EHRM INFRASTRUCTURE UPGRADES

CHARLES GEORGE VA MEDICAL CENTER

1100 TUNNEL ROAD ASHEVILLE, NC 28805

FINAL BID DOCUMENTS

12.19.2025

DESIGN TEAM

OWNER

Charles George VA Medical Center
1100 Tunnel Road
Asheville, NC 28805
Contact: Daniel Chaparro
Office: (916) 843-7187 Cell: (916) 542-3038

VA | U.S. Department of Veterans Affairs

ARCHITECT / CONTRACT PRIME

Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314
Contact: Amy Carr
acarr@awensolutions.com
(720) 703-0640

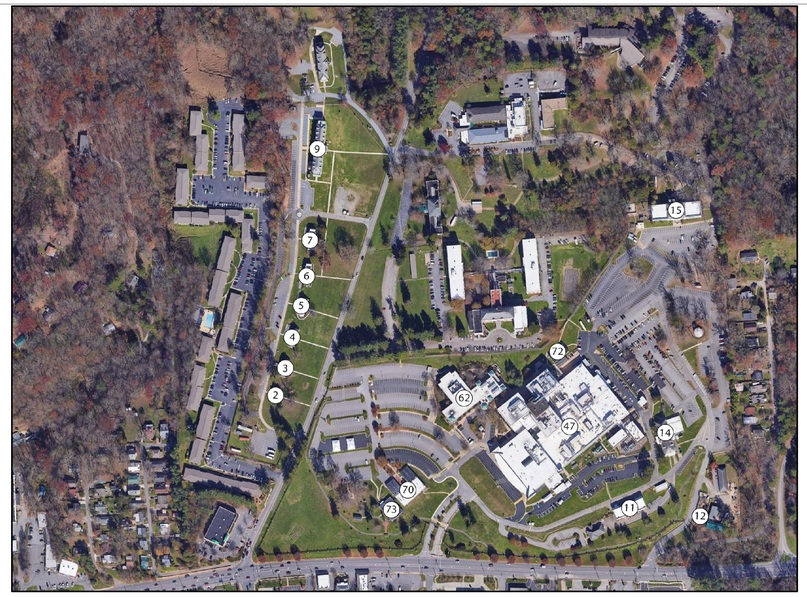
AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

MECHANICAL / ELECTRICAL / PLUMBING / FIRE PROTECTION / STRUCTURAL ENGINEER

Coffman Engineers, Inc.
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
Contact: Lars Iverson
lars.iverson@coffman.com
(919) 670-3668

COFFMAN ENGINEERS

CHARLES GEORGE VA MEDICAL CENTER



BUILDING LEGEND:

2. QUARTERS
3. QUARTERS
4. MENTAL HEALTH
5. MENTAL HEALTH
6. MENTAL HEALTH
7. MENTAL HEALTH
9. MENTAL HEALTH
11. LINEN BUILDING
12. GROUNDS MAINTENANCE BLDG.
14. ADMIN / FMS SHOPS
15. ADMIN / HUMAN RESOURCES
47. MAIN HOSPITAL
62. COMMUNITY LIVING CENTER
70. MENTAL HEALTH
73. MENTAL HEALTH

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

LICENSED ARCHITECT
GENE HAMILTON KLINE
No. C-19576
REN. 07-31-27
STATE OF CALIFORNIA

Facilities Management Services

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
COVER SHEET	FINAL BID DOCUMENTS	EHRM INFRASTRUCTURE UPGRADES	637-22-700
			Building Number: 0
Approved: FOR OFFICIAL USE ONLY	FULLY SPRINKLERED	Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Drawing Number: 00-GI001
		Issue Date: 12.19.2025 / Checked / Drawn	SHEET 1 of 559

12/19/2025 11:36:43 AM

Autodesk Docs://Asheville EHRM_V23/637-22-700.047 ASH - EHRM.rvt

VA FORM 08 - 6231

Sheet List	
Sheet Number	Sheet Name
BLDG 00	
01-GENERAL	
00-GI001	COVER SHEET
00-GI002A	SHEET INDEX
00-GI002B	SHEET INDEX
00-GI003	GENERAL NOTES AND CODE REQUIREMENTS
00-GI004	GENERAL NOTES
00-GI005	ARCHITECTURAL ABBREVIATIONS & SYMBOLS
00-GI011	TYPICAL ABAAS REQUIREMENTS
00-GI101	CAMPUS SITE PLAN
01.2-GENERAL CONTRACT	
00-GC001	INFECTION CONTROL RISK ASSESSMENT
00-GC010	INFECTION PREVENTION AND CONTROL
00-GC101	CONSTRUCTION SEQUENCE PLAN
00-GC102	CONSTRUCTION PHASING SCHEDULE
00-GC191	FIRE/SMOKE BARRIER DESCRIPTIONS
05-CIVIL	
00-CI001	EXISTING CONDITIONS PLAN
00-CI400	COMMUNICATIONS PLAN
00-CI401	COMMUNICATIONS KEY PLAN INSETS
00-CI402	COMMUNICATIONS KEY PLAN INSETS
00-CI403	COMMUNICATIONS KEY PLAN INSETS
00-CI601	CIVIL CONSTRUCTION DETAILS
00-CI602	CIVIL CONSTRUCTION DETAILS
07-STRUCTURAL	
00-S001	STRUCTURAL GENERAL NOTES
00-S002	STRUCTURAL GENERAL NOTES
00-S501	TYPICAL CONCRETE DETAILS
00-S502	TYPICAL CONCRETE DETAILS
00-S503	FRAMING DETAILS
08-ARCHITECTURE	
00-AE501	INTERIOR FRAMING DETAILS
00-AE502	INTERIOR FRAMING DETAILS
00-AE511	DOOR DETAILS
00-AE521	PARTITION DETAILS
00-AE522	PARTITION DETAILS
00-AE523	MIISCELLANEOUS DETAILS
00-AE531	CEILING DETAILS
00-AE532	CEILING DETAILS
11-FIRE PROTECTION	
00-FA001	FIRE ALARM GENERAL NOTES
00-FX001	FIRE SUPPRESSION GENERAL NOTES
12-PLUMBING	
00-P001	PLUMBING GENERAL NOTES & SYMBOLS LEGEND
00-P501	PLUMBING DETAILS
14-MECHANICAL	
00-M001	MECHANICAL GENERAL NOTES & SYMBOLS LEGEND
00-M501	MECHANICAL DETAILS
15-ELECTRICAL	
00-E001	ELECTRICAL SYMBOLS LEGEND AND SCHEDULES
00-E501	ELECTRICAL DETAILS
00-E502	ELECTRICAL DETAILS
00-E503	ELECTRICAL DETAILS
16-TELECOMMUNICATION	
00-T001	TELECOMMUNICATIONS SYMBOLS LEGEND
00-T501	TELECOMMUNICATIONS DETAILS
00-T502	TELECOMMUNICATIONS DETAILS
00-T503	TELECOMMUNICATIONS DETAILS
00-T504	TELECOMMUNICATIONS DETAILS
00-T505	TELECOMMUNICATIONS DETAILS
00-T601	TELECOMMUNICATIONS OSP RISER DIAGRAM
00-TD100	TELECOMMUNICATIONS DEMOLITION SITE PLAN
00-TS100	TELECOMMUNICATIONS SITE PLAN
16.4-SECURITY	
00-TY001	SECURITY NOTES, SYMBOLS, AND ABBREVIATIONS
00-TY501	SECURITY DETAILS
BLDG 2	
00-GENERAL	
02-GI001	COVER SHEET
07-STRUCTURAL	
02-SF101	STRUCTURAL PLANS
08-ARCHITECTURE	
02-AE101	BASEMENT, 1ST & 2ND FLOOR PLANS, ENLARGED VIEWS AND ELEVATION
15-ELECTRICAL	
02-ED101	ELECTRICAL DEMOLITION PLANS
02-EP101	ELECTRICAL PLANS
02-EP601	ONE-LINE DIAGRAM AND SCHEDULES
16-TELECOMMUNICATION	
02-TD101	TELECOMMUNICATIONS DEMOLITION PLANS
02-TD601	TELECOMMUNICATIONS DEMOLITION RACK ELEVATIONS
02-TN101	TELECOMMUNICATIONS PLANS
02-TN601	TELECOMMUNICATIONS DIAGRAMS
16.4 - PHYSICAL SECURITY	
02-TY102	BASEMENT, 1ST & 2ND SECURITY FLOOR PLANS
BLDG 3	
01-GENERAL	
03-GI001	COVER SHEET
07-STRUCTURAL	
03-SF101	STRUCTURAL 1ST & 2ND FLOOR PLAN
08-ARCHITECTURE	
03-AE101	1ST & 2ND FLOOR PLANS, ENLARGED PLANS AND ELEVATIONS
15-ELECTRICAL	
03-ED100	ELECTRICAL BASEMENT DEMOLITION
03-ED101	ELECTRICAL 1ST & 2ND FLOOR DEMOLITION
03-EP100	ELECTRICAL BASEMENT PLAN
03-EP101	ELECTRICAL 1ST & 2ND FLOOR PLAN
03-EP601	ONE-LINE DIAGRAM AND SCHEDULES
16-TELECOMMUNICATIONS	
03-TD100	TELECOMMUNICATIONS BASEMENT DEMOLITION

Sheet List	
Sheet Number	Sheet Name
03-TD101	TELECOMMUNICATIONS 1ST & 2ND FLOOR DEMOLITION
03-TD601	TELECOMMUNICATIONS DEMOLITION RACK ELEVATIONS
03-TN100	TELECOMMUNICATIONS BASEMENT PLAN
03-TN101	TELECOMMUNICATIONS 1ST & 2ND FLOOR PLAN
03-TN601	TELECOMMUNICATIONS DIAGRAMS
16.4 - PHYSICAL SECURITY	
03-TY102	1ST & 2ND FLOOR SECURITY PLANS
BLDG 4	
01-GENERAL	
04-GI001	COVER SHEET
7-STRUCTURAL	
04-SF101	STRUCTURAL 1ST & 2ND FLOOR PLAN
08-ARCHITECTURE	
04-AE101	BASEMENT, 1ST & 2ND FLOOR PLANS, ENLARGED PLANS, ELEVATION
15-ELECTRICAL	
04-ED100	ELECTRICAL BASEMENT DEMOLITION
04-ED101	ELECTRICAL 1ST & 2ND FLOOR DEMOLITION
04-EP100	ELECTRICAL BASEMENT PLAN
04-EP101	ELECTRICAL 1ST & 2ND FLOOR PLAN
04-EP601	ONE-LINE DIAGRAM AND SCHEDULES
16-TELECOMMUNICATION	
04-TD100	TELECOMMUNICATIONS BASEMENT DEMOLITION
04-TD101	TELECOMMUNICATIONS 1ST & 2ND FLOOR DEMOLITION
04-TD601	TELECOMMUNICATIONS DEMOLITION RACK ELEVATIONS
04-TN100	TELECOMMUNICATIONS BASEMENT PLAN
04-TN101	TELECOMMUNICATIONS 1ST & 2ND FLOOR PLAN
04-TN601	TELECOMMUNICATIONS DIAGRAMS
16.4 - PHYSICAL SECURITY	
04-TY101	1ST & 2ND FLOOR SECURITY PLANS
BLDG 5	
01-GENERAL	
05-GI001	COVER SHEET
07-STRUCTURAL	
05-SF101	STRUCTURAL PLANS
08-ARCHITECTURE	
05-AE101	BASEMENT, 1ST & 2ND FLOOR OVERALL FLOOR PLANS
15-ELECTRICAL	
05-ED101	ELECTRICAL DEMOLITION PLANS
05-EP101	ELECTRICAL PLANS
05-EP601	ONE-LINE DIAGRAM AND SCHEDULES
16-TELECOMMUNICATION	
05-TD101	TELECOMMUNICATIONS DEMOLITION PLANS
05-TD601	TELECOMMUNICATIONS DEMOLITION RACK ELEVATIONS
05-TN101	TELECOMMUNICATIONS PLANS
05-TN601	TELECOMMUNICATIONS DIAGRAMS
16.4 - PHYSICAL SECURITY	
05-TY102	1ST & 2ND FLOOR SECURITY PLANS
BLDG 6	
01-GENERAL	
06-GI001	COVER SHEET
07-STRUCTURAL	
06-SF101	STRUCTURAL 1ST & 2ND FLOOR PLAN
08-ARCHITECTURE	
06-AE101	BASEMENT, 1ST & 2ND FLOOR PLANS, ENLARGED PLANS & ELEVATION
15-ELECTRICAL	
06-ED100	ELECTRICAL BASEMENT DEMOLITION
06-ED101	ELECTRICAL 1ST & 2ND FLOOR DEMOLITION
06-EP100	ELECTRICAL BASEMENT PLAN
06-EP101	ELECTRICAL 1ST & 2ND FLOOR PLAN
06-EP601	ONE-LINE DIAGRAM AND SCHEDULES
16-TELECOMMUNICATION	
06-TD100	TELECOMMUNICATIONS BASEMENT DEMOLITION
06-TD101	TELECOMMUNICATIONS 1ST & 2ND FLOOR DEMOLITION
06-TD601	TELECOMMUNICATIONS DEMOLITION RACK ELEVATIONS
06-TN100	TELECOMMUNICATIONS BASEMENT PLAN
06-TN101	TELECOMMUNICATIONS 1ST & 2ND FLOOR PLAN
06-TN601	TELECOMMUNICATIONS DIAGRAMS
16.4 - PHYSICAL SECURITY	
06-TY101	BASEMENT, 1ST & 2ND SECURITY FLOOR PLANS
BLDG 7	
01-GENERAL	
07-GI001	COVER SHEET
07-STRUCTURAL	
07-SF101	STRUCTURAL1ST & 2ND FLOOR PLAN
08-ARCHITECTURE	
07-AE101	OVERALL FLOOR PLANS - BASEMENT, 1ST & 2ND FLOOR PLANS
07-AE401	ENLARGED FLOOR PLANS & INTERIOR ELEVATIONS
15-ELECTRICAL	
07-ED100	ELECTRICAL BASEMENT DEMOLITION
07-ED101	ELECTRICAL 1ST & 2ND FLOOR DEMOLITION
07-EP100	ELECTRICAL BASEMENT PLAN
07-EP101	ELECTRICAL 1ST & 2ND FLOOR PLAN
07-EP601	ONE-LINE DIAGRAM AND SCHEDULES
16-TELECOMMUNICATION	
07-TD100	TELECOMMUNICATIONS BASEMENT DEMOLITION
07-TD101	TELECOMMUNICATIONS 1ST & 2ND FLOOR DEMOLITION
07-TD601	TELECOMMUNICATIONS DEMOLITION RACK ELEVATIONS
07-TN100	TELECOMMUNICATIONS BASEMENT PLAN
07-TN101	TELECOMMUNICATIONS 1ST & 2ND FLOOR PLAN
07-TN601	TELECOMMUNICATIONS DIAGRAMS
16.4 - PHYSICAL SECURITY	

Sheet List	
Sheet Number	Sheet Name
07-TY102	1ST & 2ND FLOOR SECURITY PLANS
BLDG 9	
01 - GENERAL	
09-GI001	COVER SHEET
07-STRUCTURAL	
09-SF101	STRUCTURAL 1ST FLOOR PLAN
09-SF102	STRUCTURAL 2ND FLOOR PLAN
09-SF103	STRUCTURAL 3RD FLOOR PLAN
08-ARCHITECTURE	
09-AE101	OVERALL FLOOR PLANS - BASEMENT & 1ST FLOOR
09-AE102	OVERALL FLOOR PLANS - 2ND & 3RD FLOORS
09-AE401	ENL. FLOOR PLAN & RCP, DEMO PLAN & RCP, INT. ELEV. - 1ST & 2ND FLOOR
09-AE402	ENL. FLOOR PLAN & RCP, DEMO PLAN & RCP, INT. ELEV. - 3RD FLOOR
09-AE301	BUILDING SECTIONS
11-FIRE PROTECTION	
09-FX101	FIRE SUPPRESSION 1ST FLOOR PLAN
09-FX102	FIRE SUPPRESSION 2ND FLOOR PLAN
09-FX103	FIRE SUPPRESSION 3RD FLOOR PLAN
12-PLUMBING	
09-PD101	PLUMBING 1ST, 2ND & 3RD FLOOR DEMOLITION PLANS
09-PP101	PLUMBING 1ST, 2ND & 3RD FLOOR PLANS
14-MECHANICAL	
09-MD101	MECHANICAL 1ST, 2ND & 3RD FLOOR DEMOLITION PLANS
09-MP101	MECHANICAL 1ST, 2ND & 3RD FLOOR PLANS
09-MG601	MECHANICAL SCHEDULES
15-ELECTRICAL	
09-ED100	ELECTRICAL BASEMENT DEMOLITION
09-ED101	ELECTRICAL 1ST FLOOR DEMOLITION
09-ED102	ELECTRICAL 2ND FLOOR DEMOLITION
09-ED103	ELECTRICAL 3RD FLOOR DEMOLITION
09-EP100	ELECTRICAL BASEMENT PLAN
09-EP101	ELECTRICAL 1ST FLOOR PLAN
09-EP102	ELECTRICAL 2ND FLOOR PLAN
09-EP103	ELECTRICAL 3RD FLOOR PLAN
09-EP601	ONE-LINE DIAGRAM AND SCHEDULES
09-EP602	PANEL SCHEDULES
09-EP603	PANEL SCHEDULES
09-EP604	PANEL SCHEDULES
16-TELECOMMUNICATION	
09-TD100	TELECOMMUNICATIONS BASEMENT DEMOLITION
09-TD101	TELECOMMUNICATIONS 1ST FLOOR DEMOLITION
09-TD102	TELECOMMUNICATIONS 2ND FLOOR DEMOLITION
09-TD103	TELECOMMUNICATIONS 3RD FLOOR DEMOLITION
09-TD401	TELECOMMUNICATIONS DEMOLITION ENLARGED PLANS
09-TD601	TELECOMMUNICATIONS DEMOLITION RACK ELEVATIONS
09-TD602	TELECOMMUNICATIONS DEMOLITION RACK ELEVATIONS
09-TN100	TELECOMMUNICATIONS BASEMENT PLAN
09-TN101	TELECOMMUNICATIONS OVERALL 1ST FLOOR PLAN
09-TN102	TELECOMMUNICATIONS OVERALL 2ND FLOOR PLAN
09-TN103	TELECOMMUNICATIONS OVERALL 3RD FLOOR PLAN
09-TN401	ENLARGED TELECOMMUNICATIONS PLANS
09-TN601	TELECOMMUNICATIONS RACK ELEVATIONS
09-TN602	TELECOMMUNICATIONS RACK ELEVATIONS
09-TN603	TELECOMMUNICATIONS RISER DIAGRAM
16.4 - PHYSICAL SECURITY	
09-TY101	1ST, 2ND, 3RD FLOOR SECURITY PLANS
BLDG 11	
01-GENERAL	
11-GI001	COVER SHEET
07-STRUCTURAL	
11-SF101	STRUCTURAL BASEMENT & 1ST FLOOR PLAN
08-ARCHITECTURE	
11-AE101	BASEMENT & 1ST FLOOR PLAN, ENLARGED VIEWS & TE ELEVATION
15-ELECTRICAL	
11-ED101	ELECTRICAL BASEMENT & 1ST FLOOR DEMOLITION
11-EP101	ELECTRICAL BASEMENT & 1ST FLOOR PLAN
11-EP601	ONE-LINE DIAGRAM AND SCHEDULES
16-TELECOMMUNICATION	
11-TD101	TELECOMMUNICATIONS DEMOLITION BASEMENT & 1ST FLOOR
11-TN101	TELECOMMUNICATIONS BASEMENT & 1ST FLOOR FLOOR PLAN
11-TN601	TELECOMMUNICATIONS DIAGRAMS
16.4 - PHYSICAL SECURITY	
11-TY101	BASEMENT & 1ST FLOOR SECURITY PLAN
BLDG 12	
01-GENERAL	
12-GI001	COVER SHEET
07-STRUCTURAL	
12-SF101	STRUCTURAL 1ST FLOOR PLAN
08-ARCHITECTURE	
12-AE101	1ST FLOOR PLAN,ENLARGED FLOOR PLAN & INTERIOR ELEVATION
15-ELECTRICAL	
12-ED101	ELECTRICAL 1ST FLOOR DEMOLITION
12-EP101	ELECTRICAL 1ST FLOOR PLAN
12-EP601	ONE-LINE DIAGRAM AND SCHEDULES
16-TELECOMMUNICATION	
12-TD101	TELECOMMUNICATIONS 1ST FLOOR DEMOLITION
12-TN101	TELECOMMUNICATIONS 1ST FLOOR PLAN
12-TN601	TELECOMMUNICATIONS DIAGRAMS
16.4 - PHYSICAL SECURITY	
12-TY101	1ST FLOOR SECURITY PLAN
BLDG 14	
01-GENERAL	
14-GI001	COVER SHEET
07-STRUCTURAL	

Sheet List	
Sheet Number	Sheet Name
14-SF100	STRUCTURAL BASEMENT PLAN
14-SF101	STRUCTURAL 1ST & 2ND FLOOR PLAN
08-ARCHITECTURE	
14-AE100	OVERALL FLOOR & DEMO PLAN - BASEMENT
14-AE101	OVERALL FLOOR & DEMO PLAN - 1ST & 2ND FLOOR
14-AE301	BUILDING SECTIONS
14-AE400	ENLARGED FLOOR PLANS & RCP'S, SCHEDULES
14-AE401	ELEVATIONS
12-PLUMBING	
14-PD101	PLUMBING 1ST AND 2ND FLOOR DEMOLITION
14-PP101	PLUMBING 1ST AND 2ND FLOOR PLAN
14-MECHANICAL	
14-MD101	MECHANICAL 1ST AND 2ND FLOOR DEMOLITION
14-MG601	MECHANICAL SCHEDULES
14-MP101	MECHANICAL 1ST AND 2ND FLOOR PLAN
15-ELECTRICAL	
14-ED100	ELECTRICAL BASEMENT DEMOLITION
14-ED101	ELECTRICAL 1ST AND 2ND FLOOR DEMOLITION
14-EP100	ELECTRICAL BASEMENT PLAN
14-EP101	ELECTRICAL 1ST AND 2ND FLOOR PLAN
14-EP601	ONE-LINE DIAGRAM AND SCHEDULES
14-EP602	PANEL SCHEDULES
16-TELECOMMUNICATION	
14-TD100	TELECOMMUNICATIONS BASEMENT DEMOLITION
14-TD101	TELECOMMUNICATIONS DEMOLITION 1ST AND 2ND FLOOR
14-TD601	TELECOMMUNICATIONS DEMOLITION RACK ELEVATIONS
14-TN100	TELECOMMUNICATIONS BASEMENT PLAN
14-TN101	TELECOMMUNICATIONS 1ST AND 2ND FLOOR PLAN
14-TN601	TELECOMMUNICATIONS DIAGRAMS AND RACK ELEVATIONS
14-TN602	TELECOMMUNICATIONS RISER DIAGRAM
16.4 - PHYSICAL SECURITY	
14-TY101	BASEMENT SECURITY PLAN
14-TY102	1ST & 2ND FLOOR SECURITY PLANS
BLDG 15	
01-GENERAL	
15-GI001	COVER SHEET
07-STRUCTURAL	
15-SF100	STRUCTURAL BASEMENT PLAN
15-SF101	STRUCTURAL 1ST FLOOR PLAN
15-SF102	STRUCTURAL 2ND FLOOR PLAN
15-SF103	STRUCTURAL 3RD FLOOR PLAN
08-ARCHITECTURE	
15-AE401	ENLARGED FLOOR PLANS, RCP'S, SCHEDULES
15-AE451	INTERIOR ELEVATIONS
15-AE452	EXTERIOR ELEVATION
15-AD401	ENLARGED DEMO PLANS
15-AE101	OVERALL FLOOR PLANS - BASEMENT & 1ST FLOOR
15-AE102	OVERALL FLOOR PLANS - 2ND & 3RD FLOOR
15-AE301	BUILDING SECTION
11 - FIRE PROTECTION	
15-FX100	FIRE SUPPRESSION BASEMENT PLAN
15-FX101	FIRE SUPPRESSION 1ST FLOOR PLAN
15-FX102	FIRE SUPPRESSION 2ND FLOOR PLAN
15-FX103	FIRE SUPPRESSION 3RD FLOOR PLAN
12-PLUMBING	
15-PD101	PLUMBING BASEMENT & 1ST FLOOR DEMOLITION PLANS
15-PD102	PLUMBING 2ND & 3RD FLOOR DEMOLITION PLANS
15-PP101	PLUMBING BASEMENT & 1ST FLOOR PLANS
15-PP102	PLUMBING 2ND & 3RD FLOOR PLANS
14-MECHANICAL	
15-MD101	MECHANICAL BASEMENT & 1ST FLOOR DEMOLITION PLANS
15-MD102	MECHANICAL 2ND & 3RD FLOOR DEMOLITION PLANS
15-MP101	MECHANICAL BASEMENT & 1ST FLOOR PLANS
15-MP102	MECHANICAL 2ND & 3RD FLOOR PLANS
15-MG601	MECHANICAL SCHEDULES
15-ELECTRICAL	
15-ED100	ELECTRICAL BASEMENT DEMOLITION
15-ED101	ELECTRICAL 1ST FLOOR DEMOLITION
15-ED102	ELECTRICAL 2ND FLOOR DEMOLITION
15-ED103	ELECTRICAL 3RD FLOOR DEMOLITION
15-ED401	ELECTRICAL ENLARGED DEMOLITION PLANS
15-EP100	ELECTRICAL BASEMENT PLAN
15-EP101	ELECTRICAL 1ST FLOOR PLAN
15-EP102	ELECTRICAL 2ND FLOOR PLAN
15-EP103	ELECTRICAL 3RD FLOOR PLAN
15-EP401	ELECTRICAL ENLARGED PLANS
15-EP601	ONE-LINE DIAGRAM AND SCHEDULES
15-EP602	PANEL SCHEDULES
15-EP603	PANEL SCHEDULES
16-TELECOMMUNICATION	
15-TD100	TELECOMMUNICATIONS DEMOLITION BASEMENT
15-TD101	TELECOMMUNICATIONS DEMOLITION 1ST FLOOR
15-TD102	TELECOMMUNICATIONS DEMOLITION 2ND FLOOR
15-TD103	TELECOMMUNICATIONS DEMOLITION 3RD FLOOR
15-TD401	TELECOMMUNICATIONS DEMOLITION ENLARGED PLANS
15-TD601	TELECOMMUNICATIONS DEMOLITION RACK ELEVATIONS
15-TD602	TELECOMMUNICATIONS DEMOLITION RACK ELEVATIONS
15-TN100	TELECOMMUNICATIONS BASEMENT PLAN
15-TN101	TELECOMMUNICATIONS 1ST FLOOR PLAN
15-TN102	TELECOMMUNICATIONS 2ND FLOOR PLAN
15-TN103	TELECOMMUNICATIONS 3RD FLOOR PLAN
15-TN401	TELECOMMUNICATIONS ENLARGED PLANS
15-TN601	TELECOMMUNICATIONS RACK ELEVATIONS
15-TN602	TELECOMMUNICATIONS RACK ELEVATIONS
15-TN603	TELECOMMUNICATIONS RISER DIAGRAM
16.4 - PHYSICAL SECURITY	
15-TY401	ENLARGED SECURITY FLOOR PLANS

Sheet List	
Sheet Number	Sheet Name
BLDG 47	
01 - GENERAL	
47-GI001	COVER SHEET
47-GI002	SHEET INDEX
01 - GENERAL CONTRACT	
47-GC100	SEQUENCING PLAN - BASEMENT
47-GC101	SEQUENCING PLAN - 1ST FLOOR
47-GC102	SEQUENCING PLAN - 2ND FLOOR
47-GC103	SEQUENCING PLAN - 3RD FLOOR
47-GC104	SEQUENCING PLAN - 4TH FLOOR
47-GC105	SEQUENCING PLAN - 5TH FLOOR
07-STRUCTURAL	
47-SF100	STRUCTURAL BASEMENT PLAN - OVERALL
47-SF101	STRUCTURAL 1ST FLOOR PLAN - OVERALL
47-SF102	STRUCTURAL 2ND FLOOR PLAN - OVERALL
47-SF400	STRUCTURAL ENLARGED BASEMENT PLANS
47-SF402	STRUCTURAL ENLARGED BASEMENT PLAN
47-SF403	STRUCTURAL ENLARGED 1ST FLOOR PLANS
47-SF404	STRUCTURAL ENLARGED 2ND FLOOR PLANS
08-ARCHITECTURE	
47-AD400A	ENLARGED DEMO FLOOR & RC PLANS - BASEMENT
47-AD400B	ENLARGED DEMO FLOOR & RC PLANS - BASEMENT
47-AD400C	ENLARGED DEMO FLOOR & RC PLANS - BASEMENT (DATA CENTER)
47-AD401A	ENLARGED DEMO FLOOR & RC PLANS - 1ST FLOOR
47-AD401B	ENLARGED DEMO FLOOR & RC PLANS - 1ST FLOOR
47-AD401C	ENLARGED DEMO FLOOR & RC PLANS - 1ST FLOOR
47-AD402	ENLARGED DEMO FLOOR & RC PLANS - 2ND FLOOR
47-AD403	ENLARGED DEMO FLOOR & PLANS - 3RD, 4TH & 5TH FLOORS
47-AE100	OVERALL FLOOR & DEMO PLAN - BASEMENT
47-AE101	OVERALL FLOOR & DEMO PLAN - 1ST FLOOR
47-AE102	OVERALL FLOOR & DEMO PLAN - 2ND FLOOR
47-AE103	OVERALL FLOOR PLAN, ENLARGED DEMO & ARCH PLANS - 3RD FLOOR
47-AE104	OVERALL FLOOR PLAN, ENLARGED DEMO & ARCH PLANS - 4TH FLOOR
47-AE105	OVERALL FLOOR PLAN, ENLARGED DEMO AND ARCH PLANS - 5TH FLOOR
47-AE106	OVERALL ROOF DEMO PLAN
47-AE351	BUILDING SECTIONS (TR STACKS)
47-AE400A	ENLARGED FLOOR & RC PLANS - BASEMENT
47-AE400B	ENLARGED FLOOR PLAN - BASEMENT (DATA CENTER)
47-AE400C	ENLARGED RC PLAN - BASEMENT (DATA CENTER)
47-AE401A	ENLARGED FLOOR & RC PLANS - 1ST FLOOR
47-AE401B	ENLARGED FLOOR & RC PLANS - 1ST FLOOR
47-AE402	ENLARGED FLOOR & RC PLANS - 2ND FLOOR
47-AE403	ENLARGED FLOOR & RC PLANS - 3RD, 4TH & 5TH FLOOR
47-AE451	INTERIOR ELEVATIONS
47-AE452	INTERIOR ELEVATIONS
47-AE453	EXTERIOR ELEVATION
47-AE601	SCHEDULES
11-FIRE PROTECTION	
47-FA100	FIRE DETECTION AND ALARM BASEMENT PLAN - OVERALL
47-FA101	FIRE DETECTION AND ALARM 1ST FLOOR PLAN - OVERALL
47-FA107	FIRE DETECTION AND ALARM PLAN - DATA CENTER
47-FX100	FIRE SUPPRESSION BASEMENT PLAN - OVERALL
47-FX101	FIRE SUPPRESSION 1ST FLOOR PLAN - OVERALL
47-FX102	FIRE SUPPRESSION 2ND FLOOR PLAN - OVERALL
47-FX103	FIRE SUPPRESSION 3RD FLOOR PLAN
47-FX104	FIRE SUPPRESSION 4TH FLOOR PLAN
47-FX105	FIRE SUPPRESSION 5TH FLOOR PLAN
47-FX107	FIRE SUPPRESSION PLAN - DATA CENTER
47-FX108	CLEAN AGENT SUPPRESSION SYSTEM - DATA CENTER
12-PLUMBING	
47-PP100	PLUMBING BASEMENT PLAN - OVERALL
47-PP101	PLUMBING 1ST FLOOR PLAN - OVERALL
47-PP102	PLUMBING 2ND FLOOR PLAN - OVERALL
47-PP103	PLUMBING 3RD FLOOR PLAN - OVERALL
47-PP104	PLUMBING 4TH FLOOR PLAN - OVERALL
47-PP105	PLUMBING 5TH FLOOR PLAN - OVERALL
47-PD400	ENLARGED PLUMBING BASEMENT DEMOLITION PLANS
47-PD401	ENLARGED PLUMBING DATA CENTER DEMOLITION
47-PD402	ENLARGED PLUMBING 1ST FLOOR DEMOLITION PLANS
47-PD403	ENLARGED PLUMBING 2ND FLOOR DEMOLITION PLANS
47-PD404	ENLARGED PLUMBING 3RD, 4TH, AND 5TH FLOOR DEMOLITION
47-PP400	ENLARGED PLUMBING BASEMENT PLANS
47-PP401	ENLARGED PLUMBING DATA CENTER PLAN
47-PP402	ENLARGED PLUMBING 1ST FLOOR PLANS
47-PP403	ENLARGED PLUMBING 2ND FLOOR PLANS
47-PP404	ENLARGED PLUMBING 3RD, 4TH, AND 5TH FLOOR PLANS
47-PG501	PLUMBING SCHEDULES
14-MECHANICAL	
47-MP100	MECHANICAL BASEMENT PLAN - OVERALL
47-MP101	MECHANICAL 1ST FLOOR PLAN - OVERALL
47-MP102	MECHANICAL 2ND FLOOR PLAN - OVERALL
47-MP103	MECHANICAL 3RD FLOOR PLAN - OVERALL
47-MP104	MECHANICAL 4TH FLOOR PLAN - OVERALL
47-MP105	MECHANICAL 5TH FLOOR PLAN - OVERALL
47-MP106	MECHANICAL ROOF PLAN - OVERALL
47-MD400	ENLARGED MECHANICAL BASEMENT DEMOLITION
47-MD401	ENLARGED MECHANICAL DATA CENTER DEMOLITION
47-MD402	ENLARGED MECHANICAL 1ST FLOOR DEMOLITION
47-MD403	ENLARGED MECHANICAL 2ND FLOOR DEMOLITION
47-MD404	ENLARGED MECHANICAL 3RD, 4TH, AND 5TH FLOOR DEMOLITION
47-MP400	ENLARGED MECHANICAL BASEMENT PLANS
47-MP401	ENLARGED MECHANICAL DATA CENTER PLAN
47-MP402	ENLARGED MECHANICAL 1ST FLOOR PLANS
47-MP403	ENLARGED MECHANICAL 2ND FLOOR PLANS
47-MP404	ENLARGED MECHANICAL 3RD, 4TH, AND 5TH FLOOR PLANS

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

LICENSED ARCHITECT
EUGENE HAMILTON KING
C-13576
REN. 07-31-27
STATE OF CALIFORNIA

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	SHEET INDEX
Phase	FINAL BID DOCUMENTS
Project Title	EHRM INFRASTRUCTURE UPGRADES
Project Number	637-22-700
Building Number	
Approved:	
FOR OFFICIAL USE ONLY	
Location	1100 TUNNEL ROAD ASHEVILLE, NC 28805
Issue Date	12.19.2025
Checked	
Drawn	
Drawing Number	00-GI002A

12/29/2025 11:23:58 AM
Autodesk Docs://Asheville EHRM_V23/637-22-700 ASH INDEX.rvt

VA FORM 08 - 6231

Sheet List	
Sheet Number	Sheet Name
47-MP405	ENLARGED MECHANICAL ROOF PLANS
47-MG501	MECHANICAL CONTROLS DETAILS
47-MG601	MECHANICAL SCHEDULES
15-ELECTRICAL	
47-ED100	ELECTRICAL BASEMENT DEMOLITION - OVERALL
47-ED101	ELECTRICAL 1ST FLOOR DEMOLITION - OVERALL
47-ED102	ELECTRICAL 2ND FLOOR DEMOLITION - OVERALL
47-ED103	ELECTRICAL 3RD FLOOR DEMOLITION
47-ED104	ELECTRICAL 4TH FLOOR DEMOLITION
47-ED105	ELECTRICAL 5TH FLOOR DEMOLITION
47-ED400	ELECTRICAL ENLARGED BASEMENT DEMOLITION
47-ED401	ELECTRICAL ENLARGED DEMOLITION - DATA CENTER
47-ED402	ELECTRICAL ENLARGED 1ST FLOOR DEMOLITION
47-ED403	ELECTRICAL ENLARGED 2ND FLOOR DEMOLITION
47-EP100	ELECTRICAL BASEMENT PLAN - OVERALL
47-EP101	ELECTRICAL 1ST FLOOR PLAN - OVERALL
47-EP102	ELECTRICAL 2ND FLOOR PLAN - OVERALL
47-EP103	ELECTRICAL 3RD FLOOR PLAN
47-EP104	ELECTRICAL 4TH FLOOR PLAN
47-EP105	ELECTRICAL 5TH FLOOR PLAN
47-EP106	ELECTRICAL ROOF PLAN
47-EP400	ELECTRICAL ENLARGED BASEMENT PLANS
47-EP401	ELECTRICAL ENLARGED PLAN - DATA CENTER
47-EP402	ELECTRICAL ENLARGED 1ST FLOOR PLANS
47-EP403	ELECTRICAL ENLARGED 2ND FLOOR PLANS
47-EP601	ONE-LINE DIAGRAMS
47-EP602	ONE-LINE DIAGRAMS
47-EP603	PANEL SCHEDULES
47-EP604	PANEL SCHEDULES
47-EP605	PANEL SCHEDULES
47-EP606	PANEL SCHEDULES
47-EP607	PANEL SCHEDULES
47-EP608	PANEL SCHEDULES
47-EP609	PANEL SCHEDULES
47-EP610	PANEL SCHEDULES
47-EP611	PANEL SCHEDULES
47-EP612	PANEL SCHEDULES
47-EP613	ELECTRICAL SCHEDULES
16-TELECOMMUNICATION	
47-TD100	TELECOMMUNICATIONS BASEMENT DEMOLITION - OVERALL
47-TD101	TELECOMMUNICATIONS BASEMENT DEMOLITION - PART A
47-TD102	TELECOMMUNICATIONS BASEMENT DEMOLITION - PART B
47-TD103	TELECOMMUNICATIONS BASEMENT DEMOLITION - PART C
47-TD104	TELECOMMUNICATIONS BASEMENT DEMOLITION - PART D
47-TD110	TELECOMMUNICATIONS 1ST FLOOR DEMOLITION - OVERALL
47-TD111	TELECOMMUNICATIONS 1ST FLOOR DEMOLITION - PART A
47-TD112	TELECOMMUNICATIONS 1ST FLOOR DEMOLITION - PART B
47-TD113	TELECOMMUNICATIONS 1ST FLOOR DEMOLITION - PART C
47-TD114	TELECOMMUNICATIONS 1ST FLOOR DEMOLITION - PART D
47-TD120	TELECOMMUNICATIONS 2ND FLOOR DEMOLITION - OVERALL
47-TD130	TELECOMMUNICATIONS 3RD FLOOR DEMOLITION
47-TD140	TELECOMMUNICATIONS 4TH FLOOR DEMOLITION
47-TD150	TELECOMMUNICATIONS 5TH FLOOR DEMOLITION
47-TD400	TELECOMMUNICATIONS ENLARGED BASEMENT DEMOLITION
47-TD401	TELECOMMUNICATIONS ENLARGED DEMOLITION - DATA CENTER
47-TD402	TELECOMMUNICATIONS ENLARGED 1ST FLOOR DEMOLITION
47-TD403	TELECOMMUNICATIONS ENLARGED 2ND FLOOR DEMOLITION
47-TD601	EXISTING TELECOMMUNICATIONS RACK ELEVATIONS
47-TD602	EXISTING TELECOMMUNICATIONS RACK ELEVATIONS
47-TD603	EXISTING TELECOMMUNICATIONS RACK ELEVATIONS
47-TD604	EXISTING TELECOMMUNICATIONS RACK ELEVATIONS
47-TD605	EXISTING TELECOMMUNICATIONS RACK ELEVATIONS
47-TD606	EXISTING TELECOMMUNICATIONS RACK ELEVATIONS
47-TD607	EXISTING TELECOMMUNICATIONS RACK ELEVATIONS
47-TD608	EXISTING TELECOMMUNICATIONS RACK ELEVATIONS
47-TD609	EXISTING TELECOMMUNICATIONS RACK ELEVATIONS
47-TD610	EXISTING TELECOMMUNICATIONS RACK ELEVATIONS
47-TD611	EXISTING TELECOMMUNICATIONS RACK ELEVATIONS
47-TD612	EXISTING TELECOMMUNICATIONS RACK ELEVATIONS
47-TD613	EXISTING TELECOMMUNICATIONS RACK ELEVATIONS
47-TD614	EXISTING TELECOMMUNICATIONS RACK ELEVATIONS
47-TD615	EXISTING TELECOMMUNICATIONS RACK ELEVATIONS
47-TD616	EXISTING TELECOMMUNICATIONS RACK ELEVATIONS
47-TD617	EXISTING TELECOMMUNICATIONS RACK ELEVATIONS
47-TD618	EXISTING TELECOMMUNICATIONS RACK ELEVATIONS
47-TD619	EXISTING TELECOMMUNICATIONS RACK ELEVATIONS
47-TD620	EXISTING TELECOMMUNICATIONS RACK ELEVATIONS
47-TD621	EXISTING TELECOMMUNICATIONS RACK ELEVATIONS
47-TN100	TELECOMMUNICATIONS BASEMENT PLAN - OVERALL
47-TN101	TELECOMMUNICATIONS BASEMENT PLAN - PART A
47-TN102	TELECOMMUNICATIONS BASEMENT PLAN - PART B
47-TN103	TELECOMMUNICATIONS BASEMENT PLAN - PART C
47-TN104	TELECOMMUNICATIONS BASEMENT PLAN - PART D
47-TN110	TELECOMMUNICATIONS 1ST FLOOR PLAN - OVERALL
47-TN111	TELECOMMUNICATIONS 1ST FLOOR PLAN - PART A
47-TN112	TELECOMMUNICATIONS 1ST FLOOR PLAN - PART B
47-TN113	TELECOMMUNICATIONS 1ST FLOOR PLAN - PART C
47-TN114	TELECOMMUNICATIONS 1ST FLOOR PLAN - PART D
47-TN120	TELECOMMUNICATIONS 2ND FLOOR PLAN
47-TN130	TELECOMMUNICATIONS 3RD FLOOR PLAN
47-TN140	TELECOMMUNICATIONS 4TH FLOOR PLAN
47-TN150	TELECOMMUNICATIONS 5TH FLOOR PLAN
47-TN400	TELECOMMUNICATIONS ENLARGED BASEMENT PLANS
47-TN401	TELECOMMUNICATIONS DATA CENTER
47-TN402	TELECOMMUNICATIONS ENLARGED 1ST FLOOR PLANS
47-TN403	TELECOMMUNICATIONS ENLARGED 2ND FLOOR PLANS
47-TN600	TELECOMMUNICATIONS RISER DIAGRAM
47-TN601	TELECOMMUNICATIONS RACK ELEVATIONS
47-TN602	TELECOMMUNICATIONS RACK ELEVATIONS
47-TN603	TELECOMMUNICATIONS RACK ELEVATIONS
47-TN604	TELECOMMUNICATIONS RACK ELEVATIONS

Sheet List	
Sheet Number	Sheet Name
47-TN605	TELECOMMUNICATIONS RACK ELEVATIONS
47-TN606	TELECOMMUNICATIONS RACK ELEVATIONS
47-TN607	TELECOMMUNICATIONS RACK ELEVATIONS
47-TN608	TELECOMMUNICATIONS RISER DIAGRAM
47-TN609	TELECOMMUNICATIONS RISER DIAGRAM
47-TN610	TELECOMMUNICATIONS RACK ELEVATIONS
47-TN611	TELECOMMUNICATIONS RACK ELEVATIONS
47-TN612	TELECOMMUNICATIONS RACK ELEVATIONS
47-TN613	TELECOMMUNICATIONS RACK ELEVATIONS
47-TN614	TELECOMMUNICATIONS RACK ELEVATIONS
16.4 - PHYSICAL SECURITY	
47-TY100A	SECURITY PLAN - BASEMENT
47-TY100B	SECURITY PLAN - BASEMENT (DATACENTER)
47-TY101	SECURITY PLAN - 1ST FLOOR
47-TY102	SECURITY PLANS - 2ND FLOOR
47-TY103	SECURITY PLANS - 3RD, 4TH & 5TH FLOORS
BLDG 62	
01-GENERAL	
62-GI001	COVER SHEET
07-STRUCTURAL	
62-SF100	STRUCTURAL BASEMENT PLAN
62-SF101	STRUCTURAL 1ST FLOOR PLAN
62-SF102	STRUCTURAL 2ND FLOOR PLAN
08-ARCHITECTURE	
62-AD401	1ST & 2ND FLOOR ENLARGED DEMO FLOOR PLANS & RCP'S
62-AE101	OVERALL FLOOR & DEMO PLAN - 1ST FLOOR
62-AE102	OVERALL FLOOR & DEMO PLAN - 2ND FLOOR
62-AE103	OVERALL DEMO ROOF PLAN
62-AE401	1ST & 2ND FL. - ENLARGED FLOOR PLANS, RCP'S, & INT. ELEVATIONS
11-FIRE PROTECTION	
62-FX101	FIRE SUPPRESSION 1ST FLOOR PLAN
62-FX102	FIRE SUPPRESSION 2ND FLOOR PLAN
12-PLUMBING	
62-PD101	PLUMBING 1ST FLOOR DEMOLITION PLAN
62-PD102	PLUMBING 2ND FLOOR DEMOLITION PLAN
62-PP101	PLUMBING 1ST FLOOR PLAN
62-PP102	PLUMBING 2ND FLOOR PLAN
14-MECHANICAL	
62-MD101	MECHANICAL 1ST FLOOR DEMOLITION PLAN
62-MD102	MECHANICAL 2ND FLOOR DEMOLITION PLAN
62-MP101	MECHANICAL 1ST FLOOR PLAN
62-MP102	MECHANICAL 2ND FLOOR PLAN
62-MP103	MECHANICAL ROOF PLAN
62-MG601	MECHANICAL SCHEDULES
15-ELECTRICAL	
62-ED101	ELECTRICAL 1ST FLOOR DEMOLITION
62-ED102	ELECTRICAL 2ND FLOOR DEMOLITION
62-EP101	ELECTRICAL 1ST FLOOR PLAN
62-EP102	ELECTRICAL 2ND FLOOR PLAN
62-EP103	ELECTRICAL ROOF PLAN
62-EP601	ONE-LINE DIAGRAM AND SCHEDULES
62-EP602	PANEL SCHEDULES
62-EP603	PANEL SCHEDULES
16-TELECOMMUNICATION	
62-TD100	TELECOMMUNICATIONS DEMOLITION BASEMENT
62-TD101	TELECOMMUNICATIONS DEMOLITION 1ST FLOOR
62-TD102	TELECOMMUNICATIONS DEMOLITION 2ND FLOOR
62-TD601	TELECOMMUNICATIONS DEMOLITION RACK ELEVATIONS
62-TN100	TELECOMMUNICATIONS BASEMENT PLAN
62-TN101	TELECOMMUNICATIONS 1ST FLOOR PLAN
62-TN102	TELECOMMUNICATIONS 2ND FLOOR PLAN
62-TN601	TELECOMMUNICATIONS DIAGRAMS
62-TN602	TELECOMMUNICATIONS RISER DIAGRAM
16.4 - PHYSICAL SECURITY	
62-TY101	1ST FLOOR SECURITY PLAN
62-TY102	2ND FLOOR SECURITY PLAN
BLDG 70	
01 - GENERAL	
70-GI001	COVER SHEET
07-STRUCTURAL	
70-SF101	STRUCTURAL 1ST FLOOR PLAN
08-ARCHITECTURE	
70-AD101	1ST FLOOR DEMO PLAN & DEMO RCP
70-AE101	1ST FLOOR PLAN, RCP, DOOR SCHEDULE & INTERIOR ELEVATIONS
12-PLUMBING	
70-PP101	PLUMBING 1ST FLOOR PLANS
14-MECHANICAL	
70-MP101	MECHANICAL 1ST FLOOR PLANS
70-MP102	MECHANICAL ROOF PLAN
70-MG601	MECHANICAL SCHEDULES
15-ELECTRICAL	
70-ED101	ELECTRICAL DEMOLITION 1ST FLOOR
70-EP101	ELECTRICAL 1ST FLOOR PLAN
70-EP102	ELECTRICAL ROOF PLAN
70-EP601	ONE-LINE DIAGRAM AND SCHEDULES
16-TELECOMMUNICATION	
70-TD101	TELECOMMUNICATIONS DEMOLITION 1ST FLOOR
70-TD401	TELECOMMUNICATIONS DEMOLITION ENLARGED PLAN
70-TD601	TELECOMMUNICATIONS DEMOLITION RACK ELEVATIONS
70-TN101	TELECOMMUNICATIONS 1ST FLOOR PLAN
70-TN601	TELECOMMUNICATIONS DIAGRAMS
16.4 - PHYSICAL SECURITY	
70-TY101	1ST FLOOR SECURITY PLAN
BLDG 73	
01 - GENERAL	
73-GI001	COVER SHEET
07-STRUCTURAL	

Sheet List	
Sheet Number	Sheet Name
73-SF101	STRUCTURAL 1ST FLOOR PLAN
08 - ARCHITECTURE	
73-AD101	1ST FLOOR DEMO PLAN, ENLARGED PLAN & ENLARGED RCP
73-AE101	1ST FLOOR PLAN, RCP, DOOR SCHEDULE & INTERIOR ELEVATIONS
12-PLUMBING	
73-PP101	PLUMBING 1ST FLOOR PLAN
14-MECHANICAL	
73-MP101	MECHANICAL 1ST FLOOR PLAN
73-MP102	MECHANICAL ROOF PLAN
73-MG601	MECHANICAL SCHEDULES
15-ELECTRICAL	
73-ED101	ELECTRICAL 1ST FLOOR DEMOLITION
73-EP101	ELECTRICAL 1ST FLOOR PLAN
73-EP102	ELECTRICAL ROOF PLAN
73-EP601	ONE-LINE DIAGRAM AND SCHEDULES
16-TELECOMMUNICATION	
73-TD101	TELECOMMUNICATIONS 1ST FLOOR DEMOLITION
73-TD601	TELECOMMUNICATIONS DEMOLITION RACK ELEVATIONS
73-TN101	TELECOMMUNICATIONS 1ST FLOOR PLAN
73-TN601	TELECOMMUNICATIONS DIAGRAMS
16.4 - PHYSICAL SECURITY	
73-TY101	1ST FLOOR SECURITY PLAN

Grand total: 560

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

LICENSED ARCHITECT GENE HAMILTON JR. No. C-13578 REN. 07-31-27 STATE OF CALIFORNIA

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: SHEET INDEX	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
			Building Number:
Approved: FOR OFFICIAL USE ONLY		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Drawing Number: 00-GI002B
		Issue Date: 12.19.2025 / Checked / Drawn	

Autodesk Docs://Asheville EHRM_V23/637-22-700 ASH INDEX.rvt
12/30/2025 11:24:02 AM

SCOPE OF WORK

THIS PROJECT AT THE CHARLES GEORGE VA MEDICAL CENTER (CGVAMC) CAMPUS IN ASHEVILLE, NC ADDRESSES CRITICAL INFRASTRUCTURE UPGRADES TO MODERNIZE EXISTING FACILITIES AND SUPPORT IMPLEMENTATION OF THE NEW ELECTRONIC HEALTH RECORDS MODERNIZATION (EHRM) SYSTEM.

THE PROJECT SCOPE INCLUDES UPGRADED AND NEW TELECOMMUNICATION ROOMS (TRs) AND TELECOMMUNICATION ENCLOSURES (TEs), RELOCATION AND CONSTRUCTION OF A NEW DATA CENTER, UPGRADES TO ELECTRICAL POWER DISTRIBUTION SYSTEMS (INCLUDING NEW AND REDUNDANT UPS EQUIPMENT), NEW MEP TECHNOLOGY EQUIPMENT AND SYSTEMS DEDICATED TO TELECOM AND DATA CENTER SPACES, INTEGRATION OF NEW HVAC BAS WITH EXISTING BUILDING MANAGEMENT SYSTEMS, UPGRADED BONDING AND GROUNDING SYSTEMS TO MEET CURRENT VA AND OIT STANDARDS, INSTALLATION OF NEW COMMUNICATION INFRASTRUCTURE (CAT6A CABLING, PATCH PANELS, FIBER BACKBONE), NEW PHYSICAL SECURITY ENHANCEMENTS, CAMPUS-WIDE FIBER INFRASTRUCTURE UPGRADES, FIRE PROTECTION AND LIFE SAFETY SYSTEM MODIFICATIONS, AND ASBESTO ABATEMENT.

THE PROJECT ALSO REQUIRES DEMOLITION, RECONFIGURATION, AND REPURPOSING OF EXISTING ROOMS TO ACCOMMODATE NEW TELECOMMUNICATION AND SUPPORT SPACES, ALONG WITH PHASED CONSTRUCTION AND SYSTEM TRANSITIONS TO MAINTAIN ONGOING CLINICAL OPERATIONS THROUGHOUT THE CAMPUS.

PROJECT BUILDING LOCATIONS INCLUDE:
BUILDINGS 2, 3, 4, 5, 6, 7, 9, 11, 12, 14, 15, 47, 62, 70 AND 73

CODES AND STANDARDS

INFRASTRUCTURE STANDARD FOR TELECOMMUNICATIONS SPACES V3.1, JULY1, 2021
VA ARCHITECTURAL DESIGN MANUAL: VS. AUGUST 1, 2014
VA ELECTRICAL DESIGN MANUAL: VS. DECEMBER 1, 2019
VA FIRE PROTECTION DESIGN MANUAL: VS. NOVEMBER 1, 2023
VA HVAC DESIGN MANUAL: REV. OCTOBER 1, 2022
VA PHYSICAL SECURITY AND RESILIENCY DESIGN MANUAL: VS. JULY 1, 2022
VA PLUMBING DESIGN MANUAL: VS. JANUARY 1, 2023
VA SITE DESIGN MANUAL: VS. APRIL 1, 2021
VA WHOLE BUILDING COMMISSIONING PROCESS MANUAL: VS. MAY 1, 2013
VA RETRO-COMMISSIONING PROCESS MANUAL: VS. JUNE 1, 2014
VA BARRIER FREE DESIGN STANDARD; REV. JUNE 1, 2024
VA STRUCTURAL DESIGN MANUAL: REV. JULY 1, 2023

PG-18-1 MASTER CONSTRUCTION SPECIFICATION INDEX
PG-18-3 DESIGN AND CONSTRUCTION PROCEDURES
PG-18-4 STANDARD DETAILS AND CAD STANDARDS
PG-18-10 DESIGN MANUALS (BY DISCIPLINE)
PG-18-12 DESIGN GUIDES (GRAPHICAL BY FUNCTION)
PG-18-13 BARRIER-FREE DESIGN GUIDE
PG-18-14 ROOM FINISHES, DOOR, AND HARDWARE SCHEDULES
PG-18-15 A-E SUBMISSION REQUIREMENTS
H-18-8 SEISMIC DESIGN HANDBOOK
HEPF SEP (SOCAMES 6) DESIGN ALERTS

NFPA 13 INSTALLATION OF SPRINKLER SYSTEMS: 2022 EDITION
NFPA 72 FIRE ALARM AND SIGNALING CODE: 2022 EDITION
NFPA 75 FIRE PROTECTION OF IT EQUIPMENT: 2024 EDITION
NFPA 99 HEALTHCARE FACILITIES CODE: 2024 EDITION
NFPA 101 LIFE SAFETY CODE: 2024 EDITION
NFPA 2001 CLEAN AGENT FIRE EXTINGUISHING SYSTEMS: 2022 EDITION

INTERNATIONAL BUILDING CODE: 2021 EDITION
INTERNATIONAL MECHANICAL CODE: 2021 EDITION
INTERNATIONAL ELECTRICAL CODE: 2021 EDITION
INTERNATIONAL PLUMBING CODE: 2021 EDITION

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

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

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

PROJECT GENERAL NOTES

1. THE CONTRACTOR SHOULD VISIT THE SITE PRIOR TO BID TO FIELD VERIFY ALL EXISTING CONDITIONS WHICH MAY AFFECT THEIR BID. BY SUBMISSION OF BID, THE CONTRACTOR ACKNOWLEDGES FULL REVIEW OF SITE HAS BEEN INCORPORATED IN BID AND HAS ACCEPTED SITE CONDITIONS AS IS.

2. ALL REFERENCES ON THESE DRAWINGS TO EXISTING CONDITIONS ARE FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL THESE ITEMS PRIOR TO BID AND INCLUDED IN THEIR BID ANY AND ALL AMOUNTS REQUIRED TO ACCOMMODATE EXISTING CONDITIONS.

3. NO ADDITIONAL COMPENSATION WILL BE CONSIDERED AFTER THE PROJECT HAS BEEN AWARDED FOR FAILURE TO VERIFY EXISTING CONDITIONS. REFER TO THE EXISTING HAZMAT REPORT MAINTAINED BY THE STATION; NO NEW HAZMAT REPORT HAS BEEN PREPARED AS PART OF THE PROJECT.

4. ANY DISCREPANCIES WHICH MAY AFFECT THE CONTRACTOR'S BID SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND ARCHITECT FOR DIRECTION PRIOR TO BIDDING.

5. MATERIAL QUANTITIES EXTRACTED BY THE CONTRACTOR FROM THE DESIGN-INTENT MODEL SHOULD BE USED WITH CAUTION BECAUSE A DESIGN-INTENT MODEL IS NOT CREATED FOR THIS PURPOSE. THE CONTRACTOR IS OBLIGATED TO DETERMINE, AND ASSUMES ALL RISK FOR, THE SUITABILITY OF THE DESIGN-INTENT BIM FOR MATERIAL QUANTITY TAKEOFFS.

6. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT EQUIPMENT AND SYSTEMS ARE INSTALLED ACCORDING TO THE CONSTRUCTION COORDINATED MODEL LOCATIONS, WHICHHAVE BEEN SIGNED OFF BY VA FACILITY MANAGEMENT PERSONNEL, AND ARE REFINED FROM THE AE DESIGN COORDINATED MODEL LOCATIONS, ANY DEVIATIONS THAT IMPINGE ON SPACE RESERVATIONS AS NOTED IN VA BIM STANDARDS MUST BE APPROVED BY VAIN WRITING.

7. FOR GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS APPLICABLE ONLY TO THE DRAWINGS OF ONE DISCIPLINE, REFER TO THE DRAWINGS OF THAT DISCIPLINE –SEE "SHEET INDEX".

8. THE COMPLETE SET OF DRAWINGS CONSIST OF ALL DRAWINGS LISTED BY THE "SHEET INDEX". THE WORK DESCRIBED IN ONE SHEET MAY BE REFERENCED AND MAY BE AFFECTED BY WORK DESCRIBED ON ANOTHER SHEET.

9. THE WORK DESCRIBED IN ONE DISCIPLINE MAY BE REFERENCED AND AFFECTED BY WORK OF ANOTHER DISCIPLINE. PARTIAL SETS OF DRAWINGS ARE INCOMPLETE AND SHOULD NOT BE REDISTRIBUTED OR UTILIZED BY THE CONTRACTOR.

10. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REVIEW AND COORDINATE THE WORK OF ALL SUBCONTRACTORS, TRADES AND SUPPLIERS WITH REQUIREMENTS OF THE CONTRACT DOCUMENTS BEFORE COMMENCING CONSTRUCTION, AND TO ASSURE THAT ALL PARTIES ARE AWARE OF ALL REQUIREMENTS, REGARDLESS OF WHERE THE REQUIREMENTS OCCUR IN THE CONTRACT DOCUMENTS, WHICH MIGHT AFFECT THE WORK OF THAT TRADE.

11. ALL ARCHITECTURAL DRAWINGS ESTABLISH AND COORDINATE THE FINISHED APPEARANCE AND LOCATION OF ALL EXPOSED ELEMENTS OF THE WORK, INCLUDING THAT WORK WHICH IS ILLUSTRATED PRIMARILY ON DRAWING OF OTHER DISCIPLINES, UNLESS OTHERWISE NOTED ON THE DRAWINGS.

12. THE ARCHITECTURAL FLOOR PLANS, REFLECTED CEILING PLANS, SECTIONS, AND ELEVATIONS SHOW THE LOCATION OF MANY-BUT NOT ALL –EXPOSED PARTS OF THE WORK. FOR ITEMS NOT LOCATED EXACTLY, APPLY THE RULES INDICATED BY THE DRAWING "TYPICAL MOUNTING HEIGHTS AND CONFIGURATION DIAGRAMS"TO DETERMINE THE EXACT LOCATION OF EACH EXPOSED PART OF THE WORK.

13. REFER TO THE STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND TELECOMMUNICATION DRAWINGS FOR THE DETAILED DESIGN OF THE STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS, OF WHICH PORTIONS MAY ALSO MAY BE SHOWN ON THE ARCHITECTURAL DRAWINGS.

14. NO PART OF THE CONTRACT DOCUMENTS SHALL BE CONSTRUED TO REQUIRE OR PERMIT WORK CONTRARY TO AN APPLICABLE GOVERNING RULE, CODE, REGULATION, ORDINANCE, OR LAW.

15. IF A CONFLICT EXISTS BETWEEN THE CONTRACT DOCUMENTS AND A REGULATORY REQUIREMENT, THE CONTRACTOR SHALL COMPLY WITH THE ONE ESTABLISHING THE MORE STRINGENT OR RESTRICTIVE REQUIREMENT:
• THE DRAWINGS AND SPECIFICATIONS MAY SET FORTH MORE DETAILED, MORE SPECIFIC, AND/OR MORE RESTRICTIVE REQUIREMENTS THAN THOSE SET FORTH BY THE APPLICABLE REGULATORY REQUIREMENTS.
• WHERE THE DRAWINGS AND SPECIFICATIONS PROVIDE MORE DETAILED, MORE SPECIFIC, AND/OR MORE RESTRICTIVE REQUIREMENTS, THE CONTRACTOR SHALL COMPLY WITH THOSE REQUIREMENTS. WHERE THE APPLICABLE REQUIREMENTS OF THE REFERENCED RULES, CODES, REGULATIONS, ORDINANCES, OR LAWS ARE MORE RESTRICTIVE THAN THAT SET FORTH BY THE DRAWINGS AND SPECIFICATION, THE CONTRACTOR SHALL COMPLY WITH ALL SUCH MORE RESTRICTIVE REQUIREMENTS. ALTHOUGH SUCH REQUIREMENTS MAY NOT BE ILLUSTRATED BY THE DRAWINGS AND SPECIFICATIONS.

16. APPLICABLE PORTIONS OF THE CODES, REGULATIONS, AND STANDARDS LISTED HERE ARE INCORPORATED BY REFERENCE INTO THE REQUIREMENTS OF THIS CONTRACT AND ESTABLISH MINIMUM REQUIREMENTS WITH WHICH THE WORK MUST COMPLY.

17. PROPRIETARY PRODUCTS OR ASSEMBLIES UTILIZED AS "BASIS OF DESIGN".
• ON OCCASION, THE DRAWINGS MAY REFER TO A SINGLE PROPRIETARY PRODUCT OR ASSEMBLY WHILE THE SPECIFICATIONS LIST TWO OR MORE ACCEPTABLE MANUFACTURERS AND/OR PRODUCTS, WHEN THIS OCCURS, THE PRODUCT OR ASSEMBLY ILLUSTRATED BY THE DRAWINGS IS THE "BASIS OF DESIGN"PRODUCT OR ASSEMBLY.
• THE DIMENSIONS, MOUNTING HEIGHTS, CLEARANCES, AND ACCESS REQUIREMENTS OF SPECIFIED PRODUCTS AND ASSEMBLIES OTHER THAN THE "BASIS OF DESIGN"MAY VARY FROM THAT SHOWN BY THE DRAWINGS.
• THE CONTRACTOR MAY UTILIZE ANY OTHER SPECIFIED PRODUCT OR ASSEMBLY IN LIEU OF THE "BASIS OF DESIGN"PRODUCT OR ASSEMBLY. HOWEVER, THE CONTRACTOR IS RESPONSIBLE (AT NO ADDITIONAL EXPENSE TO THE OWNER) FOR ALL COORDINATION AND REVISIONS TO DIMENSIONS AND/OR DETAILS NECESSARY TO ACHIEVE THE SAME FUNCTIONAL AND AESTHETIC DESIGN INTENT AS ILLUSTRATED BY THE "BASIS OF DESIGN"SHOWN BY THE CONTRACT DOCUMENTS.

18. THE CONTRACTOR SHALL NOT SCALE DRAWINGS, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO THE START OF WORK AND SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH THE WORK.

19. ALL WORK PERFORMED SHALL COMPLY WITH THE CONTRACT DOCUMENTS, DRAWINGS, AND PROJECT MANUAL, INCLUDING THESE GENERAL NOTES. THE CONTRACTOR SHALL COORDINATE THE INTENT OF THE GENERAL NOTES WITH ALL TRADES. ALL WORK PERFORMED SHALL COMPLY WITH CODES, LAWS, ORDINANCES, RULES, AND REGULATIONS OF PUBLIC AUTHORITIES GOVERNING THE WORK.

20. THE PROJECT MANUAL, BOUND SEPARATELY, IS A PART OF THE CONTRACT DOCUMENTS.

21. THE ORGANIZATION OF THE DRAWINGS AND PROJECT MANUAL SHALL NOT CONTROL THE CONTRACTOR IN DIVIDING THE WORK AMONG SUBCONTRACTORS OR IN ESTABLISHING THE EXTENT OF WORK TO BE PERFORMED BY ANY TRADE.

22. NOTES APPEARING ON VARIOUS DRAWINGS FOR DIFFERENT SYSTEMS AND MATERIALS ARE TO BE REVIEWED, COORDINATED AND ARE TO BE APPLIED TO ALL RELATED DRAWINGS AND DETAILS.

23. CONSTRUCTION, WORKMANSHIP, AND MATERIALS SHALL CONFORM TO THE REFERENCED AND CURRENT VA STANDARDS.

24. THE CONTRACTOR SHALL NOTIFY THE COR AND AOR WHERE A CONFLICT OR DISCREPANCY OCCURS BETWEEN THE CONTRACT DOCUMENT AND ANY OTHER PORTION OF THE CONTRACT DOCUMENTS, FIELD CONDITIONS OR WHERE ANY CONDITIONS ARISE NOT COVERED BY THESE DOCUMENTS WHEREIN WORK WILL NOT COMPLY WITH THE REQUIREMENTS OF THE IBC.

25. THESE DRAWINGS INDICATE IN GENERAL THE PROJECT IN TERMS OF ARCHITECTURAL DESIGN INTENT, THE DIMENSIONS OF THE BUILDING, THE MAJOR ARCHITECTURAL ELEMENTS AND TYPE OF STRUCTURAL, MECHANICAL, AND ELECTRICAL SYSTEMS. THE DRAWINGS DO NOT NECESSARILY INDICATE OR DESCRIBE ALL WORK REQUIRED FOR FULL PERFORMANCE AND COMPLETION OF THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. AS INDICATED OR DESCRIBED, THE CONTRACTOR SHALL FURNISH ALL ITEMS REQUIRED FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK.

26. REFER TO MECHANICAL, PLUMBING, ELECTRICAL AND TELECOMMUNICATIONS DRAWINGS AND SPECIFICATIONS FOR ARCHITECTURAL ROUTING OF CONDUIT, PIPING, DUCTWORK ETC. AT UNDERSIDE OF CONCRETE SLABS. ROUTING SHALL BE ORTHOGONAL, AND LIKE ITEMS TO BE GANGED AND TO RUN PARALLEL WITH EVEN SPACING TYPICAL. EXACT ROUTING SHALL BE DETERMINED BY THE CONTRACTOR, AND LAYOUT SHOP DRAWINGS SUBMITTED FOR ARCHITECTURAL REVIEW AND APPROVAL PRIOR TO INSTALLATION. CONTRACTOR SHALL VERIFY SIZES AND LOCATIONS OF ALL MECHANICAL EQUIPMENT PADS AND BASES AS WELL AS POWER AND WATER OR DRAIN INSTALLATIONS WITH EQUIPMENT MANUFACTURERS BEFORE PROCEEDING WITH THE WORK. CHANGES TO ACCOMMODATE FIELD CONDITIONS OR SUBSTITUTIONS SHALL BE MADE AT NO ADDITIONAL COST.

27. ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED TO BE CONSTRUCTION STANDARDS. IF THE CONTRACTOR HAS QUESTIONS REGARDING SAME, OR THEIR EXACT MEANING, THE ARCHITECT SHALL BE NOTIFIED FOR CLARIFICATION.

28. THE CONTRACTOR SHALL COORDINATE ALL MECHANICAL FLOOR/WALL SLEEVES AND SHAFTS IN CONCRETE SLABS/WALLS WITH MECHANICAL, PLUMBING, FIRE PROTECTION, ELECTRICAL, STRUCTURAL AND ARCHITECTURAL DRAWINGS AND DISCREPANCIES, IF ANY, TO BE BROUGHT TO NOTICE OF THE ENGINEER PRIOR TO EXECUTION OF WORK.

29. COORDINATE WORK WITH COR, INCLUDING SCHEDULING TIME AND LOCATIONS FOR DELIVERIES, BUILDING ACCESS, USE OF BUILDING SERVICES AND FACILITIES, AND USE OF ELEVATORS. MINIMIZE DISTURBANCE OF BUILDING FUNCTIONS AND OCCUPANTS.

30. ALL EXISTING OR PROPOSED ELEVATIONS (LEVELS) AND DIMENSIONS, ON SITE AND ON DRAWINGS MUST BE CHECKED AND VERIFIED BY THE CONTRACTOR BEFORE THE PREPARATION OF SHOP DRAWINGS OR COMMENCEMENT OF ANY ITEM OF WORK ON THE SITE.

31. ARCHITECTURAL DRAWINGS MUST ALWAYS BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT SERVICES DRAWINGS AND CONTRACT DOCUMENTS. ANY DISCREPANCY BETWEEN THESE DRAWINGS AND DOCUMENTS SHOULD BE REPORTED TO THE COR AND ARCHITECT FOR CLARIFICATION AND VERIFICATION.

32. FOR AREAS WITHOUT SUSPENDED CEILING HAVING EXPOSED SLAB AND BEAMS, WALL FINISH MATERIAL SHALL BE FROM FLOOR LEVEL TO BOTTOM OF SLAB LEVEL. (UNLESS NOTED OTHERWISE)

33. ALL EXISTING ENCLOSURE ASSEMBLIES AND TO BE PROTECTED AND MAINTAINED DURING CONSTRUCTION. IF DURING CONSTRUCTION ANY DAMAGE IS OBSERVED OR ANY MISSING WITHIN
THE AREA OF WORK, THE CONTRACTOR SHALL REPAIR TO MAINTAIN FULL PROTECTION.

FIRE PROTECTION

1. PENETRATIONS TO BE PROTECTED WITH THROUGH PENETRATION PROTECTION SYSTEMS IN VA FIRE PROTECTION DESIGN MANUAL 2.3.N.

2. A FINISH OR FIRE RATING INDICATION ON A WALL SHALL MEAN THE ENTIRE LENGTH OF WALL IS TO BE FINISHED OR FIRE RATED.

3. FIRE RATED ASSEMBLIES SHALL BE PER TABLE 721.1(1), GENERIC ASSEMBLIES OF GYPSUM HANDBOOK, OR HAVE ICC APPROVAL.

4. PENETRATIONS OF FIRE RESISTANCE-RATED HORIZONTAL ASSEMBLIES AND FIRE RESISTANCE RATED WALLS SHALL COMPLY WITH SECTION 714 OF THE IBC, INCLUDING FIRE DAMPERS AND SMOKE DAMPERS WHERE REQUIRED.

5. MEMBRANE PENETRATIONS BY LISTED ELECTRICAL OUTLET BOXES ARE PERMITTED PROVIDED SUCH BOXES HAVE BEEN TESTED FOR USE IN FIRE-RESISTANCE-RATED ASSEMBLIES AND THE BOX DOES NOT EXCEED 1/8" UNLESS LISTED OTHERWISE.

6. COMPLY WITH THE PRESCRIPTIVE REQUIREMENTS OF NFPA 75

7. PROVIDE AUTOMATIC WET-PIPE SPRINKLER SYSTEM THROUGHOUT INCLUDING ALL DEMARC ROOMS, MAIN COMPUTER ROOMS, AND TR'S.

8. FUSIBLE LINK SPRINKLERS ARE PERMITTED TO BE USED IN THE COMPUTER AREA.

9. PROVIDE CLEAN AGENT FIRE SUPPRESSION FOR THE MAIN COMPUTER ROOM AND BACKUP COMPUTER ROOM WHEN REQUIRED BY THE VA FIRE PROTECTION DESIGN MANUAL.

10. GASEOUS SUPPRESSION SYSTEM INCLUDE TELECOMMUNICATIONS WITH AN ANSI/TIA-942-B RATING OF 2 OR 3 AS IDENTIFIED IN THE OIT.

11. EXISTING BUILDINGS TO BE REVIEWED AND EVALUATED ON A CASE BY CASE BASIS FOR EXISTING FIRE PROTECTIONS SYSTEMS AND BROUGHT UP TO CURRENT STANDARD WHERE REQUIRED.

12. REPLACE CEILING TILES AT THE END OF EACH SHIFT FOR WORK AREAS OUTSIDE OF A RATED CONSTRUCTION BARRIER. IF THE TILES CANNOT BE REPLACED, THE SPRINKLER SYSTEM MAY BE CONSIDERED OUT OF SERVICE IN THESE AREAS AND 1-HOUR FIRE RATED SEPARATION WILL BE REQUIRED BETWEEN THE CONSTRUCTION AREA AND THE OCCUPIED PORTIONS OF THE BUILDING.

13. INSTALLATION OF TEMPORARY FIRESTOPPING (MINERAL WOOL) AT THE END OF THE WORK SHIFT IF ADDITIONAL CABLING WILL BE PULLED THROUGH A PENETRATION AT A LATER WORK SHIFT.

14. PROVIDE CLEAN AGENT FIRE EXTINGUISHERS FOR EACH TR NO GREATER THAN 75 FEET FROM THE REMOTE CORNER OF EACH TR, BUT NOT LOCATED WITHIN THE TR. IF NO EXISTING FIRE CABINET HAS CAPACITY OR DOES NOT MEET THE DISTANCE CRITERIA ABOVE PROVIDE A NEW FIRE CABINET AND COORDINATE CONFIRM LOCATION WITH THE STATION.

15. THE MINIMUM FIRE RATING FOR ALL LOAD-BEARING STRUCTURAL ELEMENTS SHALL BE MAINTAINED. SEE COVER CODE SUMMARY TABLE FOR PROJECT REQUIRED BUILDING RATING ELEMENTS. IF DURING CONSTRUCTION ANY DAMAGE TO FIRE PROTECTION IS OBSERVED OR ANY MISSING WITHIN THE AREA OF WORK, THE CONTRACTOR SHALL REPAIR TO MAINTAIN FULL PROTECTION.

16. CONSTRUCTION AREAS MUST BE SEPARATED FROM THE SURROUNDING OCCUPIED AREAS BY 1-HOUR CONSTRUCTION BARRIERS (NON-RATED BARRIERS CAN BE USED IF THE SPRINKLERS REMAIN ACTIVE IN THE CONSTRUCTION AREA (WHICH REQUIRES INSTALLATION OF UPRIGHT SPRINKLERS IF CEILINGS ARE REMOVED). PLEASE IDENTIFY ANY DESIGN BASIS FOR THIS ISSUE.

ASBESTOS NOTES

BUILDINGS 2, 3, 4, 5, 6, 7, 11, 12, 14, 15, 47

ASBESTOS-CONTAINING PIPE INSULATION AND FITTINGS MAY BE FOUND IN PIPE CHASES, WALLS, AND OTHER HIDDEN AREAS THROUGHOUT THE BUILDING.
IF THESE MATERIALS HAVE TO BE DISTURBED DURING THE PROJECT, ABATEMENT MUST BE CONDUCTED PER **SPECIFICATION 02 82 11**.

BUILDINGS 2, 3, 4, 5, 6, 7, 11, 12, 14, 15, 47 (IF ANY OF THE MECHANICALS ARE GOING THROUGH ROOF)

ASPHALT ROOFING MATERIALS ARE ASSUMED TO BE PRESENT UNTIL TESTED. IF THESE MATERIALS HAVE TO BE DISTURBED DURING THE PROJECT, ABATEMENT MUST BE CONDUCTED PER **SPECIFICATION 02 82 13.21.**

BUILDING 11 (ONLY IF ANY OF THE MECHANICALS OR TELECOM RUNS ARE GOING THROUGH EXTERIOR WALLS)

ASBESTOS IS PRESENT IN EXTERIOR TROWELED ON STUCCO. IF THIS MATERIAL HAS TO BE DISTURBED DURING THE PROJECT, ABATEMENT MUST BE CONDUCTED PER **SPECIFICATION 02 82 11**

BUILDINGS 14, 15, 47

ASBESTOS IS PRESENT IN JOINT COMPOUND ON SHEETROCK WALLS THROUGHOUT ORIGINAL WALLS. BULK SAMPLE OF INDIVIDUAL WALLS SHOULD BE CONDUCTED PRIOR TO ANY DISTURBANCE.

BUILDING 14, FIRST FLOOR, ROOM 106

ASBESTOS-CONTAINING 12x12 FLOOR TILE (TAN WITH WHITE STREAKS) PRESENT UNDER EXISTING CARPET. ABATE PER **SPECIFICATION 02 82 13 19.**

BUILDING 15, SECOND FLOOR, ROOM 211 (EXISTING TR) AND 213 (NEW TR)

ASBESTOS-CONTAINING 12x12 FLOOR TILE (WHITE WITH BROWN SPOTS) AND MASTIC PRESENT. ABATE PER **SPECIFICATION 02 82 13 19.**

BUILDING 47, BASEMENT, ROOM BF107 (EXISTING TR)

ASBESTOS-CONTAINING 12x12 FLOOR TILE (WHITE WITH OYSTER SHELL PATTERN) AND MASTIC PRESENT. ABATE PER **SPECIFICATION 02 82 13 19.**

BUILDING 47, FIRST FLOOR, ROOM 1H113 (NEW TR)

ASBESTOS-CONTAINING BLACK MASTIC PRESENT UNDER EXISTING FLOOR. ABATE PER **SPECIFICATION 02 82 13 19.**

BUILDING 47, FOURTH FLOOR, ROOM A401 (EXISTING TR)

ASSUMED ASBESTOS-CONTAINING 12x12 FLOOR TILE (WHITE WITH OYSTER SHELL PATTERN) AND MASTIC. ABATE PER **SPECIFICATION 02 82 13 19.**

BUILDING 47, FIFTH FLOOR, ROOM A501 (EXISTING TR)

ASSUMED ASBESTOS-CONTAINING 12x12 FLOOR TILE (WHITE WITH OYSTER SHELL PATTERN) AND MASTIC. ABATE PER **SPECIFICATION 02 82 13 19.**

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

LICENSED ARCHITECT GENE HAMILTON C-15576 REN. 07-31-27 STATE OF CALIFORNIA

Facilities Management Services

VA U.S. Department of Veterans Affairs

Drawing Title: GENERAL NOTES AND CODE REQUIREMENTS	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
			Building Number: 0
Approved: FOR OFFICIAL USE ONLY		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Drawing Number: 00-GI003
		Issue Date: 12.19.2025 / Checked / Drawn	

VA FORM 08 - 6231

Autodesk Docs://Asheville EHRM_V23/637-22-700.047 ASH - EHRM.rvt

12/22/2025 10:48:02 AM

DIAMOND ESTIMATION

HORIZONTAL CABLE STUDY
DISTANCE STUDY (DIAMOND ANALYSIS)

ANALYSIS HAS BEEN COMPLETED IN DESIGN PHASE AND DOCUMENTED ON DIAMOND ANALYSIS FLOOR PLANS FOR EACH BUILDING. GC TO CONFIRM CABLE LENGTHS AND NOTIFY COR IF UNABLE TO KEEP THE CABLE LENGTH UNDER THE CAT 6A MAXIMUM. CABLE LENGTHS TO BE ORTHAGONAL ONLY.

THE DIAMONG ANALYSIS ASSESSMENT IS INCLUDED FOR ALL BUILDINGS AND ROOMS WHERE:

- THE INSTALLATION OF A NEW TELECOMMUNICATION ROOM TO SERVE AN AREA.
- THE RELOCATION OF AN EXISTING TELECOMMUNICATION ROOM TO SERVE AN AREA.
- INSTALL NEW CABLING UPGRADES IN A TELECOMMUNICATION ROOM THAT WILL REMAIN IN PLACE TO SERVE AN AREA.
- AN EXISTING TELECOMMUNICATION ROOM THAT WILL NOT RECEIVE ANY CABLING UPGRADES.

THIS PLAN PROVIDES A THREE-DIMENSIONAL ESTIMATION APPROACH TO ENSURE THAT AN ASSESSMENT IS PERFORMED FOR EACH OF THE FOUR TELECOMMUNICATION ROOM SCENARIOS LISTED ABOVE. THIS WILL BE SHARED WITH THE FACILITY LEADS TO VERIFY THAT ALL TELECOMMUNICATION ROOMS COMPLY WITH THE SPECIFIED UTP CABLE SEGMENT 90 METERS.

STEP 1: ENSURE AN ACCURATE FLOOR PLAN THAT DEPICTS THE LOCATIONS OF THE TELECOMMUNICATION ROOMS SERVING THE FACILITY IS AVAILABLE AND DRAWING TO SCALE.

STEP 2: FROM THE CENTER OF THE TELECOMMUNICATION ROOM BEING ASSESSED PROJECT OUT LINES, 80 METERS IN LENGTH FROM THAT POINT, IN THE PLAN NORTH, SOUTH, EAST AND WEST RESPECTIVELY.

STEP 3: AT THE END EACH OF THE 80 METERS LINES CREATED, CONNECT A LINE 45 DEGREES FROM THAT POINT OUT TO THE NEXT END POINT CREATING A DIAMOND.

STEP 4: VALIDATE THAT ALL AREAS SERVED BY THAT TELECOMMUNICATION ROOM FALL WITHIN THE PARAMETERS OF THE DIAMOND OVERLAY.

NON-COMPLIANT EXAMPLE   COMPLIANT EXAMPLE

GENERAL TR NOTES

FLOORS:
- STATIC DISSIPATING FLOOR TILE OR COATING.
- CONCRETE SLAB 5" THICKNESS AT GROUND WHERE APPLICABLE.

WALLS:
- GYP WALLBOARD WITH 4" METAL STUDS
- 4 FT X 8 FT AC GRADE 3/4" TRADE SIZE FIRE-RATED PLYWOOD BACKBOARD FOR SERVICE PROVIDER/SECURITY/VIDEO/ ETC. AROUND 3 PERIMETER WALLS.
- FLOOR TO CEILING HEIGHT FULL HEIGHT TO DECK AS POSSIBLE. EXCEPTIONS TO BE REVIEWED ON A CASE BY CASE BASIS.

DOORS:
- HOLLOW METAL WITH METAL FRAMES.
- KICKPLATE ON BOTH SIDES.
- IN MOST CASES, CORRIDOR CEILINGS CANNOT ACCOMMODATE A NEW 8' HEIGHT DOOR REQUIRING AN EXCEPTION FOR DOOR HEIGHT.

CEILING:
- FLOOR TO CEILING HEIGHT FULL HEIGHT TO DECK AS POSSIBLE. EXCEPTIONS TO BE REVIEWED ON A CASE BY CASE BASIS.

FIRE PROTECTION:
- COMPLY WITH THE PRESCRIPTIVE REQUIREMENTS OF NFPA 75
- PROVIDE AUTOMATIC WET-PIPE SPRINKLER SYSTEM THROUGHOUT INCLUDING ALL DEMARC ROOMS, MAIN COMPUTER ROOMS, AND TR'S.
- FUSIBLE LINK SPRINKLERS ARE PERMITTED TO BE USED IN THE COMPUTER AREA.
- PROVIDE CLEAN AGENT FIRE SUPPRESSION FOR THE MAIN COMPUTER ROOM AND BACKUP COMPUTER ROOM WHEN REQUIRED BY THE VA FIRE PROTECTION DESIGN MANUAL.
- GASEOUS SUPPRESSION SYSTEM INCLUDE TELECOMMUNICATIONS WITH AN ANSI/TIA-942-B RATING OF 2 OR 3 AS IDENTIFIED IN THE OIT.
- EXISTING BUILDINGS TO BE REVIEWED AND EVALUATED ON A CASE BY CASE BASIS FOR EXISTING FIRE PROTECTIONS SYSTEMS AND BROUGHT UP TO CURRENT STANDARD WHERE REQUIRED.NEW FIRE EXTINGUISHER CABINETS TO BE LOCATED AS SHOWN AND WITHIN 75' OF EACH TR CLOSET. CABINET TO INCLUDE 10-LB CLEAN AGENT FIRE EXTINGUISHER. IF A COMPLIANT FEC ALREADY EXISTS WITHIN 75', THERE IS NO NEED TO PROVIDE A SECOND AND IT SHOULD CONSTITUTE A CREDIT TO THE OWNER.
- SEE VA FIRE PROTECTION DESIGN MANUAL. 3.7E.

TR/TE REQUIRED CLEARANCE DIAGRAMS

TE CLEARANCES

NOTE: MINIMUM CLEARANCE DIMENSIONS ARE SHOWN IN BLUE.

OIT PREFERRED CLEARANCE ON SWING SIDE OF RACK ARE SHOWN IN RED.

TR CLEARANCES

NOTE: 3FT CLEARANCE MUST BE MAINTAINED ON FRONT, BACK, AND ONE SIDE OF THE TR RACK(S). WHERE 1'-0" MIN IS SHOWN, IT CAN ONLY BE USED ONCE IN ANY LAYOUT.

MINIMUM CLEAR RACK DIMENSIONS SHWONG IN BLACK.

MINIMUM ROOM DIMENSIONS ARE SHOWN IN RED.

MINIMUM ROOM DIMENSIONS WITH 1'-0" SIDE CLEARANCE REDUCTION SHOWN IN BLUE.

CONSTRUCTION SAFETY NOTES

1. CONSTRUCTION BARRIER SHALL CONSIST OF: 1-HOUR RATED GYPSUM BOARD PARTITION FROM FLOOR TO DECK. ALL PENETRATIONS THROUGH THE DUST BARRIER SHALL BE TAPED AND SEALED SO AS TO MAINTAIN A NEGATIVE AIR PRESSURE IN THE WORK AREA.. DUST BARRIER WALLS EXTENDING PERPENDICULAR TO A CORRIDOR SHALL BE BUILT AT A 45 DEGREE ANGLE IN REFERENCE TO THE CORRIDOR PATH OF EGRESS. BARRIERS SHALL BE WIPED DOWN BEFORE BEING REMOVED.

2. DIRECTIONAL SIGNS AND TEMPORARY FIRE EXIT SIGNS SHALL BE POSTED DURING ALL PHASES OF CONSTRUCTION TO DISPLAY MEANS OF EGRESS AND LIFE SAFETY INFORMATION. SIGNS SHALL BE IN PLACE AT ALL TIMES THROUGH DURATION OF CONSTRUCTION.

3. ILLUMINATED EXIT SIGNS SHALL BE RELOCATED WHEN OBSTRUCTED BY CONSTRUCTION.

4. GENERAL CONTRACTOR SHALL WORK CLOSELY WITH THE CONTRACTING OFFICER TECHNICAL REPRESENTATIVE (COR) WHEN LIFE SAFETY HAZARDS ARE PRESENT. THE COR SHALL COMMUNICATE ALL SAFETY CONCERNS TO THE SAFETY OFFICE.

5. GENERAL CONTRACTOR SHALL KEEP DUST CONTAINMENT BARRIER PRESSURE AT -.01 TO -.04 AT ALL TIMES. HVAC EXHAUST, RETURN AND SUPPLY DUCTS SHALL BE COVERED AND SEALED DURING DEMOLITION DURING CONSTRUCTION.

6. GENERAL CONTRACTOR SHALL INSPECT THE INTEGRITY OF THE DUST CONTAINMENT BARRIER AND SHALL REPAIR AS REQUIRED. DUST CONTAINMENT BARRIER INTEGRITY SHALL BE MAINTAINED FROM FINISH FLOOR UP THROUGH THE INTERSTITIAL SPACE TO THE UPPER DECKING FOR THE CONSTRUCTION FLOOR.

7. WORK SITE SHALL BE SECURED BY LOCK AT ALL TIMES.

8. FLOOR MATS AND STICKY MATS SHALL BE LOCATED AT THE ENTRANCE TO THE CONSTRUCTION AREA AND BE REPLACED WHEN THEY ARE APPROXIMATELY 75-PERCENT USED.

9. GOOD HOUSEKEEPING, TRASH AND DEBRIS SHALL BE PROMPTLY REMOVE, AT LEAST ONCE A DAY.

10. HAZARDOUS MATERIALS SHALL BE STORED APPROPRIATELY.

11. ALL MATERIALS SAFETY AND DATA SHEETS (MSDS) SHALL BE POSTED AT THE CONSTRUCTION AREA.

12. INFECTION CONTROL RISK ASSESSMENT (ICRA) SHALL BE POST AT THE CONSTRUCTION AREA.

13. SMOKING, MUSIC, AND PROFANITY REGULATIONS SHALL BE FOLLOWED.

14. FIRE EXTINGUISHERS SHALL BE READILY AVAILABLE AND CURRENTLY INSPECTED IN THE CONSTRUCTION AREA.

15. HOT WORK PERMITS SHALL BE ISSUED WHEN NECESSARY.

16. SUB-CONTRACTORS SHALL BE AWARE OF AND TRAINED IN SAFETY AND ENVIRONMENTAL ISSUES.

17. EXTENSION CORDS SHALL BE PROTECTED AND DISCONNECTED AT THE END OF EACH DAY.

18. MEANS OF EGRESS SHALL BE CLEARLY DESIGNATED IN BOTH CONSTRUCTION AND ADJACENT AREAS. ACCESS FOR THE FIRE DEPARTMENT AND EMERGENCY SERVICES SHALL BE CLEAR. STATUS OF THE FIRE DETECTION AND SPRINKLER SHALL BE:

A. FIRE SPRINKLER SYSTEM IS ACTIVE
B. FIRE ALARM SYSTEM IS ACTIVE
C. SMOKE DETECTORS ARE ACTIVE
D. TEMPORARY SYSTEMS ARE IN PLACE

INFECTION CONTROL NOTES

1. ALL CONTRACTORS AND COR SHALL ATTEND THE INFECTION PREVENTION TRAINING, BIANNUALLY AND CANNOT BE ON SITE WITHOUT A CURRENT VA HOSPITAL ISSUED SECURITY-SAFETY BADGE.

2. THE INFECTION PREVENTION OFFICE SHALL BE NOTIFIED OF ALL PRE-CONSTRUCTION MEETINGS.

3. THE INFECTION PREVENTION OFFICE SHALL BE NOTIFIED OF ALL WASTE SHUT-OFF OR INTERRUPTIONS.

4. THE INFECTION PREVENTION OFFICE SHALL BE NOTIFIED IF THE HVAC SYSTEM IS INTERRUPTED IN AREAS THAT AFFECTS PATIENT CARE.

5. THE INFECTION PREVENTION OFFICE SHALL BE NOTIFIED OF ANY OF ANY ANTICIPATED ALTERATIONS TO THE ACCESS ROUTES USED DURING CONSTRUCTION ACTIVITIES.

6. INFECTION CONTROL RISK ASSESSMENT (ICRA) SHALL BE WRITTEN AND AMENDED INTO THE CONTRACT AND SPECIFICATIONS FOR THE CONSTRUCTION PROJECT TO PREVENT COST DISCREPANCIES.

7. GENERAL CONTRACTOR SHALL CLEAN THE WHEELS AND OUTSIDE OF ALL CARTS AND EQUIPMENT GOING IN AND OUT OF THE CONSTRUCTION AREA.

8. GENERAL CONTRACTOR SHALL WET MOP HEAVY TRAFFIC AREAS AT LEAST TWO (2) TIMES A DAY OR MORE IF THE SITE HAS AN ICRA CLASS OF 3 OR 4, OR IF THE AREA HAS A HIGH VOLUME OF DUST. WATER SHALL BE CHANGED DAILY. DO NOT LEAVE WATER STANDING OVERNIGHT.

9. CONTRACTORS SHALL WEAR DUPONT TYVEK COVERALLS, OR EQUIVALENT OVER CLOTHING AND SHOE COVERS IN MODERATE TO HIGH DUST AREAS TO PREVENT CONTAMINATION OF THE CLOTHING OF MEDICAL CENTER STAFF AND PATIENTS AND TRACKING DUST AND DIRT INTO THE EXISTING SURROUNDING AREA. COVERALLS SHALL BE REMOVED BEFORE LEAVING THE CONSTRUCTION AREA.

10. ALL ICRA CLASS 4 PROJECT SITES MUST HAVE AN ANTE ROOM TO MAINTAIN NEGATIVE AIR FLOW AND BE LARGE ENOUGH TO REMOVE COVERALLS AND HAVE A TRASH CONTAINER.

11. AIR FILTRATION DEVICES WITH HEPA FILTERS SHALL BE USED ON SITE FOR SMALL CLEAN UPS IN PATIENT CARE AREAS THAT HAVE AN ICRA CLASS OF 1 OR 2. REFERENCE LOCAL REQUIREMENTS FOR ADDITIONAL GUIDANCE.

12. ALL BUILDINGS WILL REMAIN OPERATIONAL 24 HOURS A DAY, 7 DAYS A WEEK. THE CONTRACTOR SHALL ENSURE THAT A PATH OF TRAVEL BETWEEN BUILDINGS IS MAINTAINED AT ALL TIMES.

13. BEFORE STARTING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE A COMPLETE ACCESS PATH / ROUTE FROM THE PROPOSED CONSTRUCTION STAGING AREA ON SITE TO THE ARE OF WORK WITHIN EACH BUILDING.

14. THE CONTRACTOR MAY USE ELEVATORS COORDINATED AND ASSIGNED BY THE COR AND STAIRS TO TRANSPORT EQUIPMENT AND MATERIALS INTO AND OUT OF THE WORK AREA.

15. UPON COMPLETION OF WORK, REMOVE BARRIERS CAREFULLY TO MINIMIZE SPREAD OF DIRT AND DEBRIS ASSOCIATED WITH THE CONSTRUCTION. DO NOT REMOVE FINAL CONSTRUCTION BARRIERS UNTIL COMPLETED PROJECT IS INSPECTED AND APPROVED BY THE COR.

16. THE WORK AREAS ARE TO BE KEPT CLEAN, CLEAR AND FREE OF DEBRIS. CONSTRUCTION MATERIALS AND PARTIALLY INSTALLED WORK CANNOT INTERFERE WITH THE FACILITY OPERATIONS OR CREATE A SAFETY HAZARD.

17. COMPLETE ALL CRITICAL CONSTRUCTION BARRIERS BEFORE DEMOLITION / CONSTRUCTION WORK BEGINS. COR AND INFECTION CONTROL DEPARTMENT SHALL INSPECT INFECTION CONTROL BARRIERS BEFORE DEMOLITION BEGINS.

18. SEAL ALL EXISTING UNUSED DOORS TO PREVENT THE GENERAL PUBLIC FROM ENTERING THE DEMOLITION /CONSTRUCTION AREAS.

19. IF EXISTING LIFE SAFETY SYSTEM IS SHUT OFF FOR CONSTRUCTION, THE CONTRACTOR IS TO PROVIDE A 24 HOUR FIRE WATCH UNTIL THE SYSTEM IS BACK ON LINE. COORDINATE WITH COR AND LOCAL SAFETY.

SEQUENCING NOTES

1. ALL CONSTRUCTION SEQUENCING SHALL BE COORDINATED WITH THE VA FOR WORK RELATED TIMES FOR DAY, NIGHT AND WEEKEND WORK. CONTRACTOR SHALL COORDINATE WITH VA AHJ FOR CODE AND LIFE SAFETY RELATED MEASURES ASSOCIATED WITH PHASING OF DEMOLITION AND CONSTRUCTION WORK TO MAINTAIN LIFE SAFETY MEASURES.

2. REFER TO TELECOMMUNICATION DRAWINGS FOR SPECIFIC PHASING REQUIREMENTS WITHIN THE TRS.

3. THE FOLLOWING CONSTRUCTION SEQUENCING DESCRIPTION HAS BEEN INCORPORATED INTO THE PROPOSED CONSTRUCTION SCHEDULE AND PHASING FOR USE IN PREPARING THE CONSTRUCTION COST ESTIMATE. THE SEQUENCING HAS BEEN ORGANIZED BY BUILDING WITH THE ASSUMPTION THAT THE WORK IN THE FOLLOWING CATEGORIES MAY BE COMPLETED IN PARALLEL AND ARE PRESENTED IN NUMERICAL ORDER AND NOT IN ORDER OF NEED.

4. THE WORK TASKS AND PROPOSED ORDER OF PRIORITY HAVE BEEN ORGANIZED AS FOLLOWS:A. COORDINATE SCHEDULING AND HOURS OF WORK WITH FACILITIES AND OIT PERSONNEL. SOME WORK MAY NEED TO BE PERFORMED AFTER NORMAL WORKING HOURS AND/OR ON WEEKENDS. PROVIDE 14 CALENDAR DAYS ADVANCE NOTICE WHENEVER POSSIBLE.
B. CONTRACTOR SHALL DO NO MORE THAN 3-TELECOM ROOMS AT A TIME UNLESS APPROVAL FROM VA. CONTRACTOR SHALL COMPLETE EACH TELECOM SCOPE WITHIN 10-CALENDAR DAYS OR RECEIVE APPROVAL FROM VA TO EXTEND CONSTRUCTION TIMELINE.

5. TELECOM ROOMS - TYPICAL PHASING:

A. TELECOM ROOM THAT WILL REMAIN IN USE:
a. IF WALLS CONTAIN LEAD PAINT OR ASBESTOS CONTAINING MATERIAL IS INDICATED, REFER TO SPECIFICATION SECTIONS 02 82 11 AND 02 82 13.19 FOR LOCATION AND PROCEDURES.
b. REMOVE EXISTING CEILING SYSTEM (IF ROOM HAS CEILING) AND ASSOCIATED ITEMS. PROVIDE TEMPORARY LIGHTING AS NEEDED.
c. REMOVE EXISTING FLOORING (IF REQUIRED) AND IF FLOORING IS HAZARDOUS,
d. REFERENCE DISCIPLINE DRAWINGS FOR EXTENTS OF ARCHITECTURAL, MEP, AND TELECOM WORK PER EACH ROOM. IT IS ANTICIPATED THIS WORK CAN BE DONE DURING NORMAL BUSINESS HOURS, BUT CONTRACTOR NEEDS TO COORDINATE WITH VA COR FOR SCHEDULING.
e. ONCE ANY ARCHITECTURAL AND MECHANICAL WORK IS COMPLETE INSTALL NEW CABLING AND CABLING RUNWAY INTO TELECOM ROOMS.
f. ONCE CABLING TO EXISTING AND NEW CABLE JACKS HAS BEEN INSTALLED, CONTRACTOR TO COORDINATE CUTOVER (CUTOVER BY VA OIT) WITH VA OIT.
g. WORK WILL NEED TO BE COORDINATED WITH VA FOR ROOMS THAT CAN BE DONE DURING NORMAL AND NIGHT HOURS.
h. PROVIDE NEW CIRCUITING IN ROOMS WHERE NONE EXIST AND IN ROOMS WHERE EXISTING CIRCUITS WILL BE REMOVED. REFERENCE ELECTRICAL DRAWINGS FOR EXTENTS OF ELECTRICAL WORK PER EACH ROOM.
i. NEW POWER TO BE INSTALLED FROM EXISTING PANEL TO NEW CIRCUITS IN TELECOM ROOM. COORDINATE INSTALLATION WITH VA COR DUE TO POSSIBLE DOWNTIME OF VA END USERS. THIS WORK IS ANTICIPATED TO OCCUR AT NIGHTS OR OVER THE WEEKENDS.
j. WHERE NEW PLYWOOD IS INDICATED IF (E) PLYWOOD IS NOT FIRE RATED (N) PLYWOOD WILL BE REQUIRED. GC TO REVIEW AND ACCOMMODATE TEMP RELOCATION OF (E) UTLITY TO REMAIN IN PLACE AND REINSTALL TO ORIGINAL LOCATION.
k. GC TO NOTE CONFLICTS EXPERIENCED WHERE WALLS CANNOT MEET UNDERSIDE OF DECK. PREVIEW OF SCOPE AREAS AND NOTES ARE REQUIRED AT BID.

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP: LICENSED ARCHITECT, GENE HAMILTON KLOW, No. C-19576, REN. 07-31-27, STATE OF CALIFORNIA

Facilities Management Services
VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
GENERAL NOTES	FINAL BID DOCUMENTS	EHRM INFRASTRUCTURE UPGRADES	637-22-700
Approved:		Location: 1100 TUNNEL ROAD, ASHEVILLE, NC 28805	Building Number: 0
FOR OFFICIAL USE ONLY		Issue Date: **12.19.2025** / Checked: / Drawn:	Drawing Number: 00-GI004, SHEET 5 of 559

ARCHITECTURAL ABBREVIATIONS U.O.N.

Abbreviation	Meaning
A LABEL	CLASS A DOOR
A/C	UNIT AIR CONDITIONING UNIT
A/E	ARCHITECT/ENGINEER
AAMA	AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION
AB	ANCHOR BOLT
ABAN	ABANDONED
ABC	AGGREGATE BASE COURSE
AC	ASBESTOS CEMENT OR ASPHALTIC CONCRETE
ACI	AMERICAN CONCRETE INSTITUTE
ACS DR	ACCESS DOOR
ACS FLR	ACCESS FLOOR
ACS PNL	ACCESS PANEL
ACST	ACOUSTIC
ACT	ACOUSTICAL CEILING TILE
AD	AREA DRAIN
ADA	AMERICANS WITH DISABILITIES ACT
ADC	AUTOMATIC DOOR CLOSER
ADDL	ADDITIONAL
ADDN	ADDITION
ADH	ADHESIVE
ADJ	ADJACENT, ADJOINING, OR ADJUSTABLE
ADMIN	ADMINISTRATION
ADB	AUTOMATIC DOOR BOTTOM
AFC	ABOVE FINISHED COUNTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFS	ABOVE FINISHED SLAB
AGA	AMERICAN GAS ASSOCIATION
AGC	ASSOCIATED GENERAL CONTRACTORS
AGGR	AGGREGATE
AHJ	AUTHORITY HAVING JURISDICTION
AHR	ANCHOR
AHU	AIR HANDLING UNIT
AIA	AMERICAN INSTITUTE OF ARCHITECTS
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE
ALT NO	ALTERNATE NUMBER
ALUM	ALUMINUM
AMP	AMPERE
AMT	AMOUNT
ANOD	ANODIZE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ANT	ANTENNA
APA	AMERICAN PLYWOOD ASSOCIATION
APPD	APPROVED
APPROX	APPROXIMATE
APT	APARTMENT
AR	AS REQUIRED
ARCH	ARCHITECT
ASB	ASBESTOS
ASI	ARCHITECT'S SUPPLEMENTAL INSTRUCTION
ASKLR	AUTOMATIC SPRINKLER
ASPH	ASPHALT
ASSN	ASSOCIATION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
ATCH	ATTACHMENT
ATM	AUTOMATIC TELLER MACHINE
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AV	AUDIO VISUAL
AVE	AVENUE
AVG	AVERAGE
AW	ACID WASTE
AWI	ARCHITECTURAL WOODWORKING INSTITUTE
AWPA	AMERICAN WOOD PRESERVERS' ASSOCIATION
AWS	AMERICAN WELDING SOCIETY
AWT	ACOUSTICAL WALL TREATMENT
B LABEL	CLASS B DOOR
B PL	BASE PLATE
BALC	BALCONY
BAT	BATTEN
BB	BULLETIN BOARD
BD	BOARD
BD FT	BOARD FEET (FOOT)
BEV	BEVEL
BHMA	BUILDER'S HARDWARE MANUFACTURER'S ASSOCIATION
BI FLD DR	BIFOLDING DOORS
BITUM	BITUMINOUS
BKG	BACKING
BLD	BUILD
BLDG	BUILDING
BLKT	BLANKET
BLVD	BOULEVARD
BM	BEAM OR BENCHMARK
BOT	BOTTOM
BR	BEDROOM
BRCG	BRACING
BRDG	BRIDGING
BRDG JST	BRIDGING JOIST
BRG	BEARING
BRG PL	BEARING PLATE
BRKT	BRACKET
BRZ	BRONZE
BSMT	BASEMENT
BTWN	BETWEEN
BU	BUSHEL
BUR	BUILT-UP ROOFING
C	CELSIUS CHANNEL
C	CHANNEL CELSIUS
C CONC	CAST CONCRETE
C LABEL	CLASS C DOOR
C TO C	CENTER TO CENTER
CAB	CABINET
CAC	CEILING ATTENUATION CLASS
CB	CATCH BASIN OR CORNER BEAD
CBB	CEMENTITIOUS (BACKER) BOARD
CC	CUBIC CENTIMETER
CCTV	CLOSED CIRCUIT TELEVISION
CCW	COUNTERCLOCKWISE
CD	CONSTRUCTION DOCUMENTS OR CONTRACT DOCUMENTS
CEM	CEMENT
CEM PLAS	CEMENT PLASTER
CER	CERAMIC
CF	CONTRACTOR FURNISHED
CF/CI	CONTRACTOR FURNISHED / CONTRACTOR INSTALLED
CF/OI	CONTRACTOR FURNISHED/OWNER INSTALLED
CFLG	COUNTERFLASHING
CFM	CUBIC FEET PER MINUTE
CFMF	COLD-FORMED METAL FRAMING
CFS	CUBIC FEET PER SECOND
CG	CENTER OF GRAVITY OR CORNER GUARD
CGSFU	CERAMIC GLAZED STRUCTURAL FACING UNITS
CH BD	CHALKBOARD
CHEM	CHEMICAL
CHFR	CHAMFER
CHK	CHECK
CI	CAST IRON
CIP	CAST-IN-PLACE
CIR	CIRCLE
CIRC	CIRCULAR
CJ	CONSTRUCTION JOINT OR CONTROL JOINT
CL	CENTER LINE
CLDG	CLADDING
CLG	CEILING
CLG HT	CEILING HEIGHT
CLR	CLEAR
cm^2	SQUARE CENTIMETER
cm^3	CUBIC CENTIMETER
CM	CONSTRUCTION MANAGEMENT
CMU	CONCRETE MASONRY UNIT
CNR	CORNER
CNTR	COUNTER
CO	CARBON MONOXIDE, CERTIFICATE OF OCCUPANCY, CLEANOUT, OR COMPANY
CO_2	CARBON DIOXIDE
COL	COLUMN
COM	COMMON
COMB	COMBINATION, COMBINED
COMM	COMMUNICATION
COMP	COMPONENT
CONC	CONCRETE
CONC FLR	CONCRETE FLOOR
COND	CONDENSER OR CONDITION
CONF	CONFERENCE
CONN	CONNECT
CONSTR	CONSTRUCTION
CONT	CONTINUE
CONTR	CONTRACTOR
COORD	COORDINATE
CORR	CORRIDOR
CPM	CRITICAL PATH METHOD
CPRS	COMPRESSIBLE
CPT	CARPET
CRS	COLD ROLLED STEEL
CRSI	CONCRETE REINFORCING STEEL INSTITUTE
CSB	CONCRETE SPLASH BLOCK
CSG	CASING
CSI	CONSTRUCTION SPECIFICATIONS INSTITUTE
CSK	COUNTER SUNK
CSMT	CASEMENT
CSWK	CASEWORK
CT	CERAMIC TILE
CTB	CERAMIC TILE BASE
CTF	CERAMIC TILE FLOOR
CTG	COATING
CTR	CENTER CONTOUR
CTRL	CONTROL
CTV	CABLE TELEVISION
CU	COPPER C
CU FT	CUBIC FEET
CU IN	CUBIC INCH
CU YD	CUBIC YARD
CURT	CURTAIN
CYL	CYLINDER
CYL L	CYLINDER LOCK
D	DEPTH OR PENNY (NAIL)
D LABEL	CLASS D DOOR
DAT	DATUM
DB	DECIBEL
DBL	DOUBLE
DBL GLZ	DOUBLE GLAZE
DC	DIRECT CURRENT
DEG	DEGREE
DEL	DELETE
DEMO	DEMOLITION
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL DIAGRAM
DIAG	DIAGRAM DIAGONAL
DIFF	DIFFERENCE OR DIFFUSER
DIM	DIMENSION
DIR	DIRECTION
DISP	DISPENSER
DIST	DISTANCE
DIV	DIVIDE OR DIVISION
DL	DEAD LOAD
DOC	DOCUMENT
DOUG FIR	DOUGLAS FIR
DOZ	DOZEN
DR	DOOR, DRAIN, DRESSING ROOM, OR DRIVE
DR CL	DOOR CLOSER
DR FR	DOOR FRAME
DR OPNG	DOOR OPENING
DS	DOWNSPOUT
DSGN	DESIGN
DW	DISHWASHER
DWG	DRAWING
DWTR	DUMBWAITER
E	EAST
E LABEL	CLASS E DOOR
EA	EACH
EFF	EFFICIENCY
EFS	EXTERIOR FINISH SYSTEM
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELAST	ELASTOMERIC
ELEC	ELECTRIC
ELEC DR OP	ELECTRIC DOOR OPENER
ELEV	ELEVATOR
EMER	EMERGENCY
EMER SHR	EMERGENCY SHOWER
ENCL	ENCLOSURE
ENGR	ENGINEER
ENVIR	ENVIRONMENT
EPA	ENVIRONMENTAL PROTECTION AGENCY
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EPO	EMERGENCY POWER OFF
EPS	EXPANDED POLYSTYRENE BOARD (INSULATION)
EQ	EQUAL
EQL SP	EQUALLY SPACED
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ERD	EXISTING ROOF DRAIN
ESC	ESCAPE OR ESCUTCHEON
ESCAL	ESCALATOR
ESMT	EASEMENT
ESP	ESPECIALLY
EST	ESTIMATE
ETC	AND SO FORTH OR ET CETERA
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EWS	EYE WASH STATION
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPANSION OR EXPOSED
EXP BT	EXPANSION BOLT
EXST GR	EXISTING GRADE
EXT	EXTERIOR, EXTERNAL, OR EXTINGUISHER
EXT GR	EXTERIOR GRADE
F	FAHRENHEIT OR FEMALE
FA	FIRE ALARM
FAB	FABRIC
FAC	FACTOR
FACIL	FACILITY
FAS	FASCIA
FAS BD	FASCIA BOARD
FCO	FLOOR CLEANOUT
FCTY	FACTORY
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDTN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FACE
FF EL	FINISH FLOOR ELEVATION
FF&E	FURNITURE, FIXTURE, AND EQUIPMENT
FH	FLAT HEAD OR FLAT HEAD SCREWS
FHC	FIRE HOSE CABINET
FHMS	FLAT HEAD MACHINE SCREW
FHP	FULL HEIGHT PARTITION
FHWS	FLAT HEAD WOOD SCREW
FIG	FIGURE
FIL	FILLET
FIN	FINISH
FIN FLR	FINISH FLOOR
FIN GR	FINISH GRADE
FIN WD	FINISH WOOD
FIXT	FIXTURE
FL	FLOORLINE
FLASH	FLASHING
FLDG	FOLDING
FLEX	FLEXIBLE
FLG	FLOORING
FLR	FLOOR
FLR FIN	FLOOR FINISH
FLR SK	FLOOR SINK
FLUOR	FLUORESCENT
FLUOR	FIX FLUORESCENT FIXTURE
FM	FACTORY MUTUAL
FM-G	FACTORY MUTUAL GLOBAL
FO	FINISHED OPENING
FOC	FACE OF CONCRETE OR FACE OF CURB
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF SLAB OR FACE OF STUD
FOUNT	FOUNTAIN
FOW	FACE OF WALL
FP	FIRE PROTECTION OR FIREPROOF
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FR	FIRE RATING, FIRE RESISTANT, OR FRAME
FR SNK	FLUSHING RIM SINK
FREQ	FREQUENCY
FRMG	FRAMING
FRP	FIBER REINFORCED POLYESTER OR FIBERGLASS REINFORCED PLASTIC
FRZ	FREEZER
FS	FEDERAL SPECIFICATION
FSTNR	FASTENER
FT	FEET OR FOOT
FTG	FOOTING
FURG	FURRING
FURN	FURNISH OR FURNITURE
FUT	FUTURE
FWC	FABRIC WALLCOVERING
GA	GAGE OR GYPSUM ASSOCIATION
GAL	GALLON
GALV	GALVANIC OR GALVANIZED
GALV STL	GALVANIZED STEEL
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GD	GUARD
GDR	GUARD RAIL
GEN	GENERAL OR GENERATOR
GFRC	GLASS-FIBER-REINFORCED CONCRETE
GFRG	GLASS-FIBER-REINFORCED GYPSUM
GFRP	GLASS-FIBER-REINFORCED PLASTIC
GI	GALVANIZED IRON
GL	GLASS
GL BLK	GLASS BLOCK
GLU	LAM GLUED LAMINATED WOOD
GR FL	GROUND FLOOR
GRAN	GRANITE
GRTG	GRATING
GSB	GYPSUM SHEATHING BOARD
GSM	GALVANIZED SHEET METAL
GSU	GLAZED STRUCTURAL UNIT
GT	GROUT
GUAR	GUARANTEE
GUT	GUTTER
GYP	GYPSUM
GYP BD	GYPSUM BOARD
GYP PLAS	GYPSUM PLASTER
H	HIGH
H PLAM	HIGH PRESSURE PLASTIC LAMINATE
HAZ MAT	HAZARDOUS MATERIALS
HB	HOSE BIBB
HC	HOLLOW CORE
HCWD	HOLLOW CORE WOOD DOOR
HDBD	HARDBOARD
HDNR	HARDENER
HDO	HIGH DENSITY OVERLAY
HDR	HEADER
HDW	HARDWARE
HDWD	HARDWOOD
HEPA	HIGH EFFICIENCY PARTICULATE AIR (FILTER)
HEX	HEXAGON
HF	HIGH FREQUENCY
HGR	HANGER
HM	HECTOMETER
HM	HOLLOW METAL
HMD	HOLLOW METAL DOOR
HMDF	HOLLOW METAL DOOR AND FRAME
HMF	HOLLOW METAL FRAME
HNDRL	HANDRAIL
HO	HOLD OPEN
HORIZ	HORIZONTAL
HOSP	HOSPITAL
HP	HIGH PRESSURE OR HORSEPOWER
HQ	HEADQUARTERS
HS	HEAT-STRENGTHENED (GLASS) OR HIGH STRENGTH
HSE	HOUSE
HSKPG	HOUSEKEEPING
HST	HOIST
HT	HEIGHT
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
HVY	HEAVY
HW	HOT WATER
HYD	HYDRANT
HYDR	HYDRAULIC
I	INTERSTATE (HIGHWAY) OR MOMENT OF INERTIA
IAQ	INDOOR AIR QUALITY
IBC	INTERNATIONAL BUILDING CODE
ID	IDENTIFICATION, INSIDE DIAMETER, OR INTERIOR DESIGN
ID NO	IDENTIFICATION NUMBER
ILLUM	ILLUMINATION
INCL	INCLUDED
IND	INDEPENDENT OR INDUSTRIAL
INFO	INFORMATION
INSUL	INSULATION
INT	INTERIOR
INTERCOM	INTERCOMMUNICATION
INTL	INTERNATIONAL
IRMA	INVERTED ROOF MEMBRANE ASSEMBLY
IWH	INSTANTANEOUS WATER HEATER
JAN	JANITOR
J-BOX	JUNCTION BOX
KD	KILN DRIED OR KNOCKED DOWN
KIT	KITCHEN
KO	KNOCKOUT
KPL	KICKPLATE
L	ANGLE
LAB	LABORATORY
LAD	LADDER
LAM	LAMINATE
LAM GL	LAMINATED GLASS
LAU	LAUNDRY
LAV	LAVATORY
LBR	LUMBER
LBS	POUND
LD BRG	LOAD-BEARING
LDR	LEADER
LED	LIGHT EMITTING DIODE
LF	LINEAR FEET (FOOT)
LH	LEFT HAND
LHR	LEFT HAND REVERSE
LHR	LEFT HAND REVERSE, LATENT HEAT RATIO
LIB	LIBRARY
LIN	LINEAR
LINO	LINOLEUM
LIQ	LIQUID
LKR	LOCKER
LKR	RM LOCKER ROOM
LKWASH	LOCKWASHER
LL	LEAD LINED
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LMST	LIMESTONE
LNDSCP	LANDSCAPE
LR	LIVING ROOM
LRG	LARGE
LRV	LOUVERED ROOF VENT
LS	LUMP SUM
LT	LIGHT
LT GA	LIGHT GAGE
LT WT	LIGHTWEIGHT
LTG	LIGHTING
LTNG	LIGHTNING
LVD	LOUVERED
LVR	LOUVER
LWC	LIGHTWEIGHT CONCRETE
LWIC	LIGHTWEIGHT INSULATING CONCRETE
LYR	LAYER
MACH	MACHINE
MACH RM	MACHINE ROOM
MAINT	MAINTENANCE
MAN	MANUAL
MATL	MATERIAL
MATV	MASTER ANTENNA TELEVISION SYSTEM
MAX	MAXIMUM
MB	MACHINE BOLT
MCB	METAL CORNER BEAD
MD	DECK
ME	MECHANICAL ENGINEER
MEAS	MEASURE
MECH	MECHANICAL
MECH RM	MECHANICAL ROOM
MED	MEDICAL MEDIUM
MED	MEDIUM MEDICAL
MEK	METHYL ETHYL KETONE
MEL	MELAMINE
MEMB	MEMBRANE
MEMO	MEMORANDUM
MEZZ	MEZZANINE
MF	MILL FINISH
MFD	MANUFACTURED
MFG	MANUFACTURING
MFR	MANUFACTURER
MFR REC	MANUFACTURER'S RECOMMENDATION
MGT	MANAGEMENT
MH	MANHOLE
MIC	MICROPHONE
MID	MIDDLE
MIL STD	MILITARY STANDARD
MIN	MINIMUM MINUTE
MIN	MINUTE MINIMUM
MIRR	MIRROR
MISC	MISCELLANEOUS
MIT	MITER
MKR	MARKER
ML	METAL LATH
MLDG	MOLDING (MOULDING)
MLWK	MILLWORK
mm	MILLIMETER
MO	MASONRY OPENING OR MOTOR OPERATED
MOD	MODEL, MODIFY OR MODULE
MOD BIT	MODIFIED BITUMEN
MON	MONITOR
MOPR	MOP RACK
MR	MOISTURE RESISTANT
MS	MACHINE SCREW OR MOP SINK
MTD	MOUNTED
MTG	MOUNTING
MTL	METAL
MULL	MULLION
MW	MICROWAVE
MWP	MEMBRANE WATERPROOFING
N	NORTH
NA	NOT APPLICABLE
NAAMM	NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS
NAT	NATURAL
NATL	NATIONAL
NC	NOISE CRITERIA
NCOMBL	NONCOMBUSTIBLE
NEC	NATIONAL ELECTRICAL CODE
NEG	NEGATIVE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NEUT	NEUTRAL
NFC	NATIONAL FIRE CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NR	NOISE REDUCTION
NRC	NOISE REDUCTION COEFFICIENT
NRCA	NATIONAL ROOFING CONTRACTORS ASSOCIATION
NRP	NONREMOVABLE
NS	NARROW STILE
NUM	NUMERAL
O/O	OUT TO OUT
O	OXYGEN
OA	OUTSIDE AIR OR OVERALL
OC	ON CENTER
OCC	OCCUPY
OCT	OCTAGON
OD	OUTSIDE DIAMETER OUTSIDE DIMENSION
OD	OUTSIDE DIMENSION OUTSIDE DIAMETER
OF/CI	OWNER FURNISHED/CONTRACTOR INSTALLED
OFD	OVERFLOW DRAIN
OFF	OFFICE
OF/OI	OWNER FURNISHED/OWNER INSTALLED
OH	OVERHANG
OH DR	OVERHEAD (COILING) DOOR
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OPR	OPERABLE
OPT	OPTIONAL
OR	OPERATING ROOM OR OUTSIDE RADIUS
ORD	ORDNANCE OR OVERFLOW ROOF DRAIN
ORG	ORGANIC
ORIG	ORIGINAL
ORN	ORNAMENTAL
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINSTRATION
OUT	OUTLET
OZ	OUNCE
PAR	PARALLEL OR PARAPET
PARA	PARAGRAPH
PART	PARTIAL
PAT	PATTERN
PB	PUSHBUTTON
PBD	PARTICLEBOARD
PC	PIECE, POLYCARBONATE OR PORTLAND CEMENT
PCA	PORTLAND CEMENT ASSOCIATION
PCC	PRECAST CONCRETE
PCCP	CONCRETE PAVEMENT
PCD	PAPER CUP DISPENSER
PCF	POUNDS PER CUBIC FOOT
PCP	PORTLAND CEMENT PLASTER
PED	PEDESTAL
PEN	PENETRATE
PEND	PENDANT
PERF	PERFORATED
PERIM	PERIMETER
PERP	PERPENDICULAR
PGBD	PEGBOARD
PHAR	PHARMACY
PHOTO	PHOTOGRAPH
PHS	PHILLIPS HEAD SCREW
PKG	PACKAGE
PL	PROPERTY LINE
PL GL	PLATE GLASS
PLAM	PLASTIC LAMINATE
PLAS	PLASTER OR PLASTIC
PLBG	PLUMBING
PLYWD	PLYWOOD
PMTL	PAINTED METAL
PNEU	PNEUMATIC
PNL	PANEL
PO	POST OFFICE PURCHASE ORDER
PO	PURCHASE ORDER POST OFFICE
POLY	POLYETHYLENE (PLASTIC) PR PAIR
PRCST	PRECAST
PREFAB	PREFABRICATE
PREFIN	PREFINISH
PRELIM	PRELIMINARY
PREP	PREPARATION
PRESS	PRESSURE
PREV	PREVIOUS
PRKG	PARKING
PRMLD	PREMOLDED
PROJ	PROJECT
PROP	PROPERTY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PAINT, PNEUMATIC TUBE, OR PRESSURE TREATED
PTD	PAPER TOWEL DISPENSER
PTN	PARTITION
PVC	POLYVINYL CHLORIDE (PLASTIC)
PVG	PAVING
PWR	POWER
QA	QUALITY ASSURANCE
QC	QUALITY CONTROL
QRY	QUARRY
QT	QUARRY TILE
QTB	QUARRY TILE BASE
QTF	QUARRY TILE FLOOR
QTR	QUARTER
QTY	QUANTITY
QUAD	QUADRANT
QUAL	QUALITY
R	RADIUS OR RISER
RA	RETURN AIR
RAD	RADIATOR
RB	RESILIENT BASE OR RUBBER BASE
RB HK	ROBE HOOK
RBM	REINFORCED BRICK MASONRY
RBR	RUBBER
RCP	REFLECTED CEILING PLAN
RCVR	RECEIVER
RD	ROAD OR ROOF DRAIN
REC	RECESSED
RECD	RECEIVED
RECPT	RECEPTACLE
RECT	RECTANGLE
REF	REFERENCE OR REFRIGERATOR
REFR	REFRACTORY REFRIGERATION
REFR	REFRIGERATION REFRACTORY
REG	REGISTER
REINF	REINFORCE
REP	REPAIR
REPL	REPLACE
REQ	REQUIRE
REQD	REQUIRED
RESIL	RESILIENT
RET	RETURN
REV	REVISION
RF	RADIO FREQUENCY
RFG	ROOFING
RFI	REQUEST FOR INFORMATION
RFP	REQUEST FOR PROPOSAL
RH	RIGHT HAND
RHMS	ROUND HEAD MACHINE SCREW
RHR	RIGHT HAND REVERSE
RHWS	ROUND HEAD WOOD SCREW
RL	ROOF LEADER
RLG	RAILING
RM	ROOM
RND	ROUND
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RPM	REVOLUTIONS PER MINUTE
RS	ROUGH SAWN
RT	RIGHT
RV	ROOF VENT
RVS	REVERSE
RWD	REDWOOD
RWL	RAIN WATER LEADER
SA	SUPPLY AIR
SALV	SALVAGE
SAMP	SAMPLE
SAN	SANITARY
SAT	SUSPENDED ACOUSTICAL TILE
SATC	SUSPENDED ACOUSTICAL TILE CEILING
SB	SPLASH BLOCK
SBS	STYRENE BUTADIEN STYRENE
SBSTR	SUBSTRATE
SC	SHADING COEFFICIENT OR SOLID CORE
SCH	SCHOOL
SCHED	SCHEDULE
SCHEM	SCHEMATIC
SCP	SCUPPER
SCRN	SCREEN
SCT	STRUCTURAL CLAY TILE
SCWD	SOLID CORE WOOD DOOR
SD	SHOP DRAWINGS, SMOKE DETECTOR, OR SOAP DISPENSER
SDG	SIDING
SECT	SECTION
SEG	SEGMENT
SEL	SELECT
SEP	SEPARATE
SF	SQUARE FOOT (FEET)
SFTWD	SOFTWOOD
SGD	SLIDING GLASS DOOR
SGL	SINGLE
SHR	SHOWER
SHR HD	SHOWER HEAD
SHRD	SHOWER DRAIN
SHT	SHEET
SHT MTL FLASH	SHEET METAL (FLASHING)
SHTHG	SHEATHING
SHV	SHELVING
SIM	SIMILAR
SJ	SCORED JOINT
SJI	STEEL JOIST INSTITUTE
SK	SKETCH
SKLT	SKYLIGHT
SLD	WDW HORIZONTAL SLIDING WINDOW
SLDG	SLIDING
SLNT	SEALANT
SM	SHEET METAL
SMK	SMOKE
SND	SANITARY NAPKIN DISPENSER
SND INS	SOUND INSULATION
SNDU	SANITARY NAPKIN DISPOSAL UNIT
SPEC	SPECIFICATION
SPKLR	SPRINKLER
SPKR	SPEAKER
SPLY	SUPPLY
SQ	SQUARE
SQ IN	SQUARE INCH
SQ YD	SQUARE YARD
SS	SANITARY SEWER OR SERVICE SINK
SST	STAINLESS STEEL
ST	STAIRS OR STREET
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STIF	STIFFENER
STL JST	STEEL JOIST
STL LNTL	STEEL LINTEL
STL PL	STEEL PLATE
STL RF DK	STEEL ROOF DECK
STL TB	STEEL TUBE
STL TR	STEEL TRUSS
STNLS	STAINLESS
STOR	STORAGE
STR	STRINGERS
STRUCT	STRUCTURAL
STRUCT STL	STRUCTURAL STEEL
SUB	SUBSTITUTE
SURF	SURFACE
SUSP	SUSPEND
SUSP CLG	SUSPENDED CEILING
SV	SHEET VINYL
SW	SWITCH
SWDR	SWING DOOR
SYM	SYMBOL
SYNTH	SYNTHETIC
SYS	SYSTEM
T	TREAD
T&G	TONGUE AND GROOVE
T&M	TIME AND MATERIALS
TB	THROUGH BOLT OR TOWEL BAR
TCA	TILE COUNCIL OF AMERICA
TCP	TELEPHONE CONTROL PANEL TEMPERATURE CONTROL PANEL; TRAFFIC CONTROL PLAN
TE	TELCOMM CLOSET
TECH	TECHNICAL
TEL	TELEPHONE
TEMP	TEMPERATURE OR TEMPORARY
TER	TERRAZZO
THD	THREAD
THERM	THERMAL
THK	THICKNESS
THRES	THRESHOLD
THRU	THROUGH
THRUOUT	THROUGHOUT
TK BD	TACKBOARD
TMPD	TEMPERED
TMPD GL	TEMPERED GLASS
TN	TRUE NORTH
TO	TOP OF ___
TO FDN	TOP OF FOUNDATION
TOB	TOP OF BEAM
TOM	TOP OF MASONRY
TOP	TOP OF PARAPET
TOS	TOP OF STEEL
TOW	TOP OF WALL
TPD	TOILET PAPER DISPENSER
TPH	TOILET PAPER HOLDER
TR	TELECOMM ROOM
TRANS	TRANSOM
TRANS WD FIN	TRANSPARENT WOOD FINISH
TRTD	TREATED
TS	TENSILE STRENGTH OR TUBE STEEL
TSTAT	THERMOSTAT
TV	TELEVISION
TYP	TYPICAL
U	HEAT TRANSFER COEFFICIENT
UC	UNDERCUT
UCD	UNDERCUT DOOR
UGND	UNDERGROUND
UL	UNDERWRITERS LABORATORIES
ULT	ULTIMATE
UNFIN	UNFINISH
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
UR	URINAL
UTIL	UTILITY
UV	ULTRAVIOLET
V	VOLT
VAC	VACUUM
VAR	VARIES
VCT	VINYL COMPOSITION OR VITRIFIED CLAY TILE
VEH	VEHICLE
VENT	VENTILATION
VERT	VERTICAL
VEST	VESTIBULE
VFAT	VINYL FACED ACOUSTICAL TILE
VIC	VICINITY
VID	VIDEO
VIF	VERIFY IN FIELD
VNR	VENEER
VOC	VOLATILE ORGANIC COMPOUND
VOL	VOLUME
VOLT	VOLTAGE
VP	VENEER PLASTER
VR	VAPOR RETARDER
VTR	VENT THROUGH ROOF
VWC	VINYL WALL COVERING
VWF	VINYL WALL FABRIC
W	WIDE OR WEST
W/	WITH
W/O	WITHOUT
WARR	WARRANTY
WBL	WOOD BLOCKING
WC	WALL COVERING OR WATER CLOSET
WC WL HNG	WATER CLOSET, WALL HUNG
WCHR	WATER CHILLER
WCL WL MTD	WATER COOLER, WALL HUNG
WD	WOOD
WDW	WINDOW
WF	WIDE FLANGE
WFAB	WALL FABRIC
WFR	WOOD FRAME
WFS	WOOD FURRING STRIPS
WH	WATER HEATER
WHSE	WAREHOUSE
WLD	WELDED
WM	WIRE MESH
WP	WATERPROOFING
WPD	WATER PRESSURE DROP
WPM	WATERPROOF MEMBRANE
WR	WEATHER RESISTANT
WS	WEATHERSTRIP
WSCT	WAINSCOT
WT	WEIGHT
WWF	WELDED WIRE FABRIC
X BRACE	CROSS BRACE
XPS	EXTRUDED POLYSTYRENE BOARD (INSULATION)
YD	YARD
YR	YEAR

ARCHITECTURAL SYMBOLS

- CENTER LINE
- ELEVATION INDICATOR
- CENTER LINE INDICATOR
- DEMOLITION LINE
- EXISTING TO REMAIN LINE
- FEATURES ABOVE LINE INDICATOR
- HIDDEN FEATURES LINE
- NEW CONSTRUCTION LINE
- PROPERTY LINE
- SMOKE BARRIER LINE (ABOVE CEILING)
- BREAK, ROUND
- BREAK, STRAIGHT
- DETAIL INDICATOR
- DETAIL/CALLOUT PLAN INDICATOR
- DIMENSION LINE, CLEAR
- DIMENSION LINE, CENTER OF STUD, UNO
- DOOR OPENING/BROWED LIGHT INDICATOR
- DRAWING BLOCK TITLE, TYPICAL
- ELEVATION INDICATOR, EXTERIOR
- INTERIOR ELEVATION INDICATOR, MULTIPLE VIEWS WHERE OCCURS
- EXTERIOR ELEVATION INDICATOR, MULTIPLE VIEWS WHERE OCCURS
- BUILDING SECTION INDICATOR
- GRAPHIC SCALE
- ROOM NAME AND NUMBER
- COLUMN GRID
- REFERENCE KEYNOTE
- SHEET NOTE KEYNOTE
- WALL OR PARTITION TYPE
- FIRE EXTINGUISHER CABINET
- CORNER GUARD
- NORTH ARROW
- OUT OF SCOPE AREA, REFER TO FIRE PROTECTION,PLUMBING, MECHANICAL, ELECTRICAL, AND TELECOMDRAWINGS FOR ADDITIONAL WORK INSIDE THIS AREA
- THERMAL BATT INSULATION
- ACOUSTIC BATT INSULATION

PARTITION LEGEND

- FIRE BARRIER, 2 HOUR
- FIRE BARRIER, 1 HOUR
- SMOKE BARRIER, 1/2 HOUR
- SMOKE RESISTIVE HAZARDOUS
- PATIENT SUIT/ NON SLEEPING

FINAL BID DOCUMENTS

Revisions: | Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

LICENSED ARCHITECT GENE HAMILTON KLOW No. C-19576 REN. 07-31-27 STATE OF CALIFORNIA

Facilities Management Services

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL ABBREVIATIONS & SYMBOLS

Approved:

FOR OFFICIAL USE ONLY

Phase: FINAL BID DOCUMENTS

Project Title: EHRM INFRASTRUCTURE UPGRADES

Project Number: 637-22-700

Building Number: 0

Location: 1100 TUNNEL ROAD, ASHEVILLE, NC 28805

Issue Date: **12.19.2025** | Checked | Drawn

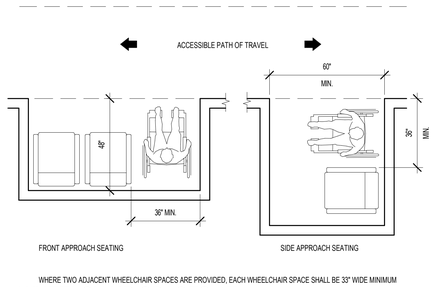
Drawing Number: 00-GI005

SHEET 6 of 559

12/19/2025 11:36:47 AM

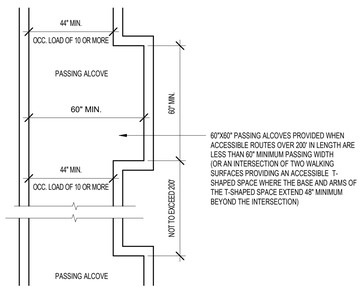
Autodesk Docs://Asheville EHRM_V23/637-22-700.047.ASH - EHRM.rvt

VA FORM 08 - 6231



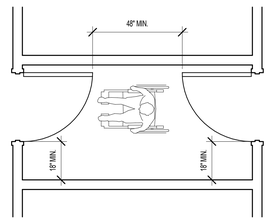
1 WHEELCHAIR SPACES AT SEATING AND DESIGNATED AISLE SEATS

3/8" = 1'-0"



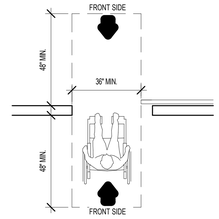
2 ACCESSIBLE ROUTES WITH PASSING ALCOVES

3/8" = 1'-0"



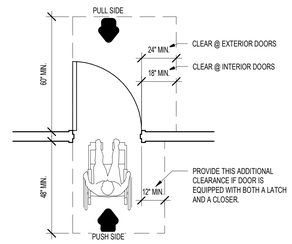
3 ACCESSIBLE CLEARANCES AT DOOR - INSWINGING DOORS AT VESTIBULE

3/8" = 1'-0"



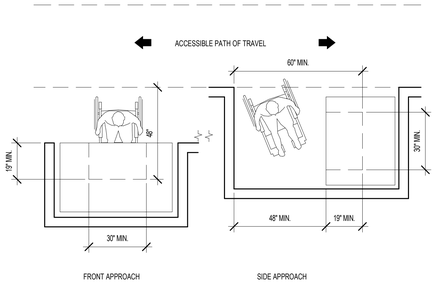
4 ACCESSIBLE CLEARANCE AT SLIDING DOOR - FRONT APPROACH

3/8" = 1'-0"



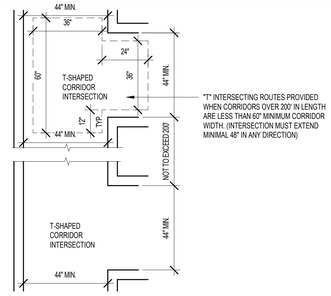
5 ACCESSIBLE CLEARANCE AT DOOR - FRONT APPROACH

3/8" = 1'-0"



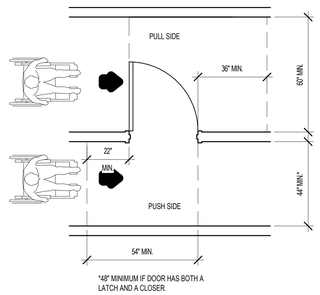
6 DINING SURFACES AND WORK SURFACES TO PATH OF TRAVEL

3/8" = 1'-0"



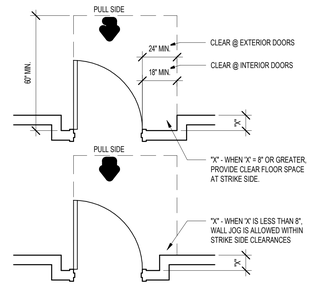
7 ACCESSIBLE ROUTES WITH T-INTERSECTIONS FOR PASSING

3/8" = 1'-0"



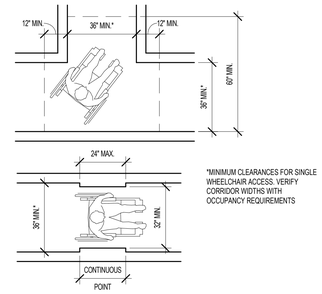
8 ACCESSIBLE CLEARANCE AT DOOR - HINGE APPROACH

3/8" = 1'-0"



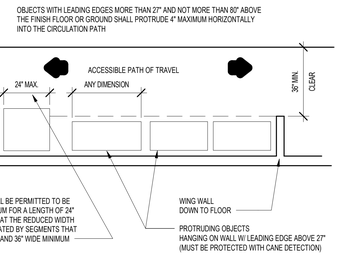
9 ACCESSIBLE CLEARANCE AT DOOR IN ALCOVE

3/8" = 1'-0"



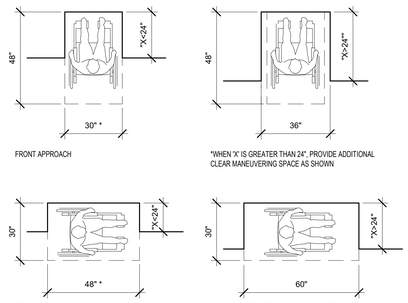
10 ACCESSIBLE ROUTES - MINIMUM WHEELCHAIR CLEARANCES

3/8" = 1'-0"



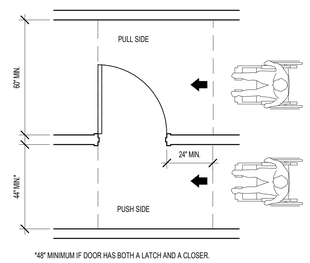
11 CLEAR WIDTH FOR ACCESSIBLE ROUTES

3/8" = 1'-0"



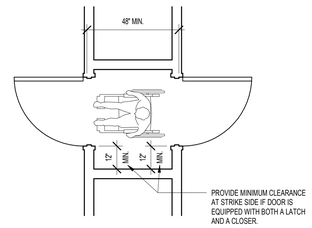
12 ACCESSIBLE ALCOVE CLEARANCES

3/8" = 1'-0"



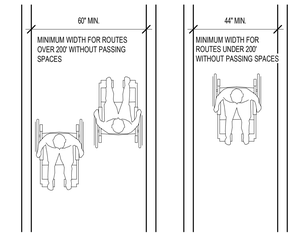
13 ACCESSIBLE CLEARANCE AT DOOR - LATCH APPROACH

3/8" = 1'-0"



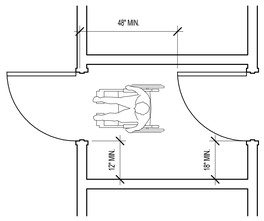
14 ACCESSIBLE CLEARANCES AT DOOR - OUTSWINGING DOORS AT VESTIBULE

3/8" = 1'-0"



15 ACCESSIBLE ROUTES - MINIMUM WIDTHS

3/8" = 1'-0"



16 ACCESSIBLE CLEARANCES AT DOOR - INSWING OUTSWING AT VESTIBULE

3/8" = 1'-0"

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

LICENSED ARCHITECT — GENE HAMILTON — No. C-19576 — REN. 07-31-27 — STATE OF CALIFORNIA

Facilities Management Services

VA U.S. Department of Veterans Affairs

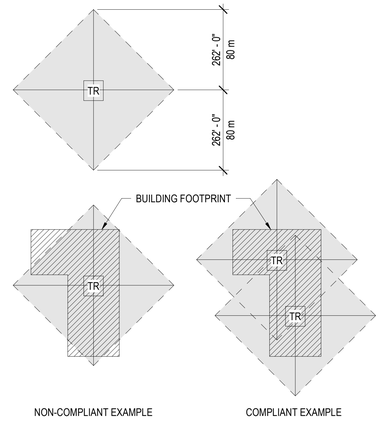
Drawing Title: TYPICAL ABAAS REQUIREMENTS	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
			Building Number: 0
Approved: FOR OFFICIAL USE ONLY		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Drawing Number: 00-GI011
		Issue Date: 12.19.2025 / Checked / Drawn	SHEET 7 of 559

12/19/2025 11:36:48 AM
Autodesk Docs://Asheville EHRM_V23/637-22-700.047 ASH - EHRM.rvt
VA FORM 08 - 6231

CAMPUS BUILDING IDENTIFICATION LEGEND

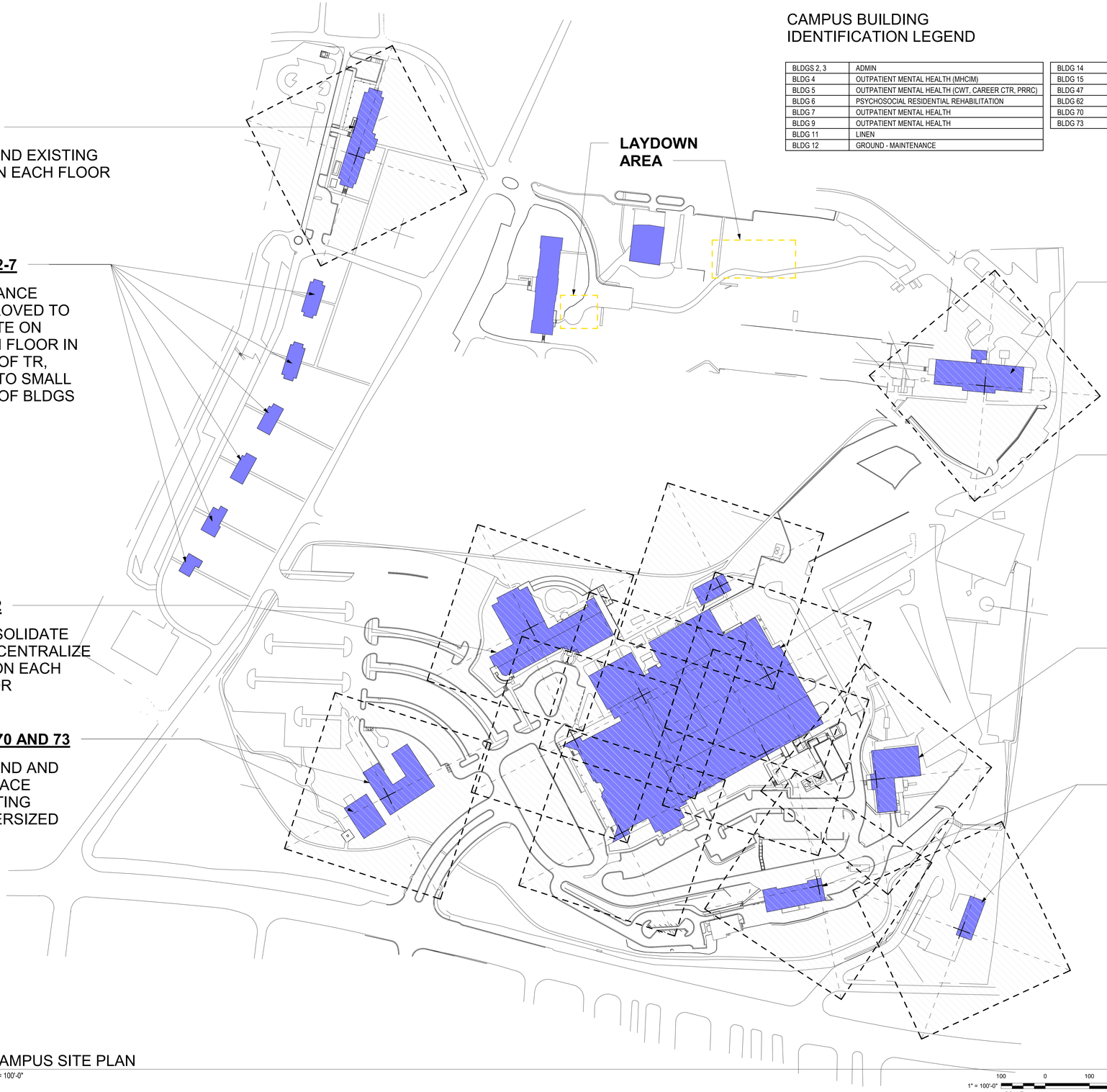
BLDGS 2, 3	ADMIN
BLDG 4	OUTPATIENT MENTAL HEALTH (MHCIM)
BLDG 5	OUTPATIENT MENTAL HEALTH (CWT, CAREER CTR, PRRC)
BLDG 6	PSYCHOSOCIAL RESIDENTIAL REHABILITATION
BLDG 7	OUTPATIENT MENTAL HEALTH
BLDG 9	OUTPATIENT MENTAL HEALTH
BLDG 11	LINEN
BLDG 12	GROUND - MAINTENANCE
BLDG 14	ADMINISTRATION / FMS SHOPS
BLDG 15	ADMINISTRATION / HUMAN RESOURCES
BLDG 47	MAIN HOSPITAL
BLDG 62	COMMUNITY LIVING CENTER
BLDG 70	MENTAL HEALTH
BLDG 73	MENTAL HEALTH

HORIZONTAL CABLE DISTANCE STUDY (DIAMOND ANALYSIS)



NON-COMPLIANT EXAMPLE

COMPLIANT EXAMPLE



BLDG 9

- EXPAND EXISTING TR ON EACH FLOOR

BLDGS 2-7

- VARIANCE APPROVED TO USE TE ON EACH FLOOR IN LIEU OF TR, DUE TO SMALL SIZE OF BLDGS

BLDG 62

- CONSOLIDATE AND CENTRALIZE TRs ON EACH FLOOR

BLDGS 70 AND 73

- EXPAND AND REPLACE EXISTING UNDERSIZED TRs

BLDG 15

- REPLACE EXISTING UNDERSIZED TRs
- ADD TR FOR BASEMENT

BLDG 47

- ESTABLISH A PRIMARY CENTRAL TR/TELECOM BACKBONE
- ESTABLISH 3 SECONDARY SETS OF STACKED TRs
- CONSOLIDATE 21 TRs INTO 14 TRs
- FIT OUT EXISTING OPEN OFFICE SPACE AS A NEW DATA CENTER

BLDG 14

- REPLACE EXISTING UNDERSIZED BASEMENT TR WITH TE
- CREATE TRs ON THE 1ST AND 2ND FLOORS TO ESTABLISH A CENTRAL FIBER BACKBONE

BLDGS 11 AND 12

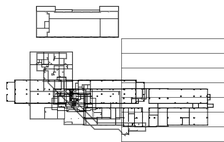
- REPLACE EXISTING TEs

LEGEND
BUILDINGS IN SCOPE
LAYDOWN AREA

1 CAMPUS SITE PLAN
1" = 100'-0"

1" = 100'-0" 100 0 100 200 SCALE FEET

FINAL BID DOCUMENTS



Revisions: Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

LICENSED ARCHITECT GENE HAMILTON KLOK No. C-19576 REN. 07-31-27 STATE OF CALIFORNIA

Facilities Management Services

VA U.S. Department of Veterans Affairs

Drawing Title: CAMPUS SITE PLAN

Approved:

FOR OFFICIAL USE ONLY

Phase: FINAL BID DOCUMENTS

Project Title: EHRM INFRASTRUCTURE UPGRADES

Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805

Issue Date: 12.19.2025

Checked

Drawn

Project Number: 637-22-700

Building Number: 0

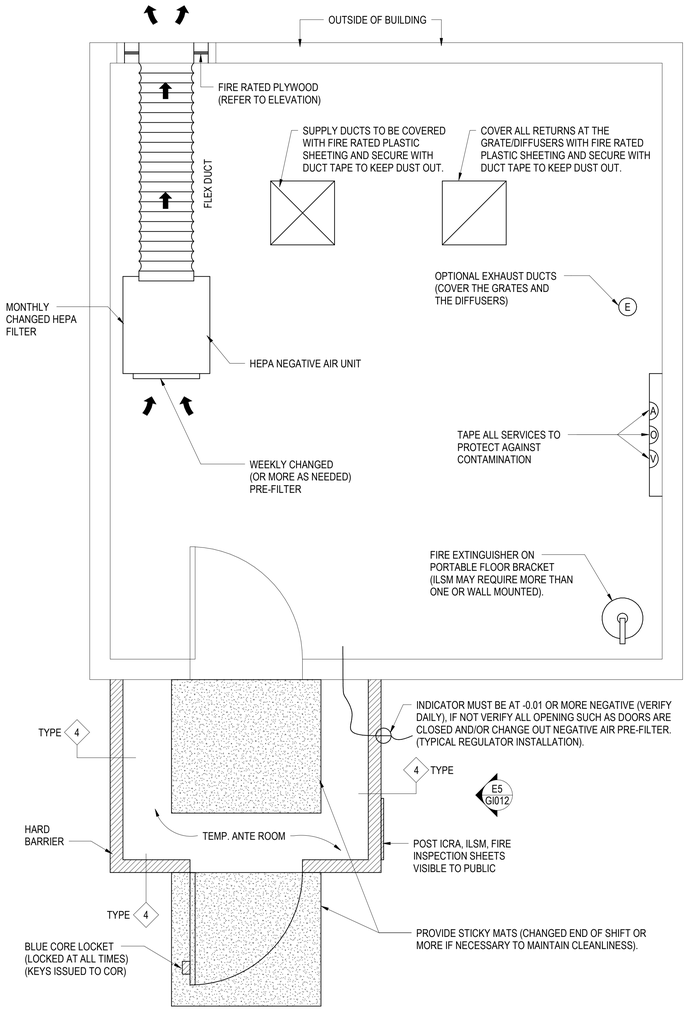
Drawing Number: 00-GI101

SHEET 8 of 559

Autodesk Docs://Asheville EHRM_V23/637-22-700.047.ASH - EHRM.rvt

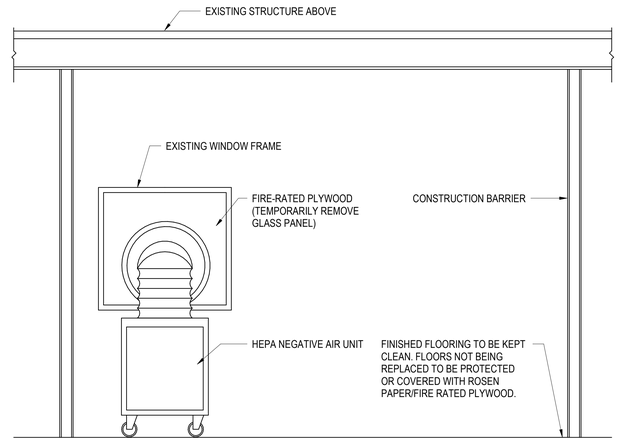
12/19/2025 11:36:53 AM

VA FORM 08 - 6231



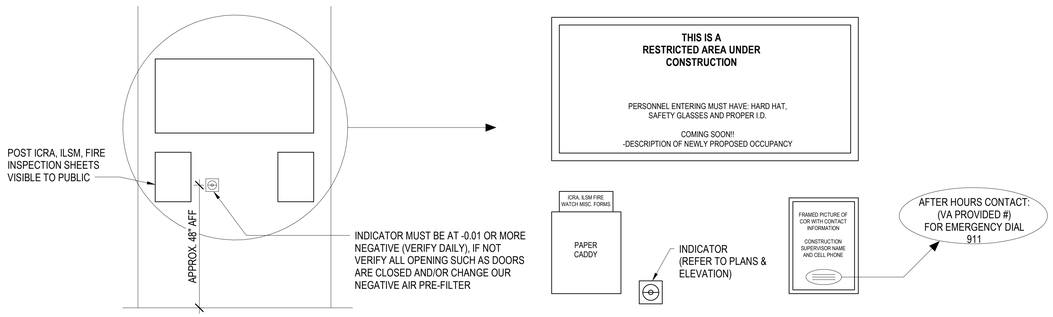
1 TYPICAL CLASS IV - CONSTRUCTION LAYOUT

SCALE: NOT TO SCALE



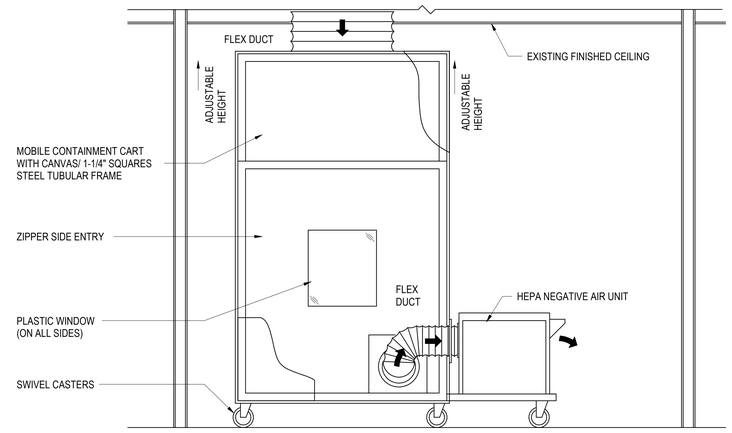
4 TYPICAL CLASS IV - CROSS SECTION 'B-B'

SCALE: NOT TO SCALE



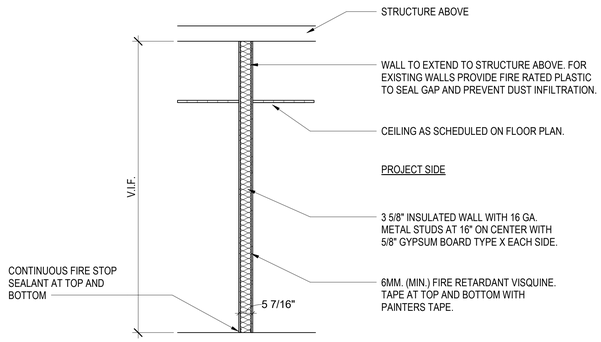
2 TYPICAL CLASS IV - ANTE ROOM ELEVATION

SCALE: NOT TO SCALE



3 MOBILE CONTAINMENT CART

SCALE: NOT TO SCALE



TYPE 4 UL DESIGN N0.419

1 HR FIRE-RATED TEMPORARY CONSTRUCTION BARRIER

5 TEMPORARY CONSTRUCTION BARRIER

SCALE: NOT TO SCALE

INFECTION CONTROL NOTE:

ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE VA INFECTION CONTROL RISK ASSESSMENT (ICRA) MATRIX. THE CONTRACTOR SHALL COORDINATE WITH THE FACILITY INFECTION CONTROL PRACTITIONER (ICP) TO VERIFY THE REQUIRED ICRA CLASS (I-IV) FOR THIS SCOPE OF WORK PRIOR TO CONSTRUCTION. NO WORK SHALL BEGIN UNTIL THE APPROPRIATE INFECTION CONTROL MEASURES ARE APPROVED AND IMPLEMENTED.

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

LICENSED ARCHITECT GENE HAMILTON C-13576 REN. 07-31-27 STATE OF CALIFORNIA

Facilities Management Services

VA U.S. Department of Veterans Affairs

Drawing Title: INFECTION CONTROL RISK ASSESSMENT - CLASS IV	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
			Building Number:
Approved:		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Drawing Number: 00-GC001
FOR OFFICIAL USE ONLY		Issue Date: 12.19.2025 / Checked / Drawn	SHEET 9 of 559

12/19/2025 11:36:54 AM

Autodesk Docs://Asheville EHRM_V23/637-22-700.047 ASH - EHRM.rvt

VA FORM 08 - 6231

Infection Prevention and Control Construction/Renovation/Maintenance Permit

This page must be posted at the entrance to the project area for Level III and Level IV activities.

Unique permit number:			
Location of construction/renovation/maintenance			
Project manager		Project start date	
Contact phone number		Completion date	
Contractor		Permit expiration date	

Activity Category (*A, B, C, or D*)	Overall Patient Risk Category (*Low, Medium, High, or Highest*)	Level of Infection Prevention and Control Precautions (*I, II, III, or IV*)

Level of Precautions	Control measures to be in place for the duration of the activity *(Check the box for the activity's Level of Precautions to indicate the Control Measures)*
Level I ☐	1. Perform work activity in a manner that does not create dust. 2. Immediately replace any ceiling tile, close access panels, etc., upon completion of work. 3. Any materials and equipment being brought into the facility must be free of contaminants and loose material.
Level II ☐	**All control measures in Level I and the following:** 1. Provide active means to control airborne dust from dispersing into occupied areas and/or water mist surface to control dust (e.g., Mobile Dust Containment Cart or some other system). 2. Ensure worker clothing is clean and free of visible dust before leaving the work area. 3. Remove or isolate air diffusers (supply and return) to protect the HVAC system from dust and reduce air turbulence. Rebalance system to address diffuser isolation. 4. When the work involves or impacts potable water systems including stagnation due to reduced usage, the piping shall be flushed twice a week or isolated from the main system 5. Seal doors, to prevent dust migration. 6. Contain all trash and debris in the work area. Perform daily cleaning and disposal of trash (covered) from work area using an identified exit route. 7. Any equipment, tools, or materials removed from the work area must be in sealed containers and/or cleaned of dust and debris prior to removal from the area. 8. Nonporous/smooth and cleanable containers (with a hard lid) must be used to transport trash and debris from the construction areas. These containers must be damp-wiped cleaned and free of visible dust/debris before leaving the contained work area. 9. Install a sticky (dust collection) mat at entrance of contained work area based on facility policy. Sticky mats must be changed routinely and when visibly soiled. 10. Maintain clean surroundings when area is not contained by damp mopping or HEPA vacuuming surfaces at least daily.
Level III ☐	**All control measures in Levels I and II and the following:** 1. Ensure availability of equipment for cleaning hands. 2. Construct and complete critical barriers meeting NFPA 241 requirements. Barriers must extend to the ceiling or if ceiling tile is removed, to the deck above. 3. All (plastic or hard) barrier construction activities must be completed in a manner that prevents dust release. Plastic barriers must be effectively affixed to floor and ceiling (or floor/roof deck above) and secure from movement or damage. 4. Seal all penetrations in containment barriers, including floors and ceiling, using approved materials (UL schedule firestop if applicable for barrier type). 5. Maintain .01 inches /water gauge negative pressurization of the entire workspace by use of HEPA exhaust air systems directed outdoors (unless a work specific waiver is approved by VHA's Office of Healthcare Engineering); this must be maintained continuously 24/7 for the duration of the project. Exhaust discharged directly to the outdoors that is 25 feet or greater from entrances, air intakes and windows is not required to be HEPA-filtered. Exhausting discharged air into shared or recirculating HVAC systems, or other shared exhaust systems (e.g., bathroom exhaust) is prohibited. 6. Install a differential pressure sensing device (e.g., magnehelic, manometer, or digital monitoring) on exterior of work containment to continually monitor and document negative pressurization. The "ball in the wall" or similar apparatus are not acceptable.
Level IV ☐	**All control measures in Levels I, II and III and the following:** 1. Barriers must be hard barriers unless temporary to install final barrier. 2. Containment must include an anteroom to ensure pressure control, Anteroom must be large enough for equipment staging, cart cleaning, workers' PPE and cleaning. 3. Worker clothing and/or PPE must be removed or clean and free of visible dust before leaving the work area anteroom. HEPA vacuuming of clothing or use of cover suits is acceptable. 4. Workers must wear shoe covers or have a method to clean shoes in anteroom Shoe covers must be removed prior to exiting the anteroom to the occupied space (non-work area). Damaged shoe covers must be changed immediately.

Additional requirements:			
Project Manager signature		Date	
Infection Preventionist signature		Date	

VHA Infection Control Risk Assessment for Construction, Renovation and Maintenance

Introductory Information and Instructions

Use this template as a baseline for performing facility Infection Control Risk Assessments (ICRAs) for construction, renovation, and maintenance work (referred to as the "activity" in this document). The template provides minimum requirements for categorizing activity types and patient risk to determine the level of precautions needed to prevent infection risks. Facilities may customize this template to incorporate site-specific information and/or to add more stringent criteria.

NOTE: *This VHA ICRA template pertains specifically to infection prevention. It must be used in conjunction with the required Pre-Construction Risk Assessment (PCRA) for the activity which addresses other activity-related safety concerns (e.g., vibration, noise) outside the scope of the ICRA.*

To complete the template:

1. Use **Table 1** to identify the category of the construction, renovation and/or maintenance activity.
2. Use **Table 2** to identify the areas affected by the activity.
3. Use **Table 3** to identify the overall patient risk category that will be affected by the activity.
4. Use **Table 4** to determine the level of infection prevention and control precautions needed for the activity.

Once all 4 steps above are completed: Refer to **Table 5** for the minimum required control measures for the level of infection prevention and control precautions needed for the activity. Refer to **Table 6** for the minimum infection prevention and control measures required on completion of the activity.

PERMIT: See the last page of this document for a fillable permit form to be used for posting at the activity site as needed.

Table 1 - Construction, Renovation, and/or Maintenance Activity Category

NOTE: *If any of the bulleted criteria in a higher activity category pertains to the work that will be done (even if the other criteria are in a lower category), use the higher activity category for the VHA ICRA.*

Activity Category determined from Table 1 (*A, B, C, or D*): D

Category A	**Inspection and/or facility upkeep generally defined as follows**: • Work can be completed in a single shift, not to exceed 10 hours. • Patients and/or employees may be in the area depending on the activity. • Work that does not create dust or debris. • Removal of ceiling tile or access to mechanical or electrical chase for visual inspection limited to 1 tile per 50 square feet with limited exposure time (not to exceed an hour for each tile) within the shift. • Minor interior updates (e.g., replacing floor or ceiling tiles, carpentry work to include hanging signage, and painting without sanding) that do not create dust or debris. • Limited building system maintenance such as plumbing on potable systems limited to faucet replacement etc. and electrical work such as replacement of bulbs, receptacles, or switches.
Category B	**General maintenance and repair work generally defined as follows:** • Prolonged inspection and work that may take longer than a single shift but not exceeding a week. • Patients and employees are not to be in the area until activity is completed. • Work that creates minimal dust and debris.

VHA Infection Control Risk Assessment for Construction, Renovation and Maintenance

	• Interior finish or surface repairs, updates, or modifications such as repair of firewalls and barriers, and new flooring that produces minimal dust and debris. Controlled sanding activities (e.g., wet or dry sanding) that produce minimal dust and debris. • Plumbing work such as installation or replacement of a single fixture or piping for a single fixture. Any work on sanitary plumbing including snaking of drains. • Electrical work such as installation of cabling/wiring/conduit for a single device, installation of new device such as a light fixture that produces minimal dust and debris. • Air Handler and/or fan shutdown/startup and HVAC work such as replacement of a single diffuser, single terminal unit or a single device that produces minimal dust and debris.
Category C	**Small-scale construction, renovation, or maintenance generally defined as follows**: • Work requiring longer than a single week to complete but not exceeding 6 months. • Patients and employees are not to be in the area until activity is completed. • Demolition/removal of preexisting floor covering, casework, lay-in ceiling, or other architectural elements. • Demolition/removal of more than 32 ft^2 of drywall/framing, hard ceilings, and doors/framing and minimal infrastructure such as electrical circuits and branch piping. • Installation of new walls, ceilings and doors including framing, drywall/plaster and associated work. • Plumbing work such as the installation of new sinks, showers and toilets and associated plumbing. • Shut down of sections of potable water systems. • Electrical work such as installation of conduit and wire for lighting, receptacles and switches for an area, the installation of conduit and wire for new devices such as terminal units, fans etc. • Modification of existing fire alarm and suppression systems. • Mechanical work such as the installation of ductwork, diffusers, and terminal units for an area.
Category D	**Large-scale construction, renovation, or maintenance generally defined as follows:** • Work exceeding 6 months in duration. • Patients and employees are not to be in the area until activity is completed. • Large-scale demolition of building components and infrastructure including removal of multiple doors, walls, framing, ceilings, flooring, piping, electrical and HVAC. • The installation building components such as new walls, ceilings and doors including framing, drywall and associated plaster work. • Plumbing work such as the installation of: o new medical gas systems, o steam/heating hot water, condensate systems, o multiple sinks, showers and toilets including associated plumbing. • Shutdown of potable water, steam/heating hot water, condensate, and medical gas systems. • Electrical work such as installation of electrical feeders, distribution panels, conduit and wire for lighting, receptacles and switches for an area, the installation of conduit and wire for new devices such as terminal units, fans etc. • Installation of fire alarm and suppression systems. • Electrical shutdown of multiple panels. • Mechanical work such as the installation of air handling equipment, associated ductwork, diffusers, heat exchangers, terminal units and controls.

VHA Infection Control Risk Assessment for Construction, Renovation and Maintenance

Table 2 - Affected Area Assessment

Identify the areas and associated patients that will be affected by the construction/renovation/maintenance activity (see the Figure for a visual representation of adjacent affected areas).

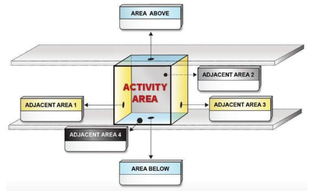


Figure: Isometric drawing of affected area assessment

Area	Service(s)/Type(s) of Area(s) *(e.g., OR, Unit/Ward, Sterile Processing, Administrative, etc.)**	Point of Contact (POC)	POC Contact Information
Activity Area**	9th floor		
Area Above	8th floor		
Area Below	7th floor		
Adjacent Area 1			
Adjacent Area 2			
Adjacent Area 3			
Adjacent Area 4			

* There may be more than one Service/type of area for each row. List all.

** List the area(s) in which the construction/renovation/maintenance activity will occur. ***NOTE: When the Activity Category is B, C, or D, the control measures are determined by the Patient Risk in the adjacent affected areas.***

VHA Infection Control Risk Assessment for Construction, Renovation and Maintenance

Table 3 - Patient Risk Category

Using Table 3, identify the patient risk category for each area listed in Table 2. Of the patient risk categories identified, select the one with the greatest risk as the overall Patient Risk Category for the activity.

Overall Patient Risk Category determined from Table 3 (*Low, Medium, High, or Highest*): High

Low Risk	Medium Risk	High Risk	Highest Risk
Non-patient care areas such as:	Patient care support areas such as:	Patient care areas such as:	Procedural, invasive, sterile support and highly compromised patient care areas such as:
• Public hallways and gathering areas not in clinical areas • Office areas not in clinical areas • Breakrooms not in clinical areas • Bathrooms or locker rooms not in clinical areas • Mechanical/electrical rooms not in clinical areas	• Waiting areas • Clinical engineering (biomedical) • Materials management • Sterile processing department – dirty side • Kitchen, cafeteria, gift shop, coffee shop, and food kiosks	• Patient care rooms and areas, including spinal cord injury units • All acute care units, including mental health • All outpatient units and clinics • Emergency department • Community Living Centers, domiciliaries, and transitional residences • Employee health • Pharmacy – general work zone • Medication rooms and clean utility rooms • Imaging suites – diagnostic imaging • Laboratory	• All transplant units • All intensive care units • All oncology units and chemotherapy/infusion centers • OR theaters and restricted areas • Hemodialysis units • Procedural rooms* • Pharmacy compounding area • Sterile processing department – clean side • Transfusion services • Imaging suites – interventional imaging • Dedicated isolation wards/units for infectious diseases

* Procedural Rooms are designated for the performance of patient care activities that may require high-level disinfected or sterile instruments and some environmental controls but is not required to be performed with the environmental controls of an operating room (OR). The room is intended for procedures that are performed in an aseptic surgical field and penetrates the protective surfaces of a patient's body (e.g., subcutaneous tissue, mucous membranes, cornea) or entry into or opening of a sterile body cavity. Examples of these spaces include Cardiac Catheterization Suites, Electrophysiology Suites, Endovascular/GI Suites, Angio Suites and other spaces which may have high risk patient populations.

VHA Infection Control Risk Assessment for Construction, Renovation and Maintenance

Table 4 - Level of Infection Prevention and Control Precautions

Match the Overall Patient Risk Category (*Low, Medium, High, Highest*) determined from Table 3 with the planned Construction/Renovation/Maintenance Activity Category (*A, B, C, D*) from Table 1 to determine the minimum Level of Infection Prevention and Control Precautions (*I, II, III, or IV*) using Table 4 below.

Level of Precautions determined from Table 4 (*I, II, III, or IV*): IV

Patient Risk Category	Activity Category A	B	C	D
Low Risk	I	II	II	III
Medium Risk	I	II	III	IV
High Risk	I	II	IV	IV
Highest Risk	II	III	IV	IV

An infection prevention and control permit is required for Level III and Level IV. Consult with Infection Prevention and Control for Level I and Level II.

Table 5 - Required Infection Prevention and Control Measures, by Level of Precautions

Controls defined below for the Level of Precautions identified for the activity must be in place before the activity begins and maintained until work is completed and the area is activated. Control measures for each Precaution Level must also include the control measures in the preceding Level(s).

As the activity progresses, a full re-evaluation of remaining activity type and patient risk is required prior to downgrading the Level of Precautions.

Level of Precautions	Control Measures
Level I	1. Perform work activity in a manner that does not create dust. 2. Immediately replace any ceiling tile, close access panels, etc., upon completion of work. 3. Any materials and equipment being brought into the facility must be free of contaminants and loose material.
Level II	**All control measures in Level I and the following:** 1. Provide active means to control airborne dust from dispersing into occupied areas and/or water mist surface to control dust (e.g., Mobile Dust Containment Cart or some other system). 2. Ensure worker clothing is clean and free of visible dust before leaving the work area. 3. Remove or isolate air diffusers (supply and return) to protect the HVAC system from dust and reduce air turbulence. Rebalance system to address diffuser isolation.

VHA Infection Control Risk Assessment for Construction, Renovation and Maintenance

	4. When the work involves or impacts potable water systems including stagnation due to reduced usage, the piping shall be flushed twice a week or isolated from the main system. 5. Seal doors to prevent dust migration. 6. Contain all trash and debris in the work area. Perform daily cleaning and disposal of trash (covered) from work area using an identified exit route. 7. Any equipment, tools, or materials removed from the work area must be in sealed containers and/or cleaned of dust and debris prior to removal from the area. 8. Nonporous/smooth and cleanable containers (with a hard lid) must be used to transport trash and debris from the construction areas. These containers must be damp-wiped cleaned and free of visible dust/debris before leaving the contained work area. 9. Install a sticky (dust collection) mat at entrance of contained work area based on facility policy. Sticky mats must be changed routinely and when visibly soiled. 10. Maintain clean surroundings when area is not contained by damp mopping or HEPA vacuuming surfaces at least daily.
Level III	**All control measures in Levels I and II and the following:** 1. Ensure availability of equipment for cleaning hands. 2. Construct and complete critical barriers meeting NFPA 241 requirements. Barriers must extend to the ceiling or if ceiling tile is removed, to the deck above. 3. All (plastic or hard) barrier construction activities must be completed in a manner that prevents dust release. Plastic barriers must be effectively affixed to floor and ceiling (or floor/roof deck above) and secure from movement or damage. 4. Seal all penetrations in containment barriers, including floors and ceiling, using approved materials (UL schedule firestop if applicable for barrier type). 5. Maintain .01 inches /water gauge negative pressurization of the entire workspace by use of HEPA exhaust air systems directed outdoors (unless a work specific waiver is approved by VHA's Office of Healthcare Engineering); this must be maintained continuously 24/7 for the duration of the project. Exhaust discharged directly to the outdoors that is 25 feet or greater from entrances, air intakes and windows is not required to be HEPA-filtered. Exhausting discharged air into shared or recirculating HVAC systems, or other shared exhaust systems (e.g., bathroom exhaust) is prohibited. 6. Install a differential pressure sensing device (e.g., magnehelic, manometer, or digital monitoring) on exterior of work containment to continually monitor and document negative pressurization. The "ball in the wall" or similar apparatus are not acceptable.
Level IV	**All control measures in Levels I, II and III and the following:** 1. Barriers must be hard barriers unless temporary to install final barrier. 2. Containment must include an anteroom to ensure pressure control. Anteroom must be large enough for equipment staging, cart cleaning, workers' PPE and cleaning. 3. Worker clothing and/or PPE must be removed or clean and free of visible dust before leaving the work area anteroom. HEPA vacuuming of clothing or use of cover suits is acceptable. 4. Workers must wear shoe covers or have a method to clean shoes in anteroom. Shoe covers must be removed prior to exiting the anteroom to the occupied space (non-work area). Damaged shoe covers must be changed immediately.

VHA Infection Control Risk Assessment for Construction, Renovation and Maintenance

Table 6 - Minimum Infection Prevention and Control Measures Required Upon Completion of the Activity

Controls defined below shall be completed upon completion of the activity and inspected prior to terminating measures defined in Table 5.

Level of Precautions	Measures
Levels I - II	**Cleaning:** 1. Clean work areas including all environmental surfaces, high horizontal surfaces and flooring materials. 2. Check all supply and return air registers for dust accumulation on upper surfaces as well as air diffuser surfaces. **HVAC Systems:** 1. Remove isolation of HVAC system in areas where work is being performed. Verify that HVAC systems are clean and operational. 2. Verify the HVAC systems meet original airflow and air exchange design specifications. **Water systems:** 1. Until the potable water system is activated and in use, flushing shall continue at least twice per week in accordance with VHA Directive 1061.
Levels III - IV	Construction areas must be inspected by an infection preventionist and engineering representative (and others as determined by the facility) for final activity/project close out and removal of infection prevention and control measures. **Work Area Cleaning:** 1. Clean work areas including all environmental surfaces, high horizontal surfaces and flooring materials. 2. Check all supply and return air registers for dust accumulation on upper surfaces as well as air diffuser surfaces. Removal of Critical Barriers: 1. Critical barriers must remain in place during all work involving drywall removal, creation of dust and activities beyond simple touch-up work. The barrier may NOT be removed until a work area cleaning has been performed. Additional cleaning may be needed after removal of barrier. 2. All (plastic or hard) barrier removal activities must be completed in a manner that prevents dust release. Use the following precautions when removing hard barriers: i. Carefully remove screws and painter tape. ii. If dust will be generated during screw removal, use hand-held HEPA vacuum. iii. Drywall cutting is prohibited during removal process. iv. Clean all stud tracks with HEPA vacuum before removing outer hard barrier. v. Use a plastic barrier to enclose area if dust could be generated. **Negative Air Requirements:** 1. The use of negative air must be designed to remove contaminants from the work area. 2. Negative air devices (fans, filters, monitoring and documentation equipment) must remain operational at all times and in place for a period after completion of dust creating activities to remove contaminants from the work area and before removal of critical barriers. **HVAC systems:** 1. Upon removal of critical barriers, remove isolation of HVAC system in areas where work is being performed. 2. Verify that HVAC systems are clean and operational. 3. Verify and document through a TAB the HVAC systems meets original airflow and air exchange design specifications. **Water systems:** 1. Until the potable water system is activated and in use, flushing shall continue at least twice per week in accordance with VHA Directive 1061.

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

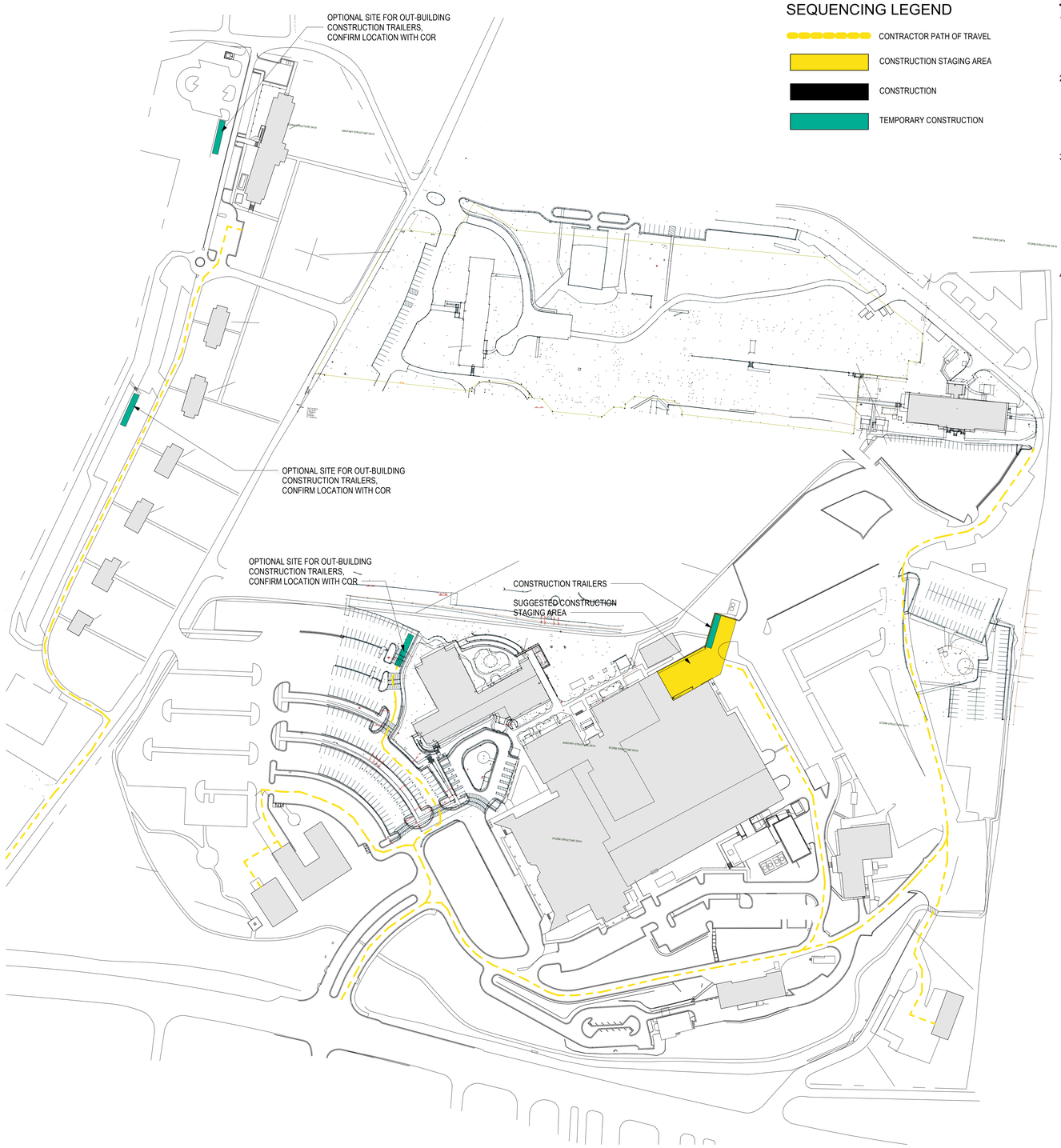
LICENSED ARCHITECT GENE HAMILTON No. C-19576 REN. 07-31-27 STATE OF CALIFORNIA

Facilities Management Services

VA U.S. Department of Veterans Affairs

Drawing Title: INFECTION PREVENTION AND CONTROL PERMIT INFORMATION	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved:			Building Number
FOR OFFICIAL USE ONLY		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Drawing Number: 00-GC010
		Issue Date: 12.19.2025 / Checked / Drawn	SHEET 10 of 559

Autodesk Docs://Asheville EHRM_V23\637-22-700.047 ASH - EHRM.rvt
12/19/2025 11:37:02 AM
VA FORM 08 - 6231



1 CONSTRUCTION SEQUENCE SITE PLAN
1" = 100'-0"

SEQUENCING NOTES:

1. ALL CONSTRUCTION SEQUENCING SHALL BE COORDINATED WITH THE VA FOR WORK RELATED TIMES FOR DAY, NIGHT AND WEEKEND WORK. CONTRACTOR SHALL COORDINATE WITH VA AHJ FOR CODE AND LIFE SAFETY RELATED MEASURES ASSOCIATED WITH PHASING OF DEMOLITION AND CONSTRUCTION WORK TO MAINTAIN LIFE SAFETY MEASURES.
2. THE FOLLOWING CONSTRUCTION SEQUENCING DESCRIPTION HAS BEEN INCORPORATED INTO THE PROPOSED CONSTRUCTION SCHEDULE AND PHASING FOR USE IN PREPARING THE CONSTRUCTION COST ESTIMATE. THE SEQUENCING HAS BEEN ORGANIZED BY BUILDING WITH THE ASSUMPTION THAT THE WORK IN THE FOLLOWING CATEGORIES MAY BE COMPLETED IN PARALLEL AND ARE PRESENTED IN NUMERICAL ORDER AND NOT IN ORDER OF NEED.
3. THE WORK TASKS AND PROPOSED ORDER OF PRIORITY HAVE BEEN ORGANIZED AS FOLLOWS:
   A. COORDINATE SCHEDULING AND HOURS OF WORK WITH FACILITIES AND OIT PERSONNEL. SOME WORK MAY NEED TO BE PERFORMED AFTER NORMAL WORKING HOURS AND/OR ON WEEKENDS. PROVIDE 14 CALENDAR DAYS ADVANCE NOTICE WHENEVER POSSIBLE.
   B. CONTRACTOR SHALL DO NO MORE THAN 2-TELECOM ROOMS AT A TIME UNLESS GIVEN APPROVAL FROM VA. CONTRACTOR SHALL COMPLETE EACH TELECOM SCOPE WITHIN 10-CALENDAR DAYS OR RECEIVE APPROVAL FROM VA TO EXTEND CONSTRUCTION TIMELINE.
4. TELECOM ROOMS - TYPICAL PHASING:
   A. TELECOM ROOMS THAT WILL REMAIN IN USE:
      a. REMOVE EXISTING CEILING SYSTEM (IF ROOM HAS CEILING) AND ASSOCIATED ITEMS. PROVIDE TEMPORARY LIGHTING AS NEEDED.
      b. REMOVE EXISTING FLOORING (IF REQUIRED) AND IF FLOORING IS HAZARDOUS, REFER TO SPECIFICATION SECTIONS 02 82 11 AND 02 82 13.19 FOR LOCATION AND PROCEDURES.
      c. REFERENCE DISCIPLINE DRAWINGS FOR EXTENTS OF ARCHITECTURAL, MEP, AND TELECOM WORK PER EACH ROOM. IT IS ANTICIPATED THIS WORK CAN BE DONE DURING NORMAL BUSINESS HOURS, BUT CONTRACTOR NEEDS TO COORDINATE WITH VA COR FOR SCHEDULING.
      d. ONCE ANY ARCHITECTURAL AND MECHANICAL WORK IS COMPLETE INSTALL NEW CABLING AND CABLING RUNWAY INTO TELECOM ROOMS.
      e. ONCE CABLING TO EXISTING AND NEW CABLE JACKS HAS BEEN INSTALLED, CONTRACTOR TO COORDINATE CUTOVER (CUTOVER BY VA OIT) WITH VA OIT.
      f. WORK WILL NEED TO BE COORDINATED WITH VA FOR ROOMS THAT CAN BE DONE DURING NORMAL AND NIGHT HOURS.
      g. PROVIDE NEW CIRCUITING IN ROOMS WHERE NONE EXIST AND IN ROOMS WHERE EXISTING CIRCUITS WILL BE REMOVED. REFERENCE ELECTRICAL DRAWINGS FOR EXTENTS OF ELECTRICAL WORK PER EACH ROOM.
      h. NEW POWER TO BE INSTALLED FROM EXISTING PANEL TO NEW CIRCUITS IN TELECOM ROOM. COORDINATE INSTALLATION WITH VA COR DUE TO POSSIBLE DOWNTIME OF VA END USERS. THIS WORK IS ANTICIPATED TO OCCUR AT NIGHTS OR OVER THE WEEKENDS.
   B. TELECOM ROOMS TO BE ABANDONED:
      a. PRIOR TO REMOVAL OF EXISTING RACKS, CABLING AND ASSOCIATED HARDWARE, INSTALLATION OF NEW CABLING AND CABLING RUNWAY IN TELECOM ROOMS SHALL BE COMPLETE AND CUTOVER (CUTOVER BY VA OIT) TO THE NEW INSTALLATION.
      b. ONCE NEW TELECOM ROOM WORK IS COMPLETE, REMOVE EXISTING RACKS, CABLING AND ASSOCIATED HARDWARE FROM TELECOM ROOMS TO BE ABANDONED. THIS WORK IS ANTICIPATED TO BE DONE DURING NORMAL WORKING HOURS. CONTRACTOR SHALL COORDINATE WITH VA COR FOR SCHEDULING.
      c. DISCONNECT, AND SEAL OR CAP OFF ABANDONED ELECTRICAL SERVICES BACK TO THE NEAREST OPERATIONAL J-BOX.
      d. NO ADDITIONAL ARCHITECTURAL, MECHANICAL OR ELECTRICAL WORK IS ANTICIPATED TO BE DONE IN THE ABANDONED TELECOM ROOMS.
5. WORK OUTSIDE OF TELECOM ROOMS - TYPICAL SEQUENCING:
   A. INSTALL NEW CABLING AND TELECOM OUTLETS IN ROOMS AS SHOWN ON TELECOM PLANS. REUSE EXISTING TELECOM OUTLET LOCATIONS, BUT REPLACE WITH NEW TELECOM OUTLETS TO LIMIT ANY ABATEMENT CONCERNS.
   B. WHERE REQUIRED, CUT IN NEW TELECOM OUTLET LOCATIONS IN WALLS. IF WALLS CONTAIN LEAD PAINT OR ASBESTOS PLASTER, REFER TO SPECIFICATION SECTIONS 02 82 11 AND 02 82 13.19 FOR LOCATION AND PROCEDURES. SEE ABATEMENT SCHEDULE FOR BUILDING 1 AND 2.
   C. ONCE NEW TELECOM OUTLETS HAVE BEEN INSTALLED AND CUTOVER (CUTOVER BY VA OIT), REMOVE OLD EXISTING CABLING BACK TO THE TELECOM ROOM.
   D. PATCH / REPAIR / REPLACE AND REPAINT WALLS AND CEILINGS WHERE DISTURBED BY CONSTRUCTION FOR FINAL FINISH. WORK WILL NEED TO BE COORDINATED WITH VA FOR ROOMS THAT CAN BE DONE DURING NORMAL AND NIGHT HOURS. CONTRACTOR TO COORDINATE WITH VA COR FOR SCHEDULING.
   E. COORDINATE EXACT WORK IN AND OUTSIDE OF TELECOM ROOMS WITH DISCIPLINE DRAWINGS FOR THOSE BUILDINGS. THE ABOVE PHASING IS TO REPRESENT THE TYPICAL CONDITION OF THE PHASING THROUGHOUT THE BUILDINGS FOR THE TELECOM ROOMS.
   F. OTHER NOTES
      a. EXIT PATHS SHALL BE MAINTAINED DURING DEMOLITION AND CONSTRUCTION.
      b. FACILITY MUST REMAIN OPEN AND OPERATIONAL THROUGHOUT CONSTRUCTION - COORDINATE ALL UTILITY SERVICE INTERRUPTIONS WITH THE VA FACILITY MANAGER.
      c. WHERE TEMPORARY CONSTRUCTION BARRIER PARTITIONS ARE BUILT IN THE EXISTING CORRIDORS, PARALLEL WITH THE CORRIDOR WALLS, PROVIDE 6 FEET MINIMUM EGRESS WIDTH WHERE SERVING PATIENTS AND 44 INCHES ELSEWHERE.
      d. THE WORK GROUPS LISTED HERE IDENTIFY WORK OF SIMILAR NATURE WITHIN THE BUILDING AND SHALL NOT CONTROL THE CONTRACTOR IN ESTABLISHING THE SEQUENCING OF WORK. CONTRACTOR SHALL ORGANIZE WORK TO LIMIT DISRUPTION OF DEPARTMENTS.

WORK GROUPS

GROUP	ROOM NUMBER	ROOM NAME	INFECTION CONTROL ASSESSMENT		
			ACTIVITY TYPE	RISK GROUP	REQUIREMENTS
BLDG 2					
ABANDON					
ABANDON	9	BASEMENT	TYPE B	LOW	CLASS II
NEW TE					
NEW TE	10	SUNROOM	TYPE B	LOW	CLASS II
NEW TE		BEDROOM	TYPE B	LOW	CLASS II
BLDG 3					
NEW TE					
NEW TE		OFFICE	TYPE B	LOW	CLASS II
NEW TE		OFFICE	TYPE B	LOW	CLASS II
BLDG 4					
ABANDON					
ABANDON	B002	BASEMENT	TYPE B	LOW	CLASS II
NEW TE					
NEW TE	108	BREAKROOM	TYPE B	LOW	CLASS II
NEW TE	205	OFFICE	TYPE B	LOW	CLASS II
BLDG 5					
ABANDON					
ABANDON		BASEMENT	TYPE B	LOW	CLASS II
NEW TE					
NEW TE		VETERAN GROUP RM	TYPE B	LOW	CLASS II
NEW TE	200	OFFICE	TYPE B	LOW	CLASS II
BLDG 6					
ABANDON					
ABANDON	20	BASEMENT	TYPE B	LOW	CLASS II
NEW TE					
NEW TE	13	CONSULT/TX 1	TYPE B	LOW	CLASS II
NEW TE		STAFF KITCHEN/BREAK ROOM	TYPE B	LOW	CLASS II
BLDG 7					
ABANDONED					
ABANDONED	212	TR (DECOMMISSIONED)	TYPE B	LOW	CLASS II
NEW TE					
NEW TE	103	OFFICE	TYPE B	LOW	CLASS II
NEW TE	206	CLOSET	TYPE B	LOW	CLASS II
BLDG 9					
ABANDONED					
ABANDONED	B-003	DATA	TYPE B	LOW	CLASS II
TR (EXPANDED)					
TR (EXPANDED)	129	TR (EXPANDED)	TYPE C	HIGH	CLASS III
TR (EXPANDED)	239	TR (EXPANDED)	TYPE C	HIGH	CLASS III
TR (EXPANDED)	325	TR (EXPANDED)	TYPE C	HIGH	CLASS III
BLDG 11					
NEW TE					
NEW TE	103	CORRIDOR	TYPE B	LOW	CLASS II
NEW TE	011	STORAGE	TYPE B	LOW	CLASS II
BLDG 12					
NEW TE					
NEW TE	007	OFFICE	TYPE B	LOW	CLASS II
BLDG 14					
ABANDONED					
ABANDONED	B102A	TR	TYPE B	LOW	CLASS II
NEW					
NEW	106A	NEW TR ROOM	TYPE C	MEDIUM	CLASS III
NEW	206A	NEW TR ROOM	TYPE C	MEDIUM	CLASS II
NEW TE					
NEW TE	B106	OFFICE	TYPE B	LOW	CLASS II
BLDG 15					
ABANDONED					
ABANDONED	122	EXISTING TR	TYPE B	LOW	CLASS II
ABANDONED	211	TELE	CLASS II	LOW	TYPE B
ABANDONED	318	OIT CLOSET	TYPE B	LOW	CLASS II
NEW					
NEW	B001A	NEW TR	TYPE C	LOW	CLASS II
NEW	124	NEW TR	TYPE C	LOW	CLASS II
NEW	213	NEW TR	TYPE C	LOW	CLASS II
NEW	323	NEW TR	TYPE C	LOW	CLASS II
BLDG 47					
ABANDONED					
ABANDONED	1A101D	TR (DECOMMISSIONED)	TYPE B	HIGH	CLASS III
ABANDONED	1A163	TR (DECOMMISSIONED)	TYPE B	HIGH	CLASS III
ABANDONED	1C167	TR (DECOMMISSIONED)	TYPE B	HIGH	CLASS III
ABANDONED	1C263	DATA	TYPE B	HIGH	CLASS III

WORK GROUPS

GROUP	ROOM NUMBER	ROOM NAME	INFECTION CONTROL ASSESSMENT		
			ACTIVITY TYPE	RISK GROUP	REQUIREMENTS
ABANDONED	1D139	TR (DECOMMISSIONED)	TYPE B	HIGH	CLASS III
ABANDONED	1F114	TR (DECOMMISSIONED)	TYPE B	HIGH	CLASS III
ABANDONED	1G131A	TR (DECOMMISSIONED)	TYPE B	HIGH	CLASS III
ABANDONED	2B266	TR (DECOMMISSIONED)	TYPE B	HIGH	CLASS III
ABANDONED	2B286	TR (DECOMMISSIONED)	TYPE B	HIGH	CLASS III
ABANDONED	BA008	TR (DECOMMISSIONED)	TYPE B	LOW	CLASS II
ABANDONED	BE119	TR (DECOMMISSIONED)	TYPE B	LOW	CLASS II
EXISTING					
EXISTING	1A137	TR (EXISTING)	TYPE B	LOW	CLASS II
EXISTING	1B134	TR (EXISTING)	TYPE B	HIGH	CLASS III
EXISTING	2A246	TR (EXISTING)	TYPE B	HIGH	CLASS III
EXISTING	2B212	TR (EXISTING)	TYPE B	HIGH	CLASS III
EXISTING	BB018	TR (EXISTING)	TYPE B	HIGH	CLASS III
EXPANDED TR					
EXPANDED TR	A301	TR (EXPANDED)	TYPE C	HIGH	CLASS III
EXPANDED TR	A401	TR (EXPANDED)	TYPE C	HIGH	CLASS III
EXPANDED TR	A501	TR (EXPANDED)	TYPE C	HIGH	CLASS III
EXPANDED TR	BC118	TR (EXPANDED)	TYPE C	MEDIUM	CLASS II
EXPANDED TR	BF107	TR (EXPANDED)	TYPE C	LOW	CLASS II
NEW					
NEW	1D144	TR (NEW)	TYPE B	HIGH	CLASS III
NEW	1H113	TR (NEW)	TYPE C	HIGH	CLASS III
NEW	1W133	TR (NEW)	TYPE C	HIGH	CLASS III
NEW	2E202A	TR (NEW)	TYPE C	HIGH	CLASS III
NEW	BC131A	ENTRANCE ROOM 01 (NEW)	TYPE C	MEDIUM	CLASS II
NEW	BC131B	DATA CENTER (NEW)	TYPE C	LOW	CLASS II
NEW	BC143A	ENTRANCE ROOM 02 (NEW)	TYPE C	MEDIUM	CLASS II
BLDG 62					
ABANDONED					
ABANDONED	107	SIG/TELE	TYPE B	MEDIUM	CLASS II
ABANDONED	143	TELE/SIG	TYPE B	HIGH	CLASS III
ABANDONED	245	TR	TYPE B	HIGH	CLASS II
NEW					
NEW	112A	NEW TR ROOM	TYPE C	HIGH	CLASS III
NEW	214A	NEW TR ROOM	TYPE C	HIGH	CLASS III
BLDG 70					
TR (EXPANDED)					
TR (EXPANDED)	129	TR 129	TYPE C	LOW	CLASS II
BLDG 73					
ABANDON					
ABANDON	110	MECH. RM.	TYPE B	LOW	CLASS II
NEW					
NEW	111	NEW TR	TYPE B	LOW	CLASS II

Grand total: 71

SEE THESE SHEETS ALSO

Sheet Number	Sheet Name
47-GC100	SEQUENCING PLAN - BASEMENT
47-GC101	SEQUENCING PLAN - 1ST FLOOR
47-GC102	SEQUENCING PLAN - 2ND FLOOR
47-GC103	SEQUENCING PLAN - 3RD FLOOR
47-GC104	SEQUENCING PLAN - 4TH FLOOR
47-GC105	SEQUENCING PLAN - 5TH FLOOR

PLAN NORTH

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

STAMP

LICENSED ARCHITECT GENE HAMILTON No. C-19576 REN. 07-31-27 STATE OF CALIFORNIA

Facilities Management Services

U.S. Department of Veterans Affairs

Drawing Title: CONSTRUCTION SEQUENCE PLAN
Phase: FINAL BID DOCUMENTS
Project Title: EHRM INFRASTRUCTURE UPGRADES
Project Number: 637-22-700
Building Number:
Approved:
FULLY SPRINKLERED
Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805
Issue Date: 12.19.2025
Checked:
Drawn:
Drawing Number: 00-GC101
SHEET 11 of 559

FOR OFFICIAL USE ONLY

VA FORM 08 - 6231

Autodesk Docs://Asheville EHRM_V23/637-22-700.047 ASH - EHRM.rvt

12/19/2025 11:37:14 AM

PROPOSED SCHEDULE BELOW IS TENTATIVE TO DEMONSTRATE PROJECT DURATION AND PHASING APPROACH. ACTUAL DATES TO BE DETERMINED AFTER AWARD OF CONTRACT AND IN COORDINATION WITH CON. DURATION OF WORK NOT TO BE EXCEEDED. CONTRACTOR TO SUBMIT A WORK PLAN, DESCRIBING IN DETAIL, CONSTRUCTION SEQUENCING AS PROPOSED BELOW. PARAMETERS AND RESTRICTIONS TO BE FOLLOWED FOR THE WORK PLAN SHALL BE FOUND IN SPECIFICATIONS SECTION 01 32 16.15 PROJECT SCHEDULE.

TR/TE EQUIPMENT INSTALLATION PHASING

PHASE	BLDG	ROOM		DESCRIPTION OF WORK	BEGIN	FINISH	DAYS
PHASE 1 CIVIL WORK	SITE			CORODINATE SECURITY/ TRAFFIC.	8/24/26	9/4/26	53
	SITE			EXCAVATION/ TRENCHING.			
	SITE			INSTALL UTILITY STRUCTURES.			
	SITE			CONCRETE POUR/ SET.			
	SITE			BACKFILL AND RESTORATION OF SITE.			
	TELECOM			PULL FIBER CONNECTIONS.			
	TELECOM			FINAL CONNECTIONS			
	TELECOM			INSTALL/ TEST EQUIPMENT OPERATIONS/ COMMISSION.			
PHASE 2 CIVIL WORK	SITE			CORODINATE SECURITY/ TRAFFIC.	8/28/26	11/10/26	53
	SITE			EXCAVATION/ TRENCHING.			
	SITE			INSTALL UTILITY STRUCTURES.			
	SITE			CONCRETE POUR/ SET.			
	SITE			BACKFILL AND RESTORATION OF SITE.			
	TELECOM			PULL FIBER CONNECTIONS.			
	TELECOM			FINAL CONNECTIONS			
	TELECOM			INSTALL/ TEST EQUIPMENT OPERATIONS/ COMMISSION.			
PHASE 3- CIVIL WORK	SITE			CORODINATE SECURITY/ TRAFFIC.	11/3/26	1/6/27	47
	SITE			EXCAVATION/ TRENCHING.			
	SITE			INSTALL UTILITY STRUCTURES.			
	SITE			CONCRETE POUR/ SET.			
	SITE			BACKFILL AND RESTORATION OF SITE.			
PHASE 3-2 CIVIL WORK	SITE			CORODINATE SECURITY/ TRAFFIC.	1/7/27	3/1/227	47
	SITE			EXCAVATION/ TRENCHING.			
	SITE			INSTALL UTILITY STRUCTURES.			
	SITE			CONCRETE POUR/ SET.			
	SITE			BACKFILL AND RESTORATION OF SITE.			
PHASE 3 TELECOM	TELECOM			PULL FIBER CONNECTIONS.	3/15/27	3/22/27	6
	TELECOM			FINAL CONNECTIONS			
	TELECOM			INSTALL/ TEST EQUIPMENT OPERATIONS/ COMMISSION.			
PHASE 4 CIVIL WORK	SITE			CORODINATE SECURITY/ TRAFFIC.	3/15/27	6/1/27	57
	SITE			EXCAVATION/ TRENCHING.			
	SITE			INSTALL UTILITY STRUCTURES.			
	SITE			CONCRETE POUR/ SET.			
	SITE			BACKFILL AND RESTORATION OF SITE.			
	TELECOM			PULL FIBER CONNECTIONS.			
	TELECOM			FINAL CONNECTIONS			
	TELECOM			INSTALL/ TEST EQUIPMENT OPERATIONS/ COMMISSION.			
BUILDING INTERIOR CONSTRUCTION WORK 1A	47		BC131B	CONSTRUCTION OF NEW DATA CENTER SPACE, INCLUDING DEMO, INTERIOR WORK, MECHANICAL, TELECOM WORK, AND INSPECTION/ START UP.	3/23/27	12/17/27	194
	47		BC131A	CONSTRUCTION OF NEW ENTRANCE ROOM 01, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.			
	47		BC143A	CONSTRUCTION OF NEW ENTRANCE ROOM 02, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.			
	47		BC143	DECOMMISSIONING EXISTING DATA CENTER.			
BUILDING INTERIOR CONSTRUCTION WORK 1B	47		BC118	CONSTRUCTION OF EXPANDED TELECOM ROOM, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.	4/20/27	6/15/27	41
	47		BF107	CONSTRUCTION OF EXPANDED TELECOM ROOM, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.			
	47		BB018	CONSTRUCTION OF EXISTING TELECOM ROOM, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.			
	47		BA008	ABANDON TELECOM ROOM.			
	47		BE119	ABANDON TELECOM ROOM.			
BUILDING INTERIOR CONSTRUCTION WORK 1C	47		1D144	CONSTRUCTION OF NEW TELECOM ROOM, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.	5/19/27	9/10/27	83
	47		1H113	CONSTRUCTION OF NEW TELECOM ROOM, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.			
	47		1W133	CONSTRUCTION OF NEW TELECOM ROOM, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.			
	47		1A137	CONSTRUCTION OF EXISTING TELECOM ROOM, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.			
	47		1B134	CONSTRUCTION OF EXISTING TELECOM ROOM, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.			
	47		0A101D	ABANDON TELECOM ROOM.			
	47		1A163	ABANDON TELECOM ROOM.			
	47		1C167	ABANDON TELECOM ROOM.			
	47		1D139	ABANDON TELECOM ROOM.			
	47		1F114	ABANDON TELECOM ROOM.			
	47		1G131A	ABANDON TELECOM ROOM.			
	47		1W135	ABANDON TELECOM ROOM.			
BUILDING INTERIOR CONSTRUCTION WORK 1D	47		2E202A	CONSTRUCTION OF NEW TELECOM ROOM, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.	9/13/27	12/17/27	70
	47		2A246	CONSTRUCTION OF EXISTING TELECOM ROOM, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.			
	47		2B212	CONSTRUCTION OF EXISTING TELECOM ROOM, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.			
	47		2B266	ABANDON TELECOM ROOM.			
	47		2B286	ABANDON TELECOM ROOM.			
BUILDING INTERIOR CONSTRUCTION WORK 1E	47		A301	CONSTRUCTION OF EXPANDED TELECOM ROOM, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.	10/12/27	12/7/27	41
	47		A401	CONSTRUCTION OF EXPANDED TELECOM ROOM, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.			
	47		A501	CONSTRUCTION OF EXPANDED TELECOM ROOM, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.			
BUILDING INTERIOR CONSTRUCTION WORK 2	11		103	CONSTRUCTION OF NEW TELECOM ENCLOSURE, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.	12/8/27	3/29/28	81
	11		311	CONSTRUCTION OF NEW TELECOM ENCLOSURE, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.			
	12		307	CONSTRUCTION OF NEW TELECOM ENCLOSURE, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.			
	14		106A	CONSTRUCTION OF NEW TELECOM ROOM, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.			
	14		206A	CONSTRUCTION OF NEW TELECOM ROOM, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.			
	14		B106	CONSTRUCTION OF NEW TELECOM ENCLOSURE, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.			
	14		B102A	ABANDON TELECOM ROOM.			
BUILDING INTERIOR CONSTRUCTION WORK 3	02		113A	CONSTRUCTION OF TELECOM ROOM, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.	1/12/28	4/14/28	68
	02		214A	CONSTRUCTION OF TELECOM ROOM, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.			
	02		107	ABANDON TELECOM ROOM.			
	02		163	ABANDON TELECOM ROOM.			
	02		245	ABANDON TELECOM ROOM.			
	70		129	CONSTRUCTION OF EXPANDED TELECOM ROOM, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.			
	73		111	CONSTRUCTION OF NEW TELECOM ROOM, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.			
	73		110	ABANDON TELECOM ROOM.			
BUILDING INTERIOR CONSTRUCTION WORK 4	2		10 (SUNROOM)	CONSTRUCTION OF NEW TELECOM ENCLOSURE, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.	6/17/28	6/5/28	36
	2		BEDROOM	CONSTRUCTION OF NEW TELECOM ENCLOSURE, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.			
	2		9	ABANDON TELECOM ROOM.			
	3		OFFICE	CONSTRUCTION OF NEW TELECOM ENCLOSURE, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.			
	3		OFFICE	CONSTRUCTION OF NEW TELECOM ENCLOSURE, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.			
	4		BREAKROOM	CONSTRUCTION OF NEW TELECOM ENCLOSURE, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.			
	4		OFFICE	CONSTRUCTION OF NEW TELECOM ENCLOSURE, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.			
	5		VETERAN GROUP ROOM	CONSTRUCTION OF NEW TELECOM ENCLOSURE, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.			
	5		200	CONSTRUCTION OF NEW TELECOM ENCLOSURE, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.			
	5		BASEMENT	ABANDON TELECOM ROOM.			
	6		13	CONSTRUCTION OF NEW TELECOM ENCLOSURE, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.			
	6		STAFF KITCHEN/ BREAKROOM	CONSTRUCTION OF NEW TELECOM ENCLOSURE, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.			
	6		20	ABANDON TELECOM ROOM.			
	7		103	CONSTRUCTION OF NEW TELECOM ENCLOSURE, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.			
	7		206	CONSTRUCTION OF NEW TELECOM ENCLOSURE, INCLUDING DEMO, TELECOM WORK, AND INSPECTION/ START UP.			
	7		212	ABANDON TELECOM ROOM.			
BUILDING INTERIOR CONSTRUCTION WORK 5	9		129	CONSTRUCTION OF EXPANDED TELECOM ROOM, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.	6/1/28	11/7/28	114
	9		239	CONSTRUCTION OF EXPANDED TELECOM ROOM, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.			
	9		325	CONSTRUCTION OF EXPANDED TELECOM ROOM, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.			
	9		B-003	ABANDON TELECOM ROOM.			
	15		B001A	CONSTRUCTION OF NEW TELECOM ROOM, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.			
	15		124	CONSTRUCTION OF NEW TELECOM ROOM, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.			
	15		213	CONSTRUCTION OF NEW TELECOM ROOM, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.			
	15		323	CONSTRUCTION OF NEW TELECOM ROOM, INCLUDING DEMO, INTERIOR WORK, MECHANICAL/ FIRE SUPPRESSION, TELECOM WORK, AND INSPECTION/ START UP.			
	15		122	ABANDON TELECOM ROOM.			
	15		211	ABANDON TELECOM ROOM.			
	15		318	ABANDON TELECOM ROOM.			

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

LICENSED ARCHITECT GENE HAMILTON JR. LIC. NO. C-19576 REN. 07-31-27 STATE OF CALIFORNIA

Facilities Management Services

VA U.S. Department of Veterans Affairs

Drawing Title: CONSTRUCTION PHASING SCHEDULE	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
			Building Number:
Approved: FOR OFFICIAL USE ONLY	FULLY SPRINKLERED	Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Drawing Number: 00-GC102
		Issue Date: 12.19.2025 / Checked / Drawn	

Autodesk Docs://Asheville EHRM_V23\637-22-700.047 ASH - EHRM.rvt
12/30/2025 11:17:42 AM
VA FORM 08 - 6231

2 HOUR FIRE BARRIER

PER UL 263 - DESIGN NO. U419

THIS APPLIES TO HORIZONTAL EXITS, SHAFTS AND STAIRWELLS OF 4 OR MORE STORIES AND EMERGENCY ELECTRICAL EQUIPMENT ROOMS.

WALL CONSTRUCTION: WALL EXTENDS FROM FLOOR TO DECK ABOVE.

DUCTS: ALL DUCT PENETRATIONS ARE PROTECTED BY FIRE DAMPERS.

PENETRATIONS: ALL PENETRATIONS SHALL BE PROTECTED BY A FIRESTOP SYSTEM OR DEVICE. (NFPA 101 8.3.4.2.1)

DOORS: ALL DOORS REQUIRE THE FOLLOWING:
1. LABELED FRAMES (NFPA 80 6.3.1)
2. LABELED 1 1/2 HOUR DOOR (NFPA 80 4.3.1)
3. MAXIMUM 100 SQ. IN. WINDOW (NFPA 80 4.4.5)
4. POSITIVE LATCHING (NFPA 80 6.9.1.4)
5. SELF CLOSING OR AUTOMATIC CLOSING (NFPA 80 6.4.1.1)
6. COORDINATING DEVICES REQUIRED (NFPA 80 6.4.1.1)
7. MAXIMUM 1/8" GAP (NFPA 80 6.3.1.7.1)
8. MAXIMUM 3/4" UNDERCUT (NFPA 80 4.8.4.1)
9. MAXIMUM 16" PROTECTIVE PLATE (NFPA 80 6.4.5.1 thru .3)
10. SWING IN PRIMARY DIRECTION OF TRAVEL (NFPA 101 7.2.1.4.2)

1 HOUR FIRE BARRIER

PER UL 263 - DESIGN NO. U419

THIS APPLIES TO 1-HOUR RATED ENCLOSURES, NEW HAZARDOUS AREAS**, STAIRWELLS 3 STORIES OR LESS AND ROOMS WITH TRANSFORMERS OVER 112.5 kVA. THIS ALSO APPLIES TO HAZARDOUS AREAS BUILT OR RENOVATED UNDER NFPA 101 2000.

THIS APPLIES TO HAZARDOUS AREAS IN I-2 OCCUPANCY PROTECTED THROUGHOUT WITH AUTOMATIC SPRINKLER SYSTEMS.

HAZARDOUS AREAS ARE THOSE LISTED IN NFPA 101 18.3.2.1 AND IBC TABLE 509.
WALL CONSTRUCTION: WALL EXTENDS FROM FLOOR TO DECK ABOVE, OR TO BOTTOM OF THE INTERSTITIAL SPACE HAVING SAME RATING AS OF FIRE BARRIER. (NFPA 101 8.8.3.1.2(2))

DUCTS: FIRE DAMPERS ARE REQUIRED. SOME EXCEPTIONS, REFER TO IBC 717.2.2 RELATED TO SIZE, LOCATION AND STEEL SLEEVE.

PENETRATIONS: ALL PENETRATIONS ARE SEALED WITH LISTED FIRESTOP MATERIALS FOR PROTECTING 1-HOUR WALL ASSEMBLIES. PENETRATIONS ARE TO BE FILLED ON BOTH SIDES OF THE WALL.

DOORS: ALL DOORS REQUIRE THE FOLLOWING:
1. LABELED FRAMES (NFPA 80 6.3.1)
2. LABELED 3/4 HOUR DOOR (NFPA 80 4.3.1)*
3. MAXIMUM 100 SQ. IN. WINDOW (NFPA 80 4.4.5)
4. POSITIVE LATCHING (NFPA 80 6.4.1.4)
5. SELF CLOSING OR AUTOMATIC CLOSING (NFPA 80 6.4.1.1)
6. COORDINATING DEVICES REQUIRED (NFPA 80 6.4.1.1)
7. MAXIMUM 1/8" GAP (NFPA 80 6-3.1.7)
8. MAXIMUM 3/4" UNDERCUT (NFPA 80 4.8.4.1)
9. MAXIMUM 16" PROTECTIVE PLATE (NFPA 80 6.4.5.1 thru .3)
10. SWING IN PRIMARY DIRECTION OF TRAVEL (NFPA 101 18/19.2.2.2.)

* 1-HOUR DOORS ARE REQUIRED IN STAIRWELLS THAT ARE 3 STORIES OR LESS.
**HAZARDOUS AREAS ARE THOSE LISTED IN NFPA 101 19.3.2.1 AND IBC TABLE 509

SUITES

WALL CONSTRUCTION: SUITE OF ROOMS WITH INTERNAL CORRIDORS OR AISLES THAT ARE NOT PART OF THE EXIT ACCESS CORRIDOR SYSTEM. PATIENT SLEEPING ROOMS OR ANY SUITE THAT INCLUDES PATIENT SLEEPING ROOMS, OF MORE THAN 1,000 SQUARE FEET SHALL HAVE NOT LESS THAN 2 EXIT ACCESS DOORS REMOTELY LOCATED FROM EACH OTHER (NFPA 101 18/19.2.5.5.1).

ANY ROOM OR ANY SUITE OF ROOMS, OTHER THAN PATIENT SLEEPING ROOMS, OR MORE THAN 2,500 SQUARE FEET, SHALL HAVE NOT LESS THAN TWO EXIT ACCESS DOORS REMOTELY LOCATED FROM EACH OTHER (NFPA 101 18/19.2.5.5.2)

SUITES OF SLEEPING ROOMS SHALL NOT EXCEED 7,500 SQUARE FEET. (NFPA 101 19.2.5.7.2.3(B)) SLEEPING SUITES GREATER THAN 7,500 SF AND NOT EXCEEDING 10,000 SF SHALL BE PERMITTED WITH DIRECT VISUAL SUPERVISION. (NFPA 101 19.2.5.7.2.3(C)), AUTOMATIC SMOKE DETECTION AND SPRINKLER PROTECTION (NFPA 101 19.2.5.7.2.3(C)). NON SLEEPING SUITE SHALL NOT EXCEED 10,000 SQUARE FEET. (NFPA 101 19.2.5.7.3.2) FOR SUITES REQUIRING TWO MEANS OF EGRESS, ONE MEANS OF EGRESS IS PERMITTED TO BE INTO ANOTHER SUITE. (NFPA 101 19.2.5.7.2.2 (C)). SLEEPING SUITE WITH MORE THAN 1,000 S.F. SHALL HAVE AT LEAST (1) EXIT ACCESS TO A CORRIDOR. (NFPA 101 18/19.2.5.7.2.2).

DUCTS: NO REQUIREMENTS.

PENETRATIONS: NO REQUIREMENTS.

DOORS: DOORS OPENINGS INTERNAL TO THE SUITE PASSAGES, DO NOT NEED TO BE SELF CLOSING OR AUTOMATIC (NFPA 101 18/19.3.6.3.11).

1/2 HOUR SMOKE BARRIER

THIS APPLIES TO EXISTING SMOKE COMPARTMENTS PER NFPA 101 19.3.7.3.

WALL CONSTRUCTION: WALL EXTENDS FROM FLOOR TO DECK ABOVE.

DUCTS: SMOKE DAMPERS SHALL NOT BE REQUIRED IN DUCT PENETRATIONS OF SMOKE BARRIERS IN FULLY DUCTED HEATING, VENTILATING, AND AIR CONDITIONING SYSTEMS WHERE AN APPROVED, SUPERVISED SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 101 19.3.5.8 HAS BEEN PROVIDED FOR SMOKE COMPARTMENTS ADJACENT TO THE SMOKE BARRIER.

PENETRATIONS: ALL PENETRATIONS ARE SEALED WITH APPROVED MATERIALS TO RESTRICT THE TRANSFER OF SMOKE. PENETRATIONS ARE TO BE FILLED ON BOTH SIDES OF THE WALL.

DOORS: ALL DOORS FOR SMOKE BARRIERS REQUIRE THE FOLLOWING:
1. NON-LABELED FRAME (NFPA 101 18.3.7.6)
2. 20 MINUTE OR SOLID WOOD CORE (NFPA 101 19.3.7.6)
3. MAXIMUM 1296 SQ. IN. WINDOW (NFPA 80 4.4.5.1)
4. POSITIVE LATCHING NOT REQUIRED (NFPA 101 19.3.7.8)
5. SELF CLOSING OR AUTOMATIC CLOSING (NFPA 101 19.3.7.8)
6. MAXIMUM 1/8" GAP (NFPA 80 6-3.1.7)
7. MAXIMUM 1" UNDERCUT (NFPA 101 19.3.6.3.4)
8. MAXIMUM 48" PROTECTIVE PLATE (NFPA 101 18.3.7.6)
9. SWING IN ANY DIRECTION (NFPA 101 18.3.7.6)

EXISTING HAZARDOUS ROOMS

THIS APPLIES TO EXISTING HAZARDOUS AREAS IN I-2 OCCUPANCY LISTED IN NFPA 101 19.3.2.1.5

WALL CONSTRUCTION: HAZARDOUS ROOM: WALLS ONLY NEED TO GO UP TO THE DROP CEILING IF SPRINKLERED OR UP TO THE DECK ABOVE IF THERE IS NO CEILING IN THE SPRINKLERED ROOM.

DUCTS: STEEL DUCT PENETRATIONS ARE NOT REQUIRED TO BE PROTECTED FIRE DAMPERS OR SMOKE DAMPERS.

PENETRATIONS EXISTING HAZARDOUS ROOM: NO REQUIREMENTS FOR PENETRATIONS ABOVE THE CEILING IF SPRINKLERED. IF THE SPACE IS NON-SPRINKLERED, THEN THE WALL NEEDS TO GO TO THE DECK ABOVE.

DOORS: SAME PROVISIONS LISTED IN SMOKE PARTITION REFERENCED ABOVE.
THIS APPLIES TO EXISTING HAZARDOUS AREAS IN I-2 OCCUPANCY LISTED IN NFPA 101 19.3.2.1.5

DEFINITIONS:

HEALTHCARE OCCUPANCY: AN OCCUPANCY USED TO PROVIDE MEDICAL OR OTHER TREATMENT OR CARE SIMULTANEOUSLY TO FOUR OR MORE PATIENTS ON AN INPATIENT BASIS, WHERE SUCH PATIENTS ARE MOSTLY INCAPABLE OF SELF-PRESERVATION DUE TO AGE, PHYSICAL OR MENTAL DISABILITY, OR BECAUSE OF SECURITY MEASURES NOT UNDER THE OCCUPANTS' CONTROL. (NFPA 101 3.3.188.7)

AMBULATORY HEALTH CARE OCCUPANCY: AN OCCUPANCY USED TO PROVIDE SERVICE OR TREATMENT SIMULTANEOUSLY TO FOUR OR MORE PATIENTS THAT PROVIDES, ON AN OUTPATIENT BASIS, ONE OR MORE OF THE FOLLOWING:
1. TREATMENT FOR PATIENTS THAT RENDERS THE PATIENT INCAPABLE OF TAKING ACTION FOR SELF-PRESERVATION UNDER EMERGENCY CONDITIONS WITHOUT THE ASSISTANCE OF OTHERS,
2. ANESTHESIA THAT RENDERS THE PATIENT INCAPABLE OF TAKING ACTION FOR SELF PRESERVATION UNDER EMERGENCY CONDITIONS WITHOUT THE ASSISTANCE OF OTHERS,
3. EMERGENCY OR URGENT CARE FOR PATIENTS WHO, DUE TO THE NATURE OF THEIR INJURY OR ILLNESS, ARE INCAPABLE OF TAKING ACTION FOR SELF-PRESERVATION UNDER EMERGENCY CONDITIONS WITHOUT THE ASSISTANCE OF OTHERS. (NFPA 1013.3.188.1)

BUSINESS OCCUPANCY: AN OCCUPANCY USED FOR THE TRANSACTION OF BUSINESS OTHER THAN MERCANTILE. (NFPA 101 3.3.190.4)

***FIRE BARRIER:** A CONTINUOUS MEMBRANE OR A MEMBRANE WITH DISCONTINUITIES CREATED BY PROTECTED OPENINGS WITH A SPECIFIED FIRE PROTECTION RATING, WHERE SUCH MEMBRANE IS DESIGNED AND CONSTRUCTED WITH A SPECIFIED FIRE RESISTANCE RATING TO LIMIT THE SPREAD OF FIRE, THAT ALSO RESTRICTS THE MOVEMENT OF SMOKE. (NFPA 101 3.3.31.1)

***SMOKE BARRIER:** A CONTINUOUS MEMBRANE, OR A MEMBRANE WITH DISCONTINUITIES CREATED BY PROTECTED OPENINGS, WHERE SUCH MEMBRANE IS DESIGNED AND CONSTRUCTED TO RESTRICT THE MOVEMENT OF SMOKE (NFPA 101 3.3.31.2)

***SMOKE PARTITION:** A CONTINUOUS MEMBRANE THAT IS DESIGNED TO FORM A BARRIER TO LIMIT THE TRANSFER OF SMOKE (NFPA 101 3.3.254) A SMOKE PARTITION IS NOT REQUIRED TO HAVE A FIRE RESISTANCE RATING. (NFPA 101 A.3.3.254)

NOTE: THESE LEGENDS AND DEFINITIONS ARE INTENDED AS GENERAL REFERENCE . OTHER EXCEPTIONS OR CODE REQUIREMENTS MAY APPLY BASED ON SPECIFIC CONDITIONS. CONSULT AHJ FOR SPECIFIC REQUIREMENTS OR INTERPRETATIONS.

NOTES:

THIS BUILDING HAS FSES (FIRE SAFETY EVALUATION SYSTEM) EXISTING FSES ANALYSIS (1985) AND ALTERNATE 1 FSES ANALYSIS (1988)

THIS BUILDING HAS EQUIVALENCY TO MAINTAIN FIRE SAFETY COMPLIANCE. SEE BELOW FOR A SUMMARY OF THESE REQUIREMENTS.

SUMMARY OF COMPENSATING MEASURES FOR DEFICIENCIES NOTES IN FSES DOCUMENTS

REFER TO FSES DOCUMENTS FOR FULL REPORT.

PLAN TO MAINTAIN COMPLIANCE WITH THE EQUIVALENCY:
1. CORRIDORS MUST BE SMOKE TIGHT, ENSURE CEILING TILES ARE IN PLACE.
2. FINISHES: ONLY USE CLASS A MATERIALS.
3. DOORS TO CORRIDORS:
   A. GL(GROUND LEVEL) TO 3RD: ALLOWED 20 MIN. DOORS W/O CLOSERS, EXCEPT HZ ROOMS AND FIRE/SMOKE BARRIERS.
   B. 4TH-7TH FLOOR: REQUIRES SMOKE OPERATED AUTO DOOR CLOSERS ON ALL CORRIDOR DOORS, EXCEPT IN AREAS DESIGNATED AS SUITES.

SMOKE DETECTION:
1. 4TH - 7TH FLRS.: REQUIRES SMOKE DETECTION AND ALARMS IN ALL INPATIENT PATIENT ROOMS.
2. SMOKE DETECTION IN CORRIDORS.

JCAHO EQUIVALENCY: THIS BUILDING HAS EQUIVALENCY TO MAINTAIN FIRE SAFETY COMPLIANCE. REFER TO FSES JCAHO EQUIVALENCY APPROVAL LETTER OF MARCH 7, 1990.

HISTORY OF CORRECTIONS DONE FOR EQUIVALENCY:
1. FIRE SPRINKLER PROJECT TO MAKE HOSPITAL FULLY SPRINKLERED AND WITH SMOKE DETECTION AS PER NFPA 13 AND --NFPA 20. (1982-1984)
2. ELIMINATION OF DEAD END CORRIDORS. (1982-1984)
3. ADDED HORIZONTAL EXITS. (1982-1984)
4. SMOKE DETECTION THROUGHOUT IN CORRIDORS (1982-1984)
5. SMOKE PARTITION FROM 3RD TO 7TH FLOOR TO THE UNDERSIDE OF THE FLOOR SLAB ABOVE AND MAKING THOSE PARTITIONS SMOKE TIGHT. (1987-1988)
6. GL, 1ST FL.: 2 HR RATED BARRIER TO SEPARATE ZONES A,B,E & F FROM ZONES C AND D. (1987-1988)
7. SMOKE DETECTION IN INPATIENT PATIENT ROOMS AND AUTOMATIC DOOR-CLOSERS THROUGHOUT THE TOWER. (1987-1988)
8. CONTINUE REPLACING CEILING TILES TO MAINTAIN SMOKE TIGHT CORRIDORS. (1987-1988)
9. ELIMINATION OF ALL REMAINING "OTHER THAN CLASS A" FINISHES. (1987-1988)
10. CONSTRUCTION OF 2-HR EXIT PASSAGEWAY TO HANDLE OUTFLOW OF STAIRWELL 1 AT THE GROUND LEVEL. (1987-1988)
11. 2-HR SEPARATION FROM PIPE BASEMENT AND GROUND FLOOR (GL). (1987- 1988)

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

LICENSED ARCHITECT GENE HAMILTON No. C-13576 REN: 07-31-27 STATE OF CALIFORNIA

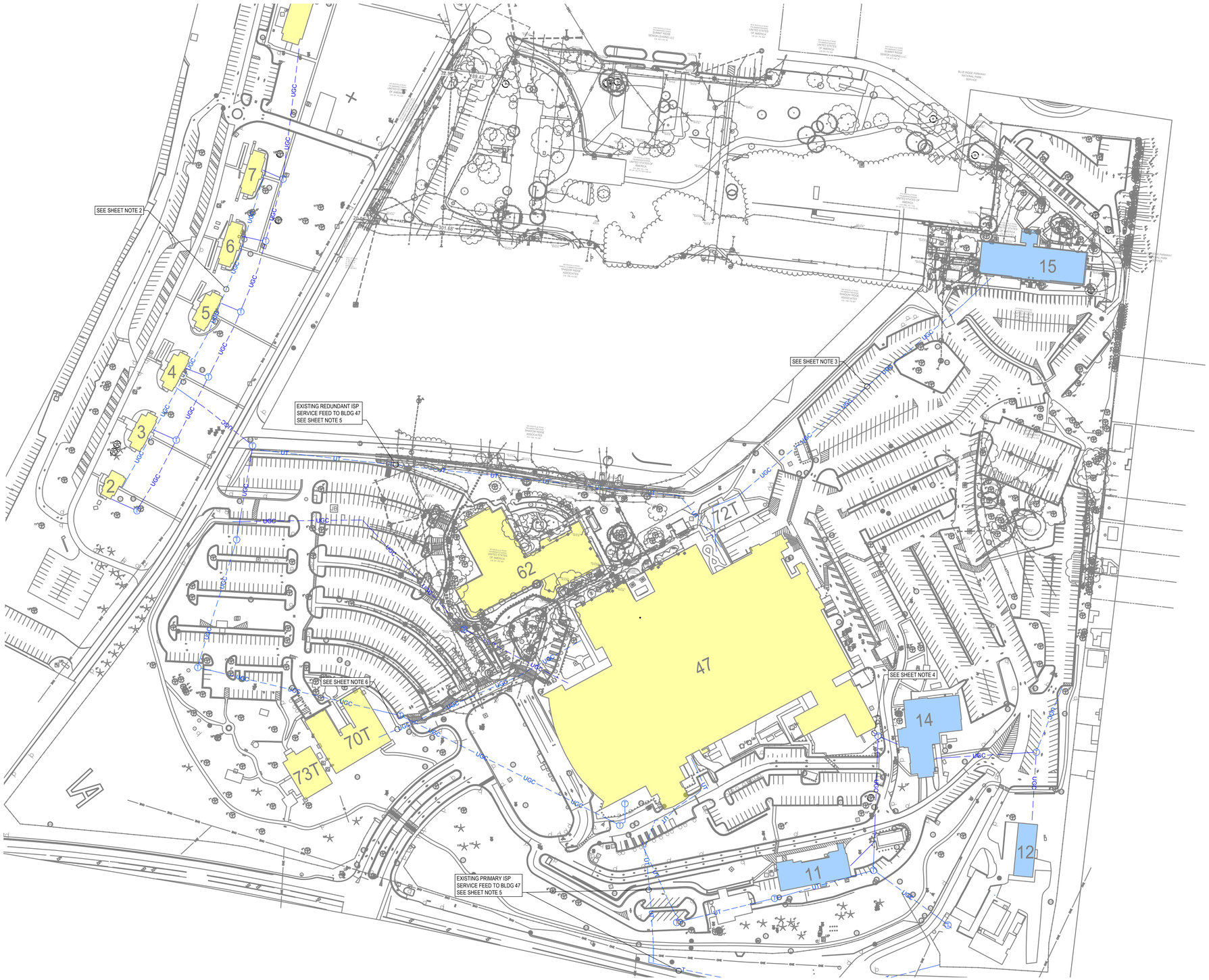
Facilities Management Services

VA U.S. Department of Veterans Affairs

Drawing Title: FIRE/SMOKE BARRIER DESCRIPTIONS
Phase: FINAL BID DOCUMENTS
Project Title: EHRM INFRASTRUCTURE UPGRADES
Project Number: 637-22-700
Building Number:
Approved:
FOR OFFICIAL USE ONLY
Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805
Issue Date: 12.19.2025
Checked:
Drawn:
Drawing Number: 00-GC191
SHEET 12 of 559

Autodesk Docs://Asheville EHRM_V23/637-22-700.IAT ASH - EHRM.rvt
12/19/2025 11:37:15 AM

VA FORM 08 - 6231



F1 EXISTING CONDITIONS PLAN
SCALE: 1" = 80'-0"

SHEET NOTES:

1. INFORMATION ON EXISTING SITE UTILITIES SHOWN ON THIS EXSITING CONDITIONS PLAN IS BASED ON UTILITY INFORMATION PROVIDED BY VA OFFICE OF FACILITIES ON OCTOBER 11, 2022 SITE VISIT.
2. INFORMATION ON EXISTING COMMUNICATIONS CONDUIT BETWEEN BUILDINGS 2, 3, 4, 5, 6 AND 7 WAS OBTAINED FROM THE SITE ELECTRICAL PLAN, LEGEND AND DETAILS RECORD DRAWING DATED DECEMBER 2, 1993, PREPARED BY SOUTHEASTERN ARCHITECTS, ENGINEERS, PLANNERS, INC. AND PROVIDED BY THE VA OFFICE OF FACILITIES AND WAS FIELD VERIFIED BY COFFMAN ON FEBRUARY 21, 2023 SITE VISIT.
3. INFORMATION ON EXISTING COMMUNICATIONS CONDUIT BETWEEN BUILDINGS 47 AND 15 WAS OBTAINED FROM THE SITE ELECTRICAL PLAN, LEGEND AND DETAILS RECORD DRAWING DATED DECEMBER 2, 1993, PREPARED BY SOUTHEASTERN ARCHITECTS, ENGINEERS, PLANNERS, INC. AND PROVIDED BY THE VA OFFICE OF FACILITIES AND WAS FIELD VERIFIED BY COFFMAN ON FEBRUARY 21, 2023 SITE VISIT.
4. INFORMATION ON EXISTING COMMUNICATIONS CONDUIT BETWEEN BUILDINGS 47 AND 11, 12, AND 14 WAS OBTAINED FROM THE SITE ELECTRICAL PLAN, LEGEND AND DETAILS RECORD DRAWING DATED DECEMBER 2, 1993, PREPARED BY SOUTHEASTERN ARCHITECTS, ENGINEERS, PLANNERS, INC. AND PROVIDED BY THE VA OFFICE OF FACILITIES AND WAS FIELD VERIFIED BY COFFMAN ON FEBRUARY 21, 2023 SITE VISIT. PRIMARY FIBER OPTIC RUNS FROM 47 TO 14 AND "DAISY CHAINS" TO 11 AND 12.
5. PER DISCUSSION WITH ONSITE VA OFFICE STAFF AND OCTOBER 11, 2022 AND FEBRUARY 21, 2023 SITE VISITS, THERE ARE TWO EXISTING, SEPARATE ISP FEEDS TO MAIN DATA CENTER IN BUILDING 47 (AT&T AND CENTURYLINK)
6. INFORMATION ON THE EXISTING COMMUNICATIONS CONDUIT BETWEEN BUILDINGS 47, 70T AND 73T WAS OBTAINED FROM UTILITY INFORMATION PROVIDED BY VA OFFICE OF FACILITIES ON FEBRUARY 21, 2023 SITE VISIT. THE PRIMARY FIBER OPTIC FEED RUNS FROM BUILDING 47 TO 70T AND "DAISY CHAINS" TO BUILDING 73T.

GENERAL NOTES:

1. CONSTRUCTION MEETING - A PRE-CONSTRUCTION MEETING IS REQUIRED BY THE OWNER, OWNER'S REPRESENTATIVE, UTILITY SERVICE PROVIDERS AND VA COR. CONTRACTOR TO COORDINATE WITH THESE PARTIES AND SCHEDULE PRE-CONSTRUCTION MEETINGS PRIOR TO CONSTRUCTION. SEE VA SPECIFICATION SECTION 01 45 00 QUALITY CONTROL.
2. SURVEY - THE CONTRACTOR IS RESPONSIBLE TO CONDUCT / PROVIDE A FULL UTILITY SURVEY OF THE EXISTING LOW VOLTAGE COMMUNICATION INFRASTRUCTURE INCLUDING EXISTING CONDUIT, PATHWAYS, PULLBOXES AND TERMINATION POINTS AT BUILDINGS. THE SURVEY SHALL BE PRESENTED TO THE VA COR PRIOR TO PERFORMING SITE WORK.
3. EXISTING CONDITIONS - INFORMATION ON EXISTING CONDITIONS AND BOUNDARIES/RIGHT OF WAY SHOWN ON THESE PLANS WAS OBTAINED FROM RECORD DRAWINGS FROM THE VA. NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND REQUIRED ELEVATIONS AT THE SUBJECT SITE, AND VERIFY THE LOCATION AND SIZE OF EXISTING UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION ACTIVITIES, INCLUDING UNDERGROUND AND OVERHEAD UTILITIES, UTILITY STRUCTURES, POINTS OF CONNECTION, AND UTILITY CROSSINGS. NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR EXCEPTIONS ENCOUNTERED PRIOR TO PROCEEDING. THE CONTRACTOR SHALL OBTAIN ADDITIONAL UTILITIES INFORMATION FROM THE APPROPRIATE AGENCIES. THE CONTRACTOR SHALL COORDINATE WITH THE PUBLIC AND PRIVATE UTILITIES TO DETERMINE THE WORK AND INSPECTIONS NECESSARY TO DISCONNECT, CUT, CAP, ABANDON, RELOCATE, OR REPAIR THEIR FACILITIES. ANY COSTS INCURRED AS A RESULT OF THE CONTRACTOR'S FAILURE TO VERIFY EXISTING CONDITIONS, PRIOR TO BEGINNING CONSTRUCTION, SHALL BE BORNE BY THE CONTRACTOR.
4. UTILITY LOCATION - UTILITY LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE BASED ON RECORDS OF VETERANS AFFAIRS. FIELD VERIFICATION OF BURIED GAS, ELECTRIC, TELEPHONE, WATER, SEWER AND CABLE TV LINES ARE BY ELECTRONIC OR MAGNETIC DETECTION METHODS. ALL UTILITY LOCATIONS ARE SUBJECT TO THE ACCURACY OF THE LOCATION METHOD AND ARE SUBJECT TO RELOCATION FROM THE TIME THAT THE DRAWINGS WERE PREPARED. NO EXCAVATION WAS PERFORMED. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THESE DRAWINGS. FOR UTILITY LOCATIONS , CONTRACTOR SHALL PROVIDE AN INDEPENDENT PRIVATE UTILITY LOCATE TWO (2) WEEKS BEFORE STARTING PROJECT SITE WORK. CONTRACTOR TO LOCATE AND DETERMINE DEPTH OF EXISTING UTILITIES, AND NOTIFY THE ENGINEER IF ANY CONFLICTS ARISE BETWEEN EXISTING FEATURES AND THE PLACEMENT OF NEW FACILITIES. IT IS THE CONTRACTORS RESPONSIBILITY TO PROTECT, ADJUST AND RE-LOCATE ANY UTILITIES INTERFERING WITH THE SPECIFIED CROSS-SECTIONS AND DEPTHS AS DESIGNED IN THE COMMUNICATIONS PLANS. THE CONTRACTOR MUST NOTIFY THE VA COR OF UTILITIES ENCOUNTERED DURING CONSTRUCTION AND MUST NOT BACKFILL UNTIL THE CONTRACTOR HAS MADE A RECORD OF ITS TYPE, SIZE AND LOCATION. CONTRACTOR MUST CONTACT THE VA COR TO INSPECT CONTRACTOR LOCATES.
5. FIELD VERIFICATION - BEFORE BEGINNING ANY DEMOLITION WORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION AND COORDINATION OF ALL DIMENSIONS AND ELEVATIONS BEFORE PROCEEDING WITH THE WORK. SEE VA SPECIFICATION SECTION 02 41 00 DEMOLITION.
6. DRAWINGS - A COPY OF THE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS. THE DRAWINGS INDICATE LOCATIONS, DIMENSIONS, REFERENCES, AND TYPICAL DETAILS OF CONSTRUCTION. NOT EVERY DETAIL OF THE CONSTRUCTION IS SHOWN ON THESE DRAWINGS. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED, BUT ARE OF A SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO APPROVAL BY THE ENGINEER. THE CONTRACTOR SHALL REVIEW THE DRAWINGS PRIOR TO STARTING CONSTRUCTION AND BRING ALL PROBLEMS IMMEDIATELY TO THE ATTENTION OF THE PROJECT DESIGN TEAM (OWNER, ARCHITECT AND/OR ENGINEERS) IN ORDER TO AVOID DELAYS. SEE VA SPECIFICATION SECTION 01 00 00 GENERAL REQUIREMENTS.
7. AS-BUILTS - AS-BUILTS IDENTIFYING AND ACCURATELY LOCATING SUBSURFACE UTILITIES AND IMPROVEMENTS INSTALLED BY THE CONTRACTOR UNDER THIS CONTRACT AND NOTING AS-CONSTRUCTED CONDITIONS SHALL BE PROVIDED BY THE CONTRACTOR AT THE END OF CONSTRUCTION. SEE VA SPECIFICATION SECTION 01 00 00 GENERAL REQUIREMENTS
8. JOB SITE SAFETY - THE CONTRACTOR SHALL CONDUCT ALL WORK IN A SAFE MANNER AS REQUIRED BY ALL APPLICABLE CITY, COUNTY, STATE AND FEDERAL REGULATIONS. THE ENGINEER HAS NOT BEEN RETAINED TO PROVIDE DESIGN AND/OR CONSTRUCTION REVIEW SERVICES RELATED TO THE CONTRACTOR'S SAFETY PRECAUTIONS OR TO THE MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES FOR THE CONTRACTOR TO PERFORM THEIR WORK. THE UNDERTAKING OF PERIODIC SITE VISITS BY THE ENGINEER SHALL NOT BE CONSTRUED AS THE SUPERVISION OF ACTUAL CONSTRUCTION, NOR MAKE THE ENGINEER RESPONSIBLE FOR PROVIDING A SAFE PLACE FOR THE PERFORMANCE OF WORK BY THE CONTRACTOR OR THE CONTRACTOR'S EMPLOYEES OR EMPLOYEES OF SUPPLIERS OR SUBCONTRACTORS, OR FOR ACCESS, VISITS, USE, WORK, TRAVEL, OR OCCUPANCY BY ANY PERSON. SAFETY STANDARDS AND REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND COMPLIED WITH AS SET FORTH BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). SEE VA SPECIFICATION SECTION 01 35 26 SAFETY REQUIREMENTS.
9. WORKMANSHIP - THE CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO COMPLETE THIS PROJECT IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS, INCLUDING SUCH INCIDENTALS AS MAY BE NECESSARY TO MEET REQUIREMENTS AND STANDARDS OF THE VA. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER AND IN CONFORMANCE WITH APPLICABLE CODES, REGULATIONS AND PERMIT REQUIREMENTS.
10. LICENSURE - THE CONTRACTOR SHALL HAVE THE APPROPRIATE LICENSES TO PERFORM THE SPECIFIED WORK IN CONFORMANCE WITH THE VA REQUIREMENTS.
11. TRAFFIC CONTROL & SAFETY - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL ON-SITE AND SHALL COORDINATE THEIR ACTIVITIES WITH THE OWNER AND ENGINEER AND PROVIDE A TRAFFIC CONTROL PLAN TO THE VA COR A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF THE BEGINNING OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL TRAFFIC CONTROL SIGNS, SAFE VEHICULAR AND PEDESTRIAN ACCESS SHALL BE PROVIDED AT ALL TIMES DURING CONSTRUCTION. SHUTDOWN OF OWNER OPERATION OR ACCESS WILL NOT BE PERMITTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS. COORDINATE REQUIREMENTS WITH THE VA COR. THE CONTRACTOR SHALL MAINTAIN ALL SIGNS, BARRICADES, WARNING LIGHTS, AND OTHER DEVICES NECESSARY FOR SAFETY. SEE VA SPECIFICATION 01 00 00 GENERAL REQUIREMENTS.
12. PERMITTING - THE CONTRACTOR SHALL OBTAIN ALL LOCAL, STATE AND FEDERAL PERMITS REQUIRED FOR THE WORK IN ADDITION TO THOSE OBTAINED BY THE OWNER. THE CONTRACTOR SHALL CONDUCT ALL WORK IN CONFORMANCE WITH THE VARIOUS LOCAL, STATE AND FEDERAL PERMITS AND APPROVALS REQUIRED FOR THE PROJECT. THE CONTRACTOR SHALL COORDINATE WITH THE VA COR TO CONFIRM INSPECTION, TESTING, AND CERTIFICATION REQUIREMENTS.
13. PROTECTION OF PROPERTY - THE CONTRACTOR SHALL PROTECT FROM DAMAGE OR DESTRUCTION TO PRIVATE AND PUBLIC PROPERTY ON OR IN THE VICINITY OF THE WORK THAT IS NOT SCHEDULED FOR REPAIR, REPLACEMENT OR REMOVAL, AND SHALL ENSURE THAT INTERFERENCE WITH THE USE OF SUCH PROPERTY IS MINIMIZED. SEE VA SPECIFICATION 01 00 00 GENERAL REQUIREMENTS.
14. DAMAGE DURING CONSTRUCTION - ANY EXISTING PUBLIC OR PRIVATE IMPROVEMENTS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED IN A MATTER TO BE APPROVED BY THE LOCAL JURISDICTION, APPROPRIATE UTILITY OWNER OR OWNER. IF ROADWAY PAVEMENT MUST BE BROKEN, THE LOCAL TRANSPORTATION DEPARTMENT WILL EITHER REPAIR THE STREET AND BILL THE CONTRACTOR FOR THIS WORK, OR ALLOW THE CONTRACTOR TO COMPLETE THESE REPAIRS TO THEIR STANDARDS. ALL DISTURBED PROPERTY AND VEGETATION SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER AS SPECIFIED. SEE VA SPECIFICATION 01 00 00 GENERAL REQUIREMENTS.

LEGEND:

- BUILDING IN SCOPE - CLINICAL
- BUILDING IN SCOPE - NON-CLINICAL
- UGC — EXISTING UNDERGROUND COMMUNICATIONS
- UT — EXISTING UNDERGROUND TELEPHONE
- T — EXISTING OVERHEAD TELEPHONE
- (T) EXISTING TELEPHONE MANHOLE

1" = 80'-0" SCALE: 80 0 80 160 240 320 FEET

PLAN NORTH N

100% CD PRELIMINARY
NOT FOR CONSTRUCTION

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP
NORTH CAROLINA PROFESSIONAL SEAL 039940 ENGINEER JEFFREY A. LOPE
12/19/2025

Facilities Management Services

U.S. Department of Veterans Affairs

Drawing Title: EXISTING CONDITIONS PLAN	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
			Building Number:
Approved: FOR OFFICIAL USE ONLY	FULLY SPRINKLERED	Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Drawing Number: 00-CI001
		Issue Date: 12.19.2025 / Checked: JAL / Drawn: BJF	SHEET 13 of 559

Autodesk Docs://Asheville EHRM_V23/637-22-700.011.E.ASH- EHRM.rvt
9/24/2025 8:52:59 AM
VA FORM 08 - 6231

F1 COMMUNICATIONS PLAN
SCALE: 1" = 80'-0"

SHEET NOTES:

1. INFORMATION ON EXISTING SITE UTILITIES SHOWN ON THIS EXISTING CONDITIONS PLAN IS BASED ON UTILITY INFORMATION PROVIDED BY VA OFFICE OF FACILITIES ON OCTOBER 11, 2022 SITE VISIT.
2. INFORMATION ON EXISTING COMMUNICATIONS CONDUIT BETWEEN BUILDINGS 2, 3, 4, 5, 6 AND 7 WAS OBTAINED FROM THE SITE ELECTRICAL PLAN, LEGEND AND DETAILS RECORD DRAWING DATED DECEMBER 2, 1993, PREPARED BY SOUTHEASTERN ARCHITECTS, ENGINEERS, PLANNERS, INC. AND PROVIDED BY THE VA OFFICE OF FACILITIES AND WAS FIELD VERIFIED BY COFFMAN ON FEBRUARY21, 2023 SITE VISIT.
3. INFORMATION ON EXISTING COMMUNICATIONS CONDUIT BETWEEN BUILDINGS 47 AND 15 WAS OBTAINED FROM THE SITE ELECTRICAL PLAN, LEGEND AND DETAILS RECORD DRAWING DATED DECEMBER 2, 1993, PREPARED BY SOUTHEASTERN ARCHITECTS, ENGINEERS, PLANNERS, INC. AND PROVIDED BY THE VA OFFICE OF FACILITIES AND WAS FIELD VERIFIED BY COFFMAN ON FEBRUARY21, 2023 SITE VISIT.
4. COMMUNICATIONS SCOPE - THE COMMUNICATIONS SCOPE OF WORK IS TO FURNISH AND INSTALL AN OUTSIDE PLANT (OSP) FIBER OPTIC BACKBONE INFRASTRUCTURE BETWEEN THE MAIN HOSPITAL BUILDING (BLDG 47) AND THE REMOTE CAMPUS BUILDINGS IDENTIFIED ON THE PLAN USING OPTICAL SINGLEMODE FIBER (OS2), 24 STRAND, INSTALLED IN 4-INCH CONDUIT DUCT BANK.
5. NOTE CONFLICT PRECEDENCE - IF THERE IS A CONFLICT BETWEEN THE NOTES INCLUDED ON THIS SHEET AND THE NOTES PROVIDED BY THE AUTHORITY HAVING JURISDICTION (AHJ), THE NOTES PROVIDED BY THE AHJ SHALL TAKE PRECEDENCE.
6. MAINTAIN A HORIZONTAL CLEARANCE OF AT LEAST 3' BETWEEN DUCT BANKS AND PIPED UTILITIES WHERE POSSIBLE.

GENERAL NOTES:

1. SURVEY-THE CONTRACTOR IS RESPONSIBLE TO CONDUCT / PROVIDE A FULL UTILITY SURVEY OF THE EXISTING LOW VOLTAGE COMMUNICATION INFRASTRUCTURE INCLUDING EXISTING CONDUIT, PATHWAYS, PULLBOXES AND TERMINATION POINTS AT BUILDINGS. THE SURVEY SHALL BE PRESENTED TO THE VA COR PRIOR TO PERFORMING SITE WORK.
2. EXISTING UTILITY LOCATIONS - EXISTING UTILITY AND OTHER SUBSURFACE INFORMATION SHOWN ON SHEET C-100 HAS BEEN COMPILED FROM THE BEST INFORMATION AVAILABLE. THIS INFORMATION, HOWEVER, IS NOT GUARANTEED TO BE ACCURATE OR COMPLETE. CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL EXISTING UNDERGROUND UTILITIES SHOWN AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THESE DRAWINGS. CONTRACTOR SHALL PROVIDE AN INDEPENDENT PRIVATE UTILITY LOCATE TWO (2) WEEKS BEFORE STARTING PROJECT SITE WORK. SHOULD ANY DAMAGE TO ANY EXISTING UTILITIES OCCUR DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE COR IMMEDIATELY, AND ANY COSTS ASSOCIATED WITH REPAIR SHALL BE BORNE BY THE CONTRACTOR.
3. UTILITY COVER & CLEARANCES - THE CONTRACTOR SHALL COORDINATE WITH THE AUTHORITIES HAVING JURISDICTION FOR ALL REQUIREMENTS AND TO CONFIRM THAT AN ADEQUATE DEPTH OF COVER IS MAINTAINED OVER THE UTILITIES, INCLUDING CLEARANCES BETWEEN THE VARIOUS UTILITIES. A MINIMUM VERTICAL SEPARATION OF 24-INCHES IS TO BE MAINTAINED BETWEEN UNDERGROUND COMMUNICATIONS CROSSINGS WITH ALL OTHER UTILITIES, SEE DETAIL F1:00-CI601.
4. UTILITY TAPE - UTILITY PIPE AND CONDUITS SHALL BE INSTALLED WITH CONTINUOUS WARNING TAPE DIRECTLY OVER PIPING AT DEPTHS IN COMPLIANCE WITH THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION AND AT OUTSIDE EDGE OF UNDERGROUND STRUCTURES. USE DETECTABLE WARNING TAPE OVER NONFERROUS PIPING. SEE VA SPECIFICATION SECTON 31 20 00 EARTHWORK.
5. FITTINGS AND JOINTS - FOR EACH TYPE OF PIPE, USE JOINING MATERIALS RECOMMENDED BY PIPING SYSTEM MANUFACTURER, UNLESS OTHERWISE INDICATED.
6. BUILDING CONNECTIONS - UTILITIES SHALL BE STUBBED FIVE (5) FEET OUTSIDE OF THE BUILDING. THE CONTRACTOR SHALL COORDINATE CONTINUATION OF UTILITY SERVICES AND UTILITY CONNECTIONS TO THE BUILDING. CONTRACT WITH OTHER DOCUMENTS CONTAINED WITHIN THIS EHRM INFRASTRUCTURE UPGRADE PROJECT.
7. EXCAVATION & BACKFILL - SAFE EXCAVATION & BACKFILL PRACTICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM TO REGULATIONS ESTABLISHED BY PERTINENT STATE AND FEDERAL OCCUPATIONAL SAFETY AND HEALTH AGENCIES. EXCAVATIONS DEEPER THAN 4-FEET MUST BE SHORED, SHEETED, BRACED, SLOPED, OR SUPPORTED BY A MEANS OF SUFFICIENT STRENGTH TO PROTECT EMPLOYEES. EXCAVATIONS DEEPER THAN 20-FEET MUST INCLUDE A PROTECTION SYSTEM DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED WITH THE STATE OF NORTH CAROLINA. EXCAVATION MATERIALS ARE TO BE STORED AT LEAST 2-FEET FROM THE EDGE OF THE EXCAVATION OR TRENCH WHEN EMPLOYEES ARE WORKING IN THE EXCAVATION. SITE DEVICES MAY BE REQUIRED TO PREVENT THE MATERIAL FROM FALLING OR ROLLING INTO THE EXCAVATION. WHEN TRENCHES OR OTHER EXCAVATIONS ARE WITHIN 4-FEET OF PUBLIC PROPERTY, BARRICADES MUST BE SET UP FOR PUBLIC SAFETY, AND THE EXCAVATION MUST BE COVERED WHEN WORK IS NOT IN PROGRESS. SEE VA SPECIFICATION SECTION 31 20 00 EARTHWORK.
8. PIPE TRENCH & BEDDING - ALL PIPE SHALL BE LAID ON A PROPERLY PREPARED FOUNDATION IN CONFORMANCE WITH THE REQUIREMENTS OF VA SPECIFICATIONS. THIS SHALL INCLUDE NECESSARY LEVELING OF THE TRENCH BOTTOM OR THE TOP OF THE FOUNDATION MATERIAL AS WELL AS PLACEMENT AND COMPACTION OF REQUIRED BEDDING MATERIAL TO UNIFORM GRADE, SO THAT THE ENTIRE LENGTH OF THE PIPE WILL BE SUPPORTED ON A UNIFORM, DENSE, UNYIELDING BASE. IF THE NATIVE MATERIAL IN THE BOTTOM OF THE TRENCH MEETS THE REQUIREMENTS FOR "GRAVEL BACKFILL FOR PIPE BEDDING" THE FIRST LIFT OF PIPE BEDDING MAY BE OMITTED, PROVIDED THE MATERIAL IN THE BOTTOM OF THE TRENCH IS LOOSENED, REGRADED AND COMPACTED TO FORM A DENSE UNYIELDING BASE. SEE VA SPECIFICATION SECTION 31 20 00 EARTHWORK.
9. TRENCH BACKFILL - BACKFILL OF TRENCHES SHALL BE IN ACCORDANCE WITH THE VA STANDARD SPECIFICATIONS. SEE VA SPECIFICATION SECTION 31 20 00 EARTHWORK.
10. TRENCH SURFACE RESTORATION - THE GROUND SURFACES OF ALL TRENCHES IN THE PUBLIC RIGHT-OF-WAY OR ON OFF-SITE PROPERTIES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER IN CONFORMANCE WITH THE REQUIREMENTS OF THE LOCAL JURISDICTION. SEE VA SPECIFICATION SECTION 31 20 00 EARTHWORK.
11. COMPACTION OVER UTILITIES - ALL TRENCH BACKFILL AND ROADWAY EMBANKMENT SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR DRY MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D1557, EXCEPT THE TOP 6 INCHES OF TRENCH BELOW THE BOTTOM OF THE PAVEMENT, WHICH SHALL BE 100%. SEE VA SPECIFICATION SECTION 31 20 00 EARTHWORK.
12. FIELD CONTROL - FIELD QUALITY CONTROL SHALL COMPLY WITH THE VA REQUIREMENTS. INSPECT, TEST, DISINFECT, AND CLEAN UTILITY LINES IN ACCORDANCE WITH REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION. SEE VA SPECIFICATION 26 05 41 UNDERGROUND ELECTRICAL CONSTRUCTION.
13. STRIPING - ALL STRIPING THAT IS REMOVED OR DAMAGED DURING TRENCHING SHALL BE RESTORED IN KIND TO THE ORIGINAL CONDITION AND IN CONFORMANCE WITH THE REQUIREMENTS OF THE VA. SEE VA SPECIFICATION SECTION 32 17 23 PAVEMENT MARKINGS.
14. SEE VA SPECIFICATIONS 32 90 00 FOR PLANTING INFORMATION AND 01 57 19 FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.

KEY NOTES:

THE KEY NOTES BELOW REPRESENT TRENCHING DESIGNATION FROM HANDHOLE TO HANDHOLE.

1. 1 X 2 DUCT BANK WITH 4" CONDUITS (TYP.) CONCRETE ENCASED. SEE DETAIL B1 FOR BENEATH NON-TRAVELWAY AND DETAIL B5 FOR BENEATH TRAVELWAY ON SHEET 00-CI601.
2. 2 X 2 DUCT BANK WITH 4" CONDUITS (TYP.) CONCRETE ENCASED. SEE DETAIL E1 FOR BENEATH NON-TRAVELWAY AND E5 FOR BENEATH TRAVELWAY ON SHEET 00-CI601.
3. 1 X 3 DUCT BANK WITH 4" CONDUITS (TYP.) CONCRETE ENCASED. SEE DETAIL B1 FOR BENEATH NON-TRAVELWAY AND DETAIL B5 FOR BENEATH TRAVELWAY ON SHEET 00-CI602.

LEGEND:

- BUILDING IN SCOPE - CLINICAL
- BUILDING IN SCOPE - NON-CLINICAL
- TRAVELWAY PAVEMENT, SIDEWALK, CURB AND/OR GUTTER DEMOLITION AND REPLACEMENT, SEE DETAIL F1:000-CI602
- UGC — EXISTING UNDERGROUND COMMUNICATIONS
- UT — EXISTING UNDERGROUND TELEPHONE
- T — EXISTING OVERHEAD TELEPHONE
- UGC — UNDERGROUND FIBER DUCT BANK
- UGC — UNDERGROUND FIBER DUCT BANK TO BE ADDED AND ROUTED ALONG EXISTING PATHWAYS
- COMMUNICATIONS PULL BOX/HANDHOLE
- EXISTING TELEPHONE MANHOLE
- TREE PROTECTION FENCING

1" = 80'-0" SCALE: 80 0 80 160 240 320 FEET

PLAN NORTH N

100% CD PRELIMINARY
NOT FOR CONSTRUCTION

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 478
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

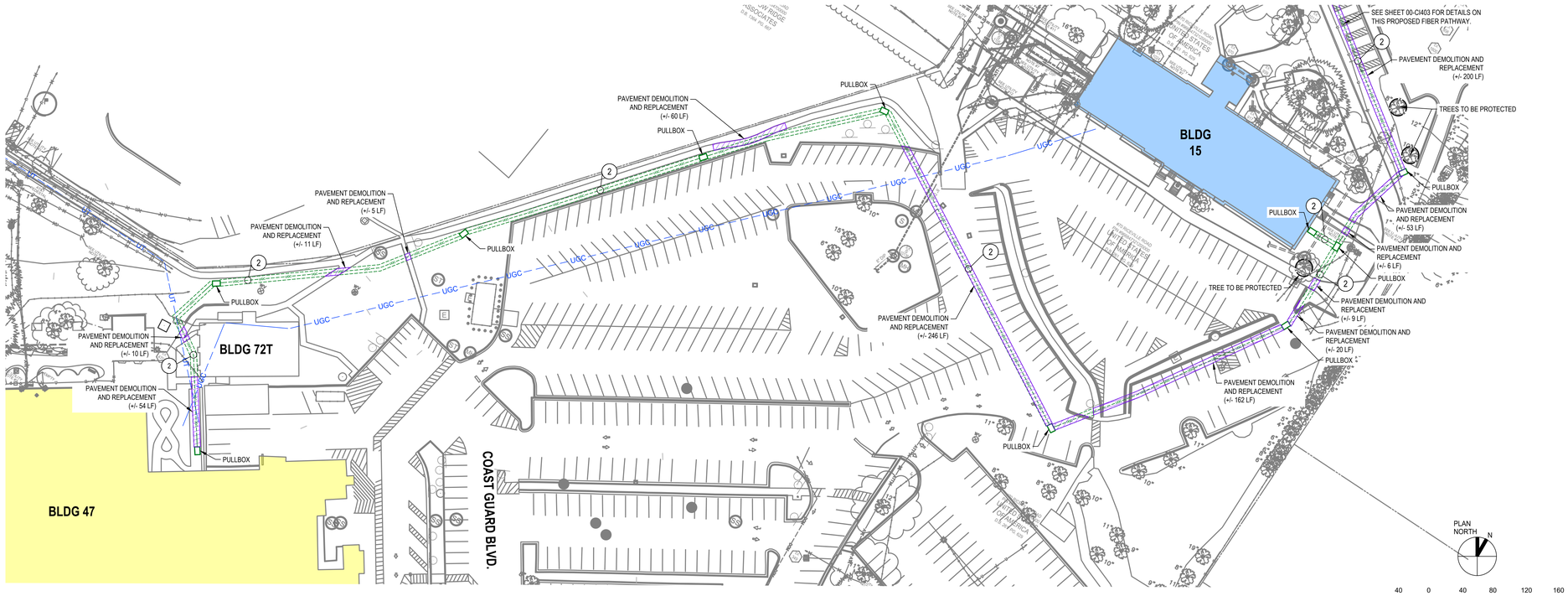
STAMP
NORTH CAROLINA PROFESSIONAL SEAL 049540 ENGINEER JEFFREY A. LOWE
12/19/2025

Facilities Management Services

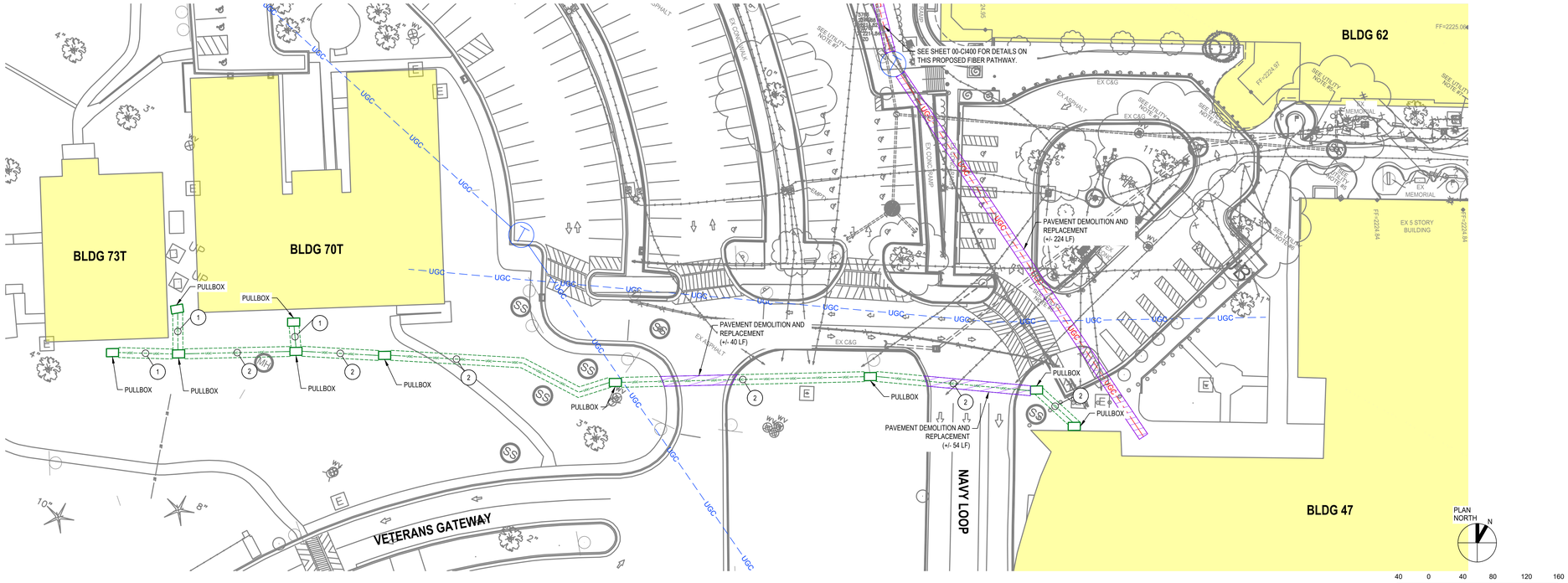
VA U.S. Department of Veterans Affairs

Drawing Title: COMMUNICATIONS PLAN	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved: FOR OFFICIAL USE ONLY	FULLY SPRINKLERED	Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Building Number:
		Issue Date: 12.19.2025 / Checked: JAL / Drawn: BJF	Drawing Number: 00-CI400
			SHEET 14 of 559

Autodesk Docs://Asheville EHRM_V23/637-22-700.011 E ASH- EHRM.rvt
9/24/2025 8:52:39 AM
VA FORM 08 - 6231



C1 BUILDING 47 TO 15
SCALE: 1" = 40'-0"



F1 BUILDING 47 TO BUILDINGS 70T AND 73T
SCALE: 1" = 40'-0"

SHEET NOTES:

1. INFORMATION ON EXISTING SITE UTILITIES SHOWN ON THIS EXSITING CONDITIONS PLAN IS BASED ON UTILITY INFORMATION PROVIDED BY VA OFFICE OF FACILITIES ON OCTOBER 11, 2022 SITE VISIT.
2. INFORMATION ON EXISTING COMMUNICATIONS CONDUIT BETWEEN BUILDINGS 2, 3, 4, 5, 6 AND 7 WAS OBTAINED FROM THE SITE ELECTRICAL PLAN, LEGEND AND DETAILS RECORD DRAWING DATED DECEMBER 2, 1993, PREPARED BY SOUTHEASTERN ARCHITECTS, ENGINEERS, PLANNERS, INC. AND PROVIDED BY THE VA OFFICE OF FACILITIES AND WAS FIELD VERIFIED BY COFFMAN ON FEBRUARY21, 2023 SITE VISIT.
3. INFORMATION ON EXISTING COMMUNICATIONS CONDUIT BETWEEN BUILDINGS 47 AND 15 WAS OBTAINED FROM THE SITE ELECTRICAL PLAN, LEGEND AND DETAILS RECORD DRAWING DATED DECEMBER 2, 1993, PREPARED BY SOUTHEASTERN ARCHITECTS, ENGINEERS, PLANNERS, INC. AND PROVIDED BY THE VA OFFICE OF FACILITIES AND WAS FIELD VERIFIED BY COFFMAN ON FEBRUARY21, 2023 SITE VISIT.
4. COMMUNICATIONS SCOPE - THE COMMUNICATIONS SCOPE OF WORK IS TO FURNISH AND INSTALL AN OUTSIDE PLANT (OSP) FIBER OPTIC BACKBONE INFRASTRUCTURE BETWEEN THE MAIN HOSPITAL BUILDING (BLDG 47) AND THE REMOTE CAMPUS BUILDINGS IDENTIFIED ON THE PLAN USING OPTICAL SINGLEMODE FIBER (OSZ), 24 STRAND, INSTALLED IN 4-INCH CONDUIT DUCT BANK.
5. NOTE CONFLICT PRECEDENCE - IF THERE IS A CONFLICT BETWEEN THE NOTES INCLUDED ON THIS SHEET AND THE NOTES PROVIDED BY THE AUTHORITY HAVING JURISDICTION (AHJ), THE NOTES PROVIDED BY THE AHJ SHALL TAKE PRECEDENCE.
6. MAINTAIN A HORIZONTAL CLEARANCE OF AT LEAST 3' BETWEEN DUCT BANKS AND PIPED UTILITIES WHERE POSSIBLE.

GENERAL NOTES:

1. SURVEY-THE CONTRACTOR IS RESPONSIBLE TO CONDUCT / PROVIDE A FULL UTILITY SURVEY OF THE EXISTING LOW VOLTAGE COMMUNICATION INFRASTRUCTURE INCLUDING EXISTING CONDUIT, PATHWAYS, PULLBOXES AND TERMINATION POINTS AT BUILDINGS. THE SURVEY SHALL BE PRESENTED TO THE VA COR PRIOR TO PERFORMING SITE WORK.
2. EXISTING UTILITY LOCATIONS - EXISTING UTILITY AND OTHER SUBSURFACE INFORMATION SHOWN ON SHEET C-100 HAS BEEN COMPILED FROM THE BEST INFORMATION AVAILABLE. THIS INFORMATION, HOWEVER, IS NOT GUARANTEED TO BE ACCURATE OR COMPLETE. CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL EXISTING UNDERGROUND UTILITIES SHOWN AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THESE DRAWINGS. CONTRACTOR SHALL PROVIDE AN INDEPENDENT PRIVATE UTILITY LOCATE TWO (2) WEEKS BEFORE STARTING PROJECT SITE WORK. SHOULD ANY DAMAGE TO ANY EXISTING UTILITIES OCCUR DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE COR IMMEDIATELY, AND ANY COSTS ASSOCIATED WITH REPAIR SHALL BE BORNE BY THE CONTRACTOR.
3. UTILITY COVER & CLEARANCES - THE CONTRACTOR SHALL COORDINATE WITH THE AUTHORITIES HAVING JURISDICTION FOR ALL REQUIREMENTS AND TO CONFIRM THAT AN ADEQUATE DEPTH OF COVER IS MAINTAINED OVER THE UTILITIES, INCLUDING CLEARANCES BETWEEN THE VARIOUS UTILITIES. A MINIMUM VERTICAL SEPARATION OF 24-INCHES IS TO BE MAINTAINED BETWEEN UNDERGROUND COMMUNICATIONS CROSSINGS WITH ALL OTHER UTILITIES, SEE DETAIL F1:00-CI601.
4. UTILITY TAPE - UTILITY PIPE AND CONDUITS SHALL BE INSTALLED WITH CONTINUOUS WARNING TAPE DIRECTLY OVER PIPING AT DEPTHS IN COMPLIANCE WITH THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION AND AT OUTSIDE EDGE OF UNDERGROUND STRUCTURES. USE DETECTABLE WARNING TAPE OVER NONFERROUS PIPING. SEE VA SPECIFICATION SECTON 31 20 00 EARTHWORK.
5. FITTINGS AND JOINTS - FOR EACH TYPE OF PIPE, USE JOINING MATERIALS RECOMMENDED BY PIPING SYSTEM MANUFACTURER, UNLESS OTHERWISE INDICATED.
6. BUILDING CONNECTIONS - UTILITIES SHALL BE STUBBED FIVE (5) FEET OUTSIDE OF THE BUILDING. THE CONTRACTOR SHALL COORDINATE CONTINUATION OF UTILITY SERVICES AND UTILITY CONNECTIONS TO THE BUILDING. CONTRACT WITH OTHER DOCUMENTS CONTAINED WITHIN THIS EHRM INFRASTRUCTURE UPGRADE PROJECT.
7. EXCAVATION & BACKFILL - SAFE EXCAVATION & BACKFILL PRACTICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM TO REGULATIONS ESTABLISHED BY PERTINENT STATE AND FEDERAL OCCUPATIONAL SAFETY AND HEALTH AGENCIES. EXCAVATIONS DEEPER THAN 4-FEET MUST BE SHORED, SHEETED, BRACED, SLOPED, OR SUPPORTED BY A MEANS OF SUFFICIENT STRENGTH TO PROTECT EMPLOYEES. EXCAVATIONS DEEPER THAN 20-FEET MUST INCLUDE A PROTECTION SYSTEM DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED WITH THE STATE OF NORTH CAROLINA. EXCAVATION MATERIALS ARE TO BE STORED AT LEAST 2-FEET FROM THE EDGE OF THE EXCAVATION OR TRENCH WHEN EMPLOYEES ARE WORKING IN THE EXCAVATION. SITE DEVICES MAY BE REQUIRED TO PREVENT THE MATERIAL FROM FALLING OR ROLLING INTO THE EXCAVATION. WHEN TRENCHES OR OTHER EXCAVATIONS ARE WITHIN 4-FEET OF PUBLIC PROPERTY, BARRICADES MUST BE SET UP FOR PUBLIC SAFETY, AND THE EXCAVATION MUST BE COVERED WHEN WORK IS NOT IN PROGRESS. SEE VA SPECIFICATION SECTION 31 20 00 EARTHWORK.
8. PIPE TRENCH & BEDDING - ALL PIPE SHALL BE LAID ON A PROPERLY PREPARED FOUNDATION IN CONFORMANCE WITH THE REQUIREMENTS OF VA SPECIFICATIONS. THIS SHALL INCLUDE NECESSARY LEVELING OF THE TRENCH BOTTOM OR THE TOP OF THE FOUNDATION MATERIAL AS WELL AS PLACEMENT AND COMPACTION OF REQUIRED BEDDING MATERIAL TO UNIFORM GRADE SO THAT THE ENTIRE LENGTH OF THE PIPE WILL BE SUPPORTED ON A UNIFORMLY DENSE, UNYIELDING BASE. IF THE NATIVE MATERIAL IN THE BOTTOM OF THE TRENCH MEETS THE REQUIREMENTS FOR "GRAVEL BACKFILL FOR PIPE BEDDING" THE FIRST LIFT OF PIPE BEDDING MAY BE OMITTED, PROVIDED THE MATERIAL IN THE BOTTOM OF THE TRENCH IS LOOSENED, REGRADED AND COMPACTED TO FORM A DENSE UNYIELDING BASE. SEE VA SPECIFICATION SECTION 31 20 00 EARTHWORK.
9. TRENCH BACKFILL - BACKFILL OF TRENCHES SHALL BE IN ACCORDANCE WITH THE VA STANDARD SPECIFICATIONS. SEE VA SPECIFICATION SECTION 31 20 00 EARTHWORK.
10. TRENCH SURFACE RESTORATION - THE GROUND SURFACES OF ALL TRENCHES IN THE PUBLIC RIGHT-OF-WAY OR ON OFF-SITE PROPERTIES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER IN CONFORMANCE WITH THE REQUIREMENTS OF THE LOCAL JURISDICTION. SEE VA SPECIFICATION SECTION 31 20 00 EARTHWORK.
11. COMPACTION OVER UTILITIES - ALL TRENCH BACKFILL AND ROADWAY EMBANKMENT SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR DRY MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D1557, EXCEPT THE TOP 6 INCHES OF TRENCH BELOW THE BOTTOM OF THE PAVEMENT, WHICH SHALL BE 100%. SEE VA SPECIFICATION SECTION 31 20 00 EARTHWORK.
12. FIELD CONTROL - FIELD QUALITY CONTROL SHALL COMPLY WITH THE VA REQUIREMENTS. INSPECT, TEST, DISINFECT, AND CLEAN UTILITY LINES IN ACCORDANCE WITH REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION. SEE VA SPECIFICATION 26 05 41 UNDERGROUND ELECTRICAL CONSTRUCTION.
13. STRIPING - ALL STRIPING THAT IS REMOVED OR DAMAGED DURING TRENCHING SHALL BE RESTORED IN KIND TO THE ORIGINAL CONDITION AND IN CONFORMANCE WITH THE REQUIREMENTS OF THE VA. SEE VA SPECIFICATION SECTION 32 17 23 PAVEMENT MARKINGS.
14. SEE VA SPECIFICATIONS 32 90 00 FOR PLANTING INFORMATION AND 01 57 19 FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.

KEY NOTES:

THE KEY NOTES BELOW REPRESENT TRENCHING DESIGNATION FROM HANDHOLE TO HANDHOLE.

1. 1 X 2 DUCT BANK WITH 4" CONDUITS (TYP.) CONCRETE ENCASED. SEE DETAIL B1 FOR BENEATH NON-TRAVELWAY AND DETAIL B5 FOR BENEATH TRAVELWAY ON SHEET 00-CI601.
2. 2 X 2 DUCT BANK WITH 4" CONDUITS (TYP.) CONCRETE ENCASED. SEE DETAIL E1 FOR BENEATH NON-TRAVELWAY AND E5 FOR BENEATH TRAVELWAY ON SHEET 00-CI601.
3. 1 X 3 DUCT BANK WITH 4" CONDUITS (TYP.) CONCRETE ENCASED. SEE DETAIL B1 FOR BENEATH NON-TRAVELWAY AND DETAIL B5 FOR BENEATH TRAVELWAY ON SHEET 00-CI602.

LEGEND:

- BUILDING IN SCOPE - CLINICAL
- BUILDING IN SCOPE - NON-CLINICAL
- TRAVELWAY PAVEMENT, SIDEWALK, CURB AND/OR GUTTER DEMOLITION AND REPLACEMENT, SEE DETAIL F1:000-CI602
- UGC — EXISTING UNDERGROUND COMMUNICATIONS
- UT — EXISTING UNDERGROUND TELEPHONE
- T — EXISTING OVERHEAD TELEPHONE
- UGC — UNDERGROUND FIBER DUCT BANK
- UGC — UNDERGROUND FIBER DUCT BANK TO BE ADDED AND ROUTED ALONG EXISTING PATHWAYS
- COMMUNICATIONS PULL BOX/HANDHOLE
- EXISTING TELEPHONE MANHOLE
- TREE PROTECTION FENCING

100% CD PRELIMINARY
NOT FOR CONSTRUCTION

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph 919.314.6688
www.coffman.com

STAMP

NORTH CAROLINA PROFESSIONAL SEAL 049640 ENGINEER JEFFREY A. LOWE
12/19/2025

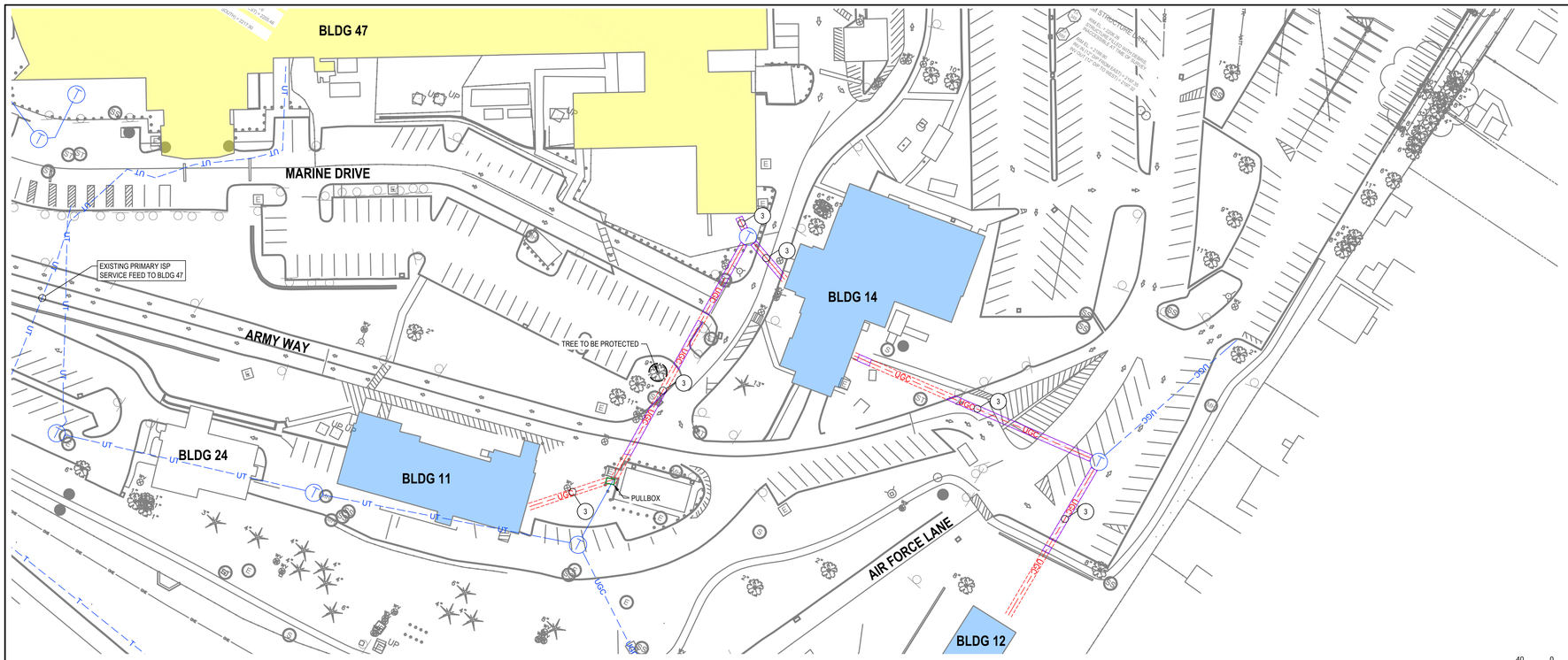
Facilities Management Services

VA U.S. Department of Veterans Affairs

Drawing Title: COMMUNICATIONS KEY PLAN INSETS	Phase: 100% CONSTRUCTION DOCUMENTS
Approved: FOR OFFICIAL USE ONLY	FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
	Building Number:
Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Drawing Number: 00-CI401
Issue Date: 12.19.2025 / Checked: JAL / Drawn: BJF	SHEET 15 of 559

Autodesk Docs://Asheville EHRM_V23/637-22-700.011 E ASH- EHRM.rvt
9/24/2025 8:52:59 AM
VA FORM 08 - 6231

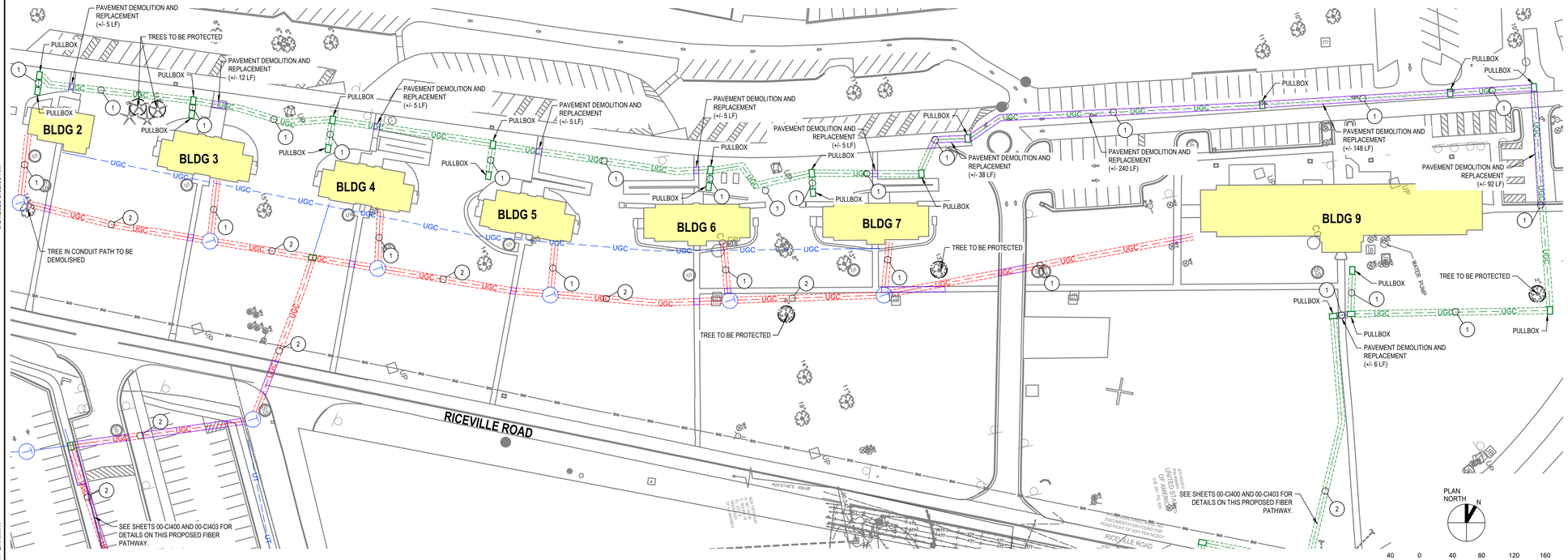


C1 BUILDING 47 TO BUILDINGS 11, 12 AND 14

SCALE: 1" = 40'-0"

PLAN NORTH N

1" = 40'-0" 40 0 40 80 120 160 SCALE FEET



F1 BUILDINGS 2, 3, 4, 5, 6, 7 AND 9

SCALE: 1" = 40'-0"

PLAN NORTH N

1" = 40'-0" 40 0 40 80 120 160 SCALE FEET

SHEET NOTES:

1. INFORMATION ON EXISTING SITE UTILITIES SHOWN ON THIS EXSITING CONDITIONS PLAN IS BASED ON UTILITY INFORMATION PROVIDED BY VA OFFICE OF FACILITIES ON OCTOBER 11, 2022 SITE VISIT.
2. INFORMATION ON EXISTING COMMUNICATIONS CONDUIT BETWEEN BUILDINGS 2, 3, 4, 5, 6 AND 7 WAS OBTAINED FROM THE SITE ELECTRICAL PLAN, LEGEND AND DETAILS RECORD DRAWING DATED DECEMBER 2, 1993, PREPARED BY SOUTHEASTERN ARCHITECTS, ENGINEERS, PLANNERS, INC. AND PROVIDED BY THE VA OFFICE OF FACILITIES AND WAS FIELD VERIFIED BY COFFMAN ON FEBRUARY21, 2023 SITE VISIT.
3. INFORMATION ON EXISTING COMMUNICATIONS CONDUIT BETWEEN BUILDINGS 47 AND 15 WAS OBTAINED FROM THE SITE ELECTRICAL PLAN, LEGEND AND DETAILS RECORD DRAWING DATED DECEMBER 2, 1993, PREPARED BY SOUTHEASTERN ARCHITECTS, ENGINEERS, PLANNERS, INC. AND PROVIDED BY THE VA OFFICE OF FACILITIES AND WAS FIELD VERIFIED BY COFFMAN ON FEBRUARY21, 2023 SITE VISIT.
4. COMMUNICATIONS SCOPE - THE COMMUNICATIONS SCOPE OF WORK IS TO FURNISH AND INSTALL AN OUTSIDE PLANT (OSP) FIBER OPTIC BACKBONE INFRASTRUCTURE BETWEEN THE MAIN HOSPITAL BUILDING (BLDG 47) AND THE REMOTE CAMPUS BUILDINGS IDENTIFIED ON THE PLAN USING OPTICAL SINGLEMODE FIBER (OS2), 24 STRAND, INSTALLED IN 4-INCH CONDUIT DUCT BANK.
5. NOTE CONFLICT PRECEDENCE - IF THERE IS A CONFLICT BETWEEN THE NOTES INCLUDED ON THIS SHEET AND THE NOTES PROVIDED BY THE AUTHORITY HAVING JURISDICTION (AHJ), THE NOTES PROVIDED BY THE AHJ SHALL TAKE PRECEDENCE.
6. MAINTAIN A HORIZONTAL CLEARANCE OF AT LEAST 3' BETWEEN DUCT BANKS AND PIPED UTILITIES WHERE POSSIBLE.

GENERAL NOTES:

1. SURVEY-THE CONTRACTOR IS RESPONSIBLE TO CONDUCT / PROVIDE A FULL UTILITY SURVEY OF THE EXISTING LOW VOLTAGE COMMUNICATION INFRASTRUCTURE INCLUDING EXISTING CONDUIT, PATHWAYS, PULLBOXES AND TERMINATION POINTS AT BUILDINGS. THE SURVEY SHALL BE PRESENTED TO THE VA COR PRIOR TO PERFORMING SITE WORK.
2. EXISTING UTILITY LOCATIONS - EXISTING UTILITY AND OTHER SUBSURFACE INFORMATION SHOWN ON SHEET C-100 HAS BEEN COMPILED FROM THE BEST INFORMATION AVAILABLE. THIS INFORMATION, HOWEVER, IS NOT GUARANTEED TO BE ACCURATE OR COMPLETE. CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL EXISTING UNDERGROUND UTILITIES SHOWN AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THESE DRAWINGS. CONTRACTOR SHALL PROVIDE AN INDEPENDENT PRIVATE UTILITY LOCATE TWO (2) WEEKS BEFORE STARTING PROJECT SITE WORK. SHOULD ANY DAMAGE TO ANY EXISTING UTILITIES OCCUR DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE COR IMMEDIATELY, AND ANY COSTS ASSOCIATED WITH REPAIR SHALL BE BORNE BY THE CONTRACTOR.
3. UTILITY COVER & CLEARANCES - THE CONTRACTOR SHALL COORDINATE WITH THE AUTHORITIES HAVING JURISDICTION FOR ALL REQUIREMENTS AND TO CONFIRM THAT AN ADEQUATE DEPTH OF COVER IS MAINTAINED OVER THE UTILITIES, INCLUDING CLEARANCES BETWEEN THE VARIOUS UTILITIES. A MINIMUM VERTICAL SEPARATION OF 24-INCHES IS TO BE MAINTAINED BETWEEN UNDERGROUND COMMUNICATIONS CROSSINGS WITH ALL OTHER UTILITIES, SEE DETAIL F1:00-CI601.
4. UTILITY TAPE - UTILITY PIPE AND CONDUITS SHALL BE INSTALLED WITH CONTINUOUS WARNING TAPE DIRECTLY OVER PIPING AT DEPTHS IN COMPLIANCE WITH THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION AND AT OUTSIDE EDGE OF UNDERGROUND STRUCTURES. USE DETECTABLE WARNING TAPE OVER NONFERROUS PIPING. SEE VA SPECIFICATION SECTON 31 20 00 EARTHWORK.
5. FITTINGS AND JOINTS - FOR EACH TYPE OF PIPE, USE JOINING MATERIALS RECOMMENDED BY PIPING SYSTEM MANUFACTURER, UNLESS OTHERWISE INDICATED.
6. BUILDING CONNECTIONS - UTILITIES SHALL BE STUBBED FIVE (5) FEET OUTSIDE OF THE BUILDING. THE CONTRACTOR SHALL COORDINATE CONTINUATION OF UTILITY SERVICES AND UTILITY CONNECTIONS TO THE BUILDING. CONTRACT WITH OTHER DOCUMENTS CONTAINED WITHIN THIS EHRM INFRASTRUCTURE UPGRADE PROJECT.
7. EXCAVATION & BACKFILL - SAFE EXCAVATION & BACKFILL PRACTICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM TO REGULATIONS ESTABLISHED BY PERTINENT STATE AND FEDERAL OCCUPATIONAL SAFETY AND HEALTH AGENCIES. EXCAVATIONS DEEPER THAN 4-FEET MUST BE SHORED, SHEETED, BRACED, SLOPED, OR SUPPORTED BY A MEANS OF SUFFICIENT STRENGTH TO PROTECT EMPLOYEES. EXCAVATIONS DEEPER THAN 20-FEET MUST INCLUDE A PROTECTION SYSTEM DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED WITH THE STATE OF NORTH CAROLINA. EXCAVATION MATERIALS ARE TO BE STORED AT LEAST 2-FEET FROM THE EDGE OF THE EXCAVATION OR TRENCH WHEN EMPLOYEES ARE WORKING IN THE EXCAVATION. SITE DEVICES MAY BE REQUIRED TO PREVENT THE MATERIAL FROM FALLING OR ROLLING INTO THE EXCAVATION. WHEN TRENCHES OR OTHER EXCAVATIONS ARE WITHIN 4-FEET OF PUBLIC PROPERTY, BARRICADES MUST BE SET UP FOR PUBLIC SAFETY, AND THE EXCAVATION MUST BE COVERED WHEN WORK IS NOT IN PROGRESS. SEE VA SPECIFICATION SECTION 31 20 00 EARTHWORK.
8. PIPE TRENCH & BEDDING - ALL PIPE SHALL BE LAID ON A PROPERLY PREPARED FOUNDATION IN CONFORMANCE WITH THE REQUIREMENTS OF VA SPECIFICATIONS. THIS SHALL INCLUDE NECESSARY LEVELING OF THE TRENCH BOTTOM OR THE TOP OF THE FOUNDATION MATERIAL AS WELL AS PLACEMENT AND COMPACTION OF REQUIRED BEDDING MATERIAL TO UNIFORM GRADE SO THAT THE ENTIRE LENGTH OF THE PIPE WILL BE SUPPORTED ON A UNIFORM, DENSE, UNYIELDING BASE. IF THE NATIVE MATERIAL IN THE BOTTOM OF THE TRENCH MEETS THE REQUIREMENTS FOR "GRAVEL BACKFILL FOR PIPE BEDDING" THE FIRST LIFT OF PIPE BEDDING MAY BE OMITTED, PROVIDED THE MATERIAL IN THE BOTTOM OF THE TRENCH IS LOOSENED, REGRADED AND COMPACTED TO FORM A DENSE UNYIELDING BASE. SEE VA SPECIFICATION SECTION 31 20 00 EARTHWORK.
9. TRENCH BACKFILL - BACKFILL OF TRENCHES SHALL BE IN ACCORDANCE WITH THE VA STANDARD SPECIFICATIONS. SEE VA SPECIFICATION SECTION 31 20 00 EARTHWORK.
10. TRENCH SURFACE RESTORATION - THE GROUND SURFACES OF ALL TRENCHES IN THE PUBLIC RIGHT-OF-WAY OR ON OFF-SITE PROPERTIES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER IN CONFORMANCE WITH THE REQUIREMENTS OF THE LOCAL JURISDICTION. SEE VA SPECIFICATION SECTION 31 20 00 EARTHWORK.
11. COMPACTION OVER UTILITIES - ALL TRENCH BACKFILL AND ROADWAY EMBANKMENT SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR DRY MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D1557, EXCEPT THE TOP 6 INCHES OF TRENCH BELOW THE BOTTOM OF THE PAVEMENT, WHICH SHALL BE 100%. SEE VA SPECIFICATION SECTION 31 20 00 EARTHWORK.
12. FIELD CONTROL - FIELD QUALITY CONTROL SHALL COMPLY WITH THE VA REQUIREMENTS. INSPECT, TEST, DISINFECT, AND CLEAN UTILITY LINES IN ACCORDANCE WITH REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION. SEE VA SPECIFICATION 26 05 41 UNDERGROUND ELECTRICAL CONSTRUCTION.
13. STRIPING - ALL STRIPING THAT IS REMOVED OR DAMAGED DURING TRENCHING SHALL BE RESTORED IN KIND TO THE ORIGINAL CONDITION AND IN CONFORMANCE WITH THE REQUIREMENTS OF THE VA. SEE VA SPECIFICATION SECTION 32 17 23 PAVEMENT MARKINGS.
14. SEE VA SPECIFICATIONS 32 90 00 FOR PLANTING INFORMATION AND 01 57 19 FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.

KEY NOTES:

THE KEY NOTES BELOW REPRESENT TRENCHING DESIGNATION FROM HANDHOLE TO HANDHOLE.

1. 1 X 2 DUCT BANK WITH 4" CONDUITS (TYP.) CONCRETE ENCASED. SEE DETAIL B1 FOR BENEATH NON-TRAVELWAY AND DETAIL B5 FOR BENEATH TRAVELWAY ON SHEET 00-CI601.
2. 2 X 2 DUCT BANK WITH 4" CONDUITS (TYP.) CONCRETE ENCASED. SEE DETAIL E1 FOR BENEATH NON-TRAVELWAY AND E5 FOR BENEATH TRAVELWAY ON SHEET 00-CI601.
3. 1 X 3 DUCT BANK WITH 4" CONDUITS (TYP.) CONCRETE ENCASED. SEE DETAIL B1 FOR BENEATH NON-TRAVELWAY AND DETAIL B5 FOR BENEATH TRAVELWAY ON SHEET 00-CI602.

LEGEND:

- BUILDING IN SCOPE - CLINICAL
- BUILDING IN SCOPE - NON-CLINICAL
- TRAVELWAY PAVEMENT, SIDEWALK, CURB AND/OR GUTTER DEMOLITION AND REPLACEMENT, SEE DETAIL F1/000-CI602
- UGC — EXISTING UNDERGROUND COMMUNICATIONS
- UT — EXISTING UNDERGROUND TELEPHONE
- T — EXISTING OVERHEAD TELEPHONE
- UNDERGROUND FIBER DUCT BANK
- UGC — UNDERGROUND FIBER DUCT BANK TO BE ADDED AND ROUTED ALONG EXISTING PATHWAYS
- COMMUNICATIONS PULL BOX/HANDHOLE
- EXISTING TELEPHONE MANHOLE
- TREE PROTECTION FENCING

100% CD PRELIMINARY
NOT FOR CONSTRUCTION

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph 919.314.6688
www.coffman.com

STAMP

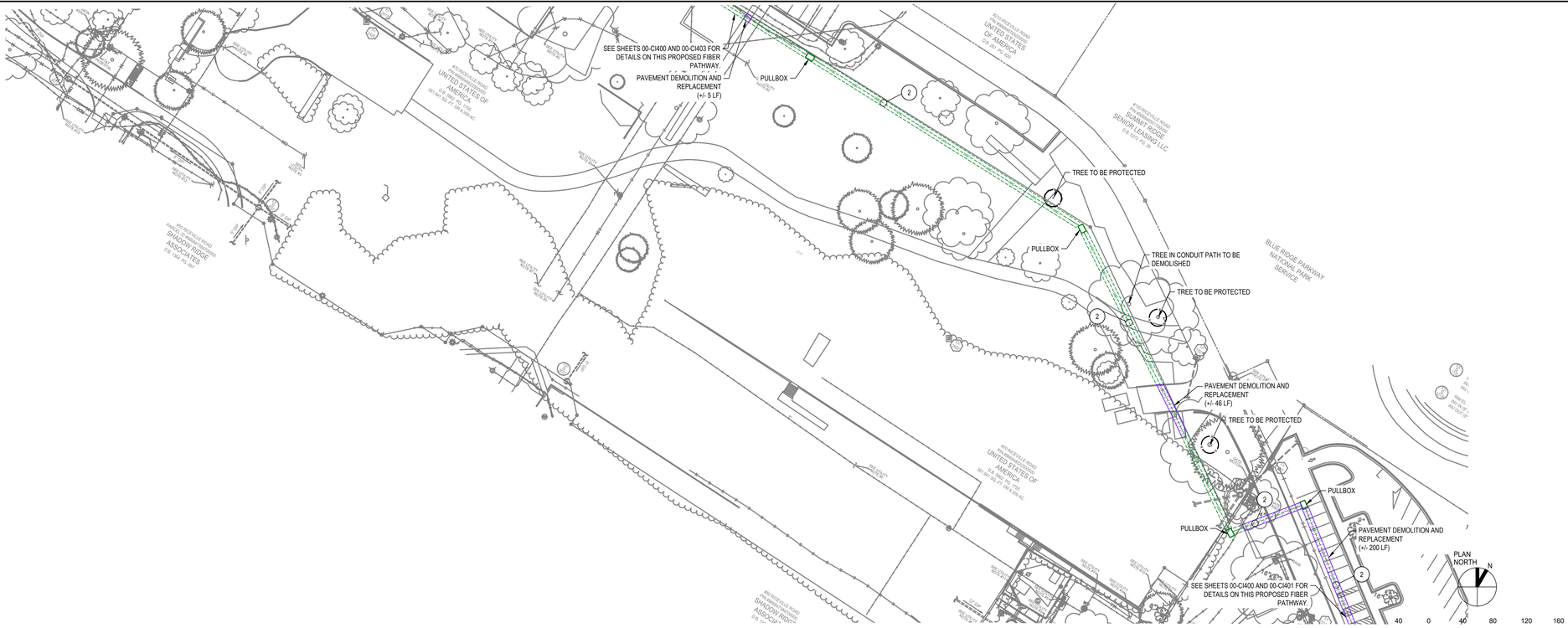
NORTH CAROLINA PROFESSIONAL SEAL 049640 ENGINEER JEFFREY A. LOWE
12/19/2025

Facilities Management Services

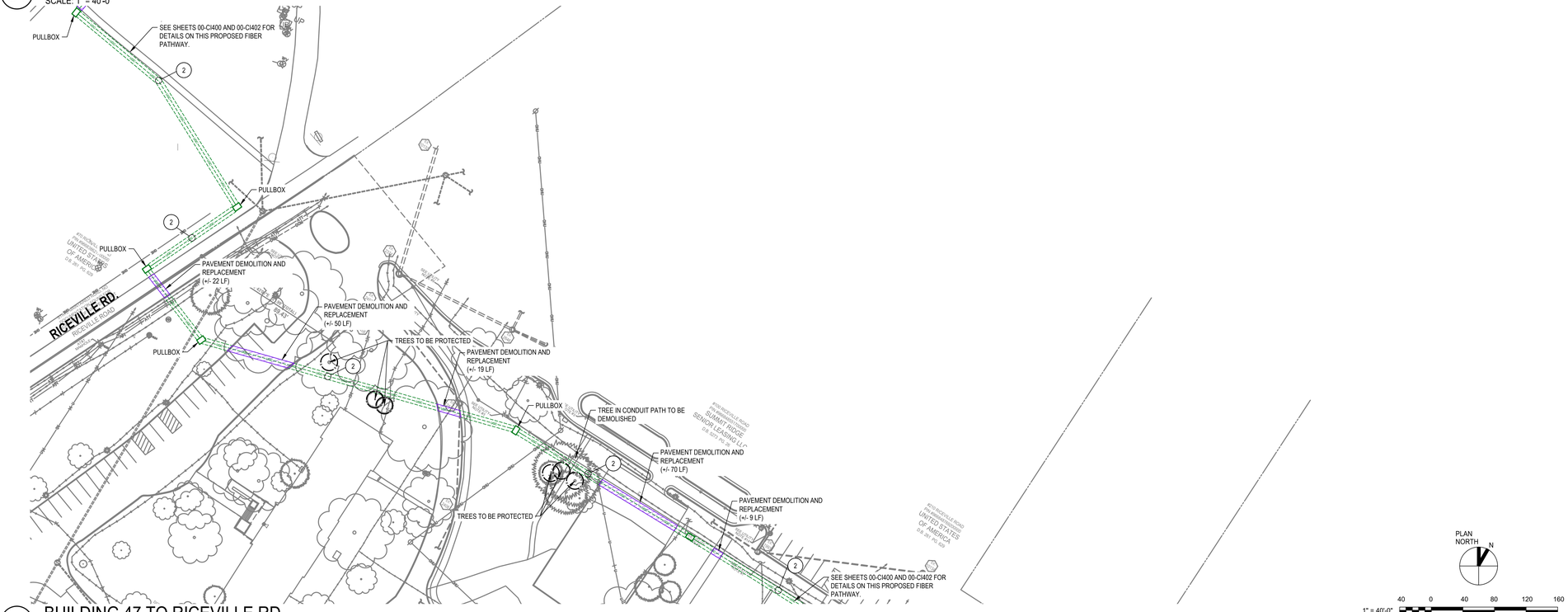
U.S. Department of Veterans Affairs

Drawing Title: COMMUNICATIONS KEY PLAN INSETS	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved:	FULLY SPRINKLERED	Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Building Number
FOR OFFICIAL USE ONLY		Issue Date: 12.19.2025 / Checked: JAL / Drawn: BJF	Drawing Number: 00-CI402
			SHEET 16 of 559

Autodesk Docs://Asheville EHRM_V23\637-22-700.011 E ASH- EHRM.rvt
9/24/2025 8:52:59 AM
VA FORM 08 - 6231



C1 BUILDING 47 TO RICEVILLE RD.
SCALE: 1" = 40'-0"



F1 BUILDING 47 TO RICEVILLE RD.
SCALE: 1" = 40'-0"

SHEET NOTES:

1. INFORMATION ON EXISTING SITE UTILITIES SHOWN ON THIS EXSITING CONDITIONS PLAN IS BASED ON UTILITY INFORMATION PROVIDED BY VA OFFICE OF FACILITIES ON OCTOBER 11, 2022 SITE VISIT.
2. INFORMATION ON EXISTING COMMUNICATIONS CONDUIT BETWEEN BUILDINGS 2, 3, 4, 5, 6 AND 7 WAS OBTAINED FROM THE SITE ELECTRICAL PLAN, LEGEND AND DETAILS RECORD DRAWING DATED DECEMBER 2, 1993, PREPARED BY SOUTHEASTERN ARCHITECTS, ENGINEERS, PLANNERS, INC. AND PROVIDED BY THE VA OFFICE OF FACILITIES AND WAS FIELD VERIFIED BY COFFMAN ON FEBRUARY21, 2023 SITE VISIT.
3. INFORMATION ON EXISTING COMMUNICATIONS CONDUIT BETWEEN BUILDINGS 47 AND 15 WAS OBTAINED FROM THE SITE ELECTRICAL PLAN, LEGEND AND DETAILS RECORD DRAWING DATED DECEMBER 2, 1993, PREPARED BY SOUTHEASTERN ARCHITECTS, ENGINEERS, PLANNERS, INC. AND PROVIDED BY THE VA OFFICE OF FACILITIES AND WAS FIELD VERIFIED BY COFFMAN ON FEBRUARY21, 2023 SITE VISIT.
4. COMMUNICATIONS SCOPE - THE COMMUNICATIONS SCOPE OF WORK IS TO FURNISH AND INSTALL AN OUTSIDE PLANT (OSP) FIBER OPTIC BACKBONE INFRASTRUCTURE BETWEEN THE MAIN HOSPITAL BUILDING (BLDG 47) AND THE REMOTE CAMPUS BUILDINGS IDENTIFIED ON THE PLAN USING OPTICAL SINGLEMODE FIBER (OSZ), 24 STRAND, INSTALLED IN 4-INCH CONDUIT DUCT BANK.
5. NOTE CONFLICT PRECEDENCE - IF THERE IS A CONFLICT BETWEEN THE NOTES INCLUDED ON THIS SHEET AND THE NOTES PROVIDED BY THE AUTHORITY HAVING JURISDICTION (AHJ), THE NOTES PROVIDED BY THE AHJ SHALL TAKE PRECEDENCE.
6. MAINTAIN A HORIZONTAL CLEARANCE OF AT LEAST 3' BETWEEN DUCT BANKS AND PIPED UTILITIES WHERE POSSIBLE.

GENERAL NOTES:

1. SURVEY-THE CONTRACTOR IS RESPONSIBLE TO CONDUCT / PROVIDE A FULL UTILITY SURVEY OF THE EXISTING LOW VOLTAGE COMMUNICATION INFRASTRUCTURE INCLUDING EXISTING CONDUIT, PATHWAYS, PULLBOXES AND TERMINATION POINTS AT BUILDINGS. THE SURVEY SHALL BE PRESENTED TO THE VA COR PRIOR TO PERFORMING SITE WORK.
2. EXISTING UTILITY LOCATIONS - EXISTING UTILITY AND OTHER SUBSURFACE INFORMATION SHOWN ON SHEET C-100 HAS BEEN COMPILED FROM THE BEST INFORMATION AVAILABLE. THIS INFORMATION, HOWEVER, IS NOT GUARANTEED TO BE ACCURATE OR COMPLETE. CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL EXISTING UNDERGROUND UTILITIES SHOWN AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THESE DRAWINGS. CONTRACTOR SHALL PROVIDE AN INDEPENDENT PRIVATE UTILITY LOCATE TWO (2) WEEKS BEFORE STARTING PROJECT SITE WORK. SHOULD ANY DAMAGE TO ANY EXISTING UTILITIES OCCUR DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE COR IMMEDIATELY, AND ANY COSTS ASSOCIATED WITH REPAIR SHALL BE BORNE BY THE CONTRACTOR.
3. UTILITY COVER & CLEARANCES - THE CONTRACTOR SHALL COORDINATE WITH THE AUTHORITIES HAVING JURISDICTION FOR ALL REQUIREMENTS AND TO CONFIRM THAT AN ADEQUATE DEPTH OF COVER IS MAINTAINED OVER THE UTILITIES, INCLUDING CLEARANCES BETWEEN THE VARIOUS UTILITIES. A MINIMUM VERTICAL SEPARATION OF 24-INCHES IS TO BE MAINTAINED BETWEEN UNDERGROUND COMMUNICATIONS CROSSINGS WITH ALL OTHER UTILITIES, SEE DETAIL F1:00-CI601.
4. UTILITY TAPE - UTILITY PIPE AND CONDUITS SHALL BE INSTALLED WITH CONTINUOUS WARNING TAPE DIRECTLY OVER PIPING AT DEPTHS IN COMPLIANCE WITH THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION AND AT OUTSIDE EDGE OF UNDERGROUND STRUCTURES. USE DETECTABLE WARNING TAPE OVER NONFERROUS PIPING. SEE VA SPECIFICATION SECTON 31 20 00 EARTHWORK.
5. FITTINGS AND JOINTS - FOR EACH TYPE OF PIPE, USE JOINING MATERIALS RECOMMENDED BY PIPING SYSTEM MANUFACTURER, UNLESS OTHERWISE INDICATED.
6. BUILDING CONNECTIONS - UTILITIES SHALL BE STUBBED FIVE (5) FEET OUTSIDE OF THE BUILDING. THE CONTRACTOR SHALL COORDINATE CONTINUATION OF UTILITY SERVICES AND UTILITY CONNECTIONS TO THE BUILDING. CONTRACT WITH OTHER DOCUMENTS CONTAINED WITHIN THIS EHRM INFRASTRUCTURE UPGRADE PROJECT.
7. EXCAVATION & BACKFILL - SAFE EXCAVATION & BACKFILL PRACTICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM TO REGULATIONS ESTABLISHED BY PERTINENT STATE AND FEDERAL OCCUPATIONAL SAFETY AND HEALTH AGENCIES. EXCAVATIONS DEEPER THAN 4-FEET MUST BE SHORED, SHEETED, BRACED, SLOPED, OR SUPPORTED BY A MEANS OF SUFFICIENT STRENGTH TO PROTECT EMPLOYEES. EXCAVATIONS DEEPER THAN 20-FEET MUST INCLUDE A PROTECTION SYSTEM DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED WITH THE STATE OF NORTH CAROLINA. EXCAVATION MATERIALS ARE TO BE STORED AT LEAST 2-FEET FROM THE EDGE OF THE EXCAVATION OR TRENCH WHEN EMPLOYEES ARE WORKING IN THE EXCAVATION. SITE DEVICES MAY BE REQUIRED TO PREVENT THE MATERIAL FROM FALLING OR ROLLING INTO THE EXCAVATION. WHEN TRENCHES OR OTHER EXCAVATIONS ARE WITHIN 4-FEET OF PUBLIC PROPERTY, BARRICADES MUST BE SET UP FOR PUBLIC SAFETY, AND THE EXCAVATION MUST BE COVERED WHEN WORK IS NOT IN PROGRESS. SEE VA SPECIFICATION SECTION 31 20 00 EARTHWORK.
8. PIPE TRENCH & BEDDING - ALL PIPE SHALL BE LAID ON A PROPERLY PREPARED FOUNDATION IN CONFORMANCE WITH THE REQUIREMENTS OF VA SPECIFICATIONS. THIS SHALL INCLUDE NECESSARY LEVELING OF THE TRENCH BOTTOM OR THE TOP OF THE FOUNDATION MATERIAL AS WELL AS PLACEMENT AND COMPACTION OF REQUIRED BEDDING MATERIAL TO UNIFORM GRADE SO THAT THE ENTIRE LENGTH OF THE PIPE WILL BE SUPPORTED ON A UNIFORMLY DENSE, UNYIELDING BASE. IF THE NATIVE MATERIAL IN THE BOTTOM OF THE TRENCH MEETS THE REQUIREMENTS FOR "GRAVEL BACKFILL FOR PIPE BEDDING" THE FIRST LIFT OF PIPE BEDDING MAY BE OMITTED, PROVIDED THE MATERIAL IN THE BOTTOM OF THE TRENCH IS LOOSENED, REGRADED AND COMPACTED TO FORM A DENSE UNYIELDING BASE. SEE VA SPECIFICATION SECTION 31 20 00 EARTHWORK.
9. TRENCH BACKFILL - BACKFILL OF TRENCHES SHALL BE IN ACCORDANCE WITH THE VA STANDARD SPECIFICATIONS. SEE VA SPECIFICATION SECTION 31 20 00 EARTHWORK.
10. TRENCH SURFACE RESTORATION - THE GROUND SURFACES OF ALL TRENCHES IN THE PUBLIC RIGHT-OF-WAY OR ON OFF-SITE PROPERTIES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER IN CONFORMANCE WITH THE REQUIREMENTS OF THE LOCAL JURISDICTION. SEE VA SPECIFICATION SECTION 31 20 00 EARTHWORK.
11. COMPACTION OVER UTILITIES - ALL TRENCH BACKFILL AND ROADWAY EMBANKMENT SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR DRY MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D1557, EXCEPT THE TOP 6 INCHES OF TRENCH BELOW THE BOTTOM OF THE PAVEMENT, WHICH SHALL BE 100%. SEE VA SPECIFICATION SECTION 31 20 00 EARTHWORK.
12. FIELD CONTROL - FIELD QUALITY CONTROL SHALL COMPLY WITH THE VA REQUIREMENTS. INSPECT, TEST, DISINFECT, AND CLEAN UTILITY LINES IN ACCORDANCE WITH REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION. SEE VA SPECIFICATION 26 05 41 UNDERGROUND ELECTRICAL CONSTRUCTION.
13. STRIPING - ALL STRIPING THAT IS REMOVED OR DAMAGED DURING TRENCHING SHALL BE RESTORED IN KIND TO THE ORIGINAL CONDITION AND IN CONFORMANCE WITH THE REQUIREMENTS OF THE VA. SEE VA SPECIFICATION SECTION 32 17 23 PAVEMENT MARKINGS.
14. SEE VA SPECIFICATIONS 32 90 00 FOR PLANTING INFORMATION AND 01 57 19 FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.

KEY NOTES:

THE KEY NOTES BELOW REPRESENT TRENCHING DESIGNATION FROM HANDHOLE TO HANDHOLE.

1. 1 X 2 DUCT BANK WITH 4" CONDUITS (TYP.) CONCRETE ENCASED. SEE DETAIL B1 FOR BENEATH NON-TRAVELWAY AND DETAIL B5 FOR BENEATH TRAVELWAY ON SHEET 00-CI601.
2. 2 X 2 DUCT BANK WITH 4" CONDUITS (TYP.) CONCRETE ENCASED. SEE DETAIL E1 FOR BENEATH NON-TRAVELWAY AND E5 FOR BENEATH TRAVELWAY ON SHEET 00-CI601.
3. 1 X 3 DUCT BANK WITH 4" CONDUITS (TYP.) CONCRETE ENCASED. SEE DETAIL B1 FOR BENEATH NON-TRAVELWAY AND DETAIL B5 FOR BENEATH TRAVELWAY ON SHEET 00-CI602.

LEGEND:

- BUILDING IN SCOPE - CLINICAL
- BUILDING IN SCOPE - NON-CLINICAL
- TRAVELWAY PAVEMENT, SIDEWALK, CURB AND/OR GUTTER DEMOLITION AND REPLACEMENT, SEE DETAIL F1:000-CI602
- UGC — EXISTING UNDERGROUND COMMUNICATIONS
- UT — EXISTING UNDERGROUND TELEPHONE
- T — EXISTING OVERHEAD TELEPHONE
- UGC — UNDERGROUND FIBER DUCT BANK
- UGC — UNDERGROUND FIBER DUCT BANK TO BE ADDED AND ROUTED ALONG EXISTING PATHWAYS
- COMMUNICATIONS PULL BOX/HANDHOLE
- EXISTING TELEPHONE MANHOLE
- TREE PROTECTION FENCING

100% CD PRELIMINARY
NOT FOR CONSTRUCTION

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph 919.314.6606
www.coffman.com

STAMP
NORTH CAROLINA PROFESSIONAL SEAL 049540 ENGINEER JEFFREY A. LOWE
12/19/2025

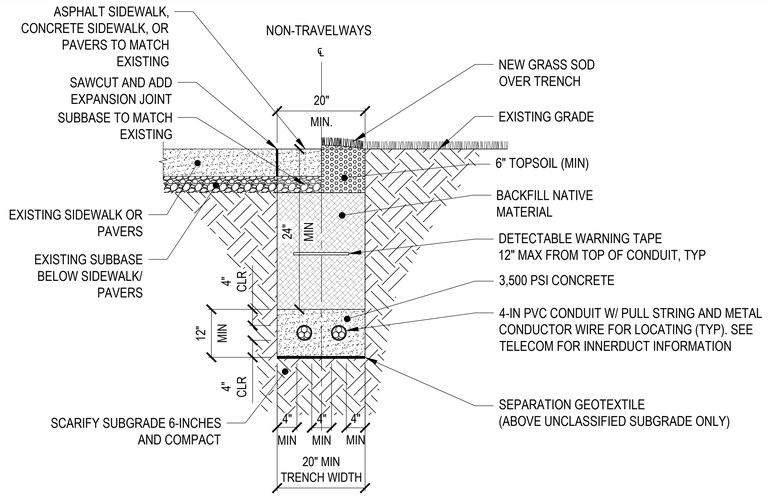
Facilities Management Services

VA | U.S. Department of Veterans Affairs

Drawing Title: COMMUNICATIONS KEY PLAN INSETS	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved: FOR OFFICIAL USE ONLY	FULLY SPRINKLERED	Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Building Number:
		Issue Date: 12.19.2025 / Checked: JAL / Drawn: BJF	Drawing Number: 00-CI403 SHEET 17 of 559

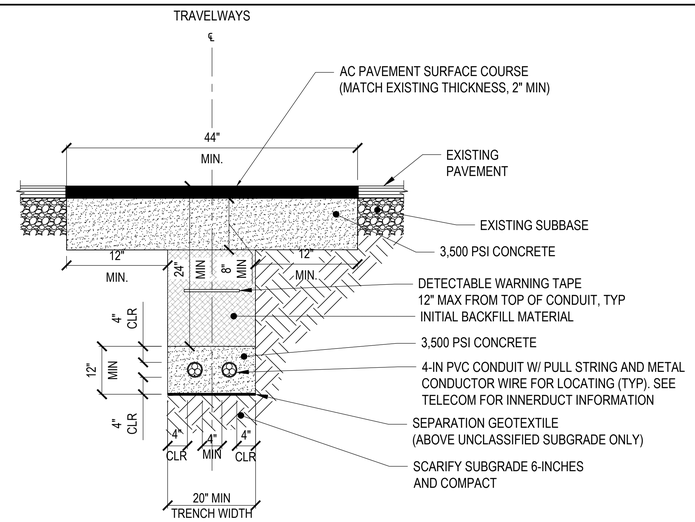
VA FORM 08 - 6231

9/24/2025 8:52:39 AM
Autodesk Docs://Asheville EHRM_V23/637-22-700.011.E ASH- EHRM.rvt



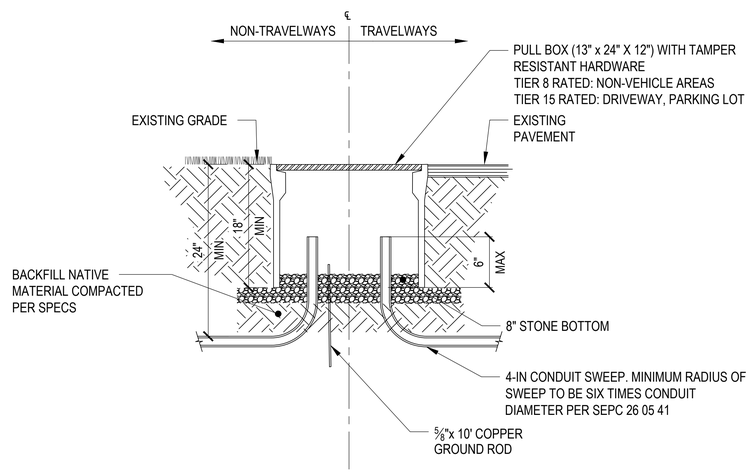
B1 UTILITY TRENCH - 1X2 DUCT BANK IN NON-TRAVELWAY

SCALE: NTS



B5 UTILITY TRENCH - 1X2 DUCT BANK IN TRAVELWAY

SCALE: NTS



E1 UTILITY TRENCH - 2X2 DUCT BANK IN NON-TRAVELWAY

SCALE: NTS

F1 CONCRETE DUCT BANK UTILITY CROSSING

SCALE: NTS

E5 UTILITY TRENCH - 2X2 DUCT BANK IN TRAVELWAY

SCALE: NTS

NOTES:

1. PULL BOX SHALL BE MADE OF COMPOSITE MATERIALS AND HAVE AN OPEN BOTTOM DESIGN ALLOWING UNDERGROUND CONDUITS TO ENTER THE BOX FROM THE BOTTOM AND TO PROVIDE FOR MEANS OF DRAINAGE.
2. PULL BOXES SHALL BE INSTALLED FLUSH WITH THE FINISHED GRADE SURFACE.
3. CONDUIT CENTERLINE SHALL BE ALIGNED WITH THE PULL BOX TO FACILITATE FIBER OPTIC CABLE PULLING.
4. CONDUIT PLUGS SHALL BE INSTALLED IN ALL CONDUITS, BOTH WITH AND WITHOUT WIRE OR CABLE AND SHALL BE INCLUDED IN THE COST OF THE CONDUIT.
5. WEATHERPROOF TAGS SHALL BE INSTALLED ON ALL FIBER CABLES.
6. FIBER OPTIC CABLE COILS WITHIN PULL BOXES SHALL BE TIED TO EACH CABLE RACK, PLASTIC WIRE TIES SHALL NOT BE USED. CAUTION SHALL BE TAKEN TO COIL THE FIBER CABLE PER MANUFACTURER'S RECOMMENDATIONS. SEE SHEET 00-TS100 FOR TELECOMMUNICATIONS SITE PLAN.
7. ALL WORK TO INSTALL PULL BOX SHALL INCLUDE SAW CUTTING OF PAVEMENT, REMOVAL OF PAVEMENT, EARTHWORK, AND ALL LANDSCAPE AND/OR PAVEMENT RESTORATION.
8. CONTRACTOR SHALL CONFIRM WITH COR REQUIRED PULL BOX RATING BASED ON INSTALLATION.
9. PULLBOXES IN NON-VEHICLE AREAS SHALL BE TIER 8 RATED.
10. PULLBOXES IN DRIVEWAYS AND PARKING LOTS SHALL BE TIER 15 RATED.

FIBER OPTIC PULL BOX SIZING TABLE

RATING	SIZE	TRENCH DETAILS
TIER 8	13" X 24" X 18"	1 X 2 DUCT BANK - NON-TRAVELWAY
		2 X 2 DUCT BANK - NON-TRAVELWAY
	24" X 36" X 18"	1 X 3 DUCT BANK - NON-TRAVELWAY
TIER 15	13" X 24" X 18"	1 X 2 DUCT BANK - IN TRAVELWAY
		2 X 2 DUCT BANK - IN TRAVELWAY
	24" X 36" X 18"	1 X 3 DUCT BANK - IN TRAVELWAY

PULL BOXES WILL BE OPEN BOTTOM.

F8 FIBER OPTIC PULL BOX/HANDHOLE

SCALE: NTS

100% CD PRELIMINARY
NOT FOR CONSTRUCTION

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP

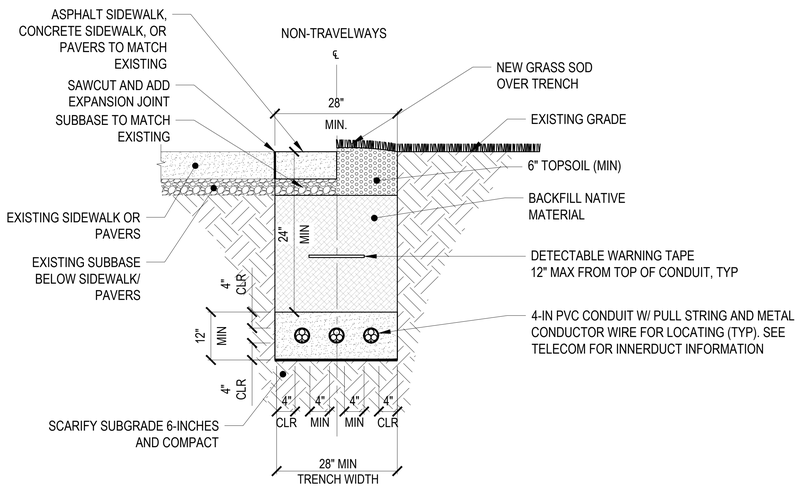
NORTH CAROLINA PROFESSIONAL SEAL 049168 ENGINEER JEFFREY A. LONG
12/19/2025

Facilities Management Services

VA | U.S. Department of Veterans Affairs

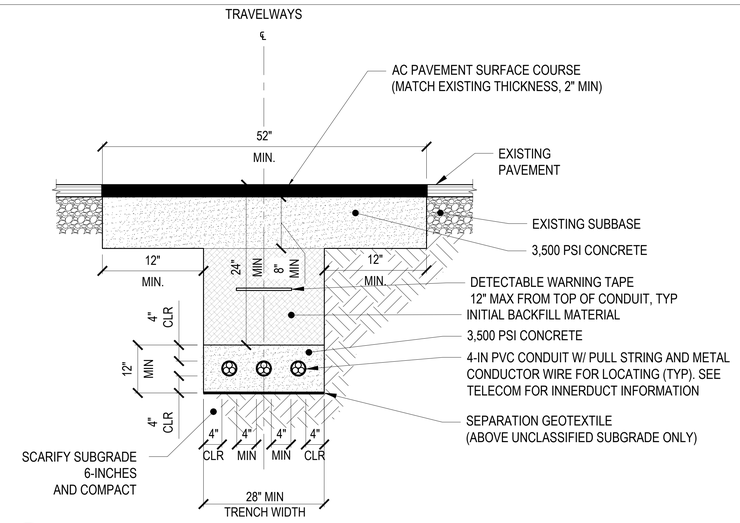
Drawing Title: CIVIL CONSTRUCTION DETAILS	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved: FOR OFFICIAL USE ONLY	FULLY SPRINKLERED	Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Building Number
		Issue Date: 12.19.2025 / Checked: JAL / Drawn: BJF	Drawing Number: 00-CI601
			SHEET 18 of 559

Autodesk Docs://Asheville EHRM_V23/637-22-700.01 E.ASH- EHRM.rvt
9/24/2025 8:52:59 AM
VA FORM 08 - 6231



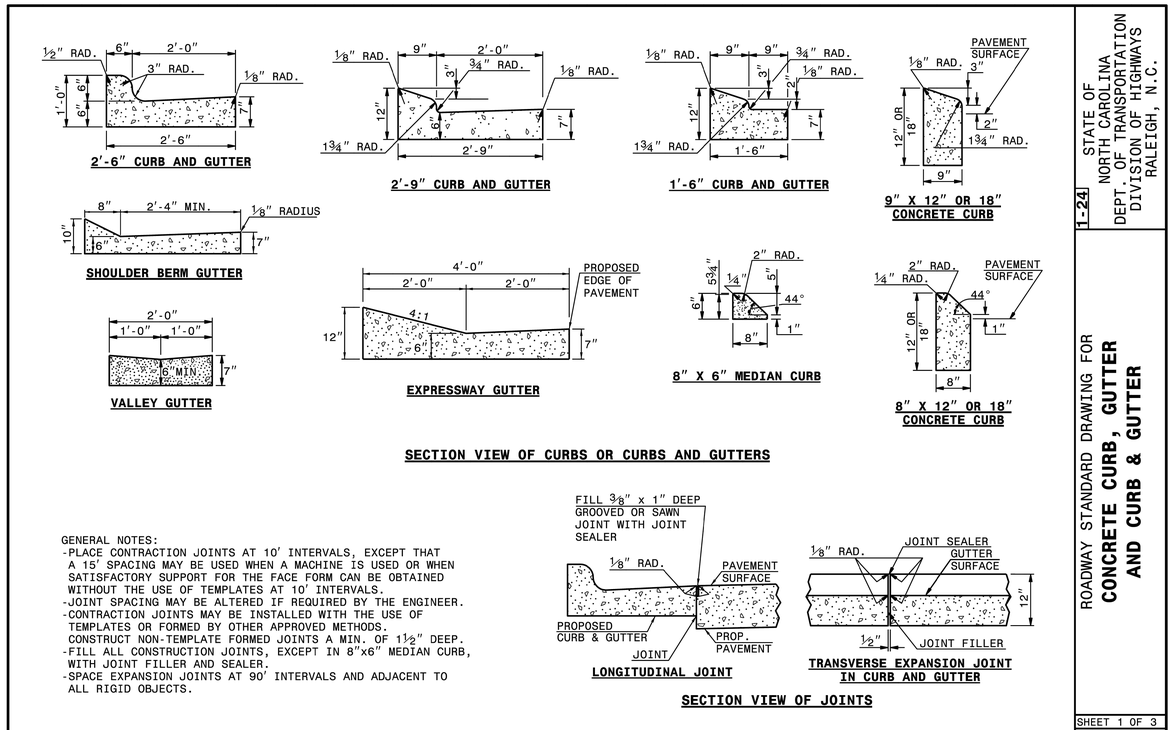
B1 UTILITY TRENCH - 1X3 DUCT BANK IN NON-TRAVELWAY

SCALE: NTS



B5 UTILITY TRENCH - 1X3 DUCT BANK IN TRAVELWAY

SCALE: NTS



STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.
1-24

ROADWAY STANDARD DRAWING FOR
CONCRETE CURB, GUTTER AND CURB & GUTTER

SHEET 1 OF 3
846.01

F1 CURB AND GUTTER

SCALE: NTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph 919.314.6806
www.coffman.com

STAMP

NORTH CAROLINA PROFESSIONAL SEAL 039640 ENGINEER JEFFREY A. LOWE
12/19/2025

Facilities Management Services

VA U.S. Department of Veterans Affairs

100% CD PRELIMINARY
NOT FOR CONSTRUCTION

Drawing Title: CIVIL CONSTRUCTION DETAILS	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved: FOR OFFICIAL USE ONLY	FULLY SPRINKLERED	Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Building Number:
		Issue Date: 12.19.2025 / Checked: JAL / Drawn: BJF	Drawing Number: 00-CI602
			SHEET 19 of 559

VA FORM 08 - 6231

9/24/2025 8:52:59 AM

Autodesk Docs://Asheville EHRM_V23/637-22-700.011.E.ASH- EHRM.rvt

ABBREVIATIONS

A.B.	ANCHOR BOLT
ADDL.	ADDITIONAL
ALT.	ALTERNATE
A.P.A.	AMERICAN PLYWOOD ASSOCIATION
ARCH.	ARCHITECTURAL
A.W.P.A.	AMERICAN WOOD PRESERVERS ASSOCIATION
B.	BOTTOM
BLKG.	BLOCKING
BM.	BEAM
B.N.	BOUNDARY NAIL
B.O.F.	BOTTOM OF FOOTING
BRG.	BEARING
BTN.	BETWEEN
BOT.	BOTTOM
CBC	CALIFORNIA BUILDING CODE
C.G.	CENTER OF GRAVITY
C.I.P.	CAST-IN-PLACE
C.J.	CEILING JOIST
CL	CENTER LINE
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
DBL.	DOUBLE
DBA.	DOWEL BAR ANCHOR
DF	DOUGLAS FIR/LARCH
DL	DEAD LOAD
DP.	DEEP
DIA.	DIAMETER
DIM.	DIMENSION
DO	DITTO (REPEAT)
DWG.	DRAWING
DWL.	DOWEL
(E)	EXISTING
EA.	EACH
E.F.	EACH FACE
EL.	ELEVATION
ELEC.	ELECTRICAL
ELEV.	ELEVATOR
EMBED.	EMBEDMENT
E.N.	EDGE NAIL
EQ.	EQUAL OR EQUIVALENT
E.S.	EACH SIDE
E.W.	EACH WAY
EXT.	EXTERIOR
FA	FRAMING/SHEAR CONNECTOR
FDN.	FOUNDATION
F.F.	FINISHED FLOOR
F.J.	FLOOR JOIST
F.O.C.	FACE OF CONCRETE
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUD
FRM.	FRAMING
FRT	FIRE-RETARDANT TREATED
F.S.	FAR SIDE
FTG.	FOOTING
GA	GAUGE
GALV.	GALVANIZED
GLB	GLUED LAMINATED BEAM
GR	GRADE
H.	HORIZONTAL
HDR.	HEADER
HGR.	HANGER
HT.	HEIGHT
HORIZ.	HORIZONTAL
H.S.H.	HORIZONTALLY SLOTTED HOLES
I.D.	INSIDE DIAMETER
I.F.	INSIDE FACE
I JST.	I-JOIST
INT.	INTERIOR
I.O.R.	INSPECTOR OF RECORD
JST.	JOIST
JT.	JOINT
LDGR.	LEDGER
L.L.	LIVE LOAD
LT. WT.	LIGHT WEIGHT
MATL.	MATERIAL
MAX.	MAXIMUM
M.B.	MACHINE BOLT
MECH.	MECHANICAL
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MTL.	METAL
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
N.S.	NEAR SIDE
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
O.H.	OPPOSITE HAND
OPNG.	OPENING
OPP.	OPPOSITE
ORIG.	ORIGINAL
O.S.B.	ORIENTED STRAND BOARD
PL	PLATE
PLCS.	PLACES
PLYWD.	PLYWOOD
P.T.	PRESERVATIVE TREATED
P.W.	PLATE WASHER
R	RADIUS
REF.	REFERENCE
REINF.	REINFORCEMENT
REQD.	REQUIRED
RF.	ROOF
RT.	RAFTER CROSSTIE
R.R.	ROOF RAFTERS
R.W.	RETAINING WALL
SCHED.	SCHEDULE
SECT.	SECTION
SEOR	STRUCTURAL ENGINEER OF RECORD
SEP.	SEPARATION
SIM.	SIMILAR
S.N.	SHEAR NAIL
S.P.	SEE PLAN
SPEC.	SPECIFICATION
SQ.	SQUARE
S.S.	STAINLESS STEEL
STD.	STANDARD
STGR.	STAGGER
STIFF.	STIFFENERS
STR.	STRUCTURAL
STR. I	STRUCTURAL I
T.	TOP
T&B	TOP & BOTTOM
T&G	TONGUE & GROOVE
THK.	THICKNESS/THICK
THR.	THREADED
T.N.	TOENAIL
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF SLAB
T.O.W.	TOP OF WALL
TYP.	TYPICAL
UBC	UNIFORM BUILDING CODE
U.N.O.	UNLESS NOTED OTHERWISE
V	VERTICAL
VERT.	VERTICAL
V.S.H.	VERTICAL SLOTTED HOLES
WD.	WOOD
W.P.	WATERPROOF OR WORK POINT
W.P.J.	WEAKENED PLANE JOINT
WT.	WEIGHT
W.W.F.	WELDED WIRE FABRIC
W/	WITH
W/O	WITHOUT
W.O.	WHERE OCCURS
XS	EXTRA STRONG (STEEL PIPE)
XXS	DOUBLE EXTRA STRONG (STEEL PIPE)

GENERAL STRUCTURAL NOTES:

GENERAL:

THE STRUCTURAL CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE STRUCTURE IS DESIGNED TO BE A STABLE UNIT AS A COMPLETED WHOLE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DESIGN, ERECT AND INSPECT TEMPORARY SHORES, BRACES, ETC. TO SUPPORT THE STRUCTURE AGAINST ALL ANTICIPATED LOADS INCLUDING GRAVITY, WIND AND LATERAL EARTH PRESSURE UNTIL ITS COMPLETION. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THESE METHODS OF CONSTRUCTION. CONSTRUCTION MATERIAL SHALL BE PLACED ON FRAMED FLOORS AND ROOFS SUCH THAT THE DESIGN LIVE LOADS ARE NOT EXCEEDED.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS PRIOR TO STARTING CONSTRUCTION. RESOLVE ANY DISCREPANCY WITH THE ARCHITECT.

WORKMANSHIP AND MATERIALS SHALL COMPLY WITH THE 2021 INTERNATIONAL BUILDING CODE, VA HANDBOOK H-18-8 AND TESTING STANDARDS.

NOTES AND DETAILS ON THE DRAWINGS TAKE PRECEDENCE OVER THE GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. WHERE NO SPECIFIC DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT. "TYPICAL" DETAILS ARE NOT FLAGGED ON THE DRAWINGS, BUT APPLY UNLESS NOTED OTHERWISE.

COORDINATION:

ALL DRAWINGS ARE CONSIDERED TO BE PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE DRAWINGS AND SPECIFICATIONS AMONG THE SUBCONTRACTORS AND ARCHITECT PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES THAT ARE FOUND SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO START OF CONSTRUCTION. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE AND AT NO EXPENSE TO THE OWNER OR ARCHITECT.

COORDINATION SHALL INCLUDE, BUT NOT BE LIMITED TO, VERIFYING THE LOCATION AND WEIGHT OF ALL MECHANICAL AND ELECTRICAL EQUIPMENT AS WELL AS THE SIZE AND LOCATION OF ALL MECHANICAL OPENINGS IN ROOFS, FLOORS AND WALLS. UNLESS OTHERWISE NOTED ON THE DRAWINGS, DO NOT PENETRATE ANY STRUCTURAL ELEMENTS SUCH AS BEAMS, COLUMNS, WALLS, SLABS, ETC. WITHOUT PRIOR WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER THROUGH THE ARCHITECT.

ALL DEPRESSIONS, ELEVATIONS AND SLOPES SHOULD BE COORDINATED WITH THE ARCHITECT AND PLANNED FINISHES. ALL WEATHER EXPOSED SURFACES SHOULD BE SLOPED TO DRAIN PER ARCHITECTURAL OR OTHER DRAWINGS.

COORDINATION SHALL INCLUDE, BUT NOT BE LIMITED TO, DETERMINING THE LOCATION OF ALL EXISTING UTILITY LINES THAT MAY INTERFERE WITH THE INSTALLATION OF THE NEW STRUCTURAL ELEMENTS. THE CONTRACTOR SHALL INFORM THE OWNER IF INTERFERENCE IS ENCOUNTERED. THE OWNER WILL DETERMINE IF THE LINES ARE TO BE REMOVED OR RELOCATED.

SHOP DRAWINGS AND SUBMITTALS:

SHOP DRAWINGS AND SUBMITTALS TO THE ENGINEER ARE REQUIRED FOR ALL STRUCTURAL WORK, UNLESS OTHERWISE AGREED TO BY THE ARCHITECT/ENGINEER. NO WORK SHALL PROCEED WITHOUT THE REVIEW AND APPROVAL OF SHOP/ERECTION/LAYOUT DRAWINGS BY THE ARCHITECT AND ENGINEER. ALL SUBMITTALS SHALL BE MADE IN A TIMELY MANNER ALLOWING ADEQUATE TIME AS NEEDED BY THE ARCHITECT AND ENGINEER FOR REVIEW.

THE CONTRACTOR SHALL REVIEW AND APPROVE ALL SHOP DRAWINGS PRIOR TO ENGINEERING REVIEW. SUBMISSIONS FOR ENGINEERING REVIEW SHALL INCLUDE A REPRODUCIBLE AND ONE COPY; REPRODUCIBLE WILL BE MARKED AND RETURNED. ELECTRONIC SUBMITTALS MAY BE ACCEPTED.

ANY STRUCTURAL ENGINEERING DESIGN PROVIDED BY OTHERS SHALL BE SUBMITTED FOR REVIEW AND SHALL BEAR THE SEAL OF A CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED.

TRADES PROVIDING SHOP DRAWINGS SHOULD PROPERLY COORDINATE WITH ALL OTHER ALL OTHER TRADES AND SHOW OTHER POSSIBLE CONFLICTS OR OVERLAPPING ELEMENTS FROM OTHER TRADES ON THEIR SUBMITTAL FOR REVIEW.

REQUIRED SHOP DRAWINGS AND SUBMITTALS:

EXPANSION ANCHORS AND EPOXY PRODUCTS
CONCRETE MIX DESIGNS AND GROUT PRODUCTS

INSPECTIONS AND SPECIAL INSPECTIONS:

THE OWNER SHALL EMPLOY A GENERAL INSPECTOR TO PROVIDE INSPECTION PER THE IBC AND LOCAL CODES. ALL INSPECTORS SHALL BE APPROVED BY THE AUTHORITY HAVING JURISDICTION.

THE OWNER WILL EMPLOY AN ICBO CERTIFIED SPECIAL INSPECTOR TO PROVIDE INSPECTION OF THE FOLLOWING ITEMS PER IBC SECTION 1701 AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION:

CONCRETE:
DURING THE PLACEMENT OF CONCRETE AND THE TAKING OF TEST SPECIMENS. SEE PROJECT SPECIFICATIONS FOR FREQUENCY OF TESTING.

REINFORCING STEEL:
DURING THE PLACEMENT OF REINFORCING STEEL IN REINFORCED CONCRETE.

FIELD WELDING:
INSPECTION ACCORDING TO IBC TABLE 1705A.2.1 FOR ALL STRUCTURAL WELDING INCLUDING BUT NOT LIMITED TO JOISTS, BEAMS, COLUMNS, BRACING, STEEL DECK, HEADED STUDS, REINFORCING STEEL, ETC.

POST-INSTALLED ANCHORS:
DURING PLACEMENT OF EPOXY ANCHORS.
PERIODIC INSPECTION OF MECHANICAL POST-INSTALLED ANCHORS

STRUCTURAL MASONRY:
DURING THE PREPARATION OF PRISMS, SAMPLING AND PLACEMENT OF MASONRY UNITS, PLACEMENT OF REINFORCING, INSPECTION OF GROUT SPACE IMMEDIATELY PRIOR TO CLOSING CLEANOUTS AND DURING THE PLACEMENT OF GROUT.

STRUCTURAL OBSERVATIONS:

STRUCTURAL OBSERVATION IS REQUIRED FOR THE STRUCTURAL SYSTEM IN ACCORDANCE WITH IBC CHAPTER 17A. STRUCTURAL OBSERVATION IS THE VISUAL OBSERVATION OF THE ELEMENTS AND CONNECTIONS OF THE STRUCTURAL SYSTEMS AT SIGNIFICANT CONSTRUCTION STAGES AND THE COMPLETED STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS. STRUCTURAL OBSERVATION DOES NOT WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED OF THE BUILDING INSPECTOR OR THE DEPUTY INSPECTOR.

THE STRUCTURAL OBSERVER SHALL PERFORM SITE VISITS AT THOSE STEPS IN THE PROGRESS OF THE WORK THAT ALLOW FOR CORRECTION OF DEFICIENCIES WITHOUT SUBSTANTIAL EFFORT OR UNCOVERING OF THE WORK INVOLVED. AT A MINIMUM, THE FOLLOWING SIGNIFICANT CONSTRUCTION STAGES REQUIRE A SITE VISIT AND AN OBSERVATION REPORT FROM THE STRUCTURAL OBSERVER.

CONSTRUCTION STAGES AND ELEMENTS TO BE OBSERVED

PRIOR TO CONCRETE PLACEMENT ON REINFORCEMENT AND ANCHOR BOLTS
PRIOR TO COVERING WALLS AND FRAMING

CODE:

2021 INTERNATIONAL BUILDING CODE, VA HANDBOOK H-18-8

WIND:
- BASIC WIND SPEED - - - - 118 MPH
- EXPOSURE - - - - "B"
- RISK CATEGORY - - - - IV

SEISMIC:
- SITE CLASS - - - - "D" DEFAULT
- IMPORTANCE FACTOR - - - - 1.5
- SEISMIC DESIGN CATEGORY - - - - C
- S_S - - - - 0.294
- S_1 - - - - 0.093
- S_{DS} - - - - 0.306
- S_{D1} - - - - 0.149

SNOW:
- GROUND SNOW LOAD - - - - 15 PSF

FOUNDATION:

1500 PSF ALLOWABLE BEARING ASSUMED.
18" MIN. FOOTING DEPTH

SOIL BENEATH BOTTOM OF FOOTINGS AND SLAB SUB-BASE TO BE VERIFIED IN WRITING BY A FIELD SOILS ENGINEER AS MEETING THIS REQUIREMENT.

SOIL ENGINEER TO INSPECT AND APPROVE FOUNDATION AND SUBMIT APPROVAL TO AHJ, PRIOR TO AHJ INSPECTION.

SOIL BENEATH BOTTOM OF FOOTINGS AND SLAB SUB-BASE TO BE VERIFIED IN WRITING BY SOILS ENGINEER AS MEETING THE REQUIREMENTS OF THE GEOTECHNICAL REPORT. IF ADVERSE SOIL CONDITIONS ARE ENCOUNTERED DURING CONSTRUCTION, CONSULT THE GEOTECH.

CONCRETE:

CONCRETE CONSTRUCTION SHALL CONFORM WITH THE LATEST EDITION OF ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" AND ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE". SUBMIT MIX DESIGNS FOR EACH CLASS OF CONCRETE. ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE UNLESS NOTED OTHERWISE. ALL LIGHTWEIGHT CONCRETE TO BE SAND LIGHTWEIGHT CONCRETE.

CONCRETE CONTAINING SUPERPLASTICIZING ADMIXTURE SHALL HAVE A SLUMP NOT EXCEEDING 3", TO BE FIELD VERIFIED, PRIOR TO ADDING ADMIXTURE, AND NOT EXCEEDING 8" AT PLACEMENT. CONCRETE NOT CONTAINING SUPERPLASTICIZING ADMIXTURE SHALL HAVE A SLUMP NOT EXCEEDING 5" AT PLACEMENT. ADDITION OF WATER TO A MIX WITH INSUFFICIENT SLUMP WILL NOT BE PERMITTED, EXCEPT AS ALLOWED PER ASTM C494.

MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED, EXCEPT THAT SLABS ON GRADE NEED BE VIBRATED ONLY AROUND UNDER-FLOOR DUCTS, ETC. CAST CLOSURE POUR AROUND COLUMNS AFTER DEAD LOAD IS APPLIED.

MINIMUM CONCRETE MIX DESIGN REQUIREMENTS SHALL BE AS FOLLOWS:

ITEM	28 DAY STRENGTH F'c (PSI)	MAX. SIZE AGGREGATE	DENSITY
FOUNDATIONS - - - -	3,000	1"	150 PCF

NOTE: A HIGHER GRADE OF CONCRETE MAY BE SUBSTITUTED FOR THOSE SHOWN ABOVE BUT WILL BE SUBJECT TO THE CODE REQUIREMENTS OF THE HIGHER GRADE.

AGGREGATE AND AGGREGATE GRADATION SHALL CONFORM TO ASTM C33.

AIR ENTRAINMENT IS OPTIONAL AND WILL BE REVIEWED IN MIX SUBMITTAL.

FLY ASH SHALL BE CLASS F ONLY AND IS OPTIONAL AND WILL BE REVIEWED IN MIX SUBMITTAL.

WET CURING IS RECOMMENDED SUBMIT METHOD FOR CURING TO SEOR.

CONCRETE COVER OVER REINFORCING SHALL BE AS FOLLOWS U.N.O.:
- POURED AGAINST EARTH - - - - 3"
- EXPOSED TO EARTH, BUT POURED AGAINST FORMS - - - - 2"
- TYPICAL BARS IN COLUMNS WALLS AND BEAMS - - - - 1 1/2"
- RAISED STRUCTURAL SLAB - - - - 3/4"

BEFORE CONCRETE IS POURED, CHECK WITH ALL TRADES TO INSURE PROPER PLACEMENT OF ALL OPENINGS, SLEEVES, CURBS, CONDUITS, BOLTS, INSERTS, ETC. RELATING TO WORK.

ALL SLEEVES NOT SPECIFICALLY SHOWN ON DRAWINGS SHALL BE LOCATED BY THE TRADES INVOLVED & SHALL BE APPROVED BY STRUCTURAL ENGINEER.

DRYPACK CONCRETE SHALL BE ONE PART PORTLAND CEMENT & ONE PART SAND WITH SUFFICIENT WATER TO ALLOW A SMALL AMOUNT OF PASTE TO COME TO THE SURFACE.

CONCRETE GROUT SHALL BE NON-SHRINKING WITH SUFFICIENT WATER TO ALLOW POURING. MINIMUM ULTIMATE COMPRESSIVE STRENGTH F'C AT 28 DAYS SHALL BE 4000 PSI.

MASONRY:

HOLLOW CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90, RUNNING BOND, MEDIUM WEIGHT, OPEN END BLOCKS TYP.

MORTAR SHALL CONFORM TO ASTM C270, TYPE S, 1800 PSI MIN. MASONRY CEMENT SHALL NOT BE USED.

GROUT SHALL CONFORM TO ASTM C476, 2000 PSI MIN. MECHANICALLY VIBRATE GROUT IN VERTICAL SPACES IMMEDIATELY AFTER POURING. PROVIDE CLEANOUTS IF GROUT LIFT EXCEEDS 2'-0" MAXIMUM GROUT LIFT SHALL BE 4'-0". HIGH LIFT GROUTING IS NOT ACCEPTABLE WITHOUT THE APPROVAL OF THE SEOR.

SPECIFIED COMPRESSIVE STRENGTH f'm SHALL BE 1500 PSI. SPECIAL INSPECTION IS REQUIRED. VERIFICATION OF THE SPECIFIED COMPRESSIVE STRENGTH SHALL BE IN ACCORDANCE WITH THE BUILDING CODE.

UNLESS NOTED OTHERWISE, PLACE CONTROL JOINTS IN MASONRY WALLS AT A MAXIMUM SPACING EQUAL TO THREE TIMES THE WALL HEIGHT, BUT NOT TO EXCEED 30 FEET. REINFORCEMENT SHALL CONTINUE THROUGH JOINTS UNLESS APPROVED BY THE SEOR.

SEE DETAIL 7/00-S502 FOR LAP SPLICE LENGTHS.

SEE DETAIL 9/00-S502 FOR TYPICAL AND MINIMUM REINFORCEMENT.

REINFORCING STEEL:

DEFORMED BARS:

ASTM A615 GRADE 60 U.N.O. REINFORCING TO BE WELDED SHALL BE ASTM A706, GRADE 60, LOW ALLOY U.N.O.

WELDED WIRE FABRIC:

ASTM A82 AND ASTM A185. PROVIDE IN FLAT SHEETS.

WELDING:

UNLESS NOTED OTHERWISE, WELDING OF REINFORCING STEEL IS PROHIBITED. WHERE WELDING IS NOTED, WELD IN ACCORDANCE WITH AWS D1.4 USING E90 SERIES ELECTRODES. SUBMIT MILL TEST REPORTS ON THE REINFORCING TO BE WELDED AND THE PROPOSED WELDING PROCEDURE.

LAP SPLICES IN CONCRETE:

SEE TYPICAL DETAIL FOR LAP SPLICES IN CONCRETE BEAMS, WALLS, SLABS AND FOOTINGS. UNLESS NOTED OTHERWISE, LAP SPLICES IN CONCRETE BEAMS, WALLS, SLABS AND FOOTINGS SHALL BE CLASS "B" TENSION LAP SPLICES AND LAP SPLICES IN CONCRETE COLUMNS SHALL BE STANDARD COMPRESSION LAP SPLICES PER LATEST EDITION OF ACI 318. STAGGER ALTERNATE SPLICES A MINIMUM OF ONE LAP LENGTH. LAPS IN WELDED WIRE FABRIC SHALL BE MADE SO THAT THE OVERLAP MEASURED BETWEEN OUTERMOST CROSS WIRES OF EACH FABRIC SHEET IS NOT LESS THAN THE SPACING OF CROSS WIRES PLUS 2 INCHES. ALL SPLICE LOCATIONS SUBJECT TO APPROVAL.

PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZONTAL BARS AT CORNERS AND INTERSECTIONS OF FOOTINGS AND WALLS. SPACING SHOWN FOR REINFORCING BARS ARE MAXIMUM ON CENTERS. ALL BARS PER CRSI SPECIFICATIONS AND HANDBOOK. DOWEL ALL VERTICAL REINFORCING TO THE FOUNDATION. CONCRETE COLUMN DOWEL EMBEDMENT SHALL BE A STANDARD COMPRESSION DOWEL EMBEDMENT LENGTH ACCORDING TO THE LATEST EDITION OF ACI 318. SECURELY TIE ALL BARS IN POSITION PRIOR TO PLACING CONCRETE. SUPPORT SLAB REINFORCEMENT WITH CONCRETE BLOCKS OR SUPPORT CHAIRS. REINFORCING SHALL NOT BE SUPPORTED BY STAKES DRIVEN INTO THE GROUND.

STRUCTURAL STEEL:

ROLLED SHAPES OTHER THAN WIDE-FLANGE SHAPES,
- ALL PLATES, BARS AND RODS - - - - ASTM A36, Fy = 36 KSI
- ALL WIDE-FLANGE SHAPES - - - - ASTM A992, Fy = 50 KSI
- HSS STEEL - - - - ASTM A500 GR. B
- PIPE STEEL - - - - ASTM A53, Fy = 35 KSI
- BOLTS - - - - ASTM A307
- ANCHOR BOLTS - - - - ASTM A36 ROD STOCK OR F1554 GR. 36
- DEFORMED BAR ANCHORS - - - - ASTM A496, Fy = 70 KSI

ALL STEEL EXPOSED TO WEATHER TO BE HOT-DIPPED GALVANIZED U.N.O.

FABRICATION AND ERECTION:

LATEST AISC AND AWS CODES APPLY. FABRICATE AND ERECT IN ACCORDANCE WITH LATEST EDITION OF AISC "SPECIFICATION FOR DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS". SPLICING OF STRUCTURAL MEMBERS IS NOT PERMITTED UNLESS NOTED ON THE DRAWINGS. ALL BEAMS SHALL BE ERECTED WITH THE NATURAL CAMBER UPWARDS.

ALL SURFACES FOR SLIP-CRITICAL BOLTED CONNECTIONS SHALL BE FREE OF PAINT, INCLUDING ANY INADVERTENT OVERSPRAY, IN AREAS CLOSER THAN ONE BOLT DIAMETER, BUT NOT LESS THAN ONE INCH, FROM THE EDGE OF ANY HOLE AND AT ALL AREAS WITHIN THE BOLT PATTERN.

WELDING:

ALL WELDING SHALL BE BY CERTIFIED WELDERS HAVING CURRENT EXPERIENCE IN TYPE OF WELD SHOWN ON DRAWINGS OR NOTES. CERTIFICATES SHALL BE THOSE ISSUED BY AN ACCEPTED TESTING AGENCY. ALL WELDING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF AWS "CODE FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION". USE E70 SERIES LOW HYDROGEN ELECTRODES. SHOP WELDS AND FIELD WELDS SHALL BE SHOWN ON SHOP DRAWINGS. ALL COMPLETE PENETRATION WELDS SHALL BE TESTED AND CERTIFIED BY AN INDEPENDENT TESTING AGENCY. ALL DEFORMED BAR ANCHORS, HEADED STUDS AND THREADED STUDS SHALL BE END WELDED PER MANUFACTURER'S RECOMMENDATIONS.

BOLTS:

ALL BOLTS, ANCHOR BOLTS, EXPANSION BOLTS, ETC., SHALL BE INSTALLED WITH STEEL WASHERS. USE TYPE X BOLTS U.N.O. PER LATEST EDITION OF AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" AND SHALL BE TIGHTENED TO THE SNUG-TIGHT CONDITION AS DEFINED BY AISC UNLESS NOTED OTHERWISE.

SNUG-TIGHT IS DEFINED AS THE TIGHTNESS ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A MAN USING AN ORDINARY SPUD WRENCH. SNUG TIGHTENING SHALL PROGRESS SYSTEMATICALLY FROM THE MOST RIGID PART OF THE CONNECTION TO THE FREE EDGES, AND THEN THE BOLTS OF THE CONNECTION SHALL BE RETIGHTENED IN A SIMILAR SYSTEMATIC MANNER AS NECESSARY UNTIL ALL BOLTS ARE SIMULTANEOUSLY SNUG TIGHT AND THE CONNECTION IS FULLY COMPACTED.

DEFERRED APPROVALS:

ANY STRUCTURAL ENGINEERING DESIGN PROVIDED BY OTHERS SHALL BE SUBMITTED FOR REVIEW AND SHALL BEAR THE SEAL OF A CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED. THE APPROVAL SHALL BE REVIEWED BY THE CONTRACTOR, SEOR, AOR, AND CITY.

DEFERRED APPROVALS:

SUPPORTS, ANCHORAGE, AND BRACING OF ALL DISTRIBUTION SYSTEMS INCLUDING BUT NOT LIMITED TO PIPING, DUCTWORK, CONDUIT, PNEUMATIC TUBE, FIRE SPRINKLERS, AND INLINE COMPONENTS SUCH AS VAV AND CAV AND FILTER BOXES.

LIGHTGAGE STRUCTURAL STEEL:

ALL LIGHTGAGE STEEL FRAMING SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF "SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" BY THE AMERICAN IRON AND STEEL INSTITUTE AND IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. MATERIALS SHALL COMPLY WITH ASTM C955 AND A1003 ACCORDINGLY.

STEEL FOR ALL 14 AND 16 GAGE STUDS AND JOISTS, TRACK AND ALL GAGES OF DIAGONAL TENSION STRAPS SHALL HAVE A MINIMUM YIELD STRENGTH Fy = 50 KSI AND Fu = 65 KSI. STEEL FOR ALL 18 AND 20 GAGE STUDS AND JOISTS, TRACK, AND ALL GAGES OF BRIDGING AND ACCESSORIES SHALL HAVE A MINIMUM YIELD STRENGTH Fy = 33 KSI AND Fu = 45 KSI. STUDS THINNER THAN 20 GA SHALL NOT BE USED U.N.O.

STEEL SHALL BE GALVANIZED AT LOCATIONS EXPOSED TO WEATHER AND WHENEVER NOTED ON THE DRAWINGS IN ACCORDANCE WITH ASTM A653.

ALL STUDS SHALL BE SECURELY SEATED FOR FULL END BEARING ON TOP AND BOTTOM TRACK. SPLICING OF STUDS SHALL NOT BE PERMITTED. UNLESS NOTED OTHERWISE, PROVIDE DOUBLE STUDS AT ALL BEAM BEARINGS, JAMBS, WALL CORNERS AND INTERSECTIONS. LOCATE JOISTS DIRECTLY OVER STUDS. UNLESS NOTED OTHERWISE, ALL TRACK SHALL BE OF THE SAME MATERIAL AND GAGE AS THE STUDS. BRIDGING SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS WITH THE FOLLOWING MINIMUM REQUIREMENTS:

FOR NON-BEARING WALLS, PROVIDE BRIDGING AT MID-HEIGHT FOR WALLS LESS THAN OR EQUAL TO 10'-0" HIGH AND 5'-0" O.C. MAXIMUM FOR WALLS GREATER THAN 10'- 0" HIGH. FOR BEARING WALLS, PROVIDE BRIDGING EQUALLY SPACED AT 4'-0" O.C. MAXIMUM. IN ADDITION, BRIDGING SHALL BE PROVIDED AT ROOF LINES, FLOOR LINES AND ELSEWHERE AS SHOWN ON THE DRAWINGS. SOLID BLOCKING SHALL BE INSTALLED IN LIEU OF BRIDGING WHERE NOTED ON THE DRAWINGS.

BOTTOM TRACK ANCHOR BOLTS SHALL BE 1/2" DIAMETER PLACED SO AS NOT TO EXCEED 4'-0" O.C. UNLESS NOTED OTHERWISE. ANCHOR BOLTS SHALL BE PLACED AT ALL JAMBS, CORNERS, INTERSECTIONS AND WALL ENDS. ALL BOTTOM TRACKS SHALL HAVE A MINIMUM OF 2 ANCHOR BOLTS.

ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS EXPERIENCED IN LIGHTGAGE STEEL FRAMING WORK. USE E60 (MINIMUM) SERIES LOW HYDROGEN RODS.

SUBMIT SHOP DRAWINGS WITH STUD AND JOIST LAYOUT FOR REVIEW PRIOR TO ERECTION THAT SHOW MEMBER TYPES AND SIZES, BRIDGING AND CONNECTION DETAILS.

SECTION SIZES SHOWN IN DRAWINGS USE SSMA DESIGNATIONS PER ESR-3064P. SUBSTITUTIONS MUST MATCH OR EXCEED THE SECTION PROPERTIES OF THESE SECTIONS AND BE APPROVED BY THE SEOR.

ALL ELEMENTS OF STEEL STUD CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE CURRENT IBC AND AISI STANDARD NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS.

SHEET METAL SCREWS (SMS) TO BE THREAD-FORMING OR THREAD CUTTING, WITH OR WITHOUT A SELF-DRILLING POINT AND MUST HAVE AN ESR APPROVAL REPORT. SCREWS MUST BE INSTALLED AND TIGHTENED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. OVER TIGHETENED, STRIPPED, OR SPUN SCREWS SHALL BE REINFORCED WITH AN ADDITIONAL SCREW NEARBY. CONTRACTOR SHALL SUBMIT SCREW PRODUCT INFORMATION AND ESR REPORT TO SEOR FOR APPROVAL BEFORE INSTALLATION. #5 SELF-DRILLING SCREW POINT ARE SUGGESTED WHERE SCREWS TO STEEL MATERIALS THICKER THAN 12 GA OCCUR.

UNISTRUT FRAMING:

UNISTRUT MEMBERS NOTED IN PLAN SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF "SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" BY THE AMERICAN IRON AND STEEL INSTITUTE AND IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. ALL STRUT SYSTEM COMPONENTS SHALL BE MANUFACTURED BY UNISTRUT CORPORATION OR APPROVED EQUAL. FOR PRODUCT SUBSTITUTIONS, CONTRACTOR SHALL PROVIDE SUBMITTAL FOR REVIEW BY SEOR.

CHANNELS AND CONTINUOUS INSERTS SHALL COMPLY WITH ASTM A653 GR 33 TYP. STAINLESS STEEL CHANNELS SHALL COMPLY WITH ASTM A1011 SS GR 33.

UNISTRUT FITTINGS SHALL CONFORM TO ASTM A575, A576, A635 OR A36. PHYSICAL REQUIREMENTS OF UNISTRUT FITTINGS SHALL MEET ASTM A1011 SS GR 33.

WHEN INSTALLING BOLTS IN UNISTRUT CHANNEL/SPRING NUTS, THE FOLLOWING TORQUE REQUIREMENTS SHALL BE MET. TORQUE SHALL MEET RECOMMENDED TORQUE VALUES AND SHALL NOT EXCEED MAXIMUM TORQUE VALUES. BOLTS SHALL BE INSTALLED USING A PROPERLY CALIBRATED TORQUE WRENCH WITH A CLEAN DRY (NON-LUBRICATED) UNISTRUT FILLING, BOLT, AND NUT. INSTALLER SHALL ENSURE THAT PROPER BOLT TORQUE HAS BEEN ACHIEVED.

WHERE THREADED ROD IS INSTALLED TO SPRING NUTS, 1/4" PLATE WASHERS AND STANDARD NUTS SHALL BE USED TO SECURE SPRING NUT AND ACHIEVE PROPER TORQUE. VIBRATING EQUIPMENT MAY REQUIRE DOUBLE NUTS.

CHANNEL/SPRING NUT TORQUE REQUIREMENTS (FT-LBS)

BOLT DIAMETER	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"
RECOMMENDED	6	11	19	50	100	125
MAXIMUM	7	15	25	70	125	135

STRUCTURAL SHEATHING:

STRUCTURAL SHEATHING PROPERTIES AND ATTACHMENT (MINIMUM, U.N.O.)

ITEM	THICKNESS	SPAN/INDEX RATIO	BOUNDARY NAILING	EDGE NAILING	INTERMEDIATE NAILING
ROOF	19/32"	32/16	10d AT 4" O.C.	10d AT 6" O.C.	10d AT 12" O.C.
SHEAR WALL	15/32"	24/12	N/A	10d AT 6" O.C.	10d AT 12" O.C.

ALL STRUCTURAL SHEATHING IS TO BE DOUGLAS FIR CONFORMING TO PS-1-83, GROUP 1 OR 2 OR APA PERFORMANCE RATED PANELS. STRUCTURAL-1 SHEATHING INCLUDES ALL-VENEER PLYWOOD, COMPOSITE PANELS CONTAINING A COMBINATION OF VENEER AND WOOD BASED MATERIALS, AND MAT-FORMED PANELS. SUCH PLYWOOD IS TO BE "EXTERIOR" TYPE, GRADED-MARKED BY THE AMERICAN PLYWOOD ASSOCIATION, GRADE STRUCTURAL-1 UNLESS NOTED OTHERWISE. SHEATHING PANEL INDEX TO BE MIN. 32/16 FOR ROOF SHEATHING AND 24/0 FOR EXTERIOR SHEATHING. THE MINIMUM PLYWOOD WIDTH FOR ROOF SHEATHING SHALL BE 24" WIDE AND 12" WIDE FOR ALL SHEAR WALL SHEATHING.

SILL PLATES ON MASONRY OR CONCRETE TO BE 3x PRESSURE TREATED LUMBER. WALL STUDS AND BLOCKING AT ADJOINING PANEL EDGES TO BE 3x OR LARGER. PLYWOOD JOINT AND SILL PLATE NAILING TO BE STAGGERED IN ALL CASES. DIAPHRAGM SHEATHING TO BE CASE 1/CASE 3 U.N.O. B.N. TO BE USED ALONG ALL CONTINUOUS EDGES.

ALL NAILS TO BE COMMON WIRE NAILS AS INDICATED IN THE NAILING SCHEDULE (TABLE 2304.10.1 OF THE 2021 IBC) AND PER PLAN. DO NOT USE BOX TYPE NAILS. ALL FIELD NAILING TO BE 12" OC, UNO. NAIL PLYWOOD AS SPECIFIED ON THE PLANS AND/OR ON THE GENERAL NOTES, WITH PERIMETER NAILS NOT CLOSER THAN 1/2" FROM THE EDGES. DO NOT OVERDRIVE THE NAILS THROUGH THE FACE GRAIN OF THE PLYWOOD. OVER DRIVEN NAILS MAY RESULT IN REJECTION AND REPLACEMENT OF PLYWOOD BY THE INSPECTOR OR ENGINEER. EXCEPT FOR PLYWOOD, NAILS SHALL NOT BE DRIVEN CLOSER THAN 1/2 THEIR LENGTH NOR CLOSER TO THE EDGE OR END OF LUMBER THAN1/4 THEIR LENGTH. THE PENETRATION OF NAILS OR SPIKES INTO PIECES RECEIVING THE POINT SHALL NOT BE LESS THAN 1/2 THE NAIL LENGTH, EXCEPT THAT A 16d MAY BE USED TO CONNECT PIECES OF 2" NOMINAL THICKNESS. USE 16d COMMONS THROUGH SILL.

WOOD:

DO NOT NOTCH OR DRILL JOISTS, BEAMS OR LOAD BEARING STUDS WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER THROUGH THE ARCHITECT. DOUBLE UP FLOOR JOISTS UNDER PARTITIONS. DOUBLE UP STUDS AT JAMBS AND UNDER BEAMS IN BEARING WALLS. PROVIDE 2X SOLID BLOCKING AT MID-HEIGHT OF LOAD BEARING STUD WALLS. ALL NAILS SHALL BE COMMON NAILS. ALL NAILING NOT NOTED SHALL BE IN ACCORDANCE WITH TABLE 2304.10.1 OF THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE. ALL FRAMING ANCHORS AND CONNECTORS SHALL BE AS MANUFACTURED BY SIMPSON COMPANY OR OTHER APPROVED EQUAL WITH ICC CERTIFICATION. ALL NAIL HOLES IN FRAMING ANCHORS AND CONNECTORS SHALL BE FILLED WITH NAILS PER MANUFACTURERS PUBLISHED NAIL SIZES. ALL BOLTS SHALL BE ASTM A307 BOLTS INSTALLED WITH STEEL WASHERS.

CONTRACTOR SHALL PROVIDE BLOCKING & BACKING (2x MIN.) FOR ALL ARCHITECTURAL FINISHES, MECHANICAL/ELECTRICAL ANCHORAGE, RAILINGS, GRAB BARS AND ANY OTHER ATTACHMENTS THAT ARE REQUIRED PER ARCHITECTURAL, MECHANICAL, PLUMBING OR ELECTRICAL DRAWINGS OR DETAILS.

ALL SIMPSON COIL STRAPS SHALL HAVE 4x4 BLOCKING MINIMUM AT END NAILING OR SPLICES AND SHALL HAVE 10d NAILS @ 24" O.C. MIN. IN FIELD TO FRAMING. SPLICES OR ALTERNATE END CONNECTIONS PER TECHNICAL BULLETIN MAY BE ACCEPTABLE W/ PERMISSION FROM ENGINEER.

WHERE WOOD SCREWS ARE CALLED OUT, USE ZINC COATED OR GALVANIZED STEEL SCREWS. "DRYWALL" SCREWS NOT PERMITTED.

ALL FASTENERS TO TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED OR STAINLESS STEEL. ADDITIONALLY ANY RECOMMENDATIONS FOR CORROSION GIVEN BY THE TREATMENT PRODUCT MANUFACTURER SHALL BE FOLLOWED.

10d COMMON NAILS 3" LONG ARE TO BE USED WHERE 10d x11/2" NAILS ARE NOT SPECIFICALLY CALLED OUT ON DRAWINGS OR ALLOWED BY SIMPSON CATALOG AS EQUAL SUBSTITUTION WITH EQUAL CAPACITY.

HOLDOWN CONNECTORS SHALL BE FINGER TIGHT AND ½ TURN JUST PRIOR TO COVERING THE WALL FRAMING.

USE OF MACHINE NAILING IS SUBJECT TO A SATISFACTORY JOBSITE DEMONSTRATION FOR EACH PROJECT AND THE APPROVAL OF THE PROJECT ARCHITECT OR STRUCTURAL ENGINEER AND THE ENFORCEMENT AGENCY. THE APPROVAL IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE. MACHINE NAILING IS NOT ALLOWED FOR 5/16" INCH PLYWOOD. IF THE NAIL HEADS PENETRATE THE OUTER PLY MORE THAN WOULD BE NORMAL FOR A HAND HELD HAMMER, OR IF MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED, THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY AND MACHINE NAILING SHALL BE DISCONTINUED.

UNLESS SPECIFICALLY SHOWN ON THESE PLANS NO STRUCTURAL MEMBER SHALL BE CUT. NEITHER DRILLED NOR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER.

UNLESS SPECIFICALLY DETAILED ON PLANS, ALL WOOD FRAMED CONSTRUCTION SHALL BE PLATFORM FRAMING PER TYPICAL DETAILS. DO NOT INSTALL LEDGERS WITHOUT APPROVAL BY SEOR.

NOTIFY THE SEOR IMMEDIATELY WHEN SPECIFIC OR TYPICAL DETAILS DO NOT APPLY.

WOOD STUD WALLS:

USE 2x6 AT 16" O.C TYPICAL UNLESS NOTED OTHERWISE ON PLANS. WOOD PLATE ANCHOR BOLTS SHALL BE 5/8" DIAMETER PLACED NOT TO EXCEED 4'-0" O.C. UNLESS NOTED OTHERWISE. ANCHOR BOLTS SHALL BE PLACED AT ALL JAMBS, CORNERS, INTERSECTIONS AND WALL ENDS. ALL BOTTOM PLATES SHALL HAVE A MINIMUM OF 2 ANCHOR BOLTS. ALL FOUNDATION PLATES OR SILLS AND SLEEPERS ON A CONCRETE SLAB, WHICH IS IN DIRECT CONTACT WITH THE EARTH, AND SILLS WHICH REST ON CONCRETE OR MASONRY FOUNDATIONS, SHALL BE PRESSURE TREATED WOOD IN ACCORDANCE WITH AWPB SPECIFICATION NO. LP-22 FOR ABOVE GROUND CONTACT. PROVIDE SOLID BLOCKING AT 6'-0" O.C. AT ANY WALLS NOT SHEATHED ON BOTH SIDES.

UNLESS SPECIFICALLY SHOWN ON THESE PLANS NO STRUCTURAL MEMBER SHALL BE CUT. NEITHER DRILLED NOR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER.

WOOD MATERIALS:

ENGINEERED LUMBER:

PROVIDE MEMBERS AS MANUFACTURED BY TRUS JOIST CORPORATION OR AN APPROVED SUBSTITUTE WITH A CURRENT ESR APPROVAL. DESIGN, FABRICATE AND ERECT IN ACCORDANCE WITH THE APPLICABLE ESR REPORT.

MEMBER SIZES ARE SHOWN ON THE DRAWINGS.

MEMBER	Fb(PSI)	Fv(PSI)	E(PSI)	Fc//(PSI)	Fc(PSI)
TIMBERSTRAND LSL	2250	400	1,500,000	1950	475
PARALLAM PSL	2900	290	2,000,000	2900	
MICROLLAM LVL	2600	285	1,800,000	2460	
SSI GLU-LAM	2400	265	1,800,000	2400	650
VERSA-LAM (VSL)	2800	190	2,000,000	1600	900

FRAMING LUMBER:

BASE VALUES FOR DIMENSION LUMBER

MEMBER	Fb (PSI)	Fv (PSI)	E (PSI)	F'c//(PSI)	SPECIES & GRADE
JOISTS	900	180	1,600,000	1300	DOUG FIR #2
BEAMS					
4X MEMBERS	1000	180	1,700,000	1450	DOUG FIR #1
6X MEMBERS	1350	170	1,600,000	925	DOUG FIR #1
POSTS					
4X MEMBERS	1000	180	1,700,000	1450	DOUG FIR #1
6X MEMBERS	1200	170	1,600,000	1000	DOUG FIR #1
STUDS	900	180	1,600,000	1350	DOUG FIR #2
LEDGERS AND TOP PLATES	875	180	1,600,000	1300	DOUG FIR #2
TREATED SILL PLATES	DOUG FIR #2 MIN. EACH PIECE SHALL BEAR A STAMP OF APPROVED INDEPENDENT AGENCY OPERATING UNDER AITC.				

FRAMING LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF THE WESTERN WOOD PRODUCTS ASSOCIATION OR THE WEST COAST LUMBER INSPECTIONS BUREAU. ALL SAWN LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED GRADING AGENCY. MOISTURE CONTENT SHALL NOT EXCEED 19%.

FINAL BID DOCUMENTS

Revisions: Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | CONSULTING

A/E:
Awen Solutions Group
4196 Merchant Plaza, Suite 711
Woodbridge, VA 22192

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 033610 PAUL ROEPNACK 12/19/2025

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

Drawing Title: STRUCTURAL GENERAL NOTES
Approved:
FOR OFFICIAL USE ONLY

Phase: FINAL BID DOCUMENTS

Project Title: EHRM INFRASTRUCTURE UPGRADES
Location: 1100 Tunnel Road, Asheville, NC 22805
Issue Date: 12.19.2025 | Checked: DU | Drawn: MBH

Project Number: 637-22-700
Building Number:
Drawing Number: 00-S001
SHEET 20 of 559

VA FORM 08 - 6231
BIM 360://Charles George VA Medical Center (Asheville)/637-22-700.000.S.ASH- EHRM.rvt
3/4/2024 3:26:03 PM

EPOXY ANCHOR RODS - CONCRETE:

EPOXY ANCHORS NOTED IN DRAWINGS IN CONCRETE ARE HILTI HIT-HY 200 V3 ANCHORS AND SHALL BE DESIGNED AND INSTALLED PER ESR-4868 U.N.O. FOR ANY PRODUCT SUBSTITUTION, CONTRACTOR SHALL PROVIDE CALCULATION SUBMITTAL FOR REVIEW BY SEOR SHOWING CAPACITY EQUIVALENT TO OR BETTER THAN SPECIFIED ANCHORS. ANY PRODUCT SUBSTITUTION MUST HAVE AN ICC REPORT.

WHEN INSTALLING DRILLED-IN ANCHORS IN EXISTING NON-PRESTRESSED REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. WHEN INSTALLING ANCHORS INTO EXISTING PRESTRESSED CONCRETE (PRE- OR POST-TENSIONED) LOCATE THE PRESTRESSED TENDONS BY USING A NON-DESTRUCTIVE METHOD PRIOR TO INSTALLATION. EXERCISE EXTREME CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE TENDONS DURING INSTALLATION. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE REINFORCEMENT AND THE DRILLED-IN ANCHOR.

ALL DRILLED HOLES SHALL BE BLOWN OUT BRUSHED AND BLOWN OUT WITH COMPRESSED AIR COMPLETELY BEFORE BOLT INSTALLATION PER ESR REPORT. UNCLEAN HOLE INSTALLATIONS ARE NOT PERMITTED ON THIS PROJECT.

ANCHOR BOLTS SHALL NOT BE INSTALLED INTO CONCRETE PATCHES, GROUT POCKETS, OR OTHERWISE INADEQUATE CONCRETE SUBSTRATE. WHERE AN ANCHOR IS SHOWN INTO SUCH MATERIALS THE SEOR SHALL BE NOTIFIED AND CONSTRUCTION SHALL WAIT FOR FURTHER INSTRUCTION.

ASTM A-193 B7 ROD SHALL BE USED U.N.O. ASTM A-36 ROD MAY BE USED WITH APPROVAL FROM THE SEOR.

ALL WALL ANCHORS SHALL BE PROTECTED FROM WEATHER EXPOSURE. ANY WEATHER EXPOSED EXTERIOR ANCHOR RODS SHALL BE STAINLESS STEEL. ANY STAINLESS STEEL SUBSTITUTIONS NOT SHOWN ON DRAWINGS SHALL BE APPROVED BY SEOR.

INSTALLERS OF ANY ADHESIVE ANCHORS IN UPWARDLY INCLINED OR VERTICAL ORIENTATIONS SHALL BE CERTIFIED INSTALLERS, AND SHALL BE TRAINED ON-SITE BY THE MANUFACTURER. ON-SITE TRAINING SHALL OCCUR FOR THIS PROJECT IN ADDITION TO ANY PREVIOUS EXPERIENCE OR TRAINING.

PERIODIC SPECIAL INSPECTION IS REQUIRED DURING ANCHOR INSTALLATION TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, ADHESIVE IDENTIFICATION AND EXPIRATION DATE, HOLE DIMENSIONS, HOLE CLEANING PROCEDURES, ANCHOR SPACING, EDGE DISTANCE, CONCRETE THICKNESS, TIGHTENING TORQUE, ANCHOR EMBEDMENT, AND ADHERENCE TO THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS. THE SPECIAL INSPECTOR MUST ALWAYS BE ON SITE FOR THE FIRST ANCHOR INSTALLATIONS. THE SPECIAL INSPECTOR MUST VERIFY THE INITIAL INSTALLATIONS OF EACH TYPE AND SIZE OF ADHESIVE ANCHOR BY CONSTRUCTION PERSONNEL ON-SITE. SUBSEQUENT INSTALLATIONS OF THE SAME ANCHOR TYPE AND SIZE BY THE SAME CONSTRUCTION PERSONNEL SHALL BE PERMITTED TO BE PERFORMED IN THE ABSENCE OF THE SPECIAL INSPECTOR. ANY CHANGE IN THE ANCHOR PRODUCT OR PERSONNEL REQUIRES AN INITIAL INSPECTION.

CONTINUOUS SPECIAL INSPECTION OF ADHESIVE ANCHORS INSTALLED IN HORIZONTAL, UPWARDLY INCLINED, OR VERTICAL ORIENTATIONS TO RESIST SUSTAINED TENSIONS LOADS SHALL BE PERFORMED IN ACCORDANCE WITH ACI 318-14 17.8.2.4.

ANY PANEL JOINTS, COLD JOINTS, OR WALL ENDS THAT OCCUR WITHIN 1.5 X EMBEDMENT OF THE ANCHOR SHALL BE REPORTED TO THE SEOR UNLESS THE MINIMUM EDGE DISTANCE IS SPECIFICALLY DETAILED AND SHOWN IN A DETAIL.

ADHESIVE ANCHORS WHICH MAY BE EXPOSED TO ABOVE 110 DEGREES F, SHALL BE BROUGHT TO THE ATTENTION OF THE SEOR.

TENSION TEST NOTES WHEN APPLICABLE:

TEST REQUIREMENTS AND FREQUENCY SHALL BE IN CONFORMANCE WITH IBC 1910.5.

REACTION LOADS FROM TEST FIXTURES MAY BE APPLIED CLOSE TO THE ANCHOR BEING TESTED, PROVIDED THE ANCHOR IS NOT RESTRAINED FROM WITHDRAWING BY THE FIXTURE(S).

TEST EQUIPMENT SHALL BE CALIBRATED BY AN APPROVED TESTING LABORATORY IN ACCORDANCE WITH STANDARD RECOGNIZED PROCEDURES.

TEST LOADS ARE PROVIDED ON DETAILS. PER IBC 1910A.5.4, TEST LOADS ARE 1.25 TIMES THE MAXIMUM DESIGN STRENGTH OF ANCHORS AND NEED NOT EXCEED 80 PERCENT OF THE NOMINAL YIELD STRENGTH OF THE ANCHOR ELEMENT.

THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS: HYDRAULIC RAM METHOD: THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD. A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER BECOMES LOOSE.

IF ANY ANCHOR FAILS TESTING, NOTIFY THE SEOR FOR FURTHER TESTING FREQUENCY OR REVISED TEST LOADS.

EXPANSION ANCHOR BOLTS - CONCRETE:

EXPANSION BOLTS NOTED IN DRAWINGS ARE HILTI KB-TZ2 AND SHALL BE DESIGNED AND INSTALLED PER ESR-4266 U.N.O. FOR ANY PRODUCT SUBSTITUTION, CONTRACTOR SHALL PROVIDE CALCULATION SUBMITTAL FOR REVIEW BY SEOR SHOWING CAPACITY EQUIVALENT TO OR BETTER THAN SPECIFIED ANCHORS. ANY PRODUCT SUBSTITUTION MUST HAVE AN ICC REPORT.

HILTI KB-TZ2 CONCRETE ANCHORS ARE FOR USE IN CONCRETE HAVING A COMPRESSIVE STRENGTH OF 2500 PSI TO 8500 PSI.

ALL DRILLED HOLES SHALL BE BLOWN OUT BRUSHED AND BLOWN OUT WITH COMPRESSED AIR COMPLETELY BEFORE BOLT INSTALLATION PER ESR REPORT. UNCLEAN HOLE INSTALLATIONS ARE NOT PERMITTED ON THIS PROJECT.

WHEN INSTALLING ANCHORS IN NON-PRESTRESSED REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. WHEN INSTALLING ANCHORS INTO EXISTING PRESTRESSED CONCRETE (PRE- OR POST-TENSIONED) LOCATE THE PRESTRESSED TENDONS BY USING A NON-DESTRUCTIVE METHOD PRIOR TO INSTALLATION. EXERCISE EXTREME CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE TENDONS DURING INSTALLATION. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE REINFORCEMENT AND THE DRILLED-IN ANCHOR.

ANY PANEL JOINTS, COLD JOINTS, OR WALL ENDS THAT OCCUR WITHIN 1.5 X EMBEDMENT OF THE ANCHOR SHALL BE REPORTED TO THE SEOR UNLESS THE MINIMUM EDGE DISTANCE IS SPECIFICALLY SHOWN IN A DETAIL.

ALL WALL ANCHOR TIES USING EXPANSION BOLT ANCHORS SHALL BE INSTALLED TIGHT TO THE WALL OR LEDGER. THERE SHALL BE NO GAP BETWEEN THE NUT AND STRAP OR STRAP AND WALL/LEDGER.

ALL WALL ANCHORS SHALL BE PROTECTED FROM WEATHER EXPOSURE. ANY EXPOSED EXTERIOR ANCHOR BOLTS SHALL BE STAINLESS STEEL. ANY STAINLESS STEEL SUBSTITUTIONS NOT SHOWN ON DRAWINGS SHALL BE APPROVED BY SEOR.

PERIODIC SPECIAL INSPECTION IS REQUIRED DURING ANCHOR INSTALLATION TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, DRILL BIT TYPE, HOLE DIMENSIONS, HOLE CLEANING, CONCRETE THICKNESS, ANCHOR SPACING, EDGE DISTANCE, ANCHOR EMBEDMENT, TIGHTENING TORQUE, HOLE DIMENSIONS AND ADHERENCE TO THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.

ALL ANCHORS SHALL BE TORQUED AS FOLLOWS FOR PROPER INSTALLATION: (HARDROCK OR LIGHTWEIGHT CONCRETE)

BOLT DIAMETER (IN)	1/4"	3/8"	1/2"	5/8"	3/4"
INSTALLATION TORQUE CARBON STEEL (FT-LBS)	4	30	50	40	110
INSTALLATION TORQUE STAINLESS STEEL (FT-LBS)	6	30	40	60	125

TORQUE TEST NOTES:

TEST REQUIREMENTS AND FREQUENCY SHALL BE IN CONFORMANCE WITH IBC 1910.5.

REACTION LOADS FROM TEST FIXTURES MAY BE APPLIED CLOSE TO THE ANCHOR BEING TESTED, PROVIDED THE ANCHOR IS NOT RESTRAINED FROM WITHDRAWING BY THE FIXTURE(S).

TEST EQUIPMENT SHALL BE CALIBRATED BY AN APPROVED TESTING LABORATORY IN ACCORDANCE WITH STANDARD RECOGNIZED PROCEDURES.

REQUIRED TEST LOADS SHALL BE EQUAL TO MANUFACTURER'S RECOMMENDED INSTALLATION TORQUE BASED ON AN APPROVED EVALUATION REPORT USING CRITERIA ADOPTED IN THIS CODE.

THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS: TORQUE WRENCH METHOD: THE APPLICABLE TEST TORQUE MUST BE REACHED WITHIN ONE-HALF (1/2) TURN OF THE NUT.

APPLY PROOF TEST LOADS TO ANCHORS WITHOUT REMOVING THE NUT IF POSSIBLE. IF NOT, REMOVE THE NUT AND INSTALL A THREADED COUPLER NUT TO THE SAME TIGHTNESS OF THE ORIGINAL NUT USING A TORQUE WRENCH AND APPLY LOAD.

IF ANY ANCHOR FAILS TESTING, NOTIFY THE SEOR FOR FURTHER TESTING FREQUENCY OR REVISED TEST LOADS.

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | CONSULTING

A/E:
Awen Solutions Group
4196 Merchant Plaza, Suite 711
Woodbridge, VA 22192

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 478
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP

NORTH CAROLINA PROFESSIONAL SEAL 033610 ENGINEER PAUL HOEHNACK
12/19/2025

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: STRUCTURAL GENERAL NOTES
Phase: FINAL BID DOCUMENTS
Project Title: EHRM INFRASTRUCTURE UPGRADES
Project Number: 637-22-700
Building Number:
Approved:
FOR OFFICIAL USE ONLY
Location: 1100 Tunnel Road, Asheville, NC 22805
Issue Date: 12.19.2025
Checked: DU
Drawn: MBH
Drawing Number: 00-S002
SHEET 21 of 559

BIM 360://Charles George VA Medical Center (Asheville)/637-22-700.000.S.ASH- EHRM.rvt
3/4/2026 3:26:03 PM

VA FORM 08 - 6231

LAP SPLICE SCHEDULE "CLASS B" (STRAIGHT BARS)

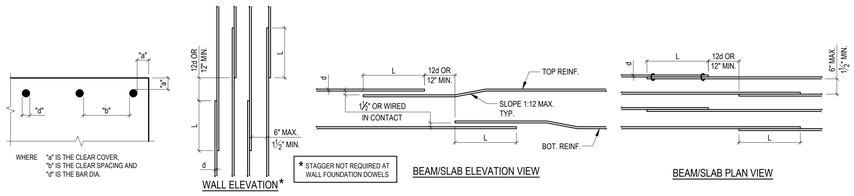
	CONCRETE STRENGTH Fc'	BAR #4		#5		#6		#7		#8		#9		#10		#11	
		TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER
CLEAR COVER ≥ d AND CLEAR SPACING ≥ 2d	3000 PSI	37	29	47	36	56	43	81	63	93	72	105	81	118	91	131	101
	4000 PSI	33	25	41	31	49	37	71	54	81	62	91	70	102	79	113	87
	5000 PSI	29	23	36	28	43	34	63	49	72	56	81	63	92	70	102	78
OTHER CASES	3000 PSI	56	43	70	54	84	65	122	94	139	107	157	121	177	136	196	151
	4000 PSI	49	37	61	47	73	56	106	81	121	93	136	105	153	118	170	131
	5000 PSI	43	32	54	42	65	50	95	73	108	83	122	94	137	106	152	117

DEVELOPMENT LENGTH SCHEDULE "CLASS A" (STRAIGHT & HOOKED BARS)

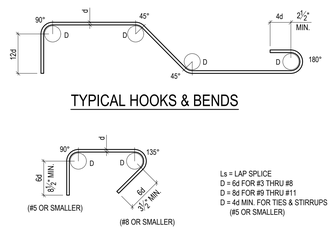
		CONCRETE STRENGTH Fc'	BAR #4		#5		#6		#7		#8		#9		#10		#11	
			TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER
STRAIGHT	CLEAR COVER ≥ d AND CLEAR SPACING ≥ 2d	3000 PSI	29	22	36	28	43	33	63	48	72	55	81	62	91	70	101	78
		4000 PSI	25	19	31	24	37	29	54	42	62	48	70	54	79	61	87	67
		5000 PSI	23	17	28	22	34	26	49	38	56	43	63	48	70	54	78	60
	OTHER CASES	3000 PSI	43	33	54	42	65	50	94	72	107	83	121	93	136	105	151	116
		4000 PSI	37	29	47	36	56	43	81	63	93	72	105	81	118	91	131	101
		5000 PSI	34	26	42	32	50	39	73	56	83	64	94	72	106	81	117	90
HOOK	STANDARD	3000 PSI	11		14		17		20		22		25		28		31	
		4000 PSI	10		12		15		17		19		22		25		27	
		5000 PSI	9		11		13		15		17		20		22		24	

NOTE:
1. T=TOP BAR, L=LAP SPLICE LENGTH
2. "d" INDICATES BAR DIAMETER.
3. ALL DIMENSIONS SHOWN IN TABLE ABOVE ARE IN INCHES.

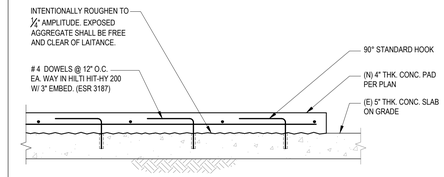
NOTES:
1. TABULATED VALUES AND NOTES ARE PER ACI318-14.
2. SPLICES SHALL BE CONTACT TENSION LAP SPLICES U.N.O.
3. LENGTHS SHOWN ARE FOR GRADE 60 UNCOATED BARS.
4. ALL LAP SPLICES SHALL BE CLASS B, UNLESS CLASS A IS SPECIFICALLY APPROVED BY THE ENGINEER.
5. THE SCHEDULES SHOWN ON THIS DETAIL APPLY TO NORMAL WEIGHT CONCRETE.
6. FOR LIGHTWEIGHT CONCRETE, INCREASE LAP SPLICE LENGTH BY 33%.
7. ALL HORIZONTAL AND VERITICAL SPLICES SHALL BE STAGGERED AS SHOWN BELOW WHERE POSSIBLE U.N.O. WHERE SPLICES ARE NOT STAGGERED THE LAP SPLICE LENGTH SHALL BE INCREASED BY 30%.
8. THE SMALLER BAR LAP LENGTH SHALL BE USED WHEN SPLICING BARS OF DIFFERENT SIZES.
9. TOP BARS ARE HORIZONTAL BARS PLACED SO THAT MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.
10. LAP LENGTHS SPECIFICALLY DETAILED ON DRAWINGS SHALL GOVERN IN LIEU OF THE LAP LENGTHS SCHEDULED. OTHERWISE, ALL DETAILING AND PLACEMENT OF REINFORCING SHALL COMPLY WITH THE LAP SPLICE SCHEDULES AND DETAILS.
11. BUNDLED BAR SPLICES:
    a) INDIVIDUAL BAR SPLICES WITHIN THE BUNDLE SHALL NOT OVERLAP EACH OTHER.
    b) INCREASE LAP LENGTH 20% AT THREE BAR BUNDLES.
    c) INCREASE LAP LENGTH 33% AT FOUR BAR BUNDLES.
12. FOR #14 AND #18 BARS, USE MECHANICAL SPLICE IN ACCORDANCE WITH ACI-318 REQUIREMENTS.
13. EPOXY COATED BAR DEVELOPMENT & SPLICES:
    HOOKS: INCREASE DEVELOPMENT & LAP LENGTH 20%.
13. CONT.
    STRAIGHT BARS:
    a) WHEN CONCRETE COVER IS LESS THAN 3d OR CLEAR SPACING IS LESS THAN 6d, INCREASE DEVELOPMENT & LAP LENGTH 50%.
    b) FOR OTHER CASES, INCREASE LAP LENGTH 20%.
14. HOOK PORTION OF SCHEDULE ASSUMES A STANDARD 90° HOOK.
15. SEISMIC CONDITIONS:
    a) SEISMIC DIAPHRAGM AND COLLECTOR BARS REQUIRE NO INCREASE TO HOOK OR LAP SPLICE LENGTHS.
    b) VERTICAL BARS OF SPECIAL REINFORCED CONCRETE WALLS SHALL HAVE A BOTTOM BAR LAP SPLICE INCREASED BY 25%.
    c) DEVELOPMENT LENGTHS AND LAP SPLICES FOR CONCRETE SPECIAL MOMENT RESISTING FRAMES ARE NOT COVERED BY THIS DETAIL AND MUST MEET ALL ACI 318 CHAPTER 18 REQUIREMENTS.



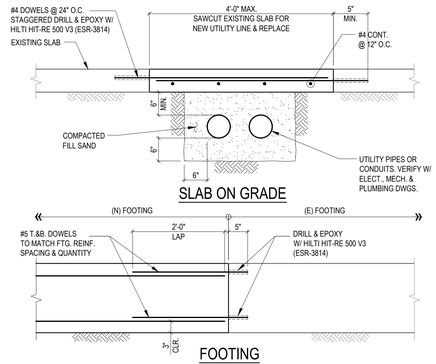
6 TYPICAL NORMAL WEIGHT CONCRETE REINFORCING LAP SPLICE SCHEDULE



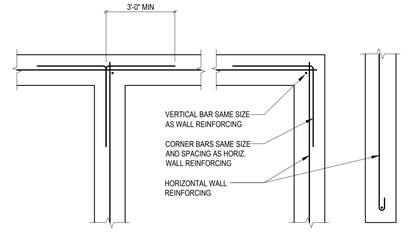
3 REINFORCING BAR DETAILS

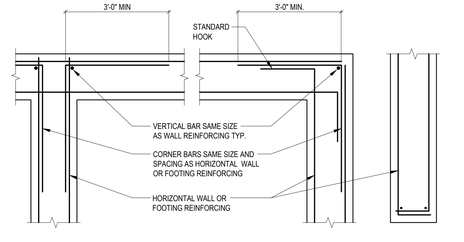


4 NEW HOUSEKEEPING PAD TO (E) CONC. SLAB ON GRADE

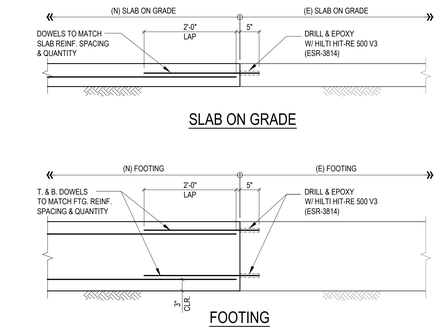


5 SAWCUT @ EXISTING SLAB ON GRADE/ FOOTING





8 BLOCK WALL / FOOTING REINF. AT CORNERS AND INTERSECTIONS



10 EXISTING TO NEW SLAB ON GRADE OR FOOTING

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | CONSULTING

A/E:
Awen Solutions Group
4196 Merchant Plaza, Suite 711
Woodbridge, VA 22192

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

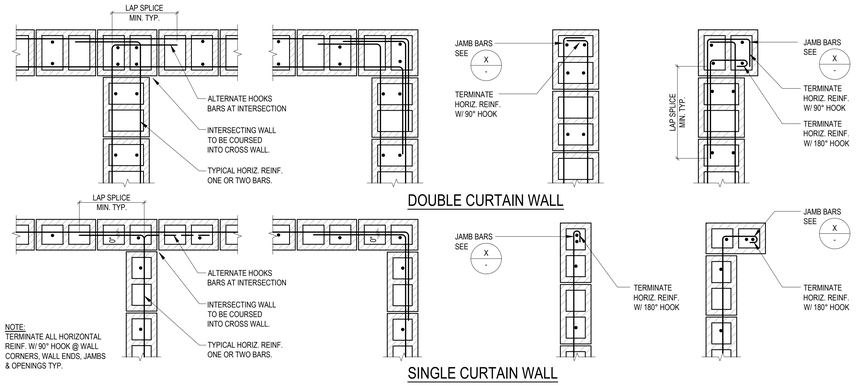
STAMP
NORTH CAROLINA PROFESSIONAL SEAL 033610 ENGINEER PAUL THOMAS 12/19/2025

Office of Construction and Facilities Management

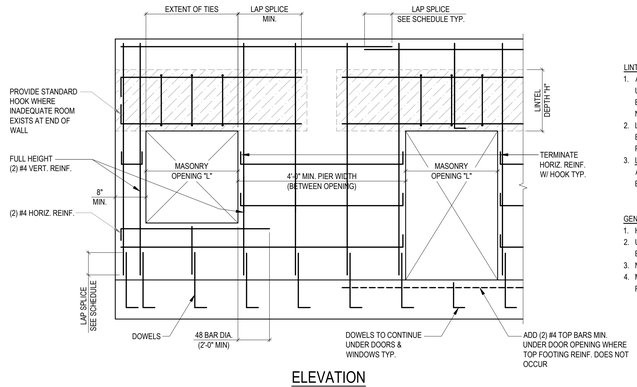
VA U.S. Department of Veterans Affairs

Drawing Title	TYPICAL CONCRETE DETAILS
Phase	FINAL BID DOCUMENTS
Project Title	EHRM INFRASTRUCTURE UPGRADES
Project Number	637-22-700
Building Number	
Approved:	FOR OFFICIAL USE ONLY
Location	1100 Tunnel Road, Asheville, NC 22805
Issue Date	12.19.2025
Checked	DU
Drawn	MBH
Drawing Number	00-S501
	SHEET 22 of 559

3/4/2024 3:26:03 PM
BIM 360://Charles George VA Medical Center (Asheville)/637-22-7100.000 S ASH- EHRM.rvt
VA FORM 08 - 6231



2 CMU WALL REINFORCING AT CORNERS AND INTERSECTIONS



ELEVATION

LINTEL NOTES:
1. ALL LINTELS TO BE LAID UP USING OPEN END MASONRY UNITS BOND BEAM AT ALL COURSES. DOUBLE OPEN BOND BEAM OR LINTEL UNITS MAYBE SUBSTITUTED AS NECESSARY.
2. LINTELS SHALL BE GROUTED SOLID, FULL HEIGHT. EXTEND OPEN END MASONRY UNITS AND REINFORCING PAST EA. JAMB AS SHOWN.
3. LAP LINTEL REINFORCING AS FOLLOWS:
   A. LAP BOTTOM REINFORCING AT SUPPORTS.
   B. LAP TOP REINFORCING AT MIDSPAN ONLY AS REQUIRED WHEN SPAN EXCEEDS 8'-0".

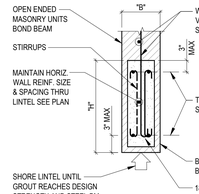
GENERAL NOTES:
1. HOLD BARS ACCURATELY IN PLACE UNTIL GROUT SETS.
2. USE OPEN ENDED BOND BEAM UNITS AT HORIZONTAL BARS TYP.
3. NO CUTTING OF JAMB BARS IS PERMITTED.
4. MITIGATING FACE SHELL BLOWOUTS IS THE RESPONSIBILITY OF THE CONTRACTOR.

THICKNESS	CURTAIN	VERTICAL	HORIZONTAL
8"	SINGLE	#4 @ 24" O.C.	#4 @ 24" O.C.

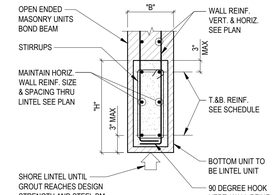
MINIMUM WALL REINFORCEMENT

MASONRY OPENING "L"	LINTEL SIZE "B"	LINTEL SIZE "H"	BOTTOM BARS	TOP BARS	STIRRUPS
< 4'-0"	8"	16"	(2) #5	(2) #5	#3 @ 8"
< 8'-0"	8"	24"	(2) #5	(2) #5	#3 @ 8"
< 10'-0"	8"	48"	(2) #7	(2) #7	#4 @ 8"

MINIMUM LINTEL REQUIREMENTS

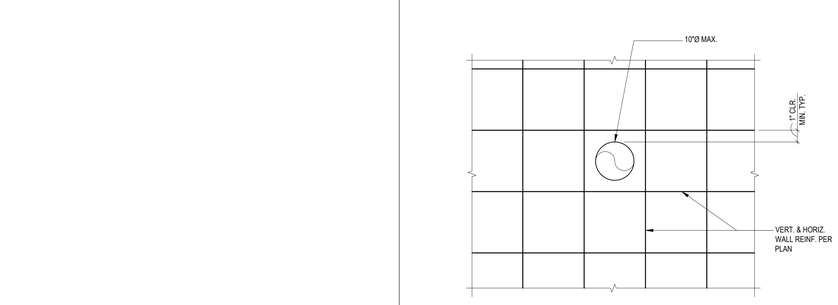


SINGLE CURTAIN WALL SECTION



DOUBLE CURTAIN WALL SECTION

9 MINIMUM REINFORCING FOR MASONRY WALLS



REINFORCEMENT IN MASONRY DEVELOPMENT LENGTH AND LAP SPLICE		
BAR SIZE	DEVELOPMENT & LAP SPLICE LENGTH	REMARKS
#3	2'-2"	SEE NOTE 7
#4	4'-0"	SEE NOTE 7
#5	5'-0"	SEE NOTE 7
#6	6'-0"	ONE LAYER ONLY SEE NOTE 7
#7	7'-0"	

TABLE BASED ON REQUIREMENTS OF ACI 530-11 (STRENGTH DESIGN)

DEVELOPMENT LENGTH AND LAP SPLICE NOTES:
1. THIS TABLE IS FOR ALL GRADES OF REINFORCEMENT. F'm = 1500 PSI
2. THE MAXIMUM SIZE OF REINFORCEMENT SHALL BE NO. 7 BARS FOR 8" CMU.
3. THE CLEAR DISTANCE BETWEEN THE SURFACE OF A BAR AND ANY SURFACE OF MASONRY UNIT SHALL NOT BE LESS THAN ½" FOR COARSE GROUT.
4. CROSS WEBS OF HOLLOW UNITS MAY BE USED AS SUPPORT FOR HORIZONTAL WALL REINFORCEMENT.
5. MAXIMUM REINFORCEMENT AREA OF ANY ONE CELL SHALL BE 8% OF THE CELL AREA WITHOUT SPLICES AND 12% OF THE CELL AREA WITH SPLICES.
6. ALL REINFORCING BARS SHALL HAVE A MINIMUM COVER, INCLUDING THE WALL OF THE MASONRY UNIT, OF AT LEAST ¾", ½" TYPICAL AND 2" FOR SURFACES EXPOSED TO SOIL.
7. FOR EPOXY COATED REINFORCING BARS, INCREASE DEVELOPMENT LENGTH AND LAP SPLICE LENGTH BY 50%.

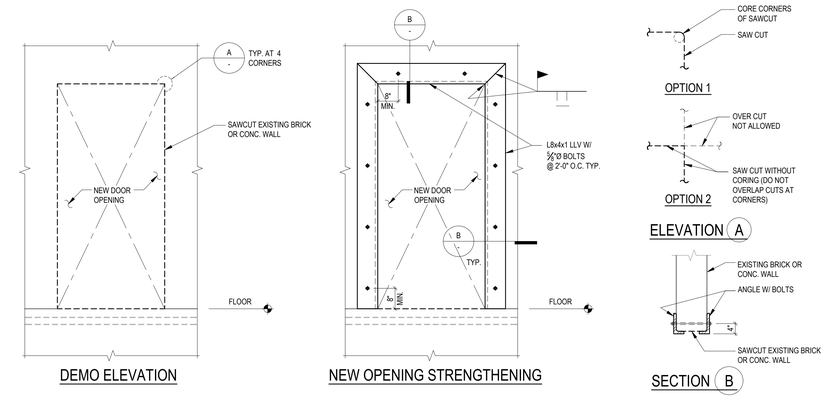
Ls = LAP SPLICE
D = 6d FOR #3 THRU #8
D = 8d FOR #9 THRU #11
D = 4d MIN. FOR TIES & STIRRUPS (#5 OR SMALLER)

7 MASONRY REINFORCING BAR DETAILS

ELEVATION

NOTE:
DO NOT CUT VERT. OR HORIZ. WALL REINF.

13 TYP. CONC. OR CMU WALL SLEEVE DETAIL



14 (N) BRICK/ CONC. WALL OPENING

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | CONSULTING

A/E:
Awen Solutions Group
4196 Merchant Plaza, Suite 711
Woodbridge, VA 22192

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP

NORTH CAROLINA PROFESSIONAL SEAL 033610 ENGINEER PAUL JOSEPH HOEFLICH 12/19/2025

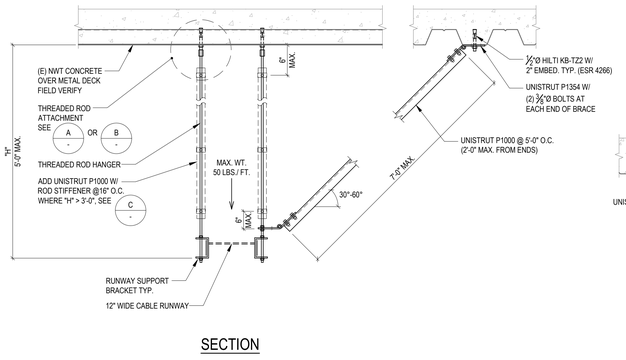
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

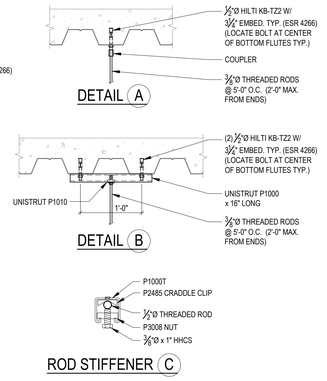
Drawing Title	TYPICAL CONCRETE DETAILS
Phase	FINAL BID DOCUMENTS
Project Title	EHRM INFRASTRUCTURE UPGRADES
Project Number	637-22-700
Building Number	
Approved:	
Location	1100 Tunnel Road Asheville, NC 22805
Issue Date	12.19.2025
Checked	DU
Drawn	MBH
Drawing Number	00-S502
	SHEET 23 of 559

FOR OFFICIAL USE ONLY

BIM 360://Charles George VA Medical Center (Asheville)/637-22-700.000.S_ASH- EHRM.rvt
3/4/2024 3:26:04 PM
VA FORM 08 - 6231

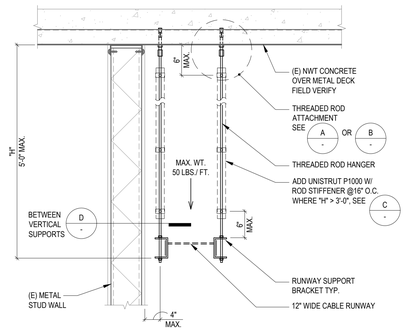


SECTION

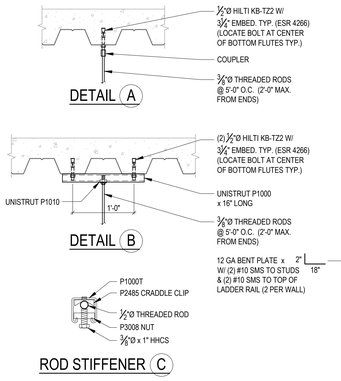


ROD STIFFENER C

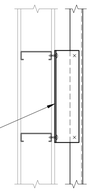
1 CORRIDOR CABLE RUNWAY



SECTION

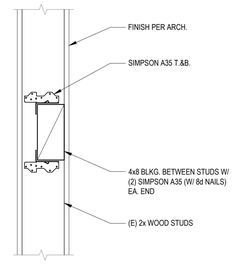


ROD STIFFENER C

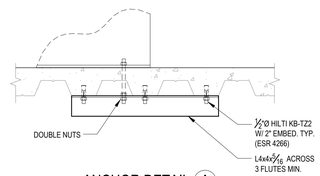


PLAN D

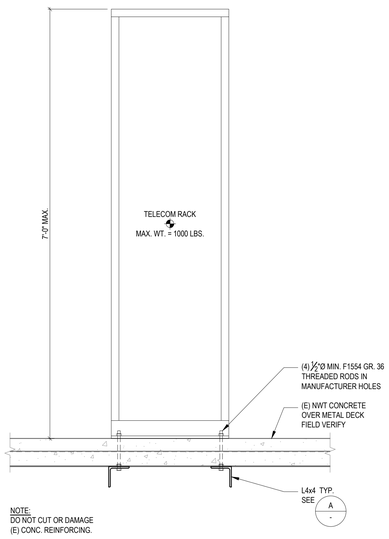
3 CORRIDOR CABLE RUNWAY



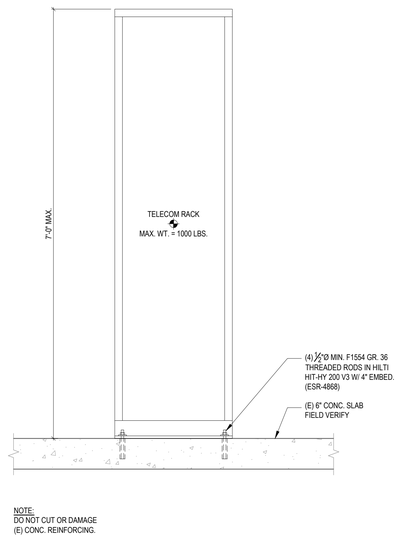
5 TYP. WOOD BACKING DETAIL



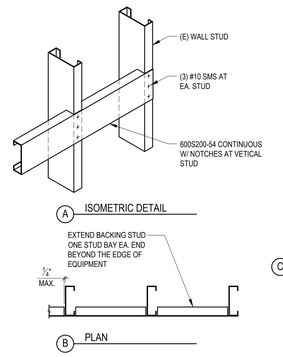
ANCHOR DETAIL A



11 TELECOM RACK ANCHORAGE ON CONC. OVER METAL DECK



12 TELECOM RACK ANCHORAGE ON CONC. SLAB



A ISOMETRIC DETAIL

C SECTION

B PLAN

10 TYP. METAL CHANNEL BACKING DETAIL

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | CONSULTING

A/E:
Awen Solutions Group
4196 Merchant Plaza, Suite 711
Woodbridge, VA 22192

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 478
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP

NORTH CAROLINA PROFESSIONAL SEAL 033610 ENGINEER PAUL HOEFNAGEL
12/19/2025

Office of Construction and Facilities Management

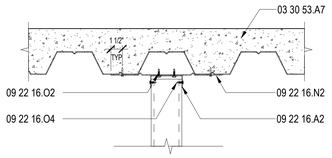
VA U.S. Department of Veterans Affairs

Drawing Title: FRAMING DETAILS	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved: FOR OFFICIAL USE ONLY		Location: 1100 Tunnel Road, Asheville, NC 22805	Building Number
		Issue Date: 12.19.2025 / Checked: DU / Drawn: MBH	Drawing Number: 00-S503
			SHEET 24 of 559

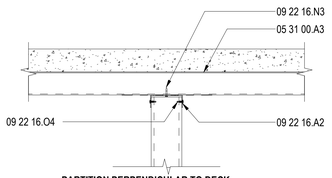
3/4/2026 3:26:04 PM

BIM 360://Charles George VA Medical Center (Asheville)/637-22-700.000.S ASH- EHRM.rvt

VA FORM 08 - 6231



PARTITION PARALLEL TO DECK

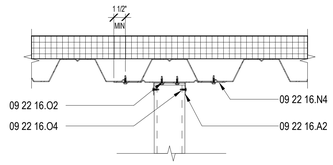


PARTITION PERPENDICULAR TO DECK

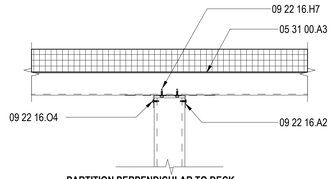
092216-FIXED CONNECTION TO CONC FILLED METAL DECK

1 FIXED HEAD OF WALL CONNECTION

1 1/2" = 1'-0"



PARTITION PARALLEL TO DECK

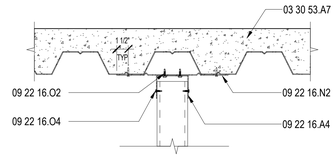


PARTITION PERPENDICULAR TO DECK

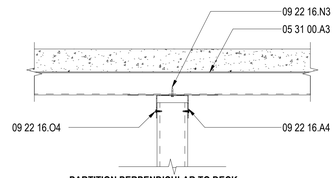
092216-FIXED CONNECTION TO BARE METAL DECK

2 FIXED CONNECTION TO BARE METAL DECK

1 1/2" = 1'-0"



PARTITION PARALLEL TO DECK

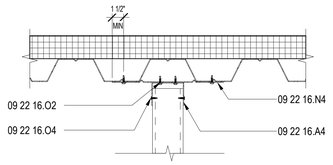


PARTITION PERPENDICULAR TO DECK

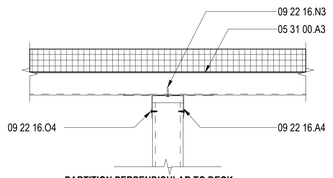
092216-TOP TRACK ANCHORAGE CONC FILLED METAL DECK

3 SLIP HEAD OF WALL CONNECTION

1 1/2" = 1'-0"



PARTITION PARALLEL TO DECK



PARTITION PERPENDICULAR TO DECK

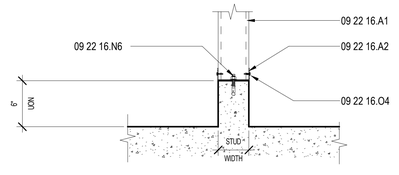
092216-TOP TRACK ANCHORAGE BARE METAL DECK

4 SLIP CONNECTION AT BARE METAL DECK

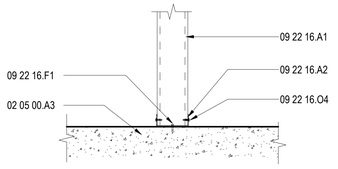
1 1/2" = 1'-0"

REFERENCE KEYNOTES

KEY TAG	DESCRIPTION
02 05 00.A3	EXISTING POST-TENSIONED CONCRETE FLOOR/ROOF DECK
03 30 53.A7	CAST-IN-PLACE CONCRETE, LIGHTWEIGHT, SEE STRUCTURAL DRAWINGS
05 31 00.A3	STEEL DECKING, ROOF/FLOOR, SEE STRUCTURAL DRAWINGS
09 22 16.A1	4" METAL STUD FRAMING
09 22 16.A2	STEEL TRACK MATCHING STUD
09 22 16.A3	STEEL SLOTTED DEFLECTION TRACK MATCHING STUD
09 22 16.A4	4" CH STUD
09 22 16.F1	BOX HEADER (D3/AE501)
09 22 16.G3	400S162-54 JOISTS AT 24" ON CENTER
09 22 16.G4	1-1/2"x33 MIL STRAP AT MID SPAN WITH TRACK BLOCKING TO MATCH JOISTS PLACED AT EACH END OF STRAP WITH #10 SELF-TAPPING FRAMING SCREWS EACH JOIST AND (4) #10 PER TRACK BLOCK
09 22 16.G5	BEND BACK FLANGE OF TRACK BLOCK EACH END WITH (2) #10 SELF-TAPPING FRAMING SCREWS TOP AND BOTTOM
09 22 16.G6	CRIPPLE STUD
09 22 16.G7	INFILL STUD
09 22 16.G8	JAMB STUD(S)
09 22 16.H1	LINTEL, SEE LINTEL/JAMB SCHEDULE FOR CONFIGURATION
09 22 16.H7	(2) #10 SELF-TAPPING FRAMING SCREWS TO EACH FLUTE
09 22 16.J8	2-3/4" x 2-3/4" x 6" x 54 MIL CLIP ANGLE AT 32-INCHES ON CENTER WITH (2) #8 SHEET METAL SCREWS TO TOP TRACK AND (2) POWDER ACTUATED FASTERNS TO CONCRETE WALL
09 22 16.K2	INFILL STUD W/ #10 FRAMING SCREWS TO HEADER TRACK EA SIDE
09 22 16.K4	FLOOR TRACK
09 22 16.K5	HEADER TRACK(S)
09 22 16.K6	HEADER STUDS
09 22 16.M1	6" LONG CRIPPLE STUD WITH (4) #10 FRAMING SCREWS TO JAMB STUD
09 22 16.M2	INFILL STUD W/ #10 FRAMING SCREWS TO HEADER TRACK EA SIDE
09 22 16.M5	LINTEL TRACK(S), ONE GAUGE THICKER THAN LINTEL BEAM
09 22 16.M6	LINTEL BEAM, SEE SCHEDULE FOR SIZE
09 22 16.N2	54 MIL x 101.6MM (4-INCH) STRAP WITH (2) POWDER ACTUATED FASTENERS IN DECK FLUTE AT 304.8 MM (12-INCHES) ON CENTER (OMIT STRAP WHERE WALL ALIGNS WITH LOWER FLUTE)
09 22 16.N3	(1) POWDER ACTUATED FASTENERS AT EACH DECK FLUTE
09 22 16.N4	54 MIL x 101.6MM (4-INCH) STRAP WITH (2) #10 SELF-TAPPING SHEET METAL SCREWS IN DECK FLUTE AT 304.8 MM (12-INCHES) ON CENTER (OMIT STRAP WHERE WALL ALIGNS WITH LOWER FLUTE)
09 22 16.N6	9.525 MM (3/8-INCH) DRILLED EXPANSION ANCHOR AT 812.8 MM (32-INCHES) ON CENTER
09 22 16.O2	(2) #10 SELF-TAPPING FRAMING SCREWS AT EACH PLATE
09 22 16.O3	#10 SELF-TAPPING FRAMING SCREWS AT 406.4 MM (16-INCH) ON CENTER, TYPICAL UNLESS OTHERWISE NOTED
09 22 16.O4	#10 SELF-TAPPING FRAMING SCREWS AT EACH STUD, EACH SIDE
09 22 16.O8	#10 SELF-TAPPING FRAMING SCREWS AT 304.8 MM (12-INCHES) ON CENTER
09 22 16.O9	ATTACH JAMB MEMBERS WITH (2) #10-16 SELF-TAPPING FRAMING SCREWS AT 406.4 MM (16-INCHES) ON CENTER



CONDITION WITH CURB

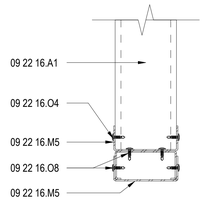


092216-BOTTOM TRACK ANCHORAGE

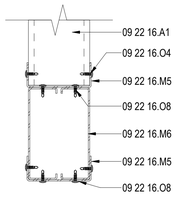
CONDITION WITHOUT CURB

5 BOTTOM TRACK ANCHORAGE

1 1/2" = 1'-0"



LINTEL LESS THAN 4'-0"



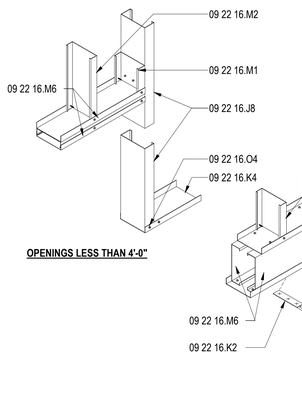
LINTEL 4'-0" AND GREATER

LINTEL/JAMB SCHEDULE			
MAXIMUM LENGTH	LINTEL BEAM SIZE	NUMBER OF STUDS AT JAMB	QUANITY OF #10 SCREWS BEAM TO JAMB

092216-LINTEL FRAMING

6 LINTEL/JAMB SCHEDULE

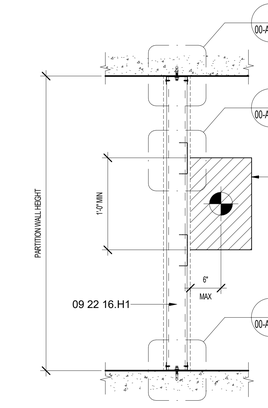
3" = 1'-0"



092216-DOOR FRAMING ISOMETRIC

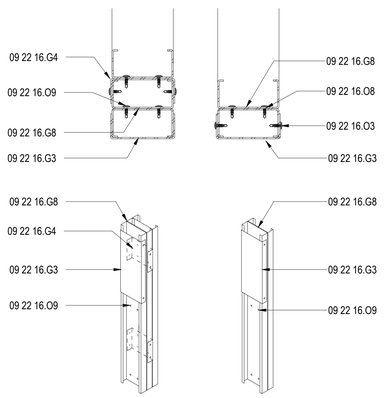
7 NON-LOAD BEARING DOOR OPENING

1 1/2" = 1'-0"



8 TYPICAL PARTITION WALL SECTION

1" = 1'-0"

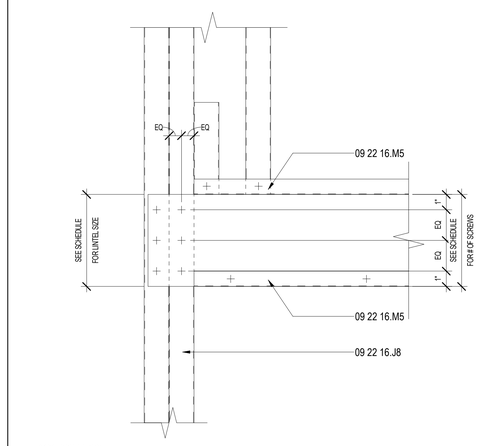


TRIPLE JAMB STUD DOUBLE JAMB STUD

092216-TIED JAMB STUDS

9 TIED JAMB STUDS

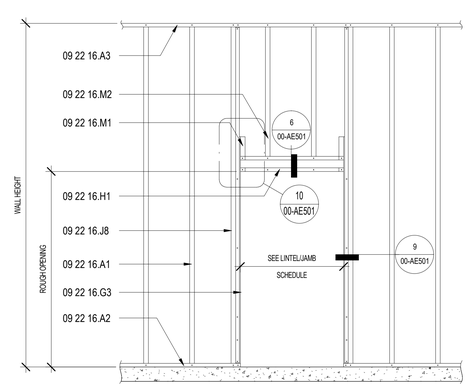
3" = 1'-0"



092216-HEADER ELEVATION

10 LINTEL CONNECTION TO JAMB STUDS

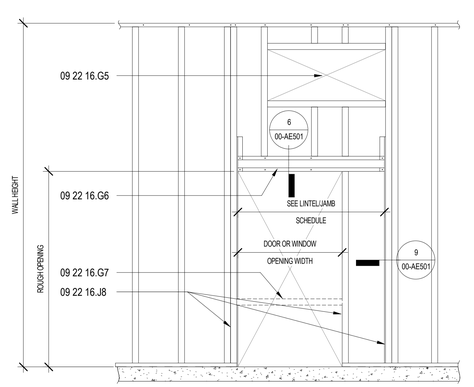
3" = 1'-0"



092216-DOOR FRAMING ELEVATION

11 NON-LOAD BEARING DOOR OPENING

3/4" = 1'-0"



092216-OVERLAPPING OPENINGS

12 OVERLAPPING OPENINGS

3/4" = 1'-0"

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

1" = 1'-0" SCALE 1 0 1 2 FEET

3/4" = 1'-0" SCALE 1 0 1 2 3 FEET

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

LICENSED ARCHITECT GENE HAMILTON C-18578 REN. 07-31-27 STATE OF CALIFORNIA

Facilities Management Services

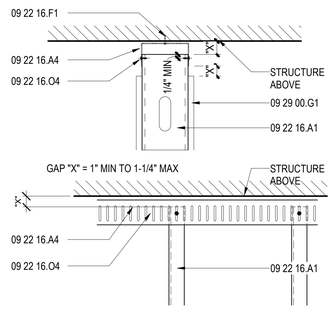
VA U.S. Department of Veterans Affairs

Drawing Title: INTERIOR FRAMING DETAILS	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
			Building Number:
Approved: FOR OFFICIAL USE ONLY		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Drawing Number: 00-AE501
		Issue Date: 12.19.2025 / Checked / Drawn	SHEET 25 of 559

Autodesk Docs://Asheville EHRM_V23/637-22-700.047 ASH - EHRM.rvt

12/19/2025 11:37:16 AM

VA FORM 08 - 6231



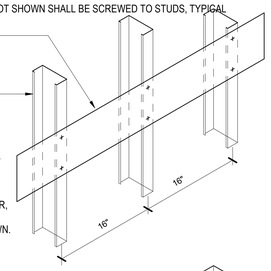
AT FIRE RATED ASSEMBLIES USE COMPOSITE FIRESTOP/FRAMING PER UL HW-D-0792

1 TOP TRACK ANCHORAGE

1 1/2" = 1'-0"

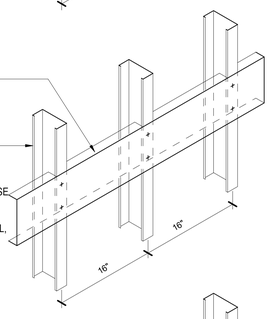
NOTES:

1. EXTEND BACKING PLATES TO LAST STUD BEYOND EDGE OF FIXTURE OR ACCESSORY, SPAN BETWEEN A MINIMUM OF THREE STUDS
2. VERIFY AND CONFIRM LENGTH, HEIGHT AND LOCATION OF BACKING PLATES AND NUMBER REQUIRED WITH ITEMS TO BE MOUNTED
3. WALL STUD FLANGES SHALL BE CONTINUOUS, NOTCHING OF STUDS IS PROHIBITED
4. ALL BACKING PLATES SHOWN OR NOT SHOWN SHALL BE SCREWED TO STUDS, TYPICAL



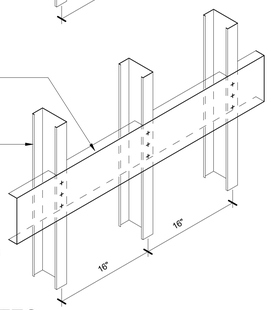
TYPE 1:
PROVIDE THIS BACKING PLATE FOR ALL TOILET ACCESSORIES, CURTAIN RODS, MOP HOLDER, MOP RECEPTOR, F.E.C., DOOR STOP, CLOCK, DISINFECTANT DISPENSER, SHARPS/GLOVE DISPENSER, SURFACE MOUNTED LIGHT FIXTURE, TELEPHONE / INTERCOM, AND AS SHOWN.

MAX. WEIGHT = 50 LBS./ FT.



TYPE 2:
PROVIDE THIS BACKING PLATE FOR BASE CABINET, WALL HUNG CABINET, ADJUSTABLE SHELF, APRON RACK, COUNTERTOP END SUPPORT, HANDRAIL, CRASH RAIL, LOCKER, MIRROR, MARKERBOARD, URINAL, ELECTRICAL PANEL, AND LIKE ITEMS

MAX. WEIGHT = 150 LBS. / FT.

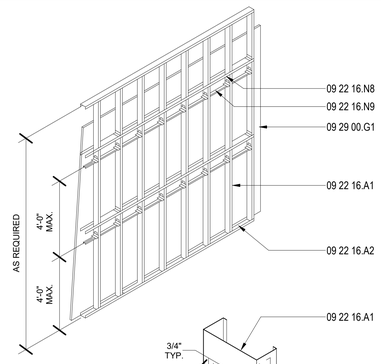


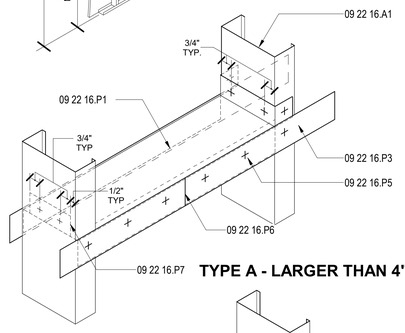
TYPE 3:
PROVIDE THIS BACKING PLATE FOR DRINKING FOUNTAINS, FOLDING SHOWER SEAT, GRAB BARS, HANDRAILS, SCRUB SINKS, WALL HUNG LAVATORIES AND LIKE ITEMS

MAX. WEIGHT = 300 LBS. / FT.

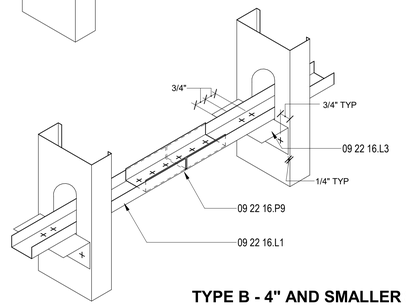
2 BACKING PLATES

3" = 1'-0"





TYPE A - LARGER THAN 4" STUDS



TYPE B - 4" AND SMALLER STUDS

NOTES:
1. NOTCHING OR CUTTING OF COLD-ROLLED CHANNEL (CRC) OR STRAP IS NOT PERMITTED FOR ANY CONDITION
2. LATERIAL BRACING IS NOT REQUIRED WHERE GYPSUM BOARD IS INSTALLED ON BOTH SIDES OF THE PARTITION WALL.

3 LATERIAL BRACING

3" = 1'-0"

REFERENCE KEYNOTES

KEY VALUE	KEYNOTE DESCRIPTION
05 40 00.M1	COLD-FORMED METAL FRAMING, FRAMING ACCESSORIES, HORIZONTAL BACKING PLATE, 152.4 MM (6-INCH), 14-GAUGE PLATE, FASTEN TO STUDS WITH (2) #10-16 WAFER HEAD FRAMING SCREWS
05 40 00.M2	COLD-FORMED METAL FRAMING, FRAMING ACCESSORIES, HORIZONTAL BACKING PLATE, 600-S150-54 RUNNER CHANNEL NOTCH OVER STUDS OR PRE-NOTCHED BACKING, FASTEN TO STUDS WITH (2) #10-16 WAFER HEAD FRAMING SCREWS
05 40 00.M3	COLD-FORMED METAL FRAMING, FRAMING ACCESSORIES, HORIZONTAL BACKING PLATE, 600-S200-54 RUNNER CHANNEL NOTCH OVER STUDS OR PRE-NOTCHED BACKING, FASTEN TO STUDS WITH (3) #10-16 FRAMING SCREWS
05 40 00.M4	COLD-FORMED METAL FRAMING, FRAMING ACCESSORIES, PROVIDE 400 OR 600-S162-54 STRUCTURAL STUDS WHERE BACKING OCCURS
09 22 16.A1	4" METAL STUD FRAMING
09 22 16.A2	STEEL TRACK MATCHING STUD
09 22 16.A4	4" CH STUD
09 22 16.F1	BOX HEADER (D3/AE501)
09 22 16.L1	CONTINUOUS 38.1 MM (1-1/2-INCH) 54 MIL COLD-ROLLED CHANNEL AT 1219.2 MM (48-INCHES) ON CENTER MAXIMUM
09 22 16.L3	50.8 x 50.8 MM (2 x 2-INCH) 54 MIL CLIP ANGLE WITH #8 SELF-TAPPING SCREW EACH STUD/JOIST
09 22 16.N8	CONTINUOUS LATERAL BRACING AT 1219.2 MM (48-INCHES) ON CENTER, TYPE "A"
09 22 16.N9	CONTINUOUS LATERAL BRACING AT 1219.2 MM (48-INCHES) ON CENTER, TYPE "B"
09 22 16.O4	#10 SELF-TAPPING FRAMING SCREWS AT EACH STUD, EACH SIDE
09 22 16.P1	TRACK BLOCKING TO MATCH SIZE AND THICKNESS OF VERTICAL STUDS, LOCATE AT EACH END OF WALL, ADJACENT TO OPENINGS, AND 2438.4 MM (96-INCHES) ON CENTER MAXIMUM HORIZONTALLY, INSTALL WITH NO GAP BETWEEN ENDS OF BLOCKING AND VERTICAL STUD
09 22 16.P3	50.8 MM (2-INCH) x 43 MIL CONTINUOUS STRAP AT SIDES WITH NO GYPSUM WALLBOARD
09 22 16.P5	(2) #8 SELF-TAPPING FRAMING SCREWS AT EACH SIDE OF SPLICE IN STRAP, (4) #8 SELF-TAPPING FRAMING SCREWS TOTAL EACH FACE OF BLOCKING AT SPLICE, (2) #8 SELF-TAPPING FRAMING SCREWS IF STRAP IS NOT SPLICED
09 22 16.P6	SPLICE STRAP AT BLOCKING IF REQUIRED
09 22 16.P7	CUT TRACK FLANGE AND WEB AS REQUIRED AND BEND WEB VERTICAL WITH (2) #8 SELF-TAPPING FRAMING SCREWS TO EACH STUD
09 22 16.P9	LATERAL BRACING SPLICE, 304.8 MM (12-INCH) LONG COLD-ROLLED CHANNEL INVERTED OVER CENTER OF SPLICE WITH (3) #10 SELF-TAPPING FRAMING SCREWS EACH SIDE OF SPLICE
09 29 00.G1	WALL FINISH, SEE WALL TYPES

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

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

LICENSED ARCHITECT GENE HAMILTON No. C-19576 REN. 07-31-27 STATE OF CALIFORNIA

Facilities Management Services

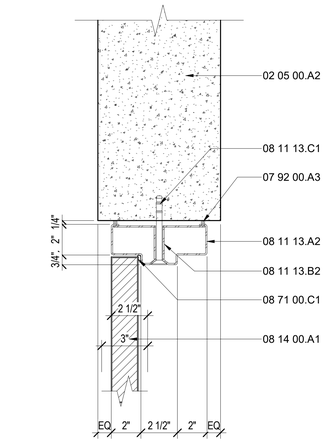
VA U.S. Department of Veterans Affairs

Drawing Title: INTERIOR FRAMING DETAILS	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
			Building Number:
Approved: FOR OFFICIAL USE ONLY		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Drawing Number: 00-AE502
		Issue Date: 12.19.2025 / Checked / Drawn	SHEET 26 of 559

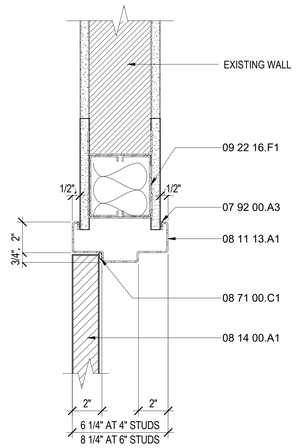
12/19/2025 11:37:19 AM

Autodesk Docs://Asheville EHRM_V23/637-22-700.047 ASH - EHRM.rvt

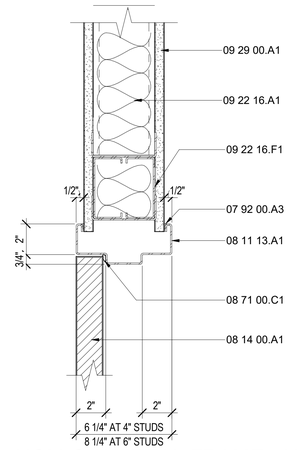
VA FORM 08 - 6231



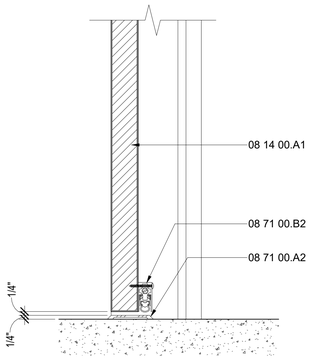
1 HOLLOW METAL FRAME
3" = 1'-0"



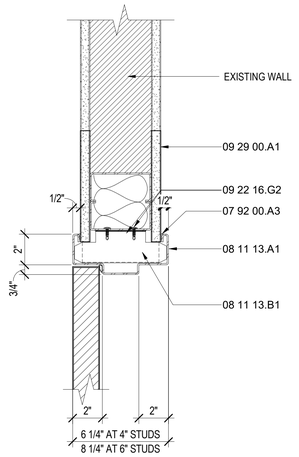
2 HOLLOW METAL FRAME - HEAD
3" = 1'-0"



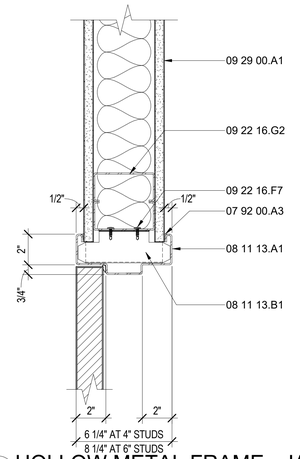
3 HOLLOW METAL FRAME - HEAD
3" = 1'-0"



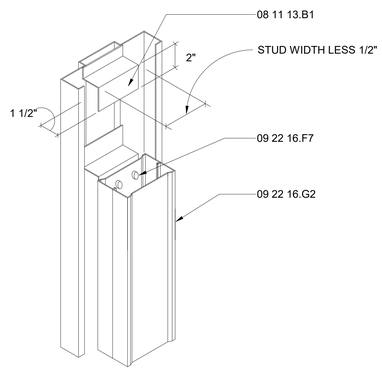
4 DOOR THRESHOLD
3" = 1'-0"



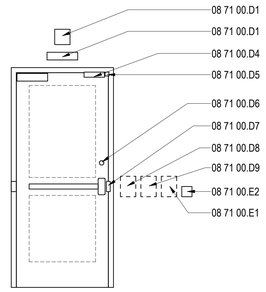
5 HOLLOW METAL FRAME - JAMB
3" = 1'-0"



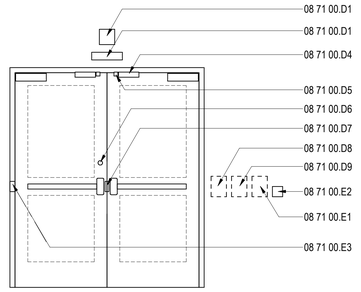
6 HOLLOW METAL FRAME - JAMB
3" = 1'-0"



7 DOOR FRAME ANCHORAGE
6" = 1'-0"



DOOR TYPE A - SINGLE OPAQUE OR FRAMED GLASS DOOR



DOOR TYPE C - PAIR OF OPAQUE OR FRAMED GLASS DOORS

NOTES:
1. SIZE AND LOCATION OF GLAZED AREAS ARE DIAGRAMMATIC. ACTUAL DIMENSIONS AND LOCATION ARE DETAILED ELSEWHERE.
2. HARDWARE DEVICES SHOWN ARE DIAGRAMMATIC. NOT ALL DEVICES ARE REQUIRED FOR ALL DOORS. REFER TO DOOR SCHEDULE AND HARDWARE SETS FOR REQUIRED COMPONENTS.
3. DOORS ARE ILLUSTRATED FROM SECURE SIDE. DEVICES SHOWN DASHED ARE LOCATED ON THE UNSECURED SIDE.
4. PANIC BARS SHALL BE INTEGRATED WITH MAGNETIC LOCK RELEASE.

8 VA STANDARD SECURITY DOOR TYPES
1/2" = 1'-0"

REFERENCE KEYNOTES

KEY VALUE	KEYNOTE DESCRIPTION
02 05 00.A2	CAST-IN-PLACE CONCRETE WALL SAWCUT FOR OPENING
07 92 00.A3	CAULKING BOTH SIDES
08 11 13.A1	STANDARD FRAME FOR DRYWALL
08 11 13.A2	STANDARD FRAME PUNCHED AND DIMPLED
08 11 13.B1	SNAP-IN OR WELDED ZEE CLIP FRAME ANCHOR
08 11 13.B2	STEEL PIPE ANCHOR
08 11 13.C1	FLAT-HEAD COUNTERSUNK EXPANSION ANCHOR 1-1/2" MINIMUM EMBEDMENT
08 14 00.A1	FLUSH SOLID CORE DOOR AND HOLLOW METAL FRAME
08 71 00.A2	3" SADDLE THRESHOLD WHERE INDICATED BY HARDWARE GROUP
08 71 00.B2	AUTOMATIC DOOR BOTTOM WHERE INDICATED BY HARDWARE GROUP
08 71 00.C1	SELF-ADHESIVE DOOR SEAL WHERE INDICATED BY HARDWARE GROUP, PROVIDE DOOR MUTES ELSEWHERE
08 71 00.D1	LOCAL ALARM
08 71 00.D4	MAGNETIC LOCK
08 71 00.D5	DOOR CONTACT
08 71 00.D6	DEAD BOLT
08 71 00.D7	ELECTRIC STRIKE
08 71 00.D8	CARD READER
08 71 00.D9	INTERCOM
08 71 00.E1	KNOX BOX
08 71 00.E2	REQUEST TO EXIT BUTTON
08 71 00.E3	ELECTRIC HINGE OR PASS-THRU
09 22 16.A1	4" METAL STUD FRAMING
09 22 16.F1	BOX HEADER (D3/AE501)
09 22 16.F7	(2) #10 SELF-TAPPING FRAMING SCREWS AT EACH ANCHOR
09 22 16.G2	DOUBLE JAMB STUDS
09 29 00.A1	GYPSUM WALLBOARD, 16 MM (5/8-INCH)

1/2" = 1'-0" SCALE 1 0 1 2 3 4 5 FEET

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

LICENSED ARCHITECT GENE HAMILTON KING No. C-19576 REN. 07-31-27 STATE OF CALIFORNIA

Facilities Management Services

VA U.S. Department of Veterans Affairs

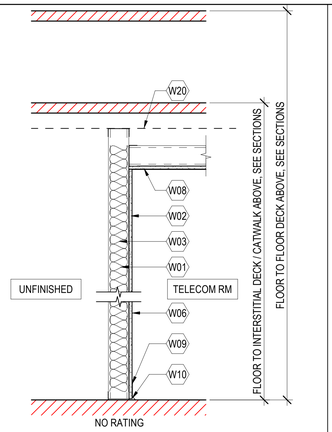
Drawing Title	DOOR DETAILS
Phase	FINAL BID DOCUMENTS
Project Title	EHRM INFRASTRUCTURE UPGRADES
Project Number	637-22-700
Building Number	
Approved:	
Location	1100 TUNNEL ROAD ASHEVILLE, NC 28805
Drawing Number	00-AE511
Issue Date	12.19.2025
Checked	
Drawn	

FOR OFFICIAL USE ONLY

SHEET 27 of 559

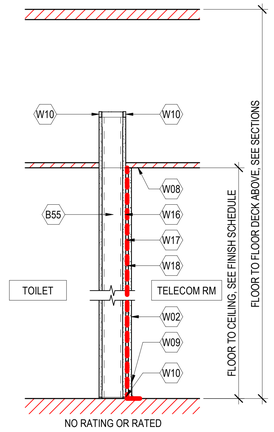
Autodesk Docs://Asheville EHRM_V23/637-22-700.047 ASH - EHRM.rvt
12/19/2025 11:37:21 AM

VA FORM 08 - 6231



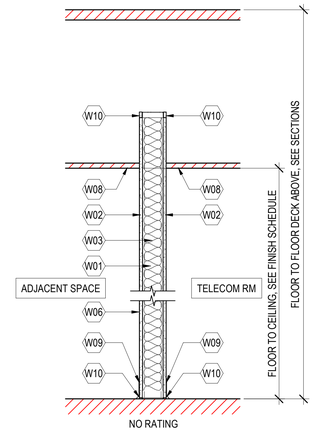
1 WALL TYPE 02 (FURRED WALL TO CEILING ABOVE)

1" = 1'-0"



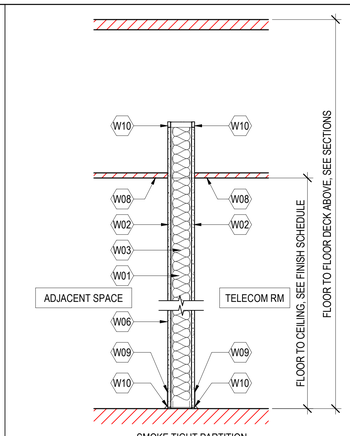
2 WALL TYPE 03 (WATERPROOF BARRIER)

1" = 1'-0"



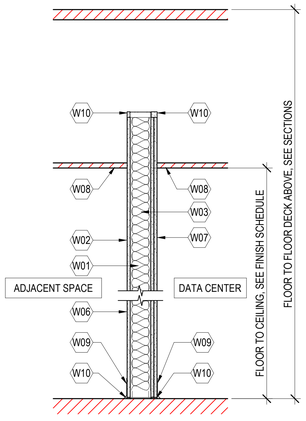
3 WALL TYPE 10 (TO DECK ABOVE)

1" = 1'-0"



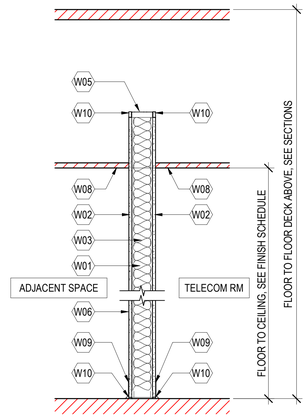
4 WALL TYPE 10a (TO DECK ABOVE)

1" = 1'-0"



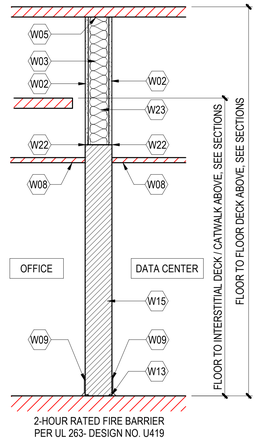
5 WALL TYPE 10b (TO DECK ABOVE)

1" = 1'-0"



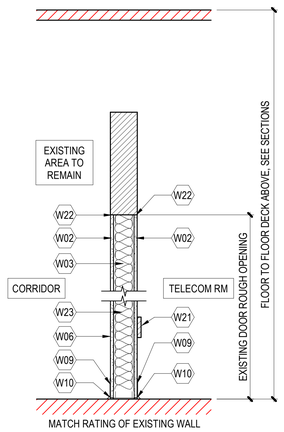
6 WALL TYPE 10bs (TO FLOOR DECK ABOVE)

1" = 1'-0"



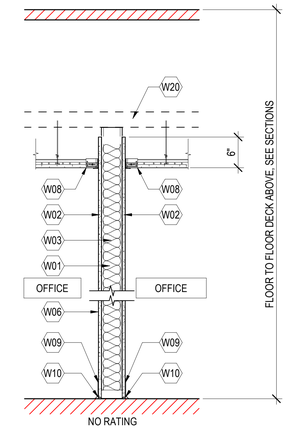
7 WALL TYPE 10c (TO FLOOR DECK ABOVE)

1" = 1'-0"



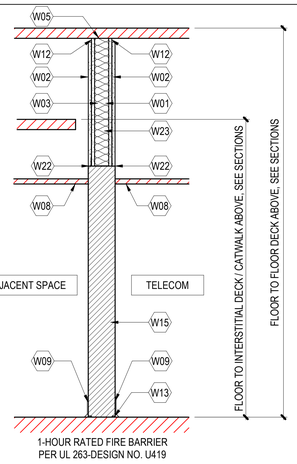
8 WALL TYPE 12 (DOOR INFILL)

1" = 1'-0"



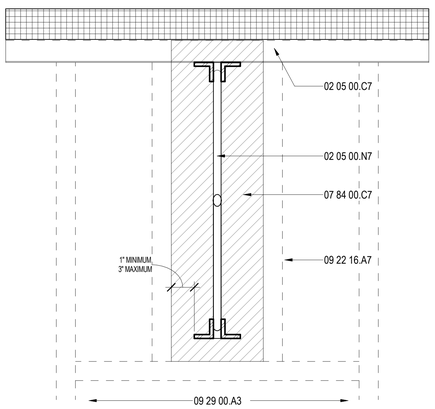
9 WALL TYPE 13 (TO TRUSSES ABOVE)

1" = 1'-0"



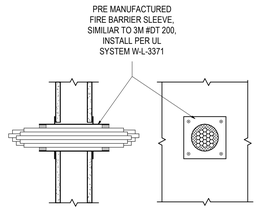
10 WALL TYPE 14b (INFILL ABOVE)

1" = 1'-0"



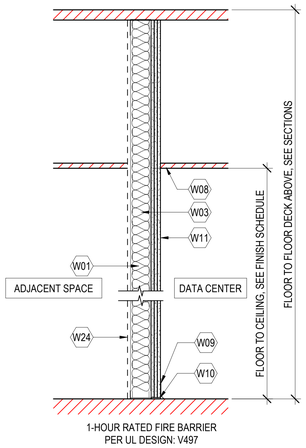
11 SUPPORT MEMBER THROUGH RATED ASSEMBLY

3" = 1'-0"



12 THROUGH WALL PENETRATION FIRESTOP

1 1/2" = 1'-0"



13 WALL TYPE 10d (TO DECK ABOVE)

1" = 1'-0"

GENERAL NOTES

1. MAXIMUM STUD HEIGHT IS 12'-0", FOR HEIGHTS UP TO 16-FEET USE 43 MILL STUDS.
2. FOR PARTITONS SUPPORTING EQUIPMENT, DISTRIBUTING UP TO 152 POUNDS TOTAL VERTICAL LOAD PER STUD, USE 43 MIL STUDS.
3. NO EQUIPMENT SHALL BE ANCHORED TO THIS FURRING, USE WALL TYPE 09C IF EQUIPMENT IS PLACED ON THIS WALL.

SHEET KEYNOTES

KEY TAG	DESCRIPTION
B55	GYPSUM WALLBOARD OR PLASTER ON METAL STUD WALL TO REMAIN
W01	LIGHT GAUGE METAL FRAMING
W01	METAL FRAMING
W02	5/8" TYPE X MILDEW RESISTANT GYPSUM WALLBOARD
W03	FULL-HEIGHT SOUND ATTENUATION BATT INSULATION AS SCHEDULED AT THERMAL WALLS (SEE CHARACTER 3 IN PARTITION TAG)
W03	SOUND ATTENUATION BATT INSULATION, MINIMUM STC OF 40
W05	HEAD OF WALL, REFER TO F3/AE522
W06	5/8" HIGH IMPACT GYPSUM WALLBOARD TO 48-INCHES ABOVE FLOOR
W07	(2) LAYERS 5/8" TYPE X GYPSUM BOARD
W08	CEILING AS SCHEDULED
W08	CEILING AS SCHEDULED, REFER TO FINISH SCHEDULE
W09	BASE AS SCHEDULED, REFER TO SHEET AE602
W09	BASE TRIM AS SCHEDULED, REFER TO SHEET AE602
W10	ACOUSTICAL SEALANT AT TOP AND BOTTOM OF PARTITION
W11	(3) LAYERS 5/8" TYPE X MILDEW RESISTANT GYPSUM WALLBOARD
W12	5/8" TYPE X MILDEW RESISTANT GYPSUM WALLBOARD
W13	CONTINUOUS SMOKE AND FIRE RATED SEALANT
W15	EXISTING WALL
W16	EXISTING WALL FINISH
W17	1/2" GYPSUM SHEATHING BOARD
W18	SELF-ADHEARED WATERPROOFING SHEET, EXTEND 2-INCHES HORIZONTALLY AT FLOOR, SEAL WATERTIGHT AT ADJACENT ABUTMENTS
W20	BOTTOM CHORD OF TRUSSES ABOVE
W21	LATERAL BRACING , REFER TO D5/AE502
W22	ALIGN NEW AND EXISTING GYPSUM BOARD, FINISHES TO MATCH
W23	2 3/4" x2 3/4" x 2 1/2" L 54 MIL CLIP ANGLE AT EACH STUD AND 4'-0" O.C. HORIZONTALLY WITH (1) #8 SMS TO STUD AND (2) #8 SMS TO BACKING PLATE IN ADJACENT WALL.
W24	FACE OF BACKUP WALL

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

1" = 1'-0" SCALE 1 0 1 2 FEET

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

LICENSED ARCHITECT GENE HAMILTON POWELL No. C-19576 REN. 07-31-27 STATE OF CALIFORNIA

Facilities Management Services

VA U.S. Department of Veterans Affairs

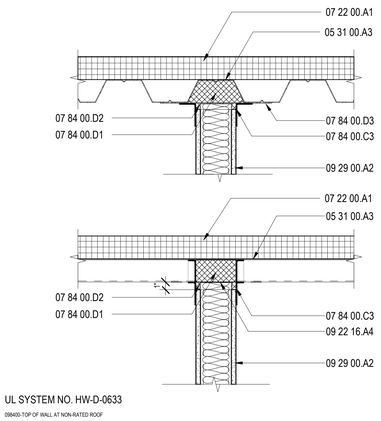
Drawing Title	PARTITION DETAILS
Phase	FINAL BID DOCUMENTS
Project Title	EHRM INFRASTRUCTURE UPGRADES
Project Number	637-22-700
Building Number	
Approved:	
Location	1100 TUNNEL ROAD ASHEVILLE, NC 28805
Issue Date	12.19.2025
Checked	
Drawn	
Drawing Number	00-AE521
	SHEET 28 of 559

FOR OFFICIAL USE ONLY

12/19/2025 11:37:24 AM

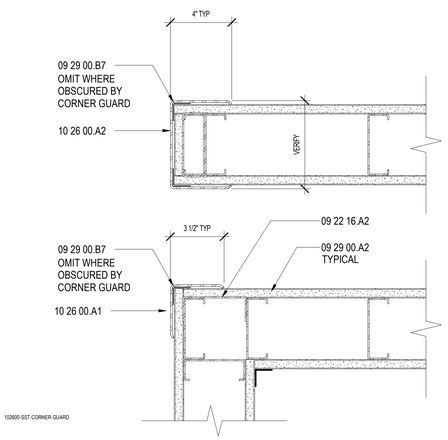
Autodesk Docs://Asheville EHRM_Y23\637-22-700.IM7 ASH - EHRM.rvt

VA FORM 08 - 6231

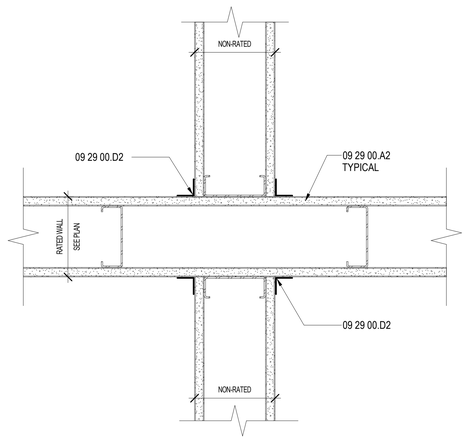


1 1-HR/SMOKE PARTITION AT NON-RATED ROOF
1 1/2" = 1'-0"

APPLIES AT WALL TYPES 21a, 21b, AND 22a



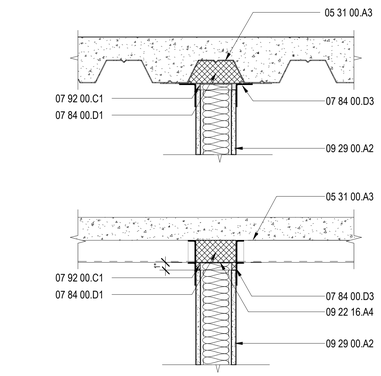
2 CORNER GUARD
3" = 1'-0"



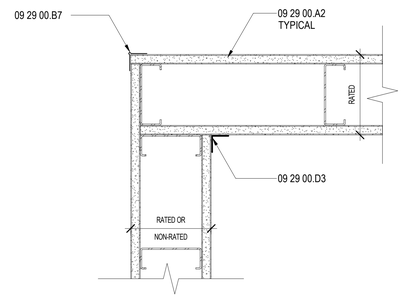
3 RATED TO NON-RATED WALL INTERSECTION
3" = 1'-0"

REFERENCE KEYNOTES

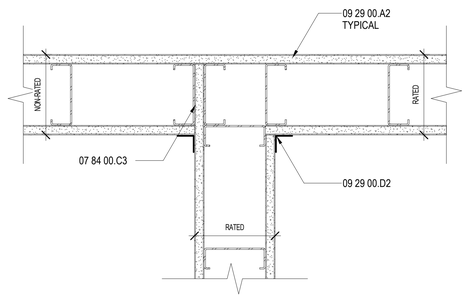
KEY TAG	DESCRIPTION
02 05 00.B1	CEILING TO REMAIN, PATCH/REPAIR FINISH DISTURBED BY CONSTRUCTION TO MATCH EXISTING
02 05 00.C1	EXISTING CONDITIONS, DEMISING WALL STOPPING ABOVE CEILING
02 05 00.C7	EXISTING CONDITIONS, METAL ROOF DECK
02 05 00.N3	EXISTING CONDITIONS, STRUCTURAL STEEL FRAMING TO REMAIN
02 41 00.E5	REMOVE CORNER BEAD
05 31 00.A3	STEEL DECKING, ROOF/FLOOR, SEE STRUCTURAL DRAWINGS
07 22 00.A1	ROOF AND DECK INSULATION, POLYISOCYANURATE BOARD CONTINUOUS INSULATION, R-VALUE AS INDICATED ON DRAWINGS
07 84 00.C3	MINERAL FIBER FILLER
07 84 00.D1	MINIMUM 64 KG/M3(4 PCF) DENSITY MINERAL FIBER FILLER CUT APPROXIMATELY 33 PERCENT WIDER THAN THE FLUTES AND THICKER THAN THE DEPTH OF THE STEEL DECK, LENGTH EQUAL TO THE OVERALL WIDTH OF THE WALL. MINERAL WOOL COMPRESSED AND INSERTED INTO FLUTES OF THE STEEL FLOOR UNITS BETWEEN TOP OF CEILING RUNNER AND THE STEEL DECK
07 84 00.D2	MINIMUM 64 KG/M3(4 PCF) DENSITY MINERAL FIBER FILLER CUT TO A THICKNESS TWICE LARGER THAN THE DISTANCE BETWEEN THE TOP OF THE GYPSUM BOARD AND THE BOTTOM OF THE STEEL DECK, COMPRESSED 50 PERCENT AND INSTALLED ON FINISHED SIDE OF THE WALL BETWEEN THE TOP OF THE GYPSUM BOARD AND THE BOTTOM OF THE STEEL FLOOR UNITS, FLUSH WITH THE SURFACE OF THE WALL
07 84 00.D3	MINIMUM 01.6 MM (1/16 INCH) DRY THICKNESS ELASTOMERIC FIRE/SMOKE COATING SPRAYED OR BRUSHED ON EACH SIDE OF THE WALL IN THE FLUTES OF THE STEEL DECK AND BETWEEN THE TOP OF THE GYPSUM WALLBOARD AND THE BOTTOM OF THE STEEL DECK TO COMPLETELY COVER MINERAL FIBER FILLER AND OVERLAP A MIN OF 13 MM (1/2-INCH) ONTO GYPSUM WALLBOARD AND STEEL DECK ON BOTH SIDES OF WALL
07 92 00.C1	ACOUSTICAL SEALANT (USE FIRESTOP SEALANT AT RATED WALLS)
09 22 16.A1	4" METAL STUD FRAMING
09 22 16.A2	STEEL TRACK MATCHING STUD
09 22 16.A4	4" CH STUD
09 22 16.D1	METAL STUD BRACING
09 29 00.A2	1/2" GYPSUM SHEATHING BOARD, WATER RESISTANT CORE, ATTACHED TO STUDS AND RUNNERS WITH 1" TYPE S12 STEEL SCREWS SPACED 12" ON CENTER ALONG STUDS AND RUNNERS
09 29 00.B7	METAL CORNER BEAD
09 29 00.D2	2-HOUR RATED SHAFTWALL ASSEMBLY
09 29 00.D3	(3) LAYERS 1/2" TYPE X GYPSUM BOARD OR (2) LAYERS 3/4" TYPE X GYPSUM BOARD, ATTACH FIRST LAYER; 1" FOR 1/2 IN. THICK PANELS, SPACED 24" ON CENTER, SECOND LAYER; 1-5/8" FOR 1/2" THICK PANELS, SPACED 24" ON CENTER, THIRD LAYER; 2-1/4" FOR 1/2" THICK PANELS, SPACED 12" ON CENTER, SCREWS OFFSET MINIMUM 6" FROM LAYER BELOW (UL U424)
09 29 00.D4	(3) LAYERS 1/2" TYPE X GYPSUM BOARD OR (2) LAYERS 3/4" TYPE X GYPSUM BOARD, ATTACH FIRST LAYER; 1" FOR 1/2 IN. THICK PANELS, SPACED 24" ON CENTER, SECOND LAYER; 1-5/8" FOR 1/2" THICK PANELS, SPACED 24" ON CENTER, THIRD LAYER; 2-1/4" FOR 1/2" THICK PANELS, SPACED 12" ON CENTER, SCREWS OFFSET MINIMUM 6" FROM LAYER BELOW (UL U424) CUT OUT AT HOOK PLATE AND PIN
10 26 00.A1	WALL AND DOOR PROTECTION, CORNER GUARD, STAINLESS STEEL, ANCHORED WITH CONTACT ADHESIVE, TYPICAL AT ALL EXPOSED OUTSIDE CORNERS
10 26 00.A2	WALL AND DOOR PROTECTION, CORNER CHANNEL GUARD, STAINLESS STEEL, ANCHORED WITH CONTACT ADHESIVE



4 ACOUSTIC PARTITION AT NON-RATED ROOF
1 1/2" = 1'-0"



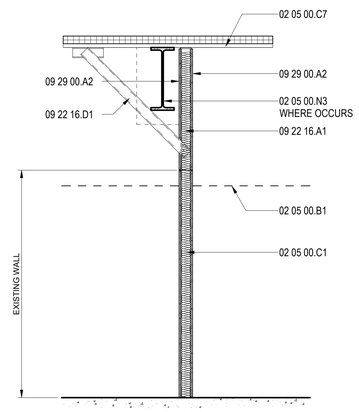
5 RATED TO NON-RATED WALL INTERSECTION
3" = 1'-0"



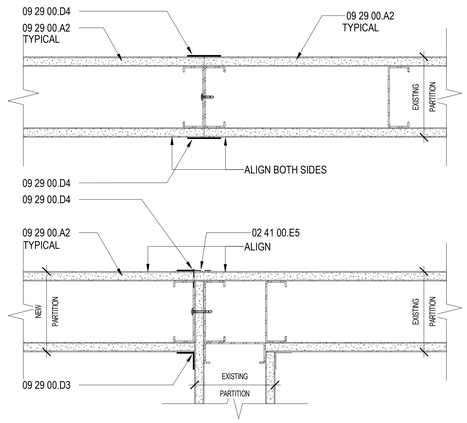
8 RATED TO NON-RATED WALL INTERSECTION
3" = 1'-0"

HEAD OF WALL AT CONCRETE FILLED METAL DECK - APPLIES AT WALL TYPES 14, 15, 16, AND 17

7 ACOUSTIC PARTITION AT NON-RATED ROOF
1 1/2" = 1'-0"



8 NEW TO EXISTING WALL SECTION
1/2" = 1'-0"



9 NEW TO EXISTING WALL
3" = 1'-0"

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

1/2" = 1'-0" SCALE 1 0 1 2 3 4 5 FEET

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

LICENSED ARCHITECT GENE HAMILTON C-15578 REN. 07-31-27 STATE OF CALIFORNIA

Facilities Management Services

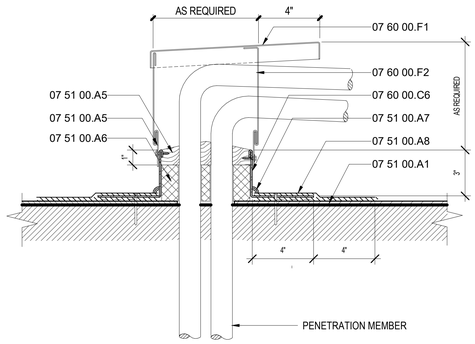
VA U.S. Department of Veterans Affairs

Drawing Title	PARTITION DETAILS
Phase	FINAL BID DOCUMENTS
Project Title	EHRM INFRASTRUCTURE UPGRADES
Project Number	637-22-700
Building Number	
Approved:	
Location	1100 TUNNEL ROAD ASHEVILLE, NC 28805
Drawing Number	00-AE522
Issue Date	12.19.2025
Checked	
Drawn	
FOR OFFICIAL USE ONLY	SHEET 29 of 559

12/19/2025 11:37:26 AM

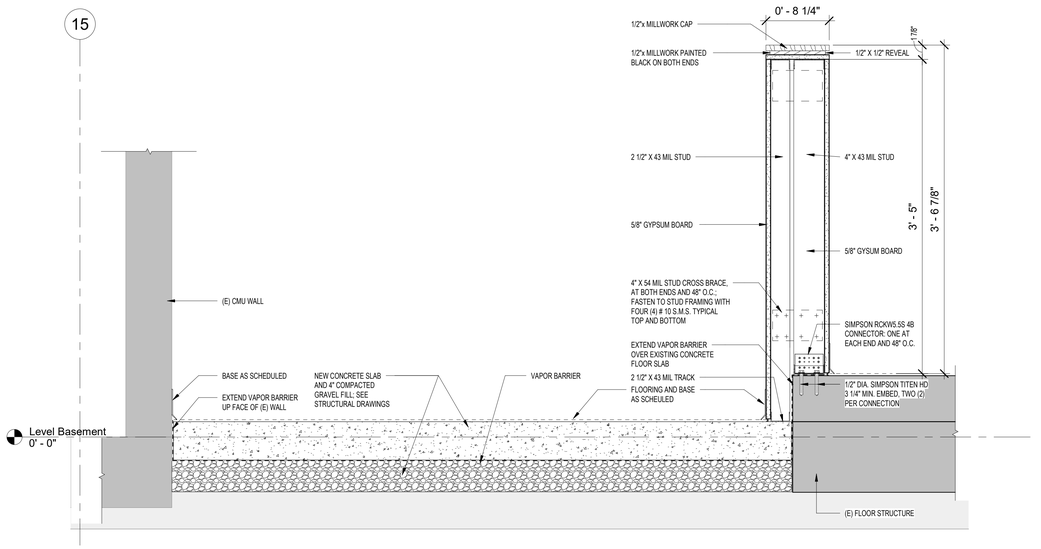
Autodesk Docs://Asheville EHRM_V23/637-22-700.047 ASH - EHRM.rvt

VA FORM 08 - 6231



2 MULTI-PENETRATION FLASHING

3" = 1'-0"



1 PONY WALL AND RAMP SECTION

1 1/2" = 1'-0"

REFERENCE KEYNOTES

KEY TAG	DESCRIPTION
07 51 00.A1	TOP PLY OF EXISTING ROOF MEMBRANE
07 51 00.A5	FILL WITH COMPATABLE ROOFING CEMENT
07 51 00.A6	NON-SHRINK GROUT 1-INCH FROM TOP OF PAN
07 51 00.A7	CANTED BEAD OF COMPATABLE UTILITY CEMENT
07 51 00.A8	COMPATABLE COMPOSITE REINFORCED CAP SHEET MEMBRANE WITH ROUNDED CORNERS SET IN FULL BED OF UTILITY OR FLASHING CEMENT
07 60 00.C6	
07 60 00.F1	HANGING GUTTER
07 60 00.F2	CONDUCTOR (DOWNSPOUT)

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

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

LICENSED ARCHITECT GENE HAMILTON JR. No. C-15576 REN. 07-31-27 STATE OF CALIFORNIA

Facilities Management Services

VA U.S. Department of Veterans Affairs

Drawing Title	MISCELLANEOUS DETAILS
Phase	FINAL BID DOCUMENTS
Project Title	EHRM INFRASTRUCTURE UPGRADES
Project Number	637-22-700
Building Number	
Approved:	
Location	1100 TUNNEL ROAD ASHEVILLE, NC 28805
Drawing Number	00-AE523
Issue Date	12.19.2025
Checked	
Drawn	

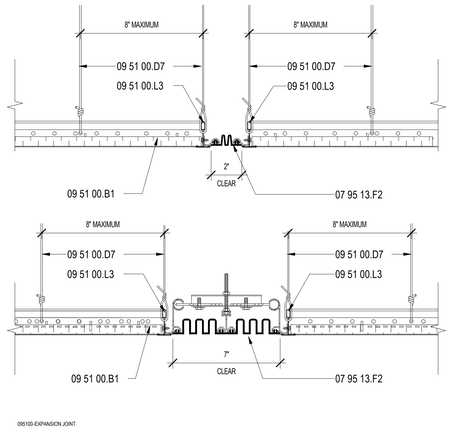
FOR OFFICIAL USE ONLY

SHEET 30 of 559

VA FORM 08 - 6231

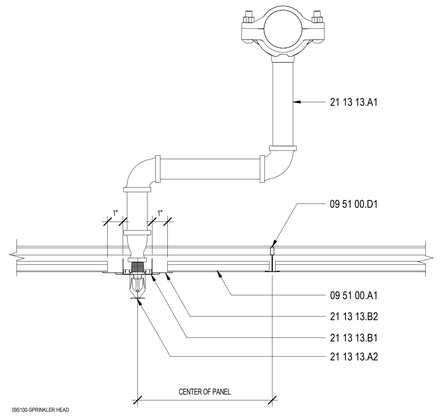
Autodesk Docs://Asheville EHRM_V23/637-22-700.047 ASH - EHRM.rvt

12/19/2025 11:37:29 AM



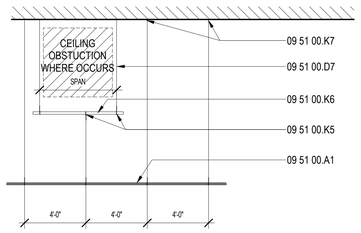
096100-EXPANSION JOINT

1 EXPANSION JOINT
3" = 1'-0"



096100-SPRINKLER HEAD

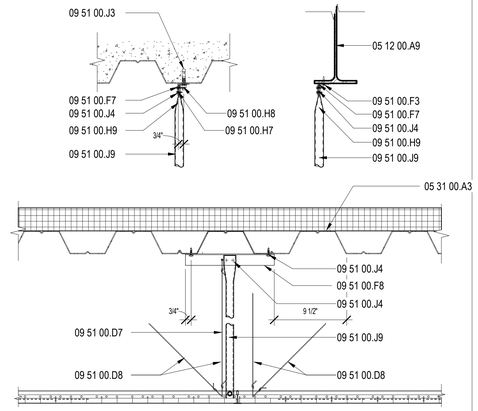
2 FIRE SPRINKLER HEAD
3" = 1'-0"



SPAN	SECTION
UP TO 4'-0"	250S162-43
UP TO 8'-0"	400S162-54
UP TO 12'-0"	(2) 400S162-54. BACK TO BACK W/ #8 SMS @ 16" OC (2) @ EA END

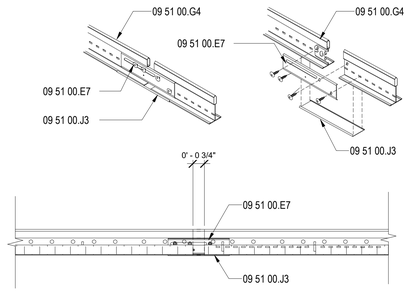
096100-HANGER WIRE TRAPEEZE

3 TRAPEZE SUPPORT
1/4" = 1'-0"



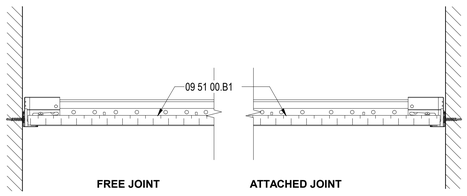
096100-TUBE STRUT TO DECK

4 EMT TUBE STRUT CONNECTION
1 1/2" = 1'-0"



096100-RUNNER SPLICE

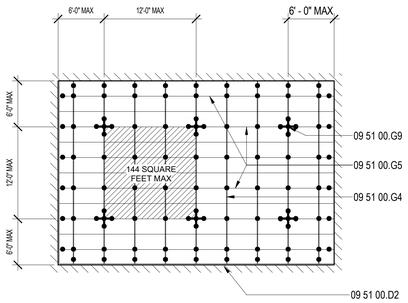
5 EXPANSION SLEEVE
3" = 1'-0"



NOTES:
1. PROVIDE #12 GAGE HANGER WIRES AT THE ENDS OF ALL MAIN AND CROSS RUNNERS WITHIN EIGHT (8) INCHES OF THE SUPPORT OR WITHIN ONE-FOURTH (1/4) OF THE LENGTH OF THE END TEE, WHICHEVER IS LESS. FOR THE PERIMETER OF THE CEILING AREA. PERIMETER WIRES ARE NOTREQUIRED WHEN THE LENGTH OF THE END TEE IS EIGHT (8) INCHES OR LESS.

096100-PERIMETER ANGLES

6 CEILING PERIMETER
3" = 1'-0"

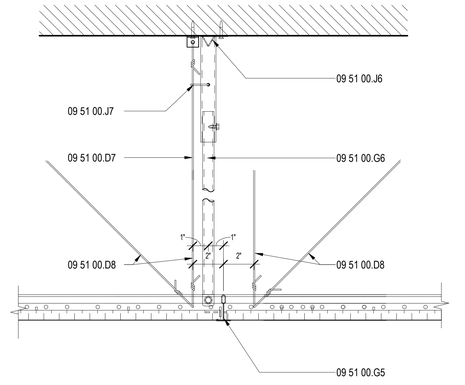


SEISMIC CEILING BRACING SYSTEM

HANGER/PERIMETER WIRE

096100-CEILING PLAN - 144 SQ FEET

7 TYPICAL CEILING PLAN
1/8" = 1'-0"

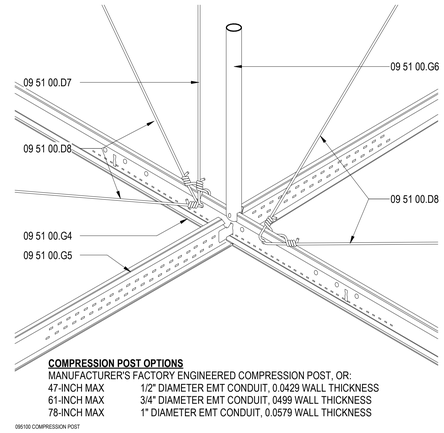


096100-SPRINKLER HEAD

8 COMPRESSION POST
3" = 1'-0"

REFERENCE KEYNOTES

KEY TAG	DESCRIPTION
05 12 00.A9	STRUCTURAL STEEL FRAMING, WIDE FLANGE BEAM, SEE STRUCTURAL DRAWINGS
05 31 00.A3	STEEL DECKING, ROOF/FLOOR, SEE STRUCTURAL DRAWINGS
07 95 13.F2	EXPANSION JOINT COVER ASSEMBLY, CEILING TO CEILING, ELASTOMERIC BELLOWS SEAL
09 51 00.A1	ACOUSTICAL CEILING, SUSPENED
09 51 00.B1	ACOUSTICAL CEILING, LAY-IN PANELS
09 51 00.D1	ACOUSTICAL CEILING, METAL SUSPENSION SYSTEM, MAIN BEAM/CROSS TEE
09 51 00.D2	ACOUSTICAL CEILING, METAL SUSPENSION SYSTEM, PERIMETER WALL MOLDING
09 51 00.D7	ACOUSTICAL CEILING, METAL SUSPENSION SYSTEM, HANGER WIRE WITH 3 TIGHT TURNS, 6:1 MAXIMUM SLOPE FROM VERTICAL
09 51 00.D8	ACOUSTICAL CEILING, METAL SUSPENSION SYSTEM, BRACING WIRE WITH 4 TIGHT TURNS IN 38.1 MM (1-1/2-INCH)
09 51 00.E5	PERIMETER WIRE WITH 3 TIGHT TURNS IN 76.2 MM (3-INCHES) BOTH ENDS OF WIRE TYPICAL, 6:1 MAXIMUM SLOPE FROM VERTICAL
09 51 00.E7	ACOUSTICAL CEILING, METAL SUSPENSION SYSTEM, SEISMIC CLIP SCREWED TIGHT TO RUNNER
09 51 00.F3	(2) 3.68 MM (0.145-INCH) POWDER ACTUATED FASTENER (PAF)
09 51 00.F7	38.1 x 38.1 x 50.8 MM (1-1/2 x 1-1/2 x 2-INCH LONG) x 12 GAUGE CLIP AT CENTER OF FLUTE
09 51 00.F8	38.1 x 38.1 (1-1/2 x 1-1/2-INCH) x 12 GAUGE ANGLE
09 51 00.G4	ACOUSTICAL CEILING, METAL SUSPENSION SYSTEM, MAIN BEAM
09 51 00.G5	ACOUSTICAL CEILING, METAL SUSPENSION SYSTEM, CROSS TEE
09 51 00.G6	ACOUSTICAL CEILING, METAL SUSPENSION SYSTEM, MANUFACTURER'S FACTORY ENGINEERED COMPRESSION POST ATTACHED TO MAIN BEAM WITHIN (1-INCH) OF CROSS RUNNER (DOES NOT REPLACE HANGER WIRE)
09 51 00.G9	ACOUSTICAL CEILING, SEISMIC CEILING BRACING SYSTEM
09 51 00.H1	ACOUSTICAL CEILING, SEISMIC CEILING BRACING SYSTEM, 1219.2 MM (4'-0") MAXIMUM FROM FREE JOINT AND 2438.4 MM (8'-0") ALONG CORRIDOR
09 51 00.H2	EXPANSION JOINT, PROVIDE AT INTERSECTION OF CORRIDORS, JUCTION OF CORRIDORS AND LOBBIES, AND SIMILAR AREAS AND CEILINGS OVER 232.26 SQUARE METERS (2,500 SQUARE FEET)
09 51 00.H7	12 GAUGE x 2.54 MM (1-INCH) WIDE CEILING CLIP
09 51 00.H8	9.525 MM (3/8-INCH) EXPANSION ANCHOR AT CENTERLINE OF FLUTE
09 51 00.H9	FLATTEN END OF EMT
09 51 00.J3	EXPANSION SLEEVE
09 51 00.J4	(2) #10 SELF-TAPPING SHEET METAL SCREWS
09 51 00.J6	ACOUSTICAL CEILING, ACCESSORY, MANUFACTURER'S SPRING TOP CLIP
09 51 00.J7	ACOUSTICAL CEILING, ACCESSORY, MANUFACTURER'S SPRING CLIP AROUND HANGER WIRE AND INSERTED IN HOLE IN POST
09 51 00.J9	EMT COMPRESSION POST (CONTRACTOR'S OPTION) NOTCHED OVER MAIN BEAM AND MECHANICALLY FASTENED
09 51 00.K3	ACOUSTICAL CEILING, PERIMETER, ATTACHED JOINT (D5/AE531)
09 51 00.K4	ACOUSTICAL CEILING, PERIMETER, FREE JOINT (D5/AE531)
09 51 00.K5	SADDLE TIE (TYPICAL) WHEN MULTIPLE SADDLE TIES ARE REQUIRED THEY SHALL ALTERNATE BACK AND FORTH TO PREVENT TWISTING
09 51 00.K6	LOCATE CHANNEL TO MAINTAIN HANGER WIRE SPACING, SEE CHART BELOW
09 51 00.K7	FOR CONNECTION TO STRUCTURE SEE DETAILS ON SHEET AE542
09 51 00.L3	CONTINUOUS RUNNER WITH ALL JOINTS SPLICED
21 13 13.A1	PIPING AND FITTINGS FOR SPRINKLER SYSTEM
21 13 13.A2	SPRINKLER
21 13 13.B1	CEILING PLATE
21 13 13.B2	OOPS RING TO MATCH CEILING PLATE 1" LARGER THAN HOLE IN CEILING PANEL

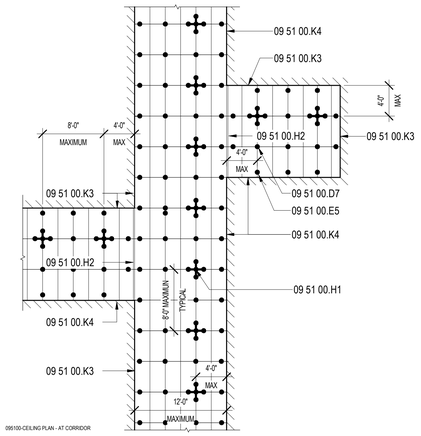


COMPRESSION POST OPTIONS
MANUFACTURER'S FACTORY ENGINEERED COMPRESSION POST, OR:

47-INCH MAX	1/2" DIAMETER EMT CONDUIT, 0.0429 WALL THICKNESS
61-INCH MAX	3/4" DIAMETER EMT CONDUIT, 0499 WALL THICKNESS
78-INCH MAX	1" DIAMETER EMT CONDUIT, 0.0579 WALL THICKNESS

096100 COMPRESSION POST

9 COMPRESSION POST
3" = 1'-0"



096100-CEILING PLAN - AT CORRIDOR

10 EXPANSION JOINT AT CORRIDOR
1/8" = 1'-0"

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

1/4" = 1'-0" SCALE 2 0 2 4 6 8 10 FEET

1/8" = 1'-0" SCALE 5 0 5 10 15 20 FEET

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

LICENSED ARCHITECT GENE HAMILTON KNAPP LIC. C-19576 REN. 07-31-27 STATE OF CALIFORNIA

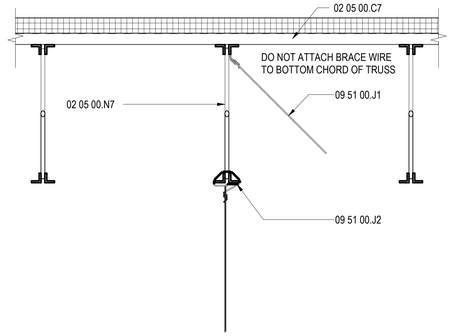
Facilities Management Services

VA U.S. Department of Veterans Affairs

Drawing Title: CEILING DETAILS	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved: FOR OFFICIAL USE ONLY		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Building Number
		Issue Date: 12.19.2025 / Checked / Drawn	Drawing Number: 00-AE531
			SHEET 31 of 559

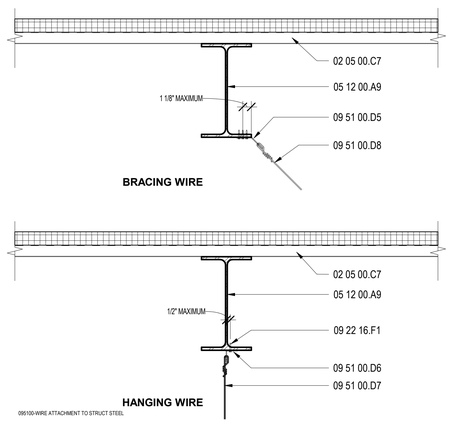
12/19/2025 11:37:31 AM
Autodesk Docs://Asheville EHRM_V23/637-22-700.047 ASH - EHRM.rvt

VA FORM 08 - 6231



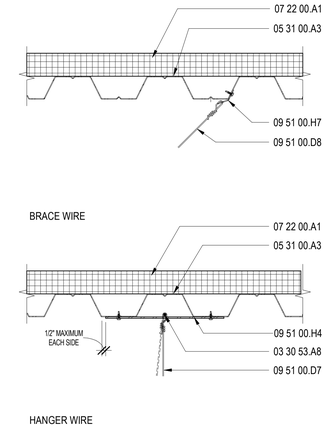
095100-WIRE ATTACHMENT TO TRUSS

1 WIRE ATTACHMENT TO TRUSS
1 1/2" = 1'-0"



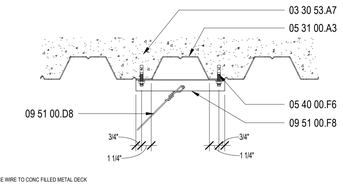
095100-WIRE ATTACHMENT TO STRUCT STEEL

2 CEILING WIRE ATTACHMENT TO STEEL
1 1/2" = 1'-0"



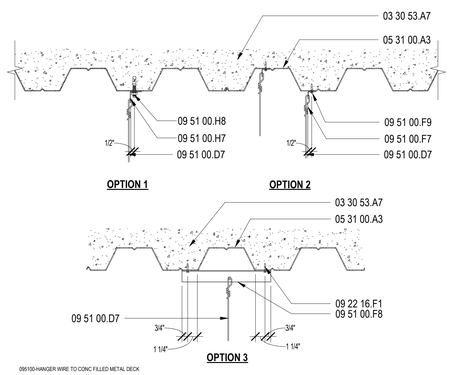
095100-BRACE & HANGER WIRE TO METAL DECK

3 WIRE CONNECTION TO BARE METAL DECK
1 1/2" = 1'-0"



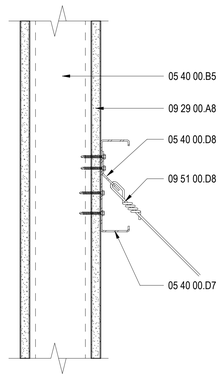
095100-BRACE WIRE TO CONC FILLED METAL DECK

4 BRACE WIRE CONNECTION TO METAL DECK
1 1/2" = 1'-0"



095100-HANGER WIRE TO CONC FILLED METAL DECK

5 HANGER WIRE CONNECTION TO DECK
1 1/2" = 1'-0"



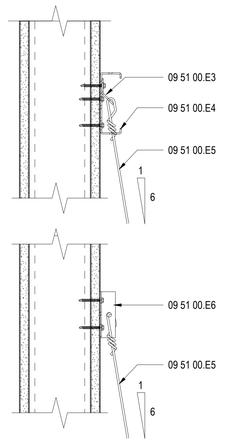
NOTES:

1. SEISMIC BRACE WIRE FORCE = 473 LBS (ASD LEVEL). BRACING WIRE SHALL HAVE A MIN. STRETCH LENGTH OF 12", WHEN USED AT FREE JOINT.
2. CEILING BRACING WIRE SHALL NOT BE ATTACHED TO WALL ON "FREE JOINT" SIDE OF CEILING.

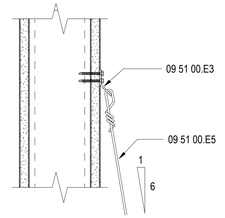
095100-BRACE WIRE TO WALL

6 BRACE WIRE TO ADJACENT WALL
3" = 1'-0"

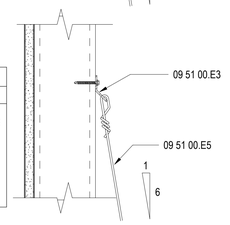
CONDITION WHERE PERIMETER WIRE FALLS BETWEEN STUDS



CONDITION WHERE PERIMETER WIRE FALLS AT STUDS



CONDITION WHERE PERIMETER WIRE FALLS AT STUDS (ALTERNATE AT CONTRACTOR'S OPTION)



HANGER FORCES		
	VERT.	HOR.
DEAD SEISMIC (0.14SDS Wp)	64 LBS	11 LBS
SDS <= 1.15	11 LBS	2 LBS
1.15 < SDS <= 1.73	16 LBS	3 LBS
1.73 < SDS <= 2.50	23 LBS	4 LBS

NOTES:

1. THIS IS APPLIED FOR PERIMETER WIRE ATTACHEMENT OR WHERE OBSTRUCTION PREVENTS ATTACHMENT TO STRUCTURE ABOVE
2. DESIGN FRAMING WALL TO CARRY THE CEILING LOAD. SEE TABLE ABOVE FOR LOADS. LOADS ASSUME A TRIBUTARY AREA OF 16 SQ FT AND ARE UNFACTORED.
3. WALLS SHALL BE DESIGNED FOR HANGER FORCES ABOVE. AT FREE JOINT, HANGER WIRE SHALL HAVE A MIN. STRETCH LENGTH OF 12"

095100-HANGER WIRES TO WALL

7 HANGER WIRE TO ADJACENT WALL
3" = 1'-0"

REFERENCE KEYNOTES

KEY TAG	DESCRIPTION
02 05 00.C7	EXISTING CONDITIONS, METAL ROOF DECK
02 05 00.N7	EXISTING CONDITIONS, OPEN WEB STEEL JOISTS AT 1219.2 MM (48-INCHES) ON CENTER
03 30 53.A7	CAST-IN-PLACE CONCRETE, LIGHTWEIGHT, SEE STRUCTURAL DRAWINGS
03 30 53.A8	CAST-IN-PLACE CONCRETE, MATERIALS, #3 REBAR x 304.8 MM (12-INCH) LONG
05 12 00.A9	STRUCTURAL STEEL FRAMING, WIDE FLANGE BEAM, SEE STRUCTURAL DRAWINGS
05 31 00.A3	STEEL DECKING, ROOF/FLOOR, SEE STRUCTURAL DRAWINGS
05 40 00.B5	COLD-FORMED METAL FRAMING, WALL FRAMING, STEEL STUD, MINIMUM 18 GAUGE WHERE STRONGBACK OCCURS
05 40 00.D7	COLD-FORMED METAL FRAMING, FRAMING ACCESSORIES, 600S137-54 SPAN (2) WALL STUDS MINIMUM USING (4) #10 x 1-1/4" SMS AT EA STUD, (ONLY (2) #10 SMS REQUIRED WHERE CLIP ATTACHES DIRECTLY TO WALL STUD)
05 40 00.D8	COLD-FORMED METAL FRAMING, FRAMING ACCESSORIES, 38.1 x 38.1 x 25.4 MM (1-1/2 x 1-1/2 x 1-INCH) X 12 GAUGE CLIP ANGLE WITH (2) #10 x 31.75 MM (1-1/4-INCH) SELF TAPPING SHEET METAL SCREWS
05 40 00.F6	COLD-FORMED METAL FRAMING, ANCHORS, CLIPS, AND FASTENERS, POWER-ACTUATED FASTENER (ICC-ES ESR-2138), PROVIDE DRILLED EXPANSION ANCHOR AT WALLS PLACED ON CURB
07 22 00.A1	ROOF AND DECK INSULATION, POLYISOCYANURATE BOARD CONTINUOUS INSULATION, R-VALUE AS INDICATED ON DRAWINGS
09 22 16.F1	BOX HEADER (D3/AE501)
09 29 00.A8	GYPSUM WALLBOARD PARTITION (WHERE OCCURS) SEE PLAN FOR LOCATION AND WALL TYPE
09 51 00.D5	50.8 x 50.8 x 50.8 MM (2 x 2 x 2-INCH) x 12 GAUGE CLIP
09 51 00.D6	38.1 x 38.1 x 50.8 MM (1-1/2 x 1-1/2 x 2-INCH LONG) x 12 GAUGE CLIP
09 51 00.D7	ACOUSTICAL CEILING, METAL SUSPENSION SYSTEM, HANGER WIRE WITH 3 TIGHT TURNS, 6:1 MAXIMUM SLOPE FROM VERTICAL
09 51 00.D8	ACOUSTICAL CEILING, METAL SUSPENSION SYSTEM, BRACING WIRE WITH 4 TIGHT TURNS IN 38.1 MM (1-1/2-INCH)
09 51 00.E3	25.4 x 25.4 x 19.5 MM (1 x 1 x 3/4-INCH) 12 GAUGE CLIP ANGLE, FASTEN TO BACKING STUD USING #10 x 31.75 MM (1-1/4-INCH) SELF-TAPPING SHEET METAL SCREW
09 51 00.E4	400S137-33 MINIMUM BACKING STUD, SPAN 2 WALL STUDS MINIMUM FASTEN BACKING TO WALL STUDS USING (2) #10 x 31.75 MM (1-1/4-INCH SELF-TAPPING SHEET METAL SCREWS AT EACH STUD
09 51 00.E5	PERIMETER WIRE WITH 3 TIGHT TURNS IN 76.2 MM (3-INCHES) BOTH ENDS OF WIRE TYPICAL, 6:1 MAXIMUM SLOPE FROM VERTICAL
09 51 00.E6	25.4 x 25.4 x 76.2 MM (1 x 1 x 3-INCH) x 12 GAUGE CLIP ANGLE, FASTEN TO STUD USING #10 x 31.75 MM (1-1/4-INCH) SELF-TAPPING SHEET METAL SCREWS
09 51 00.F7	38.1 x 38.1 x 50.8 MM (1-1/2 x 1-1/2 x 2-INCH LONG) x 12 GAUGE CLIP AT CENTER OF FLUTE
09 51 00.F8	38.1 x 38.1 (1-1/2 x 1-1/2-INCH) x 12 GAUGE ANGLE
09 51 00.F9	3.68 MM (0.145-INCH) POWDER ACTUATED FASTENER (PAF)
09 51 00.H4	457.2 MM (18-INCH) WIDE x 12 GAUGE STEEL PLATE WITH HOLE AT MID POINT FOR WIRE, ATTACH EACH SIDE WITH (4) #10 SELF-TAPPING SHEET METAL SCREWS INTO METAL DECK
09 51 00.H7	12 GAUGE x 2.54 MM (1-INCH) WIDE CEILING CLIP
09 51 00.H8	9.525 MM (3/8-INCH) EXPANSION ANCHOR AT CENTERLINE OF FLUTE
09 51 00.J1	BRACING WIRE WRAPPED AROUND TOP OF WEB MEMBERS WITH 4 TIGHT TURNS IN 38.1 MM (1-1/2-INCH)
09 51 00.J2	HANGER WIRE SADDLE TIE AROUND BOTTOM CHORD WITH 3 TIGHT TURNS IN 38.1 MM (1-1/2-INCH)

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

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

LICENSED ARCHITECT GENE HAMILTON No. C-19576 REN. 07-31-27 STATE OF CALIFORNIA

Facilities Management Services

VA U.S. Department of Veterans Affairs

Drawing Title: CEILING DETAILS	Phase: FINAL BID DOCUMENTS
Approved: FOR OFFICIAL USE ONLY	
Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
	Building Number:
Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Drawing Number: 00-AE532
Issue Date: 12.19.2025 / Checked / Drawn	SHEET 32 of 559

12/19/2025 11:37:34 AM

Autodesk Docs://Asheville EHRM_V23/637-22-700.047 ASH - EHRM.rvt

VA FORM 08 - 6231

SCOPE OF WORK

THE SCOPE OF WORK FOR THE PROJECT INCLUDES MODIFICATIONS TO THE EXISTING FIRE ALARM SYSTEM WHERE REQUIRED. THE SCOPE OF WORK ALSO INCLUDES THE EXTENSION OF THE EXISTING FIRE ALARM SYSTEM TO THE NEW DATA CENTER.

EXISTING TELECOM ROOMS (TRS) THAT ARE NOT BEING RENOVATED ARE EXISTING TO REMAIN AND HAVE EXISTING FIRE ALARM AUDIBLE NOTIFICATION IN ADJACENT SPACES. FOR NEW TRS AND TRS WITH RENOVATED ARCHITECTURAL FOOTPRINT, AUDIBLE NOTIFICATION IS ACHIEVED BY THE EXISTING NOTIFICATION IN THE ADJACENT AREAS (I.E., CORRIDORS) AND VISUAL NOTIFICATION IS NOT REQUIRED BASED ON THE SIZE OF THE ROOM. SMOKE DETECTION IS NOT REQUIRED IN NEW OR EXISTING TRS.

APPLICABLE CODES

- INTERNATIONAL BUILDING CODE (IBC) - 2021 EDITION
- INTERNATIONAL EXISTING BUILDING CODE (IEBC) - 2021 EDITION
- VA OFFICES OF INFORMATION TECHNOLOGY (VAOIT) DESIGN GUIDE – 2011 EDITION
- VA FIRE PROTECTION (VAFP) DESIGN MANUAL – EIGHTH EDITION (2021)
- NFPA 70 NATIONAL ELECTRIC CODE – 2023 EDITION
- NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE – 2022 EDITION
- NFPA 99 HEALTH CARE FACILITIES CODE – 2021 EDITION
- NFPA 101 LIFE SAFETY CODE (LSC) - 2021 EDITION

FIRE ALARM LEGEND

- SPEAKER STROBE, WALL MOUNTED (CD)
  CD: CANDELA RATING
- FARP — CLEAN AGENT RELEASING PANEL
- (S) — SMOKE DETECTOR
- AI — MONITOR MODULE
- CM — CONTROL MODULE

GENERAL NOTES

1. ALL DRAWINGS ARE CONCEPTUAL IN NATURE AND ARE NOT INTENDED TO BE USED FOR EXACT MEASURE OR FABRICATION.

2. THE FIRE ALARM SYSTEM DESIGN AND INSTALLATION SHALL BE IN ACCORDANCE WITH NFPA 72 AND SPECIFICATION SECTION 28 31 00.

3. IN CASE OF DISPUTE AS TO INTENT OF DRAWING OR SPECIFICATIONS, OBTAIN OWNER'S WRITTEN APPROVAL BEFORE PROCEEDING WITH BID.

4. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL FIRE ALARM SYSTEM COMPONENTS AND COORDINATE WITH THE VARIOUS TRADES.

5. THE CONTRACTOR SHALL PREPARE AND SUBMIT SHOP DRAWINGS FOR THE FIRE ALARM SYSTEM INCLUDING FLOOR PLANS SHOWING ALL DEVICE ADDRESSES, AND CONNECTIONS TO EXISTING CIRCUITRY PROPOSED FOR THE PROJECT/SYSTEM IN SUFFICIENT DETAIL TO CLEARLY REVIEW AND INSTALL THE MODIFICATIONS.

6. CHANGES IN THE LOCATIONS OF EQUIPMENT FROM THOSE SHOWN ON APPROVED SHOP DRAWINGS SHALL BE IDENTIFIED AND APPROVED IN WRITING PRIOR TO INSTALLATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECTIFYING UNAUTHORIZED NONCOMPLIANT CHANGES AT NO ADDITIONAL CHARGE TO THE OWNER.

7. THE CONTRACTOR SHALL PREPARE "AS-BUILT" DRAWINGS IN ELECTRONIC FORMAT, REFLECTING ACCURATE FIELD CONDITIONS.

8. EACH COMPONENT OF THE FIRE ALARM SYSTEM SHALL BE LISTED FOR THE INTENDED USE BY UNDERWRITERS LABORATORIES, INC. (UL) AND SHALL BEAR THE "UL" LABEL.

9. ALL FIRE ALARM EQUIPMENT SHALL BE COMPATIBLE WITH THE EXISTING FIRE ALARM SYSTEM. SEQUENCE OF OPERATIONS AND PROGRAMMING FOR THE EXISTING FIRE ALARM SYSTEM SHALL BE RETAINED.

10. ALL WIRING, RACEWAYS, CONDUITS AND BOXES FOR NEW DEVICES SHALL BE NEW.

11. PROVIDE A PERMANENT LABEL FOR EACH WIRE/CIRCUIT (WITHIN ALL PANELS, CABINETS AND JUNCTION BOXES) INDICATING IT'S APPLICATION/USE/SERVICE.

12. WIRING SHALL BE INSTALLED ABOVE CEILINGS AND WITHIN BUILDING CONSTRUCTION WHEREVER POSSIBLE. ALL NEW WIRING SHALL BE INSTALLED WITHIN RACEWAY DEDICATED TO FIRE ALARM.

13. ALL WIRING, CABLES, BOXES, TROUGHS AND OTHER RELATED EQUIPMENT SHALL BE INSTALLED IN COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE (NEC).

14. ALL WIRING TERMINATIONS SHALL BE SECURELY MADE WITHIN JUNCTION BOX, TERMINAL CABINET OR AT THE CONNECTED DEVICE/APPLIANCE. WIRE NUTS SHALL NOT BE A PERMITTED MEANS OF WIRING TERMINATION.

15. FIELD PAINT JUNCTION BOXES, TERMINAL CABINETS, BACK BOXES AND COVERS WITH RED PAINT ON ALL SURFACES. ALL TERMINAL CABINETS AND JUNCTION BOXES SHALL BE LABELED WITH WHITE LETTERS INDICATING "FIRE ALARM" AS REQUIRED BY CODE.

16. ALL CIRCUITS SHALL BE CLASS B.

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph 919.314.6666
www.coffman.com

STAMP

NORTH CAROLINA PROFESSIONAL SEAL 050270 ENGINEER MICHAEL B. LOVE
12-18-2025

Facilities Management Services

VA U.S. Department of Veterans Affairs

Drawing Title: FIRE ALARM GENERAL NOTES
Phase: FINAL BID DOCUMENTS
Project Title: EHRM INFRASTRUCTURE UPGRADES
Project Number: 637-22-700
Building Number: BLDG 47
Approved:
FOR OFFICIAL USE ONLY
Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805
Issue Date: 12.19.25
Checked:
Drawn:
Drawing Number: 00-FA001
SHEET 33 of 559

Autodesk Docs://Asheville EHRM_V23\637-22-700.047 FP ASH - EHRM.rvt
12/18/2025 3:24:53 PM

VA FORM 08 - 6231

SCOPE OF WORK

THE SCOPE OF WORK FOR THE PROJECT INCLUDES MODIFICATIONS TO THE EXISTING FIRE SPRINKLER SYSTEM WHERE REQUIRED. ADDITIONALLY, THE SCOPE OF WORK INCLUDES PROVIDING NEW SPRINKLERS DUE TO THE RECONFIGURATION OF SPACES, WHERE REQUIRED.

THE SCOPE OF WORK ALSO INCLUDES PROVIDING A GASEOUS FIRE SUPPRESSION SYSTEM IN THE DATA CENTER TO COMPLY WITH THE REQUIREMENTS OF NFPA 75. THE CLEAN AGENT SYSTEM IN THE NEW DATA CENTER WILL REQUIRE THE INSTALLATION OF A CLEAN AGENT RELEASING PANEL, CLEAN AGENT HORN/STROBE (PRE-DISCHARGE), CLEAN AGENT STROBE (POST-DISCHARGE), CLEAN AGENT BELL, CLEAN AGENT MANUAL RELEASE STATION, SERVICE DISCONNECT SWITCH, AIR-SAMPLING SMOKE DETECTOR (VESDA) AND AIR-SAMPLING SMOKE DETECTOR POWER SUPPLY.

APPLICABLE CODES

- INTERNATIONAL BUILDING CODE (IBC) - 2021 EDITION
- INTERNATIONAL EXISTING BUILDING CODE (IEBC) - 2021 EDITION
- VA OFFICES OF INFORMATION TECHNOLOGY (VAOIT) DESIGN GUIDE – 2011 EDITION
- VA FIRE PROTECTION (VAFP) DESIGN MANUAL – EIGHTH EDITION (2021)
- NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS – 2022 EDITION
- NFPA 75 STANDARD FOR THE FIRE PROTECTION OF INFORMATION TECHNOLOGY EQUIPMENT - 2020 EDITION
- NFPA 99 HEALTH CARE FACILITIES CODE – 2021 EDITION
- NFPA 101 LIFE SAFETY CODE (LSC) - 2021 EDITION
- NFPA 2001 STANDARD ON CLEAN AGENT FIRE EXTINGUISHING SYSTEMS - 2022 EDITION

WATER SUPPLY INFORMATION

THE FOLOWING FIRE PUMP INFORMATION IS THE ANNUAL FIRE PUMP TEST RESULTS, PREFORMED BY JMP EQUIPMENT COMPANY LLC ON JUNE 13, 2024:

0% RATED FLOW (CHURN): 0 GPM, 73 PSI
111% RATED FLOW: 555 GPM, 63 PSI
157% RATED FLOW: 784 GPM, 51 PSI

CLEAN AGENT SUPPRESSION LEGEND

CA	CLEAN AGENT TANK - BASIS OF DESIGN = 16" DIAMETER
FARP	CLEAN AGENT RELEASING PANEL
P	CLEAN AGENT HORN/STROBE - PRE-DISCHARGE
P	CLEAN AGENT STROBE - POST-DISCHARGE
P	CLEAN AGENT BELL
CA	CLEAN AGENT MANUAL RELEASE STATION
DS	SUPPRESSION DISCONNECT SWITCH
ASSD	AIR-SAMPLING SMOKE DETECTOR
VPS	AIR-SAMPLING SMOKE DETECTOR POWER SUPPLY
AS	ABORT SWITCH

GENERAL NOTES

1. ALL SPRINKLER WORK AND INSTALLATION SHALL CONFORM WITH THE APPLICABLE PROVISIONS OF NFPA 13 AND ALL APPLICABLE CODES LISTED ON THIS SHEET OR OTHERWISE REFERENCED BY AN APPLICABLE CODE OR THE SPECIFICATIONS.
2. SPRINKLER SYSTEM DESIGN AND INSTALLATION SHALL BE IN COMPLIANCE WITH SPECIFICATION 21 13 13.
3. DESIGN DRAWINGS ARE CONCEPTUAL ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMPLETE, COORDINATED, AND APPROVED SHOP DRAWINGS PER NFPA 13.
4. DRAWING BACKGROUNDS ARE PROVIDED FOR REFERENCE ONLY; SEE OTHER TRADES DRAWINGS FOR CEILING TYPES, CEILING HEIGHTS, FIXTURE LOCATIONS, BEAMS, AND OBSTRUCTIONS. SPRINKLER CONTRACTOR SHALL COORDINATE WITH ALL TRADES.
5. THE CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND DIMENSIONS ON THE DRAWINGS PRIOR TO THE EXECUTION OF THIS CONTRACT. LOCATION AND SIZES OF PIPING ARE APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL SYSTEM COMPONENTS.
6. ALL SPRINKLERS SHALL BE TESTED/APPROVED BY FM GLOBAL AND INSTALLED PER THE LISTING AND MANUFACTURERS INSTALLATION INSTRUCTIONS.
7. SPRINKLERS INSTALLED IN DATA CENTERS SHALL BE STANDARD RESPONSE, FUSIBLE LINK TYPE. ALL OTHER SPRINKLERS SHALL BE QUICK RESPONSE.
8. SPRINKLER PIPING SIZES 2 INCHES OR LESS SHALL BE THREADED, SCHEDULE 40. SPRINKLER PIPING GREATER THAN 2 INCHES SHALL BE ROLL-GROOVED, SCHEDULE 10. PLAIN-END FITTINGS SHALL NOT BE USED. PLASTIC PIPE OR VALVES SHALL NOT BE USED.
9. FM APPROVED FLEXIBLE SPRINKLER HOSE WITH A MINIMUM 1 INCH INTERNAL DIAMETER IS PERMITTED.
10. ALL FIRE PROTECTION SYSTEM CONTROL VALVES SHALL BE EQUIPPED WITH APPROVED VALVE SUPERVISORY SWITCHES.
11. PROVIDE AUXILIARY DRAINS PER NFPA 13. ALL AUXILIARY VALVES AND LOW POINT VALVES SHALL BE BALL VALVES.
12. CONTRACTOR SHALL MAINTAIN AS MUCH HEAD ROOM CLEARANCE AS PRACTICAL BETWEEN BOTTOM OF SPRINKLER PIPE, FITTINGS, VALVES, AND SPRINKLER HEADS WITH THE FINISHED FLOOR IN ALL AREAS OF EXPOSED PIPE, IN NO CASE PROVIDE LESS THAN 7'-0" OF HEAD ROOM CLEARANCE.
13. PROVIDE GUARDS ON SPRINKLERS THAT ARE INSTALLED AT OR BELOW 7'-6". PROVIDE GUARDS ON SPRINKLERS IN THE DATA CENTER.
14. CONTRACTOR SHALL UTILIZE MOST UP TO DATE ANNUAL FIRE PUMP FLOW TEST FOR HYDRAULIC CALCULATIONS. FLOW TEST SHALL BE DATED NOT MORE THAN 12 MONTHS PRIOR TO SHOP DRAWING SUBMISSION.
15. HYDROSTATIC TESTING OF THE FIRE SUPPRESSION SYSTEMS SHALL BE PERFORMED IN COMPLIANCE WITH NFPA 13, BEFORE CEILING CLOSE IN. HYDROSTATIC TESTING IS NOT REQUIRED WHERE LESS THAN 20 SPRINKLERS ARE MODIFIED IN A SYSTEM PER NFPA 13. INSTALLING CONTRACTOR SHALL COORDINATE WITH THE AUTHORITY HAVING JURISDICTION.
16. SPRINKLER PIPING AND DRAINS SHALL NOT BE ROUTED OVER ENERGIZED ELECTRICAL EQUIPMENT OR TELECOMMUNICATIONS GEAR.
17. COORDINATE CONNECTIONS TO EXISTING SPRINKLER SYSTEMS TO ENSURE CURRENT ZONING APPROACH IS MAINTAINED. SPRINKLER AND SMOKE ZONES SHOULD BE COORDINATED.
18. WORK SHALL BE DONE IN A MANNER TO MINIMIZE INTERRUPTION TO ACTIVE FIRE PROTECTION SYSTEMS. WHERE INTERRUPTION IS NECESSARY, CONTRACTOR SHALL COORDINATE AND NOTIFY OWNER AND AUTHORITY HAVING JURISDICTION. ACTIVE FIRE PROTECTION SYSTEMS SHALL BE LEFT IN SERVICE AT THE END OF EACH WORK DAY.
19. CLEAN AGENT WORK AND INSTALLATION SHALL CONFORM WITH THE APPLICABLE PROVISIONS OF NFPA 2001 AND ALL APPLICABLE CODES LISTED ON THIS SHEET OR OTHERWISE REFERENCED BY AN APPLICABLE CODE OR THE SPECIFICATIONS.
20. SPRINKLER DESIGN AND INSTALLATION SHALL BE IN COMPLIANCE WITH SPECIFICATION 21 22 00.

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP

NORTH CAROLINA PROFESSIONAL SEAL 049470 ENGINEER MICHAEL B. LOVE
12-18-2025

Facilities Management Services

VA U.S. Department of Veterans Affairs

Drawing Title: FIRE SUPPRESSION GENERAL NOTES	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
			Building Number: BLDG 47
Approved: FOR OFFICIAL USE ONLY		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Drawing Number: 00-FX001
		Issue Date: 12.19.25 / Checked / Drawn	SHEET 34 of 559

12/18/2025 3:24:53 PM
Autodesk Docs://Asheville EHRM_V23\637-22-700\047 FP ASH - EHRM.rvt

VA FORM 08 - 6231

LEGEND

GENERAL

CD — CD	COOLING COIL CONDENSATE DRAIN
	DOMESTIC COLD WATER
	PIPE TURNING DOWN
	PIPE TURNING UP
	BRANCH BOTTOM CONNECTION
	BRANCH SIDE CONNECTION
	BRANCH TOP CONNECTION
CO	CLEANOUT
	LIMIT OF DEMOLITION WORK
	CONNECT TO EXISTING
IDU	INDOOR UNIT
ODU	OUTDOOR UNIT

VALVES AND ACCESSORIES

- AUTOMATIC AIR VENT
- AUTOMATIC FLOW CONTROL VALVE
- BACKFLOW PREVENTER (BFP)
- BALL VALVE
- BUTTERFLY VALVE
- CAPPED PIPE
- CHECK VALVE
- CONCENTRIC REDUCER
- DIRECTION OF FLOW
- ECCENTRIC REDUCER
- FLANGED CONNECTION
- FLEXIBLE CONNECTION
- FLOW METER
- GATE VALVE
- GLOBE VALVE
- MANUAL AIR VENT
- METERED BALANCING VALVE W/PRESSURE TAPS
- GAS COCK
- PIPE SLEEVE
- PRESSURE REDUCING VALVE
- PRESSURE RELIEF VALVE
- PRESSURE GAUGE WITH GAUGE COCK
- SQUARE HEAD COCK
- STRAINER
- STRAINER W/BLOW DOWN VALVE
- THERMOMETER
- VACUUM BREAKER
- SOLENOID VALVE

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE 2018 INTERNATIONAL PLUMBING CODE EDITION AND ALL OTHER APPLICABLE REGULATIONS INCLUDING THE AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES AND OSHA ACTS & REGULATIONS.
2. OPENINGS THRU WALLS, FLOORS AND ROOFS SHALL BE FLASHED AND SEALED WATER TIGHT. PENETRATIONS THROUGH SMOKE OR FIRE-RATED WALLS AND/OR PARTITIONS SHALL BE SEALED TO MAINTAIN RATING PER ASTM E-814 AND BUILDING CODE REQUIREMENTS.
3. DRAWINGS ARE INTENDED TO BE DIAGRAMMATIC AND REFLECT EXISTING CONDITIONS THAT WERE ABLE TO BE OBSERVED BY THE DESIGN TEAM. DUE TO DIAGRAMMATIC NATURE OF THE CONTRACT DOCUMENTS, THEY DO NOT REVEAL ALL OFFSETS, BENDS, ELBOWS, COMPONENTS, MATERIALS, AND OTHER SPECIFIC ELEMENTS THAT MAY BE REQUIRED FOR PROPER INSTALLATION. THE CONTRACT DOCUMENTS ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT DIMENSIONS OR DETAILS OF EQUIPMENT OR PROPOSED SYSTEMS LAYOUT. VERIFY ACTUAL DIMENSIONS OF SYSTEMS AND EQUIPMENT AND ROUTING OF CONDUIT, PIPE, DUCTWORK AND OTHER INFRASTRUCTURE PROPOSED PRIOR TO BIDDING TO ASSURE THAT SYSTEMS AND EQUIPMENT WILL FIT IN AVAILABLE SPACE. IF CONFLICTS OCCUR, THE CONTRACTOR SHALL SUBMIT DETAILS OF SUCH DEPARTURES OR CONFLICTS IN WRITING TO THE VA COR FOR REVIEW, COMMENT AND APROVAL BEFORE INITIATING WORK. THE CONTRACTOR IS RESPONSIBLE FOR DESIGN AND CONSTRUCTION COSTS INCURRED FOR ITEMS THAT ARE NOT VERIFIED PRIOR TO BIDDING.
4. INTERRUPTIONS OF SERVICES SHALL BE COORDINATED WITH THE VA COR AND OTHER TRADES AT LEAST 48 HOURS IN ADVANCE OF THE WORK BEING PERFORMED. DISRUPTION TIME SHALL BE KEPT TO A MINIMUM.
5. UNLESS OTHERWISE INDICATED, ALL PIPING SHALL BE RUN IN CONCEALED SPACES IN WALLS, IN CHASES OR BETWEEN CEILINGS AND INSULATION ABOVE. PIPES SHALL BE RUN AT RIGHT ANGLES OR PARALLEL LINES WITH BUILDING WALLS AND ROUTED WITH STRUCTURAL MEMBERS IN EXPOSED AREAS. PLUMBING SHALL COORDINATE WITH MECHANICAL DUCTWORK IN ALL CHASES. SUPPORT ALL INTERIOR PIPING FROM BUILDING STRUCTURE BY MEANS OF PIPE STANDS, HANGERS OR INSERTS TO MAINTAIN REQUIRED GRADING AND PITCHING OF LINES, TO PREVENT VIBRATION AND TO SECURE PIPING IN PLACE. PROTECT COPPER PIPING AGAINST CONTACT WITH MASONRY OR DISSIMILAR METALS. COPPER PIPING HANGERS, SUPPORTS, ANCHORS AND CLIPS SHALL BE COPPER OR COPPER PLATED. EXPOSED PIPING SHALL BE LABELED WITH SERVICE AND DIRECTION OF FLOW EVERY 20 FEET, AND IN EACH ROOM. ALL VALVES SHALL BE TAGGED. EXPOSED PIPING CONNECTIONS IN OCCUPIED SPACES SHALL BE CHROME PLATED.
6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ITEMS TO BE FURNISHED FIT THE SPACE AVAILABLE. CONTRACTOR TO VERIFY LOCATIONS OF ALL SERVICES AND CONNECTION POINTS. CONTRACTOR SHALL FIELD CONFIRM ALL PIPE SIZES AND LOCATIONS, AND ALL DIMENSIONS AND ELEVATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND PAYING ALL FEES FOR UTILITY LOCATOR SERVICE TO LOCATE PUBLIC AND PRIVATE UTILITIES AND UNDERGROUND STRUCTURES BEFORE DIGGING. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES INCURRED AS A RESULT OF THIS WORK. ALL DISCOVERIES SHALL BE ACCURATELY SHOWN ON THE RECORD DRAWINGS.
7. THE DRAWINGS ARE INTENDED TO COVER THE COMPLETE PLUMBING SYSTEMS IN THE SCOPE OF THIS PROJECT. HOWEVER, THE DRAWINGS MAY NOT SHOW COMPLETE OR ACCURATE DETAILS OF THE BUILDING OR SYSTEMS IN EVERY RESPECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM FIELD CONDITIONS AND OBTAIN ANY ADDITIONAL INFORMATION AS REQUIRED. DO NOT SCALE FROM CONTRACT DRAWINGS.
8. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION SELECTED BY THE CONTRACTOR OR OF THE SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL TO THE WORK OF THE CONTRACTOR TO PERFORM THE CONSTRUCTION WORK IN ACCORDANCE WITH OSHA, APPLICABLE CODES, THE DRAWINGS AND SPECIFICATIONS.
9. PROVIDE DIELECTRIC UNIONS OR OTHER NON-CONDUCTIVE MEANS TO PREVENT ELECTROLYSIS.
10. INSTALL EQUIPMENT TO FACILITATE SERVICING, MAINTENANCE, AND REPAIR OR REPLACEMENT OF EQUIPMENT COMPONENTS. AS MUCH AS PRACTICAL, CONNECT EQUIPMENT FOR EASE OF DISCONNECTING, WITH A MINIMUM OF INTERFERENCE WITH OTHER INSTALLATIONS. PIPING SHALL NOT INTERFERE WITH COMPONENT CLEARANCES. UNIONS AND/OR FLANGES SHALL BE INSTALLED AT EACH PIECE OF EQUIPMENT TO PERMIT DISASSEMBLY FOR ALTERATION AND REPAIRS. PROVIDE FLEXIBLE CONNECTIONS IN PIPING SYSTEMS CONNECTED TO PUMPS AND OTHER EQUIPMENT REQUIRING VIBRATION ISOLATION AS CLOSE TO EQUIPMENT AS POSSIBLE, UNLESS SHOWN OTHERWISE ON DRAWINGS.
11. LOCATE ALL VALVES ABOVE ACCESSIBLE CEILING WHERE POSSIBLE. PROVIDE ACCESS DOORS FOR ALL CONCEALED VALVES IN INACCESSIBLE LOCATIONS.
12. ANY ITEMS THAT ARE DAMAGED, SHALL BE REPAIRED BY THE CONTRACTOR.
13. CONTRACTOR SHALL COORDINATE HIS/HER WORK WITH THAT OF OTHER TRADES.
14. THE CONTRACTOR SHALL MAKE A PERSONAL INSPECTION OF THE SITE AND INCLUDE PERFORMING ALL WORK REQUIRED BY THE DRAWINGS AND SPECIFICATIONS. FIELD VERIFY INFORMATION PROVIDED ON THE DRAWINGS AND EXISTING CONDITIONS, INCLUDING: LOCATIONS, ELEVATIONS, DIMENSIONS AND QUANTITIES REQUIRED FOR THE WORK. NOTIFY A/E IN WRITING OF ANY ADDITIONAL WORK THAT MAY BE REQUIRED TO ACCOMPLISH THE SCOPE OF WORK AND/OR ACCOMMODATE FIELD INCONSISTENCIES WITH OR IN THE DRAWINGS AND/OR SPECIFICATIONS.
15. WHEN CONSTRUCTION IS COMPLETE, CONTRACTOR SHALL THOROUGHLY CLEAN ALL SYSTEMS BEFORE PLACING IN OPERATION OR TURN OVER TO THE VA COR. RESTORE FINISHED SURFACES IF DAMAGED AND DELIVER THE ENTIRE INSTALLATION IN AN APPROVED CONDITION.
16. ADEQUATE PROTECTION SHALL BE PROVIDED FOR THE BUILDING(S) AND CONTENTS DURING THE PERFORMANCE OF THE WORK. CONTRACTOR SHALL BE RESPONSIBLE AS TO NOT TO ALLOW ON-SITE ACCUMULATION OF DEBRIS OR DEMOLISHED MATERIALS. HE/SHE SHALL PROMPTLY AND LEGALLY TRANSPORT AND DISPOSE OF MATERIALS OFF-SITE. TRASH REMOVAL SHALL BE PERFORMED DAILY AND COORDINATED WITH THE VA COR'S REPRESENTATIVE TO PREVENT IT'S ACCUMULATION, TO ENSURE PROPER DISPOSAL OF MATERIALS, AND TO PROTECT THE PROPERTY. CONTRACTOR SHALL CONTROL DUST AND DEBRIS TO PREVENT SPREAD INTO THE BUILDING(S). DO NOT BURN DEBRIS OR DEMOLISHED MATERIALS. ALL DISPOSAL COSTS TO BE BORNE BY CONTRACTOR.
17. FOR ALL INVERT ELEVATIONS, FINISHED FLOORS SHALL BE ASSUMED TO BE 0'-0"
18. THIS BUILDING UTILIZES A RETURN AIR PLENUM. MATERIALS WITHIN THE PLENUM SPACE SHALL BE PLENUM RATED FOR FLAME AND SMOKE SPREAD.
19. NOTE ANY EXISTING PLUMBING PIPING IN THE TELECOM ROOMS, ENTRANCE ROOMS, AND DATA CENTER AND INFORM THE EOR OF ANY OCCURANCE NOT EXPLICITLY CALLED OUT. ANY EXISTING TO REMAIN OVERHEAD PIPING IN ROOMS WITH IT OR ELECTRICAL EQUIPMENT SHALL BE PANNED UNDERNEATH AND PROVIDED WITH A LIQUID WATER DETECTION SYSTEM.

RENOVATION AND DEMOLITION NOTES:

1. ALL ABANDONED SANITARY, DRAINAGE, AND VENT PIPING SHALL BE REMOVED BACK TO CLOSEST EXISTING MAIN (TO REMAIN), TO PREVENT DEAD ENDS. OPEN ENDS SHALL BE CAPPED WITH A GAS WATER TIGHT FITTING. AREAS NOT ASSOCIATED WITH THE RENOVATIONS SHALL NOT BE DISTURBED. WHERE ABANDONED PIPING IS LOCATED WITHIN AREA SUCH AS WALLS, AND CEILINGS THAT ARE NOT WITHIN THE REOVATION SCOPE OF WORK, THEN BOTH ENDS OF DRAINAGE, WASTE AND/OR VENT PIPING SHALL BE CAPPED.
2. ANY ITEMS NOT SHOWN TO BE DEMOLISHED, THAT ARE DAMAGED, SHALL BE REPAIRED BY THE CONTRACTOR.
3. THESE DRAWINGS ARE BASED ON FIELD OBSERVATIONS AND EXISTING DRAWINGS PROVIDED TO THE A/E BY THE VA COR. THE DRAWINGS ARE FROM PREVIOUS PROJECT(S), WHEN AVAILABLE. FIELD OBSERVATIONS, HOWEVER, PROVIDED LITTLE DATA, AS MOST OF THE INSTALLATIONS WERE INACCESSIBLE FOR VISUAL CONFIRMATION. THE INTENT OF THESE DRAWINGS IS TO PROVIDE AS MUCH INFORMATION TO THE CONTRACTOR AS POSSIBLE. HOWEVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM ACTUAL FIELD CONDITIONS AND INFORMATION PROVIDED HEREIN.
4. AS EXISTING PIPING IS ENCOUNTERED, THE CONTRACTOR SHALL ASSESS THE CONDITION OF THE PIPING BEFORE TIE-INS ARE MADE. IF THE PIPING IS BELIEVED TO BE IN POOR CONDITION OR NOT ADEQUATE FOR USE AS INTENDED, THE CONTRACTOR SHALL IMMEDIATELY REPORT SUCH TO THE A/E. TIE-INS ARE NOT TO PROCEED UNTIL CONTRACTOR HAS RECEIVED A RESPONSE FROM THE A/E.
5. NEATLY CORE-DRILL AND/OR SAW-CUT FLOORS, WALLS, SIDEWALKS AND PAVING AS REQUIRED. INSTALL APPROPRIATE PIPING AND REPAIR FINISHES TO MATCH EXISTING. CORE-DRILL AND/OR SAW-CUT HOLES AND SLOTS AS SMALL AS POSSIBLE. DO NOT CUT STRUCTURAL MEMBERS WITHOUT PRIOR WRITTEN APPROVAL OF THE A/E. ALL CORE DRILLING AND SAW CUTTING SHALL BE AFTER HOURS OR ON WEEKENDS.

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP

NORTH CAROLINA PROFESSIONAL SEAL 047145 ENGINEER ROBERT BELL

12/18/2025

Facilities Management Services

VA U.S. Department of Veterans Affairs

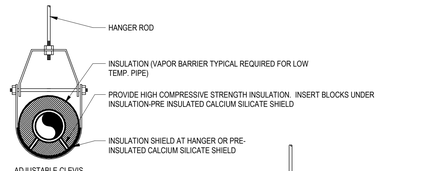
Drawing Title: PLUMBING GENERAL NOTES & SYMBOLS LEGEND	Phase: FINAL BID DOCUMENTS	Project Title: EHRM Infrastructure Upgrades	Project Number: 637-22-700
			Building Number: BLDG 00
Approved: FOR OFFICIAL USE ONLY		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Drawing Number: 00-P001
		Issue Date: 12.19.2025 / Checked / Drawn	SHEET 35 of 559

Autodesk Docs://Asheville EHRM_V23/637-22-700.000.M ASH- EHRM.rvt

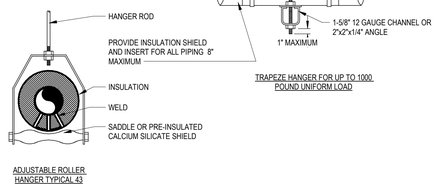
12/18/2025 4:49:26 PM

VA FORM 08 - 6231

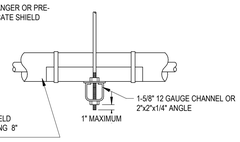
MAXIMUM PIPE/TUBING SUPPORT SPACING, FEET																	
NOM. SIZE	THRU 3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	22
PIPE	7 FT	7	7	9	10	11	12	14	16	17	19	22	23	25	27	28	30	32
TUBING	5 FT	6	7	8	8	9	10	12	13	14	16	-	-	-	-	-	-	-
NOTE: FOR TRAPEZE HANGER - TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.																		



ADJUSTABLE CLEVIS HANGER PART 1

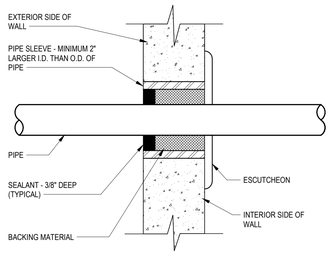


ADJUSTABLE ROLLER HANGER TYPICAL 43

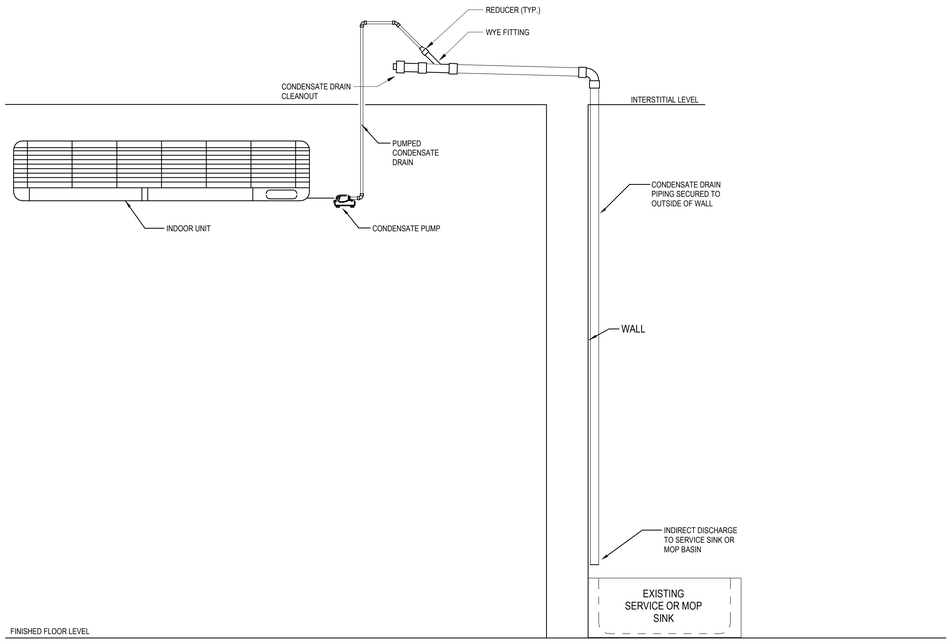


TRAPEZE HANGER FOR UP TO 1000 POUND UNIFORM LOAD

1 PIPE HANGAR DETAILS
NTS



2 ABOVE GRADE PIPE PENETRATION DETAIL
NTS



3 PUMPED CONDENSATE DRAIN PIPING
NTS

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP

NORTH CAROLINA PROFESSIONAL SEAL 047148 ENGINEER ROBERT BELL
12/18/2025

Facilities Management Services

U.S. Department of Veterans Affairs

Drawing Title PLUMBING DETAILS	**Phase** FINAL BID DOCUMENTS	**Project Title** EHRM Infrastructure Upgrades	**Project Number** 637-22-700
			Building Number BLDG 00
Approved: FOR OFFICIAL USE ONLY		**Location** 1100 TUNNEL ROAD ASHEVILLE, NC 28805	**Drawing Number** 00-P501
		Issue Date 12.19.2025 / **Checked** / **Drawn**	SHEET 36 of 559

Autodesk Docs://Asheville EHRM_V23/637-22-700.000.M.ASH- EHRM.rvt
12/18/2025 4:49:26 PM
VA FORM 08 - 6231

SYMBOL ROUND	SYMBOL RECTANGULAR	SYMBOL OVAL	ABBR.	DESCRIPTION
			SA	SUPPLY AIR DUCT TURNING UP
				SUPPLY AIR DUCT TURNING DOWN
			RA	RETURN AIR DUCT TURNING UP
				RETURN AIR DUCT TURNING DOWN
			EA	EXHAUST AIR DUCT TURNING UP
				EXHAUST AIR DUCT TURNING DOWN
	12x10			RECTANGULAR DUCT
	12ø			ROUND DUCT
	12/10			OVAL DUCT
			FSD	CLASS 1 COMBINATION FIRE & SMOKE DAMPER WITH DUCT ACCESS DOOR AND DUCT MOUNTED ACTUATOR. REFER TO ELECTRICAL PLANS FOR POWER REQUIREMENTS.
			SD	CLASS 1 SMOKE DAMPER WITH DUCT ACCESS DOOR AND DUCT MOUNTED ACTUATOR. REFER TO ELECTRICAL PLANS FOR POWER REQUIREMENTS.
			FD	DYNAMIC TYPE B OR TYPE C FIRE DAMPER WITH DUCT ACCESS DOOR. COORDINATE DAMPER RATING WITH ARCHITECTURAL WALL SCHEDULE.
			MD	CLASS 1 MOTORIZED DAMPER. REFER TO ELECTRICAL PLANS FOR POWER REQUIREMENTS.
			BD	LOCKING MANUAL OPPOSED BLADE BALANCING DAMPER
				MITERED ELBOW WITH TURNING VANES.
				MITERED ELBOW WITHOUT TURNING VANES AND WITH LINER.
				RADIUS DUCT ELBOW. RADIUS ELBOWS SHALL BE 1.5W/1.5D ELBOWS UNLESS OTHERWISE NOTED.
				GORED ELBOW (OVAL DUCT)
				FLEXIBLE DUCT
DIFFUSER TYPE A10 325	NECK DIAMETER / PEAK AIR FLOW			DIFFUSER TAG
				DEMOLITION WORK
				EXISTING CONDITIONS
				NEW CONSTRUCTION
				TEMPORARY WORK
				CONNECT TO EXISTING
				LIMIT OF DEMOLITION

SYMBOL	ABBR.	DESCRIPTION
RS/RL	RS/RL	REFRIGERANT SUCTION & LIQUID PIPING
		FLOW DIRECTION
		2-WAY CONTROL VALVE
		3-WAY CONTROL VALVE
		AUTOMATIC AIR VENT
		AUTOMATIC FLOW CONTROL VALVE
		BALL VALVE
		BUTTERFLY VALVE
		CAPPED PIPE
		CHECK VALVE
		FLANGED CONNECTION
		FLEXIBLE CONNECTION
		FLEXIBLE PIPING
		FLOW METER
		GAS COCK
		GATE VALVE
		GLOBE VALVE
		MANUAL AIR VENT
		METERED BALANCING VALVE W/PRESSURE TAPS
		PIPE SLEEVE
		PRESSURE GAUGE WITH GAUGE COCK
		PRESSURE REDUCING VALVE
		PRESSURE RELIEF VALVE
		P/T PLUG
		SQUARE HEAD COCK
		STRAINER
		STRAINER WITH BLOW DOWN VALVE AND HOSE END CONNECTION
		THERMOMETER

CO	CARBON MONOXIDE SENSOR
CO2	CARBON DIOXIDE SENSOR
H	HUMIDISTAT/HUMIDITY SENSOR
DP	DIFFERENTIAL PRESSURE SENSOR
SD	DUCT SMOKE DETECTOR (COORDINATE WITH ELECTRICAL CONTRACTOR)
SP	STATIC PRESSURE SENSOR
T	THERMOSTAT/TEMPERATURE SENSOR
S	TEMPTRAK - TEMPERATURE/HUMIDITY SENSOR
AC	AIR CONDITIONING
CSC	CAMPUS SUPPORT CENTER
ECC	ENGINEERING CONTROL CENTER
EDB	ENTERING DRY BULB
ESP	EXTERNAL STATIC PRESSURE
EWB	ENTERING WET BULB
IDU	INDOOR UNIT
ISTS	INFRASTRUCTURE STANDARD FOR TELECOMMUNICATIONS SPACES
LDB	LEAVING DRY BULB
NSC	NETWORK SUPPORT CENTER
ODU	OUTDOOR UNIT
RH	RELATIVE HUMIDITY

DUCT & PIPING NOTES

1. RUN ALL CONCEALED HORIZONTAL PIPING AND DUCTWORK ABOVE CEILING, TIGHT TO STRUCTURE UNLESS OTHERWISE NOTED. RUN ALL EXPOSED PIPING AND DUCTWORK AS HIGH AS POSSIBLE UNLESS OTHERWISE NOTED.
2. DUCTWORK SIZES ARE SHEET METAL DIMENSIONS. PROVIDE DUCT LINER ONLY WHERE INDICATED OR NOTED ON PLANS. PIPE SIZES ARE NOMINAL DIAMETERS.
3. PROVIDE ESCUTCHEON PLATES WHERE DUCTS OR PIPES PENETRATE ASSEMBLIES IN FINISHED AREAS EXPOSED TO VIEW. ESCUTCHEONS FOR DUCTS SHALL BE CONSTRUCTED OF THE SAME MATERIAL AS DUCT. PIPE ESCUTCHEONS SHALL BE CHROME-PLATED BRASS. PIPE, CONDUIT AND DUCT OPENINGS THROUGH ASSEMBLIES AROUND MECHANICAL ROOMS SHALL BE PACKED WITH MINERAL WOOL AND SEALED.
4. LOCATE ALL CONTROL DEVICES (TEMPERATURE, PRESSURE, AND FLOW MEASURING, ETC.) IN ACCESSIBLE LOCATIONS WITH STRAIGHT SECTION OF PIPE OR DUCT UPSTREAM AND DOWNSTREAM AS REQUIRED BY THE MANUFACTURER FOR GOOD ACCURACY.
5. PENETRATIONS THROUGH RATED ASSEMBLIES (DUCTWORK, PIPING, ETC.) SHALL BE PROTECTED WITH A U.L. LISTED PENETRATION DETAIL. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING CONDITIONS IN FIELD AND SUBMITTING A U.L. DETAIL FOR APPROVAL OF THE ARCHITECT AND ENGINEER OF RECORD.
6. CONCEALED DUCTWORK SHALL BE INSULATED USING EXTERIOR DUCT WRAP INSULATION. WRAPPED INSULATION SHALL BE 2 INCH THICK GLASS FIBER FLEXIBLE DUCT INSULATION, 0.75 POUND DENSITY WITH U.L. APPROVED FSK JACKET. SECURE WITH ADHESIVE APPLIED DIRECTLY TO THE DUCT IN 4 INCH WIDE STRIPS AROUND THE DUCT ON 12 INCH CENTERS AND TAPE ALL JOINTS. WHERE REQUIRED, ACOUSTICAL DUCT LINING SHALL BE 1-1/2 INCH THICK RIGID DUCTBOARD AND SHALL COMPLY WITH FIRE CLASSIFICATION REQUIREMENTS OF NFPA 90A AND 90B. ADHERE LINER TO DUCT WITH FIRE RESISTANT ADHESIVE AND WELDED PIN TYPE MECHANICAL FASTENERS AS INDICATED IN SMACNA STANDARDS.
7. ACOUSTICAL LINING SHALL BE PROVIDED ON THE FIRST 15'-0" OF SUPPLY AND RETURN DUCT CONNECTED TO AIR HANDLING UNITS AND FAN POWERED TERMINAL BOXES.
8. ALL DUCT PENETRATIONS OF WALLS SHALL BE MADE WITH RIGID METAL DUCTS. FLEXIBLE DUCT PENETRATIONS OF WALLS ARE NOT ACCEPTABLE.
9. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF DIFFUSERS, REGISTERS, AND GRILLES. FINISH AND COLOR TO BE SELECTED FROM MANUFACTURER'S STANDARD PALETTE AND APPROVED BY ARCHITECT UNLESS OTHERWISE NOTED.
10. ALL ELBOWS IN DUCTWORK SHALL BE RADIUS ELBOWS UNLESS OTHERWISE NOTED. WHERE SQUARE ELBOWS ARE SHOWN, OR WHERE FIELD CONDITIONS PREVENT USE OF RADIUS ELBOWS, INSTALL AIRFOIL TYPE TURNING VANES IN ACCORDANCE WITH SMACNA STANDARDS.
11. PROVIDE LOCKING OPPOSED BLADE MANUAL VOLUME DAMPERS WHERE INDICATED ON THE DUCT PLANS, AT SUPPLY, RETURN, AND EXHAUST BRANCH DUCTS, AND IN EACH RUNOUT TO AIR TERMINALS, UNLESS DAMPER IS SPECIFIED AT TERMINAL. BRANCH DUCT DAMPERS SHALL BE AS CLOSE TO MAIN TRUNK DUCT AS POSSIBLE. VOLUME DAMPERS ABOVE INACCESSIBLE CEILINGS SHALL BE PROVIDED WITH REMOTE CABLE CONTROLS WITH ALL NECESSARY HARDWARE, TERMINATING 3" ACCESS PORT WITH FINAL LOCATION COORDINATED IN FIELD BY ARCHITECT.
12. FIRE, SMOKE, AND FIRE-SMOKE DAMPERS SHALL BE INSTALLED IN COMPLETE ACCORDANCE WITH THE MANUFACTURER'S U.L. LISTING AND INSTALLATION INSTRUCTIONS. DAMPERS SHALL HAVE SPECIFIC U.L. LISTING FOR THE CONSTRUCTION IN WHICH THEY ARE INSTALLED. PROVIDE DYNAMIC FIRE DAMPERS WITH BLADES OUT OF THE AIRSTREAM. INSTALL DUCTS THROUGH FIRE AND SMOKE RATED ASSEMBLIES AND PARTITIONS TO LEAVE A MINIMUM OF 2 INCHES AROUND THE DUCT TO SEAL THE ASSEMBLY. DO NOT INSTALL FLEXIBLE DUCT THROUGH FIRE AND SMOKE RATED ASSEMBLIES AND PARTITIONS.
13. DUCT MOUNTED SMOKE DETECTORS SHALL BE FURNISHED AND WIRED BY THE ELECTRICAL CONTRACTOR AND INSTALLED BY MECHANICAL CONTRACTOR.
14. PROVIDE PIANO-HINGED DUCT ACCESS DOORS AT ALL DUCT ACCESSORIES (MOTOR OPERATED DAMPERS, FIRE DAMPERS, ETC.) REQUIRING MAINTENANCE AND SERVICE, AND WHERE REQUIRED FOR OPERATION, ADJUSTMENT, AND MAINTENANCE OF MECHANICAL EQUIPMENT. WHERE ACCESS DOORS ARE LOCATED ABOVE AN INACCESSIBLE CEILING, PROVIDE AN ACCESS DOOR IN THE CEILING. PROVIDE RATED ACCESS PANELS AS REQUIRED TO MAINTAIN ASSEMBLY RATING.
15. BEFORE FABRICATING DUCTWORK, THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE LOCATION AND SIZE WITH ALL OTHER TRADES.
16. PROVIDE AUXILIARY CONDENSATE PANS BELOW EQUIPMENT INSTALLED ABOVE CEILINGS. PROVIDE FLOAT SWITCH ON AUXILIARY PAN TO SHUTDOWN EQUIPMENT AND GENERATE AN AUDIBLE ALARM IN THE EVENT OF PRIMARY DRAIN PAN OVERFLOW.
17. EXTEND CONDENSATE DRAIN PIPING TO NEAREST DRAIN UNLESS OTHERWISE NOTED. ALL CONDENSATE PIPING SHALL BE TRAPPED AND PITCHED AT A MINIMUM OF 1/8" PER LINEAR FOOT TOWARDS THE DRAIN.
18. ALL VALVES SHALL BE FULL-PORT VALVES EXCEPT CONTROL AND BALANCING VALVES. ALL BALANCING VALVES AND BUTTERFLY VALVES SHALL BE PROVIDED WITH POSITION INDICATORS AND MAXIMUM ADJUSTABLE STOPS (MEMORY STOPS).
19. INSTALL ALL VALVES TO REMAIN IN SERVICE WHEN EQUIPMENT OR PIPING ON EQUIPMENT SIDE OF VALVE IS REMOVED.
20. PROVIDE UNIONS OR FLANGES AT EACH PIECE OF EQUIPMENT, AT BYPASS CONNECTIONS, AND IN PIPING RUNS OF 50 FEET OR LONGER TO PERMIT DISASSEMBLY FOR ALTERATION AND REPAIRS.
21. INSTALL ALL PIPING ACCESSORIES (VALVES, STRAINERS, ETC.) REQUIRING ACCESS FOR MAINTENANCE OR REPLACEMENT IN AN ACCESSIBLE LOCATION. WHERE INSTALLED ABOVE AN INACCESSIBLE CEILING, PROVIDE AN ACCESS DOOR IN THE CEILING. PROVIDE RATED ACCESS PANELS AS REQUIRED TO MAINTAIN ASSEMBLY RATING.
22. ALL BELOW GRADE PIPING SHALL BE A MINIMUM OF 3'-6" BELOW FINISHED GRADE OR 6" BELOW THE FROST LINE, WHICHEVER IS DEEPER.
23. REFRIGERANT PIPING SHALL BE INSTALLED AS REQUIRED BY MANUFACTURER. PROVIDE ALL ACCESSORIES REQUIRED FOR PROPER OPERATION AND MAINTENANCE OF SYSTEM (OIL TRAPS, STRAINERS, FILTER DRYERS, ETC.) IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
24. NOTE ANY EXISTING MECHANICAL PIPING IN THE TELECOM ROOMS, ENTRANCE ROOMS, AND DATA CENTER AND INFORM THE EOR OF ANY OCCURANCE NOT EXPLICITLY CALLED OUT. ANY EXISTING TO REMAIN OVERHEAD PIPING IN ROOMS WITH IT OR ELECTRICAL EQUIPMENT SHALL BE PANNED UNDERNEATH AND PROVIDED WITH A LIQUID WATER DETECTION SYSTEM.

GENERAL NOTES

1. GENERAL NOTES ON THIS DRAWING ARE APPLICABLE TO EACH MECHANICAL DRAWING OF THIS SET. NOTES SPECIFIC TO INDIVIDUAL MECHANICAL DRAWINGS WILL BE SHOWN ON THE RESPECTIVE MECHANICAL DRAWING.
2. THE CONTRACTOR SHALL PROVIDE A COMPLETE HVAC SYSTEM TO INCLUDE ALL LABOR, MATERIALS, TOOLS, AND EQUIPMENT FOR A COMPLETE AND FUNCTIONAL SYSTEM INCLUDING ALL NECESSARY APPURTENANCES CUSTOMARILY INCLUDED IF NOT SPECIFICALLY CALLED OUT. ALL WORK SHALL BE GUARANTEED IN WRITING AGAINST DEFECTIVE WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR FROM TURN OVER TO VA COR.
3. DRAWINGS ARE INTENDED TO BE DIAGRAMMATIC AND REFLECT EXISTING CONDITIONS THAT WERE ABLE TO BE OBSERVED BY THE DESIGN TEAM. DUE TO DIAGRAMMATIC NATURE OF THE CONTRACT DOCUMENTS, THEY DO NOT REVEAL ALL OFFSETS, BENDS, ELBOWS, COMPONENTS, MATERIALS, AND OTHER SPECIFIC ELEMENTS THAT MAY BE REQUIRED FOR PROPER INSTALLATION. THE CONTRACT DOCUMENTS ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT DIMENSIONS OR DETAILS OF EQUIPMENT OR PROPOSED SYSTEMS LAYOUT. VERIFY ACTUAL DIMENSIONS OF SYSTEMS AND EQUIPMENT AND ROUTING OF CONDUIT, PIPE, DUCTWORK AND OTHER INFRASTRUCTURE PROPOSED PRIOR TO BIDDING TO ASSURE THAT SYSTEMS AND EQUIPMENT WILL FIT IN AVAILABLE SPACE. IF CONFLICTS OCCUR, THE CONTRACTOR SHALL SUBMIT DETAILS OF SUCH DEPARTURES OR CONFLICTS IN WRITING TO THE VA COR FOR REVIEW, COMMENT AND APROVAL BEFORE INITIATING WORK. THE CONTRACTOR IS RESPONSIBLE FOR DESIGN AND CONSTRUCTION COSTS INCURRED FOR ITEMS THAT ARE NOT VERIFIED PRIOR TO BIDDING.
4. ENTIRE INSTALLATION, INCLUDING MATERIALS, EQUIPMENT, AND WORKMANSHIP, SHALL CONFORM WITH ALL APPLICABLE LAWS, CODES, AND REGULATIONS OF MUNICIPAL, STATE AND FEDERAL AUTHORITIES.
5. ALL WORK SHALL CONFORM TO APPLICABLE ASHRAE, NFPA, AND SMACNA STANDARDS AND OTHER REGULATORY BODIES HAVING JURISDICTION OVER THE CLASS OF WORK. ALL MATERIALS AND EQUIPMENT SHALL HAVE APPROPRIATE STAMPS/SEALS OF AHRI, ASME, U.L., AND ASTM.
6. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, LICENSES, DOCUMENTS, AND SERVICES RELATED TO INSTALLATION OF THE WORK. THE CONTRACTOR SHALL MAKE TESTS FOR ACCEPTANCE AND APPROVAL AS REQUIRED BY CODE AND THE REQUIREMENTS OF APPLICABLE REGULATORY AGENCIES. REQUIRED TESTS SHALL BE PERFORMED IN THE PRESENCE OF VA COR'S REPRESENTATIVE UNLESS OTHERWISE WAIVED IN WRITING.
7. THE MECHANICAL CONTRACTOR SHALL COORDINATE ALL MECHANICAL WORK WITH ALL OTHER TRADES IN ORDER TO RESOLVE ANY CONFLICT THAT MIGHT ARISE IN THE FIELD.
8. EQUIPMENT OF DIFFERING CHARACTERISTICS MAY BE PROVIDED IF SUCH PROPOSED ALTERNATE EQUIPMENT IS SUBMITTED TO AND APPROVED BY THE ENGINEER OF RECORD AND VA COR'S REPRESENTATIVE IN WRITING. THE MECHANICAL CONTRACTOR SHALL RESPONSIBLE FOR COORDINATING WITH ALL IMPACTED TRADES, AND ANY SUBSEQUENT COSTS OF THE ALTERNATE EQUIPMENT SHALL BE PROVIDE AT NO COST TO VA COR.
9. NO EQUIPMENT, PIPING, OR DUCTWORK SHALL BE INSTALLED OVER ANY ELECTRICAL EQUIPMENT OR ELECTRICAL SERVICE SPACE.
10. LAYOUT OF PIPING AND DUCTWORK IS DIAGRAMMATIC IN NATURE. MECHANICAL CONTRACTOR SHALL ALLOW FOR RISES, DROPS AND OFFSETS AS REQUIRED FOR PROPER INSTALLATION, OPERATION, AND MAINTENANCE. INSTALL MECHANICAL EQUIPMENT TO FACILITATE SERVICING, MAINTENANCE, AND REPAIR/REPLACEMENT OF COMPONENTS, INCLUDING ACCESS TO UNIT PANELS, CONTROLS, VALVING, ETC. AS MUCH AS PRACTICAL. CONNECT EQUIPMENT FOR EASE OF DISCONNECTING, WITH A MINIMUM OF INTERFERENCE WITH OTHER INSTALLATIONS. PIPING AND DUCTWORK SHALL NOT INTERFERE WITH FILTER ACCESS.
11. PROVIDE VIBRATION ISOLATION AS REQUIRED FOR MECHANICAL EQUIPMENT TO PREVENT TRANSMISSION OF VIBRATION TO BUILDING STRUCTURE AND SYSTEMS. PROVIDE FLEXIBLE CONNECTIONS IN ALL DUCTWORK AND PIPING SYSTEMS CONNECTED TO MECHANICAL EQUIPMENT WHICH REQUIRE VIBRATION ISOLATION. FLEXIBLE CONNECTIONS SHALL BE PROVIDED AT THE POINT OF CONNECTION TO THE EQUIPMENT UNLESS OTHERWISE INDICATED.
12. PROVIDE ALL CONTROL DEVICES, SUCH AS TEMPERATURE SENSORS, RELAYS, PRESSURE SWITCHES WHICH ARE ASSOCIATED WITH MECHANICAL EQUIPMENT AND ASSOCIATED CONTROL WIRING FROM STARTER TO THE CONTROL DEVICE. ALL CONTROL DEVICES SHALL BE POWERED AND OPERATED BY LOW VOLTAGE POWER (<24V) UNLESS OTHERWISE NOTED.
13. EXCEPT IN EQUIPMENT ROOMS, ALL CONTROL WIRING SHALL BE RUN CONCEALED. ALL CONTROL WIRING SHALL BE PLENUM RATED AND ROUTED IN CONDUIT. J-HOOKS ARE AN ACCEPTABLE ALTERNATE METHOD TO CONDUIT WITH WRITTEN APPROVAL BY VA COR. CONTROL WIRING SHALL NOT BE ROUTED WITHOUT CONDUIT OR J-HOOKS.
14. ALL FLOOR AND GROUND MOUNTED EQUIPMENT SHALL BE INSTALLED ON 6" THICK CONCRETE HOUSEKEEPING PADS. EXTEND PAD BEYOND EQUIPMENT FOR 6" IN ALL DIRECTIONS.
15. ALL SPACE MOUNTED CONTROL DEVICES (THERMOSTATS, SWITCHES, HUMIDISTATS, ETC.) SHALL BE MOUNTED AT 4'-0" TO TOP OF DEVICE ABOVE FINISHED FLOOR, PER ADA REQUIREMENTS, UNLESS OTHERWISE NOTED. THE MECHANICAL CONTRACTOR SHALL COORDINATE THE LOCATION OF SPACE MOUNTED CONTROL DEVICES WITH THE ARCHITECT, GENERAL CONTRACTOR, AND OTHER TRADES BEFORE ROUGHING-IN OF WALLS HAS BEGUN.
16. TESTING, ADJUSTING, AND BALANCING AGENCY SHALL BE A MEMBER OF THE ASSOCIATED AIR BALANCE COUNCIL (AABC) OR THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB). TESTING, ADJUSTING, AND BALANCING SHALL BE PERFORMED IN ACCORDANCE WITH THE AABC STANDARDS.
17. ALL PENETRATIONS THROUGH THE BUILDING ENVELOPE SHALL BE COORDINATED IN THE FIELD BY THE GENERAL CONTRACTOR. ROOF MOUNTED EQUIPMENT SHALL BE INSTALLED ON PREFABRICATED CURBS OR RAILS, WITH ROOF PATCHED AND FLASHED TO PREVENT MOISTURE INTRUSION. ALL ROOF PENETRATIONS MUST BE REPAIRED BY A ROOFER CERTIFIED BY MANUFACTURER TO RETAIN ROOF WARRANTY.

EXISTING CONDITIONS & DEMOLITION

1. PRIOR TO SUBMITTING A PROPOSAL THE CONTRACTOR IS STRONGLY ENCOURAGED TO VISIT THE SITE AND THOROUGHLY INSPECT ALL EXISTING CONDITIONS TO INSURE THAT THE WORK REPRESENTED ON THE DRAWINGS CAN BE INSTALLED AS INDICATED.
2. INFORMATION ON EXISTING CONDITIONS (DUCT, PIPE, EQUIPMENT, ETC.) IS NOTED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND IS NOT WARRANTED TO BE CORRECT. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING CONDITIONS PRIOR TO PROCEEDING WITH ANY ASSOCIATED WORK OR ORDERING EQUIPMENT.
3. CUT OPENINGS AS REQUIRED IN THE EXISTING CONSTRUCTION FOR THE INSTALLATION OF PIPING, DUCTWORK, AND EQUIPMENT. PATCH AND REPAIR TO MATCH THE EXISTING ADJACENT CONSTRUCTION.
4. ALL EQUIPMENT REMOVED FROM THE BUILDING DURING DEMOLITION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE UNLESS OTHERWISE NOTED.
5. PRIOR TO PERFORMING ANY WORK THE MECHANICAL CONTRACTOR SHALL INSPECT THE EXISTING DUCTWORK, PIPING, AND EQUIPMENT FOR DEFECTS AND REPORT TO THE ENGINEER OF RECORD, GENERAL CONTRACTOR, AND VA COR ANY DEFICIENCIES FOUND. CONTRACTOR SHALL CLEAN EXISTING DUCTWORK AND AIR TERMINALS PRIOR TO INSTALLING THE NEW WORK.
6. DO NOT CUT OPENINGS IN THE EXISTING CONSTRUCTION FOR THE INSTALLATION OF PIPING, DUCTWORK, OR EQUIPMENT WITHOUT PRIOR WRITTEN CONSENT FROM THE VA COR OR AUTHORIZED REPRESENTATIVE. PATCH AND REPAIR TO MATCH THE EXISTING ADJACENT CONSTRUCTION. MAINTAIN RATINGS OF ANY IMPACTED ASSEMBLIES.
7. PROVIDE A PRE DEMOLITION BALANCING REPORT OF ALL SYSTEMS OR DEVICES AFFECTED BY THIS SCOPE OF WORK IN ORDER TO ESTABLISH BASELINE SYSTEM PERFORMANCE. SUBMIT REPORT FOR REVIEW AT COMPLETION OF THIS TESTING.

HVAC DESIGN DATA

DESIGN CONDITIONS	SUMMER			WINTER			LOWEST AVERAGE ANNUAL DEWPOINT (°F)
	DRY BULB TEMP (°F)	WET BULB TEMP (°F)	% RH	DRY BULB TEMP (°F)	WET BULB TEMP (°F)	% RH	
OUTDOOR	88.3	71.2	44	14.7	12.0	55	0.0
	INDOOR DESIGN CONDITIONS						
	MAXIMUM TEMPERATURE			MINIMUM TEMPERATURE			
DATA CENTER	80.6	70	60	72	54	30	N/A
TELECOM ROOM	81	70	60	64	48	30	N/A

NOTES:

1. DATA CENTER DESIGN CONDITIONS BASED ON REQUIREMENTS FOR A CSC IN THE ISTS VERSION 3.1. TEMPERATURE AND HUMIDITY CRITERIA ARE RACK INLET CONDITIONS.
2. TELECOM ROOM DESIGN CONDITIONS BASED ON REQUIREMENTS FOR AN NSC IN THE ISTS VERSION 3.1. THE TEMPERATURE CRITERION IS AC SUPPLY TEMPERATURE SETPOINT, WHILE THE HUMIDITY RANGE IS A CONDITION OF THE SPACE.
3. NO DEDICATED HUMIDITY CONTROL EQUIPMENT IS REQUIRED FOR TELECOM ROOMS PER THE ISTS VERSION 3.1. DEHUMIDIFICATION IS PROVIDED ONLY AS A RESULT OF DRY-BULB COOLING CONTROL. HOWEVER, HUMIDITY SHALL BE MONITORED VIA A TEMPTRAK TEMPERATURE/HUMIDITY SENSOR WALL-MOUNTED WITHIN 6 FEET OF THE TELECOM RACK.

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP

NORTH CAROLINA PROFESSIONAL SEAL 047145 ENGINEER ROBERT BELL
12/18/2025

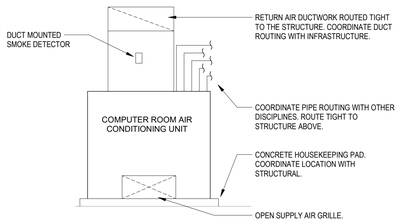
Facilities Management Services

U.S. Department of Veterans Affairs

Drawing Title	MECHANICAL GENERAL NOTES & SYMBOLS LEGEND
Phase	FINAL BID DOCUMENTS
Project Title	EHRM Infrastructure Upgrades
Project Number	637-22-700
Building Number	BLDG 00
Approved:	FOR OFFICIAL USE ONLY
Location	1100 TUNNEL ROAD ASHEVILLE, NC 28805
Issue Date	12.19.2025
Checked	
Drawn	
Drawing Number	00-M001
	SHEET 37 of 559

VA FORM 08 - 6231

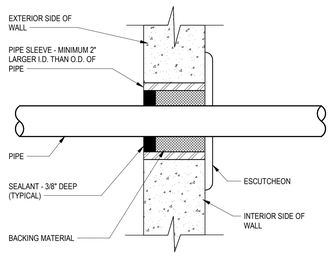
Autodesk Docs://Asheville EHRM_V23/637-22-700.000.M.ASH- EHRM.rvt
12/18/2025 4:43:53 PM



NOTES:

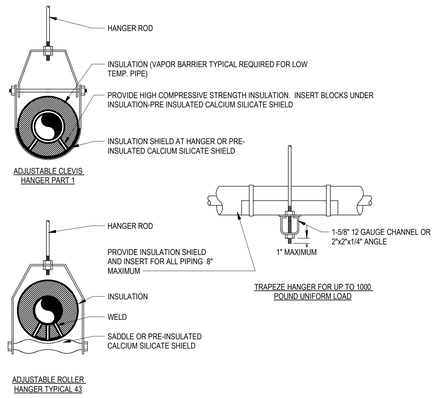
- MAINTAIN ALL CLEARANCES AROUND UNIT FOR SERVICE ACCESS AND MAINTENANCE. MINIMUM CLEARANCE SHALL BE DETERMINED BY MANUFACTURER AND NEC REQUIREMENTS.

1 CRAC INDOOR UNIT DETAIL
NTS

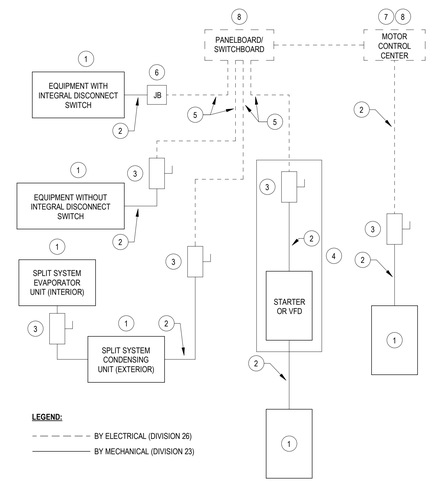


2 ABOVE GRADE PIPE PENETRATION DETAIL
NTS

MAXIMUM PIPE/TUBING SUPPORT SPACING, FEET																			
NOM. SIZE	THRU 3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	22
PIPE	7 FT	7	7	9	10	11	12	14	16	17	19	22	23	25	27	28	30	32
TUBING	5 FT	6	7	8	8	9	10	12	13	14	16	-	-	-	-	-	-	-
NOTE: FOR TRAPEZE HANGER - TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.																			



3 PIPE HANGER DETAILS
NTS



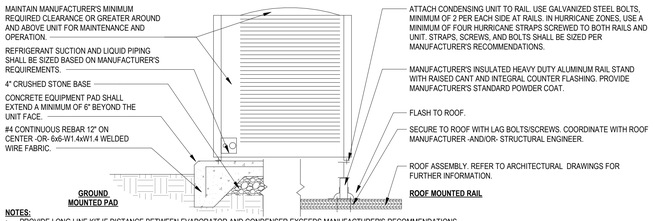
GENERAL NOTES:

1. ALL POWER WIRING ASSOCIATED WITH DIVISION 23 (MECHANICAL) SHALL BE PERFORMED UNDER THE SCOPE OF WORK OF THE CONTRACTOR SUPPLYING THE EQUIPMENT AND SHALL BE COORDINATED WITH THE DIVISION 26 (ELECTRICAL) CONTRACTOR.
2. ALL POWER DISCONNECT SWITCHES, VFDS, AND SINGLE SPEED MANUAL STARTING SWITCHES ASSOCIATED WITH DIVISION 23 SHALL BE PROVIDED UNDER THE SCOPE OF WORK OF THE CONTRACTOR SUPPLYING THE EQUIPMENT AND SHALL BE COORDINATED WITH THE DIVISION 26 CONTRACTOR.
3. EXCEPT AS MAY BE INDICATED ON THE DRAWINGS AND/OR HEREINAFTER NOTED, ALL LOW VOLTAGE CONTROL WIRING, (INCLUDING ALL TEMPERATURE CONTROL WIRING, INTERLOCKING, START-STOP WIRING, TOGETHER WITH CONDUIT FOR SAME) SHALL BE PROVIDED UNDER DIVISION 23 BY THE CONTRACTOR SUPPLYING THE EQUIPMENT. THIS INCLUDES, BUT IS NOT LIMITED TO, WIRING TO LOW VOLTAGE THERMOSTATS, DAMPER MOTORS, AQUASTATS, FIRESTATS, PUSH BUTTONS, SELECTOR SWITCHES, AND CONTROL PANELS. ALL DISCONNECT SWITCHES FOR CONTROL WIRING SHALL BE PROVIDED UNDER DIVISION 23 BY THE CONTRACTOR SUPPLYING THE EQUIPMENT.
4. WORK OF DIVISION 23 SHALL INCLUDE FURNISHING AND SETTING MOTORS.
5. ALL MAGNETIC STARTERS AND OVERLOAD ELEMENTS WILL BE PROVIDED UNDER DIVISION 23 BY THE CONTRACTOR SUPPLYING THE EQUIPMENT AND SHALL BE COORDINATED WITH THE DIVISION 26 CONTRACTOR. OVERLOAD ELEMENTS IN ALL STARTERS SHALL BE SELECTED ACCORDING TO ACTUAL MOTOR NAMEPLATE FULL LOAD CURRENT. RESPONSIBILITY FOR THIS COORDINATION SHALL LIE WITH THE DIVISION UNDER WHICH THE PARTICULAR STARTER WAS FURNISHED.
6. FIRESTATS AND WALL MOUNTED THERMOSTATS WHICH INTERRUPT LINE VOLTAGE POWER CIRCUITS TO MOTORS SHALL BE PROVIDED UNDER DIVISION 23, AND ELECTRICALLY CONNECTED IN THE BRANCH CIRCUIT WIRING AS WORK OF DIVISION 26.
7. ALL POWER AND CONTROL CONDUIT ROUTED TO EXTERIOR ON-GRADE MECHANICAL EQUIPMENT SHALL BE ROUTED BELOW GRADE UNLESS OTHERWISE NOTED. COORDINATE STUB-UP LOCATIONS PRIOR TO ROUGH-IN.
8. ALL POWER AND CONTROL CONDUIT ROUTED TO ROOF MECHANICAL EQUIPMENT SHALL BE COORDINATED WITH ARCHITECT AND GENERAL CONTRACTOR TO LIMIT THE NUMBER OF ROOF PENETRATIONS. COORDINATE STUB-UP LOCATIONS PRIOR TO ROUGH-IN.

KEYED NOTES:

1. DIVISION 23 (MECHANICAL) EQUIPMENT
2. CONDUIT & WIRING OR CABLE BY MECHANICAL CONTRACTOR, CONTROLS CONTRACTOR, OR OTHER TRADES, IN ALL CASES THE EQUIPMENT CONTRACTOR (DIVISION 23) SHALL MAKE FINAL CONNECTIONS, START UP EQUIPMENT AND TEST EQUIPMENT. COORDINATE CONNECTIONS WITH DIV 26.
3. IF ANY ADDITIONAL DISCONNECTS ARE REQUIRED BY NEC, IT SHALL BE PROVIDED AND INSTALLED BY THE EQUIPMENT CONTRACTOR (DIVISION 23).
4. A COMBINATION STARTER OR VFD MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER. FACTORY MOUNT OR LOCATE ADJACENT TO EQUIPMENT AND PROVIDED BY EQUIPMENT CONTRACTOR.
5. FEEDER CIRCUIT WIRING AND CONDUIT BY ELECTRICAL CONTRACTOR.
6. A JUNCTION BOX MAY BE SHOWN ON THE ELECTRICAL PLANS FOR SOME EQUIPMENT. IF NO STARTER OR DISCONNECT IS SUPPLIED, A JUNCTION BOX SHALL BE INSTALLED ADJACENT TO EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL PROVIDE LINE SIDE WIRING TO JUNCTION BOX. LOAD SIDE WIRING WILL BE PROVIDED BY MECHANICAL CONTRACTOR OR OTHER TRADES.
7. FOR PROJECTS UTILIZING MOTOR CONTROL CENTERS (MCC), THE STARTER, CB, OR VFD IN THE MCC ARE PROVIDED BY THE ELECTRICAL CONTRACTOR.
8. DIVISION 26 EQUIPMENT

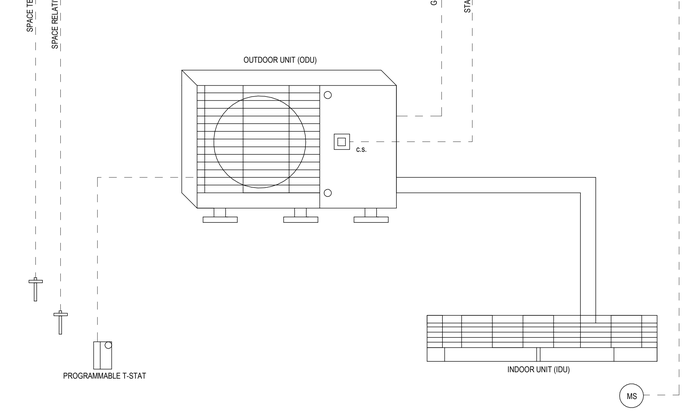
4 EQUIPMENT POWER CONNECTION DETAIL
NTS



NOTES:

- PROVIDE LONG LINE KIT IF DISTANCE BETWEEN EVAPORATOR AND CONDENSER EXCEEDS MANUFACTURER'S RECOMMENDATIONS.
- UNIT SHALL BE LOCATED AWAY FROM ANY ROOF RUN-OFF AND STORM WATER DISCHARGE. DO NOT ALLOW STORM WATER RUN-OFF, CONDENSATE DRAINS, OR ROOF SCUPPERS TO DISCHARGE WATER ONTO UNIT.

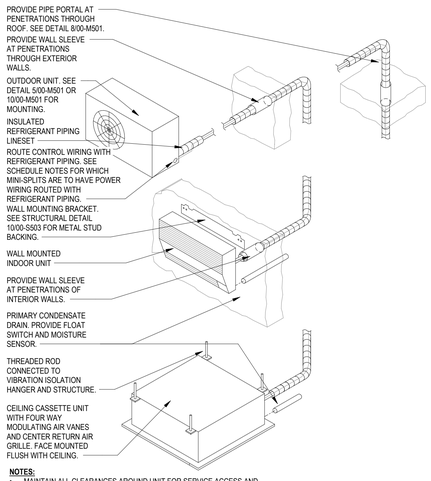
5 DX CONDENSING UNIT MOUNTING DETAIL
NTS



SPLIT SYSTEM:

1. DESCRIPTION:
   A. THE SPLIT SYSTEM SERVING EACH TR SHALL CONSIST OF:
      a. (1) OUTDOOR UNIT (ODU)
      b. (1) INDOOR UNIT (IDU)
2. RUN CONDITIONS AND OCCUPANCY:
   A. THE AIR CONDITIONING UNITS SHALL BE ENABLED 24/7 TO MAINTAIN ROOM TEMPERATURE SETPOINT AT OR BELOW 80°F (ADJ.).
3. ALARMS:
   A. THE FOLLOWING ALARMS SHALL BE PROVIDED:
      a. STATUS
      b. HIGH TEMPERATURE (TEMPERATURE 3°F OUTSIDE SETPOINT FOR A DURATION OF 5 MINUTES)
      c. HIGH HUMIDITY (RELATIVE HUMIDITY 65% OR HIGHER FOR A DURATION OF 10 MINUTES)
      d. PRIMARY DRAIN OVERFLOW - MOISTURE SENSOR IN DRIP PAN UNDER INDOOR UNIT SHALL GENERATE AN ALARM IN THE EVENT OF PRIMARY DRAIN OVERFLOW.
      e. WHEN THE INDOOR UNIT IS MOUNTED OVER TELECOM OR ELECTRICAL EQUIPMENT, PROVIDE FLOAT SWITCH IN DRIP PAN TO SHUT UNIT DOWN UPON WATER DETECTION.

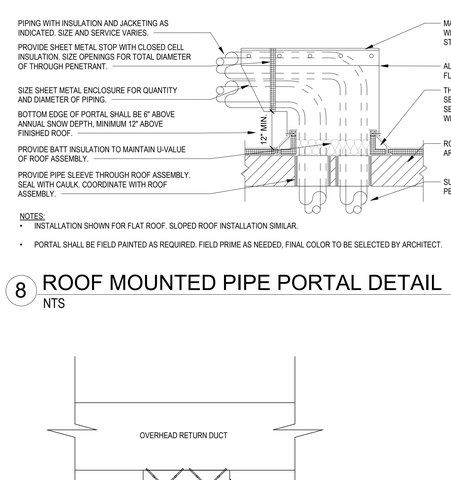
6 COOLING ONLY DUCTLESS MINI-SPLIT (FCU-3 & CU-3) SEQUENCE OF OPERATIONS
NTS



NOTES:

- MAINTAIN ALL CLEARANCES AROUND UNIT FOR SERVICE ACCESS AND MAINTENANCE. MINIMUM CLEARANCE SHALL BE DETERMINED BY MANUFACTURER AND NEC REQUIREMENTS.
- THREADED ROD AND CHANNEL SIZES SHALL BE BASED ON MANUFACTURER'S RECOMMENDATIONS AND SMACNA STANDARDS BASED ON THE SEISMIC DESIGN CATEGORY AND TOTAL EQUIPMENT WEIGHT. SIZES SHALL BE CERTIFIED BY A LICENSED STRUCTURAL ENGINEER.

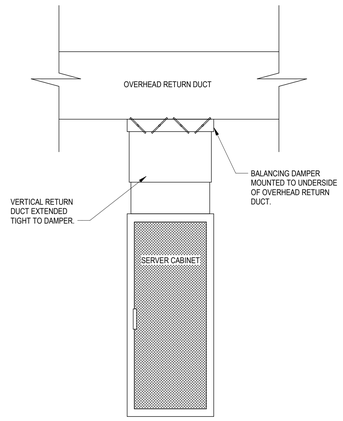
7 MINI-SPLIT SYSTEM DETAIL
NTS



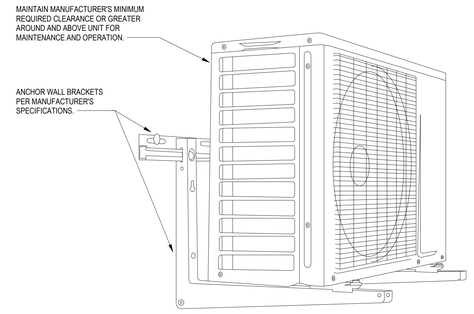
NOTES:

- INSTALLATION SHOWN FOR FLAT ROOF. SLOPED ROOF INSTALLATION SIMILAR.
- PORTAL SHALL BE FIELD PAINTED AS REQUIRED. FIELD PRIME AS NEEDED, FINAL COLOR TO BE SELECTED BY ARCHITECT.

8 ROOF MOUNTED PIPE PORTAL DETAIL
NTS



9 VERTICAL RETURN DAMPER DETAIL
NTS



NOTES:

- ENSURE THAT SUPPORTING WALL STRUCTURE IS CAPABLE OF SUPPORTING THE WEIGHT OF THE CONDENSER LOAD.
- UNIT SHALL BE LOCATED AWAY FROM ANY ROOF RUN-OFF AND STORM WATER DISCHARGE. DO NOT ALLOW STORM WATER RUN-OFF, CONDENSATE DRAINS, OR ROOF SCUPPERS TO DISCHARGE WATER ONTO UNIT.
- PROVIDE LONG LINE KIT IF DISTANCE BETWEEN EVAPORATOR AND CONDENSER EXCEEDS MANUFACTURER'S RECOMMENDATIONS.
- REFRIGERANT SUCTION AND LIQUID PIPING SHALL BE SIZED BASED ON MANUFACTURER'S REQUIREMENTS.

10 WALL MOUNTED MINI-SPLIT CONDENSER DETAIL
NTS

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 478
Raleigh, NC 27607
ph 919.314.6886
www.coffman.com

STAMP

NORTH CAROLINA PROFESSIONAL SEAL 047145 ENGINEER ROBERT BELL
12/18/2025

Facilities Management Services

U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DETAILS	Phase: FINAL BID DOCUMENTS	Project Title: EHRM Infrastructure Upgrades	Project Number: 637-22-700
Approved: FOR OFFICIAL USE ONLY			Building Number: BLDG 00
		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Drawing Number: 00-M501
		Issue Date: 12.19.2025 / Checked / Drawn	SHEET 38 of 559

Autodesk Docs://Asheville EHRM_V23/637-22-700.00.M.ASH- EHRM.rvt
12/18/2025 4:43:53 PM

VA FORM 08 - 6231

SYMBOLS AND ABBREVIATIONS

ELECTRICAL EQUIPMENT

- FLUSH MOUNTED PANELBOARD
- SURFACE MOUNTED PANELBOARD
- EQUIPMENT CABINET - TYPE AS INDICATED
- (M) MOTOR CONNECTION
- EQUIPMENT CONNECTION
- GROUND BAR
- (J) JUNCTION BOX
- PB PULLBOX
- T TRANSFORMER

POWER DEVICES

- 2 G RECEPTACLE OUTLET, MOUNT AT +18" AFF UNO
  NUMBER INDICATES CIRCUIT GROUPING
  LETTER INDICATES:
  D - DEDICATED
  G - WITH GROUND FAULT CIRCUIT INTERRUPTION
  IG - ISOLATED GROUND
  WP - WEATHERPROOF WHILE IN USE
- GROUNDING TYPE DUPLEX RECEPTACLE, 125V, 20A
- GROUNDING TYPE DOUBLE-DUPLEX RECEPTACLE, 125V, 20A
- SPECIAL PURPOSE RECEPTACLE, REFER TO PLANS FOR NEMA TYPE
- EMERGENCY POWER OFF SWITCH

LIGHTING DEVICES

- PENDANT-MTD/SUSPENDED LUMINAIRE. REFER TO INTERIOR LUMINAIRE SCHEDULE FOR TYPE INFORMATION
- PENDANT-MTD/SUSPENDED LUMINAIRE, WITH INTEGRAL BATTERY BACKUP. REFER TO INTERIOR LUMINAIRE SCHEDULE FOR TYPE INFORMATION
- $X SINGLE-POLE WALL SWITCH, 20A RATED

  X = AS FOLLOWS:
  - 3 - THREE-WAY
  - 4 - FOUR-WAY
  - D - DIMMER
  - K - KEY-OPERATED
  - LV - LOW-VOLTAGE
  - LVM - LOW-VOLTAGE MASTER
  - M - MOTOR STARTER WITH OVERLOADS
  - MC - MOMENTARY CONTACT
  - O - OCCUPANCY SENSOR
  - P - PILOT LIGHT
  - WP - WEATHERPROOF
  - a - LOWER-CASE INDICATES SWITCHING CNTRL
- BATTERY POWERED EMERGENCY LIGHT

WORK DEFINITION

- (1) KEYNOTE
- HEAVY LINEWORK INDICATES NEW WORK
- LIGHT LINEWORK INDICATES EXISTING TO REMAIN
- G GROUND WIRE
- UG CONDUIT: ROUTED UNDERGROUND
- CONDUIT: ROUTED BELOW FINISHED FLOOR LEVEL
- CROSS HATCHING INDICATES EXISTING DEVICE OR RACEWAY TO BE REMOVED - MAINTAIN CIRCUIT CONTINUITY
- R2 INDICATES RELOCATE EXISTING FIXTURE OR DEVICE:
  R1 - EXTEND EXISTING CONDUIT AND WIRING
  R2 - PROVIDE NEW CONDUIT AND WIRING MAINTAIN CIRCUIT CONTINUITY
- CONDUIT UP
- CONDUIT DOWN
- CONDUIT/CABLE CAP
- CONDUIT/CABLE CONTINUATION
- FLEXIBLE CONDUIT
- A-2 HOME RUN
  - RACEWAY MARKINGS INDICATES NUMBER OF CONDUCTORS
  - LETTER INDICATES PANEL
  - NUMBER(S) INDICATE CIRCUIT
- RACEWAY MARKING INDICATES QUANTITY OF CONDUCTORS IN CONDUIT - SMALL HASH MARKS INDICATE PHASE (HOT) CONDUCTOR
  - LARGER HASH MARK INDICATES NEUTRAL CONDUCTOR
  - DOT INDICATES GROUND CONDUCTOR
  - DOT WITH HASH INDICATES ISOLATED GROUND CONDUCTOR

  ALL UNMARKED CONDUIT RUNS ARE 1/2" CONDUIT WITH 2#12 UNLESS NOTED OTHERWISE. ALL CIRCUITS SHALL BE PROVIDED WITH GREEN EQUIPMENT GROUND CONDUCTOR

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AG	ABOVE GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AMPERE INTERRUPTING CAPACITY
A,AMP	AMPERE
A/V	AUDIO/VISUAL
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
CATV	COMMUNITY ACCESS TELEVISION
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CLG	CEILING
COMM	COMMUNICATIONS
C	CONDUIT
CO	CONDUIT ONLY
CTRL	CONTROL
CU	COPPER
D	DATA, DEDICATED
DIST	DISTRIBUTION
EG	EQUIPMENT GROUND
EX,EXIST.	EXISTING
FA	FIRE ALARM
FMC	FLEXIBLE METAL CONDUIT
G,GND	GROUND
GFI,GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
ISTS	INFRASTRUCTURE STANDARD FOR TELECOMMUNICATIONS SPACES
J-BOX	JUNCTION BOX
MDF	MAIN DISTRIBUTION FRAME/FACILITY
MTD	MOUNTED
N	NEUTRAL
NEC	NATIONAL ELECTRICAL CODE
NIC	NOT IN CONTRACT
OCPD	OVER-CURRENT PROTECTIVE DEVICE
PBB	PRIMARY BUSBAR
PB	PULLBOX
PH	PHASE
PNL	PANEL, PANELBOARD
POC	POINT OF CONNECTION
RECEPT	RECEPTACLE
RO	RACEWAY ONLY
SBB	SECONDARY BUSBAR
SM	SINGLE MODE
SWBD	SWITCHBOARD
TE	TELECOMMUNICATIONS ENCLOSURE
TELECOM	TELECOMMUNICATIONS
TGB	TELECOMMUNICATIONS GROUNDING BUSBAR
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
TYP	TYPICAL
UG	UNDER GROUND
UON	UNLESS OTHERWISE NOTED
V	VOLT OR VOICE
W	WIRE, WATT, WALLPHONE
XFMR	TRANSFORMER
XR	EXISTING RELOCATED
Ø	PHASE

GENERAL NOTES:

1. COMPLY WITH THE 2023 NATIONAL ELECTRICAL CODE AS ADOPTED AND AMENDED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
2. THE LOCATIONS OF ELECTRICAL DEVICES INDICATED ON ARCHITECTURAL PLANS ELEVATIONS OR SECTIONS TAKE PRECEDENCE OVER LOCATIONS INDICATED ON THE ELECTRICAL DRAWINGS.
3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COMPLETE SET OF DRAWINGS AND SPECIFICATIONS. HE/SHE SHALL CHECK THE DRAWINGS OF THE OTHER TRADES AND SHALL CAREFULLY READ THE ENTIRE SPECIFICATIONS AND DETERMINE HIS/HER RESPONSIBILITIES. FAILURE TO DO SO SHALL NOT RELEASE THE CONTRACTOR FROM DOING THE WORK IN COMPLETE ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.
4. COORDINATE WORK WITH OTHER TRADES AT THE SITE. ANY COST TO ROUTE CONDUIT OTHER THAN AS SHOWN ON THE PLANS SHALL BE INCURRED BY THE CONTRACTOR.
5. WHEREVER A DISCREPANCY IN QUANTITY OR SIZE OF CONDUIT, WIRE, EQUIPMENT DEVICES, CIRCUIT BREAKERS, TRANSFORMERS GROUND FAULT PROTECTION SYSTEM, ETC. (ALL MATERIALS, ARISES ON THE DRAWINGS AND/OR SPECIFICATIONS), THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIAL AND SERVICES REQUIRED BY THE STRICTEST CONDITIONS NOTED ON DRAWINGS AND/OR IN THE SPECIFICATIONS TO ENSURE COMPLETE AND OPERABLE SYSTEMS AS REQUIRED BY THE VA COR OR ENGINEER.
6. FIELD VERIFICATION: VERIFY ALL DEVICES AND CONDITIONS BEFORE BIDDING OR PROCEEDING WITH THE WORK.
7. UNLESS DIMENSIONED, CIRCUIT ROUTING INDICATED IS DIAGRAMMATIC.
8. COORDINATE OUTAGES AND HOSPITAL DISRUPTIONS WITH VA COR. PROVIDE MINIMUM 72-HOUR NOTICE BEFORE COMMENCING WITH OUTAGES OR DISRUPTIONS.
9. WHERE 30 DAY METERING IS INDICATED WITHIN THIS DRAWING SET, ALL RESULTS SHALL BE PROVIDED TO THE DOR AND VA COR PRIOR TO CONSTRUCTION.
10. ALL NEW PANELBOARDS SERVING TR'S, ENTRANCE ROOMS, AND THE DATA CENTER, SHALL BE PROVIDED WITH INTEGRAL TYPE II SURGE PROTECTIVE DEVICE (SPD).
11. ALL NEW WIRING SHALL BE INSTALLED IN RACEWAY PER THE VA ELECTRICAL DESIGN MANUAL.

GENERAL DEMOLITION NOTES:

1. ALL ELECTRICAL EQUIPMENT SHALL BE DE-ENERGIZED PRIOR TO COMMENCING ANY DEMOLITION WORK.
2. FOLLOW ALL LOCKOUT/TAGOUT PROCEDURES PER NFPA 70E.
3. DEMOLISH ELECTRICAL CIRCUITS AS NECESSARY TO ACCOMMODATE RENOVATION WORK. REMOVE ALL ELECTRICAL DEVICES (DISCONNECTS, STARTERS, WIRING, CONDUIT, ETC.) ASSOCIATED WITH EQUIPMENT REMOVED BY OTHERS. EXISTING CIRCUITS SERVING LIGHTING FIXTURES AND/OR RECEPTACLES FOR A GIVEN AREA SHALL BE REUSED TO THE FULLEST EXTENT POSSIBLE AND SHALL SERVE THE NEW LAYOUT FOR THAT AREA. PROVIDE CIRCUIT MODIFICATIONS INDICATED OR AS OTHERWISE REQUIRED TO MAINTAIN THE CONTINUITY OF EXISTING CIRCUITS THAT REMAIN.
4. ALL EXISTING DEVICES SHOWN ARE BASED ON ENGINEER'S FIELD OBSERVATION ONLY. ALL DEVICES MAY NOT HAVE BEEN ABLE TO BE OBSERVED. VERIFY AND REMOVE ALL HIDDEN DEVICES AS REQUIRED.
5. REFER TO ARCHITECTURAL DEMOLITION PLANS FOR EXISTING WALLS, EQUIPMENT AND FURNITURE TO BE DEMOLISHED. ALL ELECTRICAL DEVICES, ASSOCIATED CONDUITS AND WIRES ON THESE WALLS SHALL BE DISCONNECTED AND REMOVED. IF DEVICES SHARING SAME CIRCUITS WITH DEMOLISHED DEVICES ON THEIR DOWNSTREAM SIDE ARE REQUIRED TO REMAIN ENERGIZED SUCH AS AT OCCUPIED AREAS, CONTRACTOR SHALL EXTEND CONDUITS AND WIRES FROM THESE REMAINING DEVICES BACK TO ORIGINAL BRANCH CIRCUITS.
6. CONDUITS MAY BE ABANDONED IN FLOOR AND WALLS ONLY. REMOVE ALL WIRING FROM ABANDONED CONDUITS, DISCONNECT FROM ALL POWER SOURCES AND PROVIDE BLANK PLATES ON ALL ABANDONED CONDUITS 1" BELOW FINISHED FLOOR AND GROUT FLUSH. ABANDONED CONDUIT SHALL BE CAPPED AT BOTH ENDS.

DRAWINGS ARE DIAGRAMMATIC

(THESE NOTES ARE TO BE APPLIED TO ALL ELECTRICAL DRAWINGS WITHIN THIS SET AND ANY ADDENDUMS, RFI'S, OR SUBSEQUENT DOCUMENTATION PERTAINING TO THIS PROJECT.)

DRAWINGS ARE INTENDED TO BE DIAGRAMMATIC AND REFLECT EXISTING CONDITIONS THAT WERE ABLE TO BE OBSERVED BY THE DESIGN TEAM. DUE TO DIAGRAMMATIC NATURE OF THE CONTRACT DOCUMENTS, THEY DO NOT REVEAL ALL OFFSETS, BENDS, ELBOWS, COMPONENTS, MATERIALS, AND OTHER SPECIFIC ELEMENTS THAT MAY BE REQUIRED FOR PROPER INSTALLATION. THE CONTRACT DOCUMENTS ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT DIMENSIONS, OR DETAILS OF EQUIPMENT OR PROPOSED SYSTEMS LAYOUT. VERIFY ACTUAL DIMENSIONS OF SYSTEMS AND EQUIPMENT AND ROUTING OF CONDUIT, PIPE, DUCTWORK, CABLE TRAY PROPOSED PRIOR TO BIDDING TO ASSURE THAT SYSTEMS AND EQUIPMENT WILL FIT IN AVAILABLE SPACE. IF ANY DEPARTURE FROM THE CONTRACT DOCUMENTS IS DEEMED NECESSARY, OR IN THE EVENT OF CONFLICTS, THE CONTRACTOR SHALL SUBMIT DETAILS OF SUCH DEPARTURES OR CONFLICTS IN WRITING TO THE VA COR FOR REVIEW, COMMENT AND APPROVAL BEFORE INITIATING WORK. THE CONTRACTOR IS RESPONSIBLE FOR DESIGN AND CONSTRUCTION COSTS INCURRED FOR ITEMS THAT ARE NOT VERIFIED PRIOR TO BIDDING.

POWER EQUIPMENT SCHEDULE

EQUIPMENT	LOCATION(S)	BASIS OF DESIGN MANUFACTURER	EQUIPMENT MODEL NUMBER	VOLTAGE	PHASE SIZE	RATING (KVA)	RATING (KW)	RATING (AMPS)	INPUT (NEMA PLUG)	OUTPUT (NEMA PLUG)	RACK SIZE	NOTES
UPS: DATA CENTER	DATA CENTER	XTREME POWER CONVERSION	M90U-140-120K BC55 (BATTERY CABINET)	208V	3P 4W	140 KVA	140 KW	392A	-	-	-	PROVIDE IN-KIND UPS TO MATCH THE EXISTING UPS-B, MODEL M90U-140, INCLUDING BATTERY CABINET, BYPASS CABINET, AND OUTPUT DISTRIBUTION CABINET. PROVIDE SIX (6) 20KVA/KW POWER MODULES TO BUILD UPS CAPACITY OUT TO 120KVA/KW TO MEET THE DESIGN LOAD OF THE DATA CENTER. PROVIDE BATTERY STRING QUANTITY AS REQUIRED TO PROVIDE 10 MINUTES OF BATTERY RUNTIME AT FULL LOAD.
UPS: RACK MOUNT	TELECOM RACKS	VERTIV	ITA2-05KRT208C	208V	3P 4W	5 KVA	5 KW	20A	L21-20P	L21-20R	5 RU	UPS SIZE IS 3 RU. PROVIDE ONE (1) EXTERNAL BATTERY CABINET (2 RU, MODEL #ITA2-BCI0020K0) FOR 15 MIN RUNTIME AT 100% LOAD. TOTAL SIZE IS 5 RU.
UPS: RACK MOUNT, BLDG 70 & 73	BLDG 70 (TELECOM ROOM 129) BLDG 73 (TELECOM ROOM 111)	EATON	9PX6KSP	120/240V	2P 3W	5.5 KVA	4.9 KW	30A	L14-30P	(1) L14-30R, (1) L6-30R, (6) 5-20R, HARDWIRED	4 RU	IN ORDER TO MEET VA RUNTIME REQUIREMENTS, INCLUDE OPTIONAL EXTERNAL BATTERY PACK (MODEL #9PXEBM240SP, 3 RU SIZE). VERIFY RACK EQUIPMENT FOR BLDG 70 & 73 MEETS THE UNIQUE VOLTAGE & LOAD REQUIREMENTS. CONFIRM EQUIPMENT WITH VA PRIOR TO INSTALLATION.
UPS: TE RACK MOUNT	TELECOM ENCLOSURES	APC	SMX3000RMLV2U	120V	1P 2W	2.88 KVA	-	30A	L5-30P	L5-30R	2 RU	-
PDU: ZONE	TWO-RACK TRS ONLY	ZONIT	ZPDS-208V30A-L21-4L21-20R-CR	208V	3P 4W	-	-	30A	(2) L21-30P	(4) L21-20R & (6) 5-20R	2 RU	ZONE PDU TO BE ENERGIZED FROM TWO SEPARATE POWER SOURCES. UPSIZE INPUT CIRCUIT NEUTRAL ONE GAUGE TO MATCH ZONE PDU NEUTRAL.
PDU: ZONE	THREE-RACK TRS ONLY	ZONIT	ZPDS-208V60A-HW-6L21-20R	208V	3P 4W	-	-	60A	(2) 60A, 3PH HARDWIRE CIRCUITS	(6) L21-20R	2 RU	ZONE PDU TO BE ENERGIZED FROM TWO SEPARATE POWER SOURCES. UPSIZE INPUT CIRCUIT NEUTRAL ONE GAUGE TO MATCH ZONE PDU NEUTRAL.
PDU: VERTICAL RACK MOUNT	TELECOM RACKS & DATA CENTER SERVER CABINETS	CHATSWORTH	ECONNECT PDU #EA-3013-C	208V	3P 4W	-	5.7 KW	20A	L21-20P	(30) C13 & (6) C19	-	INCLUDE LCD, ETHERNET, USB, AND ENVIRONMENTAL SENSOR PORTS; IP AND SERIAL MONITORING, TOOLESS MOUNTING.
PDU: VERTICAL RACK MOUNT, BLDG 70 & 73	BLDG 70 (TELECOM ROOM 129) BLDG 73 (TELECOM ROOM 111)	APC	AP8870	120/240V	2P 3W	5 KVA	5 KW	30A	L14-30P	(16) 5-20R, (12) C13, (2) C19	-	VERIFY RACK EQUIPMENT FOR BLDG 70 & 73 MEETS THE UNIQUE VOLTAGE & LOAD REQUIREMENTS. CONFIRM EQUIPMENT WITH VA PRIOR TO INSTALLATION.
PDU: TE RACK MOUNT	TELECOM ENCLOSURES	APC	AP9560	120V	1P 2W	-	-	30A	L5-30P	L5-20R	1 RU	-
EQUIPMENT CORDSETS	ALL RACKS, SERVER CABINETS, ETC.	CISCO	CAB-C15-CBN	208V	-	-	-	13A	IEC 60320 C14 PLUG CONNECTOR	IEC 60320 C15 PLUG	-	COORDINATE WITH OIT STAFF FOR CORDSET QUANTITIES REQUIRED FOR EACH RACK, SERVER CABINET, ETC. CONTRACTOR SHALL VERIFY THAT EVERY CORDSET AND DEVICE IS COMPATIBLE WITH THE SOURCE POWER VOLTAGE BEFORE CONNECTING THEM.

DATA CENTER ULTIMATE DESIGN LOADS PER QUANTITY OF RACKS & CABINETS

EACH SERVER & FDS CERNER CABINET =	5.0 kW	SERVER CABINET TOTAL (16 + 2 CERNER) =	18 x 5 kW =	90.0 kW
EACH HDA CABINET =	1.88 kW	HDA CABINET TOTAL =	4 x 1.88 kW =	7.5 kW
EACH ACTIVE MDA CABINET =	1.88 kW	ACTIVE MDA TOTAL =	4 x 1.88 kW =	7.5 kW
EACH PASSIVE MDA CABINET =	.0 kW	PASSIVE MDA TOTAL =	2 x 0 kW =	.0 kW

TOTAL ULTIMATE DESIGN LOAD =	105.0 kW
AISLE/ROW 1 CONTAINS A/B-SIDE UPS SYSTEMS ->	NO ELEC LOAD
AISLE/ROW 2 CONTAINS 4 ACTIVE MDA & 2 PASSIVE MDA	
ROW 2 kW =	7.5 kW
ROW 2 MIN. BUSBAR AMPS =	20.8 A
AISLE/ROW 3 CONTAINS 2 HDA & 10 SERVER CABINETS	
ROW 3 kW =	53.75 kW
ROW 3 MIN. BUSBAR AMPS =	149 A
AISLE/ROW 4 CONTAINS 2 HDA, 6 SERVER & 2 FDS CABINETS	
ROW 4 kW =	43.75 kW
ROW 4 MIN. BUSBAR AMPS =	121 A

INTERIOR LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	CATALOG NO.	LUMEN	CCT	CRI (MIN)	VOLTAGE	WATTAGE	POWER SUPPLY	DIMMING	MOUNTING	NOTES
L1	LED LENSED INDUSTRIAL STRIP, 22-GAUGE COLD ROLLED STEEL HOUSING	LITHONIA LIGHTING	CLX-L24-3500LM-SEF--FDL--MVOLT-GZ10--35K-80CRI	3500	3500	80	MVOLT	25.8	LED DRIVER	0-10V	CHAIN HUNG	MOUNT SO BOTTOM OF FIXTURE IS AT SAME PLANE AS CABLE TRAY, COORDINATE WITH OTHER TRADES
L1E	LED LENSED INDUSTRIAL STRIP, 22-GAUGE COLD ROLLED STEEL HOUSING WITH BATTERY BACKUP OPTION	LITHONIA LIGHTING	CLX-L24-3500LM-SEF--FDL--MVOLT-GZ10--35K-80CRI-E10W	3500	3500	80	MVOLT	25.8	LED DRIVER	0-10V	CHAIN HUNG	MOUNT SO BOTTOM OF FIXTURE IS AT SAME PLANE AS CABLE TRAY, COORDINATE WITH OTHER TRADES
L1A	LED LENSED INDUSTRIAL STRIP, 22-GAUGE COLD ROLLED STEEL HOUSING	LITHONIA LIGHTING	CLX-L24-4500LM-SEF--FDL--MVOLT-GZ10--35K-80CRI	4500	3500	80	MVOLT	38.7	LED DRIVER	0-10V	CHAIN HUNG	MOUNT AT 10'AFF, COORDINATE WITH OTHER TRADES
L2	WALL MOUNTED HIGH LUMEN LED BATTERY EGRESS LIGHT, 20 GAUGE COLD ROLLED STEEL, UNIVERSAL VOLTAGE, DUAL 750 LUMEN HEADS	LITHONIA LIGHTING	TCU-750L HO M4	750 PER HEAD	6000	80	MVOLT	5	-	-	WALL MOUNTED	MOUNT AT 10'AFF, COORDINATE WITH OTHER TRADES
X1	THERMOPLASTIC EXIT SIGN, RED LETTERS, SINGLE SIDED, REFER TO PLANS FOR CHEVERON DIRECTIONS	LITHONIA LIGHTING	LQM S 3 R 120/277 M6	-	-	-	MVOLT	5	-	-	CEILING MOUNTED	PROVIDE UNSWITCHED PHASE CONDUCTOR FROM CIRCUIT SERVING LOCAL SWITCH GROUP SERVING AREA.
X2	THERMOPLASTIC EXIT SIGN, RED LETTERS, DOUBLE SIDED, REFER TO PLANS FOR CHEVERON DIRECTIONS	LITHONIA LIGHTING	LQM S 3 R 120/277 M6	-	-	-	MVOLT	5	-	-	CEILING MOUNTED	PROVIDE UNSWITCHED PHASE CONDUCTOR FROM CIRCUIT SERVING LOCAL SWITCH GROUP SERVING AREA.

GENERAL NOTES:
1. VERIFY ALL CEILING TYPES AND CONFIRM CEILING MOUNTING CONDITIONS AND SUITABILITY OF SPECIFIED PRODUCT PRIOR TO ORDERING FIXTURES.
2. VERIFY ALL FIXTURE LENGTHS PRIOR TO ORDERING FIXTURES.
3. VERIFY ALL VOLTAGES PRIOR TO ORDERING FIXTURES.
4. CONFIRM COMPATIBILITY OF DIMMERS WITH FIXTURES.
5. LIGHTING FIXTURES CONNECTED TO AN EMERGENCY POWER SYSTEM (STORAGE BATTERIES, UNIT EQUIPMENT OR AN ON-SITE GENERATOR) SHALL AUTOMATICALLY ILLUMINATE THE MEANS OF EGRESS FOR A DURATION OF NOT LESS THAN 90 MINUTES.
6. COORDINATE ALL FINISHES WITH ARCHITECT DURING SUBMITTAL PHASE.
7. FIXTURE SPECIFIED IS BASIS OF DESIGN, CONTRACTOR MAY PROVIDE APPROVED EQUAL PROVIDED ALL REQUIREMENTS ARE MET.

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 478
Raleigh, NC 27607
ph: 919.314.6686
www.coffman.com

STAMP

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040390 JINZE CHEN
12/18/2025

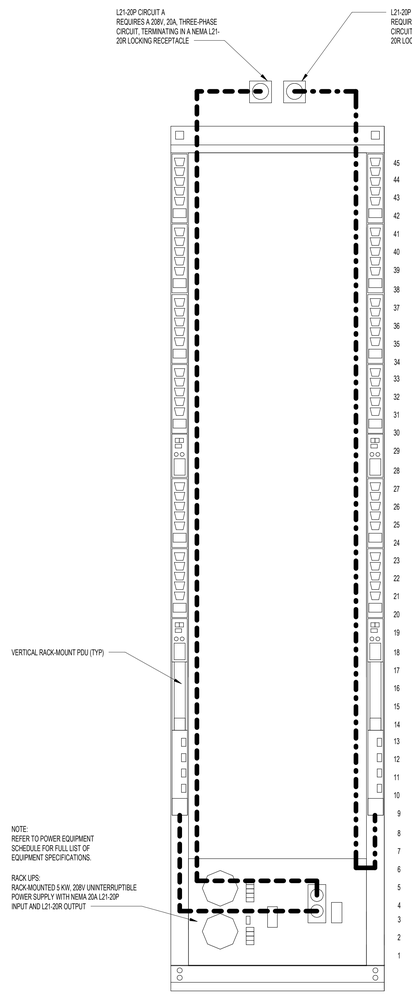
Facilities Management Services

U.S. Department of Veterans Affairs

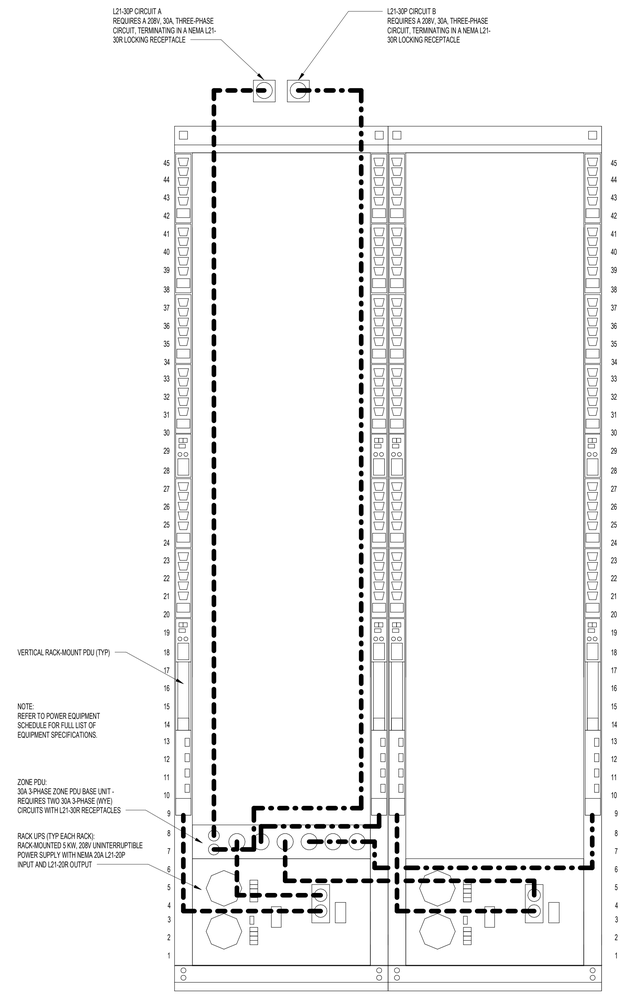
FOR OFFICIAL USE ONLY

Drawing Title	ELECTRICAL SYMBOLS LEGEND AND SCHEDULES
Phase	FINAL BID DOCUMENTS
Project Title	EHRM INFRASTRUCTURE UPGRADES
Project Number	637-22-700
Building Number	BLDG 00
Approved:	
Location	1100 TUNNEL ROAD ASHEVILLE, NC 28805
Issue Date	12.19.2025
Checked	
Drawn	
Drawing Number	00-E001
	SHEET 39 of 559

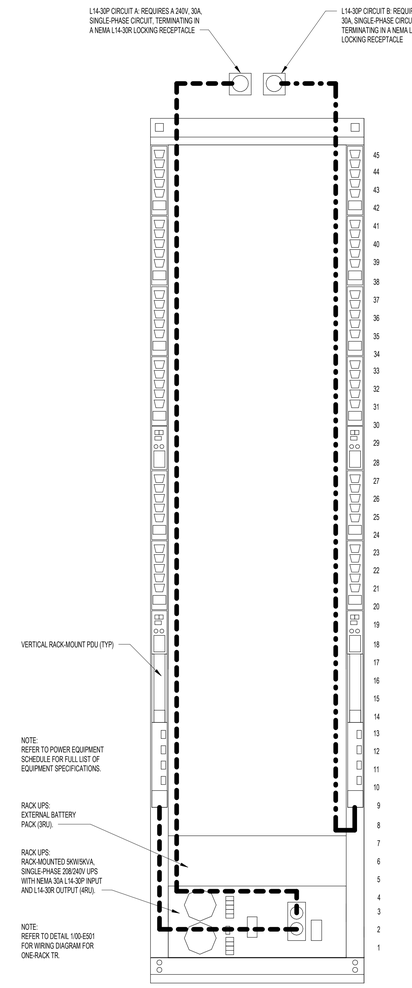
Autodesk Docs://Asheville EHRM_V23/637-22-700.000 E_ASH- EHRM.rvt
12/18/2025 5:08:10 PM
VA FORM 08 - 6231



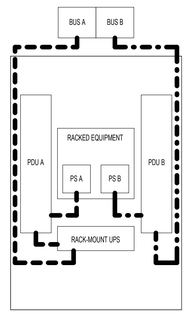
1 TYPICAL POWER ELEVATION & SCHEMATIC FOR A ONE RACK TR
N.T.S.



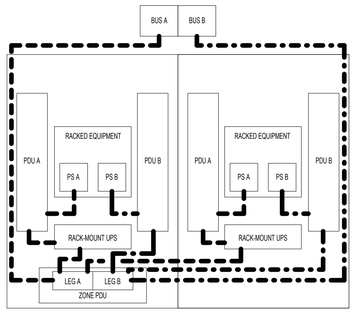
2 TYPICAL POWER ELEVATION & SCHEMATIC FOR A TWO RACK TR
N.T.S.



3 POWER ELEVATION & SCHEMATIC FOR BUILDING 70 & 73
N.T.S.



4 WIRING DIAGRAM FOR ONE RACK TR
N.T.S.



5 WIRING DIAGRAM FOR TWO RACK TR
N.T.S.

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph: 919.314.6686
www.coffman.com

STAMP
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040390 JINZE CHEN
12/18/2025

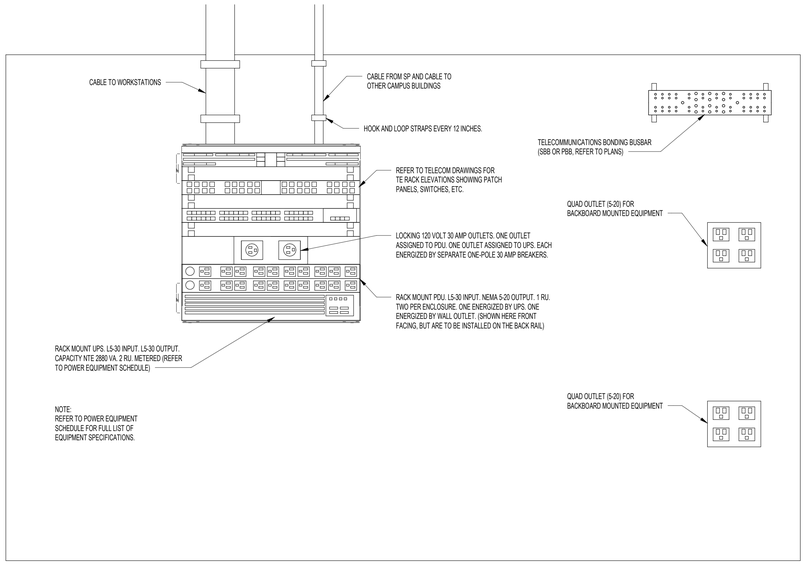
Facilities Management Services

U.S. Department of Veterans Affairs

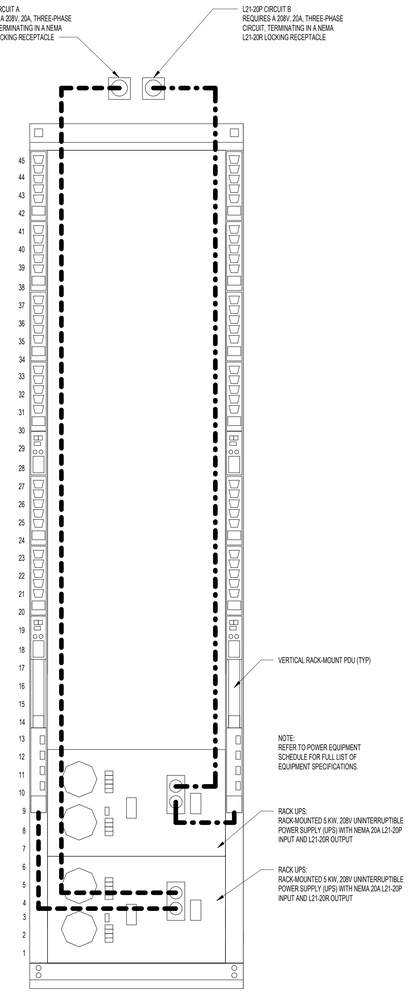
Drawing Title: ELECTRICAL DETAILS
Phase: FINAL BID DOCUMENTS
Project Title: EHRM INFRASTRUCTURE UPGRADES
Project Number: 637-22-700
Building Number: BLDG 00
Approved:
FOR OFFICIAL USE ONLY
Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805
Issue Date: 12.19.2025
Checked:
Drawn:
Drawing Number: 00-E501
SHEET 40 of 559

VA FORM 08 - 6231

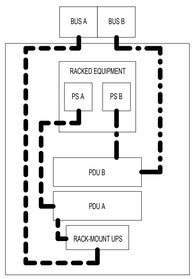
Autodesk Docs://Asheville EHRM_V23/637-22-700.000 E ASH- EHRM.rvt
12/18/2025 5:08:10 PM



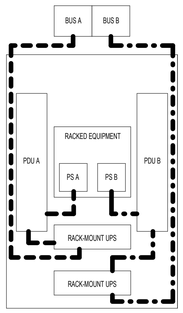
1 TYPICAL POWER ELEVATION & SCHEMATIC FOR A 12 RU WALL MOUNTED CABINET
N.T.S.



2 TYPICAL POWER ELEVATION & SCHEMATIC FOR ENTRANCE ROOMS
N.T.S.



4 WIRING DIAGRAM FOR WALL MOUNTED CABINET
N.T.S.



5 WIRING DIAGRAM FOR ENTRANCE ROOMS
N.T.S.

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph: 919.314.6806
www.coffman.com

STAMP

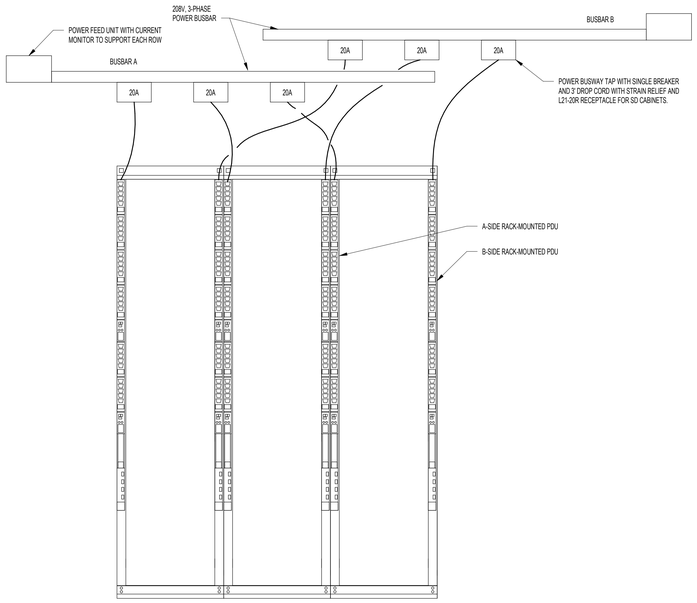
NORTH CAROLINA PROFESSIONAL SEAL 040390 JINZE CHEN
12/18/2025

Facilities Management Services

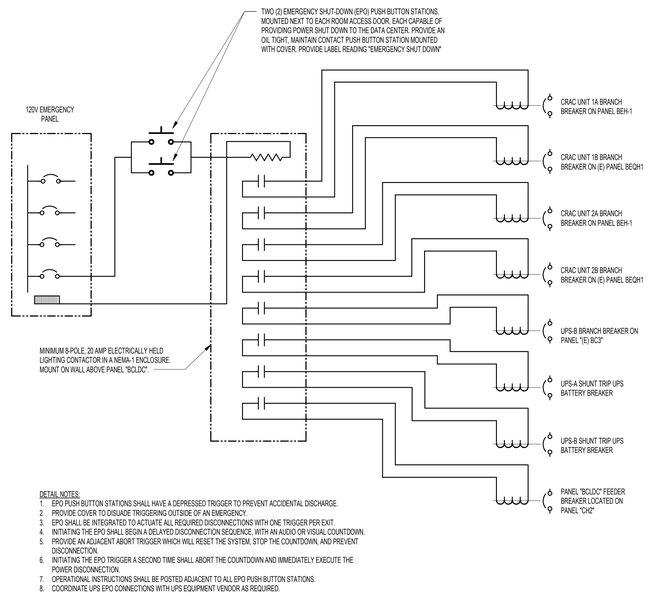
U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL DETAILS	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved: FOR OFFICIAL USE ONLY		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Building Number: BLDG 00
		Issue Date: 12.19.2025 / Checked / Drawn	Drawing Number: 00-E502
			SHEET 41 of 559

Autodesk Docs://Asheville EHRM_V23/637-22-700.000 E ASH- EHRM.rvt
12/18/2025 5:08:11 PM
VA FORM 08 - 6231

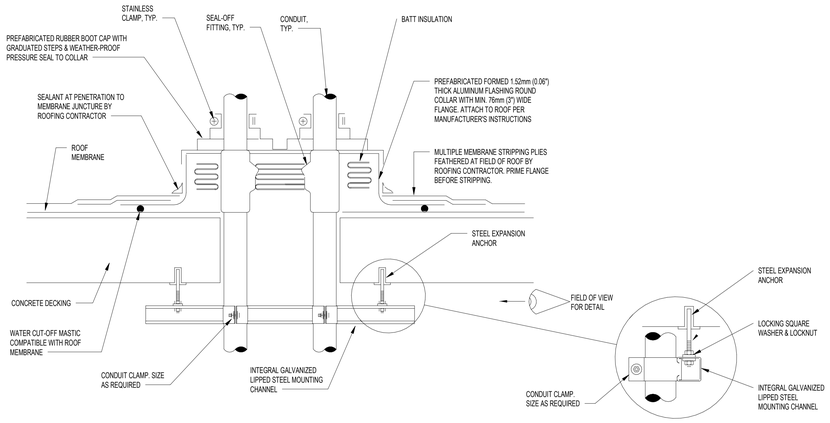


1 TYPICAL DATA CENTER BUSBAR POWER DISTRIBUTION TO SERVER CABINETS
N.T.S.



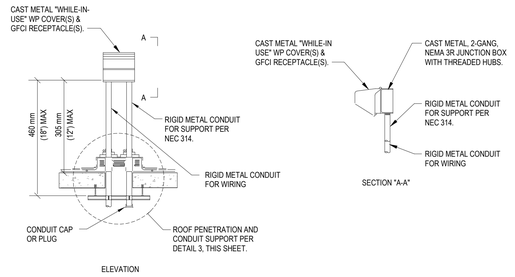
DETAIL NOTES:
1. EPO PUSH BUTTON STATIONS SHALL HAVE A DEPRESSED TRIGGER TO PREVENT ACCIDENTAL DISCHARGE.
2. PROVIDE COVER TO DISUADE TRIGGERING OUTSIDE OF AN EMERGENCY.
3. EPO SHALL BE INTEGRATED TO ACTUATE ALL REQUIRED DISCONNECTIONS WITH ONE TRIGGER PER EXIT.
4. INITIATING THE EPO SHALL BEGIN A DELAYED DISCONNECTION SEQUENCE, WITH AN AUDIO OR VISUAL COUNTDOWN.
5. PROVIDE AN ADJACENT ABORT TRIGGER WHICH WILL RESET THE SYSTEM, STOP THE COUNTDOWN, AND PREVENT DISCONNECTION.
6. INITIATING THE EPO TRIGGER A SECOND TIME SHALL ABORT THE COUNTDOWN AND IMMEDIATELY EXECUTE THE POWER DISCONNECTION.
7. OPERATIONAL INSTRUCTIONS SHALL BE POSTED ADJACENT TO ALL EPO PUSH BUTTON STATIONS.
8. COORDINATE UPS EPO CONNECTIONS WITH UPS EQUIPMENT VENDOR AS REQUIRED.

2 EMERGENCY SHUT-DOWN CONTROL DIAGRAM (DATA CENTER BC143)
N.T.S.



GENERAL NOTES:
1. MAINTAIN A MINIMUM CLEARANCE OF 305mm (12") ON ALL SIDES OF ROOF PENETRATION FROM WALLS, CURBS, AND OTHER PROJECTIONS TO FACILITATE PROPER FLASHING.
2. FLANGES OF ADJACENT FLASHINGS SHALL NOT BE CUT OR OVERLAPPED.
3. VERIFY ROOF & STRUCTURAL SYSTEM WITH ARCHITECT.
4. COORDINATE FLASHING INSTALLATION WITH ROOFING CONTRACTOR TO ENSURE PROPER METHODS & MATERIALS ARE USED TO MAINTAIN ROOF WARRANTY.

3 CONDUIT ROOF PENETRATION DETAIL
N.T.S.



4 ROOF RECEPTACLE MOUNTING DETAIL
N.T.S.

Autodesk Docs://Asheville EHRM_V23\637-22-700.000.E ASH- EHRM.rvt
12/18/2025 5:08:12 PM

VA FORM 08 - 6231

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP
NORTH CAROLINA PROFESSIONAL SEAL 040390 ENGINEER LINZE CHEN
12/18/2025

Facilities Management Services

U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL DETAILS	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved:		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Building Number: BLDG 00
FOR OFFICIAL USE ONLY		Issue Date: 12.19.2025 / Checked / Drawn	Drawing Number: 00-E503
			SHEET 42 of 559

LEGEND:

CABLE TRAY

4" WALL PENETRATION/SLEEVE

GROUND BAR

UNDERGROUND COMMUNICATIONS

UNDERGROUND COMMUNICATIONS STUB-OUT

CONDUIT UP

CONDUIT DOWN

DEMOLITION

DATA DEVICES

CLEARANCE (3'-0" UNLESS NOTED OTHERWISE)

CHANNEL RACK

EQUIPMENT RACK

DY/Z
VA/B

LOCATION OF EXISTING DATA/VOICE SPLIT OUTLET WHERE:

FOLLOWING THE DESIGNATOR, "D", FOR DATA,
Y - NUMBER OF ACTIVE DATA CONNECTORS
Z - TOTAL NUMBER OF DATA CONNECTORS AT OUTLET

AND, FOLLOWING THE DESIGNATOR, "V", FOR VOICE,
A - NUMBER OF ACTIVE VOICE CONNECTORS
B - TOTAL NUMBER OF VOICE CONNECTORS AT OUTLET

IF ONE OF THE NUMBERS ABOVE COULD NOT BE DETERMINED BY OUR TEAM, EITHER THROUGH PHYSICAL INACCESSABILITY OR NOT ENOUGH KNOWLEDGE OF THE SYSTEMS, AN "X" WILL BE USED IN LIEU OF A NUMBER. THE CONTRACTOR SHALL CONFIRM AND ASCERTAIN THE CONDITIONS OF ALL OUTLETS AND DEMOLISH EQUIPMENT ACCORDING TO THE REQUIREMENTS PROVIDED IN THE SCOPES OUTLINED BELOW.

AN "ACTIVE" PORT IS DEFINED AS A PORT OBSERVED DURING SURVEY TO HAVE A WORK AREA CABLE CONNECTED TO IT. CONNECTORS WITHOUT A WORK AREA CABLE AND DEVICE ARE CONSIDERED INACTIVE. DEMOLISH ALL DATA CABLING BACK TO TR AS WELL AS THE EXISTING DATA CONNECTORS. ALL OTHER INFRASTRUCTURE AND VOICE CABLING WILL BE LEFT TO REMAIN AS A VOICE OUTLET.

DY/Z
VA/B

LOCATION OF EXISTING DATA/VOICE SPLIT OUTLET FOLLOWING THE SAME ANNOTATION SCHEME AS OUTLINED ABOVE. GRAY TONE INDICATES THAT THE OUTLET IS TO BE REUSED FOR DATA AFTER CONSTRUCTION. DEMOLISH ALL DATA CABLING BACK TO TR AS WELL AS THE EXISTING DATA CONNECTORS. THE OUTLET'S EXISTING FACEPLATE, BACK BOX, AND CONDUIT/PLASTIC RACEWAY SHALL BE DEMOLISHED. THE EXISTING VOICE CABLING AT THE OUTLET IS TO REMAIN AND WILL BE COILED ABOVE THE CEILING DURING CONSTRUCTION. THE CONTRACTOR SHALL PULL ALL CABLES TOGETHER FROM THE OUTLET TO ABOVE THE CEILING, INCLUDING VOICE CABLING, TO PRESERVE VOICE CABLING INTEGRITY DURING DEMOLITION. THE CONTRACTOR WILL ALSO PRESERVE THE VOICE CONNECTORS WITH THE CABLING FOR REUSE.

DY/Z

LOCATION OF EXISTING DATA OUTLET WITH THE SAME ANNOTATION SCHEME AS DESCRIBED ABOVE. DEMOLISH ALL DATA CABLING BACK TO TR AS WELL AS THE EXISTING DATA CONNECTORS. DEMOLISH THE FACEPLATE OF THE OUTLET, TO BE REPLACED WITH A BLANK, STAINLESS STEEL COVER PLATE. ALL OTHER INFRASTRUCTURE WILL BE EXISTING TO REMAIN.

DY/Z

LOCATION OF EXISTING DATA OUTLET WITH THE SAME ANNOTATION SCHEME AS DESCRIBED ABOVE. GRAY TONE INDICATES THAT THE OUTLET IS TO BE REUSED FOR DATA AFTER CONSTRUCTION. DEMOLISH ALL DATA CABLING BACK TO TR AS WELL AS THE EXISTING DATA CONNECTORS. DEMOLISH THE OUTLET'S EXISTING FACEPLATE, BACK BOX, AND CONDUIT/PLASTIC RACEWAY.

LOCATION OF EXISTING VOICE OUTLET:

EXISTING TO REMAIN AND DOES NOT HAVE ANY DEMO OR NEW WORK SCOPE.

DY
VA

LOCATION OF NEW DATA/VOICE SPLIT OUTLET WHERE:

FOLLOWING THE DESIGNATOR, "D", FOR DATA,
Y - NUMBER OF NEW DATA CONNECTORS

AND, FOLLOWING THE DESIGNATOR, "V", FOR VOICE,
A - TOTAL NUMBER OF VOICE CONNECTORS AT OUTLET, PRESERVED DURING CONSTRUCTION

PROVIDE (Y) CAT6A RATED DATA CABLES AND RJ-45 CONNECTORS FOR A NEW 4-PORT SPLIT OUTLET, AS WELL AS A NEW FACEPLATE AND BACK BOX. REFER TO GENERAL NOTE 37 FOR VOICE CABLING REQUIREMENTS. DEPENDING ON THE INSTALLATION TYPE OF THE EXISTING OUTLET THAT THIS NEW OUTLET REPLACES, REFER TO GENERAL NOTE 33 FOR CONDUIT INSTALLATION REQUIREMENTS. BLANK OVER ANY PORTS THAT ARE LEFT UNUSED AFTER INSTALLATION.

DY

NEW DATA OUTLET WITH THE SAME LABELING SCHEME AS DESCRIBED ABOVE.

WHERE Y = 0, PROVIDE A BLANK COVER PLATE TO DECOMMISSION THE DATA OUTLET (SEE GENERAL NOTE 36 ON THIS SHEET). OTHERWISE, PROVIDE (Y) CAT6A RATED DATA CABLES AND RJ-45 CONNECTORS FOR A NEW OUTLET, AS WELL AS A NEW FACEPLATE AND BACK BOX. DEPENDING ON THE INSTALLATION TYPE OF THE EXISTING OUTLET THAT THIS NEW OUTLET REPLACES, REFER TO GENERAL NOTE 33 FOR CONDUIT INSTALLATION REQUIREMENTS.

VA

AN EXISTING OUTLET (PREVIOUSLY A DATA/VOICE OUTLET) WITH (A) EXISTING VOICE CABLES AND RJ-45 CONNECTORS TO REMAIN. FOR EACH DATA PORT THAT WAS DEMOLISHED, PROVIDE A BLANK PORT COVER AT THE EXISTING OUTLET.

GENERAL

X KEYED NOTE

EXISTING LIGHT LINEWEIGHT

NEW LIGHT LINEWEIGHT

ABBREVIATIONS:

A	AMPERE
ACS	ACCESS CONTROL SYSTEM
AFF	ABOVE FINISHED FLOOR
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BCT	BONDING CONDUCTOR FOR TELECOMMUNICATION
BLDG	BUILDING
C	CONDUIT
CAT	CATEGORY
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CHH	COMMUNICATION HANDHOLE
CKT	CIRCUIT
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
CO	CONDUIT ONLY
CONT	CONTROLLER
COMM	COMMUNICATIONS
CU	COPPER
DECOM	DECOMMISSION
DET	DETAIL
DIA	DIAMETER
DISC	DISCONNECT
DN	DOWN
DP	DISPLAY PORT
DO	DOOR OPERATOR
DPST	DOUBLE POLE SINGLE THROW
DWG	DRAWING
E, (E)	EXISTING
EA	EACH
ELEC	ELECTRICAL
EMT	ELECTRICAL METALLIC TUBING
ESS	ELECTRONIC SECURITY SYSTEM
EXIST	EXISTING
FA	FIRE ALARM
FAA	FIRE ALARM ANNUNCIATOR
FACP	FIRE ALARM CONTROL PANEL
FO	FIBER OPTIC
FOPP	FIBER OPTIC PATCH PANEL
FSD	FIRE SMOKE DAMPER
GALV	GALVANIZED
GEC	GROUNDING ELECTRODE CONDUCTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND,G	GROUND
GRS	GALVANIZED RIGID STEEL
HDA	HORIZONTAL DISTRIBUTION AREA
HDMI	HIGH DEFINITION MULTIMEDIA INTERFACE
HH	HANDHOLE
HP	HORSEPOWER
IDF	INTERMEDIATE DISTRIBUTION FRAME
IDS	INTRUSION DETECTION SYSTEM
IG	ISOLATED GROUND
J,JBOX	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLTAMPERES
KW	KILOWATT
LCP	LIGHTING CONTROL PANEL
LV	LOW VOLTAGE
LVL	LEVEL
LTG	LIGHTING
MDA	MAIN DISTRIBUTION AREA
MDF	MAIN DISTRIBUTION FRAME
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MFR	MANUFACTURER
MGB	MASTER GROUND BAR
MH	MANHOLE; METAL HALIDE
MIN	MINIMUM
MMF	MULTI-MODE FIBER
MMFO	MULTI-MODE FIBER OPTIC
MTD	MOUNTED
N	NEUTRAL
NEC	NATIONAL ELECTRICAL CODE
N.T.S.	NOT TO SCALE
OFOI	OWNER FURNISHED OWNER INSTALLED
OHD	OVERHEAD DOOR
OSP	OUTSIDE PLANT
PB	PULL BOX
PBB	PRIMARY BONDING BUS BAR (FORMERLY TMGB)
PH	PHASE
PNL	PANEL
PP	PATCH PANEL
PR	PAIR
PVC	POLYVINYL CHLORIDE
PWR	POWER
POTS	PLAIN OLD TELEPHONE SYSTEM
QTY	QUANTITY
REC	RECEPTACLE
REQD	REQUIRED
RGB	RACK GROUND BAR
SBB	SECONDARY BONDING BUS BAR (FORMERLY TGB)
S/FD	SMOKE/FIRE DAMPER
SM	SINGLE MODE
SMF	SINGLE MODE FIBER
SMFO	SINGLE MODE FIBER OPTIC
SPD	SURGE PROTECTION DEVICE
SPEC	SPECIFICATIONS
ST	STRAND
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STL	STEEL
STP	SHIELDED TWISTED PAIR
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TBB	TELECOMMUNICATIONS BONDING BACKBONE
TBD	TO BE DETERMINED
TEL	TELEPHONE
TEBC	TELECOMMUNICATIONS EQUIPMENT BONDING CONDUCTOR
TEMP	TEMPORARY
TER	TELECOMMUNICATION EQUIPMENT ROOM (MDF)
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
TGB	TELECOMMUNICATIONS GROUNDING BUSBAR
TR	TELECOMMUNICATIONS ROOM (IDF)
TTB	TELEPHONE TERMINAL BOARD
TYP	TYPICAL
UC	UNDER COUNTER
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTP	UNSHIELDED TWISTED PAIR
V	VOLT
VA	VOLTAMPERE
W	WATT
WAP	WIRELESS ACCESS POINT
W/	WITH
W/O	WITHOUT
WP	WEATHERPROOF

MAXIMUM INITIAL CONDUIT FILL 40%	
CONDUIT DIAMETER (IN.)	MAX CAT6A CABLES (.32 IN.)
3/4	2
1-1/4	6
2	15
2-1/2	24
3	35
4	62

PER VA DIRECTION, VERTICAL CONDUIT SIZING FOR NEW OUTLETS WILL BE SIZED ONLY IN REGARD TO THE AMOUNT OF DATA CABLES AT THE OUTLET. VOICE CABLING WILL NOT BE TAKEN INTO ACCOUNT WHEN SIZING CONDUITS. SIMPLY PUT,

- IF AN OUTLET WILL HAVE (2) OR LESS DATA PORTS, THE VERTICAL CONDUIT TO BE INSTALLED WILL BE 3/4" DIAMETER.
- IF AN OUTLET WILL HAVE (3) OR (4) DATA PORTS, THE VERTICAL CONDUIT TO BE INSTALLED WILL BE 1-1/4" DIAMETER.
- USE THE TABLE FOR WHEN A LARGER CONDUIT IS NECESSARY, SUCH AS DISTRIBUTING A LARGE AMOUNT OF DATA CABLES TO MODULAR FURNITURE.

EXISTING OUTLET CONDUITS ARE PERMITTED FOR REUSE AS LONG AS THE NEW DATA CABLING FOLLOWS THE 40% FILL RATIO.

MAXIMUM INITIAL CABLE TRAY FILL 50%		
WIDTH (IN.)	DEPTH (IN.)	MAX CAT6A CABLES
12	4	248
18	4	373
20	4	414
24	4	497

GENERAL NOTES:

1. PROVIDE ALL MATERIALS, LABOR AND EQUIPMENT REQUIRED FOR A COMPLETE AND OPERATIONAL INSTALLATION. MATERIALS AND WORKMANSHIP SHALL FULLY COMPLY WITH THE REQUIREMENTS OF OIT INFRASTRUCTURE STANDARD FOR TELECOM SPACES, BICSI/TDMM, AND TIA/EIA STANDARDS UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
2. ALL ELECTRICAL / TELECOM / SECURITY EQUIPMENT AND MATERIALS SHALL BE LISTED AND LABELED FOR THEIR INTENDED APPLICATION BY A NATIONALLY RECOGNIZED TESTING LABORATORY ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION.
3. PLANS DO NOT REFLECT ALL EXISTING UTILITIES AND STRUCTURES. VERIFY LOCATION OF ALL EXISTING UTILITIES AND STRUCTURES AFFECTING THE WORK. NOTIFY THE CONTRACTING OFFICER IN WRITING OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THOSE SHOWN IN THE CONTRACT DOCUMENTS WHICH ADVERSELY IMPACT THE WORK.
4. EXISTING EQUIPMENT INFORMATION SHOWN ON THESE DRAWINGS SHOULD BE FIELD VERIFIED. CONFIRM NEW EQUIPMENT LOCATIONS WITH OWNER AND ADJUST AS REQUIRED.
5. MAINTAIN A MINIMUM 6" CLEARANCE BETWEEN CONDUIT AND PIPING. MAINTAIN A MINIMUM 12" CLEARANCE BETWEEN CONDUIT AND HEAT SOURCES SUCH AS FLUES, HEATING PIPES, AND HEATING APPLIANCES.
6. ANY PENETRATION OF THE BUILDING VAPOR BARRIER SYSTEM SHALL BE APPROPRIATELY SEALED TO RETAIN THE INTEGRITY OF THE WALL SYSTEM. THIS INCLUDES, BUT IS NOT LIMITED TO, CONDUITS AND RECESSED BACK BOXES.
7. DRAWINGS ARE SCHEMATIC ONLY AND DO NOT SHOW ALL EXISTING AND NEW CONDUIT AND CONNECTIONS BETWEEN RESPECTIVE DEVICES AND FIXTURES. CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF CONDUIT, CABLE TRAY, CABLE, AND WIRING CONNECTIONS BETWEEN RESPECTIVE DEVICES AND FIXTURES FOR A COMPLETE AND OPERATIONAL SYSTEM.
8. COORDINATE CABLE TRAY ROUTING AND INSTALLATION TO AVOID CONFLICTS BETWEEN ALL TRADES. MAINTAIN A MINIMUM 12" WORKING CLEARANCE ABOVE TOP OF CABLE TRAY.
9. CONTRACTOR SHALL VERIFY THE SIZE OF ALL CONDUCTORS, CONDUIT, AND JUNCTION BOXES (40 % MAXIMUM FILL). INSTALLATION SHALL BE IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL CODES HAVING JURISDICTION.
10. CONTRACTOR SHALL PROVIDE AND INSTALL EQUIPMENT AND HARDWARE IN ORDER TO MEET THE INTENT OF THE DESIGN AND TO PROVIDE THE OWNER WITH A COMPLETE AND FULLY OPERATIONAL SYSTEM AS SPECIFIED. QUESTIONS REGARDING THE INTENT OF THE DESIGN SHALL BE PROMPTLY BROUGHT TO THE ATTENTION OF THE DOR.
11. ALL CONDUIT RUNS AND CABLE TRAY SHOWN ARE DIAGRAMMATICAL. REPORT ANY MAJOR DEVIATION TO DOR FOR REVIEW.
12. THE GENERAL LOCATION OF THE BACKBONE CONDUIT FOR THE TELECOM ROOMS HAS BEEN ON THESE DRAWINGS. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF THE CONDUIT(S) AND LADDER RACK TYPE CABLE TRAY(S).
13. PROVIDE PHASING PLAN TO VA COR. REFER TO PLANS AND SPECIFICATIONS FOR DETAILS OF ALL WORK REQUIRED FOR EACH COVERAGE AREA AND TELECOM ROOM/AREA.
14. ALL DATA CONNECTIONS (MODIFIED IN THIS SCOPE OF WORK) ARE REQUIRED TO BE FIELD VERIFIED AND DOCUMENTED IN AS-BUILT DRAWINGS. A TONER, OR SIMILAR APPROVED DEVICE/METHOD, SHALL BE USED TO TRACE EXISTING DATA CONNECTIONS PRIOR TO DEMOLITION.
15. WHERE THE TERM "DATA DROP" IS USED THROUGHOUT THIS PACKAGE, THIS TERM IS INCLUSIVE OF DATA AND PHONE CONNECTIONS.
16. NOT ALL DIMENSIONS ARE SHOWN ON THESE PLANS. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL DIMENSIONS .
17. CONDUCT A FULL SURVEY OF DATA DROP LOCATIONS, TELECOM ROOMS, AND TELECOM RACEWAYS PRIOR TO CONSTRUCTION. A FULL SURVEY REPORT FOR EACH BUILDING SHALL BE PROVIDED TO THE VA COR. IF DISCREPANCIES ARE FOUND, PROVIDE DETAILS TO THE VA COR AND DOR.
18. ESCORTS WILL BE REQUIRED AT ALL TIMES DURING THE CONSTRUCTION PHASE. PROVIDE WORK SCHEDULE FOR EACH TELECOM ROOM COVERAGE AREA TO THE VA COR A MINIMUM OF FIVE (5) BUSINESS DAYS PRIOR TO WORK.
19. SOME LOCATIONS COVERED IN THIS DESIGN ARE DEFINED AS CRITICAL. CRITICAL LOCATIONS REQUIRE 24 HOUR / 7 DAYS A WEEK OPERATION WITHOUT INTERRUPTION. THESE LOCATIONS REQUIRE TEMPORARY DATA CONNECTIONS DURING CONSTRUCTION. TEMPORARY DATA SWITCHES, CAT6A CABLE, FIBER SHALL BE PROVIDED. BUILDINGS 47 AND 62 ARE KNOWN CRITICAL LOCATIONS. PROJECT COR TO PROVIDE LIST OF THE REMAINING LOCATIONS.
20. POTS LINES ARE EXCLUDED FROM SCOPE EXCEPT WHERE INDICATED ON PLANS.
21. THE CABLE TRAY ROUTES ARE THE BEST AVAILABLE FROM THE SITE INVESTIGATION. CONTRACTOR MUST FIELD VERIFY THE EXACT CABLE TRAY ROUTES.
22. CONTRACTOR TO EXTEND EXISTING TRAY WITH WIRE BASKET TRAY AND J-HOOKS WHERE EXISTING CABLE TRAYS ARE NOT CONNECTED.
23. ALL PATHWAYS NOT SHOWN ON DRAWINGS, CONTRACTOR SHOULD FULFILL WITH MEANS AND METHODS TO GET TO FINAL DROP LOCATIONS PER SPECIFICATIONS.
24. COPPER HORIZONTAL CABLE DISTANCE OF 262FT USED FOR BASIS OF COVERAGE OF EACH TELECOM ROOM FOR DIAMOND STUDY.
25. THE MAXIMUM HORIZONTAL CABLE DISTANCE FROM THE PATCH PANEL TO ANY DROP SHALL NOT EXCEED 295FT.
26. CONTRACTOR TO HAVE RCDD ON PROJECT TO ENDURE INSTALLATION MEETS ALL BISCI REQUIRMENTS.
27. ALL INTERIOR ROUTING FOR NEW FIBER BACKBONE CABLE AND ASSOCIATED RIGID INNERDUCT SHALL BE ROUTED ON WIRE BASKET TRAY UNLESS NOTED OTHERWISE.
28. ALL CABLE ROUTING TO FINAL DROP OR CONNECTION POINT SHALL BE DETERMINED PRIOR TO INSTALLATION TO ENSURE SPECIFICATIONS AND STANDARDS ARE MET.
29. CEILING TILES SHALL BE REINSTALLED AT THE END OF THE WORK SHIFT.
30. IF FLOOR OR RATED WALL PENETRATIONS CANNOT BE FIRESTOPPED AT THE END OF THE WORK SHIFT DUE TO THE NEED TO PULL ADDITIONAL CABLES, TEMPORARY FIRESTOPPING COMPOSED OF MINERAL WOOL OR INTUMESCENT PILLOWS SHOULD BE INSTALLED IN THE PENETRATION TO PROVIDE PROTECTION AGAINST FIRE/SMOKE SPREAD THROUGH THE UNSEALED PENETRATION.
31. ALL EXISTING VOICE OUTLETS ARE EXISTING TO REMAIN AND HAVE NO DEMO NOR NEW WORK SCOPE.
32. ALL NEW WORK AREA OUTLETS TO BE PROVIDED WILL BE OF 4-PORT CAPACITY.
33. BASED OFF OF OBSERVATIONS MADE ON SITE, MOST OF THE EXISTING WORK AREA OUTLETS DO NOT HAVE VERTICAL CONDUIT. WHERE EXISTING VERTICAL CONDUIT WAS OBSERVED, IT WAS MEASURED TO BE 3/4" IN ALL INSTANCES. CONTACTOR IS TO REUSE VERTICAL CONDUIT WHERE POSSIBLE AND IF CAPACITY ALLOWS. ALL WORK AREA OUTLETS TO BE USED FOR DATA PURPOSES AFTER CONSTRUCTION SHALL HAVE CONDUIT, NEW OR EXISTING.
34. ON SITE, IT WAS FOUND THAT MANY WORK AREA OUTLETS WERE SURFACE MOUNTED WITH WALL-MOUNTED PLASTIC RACEWAY USED FOR HORIZONTAL CABLING INSIDE THE ROOM. INSTALLATION OF NEW SURFACE MOUNTED OUTLETS AND CONDUIT IS LEFT TO THE DISCRETION OF THE COR. ALL NEW OUTLETS WILL BE IN-WALL MOUNTED WITH NEW CONDUIT INSTALLED BEHIND THE WALL ALONG WITH ANY NECESSARY VERTICAL SUPPORTING STRUCTURES.
35. ALL NEW OUTLETS WILL BE INSTALLED WITH CONDUIT SIZED ACCORDING TO THE 40% CONDUIT FILL TABLE ON THIS SHEET.
36. CONTRACTOR SHALL ENSURE THAT ALL NEW CONDUIT RUNS ARE MADE TO AVOID ANY OVERHEAD OBSTRUCTIONS.
37. WHERE EXISTING OUTLETS TO BE REUSED FOR DATA ARE SURFACE MOUNTED, COORDINATE WITH COR ON WHETHER THE NEW OUTLET SHALL STAY AS SURFACE MOUNTED WITH A NEW SURFACE MOUNTED CONDUIT PROVIDED, OR, IF A NEW IN-WALL BACKBOX WITH CONCEALED CONDUIT SHALL BE PROVIDED. WHERE SURFACE MOUNTED CONDUIT IS USED, THE CONDUIT SHOULD BE PAINTED TO MATCH THE EXISTING WALLS/CEILINGS.
38. NOTE THAT DESIGN INTENT IS FOR ALL EXISTING VOICE LINES TO REMAIN AT THEIR ORIGINAL OUTLET LOCATIONS AFTER CONSTRUCTION AND BE PRESERVED DURING CONSTRUCTION. THIS WILL BE ACCOMPLISHED BY COILING THE VOICE CABLING OF OUTLETS TO BE DEMOLISHED ABOVE THE CEILING DURING CONSTRUCTION. THE CONTRACTOR SHALL PULL ALL CABLES TOGETHER FROM THE OUTLET TO ABOVE THE CEILING, INCLUDING VOICE CABLING, TO PRESERVE VOICE CABLING INTEGRITY DURING DEMOLITION. ONCE THE NEW OUTLET IS INSTALLED, THE CONTRACTOR SHALL REINSTALL THE PRESERVED VOICE CABLES BACK TO THEIR RESPECTIVE CONNECTORS IN THE NEW FACEPLATE.
39. BASED OFF OBSERVATIONS MADE ON SITE, DESIGN ASSUMES ALL DATA CABLING IN SCOPE OF THIS PROJECTIS NOT CAT6A RATED. ALL DATA CABLING WITHIN EHRM SCOPE SHALL BE DEMOLISHED STRAND BY STRAND AND NEW CABLING TO BE PROVIDED WILL BE CAT6A RATED.
40. CONTRACTOR SHALL INCLUDE A 10% CONTINGENCY TO THE CONSTRUCTION BUDGET FOR SLIGHT MODIFICATIONS TO THE DATA DROP COUNTS.
41. REFER TO DRAWING GC-101 AND SPECIFICATION 01 00 00 FOR PHASING INFORMATION.

FOR OUTLETS WITH UNKNOWN CONDITIONS, DIFFERENT CONDITIONS FROM WHAT IS SHOWN IN THE DRAWINGS, AND/OR NOT SEEN BY THE A/E SURVEYING TEAM:

THE CONTRACTOR IS REQUIRED TO ASSESS AND CONFIRM THE EXISTING CONDITIONS OF ALL OUTLETS PRIOR TO WORK. IT IS POSSIBLE THAT A WAO WAS NOT SEEN BY THE SURVEYING TEAM AND THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THESE WHEN CONDUCTING THEIR SURVEY. ONCE THE CONTRACTOR IS SURE OF THE CONDITIONS OF AN OUTLET, REFER BACK TO THE SCOPES DEFINED ABOVE AND APPLY AS NECESSARY.

TELECOMMUNICATIONS OVERVIEW (EXISTING CONDITIONS)

Building	Room	Copper Cabling	FO Cabling	Racks	Copper Patch Panels	FO Patch Panels	Bonding	POTS
2	Basement	Decom	Decom	Decom	Decom	Decom	None Observed	None Observed
3	Basement	Decom	Decom	Decom	Decom	Decom	None Observed	None Observed
4	Basement	Decom	Decom	Decom	Decom	Decom	None Observed	None Observed
5	Basement	Decom	Decom	Decom	Decom	Decom	None Observed	None Observed
6	Basement	Decom	Decom	Decom	Decom	Decom	None Observed	None Observed
7	Basement	Decom	Decom	Decom	Decom	Decom	None Observed	To Remain
9	129	Upgrade to CAT6A	Upgrade to 24ST OS2	Upgrade to Channel Rack	Upgrade to CAT6A PP	Decom	Acceptable	To be Relocated
9	239	Upgrade to CAT6A	Upgrade to 24ST OS2	Upgrade to Channel Rack	Upgrade to CAT6A PP	Decom	Acceptable	To be Relocated
9	325	Upgrade to CAT6A	Upgrade to 24ST OS2	Upgrade to Channel Rack	Upgrade to CAT6A PP	Decom	Acceptable	To be Relocated
14	B102A	Decom	Decom	Decom	Decom	Decom	None Observed	To Remain
15	122	Decom	Decom	Decom	Decom	Decom	None Observed	To Remain
15	211	Decom	Decom	Decom	Decom	Decom	None Observed	To Remain
15	318	Decom	Decom	Decom	Decom	Decom	None Observed	To Remain
47	BA008	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS2	Upgrade to Channel Rack	Upgrade to CAT6A PP	Decom	None Observed	To Remain
47	BB018	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS2	Upgrade to Channel Rack	Upgrade to CAT6A PP	Decom	New to be provided	None Observed
47	BC118	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS2	Upgrade to Channel Rack	Upgrade to CAT6A PP	Decom	New to be provided	To Remain
47	BF107	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS2	Upgrade to Channel Rack	Upgrade to CAT6A PP	Decom	New to be provided	To be Relocated
47	BE119	Decom	Decom	Decom	Decom	Decom	None Observed	To Remain
47	1A101D	Decom	Decom	Decom	Decom	Decom	None Observed	To Remain
47	1A137	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS2	Upgrade to Channel Rack	Upgrade to CAT6A PP	Decom	New to be provided	To Remain
47	1A163	Decom	Decom	Decom	Decom	Decom	None Observed	To Remain
47	1B134	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS2	Upgrade to Channel Rack	Upgrade to CAT6A PP	Decom	New to be provided	To Remain
47	1C167	Decom	Decom	Decom	Decom	Decom	None Observed	To Remain
47	1D139	Decom	Decom	Decom	Decom	Decom	None Observed	To Remain
47	1F114	Decom	Decom	Decom	Decom	Decom	None Observed	To Remain
47	1G131A	Decom	Decom	Decom	Decom	Decom	None Observed	To Remain
47	1W135	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS2	Upgrade to Channel Rack	Upgrade to CAT6A PP	Decom	None Observed	None Observed
47	2A246	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS2	Upgrade to Channel Rack	Upgrade to CAT6A PP	Decom	New to be provided	To Remain
47	2B266	Decom	Decom	Decom	Decom	Decom	None Observed	To Remain
47	2B286	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS2	Upgrade to Channel Rack	Upgrade to CAT6A PP	Decom	None Observed	To Remain
47	2B212	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS2	Upgrade to Channel Rack	Upgrade to CAT6A PP	Decom	New to be provided	To Remain
47	A301	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS2	Upgrade to Channel Rack	Upgrade to CAT6A PP	Decom	New to be provided	To Remain
47	A401	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS2	Upgrade to Channel Rack	Upgrade to CAT6A PP	Decom	New to be provided	To Remain
47	A501	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS2	Upgrade to Channel Rack	Upgrade to CAT6A PP	Decom	New to be provided	To Remain
62	107	Decom	Decom	Decom	Decom	Decom	None Observed	To Remain
62	143	Decom	Decom	Decom	Decom	Decom	None Observed	To Remain
62	245	Decom	Decom	Decom	Decom	Decom	None Observed	To Remain
70	129	Upgrade to CAT6A	Upgrade to 24ST OS2	Upgrade to Channel Rack	Upgrade to CAT6A PP	Decom	Acceptable	To be Relocated
73	110	Decom	Decom	Decom	Decom	Decom	Acceptable	To Remain

TELECOMMUNICATIONS OVERVIEW (NEW WORK)

Building	Room	Copper Cabling	FO Cabling	Racks	Copper Patch Panels	FO Patch Panels	Bonding	POTS
2	1F	Upgrade to CAT6A	New 24ST OS2	New Wall Mounted	New CAT6A Panels	New FO Panels	New PBB	None
2	2F	Upgrade to CAT6A	New 24ST OS2	New Wall Mounted	New CAT6A Panels	New FO Panels	New SBB	None
3	1F	Upgrade to CAT6A	New 24ST OS2	New Wall Mounted	New CAT6A Panels	New FO Panels	New PBB	None
3	2F	Upgrade to CAT6A	New 24ST OS2	New Wall Mounted	New CAT6A Panels	New FO Panels	New SBB	None
4	1F	Upgrade to CAT6A	New 24ST OS2	New Wall Mounted	New CAT6A Panels	New FO Panels	New PBB	None
4	2F	Upgrade to CAT6A	New 24ST OS2	New Wall Mounted	New CAT6A Panels	New FO Panels	New SBB	None
5	1F	Upgrade to CAT6A	New 24ST OS2	New Wall Mounted	New CAT6A Panels	New FO Panels	New PBB	None
5	2F	Upgrade to CAT6A	New 24ST OS2	New Wall Mounted	New CAT6A Panels	New FO Panels	New SBB	None
6	1F	Upgrade to CAT6A	New 24ST OS2	New Wall Mounted	New CAT6A Panels	New FO Panels	New PBB	None
6	2F	Upgrade to CAT6A	New 24ST OS2	New Wall Mounted	New CAT6A Panels	New FO Panels	New SBB	None
7	1F	Upgrade to CAT6A	New 24ST OS2	New Wall Mounted	New CAT6A Panels	New FO Panels	New PBB	None
7	2F	Upgrade to CAT6A	New 24ST OS2	New Wall Mounted	New CAT6A Panels	New FO Panels	New SBB	None
9	129	Upgrade to CAT6A	Upgrade to 24ST OS2	New Channel Rack	New CAT6A Panels	New FO Panels	Reuse Existing	None
9	239	Upgrade to CAT6A	Upgrade to 24ST OS2	New Channel Rack	New CAT6A Panels	New FO Panels	Reuse Existing	None
9	325	Upgrade to CAT6A	Upgrade to 24ST OS2	New Channel Rack	New CAT6A Panels	New FO Panels	Reuse Existing	None
11	N/A	New CAT6A	New 24ST OS2	New Wall Mounted	New CAT6A Panels	New FO Panels	New PBB	None
12	N/A	Upgrade to CAT6A	New 24ST OS2	New Wall Mounted	New CAT6A Panels	New FO Panels	New PBB	None
14	B106	N/A	New 24ST OS2	New Wall Mounted	New CAT6A Panels	New FO Panels	New PBB	None
14	106A	N/A	New 24ST OS2	New Channel Rack	New CAT6A Panels	New FO Panels	New SBB	None
14	206A	N/A	New 24ST OS2	New Channel Rack	New CAT6A Panels	New FO Panels	New SBB	None
15	B001A	Upgrade to CAT6A	New 24ST OS2	New Channel Rack	New CAT6A Panels	New FO Panels	New PBB	None
15	124	Upgrade to CAT6A	New 24ST OS2	New Channel Rack	New CAT6A Panels	New FO Panels	New SBB	None
15	213	Upgrade to CAT6A	New 24ST OS2	New Channel Rack	New CAT6A Panels	New FO Panels	New SBB	None
15	323	Upgrade to CAT6A	New 24ST OS2	New Channel Rack	New CAT6A Panels	New FO Panels	New SBB	None
47	BB018	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS1	New Channel Rack	New CAT6A Panels	New FO Panels	New SBB	None
47	BC118	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS1	New Channel Rack	New CAT6A Panels	New FO Panels	New SBB	None
47	BF107	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS1	New Channel Rack	New CAT6A Panels	New FO Panels	New SBB	None
47	1A137	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS1	New Channel Rack	New CAT6A Panels	New FO Panels	New SBB	None
47	1B134	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS1	New Channel Rack	New CAT6A Panels	New FO Panels	New SBB	None
47	1D144	Upgrade to CAT6A	New 24ST OM4 and 12ST OS1	New Channel Rack	New CAT6A Panels	New FO Panels	New SBB	None
47	1H113	Upgrade to CAT6A	New 24ST OM4 and 12ST OS1	New Channel Rack	New CAT6A Panels	New FO Panels	New SBB	None
47	1W133	Upgrade to CAT6A	New 24ST OM4 and 12ST OS1	New Channel Rack	New CAT6A Panels	New FO Panels	New SBB	None
47	2A246	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS1	New Channel Rack	New CAT6A Panels	New FO Panels	New SBB	None
47	2B212	Upgrade to CAT6A	New 24ST OM4 and 12ST OS1	New Channel Rack	New CAT6A Panels	New FO Panels	New SBB	None
47	2E202A	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS1	New Channel Rack	New CAT6A Panels	New FO Panels	New SBB	None
47	A301	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS1	New Channel Rack	New CAT6A Panels	New FO Panels	New SBB	None
47	A401	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS1	New Channel Rack	New CAT6A Panels	New FO Panels	New SBB	None
47	A501	Upgrade to CAT6A	Upgrade to 24ST OM4 and 12ST OS1	New Channel Rack	New CAT6A Panels	New FO Panels	New SBB	None
62	112A	Upgrade to CAT6A	New 24ST OS2	New Channel Rack	New CAT6A Panels	New FO Panels	New PBB	None
62	214A	Upgrade to CAT6A	New 24ST OS2	New Channel Rack	New CAT6A Panels	New FO Panels	New SBB	None
70	129	Upgrade to CAT6A	Upgrade to 24ST OS2	New Channel Rack	New CAT6A Panels	New FO Panels	Reuse Existing	None
73	111	Upgrade to CAT6A	Upgrade to 24ST OS2	New Channel Rack	New CAT6A Panels	New FO Panels	Reuse Existing	None

DRAWINGS ARE DIAGRAMMATIC

(THESE NOTES ARE TO BE APPLIED TO ALL TELECOMMUNICATION DRAWINGS WITHIN THIS SET AND ANY ADDENDUMS, RFI'S, OR SUBSEQUENT DOCUMENTATION PERTAINING TO THIS PROJECT.)

DRAWINGS ARE INTENDED TO BE DIAGRAMMATIC AND REFLECT EXISTING CONDITIONS THAT WERE ABLE TO BE OBSERVED BY THE DESIGN TEAM. DUE TO DIAGRAMMATIC NATURE OF THE CONTRACT DOCUMENTS, THEY DO NOT REVEAL ALL OFFSETS, BENDS, ELBOWS, COMPONENTS, MATERIALS, AND OTHER SPECIFIC ELEMENTS THAT MAY BE REQUIRED FOR PROPER INSTALLATION. THE CONTRACT DOCUMENTS ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT DIMENSIONS, OR DETAILS OF EQUIPMENT OR PROPOSED SYSTEMS LAYOUT. VERIFY ACTUAL DIMENSIONS OF SYSTEMS AND EQUIPMENT AND ROUTING OF CONDUIT, PIPE, DUCTWORK, CABLE TRAY PROPOSED PRIOR TO BIDDING TO ASSURE THAT SYSTEMS AND EQUIPMENT WILL FIT IN AVAILABLE SPACE. IF ANY DEPARTURE FROM THE CONTRACT DOCUMENTS IS DEEMED NECESSARY, OR IN THE EVENT OF CONFLICTS, THE CONTRACTOR SHALL SUBMIT DETAILS OF SUCH DEPARTURES OR CONFLICTS IN WRITING TO THE OWNER FOR REVIEW, COMMENT AND APPROVAL BEFORE INITIATING WORK. THE CONTRACTOR IS RESPONSIBLE FOR DESIGN AND CONSTRUCTION COSTS INCURRED FOR ITEMS THAT ARE NOT VERIFIED PRIOR TO BIDDING.

TELECOM ROOM EXISTING CONDITIONS

Building #	Room #	Horizontal Cables	Patch Cables	Cable Type
2	BASEMENT	54	18	CAT6
3	BASEMENT	54	18	CAT6
4	BASEMENT	46	15	CAT6
5	BASEMENT	54	16	CAT6
6	BASEMENT	43	19	CAT6
7	BASEMENT	66	20	CAT6
9	129	247	121	CAT6
9	239	166	107	CAT6
9	325	137	42	CAT6
11	BASEMENT	24	7	CAT6
14	B102A	0	0	N/A
15	122	344	150	CAT5E
15	211	193	105	CAT5E
15	318	387	73	CAT6
47	BA008	164	109	CAT5E
47	BB018	132	79	CAT5E
47	BC118	249	68	CAT6, CAT5E
47	BF107	169	157	CAT5E
47	BE119	214	145	CAT5E
47	1A101D	68	53	CAT5E
47	1A136	201	94	CAT5E
47	1A163	383	200	CAT6
47	1B134	228	153	CAT6, CAT5E
47	1C167	264	145	CAT5E
47	1D139	565	199	CAT5E
47	1F114	362	124	CAT5E
47	1G131A	380	168	CAT6, CAT5E
47	1W135	194	89	CAT6
47	2A246	155	89	CAT6, CAT5E
47	2B266	171	113	CAT5E
47	2B286	684	225	CAT6, CAT5E
47	2B212	170	99	CAT5E
47	A301	530	221	CAT5E
47	A401	592	161	CAT5E
47	A501	442	149	CAT5E
62	107	53	43	CAT5E
62	143	168	66	CAT5E
62	245	199	75	CAT5E
70	129	239	131	CAT5E
72	104	28	48	CAT6
73	119	141	72	CAT6

1. TABLE REPRESENTS EXISTING CAT5E AND CAT6 CABLES THAT WILL NEED TO BE UPGRADED TO CAT6A BASED OFF OF SITE SURVEYS DURING DESIGN.
2. ALL CABLE QUANTITIES SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
3. COUNT BASED OFF OF WORST CASE SCENARIO.
4. BUDGET FOR 10% MORE DROPS BASED ON THE PROVIDED QUANTITIES IN CASE VERIFIED CABLE QUANTITIES EXCEED WHAT IS SHOWN.

TELECOMMUNICATIONS EQUIPMENT SCHEDULE

Equipment Description	Manufacturer	Part or Model Number
Fiber Pathway Channel Tee Corner	Panduit	FRT4X4LBL
Fiber Pathway Channel Tee Corner Cover	Panduit	FRTSC4LBL
Fiber Pathway Channel Right Angle Corner	Panduit	FRRA4X4LBL
Fiber Pathway Channel Right Angle Corner Cover	Panduit	FRRASC4LBL
Fiber Pathway Channel Four Way Crossing	Panduit	FRFWC4X4LBL
Fiber Pathway Channel Four Way Crossing Cover	Panduit	FRFWCSC4LBL
Fiber Pathway Bend Radius Spillway Vertical Tee	Panduit	FRVT4X4LBL
Fiber Pathway Bend Radius Spillway Trumpet	Panduit	FTR4X4LBL
Fiber Pathway Channel 6 Ft Length	Panduit	FR4X4BL6
Fiber Pathway Snap on Solid Cover	Panduit	FRHC4BL6
Fiber Pathway Split Hinged Cover	Panduit	FRSHC4BL6
Fiber Pathway Mounting Bracket to Mount to Existing 1/2 inch Threaded Rod	Panduit	FR6TRBE12
Fiber Pathway Mounting Bracket to Mount to Existing 5/8 inch Threaded Rod	Panduit	FR6TRBE58
Fiber Pathway Mounting Bracket to Mount to New 1/2 inch Threaded Rod	Panduit	FR6TRBN12
Fiber Pathway Mounting Bracket to Mount to New 5/8 inch Threaded Rod	Panduit	FR6TRBN58
Cable Tray; White Powdercoated; 4" Deep x 12" Wide	Cablofil	CF105 300 PE
Chatsworth Econnect PDU; Vertical; Monitored; 120/208V input	Chatsworth	EA-3013-C
30 Amp 3 Phase Zone PDU Base Unit with 4 L21-20R and 6 NEMA 5-20	Zonit	ZPDS-208V30A-L21-4L21-20R-CR
60 Amp 3 Phase Zone PDU Base Unit with 6 L21-20R	Zonit	ZPDS-208V60A-HW-6L21-20R
Rack PDU; Metered; Three Phase; 120/208V Input	APC	AP8861
Rack Mounted 5KW, 208V UPS	Eaton	ZC0517700100000
ANSI/EIA/TIA Compliant Busbar	Chatsworth	40158-012
Core Switch	Cisco	C9606R
Patch Panel; 48 Port 1RU Angled Patch Panel	Leviton	E2XHD-BLK
CAT 6A UTP CMP Pre terminated cable assembly	Leviton	Atlas-X1
Cassette; 12 Fiber; LC Connector Front; MPO Connector Rear	Leviton	41LSM1-UNN
Fiber Distribution Cabinet	Leviton	HDX1A-144
CAT 6A Outlet; Floor Mount	N/A	None provided***
CAT 6A Outlet; Wall Mount	N/A	None provided***
Single Gang Workbox with Two Connector Chassis	N/A	None provided***
Single Gang Workbox with One Connector Chassis	N/A	None provided***
Server Cabinet; 45 RMU: ZetaFrame	Chatsworth	ZB15-DE21A-E1*
Side Panel	Chatsworth	39774-X67
Air Dam Kit	Chatsworth	38649-X47
Air Director	Chatsworth	39802-X00
Vertical Cable Manager with Short Fingers	Chatsworth	39835-X03
Full Height PDU Bracket	Chatsworth	38638-X03
Network Cabinet; 45RMU: ZetaFrame	Chatsworth	ZB45-DE21A-E1**
Air Dam Kit	Chatsworth	38649-X80
Air Director	Chatsworth	39802-X03
Vertical Cable Manager with Short Fingers	Chatsworth	39835-X36
Vertical Cable Management Cage with Door	Legrand	OR-MM20VMD706-X
Telecommication Cable Management Channel Rack with Square Hole Rails (White)	Legrand	OR-MM2073038-W
Heavy Duty Perforated Security Door for Rack	Legrand	OR-MM20724PDHD-W
Security Door Front Mounting Hardware	Legrand	OR-MM2024DMFHD-W
Security Door Rear Mounting Hardware	Legrand	OR-MM2024DMRHD-W
PDU Mounting Bracket Kit	Legrand	OR-MM20PDUMB1D2W-W
Wall Mount Cabinet	CUBE-iT	12419-E24
Vertical Cabling Section	CUBE-iT	40970-711
Low-Decibel Dual-Fan and Filter Kit	CUBE-iT	40975-001
Equipment Mounting Rail Kit	CUBE-iT	12787-524
Ground Jumpers	CUBE-iT	40159-019
24-ST Single Mode Fiber Optics, Loose Tube (OS2)	Corning	024EU4-T4701D20
24-ST Multimode Fiber Optics, Tight Buffer (OM4)	Corning	024T8P-31190-29

*Replace obsolete F-Series TeraFrame (FF1N-111C-E52-B)

**Replace obsolete N-Series TeraFrame (NF8N-115C-E52-1)

***Equipment model left to the discretion of the contractor. Equipment shall meet the requirements detailed herein and the provided specifications. Contractor to provide to A/E the model/part number of their chosen equipment for review.

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP
REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
BICSI
Jinze Chen
BICSI ID # 237176
Expires12-31-28
RCDD
12/18/2025

Facilities Management Services

VA U.S. Department of Veterans Affairs

Drawing Title: TELECOMMUNICATIONS SYMBOLS LEGEND

Approved:

FOR OFFICIAL USE ONLY

Phase: FINAL BID DOCUMENTS

Project Title: EHRM INFRASTRUCTURE UPGRADES

Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805

Issue Date: 12.19.2025

Checked

Drawn

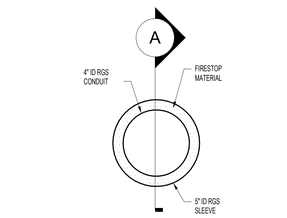
Project Number: 637-22-700

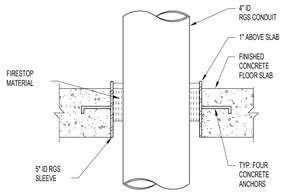
Building Number: BLDG 00

Drawing Number: 00-T001

SHEET OF 100

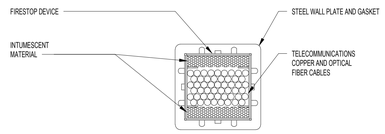
12/23/2025 2:49:56 PM
Autodesk Docs://Asheville EHRM_V23/637-22-700.000.E.ASH- EHRM.rvt



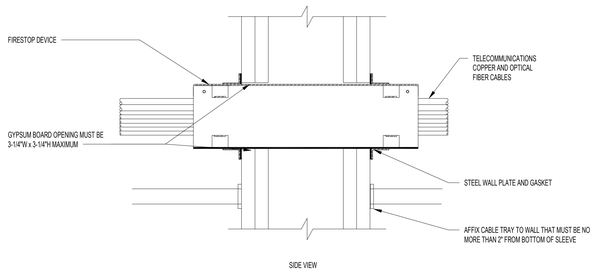


SECTION A

1 CONDUIT SLEEVES THROUGH FLOOR DETAIL
N.T.S.

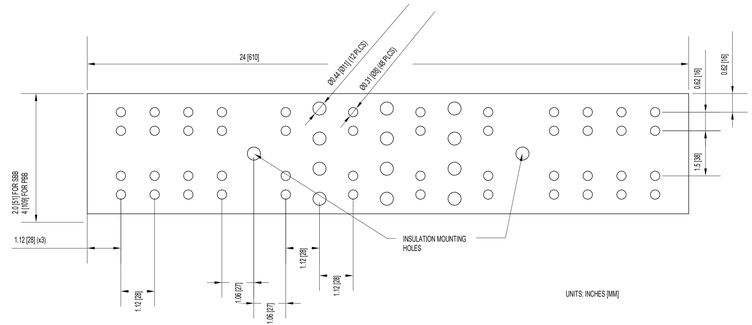


FRONT VIEW

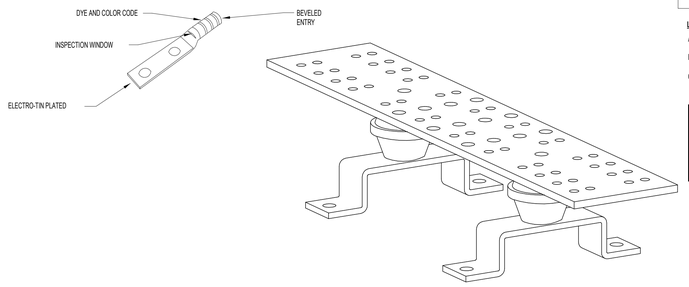


SIDE VIEW

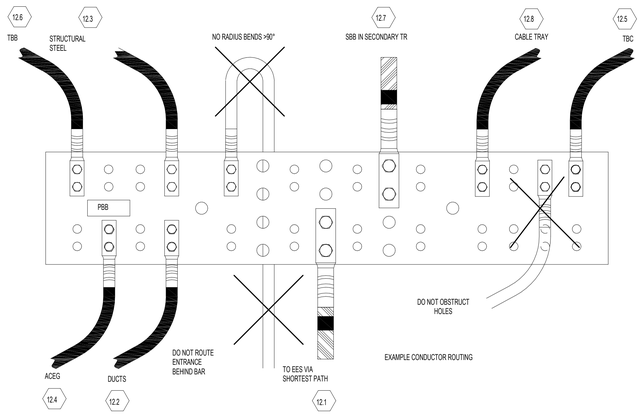
2 THROUGH WALL FIRE STOPPING DETAIL
N.T.S.



TWO HOLE COMPRESSION LUG
CONNECTOR WITH INSPECTION WINDOW



3 PBB/SBB AND BONDING DETAIL
N.T.S.



SIZING OF TELECOM BONDING BACKBONE	
TBB LENGTH LINEAR FT	TBB SIZE (AWG)
<13	6
14-20	4
21-26	3
27-33	2
34-41	1
42-52	1/0
53-66	2/0
67-84	3/0
85-105	4/0
106-125	250kcmil
126-150	300kcmil
151-175	350kcmil
176-250	500kcmil
251-300	600kcmil
>301	750kcmil

LABELING:

A. "PBB" ON BUSBAR FOR MAIN TR"SBB" FOR SECONDARY TRS

B. EACH TBC MUST BE GREEN OR MARKED WITH GREEN

C. EACH CONDUCTOR MUST BE LABELED WITH:

IF THIS CONNECTOR OR CABLE IS LOOSE OR MUST BE REMOVED, PLEASE CALL THE BUILDING TELECOMMUNICATIONS MANAGER

GENERAL NOTES:

1. REFER TO SHEET 00-T-001 FOR TELECOMMUNICATION GENERAL NOTES.
2. THE COMPLETED INSTALLATION MUST COMPLY WITH ANSI/TIA-607-C.
3. PROVIDE TELECOMMUNICATION SPACES AND CABLING PATHWAYS IN ACCORDANCE WITH TIA-569 E.
4. PBB MUST HAVE MINIMUM DIMENSION OF 4"W X 24"L X 1/4" THICK. SBB MUST HAVE MINIMUM DIMENSION OF 2"W X 24"L X 1/4" THICK. PROVIDE LENGTH SO AS TO PROVIDE NO. OF CONDUCTOR MOUNTING HOLES FOR CURRENT PROJECT PLUS 100% SPARES.
5. BUSBARS MUST BE LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY.
6. BUSBARS MUST BE INSULATED FROM ITS SUPPORT BY A MINIMUM OF 2".
7. PROVIDE TIA-607-C COMPLIANT HOLE PATTERN FOR GROUND BUS BARS.
8. BUSBARS LOCATED SO THAT IT IS ACCESSIBLE TO TELECOMMUNICATIONS PERSONNEL WHILE PROVIDING SHORTEST PATH TO GROUND.
9. THE BUSBARS MUST BE CLEANED PRIOR TO FASTENING OF CONDUCTORS AND AN ANTI-OXIDANT MUST BE APPLIED TO THE LUG CONTACT AREA TO CONTROL CORROSION AND REDUCE CONTACT RESISTANCE.
10. BUSBARS MUST HAVE TWO HOLE COMPRESSION LUGS ON CONDUCTORS.
11. ONE CONDUCTOR PER SET OF HOLES UTILIZING BOLTS MATCHING HOLE SIZE.
12. PPB/SBB CONNECTIONS:
    - 12.1 EARTH ELECTRODE SYSTEM (EES).
    - 12.2 ENTRANCE DUCT/CONDUIT.
    - 12.3 BUILDING STRUCTURAL STEEL.
    - 12.4 PANEL BOARD ALTERNATING CURRENT ELECTRICAL GROUND (ACEG).
    - 12.5 TELECOM BONDING CONDUCTOR (TBC).
    - 12.6 TELECOM BONDING BACKBONE (TBB).
    - 12.7 SECONDARY BONDING BUSBAR (SBB).
    - 12.8 TELECOM CABLE TRAY, LADDER, RACEWAY.
13. BUSBARS MUST BE ELECTRO TIN PLATED.
14. GROUNDING AND BONDING CONDUCTORS WITHIN THE TELECOMMUNICATIONS ROOM MUST BE GREEN SHEATHED COPPER CONDUCTOR, STRANDED, AND LABELED AS SUITABLE FOR USE AS SUCH AND TAGGED "DO NOT REMOVE".
15. GROUNDING AND BONDING CONDUCTORS RUNNING OUT OF THE TELECOMMUNICATIONS ROOM MUST BE PROTECTED IN CONDUIT OR ATTACHED TO THE OUTSIDE OF THE CABLE TRAY AND SIZED ACCORDINGLY.

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
BICSI
Jinze Chen
BICSI ID # 237176
Expires12-31-28
12/18/2025

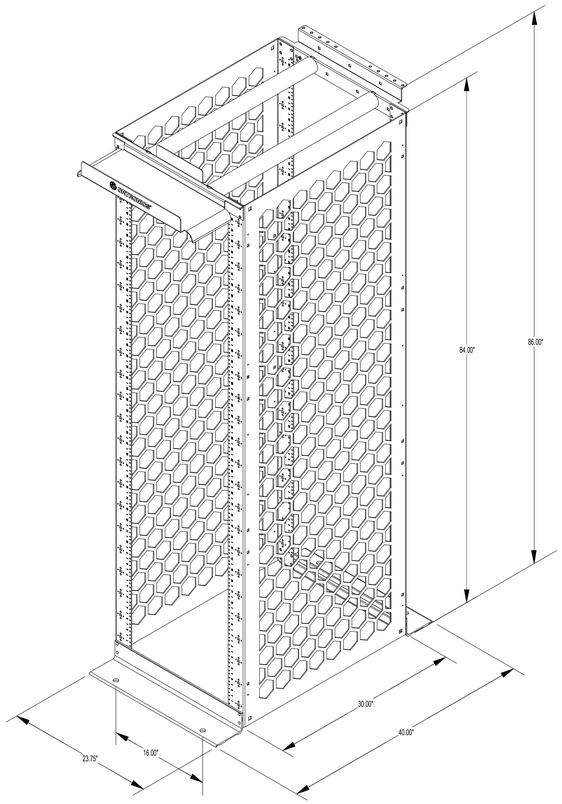
Facilities Management Services

VA | U.S. Department of Veterans Affairs

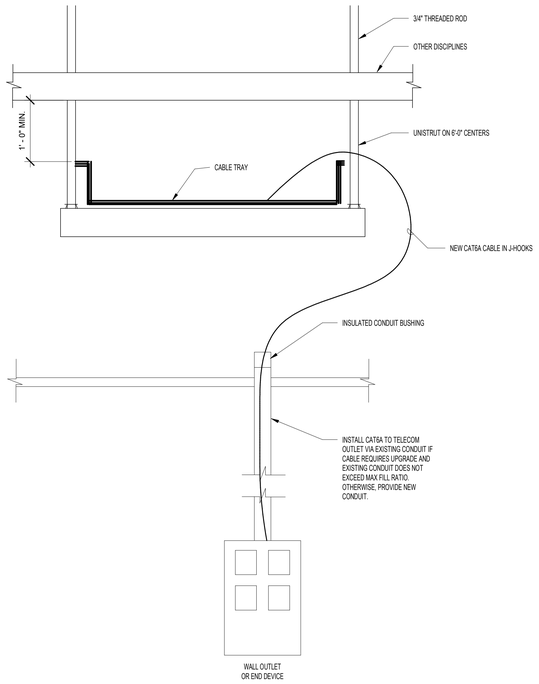
Drawing Title: TELECOMMUNICATIONS DETAILS	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved: FOR OFFICIAL USE ONLY		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Building Number: BLDG 00
		Issue Date: 12.19.2025 / Checked / Drawn	Drawing Number: 00-T501 SHEET OF 100

Autodesk Docs://Asheville EHRM_V23/637-22-700.000 E ASH- EHRM.rvt
12/18/2025 6:23:21 PM

VA FORM 08 - 6231

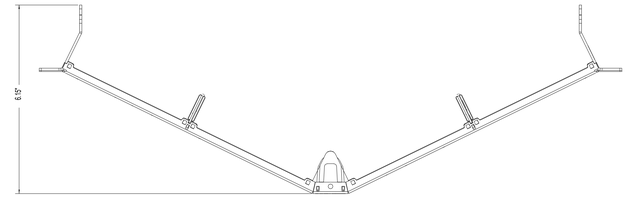


1 CHANNEL RACK DETAIL
N.T.S.

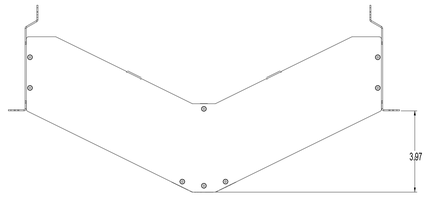


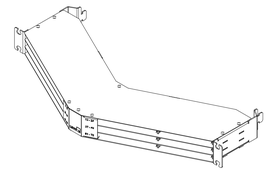
NOTE: FOR EXISTING OUTLETS TO BE REPLACED, OUTLET HEIGHT AND LOCATION SHALL MATCH EXISTING.

2 CABLE TRAY TO OUTLET DETAIL
N.T.S.

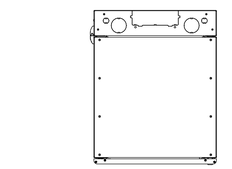


3 CAT6A PATCH PANEL DETAIL
N.T.S.

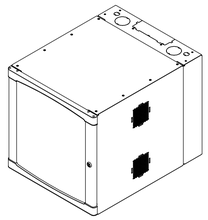




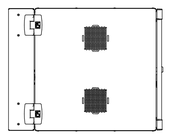
4 FIBER OPTIC PATCH PANEL
N.T.S.



TOP VIEW



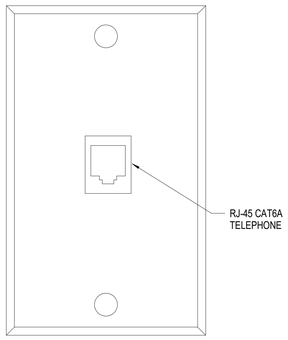
ISOMETRIC VIEW



SIDE VIEW

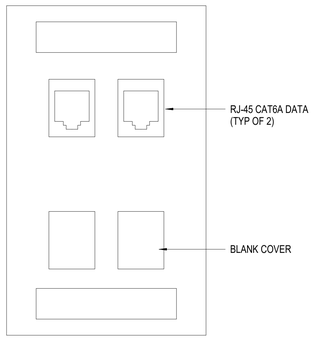
FRONT VIEW

5 WALL MOUNTED CABINET DETAIL
N.T.S.



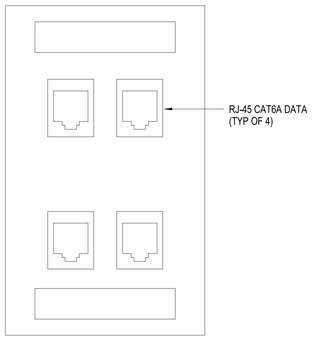
PROVIDE ONE CAT6A CABLE FROM OUTLET TO PATCH PANEL IN TELECOM ROOM

TYPICAL VOICE OUTLET



PROVIDE TWO CAT6A CABLES FROM OUTLET TO PATCH PANEL IN TELECOM ROOM

STANDARD DENSITY WORK AREA DATA OUTLET



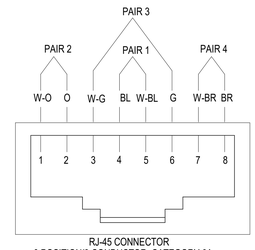
PROVIDE FOUR CAT6A CABLES FROM OUTLET TO PATCH PANEL IN TELECOM ROOM

HIGH DENSITY WORK AREA DATA OUTLET

DETAIL NOTES:

1. PROVIDE LABELING IN ACCORDANCE WITH VA REQUIREMENTS.

6 TELECOM OUTLET DETAIL (TYPICAL)
N.T.S.



RJ-45 CONNECTOR
8 POSITION/8 CONDUCTOR, CATEGORY 6A

7 EIA/TIA - 568B WIRING
N.T.S.

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 478
Raleigh, NC 27607
ph: 919.314.6886
www.coffman.com

STAMP

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
Bicsi
Jinze Chen
BICSI ID # 237176
Expires12-31-28
12/18/2025

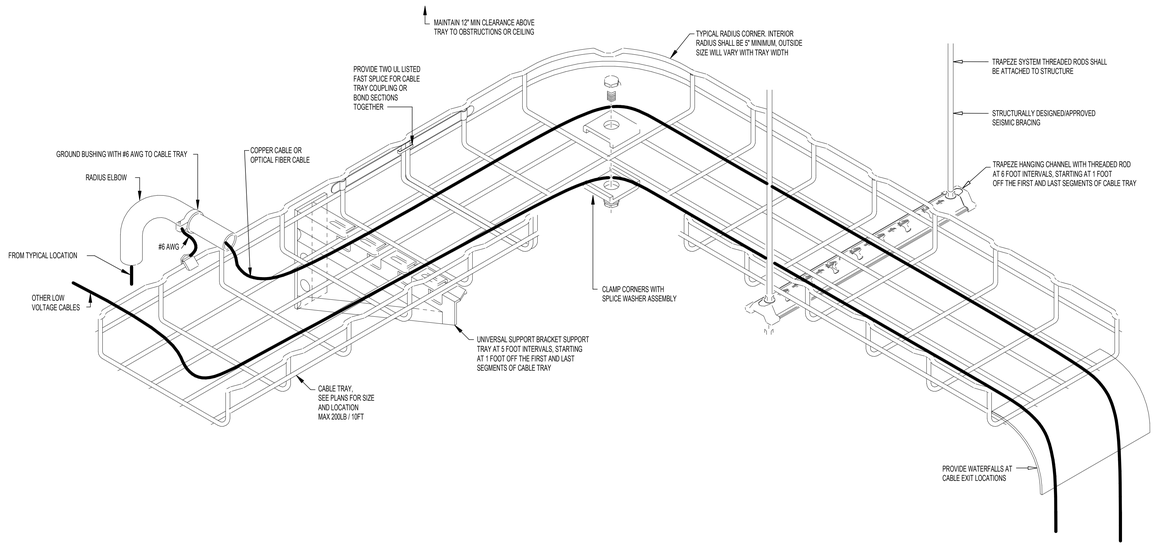
Facilities Management Services

VA U.S. Department of Veterans Affairs

Drawing Title: TELECOMMUNICATIONS DETAILS	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved: FOR OFFICIAL USE ONLY		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Building Number: BLDG 00
		Issue Date: 12.19.2025 / Checked / Drawn	Drawing Number: 00-T502
			SHEET OF 100

VA FORM 08 - 6231

Autodesk Docs://Asheville EHRM_V23/637-22-7100.000 E ASH- EHRM.rvt
12/18/2025 6:23:22 PM



1 OVERHEAD CABLE TRAY DETAIL
N.T.S.

GENERAL NOTES:

1. CABLE TRAY MAY BE SUPPORTED WITH OTHER SUPPORT MECHANISMS THAT THE APPROVED MANUFACTURER HAS TO OFFER.
2. PROVIDE THE FAS ROLLER TO PULL CABLE INTO CABLE TRAY.
3. CABLE TRAY SHALL BE ROUTED AROUND, OVER OR UNDER ANY OBSTACLES THAT INTERFERE WITH THE DECLARED PATH. CONTRACTOR SHALL FOLLOW CUTTING AND BENDING.

DETAIL NOTES:

1. REFER TO SHEET 00-T-001 FOR SYMBOLS, LEGEND, ABBREVIATIONS, AND NOTES.
2. PROVIDE ALL TELECOMMUNICATION SPACES AND CABLING PATHWAYS IN ACCORDANCE WITH TIA-569-E. RECOMMENDATIONS FROM THE MANUFACTURER'S INSTALLATION GUIDE AS WELL AS THE MINIMUM CABLE BEND RADIUS ALLOWED PER ANSI/TIA/EIA STANDARDS.
3. CABLE TRAY SHALL NOT IMPEDE ANY MECHANICAL DUCT SYSTEMS. STRIVE TO MAINTAIN MINIMUM 12" OF CLEARANCE OVER CABLE TRAY FROM ANY OBSTRUCTION.
4. CLEARANCE OVER CABLE TRAY FROM ANY OBSTRUCTION. (MOUNTED ON SIDE) AND FROM TRAY TO EACH HORIZONTAL DISTRIBUTION CONDUIT.
5. NOT ALL PARTS ARE SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR A COMPLETE WORKING INSTALLATION INCLUDING MISCELLANEOUS APPURTENANCES.

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 478
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
Bicsi
Jinze Chen
BICSI ID # 237176
Expires12-31-28
12/18/2025

Facilities Management Services

VA | U.S. Department of Veterans Affairs

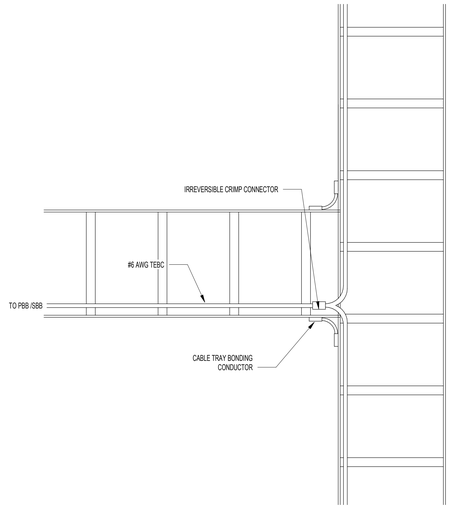
Drawing Title: TELECOMMUNICATIONS DETAILS	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved: FOR OFFICIAL USE ONLY		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Building Number: BLDG 00
		Issue Date: 12.19.2025 / Checked / Drawn	Drawing Number: 00-T503
			SHEET OF 100

Autodesk Docs://Asheville EHRM_V23/637-22-700.000 E.ASH- EHRM.rvt
12/18/2025 6:23:22 PM

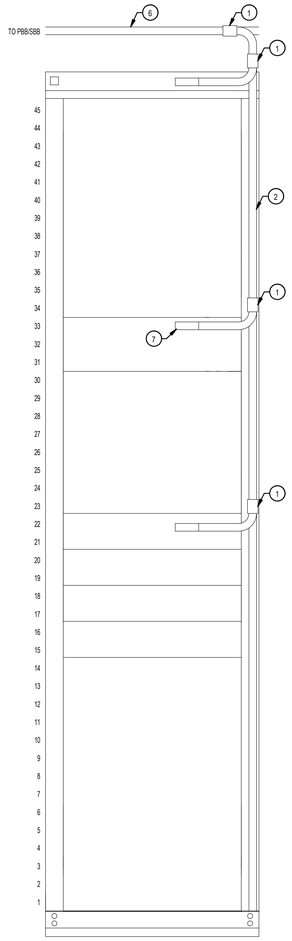
VA FORM 08 - 6231

SHEET NOTES:

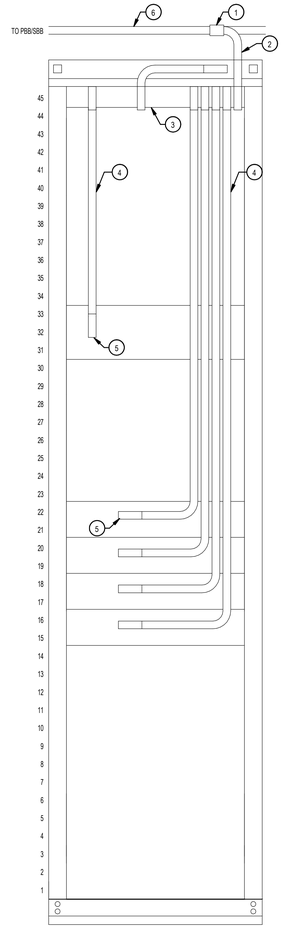
1. IRREVERSIBLE CRIMP CONNECTOR.
2. RACK BONDING CONDUCTOR - 6 AWG.
3. TOP-MOUNTED RACK BONDING BUS BAR.
4. UNIT BONDING CONDUCTOR - 6 AWG (TYP).
5. GROUNDING TERMINAL (TYPICAL FOR EACH PIECE OF RACK MOUNTED EQUIPMENT).
6. TELECOMMUNICATIONS EQUIPMENT BONDING CONDUCTOR - 6 AWG.
7. INDIVIDUAL EQUIPMENT BONDING CONDUCTORS FROM EACH PIECE OF EQUIPMENT AND CABINET TO THE RACK BONDING CONDUCTOR (TYP).



1 CABLE TRAY BOUNDING DETAIL
N.T.S.



2 RBB BONDING DETAIL SERVER CABINET
N.T.S.



3 RBB BONDING DETAIL NETWORK RACK
N.T.S.

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 478
Raleigh, NC 27607
ph 919.314.6886
www.coffman.com

STAMP

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
BICSI
Jinze Chen
BICSI ID # 237176
Expires12-31-28
12/18/2025

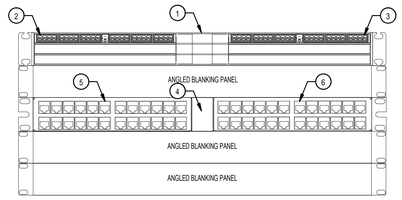
Facilities Management Services

U.S. Department of Veterans Affairs

Drawing Title: TELECOMMUNICATIONS DETAILS	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved: FOR OFFICIAL USE ONLY		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Building Number: BLDG 00
		Issue Date: 12.19.2025 / Checked / Drawn	Drawing Number: 00-T504
			SHEET OF 100

Autodesk Docs://Asheville EHRM_V23/637-22-700.000 E.ASH- EHRM.rvt
12/18/2025 6:23:23 PM

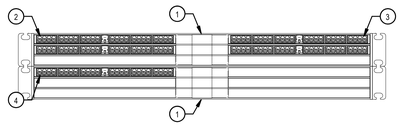
VA FORM 08 - 6231



DETAIL NOTES:

1. 144 STRAND ANGLED FIBER OPTIC PATCH PANEL.
2. 24 DUPLEX LC CONNECTORS AND 2-12ST MPO OM4 TRUNK CABLES FED FROM THE A SIDE HDA NETWORK CABINET.
3. 24 DUPLEX LC CONNECTORS AND 2-12ST MPO OM4 TRUNK CABLES FED FROM THE B SIDE HDA NETWORK CABINET.
4. 48 PORT ANGLED COPPER PATCH PANEL.
5. 24 PORTS WITH BLUE RJ45 JACKS AND 24 CAT6A CABLES FED FROM THE A SIDE HDA NETWORK CABINET.
6. 24 PORTS WITH YELLOW RJ45 JACK AND 24 CAT6A CABLES FED FROM THE B SIDE HDA NETWORK CABINET.

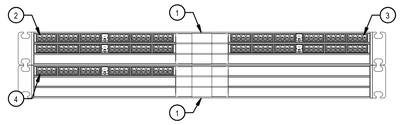
1 SERVER CABINET EQUIPMENT DISTRIBUTOR DETAIL
N.T.S.



DETAIL NOTES:

1. 144 STRAND ANGLED FIBER OPTIC PATCH PANEL.
2. 48 DUPLEX LC CONNECTORS AND 4-12ST MPO OM4 TRUNK CABLES TO FEED THE A SIDE MDA NETWORK CABINET, RK-305.
3. 48 DUPLEX LC CONNECTORS AND 4-12ST MPO OM4 TRUNK CABLES TO FEED THE B SIDE MDA NETWORK CABINET, RK-302.
4. 24 DUPLEX LC CONNECTORS AND 2-12ST MPO OM4 TRUNK CABLES TO FEED THE A-B INTERCONNECT BETWEEN THE A AND B SIDE HDA NETWORKS CABINET IN THE SAME ROW.

2 HDA NETWORK CABINET BACKBONE DISTRIBUTOR DETAIL
N.T.S.



DETAIL NOTES:

1. 144 STRAND ANGLED FIBER OPTIC PATCH PANEL.
2. 48 DUPLEX LC CONNECTORS AND 4-12ST MPO OM4 TRUNK CABLES FED FROM THE A SIDE HDA NETWORK CABINET.
3. 48 DUPLEX LC CONNECTORS TO BE FED 4-12ST MPO OM4 TRUNK CABLES FED FROM THE B SIDE HDA NETWORK CABINET.
4. 24 DUPLEX LC CONNECTORS AND 2-12ST MPO OM4 TRUNK CABLES TO FEED THE A-B INTERCONNECT BETWEEN THE A AND B SIDE HDA NETWORKS CABINET IN THE SAME ROW.

3 MDA NETWORK CABINET BACKBONE DISTRIBUTOR DETAIL
N.T.S.

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 478
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
Bicsi
Jinze Chen
BICSI ID # 237176
Expires12-31-28
12/18/2025

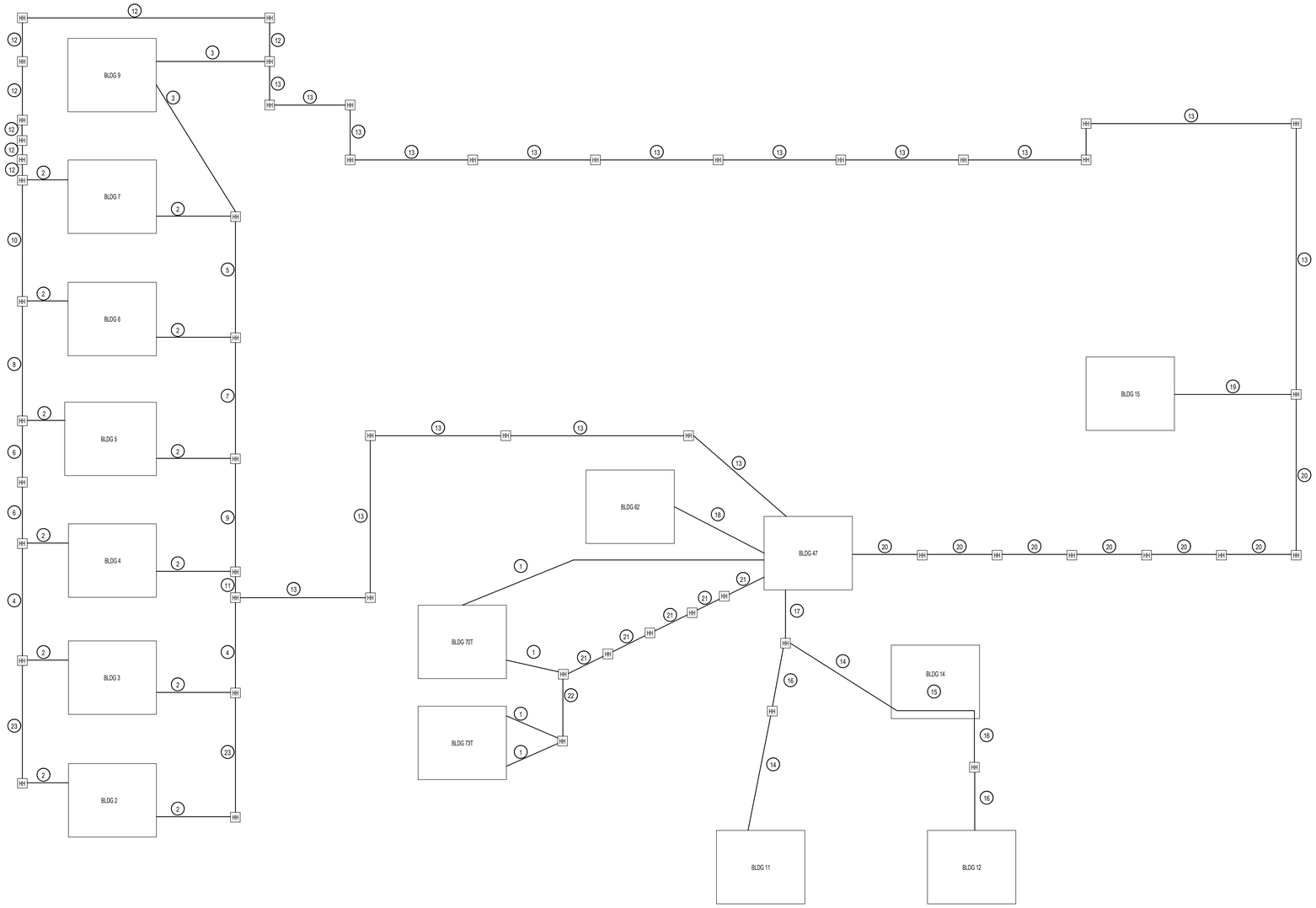
Facilities Management Services

VA | U.S. Department of Veterans Affairs

Drawing Title TELECOMMUNICATIONS DETAILS	**Phase** FINAL BID DOCUMENTS	**Project Title** EHRM INFRASTRUCTURE UPGRADES	**Project Number** 637-22-700
Approved: FOR OFFICIAL USE ONLY		**Location** 1100 TUNNEL ROAD ASHEVILLE, NC 28805	**Building Number** BLDG 00
		Issue Date 12.19.2025 / **Checked** / **Drawn**	**Drawing Number** 00-T505
			SHEET OF 100

Autodesk Docs://Asheville EHRM_V23/637-22-700.000 E.ASH- EHRM.rvt
12/18/2025 6:23:24 PM

VA FORM 08 - 6231



1 TELECOMMUNICATIONS OSP WIRING DIAGRAM
N.T.S.

SHEET NOTES:

1. PROVIDE 2-4"C IN CONCRETE ENCASEMENT DUCTBANK:
   1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 1-24ST SMFO AND PULL STRING.
   2. IN SPARE 1-4"C, PROVIDE PULL STRING.
2. PROVIDE 2-4"C IN CONCRETE ENCASEMENT DUCTBANK:
   1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 2-24ST SMFO AND PULL STRING.
   2. IN SPARE 1-4"C, PROVIDE PULL STRING.
3. PROVIDE 2-4"C IN CONCRETE ENCASEMENT DUCTBANK:
   1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 3-24ST SMFO AND PULL STRING.
   2. IN SPARE 1-4"C, PROVIDE PULL STRING.
4. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
   1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 4-24ST SMFO AND PULL STRING.
   2. IN SPARE 3-4"C, PROVIDE PULL STRING.
5. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
   1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 5-24ST SMFO AND PULL STRING.
   2. IN SPARE 3-4"C, PROVIDE PULL STRING.
6. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
   1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 6-24ST SMFO AND PULL STRING.
   2. IN SPARE 3-4"C, PROVIDE PULL STRING.
7. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
   1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 7-24ST SMFO AND PULL STRING.
   2. IN SPARE 3-4"C, PROVIDE PULL STRING.
8. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
   1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 8-24ST SMFO AND PULL STRING.
   2. IN SPARE 3-4"C, PROVIDE PULL STRING.
9. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
   1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 9-24ST SMFO AND PULL STRING.
   2. IN SPARE 3-4"C, PROVIDE PULL STRING.
10. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 10-24ST SMFO AND PULL STRING.
    2. IN SPARE 3-4"C, PROVIDE PULL STRING.
11. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 11-24ST SMFO AND PULL STRING.
    2. IN SPARE 3-4"C, PROVIDE PULL STRING.
12. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 12-24ST SMFO AND PULL STRING.
    2. IN SPARE 3-4"C, PROVIDE PULL STRING.
13. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 15-24ST SMFO AND PULL STRING.
    2. IN SPARE 3-4"C, PROVIDE PULL STRING.
14. PROVIDE 3-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 2-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 1-24ST SMFO AND PULL STRING.
    2. IN SPARE 1-4"C, PROVIDE PULL STRING.

14. PROVIDE 2-4"C TO BUILDING 12 THROUGH BUILDING 14 ALONG THE EXISTING FIBER ROUTE:
    IN 2-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 1-24ST SMFO AND PULL STRING.

16. PROVIDE 3-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 2-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 4-24ST SMFO AND PULL STRING.
    2. IN SPARE 1-4"C, PROVIDE PULL STRING.
17. PROVIDE 3-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 2-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 5-24ST SMFO AND PULL STRING.
    2. IN SPARE 1-4"C, PROVIDE PULL STRING.
18. PROVIDE TWO 2-4"C FROM BUILDING 47 TO BUILDING 62. FIELD ROUTE CONDUIT WITHIN THE CEILING SPACE OF THE CONNECTING CORRIDOR:
    1. IN 2-4"C, PROVIDE (1) 3" CORRUGATED INNERDUCT WITH 2-24ST SMFO AND PULL STRING..
19. PROVIDE 3-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 2-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 4-24ST SMFO AND PULL STRING.
    2. IN SPARE 1-4"C, PROVIDE PULL STRING.
20. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 19-24ST SMFO AND PULL STRING.
    2. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 4-24ST SMFO AND PULL STRING.
    3. IN SPARE 2-4"C, PROVIDE PULL STRING.
21. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 1-24ST SMFO AND PULL STRING.
    2. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 2-24ST SMFO AND PULL STRING.
    3. IN SPARE 2-4"C, PROVIDE PULL STRING.
22. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 1-24ST SMFO AND PULL STRING.
    2. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 1-24ST SMFO AND PULL STRING.
    3. IN SPARE 2-4"C, PROVIDE PULL STRING.
23. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 2-24ST SMFO AND PULL STRING.
    2. IN SPARE 3-4"C, PROVIDE PULL STRING.

GENERAL NOTES:

1. EXISTING FIBER ROUTES ARE BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY PRIOR TO THE CONSTRUCTION TO DETERMINE THE ROUTE FOR THIS PROJECT.
2. REFER TO CIVIL FOR DUCTBANK DETAILS.
3. NEW OSP FIBER OPTIC CABLE AND INFRASTRUCTURE SHALL BE INSTALLED PRIOR TO THE EXISTING FIBER UPGRADE TO ENSURE FUNCTIONALITY AT EACH BUILDING IS MAINTAINED.

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP

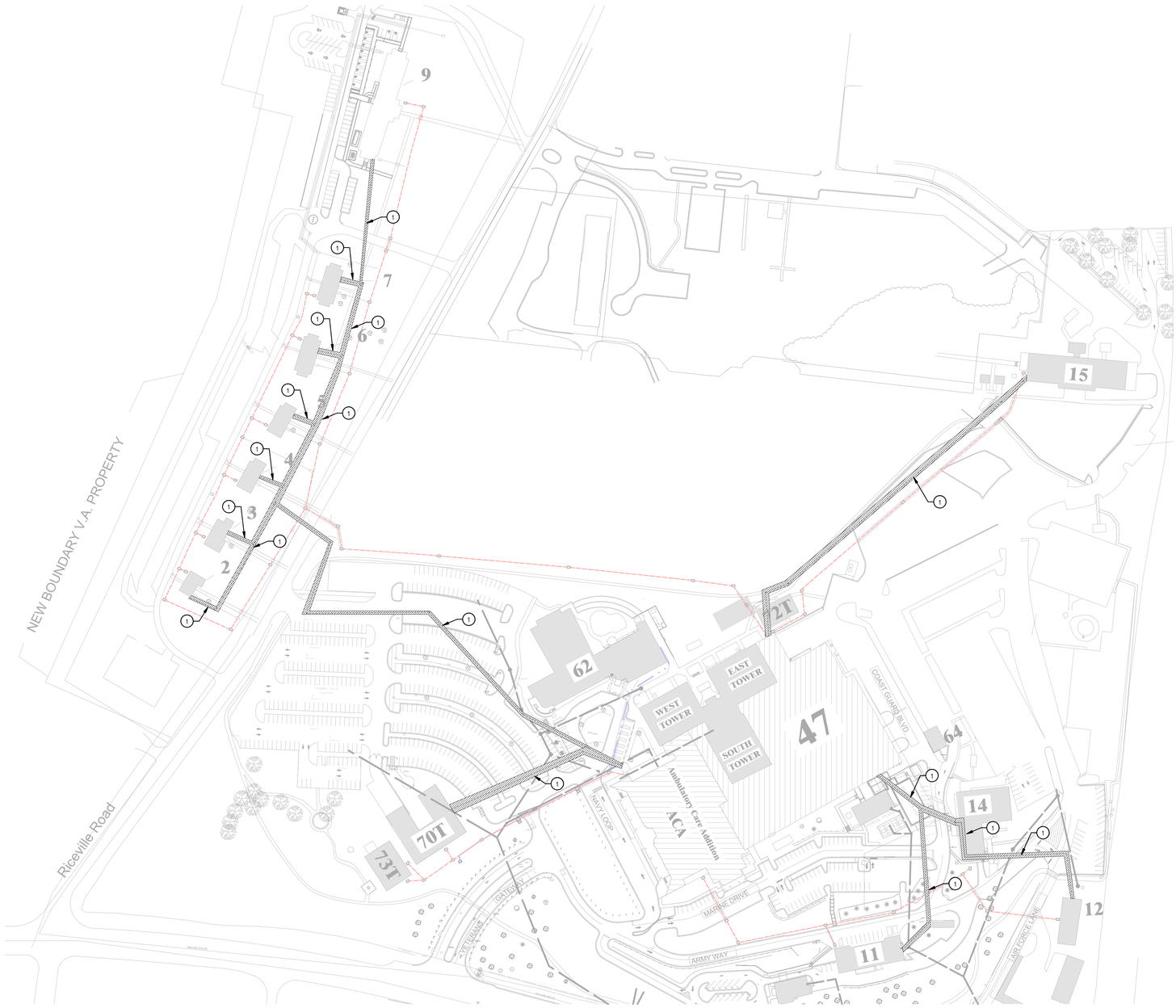
REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
BICSI
Jinze Chen
BICSI ID # 237176
Expires12-31-28
12/18/2025

Facilities Management Services

VA U.S. Department of Veterans Affairs

Drawing Title: TELECOMMUNICATIONS OSP RISER DIAGRAM	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved:		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Building Number: BLDG 00
FOR OFFICIAL USE ONLY		Issue Date: 12.19.2025 / Checked / Drawn	Drawing Number: 00-T601
			SHEET OF 100

12/18/2025 6:23:24 PM
Autodesk Docs://Asheville EHRM_V23/637-22-700.000.E.ASH_EHRM.rvt
VA FORM 08 - 6231



1 TELECOMMUNICATIONS DEMOLITION SITE PLAN

1" = 100'-0"

SHEET NOTES:

1. REMOVE ALL EXISTING INNERDUCTS AND FIBER OPTIC CABLES BACK TO SOURCE.

GENERAL NOTES:

1. EXISTING CONDUIT ROUTES ARE BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY PRIOR TO THE CONSTRUCTION TO DETERMINE THE ROUTE FOR THIS PROJECT.
2. ALL NEW FIBER OPTIC CABLING MUST BE INSTALLED PRIOR TO DEMOLITION TO AVOID OUTAGES.

PLAN NORTH

100 0 100 200
1" = 100'-0" SCALE FEET

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
Bicsi
Jinze Chen
BICSI ID # 237176
Expires12-31-28
12/18/2025

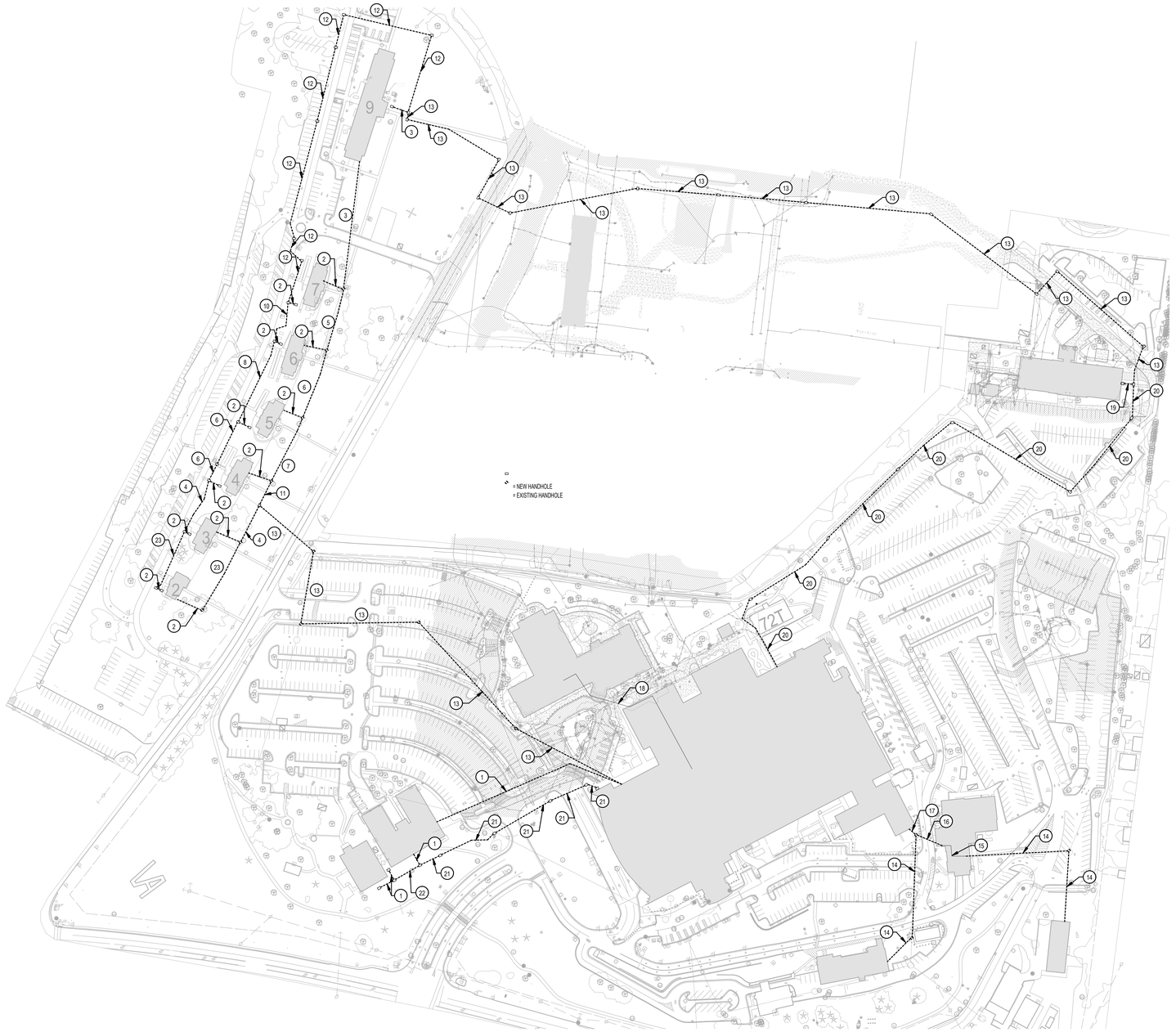
Facilities Management Services

U.S. Department of Veterans Affairs

Drawing Title	TELECOMMUNICATIONS DEMOLITION SITE PLAN
Phase	FINAL BID DOCUMENTS
Project Title	EHRM INFRASTRUCTURE UPGRADES
Project Number	637-22-700
Building Number	BLDG 00
Approved:	FOR OFFICIAL USE ONLY
Location	1100 TUNNEL ROAD ASHEVILLE, NC 28805
Drawing Number	00-TD100
Issue Date	12.19.2025
Checked	
Drawn	
SHEET	OF 100

Autodesk Docs://Asheville EHRM_V23/637-22-700.000 E ASH- EHRM.rvt
12/18/2025 6:23:24 PM

VA FORM 08 - 6231



1 TELECOMMUNICATIONS SITE PLAN
1" = 100'-0"

SHEET NOTES:

1. PROVIDE 2-4"C IN CONCRETE ENCASEMENT DUCTBANK:
   1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 1-24ST SMFO AND PULL STRING.
   2. IN SPARE 1-4"C, PROVIDE PULL STRING.
2. PROVIDE 2-4"C IN CONCRETE ENCASEMENT DUCTBANK:
   1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 2-24ST SMFO AND PULL STRING.
   2. IN SPARE 1-4"C, PROVIDE PULL STRING.
3. PROVIDE 2-4"C IN CONCRETE ENCASEMENT DUCTBANK:
   1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 3-24ST SMFO AND PULL STRING.
   2. IN SPARE 1-4"C, PROVIDE PULL STRING.
4. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
   1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 4-24ST SMFO AND PULL STRING.
   2. IN SPARE 3-4"C, PROVIDE PULL STRING.
5. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
   1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 5-24ST SMFO AND PULL STRING.
   2. IN SPARE 3-4"C, PROVIDE PULL STRING.
6. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
   1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 6-24ST SMFO AND PULL STRING.
   2. IN SPARE 3-4"C, PROVIDE PULL STRING.
7. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
   1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 7-24ST SMFO AND PULL STRING.
   2. IN SPARE 3-4"C, PROVIDE PULL STRING.
8. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
   1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 8-24ST SMFO AND PULL STRING.
   2. IN SPARE 3-4"C, PROVIDE PULL STRING.
9. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
   1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 9-24ST SMFO AND PULL STRING.
   2. IN SPARE 3-4"C, PROVIDE PULL STRING.
10. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 10-24ST SMFO AND PULL STRING.
    2. IN SPARE 3-4"C, PROVIDE PULL STRING.
11. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 11-24ST SMFO AND PULL STRING.
    2. IN SPARE 3-4"C, PROVIDE PULL STRING.
12. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 12-24ST SMFO AND PULL STRING.
    2. IN SPARE 3-4"C, PROVIDE PULL STRING.
13. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 15-24ST SMFO AND PULL STRING.
    2. IN SPARE 3-4"C, PROVIDE PULL STRING.
14. PROVIDE 3-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 2-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 1-24ST SMFO AND PULL STRING.
    2. IN SPARE 1-4"C, PROVIDE PULL STRING.

14 PROVIDE 2-4"C TO BUILDING 12 THROUGH BUILDING 14 ALONG THE EXISTING FIBER ROUTE:
IN 2-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 1-24ST SMFO AND PULL STRING.

16. PROVIDE 3-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 2-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 4-24ST SMFO AND PULL STRING.
    2. IN SPARE 1-4"C, PROVIDE PULL STRING.
17. PROVIDE 3-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 2-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 5-24ST SMFO AND PULL STRING.
    2. IN SPARE 1-4"C, PROVIDE PULL STRING.
18. PROVIDE TWO 2-4"C FROM BUILDING 47 TO BUILDING 62. FIELD ROUTE CONDUIT WITHIN THE CEILING SPACE OF THE CONNECTING CORRIDOR:
    1. IN 2-4"C, PROVIDE (1) 3" CORRUGATED INNERDUCT WITH 2-24ST SMFO AND PULL STRING..
19. PROVIDE 3-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 2-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 4-24ST SMFO AND PULL STRING.
    2. IN SPARE 1-4"C, PROVIDE PULL STRING.
20. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 19-24ST SMFO AND PULL STRING.
    2. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 4-24ST SMFO AND PULL STRING.
    3. IN SPARE 2-4"C, PROVIDE PULL STRING.
21. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 1-24ST SMFO AND PULL STRING.
    2. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 2-24ST SMFO AND PULL STRING.
    3. IN SPARE 2-4"C, PROVIDE PULL STRING.
22. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 1-24ST SMFO AND PULL STRING.
    2. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 1-24ST SMFO AND PULL STRING.
    3. IN SPARE 2-4"C, PROVIDE PULL STRING.
23. PROVIDE 4-4"C IN CONCRETE ENCASEMENT DUCTBANK:
    1. IN 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 2-24ST SMFO AND PULL STRING.
    2. IN SPARE 3-4"C, PROVIDE PULL STRING.

GENERAL NOTES:

1. EXISTING CONDUIT ROUTES ARE BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY PRIOR TO THE CONSTRUCTION TO DETERMINE THE ROUTE FOR THIS PROJECT. SURVEY ALL CONDUITS BEFORE PULLING FIBER CABLES. CONTACT DOR PRIOR TO CONSTRUCTION IF OTHER SYSTEM IS IN THE EXISTING CONDUIT TO BE USED.
2. REFER TO CIVIL DRAWINGS FOR DUCT BANK DETAILS.

PLAN NORTH N

1" = 100'-0" SCALE 100 0 100 200 FEET

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
Bicsi
Jinze Chen
BICSI ID # 237176
Expires12-31-28
12/18/2025

Facilities Management Services

VA U.S. Department of Veterans Affairs

Drawing Title: TELECOMMUNICATIONS SITE PLAN	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved:		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Building Number: BLDG 00
FOR OFFICIAL USE ONLY		Issue Date: 12.19.2025 / Checked / Drawn	Drawing Number: 00-TS100
			SHEET OF 100

Autodesk Docs://Asheville EHRM_V23\637-22-700 000 E ASH- EHRM.rvt
12/18/2025 6:23:27 PM
VA FORM 08 - 6231

GENERAL AND DEMOLITION NOTES:

GENERAL NOTES:

1. ALL WORK TO BE IN ACCORDANCE WITH VA DESIGN MANUALS AS OUTLINED IN THE VA TIL.
2. CONTRACTOR SHALL REVIEW ALL ARCHITECTURAL, CIVIL, MECHANICAL, ELECTRICAL, TELECOM & STRUCTURAL DRAWINGS AND SPECIFICATIONS FOR ANY ADDITIONAL REQUIREMENTS.
3. CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES.
4. COORDINATE MOUNTING HEIGHTS AND INSTALLATION DETAILS WITH ARCHITECTURAL DRAWINGS.
5. BASE BUILDING SECURITY SYSTEM VENDOR IS JOHNSON CONTROLS (JCI). COORDINATE SECURITY SYSTEM CABINETS, HEAD-ENDS, AND ASSOCIATED INFRASTRUCTURE TO FEED NEW CAMERA AND ACCESS CONTROL DEVICES WITH BASE BUILDING SECURITY VENDOR.
6. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL BY AE WHICH ARE PREPARED BY BASE BUILDING SECURITY SYSTEM VENDOR. DRAWINGS TO INCLUDE ALL NECESSARY COMPONENTS AND BACK-END EQUIPMENT LOCATIONS FOR A COMPLETE AND FULLY FUNCTIONAL SYSTEM.
7. CONTRACTOR SHALL VERIFY IN FIELD EXISTING AVAILABLE SECURITY HEAD-ENDS. NEW CAMERAS SHALL BE CONNECTED TO NEAREST AVAILABLE SECURITY CABINET. FOR BID PURPOSES, ASSUME 300FT CABLE LENGTH FROM CAMERA TO SECURITY SWITCH.
8. ACCESS CONTROL SYSTEM: NEW ACCESS CONTROL PROVISIONS TO BE INSTALLED FOR ALL NEW, RELOCATED, OR EXPANDED TELECOM ROOMS. CONTRACTOR TO COORDINATE ALL HARDWARE AND LOCATIONS WITH BASE BUILDING SECURITY SYSTEM VENDOR AND VA STAFF.
9. SSTV SYSTEM: NEW SECURITY CAMERAS TO BE INSTALLED FOR ALL NEW, RELOCATED, OR EXPANDED TELECOM ROOMS. CONTRACTOR TO COORDINATE ALL HARDWARE AND LOCATIONS WITH BASE BUILDING SECURITY SYSTEM VENDOR AND VA STAFF.
10. ALL CONDUIT AND BACK BOXES REQUIRED FOR THE INSTALLATION OF SECURITY DEVICES AND EQUIPMENT TO BE PROVIDED BY DIV. 26 CONTRACTOR. COORDINATE WITH THE VA FACILITIES DEPARTMENT FOR EXACT LOCATION OF DEVICES.
11. REFERENCE ARCHITECTURAL SHEETS FOR ALL DOOR TYPES, ENCLOSURES, FRAME DETAILS AND PATHWAYS.
12. ALL RACKS TO BE PROVIDED BY DIV. 27 CONTRACTOR.
13. ALL SECURITY HEAD-END EQUIPMENT IS EXISTING TO REMAIN. EXISTING CAMERAS BEING FED FROM DECOMMISSIONED TELECOM RACKS, PER TELECOM DRAWINGS AND SCOPE, SHALL BE RE-FED FROM NEW/REPLACEMENT RACKS IN NEW TELECOM ROOM LOCATION. COORDINATE WITH TELECOM DRAWINGS FOR MORE INFORMATION.
14. COORDINATE WITH DOOR HARDWARE SCHEDULE IN ARCHITECTURAL DRAWING SET FOR LOCKING MECHANISM TYPE FOR SECURITY INTEGRATION (ELECTRIC LATCH, ELECTRIC STRIKE, MAGNETIC LOCK). PROVIDE ALL HARDWARE AND ACCESSORIES NECESSARY.
15. MOTION DETECTOR REX TO BE PROGRAMMED AND INTEGRATED WITH DOOR HARDWARE TO PREVENT LOCKING OF DOOR IF ROOM IS OCCUPIED.
16. VIDEO SURVEILLANCE CABLING TO BE VIOLET PER VA REQUIREMENTS.
17. SUBMIT COMPLETE ACCESS CONTROL AND VIDEO SURVEILLANCE SUBMITTAL PACKAGE PER SPECIFICATION SECTIONS 282300-1.5D AND 281300-1.4D.
18. ALL TELECOM ENCLOSURES TO HAVE HARD-KEY LOCKS SUPPLIED. CONTRACTOR TO COORDINATE WITH VA TO INTEGRATE TE LOCKS INTO LOCK PROGRAM OF FACILITY.

DEMOLITION NOTES:

1. FOR EXISTING EQUIPMENT, SUCH AS CARD READERS, WIRING DEVICES, CONDUITS, ETC., SHOWN ON PLANS TO BE REMOVED, COMPLETELY CUT/CAP CONDUITS AT THE AREA OF WORK PERIMETER AND REMOVE CONDUIT WITHIN THE WORK AREA, DISCONNECT WIRING AT THE OVERCURRENT PROTECTIVE DEVICE AND REMOVE WIRING COMPLETELY FROM THE ABANDONED CONDUITS.
2. DISCONNECT ALL ABANDONED WIRING OF ALL TYPES AT THE OVERCURRENT PROTECTIVE DEVICE. COMPLETELY REMOVE ALL ABANDONED WIRING.
3. MAINTAIN AND RESTORE, IF INTERRUPTED, ALL CONDUITS AND CONDUCTORS PASSING THROUGH RENOVATED AREAS AND SERVICING UNDISTURBED AREAS.

ADDITIONAL ITEMS TO BE INCLUDED IN BID PRICING:

1. (10) ADDITIONAL SSTV CAMERAS AND CABLING
2. (10) ADDITIONAL CARD READERS AND CABLING
3. (10) ADDITIONAL LOCKSETS, ELECTRIC STRIKES, DOOR CONTACTS, AND REX DEVICES
4. (10) ADDITIONAL ACCESS CONTROL PANELS AND CABLING TO NEAREST TELECOM ROOM (TR)

NOTE: IN EVENT NOT ALL ADDITIONAL ITEMS ARE PROVIDED/INSTALLED IN FINAL CONDITION, CONTRACTOR TO PROVIDE CREDIT BACK TO VA.

ELECTRONIC SAFETY & SECURITY ABBREVIATIONS:

1PH SINGLE-PHASE
1P SINGLE POLE
2/C TWO-CONDUCTOR
3/C THREE-CONDUCTOR
3PH THREE-PHASE
4/C FOUR-CONDUCTOR
4W FOUR-WIRE

A/C UNIT AIR CONDITIONING UNIT
A/E ARCHITECT/ENGINEER
AAP ALARM ANNUNCIATOR PANEL
AC ALTERNATING CURRENT OR ARMORED CABLE
ACC ACCESSIBLE
ADDL ADDITIONAL
ADJ ADJACENT, ADJOINING
ADO AUTOMATIC DOOR OPENER
AFC ABOVE FINISHED COUNTER
AFF ABOVE FINISHED FLOOR
AFG ABOVE FINISHED GRADE
AHJ AUTHORITY HAVING JURISDICTION
ALT ALTERNATE
AMB OR A AMBIENT
ARCH ARCHITECT
ATS AUTOMATIC TRANSFER SWITCH
AUTO AUTOMATIC
AV AUDIO VISUAL

BAT BATTERY
BC BARE COPPER
BD BOARD
BFF BELOW FINISH FLOOR
BLDG BUILDING
BPIP BOILER PLANT INSTRUMENTATION PANEL
BYP BY PASS

C CONDUIT
CAB CABINET
CALC CALCULATE
CAP CAPACITY
CAT CATALOG
CATV COMMUNITY ANTENNA TELEVISION
CCR CONTROL CONTACTOR
CCTV CLOSED CIRCUIT TELEVISION
CD CONSTRUCTION DOCUMENTS
CF CONTRACTOR FURNISHED
CF/CI CONTRACTOR FURNISHED/CONTRACTOR INSTALLED
CF/OI CONTRACTOR FURNISHED/OWNER INSTALLED
CFE CONTRACTOR FURNISHED EQUIPMENT
CLG CEILING
CMU CONCRETE MASONRY UNIT
COAX COAX CABLE
COMM COMMUNICATION
COMPT COMPARTMENT
CONC CONCRETE
CONT CONTINUE
CONTR CONTRACTOR
COORD COORDINATE
CTV CABLE TELEVISION
CU COPPER
CU FT CUBIC FEET
CUR CURRENT

DB DECIBEL OR DIRECT BURIAL
DC DIRECT CURRENT
DEG C DEGREES CELSIUS
DEG F DEGREES FAHRENHEIT
DEMO DEMOLITION
DIAG DIAGRAM
DISTR DISTRIBUTION
DN DOWN
DRSW DOOR SWITCH
DWG DRAWING

EC EMPTY CONDUIT
EG EQUIPMENT GROUND
EL ELEVATION
ELEC ELECTRIC OR ELECTRICAL
ELEV ELEVATOR
EMER EMERGENCY
EMI ELECTROMAGNETIC INTERFERENCE
EMT ELECTRICAL METALLIC TUBING
ENCL ENCLOSURE
EPO EMERGENCY POWER OFF
ESMT EASEMENT
EXIST EXISTING

FLEX FLEXIBLE METALLIC CONDUIT
FOUTTELEPHONE FLOOR OUTLET
FP FIRE PROTECTION
FT FEET OR FOOT
FU SW FUSED SWITCH

G OR GND GROUND OR GENERATOR
GEN GENERATOR
GTB GROUND TERMINAL BOX

HOA HAND-OFF-AUTOMATIC
HT HEIGHT
HZ HERTZ

IMC INTERMEDIATE METAL CONDUIT
IR INFRARED

J-BOX JUNCTION BOX

LF LINEAR FEET (FOOT)
LTNG LIGHTNING
LV LOW VOLTAGE

MATV MASTER ANTENNA TELEVISION SYSTEM
MAX MAXIMUM
MECH MECHANICAL
MH MANHOLE
MIN MINIMUM
MT MOUNT
MTD MOUNTED
MTG MOUNTING

NA NOT APPLICABLE
NEC NATIONAL ELECTRICAL CODE
NEUT OR N NEUTRAL
NICNOT IN CONTRACT
NS NO SCALE
NTS NOT TO SCALE

OC ON CENTER
OD OUTSIDE DIAMETER

P POLE
PA PUBLIC ADDRESS
PB PANELBOARD, PULL BOX, OR PUSHBUTTON
PBPU PREFABRICATED BEDSIDE PATIENT UNIT
PED PEDESTAL
PEND PENDANT
PF POWER FACTOR
PH PHASE
PNL PANEL
PVC POLYVINYL CHLORIDE (PLASTIC)
PWR POWER

RCP REFLECTED CEILING PLAN
REC RECESSED
RECPTRECEPTACLE
RGS RIGID GALVANIZED STEEL
RM ROOM
REQD REQUIRED

SF SQUARE FOOT (FEET)
SHT SHEET
SI INTERNATIONAL SYSTEM OF UNITS
SPEC SPECIFICATION
SURF SURFACE
SW SWITCH

TEL TELEPHONE
TP TWISTED PAIR
TPS TWISTED PAIR SHIELDED
TTB TELEPHONE TERMINAL BOARD
TV TELEVISION
TYP TYPICAL

UFD UNDERFLOOR DUCT
UGND UNDERGROUND
UL UNDERWRITERS LABORATORY
UON UNLESS OTHERWISE NOTED
UPS UNINTERRUPTIBLE POWER SUPPLY
UTIL UTILITY

V VOLT

WP WEATHERPROOF

ELECTRONIC SAFETY & SECURITY SYMBOLS:

M / T — AUDIO DEVICE; LETTER INDICATES AS FOLLOWS:
M=MOUNT
C-CEILING D-DESK F-FLUSH H-HIDDEN
P-PEDESTAL R-RACK S-SURFACE W-WALL
T=TECHNOLOGY/TYPE
B-BELL C-CHIME H-HORN K-KLAXON
L-LISTEN-IN M-MICROPHONE S-SOUNDER S-SPEAKER

M / F / T — BI-STATIC BEAM SENSOR; LETTER INDICATES AS FOLLOWS:
M=MOUNT
C-CEILING D-DESK F-FLUSH H-HIDDEN
P-PEDESTAL R-RACK S-SURFACE W-WALL
T=TECHNOLOGY/TYPE
I-INFRARED M-MICROWAVE
F=FUNCTION
RX-RECEIVE TX-TRANSMIT

M / T — CARD ACCESS READER; LETTER INDICATES AS FOLLOWS:
M=MOUNT
C-CEILING D-DESK F-FLUSH H-HIDDEN
P-PEDESTAL R-RACK S-SURFACE W-WALL
T=TECHNOLOGY/TYPE
B-BARCODE F-ELEVATOR FLOOR CALL H-ELEVATOR HALL CALL
M-MAG STRIP P-PROXIMITY S-SMART CARD
T-TOKEN

M — CARD READER WITH KEYPAD; LETTER INDICATES AS FOLLOWS:
M=MOUNT
C-CEILING D-DESK F-FLUSH H-HIDDEN
P-PEDESTAL R-RACK S-SURFACE W-WALL

M / T — ELECTRONIC LOCK; LETTER INDICATES AS FOLLOWS:
M=MOUNT
C-CEILING D-DESK F-FLUSH H-HIDDEN
P-PEDESTAL R-RACK S-SURFACE W-WALL
T=TECHNOLOGY/TYPE
D-DEADBOLT H-HYBRID L-LATCH SET M-MAGNETIC

T — EXIT DEVICE; LETTER INDICATES AS FOLLOWS:
T=TECHNOLOGY/TYPE
D-DELAYED EGRESS E-ELECTRIFIED M-MECHANICAL X-HIGH SECURITY

REX — REQUEST TO MOTION SENSOR. INSTALL ABOVE DOOR FRAME.

M — KEYPAD DEVICE; LETTER INDICATES AS FOLLOWS:
M=MOUNT
C-CEILING D-DESK F-FLUSH H-HIDDEN
P-PEDESTAL R-RACK S-SURFACE W-WALL

M / T — MOTION DETECTOR; LETTER INDICATES AS FOLLOWS:
M=MOUNT
C-CEILING D-DESK F-FLUSH H-HIDDEN
P-PEDESTAL R-RACK S-SURFACE W-WALL
T=TECHNOLOGY/TYPE
D-DUAL TECHNOLOGY IR-INFRARED M-MICROWAVE U-ULTRASONIC
X-REQUEST-FOR-EXIT

M / T — PUSH BUTTON; LETTER INDICATES AS FOLLOWS:
M=MOUNT
C-CEILING D-DESK F-FLUSH H-HIDDEN
P-PEDESTAL R-RACK S-SURFACE W-WALL
T=TECHNOLOGY/TYPE
B-BELL PUSH D-DURESS P-PANIC R-DOOR RELEASE
X-REQUEST-FOR-EXIT

M / T — RECORDER; LETTER INDICATES AS FOLLOWS:
M=MOUNT
C-CEILING D-DESK F-FLUSH H-HIDDEN
P-PEDESTAL R-RACK S-SURFACE W-WALL
T=TECHNOLOGY/TYPE
A-AUDIO D-DIGITAL V-VIDEO

AP — SECURITY ACCESS, ANNUNCIATOR PANEL

SECURITY ACCESS, BUZZER. MTD 1'-6" [457mm] AFF UNLESS OTHERWISE NOTED

SECURITY ACCESS, CONTROL UNIT WITH CLOSED CIRCUIT TELEVISION CAMERA

SECURITY ACCESS, GENERIC "X" INDICATES THE TYPE, PROVIDE SCHEDULE OR LEGEND

SECURITY ACCESS, HORN OR SIREN

SECURITY ACCESS, OUTDOOR MICROWAVE TRANSMISSION UNIT

SECURITY ACCESS, PANIC ALARM

M / PTZ — SECURITY ACCESS, VIDEO CAMERA WITH LENS
M = MOTION DETECTOR
PZ = MOTION DETECTOR WITH PAN AND ZOOM
PTZ= MOTION DETECTOR WITH PAN, TILT, AND ZOOM

360° — CEILING MTD. CAMERA WITH 360 DEGREE WIDE-ANGLE LENSE AND SUPPLEMENTAL IR RING

40° — SECURITY ACCESS, VIDEO CAMERA WITH LENS, ANGLE OF VIEW

DC — ACCESS CONTROL DOOR CONTACT

DPS — ACCESS CONTROL DOOR POSITION SWITCH

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

Facilities Management Services

VA U.S. Department of Veterans Affairs

Drawing Title: SECURITY NOTES, SYMBOLS, AND ABBREVIATIONS

Approved:

FOR OFFICIAL USE ONLY

Phase: FINAL BID DOCUMENTS

FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES

Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805

Issue Date: 12.19.2025

Checked

Drawn

Project Number: 637-22-700

Building Number

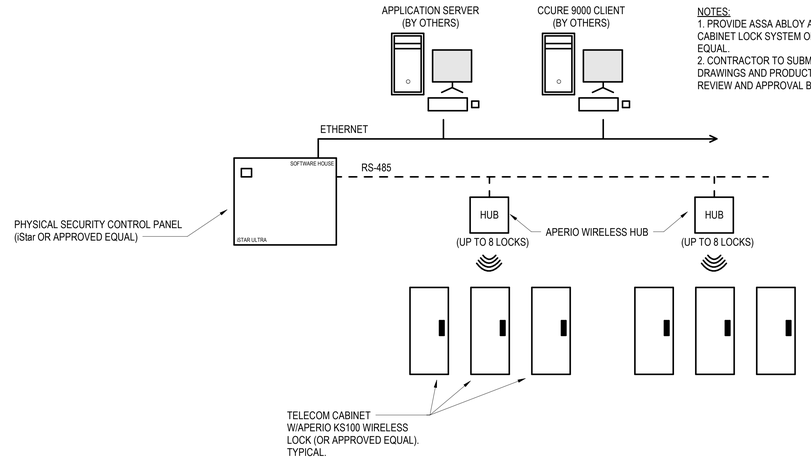
Drawing Number: 00-TY001

SHEET 52 of 559

12/19/2025 11:41:46 AM

Autodesk Docs://Asheville EHRM_V23/637-22-700.047 ASH - EHRM.rvt

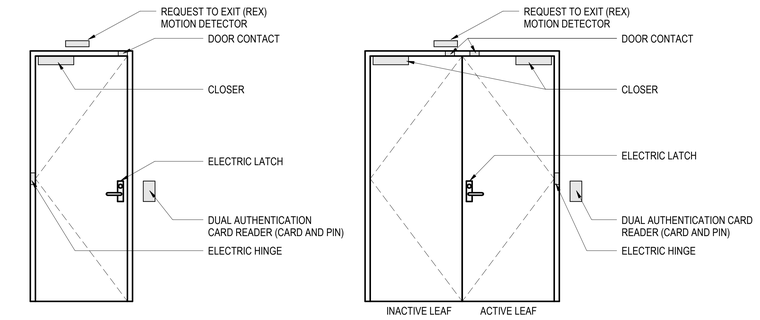
VA FORM 08 - 6231



NOTES:
1. PROVIDE ASSA ABLOY APERIO WIRELESS CABINET LOCK SYSTEM OR APPROVED EQUAL.
2. CONTRACTOR TO SUBMIT SHOP DRAWINGS AND PRODUCT SUBMITTAL FOR REVIEW AND APPROVAL BY AE.

1 WIRELESS CABINET LOCKSET DETAIL

1/2" = 1'-0"



SINGLE OPAQUE DOOR

PAIR OPAQUE DOORS

2 SECURITY DOOR TYPES

1/2" = 1'-0"

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

STAMP

LICENSED ARCHITECT
GENE HAMILTON, JR.
No. C-19576
REN. 07-31-27
STATE OF CALIFORNIA

Facilities Management Services

VA U.S. Department of Veterans Affairs

Drawing Title: SECURITY DETAILS	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved: FOR OFFICIAL USE ONLY	FULLY SPRINKLERED	Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Building Number
		Issue Date: 12.19.2025 / Checked / Drawn	Drawing Number: 00-TY501
			SHEET 53 of 559

Autodesk Docs://Asheville EHRM_V23/637-22-700.047 ASH - EHRM.rvt

12/19/2025 11:41:47 AM

VA FORM 08 - 6231

EHRM INFRASTRUCTURE UPGRADES

CHARLES GEORGE VA MEDICAL CENTER

1100 TUNNEL ROAD ASHEVILLE, NC 28805

BLDG 2

FINAL BID DOCUMENTS

12.19.2025

DESIGN TEAM

OWNER

Charles George VA Medical Center
1100 Tunnel Road
Asheville, NC 28805
Contact: Daniel Chaparro
Office: (916) 843-7187 Cell: (916) 542-3038

VA | U.S. Department of Veterans Affairs

ARCHITECT / CONTRACT PRIME

Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314
Contact: Amy Carr
acarr@awensolutions.com
(720) 703-0640

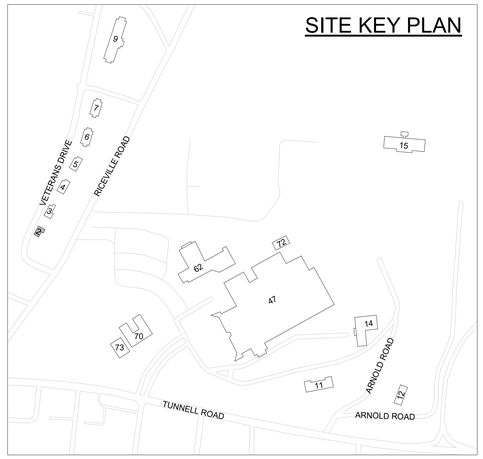
AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

MECHANICAL / ELECTRICAL / PLUMBING / FIRE PROTECTION / STRUCTURAL ENGINEER

Coffman Engineers, Inc.
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
Contact: Lars Iverson
lars.iverson@coffman.com
(919) 670-3668

COFFMAN ENGINEERS

SITE KEY PLAN



SHEET LIST	
SHEET NUMBER	SHEET NAME
BLDG 2	
02-GI001	COVER SHEET
02-SF101	STRUCTURAL PLANS
02-AE101	BASEMENT, 1ST & 2ND FLOOR PLANS, ENLARGED VIEWS AND ELEVATION
02-ED101	ELECTRICAL DEMOLITION PLANS
02-EP101	ELECTRICAL PLANS
02-EP601	ONE-LINE DIAGRAM AND SCHEDULES
02-TD101	TELECOMMUNICATIONS DEMOLITION PLANS
02-TD601	TELECOMMUNICATIONS DEMOLITION RACK ELEVATIONS
02-TN101	TELECOMMUNICATIONS PLANS
02-TN601	TELECOMMUNICATIONS DIAGRAMS
02-TY102	BASEMENT, 1ST & 2ND SECURITY FLOOR PLANS
Grand total: 11	

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

LICENSED ARCHITECT
GENE HAMILTON
No. C-19576
REN. 07-31-27
STATE OF CALIFORNIA

Facilities Management Services

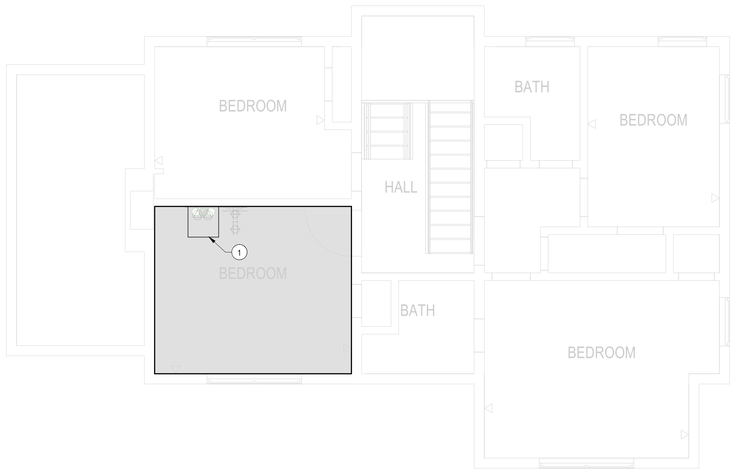
VA U.S. Department of Veterans Affairs

Drawing Title: COVER SHEET	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
			Building Number: 2
Approved:		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Drawing Number: 02-GI001
FOR OFFICIAL USE ONLY		Issue Date: 12.19.2025 / Checked / Drawn	SHEET 54 of 559

12/19/2025 10:43:33 AM

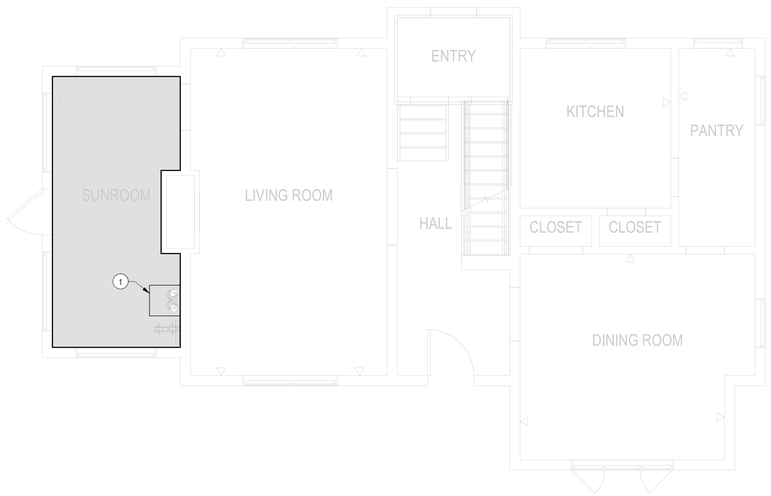
Autodesk Docs://Asheville EHRM_V23\637-22-700.002.A.ASH- EHRM.rvt

VA FORM 08 - 6231



2 STRUCTURAL 2ND FLOOR PLAN

1/4" = 1'-0"



1 STRUCTURAL 1ST FLOOR PLAN

1/4" = 1'-0"

SHEET NOTES:

1. (N) WALL MOUNTED TELECOM ENCLOSURE. PROVIDE BACKING PER DETAIL WALL MOUNT ENCLOSURE TO BACKING PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. (5 / 00-S503)

GENERAL NOTES:

1. FIRE/SMOKE WALL RECORD DRAWINGS WERE NOT PROVIDED BY THE STATION. FIELD-VERIFY EXISTING PARTITION WALLS TO IDENTIFY FIRE/SMOKE RATING AND PROVIDE ALL REQUIRED MEASURES AND APPROPRIATE EQUIPMENT IN ACCORDANCE WITH THE VERIFIED PARTITION TYPE.
2. FIELD VERIFY EXISTING CONDITIONS.

PLAN NORTH N

1/4" = 1'-0" SCALE 2 0 2 4 6 8 10 FEET

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 478
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP

NORTH CAROLINA PROFESSIONAL SEAL 033610 ENGINEER PAUL HOEHNACK 12/19/2025

Facilities Management Services

U.S. Department of Veterans Affairs

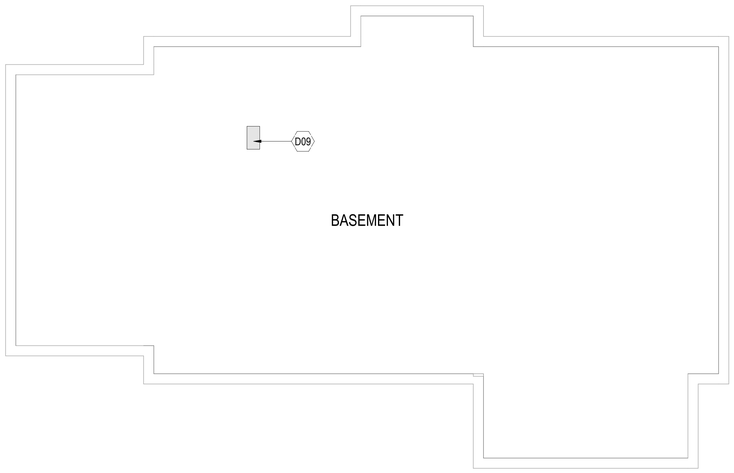
Drawing Title: STRUCTURAL PLANS	Phase: FINAL BID DOCUMENTS
Approved:	
FOR OFFICIAL USE ONLY	

Project Title: EHRM INFRASTRUCTURE UPGRADES		Project Number: 637-22-700
		Building Number: BLDG 2
Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805		Drawing Number: 02-SF101
Issue Date: 12.19.2025	Checked: DU / Drawn: MBH	SHEET 55 of 559

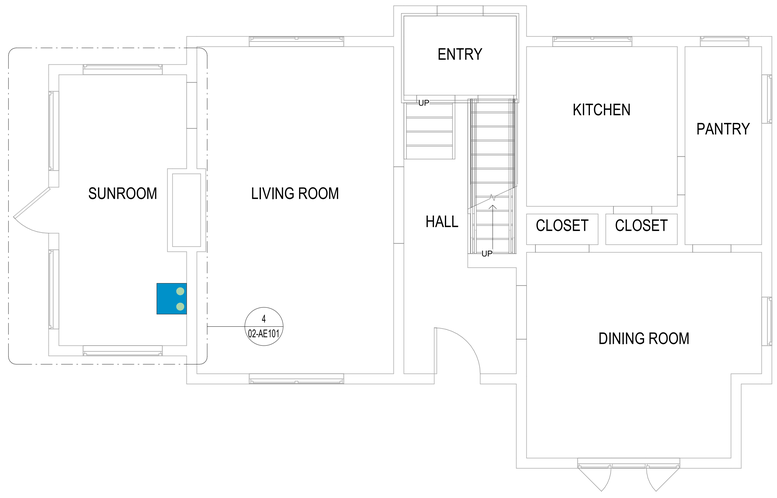
Autodesk Docs://Asheville EHRM_V23/637-22-700.002.5 ASH- EHRM.rvt

12/12/2025 2:10:58 PM

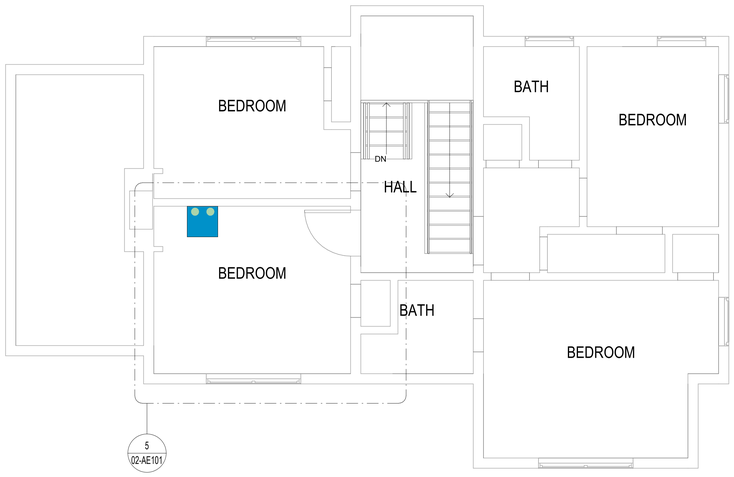
VA FORM 08 - 6231



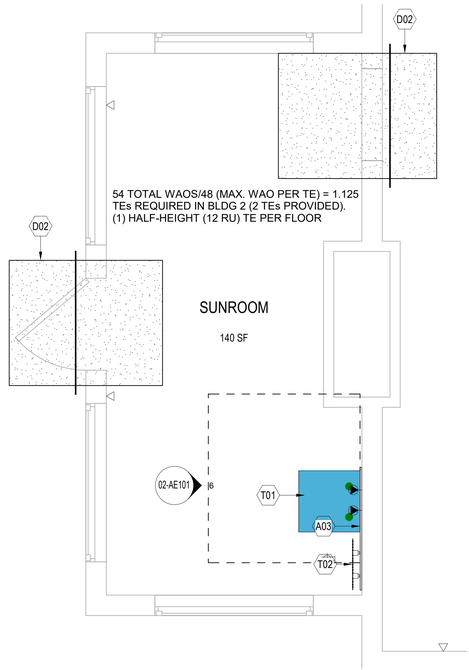
1 OVERALL FLOOR PLAN - BASEMENT
1/4" = 1'-0"



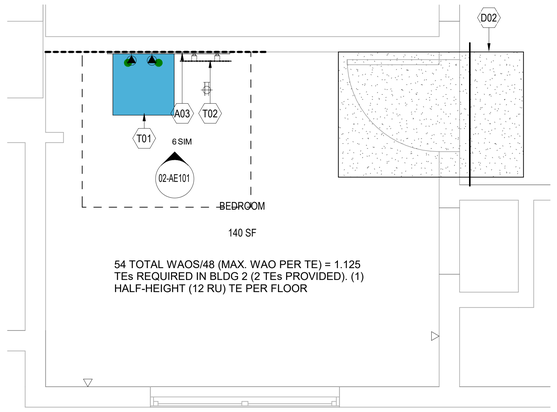
3 OVERALL FLOOR PLAN - 1ST FLOOR
1/4" = 1'-0"



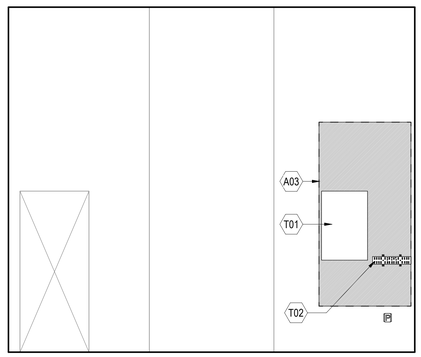
2 OVERALL FLOOR PLAN - 2ND FLOOR
1/4" = 1'-0"



4 ENLARGED FLOOR PLAN - 1ST FLOOR (TE)
1/2" = 1'-0"



5 ENLARGED FLOOR PLAN - 2ND FLOOR (TE)
1/2" = 1'-0"



6 TYPICAL ELEVATION AT TE
3/8" = 1'-0"

ABATEMENT QUANTITY SCHEDULE - BLDG. 2

IF ASBESTO-CONTAINING MATERIAL HAS TO BE DISTURBED DURING THE PROJECT, ABATERMENT MUST BE CONDUCTED PER SPECIFICATION 02 81 11. REFER TO ASBESTOS RE-INSPECTION REPORT FOR MORE DETAILED INFORMATION.

LOCATION	MATERIAL DISCRIPTION	QUANTITY
CRAWL AREAS & FLOOR/ WALL/ CEILING CHASES	ASBESTOS-CONTAINING PIPE INSULATION AND FITTINGS MAY BE FOUND ON STEAM LINE, HOT & COLD WATER LINE, AND HARD ELBOWS & FITTING ON HOT & COLD WATER LINES.	AS REQUIRED BASED ON FIELD CONDITIONS WITHIN THE WORK AREA
ROOF	ASBESTOS-CONTAINING ASPHALT SHINGLES, FELT, AND MASTICS MAY BE FOUND IN ROOF ASSEMBLY.	AS REQUIRED BASED ON FIELD CONDITIONS WITHIN THE WORK AREA

OVERALL PLAN SHEET NOTES

1. COORDINATE WITH FIRE PROTECTION, MECHANICAL, ELECTRICAL, PLUMBING, TELECOMMUNICATIONS, AND SECURITY PLANS FOR ADDITIONAL REQUIREMENTS NOT SHOWN ON THIS DRAWING.
2. DIMENSIONS PRECEDED BY A TILDE (~) ARE APPROXIMATE, SUBJECT TO FIELD VERIFICATION.
3. ASBESTOS-CONTAINING PIPE INSULATION AND FITTINGS MAY BE FOUND IN PIPE CHASES, WALLS AND OTHER HIDDEN AREAS THROUGHOUT THE BUILDING. IF THESE MATERIALS HAVE TO BE DISTURBED DURING THE PROJECT, ABATEMENT MUST BE CONDUCTED PER SPECIFICATION 02 82 11. REFER TO ASBESTOS RE-INSPECTION REPORT FOR MORE DETAILED INFORMATION.
4. ASPHALT ROOFING MATERIALS SHOULD BE ASSUMED TO CONTAIN ASBESTOS. IF THESE MATERIALS HAVE TO BE DISTURBED DURING THE PROJECT, ABATEMENT MUST BE CONDUCTED PER SPECIFICATION 02 82 13.21.
5. FIRE/SMOKE WALL RECORD DRAWINGS WERE NOT PROVIDED BY THE STATION. FIELD-VERIFY EXISTING PARTITION WALLS TO IDENTIFY FIRE/SMOKE RATING AND PROVIDE ALL REQUIRED MEASURES AND APPROPRIATE EQUIPMENT IN ACCORDANCE WITH THE VERIFIED PARTITION TYPE.

DEMOLITION LEGEND

- PLASTIC SHEETING (VISQUEEN)
- WALK-OFF MATS

TR LEGEND

- TR TO BE DECOMMISSIONED
- EXISTING TR
- NEW TR
- EXPANDED TR
- EXISTING DATA CENTER
- NEW DATA CENTER
- NEW TELECOM ENCLOSURE (TE)
- ENTRANCE ROOM

ENLARGED PLAN KEYNOTES

KEY TAG	DESCRIPTION
A03	4'-0" x 8'-0" AC GRADE 3/4" TRADE SIZE FIRE RATED PLYWOOD BACKBOARD PAINTED HIGH-GLOSS WHITE WITH TWO COATS OF FIRE RESISTANT PAINT
D01	REMOVE EXISTING FLOORING, PRE-FLOOR TO RECEIVE FLOOR FINISH SPECIFIED
D02	PROVIDE WALK OFF MATS AND PLASTIC SHEETING (VISQUEEN) AT CONSTRUCTION AREAS.
D09	REMOVE EXISTING TELECOMMUNICATION EQUIPMENT, SEE TELECOMMUNICATION DRAWINGS
T01	NEW TELECOMMUNICATIONS ENCLOSURE (TE), SEE TELECOMMUNICATIONS DRAWINGS
T02	BONDING BUS BAR (SBB), SEE TELECOMMUNICATIONS DRAWINGS

1/2" = 1'-0" SCALE 1 0 1 2 3 4 5 FEET

3/8" = 1'-0" SCALE 1 0 1 2 3 4 5 6 7 FEET

1/4" = 1'-0" SCALE 2 0 2 4 6 8 10 FEET

PLAN NORTH

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

LICENSED ARCHITECT GENE HAMILTON No. C-19576 REN. 07-31-27 STATE OF CALIFORNIA

Facilities Management Services

VA U.S. Department of Veterans Affairs

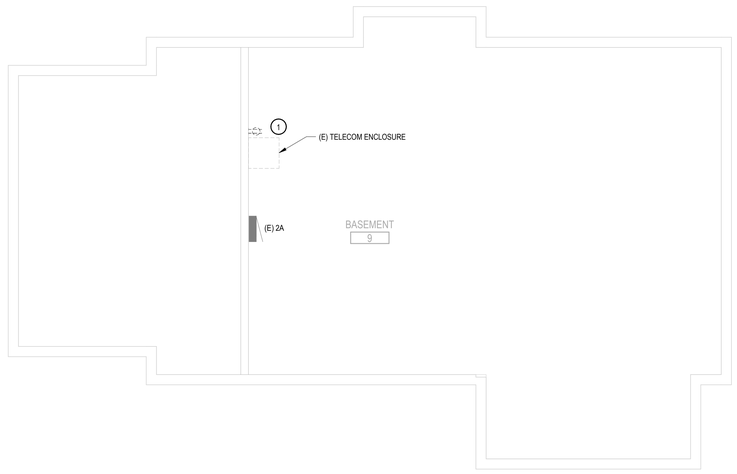
Drawing Title: BASEMENT, 1ST & 2ND FLOOR PLANS, ENLARGED VIEWS AND ELEVATION	Phase: FINAL BID DOCUMENTS
Approved: FOR OFFICIAL USE ONLY	

Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
	Building Number: 2
Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Drawing Number: 02-AE101
Issue Date: 12.19.2025 / Checked / Drawn	SHEET 56 of 559

Autodesk Docs://Asheville EHRM_V23/637-22-700.002 A-SH- EHRM.rvt
12/19/2025 10:43:38 AM
VA FORM 08 - 6231

1 ELECTRICAL 1ST FLOOR DEMOLITION
1/4" = 1'-0"

2 ELECTRICAL 2ND FLOOR DEMOLITION
1/4" = 1'-0"



3 ELECTRICAL BASEMENT DEMOLITION
1/4" = 1'-0"

SHEET NOTES:

1. DEMOLISH DUPLEX RECEPTACLE LOCATED ABOVE EXISTING BASEMENT TELECOM ENCLOSURE. DEMOLISH CIRCUIT AND ALL ASSOCIATED HARDWARE BACK TO SOURCE. DEMOLISH OTHER EXISTING ELECTRICAL EQUIPMENT INCLUDING UPS, GROUNDING, ETC.
2. LOCATION OF NEW TELECOM ENCLOSURE TO BE INSTALLED UNDER THIS PROJECT. ENSURE WALL IS CLEAR OF ANY OBSTRUCTING ELECTRICAL EQUIPMENT, SUCH AS RECEPTACLES, SWITCHES, ETC. COORDINATE WITH VA COR TO REMOVE OR RELOCATE ANY DEVICES AS NECESSARY.

GENERAL NOTES:

1. REFER TO 00-E001 FOR GENERAL NOTES, DEMOLITION NOTES, AND LEGENDS.
2. NO ELECTRICAL DEMOLITION SCOPE ON FIRST OR SECOND FLOORS, PLANS SHOWN FOR REFERENCE ONLY.
3. DEMOLITION PLANS ARE CONCEPTUAL, NOT ALL DEVICES TO BE DEMOLISHED ARE SHOWN. BASEMENT EQUIPMENT LAYOUT IS SHOWN BASED ON BEST AVAILABLE INFORMATION.
4. ELECTRICAL PANEL LOCATIONS SHOWN FOR REFERENCE ONLY. ALL PANELS ARE EXISTING TO REMAIN.

PLAN NORTH N

1/4" = 1'-0" SCALE 2 0 2 4 6 8 10 FEET

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 478
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP

NORTH CAROLINA PROFESSIONAL SEAL 040390 JINZE CHEN
12/18/2025

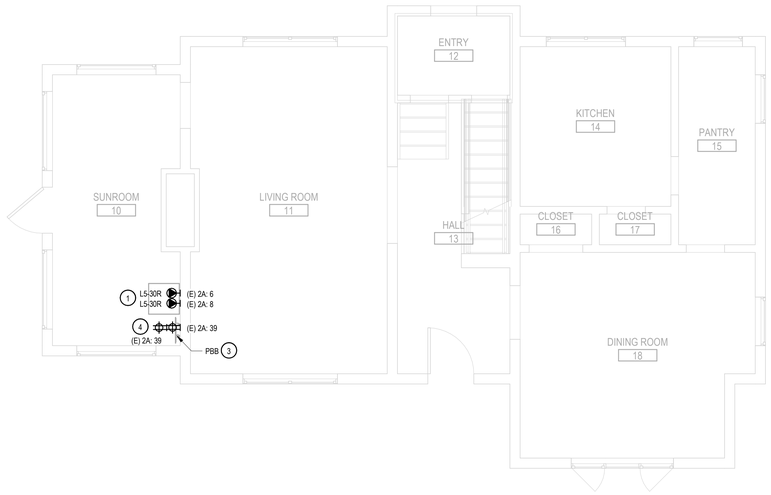
Facilities Management Services

VA | U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL DEMOLITION PLANS	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved: FOR OFFICIAL USE ONLY		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Building Number: BLDG 2
		Issue Date: 12.19.2025 / Checked / Drawn	Drawing Number: 02-ED101
			SHEET 57 of 559

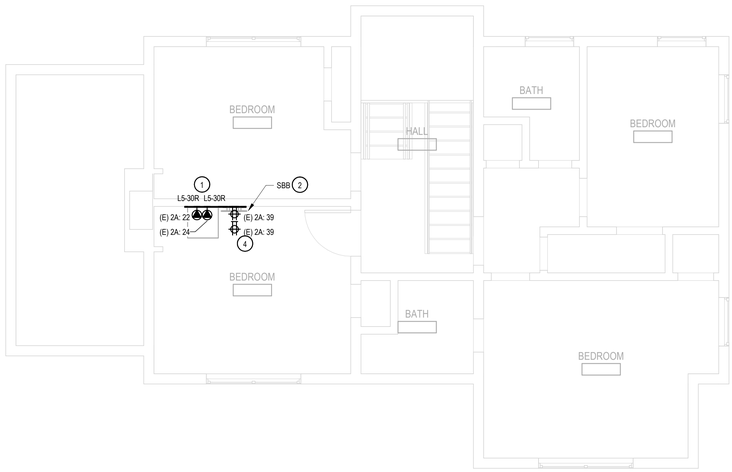
Autodesk Docs://Asheville EHRM_V23/637-22-700.002.E.ASH- EHRM.rvt
12/18/2025 5:09:29 PM

VA FORM 08 - 6231



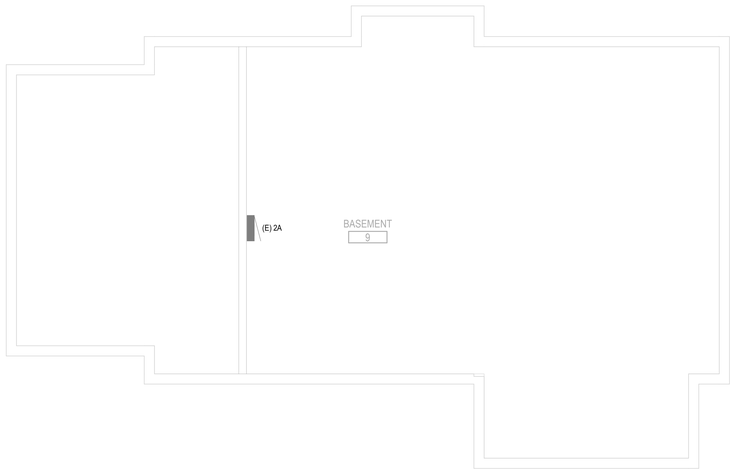
1 ELECTRICAL 1ST FLOOR PLAN

1/4" = 1'-0"



2 ELECTRICAL 2ND FLOOR PLAN

1/4" = 1'-0"



3 ELECTRICAL BASEMENT PLAN

1/4" = 1'-0"

SHEET NOTES:

1. PROVIDE TWO (2) NEMA L5-30R TWIST LOCKING RECEPTACLES MOUNTED INSIDE WALL-MOUNTED TELECOM ENCLOSURE. COORDINATE FINAL INSTALLATION AND MOUNTING HEIGHT WITH ENCLOSURE INSTALLATION.
2. BOND RACK BONDING BUSBAR (RBB) TO THE SBB. SBB SHALL BE BONDED BACK TO THE BUILDING PBB. REFER TO GROUNDING AND BONDING DETAIL(S) ON SHEET 02-TN601 FOR FURTHER DETAILS.
3. BOND RACK BONDING BUSBAR (RBB) TO THE PBB. CONTRACTOR SHALL LOCATE THE BUILDING MAIN GROUND BAR AND BOND THE PBB BACK TO IT. REFER TO GROUNDING AND BONDING DETAIL(S) ON SHEET 02-TN601 FOR FURTHER DETAILS.
4. FOR VERTICALLY STACKED QUAD RECEPTACLES, REFER TO DETAIL 1/00-E502 FOR INSTALLATION.

GENERAL NOTES:

1. FIRE/SMOKE WALL RECORD DRAWINGS WERE NOT PROVIDED BY THE STATION. FIELD-VERIFY EXISTING PARTITION WALLS TO IDENTIFY FIRE/SMOKE RATING AND PROVIDE ALL REQUIRED MEASURES AND APPROPRIATE EQUIPMENT IN ACCORDANCE WITH THE VERIFIED PARTITION TYPE.
2. REFER TO 00-E001 FOR GENERAL NOTES, LEGENDS, AND POWER EQUIPMENT SCHEDULE. PROVIDE UPS AND PDU EQUIPMENT IN EACH TELECOM ENCLOSURE AS SPECIFIED.
3. REFER TO 02-EP601 FOR BUILDING ONE-LINE AND PANEL SCHEDULES.
4. REFER TO TELECOM DRAWINGS FOR EQUIPMENT AND TELECOM ENCLOSURE LAYOUT.
5. NO NEW ELECTRICAL SCOPE IN BASEMENT, PLAN SHOWN FOR REFERENCE ONLY.
6. ELECTRICAL PANEL LOCATIONS SHOWN FOR REFERENCE ONLY. ALL PANELS ARE EXISTING TO REMAIN.
7. REFER TO 00-E502, DETAILS 1 & 2 FOR TYPICAL EQUIPMENT ELEVATION FOR WALL-MOUNTED TELECOM ENCLOSURE INSTALLATIONS. INSTALL, CONNECT, AND ENERGIZE RACK POWER EQUIPMENT AS SPECIFIED.

PLAN NORTH N

1/4" = 1'-0" SCALE 2 0 2 4 6 8 10 FEET

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 478
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP

NORTH CAROLINA PROFESSIONAL SEAL 040390 JINZE CHEN
12/18/2025

Facilities Management Services

VA | U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL PLANS	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved: FOR OFFICIAL USE ONLY		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Building Number: BLDG 2
		Issue Date: 12.19.2025 / Checked / Drawn	Drawing Number: 02-EP101
			SHEET 58 of 559

Autodesk Docs://Asheville EHRM_V23/637-22-700.002 E.ASH- EHRM.rvt
12/18/2025 5:09:29 PM

VA FORM 08 - 6231

Branch Panel: (E) 2A

Location: BASEMENT 9
Supply From:
Mounting: RECESSED
Enclosure: Type 1

Volts: 120/240 Single
Phases: 1
Wires: 3

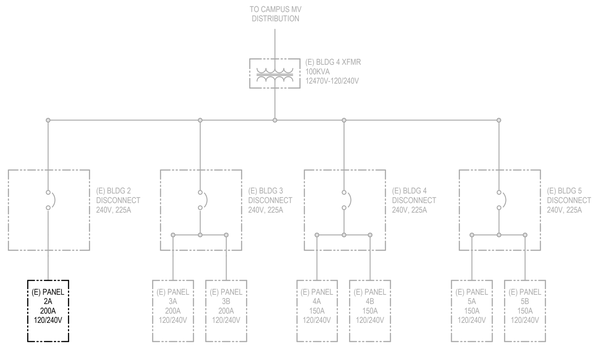
A.I.C. Rating: 10000
Mains Type: MCB
Mains Rating: 200 A
MCB Rating: 200 A

CKT	Circuit Description	Trip	Poles	Notes	A		B		Notes	Poles	Trip	Circuit Description	CKT
1	(E) MINI SPLIT	20 A	2		0	0				1	20 A	(E) REC, LIVING ROOM AND LTG, HALL	2
3	--	--	--	--			0	0		1	20 A	(E) REC, KITCHEN	4
5	(E) REFRIGERATOR	20 A	1		0	2880			1, 3	1	30 A	L5-30R, TE 1ST FLOOR	6
7	(E) REC, KITCHEN & LAUNDRY	20 A	1				0	2880	1, 3	1	30 A	L5-30R, TE 1ST FLOOR	8
9	(E) REC, LAUNDRY	20 A	1		0	0				2	20 A	(E) CONDENSING UNIT	10
11	(E) DISHWASHER	20 A	1				0	0	--	--	--	--	12
13	(E) FURNACE IN BASEMENT	20 A	1		0	0				2	20 A	(E) CONDENSING UNIT	14
15	(E) REC/ LTG, BASE & 1ST	20 A	1				0	0	--	--	--	--	16
17	(E) GARBAGE DISPOSAL	20 A	1		0	0				1	20 A	(E) REC/LTG, BEDROOMS	18
19	(E) REC, DINING ROOM	20 A	1				0	0		1	20 A	(E) REC/ LTG, IN BEDROOMS	20
21	(E) REC, DINING ROOM	20 A	1		0	2880			2, 3	1	30 A	L5-30R, TE 1ST FLOOR	22
23	(E) REC, BASE (GFI)	20 A	1				0	2880	2, 3	1	30 A	L5-30R, TE 2ND FLOOR	24
25	(E) CONDENSATION PUMP	20 A	1		0	0				1	20 A	(E) SMOKE DETECTORS	26
27	(E) REC/LTG, BATHROOMS	20 A	1				0	0		1	20 A	(E) WALL PACK LIGHT OUTSIDE	28
29	(E) AC UNIT IN ATTIC	20 A	1		0	0				1	20 A	(E) BAS	30
31	(E) SPARE	20 A	1				0	0		2	100 A	(E) CONSTRUCTION TEMP	32
33	(E) DOWNSTAIRS BEDROOM	20 A	1		0	0			--	--	--	--	34
35	(E) LTG, REC	20 A	1				0	0		1	20 A	(E) REC, 2ND FLOOR	36
37	(E) LTG, REC	20 A	1		0	0				1	20 A	(E) LTG, 1ST FLOOR	38
39	REC, SUNROOM, BEDROOM	20 A	1	3			1440	0		1	20 A	(E) FACP	40
				Total Load:	5760 VA		7200 VA						
				Total Amps:	48 A		60 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand
REC,	1440 VA	100.00%	1440 VA
Telecommunications Equipment	11520 VA	50.00%	5760 VA

Panel Totals	
Total Conn. Load:	12960 VA
Total Est. Demand:	7200 VA
Total Conn. Current:	54 A
Total Est. Demand Current:	30 A

Notes:
1. REMOVE EXISTING SPARE 30A, 2P BREAKER. CONTRACTOR SHALL VERIFY BREAKER IS NOT IN USE PRIOR TO REMOVAL.
2. REMOVE EXISTING SPARE 50A, 2P BREAKER. CONTRACTOR SHALL VERIFY BREAKER IS NOT IN USE PRIOR TO REMOVAL.
3. PROVIDE NEW BREAKER, WHICH SHALL MATCH THE EXISTING PANEL MANUFACTURER AND AIC RATING, AND MAINTAIN EXISTING PANEL UL RATING.



1 BUILDING 2 PARTIAL ONE-LINE DIAGRAM
N.T.S.

SHEET NOTES:

GENERAL NOTES:

1. REFER TO 00-E001 FOR GENERAL NOTES AND LEGENDS.
2. ALL PANELS ARE EXISTING TO REMAIN. PANELS SHOWN IN BOLD INDICATE SCOPE IN THOSE PANELS.
3. ADDITIONAL LOAD TO BE ADDED TO PANELS AS SHOWN. EXISTING LOAD INFORMATION FOR PANELS WAS UNAVAILABLE AT THE TIME OF DESIGJN. "PANEL TOTALS" REPRESENT LOAD ADDED TO PANEL.
4. IF SPACE ALLOCATED FOR NEW LOADS IS NOT AVAILABLE DURING CONSTRUCTION, CONTACT THE DOR.
5. DEMAND LOAD CALCULATIONS WERE DONE USING EXISTING INFORMATION FROM PROVIDED AS-BUILTS, SITE OBSERVATIONS, AND PHOTOS. PANELS WITH NEW LOADS ADDED WERE WERE SELECTED USING THE DEMAND LOAD ESTIMATES.
6. PANEL AIC RATINGS SHOWN WERE DONE USING EXISTING INFORMATION FROM PROVIDED AS-BUILTS, SITE OBSERVATIONS, AND PHOTOS. CONTRACTOR TO VERFIY AIC RATING BEFORE ADDING NEW BREAKERS.

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 478
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP

NORTH CAROLINA PROFESSIONAL SEAL 040390 JINZE CHEN
12/18/2025

Facilities Management Services

VA | U.S. Department of Veterans Affairs

Drawing Title	ONE-LINE DIAGRAM AND SCHEDULES
Phase	FINAL BID DOCUMENTS
Project Title	EHRM INFRASTRUCTURE UPGRADES
Project Number	637-22-700
Building Number	BLDG 2
Approved:	
Location	1100 TUNNEL ROAD ASHEVILLE, NC 28805
Drawing Number	02-EP601
Issue Date	12.19.2025
Checked	
Drawn	

FOR OFFICIAL USE ONLY

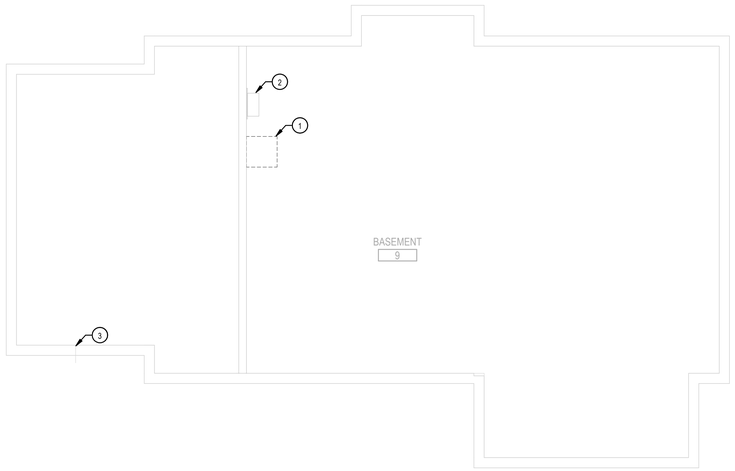
SHEET 59 of 559

VA FORM 08 - 6231

Autodesk Docs://Asheville EHRM_V23/637-22-700.002.E.ASH- EHRM.rvt
12/18/2025 5:09:30 PM

1 TELECOMMUNICATIONS 1ST FLOOR DEMOLITION
1/4" = 1'-0"

2 TELECOMMUNICATIONS 2ND FLOOR DEMOLITION
1/4" = 1'-0"



3 TELECOMMUNICATIONS BASEMENT DEMOLITION
1/4" = 1'-0"

SHEET NOTES:

1. TELECOMMUNICATION ENCLOSURE TO BE DEMOLISHED. REMOVE EXISTING TELECOMMUNICATION EQUIPMENT, CABLING AND INFRASTRUCTURE.
2. EXISTING EQUIPMENT, PLYWOOD AND INFRASTRUCTURE FOR POTS LINES TO REMAIN.
3. EXISTING TO REMAIN 1-4"C FROM EXISTING HANDHOLE TO BE REUSED FOR OSP FIBER.

GENERAL NOTES:

1. REFER TO 00-T001 FOR GENERAL NOTES AND LEGENDS.
2. ALL EXISTING CABLES AND INFRASTRUCTURE NOT CAT6A RATED TO BE DEMOLISHED.
3. NOT ALL DEVICES ARE SHOWN. CONTRACTOR TO VERIFY ALL DATA OUTLET LOCATIONS IN THE FIELD.
4. THE QUANTITY OF TELECOM DROPS TO BE REMOVED, INSTALLED, AND MAINTAINED IS BASED ON THE INFORMATION KNOWN AT THE TIME OF DESIGN. PRIOR TO CONSTRUCTION, TELECOM DROP LOCATIONS SHALL BE SURVEYED. ANY DISCREPANCIES SHALL BE PROVIDED TO THE DOR IMMEDIATELY.
5. EXISTING ROUTING FOR TELECOM DROPS TO REMAIN SHALL BE MAINTAINED TO THE FULLEST EXTENT.
6. DEMOLITION DETAILS (IN NO PARTICULAR ORDER):
   - A. REFER TO ENLARGED PLANS FOR ADDITIONAL REQUIREMENTS.
   - B. CABLE CAT6 AND BELOW HORIZONTAL CABLE SHALL BE REMOVED FROM EXISTING PATCH PANELS BACK TO FINAL DATA JACK LOCATIONS. CABLE SHALL BE REMOVED BETWEEN EXISTING SWITCH AND PATCH PANEL.
   - C. PATCH PANELS CURRENTLY NOT DESIGNED FOR CAT6A CABLE SHALL BE REMOVED.
   - D. WALL PLATES AND RJ-45 JACKS FOR WALL OUTLET BOXES FOR CAT5E, 6 AND BELOW CABLE SHALL BE REMOVED.
   - E. DATA RACKS SHALL BE REMOVED.
   - F. HORIZONTAL AND VERTICAL CABLE MANAGEMENT FOR RACKS SHALL BE REMOVED IF APPLICABLE.
   - G. WALL MOUNTED FIBER BOXES SHALL BE REMOVED.
   - H. FIBER CABLE AND ENCLOSURES SHALL BE REMOVED BACK TO SOURCE AFTER ALL NEW FIBER CONNECTIONS IN THIS BUILDING HAVE BEEN CONNECTED. PRIOR TO DEMOLITION, COORDINATE WITH VA COR TO ENSURE ALL FIBER IS INACTIVE BEFORE DEMOLITION.
   - I. EXISTING CABLE TRAY TO REMAIN.
   - J. COPPER PHONE PUNCH DOWN BLOCKS SHALL REMAIN UNLESS OTHERWISE NOTED.
7. DEMOLISH ALL TELECOMMUNICATIONS CABLE THAT IS NOT TERMINATED AT BOTH ENDS AT A CONNECTOR OR OTHER EQUIPMENT AND NOT IDENTIFIED 'FOR FUTURE USE' WITH A TAG. ENSURE DEMOLITION OF ABANDONED CABLE WILL NOT DISRUPT VA OPERATIONS PRIOR TO REMOVAL. WHERE DISRUPTION OF SERVICE OCCURS DUE TO DEMOLISHED CABLE, NEW CABLE SHALL BE INSTALLED TO RESTORE THE SYSTEM AT THE CONTRACTOR'S EXPENSE.
8. PRIOR TO DEMOLITION, COORDINATE DISPOSAL WITH VA. ALL VA STANDARDS, EPA STANDARDS AND LOCAL STANDARDS MUST BE FOLLOWED WHEN DISPOSING OF ASBESTOS EXPOSED ITEMS.

PLAN NORTH N

1/4" = 1'-0" SCALE 2 0 2 4 6 8 10 FEET

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 478
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
Bicsi
Jinze Chen
BICSI ID # 237176
12-31-28
RCDD
12/18/2025

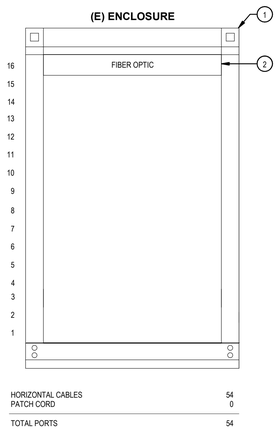
Facilities Management Services

U.S. Department of Veterans Affairs

Drawing Title: TELECOMMUNICATIONS DEMOLITION PLANS	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved: FOR OFFICIAL USE ONLY		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Building Number: BLDG 2
		Issue Date: 12.19.2025 / Checked / Drawn	Drawing Number: 02-TD101
			SHEET 60 of 559

Autodesk Docs://Asheville EHRM_V23/637-22-700.002.E.ASH- EHRM.rvt
12/18/2025 5:54:35 PM

VA FORM 08 - 6231

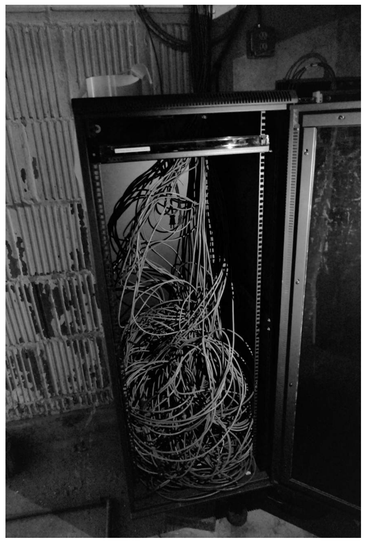


HORIZONTAL CABLES	54
PATCH CORD	0
TOTAL PORTS	54

DETAIL NOTES:

1. WALL-MOUNTED RACK TO BE DEMOLISHED.
2. FIBER OPTIC PATCH PANEL TO BE DEMOLISHED.

1 (E) RACK ELEVATION
N.T.S.



2 PHOTO OF EXISTING RACK
N.T.S.

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 478
Raleigh, NC 27607
ph: 919.314.6686
www.coffman.com

STAMP

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
Bicsi
Jinze Chen
BICSI ID # 237176
12-31-28
RCDD
12/18/2025

Facilities Management Services

VA | U.S. Department of Veterans Affairs

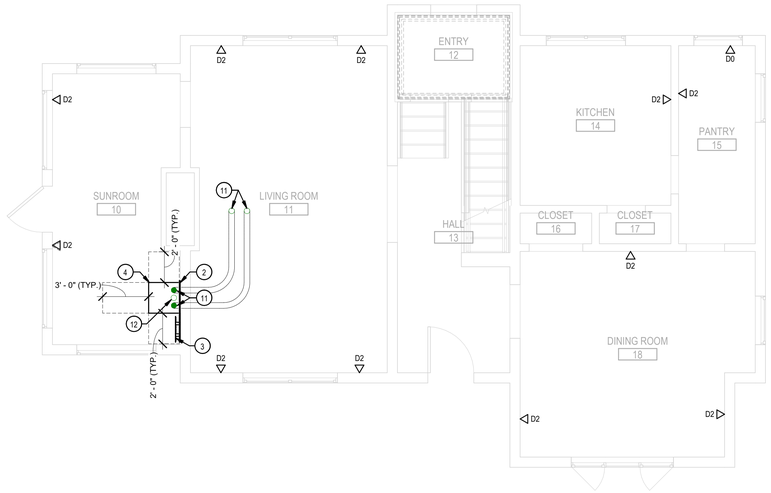
Drawing Title	TELECOMMUNICATIONS DEMOLITION RACK ELEVATIONS
Phase	FINAL BID DOCUMENTS
Project Title	EHRM INFRASTRUCTURE UPGRADES
Project Number	637-22-700
Building Number	BLDG 2
Approved:	
Location	1100 TUNNEL ROAD ASHEVILLE, NC 28805
Drawing Number	02-TD601
Issue Date	12.19.2025
Checked	
Drawn	

FOR OFFICIAL USE ONLY

SHEET 61 of 559

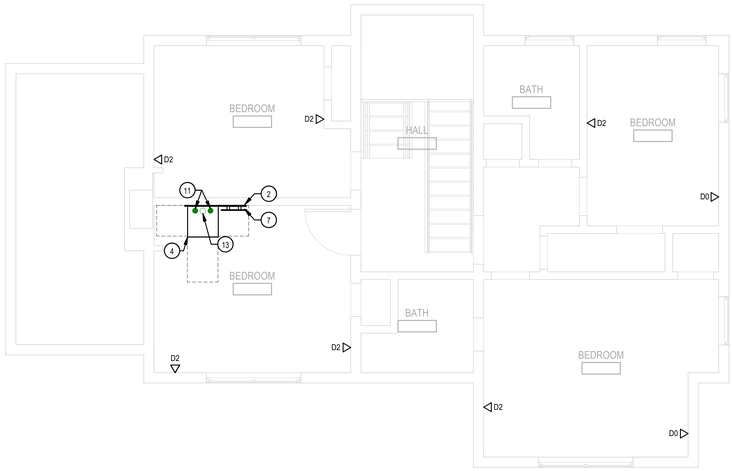
VA FORM 08 - 6231

Autodesk Docs://Asheville EHRM_V23/637-22-700.002.E.ASH- EHRM.rvt
12/18/2025 5:04:38 PM



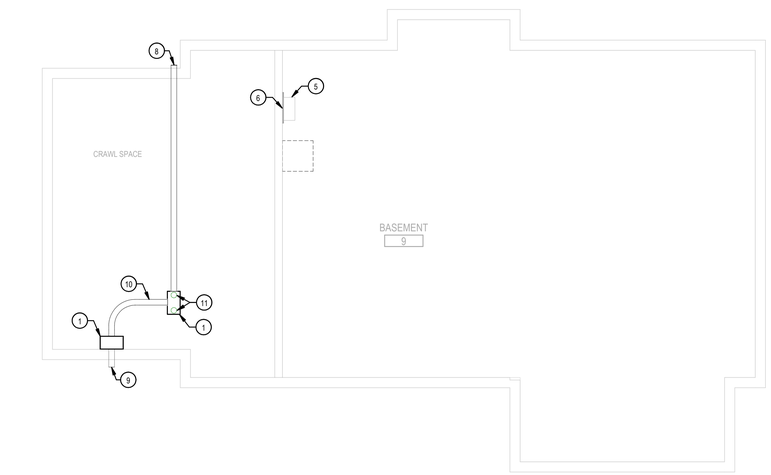
1 TELECOMMUNICATIONS 1ST FLOOR PLAN

1/4" = 1'-0"



2 TELECOMMUNICATIONS 2ND FLOOR PLAN

1/4" = 1'-0"



3 TELECOMMUNICATIONS BASEMENT PLAN

1/4" = 1'-0"

SHEET NOTES:

1. PROVIDE PULL BOX.
2. 4' BY 8' AC GRADE 3/4" TRADE SIZE PLYWOOD BACKBOARD PAINTED HIGH-GLOSS WHITE WITH TWO COATS OF FIRE RESISTANT PAINT.
3. PROVIDE NEW PRIMARY BONDING BUS BAR (PBB) ON PLYWOOD BACKBOARD. REFER TO SHEET 00-T501 FOR GROUNDING AND BONDING DETAILS.
4. PROVIDE NEW 12U WALL-MOUNTED CABINET.
5. EXISTING EQUIPMENT FOR POTS LINES TO REMAIN.
6. EXISTING PLYWOOD TO REMAIN.
7. PROVIDE NEW SECONDARY BONDING BUS BAR (SBB) ON PLYWOOD BACKBOARD. REFER TO SHEET 00-T501 FOR GROUNDING AND BONDING DETAILS.
8. 1-4"C FROM HANDHOLE TO PULLBOX FOR "A SIDE" FIBER:
   PROVIDE 1-4"C CONTAINING ONE (1) 3" CORRUGATED INNERDUCT WITH 2-24ST OS2 FIBER FROM THE "A SIDE" MDA IN THE DATA CENTER OF BUILDING 47 TO FIRST AND SECOND FLOOR TES IN BUILDING 2. CONTRACTOR TO ROUTE CONDUITS THROUGH THE BASEMENT IN FIELD TO AVOID OBSTRUCTIONS AND MINIMIZE DISTURBANCE TO USERS. REFER TO 00-TS100 FOR ADDITIONAL INFORMATION.
9. 1-4"C FROM EXISTING HANDHOLE TO PULLBOX FOR "B SIDE" FIBER:
   IN EXISTING 1-4"C, PROVIDE ONE (1) 3" CORRUGATED INNERDUCT WITH 2-24ST OS2 FIBER FROM THE "B SIDE" MDA IN THE DATA CENTER OF BUILDING 47 TO FIRST AND SECOND FLOOR TES IN BUILDING 2. CONTRACTOR TO ROUTE CONDUITS THROUGH THE BASEMENT IN FIELD TO AVOID OBSTRUCTIONS AND MINIMIZE DISTURBANCE TO USERS. REFER TO 00-TS100 FOR ADDITIONAL INFORMATION.
10. 1-4"C FROM PULLBOX TO PULLBOX FOR "B SIDE" FIBER:
    PROVIDE 1-4"C CONTAINING ONE (1) 3" CORRUGATED INNERDUCT WITH 2-24ST OS2 FIBER FROM THE "B SIDE" MDA IN THE DATA CENTER OF BUILDING 47 TO FIRST AND SECOND FLOOR TES IN BUILDING 2. CONTRACTOR TO ROUTE CONDUITS THROUGH THE BASEMENT IN FIELD TO AVOID OBSTRUCTIONS AND MINIMIZE DISTURBANCE TO USERS. REFER TO 04-TN601 FOR ADDITIONAL INFORMATION.
11. 2-4"C FROM PULLBOX TO TE:
    PROVIDE 1-4"C CONTAINING ONE (1) 3" CORRUGATED INNERDUCT FOR FIBER BACKBONE FROM THE "A SIDE" MDA IN THE DATA CENTER OF BUILDING 47 GOING TO THE FIRST AND SECOND FLOOR TES IN BUILDING 2. ROUTE 1-24ST OS2 FIBER TO EACH TE FROM THE A SIDE MDA. PROVIDE 1-4"C CONTAINING ONE (1) 3" CORRUGATED INNERDUCT WITH 2-24ST OS2 FIBER FROM THE "B SIDE" MDA IN THE DATA CENTER OF BUILDING 47 TO FIRST AND SECOND FLOOR TES IN BUILDING 2. ROUTE 1-24ST OS2 FIBER TO EACH TE FROM THE B SIDE MDA.
12. 1-4"C FROM FIRST FLOOR TE TO FIRST FLOOR CEILING FOR HORIZONTAL DISTRIBUTION.
13. 1-4"C FROM SECOND FLOOR TE TO SECOND FLOOR CEILING FOR HORIZONTAL DISTRIBUTION.

GENERAL NOTES:

1. FIRE/SMOKE WALL RECORD DRAWINGS WERE NOT PROVIDED BY THE STATION. FIELD-VERIFY EXISTING PARTITION WALLS TO IDENTIFY FIRE/SMOKE RATING AND PROVIDE ALL REQUIRED MEASURES AND APPROPRIATE EQUIPMENT IN ACCORDANCE WITH THE VERIFIED PARTITION TYPE.
2. REFER TO 00-T001 FOR GENERAL NOTES AND LEGENDS.
3. ALL EXISTING CABLES AND INFRASTRUCTURE NOT CAT6A RATED TO BE REPLACED WITH CAT6A CABLING.
4. CONTRACTOR TO VERIFY ALL DATA OUTLET LOCATIONS IN THE FIELD.
5. THE QUANTITY OF TELECOM DROPS TO BE REMOVED, INSTALLED, AND MAINTAINED IS BASED ON THE INFORMATION KNOWN AT THE TIME OF DESIGN. PRIOR TO CONSTRUCTION, TELECOM DROP LOCATIONS SHALL BE SURVEYED. ANY DISCREPANCIES SHALL BE PROVIDED TO THE VA COR IMMEDIATELY.
6. WHERE DROP CEILING TILES ARE DISTURBED FOR INSTALLATION OF TELECOMMUNICATIONS CABLE, INNERDUCT, CABLE TRAY, ETC., ENSURE ALL DUST AND PARTICLES ARE CLEANED PRIOR TO LEAVING THE DISTURBED AREA. PROVIDE NEW DROP CEILING TILES WHERE TILES ARE DAMAGED DURING CONSTRUCTION.
7. ALL ROUTING FOR NEW BACKBONE CABLE SHALL BE ROUTED IN CORRUGATED INNERDUCT.
8. ALL EXISTING DATA DROPS TO BE REFED FROM THE NEW WALL MOUNTED CABINET ON THE CORRESPONDING FLOOR. IF THERE ARE EXISTING DATA DROPS IN THE BASEMENT, THEN THEY ARE TO BE FED FROM THE FIRST FLOOR WALL MOUNTED CABINET.

PLAN NORTH N

1/4" = 1'-0" SCALE 2 0 2 4 6 8 10 FEET

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 478
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
Bicsi
Jinze Chen
BICSI ID # 237176
Exp 12-31-28
RCDD
12/18/2025

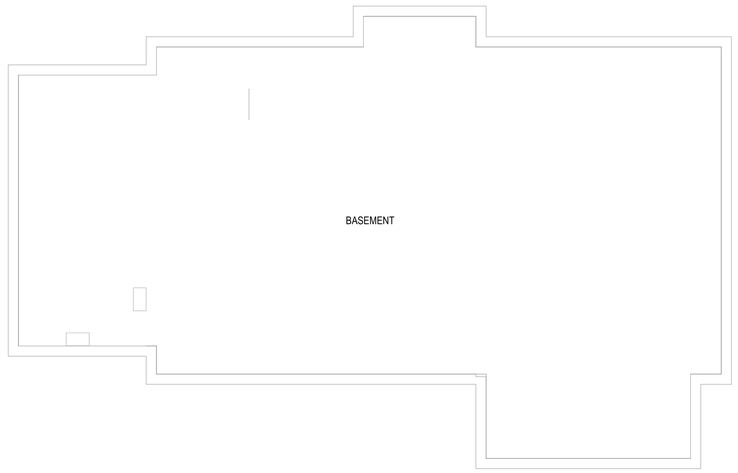
Facilities Management Services

U.S. Department of Veterans Affairs

Drawing Title: TELECOMMUNICATIONS PLANS	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved: FOR OFFICIAL USE ONLY		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Building Number: BLDG 2
		Issue Date: 12.19.2025 / Checked / Drawn	Drawing Number: 02-TN101
			SHEET 62 of 559

Autodesk Docs://Asheville EHRM_V23/637-22-700.002 E.ASH- EHRM.rvt
12/18/2025 5:54:37 PM

VA FORM 08 - 6231



3 BASEMENT SECURITY FLOOR PLAN
1/4" = 1'-0"

2 2ND FLOOR SECURITY PLAN
1/4" = 1'-0"

1 1ST FLOOR SECURITY PLAN
1/4" = 1'-0"

SHEET NOTES:

1. COORDINATE MOUNTING HEIGHTS AND INSTALLATION DETAILS WITH ARCHITECTURAL DRAWINGS.
2. BASE BUILDING SECURITY SYSTEM IS JOHNSON CONTROLS (JCI). COORDINATE SECURITY SYSTEM CABINETS, HEAD-ENDS, AND ASSOCIATED INFRASTRUCTURE TO FEED NEW CAMERA AND ACCESS CONTROL DEVICES WITH BASE BUILDING SECURITY VENDOR.
3. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL BY AE WHICH ARE PREPARED BY BASE BUILDING SECURITY SYSTEM VENDOR. DRAWINGS TO INCLUDE ALL NECESSARY COMPONENTS AND BACK-END EQUIPMENT LOCATIONS FOR A COMPLETE AND FULLY FUNCTIONAL SYSTEM.
4. CONTRACTOR SHALL VERIFY IN FIELD EXISTING AVAILABLE NETWORK SWITCHES. NEW CAMERAS SHALL BE CONNECTED TO NEAREST AVAILABLE NETWORK SWITCH. FOR BID PURPOSES, ASSUME 300FT CABLE LENGTH FROM CAMERA TO SECURITY SWITCH.
5. ACCESS CONTROL SYSTEM: NEW ACCESS CONTROL PROVISIONS TO BE INSTALLED FOR ALL NEW, RELOCATED, OR EXPANDED TELECOM ROOMS. CONTRACTOR TO COORDINATE ALL HARDWARE AND LOCATIONS WITH BASE BUILDING SECURITY SYSTEM VENDOR AND VA STAFF.
6. SSTV SYSTEM: NEW SECURITY CAMERAS TO BE INSTALLED FOR ALL NEW, RELOCATED, OR EXPANDED TELECOM ROOMS. CONTRACTOR TO COORDINATE ALL HARDWARE AND LOCATIONS WITH BASE BUILDING SECURITY SYSTEM VENDOR AND VA STAFF.
7. ALL CONDUIT AND BACK BOXES REQUIRED FOR THE INSTALLATION OF SECURITY DEVICES AND EQUIPMENT TO BE PROVIDED BY DIV. 26 CONTRACTOR. COORDINATE WITH THE VA FACILITIES DEPARTMENT FOR EXACT LOCATION OF DEVICES.
8. REFERENCE ARCHITECTURAL SHEETS FOR ALL DOOR TYPES, ENCLOSURES, FRAME DETAILS AND PATHWAYS.
9. ALL TELECOM RACKS TO BE PROVIDED BY DIV. 27 CONTRACTOR.
10. ALL SECURITY HEAD-END EQUIPMENT IS EXISTING TO REMAIN. EXISTING CAMERAS BEING FED FROM DECOMMISSIONED TELECOM RACKS, PER TELECOM DRAWINGS AND SCOPE, SHALL BE RE-FED FROM NEW/REPLACEMENT RACKS IN NEW TELECOM ROOM LOCATION. COORDINATE WITH TELECOM DRAWINGS FOR MORE INFORMATION.
11. COORDINATE WITH DOOR HARDWARE SCHEDULE IN ARCHITECTURAL DRAWING SET FOR LOCKING MECHANISM TYPE FOR SECURITY INTEGRATION (ELECTRIC LATCH, ELECTRIC STRIKE, MAGNETIC LOCK). PROVIDE ALL HARDWARE AND ACCESSORIES NECESSARY.
12. MOTION DETECTOR REX TO BE PROGRAMMED AND INTEGRATED WITH DOOR HARDWARE TO PREVENT LOCKING OF DOOR IF ROOM IS OCCUPIED. INSTALL REX MOTION SENSOR ABOVE DOOR FRAME.
13. PROVIDE TRI-TECH MOTION SENSOR IN TR'S (SEPARATE FROM REX) FOR ROOM OCCUPANCY MONITORING TIED TO PACS SYSTEM.
14. SUBMIT COMPLETE ACCESS CONTROL AND VIDEO SURVEILLANCE SUBMITTAL PACKAGE PER SPECIFICATION SECTIONS 282300-1.5D AND 281300-1.4D.

SYMBOLS LEGEND:

- W — CARD READER WITH KEYPAD (W - WALL MTD)
- 360° — CEILING MTD. CAMERA, 360 DEGREE, W/ SUPPLEMENTAL IR RING.
- ELECTRONIC LOCK
- SECURITY ACCESS, SWITCH, BALANCED MAGNETIC CONTROL
- MOTION DETECTOR
  - T-ROOM OCCUPANCY MOTION SENSOR (TRI-TECH- PIR, MICROWAVE, DOPPLER)
  - X-REQUEST-TO-EXIT MOTION SENSOR (DUAL TECH- PIR, MICROWAVE)
- DPS — ACCESS CONTROL DOOR POSITION SWITCH

VENDOR CONTACT INFORMATION:

BRIAN SHALLENBERGER
JOHNSON CONTROLS
GREENVILLE-SPARTANBURG, SC
BRIAN.SHALLENBERGER@JCI.COM

1/4" = 1'-0" SCALE 2 0 2 4 6 8 10 FEET

PLAN NORTH N

FINAL BID DOCUMENTS

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

STAMP

LICENSED ARCHITECT GENE HAMILTON C-19576 REN. 07-31-27 STATE OF CALIFORNIA

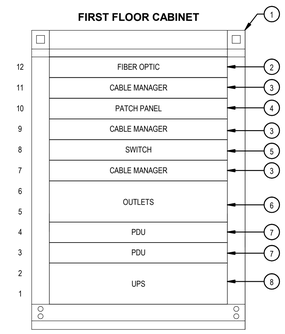
Facilities Management Services

VA U.S. Department of Veterans Affairs

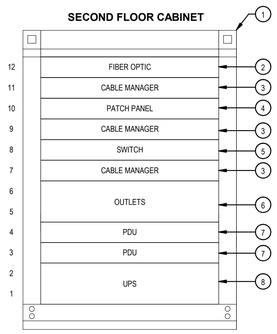
Drawing Title: BASEMENT, 1ST & 2ND SECURITY FLOOR PLANS	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 637-22-700
Approved: FOR OFFICIAL USE ONLY		Location: 1100 TUNNEL ROAD ASHEVILLE, NC 28805	Building Number: 2
		Issue Date: 12.19.2025 / Checked / Drawn	Drawing Number: 02-TY102
			SHEET 64 of 559

Autodesk Docs://Asheville EHRM_V23/637-22-700.002.A_ASH- EHRM.rvt
12/19/2025 10:44:19 AM

VA FORM 08 - 6231



HORIZONTAL CABLES	22
HORIZONTAL CABLES + 10% OVERAGE	25
TOTAL SPARE HORIZONTAL CABLES	(48 x 1) - 25 = 23

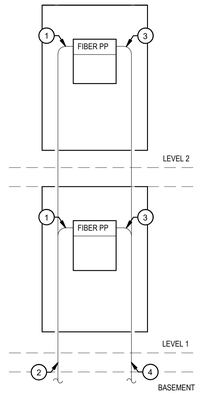


HORIZONTAL CABLES	12
HORIZONTAL CABLES + 10% OVERAGE	14
TOTAL SPARE HORIZONTAL CABLES	(48 x 1) - 14 = 34

DETAIL NOTES:

1. 12U WALL-MOUNTED 2-POST CABINET WITH LOCKABLE FRONT DOOR AND SWING-OUT REAR ACCESS TO EQUIPMENT.
2. 144-STRAND FIBER OPTIC PATCH PANEL WITH SPLICE KIT, LC CONNECTORS, 1U.
3. 1U WIRE MANAGEMENT.
4. 48-PORT UTP CAT6A PATCH PANEL, 1U.
5. VA LAN SWITCH PROVIDED BY OTHERS.
6. LOCKING 120V 30A OUTLETS.
7. RACK MOUNTED PDU. L5-30P INPUT POWER CORD PLUG TYPE AND NEMA 5-20 OUTPUT, 1RU.
8. RACK MOUNTED UPS. L5-30 INPUT AND L5-30 OUTPUT, CAPACITY NTE 2880 VA, 2U.

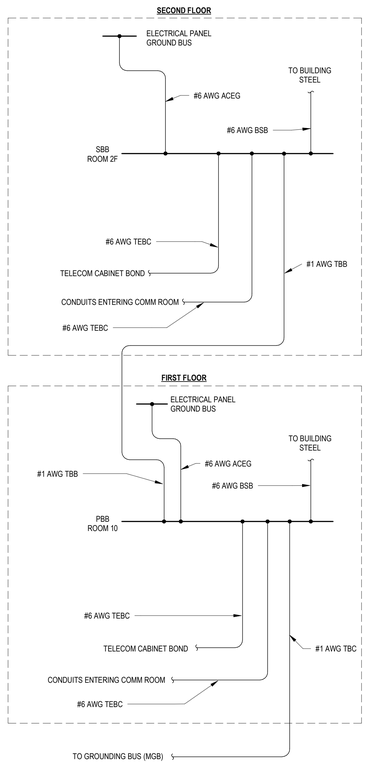
1 CABINET ELEVATIONS
N.T.S.



DETAIL NOTES:

1. FIBER FROM CORE 1 IN BUILDING 47 LANDING ON FIBER OPTIC PATCH PANEL IN TR:
   (1) 24ST OS2 SINGLE MODE FIBER
2. FIBER ORIGINATING FROM CORE 1 IN BUILDING 47:
   (2) 24ST OS2 SINGLE MODE FIBER
3. FIBER FROM CORE 2 IN BUILDING 47 LANDING ON FIBER OPTIC PATCH PANEL IN TR:
   (1) 24ST OS2 SINGLE MODE FIBER
4. FIBER ORIGINATING FROM CORE 2 IN BUILDING 47:
   (2) 24ST OS2 SINGLE MODE FIBER

2 TELECOMMUNICATIONS RISER DIAGRAM
N.T.S.



GROUNDING NOTES:

1. METALLIC TELECOM RACEWAY AND EQUIPMENT SHALL BE GROUNDED. BOND RACEWAY TO NEAREST TELECOM GROUND BUS USING A TEBC, #6 AWG MINIMUM.
2. TELECOM GROUNDING SYSTEM MUST BE IN ACCORDANCE WITH TIA-607 AND THE VA DESIGN STANDARDS.
3. COAXIAL METAL SHEATH MUST BE GROUNDED AND BONDED PER NEC REQUIREMENTS.
4. TBB CONDUCTOR MUST BE SIZED BASED ON THE TABLE BELOW, SIZING OF TELECOM BONDING BACKBONE.

ACRONYMS

ACEG	ALTERNATING CURRENT EQUIPMENT GROUND
BBC	BACKBONE BONDING CONDUCTOR
BSB	BUILDING STRUCTURE BONDING
MGB	MAIN GROUNDING BUS
PBB	PRIMARY BONDING BUSBAR
SBB	SECONDARY BONDING BUSBAR
TBB	TELECOMMUNICATIONS BACKBONE BONDING CONDUCTOR
TBC	TELECOMMUNICATIONS BONDING CONDUCTOR
TEBC	TELECOMMUNICATIONS EQUIPMENT BONDING CONDUCTOR

SIZING OF TELECOM BONDING BACKBONE	
TBB LINEAR FT	TBB SIZE (AWG)
<13	6
14-20	4
21-26	3
27-33	2
34-41	1
42-52	1/0
53-66	2/0
67-84	3/0
85-105	4/0
106-125	250KCMIL
126-150	300KCMIL
151-175	350KCMIL
176-250	500KCMIL
251-300	600KCMIL
>301	750KCMIL

3 TELECOMMUNICATIONS GROUNDING RISER DIAGRAM
N.T.S.

Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

AWEN SOLUTIONS GROUP
ARCHITECTURE | ENGINEERING | PLANNING

A/E:
Awen Solutions Group
215 N. Payne Street, Suite 122
Alexandria, VA 22314

COFFMAN ENGINEERS
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
ph 919.314.6686
www.coffman.com

STAMP

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
BICSI
Jinze Chen
BICSI ID # 237176
Exp 12-31-28
RCDD
12/18/2025

Facilities Management Services

U.S. Department of Veterans Affairs

Drawing Title	TELECOMMUNICATIONS DIAGRAMS
Phase	FINAL BID DOCUMENTS
Project Title	EHRM INFRASTRUCTURE UPGRADES
Project Number	637-22-700
Building Number	BLDG 2
Approved:	
Location	1100 TUNNEL ROAD ASHEVILLE, NC 28805
Drawing Number	02-TN601
Issue Date	12.19.2025
Checked	
Drawn	

FOR OFFICIAL USE ONLY

SHEET 63 of 559

VA FORM 08 - 6231

Autodesk Docs://Asheville EHRM_V23/637-22-700.002 E ASH- EHRM.rvt

12/18/2025 5:54:38 PM