VCU Board of Visitors

FACILITIES, REAL ESTATE AND ADMINISTRATION COMMITTEE
9:15 A.M.[1]
DECEMBER 13, 2024
JAMES BRANCH CABELL LIBRARY, ROOM 303
RICHMOND, VIRGINIA
AGENDA

1. **CALL TO ORDER** — **Mr. Steven DeLuca**, *Chair*

2. **ACTION ITEMS** — **Mr. Steven DeLuca**, *Chair*
   15 minutes (9:15-9:30 a.m.)
   a. September 13, 2024 Meeting Minutes
   b. Comprehensive Emergency Management Plan Approval
   c. Approval of Project Plans, Athletic Village Phase I
   d. Amendment to the 2024-2030 Six-Year Capital Plan, Authorization to Initiate a Capital Project and Approval of Project Plans, 901 West Franklin Street Renovation
   e. Amendment to the 2024-2030 Six-Year Capital Plan, Authorization to Initiate a Capital Project and Approval of Project Plans, Gladding Residence Center III HVAC Replacement
   f. Amendment to the 2024-2030 Six-Year Capital Plan, Authorization to Initiate a Capital Project and Approval of Project Plans, Massey Building Shared Lab Renovation

3. **REPORT FROM THE SENIOR VICE PRESIDENT** — **Dr. Meredith Weiss**, *Senior Vice President for Finance and Administration and Chief Financial Officer*
   a. Safety and Risk Management Update
      8 minutes (9:30-9:38 a.m.)
   b. VCU Police/Public Safety Update
      8 minutes (9:38-9:46 a.m.)
   c. Building and Grounds Report
      8 minutes (9:46-9:54 a.m.)

4. **MISCELLANEOUS REPORTS** — **Mr. Steven DeLuca**, *Chair*
   1 minute (9:54-9:55 a.m.)
   For Informational Purposes Only
   a. Capital Projects Update
   b. VCU Annual Succession Plan
   c. Amended Higher Education Capital Outlay Manual

[1] The start time for the Board of Visitors meeting is approximate only. The meeting may begin either before or after the listed approximate start time as Board members are ready to proceed.

5. **CLOSED SESSION** – *Freedom of Information Act Section 2.2-3711 (A) (3)* — **Mr. Steven DeLuca**, *Chair*
   15 minutes (9:55-10:10 a.m.)

6. **RETURN TO OPEN SESSION AND CERTIFICATION** — **Mr. Steven DeLuca**, *Chair*
   2 minutes (10:10-10:12 a.m.)
   a. Action Item
      Approval of Items Discussed in Closed Session
      2 minutes (10:12-10:14 a.m.)

7. **OTHER BUSINESS** — **Mr. Steven DeLuca**, *Chair*
   1 minute (10:14-10:15 a.m.)

8. **ADJOURNMENT** — **Mr. Steven DeLuca**, *Chair*

In accordance with the Board's operating procedures and in compliance with the Virginia Freedom of Information Act, there will be no opportunity for public comment at this meeting.

Approval

VCU Comprehensive Emergency Management Plan

Background

VCU is committed to an all-hazards approach to emergency planning and management to support the safety of the VCU community. Every year, VCU conducts a review and revision of its Crisis and Emergency Management Plan (CEMP). The CEMP is developed through organization-wide planning and preparedness efforts as well as the identification of resources and assets that support these processes. It identifies potential threats, an incident command structure, phases of emergency, impacts on operations, and operational contingency plans. Every four years, the revised plan must be adopted formally by the VCU Board of Visitors.

The CEMP is structured following guidelines from the National Incident Management System (NIMS) and National Response Framework (NRF) and provides flexibility to adapt to different disruptive events and for interacting with local and state entities to coordinate responses to all types of crises or emergencies. The 2024 CEMP references actual responses and frameworks developed during crises and emergency events over the last four years.

Considerations

A CEMP is required per the Commonwealth of Virginia code §23.1-804, which states that the governing board of each public institution of higher education shall develop, adopt and keep current a written crisis and emergency management plan. Virginia code also requires readoption by the governing board every four years.

Summary of changes (2020-2024)

The 2024 VCU CEMP supersedes and replaces the 2020 VCU CEMP. Significant revisions since 2020 are as follows:

- Comprehensive rewrite of the base plan to better align with the Virginia Department of Emergency Management template as well as incorporate additional guidance in coordination with the City of Richmond Emergency Operations Plan.
- Addition of four separate functional annexes (i.e., sections) to the overall CEMP (Emergency Notification Plan, Emergency Communication Plan, Global Response Plan and Recover Plan).
- Rewrite of Active Threat, Tropical Cyclones, Severe Winter Weather, Hazmat Incident and Infectious Disease Hazard Specific Annexes, and the addition of the Civil Disturbances Hazard Specific Annex.
- Division of University Incident Command Team (ICT) into three separate components: the Incident Assessment Group, Emergency Support Group and the Executive Policy Group.
- Restructure of Emergency Operations Center Organizational Structure/Chart.
- Rewrite of all three Appendices (ICT Representation, Essential Elements of Information and Job Action Sheets) to reflect changes made to ICT since the 2020 CEMP.

Recommendation

Approve the 2024 VCU CEMP.

RESOLUTION OF THE BOARD OF VISITORS
VIRGINIA COMMONWEALTH UNIVERSITY

CRISIS AND EMERGENCY PREPAREDNESS PLAN ADOPTION

WHEREAS, the Board of Visitors of Virginia Commonwealth University is concerned with the health and well-being of its students, faculty and staff, and desires that the best possible emergency services be available to them; and, the President of the University similarly is concerned with the health and well-being of its students, faculty and staff, and desires that the best possible emergency services be available to them; and

WHEREAS, the Code of Virginia, Chapter 8 of Title 23.1, Section 23.1-804, provides that the governing board of each public institution of higher education in Virginia shall develop, adopt and keep current a written crisis and emergency management plan; that every four years, each public institution of higher education shall conduct a comprehensive review and revision of its crisis and emergency management plan to ensure that the plan remains current, and the revised plan shall be adopted formally by the governing board and that such review shall also be certified in writing to the Virginia Department of Emergency Management; and

WHEREAS, such a plan has been developed by Virginia Commonwealth University staff, in coordination with the Virginia Department of Emergency Management, and with input from Virginia Commonwealth University Incident Coordination Team Departments and the City of Richmond Office of Emergency Management;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF VISITORS OF VIRGINIA COMMONWEALTH UNIVERSITY

Section 1. The Board hereby officially adopts the Virginia Commonwealth University Crisis and Emergency Preparedness Plan, to include plans and procedures for both natural and man-made disasters.

Section 2. This resolution shall take effect immediately upon its adoption.

Crisis and Emergency Management Plan

December 2024

Contents

Plan Documentation

Promulgation Statement

By virtue of the authority vested in me by the Board of Visitors as President of Virginia Commonwealth University (VCU), and as the administrator ultimately responsible for emergency management on campus, I hereby promulgate and issue the VCU Crisis & Emergency Management Plan (CEMP).

This plan provides for VCU's response to emergencies and disasters in order to save lives; to protect public health, safety and property; to restore essential services; and to enable and assist with economic recovery. The plan is consistent with Code of Virginia § 23.1-804 and Title 44, Chapter 3.2, and the National Incident Management System as implemented in the National Response Framework (NRF) adopted October 2019.

Companion documents to the CEMP include, but are not limited to, the VCU Hazard Mitigation Plan (HMP) and the VCU Continuity of Operations Plans (COOP) which are distinct, complementary plans that together provide a sound decision-making foundation with regard to VCU's approach to emergency management. In concert with companion plans, exercises, training and outreach, the CEMP substantially enhances VCU's capabilities to prepare for, respond to, recover from, prevent and mitigate against all hazards. A component of VCU's emergency management program, the CEMP assists in continuing to build a culture of preparedness and resiliency throughout the university community.

I do hereby certify that the foregoing writing is a true, correct copy of a resolution unanimously adopted by the Board of Visitors of VCU at a meeting held on the 13th day of December, 2024.

This Promulgation shall be effective upon its signing and shall remain in full force and effect until amended or rescinded by further promulgation.

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Michael Rao, Ph.D.
President, Virginia Commonwealth University

Legal

Disclaimer

The information contained in the VCU CEMP has been prepared for use by VCU. The information is guidance for managing an incident, recognizing that individual circumstances or events not anticipated by the CEMP may occur. The experience and judgment of those utilizing the CEMP is an important consideration in how and when the CEMP is used. The content represents the best opinions on the subject in conjunction with current legislative mandates. No warranty, guarantee or representation is made by VCU of the sufficiency of the information contained herein and VCU assumes no responsibility in connection therewith. The CEMP is intended to provide guidelines for safe practices; therefore, it cannot be assumed that all plausible and non-plausible scenarios are contained in this document, or that other or additional information or measures may not be required. Nothing in this plan shall be construed in a manner that limits the use of good judgment and common sense in matters not foreseen or covered by the elements of the plan.

Confidentiality

Public disclosure of this document would have a reasonable likelihood of threatening public safety by exposing vulnerabilities. It contains sensitive and confidential information that is not subject to the Freedom of Information Act under Virginia Code §2.2-3705.2. Accordingly, VCU is withholding elements of the CEMP from public disclosure.

Preface

VCU is vulnerable to a broad range of hazards and disruptive events, such as flash flooding, hurricanes, winter storms, tornados, hazardous materials, transportation incidents, infectious disease, active shooters, terrorist attacks, power outages, technology failures or cyber-attacks. To respond effectively to any emergency, it is critical that all members of the VCU community understand their roles and responsibilities during these types of incidents. A coordinated and organized response effort could save lives, protect property and ensure an efficient short- term restoration of basic operations.

The VCU CEMP creates a flexible, scalable, all-hazards framework for the coordination of the university's effort in preparing for, mitigating against, responding to and recovering from a disaster on campus. This plan is structured following guidelines from the National Incident Management System (NIMS) and NRF and provides flexibility to adapt to different disruptive events and for interacting with local and state entities to coordinate large-scale, multijurisdictional responses. The succession of events in a disruptive event are not predictable; therefore, this plan serves as a basic framework and may require changes to meet the challenges of each emergency.

Companion documents to the CEMP include, but are not limited to, the VCU Hazard Mitigation Plan, and the VCU COOP which are distinct, complementary plans that together provide a sound foundation with regard to VCU's approach to emergency Management.

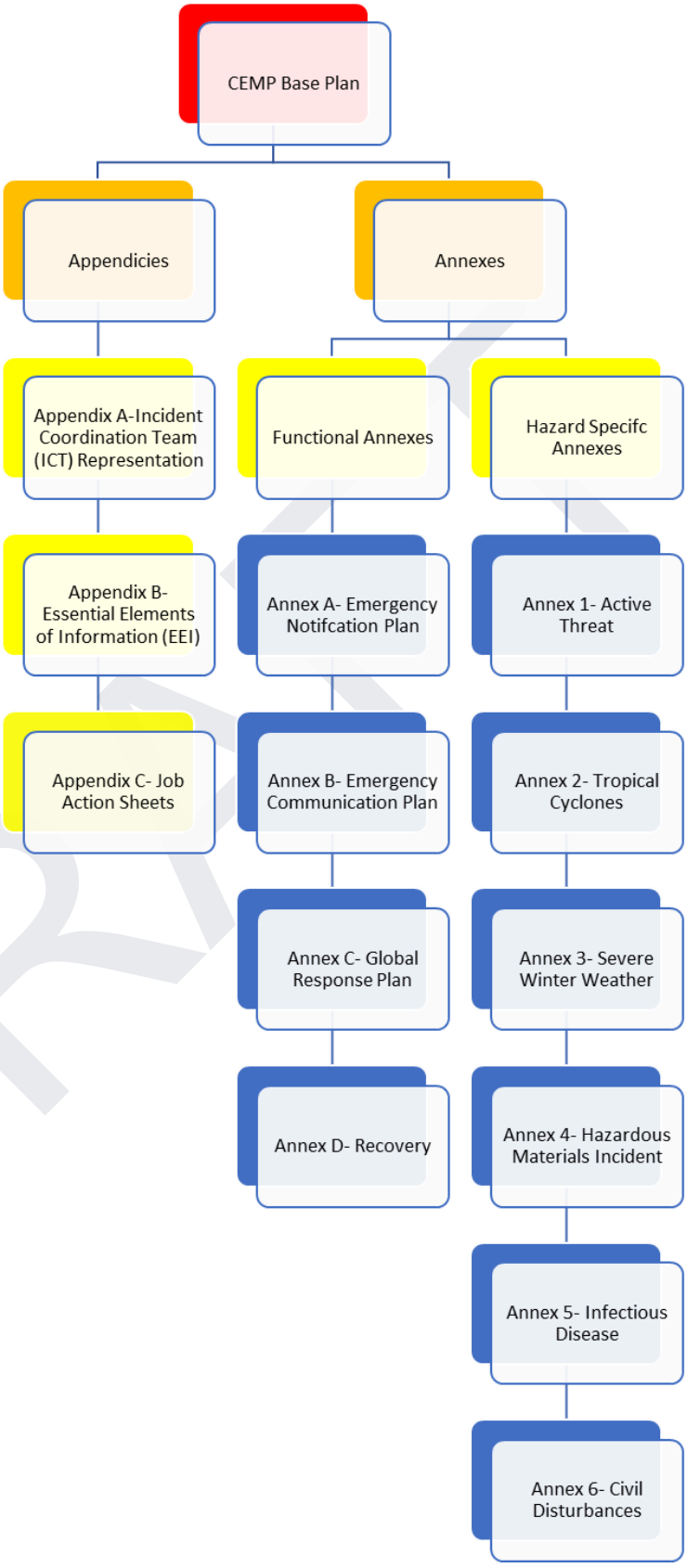
Components of the Crisis & Emergency Management Plan

The **Basic Plan**, utilizing an all-hazards approach, illustrates the overall methodology for how incidents are managed by this institution.

The **Appendices** contain supplemental information relevant to all CEMP elements.

The **Annexes** are broken into two types: Hazard Annexes and Functional Annexes. The hazard annexes contain procedures for specific incidents such as active threat, infectious disease, or severe weather. The Functional Annexes contain procedures for functions such as emergency notifications, emergency communications, global response and recovery.

See Figure 1 CEMP Graphic Layout for full plan format.


CEMP Base Plan
Appendicies
Annexes
Appendix A-Incident Coordination Team (ICT) Representation
Functional Annexes
Hazard Specifc Annexes
Appendix B- Essential Elements of Information (EEI)
Annex A- Emergency Notifcation Plan
Annex 1- Active Threat
Appendix C- Job Action Sheets
Annex B- Emergency Communication Plan
Annex 2- Tropical Cyclones
Annex C- Global Response Plan
Annex 3- Severe Winter Weather
Annex D- Recovery
Annex 4- Hazardous Materials Incident
Annex 5- Infectious Disease
Annex 6- Civil Disturbances

Record of Distribution

It is the intent, based on the sensitivity of information contained within this document, that distribution is limited to those personnel, offices, departments and agencies that have an operational “need to know.” The following list is not all inclusive; additional copies may be distributed at the direction of the Director of Emergency Management or designee. All recipients listed below will receive an electronic copy of the CEMP in its entirety, to include all appendices and annexes. Distribution beyond the recipients listed below may not be made without authorization from the Director of Emergency Management or designee. Requests for additional distribution of electronic or hard copies will be submitted to the Director of Emergency Management or designee.

Table 1. Record of Distribution

Agency/Department	Recipient Title
VCU Incident Coordination Team	• Assistant Athletic Director for Event Mgmt & Facility Ops • Assistant Director of Fire Safety • Associate VP for Capital Assets & Real Estate • Associate Dean for Research and Learning • Associate Vice President for Health Sciences • Associate VP Emergency Services & Public Safety • Associate VP for Facilities Management • Associate VP for Finance • Associate VP for Safety and Risk Management • Chief Diversity Officer • Chief Human Resource Officer • Chief Information Officer • Chief of Staff • Director of Business Services • Director of Operations, GEO • Director, Environmental Health and Safety • Executive Director for Residential Life & Housing • Executive Director of Parking and Transportation • MPC & MCV Campus Coordinator • Program Mgr Emergency Preparedness, VCU Health • Senior Associate VP for Campaign Administration • Senior Vice President for Administration • Senior Vice Provost for Academic Affairs • Senior Vice Provost for Academic Admin & Operations • University Counsel • Vice President for Research & Innovation • Vice President for SEMSS • Vice President for Student Affairs • VP for Government & External Relations • VP of Enterprise Marketing & Communications
City of Richmond	Department of Emergency Management
Virginia Department of Emergency Management	All Hazards Planner

Record of Changes

Submit recommended changes to this document to the Director of Emergency Management.

Table 2. Record of Changes

Date of Change	Revision Number	Page or Section Changed	Summary of Changes
10/1/24	1	All	Comprehensive re-write; review in its entirety.

Authorities and Standards

Policies and Regulations

VCU's CEMP is authorized and/or guided by provisions in the following authorities:

Federal:

- Homeland Security Presidential Directive 5, Management of Domestic Incidents, February 28, 2003
- Homeland Security Presidential Directive 8, National Preparedness, December 17, 2003
- Homeland Security Act of 2002, Public Law 107-296, 116 Stat. 2135
- Robert T. Stafford Relief and Emergency Assistance Act of 1988, as amended, 42 U.S.C., Public
- Law 93-288 as amended by Public Law 100-707
- National Incident Management System, October 2017
- NRF, October 2019
- National Disaster Recovery Framework, June 2016
- Americans with Disabilities Act
- Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act (Clery Act)
- Emergency Planning and Community Right-to-Know Act of 1986 (Public Law 99- 499, October 17, 1986), Title III of the Superfund Amendments and Reauthorizations Act

State:

- Commonwealth of Virginia Emergency Services and Disaster Law of 2000, as amended
- The Code of Virginia, Title 23.1
- The Code of Virginia, Title 44
- The Code of Virginia §19.2-11.01
- The Code of Virginia §23.1-804
- Commonwealth of Virginia Governor's Executive Order 102 (2005)
- Commonwealth of Virginia Governor's Executive Order 41 (2019)
- Commonwealth of Virginia Governor's Executive Order 50 (2012)
- The Commonwealth of Virginia Emergency Operations Plan, October 2021, as amended

References:

- Federal Emergency Management Agency (FEMA) Comprehensive Preparedness Guide 101, version 2.0, September 2021
- FEMA Guide for Developing High-Quality Emergency Operations Plans for Institutions of Higher Education, June 2013
- National Fire Protection Association 1600 Standard

Introduction

Mission

VCU:

VCU and its academic health sciences center serve as one national urban public research institution dedicated to the success and well-being of our students, patients, faculty, staff and community through:

- Real-world learning that furthers civic engagement, inquiry, discovery and innovation
- Research that expands the boundaries of new knowledge and creative expression and promotes translational applications to improve the quality of human life
- Interdisciplinary collaborations and community partnerships that advance innovation, enhance cultural and economic vitality, and solve society's most complex challenges
- Health sciences that preserve and restore health for all people, seek the cause and cure of diseases through groundbreaking research and educate those who serve humanity
- Deeply ingrained core values of diversity, inclusion and equity that provide a safe, trusting and supportive environment to explore, create, learn and serve

VCU Emergency Management:

Through an all-hazards approach, VCU Emergency Management (EM) strives to provide a safe, secure and resilient learning and working environment by fostering the mission of mitigating against, preparing for, responding to and recovering from any type of emergency and/or disaster. In supporting the university's mission, VCU EM is committed to building a culture of readiness and resilience by fostering seamless inter-agency coordination with both the VCU community and neighboring jurisdictions.

VCU Incident Response Priorities:

VCU's incident response priorities are:

- Protect life safety
- Secure critical infrastructure and facilities including:
    - Buildings used by the VCU community
    - Buildings critical to health and safety
    - Facilities that sustain the response
    - Classroom and research buildings
    - Administrative buildings
- Resume teaching and research programs

Purpose

The CEMP provides all-hazards guidance for emergency operations in response to any type of incident, disaster or large-scale emergency affecting the VCU community. A disruptive event may occur with little or no warning, thus the CEMP is designed to allow for flexibility and scalability of the response. It assigns duties and responsibilities to departments for disaster mitigation, preparedness, response and recovery. It also provides the framework within which more detailed emergency plans and procedures can be developed and maintained. Activation of this plan reduces the vulnerability of people and property to a disaster and establishes a means to respond effectively to planned or unplanned incidents that have varying degrees of early warning.

This plan is intended to establish organizational structure for responses to emergencies that are of sufficient magnitude to cause a significant disruption of the functioning of all, or portions, of VCU. This plan describes the roles and responsibilities of individual units, departments and personnel during emergency situations.

This plan does not supersede or replace the procedures for safety, hazardous materials response or other procedures that are already in place within VCU. Rather, it supplements those procedures with a crisis management structure that provides for the immediate focus of management on response operations and the early transition to recovery operations.

Scope

The CEMP and its contents are applicable to all departments and individuals within the VCU community, each of which may be requested to provide assistance or emergency action when broad coordination is required to save lives, minimize damage or otherwise assist in response. Moreover, this plan also provides the foundation for the organization and coordination of recovery and mitigation functions. It focuses on emergency planning functions at the Monroe Park and MCV campuses, but functions separately from VCU Health System. Other campuses, not located in downtown Richmond, develop site-specific plans, consistent with lines of authority, notification procedures and other policies outlined within this plan.

This plan is modeled in accordance with prevailing practices in the field of emergency management, including incorporation of the NIMS, to facilitate coordination and communication between all responding entities. VCU cooperates and collaborates with local, state and federal emergency management agencies and other stakeholders in the development, implementation and execution of emergency response plans.

Situation Overview

The following situations impact VCU's continuity planning efforts:

- VCU's two primary campuses are located in the urban environment of downtown Richmond, Virginia.
- The institution has 198 acres of campuses with 219 buildings housing both the undergraduate and graduate programs. The 127.5-acre Monroe Park Campus is located in Richmond's Fan District and the 70.5-acre MMCV Campus is adjacent to the State Capitol. There are:
    - 25,359 employees (including VCU Health System)
    - 2,457 full-time faculty
    - 28,594 total students
- Both campuses are located proximate to Interstates 95 and 64 as well as to railroad tracks. Both transportation mechanisms carry hazardous materials.
- Due to the close proximity to the State Capitol, first amendment related activities such as protests and marches are likely.
- Special events frequently occur on and in close proximity to VCU. These events include sporting, entertainment, conference, academic, commemorative and celebrity appearance gatherings. These events increase VCU's campus populations markedly.
- Natural hazards including hurricanes, tropical storms, tornados, winter storms, flash flooding, thunderstorms and windstorms can occur in the Richmond area and impact VCU.
- In addition to the potential of natural disasters, there are a variety of man-made and technological disasters, both accidental and deliberate, that could occur in the vicinity of campus.
- Hazardous materials (chemical, biological, radiological, explosive/incendiary) are found in many campus facilities that support research and instruction. The chances of small-scale incidents are high, but failures of systems (e.g., ventilation) could contribute to a larger and more disruptive incident.
- The western traffic pattern flight path for the Richmond International Airport passes overhead.

Threat, Hazard, and Risk Assessment Summary

VCU is vulnerable to a wide spectrum of threats and hazards, whether natural, technological or human-caused, all have the potential to disrupt operations, cause damage and create casualties. These hazards can occur independently, simultaneously,or in conjunction with or as a result of a particular hazard. The threats and hazards listed below are not all-inclusive:

Natural hazards are hazards related to weather patterns and/or physical characteristics of an area. Often natural hazards occur repeatedly in the same geographical locations. They include extreme heat, hail, flooding, hurricane, lightning, severe wind and winter storms,

Human-caused hazards are hazards that rise from deliberate, intentional human actions to threaten or harm the well-being of others. Examples include mass violence, terrorist acts or sabotage.

Technological hazards refer to hazards originating from technological or industrial accidents, infrastructure failures, such as dam/levy failures, utility outages, gas leaks and hazardous materials (HazMat) spills.

Public Health Emergencies is defined by the World Health Organization (WHO) as an occurrence or imminent threat of an illness or health condition, caused by bio terrorism, epidemic or pandemic disease, or (a) novel and highly fatal infectious agent or biological toxin, that poses a substantial risk of a significant number of human fatalities or incidents or permanent or long-term disability (WHO/CDC, 2001). A public health emergency is a condition that requires the Governor to declare a State of Public Health Emergency.

Civil Disturbance refers to activity such as a demonstration, riot or strike that disrupts a community and requires intervention to maintain public safety.

Terrorism refers to activities undertaken by terrorist organizations, affiliates or “lone actors” that employ threat or actuality of physical violence to threaten, terrify or intimidate populations to achieve political aims. These can be both domestic and international in nature.

As part of an all-hazards approach, the VCU Hazard Mitigation Planning Committee conducts an annual review of the Hazard Vulnerability Assessments (HVA) for the VCU community, to be incorporated into the HMP. The purpose of the HVA is to identify relative risk for natural, technological and human-caused hazards that may pose a threat to the university infrastructure and the campus community. The HVA accounts for probability of occurrence, impact of occurrence and university’s preparedness for each hazard. The results of the HVA provide relative risk rankings for all assessed hazards.

Planning Assumptions

This plan is based on the following assumptions and considerations presented below:

- A disruptive event may occur at any time of the day or night, weekend or holiday with little or no warning.
- The succession of events in a disruptive event is not predictable; therefore, published plans, such as this one, serve as a framework and may require improvisation to meet the requirements of the emergency.
- VCU may be impacted by an event which occurs in the community adjacent to the campus or at off-site facilities, necessitating resources and personnel being mobilized to respond.
- Disasters affecting the university may affect the surrounding community. Therefore, it is necessary for the university to prepare for and carry out disaster response and short-term recovery operations in conjunction with local resources.
- Based on the event, outside resources may not be immediately available to assist VCU.
- Departments should maintain standard operations plans or guides relevant to their areas and operations and ensure that all personnel are trained and familiar with the plan and are capable of implementing emergency procedures in a timely and effective manner.
- Incidents including major emergencies or catastrophic events will require full coordination of operations and resources, and may:
    - Involve single or multiple geographic areas.
    - Require significant resource coordination or assistance.
    - Result in numerous casualties, fatalities, displaced people, property loss, significant damage to the environment, and disruption of economy and normal life support system such as public services and basic infrastructure.
    - Communication lines may be disrupted.
    - People may become stranded at the university if conditions make travel unsafe
    - Overburden VCU resources and capabilities.
    - Require extremely short notice asset coordination and response timelines.
    - Require prolonged, sustained incident management operations and support activities requisite to long-term community recovery and mitigation.
- Incident management activities will be initiated and conducted using the principles contained in the NIMS and with Incident Command Structure (ICS)
- VCU Police are responsible for compliance with 20 U.S.C. § 1092(f) *Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act* (Clery Act), specifically issuing emergency alerts for situations involving imminent threat or danger to the VCU community, and timely warning notifications for reported Clery crimes when ongoing risk and danger exist for the community.
- This plan requires that the Department of Criminal Justice Services (DCJS) Victims Crisis Assistance and Response Team and the Virginia Criminal Injuries Compensation Fund will be contacted immediately to deploy when there are victims as defined in the Code of Virginia § 19.2-11.01 *Crime Victim and Witness Rights*, including, but not limited to victim and witness protection and cases where there are victims of crime in need of financial or advocacy assistance. The current contact information for these agencies appears below:

DCJS
Julia Fuller-Wilson, Violence Against Women Program Administrator and
State Crisis Response Coordinator
Victims Services, Division of Programs and Services
Virginia Department of Criminal Justice Services
1100 Bank Street, Richmond, VA 23219
(804) 371-0386 F: (804) 786-3414
Crisis Response Emergency Cell: (804) 840-4276
julia.fuller-wilson@dcjs.virginia.gov
Andrew Kinch (alternate to Julia Fuller-Wilson)
(804) 801-2622
Andrew.kinch@dcjs.virginia.gov

DCJS Website Information for Reporting Emergencies:
https://www.dcjs.virginia.gov/victims-services/report-campus-local-emergency

Virginia Victim Fund (VVF)/Criminal Injury Compensation Fund
Jessica Buchanan, Mass Casualty Senior Claims Coordinator
333 E Franklin Street
Richmond, VA 23219
(804) 205-3211 (Office) (804) 823-6905 (Fax)
(804) 659-9857 (24/7 Cell Phone Number)
Jessica.Buchanan@virginiavictimsfund.org

Emergency Management Phases

VCU Emergency Management is built upon FEMA's four emergency management phases, which facilitate an all-hazards cyclical-based plan (versus strictly event-specific planning). This methodology enables VCU to mitigate, prepare for, respond to and recover from any type of incident.

Figure 2. Emergency Management Cycle

Mitigation

Includes activities that eliminate or reduce the occurrence or effects of an emergency. VCU's Hazard Mitigation Plan describes in detail the individual natural, man-made and technological hazards that apply to the university and steps to prevent loss. This phase is meant to reduce the loss of life and property by lessening the impact of disasters.

Preparedness

The process of planning how to respond to an emergency. Preparedness is made up of the actions taken to organize, plan, equip, train and exercise to build and sustain the capabilities necessary to prevent, protect again, mitigate the effects of, respond to and recover from those threats that pose the greatest risk. This includes establishing authorities, procedures, protocols and agreements necessary in the event of an emergency. This also involves a "whole community" approach to assist in preparedness efforts, both internal to the university and with external partners.

Response

VCU utilizes the ICS and the NIMS to manage major special events, emergencies and disasters. Response activities are immediate actions to save and sustain lives, protect property and the environment, and meet basic human needs. Response includes public information and warning, law enforcement operations, emergency medical services, firefighting, evacuation, search and rescue, shelter and mass care support, transportation, removing debris, and restoring critical services and functions. Based on the level of incident, response may include integration with the City of Richmond Emergency Operations Plan, and the utilization of a unified command structure.

Recovery

When there is no longer a threat to life safety present, the recovery phase can begin, therefore this phase often runs concurrently with the response phase. This phase consists of both short- and long-term recovery operations. Short-term activities seek to restore vital services and provide basic needs to the VCU community. Long-term focuses more on restoring VCU to its normal state of operation. During recovery operations, additional assistance from Ccty, state, federal and volunteer organizations may be required and requested through the Virginia Department of Emergency Management. The Director of Emergency Management or designee will be responsible for requesting these additional resources.

Concept of Operations

General

This section describes coordinating structures, processes and protocols employed for incident management by VCU. These coordinating structures and processes are designed to enable execution of the responsibilities of the President through the appropriate departments and to integrate local, state, federal, non-governmental agencies and organizations, and private-sector efforts into a comprehensive approach to emergency management.

VCU has adopted the NIMS as the standard for incident, emergency and event management throughout the institution. The Office of Emergency Management is the single point of contact

responsible for coordinating the ongoing implementation and maintenance of NIMS program activities for VCU. As both a national best practice and a state compliance requirement, NIMS sets common goals across all fundamental incident management components, including a flexible, scalable and modular organization; management of incidents at the lowest operational level possible; unified command wherever possible; Multi-Agency Coordination Systems; common terminology; standardized event and incident action planning; comprehensive resource management; integrated communications systems; and pre-designated facilities.

All disasters begin and end locally. Therefore, this plan was founded upon the concept that emergency operations begin with VCU and that outside assistance from the City of Richmond, and other agencies as needed, will be requested when an emergency or disaster exceeds institutional capabilities. Therefore, this plan identifies the role of the university before, during and after a disaster or major emergency. It establishes the concepts and policies under which all elements of VCU will operate during emergencies.

Additionally, it provides a basis for the preparation of more detailed plans and procedures and for emergency management training programs. Units with primary emergency duties and responsibilities are also expected to develop and maintain separately published and more detailed standard operating procedures.

In the event an incident exceeds VCU's emergency response capabilities, outside assistance may be available, either through mutual support agreements with nearby jurisdictions, other institutions of higher education, or volunteer organizations. VCU resources must be fully committed before assistance is required from the adjacent jurisdictions. Due to VCU's location within the City of Richmond, it is understood that any large-scale incident that happens within Richmond will have effects on both the city and VCU. Therefore, this plan has been coordinated with the city of Richmond and with the city Emergency Operations Plan.

The following general principles apply to all parts of VCU's operation plan:

- On-scene coordination of emergency response will be accomplished within the ICS framework allowing for the incorporation of local, state and federal agencies.
- The EOC is the central location from which off-scene activities and resource management are coordinated.
- All appropriate available forces and resources will be fully committed before requesting assistance.

Direction, Control & Coordination

ICS

VCU utilizes the IICS (a NIMS component) for incident, emergency and event management. ICS is an emergency management system designed to enable effective and efficient management of incidents by integrating a combination of facilities, equipment, personnel, procedures and communications operating within a common organizational structure. ICS is widely applicable to organize both short-term and long-term field operations for the full spectrum of emergencies.

Incident Commander (IC)

The front-line staff in departments such as VCU Police, Facilities Management, Environmental Health and Safety, and others, handle most incidents with response activities primarily conducted at the field level. Once an incident occurs or is imminent, VCU Police establishes an on-scene incident command, including the designation of an Incident Commander (IC). If the incident requires the response of external partners, the IC will set up a Unified Command (UC) structure. The IC/UC provides command and control, which includes planning, accountability and executing a plan to resolve the situation. The IC/UC allocates resources assigned to the incident. Depending on the scope of the incident, resource needs and necessary coordination efforts, the Director of Emergency Management may be contacted, and some or all of the ICT may be activated to provide support.

Unified Command (UC)

UCs are an application of the ICS used when there is more than one agency with incident jurisdiction or when incidents cross political jurisdictions. Agencies work together through the designated members of the UC to establish their designated ICs at a single Incident Command Post. They afford agencies responding to an incident the ability to collaboratively coordinate, plan and interact effectively without interfering with the responsibility, accountability or authority of other involved agencies. A UC should be formed when an incident involves various jurisdictions, one jurisdiction that has multi agency involvement, and various jurisdictions that have multi agency involvement. The UC is tasked with identifying, establishing and ranking incident-related priorities and objectives. UC serves as the single voice of incident operations.

Emergency Operations Center (EOC)

In emergency situations that require additional resource and coordination support, the VCU EOC will be used. In some cases, the EOC may also manage direction and control of the incident. Upon activation, communications and coordination will be established between IC and the EOC. Additionally, the EOC will establish communication and coordination with neighboring jurisdiction EOCs and the Commonwealth of Virginia EOC to coordinate response and recovery activities. The EOC organization is discussed in detail below.

Organization and Assignment of Responsibility

Incident Coordination Team (ICT)

The ICT is comprised of representatives from across the university bringing resources and authority to a centrally coordinated team with focus on tactical implementation and strategic decision making for the overall university. The overall mission of the VCU ICT is to centralize coordination of the university's crisis response and recovery efforts using efficient communications, critical decision making and the effective prioritization of university resources. While the ICT may function at any location, or remotely depending on the situation, the primary location for activation is within the EOC located within VCU Police Headquarters.

ICT Components

The ICT comprises three components, the **Incident Assessment Group (IAG)**, the **Emergency Support Group (ESG)**, and the **Executive Policy Group (EPG)**.

The **Incident Assessment Group (IAG)** is the key group of members that will be initially activated prior to or during an event requiring ICT activation. The IAG provides overall incident management and university coordination as well as determines the scope and impact of the incident. The central role of the IAG is to serve as the primary information center during an incident, disseminating information both through the IC on scene as well as to the VCU community in its entirety. The IAG is responsible for maintaining situational awareness and a common operating picture through the use of situation reports throughout the incident, and ultimately making critical decisions on behalf of the university, to include schedule changes, resource priorities and overall campus operations.

The IAG consists of the following key members:

- ICT leader – Senior Vice President for Finance and Administration and CFO
- ICT co-chair - Associate Vice President for Emergency Services and Public Safety
- VCU Police
- Emergency Management
- Academic Affairs
- Student Affairs
- Safety and Risk Management
- Enterprise Marketing and Communications
- Facility Management
- Human Resources
- Strategic Enrollment Management and Student Success
- Technology Services
- VCU Health
- Health Sciences

The **Emergency Support Group (ESG)** are key members of VCU that, depending on the type, scale and nature of the incident, will be required by the IAG to provide additional resources, expertise and support to the incident coordination. The ESG will be included in all situational reports, whether activated or not, to allow maintained situational awareness of all incidents occurring on campus and to allow for providing valuable insight regarding their area that may have not been considered by the IAT.

The ESG consists of the following key members:

- Athletics
- Business Services
- Environmental Health
- Finance
- Fire Safety
- Global Education Office
- Libraries
- Parking and Transportation
- Research
- Institute of Contemporary Arts
- Residential Housing
- Campus Coordinators
- Development and Alumni Relations

- Government and External Relations

The **Executive Policy Group (EPG)** provides leadership support to emergency operations, addresses the safety and welfare of students, faculty, staff and visitors, and assures, to the extent possible, the continuity and timely resumption of university operations. The EPG are established and organized to make cooperative multi agency decisions. The EPG acts as a policy-level body during incidents, supporting resource prioritization and allocation, and enabling decision making among university leadership and those responsible for managing the incident (e.g., the IC). Additionally, the EPG remains accessible to the IAG for updates and guidance and is responsible for ensuring the President and, as needed, the Board of Visitors is informed.

The EPG consists of the following key members:

- President's Office
- Provost's Office
- University Counsel
- Chief Diversity Officer

ICT Structure

Utilizing the ICS structure, the ICT is designed with a command staff (ICT leader, ICT co-chair, Public Information Officer, Liaison/Planning Officer and members of the EPG) and a general staff. The general staff is designed under four main pillars: Incident Operations, Institutional Operations, Logistics, and Finance and Administration. Each of these sections has an identified section chief who is ultimately responsible for managing their specific section within the EOC.

Command staff positions perform the following essential duties:

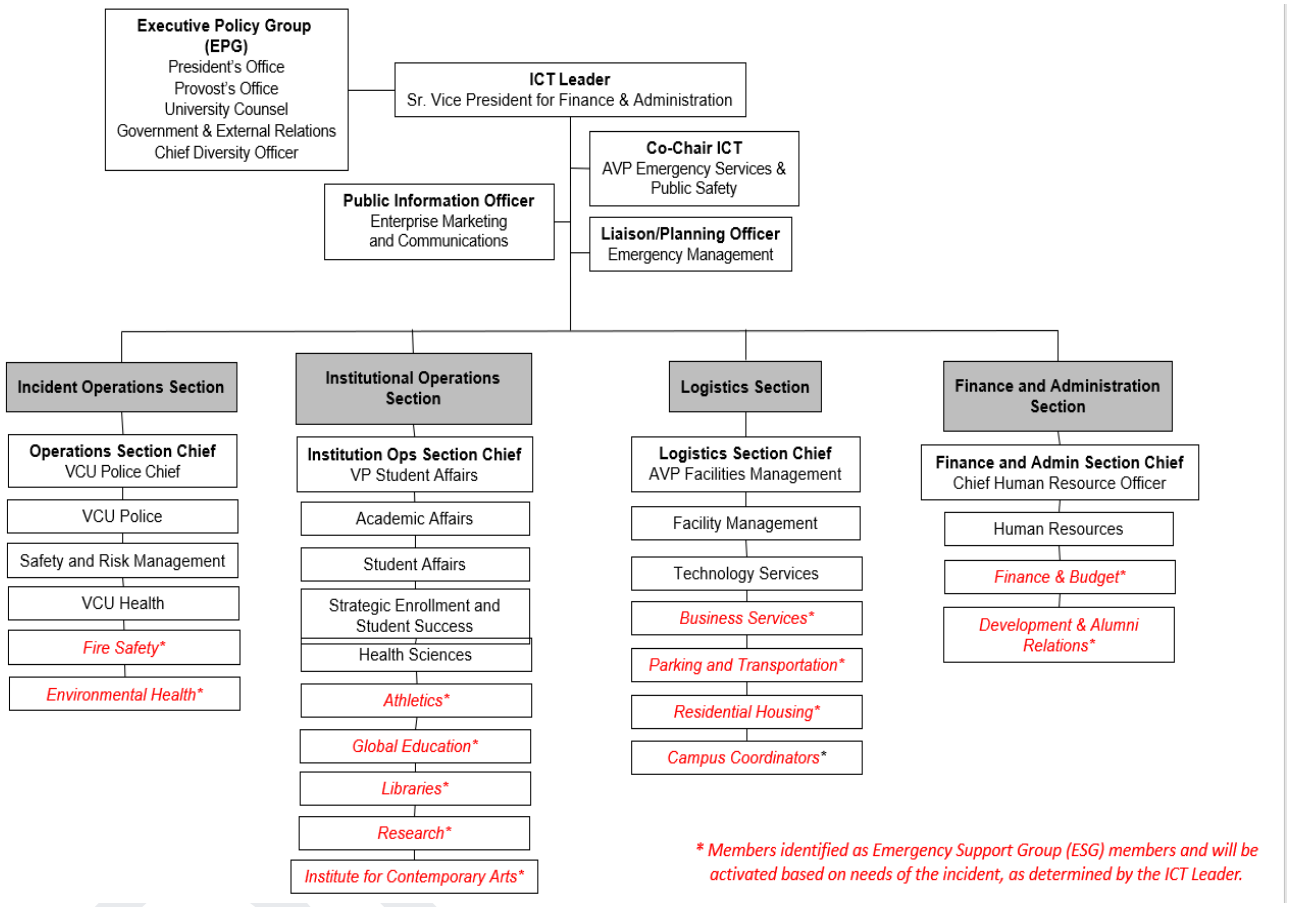
- **ICT Leader:** Establishes consolidated incident objectives, priorities and strategic guidance; establishes procedures for joint decision making and documentation; holds overall decision-making authority for the ICT; and captures lessons learned and best practices.
- **ICT Co-Chair:** Provides strategic oversight of on-scene operations and acts as ICT leader in their absence.
- **Public Information Officer(s):** Create and relay incident information to internal and external stakeholders. When necessary, establish and coordinate Joint Information Center operations. This is led by a representative of Enterprise Marketing and Communications.
- **Liaison/Planning Officer(s):** Coordinates with external groups. Maintains situational awareness; initiates, collects and verifies situational reports; develops Incident Action Plans,; and coordinates staffing. This is usually led by a representative from Emergency Management.

General staff positions perform the following essential duties:

- **Incident Operations Section:** Directs and coordinates all incident operations and receives and implements incident action plans.
- **Institutional Operations Section:** Directs and coordinates academic mission operations.
- **Logistics Section:** Obtains and stages resources in support of incident operations.

- **Finance/Administration Section:** Tracks all incident costs and manages the university's claims and reimbursement process.

The following basic EOC organizational chart illustrates the lines of direction, communication and authority present during EOC activation.



EOC Activation

The EOC may be activated by the Director of Emergency Management at the direction of the ICT Leader, the ICT Co-Chair or in proactive readiness for a projected or forecasted event. The EOC will be utilized to manage events that are an imminent threat to public safety or health or as needed to manage an extensive response and coordination to a large emergency or disaster. Additionally, the EOC may also be activated for a planned event.

The EOC has four operating levels:

Level	Description
1	**Steady State Operations (Green)** – Plans and procedures are developed and maintained. Training and tests/exercises are conducted periodically as required to maintain readiness, personnel rosters are updated, emergency resources are identified (i.e., facilities, equipment, technology, personnel, etc.), mutual aid agreements are developed, etc.
2	**Increased Readiness (Yellow)** – This level references a situation when there is a potential or likelihood of an emergency developing or worsening. ICT staff are decentralized but perform more frequent monitoring. Normal, routine daily activities are occurring but ongoing or forecast events include a potential or actual threat or requirement for coordinated assistance. Severe weather or other events may be occurring, causing damage or effects to power, transportation, communications and other infrastructure sectors requiring some limited form of assistance. Individual departments continue to perform assistance under their normal procedures.
3	**Partial Activation (Orange)** – A disruptive event that has a real or potential impact on the overall capability of VCU to fulfill its academic, operational,and research mission but may not necessitate, justify or allow for the full operational phase. This level involves certain key designated departments activating. This activation can occur physically or virtually.
4	**Full Activation (Red)** – A large-scale, long-lasting event that has a negative impact on the overall capability of VCU to fulfill its academic, operational and research mission. Add designated EOC personnel, as needed, are staffed on up to a 24-hour rotational basis. While normally occurring in person, this type of activation can also be conducted virtually.

EOC Deactivation

The Director of Emergency Management, at the direction of the ICT leader or the ICT co-chair, deactivates EOC staff as circumstances allow and the EOC returns to its normal operations/steady state condition. Deactivation typically occurs when the incident no longer needs the support and coordination functions provided by the EOC staff or those functions can be managed by individual organizations or by steady-state coordination mechanisms. The EOC may phase deactivation depending on mission needs. Deactivation should include the deactivation checklist to track follow-up actions after-action review and improvement planning as part of the deactivation planning process.

External Support

Due to the integration of VCU into the city of Richmond, incidents are likely to also impact the surrounding community. If this occurs, VCU will make every effort to coordinate and work with local, state and federal officials in their delivery of emergency services. For coordination purposes, the Director of Emergency Management will serve as the point of contact for VCU when resource requests are necessary.

Levels of Assistance

Local Assistance

If VCU resources are inadequate to meet the needs of an emergency situation, VCU will request assistance from the City of Richmond and the Commonwealth of Virginia. All external assistance furnished to the university is intended to supplement university resources. VCU works closely with city partners especially due to the close proximity of city and VCU property.

State Assistance

Requests for assistance to the Commonwealth of Virginia should be made through the Virginia EOC. In essence, state emergency assistance to local governments begins at the local level.

Federal Assistance

If resources required to control an emergency situation are not available within the city or state, the governor of Virginia may request assistance from other states. In this instance the governor may also request assistance from the federal government through FEMA.

For major emergencies and disasters for which a presidential declaration has been issued, federal agencies may be mobilized to provide assistance to states and local governments. FEMA has the primary responsibility for coordinating federal disaster assistance. No direct federal assistance is authorized prior to a presidential emergency or disaster declaration, but FEMA has limited authority to stage initial response resources near the disaster site and activate command and control structures prior to a declaration, and the Department of Defense has the authority to commit its resources to save lives prior to an emergency or disaster declaration.

Non-Governmental Organizations (NGO)

The Virginia Voluntary Organizations Active in Disaster (VA-VOAD) is a statewide consortium of faith-based and non-profit organizations that are active in disaster relief. The VA-VOAD communicates with many voluntary organizations that provide significant capabilities to incident management and response and recovery efforts at all levels. The VCU Office of Emergency Management, in coordination with Development and Alumni Relations, will coordinate VA-VOAD activities to address unmet needs during a declared campus emergency.

Campus Community Roles and Responsibilities

Students

General Responsibilities

Students should be aware of their surroundings and familiar with building evacuation routes, exits and assembly points. Students should also be enrolled in VCU Alerts and have a personal emergency kit.

Role During an Incident

Students involved in an incident should assess the situation quickly and thoroughly and employ common sense when determining how to respond. If directly involved in an incident, students should call (804) 828-1234 as soon as possible, direct responders to where the incident occurred if possible, and cooperate with first responders.

Faculty and Staff

General Responsibilities

University faculty and staff are seen as leaders by students and should be prepared to provide leadership during an incident. Faculty and staff should understand departmental Emergency Action Plans (EAPs) and building evacuation procedures in areas where they work and teach. Faculty and staff may likely be the first person to arrive at an incident. They should familiarize themselves with the basic concepts for personal and departmental incident response as outlined in the campus EAP and other outreach materials provided within SafeHub and the VCU Alert notifications page.

Role During an Incident

Faculty and staff involved in an incident should assess a situation quickly and as thoroughly as possible and use common sense when determining how to respond. Emergencies should be reported by calling (804) 828-1234 If evacuation of a building is necessary, faculty and staff are expected to evacuate immediately.

Building Managers

General Responsibilities

Building managers serve as the point of contact to receive and disseminate safety and emergency preparedness information. They coordinate the development of building EAP and act as an informational conduit for the Office of Emergency Management and other first responders.

Role During an Incident

Building managers involved in an incident serve as the primary point of contact between first responders and building occupants. As necessary, they may assist in providing building emergency information and coordinating building evacuation procedures.

Media Relations

VCU Public Information Officers (PIOs) coordinate press releases with the IC, UC and the ICT. They are also responsible for the activation, operation and demobilization of the Joint Information Center, as needed. During any incident affecting campus operations, the PIOs will update and maintain the VCU Alert page at www.alert.vcu.edu as information becomes available.

Succession of Authority

Succession of decision-making authority, as related to critical incident management, is outlined in the COOP.

Plan Development and Maintenance

The Director of Emergency Management is responsible for coordinating the preparation and updating of the CEMP, as required. The Director of Emergency Management will collaborate as needed with internal and external partners. The Director of Emergency Management will coordinate the annual review of the CEMP by the Chief Executive Officer and document the process per Code of Virginia §23.1-804. In addition, every four years the Director of Emergency Management will oversee a comprehensive review of the CEMP and secure its formal adoption by the governing board.

Board of Visitors

In accordance with Code of Virginia §23.1-804, the governing board shall develop, adopt and keep current a written crisis and emergency management plan. The plan shall include a provision that the DCJS and the Virginia Criminal Injuries Compensation Fund shall be contacted immediately to deploy assistance in the event of an emergency as defined in the emergency response plan when there are victims as defined in the Code of Virginia § 19.2-11.01. The DCJSand the Virginia Criminal Injuries Compensation Fund shall be the lead coordinating agencies for those individuals determined to be victims and the plan shall also contain current contact information for both agencies.

University President

The role of the university president is to provide overall support for VCU's Emergency Management program. They may authorize temporary suspension of university operations and activities. They provide leadership and play a key role in communicating to the public and in helping faculty, staff and students cope with the consequences of any type of incident impacting the institution. Furthermore, they oversee the coordination of VCU's Senior Administration and communicate with the Board of Visitors, Mayor of the City of Richmond, Board of Supervisors of Hanover or Charles City counties, and Governor should the disaster event dictate.

Senior Vice President for Finance and Administration

Serving in the capacity as ICT Leader and Chief Executive Officer, in accordance with Code of Virginia §23.1-804, the Senior VP for Finance and Administration shall annually review the CEMP, certify in writing that the plan has been reviewed and make recommendations to the institution for appropriate changes to the plan.

Training and Exercises

Trained and knowledgeable personnel are essential for the prompt and proper execution of VCU's CEMP, EAPs and COOP. The Director of Emergency Management is responsible for the development, administration and maintenance of a comprehensive training and exercise program. Members of the ICT should also participate in training and exercises to ensure the plan may be implemented in accordance with recommended procedures and guidelines.

Training will be based on federal and state guidance as well as professional best practices. Training needs will be identified and records maintained for all personnel assigned emergency response duties in a disaster.

The Director of Emergency Management will conduct no less than one exercise of the plan each year to improve the overall emergency response organization and capability of the university. The exercise will test not only this plan but also train the appropriate officials, emergency response personnel and VCU employees. When appropriate, local response organizations, private partners and NGOs will be encouraged to participate. City of Richmond emergency services personnel from fire, police and emergency services personnel will also be invited to ensure interoperability and efficient response during shared events. The annual Hazard Vulnerability Assessment will be taken into consideration when planning for each exercise.

After Action Review

Post incident and exercise evaluation results bring about improvement opportunities within the university's response capabilities. One of the most effective ways of summarizing an incident and capturing lessons learned is the After-Action Review (AAR) process. During an AAR, prior incident/exercise actions are appraised by participants, observers and evaluators. Their comments are incorporated into a verbal or written report summarizing strengths and opportunities for improvement, which then may be incorporated into VCU's emergency management program and associated plans and procedures. Furthermore, improvement plans will be tracked for follow-up actions.

Glossary and Acronyms

Glossary

All-Hazards: A classification encompassing all conditions, environmental, technological or human-caused that have the potential to cause injury, illness or death; damage to or loss of equipment, infrastructure services or property; or alternatively causing functional degradation to social, economic or environmental aspects. These include accidents, technological events, natural disasters, domestic and foreign-sponsored terrorist attacks, weapons of mass destruction, and chemical, biological (including pandemic), radiological, nuclear, or explosive events.

After Action Report: A report that summarizes and analyzes performance in both exercises and actual events. The report includes strengths, areas for improvement and corrective actions. The reports for exercises may also evaluate achievement of the selected exercise objectives and demonstration of the overall capabilities being exercised.

Campus Community: Refers to students, faculty, staff, visitors, vendors and contractors on or in VCU campus property.

Continuity of Operations Plan: A plan of action to continue essential business functions of a department/unit/organization during and after an incident that disrupts normal operations.

Crisis and Emergency Management Plan: An all-hazards incident management document that is developed to ensure appropriate response to and recovery on and around campus. It provides guidance on what to do immediately before or during an emergency to preserve life, protect property and contain an incident or emergency.

Emergency: An incident that overwhelms or nearly overwhelms day to day resources, plans and personnel in place to manage them, while causing a significant disruption of normal business in all or a portion of the campus.

Emergency Management: The process of coordinating available resources to effectively manage emergencies or disasters that threaten the entity or institution, thereby saving lives, avoiding injuries and minimizing economic loss. This involves four phases: mitigation, preparedness, response and recovery.

Emergency Action Plan: A department/area/unit specific set of guidelines and procedures for use during an imminent life safety event (e.g., building fire, severe weather, hostile intruder, etc.).

Emergency Operations Center: A centralized location from which emergency operations can be directed and coordinated with the campus and community.

Emergency Support Group: A select group of ICT members closely aligned with representative departments of VCU that will provide additional resources, expertise and support to the incident coordination.

Executive Policy Group: A select group of ICT members closely aligned with representative departments of VCU that serve as the policy-level body during incidents, supporting resource prioritization and allocation, and enabling decision making by the ICT.

Exercise: A test of plans, protocol and/or procedures intended to validate the planning and training process. Exercises include seminars, workshops, tabletops, drills, games, and functional and full-scale exercises.

Hazard: Any source of danger or element of risk to people or property.

Hazard Mitigation Plan: A risk management tool used to identify natural and human caused hazards facing the VCU campus.

Incident: An occurrence or event, natural or human caused which requires a response to protect life or property.

Incident Action Plan: The statement of objectives and priorities for supporting activities during a designated period.

Incident Assessment Group: A select group of ICT members closely aligned with representative departments of VCU that will manage incidents and make critical recommendations to the ICT leader on behalf of the university.

Incident Commander: The person responsible for all aspects of an emergency response, including quickly developing incident objectives, managing all incident operations, applying resources, and holding responsibility for all persons involved in the response.

Incident Command System: A nationally used, standardized, on scene emergency management concept.

Incident Coordination Team: Comprising representatives from across the university bringing resources and authority to a centrally coordinated team with focus on tactical implementation and critical strategic decision making and messaging for the overall university.

Unified Command: An incident management method employing collaborative decision making between multiple responsible internal and/or external departments/agencies to resolve an incident in a more efficient manner.

Joint Information Center: A location where personnel with public information responsibilities perform critical emergency information functions, crisis communications and public affairs functions.

Liaison Officer: The EOC position responsible for internal/external coordination with departments/agencies playing a supporting response role during an event.

National Incident Management System: The group of principles that are legislated for all entities to assist in coordination national emergency response functions.

Public Information Officer: The Emergency Operations Center position responsible for information management during an event.

Safety Officer: The Emergency Operations Center position responsible for safety oversight during an event.

Acronyms

AAR After Action Review

CEMP Crisis and Emergency Management Plan

COOP Continuity of Operations Plan

DCJS Department of Criminal Justice Services

EAP Emergency Action Plan

ENS Emergency Notification System

ESG Emergency Support Group

EOC Emergency Operations Center

FEMA Federal Emergency Management Agency

HMP Hazard Mitigation Plan

HVA Hazard Vulnerability Assessment

IAG Incident Assessment Group

IC Incident Commander

ICS Incident Command System

ICT Incident Coordination Team

JIC Joint Information Center

NIMS National Incident Management System

PIO Public Information Officer

UC Unified Command

VA-VOAD Virginia Voluntary Organizations Active in Disaster

VDEM Virginia Department of Emergency Management

VVF Virginia Victim Fund

Approval of Project Plans

Athletics Village Phase I: Outdoor Track Facilities and Practice Fields

Background

VCU seeks Board of Visitors (BOV) design review and approval of the project plans, as required by VCU's management agreement, for Athletic Village Phase I: Outdoor Track Facilities and Practice Fields. The Athletic Village Phase I was included in the 2024-2030 Six-Year Capital Plan and was initiated by BOV approval in May 2023.

This is the first of four phases to be developed for the Athletic Village. This project will replace Sports Backers Stadium, which is located in the Diamond District and is being sold to the City of Richmond as part of its construction of a new baseball stadium. This new facility will hold the events currently being held at Sport Backers Stadium and provide practice fields that will serve VCU athletes.

The new outdoor track facilities and practice fields will consist of a 400-meter outdoor track with a natural turf infield to accommodate an NCAA soccer field. The outdoor track facilities will contain seating for approximately 1,500 spectators as well as locker rooms, athlete meeting space, a press box and media area for events, concession stands, and storage. There will be two NCAA-size practice fields, one artificial and one with natural grass.

Work on the practice fields and outdoor track/soccer field is scheduled to start in January 2025. Construction of the stadium is scheduled to begin in July 2025.

Cost and funding

The estimated cost of Phase I: Outdoor Track Facilities and Practice Fields is $38M and will be funded by the sale of the Sports Backers Stadium property, VCU Athletics funds and private fundraising funds.

Recommendation

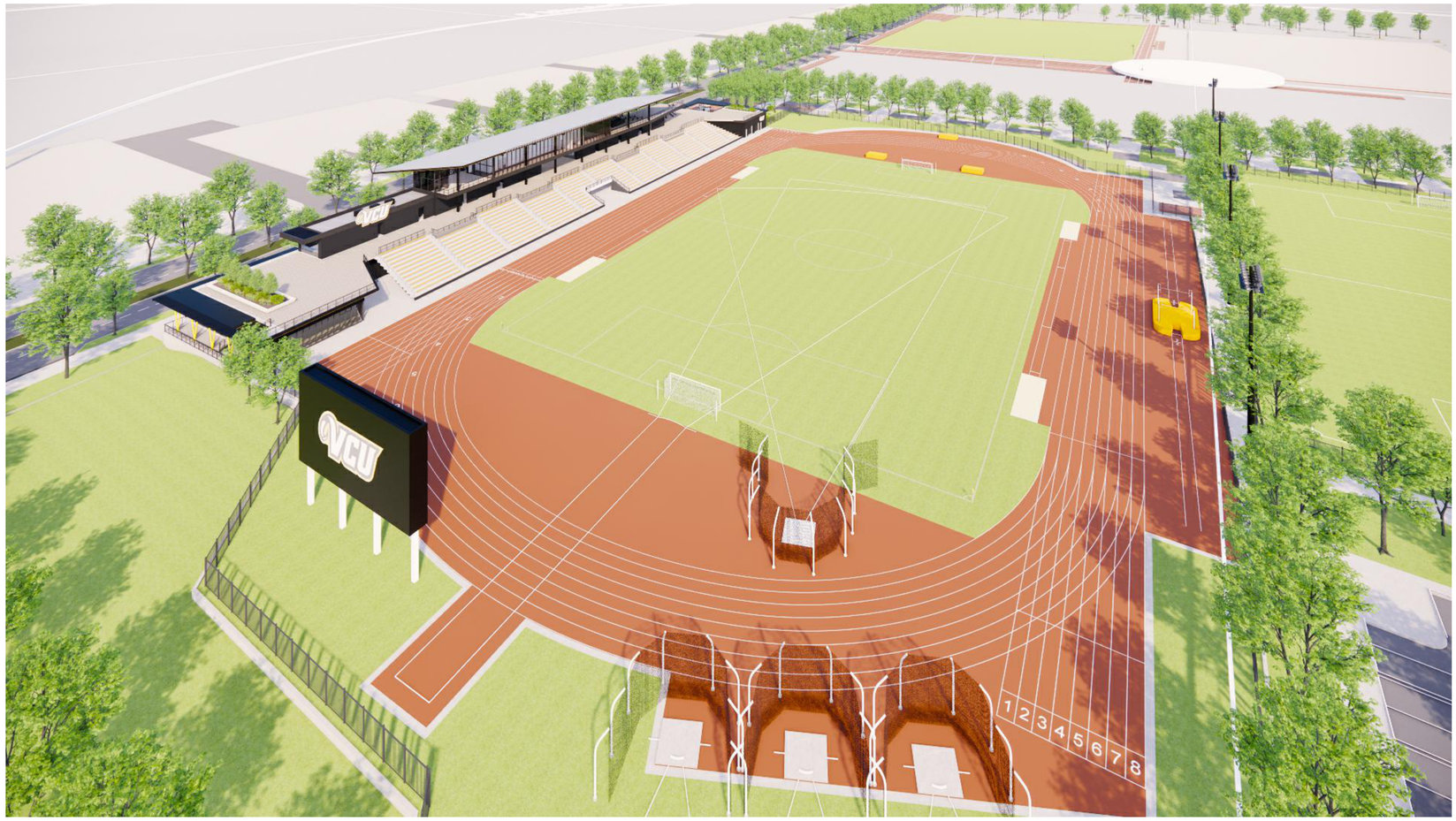
Approve the project plans for the Athletic Village Phase I: Outdoor Track Facilities and Practice Fields.

VCU ATHLETIC VILLAGE OUTDOOR TRACK

RICHMOND, VA

STATE PROJECT CODE: 236-B2236-060 (PHASE 1)

VCU PROJECT CODE: 2023-02408



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A0.02	PROJECT INFO
A0.11	BUILDING AREA
A1.00	SHEET NAME
A1.01	OUTDOOR TRACK COLOR
A1.02	OUTDOOR TRACK B&W
A1.11	OUTDOOR TRACK - ATHELTIC FIELD
A2.00	SITE PLAN
A2.01	TRACK COLOR FLOORPLAN - LVL 01
A2.02	TRACK COLOR FLOORPLAN - LVL 02
A2.03	TRACK COLOR ROOF PLAN
A2.04	SITE SECTIONS
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A2.12	TRACK FLOORPLAN - LVL 02
A2.13	TRACK FLOORPLAN - LVL 03
A2.14	CONCESSION BUILDING
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A6.13	WALL SECTIONS
A7	EXTERIOR DETAILS
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A9	SPECIFICATIONS
A9.11	OUTDOOR TRACK STADIUM - VIEWS
A9.12	OUTDOOR TRACK STADIUM - VIEWS
ALS.01	LIFE SAFETY

OWNER

VIRGINIA COMMONWEALTH UNIVERSITY
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ARCHITECT

HKS INC.
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CIVIL

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LANDSCAPE

FALL LINE
207 NORTH FOUSHEE ST
RICHMOND, VA 23220

Designer

24 JANUARY 2024

HKS PROJECT NO 26065.001

01 **COLOR SITE PLAN**
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TRUE

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LANDSCAPE
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HLB LIGHTING, INC.
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15508 WRIGHT BRO. DR. #200
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RICHMOND, VA

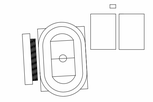
VCU ATHLETIC VILLAGE - PHASE 1 TRACK AND FIELD

INTERIM REVIEW ONLY

These documents are incomplete, and are released for interim review only and are not intended for regulatory approval, permit, or construction purposes.

Architect: XXXXXX
Arch. Reg. No.: XXXX
Date: XX/XX/XXXX

KEY PLAN



REVISION

#	DESCRIPTION	DATE

VCU PROJECT CODE
2023-02408

DEB NUMBER
236-B2236-060

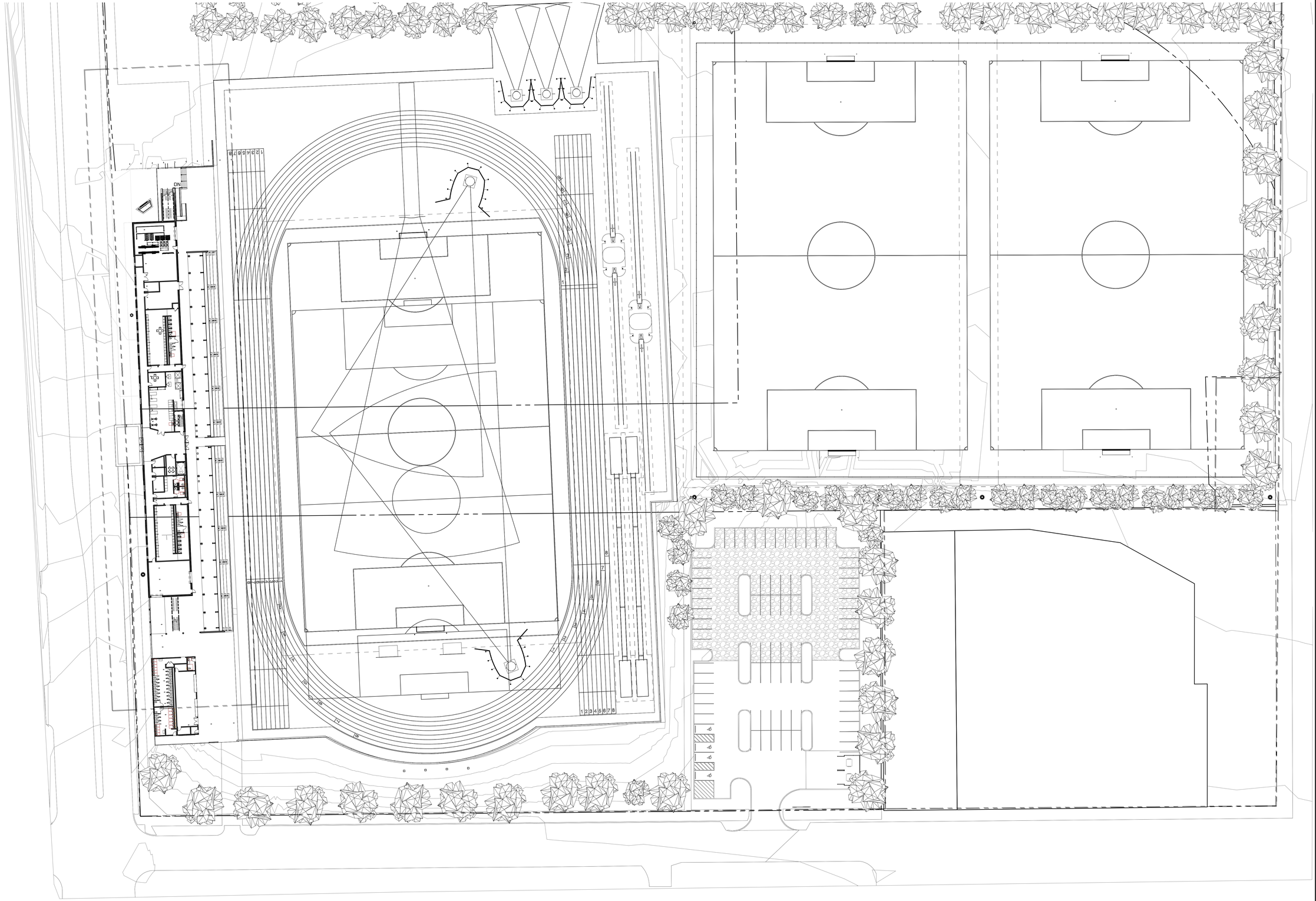
HKS PROJECT NUMBER
26065.000

DATE
06/21/23

ISSUE

SHEET TITLE
OUTDOOR TRACK COLOR

SHEET NO.
A1.01



01 **TRACK OVERALL SITE**
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SCALE 1/32" = 1'-0"
TRUE

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HKS

ARCHITECT
HKS, INC.
2100 E. CARY ST, STE 100
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RICHMOND, VA

VCU ATHLETIC VILLAGE - PHASE 1 TRACK AND FIELD

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Architect: XXXXXX
Arch. Reg. No.: XXXX
Date: XX/XX/XXXX

KEY PLAN

REVISION

#	DESCRIPTION	DATE

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DEB NUMBER
236-B2236-060

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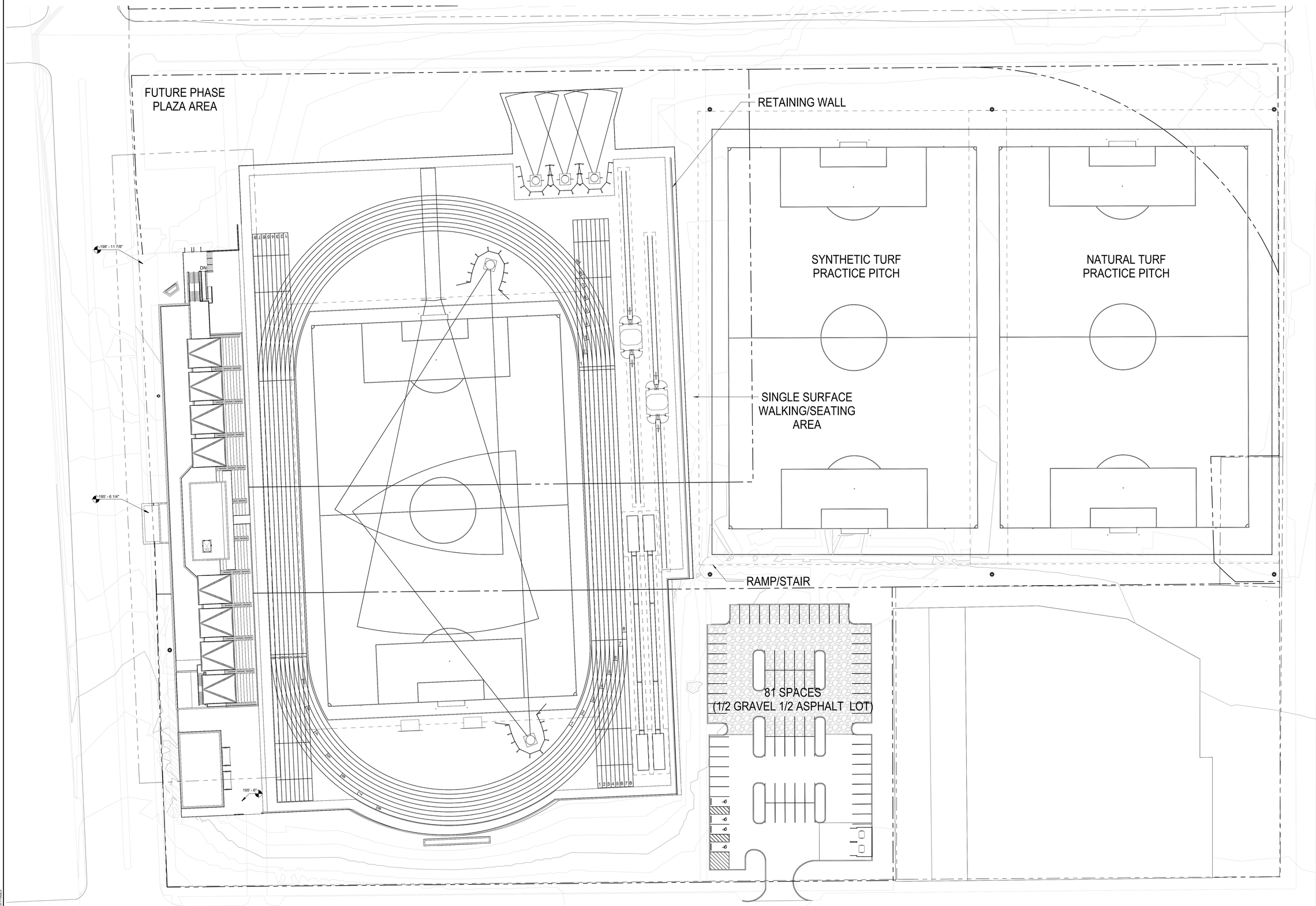
26065.000

DATE
06/22/23

ISSUE

SHEET TITLE
OUTDOOR TRACK - ATHELTIC FIELD

SHEET NO.
A1.11



01 SITE PLAN
1/32" = 1'-0"

PARKING SCHEDULE	
TYPE	COUNT
Parking Space - 9x18	77
PRK_UH_Spaces_ADA	4
GRAND TOTAL: 81	

TRUE

0 4' - 0" 8' - 0"

SCALE 1/32" = 1'-0"

PLOT DATE: 10/25/2024 4:12:23 PM TEMPLATE VERSION: 3.0.0.20170623

HKS

ARCHITECT
HKS, INC.
2100 E. CARY ST, STE 100
RICHMOND, VA 23223

ASSOCIATE ARCHITECT
KEi ARCHITECTS
100 W. FRANKLIN ST, STE 400
RICHMOND, VA 23220

SUSTAINABILITY
SDC
1421 LOMBARDY ALLEY, 1ST FL
RICHMOND, VA 23219

MEP
2RW, INC.
100 10TH ST. NE, STE 202
CHARLOTTESVILLE, VA 22902

STRUCTURAL
DUNBAR PLLC
1025 BOULDERS PKWY, STE 310
RICHMOND, VA 23225

CIVIL
TIMMONS GROUP, INC.
1001 BOULDERS PKWY, STE 300
RICHMOND, VA 23225

LANDSCAPE
FALL LINE, LLC
207 NORTH FOUSHEE ST
RICHMOND, VA 23220

LIGHTING DESIGNER
HLB LIGHTING, INC.
38 E 32ND ST 11TH FLOOR
NEW YORK, NY 10016

AV/TELE/LV/IT/SECURITY
SALAS O'BRIAN
15508 WRIGHT BRO. DR. #200
ADDISON TX, 75001

ENVIRONMENTAL GRAPHICS
ICONOGRAPH, INC.
110 5TH STREET SE
CHARLOTTESVILLE, VA 22902

OWNER
VIRGINIA COMMONWEALTH
UNIVERSITY
RICHMOND, VA

VCU ATHLETIC VILLAGE - PHASE 1 TRACK AND FIELD

INTERIM REVIEW ONLY

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Architect: XXXXXX
Arch. Reg. No.: XXXX
Date: XX/XX/XXXX

KEY PLAN

REVISION

#	DESCRIPTION	DATE

VCU PROJECT CODE
2023-02408

DEB NUMBER
236-B2236-060

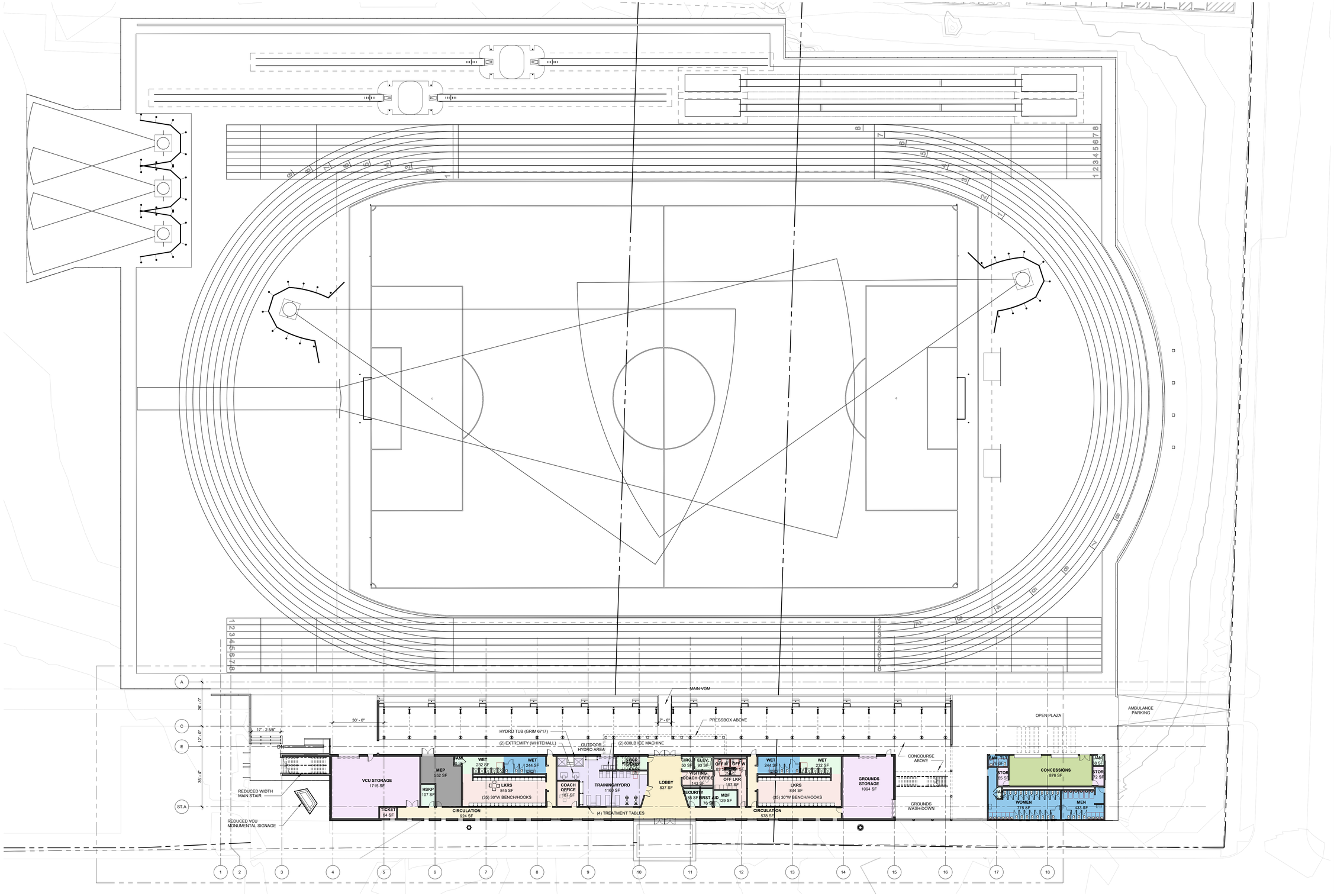
HKS PROJECT NUMBER
26065.000

DATE
08/15/24

ISSUE
SCHEMATIC DESIGN

SHEET TITLE
SITE PLAN

SHEET NO.
A2.00



CIRCULATION
LOCKERS
SHOWERS
TICKETING
CONCESSIONS
MEP
STORAGE
TRAINING
LOBBY
RESTROOMS
SUPPORT
VERTICAL CIRCULATION

N TRUE

0 4' - 0" 8' - 0"

SCALE 3/64" = 1'-0"

PLOT DATE: 10/20/2023 4:13:08 PM TEMPLATE VERSION: 3.0.0.20170623

HKS

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2100 E. CARY ST, STE 100
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VCU ATHLETIC VILLAGE - PHASE 1 TRACK AND FIELD

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Arch. Reg. No.: XXXX
Date: XX/XX/XXXX

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VCU PROJECT CODE
2023-02408

DEB NUMBER
236-B2236-060

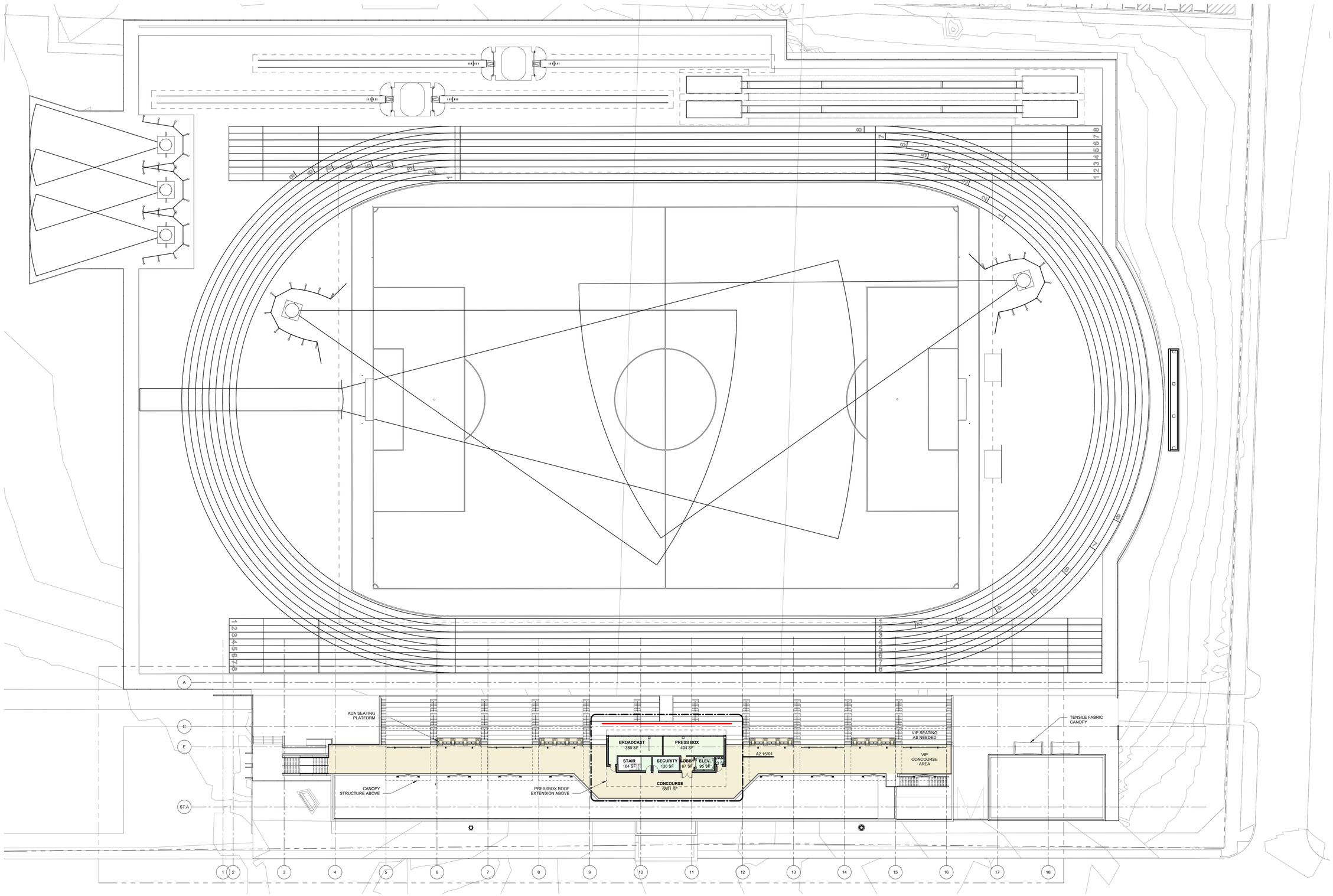
HKS PROJECT NUMBER
26065.000

DATE
06/20/23

ISSUE

SHEET TITLE
TRACK COLOR FLOORPLAN - LVL 01

SHEET NO.
A2.01



01 **01 - LEVEL 02**
3/64" = 1'-0"

- CIRCULATION
- CONCOURSE
- MEDIA
- SUPPORT
- VERTICAL CIRCULATION

TRUE

0 4' - 0" 8' - 0"

SCALE 3/64" = 1'-0"

PLOT DATE: 10/26/2024 4:14:19 PM TEMPLATE VERSION: 3.0.0.20170623

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OWNER
VIRGINIA COMMONWEALTH UNIVERSITY
RICHMOND, VA

VCU ATHLETIC VILLAGE - PHASE 1 TRACK AND FIELD

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Architect: XXXXXX
Arch. Reg. No.: XXXX
Date: XX/XX/XXXX

KEY PLAN

REVISION

#	DESCRIPTION	DATE

VCU PROJECT CODE
2023-02408

DEB NUMBER
236-B2236-060

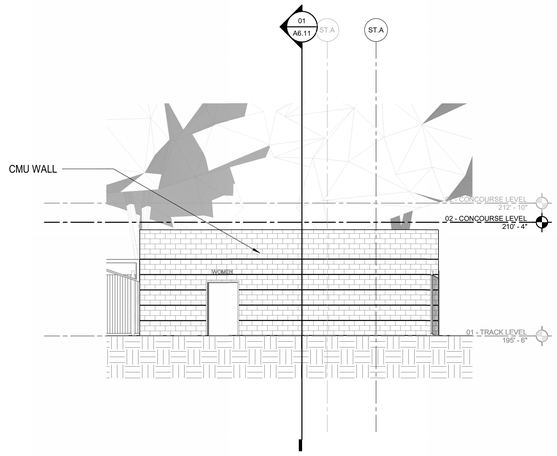
HKS PROJECT NUMBER
26065.000

DATE
SEPTEMBER 18, 2023

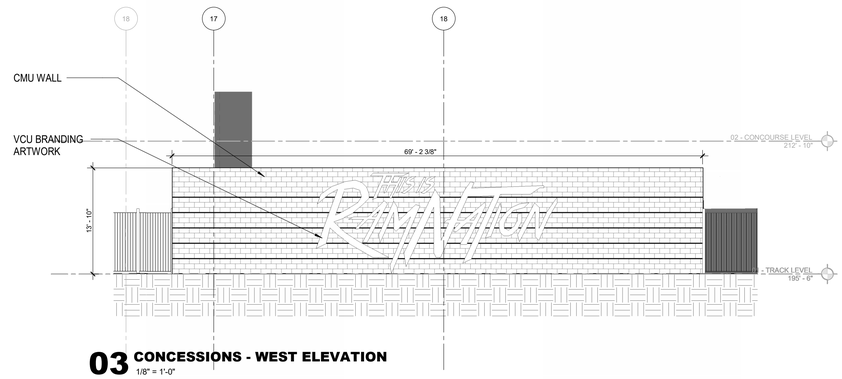
ISSUE

SHEET TITLE
TRACK COLOR FLOORPLAN - LVL 02

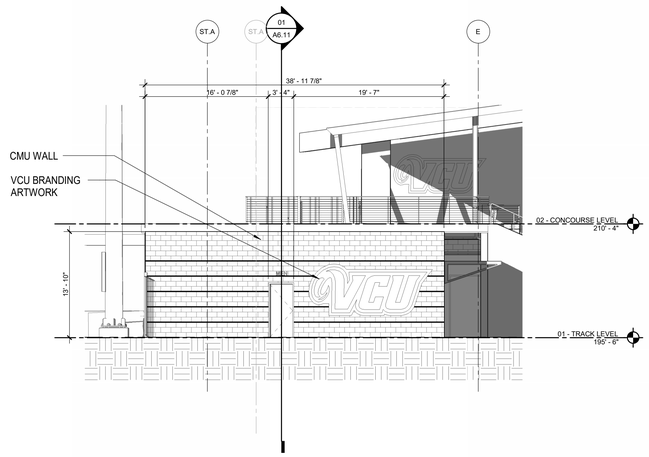
SHEET NO.
A2.02



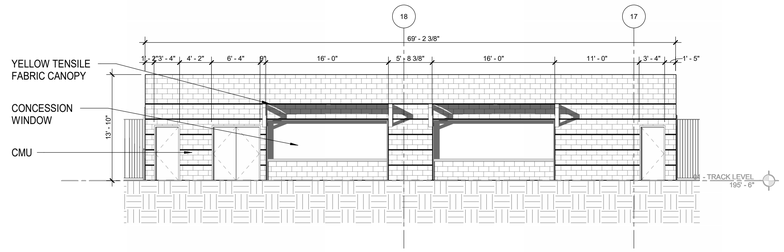
05 CONCESSIONS - NORTH ELEVATION
1/8" = 1'-0"



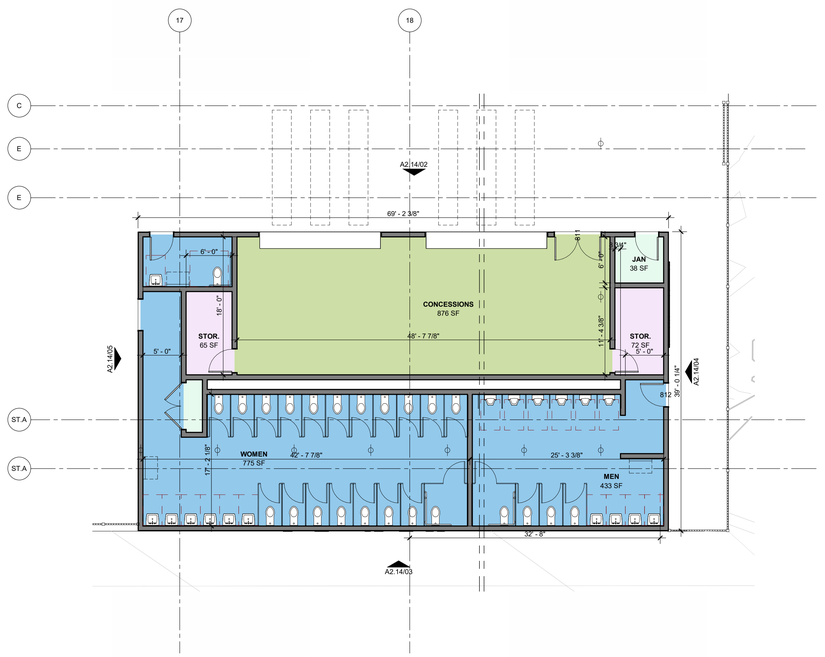
03 CONCESSIONS - WEST ELEVATION
1/8" = 1'-0"



04 CONCESSIONS - SOUTH ELEVATION
1/8" = 1'-0"



02 CONCESSIONS - EAST ELEVATION
1/8" = 1'-0"



01 CONCESSIONS/RESTROOM BUILDING - LEVEL 01
1/8" = 1'-0"

TRUE

0 4' - 0" 8' - 0"

SCALE 1/8" = 1'-0"

PLOT DATE:
10/26/2024 4:14:49 PM
TEMPLATE VERSION: 3.0.0.20170923

HKS

ARCHITECT
HKS, INC.
2100 E. CARY ST, STE 100
RICHMOND, VA 23223

ASSOCIATE ARCHITECT
KEi ARCHITECTS
100 W. FRANKLIN ST, STE 400
RICHMOND, VA 23220

SUSTAINABILITY
SDC
1421 LOMBARDY ALLEY, 1ST FL
RICHMOND, VA 23219

MEP
2RW, INC.
100 10TH ST. NE, STE 202
CHARLOTTESVILLE, VA 22902

STRUCTURAL
DUNBAR PLLC
1025 BOULDERS PKWY, STE 310
RICHMOND, VA 23225

CIVIL
TIMMONS GROUP, INC.
1001 BOULDERS PKWY, STE 300
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LANDSCAPE
FALL LINE, LLC
207 NORTH FOUSHEE ST
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LIGHTING DESIGNER
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NEW YORK, NY 10016

AV/TELE/LV/IT/SECURITY
SALAS O'BRIAN
15508 WRIGHT BRO. DR. #200
ADDISON TX. 75001

ENVIRONMENTAL GRAPHICS
ICONOGRAPH, INC.
110 5TH STREET SE
CHARLOTTESVILLE, VA 22902

OWNER
VIRGINIA COMMONWEALTH
UNIVERSITY
RICHMOND, VA

VCU ATHLETIC VILLAGE - PHASE 1 TRACK AND FIELD

INTERIM REVIEW ONLY

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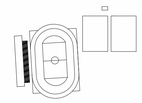
Architect: XXXXXX
Arch. Reg. No.: XXXX
Date: XX/XX/XXXX

KEY PLAN



REVISION

#	DESCRIPTION	DATE

VCU PROJECT CODE
2023-02408

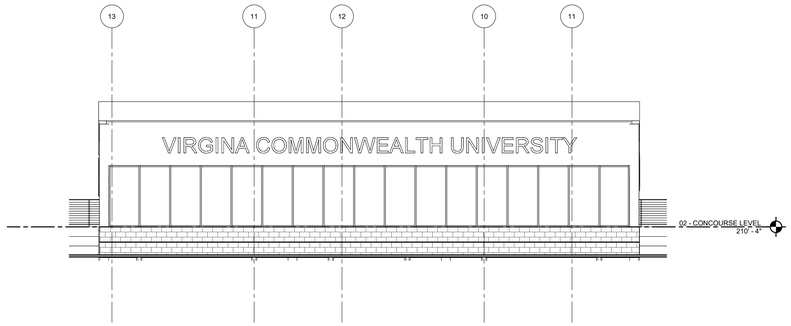
DEB NUMBER
236-B2236-060

HKS PROJECT NUMBER
26065.000

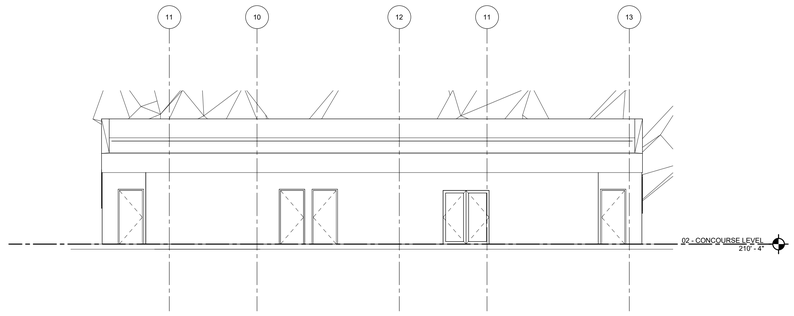
DATE
06/27/23
ISSUE

SHEET TITLE
CONCESSION BUILDING

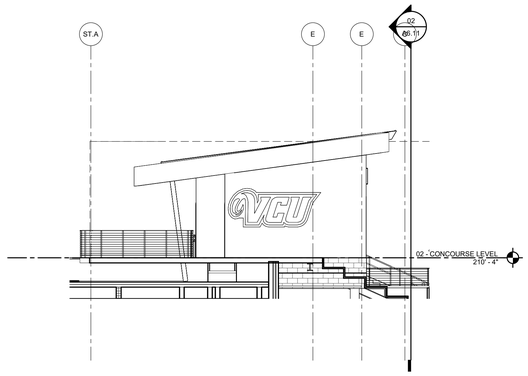
SHEET NO.
A2.14



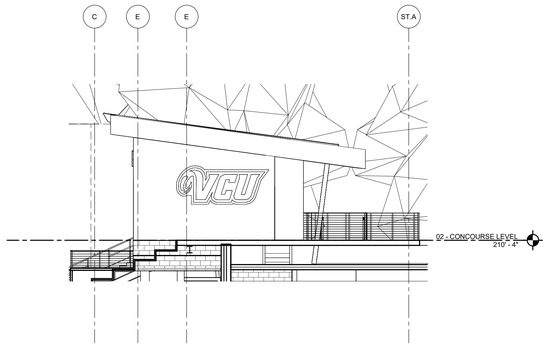
06 **Elevation 5 - a**
1/8" = 1'-0"



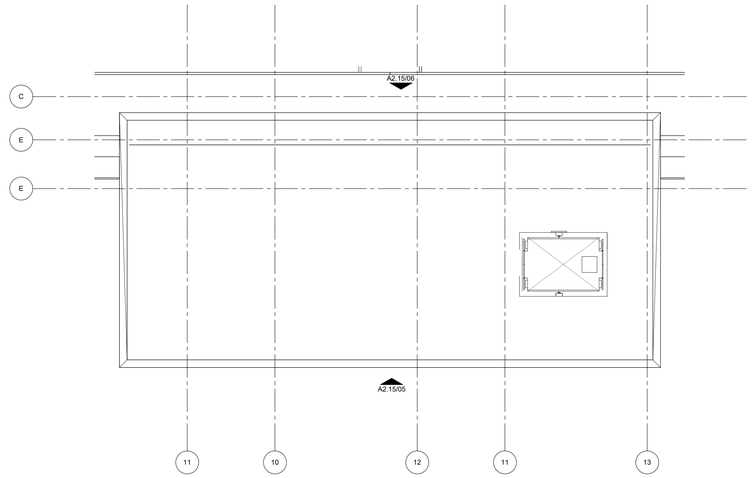
05 **Elevation 4 - a**
1/8" = 1'-0"



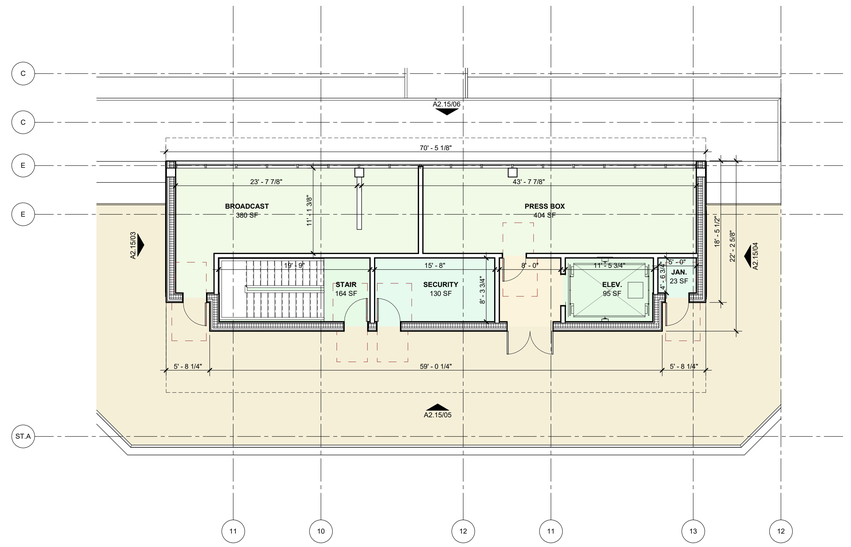
04 **ELEVATION - PRESSBOX - SOUTH**
1/8" = 1'-0"



03 **ELEVATION - PRESSBOX NORTH**
1/8" = 1'-0"



02 **ROOF PLAN - PRESSBOX**
1/8" = 1'-0"



01 **LEVEL 02 - PRESSBOX**
1/8" = 1'-0"

N
TRUE

0 4' - 0" 8' - 0"
SCALE 1/8" = 1'-0"

PLOT DATE: 10/26/2023 4:15:13 PM TEMPLATE VERSION: 3.0.0.20170623

HKS

ARCHITECT
HKS, INC.
2100 E. CARY ST, STE 100
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ASSOCIATE ARCHITECT
KEi ARCHITECTS
100 W. FRANKLIN ST, STE 400
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SUSTAINABILITY
SDC
1421 LOMBARDY ALLEY, 1ST FL
RICHMOND, VA 23219

MEP
2RW, INC.
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CHARLOTTESVILLE, VA 22902

STRUCTURAL
DUNBAR PLLC
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CIVIL
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ENVIRONMENTAL GRAPHICS
ICONOGRAPH, INC.
110 5TH STREET SE
CHARLOTTESVILLE, VA 22902

OWNER
VIRGINIA COMMONWEALTH UNIVERSITY
RICHMOND, VA

VCU ATHLETIC VILLAGE - PHASE 1 TRACK AND FIELD

INTERIM REVIEW ONLY

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Architect: XXXXXX
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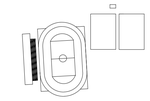
KEY PLAN



REVISION

#	DESCRIPTION	DATE

VCU PROJECT CODE
2023-02408

DEB NUMBER
236-B2236-060

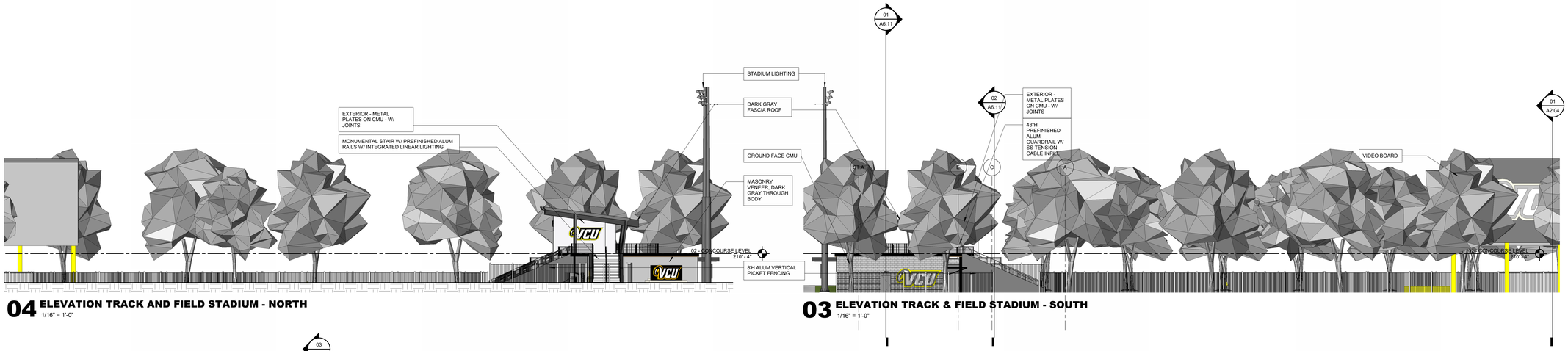
HKS PROJECT NUMBER
26065.000

DATE
06/27/23

ISSUE

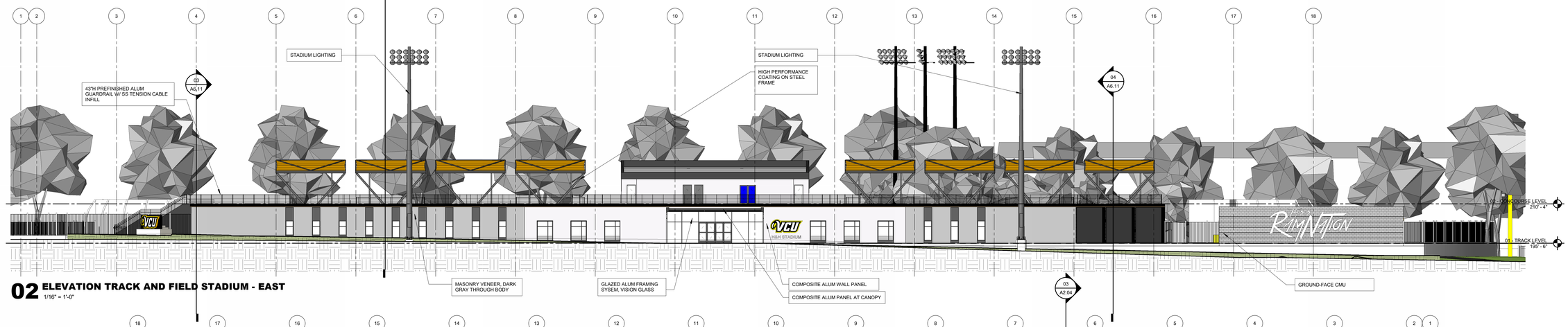
SHEET TITLE
PRESSBOX

SHEET NO.
A2.15

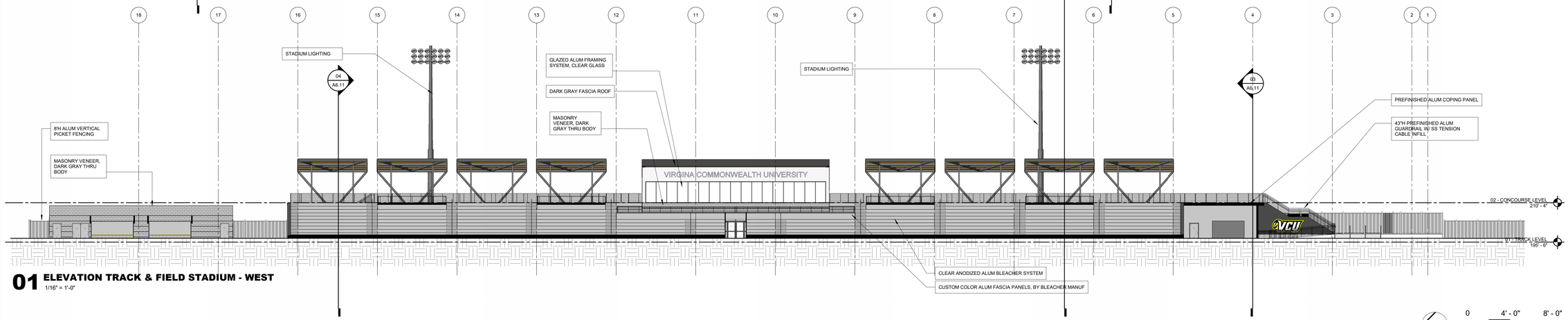


04 **ELEVATION TRACK AND FIELD STADIUM - NORTH**
1/16" = 1'-0"

03 **ELEVATION TRACK & FIELD STADIUM - SOUTH**
1/16" = 1'-0"



02 **ELEVATION TRACK AND FIELD STADIUM - EAST**
1/16" = 1'-0"



01 **ELEVATION TRACK & FIELD STADIUM - WEST**
1/16" = 1'-0"

TRUE

0 4' - 0" 8' - 0"

SCALE 1/16" = 1'-0"

PLOT DATE: 10/26/2024 4:15:39 PM TEMPLATE VERSION: 3.0 (5/17/2023)

HKS

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VCU ATHLETIC VILLAGE - PHASE 1 TRACK AND FIELD

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Arch. Reg. No.: XXXX
Date: XX/XX/XXXX

KEY PLAN

REVISION

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VCU PROJECT CODE
2023-02408

DEB NUMBER
236-B2236-060

HKS PROJECT NUMBER
26065.000

DATE
06/20/23

ISSUE

SHEET TITLE
ELEVATIONS

SHEET NO.
A5.11

Amendment to the 2024-2030 Six-Year Capital Plan, Authorization to Initiate a Capital Project and Approval of Project Plans

901 West Franklin Street Renovation

Background

VCU seeks Board of Visitors (BOV) approval to amend the 2024-2030 Six-Year Capital Plan, authorization to initiate a capital project, and project plan approval, as required by the VCU management agreement, for 901 West Franklin Street.

Located at the corner of Franklin and Shafer streets, the original building was constructed as a home between 1882 and 1892 and is currently used as office space. Additions on the south and west ends of the building were added in the early 20th century. The original building primarily consists of brownstone and brick masonry exterior walls with a steep-sloped roof made of terracotta roof tiles. Later additions include brick masonry walls and mostly low-sloped rubber roofing and partial terracotta roofing.

There have been no significant restorative efforts performed on this facility in recent history. Normal aging and degradation of building materials is contributing to moisture infiltration issues that need to be addressed appropriately.

Considerations

The necessary building repairs meet the criteria for use of maintenance reserve funds. The Commonwealth of Virginia limits the use of state-appropriated maintenance reserve funds to $2M or less but provides an exception to the $2M limit on a case-by-case basis. The university received approval of an exception for this project.

Size and scope

This renovation project includes tuckpointing (i.e., repairing the mortar joints between the bricks of the entire building), replacing the roof and adding a fall protection system to the roof. The project is anticipated to begin in 2025 and will take approximately one year to complete.

Funding

The total cost for the renovations is estimated to be between $6M and $7M and will be funded by state-appropriated maintenance reserve funds.

Recommendation

Approve the amendment to the university's 2024-2030 Six-Year Capital Plan, authorize the initiation of a capital project at a cost not to exceed $7M, and approve the corresponding project plans for the 901 West Franklin Street renovation.

RESOLUTION OF THE BOARD OF VISITORS
VIRGINIA COMMONWEALTH UNIVERSITY

AUTHORIZATION TO INITIATE A MAJOR CAPITAL PROJECT FOR 901 WEST FRANKLIN STREET RENOVATION

WHEREAS, Chapter 6.1, Title 23 of the Code of Virginia of 1950, as amended (the "Virginia Code") establishes a public corporation under the name and style of Virginia Commonwealth University (the "University") which is governed by a Board of Visitors (BOV) (the "Board") vested with the supervision, management and control of the University;

WHEREAS, Title 23 of the Virginia Code classifies the University as an educational institution of the Commonwealth of Virginia;

WHEREAS, by Chapter 4.10, Title 23 of the Virginia Code, the University entered into that certain Management Agreement with the Commonwealth of Virginia which was enacted as Chapter 594 of the Acts of Assembly of 2008 which, as amended, classifies the University as a public institution of higher education and empowers the University with the authority to undertake and implement capital projects, which include the acquisition of any interest in land, improvements on acquired land, capital leases, new construction, and building improvements and renovations;

WHEREAS, the Management Agreement requires the Board of Visitors to authorize the initiation of each Major Capital Project by approving its size, scope, budget and funding;

WHEREAS, the 901 West Franklin Street Renovation (“the Project”) includes tuckpointing (i.e., repairing the mortar joints between the bricks of the entire building), replacing the roof and adding a fall protection system to the roof.

WHEREAS, the total cost for the renovations is estimated to be between $6M and $7M and will be funded by state-appropriated maintenance reserve funds.

WHEREAS, the Board has determined it is desirable to authorize the initiation of a major capital project for the 901 West Franklin Street Renovation.

NOW, THEREFORE, BE IT RESOLVED, that the Board hereby authorizes and approves the Project, including the size, scope, budget and funding of the Project, as described in the materials presented to the Board; and

RESOLVED FURTHER, that, upon approval, this action shall take effect immediately.

901 WEST FRANKLIN ROOF AND ENVELOPE REPAIRS

PERMIT SET

VIRGINIA COMMONWEALTH UNIVERSITY

STATE PROJECT NUMBER: 236-B3236-004

RRMM ARCHITECTS, PC

ARCHITECTURE / PLANNING / INTERIORS

CODES AND APPLICABLE STANDARDS:

CODE:	2018 VIRGINIA EXISTING BUILDING CODE (PART II OF THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE), CHAPTER 9 HISTORIC BUILDINGS
USE GROUP:	GROUP B
CONSTRUCTION TYPE:	IV (NON-COMBUSTIBLE EXTERIOR WALLS, WITH COMBUSTIBLE FLOORS)
MAX OCCUPANCY:	UNCHANGED
BUILDING ARE BY FLOOR:	UNCHANGED
TOTAL BUILDING AREA:	UNCHANGED
DESIGN LIVE LOADS:	UNCHANGED
ACCESSIBILITY STANDARDS:	2010 ADA STANDARDS FOR ACCESSIBLE DESIGN (ASAD) DATED SEPTEMBER 15, 2010 ACCESSIBILITY IS UNCHANGED, MAINTIAIN EXISTING ACCESSIBILITY AND ADA STANDARDS.

ADDITIONAL RELAVENT CODES AND STANDARDS:

- COMMONWEALTH OF VIRGINIA, CONSTRUCTION AND PROFESSIONAL SERVICES MANUAL, 2024 EDITION, REVISION 0, DATED FEBRUARY 29, 2024
- VCU FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION STANDARDS - APRIL 8, 2022 EDITION
- TMS 402/602-16 "BUILDING CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES"
- ASCE/SEI 7-16 "MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES"
- NATIONAL PARK SERVICE PRESERVATION BRIEF 1 "CLEANING AND WATER-REPELLENT TREATMENTS FOR HISTORIC MASONRY BUILDINGS"
- NATIONAL PARK SERVICE PRESERVATION BRIEF 2 "REPOINTING MORTAR JOINTS IN HISTORIC MASONRY BUILDINGS"
- NATIONAL PARK SERVICE PRESERVATION BRIEF 4 "ROOFING FOR HISTORIC BUILDINGS"
- NATIONAL PARK SERVICE PRESERVATION BRIEF 7 "THE PRESERVATION OF HISTORIC GLAZED ARCHITECTURAL TERRA-COTTA"
- NATIONAL PARK SERVICE PRESERVATION BRIEF 30 "THE PRESERVATION AND REPAIR OF HISTORIC CLAY TILE ROOFS"
- NATIONAL PARK SERVICE PRESERVATION BRIEF 39 "HOLDING THE LINE: CONTROLLING UNWANTED MOISTURE IN HISTORIC BUILDINGS "

DISCLOSURE AND COMPLIANCE STATEMENTS:

ASBESTOS DISCLOSURE STATEMENT:

AN ASBESTOS INSPECTION WAS PERFORMED AND ACM WAS FOUND GENERALLY IN THE AREA INDICATED. THE ASBESTOS INSPECTION REPORT IS INCLUDED AS AN APPENDIX TO THE PROJECT SPECIFICATIONS. THE OWNER SHALL SUBMIT AN APPLICATION FOR PERMIT TO HAVE THE ASBESTOS-CONTAINING MATERIALS ABATED BY A LICENSED ASBESTOS CONTRACTOR UNDER A SEPARATE CONTRACT USING APPROVED PROCEDURES PRIOR TO ISSUING A NOTICE TO PROCEED TO THE GENERAL CONTRACTOR. ANY ACM THAT IS TO REMAIN AND THE NEW NON ASBESTOS-CONTAINING MATERIAL SHALL BE LABELED ACCORDINGLY. THE ASBESTOS ABATEMENT CONTRACTORS SHALL MARK UP THE AS-BUILT DRAWINGS RESULTING FROM ITS WORK TO INCLUDE AREAS WHERE ASBESTOS WAS ABATED, AREAS WHERE ASBESTOS WAS ENCAPSULATED, AND AREAS WHERE ACM EXIST BUT WHERE LEFT IN PLACE. THE GENERAL CONTRACTOR SHALL REVIEW AND CERTIFY THE LOCATIONS WHERE ACT WAS ABATED, AREAS WHERE ACM WAS ENCAPSULATED AND AREAS WHERE ACM WAS LEFT IN PLACE AS MARKED ON THE AS-BUILT DRAWINGS AND WILL PROVIDE THE DRAWINGS TO THE ARCHITECT.

LEAD MATERIALS DISCLOSURE STATEMENT:

AN INSPECTION TO IDENTIFY LEAD CONTAINING OR COATED BUILDING COMPONENTS HAS BEEN CONDUCTED AND CAN BE FOUND IN THE PROJECT SPECIFICATIONS. THIS REPORT IS PROVIDED FOR THE CONTRACTOR'S USE AND MAY NOT BE ALL INCLUSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL VIRGINIA OCCUPATIONAL SAFETY AND HEALTH (VOSH) REGULATIONS AS THEY PERTAIN TO EMPLOYEE EXPOSURES TO LEAD. ALL LEAD AND LEAD-COATED BUILDING COMPONENTS SHALL BE RECYCLED TO THE EXTENT POSSIBLE.

DIG NOTICE:

CONTACT VIRGINIA 811 AT 1-800-552-7001, OR HTTPS://WWW.VA811.COM NO LESS THAN 72 HOURS PRIOR TO EXCAVATION AND DO NOT DISTURB THE SOIL UNTIL DIG TICKET HAS BEEN PROCESSED.

DELEGATED DESIGN ITEMS:

- SCAFFOLDING, ACCESS AND OVERHEAD PROTECTION: SHALL BE DESIGNED BY AN ENGINEER LICENSED IN THE COMMONWEALTH OF VIRGINIA IN ACCORDANCE WITH LOCAL AND STATE CODES, OSHA REQUIREMENTS, 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN, AND AS INDICATED IN THE DOCUMENTS.
- TEMPORARY SHORING: SHALL BE DESIGNED BY AN ENGINEER LICENSED IN THE COMMONWEALTH OF VIRGINIA IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED.

OWNER
VIRGINIA COMMONWEALTH UNIVERSITY
700 WEST GRACE STREET/BOX 843003
1ST FLOOR, SUITE 1500
RICHMOND, VIRGINIA 23284
(804) 828-9647

ARCHITECT
RRMM ARCHITECTS
115 SOUTH 15TH STREET, SUITE 202
RICHMOND, VIRGINIA 23219
(804) 277-8987

ENGINEER
WDP & ASSOCIATES CONSULTING ENGINEERS, INC.
335 GREENBRIER DRIVE, SUITE 205
CHARLOTTESVILLE, VIRGINIA 22901
(434) 245-6117

COMMONWEALTH OF VIRGINIA — KATHERINE O'NEAL — Lic. No. 014521 — 8-12-2024 — ARCHITECT

COMMONWEALTH OF VIRGINIA — JODI M. KNOROWSKI — Lic. No. 056664 — 08/12/2024 — PROFESSIONAL ENGINEER

LIST OF DRAWINGS

ABBREVIATIONS

Ø	DIAMETER
BLDG.	BUILDING
GA.	MAXIMUM
MIN.	MINIMUM
O.C.	ON CENTER
PSF	PER SQUARE FEET
PSI	PER SQUARE INCH
GA.A.	STAINLESS STEEL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE

SYMBOLS

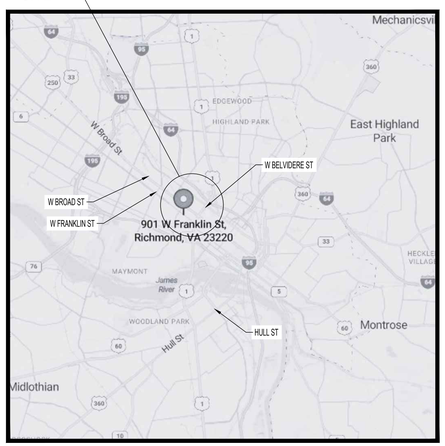
SECTION NUMBER
SHEET WHERE SECTION IS FOUND
SHEET WHERE SECTION IS CUT

ELEVATION NUMBER
SHEET WHERE ELEVATION IS FOUND
SHEET WHERE ELEVATION IS CUT

DETAIL NUMBER
SHEET WHERE DETAIL IS FOUND
SHEET WHERE DETAIL IS CUT

DETAIL NUMBER
SCALE:
SHEET WHERE DETAIL IS FOUND
SHEET WHERE DETAIL IS CUT
ADDITIONAL SHEETS REFERENCES

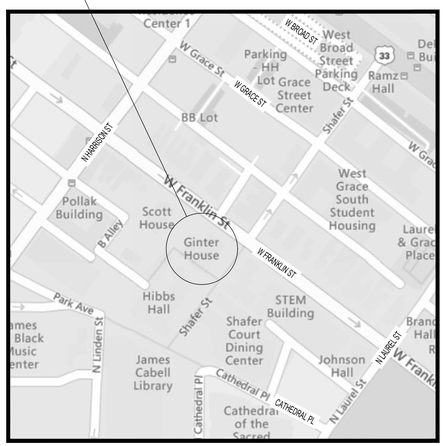
SITE



VICINITY MAP
NOT TO SCALE

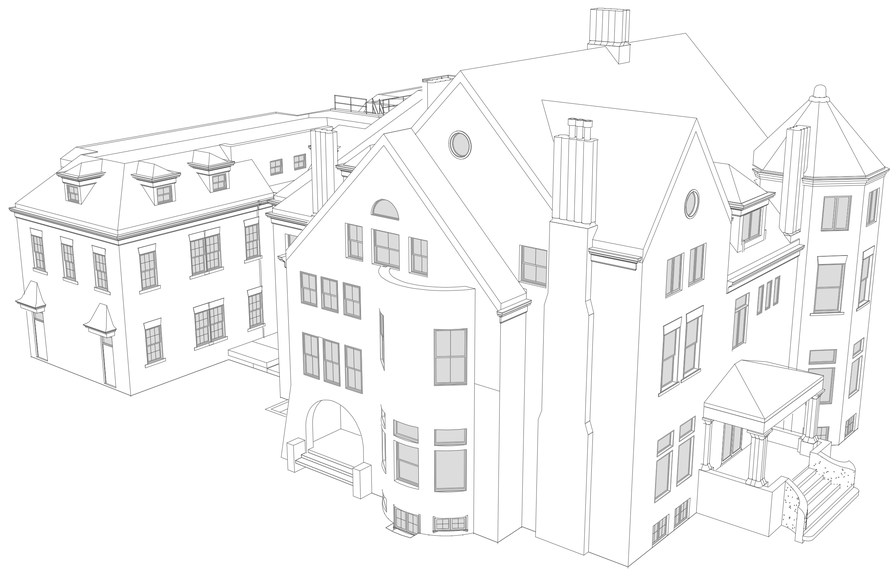
NORTH

SITE



LOCATION MAP
NOT TO SCALE

NORTH



DATE	08/12/2024
PROJECT	21242
DESIGNED	JMK
DRAWN	SD/DW/CM
CHECKED	AWW

MARK	DATE	REVISIONS	BY	DES

WDP & Associates
Consulting Engineers

RRMM ARCHITECTS, PC
115 South 15th Street, Suite
Richmond, Virginia 23219
(804)277-8987

COMMONWEALTH OF VIRGINIA — KATHERINE O'NEAL — Lic. No. 014521 — 8-12-2024 — ARCHITECT

PROJECT: 901 WEST FRANKLIN ROOF AND ENVELOPE REPAIRS
PERMIT SET
VIRGINIA COMMONWEALTH UNIVERSITY
901 W FRANKLIN ST, RICHMOND, VIRGINIA 23284
DRAWING: TITLE SHEET
STATE PROJECT NUMBER: 236-B3236-004

SHEET
T-1.0

1/32" = 1'-0" | 1/16" = 1'-0" | 3/32" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 3/8" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0" | 6" = 1'-0"

BACKGROUND:

1. THE ORIGINAL BUILDING WAS CONSTRUCTED AS A HOME FOR LEWIS GINTER BETWEEN 1892 AND 1892. HISTORIC RECORDS INDICATE A SOUTH ADDITION WAS ADDED AROUND 1939 ALTHOUGH DRAWINGS FOR THIS ADDITION WERE NOT AVAILABLE FOR REVIEW. DRAWINGS FOR THE "ADDITION TO ADMINISTRATION BUILDING FOR THE RICHMOND PROFESSIONAL INSTITUTE, COLLEGE OF WILLIAM AND MARY," DATED DECEMBER 1947, INCLUDE THE ADDITION ON THE WEST END OF THE BUILDING. THE ORIGINAL BUILDING PRIMARILY CONSISTS OF BROWNSTONE AND BRICK MASONRY AT THE EXTERIOR WALLS WITH STEEP-SLOPED ROOF CONDITIONS CONSTRUCTED WITH TERRACOTTA ROOF TILES. THE ADDITIONS WERE CONSTRUCTED WITH BRICK MASONRY WALLS AND FEATURE ELEMENTS OF TERRACOTTA ROOFING, BUT A BULK OF THE ROOF AREA IS LOW-SLOPED SINGLE-PLY EPDM ROOFING.
2. IN 2021, A FIELD EVALUATION WAS PERFORMED THAT INCLUDED DIAGNOSTIC WATER TESTING IN ISOLATED AREAS TO EVALUATE MOISTURE RELATED ISSUES AND VISUAL ASSESSMENT OF DETERIORATION OF THE BUILDING FAÇADE. BASED ON THE RESULTS OF THIS ASSESSMENT, THE UNIVERSITY HAS SELECTED TO CONDUCT A FAÇADE RESTORATION AND ROOF REPAIR/REPLACEMENT PROJECT IN ORDER TO RESTORE THE INTEGRITY OF THE ORIGINAL BUILDING ENVELOPE SYSTEMS AND LIMIT WATER INFILTRATION INTO THE BUILDING.
3. AN INVESTIGATION HAS ALSO BEEN CONDUCTED INTO THE CONDITION OF THE SUBSURFACE STORMWATER DRAINAGE SYSTEM AROUND THE BUILDING. THE EXISTING RUNNING P-TRAP CONNECTIONS HAVE LIMITED THE ABILITY TO PERFORM A COMPREHENSIVE ASSESSMENT AND LIMITS THE ABILITY TO CLEAN AND MAINTAIN THE DRAINS. REPLACEMENT OF THE EXISTING RUNNING P-TRAPS IS CURRENTLY UNDERWAY. AT THIS TIME, ADDITIONAL WORK RELATED TO THE SUBSURFACE STORMWATER SYSTEM IS NOT PART OF THE SCOPE OF WORK FOR THIS PROJECT.
4. THE SCOPE OF REPAIRS DOES NOT ADD TO THE EXISTING SIZE OF THE BUILDING, CHANGE THE CODE CLASSIFICATIONS FOR OCCUPANCY AND CONSTRUCTION TYPE, OR SEEK TO CHANGE THE BUILDING APPEARANCE. THE REPAIR SCOPE AIMS TO REFURBISH EXISTING BUILDING ENVELOPE COMPONENTS INCLUDING HISTORIC BROWNSTONE MASONRY, HISTORIC BRICK MASONRY, TERRA COTTA ROOF CONDITIONS, EPDM ROOF SYSTEM, AND PERIMETER GUTTERS.

GENERAL NOTES:

1. THERE ARE NO DRAWINGS FOR THE ORIGINAL CONSTRUCTION AVAILABLE FOR REVIEW. LIMITED DRAWINGS EXIST FOR THE CONSTRUCTION OF THE TWO ADDITIONS. THE CURRENT REPAIR DOCUMENTS WERE BASED ON A NECESSARILY LIMITED FIELD SURVEY AND LIMITED FIELD TESTING. AS PART OF THE PROJECT THE CONTRACTOR WILL PROVIDE ACCESS TO THE ENTIRE EXTERIOR (WALLS AND ROOF AREAS) TO ALLOW FOR OBSERVATION AND TESTING OF EXISTING CONDITIONS TO FURTHER IDENTIFY AREAS REQUIRING REPAIR.
2. ALL LOCATIONS, DIMENSIONS, AND ELEVATIONS ARE BASED ON THE ORIGINAL DESIGN DOCUMENTS AND LIMITED FIELD INVESTIGATION. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL CONDITIONS, MATERIALS, DIMENSIONS, LOCATIONS, AND EXISTING ELEMENTS TO REMAIN IN THE FIELD BEFORE PROCEEDING WITH ANY WORK AND PRIOR TO SUBMITTING SHOP DRAWINGS. ALL SHOP DRAWINGS SHALL BE PRODUCED BASED ON FIELD VERIFIED DIMENSIONS AND COORDINATION WITH THE APPROVED HISTORIC TREATMENT PLAN. IF CONDITIONS VARY FROM WHAT IS PRESENTED IN THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER.
3. THE DETAILS AND CONDITIONS OF SELECTED ELEMENTS AND CONNECTIONS ARE UNKNOWN. CONDITIONS OF STRUCTURAL ELEMENTS AND CONNECTIONS THAT APPEAR TO BE DAMAGED, MISSING, DETERIORATED, AND/OR COMPROMISED SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT/ENGINEER.
4. SECTION CUT AND DETAILS CALLOUTS INDICATED IN THE DRAWINGS ARE TYPICAL FOR THE PROJECT. THEY ARE TO BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS AND HAVE NOT BEEN SHOWN EVERYWHERE THEY APPLY.
5. SYMBOLS IN THE DRAWINGS ARE NOT TO SCALE.
6. ALL WORK SHALL BE LAID OUT PRIOR TO INSTALLATION OF NEW WORK BASED ON MEASUREMENT OF EXISTING CONSTRUCTION AND EXISTING CONSTRUCTION DESIGNATED TO REMAIN AS PART OF THE PROJECT. DO NOT START INSTALLATION OF WORK UNTIL LAYOUT IS COMPLETE AND POTENTIAL CONFLICTS HAVE BEEN IDENTIFIED AND ADDRESSED.
7. THE BUILDING WILL REMAIN OCCUPIED DURING THE WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING AND MAINTAINING FENCES, BARRIERS, AND COVERED WALKWAYS TO PROTECT BUILDING OCCUPANTS AT ALL TIMES. NOISE GENERATING WORK SHALL BE COORDINATED WITH THE UNIVERSITY TO HELP MINIMIZE THE IMPACTS ON BUILDING OPERATIONS.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF BUILDING COMPONENTS ADJACENT TO AREAS OF WORK INDICATED TO REMAIN. EXERCISE EVERY PRECAUTION TO PROTECT AND MAINTAIN FREE FROM DAMAGE PORTIONS OF THE EXISTING BUILDING ADJACENT TO AND ADJOINING THE WORK.
9. THE WORK AREAS SHALL BE COMPLETELY PROTECTED FROM WIND, SNOW, AND RAIN THROUGHOUT THE ENTIRE DURATION OF THE WORK. BUILDING SHALL BE KEPT WATERTIGHT AT ALL TIMES. OBTAIN WRITTEN APPROVAL FROM THE ARCHITECT/ENGINEER BEFORE MAKING CHANGES OR ADDITIONS TO CONSTRUCTION OR REMOVING MATERIALS THAT WERE INTENDED TO REMAIN.
10. NOTIFY ARCHITECT/ENGINEER OF VISIBLE CHANGES IN THE INTEGRITY OF MATERIALS OR COMPONENTS WHETHER DUE TO ENVIRONMENTAL CAUSES, INCLUDING BIOLOGICAL ATTACK, UV DEGRADATION, FREEZING OR THAWING, OR DUE TO STRUCTURAL DEFECTS, INCLUDING CRACKS, MOVEMENT, OR DISTORTION. DO NOT PROCEED WITH THE WORK IN QUESTION UNTIL DIRECTED BY THE ARCHITECT/ENGINEER.
11. WHERE WORK REQUIRES EXISTING FEATURES TO BE REMOVED, CLEANED, AND REUSED, PERFORM THESE OPERATIONS WITHOUT DAMAGE TO THE MATERIALS THEMSELVES, TO ADJACENT MATERIALS, OR TO THE SUBSTRATE. WHEN CLEANING, MATCH SAMPLES OF EXISTING MATERIALS THAT HAVE BEEN CLEANED AND IDENTIFIED FOR ACCEPTABLE CLEANING LEVELS. AVOID OVER CLEANING TO PREVENT DAMAGE TO EXISTING MATERIALS DURING CLEANING.
12. TEMPORARY MATERIALS MAY BE NEW OR USED, BUT MUST BE ADEQUATE IN CAPACITY FOR REQUIRED USAGE, MUST NOT CREATE UNSAFE CONDITIONS, AND MUST NOT VIOLATE REQUIREMENTS OF APPLICABLE CODES AND STANDARDS. WOOD PRODUCTS USED FOR TEMPORARY MATERIALS IN PROXIMITY TO STRUCTURE SHALL BE FIRE RETARDANT MATERIAL.
13. FLAMMABLE LIQUIDS OR MATERIALS SHALL BE STORED AND DISPENSED FROM UL LISTED SAFETY CONTAINERS IN CONFORMANCE WITH NATIONAL BOARD OF FIRE UNDERWRITER'S RECOMMENDATIONS. STORAGE SHALL NOT BE IN THE BUILDING.
14. CONTRACTOR SHALL PROVIDE AND MAINTAIN ADEQUATE FIRE PROTECTION IN THE FORM OF FIRE EXTINGUISHERS OR OTHER EFFECTIVE MEANS OF EXTINGUISHING FIRE, READ FOR INSTANT USE. DISTRIBUTED AROUND THE PROJECT AND IN AND ABOUT TEMPORARY FLAMMABLE STRUCTURES DURING CONSTRUCTION OF WORK. PROVIDE TYPES, SIZES, NUMBERS AND LOCATIONS FOR FIRE EXTINGUISHERS AS WOULD BE REASONABLY EFFECTIVE IN EXTINGUISHING FIRES DURING EARLY STAGES, BY PERSONNEL AT PROJECT SITE. PROVIDE TYPE A EXTINGUISHERS AT LOCATIONS OF LOW POTENTIAL FOR EITHER ELECTRICAL OR GREASE-OIL FLAMMABLE LIQUID FIRES. PROVIDE TYPE ABC DRY CHEMICAL EXTINGUISHER AT OTHER LOCATIONS. COMPLY WITH RECOMMENDATIONS OF NFPA NO. 10. POST THE LOCAL FIRE DEPARTMENT CALL NUMBER ON EACH LANDLINE TELEPHONE AND THROUGHOUT THE SITE.
15. EXISTING FIRE HOSE CONNECTIONS SHALL BE ACCESSIBLE AT ALL TIMES BY FIRE DEPARTMENT PERSONNEL. MATERIALS AND DEBRIS SHALL NOT BE STORED IN FRONT OF THE CONNECTION THUS PREVENTING ACCESS. THE CONTRACTOR SHALL COORDINATE ACCESS PROCEDURES WITH THE LOCAL FIRE MARSHAL.
16. ALL EXISTING FIRE PROTECTION SYSTEMS SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. IF TEMPORARY SHUTDOWN IS NECESSARY, SYSTEMS SHALL BE RETURNED TO OPERABLE CONDITION AS SOON AS POSSIBLE AND NO LATER THAN THE END OF EACH WORKING DAY PRIOR TO THE CONTRACTOR LEAVING THE JOB SITE. CONTRACTOR TO NOTIFY THE UNIVERSITY AND LOCAL FIRE MARSHAL PRIOR TO ANY NECESSARY SHUTDOWNS.

STRUCTURAL NOTES:

1. LIVE LOADS ARE NOT INDICATED IN THE ORIGINAL DESIGN DRAWINGS, NOR IS THE CAPACITY OF THE EXISTING ROOF OR FLOOR STRUCTURES KNOW. THE CONTRACT DOCUMENTS ARE BASED ON THE ASSUMPTION THAT THE STRUCTURAL DESIGN WAS ADEQUATELY DESIGN, PROPERLY CONSTRUCTED AND DOES NOT REQUIRE STRENGTHENING
   a. CONTRACTOR SHALL LIMIT LOADS ON THE ROOF AND SHALL NOT STOCKPILE MATERIALS ON ELEVATED FLOOR SLABS OR ROOF STRUCTURES.
2. WIND LOADS: BASED ON ASCE 7-16
   a. WIND SPEED - 113 MPH
   b. RISK CATEGORY - 2
   c. EXPOSURE CATEGORY - B
   d. INTERNAL PRESSURE COEFFICIENT - +/-0.18

1/32" = 1'-0" | 1/16" = 1'-0" | 3/32" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 3/8" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0" | 6" = 1'-0"

WDP & Associates
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(804)277-8987

MARK	DATE	REVISIONS	BY	DES

DATE	08/12/2024
PROJECT	21242
DESIGNED	JMK
DRAWN	SD/DW/CM
CHECKED	AWW

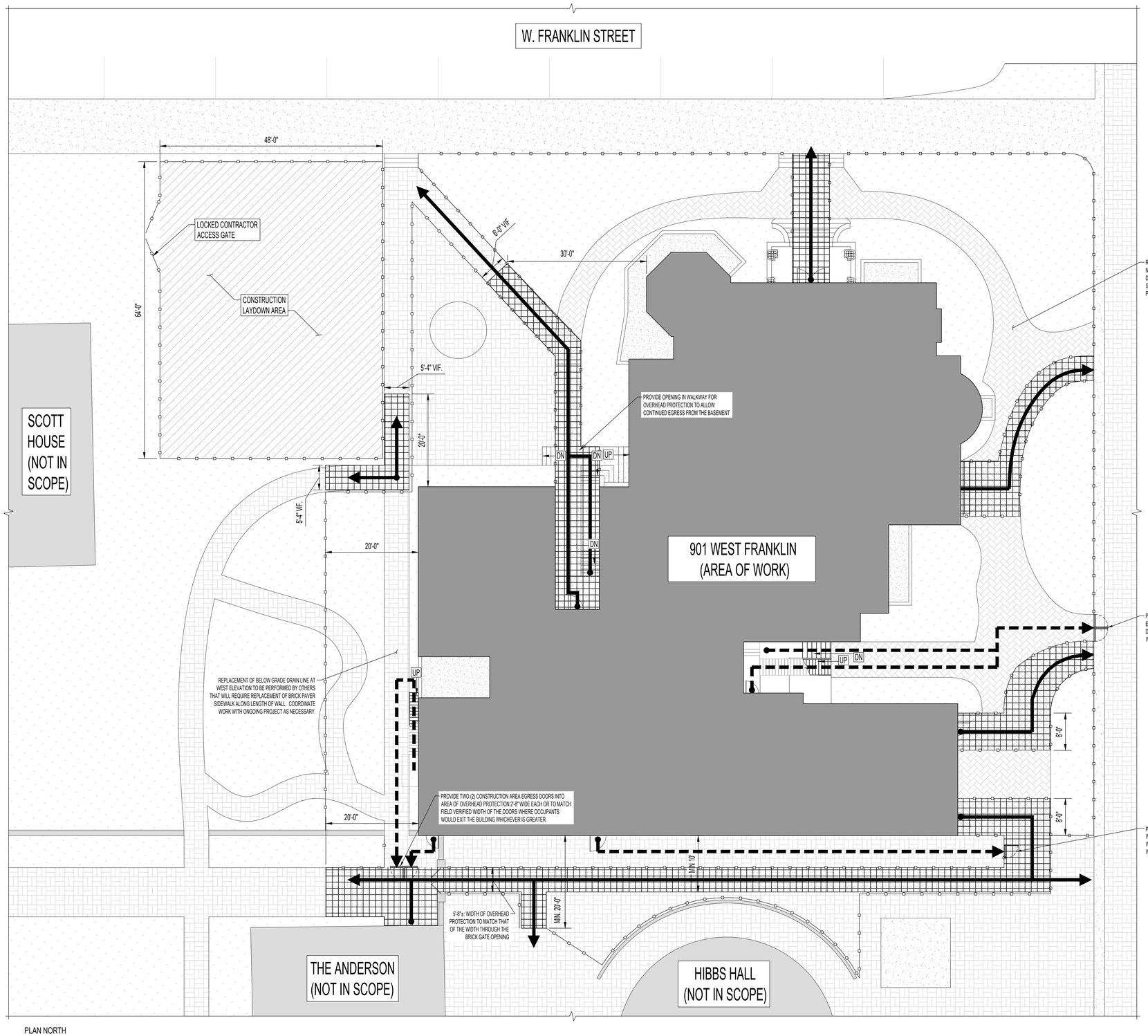
COMMONWEALTH OF VIRGINIA
JODI M. KNOROWSKI
Lic. No. 056664
08/12/2024
PROFESSIONAL ENGINEER

PROJECT: 901 WEST FRANKLIN ROOF AND ENVELOPE REPAIRS
PERMIT SET
VIRGINIA COMMONWEALTH UNIVERSITY
901 W FRANKLIN ST, RICHMOND, VIRGINIA 23284

DRAWING: GENERAL NOTES

STATE PROJECT NUMBER: 236-B3236-004

SHEET
G1.1



1 C1.1 | C1.1 SITE PLAN
SCALE: 1/32"=1'-0"

PLAN NORTH

NOTE: WIDTHS OF CONSTRUCTION AREA EGRESS DOORS AND WIDTHS OF OVERHEAD PROTECTION TO BE VERIFIED IN THE FIELD TO SUIT THE EXISTING WIDTHS OF WALKWAYS AND THE EXISTING WIDTHS OF BUILDING EGRESS DOORS.

KEY LEGEND:

	PROPOSED CONSTRUCTION LAYDOWN AREA. FINAL CONSTRUCTION LAYDOWN AREA TO BE COORDINATED WITH THE UNIVERSITY AND MAY BE ALTERED VIA BID ADDENDUM
	CONSTRUCTION FENCE WITH SCREENS, PER DETAIL 1/C2.1
	OVERHEAD PROTECTION, PER DETAIL 5/C2.1
	BUILDING EGRESS
	EMERGENCY BUILDING EGRESS (WORK AREA REQUIRED TO BE CLEAR AT ALL TIMES)
	CONSTRUCTION AREA EGRESS DOOR. SEE DETAILS 2 & 3/C2.1
	BRICK PAVER STAMPED CONCRETE SIDEWALK
	CONCRETE SIDEWALK
	BRICK OR STONE PAVER SIDEWALK (PATTERN VARIES)

WDP & Associates
Consulting Engineers

MARK	DATE	REVISIONS	BY	DES

DATE	08/12/2024
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COMMONWEALTH OF VIRGINIA
JODI M. KNOROWSKI
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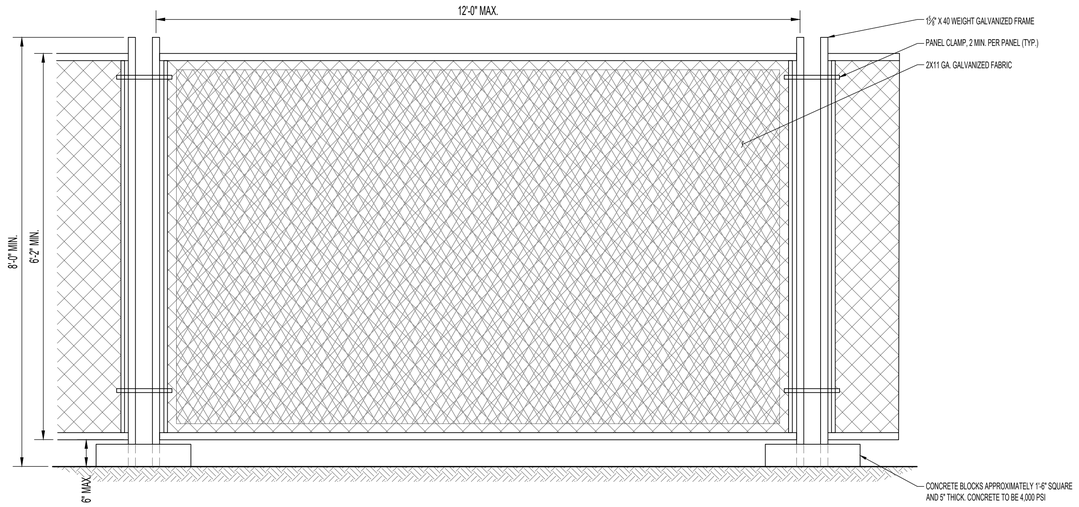
08/12/2024
PROFESSIONAL ENGINEER

PROJECT: 901WEST FRANKLIN ROOF AND ENVELOPE REPAIRS 100%
PERMIT SET
VIRGINIA COMMONWEALTH UNIVERSITY
901 W FRANKLIN ST. RICHMOND, VIRGINIA 23284
DRAWING: SITE PLAN
STATE PROJECT NUMBER: 236-B3236-004

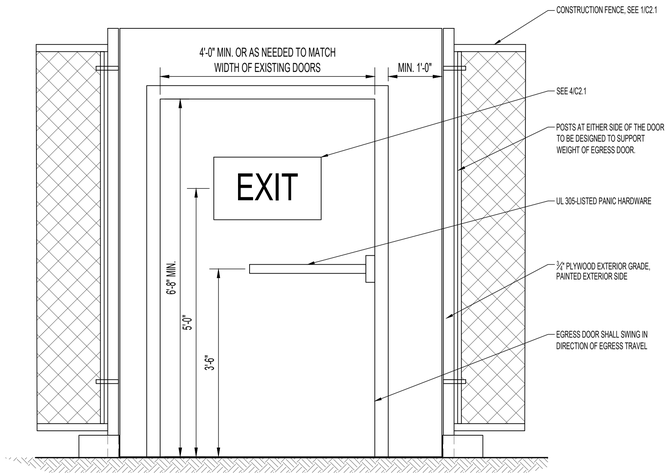
SHEET
C1.1

1/32" = 1'-0" | 1/16" = 1'-0" | 3/32" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 3/8" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0" | 6" = 1'-0"



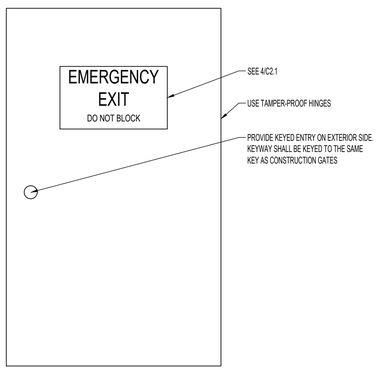
1 C1.1 | C2.1 — CONSTRUCTION FENCE

SCALE: ¾"=1'-0"



2 C1.1 | C2.1 — CONSTRUCTION FENCE EGRESS DOOR INTERIOR ELEVATION

SCALE: ¾"=1'-0"



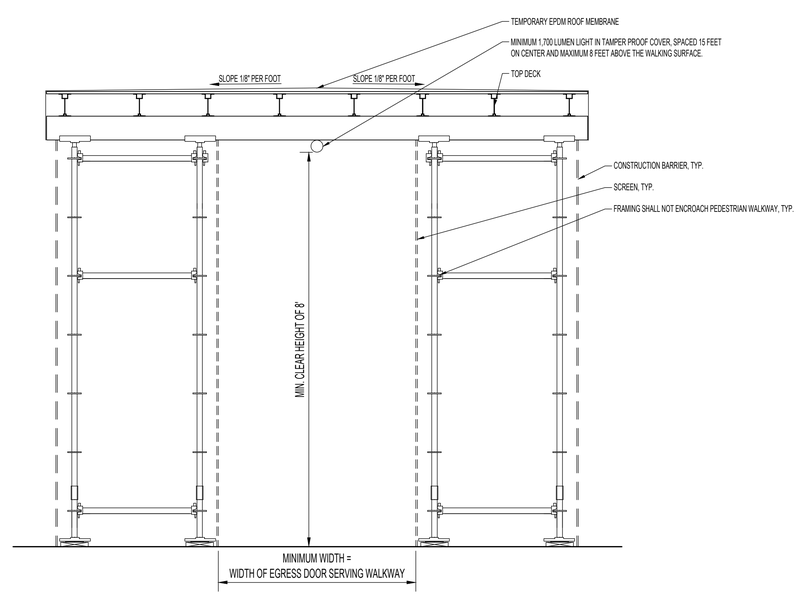
SIGN	TEXT HEIGHT	TEXT COLOR	BACKGROUND COLOR
EXIT	9 IN	RED	WHITE
EMERGENCY EXIT DO NOT BLOCK	2 IN 2 IN 1 1/2 IN	WHITE	RED

3 C1.1 | C2.1 — CONSTRUCTION FENCE EGRESS DOOR EXTERIOR ELEVATION

SCALE: ¾"=1'-0"

4 C2.1 | C2.1 — SIGNAGE KEY

SCALE: ¾"=1'-0"



NOTE:
DETAIL INTENDED TO SHOW GENERAL CONCEPTS AND REQUIREMENTS OF COVERED WALKWAYS. CONTRACTOR TO DESIGN AND SUBMIT SHOP DRAWINGS FOR COVERED WALKWAYS IN ACCORDANCE WITH DIVISION 01. COVERED WALKWAYS SHALL BE DESIGNED TO SUPPORT ALL LOADS, INCLUDING IMPACT LOADS AS REQUIRED BY SECTION 01 56 00 "TEMPORARY BARRIERS AND ENCLOSURES".

5 C1.1 | C2.1 — OVERHEAD PROTECTION

SCALE: ½"=1'-0"

1/32" = 1'-0" | 1/16" = 1'-0" | 3/32" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 3/8" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0" | 6" = 1'-0"

WDP & Associates
Consulting Engineers

MARK	DATE	REVISIONS	BY	DES

DATE	08/12/2024
PROJECT	21242
DESIGNED	JMK
DRAWN	SD/DW/CM
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COMMONWEALTH OF VIRGINIA
JODI M. KNOROWSKI
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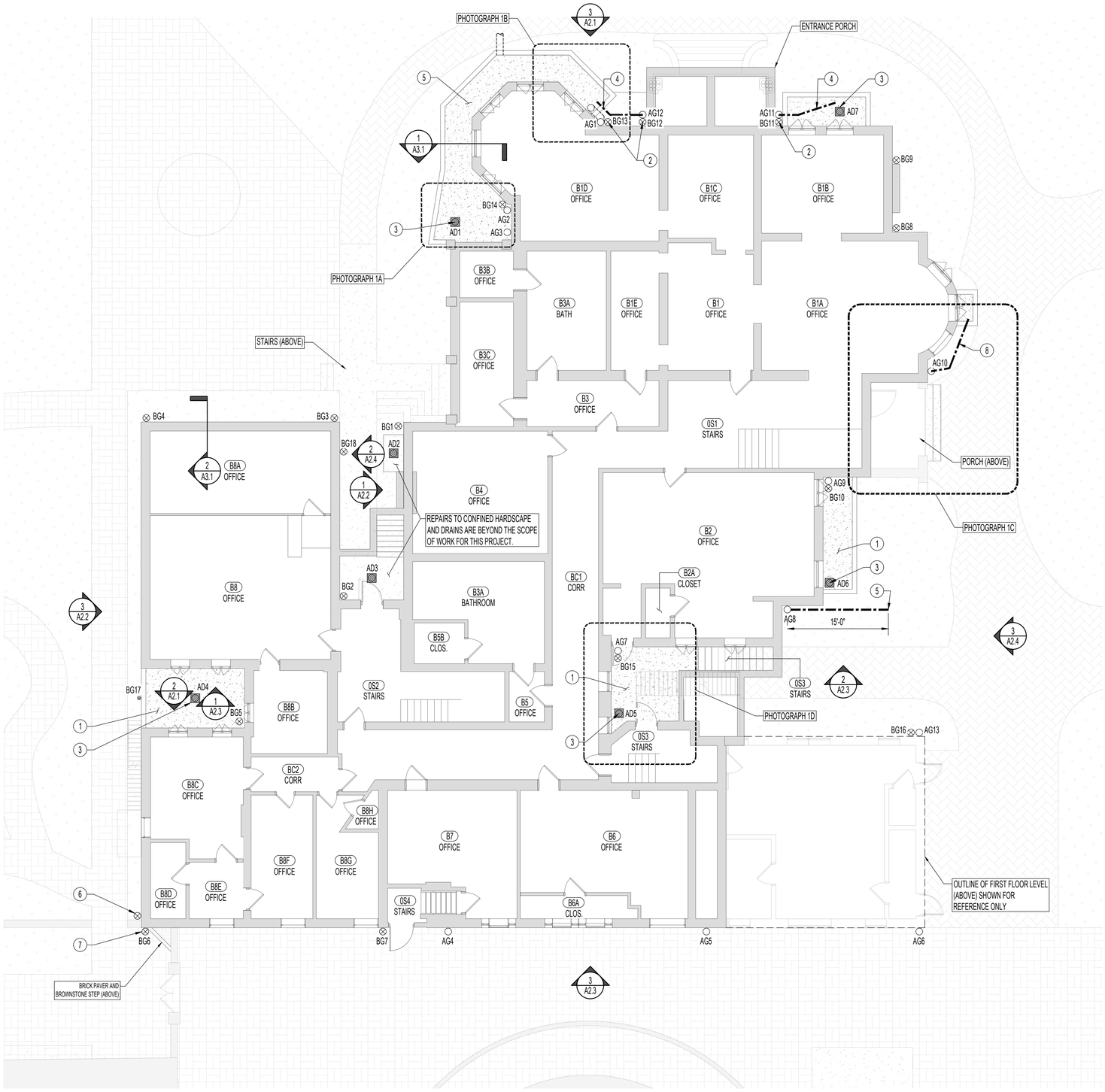
08/12/2024
PROFESSIONAL ENGINEER

PROJECT: 901 WEST FRANKLIN ROOF AND ENVELOPE REPAIRS
PERMIT SET
VIRGINIA COMMONWEALTH UNIVERSITY
901 W FRANKLIN ST. RICHMOND, VIRGINIA 23284
STATE PROJECT NUMBER: 236-B3236-004

DRAWING: SITE PROTECTION DETAILS

SHEET
C2.1



1 A1.0 | A1.0 BASEMENT FLOOR PLAN

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

PLAN NORTH


PHOTOGRAPH 1A. CONFINED HARDSCAPE


PHOTOGRAPH 1B. CONFINED HARDSCAPE


PHOTOGRAPH 1C. GRADE AT EAST ELEVATION


PHOTOGRAPH 1D. HARDSCAPE AT BASEMENT WALL

KEY LEGEND

- CONFINED HARDSCAPES
- AG-XX — ABOVE GRADE DOWNSPOUT
- BG-XX — BELOW GRADE DOWNSPOUT
- AD-XX — AREA DRAIN
- NEW CORRUGATED DRAIN PIPE

ANNOTATION LEGEND

1. INSTALL WATERPROOF COATING AT CONFINED HARDSCAPE. INSTALL FLASHING AT BASE OF WALL BEHIND PARGE COAT OR INTO REGLET AT BRICK MASONRY. INTEGRATE COATING WITH EXISTING AREA DRAIN. SEE DETAILS ON SHEET A5.1.
2. ABANDONED BELOW GRADE DRAIN PIPE. PROVIDE PERMANENT CAP FOR BELOW GRADE DRAIN WHERE PROTRUDING FROM THE GROUND.
3. EXISTING AREA DRAIN. INTEGRATE NEW WATERPROOFING MEMBRANE PER DETAIL 3/A5.1
4. INSTALL NEW CORRUGATED PIPE FROM BOTTOM OF DOWNSPOUT TO DIRECT WATER INTO ADJACENT CONFINED HARDSCAPE.
5. INSTALL NEW CORRUGATED PIPE FROM BOTTOM OF DOWNSPOUT AND EXTEND INTO LANDSCAPED AREA ARE INDICATED.
6. BELOW GRADE DRAIN OUTLET FOR BG6 TO BE RELOCATED BY OTHERS ENGAGED BY THE UNIVERSITY. CONTRACTOR TO MODIFY DOWNSPOUT TO SUIT NEW DRAIN OUTLET LOCATION.
7. AFTER RELOCATION OF EXISTING BG6, PROVIDE PERMANENT CAP FOR BELOW GRADE DRAIN WHERE PROTRUDING FROM THE GROUND.
8. IF NEW BELOW GRADE DRAINAGE IS NOT PROVIDED IN WINDOW WELL AS PART OF CONCURRENT BELOW GRADE DRAINAGE PROJECT PERFORMED BY OTHERS, NOTIFY ENGINEER FOR DIRECTION ON INSTALLATION OF NEW CORRUGATED PIPE.

SHEET NOTES

UNIVERSITY IS UNDERTAKING A SEPARATE BELOW GRADE DRAINAGE PROJECT TO ADDRESS KNOWN ISSUES WITH SEVERAL OF THE BELOW GRADE DRAINS. IT IS ANTICIPATED THAT THIS PROJECT WILL BE COMPLETED PRIOR TO THE START OF THE ROOF AND ENVELOPE REPAIR PROJECT. WORK SHOWN ON SHEET A1.0 IS BASED ON THE CURRENT UNDERSTANDING OF THE WORK TO BE PERFORMED BY OTHERS. CONTRACTOR SHALL COORDINATE WITH CONCURRENT PROJECT AS NECESSARY TO PERFORM WORK SHOWN HEREIN.

WDP & Associates
Consulting Engineers

MARK	DATE	REVISIONS	BY	DES

DATE	08/12/2024
PROJECT	21242
DESIGNED	JMK
DRAWN	SD/DW/CM
CHECKED	AWW

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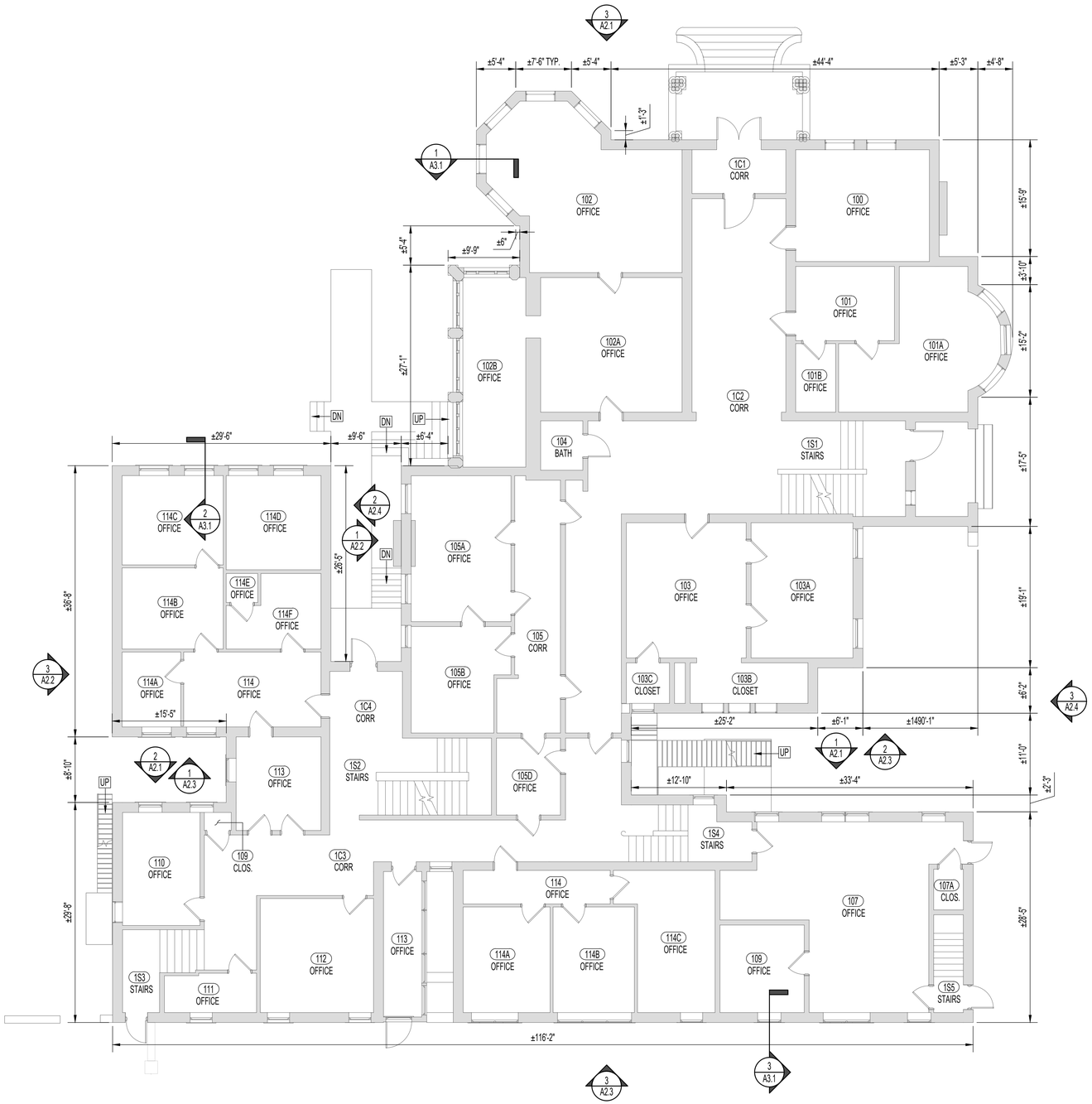
COMMONWEALTH OF VIRGINIA
JODI M. KNOROWSKI
Lic. No. 056664
08/12/2024
PROFESSIONAL ENGINEER

PROJECT: 901 WEST FRANKLIN ROOF AND ENVELOPE REPAIRS
PERMIT SET
VIRGINIA COMMONWEALTH UNIVERSITY
901 W FRANKLIN ST. RICHMOND, VIRGINIA 23284

DRAWING: BASEMENT FLOOR PLAN

STATE PROJECT NUMBER: 236-B3236-004

SHEET A1.0



1 A1.1 | A1.1 FIRST FLOOR PLAN

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

PLAN NORTH

1/32" = 1'-0" | 1/16" = 1'-0" | 3/32" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 3/8" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0" | 6" = 1'-0"

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DESIGNED	JMK
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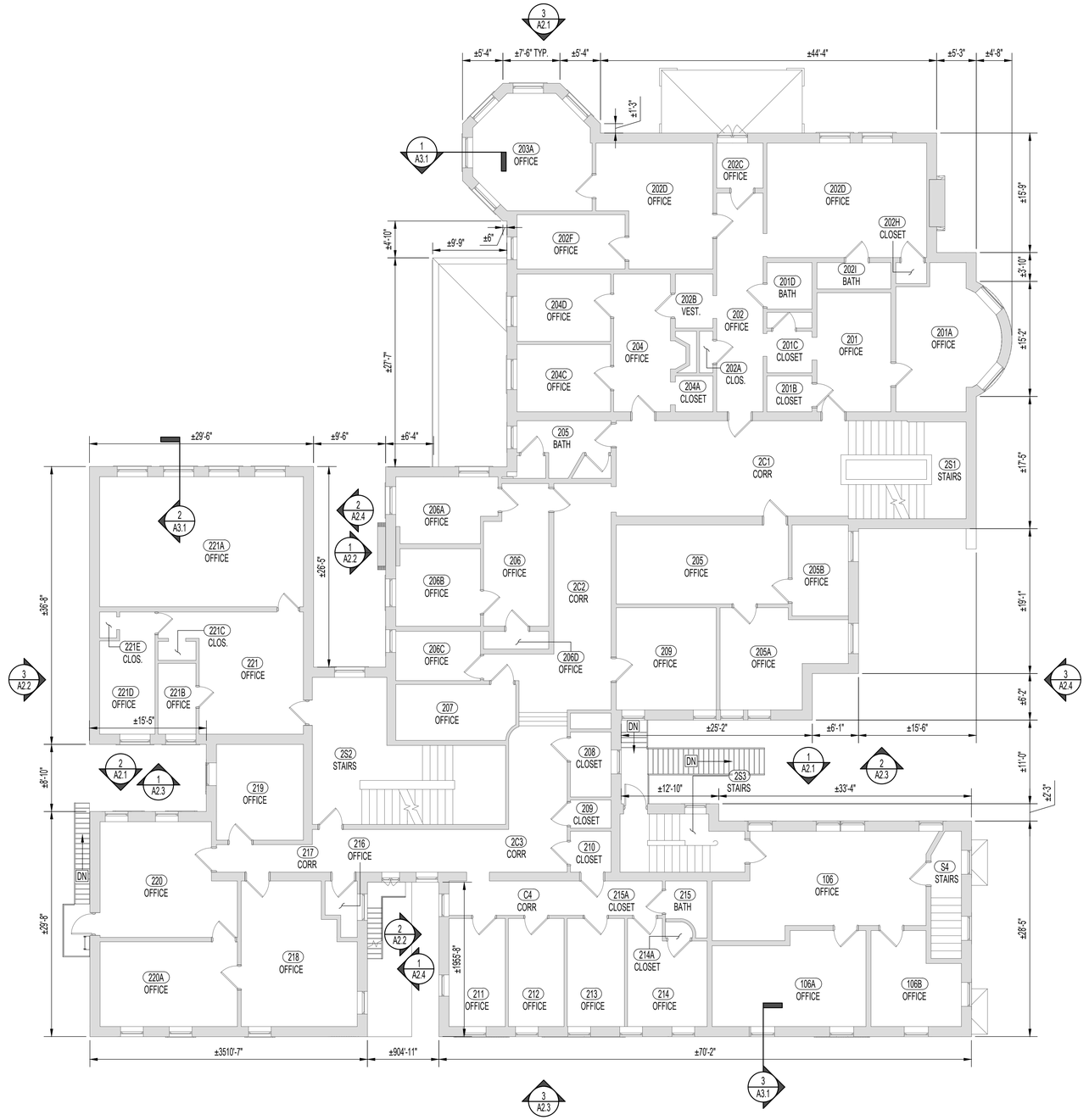
PERMIT SET
VIRGINIA COMMONWEALTH UNIVERSITY
901 W FRANKLIN ST. RICHMOND, VIRGINIA 23284
DRAWING: FIRST FLOOR PLAN
STATE PROJECT NUMBER: 236-B3236-004

SHEET
A1.1



1
A1.2 | A1.2

SECOND FLOOR PLAN

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

PLAN NORTH

1/32" = 1'-0" | 1/16" = 1'-0" | 3/32" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 3/8" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0" | 6" = 1'-0"

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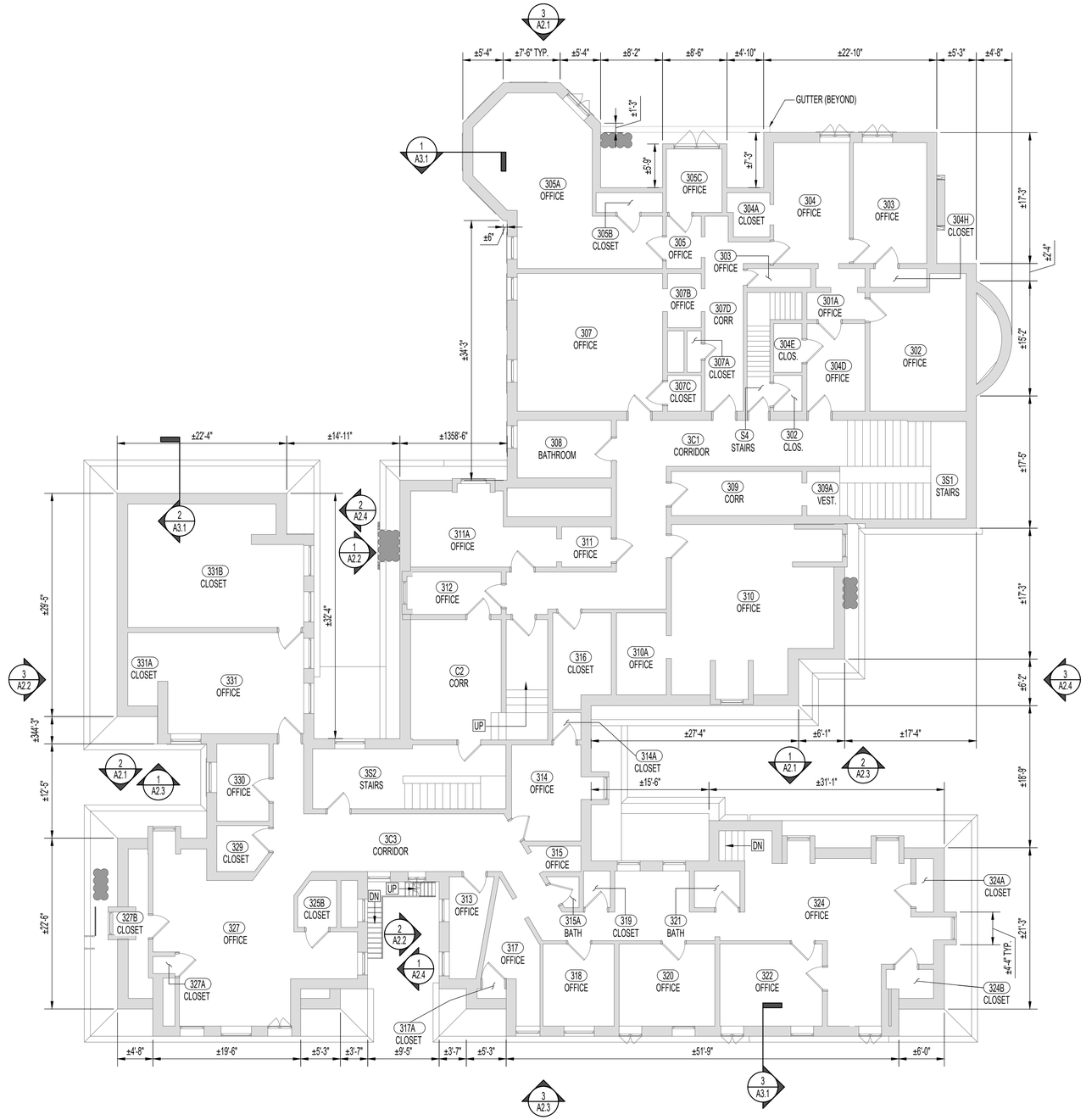
901 W FRANKLIN ST, RICHMOND, VIRGINIA 23284
STATE PROJECT NUMBER: 236-B3236-004

DRAWING: SECOND FLOOR PLAN

SHEET
A1.2



1 A1.3 | A1.3 THIRD FLOOR PLAN

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

PLAN NORTH

1/32" = 1'-0" | 1/16" = 1'-0" | 3/32" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 3/8" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0" | 6" = 1'-0"

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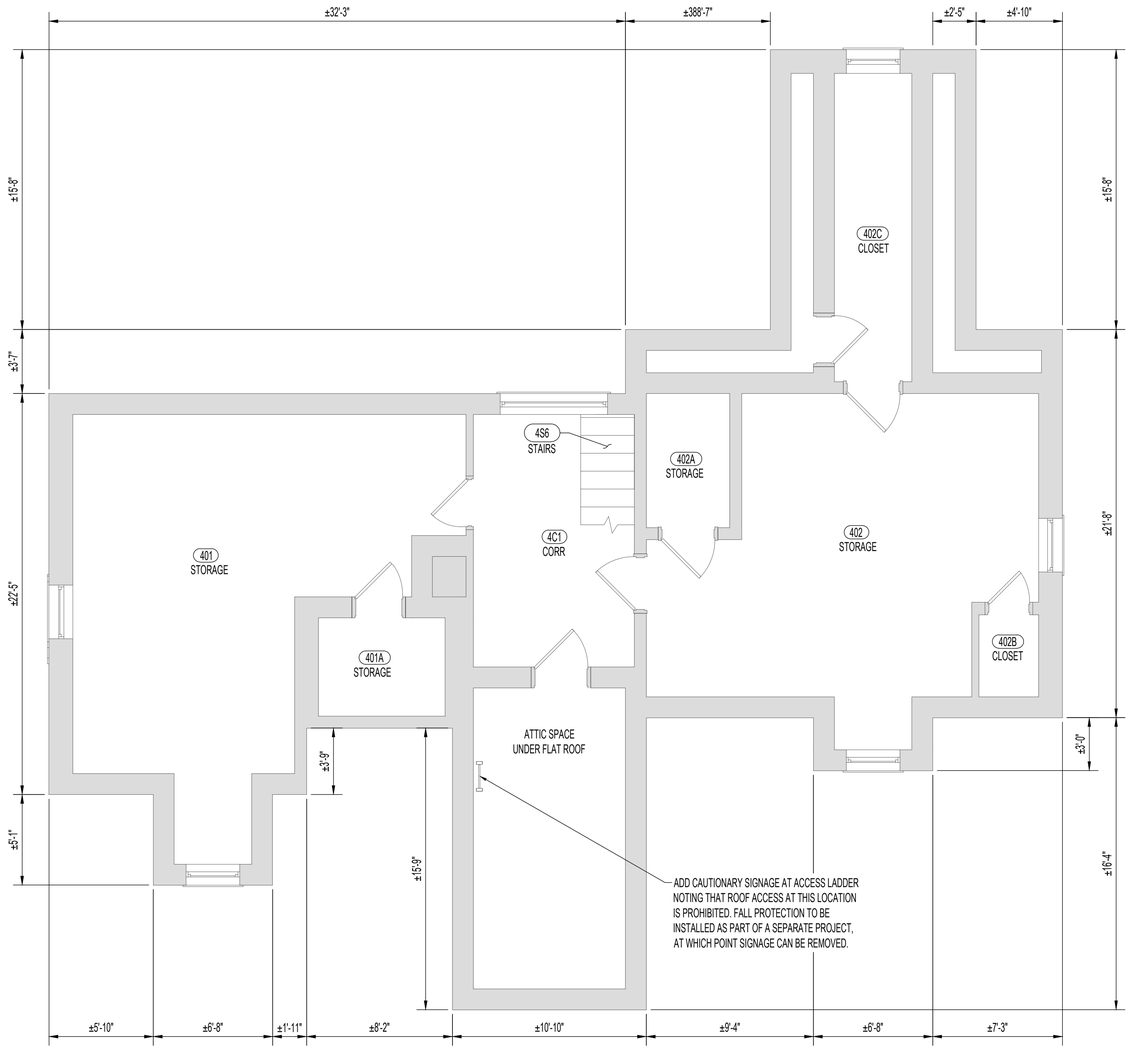
901 W FRANKLIN ST, RICHMOND, VIRGINIA 23284
STATE PROJECT NUMBER: 236-B3236-004
DRAWING: THIRD FLOOR PLAN

SHEET
A1.3



1 / A1.4 A1.4 FOURTH FLOOR PLAN

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

PLAN NORTH

1/32" = 1'-0" | 1/16" = 1'-0" | 3/32" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 3/8" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0" | 6" = 1'-0"

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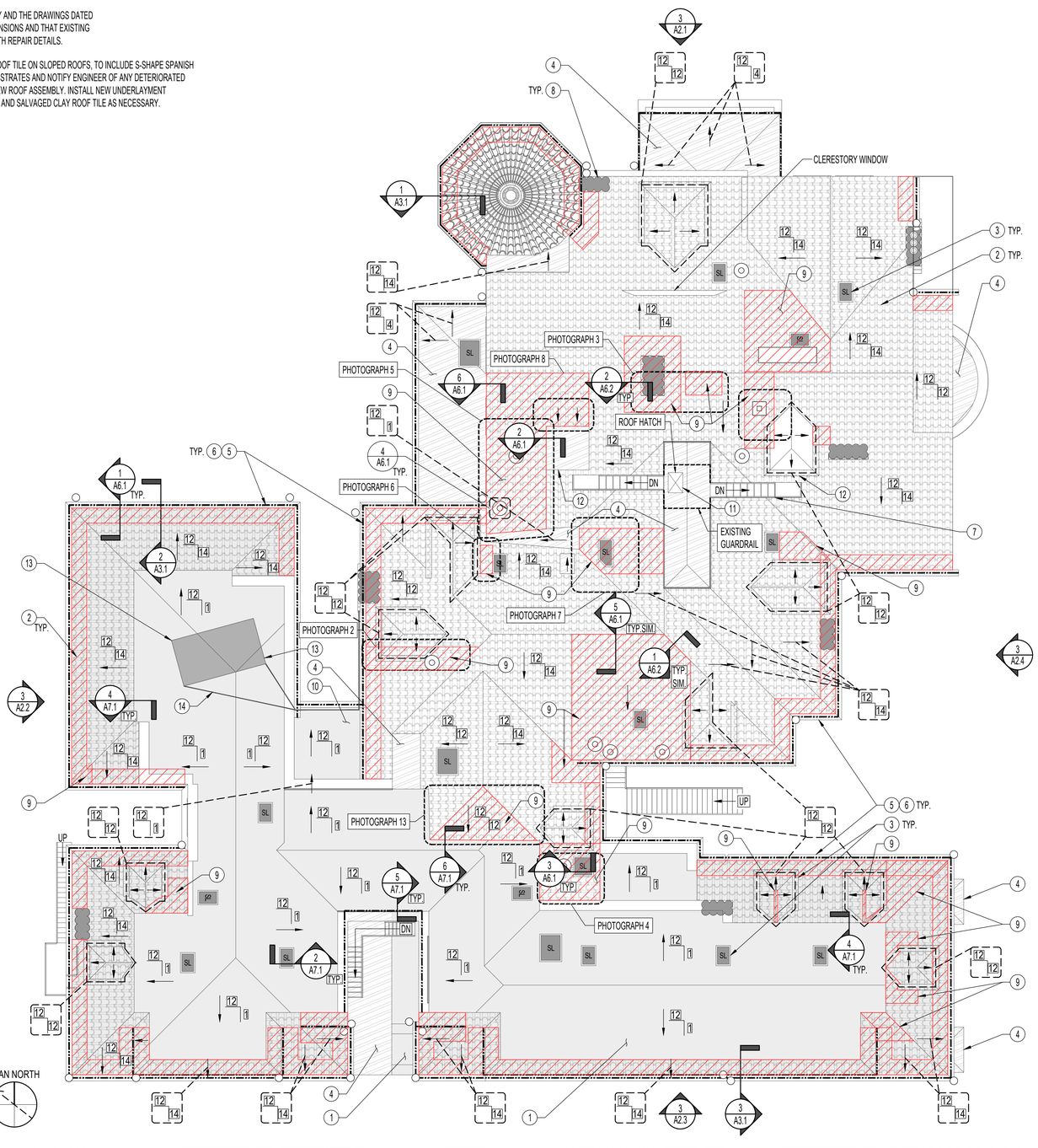
DRAWING: FOURTH FLOOR PLAN
STATE PROJECT NUMBER: 236-B3236-004

SHEET
A1.4

NOTE:
ROOF DETAILS AREA BASED ON LIMITED VISUAL SURVEY AND THE DRAWINGS DATED JULY 16, 1990. CONTRACTOR SHALL FIELD VERIFY DIMENSIONS AND THAT EXISTING CONDITIONS, PROFILES, AND CONSTRUCTION ALIGN WITH REPAIR DETAILS.

ADDITIVE BID ITEM: REMOVE AND SALVAGE ALL CLAY ROOF TILE ON SLOPED ROOFS, TO INCLUDE S-SHAPE SPANISH AND MISSION PAN AND BARREL TILES. INSPECT ALL SUBSTRATES AND NOTIFY ENGINEER OF ANY DETERIORATED SURFACES THAT WOULD PREVENT INSTALLATION OF NEW ROOF ASSEMBLY. INSTALL NEW UNDERLAYMENT THROUGHOUT SLOPED ROOFS. INSTALL BLEND OF NEW AND SALVAGED CLAY ROOF TILE AS NECESSARY.



1 A1.5 | A1.5 ROOF PLAN
SCALE: 1/8"=1'-0"

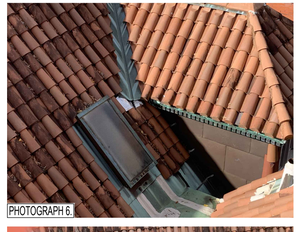
PLAN NORTH


PHOTOGRAPH 2.

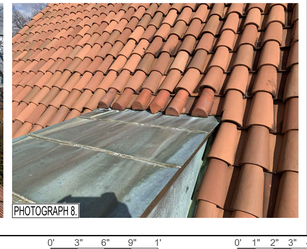

PHOTOGRAPH 3.

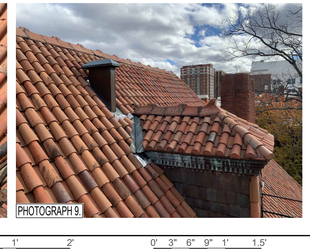

PHOTOGRAPH 4.


PHOTOGRAPH 5.


PHOTOGRAPH 6.


PHOTOGRAPH 7.


PHOTOGRAPH 8.


PHOTOGRAPH 9.


PHOTOGRAPH 10.


PHOTOGRAPH 11.


PHOTOGRAPH 12.


PHOTOGRAPH 13.

KEY LEGEND

- S-SHAPE SPANISH ROOF TILE
- MISSION PAN AND BARREL ROOF TILE
- FLAT LOCK SEAM METAL ROOF
- SINGLE-PLY ROOF MEMBRANE
- SL — SKYLIGHT
- GUTTER
- DOWNSPOUT
- ROOF SLOPE
- BRICK CHIMNEY
- KNOWN VENT PENETRATION
- APPROXIMATE AREA OF ROOF WITH KNOWN DAMAGE, KNOWN BULK WATER LEAKAGE BELOW, OR REMOVAL OF CLAY TILE IS REQUIRED FOR NEW GUTTER INTEGRATION

ANNOTATION LEGEND

1. REMOVE AND REPLACE SINGLE-PLY ROOF MEMBRANE. SEE SHEET A7.1 FOR DETAILS.
2. INSPECT ALL TERRACOTTA ROOF ASSEMBLIES FOR SIGNS OF DETERIORATION, FAILURES, OR RETROFIT FLASHING INSTALLATION. NOTIFY ENGINEER IMMEDIATELY IF SUCH CONDITIONS ARE FOUND.
3. INSPECT ALL PENETRATIONS, SKYLIGHTS, DORMERS, VALLEY FLASHING, AND RIDGE FLASHING FOR SIGNS OF DETERIORATION OR FAILURES. NOTIFY ENGINEER IMMEDIATELY IF SUCH CONDITIONS ARE FOUND.
4. INSPECT ALL METAL ROOFS FOR SIGNS OF DETERIORATION OR FAILURES. NOTIFY ENGINEER IMMEDIATELY IF SUCH CONDITIONS ARE FOUND.
5. INSTALL NEW EPDM LINER CONTINUOUSLY AT EXISTING GUTTERS. INSTALL NEW LEAF GUARDS AT ALL GUTTER LOCATIONS.
6. REMOVE LOWER PORTION OF TERRACOTTA ROOF TILE AROUND ROOF EAVES TO INSTALL NEW HIGH TEMPERATURE SELF-ADHERED UNDERLAYMENT INTEGRATED WITH GUTTER AND SHINGLED UNDER EXISTING UNDERLAYMENT. INSTALL NEW OR SALVAGED TERRACOTTA ROOF TILE UNITS TO MATCH EXISTING.
7. REMOVE AND DISCARD EXISTING CATWALK AND GUARDRAILS. WHERE CATWALK ATTACHMENTS PENETRATE THE SLOPED ROOF ASSEMBLY, REMOVE TERRACOTTA ROOF TILE UNITS IN ORDER TO PATCH EXISTING UNDERLAYMENT AND REINSTALL NEW OR SALVAGED TERRACOTTA ROOF TILES. WHERE CATWALK ATTACHMENTS PENETRATE VERTICAL WALL ASSEMBLIES, REMOVE TERRACOTTA WALL TILES IN ORDER TO PATCH EXISTING FELT AND REINSTALL NEW OR SALVAGED TERRACOTTA WALL TILES.
8. INSTALL NEW COPPER CAP AT TOP OF CHIMNEY. REPOINT CHIMNEY. EVALUATE STRUCTURAL STABILITY OF CHIMNEY ONCE ACCESS IS PROVIDED.
9. WITHIN EXTENTS SHOWN, REMOVE AND SALVAGE TERRACOTTA ROOF TILE. REMOVE EXISTING FELT UNDERLAYMENT. INSPECT EXISTING ROOF DECK SHEATHING AND NOTIFY ENGINEER OF ANY DAMAGE. INSTALL NEW HIGH-TEMPERATURE SELF-ADHERED UNDERLAYMENT AND INTEGRATE WITH PENETRATIONS, SKYLIGHT, VERTICAL WALLS, ROOF EDGE, OR OTHER BUILDING COMPONENTS WITHIN THE REPAIR EXTENTS. REINSTALL SALVAGED TERRACOTTA ROOF TILE. REPLACE ANY DAMAGED TERRACOTTA ROOF TILE UNITS.
10. EXISTING EPDM ROOF TO REMAIN IN PLACE.
11. SECURE ROOF HATCH WITH LOCKING MECHANISM TO PREVENT UNRESTRICTED ACCESS TO THE ROOF. FALL PROTECTION TO BE INSTALLED AS A SEPARATE PROJECT, AT WHICH POINT LOCKING MECHANISM CAN BE REMOVED.
12. FASTEN WINDOWS AT DORMER SUCH THAT THEY DO NOT OPEN, AND SEAL SHUT FROM THE EXTERIOR TO MITIGATE WATER INFILTRATION.
13. REMOVE AND DISCARD EXISTING SOLAR HEATING PANELS.
14. REMOVE AND DISCARD EXISTING PLUMBING LINES FOR SOLAR HEATING PANELS. LINES TURN DOWN EXTERIOR WALL TO LOW ROOF, RUN ACROSS LOW ROOF, ALONG EXTERIOR WALL, AND TURN DOWN TO GROUND LEVEL.

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DESIGNED	JMK
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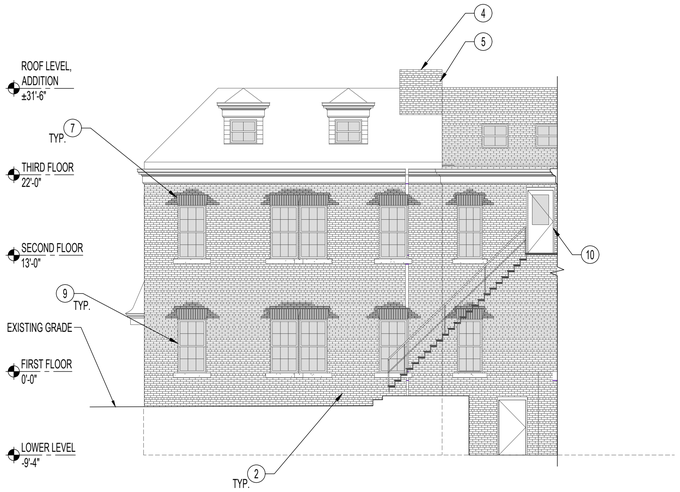
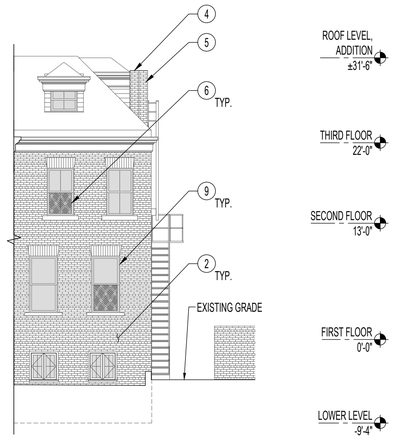
PROJECT: 901 WEST FRANKLIN ROOF AND ENVELOPE REPAIRS 100%
PERMIT SET
VIRGINIA COMMONWEALTH UNIVERSITY
901 W FRANKLIN ST, RICHMOND, VIRGINIA 23284
DRAWING: ROOF PLAN
STATE PROJECT NUMBER: 236-B3236-004

SHEET
A1.5

1/32" = 1'-0" | 1/16" = 1'-0" | 3/32" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 3/8" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0" | 6" = 1'-0"

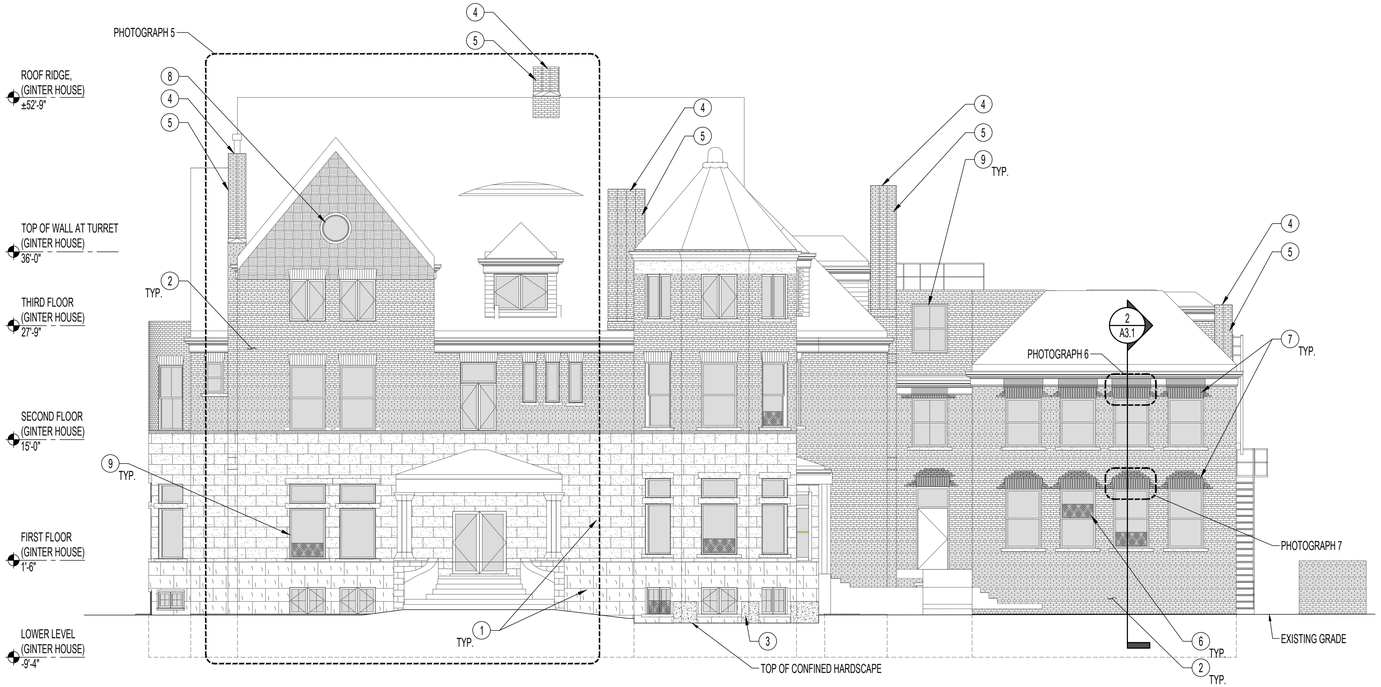


1 PARTIAL NORTH ELEVATION
A1.1 | A2.1
A1.2-A1.5
SCALE: 1/8"=1'-0"



2 PARTIAL NORTH ELEVATION
A1.0 | A2.1
A1.1-A1.5
SCALE: 1/8"=1'-0"


PHOTOGRAPH 5. PARTIAL NORTH ELEVATION SHOWING ORNAMENTAL MASONRY FEATURES OF THE BUILDING.



3 NORTH ELEVATION
A1.0 | A2.1
A1.1-A1.5
SCALE: 1/8"=1'-0"


PHOTOGRAPH 6 TYPICAL JACK ARCH AND CORBELED BRICK MASONRY ABOVE SECOND FLOOR WINDOWS.


PHOTOGRAPH 7. TYPICAL JACK ARCH AND COMMON BOND MASONRY ABOVE FIRST FLOOR WINDOWS.

KEY LEGEND

- ROCK FACE BROWNSTONE
- PECKED BROWNSTONE
- BRICK MASONRY
- PARGE COAT
- ORNAMENTAL BROWNSTONE
- WINDOW AC UNIT

ANNOTATION LEGEND

1. REPOINT 100% OF BROWNSTONE MASONRY (ROCK FACE AND PECKED) TO INCLUDE WINDOW SILLS AND LINTELS PER DETAIL 1/A4.1. VISUALLY INSPECT AND SOUND ALL SURFACES OF BROWNSTONE MASONRY. REMOVE PORTIONS OF BROWNSTONE THAT ARE FOUND TO BE SPALLED OR DELAMINATED IN ACCORDANCE WITH HISTORIC PRESERVATION METHODS. INSTALL NEW SPECIALTY REPAIR MORTAR AND FORM TO MATCH TEXTURE OF EXISTING BROWNSTONE. CLEAN ALL SURFACES OF BROWNSTONE MASONRY FOLLOWING REPOINTING AND REPAIRS.
2. REPOINT 100% OF BRICK MASONRY PER DETAIL 2/A4.1. VISUALLY INSPECT ALL SURFACES OF BRICK MASONRY. WHERE BRICK ARE FOUND TO BE SIGNIFICANTLY SPALLED OR CRACKED, REMOVE AND REPLACE BRICK UNIT. CLEAN ALL SURFACES OF BRICK MASONRY FOLLOWING REPOINTING AND REPAIRS.
3. VISUALLY INSPECT AND SOUND ALL SURFACES OF PARGE COAT. REMOVE PORTIONS THAT ARE SPALLED OR DELAMINATED IN ACCORDANCE WITH HISTORIC PRESERVATION METHODS. INSTALL NEW PARGE COAT AT REPAIR AREAS PER DETAIL 3/A4.1. WITHIN CONFINED HARDSCAPES, REMOVE AND REPLACE LOWER PORTION OF PARGE COAT TO PERMIT INSTALLATION OF BASE OF WALL FLASHING PER DETAIL 1/A5.1. CLEAN ALL SURFACES OF PARGE COAT FOLLOWING REPAIRS.
4. INSTALL NEW COPPER CAP AT TOP OF CHIMNEY PER DETAIL 6/A4.1.
5. REPOINT CHIMNEY. PROVIDE ENGINEER WITH ACCESS TO EVALUATE STRUCTURAL STABILITY OF CHIMNEY TO DETERMINE IF MORE COMPREHENSIVE REPAIRS ARE NEEDED.
6. INSTALL NEW INTEGRATIONS FOR EXISTING WINDOW MOUNTED AC UNITS. PAINT INTERIOR SURFACES OF WINDOWS AT LOCATIONS WHERE AC UNITS ARE REPLACED. SEE SHEET A8.1 FOR DETAILS.
7. REMOVE, SALVAGE, AND REINSTALL BRICK MASONRY AT EXTENTS SHOWN AT WINDOW HEAD TO FACILITATE INSTALLATION OF NEW SHEET METAL FLASHING AT WINDOW HEADS. REMOVAL OF BRICK AT ADJACENT WINDOWS MUST BE SEQUENCED SUCH THAT SUPPORT FOR BRICK ABOVE WINDOWS IS NOT COMPROMISED BY REMOVAL OF BRICK AT ADJACENT WINDOW BASED ON ARCHING ACTION.
8. RECONSTRUCT ORIGINAL MASONRY ORNAMENTAL FEATURE AT CIRCULAR WINDOW SURROUND.
9. REMOVE EXISTING PAINT AT INTERIOR AND EXTERIOR OF WINDOWS, TYPICAL. INSPECT EXISTING WOOD AND GLAZING FOR DAMAGE AND NOTIFY ENGINEER OF ANY DAMAGE THAT IS OBSERVED. PAINT INTERIOR AND EXTERIOR OF WINDOWS TO MATCH EXISTING.
10. REPAINT EXISTING DOOR

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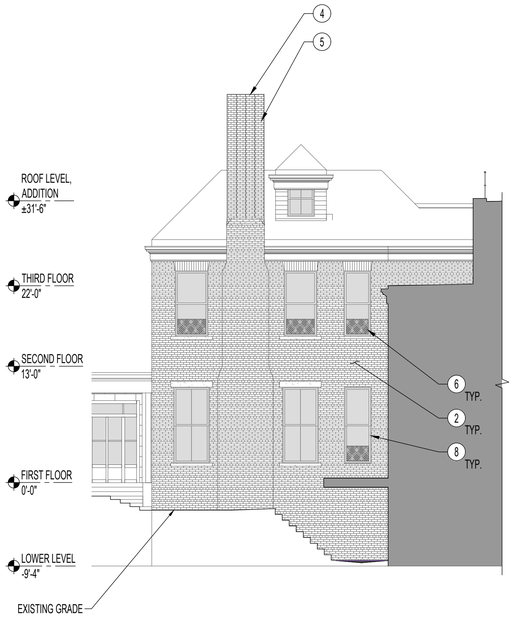
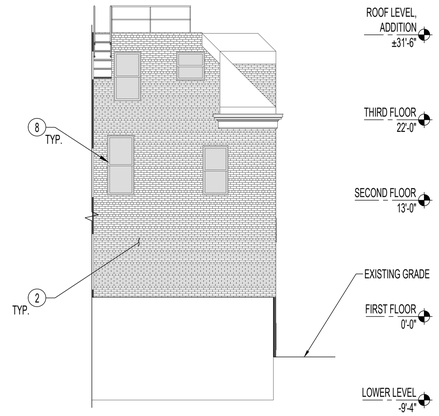
PERMIT SET
VIRGINIA COMMONWEALTH UNIVERSITY
901 W FRANKLIN ST. RICHMOND, VIRGINIA 23284
DRAWING: NORTH ELEVATIONS
STATE PROJECT NUMBER: 236-B3236-004

SHEET
A2.1

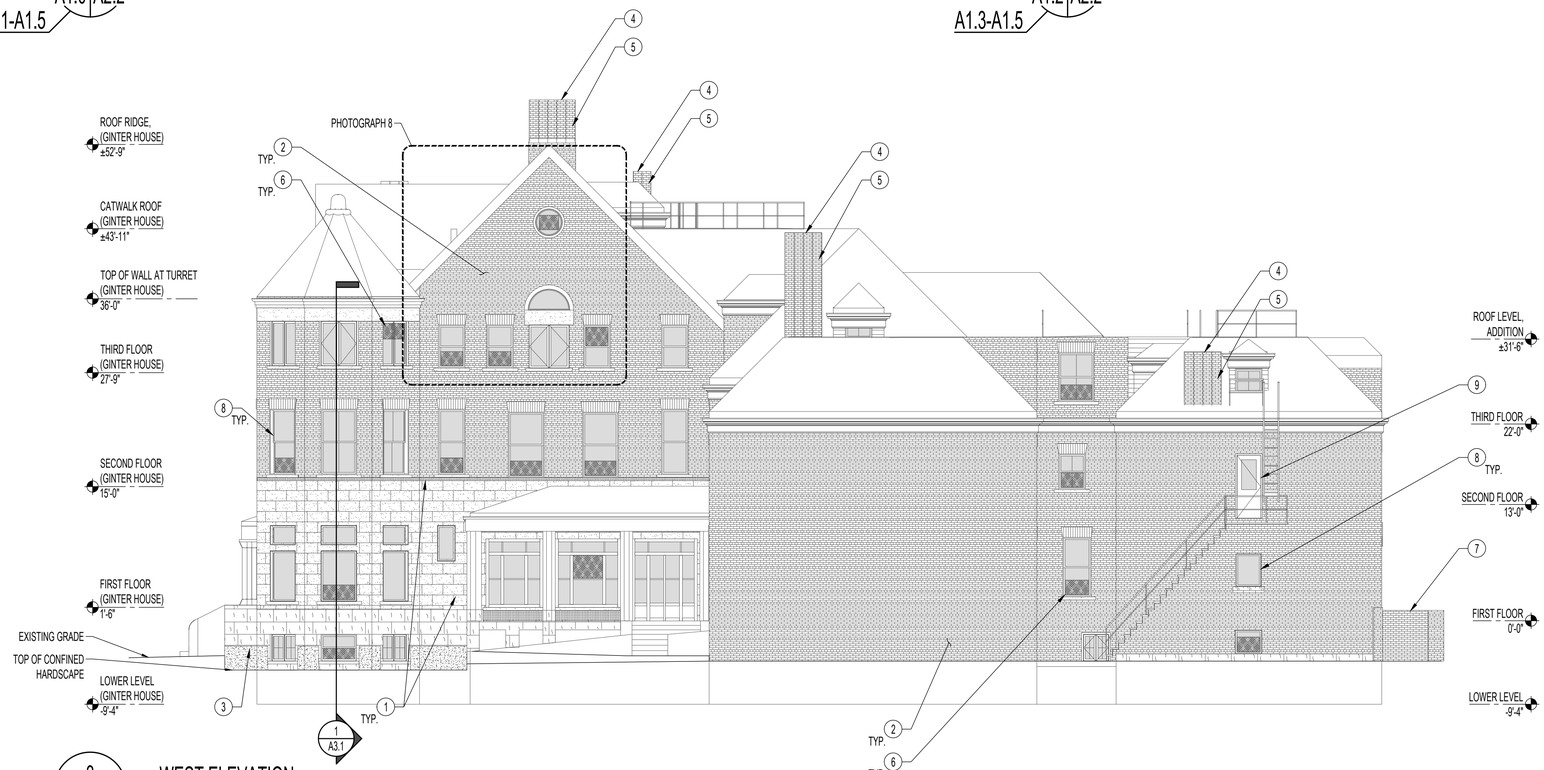
1/32" = 1'-0" | 1/16" = 1'-0" | 3/32" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 3/8" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0" | 6" = 1'-0"



1 PARTIAL WEST ELEVATION
A1.0 | A2.2
SCALE: 1/8"=1'-0"
A1.1-A1.5



2 PARTIAL WEST ELEVATION
A1.2 | A2.2
SCALE: 1/8"=1'-0"
A1.3-A1.5



3 WEST ELEVATION
A1.0 | A2.2
SCALE: 1/8"=1'-0"
A1.1-A1.5

PHOTOGRAPH 8. PARTIAL WEST ELEVATION SHOWING ORNAMENTAL MASONRY FEATURES OF THE BUILDING.

KEY LEGEND

- ROCK FACE BROWNSTONE
- PECKED BROWNSTONE
- BRICK MASONRY
- PARGE COAT
- ORNAMENTAL BROWNSTONE
- WINDOW AC UNIT

ANNOTATION LEGEND

1. REPOINT 100% OF BROWNSTONE MASONRY (ROCK FACE AND PECKED) TO INCLUDE WINDOW SILLS AND LINTELS PER DETAIL 1/A4.1. VISUALLY INSPECT AND SOUND ALL SURFACES OF BROWNSTONE MASONRY. REMOVE PORTIONS OF BROWNSTONE THAT ARE FOUND TO BE SPALLED OR DELAMINATED IN ACCORDANCE WITH HISTORIC PRESERVATION METHODS. INSTALL NEW SPECIALTY REPAIR MORTAR AND FORM TO MATCH TEXTURE OF EXISTING BROWNSTONE. CLEAN ALL SURFACES OF BROWNSTONE MASONRY FOLLOWING REPOINTING AND REPAIRS.
2. REPOINT 100% OF BRICK MASONRY PER DETAIL 2/A4.1. VISUALLY INSPECT ALL SURFACES OF BRICK MASONRY. WHERE BRICK ARE FOUND TO BE SIGNIFICANTLY SPALLED OR CRACKED, REMOVE AND REPLACE BRICK UNIT. CLEAN ALL SURFACES OF BRICK MASONRY FOLLOWING REPOINTING AND REPAIRS.
3. VISUALLY INSPECT AND SOUND ALL SURFACES OF PARGE COAT. REMOVE PORTIONS THAT ARE SPALLED OR DELAMINATED IN ACCORDANCE WITH HISTORIC PRESERVATION METHODS. INSTALL NEW PARGE COAT AT REPAIR AREAS PER DETAIL 3/A4.1. WITHIN CONFINED HARDSCAPES, REMOVE AND REPLACE LOWER PORTION OF PARGE COAT TO PERMIT INSTALLATION OF BASE OF WALL FLASHING PER DETAIL 1/A5.1. CLEAN ALL SURFACES OF PARGE COAT FOLLOWING REPAIRS.
4. INSTALL NEW COPPER CAP AT TOP OF CHIMNEY PER DETAIL 6/A4.1.
5. REPOINT CHIMNEY. PROVIDE ENGINEER WITH ACCESS TO EVALUATE STRUCTURAL STABILITY OF CHIMNEY TO DETERMINE IF MORE COMPREHENSIVE REPAIRS ARE NEEDED.
6. INSTALL NEW INTEGRATIONS FOR EXISTING WINDOW MOUNTED AC UNITS. PAINT INTERIOR SURFACES OF WINDOWS AT LOCATIONS WHERE AC UNITS ARE REPLACED. SEE SHEET A8.1 FOR DETAILS.
7. REPOINT BRICK MASONRY AT SITE WALL ADJACENT TO BUILDING.
8. REMOVE EXISTING PAINT AT INTERIOR AND EXTERIOR OF WINDOWS. TYPICAL. INSPECT EXISTING WOOD AND GLAZING FOR DAMAGE AND NOTIFY ENGINEER OF ANY DAMAGE THAT IS OBSERVED. PAINT INTERIOR AND EXTERIOR OF WINDOWS TO MATCH EXISTING.
9. REPAINT EXISTING DOOR

WDP & Associates
Consulting Engineers

MARK	DATE	REVISIONS	BY	DES

DATE	08/12/2024
PROJECT	21242
DESIGNED	JMK
DRAWN	SD/DW/CM
CHECKED	AWW

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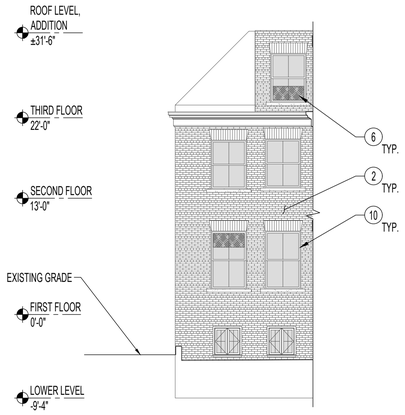
ARCHITECTS, PC
115 South 15th Street, Suite
Richmond, Virginia 23219
(804)277-8987

COMMONWEALTH OF VIRGINIA
JODI M. KNOROWSKI
Lic. No. 056664
08/12/2024
PROFESSIONAL ENGINEER

PROJECT: 901 W FRANKLIN ROOF AND ENVELOPE REPAIRS 100%
PERMIT SET
VIRGINIA COMMONWEALTH UNIVERSITY
901 W FRANKLIN ST. RICHMOND, VIRGINIA 23284
DRAWING: WEST ELEVATIONS
STATE PROJECT NUMBER: 236-B3236-004

SHEET
A2.2

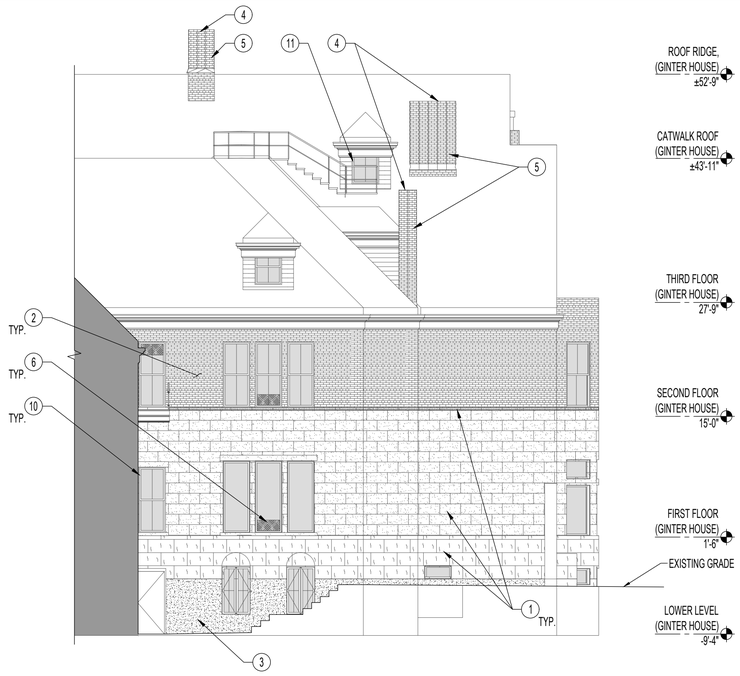
1/32" = 1'-0" | 1/16" = 1'-0" | 3/32" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 3/8" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0" | 6" = 1'-0"



1 A1.0 A2.3 — A1.1-A1.5

PARTIAL SOUTH ELEVATION

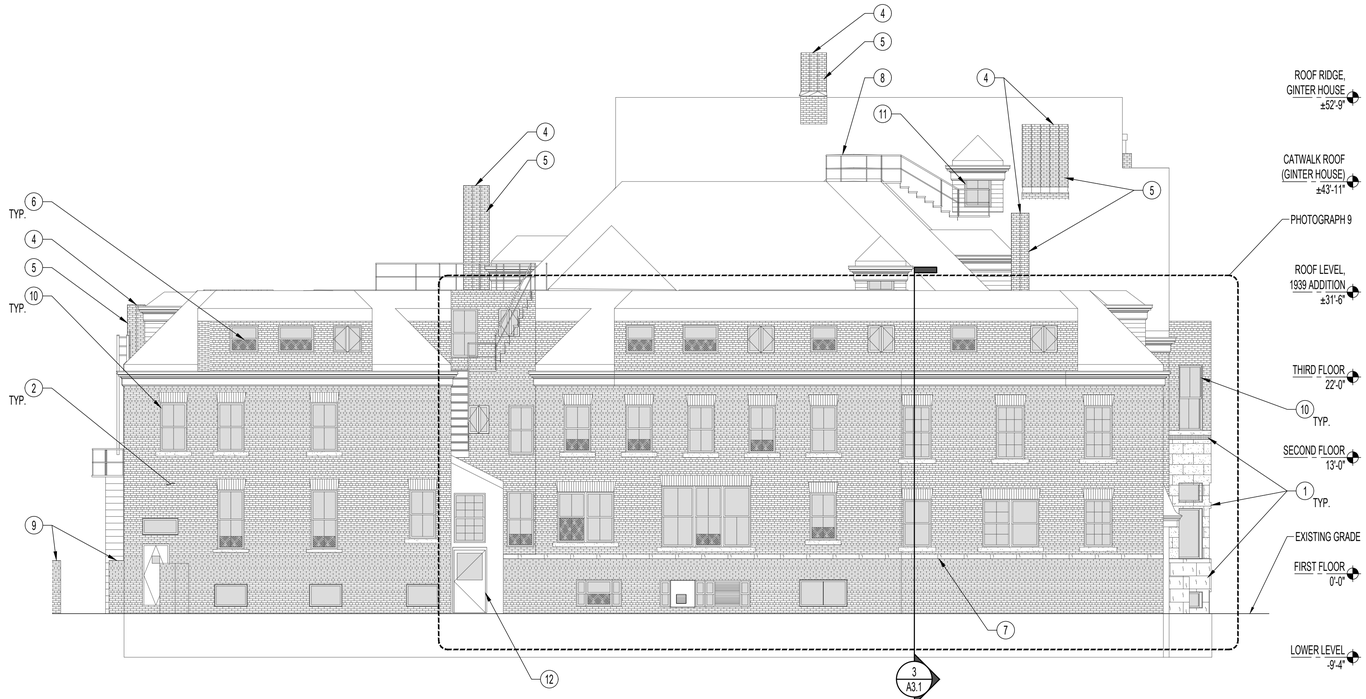
SCALE: 1/8"=1'-0"



2 A1.0 A2.3 — A1.1-A1.5

PARTIAL SOUTH ELEVATION

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



3 A1.0 A2.3 — A1.1-A1.5

SOUTH ELEVATION

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

PHOTOGRAPH 9. PARTIAL SOUTH ELEVATION SHOWING ORNAMENTAL MASONRY FEATURES OF THE BUILDING TO INCLUDE BROWNSTONE BANDING.

KEY LEGEND

- ROCK FACE BROWNSTONE
- PECKED BROWNSTONE
- BRICK MASONRY
- PARGE COAT
- ORNAMENTAL BROWNSTONE
- WINDOW AC UNIT

ANNOTATION LEGEND

1. REPOINT 100% OF BROWNSTONE MASONRY (ROCK FACE AND PECKED) TO INCLUDE WINDOW SILLS AND LINTELS PER DETAIL 1/A4.1. VISUALLY INSPECT AND SOUND ALL SURFACES OF BROWNSTONE MASONRY. REMOVE PORTIONS OF BROWNSTONE THAT ARE FOUND TO BE SPALLED OR DELAMINATED IN ACCORDANCE WITH HISTORIC PRESERVATION METHODS. INSTALL NEW SPECIALTY REPAIR MORTAR AND FORM TO MATCH TEXTURE OF EXISTING BROWNSTONE. CLEAN ALL SURFACES OF BROWNSTONE MASONRY FOLLOWING REPOINTING AND REPAIRS.
2. REPOINT 100% OF BRICK MASONRY PER DETAIL 2/A4.1. VISUALLY INSPECT ALL SURFACES OF BRICK MASONRY. WHERE BRICK ARE FOUND TO BE SIGNIFICANTLY SPALLED OR CRACKED, REMOVE AND REPLACE BRICK UNIT. CLEAN ALL SURFACES OF BRICK MASONRY FOLLOWING REPOINTING AND REPAIRS.
3. VISUALLY INSPECT AND SOUND ALL SURFACES OF PARGE COAT. REMOVE PORTIONS THAT ARE SPALLED OR DELAMINATED IN ACCORDANCE WITH HISTORIC PRESERVATION METHODS. INSTALL NEW PARGE COAT AT REPAIR AREAS PER DETAIL 3/A4.1. WITHIN CONFINED HARDSCAPES, REMOVE AND REPLACE LOWER PORTION OF PARGE COAT TO PERMIT INSTALLATION OF BASE OF WALL FLASHING PER DETAIL 1/A5.1. CLEAN ALL SURFACES OF PARGE COAT FOLLOWING REPAIRS.
4. INSTALL NEW COPPER CAP AT TOP OF CHIMNEY PER DETAIL 6/A4.1.
5. REPOINT CHIMNEY. PROVIDE ENGINEER WITH ACCESS TO EVALUATE STRUCTURAL STABILITY OF CHIMNEY TO DETERMINE IF MORE COMPREHENSIVE REPAIRS ARE NEEDED.
6. INSTALL NEW INTEGRATIONS FOR EXISTING WINDOW MOUNTED AC UNITS. PAINT INTERIOR SURFACES OF WINDOWS AT LOCATIONS WHERE AC UNITS ARE REPLACED. SEE SHEET A8.1 FOR DETAILS.
7. REPOINT ROCK FACE BAND OF BROWNSTONE PER DETAIL 1/A4.1. REMOVE PORTIONS OF BROWNSTONE THAT ARE FOUND TO BE SPALLED OR DELAMINATED IN ACCORDANCE WITH HISTORIC PRESERVATION METHODS. INSTALL NEW SPECIALTY REPAIR MORTAR AND FORM TO MATCH TEXTURE OF EXISTING BROWNSTONE.
8. REMOVE AND DISCARD EXISTING CATWALK AND GUARDRAILS. WHERE CATWALK ATTACHMENTS PENETRATE THE SLOPED ROOF ASSEMBLY, REMOVE TERRACOTTA ROOF TILE UNITS IN ORDER TO PATCH EXISTING UNDERLAYMENT AND REINSTALL NEW OR SALVAGED TERRACOTTA ROOF TILES. WHERE CATWALK ATTACHMENTS PENETRATE VERTICAL WALL ASSEMBLIES, REMOVE TERRACOTTA WALL TILES IN ORDER TO PATCH EXISTING FELT AND REINSTALL NEW OR SALVAGED TERRACOTTA WALL TILES.
9. REPOINT BRICK MASONRY AT SITE WALL ADJACENT TO BUILDING.
10. REMOVE EXISTING PAINT AT INTERIOR AND EXTERIOR OF WINDOWS, TYPICAL. INSPECT EXISTING WOOD AND GLAZING FOR DAMAGE AND NOTIFY ENGINEER OF ANY DAMAGE THAT IS OBSERVED. PAINT INTERIOR AND EXTERIOR OF WINDOWS TO MATCH EXISTING.
11. FASTEN WINDOW AT DORMER SUCH THAT THEY DO NOT OPEN, AND SEAL SHUT FROM THE EXTERIOR TO MITIGATE WATER INFILTRATION.
12. REPAINT EXISTING DOOR

WDP & Associates
Consulting Engineers

MARK	DATE	REVISIONS	BY	DES

DATE	08/12/2024
PROJECT	21242
DESIGNED	JMK
DRAWN	SD/DW/CM
CHECKED	AWW

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JODI M. KNOROWSKI
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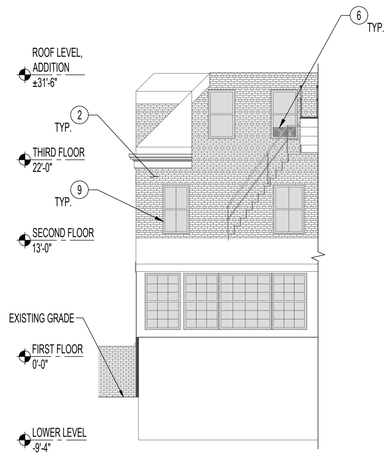
08/12/2024
PROFESSIONAL ENGINEER

PROJECT: 901 W FRANKLIN ROOF AND ENVELOPE REPAIRS 100%
PERMIT SET
VIRGINIA COMMONWEALTH UNIVERSITY
901 W FRANKLIN ST, RICHMOND, VIRGINIA 23284
STATE PROJECT NUMBER: 236-B3236-004

DRAWING: SOUTH ELEVATIONS

SHEET A2.3

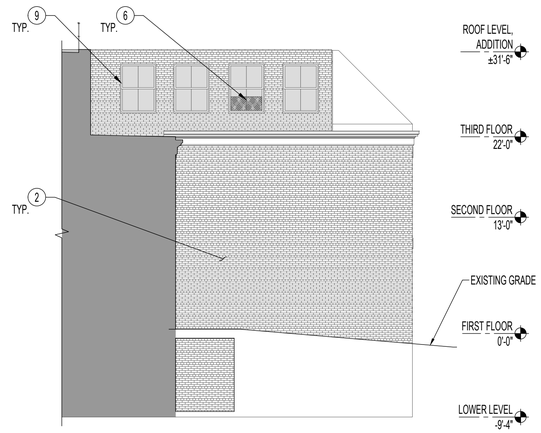
1/32" = 1'-0" | 1/16" = 1'-0" | 3/32" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 3/8" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0" | 6" = 1'-0"



1 A1.2 A2.4 — PARTIAL EAST ELEVATION

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

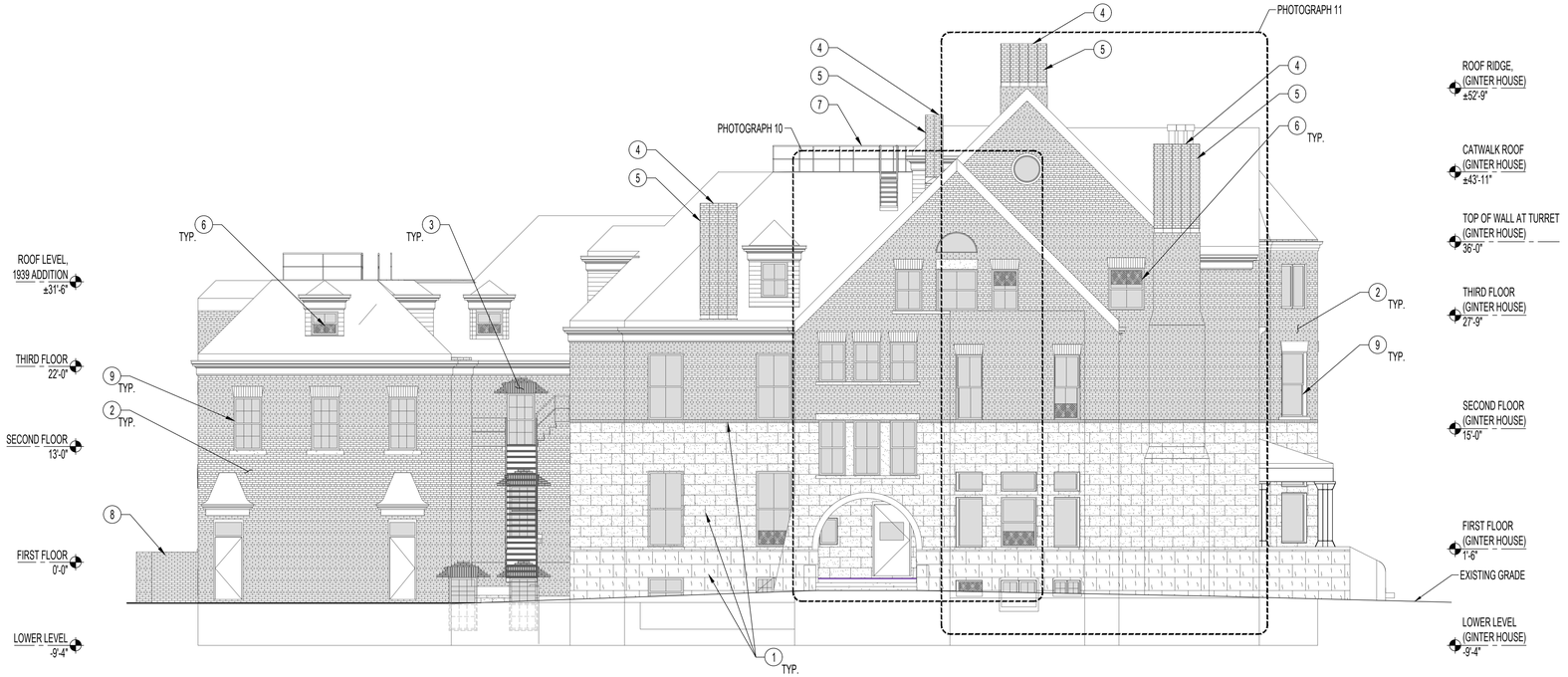
A1.1-A1.5



2 A1.0 A2.4 — PARTIAL EAST ELEVATION

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

A1.1-A1.5



3 A1.0 A2.4 — EAST ELEVATION

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

A1.1-A1.5

PHOTOGRAPH 10. PARTIAL EAST ELEVATION SHOWING ORNAMENTAL MASONRY FEATURES OF THE BUILDING.

PHOTOGRAPH 11. PARTIAL EAST ELEVATION SHOWING ORNAMENTAL MASONRY FEATURES OF THE BUILDING.

KEY LEGEND

- ROCK FACE BROWNSTONE
- PECKED BROWNSTONE
- BRICK MASONRY
- PARGE COAT
- ORNAMENTAL BROWNSTONE
- WINDOW AC UNIT

ANNOTATION LEGEND

1. REPOINT 100% OF BROWNSTONE MASONRY (ROCK FACE AND PECKED) TO INCLUDE WINDOW SILLS AND LINTELS PER DETAIL 1/A4.1. VISUALLY INSPECT AND SOUND ALL SURFACES OF BROWNSTONE MASONRY. REMOVE PORTIONS OF BROWNSTONE THAT ARE FOUND TO BE SPALLED OR DELAMINATED IN ACCORDANCE WITH HISTORIC PRESERVATION METHODS. INSTALL NEW SPECIALTY REPAIR MORTAR AND FORM TO MATCH TEXTURE OF EXISTING BROWNSTONE. CLEAN ALL SURFACES OF BROWNSTONE MASONRY FOLLOWING REPOINTING AND REPAIRS.
2. REPOINT 100% OF BRICK MASONRY PER DETAIL 2/A4.1. VISUALLY INSPECT ALL SURFACES OF BRICK MASONRY. WHERE BRICK ARE FOUND TO BE SIGNIFICANTLY SPALLED OR CRACKED, REMOVE AND REPLACE BRICK UNIT. CLEAN ALL SURFACES OF BRICK MASONRY FOLLOWING REPOINTING AND REPAIRS.
3. REMOVE, SALVAGE, AND REINSTALL BRICK MASONRY AT EXTENTS SHOWN AT WINDOW HEAD TO FACILITATE INSTALLATION OF NEW SHEET METAL FLASHING AT WINDOW HEADS. REMOVAL OF BRICK AT ADJACENT WINDOWS MUST BE SEQUENCED SUCH THAT SUPPORT FOR BRICK ABOVE WINDOWS IS NOT COMPROMISED BY REMOVAL OF BRICK AT ADJACENT WINDOW BASED ON ARCHING ACTION.
4. INSTALL NEW COPPER CAP AT TOP OF CHIMNEY PER DETAIL 6/A4.1.
5. REPOINT CHIMNEY. PROVIDE ENGINEER WITH ACCESS TO EVALUATE STRUCTURAL STABILITY OF CHIMNEY TO DETERMINE IF MORE COMPREHENSIVE REPAIRS ARE NEEDED.
6. INSTALL NEW INTEGRATIONS FOR EXISTING WINDOW MOUNTED AC UNITS. PAINT INTERIOR SURFACES OF WINDOWS AT LOCATIONS WHERE AC UNITS ARE REPLACED. SEE SHEET A8.1 FOR DETAILS.
7. REMOVE AND DISCARD EXISTING CATWALK AND GUARDRAILS. WHERE CATWALK ATTACHMENTS PENETRATE THE SLOPED ROOF ASSEMBLY, REMOVE TERRACOTTA ROOF TILE UNITS IN ORDER TO PATCH EXISTING UNDERLAYMENT AND REINSTALL NEW OR SALVAGED TERRACOTTA ROOF TILES. WHERE CATWALK ATTACHMENTS PENETRATE VERTICAL WALL ASSEMBLIES, REMOVE TERRACOTTA WALL TILES IN ORDER TO PATCH EXISTING FELT AND REINSTALL NEW OR SALVAGED TERRACOTTA WALL TILES.
8. REPOINT BRICK MASONRY AT SITE WALL ADJACENT TO BUILDING.
9. REMOVE EXISTING PAINT AT INTERIOR AND EXTERIOR OF WINDOWS, TYPICAL. INSPECT EXISTING WOOD AND GLAZING FOR DAMAGE AND NOTIFY ENGINEER OF ANY DAMAGE THAT IS OBSERVED. PAINT INTERIOR AND EXTERIOR OF WINDOWS TO MATCH EXISTING.

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COMMONWEALTH OF VIRGINIA
JODI M. KNOROWSKI
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08/12/2024
PROFESSIONAL ENGINEER

MARK	DATE	REVISIONS	BY	DES

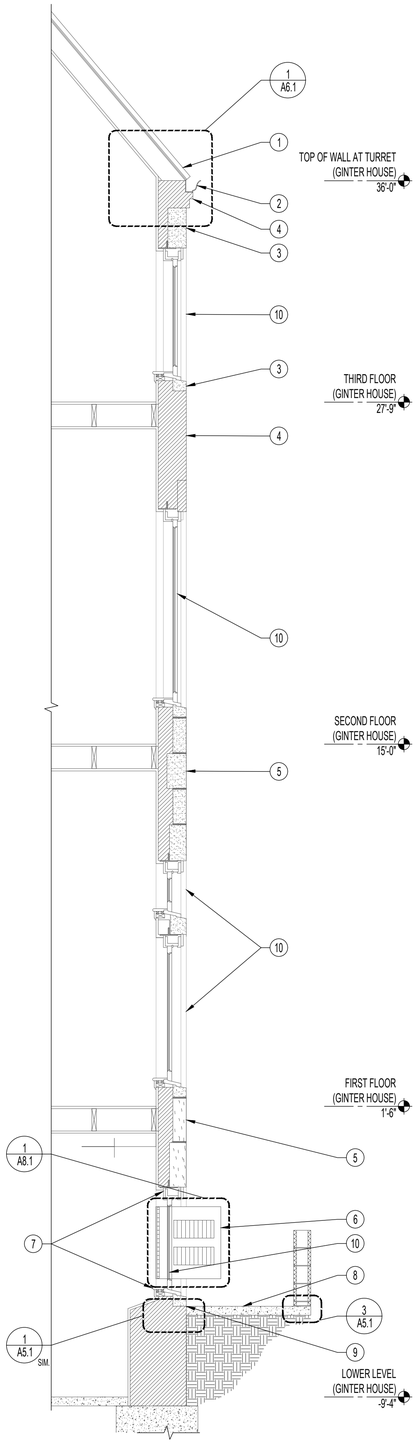
DATE	08/12/2024
PROJECT	21242
DESIGNED	JMK
DRAWN	SD/DW/CM
CHECKED	AWW

PROJECT: 901 W FRANKLIN ROOF AND ENVELOPE REPAIRS 100%
PERMIT SET
VIRGINIA COMMONWEALTH UNIVERSITY
901 W FRANKLIN ST. RICHMOND, VIRGINIA 23284
STATE PROJECT NUMBER: 236-B3236-004

DRAWING: EAST ELEVATIONS

SHEET
A2.4

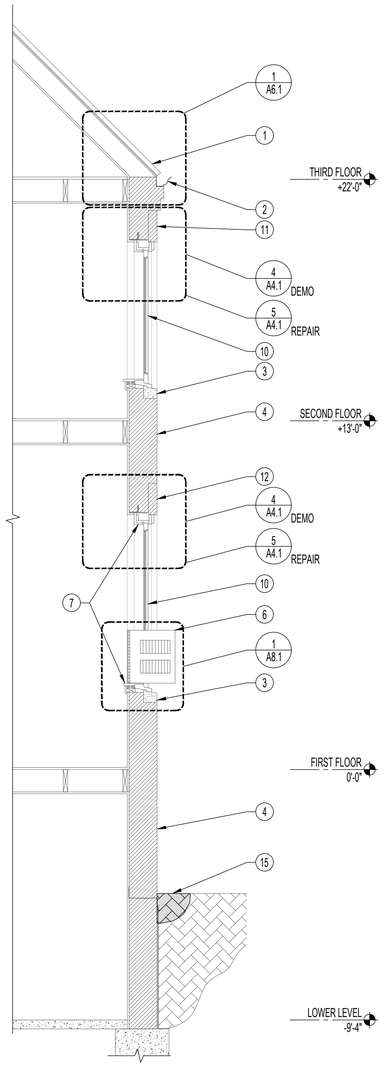
1/32" = 1'-0" | 1/16" = 1'-0" | 3/32" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 3/8" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0" | 6" = 1'-0"



TYPICAL WALL SECTION AT ORIGINAL GINTER HOUSE AT CONFINED HARDSCAPE

1 / A1.0 | A3.1 — A1.1-A2.2

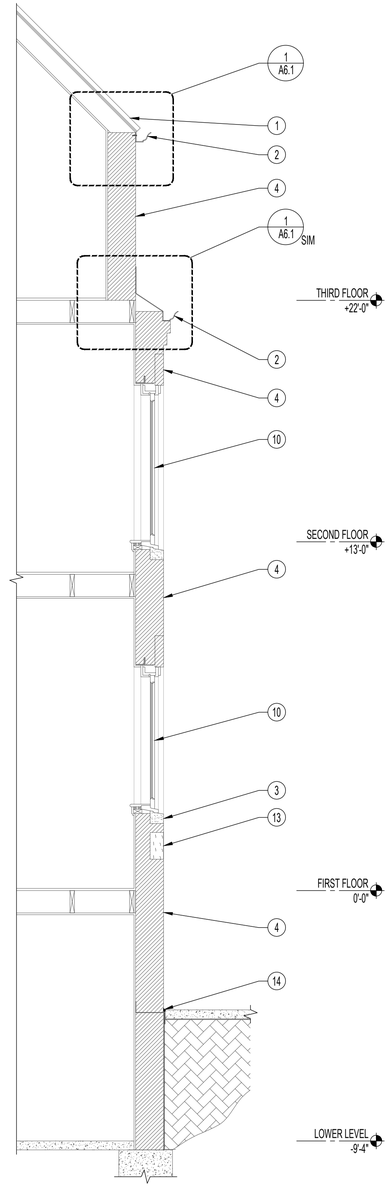
SCALE: 3/8"=1'-0"



TYPICAL WALL SECTION WITH NEW WINDOW HEAD FLASHING

2 / A1.0 | A3.1 — A1.1-A2.1

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



TYPICAL WALL SECTION AT SOUTH ELEVATION

3 / A1.1 | A3.1 — A1.2-A2.3

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

1/32" = 1'-0" | 1/16" = 1'-0" | 3/32" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 3/8" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0" | 6" = 1'-0"

HATCH LEGEND

- ROCK FACE BROWNSTONE
- PECKED BROWNSTONE
- BRICK MASONRY

ANNOTATION LEGEND

1. REMOVE, SALVAGE, AND REINSTALL TERRACOTTA ROOF TILES TO ALLOW FOR NEW INTEGRATION OF UNDERLAYMENT WITH EXISTING GUTTER.
2. EXISTING GUTTER TO REMAIN IN PLACE. INSTALL NEW EPDM LINER IN GUTTER.
3. REPOINT BROWNSTONE MASONRY AT WINDOW SURROUND PER DETAIL 1/A4.1. VISUALLY INSPECT AND SOUND SURFACE OF BROWNSTONE MASONRY. REMOVE PORTIONS OF BROWNSTONE MASONRY THAT ARE FOUND TO BE SPALLED OR DELAMINATED IN ACCORDANCE WITH HISTORIC PRESERVATION METHODS. INSTALL NEW SPECIALTY REPAIR MORTAR AND FORM TO MATCH TEXTURE OF EXISTING BROWNSTONE. CLEAN ALL SURFACES OF BROWNSTONE MASONRY.
4. REPOINT 100% OF BRICK MASONRY PER DETAIL 2/A4.1. VISUALLY INSPECT SURFACE OF BRICK MASONRY. WHERE BRICK ARE FOUNT TO BE SIGNIFICANTLY SPALLED OR CRACKED, REMOVE AND REPLACE BRICK UNIT. CLEAN ALL SURFACES OF BRICK MASONRY FOLLOWING REPOINTING AND REPAIRS.
5. REPOINT 100% OF BROWNSTONE MASONRY AT VERTICAL WALLS PER DETAIL 1/A4.1. VISUALLY INSPECT AND SOUND SURFACE OF BROWNSTONE MASONRY. REMOVE PORTIONS OF BROWNSTONE MASONRY THAT ARE FOUND TO BE SPALLED OR DELAMINATED IN ACCORDANCE WITH HISTORIC PRESERVATION METHODS. INSTALL NEW SPECIALTY REPAIR MORTAR AND FORM TO MATCH TEXTURE OF EXISTING BROWNSTONE. CLEAN ALL SURFACES OF BROWNSTONE MASONRY.
6. INSTALL NEW MANUFACTURER RECOMMENDED CLOSURE PANELS, SEALED TO PERIMETER OF EXISTING AC UNIT AND WINDOW FRAME TO PREVENT AIR AND MOISTURE INFILTRATION.
7. WHERE NEW AC CLOSURE PANELS ARE INSTALLED, PAINT WOOD WINDOW FRAME THAT WAS CONCEALED BY THE EXISTING AC UNIT CLOSURE PRIOR TO INSTALLATION OF NEW CLOSURE ELEMENTS.
8. INSTALL NEW TRAFFIC COATING AT SURFACE OF CONFINED HARDSCAPE.
9. INSTALL NEW BASE OF WALL FLASHING AT VERTICAL WALLS SURROUNDING CONFINED HARDSCAPE. TERMINATE INTO SAW-CUT REGLET AT SURFACE OF HARDSCAPE.
10. EXISTING WINDOWS TO REMAIN IN PLACE. PROTECT FROM DAMAGE DURING RESTORATION OF SURROUNDING MASONRY ELEMENTS. REMOVE EXISTING PAINT AT INTERIOR AND EXTERIOR OF WINDOWS, TYPICAL. INSPECT EXISTING WOOD AND GLAZING FOR DAMAGE AND NOTIFY ENGINEER OF ANY DAMAGE THAT IS OBSERVED. PAINT INTERIOR AND EXTERIOR OF WINDOWS TO MATCH EXISTING.
11. AT SECOND FLOOR WINDOWS, REMOVE AND SALVAGE JACK ARCHES AND CORBELED BRICK TO ALLOW FOR INSTALLATION OF NEW HEAD FLASHING.
12. AT FIRST FLOOR WINDOWS, REMOVE AND SALVAGE JACK ARCHES AND BRICK TO ALLOW FOR INSTALLATION OF NEW HEAD FLASHING. DO NOT REMOVE BRICK THAT ARE INSTALLED AS HEADER COURSES WITHOUT CONSULTING ENGINEER. REMOVAL OF BRICK AT ADJACENT WINDOWS MUST BE SEQUENCED SUCH THAT SUPPORT FOR THE BRICK ABOVE WINDOWS IS NOT COMPROMISED BY REMOVAL OF BRICK AT ADJACENT WINDOW BASED ON ARCHING ACTION.
13. REPOINT JOINTS IN ROCK FACE BROWNSTONE MASONRY BANDING ELEMENT PER DETAIL 1/A4.1. VISUALLY INSPECT AND SOUND SURFACE OF BROWNSTONE MASONRY. REMOVE PORTIONS OF BROWNSTONE MASONRY THAT ARE FOUND TO BE SPALLED OR DELAMINATED IN ACCORDANCE WITH HISTORIC PRESERVATION METHODS. INSTALL NEW SPECIALTY REPAIR MORTAR AND FORM TO MATCH TEXTURE OF EXISTING BROWNSTONE. CLEAN ALL SURFACES OF BROWNSTONE MASONRY.
14. REMOVE AND REPLACE SEALANT JOINT BETWEEN BASE OF WALL AND CONCRETE SIDEWALK. INSTALL SEALANT JOINT WITH A SLOPED PROFILE TO ALLOW FOR POSITIVE DRAINAGE AWAY FROM THE BUILDING.
15. AT BASE OF MASONRY WALL ADJACENT TO LANDSCAPED AREAS, EXCAVATE 12" BELOW GRADE SUCH THAT POINTING OF MORTAR CAN EXTEND BELOW GRADE. ALLOW MORTAR TO CURE THEN REPLACE GRADE ADJACENT TO THE BUILDING TO MATCH EXISTING CONDITION. SLOPE GRADE AWAY FROM THE BUILDING.

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Consulting Engineers

MARK	DATE	REVISIONS
		DES
		BY

DATE	08/12/2024
PROJECT	21242
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DRAWN	SD/DW/CM
CHECKED	AWW

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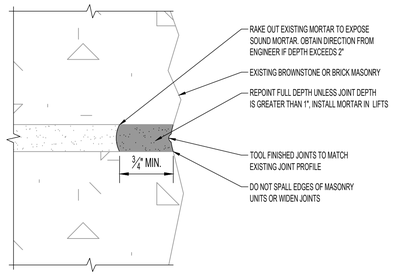
COMMONWEALTH OF VIRGINIA
JODI M. KNOROWSKI
Lic. No. 056664
08/12/2024
PROFESSIONAL ENGINEER

PROJECT: 901 W FRANKLIN ROOF AND ENVELOPE REPAIRS
PERMIT SET
VIRGINIA COMMONWEALTH UNIVERSITY
901 W FRANKLIN ST, RICHMOND, VIRGINIA 23284
DRAWING: WALL SECTIONS
STATE PROJECT NUMBER: 236-83236-004

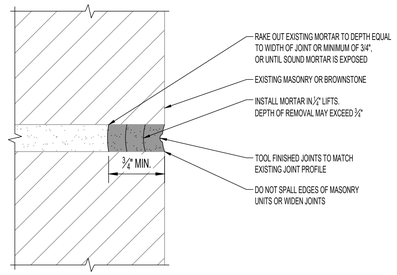
SHEET
A3.1



1 A2.1 A4.1 — REPOINTING WITH HISTORIC LIME MORTAR

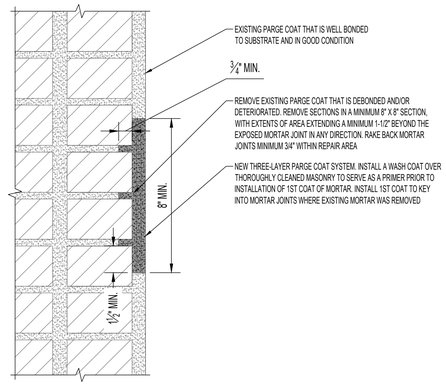
SCALE: 12"=1'-0"

A2.2-A2.4



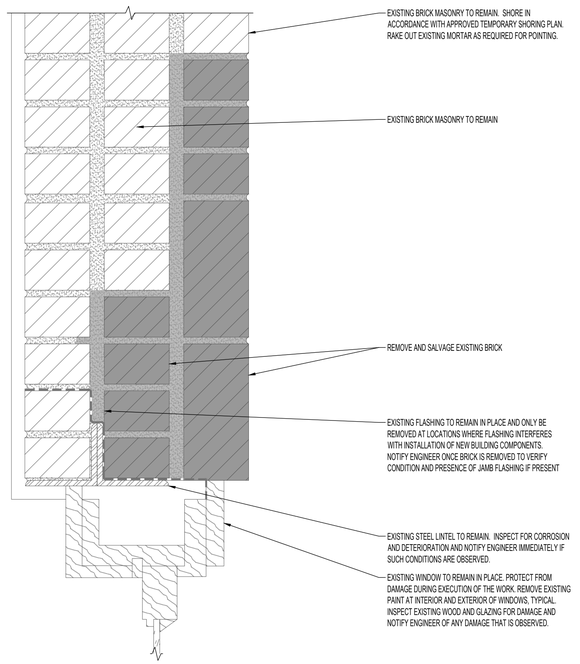
2 A2.1 A4.1 — REPOINTING WITH PORTLAND CEMENT MORTAR

SCALE: 12"=1'-0"



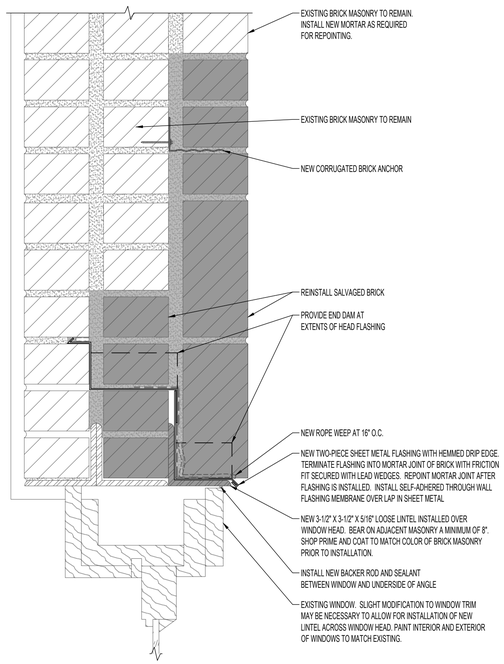
3 A2.1 A4.1 — PARGE COAT REPAIRS

SCALE: 3"=1'-0"



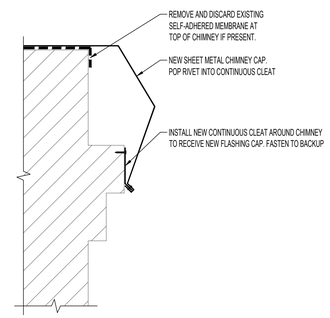
4 A3.1 A4.1 — MASONRY LINTEL DETAIL - DEMOLITION

SCALE: 3"=1'-0"



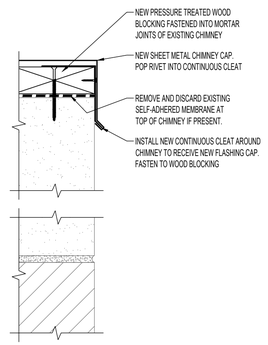
5 A3.1 A4.1 — MASONRY LINTEL DETAIL - REPAIR

SCALE: 3"=1'-0"



6A A2.1 A4.1 — ALL BRICK, SQUARE CHIMNEY FLASHING

SCALE: 3"=1'-0"



6B A2.1 A4.1 — BROWNSTONE CAP, ROUNDED CHIMNEY FLASHING

SCALE: 3"=1'-0"

1/32" = 1'-0" | 1/16" = 1'-0" | 3/32" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 3/8" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0" | 6" = 1'-0"

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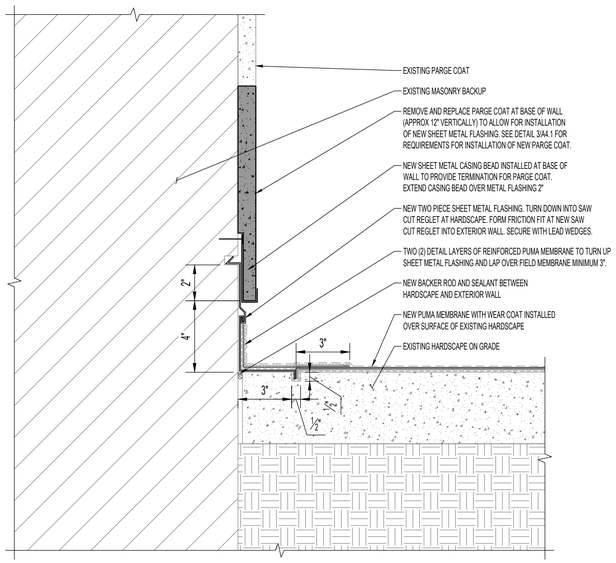
Lic. No. 056664
08/12/2024
PROFESSIONAL ENGINEER

PROJECT: 901 W FRANKLIN ROOF AND ENVELOPE REPAIRS 100%
STATE PROJECT NUMBER: 236-B3236-004
PERMIT SET
VIRGINIA COMMONWEALTH UNIVERSITY
901 W FRANKLIN ST, RICHMOND, VIRGINIA 23284
DRAWING: MASONRY DETAILS

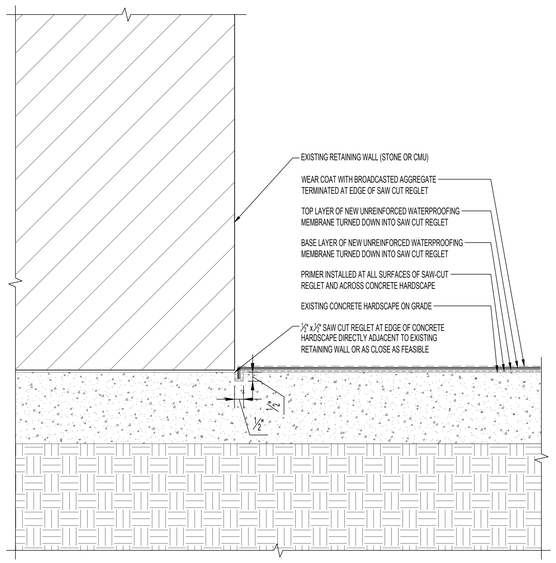
SHEET
A4.1



1 A1.0 A5.1

TYPICAL BASE OF WALL DETAIL AT CONFINED HARDSCAPE AT PARGE COAT

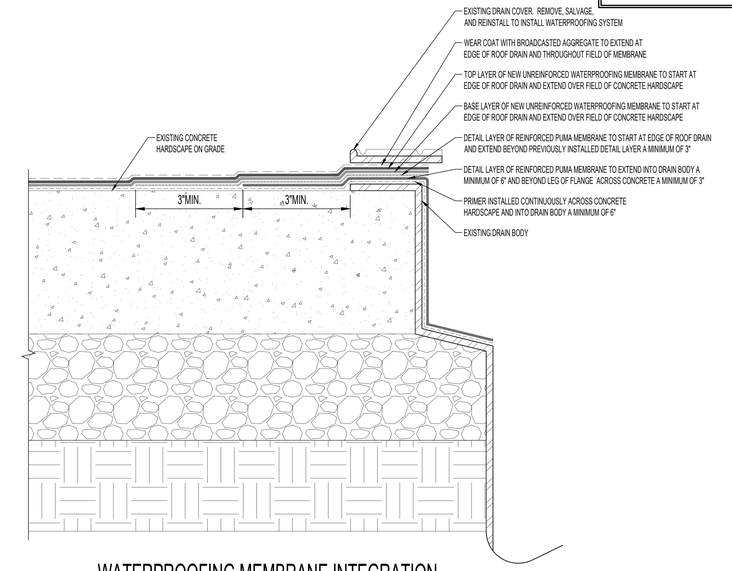
SCALE: 3"=1'-0"



2 A1.0 A5.1

WATERPROOFING MEMBRANE INTEGRATION WITH RETAINING WALL

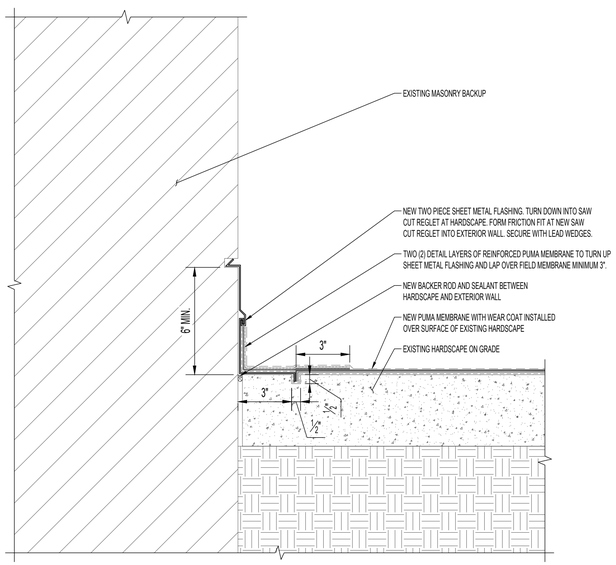
SCALE: 3"=1'-0"



3 A1.0 A5.1

WATERPROOFING MEMBRANE INTEGRATION WITH AREA DRAINS

SCALE: 6"=1'-0"



4 A1.0 A5.1

TYPICAL BASE OF WALL DETAIL AT CONFINED HARDSCAPE AT BRICK MASONRY

SCALE: 3"=1'-0"

1/32" = 1'-0" | 1/16" = 1'-0" | 3/32" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 3/8" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0" | 6" = 1'-0"

WDP & Associates
Consulting Engineers

MARK	DATE	REVISIONS
		DES
		BY

DATE	08/12/2024
PROJECT	21242
DESIGNED	JMK
DRAWN	SD/DW/CM
CHECKED	AWW

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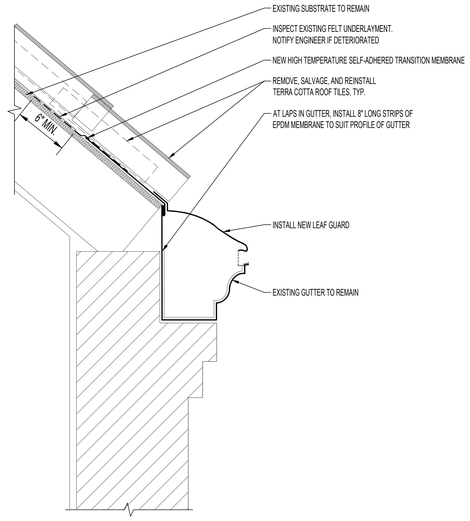
901 W FRANKLIN ST. RICHMOND, VIRGINIA 23284
STATE PROJECT NUMBER: 236-B3236-004

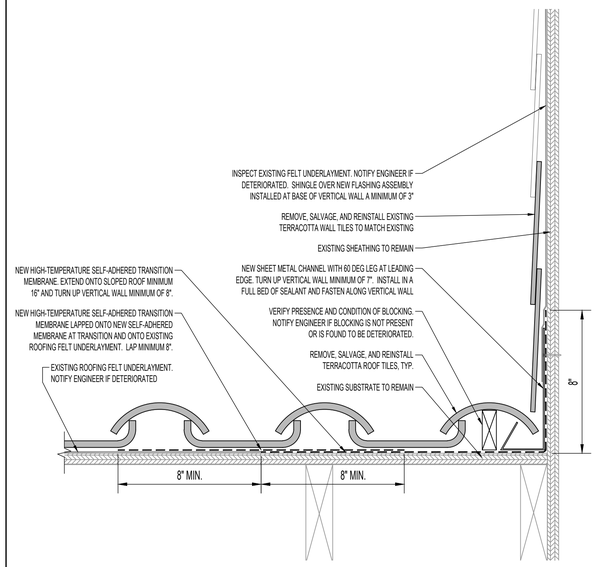
DRAWING: BELOW GRADE DETAILS

SHEET
A5.1



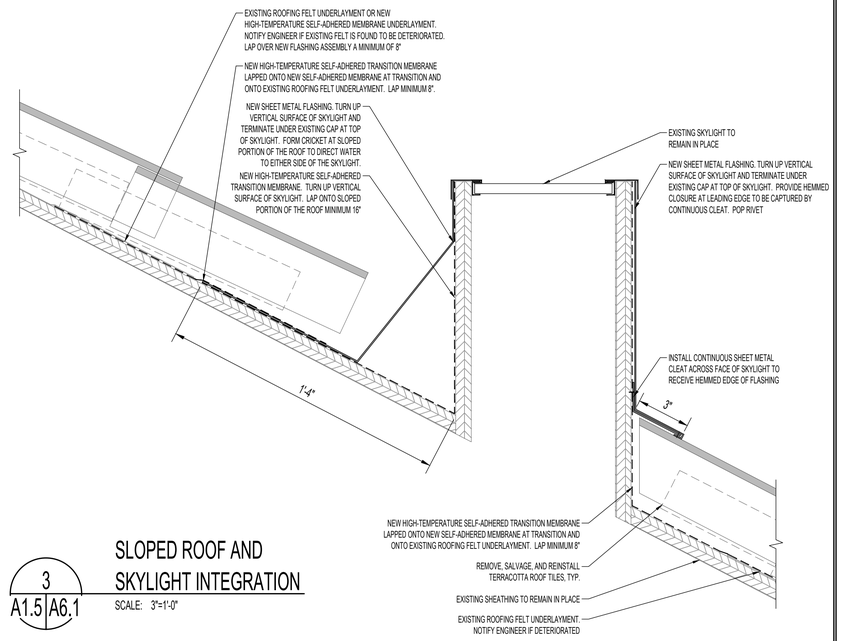
1 A1.5 A6.1 GUTTER TO ROOF INTEGRATION

SCALE: 1½"=1'-0"



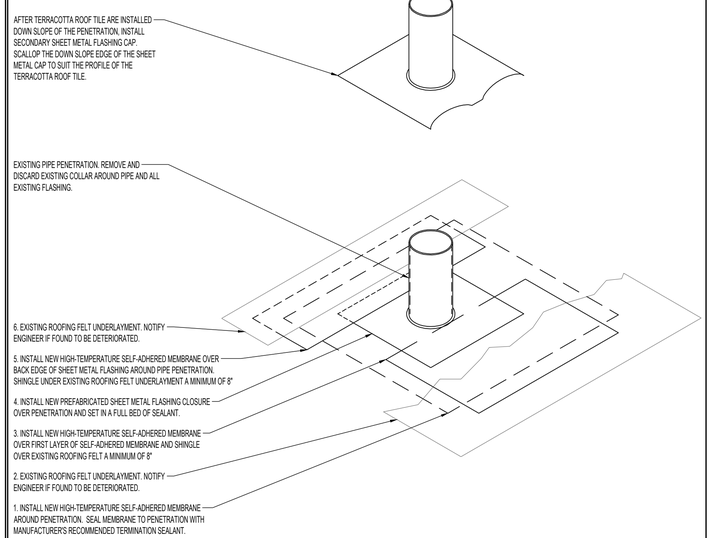
2 A1.5 A6.1 SLOPED ROOF AND VERTICAL WALL INTEGRATION

SCALE: 3"=1'-0"



3 A1.5 A6.1 SLOPED ROOF AND SKYLIGHT INTEGRATION

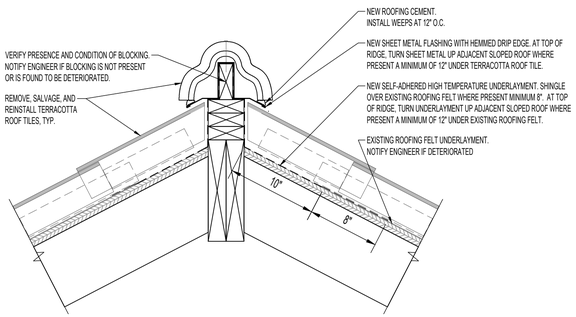
SCALE: 3"=1'-0"



NOTE: TERRACOTTA ROOF CLAY TILE NOT SHOWN FOR CLARITY. REMOVE AND SALVAGE AS NECESSARY TO FACILITATE INSTALLATION OF NEW PIPE PENETRATION DETAIL

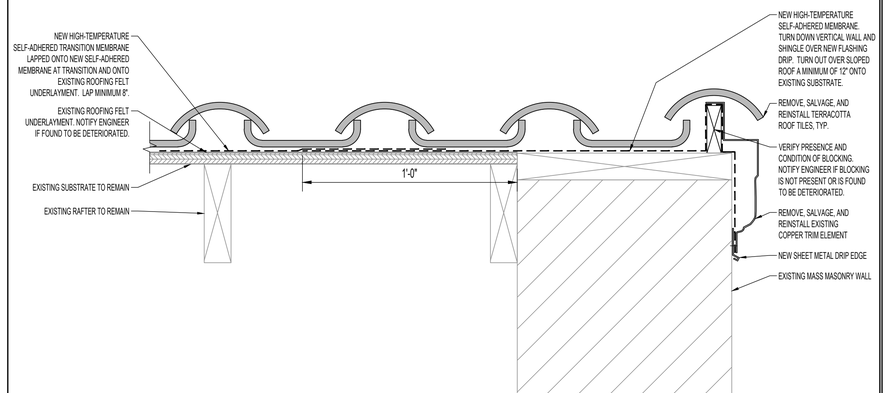
4 A1.5 A6.1 SLOPED ROOF PENETRATION DETAIL

SCALE: ISOMETRIC



5 A1.5 A6.1 SLOPED ROOF DETAIL AT RIDGE

SCALE: 1½"=1'-0"



6 A1.5 A6.1 SLOPED ROOF EDGE DETAIL WITH CLAY TILE COPING

SCALE: 3"=1'-0"

1/32" = 1'-0" 0' 16' 32' 48' | 1/16" = 1'-0" 0' 4' 8' 16' 24' | 3/32" = 1'-0" 0' 4' 8' 16' | 1/8" = 1'-0" 0' 4' 8' 12' | 1/4" = 1'-0" 0' 2' 4' 6' | 3/8" = 1'-0" 0' 1' 2' 3' 4' | 1/2" = 1'-0" 0' 6" 1' 2' 3' | 3/4" = 1'-0" 0' 6" 1' 2' | 1" = 1'-0" 0' 3" 6" 9" 1' 1.5' | 1 1/2" = 1'-0" 0' 3" 6" 9" 1' | 3" = 1'-0" 0' 1" 2" 3" 4" 5" 6" | 6" = 1'-0" 0' 1" 2" 3"

1 2 3 4 5

WDP & Associates
Consulting Engineers

MARK	DATE	REVISIONS
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		BY

DATE	08/12/2024
PROJECT	21242
DESIGNED	JMK
DRAWN	SD/DW/CM
CHECKED	AWW

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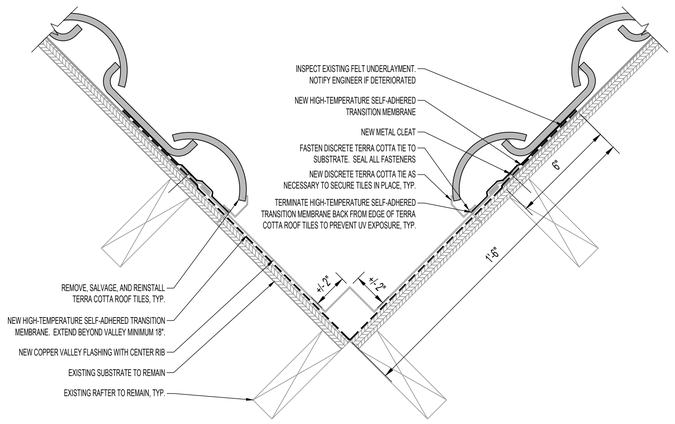
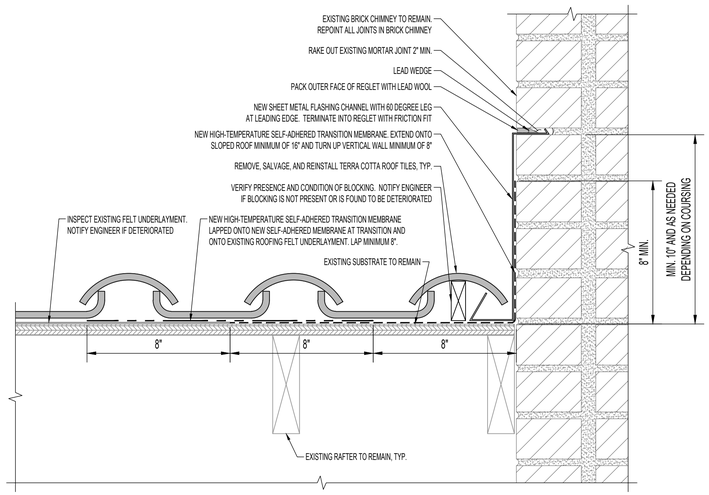
PROJECT: 901 W FRANKLIN ROOF AND ENVELOPE REPAIRS
PERMIT SET
VIRGINIA COMMONWEALTH UNIVERSITY
901 W FRANKLIN ST, RICHMOND, VIRGINIA 23284
DRAWING: SLOPED ROOF DETAILS
STATE PROJECT NUMBER: 236-B3236-004

SHEET
A6.1



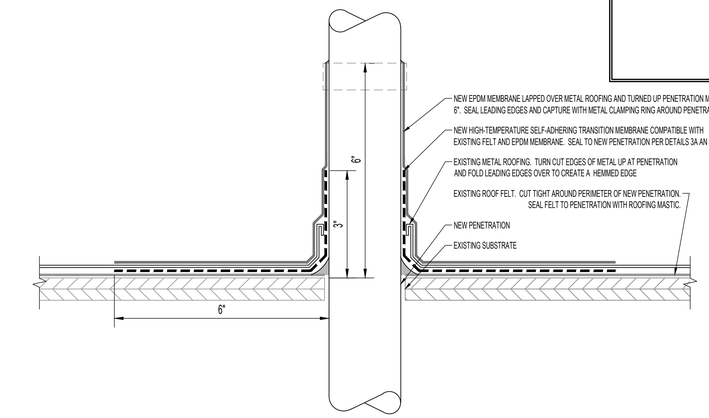
1 A1.5 A6.2 TYPICAL VALLEY FLASHING REPAIR

SCALE: 3"=1'-0"



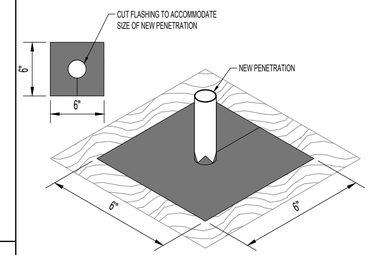
2 A1.5 A6.2 TYPICAL CHIMNEY INTEGRATION REPAIR

SCALE: 3"=1'-0"



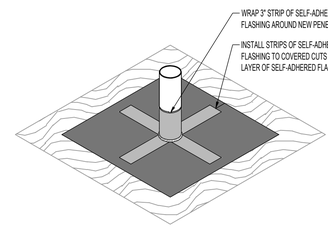
3 A1.5 A6.2 METAL ROOF PENETRATION DETAIL

SCALE: 6"=1'-0"



3A - SELF-ADHERED FLASHING (STEP 1)

SCALE: ISOMETRIC



3B - SELF-ADHERED FLASHING (STEP 2)

SCALE: ISOMETRIC

0' 16' 32' 48' 1/32" = 1'-0" | 0' 4' 8' 16' 24' 1/16" = 1'-0" | 0' 4' 8' 16' 3/32" = 1'-0" | 0' 4' 8' 12' 1/8" = 1'-0" | 0' 2' 4' 6' 1/4" = 1'-0" | 0' 1' 2' 3' 4' 3/8" = 1'-0" | 0' 6" 1' 2' 3' 1/2" = 1'-0" | 0' 6" 1' 2' 3/4" = 1'-0" | 0' 3" 6" 9" 1' 1.5' 1" = 1'-0" | 0' 3" 6" 9" 1' 1 1/2" = 1'-0" | 0' 3" 6" 9" 1' 3" = 1'-0" | 0' 1" 2" 3" 4" 5" 6" | 0' 1" 2" 3" 6" = 1'-0"

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Consulting Engineers

MARK	DATE	REVISIONS	BY	DES

DATE	08/12/2024
PROJECT	21242
DESIGNED	JMK
DRAWN	SD/DW/CM
CHECKED	AWW

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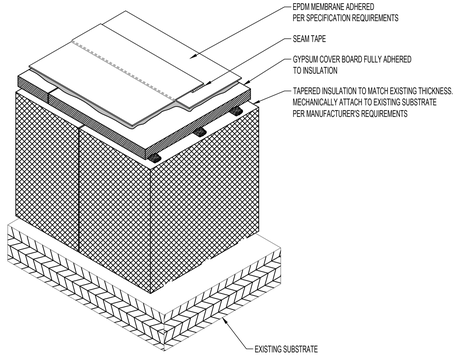
901 W FRANKLIN ROOF AND ENVELOPE REPAIRS
PERMIT SET
VIRGINIA COMMONWEALTH UNIVERSITY
901 W FRANKLIN ST, RICHMOND, VIRGINIA 23284

DRAWING:
SLOPED ROOF DETAILS

STATE PROJECT NUMBER: 236-B3236-004

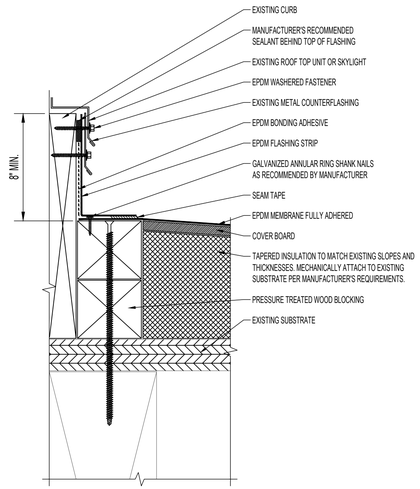
SHEET
A6.2



NOTE: EXISTING SUBSTRATE AND INSULATION THICKNESS IS NOT CLEARLY CONVEYED IN RECORD DRAWINGS FROM PAST PROJECTS. CONTRACTOR TO FIELD VERIFY MATERIAL TYPES AND THICKNESSES.

1 A1.5 A7.1 **TYPICAL ROOF ASSEMBLY**

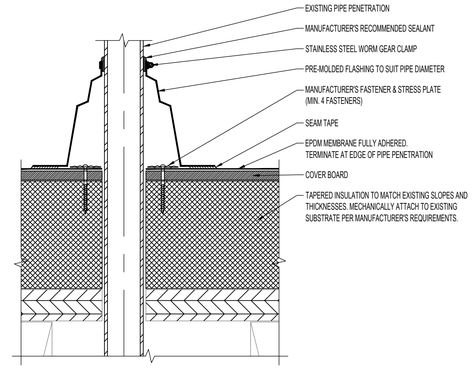
SCALE: ISOMETRIC



NOTE: EXISTING SUBSTRATE AND INSULATION THICKNESS IS NOT CLEARLY CONVEYED IN RECORD DRAWINGS FROM PAST PROJECTS. CONTRACTOR TO FIELD VERIFY MATERIAL TYPES AND THICKNESSES.

2 A1.5 A7.1 **SKYLIGHT/CURB INTEGRATION**

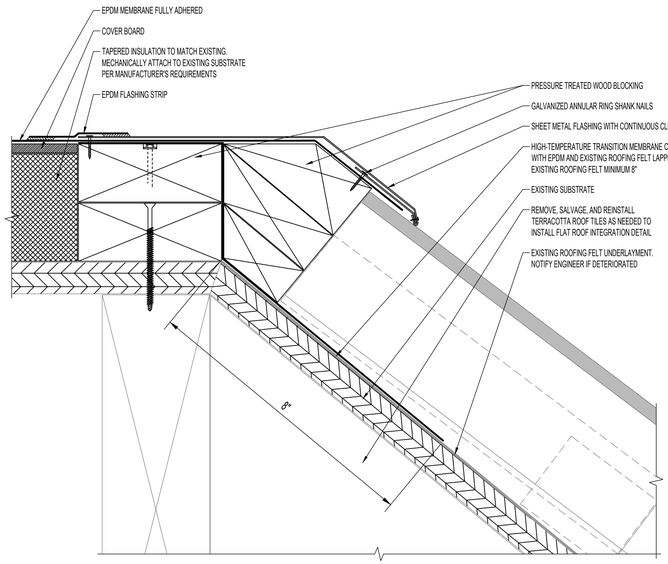
SCALE: 6"=1'-0"



NOTE: EXISTING SUBSTRATE AND INSULATION THICKNESS IS NOT CLEARLY CONVEYED IN RECORD DRAWINGS FROM PAST PROJECTS. CONTRACTOR TO FIELD VERIFY MATERIAL TYPES AND THICKNESSES.

3 A1.5 A7.1 **PIPE PENETRATION**

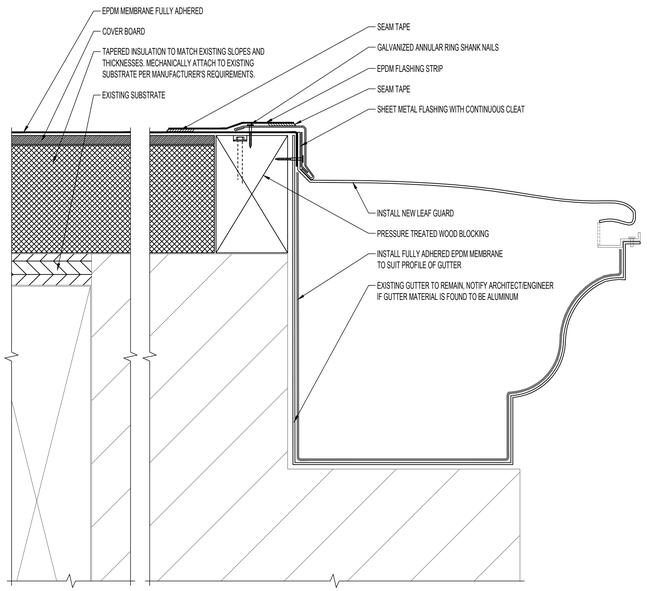
SCALE: 6"=1'-0"



NOTE: EXISTING SUBSTRATE AND INSULATION THICKNESS IS NOT CLEARLY CONVEYED IN RECORD DRAWINGS FROM PAST PROJECTS. CONTRACTOR TO FIELD VERIFY MATERIAL TYPES AND THICKNESSES.

4 A1.5 A7.1 **TYPICAL ROOF EDGE DETAIL**

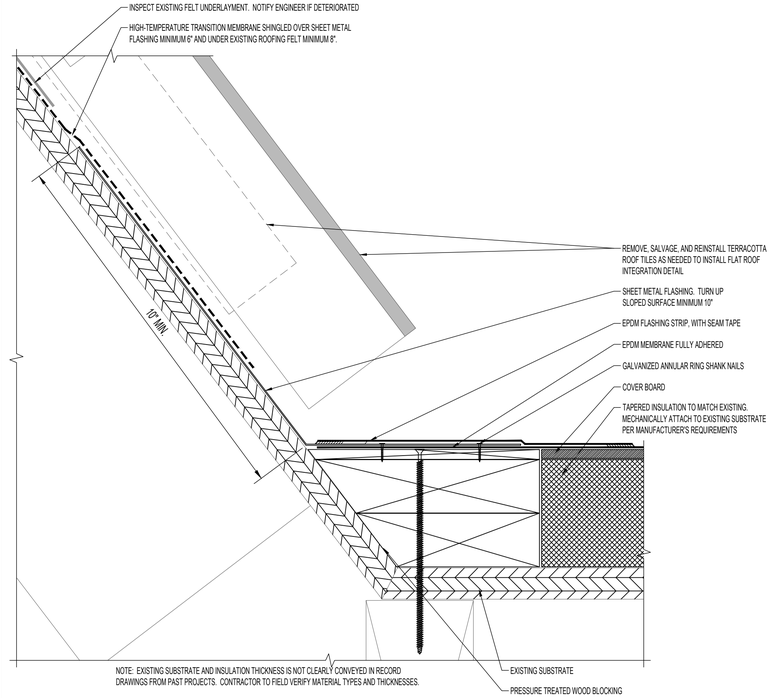
SCALE: 6"=1'-0"



NOTE: EXISTING SUBSTRATE AND INSULATION THICKNESS IS NOT CLEARLY CONVEYED IN RECORD DRAWINGS FROM PAST PROJECTS. CONTRACTOR TO FIELD VERIFY MATERIAL TYPES AND THICKNESSES.

5 A1.5 A7.1 **ROOF EDGE DETAIL GUTTER**

SCALE: 6"=1'-0"



NOTE: EXISTING SUBSTRATE AND INSULATION THICKNESS IS NOT CLEARLY CONVEYED IN RECORD DRAWINGS FROM PAST PROJECTS. CONTRACTOR TO FIELD VERIFY MATERIAL TYPES AND THICKNESSES.

6 A1.5 A7.1 **ROOF EDGE DETAIL AT SLOPED ROOF (TURNED UP)**

SCALE: 6"=1'-0"

1/32" = 1'-0" | 1/16" = 1'-0" | 3/32" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 3/8" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0" | 6" = 1'-0"

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Consulting Engineers

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DESIGNED	JMK
DRAWN	SD/DW/CM
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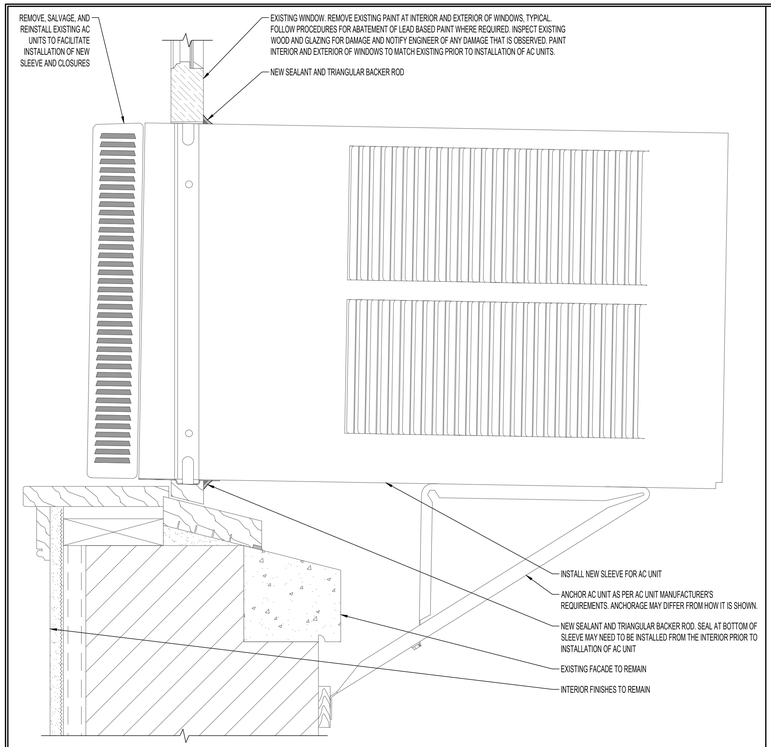
PERMIT SET
VIRGINIA COMMONWEALTH UNIVERSITY
901 W FRANKLIN ST, RICHMOND, VIRGINIA 23284
DRAWING: FLAT ROOF DETAILS
STATE PROJECT NUMBER: 236-B3236-004

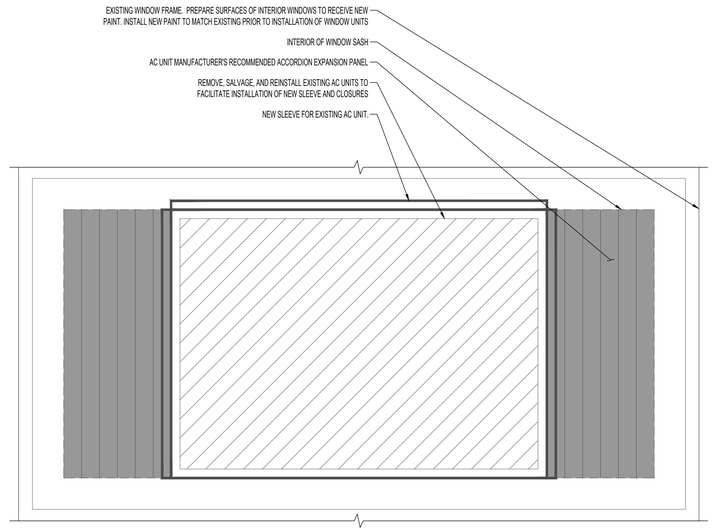
SHEET
A7.1



1 A2.1 A8.1 TYPICAL SECTION OF AC UNIT INTEGRATION

SCALE: 3"=1'-0"

NOTE:
INSTALL MANUFACTURERS FOAM WINDOW SEAL GASKET ALONG THE TOP OF THE LOWER WINDOW SASH.



2 A2.1 A8.1 TYPICAL INTERIOR ELEVATION OF AC UNIT INTEGRATION

SCALE: 3"=1'-0"

1/32" = 1'-0" 0' 16' 32' 48'
1/16" = 1'-0" 0' 4' 8' 16' 24'
3/32" = 1'-0" 0' 4' 8' 16'
1/8" = 1'-0" 0' 4' 8' 12'
1/4" = 1'-0" 0' 2' 4' 6'
3/8" = 1'-0" 0' 1' 2' 3' 4'
1/2" = 1'-0" 0' 6" 1' 2' 3'
3/4" = 1'-0" 0' 6" 1' 2'
1" = 1'-0" 0' 3" 6" 9" 1' 1.5'
1 1/2" = 1'-0" 0' 3" 6" 9" 1'
3" = 1'-0" 0' 1" 2" 3" 4" 5" 6"
6" = 1'-0" 0' 1" 2" 3"

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Consulting Engineers

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REVISIONS			

DATE	08/12/2024
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PROJECT:
901 W FRANKLIN ROOF AND ENVELOPE REPAIRS
PERMIT SET
VIRGINIA COMMONWEALTH UNIVERSITY
901 W FRANKLIN ST. RICHMOND, VIRGINIA 23284

DRAWING:
WINDOW AC UNITS

STATE PROJECT NUMBER: 236-B3236-004

SHEET
A8.1

Amendment to the 2024-2030 Six-Year Capital Plan, Authorization to Initiate a Capital Project and Approval of Project Plans

Gladding Residence Center III (GRC) Heating, Ventilation and Air Conditioning (HVAC) System Replacement

Background

VCU seeks Board of Visitors (BOV) approval to amend the 2024-2030 Six-Year Capital Plan, authorization to initiate a capital project, and project plan approval, as required by the VCU management agreement, for the replacement of the GRC III HVAC system.

GRC III is located at 711 West Main Street on VCU's Monroe Park Campus. It is a five-level masonry residence hall constructed in 1979 that currently houses first-year students. The existing HVAC system is at the end of its useful life and requires replacement. VCU will utilize a term contract vendor, Colonial Webb, to complete the work.

Considerations

This work requires the building to be unoccupied during construction. VCU Residential Life and Housing will take the residence hall offline for summer 2025 so construction can be performed between May 12 to August 1, 2025. In order to meet this schedule, the contract to purchase equipment and materials needs to be executed no later than January 6, 2025. Project plans were submitted to the Virginia Division of Engineering and Buildings for permitting and approval was received on October 15, 2024.

Size and scope

The project scope includes full HVAC replacement and installation, including condensing units located on each of GRC's two roof sections and air handlers in each room.

Cost and funding

The total cost for the HVAC is estimated to be $3.4M and will be funded using auxiliary housing funds.

Recommendation

Approve the amendment to the university's 2024-2030 Six-Year Capital Plan, authorize the initiation of a capital project at a cost not to exceed $3.4M, and approve the corresponding project plans for the GRC III HVAC system replacement.

RESOLUTION OF THE BOARD OF VISITORS
VIRGINIA COMMONWEALTH UNIVERSITY

AUTHORIZATION TO INITIATE A MAJOR CAPITAL PROJECT FOR GLADDING RESIDENCE CENTER III HEATING, VENTILATION AND AIR CONDITIONING (HVAC) SYSTEM REPLACEMENT

WHEREAS, Chapter 6.1, Title 23 of the Code of Virginia of 1950, as amended (the "Virginia Code") establishes a public corporation under the name and style of Virginia Commonwealth University (the "University") which is governed by a Board of Visitors (BOV) (the "Board") vested with the supervision, management and control of the University;

WHEREAS, Title 23 of the Virginia Code classifies the University as an educational institution of the Commonwealth of Virginia;

WHEREAS, by Chapter 4.10, Title 23 of the Virginia Code, the University entered into that certain Management Agreement with the Commonwealth of Virginia which was enacted as Chapter 594 of the Acts of Assembly of 2008 which, as amended, classifies the University as a public institution of higher education and empowers the University with the authority to undertake and implement capital projects, which include the acquisition of any interest in land, improvements on acquired land, capital leases, new construction, and building improvements and renovations;

WHEREAS, the Management Agreement requires the Board of Visitors to authorize the initiation of each Major Capital Project by approving its size, scope, budget and funding;

WHEREAS, the Gladding Residence Center III HVAC System Replacement (“the Project”) includes the replacement of both the roof units and air handlers in each room along with the necessary electrical and mechanical work needed for the installation;

WHEREAS, the total cost for the HVAC is estimated to be $3.4M and will be funded using auxiliary housing funds;

WHEREAS, the Board has determined it is desirable to authorize the initiation of a major capital project for the Gladding Residence Center III HVAC System Replacement;

NOW, THEREFORE, BE IT RESOLVED, that the Board hereby authorizes and approves the Project, including the size, scope, budget and funding of the Project, as described in the materials presented to the Board; and

RESOLVED FURTHER, that, upon approval, this action shall take effect immediately.

VIRGINIA COMMONWEALTH UNIVERSITY

GLADDING RESIDENCE HALL 3 - HVAC AND ROOF REPLACEMENT

PC# 236-B4236-004

722 W CARY ST, RICHMOND, VA 23220

100% WORKING DRAWINGS

SHEET LIST	
SHEET NUMBER	SHEET NAME
G-001	COVER SHEET
G-002	GENERAL INFORMATION
AD101	1ST FLOOR PLAN - DEMOLITION
AD102	TYP. 2ND, 3RD, AND 4TH FLOOR PLAN - DEMOLITION
AD103	5TH FLOOR AND PARTIAL ROOF PLAN - DEMOLITION
A-101	5TH FLOOR AND ROOF PLAN - NEW WORK
A-102	1ST FLOOR RCP
A-103	TYP. 2ND - 4TH FLOOR RCP
A-104	5TH FLOOR RCP
A-401	ENLARGED ROOF PLANS - NEW WORK
A-501	ROOF AND FLASHING DETAILS
A-502	ROOF AND FLASHING DETAILS
M-001	MECHANICAL COVER SHEET
MD101	1ST FLOOR MECHANICAL DEMOLITION PLAN
MD102	2ND-4TH FLOOR MECHANICAL DEMOLITION PLAN
MD103	5TH FLOOR MECHANICAL DEMOLITION PLAN
MD401	MECHANICAL DEMOLITION PLAN - NORTH ROOF
MD402	MECHANICAL DEMOLITION PLAN - SOUTH ROOF PLAN
M-101	1ST FLOOR MECHANICAL NEW WORK PLAN
M-102	2ND-4TH FLOOR MECHANICAL NEW WORK PLAN
M-103	5TH FLOOR MECHANICAL NEW WORK PLAN
M-301	MECHANICAL ROOF SECTIONS
M-302	MECHANICAL ROOF SECTIONS
M-401	MECHANICAL ENLARGED NORTH ROOF PLAN
M-402	MECHANICAL ENLARGED SOUTH ROOF PLAN
M-501	MECHANICAL DETAILS
M-502	MECHANICAL DETAILS
M-601	MECHANICAL SCHEDULES
M-801	MECHANICAL CONTROLS
M-901	MECHANICAL 3D VIEW - NORTH ROOF
M-902	MECHANICAL 3D VIEW - SOUTH ROOF

SHEET LIST	
SHEET NUMBER	SHEET NAME
E-001	ELECTRICAL LEGEND, ABBREVIATIONS, AND NOTES
ED101	1ST FLOOR ELECTRICAL POWER PLAN - DEMOLITION
ED102	2ND-4TH FLOOR ELECTRICAL POWER PLAN - DEMOLITION
ED103	5TH FLOOR ELECTRICAL POWER PLAN - DEMOLITION
ED401	ELECTRICAL DEMOLITION PLAN - NORTH ROOF
ED402	ELECTRICAL DEMOLITION PLAN - SOUTH ROOF
E-101	1ST FLOOR ELECTRICAL POWER PLAN - NEW WORK
E-102	2ND-4TH FLOOR ELECTRICAL POWER PLAN - NEW WORK
E-103	5TH FLOOR ELECTRICAL POWER PLAN - NEW WORK
E-401	ELECTRICAL ENLARGED NORTH ROOF PLAN
E-402	ELECTRICAL ENLARGED SOUTH ROOF PLAN
E-501	ELECTRICAL DETAILS
E-502	ELECTRICAL DETAILS
E-601	ELECTRICAL PANELBOARD SCHEDULES
E-602	ELECTRICAL PANELBOARD SCHEDULES
E-603	ELECTRICAL PANELBOARD SCHEDULES
E-604	ELECTRICAL PANELBOARD SCHEDULES
E-605	ELECTRICAL PANELBOARD SCHEDULES
E-606	ELECTRICAL PANELBOARD SCHEDULES
E-801	ELECTRICAL EXISTING RISER DIAGRAM

CONTACTS

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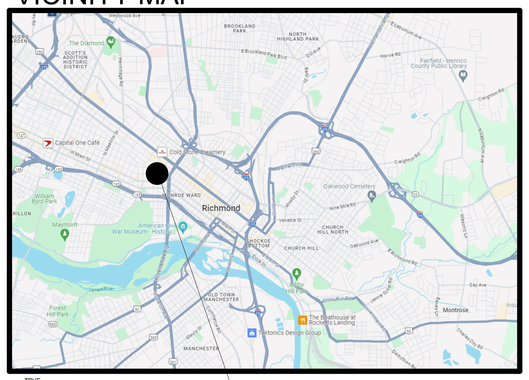
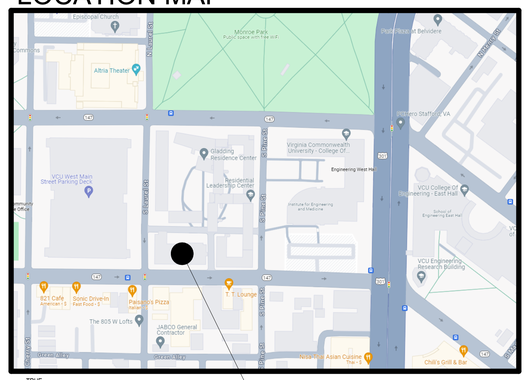
VICINITY MAP



PROJECT LOCATION
722 W CARY ST, RICHMOND, VA 23220

LOCATION MAP



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REVISIONS

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COMMONWEALTH OF VIRGINIA
JOHN C. OZMORE
Lic.No.014303
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SHEET TITLE
COVER SHEET

SHEET NUMBER
G-001

SHEET # 1 OF 51

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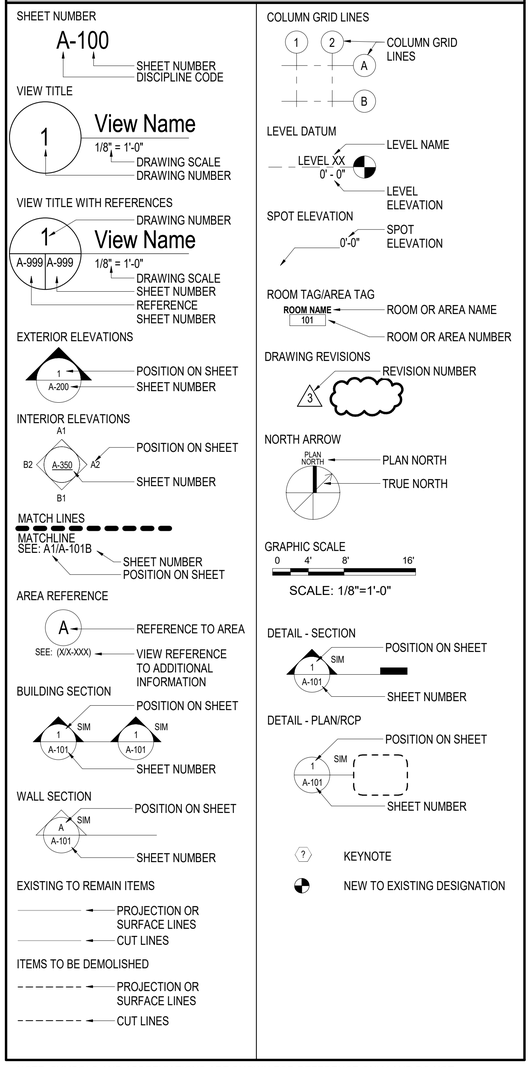
Autodesk Docs://VCU Gladding Hall Roof/2240290 - R23 - VCU GLADDING HALL ROOF - ARCH.rvt

ABBREVIATIONS

AB	ANCHOR BOLT, AUGER BORING
AC	ASBESTOS CEMENT, ACRES
A/C	ASPHALTIC CONCRETE
ACST	ACOUSTIC
ACT	ACOUSTIC CEILING TILE
AD	AREA DRAIN, ACCESS DOOR
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
AL	ALUMINUM
AM	ACOUSTIC MATERIAL
AP	ACCESS PANEL, APPROX APPROXIMATE
ARCH	ARCHITECTURAL
ASPH	ASPHALT
B	BASELINE
BD	BOARD
BEJ	BRICK EXPANSION JOINT
BEL	BELOW
BET	BETWEEN
BFG	BELOW FINISHED GRADE
BIT	BITUMINOUS
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BOT	BOTTOM
BOS	BOTTOM OF SLAB
BRG	BEARING
BS	BOTH SIDES
BSMT	BASEMENT
BUR	BUILT-UP ROOFING
BW	BOTH WAYS
C&G	CURB AND GUTTER
CAB	CABINET
CAP	CAPACITY
CEM	CEMENT
CER	CERAMIC
CF	CUBIC FOOT
CFCI	CONTRACTOR-FURNISHED CONTRACTOR INSTALLED
CG	CORNER GUARD
CJ	CONTROL JOINT
CKT	CIRCUIT
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNITS
COL	COLUMN
COMM	COMMUNICATION
CONC	CONCRETE, SEALED CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS, CONTINUE
CP	NON-REINFORCED CONCRETE PIPE
CPT	CARPET
CR	CHAIR, CRASH RAIL
CRS	COURSE(S)
CS	CONCRETE SEALER/SURFACE
CT	CERAMIC TILE, CURRENT TRANSFORMER, COOLING TOWER
D	DEPTH, DEEP, DEGREE OF CURVATURE
DEMO	DEMOLITION, DEMOLISH
DET	DETAIL
DF	DRINKING FOUNTAIN
DH	DRILL HOLE, DOUBLE HUNG
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIST	DISTANCE
DN	DOWN
DS	DOWNSPOUT, STORM DRAINAGE STRUCTURE
DWG	DRAWING
DWR	DRAWER
F	FIRE, FUSE, FILTER
FBO	FURNISHED BY OTHERS
FD	FLOOR DRAIN, FIRE DAMPER
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FIG	FIGURE
FIN	FINISH(ED)
FJ	FELT JOINT, FINGER JOINT, FLOOR JOIST
FL	FLASHING, FLOW LINE
FLR	FLOOR
FNDN	FOUNDATION
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FRT	FIRE-RETARDANT TREATED
FPH	FROST PROOF HYDRANT
FR	FRAME
FS	FULL SIZE, FLOOR SINK
FTG	FOOTING
FXTR	FIXTURE
(E)	EXISTING
E	EAST
EA	EACH
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRIC(AL)
ELEV	ELEVATOR, ELEVATION
EOS	EDGE OF SLAB
EMER	EMERGENCY
EQ	EQUAL
EQPT	EQUIPMENT
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EXP	EXPANSION, EXPOSED
EXT	EXTERIOR
G	GROUND, GAS LINE,GRAM
GALV	GALVANIZED
GC	GLAZED COATING, GENERAL CONTRACTOR
GL	GLASS, GLAZING
GR	GRADE
GFS	GROSS SQUARE FEET
GL	GLASS
GR	GRADE
GRD	GROUND
GSU	GLAZED STRUCTURAL UNIT
GW	GROUND WATER
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
H	HEIGHT
HB	HOSE BIBB
HC	HANDICAPPED, HOLLOW CORE
HDR	HEADER
HDW	HARDWARE
HM	HOLLOW METAL
HOR	HORIZONTAL
HP	HIGH POINT
HR	HOUR
ID	INSIDE DIAMETER, INSIDE DIMENSION
IE	INVERT ELEVATION
INCL	INCLUDE
INSUL	INSULATION, INSULATED
INT	INTERIOR, INTERMEDIATE
INV	INVERT
JC	JANITOR CLOSET
JCT	JUNCTION
JT	JOINT
JST	JOIST
KIT	KITCHEN
KO	KNOCK OUT
L	LOUVER, LENGTH, LENGTH OF CURVE
LAV	LAVATORY
LC	LEAD COVERED
LT	LIGHT
LTG	LIGHTING
LAV	LAVATORY VERTICAL
LVT	LUXURY VINYL TILE
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MCJ	MASONRY CONTROL JOINT
MDF	MEDIUM-DENSITY FIBERBOARD
MDO	MEDIUM-DENSITY OVERLAY
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM, MINUTE
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTL	METAL
MMP	MEMBRANE WATERPROOFING
MULL	MULLION
(N)	NEW
N	NORTH
NA	NOT APPLICABLE
NC	NON CORROSIVE
NE	NORTHEAST
NDC	NOSE DOWN CURB
NIC	NOT IN CONTRACT
NLB	NON LOAD BEARING
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
NW	NORTHWEST
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER-FURNISHED CONTRACTOR-INSTALLED
OFOI	OWNER-FURNISHED OWNER-INSTALLED
OFRD	OVERFLOW ROOF DRAIN
OH	OVERHEAD
OPNG	OPENING
OPP	OPPOSITE (HAND)
OSB	ORIENTED STRAND BOARD
QT	QUARRY TILE
Pa	PASCALES
P	PIPE, POLE, PAINT
PB	PULL BOX
PEJ	PERIMETER EXPANSION JOINT
PL	PLASTIC LAMINATE
PJF	PREFORMED JOINT FILLER
PL	PLATE, PROPERTY LINE
PLAM	PLASTIC LAMINATE
PNL	PANEL
PNT	PAINT
R	RADIUS, RISER, RUBBER SHEATH
RB	RESILIENT VINYL BASE, RUBBER BASE
RBTR	RUBBER TREAD/RISER COMBINATION
RCP	REFELECTED CEILING PLAN
RD	ROOF DRAIN
RED	REDUCING
REG	REGULATOR
REINF	REINFORCEMENT
REQ'D	REQUIRED
REV	REVISION
RM	ROOM
RO	ROUGH OPENING
RM	ROOM
RVT	RESILIENT VINYL TILE
S	SOUTH
SC	SOLID CORE
SCH	SCHEDULE
SDT	STATIC DISSIPATIVE TILE
SE	SOUTHEAST
SF	SQUARE FOOT
SH	SHELF, SHELVING
SHT	SHEET
SIM	SIMILAR
SL	SLOPE
SPEC	SPECIFICATION
SQ	SQUARE
SS	SOLID SURFACING, STAINLESS STEEL
ST	STREET
STD	STANDARD
STL	STEEL
STR	STRUCTURAL
SUP	SUPPORT
SUSP	SUSPENDED
SV	SHEET VINYL
THRSLD	THRESHOLD
TO	TOP OF
TOF	TOP OF FOOTING
TOS	TOP OF SLAB
TOW	TOP OF WALL
TS	TOP OF STEEL
TV	TELEVISION
TW	TOP OF WALL
TYP	TYPICAL
UCR	UNDER COUNTER REFRIGERATOR
UH	UNIT HEATER
UNO	UNLESS NOTED OTHERWISE
VAC	VACUUM
VASB	VINYL ASBESTOS
VB	VAPOR BARRIER
VC	VARNISH CAMBRIC, VITRIFIED CLAY
VCT	VINYL COMPOSITION TILE
VDOT	VIRGINIA DEPARTMENT OF TRANSPORTATION
VENT	VENTILATING
VERT	VERTICAL
VEST	VESTIBULE
VS	VENT STACK
VTR	VENT THRU ROOF
VWC	VINYL WALL COVERING
W	WIDTH
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD
WH	WATER HEATER
WM	WATER METER
WO	WHERE OCCURS
WOM	WALK OFF MATT
WP	WATERPROOF, WEATHERPROOF
WT	WEIGHT
WWF	WELDED WIRE FABRIC
Ø	DIAMETER

GENERAL SYMBOL LEGEND



NOTE: SYMBOLS AND ABBREVIATIONS ARE SHOWN FOR REFERENCE ONLY AND DO NOT CONSTITUTE A CHECK LIST REQUIRED BY THE CONTRACT

IMPORTANT: THE EXISTING FLOOR AND ROOF DECK IS HOLLOW CORE PLANK CONSTRUCTION. NO NEW PENETRATIONS MAY BE CREATED WITHOUT THE LOCATION AND SIZE BEING REVIEWED AND APPROVED BY THE A/E OF RECORD.

THE SCHEDULED EQUIPMENT IS INTENDED ONLY TO SHOW THE GENERAL SIZE, CONFIGURATION, LOCATION, CONNECTIONS AND/OR SUPPORT FOR EQUIPMENT OR SYSTEMS SPECIFIED WITH RELATION TO THE OTHER BUILDING SYSTEMS. SEE SPECIFICATIONS FOR TECHNICAL REQUIREMENTS PERTAINING TO THE PRODUCT.

PROJECT SUMMARY

HVAC AND LIMITED LOW-SLOPE ROOF REPLACEMENT WITHIN THE EXISTING 5-STORY DORMITORY. THE HVAC EQUIPMENT WILL BE A ONE FOR ONE REPLACEMENT TO BE IN ACCORDANCE WITH THE VIRGINIA EXISTING BUILDING CODE AS A LEVEL 1 ALTERATION. LEVEL 2 ALTERATIONS INCLUDE THE ADDITION OF HVAC UNITS IN THE CORRIDOR. THE EXISTING EPDM ROOF SYSTEM WILL BE COMPLETELY REMOVED DOWN TO THE EXISTING CONCRETE ROOF DECK AND REPLACED WITH A FULLY ADHERED PVC 60-MIL MEMBRANE, 1/2" COVERBOARD, AND POLY-ISO RIGID INSULATION WITH A THICKNESS TO OBTAIN AN AVERAGE R-VALUE OF 30. THE METAL COPING, PIPING ENCLOSURES, ROOF DRAINS, OVERFLOW SCUPPERS, AND ALL FLASHING SHALL BE REMOVED AND REPLACED. NEW SAFETY GUARDRAILS FOR FALL PROTECTION SHALL BE INSTALLED WITH THIS PROJECT.

TOTAL ROOF AREA:	2,544 SQ. FT.	TOTAL BUILDING AREA:	53,005 SQ. FT.
WIND SPEED:	115 MPH		
EXPOSURE CATEGORY:	B		
RISK CATEGORY:	II		
ROOF LIVE LOAD:	20 PSF		
GROUND SNOW LOAD:	20 PSF		
CONSTRUCTION TYPE:	2-B (EXISTING NOT BEING ALTERED)		
OCCUPANCY GROUPS:	R-2 DORMITORY (EXISTING NOT BEING ALTERED)		
FULLY SUPPRESSED:	YES		

APPLICABLE BUILDING CODES AND REGULATIONS

THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS AND BUILDING CODES GOVERNING THIS PROJECT. SUCH COMPLIANCE SHALL INCLUDE, BUT NOT BE LIMITED TO, THE LATEST ADOPTED VERSIONS OF:

2024 CONSTRUCTION AND PROFESSIONAL SERVICES MANUAL (CPSM), REV (0)
2021 VIRGINIA UNIFORM STATEWIDE BUILDING CODE, PART I, VIRGINIA CONSTRUCTION CODE (VCC)
2021 VIRGINIA UNIFORM STATEWIDE BUILDING CODE, PART II, EXISTING BUILDINGS (VEBC)
2021 VIRGINIA MECHANICAL CODE
2021 VIRGINIA PLUMBING CODE
2023 NATIONAL ELECTRICAL CODE (NFPA 70)
2010 ADA STANDARDS FOR ACCESSIBLE DESIGN (ASAD)

WHERE LAWS AND CODES ARE IN DIRECT CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL PREVAIL.

IN ACCORD WITH THE HIGH PERFORMANCE BUILDINGS ACT, THE BUILDING IS EXEMPT FROM COMPLIANCE BECAUSE THE COST OF THE RENOVATIONS DOES NOT EXCEED 50% OF THE VALUE OF THE BUILDING.

IN ACCORDANCE WITH THE VIRGINIA ENERGY CONSERVATION CODE (VECC), THE BUILDING SHALL COMPLY WITH ASHRAE 90.1-2016 SECTIONS 5, 6, 7, 8, 9, & 10.
a. SECTION 5 BUILDING ENVELOPE COMPLIANCE WILL BE VIA SECTION 5.5 - PRESCRIPTIVE BUILDING ENVELOPE OPTION.
b. SECTION 6 HVAC COMPLIANCE WILL BE VIA SECTION 6.4 - MANADATORY PROVISIONS AND 6.5 - PRESCRIPTIVE PATH.
c. SECTION 9 LIGHTING COMPLIANCE IS NOT APPLICABLE AS THE EXISTING LIGHTING IS NOT PART OF THIS PROJECT.

THE BUILDING WILL BE UNOCCUPIED DURING THE CONSTRUCTION OF THIS PROJECT.

VIRGINIA EXISTING BUILDING CODE (VEBC) COMPLIANCE PATH:

LEVEL 1 ALTERATION FOR REPLACING THE ROOF, FIRE DOORS, AND EXISTING HVAC EQUIPMENT.
LEVEL 2 ALTERATION FOR INSTALLATION OF ADDITIONAL HVAC UNITS, ADDITIONAL HVAC UNIT IN CORRIDORS AND THEIR ASSOCIATED CONDENSING UNITS.

ASBESTOS AND LEAD MATERIALS DISCLOSURE STATEMENTS:

AN ASBESTOS INSPECTION WAS NOT PERFORMED BECAUSE ALL PORTIONS OF THE EXISTING BUILDING THAT MAY BE AFFECTED BY THE WORK WERE ORIGINALLY CONSTRUCTED AFTER JANUARY 1, 1985.

AN INSPECTION TO IDENTIFY LEAD CONTAINING OR COATED BUILDING COMPONENTS HAS NOT BEEN CONDUCTED BECAUSE THE BUILDING WAS CONSTRUCTED AFTER JANUARY 1, 1985 AND THE OWNER HAS NO KNOWLEDGE OF LEAD CONTAINING OR COATED BUILDING COMPONENTS IN THE BUILDING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL VIRGINIA OCCUPATIONAL SAFETY AND HEALTH (VOSH) REGULATIONS AS THEY PERTAIN TO EMPLOYEE EXPOSURES TO LEAD. ALL LEAD AND LEAD-COATED BUILDING COMPONENTS SHALL BE RECYCLED TO THE EXTENT POSSIBLE.

GENERAL NOTES

1. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS IN FIELD PRIOR TO STARTING DEMOLITION.
2. DEMOLITION INDICATED ON THE DRAWINGS IS CONCEPTUAL AND NOT INTENDED TO CONVEY FULL EXTENT. DEMOLISH EXISTING CONSTRUCTION WITHIN DEMOLITION LIMITS TO FULL EXTENT, TO FULLY ACCEPT NEW WORK WITH CLEAN, FLUSH, AND NEAT TRANSITIONS. PATCH EXISTING WORK TO PRODUCE FLUSH AND SMOOTH SURFACES SUCH THAT OLD AND NEW CONSTRUCTION IS INDISTINGUISHABLE.
3. CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER IF, AFTER DEMOLITION, HE FINDS CONDITIONS WHICH MAY BE DAMAGED OR CODE DEVIANT. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN FIELD PRIOR TO CONSTRUCTION. VARIANCES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER IN WRITING PRIOR TO COMMENCING WORK OR ORDERING MATERIALS FOR THAT AREA.
4. CARE SHALL BE EXERCISED DURING DEMOLITION, REMOVAL AND NEW CONSTRUCTION WORK TO PROTECT EXISTING AREAS NOT IN CONTRACT BUT ADJACENT TO WORK.
5. THE ARCHITECT/ENGINEER RESERVES THE RIGHT TO EXAMINE ANY WORK PERFORMED ON THIS PROJECT AT ANY TIME TO DETERMINE THE CONFORMANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AS INTENDED AND INTERPRETED BY THE ARCHITECT/ENGINEER. THE OWNER WILL HIRE AN INDEPENDENT, FULL-TIME INSPECTOR TO BE ON SITE BEGINNING AT THE POINT JUST PRIOR TO ROOF SYSTEM APPLICATION. THE INSPECTOR WILL PREPARE DAILY FIELD REPORTS AND DISTRIBUTE TO THE CONTRACTOR, OWNER, AND ARCHITECT/ENGINEER.
6. WHERE DISSIMILAR METALS ARE IN DIRECT PHYSICAL CONTACT, PROVIDE ADEQUATE SEPARATION TO PREVENT GALVANIC ACTION.
7. PROVIDE 4'-0" x 4'-0" x 1/2" DEEP SUMP, SLOPED TO DRAIN, TYP @ PRIMARY ROOF DRAINS.
8. REMOVE (E) ROOF SYSTEMS AND INSULATION, COMPLETE, DOWN TO THE (E) CONCRETE ROOF DECKS. INSPECT CONCRETE DECKS FOR DAMAGE/DETERIORATION.
9. THE CONTRACTOR SHALL VERIFY THAT ALL (E) PRIMARY ROOF DRAIN PIPING FLOWS FREELY AND, IF (E) PIPING IS FOUND TO BE CLOGGED OR SLOW RUNNING, THE CONTRACTOR SHALL CLEAR ALL DRAIN PIPE DEBRIS.
10. ALL VALLEYS SHALL HAVE A MINIMUM SLOPE OF 1/4" PER FOOT, TYPICAL.
11. CONTRACTOR TO COORDINATE MATERIALS LAY-DOWN AREA WITH OWNER.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING AREAS OF THE SITE TO THEIR ORIGINAL CONDITION THAT ARE DISTURBED DURING THE PERFORMANCE OF THE WORK. TURF SHALL BE RE-GRADED WITH NEW TOPSOIL, SEEDED, AND COVERED WITH STRAW.
13. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN SAFE BUILDING EGRESS INCLUDING MEANS OF EGRESS, EXITS, AND EXIT DISCHARGE DURING THE PERFORMANCE OF THIS PROJECT. CONTRACTOR'S PERSONNEL, MATERIALS, AND EQUIPMENT SHALL NOT IMPEDE EGRESS. PROVIDE OVERHEAD PROTECTION WHEN WORK IS PERFORMED OVER OR DIRECTLY ADJACENT TO A FUNCTIONING BUILDING ENTRANCE/EXIT. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE, BUT IS NOT LIMITED TO, EMERGENCY EGRESS SIGNAGE, FLAGGING, SAFETY BARRIERS, AND OVERHEAD PROTECTION TO MAINTAIN SAFE OPERATION FOR THE BUILDING'S OCCUPANTS DURING CONSTRUCTION ACTIVITIES.
14. WHEN CEILINGS ARE REMOVED, THE CONTRACTOR SHALL TURN THE SPRINKLER HEADS UP UNTIL THE CEILINGS ARE REINSTALLED.

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COMMONWEALTH OF VIRGINIA
JOHN C. OZMORE
Lic.No.014303
ARCHITECT

SHEET TITLE
GENERAL INFORMATION

SHEET NUMBER
G-002

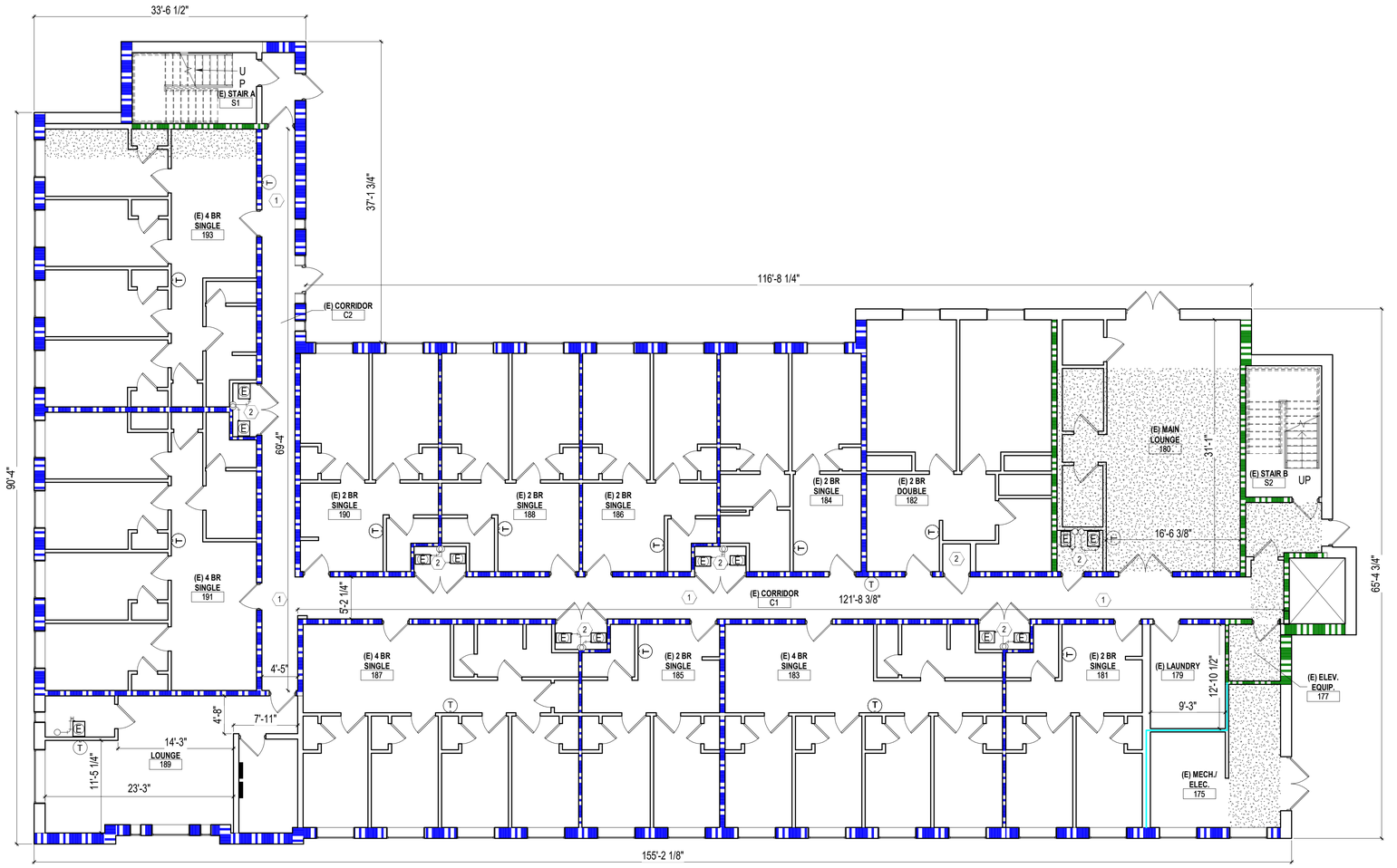
SHEET # 2 OF 51

DEMOLITION KEYNOTE LEGEND

KEYNOTE	DESCRIPTION
1	REMOVE (E) SUSPENDED ACOUSTICAL TILE CEILINGS IN CORRIDORS AND STORE FOR REINSTALLATION. WHEN CEILINGS ARE REMOVED, TURN UP SPRINKLER HEADS UNTIL CEILING IS REINSTALLED. TURN SPRINKLER HEADS BACK DOWN ONCE CEILINGS ARE REINSTALLED
2	DEMO (E) DOOR AND HARDWARE, COMPLETE. PREPARE FRAME FOR NEW DOOR AND HARDWARE

FIRE RATING LEGEND

- SMOKE PARTITION
- 1 HOUR FIRE RATED WALL
- 2 HOUR FIRE RATED WALL
- 2 HOUR RATED FLOOR-CEILING



1 AD101 | AD101 FIRST FLOOR PLAN - DEMOLITION

1/8" = 1'-0"

0 4' 8' 16'

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

PLAN NORTH

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COMMONWEALTH OF VIRGINIA
JOHN C. OZMORE
Lic.No. 014303
ARCHITECT

SHEET TITLE
1ST FLOOR PLAN - DEMOLITION

SHEET NUMBER
AD101

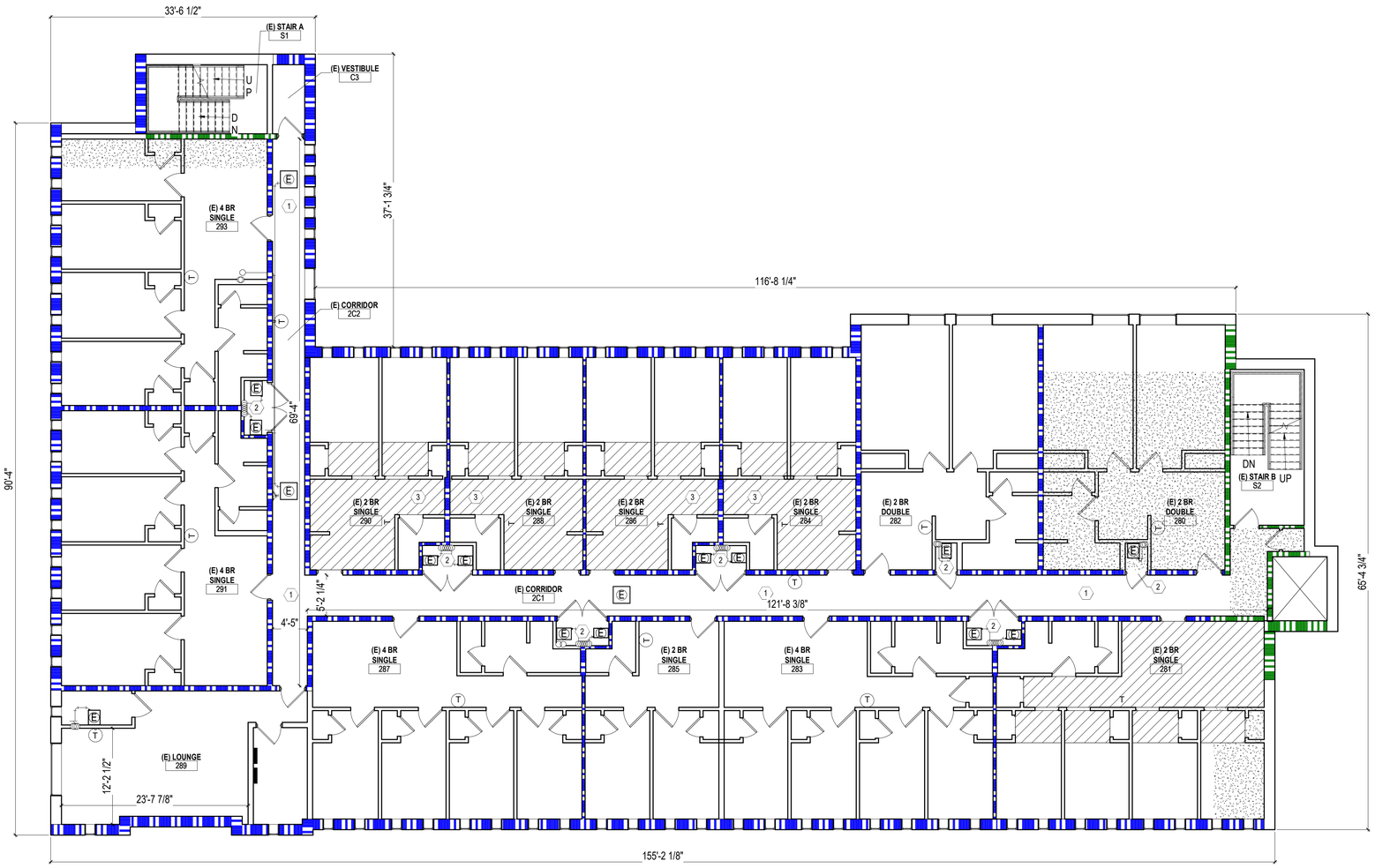
SHEET # 3 OF 51

DEMOLITION KEYNOTE LEGEND

KEYNOTE	DESCRIPTION
1	REMOVE (E) SUSPENDED ACOUSTICAL TILE CEILINGS IN CORRIDORS AND STORE FOR REINSTALLATION. WHEN CEILINGS ARE REMOVED, TURN UP SPRINKLER HEADS UNTIL CEILING IS REINSTALLED. TURN SPRINKLER HEADS BACK DOWN ONCE CEILINGS ARE REINSTALLED
2	DEMO (E) DOOR AND HARDWARE, COMPLETE. PREPARE FRAME FOR NEW DOOR AND HARDWARE
3	DEMO (E) GYPSUM WALL BOARD CEILING, 4TH FLOOR ONLY, TO ACCESS PIPING AND MECHANICAL EQUIPMENT ABOVE

FIRE RATING LEGEND

- SMOKE PARTITION
- 1 HOUR FIRE RATED WALL
- 2 HOUR FIRE RATED WALL
- 2 HOUR RATED FLOOR-CEILING



1 / AD102 | AD102

TYPICAL 2ND, 3RD, AND 4TH FLOOR PLAN - DEMOLITION

1/8" = 1'-0"

0 4' 8' 16'

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

PLAN NORTH

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GLADDING RESIDENCE HALL 3 - HVAC AND ROOF REPLACEMENT

PC# 236-B4236-004

722 W CARY ST, RICHMOND, VA 23220

REVISIONS

#	DATE	DESCRIPTION

COMMISSION NUMBER
2240290

SCALE:	1/8" = 1'-0"
DESIGNED:	JCO
DRAWN:	MAL
CHECKED:	DFB
DATE:	6/3/2024

COMMONWEALTH OF VIRGINIA
JOHN C. OZMORE
Lic.No.014303
ARCHITECT

SHEET TITLE
TYP. 2ND, 3RD, AND 4TH FLOOR PLAN - DEMOLITION

SHEET NUMBER
AD102

SHEET # 4 OF 51

6/3/2024 4:42:16 PM
Autodesk Docs://VCU Gladding Hall Roof/2240290 - R23 - VCU GLADDING HALL ROOF - ARCH.rvt

DEMOLITION KEYNOTE LEGEND

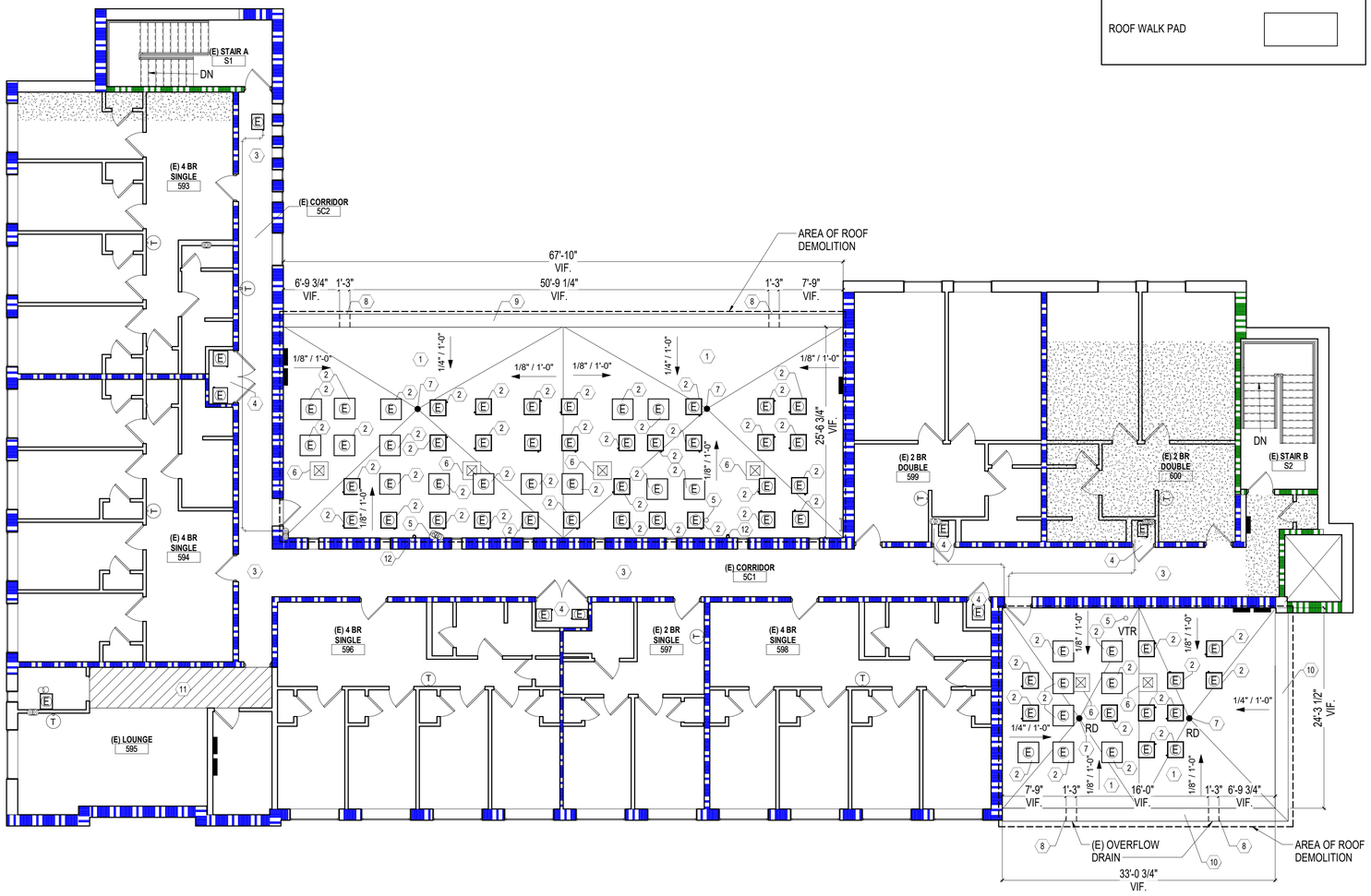
KEYNOTE	DESCRIPTION
1	DEMO (E) MEMBRANE ROOF SYSTEM DOWN TO (E) CONCRETE DECKING COMPLETE. PATCH AND REPAIR (E) CONCRETE DECKING WHERE DAMAGED, PREPARE SURFACE FOR NEW ROOF SYSTEM
2	REMOVE (E) CONCRETE EQUIPMENT PAD COMPLETE
3	REMOVE (E) SUSPENDED ACOUSTICAL TILE CEILINGS IN CORRIDORS AND STORE FOR REINSTALLATION. WHEN CEILINGS ARE REMOVED, TURN UP SPRINKLER HEADS UNTIL CEILING IS REINSTALLED. TURN SPRINKLER HEADS BACK DOWN ONCE CEILINGS ARE REINSTALLED
4	DEMO (E) DOOR AND HARDWARE, COMPLETE. PREPARE FRAME FOR NEW DOOR AND HARDWARE
5	PREPARE (E) PIPE VENT FOR NEW ROOF FLASHING
6	DEMO (E) PIPING ENCLOSURE, COMPLETE
7	DEMO (E) ROOF DRAIN, PREPARE PIPING AND ROOF DECK FOR NEW DRAIN
8	DEMO (E) ROOF SCUPPER, COMPLETE, PREPARE PARAPET FOR NEW SCUPPER
9	DEMO (E) COPING CAP, COMPLETE, PREPARE PARAPET FOR NEW COPING CAP
10	(E) STONE COPING CAP TO REMAIN AS AT PRESENT, REMOVE ALL CAULK AT ALL JOINTS AND PREPARE FOR RESEALING
11	
12	REMOVE (E) DOWNSPOUT, STORE FOR REUSE, TYP. OF 2

FIRE RATING LEGEND

- SMOKE PARTITION
- 1 HOUR FIRE RATED WALL
- 2 HOUR FIRE RATED WALL
- 2 HOUR RATED FLOOR-CEILING

ROOF LEGEND

- TOTAL THICKNESS OF ROOF INSULATION — +X"
- VENT THROUGH ROOF — VTR
- DIRECTION OF ROOF SLOPE
- ROOF CRICKET SLOPE (1/4" PER FOOT UNO.)
- ROOF DRAIN — RD
- ROOF WALK PAD



1 AD103 | AD103

5TH FLOOR AND PARTIAL ROOF PLAN - DEMOLITION

1/8" = 1'-0"

0 4' 8' 16'

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

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COMMONWEALTH OF VIRGINIA
JOHN C. OZMORE
Lic.No. 014303
ARCHITECT

SHEET TITLE
5TH FLOOR AND PARTIAL ROOF PLAN - DEMOLITION

SHEET NUMBER
AD103

SHEET # 5 OF 51

GENERAL NOTES:

1. WORK PERFORMED SHALL COMPLY WITH THE FOLLOWING:
   A. THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE (VUSBC); 2021 EDITION
   B. VIRGINIA EXISTING BUILDING CODE 2021
   C. THE INTERNATIONAL BUILDING CODE (IBC); 2021 EDITION AS AMENDED BY THE VUSBC.
   D. ALL APPLICABLE STATE AND LOCAL CODES, ORDINANCES AND REGULATIONS

2. DESIGN LOADS:
   A. BUILDING RISK CATEGORY_____II
   B. GROUND SNOW, Pg_____20 PSF
      FLAT ROOF SNOW LOAD, Pf.....12.6 PSF
      SNOW EXPOSURE FACTOR, Ce.....0.9
      SNOW THERMAL FACTOR, Ct.....1.0
      SNOW IMPORTANCE FACTOR, I.....1.0
   C. ULTIMATE DESIGN WIND SPEED_____115 MPH
      EXPOSURE.....B
   D. LIVE LOADS:

	UNIFORM	CONCENTRATED
ROOF	20PSF	-
HANDRAILS AND GUARDRAILS	50PLF	200LBS

3. THE CONTRACTOR SHALL VERIFY DIMENSIONS IN FIELD PRIOR TO FABRICATION OF MEMBERS AND COMMENCING WORK.

4. FOR SHOP DRAWING & PRODUCT SUBMITTALS, CONTRACTOR SHALL SUBMIT ONE (1) ELECTRONIC (PDF) SET OF SHOP DRAWINGS & PRODUCT SUBMITTALS. REPRODUCTIONS OR CONTRACT DOCUMENTS ARE NOT TO BE SUBMITTED AS SHOP DRAWINGS.

5. THE CONTRACTOR SHALL PROTECT EXISTING STRUCTURES, EQUIPMENT, ADJACENT GROUNDS AND PLANTS DURING ALL PHASES OF CONTRUCTION. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE, AT NO ADDITIONAL COSTS TO THE OWNER, ANY ITEMS DAMAGED DURING CONSTRUCTION.

DEMOLITION:

6. IN GENERAL SELECTIVE STRUCTURAL DEMOLITION IS TO BE PERFORMED WITH PHYSICAL CUTTING ACTION (I.E. SAWING AND GRINDING INSTEAD OF HAMMERING AND CHOPPING). DO NOT USE JACKHAMMERS ON STRUCTURALLY SUPPORTED MEMBERS.

7. CONTRACTOR SHALL VERIFY THAT EXISTING CONSTRUCTION CORRESPONDS TO THAT SHOWN ON THE DRAWINGS. DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER.

STRUCTURAL STEEL:

8. ALL STRUCTURAL STEEL FRAMING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF A.I.S.C. " MANUAL OF STEEL CONSTRUCTION". ALL STRUCTURAL STEEL PIPES SHALL BE ASTM A53. ALL STUCTURAL STEEL PLATE SHALL BE ASTM A36. ALL STAINLESS STEEL SHALL BE GRADE 316.

9. ALL STRUCTURAL STEEL SHOP WORK TO BE WELDED WITH E70XXX ELECTRODES. UNLESS NOTED OTHERWISE, FIELD WORK CONNECTIONS TO BE BOLTED WITH 3/4" HIGH STRENGTH A325X BOLTS OR WELDED WITH E70XXX ELECTRODES. PRE-DRILL HOLES IN STEEL MEMBERS AS REQUIRED FOR FASTENING, BLOCKING, ETC.

MISCELLANEOUS NOTES

10. INSTALLATION OF POST INSTALLED ANCHORS INCLUDING BUT NOT LIMITED TO ADHESIVE ANCHORS, EXPANSION ANCHORS, AND LOW VELOCITY FASTENERS SHALL FOLLOW ALL MANUFACTURER REQUIREMENTS LISTED IN THE ASSOCIATED CODE EVALUATION REPORTS INCLUDING INSTALLATION INSPECTION REQUIREMENTS.

NEW WORK KEYNOTE LEGEND

KEYNOTE	DESCRIPTION
1	(E) LADDER TO REMAIN. CUT BOTTOM OF LADDER TO 4" ABOVE FINISHED ROOF SYSTEM, GRIND SMOOTH, PRIME AND PAINT
2	(E) ELECTRICAL PANEL TO REMAIN AS AT PRESENT
3	PROVIDE NEW 20-MIN. FIRE RATED DOOR AND HARDWARE, SEE SPECS.
4	MECHANICAL ROOFTOP UNITS MECHANICALLY FASTENED TO METAIL SUPPORT RAIL SYSTEM, REFER TO DETAILS, AND MECHANCIAL DRAWINGS FOR ADDITIONAL INFORMATION, TYP.
5	MECHANICAL ROOFTOP UNIT PIPING, REFER TO MECHANCIAL DRAWIGNS FOR ADDITIONAL INFORMATION AND COORDINATION, TYP.
6	MECHANICAL ROOFTOP UNITS, WALL MOUNTED, REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION, TYP.
7	RE-INSTALL (E) DOWNSPOUT, MODIFY LENGTH TO ACCOMMODATE ROOF HEIGHT. PROVIDE PVC ROOF WALKPAD AT DISCHARGE. DIRECT DISCHARGE FLOW TOWARDS ROOF DRAINS

ROOF LEGEND

TOTAL THICKNESS OF ROOF INSULATION — +X"
VENT THROUGH ROOF — VTR
DIRECTION OF ROOF SLOPE
ROOF CRICKET SLOPE (1/4" PER FOOT UNO.)
ROOF DRAIN — RD
ROOF WALK PAD

FIRE RATING LEGEND

SMOKE PARTITION
1 HOUR FIRE RATED WALL
2 HOUR FIRE RATED WALL
2 HOUR RATED FLOOR-CEILING

ROOF AREA TABLE

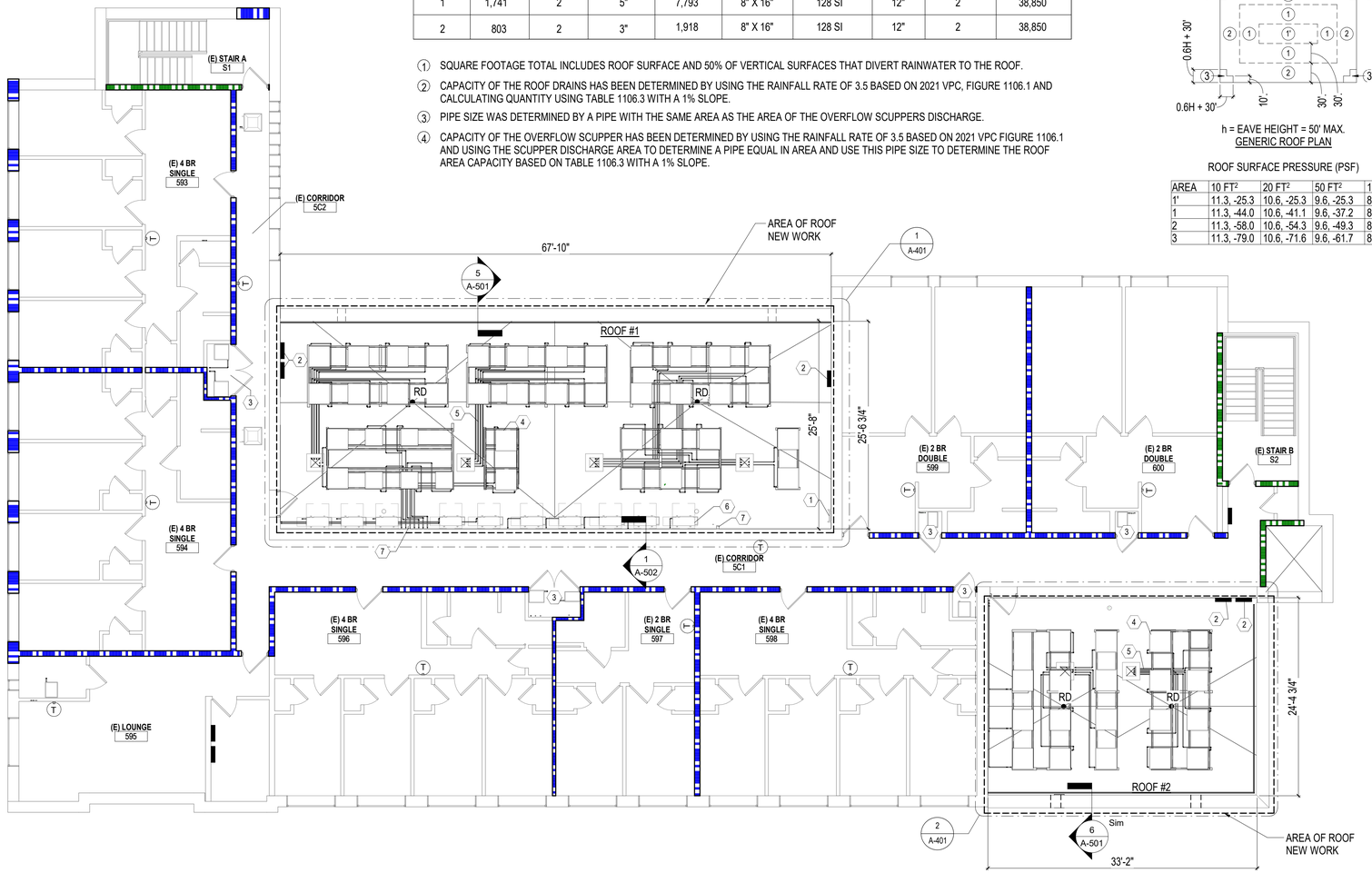
#	SF OF ROOF SURFACE (1)	NUMBER OF ROOF DRAINS	DIAMETER OF (E) ROOF DRAIN	SF CAPACITY OF ROOF DRAIN (2)	EXISTING SIZE OF OVERFLOW SCUPPERS	AREA OF SCUPPER DISCHARGE	EQUAL ROUND PIPE SIZE (3)	# OF OVERFLOW SCUPPERS	SF CAPACITY OF OVERFLOW (4)
1	1,741	2	5"	7,793	8" X 16"	128 SI	12"	2	38,850
2	803	2	3"	1,918	8" X 16"	128 SI	12"	2	38,850

(1) SQUARE FOOTAGE TOTAL INCLUDES ROOF SURFACE AND 50% OF VERTICAL SURFACES THAT DIVERT RAINWATER TO THE ROOF.

(2) CAPACITY OF THE ROOF DRAINS HAS BEEN DETERMINED BY USING THE RAINFALL RATE OF 3.5 BASED ON 2021 VPC, FIGURE 1106.1 AND CALCULATING QUANTITY USING TABLE 1106.3 WITH A 1% SLOPE.

(3) PIPE SIZE WAS DETERMINED BY A PIPE WITH THE SAME AREA AS THE AREA OF THE OVERFLOW SCUPPERS DISCHARGE.

(4) CAPACITY OF THE OVERFLOW SCUPPER HAS BEEN DETERMINE BY USING THE RAINFALL RATE OF 3.5 BASED ON 2021 VPC FIGURE 1106.1 AND USING THE SCUPPER DISCHARGE AREA TO DETERMINE A PIPE EQUAL IN AREA AND USE THIS PIPE SIZE TO DETERMINE THE ROOF AREA CAPACITY BASED ON TABLE 1106.3 WITH A 1% SLOPE.



1 / A-101 | A-101 — 5TH FLOOR AND ROOF PLAN - NEW WORK

1/8" = 1'-0"

WIND PRESSURES - COMPONENTS & CLADDING - FLAT ROOF (<7 DEG.)

h = EAVE HEIGHT = 50' MAX.
GENERIC ROOF PLAN

ROOF SURFACE PRESSURE (PSF)

AREA	10 FT²	20 FT²	50 FT²	100 FT²
1'	11.3, -25.3	10.6, -25.3	9.6, -25.3	8.9, -25.3
1	11.3, -44.0	10.6, -41.1	9.6, -37.2	8.9, -34.3
2	11.3, -58.0	10.6, -54.3	9.6, -49.3	8.9, -45.6
3	11.3, -79.0	10.6, -71.6	9.6, -61.7	8.9, -54.3

0 4' 8' 16'
SCALE: 1/8"=1'-0"

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COMMONWEALTH OF VIRGINIA
JOHN C. OZMORE
Lic.No.014303
ARCHITECT

SHEET TITLE
5TH FLOOR AND ROOF PLAN - NEW WORK

SHEET NUMBER
A-101

SHEET # 6 OF 51

6/3/2024 4:42:25 PM
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RCP LEGEND

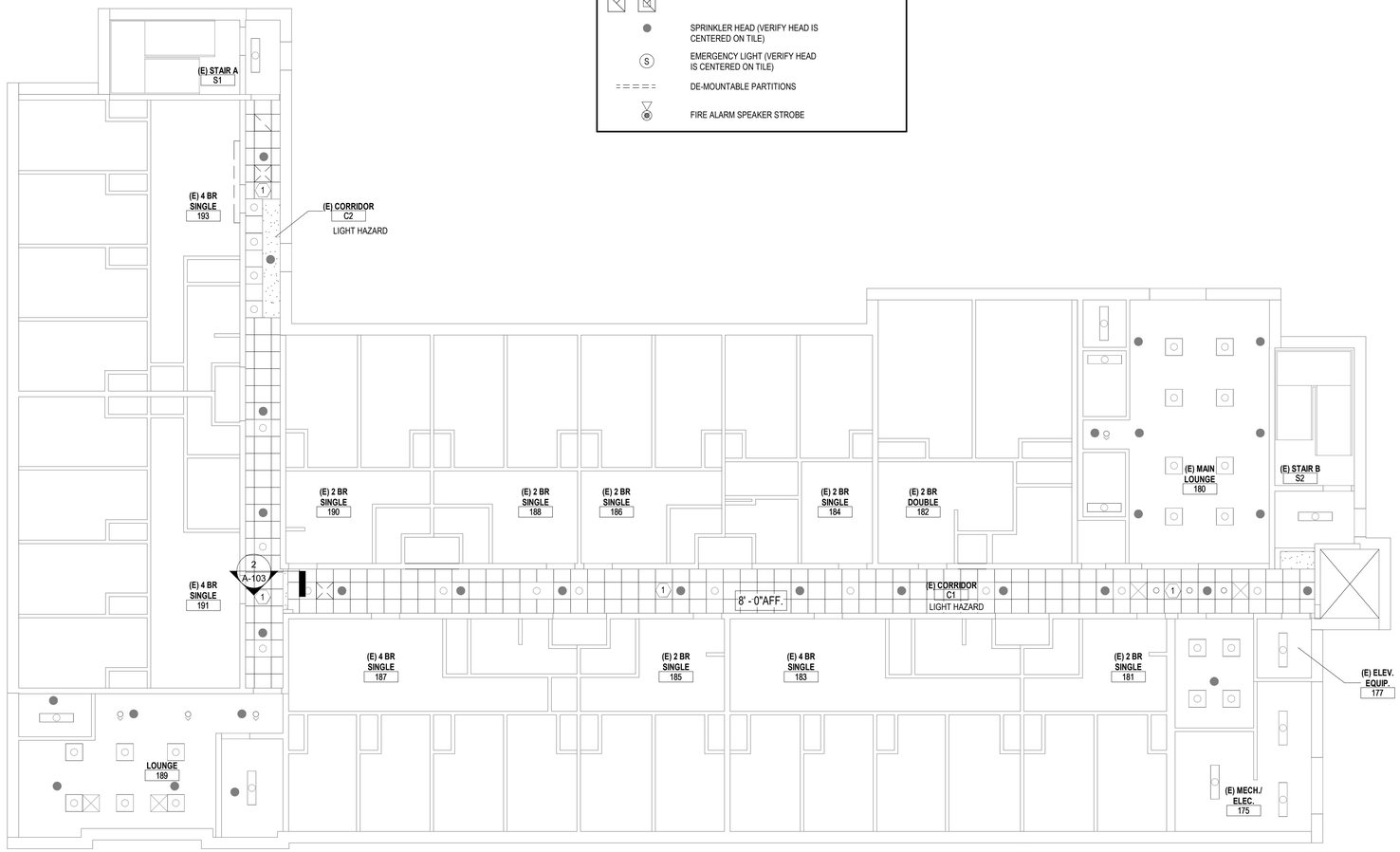
	2'X2' SUSPENDED ACOUSTICAL TILE CEILING, SEE DETAIL 3/A-104. CEILINGS TO BE REINSTALLED AT EXISTING HEIGHTS.
	SUSPENDED GYPSUM WALLBOARD CEILING, SEE DETAIL 2/A-104. CEILINGS TO BE REINSTALLED AT EXISTING HEIGHTS. PAINT GWB CEILINGS AND BULKHEADS.
	RECESSED OR SUSPENDED LIGHT FIXTURES, SEE ELEC DRAWINGS
	EXIT LIGHTS
?	SMOKE DETECTOR, SEE ELEC DWGS (VERIFY HEAD IS CENTERED ON TILE)
E	EMERGENCY LIGHT
OS	OCCUPANCY SENSOR (VERIFY HEAD IS CENTERED ON TILE)
	HVAC AIR TERMINALS, SEE MECH DWGS
	SPRINKLER HEAD (VERIFY HEAD IS CENTERED ON TILE)
S	EMERGENCY LIGHT (VERIFY HEAD IS CENTERED ON TILE)
	DE-MOUNTABLE PARTITIONS
	FIRE ALARM SPEAKER STROBE

RCP KEYNOTE LEGEND

KEYNOTE	DESCRIPTION
1	REMOVE, STORE, AND REINSTALL ACOUSTIC CEILING TILE AND GRID AS NECESSARY TO FACILITATE MECHANICAL AND ELECTRICAL INSTALLATION. WHEN CEILINGS ARE REMOVED, TURN UP SPRINKLER HEADS UNTIL CEILING IS REINSTALLED. TURN SPRINKLER HEADS BACK DOWN ONCE CEILINGS ARE REINSTALLED

RCP GENERAL NOTES

1. CEILINGS TO BE REINSTALLED AT EXISTING HEIGHTS.



1 / A-102 | A-102 FIRST FLOOR RCP

1/8" = 1'-0"

0 4' 8' 16'

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

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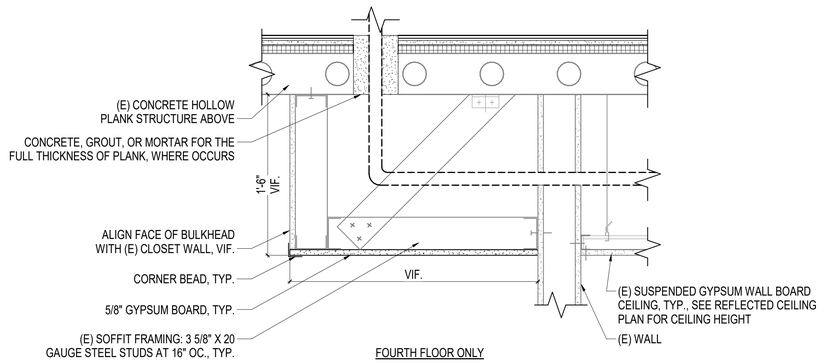
COMMONWEALTH OF VIRGINIA
JOHN C. OZMORE
Lic.No.014303
ARCHITECT

SHEET TITLE
1ST FLOOR RCP

SHEET NUMBER
A-102

SHEET # 7 OF 51

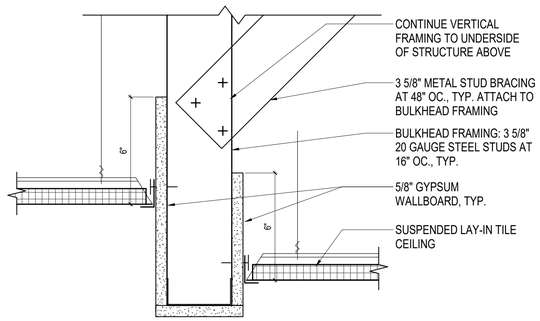


FOURTH FLOOR ONLY

3 SOFFIT DETAIL FOR PIPING

A-103 | A-103

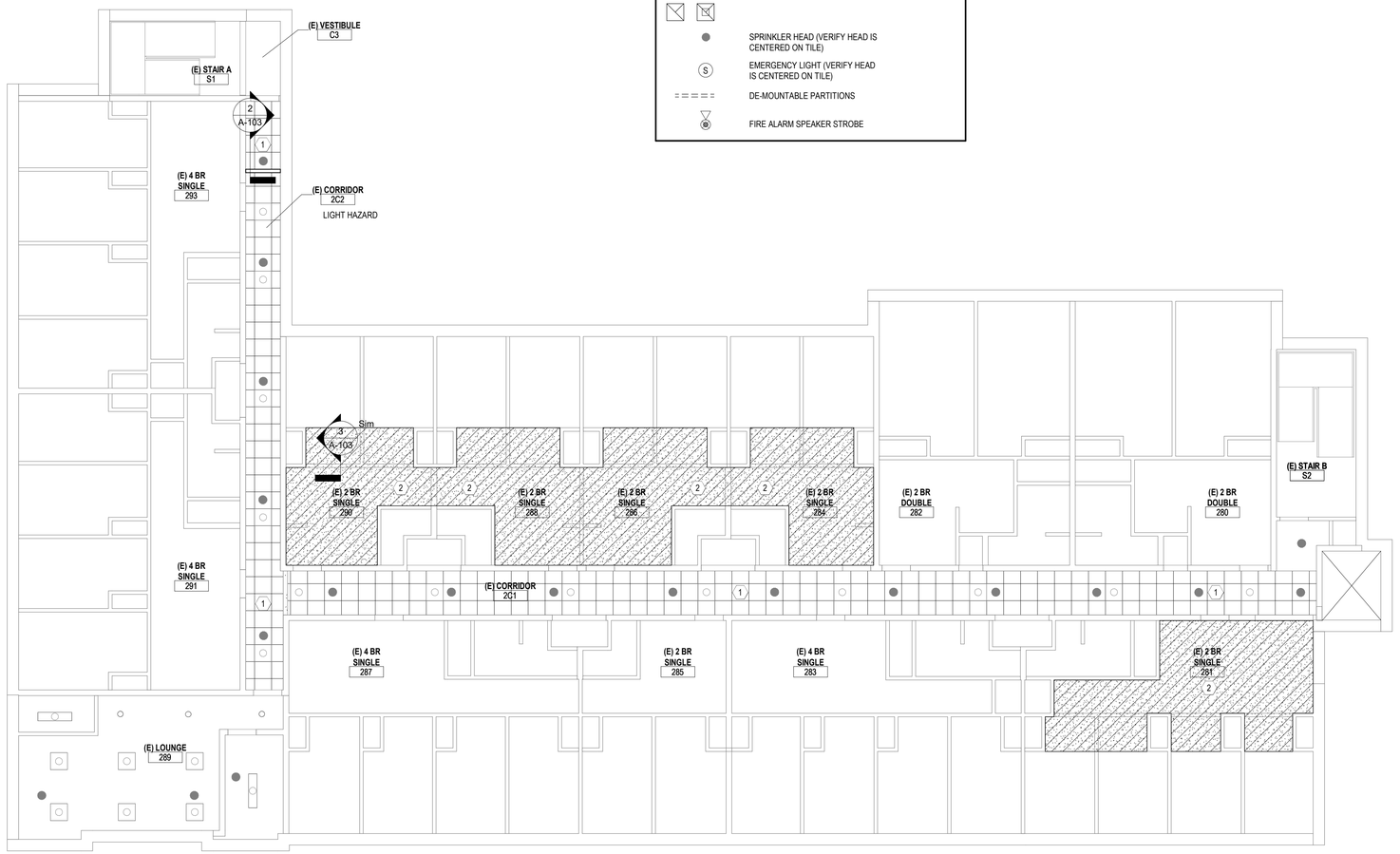
1 1/2" = 1'-0"



2 BULKHEAD DETAIL AT UNEQUAL HEIGHT CEILINGS

A-102 | A-103

3" = 1'-0"



1 TYP. 2ND THROUGH 4TH FLOOR RCP

A-103 | A-103

1/8" = 1'-0"

RCP LEGEND

- 2'X2' SUSPENDED ACOUSTICAL TILE CEILING, SEE DETAIL 3/A-104. CEILINGS TO BE REINSTALLED AT EXISTING HEIGHTS.
- SUSPENDED GYPSUM WALLBOARD CEILING, SEE DETAIL 2/A-104. CEILINGS TO BE REINSTALLED AT EXISTING HEIGHTS. PAINT GWB CEILINGS AND BULKHEADS.
- RECESSED OR SUSPENDED LIGHT FIXTURES, SEE ELEC DRAWINGS
- EXIT LIGHTS
- SMOKE DETECTOR, SEE ELEC DWGS (VERIFY HEAD IS CENTERED ON TILE)
- (E) EMERGENCY LIGHT
- OS OCCUPANCY SENSOR (VERIFY HEAD IS CENTERED ON TILE)
- HVAC AIR TERMINALS, SEE MECH DWGS
- SPRINKLER HEAD (VERIFY HEAD IS CENTERED ON TILE)
- (S) EMERGENCY LIGHT (VERIFY HEAD IS CENTERED ON TILE)
- DE-MOUNTABLE PARTITIONS
- FIRE ALARM SPEAKER STROBE

RCP KEYNOTE LEGEND

KEYNOTE	DESCRIPTION
1	REMOVE, STORE, AND REINSTALL ACOUSTIC CEILING TILE AND GRID AS NECESSARY TO FACILITATE MECHANICAL AND ELECTRICAL INSTALLATION. WHEN CEILINGS ARE REMOVED, TURN UP SPRINKLER HEADS UNTIL CEILING IS REINSTALLED. TURN SPRINKLER HEADS BACK DOWN ONCE CEILINGS ARE REINSTALLED
2	PROVIDE NEW GYPSUM WALL BOARD CEILING WHERE SHOWN HATCHED, 4TH FLOOR ONLY, ONCE ALL PIPING AND MECHANICAL EQUIPMENT IS INSTALLED

RCP GENERAL NOTES

1. CEILINGS TO BE REINSTALLED AT EXISTING HEIGHTS.

0 3" 6" 1' SCALE: 3" = 1'-0"

0 6" 1' 2' SCALE: 1 1/2" = 1'-0"

0 4' 8' 16' SCALE: 1/8"=1'-0"

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JOHN C. OZMORE
Lic.No. 014303
ARCHITECT

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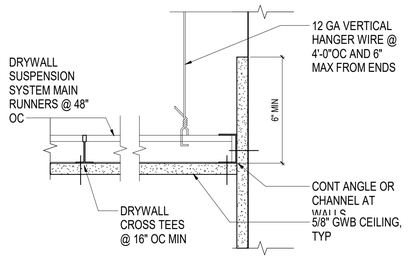
TYP. 2ND - 4TH FLOOR RCP

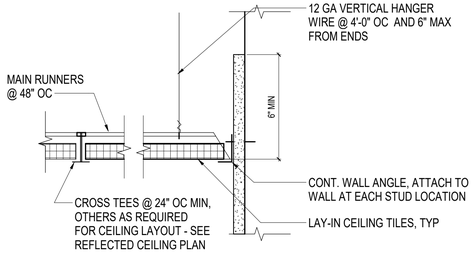
SHEET NUMBER
A-103

SHEET # 8 OF 51



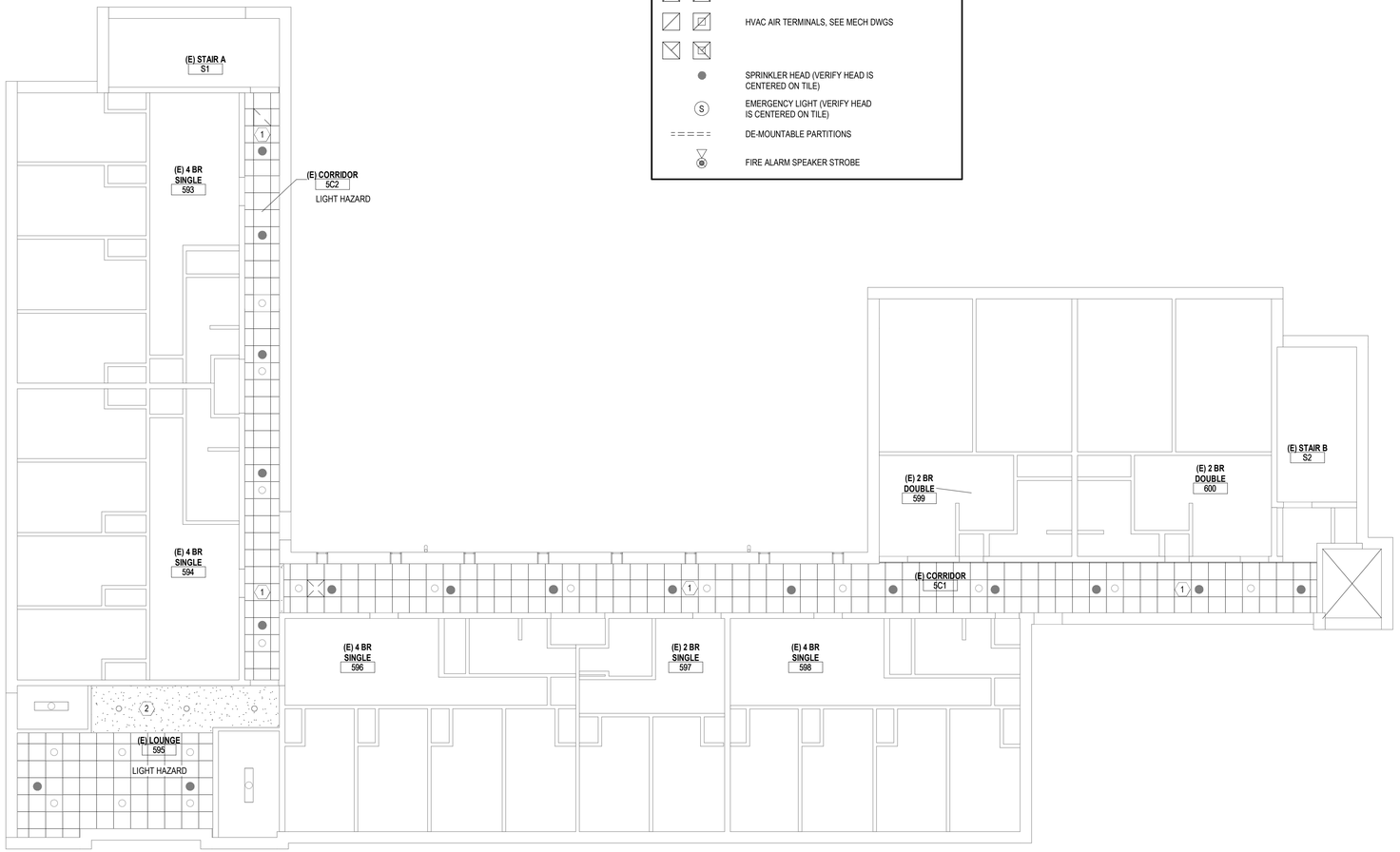
2 A-104 | A-104 SUSPENDED GWB CEILING

3" = 1'-0"



3 A-104 | A-104 SUSPENDED LAY-IN TILE DETAIL

3" = 1'-0"



1 A-104 | A-104 5TH FLOOR RCP

1/8" = 1'-0"

RCP LEGEND

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- SUSPENDED GYPSUM WALLBOARD CEILING, SEE DETAIL 2/A-104. CEILINGS TO BE REINSTALLED AT EXISTING HEIGHTS. PAINT GWB CEILINGS AND BULKHEADS.
- RECESSED OR SUSPENDED LIGHT FIXTURES, SEE ELEC DRAWINGS
- EXIT LIGHTS
- SMOKE DETECTOR, SEE ELEC DWGS (VERIFY HEAD IS CENTERED ON TILE)
- E — EMERGENCY LIGHT
- OS — OCCUPANCY SENSOR (VERIFY HEAD IS CENTERED ON TILE)
- HVAC AIR TERMINALS, SEE MECH DWGS
- SPRINKLER HEAD (VERIFY HEAD IS CENTERED ON TILE)
- S — EMERGENCY LIGHT (VERIFY HEAD IS CENTERED ON TILE)
- DE-MOUNTABLE PARTITIONS
- FIRE ALARM SPEAKER STROBE

RCP KEYNOTE LEGEND

KEYNOTE	DESCRIPTION
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2	DEMOLISH (E) GYPSUM CEILING COMPLETE TO FACILITATE MECHANICAL AND ELECTRICAL INSTALLATION. WHEN CEILINGS ARE REMOVED, TURN UP SPRINKLER HEADS. TURN SPRINKLER HEADS BACK DOWN ONCE NEW CEILINGS ARE INSTALLED. SEE DETAIL 2 ON SHEET A-104.

RCP GENERAL NOTES

1. CEILINGS TO BE REINSTALLED AT EXISTING HEIGHTS.

0 3" 6" 1'
SCALE: 3" = 1'-0"

0 4' 8' 16'
SCALE: 1/8"=1'-0"

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Lic.No. 014303
ARCHITECT

SHEET TITLE
5TH FLOOR RCP

SHEET NUMBER
A-104

SHEET # 9 OF 51

NEW WORK KEYNOTE LEGEND

KEYNOTE	DESCRIPTION
1	(E) LADDER TO REMAIN. CUT BOTTOM OF LADDER TO 4" ABOVE FINISHED ROOF SYSTEM, GRIND SMOOTH, PRIME AND PAINT
2	(E) ELECTRICAL PANEL TO REMAIN AS AT PRESENT
3	PROVIDE NEW 20-MIN. FIRE RATED DOOR AND HARDWARE, SEE SPECS.
4	PROVIDE 1 1/2" DIA. HOT DIPPED GALVANIZED STEEL GUARDRAIL
5	PROVIDE PVC ROOF WALK PADS. TYPICAL SIZE 3'x5'. ADJUST SIZE TO ACCOMODATE CLEAR WALKING AREA AROUND ROOFTOP EQUIPMENT AND CLEAR FLOW OF WATER AT VALLEYS, TYP.
6	ROOF CURB HEIGHT AT 4'-0" MINIMUM TO CLEAR PIPING ENCLOSURE
7	RE-INSTALL (E) DOWNSPOUT, MODIFY LENGTH TO ACCOMMODATE ROOF HEIGHT. PROVIDE PVC ROOF WALKPAD AT DISCHARGE. DIRECT DISCHARGE FLOW TOWARDS ROOF DRAINS

ROOF LEGEND

TOTAL THICKNESS OF ROOF INSULATION — +X"

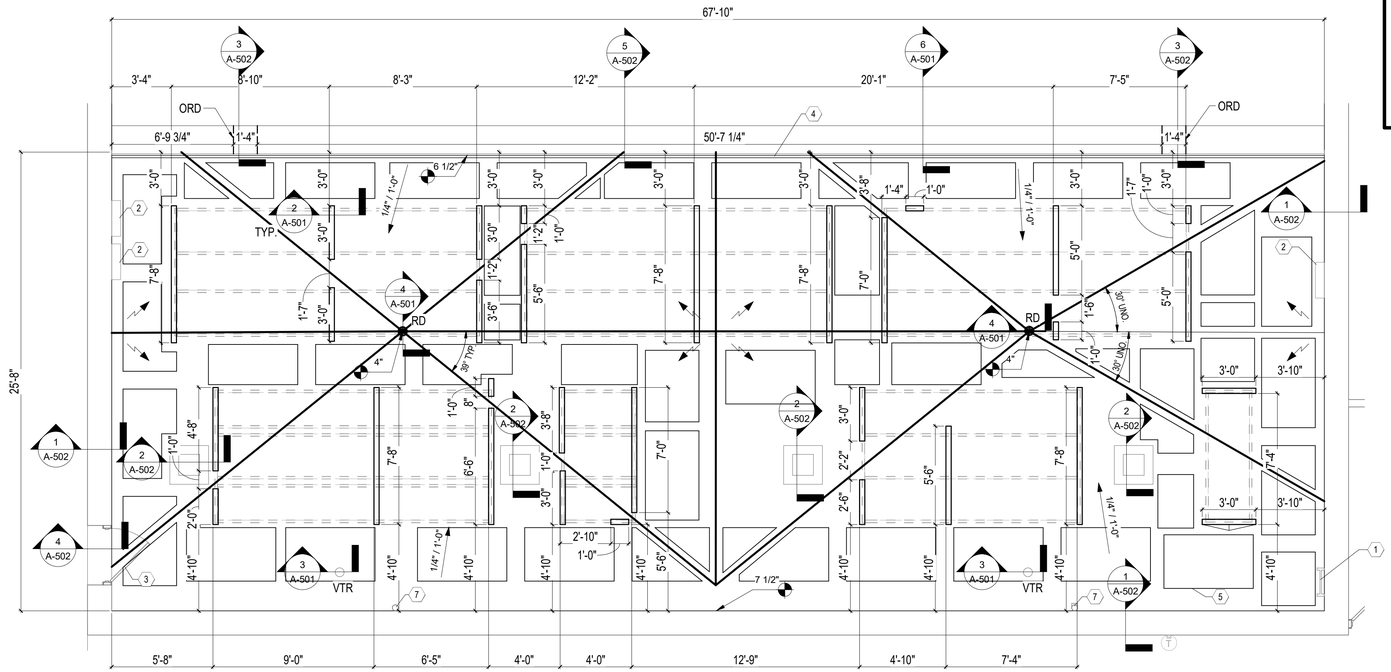
VENT THROUGH ROOF — VTR

DIRECTION OF ROOF SLOPE

ROOF CRICKET SLOPE (1/4" PER FOOT UNO.)

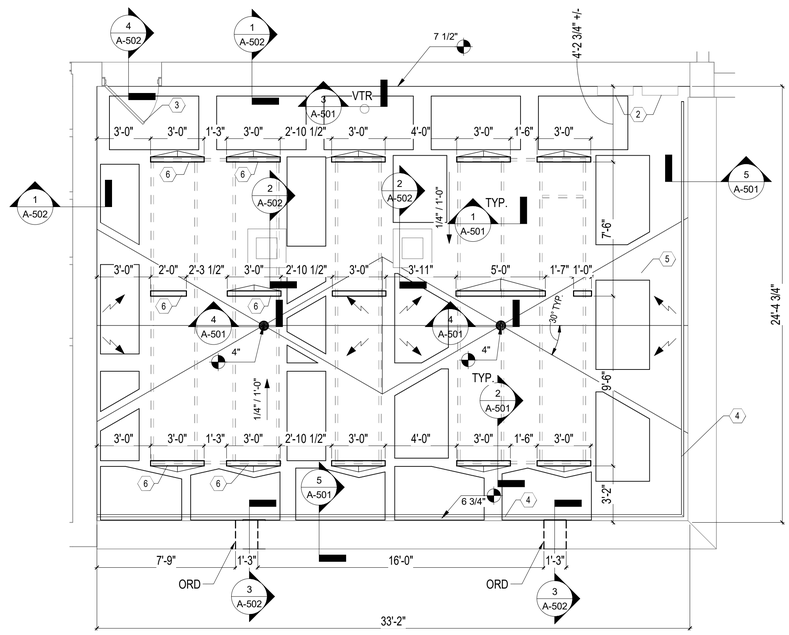
ROOF DRAIN — RD

ROOF WALK PAD



1 A-101 | A-401 — ROOF PLAN #1 - NEW WORK

1/4" = 1'-0"



2 A-101 | A-401 — ROOF PLAN #2 - NEW WORK

1/4" = 1'-0"

0 2' 4' 8"

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

PLAN NORTH

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100% WORKING DRAWINGS

GLADDING RESIDENCE HALL 3 - HVAC AND ROOF REPLACEMENT

PC# 236-B4236-004

722 W CARY ST, RICHMOND, VA 23220

REVISIONS

#	DATE	DESCRIPTION

COMMISSION NUMBER 2240290

SCALE:	As indicated
DESIGNED:	JCO
DRAWN:	MAL
CHECKED:	DFB
DATE:	6/3/2024

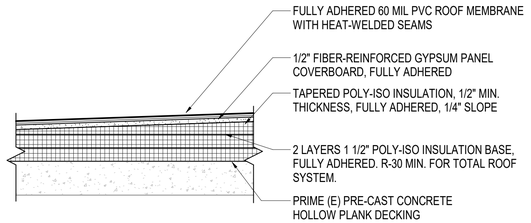
COMMONWEALTH OF VIRGINIA
JOHN C. OZMORE
Lic.No.014303
ARCHITECT

SHEET TITLE
ENLARGED ROOF PLANS - NEW WORK

SHEET NUMBER
A-401

SHEET # 10 OF 51

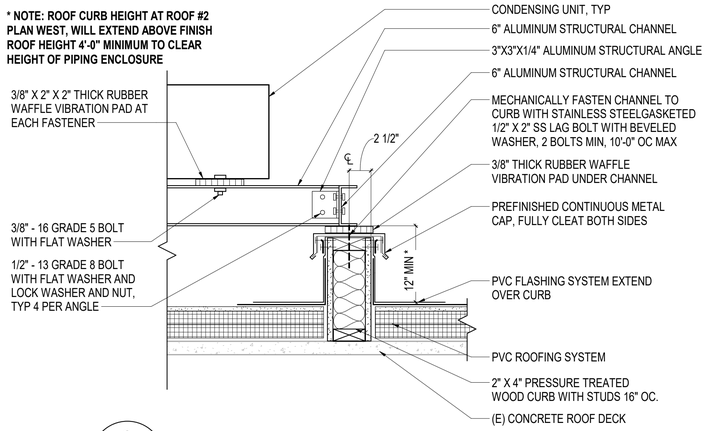
6/3/2024 4:42:39 PM
Autodesk Docs://VCU Gladding Hall Roof/2240290 - R23 - VCU GLADDING HALL ROOF - ARCH.rvt



1 A-401 | A-501 — PVC ROOF SYSTEM

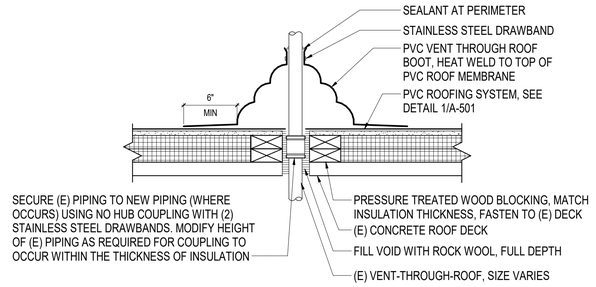
1 1/2" = 1'-0"

*** NOTE: ROOF CURB HEIGHT AT ROOF #2 PLAN WEST, WILL EXTEND ABOVE FINISH ROOF HEIGHT 4'-0" MINIMUM TO CLEAR HEIGHT OF PIPING ENCLOSURE**



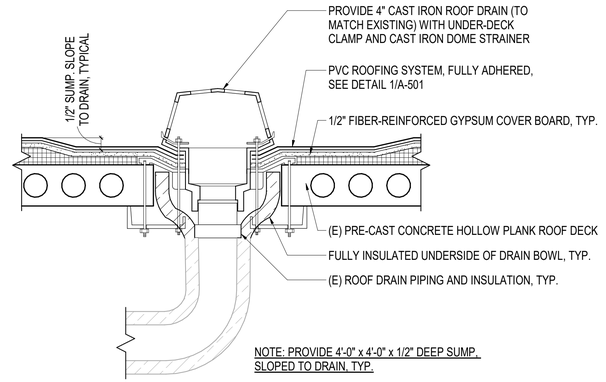
2 A-401 | A-501 — EQUIPMENT CURBING DETAIL

1 1/2" = 1'-0"



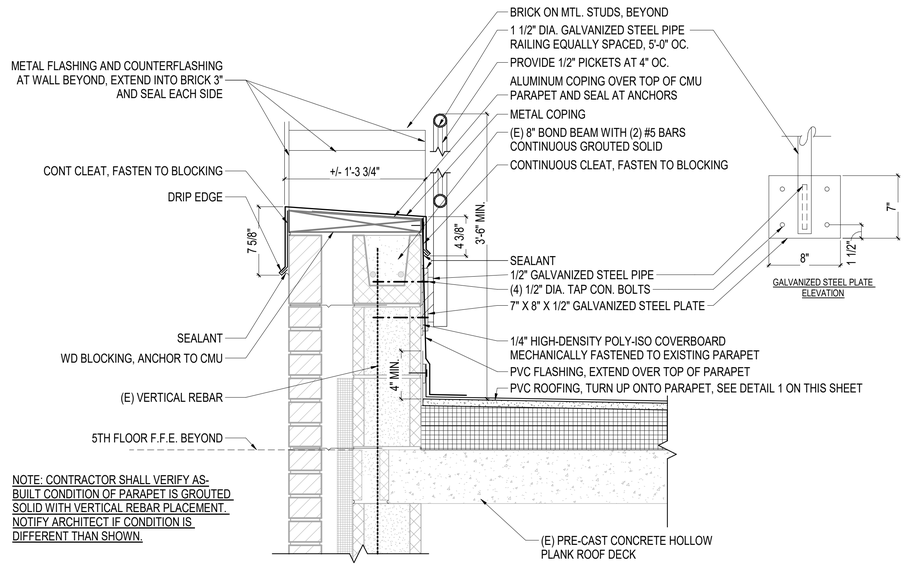
3 A-401 | A-501 — VTR FLASHING DETAIL

1 1/2" = 1'-0"



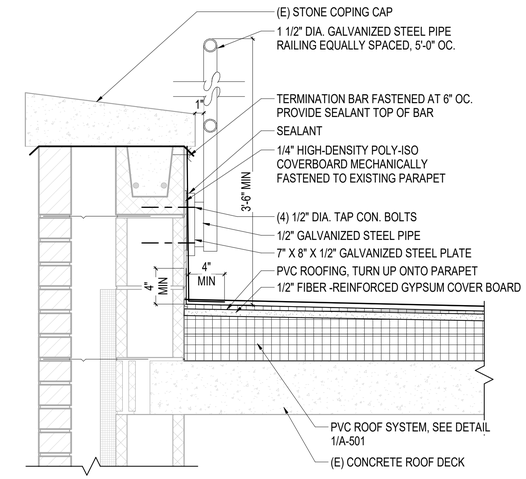
4 A-401 | A-501 — ROOF DRAIN DETAIL

1 1/2" = 1'-0"



5 A-101 | A-501 — COPING CAP AT (E) PARAPET

1 1/2" = 1'-0"



6 A-101 | A-501 — STONE CAP AT (E) PARAPET

1 1/2" = 1'-0"

0 6" 1' 2'

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

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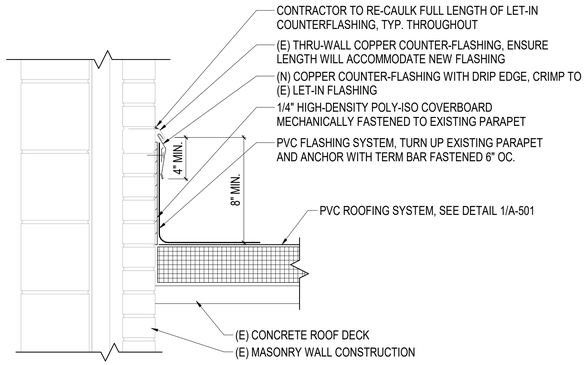
COMMONWEALTH OF VIRGINIA
JOHN C. OZMORE
Lic.No.014303
ARCHITECT

SHEET TITLE
ROOF AND FLASHING DETAILS

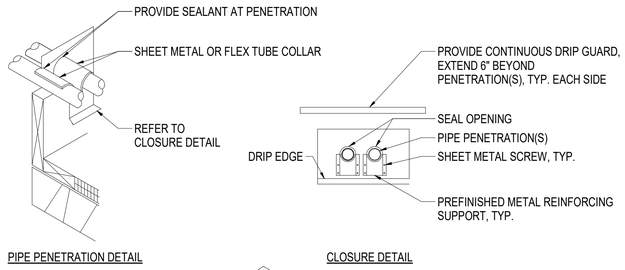
SHEET NUMBER
A-501

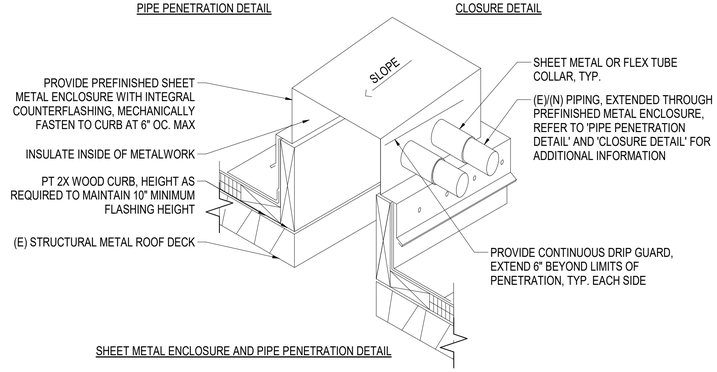
SHEET # 11 OF 51



1 A-101 | A-502 — BASE FLASHING DETAIL

1 1/2" = 1'-0"





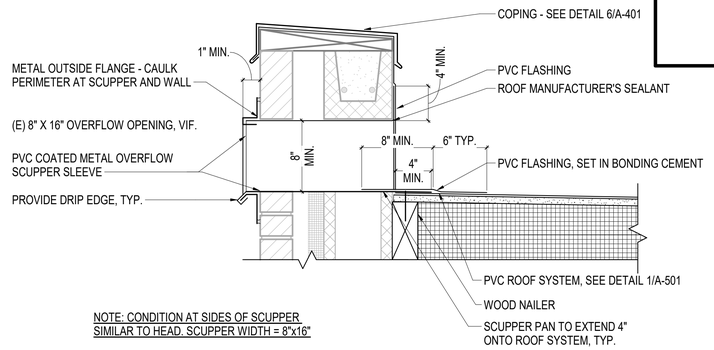
SHEET METAL ENCLOSURE AND PIPE PENETRATION DETAIL

NOTE: SEE SHEET M-501 FOR ADDITIONAL INFORMATION ON FIRE RATED ROOF DECK PENETRATION

NOTE: A PREMANUFACTURERED PIPE HOUSING FROM ALTA PRODUCTS AT WWW.ALTAPRODUCTSLLC.COM OR RPH ADVANCED BUILDING SOLUTIONS AT WWW.RPHPRODUCTS.COM OR APPROVED EQUAL ARE ACCEPTABLE ALTERNATIVES TO THE CUSTOM BUILDING HOUSING DETAILED.

2 A-401 | A-502 — DETAIL AT PIPING ENCLOSURE

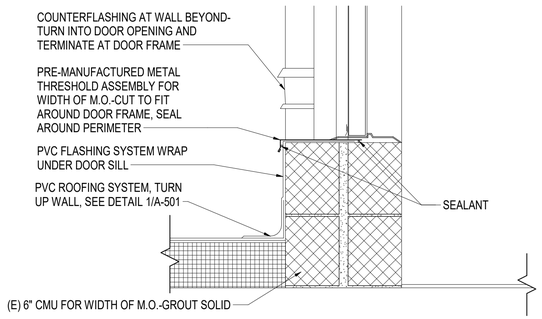
1 1/2" = 1'-0"



NOTE: CONDITION AT SIDES OF SCUPPER SIMILAR TO HEAD. SCUPPER WIDTH = 8"x16"

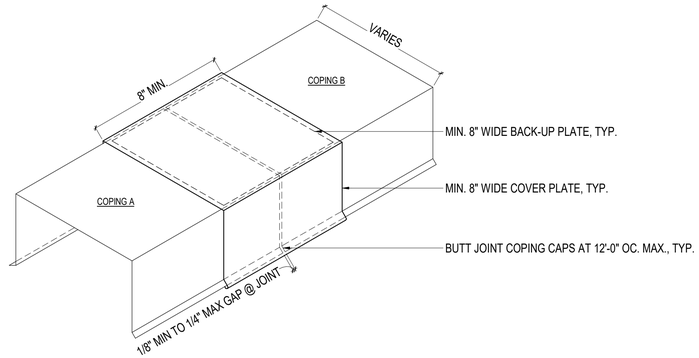
3 A-101 | A-502 — DETAIL AT SCUPPER

1 1/2" = 1'-0"



4 A-101 | A-502 — DOOR SILL DETAIL

1 1/2" = 1'-0"



5 A-101 | A-502 — DETAIL AT COPING CAP

1 1/2" = 1'-0"

System No. C-AJ-0142

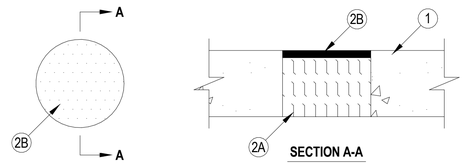
F Rating - 3 Hr

T Rating - 3 Hr

CAJ 0142

CLASSIFIED UL C US

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115



1. Floor or Wall Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete floor or min 5 in. (127 mm) thick reinforced lightweight or normal weight concrete wall. Wall may also be constructed of any UL Classified Concrete Blocks*. Floor may also be constructed of min 6 in. (152 mm) thick UL Classified hollow-core Precast Concrete Units*. Max diam of opening is 6 in. (152 mm).
   See Concrete Blocks (CAZT) and Precast Concrete Units (CFTV) categories in the Fire Resistance Directory for names of manufacturers.
2. Firestop System — The firestop system shall consist of the following:
   A. Packing Material — Min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall to accommodate the required thickness of fill material. In precast concrete unit floors, packing material to be installed flush with bottom surface of floor.
   B. Fill, Void or Cavity Material* — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall assembly.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-S SIL GG or CFS-S SIL SL (floors only)

*Bearing the UL Classification Mark

HILTI — Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. July 19, 2013

6 A-101 | A-502 — ROOF PENETRATION INFILL DETAIL

NTS

0 6" 1' 2'

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

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JOHN C. OZMORE
Lic.No.014303
ARCHITECT

SHEET TITLE

ROOF AND FLASHING DETAILS

SHEET NUMBER A-502

SHEET # 12 OF 51

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MECH ABBREVIATIONS

ABBREV	DESCRIPTION
(D)	DEMOLISH
(E)	EXISTING
(R)	RETAIN, PROTECT, AND REUSE/RELOCATE
A	AMPS
AC	AIR CONDITIONING
ACT	ACOUSTIC CEILING TILE
AD	ACCESS DOOR
ADA	AMERICANS WITH DISABILITIES ACT
AHU	AIR HANDLING UNIT
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASPE	AMERICAN SOCIETY OF PLUMBING ENGINEERS
BAS	BUILDING AUTOMATION SYSTEM
BD	BALANCING DAMPER, BOARD
BDD	BACKDRAFT DAMPER
BTU	BRITISH THERMAL UNIT
BTU/H	BRITISH THERMAL UNIT PER HOUR
CFM	CUBIC FEET PER MINUTE
CFOI	CONTRACTOR FURNISHED, OWNER INSTALLED
CG	CENTER OF GRAVITY, CORNER GUARD
CIP	CAST IN PLACE
CLR	CLEAR, CLEARANCE
CMU	CONCRETE MASONRY UNIT
COP	COEFFICIENT OF PERFORMANCE
COV	CHANGE OF VALUE
CU	CONDENSING UNIT
CU FT	CUBIC FEET
DB	DRY BULB
DP	DIFFERENTIAL PRESSURE
DR	DOOR
DTL	DETAIL
DWG	DRAWING
DX	DIRECT EXPANSION
E/D	ENABLE/DISABLE
E/P	ELECTRIC PNEUMATIC TRANSMITTER
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRONICALLY COMMUTATED
ECM	ELECTRONICALLY COMMUTATED MOTOR
EER	ENERGY EFFICIENCY RATIO
ESP	EXTERNAL STATIC PRESSURE
EVAP	EVAPORATE, EVAPORATOR
F	FARENHEIGHT
FD	FIRE DAMPER
FLA	FULL LOAD AMPS
FLR	FLOOR
FPM	FEET PER MINUTE
FT	FEET
GPM	GALLONS PER MINUTE
GWB	GYPSUM WALL BOARD
HP	HORSEPOWER
IN	INCH(ES)
INSUL	INSULATION
KW	KILOWATT
L	LENGTH
LAT	LEAVING AIR TEMPERATURE, LATENT HEAT
LB(S)	POUNDS
LBL	LABEL
LRA	LOCK ROTOR AMPS
MBH	1.000 BRITISH THERMAL UNITS PER HOUR
MCA	MINIMUM CIRCUIT AMPACITY
MIN	MINIMUM
MOP,MOCP	MAXIMUM OVERCURRENT PROTECTION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NOM	NOMINAL
NTS	NOT TO SCALE
OA	OUTDOOR AIR
OAD	OUTDOOR AIR DAMPER
OAH	OUTDOOR AIR HUMIDITY
OAT	OUTDOOR AIR TEMPERATURE
OBD	OPPOSED BLADE DAMPER
PCF	POUNDS PER CUBIC FOOT
PERF	PERFORMANCE, PREFORATED
PERI	PERIMETER
PG	PRESSURE GAUGE
PH	PHASE
PHC	PREHEAT COIL
PLF	POUNDS PER LINEAR FOOT
PNL	PANEL

MECH ABBREVIATIONS

ABBREV	DESCRIPTION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT, PRESSURE TRANSMITTER
RA	RETURN AIR
RAD	RADIUS
RCP	SUPPLY AIR
RD	ROOF DRAIN
RLA	RUNNING LOAD AMPS
RM	ROOM
RO	REVERSE OSMOSIS
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SCHED	SCHEDULE
SEER	SEASONAL ENERGY EFFICIENCY RATIO
SENS	SENSIBLE HEAT
SF	SUPPLY FAN
SP	STATIC PRESSURE
SPD	SPEED
SPEC	SPECIFICATION
T	TEMPERATURE
TEMP	TEMPERATURE
THK	THICKNESS
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UC	UNDERCUT
V	VOLT(AGE)
VFD	VARIABLE FREQUENCY DRIVE
VTR	VENT THROUGH ROOF
W	WIDTH, WIDE, WATT
W.C.	WATER COLUMN
W/	WITH
W/O	WITHOUT
WB	WET BULB
WG	WATER GAUGE
WMS	WIRE MESH SCREEN
WP	WATERPROOF, WEATHERPROOF
WR	WATER RESISTANT, WEATHER RESISTANT
°	DEGREES
ø	DIAMETER

MECHANICAL SYMBOLS AND ABBREVIATIONS

ABBR.	SYMBOL	REMARKS
	D1 CFM	HORIZONTALLY MOUNTED SUPPLY AIR DIFFUSER/REGISTER/GRILLE
	R1 CFM	HORIZONTALLY MOUNTED RETURN/EXHAUST AIR REGISTER/GRILLE
	DOWN / UP	RECTANGULAR DUCTWORK SUPPLY/OUTSIDE AIR ELBOW
	DOWN / UP	ROUND DUCTWORK SUPPLY/OUTSIDE AIR ELBOW
	DOWN / UP	RECTANGULAR DUCTWORK RETURN AIR ELBOW
	DOWN / UP	ROUND DUCTWORK RETURN AIR ELBOW
	DOWN / UP	RECTANGULAR DUCTWORK EXHAUST/RELIEF AIR ELBOW
	DOWN / UP	ROUND DUCTWORK EXHAUST/RELIEF AIR ELBOW
FD		FIRE DAMPER
VD		VOLUME DAMPER
SA	* SA	SUPPLY AIR (* DUCT SIZE)
RA	* RA	RETURN AIR (* DUCT SIZE)
EA	* EA	EXHAUST AIR (* DUCT SIZE)
OA	* OA	OUTSIDE AIR (* DUCT SIZE)
REL A	* RELA	RELIEF AIR (* DUCT SIZE)
	24x12	RECTANGULAR DUCT SIZE, FIRST NUMBER INDICATES SIZE FOR SIDE SHOWN
	24"	ROUND DUCT SIZE
	* / * *	DETAIL OR SECTION DESIGNATION (* DETAIL OR SECTION REFERENCE) (* * SHEET NUMBER DETAIL OR SECTION DRAWN ON)
		NEW TO EXISTING DESIGNATION
	*	REFERENCE DESIGNATION (* NOTE NUMBER)
	H	HUMIDISTAT OR HUMIDITY SENSOR
	T	THERMOSTAT OR TEMPERATURE SENSOR

MECHANICAL SYMBOLS AND ABBREVIATIONS

ABBR.	2-LINE SYMBOL TOP VIEW / SIDE VIEW	1-LINE SYMBOL	REMARKS
ISV			ISOLATION VALVE (BALL/BUTTERFLY/GATE - SEE SPECIFICATIONS)
BLV			BALL VALVE
BTV			BUTTERFLY VALVE
GTV			GATE VALVE
GLV			GLOBE VALVE
PLV			PLUG VALVE
CHV			CHECK VALVE (ARROW INDICATES DIRECTION OF FLOW)
		VB	VACUUM BREAKER (ARROW INDICATES DIRECTION OF FLOW)
			HOSE END CONNECTION
			MANUAL BALANCING VALVE
PRV			PRESSURE REDUCING VALVE
			FLOW MEASURING DEVICE
			(FLANGED/SCREWED) PIPE UNION OR FLANGE
			STRAINER
			RELIEF & PRESSURE RELIEF VALVE
			THERMOMETER
			PRESSURE GAGE WITH GAGE COCK
			ARROW INDICATES DOWNWARD PITCH OF PIPE
			ARROW INDICATES DIRECTION OF FLOW
			PIPE ECCENTRIC REDUCER
			PIPE CONCENTRIC REDUCER
			CAPPED END
			PIPE ELBOW UP
			PIPE ELBOW DOWN
			PIPE TEE UP
			PIPE TEE DOWN
			FLEXIBLE CONNECTOR
		EJ	EXPANSION JOINT
			AUTOMATIC FLOW CONTROL VALVE
			THERMOSTATIC EXPANSION VALVE
			WATER HAMMER ARRESTOR
		A	AUTOMATIC AIR VENT
			MANUAL AIR VENT
		T	TEST PORT
			AUTOMATIC TWO-WAY VALVE
			AUTOMATIC THREE-WAY VALVE
		S	SOLENOID VALVE
			STEAM TRAP
			PIPE ALIGNMENT GUIDE
			PIPE ANCHOR
CO		C	CLEAN-OUT
CO		C	FLOOR CLEAN-OUT
OS&Y			OUTSIDE SCREW AND YOKE VALVE
		F	WATER FLOW DETECTOR
		T	TAMPER DETECTOR
		M	WATER METER
			BALL CHECK OR DRIP VALVE
			PENDANT SPRINKLER HEAD
RD		* RD- *	ROOF DRAIN - (* SIZE) RD- (* TYPE)
			1 FIRE HOUR RATED WALL
			2 FIRE HOUR RATED WALL

MECHANICAL GENERAL SUMMARY

THIS PROJECT INCLUDES A DIRECT REPLACEMENT OF EXISTING RESIDENTIAL STYLE AIR HANDLERS IN A DORMITORY HALL WITH NEW. TO SUPPLEMENT THE AIR CONDITIONING IN THE CORRIDORS CEILING CASSETTE UNITS ARE BEING ADDED TO EVERY MAIN CORRIDOR ON ALL FLOORS. DUE TO LIMITED CEILING HEIGHT IN THE CORRIDORS THE EXISTING HORIZONTAL AIR HANDLERS ARE TO BE CEILING CASSETTE UNITS. OUTDOOR CONDENSING UNITS ARE TO BE RASIED OFF THE ROOF ON TO STRUCTURAL SUPPORTS.

WARNING NOTE:

EXISTING STRUCTURE IS HOLLOW CORE PLANK CONSTRUCTION. ALL NEW PENETRATIONS SHALL BE THROUGH THE CORES. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL CORE LOCATIONS PRIOR TO DRILLING OR CUTTING INTO CONCRETE PLANKS.

HVAC DESIGN CONDITIONS

CONDITION	TEMP DB (°F)	TEMP WB (°F)
AMBIENT HEATING	17	-
AMBIENT COOLING	95	76

BUILDING DESIGN LOAD (MBH)

LOAD	COOLING	HEATING	VENTILATION
EXISTING HVAC	1524	1075	216
REPLACED HVAC	1554	1615	-
NEW HVAC (ADDITIONAL)	180	197	60

CODES AND STANDARDS

2021 VIRGINIA CONSTRUCTION CODE
2021 VIRGINIA STATEWIDE FIRE PREVENTION CODE
2021 VIRGINIA ENERGY CONSERVATION CODE REFER TO G-002
2021 VIRGINIA MECHANICAL CODE
2021 VIRGINIA FUEL GAS CODE
2021 VIRGINIA PLUMBING CODE
2021 VIRGINIA EXISTING BUILDING CODE REFER TO G-002
NFPA 70-2020: NATIONAL ELECTRICAL CODE
NFPA 72-2019: NATIONAL FIRE ALARM AND SIGNALING CODE
NFPA 101-2018: LIFE SAFETY CODE
ASHRAE-90.1-2016

MECHANICAL GENERAL NOTES

1. ALL WORK TO BE IN ACCORDANCE WITH THE CODES AND STANDARDS INDICATED.
2. CONTRACTOR IS ENCOURAGED TO VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH THE PROJECT AND EXISTING CONDITIONS.
3. DRAWINGS HAVE BEEN GENERATED BASED ON ORIGINAL CONSTRUCTION DOCUMENTS AND WHAT IS VISIBLE ON THE SITE.
4. DRAWINGS ARE DIAGRAMMATIC IN NATURE AND DO NOT SHOW ALL TRANSITIONS, OFFSETS, OR FITTINGS. CONTRACTOR SHALL PROVIDE ALL MATERIAL TO PROVIDE FOR A COMPLETE AND FUNCTIONAL SYSTEM.
5. COORDINATE LOCATION OF ALL DUCTWORK, SUPPLY AND RETURN DEVICES, EXHAUST FANS, THERMOSTATS, AND OTHER WALL AND CEILING MOUNTED EQUIPMENT WITH LIGHT FIXTURES, SPRINKLER SYSTEM AND ACCESSORIES INSTALLED BY OTHER TRADES SO AS TO PRESENT A NEAT AND ATTRACTIVE INSTALLATION THROUGHOUT. FOR SOME ELEMENTS, REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS.
6. ARRANGE PIPING AND DUCTWORK ABOVE CEILING AND IN EXPOSED AREAS AS REQUIRED TO CLEAR STRUCTURE, CONDUIT, LIGHTS, SPRINKLER SYSTEM, ETC., ALLOWING SPACE FOR HANGERS, SUPPORTS, INSULATION, ETC.
7. ALL ITEMS NECESSARY FOR THE COMPLETION OF THE WORK AND THE SUCCESSFUL OPERATION OF A PRODUCT SHALL BE PROVIDED EVEN THOUGH NOT FULLY SPECIFIED OR INDICATED ON THE DRAWINGS.
8. CONTRACTOR SHALL MOUNT ALL WALL MOUNTED DEVICES AVAILABLE FOR PUBLIC ACCESS AT 48" AFF TO MEET ADA REQUIREMENTS UNLESS NOTED OTHERWISE IN ARCHITECTURAL DRAWINGS. ALL OTHER SENSORS / DEVICES SHALL BE MOUNTED AT 60" AFF UNLESS NOTED OTHERWISE IN ARCHITECTURAL DRAWINGS.
9. INSTALL ALL EQUIPMENT SO THAT CODE REQUIRED AND MANUFACTURER RECOMMENDED CLEARANCES ARE PROVIDED. UNLESS OTHERWISE DIRECTED, EQUIPMENT SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION.
10. MATERIAL SHALL BE THE BEST OF THEIR RESPECTIVE KINDS. MATERIALS SHALL BE NEW UNLESS EXPLICITLY INDICATED OTHERWISE.
11. ALL WORK IN THIS DIVISION SHALL BE CAREFULLY INTERFACED WITH THE WORK OF OTHER DIVISIONS TO ASSURE A COMPLETE, FUNCTIONING SYSTEM(S).
12. MATERIAL FURNISHED UNDER THIS DIVISION SHALL BE STANDARD CATALOGUED PRODUCTS OF RECOGNIZED MANUFACTURERS REGULARLY ENGAGED IN THE PRODUCTION OF SUCH MATERIALS AND SHALL BE OF THE LATEST DESIGN.
13. PROVIDE MATERIAL AND LABOR TO PERFORM START-UP OF EACH RESPECTIVE ITEM OF EQUIPMENT AND SYSTEM PRIOR TO THE BEGINNING OF TEST, ADJUST, AND BALANCE PROCEDURES.
14. COMPLY STRICTLY WITH MANUFACTURER'S RECOMMENDED PROCEDURES IN STARTING OF MECHANICAL SYSTEMS.
15. WHERE APPLICABLE, FURNISH MANUFACTURER'S WRITTEN WARRANTY FOR MATERIALS AND EQUIPMENT.
16. DUCT SIZES INDICATED ARE INTERNAL CLEAR DIMENSIONS, NOT INCLUDING INSULATION OR LINER.
17. NON-FIRE RATED SEALANTS SHALL BE CLEAR OR WHITE OR OTHER COLOR SELECTED BY THE ARCHITECT. FIREPROOFING SEALANTS SHALL BE RED.
18. TEST AND BALANCE ALL EFFECTED SYSTEMS IN ACCORDANCE WITH ASHRAE 111. ALL BALANCED AIRFLOW AND WATER FLOWS SHALL BE WITHIN +/-5% OF THE INDICATED VALUES.
19. DASHED LINES ON MD SERIES SHEETS INDICATE ITEAMS TO BE REMOVED UNDER THIS CONTRACT. DASHED LINES ON M100 THRU M400 SERIES SHEETS INDICATE CONTROL WIRING CIRCUITS. DARKER LINE WEIGHTS INDICATE NEW WORK. LIGHTER LINE WEIGHTS INDICATE EXISTING TO REMAIN.

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GLADDING RESIDENCE HALL 3 - HVAC AND ROOF REPLACEMENT

PC#236-B4236-004

722 W CARY ST, RICHMOND, VA 23220

REVISIONS

#	DATE	DESCRIPTION

COMMISSION NUMBER
22240290

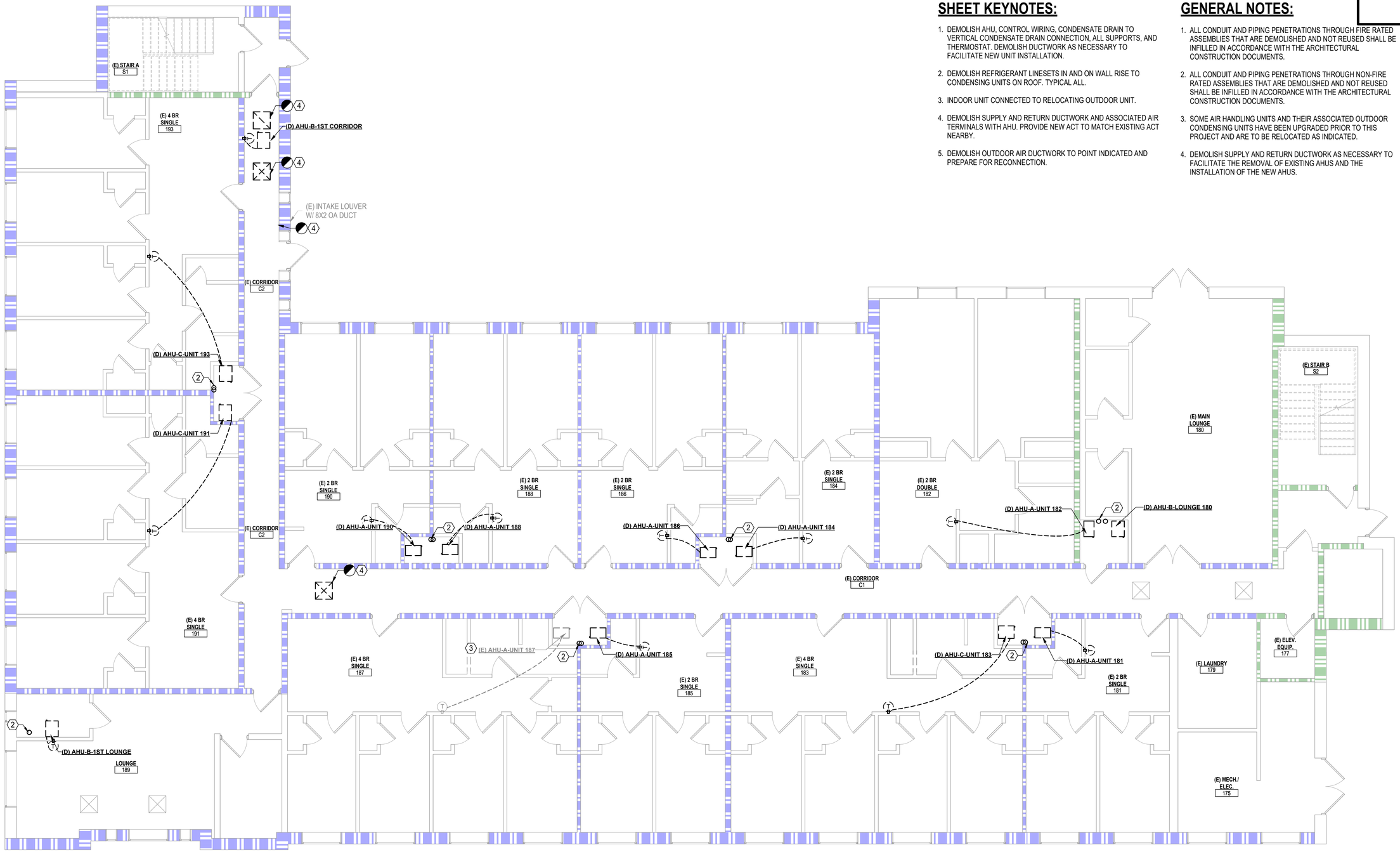
SCALE:	1/8" = 1'-0"
DESIGNED:	MAW
DRAWN:	KNF
CHECKED:	DFB
DATE:	06/03/2024

COMMONWEALTH OF VIRGINIA
Matthew A. Wilson
Lic. No. 0402049270
06/03/2024
PROFESSIONAL ENGINEER

SHEET TITLE
MECHANICAL COVER SHEET

SHEET NUMBER
M-001

SHEET # 13 OF 51



SHEET KEYNOTES:

1. DEMOLISH AHU, CONTROL WIRING, CONDENSATE DRAIN TO VERTICAL CONDENSATE DRAIN CONNECTION, ALL SUPPORTS, AND THERMOSTAT. DEMOLISH DUCTWORK AS NECESSARY TO FACILITATE NEW UNIT INSTALLATION.
2. DEMOLISH REFRIGERANT LINESETS IN AND ON WALL RISE TO CONDENSING UNITS ON ROOF. TYPICAL ALL.
3. INDOOR UNIT CONNECTED TO RELOCATING OUTDOOR UNIT.
4. DEMOLISH SUPPLY AND RETURN DUCTWORK AND ASSOCIATED AIR TERMINALS WITH AHU. PROVIDE NEW ACT TO MATCH EXISTING ACT NEARBY.
5. DEMOLISH OUTDOOR AIR DUCTWORK TO POINT INDICATED AND PREPARE FOR RECONNECTION.

GENERAL NOTES:

1. ALL CONDUIT AND PIPING PENETRATIONS THROUGH FIRE RATED ASSEMBLIES THAT ARE DEMOLISHED AND NOT REUSED SHALL BE INFILLED IN ACCORDANCE WITH THE ARCHITECTURAL CONSTRUCTION DOCUMENTS.
2. ALL CONDUIT AND PIPING PENETRATIONS THROUGH NON-FIRE RATED ASSEMBLIES THAT ARE DEMOLISHED AND NOT REUSED SHALL BE INFILLED IN ACCORDANCE WITH THE ARCHITECTURAL CONSTRUCTION DOCUMENTS.
3. SOME AIR HANDLING UNITS AND THEIR ASSOCIATED OUTDOOR CONDENSING UNITS HAVE BEEN UPGRADED PRIOR TO THIS PROJECT AND ARE TO BE RELOCATED AS INDICATED.
4. DEMOLISH SUPPLY AND RETURN DUCTWORK AS NECESSARY TO FACILITATE THE REMOVAL OF EXISTING AHUS AND THE INSTALLATION OF THE NEW AHUS.

1ST FLOOR MECHANICAL DEMOLITION PLAN

3/16" = 1'-0"

0 4' 8' 16'

SCALE: 3/16" = 1'-0"

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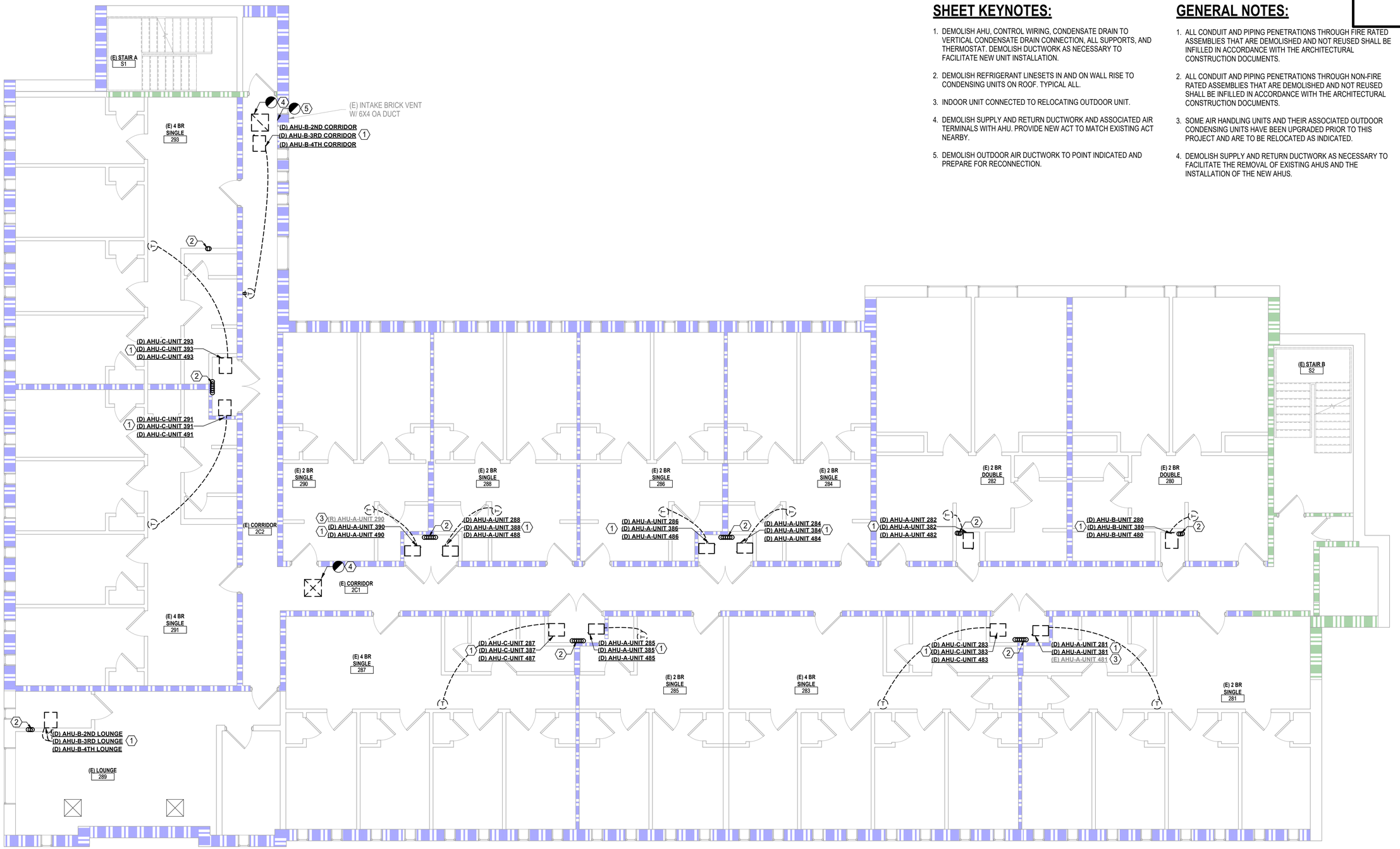
COMMONWEALTH OF VIRGINIA
Matthew A. Wilson
Lic. No. 0402049270
06/03/2024
PROFESSIONAL ENGINEER

SHEET TITLE
1ST FLOOR MECHANICAL DEMOLITION PLAN

SHEET NUMBER
MD101

SHEET # 14 OF 51



2ND-4TH FLOOR MECHANICAL DEMOLITION PLAN

3/16" = 1'-0"

SHEET KEYNOTES:

1. DEMOLISH AHU, CONTROL WIRING, CONDENSATE DRAIN TO VERTICAL CONDENSATE DRAIN CONNECTION, ALL SUPPORTS, AND THERMOSTAT. DEMOLISH DUCTWORK AS NECESSARY TO FACILITATE NEW UNIT INSTALLATION.
2. DEMOLISH REFRIGERANT LINESETS IN AND ON WALL RISE TO CONDENSING UNITS ON ROOF. TYPICAL ALL.
3. INDOOR UNIT CONNECTED TO RELOCATING OUTDOOR UNIT.
4. DEMOLISH SUPPLY AND RETURN DUCTWORK AND ASSOCIATED AIR TERMINALS WITH AHU. PROVIDE NEW ACT TO MATCH EXISTING ACT NEARBY.
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GENERAL NOTES:

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4. DEMOLISH SUPPLY AND RETURN DUCTWORK AS NECESSARY TO FACILITATE THE REMOVAL OF EXISTING AHUS AND THE INSTALLATION OF THE NEW AHUS.

0 4' 8' 16'

SCALE: 3/16" = 1'-0"

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COMMONWEALTH OF VIRGINIA
Matthew A. Wilson
Lic. No. 0402049270
06/03/2024
PROFESSIONAL ENGINEER

SHEET TITLE
2ND-4TH FLOOR MECHANICAL DEMOLITION PLAN

SHEET NUMBER
MD102

SHEET # 15 OF 51

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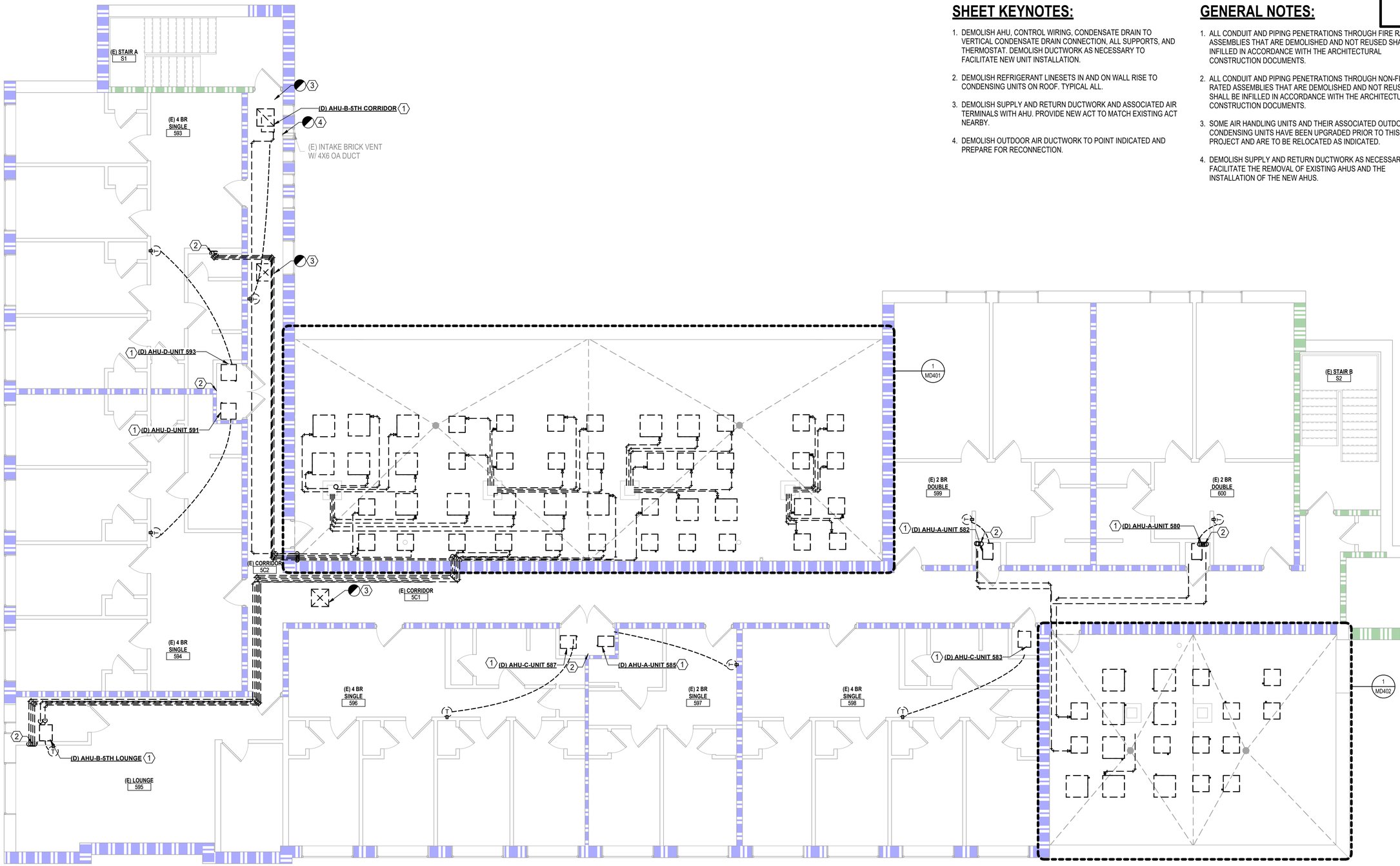

SHEET KEYNOTES:

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5TH FLOOR / ROOF MECHANICAL DEMOLITION PLAN

3/16" = 1'-0"

0 4' 8' 16'

SCALE: 3/16" = 1'-0"

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COMMONWEALTH OF VIRGINIA
Matthew A. Wilson
Lic. No. 0402049270
06/03/2024
PROFESSIONAL ENGINEER

SHEET TITLE
5TH FLOOR MECHANICAL DEMOLITION PLAN

SHEET NUMBER
MD103

SHEET # 16 OF 51

SHEET KEYNOTES:

1. DEMOLISH HEAT PUMP, CONTROL WIRING, REFRIGERANT PIPING, AND ALL SUPPORTS IN THEIR ENTIRETY.
2. HEAT PUMP TO BE RELOCATED. DEMOLISH CONTROL WIRING, REFRIGERANT PIPING, AND ALL SUPPORTS IN THEIR ENTIRETY.

GENERAL NOTES:

1. ALL CONDUIT AND PIPING PENETRATIONS THROUGH FIRE RATED ASSEMBLIES THAT ARE DEMOLISHED AND NOT REUSED SHALL BE INFILLED IN ACCORDANCE WITH THE ARCHITECTURAL CONSTRUCTION DOCUMENTS.
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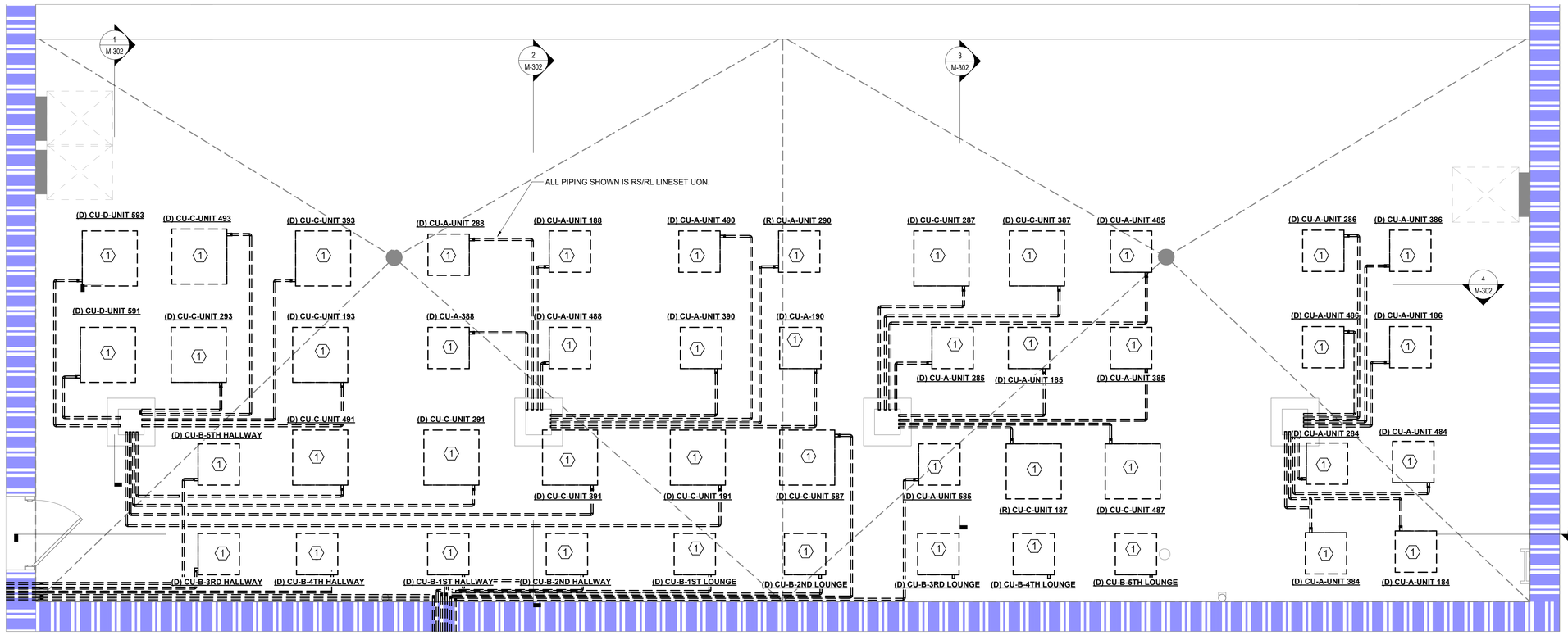

1 / MD103 | MD401

5TH FLOOR / ROOF MECHANICAL DEMOLITION PLAN - NORTH ROOF

3/8" = 1'-0"

0 2' 4' 8'

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

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COMMONWEALTH OF VIRGINIA
Matthew A. Wilson
Lic. No. 0402049270
06/03/2024
PROFESSIONAL ENGINEER

SHEET TITLE
MECHANICAL DEMOLITION PLAN - NORTH ROOF

SHEET NUMBER
MD401

SHEET # 17 OF 51

SHEET KEYNOTES:

1. DEMOLISH HEAT PUMP, CONTROL WIRING, REFRIGERANT PIPING, AND ALL SUPPORTS IN THEIR ENTIRETY.
2. HEAT PUMP TO BE RELOCATED. DEMOLISH CONTROL WIRING, REFRIGERANT PIPING, AND ALL SUPPORTS IN THEIR ENTIRETY.

GENERAL NOTES:

1. ALL CONDUIT AND PIPING PENETRATIONS THROUGH FIRE RATED ASSEMBLIES THAT ARE DEMOLISHED AND NOT REUSED SHALL BE INFILLED IN ACCORDANCE WITH THE ARCHITECTURAL CONSTRUCTION DOCUMENTS.
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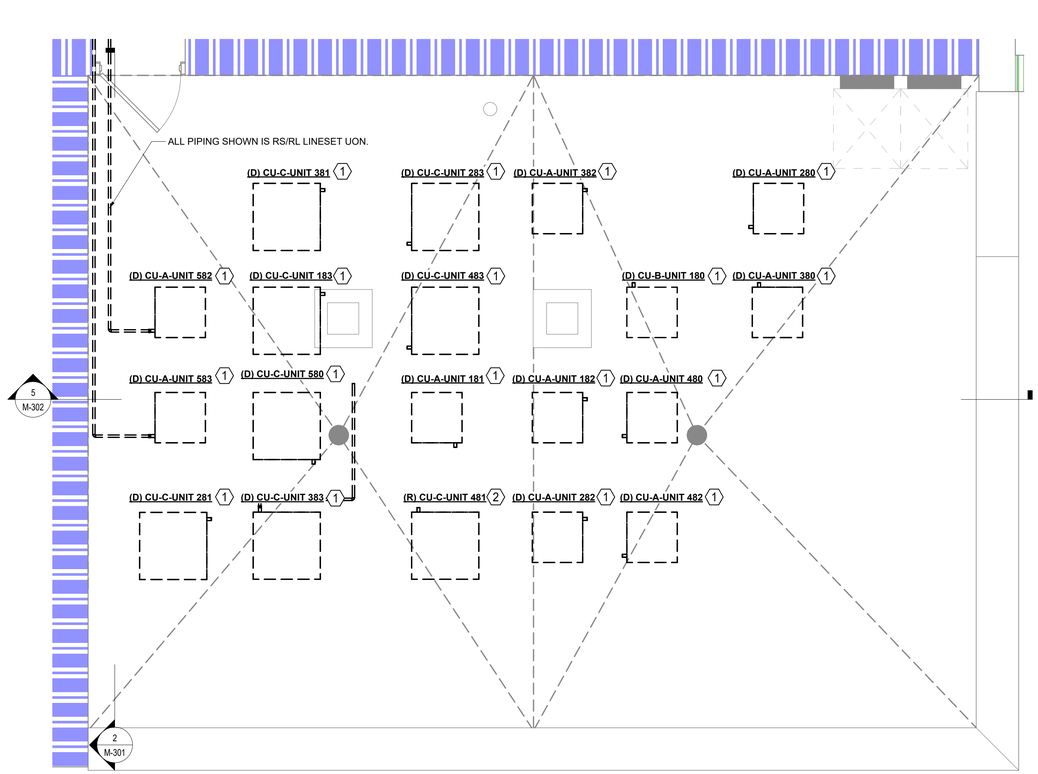

1 MD103 MD402 — 5TH FLOOR / ROOF MECHANICAL DEMOLITION PLAN - SOUTH ROOF

3/8" = 1'-0"

0 2' 4' 8'

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

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COMMONWEALTH OF VIRGINIA
Matthew A. Wilson
Lic. No. 0402049270
06/03/2024
PROFESSIONAL ENGINEER

SHEET TITLE
MECHANICAL DEMOLITION PLAN - SOUTH ROOF PLAN

SHEET NUMBER
MD402

SHEET # 18 OF 51

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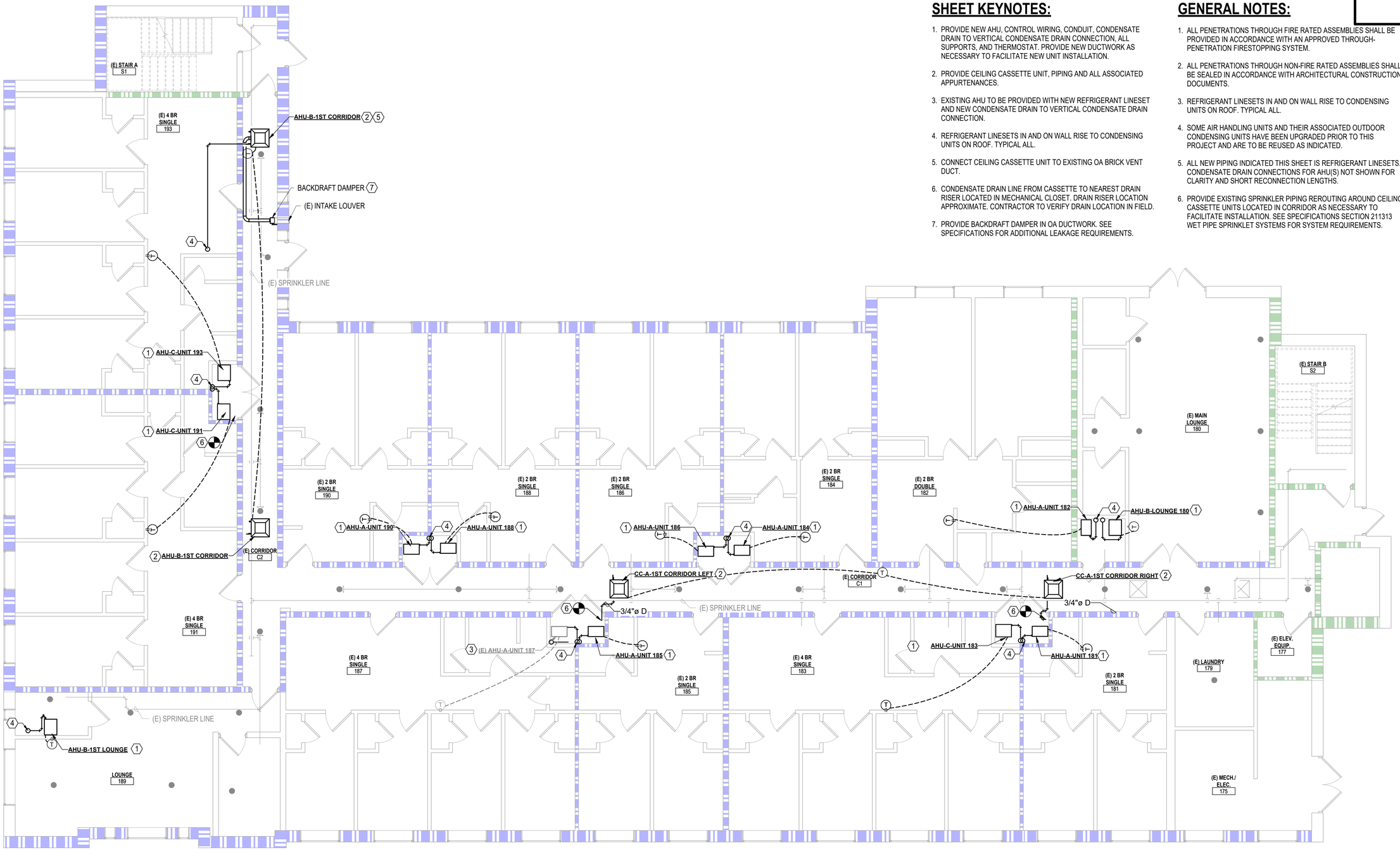

SHEET KEYNOTES:

1. PROVIDE NEW AHU, CONTROL WIRING, CONDUIT, CONDENSATE DRAIN TO VERTICAL CONDENSATE DRAIN CONNECTION, ALL SUPPORTS, AND THERMOSTAT. PROVIDE NEW DUCTWORK AS NECESSARY TO FACILITATE NEW UNIT INSTALLATION.
2. PROVIDE CEILING CASSETTE UNIT, PIPING AND ALL ASSOCIATED APPURTENANCES.
3. EXISTING AHU TO BE PROVIDED WITH NEW REFRIGERANT LINESET AND NEW CONDENSATE DRAIN TO VERTICAL CONDENSATE DRAIN CONNECTION.
4. REFRIGERANT LINESETS IN AND ON WALL RISE TO CONDENSING UNITS ON ROOF. TYPICAL ALL.
5. CONNECT CEILING CASSETTE UNIT TO EXISTING OA BRICK VENT DUCT.
6. CONDENSATE DRAIN LINE FROM CASSETTE TO NEAREST DRAIN RISER LOCATED IN MECHANICAL CLOSET. DRAIN RISER LOCATION APPROXIMATE. CONTRACTOR TO VERIFY DRAIN LOCATION IN FIELD.
7. PROVIDE BACKDRAFT DAMPER IN OA DUCTWORK. SEE SPECIFICATIONS FOR ADDITIONAL LEAKAGE REQUIREMENTS.

GENERAL NOTES:

1. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE PROVIDED IN ACCORDANCE WITH AN APPROVED THROUGH-PENETRATION FIRESTOPPING SYSTEM.
2. ALL PENETRATIONS THROUGH NON-FIRE RATED ASSEMBLIES SHALL BE SEALED IN ACCORDANCE WITH ARCHITECTURAL CONSTRUCTION DOCUMENTS.
3. REFRIGERANT LINESETS IN AND ON WALL RISE TO CONDENSING UNITS ON ROOF. TYPICAL ALL.
4. SOME AIR HANDLING UNITS AND THEIR ASSOCIATED OUTDOOR CONDENSING UNITS HAVE BEEN UPGRADED PRIOR TO THIS PROJECT AND ARE TO BE REUSED AS INDICATED.
5. ALL NEW PIPING INDICATED THIS SHEET IS REFRIGERANT LINESETS. CONDENSATE DRAIN CONNECTIONS FOR AHU(S) NOT SHOWN FOR CLARITY AND SHORT RECONNECTION LENGTHS.
6. PROVIDE EXISTING SPRINKLER PIPING REROUTING AROUND CEILING CASSETTE UNITS LOCATED IN CORRIDOR AS NECESSARY TO FACILITATE INSTALLATION. SEE SPECIFICATIONS SECTION 211313 WET PIPE SPRINKLET SYSTEMS FOR SYSTEM REQUIREMENTS.

1ST FLOOR MECHANICAL NEW WORK PLAN

3/16" = 1'-0"

0 4' 8' 16'

SCALE: 3/16" = 1'-0"

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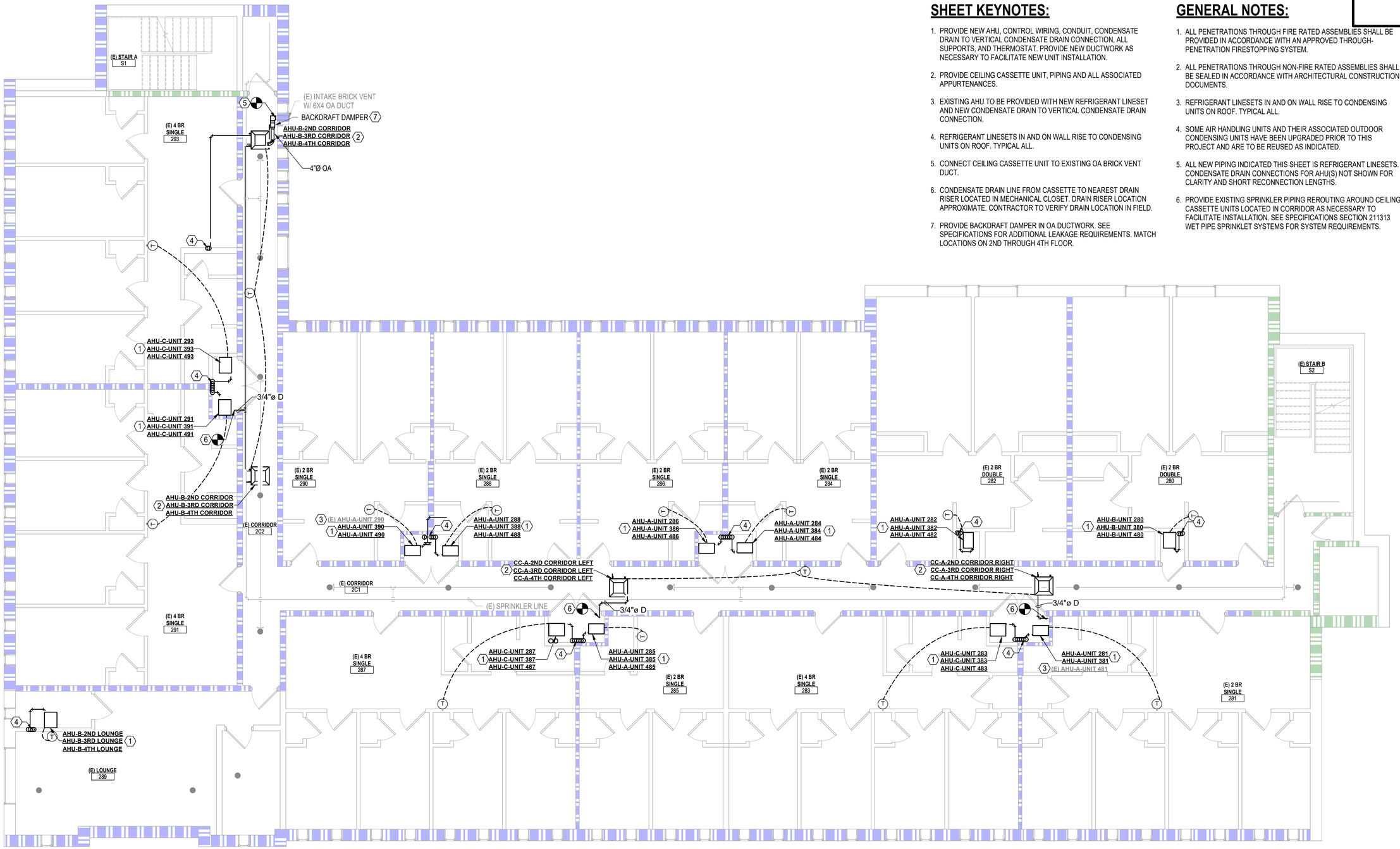
Matthew A. Wilson
Lic. No. 0402049270
06/03/2024
PROFESSIONAL ENGINEER

SHEET TITLE
1ST FLOOR MECHANICAL NEW WORK PLAN

SHEET NUMBER
M-101

SHEET # 19 OF 51



2ND-4TH FLOOR MECHANICAL NEW WORK PLAN

3/16" = 1'-0"

SHEET KEYNOTES:

1. PROVIDE NEW AHU, CONTROL WIRING, CONDUIT, CONDENSATE DRAIN TO VERTICAL CONDENSATE DRAIN CONNECTION, ALL SUPPORTS, AND THERMOSTAT. PROVIDE NEW DUCTWORK AS NECESSARY TO FACILITATE NEW UNIT INSTALLATION.
2. PROVIDE CEILING CASSETTE UNIT, PIPING AND ALL ASSOCIATED APPURTENANCES.
3. EXISTING AHU TO BE PROVIDED WITH NEW REFRIGERANT LINESET AND NEW CONDENSATE DRAIN TO VERTICAL CONDENSATE DRAIN CONNECTION.
4. REFRIGERANT LINESETS IN AND ON WALL RISE TO CONDENSING UNITS ON ROOF. TYPICAL ALL.
5. CONNECT CEILING CASSETTE UNIT TO EXISTING OA BRICK VENT DUCT.
6. CONDENSATE DRAIN LINE FROM CASSETTE TO NEAREST DRAIN RISER LOCATED IN MECHANICAL CLOSET. DRAIN RISER LOCATION APPROXIMATE. CONTRACTOR TO VERIFY DRAIN LOCATION IN FIELD.
7. PROVIDE BACKDRAFT DAMPER IN OA DUCTWORK. SEE SPECIFICATIONS FOR ADDITIONAL LEAKAGE REQUIREMENTS. MATCH LOCATIONS ON 2ND THROUGH 4TH FLOOR.

GENERAL NOTES:

1. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE PROVIDED IN ACCORDANCE WITH AN APPROVED THROUGH-PENETRATION FIRESTOPPING SYSTEM.
2. ALL PENETRATIONS THROUGH NON-FIRE RATED ASSEMBLIES SHALL BE SEALED IN ACCORDANCE WITH ARCHITECTURAL CONSTRUCTION DOCUMENTS.
3. REFRIGERANT LINESETS IN AND ON WALL RISE TO CONDENSING UNITS ON ROOF. TYPICAL ALL.
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SCALE: 3/16" = 1'-0"

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COMMONWEALTH OF VIRGINIA
Matthew A. Wilson
Lic. No. 0402049270
06/03/2024
PROFESSIONAL ENGINEER

SHEET TITLE
2ND-4TH FLOOR MECHANICAL NEW WORK PLAN

SHEET NUMBER
M-102

SHEET # 20 OF 51

SHEET KEYNOTES:

1. PROVIDE NEW AHU, CONTROL WIRING, CONDUIT, CONDENSATE DRAIN TO VERTICAL CONDENSATE DRAIN CONNECTION, ALL SUPPORTS, AND THERMOSTAT. PROVIDE NEW DUCTWORK AS NECESSARY TO FACILITATE NEW UNIT INSTALLATION.
2. PROVIDE CEILING CASSETTE UNIT, PIPING AND ALL ASSOCIATED APPURTENANCES.
3. EXISTING AHU TO BE PROVIDED WITH NEW REFRIGERANT LINESET AND NEW CONDENSATE DRAIN TO VERTICAL CONDENSATE DRAIN CONNECTION.
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6. CONDENSATE DRAIN LINE FROM CASSETTE TO NEAREST DRAIN RISER LOCATED IN MECHANICAL CLOSET. DRAIN RISER LOCATION APPROXIMATE. CONTRACTOR TO VERIFY DRAIN LOCATION IN FIELD.
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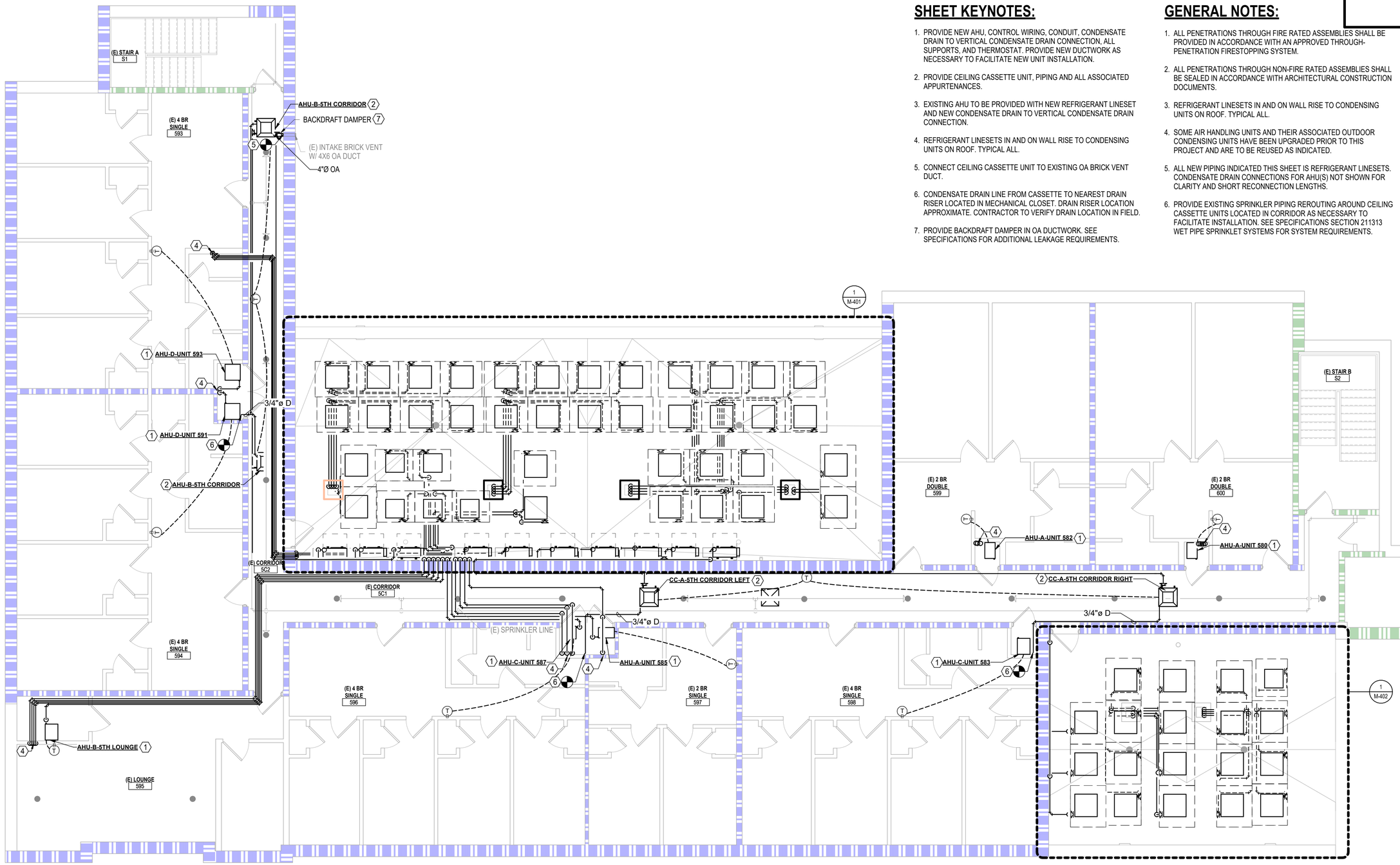
3. REFRIGERANT LINESETS IN AND ON WALL RISE TO CONDENSING UNITS ON ROOF. TYPICAL ALL.
4. SOME AIR HANDLING UNITS AND THEIR ASSOCIATED OUTDOOR CONDENSING UNITS HAVE BEEN UPGRADED PRIOR TO THIS PROJECT AND ARE TO BE REUSED AS INDICATED.
5. ALL NEW PIPING INDICATED THIS SHEET IS REFRIGERANT LINESETS. CONDENSATE DRAIN CONNECTIONS FOR AHU(S) NOT SHOWN FOR CLARITY AND SHORT RECONNECTION LENGTHS.
6. PROVIDE EXISTING SPRINKLER PIPING REROUTING AROUND CEILING CASSETTE UNITS LOCATED IN CORRIDOR AS NECESSARY TO FACILITATE INSTALLATION. SEE SPECIFICATIONS SECTION 211313 WET PIPE SPRINKLET SYSTEMS FOR SYSTEM REQUIREMENTS.



1 5TH FLOOR / ROOF MECHANICAL NEW WORK PLAN
3/16" = 1'-0"

SCALE: 3/16" = 1'-0"

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PC#236-B4236-004

722 W CARY ST, RICHMOND, VA 23220

REVISIONS

#	DATE	DESCRIPTION

COMMISSION NUMBER
22240290

SCALE:	3/16" = 1'-0"
DESIGNED:	MAW
DRAWN:	KNF
CHECKED:	DFB
DATE:	06/03/2024

COMMONWEALTH OF VIRGINIA
Matthew A. Wilson
Lic. No. 0402049270
06/03/2024
PROFESSIONAL ENGINEER

SHEET TITLE
5TH FLOOR MECHANICAL NEW WORK PLAN

SHEET NUMBER
M-103

SHEET # 21 OF 51

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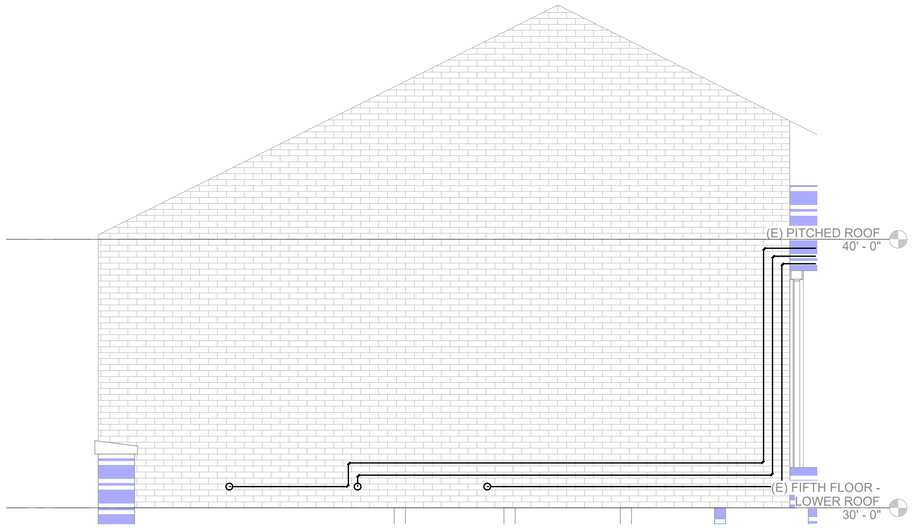
SHEET KEYNOTES:

1. PROVIDE NEW HEAT PUMP, CONTROL WIRING, CONDUIT, ALL SUPPORTS, AND ASSOCIATED APPURTENANCES.

GENERAL NOTES:

1. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE PROVIDED IN ACCORDANCE WITH AN APPROVED THROUGH-PENETRATION FIRESTOPPING SYSTEM.
2. ALL PENETRATIONS THROUGH NON-FIRE RATED ASSEMBLIES SHALL BE SEALED IN ACCORDANCE WITH ARCHITECTURAL CONSTRUCTION DOCUMENTS.



2 M-402 | M-301 MECHANICAL SECTION - SOUTH ROOF RISER WALL

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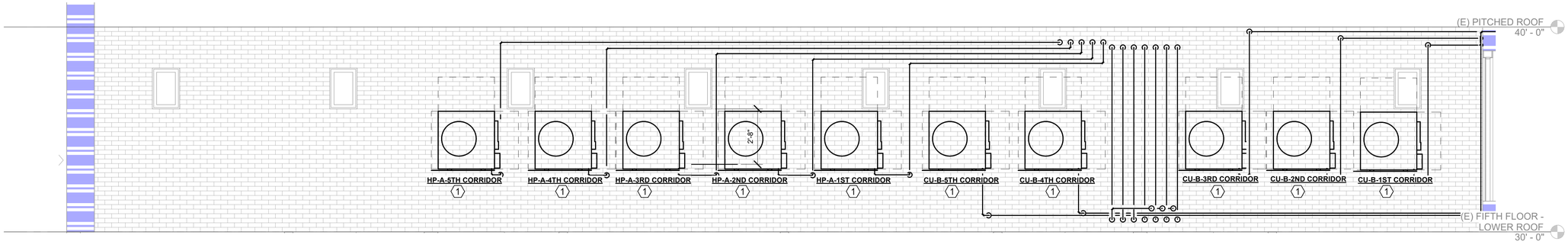

1 M-401 | M-301 MECHANICAL SECTION - NORTH ROOF RISER WALL

3/8" = 1'-0"

0 2' 4' 8'

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

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Matthew A. Wilson
Lic. No. 0402049270
06/03/2024
PROFESSIONAL ENGINEER

SHEET TITLE
MECHANICAL ROOF SECTIONS

SHEET NUMBER
M-301

SHEET # 22 OF 51

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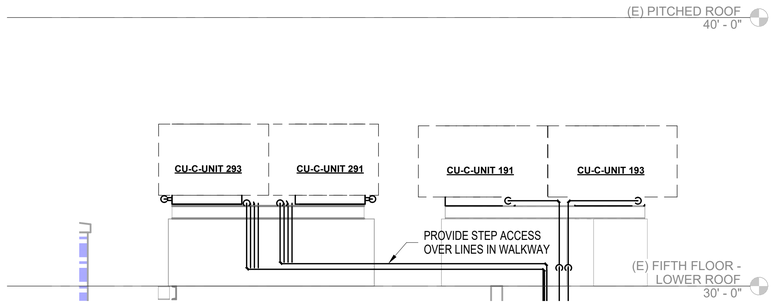
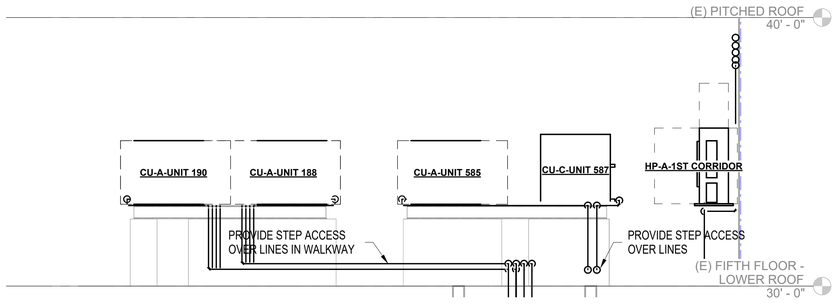


1 M-401 | M-302

MECHANICAL SECTION - NORTH SECTION 1

3/8" = 1'-0"



2 M-401 | M-302

MECHANICAL SECTION - NORTH SECTION 2

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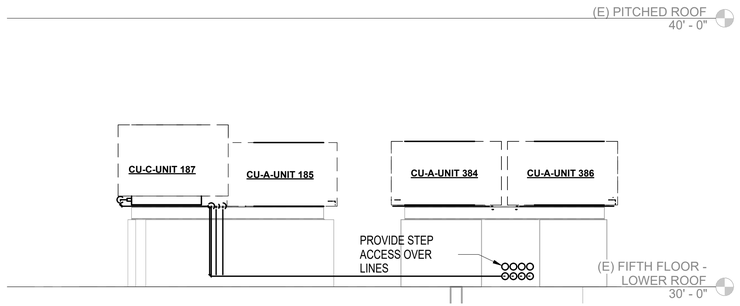

3 M-401 | M-302

MECHANICAL SECTION - NORTH SECTION 3

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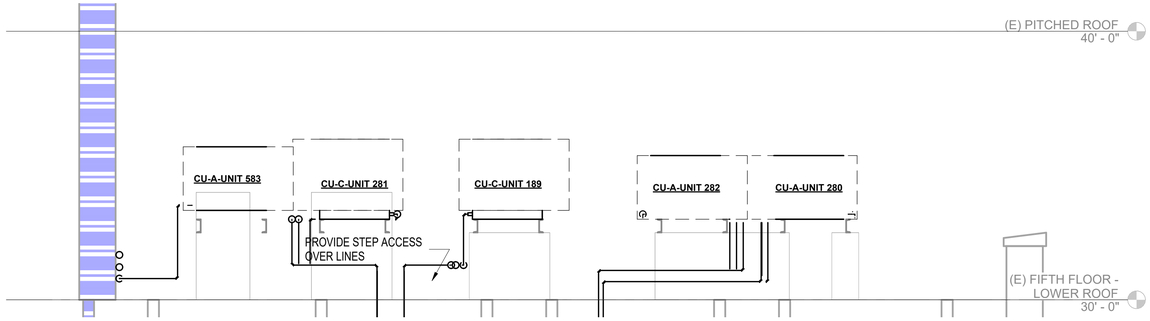
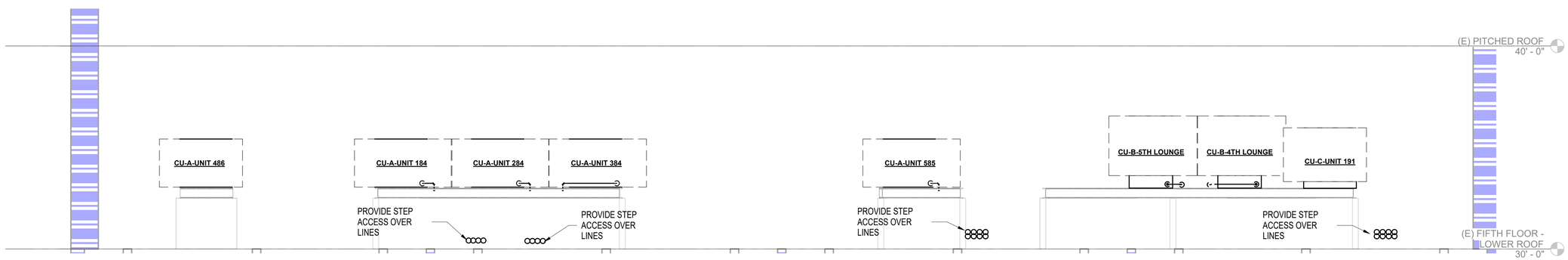


5 M-402 | M-302

MECHANICAL SECTION - SOUTH SECTION 1

3/8" = 1'-0"



4 M-401 | M-302

MECHANICAL SECTION - NORTH SECTION 4

3/8" = 1'-0"

0 2' 4' 8'

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

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CHECKED:	DFB
DATE:	06/03/2024

COMMONWEALTH OF VIRGINIA
Matthew A. Wilson
Lic. No. 0402049270
06/03/2024
PROFESSIONAL ENGINEER

SHEET TITLE
MECHANICAL ROOF SECTIONS

SHEET NUMBER
M-302

SHEET # 23 OF 51

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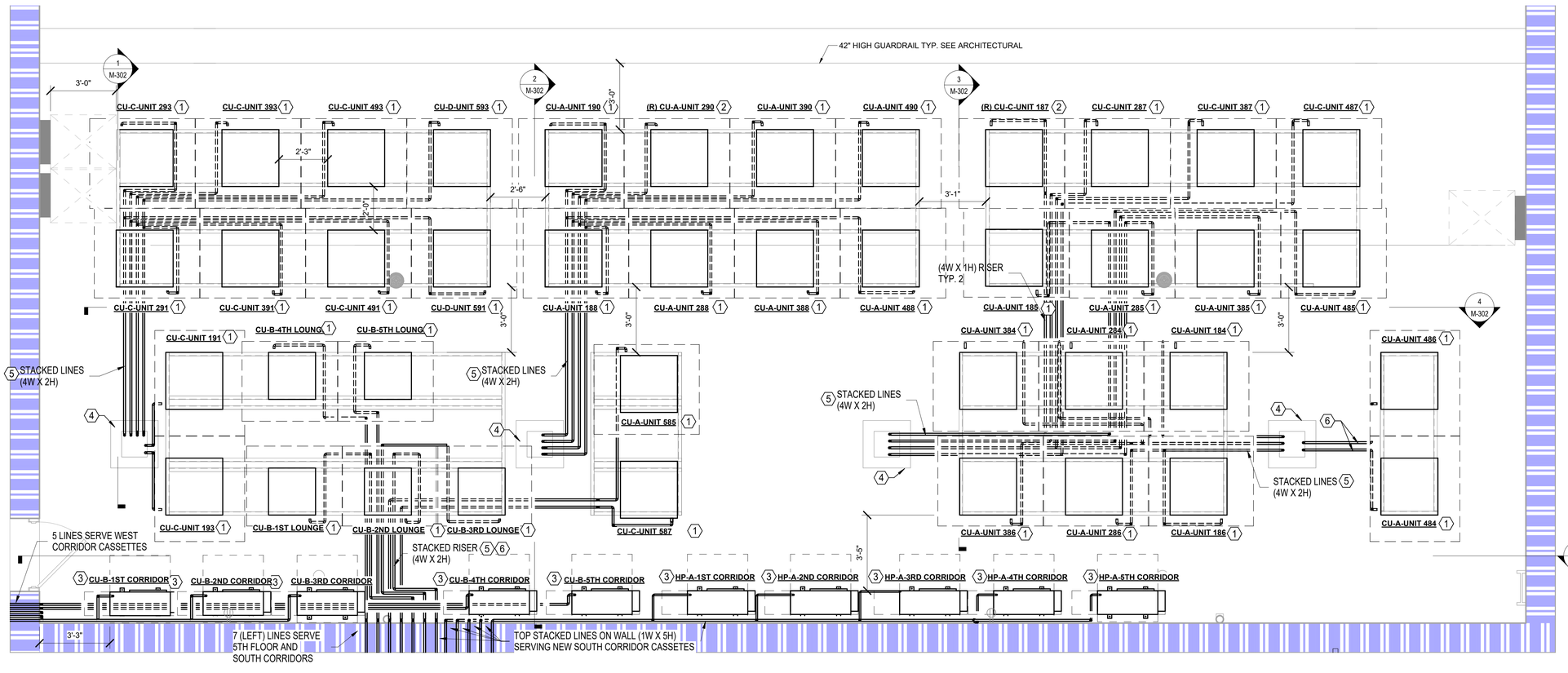
SHEET KEYNOTES:

1. PROVIDE NEW HEAT PUMP, CONTROL WIRING, REFRIGERANT PIPING, AND ALL SUPPORTS IN THEIR ENTIRETY.
2. HEAT PUMP TO BE RELOCATED. PROVIDE NEW CONTROL WIRING, REFRIGERANT PIPING, AND ALL SUPPORTS IN THEIR ENTIRETY.
3. PROVIDE WALL MOUNTED HEAT PUMP, PIPING, SUPPORTS AND ALL SUPPORTS IN THEIR ENTIRETY.
4. PIPING PORTAL LOCATION.
5. STACKED REFRIGERANT (RS/RL) LINESETS.

GENERAL NOTES:

1. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE PROVIDED IN ACCORDANCE WITH AN APPROVED THROUGH-PENETRATION FIRESTOPPING SYSTEM.
2. ALL PENETRATIONS THROUGH NON-FIRE RATED ASSEMBLIES SHALL BE SEALED IN ACCORDANCE WITH ARCHITECTURAL CONSTRUCTION DOCUMENTS.
3. SOME AIR HANDLING UNITS AND THEIR ASSOCIATED OUTDOOR CONDENSING UNITS HAVE BEEN UPGRADED PRIOR TO THIS PROJECT AND ARE TO BE REUSED AS INDICATED.
4. DRAWINGS OF THE STRUCTURAL ALUMINUM CHANNEL SUPPORT FRAME SYSTEMS SHALL BE COORDINATED WITH PURCHASED EQUIPMENT SUBMITTED FOR APPROVAL AFTER THE HEAT PUMP SUBMITTAL IS APPROVED. ALL HEAT PUMPS SHALL HAVE A MINIMUM OF 4 POINTS OF MECHANICAL ATTACHMENT (BOLTING) DIRECTLY TO THE STRUCTURAL MEMBERS. SUPPORT METHOD SUBSTITUTIONS WILL NOT BE PERMITTED (WOOD, NON-STRUCTURAL CHANNEL SHAPES, RUBBER ROOF BLOCKS, ETC). CONDUIT AND REFRIGERANT PIPING MAY BE SUPPORTED BY 1-5/8"X1-5/8" ALUMINUM PRE-FABRICATED CHANNELS BOLTED TO THE STRUCTURAL ALUMINUM FRAME (SPACING TO COMPLY WITH NEC AND 2021 VIRGINIA MECHANICAL CODE). SEE ARCHITECTURAL DETAILS FOR FRAME INFORMATION.
5. A MINIMUM CLEARANCE OF 3' SHALL BE PROVIDED BETWEEN EACH EQUIPMENT PLATFORM TO THE OTHER PLATFORMS, PARAPHET OF HANDRAILS, ELECTRICAL PANELS AND WALL MOUNTED UNITS. DISTANCE BETWEEN PLATFORM MOUNTED UNITS SHALL BE AS REQUIRED BY MANUFACTURER'S INSTRUCTION.



1 / M-103 | M-401 — 5TH FLOOR / ROOF MECHANICAL ENLARGED NEW WORK PLAN - NORTH ROOF

3/8" = 1'-0"

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

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DRAWN:	KNF
CHECKED:	DFB
DATE:	06/03/2024

COMMONWEALTH OF VIRGINIA
Matthew A. Wilson
Lic. No. 0402049270
06/03/2024
PROFESSIONAL ENGINEER

SHEET TITLE
MECHANICAL ENLARGED NORTH ROOF PLAN

SHEET NUMBER
M-401

SHEET # 24 OF 51

SHEET KEYNOTES:

1. PROVIDE NEW HEAT PUMP, CONTROL WIRING, REFRIGERANT PIPING, AND ALL SUPPORTS IN THEIR ENTIRETY.
2. HEAT PUMP TO BE RELOCATED. PROVIDE NEW CONTROL WIRING, REFRIGERANT PIPING, AND ALL SUPPORTS IN THEIR ENTIRETY.
3. PIPING PORTAL LOCATION.
4. STACKED REFRIGERANT (RS/RL) LINESETS.

GENERAL NOTES:

1. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE PROVIDED IN ACCORDANCE WITH AN APPROVED THROUGH-PENETRATION FIRESTOPPING SYSTEM.
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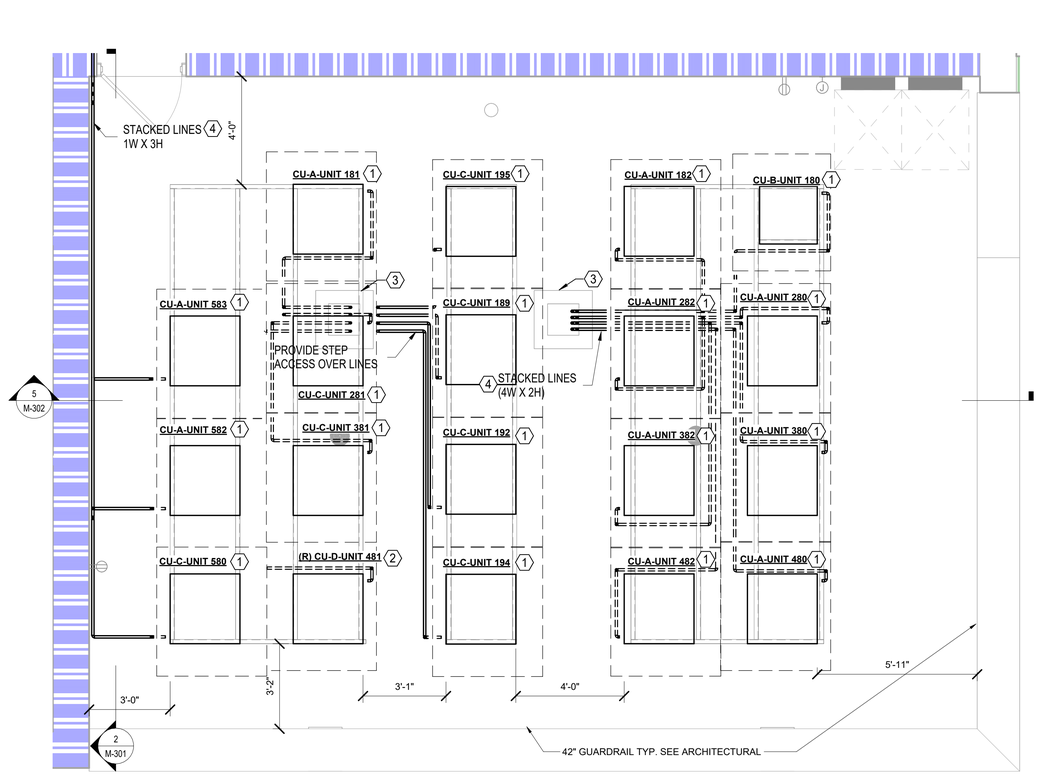
5. A MINIMUM CLEARANCE OF 3' SHALL BE PROVIDED BETWEEN EACH EQUIPMENT PLATFORM TO THE OTHER PLATFORMS, PARAPHET OF HANDRAILS, ELECTRICAL PANELS AND WALL MOUNTED UNITS. DISTANCE BETWEEN PLATFORM MOUNTED UNITS SHALL BE AS REQUIRED BY MANUFACTURER'S INSTRUCTION.



1 / M-103 M-402 — 5TH FLOOR / ROOF MECHANICAL ENLARGED NEW WORK PLAN - SOUTH ROOF

3/8" = 1'-0"

0 2' 4' 8'

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

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Matthew A. Wilson
Lic. No. 0402049270
06/03/2024
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SHEET TITLE
MECHANICAL ENLARGED SOUTH ROOF PLAN

SHEET NUMBER
M-402

SHEET # 25 OF 51

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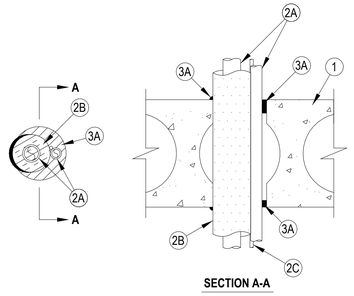
CBJ 8027

System No. C-BJ-8027

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 3 Hr	F Rating — 3 Hr
T Rating — 1 Hr	FT Rating — 1 Hr
	FH Rating — 3 Hr
	FTH Rating — 1 Hr



SECTION A-A

CBJ 8027

System No. C-BJ-8027

1. Floor or Wall Assembly — Min 8 in. (203 mm) thick floor or wall made from reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Floor assembly may also be constructed of any 8 in. (203 mm) thick UL Classified hollow-core Precast Concrete Units*. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diameter of opening is 4 in. (102 mm). See Concrete Blocks (CAZT) and Precast Concrete Units (CFTV) category in the Fire Resistance Directory for names of manufacturers.
2. Air Conditioning (AC) Line Set— One tightly bundled AC line set installed within opening. AC line set consists of two metallic penetrants (Item 2A), tubing insulation (Item 2B) and a thermostat cable (Item 2C). The annular space between the AC line set and the periphery of the opening shall be min 0 in. (point contact) to max 1-1/2 in. (38 mm). The AC line set shall be rigidly supported on both sides of the floor or wall assembly.

2A. Metallic Penetrants — A max of two pipes, tubes or conduit to be installed in the AC line set. Of the two pipes,tubes or conduits, only one may have a nom diam greater than 1/2 in. (13 mm). The following types and sizes of through penetrants may be used:
- A. Steel Pipe — Nom 1 in. (25 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.
- B. Conduit — Nom 1 in. (25 mm) diam (or smaller) steel electrical metallic tubing or nom 1 in. (25 mm) diam (or smaller) steel conduit.
- C. Iron Pipe — Nom 1 in. (25 mm) diam (or smaller) cast or ductile iron pipe.
- D. Copper Pipe — Nom 1 in. (25 mm) diam (or smaller) Regular (or heavier) copper pipe.
- E. Copper Tube — Nom 1 in. (25 mm) diam (or smaller) Type L (or heavier) copper tube.

2B. Tube Insulation - Plastics — Nom 3/4 in. (19 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. The tube insulation may be installed on one max 1 in. (25 mm) diam pipe or tube in the AC line set. See Plastics (QMFZ2) category in the Plastics Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation meeting the above specifications and having a UL 94 Flammability Classification of 945VA may be used.

2C. Cable — One 4 pair No. 18 AWG (or smaller) thermostat cable with polyvinyl chloride (PVC) insulation and jacket materials may be installed with the AC line set.

3. Firestop System — The firestop system shall consist of the following:
A. Fill, Void or Cavity Materials* - Sealant — In floors, min 1 in. (25 mm) thickness of fill material applied within annulus flush with top surface of floor and min 1/2 in. (13 mm) thickness of fill material applied within annulus flush with bottom surface of floor. In walls, min 1 in. (25 mm) thickness of fill material applied within annulus flush with both surfaces of wall. In addition, min 1/4 in. (6 mm) bead of fill material applied at all point contact locations at penetrants/concrete interface, on both sides of floor or wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC— FS-ONE Sealant or FS-ONE MAX Intumescent Sealant.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

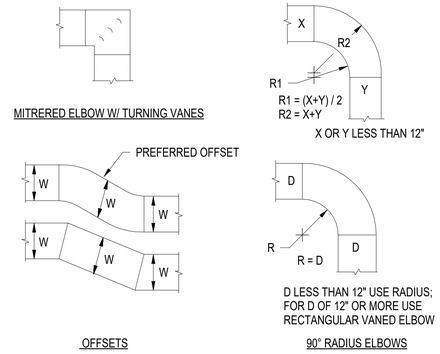
Hilti Firestop Systems

Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. January 16, 2015

FIRE RATED PENETRATION - HVAC LINESET THROUGH HOLLOW CORE FLOOR

NTS



DUCT CONNECTION DETAIL

NTS

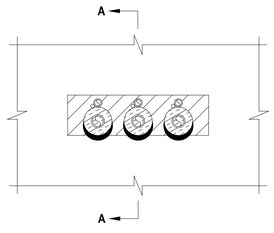
WL 8142

System No. W-L-8142

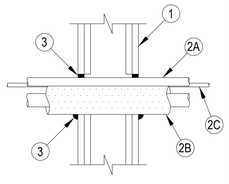
Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating – 1 and 2 Hr	F Rating – 1 and 2 Hr
T Ratings – 0 and 1/4 Hr (See Item 1)	FT Ratings – 0 and 1/4 Hr (See Item 1)
L Rating at Ambient — Less Than 1 CFM/Sq Ft	FH Rating – 1 and 2 Hr
L Rating at 400°F — Less Than 1 CFM/Sq Ft	FTH Ratings – 0 and 1/4 Hr (See Item 1)
	L Rating At Ambient — Less Than 5.1 L/s/m²
	L Rating At 204°C — Less Than 5.1 L/s/m²

FRONT VIEW



SECTION A-A



WL 8142

System No. W-L-8142

1. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300, U400, V400 or W400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
A. Studs —Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced max 16 in. (406 mm) OC. Steel studs to be min 3-5/8 in. (92 mm) wide and spaced max 24 in. (610 mm) OC.
B. Gypsum Board* — The gypsum board type, thickness number of layers, fastener type and sheet orientation shall be specified in the individual Wall and Partition Design in the UL Fire Resistance Directory. Max opening size is 10 in. (254 mm) by 3 in. (76 mm).

The T, FT and FTH Ratings are 0 and 1/4 hr for 1 and 2 hr rated assemblies, respectively.

2. Air Conditioning (AC) Line Set—One or more AC line sets installed eccentrically or concentrically within opening. Each AC line set consists of two pipes or tubes (Item 2A), tubing insulation (Item 2B) and a thermostat cable (Item 2C). The space between the AC line sets shall be min 1/2 in. (13 mm) to max 3/4 in. (19 mm). The space between the AC line sets and the periphery of the opening shall be min 0 in. (point contact) to max 1-1/2 in. (38 mm) to one side of opening.

2A. Through Penetrants — A max of two pipes or tubes to be installed in each AC line set. Of the two pipes or tubes, only one may have a nom diam greater than 1/2 in. (13 mm) Annular space between pipes or tubing and periphery of opening shall be min 0 in. (point contact) to max 1-1/2 in. (38 mm). Pipes or tubing to be rigidly supported on both sides of the wall assembly. The following types and sizes of through penetrants may be used:
1. Copper Tube — Nom 1 in. (25 mm) diam (or smaller) Type L (or heavier) copper tube.
2. Copper Pipe — Nom 1 in. (25 mm) diam (or smaller) Regular (or heavier) copper pipe.

2B. Tube Insulation — Plastics+ — Max 3/4 in. (19 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. The tube insulation may be installed on one max 1/2 in. (13 mm) diam pipe or tube in each AC line set. The annular space between the penetrating item and the periphery of the opening shall be min 0 in. (point contact) to max 3/4 in. (19 mm). The space between the pipes or tubing within each AC line set shall be 0 in. (point contact).
See Plastics+ (QMFZ2) category in the Plastics Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.

2C. Cables — Max of one 4 pair No. 18 AWG (or smaller) cable with PVC insulation and jacket materials.

3. Fill, Void or Cavity Material - Sealant* —Min 5/8 in. (16 mm) thickness of fill material applied within annulus between penetrants and gypsum board, flush with both surfaces of wall. At point contact, a 1/2 in. (5 mm) bead of fill material shall be applied at the penetrant/gypsum board interface on both sides of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC— FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. October 3, 2022

FIRE RATED PENETRATION - HVAC LINESET THROUGH GYPSUM WALL

NTS

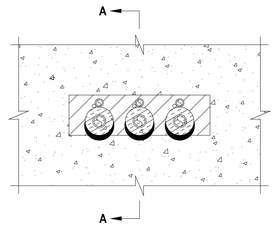
WJ 8102

System No. W-J-8102

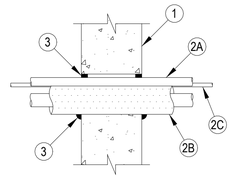
Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating – 1 and 2 Hr (See Item 1)	F Rating – 1 and 2 Hr (See Item 1)
T Ratings – 1/4 Hr	FT Ratings – 1/4 Hr
L Rating at Ambient — Less Than 1 CFM/Sq Ft	FH Rating – 1 or 2 Hr (See Item 1)
L Rating at 400°F — Less Than 1 CFM/Sq Ft	FTH Ratings – 1/4 Hr
	L Rating At Ambient — Less Than 5.1 L/s/m²
	L Rating At 204°C — Less Than 5.1 L/s/m²

FRONT VIEW



SECTION A-A



WJ 8102

System No. W-J-8102

1. Wall Assembly — Min 4-7/8 in. (124 mm) and 6-1/8 in. (156 mm) thick normal weight or lightweight (100-150 pcf or 1600-2400 kg/m3) concrete for 1 and 2 hour rated assemblies, respectively. Wall may also be constructed of any UL Classified Concrete Blocks*. Max opening size is 10 in. (254 mm) by 3 in. (76 mm).
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
F and FH ratings are 1 and 2 hour for 1 and 2 hour rated assemblies, respectively.

2. Air Conditioning (AC) Line Set—One or more AC line sets installed eccentrically or concentrically within opening. Each AC line set consists of two pipes or tubes (Item 2A), tubing insulation (Item 2B) and a thermostat cable (Item 2C). The space between the AC line sets shall be min 1/2 in. (13 mm) to max 3/4 in. (19 mm). The space between the AC line sets and the periphery of the opening shall be min 0 in. (point contact) to max 1-1/2 in. (38 mm) to one side of opening.

2A. Through Penetrant — A max of two pipes or tubes to be installed in each AC line set. Of the two pipes or tubes, only one may have a nom diam greater than 1/2 in. (13 mm) Annular space between pipes or tubing and periphery of opening shall be min 0 in. (point contact) to max 1-1/2 in. (38 mm). Pipes or tubing to be rigidly supported on both sides of the wall assembly. The following types and sizes of through penetrants may be used:
1. Copper Tube —Nom 1 in. (25 mm) diam (or smaller) Type L (or heavier) copper tube.
2. Copper Pipe —Nom 1 in. (25 mm) diam (or smaller) Regular (or heavier) copper pipe.

2B. Tube Insulation – Plastics+ — Max 3/4 in. (19 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. The tube insulation may be installed on one max 1/2 in. (13 mm) diam pipe or tube in each AC line set. The annular space between the penetrating item and the periphery of the opening shall be min 0 in. (point contact) to max 3/4 in. (19 mm). The space between the pipes or tubing within each AC line set shall be 0 in. (point contact).
See Plastics+ (QMFZ2) category in the Plastics Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.

2C. Cables — Max of one 4 pair No. 18 AWG (or smaller) cable with PVC insulation and jacket materials.

3. Fill, Void or Cavity Material - Sealant* —Min 5/8 in. (16 mm) thickness of fill material applied within annulus between penetrants and concrete, flush with both surfaces of wall. At point contact, a 1/2 in. (5 mm) bead of fill material shall be applied at the penetrant/concrete interface on both sides of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC— FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

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PC#236-B4236-004

722 W CARY ST, RICHMOND, VA 23220

REVISIONS

#	DATE	DESCRIPTION

COMMISSION NUMBER
22240290

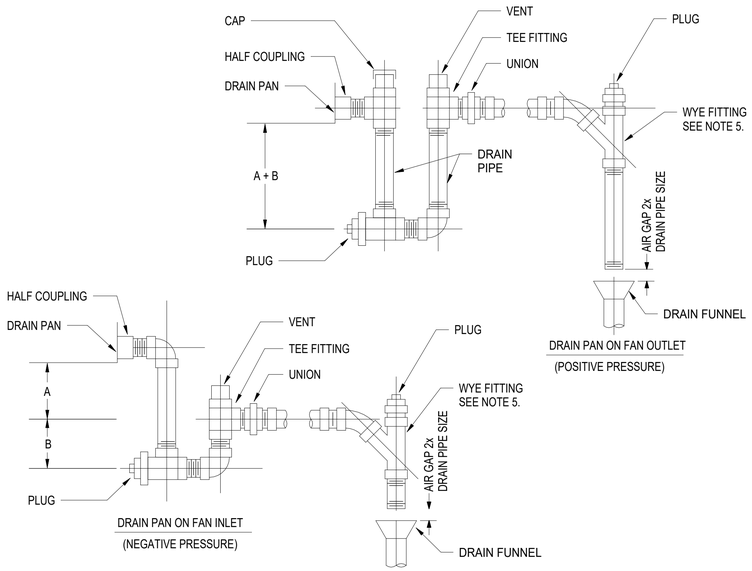
SCALE:	12" = 1'-0"
DESIGNED:	MAW
DRAWN:	KNF
CHECKED:	DFB
DATE:	06/03/2024

COMMONWEALTH OF VIRGINIA
Matthew A. Wilson
Lic. No. 0402049270
06/03/2024
PROFESSIONAL ENGINEER

SHEET TITLE
MECHANICAL DETAILS

SHEET NUMBER
M-501

SHEET # 26 OF 51



NOTES:

1. DRAIN PIPE TO BE SAME SIZE AS UNIT OUTLET, BUT NO LESS THAN 3/4" PIPE SIZE.
2. "A" = SYSTEM STATIC PRESSURE IN INCHES AT DRAIN POINT.
3. "B" = 1/2 SYSTEM STATIC PRESSURE IN INCHES AT DRAIN POINT.
4. TRAP TO BE INSTALLED PARALLEL TO AIR HANDLING UNIT BASE.
5. ALL CONDENSATE FITTINGS TO BE DWV (DRAIN WASTE VENT) FITTINGS.
6. INSTALL CLEAN OUT AT EVERY CHANGE IN DIRECTION, MAX. 20'-0" BETWEEN CLEANOUTS.

AHU DRAIN DETAILS

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SHEET TITLE
MECHANICAL DETAILS

SHEET NUMBER
M-502

SHEET # 27 OF 51

DUCTED SPLIT-SYSTEM HEAT PUMP SCHEDULE

APPROVED ALTERNATIVE MANUFACTURERS: TRANE #TEM4, YORK #LX

INDOOR UNIT SIZE TAG	OUTDOOR UNIT SIZE TAG	INDOOR UNIT DATA							OUTDOOR UNIT DATA							UNIT ELECTRIC DATA								SELECTION BASED ON				REMARKS
		SUPPLY AIRFLOW (CFM)	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	ENTERING AIR TEMP (°F DB / °F WB)	LEAVING AIR TEMP (°F DB / °F WB)	ELECTRIC HEATER CAPACITY (KW @240V))	UNIT WEIGHT (LBS)	AMBIENT COOLING DESIGN (°F)	AMBIENT HEATING DESIGN (°F)	REFRIGERANT	EFFICIENCY (EER2)	EFFICIENCY (SEER2)	MAX REFRIGERANT CHARGE (LBS)	UNIT WEIGHT (LBS)	VOLT/PH			INDOOR COIL UNIT FLA	INDOOR HEATER UNIT FLA	INDOOR UNIT MOCP	OUTDOOR UNIT MCA	OUTDOOR UNIT MOCP	MANUFACTURER	MODEL			
																INDOOR COIL	INDOOR HEATER	OUTDOOR							INDOOR	HEATER	OUTDOOR	
AHU-A	CU-A	500	18	12	75 / 64	55 / 54	5	94	95	15	R-410A	11.3	13.3	28	136	208/1	208/1	208/1	1.6	18.1	35	12	20	CARRIER	FB4ANF018	KFAEH1301C05	25HCE418	SEE NOTES: #1 - #7
AHU-B	CU-B	650	24	14	75 / 64	55 / 54	5	98	95	15	R-410A	11.1	13.3	27	144	208/1	208/1	208/1	2	18.1	40	14	25	CARRIER	FB4ANF024	KFAEH1301C05	25HCE424	SEE NOTES: #1 - #7
AHU-C	CU-C	1000	30	20	75 / 64	55 / 54	5	126	95	15	R-410A	11.3	13.3	28	158	208/1	208/1	208/1	2.4	18.1	40	18	30	CARRIER	FB4ANF030	KFAEH1301C05	25HCE430	SEE NOTES: #1 - #7
AHU-D	CU-D	1200	36	22	75 / 64	55 / 54	5	128	95	15	R-410A	11.3	13.3	21	170	208/1	208/1	208/1	3.2	18.1	40	20	30	CARRIER	FB4ANF036	KFAEH1301C05	25HCE436	SEE NOTES: #1 - #7

DUCTED SPLIT-SYSTEM HEAT PUMP SCHEDULE NOTES:

1. INDOOR UNIT NAMING FOR AIR HANDLING UNITS (AHUS) TO MATCH FORMAT LISTED BELOW.
   A. AHU - UNIT SIZE - UNIT NUMBER ON FLOOR
      a. (i.e. AHU-D-UNIT 185 FOR A D SIZE UNIT SERVING ROOM 185)
2. OUTDOOR UNIT NAMING FOR HEAT PUMPS (CU) TO MATCH FORMAT LISTED BELOW.
   A. CU - FLOOR NUMBER - UNIT SIZE - UNIT NUMBER ON FLOOR
      a. (i.e. CU-D-UNIT 185 FOR A D SIZE UNIT SERVING ROOM 185)
3. PROVIDE 410 STAINLESS STEEL DRAIN PAN AND INTEGRAL TRAP FLOAT SWITCH INTERLOCKED TO SHUTDOWN UNIT UPON DETECTION OF WATER IN THE DRAIN PAN.
4. PROVICE UNITS WITH ACCESSORY ELECTRIC HEATER TO MATCH LISTED ELECTRIC HEATER CAPACITY SCHEDULED.
5. PROVIDE INDOOR UNITS WITH 1" PLEATED MERV 8 FILTERS.
6. CHARGE SYSTEM WITH REFRIGERANT PER THE MANUFACTURER'S INSTRUCTIONS. MAX REFRIGERANT CHARGE IDENTIFIED IS THE MAXIMUM CHARGE ALLOWABLE FOR OCCUPANT SAFETY.
7. ACCESSORY HEATER AND INDOOR COIL UNIT TO HAVE SINGLE POINT POWER WIRING CONNECTION.

DUCTLESS SPLIT-SYSTEM HEAT PUMP SCHEDULE

APPROVED ALTERNATIVE MANUFACTURERS: TRANE #4MXC, PIONEER #CYB3

INDOOR UNIT TAG	OUTDOOR UNIT TAG	INDOOR UNIT DATA									OUTDOOR UNIT DATA								UNIT ELECTRIC DATA				SELECTION BASED ON			REMARKS
		SUPPLY AIRFLOW (CFM)	OUTDOOR AIRFLOW (CFM)	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	ENTERING AIR TEMP (°F DB / °F WB)	LEAVING AIR TEMP (°F DB / °F WB)	HEATING CAPACITY AT 47°F (MBH)	HEATING CAPACITY AT 17°F (MBH)	UNIT WEIGHT (LBS)	AMBIENT COOLING DESIGN (°F)	AMBIENT HEATING DESIGN (°F)	CIRCUITS	TYPE	REFRIGERANT	EFFICIENCY (EER2)	EFFICIENCY (SEER2)	UNIT WEIGHT (LBS)	VOLT/PH	INDOOR UNITS MCA	OUTDOOR UNIT MCA	MOCP	MANUFACTURER	MODEL		
																								INDOOR	OUTDOOR	
AHU-B-1ST CORRIDOR	CU-B-1ST CORRIDOR	650	90	18	12	75 / 64	55 / 54	19.7	12.9	31	95	15	1	INVERTER-SCROLL	R-410A	15	23	271	208/1	0.86	25	45	MITSUBISHI	SLZ-KF18NA	MXZ-SM36NAM2	SEE NOTES: #1 - #5
AHU-B-1ST CORRIDOR	CU-B-1ST CORRIDOR	650	-	18	12	75 / 64	55 / 54	19.7	12.9	31																
AHU-B-2ND CORRIDOR	CU-B-2ND CORRIDOR	650	90	18	12	75 / 64	55 / 54	19.7	12.9	31	95	15	1	INVERTER-SCROLL	R-410A	15	23	271	208/3	0.86	25	45	MITSUBISHI	SLZ-KF18NA	MXZ-SM36NAM2	SEE NOTES: #1 - #5
AHU-B-2ND CORRIDOR	CU-B-2ND CORRIDOR	650	-	18	12	75 / 64	55 / 54	19.7	12.9	31																
AHU-B-3RD CORRIDOR	CU-B-3RD CORRIDOR	650	90	18	12	75 / 64	55 / 54	19.7	12.9	31	95	15	1	INVERTER-SCROLL	R-410A	15	23	271	208/5	0.86	25	45	MITSUBISHI	SLZ-KF18NA	MXZ-SM36NAM2	SEE NOTES: #1 - #5
AHU-B-3RD CORRIDOR	CU-B-3RD CORRIDOR	650	-	18	12	75 / 64	55 / 54	19.7	12.9	31																
AHU-B-4TH CORRIDOR	CU-B-4TH CORRIDOR	650	90	18	12	75 / 64	55 / 54	19.7	12.9	31	95	15	1	INVERTER-SCROLL	R-410A	15	23	271	208/7	0.86	25	45	MITSUBISHI	SLZ-KF18NA	MXZ-SM36NAM2	SEE NOTES: #1 - #5
AHU-B-4TH CORRIDOR	CU-B-4TH CORRIDOR	650	-	18	12	75 / 64	55 / 54	19.7	12.9	31																
AHU-B-5TH CORRIDOR	CU-B-5TH CORRIDOR	650	90	18	12	75 / 64	55 / 54	19.7	12.9	31	95	15	1	INVERTER-SCROLL	R-410A	15	23	271	208/9	0.86	25	45	MITSUBISHI	SLZ-KF18NA	MXZ-SM36NAM2	SEE NOTES: #1 - #5
AHU-B-5TH CORRIDOR	CU-B-5TH CORRIDOR	650	-	18	12	75 / 64	55 / 54	19.7	12.9	31																
CC-1	HP-1	420	-	18	12	75 / 64	55 / 54	19.7	12.9	31	95	15	1	INVERTER-SCROLL	R-410A	15	23	271	208/1	0.86	25	45	MITSUBISHI	SLZ-KF18NA	MXZ-SM36NAM2	SEE NOTES: #1 - #7

DUCTLESS SPLIT-SYSTEM AIR COOLED HEAT PUMP CASSETTE SCHEDULE NOTES:

1. PROVIDE MANUFACTURER'S WALL-MOUNTING SUPPORT FOR HEAT PUMP.
2. INDOOR UNIT SHALL BE POWER FED FROM OUTDOOR UNIT.
3. INDOOR UNITS TO BE PROVIDED NOMINAL 1" DEFLECTION SPRING ISOLATORS. SEE SPECIFICATIONS.
4. EACH PAIRED CASSETTE SHALL BE CONTROLLED BY A SINGLE THERMOSTAT.
5. PROVIDE INDOOR UNITS WITH A 208V/1Ø CONDENSATE PUMP WITH A MINIMUM 10 FT HD LIFT RATING.
6. INDOOR UNIT NAMING TO MATCH FORMAT LISTED BELOW.
   A. CC - FLOOR NUMBER - UNIT NUMBER ON FLOOR
      a. (i.e. CC-A-UNIT 185 FOR AN A SIZE UNIT SERVING ROOM 185)
7. OUTDOOR UNIT NAMING TO MATCH FORMAT LISTED BELOW.
   A. HP - FLOOR NUMBER - UNIT NUMBER ON FLOOR
      a. (i.e. HP-A-UNIT 185 FOR AN A SIZE UNIT SERVING ROOM 185)

PIPING AND PIPING INSULATION SCHEDULE

SYSTEM	ABBREVIATION	NOMINAL OPERATING TEMPERATURE (°F)	OPERATING PRESSURE (PSIG)	LOCATION	PIPE SIZES	PIPING MATERIAL	JOINT TYPE	PIPE INSULATION	INSULATION JACKET	REMARKS
REFRIGERANT	RS/RL	35-220	120-410	INDOOR	ALL	COPPER TYPE ACR	BRAZED	1" ELASTOMERIC	-	SEE NOTES: #1 - #2
				OUTDOOR	ALL	COPPER TYPE ACR	BRAZED	2" ELASTOMERIC	ALUMINUM	SEE NOTES: #1 - #2
EQUIPMENT DRAIN	D	40-60	-	INDOOR	ALL	SOLID CORE SCH 40 W/ DWV FITTINGS	SOLVENT CEMENT	1" ELASTOMERIC		SEE NOTES: #1 - #2

PIPING AND PIPING INSULATION SCHEDULE NOTES:

1. ALL PIPING EXPOSED TO OUTDOORS SHALL BE PROTECTED WITH 0.040" STUCCO ALUMINUM JACKET.
2. PIPING INSULATION THROUGH FIRESTOP PENETRATIONS SHALL MATCH THE MATERIALS LISTED IN THE FIRESTOPPING LISTING.

THE SCHEDULED EQUIPMENT IS INTENDED ONLY TO SHOW THE GENERAL SIZE, CONFIGURATION, LOCATION, CONNECTIONS AND/OR SUPPORT FOR EQUIPMENT OR SYSTEMS SPECIFIED WITH RELATION TO THE OTHER BUILDING SYSTEMS. SEE SPECIFICATION FOR TECHNICAL REQUIREMENTS PERTAINING TO THE PRODUCT.

DUCTWORK SCHEDULE

SYSTEM	ABBREVIATION	LOCATION	PRESSURE (IN WC)	SEAL CLASS	DUCT MATERIAL	DUCT INSULATION	REMARKS
SUPPLY AIR	SA/OA	INDOOR	+/-2	A	G90 GALVANIZED STEEL	225", 0.75 PSF, FIBERGLASS WRAP INSULATION W/ FSK FACE	SEE NOTES #1 - #2
RETURN AIR	RA	INDOOR	+/-2	A	G90 GALVANIZED STEEL	NONE	SEE NOTES #1 - #2

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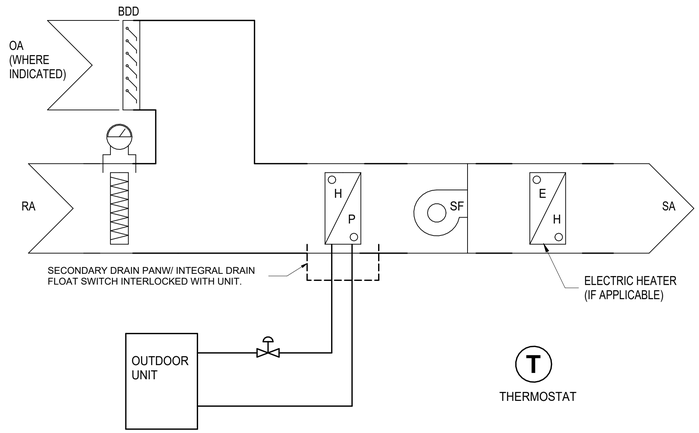
SHEET TITLE
MECHANICAL SCHEDULES

SHEET NUMBER
M-601

SHEET # 28 OF 51



SPLIT SYSTEM DX/HEAT PUMP SEQUENCE OF OPERATION:

RUN CONDITIONS:
SYSTEMS SHALL RUN AS COMMANDED BY MANUFACTURER'S THERMOSTATS. INITIALLY PROGRAMMED SETPOINTS SHALL BE 75°F IN COOLING MODE AND 70°F IN HEATING MODE.
WHERE MULTIPLE HEAT PUMPS ARE LOCATED IN A SINGLE SPACE, A SINGLE THERMOSTAT SHALL CONTROL BOTH HEAT PUMPS.

FAN CONTROL:
SUPPLY FANS AND CONDENSER FANS FOR ALL UNITS SHALL CYCLE WITH HEATING OR COOLING LOADS.

MODE CONTROL:
EACH SYSTEM SHALL BE CAPABLE OF AUTOMATIC CHANGEOVER BETWEEN HEATING AND COOLING MODES.

COOLING MODE:
UPON A RISE IN SPACE TEMPERATURE ABOVE COOLING SETPOINT, THE EQUIPMENT CONTROLLER SHALL STAGE COOLING TO MAINTAIN SETPOINT TEMPERATURE.

HEATING MODE:
UPON A DROP IN SPACE TEMPERATURE BELOW HEATING SETPOINT, THE EQUIPMENT CONTROLLER SHALL STAGE HEATING TO MAINTAIN SETPOINT TEMPERATURE. WHEN OUTDOOR TEMPERATURE IS BELOW 40°F, UNIT SHALL DISENGAGE HEAT PUMP AND CYCLE ELECTRIC AUXILIARY HEAT (IF APPLICABLE) TO MAINTAIN SETPOINT.

HEAT PUMP CONTROL DIAGRAM AND SEQUENCE OF OPERATION

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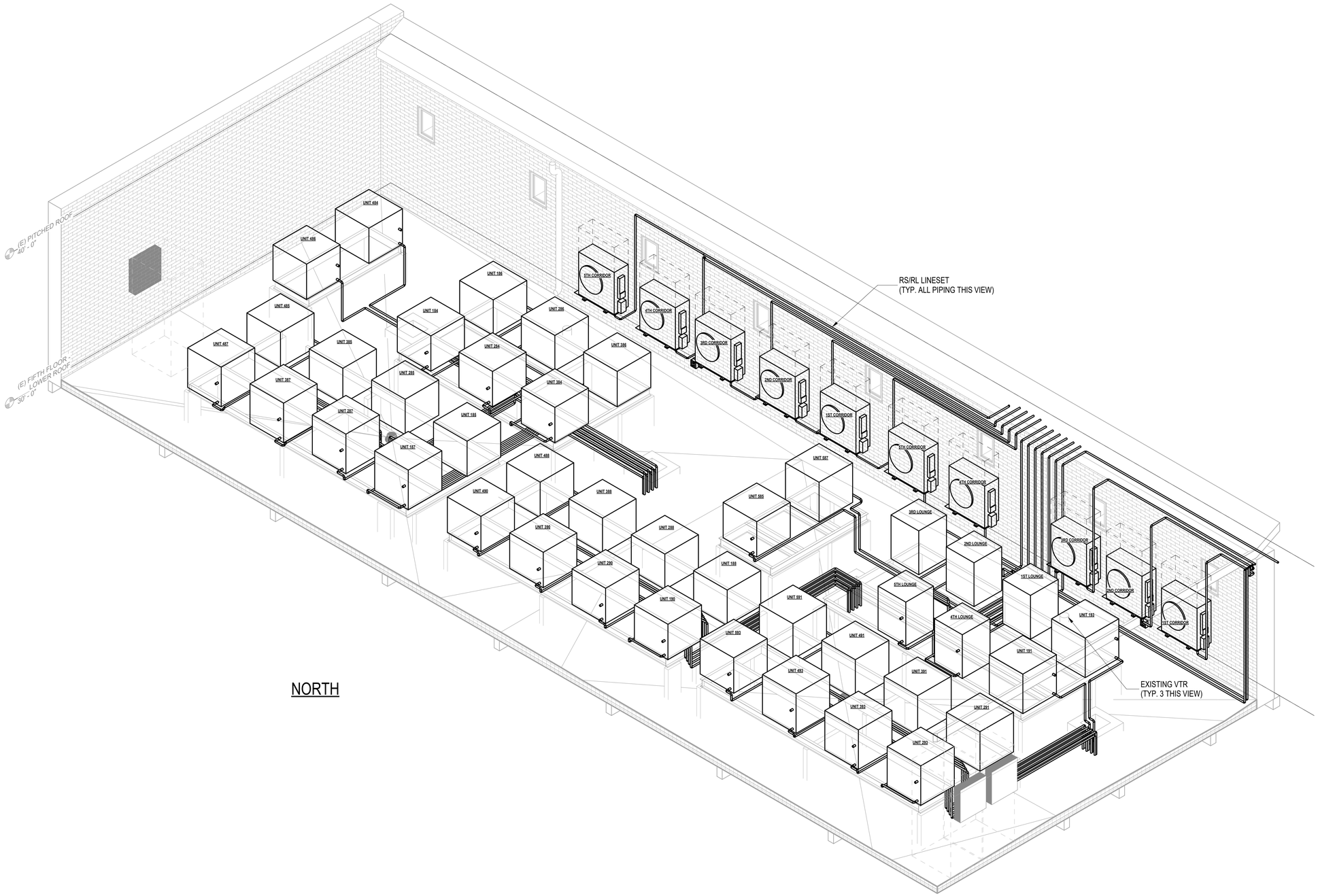
SHEET TITLE
MECHANICAL CONTROLS

SHEET NUMBER
M-801

SHEET # 29 OF 51



NORTH

NORTH ROOF RISER

NTS

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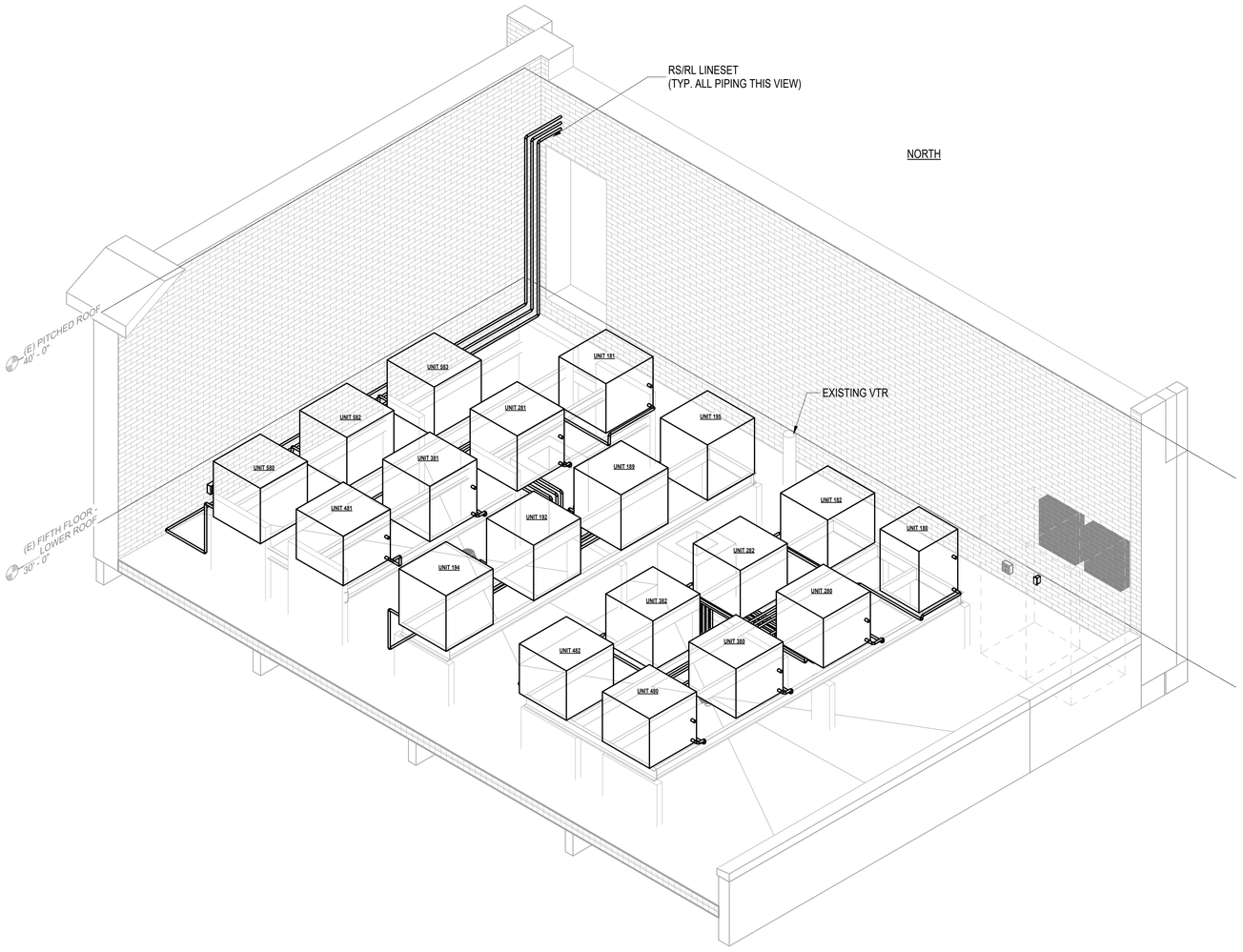
SHEET TITLE
MECHANICAL 3D VIEW - NORTH ROOF

SHEET NUMBER
M-901

SHEET # 30 OF 51



SOUTH ROOF RISER

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06/03/2024
PROFESSIONAL ENGINEER

SHEET TITLE
MECHANICAL 3D VIEW - SOUTH ROOF

SHEET NUMBER
M-902

SHEET # 31 OF 51

ELECTRICAL ABBREVIATIONS

A	AMPS, AMPERAGE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLER UNIT
BFC	BELOW FINISHED CEILING
BFG	BELOW FINISHED GRADE
C	CONDUIT
CB	MOLDED-CASE CIRCUIT BREAKER
CNTRL	CONTROL
CT	CURRENT TRANSFORMER
CU	CONDENSING UNIT
(D)	DEMOLISH
DN	DOWN
(E), EXST.	EXISTING
EC	EMPTY CONDUIT WITH PULL WIRE OR TAP
ECB	ENCLOSED CIRCUIT BREAKER
EMT	ELECTRICAL METALLIC TUBING
EQ	EQUIPMENT
ETR	EXISTING TO REMAIN
FLA	FULL LOAD AMPS
GEC	GROUNDING ELECTRODE CONDUCTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPT
GFEP	GROUND FAULT EQUIPMENT PROTECTION
GRC	GALVANIZED RIGID STEEL CONDUIT
GND	GROUND
HP	HORSEPOWER
IAW	IN ACCORDANCE WITH
kAIC	ONE-THOUSAND AMPERE INTERRUPTING CAPACITY
kW	KILOWATT
kVA	KILOVOLT-AMPERES
FLNC	LIQUIDTIGHT FLEXIBLE NON-METALLIC CONDUIT
LTS	LIGHTS
M	METER
MCB	MAIN CIRCUIT BREAKER
MIN	MINIMUM
MLO	MAIN LUGS ONLY
N	NEUTRAL
(N)	NEW
NA	NOT APPLICABLE
NEC	2020 NATIONAL ELECTRICAL CODE
NECA	NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NUMBER
PH	ELECTRICAL PHASE
RECPT(S)	RECEPTACLE(S)
RM	ROOM
RMS, RGS	GALVANIZED RIGID METAL CONDUIT
SM	SURFACE MOUNT
TCL	TOTAL CONNECTED LOAD
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
V	VOLTAGE, VOLTS
VUSBC	VIRGINIA UNIFORM STATEWIDE BUILDING CODE
W	WIRE OR WATTS
W/	WITH
Y	WYE CONNECTION
Δ	DELTA CONNECTION
Ø	ELECTRICAL PHASE
1 1/2"	INCH AND A HALF

GENERAL NOTES

1. LAY OUT WORK IN ADVANCE. EXERCISE CARE WHERE CUTTING, CHANNELING, CHASING, OR DRILLING OF FLOORS, WALLS, PARTITIONS, CEILING, OR OTHER SURFACES IS NECESSARY FOR PROPER INSTALLATION, SUPPORT OR ANCHORAGE OF CONDUIT, RACEWAYS, OR OTHER ELECTRICAL WORK. REPAIR DAMAGE TO BUILDINGS, PIPING, AND EQUIPMENT USING SKILLED CRAFTSMEN OF TRADES INVOLVED.
2. COORDINATE ALL ELECTRICAL WORK WITH OTHER TRADES IN FIELD PRIOR TO BEGINNING ANY ROUGH-IN WORK. COORDINATE ALL ELECTRICAL WORK, WITH MECHANICAL AND ARCHITECTURAL DRAWINGS PRIOR TO ROUGH IN.
3. REMOVAL OF EXISTING ELECTRICAL DEVICES AND EQUIPMENT INCLUDES EQUIPMENT'S ASSOCIATED WIRING, INCLUDING CONDUCTORS, CABLES, EXPOSED CONDUIT, SURFACE METAL RACEWAYS, BOXES, AND FITTINGS, BACK TO EQUIPMENT'S POWER SOURCE AS INDICATED.
4. MAINTAIN CONTINUITY OF EXISTING CIRCUITS OF EQUIPMENT TO REMAIN. MAINTAIN EXISTING CIRCUITS OF EQUIPMENT ENERGIZED. RESTORE CIRCUITS WIRING AND POWER WHICH ARE TO REMAIN BUT WERE DISTURBED DURING DEMOLITION BACK TO ORIGINAL CONDITION.
5. EXISTING CONCEALED WIRING TO BE REMOVED SHALL BE DISCONNECTED FROM ITS SOURCE. REMOVE CONDUCTORS; CUT CONDUIT FLUSH WITH FLOOR, UNDERSIDE OF FLOOR, AND THROUGH WALLS; AND SEAL OPENINGS.
6. DISCONNECT AND REMOVE ALL UNUSED BOXES, CONDUIT, AND WIRE. EXISTING CONDUIT RUN CONCEALED IN WALLS, ABOVE ACCESSIBLE CEILINGS, OR IN FLOORS MAY BE ABANDONED IN PLACE OR REUSED. UNUSED BOXES MOUNTED FLUSH IN WALLS MAY REMAIN; PROVIDE BLANK METAL COVER PLATE. IF WIRING PASSES THROUGH BOX LABEL COVER PLATE TO INDICATE CIRCUIT(S) PRESENT.
7. PROPERLY SEAL ALL NEW AND EXISTING FLOOR, CEILING, AND WALL PENETRATIONS IN ACCORDANCE WITH VCC.
8. FURNISH NEW UPDATED PANELBOARD SCHEDULES FOR EXISTING PANELS AFFECTED BY THIS WORK. CONTRACTOR SHALL FIELD VERIFY EXISTING AND NEW BRANCH CIRCUITS.
9. AT THE CONTRACTOR'S OPTION, HOMERUNS MAY BE COMBINED IN A SINGLE RACEWAY TO A MAXIMUM OF THREE DIFFERENT PHASES. CONTRACTOR SHALL DERATE THE CIRCUIT CONDUCTOR'S AMPACITY AND PROVIDE ADDITIONAL NEUTRAL CONDUCTORS AS NECESSARY. SHARED NEUTRALS ARE NOT ALLOWED.
10. ALL NEW WIRING SHALL BE CONCEALED WHERE POSSIBLE. FLEXIBLE CONDUIT MAY BE FISHED DOWN EXISTING WALLS IN ACCORDANCE WITH THE NEC. SURFACE MOUNTED METAL RACEWAY MAYBE UTILIZED WHERE WIRING CANNOT BE CONCEALED.
11. ELECTRICAL EQUIPMENT AND CIRCUITS SHALL BE MARKED AND LABELED FOR IDENTIFICATION PURPOSES IN ACCORDANCE WITH THE NEC. MECHANICALLY FASTENED LAMINATED NAMEPLATES SHALL BE PROVIDED ON THE EXTERIOR SURFACES OF ALL ELECTRICAL EQUIPMENT. JUNCTION AND PULL BOXES MAY BE LABELED USING A BLACK INDELIBLE MARKER. ALL SWITCH COVERS AND OUTLET BOX COVERS SHALL BE LABELED WITH CLEAR SELF ADHESIVE TAPE WITH BLACK LETTERS/NUMBERS. LABELS SHALL INDICATE PANEL DESIGNATION AND BREAKER NUMBER, PLACE LABEL ON THE BACK OF THE COVER PLATE.
12. DASHED LINES INDICATE ITEAMS TO BE REMOVED UNDER THIS CONTRACT. DARKER LINE WIEGHTS INDICATE NEW WORK. LIGHTER LINE WEIGHTS INDICATE EXISTING TO REMAIN.
13. CONTRACTOR MAY REUSE EXISTING HEAT PUMP WIRING.

ELECTRICAL LEGEND

- (E) — ELECTRICAL EQUIPMENT CONNECTION
- φWP GFI — 20A, 125V DUPLEX RECEPTACLE WITH INTEGRAL GROUND FAULT CIRCUIT INTERRUTING PROTECTION; "WP" INDICATES WEATHERPROOF ENCLOSURE; MOUNT 24"AFF, UON
- A-1,3 — BRANCH CIRCUIT OR FEEDER WIRING IN CONDUIT, NO TICK MARKS INDICATE 2#12 CONDUCTORS AND 1#12 GROUND IN 1/2" CONDUIT UON. TICK MARKS, WHEN SHOWN, INDICATE NUMBER OF #12 CONDUCTORS IF OTHER THAN THREE; (1) INDICATES GROUND. CONDUIT LARGER THAN 1/2" AND WIRE LARGER THAN #12, SHALL BE AS INDICATED
  HOMERUNS TO PANEL. PANEL AND CIRCUIT DESIGNATIONS AS INDICATED
- SURFACE MOUNTED PANELBOARD, 208Y/120V, 3 Ø, 4W UON
- SURFACE MOUNTED PANELBOARD, 480Y/277V, 3 Ø, 4W UON
- (3) — ELECTRICAL KEYNOTE
- 1 FIRE HOUR RATED WALL
- 2 FIRE HOUR RATED WALL

CODES AND STANDARDS

2021 VIRGINIA CONSTRUCTION CODE
2021 VIRGINIA STATEWIDE FIRE PREVENTION CODE
2021 VIRGINIA ENERGY CONSERVATION CODE REFER TO G-002
2021 VIRGINIA MECHANICAL CODE
2021 VIRGINIA FUEL GAS CODE
2021 VIRGINIA PLUMBING CODE
2021 VIRGINIA EXISTING BUILDING CODE REFER TO G-002
NFPA 70-2020: NATIONAL ELECTRICAL CODE
NFPA 72-2019: NATIONAL FIRE ALARM AND SIGNALING CODE
NFPA 101-2018: LIFE SAFETY CODE
ASHRAE-90.1-2016

WARNING NOTE:
EXISTING STRUCTURE IS HOLLOW CORE PLANK CONSTRUCTION. ALL NEW PENETRATIONS SHALL BE THROUGH THE CORES. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL CORE LOCATIONS PRIOR TO DRILLING OR CUTTING INTO CONCRETE PLANKS.

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PC#236-B4236-004

722 W CARY ST, RICHMOND, VA 23220

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#	DATE	DESCRIPTION

COMMISSION NUMBER
22240290

SCALE:	As indicated
DESIGNED:	JAM
DRAWN:	VT
CHECKED:	MAW
DATE:	06/03/2024

COMMONWEALTH OF VIRGINIA
JOSEPH ADAM MICKIEWICZ
Lic. No. 038888
PROFESSIONAL ENGINEER

SHEET TITLE
ELECTRICAL LEGEND, ABBREVIATIONS, AND NOTES

SHEET NUMBER
E-001

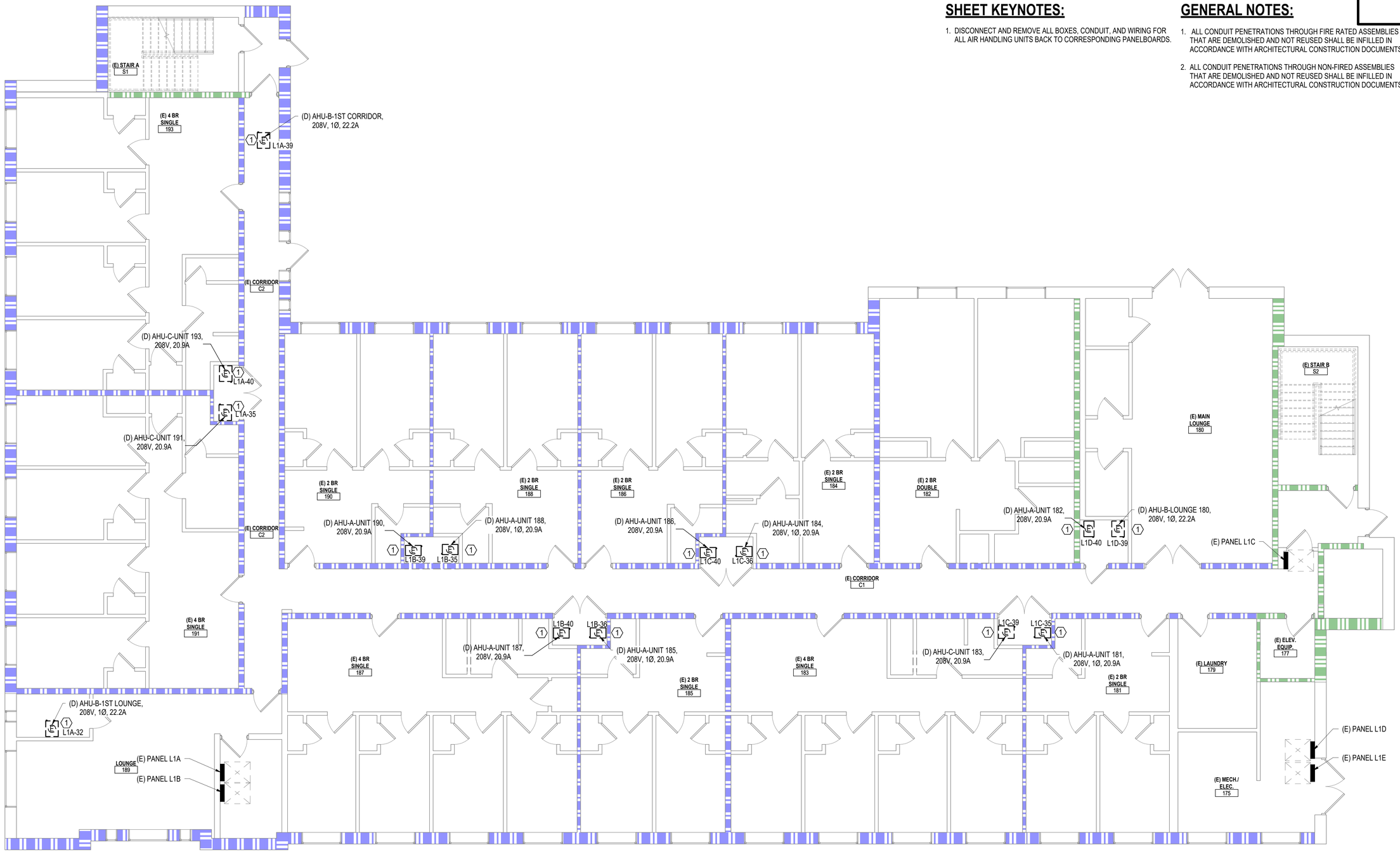
SHEET # 32 OF 51

SHEET KEYNOTES:

1. DISCONNECT AND REMOVE ALL BOXES, CONDUIT, AND WIRING FOR ALL AIR HANDLING UNITS BACK TO CORRESPONDING PANELBOARDS.

GENERAL NOTES:

1. ALL CONDUIT PENETRATIONS THROUGH FIRE RATED ASSEMBLIES THAT ARE DEMOLISHED AND NOT REUSED SHALL BE INFILLED IN ACCORDANCE WITH ARCHITECTURAL CONSTRUCTION DOCUMENTS.
2. ALL CONDUIT PENETRATIONS THROUGH NON-FIRED ASSEMBLIES THAT ARE DEMOLISHED AND NOT REUSED SHALL BE INFILLED IN ACCORDANCE WITH ARCHITECTURAL CONSTRUCTION DOCUMENTS.



1ST FLOOR ELECTRICAL DEMOLITION PLAN

3/16" = 1'-0"

0 4' 8' 16'

SCALE: 3/16" = 1'-0"

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JOSEPH ADAM MICKIEWICZ
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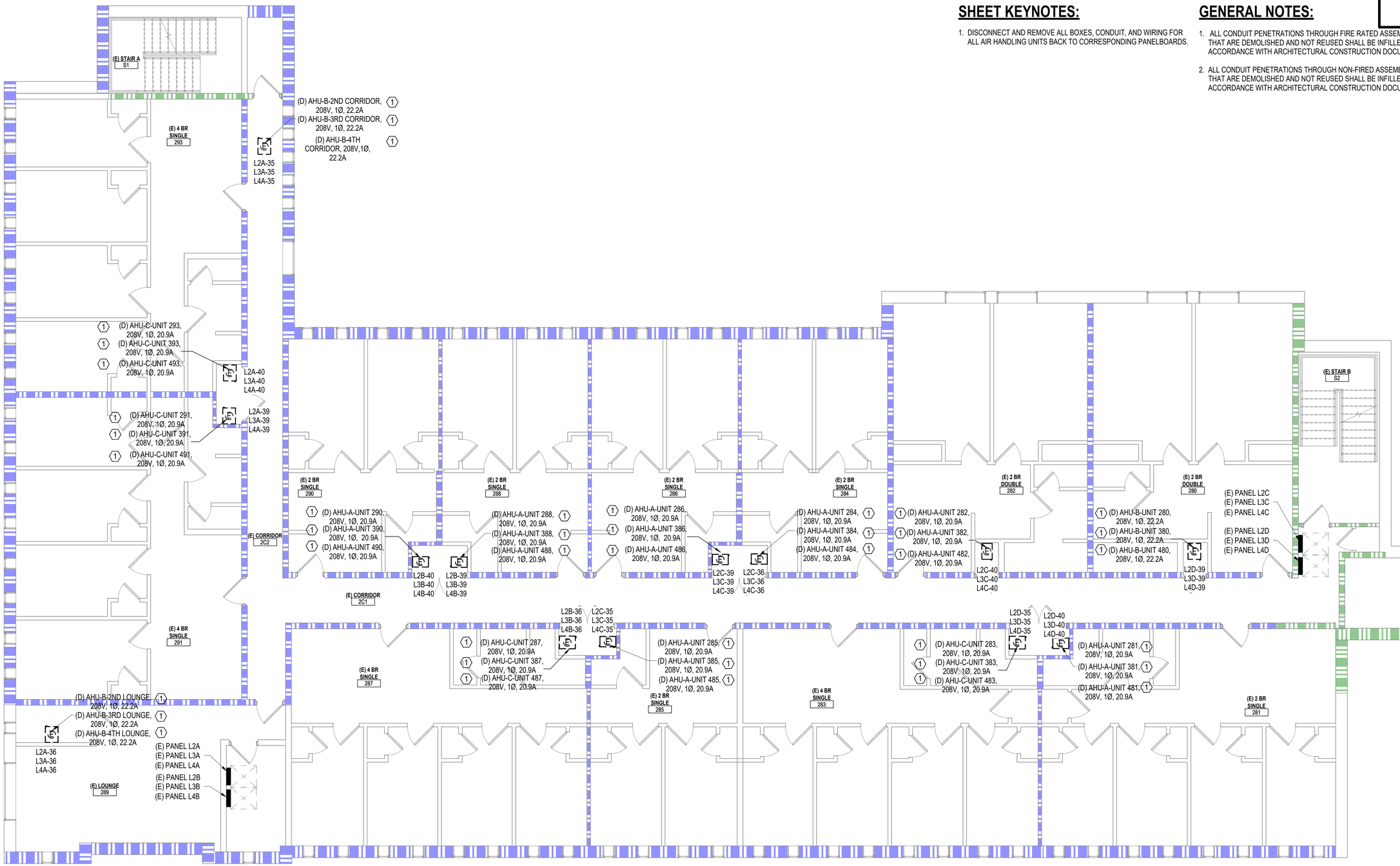
SHEET TITLE
1ST FLOOR ELECTRICAL POWER PLAN - DEMOLITION

SHEET NUMBER
ED101

SHEET # 33 OF 51



2ND-4TH FLOOR ELECTRICAL DEMOLITION PLAN

3/16" = 1'-0"

SHEET KEYNOTES:

1. DISCONNECT AND REMOVE ALL BOXES, CONDUIT, AND WIRING FOR ALL AIR HANDLING UNITS BACK TO CORRESPONDING PANELBOARDS.

GENERAL NOTES:

1. ALL CONDUIT PENETRATIONS THROUGH FIRE RATED ASSEMBLIES THAT ARE DEMOLISHED AND NOT REUSED SHALL BE INFILLED IN ACCORDANCE WITH ARCHITECTURAL CONSTRUCTION DOCUMENTS.
2. ALL CONDUIT PENETRATIONS THROUGH NON-FIRED ASSEMBLIES THAT ARE DEMOLISHED AND NOT REUSED SHALL BE INFILLED IN ACCORDANCE WITH ARCHITECTURAL CONSTRUCTION DOCUMENTS.

SCALE: 3/16" = 1'-0"

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COMMONWEALTH OF VIRGINIA
JOSEPH ADAM MICKIEWICZ
Lic. No. 038888
PROFESSIONAL ENGINEER

SHEET TITLE
2ND-4TH FLOOR ELECTRICAL POWER PLAN - DEMOLITION

SHEET NUMBER
ED102

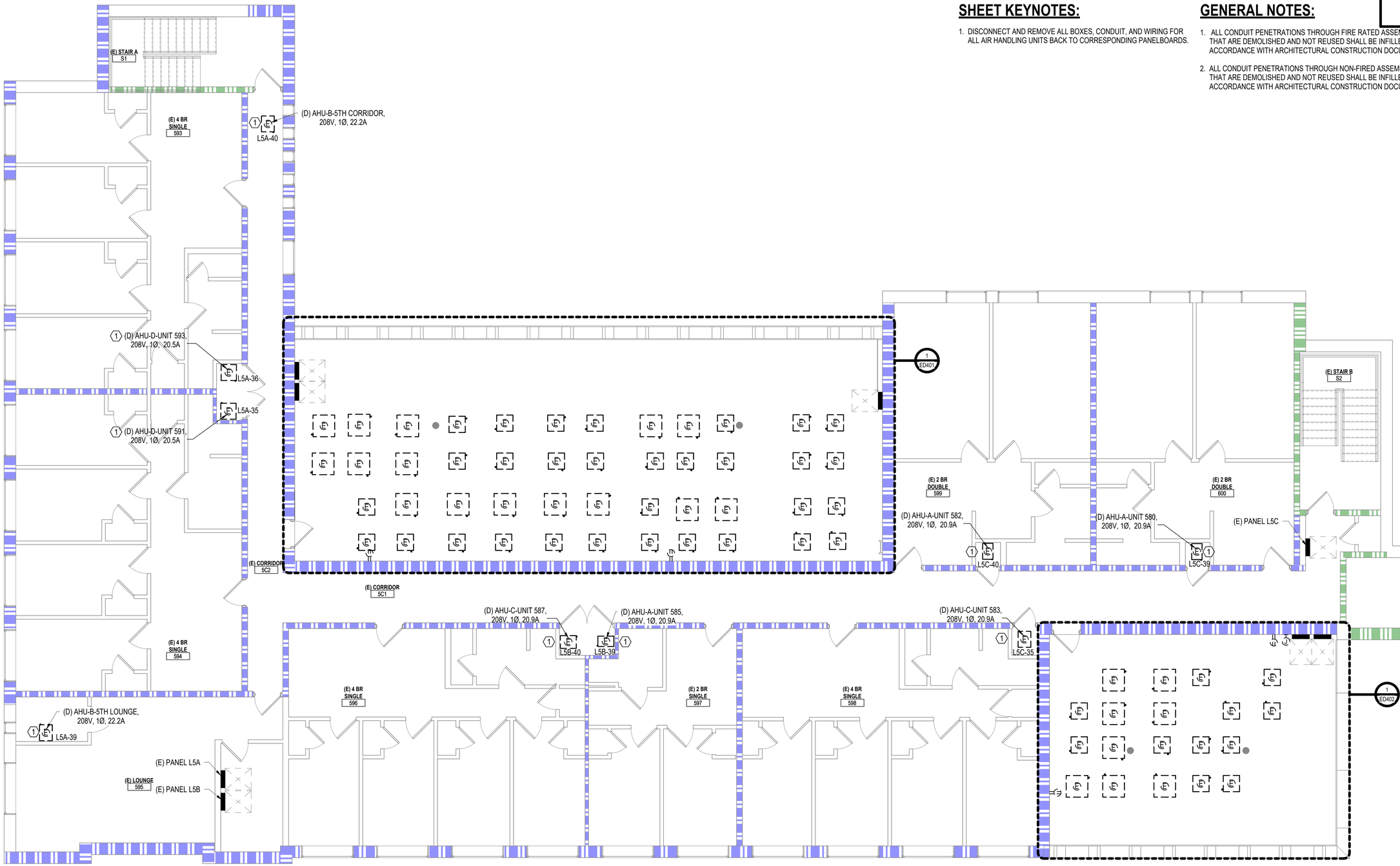
SHEET # 34 OF 51

SHEET KEYNOTES:

1. DISCONNECT AND REMOVE ALL BOXES, CONDUIT, AND WIRING FOR ALL AIR HANDLING UNITS BACK TO CORRESPONDING PANELBOARDS.

GENERAL NOTES:

1. ALL CONDUIT PENETRATIONS THROUGH FIRE RATED ASSEMBLIES THAT ARE DEMOLISHED AND NOT REUSED SHALL BE INFILLED IN ACCORDANCE WITH ARCHITECTURAL CONSTRUCTION DOCUMENTS.
2. ALL CONDUIT PENETRATIONS THROUGH NON-FIRED ASSEMBLIES THAT ARE DEMOLISHED AND NOT REUSED SHALL BE INFILLED IN ACCORDANCE WITH ARCHITECTURAL CONSTRUCTION DOCUMENTS.



1 5TH FLOOR / ROOF ELECTRICAL DEMOLITION PLAN

3/16" = 1'-0"

0 4' 8' 16'

SCALE: 3/16" = 1'-0"

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SHEET TITLE
5TH FLOOR ELECTRICAL POWER PLAN - DEMOLITION

SHEET NUMBER
ED103

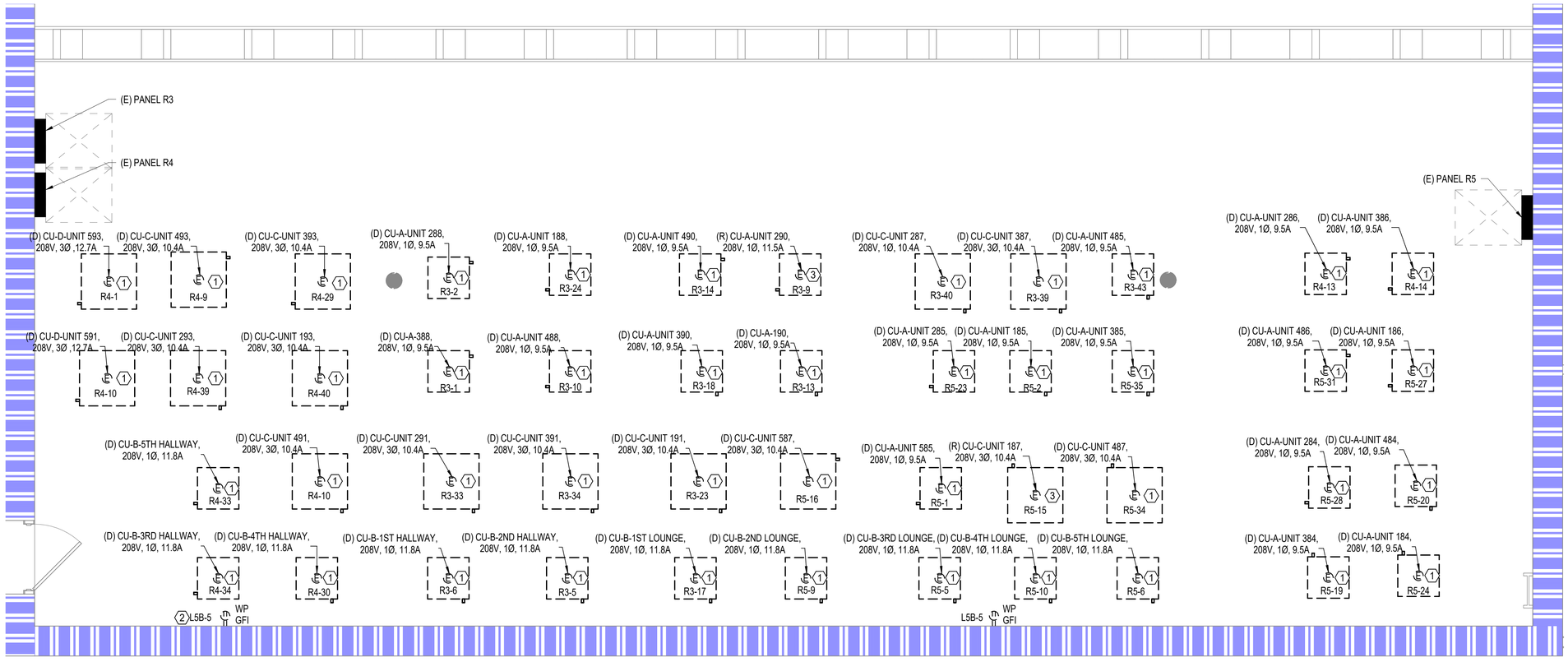
SHEET # 35 OF 51

SHEET KEYNOTES:

1. DISCONNECT AND REMOVE ALL BOXES, CONDUIT, AND WIRING ON THE ROOF TOP BACK TO THE CORRESPONDING PANELBOARD.
2. DISCONNECT AND REMOVE WEATHERPROOF RECEPTACLES LOCATED ON THE ROOF TOP.
3. UNIT SHALL BE RELOCATED. DISCONNECT AND REMOVE ALL BOXES, CONDUIT, AND WIRING ON THE ROOF TOP BACK TO THE CORRESPONDING PANELBOARD.

GENERAL NOTES:

1. ALL CONDUIT PENETRATIONS THROUGH FIRE RATED ASSEMBLIES THAT ARE DEMOLISHED AND NOT REUSED SHALL BE INFILLED IN ACCORDANCE WITH ARCHITECTURAL CONSTRUCTION DOCUMENTS.
2. ALL CONDUIT PENETRATIONS THROUGH NON-FIRED ASSEMBLIES THAT ARE DEMOLISHED AND NOT REUSED SHALL BE INFILLED IN ACCORDANCE WITH ARCHITECTURAL CONSTRUCTION DOCUMENTS.
3. EXISTING LIGHT FIXTURE ON ROOF TO REMAIN.



1 / ED103 | ED401

5TH FLOOR / ROOF ELECTICAL DEMOLITION PLAN - NORTH ROOF

3/8" = 1'-0"

0 2' 4' 8'

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

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SHEET TITLE
ELECTRICAL DEMOLITION PLAN - NORTH ROOF

SHEET NUMBER
ED401

SHEET # 36 OF 51

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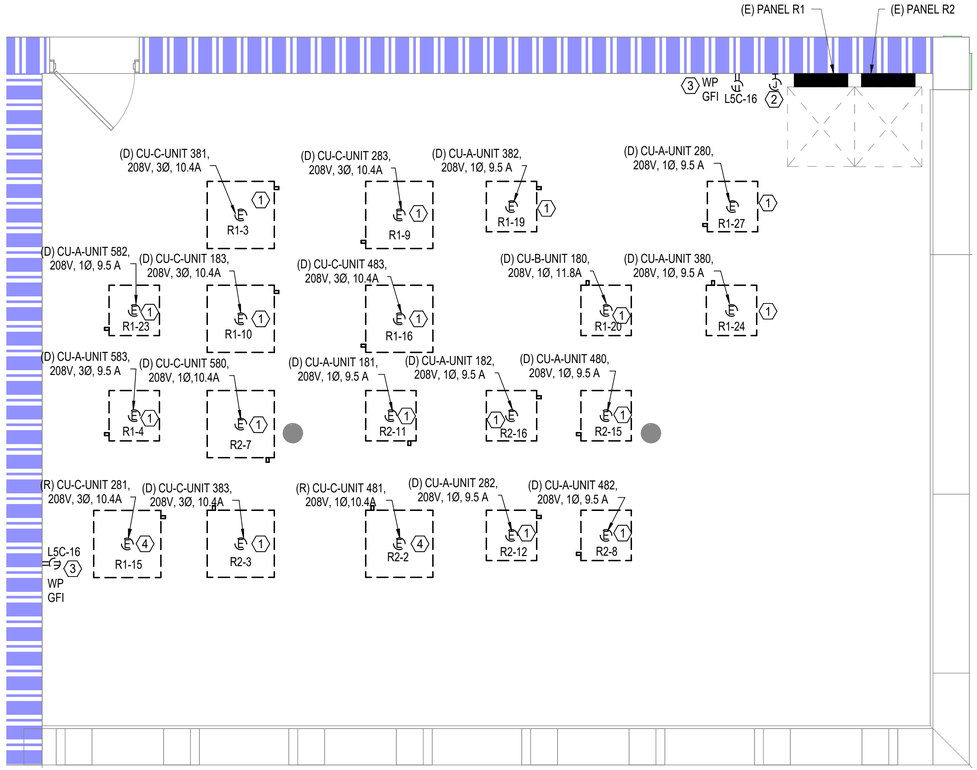
SHEET KEYNOTES:

1. DISCONNECT AND REMOVE ALL BOXES, CONDUIT, AND WIRING ON THE ROOF TOP BACK TO THE CORRESPONDING PANELBOARD.
2. REMOVE AND RELOCATE LOW WALL MOUNTED JUCTION BOX TO NEW ROOF TOP AFTER ARCHITECTURAL NEW WORK IS COMPLETED.
3. DEMOLISH WEATHERPROOF RECEPTACLES LOCATED ON THE ROOF TOP, RETAIN EXISTING WIRING.
4. UNIT SHALL BE RELOCATED. DISCONNECT AND REMOVE ALL BOXES, CONDUIT, AND WIRING ON THE ROOF TOP BACK TO THE CORRESPONDING PANELBOARD.

GENERAL NOTES:

1. ALL CONDUIT PENETRATIONS THROUGH FIRE RATED ASSEMBLIES THAT ARE DEMOLISHED AND NOT REUSED SHALL BE INFILLED IN ACCORDANCE WITH ARCHITECTURAL CONSTRUCTION DOCUMENTS.
2. ALL CONDUIT PENETRATIONS THROUGH NON-FIRED ASSEMBLIES THAT ARE DEMOLISHED AND NOT REUSED SHALL BE INFILLED IN ACCORDANCE WITH ARCHITECTURAL CONSTRUCTION DOCUMENTS.
3. EXISTING LIGHT FIXTURE ON ROOF TO REMAIN.



1 / ED103 | ED402

5TH FLOOR / ROOF ELECTICAL DEMOLITION PLAN - SOUTH ROOF

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0 2' 4' 8'

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

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SHEET TITLE
ELECTRICAL DEMOLITION PLAN - SOUTH ROOF

SHEET NUMBER
ED402

SHEET # 37 OF 51

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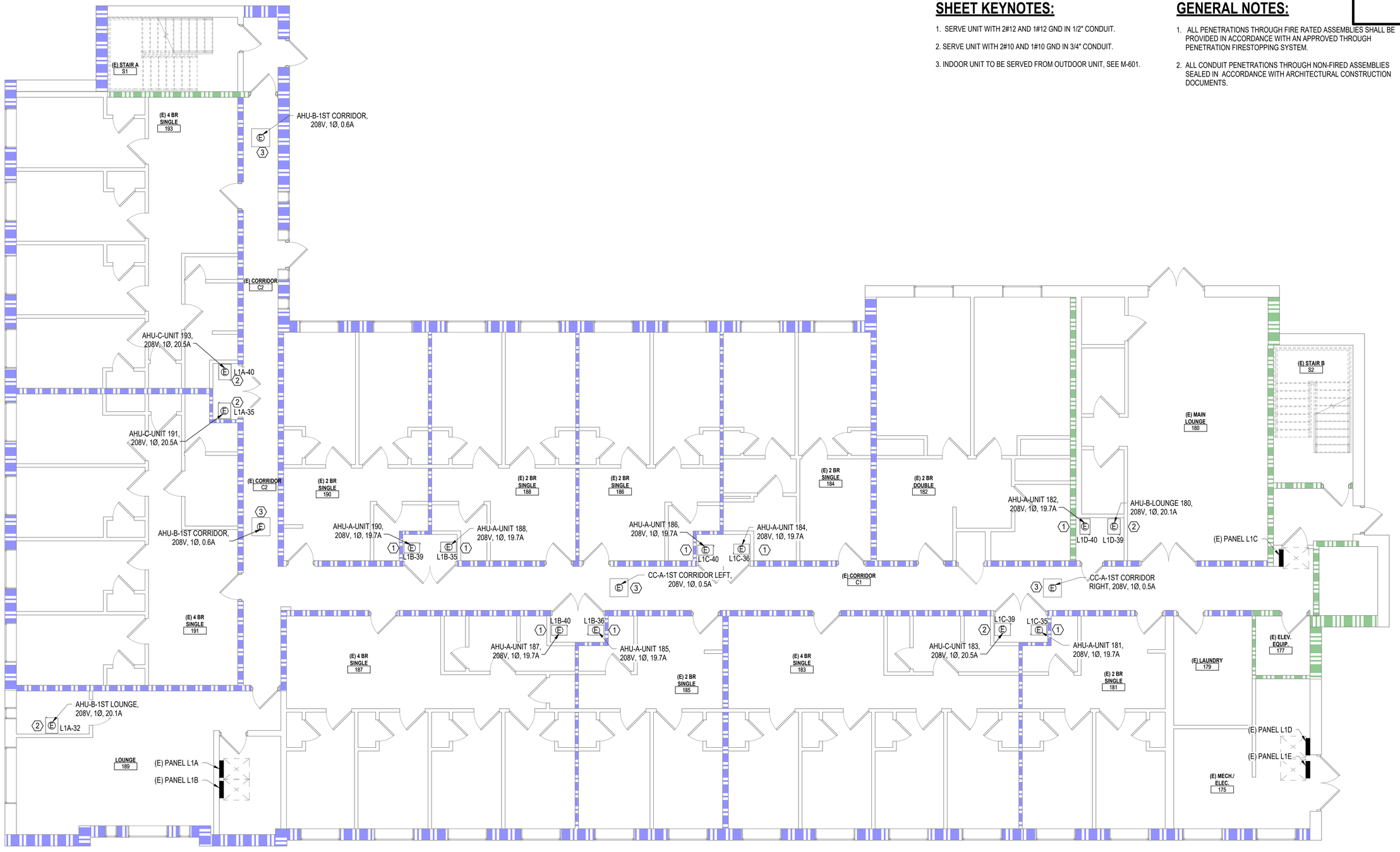
SHEET KEYNOTES:

1. SERVE UNIT WITH 2#12 AND 1#12 GND IN 1/2" CONDUIT.
2. SERVE UNIT WITH 2#10 AND 1#10 GND IN 3/4" CONDUIT.
3. INDOOR UNIT TO BE SERVED FROM OUTDOOR UNIT, SEE M-601.

GENERAL NOTES:

1. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE PROVIDED IN ACCORDANCE WITH AN APPROVED THROUGH PENETRATION FIRESTOPPING SYSTEM.
2. ALL CONDUIT PENETRATIONS THROUGH NON-FIRED ASSEMBLIES SEALED IN ACCORDANCE WITH ARCHITECTURAL CONSTRUCTION DOCUMENTS.



1ST FLOOR ELECTRICAL POWER PLAN

3/16" = 1'-0"

0 4' 8' 16'

SCALE: 3/16" = 1'-0"

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PC#236-B4236-004

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CHECKED:	MAW
DATE:	06/03/2024

COMMONWEALTH OF VIRGINIA
JOSEPH ADAM MICKIEWICZ
Lic. No. 038888
PROFESSIONAL ENGINEER

SHEET TITLE
1ST FLOOR ELECTRICAL POWER PLAN - NEW WORK

SHEET NUMBER
E-101

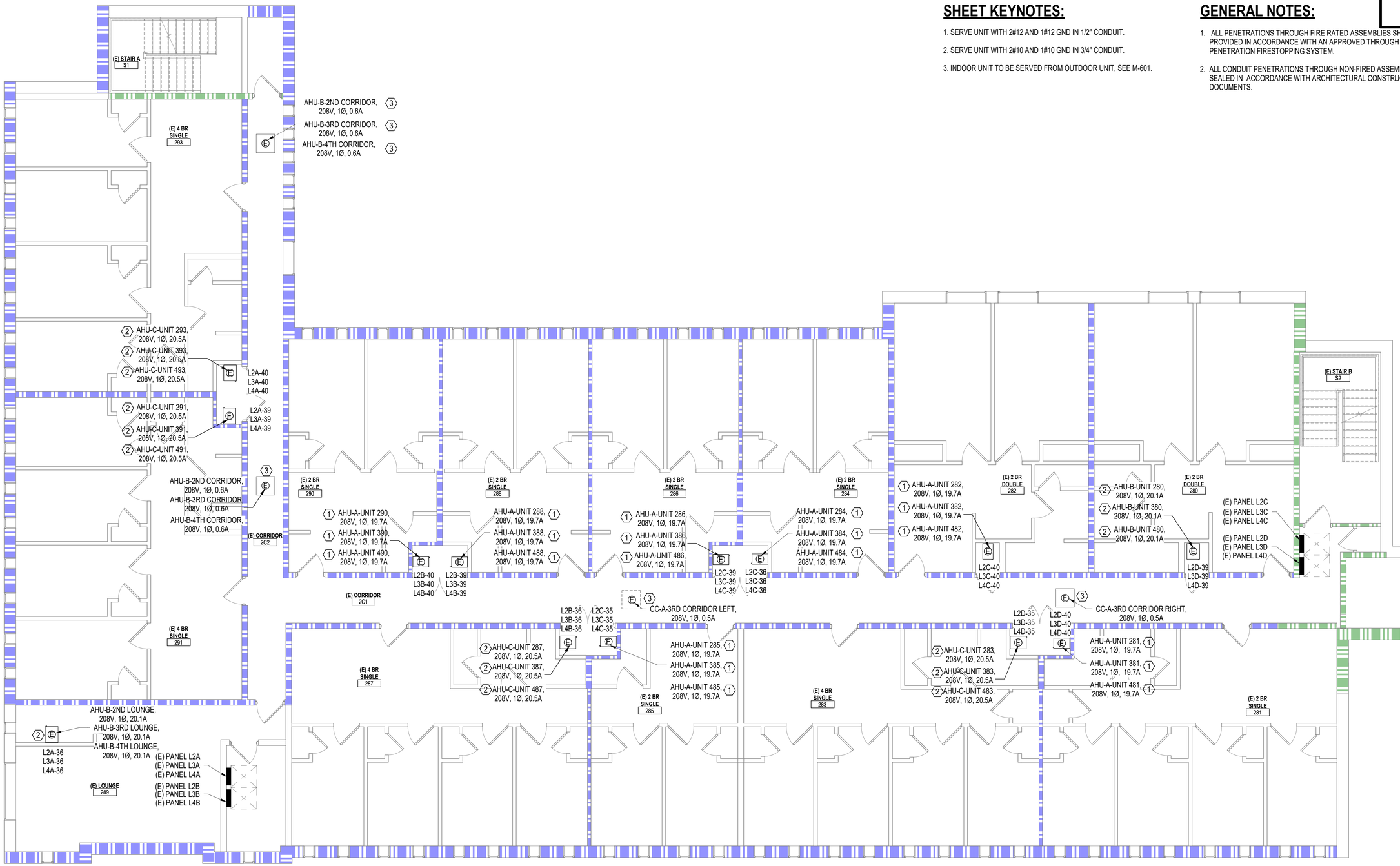
SHEET # 38 OF 51

SHEET KEYNOTES:

1. SERVE UNIT WITH 2#12 AND 1#12 GND IN 1/2" CONDUIT.
2. SERVE UNIT WITH 2#10 AND 1#10 GND IN 3/4" CONDUIT.
3. INDOOR UNIT TO BE SERVED FROM OUTDOOR UNIT, SEE M-601.

GENERAL NOTES:

1. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE PROVIDED IN ACCORDANCE WITH AN APPROVED THROUGH PENETRATION FIRESTOPPING SYSTEM.
2. ALL CONDUIT PENETRATIONS THROUGH NON-FIRED ASSEMBLIES SEALED IN ACCORDANCE WITH ARCHITECTURAL CONSTRUCTION DOCUMENTS.



2ND-4TH FLOOR ELECTRICAL POWER PLAN

3/16" = 1'-0"

0 4' 8' 16'

SCALE: 3/16" = 1'-0"

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GLADDING RESIDENCE HALL 3 - HVAC AND ROOF REPLACEMENT

PC#236-B4236-004

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REVISIONS

#	DATE	DESCRIPTION

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COMMONWEALTH OF VIRGINIA
JOSEPH ADAM MICKIEWICZ
Lic. No. 038888
PROFESSIONAL ENGINEER

SHEET TITLE
2ND-4TH FLOOR ELECTRICAL POWER PLAN - NEW WORK

SHEET NUMBER
E-102

SHEET # 39 OF 51

SHEET KEYNOTES:

1. SERVE UNIT WITH 2#12 AND 1#12 GND IN 1/2" CONDUIT.
2. SERVE UNIT WITH 2#10 AND 1#10 GND IN 3/4" CONDUIT.
3. INDOOR UNIT TO BE SERVED FROM OUTDOOR UNIT, SEE M-601.

GENERAL NOTES:

1. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE PROVIDED IN ACCORDANCE WITH AN APPROVED THROUGH PENETRATION FIRESTOPPING SYSTEM.
2. ALL CONDUIT PENETRATIONS THROUGH NON-FIRED ASSEMBLIES SEALED IN ACCORDANCE WITH ARCHITECTURAL CONSTRUCTION DOCUMENTS.

(E) STAIR A S1
(E) 4 BR SINGLE 593
AHU-B-5TH CORRIDOR LEFT, 208V, 1Ø, 0.6A
AHU-D-UNIT 593, 208V, 1Ø, 21.3A
L5A-36
L5A-35
AHU-D-UNIT 591, 208V, 1Ø, 21.3A
AHU-B-5TH CORRIDOR, 208V, 1Ø, 0.6A
(E) CORRIDOR 5C2
(E) CORRIDOR 5C1
(E) 4 BR SINGLE 594
AHU-B-5TH LOUNGE 208V, 1Ø, 20.1A
L5A-39
(E) PANEL L5A
(E) PANEL L5B
(E) LOUNGE 595
(E) 4 BR SINGLE 596
AHU-C-UNIT 587, 208V, 1Ø, 20.5A
L5B-40
AHU-A-UNIT 585 208V, 1Ø, 19.7A
L5B-39
CC-A-5TH CORRIDOR LEFT, 208V, 1Ø, 0.5A
(E) 2 BR SINGLE 597
(E) 4 BR SINGLE 598
1 E-401
(E) 2 BR DOUBLE 599
AHU-A-UNIT 582, 208V, 1Ø, 19.7A
L5C-40
AHU-C-UNIT 583, 208V, 1Ø, 20.5A
L5C-35
(E) 2 BR DOUBLE 600
AHU-A-UNIT 580, 208V, 1Ø, 19.7A
L5C-39
CC-A-5TH CORRIDOR RIGHT, 208V, 1Ø, 0.5A
(E) PANEL L5C
(E) STAIR B S2
1 E-402

1 M-301 | E-103
5TH FLOOR / ROOF ELECTRICAL POWER PLAN
3/16" = 1'-0"

0 4' 8' 16'
SCALE: 3/16" = 1'-0"
PLAN NORTH

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COMMISSION NUMBER
22240290

SCALE:	3/16" = 1'-0"
DESIGNED:	JAM
DRAWN:	VT
CHECKED:	MAW
DATE:	06/03/2024

COMMONWEALTH OF VIRGINIA
JOSEPH ADAM MICKIEWICZ
Lic. No. 038888
PROFESSIONAL ENGINEER

SHEET TITLE
5TH FLOOR ELECTRICAL POWER PLAN - NEW WORK

SHEET NUMBER
E-103

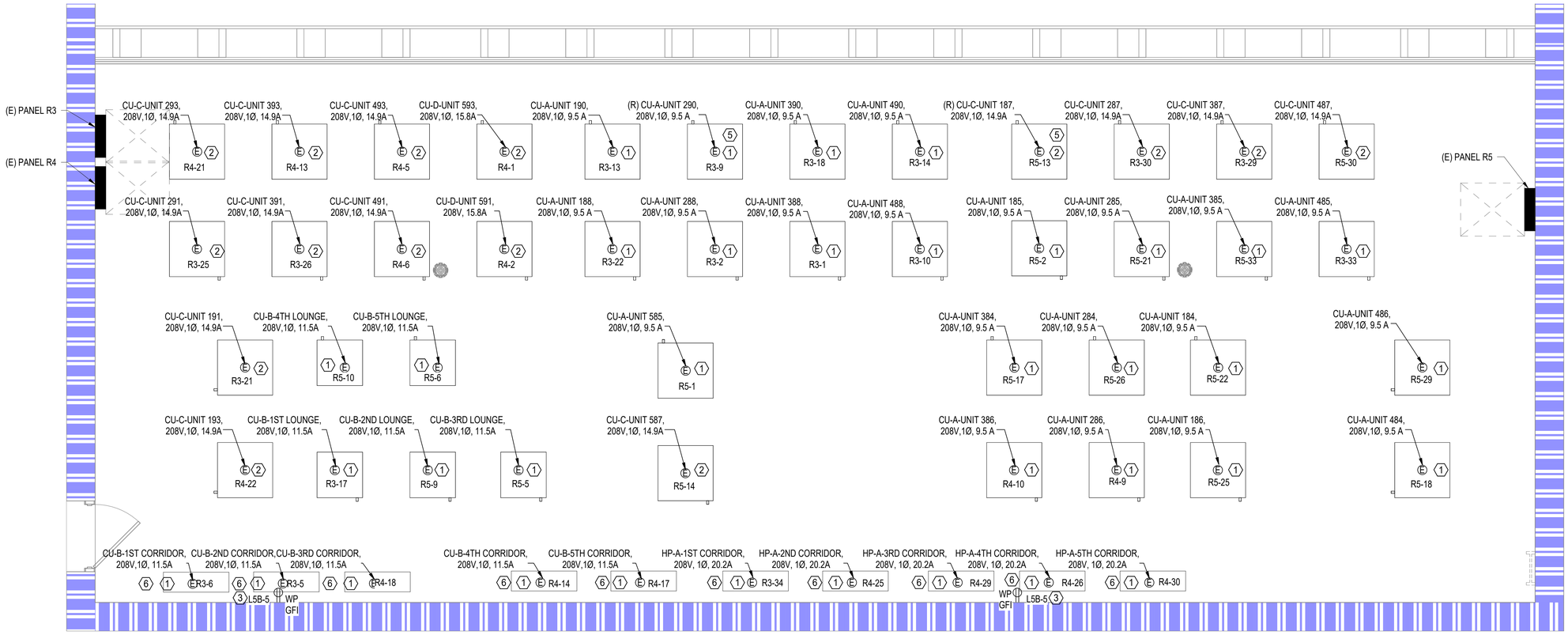
SHEET # 40 OF 51

SHEET KEYNOTES:

1. SERVE UNIT WITH 2#12 AND 1#12 GND IN 1/2" CONDUIT.
2. SERVE UNIT WITH 2#10 AND 1#10 GND IN 3/4" CONDUIT.
3. PROVIDE AND WIRE NEW WEATHERPROOF RECEPTACLES.
4. PROVIDE NEW WALL MOUNTED HEAT PUMPS WITH NEW WIRING, CONDUIT, AND SUPPORTS TO CORRESPONDING PANELBOARDS.
5. RELOCATE EXISTING HEAT PUMP CONDENSER.
6. OUTDOOR UNITS TO SERVE INDOOR UNITS. SEE M-601 FOR MORE INFORMATION.

GENERAL NOTES:

1. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE PROVIDED IN ACCORDANCE WITH AN APPROVED THROUGH PENETRATION FIRESTOPPING SYSTEM.
2. ALL CONDUIT PENETRATIONS THROUGH NON-FIRED ASSEMBLIES SEALED IN ACCORDANCE WITH ARCHITECTURAL CONSTRUCTION DOCUMENTS.
3. EXISTING LIGHT FIXTURE ON ROOF TO REMAIN.



1 / E-103 E-401 — 5TH FLOOR / ROOF ELECTRICAL ENLARGED NEW WORK PLAN - NORTH ROOF

3/8" = 1'-0"

0 2' 4' 8'

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

PLAN NORTH

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COMMISSION NUMBER
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DATE:	06/03/2024

COMMONWEALTH OF VIRGINIA
JOSEPH ADAM MICKIEWICZ
Lic. No. 038888
PROFESSIONAL ENGINEER

SHEET TITLE
ELECTRICAL ENLARGED NORTH ROOF PLAN

SHEET NUMBER
E-401

SHEET # 41 OF 51

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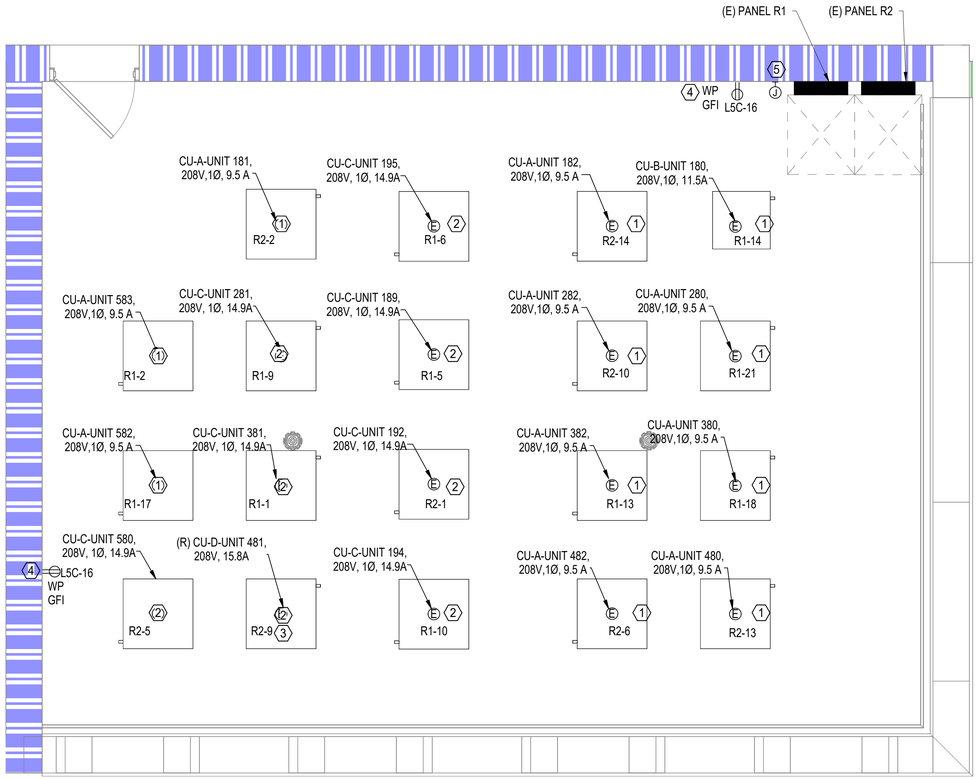
SHEET KEYNOTES:

1. SERVE HEAT PUMP UNITS WITH 2#12 AND 1#12 GND IN 1/2"C.
2. SERVE HEAT PUMP UNIT WITH 2#10 AND 1#10 GND IN 3/4" C.
3. RELOCATE EXISTING HEAT PUMP CONDENSER.
4. PROVIDE AND WIRE NEW WEATHERPROOF RECETACLES.
5. REINSTALL, RECONNECT AND MOUNT JUNCTION BOX ON WALL A MINIMUM OF 18" AFF AFTER NEW ROOF TOP WORK.

GENERAL NOTES:

1. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE PROVIDED IN ACCORDANCE WITH AN APPROVED THROUGH PENETRATION FIRESTOPPING SYSTEM.
2. ALL CONDUIT PENETRATIONS THROUGH NON-FIRED ASSEMBLIES SEALED IN ACCORDANCE WITH ARCHITECTURAL CONSTRUCTION DOCUMENTS.
3. EXISTING LIGHT FIXTURE ON ROOF TO REMAIN.



1 / E-103 | E-402

5TH FLOOR / ROOF ELECTRICAL ENLARGED NEW WORK PLAN - SOUTH ROOF

3/8" = 1'-0"

0 2' 4' 8'

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

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JOSEPH ADAM MICKIEWICZ
Lic. No. 038888
PROFESSIONAL ENGINEER

SHEET TITLE
ELECTRICAL ENLARGED SOUTH ROOF PLAN

SHEET NUMBER
E-402

SHEET # 42 OF 51

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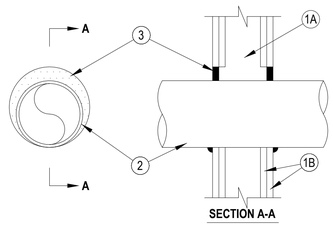
System No. W-L-1054

WL 1054

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings —1 and 2 Hr (See Items 1 and 3)	F Ratings — 1 and 2 Hr (See Items 1 and 3)
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating (Without Movement) at Ambient— Less Than 1 CFM/sq ft	FH Ratings —1 and 2 Hr (See Items 1 and 3)
L Rating (Without Movement) at 400°F— Less Than 1 CFM/sq ft	FTH Rating — 0 Hr
M Rating (Movement)— See Table 1	FTH Rating — 0 Hr
	L Rating at Ambient — Less Than 5.1 L/s/m2
	L Rating at 204°C — Less Than 5.1 L/s/m2



SECTION A-A

1. Wall Assembly — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC. For M Rating, steel studs to be min 3-5/8 in. (92 mm) wide. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. (102 to 152 mm) wider and 4 to 6 in. (102 to 152 mm) higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. (51 to 76 mm) clearance is present between the penetrating item and the framing on all four sides.
   B. Gypsum Board* — 5/8 in. (16 mm) thick, 4 ft (122 cm) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 32-1/4 in. (819 mm) for steel stud walls. Max diam of opening is 14-1/2 in. (368 mm) for wood stud walls.

The F and FH Ratings of the firestop system are equal to the fire rating of the wall assembly. The M Rating is applicable only to 1 hr rated walls.

Hilti Firestop Systems

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Page: 1 of 2

System No. W-L-1054

WL 1054

2. Through-Penetrants — One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space shall be min 0 in. to max 2-1/4 in. (57 mm). Pipe may be installed with continuous point contact. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
   A. Steel Pipe — Nom 30 in. (762 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. Iron Pipe — Nom 30 in. (762 mm) diam (or smaller) cast or ductile iron pipe.
   C. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing or 6 in. (152 mm) . diam steel conduit.
   D. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
   E. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) regular (or heavier) copper pipe.
3. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe wall interface on both surfaces of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC— FS-ONE MAX Intumescent Sealant

Movement Direction	Penetrant Item	Nominal Penetrant Diameter	Annular Space	Movement	Sealant Depth	F-Rating	L Rating with Movement
Y	2A, 2C*	2 in.	Max 2-1/4 in.	5%	5/8 in.	1 hr	N/A
Z	2A, 2C*	2 in.	2-1/4 in.	0.25 in.	5/8 in.	1 hr	N/A

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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FIRE RATED PENETRATION - CONDUIT THROUGH GYPSUM WALL

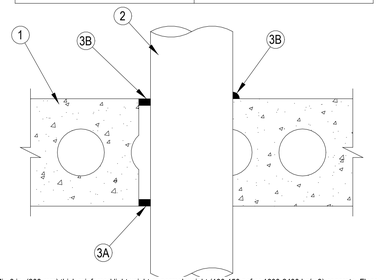
NTS

System No. C-BJ-1045

CBJ 1045

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Rating — 1/4 Hr	FT Rating — 1/4 Hr
	FH Rating — 2 Hr
	FTH Rating — 1/4 Hr



1. Floor Assembly — Min 8 in. (203 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Floor assembly may also be constructed of any 6 in. (203 mm) thick UL Classified hollow-core Precast Concrete Units*. Max diameter of opening is 7 in. (178 mm).
   See Precast Concrete Units CFTV) category in the Fire Resistance Directory for names of manufacturers.
2. Through Penetrants — One metallic pipe or conduit to be installed concentrically or eccentrically within the firestop system. Annular space between pipe or conduit and edge of opening to be min 0 in. (point contact) to max 7/8 in. (22 mm). Pipe to be rigidly supported on both sides of floor-ceiling assembly. The following types and sizes of metallic pipes or conduits may be used:
   A. Steel Pipe — Nom 6 in. (152 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. Iron Pipe — Nom 6 in. (152 mm) diam (or smaller) cast or ductile iron pipe.
   C. Conduit — Nom 6 in. (152 mm) diam (or smaller) rigid steel conduit.
   D. Conduit — Nom 4 in. (104 mm) diam (or smaller) steel electrical metallic conduit.
   E. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
   F. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
3. Firestop System — The firestop system shall consist of the following:
   A. Fill, Void or Cavity Materials* - Putty — Min 1/2 in. (13 mm) thickness fill material applied within annulus, flush with bottom surface of floor.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 618 Firestop Putty Stic
   B. Fill, Void or Cavity Materials* - Sealant — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor. An additional 1/2 in. (13 mm) bead shall be installed at penetrant/concrete interface on top surface of floor.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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Page: 1 of 1

FIRE RATED PENETRATION - CONDUIT THROUGH CONCRETE HOLLOW FLOOR

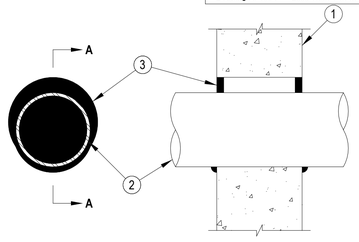
NTS

System No. W-J-1067

WJ 1067

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 1 and 2 Hr (See Items 1 and 3)	F Rating — 1 and 2 Hr (See Items 1 and 3)
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating At Ambient — Less Than 1 CFM/sq ft	FH Rating — 1 and 2 Hr (See Items 1 and 3)
L Rating At 400 F — Less Than 1 CFM/sq ft	FTH Rating — 0 Hr
	L Rating At Ambient — Less Than 1 CFM/sq ft
	L Rating At 400 F — Less Than 1 CFM/sq ft



SECTION A-A

1. Wall Assembly — Min 3-3/4 in. and 5 in. (95 and 127 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete for 1 and 2 h rated assemblies, respectively. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 32-1/4 in. (819 mm).
   See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Through—Penetrants — One metallic pipe, conduit or tubing to be centered within the firestop system. The annular space shall be min 0 in. to max 2-1/4 in. (57 mm). Pipe may be installed with continuous point contact. Pipe, conduit or tube may be installed at an an angle not greater than 45 degrees from perpendicular. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
   A. Steel Pipe — Nom 30 in. (762 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. Iron Pipe — Nom 30 in. (762 mm) diam (or smaller) cast or ductile iron pipe.
   C. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing or 6 in. (152 mm) diam (or smaller) steel conduit.
   D. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
   E. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
3. Fill, Void or Cavity Material* — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe-wall interface on both surfaces of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC— FS-One Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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Page: 1 of 1

FIRE RATED PENETRATION - CONDUIT THROUGH CONCRETE WALL

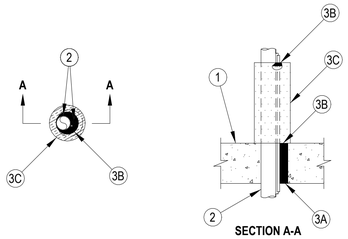
NTS

System No. C-BJ-8020

CBJ8020

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Rating — 0 and 2 Hr (See Item 3C)	FT Rating — 0 and 2 Hr (See Item 3C)
	FH Rating — 2 Hr
	FTH Rating — 0 and 2 Hr (See Item 3C)



SECTION A-A

1. Floor or Wall Assembly — Min 6 in. (152 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete. Floor may also be constructed of any min 6 in. (152 mm) thick UL Classified Precast Concrete Units*. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 4 in. (102 mm).
   See Concrete Blocks (CAZT) and Precast Concrete Units (CFTV) categories in the UL Fire Resistance Directory for names of manufacturers.
2. Through Penetrants — One grouping of any combination of the following pipes, tubing, conduit and cables to be installed within the opening. A maximum of two penetrants shall be copper pipes or tubes. A maximum of one metallic penetrant within the grouping shall have a diam exceeding 1 in. (25 mm). A maximum of three cables shall be included within the grouping of penetrants. The penetrants are installed within the opening such that the annular space between the grouping of penetrants and the periphery of the opening is min 0 in. (point contact) to max 2 in. (51 mm). Penetrants to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of pipes, conduits, tubing or cables may be used:
   A. Steel Pipe — Nom 2 in. (51 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. Iron Pipe — Nom 2 in. (51 mm) diam (or smaller) cast or ductile iron pipe.
   C. Conduit — Nom 2 in. (51 mm) diam (or smaller) steel electrical metallic tubing or steel conduit.
   D. Copper Tubing — Nom 1/4 in. (6 mm) diam (or smaller) Type L (or heavier) copper tubing.
   E. Copper Pipe — Nom 1/4 in. (6 mm) diam (or smaller) Regular (or heavier) copper pipe.
   F. Cables — Max 7/C No. 12 AWG cable with polyvinyl chloride (PVC) jacket.

Hilti Firestop Systems

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Page: 1 of 2

System No. C-BJ-8020

CBJ8020

3. Firestop System — The firestop system shall consist of the following:
   A. Packing Material — Min 4 pcf (64 kg/m3) mineral wool batt insulation firmly packed into opening as a permanent form. Min 5-3/4 in. (146 mm) thickness of packing material required in floors. Min 5-1/2 in. (140 mm) thickness of packing material required in walls. Packing material to be recessed from top surface of floor or from both surfaces of wall to accommodate the required thickness of fill material.
   B. Fill, Void or Cavity Materials* - Sealant— Min 1/4 in. (6 mm) thickness of fill material within the annulus, flush with top surface of floor or with both surfaces of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC— FS-ONE Sealant or FS-ONE MAX Intumescent Sealant.
   C. Pipe Covering Materials* — (Optional) - Min 12 in. (305 mm) length of nom 1 in. (25 mm) thick hollow cylindrical heavy density (min 3.5 pcf or 56 kg/m3) glass fiber unit installed around grouping of penetrants on top surface of floor or on both surfaces of wall. Inside diameter of pipe covering material to be sized to max diam of grouped penetrants. One end of pipe covering material to abut the surface of the sealant (Item 3B). Pipe covering is jacketed on the outside with an all service jacket. Longitudinal joint sealed with metal fasteners or factory-applied self-sealing lap tape.
   The T Rating is 0 hr except that when the pipe covering material is used, the T Rating is 2 hr.
   See Pipe and Equipment Covering - Materials (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread value of 25 or less and a Smoke Developed value of 50 or less may be used.
   D. Fill, Void or Cavity Materials* - Sealant— When Pipe Covering Material (Item 3C) is used, min 1/2 in. (13 mm) thickness of fill material applied within the annulus between the grouping of penetrants and the pipe covering material, flush with end of pipe covering material above floor or on both sides of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC— FS-ONE Sealant or FS-ONE MAX Intumescent Sealant.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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FIRE RATED PENETRATION - MULTIPLE CONDUIT THROUGH CONCRETE HOLLOW FLOOR

NTS

NOTE FOR MULTIPLE CONDUIT DETAIL:

PIPE COVERING IS REQUIRED TO MEET T-RATING.

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#	DATE	DESCRIPTION

COMMISSION NUMBER
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SCALE:	12" = 1'-0"
DESIGNED:	JAM
DRAWN:	VT
CHECKED:	MAW
DATE:	06/03/2024

COMMONWEALTH OF VIRGINIA
JOSEPH ADAM MICKIEWICZ
Lic. No. 038888
PROFESSIONAL ENGINEER

SHEET TITLE
ELECTRICAL DETAILS

SHEET NUMBER
E-501

SHEET # 43 OF 51

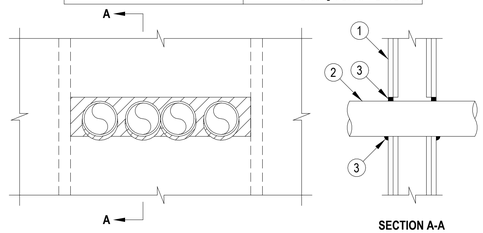
WL 1408

System No. W-L-1408

CLASSIFIED C UL US

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Item 1)	F Ratings — 1 and 2 Hr (See Item 1)
T Ratings — 0 and 1/4 Hr (See Item 1)	FT Ratings —0 and 1/4 Hr (See Item 1)
L Rating at Ambient — Less Than 1 CFM/sq ft	FH Ratings — 1 and 2 Hr (See Item 1)
L Rating at 400 F — 4 CFM/sq ft	FTH Ratings — 0 and 1/4 Hr (See Item 1)
	L Rating at Ambient — Less Than 5.1 L/s/m2
	L Rating at 204 C — 20.3 L/s/m2



SECTION A-A

1. Wall Assembly — The 1 and 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing shall consist of min 3-5/8 in. (92 mm) wide steel studs spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — Thickness, type, number of layers and fasteners, as specified in the individual Wall and Partition Design. Max area or opening is 114 in.2 (735 cm2) with max height of 5 in. (127 mm) and max width of 23 in. (584 mm).
   The hourly F, FH Ratings of the firestop system are equal to the hourly rating of the wall. The hourly T, FT, FTH Ratings of the firestop system is 0 hr and 1/4 hr when installed in 1 hr and 2 hr fire rated wall assemblies, respectively.
2. Through Penetrants — Multiple pipes or conduits installed in single layer array within the firestop system. The annular space between the pipes and conduits and the edges of the opening shall be min 0 in. (point contact) to max 1 in. (25 mm). The separation between pipes and conduits to be a min 0 in. (point contact) to a max 1-1/2 in. (38 mm), except that for L Rating, the minimum separation between penetrants shall be 1/2 in. (13 mm). Pipes and conduits to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or conduits may be used:
   A. Steel Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.
   B. Conduit — Nom 4 in. (102 mm) diam (or smaller) rigid steel conduit or steel electrical metallic tubing (EMT).
3. Fill Void or Cavity Materials* - Sealant — Min 5/8 in. (16 mm) thickness of fill material installed to completely fill annular space between pipes, conduits and gypsum flush with each surface of wall. Min 1/2 in. (13 mm) diam bead of fill material applied to the through penetrant/wall interface at the point contact locations on both sides of the wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI IINC— FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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November 14, 2017

FIRE RATED PENETRATION - MULTIPLE CONDUIT THROUGH GYPSUM WALL

NTS

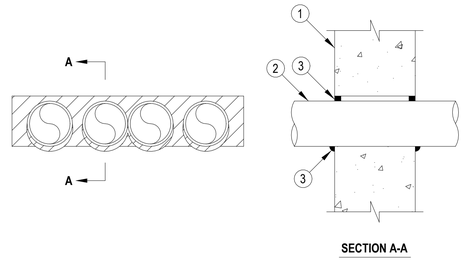
WJ 1202

System No. W-J-1202

CLASSIFIED C UL US

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Rating — 1/4 Hr	FT Rating — 1/4 Hr
	FH Rating — 2 Hr
	FTH Rating — 1/4 Hr



SECTION A-A

1. Wall Assembly — Min 6 in. (152 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max area of opening is 115 sq in.(741 cm2) with max dimensions of 23 in. (584 mm) horizontal and 5 in (127 mm) vertical.
   See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Through Penetrants — Multiple pipes or conduits installed in single layer array within the firestop system. The annular space between the pipes and conduits and the edges of the opening shall be min 0 in. (0 mm, point contact) to max 1 in. (25 mm). The separation between pipes and conduits to be min 0 in. (0 mm, point contact) to max 1-1/2 in. (38 mm). Pipes and conduits to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or conduits may be used:
   A. Steel Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.
   B. Conduit — Nom 4 in. (102 mm) diam (or smaller) rigid steel conduit or steel electrical metallic tubing (EMT).
3. Fill Void or Cavity Materials* - Sealant — Min 5/8 in. (16 mm) thickness of fill material installed to completely fill annular space between pipes, conduits and edges of opening flush with each surface of wall. Min 1/2 in. (13 mm) diam bead of fill material applied to the through penetrant/wall interface at the point contact locations on both sides of the wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC— FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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January 22, 2015

FIRE RATED PENETRATION - MULTIPLE CONDUIT THROUGH CONCRETE WALL

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REVISIONS

#	DATE	DESCRIPTION

COMMISSION NUMBER
22240290

SCALE:	12" = 1'-0"
DESIGNED:	JAM
DRAWN:	VT
CHECKED:	MAW
DATE:	06/03/2024

COMMONWEALTH OF VIRGINIA
JOSEPH ADAM MICKIEWICZ
Lic. No. 038888
PROFESSIONAL ENGINEER

SHEET TITLE
ELECTRICAL DETAILS

SHEET NUMBER
E-502

SHEET # 44 OF 51

GENERAL ELECTRICAL NOTE:

1. PANELBOARD SCHEDULES WITH STRIKE THROUGHTS AND (X) INDICATE TO DISCONNECT AND REMOVE.
2. UPDATED PANELBOARD SCHEDULE INDICATE NEW CIRCUIT BREAKERS, LOADS SERVED, AND WIRING.

PANELBOARD LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD
PHASE A=43.1A	PHASE A=40.6A
PHASE B=65.3A	PHASE B=40.6A
PHASE C=64.0A	PHASE C=41.0A

PANELBOARD SCHEDULE

WITH FEED THROUGH LUG FEEDING L1B

PANEL "L1A"

400A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
LOUNGE/HALL LIGHTS	13.7			10	20	12	1		2	12	20	10	4.4			191 LIGHTS
EXTERIOR LIGHTS		--		10	20	12	3		4	12	20	10		4.7		193 LIGHTS
TELECOM REC.			6.0	10	20	12	5		6	12	20	10			7.5	REC. 191A
LOUNGE/HALL REC.	9.9			10	20	12	7		8	12	20	10	7.5			REC. 191B
REC. 193A		7.5		10	20	12	9		10	12	20	10		7.5		REC. 191C
REC. 193B			7.5	10	20	12	11		12	12	20	10			7.5	REC. 191D
REC. 193C	7.5			10	20	12	13		14	12	20	10	8.4			REFRIGERATOR 191
REC. 193D		7.5		10	20	12	15		16	12	20	10		3.0		COUNTER 191
REFRIGERATOR 193			8.4	10	20	12	17		18	12	20	10			7.5	HALL REC. 191
COUNTER	4.5			10	20	12	19		20	12	20	10	6.0			LOUNGE REC. 191
HALL REC. 193		6.0		10	20	12	21		22	12	20	10		3.0		BATH GFI 191
LOUNGE REC. 193			6.0	10	20	12	23		24	12	20	10			0.6	EF-3
BATH REC. 193	3.0			10	20	12	25		26	8	50	10	33.4			RANGE
KITCHEN COUNTER REC.		6.0		10	20	12	27							33.4		
KITCHEN REC. REFRIGERATOR			8.4	10	20	12	29		30	12	20	10			3.4	DOOR OPENER CIRCUIT
UH-1	12.5			10	20	12	31		~~32~~	~~10~~	~~25~~	~~10~~	~~22.2~~			~~1ST LOUNGE AIRHANDLER~~
		12.5												~~22.2~~		
~~AIR HANDLER 191~~			~~20.9~~	~~10~~	~~25~~	~~10~~	35		36	12	20	10			1.5	DATA REC.
	~~20.9~~								38	12	20	10	1.5			DATA REC.
~~AIR HANDLER~~		~~22.2~~		~~10~~	~~25~~	~~10~~	39		40	~~10~~	~~25~~	~~10~~		~~20.9~~		~~AIR HANDLER 193~~
~~1ST CORRIDOR~~			~~22.2~~												~~20.9~~	
TOTAL	72.0	61.7	93.8										83.4	94.7	51.9	TOTAL

L1A TOTAL CONNECTED AMPS A=155.4 B=156.4 C=145.7

L1B TOTAL CONNECTED AMPS A=109.8 B=103.0 C=142.4
FEEDER TOTAL CONNECTED AMPS A=265.2 B=259.4 C=288.1

UPDATED PANELBOARD SCHEDULE

PANEL "L1A"

400A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
LOUNGE/HALL LIGHTS	13.7			10	20	12	1		2	12	20	10	4.4			191 LIGHTS
EXTERIOR LIGHTS		--		10	20	12	3		4	12	20	10		4.7		193 LIGHTS
TELECOM REC.			6.0	10	20	12	5		6	12	20	10			7.5	REC. 191A
LOUNGE/HALL REC.	9.9			10	20	12	7		8	12	20	10	7.5			REC. 191B
REC. 193A		7.5		10	20	12	9		10	12	20	10		7.5		REC. 191C
REC. 193B			7.5	10	20	12	11		12	12	20	10			7.5	REC. 191D
REC. 193C	7.5			10	20	12	13		14	12	20	10	8.4			REFRIGERATOR 191
REC. 193D		7.5		10	20	12	15		16	12	20	10		3.0		COUNTER 191
REFRIGERATOR 193			8.4	10	20	12	17		18	12	20	10			7.5	HALL REC. 191
COUNTER	4.5			10	20	12	19		20	12	20	10	6.0			LOUNGE REC. 191
HALL REC. 193		6.0		10	20	12	21		22	12	20	10		3.0		BATH GFI 191
LOUNGE REC. 193			6.0	10	20	12	23		24	12	20	10			0.6	EF-3
BATH REC. 193	3.0			10	20	12	25		26	8	50	10	33.4			RANGE
KITCHEN COUNTER REC.		6.0		10	20	12	27							33.4		
KITCHEN REC. REFRIGERATOR			8.4	10	20	12	29		30	12	20	10			3.4	DOOR OPENER CIRCUIT
UH-1	12.5			10	20	12	31		32	**10**	**40**	**10**	**20.1**			**AHU-B-1ST LOUNGE**
		12.5													**20.1**	
AHU-C-UNIT 191			**20.5**	**10**	**40**	**10**	35		36	12	20	10			1.5	DATA REC.
	20.5								38	12	20	10	1.5			DATA REC.
SPACE ONLY									40	**10**	**40**	**10**			**20.5**	**AHU-C-UNIT 193**
SPACE ONLY																
TOTAL	**71.6**	**39.5**	**56.8**										**81.3**	**92.2**	**48.5**	TOTAL

L1A TOTAL CONNECTED AMPS A=**152.9** B=**131.7** C=**105.3**

L1B TOTAL CONNECTED AMPS A=**106.7** B=**100.6** C=**137.6**
FEEDER TOTAL CONNECTED AMPS A=259.6 B=232.3 C=242.9

PANELBOARD LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD
PHASE A=41.8A	PHASE A=39.4A
PHASE B=41.8A	PHASE B=39.4A
PHASE C=83.6A	PHASE C=78.8A

PANEL L1A AND L1B FEEDER LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD	NET CHANGE
PHASE A: 84.9A	PHASE A= 80.0A	PHASE A= -4.9A
PHASE B: 107.1A	PHASE B= 80.0A	PHASE B= -27.1A
PHASE C: 147.6A	PHASE C= 199.8A	PHASE C= -27.8A

ALL CONNECTED LOAD ON PHASES HAVE BEEN DECREASED. THE EXISTING 300A FEEDER IS SATISFACTORY.

PANELBOARD SCHEDULE

PANEL "L1B"

400A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
HALL LIGHTS	3.4			10	20	12	1		2	12	20	10	5.7			190/188 LIGHTS
HALL REC.		3.0		10	20	12	3		4	12	20	10		5.7		186/184 LIGHTS
REC. 187A			7.5	10	20	12	5		6	12	20	10			7.5	187/184 LIGHTS
REC. 187B	7.5			10	20	12	7		8	12	20	10	7.5			REC. 190A
REC. 187C		7.5		10	20	12	9		10	12	20	10		7.5		REC. 190B
REC. 187D			7.5	10	20	12	11		12	12	20	10			8.4	REFRIGERATOR 190
REFRIGERATOR 187	8.4			10	20	12	13		14	12	20	10	3.0			COUNTER 190
COUNTER 187		4.5		10	20	12	15		16	12	20	10		7.5		LOUNGE REC. 190
HALL REC. 187			6.0	10	20	12	17		18	12	20	10			1.5	BATH REC. 190
LOUNGE 187	6.0			10	20	12	19		20	12	20	10	7.5			REC. 188A
BATH 187 REC.		3.0		10	20	12	21		22	12	20	10		7.5		REC. 188B
REC. 186A			7.5	10	20	12	23		24	12	20	10			8.4	REFRIGERATOR 188
REC. 186B	8.4			10	20	12	25		26	12	20	10	3.0			COUNTER 188
REFRIGERATOR 186		7.5		10	20	12	27		28	12	20	10		7.5		LOUNGE 188
COUNTER 186			3.0	10	20	12	29		30	12	20	10			1.5	BATH REC. 188
LOUNGE 186	7.5			10	20	12	31		32	12	20	10	0.09			FIRE ALARM
BATH 186 REC.				10	20	12	33		34	12	20	10				MAGNETIC LOCK
~~AIR HANDLER 188~~			~~20.9~~	~~10~~	~~25~~	~~10~~	35		36	~~10~~	~~25~~	~~10~~			~~20.9~~	~~AIR HANDLER 185~~
	~~20.9~~												~~20.9~~			
~~AIR HANDLER 190~~		~~20.9~~		~~10~~	~~25~~	~~10~~	39		40	~~10~~	~~40~~	~~10~~		~~20.9~~		~~AIR HANDLER 187~~
			~~20.9~~												~~20.9~~	
TOTAL	62.1	46.4	73.3										47.7	56.6	69.1	TOTAL

TOTAL CONNECTED AMPS A=109.8 B=103.0 C=142.4

UPDATED PANELBOARD SCHEDULE

PANEL "L1B"

400A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
HALL LIGHTS	3.4			10	20	12	1		2	12	20	10	5.7			190/188 LIGHTS
HALL REC.		3.0		10	20	12	3		4	12	20	10		5.7		186/184 LIGHTS
REC. 187A			7.5	10	20	12	5		6	12	20	10			7.5	187/184 LIGHTS
REC. 187B	7.5			10	20	12	7		8	12	20	10	7.5			REC. 190A
REC. 187C		7.5		10	20	12	9		10	12	20	10		7.5		REC. 190B
REC. 187D			7.5	10	20	12	11		12	12	20	10			8.4	REFRIGERATOR 190
REFRIGERATOR 187	8.4			10	20	12	13		14	12	20	10	3.0			COUNTER 190
COUNTER 187		4.5		10	20	12	15		16	12	20	10		7.5		LOUNGE REC. 190
HALL REC. 187			6.0	10	20	12	17		18	12	20	10			1.5	BATH REC. 190
LOUNGE 187	6.0			10	20	12	19		20	12	20	10	7.5			REC. 188A
BATH 187 REC.		3.0		10	20	12	21		22	12	20	10		7.5		REC. 188B
REC. 186A			7.5	10	20	12	23		24	12	20	10			8.4	REFRIGERATOR 188
REC. 186B	8.4			10	20	12	25		26	12	20	10	3.0			COUNTER 188
REFRIGERATOR 186		7.5		10	20	12	27		28	12	20	10		7.5		LOUNGE 188
COUNTER 186			3.0	10	20	12	29		30	12	20	10			1.5	BATH REC. 188
LOUNGE 186	7.5			10	20	12	31		32	12	20	10	0.09			FIRE ALARM
BATH 186 REC.				10	20	12	33		34	12	20	10				MAGNETIC LOCK
AHU-A- UNIT 188			**19.7**	**10**	**35**	**12**	35		36	**12**	**35**	**10**			**19.7**	**AHU-A- UNIT 185**
	19.7												**19.7**			
AHU-A- UNIT 190		**19.7**		**10**	**35**	**12**	39		40	**12**	**35**	**10**		**19.7**		**AHU-A-UNIT 187**
			19.7												**19.7**	
TOTAL	**60.9**	**45.2**	**70.9**										**45.8**	**55.4**	**66.7**	TOTAL

TOTAL CONNECTED AMPS A=**106.7** B=**100.6** C=**137.6**

PANELBOARD LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD	NET CHANGE
PHASE A=41.8A	PHASE A=39.4A	PHASE A= -2.4A
PHASE B=41.8A	PHASE B=40.2A	PHASE B= -1.6A
PHASE C=83.6A	PHASE C=79.6A	PHASE C= -4.0A

PANELBOARD L1C LOAD HAS DECREASED. THE EXISITING 150A FEEDER AND PANELBOARD IS SATISFACTORY.

PANELBOARD SCHEDULE

PANEL "L1C"

225A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
KEY WATCH VAULT	--			10	20		1		2	12	20	10	7.5			183/181 LIGHTS
MAIN LOUNGE/ HALL LIGHTS		--		10	20		3		4	12	20	10		2.9		182 LIGHTS
EXTERIOR LIGHTS			1.5	10	20	12	5		6	10	20	10			12.0	IRRIGATION
REC. DESK SECURITY	7.5			10	20	12	7		8	12	20	10	7.5			REC. 183A
REC. 184A AND 184B		7.5		10	20	12	9		10	12	20	10		7.5		REC. 183B
REFRIGERATOR 184			8.4	10	20	12	11		12	12	20	10			7.5	REC. 183C
COUNTER 184	3.0			10	20	12	13		14	12	20	10	7.5			REC. 183D
LOUNGE REC. 184		7.5		10	20	12	15		16	12	20	10		8.4		REFRIGERATOR 183
BATH REC. 184			1.5	10	20	12	17		18	12	20	10			4.5	COUNTER 183
REC. 185A	7.5			10	20	12	19		20	12	20	10	6.0			HALL REC. 183
REC. 185B		7.5		10	20	12	21		22	12	20	10		6.0		LOUNGE REC. 183
REFRIGERATOR 185			8.4	10	20	12	23		24	12	20	10			3.0	BATH REC. 183
COUNTER 185	3.0			10	20	12	25		26	12	20	10	7.5			REC. 182A
LOUNGE 185		6.0		10	20	12	27		28	12	20	10		7.5		REC. 182B
SPARE			--		20	12	29		30	12	20	10			8.4	REFRIGERATOR 182
SPARE	--				20	12	31		32	12	20	10	3.0			COUNTER 182
DOOR 180A/AUTO DOOR POWER		--		10	20	12	33		34	12	20	10		6.0		LOUNGE 182
~~AIR HANDLER 181~~			~~20.9~~	~~10~~	~~25~~	~~10~~	35		36	~~10~~	~~25~~	~~10~~			~~20.9~~	~~AIR HANDLER 184~~
	~~20.9~~												~~20.9~~			
~~AIR HANDLER 183~~		~~20.9~~		~~10~~	~~25~~	~~10~~	39		40	~~10~~	~~25~~	~~10~~		~~20.9~~		~~AIR HANDLER 186~~
			~~20.9~~												~~20.9~~	
TOTAL	41.9	49.4	61.6										59.9	59.2	77.2	TOTAL

TOTAL CONNECTED AMPS A=101.8 B=108.6 C=138.8

UPDATED PANELBOARD SCHEDULE

PANEL "L1C"

225A MLO, 208/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
KEY WATCH VAULT	--			10	20		1		2	12	20	10	7.5			183/181 LIGHTS
MAIN LOUNGE/ HALL LIGHTS		--		10	20		3		4	12	20	10		2.9		182 LIGHTS
EXTERIOR LIGHTS			1.5	10	20	12	5		6	10	20	10			12.0	IRRIGATION
REC. DESK SECURITY	7.5			10	20	12	7		8	12	20	10	7.5			REC. 183A
REC. 184A AND 184B		7.5		10	20	12	9		10	12	20	10		7.5		REC. 183B
REFRIGERATOR 184			8.4	10	20	12	11		12	12	20	10			7.5	REC. 183C
COUNTER 184	3.0			10	20	12	13		14	12	20	10	7.5			REC. 183D
LOUNGE REC. 184		7.5		10	20	12	15		16	12	20	10		8.4		REFRIGERATOR 183
BATH REC. 184			1.5	10	20	12	17		18	12	20	10			4.5	COUNTER 183
REC. 185A	7.5			10	20	12	19		20	12	20	10	6.0			HALL REC. 183
REC. 185B		7.5		10	20	12	21		22	12	20	10		6.0		LOUNGE REC. 183
REFRIGERATOR 185			8.4	10	20	12	23		24	12	20	10			3.0	BATH REC. 183
COUNTER 185	3.0			10	20	12	25		26	12	20	10	7.5			REC. 182A
LOUNGE 185		6.0		10	20	12	27		28	12	20	10		7.5		REC. 182B
SPARE			--	10	20	12	29		30	12	20	10			8.4	REFRIGERATOR 182
SPARE	--			10	20	12	31		32	12	20	10	3.0			COUNTER 182
DOOR 180A/AUTO DOOR POWER		--		10	20	12	33		34	12	20	10		6.0		LOUNGE 182
AHU-A-UNIT 181			**19.7**	**10**	**35**	**12**	35		36	**12**	**35**	**10**			**19.7**	**AHU-A-UNIT 184**
	19.7												**19.7**			
AHU-C- UNIT 183		**20.5**		**10**	**40**	**10**	39		40	**12**	**35**	**10**		**19.7**		**AHU-A- UNIT 186**
			20.5												**19.7**	
TOTAL	**40.7**	**49.0**	**60.0**										**58.7**	**58.0**	**74.8**	TOTAL

TOTAL CONNECTED AMPS A=**99.4** B=**107.0** C=**134.8**

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722 W CARY ST, RICHMOND, VA 23220

REVISIONS

#	DATE	DESCRIPTION

COMMISSION NUMBER
22240290

SCALE:	
DESIGNED:	JAM
DRAWN:	VT
CHECKED:	MAW
DATE:	06/03/2024

COMMONWEALTH OF VIRGINIA
JOSEPH ADAM MICKIEWICZ
Lic. No. 038888
PROFESSIONAL ENGINEER

SHEET TITLE
ELECTRICAL PANELBOARD SCHEDULES

SHEET NUMBER
E-601

SHEET # 45 OF 51

GENERAL ELECTRICAL NOTE:

1. PANELBOARD SCHEDULES WITH STRIKE THROUGHTS AND (X) INDICATE TO DISCONNECT AND REMOVE.
2. UPDATED PANELBOARD SCHEDULE INDICATE NEW CIRCUIT BREAKERS, LOADS SERVED, AND WIRING.

PANELBOARD LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD	NET CHANGE
PHASE A=0A	PHASE A=0A	PHASE A= 0A
PHASE B=43.1A	PHASE B=39.8A	PHASE B= -3.3A
PHASE C=43.1A	PHASE C=39.8A	PHASE C= -3.3A

PANELBOARD L1D LOAD HAS DECREASED. THE EXISITING 150A FEEDER AND PANELBOARD IS SATISFACTORY.

PANELBOARD SCHEDULE

PANEL "L1D" — 225A MLO, 208Y120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
STACK DRYER	11.4			10	30	10	1		2	12	20	10	1.5			WASHER
		11.4							4	12	20	10		1.5		WASHER
HALLWAY REC.			--	10	20		5		6	12	20	10			1.5	WASHER
WATER HEATER	1.5			10	20	12	7		8	12	20	10	8.4			ELEVATOR LTS.
LAUNDRY CARD READER		--		10	20	12	9		10	12	20	10		1.5		ELEVATOR PITS. REC.
ELEVATOR RM. REC.			1.5	10	20	12	11		12	12	20	10				REC.
MAIN LOUNGE REC.	--			10	20	12	13		14	12	20	10				EF4 LAUNDRY
MAIN LOUNGE WOMENS/ BATH GFI		--		10	20	12	15		16	12	20	10		5.8		FIRE PAC
MECHANICAL RM. LTS.			10.0	10	20	12	17		18	12	20	10			8.3	FIRE ALARM PNL
MECHANICAL RM. REC.	0.5			10	20	12	19		20	12	20	10	8.3			UH-3 CEILING/UNIT MECH. EXHAUST
RECIRC. PUMP		2.5		10	15	12	21		22	12	20	10		0.4		ELEV. PREACT CAB.
STACK DRYER			11.4	10	30	10	23		24	12	20	10			0.8	EMERGENCY TELE.
	11.4											10				
GATE CIR.		--		10	20	12	27		28		100	10				SUB PNL L1E
HEATER MEZH. RM.			--	10	20	12	29					10				
									32	12	20	10	7.2			UH-2
SPARE				10	20		33					10		7.2		
SPARE				10	20		35		36	12	15	10			1.5	TWHP-1
SPARE				10	20							10	1.5			
~~AIR HANDLER 180~~		~~22.2~~		~~10~~	~~25~~	~~10~~	39		40	~~10~~	~~25~~	~~10~~		~~20.9~~		~~AIR HANDLER 182~~
			~~22.2~~												~~20.9~~	
TOTAL	24.8	36.1	45.1										26.9	37.3	33.0	TOTAL

TOTAL CONNECTED AMPS A=51.7 B=73.4 C=78.1

UPDATED PANELBOARD SCHEDULE

PANEL "L1D" — 225A MLO, 208/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
STACK DRYER	11.4			10	30	10	1		2	12	20	10	1.5			WASHER
		11.4							4	12	20	10		1.5		WASHER
HALLWAY REC.			--	10	20		5		6	12	20	10			1.5	WASHER
WATER HEATER	1.5			10	20	12	7		8	12	20	10	8.4			ELEVATOR LTS.
LAUNDRY CARD READER		--		10	20	12	9		10	12	20	10		1.5		ELEVATOR PITS. REC.
ELEVATOR RM. REC.			1.5	10	20	12	11		12	12	20	10				REC.
MAIN LOUNGE REC.	--			10	20	12	13		14	12	20	10				EF4 LAUNDRY
MAIN LOUNGE WOMENS/ BATH GFI		--		10	20	12	15		16	12	20	10		5.8		FIRE PAC
MECHANICAL RM. LTS.			10.0	10	20	12	17		18	12	20	10			8.3	FIRE ALARM PNL
MECHANICAL RM. REC.	0.5			10	20	12	19		20	12	20	10	8.3			UH-3 CEILING/UNIT MECH. EXHAUST
RECIRC. PUMP		2.5		10	15	12	21		22	12	20	10		0.4		ELEV. PREACT CAB.
STACK DRYER			11.4	10	30	10	23		24	12	20	10			0.8	EMERGENCY TELE.
	11.4											10				
GATE CIR.		--		10	20	12	27		28		100	10				SUB PNL L1E
HEATER MEZH. RM.			--	10	20	12	29					10				
									32	12	20	10	7.2			UH-2
SPARE				10	20		33					10		7.2		
SPARE				10	20		35		36	12	15	10			1.5	TWHP-1
SPARE				10	20							10	1.5			
AHU-B-180		**20.1**		**10**	**40**	**10**	39		40	**10**	**35**	**10**		**19.7**		**AHU-A-182**
			20.1												**19.7**	
TOTAL	24.8	**34.0**	**43.0**										26.9	**36.1**	**31.8**	TOTAL

TOTAL CONNECTED AMPS A=51.7 B=**70.1** C=**74.8**

PANELBOARD LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD
PHASE A=44.4A	PHASE A=20.1A
PHASE B=41.8A	PHASE B=41.0A
PHASE C=86.2A	PHASE C=40.6A

PANELBOARD SCHEDULE

WITH FEED THROUGH LUG FEEDING L2B

PANEL "L2A" — 225A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
LOUNGE HALL LIGHTS	12.4			10	20	12	1		2	12	20	10	4.7			LIGHTS 291/293
REC. 293A		7.5		10	20	12	3		4	12	20	10		11.4		LOUNGE/HALL REC.
REC. 293B			7.5	10	20	12	5		6	12	20	10			6.0	DATA REC.
REC. 293C	7.5			10	20	12	7		8	12	20	10	7.5			REC. 291A
REC. 293D		7.5		10	20	12	9		10	12	20	10		7.5		REC. 291B
REFRIGERATOR 293			8.4	10	20	12	11		12	12	20	10			7.5	REC. 291C
COUNTER 293	4.5			10	20	12	13		14	12	20	10	7.5			REC. 291D
HALL REC. 293		6.0		10	20	12	15		16	12	20	10		8.4		REFRIGERATOR 291
BATH GFI 293			6.0	10	20	12	17		18	12	20	10			4.5	COUNTER 291
REC. 285B	3.0			10	20	12	19		20	12	20	10	6.0			HALL REC. 291
TELECOM EXHAUST FAN		0.6		10	20	12	21		22	12	20	10		6.0		LOUNGE REC. 291
DATA REC.			1.5	10	20	12	23		24	12	20	10			3.0	BATH GFI 291
DATA REC.	1.5			10	20	12	25		26	12	20	10	6.0			KITCHEN COUNTER
SPARE		--			20		27		28	12	20	10		8.4		KITCHEN REFRIG
SPARE			--		20		29		30	12	20	10			--	SPARE
STAIRWAY	--			10	20		31		32	8	50	10	33.4			RANGE
HEATER		--												33.4		
~~AIR HANDLER 2ND FLOOR~~			~~22.2~~	~~10~~	~~25~~	~~10~~	35		36	~~10~~	~~25~~	~~10~~			~~22.2~~	~~AIR HANDLER 2ND FLOOR~~
~~CORRIDOR~~	~~22.2~~												~~22.2~~			~~LOUNGE~~
~~AIR HANDLER 291~~		~~20.9~~		~~10~~	~~25~~	~~10~~	39		40	~~10~~	~~25~~	~~10~~		~~20.9~~		~~AIR HANDLER 293~~
			~~20.9~~												~~20.9~~	
TOTAL	51.1	42.5	66.5										87.3	96.0	64.1	TOTAL

L2A TOTAL CONNECTED AMPS A=138.4 B=138.5 C=130.6

L2B TOTAL CONNECTED AMPS A=77.4 B=92.2 C=109.8
FEEDER TOTAL CONNECTED AMPS A=215.8 B=230.7 C=240.4

UPDATED PANELBOARD SCHEDULE

PANEL "L2A" — 225A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
LOUNGE HALL LIGHTS	12.4			10	20	12	1		2	12	20	10	4.7			LIGHTS 291/293
REC. 293A		7.5		10	20	12	3		4	12	20	10		11.4		LOUNGE/HALL REC.
REC. 293B			7.5	10	20	12	5		6	12	20	10			6.0	DATA REC.
REC. 293C	7.5			10	20	12	7		8	12	20	10	7.5			REC. 291A
REC. 293D		7.5		10	20	12	9		10	12	20	10		7.5		REC. 291B
REFRIGERATOR 293			8.4	10	20	12	11		12	12	20	10			7.5	REC. 291C
COUNTER 293	4.5			10	20	12	13		14	12	20	10	7.5			REC. 291D
HALL REC. 293		6.0		10	20	12	15		16	12	20	10		8.4		REFRIGERATOR 291
BATH GFI 293			6.0	10	20	12	17		18	12	20	10			4.5	COUNTER 291
REC. 285B	3.0			10	20	12	19		20	12	20	10	6.0			HALL REC. 291
TELECOM EXHAUST FAN		0.6		10	20	12	21		22	12	20	10		6.0		LOUNGE REC. 291
DATA REC.			1.5	10	20	12	23		24	12	20	10			3.0	BATH GFI 291
DATA REC.	1.5			10	20	12	25		26	12	20	10	6.0			KITCHEN COUNTER
SPARE		--			20		27		28	12	20	10		8.4		KITCHEN REFRIG
SPARE			--		20		29		30	12	20	10			--	SPARE
STAIRWAY	--			10	20		31		32	8	50	10	33.4			RANGE
HEATER		--												33.4		
SPACE ONLY							35		36	**10**	**40**	**10**			**20.1**	**AHU-B- 2ND LOUNGE**
SPACE ONLY							37							**20.1**		
AHU-C-UNIT 291		**20.5**		**10**	**40**	**10**	39		40	**10**	**40**	**10**			**20.5**	**AHU-C-UNIT 293**
			20.5												**20.5**	
TOTAL	**28.9**	**42.1**	**43.9**										**85.2**	**95.6**	**61.6**	TOTAL

L2A TOTAL CONNECTED AMPS A=**114.1** B=**137.6** C=**105.5**

L2B TOTAL CONNECTED AMPS A=**76.2** B=**86.8** C=**106.2**
FEEDER TOTAL CONNECTED AMPS A=190.3 B=224.4 C=211.7

PANELBOARD LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD
PHASE A=20.9A	PHASE A=19.7A
PHASE B=41.8A	PHASE B=39.4A
PHASE C=62.7A	PHASE C=59.1A

PANEL L2A AND L2B FEEDER LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD	NET CHANGE
PHASE A: 65.3A	PHASE A= 39.8A	PHASE A= -25.5A
PHASE B: 83.6A	PHASE B= 80.4A	PHASE B= -3.2A
PHASE C: 148.9A	PHASE C= 99.7A	PHASE C= -49.2A

ALL CONNECTED LOAD ON PHASES HAVE BEEN DECREASED. THE EXISTING 225A FEEDER IS SATISFACTORY.

PANELBOARD SCHEDULE

PANEL "L2B" — 225A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
HALL LIGHTS	3.4			10	20	12	1		2	12	20	10	5.7			LIGHTS 290/288
HALL REC.		3.0		10	20	12	3		4	12	20	10		7.5		LIGHTS 287/285
REC. 287A			7.5	10	20	12	5		6	12	20	10			5.7	LIGHTS 286/284
REC. 287B	7.5			10	20	12	7		8	12	20	10	7.5			REC. 290B
REC. 287C		7.5		10	20	12	9		10	12	20	10		7.5		REC. 290A
REC. 287D			7.5	10	20	12	11		12	12	20	10			8.4	REFRIGERATOR 290
REFRIGERATOR 287	8.4			10	20	12	13		14	12	20	10	3.0			COUNTER 290
COUNTER REC. 287		4.5		10	20	12	15		16	12	20	10		7.5		LOUNGE REC. 290
HALL REC. 287			6.0	10	20	12	17		18	12	20	10			1.5	BATH GFI 290
LOUNGE REC. 287	6.0			10	20	12	19		20		20	10				SPARE
BATH GFI 287		3.0		10	20	12	21		22		20	10				SPARE
REC. 288B			7.5	10	20	12	23		24		20	10				SPARE
REC. 288A	7.5			10	20	12	25		26		20	10				SPARE
REFRIGERATOR 288		8.4		10	20	12	27		28		20	10				SPARE
COUNTER REC. 288			3.0	10	20	12	29		30		20	10				SPARE
LOUNGE REC. 288	7.5			10	20	12	31		32		20	10				SPARE
BATH GFI 288		1.5		10	20	12	33		34		20	10				SPARE
SPARE			--	10	20		35		36	~~10~~	~~25~~	~~10~~			~~20.9~~	~~AIR HANDLER 287~~
SPARE				10	20		37							~~20.9~~		
~~AIR HANDLER 288~~		~~20.9~~		~~10~~	~~25~~	~~10~~	39		40	~~10~~	~~25~~	~~10~~			~~20.9~~	~~AIR HANDLER 290~~
			~~20.9~~												~~20.9~~	
TOTAL	40.3	48.8	52.4										37.1	43.4	57.4	TOTAL

TOTAL CONNECTED AMPS A=77.4 B=92.2 C=109.8

UPDATED PANELBOARD SCHEDULE

PANEL "L2B" — 225A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
HALL LIGHTS	3.4			10	20	12	1		2	12	20	10	5.7			LIGHTS 290/288
HALL REC.		3.0		10	20	12	3		4	12	20	10		7.5		LIGHTS 287/285
REC. 287A			7.5	10	20	12	5		6	12	20	10			5.7	LIGHTS 286/284
REC. 287B	7.5			10	20	12	7		8	12	20	10	7.5			REC. 290B
REC. 287C		7.5		10	20	12	9		10	12	20	10		7.5		REC. 290A
REC. 287D			7.5	10	20	12	11		12	12	20	10			8.4	REFRIGERATOR 290
REFRIGERATOR 287	8.4			10	20	12	13		14	12	20	10	3.0			COUNTER 290
COUNTER REC. 287		4.5		10	20	12	15		16	12	20	10		7.5		LOUNGE REC. 290
HALL REC. 287			6.0	10	20	12	17		18	12	20	10			1.5	BATH GFI 290
LOUNGE REC. 287	6.0			10	20	12	19		20		20	10				SPARE
BATH GFI 287		3.0		10	20	12	21		22		20	10				SPARE
REC. 288B			7.5	10	20	12	23		24		20	10				SPARE
REC. 288A	7.5			10	20	12	25		26		20	10				SPARE
REFRIGERATOR 288		8.4		10	20	12	27		28		20	10				SPARE
COUNTER REC. 288			3.0	10	20	12	29		30		20	10				SPARE
LOUNGE REC. 288	7.5			10	20	12	31		32		20	10				SPARE
BATH GFI 288		1.5		10	20	12	33		34		20	10				SPARE
SPARE			--	10	20		35		36	**12**	**35**	**10**			**19.7**	**AHU-A-287**
SPARE				10	20		37							**19.7**		
AHU-A-288		**19.7**		**10**	**35**	**12**	39		40	**12**	**35**	**10**		**19.7**		**AHU-A-290**
			19.7												**19.7**	
TOTAL	40.3	**44.6**	**51.2**										**35.9**	**42.2**	**55.0**	TOTAL

TOTAL CONNECTED AMPS A=**76.2** B=**86.8** C=**106.2**

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GLADDING RESIDENCE HALL 3 - HVAC AND ROOF REPLACEMENT

PC#236-B4236-004

722 W CARY ST, RICHMOND, VA 23220

REVISIONS

#	DATE	DESCRIPTION

COMMISSION NUMBER
22240290

SCALE:	
DESIGNED:	JAM
DRAWN:	VT
CHECKED:	MAW
DATE:	06/03/2024

COMMONWEALTH OF VIRGINIA
JOSEPH ADAM MICKIEWICZ
Lic. No. 038888
PROFESSIONAL ENGINEER

SHEET TITLE
ELECTRICAL PANELBOARD SCHEDULES

SHEET NUMBER
E-602

SHEET # 46 OF 51

6/3/2024 4:42:04 PM
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GENERAL ELECTRICAL NOTE:

1. PANELBOARD SCHEDULES WITH STRIKE THROUGHTS AND (X) INDICATE TO DISCONNECT AND REMOVE.
2. UPDATED PANELBOARD SCHEDULE INDICATE NEW CIRCUIT BREAKERS, LOADS SERVED, AND WIRING.

NOTES:
PANEL "L2B" IS TYPICAL OF PANELS "L3B" AND "L4B".
PANEL "L2C" IS TYPICAL OF PANELS "L3C" AND "L4C".
PANEL "L2D" IS TYPICAL OF PANELS "L3D" AND "L4D".

PANELBOARD LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD
PHASE A=41.8A	PHASE A=39.4A
PHASE B=41.8A	PHASE B=39.4A
PHASE C=83.6A	PHASE C=78.8A

PANELBOARD SCHEDULE

PANEL "L2C" 225A MLO, 208/Y120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 25 KAIC PRL2A

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
HALL LIGHTS	4.9			25	20	12	1		2	12	20	25	9.4			LIGHTS 283/281
HALL REC.		3.0		25	20	12	3		4	12	20	25		6.8		LIGHTS 282/280
REFRIGERATOR 286			8.4	25	20	12	5		6	12	20	25			8.4	REFRIGERATOR 284
REC. 286B	7.5			25	20	12	7		8	12	20	25	7.5			REC. 284B
REC. 286A		3.0		25	20	12	9		10	12	20	25		7.5		REC. 284A
BATH GFI 286			3.0	25	20	12	11		12	12	20	25			3.0	BATH GFI 284
COUNTER 286 REC.	7.5			25	20	12	13		14	12	20	25	7.5			COUNTER 284 REC.
LOUNGE REC. 286		1.5		25	20	12	15		16	12	20	25		1.5		LOUNGE REC. 284
REC. 285A			7.5	25	20	12	17		18	12	20	25			8.4	REFRIGERATOR 282
REC. 285B	7.5			25	20	12	19		20	12	20	25	7.5			REC. 282B
REFRIGERATOR 285		8.4		25	20	12	21		22	12	20	25		7.5		REC. 282A
COUNTER 285			7.5	25	20	12	23		24	12	20	25			3.0	BATH GFI 282
LOUNGE REC. 285	7.5			25	20	12	25		26	12	20	25	7.5			COUNTER REC. 282
BATH GFI 285		1.5		25	20	12	27		28	12	20	25		3.0		LOUNGE REC. 282
SPARE				25	20		29		30		20	25				SPARE
SPARE				25	20		31		32		20	25				SPARE
SPARE				25	20		33		34		20	25				SPARE
~~AIR HANDLER 285~~			~~20.9~~	~~25~~	~~25~~	~~10~~	35		36	~~10~~	~~25~~	~~25~~			~~20.9~~	~~AIR HANDLER 284~~
	~~20.9~~										25		~~20.9~~			
~~AIR HANDLER 286~~		~~20.9~~		~~25~~	~~25~~	~~10~~	39		40	~~10~~	~~25~~	~~25~~		~~20.9~~		~~AIR HANDLER 282~~
			~~20.9~~								25				~~20.9~~	
TOTAL	55.8	38.3	68.2										60.3	47.2	64.6	TOTAL

L2C TOTAL CONNECTED AMPS A=116.1 B=85.5 C=132.8

L2D TOTAL CONNECTED AMPS A=73.4 B=100.6 C=102.5
FEEDER TOTAL CONNECTED AMPS A=189.5 B=186.1 C=235.3

UPDATED PANELBOARD SCHEDULE

PANEL "L2C" 225A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 25 KAIC PRL2A

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
HALL LIGHTS	4.9			25	20	12	1		2	12	20	25	9.4			LIGHTS 283/281
HALL REC.		3.0		25	20	12	3		4	12	20	25		6.8		LIGHTS 282/280
REFRIGERATOR 286			8.4	25	20	12	5		6	12	20	25			8.4	REFRIGERATOR 284
REC. 286B	7.5			25	20	12	7		8	12	20	25	7.5			REC. 284B
REC. 286A		3.0		25	20	12	9		10	12	20	25		7.5		REC. 284A
BATH GFI 286			3.0	25	20	12	11		12	12	20	25			3.0	BATH GFI 284
COUNTER 286 REC.	7.5			25	20	12	13		14	12	20	25	7.5			COUNTER 284 REC.
LOUNGE REC. 286		1.5		25	20	12	15		16	12	20	25		1.5		LOUNGE REC. 284
REC. 285A			7.5	25	20	12	17		18	12	20	25			8.4	REFRIGERATOR 282
REC. 285B	7.5			25	20	12	19		20	12	20	25	7.5			REC. 282B
REFRIGERATOR 285		8.4		25	20	12	21		22	12	20	25		7.5		REC. 282A
COUNTER 285			7.5	25	20	12	23		24	12	20	25			3.0	BATH GFI 282
LOUNGE REC. 285	7.5			25	20	12	25		26	12	20	25	7.5			COUNTER REC. 282
BATH GFI 285		1.5		25	20	12	27		28	12	20	25		3.0		LOUNGE REC. 282
SPARE				25	20		29		30		20	25				SPARE
SPARE				25	20		31		32		20	25				SPARE
SPARE				25	20		33		34		20	25				SPARE
AHU-A-285	**19.7**			**19.7**	**25**	**35**	**12**		36	**12**	**35**	**25**		**19.7**		**AHU-A-284**
													19.7			
AHU-A-286		**19.7**		**19.7**	**25**	**35**	**12**		40	**12**	**35**	**25**			**19.7**	**AHU-A-282**
				19.7											**19.7**	
TOTAL	**54.6**	**37.1**	**65.8**										**59.1**	**46.0**	**62.2**	TOTAL

L2C TOTAL CONNECTED AMPS A=**113.7** B=**83.1** C=**128.0**

L2D TOTAL CONNECTED AMPS A=**73.4** B=**98.2** C=**99.7**
FEEDER TOTAL CONNECTED AMPS A=187.1 B=181.3 C=227.7

PANELBOARD LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD
PHASE A=20.9A	PHASE A=20.5A
PHASE B=41.8A	PHASE B=39.4A
PHASE C=62.7A	PHASE C=59.9A

PANEL L2C AND L2D FEEDER LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD	NET CHANGE
PHASE A: 62.7A	PHASE A= 59.9A	PHASE A= -2.8A
PHASE B: 83.6A	PHASE B= 78.8A	PHASE B= -4.8A
PHASE C: 146.3A	PHASE C= 138.7A	PHASE C= -7.6A

ALL CONNECTED LOAD ON PHASES HAVE BEEN DECREASED.
THE EXISTING 225A FEEDER IS SATISFACTORY.

PANELBOARD SCHEDULE

PANEL "L2D" 225A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 25 KAIC PRL2A

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
REC. 280B	7.5			25	20	12	1		2	12	20	25	7.5			REC. 281D
REC. 280A		7.5		25	20	12	3		4	12	20	25		7.5		REFRIGERATOR 281
REFRIGERATOR 280			8.3	25	20	12	5		6	12	20	25			7.5	COUNTER REC. 281
LOUNGE REC. 280	3.0			25	20	12	7		8	12	20	25	7.5			HALL REC. 281
BATH GFI 280		7.5		25	20	12	9		10	12	20	25		8.4		LOUNGE REC. 281
COUNTER 280			1.5	25	20	12	11		12	12	20	25			4.5	BATH GFI 281
REC. 283A	7.5			25	20	12	13		14	12	20	25	6.0			REC. 281A
REC. 283B		7.5		25	20	12	15		16	12	20	25		6.0		REC. 281B
REC. 283C			7.5	25	20	12	17		18	12	20	25			3.0	REC. 281C
REC. 283D	7.5			25	20	12	19		20		20	25				SPARE
REFRIGERATOR 283		8.4		25	20	12	21		22		20	25				SPARE
COUNTER 283			4.5	25	20	12	23		24		20	25				SPARE
HALL REC. 283	6.0			25	20	12	25		26		20	25				SPARE
LOUNGE REC. 283		6.0		25	20	12	27		28		20	25				SPARE
BATH GFI 283			3.0	25	20	12	29		30		20	25				SPARE
SPARE	--			25	20		31		32		20	25				SPARE
SPARE		--		25	20		33		34		20	25				SPARE
~~AIR HANDLER 283~~			~~20.9~~	~~25~~	~~25~~	~~10~~	35		36		20	25				SPARE
	20.9								38		20					SPARE
~~AIR HANDLER 280~~		~~20.9~~		~~25~~	~~25~~	~~10~~	39		40	~~10~~	~~25~~	~~25~~		~~20.9~~		~~AIR HANDLER 281~~
			~~20.9~~												~~20.9~~	
TOTAL	52.4	57.8	66.6										21.0	42.8	35.9	TOTAL

TOTAL CONNECTED AMPS A=73.4 B=100.6 C=102.5

UPDATED PANELBOARD SCHEDULE

PANEL "L2D" 225A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 25 KAIC PRL2A

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
REC. 280B	7.5			25	20	12	1		2	12	20	25	7.5			REC. 281D
REC. 280A		7.5		25	20	12	3		4	12	20	25		7.5		REFRIGERATOR 281
REFRIGERATOR 280			8.3	25	20	12	5		6	12	20	25			7.5	COUNTER REC. 281
LOUNGE REC. 280	3.0			25	20	12	7		8	12	20	25	7.5			HALL REC. 281
BATH GFI 280		7.5		25	20	12	9		10	12	20	25		8.4		LOUNGE REC. 281
COUNTER 280			1.5	25	20	12	11		12	12	20	25			4.5	BATH GFI 281
REC. 283A	7.5			25	20	12	13		14	12	20	25	6.0			REC. 281A
REC. 283B		7.5		25	20	12	15		16	12	20	25		6.0		REC. 281B
REC. 283C			7.5	25	20	12	17		18	12	20	25			3.0	REC. 281C
REC. 283D	7.5			25	20	12	19		20		20	25				SPARE
REFRIGERATOR 283		8.4		25	20	12	21		22		20	25				SPARE
COUNTER 283			4.5	25	20	12	23		24		20	25				SPARE
HALL REC. 283	6.0			25	20	12	25		26		20	25				SPARE
LOUNGE REC. 283		6.0		25	20	12	27		28		20	25				SPARE
BATH GFI 283			3.0	25	20	12	29		30		20	25				SPARE
SPARE	--			25	20		31		32		20	25				SPARE
SPARE		--		25	20		33		34		20	25				SPARE
AHU-C-283			**20.5**	**25**	**40**	**10**	35		36		20	25				SPARE
	20.5								38		20					SPARE
AHU-A-280		**19.7**		**25**	**35**	**12**	39		40	**12**	**35**	**25**		**19.7**		**AHU-A-281**
			19.7												**19.7**	
TOTAL	**52.4**	**56.6**	**65.0**										21.0	**41.6**	**34.7**	TOTAL

TOTAL CONNECTED AMPS A=**73.4** B=**98.2** C=**99.7**

PANELBOARD LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD
PHASE A=41.0A	PHASE A=42.6A
PHASE B=44.4A	PHASE B=20.1A
PHASE C=85.4A	PHASE C=62.7A

PANELBOARD SCHEDULE

WITH FEED THROUGH LUG FEEDING L5B

PANEL "L5A" 225A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
LIGHTS HALL/LOUNGE	13.3			10	20	12	1		2	12	20	10	4.7			LIGHTS 593
REC. 593A		7.5		10	20	12	3		4	12	20	10		4.4		LIGHTS 591
REC. 593B			7.5	10	20	12	5		6	12	20	10			7.5	REC. 591A
REC. 593C	7.5			10	20	12	7		8	12	20	10	7.5			REC. 591B
REC. 593D		7.5		10	20	12	9		10	12	20	10		7.5		REC. 591C
REFRIGERATOR 593			8.3	10	20	12	11		12	12	20	10			7.5	COUNTER 591
COUNTER 593	4.5			10	20	12	13		14	12	20	10	8.3			REFRIGERATOR 591
HALL REC. 593		6.0		10	20	12	15		16	12	20	10		3.0		REC. 591D
LIVING AREA 593			6.0	10	20	12	17		18	12	20	10			7.5	HALL REC. 591
BATH GFI 593	3.0			10	20	12	19		20	12	20	10	6.0			LIVING AREA 591
MAIN HALLWAY REC. BY 593		9.8		10	20	12	21		22	12	20	10		3.0		BATH GFI 591
KITCHEN COUNTER			6.0	10	20	12	23		24	12	20	10			6.0	DATA RM. REC.
KITCHEN REFRIG.	8.3			10	20	12	25		26	12	20	10	7.2			STAIRWAY HEATER
RANGE		19.3		10	50	10	27							7.2		
			19.3						30	12	20	10			1.5	DATA RM. REC
SPARE				10	20		31		32	12	20	10	1.5			DATA RM. REC.
EXHAUST FAN		0.5		10	20	12	33		34		20	10				SPARE
~~AIR HANDLER 591~~			~~20.5~~	~~10~~	~~30~~	~~10~~	35		36	~~10~~	~~30~~	~~10~~			~~20.5~~	~~AIR HANDLER 593~~
	~~20.5~~											10	~~20.5~~			
~~AIR HANDLER 5TH LOUNGE~~		~~22.2~~		~~10~~	~~25~~	~~10~~	39		40	~~10~~	~~25~~	~~10~~		~~22.2~~		~~AIR HANDLER 5TH CORRIDOR~~
			~~22.2~~									10			~~22.2~~	
TOTAL	57.1	72.8	89.8										55.7	47.3	72.7	TOTAL

L5A TOTAL CONNECTED AMPS A=112.8 B=120.1 C=162.5

L5B TOTAL CONNECTED AMPS A=48.4 B=81.1 C=75.1
FEEDER TOTAL CONNECTED AMPS A=161.2 B=201.2 C=237.6

UPDATED PANELBOARD SCHEDULE

PANEL "L5A" 225A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
LIGHTS HALL/LOUNGE	13.3			10	20	12	1		2	12	20	10	4.7			LIGHTS 593
REC. 593A		7.5		10	20	12	3		4	12	20	10		4.4		LIGHTS 591
REC. 593B			7.5	10	20	12	5		6	12	20	10			7.5	REC. 591A
REC. 593C	7.5			10	20	12	7		8	12	20	10	7.5			REC. 591B
REC. 593D		7.5		10	20	12	9		10	12	20	10		7.5		REC. 591C
REFRIGERATOR 593			8.3	10	20	12	11		12	12	20	10			7.5	COUNTER 591
COUNTER 593	4.5			10	20	12	13		14	12	20	10	8.3			REFRIGERATOR 591
HALL REC. 593		6.0		10	20	12	15		16	12	20	10		3.0		REC. 591D
LIVING AREA 593			6.0	10	20	12	17		18	12	20	10			7.5	HALL REC. 591
BATH GFI 593	3.0			10	20	12	19		20	12	20	10	6.0			LIVING AREA 591
MAIN HALLWAY REC. BY 593		9.8		10	20	12	21		22	12	20	10		3.0		BATH GFI 591
KITCHEN COUNTER			6.0	10	20	12	23		24	12	20	10			6.0	DATA RM. REC.
KITCHEN REFRIG.	8.3			10	20	12	25		26	12	20	10	7.2			STAIRWAY HEATER
RANGE		19.3		10	50	10	27							7.2		
			19.3						30	12	20	10			1.5	DATA RM. REC
SPARE				10	20		31		32	12	20	10	1.5			DATA RM. REC.
EXHAUST FAN		0.5		10	20	12	33		34		20	10				SPARE
AHU-D-591			**21.3**	**10**	**40**	**10**	35		36	**10**	**40**	**10**			**21.3**	**AHU-D-593**
	21.3												**21.3**			
AHU-B-5TH LOUNGE		**20.1**		**10**	**40**	**10**	39		40							**SPACE ONLY**
			20.1						42							**SPACE ONLY**
TOTAL	**57.9**	**70.7**	**88.5**										**46.4**	**25.1**	**51.3**	TOTAL

L5A TOTAL CONNECTED AMPS A=**104.3** B=**95.8** C=**139.8**

L5B TOTAL CONNECTED AMPS A=48.4 B=**79.5** C=**73.5**
FEEDER TOTAL CONNECTED AMPS A=152.7 B=175.3 C=213.3

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REVISIONS

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SCALE:

DESIGNED:	JAM
DRAWN:	VT
CHECKED:	MAW
DATE:	06/03/2024

COMMONWEALTH OF VIRGINIA
JOSEPH ADAM MICKIEWICZ
Lic. No. 038888
PROFESSIONAL ENGINEER

SHEET TITLE
ELECTRICAL PANELBOARD SCHEDULES

SHEET NUMBER
E-603

SHEET # 47 OF 51

6/3/2024 4:42:13 PM
Autodesk Docs://VCU Gladding Hall Roof/2240290 - R23 - VCU GLADDING HALL ROOF - MEP.rvt

GENERAL ELECTRICAL NOTE:

1. PANELBOARD SCHEDULES WITH STRIKE THROUGHTS AND (X) INDICATE TO DISCONNECT AND REMOVE.
2. UPDATED PANELBOARD SCHEDULE INDICATE NEW CIRCUIT BREAKERS, LOADS SERVED, AND WIRING.

PANELBOARD LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD
PHASE A=0A	PHASE A=0A
PHASE B=41.8A	PHASE B=40.2A
PHASE C=44.8A	PHASE C=43.2A

PANEL L5A AND L5B FEEDER LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD	NET CHANGE
PHASE A: 41.0A	PHASE A= 42.6A	PHASE A= +1.6A
PHASE B: 86.2A	PHASE B= 60.3A	PHASE B= -52.1A
PHASE C: 130.2A	PHASE C= 105.9A	PHASE C= -24.2A

PHASE A INCREASED BY 1.6A. HOWEVER PHASE A CONNECTED LOAD IS 152.7A. THE HIGHEST LOAD IS PHASE C (213.3A), WHICH IS BEING DECREASE. THEREFORE, THE EXISTING 225A FEEDER IS SATISFACTORY.

PANELBOARD SCHEDULE

PANEL "L5B" 225A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
LIGHTS HALLWAY	3.4			10	20	12	1		2	12	20	10	7.5			LIGHTS 583
HALLWAY REC.		3.0		10	20	12	3		4	12	20	10		4.7		LIGHTS 587/585
~~ROOF TOP REC.~~			~~3.0~~	10	20	~~12~~	5		6	12	20	10			7.5	REC. 585A
REC. 587A	7.5			10	20	12	7		8	12	20	10	7.5			REC. 585B
REC. 587C		7.5		10	20	12	9		10	12	20	10		8.3		REFRIGERATOR 585
REC. 587B			7.5	10	20	12	11		12	12	20	10			3.0	LIVING AREA 585
REC. 587D	7.5			10	20	12	13		14	12	20	10	7.5			BATH GFI 585
REFRIGERATOR 587		8.3		10	20	12	15		16	12	20	10		1.5		COUNTER 585
COUNTER 587			3.0	10	20	12	17		18	12	20	10			3.3	ACCESSIBLE DOOR OPENERS
HALLWAY REC. 587	7.5			10	20	12	19		20		20	10				SPARE
LIVING AREA 587		6.0		10	20	12	21		22		20	10				SPARE
BATH GFI 587			3.0	10	20	12	23		24		20	10				SPARE
SPARE				10	20		25		26		20	10				SPARE
SPARE				10	20		27		28		20	10				SPARE
SPARE				10	20		29		30		20	10				SPARE
SPARE				10	20		31		32		20	10				SPARE
SPARE				10	20		33		34		20	10				SPARE
SPARE				10	20		35		36		20	10				SPARE
SPARE				10	20		37		38		20	10				SPARE
~~AIR HANDLER 585~~		~~20.9~~		~~10~~	~~25~~	~~10~~	39		40	~~10~~	~~25~~	~~10~~		~~20.9~~		~~AIR HANDLER 587~~
			~~20.9~~												~~20.9~~	
TOTAL	25.9	45.7	40.4										22.5	35.4	34.7	TOTAL
TOTAL CONNECTED AMPS A=48.4 B=81.1 C=75.1																

UPDATED PANELBOARD SCHEDULE

PANEL "L5B" 225A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
LIGHTS HALLWAY	3.4			10	20	12	1		2	12	20	10	7.5			LIGHTS 583
HALLWAY REC.		3.0		10	20	12	3		4	12	20	10		4.7		LIGHTS 587/585
ROOF TOP REC.			**3.0**	10	20	**12**	5		6	12	20	10			7.5	REC. 585A
REC. 587A	7.5			10	20	12	7		8	12	20	10	7.5			REC. 585B
REC. 587C		7.5		10	20	12	9		10	12	20	10		8.3		REFRIGERATOR 585
REC. 587B			7.5	10	20	12	11		12	12	20	10			3.0	LIVING AREA 585
REC. 587D	7.5			10	20	12	13		14	12	20	10	7.5			BATH GFI 585
REFRIGERATOR 587		8.3		10	20	12	15		16	12	20	10		1.5		COUNTER 585
COUNTER 587			3.0	10	20	12	17		18	12	20	10			3.3	ACCESSIBLE DOOR OPENERS
HALLWAY REC. 587	7.5			10	20	12	19		20		20	10				SPARE
LIVING AREA 587		6.0		10	20	12	21		22		20	10				SPARE
BATH GFI 587			3.0	10	20	12	23		24		20	10				SPARE
SPARE				10	20		25		26		20	10				SPARE
SPARE				10	20		27		28		20	10				SPARE
SPARE				10	20		29		30		20	10				SPARE
SPARE				10	20		31		32		20	10				SPARE
SPARE				10	20		33		34		20	10				SPARE
SPARE				10	20		35		36		20	10				SPARE
SPARE				10	20		37		38		20	10				SPARE
AHU-A-585		**19.7**		10	**35**		39		40	**10**	**40**	**10**		**20.5**		**AHU-C-587**
			19.7												**20.5**	
TOTAL	25.9	**44.5**	**39.2**										22.5	**35.0**	**34.3**	TOTAL
TOTAL CONNECTED AMPS A=48.4 B=**79.5** C=**73.5**																

PANELBOARD LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD	NET CHANGE
PHASE A=20.9A	PHASE A=20.5A	PHASE A= -0.4A
PHASE B=44.8A	PHASE B=42.4A	PHASE B= -2.4A
PHASE C=62.7A	PHASE C=59.9A	PHASE C= -2.8A

THE CONNECTED LOAD INCREASE IS NOT OVERLOADING THE EXISTING 150A PANEL L5C FEEDER. THE EXISTING 150A PANEL L5C IS SATISFACTORY.

PANELBOARD SCHEDULE

PANEL "L5C" 225A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
HALL LIGHTS	5.8			10	20	12	1		2	12	20	10	6.8			LIGHTS 582/580
HALL REC.		3.0		10	20	12	3		4	12	20	10		7.5		REC. 580A
REC. 582B			7.5	10	20	12	5		6	12	20	10			7.5	REC. 580B
REC. 582A	7.5			10	20	12	7		8	12	20	10	8.3			REFRIGERATOR 580
REFRIGERATOR 582		8.3		10	20	12	9		10	12	20	10		3.0		COUNTER 580
COUNTER 582			3.0	10	20	12	11		12	12	20	10			7.5	LIVING AREA 580
LIVING AREA 582	7.5			10	20	12	13		14	12	20	10	3.0			BATH GFI 580
BATH GFI 582		3.0		10	20	12	15		16	~~12~~	20	10		~~3.0~~		~~ROOF TOP GFI~~
REC. 583A			7.5	10	20	12	17		18		20	10				SPARE
REC. 583B	7.5			10	20	12	19		20		20	10				SPARE
REC. 583C		7.5		10	20	12	21		22		20	10				SPARE
HALLWAY 583			7.5	10	20	12	23		24		20	10				SPARE
LIVING AREA 583	4.5			10	20	12	25		26		20	10				SPARE
BATH GFI 583		6.0		10	20	12	27		28		20	10				SPARE
REC. 583D			6.0	10	20	12	29		30		20	10				SPARE
REFRIGERATOR 583	8.3			10	20	12	31		32		20	10				SPARE
COUNTER 583		3.0		10	20	12	33		34		20	10				SPARE
~~AIR HANDLER 583~~			~~20.9~~	~~10~~	~~25~~	~~10~~	35		36	12	20	10			7.2	STAIRWAY HEATER
	~~20.9~~												7.2			
~~AIR HANDLER 580~~		~~20.9~~		~~10~~	~~25~~	~~10~~	39		40	~~10~~	~~25~~	~~10~~		~~20.9~~		~~AIR HANDLER 582~~
			~~20.9~~												~~20.9~~	
TOTAL	57.5	51.7	73.3										25.3	34.4	43.4	TOTAL
TOTAL CONNECTED AMPS A=82.8 B=86.1 C=116.7																

UPDATED PANELBOARD SCHEDULE

PANEL "L5C" 225A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
HALL LIGHTS	5.8			10	20	12	1		2	12	20	10	6.8			LIGHTS 582/580
HALL REC.		3.0		10	20	12	3		4	12	20	10		7.5		REC. 580A
REC. 582B			7.5	10	20	12	5		6	12	20	10			7.5	REC. 580B
REC. 582A	7.5			10	20	12	7		8	12	20	10	8.3			REFRIGERATOR 580
REFRIGERATOR 582		8.3		10	20	12	9		10	12	20	10		3.0		COUNTER 580
COUNTER 582			3.0	10	20	12	11		12	12	20	10			7.5	LIVING AREA 580
LIVING AREA 582	7.5			10	20	12	13		14	12	20	10	3.0			BATH GFI 580
BATH GFI 582		3.0		10	20	12	15		16	**12**	20	10		**3.0**		**ROOF TOP GFI**
REC. 583A			7.5	10	20	12	17		18		20	10				SPARE
REC. 583B	7.5			10	20	12	19		20		20	10				SPARE
REC. 583C		7.5		10	20	12	21		22		20	10				SPARE
HALLWAY 583			7.5	10	20	12	23		24		20	10				SPARE
LIVING AREA 583	4.5			10	20	12	25		26		20	10				SPARE
BATH GFI 583		6.0		10	20	12	27		28		20	10				SPARE
REC. 583D			6.0	10	20	12	29		30		20	10				SPARE
REFRIGERATOR 583	8.3			10	20	12	31		32		20	10				SPARE
COUNTER 583		3.0		10	20	12	33		34		20	10				SPARE
AHU-C-583			**20.5**	10	**40**	**10**	35		36	12	20	10			7.2	STAIRWAY HEATER
	20.5												7.2			
AHU-A-580		**19.7**		10	**35**	**12**	39		40	**12**	**35**	**10**		**19.7**		**AHU-A-582**
			19.7												**19.7**	
TOTAL	**57.1**	**50.5**	**72.1**										25.3	**33.2**	**42.2**	TOTAL
TOTAL CONNECTED AMPS A=**82.4** B=**83.7** C=**114.3**																

PANELBOARD LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD
PHASE A=102.7A	PHASE A=94.2A
PHASE B=92.5A	PHASE B=84.7A
PHASE C=90.2A	PHASE C=88.1A

PANELBOARD SCHEDULE

CULTER HAMMER PRL1A — WITH FEED THROUGH LUGS FEEDING R2

PANEL "R1" 225A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC NEMA 3R

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
~~UNIT 301~~	~~10.4~~			~~10~~	~~15~~	~~12~~	3		4	~~12~~	~~15~~	~~10~~	~~10.4~~			~~UNIT 583~~
		~~10.4~~												~~10.4~~		
			~~10.4~~												~~10.4~~	
~~UNIT 283~~	~~10.4~~			~~10~~	~~15~~	~~12~~	9		10	~~12~~	~~15~~	~~10~~	~~10.4~~			~~UNIT 183~~
		~~10.4~~												~~10.4~~		
			~~10.4~~												~~10.4~~	
~~UNIT 281~~	~~10.4~~			~~10~~	~~15~~	~~12~~	15		16	~~12~~	~~15~~	~~10~~	~~10.4~~			~~UNIT 483~~
		~~10.4~~												~~10.4~~		
			~~10.4~~												~~10.4~~	
~~UNIT 382~~	~~9.5~~			~~10~~	~~15~~	~~12~~	19		20	~~12~~	~~20~~	~~10~~	~~11.0~~			~~UNIT 180~~
		~~9.5~~												~~11.8~~		
~~UNIT 582~~			~~9.5~~	~~10~~	~~15~~	~~12~~	23		24	~~12~~	~~15~~	~~10~~			~~9.5~~	~~UNIT 380~~
	~~9.5~~												~~9.5~~			
~~UNIT 280~~		~~8.8~~		~~10~~	~~15~~	~~12~~	27		28							SPACE ONLY
			~~8.8~~						30							SPACE ONLY
TOTAL	50.2	49.5	49.5										52.5	43.0	40.7	TOTAL
R1 TOTAL CONNECTED AMPS A=102.7 B=92.5 C=90.2																
R2 TOTAL CONNECTED AMPS A=63.3 B=63.3 C=47.5																
FEEDER TOTAL CONNECTED AMPS A=166.0 B=155.8 C=137.7																

UPDATED PANELBOARD SCHEDULE

PANEL "R1" 225A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC NEMA 3R

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
CU-C-381 ON ROOF	**14.9**			**10**	**30**	**10**	1		2	**12**	**20**	**10**	**9.5**			**CU-A-583 ON ROOF**
		14.9												**9.5**		
CU-C-283 ON ROOF			**14.9**	**10**	**30**	**10**	5		6	**10**	**30**	**10**			**14.9**	**CU-C-183 ON ROOF**
													14.9			
CU-C-281 ON ROOF	**14.9**			**10**	**30**	**10**	9		10	**10**	**30**	**10**		**14.9**		**CU-C-483 ON ROOF**
		14.9													**14.9**	
CU-A-382 ON ROOF	**9.5**			**10**	**20**	**12**	13		14	**12**	**25**	**10**	**11.5**			**CU-B-180 ON ROOF**
		9.5												**11.5**		
CU-A-582 ON ROOF			**9.5**	**10**	**20**	**12**	17		18	**12**	**20**	**10**			**9.5**	**CU-A-380 ON ROOF**
	9.5												**9.5**			
CU-A-280 ON ROOF		**9.5**		**10**	**20**	**12**	21		22							**SPACE ONLY**
			9.5						24							**SPACE ONLY**
SPACE ONLY							25		26							**SPACE ONLY**
SPACE ONLY							27		28							**SPACE ONLY**
SPACE ONLY							29		30							**SPACE ONLY**
TOTAL	**48.8**	**48.8**	**48.8**										**45.4**	**35.9**	**39.3**	TOTAL
R1 TOTAL CONNECTED AMPS A=**94.2** B=**84.7** C=**88.1**																
R2 TOTAL CONNECTED AMPS A=**67.8** B=**67.8** C=**48.8**																
FEEDER TOTAL CONNECTED AMPS A=162.0 B=152.5 C=136.9																

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DESIGNED: JAM
DRAWN: VT
CHECKED: MAW
DATE: 06/03/2024

COMMONWEALTH OF VIRGINIA
JOSEPH ADAM MICKIEWICZ
Lic. No. 038888
PROFESSIONAL ENGINEER

SHEET TITLE
ELECTRICAL PANELBOARD SCHEDULES

SHEET NUMBER
E-604

SHEET # 48 OF 51

GENERAL ELECTRICAL NOTE:

1. PANELBOARD SCHEDULES WITH STRIKE THROUGHTS AND (X) INDICATE TO DISCONNECT AND REMOVE.
2. UPDATED PANELBOARD SCHEDULE INDICATE NEW CIRCUIT BREAKERS, LOADS SERVED, AND WIRING.

PANELBOARD LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD
PHASE A=63.3A	PHASE A=67.8A
PHASE B=63.3A	PHASE B=67.8A
PHASE C=47.5A	PHASE C=48.8A

PANEL R1 AND R2 FEEDER LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD	NET CHANGE
PHASE A: 166.0A	PHASE A= 162.0A	PHASE A= -4.0A
PHASE B: 155.8A	PHASE B= 152.5A	PHASE B= -3.3A
PHASE C: 137.7A	PHASE C= 136.9A	PHASE C= -1.9A

THE CONNECTED LOAD INCREASE IS NOT OVERLOADING THE EXISTING 400A PANEL R1 AND R2 FEEDER. THE EXISTING 400A PANEL R1 AND R2 IS SATISFACTORY.

CULTER HAMMER PRL1A **PANELBOARD SCHEDULE**

PANEL "R2" 225A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC NEMA 3R

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
~~9.5~~									2	~~12~~	~~30~~	~~10~~	~~14.9~~			~~UNIT 481~~
~~UNIT 383~~		~~9.5~~		~~10~~	~~15~~	~~12~~	3							~~14.9~~		
			~~9.5~~						6							SPACE ONLY
~~UNIT 580~~	~~10.4~~			~~10~~	~~15~~	~~12~~	7		8	~~12~~	~~15~~	~~10~~	~~9.5~~			~~UNIT 482~~
	~~10.4~~													~~9.5~~		
~~UNIT 181~~			~~9.5~~	~~10~~	~~15~~	~~12~~	11		12	~~12~~	~~15~~	~~10~~			~~9.5~~	~~UNIT 282~~
~~9.5~~													~~9.5~~			
~~UNIT 480~~		~~9.5~~		~~10~~	~~15~~	~~12~~	15		16	~~12~~	~~15~~	~~10~~		~~9.5~~		~~UNIT 182~~
			~~9.5~~												~~9.5~~	
SPACE ONLY							19		20							SPACE ONLY
SPACE ONLY							21		22							SPACE ONLY
SPACE ONLY							23		24							SPACE ONLY
SPACE ONLY							25		26							SPACE ONLY
SPACE ONLY							27		28							SPACE ONLY
SPACE ONLY							29		30							SPACE ONLY
TOTAL	29.4	29.4	28.5										33.9	33.9	19.0	TOTAL

TOTAL CONNECTED AMPS A=63.3 B=63.3 C=47.5

UPDATED PANELBOARD SCHEDULE

PANEL "R2" 225A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC NEMA 3R

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
CU-C-383 ON ROOF	**14.9**			**10**	**30**	**10**	1		2	**12**	**20**	**10**	**9.5**			**CU-A-181 ON ROOF**
		14.9												**9.5**		
CU-C-580 ON ROOF			**14.9**	**10**	**30**	**10**	5		6	**12**	**20**	**10**			**9.5**	**CU-A-482 ON ROOF**
	14.9													**9.5**		
CU-C-481 ON ROOF		**14.9**		**10**	**30**	**10**	9		10	**12**	**20**	**10**	**9.5**			**CU-A-282 ON ROOF**
			14.9												**9.5**	
CU-A-480 ON ROOF	**9.5**			**10**	**20**	**12**	13		14	**12**	**20**	**10**	**9.5**			**CU-A-182 ON ROOF**
		9.5												**9.5**		
SPACE ONLY							17		18							SPACE ONLY
SPACE ONLY							19		20							SPACE ONLY
SPACE ONLY							21		22							SPACE ONLY
SPACE ONLY							23		24							SPACE ONLY
SPACE ONLY							25		26							SPACE ONLY
SPACE ONLY							27		28							SPACE ONLY
SPACE ONLY							29		30							SPACE ONLY
TOTAL	**39.3**	**39.3**	**29.8**										**28.5**	**28.5**	**19.0**	TOTAL

TOTAL CONNECTED AMPS A=**67.8** B=**67.8** C=**48.8**

PANELBOARD LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD
PHASE A=153.9A	PHASE A=141.6A
PHASE B=120.5A	PHASE B=143.9A
PHASE C=127.4A	PHASE C=149.9A

PANEL R3 AND R4 FEEDER LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD	NET CHANGE
PHASE A: 262.1A	PHASE A= 337.2A	PHASE A= +75.1A
PHASE B: 240.5A	PHASE B= 293.1A	PHASE B= +52.6
PHASE C: 240.2A	PHASE C= 293.9A	PHASE C= +53.4

THE CONNECTED LOAD INCREASE IS NOT OVERLOADING THE EXISTING 400A PANEL R3 AND R4 FEEDER. THE EXISTING 400A PANEL R3 AND R4 IS SATISFACTORY.

CULTER HAMMER PRL1A **PANELBOARD SCHEDULE** WITH FEED THROUGH LUGS FEEDING R4

PANEL "R3" 400A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC NEMA 3R

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
~~UNIT 388~~	~~9.5~~			~~10~~	~~15~~	~~12~~	1		2	~~12~~	~~15~~	~~10~~	~~9.5~~			~~UNIT 288~~
		~~9.5~~												~~9.5~~		
~~2ND CORRIDOR~~			~~11.8~~	~~10~~	~~20~~	~~12~~	5		6	~~12~~	~~20~~	~~10~~			~~11.8~~	~~1ST CORRIDOR~~
~~11.8~~													~~11.8~~			
~~UNIT 290~~		~~11.5~~		~~10~~	~~15~~	~~12~~	9		10	~~12~~	~~15~~	~~10~~		~~9.5~~		~~UNIT 488~~
			~~11.5~~												~~9.5~~	
~~UNIT 190~~	~~9.5~~			~~10~~	~~15~~	~~12~~	13		14	~~12~~	~~15~~	~~10~~	~~9.5~~			~~UNIT 490~~
		~~9.5~~												~~9.5~~		
~~1ST LOUNGE~~			~~11.8~~	~~10~~	~~20~~	~~12~~	17		18	~~12~~	~~15~~	~~10~~			~~9.5~~	~~UNIT 390~~
~~11.8~~													~~9.5~~			
	~~10.4~~								22							SPACE ONLY
~~UNIT 191~~			~~10.4~~	~~10~~	~~15~~	~~12~~	23		24	~~12~~	~~15~~	~~10~~			~~9.5~~	~~UNIT 188~~
~~10.4~~													~~9.5~~			
SPACE ONLY							27		28							SPACE ONLY
SPACE ONLY							29		30							SPACE ONLY
~~UNIT 291~~	~~10.4~~												~~10.4~~			
	~~10.4~~			~~10~~	~~15~~	~~12~~	33		34	~~12~~	~~15~~	~~10~~		~~10.4~~		~~UNIT 391~~
	~~10.4~~													~~10.4~~		
~~UNIT 387~~		~~10.4~~		~~10~~	~~20~~	~~12~~	39		40	~~12~~	~~20~~	~~10~~		~~10.4~~		~~UNIT 287~~
		~~10.4~~												~~10.4~~		
~~UNIT 485~~	~~9.5~~			~~10~~	~~15~~	~~12~~	43		44							SPACE ONLY
	~~9.5~~								46							SPACE ONLY
SPACE ONLY							47		48							SPACE ONLY
SPACE ONLY							49		50							SPACE ONLY
SPACE ONLY							51		52							SPACE ONLY
SPACE ONLY							53		54							SPACE ONLY
TOTAL	83.3	71.2	66.3										70.6	49.3	61.1	TOTAL

R3 TOTAL CONNECTED AMPS A=153.9 B=120.5 C=127.4

R4 TOTAL CONNECTED AMPS A=108.2 B=120.0 C=112.8

FEEDER TOTAL CONNECTED AMPS A=262.1 B=240.5 C=240.2

UPDATED PANELBOARD SCHEDULE

PANEL "R3" 400A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC NEMA 3R

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
CU-A-388 ON ROOF	**9.5**			**10**	**20**	**12**	1		2	**12**	**20**	**10**	**9.5**			**CU-A-288 ON ROOF**
		9.5												**9.5**		
CU-B-2ND CORRIDOR ON ROOF			**11.5**	**10**	**25**	**12**	5		6	**12**	**25**	**10**			**11.5**	**CU-B-1ST CORRIDOR ON ROOF**
	11.5													**11.5**		
CU-A-290 ON ROOF (R)		**11.5**		**10**	**20**	**12**	9		10	**12**	**20**	**10**		**9.5**		**CU-A-488 ON ROOF**
			11.5												**9.5**	
CU-A-190 ON ROOF	**9.5**			**10**	**20**	**12**	13		14	**12**	**20**	**10**	**9.5**			**CU-A-490 ON ROOF**
		9.5												**9.5**		
CU-B-1ST LOUNGE ON ROOF			**11.5**	**10**	**25**	**12**	17		18	**12**	**20**	**10**			**9.5**	**CU-A-390 ON ROOF**
	11.5													**9.5**		
CU-C-191 ON ROOF		**14.9**		**10**	**30**	**10**	21		22	**12**	**20**	**10**		**9.5**		**CU-A-188 ON ROOF**
			14.9												**9.5**	
CU-C-291 ON ROOF	**14.9**			**10**	**30**	**10**	25		26	**10**	**30**	**10**	**14.9**			**CU-C-391 ON ROOF**
		14.9												**14.9**		
CU-C-387 ON ROOF			**14.9**	**10**	**30**	**10**	29		30	**10**	**30**	**10**			**14.9**	**CU-C-287 ON ROOF**
	14.9													**14.9**		
CU-A-485 ON ROOF		**9.5**		**10**	**20**	**12**	33		34	**10**	**40**	**10**		**21.2**		**HP-A-1ST CORRIDOR ON ROOF**
			9.5												**21.2**	
SPACE ONLY							37		38							**SPACE ONLY**
SPACE ONLY							39		40							**SPACE ONLY**
SPACE ONLY							41		42							**SPACE ONLY**
SPACE ONLY							43		44							**SPACE ONLY**
SPACE ONLY							45		46							**SPACE ONLY**
SPACE ONLY							47		48							**SPACE ONLY**
SPACE ONLY							49		50							**SPACE ONLY**
SPACE ONLY							51		52							**SPACE ONLY**
SPACE ONLY							53		54							**SPACE ONLY**
TOTAL	**71.8**	**69.8**	**73.8**										**69.8**	**74.1**	**76.1**	TOTAL

R3 TOTAL CONNECTED AMPS A=**141.6** B=**143.9** C=**149.9**

TOTAL CONNECTED AMPS A=**195.6** B=**149.2** C=**144.0**

FEEDER TOTAL CONNECTED AMPS A=337.2 B=293.1 C=293.9

PANELBOARD LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD
PHASE A=108.2A	PHASE A=195.6A
PHASE B=120.0A	PHASE B=149.2A
PHASE C=112.8A	PHASE C=144.0A

PANELBOARD SCHEDULE CULTER HAMMER PRL1A

PANEL "R4" 400A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC NEMA 3R

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
~~12.7~~													~~12.7~~			
~~UNIT 593~~		~~12.7~~		~~10~~	~~20~~	~~12~~	3		4	~~12~~	~~20~~	~~10~~		~~12.7~~		~~UNIT 591~~
			~~12.7~~												~~12.7~~	
~~10.4~~													~~10.4~~			
~~UNIT 493~~		~~10.4~~		~~10~~	~~15~~	~~12~~	9		10	~~12~~	~~15~~	~~10~~		~~10.4~~		~~UNIT 491~~
			~~10.4~~												~~10.4~~	
~~UNIT 286~~	~~9.5~~			~~10~~	~~15~~	~~12~~	13		14	~~12~~	~~15~~	~~10~~	~~9.5~~			~~UNIT 386~~
		~~9.5~~												~~9.5~~		
SPACE ONLY							17		18							SPACE ONLY
SPACE ONLY							19		20							SPACE ONLY
SPACE ONLY							21		22							SPACE ONLY
SPACE ONLY							23		24							SPACE ONLY
SPACE ONLY							25		26							SPACE ONLY
	~~10.4~~								28							SPACE ONLY
~~UNIT 393~~			~~10.4~~	~~10~~	~~15~~	~~12~~	29		30	~~12~~	~~20~~	~~10~~			~~11.8~~	~~4TH CORRIDOR~~
~~10.4~~													~~11.8~~			
~~5TH CORRIDOR~~		~~11.8~~		~~10~~	~~20~~	~~12~~	33		34	~~12~~	~~20~~	~~10~~		~~11.8~~		~~3RD CORRIDOR~~
			~~11.8~~												~~11.8~~	
~~10.4~~													~~10.4~~			
~~UNIT 293~~		~~10.4~~		~~10~~	~~15~~	~~12~~	39		40	~~12~~	~~15~~	~~10~~		~~10.4~~		~~UNIT 193~~
			~~10.4~~												~~10.4~~	
TOTAL	53.4	65.2	55.7										54.8	54.8	57.1	TOTAL

TOTAL CONNECTED AMPS A=108.2 B=120.0 C=112.8

UPDATED PANELBOARD SCHEDULE

PANEL "R4" 400A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC NEMA 3R

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
CU-D-593 ON ROOF	**15.8**			**10**	**30**	**10**	1		2	**10**	**30**	**10**	**15.8**			**CU-D-591 ON ROOF**
		15.8												**15.8**		
CU-C-493 ON ROOF			**14.9**	**10**	**30**	**10**	5		6	**10**	**30**	**10**			**14.9**	**CU-C-491 ON ROOF**
	14.9													**14.9**		
CU-A-286 ON ROOF		**9.5**		**10**	**20**	**12**	9		10	**12**	**20**	**10**		**9.5**		**CU-A-386 ON ROOF**
			9.5												**9.5**	
CU-C-393 ON ROOF	**14.9**			**10**	**30**	**10**	13		14	**12**	**25**	**10**	**11.5**			**CU-B-4TH CORRIDOR ON ROOF**
		14.9												**11.5**		
CU-B-5TH CORRIDOR ON ROOF			**11.5**	**10**	**25**	**12**	17		18	**12**	**25**	**10**			**11.5**	**CU-B-3RD CORRIDOR ON ROOF**
	11.5													**11.5**		
CU-C-293 ON ROOF		**14.9**		**10**	**30**	**10**	21		22	**10**	**30**	**10**		**14.9**		**CU-C-193 ON ROOF**
			14.9												**14.9**	
HP-A-2ND CORRIDOR ON ROOF	**21.2**			**10**	**40**	**10**	25		26	**10**	**40**	**10**	**21.2**			**HP-A-4TH CORRIDOR ON ROOF**
		21.2												**21.2**		
HP-A-3RD CORRIDOR ON ROOF	**21.2**			**21.2**	**10**	**40**	**10**	29	30	**10**	**40**	**10**			**21.2**	**HP-A-5TH CORRIDOR ON ROOF**
													21.2			
SPACE ONLY							33		34							**SPACE ONLY**
SPACE ONLY							35		36							**SPACE ONLY**
SPACE ONLY							37		38							**SPACE ONLY**
SPACE ONLY							39		40							**SPACE ONLY**
SPACE ONLY							41		42							**SPACE ONLY**
TOTAL	**99.5**	**76.3**	**72.0**										**96.1**	**72.9**	**72.0**	TOTAL

TOTAL CONNECTED AMPS A=**195.6** B=**149.2** C=**144.0**

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PC#236-B4236-004

722 W CARY ST, RICHMOND, VA 23220

REVISIONS

#	DATE	DESCRIPTION

COMMISSION NUMBER
22240290

SCALE:	
DESIGNED:	JAM
DRAWN:	VT
CHECKED:	MAW
DATE:	06/03/2024

COMMONWEALTH OF VIRGINIA
JOSEPH ADAM MICKIEWICZ
Lic. No. 038888
PROFESSIONAL ENGINEER

SHEET TITLE
ELECTRICAL PANELBOARD SCHEDULES

SHEET NUMBER
E-605

SHEET # 49 OF 51

GENERAL ELECTRICAL NOTE:

1. PANELBOARD SCHEDULES WITH STRIKE THROUGHTS AND (X) INDICATE TO DISCONNECT AND REMOVE.
2. UPDATED PANELBOARD SCHEDULE INDICATE NEW CIRCUIT BREAKERS, LOADS SERVED, AND WIRING.

PANELBOARD LOAD CALCULATION:

REMOVED LOAD	ADDED LOAD	NET CHANGE
PHASE A=135.3A	PHASE A=134.2A	PHASE A= -1.1A
PHASE B=125.8A	PHASE B=119.3A	PHASE B= -6.5A
PHASE C=130.4A	PHASE C=117.9A	PHASE C= -12.5A

PANELBOARD R5 LOAD HAS DECREASED. THE EXISITING 225A FEEDER AND PANELBOARD IS SATISFACTORY.

PANELBOARD SCHEDULE

PANEL "R5" 225A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC NEMA 3R

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
~~UNIT 585~~	~~9.5~~			~~10~~	~~15~~	~~12~~	1		2	~~12~~	~~15~~	~~10~~	~~9.5~~			~~UNIT 185~~
		~~9.5~~												~~9.5~~		
~~3RD LOUNGE~~			~~11.8~~	~~10~~	~~20~~	~~12~~	5		6	~~12~~	~~20~~	~~10~~			~~11.8~~	~~5TH LOUNGE~~
	~~11.8~~												~~11.8~~			
~~2ND LOUNGE~~		~~11.8~~		~~10~~	~~20~~	~~12~~	9		10	~~12~~	~~20~~	~~10~~		~~11.8~~		~~4TH LOUNGE~~
			~~11.8~~												~~11.8~~	
~~UNIT 187~~	~~14.9~~												~~10.4~~			
		~~14.9~~		~~10~~	~~20~~	~~12~~	15		16	~~12~~	~~15~~	~~10~~		~~10.4~~		~~UNIT 587~~
			~~14.9~~												~~10.4~~	
~~UNIT 384~~	~~9.5~~			~~10~~	~~15~~	~~12~~	19		20	~~12~~	~~15~~	~~10~~	~~9.5~~			~~UNIT 484~~
		~~9.5~~												~~9.5~~		
~~UNIT 285~~			~~9.5~~	~~10~~	~~15~~	~~12~~	23		24	~~12~~	~~15~~	~~10~~			~~9.5~~	~~UNIT 184~~
	~~9.5~~												~~9.5~~			
~~UNIT 186~~		~~9.5~~		~~10~~	~~15~~	~~12~~	27		28	~~12~~	~~15~~	~~10~~		~~9.5~~		~~UNIT 284~~
			~~9.5~~												~~9.5~~	
~~UNIT 486~~	~~9.5~~			~~10~~	~~15~~	~~12~~	31						~~10.4~~			
		~~9.5~~							34	~~12~~	~~15~~	~~10~~		~~10.4~~		~~UNIT 487~~
~~UNIT 385~~			~~9.5~~	~~10~~	~~15~~	~~12~~	35								~~10.4~~	
	~~9.5~~								38							SPACE ONLY
SPACE ONLY							39		40							SPACE ONLY
SPACE ONLY							41		42							SPACE ONLY
TOTAL	74.2	64.7	67.0										61.1	61.1	63.4	TOTAL

TOTAL CONNECTED AMPS A=135.3 B=125.8 C=130.4

UPDATED PANELBOARD SCHEDULE

PANEL "R5" 225A MLO, 208Y/120V, 3Ø, 4W, SURFACE MOUNTED, GROUND BUS, 10 KAIC NEMA 3R

LOAD SERVED	LOAD (AMPS) A	B	C	CKT BKR KAIC	TRIP	WIRE SIZE	CKT NO.	PHASE A B C	CKT NO.	WIRE SIZE	CKT BKR TRIP	KAIC	LOAD (AMPS) A	B	C	LOAD SERVED
CU-A-585 ON ROOF	**9.5**			**10**	**20**	**12**	1		2	**12**	**20**	**10**	**9.5**			**CU-A-185 ON ROOF**
		9.5												**9.5**		
CU-B-3RD LOUNGE ON ROOF			**11.5**	**10**	**25**	**12**	5		6	**12**	**25**	**10**			**11.5**	**CU-B-5TH LOUNGE ON ROOF**
	11.5												**11.5**			
CU-B-2ND LOUNGE ON ROOF		**11.5**		**10**	**25**	**12**	9		10	**12**	**25**	**10**		**11.5**		**CU-B-4TH LOUNGE ON ROOF**
			11.5												**11.5**	
CU-C-187 ON ROOF	**14.9**			**10**	**30**	**10**	13		14	**10**	**30**	**10**	**14.9**			**CU-C-587 ON ROOF**
		14.9												**14.9**		
CU-A-384 ON ROOF			**9.5**	**10**	**20**	**12**	17		18	**12**	**20**	**10**			**9.5**	**CU-A-484 ON ROOF**
	9.5												**9.5**			
CU-A-285 ON ROOF		**9.5**		**10**	**20**	**12**	21		22	**12**	**20**	**10**		**9.5**		**CU-A-184 ON ROOF**
			9.5												**9.5**	
CU-A-186 ON ROOF	**9.5**			**10**	**20**	**12**	25		26	**12**	**20**	**10**	**9.5**			**CU-A-284 ON ROOF**
		9.5												**9.5**		
CU-A-486 ON ROOF			**9.5**	**10**	**20**	**12**	29		30	**10**	**30**	**10**			**14.9**	**CU-C-487 ON ROOF**
	9.5												**14.9**			
CU-A-385 ON ROOF		**9.5**		**10**	**20**	**12**	33		34							**SPACE ONLY**
			9.5						36							**SPACE ONLY**
SPACE ONLY							37		38							SPACE ONLY
SPACE ONLY							39		40							SPACE ONLY
SPACE ONLY							41		42							SPACE ONLY
TOTAL	**64.4**	**64.4**	**61.0**										**69.8**	**54.9**	**56.9**	TOTAL

TOTAL CONNECTED AMPS A=**134.2** B=**119.3** C=**117.9**

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REVISIONS

#	DATE	DESCRIPTION

COMMISSION NUMBER
22240290

SCALE:	
DESIGNED:	JAM
DRAWN:	VT
CHECKED:	MAW
DATE:	06/03/2024

COMMONWEALTH OF VIRGINIA
JOSEPH ADAM MICKIEWICZ
Lic. No. 038888
PROFESSIONAL ENGINEER

SHEET TITLE
ELECTRICAL PANELBOARD SCHEDULES

SHEET NUMBER
E-606

SHEET # 50 OF 51

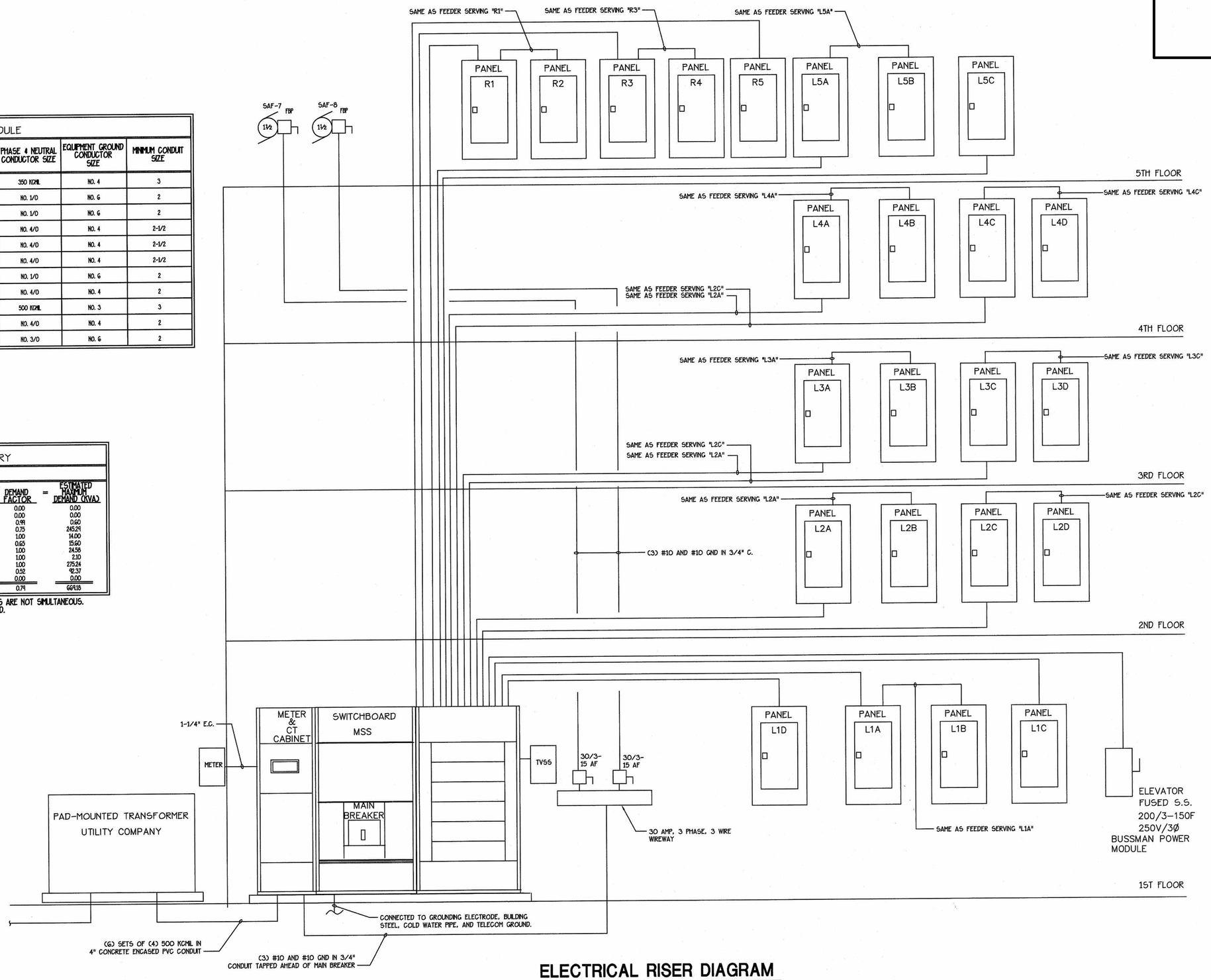
FEEDER SCHEDULE						
FEEDER ORIGINATION LOCATION	LOAD SERVED	NUMBER OF PARALLEL SETS	NUMBER OF PHASE & NEUTRAL CONDUCTORS PER CONDUIT	PHASE & NEUTRAL CONDUCTOR SIZE	EQUIPMENT GROUND CONDUCTOR SIZE	MINIMUM CONDUIT SIZE
MSS	PANEL L1A	1	4	350 KCMIL	NO. 4	3
MSS	PANEL L1C	1	4	NO. 1/0	NO. 6	2
MSS	PANEL L1D	1	4	NO. 1/0	NO. 6	2
MSS	PANEL L2A	1	4	NO. 4/0	NO. 4	2-1/2
MSS	PANEL L2C	1	4	NO. 4/0	NO. 4	2-1/2
MSS	PANEL L5A	1	4	NO. 4/0	NO. 4	2-1/2
MSS	PANEL L5C	1	4	NO. 1/0	NO. 6	2
MSS	PANEL R1	1	3	NO. 4/0	NO. 4	2
MSS	PANEL R3	1	3	500 KCMIL	NO. 3	3
MSS	PANEL R5	1	3	NO. 4/0	NO. 4	2
MSS	ELEVATOR FUSED S.S.	1	3	NO. 3/0	NO. 6	2

LOAD SUMMARY			
MSS			
LOAD DEMAND CODE	TOTAL CONNECTED LOAD (KVA) X	DEMAND FACTOR =	ESTIMATED MAXIMUM DEMAND (KVA)
A - HOSPITAL LIGHTING	0.00	0.00	0.00
B - HOTEL/MOTEL LIGHTING	0.00	0.00	0.00
C - SPACE COOLING	0.60	0.99	0.60
D - OTHER HVAC LOADS	327.06	0.75	245.29
H - SPACE HEATING	14.00	1.00	14.00
K - KITCHEN APPLIANCES	24.00	0.65	15.60
L - GENERAL LIGHTING	24.58	1.00	24.58
M - MISC. CONTINUOUS	2.10	1.00	2.10
N - MISC. NONCONTINUOUS	275.24	1.00	275.24
R - RECEPTACLES	174.74	0.52	92.37
W - WAREHOUSE LIGHTING	0.00	0.00	0.00
TOTAL	841.72	0.79	669.18

NOTE - SPACE COOLING AND SPACE HEATING LOADS ARE NOT SIMULTANEOUS. LOAD CALCULATION INCLUDES LARGEST LOAD.

NOTE

THIS DRAWING IS FOR INFORMATION ONLY. INFORMATION IS FROM RECORD DRAWING DATED 12-03-04.



ELECTRICAL RISER DIAGRAM

SCALE: NONE

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REVISIONS

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22240290

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DRAWN:	VT
CHECKED:	MAW
DATE:	06/03/2024

COMMONWEALTH OF VIRGINIA
JOSEPH ADAM MICKIEWICZ
Lic. No. 038888
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SHEET TITLE
ELECTRICAL EXISTING RISER DIAGRAM

SHEET NUMBER
E-801

SHEET # 51 OF 51

Amendment to the 2024-2030 Six-Year Capital Plan, Authorization to Initiate a Capital Project, and Approval of Project Plans

Massey Building Shared Lab Renovation

Background

VCU seeks Board of Visitors (BOV) approval to amend the 2024-2030 Six-Year Capital Plan, authorization to initiate a capital project, and project plan approval, as required by the VCU management agreement, for the Massey Building Shared Lab Renovation. This proposed renovation is essential to meet and enhance growing research needs.

Considerations

The vivarium currently supports a broad range of critical research projects and users from the Schools of Medicine, Pharmacy and Dentistry.

Size and scope

The renovation will focus on the first and ground floors of the Massey Building. The first floor will be converted from wet labs to a 5,415 assignable square foot (ASF) vivarium, expanding vivarium space in the facility, and 1,500 ASF square feet of core labs. The ground floor will be converted from administrative space to 6,245 ASF square feet of wet labs.

Costs and funding

The total cost is $33.9M. This includes $21.3M for construction renovations, $5M for furnishings, $4M for design, $2.5M for construction management and inspection, and $1.1M for construction contingency. The project will be funded with $2M from the university, $500K from the MCV Foundation, and the remainder from Massey.

Upon the review and approval for this capital project and funding plan from the VCU BOV and VCU Health Board of Directors (including required external review), the Massey allocation will be funded through existing funds and the VCU Health annual commitment to support cancer research and operations. If any state or grant support is received to renovate the space, it will be used in lieu of funding from VCU Health.

Recommendation

Approve the amendment to the university's 2024-2030 Six-Year Capital Plan, authorize the initiation of a capital project at a cost not to exceed $33.9M, and approve the corresponding project plans for the Massey Building Shared Lab Renovation.

RESOLUTION OF THE BOARD OF VISITORS
VIRGINIA COMMONWEALTH UNIVERSITY

AUTHORIZATION TO INITIATE A MAJOR CAPITAL PROJECT FOR THE MASSEY BUILDING SHARED LAB RENOVATION

WHEREAS, Chapter 6.1, Title 23 of the Code of Virginia of 1950, as amended (the "Virginia Code") establishes a public corporation under the name and style of Virginia Commonwealth University (the "University") which is governed by a Board of Visitors (BOV) (the "Board") vested with the supervision, management and control of the University;

WHEREAS, Title 23 of the Virginia Code classifies the University as an educational institution of the Commonwealth of Virginia;

WHEREAS, by Chapter 4.10, Title 23 of the Virginia Code, the University entered into that certain Management Agreement with the Commonwealth of Virginia which was enacted as Chapter 594 of the Acts of Assembly of 2008 which, as amended, classifies the University as a public institution of higher education and empowers the University with the authority to undertake and implement capital projects, which include the acquisition of any interest in land, improvements on acquired land, capital leases, new construction, and building improvements and renovations;

WHEREAS, the Management Agreement requires the Board of Visitors to authorize the initiation of each Major Capital Project by approving its size, scope, budget and funding;

WHEREAS, the Massey Building Shared Lab Renovation (“the Project”) is planned to focus on the first and ground floors of the Massey Building at an estimated cost of $33.9M. The first floor will be converted from wet labs to a 5,415 assignable square foot (ASF) vivarium, expanding vivarium space in the facility, and 1,500 ASF square feet of core labs. The ground floor will be converted from administrative space to 6,245 ASF square feet of wet labs.

WHEREAS, a construction contract and project plans with final, size, scope and cost information will be brought to the Board for approval.

WHEREAS, the Board has determined it is desirable to authorize the initiation of a major capital project for the Massey Building Lab Renovation.

NOW, THEREFORE, BE IT RESOLVED, that the Board hereby authorizes and approves the Project, including the size, scope, budget and funding of the Project, as described in the materials presented to the Board; and

RESOLVED FURTHER, that, upon approval, this action shall take effect immediately.

CONCEPTUAL PLANNING

GROUND FLOOR OPTION 1

CONCEPTUAL PLANNING

FIRST FLOOR VIVARIUM OPTION 1

Safety & Risk Management update

Who we are

Risk management

Enterprise risk management; insurance management

Workplace safety

Occupational health and safety; environmental health; fire safety; industrial hygiene

Health & well-being

Mental and physical wellness; employee health clinics; RamStrong; TimelyCare for students and employees

Research support

Lab, biological, chemical and radiation safety; chemical inventory; animal and field research support; research protocol reviews

VCU enterprise risk management evolution

Operational governance

2024: Connect ERM to VCU's goals and decision-making

Risk survey

2022: Stakeholders surveyed to identify risks out of tolerance based on risk appetite

Risk appetite

2021: Risk appetite and survey methodology developed

Risk controls

2019: Risk controls added to departmental audits; risk mitigation plans are reviewed

Risk consolidation

2018: Workshops conducted to consolidate 122 risks to 19

Enterprise risk management charter

2016: VCU's ERM charter and process approved by the President's Cabinet

Risk identification

2013: VCU identified 122 risks through KPMG (consultant)

64%

Lower

Accident rates at VCU compared to national average for higher education

22%

Decrease

OSHA recordable injuries since 2019

4,916

Fit tests in 2023

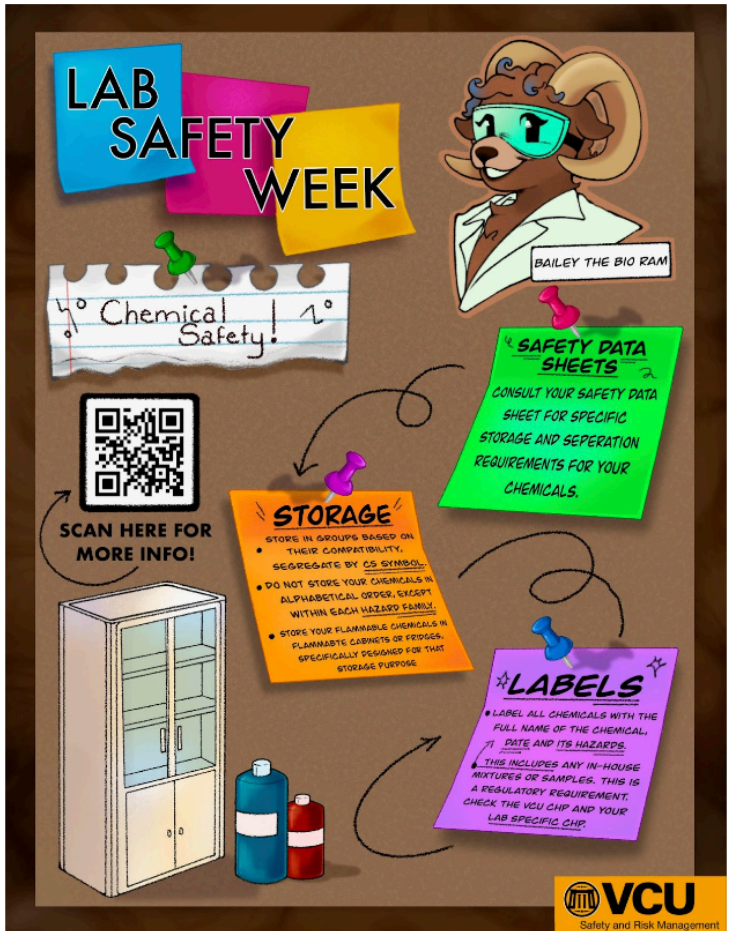
53% increase from 2021

$2.1M

Insurance claims recovered (2019-2023)

Source: OSHA Total Recordable Incident Rates (TRIR)

Student health and well-being



100% of residence hall life safety drills and tests completed on time

Doubled the number of undergraduates trained in laboratory safety in 2024

TimelyCare 24/7 mental and emotional health counseling for students and employees

Artwork by Mo Childs, SRM's art intern who played a pivotal role in creating visual safety awareness postings for research labs, art shops and studios.

Employee health and well-being

Annual wellness screenings

9% increase in FY24

Pharmacy support

Staffed with a pharmacy resident one day/week

TimelyCare

46% increase in employee use in FY24

24/7 mental & emotional health support

78% of employees using TimelyCare reported an improvement in mental health

Supporting research and innovation

25%

Increase

IN RESEARCH PROTOCOL APPROVALS (2021-2023)

$100

Million

FEDERAL RESEARCH FUNDING REVIEWED AND APPROVED BY THE INSTITUTIONAL BIOSAFETY COMMITTEE AND RADIATION SAFETY COMMITTEE

Green labs initiative

SAFETY AND ENEGY EFFICIENCY

Notable achievements

2023 VA State Police Outstanding Safety Achievement Award

Lowest preventable accident rate/total miles driven

2023 Campus Safety and Health Management Association Awards

Received three innovation awards in process improvement, resource enhancement, and safety culture

Insurance premiums

Outperformed market with 6.4% premium increase in FY24 with comparable or better coverage

Thoughts? Questions?

VCU Police update

Community policing

Fair & impartial policing

Policing with a purpose

Community input & involvement

Innovation & creativity

Threat, crisis and emergency response

Crisis and emergency management plan (CEMP)

- Identifies potential threats, an incidient command structure, phases of emergency, impacts on operations and operational contingency plans
- Reviewed and revised annually
- Aproved by the BOV every four years

Threat assessment

- A multi-disciplinary team chaired by VCU Police and VCU Student Affairs
- 77 total cases reviewed in academic year 2023-24
- 24 cases reviewed to date in academic year 2024-25

Incident Coordination Team (ICT)

- Coordinates the university's crisis response
- Meets anytime there is an incident that may affect university operations
- Establishes a command center - reviews crisis online, in person and through coordinated incident command on scene
- Handles communications and critical decision-making on behalf of the university

VCU

Data as of 11/15/2024

Focus areas

Academic year 2024-25

Traffic/pedestrian safety

347 traffic summons

265 warnings

313 parking citations

Visibility and deployment

14,964 strategic deployments of police

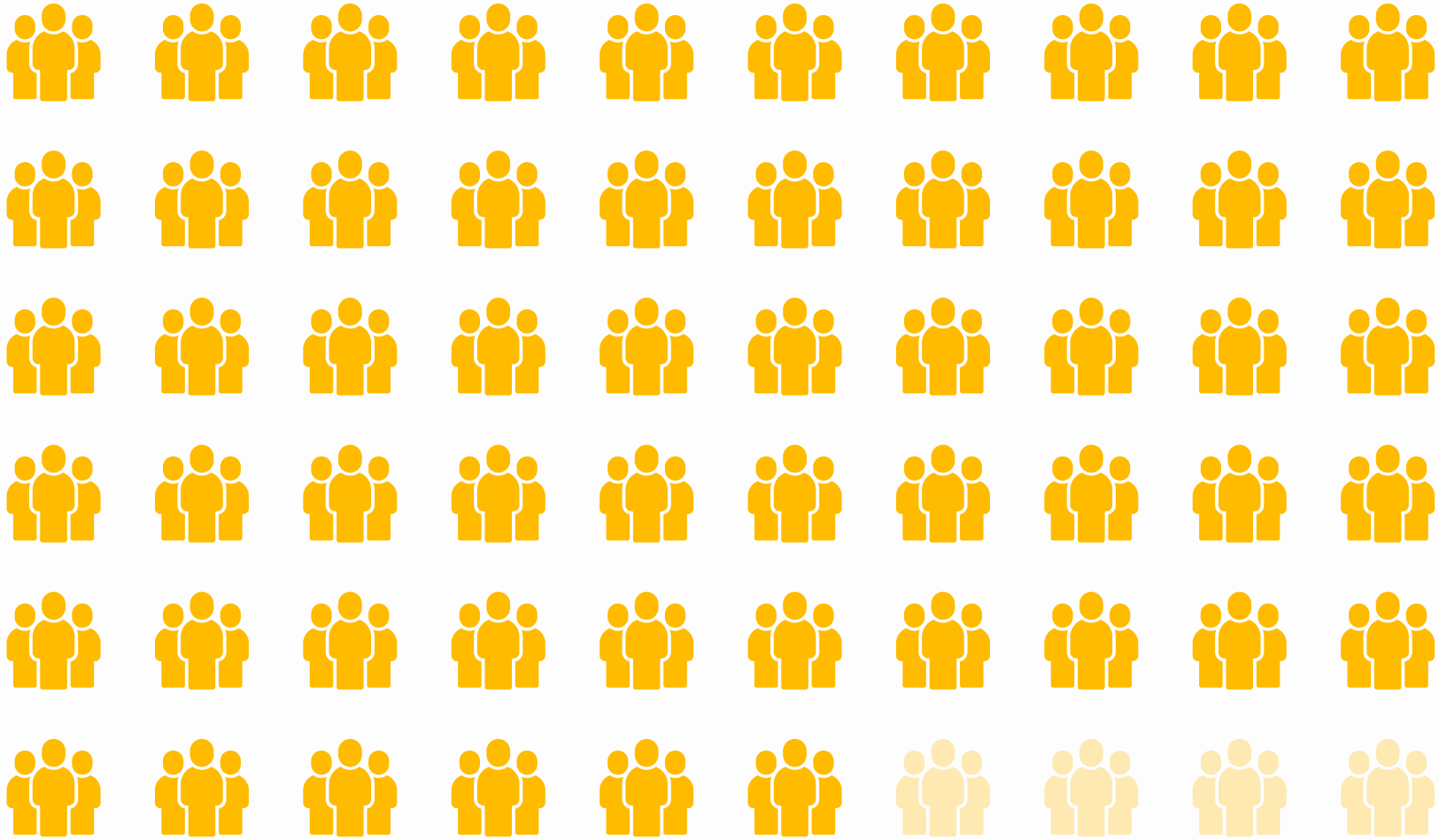
Community engagement

40,674 engagements with students, faculty and staff

Data as of 11/15/2024

Perception of safety

92%



Community members who feel “safe” or “very safe” on VCU campuses

Safety initiatives

Weapons screening

Real time crime center

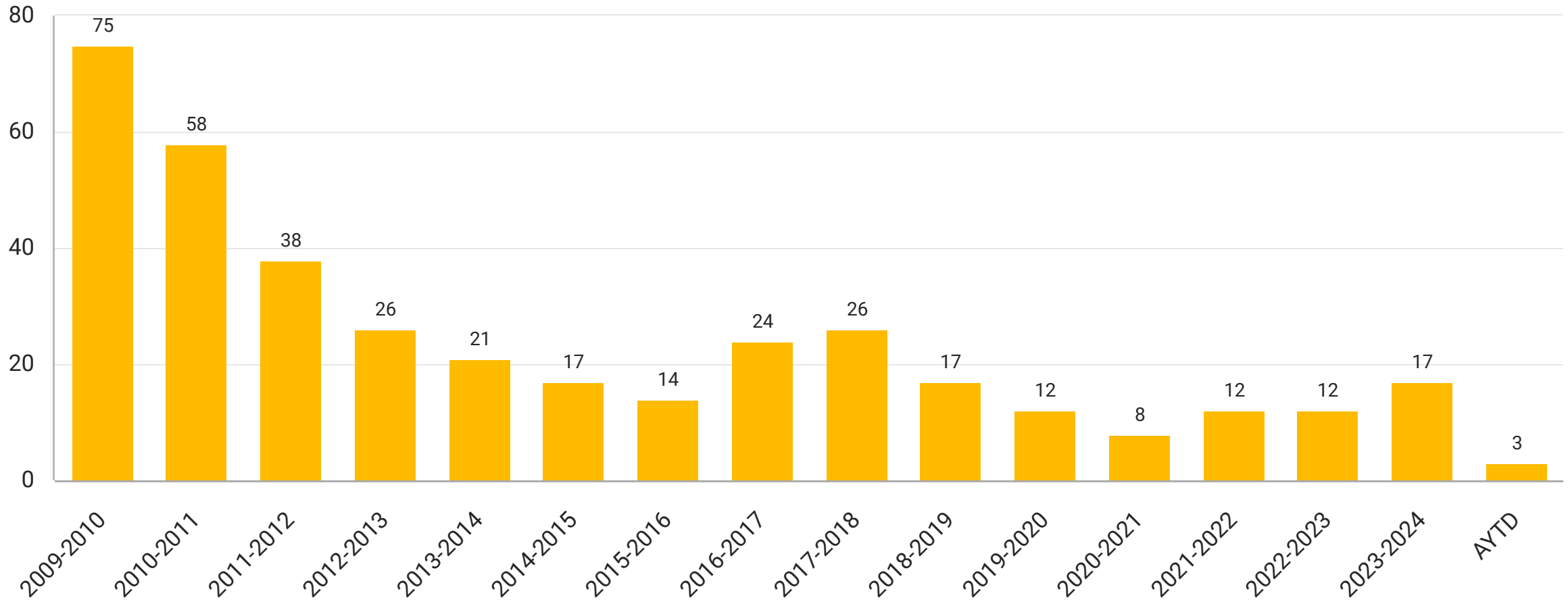
Weapon detection camera analytics

Officer recruitment

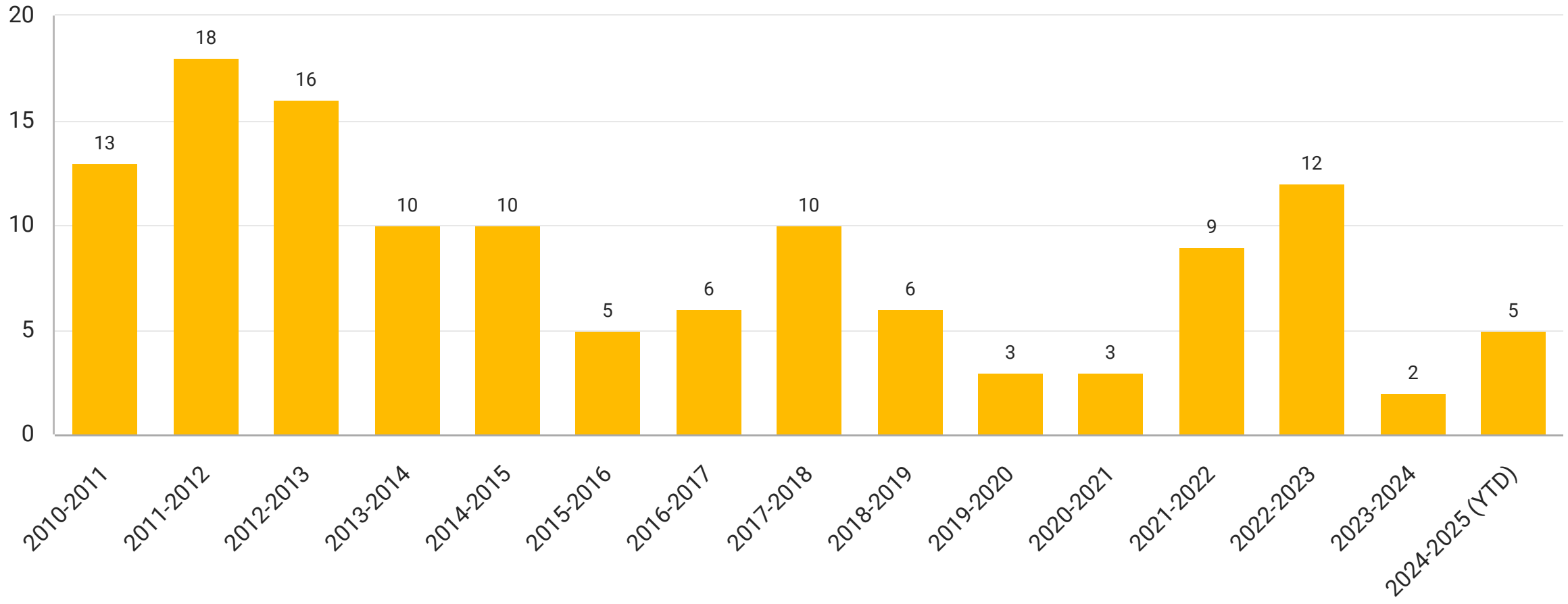
Community Oversight & Advisory Committee

Safety ambassadors

Use-of-force by VCU police officers



Robberies: VCU's core campus



Using technology to deter and solve crime

VCU's security camera system includes thousands of cameras on both campuses that capture valuable photographic evidence to support investigations.

7,243

Pieces of evidence used in VCU Police investigations*

1,089

Pieces of evidence used in Virginia, Richmond, Henrico and Chesterfield police investigations*

*Since installation in 2013

Thoughts?
Questions?

Buildings & grounds report

0.71%

Less than 1% of land within the City of Richmond is owned by VCU.

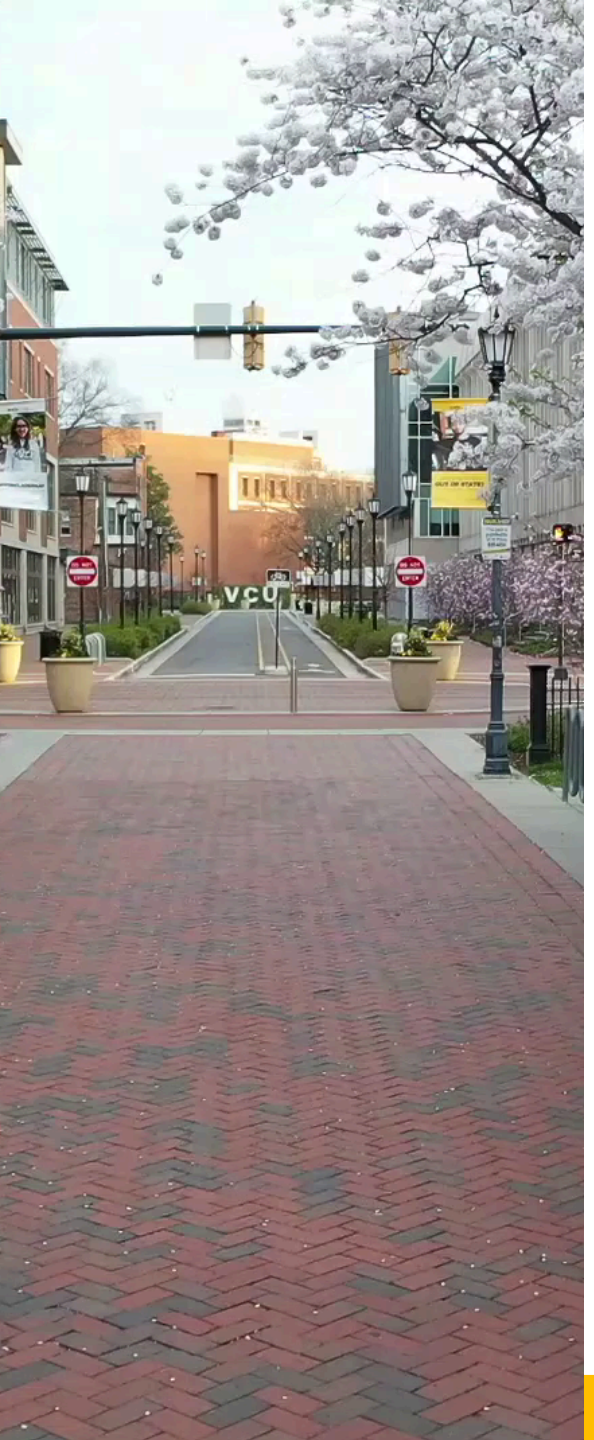
VCU owns 2.3% of the total acreage of land that is tax exempt in the City.

The City of Richmond owns nearly half of the tax exempt land within the City and the State owns roughly 20% (this includes the VCU related land).

>$10B

Economic activity generated by VCU

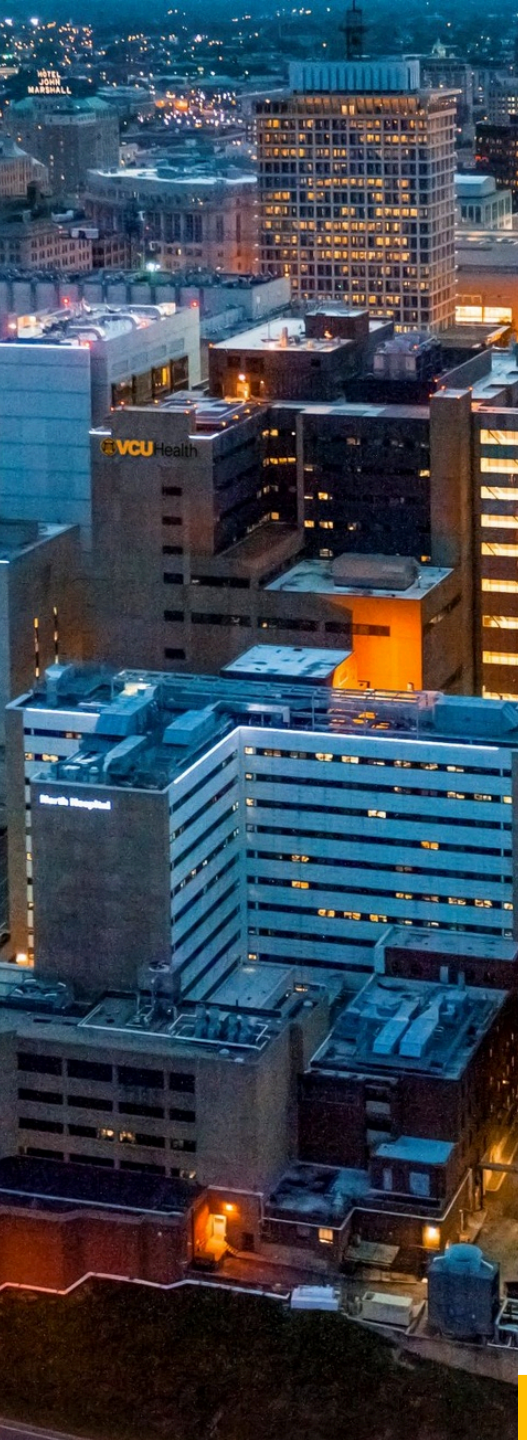
Source: Land acreage owned by the university, health system, real estate and other VCU foundations; City of Richmond Assessor of Real Estate May 2024 public data set



Land, buildings & parking

Does not include VCU Health

	Monroe Park Campus	Health Sciences Campus	Athletic Village	Rice Center
Acres of land	99.2	19.5	48	350
No. buildings	152	51	--	8
Gross square feet	7.4M	5.2M	--	27K
Parking spaces	5,441 (8 decks, 25 lots)	4,294 (4 decks, 9 lots)	--	--



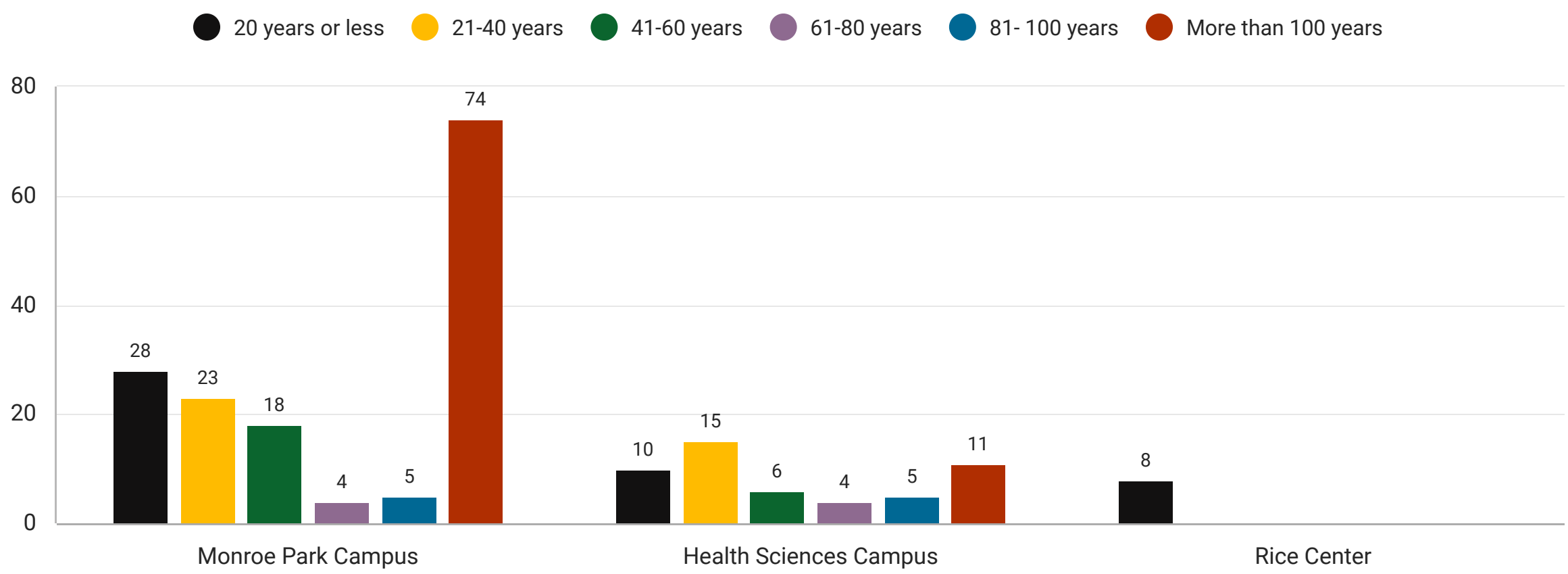
Leased space & parking

Does not include VCU Health

	Monroe Park Campus	Health Sciences Campus	Off-site
Gross square feet	544K	277K	49K
Parking spaces	342	851	0

Building age

VCU has a significant number of buildings over 100 years old



Facilities management program

Types of projects

Facilities operations

- Custodial services
- Groundskeeping
- Preventative maintenance and routine repairs

Renovations

- Renewing a space or facility in order to alter it or restore it to good condition
- Projects less than $3M that are requested and funded by departments
- Currently 176 active renovation projects collectively valued at approximately $40M

Maintenance reserve

- A single major repair or replacement project to plant, property or equipment that is intended to extend its useful life
- Repairs greater than $25K and less than $2M
- Currently 89 active maintenance projects collectively valued at approximately $42M

Capital projects

- Major construction or renovation over $3M
- Included on VCU's Six-Year Capital Plan
- Currently 20 initiated capital projects collectively valued at approximately $700M

Community engagement

For major construction and renovation projects

- Coordinate with internal partners to address adjacent community
- Publicly share major project updates and impacts
- Share info and/or gain approval from VCU and state committees
- Host public community meeting and invite adjacent property owners
- Collaborate with municipality to understand impacts, limitations and requirements, and develop logistics plan
- Coordinate with general contractor or construction management
- Establish commitments and communicate them to the community
- Conduct outreach to SWaM owned businesses
- Route VCU Real Estate Foundation projects through City of Richmond's permitting process

Discussion


VCU
UNAFRAID
UNSTOPPABLE
UNEXPECTED
UNDERSTANDING
UNCOMMON
UNTRADITIONAL
UNEQUALED
UNLIMITED
UNCONVENTIONAL
THE MUSEUM IS A SCHOOL;
THE ARTIST LEARN TO COMMUNICATE
THE PUBLIC LEARN TO MAKE CONNEC

Board of Visitors
December 13, 2024
Major Capital Projects Update

Projects underway

Technology Operations Center

Architect/engineer: PSH+
Budget: $31.3M
Funding source: University debt

Biennium: 2022-2024
Contractor: Mark Turner
Status: Complete, under budget by $1.7M

Description:
The 28,000 square foot facility was constructed at 707 West Broad Street adjacent to the Facilities Administration Building. The new facility will replace technology operations currently taking place at the state-owned Pocahontas Building. In April 2021, the Commonwealth of Virginia informed the university that it must vacate the Pocahontas Building to provide a site for the proposed Virginia Supreme Court Building. The new Technology Operations Center will serve as the primary data center and network operations hub for both the Monroe Park and the Academic Medical Center Campuses, as well as the telecommunications hub for VCU Health. As such, it will directly or indirectly support all of VCU's and much of VCU Health's critical operations.

Progress:
Construction is complete and the building's certificate of occupancy has been received. The data center start-up continues to progress.

Founders Hall Building Envelope Rehabilitation

Architect/engineer: Raymond Engineering
Budget: $3.2M
Funding source: Maintenance reserve

Biennium: 2020-2022
Contractor: SRC, Inc.
Status: Under construction; estimated completion late 2025

Description:
Founders Hall is located within the Historic Franklin Street District and houses several VCU College of Humanities and Sciences departments. The building is experiencing significant water intrusion issues and requires repairs that include replacement of the roof as well as repairs to windows and the deteriorated masonry exterior.

Progress:
Exterior renovations are on schedule with expected completion of both phases by late 2025.

CoStar Center for Arts and Innovation (CCAI)

(Formerly referred to as the Arts and Innovation Academic Building)

Architect/engineer: William Rawn Associates
Budget: $253M
Funding source: $232.4M will be funded by the state with the remainder funded by university funds, $18M of which is committed by CoStar Group

Biennium: 2022-2024
Contractor: Hourigan
Status: Under construction; estimated completion late 2027

Description:
Positioned on the southeast corner of Broad and Belvidere Streets, across from the Institute for Contemporary Art at VCU and steps away from Fortune 500 companies and local startups, the new CCAI will provide a launch pad for critical digital and creative economy initiatives both on campus and in the city. The new CCAI will feature flexible classroom spaces, interdisciplinary performance venues, and makerspaces for rapidly growing partnerships across arts, business, humanities and sciences, medicine, and engineering. The new building will optimize VCU's arts innovation programs by bringing many of them together under one roof in a modern facility, replacing old and outdated buildings.

Progress:
Construction is underway.

Athletic Village Phase I: Outdoor Track Facilities and Practice Fields

Architect/engineer: HKS
Budget: $35.8M (estimated)
Funding source: The sale of the Sports Backers Stadium property, private funds and short-term debt

Biennium: 2024-2026
Contractor: Barton Malow
Status: Under construction; estimated completion summer 2026

Description:
The new outdoor track facilities and practice fields will consist of a 400-meter outdoor track with a natural turf infield to accommodate a NCAA soccer field. The outdoor track facilities, intended to replace those of the current Sports Backers Stadium, will contain seating for 1,500 spectators as well as locker rooms, concessions and storage. There will be two lighted practice fields, one of artificial turf and one of natural grass.

Progress:
The demolition of existing site structures is complete. Design work for the fields, track and the stadium are underway. An early site work package for the fields and the track

will be available by December 2024. Groundbreaking ceremony was held on October 30, 2024.

Scherer Hall Renovations

Architect/engineer: Baskervill and Dunbar Structural
Budget: $6.25M (estimated)
Funding source: Maintenance reserves

Biennium: 2024-2026
Contractor: SRC, Inc.
Status: Under construction; estimated completion mid to late 2025

Description:
Constructed in 1910, Scherer Hall is a five-story, 23,141 square foot brick building in the West Franklin Street Historic District of VCU's Monroe Park Campus. The facility is experiencing significant HVAC maintenance issues due to both the age and design of the equipment. Controls for the mechanical system are obsolete and no longer serviceable. Additionally, uneven floor conditions must be addressed to prevent impacts to the building's structural integrity and a backflow preventer needs to be installed.

Progress:
The L. Douglas Wilder School of Government and Public Affairs faculty and staff who were working in Scherer Hall have been temporarily relocated to 700 W. Grace Street while Scherer Hall undergoes renovation. Renovation work has begun and is expected to be completed by mid to late 2025.

Projects in the planning phase

West Grace Street Housing Project

Architect/engineer: TBD
Budget: TBD
Funding source: Combination of auxiliary funds and debt and paid with student housing payments

Biennium: 2024-2026
Contractor: TBD
Status: Planning

Description:
The ONE VCU Master Plan identified the need for additional student housing, a need that has been compounded by the closing of Johnson Hall and increasing undergraduate housing demand. A new residential housing facility will replace the 518 beds in Johnson Hall and provide additional beds to meet increased demand.

Progress:
The university is currently negotiating a contract for services to design a facility with approximately 1,000 to 1,250 total semi-suite and apartment style beds.

VCU Dentistry Center

Architect/engineer: TBD
Budget: $417M (estimated)
Funding source: Seeking state funding
Biennium: 2024-2026
Contractor: TBD
Status: Planning

Description:
VCU is home to the Commonwealth's only dental school and is the only facility in the state offering complete multidisciplinary care, including oral surgery, periodontology, oral pain, oral cancer, etc. The current School of Dentistry buildings are beyond their useful life, do not meet current educational or patient care needs, have significant accessibility issues, and have deferred maintenance estimated in excess of $75M. When the school turns away emergency care patients due to lack of adequate space, it leads to expensive and preventable emergency room visits and loss of student educational opportunities.The proposed 314,835 square foot VCU Dentistry Center will provide state-of-the-art equipment and technology serving more than 500 students as well as maximize care for patients from across the Commonwealth, including underserved populations. It will bring together general and specialty clinics, multiple cutting-edge academic laboratories, and associated contemporary support spaces – aligning with modern practices in dental education, enhancing patient care, advancing the academic (non-sponsored) research mission, improving faculty and student recruitment, and allowing for increased enrollment.

Progress:
The Virginia General Assembly approved $5.2M in general funds for detailed planning. VCU will seek authorization to self fund, and be reimbursed for, an additional $14.3M to complete detailed planning. Typically the General Assembly will authorize an amount for design and require VCU to front the funding for detailed planning, which VCU is reimbursed for upon authorization from the state to proceed to construction.

VCU Capital Project Process

Overview

As a state institution, VCU follows the design philosophy outlined in the Commonwealth's Construction and Professional Services Manual (CPSM), which states that "the design goal is to create a capital investment that meets the user's functional requirements, provides the most economical life cycle cost, and promotes energy efficiency and environmental conservation. The Commonwealth's design philosophy envisions a long and useful life for state buildings. These buildings will often be used for periods exceeding 50 years and, consequently, should be designed for durability, economy of operation and ease of maintenance."

In general, academic facilities are funded by the Commonwealth of Virginia (the state), while auxiliary facilities, such as dining halls, residence halls and student centers, are funded through university fees.

Process

The capital process is outlined below. Gray italicized text provides additional information for each step.
Rules, agreements, statutes and policies governing VCU's highly-regulated capital process are also noted.

Master plan

The VCU Board of Visitors (BOV) approved the One VCU Master Plan (March of 2019), which aligns VCU's physical campus site plan with VCU's strategic plan.

Six-Year Capital Plan and funding sources

VCU prioritizes capital projects in the master plan into a Six-Year Capital Plan, which includes preliminary size, cost and fund source estimates for each project for the next six years. This is presented to the Facilities, Real Estate and Administration Committee and approved by the BOV in the spring of every odd year. The BOV approves amendments to add, update or remove capital projects as needed.

- ***State-funded projects:*** VCU works with the Virginia Department of General Services (DGS), Division of Engineering and Buildings (DEB) following a detailed, state-approved template/process (CR-1) to establish high-level estimates for size, scope and cost. Estimates in this template are derived from the DEB cost database and comparable projects throughout the state as well as similar projects identified by the university throughout the country. The governor's office evaluates VCU's projected needs and incorporates recommendations into the Executive Budget for consideration by the General Assembly.
- ***University-funded projects:*** VCU uses the same state-approved planning template/process that is used to plan for state-funded capital projects – the DEB CR-1 template – to establish high-level estimates for size, scope and cost. VCU's CFO requires a business plan that identifies the source of funds (i.e., cash, debt, gifts and/or anticipated revenue streams) as well as the timing of funding availability (i.e., gifts in hand or issuance of debt) and the plan to cover costs in the interim (i.e., covering costs with cash or debt until funds are raised or committed gifts are paid). Any project with a component of debt requires authorization from the BOV no later than 60 days prior to any expenditures.
- ***Public-private partnership projects or other potentially complex projects (e.g., projects that involve historic tax credits):*** VCU brings in external consultants (e.g., financial, legal, development) and real estate foundation advisors to explore and vet options, analyze potential risks and provide recommendations.

Project initiation and applicable contract approvals

The BOV approves the initiation of capital projects, authorizing VCU to advertise and procure design services (and construction services, if applicable, depending on the procurement method) per the management agreement. If a contract is expected to be more than $5M (per the signatory authority policy), the BOV authorizes VCU to procure a firm(s) and negotiate contract(s) at a Not to Exceed (NTE) amount. Project initiation approval requests are presented to the Facilities, Real Estate and Administration Committee; contract and funding source approval requests and debt resolutions, if applicable, are presented to the Finance and University Resources Committee.

- ***State-funded projects:*** This step follows a budget bill that is signed by the governor.
- ***University-funded projects:*** This step follows an approved business plan.
- ***Public-private partnership projects or other potentially complex projects:*** This step follows a BOV review of external advisors analyses and recommendations.

At initiation, VCU determines the most appropriate procurement method for the project (per the HECO Manual and management agreement). Construction Management and Design-Build construction procurement methods are considered “alternative construction procurement methods” (Design-Bid-Build is the state’s default construction procurement method) and require approval from DGS. *Should VCU elect to proceed with the use of an alternative construction procurement method, despite the decision of DGS to the contrary, the BOV has the opportunity to override the decision of DGS and approve the use of this method (this applies to projects $65M or more); for projects under $65M, that are funded in whole or in part from state general funds, VCU shall obtain approval from the Chairmen of the House Committee on Appropriations and the Senate Committee on Finance and Appropriations, or their designees, and a representative of DGS. In addition, if the project is funded in whole or in part from state general funds, and an alternative construction procurement method is selected, a representative from DGS, to the extent DGS deems practicable, shall be included in the process for the selection of a contractor.*

- ***Construction Manager (CM):*** *This is a two-part, competitive procurement process – a proposal request is issued for design services (i.e., the architect/engineer or A/E) and a separate proposal request is issued for construction services. Both the designer and the construction vendor are selected based on qualifications and best value and work together on design, cost, logistics and constructability in order to reach a guaranteed maximum price (GMP). For large, complex construction projects, the CM method reduces the risk of added costs or delays. CM is based on the Competitive Negotiations method of contractor selection (Code of Virginia § 2.2-4302.2) and requires approval from the DGS.*
- ***Design-Build (DB):*** *This is a competitive procurement process where a single vendor is selected based on qualifications and best value. Under this method, the vendor provides both design and construction services. This method is best suited for low-complexity projects such as warehouses or parking decks. DB is based on the Competitive Negotiations method of contractor selection (Code of Virginia § 2.2-4302.2) and requires approval from DGS.*
- ***Design-Bid-Build (DBB):*** *Following a competitive bidding process, a designer is selected based on qualifications and value. Later in the process, construction vendors are solicited through a competitive bidding process and a contract is awarded to the lowest-cost responsive and responsible bidder. The designer and the construction vendor work separately. DBB is based on the Competitive Sealed Bidding method of contractor selection (Code of Virginia § 2.2-4302.1).*
- ***Public-private partnership projects or other potentially complex projects:*** External advisors (e.g., financial, legal, development) assist with determining the procurement method, contract review and negotiation.

Project plans and applicable contract approvals

The BOV reviews and approves project plans and amendments to the Six-Year Capital Plan and authorizes VCU to negotiate and execute a NTE contract for construction. Project plans and Six-Year Capital Plan amendments are presented to the Facilities, Real Estate and Administration Committee for approval; contract and funding source approvals, including any debt resolutions, if applicable, are presented to the Finance and University Resources Committee.

- ***State-funded projects:*** VCU works alongside DEB on preliminary design plans and cost estimates to arrive at an agreed upon final size, scope and cost as well as compliance with legislative intent in terms of the purpose and use of the facility. All projects must also be approved by applicable regulatory authorities such as the Virginia Art and Architectural Review Board, the Virginia Department of Health, the Virginia Department of Historic Resources, respective municipalities, etc.
- ***University-funded projects:*** VCU presents the preliminary design plans to the state (DEB). All projects must also be approved by applicable regulatory authorities.
- ***Public-private partnership projects or other potentially complex projects:*** VCU works with external advisors and partners, following applicable regulations, to develop project plans. All projects must also be approved by applicable regulatory authorities.

Ongoing updates and disbursements

Once project plans are approved and construction begins, the BOV is updated on the progress of capital projects at each board meeting.

- ***State-funded projects:*** VCU requests disbursement of funds from the state in order to begin construction.
- ***University-funded projects:*** VCU Treasury Services is apprised of construction progress and ongoing draws on bond proceeds throughout the completion of the project to maintain compliance with the requirements around the use of bond proceeds.
- ***Public-private partnership projects:*** Disbursement of funds follows contract terms.

Rules, agreements, statutes and policies

- **Rules Governing Procurement of Goods, Services, Insurance, and Construction by a Public Institution of Higher Education of the Commonwealth of Virginia (Governing Rules)**

- **VCU Management Agreement (management agreement):** Agreement between the state and the BOV that governs financial and administrative authority
- **Codes of Virginia:**
    - **§ 2.2-1132.C:** Administration of Capital Outlay Construction Projects
    - **§§ 2.2-4300 through 2.2-4377:** Virginia Public Procurement Act (Procurement Act); as a Tier 3 institution, VCU is generally exempt from the Public Procurement Act, as specified in the Governing Rules and the management agreement
    - **§§ 2.2-4378 through 2.2-4383:** Construction Management and Design-Build Contracting consistent with the Governing Rules and the management agreement
    - **§§ 23.1-1000 through 23-1028:** Restructured Higher Education Financial and Administrative Operations Act (The Restructuring Act)
- **VCU Higher Education Capital Outlay Manual (HECO):** The HECO manual is based upon the state's CPSM, modified by VCU according to the Restructuring Act and management agreement
- **VCU Delegation of Signatory Authority Policy (Signatory Authority Policy):** Stipulates that agreements/contracts exceeding (or expected to exceed) $5M require BOV approval

Annual VCU Succession Plan
For Fiscal Year 2024

Background

In 2017, § 2.2-1209.C of the Code of Virginia was amended to require that all public institutions of higher education develop and present annually to their Boards of Visitors succession plans for key personnel, executive positions and employees nearing retirement. Succession plans must also be submitted annually to the Virginia Department of Human Resource Management.

Succession planning is the process of identifying and replacing critical positions needed to support the university in fulfilling its mission. It is also a key component of crisis planning as well as leadership development for high-performing employees.

VCU's succession planning efforts focus on three areas:

1. **Career/succession development**
   Career development and succession planning are key to VCU's Human Resources strategy. VCU provides training and leadership development through various modalities including in-person workshops, virtual classes, career pathing tools that identify development opportunities, and 18 career communities. Staff are encouraged to develop career development plans and update them annually.

2. **Interim leadership**
   Each cabinet member identifies interim leadership to serve in the event of short-term and long-term absences (completed and updated annually).

3. **Continuity of operations**
   Senior leadership identifies individuals to execute duties during emergencies (completed and updated annually as part of VCU's emergency preparedness and planning process).

VCU's succession plan was submitted to the Virginia Department of Human Resource Management in fall 2024. In this plan, VCU provided metrics that describe both strengths and areas of opportunity related to recruitment, retention and engagement, continuity of operations, and workforce development.

Key action items from VCU's workforce plan are:

- Develop internal talent to provide pipelines for key vacancies.

- Use human resources data analytics to predict potential turnover and take proactive steps to retain key employees.
- Regularly survey employees to understand what employees value and help craft a modern value proposition for VCU as an employer of choice.
- Clearly communicate VCU's values, vision and mission and culture of care.
- Improve recruitment and retention efforts in support of everyone to further VCU's culture and talent.
- Continue to update and refine staff career paths to assist both employees and managers with developing actionable career development plans.
- Continue to build awareness of VCU's career communities by embedding information into new employee orientation and onboarding.
- Continue to meet the needs of our workforce by offering the majority of VCU's learning and development opportunities in many modalities, including in-person, online synchronous and online asynchronous.
- Transition to a new recruitment management system in 2025 with enhanced recruitment marketing which will better enable VCU's promotion as an employer of choice.

Recommendation

No action required. This is an informational item only.

Amended VCU Higher Education Capital Outlay Manual

Background

VCU's HECO Manual establishes policies and procedures for capital outlay in accordance with state laws. It was created per a directive under the Management Agreement between VCU and the Commonwealth of Virginia and in accordance with its authority under the Restructured Higher Education Financial and Administrative Operations Act of 2005 (i.e., the "Restructuring Act").

The VCU Board of Visitors (BOV) authorized an amendment to VCU's Higher Education Capital Outlay Manual (HECO Manual) in September 2024 to reflect changes in state law (Chapter 469 of the Acts of the General Assembly 2024) pertaining to specific alternative construction procurement methods (Construction Management and Design-Build).

Considerations

Following the review and approval by the BOV, VCU's HECO Manual was submitted to the Virginia Department of General Services (DGS) for final review. DGS approved VCU's Higher Education Capital Outlay Manual (HECO Manual) per the redlined document in miscellaneous reports. The modifications are not considered by VCU legal counsel to be substantive.

Recommendation

This is for informational purposes only.

VCU Facilities Management Notice 09/2024

(Effective: 09/01/2024)

2022, Third Edition – VCU Higher Education Capital Outlay Manual – Amendment 1

1. Purpose of This Notice

The purpose of this notice is to set forth the issuance of Amendment 1 of the 2022, Third Edition of the VCU Higher Education Capital Outlay Manual (HECO Manual), and to summarize the changes since the publication of Revision 0 of the 2022 Edition dated November 2021. Specific changes herein were required due to changes in Commonwealth of Virginia law pursuant to Chapter 469 of the Acts of the General Assembly (2024).

This version of the HECO Manual is available on VCU Facilities Management website at https://fmd.vcu.edu/units/construction-management/resources/.

2. Summary of Changes

The changes incorporated into this Amendment are as follows: Replace “Chapter 10: Alternate Construction Procurement” in its entirety with:

Chapter 10: Alternate Construction Procurement

10.1 General

These Design-Build and Construction Management competitive negotiation procedures may be used for capital projects for the University.

Prior to making a determination as to the use of Design-Build or Construction Management ~~delivery~~procurement methods, the University shall have in its employ or under contract a licensed architect or engineer competent to the project who shall (i) advise the University

regarding the use of Design-Build or Construction Management and (ii) assist with the preparation of the request for proposals (RFP) and evaluation of such proposals.

The University shall obtain written authorization to use a Design-Build or Construction Management contract from the Associate Vice President (AVP) for Facilities Management (FM). The request shall substantiate that Design-Bid-Build project delivery method is not practicable or fiscally advantageous, and the determining basis to utilize the selected project ~~delivery~~procurement method. Determination shall, at a minimum, consider: cost, schedule, complexity and building use.

In compliance with §2.2-4381 of the Code of Virginia (Virginia Code), the University shall submit to the Department of General Services (DGS) for its approval the University's decision to utilize Design-Build or Construction Management ~~delivery~~procurement methods. The written approval or denial from DGS shall be maintained with the procurement files. Reference 10.4 if the University elects to proceed with a project ~~delivery~~procurement method not approved by DGS. In its review, DGS shall also consider:

1. The written determination of VCU;
2. VCU's compliance with §2.2-4342, C1, 2 and 7;
3. The project cost, expected timeline, and use;
4. Whether the project is a complex project; and
5. Any other criteria established by DGS to evaluate the proposed procurement method for the project.

Pursuant to Virginia Code §2.2-4381 and §2.2-4342, the University shall post all documents open to public inspection that are exchanged between the University and DGS on DGS's central procurement website (eVA) prior to the date of proposals.

10.2 Design-Build Procedures

Criteria for Use of Design-Build Contracts
Design-Build contracts are generally utilized on new construction projects with limited complexity. Design-Build contracts may be approved for but are not limited to use on building projects in the following general categories: warehouse/storage buildings, garage/maintenance shops, general mercantile buildings, single-story administrative buildings, recreational and concession buildings, exhibition and agricultural buildings, parking decks, and housing.

Design-Build Selection Procedures
On projects approved for Design-Build, procurement of the contract shall be a two-step competitive negotiation process. The following procedures must occur prior to the issuance of a RFP and shall be used in selecting a firm and awarding a contract:

1. The University shall appoint an Evaluation Committee which shall have a minimum of three members, including at least one licensed professional engineer or architect.
2. The University's architect/engineer (A/E) consultant ~~(sometimes under a term contract)~~ or a licensed professional on the University's staff prepares pre-design scope and

criteria. Standard professional services procurement procedures are used to select the University's A/E.

3. The University's A/E prepares schematics, including outline and technical specifications, for the University's approval, with an opportunity for the University to make changes. The completed schematic drawings and outline specifications are sometimes referred to as "bridging documents." The documents establish the minimum level of quality required for the project.
4. Minimum requirements for bridging documents:
    - Survey of site
    - Soil borings/geotechnical reports
    - Program describing building use and functional requirements
    - Various user groups/spaces
    - Specific operational requirements
    - Specific equipment demands
    - Square footage
    - Architectural restrictions
    - Schematic floor plans showing building dimensions
    - Site restrictions (access, staging area, traffic control, work hours, etc.)
    - Schedule constraints
    - Master planning documents (if available)
    - Any additional data that is pertinent to the project

5. Reference use of HECO-7DB as the general conditions of the Design-Build contract and the HECO-9DB as the contract between the University and Design-Builder.

Selection of Qualified Offerors

VCU shall~~will~~ prepare a request for quote (RFQ) containing the University's facility requirements, building and site criteria, site and survey data (if available), and the University's written determination of approved ~~delivery~~procurement method. All offerors shall have a licensed Class "A" contractor and an architect or engineer licensed to perform such duties in the Commonwealth of Virginia as part of the project team.

1. The University shall advertise the requirement in eVA for a minimum of 30 days prior to the receipt of qualification packages and may advertise in a newspaper of general circulation in the area.
2. The University shall ~~will~~ issue an RFQ process resulting in a short list of between three to five offerors, including at least one Department of Small Business and Supplier Diversity (DSBSD) – Certified Business if such offeror meets the requirements for prequalification, and if responses may be submitted electronically and/or via paper response.~~.~~
3. RFQ responses must be submitted by interested parties by the due date and time to the location stipulated in the solicitation.
4. The RFQ responses shall ~~will~~ be evaluated based upon the information submitted and any other relevant information. The Evaluation Committee shall ~~will~~ conduct this evaluation.
5. Prior Design-Build experience or previous experience with DGS shall not be considered as a prerequisite or factor considered for pre-qualification or award of contract. However,

in the selection of a contractor, the experience of each contractor on comparable projects of similar complexity and size may be considered.

6. The University may request additional information from the offerors, if needed.
7. The Evaluation Committee shall ~~will~~ rank the firms based upon the overall merit of the information submitted and any other relevant information and recommend those deemed most qualified with respect to the criteria established for the project in the RFQ.

Selection of Design-Build Contractor

1. The University shall ~~will~~ prepare an RFP containing the University's facility requirements, building and site criteria, site and survey data, the criteria to be used to evaluate submittals, and other relevant information.
2. The University shal~~wil~~l solicit the firms selected as specified in step one above to submit proposals that include both technical and cost information by the date and time to the location established in the RFP for receipt of the offers.
3. The Evaluation Committee shall ~~will~~ evaluate the proposals based on the criteria contained in the RFP and individually score each proposal prior to the first Evaluation Committee meeting. At the conclusion of the first Evaluation Committee meeting or after oral presentations (if conducted), the scores based on the evaluation criteria shall determine the number of firms selected for negotiations. Clarifications and additional information may be requested by the committee from these offerors. The Evaluation Committee shall ~~will~~ inform the procurement officer of any adjustments necessary to make the proposal from a selected Design-Build offeror in full compliance with the mandatory requirements of the RFP. The bid officer shall obtain the clarifications from the offerors in writing.
4. Offerors who submit a proposal in response to the RFP may be required to give an oral presentation of their proposal to the Evaluation Committee. This provides an opportunity for the offeror to clarify or elaborate on the proposal. This is a fact-finding and explanation session only and does not include negotiation. The Evaluation Committee Chair will coordinate the schedule and the time and location of these presentations with the committee and the bid officer. The bid officer shall schedule the oral presentations with the offerors. Oral presentations are an option of the Evaluation Committee and may or may not be conducted. The Evaluation Committee shall score the proposals based on the evaluation criteria after the oral presentation.
5. As specified in the solicitation, negotiations ~~will~~ shall be held with two or more of the selected Design-Build teams. The University may require that offerors make design adjustments necessary to incorporate project improvements and/or additional detail identified by the committee for design development. The University may make multiple requests for adjustments to the plans, approach and proposed personnel to provide the Design-Build services, and the requests may be customized for each proposal. Negotiations must also include a discussion(s) about obtaining a reasonable price with all offerors and increasing the commitment for the utilization of small, women and minority-owned firms as subcontractors with all majority companies.
6. At the conclusion of negotiations, the Evaluation Committee shall~~will~~ score the proposals and select the Design-Build team with the highest score based on the RFP evaluation criteria to recommend for the contract award.
7. The Committee shall make the recommendation on the selection of the Design-Build contractor to the AVP for FM. The AVP for FM shall approve the selection of the Design-Build contractor. This approval shall be submitted to the bid officer in writing.

8. The buyer shall~~will~~ post the notice of intent to award to the selected Design-Build contractor on eVA. The University shall complete the HECO/CO-8 and supporting documents, and the Virginia Construction Contracting Officer (VCCO) shall facilitate executing the contract (HECO-9DB).
9. Upon request, any unsuccessful proposer shall~~will~~ be provided documentation demonstrating the processes used in awarding the contract.

10.3 Construction Management Procedures

On projects approved for Construction Management ~~delivery~~procurement method, the University shall proceed as follows to qualify offerors who may submit proposals utilizing a two-step competitive negotiation process. The University must enter into a Construction Management contract no later than the completion of the schematic phase of design, unless prohibited by authorization of funding restrictions.

The University shall appoint an Evaluation Committee from the professional staff of FM which shall have a minimum of three members, including at least one licensed professional engineer or architect. A representative from the Virginia Division of Engineering and Buildings may be invited to participate on the Evaluation Committee. Representatives of the University customer organization may be invited to participate as ad hoc members of the committee but shall~~will~~ not be voting members.

Selection of Qualified Offerors

1. The University shall advertise the requirement in eVA for a minimum of 30 days prior to the receipt of proposals and may advertise in a newspaper of general circulation.
2. The University shall ~~will~~ issue an RFQ package, to include the University's written determination of approved ~~delivery~~procurement method and if responses may be submitted electronically and/or via paper response. ~~.~~
3. RFQ responses must be submitted by interested parties by the due date and time to the location stipulated in the solicitation.
4. The RFQ responses shall ~~will~~ be evaluated based upon the information submitted and any other relevant information. The Evaluation Committee shall~~will~~ conduct this evaluation and recommend those best qualified with respect to criteria established for the project in the RFQ.

~~4.~~5. When evaluating the RFQ, successful completion of at least three (3) projects of similar size and scope within the past ten (10) years, by any delivery method, meets the experience criteria.

~~5.~~6. Prior Construction Management experience or previous experience with DGS shall not be considered as a prerequisite or factor considered for pre-qualification or award of contract. However, in the selection of a contractor, the experience of each contractor on comparable projects of similar complexity and size may be considered.

~~6.~~7. The University may request additional information from the offerors, if needed.

~~7.~~8. The Evaluation Committee shall~~will~~ rank the firms based upon the overall merit of the information submitted and any other relevant information.

~~8.~~9. The committee shall ~~will~~ select no fewer than three ~~two~~ and no more than five offerors deemed suitable for the project to proceed to step two. If available, the short-list shall include a minimum of one DSBSD-Certified Business that meets the minimum

requirements.

Selected Offerors Will Be Given the Opportunity to Submit Proposals

~~9.~~10. The University shall ~~will~~ prepare an RFP containing the University's facility requirements, building and site criteria, site and survey data, and the criteria to be used to evaluate submittals, and other relevant information.

~~10.~~11. The University shall~~will~~ solicit the firms selected as specified above to submit proposals that include both technical and cost information by the date and time to the location established in the RFP for receipt of the offers.

~~11.~~12. The Evaluation Committee shall ~~will~~ evaluate the proposals based on the criteria contained in the RFP and individually score each proposal prior to the first Evaluation Committee meeting. At the conclusion of the first Evaluation Committee meeting or after oral presentations (if conducted), the scores based on the evaluation criteria shall determine the number of firms selected for negotiations. Clarifications and additional information may be requested by the committee from these offerors. The Evaluation Committee will inform the buyer of any negotiation issues necessary to make the proposal from a selected Construction Management offeror fully compliant with the mandatory requirements of the RFP. The buyer shall obtain the negotiation clarifications from the offerors in writing.

~~12.~~13. Offerors who submit a proposal in response to the RFP may be required to give an oral presentation of their proposal to the Evaluation Committee. This provides an opportunity for the offeror to clarify or elaborate on the proposal. This is a fact-finding and explanation session only and does not include negotiation. The Evaluation Committee Chair will coordinate the schedule and the time and location of these presentations with the committee and the buyer. The buyer shall schedule the oral presentations with the offerors. Oral presentations are an option of the Evaluation Committee and may or may not be conducted. The Evaluation Committee shall score the proposals based on the evaluation criteria after the oral presentations.

~~13.~~14. As specified in the solicitation, negotiations shall ~~will~~ be held with two or more of the selected Construction Management contractors. Negotiations must include a discussion(s) about obtaining a reasonable price with all offerors and increasing the commitment for the utilization of small, women and minority-owned firms as subcontractors with all majority companies.

~~14.~~15. At the conclusion of negotiations, the Evaluation Committee ~~will~~ shall score the proposals and select the Construction Management contractor with the highest score based on the RFP evaluation criteria to recommend for the contract award.

~~15.~~16. The committee shall make the recommendation on the selection of the Construction Management contractor to the AVP for FM. The AVP for FM shall approve the selection of the Construction Management contractor.

~~16.~~17. The buyer shall~~will~~ provide the notice of intent to award to the selected Construction Management contractor. The University shall complete the HECO/CO-8 and supporting documents, and the VCCO shall facilitate executing the contract (HECO-9CM).

~~17.~~18. Upon request, any unsuccessful proposer shall~~will~~ be provided documentation demonstrating the processes used in awarding the contract.

Required Construction Management Contract Terms

Any Guaranteed Maximum Price Construction Management contract entered into by any department, University or institution of the Commonwealth ~~will~~shall contain provisions requiring that (1) not more than 10% of the construction work (measured by cost of the work[MM1]) ~~will~~ be performed by the Construction Management contractor with its own forces and (2) that the remaining 90% of the construction work ~~will~~ be performed by subcontractors of the Construction Management contractor which the Construction Management contractor must procure by publicly advertised, competitive sealed bidding.

Sub-Contractor Advertisement

The University is allowed to ~~may~~[MM2] post[MM3] to eVA when and where the Construction Manager plans to advertise bid packages for subcontracting opportunities.

Guaranteed Maximum Price

The Guaranteed Maximum Price (GMP) shall be established at the completion of working drawings unless a waiver has granted to this requirement by the Associate Vice President of Facilities.

10.4 Procedures for Design-Build/Construction Management not approved by DGS

These procedures apply to projects either funded entirely with Non-State General Funds or if the project cost is $65M or more.

1. The University shall present the DGS denial to the VCU Board of Visitors (BOV) and obtain a majority vote authorization from the BOV to proceed with the elected ~~delivery~~procurement method.
2. A written statement by the BOV shall be provided to document the reasons to proceed despite the DGS denial and the results of the vote. This statement shall be maintained with the procurement files.
3. Upon BOV authorization to proceed with the selected ~~delivery~~procurement method, a representative of DGS, to the extent DGS deems practicable, shall be included in the process for the selection of a contractor.

These procedures apply to projects that are funded with any State General Funds and the project cost is less than $65M.

4. Authorization to proceed with the selected ~~delivery~~procurement method shall be obtained by Chairmen of the House Committee on Appropriations and the Senate Committee on Finance and Appropriations, or their designees, and a representative of DGS.
5. A written statement by the BOV shall be provided to document the reasons to proceed despite the DGS denial and the results of the vote. This statement shall be maintained with the procurement files.

RESOLUTION OF CERTIFICATION

The Chair of the Facilities, Real Estate and Administration Committee of the Board of Visitors of Virginia Commonwealth University will entertain a motion of certification that Virginia Commonwealth University hereby certifies that, to the best of each member's knowledge, (i) only public business matters lawfully exempted from open meeting requirements by Virginia law were discussed in the closed session meeting to which this certification resolution applies, and (ii) only such public business matters as were identified in the motion convening the closed session meeting were heard, discussed or considered by the Facilities, Real Estate and Administration Committee of the Board of Visitors of Virginia Commonwealth University.