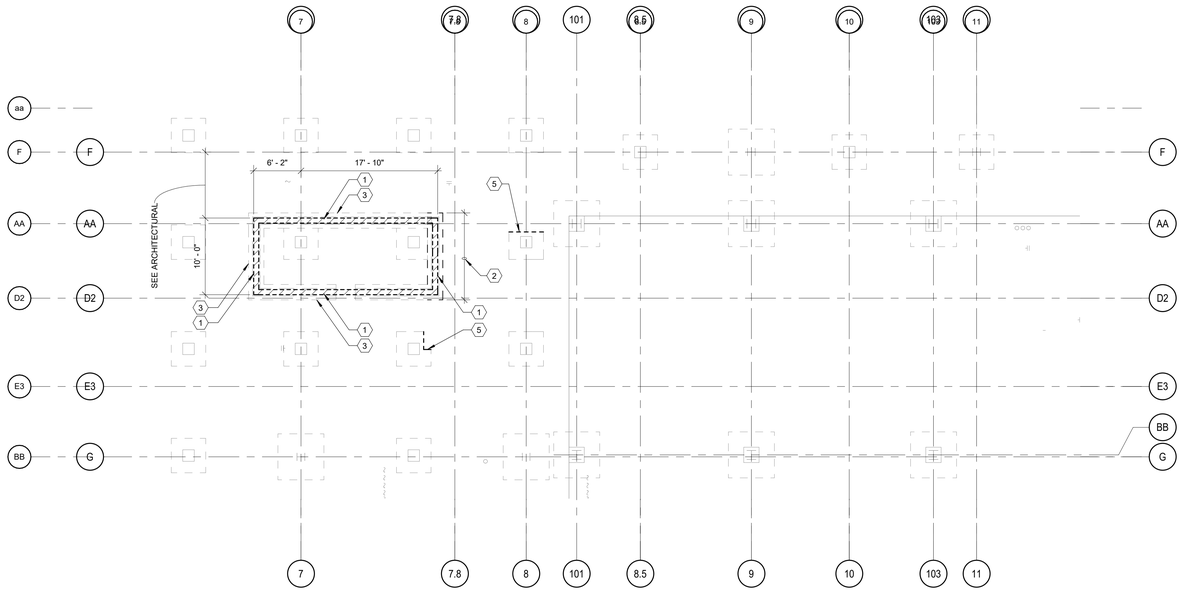
PROJECT MANAGER
ACG Project Number 19-103

APOGEE
Engineers | Architects
Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420
© COPYRIGHT Apogee Consulting Group, P.A.

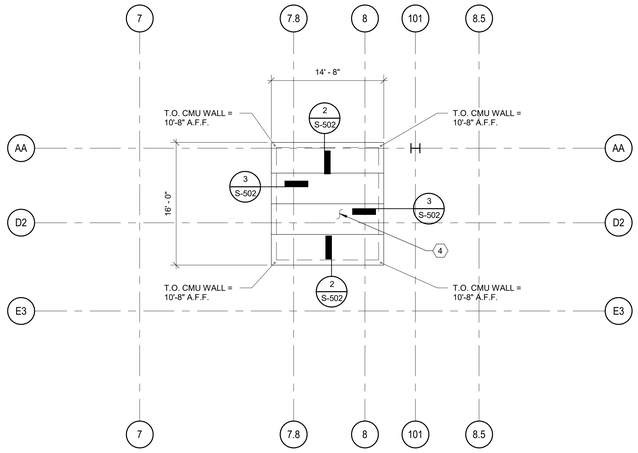
Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: SPECIAL INSPECTIONS
Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655
Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC
Approved
Date: OCTOBER 13, 2023 | Checked: GMG | Drawn: MBT
VA PROJECT NUMBER: 612A4-19-016
Building Number: # 650
Drawing Number: S-002
Dwg 2 of 6

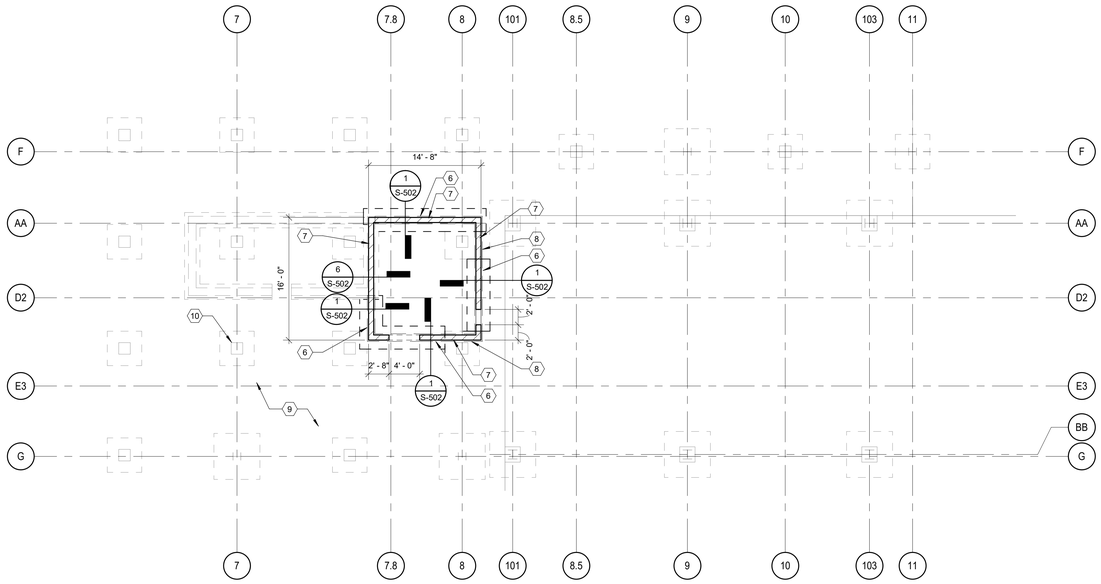
C:\Users\tberjamin\Documents\Mather_VAMC_Pharmacy Vaud_STRUCT_tberjamincQUND.rvt
10/9/2023 3:30:47 PM
VA FORM 08-6231



1 FOUNDATION PLAN DEMO
SCALE: 1/8" = 1'-0"



3 VAULT ROOF PLAN
SCALE: 1/8" = 1'-0"



2 FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

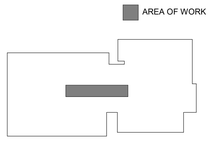
SHEET NOTES:

A. VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS

KEY NOTES:

1. EXISTING VAULT CMU WALL AND CONCRETE OVER METAL DECK VAULT ROOF TO BE REMOVED
2. DO NOT DEMO EXISTING CMU DOWEL BARS IN THIS LOCATION
3. EXISTING CONCRETE STEM WALL BELOW SLAB AND FOOTING TO REMAIN
4. NEW 6" PRECAST HOLLOW CORE PLANK
5. SAWCUT AND REMOVE PORTION OF EXISTING ELEVATED SLAB SUPPORT FOOTING FOR NEW CONCRETE STEM WALL INSTALLATION
6. NEW CONCRETE STEM WALL AND FOOTING
7. NEW 8" SOLID GROUTED MASONRY VAULT WALLS ABOVE EXISTING SLAB WITH #4 AT 16" O.C. VERTICAL AND #4 AT 24" O.C. HORIZONTAL, UNO.
8. NEW CONCRETE STEM WALL OVER EXISTING FOOTING
9. EXISTING 7" THICK ELEVATED CONCRETE SLAB WITH EXISTING RAT SLAB APPROXIMATELY 4'-2" BELOW
10. EXISTING CONCRETE FOOTING AND PEDESTAL SUPPORTING ELEVATED CONCRETE SLAB, TYPICAL

KEY PLAN
SCALE: NO SCALE



FULLY SPRINKLERED
100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

Calibre
Calibre Engineering, Inc.
9090 South Ridgeline Boulevard, Suite 105
Highlands Ranch, CO 80129 (303) 730-0434
www.calibre-engineering.com
Construction Management Civil Engineering Surveying

REGISTERED PROFESSIONAL ENGINEER GREGORY M. GORDON 5649 10/9/23 STRUCTURAL STATE OF CALIFORNIA
EXP: 09/30/24

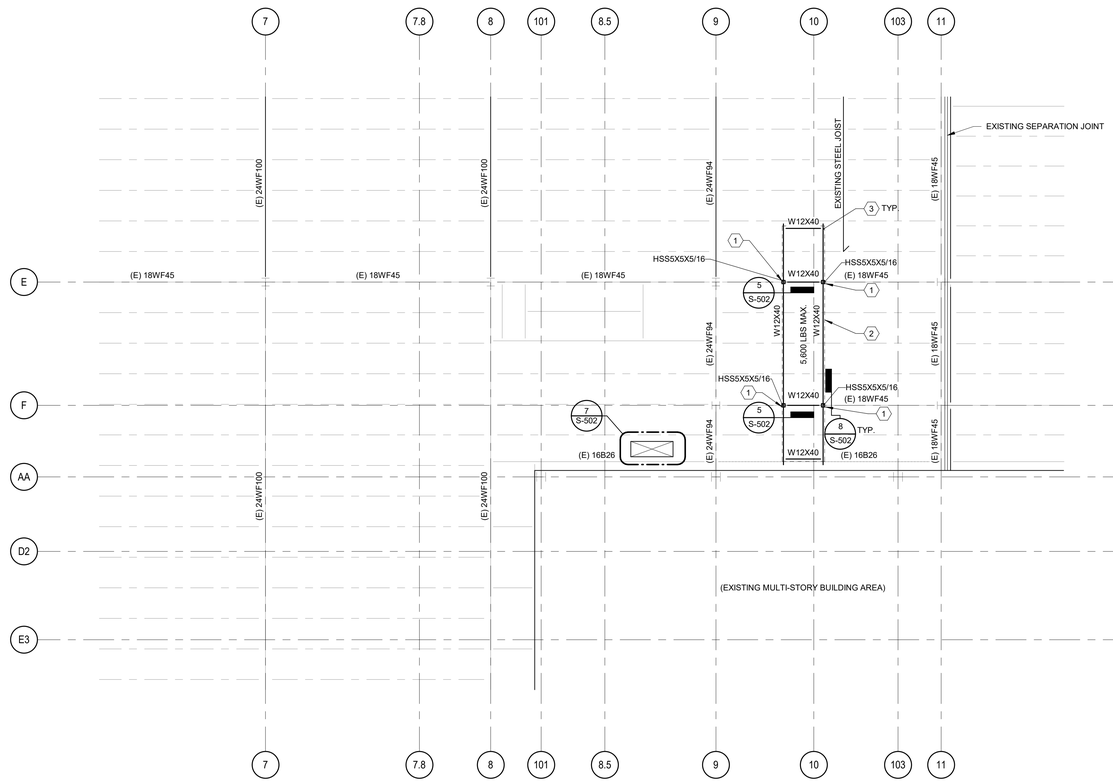
PROJECT MANAGER
ACG Project Number 19-103

APOGEE Engineers | Architects
Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420
© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: DEMO, FOUNDATION PLAN, VAULT ROOF PLAN
Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655
Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC
Approved
Date: OCTOBER 13, 2023 | Checked: GMG | Drawn: MBT
VA PROJECT NUMBER: 612A4-19-016
Building Number: # 650
Drawing Number: S-101
Dwg 3 of 6

C:\Users\tbenjamin\Documents\Mather_VAMC_Pharmacy Vault_STRUCT_tbenjamincOUAND.rvt
10/9/2023 3:30:47 PM
VA FORM 08-6231



1 ROOF FRAMING PLAN
SCALE: 1/8" = 1'-0"

0 4 8 16

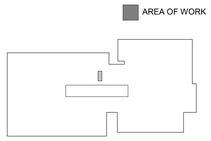
NORTH

SHEET NOTES:

KEY NOTES:

1. NEW HSS COLUMN, WELD TO TOP OF EXISTING W18X AND TO BOTTOM OF NEW W12X BEAM WITH 5/16" FILLET WELD ALL AROUND
2. NEW MECHANICAL UNIT, SEE MECHANICAL DRAWINGS
3. COORDINATE BOTTOM OF STEEL ELEVATION WITH MECHANICAL DRAWINGS.

KEY PLAN
SCALE: NO SCALE



FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

Calibre
Calibre Engineering, Inc.
9090 South Ridgeline Boulevard, Suite 105
Highlands Ranch, CO 80129 (303) 730-0434
www.calibre-engineering.com
Construction Management Civil Engineering Surveying

REGISTERED PROFESSIONAL ENGINEER GREGORY M. GORDON 5649 10/9/23 STRUCTURAL STATE OF CALIFORNIA
EXP: 09/30/24

PROJECT MANAGER
ACG Project Number 19-103

APOGEE Engineers | Architects
Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420
© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: ROOF FRAMING PLAN
Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC
VA PROJECT NUMBER: 612A4-19-016
Building Number: # 650
Approved
Date: OCTOBER 13, 2023
Checked: GMG
Drawn: MBT
Drawing Number: S-102
Dwg 4 of 6

C:\Users\bbenjamin\Documents\Mather_VAMC_Pharmacy Vault_STRUCT_bbenjamin\COUND.rvt
10/9/2023 3:30:47 PM
VA FORM 08-6231

f'c = 4000 & 4500 PSI

BAR SIZE	LAP CLASS	TOP BARS		OTHER BARS	
		CASE 1	CASE 2	CASE 1	CASE 2
#3	A	19	28	15	22
	B	24	36	19	19
#4	A	25	37	19	29
	B	32	48	25	37
#5	A	31	47	24	36
	B	40	60	31	47
#6	A	37	56	29	43
	B	48	72	37	56
#7	A	54	81	42	63
	B	70	106	54	81
#8	A	62	93	48	71
	B	80	121	62	93
#9	A	70	105	54	81
	B	91	136	70	105
#10	A	79	118	61	91
	B	102	153	79	118
#11	A	87	131	67	101
	B	113	170	87	131

NOTES:

1. TABLE FOR USE WITH NORMAL WEIGHT HARDROCK CONCRETE AND GRADE 60 UNCOATED REINF. BARS. FOR LIGHTWEIGHT AGGREGATE USE 1.3 ℓ
   ℓ = BASIC LAP LENGTH SHOWN AT THIS TABLE.
2. CLASS A - HALF OR LESS OF THE BARS ARE SPLICED WITHIN A REQUIRED LAP LENGTH.

   CLASS B - MORE THAN HALF OF THE BARS ARE SPLICED WITHIN A REQUIRED LAP LENGTH.
3. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST IN THE MEMBER BELOW THE BAR.
4. FOR BARS ENCLOSED IN STANDARD COL. SPIRALS, USE 0.75 ℓ OR 12" MIN.
5. LAP SPLICES OF INDIVIDUAL BARS WITHIN A BUNDLE SHALL BE 1.2 ℓ FOR THAT BAR IN A 3-BAR BUNDLE AND 1.3 ℓ FOR A 4-BAR BUNDLE. ENTIRE BUNDLES SHALL NOT BE LAP SPLICED AT THE SAME LOCATION. SPLICES FOR INDIVIDUAL BARS WITHIN A BUNDLE SHALL BE STAGGERED SUCH THAT THEY DO NT OVERLAP.
6. COMPRESSION LAP SPLICE (ONLY WHERE INDICATED ON DRAWINGS) FOR GRADE 60 BARS USE 30 BAR DIA.
7. CASES 1 AND 2 ARE DEFINED AS FOLLOWS:

   BEAMS OR COLUMNS
   CASE 1: COVER AT LEAST 1.0 db AND CENTER TO CENTER SPACING AT LEAST 2.0 db

   CASE 2: COVER LESS THAN 1.0 db OR CENTER TO CENTER SPACING LESS THAN 2.0 dB

   ALL OTHER MEMBERS
   CASE 1: COVER AT LEAST 1.0 db AND CENTER TO CENTER SPACING AT LEAST 3.0 db

   CASE 2: COVER LESS THAN 1.0 dB OR CENTER TO CENTER SPACING LESS THAN 3.0 db

5 TENSION LAP SPLICE LENGTH ℓ (INCHES)

f'c = 4000 & 4500 PSI

BAR SIZE	TOP BARS		OTHER BARS	
	CASE 1	CASE 2	CASE 1	CASE 2
#3	19	28	15	22
#4	25	37	19	29
#5	31	47	24	36
#6	37	56	29	43
#7	54	81	42	63
#8	62	93	48	71
#9	70	105	54	81
#10	79	118	61	91
#11	87	131	67	101
#14	105	157	81	121
#18	139	209	107	161

NOTES:

1. THIS TABLE FOR USE WITH NORMAL WEIGHT HARDROCK CONCRETE AND GRADE 60 UNCOATED REINFORCING BARS. FOR LIGHTWEIGHT AGGREGATE USE 1.3 ℓd. ℓd= TENSION DEVELOPMENT LENGTH SHOWN AT THIS TABLE.
2. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST IN THE MEMBER BELOW THE BAR.
3. FOR BARS ENCLOSED IN STANDARD COLUMN SPIRALS, USE 0.75 ℓd OR 12" MIN.
4. TENSION DEVELOPMENT LENGTH OF INDIVIDUAL BARS WITHIN A BUNDLE SHALL BE 1.2 ℓd FOR THAT BAR IN A 3-BAR BUNDLE AND 1.33 ℓd FOR A 4-BAR BUNDLE.
5. COMPRESSION DEVELOPMENT LENGTH (ONLY WHERE INDICATED ON DRAWINGS) FOR GRADE 60 BARS USE 22 BAR DIAMETERS.
6. CASES 1 AND 2 ARE DEFINED AS FOLLOWS:

   BEAMS OR COLUMNS

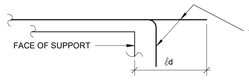
   CASE 1: COVER AT LEAST 1.0 db AND CENTER TO CENTER SPACING AT LEAST 2.0 db

   CASE 2: COVER LESS THAN 1.0 db OR CENTER TO CENTER SPACING LESS THAN 2.0 db

   ALL OTHER MEMBERS

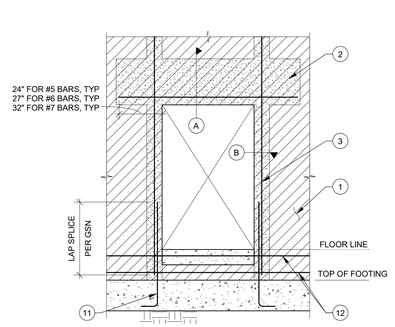
   CASE 1: COVER AT LEAST 1.0 db AND CENTER TO CENTER SPACING AT LEAST 3.0 db

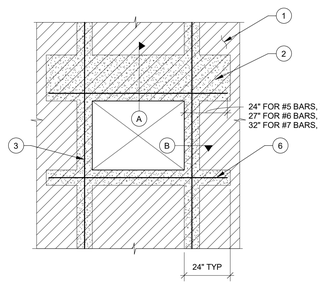
   CASE 2: COVER LESS THAN 1.0 dB OR CENTER TO CENTER SPACING LESS THAN 3.0 db



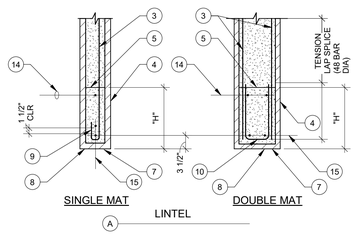
PROVIDE STANDARD HOOK PER DETAIL 7/- WHERE ℓd CANNOT BE ACHIEVED.

6 TENSION DEVELOPMENT LENGTH ℓd (INCHES)





7 TYPICAL CMU WALL OPENINGS



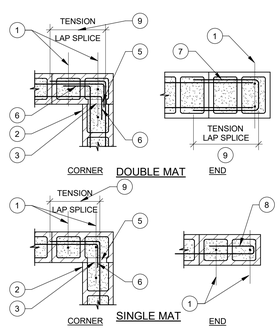
LINTEL SCHEDULE			
OPENING WIDTH	**"H"	*LINTEL REINF	VERT. REINF
0'-0" TO 3'-11"	1'-4"	(2)-#5	PER PLANS
4'-0" TO 8'-0"	2'-8"	(2)-#5	PER PLANS
8'-1" TO 10'-0"	3'-4"	(2)-#6	PER PLANS
10'-1" TO 14'-0"	4'-0"	(2)-#6	PER PLANS
14'-1" TO 20'-0"	8'-0"	(2)-#7	PER PLANS

* UNLESS NOTED OTHERWISE ON PLANS AND WALL ELEVATIONS

OPENING WIDTH	JAMB BARS (FULL HEIGHT)		
	8" CMU		PLAN
0'-0" TO 3'-11"	2-#5		
4'-0" TO 6'-11"	4-#5		
7'-0" OR GREATER	6-#5		

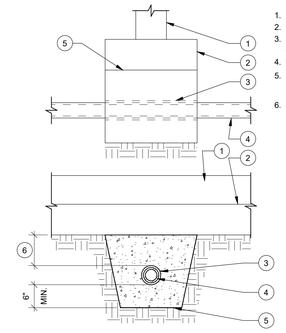
TYPICAL JAMB REINFORCING, UNO
(SEE NOTE 13)

1. CMU WALL.
2. LINTEL
3. VERTICAL BARS IN GROUTED CELLS.
4. OPEN END BLOCKS AT LINTEL HEIGHT "H". EXTEND OPEN END BLOCK, GROUT AND REINFORCE 2'-0" MIN. CONT. PAST JAMB EACH END.
5. TOP OF SOLID GROUT FULL DEPTH.
6. (2) #4 IN 8" DEEP SOLID GROUTED BOND BEAM. (BEND BARS VERTICALLY AT CORNERS,12" HOOK).
7. LINTEL U-BLOCK.
8. SHORE LINTEL UNTIL GROUT REACHES DESIGN STRENGTH.
9. 180 DEGREE STANDARD HOOK. TURN HOOK PARALLEL WITH WALL AS REQ.
10. U-BARS TO MATCH VERTICAL WALL REINFORCING, TYP.
11. PROVIDE DOWEL BARS TO MATCH JAMB BARS, TYP.
12. CONT REINF PER DETAIL 5/-
13. SEE DETAIL 8/- FOR END OF WALL HORIZONTAL REINFORCING REQUIREMENTS AT JAMBS.
14. ADDITIONAL BARS WHERE CALLED OUT ON PLANS OR ELEVATIONS.
15. LINTEL REINF PER LINTEL SCHEDULE.



1. PROVIDE ADDITIONAL FULL HEIGHT VERTICAL WALL REINFORCING AS SHOWN. SIZE TO MATCH TYPICAL WALL REINFORCING. WHERE VERTICAL WALL REINFORCING DIFFERS AT CORNERS & INTERSECTIONS, MATCH LARGER SIZE. SEE PLANS & ELEVATIONS FOR ADDITIONAL REINFORCING AS REQUIRED.
2. OPEN END BLOCK.
3. BREAK SHELL AT HORIZONTAL REINFORCING.
4. BEND BARS ALTERNATE.
5. PROVIDE 1" MIN GROUT ALL AROUND REINFORCING THROUGH FACE SHELL.
6. 90 DEG HOOK WITH 12" LEG.
7. U-BARS TO MATCH HORIZONTAL WALL REINFORCING, TYP.
8. 180 DEGREE HOOK.
9. TENSION LAP SPLICE PER GENERAL STRUCTURAL NOTES.

8 TYPICAL CMU WALL INTERSECTIONS & END OF WALL

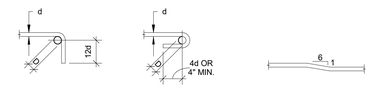


1. STEM WALL AS OCCURS
2. CONCRETE FOOTING OR FOUNDATION
3. SLEEVE PROVIDE 1/2" MIN. CLEARANCE AROUND PIPE
4. PIPE
5. CONCRETE FILL TO BE PLACED BEFORE FOOTING IS POURED AND POUR FULL WIDTH OF PIPE TRENCH
6. 8" MIN., 3'-0" MAX. WHERE DEPTH IS GREATER THAN 3'-0" SEE DETAIL 1/-

NOTE:

PIPES SHALL NOT PASS THRU FOOTINGS NOR BE LOCATED BELOW ISOLATED COLUMN FOOTING.

1 PIPE PASSING UNDER CONT. FOOTING

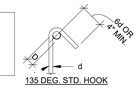


90 DEG. STD. HOOK | 180 DEG. STD. HOOK | MAX. OFFSET BEND

D=6d FOR #3 TO #8
D=8d FOR #9 TO #11
D=12d FOR #14 TO #18

PRINCIPAL REINFORCING

MIN. D=1 1/2" FOR #3
MIN. D=2" FOR #4
MIN. D=2 1/2" FOR #5
MIN. D=4 1/2" FOR #6
MIN. D=5 1/4" FOR #7
MIN. D=6" FOR #8



135 DEG. STD. HOOK

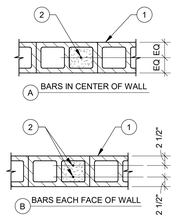
STIRRUP AND TIES

NOTES:

A. ALL BENDS SHALL BE MADE COLD.

B. #14 AND #18 BARS SHALL BE BEND TESTED AND LAB APPROVED PRIOR TO BENDING.

2 BAR BENDS



BARS IN CENTER OF WALL

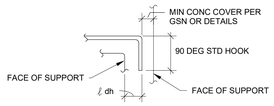
BARS EACH FACE OF WALL

1. CMU WALL PER PLAN.
2. REINFORCING PER PLAN OR GSN.

3 REBAR PLACEMENT

ℓ dh (IN INCHES)	
BAR SIZE	f'c (PSI) 4500
#3	8
#4	10
#5	12
#6	15
#7	17
#8	19
#9	22
#10	25
#11	27

1. THIS TABLE FOR USE WITH NORMAL-WEIGHT HARDROCK CONCRETE AND GRADE 60 UNCOATED REINFORCING BARS.
2. FOR LIGHT-WEIGHT AGGREGATE USE 1.3 ℓ dh
3. FOR GRADE 40 BARS, USE 0.67 ℓ dh
4. ℓ dh SHALL BE A MINIMUM OF 8 BAR DIAMETERS OR 6 INCHES, THE GREATER



4 TENSION DEVELOPMENT FOR HOOKED BARS

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

Calibre

Calibre Engineering, Inc.
9090 South Ridgeline Boulevard, Suite 105
Highlands Ranch, CO 80129 (303) 730-0434
www.calibre-engineering.com
Construction Management Civil Engineering Surveying

REGISTERED PROFESSIONAL ENGINEER GREGORY M. GORDON 5649 10/9/23 STRUCTURAL STATE OF CALIFORNIA

EXP: 09/30/24

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511

www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: DETAILS

Location: MATHER VAMC
10535 HOSPITAL WAY
MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

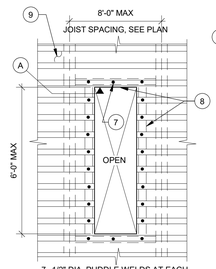
Approved

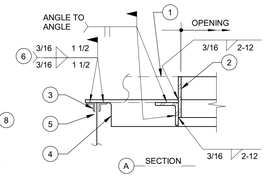
Date OCTOBER 13, 2023 | Checked GMG | Drawn MBT

Drawing Number S-501

Dwg 5 of 6

C:\Users\benjamin\Documents\Mather_VAMC_Pharmacy Vault_STRUCT_benjamin@QUND.rvt
10/9/2023 3:30:49 PM
VA FORM 08-6231





7. 1/2" DIA. PUDDLE WELDS AT EACH BEARING AND AT 12" OC PARALLEL, TYPICAL.
8. L3x3x5/16 TYP AT 4-SIDES.
9. STEEL DECK, SEE PLAN.

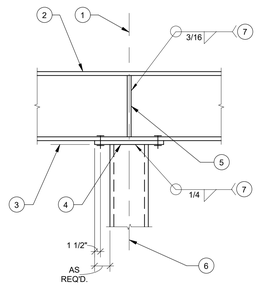
1. SEE PLAN OR ARCH. FOR ROOFING ETC., SEE MECH'L. AND ARCH'L FOR EQUIPMENT MOUNTING DETAILS.
2. PL 3/16 ALL AROUND.
3. TOP CHORD OF JOIST.
4. CUT VERTICAL LEG OF L3x3.
5. CONNECTION AT PANEL POINT ONLY, TYP.
6. SHORE JOISTS WHILE HEATED FOR WELDING.

7 OPENINGS IN STEEL ROOF DECK

BEAM CONNECTION SCHEDULE FOR MEMBER CARRYING ROOFING MATERIAL				
BEAM DEPTH	BOLTS No. AND SIZE	SHEAR PLATE THICKNESS	SIZE OF FILLET WELD	REMARKS
8" - 10"	(2) 3/4"	3/8	5/16	
12" - 14"	(3) 3/4"	3/8	5/16	
16"	(4) 3/4"	3/8	5/16	
18"	(5) 3/4"	3/8	5/16	
21"	(6) 3/4"	3/8	5/16	

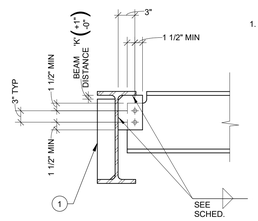
NOTES:
1. ALL 3/4" BOLTS SHALL BE A325-N. ALL 1" BOLTS SHALL BE A490-N, UNLESS NOTED OR DETAILED OTHERWISE.

4 BEAM CONNECTION SCHEDULE



1. CENTERLINE OF COLUMN.
2. SEE PLAN FOR BEAM SIZE.
3. FINISHED COLUMN.
4. CAP PL 3/4x1" + THE LARGER OF COLUMN OR BEAM FLANGE WIDTH, USE (4) 3/4 DIA. BOLTS.
5. STIFFENER PL 3/8" EACH SIDE INTERSECTING MEMBER MAY OCCUR.
6. HSS COLUMN. SEE PLAN OR SCHEDULE FOR SIZE.
7. USE LARGER PLATE AND WELD AS MAY BE REQ'D. BY BEAM CONN. SCHED. OR BY AISC WELDING SPECIFICATIONS.

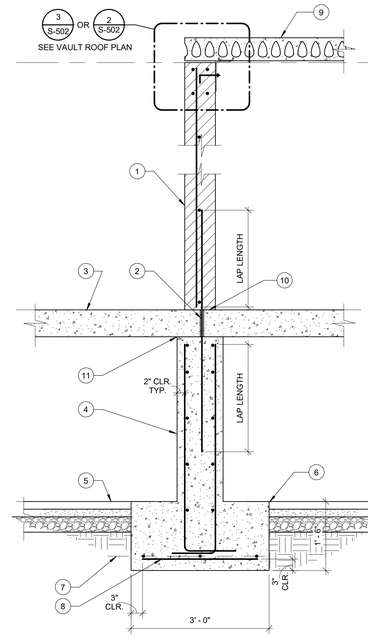
8 CANTILEVERED BEAM TO COLUMN



1. PROVIDE PARTIAL HEIGHT STIFF. PLATE (THICKNESS TO MATCH THICKNESS OF SHEAR PLATE) THIS SIDE FOR 6 OR 7 BOLT CONNECTIONS.

NOTE:
SEE DETAIL 4/- FOR BOLTS, WELDING, SHEAR PLATE ETC.

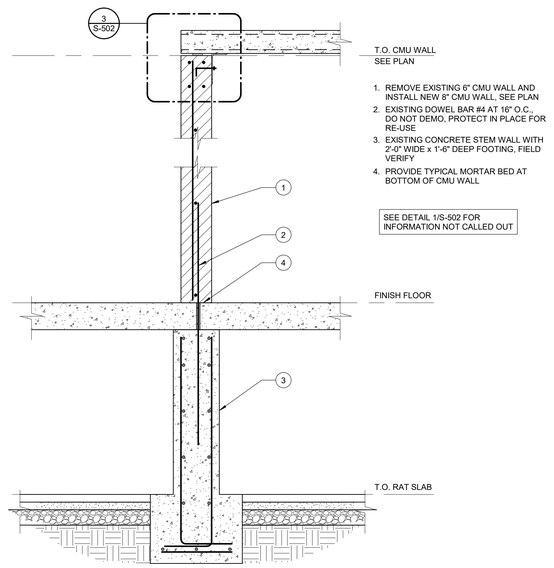
5 BEAM TO BEAM - 1 SIDED



1. NEW CMU WALL, SEE PLAN
2. DRILL HOLE FOR DOWEL INSTALLATION (DO NOT CUT REINF.), FILL WITH EPOXY AFTER FOOTING INSTALLATION
3. EXISTING ELEVATED SLAB
4. NEW 12" CONCRETE STEM WALL WITH #4 AT 12" O.C. EACH WAY EACH FACE
5. EXISTING RAT SLAB
6. SAWCUT EXISTING RAT SLAB INSTALLATION
7. (3)-#5 CONT BOTTOM BARS
8. #5 AT 12" O.C.
9. NEW PRECAST HOLLOW CORE PLANK
10. PROVIDE TYPICAL MORTAR BED AT BOTTOM OF CMU WALL
11. NEW CONCRETE STEM WALL SHALL BE CONSTRUCTED FLUSH TO UNDERSIDE OF EXISTING SLAB TO PROVIDE FIRM BEARING

FINISH FLOOR

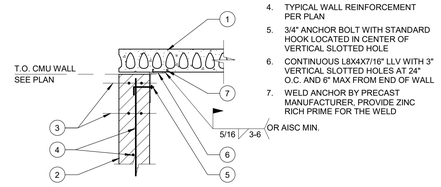
1 VAULT WALL SECTION



1. REMOVE EXISTING 6" CMU WALL AND INSTALL NEW 8" CMU WALL, SEE PLAN
2. EXISTING DOWEL BAR #4 AT 16" O.C., DO NOT DEMO, PROTECT IN PLACE FOR RE-USE
3. EXISTING CONCRETE STEM WALL WITH 2'-0" WIDE x 1'-6" DEEP FOOTING, FIELD VERIFY
4. PROVIDE TYPICAL MORTAR BED AT BOTTOM OF CMU WALL

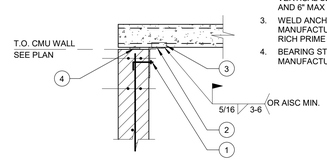
SEE DETAIL 1/S-502 FOR INFORMATION NOT CALLED OUT

6 VAULT WALL SECTION AT EXISTING STEM WALL



1. 6" PRECAST HOLLOW CORE PLANK
2. CMU WALL, SEE PLAN
3. CONTINUOUS BOND BEAM REINFORCEMENT AT TOP OF WALL PER GSN
4. TYPICAL WALL REINFORCEMENT PER PLAN
5. 3/4" ANCHOR BOLT WITH STANDARD HOOK LOCATED IN CENTER OF VERTICAL SLOTTED HOLE
6. CONTINUOUS L8X4X7/16" LLV WITH 3" VERTICAL SLOTTED HOLES AT 24" O.C. AND 6" MAX FROM END OF WALL
7. WELD ANCHOR BY PRECAST MANUFACTURER. PROVIDE ZINC RICH PRIME FOR THE WELD

2 PRECAST HOLLOW CORE PLANK TO TOP OF CMU - SIDE



1. 3/4" ANCHOR BOLT WITH STANDARD HOOK
2. CONTINUOUS L8X4X7/16" LLV WITH 3" VERTICAL SLOTTED HOLES AT 24" O.C. AND 6" MAX FROM END OF WALL
3. WELD ANCHOR BY PRECAST MANUFACTURER PROVIDE ZINC RICH PRIME FOR THE WELD
4. BEARING STRIP BY PRECAST MANUFACTURER

SEE DETAIL 2/S-502 FOR INFORMATION NOT CALLED OUT

3 PRECAST HOLLOW CORE PLANK TO TOP OF CMU - END

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

Calibre
Calibre Engineering, Inc.
9090 South Ridgeline Boulevard, Suite 105
Highlands Ranch, CO 80129 (303) 730-0434
www.calibre-engineering.com
Construction Management Civil Engineering Surveying

REGISTERED PROFESSIONAL ENGINEER GREGORY M. GORDON 5649 10/9/23 STRUCTURAL STATE OF CALIFORNIA
EXP: 09/30/24

PROJECT MANAGER
ACG Project Number 19-103

APOGEE Engineers | Architects
Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420
© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: DETAILS
Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655
Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC
Approved
Date: OCTOBER 13, 2023 | Checked: GMG | Drawn: MBT
VA PROJECT NUMBER 612A4-19-016
Building Number # 650
Drawing Number S-502
Dwg 6 of 6

C:\Users\tbenjamin\Documents\Mather_VAMC_Pharmacy Vault_STRUCT_tbenjamin\CGUND.rvt
10/9/2023 3:30:49 PM
VA FORM 08-6231

DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3

ARCHITECTURAL SYMBOL LEGEND

#	TYPICAL KEYNOTE
#	DEMOLITION KEYNOTE
101	DOOR NUMBER
MATL 1'-0"	CEILING/ SOFFIT HEIGHT
#	WINDOW TYPE

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
ACP/APC	ACOUSTIC CEILING PANEL/ ACOUSTIC PANEL CEILING
ACT	ACOUSTICAL) TILE
ADJ	ADJUSTABLE
ADTL	ADDITIONAL
AGG	AGGREGATE
ALT	ALTERNATE
AL	ALUMINUM
APPROX	APPROXIMATE(LY)
ASPH	ASPHALT
AUTO	AUTOMATIC
B/O	BOTTOM OF
BD	BOARD
BLDG	BUILDING
BLKG	BLOCKING
BOT	BOTTOM
BRG	BEARING
℄	CENTERLINE
C/C	CENTER TO CENTER
CJ	CONTROL JOINT
CLL	CONTRACT LIMIT LINE
CEM	CEMENT(ITIOUS)
CMU	CONCRETE MASONRY UNIT
CLG	CEILING
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CPT	CARPET
CT	CERAMIC TILE
CTR	CENTER(ED)
DF	DRINKING FOUNTAIN
DS	DOWNSPOUT
DBL	DOUBLE
DEG	DEGREE
DEMO	DEMOLITION
DET/DTL	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DWG(S)	DRAWING(S)
E	EAST
EC	ELECTRICAL CONTRACTOR
EHO	ELECTRICAL HOLD OPEN
EJ	EXPANSION JOINT
EW	EACH WAY
EA	EACH
EIFS	EXTERIOR INSULATION FINISH SYSTEM
EL	ELEVATION
ELEC	ELECTRIC(AL)
ELEV	ELEVATOR
EMER	EMERGENCY
EQ	EQUAL
EQUIP	EQUIPMENT
EXIST	EXISTING
EXT	EXTERIOR
EWC	ELECTRIC WATER COOLER
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FFE	FINISH FLOOR ELEVATION
FV	FIELD VERIFY
FEC	FIRE EXTINGUISHER CABINET
FDN	FOUNDATION
FIN	FINISH
FLSHG	FLASHING
FLR	FLOOR
FRMG	FRAMING
FT	FOOT/FEET
FTG	FOOTING
GC	GENERAL CONTRACTOR
GA	GAUGE
GALV	GALVANIZED
GEN	GENERAL
GYP	GYPSUM
HM	HOLLOW METAL
HDWR	HARDWARE
HOL	HOLLOW
HOR	HORIZONTAL
HT	HEIGHT
HVAC	HEATING/VENTILATION/AIR CONDITIONING
ID	INSIDE DIAMETER
IN	INCH
INCL	INCLUDING
INSUL	INSULATION
INT	INTERIOR
JAN	JANITOR
JT	JOINT
LAV	LAVATORY
LB(S)	POUND(S)
L/S	LANDSCAPE
LT	LIGHT
MO	MASONRY OPENING
MAS	MASONRY
MAT'L	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MTD	MOUNTED
MTL	METAL
N	NORTH
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NOM	NOMINAL
OC	ON CENTER
OD	OUTSIDE DIAMETER
O TO O	OUT TO OUT
OPNG	OPENING
OPP	OPPOSITE
OVHD	OVERHEAD
PEB	PRE-ENGINEERED BUILDING
PJF	PREFORMED JOINT FILLER
PT	PRESSURE TREATED
PERIM	PERIMETER
PL	PLATE
PLAM	PLASTIC LAMINATE
PLBG	PLUMBING
PLYWD	PLYWOOD
PNT	PAINT
PR	PAIR
PTD	PAINTED
PWR	POWER
RB	RUBBER BASE
RD	ROOF DRAIN
RO	ROUGH OPENING
RAD	RADIUS
REC	RECESSED
REINF	REINFORCED
REQ'D	REQUIRED
REV	REVISED (REVISION)
RM	ROOM
S	SOUTH
SB	SPLASH BLOCK
SF	SQUARE FEET
SS	STAINLESS STEEL
SIM	SIMILAR
SPEC	SPECIFICATIONS
SQ	SQUARE
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
SUSP	SUSPENDED
T&G	TONGUE AND GROOVE
T/O	TOP OF
TELE	TELEPHONE
TRTD	TREATED
TS	TUBE STEEL
TYP	TYPICAL
UNFIN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
VCT	VINYL COMPOSITION TILE
V/F	VERIFY IN FIELD
VERT	VERTICAL
W	WEST
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WWF	WELDED WIRE FABRIC
WD	WOOD
WH	WATER HEATER
WT	WEIGHT

GENERAL NOTES

1. INDICATIONS OF PROJECT LIMITS OR LINES OF DEMARCATION ARE SHOWN FOR GENERAL SCOPE DEFINITION AND REFLECT THE UNDERSTANDING OF THE DESIGNER AS TO THE LIMITATIONS OF THE WORK AREA IN AN OCCUPIED AREA. ACTUAL CONTRACT LIMITS ARE TO BE DETERMINED BY AGREEMENT BETWEEN THE VA AND CONTRACTOR BEFORE THE START OF THE WORK.
2. DRAWINGS ARE PREPARED USING PRODUCT DIMENSIONS AND DETAILS FROM BASIS OF DESIGN PRODUCT. PRODUCTS MAY CHANGE IN DIMENSION AND DETAIL BEFORE THEY ARE INCORPORATED INTO WORK. PRODUCTS FROM OTHER MANUFACTURER'S ARE ALSO ACCEPTABLE. DIMENSIONS AND DETAILS FOR ALTERNATE PRODUCTS MAY VARY FROM BASIS OF DESIGN. CONTRACTOR SHALL VERIFY INSTALLATION REQUIREMENTS FOR ALL PRODUCTS TO BE INCORPORATED INTO WORK (INCLUDING THICKNESS FOR RECESSED OR SEMI-RECESSED PRODUCTS) AND IS REPONSIBLE FOR ACCOMODATING AND COORDINATING CHANGES TO OTHER MATERIALS OR PRODUCTS THAT ARE NECESSARY BECAUSE OF THESE DIFFERENCES.
3. THE DRAWINGS AND SPECIFICATIONS ARE SEPARATED INTO DISCIPLINES FOR CONVENIENCE. THE SEPARATIONS ARE USED ONLY FOR THE PURPOSES OF CONVENIENCE AND REFERENCE AND IN NO WAY DO THEY DEFINE OR LIMIT THE SCOPE OR INTENT OF ANY PART OF THE DRAWINGS AND SPECIFICATIONS AS A WHOLE. THE FACT THAT THE DRAWINGS ARE SEPARATED IN NO WAY SUGGESTS THAT THE WORK IS NOT TO BE CONSTRUCTED AS A COMPLETE, INTEGRATED AND UNIFIED WHOLE.
4. THE DRAWINGS AND SPECIFICATIONS, INCLUDING DRAWINGS PREPARED BY SPECIFIC ENGINEERING DISCIPLINES ARE COMPLEMENTARY; ITEMS SHOWN IN ANY ONE LOCATION IN THE DRAWINGS SHALL BE CONSIDERED TO BE REQUIREMENTS OF THE CONTRACT FOR CONSTRUCTION. IN THE EVENT OF AN INCONSISTENCY BETWEEN THE DRAWINGS AND SPECIFICATIONS, OR WITHIN EITHER DOCUMENT, THE CONTRACTOR SHALL SEEK CLARIFICATION OR INTERPRETATION FROM THE COR PRIOR TO BIDDING. WHERE INCONSISTENCIES ARE NOT CLARIFIED PRIOR TO BIDDING, AND WHERE THE ACTUAL SOLUTION OR INTENT CANNOT BE REASONABLY INFERRED, THE CONTRACTOR SHALL PROVIDE THE BETTER QUALITY OR GREATER QUANTITY OF WORK.
5. THE CONTRACTOR SHALL NOTIFY THE COR IMMEDIATELY SHOULD DISCREPANCIES BE FOUND IN THE DRAWINGS AND SPECIFICATIONS.
6. THE CONTRACTOR IS RESPONSIBLE FOR CHECKING ALL FIELD CONDITIONS AND DIMENSIONS AS THEY RELATE TO THIS PROJECT, FOR EACH PHASE. SHOULD DISCREPANCIES EXIST BETWEEN THE WORK INDICATED AND ACTUAL FIELD CONDITIONS, NOTIFY THE COR PRIOR TO PROCEEDING WITH THE WORK.
7. DO NOT SCALE THE DRAWINGS. DRAWING SCALES AS INDICATED ARE FOR REFERENCE ONLY AND ARE NOT INTENDED TO ACCURATELY DEPICT ACTUAL OR DESIGNATED CONDITIONS. WRITTEN DIMENSIONS SHALL GOVERN.
8. PROVIDE SEALANT AT ALL INTERSECTIONS BETWEEN DIFFERENT MATERIALS.
9. COORDINATE WORK OF ALL TRADES PRIOR TO STARTING CONSTRUCTION.
10. REFER TO ALL OTHER TRADE DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION ON THIS PROJECT.
11. PROVIDE BLOCKING AT PARTITIONS AS REQUIRED FOR MOUNTING OF WALL-MOUNTED ITEMS: PROVIDE SUPPLEMENTAL FRAMING AT WALL OPENINGS INCLUDING KING STUDS, JACK STUDS, AND CRIPPLE STUDS, AS REQUIRED FOR COMPLETION OF THE WORK.
12. DIMENSIONS SHOWN ARE TO FACE OF STUD FRAMING, FACE OF CONCRETE/MASONRY WALLS, OR FINISHED FACE OF EXISTING WALL SURFACE.

DEMOLITION NOTES

1. KEY NOTES AND DRAWINGS ARE INTENDED TO GRAPHICALLY REPRESENT GENERAL WORK AND DO NOT PORTRAY FULL SCOPE OF THE PROJECT. SEE SPECIFICATIONS FOR DETAILED REQUIREMENTS.
2. REMOVE EXISTING CONSTRUCTION AS DESIGNATED HEREIN AND CLEAR AREA OF DEBRIS PRIOR TO PROCEEDING WITH NEW CONSTRUCTION.
3. EXISTING EQUIPMENT REMOVED SHALL BE PROPERLY DISPOSED OF, OFF PROJECT GROUNDS. COORDINATE WITH COR.
4. AT AREAS INDICATED TO BE PATCHED AND REPAIRED, FOR ADDITION AND RENOVATION PROJECTS: THE CONSTRUCTION AND ASSEMBLY OF THE PATCH OR REPAIR SHALL MATCH THE ASSEMBLY AND INTEGRITY OF THE ADJACENT EXISTING CONSTRUCTION, FOR FIRE RATING, MATERIALS, FINISH, THICKNESS, AND QUALITY.
5. COORDINATE WORKING HOURS ALLOWED FOR DEMOLITION AND WASTE REMOVAL WITH COR.
6. NOTIFY COR OF ANY DEMOLITION REQUIRED AND NOT INDICATED FOR INSTALLATION OF ELECTRICAL OR DATA ITEMS. AFTER SUCH DEMOLITION AND INSTALLATION, PATCH OR REPLACE MATERIALS AND FINISHES TO MATCH EXISTING.
7. CONTRACTOR SHALL PROTECT AREA ADJACENT TO THE DEMOTION AND NEW CONSTRUCTION WORK TO PREVENT DAMAGES, (IF DAMAGED REPAIR, RE-PATCH, SAND SMOOTH AND REFINISH TO MATCH EXISTING.) REPAIR OR REPLACE ITEMS DAMAGED DURING CONSTRUCTION ACTIVITIES AT NO ADDITIONAL COST.
8. THE INFORMATION CONTAINED IN THESE DEMOLITION DOCUMENTS DEFINES GENERAL SCOPE ONLY AND DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF PROVIDING ALL DEMOLITION REQUIRED FOR THE COMPLETION OF THE PROJECT.
9. DO NOT ENCROACH ON ADJACENT OCCUPIED AREAS NOT IDENTIFIED WITHIN THE SCOPE OF WORK.
10. REFER TO THE ELECTRICAL DRAWINGS FOR FURTHER INFORMATION REGARDING DEMOLITION OF ELECTRICAL SYSTEMS.
11. BEFORE THE START OF WORK, IDENTIFY ANY REQUIRED DEMOLITION BEYOND THE IDENTIFIED PROJECT SCOPE WHETHER ABOVE, BELOW, OR OUTSIDE THE PROJECT AREA. NOTIFY AND COORDINATE WITH THE COR, PROVIDE DEMOLITION OF THESE AREAS AND PATCH THE SAME AS A PART OF THE SCOPE OF THE PROJECT.
12. ALL DEMOLITION WORK SHALL BE PERFORMED WITH DUE CARE AND DILIGENCE IN ORDER TO PREVENT ARBITRARY DAMAGE OR INTERRUPTION OF SERVICE OR CONCEALED UTILITIES INTENDED TO REMAIN IN SERVICE. DISCOVERY OF UTILITIES OR CONDITIONS LOCATED DIFFERING FROM THOSE INDICATED OR THAT ARE NOT IDENTIFIED, SHALL BE REPORTED TO THE COR.
13. VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK. NOTIFY COR AND ARCHITECT OF ANY CONFLICTS PRIOR TO PROCEEDING WITH DEMOLITION.
14. ALL ITEMS BEING SALVAGED OR REMOVED SHALL REMAIN THE PROPERTY OF THE VA UNTIL CONFIRMATION HAS BEEN MADE AS TO WHETHER THE VA WILL RETAIN SUCH ITEMS. ALL ITEMS NOT BEING RETAINED BY THE VA OR DESIGNATED ON THE DRAWINGS, ARE TO BE REMOVED FROM THE SITE BY CONTRACTOR IN APPROVED MANNER.
15. CONTRACTOR SHALL NOTIFY COR OF ANY AREA REQUIRING DEMOLITION OTHER THAN SHOWN IN THESE DRAWINGS DUE TO UNFORESEEN CONDITIONS, TO ACCOMMODATE INSTALLATION OF ALL OTHER TRADES (INCLUDING ROOF PENETRATIONS). AFTER SUCH DEMOLITION AND INSTALLATION, PATCH OR REPLACE MATERIALS AND FINISHES TO MATCH EXISTING.
16. COORDINATE WITH COR FOR CONSTRUCTION ACCESS ROUTE AND LOCATIONS OF DUMPSTER AREA AND COORDINATE WITH COR FOR SCHEDULE OF USE OF ACCESS ROUTE FOR WASTE REMOVAL AND CONTRACTOR USE OF FREIGHT ELEVATOR (AS REQUIRED).

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

RENEE M. CLARK LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

© COPYRIGHT Apogee Consulting Group, P.A.

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL SYMBOLS, ABBREVIATIONS AND NOTES

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

Approved

Date: OCTOBER 13, 2023 | Checked: RMC | Drawn: ANP

Drawing Number: A-001

Dwg 1 of 7

10/11/2023 11:12:10 AM C:\Users\apuflen\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apuflen\0XT7.rvt

VA FORM 08-6231

DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3

DEMOLITION LEGEND

- EXISTING WALL TO REMAIN
- EXISTING DOOR TO REMAIN
- EXISTING WINDOW TO REMAIN
- DEMOLISH WALL
- TYPE "A" TEMPORARY ICRA WALL
- TYPE "B" TEMPORARY ICRA WALL
- TEMPORARY DOOR
- DEMOLISH DOOR
- DEMOLISH WINDOW
- AREA OF WORK

SHEET NOTES:

A. SEE SHEET G-003 FOR ICRA NOTES, SECTIONS, AND DETAILS.

B. AT ALL PHARMACY 2 HOUR FIRE RATED ENCLOSING WALLS WITHIN THE PHARMACY, REMOVE 2 LAYERS OF EXISTING GYPSUM WALL BOARD.

C. WHERE CEILING IS DEMOLISHED, CONTRACTOR TO REMOVE ALL ATTACHED CEILING MOUNTED MEP FIXTURE AND DEVICES UNO.

KEY NOTES:

1. DEMOLISH CMU WALLS
2. DEMOLISH CONCRETE SLAB TOP.
3. DEMOLISH SUSPENDED CEILING, HVAC AND LIGHTING.
4. DEMOLISH GYPSUM WALL BOARD BULKHEAD AND CEILING.
5. REMOVE HIGH CAPACITY SHELVING AND FLOOR TRACK.
6. DEMOLISH CASEWORK.
7. REMOVE REFRIGERATOR FOR RELOCATION.
8. DEMOLISH STANDING HT. CASEWORK AND WALL CABINETS.
9. REMOVE SCRIPTPRO AUTOMATED RX FOR RELOCATION.
10. DEMOLISH FIRE SHUTTER AND RX STORAGE CABINETS.
11. DEMOLISH STANDING HT. CASEWORK
12. DEMOLISH U-SHAPED STANDING CASEWORK AND WALL CABINETS.
13. DEMOLISH PLUMBING FIXTURES.
14. DEMOLISH LOCKERS
15. REMOVE 2 LAYERS OF GYPSUM WALL BOARD AT PHARMACY SIDE OF WALL (FLOOR TO UNDERSIDE OF STRUCTURE).
16. DEMOLISH MOVEABLE SHELVING UNITS.
17. REMOVE WALL OF HEROES PHOTOS, STORE, AND REINSTALL AT END OF CONSTRUCTION.
18. REMOVE ARTWORK FOR VA DISPOSAL.
19. REMOVE FLOORING AND WALL BASE THROUGHOUT PROJECT AREA, U.N.O.
20. REMOVE WALL FOR NEW DOOR OPENING.
21. SALVAGE LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS

NOTE: FURNITURE TO BE REMOVED AND STORED BY VA

DEMOLITION REFLECTED CEILING PLAN LEGEND

- SPRINKLER HEAD
- FIRE ALARM STROBE
- FIRE ALARM ANNUCIATOR
- FIRE ALARM PULL STATION
- EXIT SIGN (SHADED AREA INDICATES DIRECTION OF EGRESS)
- SMOKE DETECTOR
- HEAT DETECTOR
- DENOTES GWB SOFFIT/CEILING
- 1' x 4' TROFFER LIGHT
- RETURN GRILL
- FIRE ALARM STROBE LIGHT
- SUPPLY DIFFUSER
- DOWN LIGHT FIXTURE
- CORRUGATED CEILING
- 2'x2' TROFFER
- EXHAUST GRILL
- FIRE ALARM / HORN / STROBE LIGHT - WALL MOUNTED
- FIRE ALARM / HORN /STROBE LIGHT - CEILING MOUNTED
- 2'X4' TROFFER TO BE DEMOLISHED
- EXISTING 2'X4' TROFFER TO REMAIN

LEGEND

WORK IN THIS AREA TO OCCUR FIRST

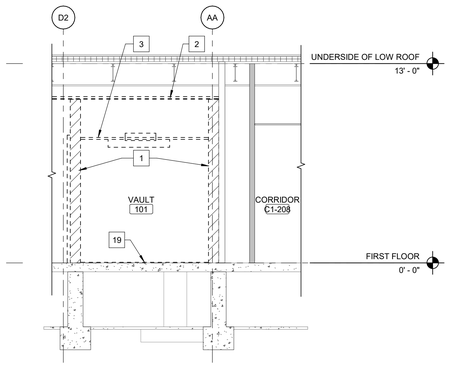
KEY PLAN

SCALE: NO SCALE

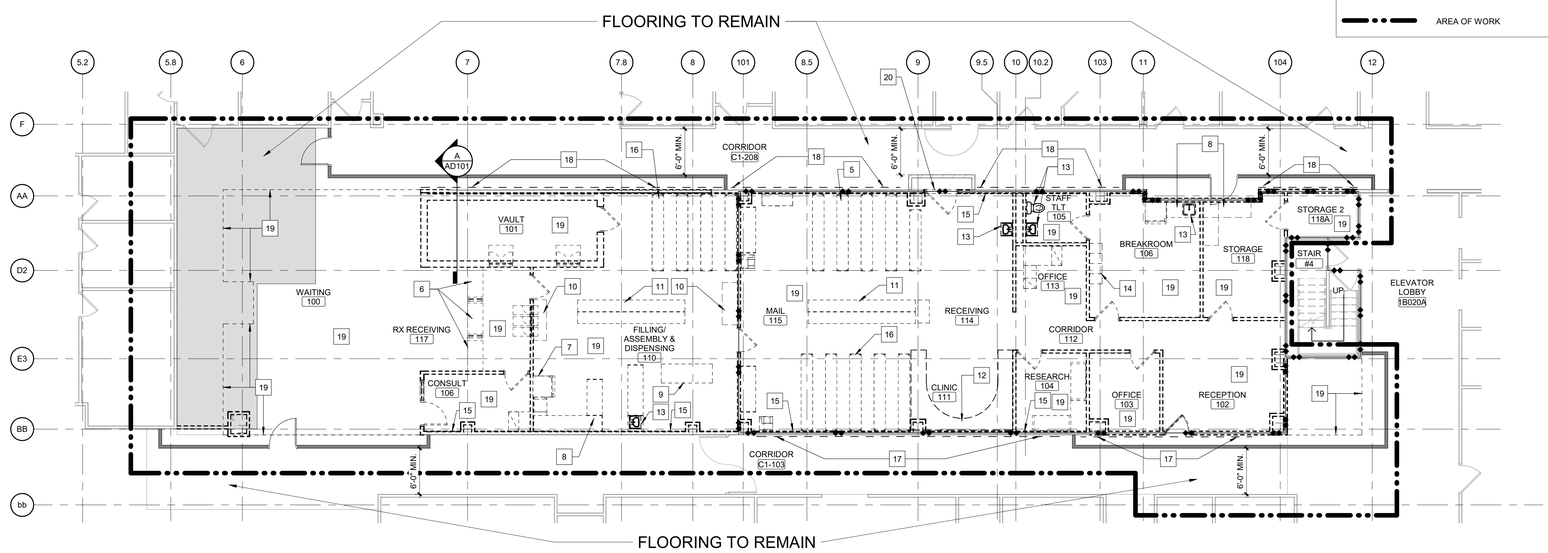
AREA OF WORK

WALL RATING LEGEND

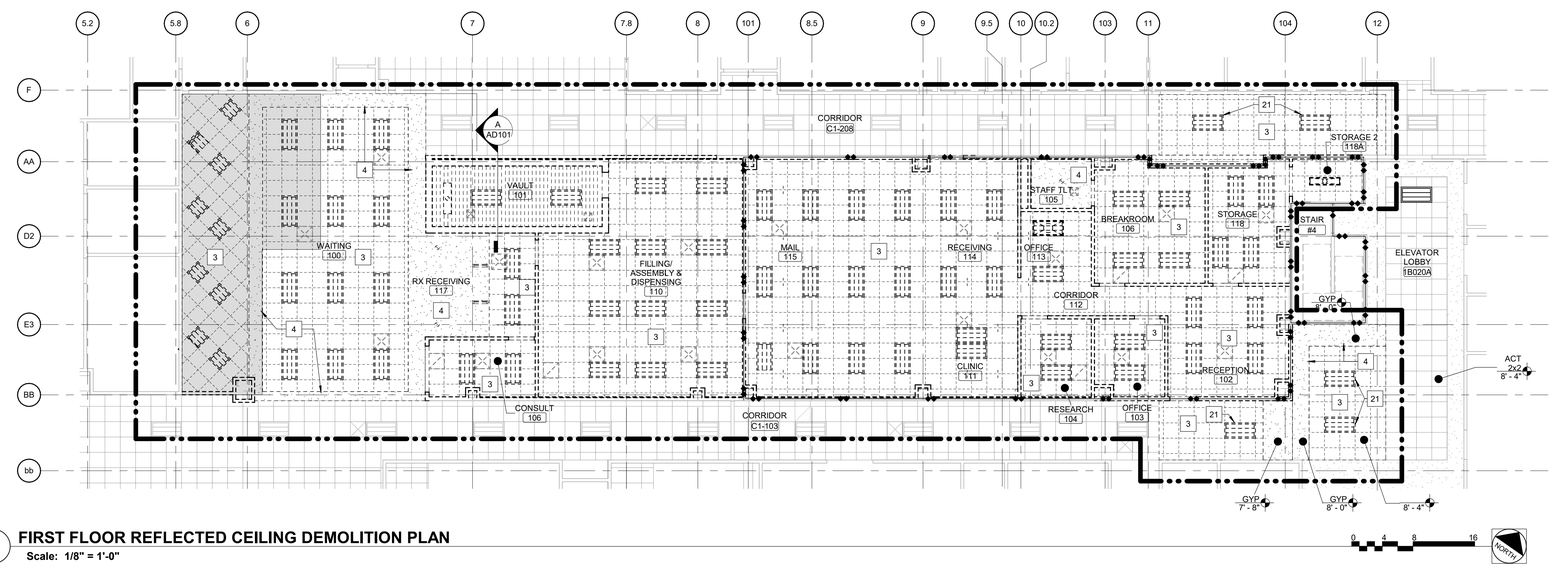
- 1 HR - FIRE SEPARATION
- 2 HR - FIRE SEPARATION
- SMOKE RESISTIVE HAZARDOUS AREA



A SECTION A.A
Scale: 1/4" = 1'-0"



1 FIRST FLOOR DEMOLITION AND ICRA PLAN
Scale: 1/8" = 1'-0"



2 FIRST FLOOR REFLECTED CEILING DEMOLITION PLAN
Scale: 1/8" = 1'-0"

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. RALEIGH, NC 52644

RENEE M. CLARK LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR DEMOLITION AND ICRA PLAN AND REFLECTED CEILING PLAN

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Approved

Date: OCTOBER 13, 2023 | Checked: RMC | Drawn: ANP

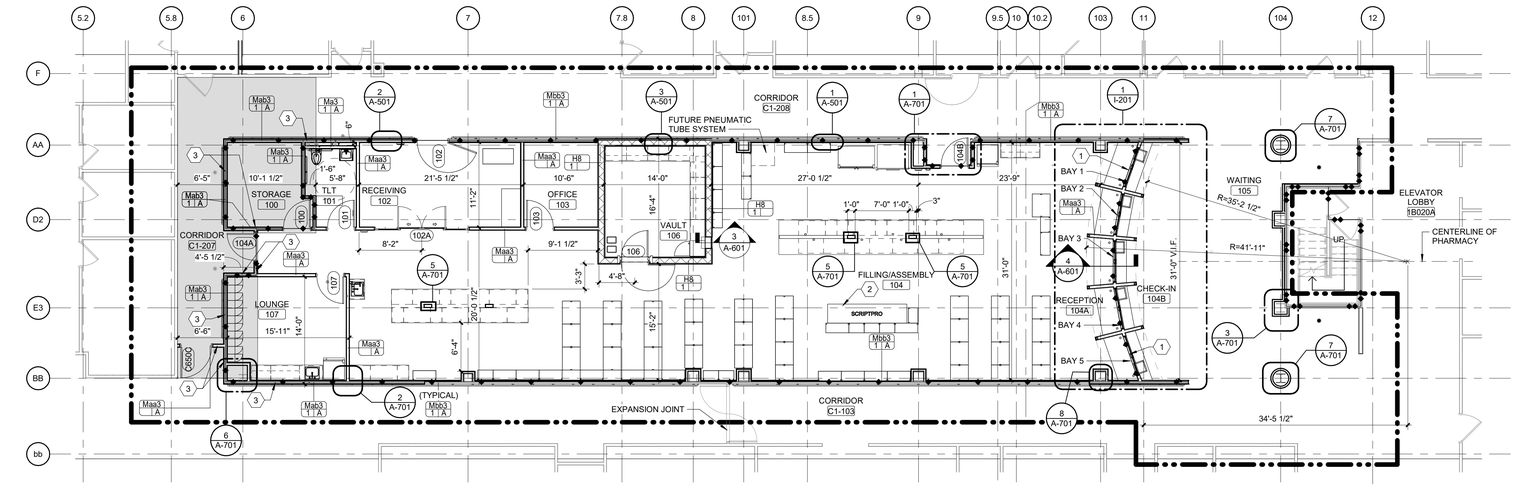
Drawing Number AD101

Dwg 2 of 7

10/11/2023 11:12:16 AM C:\Users\apuhm\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apuhm\D2XT7.rvt

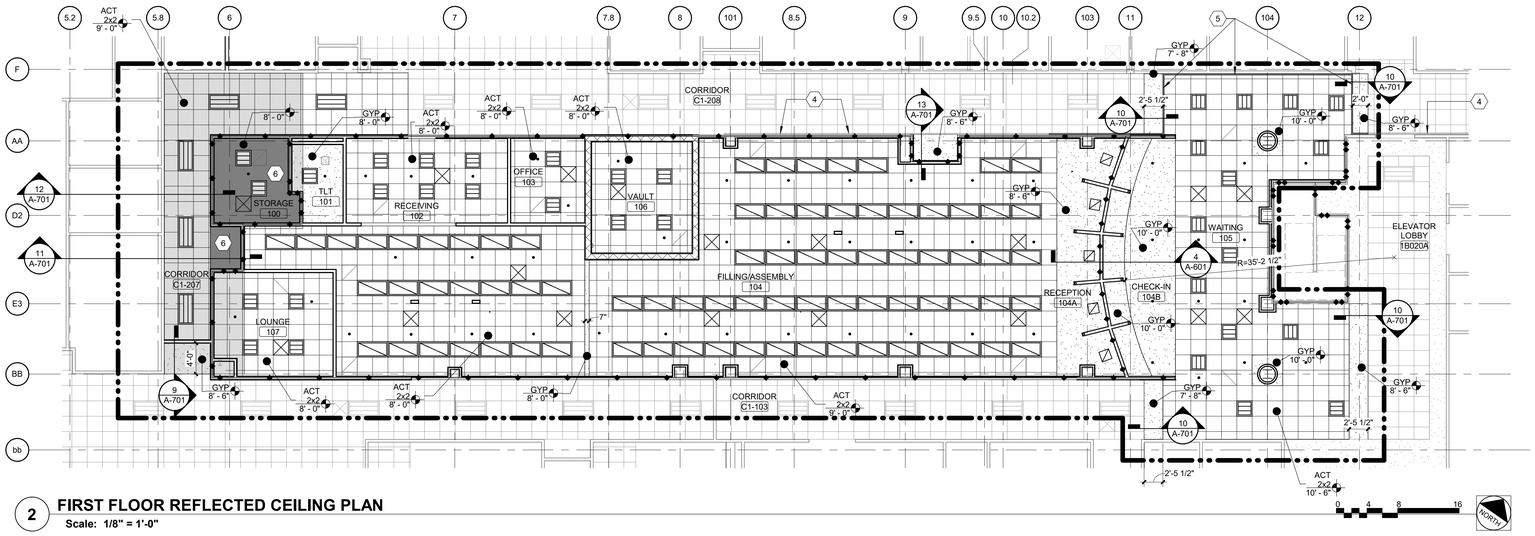
VA FORM 08-6231

DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3



1 FIRST FLOOR PLAN

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



2 FIRST FLOOR REFLECTED CEILING PLAN

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

NEW WORK LEGEND

- EXISTING WALL TO REMAIN
- EXISTING DOOR TO REMAIN
- EXISTING WINDOW TO REMAIN
- NEW WALL
- NEW DOOR
- NEW WINDOW
- AREA OF WORK
- REFERENCE RADIUS
- EXISTING EXPANSION JOINT
- NEW EXPANSION JOINT

SHEET NOTES:

A. AT ALL PHARMACY 2 HOUR FIRE RATED ENCLOSING WALLS, REMOVE 2 LAYERS OF EXISTING GYPSUM WALL BOARD AND MAKE READY FOR NEW INTERIOR FINISH.

B. SEE I DRAWINGS FOR INTERIOR FINISHES AND DETAILS.

C. ALL DOORS ARE LOCATED 4" FROM ADJACENT WALL AT HINGE SIDE, UNO.

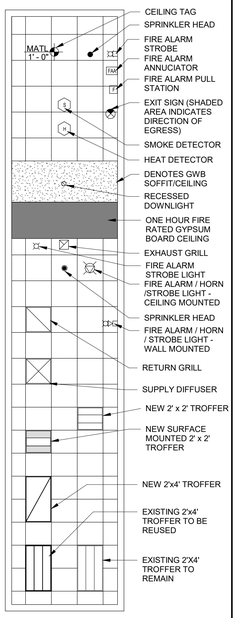
KEY NOTES:

1. 1 HOUR FIRE SHUTTER AT EACH BAY
2. SCRIPTPRO
3. NEW CORRIDOR WALLS TO BE CONSTRUCTED FIRST.
4. EXISTING EXPANSION JOINT
5. NEW EXPANSION JOINT
6. ONE HOUR FIRE RATED GYPSUM BOARD CEILING

LEGEND

WORK IN THIS AREA TO OCCUR FIRST

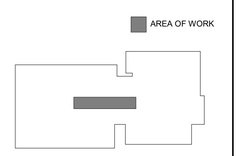
REFLECTED CEILING PLAN LEGEND



CEILING CONTRACTOR TO MEASURE EACH CEILING AREA AND ESTABLISH A CEILING LAYOUT TO BALANCE BORDER WIDTHS AT OPPOSITE EDGES OF EACH ROOM. AVOID USE OF LESS-THAN 6" TILES.

KEY PLAN

SCALE: NO SCALE



WALL RATING LEGEND

- 1 HR - FIRE SEPARATION
- 2 HR - FIRE SEPARATION
- SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

RENEE M. CLARK LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511

www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR PLAN AND REFLECTED CEILING PLAN

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved

Date: OCTOBER 13, 2023 | Checked: RMC | Drawn: ANP

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

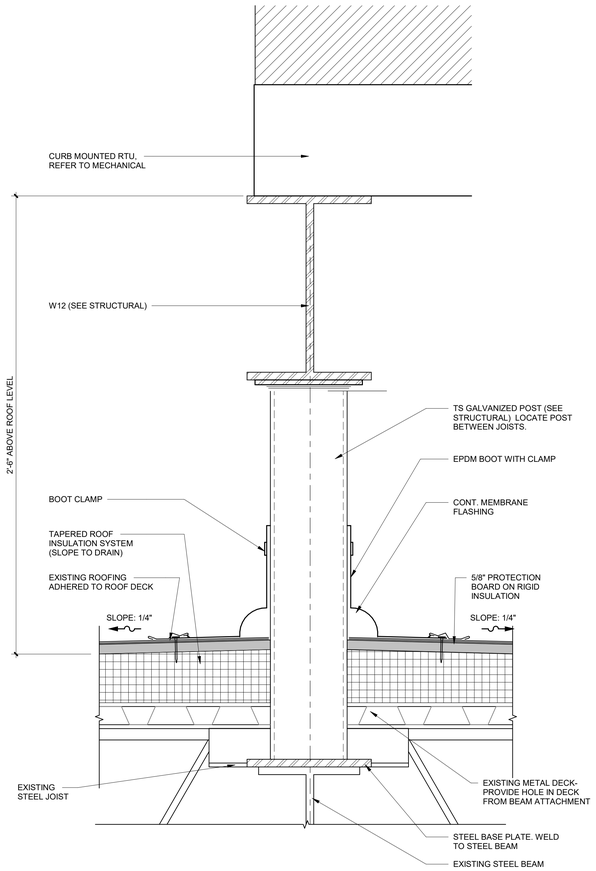
Drawing Number A-101

Dwg 3 of 7

10/11/2023 11:22:23 AM C:\Users\apuser\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apuser\VDXT7.rvt

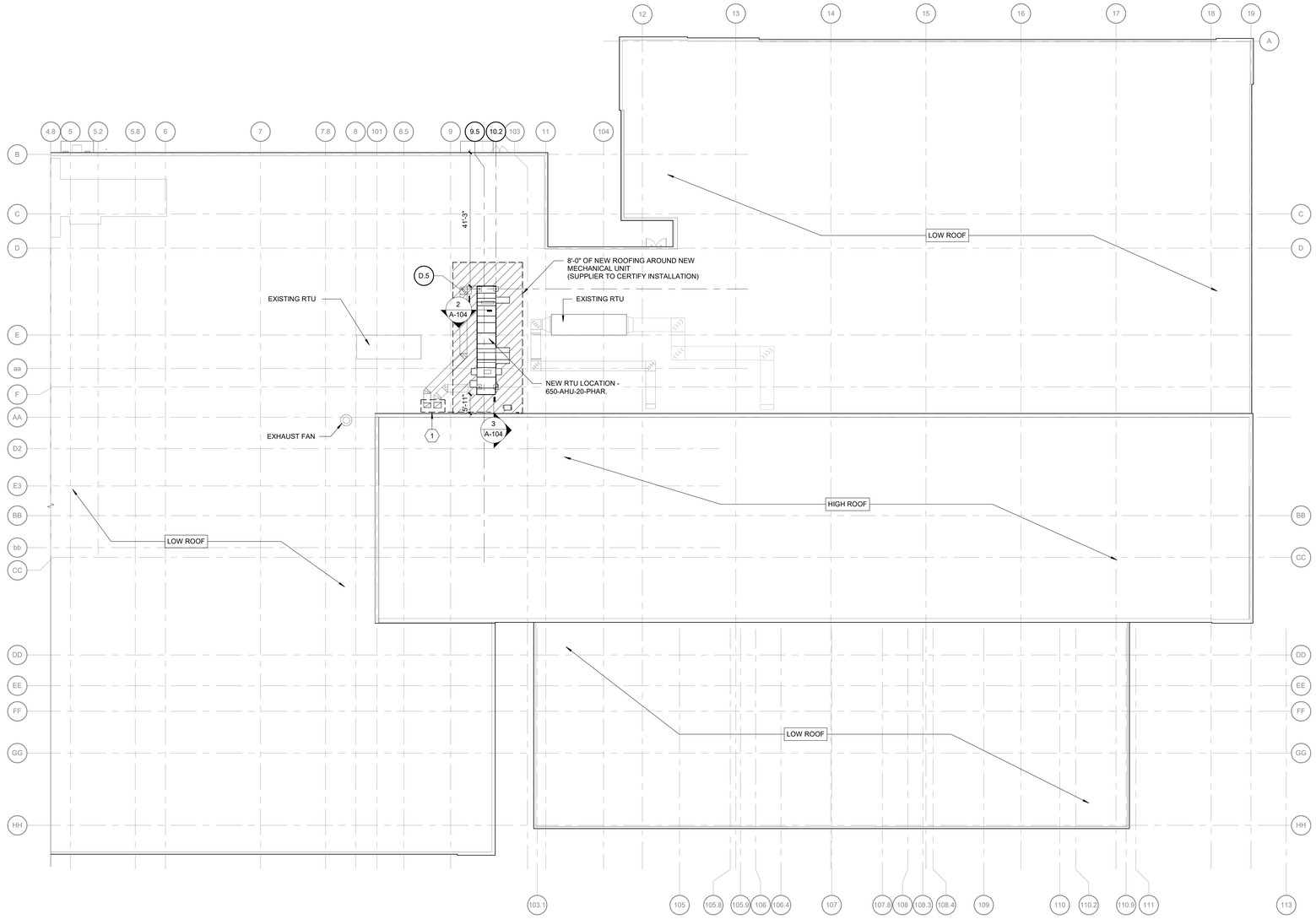
VA FORM 08-6231

DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3



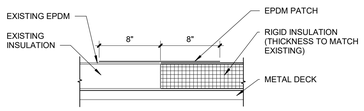
2 ROOF CURB DETAIL AT RTU

Scale: 3" = 1'-0"



1 ROOF PLAN

Scale: 1/16" = 1'-0"



3 SECTION AT NEW ROOFING

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

SHEET NOTES:

A. COORDINATE ROOFING EQUIPMENT WITH MEP DRAWINGS.

B. CRANING OF ROOF EQUIPMENT AND ROOF PENETRATIONS TO BE COMPLETED ON WEEKENDS.

KEY NOTES:

1 PROVIDE ROOF PENETRATION ENCLOSURE FOR DUCTWORK WITH STEEL ANGLE ROOF FRAMING AS PER STRUCTURAL DRAWINGS.

KEY PLAN

SCALE: NO SCALE

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

RENEE M. CLARK LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

© COPYRIGHT Apogee Consulting Group, P.A.

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ROOF PLAN

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

Approved

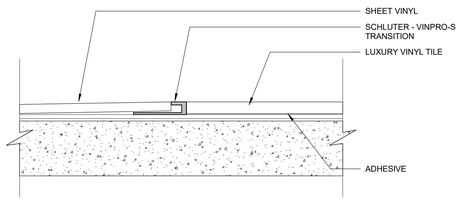
Date: OCTOBER 13, 2023 | Checked: RMC | Drawn: ANP

Drawing Number: A-104

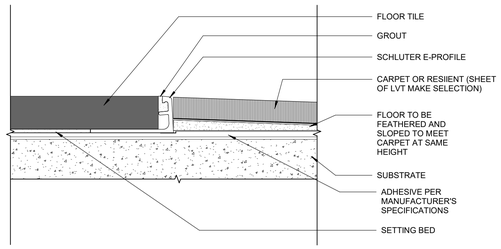
Dwg 4 of 7

10/11/2023 11:12:25 AM C:\Users\anpullen\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apullen\DXT7.rvt

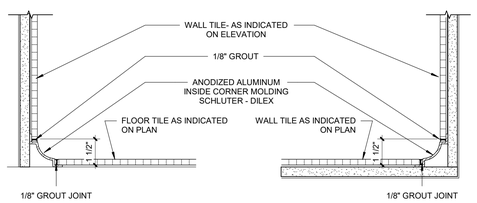
DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3



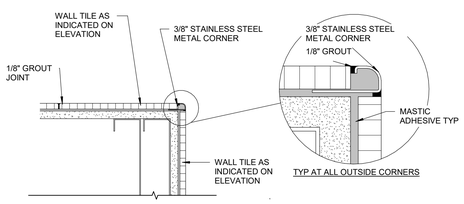
5 RESILIENT TRANSITION
Scale: 1 1/2" = 1'-0"



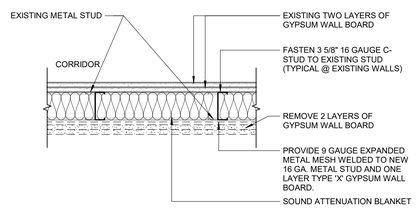
6 TILE TRANSITION
Scale: 1 1/2" = 1'-0"



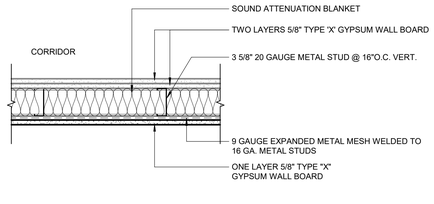
7 WALL TILE TO FLOOR/WALL TILE TRANSITION COVE
Scale: 3" = 1'-0"



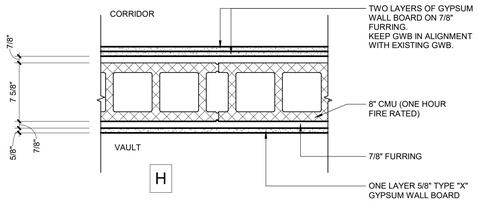
8 WALL TILE ROUND CORNER TRIM
Scale: 3" = 1'-0"



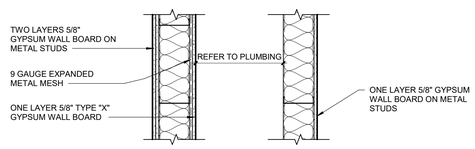
1 TYPICAL EXISTING PHARMACY PERIMETER WALL
Scale: 1 1/2" = 1'-0"



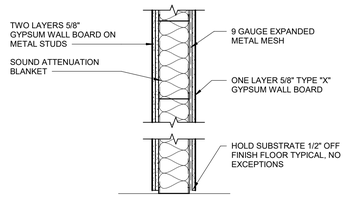
2 TYPICAL NEW PERIMETER WALL
Scale: 1 1/2" = 1'-0"



3 WALL DETAIL @ VAULT (ONE HOUR FIRE RATED)
Scale: 1 1/2" = 1'-0"



4 CHASE WALL @ TLT 101
Scale: 1" = 1'-0"

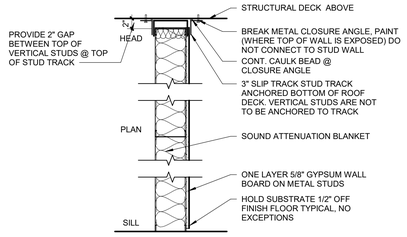


TAG	STUD SIZE	OVERALL THICK	UL ASSEMB	STC*
Mab1	1-5/8"	3-1/2"	---	---
Mab2	2-1/2"	4-3/8"	---	---
Mab3	3-5/8"	5-1/2"	UL419*	40
Mab4	4"	5-7/8"	---	40
Mab6	6"	7-7/8"	---	40
Mab8	8"	9-7/8"	---	40

REFER TO PARTITION TAG FOR INSULATION INFORMATION (SHOWN HERE FOR REFERENCE ONLY - MAY NOT EXIST), AND FIRE RATING

*UL419 WITH 2 LAYERS TYPE 'X' GYPSUM WALL BOARD ONE SIDE - ONE HOUR FIRE RATED

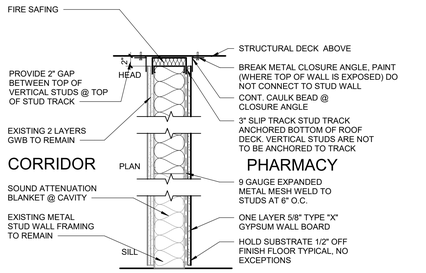
PARTITION TYPE - Mab_MODIFIED



TAG	STUD SIZE	OVERALL THICK	UL ASSEMB	STC*
Ma0	7/8"	1-1/2"	---	---
Ma1	1-5/8"	2-1/4"	---	---
Ma2	2-1/2"	3-1/8"	---	---
Ma3	3-5/8"	4-1/4"	---	---
Ma4	4"	4-5/8"	---	---
Ma6	6"	6-5/8"	---	---
Ma8	8"	8-5/8"	---	---

REFER TO PARTITION TAG FOR INSULATION INFORMATION (SHOWN HERE FOR REFERENCE ONLY - MAY NOT EXIST), AND FIRE RATING

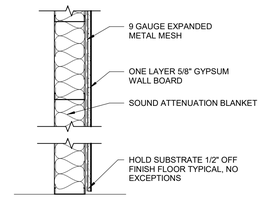
PARTITION TYPE - Ma_



TAG	STUD SIZE	OVERALL THICK	UL ASSEMB	STC*
Mbb1	1-5/8"	5-1/8"	---	---
Mbb2	2-1/2"	6"	---	---
Mbb3	3-5/8"	7-1/8"	UL419*	40
Mbb4	4"	7-1/2"	---	40
Mbb6	6"	9-1/2"	---	40
Mbb8	8"	11-1/2"	---	40

REFER TO PARTITION TAG FOR INSULATION INFORMATION (SHOWN HERE FOR REFERENCE ONLY - MAY NOT EXIST), AND FIRE RATING

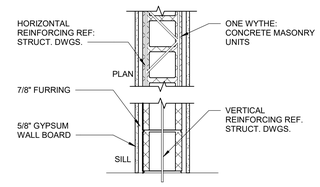
PARTITION TYPE - EXISTING-Mbb-ONE HOUR FIRE RATED



TAG	STUD SIZE	OVERALL THICK	UL ASSEMB	STC*
Ma0	7/8"	1-1/2"	---	---
Ma1	1-5/8"	2-1/4"	---	---
Ma2	2-1/2"	3-1/8"	---	---
Ma3	3-5/8"	4-1/4"	---	---
Ma4	4"	4-5/8"	---	---
Ma6	6"	6-5/8"	---	---
Ma8	8"	8-5/8"	---	---

REFER TO PARTITION TAG FOR INSULATION INFORMATION (SHOWN HERE FOR REFERENCE ONLY - MAY NOT EXIST), AND FIRE RATING

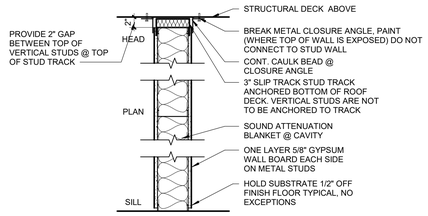
PARTITION TYPE - Ma_MODIFIED



TAG	BLOCK SIZE	OVERALL THICK	UL ASSEMB	STC*
H4	3-5/8"	6-5/8"	---	---
H6	5-5/8"	8-5/8"	---	---
H8	7-5/8"	10-5/8"	---	---
H10	9-5/8"	12-5/8"	---	---
H12	11-5/8"	14-5/8"	---	---
			---	---
			---	---

REFER TO PARTITION TAG FOR INSULATION INFORMATION (SHOWN HERE FOR REFERENCE ONLY - MAY NOT EXIST), AND FIRE RATING

PARTITION TYPE - H_MODIFIED (1HR FIRE RATED)

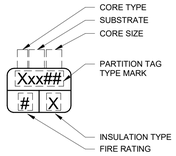


TAG	STUD SIZE	OVERALL THICK	UL ASSEMB	STC*
Maa1	1-5/8"	2-7/8"	---	---
Maa2	2-1/2"	3-3/4"	---	---
Maa3	3-5/8"	4-7/8"	---	---
Maa4	4"	5-1/4"	---	---
Maa6	6"	7-1/4"	---	---
Maa8	8"	9-1/4"	---	---

REFER TO PARTITION TAG FOR INSULATION INFORMATION (SHOWN HERE FOR REFERENCE ONLY - MAY NOT EXIST), AND FIRE RATING

PARTITION TYPE - Maa

PARTITION TYPE KEY



CORE TYPES

C. CAST IN PLACE CONCRETE

G. CONCRETE MASONRY UNIT (GROUTED SOLID)

H. CONCRETE MASONRY UNIT (HOLLOW)

M. METAL STUD FRAMING / METAL FURRING

MM. METAL STUD FRAMING (2 ROWS, PARALLEL WITH PRESCRIBED AIR GAP BETWEEN

S. METAL SHAFT WALL CH STUD

T. TILT-UP CONCRETE PANEL

W. WOOD STUD FRAMING / FURRING

SUBSTRATE CONFIGURATION

a. 5/8" GWB (1 LAYER)

b. 5/8" GWB (2 LAYER)

c. 5/8" GWB (3 LAYER)

d. 5/8" GWB (4 LAYER)

e. 1/2" GWB (1 LAYER)

f. 1/2" GWB (2 LAYER)

g. 1/2" PLWD (1 LAYER)

h. 1/2" PLWD, 1/2" GWB (1 LAYER)

j. 1/2" PLWD, 5/8" GWB (1 LAYER)

m. 5/8" CMT (1 LAYER)

n. 1/2" CMT (1 LAYER)

s. 1" SHAFT LINER

(NONE) CORE ONLY

INSULATION TYPES

A. ACOUSTIC INSULATION

T. THERMAL INSULATION

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

RENEE M. CLARK LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER:

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511

www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: PARTITION TYPES AND TRANSITION DETAILS

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved: Project Director

Date: OCTOBER 13, 2023 | Checked: RMC | Drawn: ANP

VA PROJECT NUMBER 612A4-19-016

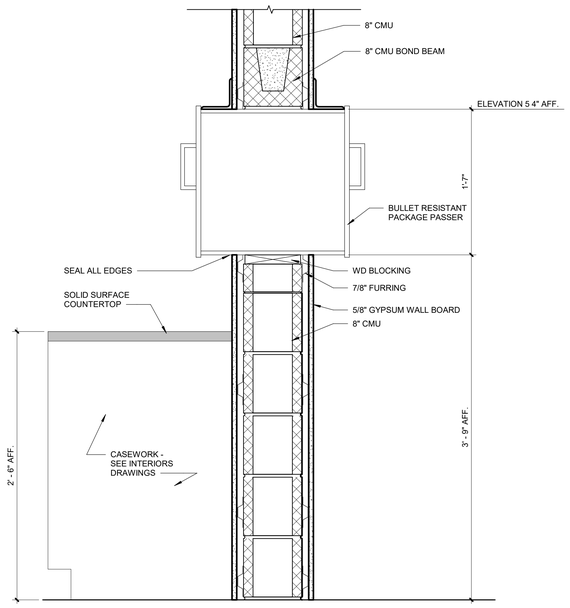
Building Number # 650

Drawing Number A-501

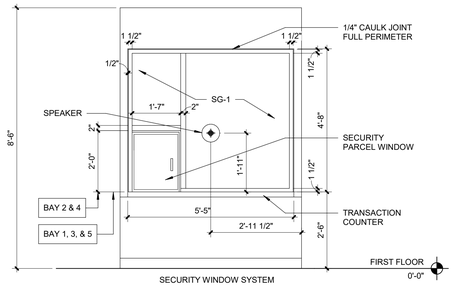
Dwg 5 of 7

10/11/2023 11:22:28 AM
VA FORM 08-6231

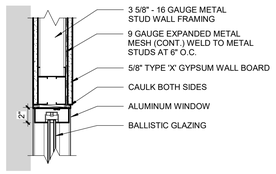
DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3



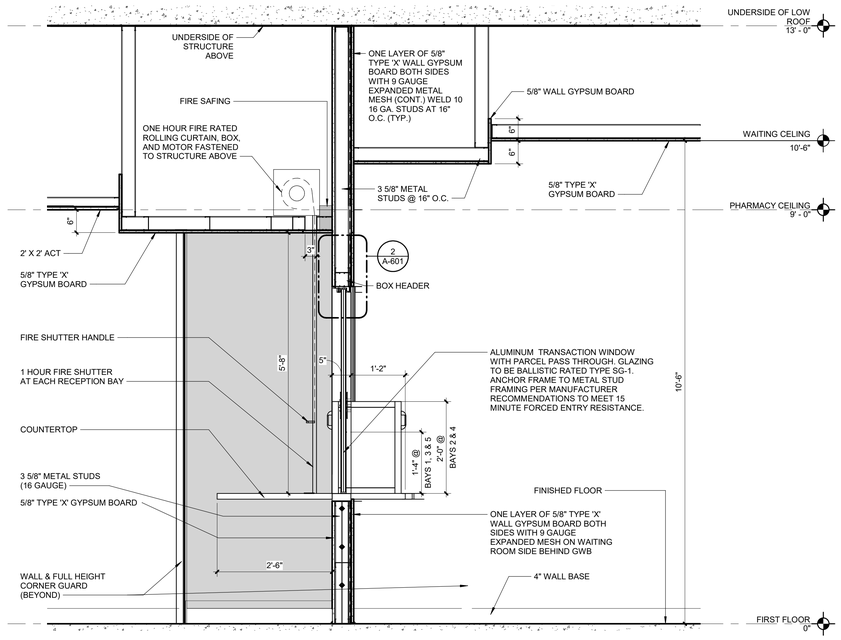
3 SECTION @ PACKAGE PASSER
Scale: 1 1/2" = 1'-0"



1 SECURITY WINDOW SYSTEM ELEVATION
Scale: 1/2" = 1'-0"



2 TRANSECTION WINDOW HEAD
Scale: 1 1/2" = 1'-0"



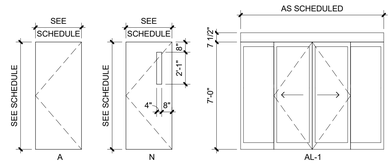
4 SECTION @ TRANSACTION COUNTER
Scale: 3/4" = 1'-0"

DOOR SCHEDULE

NO.	DOOR WIDTH	DOOR HEIGHT	DOOR THICK	DOOR MAT'L	DOOR ELEV	FRAME MAT'L	FRAME ELEV	HEAD DETAIL NO.	JAMB DETAIL NO.	FIRE RATING	HDWR SET	REMARKS
FIRST FLOOR												
100	3' - 6"	7' - 0"	1 3/4"	WD	A	HM	1	H1	J1		HW-4E	LOW ENERGY AUTO OPENER
101	3' - 6"	7' - 0"	1 3/4"	WD	A	HM	1	H1	J1		HW-2	
102	4' - 0"	7' - 0"	1 3/4"	WD	A	HM-1	-	H1	J1	45 MIN.	HW-5B	
102A	12' - 4"	7' - 0"	0"	AL	AL-1	AL	AL-1	H2	J2		HW-5G	SLIDING DOORS
103	3' - 6"	7' - 0"	1 3/4"	WD	A	HM	1	H1	H1		HW-3	
104A	3' - 6"	7' - 0"	1 3/4"	WD	A	HM-1	1	H1	J1	45 MIN.	HW-5B	
104B	3' - 6"	7' - 0"	1 3/4"	WD	A	HM-1	1	H1	J1	45 MIN.	HW-5B	
106	3' - 6"	7' - 0"	1 3/4"	STL	A	STL	-				HW-5D	VAULT WITH DAY GATE
107	3' - 6"	7' - 0"	1 3/4"	WD	N	HM	1	H1	J1		HW-1	
C650C	4' - 0"	7' - 0"	1 3/4"	WD	N	HM	1	H1	J1			

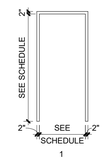
AL= ALUMINUM
HM1= SECURITY DOOR - LEVEL 3
HM= HOLLOW METAL
STL= STEEL
STN= STAIN
WD= WOOD

DOOR HARDWARE SET NO. 1:
HINGES: 3 BUTT HINGES
LOCKSET: 1 STORAGE FUNCTION LOCKSET



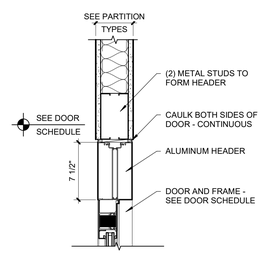
NOTES:
1. PROVIDE FIRE-RATED GLASS AT FIRE RATED CONDITIONS
2. ALL GLASS MUST BE TEMPERED

DOOR ELEVATIONS

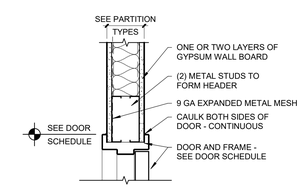


NOTES:
1. PROVIDE FIRE-RATED GLASS AT FIRE RATED CONDITIONS
2. ALL EXTERIOR GLASS SHALL BE INSULATED
3. ALL GLASS MUST BE TEMPERED

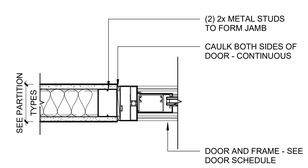
FRAME ELEVATIONS



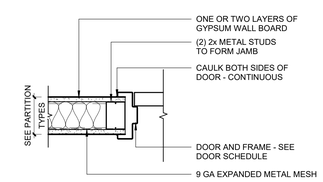
H2 ALUMINUM HEAD DETAIL @ METAL STUD
Scale: 1 1/2" = 1'-0"



H1 HEAD DETAIL @ METAL STUD
Scale: 1 1/2" = 1'-0"



J2 ALUMINUM JAMB DETAIL @ METAL STUD
Scale: 1 1/2" = 1'-0"



J1 JAMB DETAIL @ METAL STUD
Scale: 1 1/2" = 1'-0"

FULLY SPRINKLERED
100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

RENEE M. CLARK LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER
ACG Project Number 19-103

APOGEE Engineers | Architects
© COPYRIGHT Apogee Consulting Group, P.A.

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: DOOR SCHEDULE, ELEVATIONS AND DETAILS

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

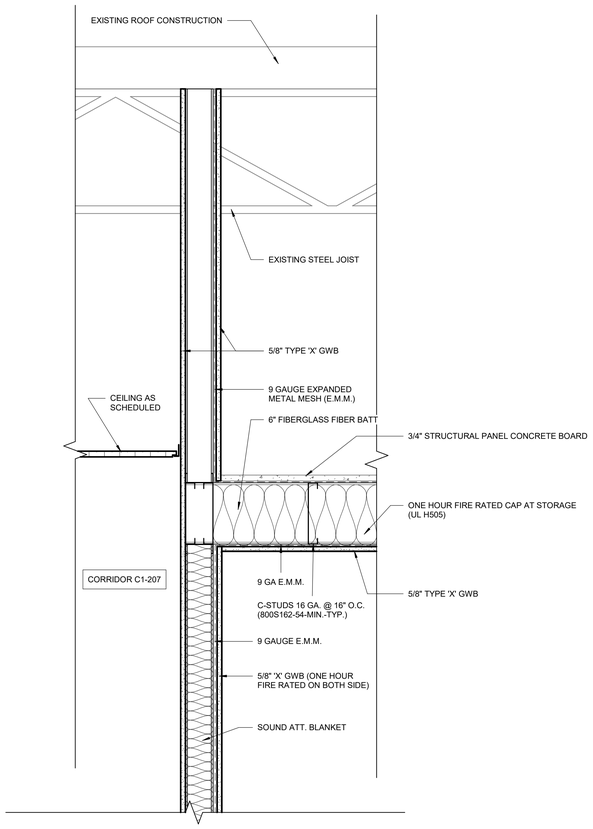
Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016
Building Number: # 650
Approved
Date: OCTOBER 13, 2023 | Checked: RMC | Drawn: ANP
Drawing Number: A-601
Dwg 6 of 7

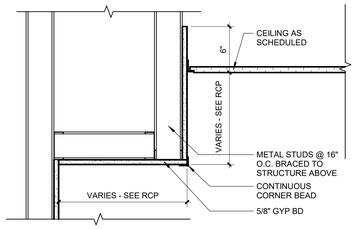
10/11/2023 11:12:30 AM C:\Users\apuflen\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apuflen\XXT7.rvt

VA FORM 08-6231

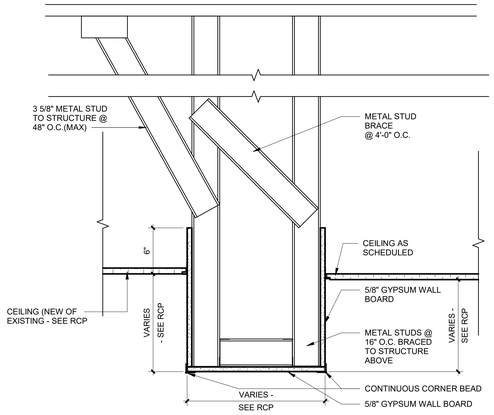
DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3



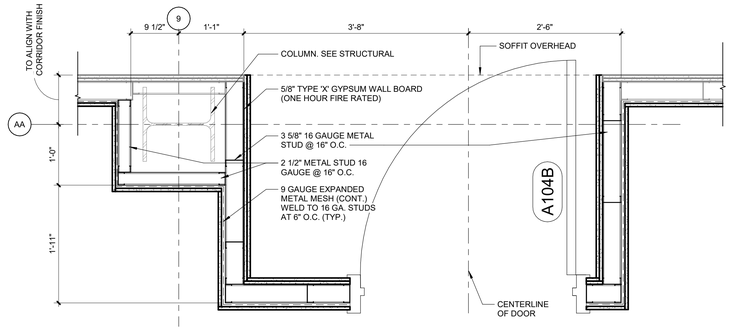
12 WALL SECTION
Scale: 1 1/2" = 1'-0"



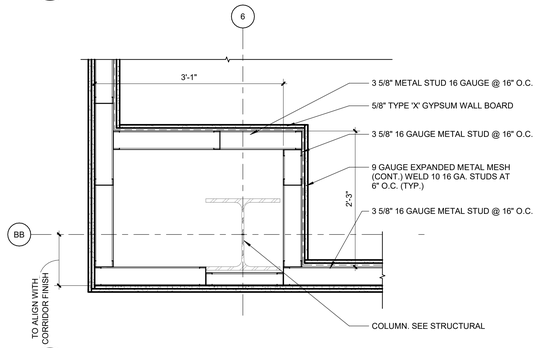
9 SOFFIT AT WALL
Scale: 1 1/2" = 1'-0"



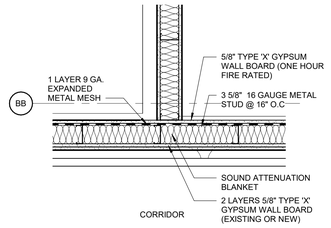
10 SOFFIT
Scale: 1 1/2" = 1'-0"



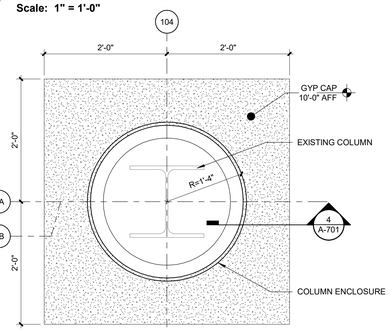
1 COLUMN AA-9
Scale: 1" = 1'-0"



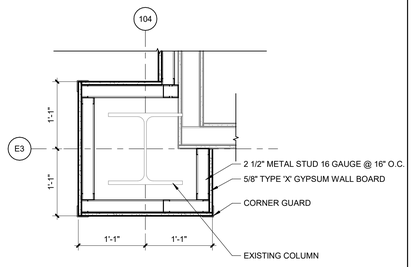
6 COLUMN BB-6
Scale: 1" = 1'-0"



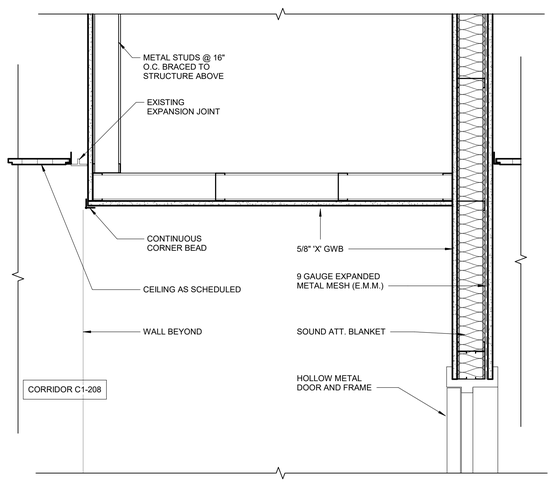
2 TYP. FIRE RATED WALL TRANSITION
Scale: 1" = 1'-0"



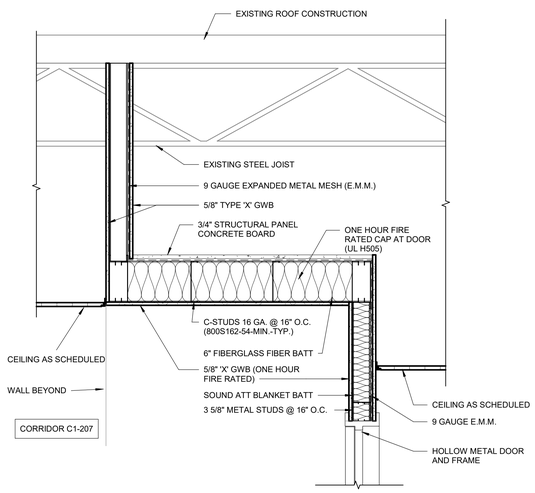
7 COLUMN AA-104 & BB-104 (REFLECTED CEILING VIEW)
Scale: 1" = 1'-0"



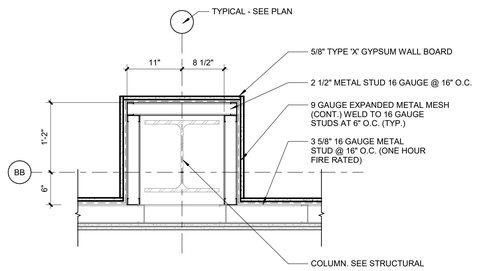
3 COLUMN E3-104
Scale: 1" = 1'-0"



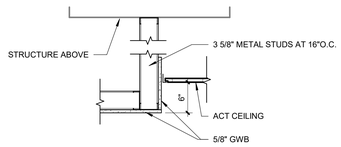
13 BULKHEAD AT DOOR 104B
Scale: 1 1/2" = 1'-0"



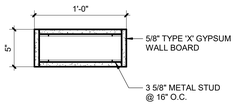
11 WALL SECTION AT DOOR RECESS
Scale: 1" = 1'-0"



8 COLUMN TYPICAL
Scale: 1" = 1'-0"



4 TYPICAL SECTION AT COLUMN CAP
Scale: 1" = 1'-0"



5 STUB WALL
Scale: 1 1/2" = 1'-0"

SHEET NOTES:

A. ALL METAL STUD WALLS WITH EXPANDED METAL SECURITY MESH SHALL HAVE MINIMUM 16 GAUGE METAL STUD @ 16"O.C.

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: PLAN AND SECTION DETAILS

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved

Date: OCTOBER 13, 2023 | Checked: RMC | Drawn: ANP

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Drawing Number A-701

Dwg 7 of 7

10/11/2023 11:12:33 AM C:\Users\apullen\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apullenVDXT7.rvt

VA FORM 08-6231

DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3

ROOM FINISH SCHEDULE(PAGE NORTH)

ARCHITECTURE ROOM NO.	CAMPUS ROOM NO.	NAME	FLOOR	BASE	WALLS EAST	WALLS NORTH	WALLS SOUTH	WALLS WEST	WAINSCOT FINISH	WAINSCOT HEIGHT	CEILING FINISH	REMARKS
FIRST FLOOR												
#4	--	STAIR	--	--	--	--	--	--			--	
1B020A	--	ELEVATOR LOBBY	--	--	--	--	--	ETR/HIW-1	HIW-1	4'-0"	--	
100	1D-201	STORAGE	RSF-1	RSFB-1	P-1/HIW-2	P-1/HIW-2	P-1/HIW-2	P-1/HIW-2	HIW-2	4'-0"	ACT-1	HIW-2 WAINSCOT TO BE INSTALLED ALONG ALL WALLS
101	1D-202	TLT	PT-1	--	PT-2/GT-1/EP-1	PT-2/GT-1/EP-1	PT-2/GT-1/EP-1	PT-2/GT-1/EP-1	PT-2/GT-1	5'-8"	GYP	PAINT GYP CEILING EP-2
102	1D-203	RECEIVING	RSF-1	RSFB-1	P-1/HIW-2	P-1/HIW-2	P-1/HIW-2	P-1/HIW-2	HIW-2	4'-0"	ACT-1	HIW-2 WAINSCOT TO BE INSTALLED ALONG ALL WALLS
103	1D-204	OFFICE	RSF-1	RSFB-1	P-3	P-1	P-1	P-1			ACT-1	
104	1D-207	FILLING/ASSEMBLY	RSF-1,2	RSFB-1	P-1,4	P-1,4	P-1,4	P-1,4			ACT-1	
104A	1D-206	RECEPTION	RSF-1	RB-1	HIW-1	P-1/HIW-1	P-1/HIW-1	--			P-5/ACT-1	HIW-1 TO BE FULL HEIGHT, GRAIN TO RUN HORIZONTAL. REFER TO SHEETS I-201 AND 1-401 FOR ADDITIONAL INFORMATION
104B	1D-210	CHECK-IN	LVT-2,3	RB-1	--	HIW-1	HIW-1	HIW-1			GYP	HIW-1 TO BE FULL HEIGHT, GRAIN TO RUN HORIZONTAL. REFER TO SHEETS I-201 AND 1-401 FOR ADDITIONAL INFORMATION. PAINT GYP CEILING P-5 ON ALL EXPOSED SIDES
105	1D-209	WAITING	LVT-2,3	RB-1	P-1/HIW-1,5	P-1/HIW-1,5	P-1/HIW-1,5	P-1/HIW-1,5			P-1/ACT-2	HIW-1 TO BE 4'H & FULL HEIGHT, GRAIN TO RUN HORIZONTAL. HIW-3 TO BE FULL HEIGHT, REFER TO SHEETS I-201 AND 1-401 FOR ADDITIONAL INFORMATION. GYP CEILINGS TO BE PAINTED P-1 & P-5, REFER TO A-101 FOR ADDITIONAL INFORMATION
106	1D-205	VAULT	RSF-1	RSFB-1	P-1	P-1	P-1	P-1			ACT-1	
107	1D-208	LOUNGE	LVT-1	RB-2	P-3	P-3	P-3	P-3			ACT-1	
C1-103	--	CORRIDOR	ETR	RB-1 / ETR	--	P-1	P-1/ETR	P-1/ETR	HIW-1	4'-0"	ETR/ACT-1	
C1-207	--	CORRIDOR	ETR	RB-1 / ETR	P-1	P-1/ETR	P-1	P-1	HIW-1	4'-0"	ACT-1	
C1-208	--	CORRIDOR	ETR	RB-1 / ETR	P-1/ETR	--	P-1	P-1/ETR	HIW-1	4'-0"	ETR/ACT-1	

PLASTIC LAMINATE CASEWORK GENERAL NOTES

THE FOLLOWING NOTES ARE SPECIFIC TO CASEWORK AND ARE IN ADDITION TO THE GENERAL FINISH NOTES.

1. CASEWORK DIMENSIONS SHALL BE FIELD VERIFIED PRIOR TO FABRICATION AND INSTALLATION.
2. PROVIDE WOOD BLOCKING IN WALL CAVITIES FOR ITEMS THAT ARE REQUIRED TO BE SECURED TO THE WALLS. REFERENCE MECHANICAL, PLUMBING, ELECTRICAL AND TECHNOLOGY DRAWINGS. COORDINATE WITH FURNITURE SUPPLIER WHERE APPROPRIATE.
3. PROVIDE HYBRID THIN WALL BRACKET SUPPORTS AT 36" O.C. MAX. TO SUPPORT COUNTERTOP CONTINUING AT KNEE SPACE.
4. COUNTERTOP SUPPORT END PANELS SHALL BE 1-1/2" THICK.
5. PROVIDE 2-1/2" DIAMETER GROMMETS WHERE GROMMETS ARE INDICATED AT ALL KNEE SPACES, AT 36" O.C. MAX.
6. PROVIDE FINISHED END PANEL AT EXPOSED CASEWORK ENDS AND BACKS AS NEEDED. PANEL TO MATCH PLASTIC LAMINATE. END PANEL SUPPORTS SHALL BE 1-1/2" WIDE.
7. WHEN FILLER PANELS ARE REQUIRED AT BOTH ENDS OF CASEWORK TERMINATION, BOTH FILLER PANELS SHALL BE EQUAL WIDTH, UNLESS OTHERWISE NOTED. ADD FILLER PANEL AS NEEDED AT CABINETS, WARDROBES, DRAWERS, APPLIANCES, ETC. TO ENSURE FULL DOOR SWING AND DRAWER OPERATION. PROVIDE FILLER PANELS AND TRIM WHERE EQUIPMENT IS LOCATED WITHIN CABINETS.
8. ALL COUNTERTOPS TO BE SOLID SURFACE WITH POST FORM PROFILE WITH 1/2" RADIUS AT EXPOSED CORNERS. ALL COUNTERTOPS ARE 1-1/2" THICK WITH 4" HIGH BACK/SIDE SPLASHES UNLESS NOTED OTHERWISE. ALL JOINTS IN COUNTERTOPS, SPLASHES AND CURBS SHALL ALIGN AND BE SMOOTH. PROVIDE END SPLASH AT THE SIDES WHEN THE COUNTERTOP IS ADJACENT TO THE WALL. COUNTERTOPS AND SIDE/BACKSPLASHES TO BE INTEGRAL. ALL EDGES OF COUNTERTOPS AND BACK/ENDSPLASHES TO BE EASED.
9. COUNTERTOPS, TRANSACTION TOPS, BACK / SIDE SPLASHES, AND END PANELS SHALL BE CAULKED TO THE WALL WITH A CLEAR OR COORDINATING COLOR
10. ALL COUNTERTOPS TO EXTEND 1" BEYOND FRONT OF CABINET DOOR FACE AND SIDES.
11. ALL BASE CABINETS TO BE 23" DEEP WITH 24" DEEP COUNTERTOP INCLUDING BACKSPLASH UNLESS NOTED OTHERWISE.
12. ALL WALL CABINETS TO BE 15"D OUT TO OUT UNLESS NOTED OTHERWISE. PROVIDE LIGHT VALANCES WHERE UNDERCABINET LIGHTS ARE PROVIDED.
13. ALL WALL CABINETS TO HAVE SLOPE TOPS UNLESS A BULKHEAD IS PRESENT.
14. ALL SHELVING SHOWN WITH DASHED LINES IN ELEVATIONS TO BE ADJUSTABLE.
15. PROVIDE AN APRON AT ALL KNEE SPACES & SINKS, U.N.O. PROVIDE 30" WIDE (MIN.) x 27" HIGH (MIN.) CLEAR OPEN SPACE UNDER EACH ADA ACCESSIBLE SINK.
16. CONTRACTOR SHALL COORDINATE INSTALLATION OF CASEWORK WITH SINKS / PLUMBING FIXTURES AND ASSOCIATED PIPINGS AND FITTINGS
17. PROVIDE PIPE WRAP AT EXPOSED PIPES.
18. SEE SHEET I-202 FOR TYPICAL CABINET SECTIONS.

SIGNAGE GENERAL NOTES

1. CONTRACTOR TO COORDINATE THE TEXT OF SIGN INSERTS WITH COR. COR TO GIVE FINAL APPROVAL OF ALL SIGNAGE TEXT, DESIGN AND LOCATIONS. ALL SIGNAGE TO MEET VA SIGNAGE GUIDELINES TO MEET INSTALLATION HEIGHTS.
2. SIGNS TO MATCH MATHER CAMPUS SIGNAGE STANDARDS. COLORS TO BE DETERMINED BY FACILITIES.
3. ALL SIGNAGE SHALL BE CONTRACTOR FURNISHED AND INSTALLED U.N.O.
4. PERMANENT ROOM SIGNAGE MUST INCLUDE RAISED LETTERS AND BRAILLE AND MEET ADA GUIDELINES.
5. IF WALL SPACE IS NOT AVAILABLE FOR SIGNAGE ON LATCH SIDE OF DOOR PER MOUNTING STANDARDS, SIGNS SHALL BE INSTALLED PER CURRENT ADA STANDARDS ON NEAREST ADJACENT WALL.
6. ALL EXISTING SIGNAGE THAT ARE NOT REUSED IN PROJECT TO BE HANDED OVER TO VA DURING DEMOLITION.

SIGNAGE LEGEND

WM = WALL MOUNTED
DM = DOOR MOUNTED
FM = FLAG MOUNTED
BM = BULKHEAD MOUNTED
CM= CEILING MOUNTED

FINISH GENERAL NOTES

THE FOLLOWING NOTES ARE SPECIFIC TO CASEWORK AND ARE IN ADDITION TO THE GENERAL FINISH NOTES.

1. REFERENCE ROOM FINISH SCHEDULE, FINISH MATERIAL LEGEND AND SPECIFICATION 09 06 00 SCHEDULE OF FINISHES FOR MORE INFORMATION.
2. REFERENCE REFLECTED CEILING PLAN FOR ADDITIONAL CEILING INFO.
3. PREPARE ALL FLOOR AND WALL CONSTRUCTION, NEW AND/OR EXISTING, TO RECEIVE NEW FINISHES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDED INSTALLATION METHODS AND MATERIALS FOR ALL FINISHES.
4. PRIOR TO THE INSTALLATION OF NEW FINISHES, THE CONTRACTOR SHALL INSPECT ALL SUBSTRATES. IF A SUBSTRATE IS DEEMED UNACCEPTABLE, THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO RECTIFY THE SITUATION OR CONTACT THE COR WITH THE CONCERN. PROCEEDING WITH THE INSTALLATION OF FINISHES WILL BE INDICATION THAT THE INSTALLER / FINISHER ACCEPTS CONDITION OF SUBSTRATE.
5. USE MANUFACTURER'S RECOMMENDED INSTALLATION METHODS AND MATERIALS FOR ALL FINISHES.
6. ALL NECESSARY TILE FLOORING UNDERLAYMENT TO BE PROVIDED AND INSTALLED BY A FLOORING CONTRACTOR. ALL SETTING AND UNDERLAYMENT SYSTEMS TO BE FROM SAME MANUFACTURER AND APPROVED BY FLOORING MANUFACTURER.
7. ALL FLOORING TRANSITIONS SHALL COMPLY WITH ADA GUIDELINES. FLOORING CONTRACTOR TO SUBMIT A DIAGRAM SHOWING FLOORING TRANSITION LOCATIONS FOR DESIGNERS APPROVAL PRIOR TO INSTALLATION.
8. ALL FLOOR TRANSITIONS BETWEEN DISALIKE MATERIALS SHALL BE STAINLESS STEEL METAL TRIM AND TO BE LOCATED AT CENTERLINE OF DOOR WHEN IN CLOSED POSITION
9. ALL OUTSIDE AND INSIDE CORNERS OF WALL TILE SHALL BE STAINLESS STEEL METAL TRIM.
10. ALL TRANSITIONS BETWEEN WALL AND FLOOR TILE SHALL BE STAINLESS STEEL COVE STAINLESS STEEL METAL TRIM STRAIGHT, INSIDE AND OUTSIDE CORNERS.
11. ALIGN FLOORING TRANSITIONS WITH FINISH BASE EXCEPT AT DOORS, UNLESS NOTED OTHERWISE.
12. FLOOR FINISHES ARE TO EXTEND UNDER NEW BUILT-IN CABINETS.
13. FINISH LEVEL OF GYP. BD. WALLS AND SOFFITS TO BE LEVEL 4, UNLESS NOTED OTHERWISE.
14. ALL PAINTED WALLS TO BE PAINTED P-1, UNLESS NOTED OTHERWISE.
15. ALL GYP. BOARD CEILINGS TO BE PAINTED P-1, UNLESS NOTED OTHERWISE.
16. ALL PAINTED SURFACES SHALL RECEIVE A MINIMUM OF (1) ONE BASE COAT AND (2) TWO FINISH COATS
17. PAINTED SHEEN LEVEL TO BE EGG-SHELL FOR ALL WALLS, U.N.O. SHEEN FOR ALL WET AREA WALLS, METAL DOORS AND METAL FRAMES TO BE SEMI-GLOSS.
18. PAINT ALL EXISTING AND NEW HOLLOW METAL DOORS AND WINDOWS FRAMES IN SCOPE OF WORK P-2.
19. PAINT ALL EXPOSED METAL SURFACES, SUCH AS GRILLES, ACCESS PANELS, ELECTRICAL PANELS, ETC. WITH PAINT TO MATCH ADJACENT SURFACE.
20. REFER TO ARCHITECTURE DETAIL SHEET FOR FLOOR TRANSITIONS AND OTHER DETAILS.
21. CAULK AROUND ALL NEW AND EXISTING WINDOWS, WINDOW SILLS, DOORS, AND AT NEW FINISHES AROUND ELEVATORS.
22. PAINT ALL SIDES OF GYPSUM BOARD BULKHEAD SAME COLOR, PAINT P-1.

WALL PROTECTION GENERAL NOTES

1. ALL CORNER GUARDS TO BE 4'-0" H FROM TOP OF BASE TO CEILING, U.N.O.
2. PROVIDE BLOCKING IN WALLS FOR ALL CHAIR RAILS, CRASH RAILS, HAND RAILS AND BUMPER RAILS.
3. TYPICAL HIGH IMPACT WALLCOVERING HEIGHT IS 4'-0" H, U.N.O.
4. HIGH IMPACT WALLCOVERING WAINSCOTS TO STOP AT CASEWORK.
5. SEE TYPICAL DETAIL SECTIONS ON SHEET I-131.
6. HOLD BACK HANDRAIL AND BUMPER RAIL 2" FROM CORNER GUARDS AND DOOR FRAMES.
7. HANDRAIL NOT TO BE BEHIND DOORS WITH CLOSERS AND START HANDRAIL 6" AWAY FROM START OF DOOR WHEN OPEN.
8. STANDARD HIGH IMPACT WALLCOVERING (SHEET) TO BE .040" THICKNESS FOR DRYWALL APPLICATIONS .
9. SEE SPECIFICATION 09 06 00 SCHEDULE OF FINISHES FOR MATERIALS AND FINISHES.

ABBREVIATION LEGEND

CG: CORNER GUARD
HR: HANDRAIL
HIW: HIGH IMPACT WALLCOVERING

EQUIPMENT GENERAL NOTES

1. REFER TO G002 FOR STANDARD MOUNTING HEIGHTS AND BLOCKING. REFER TO EQUIPMENT DRAWINGS FOR LOCATIONS AND ADDITIONAL DIMENSIONS. PROVIDE SHEET METAL BLOCKING FOR ALL WALL MOUNTED EQUIPMENT AND WALL PROTECTION AS REQUIRED BY THE MANUFACTURER'S REQUIREMENTS FOR INSTALLATION.
2. REFER TO MECHANICAL, ELECTRICAL, PLUMBING, TEL-COM AND LOW VOLTAGE DRAWINGS FOR ADDITIONAL REQUIRED UTILITY CONNECTIONS AND LOCATIONS.
3. FURNITURE, FIXTURES AND EQUIPMENT SHOWN ON PLANS AND SCHEDULES FOR "VV" ITEMS ARE FOR COORDINATION AND SPACIAL PURPOSES ONLY AND NOT TO BE USED FOR ACTIVATION PURCHASING QUANTITIES.
4. REFER TO SHEETS I-431 FOR ENLARGED TOILET ROOMS AND ELEVATIONS.
5. SEE ENLARGED EQUIPMENT PLANS ON SHEETS I-421 TO I-423.
6. SEE EQUIPMENT SCHEDULES ON SHEETS I-601 FOR SPECIFICS ON EQUIPMENT BY ROOM.
7. CONTRACTOR A IS RESPONSIBLE FOR REMOVING AND RELOCATING ALL EXISTING FURNITURE, FIXTURES AND EQUIPMENT FOR RENOVATION PROJECTS PRIOR TO CONSTRUCTION.
8. ITEM TAGS INCLUDE ACQUISITION AND INSTALLATION RESPONSIBILITIES (ACQ.), DENOTED AS FOLLOWS:

"VV" = VA FURNISHED & VA INSTALLED
"VC" = VA FURNISHED & CONTRACTOR INSTALLED
"CC" = CONTRACTOR FURNISHED & CONTRACTOR INSTALLED
"EVV" = EXISTING VA FURNISHED & VA INSTALLED
"EVC" = EXISTING VA FURNISHED & CONTRACTOR INSTALLED

FINISH ABBREVIATIONS

ACT	ACOUSTICAL CEILING TILE	NA	NOT APPLICABLE
ADJ	ADJACENT	PL	PLASTIC LAMINATE
AFF	ABOVE FINISHED FLOOR	P	PAINT
CG	CORNER GUARD	PT	PORCELAIN TILE
CR	CRASH RAIL	RB	RESILIENT WALL BASE
EG	END GUARD	RSF	RUBBER SHEET FLOORING
EP	EPOXY PAINT	RSFB	RUBBER SHEET FLOORING BASE
EX	EXISTING	SF	SQUARE FEET (FOOT)
EXP	EXPOSED	SS	SOLID SURFACE
G	GROUT	TR	METAL EDGE TRIM
GWT	GLASS WALL TILE	TS	METAL TRANSITION STRIP
GYP	GYPSUM WALL BOARD	TYP	TYPICAL
HIW	HIGH IMPACT WALLCOVERING	UFIN	UNFINISHED
HR	HAND RAIL	UNO	UNLESS NOTED OTHERWISE
LF	LINEAR FEET (FOOT)	VF	VERIFY IN FIELD
LVT	LUXURY VINYL TILE	WSF	WELDED SHEET FLOORING
MTL	METAL		
MISC	MISCELLANEOUS		

FULLY SPRINKLERED
100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

GEORGE M. CLARKE Reece Clarke LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511

www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: PRODUCT SCHEDULES, SYMBOLS AND ABBREVIATIONS

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved

Date: OCTOBER 13, 2023 | Checked: ELI | Drawn: JK

VA PROJECT NUMBER 612A4-19-016

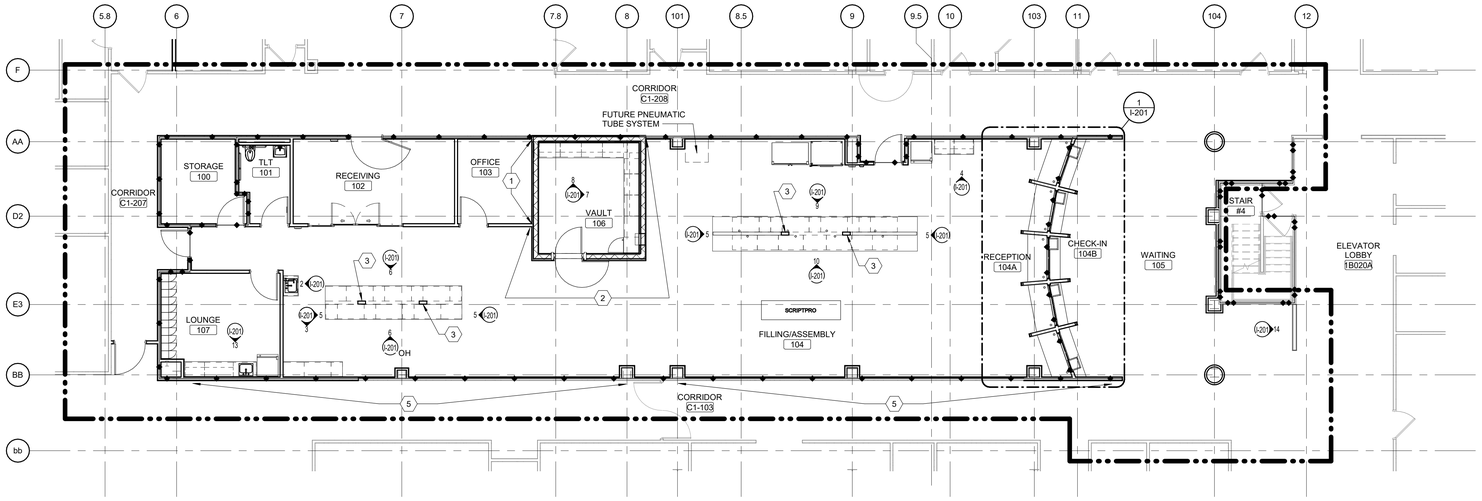
Building Number # 650

Drawing Number I-001

Dwg 1 of 14

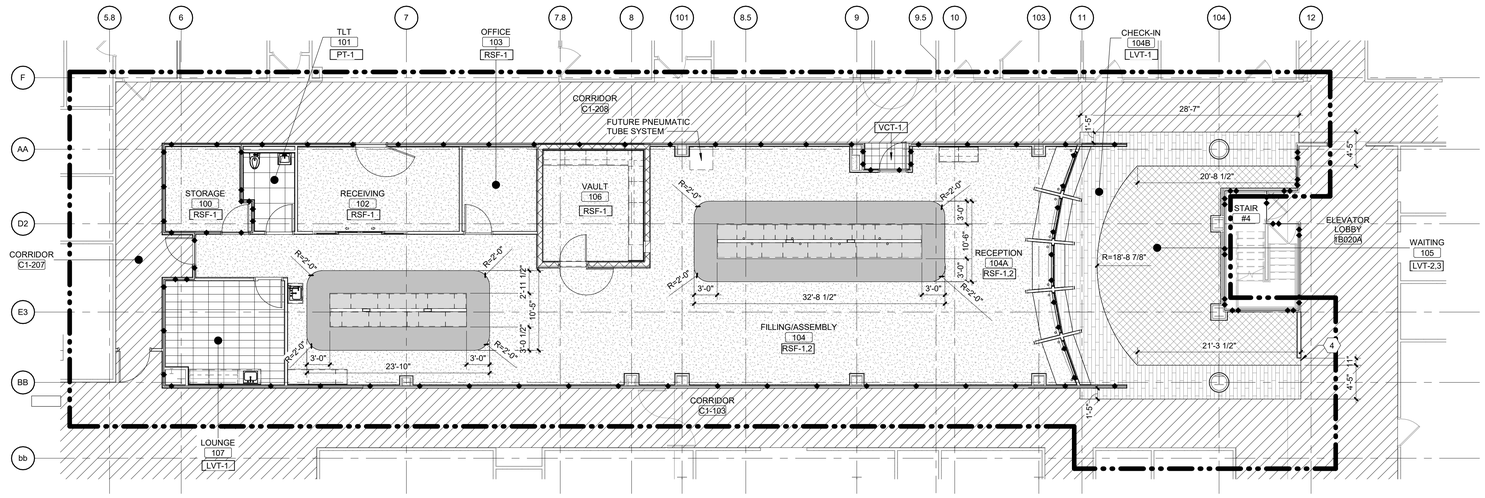
10/11/2023 11:19:43 AM C:\Users\apuhlen\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apuhlen\DXT7.rvt

DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3



1 FIRST FLOOR FINISH PLAN

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



2 FIRST FLOOR FLOOR PATTERN PLAN

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

KEY NOTES:

1. PAINT P-3
2. PAINT P-4
3. PAINT POWER COLUMNS P-1
4. ALIGN FLOORING WITH NEW WALL
5. COORDINATE WITH COR LOCATIONS FOR REINSTALLATION OF WALL OF HERO'S PHOTOS

FINISH KEY

- LVT-1 LUXURY VINYL TILE (PATTERN TO BE 1/3 RUNNING BOND) AS DIRECTION SHOWN IN THE ROOM
- LVT-2 LUXURY VINYL TILE
- LVT-3 LUXURY VINYL TILE
- PT-1 PORCELAIN TILE
- RSF-1 RUBBER SHEET FLOOR
- RSF-2 RUBBER SHEET FLOOR
- VCT-1 VINYL COMPOSITION TILE
- NOT IN SCOPE/ EXISTING TO REMAIN

SCOPE OF WORK LEGEND

- AREA OF WORK

WALL RATING LEGEND

- 1 HR - FIRE SEPARATION
- 2 HR - FIRE SEPARATION
- SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

RENEE M. CLARK LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR FINISH AND FLOOR PATTERN PLANS

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved

Date: OCTOBER 13, 2023 | Checked: ELI | Drawn: JK

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

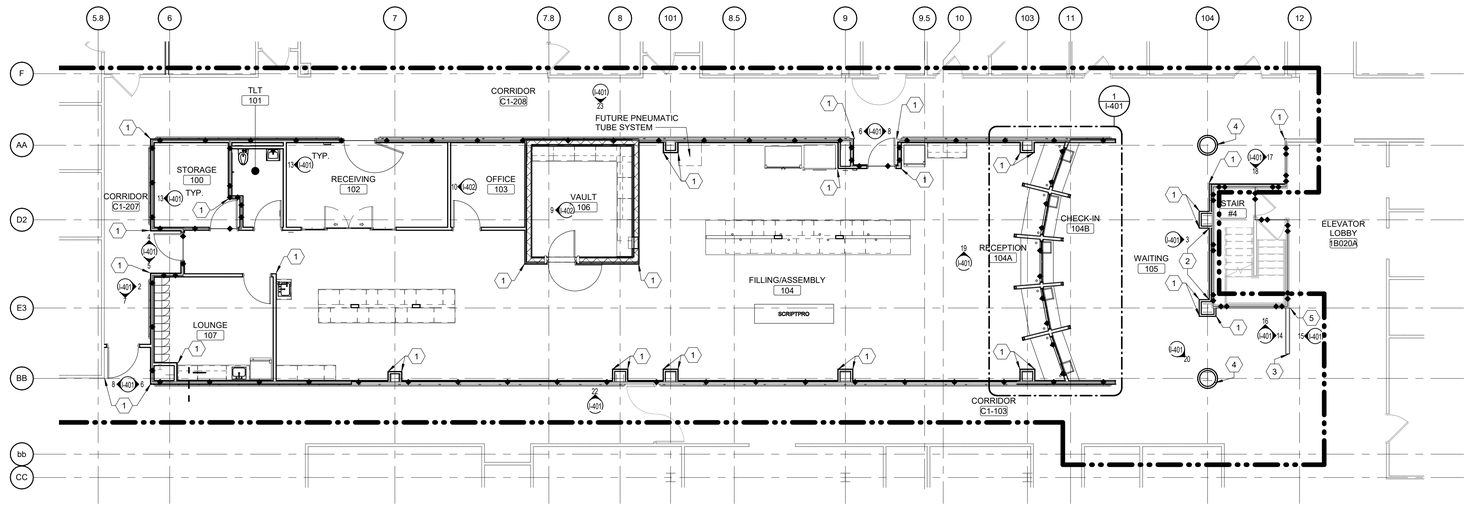
Drawing Number I-101

Dwg 2 of 14

10/11/2023 11:19:48 AM C:\Users\apulleri\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apulleri.rvt

VA FORM 08-6231

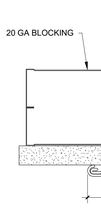
DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3



1 FIRST FLOOR WALL PROTECTION PLAN

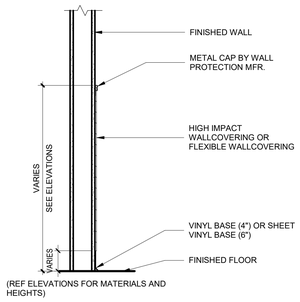
Scale: 1/8" = 1'-0"

0 4 8 16



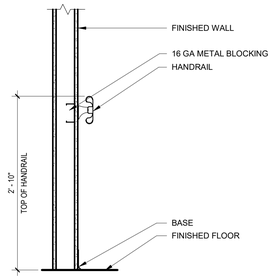
6 CORNER GUARD SECTION

Scale: 6" = 1'-0"



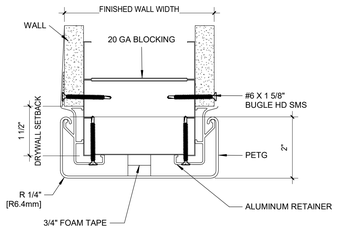
4 TYPICAL HIGH IMPACT WALLCOVERING

Scale: 1" = 1'-0"



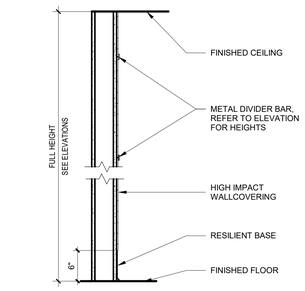
2 TYPICAL HANDRAIL/BUMPER SECTION

Scale: 1" = 1'-0"



5 FLUSH MOUNTED END WALL GUARD

Scale: 6" = 1'-0"



3 HIGH IMPACT WALLCOVERING SECTION

Scale: 1" = 1'-0"

KEY NOTES:

1. PROVIDE AND INSTALL 4'H CORNER GUARD, CG-1
2. PROVIDE AND INSTALL FULL HEIGHT HIGH IMPACT WALL COVERING, HIW-1
3. PROVIDE AND INSTALL STAINLESS STEEL END GUARD, EG-2
4. WRAP COLUMN IN FULL HEIGHT HIGH IMPACT WALL COVERING HIW-3
5. NEW HIW-1, HR-1 AND CR-1 TO TIE IN WITH EXISTING TO REMAIN FOR CONTINUES INSTALLATION

SCOPE OF WORK LEGEND

AREA OF WORK

WALL RATING LEGEND

1 HR - FIRE SEPARATION

2 HR - FIRE SEPARATION

SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

GEREE M. CLARK Reree Clark LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511

www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR WALL PROTECTION PLAN AND DETAILS

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved

Date: OCTOBER 13, 2023 | Checked: ELI | Drawn: JK

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Drawing Number I-131

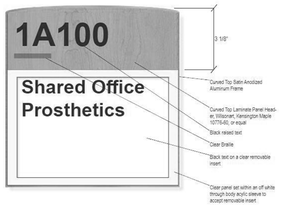
Dwg 3 of 14

10/11/2023 11:19:52 AM C:\Users\apuller\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apuller\DXT7.rvt

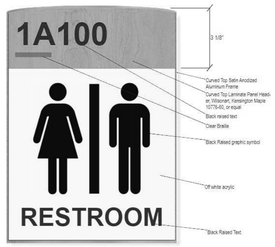
DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3

2 DIMENSIONAL LETTERING
Scale: No Scale

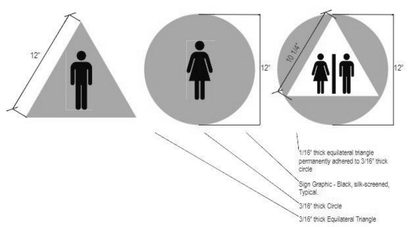
3 PERPENDICULAR FLAG MOUNT
Scale: No Scale



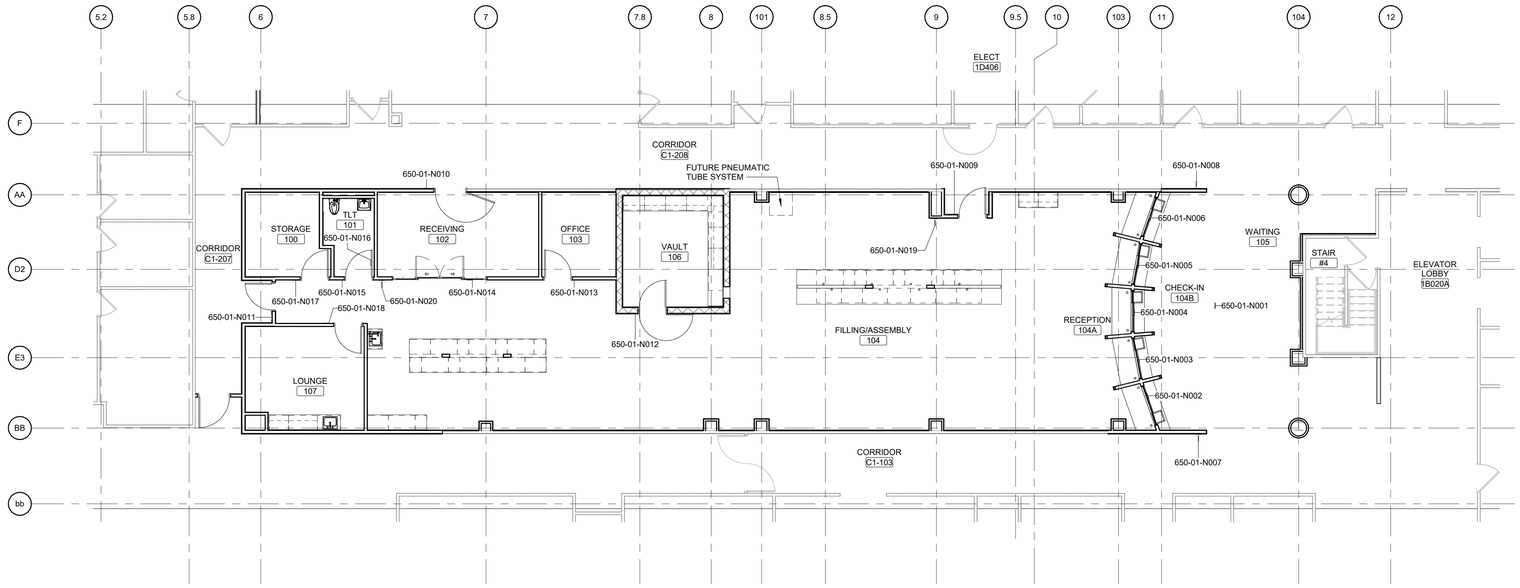
4 PRIMARY ROOM IDENTIFICATION WITH INSERT
Scale: No Scale



5 RESTROOM IDENTIFICATION
Scale: No Scale



6 RESTROOM TACTILE IDENTIFICATION
Scale: No Scale



1 FIRST FLOOR SIGNAGE PLAN
Scale: 1/8" = 1'-0"

0 4 8 16

NORTH

I-SIGNAGE SCHEDULE			
Mark Type	Sign Type Name	Proposed Content	Sign Mounting
650-01-N001	Dimensional Lettering	Text: PHARMACY	WM
650-01-N002	Dimensional Lettering	Text: 1	WM
650-01-N003	Dimensional Lettering	Text: 2	WM
650-01-N004	Dimensional Lettering	Text: 3	WM
650-01-N005	Dimensional Lettering	Text: 4	WM
650-01-N006	Dimensional Lettering	Text: 5	WM
650-01-N007	Perpendicular Flag Mount	Insert: PHARMACY	FM
650-01-N008	Perpendicular Flag Mount	Insert: PHARMACY	FM
650-01-N009	Primary Room Identification with Insert	Room: 1D-200 Insert: STAFF ENTRANCE	WM
650-01-N010	Primary Room Identification with Insert	Room: 1D-203 Insert: Pharmacy Receiving	WM
650-01-N011	Primary Room Identification with Insert	Room: 1D-200 Insert: STAFF ENTRANCE	WM
650-01-N012	Primary Room Identification with Insert	Room: 1D-205 Insert: Pharmacy Vault	WM
650-01-N013	Primary Room Identification with Insert	Room: 1D-204 Insert: Office	GM
650-01-N014	Primary Room Identification with Insert	Room: 1D-203 Insert: Receiving	GM
650-01-N015	Restroom Identification	Room: 1D-202 Text: Restroom	WM
650-01-N016	Restroom Tactile Identification	Graphic: Unisex	DM
650-01-N017	Primary Room Identification with Insert	Room: 1D-201 Insert: Storage	WM
650-01-N018	Primary Room Identification with Insert	Room: 1D-208 Insert: Staff Lounge	WM
650-01-N019	Perpendicular Flag Mount	Graphic: Fire Extingusher	FM
650-01-N020	Perpendicular Flag Mount	Graphic: Fire Extingusher	FM

SCOPE OF WORK LEGEND

AREA OF WORK

WALL RATING LEGEND

1 HR - FIRE SEPARATION

2 HR - FIRE SEPARATION

SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

RENEE M. CLARKE LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR SIGNAGE PLAN

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Approved

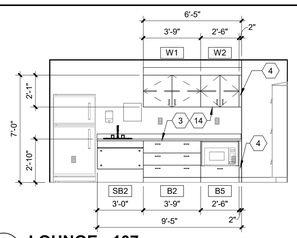
Date: OCTOBER 13, 2023 | Checked: ELI | Drawn: JK

Drawing Number: I-141

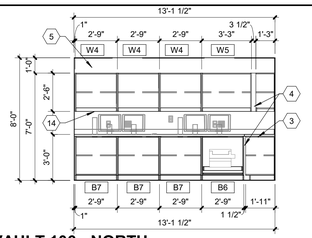
Dwg 4 of 14

10/11/2023 11:19:55 AM C:\Users\apuflem\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apuflem\DXT7.rvt

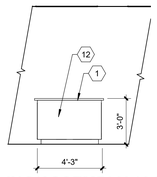
DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3



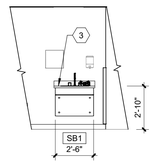
13 **LOUNGE - 107**
Scale: 1/4" = 1'-0"



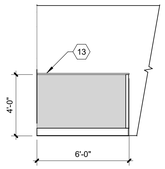
8 **VAULT 106 - NORTH**
Scale: 1/4" = 1'-0"



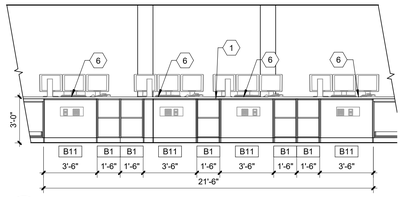
5 **FILLING/ASSEMBLY 104 - TYPICAL END PANEL**
Scale: 1/4" = 1'-0"



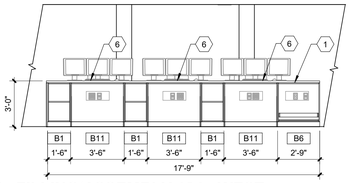
2 **FILLING/ASSEMBLY 104 - WEST**
Scale: 1/4" = 1'-0"



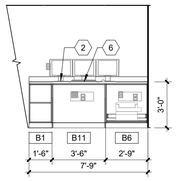
14 **WAITING 105 - WALL CAP**
Scale: 1/4" = 1'-0"



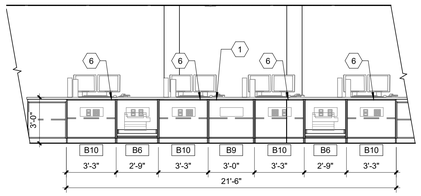
9 **FILLING ASSEMBLY 104 - NORTH**
Scale: 1/4" = 1'-0"



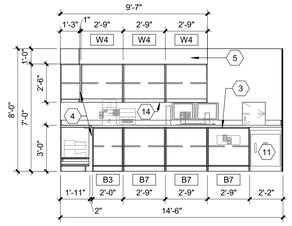
6 **FILLING/ASSEMBLY 104 - WEST**
Scale: 1/4" = 1'-0"



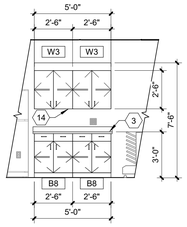
3 **FILLING/ASSEMBLY 104 - SOUTH**
Scale: 1/4" = 1'-0"



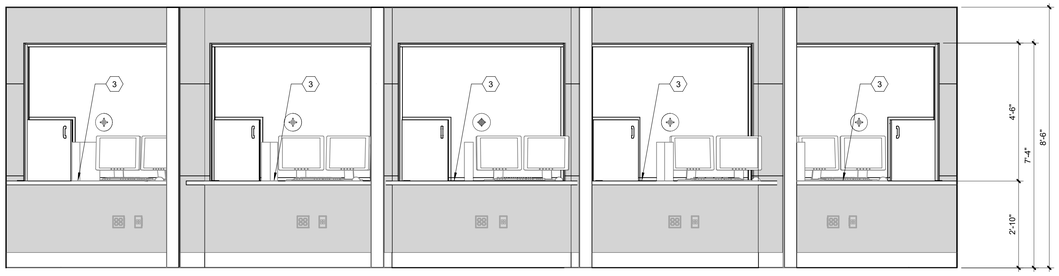
10 **FILLING/ASSEMBLY 104 -SOUTH**
Scale: 1/4" = 1'-0"



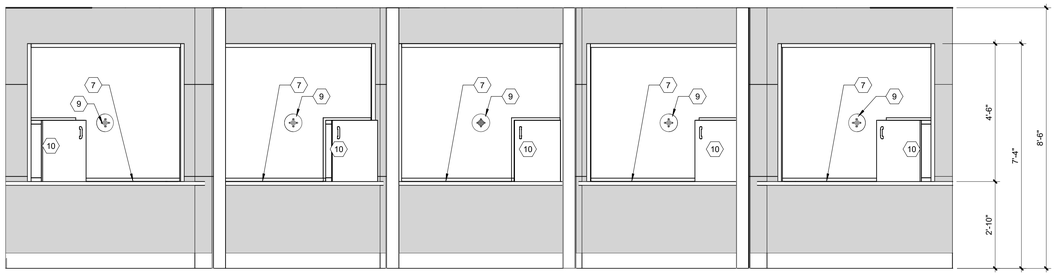
7 **VAULT 106 - EAST**
Scale: 1/4" = 1'-0"



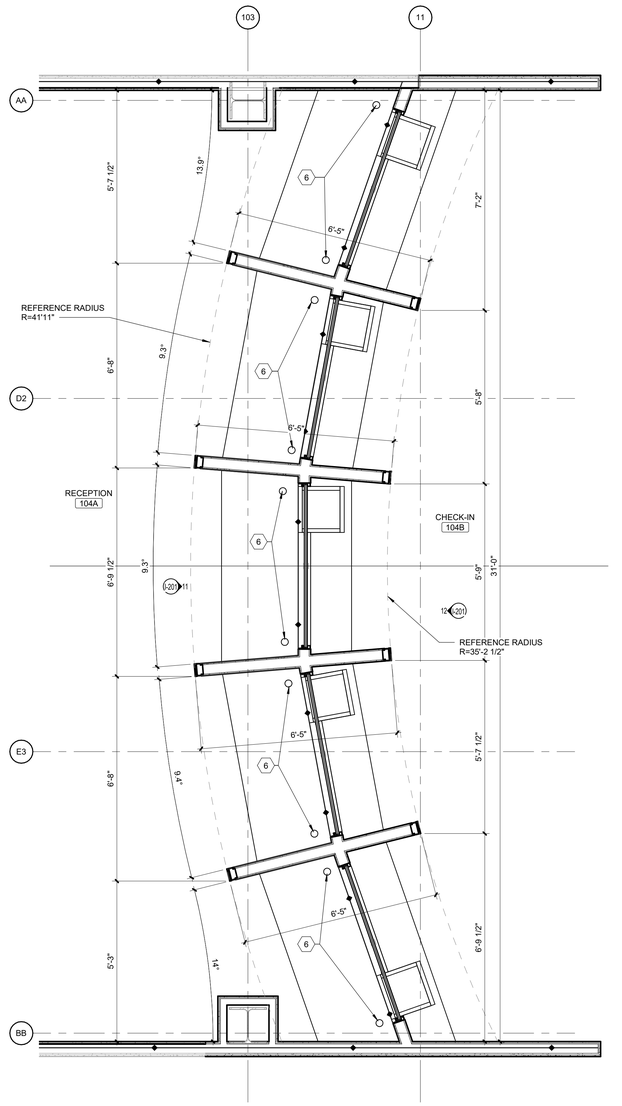
4 **FILLING/ASSEMBLY 104 - NORTH**
Scale: 1/4" = 1'-0"



11 **RECEPTION - 104A**
Scale: 1/2" = 1'-0"



12 **CHECK-IN - 104B**
Scale: 1/2" = 1'-0"



1 **CHECK-IN - 104A**
Scale: 1/2" = 1'-0"

9 4 8 16 NORTH

KEY NOTES:

#	
1	51"D ISLAND SOLID SURFACE COUNTER TOP, SS-1
2	30"D SOLID SURFACE COUNTERTOP WITH 4" INTEGRAL BACKSPLASH
3	24"D SOLID SURFACE COUNTERTOP WITH 4" INTEGRAL BACKSPLASH, SS-1
4	FILLER PANEL
5	CASEWORK SOFFIT, RUN GRAIN SAME DIRECTION AS CABINET FRONTS
6	GROMMET
7	14"D SOLID SURFACE COUNTERTOP WITH 4" INTEGRAL BACKSPLASH
9	TALK THRU BY WINDOW CONTRACTOR.
10	PARCEL PASS THRU BY WINDOW CONTRACTOR.
11	UNDER COUNTER REFRIGERATOR BY VA.
12	PROVIDE AND INSTALL FINISHED END PANEL FULL DEPTH OF CABINETS AND WALL.
13	SOLID SURFACE WALL CAP. EXTEND BEYOND WALL 1" ON ALL SIDES, SS-1
14	UNDER CABINET LIGHTING

PLASTIC LAMINATE CASEWORK SCHEDULE

MARK	WIDTH	DESCRIPTION	SECTION REFERENCE
B1	1' - 6"	36"H x 23"D OPEN BASE STORAGE UNIT, 1 ADJ. SHELF	5/I-202
B2	3' - 9"	34"H x 23"D THREE EQUAL DRAWER BASE	7/I-202
B3	2' - 0"	36"H x 23"D OPEN BASE STORAGE UNIT, 1 ADJ. SHELF	5/I-202
B5	2' - 6"	34"H x 23"D MICROWAVE STORAGE UNIT BASE, 1 DRAWER, 1 BUILT-IN MICROWAVE COMPARTMENT	4/I-202
B6	2' - 9"	36"H x 23"D PRINTER DRAWER STORAGE BASE, 1 DRAWER, 1 FULL EXTENSION ROLLOUT SHELF	
B7	2' - 9"	36"H x 23"D OPEN BASE STORAGE UNIT, 1 ADJ. SHELF	6/I-202
B8	2' - 6"	36"H x 23"D BASE STORAGE UNIT, TWO DRAWER, TWO DOOR, 1 ADJ. SHELF	3/I-202
B9	3' - 0"	36"H x 23"D OPEN BASE STORAGE UNIT, 1 ADJ. SHELF	5/I-202
B10	3' - 3"	36"H x 23"D OPEN BASE STORAGE UNIT, 1 ADJ. SHELF	5/I-202
B11	3' - 6"	36"H x 23"D OPEN COMPARTMENT BASE, TOE KICK NOTCH AT END PANELS	6/I-202
SB1	2' - 6"	22"H x 23"D ADULT ADA SLOPED BASE CABINET	1/I-202
SB2	3' - 0"	22"H x 23"D ADA SLOPED BASE CABINET	1/I-202
W1	3' - 9"	25"H x 15"D TWO DOOR WALL STORAGE UNIT	9/I-202
W2	2' - 6"	25"H x 15"D TWO DOOR WALL STORAGE UNIT	9/I-202
W3	2' - 6"	30"H x 15"D TWO DOOR VALANCE WALL STORAGE UNIT	9/I-202
W4	2' - 9"	30"H x 15"D OPEN WALL STORAGE UNIT, ONE ADJ. SHELF	10/I-202
W5	3' - 3"	30"H x 15"D OPEN WALL STORAGE UNIT, ONE ADJ. SHELF	10/I-202

WALL RATING LEGEND

- 1 HR - FIRE SEPARATION
- 2 HR - FIRE SEPARATION
- SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, N.C.

RENEE M. CLARK LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: CASEWORK ELEVATIONS AND ENLARGED PLAN

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved

Date: OCTOBER 13, 2023 | Checked: ELI | Drawn: JK

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

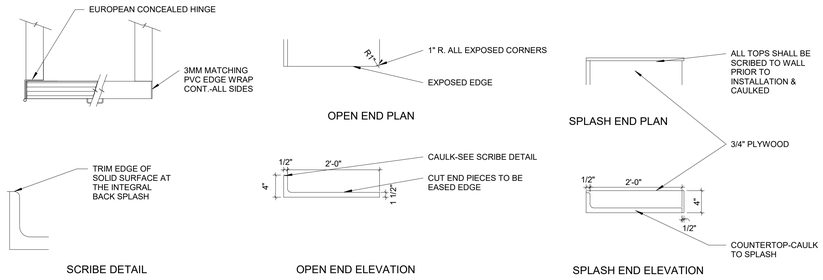
Drawing Number I-201

Dwg 5 of 14

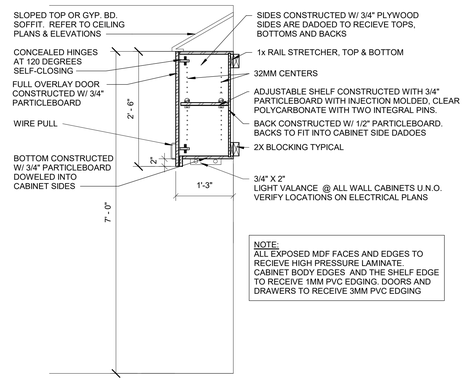
10/11/2023 11:20:03 AM C:\Users\apufleri\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apufleri\DXT7.rvt

VA FORM 08-6231

DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3

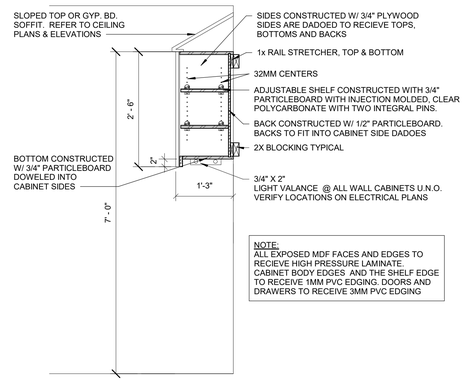


13 COUNTERTOP OPEN END VIEWS
Scale: 3/4" = 1'-0"



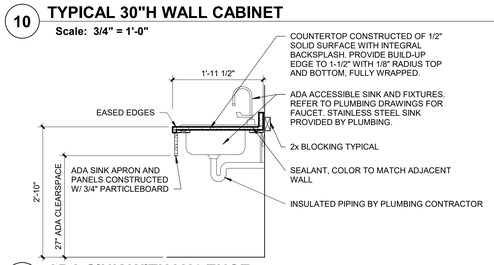
NOTE:
ALL EXPOSED MDF FACES AND EDGES TO RECIEVE HIGH PRESSURE LAMINATE. CABINET BODY EDGES AND THE SHELF EDGE TO RECEIVE 1MM PVC EDGING. DOORS AND DRAWERS TO RECEIVE 3MM PVC EDGING

9 TYPICAL 30"H WALL CABINET
Scale: 3/4" = 1'-0"

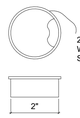


NOTE:
ALL EXPOSED MDF FACES AND EDGES TO RECIEVE HIGH PRESSURE LAMINATE. CABINET BODY EDGES AND THE SHELF EDGE TO RECEIVE 1MM PVC EDGING. DOORS AND DRAWERS TO RECEIVE 3MM PVC EDGING

10 TYPICAL 30"H WALL CABINET
Scale: 3/4" = 1'-0"



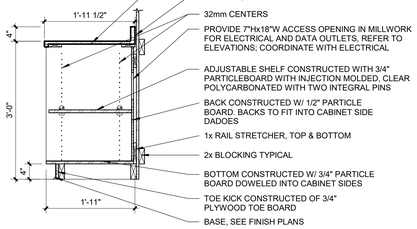
11 ADA SINK WITH VALENCE
Scale: 3/4" = 1'-0"



GROMMET DETAIL

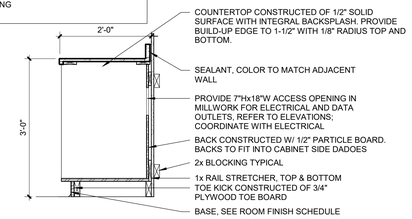
12 GROMMET DETAIL
Scale: 3/4" = 1'-0"

NOTE:
ALL EXPOSED MDF FACES AND EDGES TO RECIEVE HIGH PRESSURE LAMINATE. CABINET BODY EDGES AND THE SHELF EDGE TO RECEIVE 1MM PVC EDGING. DOORS AND DRAWERS TO RECEIVE 3MM PVC EDGING



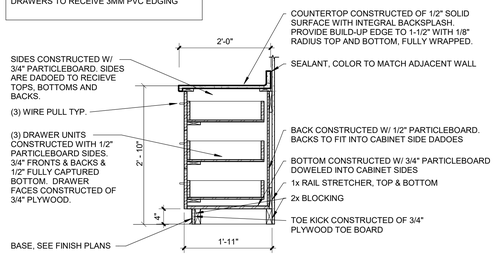
5 OPEN BASE CABINET W/ ONE SHELF
Scale: 3/4" = 1'-0"

NOTE:
ALL EXPOSED MDF FACES AND EDGES TO RECIEVE HIGH PRESSURE LAMINATE. CABINET BODY EDGES AND THE SHELF EDGE TO RECEIVE 1MM PVC EDGING. DOORS AND DRAWERS TO RECEIVE 3MM PVC EDGING

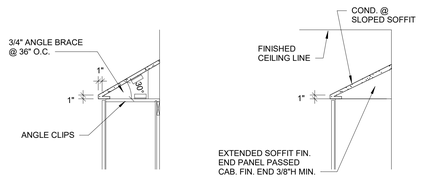


6 OPEN BASE STORAGE UNIT
Scale: 3/4" = 1'-0"

NOTE:
ALL EXPOSED MDF FACES AND EDGES TO RECIEVE HIGH PRESSURE LAMINATE. CABINET BODY EDGES AND THE SHELF EDGE TO RECEIVE 1MM PVC EDGING. DOORS AND DRAWERS TO RECEIVE 3MM PVC EDGING

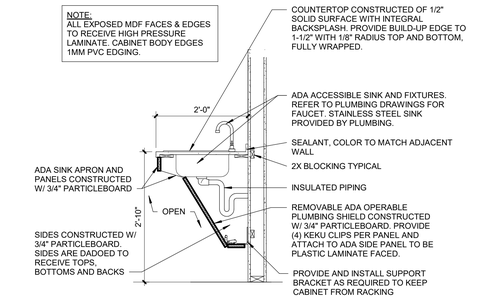


7 TYPICAL CABINET W/ 3 EQUAL DRAWERS
Scale: 3/4" = 1'-0"



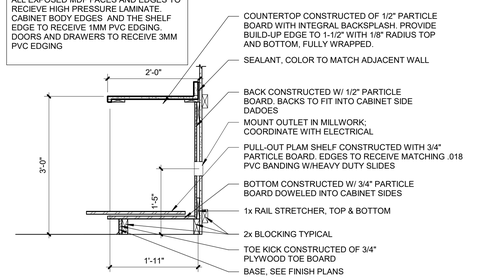
8 WALL CABINET SLOPE TOP
Scale: 3/4" = 1'-0"

NOTE:
ALL EXPOSED MDF FACES AND EDGES TO RECIEVE HIGH PRESSURE LAMINATE. CABINET BODY EDGES AND THE SHELF EDGE TO RECEIVE 1MM PVC EDGING. DOORS AND DRAWERS TO RECEIVE 3MM PVC EDGING



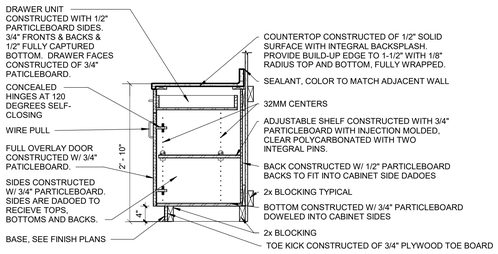
1 ADA SINK BASE
Scale: 3/4" = 1'-0"

NOTE:
ALL EXPOSED MDF FACES AND EDGES TO RECIEVE HIGH PRESSURE LAMINATE. CABINET BODY EDGES AND THE SHELF EDGE TO RECEIVE 1MM PVC EDGING. DOORS AND DRAWERS TO RECEIVE 3MM PVC EDGING



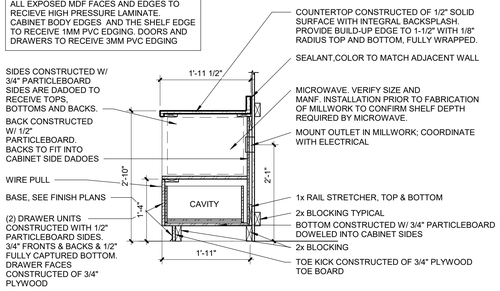
2 OPEN BASE STORAGE UNIT - PULL-OUT SHELF
Scale: 3/4" = 1'-0"

NOTE:
ALL EXPOSED MDF FACES AND EDGES TO RECIEVE HIGH PRESSURE LAMINATE. CABINET BODY EDGES AND THE SHELF EDGE TO RECEIVE 1MM PVC EDGING. DOORS AND DRAWERS TO RECEIVE 3MM PVC EDGING



3 TYPICAL CABINET WITH DRAWER & DOOR
Scale: 3/4" = 1'-0"

NOTE:
ALL EXPOSED MDF FACES AND EDGES TO RECIEVE HIGH PRESSURE LAMINATE. CABINET BODY EDGES AND THE SHELF EDGE TO RECEIVE 1MM PVC EDGING. DOORS AND DRAWERS TO RECEIVE 3MM PVC EDGING



4 TYPICAL CABINET - MICROWAVE
Scale: 3/4" = 1'-0"

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

RENEE M. CLARK LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: CASEWORK DETAILS

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

Approved

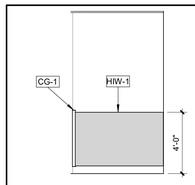
Date: OCTOBER 13, 2023 | Checked: ELI | Drawn: JK

Drawing Number: I-202

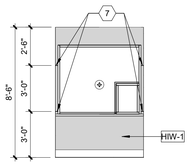
Dwg 6 of 14

10/11/2023 11:20:06 AM C:\Users\apuflen\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apuflen\IXXT7.rvt

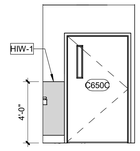
DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3



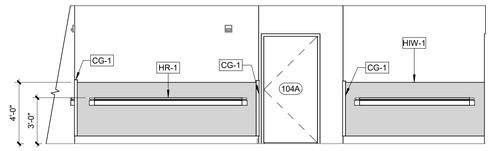
17 **WAITING 105 - EAST**
Scale: 1/4" = 1'-0"



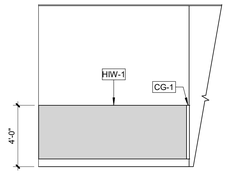
12 **CHECK-IN 104A - WEST**
Scale: 1/4" = 1'-0"



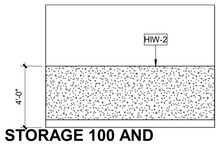
7 **CORRIDOR C1-207 SOUTH**
Scale: 1/4" = 1'-0"



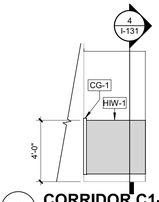
2 **CORRIDOR C1-207 - EAST**
Scale: 1/4" = 1'-0"



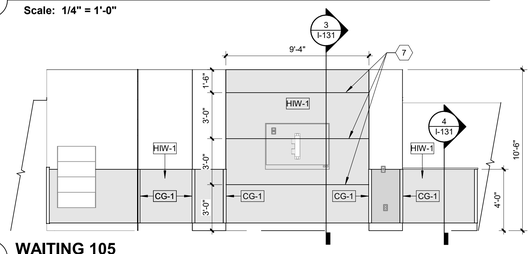
18 **WAITING 105 - SOUTH**
Scale: 1/4" = 1'-0"



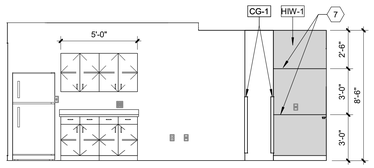
13 **STORAGE 100 AND RECEIVING 102 - TYP. HIW**
Scale: 1/4" = 1'-0"



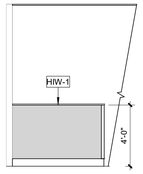
8 **CORRIDOR C1-103 NORTH**
Scale: 1/4" = 1'-0"



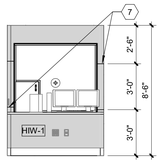
3 **WAITING 105**
Scale: 1/4" = 1'-0"



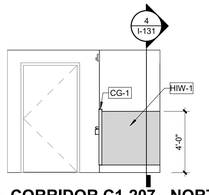
19 **RECEPTION NORTH**
Scale: 1/4" = 1'-0"



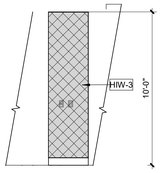
14 **PONY WALL EAST**
Scale: 1/4" = 1'-0"



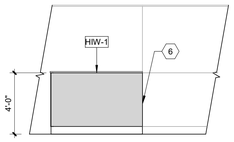
9 **RECEPTION 104A - EAST**
Scale: 1/4" = 1'-0"



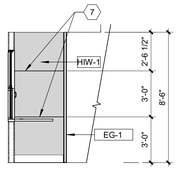
4 **CORRIDOR C1-207 - NORTH**
Scale: 1/4" = 1'-0"



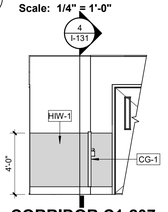
20 **WAITING 105 - COLUMN TYPICAL**
Scale: 1/4" = 1'-0"



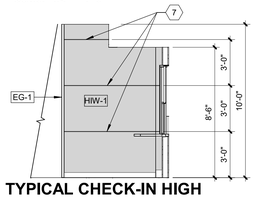
15 **PONY WALL WEST**
Scale: 1/4" = 1'-0"



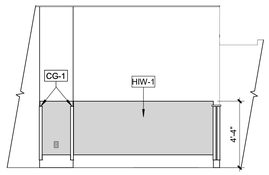
10 **RECEPTION 104A - SOUTH**
Scale: 1/4" = 1'-0"



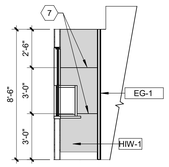
5 **CORRIDOR C1-207 - SOUTH**
Scale: 1/4" = 1'-0"



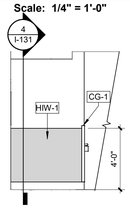
21 **TYPICAL CHECK-IN HIGH IMPACT WALL PROTECTION**
Scale: 1/4" = 1'-0"



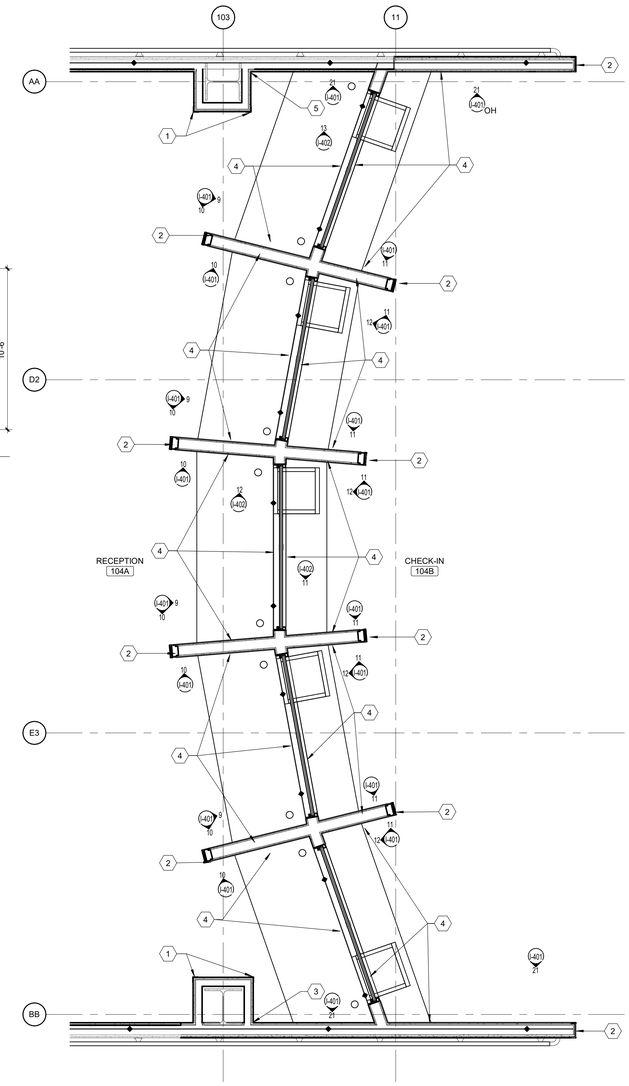
16 **WAITING 105 - NORTH**
Scale: 1/4" = 1'-0"



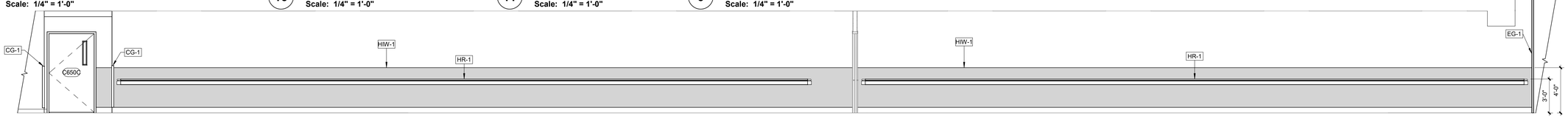
11 **CHECK-IN 104A - NORTH**
Scale: 1/4" = 1'-0"



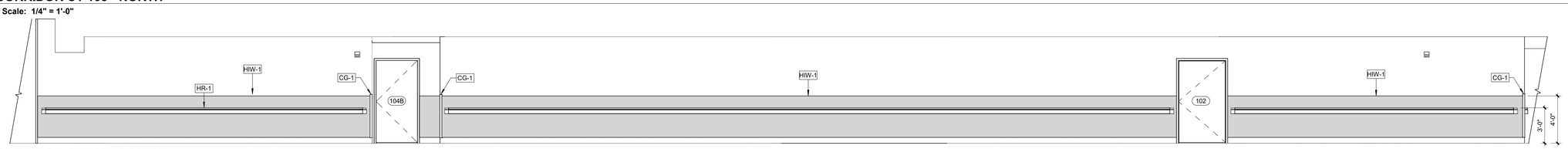
6 **CORRIDOR C1-103 EAST**
Scale: 1/4" = 1'-0"



1 **ENLARGED RECEPTION/CHECK-IN DESK**
Scale: 1/2" = 1'-0"



22 **CORRIDOR C1-103 - NORTH**
Scale: 1/4" = 1'-0"



23 **CORRIDOR C1-208 - SOUTH**
Scale: 1/4" = 1'-0"

KEY NOTES:

1. PROVIDE AND INSTALL CORNER GUARD, CG-1
2. PROVIDE AND INSTALL END GUARD, EG-1
3. PROVIDE AND INSTALL FULL HEIGHT HIGH IMPACT WALL COVERING, HIW-1, ALONG SOUTH WALL OF BAY TERMINATING AT INSIDE CORNER OF COLUMN
4. PROVIDE AND INSTALL FULL HEIGHT HIGH IMPACT WALL COVERING, HIW-1, ALONG ALL WALLS OF BAY
5. PROVIDE AND INSTALL FULL HEIGHT HIGH IMPACT WALL COVERING, HIW-1, ALONG NORTH WALL OF BAY TERMINATING AT INSIDE CORNER OF COLUMN
6. NEW HIW-1 TO TIE IN WITH EXISTING TO REMAIN FOR CONTINUES INSTALLATION
7. PROVIDE AND INSTALL METAL DIVIDER BAR, HIWT-4

WALL RATING LEGEND

- 1 HR - FIRE SEPARATION
- 2 HR - FIRE SEPARATION
- SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

GEORGE M. CLARK LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: INTERIOR ELEVATIONS - WALL PROTECTION

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Approved

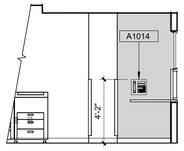
Date: OCTOBER 13, 2023 | Checked: ELI | Drawn: JK

Drawing Number: I-401

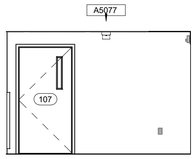
Dwg 7 of 14

10/11/2023 11:20:19 AM C:\Users\apuliem\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apuliem\DXT7.rvt

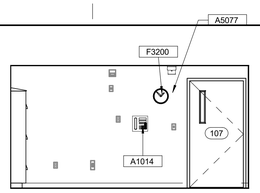
DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3



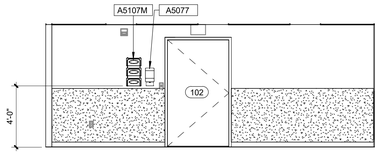
13 **TYPICAL WALL MOUNTED PHONE, END BAYS - RECEPTION 104A**
Scale: 1/4" = 1'-0"



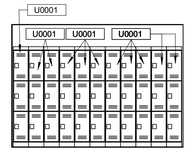
7 **FILLING /ASSEMBLY 104 - WEST**
Scale: 1/4" = 1'-0"



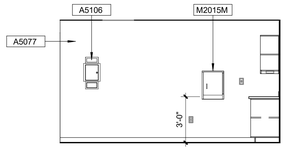
1 **LOUNGE/LOCKERS 107 - NORTH**
Scale: 1/4" = 1'-0"



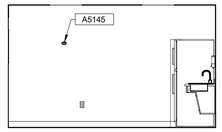
8 **RECEIVING 102 - NORTH**
Scale: 1/4" = 1'-0"



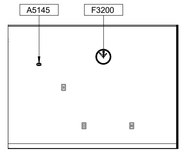
2 **LOUNGE/LOCKERS 107 - WEST**
Scale: 1/4" = 1'-0"



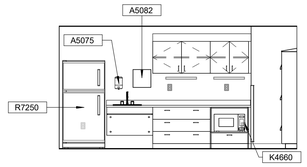
9 **VAULT 106 - WEST**
Scale: 1/4" = 1'-0"



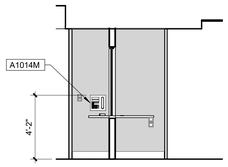
3 **LOUNGE/LOCKERS 107 - EAST**
Scale: 1/4" = 1'-0"



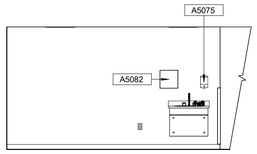
10 **OFFICE 103 - WEST**
Scale: 1/4" = 1'-0"



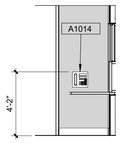
4 **LOUNGE 107 - SOUTH**
Scale: 1/4" = 1'-0"



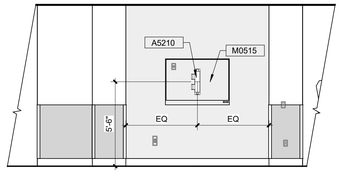
11 **TYPICAL WALL MOUNTED PHONE - CHECK-IN 104B**
Scale: 1/4" = 1'-0"



5 **FILLING/ASSEMBLY 104 - NORTH**
Scale: 1/4" = 1'-0"



12 **TYPICAL WALL MOUNTED PHONE - RECEPTION 104A**
Scale: 1/4" = 1'-0"



6 **WAITING 105 - EAST**
Scale: 1/4" = 1'-0"

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

RENEE M. CLARK LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

© COPYRIGHT Apogee Consulting Group, P.A.

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: INTERIOR ELEVATIONS - EQUIPMENT

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

Approved

Date: OCTOBER 13, 2023 | Checked: ELI | Drawn: JK

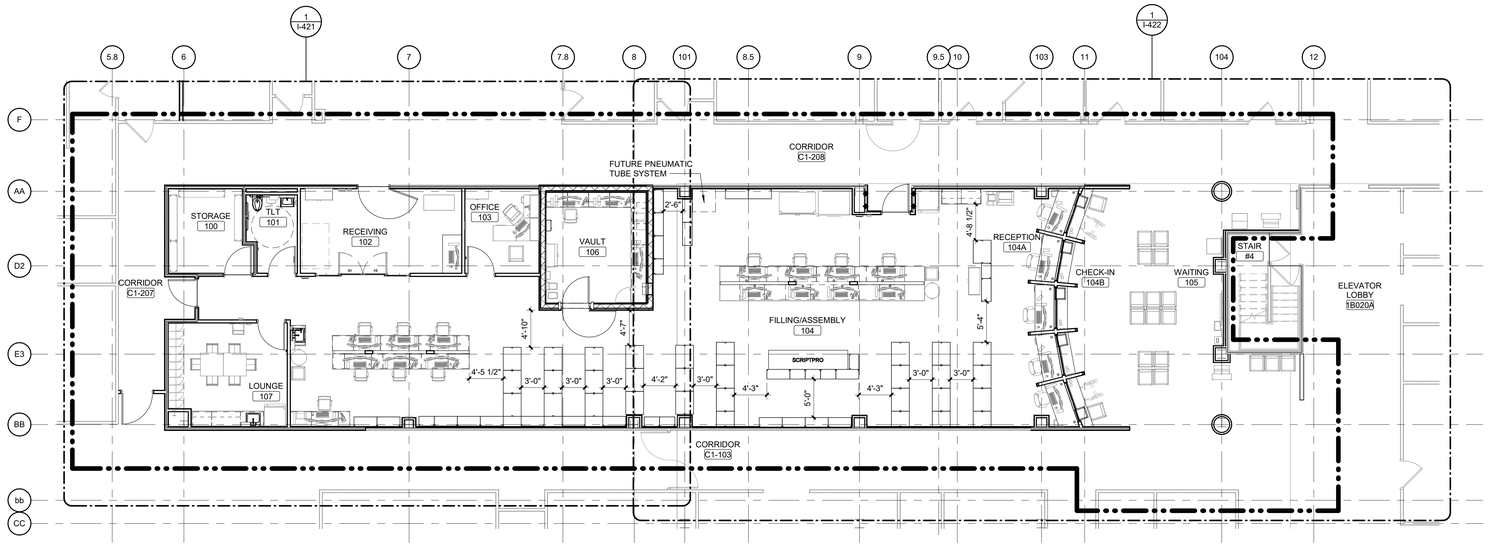
Drawing Number: I-402

Dwg 8 of 14

10/11/2023 11:20:24 AM C:\Users\apuliem\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apuliem\DXT7.rvt

VA FORM 08-6231

DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3



1 FIRST FLOOR OVERALL EQUIPMENT PLAN

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

0 4 8 16

NORTH

SCOPE OF WORK LEGEND

AREA OF WORK

WALL RATING LEGEND

1 HR - FIRE SEPARATION

2 HR - FIRE SEPARATION

SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

RENEE M. CLARK LICENSED ARCHITECT 24514 STATE OF MINNESOTA

10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

© COPYRIGHT Apogee Consulting Group, P.A.

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR OVERALL EQUIPMENT PLAN

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved

Date: OCTOBER 13, 2023 | Checked: ELI | Drawn: JK

VA PROJECT NUMBER: 612A4-19-016

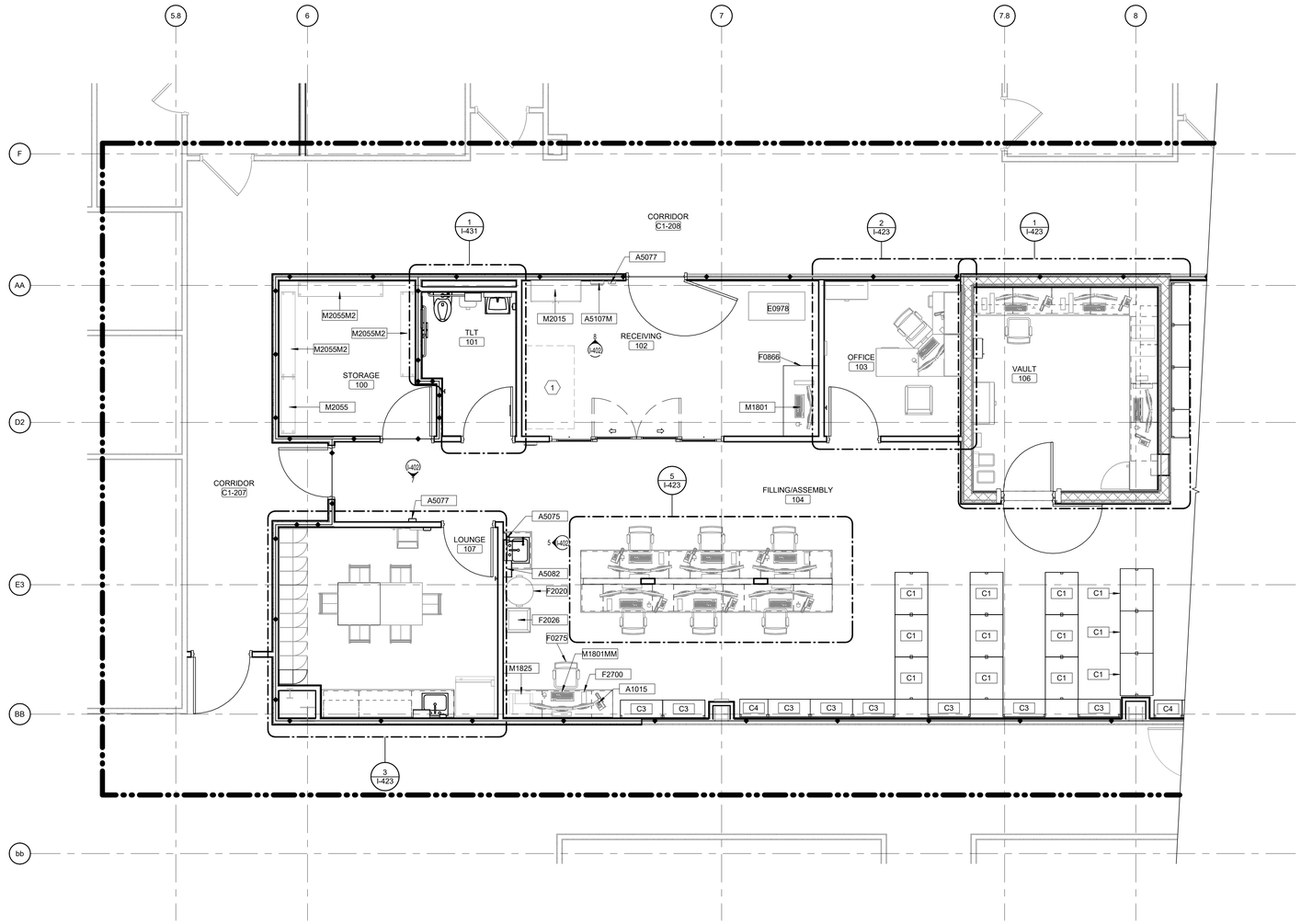
Building Number: # 650

Drawing Number: I-411

Dwg 9 of 14

10/11/2023 11:20:28 AM C:\Users\apuliem\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apuliem\DXT7.rvt

DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3



1 FIRST FLOOR ENLARGED EQUIPMENT PLAN - A

Scale: 1/4" = 1'-0"

0 2 4 8

NORTH

KEY NOTES:

#	
1	ROBOT PARKING

SCOPE OF WORK LEGEND

AREA OF WORK

KEY PLAN

SCALE: NO SCALE

AREA OF WORK

WALL RATING LEGEND

1 HR - FIRE SEPARATION

2 HR - FIRE SEPARATION

SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. — 52644 — RALEIGH, NC

RENEE M. CLARK — LICENSED ARCHITECT — 24514 — STATE OF MINNESOTA — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR ENLARGED EQUIPMENT PLAN - A

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved

Date: OCTOBER 13, 2023 | Checked: ELI | Drawn: JK

VA PROJECT NUMBER 612A4-19-016

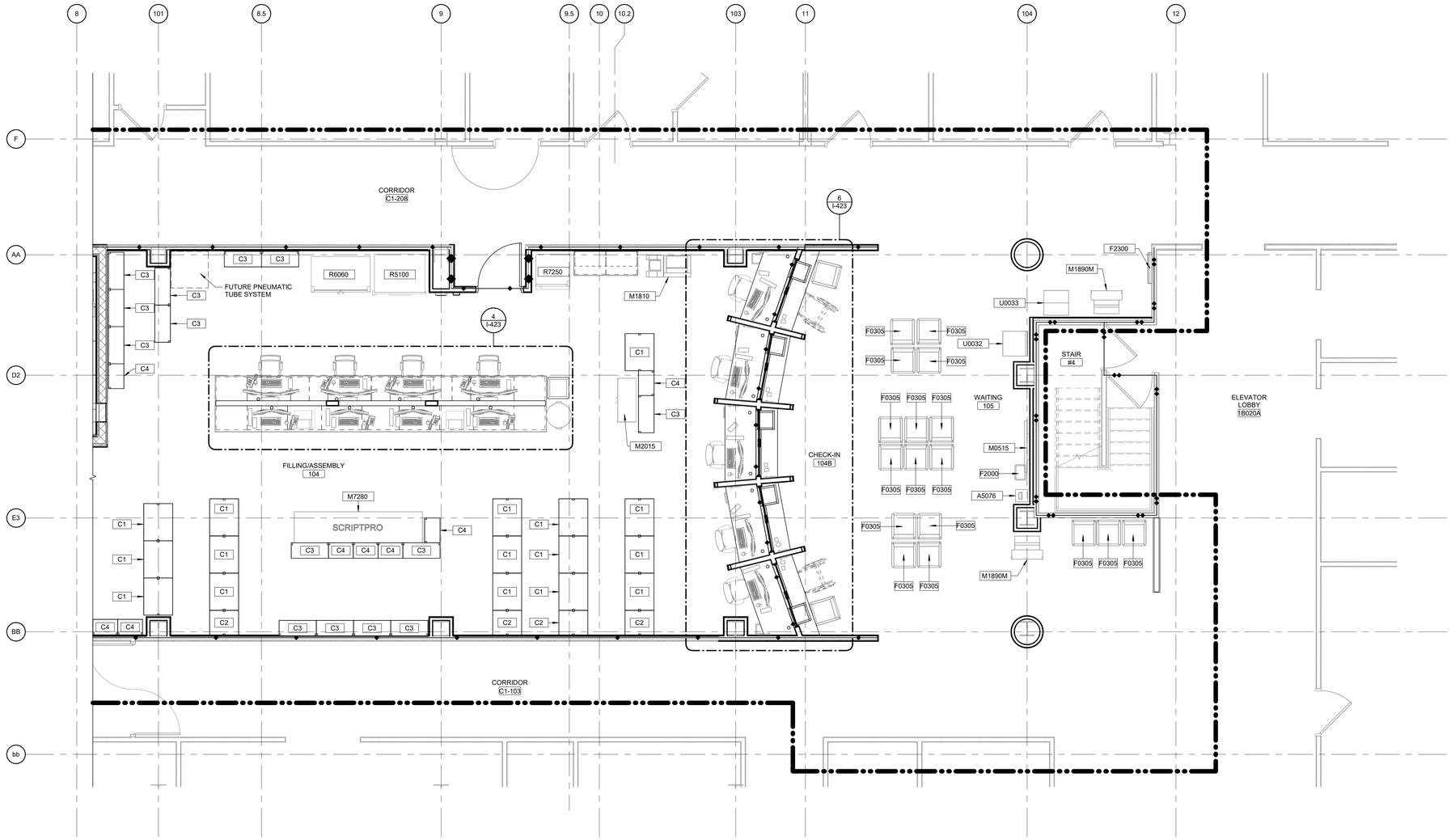
Building Number # 650

Drawing Number I-421

Dwg 10 of 14

10/11/2023 11:20:31 AM C:\Users\apuliem\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apuliemD3XT7.rvt

DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3



1 **FIRST FLOOR ENLARGED EQUIPMENT PLAN - B**

Scale: 1/4" = 1'-0"

NORTH

SCOPE OF WORK LEGEND

AREA OF WORK

KEY PLAN

SCALE: NO SCALE

AREA OF WORK

WALL RATING LEGEND

1 HR - FIRE SEPARATION

2 HR - FIRE SEPARATION

SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

RENEE M. CLARK LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

© COPYRIGHT Apogee Consulting Group, P.A.

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR ENLARGED EQUIPMENT PLAN - B

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

Approved

Date: OCTOBER 13, 2023 | Checked: ELI | Drawn: JK

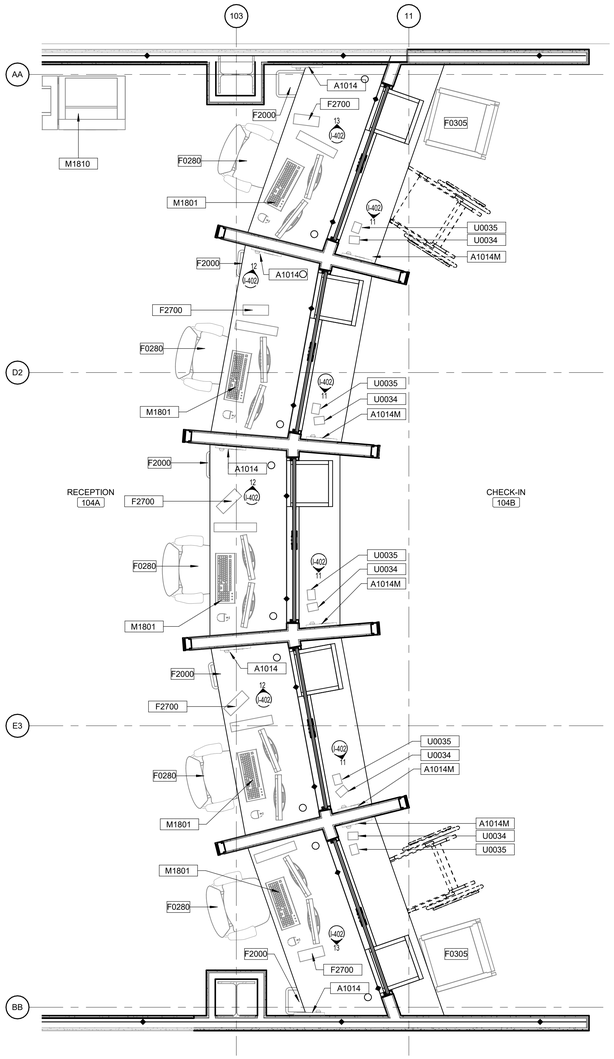
Drawing Number: I-422

Dwg 11 of 14

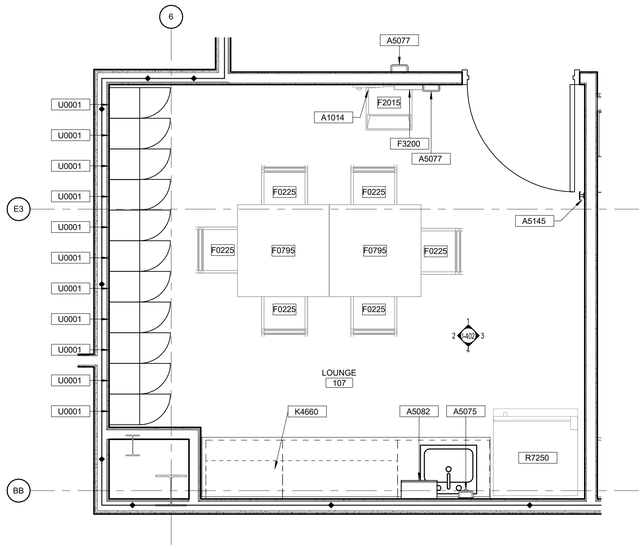
10/11/2023 11:20:35 AM C:\Users\apollen\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apollen\0XT7.rvt

VA FORM 08-6231

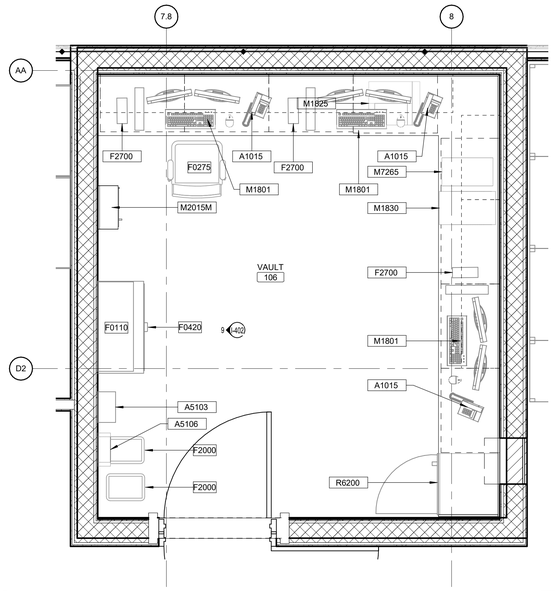
DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3



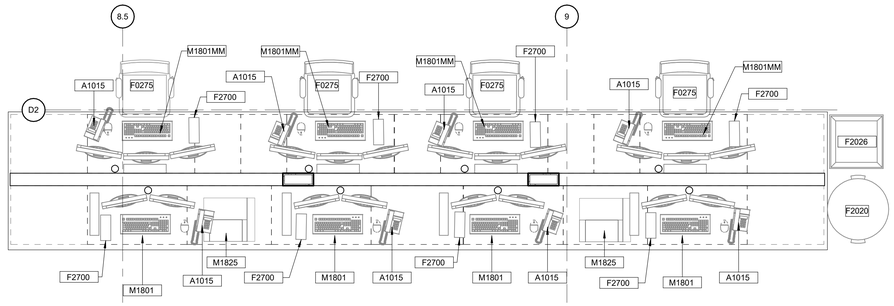
6 **ENLARGED CHECK-IN/RECEPTION - 104A/104B**
Scale: 1/2" = 1'-0"



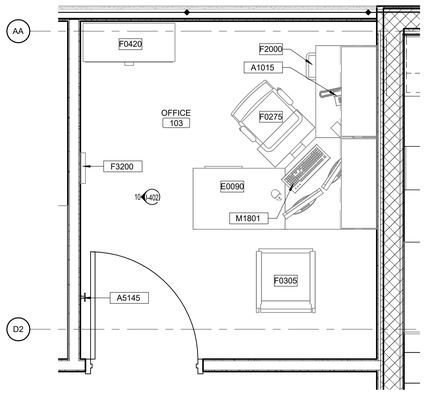
3 **LOUNGE - 107**
Scale: 1/2" = 1'-0"



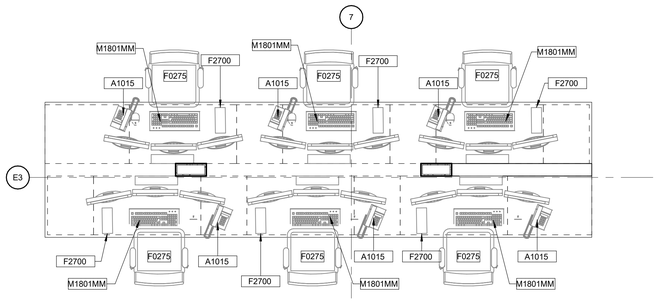
1 **VAULT - 106**
Scale: 1/2" = 1'-0"



4 **FILLING/ASSEMBLY 104 - NORTHEAST WORKSTATION**
Scale: 1/2" = 1'-0"



2 **OFFICE - 103**
Scale: 1/2" = 1'-0"



5 **FILLING/ASSEMBLY 104 - SOUTHWEST WORKSTATION**
Scale: 1/2" = 1'-0"

WALL RATING LEGEND

- 1 HR - FIRE SEPARATION
- 2 HR - FIRE SEPARATION
- SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

RENEE M. CLARK LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ENLARGED EQUIPMENT PLANS

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved

Date: OCTOBER 13, 2023 | Checked: ELI | Drawn: JK

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

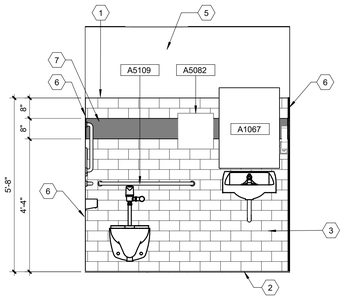
Drawing Number I-423

Dwg 12 of 14

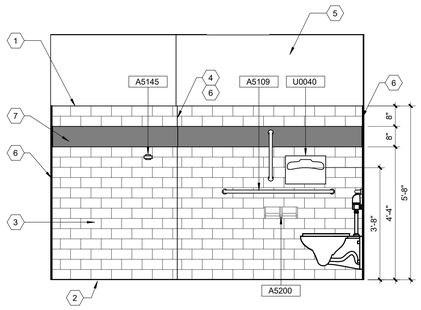
C:\Users\apoflen\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apoflen\0XT7.rvt

10/11/2023 11:20:42 AM

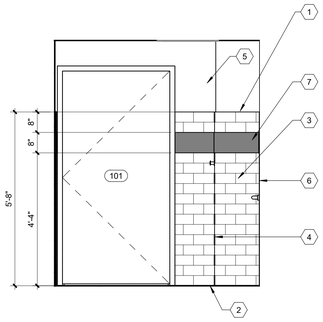
DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3



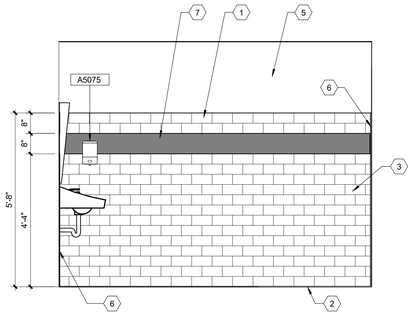
1D TLT 101 - NORTHWEST
Scale: 1/2" = 1'-0"



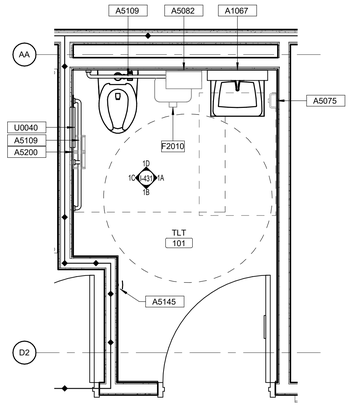
1C TLT 101- SOUTHWEST
Scale: 1/2" = 1'-0"



1B TLT 101 - SOUTHEAST
Scale: 1/2" = 1'-0"



1A TOILET 101 - NORTHEAST
Scale: 1/2" = 1'-0"



1 TLT - 101
Scale: 1/2" = 1'-0"

0 4 8 16

NORTH

KEY NOTES:

1. PROVIDE AND INSTALL ANODIZED ALUMINUM METAL TRIM, TR-2
2. PROVIDE AND INSTALL ANODIZED ALUMINUM METAL COVE TRIM PIECE BETWEEN FLOOR AND WALL TILE, TR-1
3. PROVIDE AND INSTALL 4X8 PORCELAIN WALL TILE, PT-2
4. PROVIDE AND INSTALL ANODIZED ALUMINUM TRIM AT OUTSIDE CORNERS, TR-3
5. PAINT WALLS, EP-1
6. PROVIDE AND INSTALL ANODIZED ALUMINUM TRIM AT INSIDE CORNERS, TR-4
7. PROVIDE AND INSTALL GLASS MOSAIC ACCENT TILE, GWT-1

WALL RATING LEGEND

- 1 HR - FIRE SEPARATION
- 2 HR - FIRE SEPARATION
- SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

APOGEE CONSULTING GROUP, P.A. 52644 RALEIGH, NC

RENEE M. CLARK LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

© COPYRIGHT Apogee Consulting Group, P.A.

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ENLARGED TOILET PLANS AND ELEVATIONS

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved

Date: OCTOBER 13, 2023 | Checked: ELI | Drawn: JK

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Drawing Number I-431

Dwg 13 of 14

10/11/2023 11:20:46 AM C:\Users\apuser\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apuser.rvt

VA FORM 08-6231

DocuSign Envelope ID: 8E14BB13-53AD-439F-AE8F-5E89049111D3

EQUIPMENT AND FURNITURE SCHEDULE VV

JSN Number	Quantity	JSN Description	JSN Furniture / Installation	DATA	POWER	MECHANICAL	NEW (N) OR RELOCATED (R)	BLOCKING REQUIRED
A1014M	11	Telephone, Wall Mounted, 1 Line	VV	Yes	No	No	NEW	No
A1015	19	Telephone, Desk, Multiple Line	VV	Yes	No	No	NEW	No
A5076	1	Dispenser, Hand Sanitizer, Free Standing	VV	No	No	No	NEW	No
A5103	1	Waste Disposal Unit	VV	No	No	No	NEW	No
E0090	1	Workstation, Corner Work Surface, Free std, 72x72	VV	No	Yes	No	NEW	No
E0978	1	Cart, Wire, Mobile, 72"H x 48"W x 24"D	VV	No	No	No	NEW	No
F0110	1	Bookcase, 3 Shelf	VV	No	No	No	NEW	No
F0225	6	Chair, Dining	VV	No	No	No	NEW	No
F0275	13	Chair, Swivel, High Back	VV	No	No	No	NEW	No
F0280	5	Chair, Swivel, Low Back	VV	No	No	No	NEW	No
F0305	20	Chair, Waiting Room, Single	VV	No	No	No	NEW	No
F0420	2	Filing Cabinet, Lateral, Half Height	VV	No	No	No	NEW	No
F0795	2	Table, Dining, Square	VV	No	No	No	NEW	No
F0866	1	Table, Adjustable Height, 60"W x 30"D	VV	No	No	No	NEW	No
F2000	9	Basket, Wastebasket, Rectangular, Metal	VV	No	No	No	NEW	No
F2010	1	Basket, Wastepaper, Step-On	VV	No	No	No	NEW	No
F2015	1	Basket, Wastebasket, Metal/Plastic, 2 Swinging Doors	VV	No	No	No	NEW	No
F2020	2	Can, Trash, 44 Gallon	VV	No	No	No	NEW	No
F2300	1	Rack, Magazine, Wall Mounted	VV	No	No	No	NEW	Yes
F2700	23	Reader, Bar Code, Handheld, w/Interface	VV	No	Yes	No	NEW	No
F3200	3	Clock, Battery, 12" Diameter	VV	No	No	No	NEW	No
K4660	1	Microwave	VV	No	Yes	No	NEW	No
M0515	1	Monitor, Television	VV	Yes	Yes	No	NEW	Yes
M1801	14	Computer, Microprocessing, w/Dual Flat Panel Monitor	VV	Yes	Yes	No	NEW	No
M1801MM	11	Computer, Microprocessing, w/Three Flat Panel Monitors	VV	Yes	Yes	No	NEW	No
M1810	1	Printer, Copier, Free Standing	VV	Yes	Yes	No	RELOCATED	No
M1825	4	Printer, Computer	VV	Yes	Yes	No	NEW	No
M1830	1	PRINTER. LABEL	VV	Yes	Yes	No	NEW	Yes
M1890M	2	Kiosk	VV	Yes	Yes	No	NEW	No
M2015	2	Cabinet, Storage, Flammable, Freestanding	VV	No	No	No	RELOCATED	No
M2015M	1	Cabinet, Storage, Flammable, Wall Mounted	VV	No	No	No	NEW	Yes
M2055	1	Stationary, wire, shelving unit 5'W	VV	No	No	No	NEW	No
M2055M2	3	Stationary, wire, shelving unit 6'W	VV	No	No	No	NEW	No
M7265	1	Pill Counter	VV	No	Yes	No	RELOCATED	No
M7280	1	ScriptPro, Large	VV	Yes	Yes	No	RELOCATED	No
R5100	1	Upright Freezer & Biological	VV	No	Yes	No	RELOCATED	No
R6060	1	Refrigerator, Biological, SS, & 2 Door	VV	No	Yes	No	RELOCATED	No
R6200	1	Refrigerator	VV	No	Yes	No	NEW	No
R7250	2	Refrigerator & Freezer	VV	No	Yes	Yes	NEW	No
U001	11	Locker, 3 Tier	VV	No	No	No	NEW	Yes
U0032	1	Disposal, Prescription, Drop Box	VV	No	No	No	RELOCATED	No
U0033	1	Disposal, Sharps, Drop Box	VV	No	No	No	RELOCATED	No
U0034	5	Reader, Credit Card	VV	Yes	No	No	NEW	No
U0035	5	Reader, Signature Pad	VV	Yes	No	No	NEW	No

EQUIPMENT AND FURNITURE SCHEDULE VC

JSN Number	Quantity	JSN Description	JSN Furniture / Installation	DATA	POWER	MECHANICAL	NEW (N) OR RELOCATED (R)	BLOCKING REQUIRED
A5075	3	Dispenser, Soap, Disposable	VC	No	No	No	NEW	No
A5077	5	Dispenser, Hand Sanitizer, Hands Free	VC	No	No	No	NEW	No
A5082	3	Dispenser, Paper Towel, Sensor, Hands Free	VC	No	No	No	NEW	Yes
A5106	1	Waste Disposal Unit, Sharps w/Glove Dispenser	VC	No	No	No	NEW	Yes
A5107M	1	Dispenser, Glove, Surgical/Examination, Wall Mntd, 3 Units	VC	No	No	No	NEW	Yes
A5200	1	Dispenser, Toilet Tissue, SS, 2-Roll, Surface Mntd	VC	No	No	No	NEW	Yes

EQUIPMENT AND FURNITURE SCHEDULE CC

JSN Number	Quantity	JSN Description	JSN Furniture / Installation	DATA	POWER	MECHANICAL	NEW (N) OR RELOCATED (R)	BLOCKING REQUIRED
A1067	1	Mirror, Float Glass, ADA Accessible	CC	No	No	No	NEW	Yes
A5109	1	Grab Bars with Vertical	CC	No	No	No	NEW	Yes
A5145	3	Hook, Garment, Double, SS, Wall Mounted	CC	No	No	No	NEW	Yes
A5210	1	Bracket, Television, Wall Mounted, w/ Adjust Arm	CC	No	No	No	NEW	Yes
C1	28	Metal Shelving, Double Sided, 9 Shelves w/Multi Color Bins, 84"H x 36"W	CC	No	No	No	NEW	No
C2	4	Metal Shelving, Double Sided, 9 Shelves w/Multi Color Bins, 84"H x 24"W	CC	No	No	No	NEW	No
C3	22	Metal Shelving, Single Sided, 9 Shelves w/Multi Color Bins, 84"H x 36"W	CC	No	No	No	NEW	No
C4	9	Metal Shelving, Single Sided, 9 Shelves w/Multi Color Bins, 84"H x 24"W	CC	No	No	No	NEW	No
U0040	1	Seat Cover Dispenser	CC	No	No	No	NEW	No

EQUIPMENT AND FURNITURE SCHEDULE

JSN Number	Quantity	JSN Description	JSN Furniture / Installation	DATA	POWER	MECHANICAL	NEW (N) OR RELOCATED (R)	BLOCKING REQUIRED
100								
STORAGE								
M2055	1	Stationary, wire, shelving unit 5'W	VV	No	No	No	NEW	No
M2055M2	3	Stationary, wire, shelving unit 6'W	VV	No	No	No	NEW	No
101								
TLT								
A1067	1	Mirror, Float Glass, ADA Accessible	CC	No	No	No	NEW	Yes
A5075	1	Dispenser, Soap, Disposable	VC	No	No	No	NEW	No
A5082	1	Dispenser, Paper Towel, Sensor, Hands Free	VC	No	No	No	NEW	Yes
A5109	1	Grab Bars with Vertical	CC	No	No	No	NEW	Yes
A5145	1	Hook, Garment, Double, SS, Wall Mounted	CC	No	No	No	NEW	Yes
A5200	1	Dispenser, Toilet Tissue, SS, 2-Roll, Surface Mntd	VC	No	No	No	NEW	Yes
F2010	1	Basket, Wastepaper, Step-On	VV	No	No	No	NEW	No
U0040	1	Seat Cover Dispenser	CC	No	No	No	NEW	No
102								
RECEIVING								
A5077	1	Dispenser, Hand Sanitizer, Hands Free	VC	No	No	No	NEW	No
A5107M	1	Dispenser, Glove, Surgical/Examination, Wall Mntd, 3 Units	VC	No	No	No	NEW	Yes
E0978	1	Cart, Wire, Mobile, 72"H x 48"W x 24"D	VV	No	No	No	NEW	No
F0866	1	Table, Adjustable Height, 60"W x 30"D	VV	No	No	No	NEW	No
M1801	1	Computer, Microprocessing, w/Dual Flat Panel Monitor	VV	Yes	Yes	No	NEW	No
M2015	1	Cabinet, Storage, Flammable, Freestanding	VV	No	No	No	RELOCATED	No
103								
OFFICE								
A1015	1	Telephone, Desk, Multiple Line	VV	Yes	No	No	NEW	No
A5145	1	Hook, Garment, Double, SS, Wall Mounted	CC	No	No	No	NEW	Yes
E0090	1	Workstation, Corner Work Surface, Free std, 72x72	VV	No	Yes	No	NEW	No
F0275	1	Chair, Swivel, High Back	VV	No	No	No	NEW	No
F0305	1	Chair, Waiting Room, Single	VV	No	No	No	NEW	No
F0420	1	Filing Cabinet, Lateral, Half Height	VV	No	No	No	NEW	No
F2000	1	Basket, Wastebasket, Rectangular, Metal	VV	No	No	No	NEW	No
F3200	1	Clock, Battery, 12" Diameter	VV	No	No	No	NEW	No
M1801	1	Computer, Microprocessing, w/Dual Flat Panel Monitor	VV	Yes	Yes	No	NEW	No
104								
FILLING/ASSEMBLY								
A1015	15	Telephone, Desk, Multiple Line	VV	Yes	No	No	NEW	No
A5075	1	Dispenser, Soap, Disposable	VC	No	No	No	NEW	No
A5077	2	Dispenser, Hand Sanitizer, Hands Free	VC	No	No	No	NEW	No
A5082	1	Dispenser, Paper Towel, Sensor, Hands Free	VC	No	No	No	NEW	Yes
C1	28	Metal Shelving, Double Sided, 9 Shelves w/Multi Color Bins, 84"H x 36"W	CC	No	No	No	NEW	No
C2	4	Metal Shelving, Double Sided, 9 Shelves w/Multi Color Bins, 84"H x 24"W	CC	No	No	No	NEW	No
C3	22	Metal Shelving, Single Sided, 9 Shelves w/Multi Color Bins, 84"H x 36"W	CC	No	No	No	NEW	No
C4	9	Metal Shelving, Single Sided, 9 Shelves w/Multi Color Bins, 84"H x 24"W	CC	No	No	No	NEW	No
F0275	11	Chair, Swivel, High Back	VV	No	No	No	NEW	No
F2020	2	Can, Trash, 44 Gallon	VV	No	No	No	NEW	No
F2700	15	Reader, Bar Code, Handheld, w/Interface	VV	No	Yes	No	NEW	No
F3200	1	Clock, Battery, 12" Diameter	VV	No	No	No	NEW	No
M1801	4	Computer, Microprocessing, w/Dual Flat Panel Monitor	VV	Yes	Yes	No	NEW	No
M1801MM	11	Computer, Microprocessing, w/Three Flat Panel Monitors	VV	Yes	Yes	No	NEW	No
M1825	3	Printer, Computer	VV	Yes	Yes	No	NEW	No
M2015	1	Cabinet, Storage, Flammable, Freestanding	VV	No	No	No	RELOCATED	No
M7280	1	ScriptPro, Large	VV	Yes	Yes	No	RELOCATED	No
R5100	1	Upright Freezer & Biological	VV	No	Yes	No	RELOCATED	No
R6060	1	Refrigerator, Biological, SS, & 2 Door	VV	No	Yes	No	RELOCATED	No
R7250	1	Refrigerator & Freezer	VV	No	Yes	Yes	NEW	No
104A								
RECEPTION								
A1014M	5	Telephone, Wall Mounted, 1 Line	VV	Yes	No	No	NEW	No
F0280	5	Chair, Swivel, Low Back	VV	No	No	No	NEW	No
F2000	5	Basket, Wastebasket, Rectangular, Metal	VV	No	No	No	NEW	No
F2700	5	Reader, Bar Code, Handheld, w/Interface	VV	No	Yes	No	NEW	No
M1801	5	Computer, Microprocessing, w/Dual Flat Panel Monitor	VV	Yes	Yes	No	NEW	No
M1810	1	Printer, Copier, Free Standing	VV	Yes	Yes	No	RELOCATED	No
104B								
CHECK-IN								
A1014M	5	Telephone, Wall Mounted, 1 Line	VV	Yes	No	No	NEW	No
F0305	2	Chair, Waiting Room, Single	VV	No	No	No	NEW	No
U0034	5	Reader, Credit Card	VV	Yes	No	No	NEW	No
U0035	5	Reader, Signature Pad	VV	Yes	No	No	NEW	No

EQUIPMENT AND FURNITURE SCHEDULE

JSN Number	Quantity	JSN Description	JSN Furniture / Installation	DATA	POWER	MECHANICAL	NEW (N) OR RELOCATED (R)	BLOCKING REQUIRED
105								
WAITING								
A5076	1	Dispenser, Hand Sanitizer, Free Standing	VV	No	No	No	NEW	No
A5210	1	Bracket, Television, Wall Mounted, w/ Adjust Arm	CC	No	No	No	NEW	Yes
F0305	17	Chair, Waiting Room, Single	VV	No	No	No	NEW	No
F2000	1	Basket, Wastebasket, Rectangular, Metal	VV	No	No	No	NEW	No
F2300	1	Rack, Magazine, Wall Mounted	VV	No	No	No	NEW	Yes
M0515	1	Monitor, Television	VV	Yes	Yes	No	NEW	Yes
M1890M	2	Kiosk	VV	Yes	Yes	No	NEW	No
U0032	1	Disposal, Prescription, Drop Box	VV	No	No	No	RELOCATED	No
U0033	1	Disposal, Sharps, Drop Box	VV	No	No	No	RELOCATED	No
106								
VAULT								
A1015	3	Telephone, Desk, Multiple Line	VV	Yes	No	No	NEW	No
A5077	1	Dispenser, Hand Sanitizer, Hands Free	VC	No	No	No	NEW	No
A5103	1	Waste Disposal Unit	VV	No	No	No	NEW	No
A5106	1	Waste Disposal Unit, Sharps w/Glove Dispenser	VC	No	No	No	NEW	Yes
F0110	1	Bookcase, 3 Shelf	VV	No	No	No	NEW	No
F0275	1	Chair, Swivel, High Back	VV	No	No	No	NEW	No
F0420	1	Filing Cabinet, Lateral, Half Height	VV	No	No	No	NEW	No
F2000	2	Basket, Wastebasket, Rectangular, Metal	VV	No	No	No	NEW	No
F2700	3	Reader, Bar Code, Handheld, w/Interface	VV	No	Yes	No	NEW	No
M1801	3	Computer, Microprocessing, w/Dual Flat Panel Monitor	VV	Yes	Yes	No	NEW	No
M1825	1	Printer, Computer	VV	Yes	Yes	No	NEW	No
M1830	1	PRINTER. LABEL	VV	Yes	Yes	No	NEW	Yes
M2015M	1	Cabinet, Storage, Flammable, Wall Mounted	VV	No	No	No	NEW	Yes
M7265	1	Pill Counter	VV	No	Yes	No	RELOCATED	No
R6200	1	Refrigerator	VV	No	Yes	No	NEW	No
107								
LOUNGE								
A1014M	1	Telephone, Wall Mounted, 1 Line	VV	Yes	No	No	NEW	No
A5075	1	Dispenser, Soap, Disposable	VC	No	No	No	NEW	No
A5077	1	Dispenser, Hand Sanitizer, Hands Free	VC	No	No	No	NEW	No
A5082	1	Dispenser, Paper Towel, Sensor, Hands Free	VC	No	No	No	NEW	Yes
A5145	1	Hook, Garment, Double, SS, Wall Mounted	CC	No	No	No	NEW	Yes
F0225	6	Chair, Dining	VV	No	No	No	NEW	No
F0795	2	Table, Dining, Square	VV	No	No	No	NEW	No
F2015	1	Basket, Wastebasket, Metal/Plastic, 2 Swinging Doors	VV	No	No	No	NEW	No
F3200	1	Clock, Battery, 12" Diameter	VV	No	No	No	NEW	No
K4660	1	Microwave	VV	No	Yes	No	NEW	No
R7250	1	Refrigerator & Freezer	VV	No	Yes	Yes	NEW	No
U001	11	Locker, 3 Tier	VV	No	No	No	NEW	Yes

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALCOCER CONSULTING GROUP, P.A. 52644 NORTH CAROLINA PROFESSIONAL ENGINEER RALEIGH, NC

RENEE M. CLARK LICENSED ARCHITECT 24514 STATE OF MINNESOTA 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: EQUIPMENT SCHEDULE

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

Approved

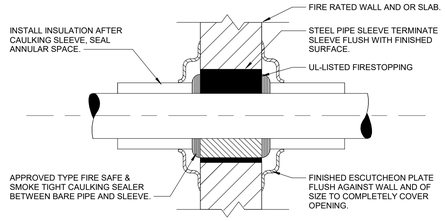
Date: OCTOBER 13, 2023 | Checked: ELI | Drawn: JK

Drawing Number: I-601

Dwg 14 of 14

10/11/2023 11:20:49 AM C:\Users\apufien\Documents\A_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_apufien!D3XT7.rvt

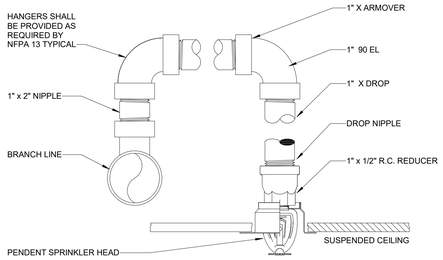
DocuSign Envelope ID: 065033E6-CD82-4283-BAD4-EC61FA9A166D



NOTE:
MINIMUM SIZE OF OPENINGS AROUND SPRINKLER PIPE PENETRATIONS OF CONCRETE OR CMU WALLS SHALL BE IN ACCORDANCE WITH NFPA 13 SEISMIC REQUIREMENTS.

4 SPRINKLER PIPE SLEEVE THRU FIRE RATED WALL DETAIL

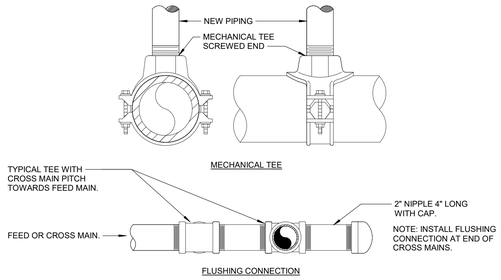
Scale: No Scale



NOTE:
1. ALL SPRINKLERS SHALL BE FM APPROVED QUICK RESPONSE.
2. ALL EXPOSED PIPING SHALL BE PAINTED RED.

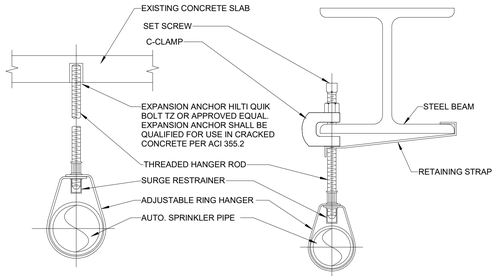
5 SEMI-RECESSED PENDANT SPRINKLER DETAIL

Scale: No Scale



1 MECHANICAL TEE AND FLUSHING CONNECTION DETAIL

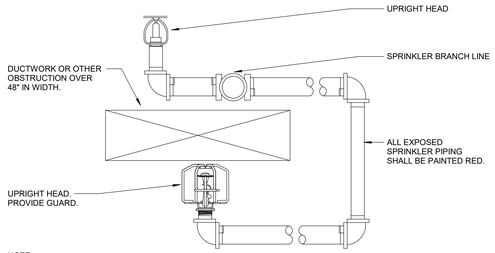
Scale: No Scale



NOTE:
HANGING DETAILS SHOWN ARE SUBJECT TO REQUIREMENTS OF SEISMIC DESIGN.

2 PIPE HANGER SUPPORT DETAIL

Scale: No Scale



NOTE:

1. PROVIDE SPRINKLER ABOVE AND BELOW DUCT OR OTHER OBSTRUCTION OVER 48" IN WIDTH.
2. COORDINATE SPRINKLER PIPE ROUTING AND LOCATION WITH COR AND ALL PARTIES INVOLVED WITH INSTALLATION OF THE OBSTRUCTION.
3. PROVIDE PIPE SUPPORTS THAT COMPLY WITH NFPA 13 REQUIREMENTS. INCLUDE COST OF ADDITIONAL SUPPORTS AS REQUIRED.
4. ATTACH PIPE SUPPORTS TO BUILDING STRUCTURE OR PROVIDE SUPPLEMENTAL STEEL ANCHOR POINTS. DO NOT ATTACH PIPE SUPPORTS TO DUCTWORK, PIPES, CONDUIT, OR EXISTING HANGER RODS FOR OTHER EQUIPMENT.

3 SPRINKLER ABOVE AND BELOW DUCT DETAIL

Scale: No Scale

FIRE SUPPRESSION SYMBOLS & ABBREVIATIONS

NOTE: NOT ALL SYMBOLS MAY BE USED ON THIS PROJECT

FL	FIRE LINE	FPC	FIRE PROTECTION CONTRACTOR
DRAIN	FIRE DRAIN		EXTERIOR ALARM GONG (WATER ACTIVATED)
	UPRIGHT SPRINKLER HEAD		BACKFLOW PREVENTER
	SEMI-RECESSED SPRINKLER HEAD		CHECK VALVE
	CONCEALED SPRINKLER HEAD		GATE VALVE
	PENDANT SPRINKLER HEAD	T&D	TEST AND DRAIN ASSEMBLY
	SIDEWALL SPRINKLER HEAD	TS	TAMPER SWITCH
	FIRE DEPARTMENT CONNECTION (FDC)	FS	FLOW SWITCH
#	NEW WORK KEYNOTE		LIGHT HAZARD
#	DEMOLITION KEYNOTE		ORDINARY HAZARD GROUP 1 OCCUPANCY
	POINT OF NEW CONNECTION		ORDINARY HAZARD GROUP 2 OCCUPANCY
	LIMIT OF DEMOLITION	## / #	DETAIL MODULE NUMBER / DETAIL OR SECTION MARK / SHOWN ON DRAWING

INFECTION CONTROL MEASURES

1. CONTRACTOR SHALL COMPLY WITH THE VA'S INFECTION CONTROL RISK ASSESSMENT REQUIREMENTS AND WRITTEN DUST CONTROL PLAN.
2. EXISTING AIR QUALITY REQUIREMENTS AND OTHER UTILITY REQUIREMENTS FOR OCCUPIED AREAS SHALL BE MAINTAINED.
3. RENOVATION AREAS SHALL BE ISOLATED FROM OCCUPIED AREAS DURING CONSTRUCTION USING AIRTIGHT BARRIERS. PROVIDE EXHAUST AIRFLOW IN A MANNER THAT SHALL BE SUFFICIENT TO MAINTAIN NEGATIVE AIR PRESSURE IN THE CONSTRUCTION ZONE. COORDINATE TEMPORARY BARRIERS WITH INTERIM LIFE SAFETY MEASURES.
4. FIRE PROTECTION SYSTEM REVISIONS SHALL BE PROPERLY PERFORMED TO LIMIT WATERBORNE OPPORTUNISTIC PATHOGENS.
5. CRUCIAL VENTILATION SPECIFICATIONS FOR AIR BALANCE AND FILTRATION SHALL BE VERIFIED BEFORE COR'S ACCEPTANCE.

BUILDING AND OCCUPANT SAFETY - INTERRUPTION OF FIRE PROTECTION SERVICE

1. DURING THE TIME THAT THE FIRE PROTECTION RENOVATION WORK IS BEING PERFORMED, AND THE FIRE PROTECTION SYSTEM IS DOWN AND OUT OF COMMISSION, THE FIRE PROTECTION CONTRACTOR SHALL HAVE SUFFICIENT PERSONNEL ONSITE TO KEEP A "FIRE WATCH" ON THE FACILITY PER VA REQUIREMENTS.
2. A FIRE PROTECTION WATCH IS IMPLEMENTED TO ENSURE THE FIRE SAFETY OF A BUILDING IN THE EVENT OF ANY ACT, OR SITUATION INSTIGATING AN INCREASED RISK TO PERSONS OR PROPERTY. THE TERM "FIRE WATCH" IS USED TO DESCRIBE A DEDICATED PERSON OR PERSONS WHO'S SOLE RESPONSIBILITY IS TO LOOK FOR FIRES WITHIN AN ESTABLISHED AREA.
3. IN THE OPINION OF THE FIRE AND LIFE-SAFETY GROUP (FLS) OF FACTORY MUTUAL (FM), ANY REQUIRED FIRE PROTECTION SYSTEM THAT IS OUT OF SERVICE FOR MORE THAN 4 HOURS AND OCCUPIED IS REQUIRED TO ESTABLISH A FIRE WATCH. FOR THE PERSON OR PERSONS ASSIGNED TO THE FIRE WATCH, THIS MUST BE THEIR ONLY JOB DUTY DURING THE TIME PERIOD OF THE FIRE PROTECTION RENOVATION WORK.
4. IN ADDITION THE BUILDING COR/VA IS REQUIRED TO HAVE AN IMPAIRMENT COORDINATOR. THE OUT OF SERVICE EQUIPMENT MUST BE TAGGED "OUT OF SERVICE". AN OUT OF SERVICE TAG MUST BE PLACED AT THE FIRE ALARM PANEL AND THE FIRE DEPARTMENT CONNECTION (REFERENCE INTERNATIONAL FIRE CODE-CHAPTER 9, SECTION 901.7)
5. FIRE WATCH PERSONNEL ARE TO KEEP WATCH FOR FIRES IN THE GENERAL AREA OF PERFORMANCE, THE PERSONS PERFORMING THE FIRE WATCH ARE NOT PERMITTED TO PERFORM ANY OTHER DUTIES.
6. FIRE WATCH PERSONNEL ARE TO HAVE FIRE EXTINGUISHING EQUIPMENT READILY AVAILABLE AND TO BE TRAINED IN ITS USE.
7. THE QUANTITY OF PERSONNEL INVOLVED IN THE FIRE WATCH IS TO BE ADEQUATE SUCH THAT EACH FLOOR, LEVEL, AND ROOM OF THE FIRE AREA IS COVERED.
8. IN GENERAL, A FIRE WATCH IS TO FULFILL THE INTENT OF NFPA-72 AS FOLLOWS: 1. NOTIFY OCCUPANTS TO EVACUATE WHEN THERE IS A FIRE IN THE BUILDING; 2. NOTIFY THE CENTRAL MONITORING STATION TO INITIATE EMERGENCY PERSONNEL RESPONSE; 3. ACTIVATE FIRE PROTECTION SYSTEMS IN ORDER TO RELEASE DOOR HOLDERS, CLOSE SMOKE DAMPERS, AND SHUT DOWN FANS.

FIRE SUPPRESSION DEMOLITION GENERAL NOTES

1. LOCATIONS SHOWN FOR EXISTING FIRE PROTECTION PIPE AND EQUIPMENT ARE APPROXIMATE. FIELD VERIFY THE EXACT LOCATIONS OF EXISTING FIRE PROTECTION LINES AND EQUIPMENT INCLUDING RISERS AND VALVES PRIOR TO START OF WORK.
2. COORDINATE WITH COR FOR ANY SHUTDOWNS OR PLANNED INTERRUPTIONS OF THE FIRE PROTECTION SERVICE. GIVE THE COR THREE (3) DAYS NOTICE PRIOR TO PLANNED SHUTDOWN OR INTERRUPTION.
3. COORDINATE DEMOLITION OF FIRE PROTECTION PIPING WITH OTHER PIPING WHICH IS NOT TO BE REMOVED. PROTECT OTHER PIPING WHICH IS NOT TO BE REMOVED FROM DAMAGE, DIRT, AND DEBRIS.
4. FIRE PROTECTION RELATED EQUIPMENT AND PIPING WHICH IS REMOVED FROM THE BUILDING IS TO BE TAKEN OFFSITE AND DISPOSED OF.
5. REMOVE SPRINKLER MAINS, BRANCHES AND SPRINKLERS BACK TO THE ZONE CONTROL VALVE AS NEEDED TO INSTALL NEW SPRINKLER SYSTEM.

FIRE SUPPRESSION GENERAL NOTES

1. USE NFPA-13 (CURRENT EDITION), CHAPTER 27, "PLANS AND CALCULATIONS" AS A GUIDELINE WHEN PREPARING SUBMITTALS FOR REVIEW. DISREGARD ONLY THOSE ITEMS NOT APPLICABLE TO THE INDIVIDUAL BUILDING SYSTEM. FIRE PROTECTION MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA-13 FOR THE INSTALLATION OF AUTOMATIC SPRINKLER SYSTEM.
2. COMPLY WITH THE INTERNATIONAL BUILDING CODE (LATEST ADOPTED EDITION). INSTALLATION SHALL COMPLY WITH VA REQUIREMENTS. SYSTEM SHALL ALSO BE IN COMPLIANCE WITH ALL REQUIRED PLUMBING CODES.
3. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS AND ROOM FINISH SCHEDULE WHICH INDICATE CEILING HEIGHTS. COORDINATE WITH ARCHITECT'S REFLECTED CEILING PLAN FOR LOCATION OF SPRINKLER HEADS IN AREAS WITH CEILINGS. LOCATE HEADS IN AREAS WITHOUT CEILINGS AS REQUIRED BY NFPA AND VA REQUIREMENTS FOR THE APPROPRIATE HAZARD CLASSIFICATION.
4. THIS FACILITY IS FULLY SPRINKLERED. FIRE SUPPRESSION SYSTEM SHALL BE WET PIPE TYPE SYSTEM WITH COMPLETE SPRINKLER PROTECTION UNLESS NOTED OTHERWISE. SYSTEM TO BE DESIGNED AS REQUIRED BY NFPA AND VA REQUIREMENTS FOR THE APPROPRIATE HAZARD CLASSIFICATION.
5. SPRINKLER HEAD LAYOUTS INDICATED ARE BASED ON OCCUPANCY HAZARD CLASSIFICATIONS OUTLINED IN NFPA-13 AND VA STANDARDS.
6. HYDRAULICALLY CALCULATE SPRINKLER IN ACCORDANCE WITH REQUIREMENTS FOR APPROPRIATE HAZARD OCCUPANCY. PROVIDE ACTUAL NUMBER OF HEADS, REQUIRED SPACING AND PIPE ROUTING AS REQUIRED FOR CLEARANCE WITH STRUCTURAL CONDITIONS AND OTHER TRADES TO PROVIDE A COMPLETE AND OPERABLE SYSTEM IN ACCORDANCE WITH NFPA AND VA REQUIREMENTS.
7. FIRE PROTECTION CONTRACTOR SHALL OBTAIN FLOW TEST DATA INDICATING THE WATER FLOW, STATIC PRESSURE AVAILABLE WITH NO FLOW, AND RESIDUAL PRESSURE AT FULL FLOW TO THE FACILITY. SUBMIT HYDRAULIC CALCULATIONS AND PLANS RELATED TO A MINIMUM OF 1 REMOTE AREA FOR REVIEW.
8. PIPING IS SHOWN IN SCHEMATIC FORM TO INDICATE APPROXIMATE ARRANGEMENT OF EQUIPMENT AND PIPING. SPRINKLER CONTRACTOR SHALL DESIGN THE SYSTEM AND ROUTE PIPING AS REQUIRED FOR CONFORMANCE WITH ACTUAL BUILDING CONDITIONS AND NFPA REQUIREMENTS. COORDINATE SPRINKLER WORK WITH ALL OTHER TRADES TO AVOID CONFLICT.
9. SUPPORT NEW PIPING AND EQUIPMENT FROM STRUCTURE. PROVIDE ALL SUPPLEMENTAL STEEL AS REQUIRED TO PRIMARY BUILDING STRUCTURAL MEMBERS. DESIGN SUPPLEMENTAL STEEL AND SUPPORTS INCLUDING REACTION LOADS AT PRIMARY BUILDING STRUCTURAL MEMBERS.
10. PROVIDE SPRINKLER HEADS IN CONCEALED LOCATIONS IN ACCORDANCE WITH NFPA REQUIREMENTS.
11. CLEAN ENTIRE WORK AREA OF ALL DUST, DIRT, AND OTHER DEBRIS. MAINTAIN WORK AREA IN CLEAN CONDITION.
12. PROVIDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, ETC. REQUIRED FOR COMPLETE AND FUNCTIONAL SYSTEM AS SPECIFIED AND INDICATED ON THE DRAWINGS.
13. SUBMIT ONE COMPLETE SET OF AUTOMATIC SPRINKLER SYSTEM DRAWINGS, HYDRAULIC CALCULATIONS, CURRENT WATER FLOW TEST, AND THE EQUIPMENT DATA BROCHURES PREPARED BY OR UNDER THE SUPERVISION OF, AND SEALED BY A PROFESSIONAL ENGINEER.
14. REPAIR OR REPLACE NON-CONFORMING AND INADEQUATE WORK AT NO ADDITIONAL COST TO THE VA.
15. PROVIDE FIRE STOPS / SEALANT AT ALL PIPE PENETRATIONS THROUGHOUT FIRE RATED WALLS. REVIEW ARCHITECTURAL PLANS PRIOR TO BIDDING AND INDICATE PENETRATIONS ON SPRINKLER LAYOUT SUBMITTAL.
16. FLOW AND TAMPER SWITCHES ARE TO BE PURCHASED AND INSTALLED AS WORK OF DIVISION 21. PROVIDE WIRING TO FLOW AND TAMPER SWITCHES AS WORK OF DIVISION 26.
17. WATER SERVICE AND DETECTOR TYPE REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER TO BE PROVIDED AND TESTED AS WORK OF DIVISION 22. INCORPORATE ASSOCIATED PRESSURE DROP OF SELECTED BACKFLOW PREVENTER DEVICE IN HYDRAULIC CALCULATIONS.
18. FURNISH AND INSTALL ARMOVER SUPPORTS FOR ALL END OF LINE BRANCH LINES IN ACCORDANCE WITH NFPA-13.
19. ALL DROPS TO SPRINKLER HEADS SHALL TEE / ELBOW OFF TOP OF BRANCH PIPE, EXCEPT WHERE STRUCTURAL, ARCHITECTURAL OR MECHANICAL EQUIPMENT CONDITIONS PRECLUDE CONNECTION AT TOP OF PIPE.
20. SPRINKLER HEADS SHALL BE IN A SYMMETRICAL PATTERN, NOT NECESSARILY IN THE CENTER OF ROOMS OR CORRIDORS. LOCATE CENTERED IN CEILING TILE WHERE POSSIBLE.
21. LOCATE THE INSPECTOR'S TEST CONNECTION AND MAIN DRAIN LOCATIONS IN ACCORDANCE WITH NFPA-13.
22. FIRE DEPARTMENT CONNECTION SHALL BE LOCATED NOT MORE THAN 100 FEET AWAY FROM THE NEAREST FIRE HYDRANT CONNECTED TO AN APPROVED WATER SUPPLY AND SHALL BE LOCATED NOT LESS THAN 18 INCHES, NOR MORE THAN 48 INCHES ABOVE ADJACENT SURFACE.
23. STANDPIPES SHALL BE PROVIDED IN EACH REQUIRED EGRESS STAIRWAY, WITH 4 INCH DIAMETER MINIMUM SIZE.
24. CLASS 1 SYSTEM SHALL BE PROVIDED WITH 2 1/2 INCH HOSE CONNECTIONS AT EACH INTERMEDIATE LANDING BETWEEN FLOORS IN EACH REQUIRED EGRESS EXIT STAIRWAY. COORDINATE TYPE OF HOSE CONNECTIONS WITH THE LOCAL FIRE DEPARTMENT.

KEY NOTES:

THE FIRE PROTECTION DRAWING IS DESIGNED TO BE IN CONFORMANCE WITH NFPA 13. IT IS A PERFORMANCE BASED DRAWING INDICATING THE EXTENT OF FIRE PROTECTION WORK FOR THE AREA THAT THIS DRAWING REPRESENTS. THIS DRAWING IS "FOR INFORMATION ONLY", AS A REFERENCE FOR THE FIRE PROTECTION CONTRACTOR TO BASE THE DESIGN OF THE FIRE PROTECTION SYSTEM ON. THE CONTRACTOR SHALL VERIFY THE EXACT CONDITIONS THAT THIS DRAWING REPRESENTS, INCLUDING ANY PERCEIVED CONCEALED SPACES, AND THE BUILDING TYPE AND CONSTRUCTION AS OUTLINED IN THE INTERNATIONAL BUILDING CODE, PRIOR TO THE START OF WORK. REFER TO THE INTERNATIONAL BUILDING CODE, NFPA 13, AND THE PROJECT SPECIFICATIONS FOR OTHER FIRE PROTECTION REQUIREMENTS.

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER 0040255 — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

© COPYRIGHT Apogee Consulting Group, P.A.

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRE SUPPRESSION GENERAL INFORMATION

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved

Date: OCTOBER 13, 2023 | Checked: RBK | Drawn: WKH

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

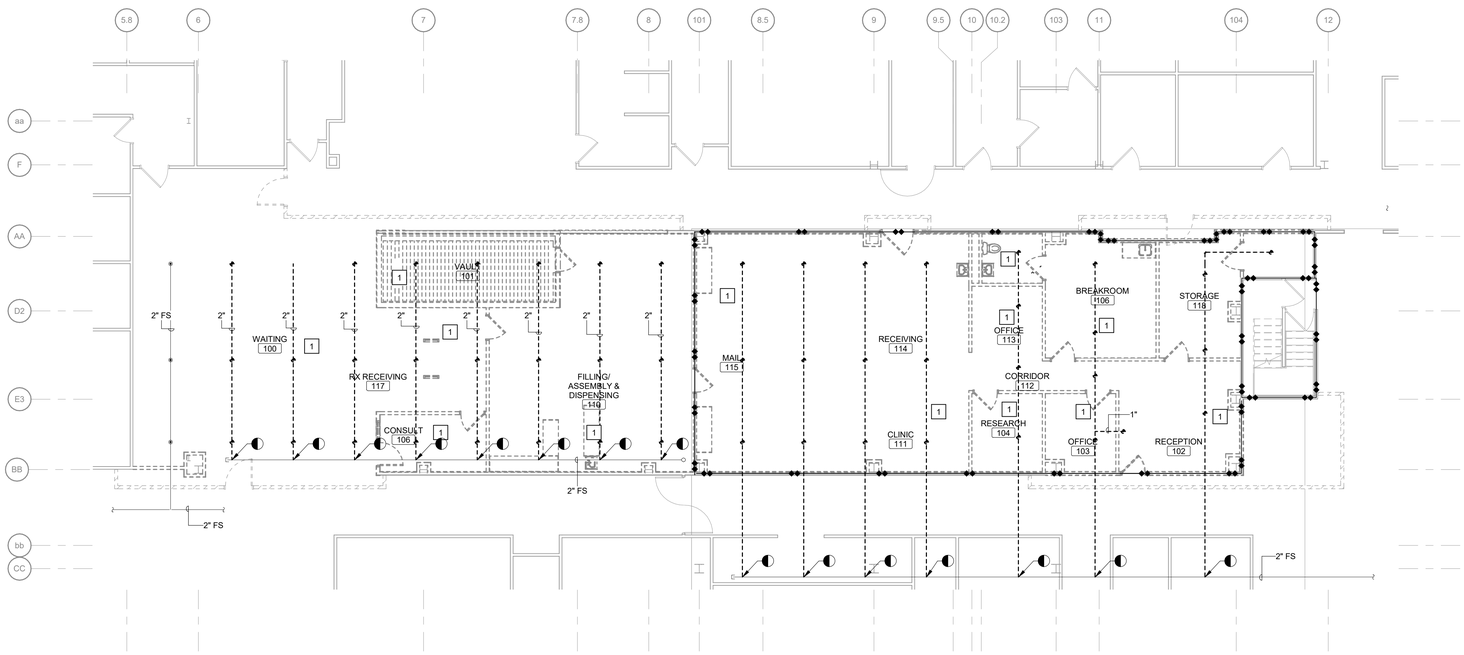
Drawing Number FX001

Dwg 1 of 2

10/12/2023 10:07:05 AM C:\Users\rmeier\Documents\M_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_rmeierT5X6V.rvt

VA FORM 08-6231

DocuSign Envelope ID: 065033E6-CD82-4283-BAD4-EC61FA9A166D

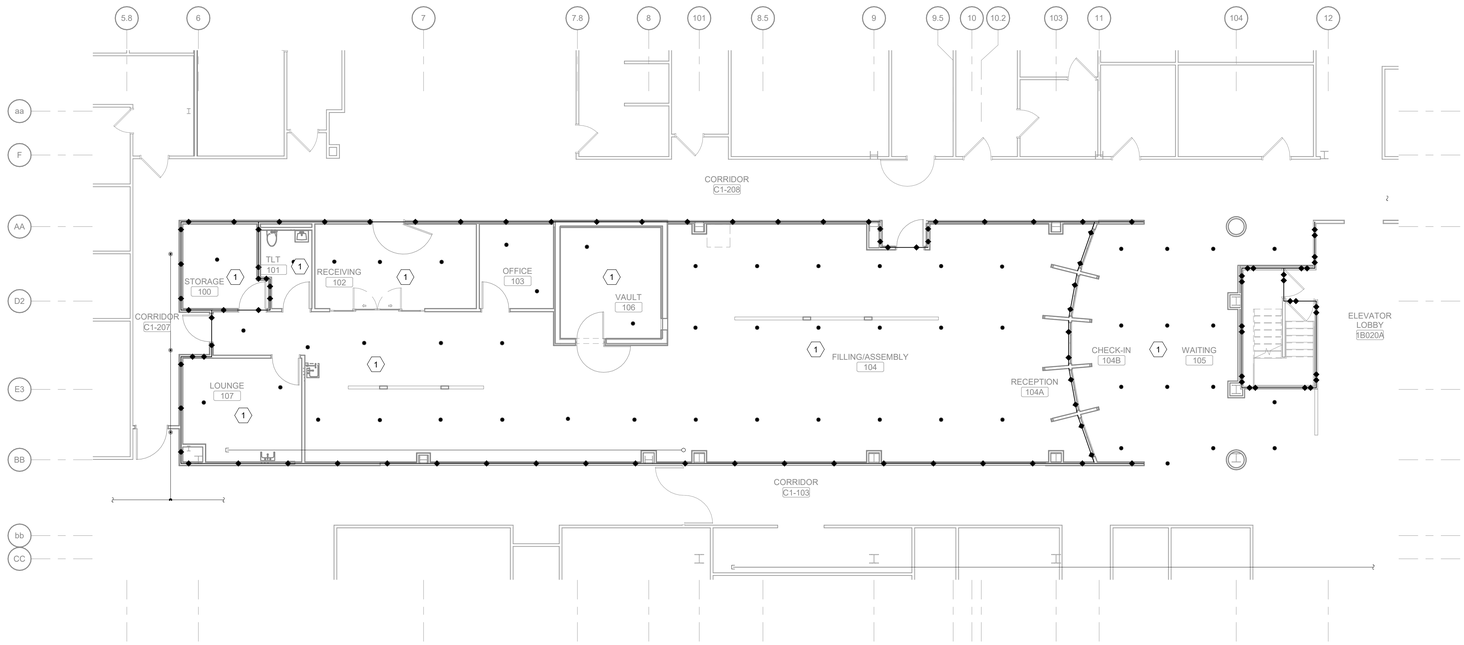


1 FIRST FLOOR FIRE SUPPRESSION DEMOLITION PLAN

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

0 4 8 16

NORTH



2 FIRST FLOOR FIRE SUPPRESSION NEW PLAN

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

0 4 8 16

NORTH

SHEET NOTES:

A. DEMOLISH SPRINKLER BRANCH PIPING TO MAINS AS INDICATED.

B. EXISTING PIPE SIZES ARE APPROXIMATE, CONTRACTOR TO FIELD VERIFY.

C. EXISTING SPACE IS BEING SERVED BY TWO DIFFERENT MAINS.

D. PROVIDE TEMPORARY FIRE PROTECTION DURING CONSTRUCTION.

E. SPRINKLER HEADS SHOWN ARE FOR REFERENCE ONLY. CONTRACTOR TO PROVIDE FINAL LAYOUT BASED ON SITE CONDITIONS.

F. CONTRACTOR TO SHUT DOWN EXISTING SYSTEM, DISCONNECT BRANCH PIPING, CAP OPEN PIPE ENDS AND PUT THE SYSTEM BACK IN OPERATION.

G. DRAIN AND FILLING OF SYSTEM BY CONTRACTOR.

KEY NOTES:

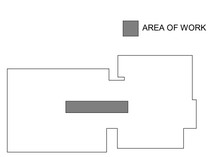
1 DEMOLISH ALL FIRE PROTECTION (SPRINKLER HEADS AND BRANCH PIPING) BACK TO MAIN.

KEY NOTES:

1 PROVIDE NEW SPRINKLER HEADS AND PIPING UP TO THE MAINS.

KEY PLAN

SCALE: NO SCALE



WALL RATING LEGEND

1 HR - FIRE SEPARATION

2 HR - FIRE SEPARATION

SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER RAJESH B. KAUL 0040250 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR FIRE SUPPRESSION PLAN

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved

Date: OCTOBER 13, 2023 | Checked: RBK | Drawn: WKH

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Drawing Number FX101

Dwg 2 of 2

10/12/2023 10:07:05 AM C:\Users\rmeier\Documents\M_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_rmeierT5X6V.rvt

VA FORM 08-6231

DocuSign Envelope ID: 065033E6-CD82-4283-BAD4-EC61FA9A166D

SEISMIC DESIGN CRITERIA
(FOR FINAL VALUES, REFER TO STRUCTURAL DRAWINGS)

LOCATION	MATHER, CA
RISK CATEGORY	II
MAPPED SHORT PERIOD SPECTRAL RESPONSE (S_S)	0.460
MAPPED 1-SECOND SPECTRAL RESPONSE (S_1)	0.225
SITE CLASSIFICATION	D
SITE COEFFICIENT (F_a)	1.432
SITE COEFFICIENT (F_v)	1.770
MAXIMUM SHORT PERIOD SPECTRAL RESPONSE (S_{MS})	0.659
MAXIMUM 1-SECOND SPECTRAL RESPONSE (S_{M1})	0.398
MAPPED SHORT PERIOD SPECTRAL RESPONSE (S_{DS})	0.439
MAPPED 1-SECOND SPECTRAL RESPONSE (S_{D1})	0.266
SEISMIC DESIGN CATEGORY	D
SEISMIC IMPORTANCE FACTOR	1

NOTE:
1. THE SEISMIC SUPPORTS FOR PIPING AND DUCTWORK IS A DELEGATED DESIGN AND CONTRACTOR SHALL PROVIDE PE STAMPED AND SIGNED DESIGN CALCULATIONS AND SHOP DRAWINGS FOR SEISMIC SUPPORTS.
2. SEISMIC SUPPORTS DESIGN SHALL MEET LATEST IBC AND VA SEISMIC DESIGN GUIDE REQUIREMENTS.

PLUMBING SYMBOLS & ABBREVIATIONS

ANNOTATION ABBREVIATIONS

A/E	ARCHITECT/ENGINEER
AC	ABOVE CEILING
AD	AREA DRAIN
AFF	ABOVE FINISHED FLOOR
AG	AIR GAP
AP	ACCESS PANEL
AS	AUTOMATIC SPRINKLER
AFG	ABOVE FINISHED GRADE
ASD	ADJUSTABLE SPEED DRIVE
ASHRAE	AMERICAN SOCIETY HEATING, REFRIGERATING, AIR CONDITIONING ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASPE	AMERICAN SOCIETY PLUMBING ENGINEERS
ASR	AUTOMATIC SPRINKLER RISER
AV	ACID VENT
AW	ACID WASTE
BAS	BUILDING AUTOMATION SYSTEM
BF	BELOW FLOOR
BFP	BACKFLOW PREVENTER
BG	BELOW GRADE
BH	BOOSTER HEATER
BHP	BREAK HORSEPOWER
BJ	BETWEEN JOISTS
BOP	BOTTOM OF PIPE
BSP	BLACK STEEL PIPE
BT	BATHTUB
BTUH	BRITISH THERMAL UNITS PER HOUR
C	CELSIUS
CF	COMBINATION FIXTURE
CGA	COMPRESSED GAS ASSOCIATION
CI	CAST IRON
CO	CLEANOUT
COND	CONDENSATE
CP	CONDENSATE PUMP
CS	CLINICAL SINK
CV	CONTROL VALVE
DA	DENTAL COMPRESSED AIR
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RETURN
DHWS	DOMESTIC HOT WATER SUPPLY
DF	DRINKING FOUNTAIN
DI	DEIONIZED WATER
DN	DOWN
DOE	DEPARTMENT OF ENERGY
DS	DOWNSPOUT
DV	DENTAL VACUUM
DW	DISHWASHER
DWG	DRAWING
DWH	DOMESTIC WATER HEATER
DWR	DRINKING WATER RETURN
DWS	DRINKING WATER SUPPLY
DWV	DRAIN WASTE VENT
EC	ELECTRICAL CONTRACTOR
EL	ELEVATION
EMCS	ENERGY MONOSERRAT AND CENTRAL SYSTEM
EPA	ENVIRONMENTAL PROTECTION AGENCY
EPACT	ENERGY POLICY ACT
ESC	ESCUTCHEON
ESH	EMERGENCY SHOWER
ET	EXPANSION TANK
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EWS	EYEWASH STATION
EX	EXISTING
F	FAHRENHEIT
FA	FROM ABOVE
FB	FROM BELOW
FBO	FURNISHED BY OTHERS
FCO	FLOOR CLEANOUT
FCW	FILTERED COLD WATER
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT (HOSE) CONNECTION
FM	FLOW METER
FOP	FUEL OIL PUMP
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOV	FUEL OIL VENT
FS	FLOOR SINK
FU	FIXTURE UNITS
G	GALLON
GC	GENERAL CONTRACTOR
GCO	GRADE CLEANOUTS
GD	GARBAGE DISPOSAL
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GPR	GAS PRESSURE REGULATOR
GRS	GAS REGULATOR STATION
GT	GREASE TRAP
GVTR	GAS VENT THROUGH ROOF
GWH	GAS FIRED WATER HEATER
H&CW	HOT AND COLD WATER
HB	HOSE BIBB (INTERIOR)
HD	HUB DRAIN
HEX	HEAT EXCHANGER
HP	HORSEPOWER
HS	HAND SINK
HST	HOT WATER STORAGE TANK (DOMESTIC)
HWB	HOT WATER BOILER
HWCP	HOT WATER CIRCULATING PUMP
HWP	HOT WATER PUMP
HYD	HYDRANT
ICW	INDUSTRIAL COLD WATER
INV	INVERT
IPC	INTERNATIONAL PLUMBING CODE
IRW	IRRIGATION WATER
IW	INDIRECT WASTE
IWH	INSTANTANEOUS WATER HEATER
IWR	INDUSTRIAL WATER RETURN
IWS	INDUSTRIAL WATER SUPPLY
KW	KILOWATT
KWHR	KILOWATT-HOUR
L/S	LITER PER SECOND
LA	LABORATORY AIR
LAV	LAVATORY
LBS/HR	POUNDS PER HOUR
LCW	LABORATORY COLD WATER
LHW	LABORATORY HOT WATER
LNG	LIQUID NATURAL GAS
LOX	LIQUID OXYGEN
LV	LABORATORY VACUUM
LW	LOW WATER
M	METER
MA	MEDICAL AIR
MAV	MANUAL AIR VENT
MBH	THOUSANDS OF BTU PER HOUR
MC	MECHANICAL CONTRACTOR
MED	MEDICAL
MER	MECHANICAL EQUIPMENT ROOM
MH	MANHOLE
MOU	MEMORANDUM OF UNDERSTANDING
MSB	MOP SINK BASIN
MV	MEDICAL VACUUM
N2	NITROGEN
N2O	NITROUS OXIDE
NC	NORMALLY CLOSED
NG	NATURAL GAS
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NOM	NOMINAL
NPW	NON POTABLE WATER
NTS	NOT TO SCALE
O2	OXYGEN
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFD	OVERFLOW DRAIN
OR	OPERATING ROOM
OVFL	OVERFLOW
PA	PASCAL
PC	PLUMBING CONTRACTOR
PD	PRESSURE DROP
PDI	PLUMBING AND DRAINAGE INSTITUTE
PG	PRESSURE GAUGE
PP	PLUMBING PUMP
PPM	PARTS PER MILLION
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH - ABSOLUTE
PSIG	POUNDS PER SQUARE INCH - GAUGE
PTRV	PRESSURE TEMPERATURE RELIEF VALVE
PW	POTABLE WATER
RD	ROOF DRAIN
RDL	ROOF DRAIN LEADER
RL	ROOF LEADER
RO	REVERSE OSMOSIS
RWL	RAIN WATER LEADER
SAN	SANITARY SEWER
SCFM	STANDARD CUBIC FOOT/MIN
SCW	SOFTENED COLD WATER
SDMH	STORM DRAIN MANHOLE
SP	SUMP PUMP
SPR	SPRINKLER LINE
SQFT	SQUARE FOOT
SS	STAINLESS STEEL
ST	STORAGE TANK
SW	STORM WATER
TCV	TEMPERATURE CONTROL VALVE
TD	TRENCH DRAIN
TDH	TOTAL DYNAMIC HEAD
TDL	TEMPERATURE DIFFERENTIAL
TEMP	TEMPERATURE
TMV	THERMOSTATIC MIXING VALVE
TP	TRAP PRIMER
TSTAT	THERMOSTAT
TWR	TEMPERED WATER RETURN
TWS	TEMPERED WATER SUPPLY
TYP	TYPICAL
UPC	UNIFORM PLUMBING CODE
V	SANITARY VENT
VAC	VACUUM
VB	VACUUM BREAKER
VCO	VACUUM CLEANER OUTLET
VP	VACUUM PUMP
VS	VENT STACK
VTR	VENT THROUGH ROOF
W	WASTE
WC	WATER CLOSET
WCO	WALL CLEANOUT
WG	WATER GAUGE
WH	WATER HEATER
WHA	WATER HAMMER ARRESTOR
WHD	WALL HYDRANT
WL	WATER LINE
WM	WATER METER
WPD	WATER PRESSURE DROP
WS	WASTE STACK
YCO	YARD CLEANOUT
YH	YARD HYDRANT

PLUMBING SYMBOLS

- PIPE SLOPE ARROW
- FLOW ARROW
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER
- 3-WAY CONTROL VALVE
- ANGLE GATE VALVE
- ANGLE GLOBE VALVE
- BALL VALVE
- BUTTERFLY VALVE
- CHECK VALVE
- CIRCUIT SETTER
- CONTROL VALVE
- GATE VALVE
- GLOBE VALVE
- PLUG VALVE
- PRESSURE REDUCING VALVE (WATER)
- PRESSURE REGULATOR (GAS)
- SAFETY RELIEF VALVE
- TWO POSITION CONTROL VALVE
- BACKFLOW PREVENTER
- HOSE BIBB / SILLCOCK
- AUTOMATIC AIR VENT
- PRESSURE GAUGE
- THERMOMETER
- F FLOW SWITCH
- P PRESSURE SWITCH
- T TEMPERATURE SWITCH
- PIPE UNION
- WYE STRAINER
- WYE STRAINER W/DRAIN VALVE
- PUMP
- OR FLOOR DRAIN - ROUND OR SQUARE
- OR FLOOR CLEANOUT - ROUND OR SQUARE
- CO SUSPENDED CLEANOUT
- WCO WALL CLEANOUT
- PIPE CAP
- PIPE TURNING DOWN
- PIPE TURNING UP
- TEE UP
- TEE DOWN
- DROP AND RUN
- DROP AND TURN
- TEE OFF TOP
- TEE OFF BOTTOM
- CROSS AND RISER
- PLAN 90° ELBOW
- PIPE TEE
- FLEXIBLE PIPE CONNECTOR
- PIPE ANCHOR
- PIPE GUIDES
- M WATER METER

PLUMBING SYMBOLS

	PIPING SYSTEM	
—AW—	AW	ACID WASTE
—CA—	CA	COMPRESSED AIR
—CD—	CD	CONDENSATE DRAIN
—CO2—	CO2	CARBON DIOXIDE
—NG—	NG	NATURAL GAS
—GW—	GW	GREASE WASTE
—MA—	MA	MEDICAL AIR
—N2—	N2	NITROGEN
—N2O—	N2O	NITROUS OXIDE
—OFD—	OFD	OVERFLOW STORM DRAIN
—OW—	OW	OIL WASTE
—O2—	O2	OXYGEN
—PD—	PD	PUMP DISCHARGE
—PG—	PG	PROPANE GAS
—ST—	ST	STORM
—VAC—	VAC	VACUUM
—WAGD—	WAGD	WASTE ANESTHETIC GAS DISPOSAL
—SAN—	SAN	SANITARY WASTE
—AV—	AV	ACID VENT
—OV—	OV	OIL VENT
—V—	V	SANITARY VENT
—DCW—	DCW	DOMESTIC COLD WATER
—DI—	DI	DE-IONIZED WATER
—NPCW—	NPCW	NONPOTABLE COLD WATER
—RO—	RO	REVERSE OSMOSIS WATER
—SCW—	SCW	SOFTENED COLD WATER
—DHW—	DHW	DOMESTIC HOT WATER
—HW 140—	DHW 140	DOMESTIC HOT WATER (OTHER TEMP)
—DCWR—	DCWR	DOMESTIC CW RECIRCULATION
—DHWR—	DHWR	DOMESTIC HW RECIRCULATION

ANNOTATION SYMBOLS

#	NEW WORK KEYNOTE
#	DEMOLITION KEYNOTE
NEW	BOLD TEXT INDICATES NEW ITEM
EXISTING	ITALICIZED TEXT INDICATES EXISTING ITEM
## / #	DETAIL MODULE NUMBER / DETAIL OR SECTION MARK SHOWN ON DRAWING
	CONNECT TO EXISTING
	LIMIT OF DEMOLITION
P-###	NEW PLUMBING EQUIPMENT MARK
P-###	EXISTING PLUMBING EQUIPMENT MARK

PLUMBING DEMOLITION GENERAL NOTES

1. VERIFY EXISTING CONDITIONS PRIOR TO BEGINNING WORK. NOTIFY COR REGARDING CONFLICTS BEFORE PROCEEDING WITH WORK.
2. REMOVED ITEMS REMAIN PROPERTY OF GOVERNMENT UNTIL COR DETERMINES THAT THEY ARE NOT REQUIRED. REMOVE FROM SITE ITEMS NOT BEING RETAINED BY GOVERNMENT OR REINSTALLED AS PART OF THIS WORK.
3. DO NOT DISTURB ITEMS NOT INDICATED FOR DEMOLITION.
4. VERIFY SIZE AND LOCATION OF EXISTING UTILITIES PRIOR TO START OF DEMOLITION. RELOCATE, REMOVE AND ADJUST MECHANICAL AND ELECTRICAL ITEMS AS NECESSARY TO COORDINATE WITH NEW WORK.
5. AFTER DEMOLITION IS COMPLETE, PATCH AND REPAIR FINISHES TO MATCH EXISTING ADJACENT CONDITIONS.
6. COORDINATE DEMOLITION WITH COR. SUBMIT SHUTDOWN PLAN AND SCHEDULE TO COR FOR REVIEW AND APPROVAL.
7. PROTECT EXISTING UTILITIES TO REMAIN FROM DAMAGE DURING DEMOLITION. REPAIR UTILITIES AND SERVICES DAMAGED AT NO ADDITIONAL COST.
8. TEMPORARILY MOVE OR TAKE EQUIPMENT OUT OF SERVICE AS NECESSARY TO COMPLETE WORK.
9. SAWCUT CONCRETE FLOOR AS REQUIRED FOR DEMOLITION WORK INDICATED. COORDINATE WITH NEW PLUMBING WORK AND WORK OF OTHER TRADES.

PLUMBING GENERAL NOTES

1. WORK SHALL CONFORM TO APPLICABLE LOCAL, STATE, AND NATIONAL CODES AND APPLICABLE VA STANDARDS.
2. INSTALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS.
3. OBTAIN AND PAY FOR PERMITS, FEES, AND INSPECTIONS REQUIRED FOR THIS WORK.
4. PROVIDE NEW MATERIALS, EQUIPMENT AND PRODUCTS INCORPORATED IN THE WORK, OF A SUITABLE GRADE FOR THE PURPOSES INTENDED.
5. EQUIPMENT OR MATERIAL DEVIATIONS FROM INDICATED CONTRACT REQUIREMENTS ARE SUBJECT TO THE APPROVAL OF THE COR. SUBMIT PROPOSED EQUIPMENT DEVIATIONS THAT ARE SIMILAR BOTH IN QUALITY AND CAPACITY TO THAT EQUIPMENT SPECIFIED, AS SOLELY DETERMINED BY THE COR.
6. INSTALL EQUIPMENT AS INDICATED, ALLOWING FOR SUFFICIENT ACCESS AND CLEARANCE SPACE FOR EQUIPMENT MAINTENANCE, REPAIRS, AND REPLACEMENT.
7. AT EACH PLUMBING FIXTURE, PROVIDE A PISTON TYPE WATER HAMMER ARRESTOR SIZED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
8. SANITARY DRAINAGE PIPING INDICATED IS LOCATED BELOW FLOOR SLAB OR WITHIN WALLS UNLESS NOTED OTHERWISE. SANITARY VENT PIPING INDICATED IS ABOVE THE CEILING OR WITHIN WALLS UNLESS NOTED OTHERWISE.
9. SUPPORT PIPING SYSTEM AS REQUIRED BY APPLICABLE LOCAL, STATE, AND NATIONAL CODES ALONG WITH SPECIFICATIONS, VA STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
10. FIRESTOP AND SEAL PIPING PENETRATIONS THROUGH WALLS AND FLOORS EQUAL TO THE RATING OF WALLS AND FLOORS.
11. TEST PLUMBING SYSTEM IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND NATIONAL CODES AND APPLICABLE VA STANDARDS.
12. COORDINATE PLUMBING PIPING WITH WORK OF OTHER DISCIPLINES.
13. DISINFECT DOMESTIC WATER SYSTEM IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND NATIONAL CODES AND APPLICABLE VA STANDARDS.
14. PROVIDE SHUT OFF VALVES AT BRANCH PIPING TO FIXTURES.
15. COORDINATE PLUMBING WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION. COORDINATE ROUTING OF PIPING WITH EXISTING CONDITIONS.
16. PROVIDE ALL NECESSARY OFFSETS, TEES, ELBOWS, ETC. FOR A COMPLETE AND COORDINATED WORKING PLUMBING SYSTEM. DRAWING PLANS, SCHEMATICS, AND DIAGRAMS INDICATE GENERAL LOCATION AND ARRANGEMENT OF PIPING SYSTEMS.
17. CONTRACTOR SHALL COORDINATE ANY PLUMBING SYSTEM REQUIRED SHUTDOWN WITH THE COR 1 WEEK IN ADVANCE.
18. PATCH, PAINT AND CLEAN SURFACES SUSTAINING DAMAGE ASSOCIATED WITH PLUMBING WORK OF THIS CONTRACT, UNLESS NOTED OTHERWISE.
19. INSTALL ESCUTCHEONS IN ALL PLACES WHERE PIPING PENETRATES A WALL IN AN EXPOSED LOCATION.
20. DO NOT INSTALL PIPES ABOVE TELECOM OR ELECTRICAL EQUIPMENT.

KEY NOTES:

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	QUANTITY	WASTE PIPE	VENT PIPE	COLD WATER	HOT WATER	WRIST BLADE HANDLES	ELECTRIC SENSOR	REMARKS
P-103	WATER CLOSET, FLUSH VALVE, WALL MOUNT, PUBLIC	1	4"	2"	1"	-	-	YES	WATER CLOSET, SENSOR FLUSH VALVE, WALL MOUNT, PUBLIC
P-418	LAVATORY, WALL MOUNT, SENSOR, PUBLIC	1	1 1/2"	1 1/2"	3/8"	3/8"	NO	YES	LAVATORY, WALL MOUNT, SENSOR WITH THERMOSTATIC MIXING VALVE, PUBLIC
P-528	SINK, COUNTER MOUNT, SINGLE COMPARTMENT	2	1 1/2"	1 1/2"	3/8"	3/8"	YES	NO	SINK, COUNTER MOUNT, SINGLE COMPARTMENT
P-713	EMERGENCY EYE AND FACE WASH, DECK MOUNT	1	-	-	3/4"	3/4"	-	-	EMERGENCY EYE AND FACE WASH, DECK MOUNT
P-811	ICE MAKER SUPPLY BOX	1	-	-	1/2"	-	-	-	ICE MAKER SUPPLY BOX

PLUMBING LOAD SUMMARY

MARK	DESCRIPTION	QUANTITY	DFU EACH	DFU	CW WSFU EACH	CW WSFU	HW WSFU EACH	HW WSFU	TOTAL WSFU EACH	TOTAL WSFU
P-103	WATER CLOSET, FLUSH VALVE, WALL MOUNT, PUBLIC	1	4	4	10	10	0	0	10	10
P-418	LAVATORY, WALL MOUNT, SENSOR, PUBLIC	1	1	1	1.5	1.5	1.5	1.5	2	2
P-528	SINK, COUNTER MOUNT, SINGLE COMPARTMENT	2	3	6	1.5	3	1.5	3	2	4
		4		11		14.5		4.5		16

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER — RAKESH B. KAUL — 0040255 — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: PLUMBING GENERAL INFORMATION

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved

Date: OCTOBER 13, 2023 | Checked: RBK | Drawn: WKH

VA PROJECT NUMBER 612A4-19-016

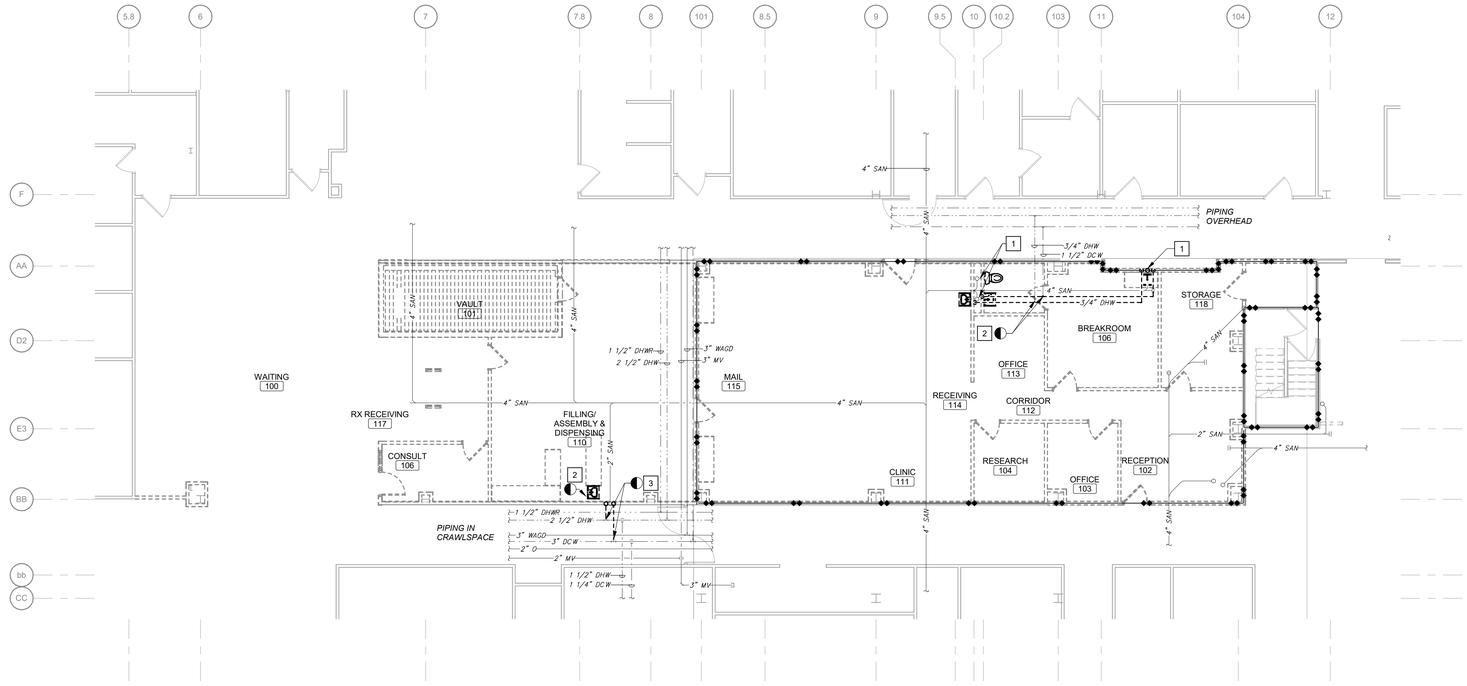
Building Number # 650

Drawing Number P-001

Dwg 1 of 3

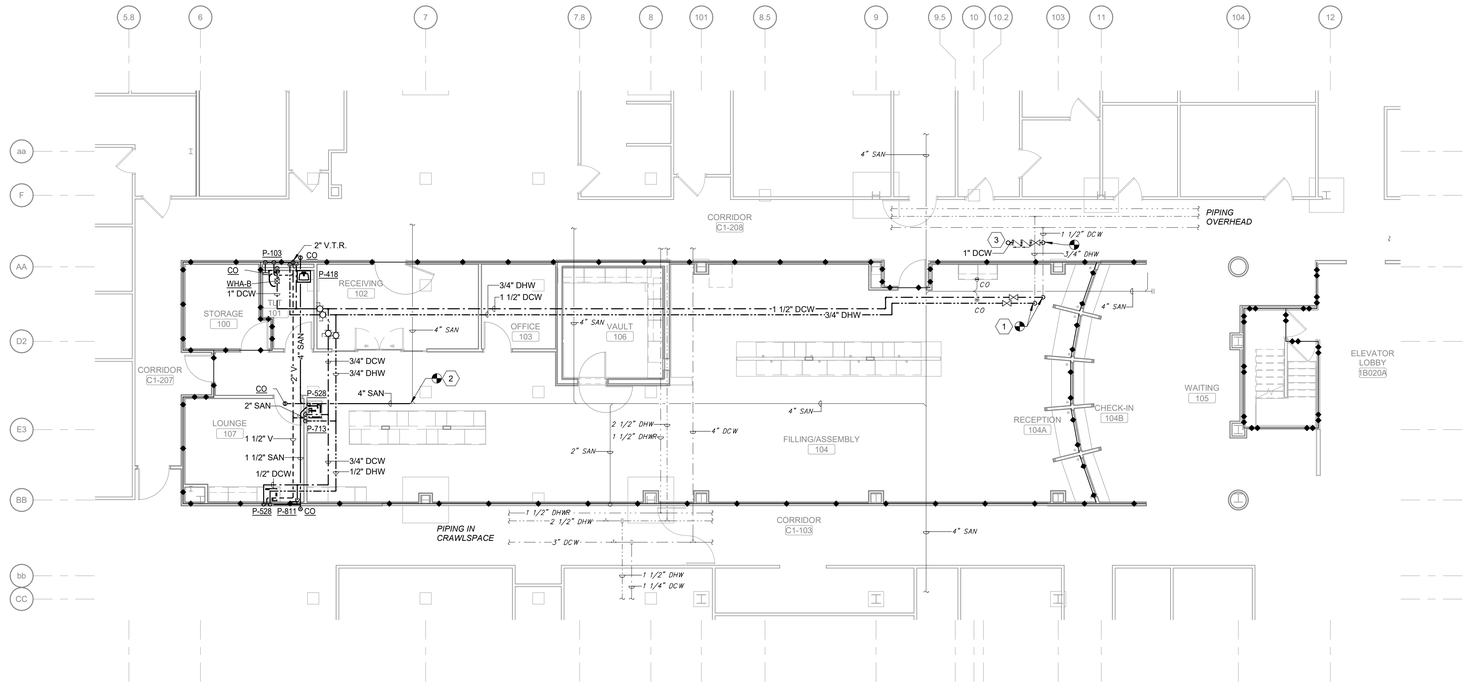
10/12/2023 10:07:08 AM C:\Users\mseier\Documents\M_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_mseierTSXBV.rvt

DocuSign Envelope ID: 065033E6-CD82-4283-BAD4-EC61FA9A166D



1 FIRST FLOOR PLUMBING DEMOLITION PLAN

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



2 FIRST FLOOR PLUMBING NEW PLAN

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

SHEET NOTES:

A. DEMOLITION WORK SHALL BE PERFORMED SUCH THAT ALL PIPES, HANGERS, SUPPORTS, AND VALVES IN SCOPE ARE REMOVED COMPLETELY TO MAINS. REMOVE ALL ITEMS TO ENSURE NOTHING IS ABANDONED IN PLACE.

B. NO DEAD ENDS SHALL REMAIN. THE MAXIMUM LENGTH OF DEAD ENDS SHALL BE TWO PIPE DIAMETERS FROM THE BRANCH, RISER, OR MAIN.

C. ALL SANITARY PIPING SHOWN ON SHEET IS BELOW SLAB. VENT PIPING AND DOMESTIC WATER PIPING IS ABOVE CEILING.

D. PROVIDE ISOLATION VALVES ON ALL DOMESTIC WATER BRANCH PIPING TO PLUMBING FIXTURES.

KEY NOTES:

1 CUT AND CAP 4" & 2" SANITARY LINES BELOW FLOOR.

2 DEMOLISH WATER CLOSET AND LAVATORIES ALONG WITH ALL SUPPORT , AND PIPING BACK TO MAIN BRANCH. CAP PIPING ABOVE CEILING.

3 DEMOLISH PIPING BACK TO MAINS AND CAP.

KEY NOTES:

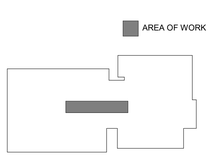
1 TIE INTO EXISTING DCW AND DHW AT INDICATED LOCATION.

2 TIE INTO EXISTING SANITARY WASTE PIPING AT INDICATED LOCATION.

3 PROVIDE 1" DOMESTIC COLD WATER UP THROUGH ROOF FOR HUMIDIFIER AND FOR AFTERCOOLER TO HUMIDIFIER DRAIN. PROVIDE DOUBLE CHECK VALVE ASSEMBLY IN PIPING.

KEY PLAN

SCALE: NO SCALE



WALL RATING LEGEND

1 HR - FIRE SEPARATION

2 HR - FIRE SEPARATION

SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER RAJESH B. KAUL 0040250 — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR PLUMBING PLAN

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Approved

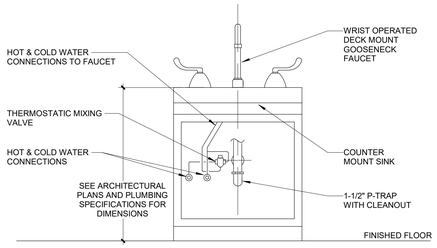
Date: OCTOBER 13, 2023 | Checked: RBK | Drawn: WKH

Drawing Number: P-101

Dwg 2 of 3

C:\Users\rmeier\Documents\M_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_rmeierT5X6V.rvt
10/12/2023 10:07:13 AM
VA FORM 08-6231

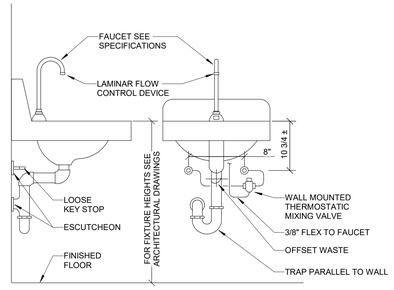
DocuSign Envelope ID: 065033E6-CD82-4283-BAD4-EC61FA9A166D



NOTE:
COUNTER IS SHOWN FOR REFERENCE ONLY. COORDINATE INSTALLATION OF SINK WITH THE COUNTER PROVIDED.

5 COUNTER MOUNTED SINK

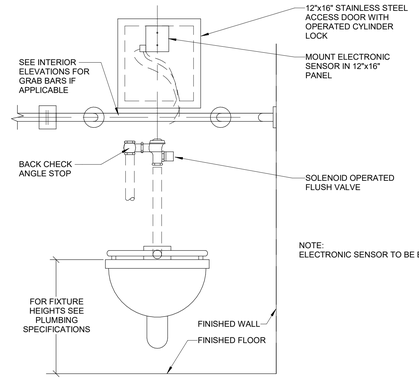
Scale: No Scale



NOTE:
ELECTRONIC SENSOR IN FAUCET TO BE BATTERY OPERATED.

3 LAVATORY WALL HUNG - SENSOR OPERATED FAUCET DETAIL

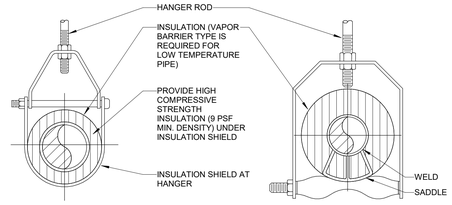
Scale: No Scale



NOTE:
ELECTRONIC SENSOR TO BE BATTERY OPERATED.

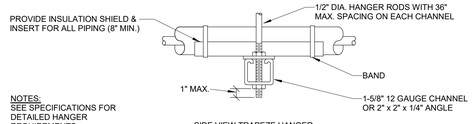
4 WATER CLOSET WALL HUNG - SENSOR OPERATED DETAIL

Scale: No Scale



ADJUSTABLE CLEVIS HANGER TYPE 1 - SEE SPECIFICATIONS

ADJUSTABLE CLEVIS HANGER TYPE 43 - SEE SPECIFICATIONS



NOTES:
SEE SPECIFICATIONS FOR DETAILED HANGER REQUIREMENTS.

SIDE VIEW TRAPEZE HANGER FOR UP TO 1000 LB. UNIFORM LOAD

MAXIMUM PIPE/TUBING SUPPORT SPACING												
NOM. SIZE (IN.)	THRU 3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12
PIPE (FT.)	7	7	7	9	10	11	12	14	16	17	19	22	23
TUBING (FT.)	5 FT	6	7	8	8	9	10	12	13	14	16	-	-
NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE													

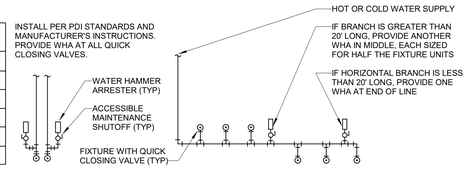
1 PIPE HANGER DETAIL

Scale: No Scale

KEY NOTES:

PDI SIZE	PIPE SIZE	FIXTURE UNIT LOAD
WHA-A	1/2"	1-11
WHA-B	3/4"	12-32
WHA-C	1"	33-60
WHA-D	1-1/4"	61-113
WHA-E	1-1/2"	114-154
WHA-F	2"	154-330

INSTALL PER PDI STANDARDS AND MANUFACTURER'S INSTRUCTIONS. PROVIDE WHA AT ALL QUICK CLOSING VALVES.



2 WATER HAMMER ARRESTOR DETAIL

Scale: No Scale

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER — RAJESH R. KAUL — 0040255 — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

© COPYRIGHT Apogee Consulting Group, P.A.

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: PLUMBING DETAILS

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved

Date: OCTOBER 13, 2023 | Checked: RBK | Drawn: WKH

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Drawing Number P-501

Dwg 3 of 3

10/12/2023 10:07:14 AM C:\Users\rmeier\Documents\M_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_rmeierT5X69.rvt

VA FORM 08-6231

DocuSign Envelope ID: 065033E6-CD82-4283-BAD4-EC61FA9A166D

SEISMIC DESIGN CRITERIA
(FOR FINAL VALUES, REFER TO STRUCTURAL DRAWINGS)

LOCATION	MATHER, CA
RISK CATEGORY	II
MAPPED SHORT PERIOD SPECTRAL RESPONSE (S_S)	0.460
MAPPED 1-SECOND SPECTRAL RESPONSE (S_1)	0.225
SITE CLASSIFICATION	D
SITE COEFFICIENT (F_a)	1.432
SITE COEFFICIENT (F_v)	1.770
MAXIMUM SHORT PERIOD SPECTRAL RESPONSE (S_{MS})	0.659
MAXIMUM 1-SECOND SPECTRAL RESPONSE (S_{M1})	0.398
MAPPED SHORT PERIOD SPECTRAL RESPONSE (S_{DS})	0.439
MAPPED 1-SECOND SPECTRAL RESPONSE (S_{D1})	0.266
SEISMIC DESIGN CATEGORY	D
SEISMIC IMPORTANCE FACTOR	1

NOTE:
1. THE SEISMIC SUPPORTS FOR AIR HANDLING UNIT, PIPING, AND DUCTWORK IS A DELEGATED DESIGN AND CONTRACTOR SHALL PROVIDE PE STAMPED AND SIGNED DESIGN CALCULATIONS AND SHOP DRAWINGS FOR SEISMIC SUPPORTS.
2. SEISMIC SUPPORTS DESIGN SHALL MEET LATEST IBC AND VA SEISMIC DESIGN GUIDE REQUIREMENTS.

MECHANICAL ABBREVIATIONS

A/E	ARCHITECT / ENGINEER
AAHX	AIR TO AIR HEAT EXCHANGER
AB	AIR BLENDER
AAV	AUTOMATIC AIR VENT
ACC	AIR-COOLED CONDENSER
ACCH	AIR-COOLED CHILLER
ACCU	AIR-COOLED CONDENSING UNIT
ACU	AIR CONDITIONING UNIT
ACD	AUTOMATIC CONTROL DAMPER, MODULATING
ACD-TP	AUTOMATIC CONTROL DAMPER,TWO POSITION
AD	ACCESS DOOR
AF	AFTER FILTER
AFCV	AIR FLOW CONTROL VALVE
AFF	ABOVE FINISHED FLOOR
AFMD	AIR FLOW MEASURING DEVICE
AFW	AIR FOIL WHEEL (FAN)
AHU	AIR-HANDLING UNIT
AMP	AMPERAGE
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
ARI	AIR CONDITIONING AND REFRIGERATION INSTITUTE
AS	AIR SEPARATOR
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
AW	AIR WASHER
AXF	AXIAL FLOW
B	BOILER
BD	BUTTERFLY DAMPER
BDD	BACKDRAFT DAMPER
BDR	BASE BOARD RADIATOR
BFP	BACKFLOW PREVENTER
BFT	BOILER PLANT FIRE TUBE
BHP	BRAKE HORSEPOWER
BHW	HOT WATER HEATING BOILER
BHX	BOILER BLOWDOWN HEAT EXCHANGER
BIW	BACKWARD INCLINED WHEEL (FAN)
BSC	BIOLOGICAL SAFETY CABINETS
BT	BUFFER TANK
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
C	CENTIGRADE (CELSIUS)
CC	COOLING COIL
CCD	COOLING COIL CONDENSATE DRAIN
CENT	CENTRIFUGAL
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CFT	CUBIC FEET
CFP	CHEMICAL FEED PUMP
CH	CHILLER
CHWP	CHILLED WATER PUMP
CHW	CHILLER WATER
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CI	CAST IRON
CM	CARBON MONOXIDE
CM	CUBIC METER
CM/S	CUBIC METER PER SECOND
CO	CLEAN OUT
CO2	CARBON DIOXIDE
COMP	COMPRESSOR UNIT
COP	COEFFICIENT OF PERFORMANCE
CP	CONDENSATE PUMP
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
CV	CONSTANT VOLUME
CW	COLD WATER (POTABLE)
CHWCC	CHILLED WATER COOLING COIL
D	DAMPER - AUTOMATIC
D-1	OUTDOOR AIR DAMPER
D-2	RETURN AIR DAMPER
D-3	RELIEF AIR DAMPER
D-4	ECONOMIZER OUTDOOR AIR DAMPER
dB	DECIBELS
Db	DRY-BULB TEMPERATURE
DDC	DIRECT DIGITAL CONTROLS
DEG	DEGREE
DF	DIFFUSER
DIA	DIAMETER
DIW	DEIONIZED WATER
DP	DEW POINT TEMPERATURE
DP	DIFFUSER PLATE
DPA	DIFFERENTIAL PRESSURE ASSEMBLY
DPS	DIFFERENTIAL PRESSURE SENSOR
DX	DIRECT EXPANSION
DXCC	DIRECT EXPANSION COOLING COIL
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
ECC	ENGINEERING CONTROL CENTER
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EG	EXHAUST GRILLE
EGS	EMERGENCY GAS SHUTOFF
EH	EXHAUST HOOD
EJ	EXPANSION JOINT
EMD	END OF MAIN DRIP (STEAM)
ENT	ENTERING
ESP	EXTERNAL STATIC PRESSURE
EWT	ENTERING WATER TEMPERATURE
EX	EXISTING
F	FAHRENHEIT
F&T	FLOAT AND THERMOSTATIC
F/SDPR	COMBINATION FIRE SMOKE DAMPER
FA	FREE AREA
FC	FLEXIBLE CONNECTION
FCU	FAN COIL UNIT (4 PIPE)
FCW	FORWARD CURVED WHEEL (FAN)
FD	FLOOR DRAIN
FD	FIRE DAMPER
FF	FINAL FILTER
FM	FLOW METER
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FRP	FIBER REINFORCED POLYESTER
FS	FLOW SWITCH
FSTAT	FREEZESTAT
FT	FEET
FT-LB	FOOT-POUND
FTR	FIN TUBE RADIATION
FV	FACE VELOCITY
GA	GAUGE
GAL	GALLONS
GH	GRAVITY HOOD
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GS	GALVANIZED STEEL
H	HUMIDIFIER
H&CW	HOT & COLD WATER
HAC	HOUSEKEEPING AID CLOSET
HB	HOSE BIBB
HC	HEATING COIL
HD	HEAD
HD	HOOD
HHW	HEATING HOT WATER
HHWC	HEATING HOT WATER COIL
HHWP	HEATING HOT WATER PUMP
HHWR	HEATING HOT WATER RETURN
HHWS	HEATING HOT WATER SUPPLY
HOA	HAND/OFF/AUTOMATIC
HP	HEAT PUMP
HP	HORSEPOWER
HPDT	HIGH PRESSURE DRIP TRAP
HPR	HIGH PRESSURE RETURN (STEAM CONDENSATE)
HPS	HIGH PRESSURE SUPPLY (STEAM)
HRC	HEAT RECOVERY COIL
HRD	HEAT RECOVERY DEVICE
HRP	HYDRONIC RADIANT (CEILING) PANEL
HRW	HEAT RECOVERY WHEEL
HSTAT	HUMIDISTAT
HUM	HUMIDIFIER UNIT MOUNTED
HVU	HEATING AND VENTILATING UNIT
HW	HOT WATER
HWC	HOT WATER COIL
HWUH	HOT WATER UNIT HEATER
HX	HEAT EXCHANGER
Hz	HERTZ
I/O	INPUT/OUTPUT
IAQ	INDOOR AIR QUALITY
IBT	INVERTED BUCKET TRAP
ICF	IN-LINE CENTRIFUGAL FAN
ICU	INTENSIVE CARE UNIT
ID	INSIDE DIAMETER
IFB	INTEGRAL FACE AND BYPASS
IN	INCHES
IN HG	INCHES OF MERCURY
IN WC	INCH WATER COLUMN
IN WG	INCH WATER GAUGE
IN-LB	INCH-POUND
IPLV	INTEGRATED PART LOAD VALUE
IRH	INFRARED HEATER
IS	INSECT SCREEN
IV	INLET VANES
kg	KILOGRAM
kg/HR	KILOGRAM PER HOUR
kPa	KILOPASCAL
kW	KILOWATT
kWh	KILOWATT HOUR
L	LITER
L/s	LITERS PER SECOND
LAT	LEAVING AIR TEMPERATURE
LBS/HR	POUNDS PER HOUR
LF	LINEAR FOOT (FEET)
LH	LATENT HEAT
LPR	LOW PRESSURE RETURN (STEAM CONDENSATE)
LPS	LOW PRESSURE SUPPLY (STEAM)
LSD	LINEAR SLOT DIFFUSER
LTCP	LOCAL TEMPERATURE CONTROL PANEL
LVG	LEAVING
LVR	LOUVER
LWT	LEAVING WATER TEMPERATURE
M	METER, SI UNIT
M/s	METERS PER SECOND (OR METERS/SECOND)
MA	MIXED AIR
MAT	MIXED AIR TEMPERATURE
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MB	MIXING BOX
MBH	1000 BTUH
MCA	MINIMUM BRANCH CIRCUIT AMPACITY
MER	MECHANICAL EQUIPMENT ROOM
MERV	MINIMUM EFFICIENCY REPORTING VALUE
MHP	MOTOR HORSEPOWER
MIN	MINIMUM
MM	MILLIMETER
MOV	MOTOR OPERATED VALVE
MPR	MEDIUM PRESSURE RETURN (STEAM CONDENSATE)
MPS	MEDIUM PRESSURE SUPPLY (STEAM)
MTD	MEAN TEMPERATURE DIFFERENCE
MVD	MANUAL VOLUME DAMPER
NA	NOT APPLICABLE
NC	NOISE CRITERIA
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NOAA	NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION
NOM	NOMINAL
NPLV	NON-STANDARD PART LOAD VALUE
NPSH	NET POSITIVE SUCTION HEAD
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OAI	OUTSIDE AIR INTAKE
OD	OUTSIDE DIAMETER
OR	OPERATING ROOM
OSA	OUTSIDE SUPPLY AIR (CONDITIONED)
P	PUMP
PC	PUMPED CONDENSATE
PCF	POUNDS PER CUBIC FOOT (FEET)
PD	PRESSURE DROP
PF	PRE-FILTER
PG	PRESSURE GAGE
PHC	PREHEAT COIL
PHCP	PREHEAT COIL PUMP
PPM	PARTS PER MILLION
PRV	PRESSURE REGULATING VALVE
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH – ABSOLUTE
PSIG	POUNDS PER SQUARE INCH – GAGE
PSS	PRIMARY SECONDARY SYSTEM
PSV	PRESSURE SAFETY VALVE
R/E	RETURN OR EXHAUST
RA	RETURN AIR
RAT	RETURN AIR TEMPERATURE
RDS	ROOM DATA SHEETS
REA	RELIEF AIR
RF	RETURN FAN
RG	RETURN GRILLE
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RL	REFRIGERANT LIQUID LINE
RLA	RUN LOAD AMPERE
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
RTU	ROOF TOP UNIT
RV	RELIEF VALVE
SA	SUPPLY AIR
SAD	SOUND ATTENUATING DEVICE
SAT	SUPPLY AIR TEMPERATURE
SC	SHADING COEFFICIENT
SCFM	STANDARD CUBIC FEET PER MINUTE
SCR	SILICON CONTROLLED RECTIFIER
SD	SMOKE DETECTOR
SD	SUPPLY AIR DIFFUSER
SDPR	SMOKE DAMPER
SDR	SMOKE DAMPER (RETURN)
SDS	SMOKE DAMPER (SUPPLY)
SEN	SENSIBLE HEAT
SF	SUPPLY FAN
SH	STEAM HUMIDIFIER
SHC	STEAM HEATING COIL
SI	SQUARE INCHES
SP	STATIC PRESSURE
SP GR	SPECIFIC GRAVITY
SPD	SUPPLY PROCESS AND DISTRIBUTION
SPRV	STEAM PRESSURE REDUCING VALVE
SPS	STATIC PRESSURE SENSOR
SQ FT	SQUARE FOOT (FEET)
SR	SUPPLY AIR REGISTER
SS	STAINLESS STEEL
SSR	SOLID SEPARATOR
ST	STEAM TRAP
SV	STEAM SAFETY VALVE
SVS	STEAM VENT SILENCER
T & PCV	TEMPERATURE AND PRESSURE CONTROL VALVE
TAB	TESTING, ADJUSTING, BALANCE
TD	TEMPERATURE DIFFERENCE
TDH	TOTAL DYNAMIC HEAD
TDS	TOTAL DISSOLVED SOLIDS
TP	TRAP
TSP	TOTAL STATIC PRESSURE
TSTAT	THERMOSTAT
TU	TERMINAL UNIT
UC	UNDER CUT
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORY
V	VALVE
VAF	VANE-AXIAL FAN
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER (MANUAL OPPOSED BLADE)
VFD	VARIABLE FREQUENCY DRIVE
VHA	VETERANS HEALTH ADMINISTRATION
VI	VIBRATION ISOLATOR
VP	VACUUM PUMP
VPS	VARIABLE PRIMARY SYSTEM
VR	VACUUM (STEAM CONDENSATE) RETURN
VSD	VARIABLE SPEED DRIVE
VUH	VERTICAL UNIT HEATER
W	WATTS
Wb	WET-BULB (TEMPERATURE)
WFCV	WATER FLOW CONTROL VALVE
WFM	WATER FLOWMETER
WFMD	WATER FLOW MEASURING DEVICE
WG	WATER GAGE
WPD	WATER SIDE PRESSURE DROP
XT	EXPANSION TANK
YR	YEAR

MECHANICAL LEGEND

CARBON DIOXIDE SENSOR
THERMOSTAT OR TEMPERATURE SENSOR
HUMIDISTAT OR HUMIDITY SENSOR
SUPPLY DIFFUSER
RETURN GRILLE
EXHAUST GRILLE
LINEAR SLOT DIFFUSER
EG-8 2000 — DIFFUSER TAG | DIFFUSER CFM
32-CU-4 — EQUIPMENT TAG
BALANCING DAMPER
F — FIRE DAMPER
SD — SMOKE DAMPER
FS — FIRE / SMOKE DAMPER
MOTORIZED DAMPER
ROUND FLEX DUCT
R — INCLINED RISE, IN DIRECTION OF AIRFLOW
D — INCLINED DROP, IN DIRECTION OF AIRFLOW
CONNECT NEW DUCT TO EXISTING
LIMIT OF DEMOLITION

VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)
VANED ELBOW (SHORT RADIUS)
STANDARD RADIUS ELBOW (LONG RADIUS)
10x8 — NEW DUCT (INSIDE DIMENSIONS: WIDTH X DEPTH)
EXISTING DUCT TO REMAIN
EXISTING DUCT TO BE DEMOLISHED
DUCT TRANSITION
END MOUNTED OR SIDEWALL GRILLE
SUPPLY — TERMINAL UNIT SUPPLY DUCT BRANCH (CONICAL TAP)
45° SUPPLY — STANDARD BRANCH SUPPLY OR RETURN, NO SPLITTER (45° TAP)
45° RETURN
UP DN — SUPPLY DUCT (UP & DOWN)
UP DN — EXHAUST DUCT (UP & DOWN)
UP DN — RETURN DUCT (UP & DOWN)

S-60 — HIGH PRESSURE STEAM PIPING (60 PSI)
CR-60 — HIGH PRESSURE STEAM CONDENSATE RETURN
S-30 — MEDIUM PRESSURE STEAM PIPING (16 PSI AND 59 PSI)
CR-30 — MEDIUM PRESSURE STEAM CONDENSATE RETURN
S-15 — LOW PRESSURE STEAM PIPING (15 PSI AND BELOW)
CR-15 — LOW PRESSURE STEAM CONDENSATE RETURN
CHWS — CHILLED WATER SUPPLY PIPING
CHWR — CHILLED WATER RETURN PIPING
HWS — HEATING HOT WATER SUPPLY PIPING
HWR — HEATING HOT WATER RETURN PIPING
RLS — REFRIGERANT LINE SET (LIQUID AND SUCTION)
D — CONDENSATE DRAIN LINE
PIPE UP
PIPE DOWN
BOTTOM CONNECTION
TOP CONNECTION
CAPPED OR PLUGGED PIPE
CONNECT TO EXISTING PIPE
LIMIT OF DEMOLITION

GLOBE VALVE
GATE VALVE
BALL VALVE
CHECK VALVE
STEAM SAFETY VALVE
PRESSURE REGULATING VALVE
WYE STRAINER VALVE
BALANCING VALVE
MODULATING TWO-WAY CONTROL VALVE
MODULATING THREE-WAY CONTROL VALVE
TWO POSITION CONTROL VALVE
STEAM TRAP
DRAIN VALVE
TEST PLUG
STEAM PRESSURE REDUCING VALVE
INLINE CENTRIFUGAL PUMP

MECHANICAL DEMOLITION GENERAL NOTES

1. VERIFY EXISTING CONDITIONS PRIOR TO BEGINNING WORK. NOTIFY COR REGARDING CONFLICTS BEFORE PROCEEDING WITH WORK.
2. REMOVED ITEMS REMAIN PROPERTY OF GOVERNMENT UNTIL COR DETERMINES THAT THEY ARE NOT REQUIRED. REMOVE FROM SITE ITEMS NOT BEING RETAINED BY GOVERNMENT OR REINSTALLED AS PART OF THIS WORK.
3. DO NOT DISTURB ITEMS NOT INDICATED FOR DEMOLITION.
4. VERIFY SIZE AND LOCATION OF EXISTING UTILITIES PRIOR TO START OF DEMOLITION. RELOCATE, REMOVE AND ADJUST MECHANICAL AND ELECTRICAL ITEMS AS NECESSARY TO COORDINATE WITH NEW WORK.
5. AFTER DEMOLITION IS COMPLETE, PATCH AND REPAIR FINISHES TO MATCH EXISTING ADJACENT CONDITIONS.
6. COORDINATE DEMOLITION WITH COR. SUBMIT SHUTDOWN PLAN AND SCHEDULE TO COR FOR REVIEW AND APPROVAL.
7. PROTECT EXISTING UTILITIES TO REMAIN FROM DAMAGE DURING DEMOLITION. REPAIR UTILITIES AND SERVICES DAMAGED AT NO ADDITIONAL COST.
8. TEMPORARILY MOVE OR TAKE EQUIPMENT OUT OF SERVICE AS NECESSARY TO COMPLETE WORK.
9. SAWCUT OR CORE DRILL CONCRETE FLOOR AS REQUIRED FOR DEMOLITION WORK INDICATED. COORDINATE WITH NEW MECHANICAL WORK AND WORK OF OTHER TRADES.

MECHANICAL GENERAL NOTES

1. WORK SHALL CONFORM TO APPLICABLE LOCAL, STATE, AND NATIONAL CODES AND APPLICABLE VA STANDARDS.
2. INSTALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS.
3. PROVIDE NEW MATERIALS, EQUIPMENT AND PRODUCTS INCORPORATED IN THE WORK, OF A SUITABLE GRADE FOR THE PURPOSES INTENDED.
4. WHERE POSSIBLE, PROVIDE STANDARD PRODUCTS OF THE VARIOUS MANUFACTURERS EXCEPT WHERE SPECIAL CONSTRUCTION OR PERFORMANCE FEATURES ARE REQUIRED.
5. EQUIPMENT OR MATERIAL DEVIATIONS FROM INDICATED CONTRACT REQUIREMENTS SHALL BE SUBJECT TO THE APPROVAL OF THE COR. SUBMIT PROPOSED EQUIPMENT DEVIATIONS THAT ARE SIMILAR BOTH IN QUALITY AND CAPACITY TO THAT EQUIPMENT SPECIFIED, AS SOLELY DETERMINED BY THE COR.
6. PROVIDE MECHANICAL EQUIPMENT THAT IS LISTED AND LABELED BY UNDERWRITERS LABORATORIES (U.L.).
7. INSTALL EQUIPMENT AS INDICATED, ALLOWING FOR SUFFICIENT ACCESS AND CLEARANCE SPACE FOR EQUIPMENT MAINTENANCE, REPAIRS, AND REPLACEMENT.
8. INSTALL EQUIPMENT WITH PROPER CLEARANCES FOR REQUIRED PIPING AND ELECTRICAL SERVICES AND CONNECTIONS. INSTALL EQUIPMENT WITH REQUIRED ACCESS AND CLEARANCES IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS AND APPLICABLE CODES AND STANDARDS.
9. COORDINATE LOCATION, INSTALLATION, AND ROUTING OF DUCTWORK, PIPING, AND EQUIPMENT WITH WORK OF ALL OTHER TRADES.
10. PROVIDE SUPPORT FOR MECHANICAL EQUIPMENT. COORDINATE SUPPORT LOCATIONS WITH ALL CONTRACTORS PRIOR TO INSTALLATION.
11. PROVIDE POWER CONNECTIONS TO EQUIPMENT PROVIDED UNDER THIS CONTRACT AS WORK OF DIVISION 26.
12. PROVIDE CONTROL WIRING FOR MECHANICAL EQUIPMENT AS WORK OF DIVISION 23.
13. DUCTWORK AND PIPING LAYOUTS AND LOCATIONS ARE SCHEMATIC. DO NOT SCALE THESE DRAWINGS. COORDINATE AND DETERMINE EXACT ROUTING OF DUCTWORK AND PIPING IN THE FIELD.
14. FIELD VERIFY DIMENSIONS BY ACTUAL MEASUREMENT AND OBSERVATION BEFORE ORDERING OR FABRICATING DUCTWORK, PIPING OR EQUIPMENT.
15. NOTIFY COR REGARDING DISCREPANCIES BETWEEN CONTRACT DOCUMENTS AND EXISTING CONDITIONS OR DIMENSIONS BEFORE PERFORMING WORK. FAILURE TO VERIFY AND REPORT SHALL CONSTITUTE CONTRACTOR'S ACCEPTANCE OF EXISTING CONDITIONS AS FIT FOR THE PROPER EXECUTION OF THE WORK.
16. SEE ARCHITECTURAL DRAWINGS FOR FINAL LOCATION OF CEILING INSTALLED EQUIPMENT.
17. INSTALL DUCTWORK AND PIPING AS HIGH AS POSSIBLE AND AS CLOSE AS POSSIBLE TO BUILDING WALLS, CEILING AND FLOOR AND ROOF STRUCTURE. PROVIDE OFFSETS, FITTINGS, AND DIMENSIONAL TRANSITIONS NOT SHOWN BUT REQUIRED TO MAINTAIN MINIMUM CLEAR SPACE TO BUILDING SURFACES AT NO ADDITIONAL COST.
18. PATCH, PAINT AND CLEAN SURFACES SUSTAINING DAMAGE ASSOCIATED WITH MECHANICAL WORK OF THIS CONTRACT, UNLESS NOTED OTHERWISE.
19. SUBMIT BOUND SET OF OPERATING AND MAINTENANCE INSTRUCTIONS FOR EQUIPMENT AT COMPLETION OF PROJECT.
20. INSTALL ESCUTCHEONS IN ALL PLACES WHERE PIPING PENETRATES A WALL IN AN EXPOSED LOCATION.
21. MAKE A COMPLETE REVIEW OF DRAWINGS, INCLUDING SCHEDULES AND DETAILS, PRIOR TO BEGINNING MECHANICAL SYSTEM INSTALLATION. RESOLVE CONFLICTS WITH COR.
22. DRAWING PLANS, SCHEMATICS, AND DIAGRAMS INDICATE GENERAL LOCATION AND ARRANGEMENT OF PIPING SYSTEMS.
23. INSTALL PIPING INDICATED TO BE EXPOSED AND PIPING IN EQUIPMENT ROOMS AND SERVICE AREAS AT RIGHT ANGLES OR PARALLEL TO BUILDING WALLS. DIAGONAL RUNS ARE NOT ACCEPTABLE UNLESS SPECIFICALLY INDICATED OTHERWISE.
24. INSTALL PIPING FREE OF SAGS AND BENDS.
25. INSTALL PIPING TO ALLOW APPLICATION OF INSULATION.
26. PIPING SHALL NOT BE ROUTED OVER TELECOM OR ELECTRICAL CLOSETS/ROOMS.
27. PREPARE DRAWINGS SHOWING MECHANICAL SYSTEMS AND EQUIPMENT FOR COORDINATION WITH WORK OF OTHER DIVISIONS AND WORK BY THE GOVERNMENT.
    A. INCLUDE PLAN VIEWS, SECTIONS, AND ELEVATIONS, AS REQUIRED, TO FULLY COORDINATE ALL NEW WORK WITH ITSELF AND EXISTING CONDITIONS.
    B. DRAWINGS SHALL SHOW, BUT NOT BE LIMITED TO, ALL DUCTWORK, AIR DISTRIBUTION, MECHANICAL EQUIPMENT, MECHANICAL PIPING, FIRE PROTECTION PIPING, PLUMBING PIPING, CABLE TRAYS, LIGHTING FIXTURES, CEILING GRID AND HEIGHT, BEAMS AND JOISTS (WITH ELEVATIONS MARKED), ELECTRICAL CONDUIT LARGER THAN 2 INCHES IN DIAMETER AND OTHER CEILING MOUNT DEVICES OR EQUIPMENT THAT PROTRUDE INTO THE CEILING CAVITY.
    C. IF THERE ARE OUTSTANDING ISSUES THAT CANNOT BE RESOLVED, CONSULT WITH COR FOR GUIDANCE AND MAKE CORRECTIONS IN ACCORDANCE WITH DIRECTIONS GIVEN.
    D. DO NOT BEGIN FABRICATION OR PLACE EQUIPMENT ORDERS UNTIL COORDINATION DRAWINGS HAVE BEEN APPROVED.
28. CONTRACTOR TO COORDINATE WITH COR FOR THE PNEUMATIC TUBE SYSTEM PROJECT AND SWISSLOG MANUFACTURER FOR ANY INSTALLATION AND MODIFICATION IN THE PHARMACY AREA.
29. INSTALLATION COMMENCED PRIOR TO COORDINATION DRAWING APPROVAL IS TAKEN AT THE CONTRACTORS OWN RISK. MODIFY, MOVE OR RECONFIGURE WORK LACKING COORDINATION AT NO ADDITIONAL COST.
30. CONTRACTOR TO PROVIDE SHOP DRAWINGS AND CALCULATION FOR SEISMIC SUPPORTS / BRACING SIGNED BY CA REGISTERED P.E.

KEY NOTES:

FULLY SPRINKLERED
100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER — RAJESH KANDE — NUMBER 0040255 — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL GENERAL INFORMATION

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Approved

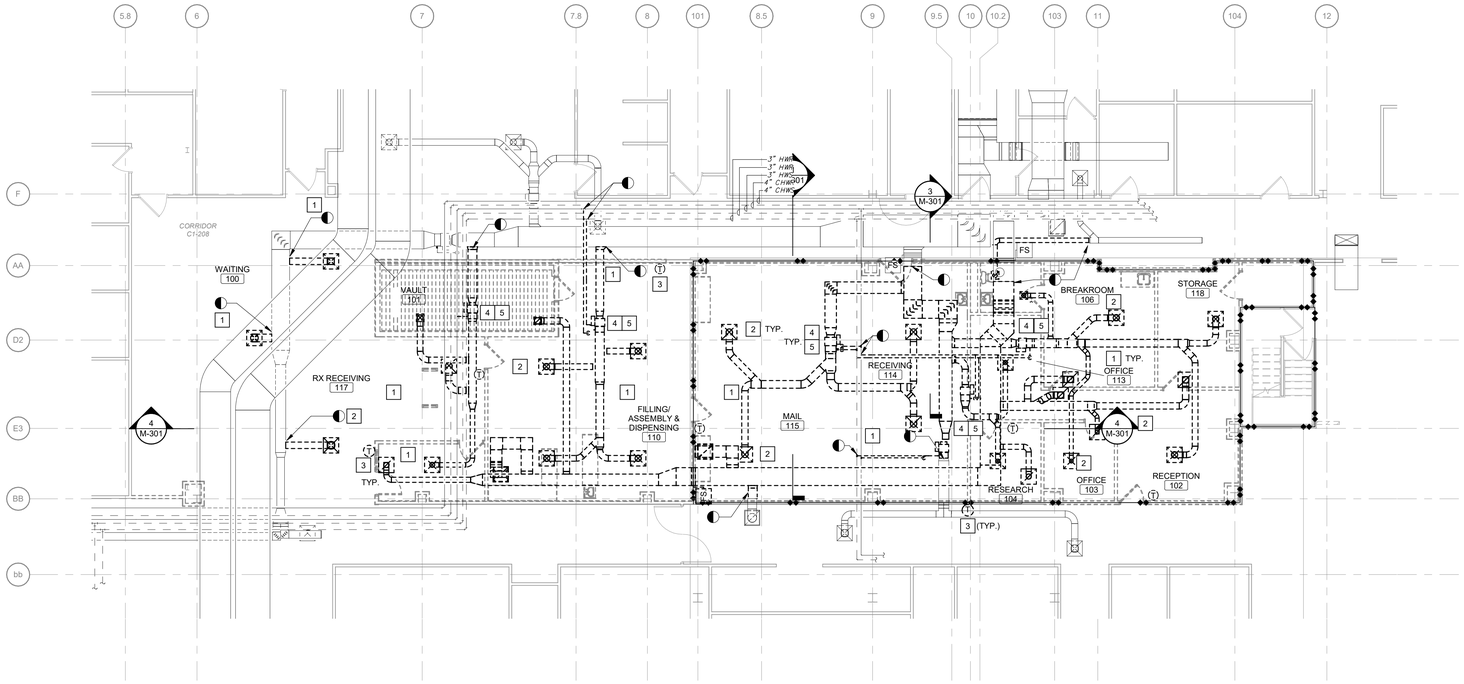
Date: OCTOBER 13, 2023 | Checked: RBK | Drawn: AKS

Drawing Number M-001

Dwg 1 of 11

10/12/2023 10:07:16 AM C:\Users\mmeier\Documents\M_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_mmeier13X60.rvt

DocuSign Envelope ID: 065033E6-CD82-4283-BAD4-EC61FA9A166D



1 FIRST FLOOR MECHANICAL DEMOLITION PLAN

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

0 4 8 16

NORTH

SHEET NOTES:

1. PROVIDE TEMPORARY BLANK OFF SHEET ON DUCTWORK AFTER DEMOLITION OF BRANCH DUCT OR DIFFUSER, AND SEAL AROUND BLANKOFF.
2. CONTRACTOR TO DO PRE-TAB ON EXISTING DIFFUSERS AND GRILLES THAT WILL NOT BE DEMOLISHED AND NOT CONNECTED TO NEW AIR HANDLING UNIT SERVING PHARMACY.

KEY NOTES:

1 DEMOLISH EXISTING DUCTWORK TO THE EXTENT INDICATED.

2 DEMOLISH GRILLES AND DIFFUSERS AS INDICATED.

3 DEMOLISH WALL MOUNTED SENSORS.

4 DEMOLISH VAV BOXES AS INDICATED INCLUDING POWER AND CONTROL WIRING. DEMOLISH HEATING HOT WATER PIPING AND CONTROLS TO THE LIMIT OF DEMOLITION AND CAP FOR FUTURE USE.

5 DEMOLISH VAV CONTROL POINTS FROM BUILDING MANAGEMENT SYSTEMS FOR DEMOLISHED VAVS. EXISTING SYSTEM IS JCI. CONTROL POINTS AND SOFTWARE MODIFICATIONS TO BE DONE BY CONTROLS TECHNICIAN.

KEY NOTES:

KEY PLAN

SCALE: NO SCALE

AREA OF WORK

WALL RATING LEGEND

1 HR - FIRE SEPARATION

2 HR - FIRE SEPARATION

SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER RAMESH B. KEE 0040250 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR MECHANICAL DEMOLITION PLAN

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

Approved

Date: OCTOBER 13, 2023 | Checked: RBK | Drawn: AKS

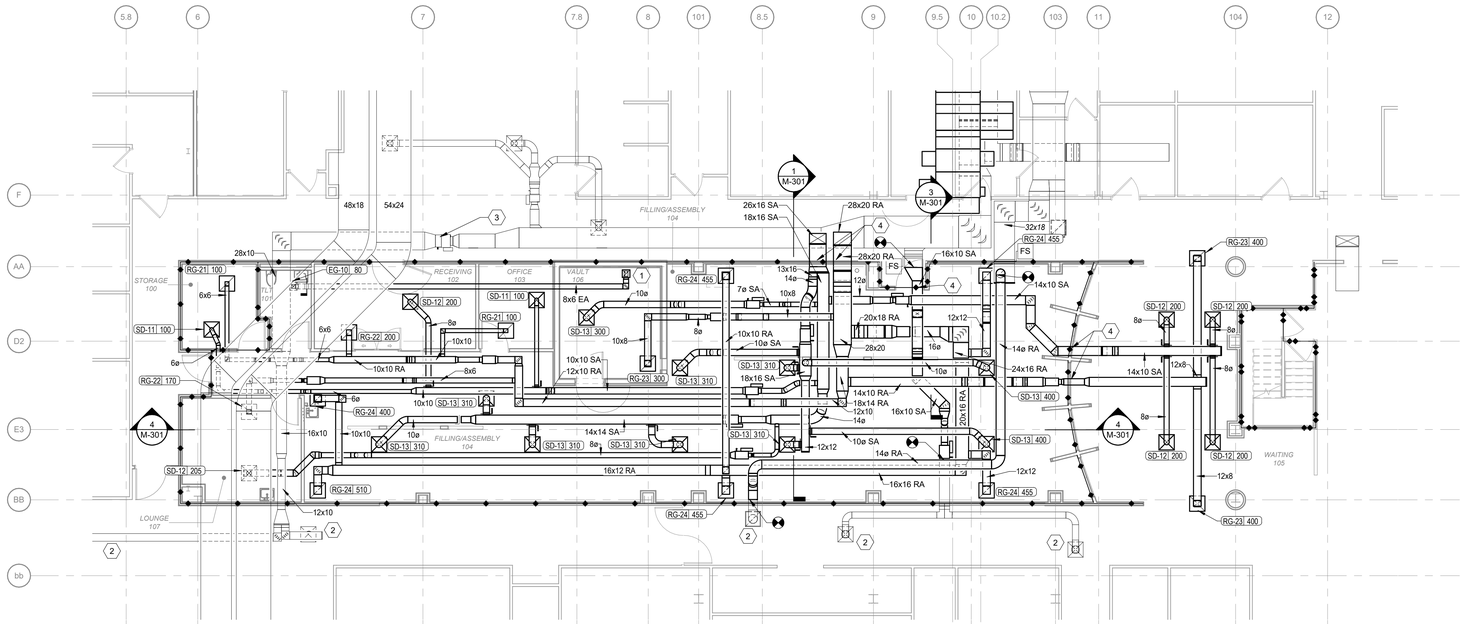
Drawing Number: MD101

Dwg 2 of 11

10/12/2023 10:07:20 AM C:\Users\rmeier\Documents\M_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_rmeierT35X6V.rvt

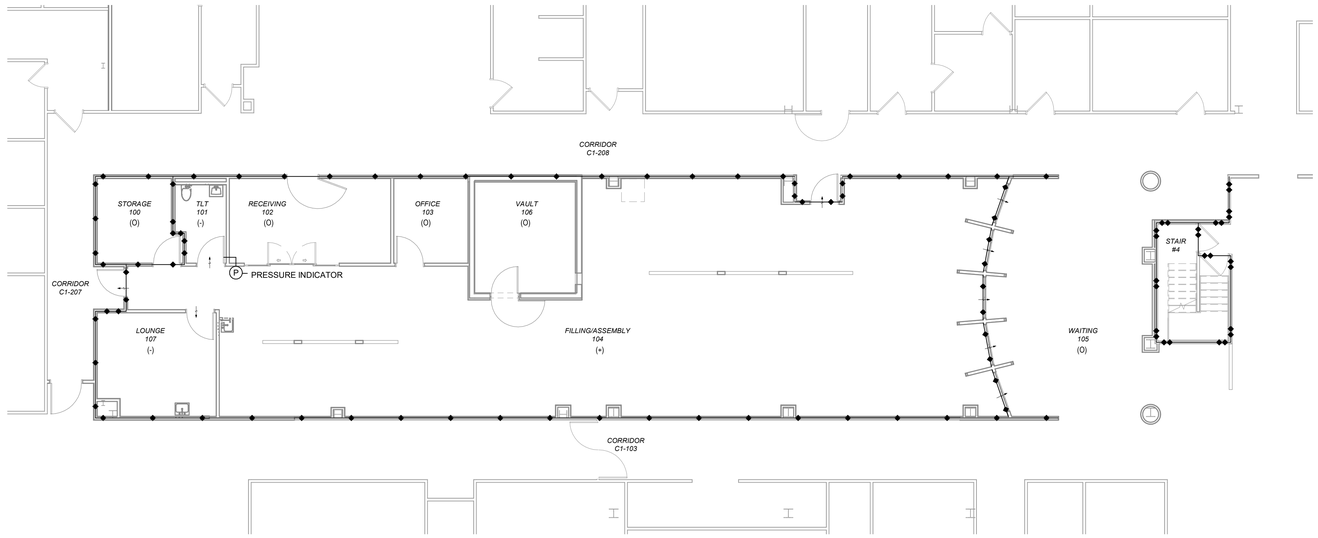
VA FORM 08-6231

DocuSign Envelope ID: 065033E6-CD82-4283-BAD4-EC61FA9A166D



1 FIRST FLOOR HVAC PLAN

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



LEGEND:

(+): POSITIVE PRESSURIZATION

(-): NEGATIVE PRESSURIZATION

(0): NEUTRAL PRESSURIZATION

2 FIRST FLOOR HVAC PLAN (PRESSURE RELATIONSHIPS)

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

SHEET NOTES:

A. COORDINATE ALL WORK WITH THE GENERAL CONTRACTOR, ALL OTHER TRADES, AND THE COR TO AVOID CONFLICTS AND RELOCATION OF EXISTING SYSTEMS DURING CONSTRUCTION.

B. SEE ARCHITECTURAL CEILING PLAN FOR CEILING TYPES AS WELL AS DIFFUSER AND GRILLE PLACEMENT WITHIN THE CEILING.

C. UNLESS NOTED OTHERWISE, ALL DIFFUSER AND GRILLE RUN-OUTS ARE THE SAME SIZE AS THE NECK/DUCT CONNECTION SIZE SPECIFIED IN THE AIR DEVICE SCHEDULE.

D. ALL DIFFUSER AND GRILLE TAKEOFFS SHALL INCLUDE BALANCING DAMPER.

E. VAV BOX DESIGNATIONS SHOWN ON MP101.

KEY NOTES:

1. EXHAUST DUCT UP TO EXHAUST FAN ON LOW ROOF.
2. CONTRACTOR TO BALANCE DIFFUSERS AND GRILLES TO EXISTING PRE-CONSTRUCTION AIRFLOW.
3. REBALANCE EXISTING VAV BOX TO NEW MAXIMUM AND MINIMUM AIRFLOWS AFTER BALANCING DIFFUSERS AND GRILLES TO EXISTING PRE-CONSTRUCTION AIRFLOWS.
4. PROVIDE SECURITY BARS AND GRILLES IN DUCTWORK GOING TO PHARMACY SPACE. REFER TO DETAIL 4/M-503.

KEY PLAN

SCALE: NO SCALE

AREA OF WORK

WALL RATING LEGEND

1 HR - FIRE SEPARATION

2 HR - FIRE SEPARATION

SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER — RAJESH B. KAUL — 0040250 — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR HVAC PLAN

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

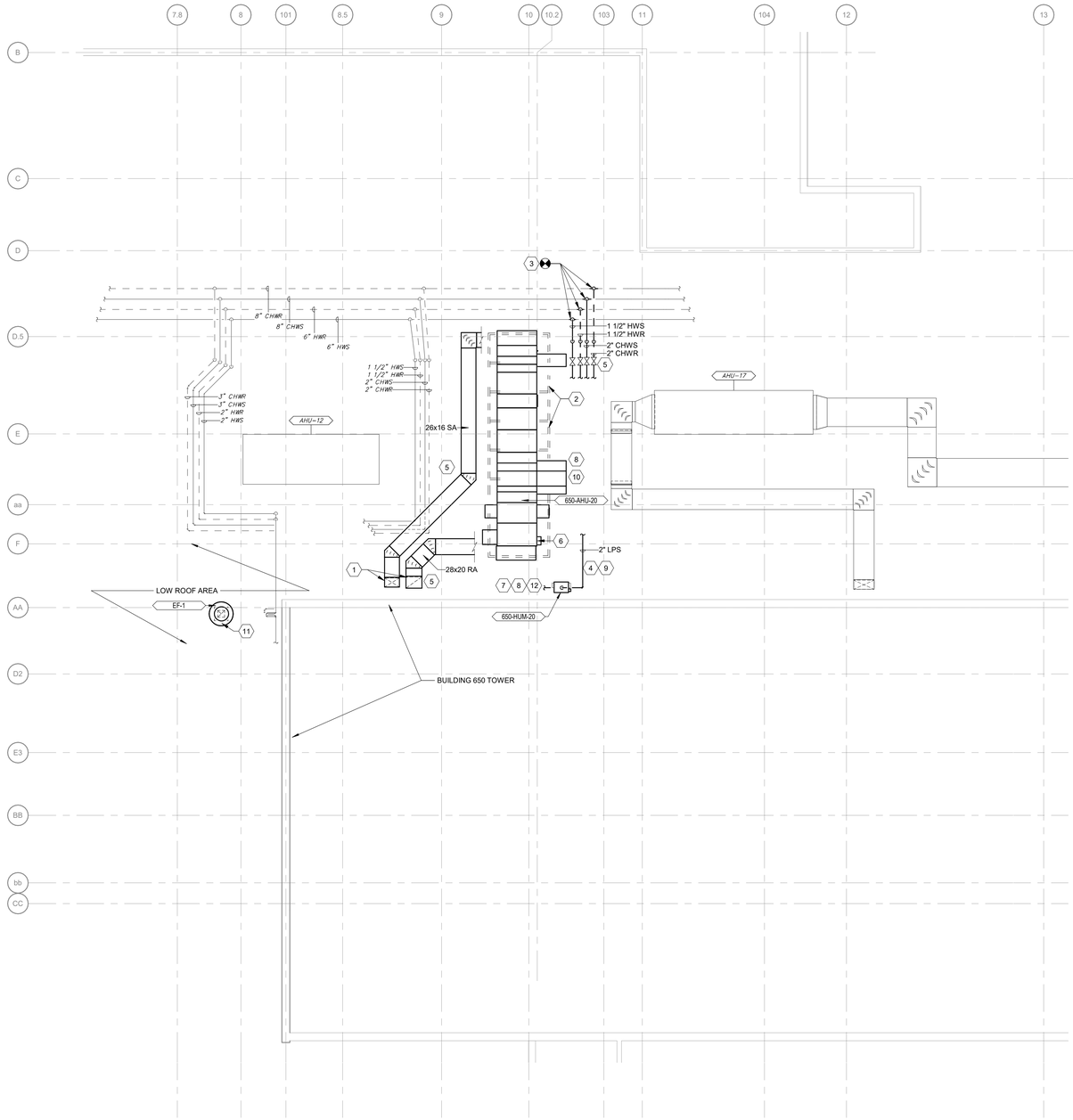
Approved

Date: OCTOBER 13, 2023 | Checked: RBK | Drawn: AKS

Drawing Number: MH101

Dwg 3 of 11

DocuSign Envelope ID: 065033E6-CD82-4283-BAD4-EC61FA9A166D



1 ROOF HVAC PLAN

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

SHEET NOTES:

A. COORDINATE ALL WORK WITH THE OTHER GENERAL CONTRACTOR, ALL OTHER TRADES, AND THE COR TO AVOID CONFLICTS DURING CONSTRUCTION.

B. COORDINATE CHILLED WATER AND HEATING HOT WATER SHUTDOWN WITH VA.

C. REFER TO STRUCTURAL DRAWINGS FOR STEEL DETAILS.

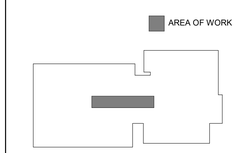
D. TAPPING TO EXISTING PIPING WILL BE DONE BY PIPE FREEZING METHOD.

KEY NOTES:

1. SA AND RA DUCT DOWN THROUGH ROOF TO SERVE RENOVATED PHARMACY SPACE.
2. PROVIDE STEEL FRAME SUPPORT FOR NEW AHU AT A MINIMUM 36" ABOVE ROOF SURFACE.
3. PROVIDE NEW HYDRONIC BRANCH PIPING WITH ISOLATION VALVES. CONNECT CHILLED AND HOT WATER SUPPLY AND RETURN PIPING TO NEW AHU.
4. INSTALL NEW LOW PRESSURE STEAM PIPING FROM 650-HUM-20 TO NEW AHU. SLOPE PIPING BACK TO HUMIDIFIER PER MANUFACTURER'S RECOMMENDATION.
5. PROVIDE STRUCTURAL SUPPORT FOR DUCTWORK AND PIPING.
6. MOUNT VFD FOR SUPPLY AND RETURN FAN ON EXTERIOR OF AIR HANDLING UNIT. PROVIDE WEATHERPROOF OUTDOOR RATED ENCLOSURE FOR VFD. COORDINATE WITH AHU MANUFACTURER.
7. MAKEUP WATER CONNECTION FROM BELOW. REFER TO PLUMBING PLAN P-101 FOR DETAILS.PROVIDE CARTRIDGE FILTER BEFORE HUMIDIFIER FOR INCOMING DCW PIPING AND PROVIDE BYPASS ACROSS FILTER.
8. PROVIDE AND ROUTE 3/4" COPPER CONDENSATE DRAIN TO NEAREST ROOF DRAIN.
9. INSULATE STEAM PIPING WITH 3" WEATHERPROOF INSULATION PROTECTION.
10. PROVIDE HYDRONIC PIPING CONTROL VALVES INSIDE VALVE BOX. VALVE BOX INTEGRAL TO AHU. AHU MANUFACTURER TO PROVIDE CONTROL VALVES ENCLOSURE.
11. PROVIDE ROOF CURB AND DISCONNECT SWITCH.
12. PROVIDE AN AFTERCOOLER FOR HUMIDIFIER DRAIN WITH CONTROLS.

KEY PLAN

SCALE: NO SCALE



WALL RATING LEGEND

- 1 HR - FIRE SEPARATION
- 2 HR - FIRE SEPARATION
- SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER — RAJESH B. KAUL — 0040255 — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ROOF HVAC PLAN

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

Approved

Date: OCTOBER 13, 2023 | Checked: RBK | Drawn: AKS

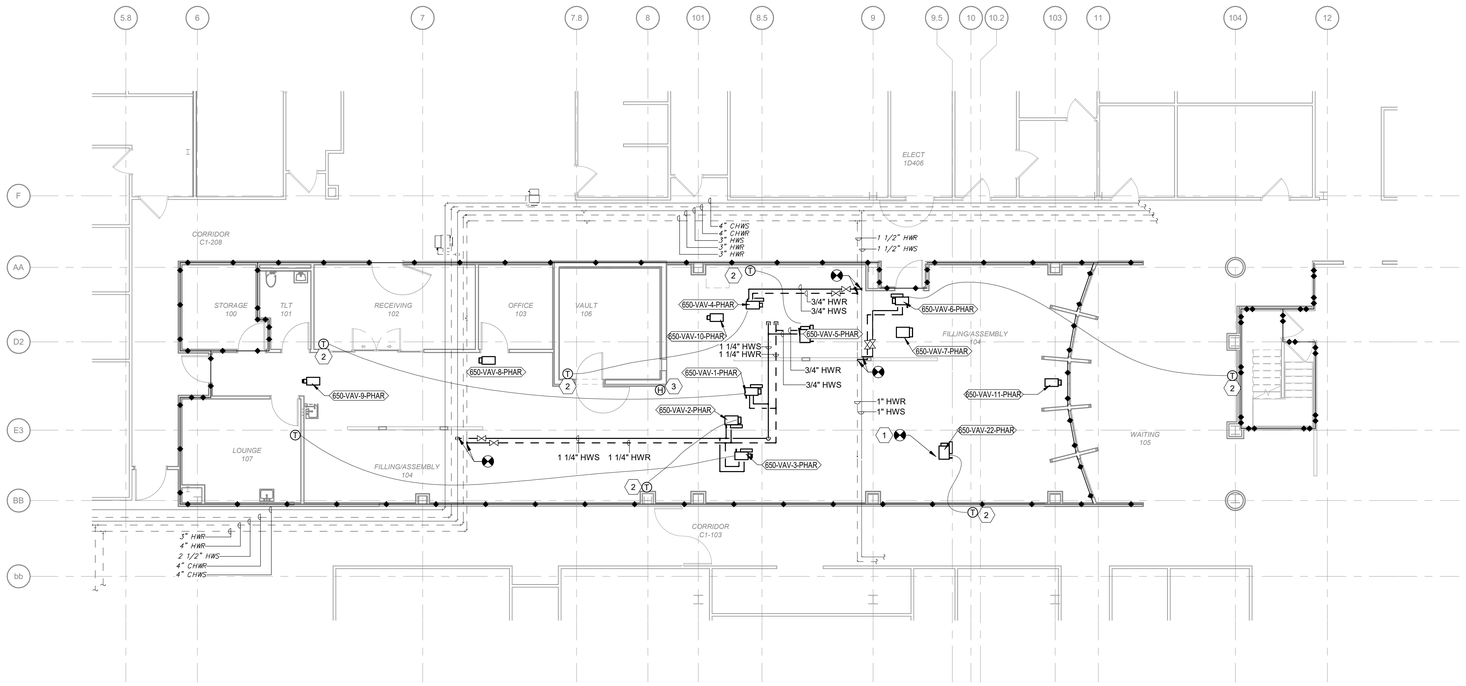
Drawing Number: MH102

Dwg 4 of 11

10/12/2023 10:07:27 AM C:\Users\mreier\Documents\M_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_mreierT5X8V.rvt

VA FORM 08-6231

DocuSign Envelope ID: 065033E6-CD82-4283-BAD4-EC61FA9A166D



1 **FIRST FLOOR MECHANICAL PIPING PLAN**

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

0 4 8 16

NORTH

SHEET NOTES:

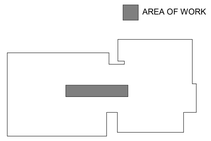
1. COORDINATE ALL WORK WITH THE OTHER GENERAL CONTRACTOR, ALL OTHER TRADES, AND THE COR TO AVOID CONFLICTS DURING CONSTRUCTION.
2. PIPE RUNOUTS TO TERMINAL UNITS TO BE 3/4" HHWS/R UNLESS NOTED OTHERWISE.
3. COORDINATE LOCATION OF ALL WALL MOUNTED THERMOSTATS AND HUMIDISTATS WITH OTHER WALL MOUNTED EQUIPMENT.
4. PROVIDE ISOLATION VALVES IN ALL BRANCH PIPING TO TERMINAL UNITS.

KEY NOTES:

1 CONNECT NEW VAV BOX TO EXISTING HOT WATER SUPPLY AND RETURN PIPING.
2 PROVIDE NEW THERMOSTAT AS INDICATED.
3 PROVIDE NEW HUMIDISTAT AS INDICATED.

KEY PLAN

SCALE: NO SCALE



WALL RATING LEGEND

1 HR - FIRE SEPARATION
2 HR - FIRE SEPARATION
SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER JOSEPH B. KUNZ 0040256 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

© COPYRIGHT Apogee Consulting Group, P.A.

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR MECHANICAL PIPING PLAN

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Approved

Date: OCTOBER 13, 2023 | Checked: RBK | Drawn: AKS

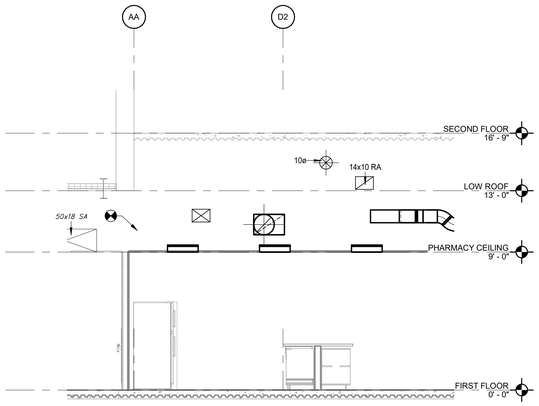
Drawing Number: MP101

Dwg 5 of 11

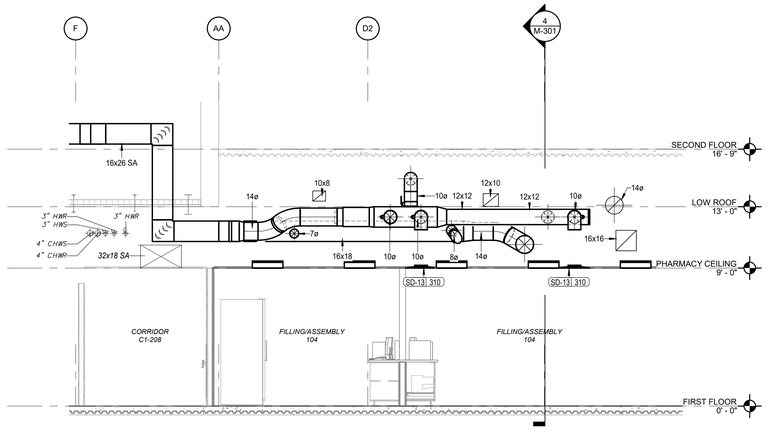
10/12/2023 10:07:30 AM C:\Users\rmeier\Documents\M_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_rmeierT35X6V.rvt

VA FORM 08-6231

DocuSign Envelope ID: 065033E6-CD82-4283-BAD4-EC61FA9A166D

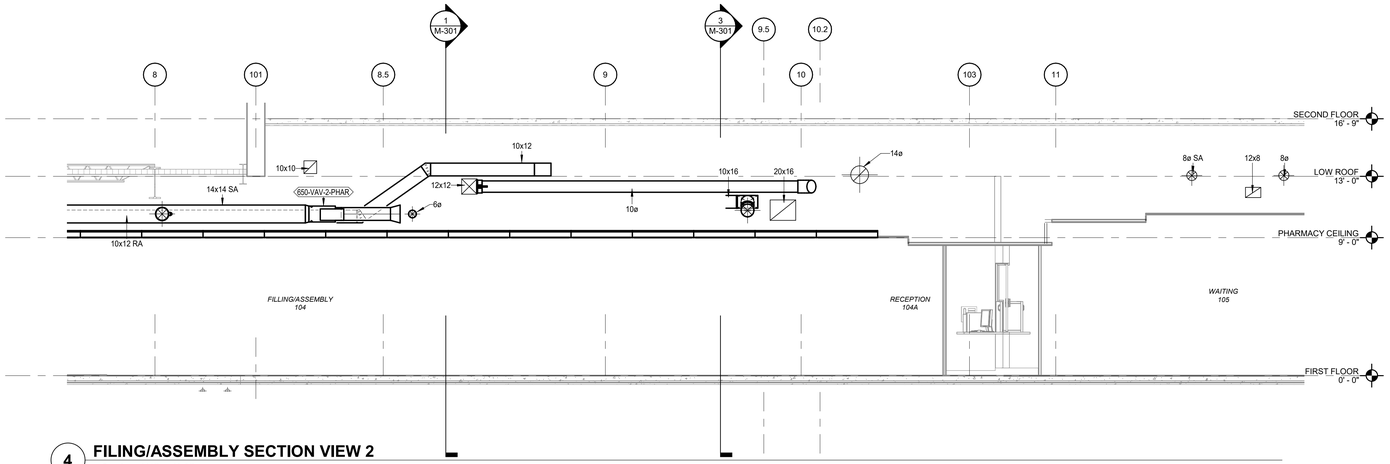


3 **FILING/ASSEMBLY SECTION VIEW 1**
Scale: 1/4" = 1'-0"

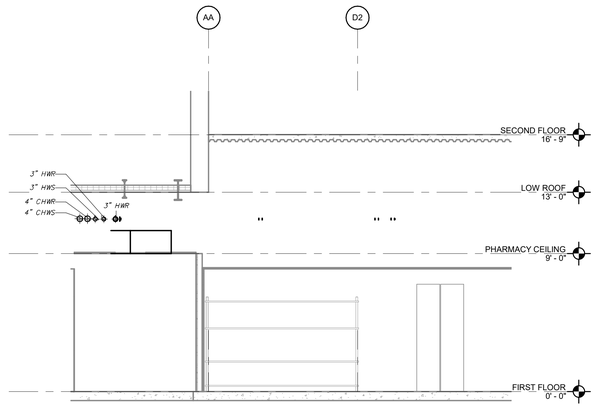


1 **MAIN SUPPLY DUCTWORK SECTION**
Scale: 1/4" = 1'-0"

KEY NOTES:



4 **FILING/ASSEMBLY SECTION VIEW 2**
Scale: 1/4" = 1'-0"



2 **MAIN RETURN DUCTWORK SECTION**
Scale: 1/4" = 1'-0"

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

STATE OF OREGON REGISTERED PROFESSIONAL ENGINEER RAJESH B. KAUL 0040250 — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

© COPYRIGHT Apogee Consulting Group, P.A.

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL SECTIONS

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

Approved

Date: OCTOBER 13, 2023 | Checked: RBK | Drawn: PA

Drawing Number: M-301

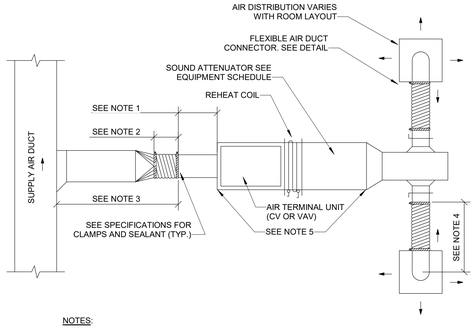
Dwg 6 of 11

C:\Users\rmeier\Documents\M_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_rmeierT5X80.rvt

10/12/2023 10:07:35 AM

VA FORM 08-6231

DocuSign Envelope ID: 065033E6-CD82-4283-BAD4-EC61FA9A166D

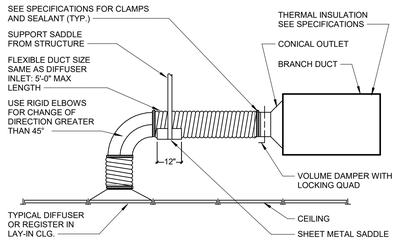


NOTES:

1. RIGID STRAIGHT TERMINAL UNIT INLET LENGTH SHALL BE A MINIMUM OF 3 TIMES THE DIAMETER OF INLET.
2. A FLEXIBLE AIR DUCT CONNECTOR IS NOT MANDATORY FOR INLET TO THIS BOX, BUT ALLOWED TO ACCOMMODATE MINOR OFFSETS. MAXIMUM LENGTH 3'-0".
3. A BRANCH DUCT SERVING AN INDIVIDUAL BOX MAY BE THE SAME SIZE AS THE BOX INLET, PROVIDED THE EQUIVALENT LENGTH OF THE BRANCH DUCT, AS SHOWN, DOES NOT EXCEED 10 FEET. FOR LONGER LENGTHS, INCREASE THE DUCT SIZE AND PROVIDE A DUCT TRANSITION TO MAINTAIN THE DUCT STATIC PRESSURE DROP AT OR BELOW 0.2"/100'.
4. FLEXIBLE AIR DUCT CONNECTORS, WHEN USED FROM TERMINAL UNIT SUPPLY AIR DUCT TO DIFFUSER, SHALL NOT EXCEED 5'-0". USE RIGID ELBOWS FOR CHANGE OF DIRECTION GREATER THAN 45°.
5. COMPONENT ARRANGEMENT MAY VARY BY MANUFACTURER. PROVIDE INSULATION W/VAPOR BARRIER FOR CONNECTING DUCT SECTIONS.
6. USE OF THE FLEXIBLE AIR DUCT CONNECTORS ARE NOT PERMITTED FOR THE DEDICATED AHU SERVING THE SURGICAL SUITE.

11 DUCT CONNECTIONS - AIR TERMINAL UNITS

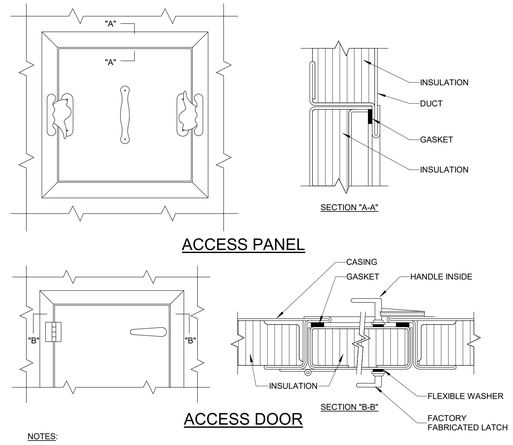
Scale: No Scale



NOTE:
THE USE OF FLEXIBLE AIR DUCT CONNECTORS ARE NOT PERMITTED FOR THE DEDICATED AHU SERVING THE SURGICAL SUITE

8 FLEX AIR DUCT CONNECTOR DETAIL

Scale: No Scale

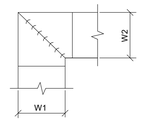


NOTES:

1. LATCHES SHALL BE OF THE WEDGE TYPE TO CLOSE DOORS THIGHTLY.
2. HINGES ON THE ACCESS DOORS SHALL HAVE NON-CORROSIVE PINS.
3. SEE SMACNA 2005, FIGURE 9-16

5 ACCESS PANEL AND DOOR DETAIL

Scale: No Scale

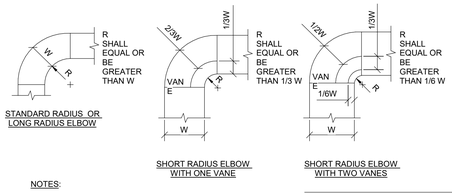


NOTES:

1. ALL VANE ELBOWS SHALL BE CONSTRUCTED AND INSTALLED AS DETAILED BY SMACNA.
2. WHEN W1 DOES NOT EQUAL W2, VANE SHALL BE SINGLE THICKNESS VANE TYPE REGARDLESS OF W DIMENSION.
3. ALL SINGLE THICKNESS VANES SHALL HAVE A 2" RADIUS, 1-1/2" MAXIMUM SPACE BETWEEN VANES AND A 3/4" TRAILING EDGE.
4. WHEN W EQUAL W2 AND W1 IS GREATER THAN 20" VANES SHALL BE DOUBLE VANE TYPE.

1 DUCTWORK SQUARE VANE ELBOWS

Scale: No Scale



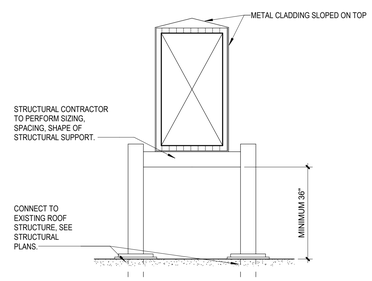
NOTES:

1. THE INTERIOR SURFACE OF ALL RADIUS ELBOWS SHALL BE MADE ROUND.
2. ALL STANDARD ELBOWS CAN BE SUBSTITUTED WITH SHORT RADIUS ELBOWS. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES. VANES SHALL BE CONSTRUCTED , SUPPORTED AND FASTENED AS RECOMMENDED BY SMACNA.

KEY NOTES:

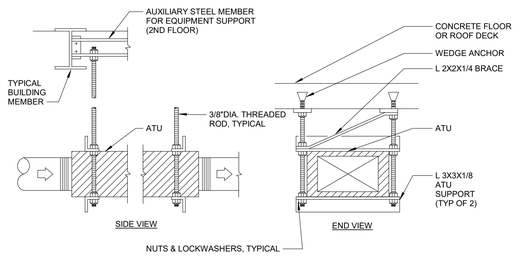
2 DUCTWORK RADIUS ELBOW

Scale: No Scale



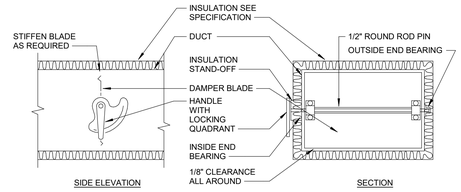
12 ROOFTOP DUCT SUPPORT

Scale: No Scale



9 AIR TERMINAL UNIT MOUNTING DETAIL

Scale: No Scale

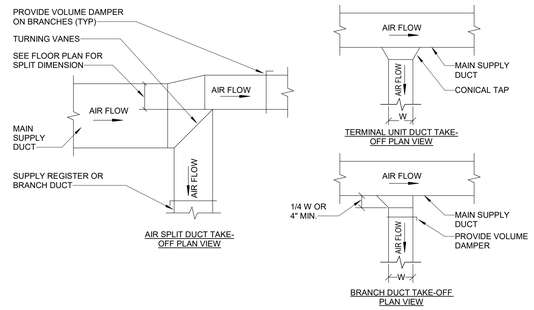


NOTES:

1. DELETE INSULATION STAND-OFF ON DUCTWORK WITHOUT EXTERIOR INSULATION.
2. DETAIL SHOWS SINGLE BLADE DAMPER. DAMPER INSTALLATION SHALL BE SIMILAR FOR MULTI-BLADE DAMPERS & ROUND DAMPERS.

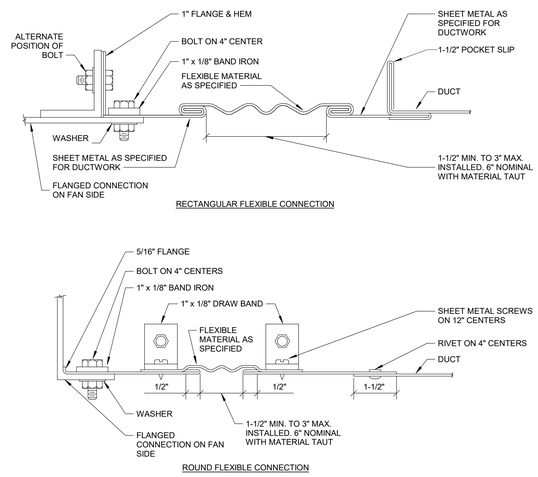
6 VOLUME DAMPER DETAIL

Scale: No Scale



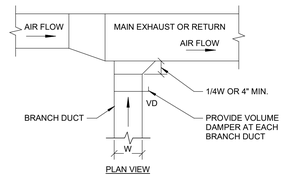
3 SUPPLY DUCT BRANCH TAKE-OFFS

Scale: No Scale



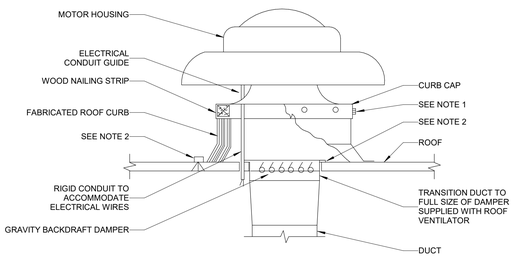
7 FLEXIBLE DUCT CONNECTIONS DETAIL

Scale: No Scale



4 EXHAUST OR RETURN BRANCH DUCTWORK DETAIL

Scale: No Scale

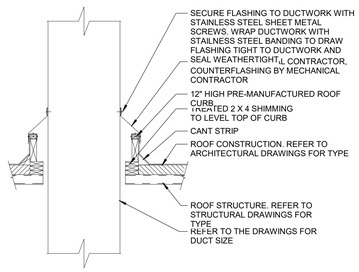


NOTES:

1. SECURE CURB CAP TO WOOD NAILING STRIP WITH 3/8" CADMIUM PLATED LAG BOLTS NOT OVER 12" ON CENTER.
2. SECURE ROOF CURB, DUCTWORK AND DAMPER TO ROOF WITH EXPANSION BOLTS (CONCRETE ROOF) OR RUST RESISTANT BOLTS (METAL DECK AND BAR JOIST ROOF).
3. RUN ELECTRICAL LINES THROUGH CLEARANCE HOLE PROVIDED IN GRAVITY DAMPER, THEN THROUGH VENTILATOR ELECTRICAL CONDUIT GUIDE.

13 POWER TYPE ROOF VENTILATOR

Scale: No Scale



10 DUCTWORK ROOF PENETRATION DETAIL

Scale: No Scale

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER 0040255 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DETAILS

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Approved

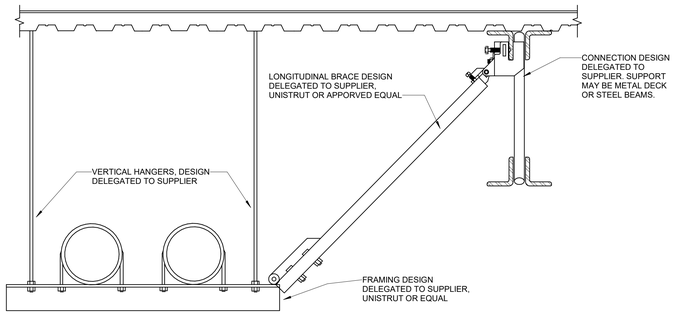
Date: OCTOBER 13, 2023 | Checked: RBK | Drawn: AKS

Drawing Number M-501

Dwg 7 of 11

C:\Users\rmeier\Documents\M_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_rmeierTSX6V.rvt
10/12/2023 10:07:37 AM
VA FORM 08-6231

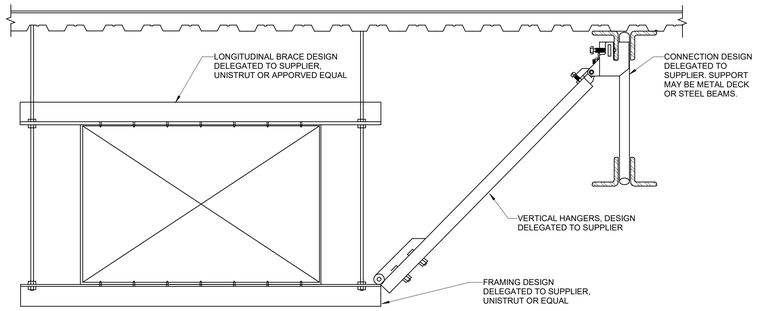
DocuSign Envelope ID: 065033E6-CD82-4283-BAD4-EC61FA9A166D



NOTE:
1. REAPPLY ANY FIREPROOFING THAT WAS REMOVED FROM EXISTING BEAMS OR JOISTS OR ANY COMPOSITE METAL FLOOR DECK TO INSTALL BRACES. FIREPROOFING SHALL MEET OR EXCEED EXISTING FIRE RATING.
2. CONTRACTOR TO PROVIDE SHOP DRAWINGS AND CALCULATIONS FOR SEISMIC SUPPORTS / BRACING SIGNED BY CA REGISTERED P.E.

7 MULTI PIPE TRANSERSE BRACE FOR SEISMIC RESTRAINT DETAIL

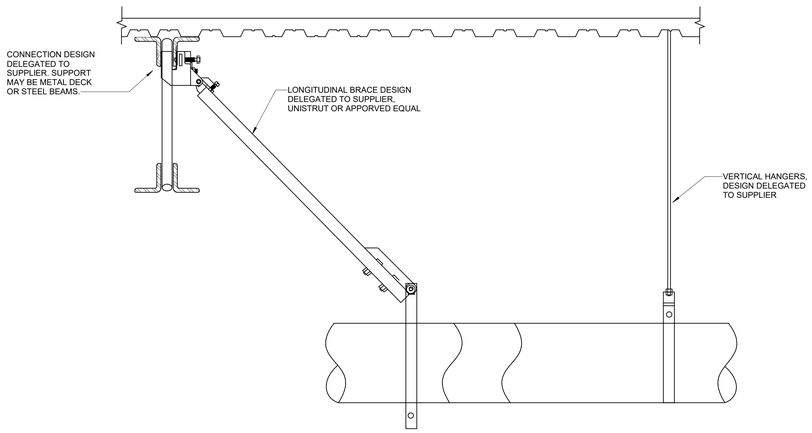
Scale: No Scale



NOTE:
1. REAPPLY ANY FIREPROOFING THAT WAS REMOVED FROM EXISTING BEAMS OR JOISTS OR ANY COMPOSITE METAL FLOOR DECK TO INSTALL BRACES. FIREPROOFING SHALL MEET OR EXCEED EXISTING FIRE RATING.
2. CONTRACTOR TO PROVIDE SHOP DRAWINGS AND CALCULATIONS FOR SEISMIC SUPPORTS / BRACING SIGNED BY CA REGISTERED P.E.

8 DUCTWORK TRANSVERSEIVE BRACE FOR SEISMIC RESTRAINT DETAIL

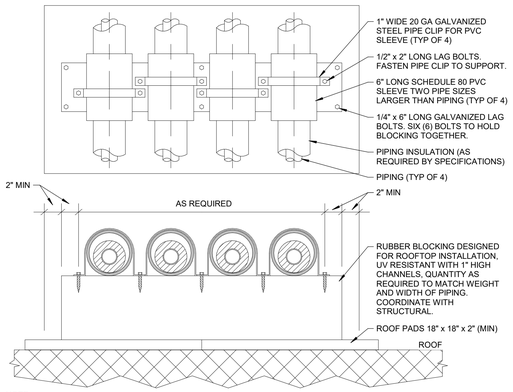
Scale: No Scale



NOTE:
1. REAPPLY ANY FIREPROOFING THAT WAS REMOVED FROM EXISTING BEAMS OR JOISTS OR ANY COMPOSITE METAL FLOOR DECK TO INSTALL BRACES. FIREPROOFING SHALL MEET OR EXCEED EXISTING FIRE RATING.
2. CONTRACTOR TO PROVIDE SHOP DRAWINGS AND CALCULATIONS FOR SEISMIC SUPPORTS / BRACING SIGNED BY CA REGISTERED P.E.

9 PIPE LONGITUDINAL BRACE FOR SEISMIC RESTRAINT DETAIL

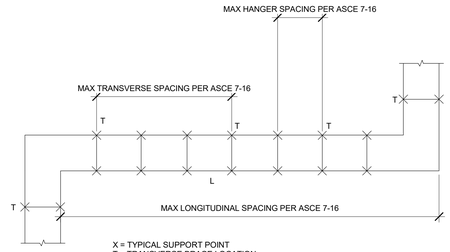
Scale: No Scale



NOTE:
1. SUPPORT REQUIRED AT ALL CHANGES IN DIRECTION AND AS SHOWN ON DRAWINGS.
2. INCREASE HEIGHT AS REQUIRED FOR ROUTING ABOVE ROOF MOUNTED ACCESSORIES SUCH AS EXPANSION JOINTS.

4 RUBBER BLOCK ROOF PIPE SUPPORT DETAIL

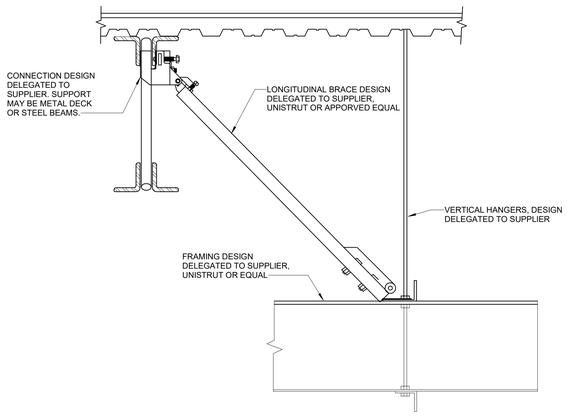
Scale: No Scale



X = TYPICAL SUPPORT POINT
T = TRANSVERSE BRACE LOCATION
L = LONGITUDINAL BRACE LOCATION

5 DUCTWORK BRACING LAYOUT DETAIL

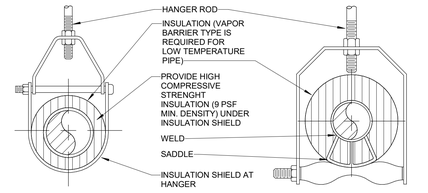
Scale: No Scale



NOTE:
1. REAPPLY ANY FIREPROOFING THAT WAS REMOVED FROM EXISTING BEAMS OR JOISTS OR ANY COMPOSITE METAL FLOOR DECK TO INSTALL BRACES. FIREPROOFING SHALL MEET OR EXCEED EXISTING FIRE RATING.
2. CONTRACTOR TO PROVIDE SHOP DRAWINGS AND CALCULATIONS FOR SEISMIC SUPPORTS / BRACING SIGNED BY CA REGISTERED P.E.

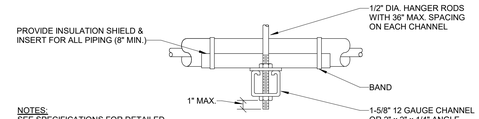
6 DUCTWORK LONGITUDINAL BRACE FOR SEISMIC RESTRAINT DETAIL

Scale: No Scale



ADJUSTABLE CLEVIS HANGER TYPE 1 - SEE SPECIFICATIONS

ADJUSTABLE CLEVIS HANGER TYPE 43 - SEE SPECIFICATIONS



NOTES:
SEE SPECIFICATIONS FOR DETAILED HANGER REQUIREMENTS.

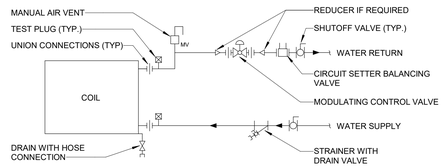
SIDE VIEW TRAPEZE HANGER FOR UP TO 1000 LB. UNIFORM LOAD

MAXIMUM PIPE/TUBING SUPPORT SPACING													
NOM. SIZE (IN.)	THRU 3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12
PIPE (FT.)	7	7	7	9	10	11	12	14	16	17	19	22	23
TUBING (FT.)	5 FT	6	7	8	8	9	10	12	13	14	16	-	-
NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE													

1 PIPE HANGER DETAIL

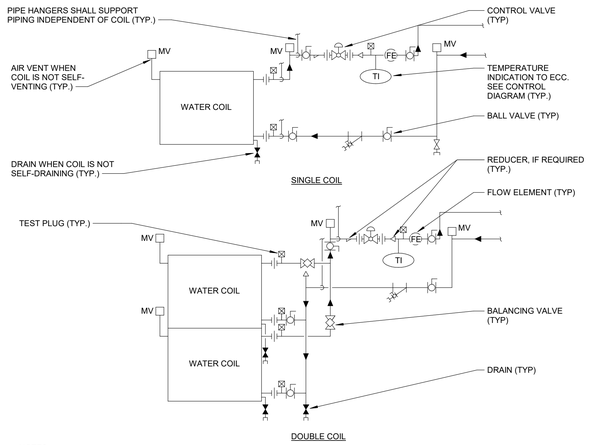
Scale: No Scale

(#) KEY NOTES:



2 TERMINAL UNIT COIL PIPING CONNECTION DETAIL

Scale: No Scale



NOTES:
1. WHEN COIL IS INCLUDED IN CASING MOUNTED ON VIBRATION ISOLATORS THE FIRST TWO HANGERS FOR EACH PIPE SHALL BE SPRING & NEOPRENE TYPE. TYPE "H" 4" DIA. PIPE & SMALLER. TYPE "H-P" FOR 5" DIA. PIPE & LARGER.
2. PIPING SHALL BE INSTALLED IN SUCH A MANNER THAT IT WILL NOT BLOCK THE SWING OR USE OF ACCESS DOORS OR PANELS; NEITHER SHALL IT BLOCK THE SERVICING OF FILTERS, VALVES, OR EQUIPMENT.
3. THE FLOW ELEMENT MAY BE INSTALLED IN THE SUPPLY PIPING IF THE REQUIRED MINIMUM UPSTREAM AND DOWNSTREAM DIMENSIONS CANNOT BE OBTAINED IN THE RETURN PIPING.

3 WATER COILS - PIPING CONNECTIONS DETAIL

Scale: No Scale

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER RAJESH B. KAUL 0040255 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

© COPYRIGHT Apogee Consulting Group, P.A.

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DETAILS

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Approved

Date OCTOBER 13, 2023 | Checked RBK | Drawn AKS

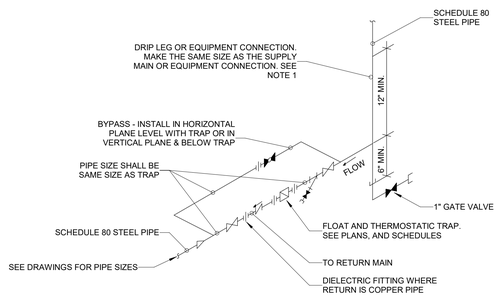
Drawing Number M-502

Dwg 8 of 11

10/12/2023 10:07:38 AM C:\Users\rmeier\Documents\M_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_rmeierT53X8V.rvt

VA FORM 08-6231

DocuSign Envelope ID: 065033E6-CD82-4283-BAD4-EC61FA9A166D

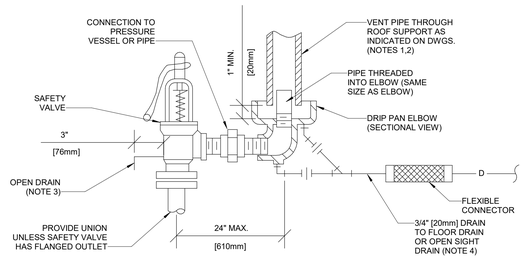


NOTE:

ALL DRIP POINTS ON STEAM MAINS SHALL BE PROVIDED WITH A 12" MINIMUM HIGH DRIP LEG FROM BOTTOM OF STEAM MAIN TO TRAP INLET. DRIP LEG SHALL HAVE 6" SCALE POCKET BELOW TRAP INLET.

5 FLOAT AND THERMOSTATIC STEAM TRAP ASSEMBLY

Scale: No Scale



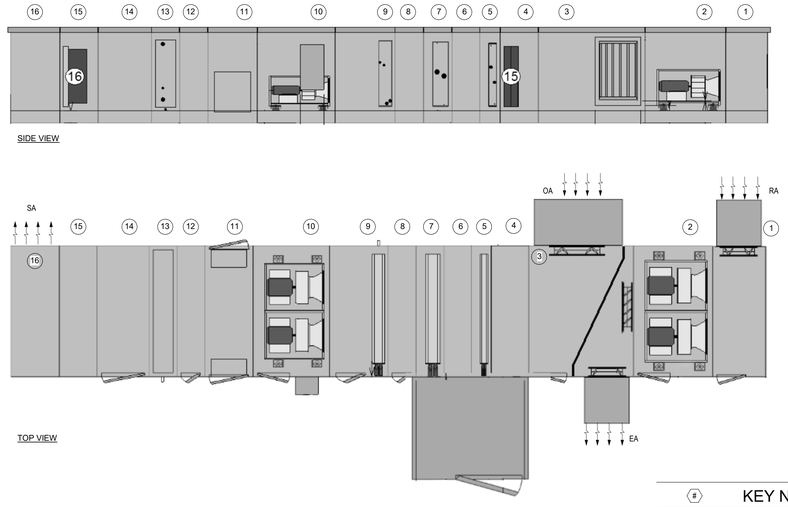
ELEVATION

NOTES:

1. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, SIZE THE VENT PIPE SO THAT STEAM IS NOT BLOWN OUT AT THE VENT PIPE ENTRANCE. UTILIZE THE CALCULATION METHOD CONTAINED IN ANSI B31.1, POWER PIPING CODE, APPENDIX 11.
2. VENT PIPE SHALL TERMINATE 6' [1829mm] MIN. ABOVE FINISHED ROOF.
3. DISCHARGE OF DRAIN MUST BE DIRECTED AWAY FROM PLATFORMS OR OTHER AREAS WHICH PERSONNEL MAY OCCUPY.
4. DO NOT CONNECT ANY OTHER DRAIN TO THE DRIP PAN ELBOW DRAIN PIPE.

3 STEAM SAFETY VALVE DETAIL

Scale: No Scale



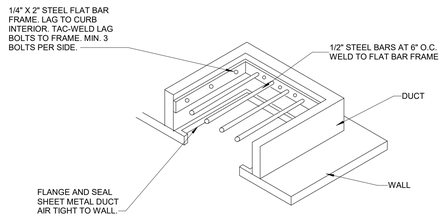
SECTIONS:

1. RETURN AIR INLET SECTION
2. RETURN AIR FAN SECTION
3. AIR MIXING SECTION
4. FILTER SECTION
5. HEATING COIL SECTION
6. ACCESS SECTION
7. CHW COOLING COIL SECTION
8. ACCESS SECTION
9. DX COOLING COIL SECTION(NO COIL)
10. SUPPLY AIR FAN SECTION
11. CONTROLS SECTION
12. ACCESS SECTION
13. HUMIDIFICATION SECTION
14. ACCESS SECTION
15. HEPA FILTER SECTION
16. DISCHARGE AIR PLENUM

1 AHU SECTION VIEW

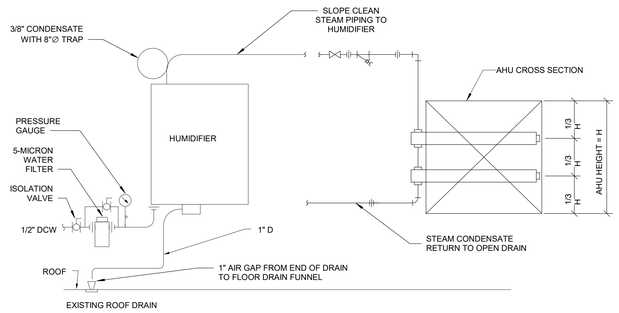
Scale: No Scale

KEY NOTES:



4 SECURITY BAR AND GRILL DETAIL

Scale: No Scale



NOTES:

1. FOR FINAL PIPING LAYOUT, REFER TO MANUFACTURER'S INSTALLATION MANUALS.
2. CLEAN STEAM SUPPLY FROM HUMIDIFIER.
3. BASIS OF DESIGN FOR STEAM DISPERSION PANELS IS DRI-STEEM ULTRA-SORB MODEL LH.
4. PROVIDE WATER SEAL OR FLOAT AND THERMOSTATIC STEAM TRAP ON CONDENSATE LINE.

2 STEAM HUMIDIFIER PIPING DETAIL

Scale: No Scale

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER RAJESH B. KAUL 0040250 — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DETAILS

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

Approved

Date: OCTOBER 13, 2023 | Checked: RBK | Drawn: WKH

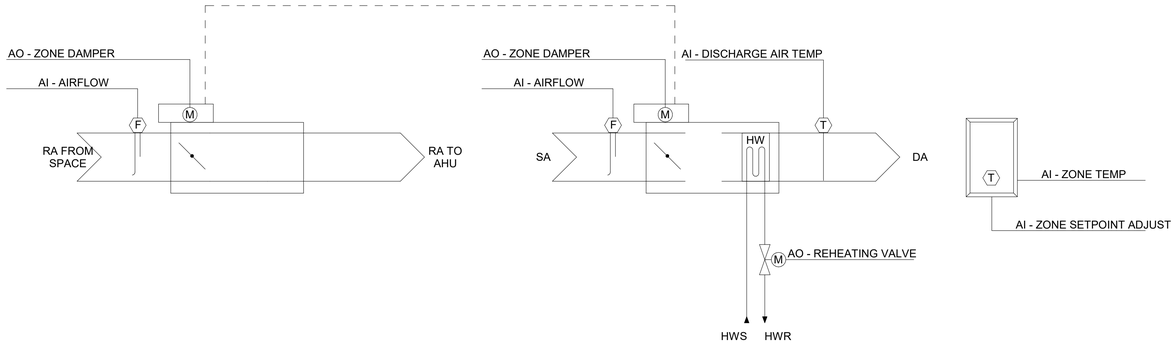
Drawing Number: M-503

Dwg 9 of 11

10/12/2023 10:07:39 AM C:\Users\rmeier\Documents\M_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_rmeierT5X8V.rvt

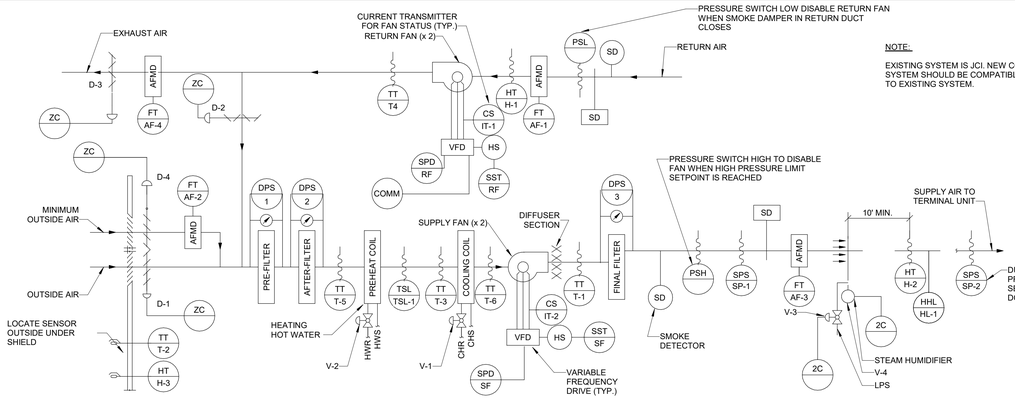
VA FORM 08-6231

DocuSign Envelope ID: 065033E6-CD82-4283-BAD4-EC61FA9A166D



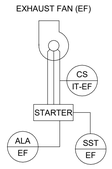
4 SUPPLY AIR VAV TERMINAL WITH REHEAT AND RETURN AIR VAV SCHEMATIC

Scale: No Scale



1 AHU CONTROL DIAGRAM

Scale: No Scale



SEQUENCE: EXHAUST FANS SHALL START AND RUN CONTINOUSLY ON OCCUPIED CYCLE

7 EXHAUST FAN CONTROLS

Scale: No Scale

	HARDWARE POINTS				SOFTWARE POINTS						
POINT NAME:	AI	AO	BI	BO	AV	BV	LOOP	SCHED	TREND	ALARM	SHOW ON GRAPHIC
ZONE TEMPERATURE	X								X		X
ZONE TEMPERATURE SETPOINT	X										X
AIRFLOW	X								X		X
DISCHARGE AIR TEMPERATURE	X								X		X
ZONE DAMPER		X									X
REHEATING VALVE		X							X		X
MAXIMUM OCCUPIED AIRFLOW SETPOINT					X				X		X
HEATING MODE						X			X		
HEATING SETPOINT									X		X
COOLING SETPOINT									X		X
HIGH ZONE TEMPERATURE										X	
LOW ZONE TEMPERATURE										X	
HIGH DISCHARGE TEMPERATURE										X	
LOW DISCHARGE TEMPERATURE										X	
HIGH ZONE HUMIDITY										X	
MINIMUM OCCUPIED AIR FLOW SETPOINT					X				X		X
MINIMUM UNOCCUPIED AIRFLOW SETPOINT					X				X		X
ZONE HUMIDITY	X								X		X
ZONE HUMIDITY SETPOINT	X								X		X
	6	2			3	1			12	5	13
TOTAL HARDWARE (8)					TOTAL SOFTWARE (21)						

5 VAV TERMINAL UNIT CONTROLS

Scale: No Scale

VAV TERMINAL UNIT

VARIABLE AIR VOLUME - TERMINAL UNIT

RUN CONDITIONS - CONTINUOUS:
THE UNIT SHALL RUN CONTINUOUSLY AND SHALL MAINTAIN:
- A 75°F (ADJ.) COOLING SETPOINT.
- A 70°F (ADJ.) HEATING SETPOINT.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
- HIGH ZONE TEMP: IF THE ZONE TEMPERATURE IS GREATER THAN THE COOLING SETPOINT BY A USER DEFINABLE AMOUNT (ADJ.).
- LOW ZONE TEMP: IF THE ZONE TEMPERATURE IS LESS THAN THE HEATING SETPOINT BY A USER DEFINABLE AMOUNT (ADJ.).

ZONE SETPOINT ADJUST:
THE OCCUPANT SHALL BE ABLE TO ADJUST THE ZONE TEMPERATURE HEATING AND COOLING SETPOINTS AT THE ZONE SENSOR.

PRESSURE INDEPENDENT VARIABLE VOLUME TERMINAL UNIT - FLOW CONTROL:
THE UNIT SHALL MAINTAIN ZONE SETPOINTS BY CONTROLLING THE AIRFLOW THROUGH ONE OF THE FOLLOWING:

OCCUPIED:
- WHEN ZONE TEMPERATURE IS GREATER THAN ITS COOLING SETPOINT, THE ZONE DAMPER SHALL MODULATE BETWEEN THE MINIMUM OCCUPIED AIRFLOW (ADJ.) AND THE MAXIMUM COOLING AIRFLOW (ADJ.) UNTIL THE ZONE IS SATISFIED.
- WHEN THE ZONE TEMPERATURE IS BETWEEN THE COOLING SETPOINT AND THE HEATING SETPOINT, THE ZONE DAMPER SHALL MAINTAIN THE MINIMUM REQUIRED ZONE AIRFLOW (ADJ.).
- WHEN ZONE TEMPERATURE IS LESS THAN ITS HEATING SETPOINT, THE CONTROLLER SHALL MODULATE THE HEATING VALVE OPEN TO MAINTAIN THE ZONE TEMPERATURE AT ITS HEATING SETPOINT. ADDITIONALLY, IF WARM AIR IS AVAILABLE FROM THE AHU, THE ZONE DAMPER SHALL MODULATE BETWEEN THE MINIMUM OCCUPIED AIRFLOW (ADJ.) AND THE MAXIMUM HEATING AIRFLOW (ADJ.) UNTIL THE ZONE IS SATISFIED.

UNOCCUPIED:
- WHEN THE ZONE IS UNOCCUPIED THE ZONE DAMPER SHALL CONTROL TO ITS MINIMUM UNOCCUPIED AIRFLOW (ADJ.).
- WHEN THE ZONE TEMPERATURE IS GREATER THAN ITS COOLING SETPOINT, THE ZONE DAMPER SHALL MODULATE BETWEEN THE MINIMUM UNOCCUPIED AIRFLOW (ADJ.) AND THE MAXIMUM COOLING AIRFLOW (ADJ.) UNTIL THE ZONE IS SATISFIED.
- WHEN ZONE TEMPERATURE IS LESS THAN ITS UNOCCUPIED HEATING SETPOINT, THE CONTROLLER SHALL MODULATE THE HEATING VALVE OPEN TO MAINTAIN THE ZONE TEMPERATURE AT THE SETPOINT. ADDITIONALLY, IF WARM AIR IS AVAILABLE FROM THE AHU, THE ZONE DAMPER SHALL MODULATE BETWEEN THE MINIMUM UNOCCUPIED AIRFLOW (ADJ.) AND THE AUXILIARY HEATING AIRFLOW (ADJ.) UNTIL THE ZONE IS SATISFIED.

REHEATING COIL VALVE:
THE CONTROLLER SHALL MEASURE THE ZONE TEMPERATURE AND MODULATE THE REHEATING COIL VALVE OPEN ON DROPPING ZONE TEMPERATURE TO MAINTAIN ITS HEATING SETPOINT.

REHEATING - HIGH DISCHARGE AIR TEMPERATURE LIMIT:
THE CONTROLLER SHALL MEASURE THE DISCHARGE AIR TEMPERATURE AND LIMIT HOT WATER VALVE POSITION IF THE DISCHARGE AIR TEMPERATURE IS MORE THAN 15°F (ADJ.) ABOVE THE ZONE TEMPERATURE.

DISCHARGE AIR TEMPERATURE:
THE CONTROLLER SHALL MONITOR THE DISCHARGE AIR TEMPERATURE.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
- HIGH DISCHARGE AIR TEMP: IF THE DISCHARGE AIR TEMPERATURE IS GREATER THAN 100°F (ADJ.).
- LOW DISCHARGE AIR TEMP: IF THE DISCHARGE AIR TEMPERATURE IS LESS THAN 50°F (ADJ.).

ALARMS SHALL BE PROVIDED AS FOLLOWS:
- HIGH HUMIDITY: IF THE SPACE RELATIVE HUMIDITY RISES ABOVE 60% A VISIBLE ALARM SHALL BE INITIATED IN THE AFFECTED OR AND AT THE DDC MONITORING STATION.

RETURN AIR VAV OPERATION:

RETURN AIR (RA) VAV IS INTERLOCKED WITH SUPPLY AIR (SA) VAV TO MAINTAIN REQUIRED PRESSURE RELATIONSHIP IN THE ZONE. THE RA VAV SHALL TRACK SA VAV AIRFLOW AND DAMPER POSITION TO MONITOR AND CONTROL RA VAV DAMPER, AND ADJUST AIRFLOW ACCORDINGLY.

6 VAV TERMINAL SEQUENCE OF OPERATION

Scale: No Scale

NEW PHARMACY AHU BUILDING: 650			POINT LEGEND	SYSTEM OUTPUTS		SYSTEM INPUTS		SYSTEM SOFTWARE/CONTROL		PAGE:
SYSTEM: VAV AIR HANDLER				BINARY	ANA-LOG	BINARY	ANALOG	ALARM PROCESSING	APPLICATION/FUNCTION	
SYSTEM COMPONENT:	POINT ID	ABBREVIATION	PRIORITY/ADJ-ALTER # / STATE/DEVICE / ON/CLOSE / OFF/OPEN	SPEED COMMAND / VARIABLE POSITION / ON/OFF	ALARM / PRESSURE / HIGH HUMIDITY / HIGH TEMPERATURE / LOW TEMPERATURE	TEMPERATURE (10) / PRESSURE / POSITION / FLOW / CURRENT / PRESSURE / HUMIDITY / CONDUCTIVE	VALVE / ALARM PANEL / ANALOG ALARM PANEL / DIGITAL ALARM PANEL / TOTAL LIMIT	SUPERVISE START/STOP / DUTY CYCLE / SCHEDULE / ENTHALPY CYCLE / ENTHALPY / TEMPERATURE / STATIC PRESSURE / PREFERRED CONTROL / FAILSAFE / PID CONTROL / TIME DELAY / TOTALIZATION	# REMARKS
RETURN AIR TEMPERATURE	AI-1	T-4		●		●				●
RETURN AIR HUMIDITY	AI-2	H-1		●			●			●
RETURN AIR FLOW (CFM)	AI-3	AF-1		●			●	●		●
MIXED AIR TEMPERATURE	AI-4	T-5		●		●				●
PRE-HEAT TEMPERATURE	AI-5	T-3		●		●				●
COOLING COIL TEMPERATURE	AI-6	T-6		●		●		●		●
DISCHARGE AIR TEMPERATURE	AI-7	T-1		●		●		●	●	●
DISCHARGE STATIC PRESSURE	AI-8	SP-1		●			●	●	●	●
DISCHARGE AIR HUMIDITY	AI-9	H-2		●			●			●
OUTSIDE AIR TEMPERATURE	AI-10	T-2				●				●
PRE-FILTER DIFFERENTIAL PRESSURE	AI-11	DPS-1				●		●		●
AFTER-FILTER DIFFERENTIAL PRESSURE	AI-12	DPS-2				●		●		●
FINAL-FILTER DIFFERENTIAL PRESSURE	AI-13	DPS-3				●		●		●
OUTSIDE AIR HUMIDITY	AI-14	H-3		●			●			●
RETURN FAN STATUS	BI-2	STS-RF		●						●
SUPPLY FAN STATUS	BI-3	STS-SF		●						●
MIXED AIR LOW LIMIT	BI-4	TSL-1			●			●		●
STATIC PRESSURE HIGH LIMIT	BI-5	SP-1			●			●		●
HUMIDITY HIGH LIMIT	BI-6	HL-1			●			●		●
SUPPLY FAN VSMC ALARM	BI-7	ALA-SF		●						●
RETURN FAN VSMC ALARM	BI-8	ALA-RF		●						●
DUCT SMOKE DETECTOR	BI-9	SD						●		●
RETURN FAN VSMC	AO-1	SPD-RF	●						● ●	FULL COMMUNICATION
SUPPLY FAN VSMC	AO-2	SPD-SF	●						● ●	FULL COMMUNICATION
OUTSIDE AIR DAMPER	AO-3	D-1		●					●	●
RETURN AIR DAMPER	AO-4	D-2		●					●	●
EXHAUST AIR DAMPER	AO-5	D-3		●					●	●
MINIMUM OUTSIDE AIR DAMPER	AO-7	D-4		●						●
PREHEAT COIL VALVE	AO-8	V-2		●						●
COILING COIL VALVE	AO-9	V-1		●						●
STEAM HUMIDIFIER VALVE	AO-10	V-4		●						●
RETURN FAN START/STOP	BO-1	SST-RF	●					●		●
SUPPLY FAN START/STOP	BO-2	SST-SF	●					●		●
STEAM ISOLATION VALVE	BO-3	V-3	●				●			●
AIRFLOW MONITORING - RA	FT-1	AF-1		●		●		●		●
AIRFLOW MONITORING - OA	FT-2	AF-2		●		●		●		●
AIRFLOW MONITORING - SA	FT-3	AF-3		●		●		●		●
AIRFLOW MONITORING - EA	FT-4	AF-4		●		●		●		●

2 POINTS LIST FOR VAV AHU WITH MINIMUM OUTSIDE AIR

Scale: No Scale

1. GENERAL

A. UNIT IS NORMALLY STARTED AND STOPPED REMOTELY AT THE ECC. H-O-A SWITCH SHALL BE KEPT IN THE "AUTO" POSITION. "HAND" AND "OFF" POSITIONS SHALL BE USED ONLY FOR MAINTENANCE. AHU CONTROLLER TO SEND ALARM TO ECC WHEN UNIT IS IN "HAND" OR "OFF" POSITION OR FANS ARE OFF. WHEN THE UNIT IS "OFF" D-1 & D-3 SHALL BE FULLY CLOSED. WHEN THE UNIT IS "ON" D-1, SD-1, & SD-2 SHALL BE FULLY OPEN. D-2, D-3, AND D-4 SHALL MODULATE IN ACCORDANCE WITH THE FOLLOWING SEQUENCE:

2. TEMPERATURE CONTROL

A. SUPPLY AIR TEMPERATURE SENSED BY TT-1 SHALL BE MAINTAINED AT SETPOINT VIA DIGITAL CONTROL PANEL BY MODULATING V-1 OR D-2 & D-3 OR V-2 IN SEQUENCE.

B. WHEN THE TEMPERATURE OF THE OUTSIDE AIR, SENSED BY TT-2, IS ABOVE 75°F (ADJ), THE DIGITAL CONTROL PANEL SHALL PREVENT THE MODULATION OF D-2 & D-3, AND SHALL ASSUME THE MINIMUM OUTSIDE AIR POSITION (D-2 FULLY OPENED) AND D-3 SHALL MODULATE THE RELIEF AIR TO MAINTAIN SPACE PRESSURIZATION. THE DIGITAL CONTROL PANEL SHALL MODULATE V-1 TO MAINTAIN THE SUPPLY AIR TEMPERATURE SENSED BY TT-1.

C. WHEN THE TEMPERATURE OF THE OUTSIDE AIR SENSED BY TT-2 IS BETWEEN 65°F AND THE SUPPLY AIR TEMPERATURE SENSED BY TT-1, DAMPER D-2 SHALL FULLY CLOSE & D1 & D3 SHALL BE FULLY OPEN (MAXIMUM OUTSIDE AIR POSITION). THE DIGITAL CONTROL PANEL SHALL MODULATE V-1 TO MAINTAIN THE SUPPLY AIR TEMPERATURE SENSED BY TT-1.

D. WHEN THE TEMPERATURE OF THE OUTSIDE AIR SENSED BY TT-2 IS BELOW THE SUPPLY AIR TEMPERATURE SENSED BY TT-1, DAMPERS D1, D-2, & D-3 SHALL MODULATE TO MAINTAIN THE SCHEDULED SUPPLY AIR TEMPERATURE. IF D-2 IS OPEN AND D-3 IS SET TO MAINTAIN SPACE PRESSURIZATION FOR MINIMUM OUTSIDE AIR, V-2 SHALL MODULATE OPEN TO MAINTAIN THE SUPPLY AIR TEMPERATURE SENSED BY TT-1.

3. AIRFLOW CONTROL

A. THE SUPPLY AIR FLOW SHALL BE CONTROLLED BY THE DIGITAL CONTROL PANEL MODULATING THE SUPPLY FAN VARIABLE SPEED MOTOR CONTROLLER TO MAINTAIN 1.0" OF DUCT STATIC RESSURE (FIELD ADJUSTABLE), SENSED BY SPS-1. RESET STATIC PRESSURE BASED ON ACTUAL BUILDING LOAD BY POLLING ALL AIR TERMINAL UNITS.

B. THE DIGITAL CONTROL PANEL, USING TOTAL SUPPLY AIR FLOW, RETURN AIR FLOW, OUTSIDE AIR FLOW, AND EXHAUST AIR FLOW SIGNALS, SHALL RESET THE RETURN AIR FAN VSMC TO MAINTAIN AN AIR FLOW AS DIFFERENCE BETWEEN THE SUPPLY AIR AND THE RETURN AIR EQUAL TO MINIMUM OUTSIDE AIR.THIS SEQUENCE IS DURING MINIMUM OUTSIDE AIR OPERATION.

C. ECONOMIZER MODE: A COMPARATIVE TEMPERATURE BASED ECONOMIZER STRATEGY SHALL BE UTILIZED.

D. USING HIGH PRESSURE SENSOR SPS-2 LOCATED AT THE SUPPLY FAN DISCHARGE, SHALL PREVENT THE SUPPLY FAN FROM DEVELOPING OVER 3" OF STATIC PRESSURE (FIELD ADJUSTABLE). IF STATIC PRESSURE AT SPS-2 DOES EXCEED 3" THE SUPPLY AIR FAN SHALL STOP. SPS-2 SHALL BE HARDWIRED TO THE SUPPLY FAN VSMC & UNIT SHALL BE SHUTDOWN IN HAND, AUTO OR BYPASS MODE. SPS-2 WILL REQUIRE MANUAL RESET AT THE DEVICE.

4. FREEZE PROTECTION

A. IF THE AIR TEMPERATURE AS SENSED BY TT-3 FALLS BELOW 45°F, AN ALARM SIGNAL SHALL INDICATE AT THE DCP AND ECC. IF THIS TEMPERATURE FALLS BELOW 40°F, AS SENSED BY THE TSL THE SUPPLY AND RETURN FANS SHALL SHUT DOWN AND A CRITICAL ALARM SHALL INDICATE AT THE DIGITAL CONTROL PANEL AND ECC. TSL SHALL BE HARDWIRED TO THE SUPPLY FAN UFD AND UNIT BE SHUTDOWN IN HAND, AUTO OR BYPASS MODE. TSL WILL REQUIRE MANUAL RESET AT THE DEVICE.

5. AUTOMATIC SHUTDOWN/RESTART

A. WHEN SMOKE IS DETECTED BY DUCT SMOKE DETECTOR (SD), THE SUPPLY AND RETURN FANS SHALL SHUT "OFF" AND AN ALARM SIGNAL SHALL BE TRANSMITTED TO THE FIRE ALARM SYSTEM. ALL SMOKE DAMPERS IN THE SUPPLY AND RETURN DUCTS SHALL CLOSE.

B. EXHAUST FANS SERVING AREA OF THE SUPPLY FAN SHALL CONTINUE TO RUN. SUPPLY AND RETURN FANS SHALL RESTART AND SMOKE DAMPERS SHALL OPEN WHEN FIRE ALARM CIRCUIT IS RESET.

6. EMERGENCY CONSTANT SPEED OPERATION

A. UPON FAILURE OF THE VSMC, THE SUPPLY AND RETURN FANS SHALL BE STARTED/STOPPED MANUALLY AT THE DIGITAL CONTROL PANEL OR THE ECC THROUGH THE BY-PASS STARTER. FANS SHALL THEN BE OPERATED AT CONSTANT SPEED.

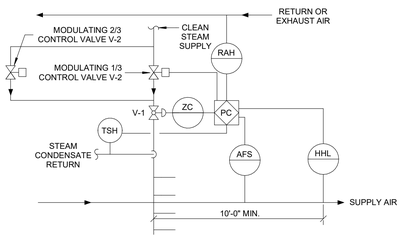
6. FAN ARRAY REDUNDANCY

A. EACH FAN IN SUPPLY AND RETURN FAN ARRAY TO BE ABLE TO RUN AT 75% OF TOTAL AIRFLOW IN CASE ANY FAN IS NOT OPERATIONAL.

3 AHU SEQUENCE OF OPERATION

Scale: No Scale

KEY NOTES:



STEAM HUMIDIFIERS:

1. RETURN (OR EXHAUST) AIR HUMIDITY SHALL BE MONITORED. ON A CALL FOR HUMIDIFICATION, HUMIDIFIER VALVE V-1 SHALL MODULATE TO MAINTAIN THE RETURN (OR EXHAUST) AIR HUMIDITY SET POINT TO 30% (ADJUSTABLE). PRIOR TO ACTIVATION OF V-1, THE ON/OFF CONTROL VALVE V-2 SHALL BE ENABLED THROUGH ECC AND JACKET TEMPERATURE SENSED BY TSH SHALL BE WARM ENOUGH TO PREVENT CONDENSATION.
2. THE HIGH LIMIT HUMIDITY SENSOR, LOCATED IN THE SUPPLY AIR DUCT 10 FEET AWAY FROM THE HUMIDIFIER SHALL DISABLE THE HUMIDIFIER AND GIVE AN ALARM SIGNAL TO THE ECC, IF THE SUPPLY AIR HUMIDITY EXCEEDS 90% RH (ADJUSTABLE). THE AIRFLOW SWITCH SHALL PROVE AIRFLOW BEFORE HUMIDITY CONTROLS ARE ACTIVATED.

8 STEAM HUMIDIFIER CONTROLS

Scale: No Scale

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER — 0040255 — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511

www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL CONTROLS

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Approved

Date: OCTOBER 13, 2023 | Checked: RBK | Drawn: AKS

Drawing Number: M-504

Dwg 10 of 11

C:\Users\mmeier\Documents\M_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_mmeierT3X60V.rvt
10/12/2023 10:07:42 AM
VA FORM 08-6231

DocuSign Envelope ID: 065033E6-CD82-4283-BAD4-EC61FA9A166D

AIR DEVICE SCHEDULE (RETURN)

Type Mark	TYPE	AIR FLOW MAX.	AIR FLOW MIN.	MAX. APD	MOUNTING	PANEL/FRAME SIZE	NECK SIZE	MAX NC	DAMPER	FINISH	MATERIAL	REMARKS
RG-21	EGG CRATE	100	75	0.09 in-wg	CEILING	24x24	6X6	16	No	WHITE	STEEL	1
RG-22	EGG CRATE	200	101	0.09 in-wg	CEILING	24x24	8x8	19	No	WHITE	STEEL	1
RG-23	EGG CRATE	400	201	0.08 in-wg	CEILING	24x24	10X10	20	No	WHITE	STEEL	1
RG-24	EGG CRATE	520	300	0.08 in-wg	CEILING	24x24	12X12	23	No	WHITE	STEEL	1

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

AIR DEVICE SCHEDULE (SUPPLY)

MARK	TYPE	AIR FLOW MAX.	AIR FLOW MIN.	MAX. APD	MOUNTING	PANEL/FRAME SIZE	NECK SIZE	MAX NC	DAMPER	FINISH	MATERIAL	REMARKS
SD-11	LOUVERED FACE	100	80	0.08 in-wg	CEILING	24x24	6"Ø	21	No	WHITE	STEEL	1
SD-12	LOUVERED FACE	210	100	0.08 in-wg	CEILING	24x24	8"Ø	20	No	WHITE	STEEL	1
SD-13	LOUVERED FACE	400	200	0.09 in-wg	CEILING	24x24	10"Ø	22	No	WHITE	STEEL	1

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

AIR DEVICE SCHEDULE (EXHAUST)

DIFFUSER MARK	TYPE	AIRFLOW MAX.	AIRFLOW MIN.	MAX. APD	MOUNTING	PANEL/FRAME SIZE	NECK SIZE	MAX NC	DAMPER	FINISH	MATERIAL	REMARKS
EG-7	EGG CRATE	100	75	0.09 in-wg	CEILING	12x12	6x6	16	No	WHITE	STEEL	1

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

AIR HANDLING UNIT SCHEDULE

MARK	LOCATION	BUILDING/AREA SERVED	TYPE	AIRFLOW SUPPLY	AIRFLOW MIN OA	AIRFLOW RETURN	SUPPLY FAN MARK	RETURN FAN MARK	PREFILTER MARK	FINAL FILTER MARK	PREHEAT COIL MARK	COOLING COIL MARK	HUMIDIFIER MARK	ELECTRICAL VOLT	ELECTRICAL PHASE	ELECTRICAL FREQUENCY	WEIGHT	REMARKS
650-AHU-20	ROOF	650/ PHARMACY	OUTDOOR	4900 CFM	1285 CFM	3615 CFM	SF-20-1	RF-20-1	PF-20-1, AF-20-1	FF-20-1	HC-20-1	CC-20-1	650-HUM-20	460 V	3	60 Hz	5900 LBS	1,2,3,4,5,6,7,8

NOTES:
1. PERFORMANCE IS AT SITE ELEVATION.
2. BASIS OF DESIGN IS TRANE PERFORMANCE CLIMATE CHANGE AIR HANDLER.
3. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. AHU TO HAVE SEISMIC CERTIFICATION.
4. PROVIDE SLEEVED UV-C LIGHTS DOWNSTREAM OF COOLING COIL WITH VIEWING WINDOW AND DOOR INTERLOCK SWITCH.
5. BALANCE AIRFLOWS PER THE FLOOR PLANS. SCHEDULED AIRFLOWS ARE NOMINAL FOR SIZING EQUIPMENT.
6. PROVIDE MTDX COOLING COIL SECTION WITHOUT COOLING COIL. AHU TO HAVE PROVISION FOR FUTURE CONNECTIONS TO DX COOLING COIL.
7. PROVIDE 6" INTEGRAL BASE FRAME FOR AIR HANDLING UNIT.
8. CONTRACTOR TO PROVIDE AIR HANDLING UNIT WITHIN THE MAXIMUM DIMENSIONS LISTED TO MAINTAIN CLEARANCES. MAX. LENGTH: 400 IN; MAX. WIDTH: 68 IN; MAX HEIGTH: 48 IN.

AIR FILTER SCHEDULE

MARK	LOCATION	SYSTEM AND/OR SERVICE	MERV RATING	APD INITIAL	APD CHANGEOVER	HOUSING TYPE	# - CARTRIDGES	CARTRIDGES SIZE	CARTRIDGES ARRANGEMENT	REMARKS
PF-20-1	ROOF	650-AHU-20	8	0.31 in-wg	1.00 in-wg	SIDE LOAD	PER AHU MANUF.	2" THICK	PER AHU MANUF.	1
AF-20-1	ROOF	650-AHU-20	11	0.34 in-wg	1.00 in-wg	SIDE LOAD	PER AHU MANUF.	4" THICK	PER AHU MANUF.	1
FF-20-1	ROOF	650-AHU-20	HEPA	1.00 in-wg	1.66 in-wg	FRONT LOAD	2	PER AHU. MANUF.	PER AHU MANUF.	1

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

HOT WATER HEATING COIL SCHEDULE

MARK	LOCATION	SYSTEM AIR HANDLING	AIRFLOW (CFM)	MAX FACE VELOCITY	APD	EAT	LAT	CAPACITY (BTU/H)	WATER FLOW	WATER EWT	WATER LWT	WATER WPD (FT HD)	REMARKS
HC-20-1	ROOF	650-AHU-20	4900	436 FPM	0.05 in-wg	50 °F	80 °F	158,132	15.79 GPM	180 °F	160 °F	0.81	1,2

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE HEAT TRACING FOR EXPOSED PIPING. REFER TO SPECIFICATIONS FOR DETAILS.

CHILLED WATER COOLING COIL SCHEDULE

MARK	LOCATION	SYSTEM AIR HANDLING	AIRFLOW	MAX FACE VELOCITY	APD	EAT DB	EAT WB	LAT DB	LAT WB	CAPACITY TOTAL (BTU/H)	CAPACITY SENSIBLE (BTU/H)	CHILLED WATER FLOW RATE	COOLING COIL ROWS	CHILLED WATER EWT	CHILLED WATER LWT	REMARKS
CC-20-1	ROOF	650-AHU-20	4900 CFM	405 FPM	0.53 in-wg	86.50 °F	66 °F	52 °F	51.63 °F	211,867	188,941	41.5 GPM	6	45 °F	55 °F	1,2

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE HEAT TRACING FOR EXPOSED PIPING. REFER TO SPECIFICATIONS FOR DETAILS.

KEY NOTES:

FAN SCHEDULE

MARK	LOCATION	SYSTEM AND/OR SERVICE	AIR FLOW CFM	ESP IN WG	TSP IN WG	FAN TYPE	FAN ARRANGEMENT ROWS X COLUMNS	FAN DIAMETER IN	FAN DRIVE	FAN RPM	FAN MIN. EFF. (%)	MOTOR ELECTRICAL NOMINAL POWER (TOTAL) BHP	MOTOR HP	MOTOR PHASE	MOTOR VOLT	MOTOR Hz	MOTOR RPM	MOTOR FLA	MOTOR MCA	MOTOR SPEED CONTROL	CONTROL SEQUENCE	REMARKS
SF-20-1	ROOF	650-AHU-20	4900	2.1	7.4	FAN ARRAY	1 X 2	13.5	DIRECT	3938	68%	8.6	10	3	460	60	3600	17.05	19.10	VARIABLE	VFD	1,2,3,4,5,6
RF-20-1	ROOF	650-AHU-20	4900	1	1.95	FAN ARRAY	1 X 2	15	DIRECT	2064	61%	2.46	3	3	460	60	1800	6.8	7.65	VARIABLE	VFD	1,2,3,4,5,6
EF-20-1	ROOF	TOILET EXHAUST	80	0.2	0.2	DOWNBLAST CENTRIFUGAL	1	6	DIRECT	1284	30%	0.01	1/15	1	115	60	1284	1.3	-	CONSTANT	MANUAL	1,4,6,7,8

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE VARIABLE SPEED SUPPLY FAN WITH VFD MOUNTED IN ELECTRICAL PANEL ON AHU. COORDINATE WITH ELECTRICAL CONTRACTOR FOR DISCONNECT. PROVIDE WEATHERPROOF OUTDOOR RATED ENCLOSURE FOR VFD. COORDINATE WITH AHU MANUFACTURER.
3. PROVIDE MOTOR OVERLOAD PANEL AND SHAFT GROUNDING RINGS FOR PLENUM DIRECT DRIVE FANS.
4. PROVIDE CONTROLLERS TO INTEGRATE INTO THE CAMPUS BUILDING AUTOMATION SYSTEM.
5. EACH FAN OF FAN ARRAY TO HAVE 75% OR MORE REDUNDANCY OF TOTAL AIRFLOW , IN CASE ANY SINGLE FAN IS NOT OPERATIONAL.
6. PROVIDE PREMIUM EFFICIENCY FAN MOTOR.
7. PROVIDE BACKDRAFT DAMPERS FOR EXHAUST AIR FAN.
8. PROVIDE ROOF CURB FOR ROOF MOUNTED FAN. COORDINATE WITH ELECTRICAL CONTRACTOR FOR DISCONNECT.

ELECTRIC STEAM HUMIDIFIER SCHEDULE

MARK	LOCATION	SYSTEM AIR HANDLING	SOURCE	STEAM FLOW (LBS/HR)	KW	VOLT	PHASE	MCA	MOCP	REMARKS
650-HUM-20	ROOF	650-AHU-20	ELECTRODE CANNISTER	75	29	208	3	79.4	100	1,2,3,4,5,6

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. BASIS OF DESIGN IS CONDAIR EL SERIES.
3. BASIS OF DESIGN FOR STEAM DISPERSION PANELS IN AHU IS DRISTEEM ULTRA-SORB MODEL LH.
4. PROVIDE FREEZE PROTECTION CAPABILITIES FOR HUMIDIFIER.
5. INTEGRATE HUMIDIFIER CONTROLS WITH EXISTING JCI CONTROL SYSTEMS AND NEW AHU CONTROLLER.
6. PROVIDE CONTROL POINTS CONNECTED TO EXISTING BMS FOR STATUS OF HUMIDIFIER, STEAM OUTPUT FROM HUMIDIFIER, AND DRAIN WATER TEMPERATURE. REFER TO SPECIFICATIONS FOR MORE DETAILS ON CONTROLS TO BE INTEGRATED.

SINGLE DUCT AIR TERMINAL UNIT SCHEDULE

MARK	SYSTEM AIR HANDLING	SIZE	AIR FLOW MAX CFM	AIR FLOW MIN CFM	AIR FLOW REHEAT CFM	CONTROL TYPE	CONTROL SEQUENCE	REHEAT HW	MAX APD in W.C.	HOT WATER REHEAT COIL EAT, °F	EWT, °F	LWT, °F	GPM	MBH	MAX WPD, FT. H2O	REMARKS
650-VAV-1-PHAR	650-AHU-20	8"	400	150	250	VAV	5 DEGREE DEADBAND	1 ROW	0.3	55	180	160	1.00	10.85	5.00	1, 2
650-VAV-2-PHAR	650-AHU-20	10"	1240	300	700	VAV	5 DEGREE DEADBAND	1 ROW	0.3	55	180	160	3.00	30.38	5.00	1, 2
650-VAV-3-PHAR	650-AHU-20	5"	205	100	140	VAV	5 DEGREE DEADBAND	1 ROW	0.3	55	180	160	0.50	6.08	5.00	1, 2
650-VAV-4-PHAR	650-AHU-20	6"	300	125	200	VAV	5 DEGREE DEADBAND	1 ROW	0.3	55	180	160	0.75	8.68	5.00	1, 2
650-VAV-5-PHAR	650-AHU-20	14"	1730	600	900	VAV	5 DEGREE DEADBAND	2 ROW	0.3	55	180	160	4.00	39.06	5.00	1, 2
650-VAV-6-PHAR	650-AHU-20	8"	800	220	450	VAV	5 DEGREE DEADBAND	1 ROW	0.3	55	180	160	2.00	19.53	5.00	1, 2
650-VAV-22-PHAR	650-AHU-20	12"	1500	500	750	VAV	5 DEGREE DEADBAND	1 ROW	0.3	55	180	160	3.25	32.55	5.00	1, 2
650-VAV-7-PHAR	650-AHU-20	14"	2730	800	-	VAV	5 DEGREE DEADBAND	-	0.3	75	-	-	-	-	-	1, 2
650-VAV-8-PHAR	650-AHU-20	8"	400	150	-	VAV	5 DEGREE DEADBAND	-	0.3	75	-	-	-	-	-	1, 2
650-VAV-9-PHAR	650-AHU-20	5"	170	100	-	VAV	5 DEGREE DEADBAND	-	0.3	75	-	-	-	-	-	1, 2
650-VAV-10-PHAR	650-AHU-20	6"	300	125	-	VAV	5 DEGREE DEADBAND	-	0.3	75	-	-	-	-	-	1, 2
650-VAV-11-PHAR	650-AHU-20	8"	800	220	-	VAV	5 DEGREE DEADBAND	-	0.3	75	-	-	-	-	-	1, 2

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE WITH 120V-24V TRANSFORMER.

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER RAJESH B. KAUL 0040250 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL SCHEDULES

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER, CA 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved

Date: OCTOBER 13, 2023 | Checked: RBK | Drawn: AKS

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Drawing Number M-601

Dwg 11 of 11

10/12/2023 10:07:46 AM C:\Users\rmeier\Documents\M_VA Mather-Outpatient Pharmacy and HVAC-CA - 19-103_rmeierT5X80V.rvt

DocuSign Envelope ID: 5730FB0C-7BF2-46FB-B0D7-D90415739 2E9

ELECTRICAL ABBREVIATIONS LIST

1P	1 POLE (2P, 3P, 4P, ETC.)
1PH	1 PHASE
2/C	TWO-CONDUCTOR (3/C, 4/C, ETC.)
W2	TWO-WIRE (3W, 4W, ETC.)
3PH	3 PHASE
A	AMPERE
AAP	ALARM ANNUNCIATOR PANEL
AC	ABOVE COUNTER AIR CONDITIONER ALTERNATING CURRENT
ACC	ACCESSIBLE
ACLG	ABOVE CEILING
ADO	AUTOMATIC DOOR OPENER
A/E	ARCHITECT/ENGINEER
AF	AMP FRAME
AFC	AVAILABLE FAULT CURRENT (KILOAMPS)
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFI	ARC FAULT CIRCUIT INTERRUPTER
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CAPACITY
AL	ALUMINUM
ALT	ALTERNATE
AMP	AMPERE
APPROX	APPROXIMATELY
ARCH	ARCHITECT, ARCHITECTURAL
AT	AMP TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILARY
AV	AUDIO VISUAL
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BATT	BATTERY
BC	BARE COPPER
BD	BOARD
BFF	BELOW FINISHED FLOOR
BLDG	BUILDING
BMS	BUILDING MANAGEMENT SYSTEM
BYP	BYPASS
C	CONDUIT
CAB	CABINET
CALC	CALCULATED
CAP	CAPACITY
CAT	CATALOG, CATEGORY
CATV	COMMUNITY ANTENNA TELEVISION
CB	CIRCUIT BREAKER
CCR	CONTROL CONTACTOR
CCTV	CLOSED CIRCUIT TELEVISION
cd	CANDELA
CD	CONSTRUCTION DOCUMENTS
CF	CONTRACTOR-FURNISHED
CKT	CIRCUIT
CLG	CEILING
CO	CONTRACTING OFFICER
COAX	COAXIAL CABLE
COMM	COMMUNICATION
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUATION OR CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
COR	CONTRACTING OFFICER'S REPRESENTATIVE
CPT	CONTROL POWER TRANSFORMER
CRI	COLOR RENDERING INDEX
CT	CURRENT TRANSFORMER
CTV	CABLE TELEVISION
CTR	CENTER
CU	COPPER
CU FT	CUBIC FEET
dB	DECIBEL
DB	DIRECT BURIAL
DC	DIRECT CURRENT
DEG C	DEGREES CELSIUS
DEG F	DEGREES FAHRENHEIT
DEMO	DEMOLISH/DEMOLITION
DEPT	DEPARTMENT
DIA	DIAMETER
DISC	DISCONNECT
DIST	DISTRIBUTION
DN	DOWN
DS	SAFETY DISCONNECT SWITCH
DT	DOUBLE THROW
DWG	DRAWING
EC	ELECTRICAL CONTRACTOR
EG	EQUIPMENT GROUND
ELEC	ELECTRIC, ELECTRICAL
ELEV	ELEVATOR
EM	EMERGENCY
EMI	ELECTROMAGNETIC INTERFERENCE
EMS	ENERGY MANAGEMENT SYSTEM
EMT	ELECTRICAL METALLIC TUBING
EPO	EMERGENCY POWER OFF
EQUIP	EQUIPMENT
ESMT	EASEMENT
ETR	EXISTING TO REMAIN
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WALL HEATER ELECTRIC WATER HEATER
EX	EXISTING
EXP	EXPLOSION PROOF
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FC	FOOTCANDLE
FCU	FAN COIL UNIT
FIXT	FIXTURE
FLR	FLOOR
FLUOR	FLUORESCENT
FU	FUSE
FUDS	FUSED SAFETY DISCONNECT SWITCH
FVR	FULL VOLTAGE REVERSING
FVNR	FULL VOLTAGE NON-REVERSING
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
GRS	GALVANIZED RIGID STEEL (CONDUIT)
GYP BD	GYPSUM BOARD
HID	HIGH-INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HT	HEIGHT
HTR	HEATER
HV	HIGH VOLTAGE
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
IES	ILLUMINATION ENGINEERING SOCIETY
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
IR	INFRARED
I/W	INTERLOCK WITH
IWH	INSTANTANEOUS WATER HEATER
J-BOX	JUNCTION BOX
KV	KILOVOLT
KVA	KILOVOLT-AMPERE
KVAR	KILOVOLT-AMPERE REACTIVE
KW	KILOWATT
KWH	KILOWATT HOUR
LED	LIGHT-EMITTING DIODE
LF	LINEAR FEET/FOOT
LM	LUMEN
LRA	LOCKED ROTOR AMPS
LT	LIGHT
LTG	LIGHTING
LTNG	LIGHTNING
LV	LOW VOLTAGE
MATV	MASTER ANTENNA TELEVISION SYSTEM
MAX	MAXIMUM
MC	MECHANICAL CONTRACTOR METAL-CLAD (CONDUIT)
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MFR	MANUFACTURER
MFS	MAIN FUSED DISCONNECT SWITCH
MH	MANHOLE
MIC	MICROPHONE
MIN	MINIMUM
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MN	MIDNIGHT
MOA	MULTIOUTLET ASSEMBLY
MSBD	MAIN SWITCHBOARD
MT	MOUNT
MTR	MOTOR, MOTORIZED
MTS	MANUAL TRANSFER SWITCH
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
NFDS	NON-FUSED SAFETY DISCONNECT SWITCH
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OL	OVERLOAD
PA	PUBLIC ADDRESS
PB	PULL BOX OR PUSHBUTTON
PBPU	PREFABRICATED BEDSIDE PATIENT UNIT
PCB	POLYCHLORINATED BYPHENYL
PC	PHOTOELECTRIC CELL
PED	PEDESTAL
PEND	PENDANT
PF	POWER FACTOR
PH	PHASE
PIV	POST INDICATING VALVE
PNL	PANEL
POE	POWER-OVER-ETHERNET
PR	PAIR
PRI	PRIMARY
PROJ	PROJECTION
PRV	POWER ROOF VENTILATOR
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE (CONDUIT)
PWR	POWER
QTY	QUANTITY
RCP	REFLECTED CEILING PLAN
RCPT	RECEPTACLE
REQD	REQUIRED
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RMS	ROOT MEAN SQUARE
RTU	ROOF TOP UNIT
SC	SURFACE CONDUIT
SEC	SECONDARY
SF	SQUARE FEET/FOOT
SHT	SHEET
SI	INTERNATIONAL SYSTEM OF UNITS
SIM	SIMILAR
S/N	SOLID NEUTRAL
SPEC	SPECIFICATION
SPKR	SPEAKER
SP	SPARE
SR	SURFACE RACEWAY
SS	STAINLESS STEEL
SSW	SELECTOR SWITCH
STD	STANDARD
SURF	SURFACE MOUNTED
SW	SWITCH
SWBD	SWITCHBOARD
SYM	SYMMETRICAL
SYS	SYSTEM
TC	TIMECLOCK
TEL	TELEPHONE
TEL/DATA	TELEPHONE/DATA
TERM	TERMINAL
TP	TWISTED PAIR
TPS	TWISTED PAIR SHIELDED
TR	TAMPER RESISTANT
T-STAT	THERMOSTAT
TTB	TELEPHONE TERMINAL BOARD
TTC	TELEPHONE TERMINAL CABINET
TV	TELEVISION
TYP	TYPICAL
UC	UNDER COUNTER
UE	UNDERGROUND ELECTRICAL
UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITER'S LABORATORY
UT	UNDERGROUND TELEPHONE
UTP	UNSHIELDED TWISTED PAIR
UTIL	UTILITY
UV	UNIT VENTILATOR OR ULTRAVIOLET
V	VOLT
VA	VOLT-AMPERES
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
W	WATT
W/	WITH
WH	WATER HEATER
W/O	WITHOUT
WP	WEATHERPROOF
XFMR	TRANSFORMER
XFR	TRANSFER
∠	ANGLE
@	AT
Δ	DELTA
'	FEET
"	INCHES
#	NUMBER
Φ	PHASE
℄	CENTER LINE
℞	PLATE

GENERAL ELECTRICAL NOTES

1. ALL ELECTRICAL DEVICES, FIXTURES, EQUIPMENT AND FEEDERS SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDED PROCEDURES, ALL APPLICABLE LOCAL AND STATE CODES, AMERICANS WITH DISABILITIES ACT AND WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND VA STANDARDS.
2. OBTAIN AND PAY FOR PERMITS, FEES, AND INSPECTIONS REQUIRED FOR THIS WORK.
3. PROVIDE ADDITIONAL SUPPORT FOR DEVICES, FIXTURES, EQUIPMENT AND FEEDERS WHERE THE BUILDING CONSTRUCTION IS NOT SUITABLE FOR DIRECT MOUNTING.
4. FIRESTOP, DRAFTSTOP, SMOKESTOP AND/OR PROTECT THE ANNULAR SPACE AROUND ALL PENETRATIONS THROUGH WALLS, PARTITIONS, FLOORS, CEILING, AND ROOFS IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, UL LISTING REQUIREMENT AND THE APPLICABLE BUILDING CODES.
5. VERIFY CEILING SYSTEMS AND PROVIDE MOUNTING ACCESSORIES, TRIMS AND ALL REQUIRED MOUNTING HARDWARE TO SUIT THE PARTICULAR INSTALLATION.
6. PROTECT EXISTING UNDERGROUND AND BUILDING INTERIOR UTILITIES DURING CONSTRUCTION.
7. BRANCH CIRCUIT CONDUCTORS SHALL BE 12 AWG COPPER MINIMUM.
8. COORDINATE ANY AND ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION SO AS TO AVOID CONFLICT DURING CONSTRUCTION.
9. ALL PANELS SHALL HAVE TYPED, COMPLETED DIRECTORIES INDICATING EQUIPMENT SERVED AND ROOM NUMBER (AS INDICATED ON FINAL BUILDING ROOM SIGNAGE) OF EQUIPMENT LOCATION, OR SPARE, OR SPACE.
10. MANUFACTURER'S NAME AND MODEL NUMBER ARE GIVEN FOR DESCRIPTIVE PURPOSES, TO INDICATE A QUALITY STANDARD, AND ARE NOT INTENDED TO LIMIT PRODUCTS TO A PARTICULAR MANUFACTURER. PRODUCTS DEEMED EQUAL AND APPROVED BY THE DESIGNER WILL BE ACCEPTED. ALL PRODUCTS MUST COMPLY WITH "BUY AMERICAN ACT".
11. ALL FEEDERS AND CIRCUITRY SHALL BE TORQUED PER THE PANEL, BREAKER, AND/OR PARTICULAR EQUIPMENT MANUFACTURER'S SPECIFICATIONS.
12. CIRCUITRY TO SWITCHES, RECEPTACLES, AND ALL OTHER DEVICES SHALL BE TERMINATED ON THE DEVICE'S SCREW TERMINALS.
13. MOUNTING HEIGHTS INDICATED ARE TO CENTER OF DEVICE, OUTLET, FIXTURE, OR EQUIPMENT UNLESS NOTED OTHERWISE.
14. ALL WIRE TERMINATIONS SHALL BE RATED FOR 75 DEGREES C.
15. ALL CONDUCTORS SHALL HAVE THHN/THWN INSULATION, UNLESS OTHERWISE NOTED.
16. ALL CONDUIT SHALL BE RGS OR EMT UNLESS OTHERWISE NOTED. FMC CONDUIT SHALL BE USED ON VIBRATING EQUIPMENT (MAXIMUM LENGTH OF 6 FEET). PVC SHALL BE USED FOR UNDERGROUND CONDUIT OR WHERE CONCRETE-ENCASED. WHERE VIBRATING EQUIPMENT IS LOCATED OUTSIDE, LFMC CONDUIT SHALL BE USED (MAXIMUM SIX FEET) FOR FINAL CONNECTIONS.
17. ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES AND EQUIPMENT SHALL BE LABEL LISTED BY AN APPROVED THIRD PARTY TESTING AGENCY.
18. FOR ALL LED FIXTURES, THE FIXTURE MUST BE CAPABLE OF SELF-RESETTING TO THE SWITCHED/CONTROLLED STATE DURING ANY FLUCTUATION IN POWER SUPPLY WHERE AUTOMATIC PROTECTIVE MEASURES DISABLE THE LED LAMPS. PROVIDE A LETTER OR STATEMENT FROM THE MANUFACTURER, OR OTHER ACCEPTABLE PROOF, THAT ALL LED FIXTURES, WITH OR WITHOUT BROWNOUT PROTECTION, WILL RETURN TO THE SWITCHED/CONTROLLED STATE AUTOMATICALLY. PROVIDE STATEMENT WITH THE FIXTURE SUBMITTALS.
19. IN CASE OF CONFLICTS OR DISCREPANCIES WITHIN OR AMONG THE CONTRACT DRAWINGS, THE BETTER QUALITY, MORE STRINGENT REQUIREMENTS OR GREATER QUANTITY OF WORK , AS DETERMINED BY THE GOVERNMENT, SHALL BE PROVIDED.
20. COMPRESSION COUPLINGS SHALL BE USED. NO SET SCREW FITTINGS ARE ALLOWED.
21. MINIMUM CONDUIT SIZE TO BE USED IS 3/4".

SEISMIC DESIGN CRITERIA

LOCATION	MATHER, CA
RISK CATEGORY	II
MAPPED SHORT PERIOD SPECTRAL RESPONSE (S_s)	0.460
MAPPED 1-SECOND SPECTRAL RESPONSE (S_1)	0.225
SITE CLASSIFICATION	C
SITE COEFFICIENT (F_a)	1.432
SITE COEFFICIENT (F_v)	1.770
MAXIMUM SHORT PERIOD SPECTRAL RESPONSE (S_{MS})	0.599
MAXIMUM 1-SECOND SPECTRAL RESPONSE (S_{M1})	0.440
MAPPED SHORT PERIOD SPECTRAL RESPONSE (S_{DS})	0.399
MAPPED 1-SECOND SPECTRAL RESPONSE (S_{D1})	0.293
SEISMIC DESIGN CATEGORY	D
SEISMIC IMPORTANCE FACTOR	1
(FOR FINAL VALUES REFER STRUCTURAL DRAWINGS)	

NOTES:

ELECTRICAL GENERATORS, SWITCHGEAR, TRANSFER SWITCHES, UPS, TRANSFORMERS, MOTOR CONTROL CENTERS, PANELBOARDS, FIRE ALARM, CONTROL PANEL, BUSWAY, IT SERVERS, AND CONTROL PANELS MUST BE SEISMICALLY RATED PER THE FOLLOWING CRITERIA AND IN ACCORDANCE WITH ASCE 7.

ELECTRICAL SYMBOL NOTES

A1 b / NL — THE LIGHTING FIXTURE TYPE IS INDICATED BY AN UPPER CASE LETTER OR AN UPPER CASE LETTER AND NUMBER.
THE SWITCH DESIGNATION (IF NEEDED) IS INDICATED BY A LOWER CASE LETTER.
OTHER DESIGNATION(S) TO DETERMINE UNIQUE FIXTURE REQUIREMENTS AND USES.

EXAMPLE: LIGHTING FIXTURE TYPE 'A1' IS CONTROLLED BY SWITCH 'b', AND TO BE CIRCUITED AS A NIGHT LIGHT TO REMAIN ON 24/7 FOR SAFETY.

EXIT SIGNS: STEM INDICATES WALL MOUNTING. NO STEM INDICATES CEILING MOUNTING. SHADED AREA INDICATES ILLUMINATED FACE(S). ARROW INDICATES DIRECTIONAL ARROW ON ILLUMINATED FACE(S).

E1 — EXAMPLE 1: WALL MOUNTED EXIT SIGN TYPE 'E1' WITH SINGLE FACE AND DIRECTIONAL ARROW.

E2 — EXAMPLE 2: CEILING MOUNTED EXIT SIGN TYPE 'E2' WITH DOUBLE FACE AND DIRECTIONAL ARROWS.

DEVICES: THE SWITCH DESIGNATION IS INDICATED BY A LOWER CASE LETTER.

c — EXAMPLE: SPLIT DUPLEX RECEPTACLE; ONE RECEPTACLE OUTLET IS CONTROLLED BY SWITCH 'c'.

THE CONTROL DEVICE DESIGNATION IS INDICATED BY A LOWER CASE LETTER.

d — EXAMPLE: SINGLE POLE SWITCH 'd' TO CONTROL LIGHTING FIXTURES INDICATED BY 'd'.

TRANSFORMERS: THE TRANSFORMER TYPE IS INDICATED BY A NUMBER FOLLOWING THE UPPER CASE LETTER 'T'. SEE THE TRANSFORMER SCHEDULE OR THE SINGLE LINE DIAGRAM FOR THE TRANSFORMER DESCRIPTION AND REQUIREMENTS.

T1 — EXAMPLE: TRANSFORMER TYPE 'T1'.

'LPN' — PANELBOARDS: PANELBOARD DOORS MAY BE SHOWN TO INDICATE OPENING SIDE OF RECESSED PANELBOARDS. SEE PANELBOARD IDENTIFICATION FOR DESIGNATION CODES.

— SHEET KEY NOTE: SEE THE SHEET KEY NOTES ON THAT SHEET FOR THE NOTE NUMBER INDICATED IN THE HEXAGON.

— DEMOLITION KEY NOTE: SEE THE SHEET KEY NOTES ON THAT SHEET FOR THE NOTE NUMBER INDICATED IN THE SQUARE.

HOME RUN TO BRANCH CIRCUIT PANEL: THE PANEL DESIGNATION AND CIRCUIT DESIGNATION ARE SHOWN ADJACENT TO THE HOME RUN ARROW. CIRCUIT BREAKER SIZES (AMPS/NUMBER OF POLES) ARE SHOWN IN THE PANEL SCHEDULE WITH THE CORRESPONDING PANEL AND CIRCUIT DESIGNATION.

'LPN'-1,3,5 — EXAMPLE: HOME RUN TO PANELBOARD 'LPN'; CIRCUITS 1, 3, 5.

SYMBOL NOTATIONS: UPPER CASE LETTERS ADJACENT TO SYMBOLS INDICATE A UNIT TYPE. SEE APPROPRIATE SCHEDULE OR SPECIFICATIONS.

LIGHTING SYMBOL LEGEND

SYMBOL	HEIGHT AFF *	DESCRIPTION
	---	2' X 2' RECESSED DIRECT/INDIRECT TROFFER
	---	2' X 4' RECESSED DIRECT/INDIRECT TROFFER
	---	2' X 4' RECESSED FLAT PRISMATIC LENS TROFFER
	7'-0" CENTER	2' LINEAR - WALL MOUNTED
	7'-0" CENTER	4' LINEAR - WALL MOUNTED
	---	6" DIAMETER RECESSED DOWNLIGHT
	7'-5" BOTTOM	EXIT SIGN - WALL MOUNTED
	---	EXIT SIGN - CEILING MOUNTED
	7'-6" CENTER	EMERGENCY LIGHT BATTERY OPERATED - WALL MOUNTED
	6'-0" CENTER	WALL SCONCE
$	48" CENTER	SINGLE POLE WALL SWITCH
		SWITCH MODIFIERS: OS: OCCUPANCY SENSOR, DUAL TECHNOLOGY VS: VACANCY SENSOR, DUAL TECHNOLOGY LV: LOW VOLTAGE LVD: LOW VOLTAGE DIMMER D: LINE VOLTAGE DIMMER VSD: VACANCY SENSOR DIMMER, DUAL TECHNOLOGY, LINE VOLTAGE T: DIGITAL TIMER K: KEYED 3: 3 WAY
OS	---	OCCUPANCY SENSOR, DUAL TECHNOLOGY - CEILING MOUNTED
OS	---	OCCUPANCY SENSOR, DUAL TECHNOLOGY - WALL/CORNER MOUNTED
RC	---	LOW VOLTAGE LIGHTING CONTROL DEVICE
RCD	---	LOW VOLTAGE LIGHTING CONTROL DEVICE WITH 0-10V DIMMING
LS	---	LIGHT LEVEL SENSOR, SINGLE ZONE DIMMING CLOSED LOOP - CEILING MOUNTED

* - ANY HEIGHTS INDICATED IN PLANS SHALL SUPERCEDE THOSE LISTED HERE.

ELECTRICAL SYMBOL LEGEND

SYMBOL	HEIGHT	DESCRIPTION
	18"	120V DUPLEX RECEPTACLE
	18"	120V DUPLEX RECEPTACLE EMERGENCY OUTLET AND COVER PLATE SHALL BE RED IN COLOR
	18"	120V QUADRUPLEX RECEPTACLE
	18"	120V QUADRUPLEX RECEPTACLE EMERGENCY OUTLET AND COVER PLATE SHALL BE RED IN COLOR
	18"	208V DUPLEX RECEPTACLE
	18"	SPECIAL RECEPTACLE
		120V DUPLEX RECEPTACLE FLOOR BOX
		120V DUPLEX RECEPTACLE EMERGENCY FLOOR BOX OUTLET AND COVER PLATE SHALL BE RED IN COLOR
		120V QUADUPLEX RECEPTACLE FLOOR BOX
		120V QUADUPLEX RECEPTACLE EMERGENCY FLOOR BOX OUTLET AND COVER PLATE SHALL BE RED IN COLOR
		RECEPTACLE MODIFIERS: AC: 3" ABOVE COUNTERTOP/BACKSPLASH GFI: GROUND FAULT CURRENT INTERRUPTER WP: WEATHERPROOF ENCLOSURE DED: DEDICATED CIRCUIT
	AS NOTED	JUNCTION BOX, WALL MOUNTED, PURPOSE AS NOTED
CLNG		JUNCTION BOX, CEILING MOUNTED, PURPOSE AS NOTED
		JUNCTION BOX, FLOOR MOUNTED, PURPOSE AS NOTED
	AS NOTED	EQUIPMENT CONNECTION
	72" TOP	DISCONNECT SWITCH NON-FUSED
	72" TOP	DISCONNECT SWITCH FUSED
$	48"	SINGLE POLE WALL SWITCH: 48" AFF STANDARD UNO
		SWITCH MODIFIERS: M: MOTOR-RATED

ALL HEIGHTS ARE TO CENTER OF DEVICE UNLESS NOTED OTHERWISE.
TOP: HEIGHT TO TOP OF DEVICE
ANY HEIGHTS INDICATED IN PLANS SHALL SUPERCEDE THOSE LISTED HERE.

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER — JAY VANDERLAAN — 0051332 — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL GENERAL NOTES, SYMBOL LEGENDS, AND ABBREVIATIONS

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER,CA, 95655

Approved: Project Director

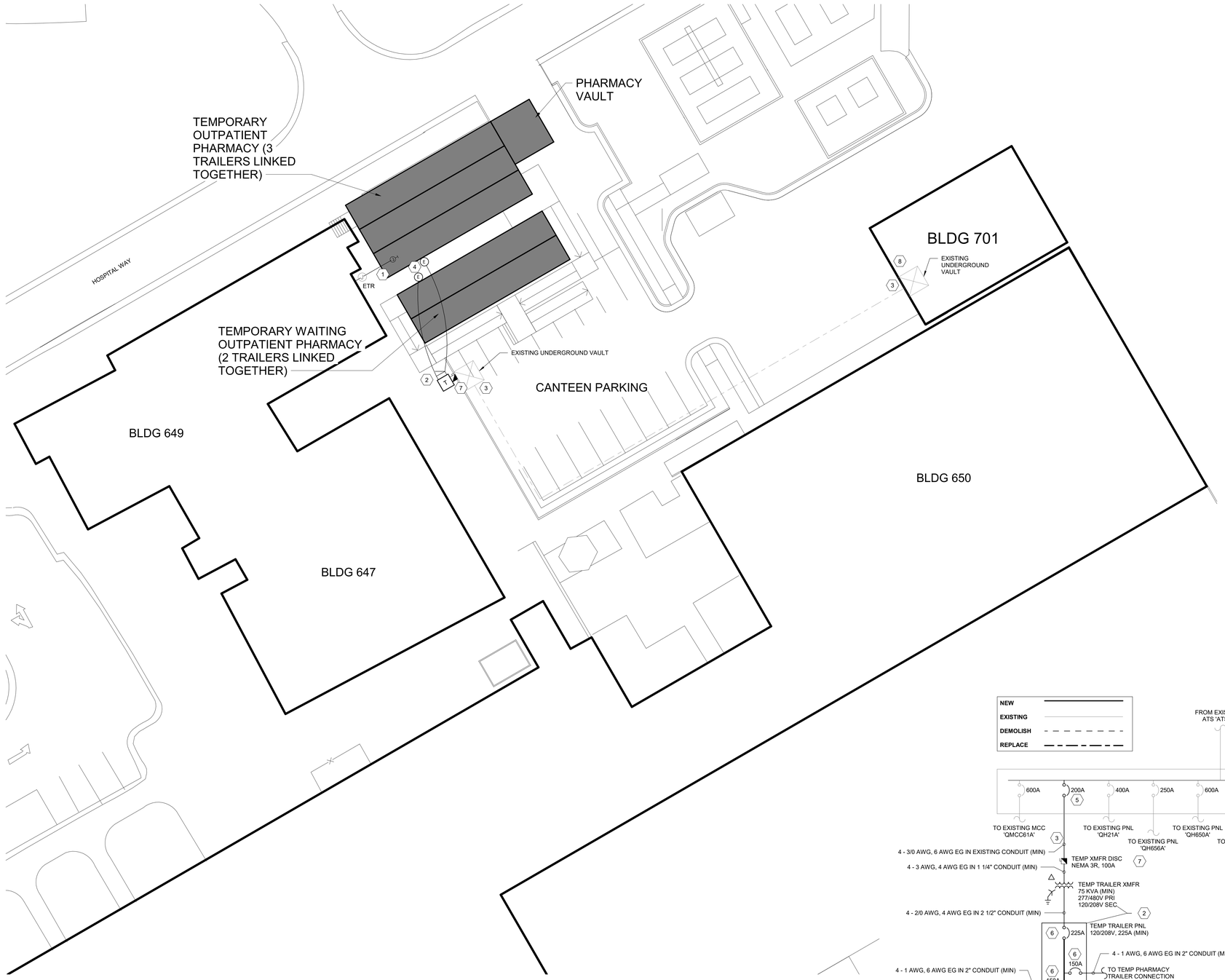
Date: OCTOBER 13, 2023 | Checked: JAV | Drawn: EFJ

Drawing Number E-001

Dwg 1 of 12

10/11/2023 4:04:13 PM

DocuSign Envelope ID: 5730FB0C-7BF2-46FB-B0D7-D904157392E9

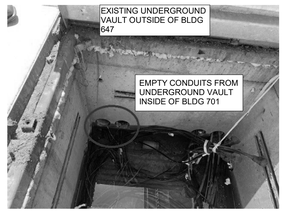


1 ELECTRICAL SITE PLAN

Scale: 1/16" = 1'-0"

0 8 16 32

NORTH

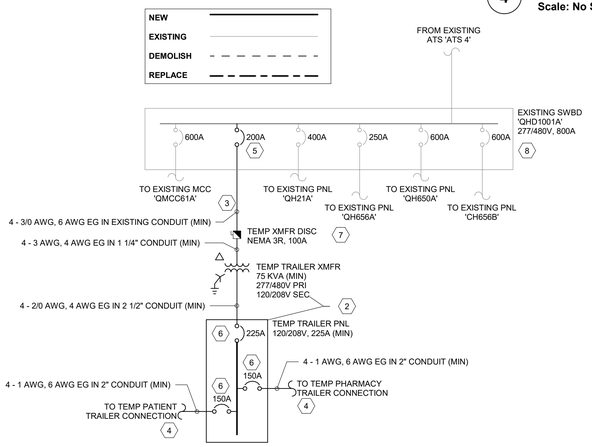


3 EXISTING UNDERGROUND VAULT PHOTOS

Scale: No Scale

4 EXISTING SWBD 'QHD1001A'

Scale: No Scale



2 TEMPORARY TRAILER ONE-LINE DIAGRAM

Scale: No Scale

SHEET NOTES:

A. SCHEDULED SHUTDOWNS FOR DEVICE INSTALLATION TO BE APPROVED BY COR.

B. ELECTRICAL CONTRACTOR SHALL FOLLOW SITE LOCK-OUT/TAG-OUT GUIDELINES TO DE-ENERGIZE EQUIPMENT.

C. PROVIDE AND INSTALL ALL DEVICES SHOWN ON THIS PLAN.

D. SEE PROJECT SPECIFICATIONS FOR SPECIFIC REQUIREMENTS PERTAINING TO THE INTERIOR ELECTRICAL AND TELECOMMUNICATION REQUIREMENTS FOR THE TEMPORARY TRAILERS.

KEY NOTES:

1 PROVIDE WALL MOUNTED JUNCTION BOX AT NEW PHARMACY TRAILER FOR INCOMING FIBER. DIRECTIONALLY BORE TEMPORARY SUBSURFACE 1-1/2" CONDUIT FROM NEW J-BOX TO EXISTING EXTERIOR COMMUNICATION J-BOX. RUN 6 PR FIBER TO EXITING COMMUNICATION ROOM ON SECOND FLOOR IN BUILDING 47 TO NEW PHARMACY TRAILER. COORDINATE WITH FACILITY OIT FOR TIE-IN.

2 PROVIDE TEMPORARY PAD MOUNTED TRANSFORMER AND TEMPORARY PANELBOARD FOR NEW PHARMACY TRAILER. COORDINATE WITH COR AND CIVIL CONTRACTOR FOR FINAL LOCATION OF EQUIPMENT. SEE TEMPORARY TRAILER SINGLE LINE FOR MORE INFORMATION.

3 FIELD ROUTE TEMPORARY FEEDER IN EXISTING SUB-SURFACE CONDUIT THAT EXTENDS FROM EXISTING UNDERGROUND VAULT TO UNDERGROUND VAULT IN BUILDING 701. EXTEND FROM UNDERGROUND VAULT IN BUILDING 701 TO EXISTING SWBD 'QHD1001A'. SEE TEMPORARY TRAILER SINGLE LINE AND EXISTING UNDERGROUND VAULT PHOTOS FOR MORE INFORMATION.

4 PROVIDE EQUIPMENT CONNECTIONS TO TEMPORARY PHARMACY AND PATIENT TRAILER. SEE TEMPORARY TRAILER SINGLE LINE FOR MORE INFORMATION.

5 REPLACE EXISTING PLUG WITH 200A RATED TRIP PLUG AND PROVIDE NEW TEMPORARY FEEDER FROM EXISTING SPARE BREAKER.

6 PROVIDE AND INSTALL LSIG BREAKERS IN TEMP TRAILER PNL. SEE SPECIFIED RATING ON THE TEMPORARY TRAILER SINGLE LINE DIAGRAM.

7 PROVIDE AND INSTALL FUSES BASED ON TRANSFORMER SIZING. FOR MINIMUM REQUIRED 75 KVA TRANSFORMER, 100A FUSES TO PROTECT EQUIPMENT.

8 PROVIDE TEMPORARY FEEDER TIE-IN TO EXISTING SWBD 'QHD1001A' LOCATED IN BUILDING 701. FEEDER TIE-IN TO EXISTING INFASTRUCTURE TO BE SCHEULED WITH THE VA 1 MONTH IN ADVANCE AND PERFORMED OFF HOURS.

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER JON VAN DEVANDE 0051332 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL SITE PLAN

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER,CA, 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved: Project Director

Date: OCTOBER 13, 2023 | Checked: JAV | Drawn: EFJ

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

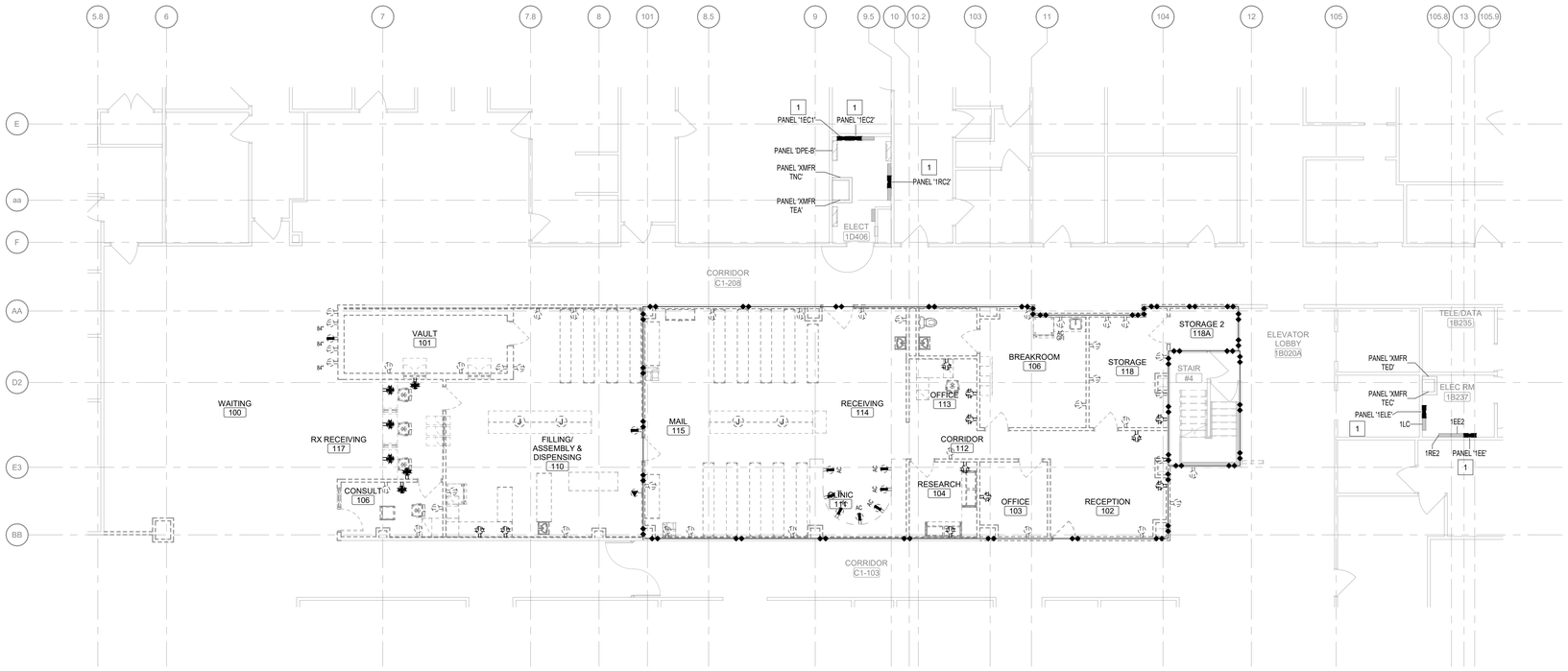
Drawing Number ES101

Dwg 2 of 12

DocuSign Envelope ID: 5730FB0C-7BF2-46FB-B0D7-D904157392E9

2 FIRST FLOOR LIGHTING DEMOLITION PLAN

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



1 FIRST FLOOR ELECTRICAL DEMOLITION PLAN

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

SHEET NOTES:

A. DEMOLISH ALL LIGHTING FIXTURES, LIGHTING CONTROL DEVICES AND WIRING DEVICES SHOWN, INCLUDING ASSOCIATED WIRING BACK TO PANEL SOURCE, UNO.

B. ELECTRICAL CONTRACTOR TO TRACE AND IDENTIFY EXISTING BRANCH CIRCUITS. BRANCH CIRCUITS SERVING AREAS OUTSIDE AREA OF WORK TO REMAIN ACTIVE DURING CONSTRUCTION. SEE PANEL SCHEDULES.

C. DEMOLISH WIRING DEVICES, INCLUDING ASSOCIATED WIRING SYSTEMS UP TO PANEL SOURCES, UNO. MARK ANY ABANDONED OVERCURRENT PROTECTION DEVICE AS "SPARE (UNUSED)".

D. DEMOLISH ELECTRICAL CIRCUITS, REMOVE BOXES, CONDUIT AND CONDUCTORS BACK TO SOURCE, INCLUDING THOSE CONCEALED WITHIN WALLS, LEAVING NO ABANDONED ITEMS, UNO.

E. PATCH/REPAIR WHERE CONDUIT IS REMOVED FROM AN EXISTING RATED ASSEMBLY, NOT SUBJECT TO DEMOLITION. WALL ASSEMBLY TO MAINTAIN REQUIRED WALL RATING. SEE NEW WORK PLANS FOR MORE INFORMATION

F. COORDINATE EACH PHASE OF CONSTRUCTION. COMPLETE WORK LEAVING AREAS OF OTHER PHASES ACTIVE TO THE GREATEST EXTENT POSSIBLE. NOTIFY COR IF ANY WORK REQUIRES CROSS PHASE COORDINATION.

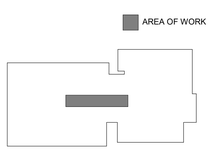
KEY NOTES:

1 PHARMACY PANEL TO BE DEMOLISHED IN PLACE. EXISTING MAIN FEED TO REMAIN AND REUSED. REPLACEMENT OF PANEL TO BE PERFORMED OFF HOURS AND SHALL BE COORDINATED 1 MONTH IN ADVANCE WITH VA. SEE POWER PLANS AND SINGLE LINE DIAGRAM FOR MORE INFORMATION.

2 SALVAGE EXISTING FIXTURE AND STORE FOR REUSE WHERE NOTED. SEE SHEET EL101 FOR MORE INFORMATION.

KEY PLAN

SCALE: NO SCALE



WALL RATING LEGEND

- 1 HR - FIRE SEPARATION
- 2 HR - FIRE SEPARATION
- SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER 0051332 JAVIER VANDERLINDE
10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects
Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR ELECTRICAL AND TECHNOLOGY DEMOLITION PLAN

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER,CA, 95655

Approved: Project Director

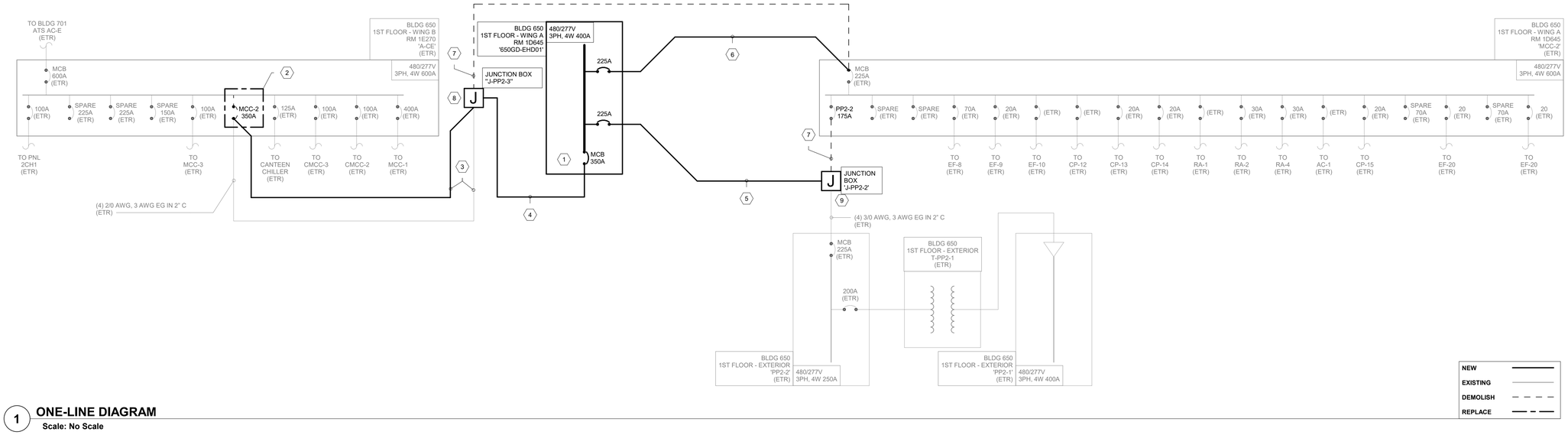
Date: OCTOBER 13, 2023 | Checked: JAV | Drawn: EFJ

Drawing Number: ED101

Dwg 3 of 12

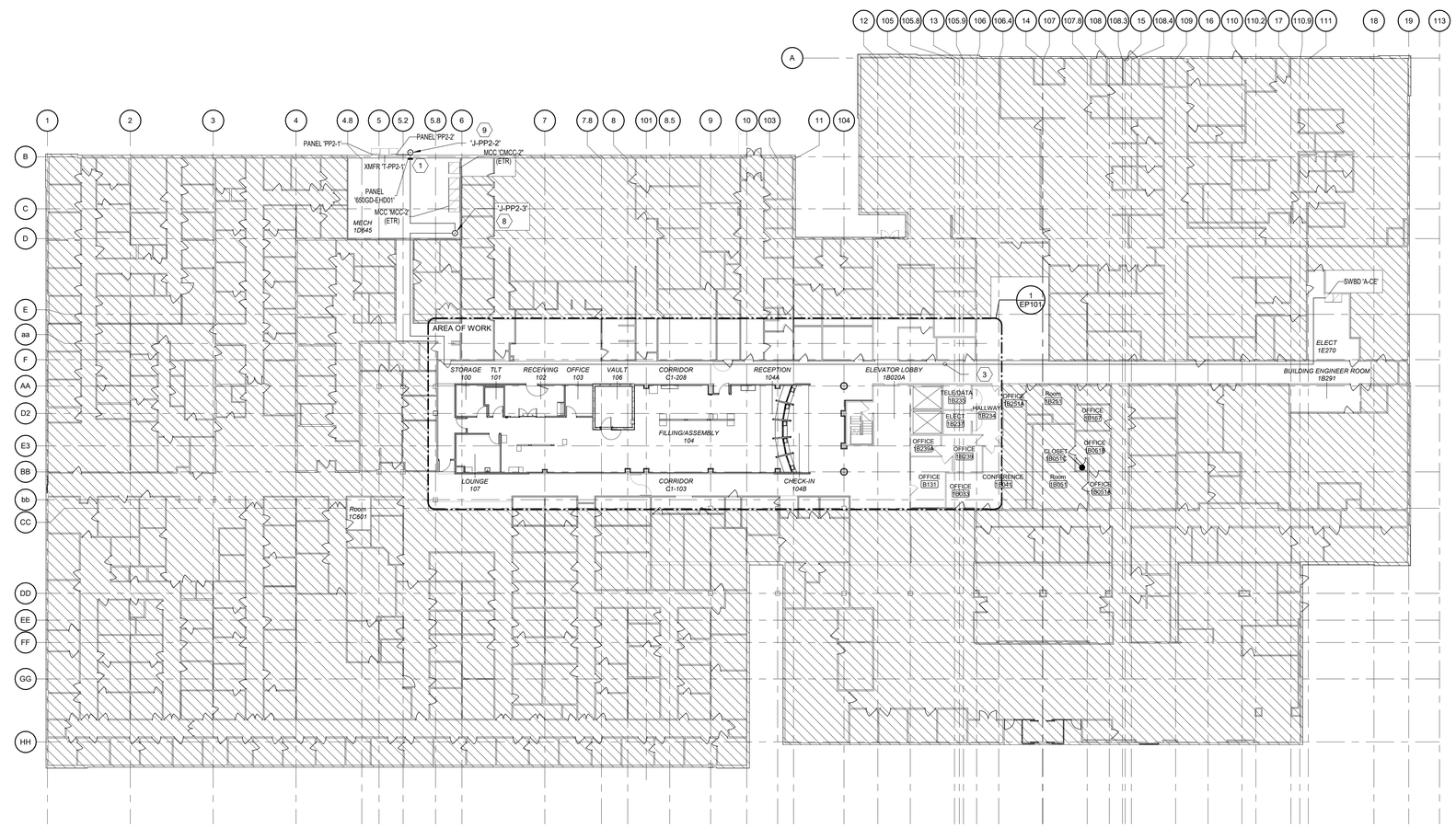
10/11/2023 4:04:32 PM
VA FORM 08-6231

DocuSign Envelope ID: 5730FB0C-7BF2-46FB-B0D7-D904157392E9



1 ONE-LINE DIAGRAM

Scale: No Scale



2 OVERALL FIRST FLOOR PLAN

Scale: 1" = 20'-0"

0 10 20 40

NORTH

SHEET NOTES:

A. SEE EM101 FOR SPECIALTY EQUIPMENT PLUG CONNECTIONS.

B. COORDINATE ELECTICAL REQUIREMENTS AND LOCATIONS OF ALL MECHANICAL AND PLUMBING EQUIPMENT WITH MECHANICAL AND PLUMBING CONTRACTORS.

C. COORDINATE EQUIPMENT WITH ARCHITECTURAL & INTERIORS EQUIPMENT PLANS AND SCHEDULES.

D. ELECTRICAL CONTRACTOR SHALL FOLLOW SITE LOCK-OUT/TAG-OUT GUIDELINES TO DE-ENERGIZE EQUIPMENT.

E. PROVIDE AND INSTALL ALL DEVICES SHOWN ON THIS PLAN.

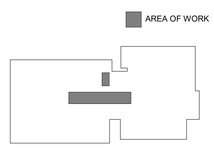
F. SINGLE-LINE SHOWN IS EXISTING AND WILL NOT CHANGE FOR THIS PROJECT. EQUIPMENT BEING REPLACED IS KEYNOTED. UTILIZE SINGLE-LINE FOR PLANNING OUTAGES.

KEY NOTES:

1. PROVIDE NEW 277/480V 3Φ NEMA 1 PANEL MOUNT INSIDE MECHANICAL ROOM 1D645 ALONG WALL EXTERIOR WALL. PROVIDE NEW 30 CKT PANEL DIMENSIONS TO BE H: 60" X W: 20" X D: 5.3/4". PROVIDE AND INSTALL DEMAND METER. METER TO PROVIDE 1-YEAR MINIMUM LOGGING OF 15 MINUTE 3Φ PEAK DEMAND. BASIS OF DESIGN METER IS MIRRIN LOAD LOGGER. SEE PANEL SCHEDULE FOR BREAKER AND CIRCUITING INFO. REPLACEMENT OF PANEL TO BE PERFORMED OFF HOURS AND SHALL BE COORDINATED 1 MONTH IN ADVANCE WITH VA.
2. REPLACE EXISTING 150A BREAKER WITH 350A BREAKER.
3. PROVIDE SECOND FEED (4) 2/0 AWG, 3 AWG EG IN 2" C FROM EXISTING SWITCHBOARD 'A-CE' TO EXISTING MCC 'MCC-2' PARALLEL TO EXISTING FEED.
4. PROVIDE NEW FEEDER 2 SET OF [(4) 2/0 AWG, 3 AWG EG IN 2" C] FROM NEW JUNCTION BOX 'J-PP2-3' TO NEW PANEL BOARD '650GD-EHD01'.
5. PROVIDE NEW FEEDER (4) 4/0 AWG, 3 AWG EG IN 2" C FROM NEW PANEL BOARD '650GD-EHD01' TO NEW JUNCTION BOX 'J-PP2-2' AND SPLICE TO EXISTING FEED.
6. PROVIDE NEW FEEDER (4) 4/0 AWG, 3 AWG EG IN 2" C FROM NEW PANEL BOARD '650GD-EHD01' TO EXISTING MCC 'MCC-2'.
7. DEMO EXISTING FEEDER AND WIRING SYSTEMS FROM NEW JUNCTION BOX TO EXISTING ELECTRICAL EQUIPMENT.
8. PROVIDE NEMA 1 JUNCTION BOX. TO SPLICE NEW FEED FOR EXISTING ELECTRICAL EQUIPMENT. INTERCEPT EXISTING FEED TO MCC-2 AND RE-ROUTE TO NEW PANEL. COORDINATE EXACT INSTALLATION LOCATION WITH VA.
9. PROVIDE NEMA 1 JUNCTION BOX. TO SPLICE NEW FEED FOR EXISTING ELECTRICAL EQUIPMENT. INTERCEPT EXISTING FEED FROM PANEL 'PP2-2' AND ROUTE FROM NEW PANEL. COORDINATE EXACT INSTALLATION LOCATION WITH VA.

KEY PLAN

SCALE: NO SCALE



FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER 0051332 — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511

www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL OVERALL WORK PLAN

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER,CA, 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved: Project Director

Date: OCTOBER 13, 2023 | Checked: JAV | Drawn: EFJ

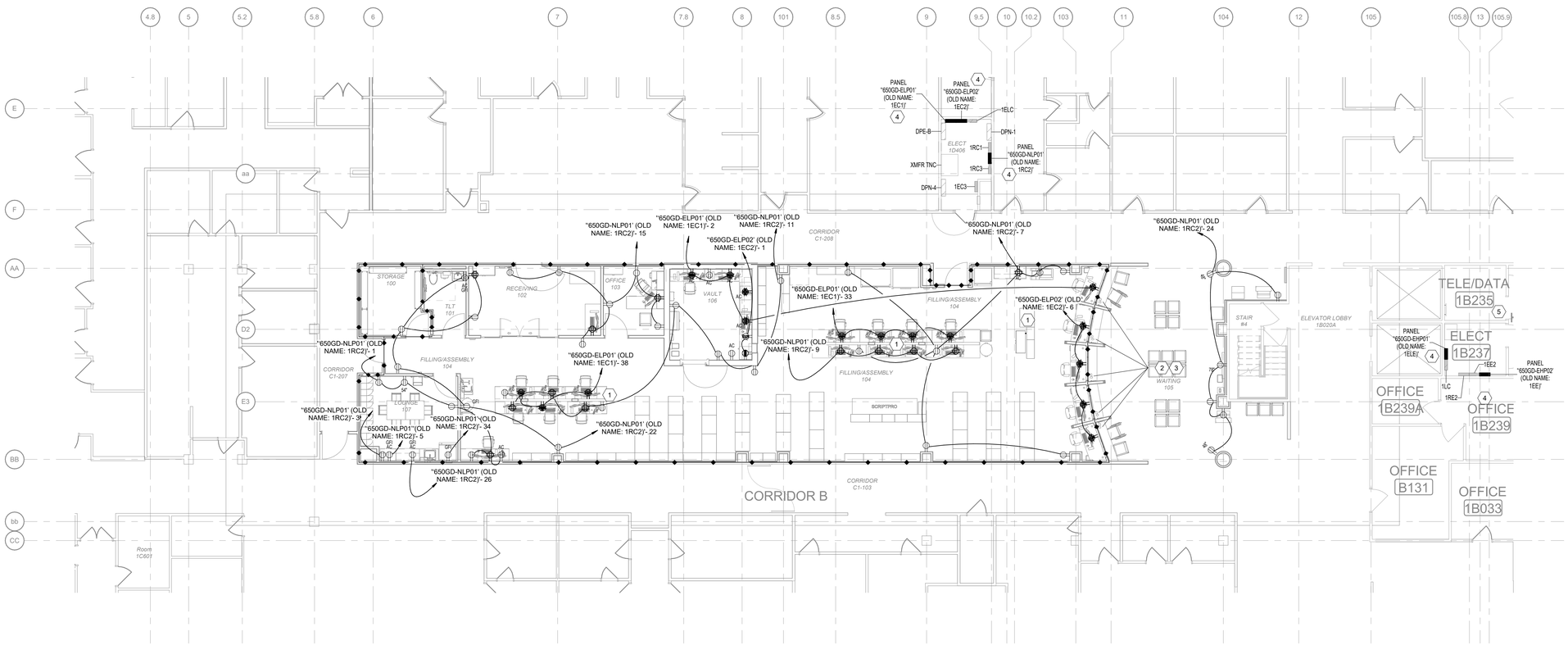
VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Drawing Number E-101

Dwg 4 of 12

DocuSign Envelope ID: 5730FB0C-7BF2-46FB-B0D7-D904157392E9



1 FIRST FLOOR POWER PLAN

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

0 4 8 16

NORTH

SHEET NOTES:

A. SEE EM101 FOR SPECIALTY EQUIPMENT PLUG CONNECTIONS.

B. COORDINATE ELECTICAL REQUIREMENTS AND LOCATIONS OF ALL MECHANICAL AND PLUMBING EQUIPMENT WITH MECHANICAL AND PLUMBING CONTRACTORS.

C. COORDINATE EQUIPMENT WITH ARCHITECTURAL & INTERIORS EQUIPMENT PLANS AND SCHEDULES.

D. ELECTRICAL CONTRACTOR SHALL FOLLOW SITE LOCK-OUT/TAG-OUT GUIDELINES TO DE-ENERGIZE EQUIPMENT.

E. ALL RECEPTACLES SHALL HAVE THEIR SOURCE PANEL AND CIRCUIT NUMBER INDICATED ON THEIR FACEPLATE.

F. PROVIDE AND INSTALL ALL DEVICES SHOWN ON THIS PLAN.

KEY NOTES:

1 COORDINATE WITH GENERAL CONTRACTOR FOR TIE-IN LOCATIONS AND REQUIREMENTS FOR POWER POLES TO PHARMACY WORKSTATIONS. COORDINATE POWER POLE INSTALLATION TO AVOID CONFLICT WITH LIGHTING INSTALLATION. COORDINATE WITH LIGHTING PLAN, SHEET EL101.

2 PROVIDE POWER AND DATA ON REAR SIDE OF THE CHECK-IN DESK FOR DEVICES LOCATED ON FRONT CHECK-IN DESK. COORDINATE WITH FACILITY FOR INSTALLATION REQUIREMENTS AND FINAL LOCATION.

3 PROVIDE STI FIRE STOP GROMMET FOR DEVICE WIRE CONNECTIONS FOR PATIENT CHECK-IN DEVICES TO PHARMACY WORKSTATION. DEVICE INSTALLATION TO BE UNDERNEATH PHARMACY PATIENT COUNTERTOPS AND AVOID OPERATIONAL PATH OF FIRE SHUTTERS, SEE INTERIORS FOR MORE INFORMATION.

4 REPLACE 120/208V 3Φ NEMA 1 PANEL. PROVIDE NEW 42 CKT PANEL DIMENSIONS TO BE H: 60" X W: 20" X D: 5 3/4". PROVIDE AND INSTALL DEMAND METER. METER TO PROVIDE 1-YEAR MINIMUM LOGGING OF 15 MINUTE 3Φ PEAK DEMAND. BASIS OF DESIGN METER IS MIRRIN LOAD LOGGER. SEE PANEL SCHEDULE FOR BREAKER AND CIRCUITING INFO. REPLACEMENT OF PANEL TO BE PERFORMED OFF HOURS AND SHALL BE COORDINATED 1 MONTH IN ADVANCE WITH VA.

5 PROVIDE (1) 12 AWG, 12AWG EG IN 3/4" DEDICATED EMERGENCY FEEDER TO NEW EQUIPMENT POWER CONNECTION AT NEW CCTV SWITCH. 20A CIRCUIT TO BE PULLED FROM PANEL 1EE – 19. COORDINATE WITH VA AND PHYSICAL SECUITRY CONTRACTOR FOR EQUIPMENT TIE-IN REQUIREMENTS AND LOCATION IN RM 1B235.

KEY PLAN

SCALE: NO SCALE

AREA OF WORK

WALL RATING LEGEND

1 HR - FIRE SEPARATION

2 HR - FIRE SEPARATION

SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER 0051332 — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR POWER PLAN

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER,CA, 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

Approved: Project Director

Date: OCTOBER 13, 2023 | Checked: JAV | Drawn: EFJ

Drawing Number: EP101

Dwg 5 of 12

10/11/2023 4:04:48 PM

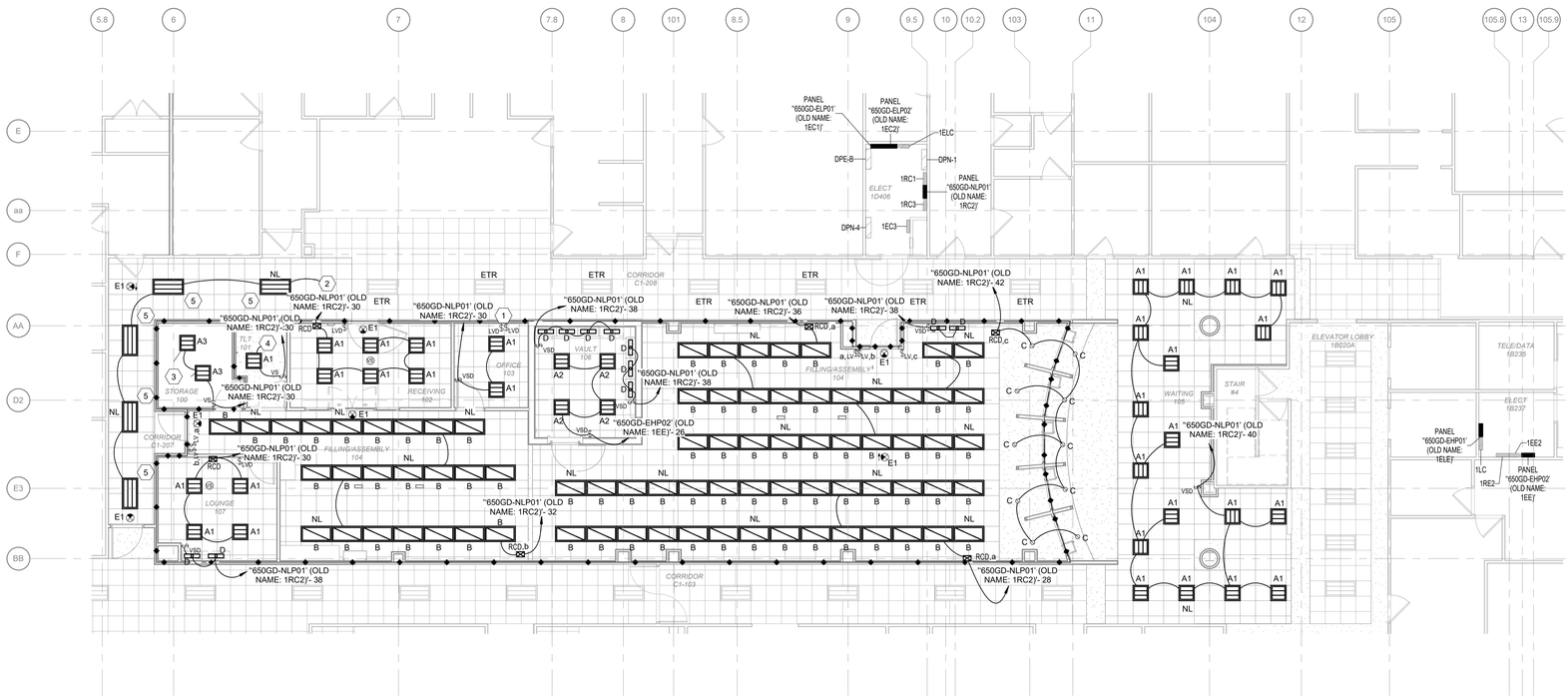
VA FORM 08-6231

DocuSign Envelope ID: 5730FB0C-7BF2-46FB-B0D7-D904157392E9

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MOUNTING	LAMP	BALLAST/DRIVER	VOLTAGE	WATTS	MANUFACTURER	MODEL NUMBER
A1	2' X 2' DIRECT/INDIRECT TROFFER;	RECESSED GRID	LED; 3300 LUMENS; 80 CRI; 3500K	0-10V DIMMING	120.00 V	40 W	COLUMBIA LIGHTING	LSTE22-35MLG-MPO -EDU
A2	2' X 2' DIRECT/INDIRECT TROFFER;	RECESSED GRID	LED; 4500 LUMENS; 80 CRI; 3500K	0-10V DIMMING	120.00 V	40 W	PHILLIPS	2EVG45L835-2-D-UN V-DIM
A3	SURFACE MOUNTED 2' X 2' DIRECT/INDIRECT TROFFER;	HARD LID	LED; 4500 LUMENS; 80 CRI; 3500K	0-10V DIMMING	120.00 V	52 W	COLUMBIA LIGHTING	LSTE22-35VLSM-MP O-EDU
B	2' X 4' DIRECT/INDIRECT TROFFER;	RECESSED GRID	LED; 3400 LUMENS; 80 CRI; 3500K	0-10V DIMMING	120.00 V	33 W	COLUMBIA LIGHTING	LSTE24-35VWG-MP O-EDU
C	6" DIAMETER DIMMABLE LED WIDE DISTRIBUTION DOWNLIGHT	RECESSED GRID	LED; 2500 LUMENS; 80 CRI; 3500K	0-10V DIMMING	120.00 V	23 W	HALO COMMERCIAL	PR6CPFS24D010
D	24" UNDERCABINET LOW PROFILE WITH WHITE FINISH AND ROCKER SWITCH	UNDERCABINET	LED; 1100 LUMENS; 80 CRI; 3500K	0-10V DIMMING	120.00 V	15 W	KENALL	AUCLED-I-MW-1135 K-24-277-SW
E1	CEILING MOUNTED LED EXIT SIGN, GREEN LETTERING	SURFACE CEILING	LED	---	120.00 V	5 W	LITHONIA	EXRG M6

NOTES:
1. MANUFACTURE AND CATALOG NUMBERS SHOWN ARE FOR BASIS OF DESIGN, DESCRIPTIVE AND QUALITY STRANDARDS ONLY, NOT TO BE USED FOR ORDERING WITHOUT VERIFICATION AND APPROVAL. CONRTACTOR TO PROVE PRODUCT OR EQUAL FOR APPROVAL BY COR/VA, ARCHITECT AND ENGINEER. ENGINEER SHALL NOT BE RESPONSIBLE FOR MISMATCHED OR INACCURATE PART NUMBERS.
2. EM NL - SWITCHED EMERGENCY LIGHT (CIRCUITED FORM EMERGENCY POWER).
3. FOR ALL LED LIGHT FIXTURES. THE FIXTURE MUST BE CAPABLE OF SELF-RESETTING TO THE SWITCHED/CONTROLLED STATE DURING ANY FLUCTUATION IN POWER SUPPLY WHERE AUTOMATIC PROTECITIVE MEASURES DIABLE THE LED LAMPS. PROVEIDE A LETTER OR STATEMENT FROM THE MANUFACTURER, OR OTHER ACCEPTABLE PROOF. THAT ALL LED FIXTURE, WITH OR WITHOUT BROWNOUT PROTECTION, WILL RETURN TO THE SWITCHED/CONTROLLED STATE AUTOMATICALLY. PROVIDE STATEMENT WITH THE FIXTURE SUBMITTALS.
4. CAMPUS REQUIRES LED EXIT SIGNS FIXTURES TO BE GREEN LETTERING.



1 **FIRST FLOOR LIGHTING PLAN**
Scale: 1/8" = 1'-0"

0 4 8 16

SHEET NOTES:

A. VERIFY COMPATIBILITY OF ALL LIGHTING CONTROLS WITH THE LED DRIVERS TO BE CONTROLLER.

B. PROVIDE AND INSTALL ALL DEVICES SHOWN ON THIS PLAN.

C. CIRCUIT EM EXIT LIGHTS TO PANEL "1EE' - 5. ALL LIGHTS DESIGNATED NL TO ALSO BE CIRCUITED TO "1EE' – 5 IN ADDITION TO NORMAL CIRCUITS SHOWN. PROVIDE GENERATOR TRANSFER DEVICE AT EACH NL FIXTURE.

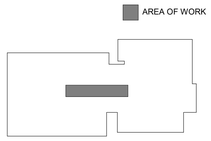
D. ALL LIGHTING CONDUCTORS SHALL BE 2-12 AWG, 1-12 AWG EG IN 3/4" CONDUIT UNLESS NOTED OTHERWISE.

1. RUNS LESS THAN 150' SHALL BE MINIMUM 2-12 AWG, 1-12 AWG EG IN 3/4" CONDUIT.
2. RUNS 150'-250' SHALL BE MINIMUM 2-10 AWG, 1-10 AWG EG IN 3/4" CONDUIT.
3. RUNS GREATER THAN 250' SHALL BE MINIMUM 2-8 AWG, 1-8 AWG EG IN 3/4" CONDUIT.

KEY NOTES:

1 PROVIDE LOW VOLTAGE DIMMING SWITCH CONNECTED TO PHARMACY OPEN AREA LIGHTING FOR SUPERVISOR TO CONTROL LIGHTING LEVEL.
2 CIRCUIT NEW LIGHTING FIXTURES TO ADJACENT CORRIDOR LIGHTING CIRCUIT.
3 LIGHTING INSTALLATION TO PRESERVE 1HR FIRE RATING FOR CEILING.
4 CONNECT LIGHTING CIRCUIT AND LIGHTING CONTROLS TO EF-1. SEE EQUIPMENT CONDUCTOR SCHEDULE FOR MORE INFORMATION.
5 REINSTALL SALVAGED FIXTURE.

KEY PLAN
SCALE: NO SCALE



WALL RATING LEGEND
1 HR - FIRE SEPARATION
2 HR - FIRE SEPARATION
SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED
100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER JAY VANDERLAAN 0051332 10/12/2023

PROJECT MANAGER
ACG Project Number 19-103

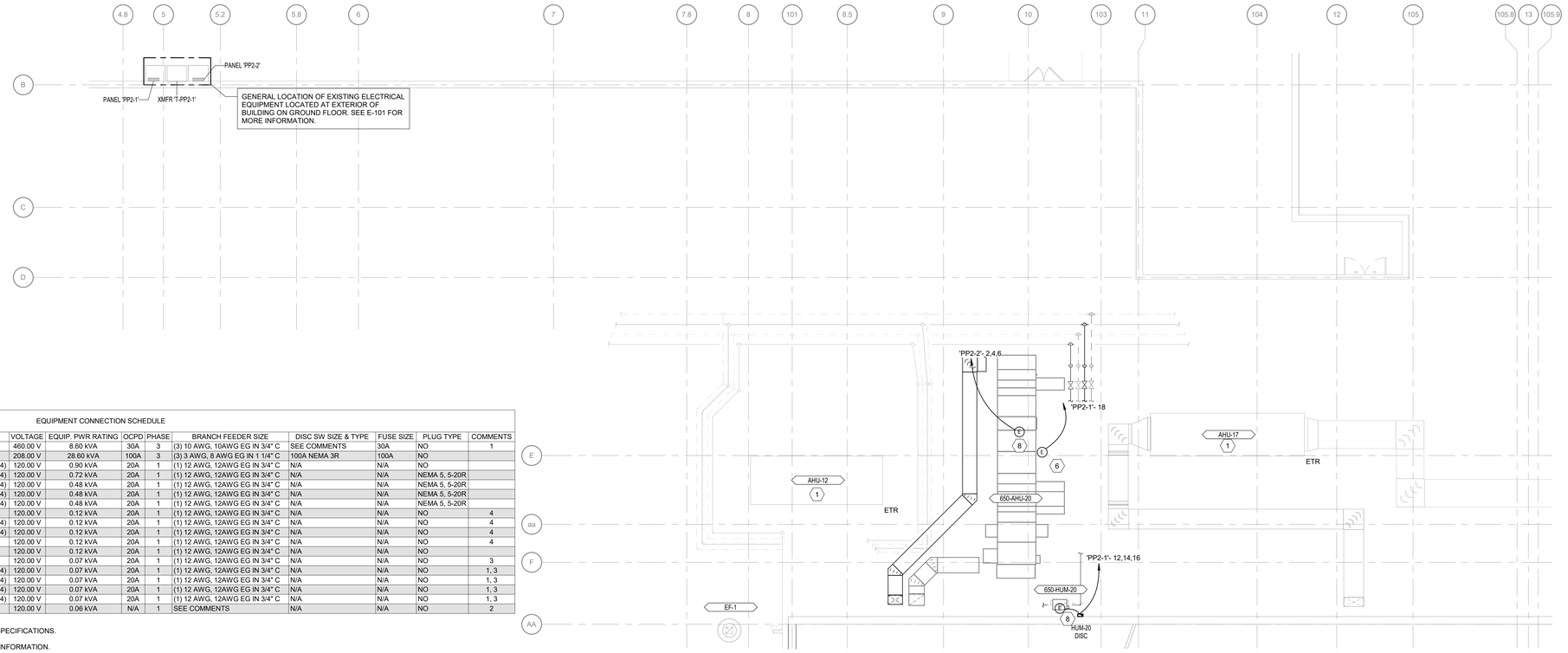
APOGEE Engineers | Architects
Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420
© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR LIGHTING PLAN
Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC
VA PROJECT NUMBER: 612A4-19-016
Building Number: # 650
Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER,CA, 95655
Approved: Project Director
Date: OCTOBER 13, 2023 | Checked: JAV | Drawn: EFJ
Drawing Number: EL101
Dwg 6 of 12

10/11/2023 4:04:37 PM
VA FORM 08-6231

DocuSign Envelope ID: 5730FB0C-7BF2-46FB-B0D7-D90415739 2E9



1 ROOF MECHANICAL POWER PLAN

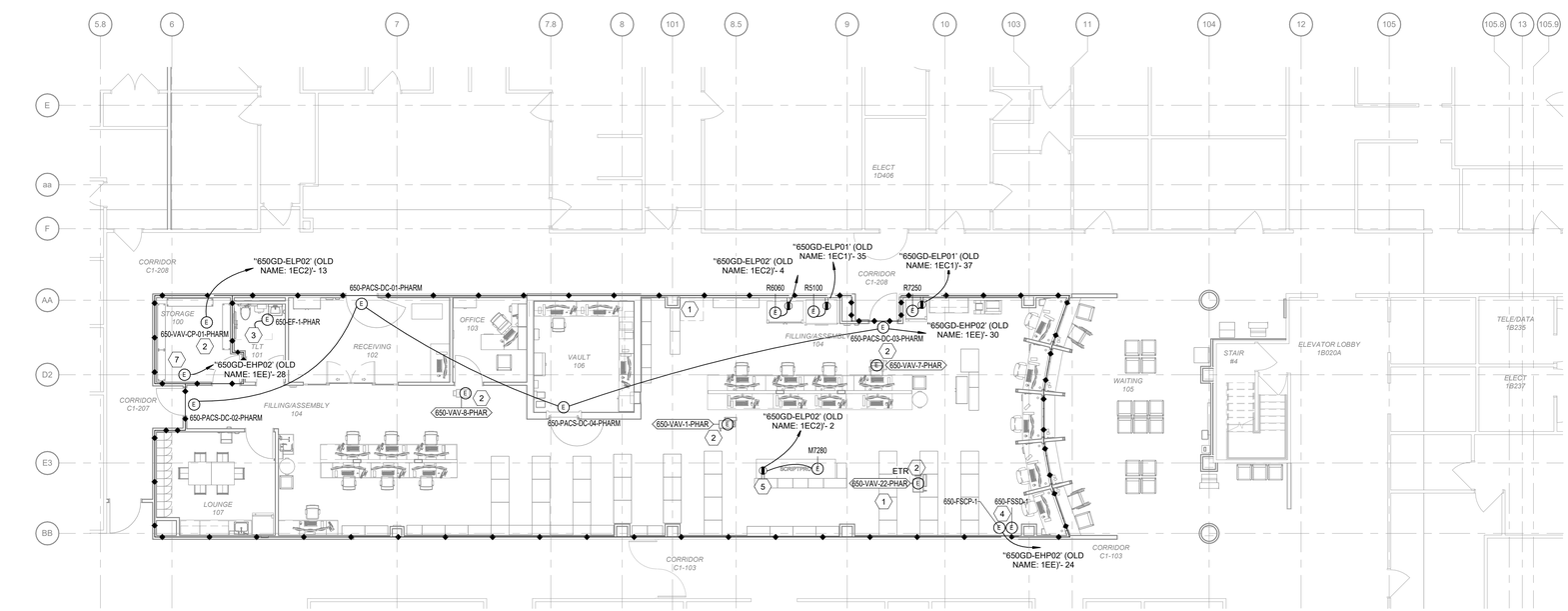
Scale: 1/8" = 1'-0"

EQUIPMENT CONNECTION SCHEDULE

MARK	EQUIPMENT CLASSIFICATION	LOCATION ID	VOLTAGE	EQUIP. PWR RATING	OCPD	PHASE	BRANCH FEEDER SIZE	DISC SW SIZE & TYPE	FUSE SIZE	PLUG TYPE	COMMENTS
650-AHU-20	AIR HANDLING UNIT	LOW ROOF	460.00 V	8.60 kVA	30A	3	(3) 10 AWG, 10AWG EG IN 3/4" C	SEE COMMENTS	30A	NO	1
650-HM-1	HUMIDIFIER	LOW ROOF	208.00 V	28.60 kVA	100A	3	(3) 3 AWG, 8 AWG EG IN 1 1/4" C	100A NEMA 3R	100A	NO	
650-FSCP-1	FIRE SHUTTER CONTROL PANEL	FILILNG ASSEMBLY (RM104)	120.00 V	0.90 kVA	20A	1	(1) 12 AWG, 12AWG EG IN 3/4" C	N/A	N/A	NO	
M7280	LARGE - SCRIPTPRO	FILILNG ASSEMBLY (RM104)	120.00 V	0.72 kVA	20A	1	(1) 12 AWG, 12AWG EG IN 3/4" C	N/A	N/A	NEMA 5, 5-20R	
R5100	UPRIGHT - BIOLOGICAL FREEZER	FILILNG ASSEMBLY (RM104)	120.00 V	0.48 kVA	20A	1	(1) 12 AWG, 12AWG EG IN 3/4" C	N/A	N/A	NEMA 5, 5-20R	
R6060	2 DOOR - BIOLOGICAL REFRIGERATOR	FILILNG ASSEMBLY (RM104)	120.00 V	0.48 kVA	20A	1	(1) 12 AWG, 12AWG EG IN 3/4" C	N/A	N/A	NEMA 5, 5-20R	
R7250	REFRIGERATOR AND FREEZER	FILILNG ASSEMBLY (RM104)	120.00 V	0.48 kVA	20A	1	(1) 12 AWG, 12AWG EG IN 3/4" C	N/A	N/A	NEMA 5, 5-20R	
650-PACS-DC-01-PHARM	DOOR PACS EQUIP. PWR CONNECTION	RECEIVING 102	120.00 V	0.12 kVA	20A	1	(1) 12 AWG, 12AWG EG IN 3/4" C	N/A	N/A	NO	4
650-PACS-DC-02-PHARM	DOOR PACS EQUIP. PWR CONNECTION	FILILNG ASSEMBLY (RM104)	120.00 V	0.12 kVA	20A	1	(1) 12 AWG, 12AWG EG IN 3/4" C	N/A	N/A	NO	4
650-PACS-DC-03-PHARM	DOOR PACS EQUIP. PWR CONNECTION	FILILNG ASSEMBLY (RM104)	120.00 V	0.12 kVA	20A	1	(1) 12 AWG, 12AWG EG IN 3/4" C	N/A	N/A	NO	4
650-PACS-DC-04-PHARM	DOOR PACS EQUIP. PWR CONNECTION	VAULT (RM106)	120.00 V	0.12 kVA	20A	1	(1) 12 AWG, 12AWG EG IN 3/4" C	N/A	N/A	NO	4
650-FSSD-1			120.00 V	0.12 kVA	20A	1	(1) 12 AWG, 12AWG EG IN 3/4" C	N/A	N/A	NO	
650-VAV-CP-01-PHARM	VAV CONTROL PANEL	STORAGE (RM100)	120.00 V	0.07 kVA	20A	1	(1) 12 AWG, 12AWG EG IN 3/4" C	N/A	N/A	NO	3
650-VAV-8-PHAR	VARIABLE AIR VOLUME BOX	FILILNG ASSEMBLY (RM104)	120.00 V	0.07 kVA	20A	1	(1) 12 AWG, 12AWG EG IN 3/4" C	N/A	N/A	NO	1, 3
650-VAV-1-PHAR	VARIABLE AIR VOLUME BOX	FILILNG ASSEMBLY (RM104)	120.00 V	0.07 kVA	20A	1	(1) 12 AWG, 12AWG EG IN 3/4" C	N/A	N/A	NO	1, 3
650-VAV-22-PHAR	VARIABLE AIR VOLUME BOX	FILILNG ASSEMBLY (RM104)	120.00 V	0.07 kVA	20A	1	(1) 12 AWG, 12AWG EG IN 3/4" C	N/A	N/A	NO	1, 3
650-VAV-7-PHAR	VARIABLE AIR VOLUME BOX	FILILNG ASSEMBLY (RM104)	120.00 V	0.07 kVA	20A	1	(1) 12 AWG, 12AWG EG IN 3/4" C	N/A	N/A	NO	1, 3
650-EF-1-PHAR	EXHAUST FAN	TLT (RM101)	120.00 V	0.06 kVA	N/A	1	SEE COMMENTS	N/A	N/A	NO	2

NOTES

1. DISCONNECT SWITCH BUILT INTO EQUIPMENT. PROVIDE FUSE PER MANUFACTURE SPECIFICATIONS.
2. DEVICE TO BE CONNECTED TO ADJACENT LIGHTING CIRCUIT SEE EM101 FOR MORE INFORMATION.
3. DEVICES TO BE CIRCUITED IN SERIES COORDINATE WITH MECHANICAL CONTRACTOR FOR FOR FINAL EQUIPMENT SELECTION.
4. DEVICES TO BE CIRCUITED IN SERIES COORDINATE WITH PHYSICAL SECURITY CONTRACTOR FOR FOR EQUIPMENT TIE-IN REQUIREMENTS.



2 FIRST FLOOR MECHANICAL POWER PLAN

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

SHEET NOTES:

A. COORDINATE ELECTICAL REQUIREMENTS AND LOCATIONS OF ALL MECHANICAL AND PLUMBING EQUIPMENT WITH MECHANICAL AND PLUMBING CONTRACTORS.

B. COORDINATE EQUIPMENT WITH ARCHITECTURAL & INTERIORS EQUIPMENT PLANS AND SCHEDULES.

C. ELECTRICAL CONTRACTOR SHALL FOLLOW SITE LOCK-OUT/TAG-OUT GUIDELINES TO DE-ENERGIZE EQUIPMENT.

D. ALL RECEPTACLES SHALL HAVE THEIR SOURCE PANEL AND CIRCUIT NUMBER INDICATED ON THEIR FACEPLATE.

E. PROVIDE AND INSTALL ALL DEVICES SHOWN ON THIS PLAN.

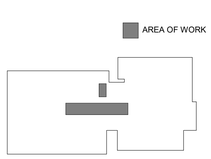
F. CONTRACTOR TO COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS AND RELOCATION OF EXISTING SYSTEMS.

KEY NOTES:

1. DEVICE EXISTING TO REMAIN. PROTECT EQUIPMENT DURING CONSTRUCTION.
2. PROVIDE BRANCH FEEDER TO VAVS AND CONTROLLER. COORDINATE WITH MECHANICAL CONTRACTOR ON FINAL LOCATION OF EQUIPMENT. SEE EQUIPMENT CONDUCTOR SCHEDULE ON SHEET EM101.
3. CONNECT NEW EXHAUST FAN TO ADJACENT LIGHTING CIRCUIT LOCATED IN BATHROOM. SEE SHEET EL101 FOR MORE INFORMATION.
4. PROVIDE BRANCH FEEDER POWER CONNECTION TO MOTORIZED FIRE SHUTTER AND FIRE SUPPRESSION SMOKE DAMPERS. COORDINATE FINAL TIE-IN LOCATION AND REQUIREMENTS WITH GENERAL CONTRACTOR.
5. COORDINATE WITH GENERAL CONTRACTOR FOR TIE-IN LOCATIONS AND REQUIREMENTS FOR POWER POLES TO PHARMACY EQUIPMENT COORDINATE POWER POLE INSTALLATION TO AVOID CONFLICT WITH LIGHTING INSTALLATION. COORDINATE WITH LIGHTING PLAN, SHEET EL101.
6. PROVIDE 120V CIRCUIT FOR AHU MAINTENANCE RECEPTACLE AND LIGHTING.
7. PROVIDE (1) 12 AWG, 12AWG EG IN 3/4" DEDICATED EMERGENCY FEEDER TO NEW IDS CONTROLLER. COORDINATE WITH PHYSICAL SECURITY CONTRACTOR FOR CONNECTION REQUIREMENTS.
8. PROVIDE EQUIPMENT POWER CONNECTION AND COORDINATE WITH MECHANICAL CONTRACTOR FOR LOCATION OF EQUIPMENT TIE-IN.

KEY PLAN

SCALE: NO SCALE



WALL RATING LEGEND

- 1 HR - FIRE SEPARATION
- 2 HR - FIRE SEPARATION
- SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER 0051332 — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR MECHANICAL POWER AND TECHNOLOGY SYSTEMS PLAN

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER,CA, 95655

Approved: Project Director

Date: OCTOBER 13, 2023 | Checked: JAV | Drawn: EFJ

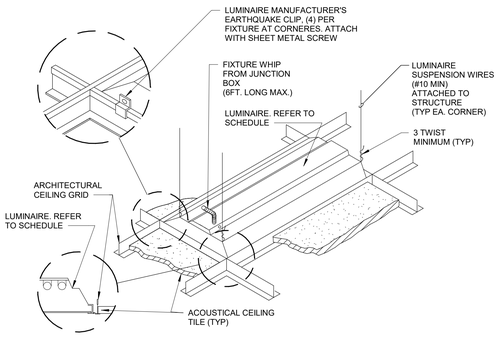
Drawing Number: EM101

Dwg 7 of 12

10/11/2023 4:04:43 PM

VA FORM 08-6231

DocuSign Envelope ID: 5730FB0C-7BF2-46FB-B0D7-D904157392E9



1 LUMINAIRE MOUNTING - LAY-IN CEILING

Scale: No Scale

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER JAY VANDERLAAN 0051332

10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

© COPYRIGHT Apogee Consulting Group, P.A.

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL AND TECHNOLOGY DETAILS

Location: MATHER VAMC 10535 HOSPITAL WAY, MATHER,CA, 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved: Project Director

Date: OCTOBER 13, 2023 | Checked: JAV | Drawn: EFJ

VA PROJECT NUMBER 612A4-19-016

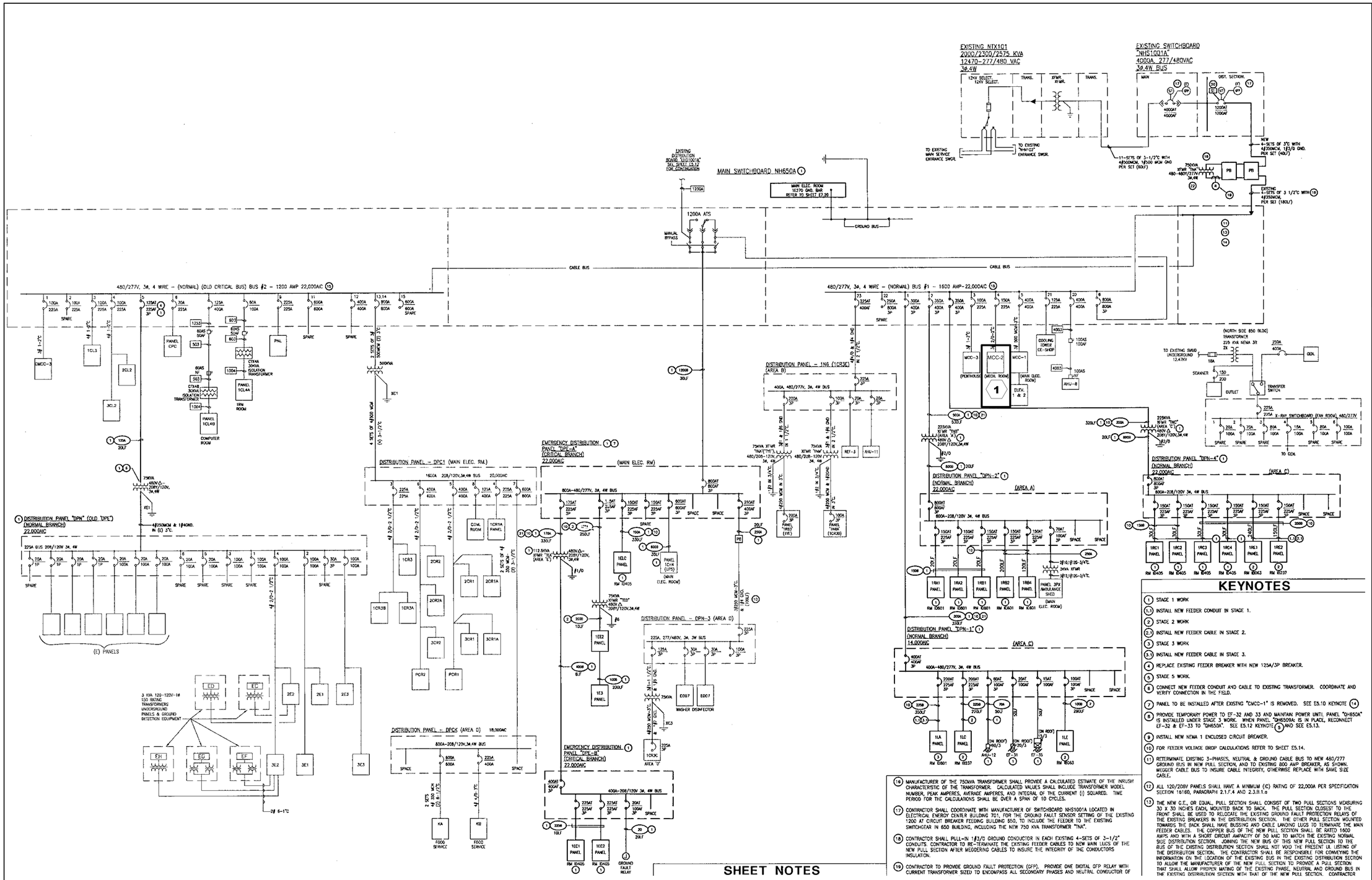
Building Number # 650

Drawing Number E-501

Dwg 8 of 12

10/11/2023 4:04:17 PM
VA FORM 08-6231

DocuSign Envelope ID: 5730FB0C-7BF2-46FB-B0D7-D90415739 2E9



SHEET NOTES:

A. SINGLE-LINE SHOWN IS EXISTING AND WILL NOT CHANGE FOR THIS PROJECT EQUIPMENT BEING REPLACED IS KEYNOTED. UTILIZE SINGLE-LINE FOR PLANNING OUTAGES.

B. SEE E-601B FOR MORE INFORMATION.

KEY NOTES:

1. NEW WORK TO CONNECT TO MCC-2. SEE SHEET E-101 FOR CONTINUATION OF SINGLE LINE.

KEYNOTES

1. STAGE 1 WORK
1.1. INSTALL NEW FEEDER CONDUIT IN STAGE 1.
2. STAGE 2 WORK
2.1. INSTALL NEW FEEDER CABLE IN STAGE 2.
3. STAGE 3 WORK
3.1. INSTALL NEW FEEDER CABLE IN STAGE 3.
4. REPLACE EXISTING FEEDER BREAKER WITH NEW 125A/3P BREAKER.
5. STAGE 5 WORK.
6. CONNECT NEW FEEDER CONDUIT AND CABLE TO EXISTING TRANSFORMER. COORDINATE AND VERIFY CONNECTION IN THE FIELD.
7. PANEL TO BE INSTALLED AFTER EXISTING "CMCC-1" IS REMOVED. SEE E5.10 KEYNOTE 14
8. PROVIDE TEMPORARY POWER TO EF-32 AND 33 AND MAINTAIN POWER UNTIL PANEL "QH650A" IS INSTALLED UNDER STAGE 3 WORK. WHEN PANEL "QH650A" IS IN PLACE, RECONNECT EF-32 & EF-33 TO "QH650A". SEE E5.12 KEYNOTE 5 AND SEE E5.13.
9. INSTALL NEW NEMA 1 ENCLOSED CIRCUIT BREAKER.
10. FOR FEEDER VOLTAGE DROP CALCULATIONS REFER TO SHEET E5.14.
11. RETERMINATE EXISTING 3-PHASES, NEUTRAL & GROUND CABLE BUS TO NEW 480/277 GROUND BUS IN NEW PULL SECTION, AND TO EXISTING 800 AMP BREAKER, AS SHOWN. MEGGER CABLE BUS TO INSURE CABLE INTEGRITY, OTHERWISE REPLACE WITH SAME SIZE CABLE.
12. ALL 120/208V PANELS SHALL HAVE A MINIMUM (IC) RATING OF 22,000A PER SPECIFICATION SECTION 16160, PARAGRAPH 2.1.F.4 AND 2.3.B.1.a
13. THE NEW G.E., OR EQUAL, PULL SECTION SHALL CONSIST OF TWO PULL SECTIONS MEASURING 30 X 30 INCHES EACH, MOUNTED BACK TO BACK. THE PULL SECTION CLOSEST TO THE FRONT SHALL BE USED TO RELOCATE THE EXISTING GROUND FAULT PROTECTION RELAYS OF THE EXISTING BREAKERS IN THE DISTRIBUTION SECTION. THE OTHER PULL SECTION MOUNTED TOWARDS THE BACK SHALL HAVE BUSSING AND CABLE LANDING LUGS TO TERMINATE THE MAIN FEEDER CABLES. THE COPPER BUS OF THE NEW PULL SECTION SHALL BE RATED 1600 AMPS AND WITH A SHORT CIRCUIT AMPACITY OF 50 KAIC TO MATCH THE EXISTING NORMAL SIDE DISTRIBUTION SECTION. JOINING THE NEW BUS OF THIS NEW PULL SECTION TO THE BUS OF THE EXISTING DISTRIBUTION SECTION SHALL NOT VOID THE PRESENT UL LISTING OF THE DISTRIBUTION SECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONVEYING THE INFORMATION ON THE LOCATION OF THE EXISTING BUS IN THE EXISTING DISTRIBUTION SECTION TO ALLOW THE MANUFACTURER OF THE NEW PULL SECTION TO PROVIDE A PULL SECTION THAT SHALL ALLOW PROPER MATING OF THE EXISTING PHASE, NEUTRAL AND GROUND BUS IN THE EXISTING DISTRIBUTION SECTION WITH THAT OF THE NEW PULL SECTION. CONTRACTOR
14. MANUFACTURER OF THE 750KVA TRANSFORMER SHALL PROVIDE A CALCULATED ESTIMATE OF THE INRUSH CHARACTERISTIC OF THE TRANSFORMER. CALCULATED VALUES SHALL INCLUDE TRANSFORMER MODEL NUMBER, PEAK AMPERES, AVERAGE AMPERES, AND INTEGRAL OF THE CURRENT (I) SQUARED. TIME PERIOD FOR THE CALCULATIONS SHALL BE OVER A SPAN OF 10 CYCLES.
15. CONTRACTOR SHALL COORDINATE WITH MANUFACTURER OF SWITCHBOARD NHS1001A LOCATED IN ELECTRICAL ENERGY CENTER BUILDING 701, FOR THE GROUND FAULT SENSOR SETTING OF THE EXISTING 1200 AT CIRCUIT BREAKER FEEDING BUILDING 650, TO INCLUDE THE FEEDER TO THE EXISTING SWITCHGEAR IN 650 BUILDING, INCLUDING THE NEW 750 KVA TRANSFORMER "TNA".
16. CONTRACTOR SHALL PULL-IN 1#3/0 GROUND CONDUCTOR IN EACH EXISTING 4-SETS OF 3-1/2" CONDUITS. CONTRACTOR TO RE-TERMINATE THE EXISTING FEEDER CABLES TO NEW MAIN LUGS OF THE NEW PULL SECTION AFTER MEGGERING CABLES TO INSURE THE INTEGRITY OF THE CONDUCTORS INSULATION.
17. CONTRACTOR TO PROVIDE GROUND FAULT PROTECTION (GFP). PROVIDE ONE DIGITAL GFP RELAY WITH CURRENT TRANSFORMER SIZED TO ENCOMPASS ALL SECONDARY PHASES AND NEUTRAL CONDUCTOR OF

SHEET NOTES

NEW	
EXISTING	
DEMOLISH	
REPLACE	

1 SINGLE-LINE DIAGRAM
Scale: No Scale

FULLY SPRINKLERED
100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER 0051332 — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: SINGLE-LINE DIAGRAM

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER,CA, 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved: Project Director

Date: OCTOBER 13, 2023 | Checked: JAV | Drawn: EFJ

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

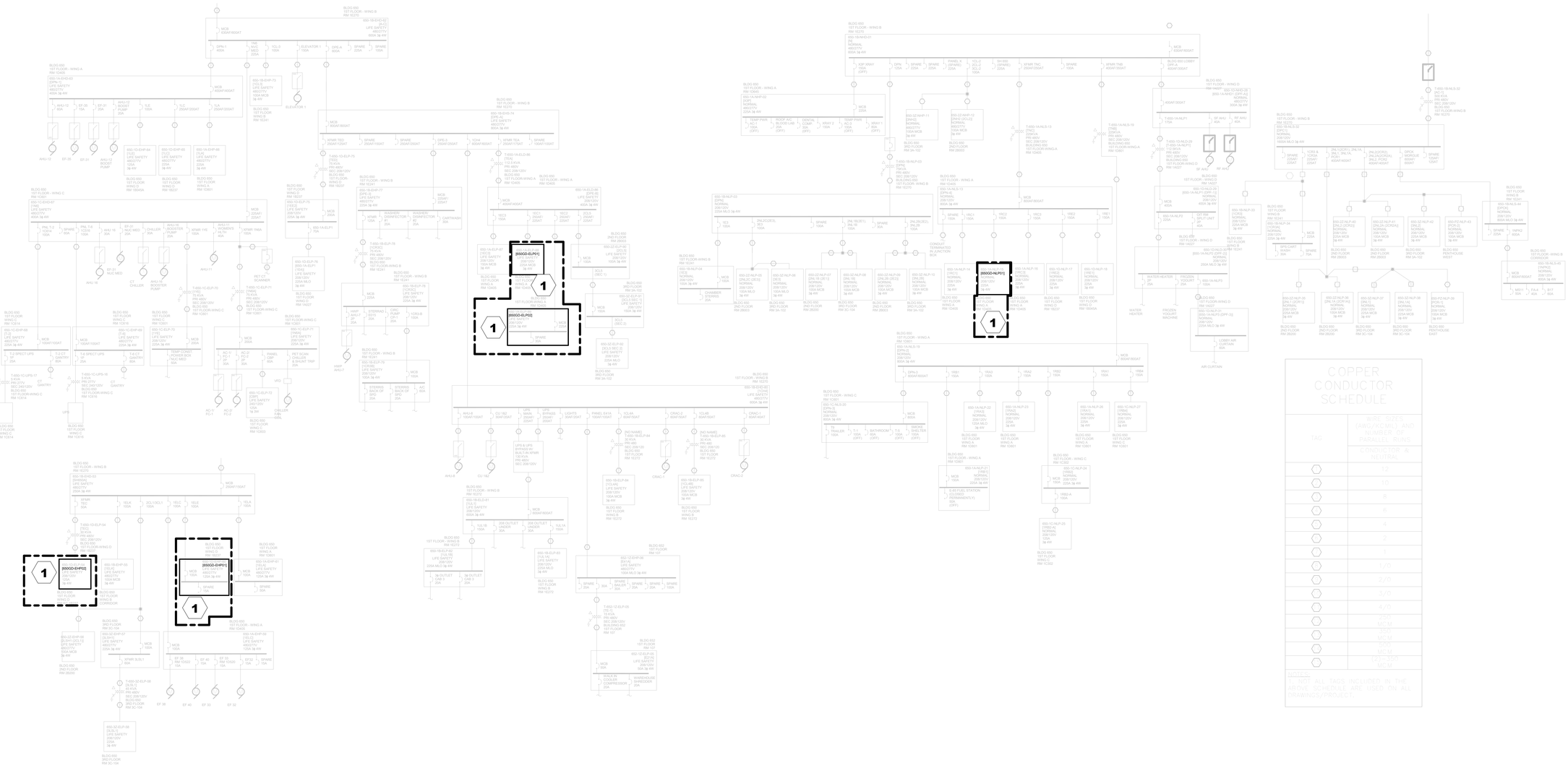
Drawing Number E-601A

Dwg 9 of 12

10/11/2023 4:04:19 PM

VA FORM 08-6231

DocuSign Envelope ID: 5730FB0C-7BF2-46FB-B0D7-D90415739 2E9



1 **SINGLE-LINE DIAGRAM**
Scale: 6" = 1'-0"

SHEET NOTES:

A. SINGLE-LINE SHOWN IS EXISTING AND WILL NOT CHANGE FOR THIS PROJECT EQUIPMENT BEING REPLACED IS KEYNOTED. UTILIZE SINGLE-LINE FOR PLANNING OUTAGES.

KEY NOTES:

1 PANEL BEING REPLACED OR MODIFIED UNDER THIS CONTRACT.

NEW	
EXISTING	
DEMOLISH	
REPLACE	

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER JON VANDERLAAN 0051332 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: SINGLE-LINE DIAGRAM

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER,CA, 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved: Project Director

Date: OCTOBER 13, 2023 | Checked: JAV | Drawn: EFJ

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Drawing Number E-601B

Dwg 10 of 12

DocuSign Envelope ID: 5730FB0C-7BF2-46FB-B0D7-D904157392E9

EXISTING '1ELE'

VOLTAGE:	480 / 277	ISOLATED GROUND (Y/N):	N
PHASE/WIRE:	3ϕ / 4	BUSSING:	
MAIN TYPE :	CIRCUIT BREAKER	MOUNTING:	SURFACE MOUNT
RATED AMPERAGE:	100A	MCB GFP (Y/N):	
MAIN:	100A	MCB SHUNT TRIP (Y/N):	
SCC RATING (SYM):		MCB 100% RATED (Y/N):	

SOLID NEUTRAL; GROUND BUS; SPD

CKT	IDENTIFICATION	BKR SIZE	POLES	LOAD (kVA)	LOAD (kVA)	POLES	BKR SIZE	IDENTIFICATION	CKT
1	EGRESS LIGHTING AREA D	20A	1			3	15A	SPARE	2
3	EGRESS LIGHTING AREA E	20A	1						4
5	EGRESS LIGHTING AREA C	20A	1						6
7	RETAIL LIGHTS	20A	1			1	20A	PHARMACY	8
9	PHARMACY W. END LIGHTING	20A	1			1	20A	PHARMACY	10
11	SPARE	30A	1			1	20A	PHARMACY	12
13	CORRIDOR	20A	1			1	20A	EM LIGHTS (BLDG-650)	14
15	CORRIDOR	20A	1			1	20A	EM LIGHTS (BLDG-650)	16
17	CORRIDOR	20A	1			1	20A	EM LIGHTS (BLDG-650)	18
19	SPACE	-	-			-	-	SPACE	20
21	SPACE	-	-			-	-	SPACE	22
23	SPACE	-	-			-	-	SPACE	24
25	SPACE	-	-			-	-	SPARE	26
27	SPACE	-	-			-	-	SPARE	28
29	SPACE	-	-			-	-	SPARE	30
31	SPACE	-	-			-	-	SPARE	32
33	SPACE	-	-			-	-	SPARE	34
35	SPACE	-	-			-	-	SPARE	36
37	SPACE	-	-			-	-	SPARE	38
39	SPACE	-	-			-	-	SPARE	40
41	SPACE	-	-			-	-	SPARE	42

NOTES:
1. ALL BREAKERS ARE STANDARD UNLESS OTHERWISE NOTED.
2. (*) NUMBER INDICATES BREAKER TYPE: 1 = AFCI, 2 = CLASS A 5mA GFCI, 3 = 30mA GFPE, 4 = SHUNT TRIP ACTIVATED, 5 = PANELBOARD FEEDER SERVING UNIT SHALL BE...

EXISTING '1EE'

VOLTAGE:	208 / 120	ISOLATED GROUND (Y/N):	N
PHASE/WIRE:	3ϕ / 4	BUSSING:	
MAIN TYPE :	CIRCUIT BREAKER	MOUNTING:	SURFACE MOUNT
RATED AMPERAGE:	100A	MCB GFP (Y/N):	
MAIN:	100A	MCB SHUNT TRIP (Y/N):	
SCC RATING (SYM):		MCB 100% RATED (Y/N):	

SOLID NEUTRAL; GROUND BUS; SPD

CKT	IDENTIFICATION	BKR SIZE	POLES	LOAD (kVA)	LOAD (kVA)	POLES	BKR SIZE	IDENTIFICATION	CKT
1	ELEVATOR LIGHTS	20A	1			1	20A	DIALYSIS UNIT	2
3	SMOKE DAMPER AREA B,C	20A	1			1	20A	DIALYSIS UNIT	4
5	SPARE	20A	1			1	20A	SPARE	6
7	FACP 1B291	20A	1			1	20A	SPARE	8
9	ELEVATOR LIGHTS	20A	1			1	20A	FA POWER SUPPLY 1D405	10
11	FA POWER SUPPLY 1B291	30A	1			1	20A	FA POWER SUPPLY 1E122	12
13	FACP 1B291	20A	1			1	20A	FA POWER SUPPLY 1C601	14
15	AUTOMATIC DOORS LOBBY	20A	1			1	20A	FA POWER SUPPLY 2-18-02	16
17	MAG. DOOR HALD 1B291	20A	1			1	20A	FA POWER SUPPLY 3-18-02	18
19	SPARE	20A	1			2	20A	REATIL STORE POWER POLE	20
21	SPARE	20A	1						22
23	FA POWER SUPPLY 1D801	20A	1			1	20A	SPARE	24
25	SPARE	20A	1			1	20A	SPARE	26
27	SPARE	20A	1			1	20A	SPARE	28
29	SECURITY DOORS STANLEY	20A	1			1	20A	SPARE	30
31	SPARE	20A	1			1	20A	SPARE	32
33	SPARE	20A	1			1	30A	SPARE	34
35	SECURITY CABINET 1D405	20A	1			1	20A	SPARE	36
37	SPARE	20A	1			1	20A	SPARE	38
39	SPARE	20A	1			1	20A	SPARE	40
41	VAV AREA E	20A	1			1	20A	SPARE	42

NOTES:
1. ALL BREAKERS ARE STANDARD UNLESS OTHERWISE NOTED.
2. (*) NUMBER INDICATES BREAKER TYPE: 1 = AFCI, 2 = CLASS A 5mA GFCI, 3 = 30mA GFPE, 4 = SHUNT TRIP ACTIVATED, 5 = PANELBOARD FEEDER SERVING UNIT SHALL BE...

EXSITING 'PP2-1'

VOLTAGE:	208 / 120	ISOLATED GROUND (Y/N):	N
PHASE/WIRE:	3ϕ / 4	BUSSING:	
MAIN TYPE :	MLO	MOUNTING:	SURFACE MOUNT
RATED AMPERAGE:	400A	MCB GFP (Y/N):	
MAIN:	-	MCB SHUNT TRIP (Y/N):	
SCC RATING (SYM):		MCB 100% RATED (Y/N):	

SOLID NEUTRAL; GROUND BUS; SPD

CKT	IDENTIFICATION	BKR SIZE	POLES	LOAD (kVA)	LOAD (kVA)	POLES	BKR SIZE	IDENTIFICATION	CKT
1	PATRIOT TEMP POWER	60A	2			3	30A	LIFT STATION 647	2
3									4
5	SUBPANEL 650A	100A	3						6
7						1	20A	PLASMA CUTTER	8
9						1	20A		10
11		100A	3			1	-	SPACE	12
13						1	-	SPACE	14
15						1	-	SPACE	16
17	T6-B	125A	2			1	-	SPACE	18
19						1	-	SPACE	20
21		125A	2			1	-	SPACE	22
23						1	-	SPACE	24
25	SPACE	-	1			1	-	SPACE	26
27	SPACE	-	1			1	-	SPACE	28
29	SPACE	-	1			1	-	SPACE	30

NOTES:
1. ALL BREAKERS ARE STANDARD UNLESS OTHERWISE NOTED.
2. (*) NUMBER INDICATES BREAKER TYPE: 1 = AFCI, 2 = CLASS A 5mA GFCI, 3 = 30mA GFPE, 4 = SHUNT TRIP ACTIVATED, 5 = PANELBOARD FEEDER SERVING UNIT SHALL BE...

EXSITING 'PP2-2'

VOLTAGE:	480 / 277	ISOLATED GROUND (Y/N):	N
PHASE/WIRE:	3ϕ / 4	BUSSING:	
MAIN TYPE :	CIRCUIT BREAKER	MOUNTING:	SURFACE MOUNT
RATED AMPERAGE:	250A	MCB GFP (Y/N):	
MAIN:	250A	MCB SHUNT TRIP (Y/N):	
SCC RATING (SYM):		MCB 100% RATED (Y/N):	

SOLID NEUTRAL; GROUND BUS; SPD

CKT	IDENTIFICATION	BKR SIZE	POLES	LOAD (kVA)	LOAD (kVA)	POLES	BKR SIZE	IDENTIFICATION	CKT
1	SPARE	60A	2			1	-	SPACE	2
3						1	-	SPACE	4
5						1	-	SPACE	6
7	SPACE	-	1			1	-	SPACE	8
9	SPACE	-	1			1	-	SPACE	10
11	SPACE	-	1			1	-	SPACE	12
13	SPACE	-	1			1	-	SPACE	14
15	SPACE	-	1			1	-	SPACE	16
17	SPACE	-	1			1	-	SPACE	18
19	SPACE	-	1			1	-	SPACE	20
21	SPACE	-	1			1	-	SPACE	22
23	SPACE	-	1			1	-	SPACE	24
25	SPACE	-	1			1	-	SPACE	26
27	SPACE	-	1			1	-	SPACE	28
29	SPACE	-	1			1	-	SPACE	30

NOTES:
1. ALL BREAKERS ARE STANDARD UNLESS OTHERWISE NOTED.
2. (*) NUMBER INDICATES BREAKER TYPE: 1 = AFCI, 2 = CLASS A 5mA GFCI, 3 = 30mA GFPE, 4 = SHUNT TRIP ACTIVATED, 5 = PANELBOARD FEEDER SERVING UNIT SHALL BE...

EXISTING '1EC1'

VOLTAGE:	208 / 120	ISOLATED GROUND (Y/N):	N
PHASE/WIRE:	3ϕ / 4	BUSSING:	
MAIN TYPE :	CIRCUIT BREAKER	MOUNTING:	SURFACE MOUNT
RATED AMPERAGE:	225A	MCB GFP (Y/N):	
MAIN:	225A	MCB SHUNT TRIP (Y/N):	
SCC RATING (SYM):		MCB 100% RATED (Y/N):	

SOLID NEUTRAL; GROUND BUS; SPD

CKT	IDENTIFICATION	BKR...	POLES	LOAD (kVA)	LOAD (kVA)	POLES	BKR...	IDENTIFICATION	CKT
1	E218 SPEC PROCESSING	20A	1			1	20A	SPARE	2
3	E218 SPEC PROCESSING	20A	1			1	15A	E335 LAB WORK AREA	4
5	E220 HEMATOLOGY	20A	1			1	20A	E355B C.D.SPECIAL CHEM	6
7	E304 HEMATOLOGY	20A	1			1	30A	E269 BLOOD BANK	8
9	E268 BLOOD BLANK	30A	1			1	20A	E227 HISTOLOGY	10
11	E219 SPEC PROCESSING	20A	1			1	20A	E270 BLOOD BLANK	12
13	E222 BLOOD BLANK	20A	1			1	25A	E223 BLOOD BLANK	14
15	E315 HISTOLOGY	15A	1			1	20A	E221, E340, E267, E221C BLOOD	16
17	E320 REFRIG. HISTOLOGY	20A	1			1	20A	E245 CHEMISTRY	18
19	E215 REFRIG. LAB WORK	20A	1			1	20A	E245 SPEC PROCESSING	20
21	E217 REFRIG. LAB WORK	20A	1			1	20A	E262 URANALYSIS	22
23	E200 REFRIG. LOUNGE	30A	1			1	20A	E339C, E258 COAG	24
25	E245 URANALYSIS	20A	1			1	15A	E305 SPEC PROCESSING	26
27	E228, E230, E203 STAINING RM	20A	1			1	20A	E245 SPEC PROCESSING	28
29	E297, E234 STAINING RM	20A	1			2	30A	TEL CLOSET 1C900	30
31	E341(2) HISTOLOGY	20A	1						32
33	SPARE	20A	1			2	20A	TEL CLOSET 1C302	34
35	SPARE	20A	1						36
37	COMPUTER RECP. PHARM.	20A	1			1	20A	SPARE	38
39	COMPUTER RECP. PHARM.	20A	1			1	20A	SPARE	40
41	COMPUTER RECP. PHARM.	20A	1			1	20A	PHARMACY LEVER POLE	42

NOTES:
1. ALL BREAKERS ARE STANDARD UNLESS OTHERWISE NOTED.
2. (*) NUMBER INDICATES BREAKER TYPE: 1 = AFCI, 2 = CLASS A 5mA GFCI, 3 = 30mA GFPE, 4 = SHUNT TRIP ACTIVATED, 5 = PANELBOARD FEEDER SERVING UNIT SHALL BE...

EXISTING '1RC2'

VOLTAGE:	208 / 120	ISOLATED GROUND (Y/N):	N
PHASE/WIRE:	3ϕ / 4	BUSSING:	
MAIN TYPE :	CIRCUIT BREAKER	MOUNTING:	SURFACE MOUNT
RATED AMPERAGE:	225A	MCB GFP (Y/N):	
MAIN:	225A	MCB SHUNT TRIP (Y/N):	
SCC RATING (SYM):		MCB 100% RATED (Y/N):	

SOLID NEUTRAL; GROUND BUS; SPD

CKT	IDENTIFICATION	BKR SIZE	POLES	LOAD (kVA)	LOAD (kVA)	POLES	BKR SIZE	IDENTIFICATION	CKT
1	SPARE	20A	1			1	20A	RECP.	2
3	SPARE	20A	1			1	20A	RECP.	4
5	SPARE	20A	1			1	20A	RECP.	6
7	COMPUTER RECP. PHARM.	20A	1			1	20A	RECP. RECOV. CLERK	8
9	COMPUTER RECP. PHARM.	20A	1			1	20A	RECP. RECOV. CLERK	10
11	COMPUTER RECP. PHARM.	20A	1			1	20A	RECP. RECOV. CLERK	12
13	VASCULAR COPY	20A	1			1	20A	E276 REFRIG. STAFF LOUNGE	14
15	COMPUTER RECP. PHARM.	20A	1			1	20A	KITCHEN RECP. STAFF LOUNGE	16
17	EF 28/ROOF REC	20A	1			1	20A	MICROWAVE STAFF LOUNGE	18
19	RECP. OFFICE	20A	1			1	20A	RECP. STAFF LOUNGE	20
21	RECP. OFFICE	20A	1			1	20A	RECP. PHARMACY	22
23	RECP. OFFICE	20A	1			1	20A	RECP. PHARMACY	24
25	RECP. EXAM	20A	1			1	20A	SPARE	26
27	RECP. EXAM	20A	1			1	20A	SPARE	28
29	RECP. EXAM	20A	1			1	20A	SPARE	30
31	RECP. CORRIDOR	20A	1			1	20A	SPARE	32
33	RECP. CORRIDOR	20A	1			2	20A	SPARE	34
35	RECP. CORRIDOR	20A	1						36
37	ROOM 1D517	20A	1			1	20A	SPARE	38
39	ROOM 1D517	20A	1			1	20A	SPARE	40
41	ROOM 1D517	20A	1			1	20A	SPARE	42

NOTES:
1. ALL BREAKERS ARE STANDARD UNLESS OTHERWISE NOTED.
2. (*) NUMBER INDICATES BREAKER TYPE: 1 = AFCI, 2 = CLASS A 5mA GFCI, 3 = 30mA GFPE, 4 = SHUNT TRIP ACTIVATED, 5 = PANELBOARD FEEDER SERVING UNIT SHALL BE...

EXISTING '1EC2'

VOLTAGE:	208 / 120	ISOLATED GROUND (Y/N):	N
PHASE/WIRE:	3ϕ / 4	BUSSING:	
MAIN TYPE :	CIRCUIT BREAKER	MOUNTING:	SURFACE MOUNT
RATED AMPERAGE:	225A	MCB GFP (Y/N):	
MAIN:	225A	MCB SHUNT TRIP (Y/N):	
SCC RATING (SYM):		MCB 100% RATED (Y/N):	

SOLID NEUTRAL; GROUND BUS; SPD

CKT	IDENTIFICATION	BKR...	POLES	LOAD (kVA)	LOAD (kVA)	POLES	BKR...	IDENTIFICATION	CKT
1	PHARM DOOR INTERLOCK	20A	1			3	30A	SPARE	2
3	E338 MICROBIOLOGY	20A	1						4
5	E264 TB WORK	20A	1						6
7	E264B TB WORK	20A	1			1	20A	E226 MICROBIOLOGY	8
9	E264 MICROBIOLOGY	30A	1			1	20A	E263 MICROBIOLOGY	10
11	NURSE CALL	20A	1			1	20A	LAB RECPT & HOOD	12
13	COILING GRILLE PHARM	20A	1			1	20A	E277 STORAGE	14
15	LAB HISTOLOGY	20A	1			1	20A	E278 STORAGE	16
17	LIGHT (AHU-12)	20A	1			1	20A	E224 MICROBIOLOGY	18
19	TEL CLOSET 1B235	20A	2			2	30A	SPEC PROCESSING	20
21									22
23	UROLOGY EF	20A	1			1	20A	MICRO BIO	24
25	COMP. RECP	20A	1			1	20A	UROLOGY NEW ROOM PLUGS	26
27	COMP. RECP	20A	1			1	20A	UROLOGY NEW ROOM PLUGS	28
29	REFER RECP	20A	1			1	20A	ISLAND #2	30
31	REFER RECP	20A	1			1	20A	ISLAND #2	32
33	RECP COLLECTION	20A	1			1	20A	STAINING RM	34
35	RECP COLLECTION	20A	1			1	20A	STAINING RM	36
37	LAB	20A	1			1	20A	RECP LAB	38
39	LAB WORK	20A	1			1	20A	RECP LAB	40
41	PRINTER	20A	1			1	20A	COMP. RECP.	42

NOTES:
1. ALL BREAKERS ARE STANDARD UNLESS OTHERWISE NOTED.
2. (*) NUMBER INDICATES BREAKER TYPE: 1 = AFCI, 2 = CLASS A 5mA GFCI, 3 = 30mA GFPE, 4 = SHUNT TRIP ACTIVATED, 5 = PANELBOARD FEEDER SERVING UNIT SHALL BE...

PANELS SHOWN REPRESENT EXISTING CONDTIONS PRIOR TO CONSTRUCTION.

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects
Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: EXISTING ELECTRICAL PANEL SCHEDULES

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER,CA, 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved: Project Director

Date: OCTOBER 13, 2023 | Checked: JAV | Drawn: EFJ

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Drawing Number E-602

Dwg 11 of 12

10/11/2023 4:04:23 PM

DocuSign Envelope ID: 5730FB0C-7BF2-46FB-B0D7-D90415739 2E9

New Branch Panel: '650GD-EHP01' (OLD NAME: 1ELE)

Location: ELEC RM 1B237 **Volts:** 277/480 **A.I.C. Rating:** 22,000 AMPS SYMMETRICAL
Supply From: 'SH650A' **Phases:** 3 **Mains Type:** MAIN CB
Mounting: SURFACE **Wires:** 4 **Mains Rating:** 100 A
Enclosure: NEMA 1 **MCB Rating:** 100 A 100% RATED

CKT	Circuit Description	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Circuit Description	CKT
1	EGRESS LIGHTING AREA D (ETR)	20 A	1	0.90...			0.00...			1	20 A	DIALYSIS UNIT (ETR)	2
3	EGRESS LIGHTING AREA E (ETR)	20 A	1		0.90...			0.00...		3	15 A	SPARE (ETR)	4
5	EGRESS LIGHTING AREA C (ETR)	20 A	1			0.90...			0.00...				6
7	RETAIL LIGHTS (ETR)	20 A	1	0.90...			0.00...			1	20 A	SPARE	8
9	SPARE	20 A	1		0.00...			0.00...		1	20 A	SPARE	10
11	SPARE (ETR)	30 A	1			0.00...			0.00...	1	20 A	SPARE	12
13	CORRIDOR (ETR)	20 A	1	1.54...			0.10...			1	20 A	EM LIGHTS (BLDG-650) (ETR)	14
15	CORRIDOR (ETR)	20 A	1		1.54...			0.10...		1	20 A	EM LIGHTS (BLDG-650) (ETR)	16
17	CORRIDOR (ETR)	20 A	1			1.54...			0.10...	1	20 A	EM LIGHTS (BLDG-650) (ETR)	18
19	SPACE (ETR)	--	1	--			--			1	--	SPACE (ETR)	20
21	SPACE (ETR)	--	1		--			--		1	--	SPACE (ETR)	22
23	SPACE (ETR)	--	1			--			--	1	--	SPACE (ETR)	24
25	SPACE (ETR)	--	1	--			--			1	--	SPACE (ETR)	26
27	SPACE (ETR)	--	1		--			--		1	--	SPACE (ETR)	28
29	SPACE (ETR)	--	1			--			--	1	--	SPACE (ETR)	30
31	SPACE (ETR)	--	1	--			--			1	--	SPACE (ETR)	32
33	SPACE (ETR)	--	1		--			--		1	--	SPACE (ETR)	34
35	SPACE (ETR)	--	1			--			--	1	--	SPACE (ETR)	36
37	SPACE (ETR)	--	1	--			--			1	--	SPACE (ETR)	38
39	SPACE (ETR)	--	1		--			--		1	--	SPACE (ETR)	40
41	SPACE (ETR)	--	1			--			--	1	--	SPACE (ETR)	42
		Total Load:		3.44 kVA		2.54 kVA		2.54 kVA					
		Total Amps:		12 A		9 A		9 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Spare	8.51 kVA	100.00%	8.51 kVA		
				Total Conn. Load:	8.51 kVA
				Total Est. Demand:	8.51 kVA
				Total Conn.:	10 A
				Total Est. Demand:	10 A

Notes:
A) CONTRACTOR TO COORDINATE CIRCUIT DESCRIPTIONS WITH COR. FOR FINAL ROOM LABELING SEE I-001.
B) PANEL PREVIOUSLY KNOWN AS '1ELE'
C) LABEL PANEL IN FIELD AS '650GD-EHP01' (OLD NAME: 1ELE)

New Branch Panel: '650GD-EHP02' (OLD NAME: 1EE)

Location: ELEC RM 1B237 **Volts:** 120/208 **A.I.C. Rating:** 22,000 AMPS SYMMETRICAL
Supply From: XMFR TEC **Phases:** 3 **Mains Type:** MAIN CB
Mounting: SURFACE **Wires:** 4 **Mains Rating:** 100 A
Enclosure: NEMA 1 **MCB Rating:** 100 A 100% RATED

CKT	Circuit Description	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Circuit Description	CKT
1	ELEVATOR LIGHTS (ETR)	20 A	1	0.80...			0.50...			1	20 A	DIALYSIS UNIT (ETR)	2
3	SMOKE DAMPER AREA B,C (ETR)	20 A	1		0.20...			0.50...		1	20 A	DIALYSIS UNIT (ETR)	4
5	EM EXIT LIGHTS (PHARM)	20 A	1			0.50...			1.20...	1	20 A	DED-PACS CONTROLLER-RM1C601 (PHARM)...	6
7	FACP 1B291 (ETR)	20 A	1	0.10...			0.00...			1	20 A	SPARE (ETR)	8
9	ELEVATOR LIGHTS (ETR)	20 A	1		0.80...			0.50...		1	20 A	FA POWER SUPPLY 1D405 (ETR)	10
11	FA POWER SUPPLY 1B291 (ETR)	30 A	1			2.30...			0.50...	1	20 A	FA POWER SUPPLY 1E122 (ETR)	12
13	FACP 1B291 (ETR)	20 A	1	0.10...			0.50...			1	20 A	FA POWER SUPPLY 1C601 (ETR)	14
15	AUTOMATIC DOORS LOBBY (ETR)	20 A	1		0.10...			0.50...		1	20 A	FA POWER SUPPLY 2-18-02 (ETR)	16
17	MAG. DOOR HALD 1B291 (ETR)	20 A	1			0.01...			0.50...	1	20 A	FA POWER SUPPLY 3-18-02 (ETR)	18
19	DED-CCTV SWITCH-RM1B235 (PHARM) (EM)	20 A	1	0.00...			0.96...			2	20 A	RETAIL STORE POWER POLE (ETR)	20
21	SPARE (ETR)	20 A	1		0.00...			0.96...					22
23	FA POWER SUPPLY 1D801 (ETR)	20 A	1			0.50...			1.02...	1	20 A	EQP-FIRE SHTR CNTL PNL (PHARM) (EM)	24
25	SPARE (ETR)	20 A	1	0.00...			0.16...			1	20 A	LTG-VLT (PHARM)-RM106 (EM)	26
27	SPARE (ETR)	20 A	1		0.00...			0.60...		1	20 A	DED-IDS PNL STRG (PHARM)-RM100 (EM)	28
29	SECURITY DOORS STANLEY (ETR)	20 A	1			0.10...			0.48...	1	20 A	DED-PACS DOOR EQUIP (PHARM) (EM)	30
31	SPARE (ETR)	20 A	1	0.00...			0.00...			1	20 A	SPARE (ETR)	32
33	SPARE (ETR)	20 A	1		0.00...			0.00...		1	30 A	SPARE (ETR)	34
35	SECURITY CABINET 1D405 (ETR)	20 A	1			0.05...			0.00...	1	20 A	SPARE (ETR)	36
37	SPARE (ETR)	20 A	1	0.00...			0.00...			1	20 A	SPARE (ETR)	38
39	SPARE (ETR)	20 A	1		0.00...			0.00...		1	20 A	SPARE (ETR)	40
41	VAV AREA E (ETR)	20 A	1			0.50...			0.00...	1	20 A	SPARE (ETR)	42
		Total Load:		3.12 kVA		4.16 kVA		7.66 kVA					
		Total Amps:		26 A		36 A		65 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Spare	12.18 kVA	100.00%	12.18 kVA		
MOTOR/HVAC	1.02 kVA	122.06%	1.25 kVA	**Total Conn. Load:**	14.94 kVA
LIGHTING	0.04 kVA	125.00%	0.04 kVA	**Total Est. Demand:**	15.33 kVA
HVAC	0.60 kVA	100.00%	0.60 kVA	**Total Conn.:**	41 A
RCPT	0.48 kVA	100.00%	0.48 kVA	**Total Est. Demand:**	43 A
LIGHTING (GENERAL)	0.62 kVA	125.00%	0.78 kVA		

Notes:
A) CONTRACTOR TO COORDINATE CIRCUIT DESCRIPTIONS WITH COR. FOR FINAL ROOM LABELING SEE I-001.
B) PANEL PREVIOUSLY KNOWN AS '1EE'
C) LABEL PANEL IN FIELD AS '650GD-EHP02' (OLD NAME: 1EE)

New Branch Panel: 650GD-EHD01

Location: MECH 1D645 **Volts:** 277/480 **A.I.C. Rating:** 22,000 AMPS SYMMETRICAL
Supply From: SWBD 'A-CE' **Phases:** 3 **Mains Type:** MAIN CB
Mounting: SURFACE **Wires:** 4 **Mains Rating:** 400 A
Enclosure: NEMA 1 **MCB Rating:** 400 A 100% RATED

CKT	Circuit Description	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Circuit Description	CKT
1				44.20...			3.00...						2
3	PNL 'PP2-3'	225 A	3		44.20...			3.00...		3	225 A	MCC 'MCC-2'	4
5						44.20...			0.00...				6
7													8
9													10
11													12
13													14
15													16
17													18
19													20
21													22
23													24
25													26
27													28
29													30
		Total Load:		47.20 kVA		47.20 kVA		44.20 kVA					
		Total Amps:		172 A		172 A		160 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Spare	138.60 kVA	100.00%	138.60 kVA		
				Total Conn. Load:	138.60 kVA
				Total Est. Demand:	138.60 kVA
				Total Conn.:	167 A
				Total Est. Demand:	167 A

Notes:
A) CONTRACTOR TO COORDINATE CIRCUIT DESCRIPTIONS WITH COR. FOR FINAL ROOM LABELING SEE I-001.

ETR Branch Panel: PP2-1

Location: EXTERIOR - **Volts:** 120/208 **A.I.C. Rating:** 25,000 AMPS SYMMETRICAL
Supply From: XMFR 'T-PP2-1' **Phases:** 3 **Mains Type:** MLO
Mounting: SURFACE **Wires:** 4 **Mains Rating:** 400 A
Enclosure: NEMA 1 **MCB Rating:** 0 A

CKT	Circuit Description	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Circuit Description	CKT
1	PATRIOT TEMP POWER (ETR)	60 A	2	0.00...			2.00...						2
3					0.00...			2.00...		3	30 A	LIFT STATION 647 (ETR)	4
5						9.00...			2.00...				6
7	SUBPANEL 650A (ETR)	100 A	3	9.00...			1.80...			1	20 A	PLASMA CUTTER (ETR)	8
9					9.00...			1.00...		1	20 A	(ETR)	10
11						9.00...			9.53...				12
13	(ETR)	100 A	3	9.00...			9.53...			3	100 A	**650-HM-20**	14
15					9.00...			9.53...					16
17	T6-B (ETR)	125 A	2			8.50...			0.10...	1	20 A	**CONV. CIR. FOR AHU-20 REC & LTS**	18
19				8.50...				--		1	--	SPACE (ETR)	20
21		125 A	2		8.50...			--		1	--	SPACE (ETR)	22
23						8.50...			--	1	--	SPACE (ETR)	24
25	SPACE (ETR)	--	1	--			--			1	--	SPACE (ETR)	26
27	SPACE (ETR)	--	1		--			--		1	--	SPACE (ETR)	28
29	SPACE (ETR)	--	1			--			--	1	--	SPACE (ETR)	30
		Total Load:		39.83 kVA		39.03 kVA		46.61 kVA					
		Total Amps:		333 A		325 A		389 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	0.00 kVA	0.00%	0.00 kVA		
Spare	96.80 kVA	100.00%	96.80 kVA	**Total Conn. Load:**	125.48 kVA
HVAC	28.60 kVA	100.00%	28.60 kVA	**Total Est. Demand:**	125.48 kVA
SPEC	0.10 kVA	100.00%	0.10 kVA	**Total Conn.:**	348 A
				Total Est. Demand:	348 A

Notes:
A) CONTRACTOR TO COORDINATE CIRCUIT DESCRIPTIONS WITH COR. FOR FINAL ROOM LABELING SEE I-001.

ETR Branch Panel: PP2-2

Location: EXTERIOR - **Volts:** 277/480 **A.I.C. Rating:** 25,000 AMPS SYMMETRICAL
Supply From: MCC 'MCC-2' (ETR) **Phases:** 3 **Mains Type:** MAIN CB
Mounting: SURFACE **Wires:** 4 **Mains Rating:** 250 A
Enclosure: NEMA 1 **MCB Rating:** 250 A 100% RATED

CKT	Circuit Description	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Circuit Description	CKT
1				0.00...			2.87...						2
3	SPARE (ETR)	100 A	3		0.00...			2.87...		3	30 A	**650-AHU-20**	4
5						0.00...			2.87...				6
7	SPACE (ETR)	--	1	--			--			1	--	SPACE (ETR)	8
9	SPACE (ETR)	--	1		--			--		1	--	SPACE (ETR)	10
11	SPACE (ETR)	--	1			--			--	1	--	SPACE (ETR)	12
13	SPACE (ETR)	--	1	--			--			1	--	SPACE (ETR)	14
15	SPACE (ETR)	--	1		--			--		1	--	SPACE (ETR)	16
17	SPACE (ETR)	--	1			--			--	1	--	SPACE (ETR)	18
19	SPACE (ETR)	--	1	--			--			1	--	SPACE (ETR)	20
21	SPACE (ETR)	--	1		--			--		1	--	SPACE (ETR)	22
23	SPACE (ETR)	--	1			--			--	1	--	SPACE (ETR)	24
25	SPACE (ETR)	--	1	--			--			1	--	SPACE (ETR)	26
27	SPACE (ETR)	--	1		--			--		1	--	SPACE (ETR)	28
29	SPACE (ETR)	--	1			--			--	1	--	SPACE (ETR)	30
		Total Load:		42.70 kVA		41.90 kVA		49.48 kVA					
		Total Amps:		155 A		151 A		179 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	0.00 kVA	0.00%	0.00 kVA		
Spare	96.80 kVA	100.00%	96.80 kVA	**Total Conn. Load:**	134.09 kVA
MOTOR/HVAC	8.60 kVA	125.00%	10.76 kVA	**Total Est. Demand:**	136.24 kVA
HVAC	28.60 kVA	100.00%	28.60 kVA	**Total Conn.:**	161 A
SPEC	0.10 kVA	100.00%	0.10 kVA	**Total Est. Demand:**	164 A

Notes:
A) CONTRACTOR TO COORDINATE CIRCUIT DESCRIPTIONS WITH COR. FOR FINAL ROOM LABELING SEE I-001.

New Branch Panel: '650GD-ELP01' (OLD NAME: 1EC1)

Location: ELECT 1D406 **Volts:** 120/208 **A.I.C. Rating:** 22,000 AMPS SYMMETRICAL
Supply From: DPE-B **Phases:** 3 **Mains Type:** MAIN CB
Mounting: SURFACE **Wires:** 4 **Mains Rating:** 225 A
Enclosure: NEMA 1 **MCB Rating:** 225 A 100% RATED

CKT	Circuit Description	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Circuit Description	CKT
1	E218 SPEC PROCESSING (ETR)	20 A	1	1.44...			1.26...			1	20 A	REC-FLG/ASSM & VLT (PHARM)-RM104/106...	2
3	E218 SPEC PROCESSING (ETR)	20 A	1		1.44...			1.15...		1	15 A	E335 LAB WORK AREA (ETR)	4
5	E220 HEMATOLOGY (ETR)	20 A	1			1.44...			1.44...	1	20 A	E355B C.D.SPECIAL CHEM (ETR)	6
7	E304 HEMATOLOGY (ETR)	20 A	1	1.44...			2.30...			1	30 A	E269 BLOOD BANK (ETR)	8
9	E268 BLOOD BANK (ETR)	30 A	1		2.30...			1.44...		1	20 A	E227 HISTOLOGY (ETR)	10
11	E219 SPEC PROCESSING (ETR)	20 A	1			1.44...			1.44...	1	20 A	E270 BLOOD BLANK (ETR)	12
13	E222 BLOOD BANK (ETR)	20 A	1	1.44...			1.92...			1	25 A	E223 BLOOD BLANK (ETR)	14
15	E315 HISTOLOGY (ETR)	15 A	1		1.15...			1.44...		1	20 A	E221, E340, E267, E221C BLOOD (ETR)	16
17	E320 REFRIG. HISTOLOGY (ETR)	20 A	1			1.20...			1.44...	1	20 A	E245 CHEMISTRY (ETR)	18
19	E215 REFRIG. LAB WORK (ETR)	20 A	1	1.20...			1.44...			1	20 A	E245 SPEC PROCESSING (ETR)	20
21	E217 REFRIG. LAB WORK (ETR)	20 A	1		1.20...			1.44...		1	20 A	E262 URANALYSIS (ETR)	22
23	E200 REFRIG. LOUNGE (ETR)	30 A	1			2.88...			1.44...	1	20 A	E339C, E258 COAG (ETR)	24
25	E245 URANALYSIS (ETR)	20 A	1	1.44...			0.00...			1	15 A	E305 SPEC PROCESSING (ETR)	26
27	E228, E230, E203 STAINING RM (ETR)	20 A	1		1.44...			1.44...		1	20 A	E245 SPEC PROCESSING (ETR)	28
29	E297, E234 STAINING RM (ETR)	20 A	1			1.44...			0.25...	2	30 A	TEL CLOSET 1C900 (ETR)	30
31	E341(2) HISTOLOGY (ETR)	20 A	1	1.44...			0.25...						32
33	REC-FLG/ASSM WRK ST 02 (PHARM)-RM104...	20 A	1		1.44...			0.25...		2	30 A	TEL CLOSET 1C302 (ETR)	34
35	DED-R5100 EQUIP(PHARM)-RM104 (EM)	20 A	1			0.48...			0.25...				36
37	DED-R7250 EQUIP(PHARM)-RM104 (EM)	20 A	1	0.48...			1.08...			1	20 A	REC-FLG/ASSM WRK ST 01 (PHARM)-RM104...	38
39	SPARE	20 A	1		0.00...			0.00...		1	20 A	SPARE	40
41	SPARE	20 A	1			0.00...			0.00...	1	20 A	SPARE	42
		Total Load:		17.13 kVA		16.13 kVA		15.14 kVA					
		Total Amps:		144 A		136 A		126 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Spare	43.66 kVA	100.00%	43.66 kVA		
RECEPTACLES (GENERAL)	3.78 kVA	100.00%	3.78 kVA	**Total Conn. Load:**	48.40 kVA
RECEPTACLE (DEDICATED)	0.00 kVA	0.00%	0.00 kVA	**Total Est. Demand:**	48.64 kVA
				Total Conn.:	134 A
				Total Est. Demand:	135 A

Notes:
A) CONTRACTOR TO COORDINATE CIRCUIT DESCRIPTIONS WITH COR. FOR FINAL ROOM LABELING SEE I-001.
B) PANEL PREVIOUSLY KNOWN AS '1EC1'.
C) LABEL PANEL IN FIELD AS '650GD-ELP01' (OLD NAME: 1EC1)

New Branch Panel: '650GD-NLP01' (OLD NAME: 1RC2)

Location: ELECT 1D406 **Volts:** 120/208 **A.I.C. Rating:** 22,000 AMPS SYMMETRICAL
Supply From: DPN-4 **Phases:** 3 **Mains Type:** MAIN CB
Mounting: SURFACE **Wires:** 4 **Mains Rating:** 225 A
Enclosure: NEMA 1 **MCB Rating:** 225 A 100% RATED

CKT	Circuit Description	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Circuit Description	CKT
1	REC-LNG/LKR (PHARM)-RM104/107	20 A	1	1.44...			1.44...			1	20 A	RECP. (ETR)	2
3	DED-COFFEE (PHARM)-RM107	20 A	1		0.18...			1.44...		1	20 A	RECP. (ETR)	4
5	DED-DISHWASHER (PHARM)-RM107	20 A	1			0.18...			1.44...	1	20 A	RECP. (ETR)	6
7	REC-FLG/ASSM 01 (PHARM)-RM104	20 A	1	1.44...			1.44...			1	20 A	RECP. RECOV. CLERK (ETR)	8
9	REC-FLG/ASSM 02 (PHARM)-RM104	20 A	1		1.44...			1.44...		1	20 A	RECP. RECOV. CLERK (ETR)	10
11	REC-FLG/ASSM & VLT (PHARM)-RM104/106	20 A	1			1.80...			1.44...	1	20 A	RECP. RECOV. CLERK (ETR)	12
13	VASCULAR COPY (ETR)	20 A	1	8.00...			1.20...			1	20 A	E276 REFRIG. STAFF LOUNGE (ETR)	14
15	REC-RCVG & OFF (PHARM)-RM102/103	20 A	1		1.80...			1.44...		1	20 A	KITCHEN RECP. STAFF LOUNGE (ETR)	16
17	EF 28/ROOF REC (ETR)	20 A	1			1.44...			1.20...	1	20 A	MICROWAVE STAFF LOUNGE (ETR)	18
19	RECP. OFFICE (ETR)	20 A	1	1.44...			1.44...			1	20 A	RECP. STAFF LOUNGE (ETR)	20
21	RECP. OFFICE (ETR)	20 A	1		1.44...			1.44...		1	20 A	REC-STG & TLT & FLG/ASM...	22
23	RECP. OFFICE (ETR)	20 A	1			1.44...			1.08...	1	20 A	REC-WTG (PHARM)-RM105	24
25	RECP. EXAM (ETR)	20 A	1	1.44...			0.18...			1	20 A	DED-MICROWAVE (PHARM)-RM107	26
27	RECP. EXAM (ETR)	20 A	1		1.44...			0.92...		1	20 A	LTG-FLG/ASSM 01 (PHARM)-RM104	28
29	RECP. EXAM (ETR)	20 A	1			1.44...			0.69...	1	20 A	LTG-(PHARM) RM100,101,102,103,&107	30
31	RECP. CORRIDOR (ETR)	20 A	1	1.44...			0.76...			1	20 A	LTG-FLG/ASSM 02 (PHARM)-RM104	32
33	RECP. CORRIDOR (ETR)	20 A	1		1.44...			1.10...		1	20 A	DED-FRIDGE (PHARM)-RM107	34
35	RECP. CORRIDOR (ETR)	20 A	1			1.44...			0.89...	1	20 A	LIGHTING (GENERAL)	36
37	ROOM 1D517 (ETR)	20 A	1	1.44...			0.17...			1	20 A	LTG-UNDER CABINET (PHARM)	38
39	ROOM 1D517 (ETR)	20 A	1		1.44...			0.72...		1	20 A	LTG-LOBBY (PHARM)-RM105	40
41	ROOM 1D517 (ETR)	20 A	1			1.44...			0.23...	1	20 A	LTG-FLG/ASSM & LBY 01 (PHARM)-RM104&105	42
		Total Load:		23.26 kVA		17.68 kVA		16.15 kVA					
		Total Amps:		196 A		149 A		135 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Spare	40.64 kVA	100.00%	40.64 kVA		
RECEPTACLES (GENERAL)	12.08 kVA	91.39%	11.04 kVA	**Total Conn. Load:**	57.10 kVA
HVAC	0.06 kVA	100.00%	0.06 kVA	**Total Est. Demand:**	57.14 kVA
LIGHTING (GENERAL)	4.32 kVA	125.00%	5.39 kVA	**Total Conn.:**	158 A
				Total Est. Demand:	159 A

Notes:
A) CONTRACTOR TO COORDINATE CIRCUIT DESCRIPTIONS WITH COR. FOR FINAL ROOM LABELING SEE I-001.
B) PANEL PREVIOUSLY KNOWN AS '1RC2'.
C) LABEL PANEL IN FIELD AS '650GD-NLP01' (OLD NAME: 1RC2)

New Branch Panel: '650GD-ELP02' (OLD NAME: 1EC2)

Location: ELECT 1D406 **Volts:** 120/208 **A.I.C. Rating:** 22,000 AMPS SYMMETRICAL
Supply From: DPE-B **Phases:** 3 **Mains Type:** MAIN CB
Mounting: SURFACE **Wires:** 4 **Mains Rating:** 225 A
Enclosure: NEMA 1 **MCB Rating:** 225 A 100% RATED

CKT	Circuit Description	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Circuit Description	CKT
1	REC-VLT (PHARM)-RM106 (EM)	20 A	1	0.78...			0.72...			1	20 A	DED-R7280 EQUIP(PHARM)-RM104 (EM)	2
3	E338 MICROBIOLOGY (ETR)	20 A	1		1.44...			0.48...		1	20 A	DED-R6060 EQUIP(PHARM)-RM104 (EM)	4
5	E264 TB WORK (ETR)	20 A	1			1.44...			1.44...	1	20 A	REC-FLG/ASSM RECPTN 03 (PHARM)-RM104...	6
7	E264B TB WORK (ETR)	20 A	1	1.44...			1.44...			1	20 A	E226 MICROBIOLOGY (ETR)	8
9	E264 MICROBIOLOGY (ETR)	20 A	1		1.44...			1.44...		1	20 A	E263 MICROBIOLOGY (ETR)	10
11	NURSE CALL (ETR)	20 A	1			0.10...			1.44...	1	20 A	LAB RECPT & HOOD (ETR)	12
13	EQP-VAV (PHARM) (EM)	20 A	1	0.36...			1.44...			1	20 A	E277 STORAGE (ETR)	14
15	LAB HISTOLOGY (ETR)	20 A	1		1.44...			1.44...		1	20 A	E278 STORAGE (ETR)	16
17	LIGHT (AHU-12) (ETR)	20 A	1			0.08...			1.44...	1	20 A	E224 MICROBIOLOGY (ETR)	18
19	TEL CLOSET 1B235 (ETR)	20 A	2	0.50...				1.15...		2	30 A	SPEC PROCESSING (ETR)	20
21					0.50...				1.15...				22
23	UROLOGY EF (ETR)	20 A	1			0.10...			1.44...	1	20 A	MICRO BIO (ETR)	24
25	COMP. RECP. (ETR)	20 A	1	1.44...			1.44...			1	20 A	UROLOGY NEW ROOM PLUGS (ETR)	26
27	COMP. RECP (ETR)	20 A	1		1.44...			1.44...		1	20 A	UROLOGY NEW ROOM PLUGS (ETR)	28
29	REFER RECP (ETR)	20 A	1			1.44...			1.44...	1	20 A	ISLAND #2 (ETR)	30
31	REFER RECP (ETR)	20 A	1	1.44...			1.44...			1	20 A	ISLAND #2 (ETR)	32
33	RECP COLLECTION (ETR)	20 A	1		1.44...			1.44...		1	20 A	STAINING RM (ETR)	34
35	RECP COLLECTION (ETR)	20 A	1			1.44...			1.44...	1	20 A	STAINING RM (ETR)	36
37	LAB (ETR)	20 A	1	1.44...			1.44...			1	20 A	RECP LAB (ETR)	38
39	LAB WORK (ETR)	20 A	1		1.44...			1.44...		1	20 A	RECP LAB (ETR)	40
41	PRINTER (ETR)	20 A	1			0.80...			1.44...	1	20 A	COMP. RECP. (ETR)	42
		Total Load:		16.47 kVA		17.97 kVA		15.48 kVA					
		Total Amps:		139 A		151 A		129 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Spare	46.14 kVA	100.00%	46.14 kVA		
RECEPTACLES (GENERAL)	1.44 kVA	100.00%	1.44 kVA	**Total Conn. Load:**	49.92 kVA
HVAC	0.36 kVA	100.00%	0.36 kVA	**Total Est. Demand:**	50.22 kVA
RECEPTACLE (DEDICATED)	0.78 kVA	100.00%	0.78 kVA	**Total Conn.:**	139 A
				Total Est. Demand:	139 A

Notes:
A) CONTRACTOR TO COORDINATE CIRCUIT DESCRIPTIONS WITH COR. FOR FINAL ROOM LABELING SEE I-001.
B) PANEL PREVIOUSLY KNOWN AS '1EC2'
C) LABEL PANEL IN FIELD AS '650GD-ELP02' (OLD NAME: 1EC2)

ETR PANELS ARE EXISTING TO REMAIN. NEW PANELS ARE PANELS BEING REPLACED / ADDED UNDER THIS JOB. GRAY TEXT REPRESENTS EXISTING CIRCUITS TO BE CONNECTED TO NEW BREAKERS IN REPLACED PANELS. BOLD TEXT REPRESENTS CIRCUITS ADDED OR CHANGED UNDER CONTRACT.

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED JAVIER VANDERLINDE 0051332 PROFESSIONAL ENGINEER
10/12/2023

PROJECT MANAGER
ACG Project

DocuSign Envelope ID: 5730FB0C-7BF2-46FB-B0D7-D90415739 2E9

GENERAL TECHNOLOGY NOTES

1. PROVIDE COMMUNICATIONS DEVICES AND EQUIPMENT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, MANUFACTURER'S RECOMMENDED PROCEDURES, ALL APPLICABLE LOCAL AND STATE CODES, AMERICANS WITH DISABILITIES ACT, LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, BICSI STANDARDS, AND VA STANDARDS.
2. PROVIDE ADDITIONAL SUPPORT FOR DEVICES AND EQUIPMENT WHERE BUILDING CONSTRUCTION IS NOT SUITABLE FOR DIRECT MOUNTING.
3. FIRESTOP, DRAFTSTOP, SMOKESTOP OR PROTECT ANNULAR SPACE AROUND PENETRATIONS THROUGH WALLS, PARTITIONS, FLOORS, CEILINGS, AND ROOF IN ACCORDANCE WITH REQUIREMENTS OF NFPA 70, UL LISTING REQUIREMENT AND APPLICABLE BUILDING CODES.
4. PROVIDE CABLING THAT COMPLIES WITH THE LATEST EDITION OF TELECOMMUNICATIONS DISTRIBUTION METHOD MANUAL AND ANSI/TIA/EIA PUBLICATIONS.
5. COMPLY WITH THE LATEST ANSI/TIA/EIA 758 AND 607B OR 607A - GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS IN COMMERCIAL BUILDING.
6. COMPLY WITH THE LATEST ANSI/TIA/EIA 568B - COMMERCIAL BUILDING TELECOMMUNICATIONS WIRING STANDARD.
7. COMPLY WITH THE LATEST ANSI/TIA/EIA 569B - COMMERCIAL BUILDING STANDARD FOR TELECOMMUNICATIONS PATHWAYS AND SPACES.
8. COMPLY WITH THE LATEST NFPA 70 NATIONAL ELECTRICAL CODE.
9. COMPLY WITH THE LATEST NFPA 99 HEALTHCARE FACILITIES CODE.
10. COMPLY WITH THE LATEST NFPA 101 LIFE SAFETY CODE.
11. COORDINATE WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION.
12. MANUFACTURER'S NAME AND MODEL NUMBER ARE GIVEN FOR DESCRIPTIVE PURPOSES, TO INDICATE A QUALITY STANDARD, AND ARE NOT INTENDED TO LIMIT PRODUCTS TO A PARTICULAR MANUFACTURER. PRODUCTS DEEMED EQUAL AND APPROVED BY THE COR WILL BE ACCEPTABLE. COMPLY WITH "BUY AMERICAN ACT".
13. MOUNTING HEIGHTS INDICATED ARE TO CENTER OF DEVICE, BOXES, OUTLET, OR EQUIPMENT UNLESS NOTED OTHERWISE.
14. PROVIDE RGS OR EMT CONDUIT UNLESS OTHERWISE NOTED.
15. PROVIDE MATERIALS, DEVICES, APPLIANCES AND EQUIPMENT LABEL LISTED BY APPROVED THIRD PARTY TESTING AGENCY.
16. NOTIFY COR REGARDING DISCREPANCY BETWEEN PLANS AND SPECIFICATIONS FOR CLARIFICATION. THE MORE STRINGENT OF THE THEM SHALL TAKE PRECEDENCE.
17. PROVIDE TIA/EIA CAT 6A COPPER OUTLETS AND CONNECTORS.
18. ALL WORK AREA OUTLETS SHALL BE 8 PIN, CAT 6E KEYSTONE JACK WIRED PER T568A OR T568B AS DIRECTED BY THE VA COR.
19. LABEL DEVICES IN ACCORDANCE WITH LATEST ANSI/TIA 606A OR 606B EDITION AS WELL AS THE STANDARDS SET FORTH BY THE VA HOSPITAL OIT.
20. PROVIDE A MINIMUM OF 12" CLEARANCE ABOVE THE CABLE TRAY PER TIA/EIA 569.B PARAGRAPH 4.5.6.2.
21. VA WILL CONDUCT A WAP SURVEY AND PROVIDE THE SURVEY TO THE CONTRACTOR. INSTALL CABLING AND EQUIPMENT IN ACCORDANCE WITH THE SURVEY. COORDINATE WITH COR/OIT.
22. ALL CABLING INSTALLED ABOVE CEILING SHALL BE PLENUM RATED.
23. MINIMUM CONDUIT SIZE TO BE USED IS 1-1/4".
24. DEVICES PLACE IN INTERCOMMUNICATION ROOM ROOM TO BE MOUNTED ON FIRE RETARDANT PLYWOOD.
25. NEW SECURITY AND MONITORING DEVICES/EQUIPMENT MUST HAVE ABILITY TO TIE INTO EXISTING SYSTEM. TIE-IN MUST ADHERE TO THE SOFTWARE BELOW: SOFTWAREHOUSE/CCURE 9000 iSTAR ULTRA CONTROLLERS

CABLES AND CONNECTORS COLOR LEGEND

DESCRIPTION ITEM	JACK	CABLE	PATCH CABLES	I.D.	NOTES
TELEPHONE	IVORY	IVORY	IVORY	T	4 PAIR CABLE
DATA/COMPUTER	BLUE	BLUE	BLUE	C	4 PAIR CABLE
DATA/COMPUTER	YELLOW	YELLOW	YELLOW	C	4 PAIR CABLE
WIRELESS ACCESS PONT	GREEN	GREEN	GREEN	WAP	4 PAIR CABLE
FIBER - MULTI-MODE	BLACK	AQUA	AQUA	FO	6/12/24/36
FIBER - SINGLE-MODE	IVORY	YELLOW	YELLOW	FO	6/12
SOUND SYSTEM	N/A	GREEN	N/A	SS	MULTI COLOR CONDUCTORS
NURSE CALL	N/A	YELLOW	N/A	NC	4 PAIR UTP
MATV	N/A	BLACK	N/A	MATV	COAX RG6
CCRV - IP	WHITE	WHITE	WHITE	CCTV	CCTV
PACS	N/A	GRAY	N/A	PACS	MULTI COLOR CONDUCTORS

TECHNOLOGY ABBREVIATIONS LIST

ADO AUTOMATIC DOOR OPERATOR
AFF ABOVE FINISH FLOOR

BOD BASIS OF DESIGN

CCTV CLOSED CIRCUIT TELEVISION
COAX COAXIAL CABLE
COMM COMMUNICATION
COR CONTRACTING OFFICER REPRESENTATIVE

DC DOOR CONTACT SWITCH
DN DOWN
DO DOOR OPERATOR
DVC DIGITAL VOICE COMMAND
DVR DIGITAL VIDEO RECORDER

E EXISTING DEVICES
EEB EMERGENCY EXIT BUTTON
EL ELECTRICAL STRIKE
ETR EXISTING TO REMAIN

FA FIRE ALARM
FACP FIRE ALARM CONTROL PANEL
FAAP FIRE ALARM ANNUNCIATOR PANEL
FO FIBER OPTIC
FAGAP FIRE ALARM GRAPHIC ANNUNCIATOR PANEL

IT INTERCOMMUNICATION ROOM

MATV MASTER ANTENNA TELEVISION
MM MULTI MODE FIBER

NAC NETWORK APPLIANCES CIRCUIT PANEL
N NEW DEVICES
NCA NETWORK CONTROL ANNUNCIATOR
NS NO SCALE
NTS NOT TO SCALE
NVR NETWORK VIDEO RECORDER

OC ON CENTER
OIT OFFICE OF INFORMATION TECHNOLOGY

PACS PHYSICAL ACCESS CONTROL SYSTEM
PAMN PUBLIC ADDRESS AND MASS NOTIFICATION SYSTEM
PB PUSH BUTTON
PDU RACK POWER DISTRIBUTION UNITS
POE POWER OVER ETHERNET
PR PAIR

RX REQUEST TO EXIT

SEP SERVICE ENTRANCE PROTECTION
SLC SIGNALING LINE CIRCUIT
SM SINGLE MODE FIBER

TEL TELEPHONE
TGB TELECOMM GROUND BUS BAR
TM TELEMONITORING
TMGB TELECOMM MAIN GROUND BUS BAR
TP TWISTED PAIR
TR TELECOMM ROOM
TTB TELEPHONE TERMINAL BOARD
TV TELEVISION

WM WIRE MANAGEMENT
WAP WIRELESS ACCESS POINT

UL UNDERWRITERS LABORATORY
UPS UNINTERRUPTIBLE POWER SUPPLY
UTP UNSHIELDED TWISTED PAIR

SEISMIC DESIGN CRITERIA	
LOCATION	MATHER, CA
RISK CATEGORY	II
MAPPED SHORT PERIOD SPECTRAL RESPONSE (s_s)	0.460
MAPPED 1-SECOND SPECTRAL RESPONSE (S_1)	0.225
SITE CLASSIFICATION	C
SITE COEFFICIENT (F_A)	1.432
SITE COEFFICIENT (F_V)	1.770
MAXIMUM SHORT PERIOD SPECTRAL RESPONSE (S_{MS})	0.599
MAXIMUM 1-SECOND SPECTRAL RESPONSE (S_{M1})	0.440
MAPPED SHORT PERIOD SPECTRAL RESPONSE (S_{DS})	0.399
MAPPED 1-SECOND SPECTRAL RESPONSE (S_{D1})	0.293
SEISMIC DESIGN CATEGORY	D
SEISMIC IMPORTANCE FACTOR	1
(FOR FINAL VALUES REFER STRUCTURAL DRAWINGS)	

NOTES:

ELECTRICAL GENERATORS, SWITCHGEAR, TRANSFER SWITCHES, UPS, TRANSFORMERS, MOTOR CONTROL CENTERS, PANELBOARDS, FIRE ALARM, CONTROL PANEL, BUSWAY, IT SERVERS, AND CONTROL PANELS MUST BE SEISMICALLY RATED PER THE FOLLOWING CRITERIA AND IN ACCORDANCE WITH ASCE 7.

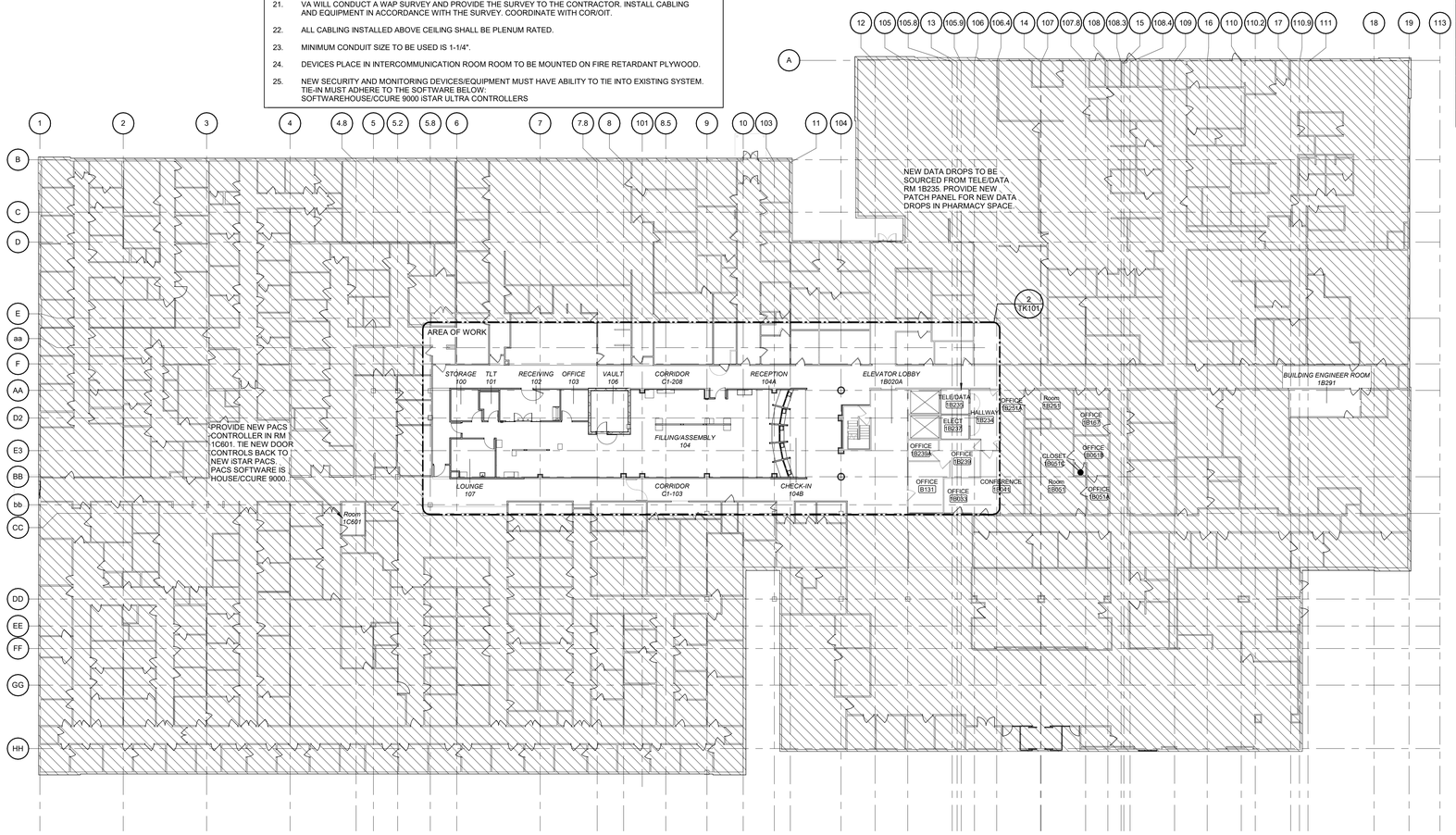
NEW SECURITY SURVEILLANCE CAMERAS:

NONE OF THE NEW SECURITY SURVEILLANCE CAMERAS SUPPLIED BY CONTRACTOR WILL BE SOURCED FROM CHINESE MANUFACTURERS IN ACCORDANCE WITH THE NATIONAL DEFENSE AUTHORIZATION ACT. CONTRACTOR TO ENSURE NO NEW CAMERAS ARE REFURBISHED CAMERAS FROM CHINA.

TECHNOLOGY SYMBOL LEGEND

SYMBOL	HEIGHT	DESCRIPTION	
TN	18"	DATA OUTLET - N-4 PR UTP	(N - QUANTITY)
TN	48"	TELCO OUTLET - N-4 PR UTP	(N - QUANTITY)
W	48"	WALL PHONE	
N	CEILING	WIRELESS ACCESS POINT - N-4 PR UTP	(N - QUANTITY)
S N	CEILING	SECURE WIRELESS ACCESS POINT - N-4 PR UTP	(N - QUANTITY)
	AS NOTED	TV OUTLET WALL MOUNTED	
PACS	6' TO TOP	PHYSICAL ACCESS CONTROL SYSTEM	
CR	48"	CARD READER (K - KEYPAD)	
EG	DOOR	ELECTRONIC LOCKING MECHANISM	
EP	DOOR	ELECTRONIC PANIC HARDWARE	
DC	DOOR	DOOR CONTACT	
RX	ABOVE DOOR	REQUEST FOR EXIT SENSOR	
DO	DOOR	DOOR OPERATOR	
	48"	HANDWAVE	
	48"	EMERGENCY EXIT BUTTON TO RELEASE DOOR (EEB)	
MD	88"	MOTION DETECTOR	
	54"	INTERCOM WITH CAMERA	
M	DESK	INTERCOM MASTER WITH PUSH TO RELEASE DOOR	
NCE	6' TO TOP	NURSE CALL EQUIPMENT CABINET	
	18"	NURSE CALL MASTER STATION/CONSOLE	
	HEADWALL	NURSE CALL PATIENT STATION WITH PILLOW SPEAKER (GET WELL) (1 - SINGLE, 2 - DUAL, V - VANDAL RESISTANT)	
	HEADWALL	NURSE CALL PATIENT STATION WITH CALL CORD. (1 - SINGLE, 2 - DUAL, V - VANDAL RESISTANT)	
	40",72"	NURSE CALL EMERGENCY STATION WITH PULL CORD AND AUDIO +40" AFF IN RESTROOM, +72" AFF IN SHOWER (V - VANDAL RESISTANT, PB - PUSH BUTTON)	
	HEADWALL /40"	NURSE CALL CODE BLUE STATION	
	CEILING	NURSE CALL DOME LIGHT (Z - ZONE LIGHT, V - VANDAL RESISTANT)	
	ABOVE DOOR	NURSE CALL DOME LIGHT	
	18"	NURSE CALL PATIENT BED INTERFACE RECEPTACLE	
	60"	NURSE CALL DUTY STATION	
	60"	NURSE CALL STAFF TERMINAL	
	CEILING	NURSE CALL WIRELESS ANTENNAS	
	CEILING	WIRELESS PENDANT	
M	48"	PATIENT STATION (PB - PUSH BUTTON, M - MICROPHONE, K -KEYED)	
	CEILING	MULTI-SENSOR CAMERA	
	FLOOR	FOUR POST OIT EQUIPMENT RACK	
	FLOOR	TWO POST OIT EQUIPMENT RACK	
	FLOOR	OIT EQUIPMENT CABINET	
MATV	6' TO TOP	MATV EQUIPMENT CABINET	
CCTV	FLOOR	CCTV EQUIPMENT CABINET	
	ABOVE CEILING	LADDER CABLE TARY	
	18"	GROUND BUS	
	8"	4'x8'x3/4" FIRE RATED TTB	
	FLOOR	FLOOR BOX FOR DATA	
KP	48"	PATIENT ROAM ALERT ACCESS CONTROL KEYPAD	
L	CEILING	PATIENT ROAM ALERT ANTENNA	
S	CEILING	CEILING MOUNTED SPEAKERS	
S	96"	WALL MOUNTED SPEAKERS	
AOF	6' TO TOP	AREA OF REFUGE PANEL	
AOFA	6' TO TOP	AREA OF REFUGE ANNUNCIATION PANEL	
IC	48"	AREA OF REFUGE INTERCOM	
SL	CEILING	AREA OF REFUGE STROBE LIGHT	
DP	48"	DURESS PANIC ALARM PUSH BUTTON	
DPP	6' TO TOP	DURESS PANIC ALARM PANEL	
	CEILING	TELEMETRY ANTENNA - 2-4 PR	
	CEILING	ROBOT PHARMACY ANTENNA - 1-4 PR	
S A	WALL	INTRUSION ALARM SIREN AND STROBE	
S A	CEILING	INTRUSION ALARM SIREN AND STROBE	
ID	WALL	INTRUSION DETECTION DEVICES	
IDCP	WALL	INTRUSION DETECTION CONTROL PANEL	

ALL HEIGHTS ARE TO CENTER OF DEVICE UNLESS NOTED OTHERWISE.
ANY HEIGHTS INDICATED IN PLANS SHALL SUPERCEDE THOSE LISTED HERE.
SEE DRAWINGS FOR MORE INFORMATION.
NOTE: NOT ALL SYMBOLS ARE USED.



1 OVERALL FIRST FLOOR PLAN

Scale: 1" = 20'-0"

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER 0051332 — 10/12/2023

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER — Bicsi — JAMES V EZEKIEL — BICSI ID# 290762 — EXPIRES 12-31-24 — RCDD — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: TECHNOLOGY GENERAL NOTES, SYMBOL LEGENDS, AND ABBREVIATIONS

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER,CA, 95655

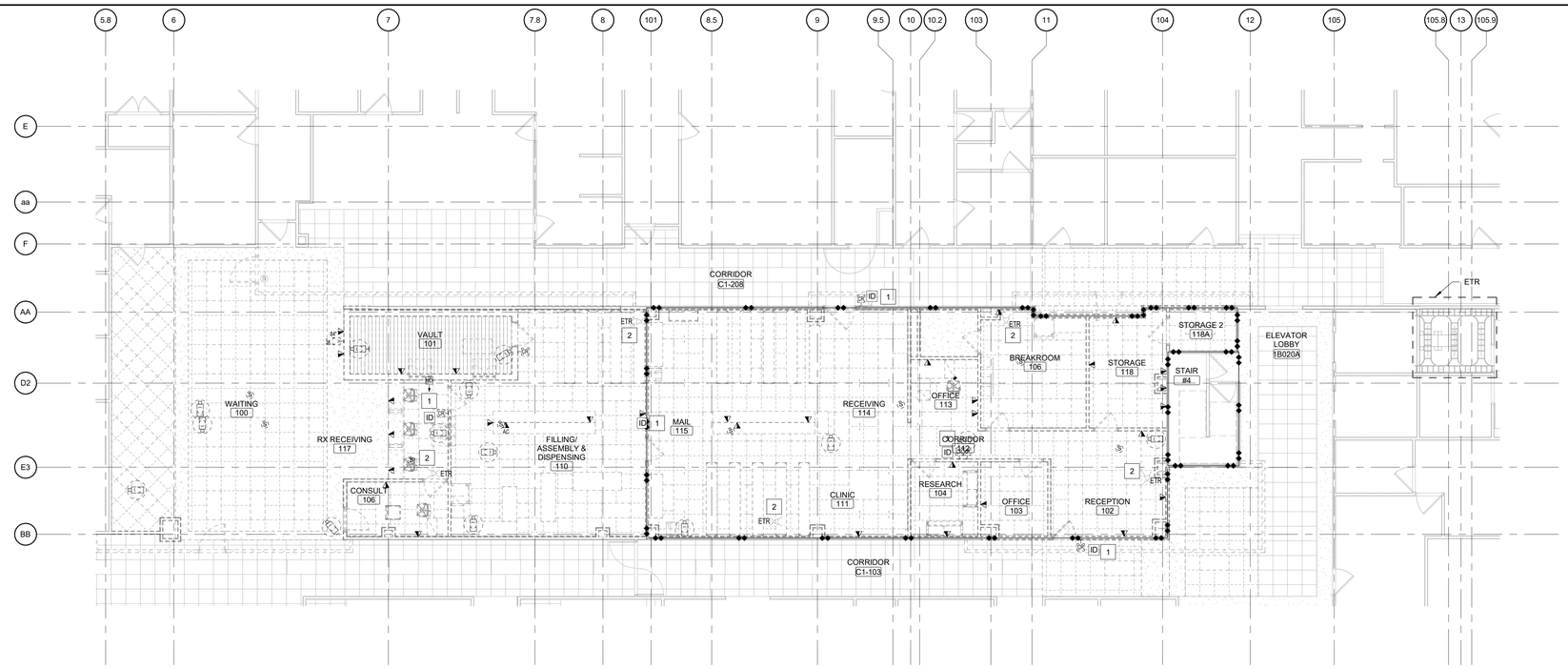
Approved: Project Director

Date: OCTOBER 13, 2023 | Checked: JAV | Drawn: EFJ

Drawing Number TK001

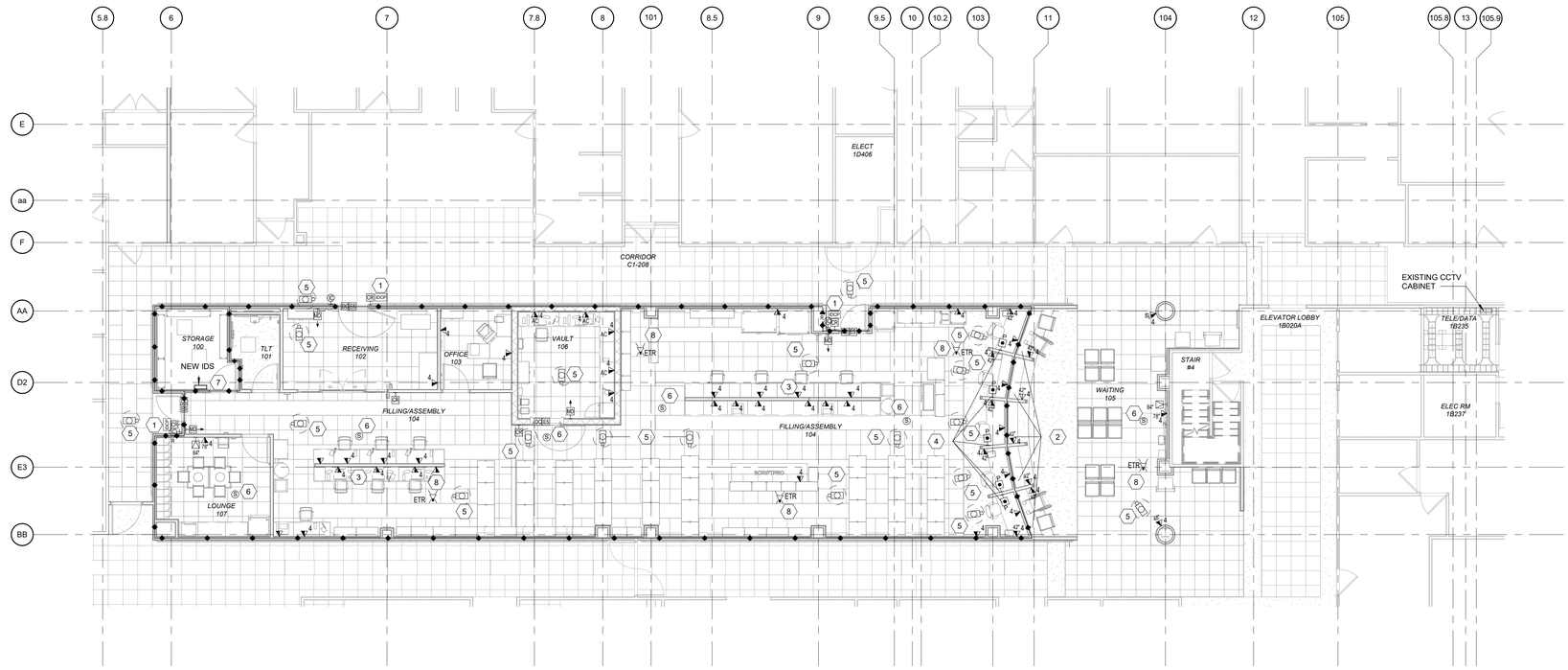
Dwg 1 of 3

DocuSign Envelope ID: 5730FB0C-7BF2-46FB-B0D7-D904157392E9



1 FIRST FLOOR TECHNOLOGY DEMOLITION PLAN

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



2 FIRST FLOOR TECHNOLOGY PLAN

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

SHEET NOTES:

A. PROVIDE AND INSTALL ALL LOW VOLTAGE DEVICES SHOWN.

B. DEMO ALL DEVICES SHOWN ON DEMOLITION PLAN. DEMOLITION SHALL INCLUDE, BUT NOT BE LIMITED TO, DEVICES, SYSTEMS AND ASSEMBLIES SHOWN WITHIN THE LIMITS OF WORK AND THE CURRENT PHASE UNLESS NOTED OTHERWISE - LABEL ETR INDICATES DEVICE IS EXISTING TO REMAIN AND LABEL R INDICATES DEVICE TO BE RELOCATED.

C. ALL EXISTING CONDITIONS, CONDUIT, AND DEVICES ARE BASED ON BEST AVAILABLE INFORMATION AT TIME OF ENGINEERING SURVEY AND VISUAL INSPECTION IN FIELD.

D. COORDINATE PHASING WITH ARCHITECTURAL PLANS.

E. COORDINATE WORK WITH OTHER TRADES AND DISCIPLINES.

F. WHERE CONDUIT IS REMOVED FROM AN EXISTING RATED ASSEMBLY NOT SUBJECT TO THE REMAINING PENETRATION, SHALL BE PATCHED/REPAIRED TO MAINTAIN THE RATING OF THE ASSEMBLY.

G. DEMOLISH DEVICES, CONDUIT AND WIRE BACK TO THE SOURCE AND COORDINATE WITH ARCHITECTURAL AND MECHANICAL DEMOLITION PLANS FOR WORK SCOPE.

H. COR/VA HAS FIRST RIGHT OF REFUSAL TO ALL DEMOLITION ITEMS, BUT NOT LIMITED TO WIRELESS ACCESS POINTS. ANY ITEMS NOT IDENTIFIED BY COR/VA TO BE SAVED SHALL BE LEGALLY DISPOSED OF IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS.

I. EXISTING PACS CONTROLLER LOCATED IN ROOM 1C601. NEW DEVICES TO TIE INTO EXISTING PACS CONTROLLER.

J. ALL DATA DROPS TO BE TERMINATED AT CONTRACTOR PROVIDED AND INSTALLED PATCH PANELS IN TEL/DATA ROOM 1B235.

KEY NOTES:

1 EXISTING INTERCOM/CAMERA SYSTEM TO BE RELOCATED. SEE PLAN 2 FOR NEW LOCATIONS. REWORK AND WIRE TO MAKE COMPLETE AND FUNCTIONAL AT NEW LOCATION.

2 SALVAGE EXISTING DEVICE AND STORE FOR REUSE WHERE NOTED.

KEY NOTES:

1 PROVIDE AND INSTALL INTRUSION DETECTION SYSTEM. INSTALL MASTER PANEL IN STORAGE ROOM 100. CONNECT TO COPPER PHONE LINE AT THAT POINT.

2 PROVIDE POWER AND DATA ON STAFF SIDE OF THE CHECK-IN DESK FOR DEVICES LOCATED ON PATIENT SIDE OF THE CHECK-IN DESK. COORDINATE WITH FACILITY FOR INSTALLATION REQUIREMENTS AND FINAL LOCATIONS. SEE KEYNOTE #3 ON SHEET EP101 FOR MORE INFORMATION.

3 TWO SECTION WIREWAY FOR CABLING DOWN TO DESK WIREWAY. CONTRACTOR TO PROVIDE CABLING AND DATA PORTS AS INDICATED

4 INSTALL PANIC BUTTON BELOW COUNTER.

5 FROM NEW CAMERAS PROVIDE CAT 6A CABLE TO EXISTING PATCH PANEL. CONTRACTOR TO PROVIDE NEW POE SWITCH (BOD CISCO 9300) FOR NEW CAMERAS. MOUNT NEW SWITCH IN EXISTING RACK IN TELE/DATA ROOM 1B235. PROVIDE ALL INTERCONNECTING CABLING. COORDINATE WITH COR/OIT.

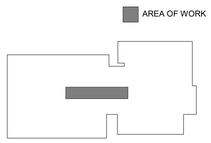
6 ALL NEW SPEAKERS TO BE 1.2 WITH DUAL COIL CEILING MOUNTED TYPE AND CONNECTED TO EXISTING OVERHEAD PAGING SYSTEM PAGING CIRCUIT IN THE AREA OF WORK.

7 PROVIDE NEW IDS BRAIN BOX, TIE INTO EXISTING INTRUSION DETECTION SYSTEM. TIE-IN LOCATION LOCATED IN ROOM 1B235.

8 INSTALL SALVAGED DEVICE PROVIDE NEW CABLE FOR NETWORK CONNECTION.

KEY PLAN

SCALE: NO SCALE



WALL RATING LEGEND

1 HR - FIRE SEPARATION

2 HR - FIRE SEPARATION

SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER — JAMES V EZEKIEL — 00051332 — 10/12/2023

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER — Bicsi — JAMES V EZEKIEL — BICSI ID# 290762 — EXPIRES 12-31-24 — RCDD — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR TECHNOLOGY PLAN

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER,CA, 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved: Project Director

Date: OCTOBER 13, 2023 | Checked: JAV | Drawn: EFJ

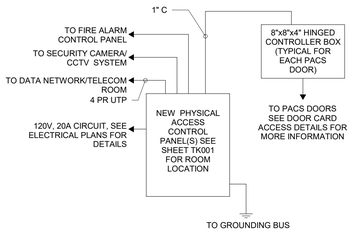
VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Drawing Number TK101

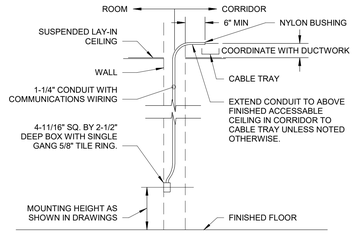
Dwg 2 of 3

DocuSign Envelope ID: 5730FB0C-7BF2-46FB-B0D7-D904157392E9



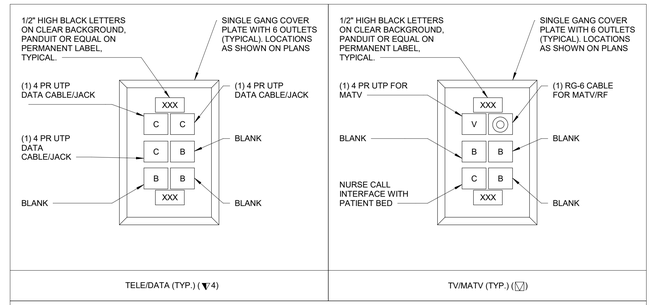
6 PHYSICAL ACCESS CONTROL SYSTEM (PACS) RISER DIAGRAM

Scale: No Scale



3 TELECOMMUNICATIONS OUTLET INSTALLATION

Scale: No Scale



DETAIL NOTES:

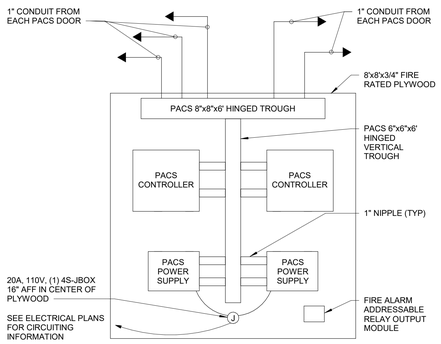
A. ALL EQUIPMENT AND INSTALLATION SHALL BE APPROVED BY VAMC IT DEPARTMENT.

B. WALL PHONE WILL BE VoIP ONLY.

C. FACE PLATE LABELING TO READ JACK NUMBER – IT CLOSET ROOM NUMBER (###-#X###). JACK LABELING TO BE SEQUENTIAL.

1 TELECOMMUNICATIONS FACEPLATES

Scale: No Scale

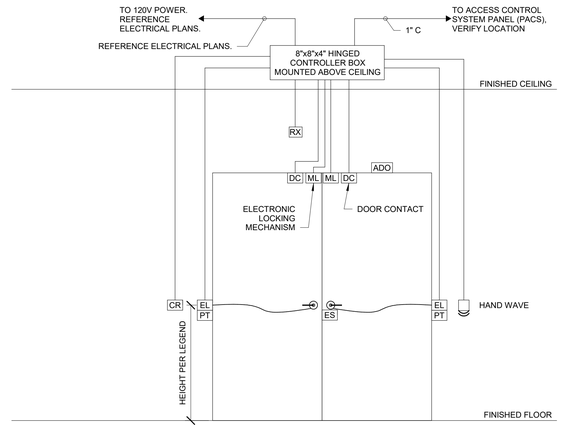


DETAIL NOTES:

A. CONTRACTOR SHALL COORDINATE SYSTEM PROGRAMMING AND FINAL CONNECTION WITH **XXXXXX**.

7 DOOR CONTROLLER ELEVATION

Scale: No Scale



DETAIL NOTES:

A. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT, BOXES, AND SUPPORTS. COORDINATE AND VERIFY LOCATIONS WITH COR/VA.

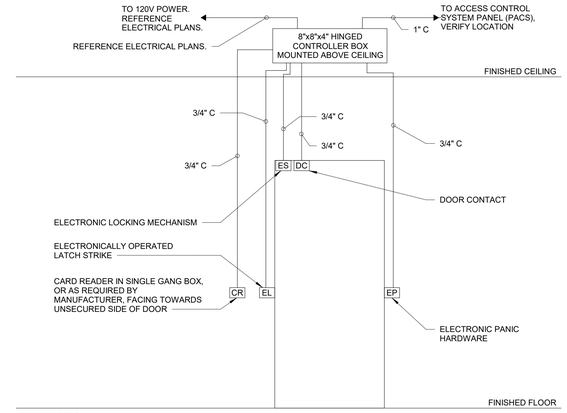
B. PROVIDE CABLING PER MANUFACTURER'S RECOMMENDATION.

C. COORDINATE PER ARCHITECTURAL PLANS & DOOR HARDWARE SCHEDULE. DOOR HARDWARE INDICATED AS GENERAL REQUIREMENT. PROVIDE AS INDICATED ON PLANS AND PER HARDWARE SCHEDULE.

D. MINIMUM CONDUIT SIZE SHALL BE 3/4".

4 DOUBLE DOOR CARD ACCESS - PANIC HARDWARE

Scale: No Scale



DETAIL NOTES:

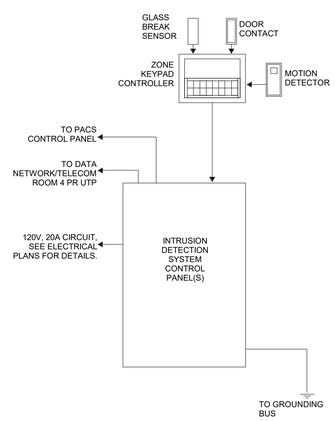
A. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT, BOXES, AND SUPPORTS. COORDINATE AND VERIFY LOCATIONS WITH COR/VA.

B. PROVIDE CABLING PER MANUFACTURER'S RECOMMENDATION.

C. COORDINATE PER ARCHITECTURAL PLANS & DOOR HARDWARE SCHEDULE. INDICATED AS GENERAL. PROVIDE AS INDICATED ON PLANS

2 SINGLE DOOR CARD ACCESS - PANIC HARDWARE

Scale: No Scale



5 IDS System Riser Diagram

Scale: No Scale

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER 0051332 — 10/12/2023

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER — Bicsi — JAMES V EZEKIEL — BICSI ID# 290762 — EXPIRES 12-31-24 — RCDD — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511

www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: TECHNOLOGY DETAILS

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER,CA, 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved: Project Director

Date: OCTOBER 13, 2023 | Checked: JAV | Drawn: EFJ

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Drawing Number TK501

Dwg 3 of 3

DocuSign Envelope ID: 5730FB0C-7BF2-46FB-B0D7-D904157392E9

GENERAL FIRE ALARM NOTES

1. PROVIDE FIRE ALARM SYSTEM AND COMPONENTS COMPLYING WITH THE LATEST:
   - A. NFPA 13- STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS.
   - B. NFPA 14- STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEM.
   - C. NFPA 20- STANDARD FOR THE INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTION.
   - D. NFPA 70 NATIONAL ELECTRICAL CODE.
   - E. NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE.
   - F. NFPA 90A STANDARD FOR THE INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS.
   - G. NFPA 101 LIFE SAFETY CODE.
   - H. VA FIRE PROTECTION DESIGN MANUAL.
   - I. ANSI S3.41 AUDIBLE EMERGENCY EVACUATION SIGNAL.
2. OBTAIN AND PAY FOR PERMITS, FEES, AND INSPECTIONS REQUIRED FOR THIS WORK.
3. FIRE ALARM SYSTEM SHALL COMPLY WITH FACTORY MUTUAL RESEARCH CORPORATION (FM).
4. PROVIDE FIRE ALARM WIRING IN MINIMUM 3/4" CONDUIT, FACTORY PAINTED RED.
5. BEFORE STARTING WORK, TEST EXISTING FIRE ALARM SYSTEM IN WORK AREA AND ADJACENT AREAS.
6. NOTIFY COR REGARDING DEFICIENCIES AND NON-OPERATING COMPONENTS. VA WILL MAKE REPAIRS.
7. WHEN WORK IS COMPLETE, TEST EXISTING FIRE ALARM SYSTEM IN WORK AREA AND ADJACENT AREAS.
8. MAKE REPAIRS TO RESOLVE INCORRECT SYSTEM OPERATIONS AT NO ADDITIONAL COST.
9. THE FIRE ALARM SYSTEM VENDOR/CONTRACTOR SHALL TERMINATE, TEST AND PROGRAM ALL NEW FIRE ALARM DEVICES. COORDINATE WITH COR.
10. CONNECT ALL ELECTROMAGNETIC DOOR HOLD OPEN DEVICES TO THE FIRE ALARM SYSTEM. COORDINATE WITH THE DOOR HARDWARE CONTRACTOR.
11. PROVIDE RELAY CONTROL MODULES FOR PACS, COORDINATE WITH PHYSICAL ACCESS CONTROL SYSTEM (PACS), CONTRACTOR AND COR.
12. THE OPERABLE PART OF A MANUAL ACTUATED ALARM INITIATING DEVICE SHALL BE NOT LESS THAN 42" (1.07M) AND NOT MORE THEN 48" (1.22M) FROM FINISH FLOOR.
13. FOR LOCATION (CORRIDOR, ROOM OR ADJACENT SPACE) WITH TWO OR MORE VISIBLE FIRE ALARM NOTIFICATION APPLIANCES WITHIN THE FIELD OF VIEW, PROGRAM VISIBLE TO FLASH IN SYNCHRONIZATION.
14. THE EXISTING FIRE ALARM SYSTEM TO BE MAINTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL PERFORM DEVICE TERMINATIONS AND ANY PROGRAMMING CHANGES.
15. PROVIDE AND INSTALL ALL FIRE ALARM DEVICES SHOWN ON NEW WORK PLAN. PROVIDE ALL SUPPORTING DEVICES AND PROGRAMMING FOR A FULLY FUNCTIONAL SYSTEM. ALL COMPONENTS MUST INTEGRATE WITH EXISTING NOTIFIER FIRE ALARM SYSTEM MAINTAINED BY SECUTRON.

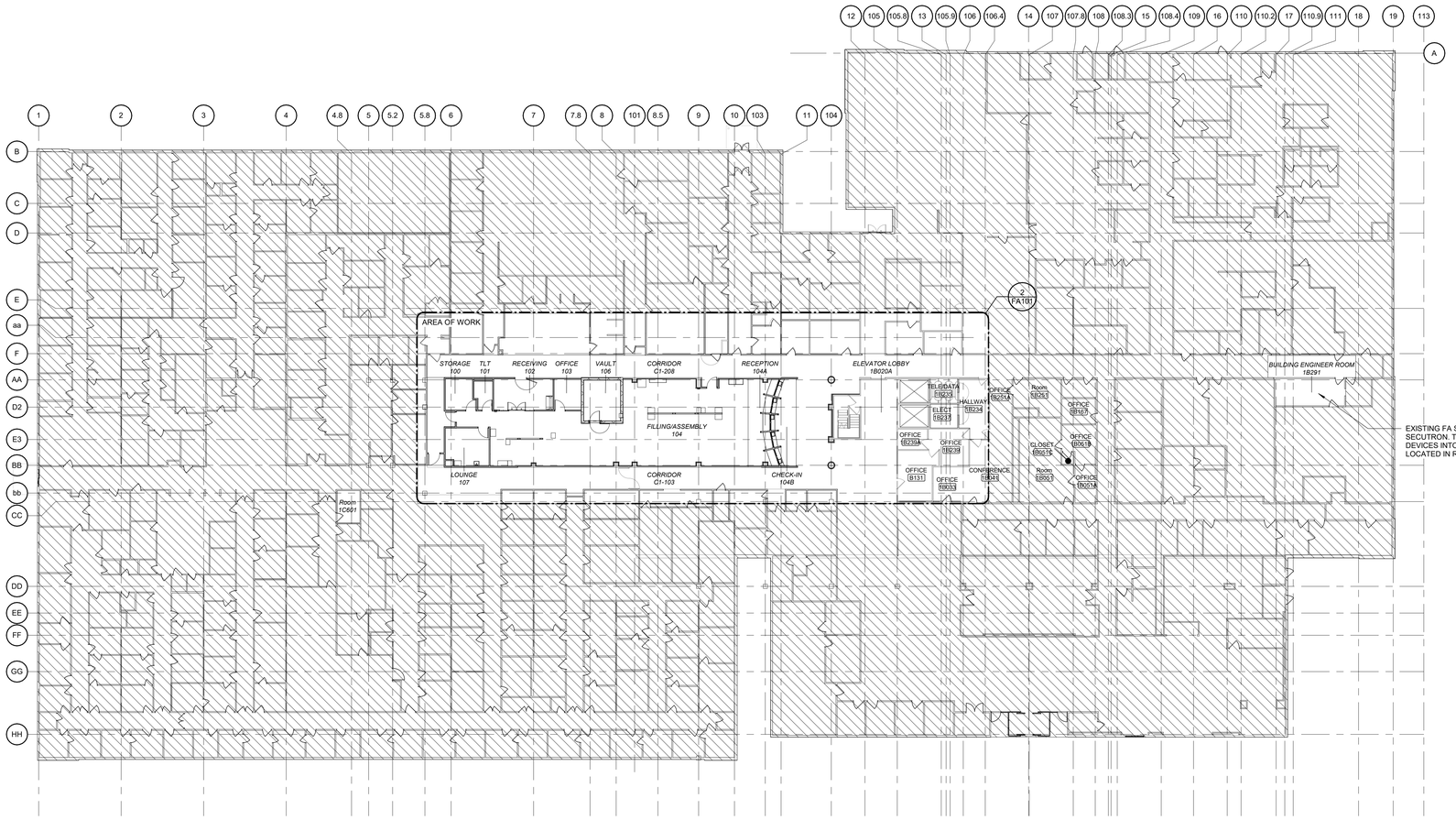
FIRE ALARM SYMBOL LEGEND

SYMBOL	HEIGHT	DESCRIPTION	
F	48"	FIRE ALARM PULL STATION	
S F	90"	FIRE ALARM SPEAKER	
F	90"	FIRE ALARM STROBE	XX - CANDELA
S F	90"	FIRE ALARM PULL SPEAKER AND STROBE	XX - CANDELA XX - WATTAGE
		FIRE ALARM DOOR OPEN HOLDER	
SD		FIRE ALARM SMOKE DETECTOR	
S		FIRE ALARM CEILING MOUNTED SPEAKER	
DD		FIRE ALARM DUCT SMOKE DETECTOR	
HD		FIRE ALARM HEAT DETECTOR	
FAP		FIRE ALARM PANEL	
NAC		FIRE ALARM NAC PANEL	
FAAP		FIRE ALARM ANNUNCIATOR PANEL	
		FLOW SWITCH	
		TAMPER SWITCH	
PIV		POST INDICATOR VALVE	
		REMOTE LIGHT/TEST SWITCH FOR DUCT DETECTORS	
F	90"	FIRE ALARM BELL	

ALL HEIGHTS ARE TO CENTER OF DEVICE UNLESS NOTED OTHERWISE.
TOP: HEIGHT TO TOP OF DEVICE
ANY HEIGHTS INDICATED IN PLANS SHALL SUPERCEDE THOSE LISTED HERE.

FIRE ALARM ABBREVIATIONS LIST

AFF	ABOVE FINISH FLOOR
BOD	BASIS OF DESIGN
COR	CONTRACTING OFFICER REPRESENTATIVE
DN	DOWN
E	EXISTING DEVICES
ETR	EXISTING TO REMAIN
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FAGAP	FIRE ALARM GRAPHIC ANNUNCIATOR PANEL
N	NEW DEVICES
NS	NO SCALE
NTS	NOT TO SCALE
OC	ON CENTER
UL	UNDERWRITERS LABORATORY



1 **OVERALL FIRST FLOOR PLAN**
Scale: 1" = 20'-0"

0 10 20 40 NORTH

SEISMIC DESIGN CRITERIA	
LOCATION	MATHER, CA
RISK CATEGORY	II
MAPPED SHORT PERIOD SPECTRAL RESPONSE (S_s)	0.460
MAPPED 1-SECOND SPECTRAL RESPONSE (S_1)	0.225
SITE CLASSIFICATION	C
SITE COEFFICIENT (F_A)	1.432
SITE COEFFICIENT (F_V)	1.770
MAXIMUM SHORT PERIOD SPECTRAL RESPONSE (S_{MS})	0.599
MAXIMUM 1-SECOND SPECTRAL RESPONSE (S_{M1})	0.440
MAPPED SHORT PERIOD SPECTRAL RESPONSE (S_{DS})	0.399
MAPPED 1-SECOND SPECTRAL RESPONSE (S_{D1})	0.293
SEISMIC DESIGN CATEGORY	D
SEISMIC IMPORTANCE FACTOR	1
(FOR FINAL VALUES REFER STRUCTURAL DRAWINGS)	

NOTES:

ELECTRICAL GENERATORS, SWITCHGEAR, TRANSFER SWITCHES, UPS, TRANSFORMERS, MOTOR CONTROL CENTERS, PANELBOARDS, FIRE ALARM, CONTROL PANEL, BUSWAY, IT SERVERS, AND CONTROL PANELS MUST BE SEISMICALLY RATED PER THE FOLLOWING CRITERIA AND IN ACCORDANCE WITH ASCE 7.

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED VANCE J. VANDERCLUTE 0051332 PROFESSIONAL ENGINEER 10/12/2023

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER Bicsi JAMES V EZEKIEL BICSI ID# 290762 EXPIRES 12-31-24 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRE ALARM GENERAL NOTES, SYMBOL LEGEND, AND RISER

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER,CA, 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER: 612A4-19-016

Building Number: # 650

Approved: Project Director

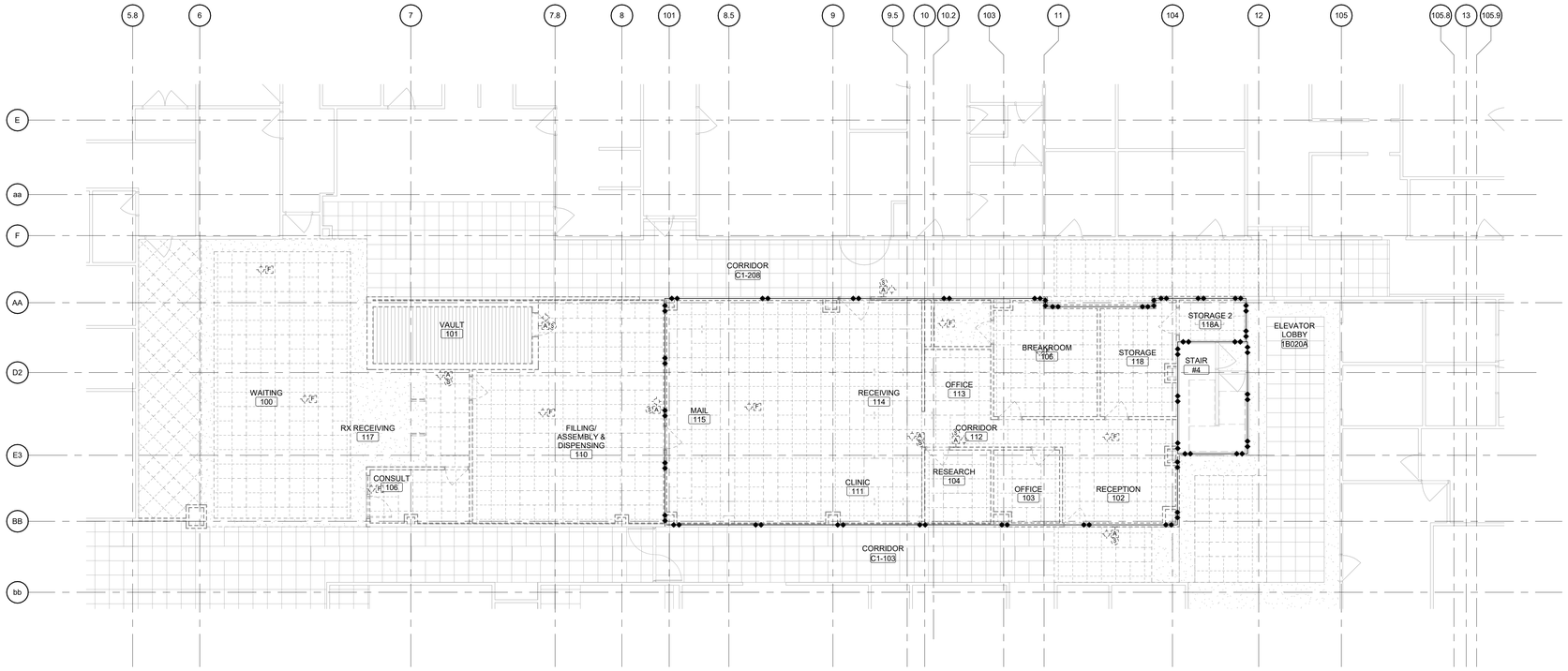
Date: OCTOBER 13, 2023 | Checked: JAV | Drawn: EFJ

Drawing Number: FA001

Dwg 1 of 4

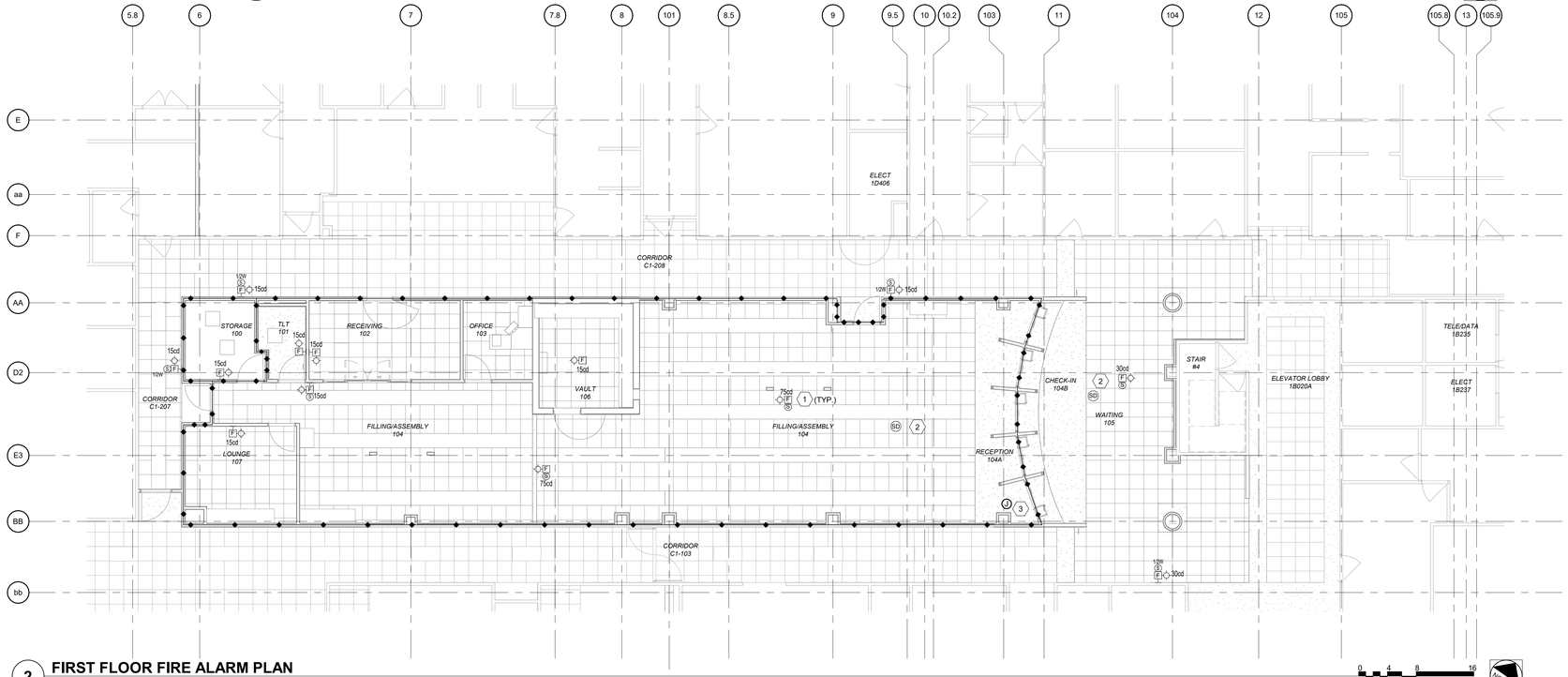
10/11/2023 4:07:08 PM
VA FORM 08-6231

DocuSign Envelope ID: 5730FB0C-7BF2-46FB-B0D7-D904157392E9



1 FIRST FLOOR FIRE ALARM DEMO PLAN

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



2 FIRST FLOOR FIRE ALARM PLAN

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

SHEET NOTES:

A. ALL EXISTING CONDITIONS, CONDUIT, AND DEVICES ARE BASED ON BEST AVAILABLE INFORMATION AT TIME OF ENGINEERING SURVEY AND VISUAL INSPECTION. VERIFY EXISTING CONDITIONS IN FIELD.

B. DEMOLITION SHALL INCLUDE, BUT NOT BE LIMITED TO, DEVICES, SYSTEMS AND ASSEMBLIES SHOWN WITHIN THE LIMITS OF WORK AND THE CURRENT PHASE UNLESS NOTED OTHERWISE - LABEL ETR INDICATES DEVICE IS EXISTING TO REMAIN AND LABEL R INDICATES DEVICE IS TO BE RELOCATED.

C. COORDINATE PHASING WITH ARCHITECTURAL PLANS.

D. COORDINATE WORK WITH OTHER TRADES AND DISCIPLINES.

E. WHERE CONDUIT IS REMOVED FROM AN EXISTING RATED ASSEMBLY NOT SUBJECT TO DEMOLITION, THE REMAINING PENETRATION SHALL BE PATCHED/REPAIRED TO MAINTAIN THE RATING OF THE ASSEMBLY.

F. DEMOLISH ALL DEVICES, CONDUIT, AND WIRE BACK TO THE SOURCE UNO. COORDINATE WITH ARCHITECTURAL AND MECHANICAL DEMOLITION PLANS FOR WORK SCOPE.

G. COR/VA HAS FIRST RIGHT OF REFUSAL TO ALL DEMOLITION ITEMS INCLUDING, BUT NOT LIMITED TO, SMOKE/FIRE ALARM DEVICES. ANY ITEMS NOT IDENTIFIED BY COR/VA TO BE SAVED SHALL BE LEGALLY DISPOSED OF IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS.

H. COORDINATE NOTIFICATION APPLIANCE CIRCUITS IN THE DEMOLITION AREAS TO ENSURE ALL NOTIFICATION APPLIANCE CIRCUITS INCLUDING, BUT NOT LIMITED TO, FIRE ALARM SYSTEMS SERVING OTHER AREAS SHALL BE MAINTAINED THROUGHOUT THE PROJECT.

I. ALL DEVICES SHOWN DASHED INDICATE EXISTING TO BE REMOVED. TURN DEVICES OVER TO COR.

J. FIRE ALARM FIXTURES TO TIE BACK INTO EXISTING FIRE ALARM SYSTEMM. EXISTING FAAP AND TIE IN LOCATION IN ROOM 1B-291, SEE SHEET FA001. EXISTING FIRE ALARM SYSTEM IS SECUTRON.

K. WIRE SMOKE DAMPERS DIRECTLY TO VFD.

KEY NOTES:

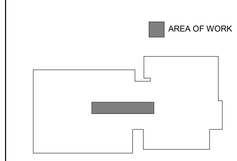
1 (TYP.) INTERFACE NEW FIRE ALARM DEVICES WITH EXISTING FIRE ALARM CONTROL PANEL.

2 PROVIDE PROGRAMMING SO THAT FIRE SHUTTERS CLOSE FROM SMOKE DETECTORS ALARM SIGNAL.

3 CONNECT FIRE SHUTTER CONTROL TO FIRE ALARM SYSTEM.

KEY PLAN

SCALE: NO SCALE



WALL RATING LEGEND

1 HR - FIRE SEPARATION

2 HR - FIRE SEPARATION

SMOKE RESISTIVE HAZARDOUS AREA

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER — 10/12/2023

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER — Bicsi — JAMES V EZEKIEL — BICSI ID# 290762 — EXPIRES 12-31-24 — RCDD — 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511

www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR FIRE ALARM PLAN

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER,CA, 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

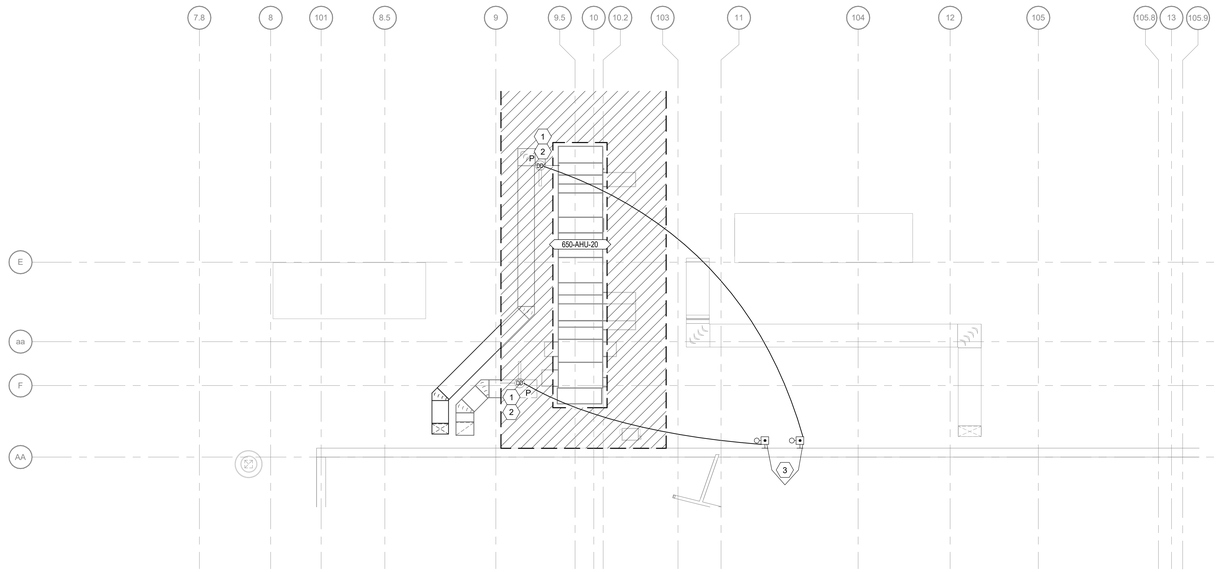
Approved: Project Director

Date OCTOBER 13, 2023 | Checked JAV | Drawn EFJ

Drawing Number FA101

Dwg 2 of 4

DocuSign Envelope ID: 5730FB0C-7BF2-46FB-B0D7-D904157392E9



1 **ROOF FIRE ALARM PLAN**
Scale: 1/8" = 1'-0"

0 4 8 16

NORTH

SHEET NOTES:

A. COORDINATE WITH ARCHITECTURAL AND INTERIOR ELEVATIONS FOR EXACT LOCATION AND ELEVATION OF DEVICES.

B. INSTALLATION OF DEVICES, SYSTEMS, AND ASSEMBLIES SHOWN WITHIN THE LIMITS OF WORK AND THE CURRENT PHASE UNLESS NOTED OTHERWISE - LABEL ETR INDICATES DEVICE IS EXISTING TO REMAIN AND LABEL R INDICATES DEVICE IS TO BE RELOCATED AS SHOWN.

C. SYNCHRONIZE THE FLASH OF ALL VISUAL INDICATORS IN THE SAME AREA.

D. COORDINATE LOCATION OF DUCT DETECTORS AND REMOTE SWITCH WITH COR/HVAC.

E. FIRE ALARM FIXTURES TO TIE BACK INTO EXISTING FIRE ALARM SYSTEMM. EXISTING FAAP AND TIE IN LOCATION IN ROOM 1B-291, SEE SHEET FA001. EXISTING FIRE ALARM SYSTEM IS SECUTRON.

F. CONTRACTOR TO COORDINATE WITH OTHER TRADES TO AVOID CONFLICT AND RELOCATION OF EXISTING SYSTEMS.

KEY NOTES:

1 INTERFACE NEW FIRE ALARM DEVICES WITH EXISTING FIRE ALARM CONTROL PANEL.
2 PROVIDE NEW DUCT MOUNTED SMOKE DETECTOR.
3 LOCATE REMOTE LIGHT/TEST SWITCH IN PHARMACY AREA. COORDINATE WITH COR FOR EXACT LOCATION.

KEY PLAN
SCALE: NO SCALE

FULLY SPRINKLERED
100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER JAMES V EZEKIEL 0051332 10/12/2023

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER Bicsi JAMES V EZEKIEL BICSI ID# 290762 EXPIRES 12-31-24 RCDD 10/12/2023

PROJECT MANAGER
ACG Project Number 19-103

APOGEE Engineers | Architects
© COPYRIGHT Apogee Consulting Group, P.A.

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: ROOF FIRE ALARM PLAN

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER,CA, 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Approved: Project Director

Date: OCTOBER 13, 2023 | Checked: JAV | Drawn: EFJ

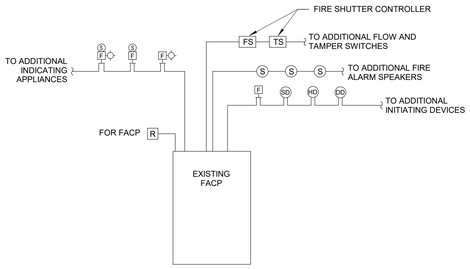
Drawing Number FA102

Dwg 3 of 4

10/11/2023 4:07:13 PM

VA FORM 08-6231

DocuSign Envelope ID: 5730FB0C-7BF2-46FB-B0D7-D904157392E9



FIRE ALARM RISER NOTES:

A. FIRE ALARM SYSTEM SHALL BE SECUTRON. COORDINATE BETWEEN ACCESS CONTROL SYSTEM AND FIRE ALARM SYSTEM MANUFACTURERS.

B. ALL FIRE ALARM WIRING SHALL BE IN FACTORY PAINTED "RED" EMT CONDUIT.

C. ALL WIRING SHALL BE AS RECOMMENDED BY SECUTRON.

D. PROVIDE SEPERATE OUTPUT SIGNALS TO AIR HANDLER UNIT VFD FOR INDIVIDUAL UNIT SHUT-DOWN.

E. PROVIDE POWER AMPLIFIERS FOR ALL SPEAKERS.

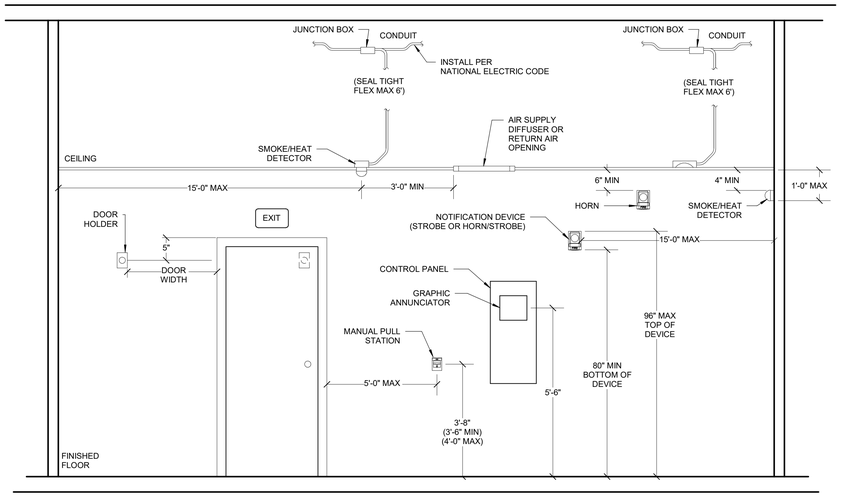
F. THE NEW FIRE ALARM DEVICES SHALL BE 100% COMPATIBLE WITH EXISTING FIRE ALARM SYSTEM.

G. UPON ACTIVATION OF SMOKE DETECTORS TO CLOSE.

H. SEE SPECIFICATIONS FOR PERFORMANCE REQUIREMENTS OF ALL COMPONENTS.

2 FIRE ALARM RISER

Scale: No Scale



DETAIL NOTES:

A. MOUNT ALL AUDIBLE & VISUAL DEVICES IN APPROVED BOXES.

B. ALL ABOVE CEILING DEVICES TO BE MOUNTED IN ACCESSIBLE LOCATION.

1 FIRE ALARM DEVICE MOUNTING HEIGHTS

Scale: No Scale

FIRE ALARM SYSTEM INPUT/OUTPUT MATRIX

INPUT DEVICE ↓ / OUTPUT →	1. SOUND GENERAL BUILDING ALARM FOR OTHER PURPOSE (NON-HEALTHCARE). SEE SECTION 7.2.1	2. NOTIFY NECESSARY STAFF FOR RESPONSE FOR HEALTHCARE AND HIGH-RISK BUILDINGS ONLY (ALARM SIGNAL MAY BE DIFFERENT ON DIFFERENT FLOORS).	3. NOTIFY FIRE DEPARTMENT	4. INITIATE SUPERVISORY SIGNAL TO ALARM MONITORING POINT FOR IMMEDIATE RESPONSE.	5. CLOSE ASSOCIATE SMOKE BARRIER DOORS ON THE FLOOR.	6. CLOSE DAMPERS ON FAN PROXIMATE TO DETECTOR.	7. SHUT DOWN AIR HANDLER SERVED BY THE DETECTOR.	8. RECALL ELEVATOR.
DUCT SMOKE DETECTOR *				X		X	Xa	
AREA SMOKE DETECTOR *	X	X	X					
MANUAL PULL STATION	X	X	X		X			
SPRINKLER WATERFLOW/PRESSURE SWITCH	X	X	X		X			
WATER CONTROL VALVE TAMPER				X				

* WHILE NFPA 101 DOES NOT REQUIRE SOME DETECTORS TO NOTIFY BUILDING OCCUPANTS, VA REQUIRES ALL SMOKE DETECTORS, OTHER THAN DUCT SMOKE DETECTORS, TO NOTIFY BUILDING OCCUPANTS AS REQUIRED BY THE LIFE SAFETY CODE OR ITS REFERENCES.
** THOSE DOORS THAT ARE REQUIRED TO BE TIED TO THE FIRE ALARM SYSTEM SUCH AS DELAYED EGRESS AND ACCESS CONTROLLED DOORS.
a - DO NOT PROVIDE DUCT DETECTORS IN DEDICATED (100%) EXHAUST FANS, THEY SHOULD CONTINUE TO RUN.

3 FIRE ALARM INPUT OUTPUT MATRIX

Scale: No Scale

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

COLORADO REGISTERED PROFESSIONAL ENGINEER JOHN VANDERLAAN 0051332 10/12/2023

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER Bicsi JAMES V EZEKIEL BICSI ID# 290762 EXPIRES 12-31-24 RCDD 10/12/2023

PROJECT MANAGER

ACG Project Number 19-103

APOGEE Engineers | Architects

Headquarters:
Apogee Consulting Group, P.A.
1151 Kildaire Farm Road, Suite 120
Cary, North Carolina 27511
www.acg-pa.com 919-858-7420

© COPYRIGHT Apogee Consulting Group, P.A.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRE ALARM DETAILS

Location: MATHER VAMC, 10535 HOSPITAL WAY, MATHER,CA, 95655

Project Title: RENOVATION OF OUTPATIENT PHARMACY AND HVAC

Approved: Project Director

Date: OCTOBER 13, 2023 | Checked: JAV | Drawn: EFJ

VA PROJECT NUMBER 612A4-19-016

Building Number # 650

Drawing Number FA501

Dwg 4 of 4

10/11/2023 4:07:14 PM
VA FORM 08-6231