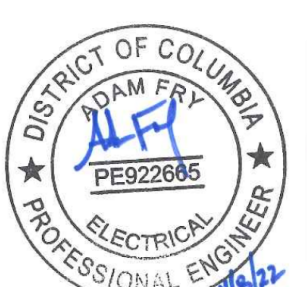
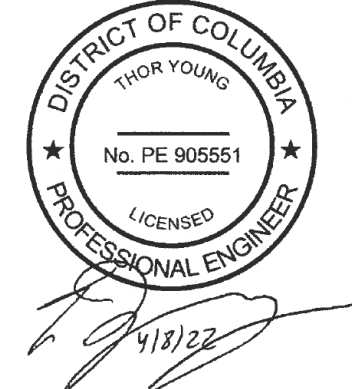
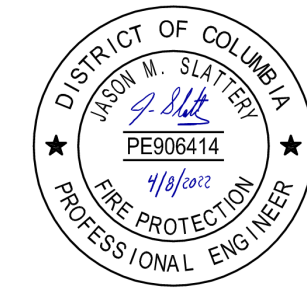


# FREER/SACKLER/AFA/QUAD ESS MODERNIZATION PHASE 1

THE SMITHSONIAN QUADRANGLE  
SW WASHINGTON, DC 20560  
SF PROJECT NUMBER 1909101



FREER/SACKLER/AFA/  
QUAD ESS  
MODERNIZATION

FOR  
CONSTRUCTION

STAMP 1	STAMP 2
STAMP 3	STAMP 4

SMITHSONIAN FACILITIES  
APPROVAL BLOCK

Jimmy Hong 04/11/2022

DM: \_\_\_\_\_

DESIGN CHIEF: Andrew Scott 4/11/2022

R.E.: \_\_\_\_\_ 04/14/2022

OPPM: \_\_\_\_\_ 4/14/22

OFM&R: \_\_\_\_\_

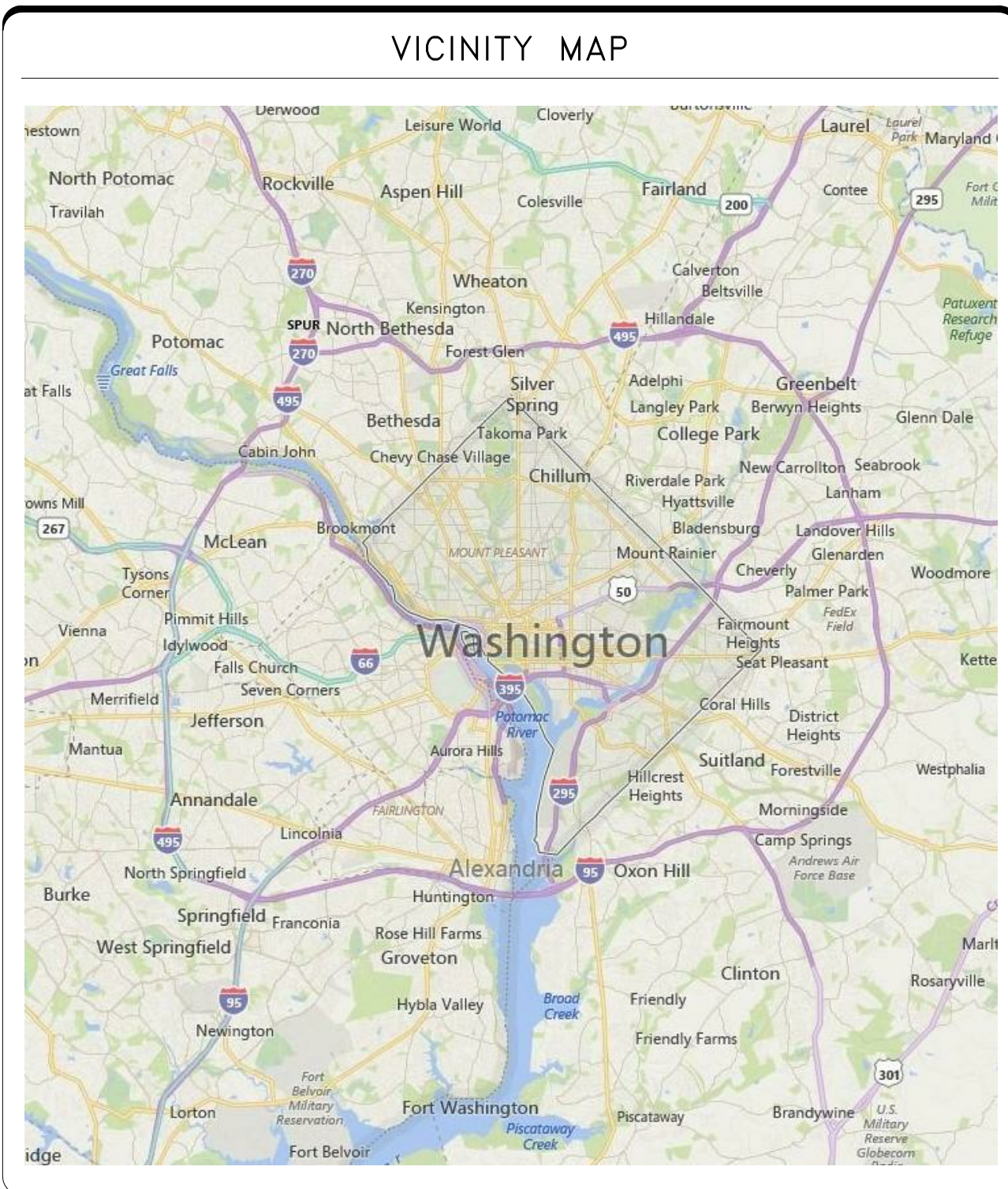
OSHEM: Michael Kilby 5/13/22

OPS: Hugh Mehan 6/2/2022 | 1:21 PM EDT

THIS PROJECT IS APPROVED AS BEING IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF SMITHSONIAN INSTITUTION DIRECTIVE 410.

MICHAEL W. GARRANCHO, P.E., ASSOCIATE DIRECTOR, OEDC

DATE	REVISION
04/08/22	FINAL CD
REVISION # DATE	REVISION DESCRIPTION



- INCLUDED IN PHASE:
  - SUBLEVEL 1
    - SECURITY OPERATIONS CENTER (SOC)
    - ASSOCIATED SUPPORT SPACES
  - SUBLEVEL 3
    - OPS SUITE
    - SMITHSONIAN ASSOCIATED CLASSROOMS
    - ASSOCIATED SUPPORT SPACES
  - GUARDBOOTH



BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	TITLE SHEET -- PHASE 1
WORKING STAFF	MO SK DB
SHEET NO.	G 0 0 0 P 1
1 of 179	DISCIPLINE TYPE SEQUENCE

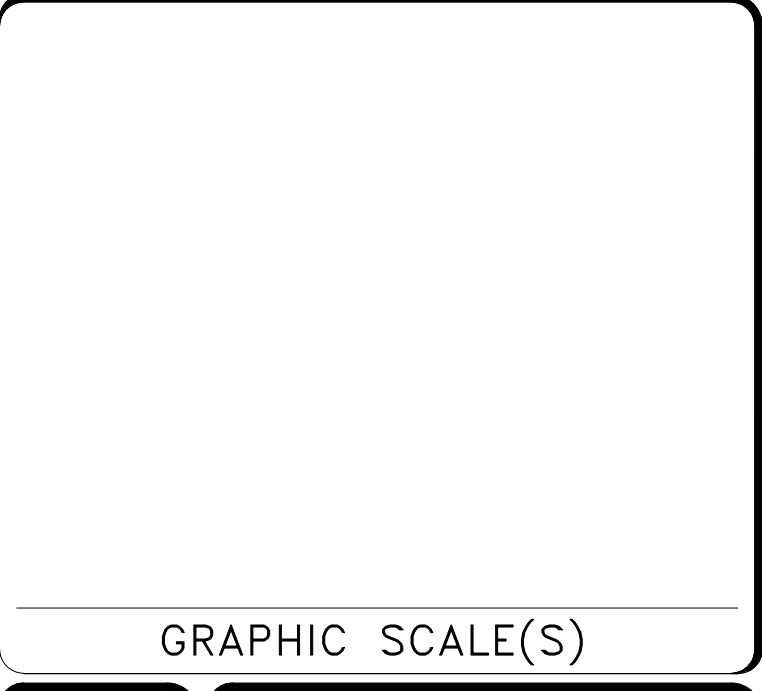
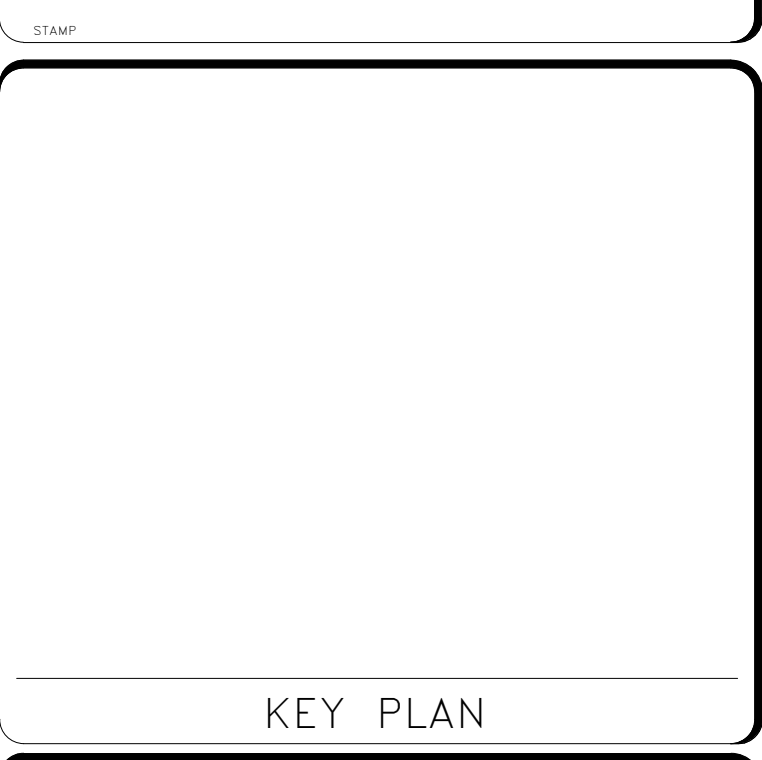
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G000P1 BY Approver 04/08/22 FINAL CD

G000P1

SHEET #	SHEET NAME	SHEET #	SHEET NAME
G000P1	TITLE SHEET - PHASE 1	E-701SHP1	ELECTRICAL SCHEDULES - PHASE 1
G001P1	SHEET LIST - PHASE 1	E-702SHP1	ELECTRICAL SCHEDULES - PHASE 1
G002P1	SITE PLAN - PHASE 1	TA001P1	AUDIO VISUAL
CIVIL		TA002P1	REFERENCE SHEET - AV - PHASE 1
C-001P1	REFERENCE SHEET - CIVIL - PHASE 1	TA002P1	AV SYMBOLS AND ABBREVIATIONS - PHASE 1
C-003P1	SITE PLAN - CIVIL - PHASE 1	TAD121FPP1	SUBLEVEL 1 PLAN - AV - OVERALL PLAN - DEMO - PHASE 1
C-232ELP1	GUARD BOOTH SECTIONS - PHASE 1	TAD401EPP1	ENLARGED PLANS - AV - OVERALL PLAN - DEMO - PHASE 1
C-442EPP1	ENLARGED PLANS - CIVIL - PHASE 1	TA101FPP1	SUBLEVEL 3 PLAN - AV - OVERALL PLAN - NEW WORK - PHASE 1
ARCHITECTURE		TA121FPP1	SUBLEVEL 1 PLAN - AV - OVERALL PLAN - NEW WORK - PHASE 1
A-001P1	SYMBOLS & ABBREVIATIONS	TA201ELP1	ELEVATIONS - AV - PHASE 1
A-002P1	CODE SUMMARY - PHASE 1	TA202ELP1	ELEVATIONS - AV - PHASE 1
A-003P1	SUBLEVEL 03 - CODE STUDY - PHASE 1	TA203ELP1	ELEVATIONS - AV - PHASE 1
A-005P1	SUBLEVEL 01 - CODE STUDY - PHASE 1	TA401EPP1	ENLARGED PLANS - AV - PHASE 1
A-006P1	GUARDBOOTH - DEMO PLAN - PHASE 1	TA501DTP1	DETAILS - AV - PHASE 1
A-007P1	GUARDBOOTH - SITE PLAN - PHASE 1	TA601DGP1	DIAGRAM - AV - PHASE 1
A-008P1	GUARDBOOTH PLAN - BELOW SILL - PHASE 1	TELECOM	
A-009P1	GUARDBOOTH PLAN - ABOVE SILL - PHASE 1	TN001P1	REFERENCE SHEET - TELECOM - PHASE 1
A-010P1	GUARDBOOTH - RCP & ROOF PLAN - PHASE 1	TN002P1	TELECOM SYMBOLS AND ABBREVIATIONS - PHASE 1
A-011P1	GUARDBOOTH - ELEVATIONS - PHASE 1	TD101FPP1	SUBLEVEL 3 PLAN - TELECOM - OVERALL PLAN - DEMO - PHASE 1
A-012P1	GUARDBOOTH - SECTIONS - PHASE 1	TD103FPP1	SUBLEVEL 3 PLAN - AREA 2 - TELECOM - DEMO - PHASE 1
AD101FPP1	SUBLEVEL 03 - OVERALL PLAN - DEMO - PHASE 1	TD121FPP1	SUBLEVEL 1 PLAN - TELECOM - OVERALL PLAN - DEMO - PHASE 1
AD103FPP1	SUBLEVEL 01 - OVERALL PLAN - DEMO - PHASE 1	TD123FPP1	SUBLEVEL 1 PLAN - AREA 2 - TELECOM - DEMO - PHASE 1
AD401EPP1	SUBLEVEL 03 - PHOTO LABS - DEMO - PHASE 1	TN101FPP1	SUBLEVEL 3 PLAN - TELECOM - OVERALL PLAN - NEW WORK - PHASE 1
AD402CPP1	SUBLEVEL 03 - PHOTO LABS - DEMO - RCP - PHASE 1	TN103FPP1	SUBLEVEL 3 PLAN - AREA 2 - TELECOM - PHASE 1
AD403EPP1	SUBLEVEL 03 - EXISTING OFFICES - DEMO - PHASE 1	TN121FPP1	SUBLEVEL 1 - TELECOM - OVERALL PLAN - NEW WORK - PHASE 1
AD404EPP1	SUBLEVEL 03 - EXISTING OFFICES - DEMO - PHASE 1	TN123FPP1	SUBLEVEL 1 PLAN - AREA 2 - TELECOM - PHASE 1
AD405CPP1	SUBLEVEL 03 - EXISTING OFFICES - DEMO - RCP - PHASE 1	TN201ELP1	ELEVATIONS - TN - PHASE 1
AD406EPP1	SUBLEVEL 01 - COMMAND CENTER - DEMO - PHASE 1	TN442EPP1	ENLARGED PLANS - GUARD BOOTH - PHASE 1
A-201ELP1	SUBLEVEL 03 - ELEVATIONS - PHASE 1	TN501DTP1	DETAILS - TELECOM - PHASE 1
A-101FPP1	SUBLEVEL 03 - OVERALL PLAN - NEW WORK - PHASE 1	TN601DGP1	CABLING DIAGRAM - PHASE 1
A-103FPP1	SUBLEVEL 01 - OVERALL PLAN - NEW WORK - PHASE 1	SECURITY	
A-401EPP1	SUBLEVEL 03 - CLASSROOMS - NEW WORK - PHASE 1	TY001P1	REFERENCE SHEET - SECURITY - PHASE 1
A-402EPP1	SUBLEVEL 03 - CLASSROOMS - NEW WORK - RCP - PHASE 1	TY002P1	SECURITY SYMBOLS AND ABBREVIATIONS - PHASE 1
A-403EPP1	SUBLEVEL 03 - EXISTING OFFICES - NEW WORK - PHASE 1	TY003P1	SITE PLAN - SECURITY - PHASE 1
A-404EPP1	SUBLEVEL 03 - RELOCATED OPS SUITE - NEW WORK - PHASE 1	TY0101FPP1	SUBLEVEL 3 - SECURITY - OVERALL PLAN - DEMO - PHASE 1
A-405EPP1	SUBLEVEL 03 - RELOCATED OPS SUITE - NEW WORK - RCP - PHASE 1	TYD103FPP1	SUBLEVEL 3 - SECURITY - AREA 2 - DEMO - PHASE 1
A-406EPP1	SUBLEVEL 03 - RELOCATED OPS SUITE - NEW WORK - FURNITURE - PHASE 1	TYD121FPP1	SUBLEVEL 1 - SECURITY - OVERALL PLAN - DEMO - PHASE 1
A-407EPP1	SUBLEVEL 01 - COMMAND CENTER - NEW WORK - PHASE 1	TYD123FPP1	SUBLEVEL 1 - SECURITY - AREA 2 - DEMO - PHASE 1
A-701SHP1	MATERIALS & FINISH SCHEDULE - PHASE 1	TYD231ELP1	RACK ELEVATIONS - PHASE 1
A-702SHP1	DOOR SCHEDULE - PHASE 1	TYD401EPP1	SUBLEVEL 3 - ENLARGED PLANS - DEMO - PHASE 1
MECHANICAL		TYD432EPP1	SECURITY - ENLARGED PLANS - DEMO - PHASE 1
M-001P1	MECHANICAL LEGEND - PHASE 1	TY101FPP1	SUBLEVEL 3 - SECURITY - OVERALL PLAN - NEW WORK - PHASE 1
MD101FPP1	SUBLEVEL 3 - MECHANICAL - OVERALL PLAN - DEMO - PHASE 1	TY103FPP1	SUBLEVEL 3 - SECURITY - AREA 2 - NEW WORK - PHASE 1
MD102FPP1	SUBLEVEL 1 - MECHANICAL - OVERALL PLAN - DEMO - PHASE 1	TY121FPP1	SUBLEVEL 1 - SECURITY - OVERALL PLAN - NEW WORK - PHASE 1
MD103FPP1	GROUND LEVEL - MECHANICAL - OVERALL PLAN - DEMO - PHASE 1	TY123FPP1	SUBLEVEL 1 - SECURITY - AREA 2 - NEW WORK - PHASE 1
MD401EPP1	SUBLEVEL 3 - PHOTO LABS - MECHANICAL - DEMO - PHASE 1	TY201ELP1	SUBLEVEL 3 - ELEVATIONS - PHASE 1
MD402EPP1	SUBLEVEL 3 - ROOMS 3108, 3109, 3112 - MECHANICAL - DEMO - PHASE 1	TY222ELP1	SUBLEVEL 1 - ELEVATIONS - PHASE 1
MD403EPP1	SUBLEVEL 1 - COMMAND CENTER - MECHANICAL - DEMO - PHASE 1	TY231ELP1	RACK ELEVATIONS - PHASE 1
MD404EPP1	GROUND AND SUBLEVEL 3 - EXISTING EQUIPMENT LOCATIONS - MECHANICAL - DEMO - PHASE 1	TY232ELP1	RACK ELEVATIONS - PHASE 1
M-101FPP1	SUBLEVEL 3 - MECHANICAL - OVERALL PLAN - NEW WORK - PHASE 1	TY401EPP1	ENLARGED PLANS - SUBLEVEL 3 - PHASE 1
M-102FPP1	SUBLEVEL 1 - MECHANICAL - OVERALL PLAN - NEW WORK - PHASE 1	TY441EPP1	ENLARGED PLANS - SECURITY - PHASE 1
M-401EPP1	SUBLEVEL 3 - CLASSROOMS - MECHANICAL - NEW WORK - PHASE 1	TY442EPP1	ENLARGED PLANS - GUARD BOOTH - PHASE 1
M-402EPP1	SUBLEVEL 3 - OPS SUITE - MECHANICAL - NEW WORK - PHASE 1	TY501DTP1	DOOR DETAILS - PHASE 1
M-403EPP1	SUBLEVEL 1 - COMMAND CENTER - MECHANICAL - NEW WORK - PHASE 1	TY505DTP1	IDS DETAILS - PHASE 1
M-501DTP1	MECHANICAL DETAILS - PHASE 1	TY511DTP1	CAMERA DETAILS - PHASE 1
M-601DGP1	MECHANICAL SCHEMATICS - PHASE 1	TY521DTP1	PANEL DETAILS - PHASE 1
M-701SHP1	MECHANICAL SCHEDULES - PHASE 1	TY541DTP1	DETAILS - PHASE 1
PLUMBING		TY601FPP1	SUBLEVEL 3 SECURITY ROOM COVERAGE - PHASE 1
P-001P1	PLUMBING LEGEND - PHASE 1	TY603FPP1	SUBLEVEL 1 SECURITY ROOM COVERAGE - PHASE 1
PD101FPP1	SUBLEVEL 3 - PLUMBING - OVERALL PLAN - DEMO - PHASE 1	TY611FPP1	SUBLEVEL 3 SECURITY CAMERA NUMBERING - PHASE 1
PD102FPP1	SUBLEVEL 1 - PLUMBING - OVERALL PLAN - DEMO - PHASE 1	TY613FPP1	SUBLEVEL 1 SECURITY CAMERA NUMBERING - PHASE 1
PD401EPP1	SUBLEVEL 3 - PHOTO LABS - PLUMBING - DEMO - PHASE 1	TY614FPP1	GROUND FLOOR SECURITY CAMERA NUMBERING - PHASE 1
PD402EPP1	SUBLEVEL 1 - COMMAND CENTER - PLUMBING - DEMO - PHASE 1	TY661DGP1	SECURITY RISER DIAGRAM - QUADRANGLE - PHASE 1
P-101FPP1	SUBLEVEL 3 - PLUMBING - OVERALL PLAN - NEW WORK - PHASE 1	TY701SHP1	SCHEDULES - DOOR - PHASE 1
P-102FPP1	SUBLEVEL 1 - PLUMBING - OVERALL PLAN - NEW WORK - PHASE 1	TY711SHP1	SCHEDULES - CAMERA - PHASE 1
P-401EPP1	SUBLEVEL 3 - CLASSROOMS - PLUMBING - PHASE 1	TY721SHP1	SCHEDULES - NETWORK SWITCH - PHASE 1
P-402EPP1	SUBLEVEL 3 - COMMAND CENTER - MECHANICAL - PHASE 1	TY731SHP1	SCHEDULES - DGP 320 - PHASE 1
FIRE ALARM		TY732SHP1	SCHEDULES - DGP 321 - PHASE 1
FA001P1	REFERENCE SHEET - FIRE ALARM - PHASE 1	TY741SHP1	SCHEDULES - DGP 121 - PHASE 1
FD101FPP1	SUBLEVEL 3 - FIRE ALARM - OVERALL PLAN - DEMO - PHASE 1	TY751SHP1	SCHEDULES - DGP 001 - PHASE 1
FD111FPP1	SUBLEVEL 1 - FIRE ALARM - OVERALL PLAN - DEMO - PHASE 1		
FD401EPP1	ENLARGED PLANS - SUBLEVEL 3 - PHOTO LABS - FIRE ALARM - DEMO - PHASE 1		
FD402EPP1	ENLARGED PLANS - SUBLEVEL 3 - ROOMS 3108, 3109, 3112 - FIRE ALARM - DEMO - PHASE 1		
FD403EPP1	ENLARGED PLANS - SUBLEVEL 1 - SSR / SOC - FIRE ALARM - DEMO - PHASE 1		
FA101FPP1	SUBLEVEL 3 - FIRE ALARM - OVERALL PLAN - NEW WORK - PHASE 1		
FA111FPP1	SUBLEVEL 1 - FIRE ALARM - OVERALL PLAN - NEW WORK - PHASE 1		
FA401EPP1	ENLARGED PLANS - SUBLEVEL 3 - CLASSROOMS 3036 AND 3120 - FIRE ALARM - NEW WORK - PHASE 1		
FA402EPP1	ENLARGED PLANS - SUBLEVEL 3 - OPS SUITE - FIRE ALARM - NEW WORK - PHASE 1		
FA403EPP1	ENLARGED PLANS - SUBLEVEL 1 - COMMAND CENTER - FIRE ALARM - NEW WORK - PHASE 1		
FA501DTP1	DETAILS - FIRE ALARM - PHASE 1		
SPRINKLER			
FX001P1	REFERENCE SHEET - FIRE SUPPRESSION - PHASE 1		
FJ101FPP1	SUBLEVEL 3 FIRE SUPPRESSION - OVERALL PLAN - DEMO - PHASE 1		
FJ111FPP1	SUBLEVEL 2 FIRE SUPPRESSION - OVERALL PLAN - DEMO - PHASE 1		
FJ121FPP1	SUBLEVEL 1 FIRE SUPPRESSION - OVERALL PLAN - DEMO - PHASE 1		
FJ401EPP1	SUBLEVEL 1 - PHOTO LABS - FIRE SUPPRESSION - DEMO - PHASE 1		
FJ402EPP1	SUBLEVEL 3 - ROOMS 3108, 3109, 3112 - FIRE SUPPRESSION - DEMO - PHASE 1		
FJ403EPP1	SUBLEVEL 2 - FIRE SUPPRESSION - DEMO - PHASE 1		
FJ404EPP1	SUBLEVEL 3 - SSR / SOC - FIRE SUPPRESSION - DEMO - PHASE 1		
FX101FPP1	SUB-LEVEL 3 - FIRE SUPPRESSION - OVERALL PLAN - NEW WORK - PHASE 1		
FX111FPP1	SUB-LEVEL 2 - FIRE SUPPRESSION - OVERALL PLAN - NEW WORK - PHASE 1		
FX121FPP1	SUB-LEVEL 1 - FIRE SUPPRESSION - OVERALL PLAN - NEW WORK - PHASE 1		
FX401EPP1	SUBLEVEL 3 - CLASSROOMS 3036 AND 3120 - FIRE SUPPRESSION - NEW WORK - PHASE 1		
FX402EPP1	SUBLEVEL 3 - OPS SUITE - FIRE SUPPRESSION NEW WORK - PHASE 1		
FX403EPP1	SUBLEVEL 2 - FIRE SUPPRESSION - NEW WORK - PHASE 1		
FX404EPP1	SUBLEVEL 1 - COMMAND CENTER - FIRE SUPPRESSION - NEW WORK - PHASE 1		
FX501DTP1	FIRE SUPPRESSION DETAILS - PHASE 1		
FX502DTP1	FIRE SUPPRESSION DETAILS - PHASE 1		
ELECTRICAL			
E-001P1	ELECTRICAL LEGEND - PHASE 1		
ED101FPP1	SUBLEVEL 3 - ELECTRICAL - OVERALL PLAN - DEMO - PHASE 1		
ED103FPP1	SUBLEVEL 1 - ELECTRICAL - OVERALL PLAN - DEMO - PHASE 1		
ED401EPP1	SUBLEVEL 3 - PHOTO LABS - ELECTRICAL - DEMO - PHASE 1		
ED402EPP1	SUBLEVEL 3 - EXISTING OPS SUITE - ELECTRICAL - DEMO - PHASE 1		
ED403EPP1	SUBLEVEL 3 - ROOMS 3108, 3109, 3112 - ELECTRICAL - DEMO - PHASE 1		
ED406EPP1	SUBLEVEL 1 - COMMAND CENTER - ELECTRICAL - DEMO - PHASE 1		
ED409EPP1	EXTERIOR - GUARD BOOTH - DEMO - PHASE 1		
ED601DGP1	ELECTRICAL ONE-LINE DIAGRAM - DEMOLITION - PHASE 1		
E-101FPP1	SUBLEVEL 3 - ELECTRICAL - OVERALL PLAN - NEW WORK - PHASE 1		
E-103FPP1	SUBLEVEL 1 - ELECTRICAL - OVERALL PLAN - NEW WORK - PHASE 1		
E-401EPP1	SUBLEVEL 3 - CLASSROOMS - ELECTRICAL - POWER - PHASE 1		
E-402EPP1	SUBLEVEL 3 - OPS SUITE - ELECTRICAL - POWER - PHASE 1		
E-405EPP1	SUBLEVEL 1 - COMMAND CENTER - ELECTRICAL - POWER - PHASE 1		
E-408EPP1	SUBLEVEL 3 - CLASSROOMS - ELECTRICAL - LIGHTING - PHASE 1		
E-409EPP1	SUBLEVEL 3 - OPS SUITE - ELECTRICAL - LIGHTING - PHASE 1		
E-412EPP1	SUBLEVEL 1 - COMMAND CENTER - ELECTRICAL - LIGHTING - PHASE 1		
E-415EPP1	EXTERIOR - GUARD BOOTH - NEW WORK - PHASE 1		
E-501DTP1	ELECTRICAL DETAILS - PHASE 1		
E-601DGP1	ELECTRICAL ONE-LINE DIAGRAM - NEW WORK - PHASE 1		



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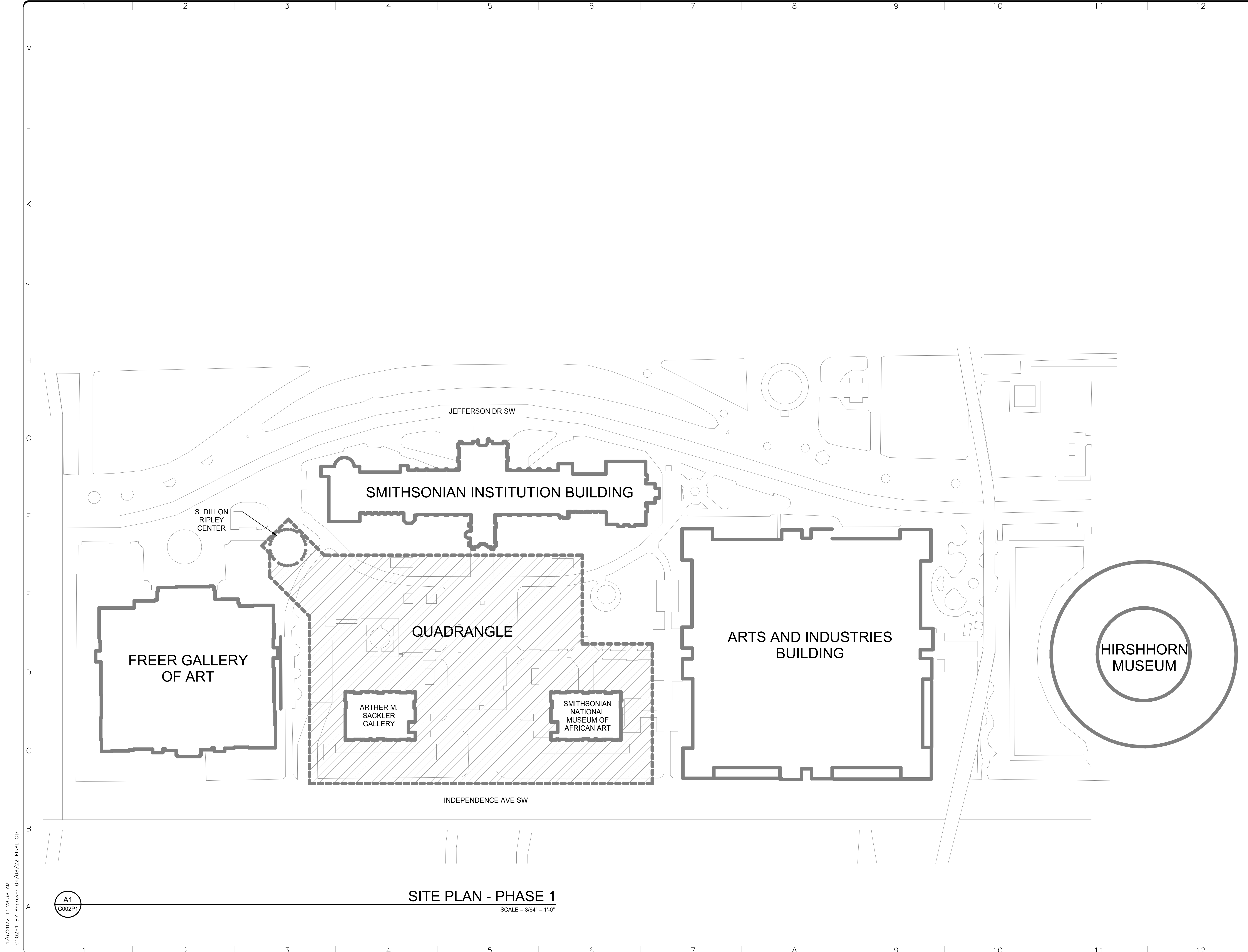
DATE	04/08/22	REVISION	FINAL CD
REVISION #		REVISION DESCRIPTION	

**Smithsonian Institution**  
Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD												
ADDRESS	SW WASHINGTON, DC 20560												
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION												
SF PROJECT NUMBER	1909101												
A/E PROJECT NUMBER	11203201												
DRAWING TITLE	SHEET LIST -- PHASE 1												
WORKING STAFF	<table border="1"> <tr> <td>DESIGNED BY</td> <td>MO</td> <td>SK</td> <td>DB</td> </tr> <tr> <td>DRAWN BY</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CHECKED BY</td> <td></td> <td></td> <td></td> </tr> </table>	DESIGNED BY	MO	SK	DB	DRAWN BY				CHECKED BY			
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SHEET NO.	G 0 0 1 P 1
2 of 179	

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G001P1 BY Approver 04/08/22 FINAL CD



4/6/2022 11:28:38 AM  
G002P1 BY Approver 04/08/22 FINAL CD

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G002P1

**SITE PLAN - PHASE 1**  
SCALE = 3/64" = 1'-0"



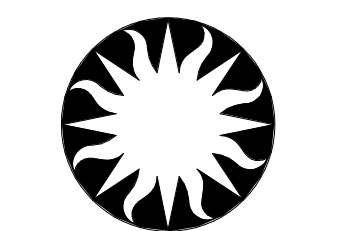
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KEY PLAN

GRAPHIC SCALE(S)

DATE	REVISION
04/08/22	FINAL CD
REVISION # DATE	REVISION DESCRIPTION



**Smithsonian Institution**

Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME: FREER/SACKLER/AFA/QUAD  
ADDRESS: SW WASHINGTON, DC 20560

PROJECT TITLE: FREER/SACKLER/AFA/ QUAD  
ESS' MODERNIZATION  
SF PROJECT NUMBER: 1909101  
A/E PROJECT NUMBER: 11203201

DRAWING TITLE: SITE PLAN - PHASE 1

WORKING STAFF: MO SK DB  
DESIGNED BY: DRAWN BY: CHECKED BY:

SHEET NO. 3 of 179  
G002P1  
DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE

## GENERAL NOTES

- CONTRACTOR IS RESPONSIBLE FOR CONTACTING "MISS UTILITY" AT 811, 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- MAXIMUM SLOPES SHALL BE NOT GREATER THAN THREE (3) FEET HORIZONTAL TO ONE (1) FOOT VERTICAL.
- CERTIFIED COMPACTION TESTS ARE REQUIRED FOR ALL TRENCH/FILL/SUBBASE WORK.
- ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, LOCAL BUILDING CODES, AND THE STANDARD SPECIFICATION AND DETAILS OF THE DISTRICT OF COLUMBIA.
- ALL EROSION/SEDIMENT CONTROL MEASURES SHALL COMPLY WITH THE 2017 "DISTRICT OF COLUMBIA EROSION AND SEDIMENT CONTROL MANUAL" BY THE DEPARTEMENT OF ENERGY AND ENVIRONMENT.
- AREAS THAT HAVE BEEN CLEARED AND/OR GRADED, BUT WILL BE CONSTRUCTED ON OR NOT PERMANENTLY VEGETATED FOR MORE THAN 7 DAYS (3 DAYS FOR STEEP SLOPES) MUST BE STABILIZED WITH MULCH OR TEMPORARY STABILIZATION.
- MULCHING CAN ONLY BE USED ON DISTURBED AREAS AS A TEMPORARY COVER WHERE VEGETATION IS NOT FEASIBLE OR WHERE SEEDING GERMINATION CANNOT BE COMPLETED BECAUSE OF WEATHER CONDITIONS.
- ALL SEDIMENT CONTROL STRUCTURES WILL BE INSPECTED ONCE A WEEK AND AFTER EACH RAINFALL AND WILL BE REPAIRED, AS NEEDED, SO THAT THE STRUCTURE MEETS THE MINIMUM SPECIFICATIONS AS SHOWN IN THE DISTRICT OF COLUMBIA EROSION AND SEDIMENT CONTROL MANUAL.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SEDIMENT AND EROSION CONTROL MEASURES UNTIL THE DISTURBED AREAS ARE PERMANENTLY STABILIZED.
- ALL DISTURBED AREAS SHALL BE SMOOTHLY GRADED TO PROMOTE POSITIVE DRAINAGE AWAY FROM BUILDINGS TOWARD EXISTING SITE DRAINAGE AND ALSO STABILIZED WITH TOPSOIL, SEED AND MULCH. IF SETTLEMENT OCCURS, TOPSOIL, SEEDING AND MULCH SHALL BE REPEATED UNTIL SETTLEMENT SUBSIDES. CONTRACTOR SHALL ENSURE ALL EXISTING DRAINAGE PATTERNS ARE MAINTAINED DURING CONSTRUCTION.
- IF SEEDING OUTSIDE OF THE SPECIFIED SEEDING SEASON, THEN MULCH WILL BE APPLIED AT THE RATE OF 2 TONS AN ACRE AT 1" TO 2" DEPTH WITH UNIFORM PLACEMENT SO THAT THE SOIL SURFACE IS NOT EXPOSED.
- FINISHED FLOOR ELEVATION OF PROPOSED GUARD BOOTH SHOULD BE A MINIMUM OF 2" ABOVE EXTERIOR GROUND GRADE, EXCEPT AT CONCRETE ENTRY APRON ON THE WEST SIDE OF THE GUARD BOOTH.

## GENERAL CONCRETE NOTES

- REINFORCED CONCRETE DESIGN FOLLOWS ACI 318-14 EXCEPT FOR LIQUID CONTAINMENT STRUCTURES WHICH ARE DESIGNED IN ACCORDANCE WITH ACI 350-06. "CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES AND COMMENTARY."
- UNLESS NOTED OTHERWISE, ALL CONCRETE SHOWN IS STRUCTURAL CONCRETE WITH A 4500 PSI 28-DAY COMPRESSIVE STRENGTH AND TYPE II PORTLAND CEMENT. REFER TO SECTION 03300 OF THE SPECIFICATION.
- REINFORCEMENT WILL BE NEW BILLET STEEL, CONFORMING TO ASTM A-615 GRADE 60, DEFORMED.
- DETAIL, FABRICATE AND ERECT REINFORCING BARS IN ACCORDANCE WITH "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT," (ACI 315-99).
- UNLESS OTHERWISE SHOWN, ALL REINFORCING STEEL SHALL BE PROVIDED WITH MINIMUM CONCRETE COVER AS FOLLOWS:
 

SLABS ON GRADE	- TOP REINF. (INTERIOR)	1-1/2"
	- TOP REINF. (EXTERIOR)	2"
	- BOTTOM REINF.	3"
- FOUNDATION SLABS/FOOTING
 

	- TOP REINF.	2"
	- BOTTOM REINF.	3"
- BEAMS AND COLUMNS
 

	-	2"
WALLS	-	2"
- LAP SPLICES AND EMBEDMENTS FOR REINFORCEMENT SHALL FOLLOW THE CHART SHOWN ON THIS DRAWING UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- ANY REVISIONS TO JOINT PLACEMENT, POUR SEQUENCING OR REINFORCING SPLICES MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO SUBMITTAL OF REINFORCING STEEL SHOP DRAWINGS.
- CURE CONCRETE AT A MINIMUM TEMPERATURE OF 50° F FOR SEVEN DAYS, FOLLOWING THE CRITERIA OF ACI 308-R01.
- CONCRETE SURFACES SHALL BE FINISHED PER SECTION 03350 OF THE SPECIFICATION.
- CHAMFER EXPOSED CONCRETE EDGES 3/4" X 3/4" UNLESS OTHERWISE NOTED.
- EQUIPMENT PAD DIMENSIONS, HOUSEKEEPING PAD DIMENSIONS AND OPENINGS FOR HATCHES, DUCTS AND PIPES MUST BE COORDINATED WITH APPROVED EQUIPMENT SHOP DRAWINGS, AND WITH THE REQUIREMENTS SHOWN ON OTHER DRAWINGS, THIS PROJECT SET.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING STABILITY AND PREVENTING FLOATATION OF STRUCTURES DURING ALL PHASES OF CONSTRUCTION.

## DEMOLITION NOTES

- THE DEMOLITION PLANS ARE DEVELOPED FROM AVAILABLE RECORD DRAWINGS ARE INTENDED ONLY TO SHOW BASIC SYSTEM CONFIGURATION. IT IS CONTRACTOR'S RESPONSIBILITY TO DETERMINE ACTUAL SITE CONDITIONS, PRIOR TO DEMOLITION, CONTRACTOR SHALL CONFIRM WITH OWNER THE EXACT EXTENT OF DEMOLITION.
- UNLESS SHOWN TO BE DEMOLISHED, ALL EXISTING STRUCTURES AND EQUIPMENT SHALL CONTINUE TO BE OPERATIONAL AND SHALL BE PROTECTED.
- DEMOLITION TO BE PERFORMED IN ACCORDANCE WITH CONSTRUCTION CONSTRAINTS OUTLINED IN THE CONTRACT DOCUMENTS.
- CONTRACTOR SHALL FILL IN VOIDS CREATED BY REMOVING PIPE, BOLTS, REBAR, CONDUIT AND OTHER SIMILAR ITEMS WITH NON-SHRINK GROUT AND MAKE FLUSH WITH SURROUNDING SURFACE. ALL ITEMS REMAINING ARE TO BE CUT AND GROUND FLUSH WITH SURROUNDING SURFACE. REMAINING EMBEDDED METALS EXPOSED TO CORROSIVE ENVIRONMENTS SHALL BE COATED AFTER GRINDING FLUSH WITH SURROUNDING SURFACE.
- DEMOLISH EQUIPMENT PADS, PIPE SUPPORTS, AND ELECTRICAL FOR DEMOLISHED EQUIPMENT UNLESS OTHERWISE NOTED.
- WHERE PIPES ARE ABANDONED IN PLACE CONTRACTOR SHALL CLOSE ALL ASSOCIATED VALVES AND REMOVE UPPER SECTION OF VALVE BOX TO A MINIMUM OF 2' BELOW FINISHED GRADE ELEVATION AND BACKFILL HOLE WITH MATERIALS MATCHING EXISTING GRADE.
- WHERE OPENINGS ARE LEFT IN BUILDING WALLS FROM DEMOLITION OF EQUIPMENT, CONTRACTOR SHALL SEAL WITH MATERIALS THAT MATCH THE EXISTING CONSTRUCTION. TOOTH ALL MASONRY CONSTRUCTION TO EXISTING.



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STAMP

KEY PLAN

GRAPHIC SCALE(S)

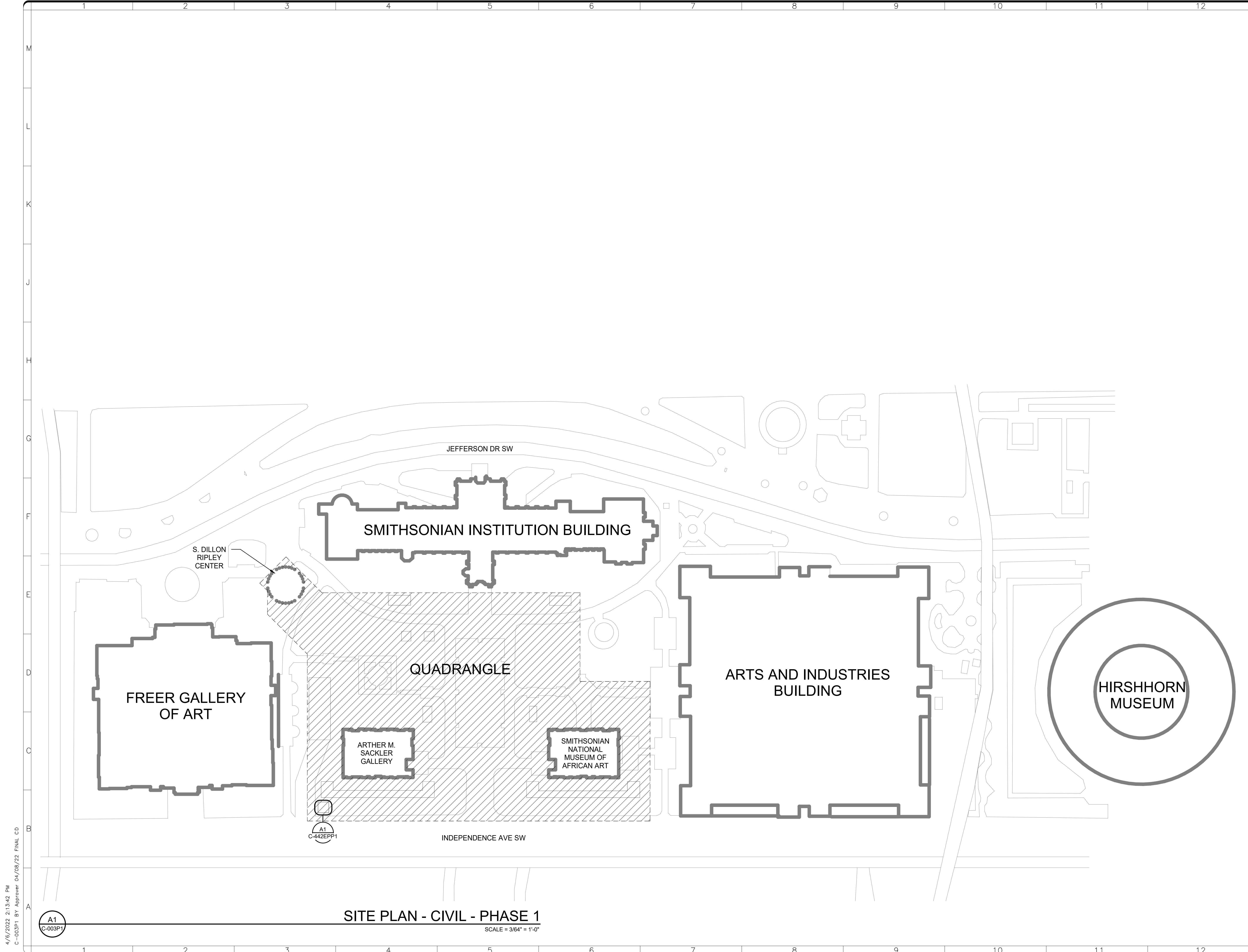
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REVISION #	DATE	REVISION DESCRIPTION	



Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	REFERENCE SHEET -- CIVIL -- PHASE 1
WORKING STAFF	ACR      MH      DB
DESIGNED BY	DRAWN BY
CHECKED BY	


SHEET NO. **C - 001P1**  
4 of 179

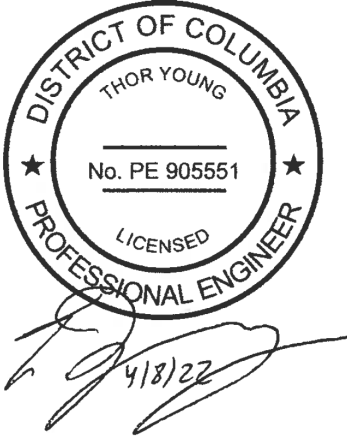


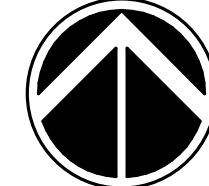
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 C-003P1 BY Approver 04/08/22 FINAL CD

A1  
 C-003P1

**SITE PLAN - CIVIL - PHASE 1**  
 SCALE = 3/64" = 1'-0"

  
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 THOR YOUNG  
 No. PE 905551  
 LICENSED PROFESSIONAL ENGINEER  
 4/8/22

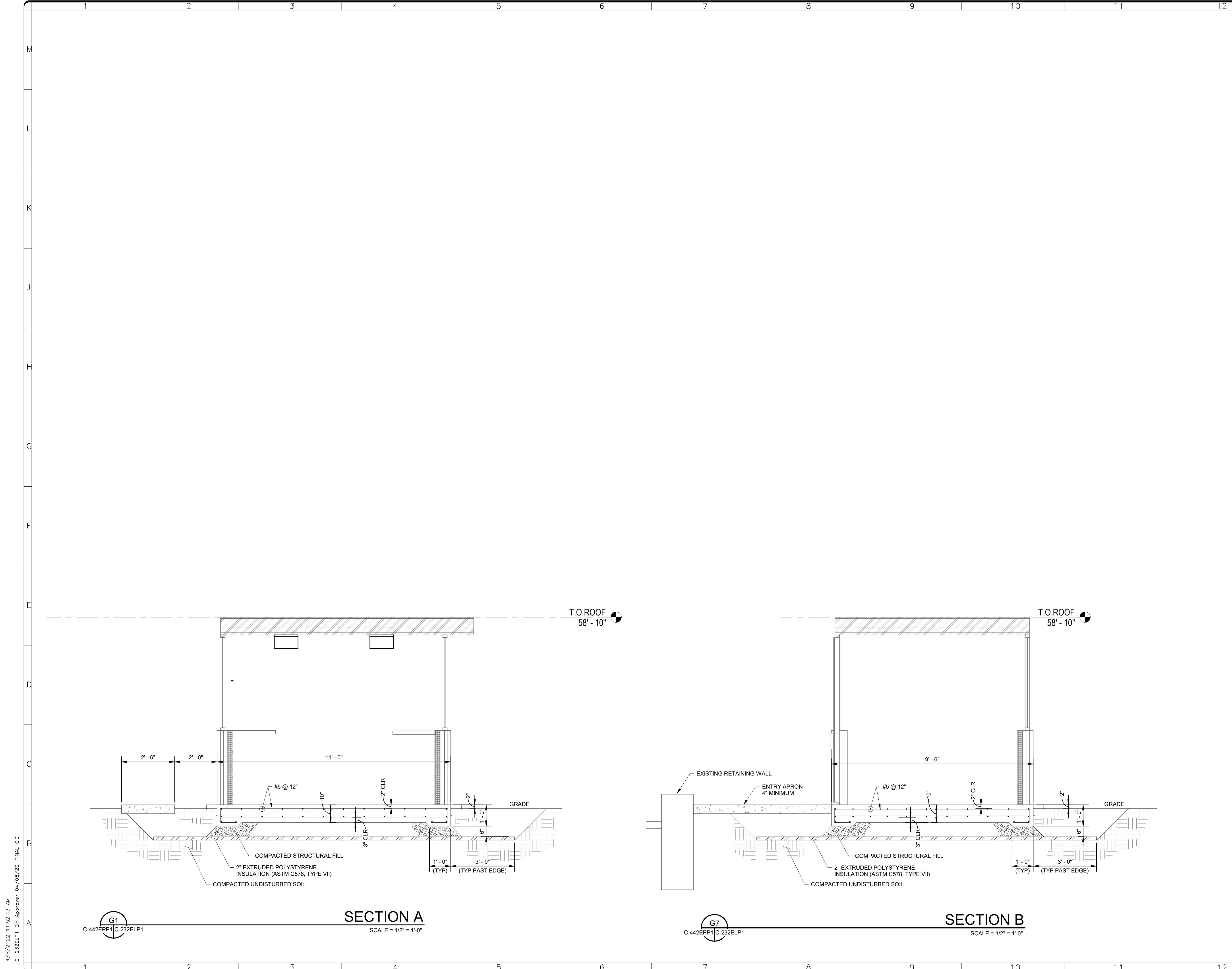
  
 KEY PLAN

GRAPHIC SCALE(S)

DATE	04/08/22	REVISION	FINAL CD
REVISION #		REVISION DESCRIPTION	

  
**Smithsonian Institution**  
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SF PROJECT NUMBER	1909101		
A/E PROJECT NUMBER	11203201		
DRAWING TITLE	SITE PLAN - CIVIL - PHASE 1		
WORKING STAFF	ACR	MH	DB
	DESIGNED BY	DRAWN BY	CHECKED BY
SHEET NO.	C - 003 P 1		
5 of 179	DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE		



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C-232ELP1 BY Approver: 04/08/22 FINAL CD

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DISTRICT OF COLUMBIA  
THOR YOUNG  
No. PE 905551  
LICENSED PROFESSIONAL ENGINEER  
4/13/22

KEY PLAN

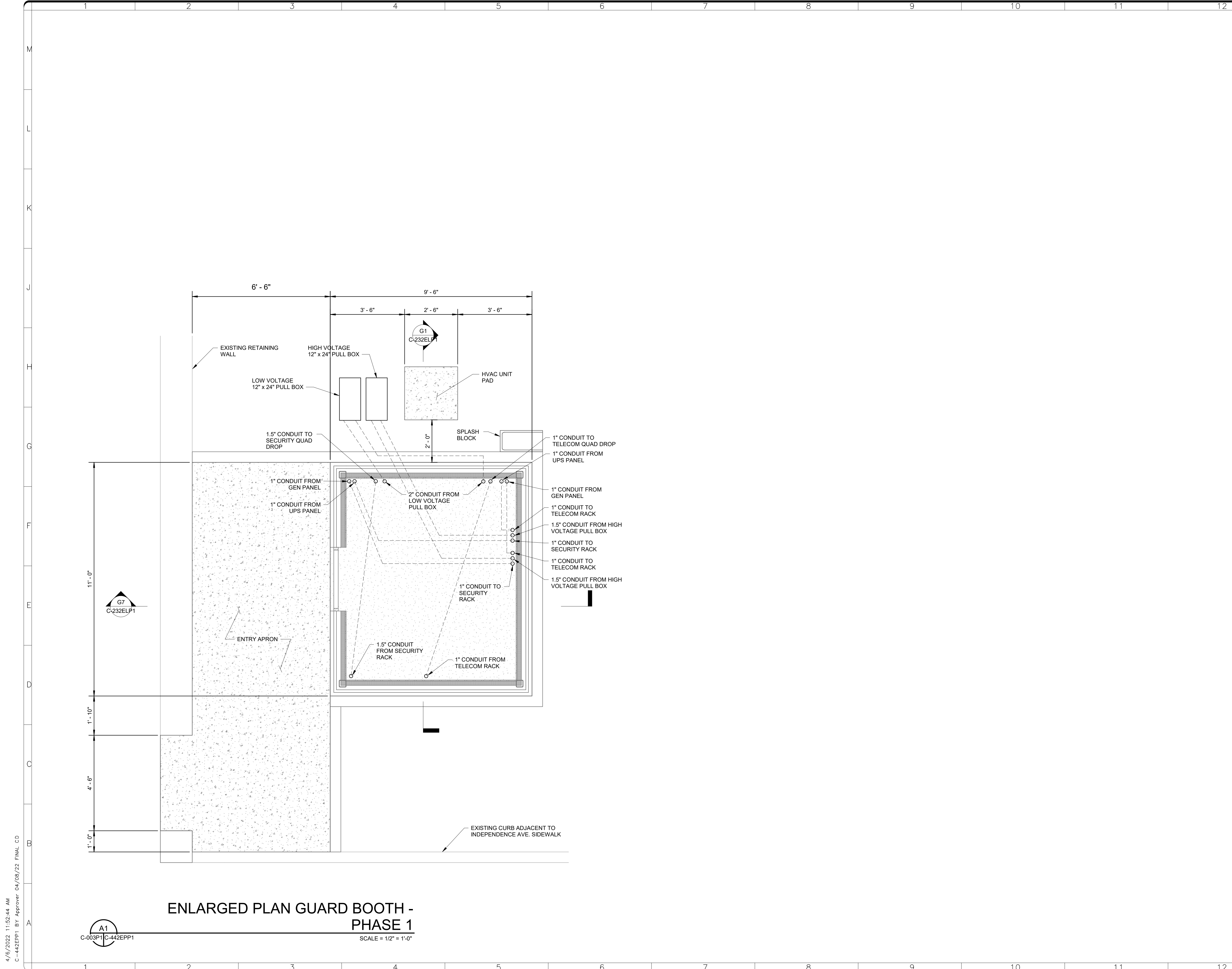
GRAPHIC SCALE(S)

DATE	04/08/22	REVISION	FINAL CD
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PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	GUARD BOOTH SECTIONS - PHASE 1
WORKING STAFF	ACR    MH    DB
	DESIGNED BY    DRAWN BY    CHECKED BY

SHEET NO. **C-232ELP1**  
6 of 179



**ENLARGED PLAN GUARD BOOTH -  
PHASE 1**

A1  
C-003P1 C-442EPP1

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

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THOR YOUNG  
No. PE 905551  
LICENSED PROFESSIONAL ENGINEER  
4/13/22

KEY PLAN

0 1' 2' 4'  
1/2" = 1'-0"  
GRAPHIC SCALE(S)

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**Smithsonian  
Institution**

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SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	ENLARGED PLANS - CIVIL - PHASE 1
WORKING STAFF	ACR    MH    DB
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO. **C - 4 4 2 E P P 1**  
7 of 179

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C-442EPP1 BY Approver 04/08/22 FINAL CD

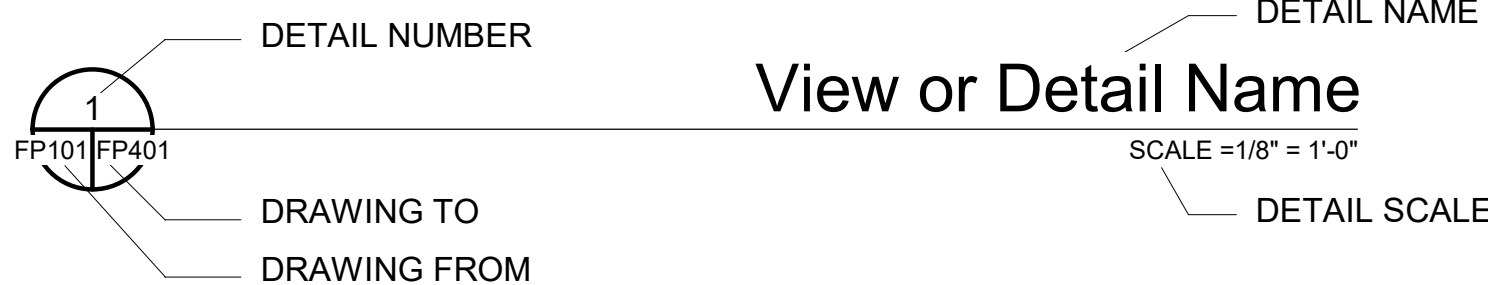
### MATERIAL DESIGNATIONS

	EXISTING WALL TO REMAIN		NEW GLASS
	NEW WALL		NEW PLYWOOD
	ELEMENTS TO BE REMOVED		NEW WOOD
	GYPSUM WALL BOARD OR GROUT		BATT INSULATION
	CONCRETE		NEW STEEL (LARGE SCALE)
	CONTINUOUS WOOD BLOCKING		
	DISCONTINUOUS WOOD BLOCKING		
	ALUMINUM		

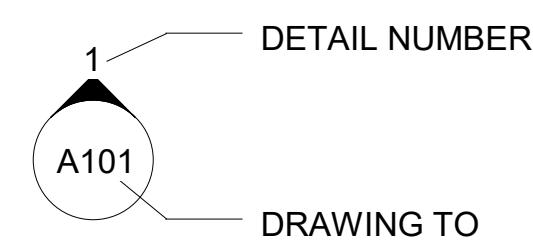
### SYMBOLS

Room name	ROOM NUMBER	xx-xx	KEYNOTE
	FINISH TYPE		MATERIAL DESIGNATION (REFER TO MATERIALS SCHED.)
	DOOR NUMBER		
	PARTITION TYPES		
	WINDOW NUMBER		
	EXISTING ELEVATION		
	NEW ELEVATION		
	WORK POINT		

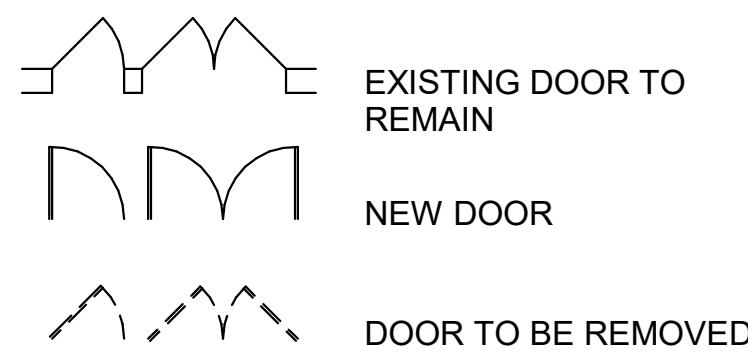
### DETAIL / PLAN



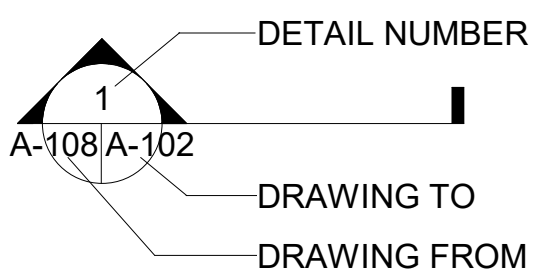
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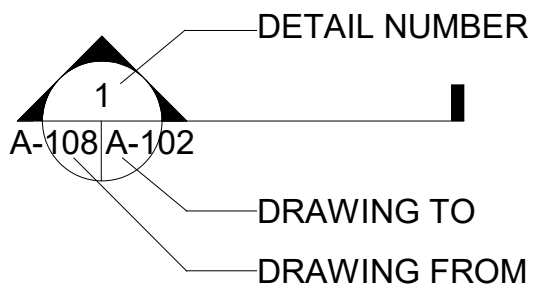
### DOORS



### DETAIL CUT



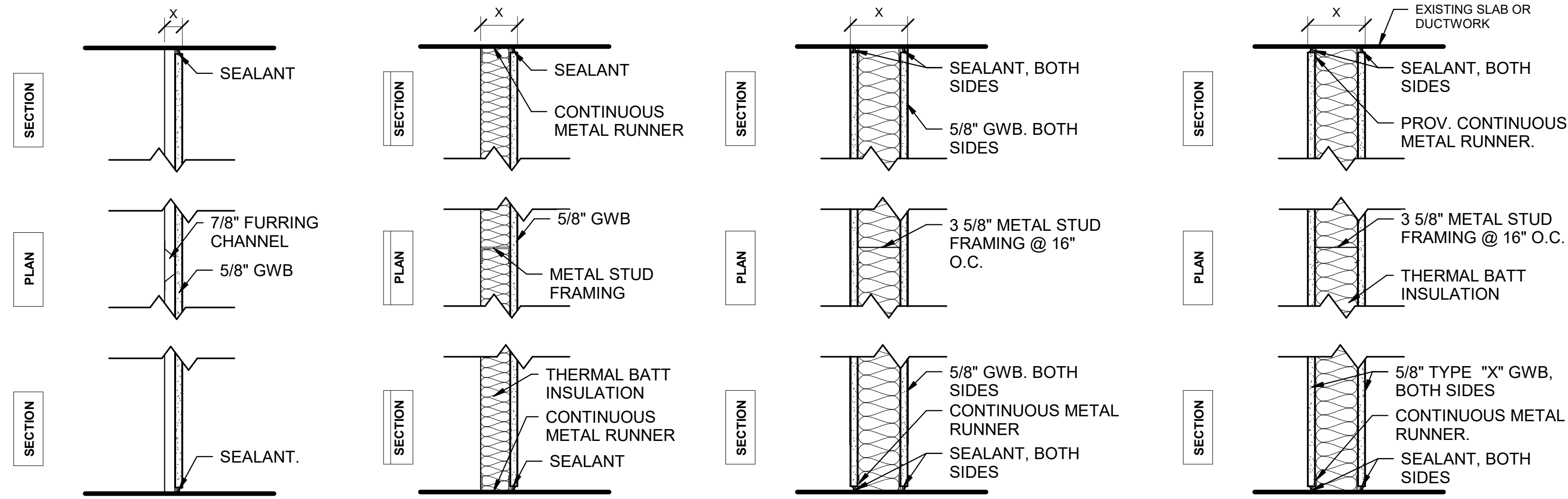
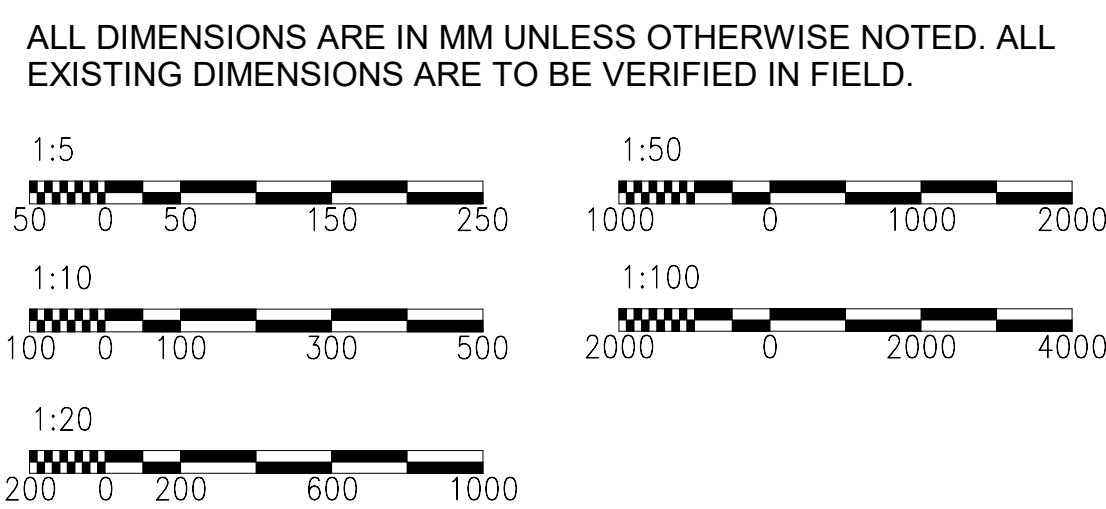
### WALL SECTION CUT



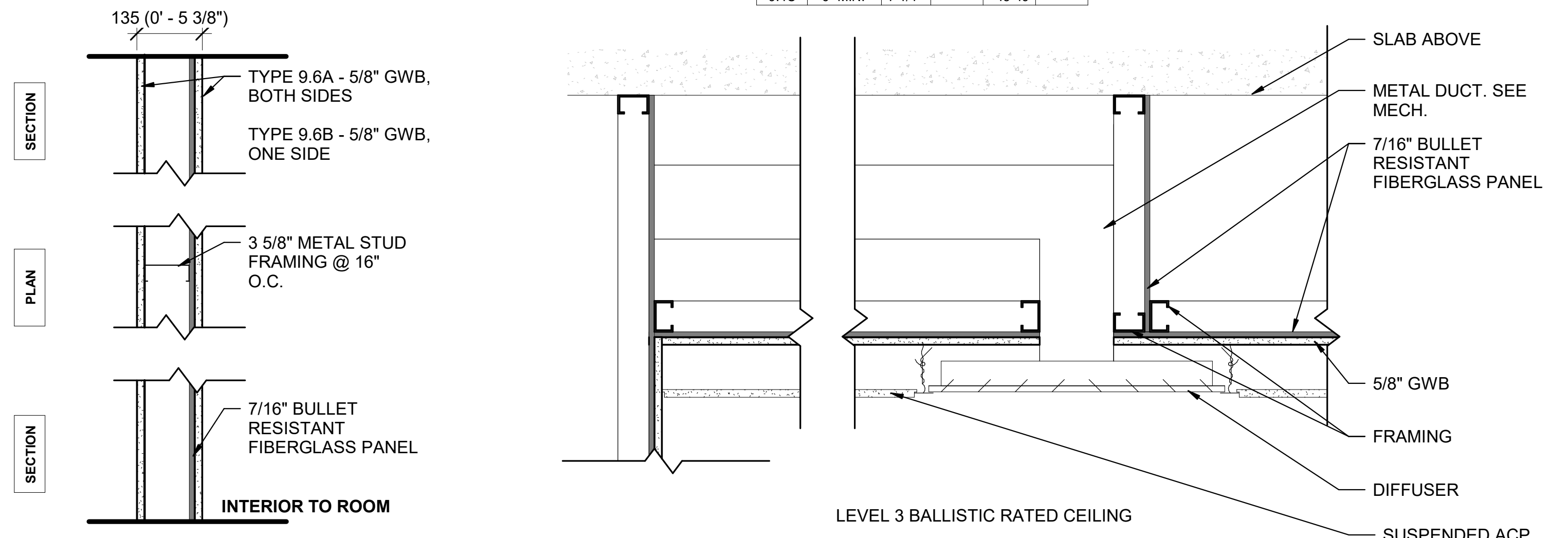
### NORTH ORIENTATION



### GRAPHIC SCALES

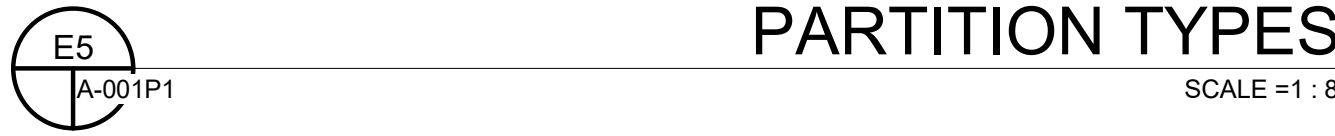


FURRING PARTITION - 0 HR						STANDARD WALL - 0 HR						STANDARD WALL - 1 HR					
TYPE	STUD SIZE	X	UL	STC	NOTES	TYPE	STUD SIZE	X	UL	STC	NOTES	TYPE	STUD SIZE	X	UL	STC	NOTES
9.1A	7/8"	1 1/2"	---	0		9.4A	2-1/2"	3 1/8"	---	0		9.5A	3-5/8" MIN	4 7/8"	U465	45-49	
9.2A	2-1/2"	3 1/8"	---	0		9.4B	3-5/8"	4 7/8"	---	45-49		9.5B	6" MIN	7 1/4"	U419		
9.2B	3-5/8"	4 1/4"	---	34		9.4C	6" MIN.	7 1/4"	---	45-49							



UL 752 - PROTECTION LEVEL 3					
TYPE	STUD SIZE	X	UL	STC	NOTES
9.6A	3-5/8"	5 3/8"	UL752 Level 3	---	
9.6B	7/8"	1 15/16"	UL752 Level 3	---	

### PARTITION TYPES



### CEILING TYPES



### DRAWING INDEX - PHASE 1

A-001P1	SYMBOLS & ABBREVIATIONS
A-002P1	CODE SUMMARY - PHASE 1
A-003P1	SUBLEVEL 03 - CODE STUDY - PHASE 1
A-005P1	SUBLEVEL 01 - CODE STUDY - PHASE 1
A-006P1	GUARDBOOTH - DEMO PLAN - PHASE 1
A-007P1	GUARDBOOTH - SITE PLAN - PHASE 1
A-008P1	GUARDBOOTH - FLOOR PLAN - BELOW SILL - PHASE 1
A-009P1	GUARDBOOTH - FLOOR PLAN - ABOVE SILL - PHASE 1
A-010P1	GUARDBOOTH - RCP & ROOF PLAN - PHASE 1
A-011P1	GUARDBOOTH - ELEVATIONS - PHASE 1
A-012P1	GUARDBOOTH - SECTIONS - PHASE 1
AD101FPP1	SUBLEVEL 03 - OVERALL PLAN - DEMO - PHASE 1
AD103FPP1	SUBLEVEL 01 - OVERALL PLAN - DEMO - PHASE 1
AD401EPP1	SUBLEVEL 03 - PHOTO LABS - DEMO - PHASE 1
AD402CPP1	SUBLEVEL 03 - PHOTO LABS - DEMO - RCP - PHASE 1
AD403EPP1	SUBLEVEL 03 - EXISTING OFFICES - DEMO - PHASE 1
AD404EPP1	SUBLEVEL 03 - EXISTING OFFICES - DEMO - PHASE 1
AD405CPP1	SUBLEVEL 03 - EXISTING OFFICES - DEMO - RCP - PHASE 1
AD406EPP1	SUBLEVEL 01 - COMMAND CENTER - DEMO - PHASE 1
A-101FPP1	SUBLEVEL 03 - OVERALL PLAN - NEW WORK - PHASE 1
A-103FPP1	SUBLEVEL 01 - OVERALL PLAN - NEW WORK - PHASE 1
A-201ELP1	SUBLEVEL 03 - ELEVATIONS - PHASE 1
A-401EPP1	SUBLEVEL 03 - CLASSROOMS - NEW WORK - PHASE 1
A-402CPP1	SUBLEVEL 03 - CLASSROOMS - NEW WORK - RCP - PHASE 1
A-403EPP1	SUBLEVEL 03 - EXISTING OFFICES - NEW WORK - PHASE 1
A-404EPP1	SUBLEVEL 03 - RELOCATED OPS SUITE - NEW WORK - PHASE 1
A-405CPP1	SUBLEVEL 03 - RELOCATED OPS SUITE - NEW WORK - RCP - PHASE 1
A-406EPP1	SUBLEVEL 03 - RELOCATED OPS SUITE - NEW WORK - FURNITURE - PHASE 1
A-407EPP1	SUBLEVEL 01 - COMMAND CENTER - NEW WORK - PHASE 1
A-701SHP1	MATERIALS & FINISH SCHEDULE - PHASE 1
A-702SHP1	DOOR SCHEDULE - PHASE 1

Keynote Master Legend	
Key Value	Keynote Text

02-01	EXISTING ITEM TO REMAIN.
02-05	REMOVE COUNTER TOP.
02-08	REMOVE EXISTING DOOR AND FRAME.
02-12	REMOVE EXISTING FLOORING.
02-13	EXISTING GYPSUM BULKHEAD TO REMAIN.
02-18	REMOVE EXISTING WALL.
06-09	PROVIDE CABINETRY.
06-36	PROVIDE SOLID SURFACE COUNTERTOP.
08-01	PROVIDE DOOR AS SCHEDULED.
09-27	INFILL WALL TO MATCH ADJACENT WALL.
22-12	PROVIDE SINK. SEE PLUMB. DWGS.

### KEY PLAN

DATE	04/08/22	REVISION	FINAL CD
REVISION #	DATE	REVISION DESCRIPTION	

**Smithsonian Institution**  
 Smithsonian Facilities  
 600 Maryland Avenue S.W. Suite 5001  
 Washington, DC 20024-2520

GUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SYMBOLS & ABBREVIATIONS
WORKING STAFF	GJ GJ AT
SHEET NO.	A-001P1
8 of 179	



4/15/2022 4:56:07 PM  
A-002P1 BY Approver 04/08/22 FINAL CO

**CODE BASIS**

THE PROJECT WILL BE DESIGNED IN ACCORDANCE WITH THE FOLLOWING APPLICABLE SMITHSONIAN INSTITUTION'S CODES AND STANDARDS:

**INTERNATIONAL CODE COUNCIL (ICC) MODEL CODES, 2018 EDITION**

INTERNATIONAL BUILDING CODE (IBC)  
INTERNATIONAL FIRE CODE  
MECHANICAL CODE (IFC)  
ELECTRICAL CODE (IEC)

**NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)**

NFPA: STANDARD FOR PORTABLE FIRE EXTINGUISHERS  
NFPA 101: LIFE SAFETY CODE  
NFPA 13: INSTALLATION OF SPRINKLER SYSTEMS  
NFPA 72: NATIONAL FIRE ALARM  
ALL OTHER NFPA CODES AND STANDARDS, INCLUDING RECOMMENDED PRACTICES

**OTHER GUIDELINES, CODES, REGULATIONS AND LOCAL UTILITY REQUIREMENTS:**

SI SAFETY MANUAL  
SI FIRE PROTECTION AND LIFE SAFETY DESIGN MANUAL  
ANSI 117.1 ACCESSIBILITY CODE

**FEDERAL GOVERNMENT LEGISLATION, REGULATIONS, STANDARDS AND GUIDELINES:**

ADA STANDARDS FOR ACCESSIBLE DESIGN  
UNIFORM FEDERAL ACCESSIBILITY STANDARDS (UFAS)  
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

THE AUTHORITY HAVING JURISDICTION (AHJ) FOR THIS PROJECT IS THE SI-OFFICE OF SAFETY, HEALTH AND ENVIRONMENTAL MANAGEMENT FIRE PROTECTION ENGINEER.

**EXISTING BUILDING DESCRIPTION:**

CONSTRUCTION CLASSIFICATION: IB, EXISTING ASSUMED

FIRE RESISTANCE FOR BUILDING ELEMENTS (IBC TABLE 601)

- PRIMARY STRUCTURAL FRAME: 2 HOURS
- BEARING WALLS - EXTERIOR & INTERIOR: 2 HOURS
- FLOOR CONSTRUCTION - INCLUDING SUPPORTING BEAMS, JOISTS: 2 HOUR
- ROOF CONSTRUCTION: 1 HOUR
- HORIZONTAL EXIT WALLS: 2 HOURS
- NON BEARING PARTITIONS INTERIOR: 1 HOUR
- INTERIOR WALLS AND PARTITIONS: 0 HOURS

SPRINKLERS: BUILDING EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM

OCCUPANCY CLASSIFICATION: B- BUSINESS, E - EDUCATIONAL  
MAX. ALLOWEABLE EXIT ACCESS TRAVEL DISTANCE, WITH SPRINKLER SYSTEM: 250 FEET (76M) (NFPA 101 SECTION 12.2.6.2)

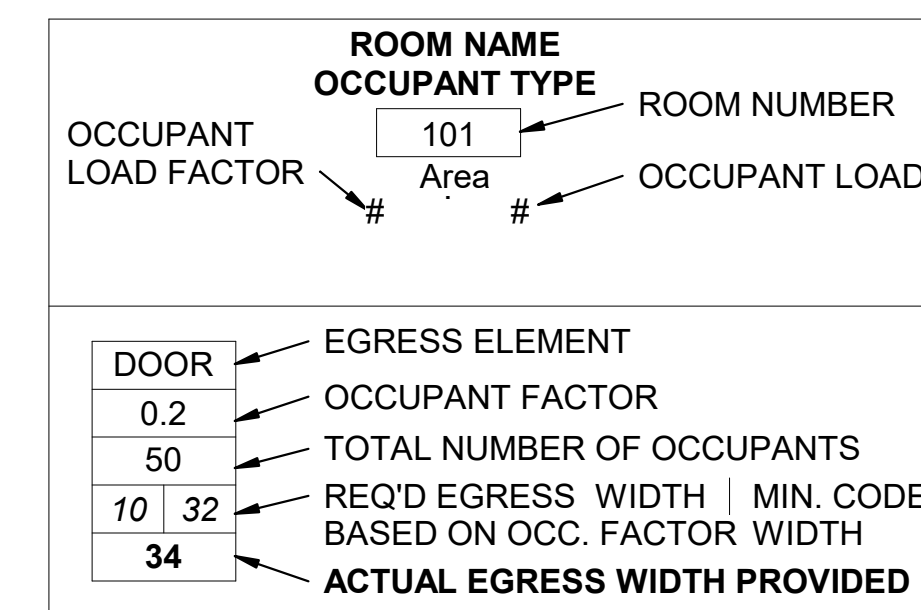
	OCCUPANCY	TOTAL FLOOR AREA	LOAD FACTOR (NFPA 101 TABLE 7.3.1.2)	OCCUPANT LOAD
CLASSROOM	EDUCATIONAL	822 F <sup>2</sup> NET (250.50 M <sup>2</sup> NET)	20 NET (6.1 M <sup>2</sup> NET)	41
PHOTO LAB 1	EDUCATIONAL	659 F <sup>2</sup> NET (200.90 M <sup>2</sup> NET)	20 NET (6.1 M <sup>2</sup> NET)	33
PHOTO LAB 2	EDUCATIONAL	758 F <sup>2</sup> NET (231 M <sup>2</sup> NET)	20 NET (6.1 M <sup>2</sup> NET)	38
OPEN OFFICE	BUSINESS	618 F <sup>2</sup> NET (188.4 M <sup>2</sup> NET)	150 NET (45.7 M <sup>2</sup> NET)	4
SHARED OFFICE	BUSINESS	134 F <sup>2</sup> NET (40 M <sup>2</sup> NET)	150 GROSS (45.7 M <sup>2</sup> NET)	2
OFFICE	BUSINESS	101 F <sup>2</sup> NET (31 M <sup>2</sup> NET)	150 GROSS (45.7 M <sup>2</sup> NET)	1
OFFICE	BUSINESS	102 F <sup>2</sup> NET (31 M <sup>2</sup> NET)	150 GROSS (45.7 M <sup>2</sup> NET)	1
WEAPONS ROOM	BUSINESS	62 F <sup>2</sup> NET (19 M <sup>2</sup> NET)	150 GROSS (91 M <sup>2</sup> NET)	1
STORAGE	ACCESSORY	162 F <sup>2</sup> NET (49 M <sup>2</sup> NET)	300 GROSS (91 M <sup>2</sup> NET)	1
OPS STORAGE	ACCESSORY	210 F <sup>2</sup> NET (64 M <sup>2</sup> NET)	300 GROSS (91 M <sup>2</sup> NET)	1
SECURITY CONTROL ROOM	BUSINESS	159 F <sup>2</sup> NET (48.50 M <sup>2</sup> NET)	150 GROSS (91 M <sup>2</sup> NET)	1
SECURITY SERVER ROOM	ACCESSORY	432 F <sup>2</sup> NET (132.3 M <sup>2</sup> NET)	300 GROSS (91 M <sup>2</sup> NET)	2
SECURITY UPS ROOM	ACCESSORY	82 F <sup>2</sup> NET (25 M <sup>2</sup> NET)	300 GROSS (91 M <sup>2</sup> NET)	1

**OCCUPANT EGRESS ANALYSIS**

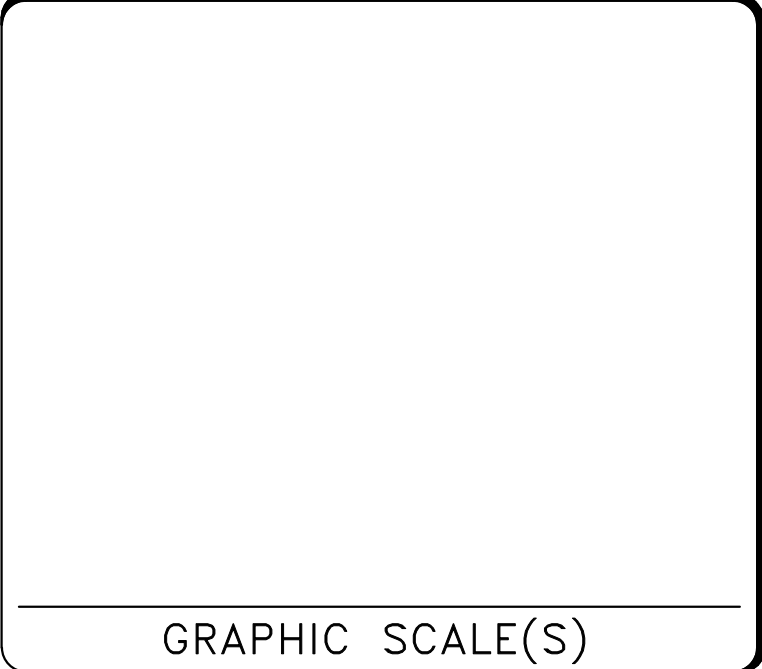
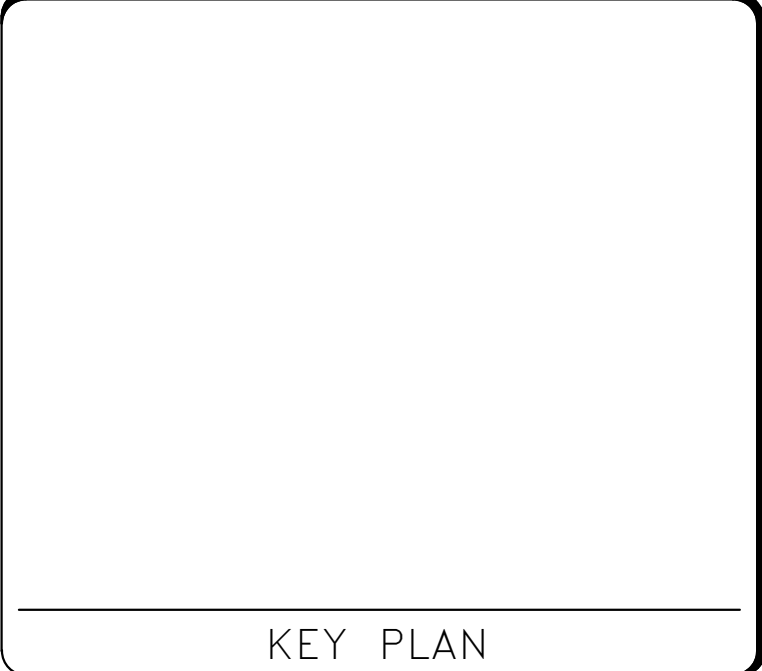
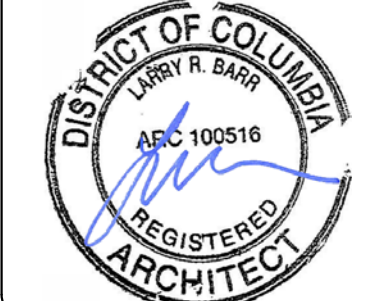
NUMBER OF OCCUPANTS: 308.91 M<sup>2</sup> (3325 SF) / 1.393546 M<sup>2</sup> (15 SF/PERSON) = 222

- 1/3 THE DIAGONAL DISTANCE OF THE ROOM EQUALS 11150 mm (36.6 FT)
- EGRESS WIDTH PROVIDED: 1830 mm (6 FT)
- NUMBER OF OCCUPANTS PER EGRESS WIDTH PROVIDED = 111

- > DIRECTION OF EGRESS
- 1-HR RATED FIRE BARRIER
- REQUIRED 1-HR RATED FIRE BARRIER
- 2-HR RATED FIRE BARRIER
- REQUIRED 2-HR RATED FIRE BARRIER
- 1-HR RATED CEILING - U415



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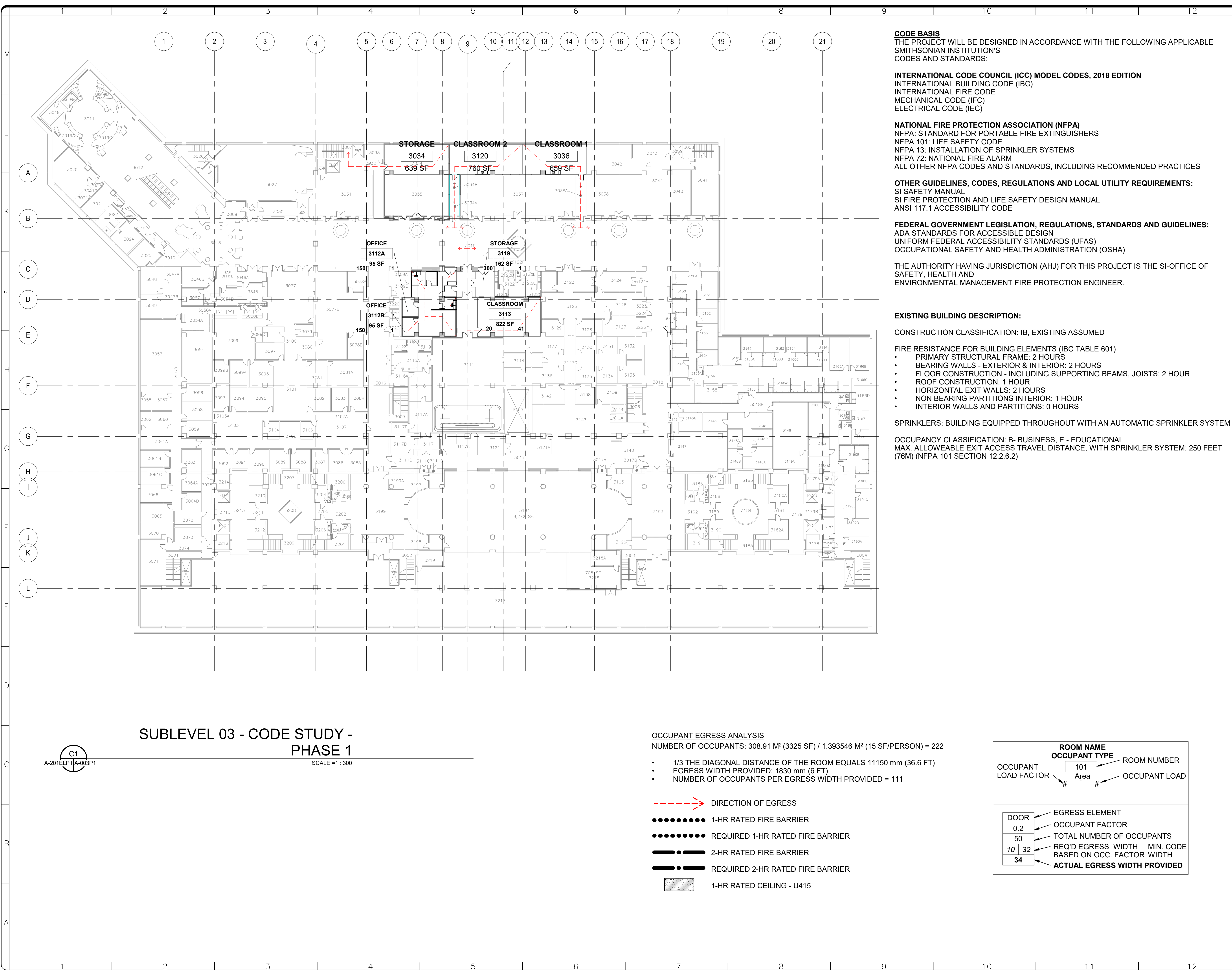


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DRAWING TITLE	CODE SUMMARY - PHASE 1
WORKING STAFF	GJ GJ AT
DESIGNED BY	GJ
DRAWN BY	GJ
CHECKED BY	AT

SHEET NO.	A-002P1
9 OF 179	



**SUBLEVEL 03 - CODE STUDY - PHASE 1**

C1  
A-201ELP1A-003P1

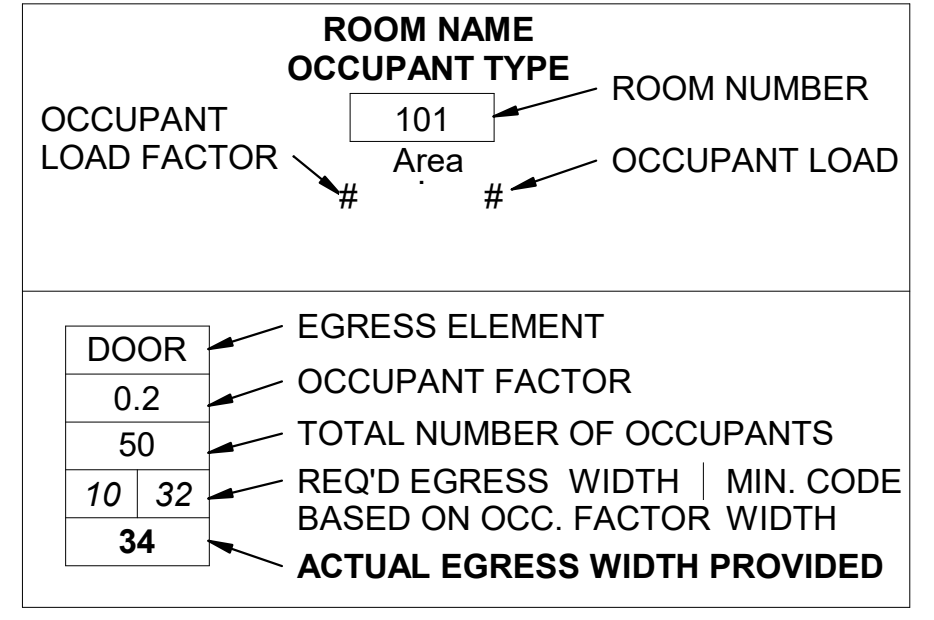
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**OCCUPANT EGRESS ANALYSIS**

NUMBER OF OCCUPANTS:  $308.91 \text{ M}^2 (3325 \text{ SF}) / 1.393546 \text{ M}^2 (15 \text{ SF/PERSON}) = 222$

- 1/3 THE DIAGONAL DISTANCE OF THE ROOM EQUALS 11150 mm (36.6 FT)
- EGRESS WIDTH PROVIDED: 1830 mm (6 FT)
- NUMBER OF OCCUPANTS PER EGRESS WIDTH PROVIDED = 111

- > DIRECTION OF EGRESS
- ..... 1-HR RATED FIRE BARRIER
- ..... REQUIRED 1-HR RATED FIRE BARRIER
- 2-HR RATED FIRE BARRIER
- REQUIRED 2-HR RATED FIRE BARRIER
- 1-HR RATED CEILING - U415



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MECHANICAL CODE (IFC)  
ELECTRICAL CODE (IEC)

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**OTHER GUIDELINES, CODES, REGULATIONS AND LOCAL UTILITY REQUIREMENTS:**  
SI SAFETY MANUAL  
SI FIRE PROTECTION AND LIFE SAFETY DESIGN MANUAL  
ANSI 117.1 ACCESSIBILITY CODE

**FEDERAL GOVERNMENT LEGISLATION, REGULATIONS, STANDARDS AND GUIDELINES:**  
ADA STANDARDS FOR ACCESSIBLE DESIGN  
UNIFORM FEDERAL ACCESSIBILITY STANDARDS (UFAS)  
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

THE AUTHORITY HAVING JURISDICTION (AHJ) FOR THIS PROJECT IS THE SI-OFFICE OF SAFETY, HEALTH AND ENVIRONMENTAL MANAGEMENT FIRE PROTECTION ENGINEER.

**EXISTING BUILDING DESCRIPTION:**  
CONSTRUCTION CLASSIFICATION: IB, EXISTING ASSUMED

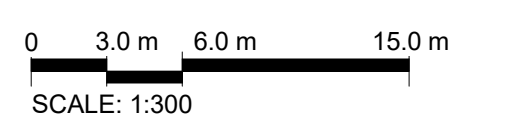
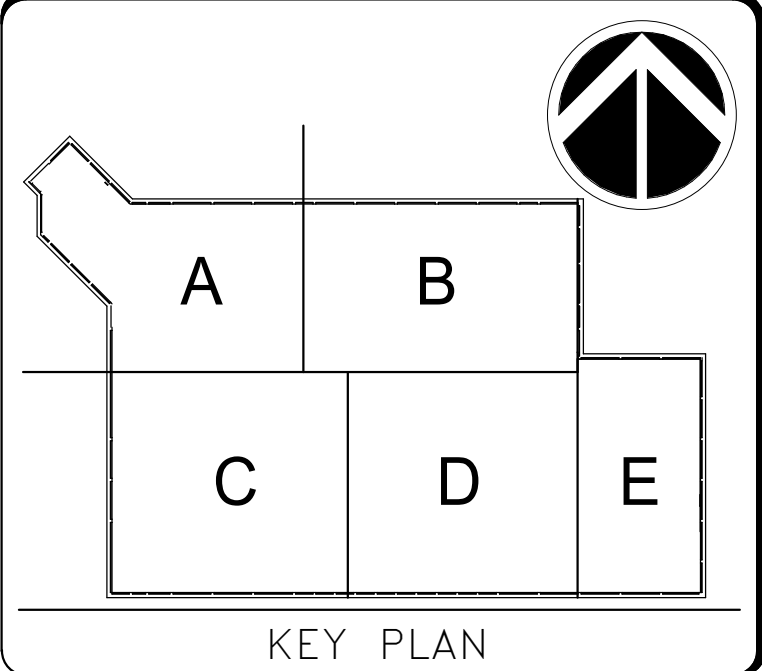
**FIRE RESISTANCE FOR BUILDING ELEMENTS (IBC TABLE 601)**

- PRIMARY STRUCTURAL FRAME: 2 HOURS
- BEARING WALLS - EXTERIOR & INTERIOR: 2 HOURS
- FLOOR CONSTRUCTION - INCLUDING SUPPORTING BEAMS, JOISTS: 2 HOUR
- ROOF CONSTRUCTION: 1 HOUR
- HORIZONTAL EXIT WALLS: 2 HOURS
- NON BEARING PARTITIONS INTERIOR: 1 HOUR
- INTERIOR WALLS AND PARTITIONS: 0 HOURS

**SPRINKLERS:** BUILDING EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM

**OCCUPANCY CLASSIFICATION:** B- BUSINESS, E - EDUCATIONAL  
MAX. ALLOWEABLE EXIT ACCESS TRAVEL DISTANCE, WITH SPRINKLER SYSTEM: 250 FEET (76M) (NFPA 101 SECTION 12.2.6.2)

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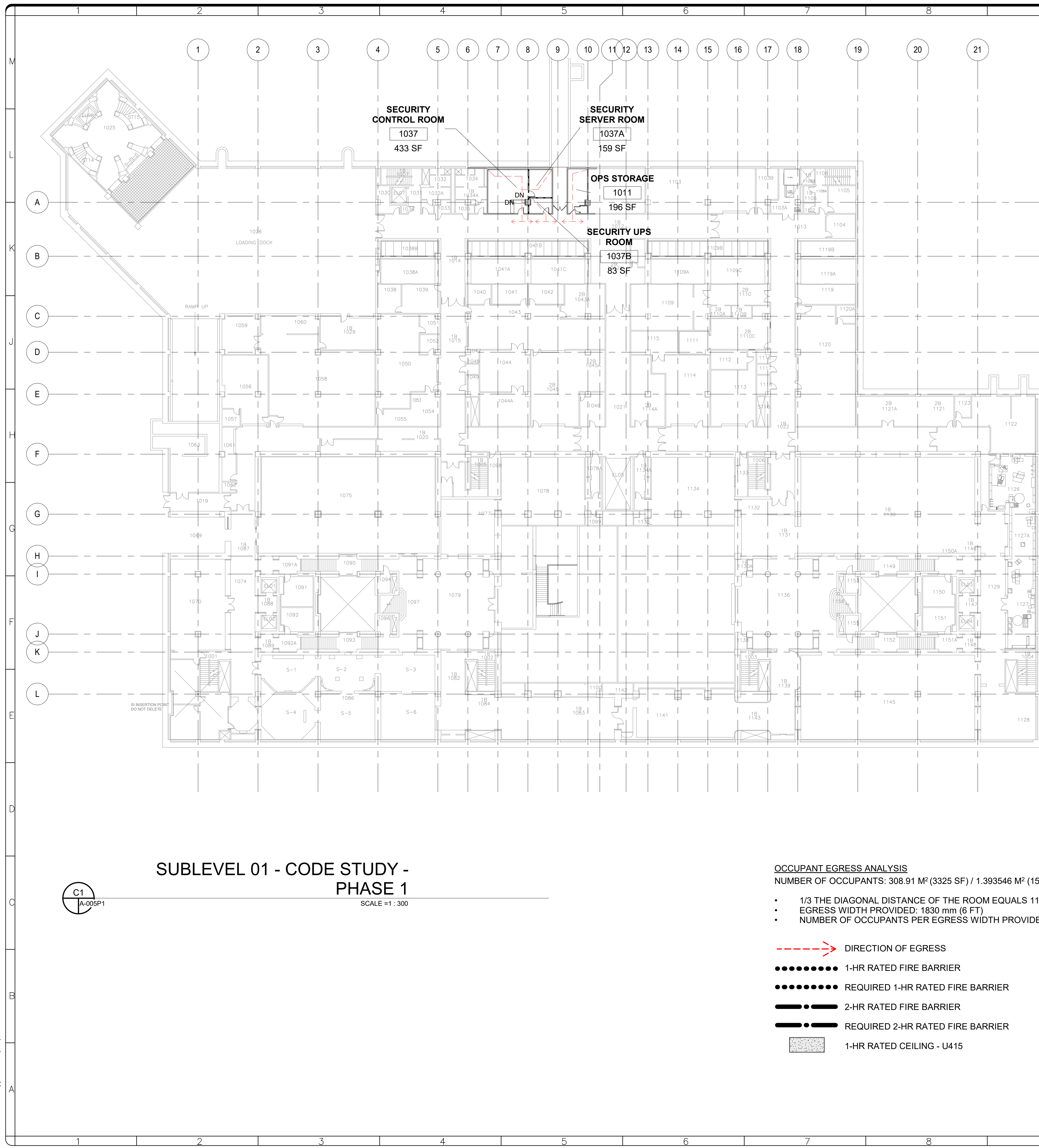
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REVISION #	DATE	REVISION DESCRIPTION	

**Smithsonian Institution**  
Smithsonian Facilities  
600 Maryland Avenue S.W., Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 03 - CODE STUDY - PHASE 1
WORKING STAFF	DESIGNED BY: GJ    DRAWN BY: GJ    CHECKED BY: AT

SHEET NO.	A-003P1
10 OF 179	

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**SUBLEVEL 01 - CODE STUDY - PHASE 1**

SCALE = 1 : 300

**OCCUPANT EGRESS ANALYSIS**

NUMBER OF OCCUPANTS:  $308.91 \text{ M}^2 (3325 \text{ SF}) / 1.393546 \text{ M}^2 (15 \text{ SF/PERSON}) = 222$

- 1/3 THE DIAGONAL DISTANCE OF THE ROOM EQUALS 11150 mm (36.6 FT)
- EGRESS WIDTH PROVIDED: 1830 mm (6 FT)
- NUMBER OF OCCUPANTS PER EGRESS WIDTH PROVIDED = 111

- > DIRECTION OF EGRESS
- 1-HR RATED FIRE BARRIER
- REQUIRED 1-HR RATED FIRE BARRIER
- 2-HR RATED FIRE BARRIER
- REQUIRED 2-HR RATED FIRE BARRIER
- 1-HR RATED CEILING - U415

ROOM NAME	OCCUPANT TYPE	ROOM NUMBER
OCCUPANT LOAD FACTOR	Area	OCCUPANT LOAD
DOOR	EGRESS ELEMENT	
0.2	OCCUPANT FACTOR	
50	TOTAL NUMBER OF OCCUPANTS	
10   32	REQ'D EGRESS WIDTH   MIN. CODE BASED ON OCC. FACTOR WIDTH	
34	ACTUAL EGRESS WIDTH PROVIDED	

**CODE BASIS**  
THE PROJECT WILL BE DESIGNED IN ACCORDANCE WITH THE FOLLOWING APPLICABLE SMITHSONIAN INSTITUTION'S CODES AND STANDARDS:

**INTERNATIONAL CODE COUNCIL (ICC) MODEL CODES, 2018 EDITION**  
INTERNATIONAL BUILDING CODE (IBC)  
INTERNATIONAL FIRE CODE  
MECHANICAL CODE (IFC)  
ELECTRICAL CODE (IEC)

**NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)**  
NFPA: STANDARD FOR PORTABLE FIRE EXTINGUISHERS  
NFPA 101: LIFE SAFETY CODE  
NFPA 13: INSTALLATION OF SPRINKLER SYSTEMS  
NFPA 72: NATIONAL FIRE ALARM  
ALL OTHER NFPA CODES AND STANDARDS, INCLUDING RECOMMENDED PRACTICES

**OTHER GUIDELINES, CODES, REGULATIONS AND LOCAL UTILITY REQUIREMENTS:**  
SI SAFETY MANUAL  
SI FIRE PROTECTION AND LIFE SAFETY DESIGN MANUAL  
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**FEDERAL GOVERNMENT LEGISLATION, REGULATIONS, STANDARDS AND GUIDELINES:**  
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THE AUTHORITY HAVING JURISDICTION (AHJ) FOR THIS PROJECT IS THE SI-OFFICE OF SAFETY, HEALTH AND ENVIRONMENTAL MANAGEMENT FIRE PROTECTION ENGINEER.

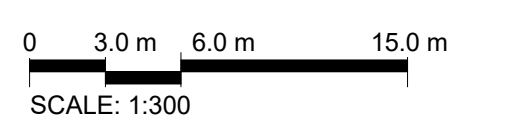
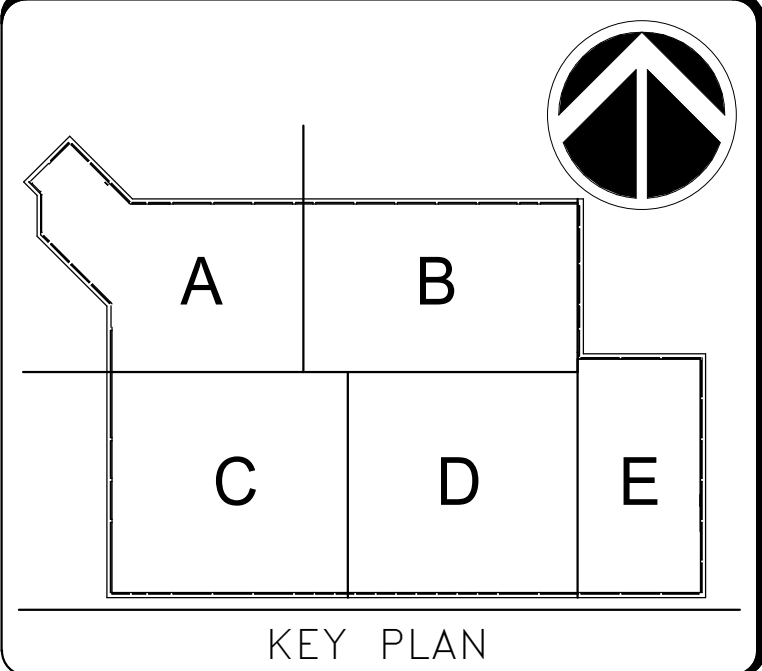
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MAX. ALLOWABLE EXIT ACCESS TRAVEL DISTANCE, WITH SPRINKLER SYSTEM: 250 FEET (76M) (NFPA 101 SECTION 12.2.6.2)

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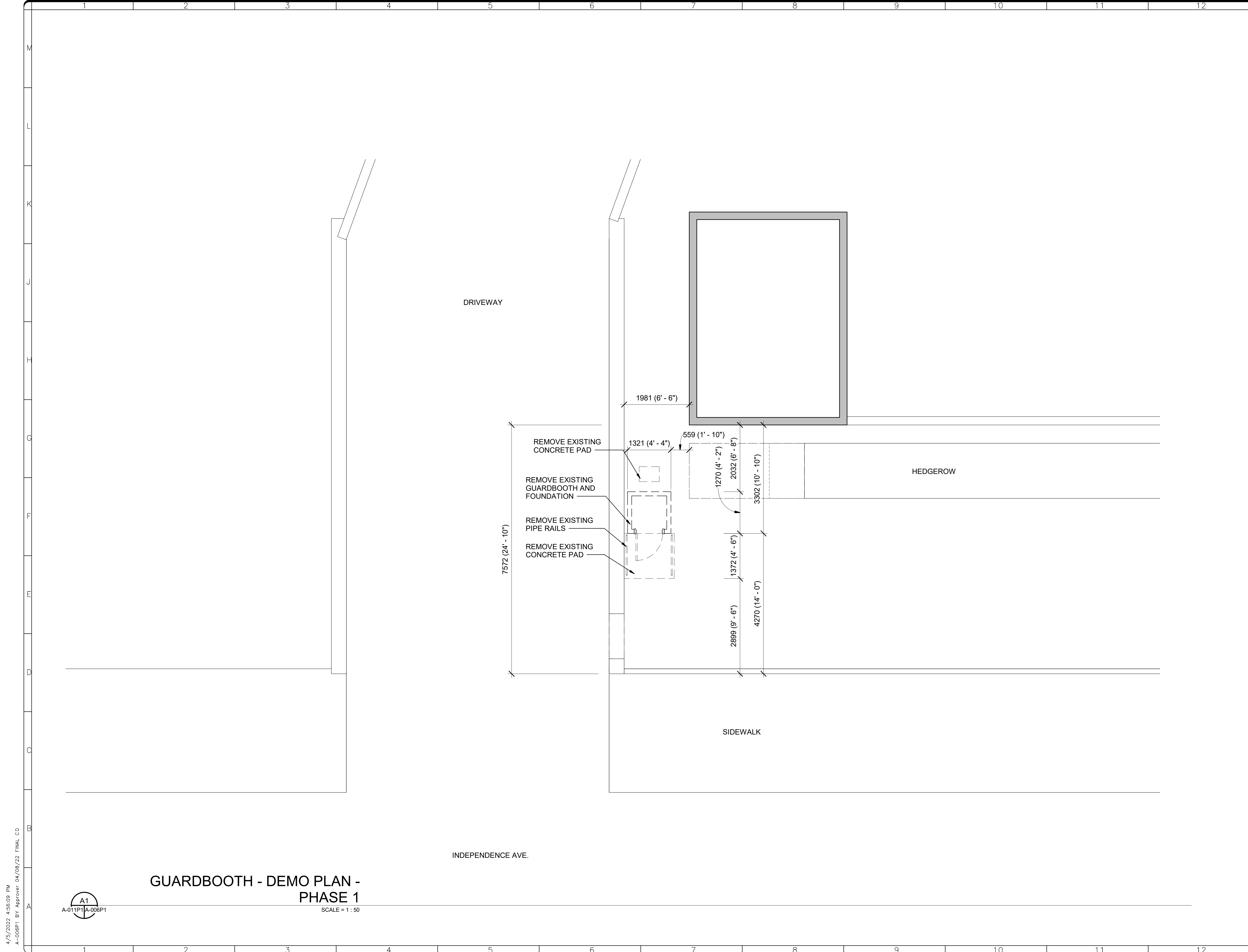


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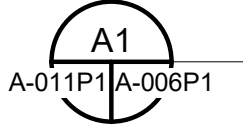
**Smithsonian Institution**  
Smithsonian Facilities  
600 Maryland Avenue S.W., Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 01 - CODE STUDY - PHASE 1
WORKING STAFF	GJ GJ AT

SHEET NO.	A-005P1
11 OF 179	



**GUARDBOOTH - DEMO PLAN - PHASE 1**



SCALE = 1 : 50

4/15/2022 4:56:09 PM A-006P1 BY Approver 04/08/22 FINAL CD

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**QUINN EVANS**

DISTRICT OF COLUMBIA  
 ARCHITECT  
 REGISTERED ARCHITECT  
 APR 100516

KEY PLAN

GRAPHIC SCALE(S)

0 0.5 m 1.0 m 2.5 m  
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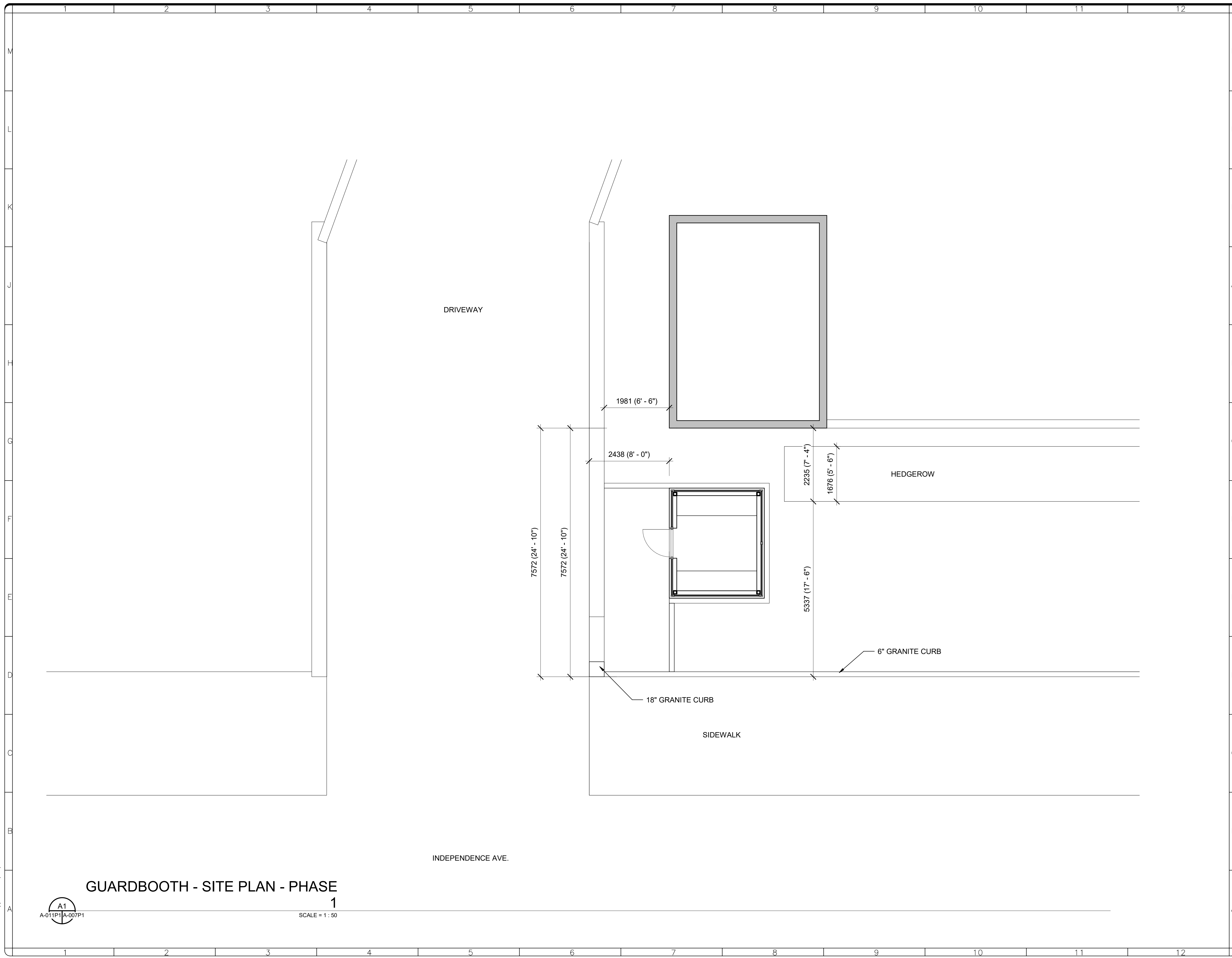
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REVISION #	DATE	REVISION DESCRIPTION	

**Smithsonian Institution**

Smithsonian Facilities  
 600 Maryland Avenue S.W. Suite 5001  
 Washington, DC 20024-2520

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ADDRESS	SW WASHINGTON, DC 20560						
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION						
SF PROJECT NUMBER	1909101						
A/E PROJECT NUMBER	11203201						
DRAWING TITLE	GUARDBOOTH -- DEMO PLAN -- PHASE 1						
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A-007P1 BY Approver 04/08/22 FINAL CD



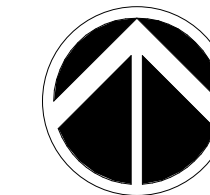
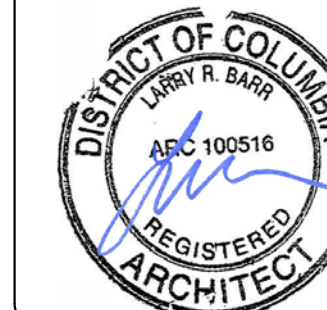
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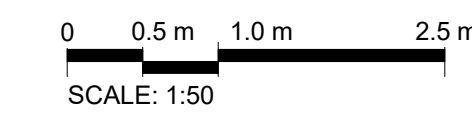
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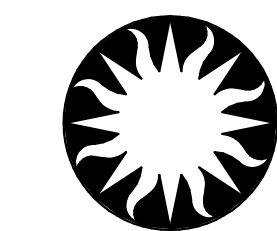


KEY PLAN



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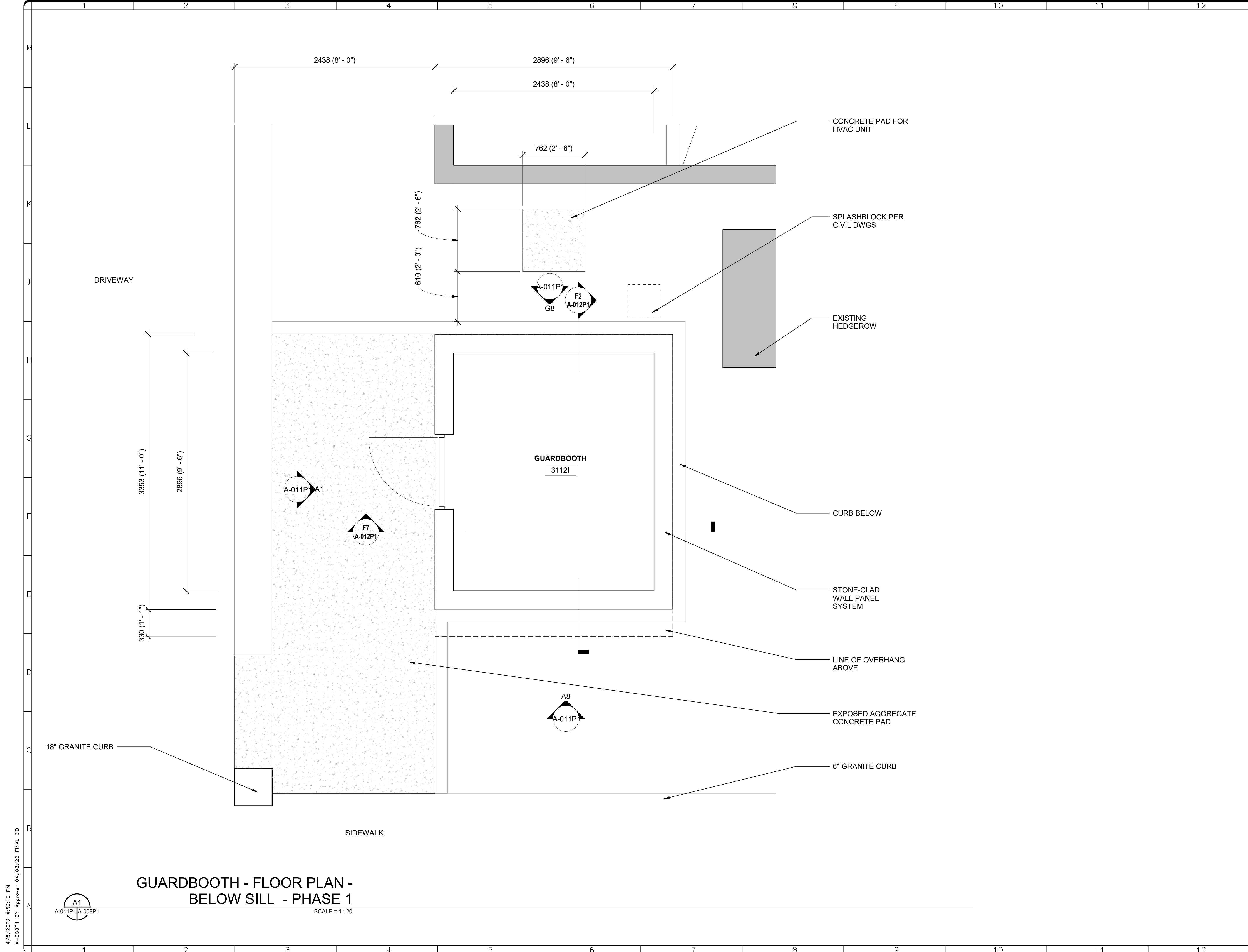


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A/E PROJECT NUMBER	11203201
DRAWING TITLE	GUARDBOOTH - SITE PLAN - PHASE 1
WORKING STAFF	DESIGNED BY: GJ    DRAWN BY: GJ    CHECKED BY: AT

SHEET NO. 13 of 179  
A-007P1



**GUARDBOOTH - FLOOR PLAN -  
BELOW SILL - PHASE 1**

SCALE = 1 : 20

4/15/2022 4:56:10 PM  
A-008P1 BY Approver 04/08/22 FINAL CD

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**QUINN EVANS**

DISTRICT OF COLUMBIA  
LARRY R. BARR  
ARC 100516  
REGISTERED ARCHITECT

KEY PLAN

1:20

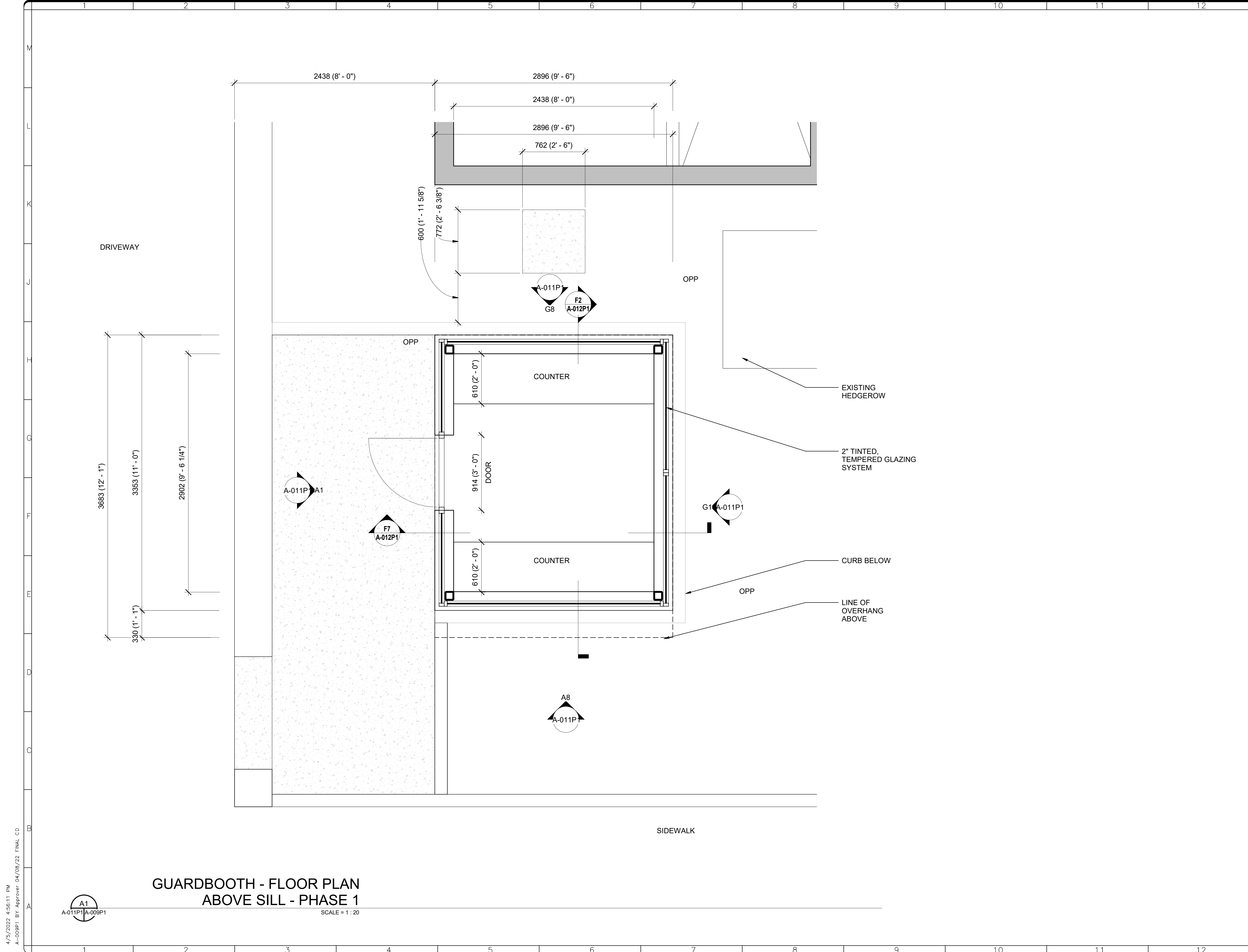
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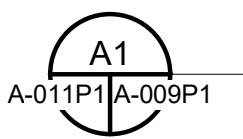
**Smithsonian Institution**

Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	GUARDBOOTH - FLOOR PLAN - BELOW SILL - PHASE 1
WORKING STAFF	DESIGNED BY: GJ    DRAWN BY: GJ    CHECKED BY: AT
SHEET NO.	A-008P1
14 of 179	DISCIPLINE    TYPE    SEQUENCE    DRAWING TYPE    PHASE



**GUARDBOOTH - FLOOR PLAN  
ABOVE SILL - PHASE 1**

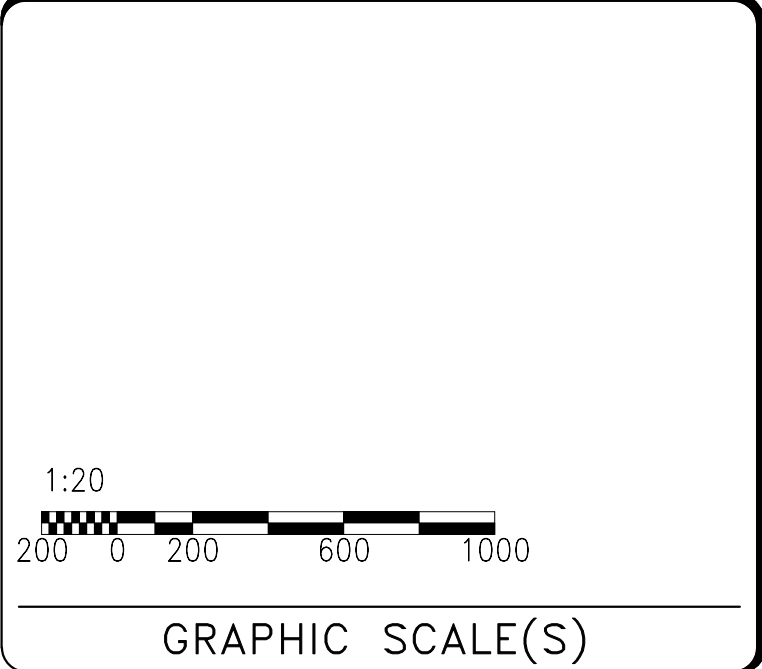
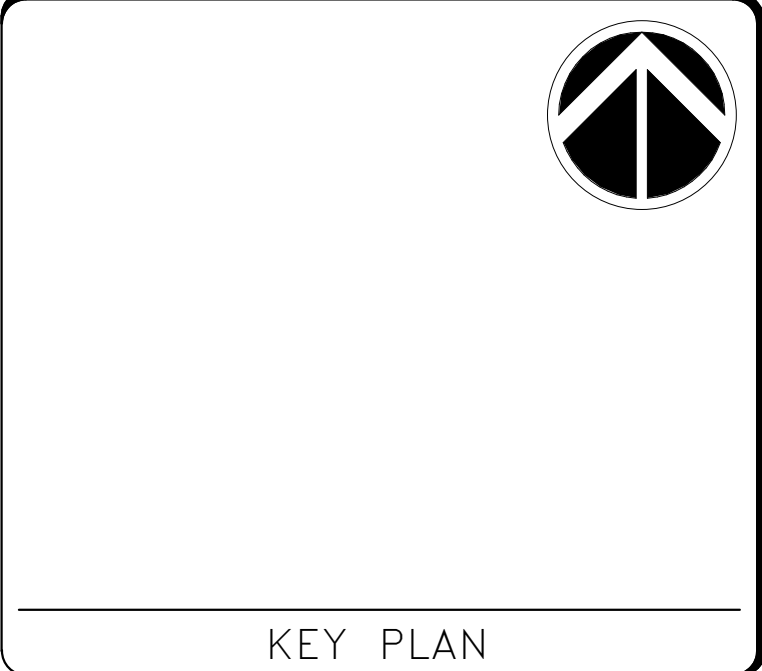


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**GHD**  
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**QUINN EVANS**

DISTRICT OF COLUMBIA  
LARRY R. BARR  
ARC 100516  
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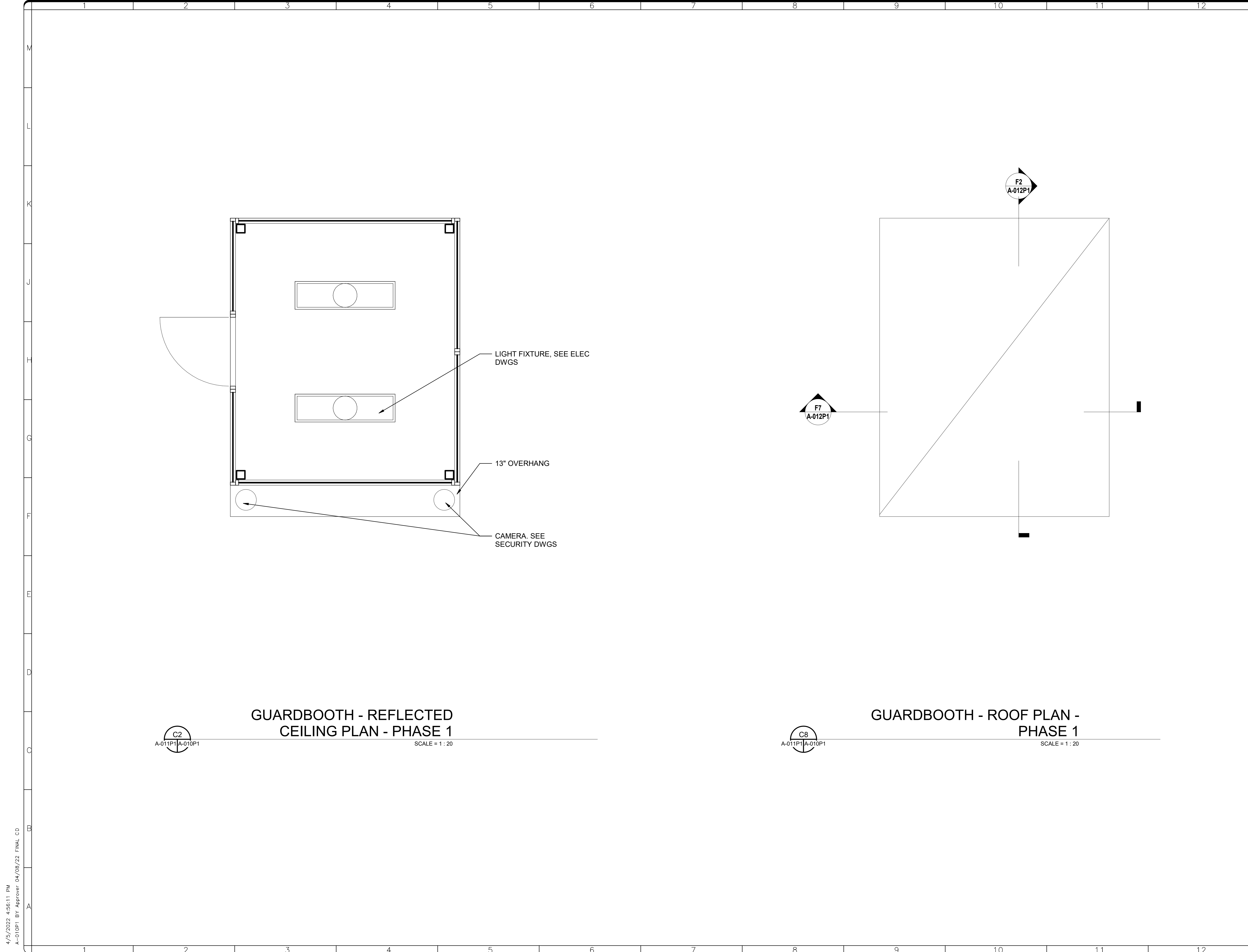


DATE 04/08/22	REVISION FINAL CD
REVISION # DATE	REVISION DESCRIPTION

**Smithsonian Institution**  
Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	GUARDBOOTH - FLOOR PLAN - ABOVE SILL - PHASE 1
WORKING STAFF	DESIGNED BY: GJ    DRAWN BY: GJ    CHECKED BY: AT
SHEET NO.	A-009P1
15 of 179	DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE

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A-009P1 BY Approver 04/08/22 FINAL CD



C2  
A-011P1|A-010P1

GUARDBOOTH - REFLECTED  
CEILING PLAN - PHASE 1  
SCALE = 1 : 20

C8  
A-011P1|A-010P1

GUARDBOOTH - ROOF PLAN -  
PHASE 1  
SCALE = 1 : 20

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**QUINN EVANS**

DISTRICT OF COLUMBIA  
ARCHITECT  
REGISTERED ARCHITECT  
APC 100516

KEY PLAN

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GRAPHIC SCALE(S)

DATE	04/08/22	REVISION	FINAL CD
REVISION #	DATE	REVISION DESCRIPTION	

**Smithsonian Institution**

Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	GUARDBOOTH - RCP & ROOF PLAN - PHASE 1
WORKING STAFF	GJ GJ AT
DESIGNED BY	GJ
DRAWN BY	GJ
CHECKED BY	AT

SHEET NO. 16 of 179  
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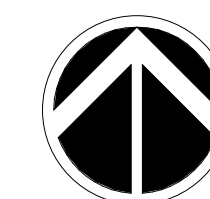
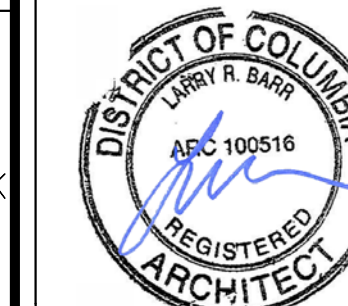
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EVANS**

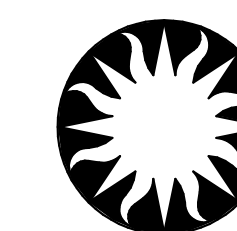


KEY PLAN



GRAPHIC SCALE(S)

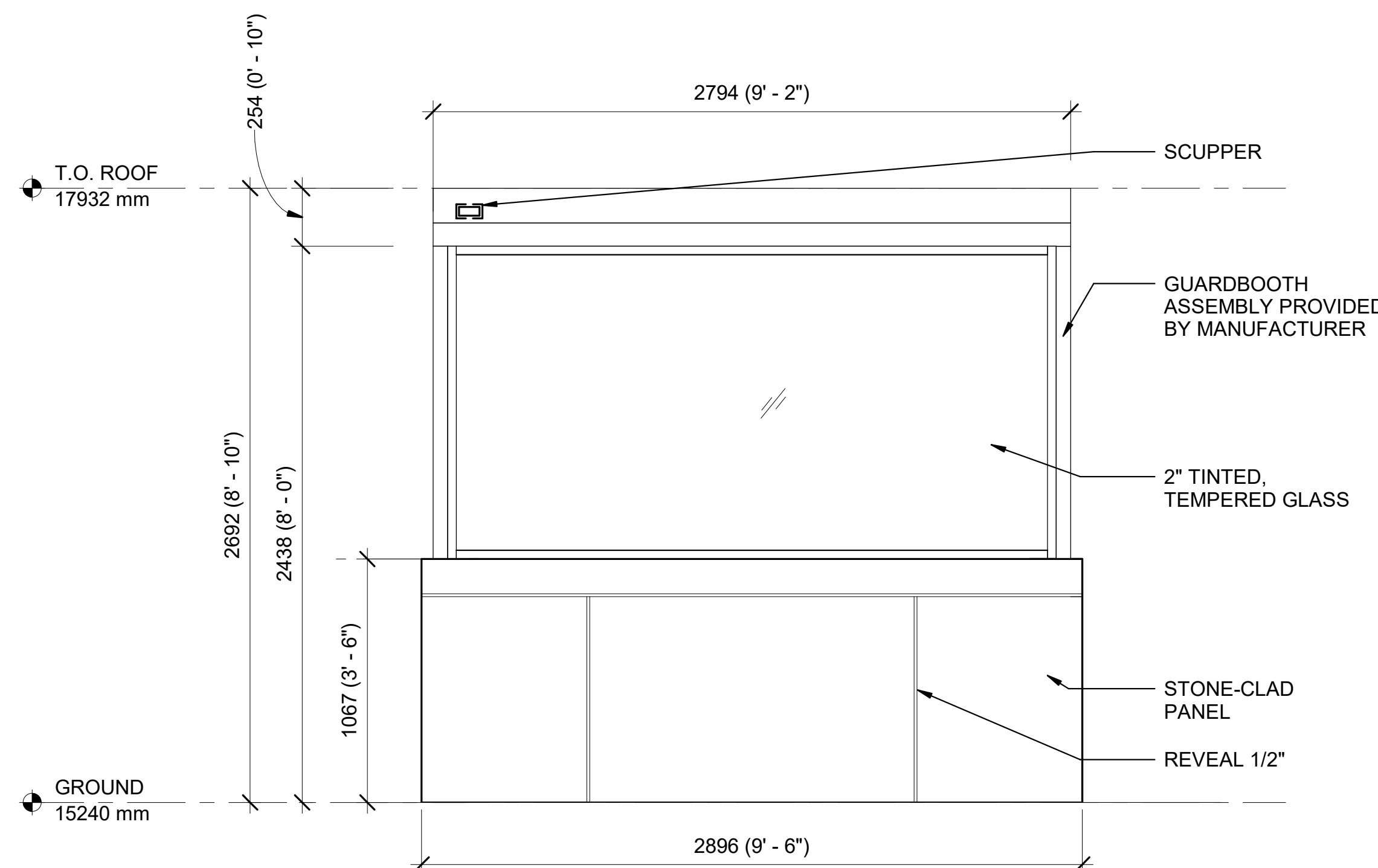
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**Smithsonian  
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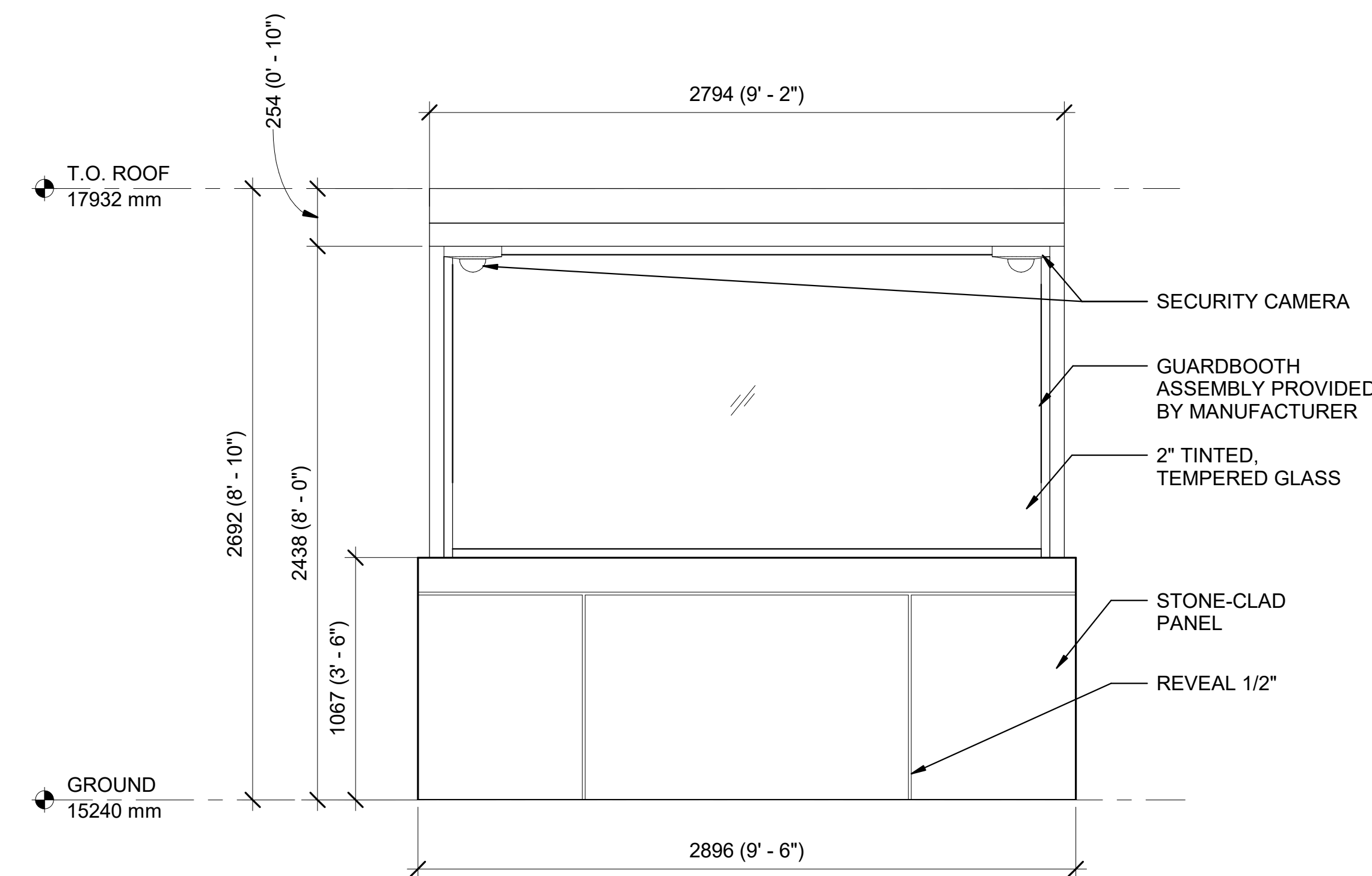
Smithsonian Facilities  
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BUILDING NAME	FREER/SACKLER/FA/QUAD						
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SF PROJECT NUMBER	1909101						
A/E PROJECT NUMBER	11203201						
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SHEET NO.	A-011P1						
17 OF 179							



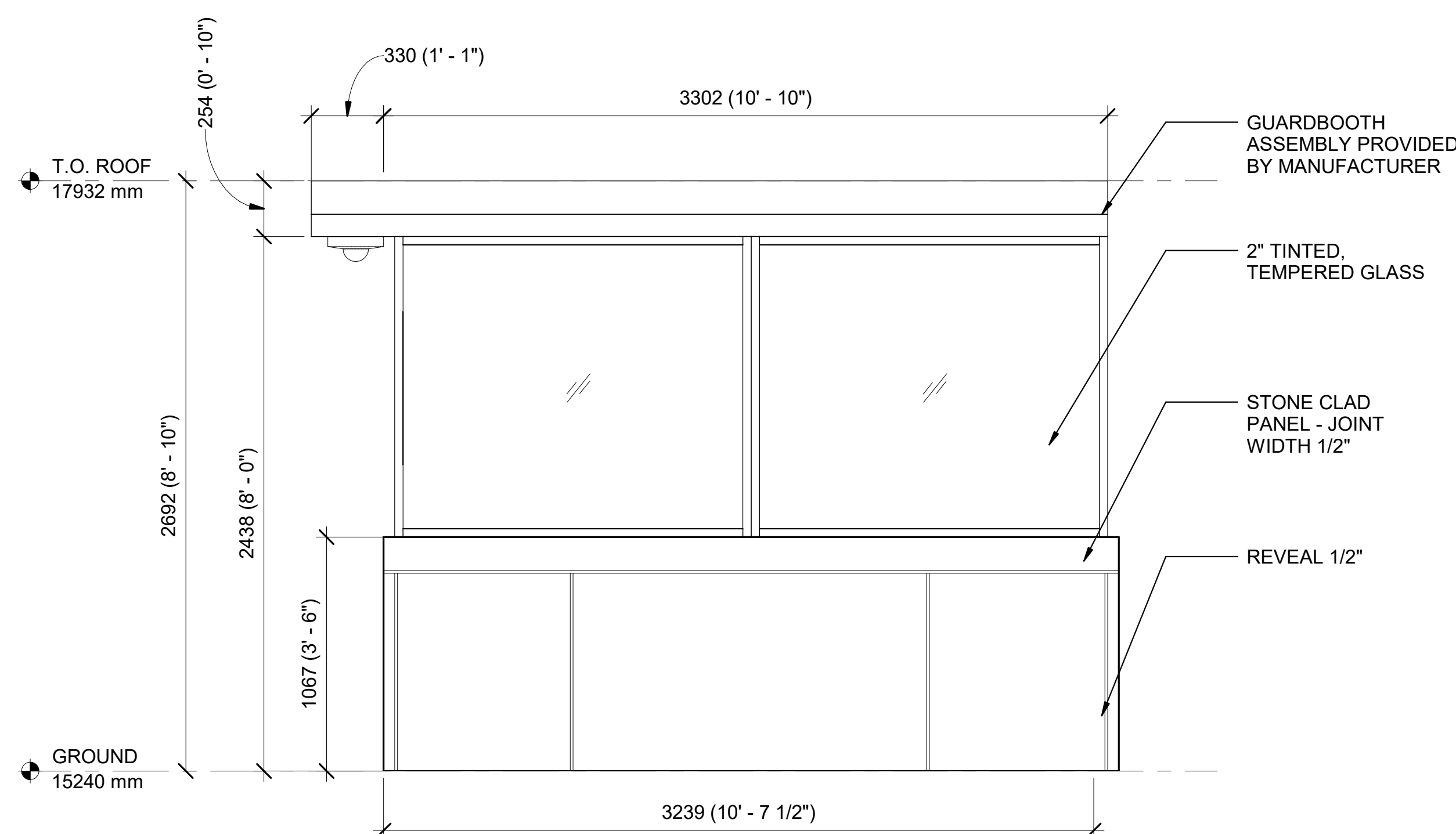
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PHASE 1**

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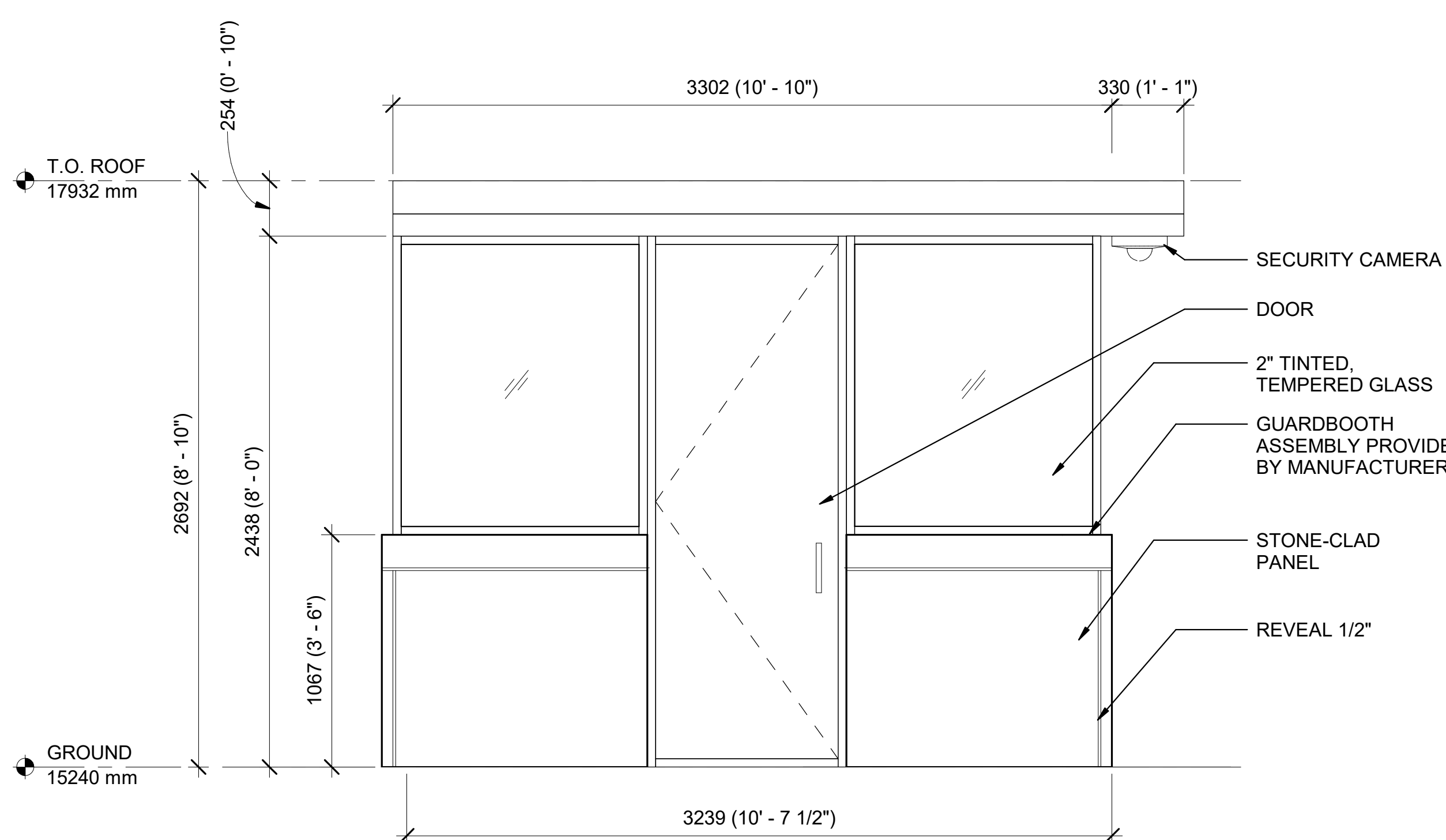
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PHASE 1**

SCALE = 1 : 20



**GUARDBOOTH - ELEV EAST -  
PHASE 1**

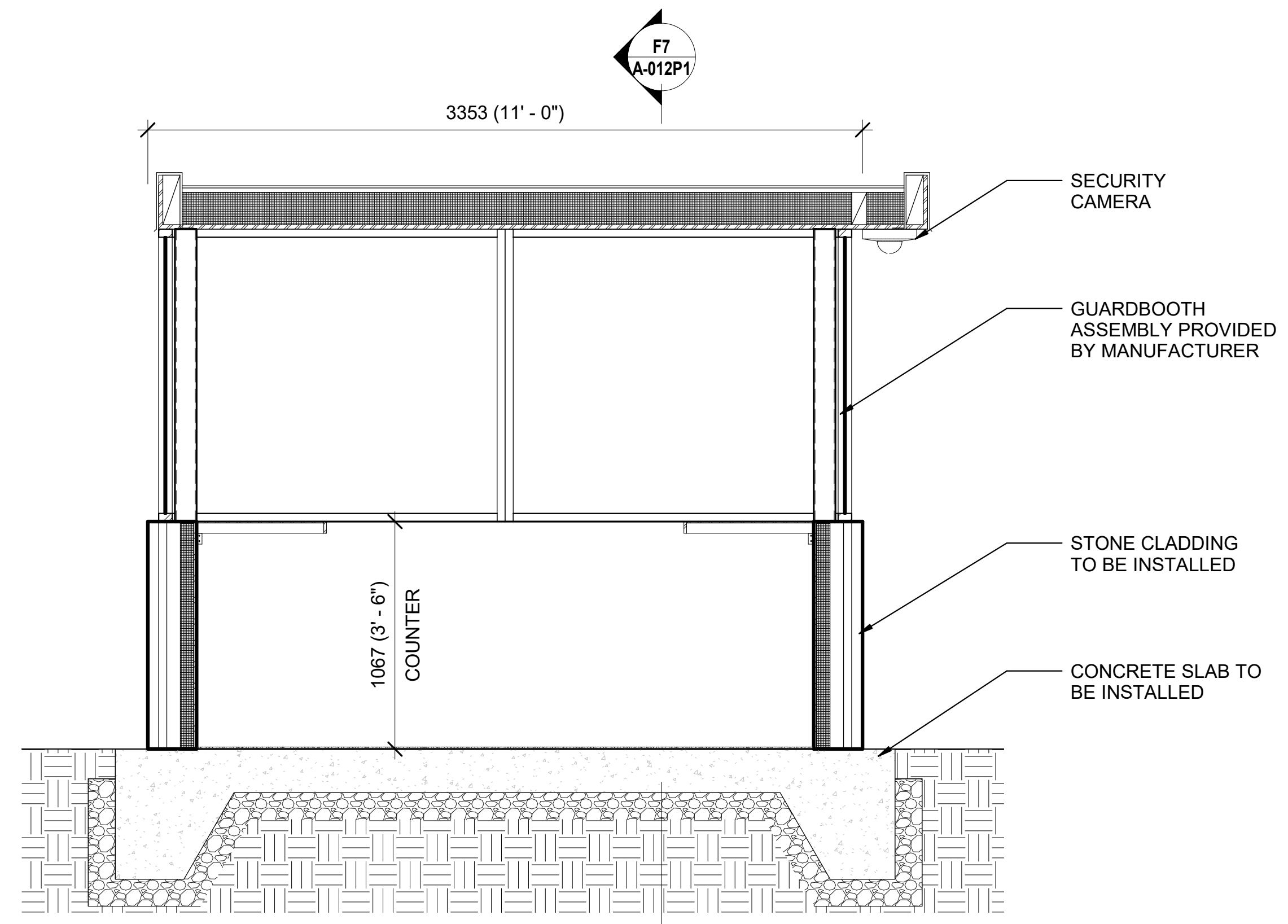
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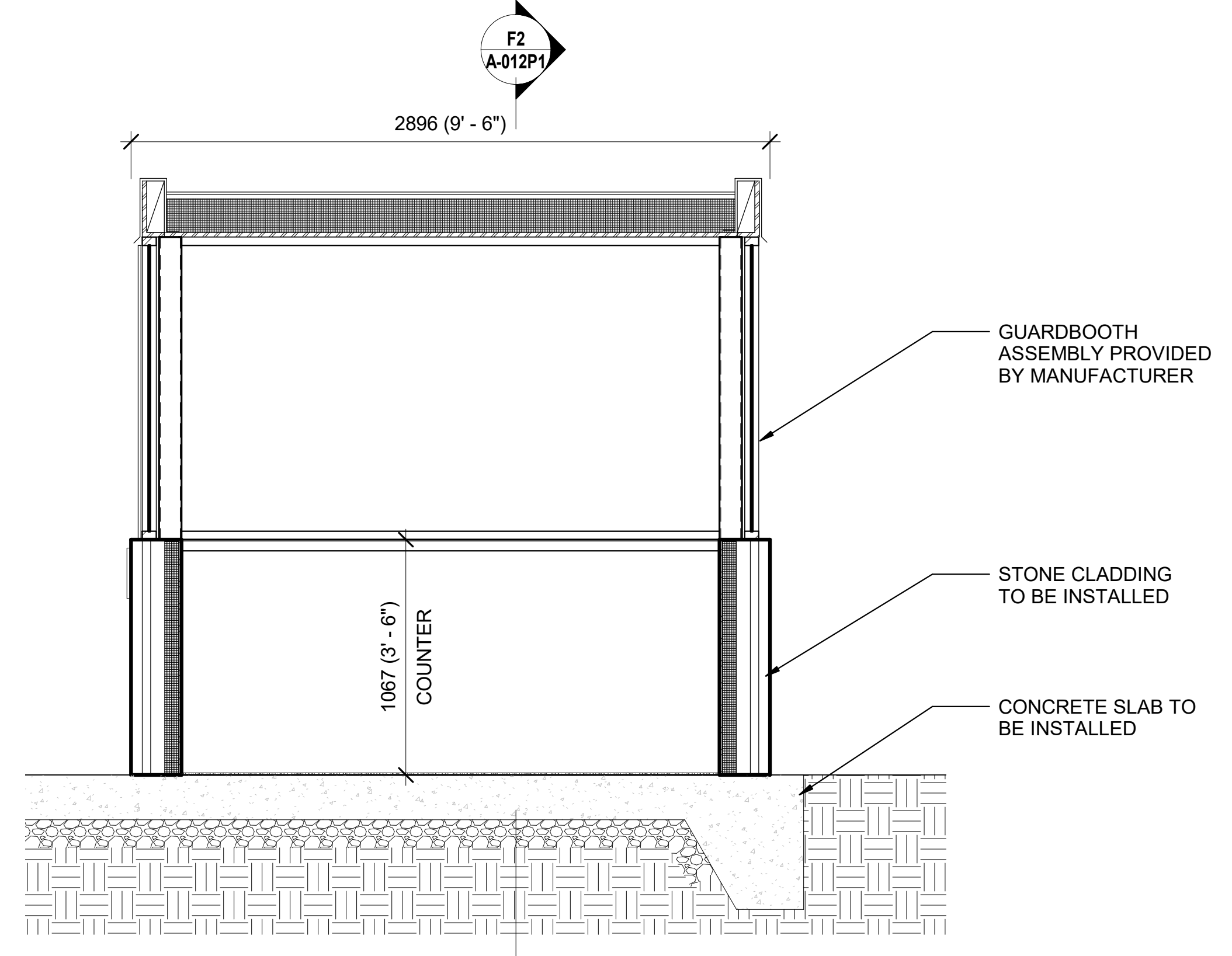
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PHASE 1**

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**GUARDBOOTH SECTION- NS - PHASE 1**  
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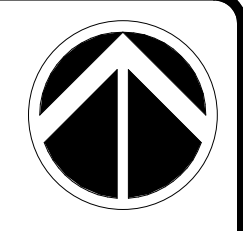


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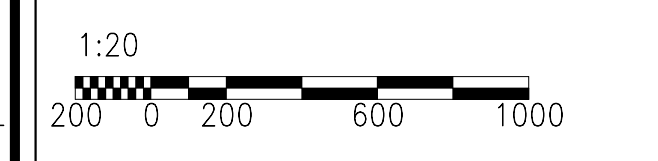


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**QUINN EVANS**

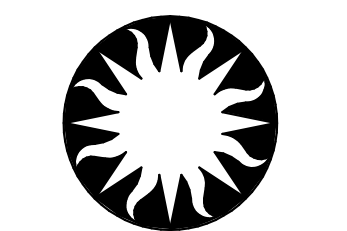


KEY PLAN



GRAPHIC SCALE(S)

DATE 04/08/22	REVISION FINAL CD
REVISION # DATE	REVISION DESCRIPTION



**Smithsonian Institution**

Smithsonian Facilities  
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DRAWING TITLE	GUARDBOOTH -- SECTIONS -- PHASE 1
WORKING STAFF	GJ GJ AT
DESIGNED BY	DRAWN BY
CHECKED BY	

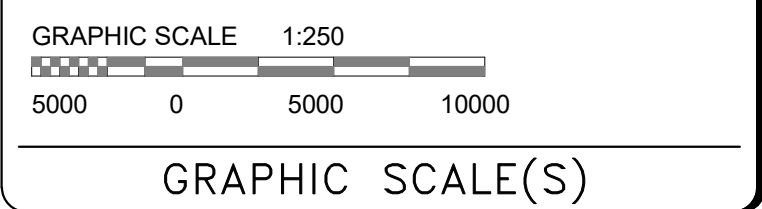
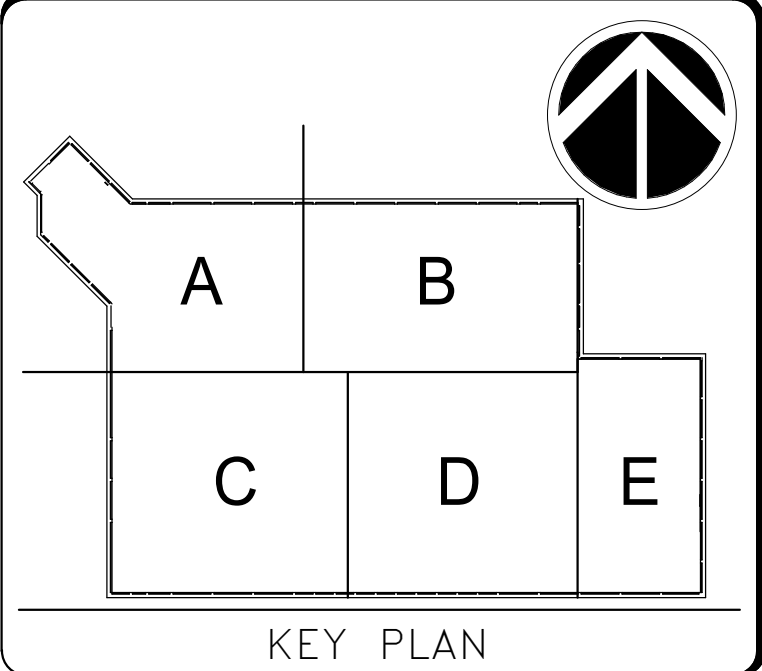
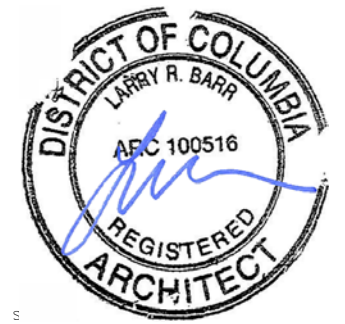
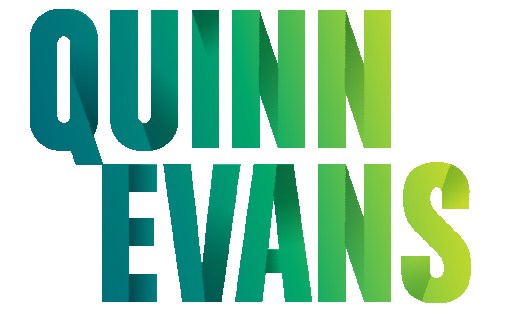
SHEET NO. 18 of 179  
A - 0 1 2 P 1

**SHEET NOTES**

1. Refer to A-001P1 - A-003P1, and A-005P1 for General Notes, Definitions, General Information, and Special Requirements
2. Repair existing walls at locations where demolition has occurred. Match finish to existing adjacent.
3. Remove ceiling mounted devices and fixtures, including light fixtures, sprinklers heads, fire alarm devices and air devices.



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14585 Avion Prkwy Suite 150 Chantilly Virginia USA  
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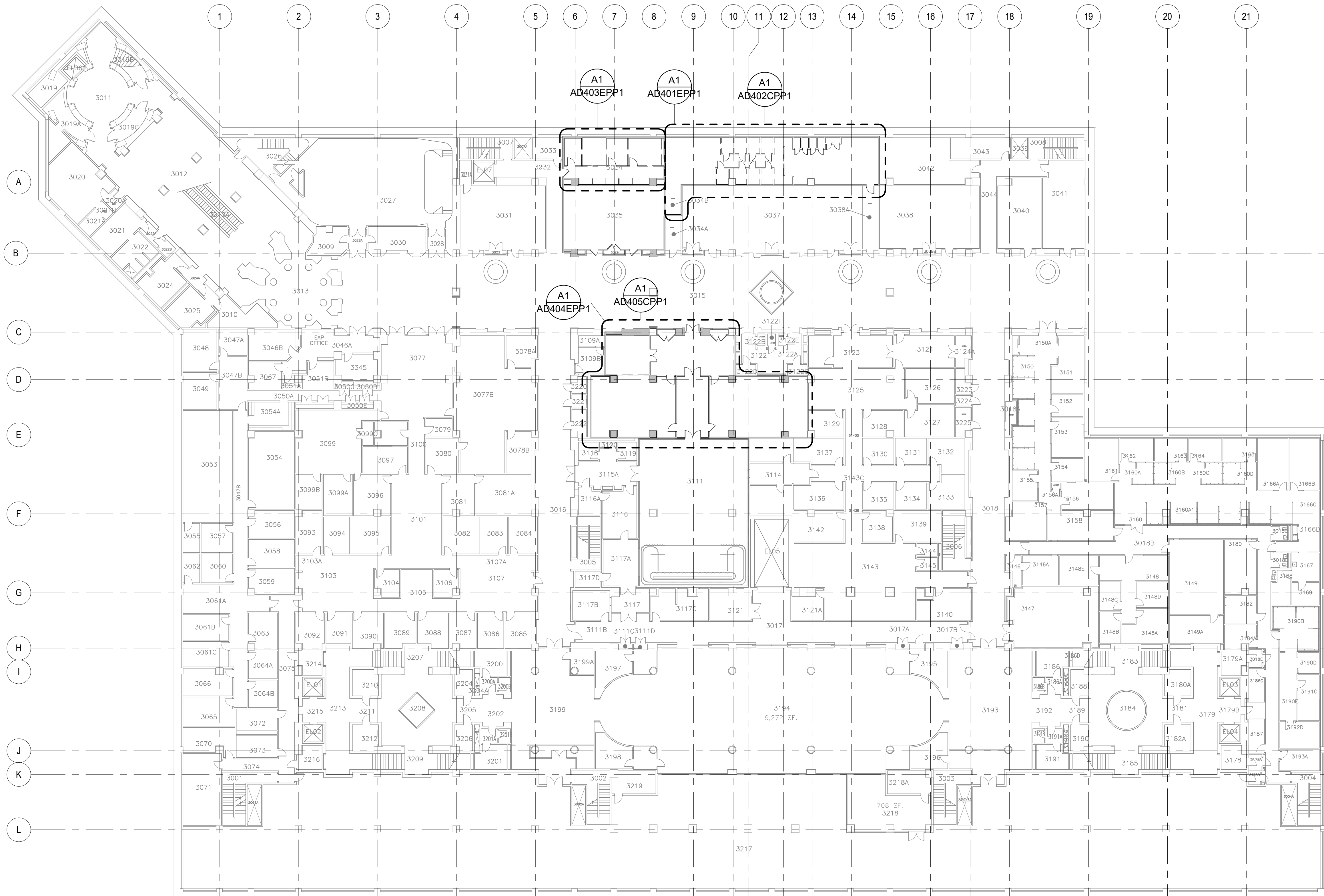


DATE	04/08/22	REVISION	FINAL CD
REVISION #	DATE	REVISION DESCRIPTION	

**Smithsonian Institution**  
Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 03 - OVERALL PLAN - DEMO - PHASE 1
WORKING STAFF	DESIGNED BY: GJ    DRAWN BY: GJ    CHECKED BY: AT

SHEET NO.	AD101FPP1
19 of 179	



**SUBLEVEL 03 - OVERALL PLAN - DEMO - PHASE 1**

SCALE = 1 : 250

A1  
A-201ELP1AD101FPP1

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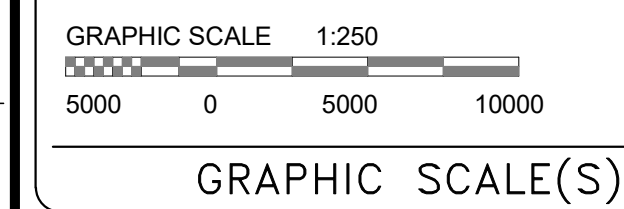
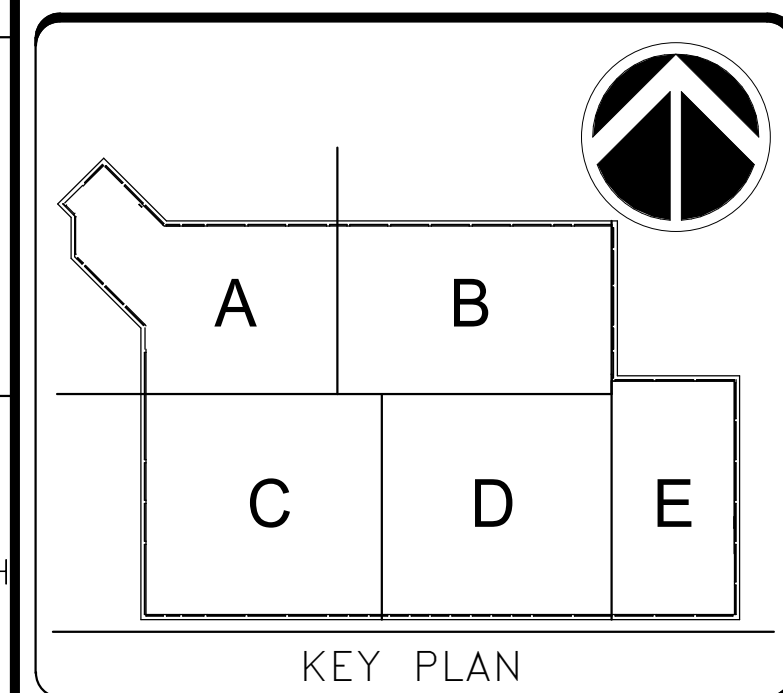
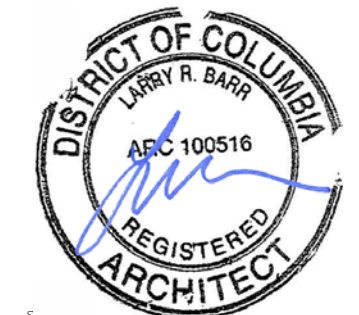
**SHEET NOTES**

1. Refer to A-001P1 - A-003P1, and A-005P1 for General Notes, Definitions, General Information, and Special Requirements
2. Repair existing walls at locations where demolition has occurred. Match finish to existing adjacent.
3. Remove ceiling mounted devices and fixtures, including light fixtures, sprinklers heads, fire alarm devices and air devices.



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**QUINN  
EVANS**



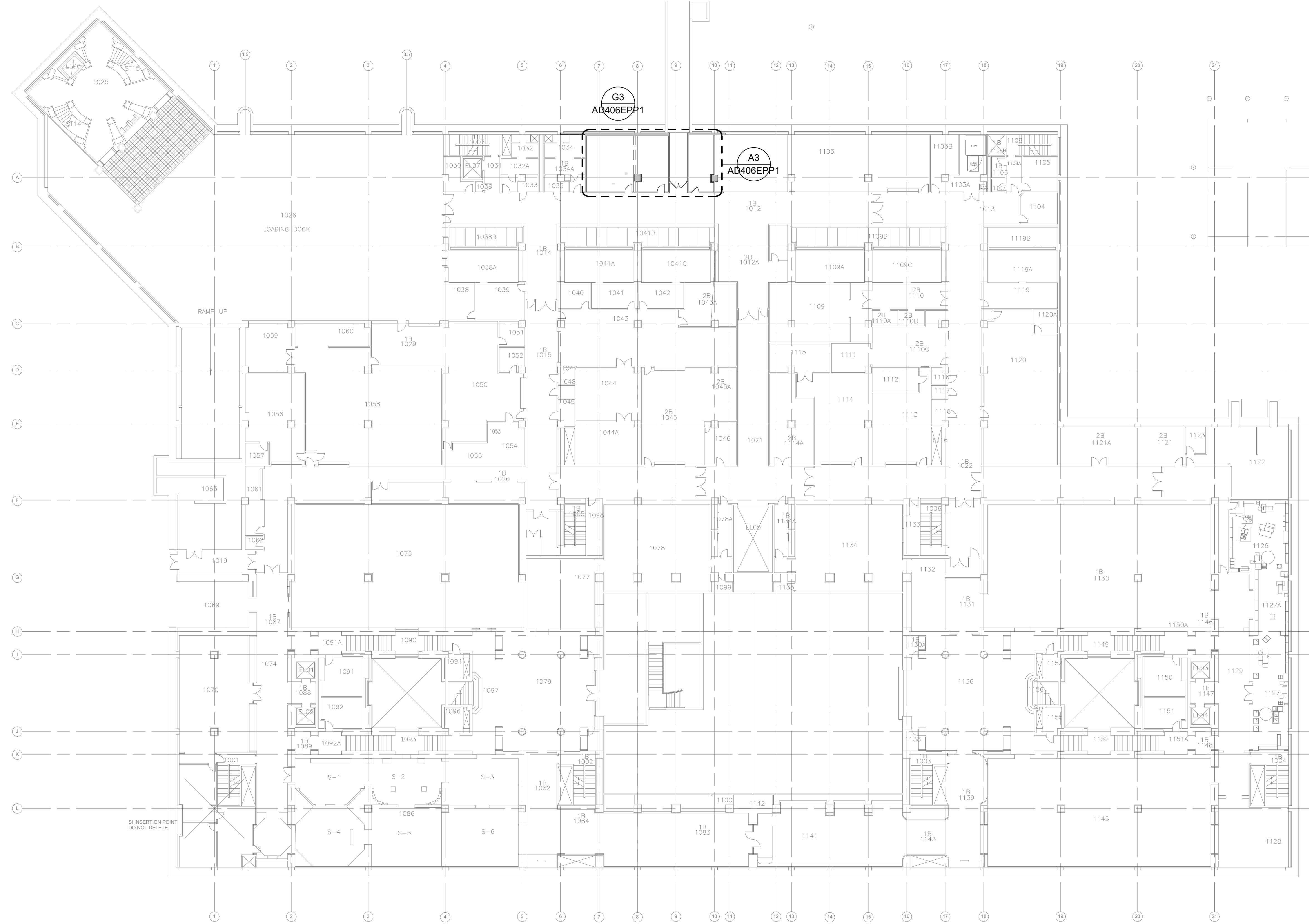
DATE	04/08/22	REVISION	FINAL CD
REVISION #	DATE	REVISION DESCRIPTION	

**Smithsonian  
Institution**

Smithsonian Facilities  
600 Maryland Avenue S.W., Suite 5001  
Washington, DC 20024-2520

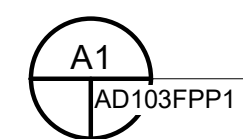
BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 01 - OVERALL PLAN - DEMO - PHASE 1
WORKING STAFF	DESIGNED BY: GJ    DRAWN BY: GJ    CHECKED BY: AT

SHEET NO.	AD103FPP1
20 OF 179	DISCIPLINE    TYPE    SEQUENCE    DRAWING TYPE    PHASE



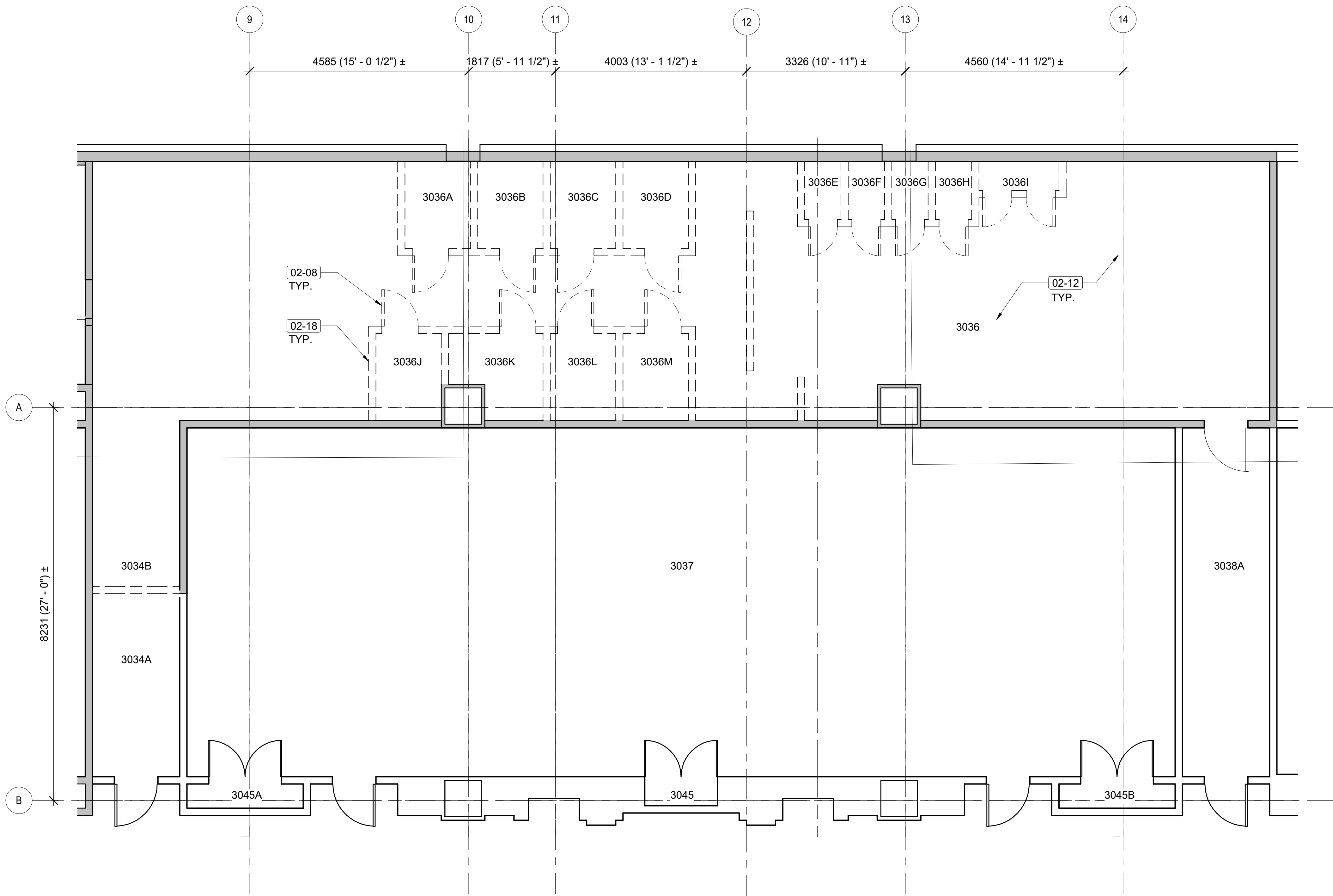
**SUBLEVEL 01 - OVERALL PLAN -  
DEMO - PHASE 1**

SCALE = 1 : 250



4/15/2022 4:56:21 PM AD103FPP1 BY: Approver 04/08/22 FINAL CD

4/15/2022 4:56:21 PM  
AD401EPP1 BY Approver 04/08/22 FINAL CD



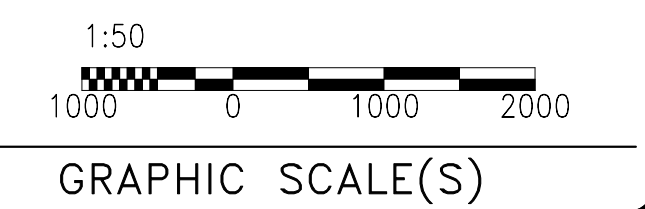
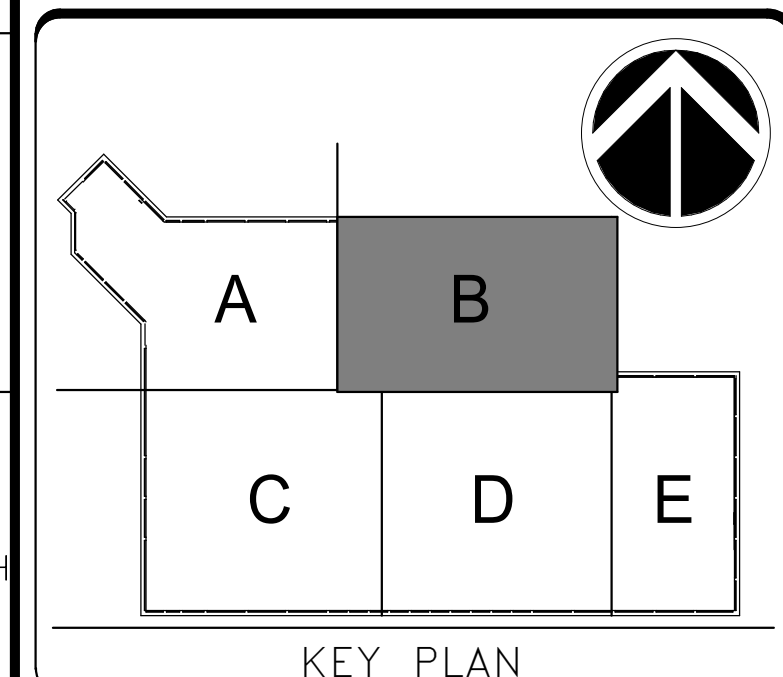
**SHEET NOTES**

1. Refer to A-001P1 - A-003P1, and A-005P1 for General Notes, Definitions, General Information, and Special Requirements
2. Repair existing walls at locations where demolition has occurred. Match finish to existing adjacent.
3. Remove ceiling mounted devices and fixtures, including light fixtures, sprinklers heads, fire alarm devices and air devices.

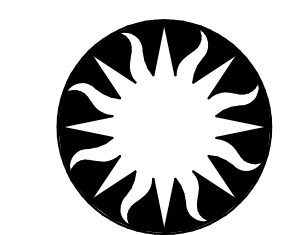
Key Value	Keynote Text
02-08	REMOVE EXISTING DOOR AND FRAME.
02-12	REMOVE EXISTING FLOORING.
02-18	REMOVE EXISTING WALL.



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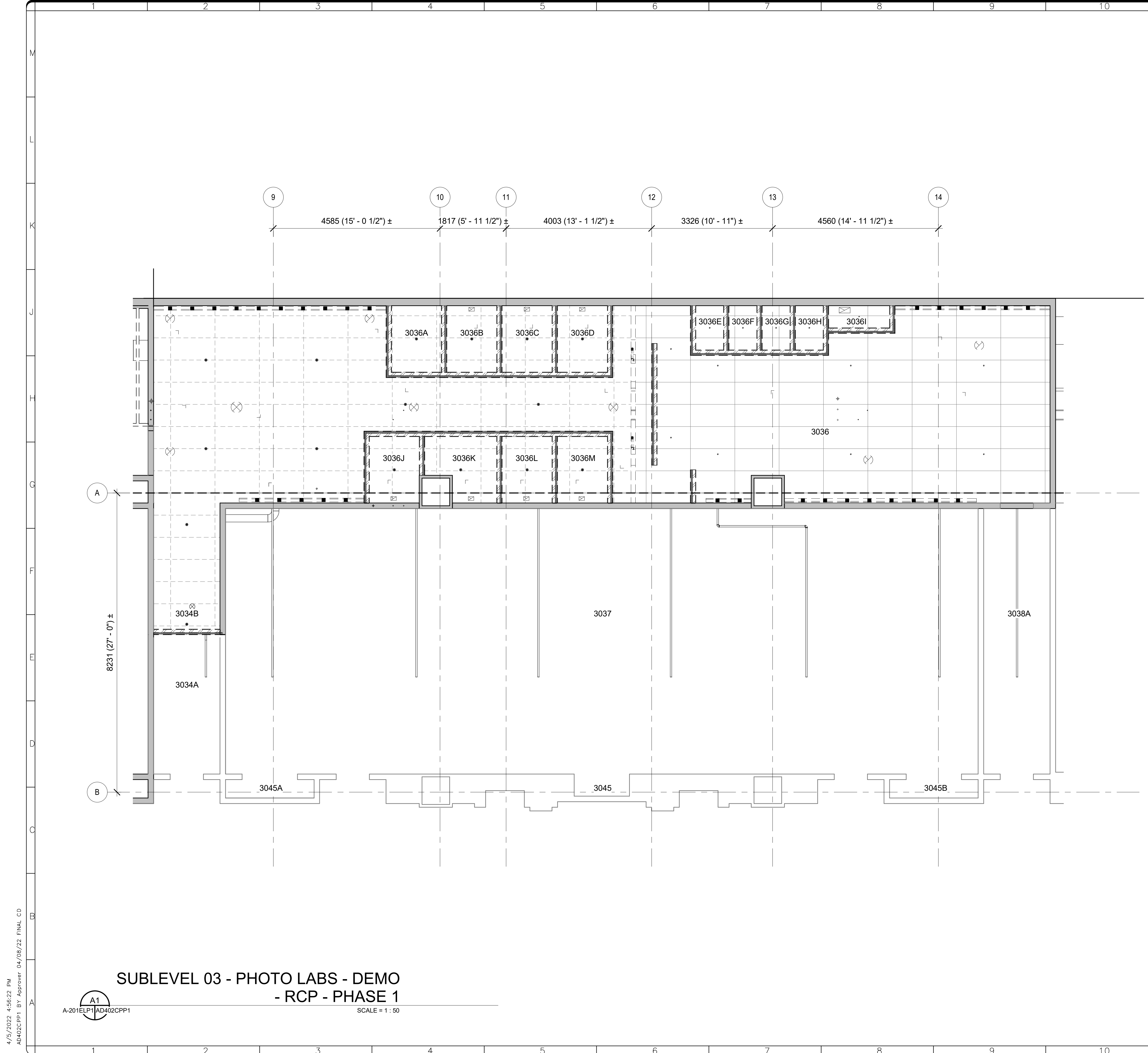
**Smithsonian Institution**

Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 03 - PHOTO LABS - DEMO - PHASE 1
WORKING STAFF	DESIGNED BY: GJ    DRAWN BY: GJ    CHECKED BY: AT

SHEET NO.	AD401EPP1
21 OF 179	

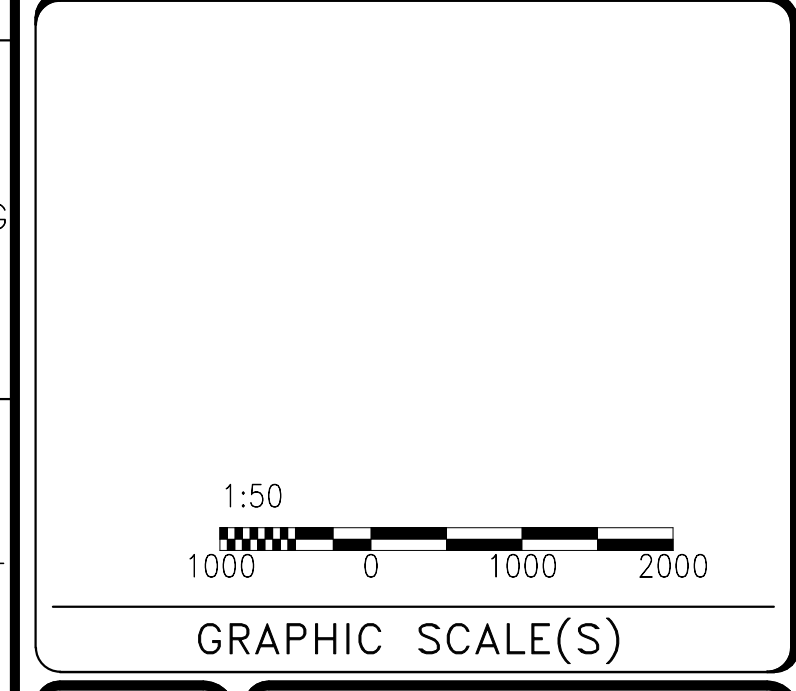
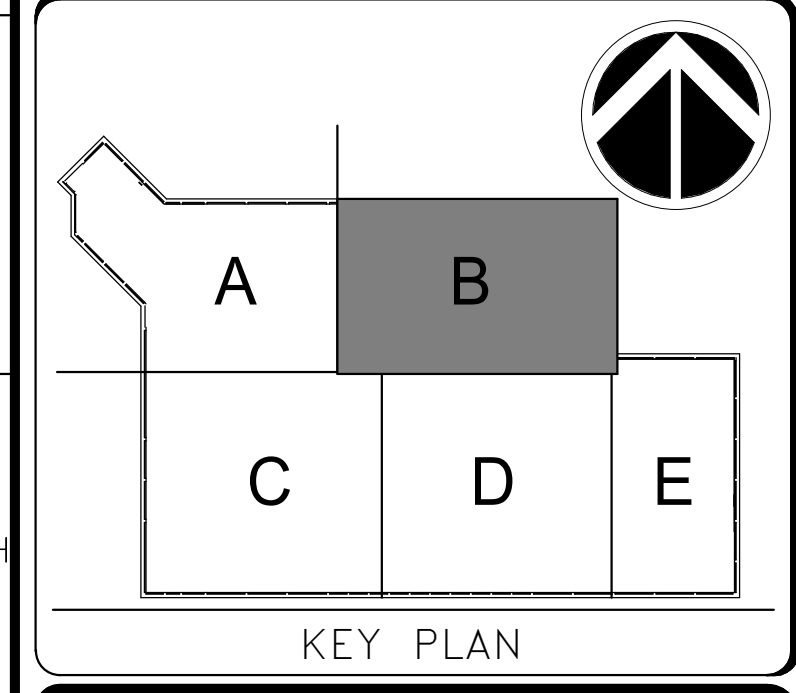
**A1** SUBLEVEL 03 - PHOTO LABS - DEMO - PHASE 1  
A-201ELP1AD401EPP1 SCALE = 1 : 50



**SHEET NOTES**

1. Refer to A-001P1 - A-003P1, and A-005P1 for General Notes, Definitions, General Information, and Special Requirements
2. Repair existing walls at locations where demolition has occurred. Match finish to existing adjacent.
3. Remove ceiling mounted devices and fixtures, including light fixtures, sprinklers heads, fire alarm devices and air devices.

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REVISION #	DATE	REVISION DESCRIPTION	

**LEGEND:**

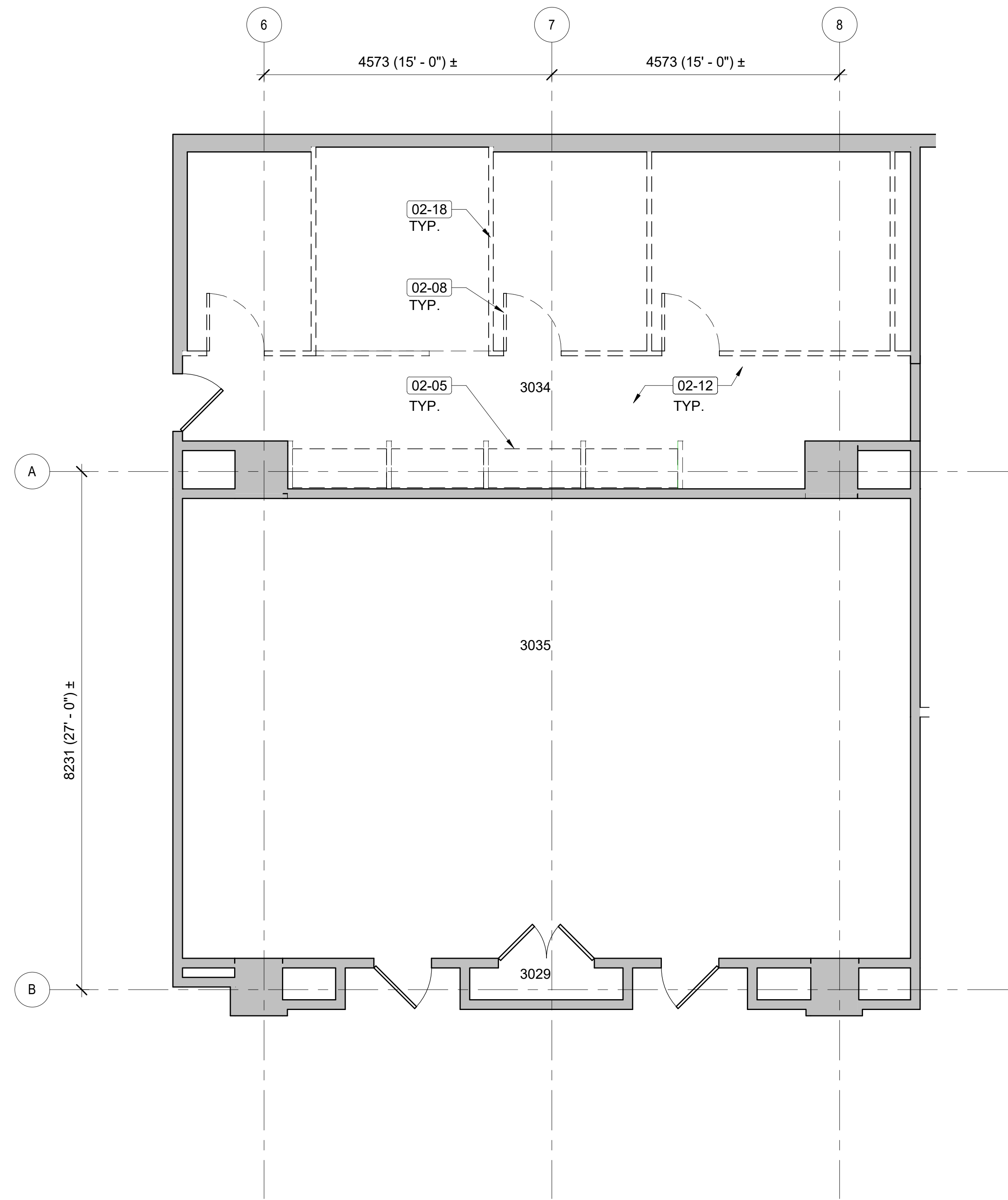
- SUSPENDED 2X2 ACOUSTIC CEILING GRID TO BE DEMOLISHED
- SUSPENDED 2X2 ACOUSTIC CEILING GRID TO BE DEMOLISHED
- EXISTING DOOR TO BE DEMOLISHED
- EXISTING TO REMAIN RETURN AIR TERMINAL
- EXISTING TO REMAIN SUPPLY AIR TERMINAL
- EXISTING LIGHT FIXTURE (2'X2')
- EXISTING TO REMAIN LIGHT FIXTURE (2'X4')
- EXISTING TO REMAIN LINEAR LIGHT FIXTURE
- EXISTING TO REMAIN LIGHT FIXTURE
- EXISTING TO REMAIN LIGHT FIXTURE
- EXISTING SPRINKLER HEAD
- SPRINKLER PIPES TO REMAIN (REFER TO FX DWGS)
- SPRINKLER PIPES TO BE DEMOLISHED (REFER TO FX DWGS)
- EXISTING TO REMAIN SMOKE DETECTOR
- EXISTING TO REMAIN FIRE ALARM STROBE
- EXISTING TO REMAIN EXIT SIGN

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Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 03 - PHOTO LABS - DEMO - RCP - PHASE 1
WORKING STAFF	DESIGNED BY: GJ    DRAWN BY: GJ    CHECKED BY: AT
SHEET NO.	AD402CPP1
22 OF 179	DISCIPLINE    TYPE    SEQUENCE    DRAWING TYPE    PHASE

4/15/2022 4:56:22 PM AD402CPP1 BY Approver 04/08/22 FINAL CD

**SUBLEVEL 03 - PHOTO LABS - DEMO - RCP - PHASE 1**  
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**SHEET NOTES**

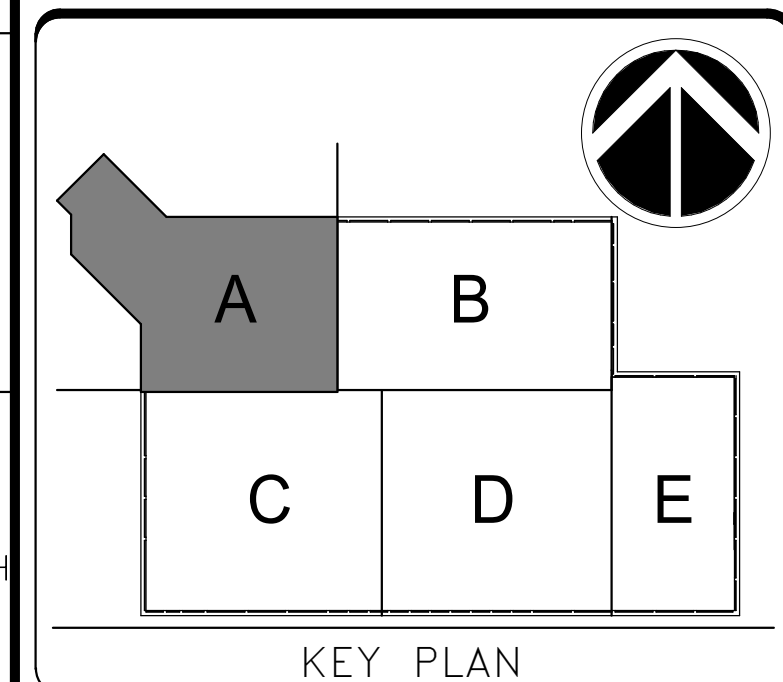
1. Refer to A-001P1 - A-003P1, and A-005P1 for General Notes, Definitions, General Information, and Special Requirements
2. Repair existing walls at locations where demolition has occurred. Match finish to existing adjacent.
3. Remove ceiling mounted devices and fixtures, including light fixtures, sprinklers heads, fire alarm devices and air devices.

Key Value	Keynote Text
02-05	REMOVE COUNTER TOP.
02-08	REMOVE EXISTING DOOR AND FRAME.
02-12	REMOVE EXISTING FLOORING.
02-18	REMOVE EXISTING WALL.

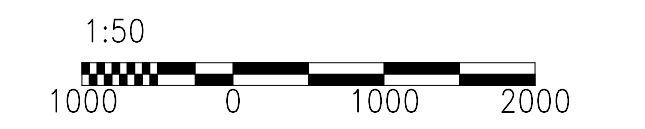


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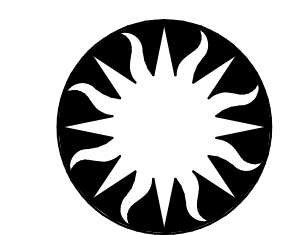


KEY PLAN



GRAPHIC SCALE(S)

DATE 04/08/22	REVISION FINAL CD
REVISION # DATE	REVISION DESCRIPTION



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Washington, DC 20024-2520

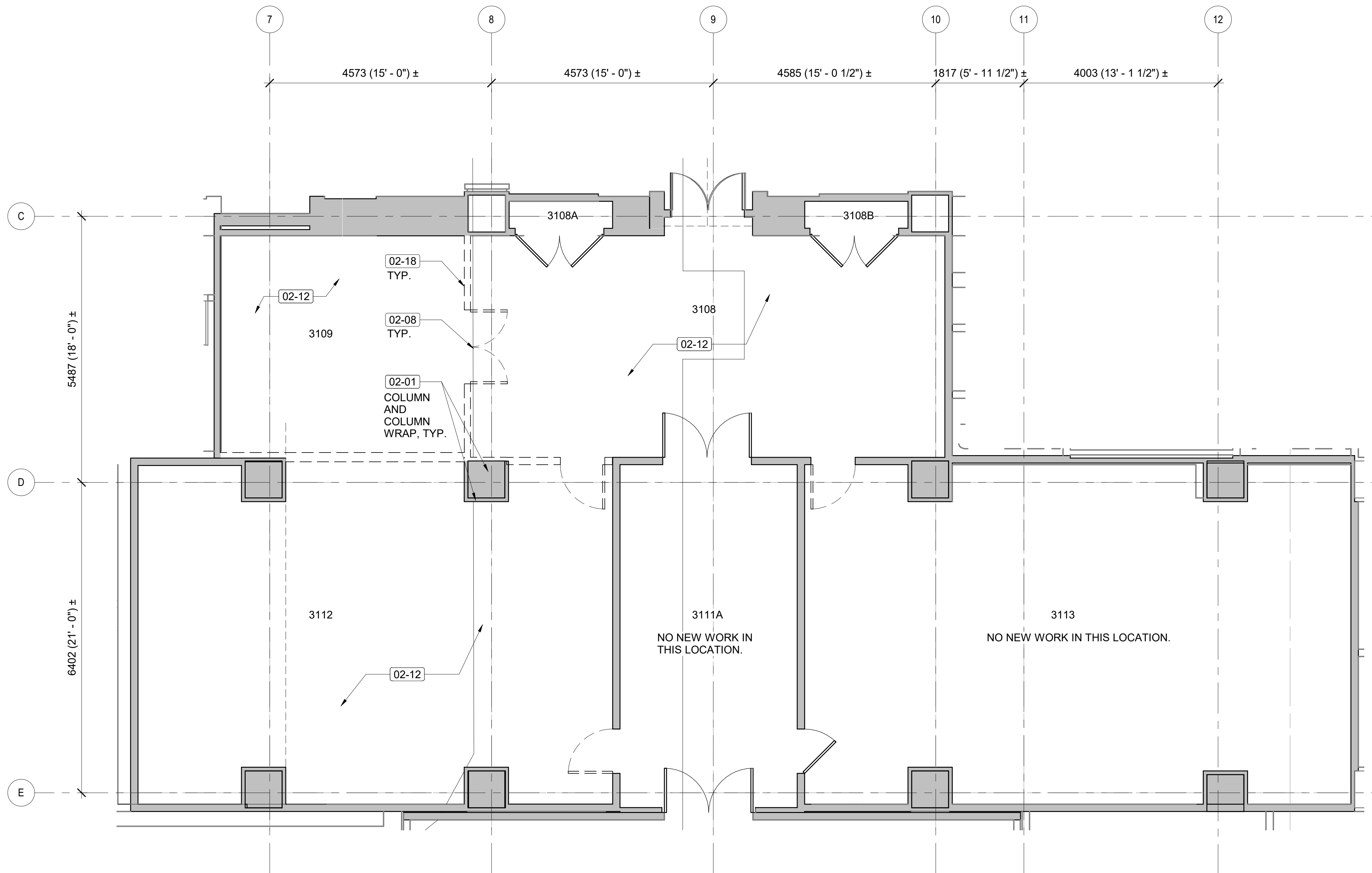
BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 03 - EXISTING OFFICES - DEMO - PHASE 1
WORKING STAFF	DESIGNED BY: GJ    DRAWN BY: GJ    CHECKED BY: AT
SHEET NO.	AD403EPP1
23 of 179	DISCIPLINE    TYPE    SEQUENCE    DRAWING TYPE    PHASE

**SUBLEVEL 03 -EXISTING OFFICES -  
DEMO - PHASE 1**

SCALE = 1 : 50



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AD404EPP1 BY: Approver 04/08/22 FINAL CD



**SUBLEVEL 03 - EXISTING OFFICES - DEMO - PHASE 1**

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A-201ELP1AD404EPP1

SCALE = 1 : 50

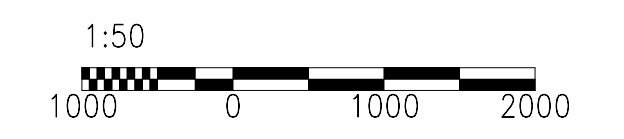
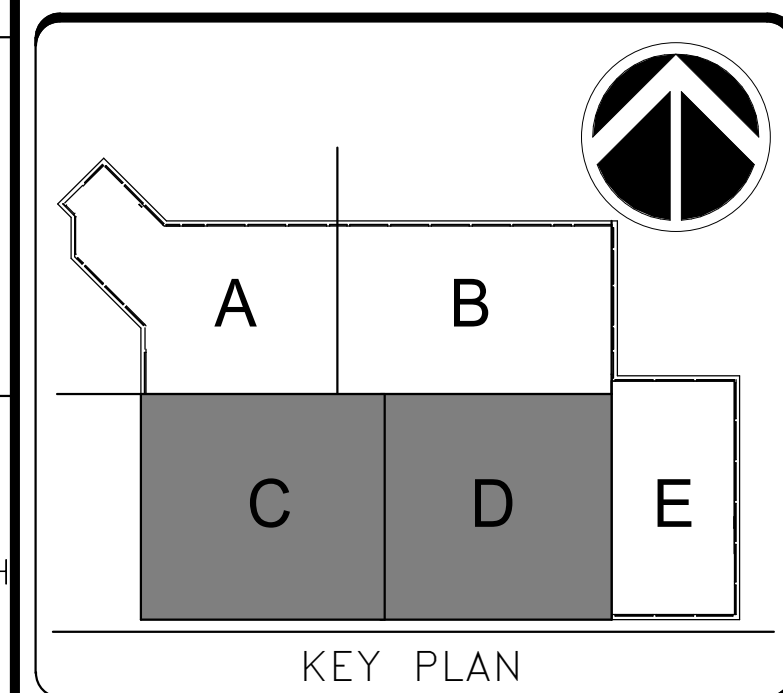
**SHEET NOTES**

1. Refer to A-001P1 - A-003P1, and A-005P1 for General Notes, Definitions, General Information, and Special Requirements
2. Repair existing walls at locations where demolition has occurred. Match finish to existing adjacent.
3. Remove ceiling mounted devices and fixtures, including light fixtures, sprinklers heads, fire alarm devices and air devices.

Key Value	Keynote Text
02-01	EXISTING ITEM TO REMAIN.
02-08	REMOVE EXISTING DOOR AND FRAME.
02-12	REMOVE EXISTING FLOORING.
02-18	REMOVE EXISTING WALL.



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REVISION # DATE	REVISION DESCRIPTION

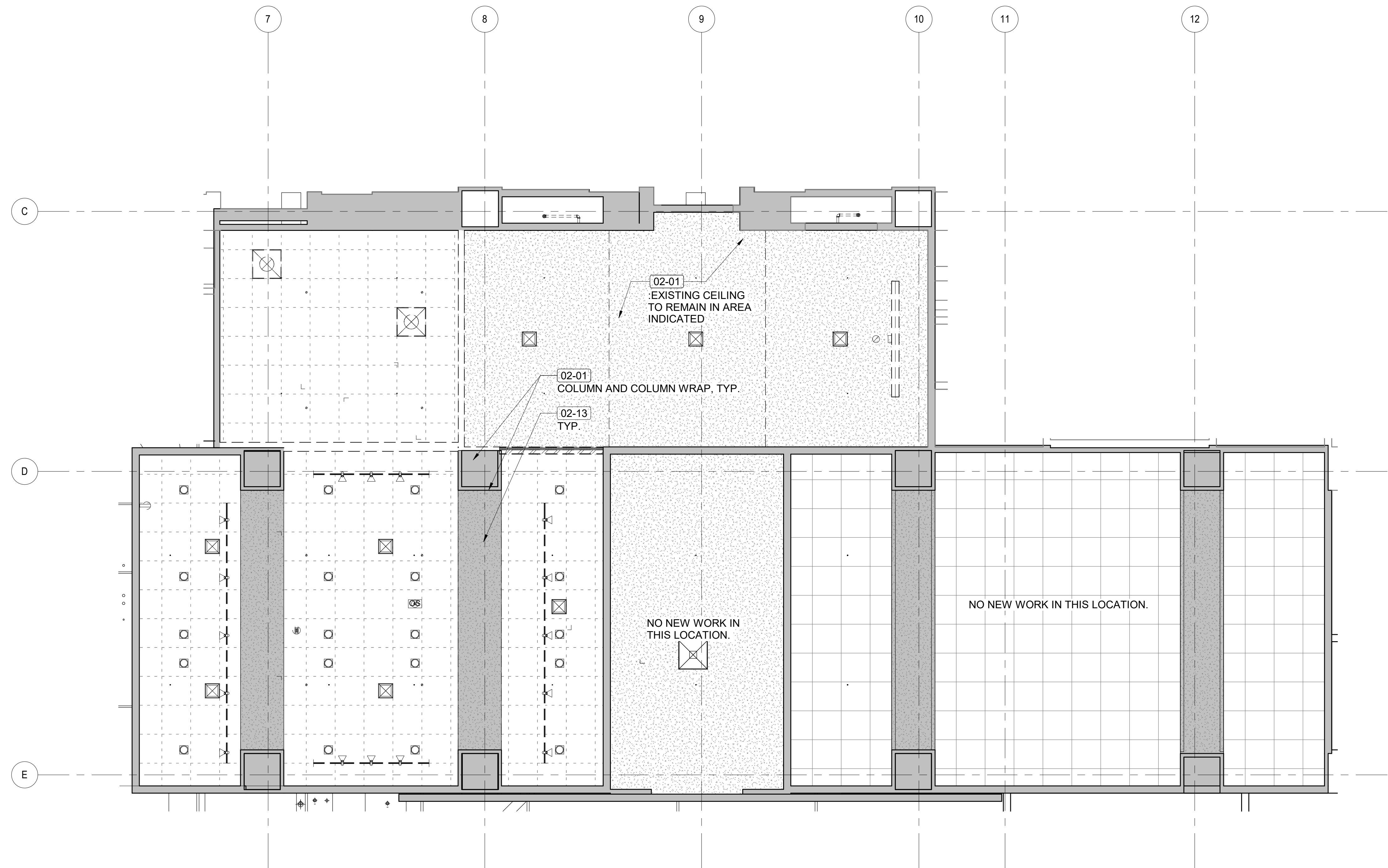
**Smithsonian Institution**  
Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 03 - EXISTING OFFICES - DEMO - PHASE 1
WORKING STAFF	DESIGNED BY: GJ    DRAWN BY: GJ    CHECKED BY: AT

SHEET NO. 24 OF 179	AD404EPP1
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AD405CPP1 BY Approver 04/08/22 FINAL CD



**SHEET NOTES**

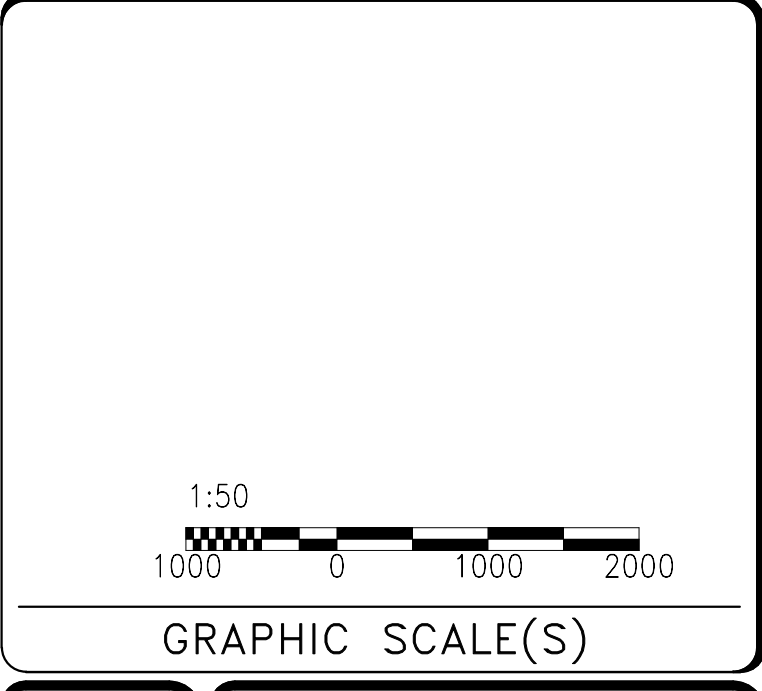
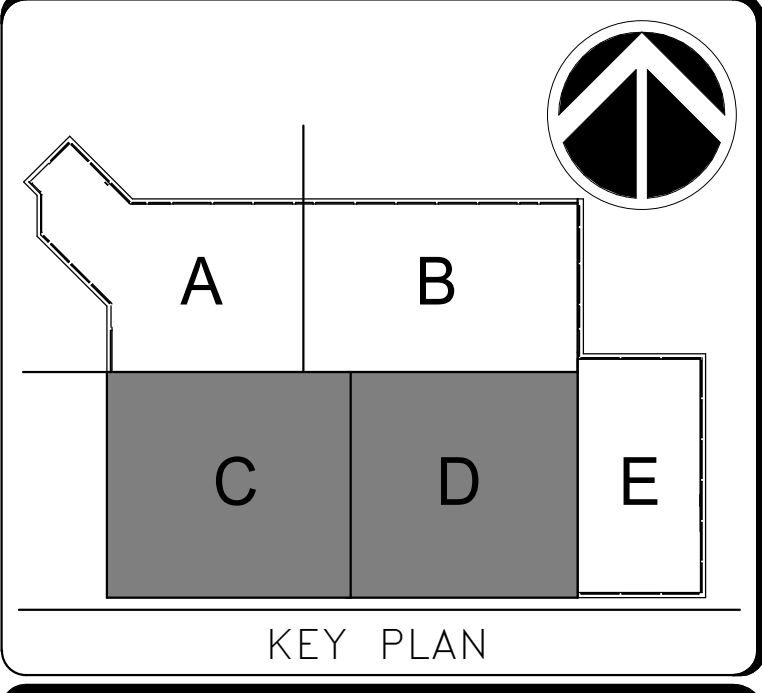
1. Refer to A-001P1 - A-003P1, and A-005P1 for General Notes, Definitions, General Information, and Special Requirements
2. Repair existing walls at locations where demolition has occurred. Match finish to existing adjacent.
3. Remove ceiling mounted devices and fixtures, including light fixtures, sprinklers heads, fire alarm devices and air devices.

Key Value	Keynote Text
02-01	EXISTING ITEM TO REMAIN.
02-13	EXISTING GYPSUM BULKHEAD TO REMAIN.

**LEGEND:**

- SUSPENDED 2X2 ACOUSTIC CEILING GRID TO BE DEMOLISHED
- SUSPENDED 2X2 ACOUSTIC CEILING GRID TO BE DEMOLISHED
- EXISTING DOOR TO BE DEMOLISHED
- EXISTING TO REMAIN RETURN AIR TERMINAL
- EXISTING TO REMAIN SUPPLY AIR TERMINAL
- EXISTING LIGHT FIXTURE (2'X2')
- EXISTING TO REMAIN LIGHT FIXTURE (2'X4')
- EXISTING TO REMAIN LINEAR LIGHT FIXTURE
- EXISTING TO REMAIN LIGHT FIXTURE
- EXISTING TO REMAIN LIGHT FIXTURE
- EXISTING SPRINKLER HEAD
- SPRINKLER PIPES TO REMAIN (REFER TO FX DWGS)
- SPRINKLER PIPES TO BE DEMOLISHED (REFER TO FX DWGS)
- EXISTING TO REMAIN SMOKE DETECTOR
- EXISTING TO REMAIN FIRE ALARM STROBE
- EXISTING TO REMAIN EXIT SIGN

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DATE 04/08/22	SUBMISSION FINAL CD
REVISION # DATE	REVISION DESCRIPTION

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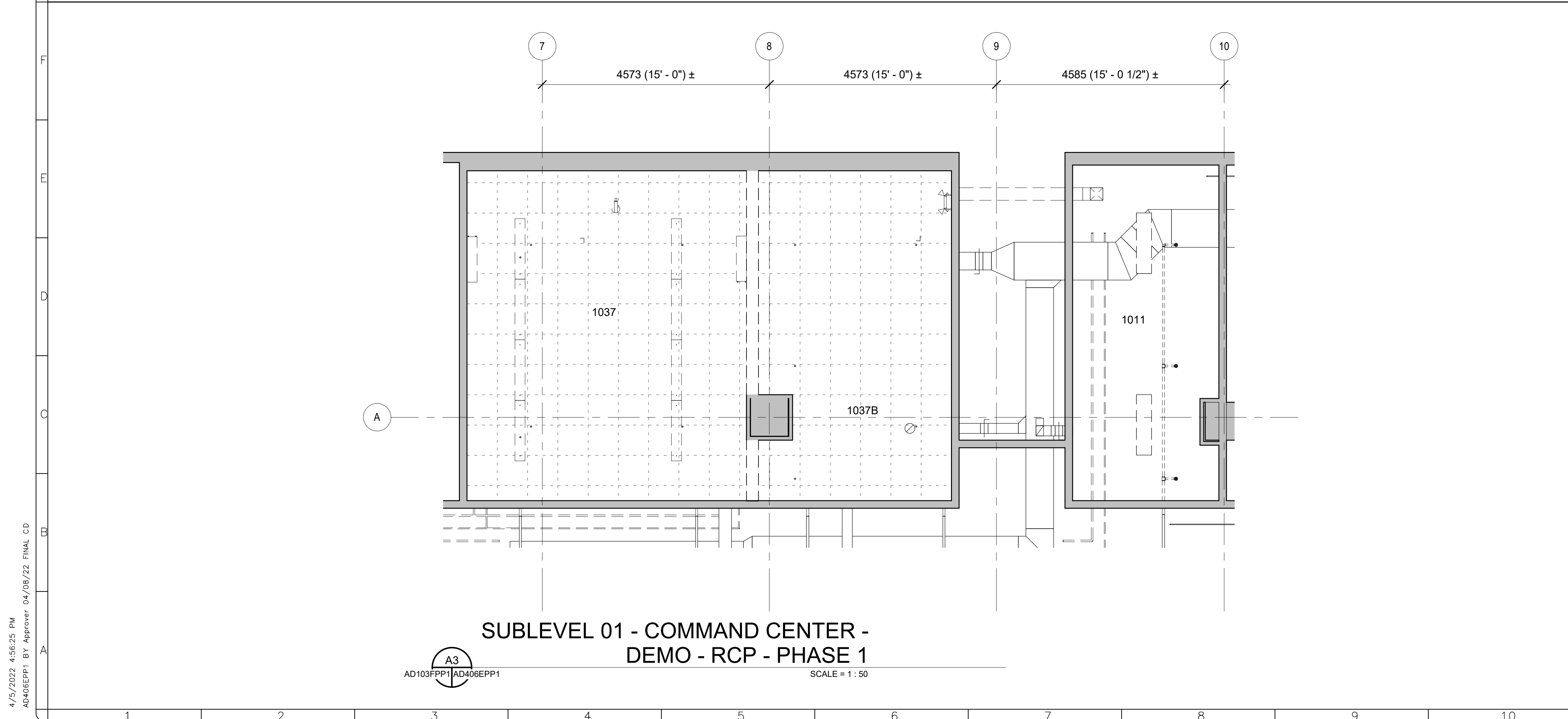
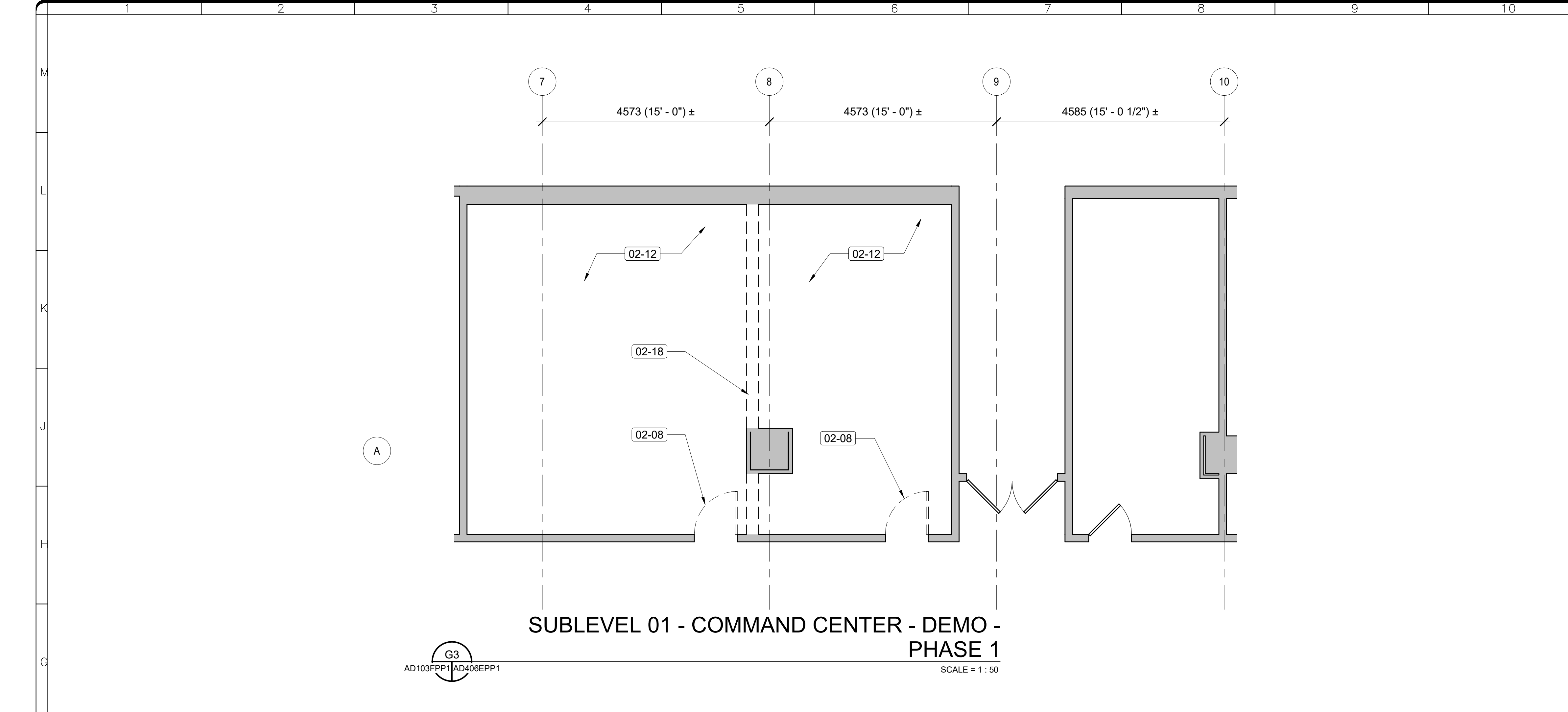
Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/FA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/FA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 03 - EXISTING OFFICES - DEMO - RCP - PHASE 1
WORKING STAFF	DESIGNED BY: GJ    DRAWN BY: GJ    CHECKED BY: AT
SHEET NO.	AD405CPP1
25 of 179	DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE

**SUBLEVEL 03 - EXISTING OFFICES - DEMO - RCP - PHASE 1**

A1  
A-101FPP1AD405CPP1

SCALE = 1 : 50



**SHEET NOTES**

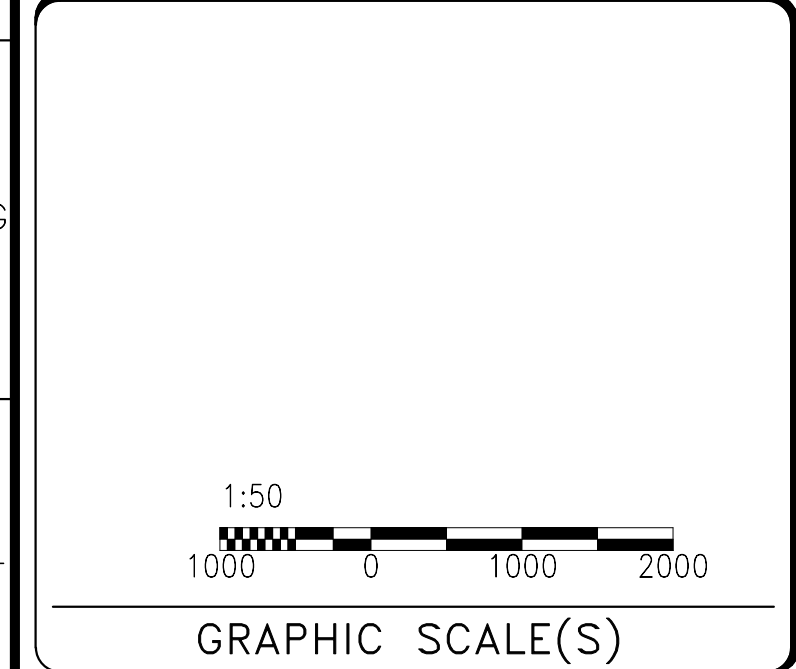
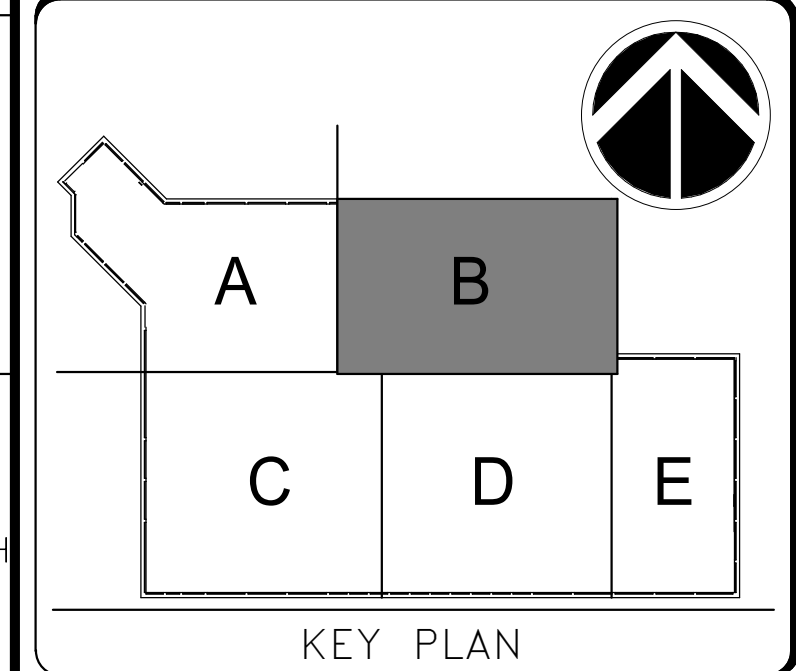
1. Refer to A-001P1 - A-003P1, and A-005P1 for General Notes, Definitions, General Information, and Special Requirements
2. Repair existing walls at locations where demolition has occurred. Match finish to existing adjacent.
3. Remove ceiling mounted devices and fixtures, including light fixtures, sprinklers heads, fire alarm devices and air devices.

Key Value	Keynote Text
02-08	REMOVE EXISTING DOOR AND FRAME.
02-12	REMOVE EXISTING FLOORING.
02-18	REMOVE EXISTING WALL.

**LEGEND:**

- SUSPENDED 2X2 ACOUSTIC CEILING GRID TO BE DEMOLISHED
- SUSPENDED 2X2 ACOUSTIC CEILING GRID TO BE DEMOLISHED
- EXISTING DOOR TO BE DEMOLISHED
- EXISTING TO REMAIN RETURN AIR TERMINAL
- EXISTING TO REMAIN SUPPLY AIR TERMINAL
- EXISTING LIGHT FIXTURE (2'X2')
- EXISTING TO REMAIN LIGHT FIXTURE (2'X4')
- EXISTING TO REMAIN LINEAR LIGHT FIXTURE
- EXISTING TO REMAIN LIGHT FIXTURE
- EXISTING TO REMAIN LIGHT FIXTURE
- EXISTING SPRINKLER HEAD
- SPRINKLER PIPES TO REMAIN (REFER TO FX DWGS)
- SPRINKLER PIPES TO BE DEMOLISHED (REFER TO FX DWGS)
- EXISTING TO REMAIN SMOKE DETECTOR
- EXISTING TO REMAIN FIRE ALARM STROBE
- EXISTING TO REMAIN EXIT SIGN

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REVISION #	DATE	REVISION DESCRIPTION	

**Smithsonian Institution**


Smithsonian Facilities  
600 Maryland Avenue S.W., Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/FA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/FA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 01 - COMMAND CENTER - DEMO - PHASE 1
WORKING STAFF	DESIGNED BY: GJ    DRAWN BY: GJ    CHECKED BY: AT
SHEET NO.	AD406EPP1
26 OF 179	DISCIPLINE    TYPE    SEQUENCE    DRAWING TYPE    PHASE


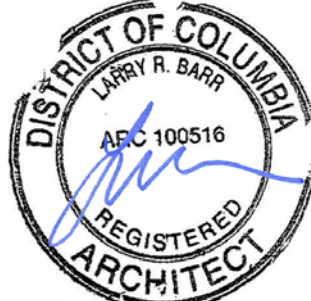
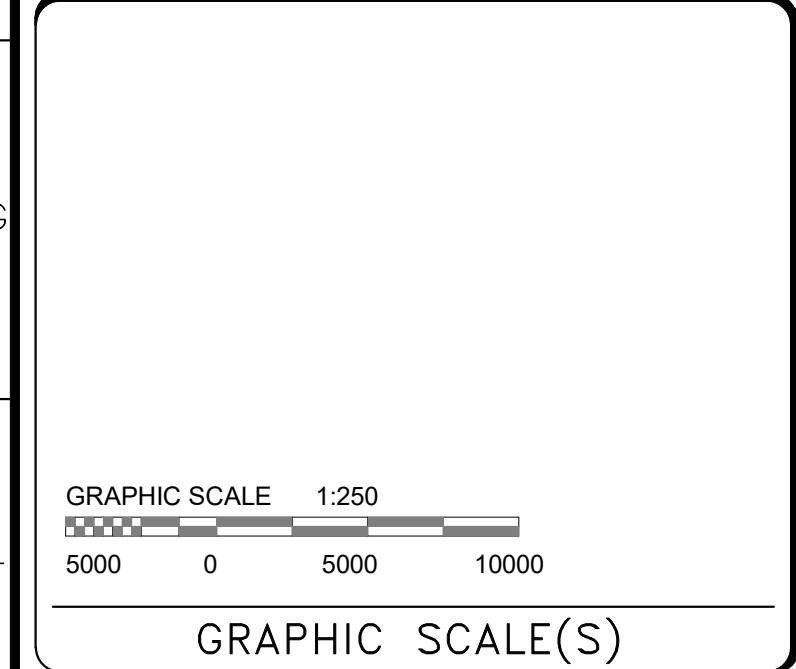
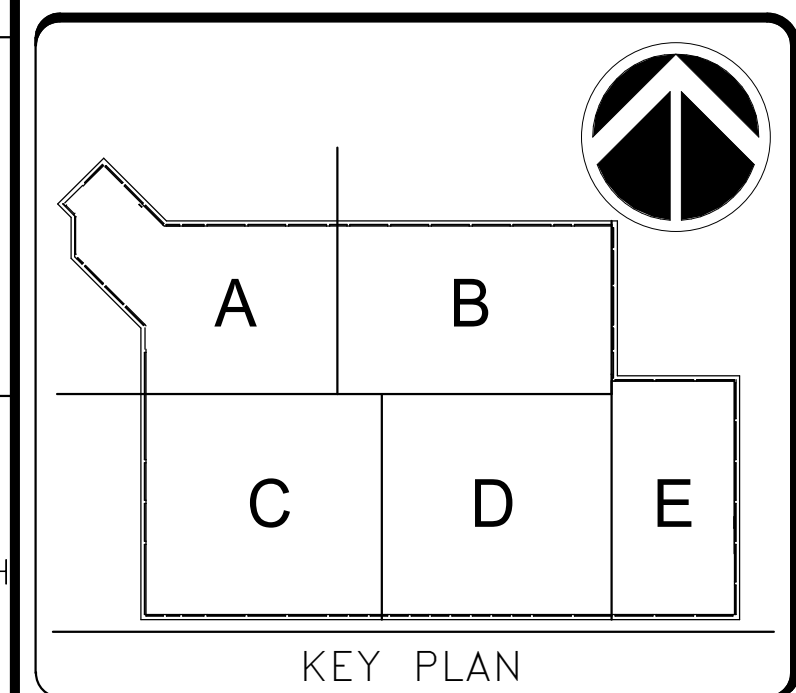
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**SHEET NOTES**

1. Refer to A-001P1 - A-003P1 and A-005P1 for General Notes, Definitions, General Information, and Special Requirements.
2. Walls dimensioned from face of existing to centerline of new unless noted otherwise.
3. Repair existing walls at locations where demolition has occurred. Match finish to existing adjacent.
4. All ceiling tiles to be centered in space unless otherwise noted.



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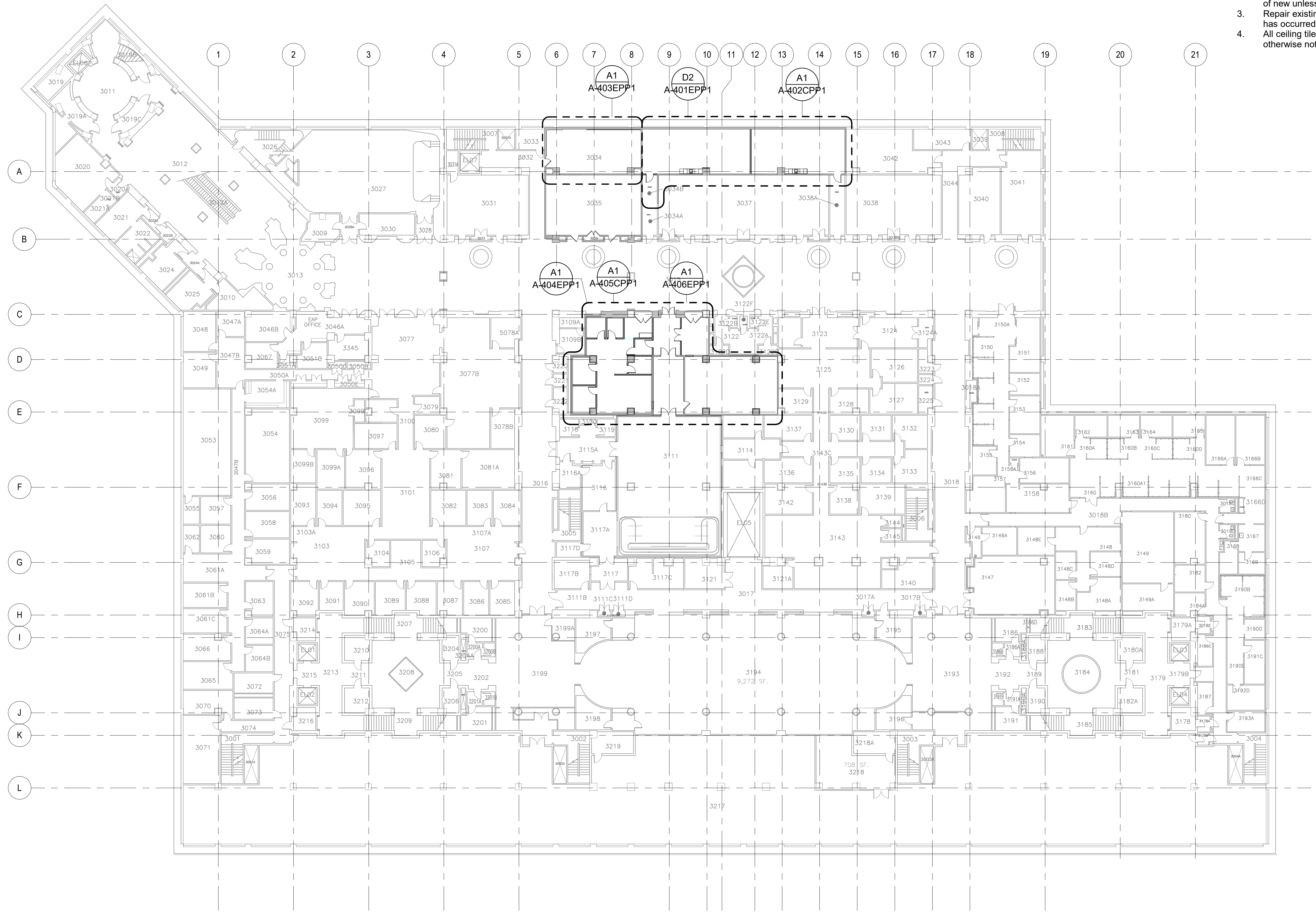
DATE	04/08/22	REVISION	FINAL CD
REVISION # DATE		REVISION DESCRIPTION	



**Smithsonian Institution**  
Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 03 - OVERALL PLAN - NEW WORK - PHASE 1
WORKING STAFF	DESIGNED BY: GJ    DRAWN BY: GJ    CHECKED BY: AT

SHEET NO.	A - 101 FPP1
27 of 179	



**SUBLEVEL 03 - OVERALL PLAN - NEW WORK - PHASE 1**



SCALE = 1 : 250

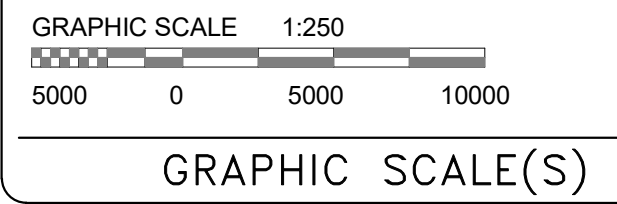
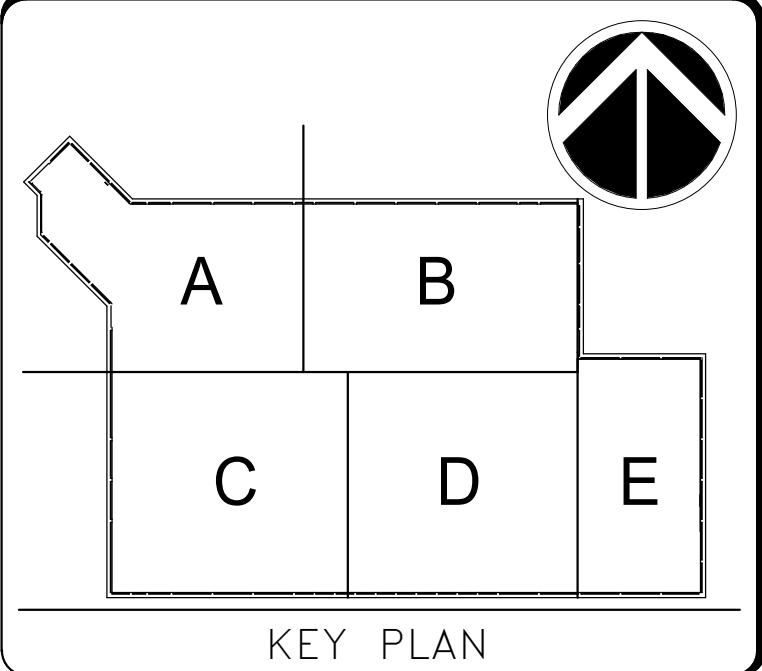
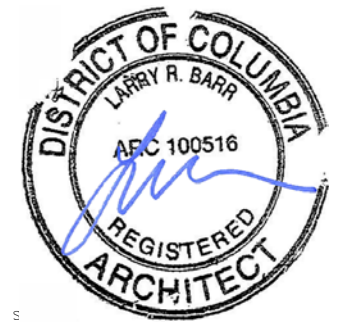
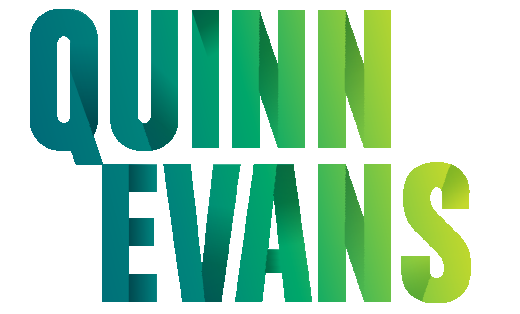
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**SHEET NOTES**

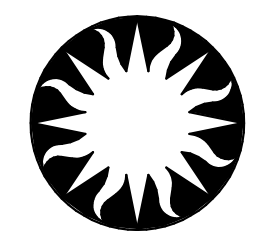
1. Refer to A-001P1 - A-003P1 and A-005P1 for General Notes, Definitions, General Information, and Special Requirements.
2. Walls dimensioned from face of existing to centerline of new unless noted otherwise.
3. Repair existing walls at locations where demolition has occurred. Match finish to existing adjacent.
4. All ceiling tiles to be centered in space unless otherwise noted.



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DATE	04/08/22	REVISION	FINAL CD
REVISION # DATE		REVISION DESCRIPTION	

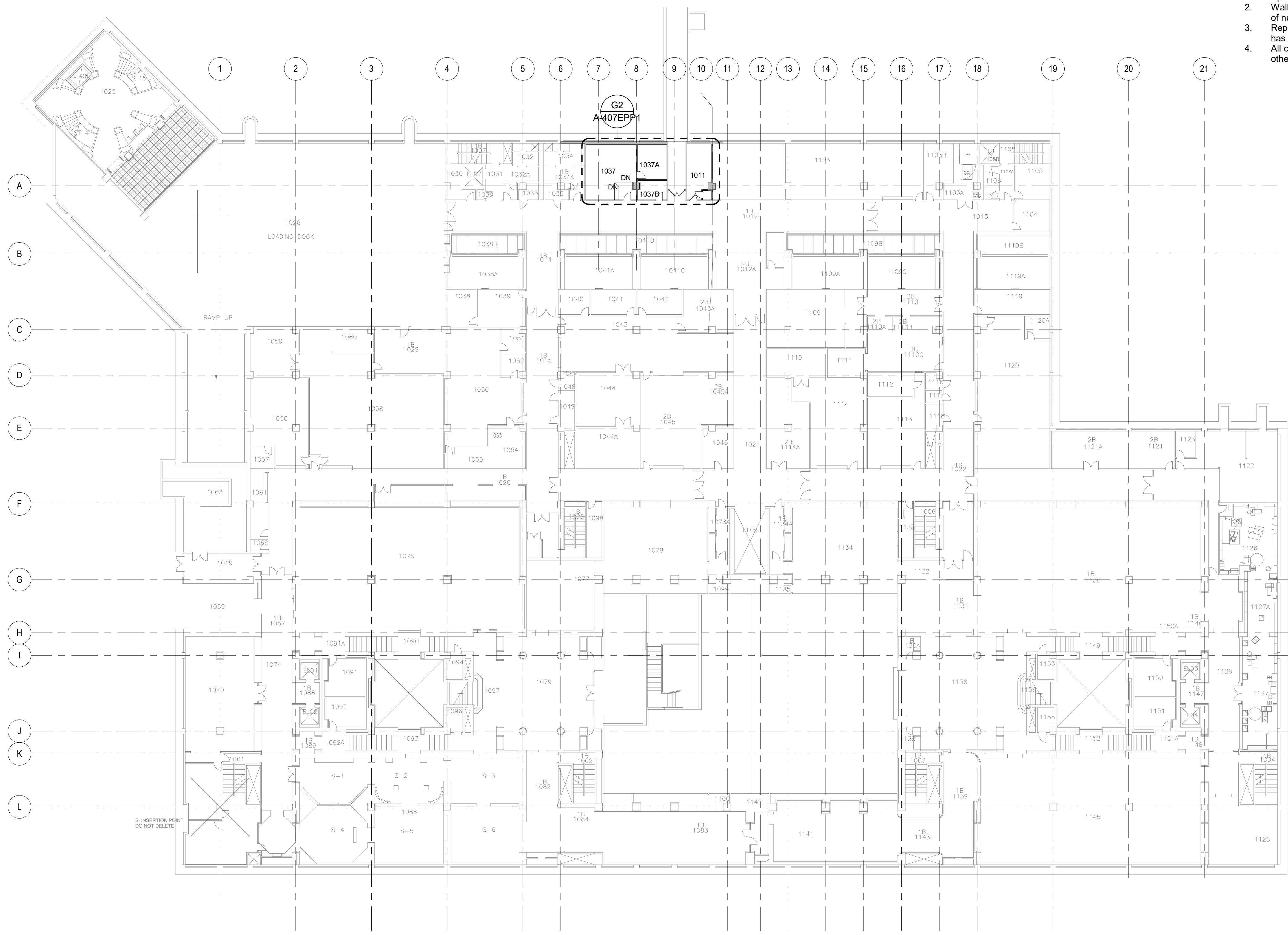


**Smithsonian Institution**

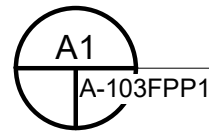
Smithsonian Facilities  
 600 Maryland Avenue S.W. Suite 5001  
 Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD						
ADDRESS	SW WASHINGTON, DC 20560						
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION						
SF PROJECT NUMBER	1909101						
A/E PROJECT NUMBER	11203201						
DRAWING TITLE	SUBLEVEL 01 - OVERALL PLAN - NEW WORK - PHASE 1						
WORKING STAFF	<table border="1"> <tr> <td>DESIGNED BY</td> <td>GJ</td> <td>DRAWN BY</td> <td>GJ</td> <td>CHECKED BY</td> <td>AT</td> </tr> </table>	DESIGNED BY	GJ	DRAWN BY	GJ	CHECKED BY	AT
DESIGNED BY	GJ	DRAWN BY	GJ	CHECKED BY	AT		

SHEET NO.	A-103FPP1
28 OF 179	



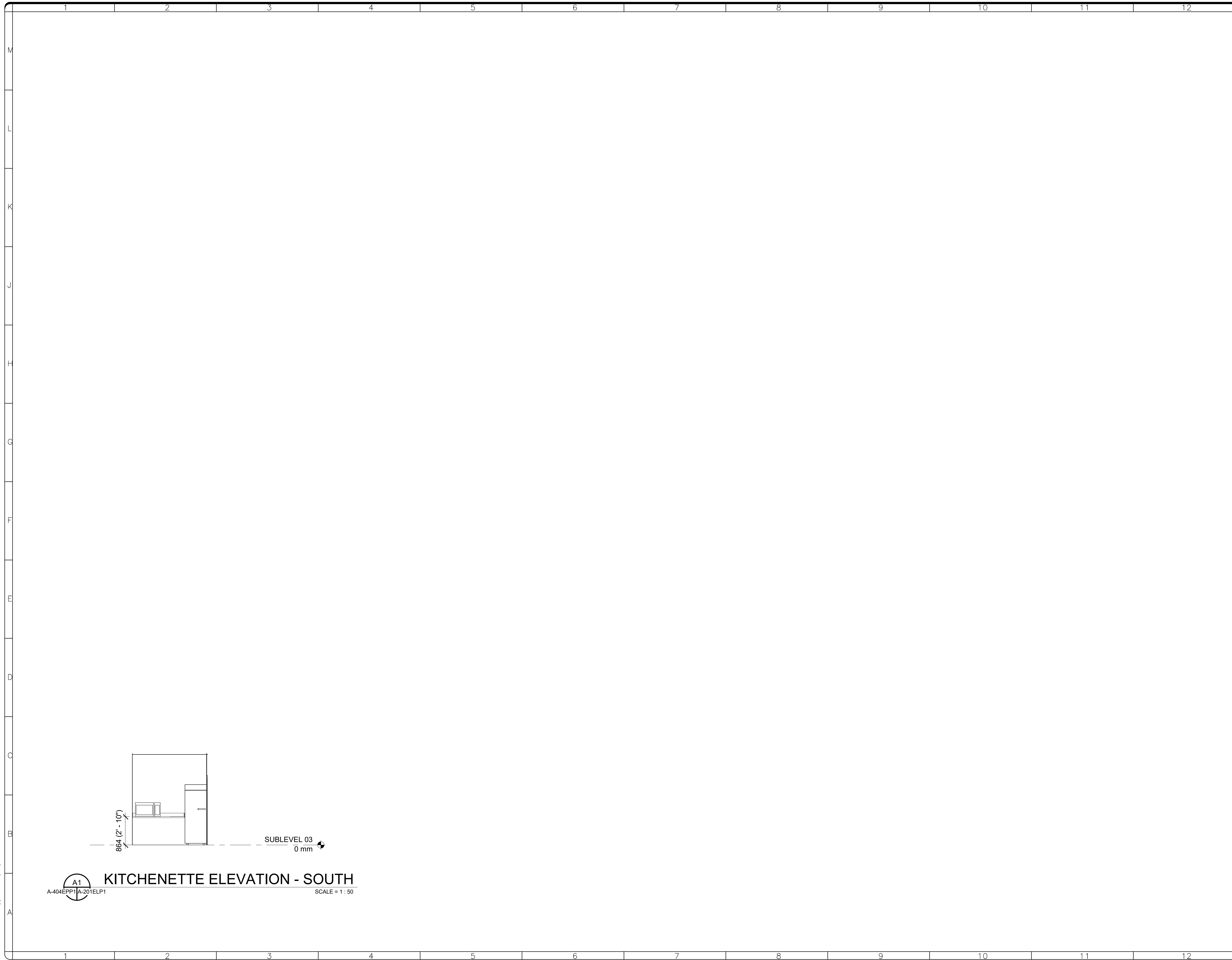
**SUBLEVEL 01 - OVERALL PLAN - NEW WORK - PHASE 1**



SCALE = 1 : 250

4/15/2022 4:56:14 PM A-103FPP1 By Approver: 04/08/22 FINAL CD

4/15/2022 4:56:14 PM  
A-201ELP1 BY Approver 04/08/22 FINAL CD

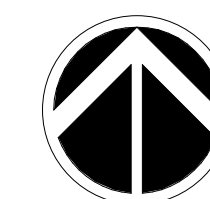
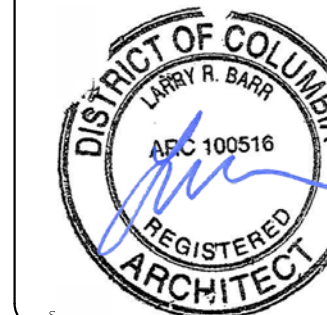


**A1**  
A-404EPP1A-201ELP1  
**KITCHENETTE ELEVATION - SOUTH**  
SCALE = 1 : 50



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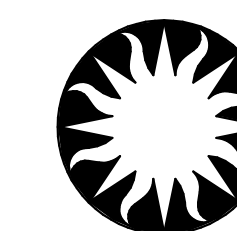
**QUINN  
EVANS**



KEY PLAN

GRAPHIC SCALE(S)

DATE	04/08/22	REVISION	FINAL CD
REVISION #	DATE	REVISION DESCRIPTION	

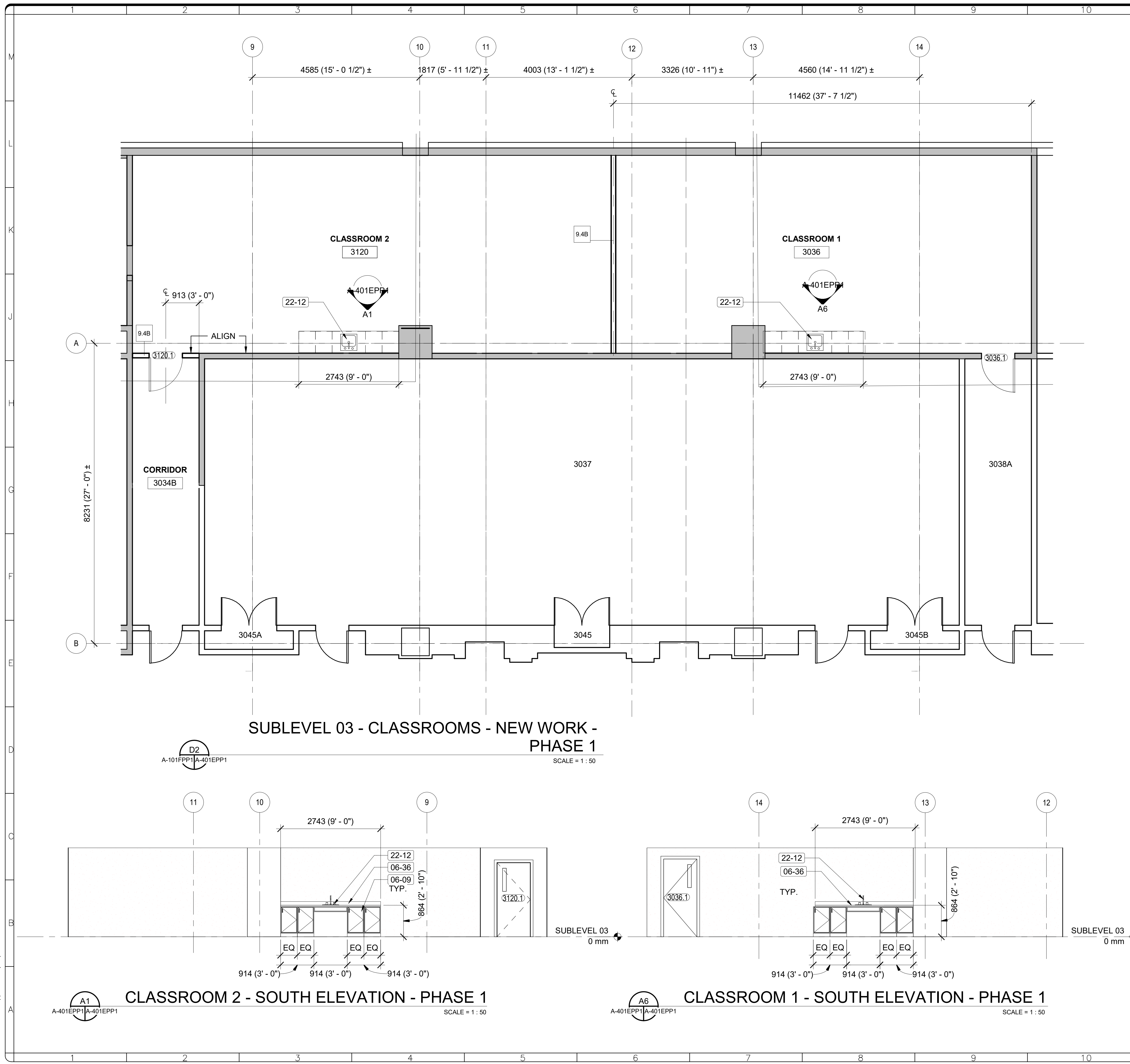


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Institution**

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Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD						
ADDRESS	SW WASHINGTON, DC 20560						
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION						
SF PROJECT NUMBER	1909101						
A/E PROJECT NUMBER	11203201						
DRAWING TITLE	SUBLEVEL 03 - ELEVATIONS - PHASE 1						
WORKING STAFF	<table border="1"> <tr> <td>Designer</td> <td>Author</td> <td>Checker</td> </tr> <tr> <td>DESIGNED BY</td> <td>DRAWN BY</td> <td>CHECKED BY</td> </tr> </table>	Designer	Author	Checker	DESIGNED BY	DRAWN BY	CHECKED BY
Designer	Author	Checker					
DESIGNED BY	DRAWN BY	CHECKED BY					

SHEET NO.	A - 201 ELP 1
29 of 179	



**SHEET NOTES**

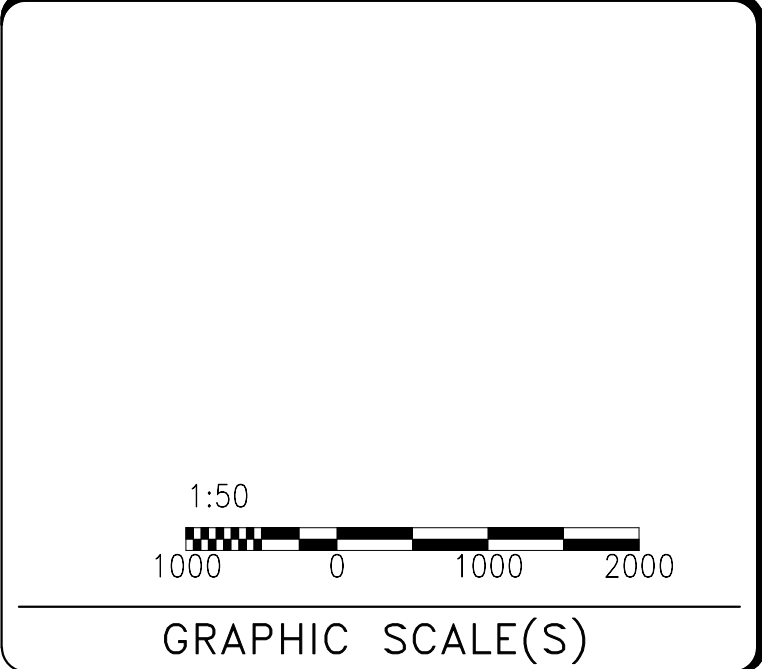
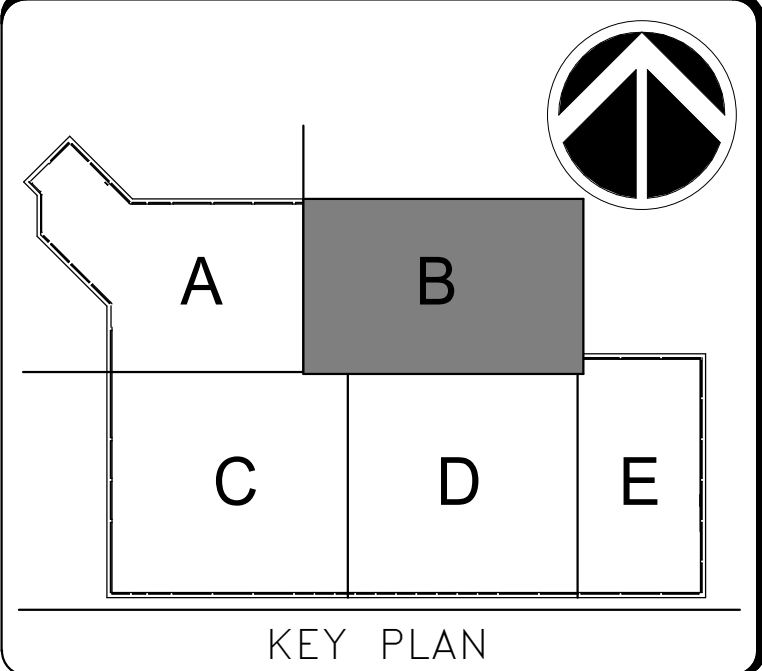
1. Refer to A-001P1 - A-003P1 and A-005P1 for General Notes, Definitions, General Information, and Special Requirements.
2. Walls dimensioned from face of existing to centerline of new unless noted otherwise.
3. Repair existing walls at locations where demolition has occurred. Match finish to existing adjacent.
4. All ceiling tiles to be centered in space unless otherwise noted.

Key Value	Keynote Text
06-09	PROVIDE CABINETRY.
06-36	PROVIDE SOLID SURFACE COUNTERTOP.
22-12	PROVIDE SINK. SEE PLUMB. DWGS.

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**QUINN EVANS**

DISTRICT OF COLUMBIA  
LARRY R. BARR  
ARC 100516  
REGISTERED ARCHITECT



DATE 04/08/22	REVISION FINAL CD
REVISION # DATE	REVISION DESCRIPTION

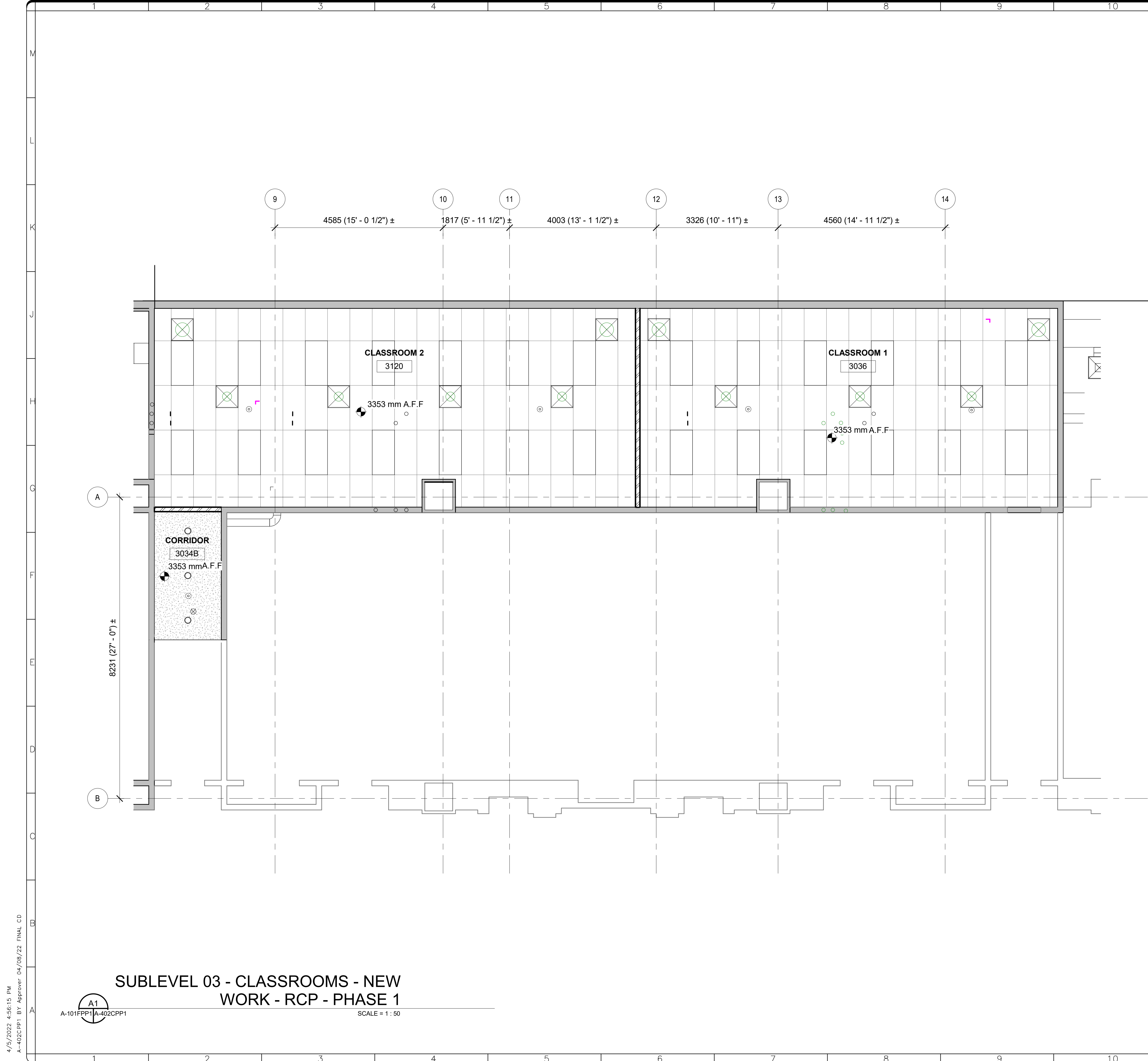
**Smithsonian Institution**

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600 Maryland Avenue S.W. Suite 5001  
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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
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SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 03 - CLASSROOMS - NEW WORK - PHASE 1
WORKING STAFF	DESIGNED BY: GJ    DRAWN BY: GJ    CHECKED BY: AT

SHEET NO.	A-401EPP1
30 OF 179	DISCIPLINE    TYPE    SEQUENCE    DRAWING TYPE    PHASE

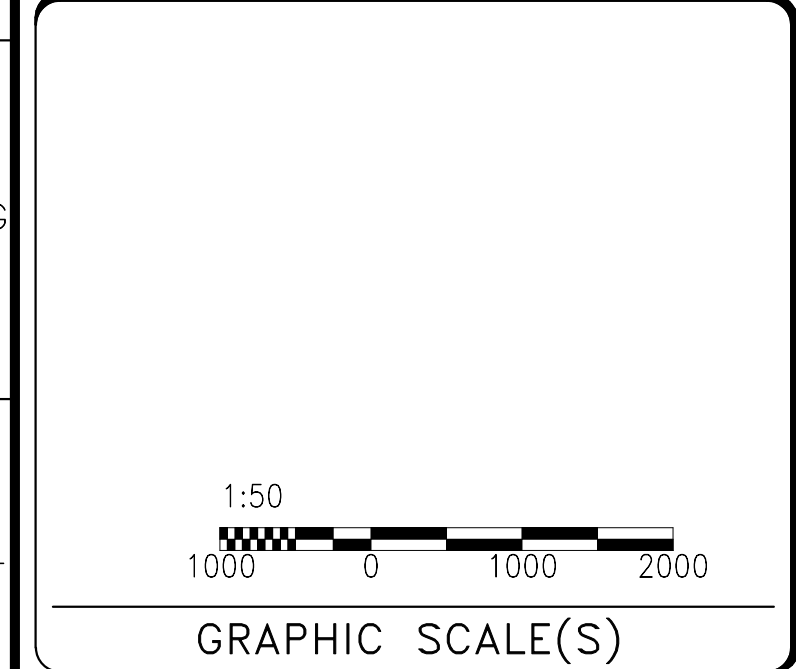
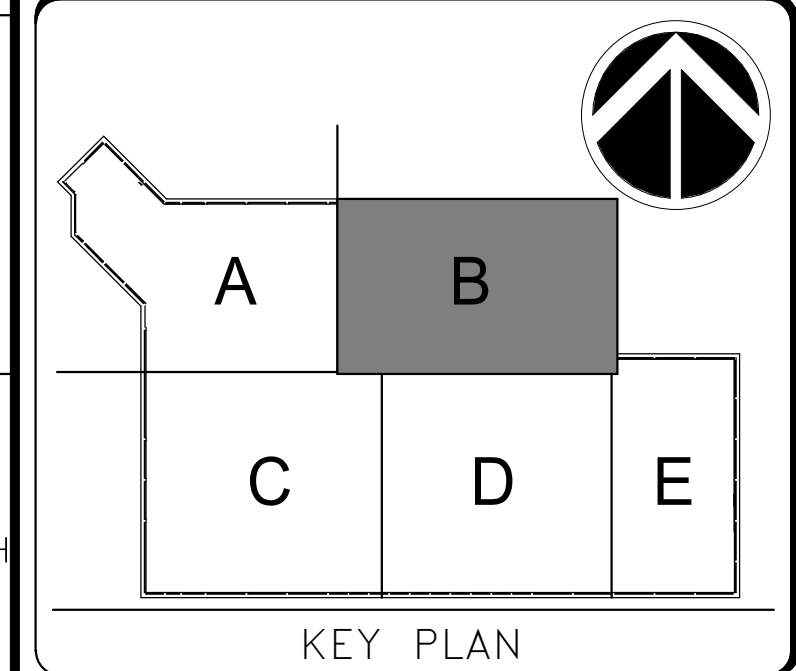
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A-401EPP1 BY Approver 04/08/22 FINAL CD



**SHEET NOTES**

1. Refer to A-001P1 - A-003P1 and A-005P1 for General Notes, Definitions, General Information, and Special Requirements.
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DATE 04/08/22	REVISION FINAL CD
REVISION # DATE	REVISION DESCRIPTION

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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 03 - CLASSROOMS - NEW WORK - RCP - PHASE 1
WORKING STAFF	GJ GJ AT
DESIGNED BY	GJ
DRAWN BY	GJ
CHECKED BY	AT

SHEET NO.	A-402CPP1
31 of 179	

**REFLECTED CEILING LEGEND**

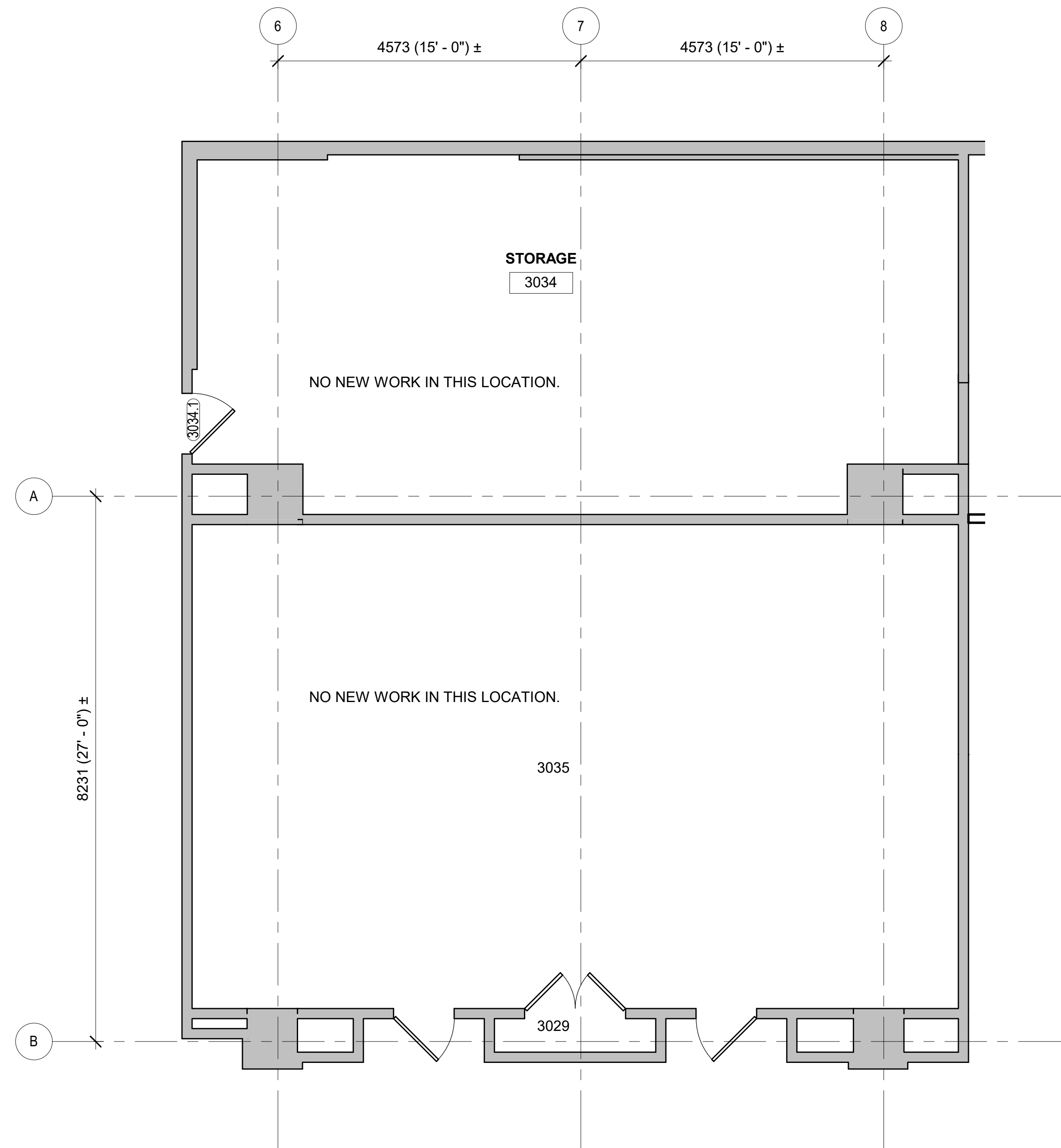
- 2X2 ACT CEILING GRID
- 2X4 ACT CEILING GRID
- GWB CEILING
- UL 752 - PROTECTION LEVEL CEILING
- RECESSED CAN LIGHTING FIXTURE
- SMOKE DETECTOR (REFER TO FA DWGS)
- EXIT SIGN LOCATION (REFER TO FA DWGS)
- 1' X 1' DOWNLIGHT
- 1' X 8' PENDANT
- 2' X 4' DOWNLIGHT
- PROJECTION SCREEN (SURFACE MOUNT)
- DIFFUSER
- RETURN
- 304 mm A.F.F. CEILING HEIGHT, ABOVE FINISH FLOOR
- ROOM NUMBER
- 2X2 LIGHTING FIXTURE
- 2X4 LIGHTING FIXTURE

**SUBLEVEL 03 - CLASSROOMS - NEW WORK - RCP - PHASE 1**

A1  
A-101FPP1 | A-402CPP1

SCALE = 1 : 50

4/15/2022 4:56:15 PM A-402CPP1 BY Approver 04/08/22 FINAL CD

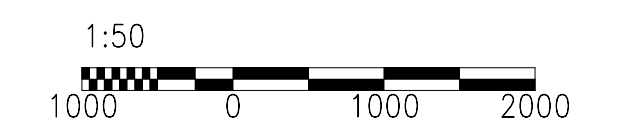
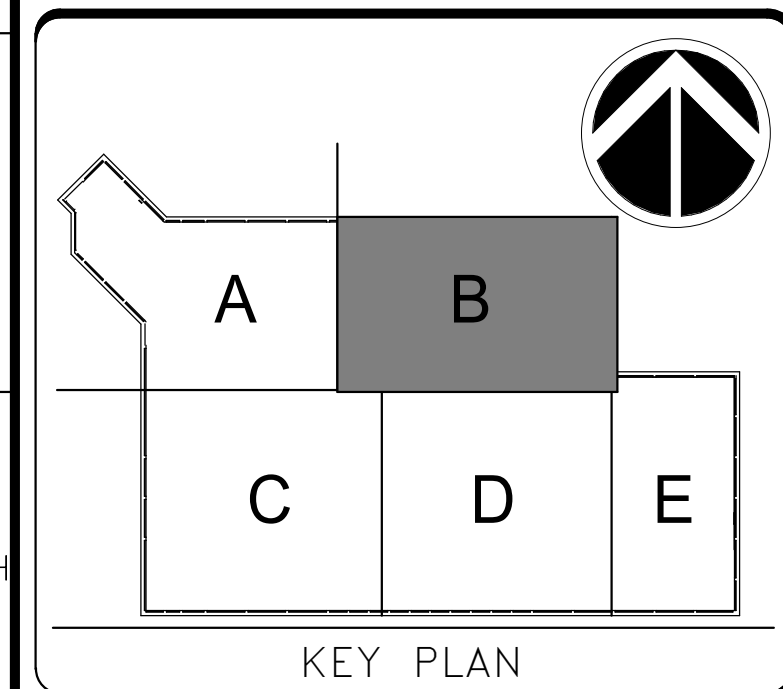


**SHEET NOTES**

1. Refer to A-001P1 - A-003P1 and A-005P1 for General Notes, Definitions, General Information, and Special Requirements.
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4. All ceiling tiles to be centered in space unless otherwise noted.



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Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/FA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/FA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 03 - EXISTING OFFICES - NEW WORK - PHASE 1
WORKING STAFF	GJ      GJ      AT
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO.	A-403EPP1
32 of 179	DISCIPLINE    TYPE    SEQUENCE    DRAWING TYPE    PHASE

**SUBLEVEL 03 - EXISTING OFFICES - NEW WORK - PHASE 1**

SCALE = 1 : 50

4/15/2022 4:56:16 PM A-403EPP1 BY Approver 04/08/22 FINAL CD

A1  
A-101FPP1/A-403EPP1



4/15/2022 4:56:16 PM  
A-404EPP1 BY Approver 04/08/22 FINAL CD



**SUBLEVEL 03 - RELOCATED OPS SUITE - NEW WORK - PHASE 1**

A-101FPP1A-404EPP1

SCALE = 1 : 50

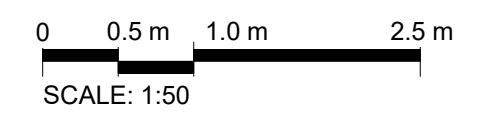
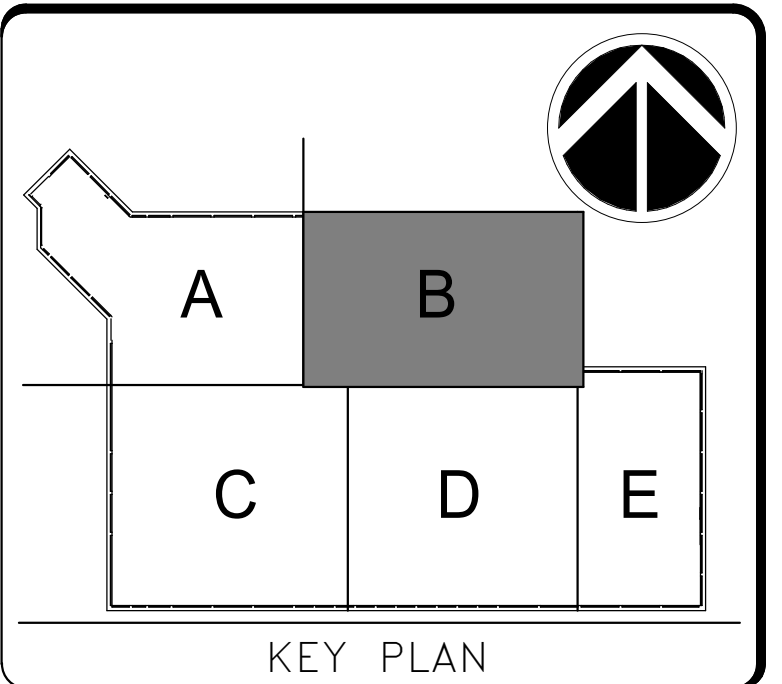
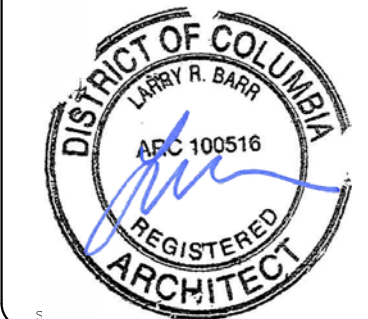
**SHEET NOTES**

1. Refer to A-001P1 - A-003P1 and A-005P1 for General Notes, Definitions, General Information, and Special Requirements.
2. Walls dimensioned from face of existing to centerline of new unless noted otherwise.
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Key Value	Keynote Text
09-27	INFILL WALL TO MATCH ADJACENT WALL.



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DATE	04/08/22	REVISION	FINAL CD
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**Smithsonian Institution**  
Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/FA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/FA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 03 - RELOCATED OPS SUITE - NEW WORK - PHASE 1
WORKING STAFF	GJ GJ AT
DESIGNED BY	GJ
DRAWN BY	GJ
CHECKED BY	AT

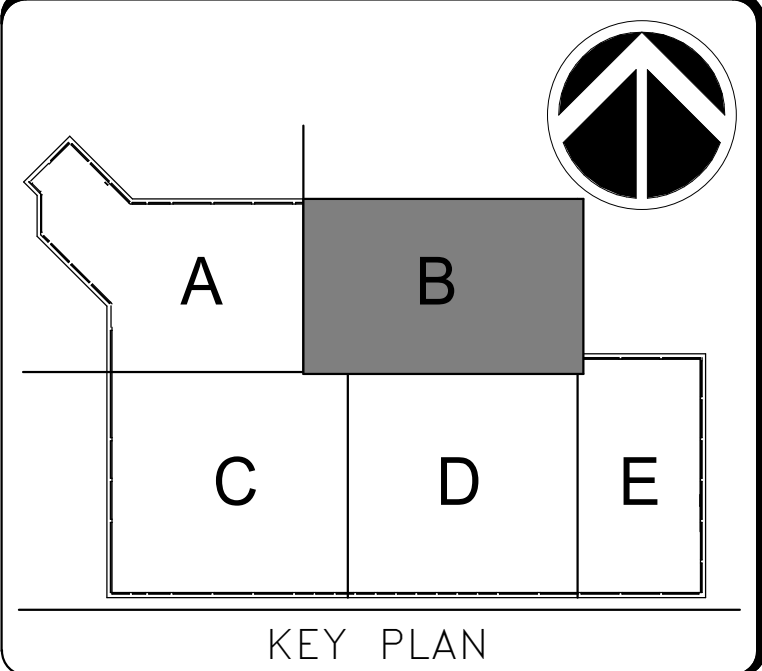
SHEET NO.	A-404EPP1
33 OF 179	



**SHEET NOTES**

1. Refer to A-001P1 - A-003P1 and A-005P1 for General Notes, Definitions, General Information, and Special Requirements.
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SCALE: 1:50

GRAPHIC SCALE(S)

DATE	04/08/22	REVISION	FINAL CD
REVISION #	DATE	REVISION DESCRIPTION	

**REFLECTED CEILING LEGEND**

- 2X2 ACT CEILING GRID
- 2X4 ACT CEILING GRID
- GWB CEILING
- UL 752 - PROTECTION LEVEL CEILING
- RECESSED CAN LIGHTING FIXTURE
- SMOKE DETECTOR (REFER TO FA DWGS)
- EXIT SIGN LOCATION (REFER TO FA DWGS)
- 1' X 1' DOWNLIGHT
- 1' X 8' PENDANT
- 2' X 4' DOWNLIGHT
- PROJECTION SCREEN (SURFACE MOUNT)
- DIFFUSER
- RETURN
- 304 mm A.F.F. CEILING HEIGHT, ABOVE FINISH FLOOR
- ROOM NUMBER
- 2X2 LIGHTING FIXTURE
- 2X4 LIGHTING FIXTURE

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600 Maryland Avenue S.W., Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 03 - RELOCATED OPS SUITE - NEW WORK - RCP - PHASE 1
WORKING STAFF	DESIGNED BY: GJ    DRAWN BY: GJ    CHECKED BY: AT

SHEET NO.	A-405CPP1
34 OF 179	

**SUBLEVEL 03 - RELOCATED OPS SUITE - NEW WORK - RCP - PHASE 1**

SCALE = 1:50

4/15/2022 4:56:17 PM A-405CPP1 BY Approver 04/08/22 FINAL CD

4/15/2022 4:56:18 PM  
A-406EPP1 BY Approver 04/08/22 FINAL CD



**SUBLEVEL 03 - RELOCATED OPS SUITE - NEW WORK - FURNITURE - PHASE 1**

A1  
A-101FPP1/A-406EPP1

SCALE = 1 : 50

**SHEET NOTES**

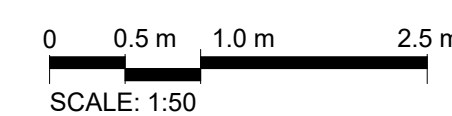
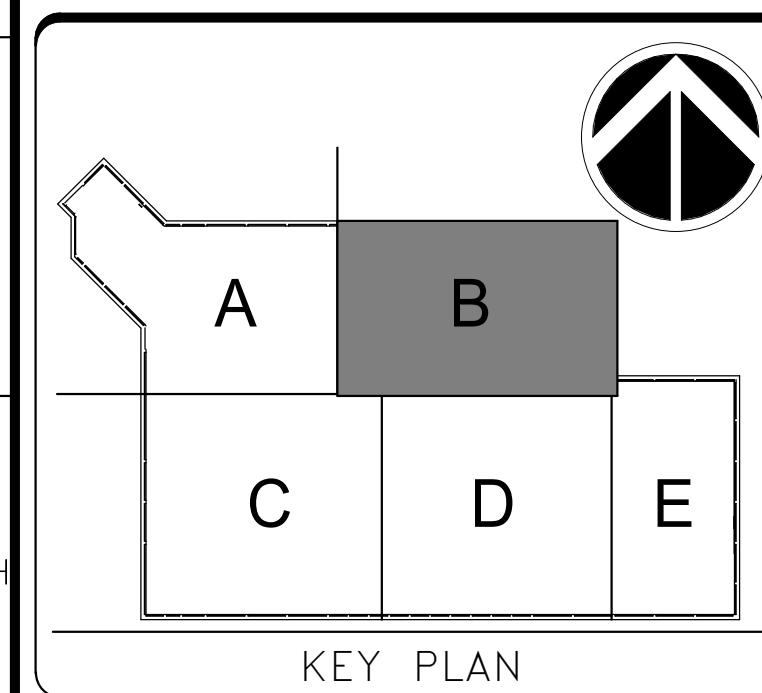
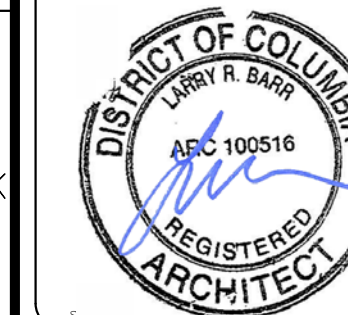
1. Refer to A-001P1 - A-003P1 and A-005P1 for General Notes, Definitions, General Information, and Special Requirements.
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**OPS SUITE FURNITURE AND EQUIPMENT KEY SCHEDULE**

Tag	Furniture Description	Count
Accessories/Equipment		
E-1	Microwave	1
E-2	Refrigerator/Freezer	1
E-3	Copier	1
F-2	Lateral File/Storage	8
Chairs/Seating		
CH-8	Task chair	8
Desking/Workstations		
WKSTN C	Typical 8' x 10'	5
WKSTN D	Typical 8' desk	3



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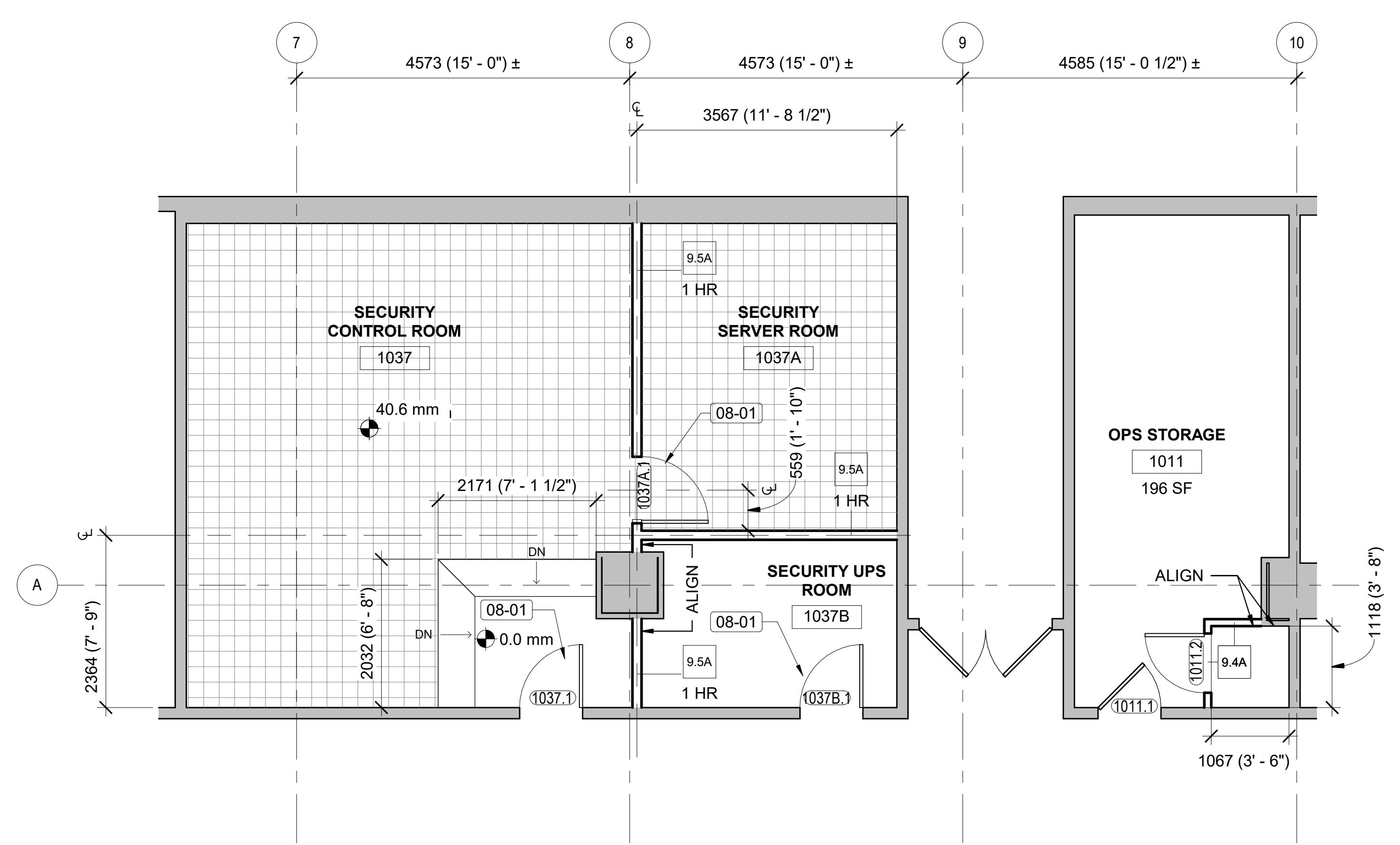
DATE 04/08/22	REVISION FINAL CD
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**Smithsonian Institution**  
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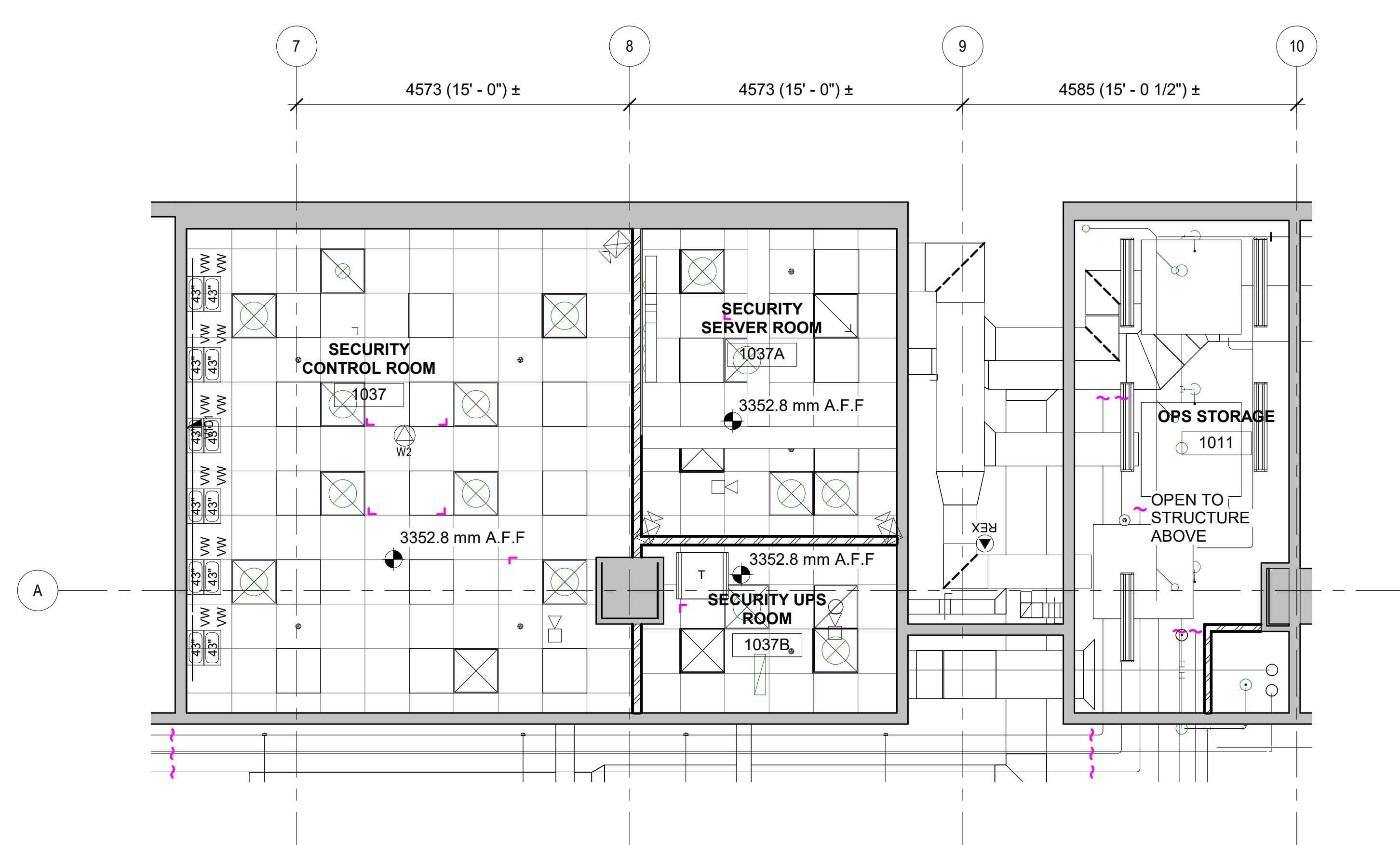
BUILDING NAME	FREER/SACKLER/FA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/FA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 03 - RELOCATED OPS SUITE - NEW WORK - FURNITURE - PHASE 1
WORKING STAFF	DESIGNED BY: GJ    DRAWN BY: GJ    CHECKED BY: AT

SHEET NO. 35 OF 179  
A-406EPP1

4/15/2022 4:56:18 PM  
A-407EPP1 BY Approver 04/08/22 FINAL CD



**SUBLEVEL 01 - COMMAND CENTER - NEW WORK - PHASE 1**  
SCALE = 1 : 50  
G2  
A-103FPP1/A-407EPP1



**SUBLEVEL 01 - COMMAND CENTER - NEW WORK - RCP - PHASE 1**  
SCALE = 1 : 50  
A2  
A-407EPP1

**SHEET NOTES**

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Key Value	Keynote Text
08-01	PROVIDE DOOR AS SCHEDULED.

**PLAN LEGEND**

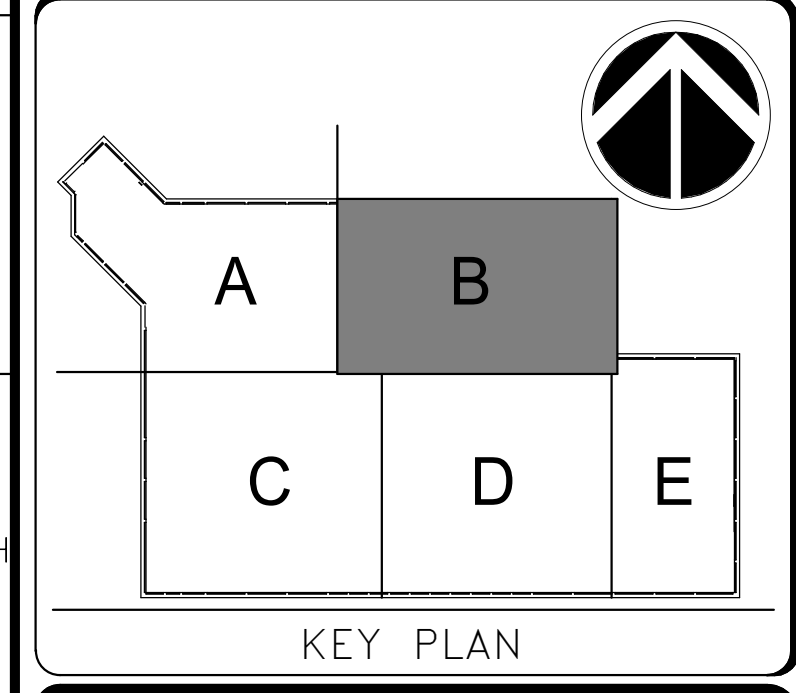
- INDICATES AREA W/ RAISED FLOORING
- 2X2 ACT CEILING GRID
- 2X4 ACT CEILING GRID
- GWB CEILING
- UL 752 - PROTECTION LEVEL CEILING
- RECESSED CAN LIGHTING FIXTURE
- SMOKE DETECTOR (REFER TO FA DWGS)
- EXIT SIGN LOCATION (REFER TO FA DWGS)
- 1' X 1' DOWNLIGHT
- 1' X 8' PENDANT
- 2' X 4' DOWNLIGHT
- PROJECTION SCREEN (SURFACE MOUNT)
- DIFFUSER
- RETURN
- 304 mm A.F.F. CEILING HEIGHT, ABOVE FINISH FLOOR

- ROOM NUMBER
- 2X2 LIGHTING FIXTURE
- 2X4 LIGHTING FIXTURE

**GHD**  
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**QUINN EVANS**

DISTRICT OF COLUMBIA  
ARCHITECT  
REGISTERED ARCHITECT  
ARC 100516



1:50  
1000 0 1000 2000  
GRAPHIC SCALE(S)

DATE 04/08/22	REVISION FINAL CD
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DESIGNED NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
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A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 01 - COMMAND CENTER - NEW WORK - PHASE 1
WORKING STAFF	GJ GJ AT

SHEET NO.	36 OF 179
DRAWING NO.	A-407EPP1


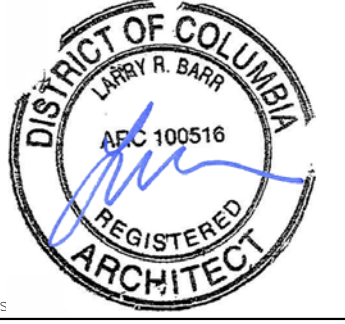
FINISH SCHEDULE - SUB LEVEL 1																		
ROOM NO	ROOM NAME	FLOOR	WALL FINISH				BASE FINISH				FLOOR		CEILING		NOTES & REMARKS	Area		
			NORTH	EAST	SOUTH	WEST	NORTH	EAST	SOUTH	WEST	MAT.	FIN.	MAT.	FIN.			HEIGHT	
1011	OPS STORAGE	SUBLEVEL 01	PT-1	PT-1	PT-1	PT-1	RB-1	RB-1	RB-1	RB-1	RT-1	RT-1	EXIST	EXIST		NO CEILING OPEN TO STRUCTURE	196 SF	
1037	SECURITY CONTROL ROOM	SUBLEVEL 01	PT-1	PT-1	PT-1	PT-1	PT-1	RB-1	RB-1	PT-1	RT-2	RT-2	ACT-1	PT-4	3353 mm	NO CEILING OPEN TO STRUCTURE	433 SF	
1037A	SECURITY SERVER ROOM	SUBLEVEL 01	PT-1	PT-1	PT-1	PT-1	PT-1	RB-1	RB-1	PT-1	RT-2	RT-2	EXIST	EXIST	3353 mm	NO CEILING OPEN TO STRUCTURE	159 SF	
1037B	SECURITY UPS ROOM	SUBLEVEL 01	PT-1	PT-1	PT-1	PT-1	PT-1	RB-1	RB-1	PT-1	RT-2	RT-2	EXIST	EXIST	3353 mm	NO CEILING OPEN TO STRUCTURE	83 SF	

FINISH SCHEDULE - SUB LEVEL 3																		
ROOM NO	ROOM NAME	FLOOR	WALL FINISH				BASE FINISH				FLOOR		CEILING		NOTES & REMARKS	Area		
			NORTH	EAST	SOUTH	WEST	NORTH	EAST	SOUTH	WEST	MAT.	FIN.	MAT.	FIN.			HEIGHT	
3034	STORAGE	SUBLEVEL 03	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST		NO CEILING OPEN TO STRUCTURE	639 SF	
3034B	CORRIDOR	SUBLEVEL 03	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	ACT-1	PT-4	2438 mm	PARTIAL CEILING REPLACEMENT	144 SF	
3036	CLASSROOM 1	SUBLEVEL 03	PT-3	PT-3	PT-3	PT-3	RB-1	RB-1	RB-1	RB-1	RT-1	RT-1	ACT-1	PT-4	3353 mm		659 SF	
3112A	OFFICE	SUBLEVEL 03	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	CPT-1	CPT-1	ACT-1	PT-4	2743 mm		95 SF	
3112B	OFFICE	SUBLEVEL 03	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	CPT-1	CPT-1	ACT-1	PT-4	2743 mm		95 SF	
3112C	OPEN OFFICE	SUBLEVEL 03	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	CPT-1	CPT-1	ACT-1	PT-4			539 SF	
3112D	OFFICE	SUBLEVEL 03	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	CPT-1	CPT-1	ACT-1	PT-4			62 SF	
3112E	WEAPONS ROOM	SUBLEVEL 03	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	CPT-1	CPT-1	ACT-1	PT-4			51 SF	
3112F	VESTIBULE	SUBLEVEL 03	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	CPT-1	CPT-1	ACT-1	PT-4			45 SF	
3112G	OFFICE	SUBLEVEL 03	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	CPT-1	CPT-1	ACT-1	PT-4			60 SF	
3112H	KITCHENETTE	SUBLEVEL 03	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	PT-2	RT-1	RT-1	ACT-1	PT-4			92 SF	
3113	CLASSROOM	SUBLEVEL 03	PT-3	PT-3	PT-3	PT-3	RB-1	RB-1	RB-1	RB-1	RT-1	RT-1	ACT-1	PT-4	2743 mm		822 SF	
3119	STORAGE	SUBLEVEL 03	PT-1	PT-1	PT-1	PT-1	RB-1	RB-1	RB-1	RB-1	RT-1	RT-1	EXIST	PT-4		NO CEILING OPEN TO STRUCTURE	162 SF	
3120	CLASSROOM 2	SUBLEVEL 03	PT-3	PT-3	PT-3	PT-3	RB-1	RB-1	RB-1	RB-1	RT-1	RT-1	ACT-1	PT-4	3353 mm		760 SF	

Material	Description	Location
ACT-1	Acoustic Ceiling Tile	Classrooms, OPS Suite, Security Control Room
RT-1	Resilient Tile Flooring	Classrooms, Kitchenette, Storage, Weapons Room, Vestibule
RT-2	Anti-static Resilient Tile Flooring	Security Control Room, Security Server Room, Security UPS Room
RA-1	Raised Access Flooring	Security Control Room, Security Server Room
RB-1	Rubber Base	Wall base at resilient tile
RB-2	Wall Base	Wall base at carpet
CPT-1	Carpet Tile	Offices
PT-1	Latex Paint, Eggshell Finish	Storage, Security Rooms
PT-2	Latex Paint, Eggshell Finish	Offices, Kitchenette, Weapons Room
PT-3	Latex Paint, Eggshell Finish	Classrooms
PT-4	Latex Paint, Eggshell Finish	Ceilings
PT-5	Latex Paint, Semi-gloss	HM Frames and doors
PT-6	Latex Paint, Semi-gloss	HM Frames and doors at stairs



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KEY PLAN

GRAPHIC SCALE(S)

DATE	04/08/22	REVISION	FINAL CD
REVISION #	DATE	REVISION DESCRIPTION	



**Smithsonian Institution**  
Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	MATERIALS & FINISH SCHEDULE - PHASE 1
WORKING STAFF	GJ GJ AT
DESIGNED BY	GJ
DRAWN BY	GJ
CHECKED BY	AT

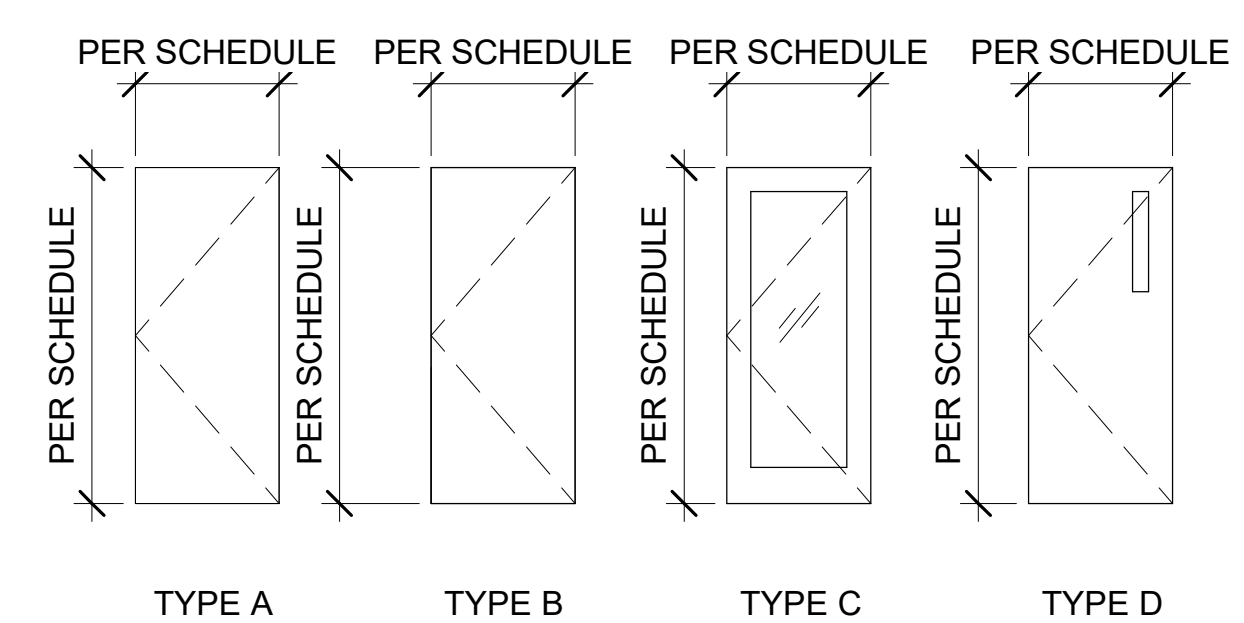
SHEET NO.	A-701SHP1
37 of 179	

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DOOR SCHEDULE - PHASE 1															
Door Number	Type	Exist / New	DOOR					Fire Rating	FRAME			DETAILS		Comments	
			Width	Height	Thickness	Material	Finish		Type	Material	Finish	Head	Jamb		Hardware
181	24	Existing	1829 mm	2134 mm	44 mm	HM	PTD		1	HM	PT-5				
182	24	Existing	1829 mm	2134 mm	44 mm	HM	PTD		1	HM	PT-5				
186	A	Existing	1524 mm	2134 mm	44 mm	HM	PTD		1	HM	PT-5				
210	E2	Existing	1829 mm	2134 mm	44 mm	HM	PTD		1	HM	PT-5				
1011.1	E1	Existing	864 mm	2134 mm	44 mm	HM	PTD		1	HM	PT-5		ETR		
1011.2	A	New	813 mm	2134 mm	44 mm	HM	PTD		1	HM	PT-5				
1037.1	A	New	864 mm	2134 mm	44 mm	HM	PTD	45	1	HM	PT-5		815	CARD READER	
1037A.1	A	New	914 mm	2134 mm	44 mm	HM	PTD		1	HM	PT-5		810	SOUND SEALS	
1037B.1	A	New	864 mm	2134 mm	44 mm	HM	PTD		1	HM	PT-5		815	CARD READER	
3034.1	E1	Existing	914 mm	2134 mm	44 mm	HM	PTD		1	HM	PT-5		ETR		
3036.1	D	Existing	914 mm	2134 mm	44 mm	HM	PTD		1	HM	PT-5		ETR		
3112A.1	C	New	914 mm	2032 mm	44 mm	WD	CLR		1	HM	PT-5		510	SOUND SEALS	
3112B.1	C	New	914 mm	2032 mm	44 mm	WD	CLR		1	HM	PT-5		510	SOUND SEALS	
3112D	C	New	914 mm	2032 mm	44 mm	WD	PTD		1	HM	PT-5				
3112D.2	E2	Existing	1829 mm	2134 mm	44 mm	HM	PTD		1	HM	PT-5		ETR		
3112E	B	New	914 mm	2032 mm	44 mm	HM	PTD		1	HM	PT-5				BALLISTIC RATED DOOR
3112F.1	D	New	914 mm	2032 mm	44 mm	WD	CLR		1	HM	PT-5				
3112F.2	D	New	914 mm	2032 mm	44 mm	WD	CLR		1	HM	PT-5		815	CARD READER	
3112G	C	New	914 mm	2032 mm	44 mm	WD	PTD		1	HM	PT-5				
3113.1	E1	Existing	914 mm	2134 mm	44 mm	HM	PTD		1	HM	PT-5		ETR		
3119.1	A	New	1524 mm	2134 mm	44 mm	WD	CLR		1	HM	PT-5		820		
3119.2	E2	Existing	1829 mm	2134 mm	44 mm	HM	PTD		1	HM	PT-5		ETR		
3120.1	D	New	914 mm	2032 mm	44 mm	WD	CLR		1	HM	PT-5		712		

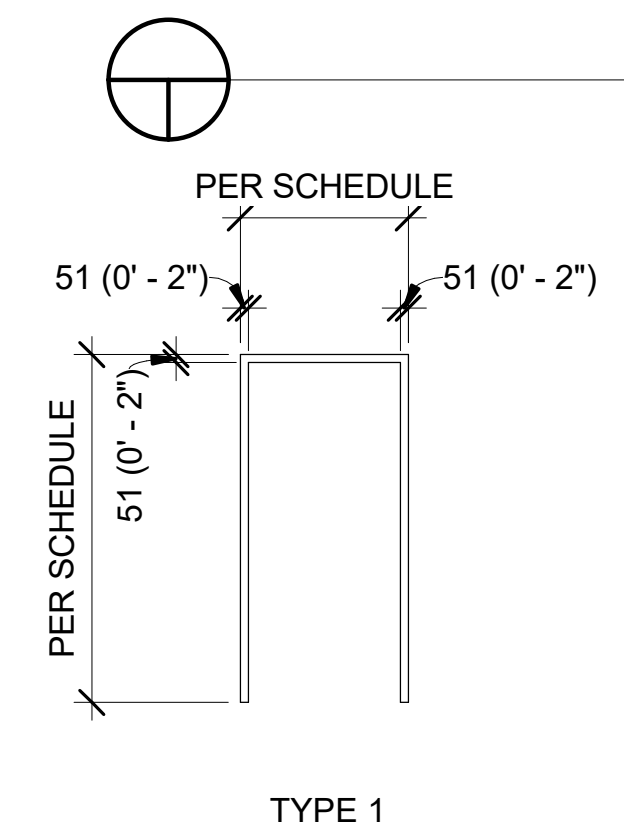
**SHEET NOTES**

- All new door hardware must match existing door hardware and hardware finish unless otherwise noted.



**DOOR TYPES - PHASE 1**

SCALE = 1 : 48



**DOOR FRAMES - PHASE 1**

SCALE = 1 : 48

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**QUINN EVANS**

DISTRICT OF COLUMBIA  
 ARCHITECT  
 REGISTERED ARCHITECT  
 ARC 100516

KEY PLAN

GRAPHIC SCALE(S)

DATE 04/08/22	REVISION FINAL CD
REVISION # DATE	REVISION DESCRIPTION

**Smithsonian Institution**

Smithsonian Facilities  
 600 Maryland Avenue S.W. Suite 5001  
 Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	DOOR SCHEDULE - PHASE 1
WORKING STAFF	GJ GJ AT
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO. **A-702SHP1**  
 38 of 179

4/15/2022 4:56:19 PM A-702SHP1 BY Approver 04/08/22 FINAL CD

ABBREVIATIONS

SYMBOLS

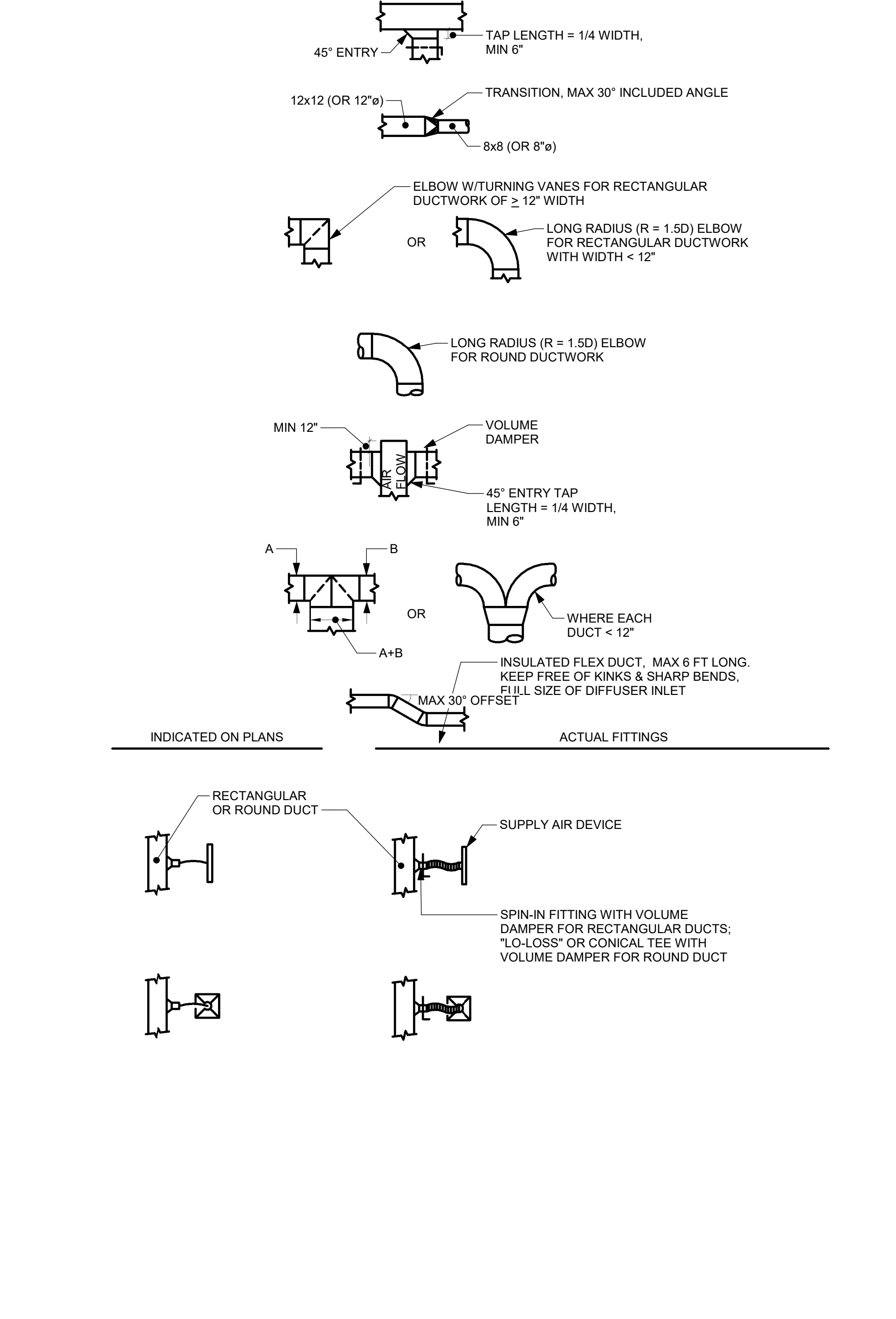
DRAWING CONVENTIONS

Table of abbreviations with columns for abbreviation, description, and unit. Includes entries like ABD (ABANDONED), AC (AIR CONDITIONING), and A/C (ACCESS DOOR).

Table of symbols with columns for symbol, description, and unit. Includes entries like SAN (BOUNDARY LINE), CRW (SANITARY/WASTE PIPE), and CRV (CHEMICAL RESISTANT VENT PIPE).

Table of drawing conventions with columns for symbol and description. Includes entries like MX (INDICATES DIRECTION OF CUTTING PLANE), S (DRAWING NUMBER WHERE ELEVATION OR SECTION IS TAKEN OR DRAWN), and P-CHX (EQUIPMENT DESIGNATION).

DUCTWORK CONVENTIONS



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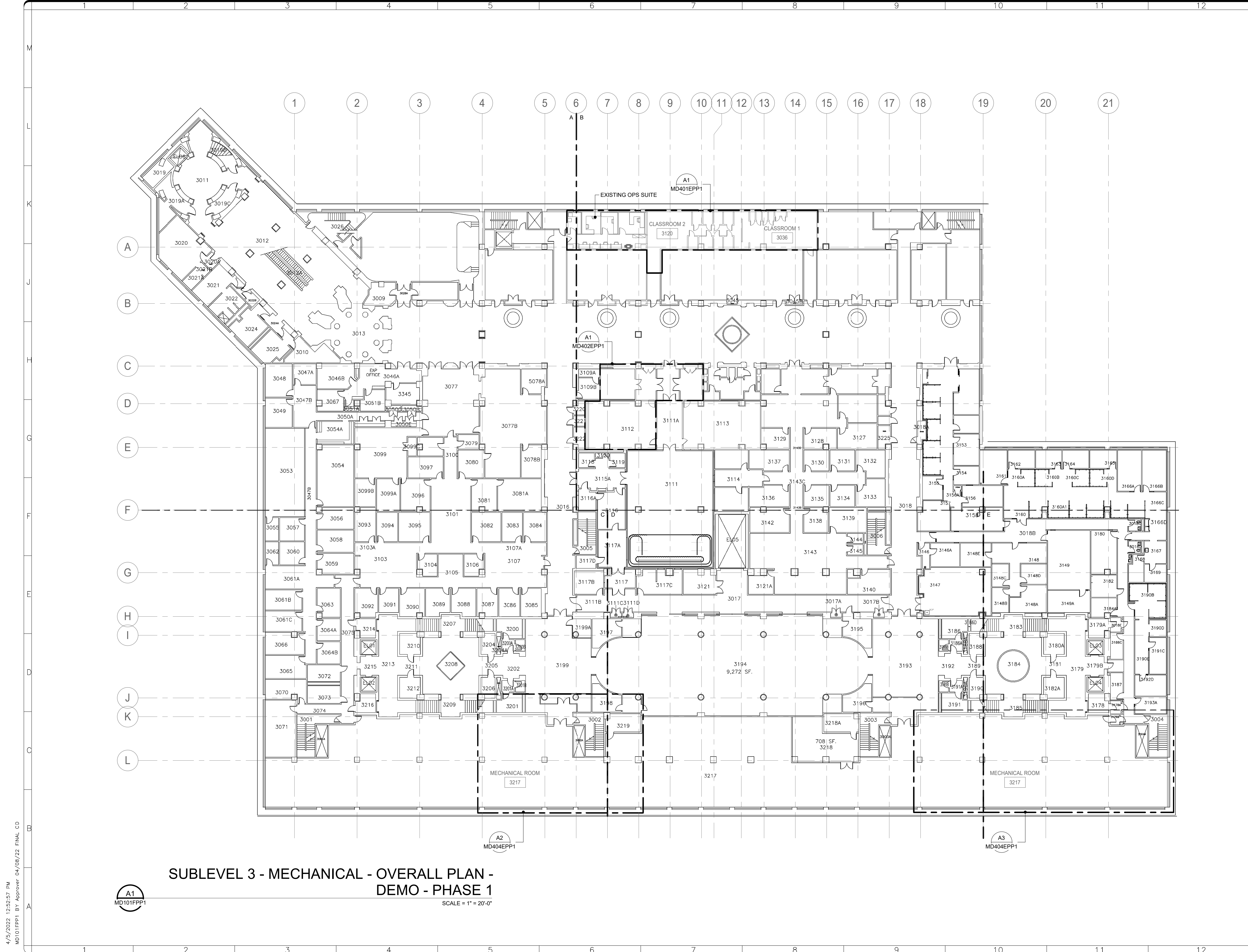
Professional Engineer stamp for District of Columbia, License No. BE22202, signed by M. Mueller.

KEY PLAN and GRAPHIC SCALE(S) section.

Revision table with columns for date, description, and revision number. Includes a revision dated 04/08/22 for 'FINAL CD'.

Smithsonian Institution logo and address: 600 Maryland Avenue S.W., Suite 5001 Washington, DC 20024-2520.

Project information table including building name (FREER/SACKLER/AFA/QUAD), project title (MODERNIZATION), project number (1909101), drawing title (MECHANICAL LEGEND - PHASE 1), and sheet number (M-001P1).



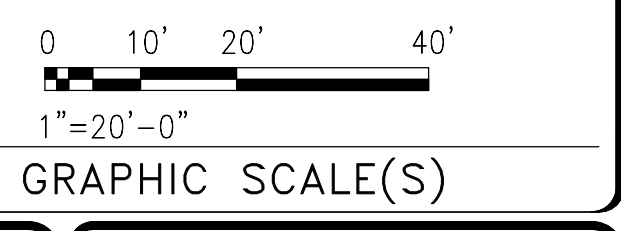
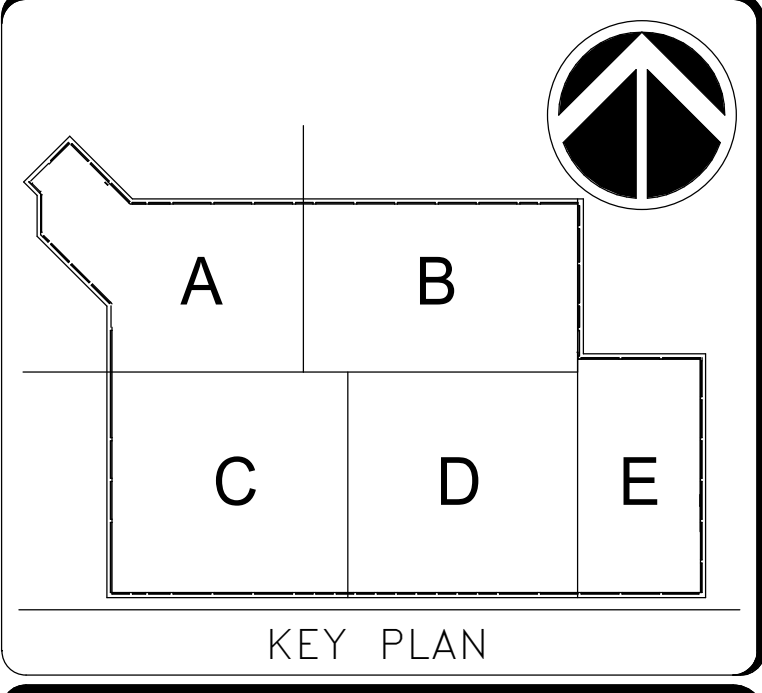
**SUBLEVEL 3 - MECHANICAL - OVERALL PLAN -  
DEMO - PHASE 1**

SCALE = 1" = 20'-0"

A1  
MD101FPP1

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DATE 04/08/22	REVISION FINAL CD
REVISION # DATE	REVISION DESCRIPTION

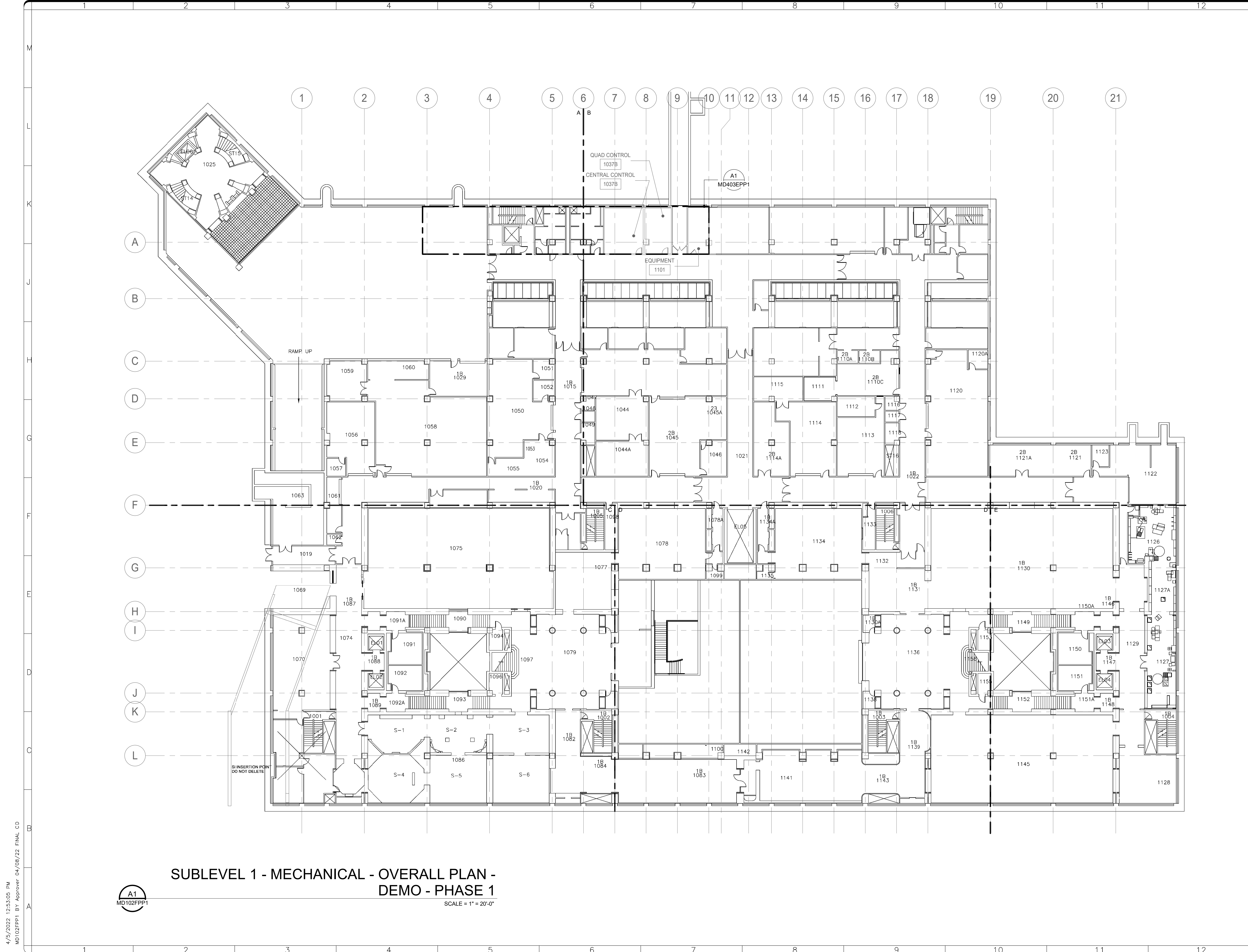
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Institution**  
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600 Maryland Avenue S.W., Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/FAA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/FAA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - MECHANICAL - OVERALL PLAN - DEMO - PHASE 1
WORKING STAFF	SAD    SAD    TAS DESIGNED BY    DRAWN BY    CHECKED BY

SHEET NO. **MD101FPP1**  
40 of 179

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**SUBLEVEL 1 - MECHANICAL - OVERALL PLAN -  
DEMO - PHASE 1**

A1  
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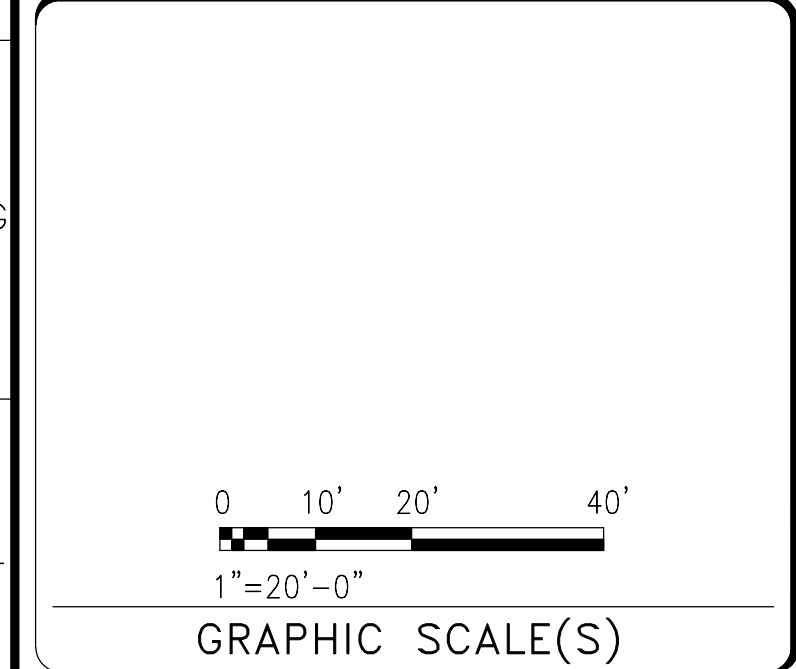
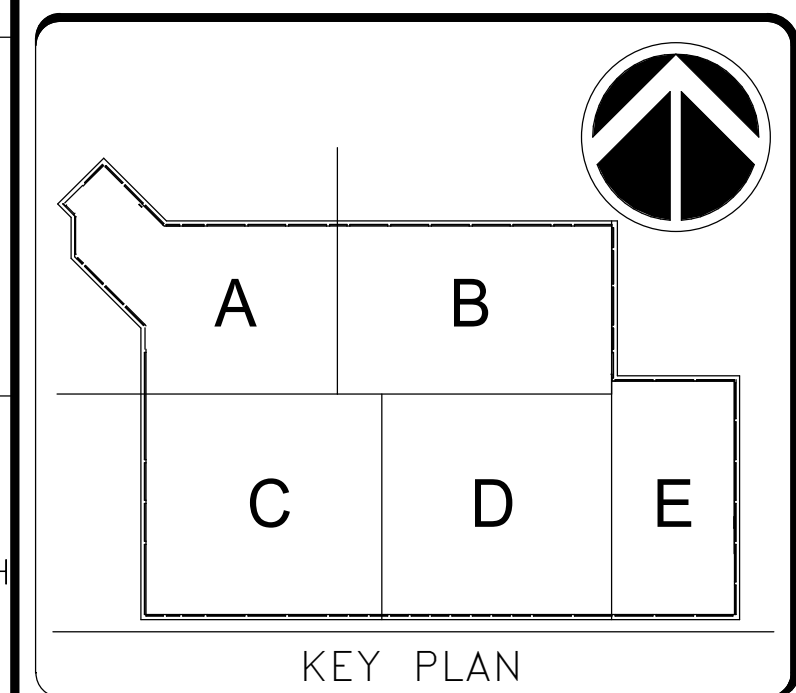
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DISTRICT OF COLUMBIA  
D. CZAJKOWSKI  
MECHANICAL  
PROFESSIONAL ENGINEER  
4/8/22

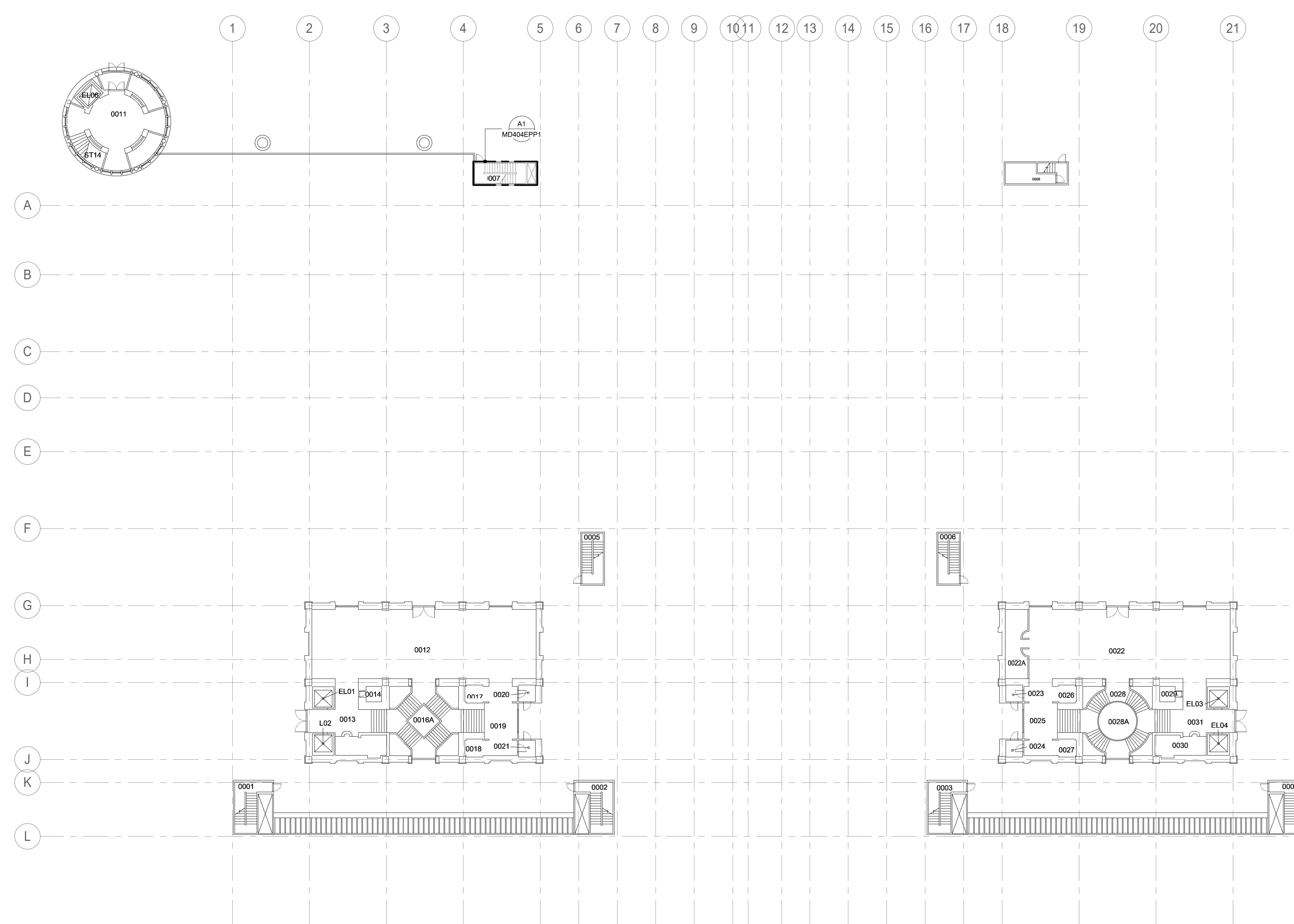


DATE 04/08/22	REVISION FINAL CD
REVISION # DATE	REVISION DESCRIPTION

**Smithsonian Institution**  
Smithsonian Facilities  
600 Maryland Avenue S.W., Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AF/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AF/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 1 - MECHANICAL - OVERALL PLAN - DEMO - PHASE 1
WORKING STAFF	SAD    SAD    TAS DESIGNED BY    DRAWN BY    CHECKED BY
SHEET NO.	MD102FPP1
41 OF 179	DISCIPLINE    TYPE    SEQUENCE    DRAWING    TITLE    PHASE

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MD103FPP1 BY Approver 04/08/22 FINAL CD



**GROUND LEVEL - MECHANICAL - OVERALL PLAN  
- DEMO - PHASE 1**

1  
MD103FPP1

SCALE = 1" = 20'-0"

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DISTRICT OF COLUMBIA  
DANIEL CZAJKOWSKI  
MECHANICAL  
PROFESSIONAL ENGINEER  
4/8/22

KEY PLAN

0 10' 20' 40'  
1"=20'-0"  
GRAPHIC SCALE(S)

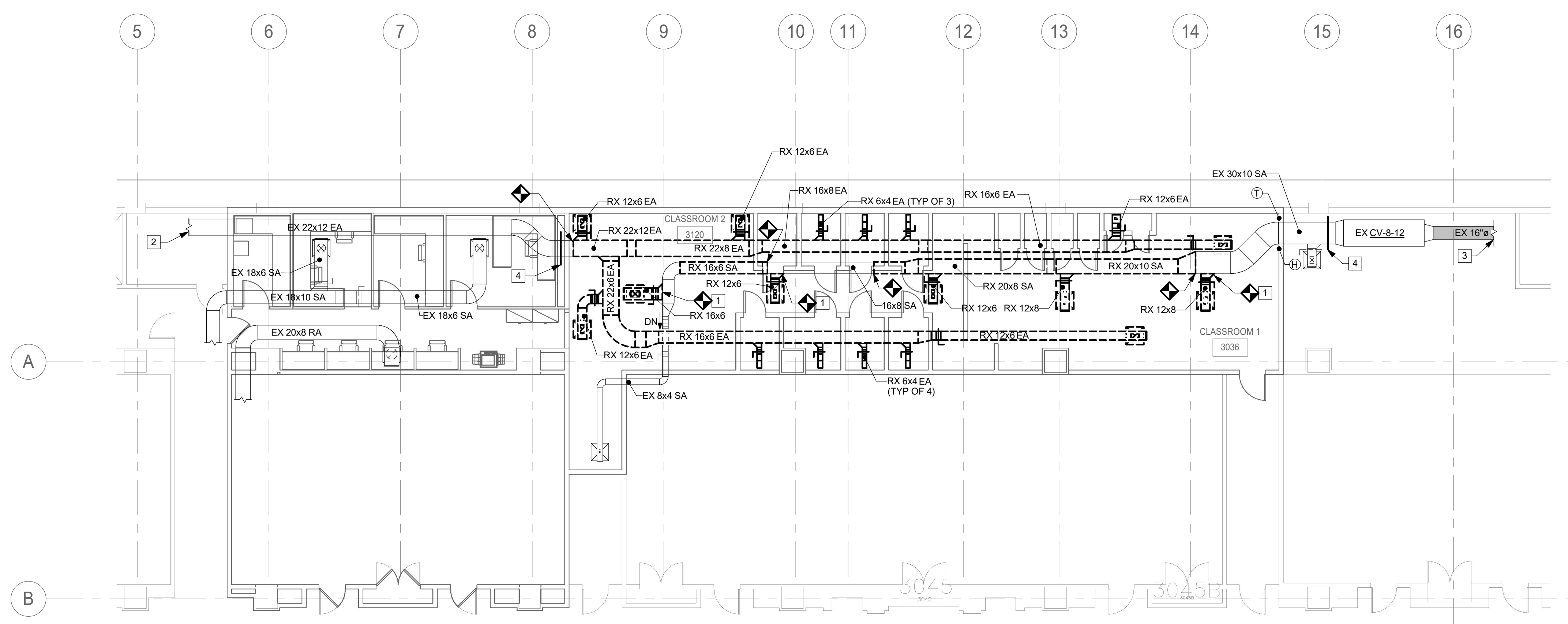
DATE 04/08/22	REVISION FINAL CD
REVISION # DATE	REVISION DESCRIPTION

**Smithsonian Institution**  
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600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	GROUND LEVEL - MECHANICAL - OVERALL PLAN - DEMO - PHASE 1
WORKING STAFF	SAD    SAD    TAS DESIGNED BY    DRAWN BY    CHECKED BY

SHEET NO. 42 of 179	MD103FPP1 DISCIPLINE    TYPE    SEQUENCE    DRAWING TYPE    PHASE
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4/15/2022 12:55:23 PM  
MD401EPP1 BY Approver 04/08/22 FINAL CD



**SUBLEVEL 3 - CLASSROOMS - MECHANICAL - DEMO - PHASE 1**

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

**DRAWING NOTES:**

- A. FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS, REFER TO DRAWING M-001P1.
- B. COORDINATE ALL DEMOLITION WORK WITH NEW WORK CONSTRUCTION.
- C. WHERE PORTIONS OF WORK SHOWN REMOVED, REMOVE DUCTWORK, INSULATION, CONNECTED AIR DEVICES AND DUCT ACCESSORIES, AND ASSOCIATED HANGERS AND SUPPORTS.
- D. FOR EQUIPMENT AND PIPING CONTAINING REFRIGERANT, ONLY EPA-CERTIFIED TECHNICIANS SHALL PERFORM REFRIGERANT RECOVERY AND DISPOSAL. EVACUATE/REMOVE AND RECOVER REFRIGERANT PRIOR TO DEMOLITION OF EQUIPMENT AND PIPING. DO NOT VENT REFRIGERANT NOR ALLOW IT TO ESCAPE. COMPLY WITH EPA REGULATIONS IN 40 CFR PART 82, SUBPARTS A AND F, UNDERSECTION 608 OF THE CLEAN AIR ACT. LEGALLY DISPOSE OF REFRIGERANT THROUGH AN EPA-CERTIFIED REFRIGERANT RECLAIMER.
- E. CONTRACTOR SHALL NOTIFY SMITHSONIAN OFMR WHEN EXHAUST FAN EF-17 IS TO BE SHUT DOWN.
- F. PROVIDE PRE-CONSTRUCTION TESTING AND BALANCING (TAB) AUDIT OF EXISTING SUPPLY, RETURN, EXHAUST, AND OUTDOOR AIR SYSTEMS. REPORT SHALL BE SUBMITTED AND APPROVED BY OWNER BEFORE DEMOLITION WORK STARTS.
- G. CONTRACTOR SHALL MAINTAIN CV-8-12 TO BE OPERATIONAL DURING CONSTRUCTION. CONTRACTOR SHALL NOTIFY SMITHSONIAN OFMR OF ANY CHANGES TO UNIT.

**SPECIAL NOTES:**

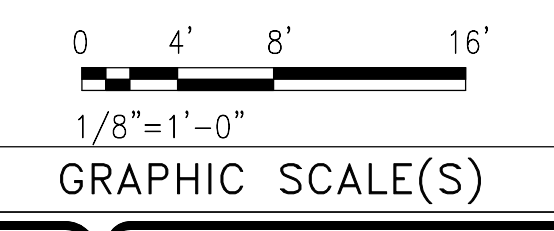
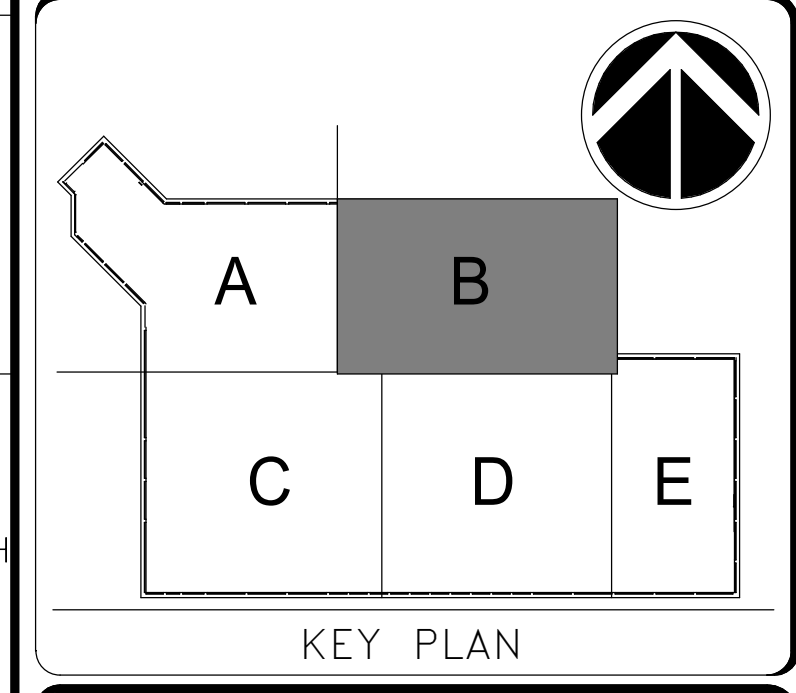
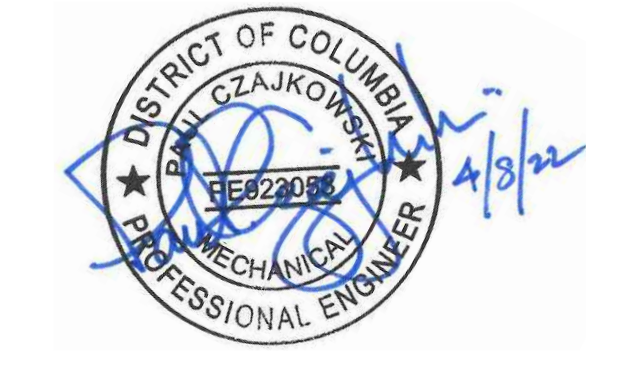
- 1 AFTER REMOVAL OF BRANCH DUCT, PATCH AND SEAL SURFACE OF DUCT MAIN AIR TIGHT AGAINST 2" W.G. STATIC PRESSURE.
- 2 TO EX EF-17.
- 3 FROM EX AC-8.
- 4 TRAVERSE DUCT AND MEASURE AIRFLOW AND STATIC PRESSURE.



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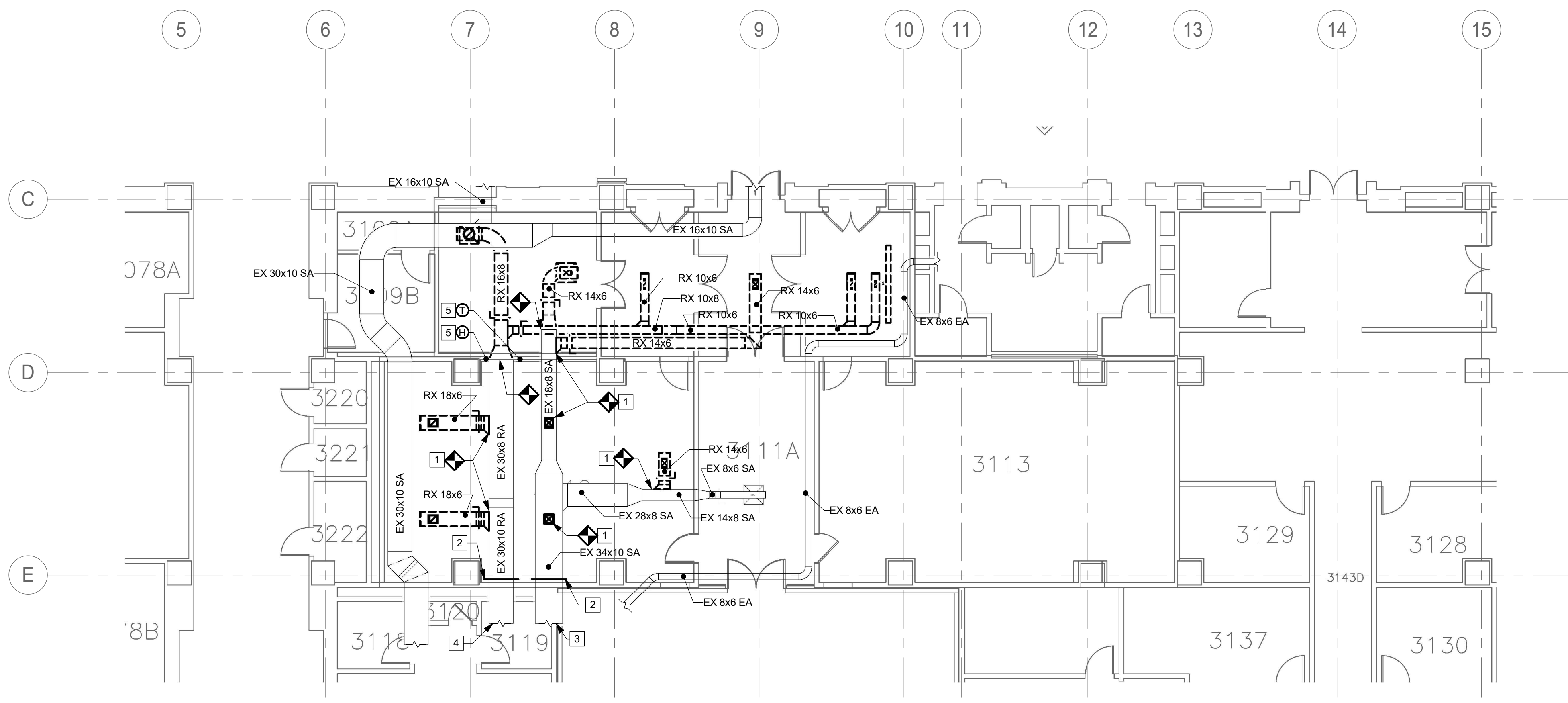
**Smithsonian Institution**

Smithsonian Facilities  
600 Maryland Avenue S.W., Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AF/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AF/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - CLASSROOMS - MECHANICAL - DEMO - PHASE 1
WORKING STAFF	DESIGNED BY: SAD    DRAWN BY: SAD    CHECKED BY: TAS

SHEET NO.	MD401EPP1
43 of 179	

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MD402EPP1 BY Approver 04/08/22 FINAL CD



**SUBLEVEL 3 - ROOMS 3108, 3109, 3112 -  
MECHANICAL- DEMO - PHASE 1**

A1  
MD101FPP1 MD402EPP1

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

**DRAWING NOTES:**

- A. FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS, REFER TO DRAWING M-001P1.
- B. COORDINATE ALL DEMOLITION WORK WITH NEW WORK CONSTRUCTION.
- C. WHERE PORTIONS OF WORK SHOWN REMOVED, REMOVE DUCTWORK, INSULATION, CONNECTED AIR DEVICES AND DUCT ACCESSORIES, AND ASSOCIATED HANGERS AND SUPPORTS.
- D. FOR EQUIPMENT AND PIPING CONTAINING REFRIGERANT, ONLY EPA-CERTIFIED TECHNICIANS SHALL PERFORM REFRIGERANT RECOVERY AND DISPOSAL. EVACUATE/REMOVE AND RECOVER REFRIGERANT PRIOR TO DEMOLITION OF EQUIPMENT AND PIPING. DO NOT VENT REFRIGERANT NOR ALLOW IT TO ESCAPE. COMPLY WITH EPA REGULATIONS IN 40 CFR PART 82, SUBPARTS A AND F, UNDERSECTION 608 OF THE CLEAN AIR ACT. LEGALLY DISPOSE OF REFRIGERANT THROUGH AN EPA-CERTIFIED REFRIGERANT RECLAIMER.
- E. PROVIDE PRE-CONSTRUCTION TESTING AND BALANCING (TAB) AUDIT OF EXISTING SUPPLY, RETURN, EXHAUST, AND OUTDOOR AIR SYSTEMS. REPORT SHALL BE SUBMITTED AND APPROVED BY OWNER BEFORE DEMOLITION WORK STARTS.

**SPECIAL NOTES:**

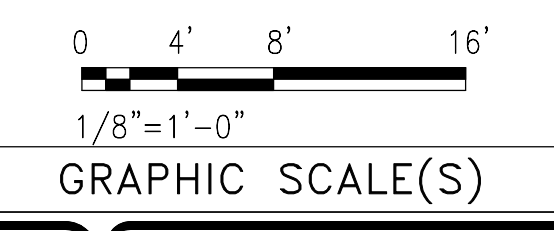
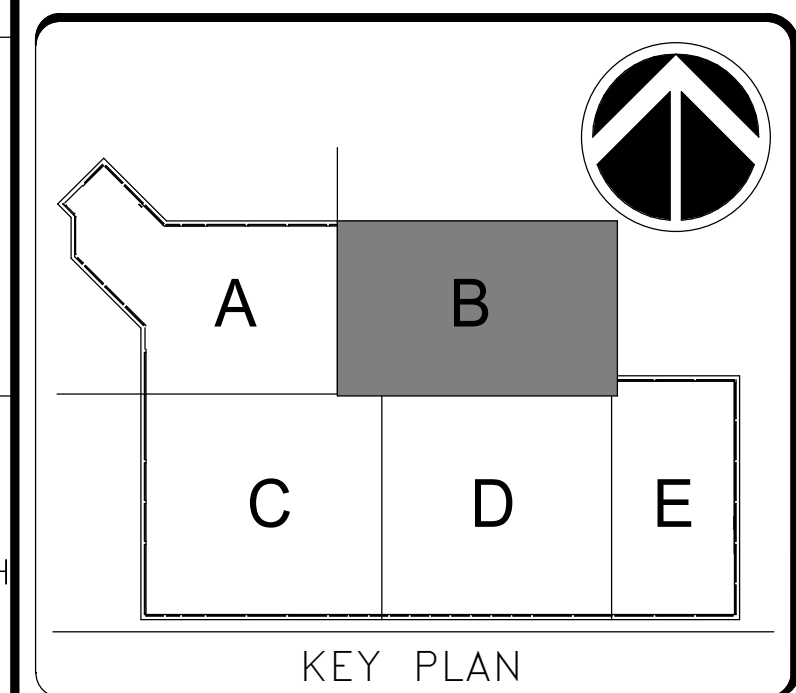
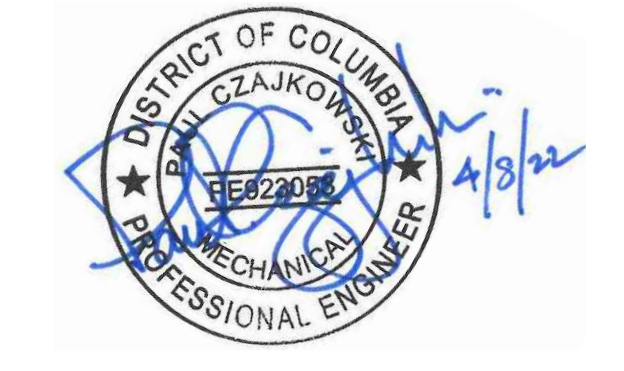
- 1 AFTER REMOVAL OF BRANCH DUCT, PATCH AND SEAL SURFACE OF DUCT MAIN AIR TIGHT AGAINST 2" W.G. STATIC PRESSURE.
- 2 TRAVERSE DUCT AND MEASURE AIRFLOW AND STATIC PRESSURE.
- 3 FROM EX CV-4-5 AND EX AC-4.
- 4 TO EX AC-4.
- 5 REMOVE SENSOR. PULL WIRING BACK AND CAP IN WALL.



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BUILDING NAME	FREER/SACKLER/AF/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AF/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - ROOMS 3108, 3109, 3112 - MECHANICAL- DEMO - PHASE 1
WORKING STAFF	DESIGNED BY: SAD    DRAWN BY: SAD    CHECKED BY: TAS

SHEET NO. 44 OF 179  
MD402EPP1

4/15/2022 12:53:44 PM  
MD403EPP1 BY Approver 04/08/22 FINAL CD

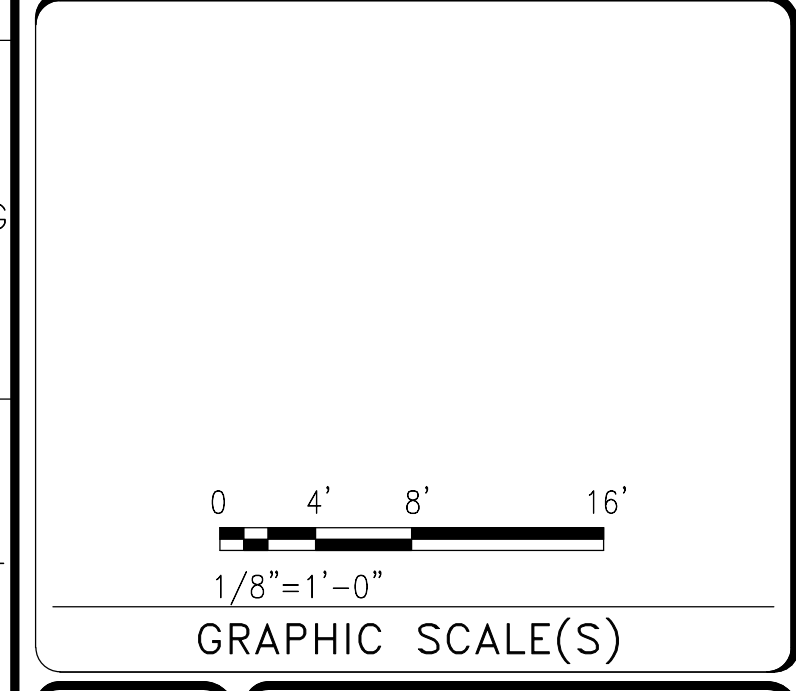
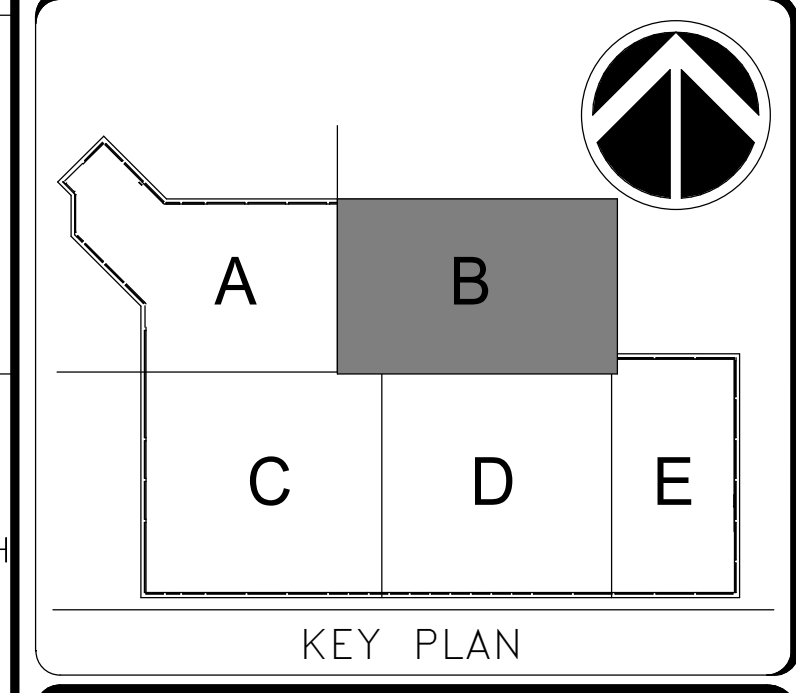
- DRAWING NOTES:**
- A. FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS, REFER TO DRAWING M-001P1.
  - B. COORDINATE ALL DEMOLITION WORK WITH NEW WORK CONSTRUCTION.
  - C. WHERE PORTIONS OF WORK SHOWN REMOVED, REMOVE DUCTWORK, INSULATION, CONNECTED AIR DEVICES, AND DUCT ACCESSORIES, AND ASSOCIATED HANGERS AND SUPPORTS.
  - D. FOR EQUIPMENT AND PIPING CONTAINING REFRIGERANT, ONLY EPA-CERTIFIED TECHNICIANS SHALL PERFORM REFRIGERANT RECOVERY AND DISPOSAL. EVACUATE, REMOVE AND RECOVER REFRIGERANT PRIOR TO DEMOLITION OF EQUIPMENT AND PIPING. DO NOT VENT REFRIGERANT NOR ALLOW IT TO ESCAPE. COMPLY WITH EPA REGULATIONS IN 40 CFR PART 82, SUBPARTS A AND F, UNDERSECTION 608 OF THE CLEAN AIR ACT. LEGALLY DISPOSE OF REFRIGERANT THROUGH AN EPA-CERTIFIED REFRIGERANT RECLAIMER.
  - E. PROVIDE PRE-CONSTRUCTION TESTING AND BALANCING (TAB) AUDIT OF EXISTING SUPPLY, RETURN, EXHAUST, AND OUTDOOR AIR SYSTEMS. REPORT SHALL BE SUBMITTED AND APPROVED BY OWNER BEFORE DEMOLITION WORK STARTS.

- SPECIAL NOTES:**
- 1 REMOVE EXISTING WALL MOUNTED AC UNIT AND ASSOCIATED APPURTENANCES.
  - 2 REMOVE EXISTING CRAC UNIT AND ASSOCIATED INLINE FAN, DUCTWORK, AND APPURTENCES.
  - 3 REMOVE EXISTING CONDENSING UNIT AND ASSOCIATED APPURTENANCES.
  - 4 TRAVERSE DUCT AND MEASURE AIRFLOW AND STATIC PRESSURE.
  - 5 TO EX AC-9.
  - 6 FROM EX CV-9-20 AND EX AC-9.
  - 7 REMOVE SENSOR. PULL WIRING BACK AND CAP IN WALL.

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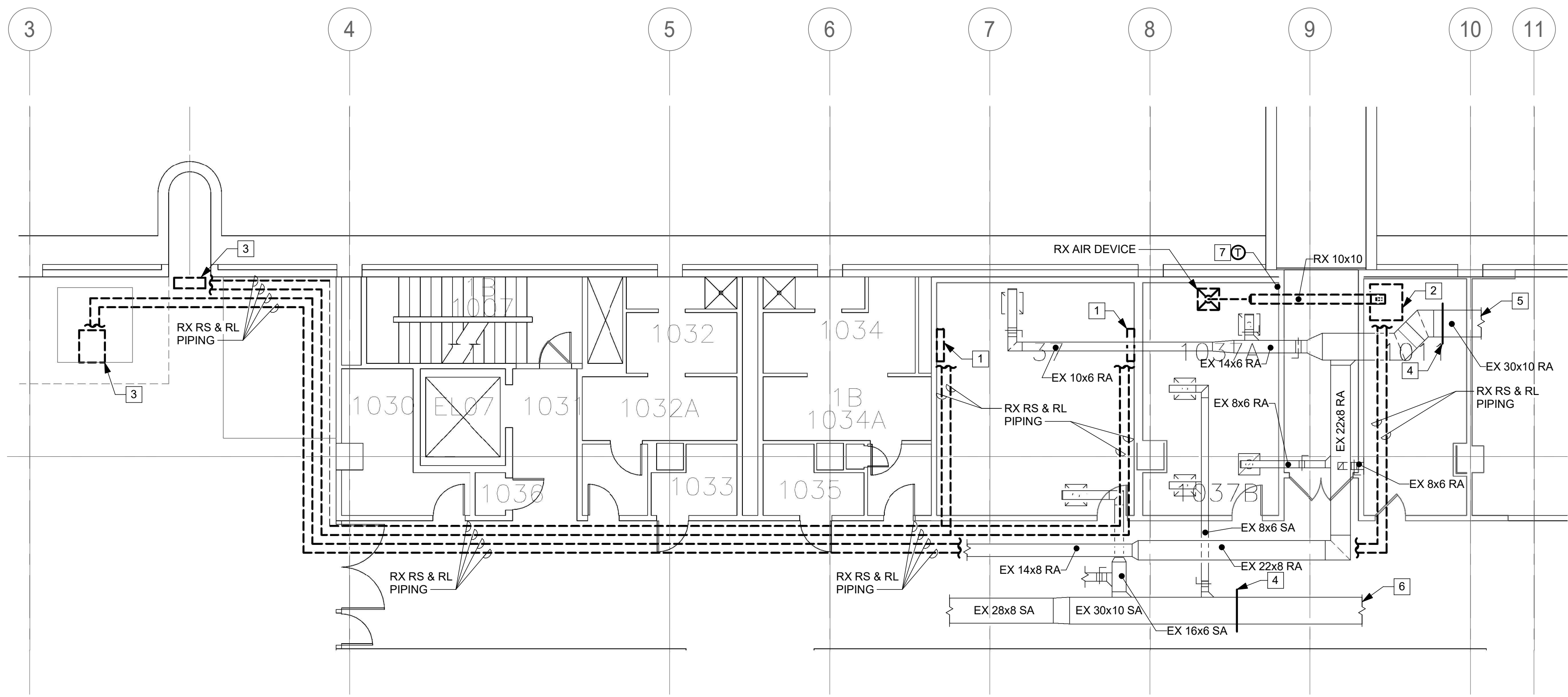
DATE 04/08/22	REVISION FINAL CD
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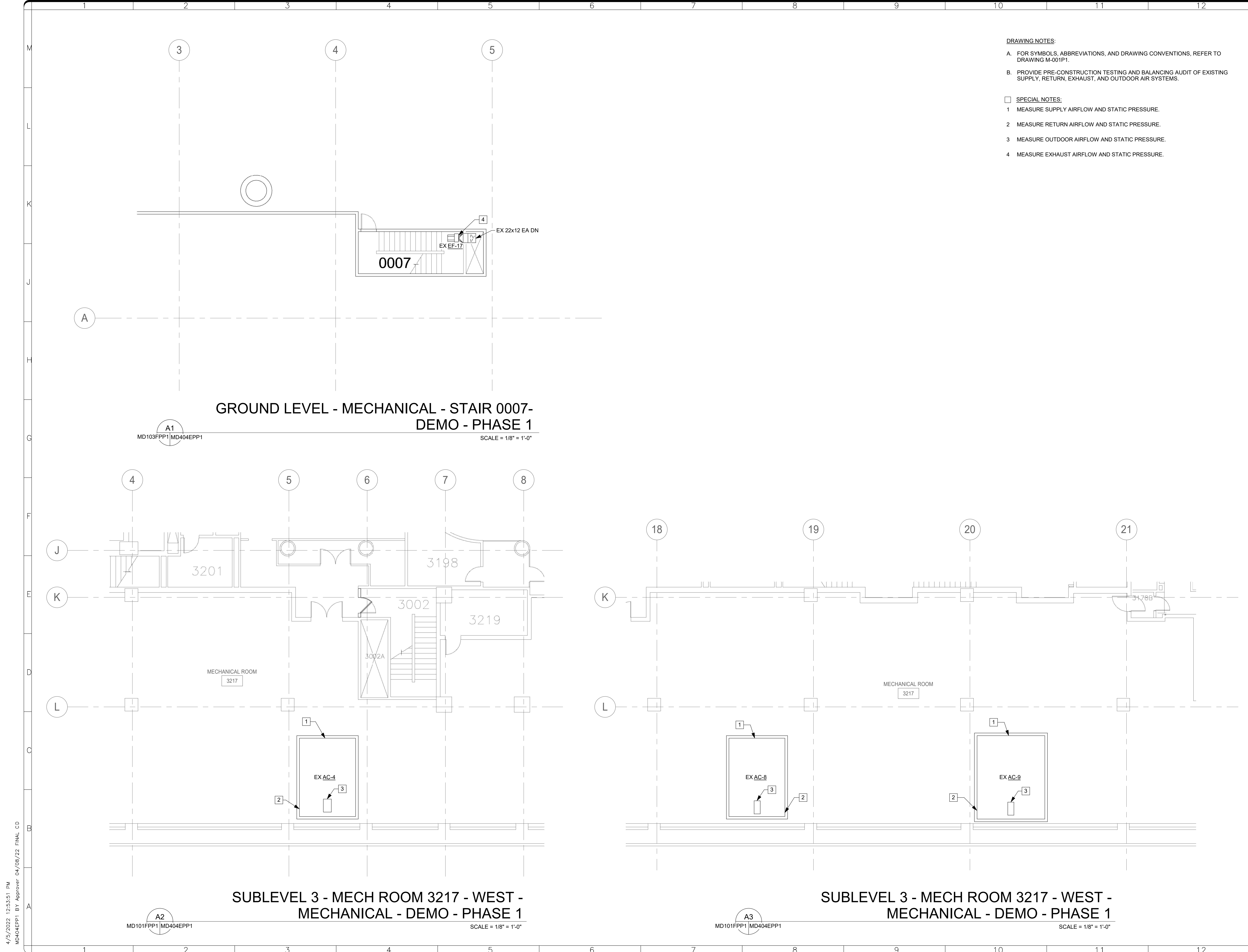
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ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 1 - COMMAND CENTER - MECHANICAL - DEMO - PHASE 1
WORKING STAFF	DESIGNED BY: SAD    DRAWN BY: SAD    CHECKED BY: TAS

SHEET NO.	MD403EPP1
45 of 179	DISCIPLINE    TYPE    SEQUENCE    DRAWING    PHASE



**SUBLEVEL 1 - COMMAND CENTER - MECHANICAL - DEMO - PHASE 1**

A1  
MD102EPP1 MD403EPP1  
SCALE = 1/8" = 1'-0"

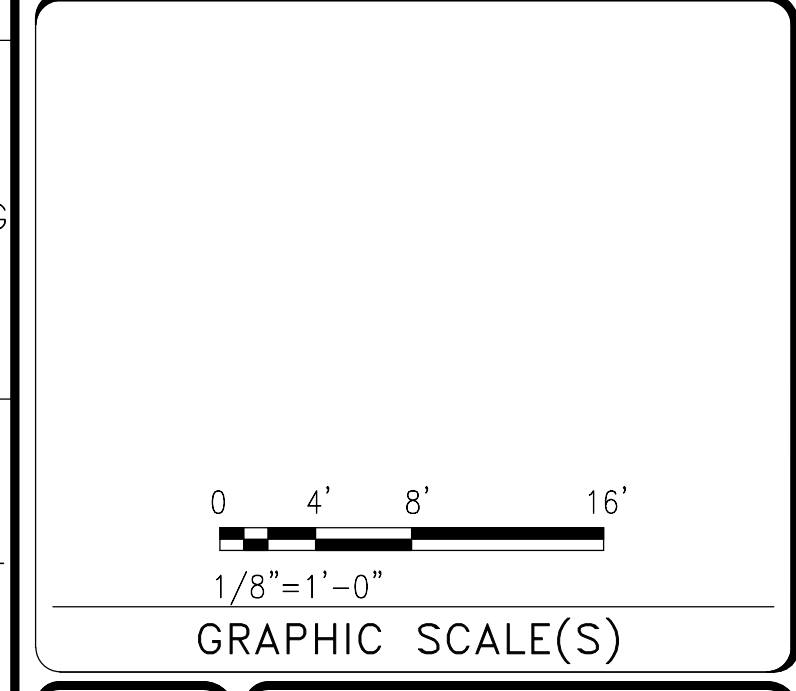
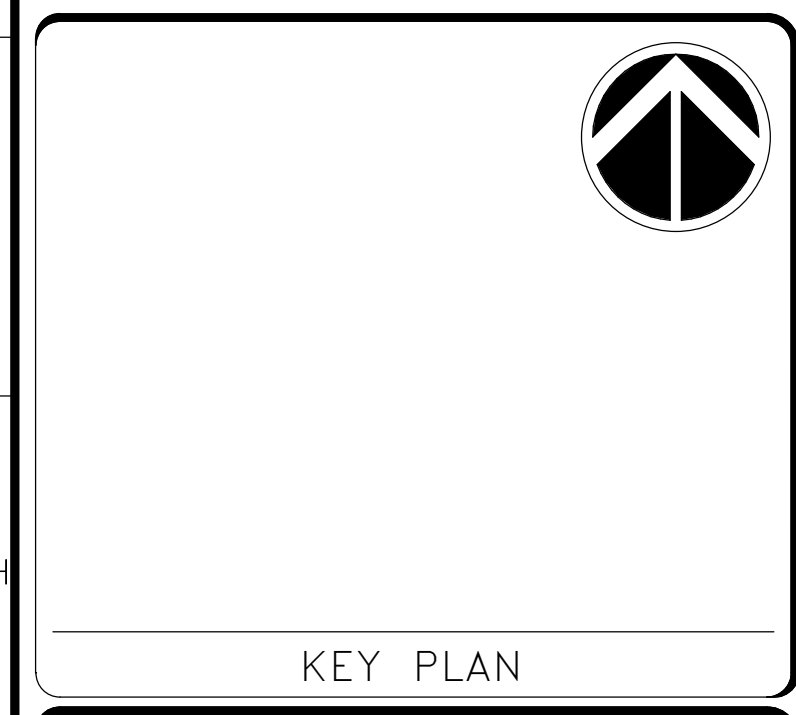


- DRAWING NOTES:**
- A. FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS, REFER TO DRAWING M-001P1.
  - B. PROVIDE PRE-CONSTRUCTION TESTING AND BALANCING AUDIT OF EXISTING SUPPLY, RETURN, EXHAUST, AND OUTDOOR AIR SYSTEMS.
- SPECIAL NOTES:**
- 1 MEASURE SUPPLY AIRFLOW AND STATIC PRESSURE.
  - 2 MEASURE RETURN AIRFLOW AND STATIC PRESSURE.
  - 3 MEASURE OUTDOOR AIRFLOW AND STATIC PRESSURE.
  - 4 MEASURE EXHAUST AIRFLOW AND STATIC PRESSURE.

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REVISION #	DATE	REVISION DESCRIPTION	

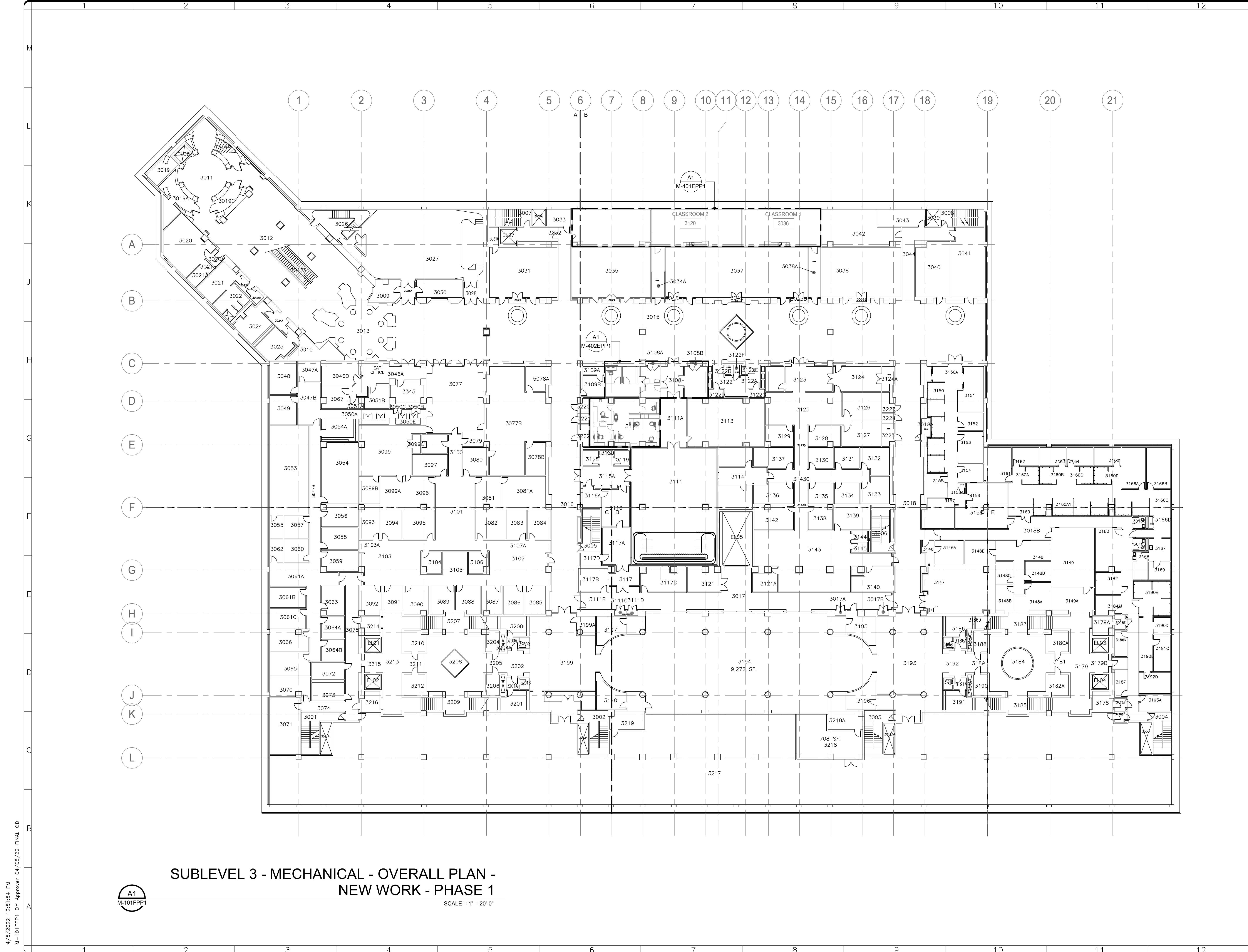
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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	GROUND AND SUBLEVEL 3 - EXISTING EQUIPMENT LOCATIONS - MECHANICAL - DEMO - PHASE 1
WORKING STAFF	DESIGNED BY: SAD    DRAWN BY: SAD    CHECKED BY: TAS

SHEET NO. 46 OF 179  
 MD404EPP1

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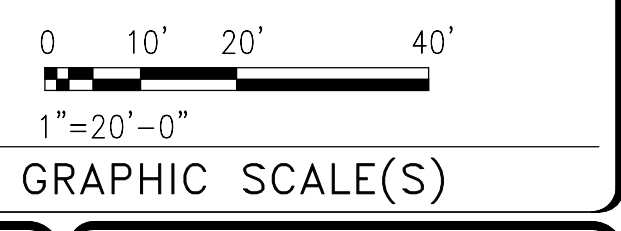
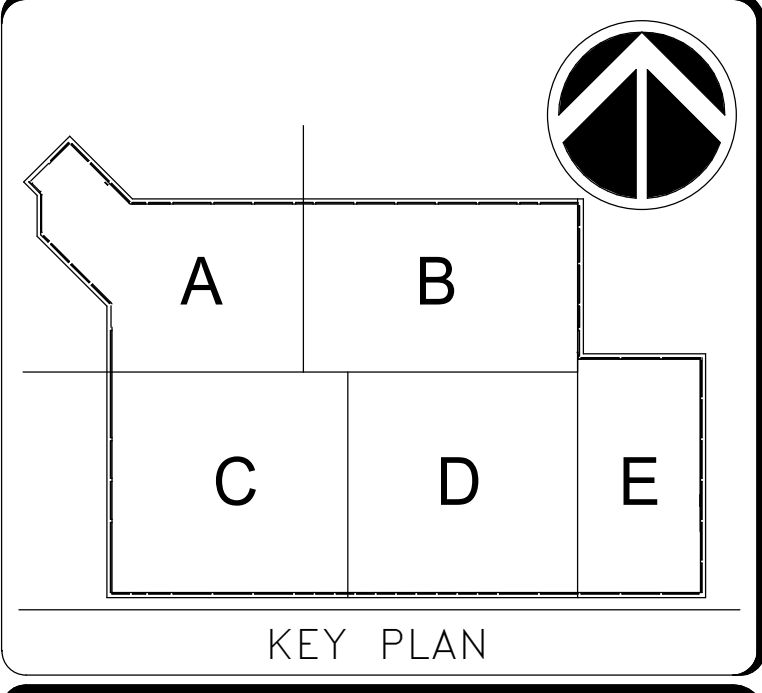
**SUBLEVEL 3 - MECHANICAL - OVERALL PLAN -  
NEW WORK - PHASE 1**

SCALE = 1" = 20'-0"

A1  
M-101FPP1

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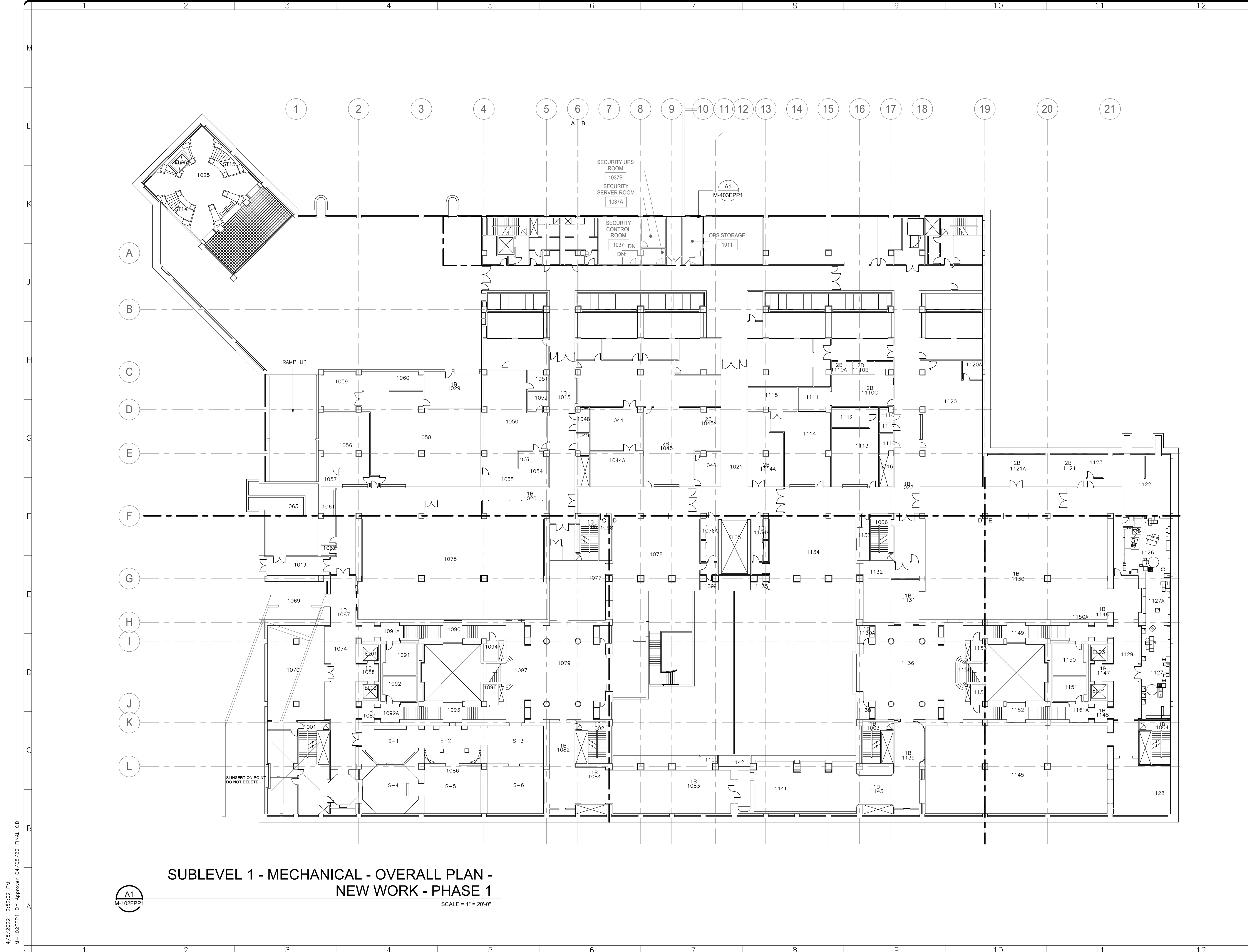
DATE	04/08/22	REVISION	FINAL CD
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ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - MECHANICAL - OVERALL PLAN - NEW WORK - PHASE 1
WORKING STAFF	SAD    SAD    TAS
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO. **M-101FPP1**  
47 of 179

4/15/2022 12:51:54 PM  
M-101FPP1 BY Approver 04/08/22 FINAL CD



**SUBLEVEL 1 - MECHANICAL - OVERALL PLAN -  
NEW WORK - PHASE 1**

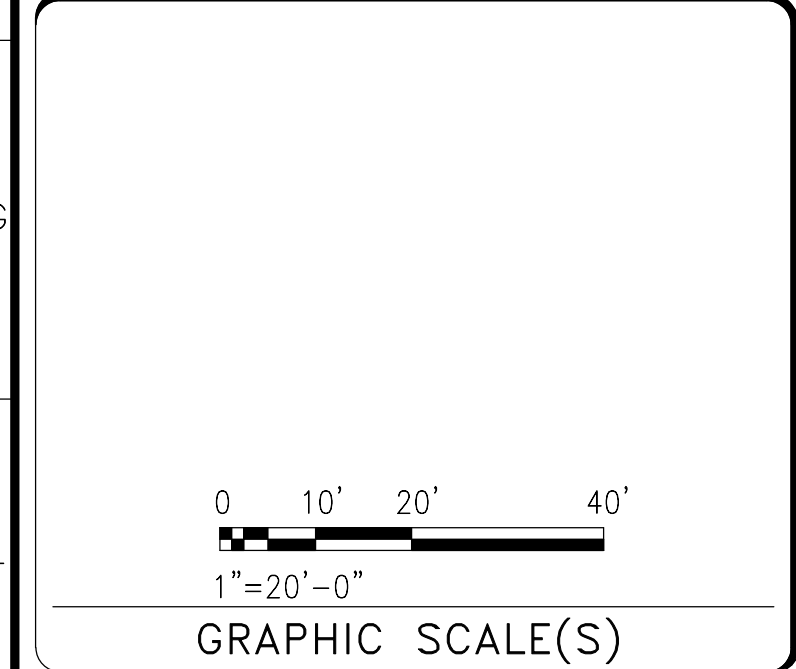
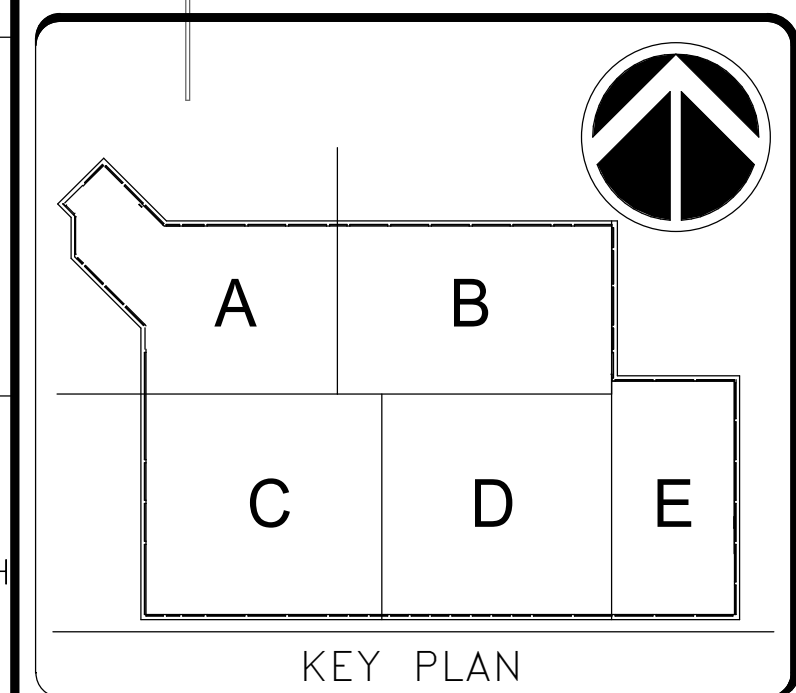
SCALE = 1" = 20'-0"

A1  
M-102FPP1

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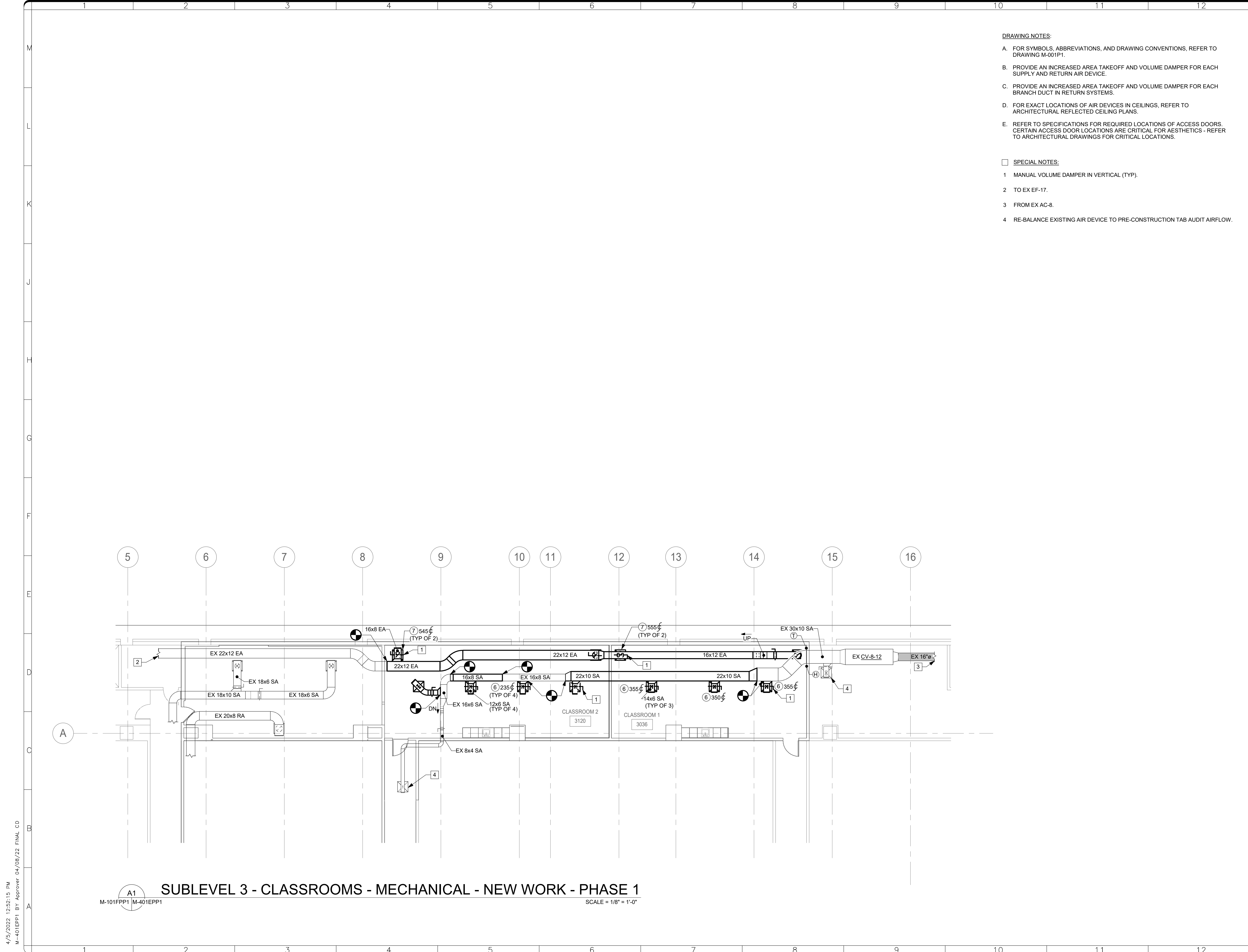


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PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 1 - MECHANICAL - OVERALL PLAN - NEW WORK - PHASE 1
WORKING STAFF	DESIGNED BY: SAD    DRAWN BY: SAD    CHECKED BY: TAS
SHEET NO.	M-102FPP1
48 of 179	DISCIPLINE    TYPE    SEQUENCE    DRAWING TYPE    PHASE





**DRAWING NOTES:**

- A. FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS, REFER TO DRAWING M-001P1.
- B. PROVIDE AN INCREASED AREA TAKEOFF AND VOLUME DAMPER FOR EACH SUPPLY AND RETURN AIR DEVICE.
- C. PROVIDE AN INCREASED AREA TAKEOFF AND VOLUME DAMPER FOR EACH BRANCH DUCT IN RETURN SYSTEMS.
- D. FOR EXACT LOCATIONS OF AIR DEVICES IN CEILINGS, REFER TO ARCHITECTURAL REFLECTED CEILING PLANS.
- E. REFER TO SPECIFICATIONS FOR REQUIRED LOCATIONS OF ACCESS DOORS. CERTAIN ACCESS DOOR LOCATIONS ARE CRITICAL FOR AESTHETICS - REFER TO ARCHITECTURAL DRAWINGS FOR CRITICAL LOCATIONS.

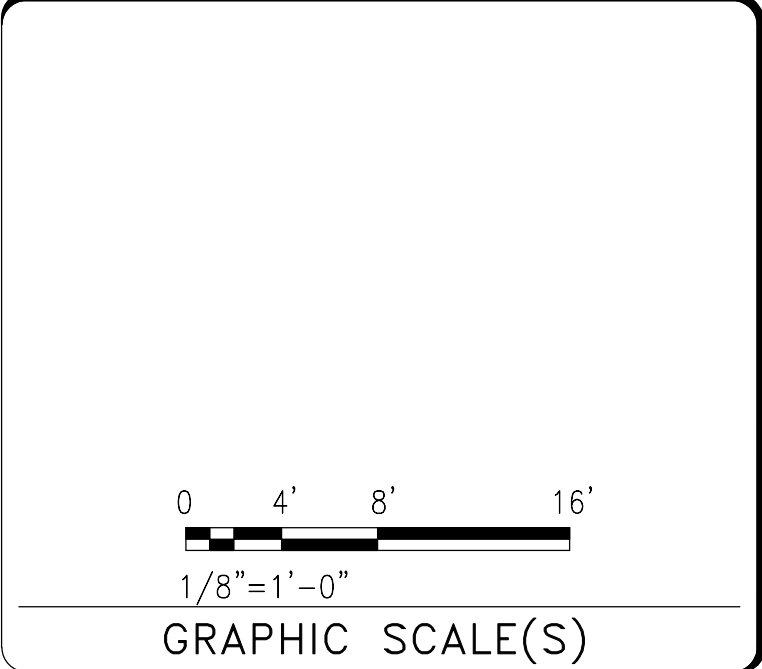
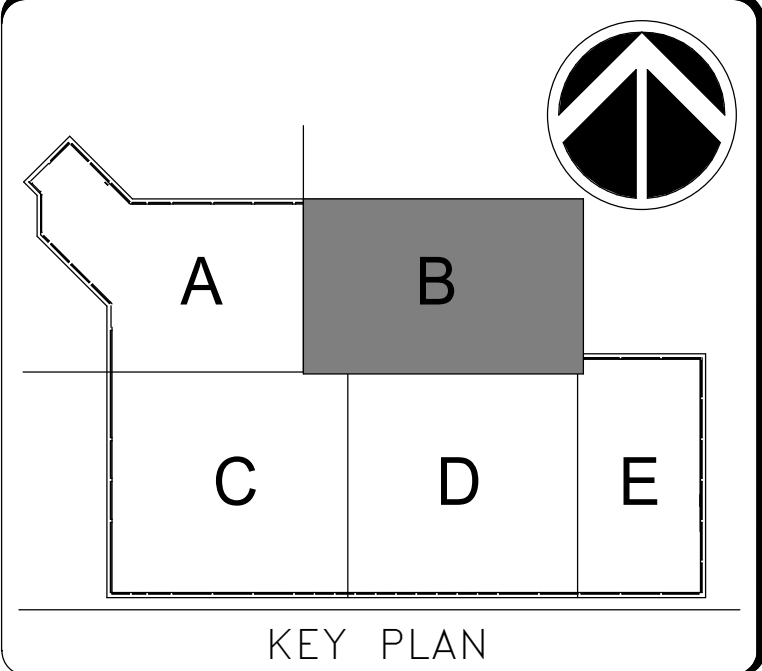
**SPECIAL NOTES:**

- 1 MANUAL VOLUME DAMPER IN VERTICAL (TYP).
- 2 TO EX EF-17.
- 3 FROM EX AC-8.
- 4 RE-BALANCE EXISTING AIR DEVICE TO PRE-CONSTRUCTION TAB AUDIT AIRFLOW.

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REVISION #	DATE	REVISION DESCRIPTION	

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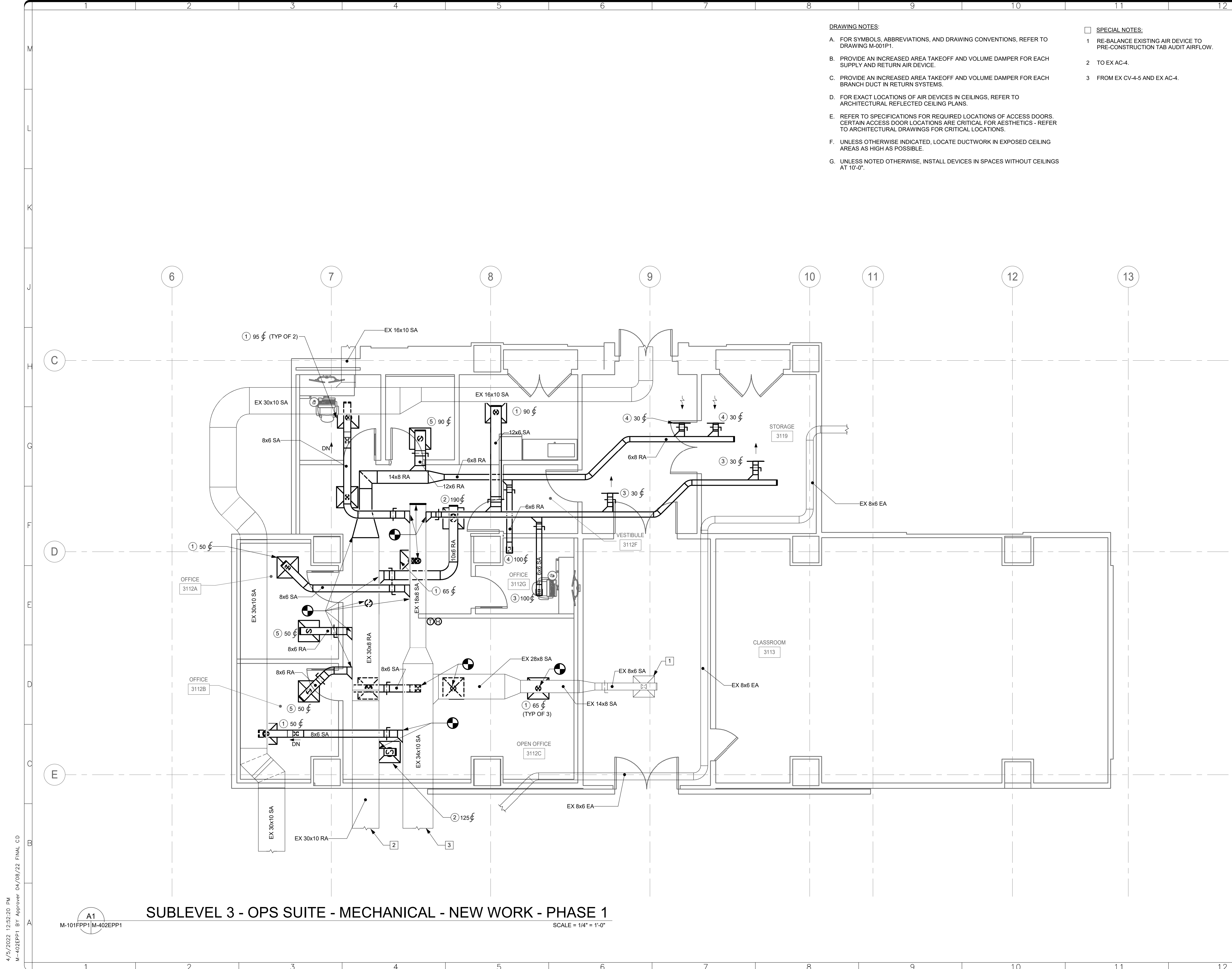
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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - CLASSROOMS - MECHANICAL - NEW WORK - PHASE 1
WORKING STAFF	SAD    SAD    TAS
	DESIGNED BY    DRAWN BY    CHECKED BY

**SHEET NO.** M-401EPP1  
 49 OF 179

4/15/2022 12:52:15 PM M-401EPP1 BY Approver 04/08/22 FINAL CD

**A1** SUBLEVEL 3 - CLASSROOMS - MECHANICAL - NEW WORK - PHASE 1  
 M-101FPP1 M-401EPP1 SCALE = 1/8" = 1'-0"



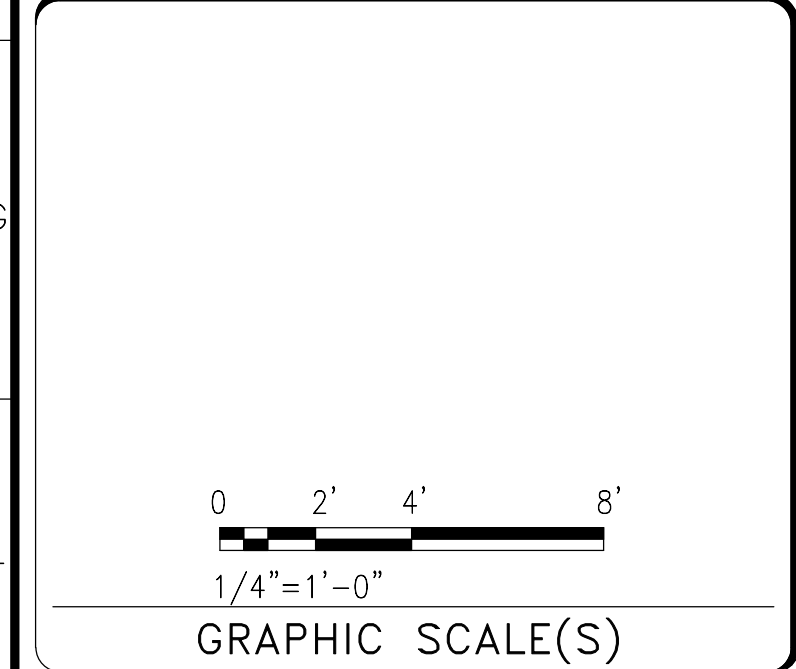
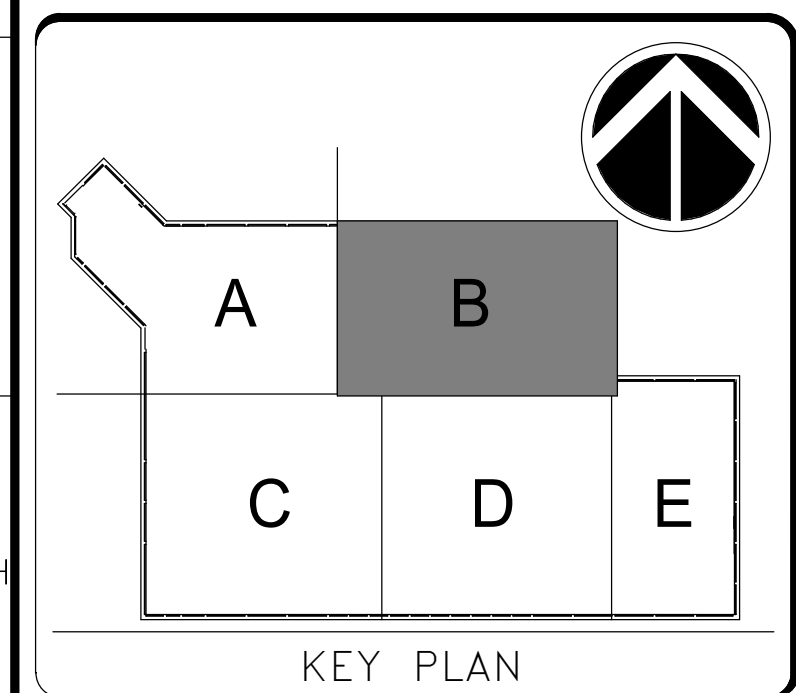
- DRAWING NOTES:**
- A. FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS, REFER TO DRAWING M-001P1.
  - B. PROVIDE AN INCREASED AREA TAKEOFF AND VOLUME DAMPER FOR EACH SUPPLY AND RETURN AIR DEVICE.
  - C. PROVIDE AN INCREASED AREA TAKEOFF AND VOLUME DAMPER FOR EACH BRANCH DUCT IN RETURN SYSTEMS.
  - D. FOR EXACT LOCATIONS OF AIR DEVICES IN CEILINGS, REFER TO ARCHITECTURAL REFLECTED CEILING PLANS.
  - E. REFER TO SPECIFICATIONS FOR REQUIRED LOCATIONS OF ACCESS DOORS. CERTAIN ACCESS DOOR LOCATIONS ARE CRITICAL FOR AESTHETICS - REFER TO ARCHITECTURAL DRAWINGS FOR CRITICAL LOCATIONS.
  - F. UNLESS OTHERWISE INDICATED, LOCATE DUCTWORK IN EXPOSED CEILING AREAS AS HIGH AS POSSIBLE.
  - G. UNLESS NOTED OTHERWISE, INSTALL DEVICES IN SPACES WITHOUT CEILINGS AT 10'-0".

- SPECIAL NOTES:**
- 1 RE-BALANCE EXISTING AIR DEVICE TO PRE-CONSTRUCTION TAB AUDIT AIRFLOW.
  - 2 TO EX AC-4.
  - 3 FROM EX CV-4-5 AND EX AC-4.

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DATE 04/08/22	REVISION FINAL CD
REVISION # DATE	REVISION DESCRIPTION

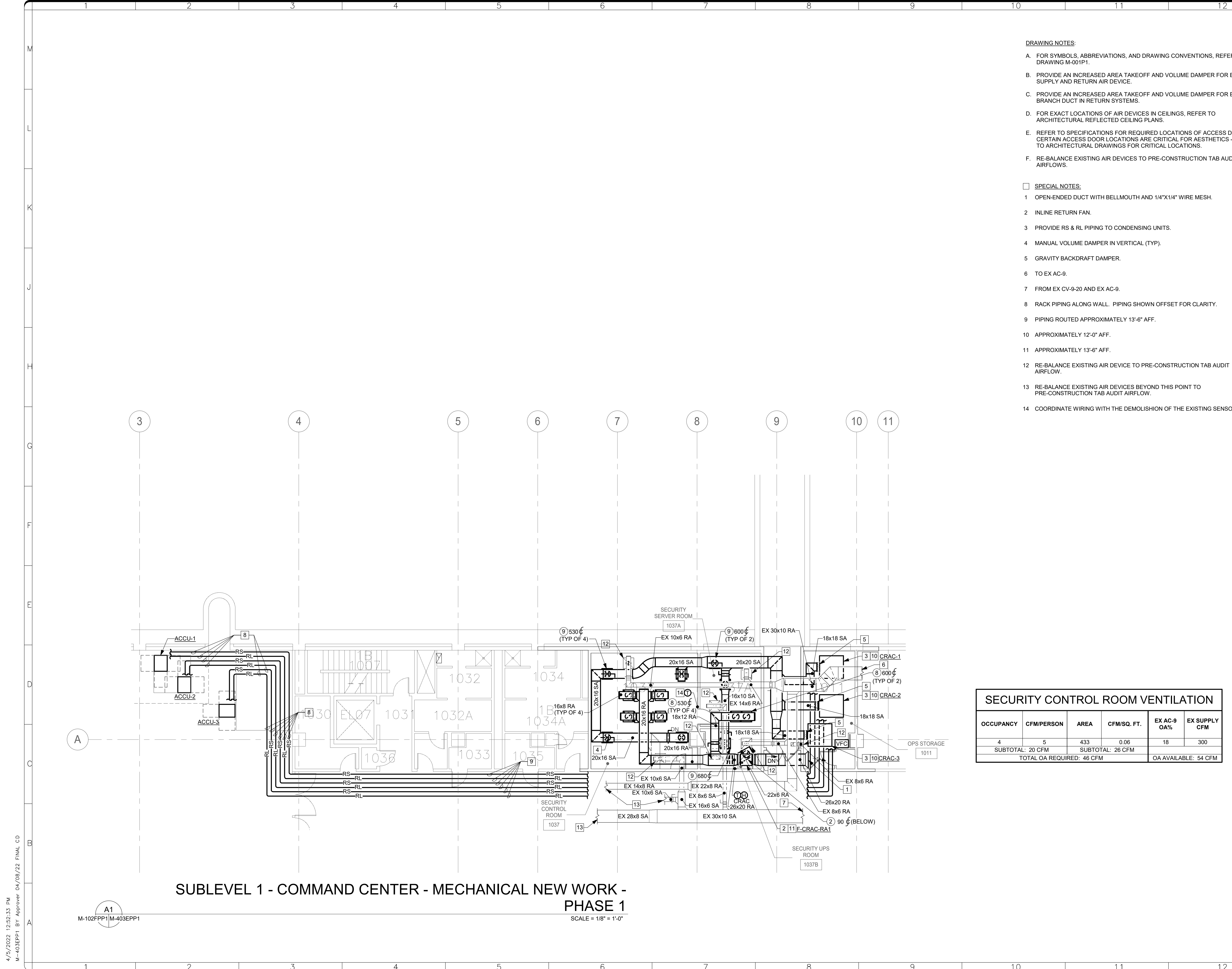
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BUILDING NAME	FREER/SACKLER/AF/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AF/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - OPS SUITE - MECHANICAL - NEW WORK - PHASE 1
WORKING STAFF	SAD    SAD    TAS
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO. 50 OF 179	M-402EPP1
DISCIPLINE	TYPE
SEQUENCE	DRAWING TYPE
PHASE	

**A1**  
 M-101FPP1 M-402EPP1  
 SUBLEVEL 3 - OPS SUITE - MECHANICAL - NEW WORK - PHASE 1  
 SCALE = 1/4" = 1'-0"

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**SUBLEVEL 1 - COMMAND CENTER - MECHANICAL NEW WORK -  
PHASE 1**  
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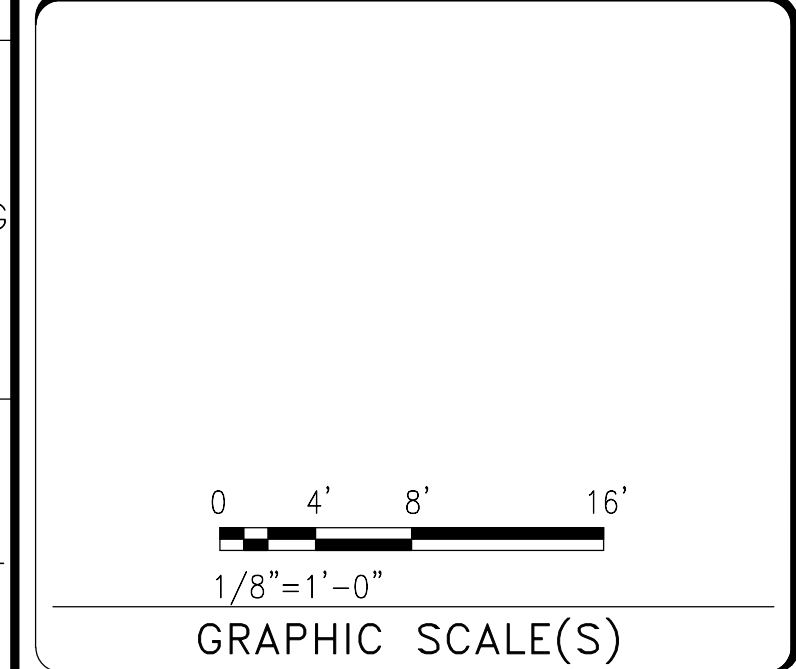
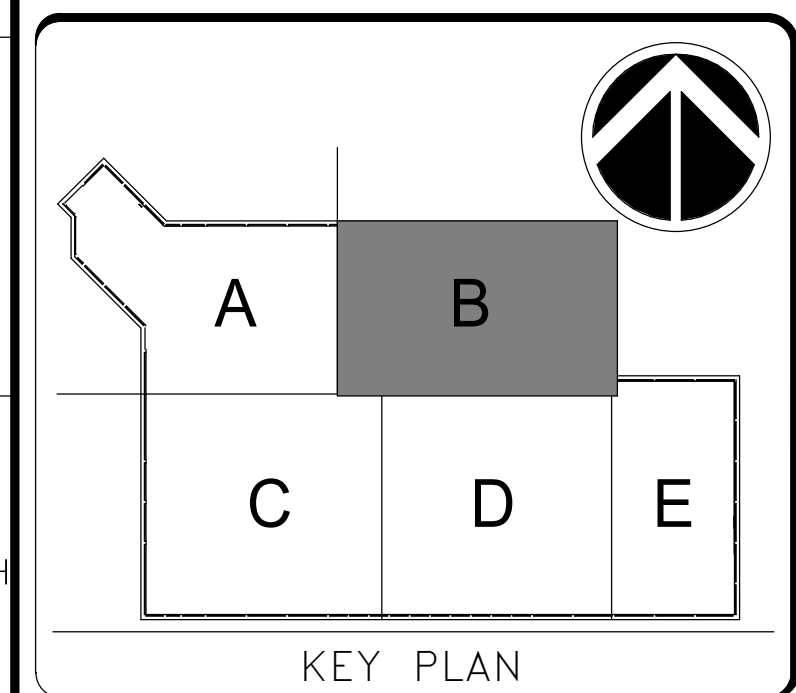
A1  
M-102FPP1 M-403EPP1

- DRAWING NOTES:**
- FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS, REFER TO DRAWING M-001P1.
  - PROVIDE AN INCREASED AREA TAKEOFF AND VOLUME DAMPER FOR EACH SUPPLY AND RETURN AIR DEVICE.
  - PROVIDE AN INCREASED AREA TAKEOFF AND VOLUME DAMPER FOR EACH BRANCH DUCT IN RETURN SYSTEMS.
  - FOR EXACT LOCATIONS OF AIR DEVICES IN CEILINGS, REFER TO ARCHITECTURAL REFLECTED CEILING PLANS.
  - REFER TO SPECIFICATIONS FOR REQUIRED LOCATIONS OF ACCESS DOORS. CERTAIN ACCESS DOOR LOCATIONS ARE CRITICAL FOR AESTHETICS - REFER TO ARCHITECTURAL DRAWINGS FOR CRITICAL LOCATIONS.
  - RE-BALANCE EXISTING AIR DEVICES TO PRE-CONSTRUCTION TAB AUDIT AIRFLOWS.
- SPECIAL NOTES:**
- OPEN-ENDED DUCT WITH BELLMOUTH AND 1/4"x1/4" WIRE MESH.
  - INLINE RETURN FAN.
  - PROVIDE RS & RL PIPING TO CONDENSING UNITS.
  - MANUAL VOLUME DAMPER IN VERTICAL (TYP).
  - GRAVITY BACKDRAFT DAMPER.
  - TO EX AC-9.
  - FROM EX CV-9-20 AND EX AC-9.
  - RACK PIPING ALONG WALL. PIPING SHOWN OFFSET FOR CLARITY.
  - PIPING ROUTED APPROXIMATELY 13'-6" AFF.
  - APPROXIMATELY 12'-0" AFF.
  - APPROXIMATELY 13'-6" AFF.
  - RE-BALANCE EXISTING AIR DEVICE TO PRE-CONSTRUCTION TAB AUDIT AIRFLOW.
  - RE-BALANCE EXISTING AIR DEVICES BEYOND THIS POINT TO PRE-CONSTRUCTION TAB AUDIT AIRFLOW.
  - COORDINATE WIRING WITH THE DEMOLITION OF THE EXISTING SENSOR.

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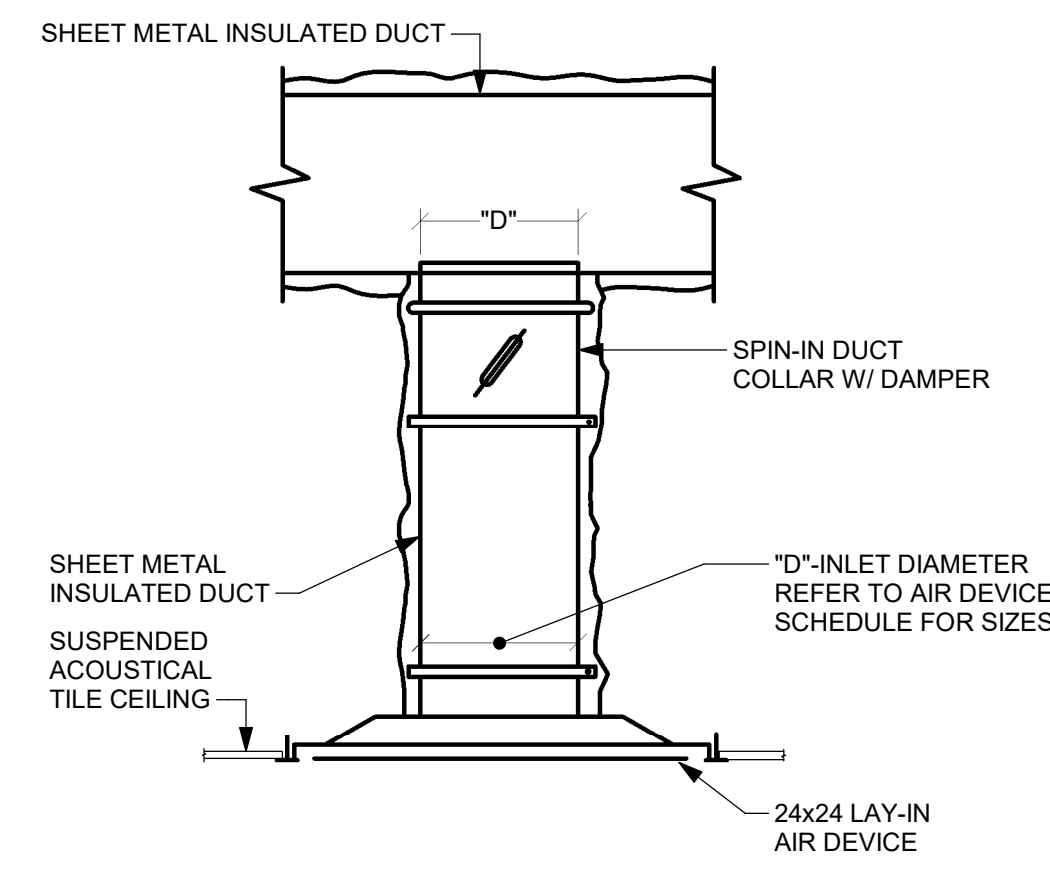
SECURITY CONTROL ROOM VENTILATION					
OCCUPANCY	CFM/PERSON	AREA	CFM/SQ. FT.	EX AC-9 OA%	EX SUPPLY CFM
4	5	433	0.06	18	300
SUBTOTAL: 20 CFM		SUBTOTAL: 26 CFM		OA AVAILABLE: 54 CFM	
TOTAL OA REQUIRED: 46 CFM					

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PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 1 - COMMAND CENTER - MECHANICAL - NEW WORK - PHASE 1
WORKING STAFF	SAD    SAD    TAS DESIGNED BY    DRAWN BY    CHECKED BY
SHEET NO.	M-403EPP1
51 OF 179	DISCIPLINE    TYPE    SEQUENCE    DRAWING TYPE    PHASE

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M-403EPP1 BY Approver 04/08/22 FINAL CD

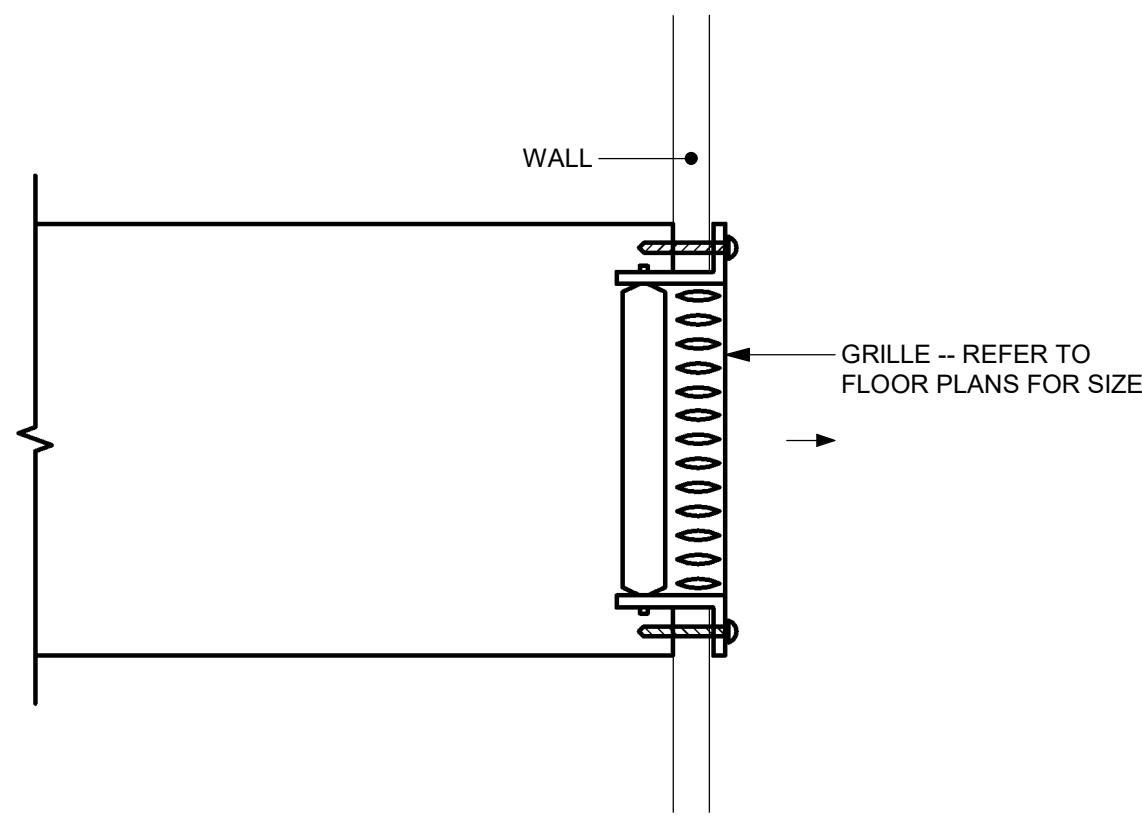


**AIR DEVICE TYPE (CD)**  
NOT TO SCALE

K1  
M-501DTP1

**NOTES:**

1. RECTANGULAR DUCT SHOWN; ROUND DUCT SIMILAR, WITH VOLUME DAMPER AFTER LOW LOSS TEE OFF SUPPLY MAIN.
2. TYPE CR IS SIMILAR, EXCEPT DUCTWORK IS UNINSULATED.

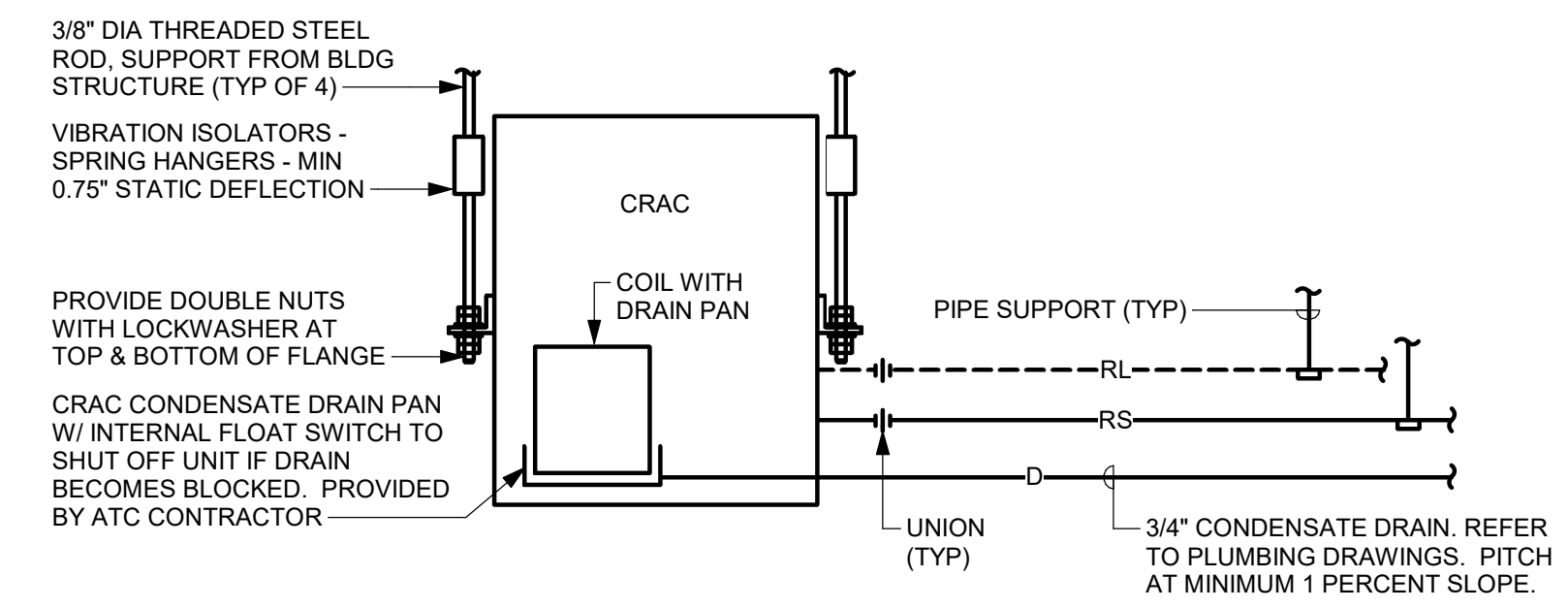


**AIR DEVICE TYPE (SGA) - SIDEWALL GRILLE**  
NOT TO SCALE

K5  
M-501DTP1

**NOTES:**

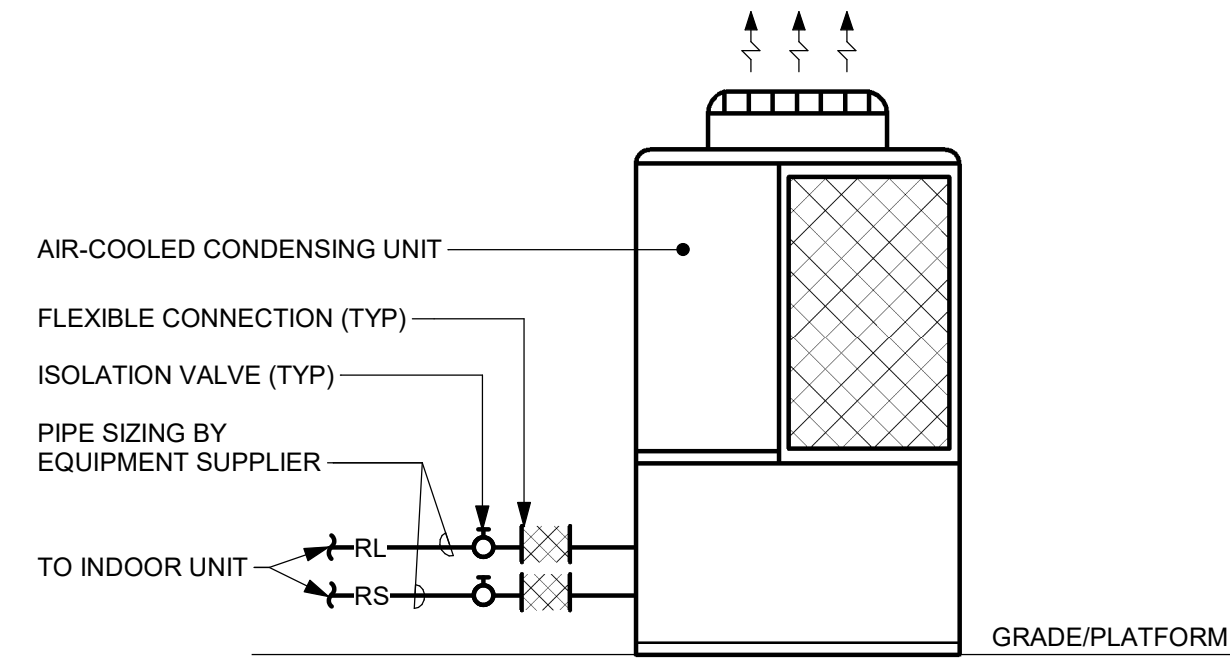
1. DOUBLE DEFLECTION SUPPLY GRILLE SHOWN. SINGLE DEFLECTION RETURN AND TRANSFER GRILLES (RGA) SIMILAR.
2. TRANSITION DUCT TO GRILLE AS NECESSARY.



**SUSPENDED COMPUTER ROOM AIR CONDITIONING UNIT**  
NOT TO SCALE

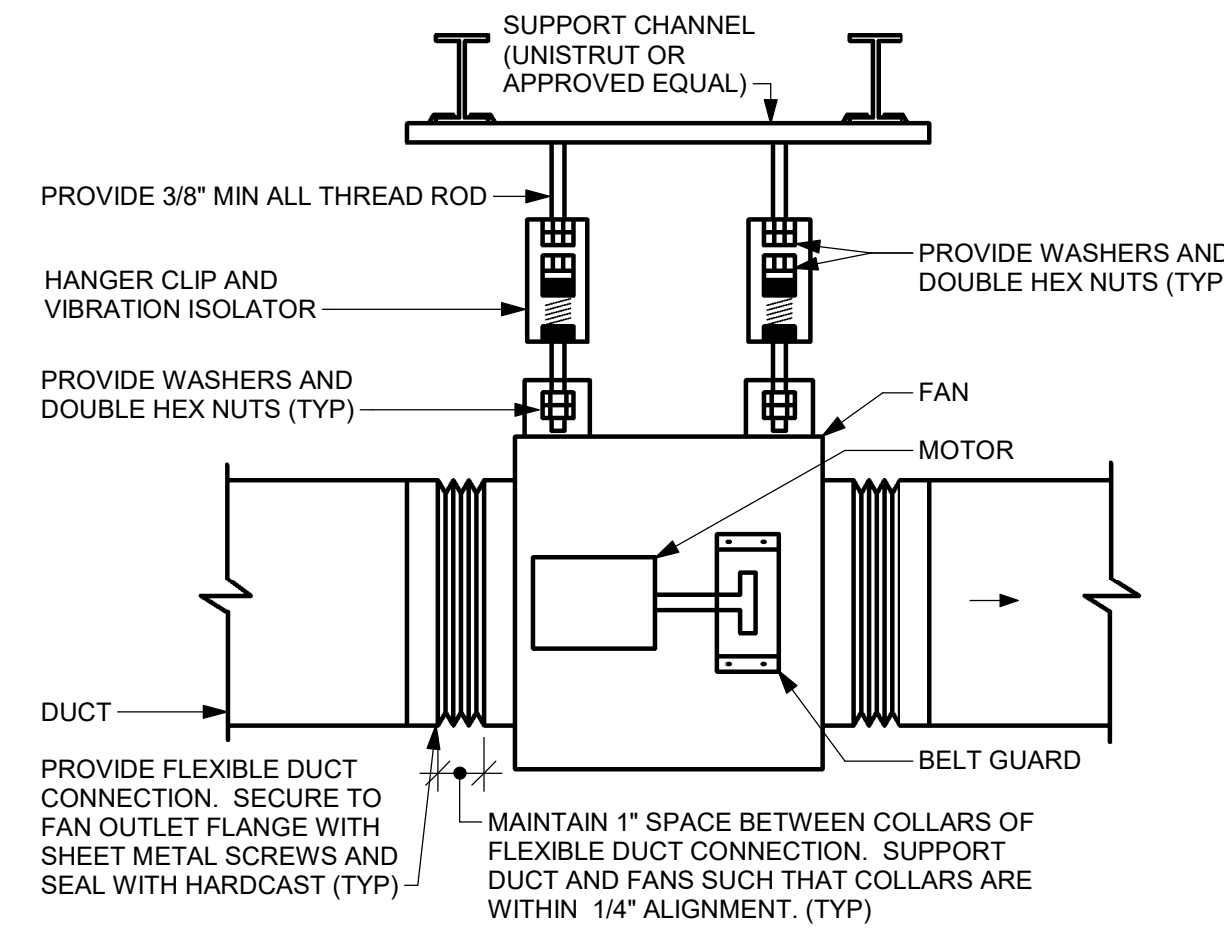
K9  
M-501DTP1

- NOTE:**
1. DRAWINGS INDICATE OPEN ENDED WITH W x H DIMENSIONS. OVERALL DIMENSIONS OF BELLMOUTH ARE W+12\"/>



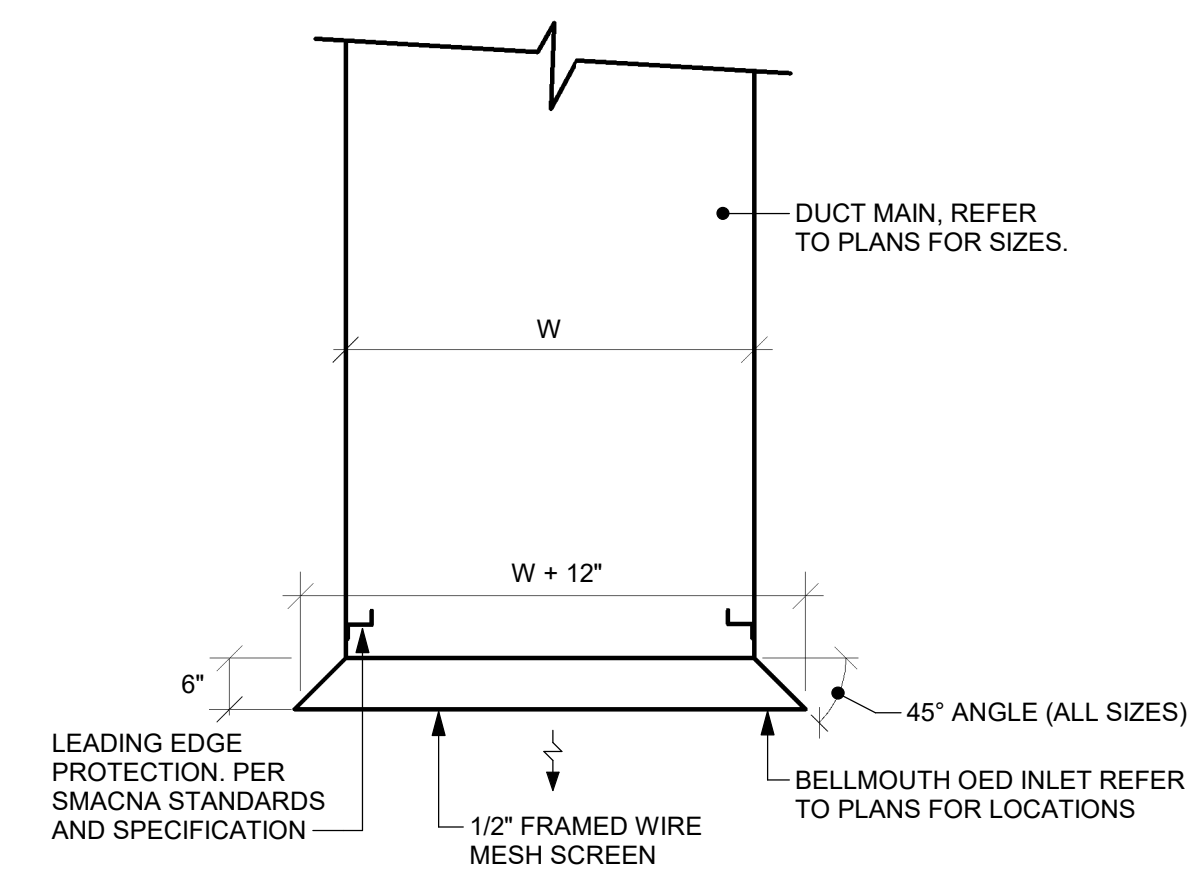
**CONDENSING UNIT**  
NOT TO SCALE

F1  
M-501DTP1



**IN-LINE FAN**  
NOT TO SCALE

F5  
M-501DTP1



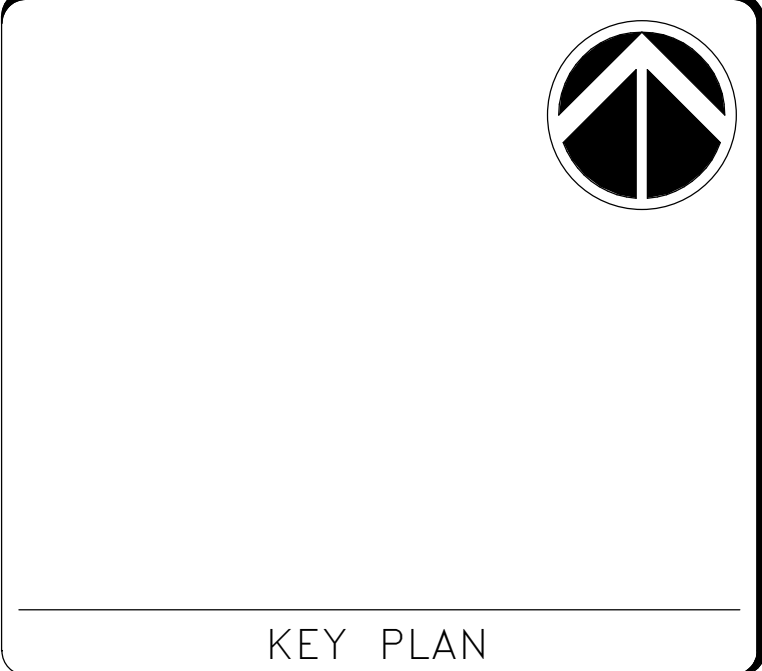
**BELLMOUTH DUCT OUTLET**  
NOT TO SCALE

F9  
M-501DTP1

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MECHANICAL  
4/3/22



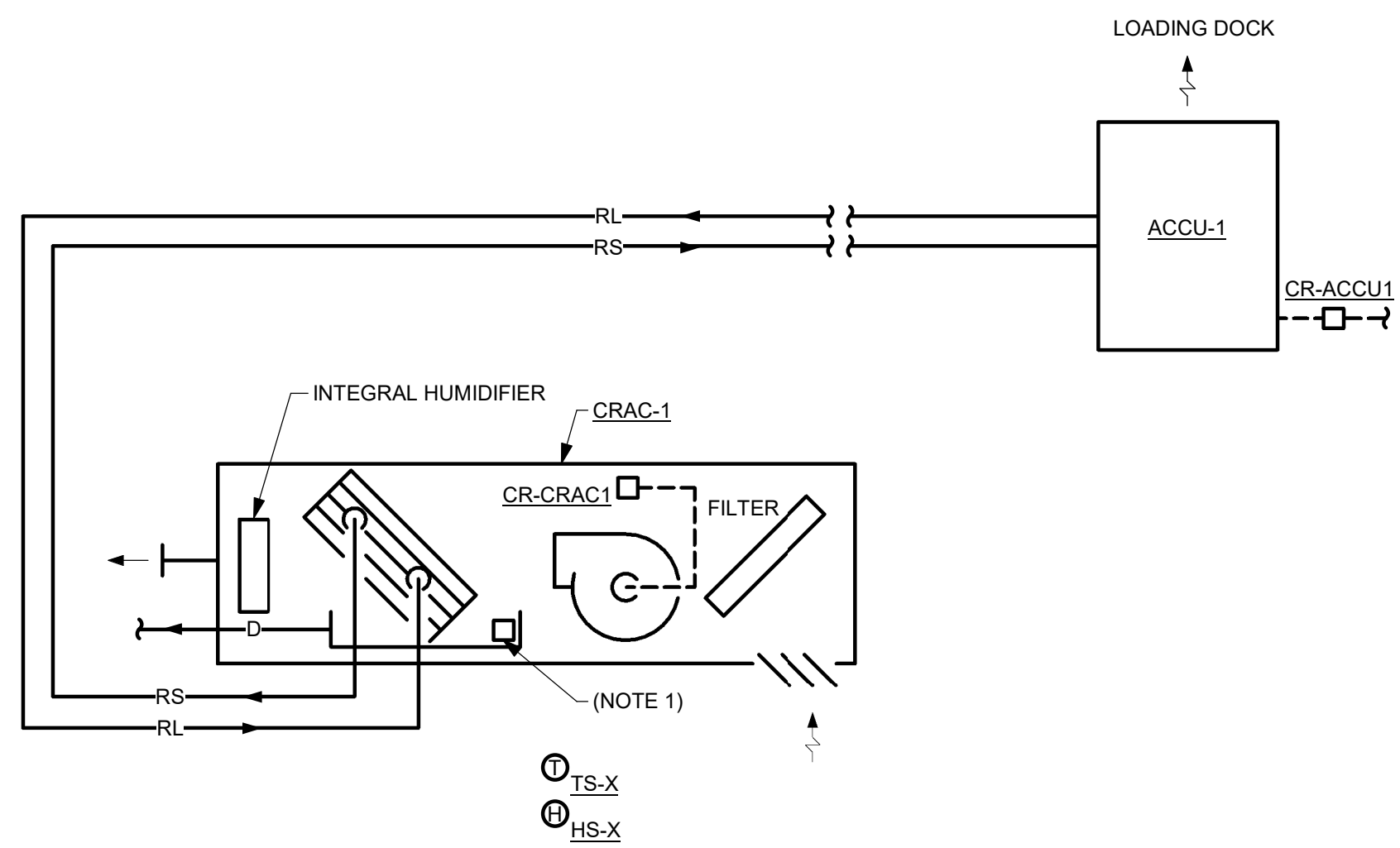
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DATE	04/08/22	REVISION	FINAL CD
REVISION #	DATE	REVISION DESCRIPTION	

**Smithsonian Institution**  
Smithsonian Facilities  
600 Maryland Avenue S.W., Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	MECHANICAL DETAILS -- PHASE 1
WORKING STAFF	SAD    SAD    TAS
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO. 52 OF 179  
M-501DTP1



### COMPUTER ROOM AIR CONDITIONING UNIT ATC SCHEMATIC

H1  
M-601DGP1

NOT TO SCALE

**NOTE:**

- CONDENSATE PAN OVERFLOW SWITCH QS-1, SENSOR INTEGRAL TO UNIT. FURNISHED BY UNIT MANUFACTURER. WIRE TO BAS FOR REMOTE ALARM OF CONDENSATE OVERFLOW.

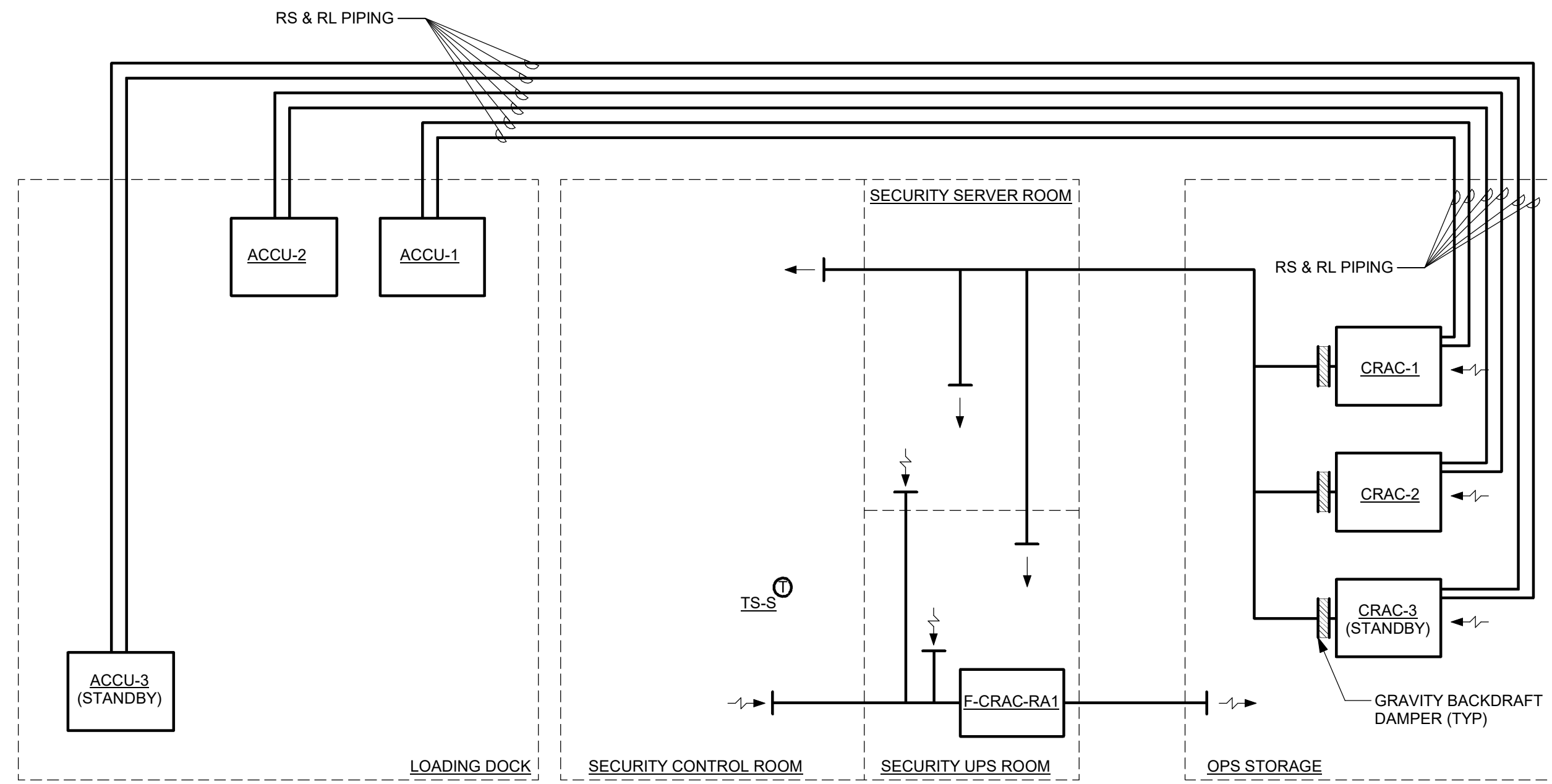
**SEQUENCE OF OPERATIONS**

**A. GENERAL:**

- SPACE TEMPERATURE AND RELATIVE HUMIDITY SETPOINTS SHALL BE MAINTAINED VIA THE CONTROLS PROVIDED INTEGRAL TO THE COMPUTER ROOM AIR CONDITIONER SYSTEM.
- THE INTEGRAL COMPUTER ROOM AIR CONDITIONING UNIT SYSTEM CONTROLLER SHALL PROVIDE THE FOLLOWING POINTS FOR THE BAS TO MONITOR, VIA INTEGRAL BACKNET INTERFACE:
  - HIGH TEMPERATURE
  - LOW TEMPERATURE
  - HIGH HUMIDITY
  - LOW HUMIDITY
  - CAPACITY
  - EC FAN FAULT
  - GENERAL FAULT

**B. COMPUTER ROOM AIR-CONDITIONING UNIT CONTROL (CRAC-X):**

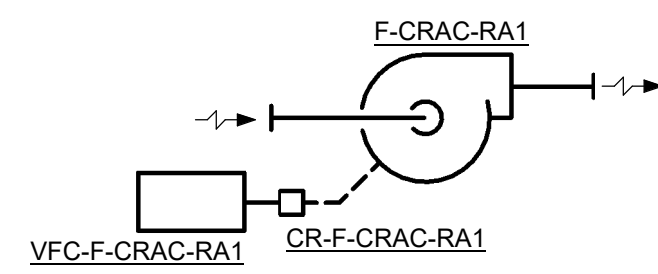
- THE BAS SHALL ENABLE/DISABLE COMPUTER ROOM AIR-CONDITIONING UNIT SYSTEMS THROUGH OPERATOR COMMAND.
- SPACE TEMPERATURE SETPOINT (75 DEG F, ADJUSTABLE) AS SENSED BY ROOM TEMPERATURE SENSOR TS-S, SHALL BE MAINTAINED THROUGH THE CRAC INTERNAL CONTROLS.
- UPON A CALL FOR COOLING FROM THE SPACE TEMPERATURE SENSOR, THE CP SHALL SEND A SIGNAL TO THE BAS TO ENERGIZE A CRAC UNIT AND ITS CORRESPONDING CONDENSING UNIT.
- UPON A CALL FOR COOLING WITH ONE UNIT RUNNING, THE CP SHALL SEND A SIGNAL TO THE BAS TO ENERGIZE A SECOND CRAC UNIT AND ITS CORRESPONDING CONDENSING UNIT.
- WITH BOTH UNITS RUNNING, UPON A FALL IN SPACE TEMPERATURE BELOW SETPOINT, DE-ENERGIZE ONE CRAC UNIT AND ITS CORRESPONDING CONDENSING UNIT.
- WITH ONE UNIT RUNNING, UPON A FALL IN SPACE TEMPERATURE BELOW SETPOINT, DE-ENERGIZE CRAC UNIT AND ITS CORRESPONDING CONDENSING UNIT.
- UPON FAILURE OF CRAC UNIT OR CONDENSING UNIT AS SENSED BY ITS RESPECTIVE CURRENT SENSING RELAY, AN ALARM SHALL BE ANNUNCIATED THROUGH THE BAS AND THE STANDBY CRAC UNIT AND ITS CORRESPONDING CONDENSING UNIT SHALL ENERGIZE.



### COMMAND CENTER COOLING SCHEMATIC

H6  
M-601DGP1

NOT TO SCALE



### IN-LINE TRANSFER FAN

F6  
M-601DGP1

NOT TO SCALE

**SEQUENCE OF OPERATIONS**

**A. GENERAL:**

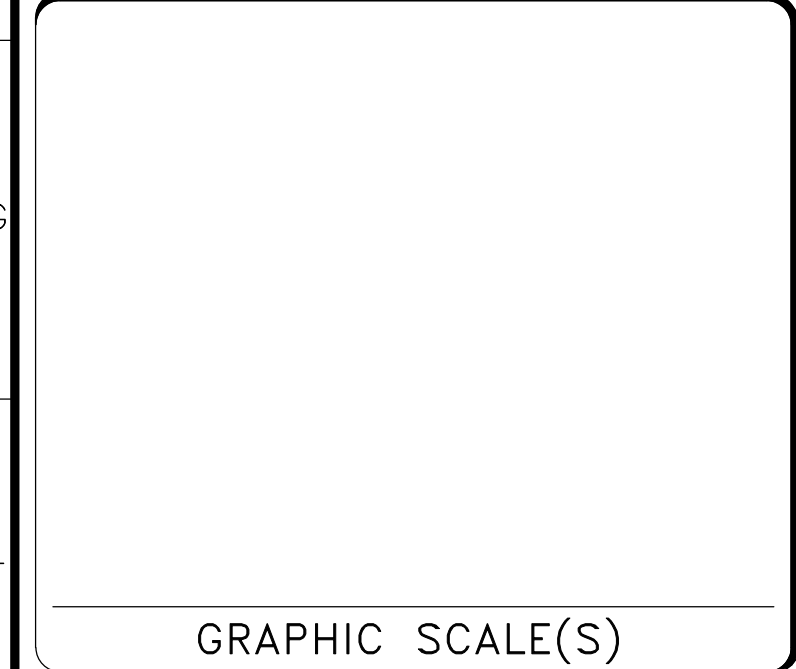
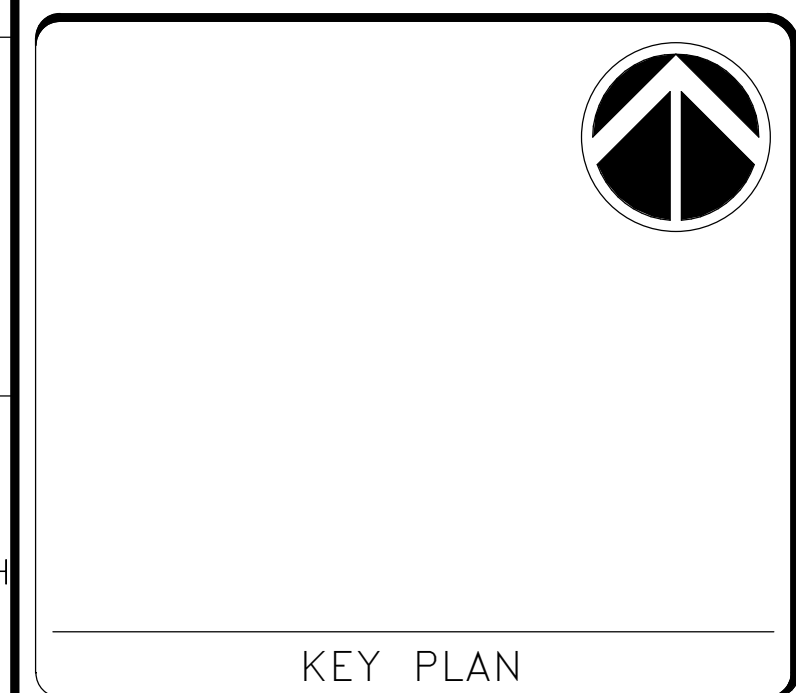
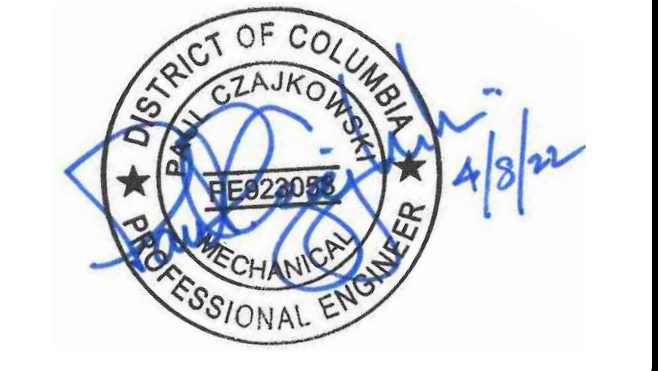
- THE INTEGRAL FAN CONTROLLER SHALL PROVIDE THE FOLLOWING POINTS FOR THE BAS TO MONITOR, VIA INTEGRAL BACKNET INTERFACE:
  - SPEED
  - STATUS
  - GENERAL FAULT

**B. FAN CONTROL (F-CRAC-RA1):**

- THE BAS SHALL ENABLE/DISABLE TRANSFER FAN THROUGH OPERATOR COMMAND.
- UPON A CALL FOR THE BAS TO ENERGIZE ANY CRAC UNIT AND ITS CORRESPONDING CONDENSING UNIT, THE BAS SHALL ENERGIZE THE TRANSFER FAN.
- THROUGH ITS ASSOCIATED VFC, TRANSFER FAN SHALL INDEX TO OPERATING AIRFLOW CORRESPONDING TO ONE OR TWO CRAC SYSTEMS OPERATING. TRANSFER FAN AIRFLOW SHALL MATCH SUPPLY FAN TOTAL AIRFLOW.
- UPON ALL CRAC SYSTEMS DE-ENERGIZING, THE BAS SHALL DE-ENERGIZE THE TRANSFER FAN.

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600 Maryland Avenue S.W. Suite 5001  
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PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	MECHANICAL SCHEMATICS - PHASE 1
WORKING STAFF	SAD    SAD    TAS DESIGNED BY    DRAWN BY    CHECKED BY

SHEET NO. 53 of 179  
M-601DGP1

**COMPUTER ROOM AIR CONDITIONING UNITS**

NOTES:  
1. ALL COMPONENTS OF UNIT (FANS, COMPRESSORS, CONTROLS, ETC.) SHALL BE FACTORY WIRED WITH UNIT HAVING A SINGLE POINT ELECTRICAL CONNECTION. UNIT SHALL BE PROVIDED WITH A NON-FUSED, LOCKING TYPE DISCONNECT SWITCH INTEGRAL TO UNIT.

DESIG	LOCATION	SERVICE	FAN DATA			FILTER DATA	COOLING CAPACITY DATA				HUMIDIFIER DATA		ELECTRICAL			REMARKS	
			AIR QUANTITY (CFM)	ESP (IN. WG.)	MOTOR HP	MERV	TOTAL COOLING (BTUH)	MIN SENSIBLE COOLING (BTUH)	EAT (°F DB)	EAT (°F WB)	MIN CAPACITY (LBS/HR)	KW	FLA	SYSTEM VOLTAGE	PH		HZ
CRAC-1	OPS STORAGE	COMMAND CENTER	2,000	0.7	1 1/2	14	59,400	48,800	75	62.5	5	1.7	30	480	3	60	
CRAC-2	OPS STORAGE	COMMAND CENTER	2,000	0.7	1 1/2	14	59,400	48,800	75	62.5	5	1.7	30	480	3	60	
CRAC-3	OPS STORAGE	COMMAND CENTER	2,000	0.7	1 1/2	14	59,400	48,800	75	62.5	5	1.7	30	480	3	60	

**FANS**

DESIG	TYPE (SEE SPEC)	SERVICE	AIRFLOW (CFM)		TOTAL STATIC PRESSURE (IN WG)	EXTERNAL STATIC PRESSURE (IN WG)	SPEED (RPM)	BHP	MOTOR HP	ELECTRICAL			REMARKS
			MAX	MIN						SYSTEM VOLTAGE	PH	HZ	
F-CRAC-RA1	IL	CRAC RETURN AIR	4000	2000	0.5	0.5	1725	1.77	2	480	3	60	VFC

**AIR COOLED CONDENSING UNITS**

DESIG	LOCATION	NOMINAL COOLING CAPACITY (MBH)	FULL AMPS @ FULL LOAD	CONDENSER			ELECTRICAL			REMARKS
				AMB TEMP (°F)	NUMBER OF CIRCUITS	COMPRESSOR QUANTITY	SYSTEM VOLTAGE	PH	HZ	
ACCU-1	LOADING DOCK	60	2.3	95	1	2	480	3	60	---
ACCU-2	LOADING DOCK	60	2.3	95	1	2	480	3	60	---
ACCU-3	LOADING DOCK	60	2.3	95	1	2	480	3	60	---

**AIR DEVICES**

NOTES:  
1. AIR DEVICES ARE SELECTED FOR A MAXIMUM ROOM NOISE LEVEL CRITERIA OF NC30, UNLESS INDICATED OTHERWISE IN SPECIFICATION SECTION 233713.  
2. TYPE "CD" AIR DEVICES SHALL BE 4-WAY BLOW UNLESS INDICATED OTHERWISE ON PLANS.  
3. TYPE "SGA" AND "SRA" SHALL HAVE 22.5" AND 0" DEFLECTIONS RESPECTIVELY, UNLESS INDICATED OTHERWISE.  
4. AIR DEVICES WITH SERVICE DESIGNATION "RETURN" ALSO USED FOR AIR TRANSFER DUTY.

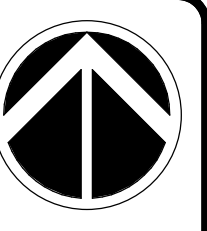
DESIG	TYPE (SEE SPEC)	SERVICE	NOMINAL SIZE (IN)	INLET/NECK SIZE (IN)	REMARKS
1	CD	SUPPLY	24 x 24	6"ø	
2	CR	RETURN	24 x 24	8"ø	
3	SGA	SUPPLY	6x6	6x6	
4	RGA	RETURN	6x6	6x6	
5	CR	RETURN	24 x 24	6"ø	
6	CD	SUPPLY	24 x 24	10"ø	
7	CR	EXHAUST	24 x 24	15"ø	
8	CR	RETURN	24 x 24	15"ø	
9	CD	SUPPLY	24 x 24	15"ø	



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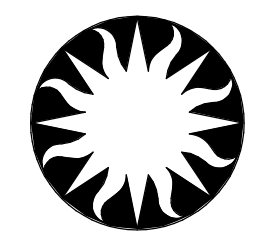
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KEY PLAN

GRAPHIC SCALE(S)

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BUILDING NAME: FREER/SACKLER/AFA/QUAD  
ADDRESS: SW WASHINGTON, DC 20560

PROJECT TITLE: FREER/SACKLER/AFA/QUAD ESS MODERNIZATION  
SF PROJECT NUMBER: 1909101  
A/E PROJECT NUMBER: 11203201

DRAWING TITLE: MECHANICAL SCHEDULES - PHASE 1

WORKING STAFF: SAD, SAD, TAS  
DESIGNED BY: SAD, DRAWN BY: SAD, CHECKED BY: TAS

SHEET NO. 54 OF 179  
M-701SHP1  
DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE

ABBREVIATIONS

ABBREV	ABBREVIATION	I.L.	INTERMEDIATE LANDING
ABD	ABANDONED	IN	INCH OR INCHES
ABV	ABOVE	INV	INVERT ELEVATION
AC	AIR CONDITIONING		
AD	ACCESS DOOR	KVA	KILOVOLT AMPERES
AFF	ABOVE FINISHED FLOOR	KW	KILOWATT
AHU	AIR HANDLING UNIT		
ALUM	ALUMINUM	L	LENGTH
APPROX	APPROXIMATE	LB(S)	POUND(S)
ARCH	ARCHITECT. ARCHITECTURAL	LF	LINEAR FEET
ARRG	ARRANGEMENT	L.P.	LOW PRESSURE
AST	ABOVEGROUND STORAGE TANK	LVG	LEAVING
ATC	AUTOMATIC TEMPERATURE	LWT	LEAVING WATER TEMPERATURE
ATM	ATMOSPHERE		
AVG	AVERAGE	MAX	MAXIMUM
AWT	AVERAGE WATER TEMPERATURE	MECH	MECHANICAL
		MBH	THOUSAND BTU'S PER HOUR
BAS	BUILDING AUTOMATION SYSTEM	MFR	MANUFACTURER
BWV	BACK WATER VALVE	MIN	MINIMUM
BHP	BRAKE HORSEPOWER	MO	MOTOR OPERATOR
BLDG	BUILDING	MS	MOP SINK
BOP	BOTTOM OF PIPE	MTD	MOUNTED
BTM	BOTTOM		
BTUH	BRITISH THERMAL UNITS PER HOUR	NAT	NATURAL
BFP	BACKFLOW PREVENTER	N.C.	NORMALLY CLOSED
		NIC	NOT IN CONTRACT
		N.O.	NORMALLY OPEN
		NO.	NUMBER
°C	DEGREES CELSIUS		
CAV	CONSTANT AIR VOLUME		
CC	COOLING COIL		
CD	CEILING DIFFUSER	OC	ON CENTER
CFM	CUBIC FEET PER MINUTE	QFD	OVERFLOW DRAIN
CLG	CEILING	OS&Y	OUTSIDE SCREW AND YOKE
CO	CLEANOUT / CARBON MONOXIDE		
COMP	COMPRESSED	PD	PRESSURE DROP
CONC	CONCRETE	PF	POWER FACTOR
CONN	CONNECTION, CONNECT	PG	PROPYLENE GLYCOL
CONT	CONTINUATION	PH	PHASE
CP	CONDENSATE PUMP	PLBG	PLUMBING
CRAC	COMPUTER ROOM AIR CONDITIONER	PPH	POUNDS PER HOUR (STEAM)
CU FT	CUBIC FEET	PPM	PARTS PER MILLION
CX	CONNECT TO EXISTING	PRESS.	PRESSURE
CW	DOMESTIC COLD WATER PIPE	PRV	PRESSURE REDUCING VALVE
		PSI(G)	POUNDS PER SQUARE INCH (GAGE)
		PVC	POLYVINYL CHLORIDE
D	DRAIN OR DEPTH	QTY	QUANTITY
DBL	DOUBLE		
DCP	DIGITAL CONTROL PANEL	R	RADIUS
DDC	DIRECT DIGITAL CONTROL	RAD	RADIATED
DESIG	DESIGNATION	RD	ROOF DRAIN
DF	DRINKING FOUNTAIN	REQ'D	REQUIRED
DFU	DRAINAGE FIXTURE UNITS	RL	RAINLEADER
DIA	DIAMETER	RPM	REVOLUTIONS PER MINUTE
DN	DOWN	RPZ	REDUCED PRESSURE ZONE
DW	DOMESTIC WATER	RX	REMOVE EXISTING
DWG	DRAWING		
EFF	EFFICIENCY	TEMP	TEMPERATURE
EJ	EXPANSION JOINT	TH	TOTAL HEAT
ELEC	ELECTRICAL, ELECTRIC	TD	TRENCH DRAIN
ELEV	ELEVATION OR ELEVATOR	TYP	TYPICAL
EMD	END OF MAIN DRIP		
ENT	ENTERING	UON	UNLESS OTHERWISE NOTED
ETC	ET CETERA	UST	UNDERGROUND STORAGE TANK
EW	EYE WASH	V	VOLTS
EWC	ELECTRIC WATER COOLER	VA	VOLT AMPERES
EWT	ENTERING WATER TEMPERATURE	VEL	VELOCITY
EX	EXISTING	VFC	VARIABLE FREQUENCY CONTROLLER
EXP	EXPOSED	VP	VENT PIPE
		VTR	VENT THRU ROOF
°F	DEGREES FEHRENHEIT	W	WIDTH
F&T	FLOAT & THERMOSTATIC TRAP	WC	WATER COLUMN
FCU	FAN COOL UNIT	W/	WITH
FD	FLOOR DRAIN	W/O	WITHOUT
FF	FINISHED FLOOR	WPD	WATER PRESSURE DROP
FL	FLOOR		
FND	FOUNDATION DRAINAGE		
FPM	FEET PER MINUTE		
FPS	FEET PER SECOND		
FS	FLOOR SINK		
FT HD	FEET OF HEAD PRESSURE		
G	GAGE		
GAL	GALLON		
GALV	GALVANIZED		
GPH	GALLONS PER HOUR		
GPM	GALLONS PER MINUTE		
H	HEIGHT		
HED	HOSE AND DRAIN		
HORIZ	HORIZONTAL		
HP	HORSEPOWER		
H.P.	HIGH PRESSURE		
HVAC	HEATING, VENTILATING & AIR CONDITIONING		
HW	DOMESTIC HOT WATER PIPE		
HWR	DOMESTIC HOT WATER RECIRCULATING		
HZ	HERTZ		

SYMBOLS

	DIAMETER
	CENTER LINE
	AREA DRAIN
	FLOOR DRAIN
	ROOF DRAIN/SECONDARY (OVERFLOW) ROOF DRAIN
	FLOOR SINK
	TRENCH DRAIN
	INVERT ELEVATION
	CLEANOUT IN HORIZONTAL
	CLEANOUT IN VERTICAL
	DOMESTIC WATER BACKFLOW PREVENTER
	BACK WATER VALVE (ARROW INDICATES DIRECTION OF FLOW)
	SHOCK ABSORBER
	HOSE BIBB
	NON-FREEZE CONCEALED OUTLET WALL HYDRANT
	TRAP PRIMER PIPE
	TWO WAY CONTROL VALVE
	THREE WAY CONTROL VALVE
	FLOW SWITCH
	CURRENT SENSING RELAY
	MANUAL OVERRIDE SWITCH
	MAGNAHELIC PRESSURE GAGE
	FLOW METER
	BOUNDARY LINE
	SANITARY/WASTE PIPE
	FOOD, OIL, AND GREASE WASTE PIPE
	CHEMICAL RESISTANT WASTE PIPE
	AC CONDENSATE AND EQUIPMENT DRAIN PIPE
	VENT PIPE
	CHEMICAL RESISTANT VENT PIPE
	STORM WATER PIPE
	SECONDARY (OVERFLOW) STORM WATER PIPE
	FOUNDATION DRAIN PIPE
	SANITARY PUMPED DISCHARGE PIPE
	STORM WATER PUMPED DISCHARGE PIPE
	DOMESTIC COLD WATER PIPE
	DOMESTIC HOT WATER PIPE (TEMP. IF INDICATED)
	DOMESTIC HOT WATER RECIRCULATING PIPE
	INDUSTRIAL COLD WATER PIPE
	INDUSTRIAL HOT WATER PIPE (TEMP. IF INDICATED)
	INDUSTRIAL HOT WATER RECIRCULATING PIPE
	NON-POTABLE WATER PIPE
	TREATED WATER PIPE
	TEMPERED WATER PIPE
	REVERSE OSMOSIS WATER SUPPLY PIPE
	REVERSE OSMOSIS WATER RETURN PIPE
	DEIONIZED WATER SUPPLY PIPE
	DEIONIZED WATER RETURN PIPE
	COMPRESSED AIR PIPE
	NATURAL GAS PIPE
	VACUUM PIPE
	VACUUM EXHAUST PIPE
	NITROGEN GAS PIPE
	NITROUS OXIDE GAS PIPE
	OXYGEN GAS PIPE
	SPECIALTY GAS PIPE
	HIGH PRESSURE STEAM PIPE (PSIG)
	HIGH PRESSURE CONDENSATE RETURN PIPE
	MEDIUM PRESSURE STEAM PIPE (PSIG)
	MEDIUM PRESSURE CONDENSATE RETURN PIPE
	LOW PRESSURE STEAM PIPE (PSIG)
	LOW PRESSURE CONDENSATE RETURN PIPE
	HUMIDIFICATION STEAM PIPE
	PUMPED CONDENSATE RETURN PIPE
	STEAM VAPOR VENT PIPE
	HIGH TEMPERATURE HOT WATER SUPPLY PIPE
	HIGH TEMPERATURE HOT WATER RETURN PIPE
	FLOW DIRECTION ARROW
	PIPE UP
	PIPE DOWN
	PIPE/DUCT CAP
	UNION
	FLANGED CONNECTION
	PIPE ANCHOR
	PIPE GUIDE
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	FLEXIBLE CONNECTION (PIPING)
	SHUTOFF VALVE (IN HORIZONTAL / IN VERTICAL)
	THROTTLING VALVE
	MANUAL BALANCING VALVE
	AUTOMATIC BALANCING VALVE
	CHECK VALVE (ARROW INDICATES DIRECTION OF FLOW)
	PRESSURE REDUCING VALVE
	PRESSURE RELIEF VALVE
	HOSE END DRAIN
	PRESSURE GAGE WITH ISOLATION VALVE
	TEMPERATURE GAGE/THERMOMETER
	FLOW METER FITTING
	COMBINATION BALANCING VALVE & FLOW METER FITTING
	PRESSURE AND TEMPERATURE PLUG
	AUTOMATIC AIR VENT
	MANUAL AIR VENT
	STRAINER WITH BLOW DOWN VALVE
	STEAM TRAP
	PUMP

DRAWING CONVENTIONS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	INDICATES DIRECTION OF CUTTING PLANE		POINT OF CONNECTION, NEW TO EXISTING
	NUMBER OR LETTER INDICATES SECTION OR ELEVATION		DEMOLITION WORK TERMINATION POINT
	DRAWING NUMBER WHERE ELEVATION OR SECTION IS TAKEN OR DRAWN		INDICATES SPECIAL NOTE
	SANITARY RISER NUMBER		REVERSE OSMOSIS RISER NUMBER
	CORROSIVE WASTE RISER NUMBER		FIRE PROTECTION RISER NUMBER
	DOMESTIC WATER RISER NUMBER		RAIN WATER COLLECTION RISER NUMBER
	INDUSTRIAL WATER RISER NUMBER		RAIN WATER SUPPLY RISER NUMBER
	STORM WATER RISER NUMBER		NATURAL GAS RISER NUMBER
	VACUUM RISER NUMBER		HEAVY LINE WEIGHT DESIGNATES NEW WORK ON NEW WORK PLANS
	COMPRESSED AIR RISER NUMBER		LIGHT LINE WEIGHT DESIGNATES EXISTING WORK TO REMAIN
	EQUIPMENT DESIGNATION		DASHED HEAVY LINE WEIGHT DESIGNATES REMOVAL WORK ON DEMOLITION PLANS
	NUMERICAL DESIGNATION		
	EQUIPMENT SERVICE DESIGNATION		
	EQUIPMENT TYPE DESIGNATION		
	PLUMBING FIXTURE DESIGNATION, P-X		

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DISTRICT OF COLUMBIA  
 PROFESSIONAL ENGINEER  
 REG 22078  
 4/3/22

KEY PLAN

GRAPHIC SCALE(S)

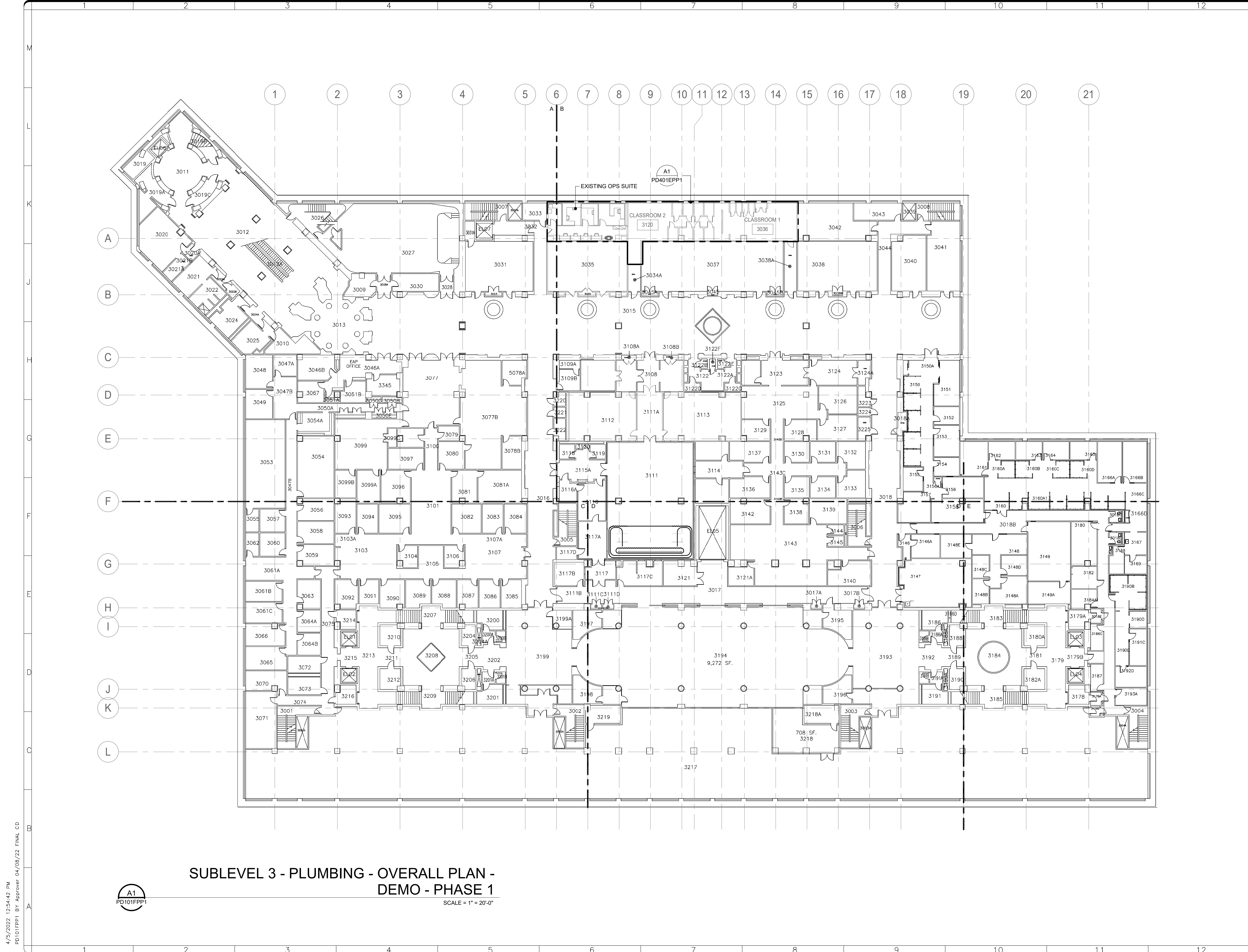
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SF PROJECT NUMBER	1909101
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DRAWING TITLE	PLUMBING LEGEND - PHASE 1
WORKING STAFF	SAD    SAD    TAS
	DESIGNED BY    DRAWN BY    CHECKED BY

SHEET NO.	P-001P1
55 of 179	DISCIPLINE    TYPE    SEQUENCE    DRAWING TITLE    PHASE



**SUBLEVEL 3 - PLUMBING - OVERALL PLAN - DEMO - PHASE 1**

SCALE = 1" = 20'-0"

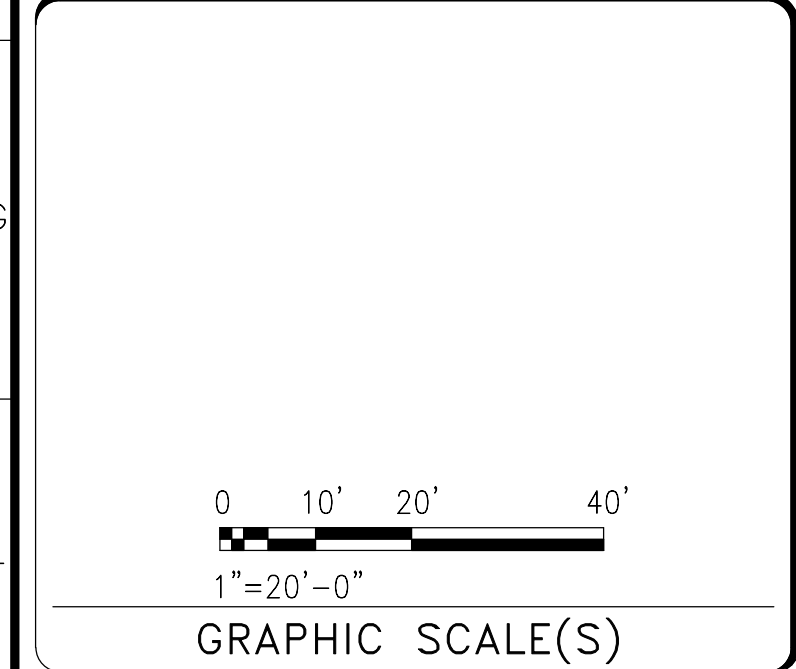
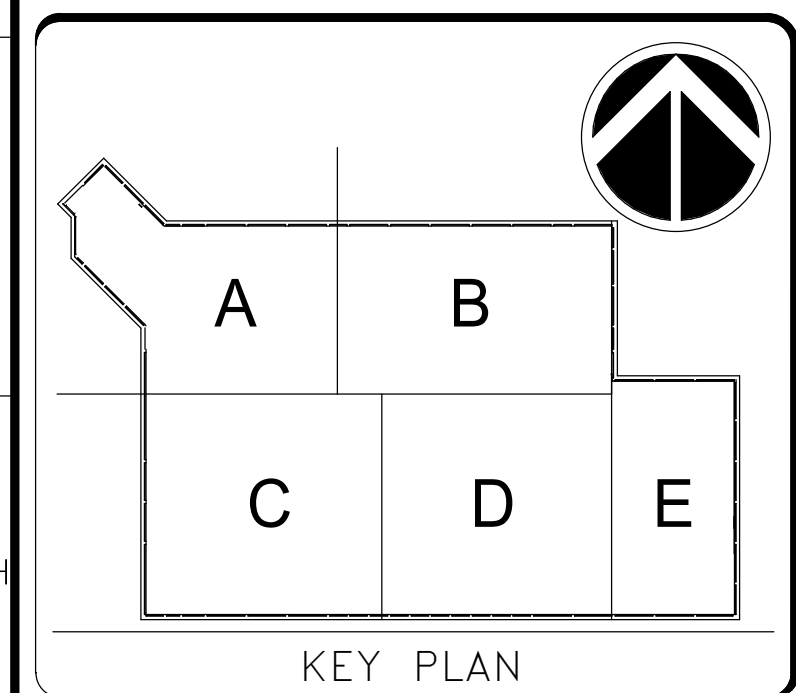
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DISTRICT OF COLUMBIA  
Professional Engineer  
4/8/22



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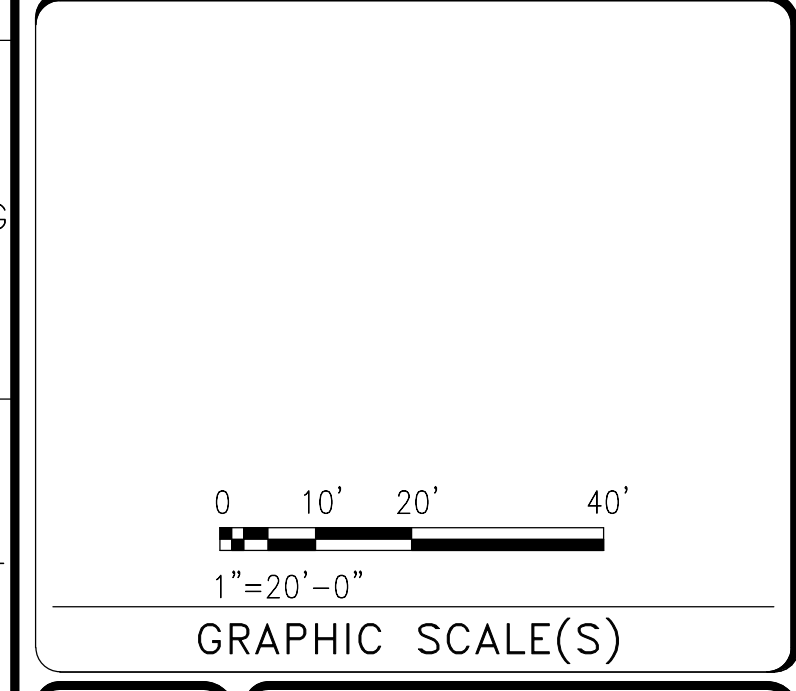
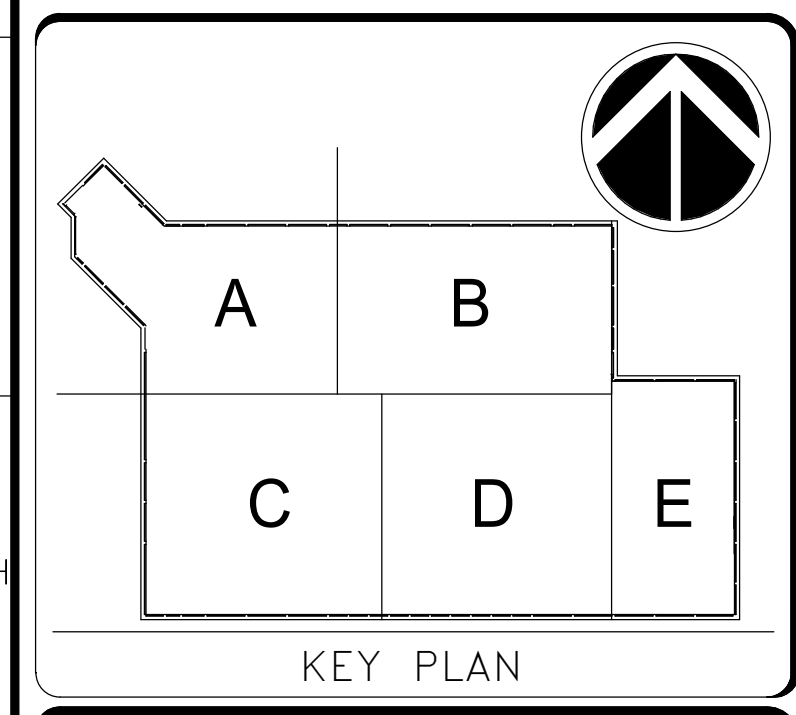
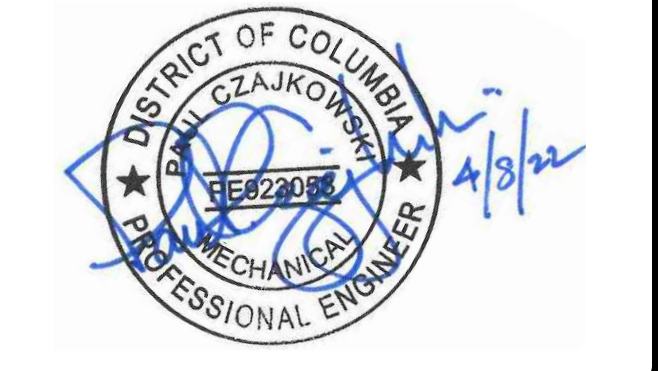
BUILDING NAME ADDRESS	FREER/SACKLER/AFA/QUAD SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - PLUMBING - OVERALL PLAN - DEMO - PHASE 1
WORKING STAFF	SAD    SAD    TAS DESIGNED BY    DRAWN BY    CHECKED BY

SHEET NO. 56 of 179	PD101FPP1
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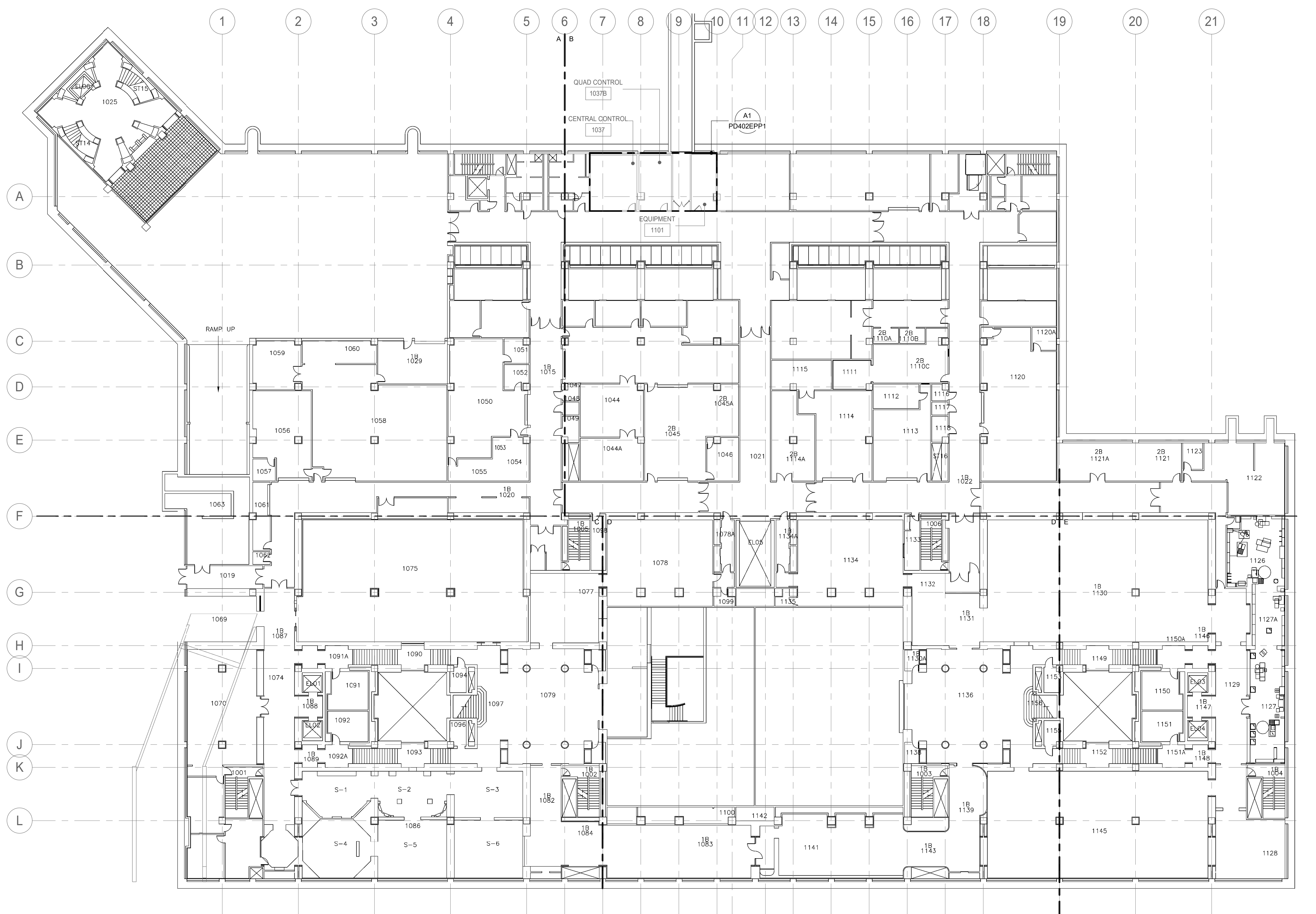
DATE	04/08/22	REVISION	FINAL CD
REVISION #	DATE	DESCRIPTION	



**Smithsonian Institution**  
 Smithsonian Facilities  
 600 Maryland Avenue S.W., Suite 5001  
 Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 1 - PLUMBING - OVERALL PLAN - DEMO - PHASE 1
WORKING STAFF	SAD    SAD    TAS
DESIGNED BY	DRAWN BY
CHECKED BY	

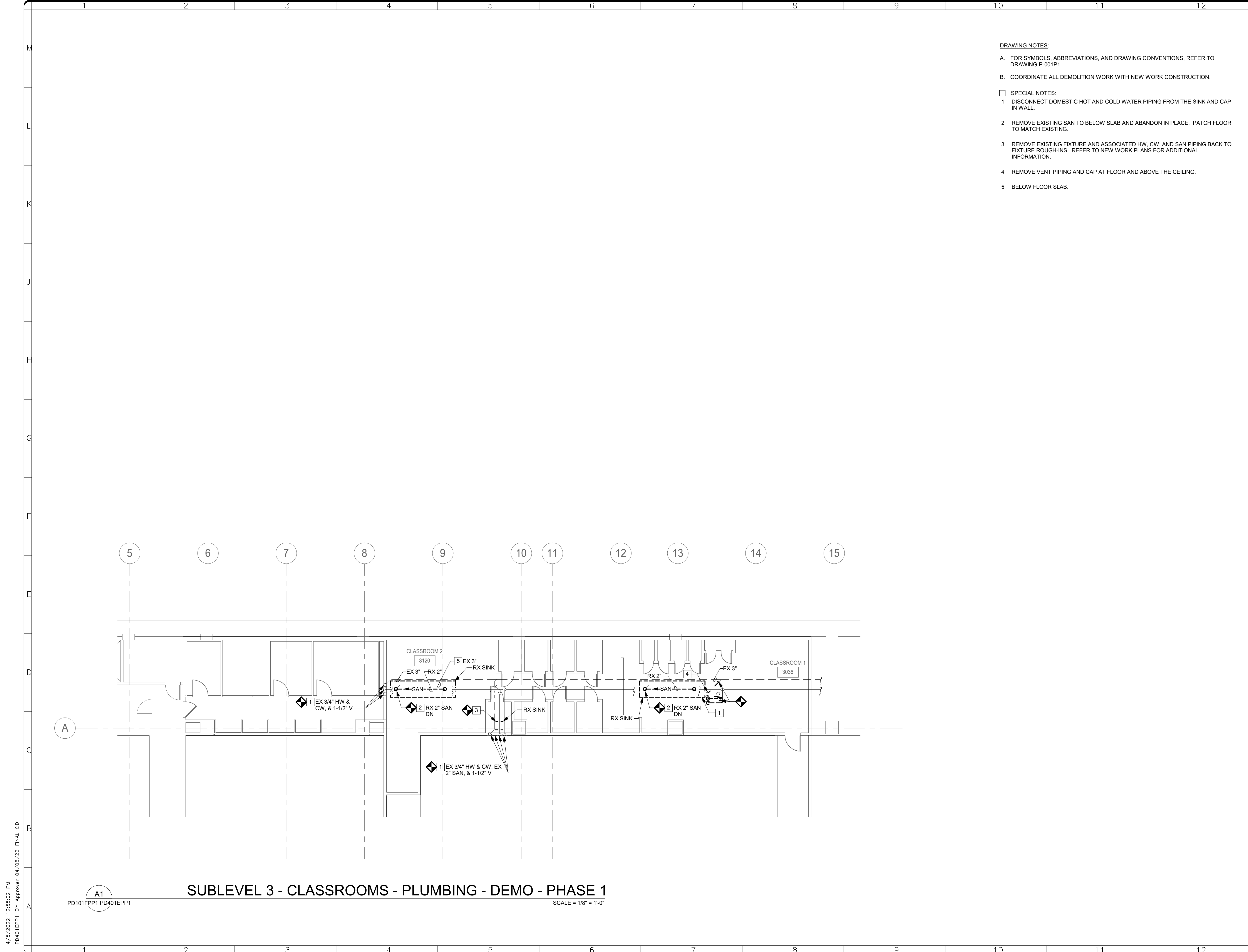
SHEET NO. 57 of 179    PD102FPP1



**SUBLEVEL 1 - PLUMBING- OVERALL PLAN - DEMO - PHASE 1**  
 SCALE = 1" = 20'-0"

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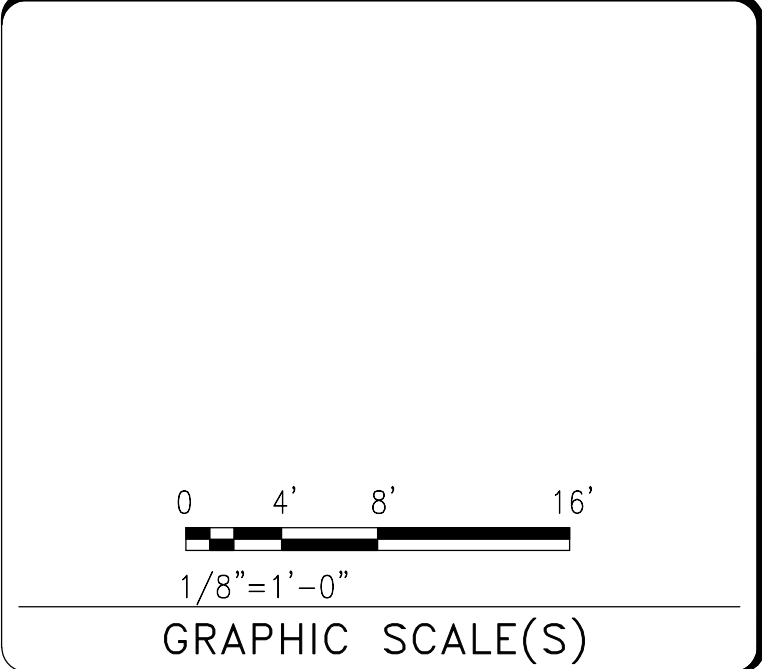
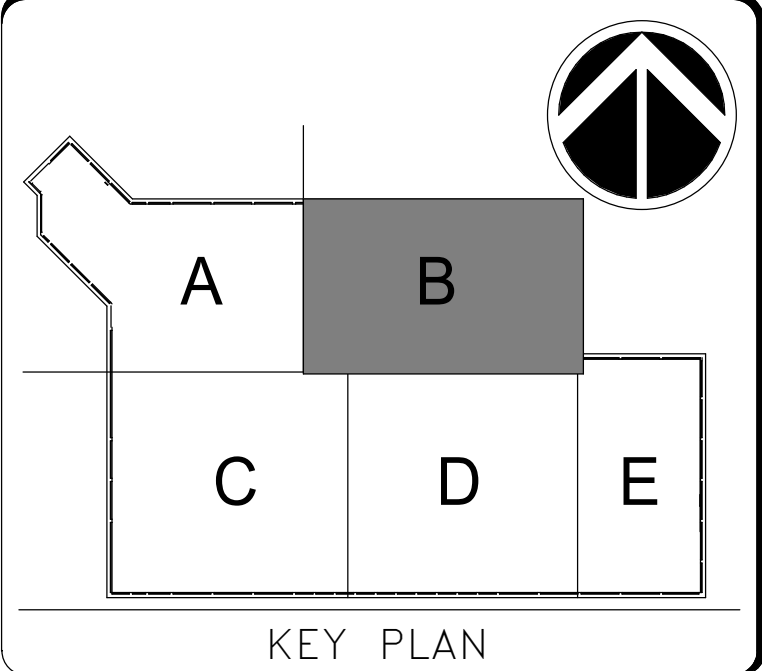


- DRAWING NOTES:**
- A. FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS, REFER TO DRAWING P-001P1.
  - B. COORDINATE ALL DEMOLITION WORK WITH NEW WORK CONSTRUCTION.
- SPECIAL NOTES:**
- 1 DISCONNECT DOMESTIC HOT AND COLD WATER PIPING FROM THE SINK AND CAP IN WALL.
  - 2 REMOVE EXISTING SAN TO BELOW SLAB AND ABANDON IN PLACE. PATCH FLOOR TO MATCH EXISTING.
  - 3 REMOVE EXISTING FIXTURE AND ASSOCIATED HW, CW, AND SAN PIPING BACK TO FIXTURE ROUGH-INS. REFER TO NEW WORK PLANS FOR ADDITIONAL INFORMATION.
  - 4 REMOVE VENT PIPING AND CAP AT FLOOR AND ABOVE THE CEILING.
  - 5 BELOW FLOOR SLAB.

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DISTRICT OF COLUMBIA  
 D. J. CZAJKOWSKI  
 PROFESSIONAL ENGINEER  
 4/8/22



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REVISION #	DATE	REVISION DESCRIPTION	

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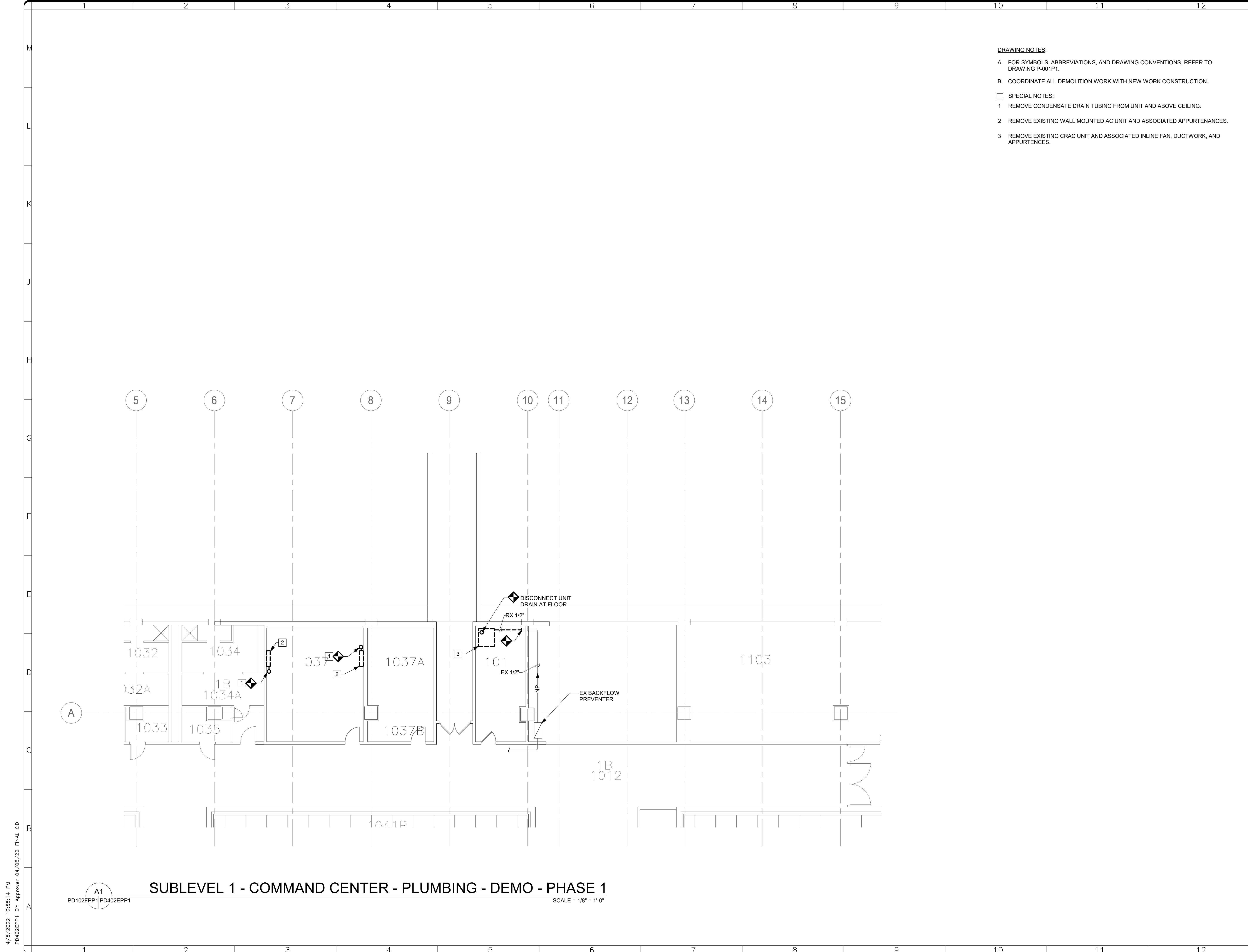
Smithsonian Facilities  
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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - CLASSROOMS - PLUMBING - DEMO - PHASE 1
WORKING STAFF	DESIGNED BY: SAD    DRAWN BY: SAD    CHECKED BY: TAS

SHEET NO. PD401EPP1  
 58 of 179

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**SUBLEVEL 3 - CLASSROOMS - PLUMBING - DEMO - PHASE 1**  
 SCALE = 1/8" = 1'-0"

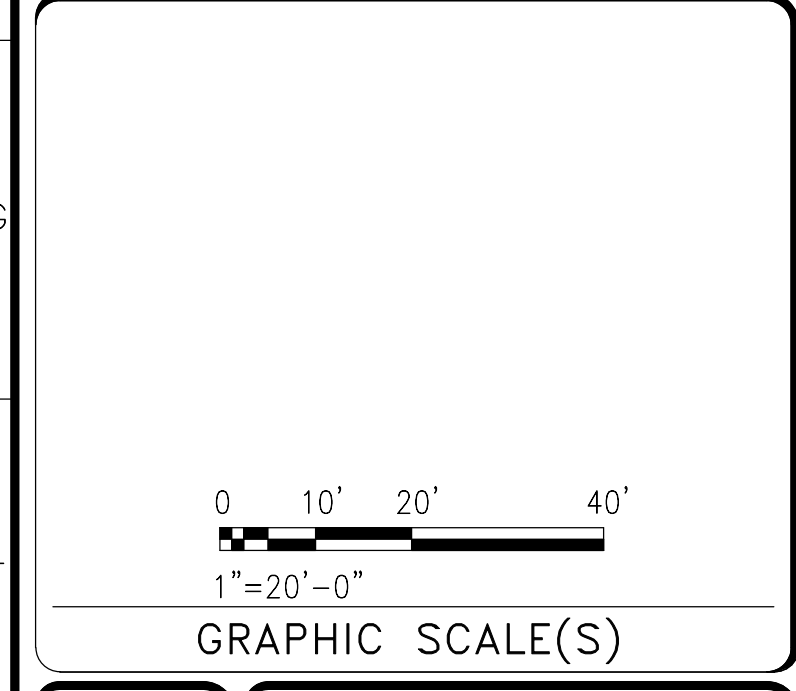
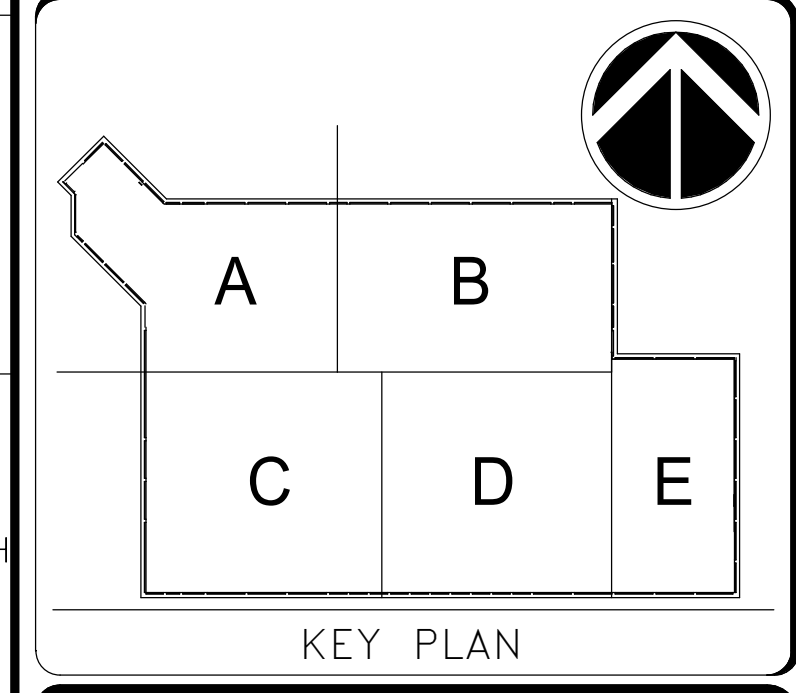


- DRAWING NOTES:**
- A. FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS, REFER TO DRAWING P-001P1.
  - B. COORDINATE ALL DEMOLITION WORK WITH NEW WORK CONSTRUCTION.
- SPECIAL NOTES:**
- 1 REMOVE CONDENSATE DRAIN TUBING FROM UNIT AND ABOVE CEILING.
  - 2 REMOVE EXISTING WALL MOUNTED AC UNIT AND ASSOCIATED APPURTENANCES.
  - 3 REMOVE EXISTING CRAC UNIT AND ASSOCIATED INLINE FAN, DUCTWORK, AND APPURTENCES.

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 DISTRICT OF COLUMBIA  
 License No. 13220  
 Date: 4/8/22



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REVISION #	DATE	REVISION DESCRIPTION	

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A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 1 - COMMAND CENTER - PLUMBING - DEMO - PHASE 1
WORKING STAFF	SAD    SAD    TAS
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO.	PD402EPP1
59 of 179	

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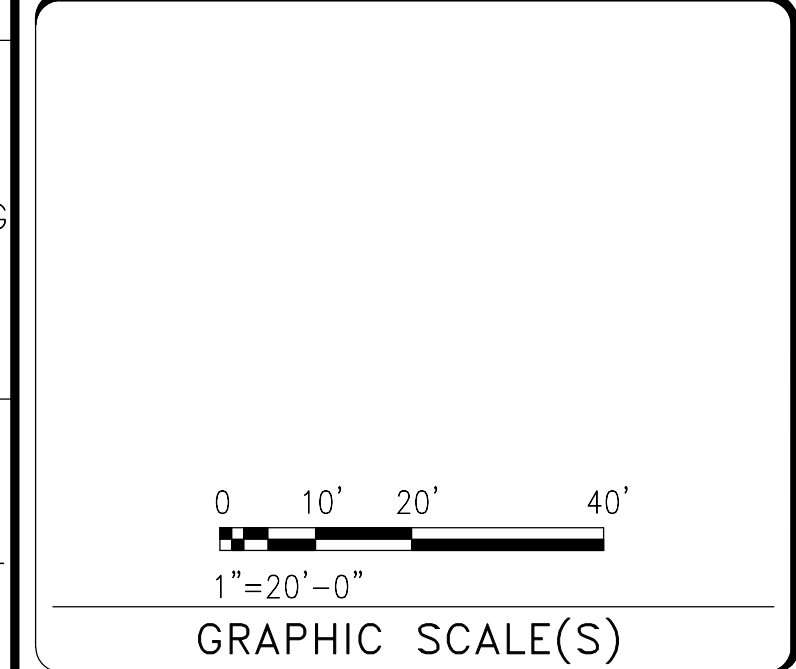
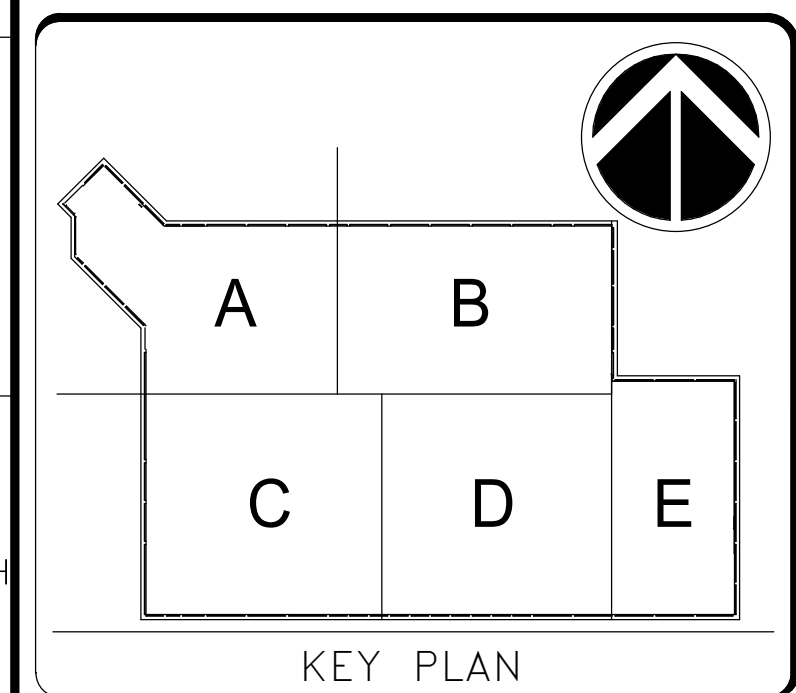
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**SUBLEVEL 1 - COMMAND CENTER - PLUMBING - DEMO - PHASE 1**  
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PROFESSIONAL ENGINEER  
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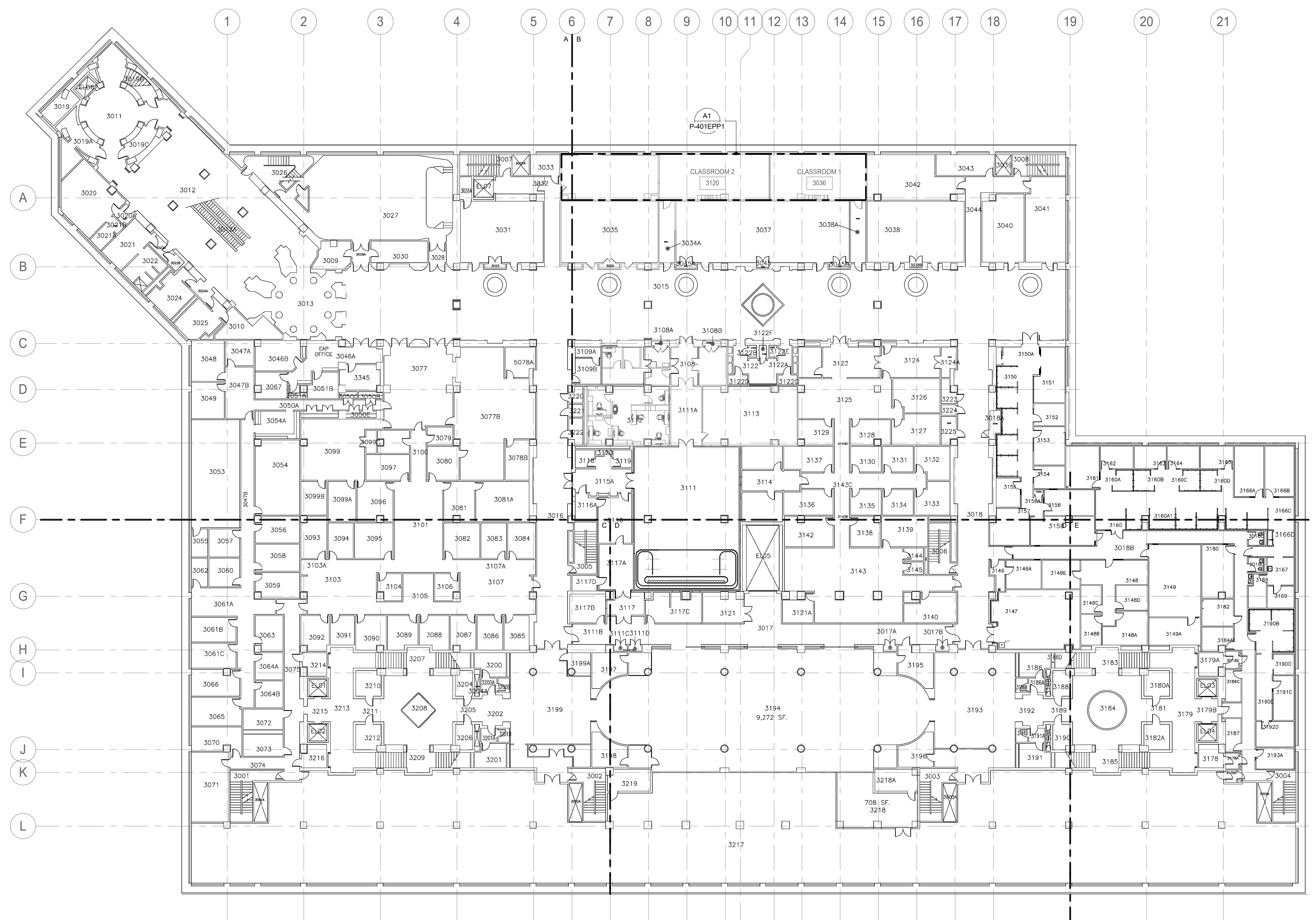


DATE	04/08/22	REVISION	FINAL CD
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SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - PLUMBING - OVERALL PLAN - NEW WORK - PHASE 1
WORKING STAFF	SAD    SAD    TAS DESIGNED BY    DRAWN BY    CHECKED BY

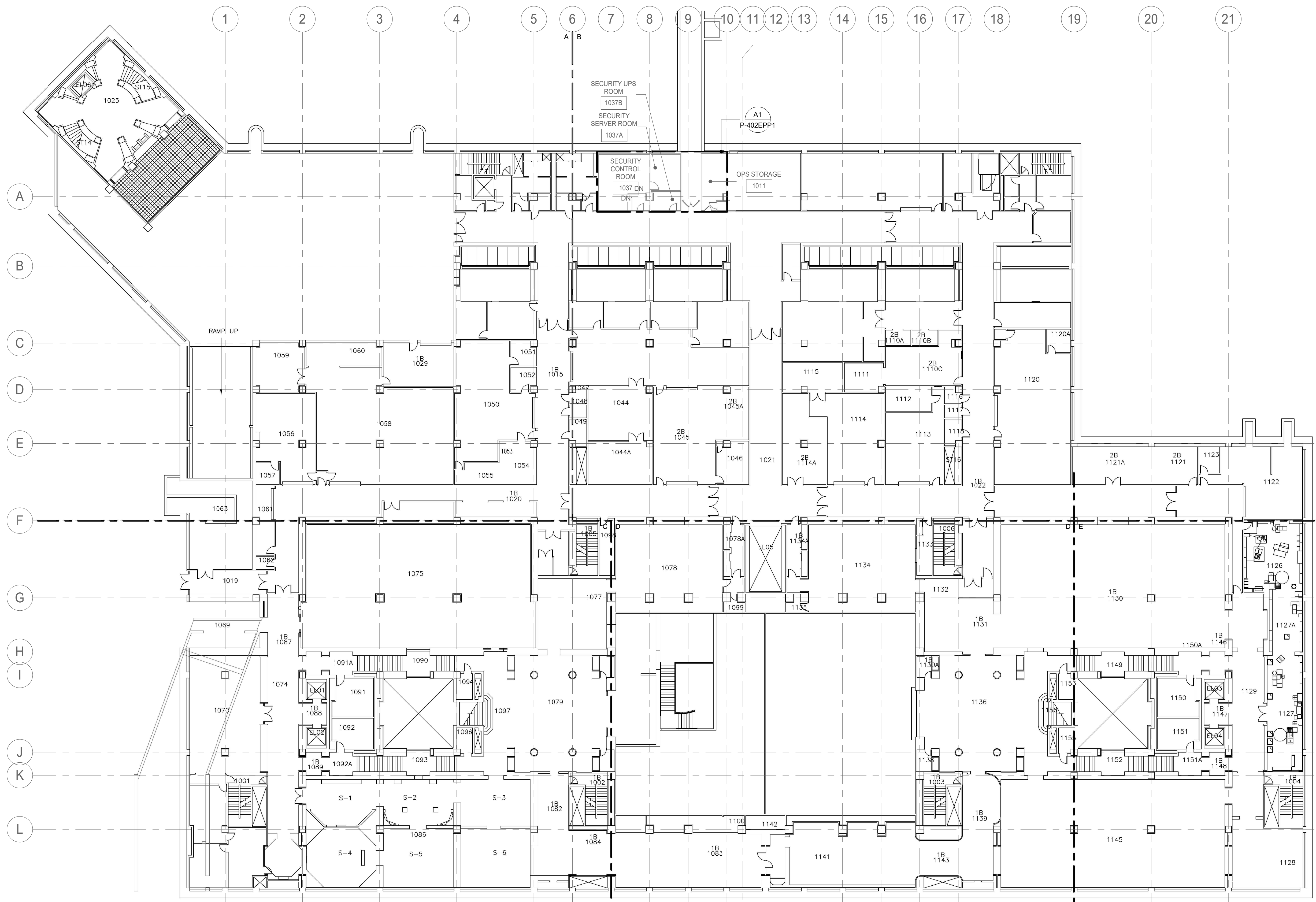
SHEET NO.	P - 101FPP1
60 of 179	DISCIPLINE    TYPE    SEQUENCE    DRAWING    TITLE    PHASE



**SUBLEVEL 3 - PLUMBING - OVERALL PLAN - NEW WORK - PHASE 1**  
SCALE = 1" = 20'-0"

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**SUBLEVEL 1 - PLUMBING - OVERALL PLAN - NEW WORK - PHASE 1**

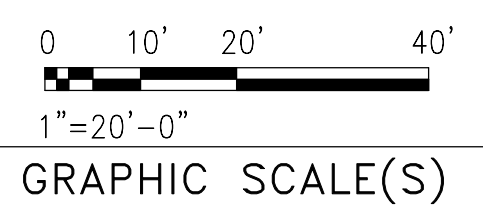
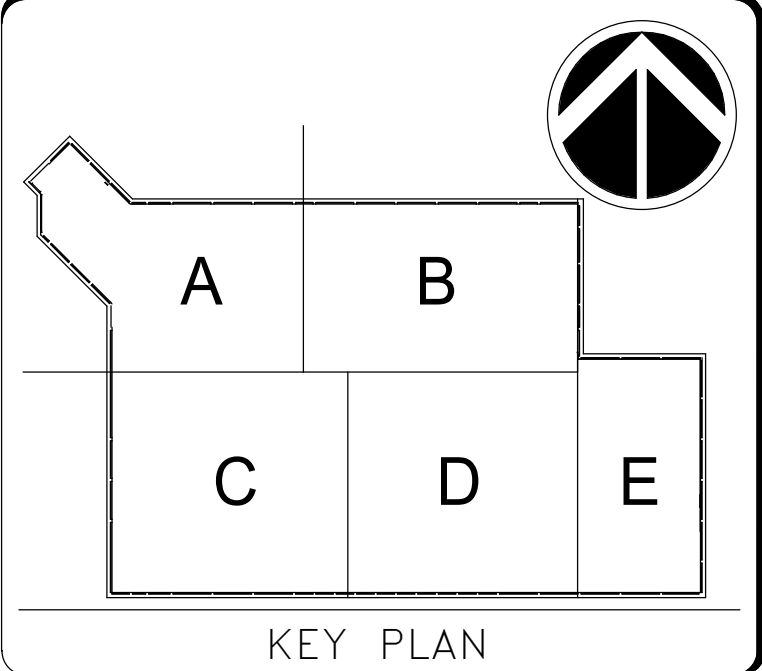
SCALE = 1" = 20'-0"

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P-102FPP1

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DRAWING TITLE	SUBLEVEL 1 - PLUMBING - OVERALL PLAN - NEW WORK - PHASE 1
WORKING STAFF	SAD    SAD    TAS
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO. 61 OF 179  
P-102FPP1

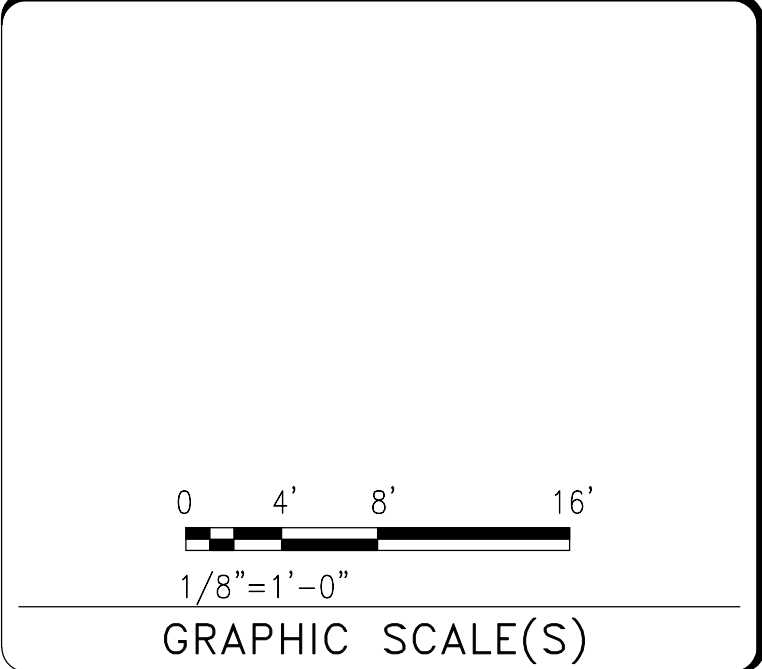
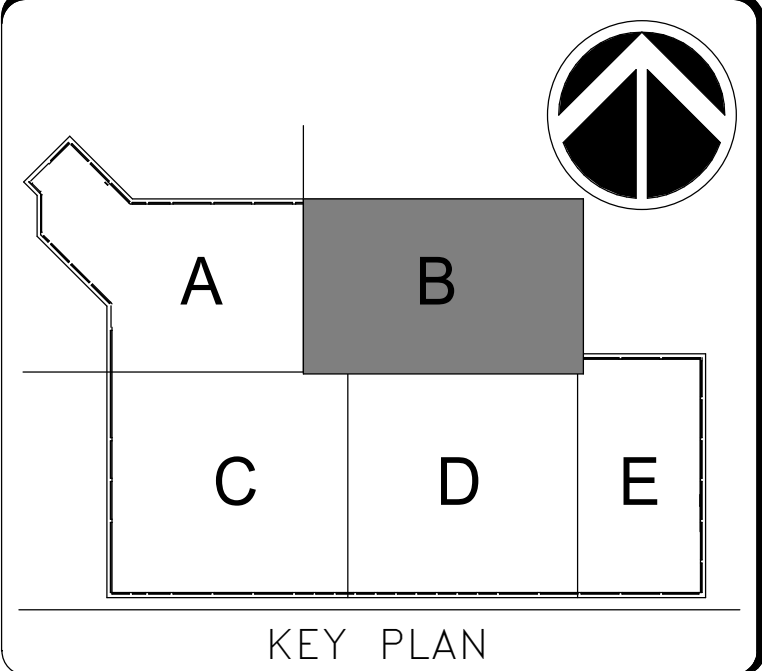
PLUMBING FIXTURE SCHEDULE								
DESIG	DESCRIPTION	FIXTURE UNITS		ROUGH-IN CONNECTION (IN)				REMARKS
		WASTE	WATER	SAN	VENT	CW	HW	
P-1	CLASSROOM SINK	2	2	1 1/2"	1 1/2"	1/2"	1/2"	COUNTER-MOUNTED, STAINLESS STEEL, SINGLE COMPARTMENT

- DRAWING NOTES:**
- A. FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS, REFER TO DRAWING P-001P1.
- SPECIAL NOTES:**
- EXTEND SAN FROM EXISTING ROUGH-IN TO NEW FIXTURE.
  - ROUTE NEW VENT PIPING AND DROP IN WALL TO FLOOR BELOW. CONNECT INTO THE NEAREST AVAILABLE VENT OR SANITARY MAIN.
  - OFFSET HW AND CW WITHIN WALL BELOW COUNTER AND EXTEND PIPING TO NEW ROUGH-IN LOCATIONS FOR NEW FIXTURE.
  - BELOW SLAB. TRENCH SLAB FOR NEW WORK.
  - BELOW FLOOR SLAB.

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DANIL CZAJKOWSKI  
P.E. 2220  
MECHANICAL  
PROFESSIONAL ENGINEER  
4/8/22

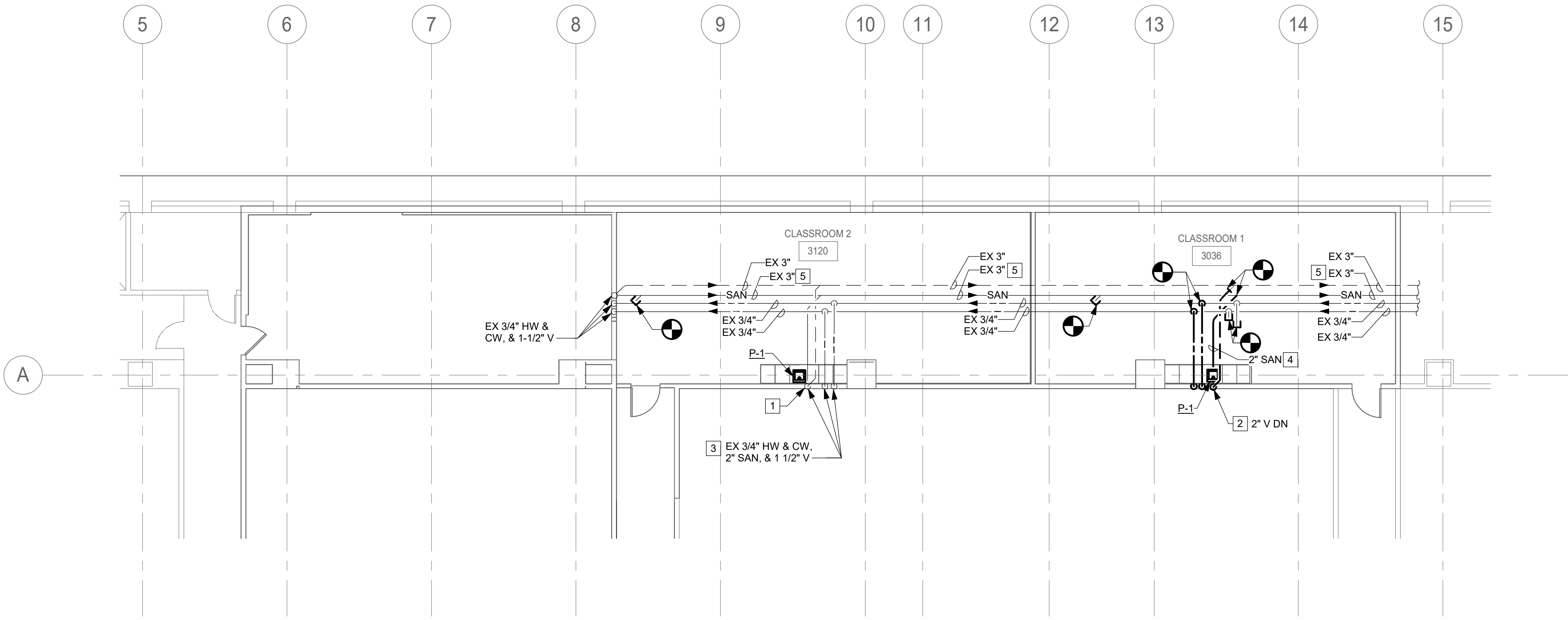


DATE 04/08/22	REVISION FINAL CD
REVISION # DATE	REVISION DESCRIPTION

**Smithsonian Institution**  
Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AF/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AF/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - CLASSROOMS - PLUMBING - PHASE 1
WORKING STAFF	DESIGNED BY: SAD    DRAWN BY: SAD    CHECKED BY: TAS

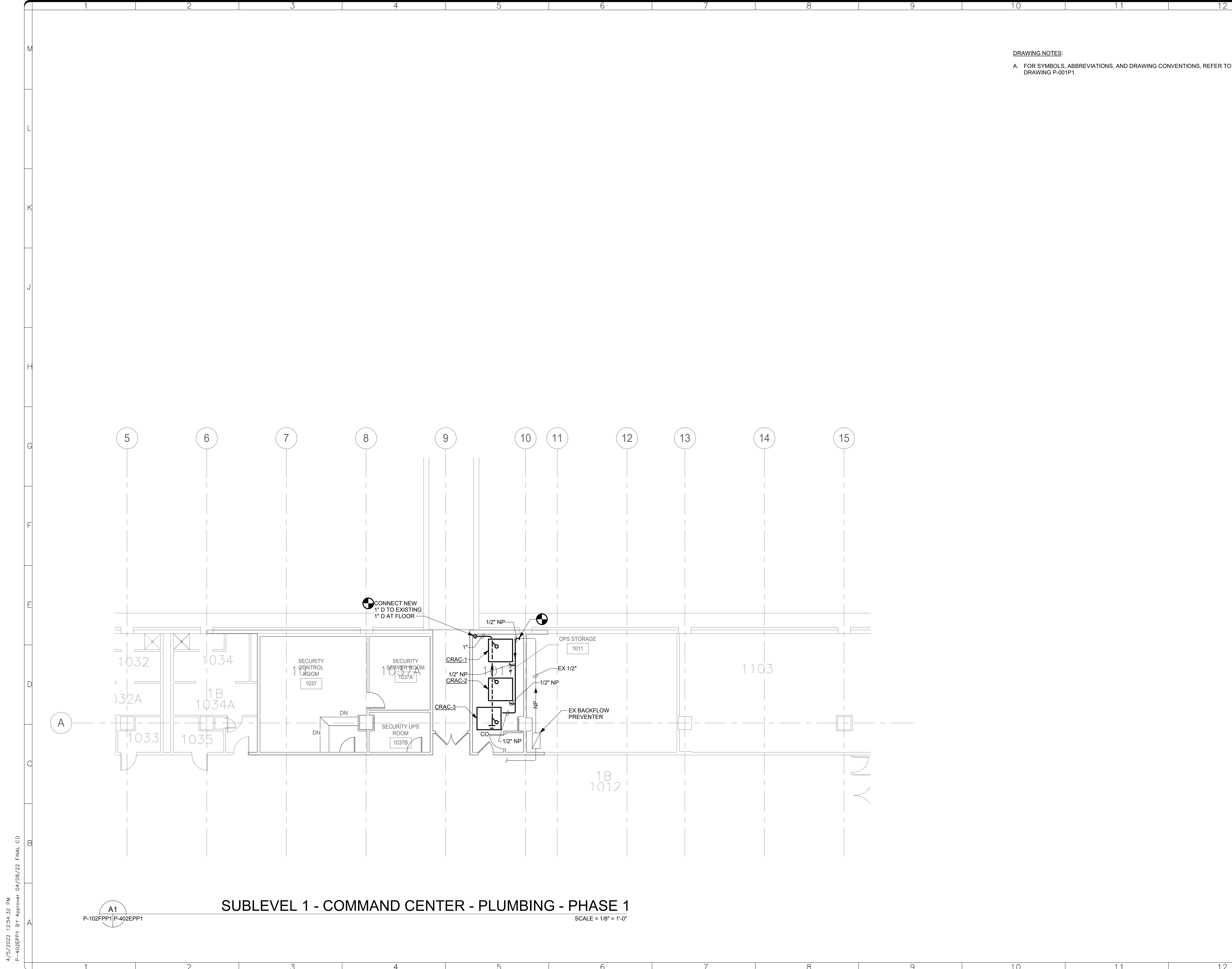
SHEET NO. P-401EPP1  
62 of 179



**SUBLEVEL 3 - CLASSROOMS - PLUMBING - PHASE 1**  
SCALE = 1/8" = 1'-0"

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P-101FPP1 P-401EPP1

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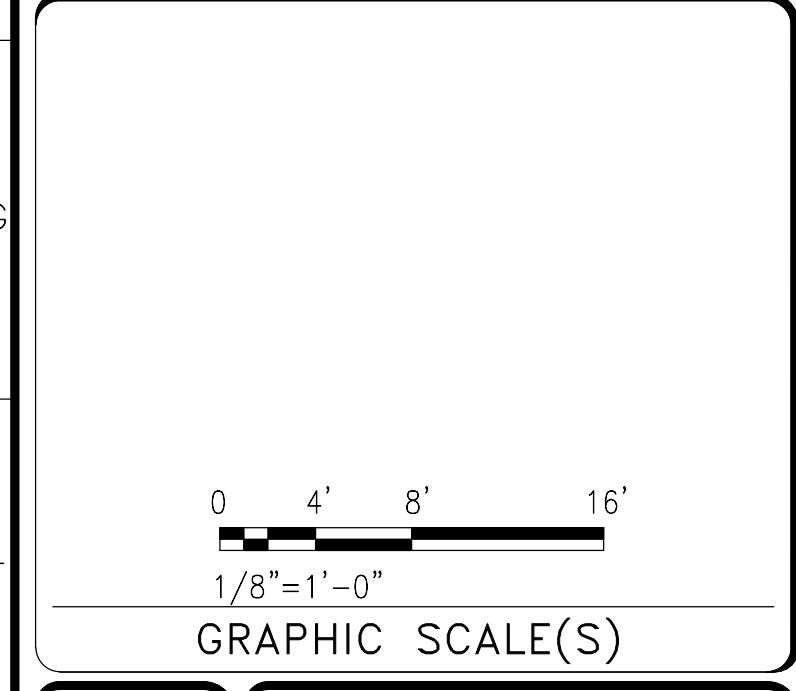
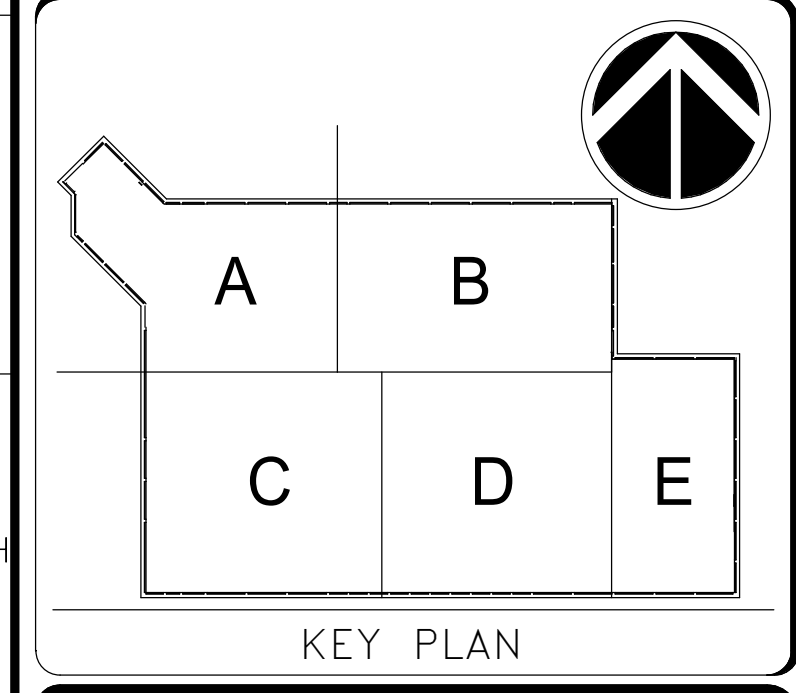


**DRAWING NOTES:**  
 A. FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS, REFER TO DRAWING P-001P1.

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SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 1 - COMMAND CENTER - MECHANICAL - PHASE 1
WORKING STAFF	DESIGNED BY: SAD    DRAWN BY: SAD    CHECKED BY: TAS

SHEET NO. **P-402EPP1**  
 63 of 179

4/15/2022 12:54:32 PM  
 P-402EPP1 BY Approver 04/08/22 FINAL CD

**A1**  
 P-102FPP1/P-402EPP1  
**SUBLEVEL 1 - COMMAND CENTER - PLUMBING - PHASE 1**  
 SCALE = 1/8" = 1'-0"

## FIRE ALARM GENERAL NOTES

1. THE SCOPE OF THIS PROJECT INCLUDES MODIFICATION OF THE EXISTING SIEMENS XLS FIRE ALARM SYSTEM IN THE OPS OFFICE SUITE, THE EXISTING SECURITY CONTROL ROOMS AND THE PHOTO LAB IN THE SI QUAD BUILDING. THE EXISTING FIRE ALARM SYSTEM COMPONENTS SHALL BE REMOVED AND MODIFIED TO ACCOMMODATE THE RENOVATION AND TO ADD THE RELEASING PORTION OF THE NEW DOUBLE INTERLOCKED PREACTION SPRINKLER SYSTEM FOR THE RENOVATED SECURITY CONTROL ROOM AND SECURITY EQUIPMENT ROOM. PROVIDE ALL NECESSARY FIRE ALARM SYSTEM MODIFICATIONS, INCLUDING ALL WIRING, RACEWAYS, PULL BOXES, TERMINAL CABINETS, OUTLET AND MOUNTING BOXES, CONTROL EQUIPMENT, ALARM AND SUPERVISORY SIGNALS, INITIATING DEVICES, ALARM NOTIFICATION APPLIANCES, NOTIFICATION APPLIANCE BOOSTER PANELS, INTERFACE EQUIPMENT, AND ALL OTHER ACCESSORIES AND MISCELLANEOUS ITEMS INCLUDING SOFTWARE, SYSTEM PROGRAMMING, TESTING AND CONSTRUCTION PERMITS REQUIRED FOR A COMPLETE OPERATING SYSTEM THROUGHOUT WHETHER SPECIFICALLY NOTED OR NOT. ALL SYSTEMS SHALL COMPLY WITH THE INTERNATIONAL BUILDING CODE (IBC)-2018 EDITION, INTERNATIONAL FIRE CODE (IFC)-2018 EDITION, ASME A17.1, NFPA STANDARDS 13 (2019), 70 (2020) AND 72 (2019), SMITHSONIAN INSTITUTION OSHEM FIRE PROTECTION & LIFE SAFETY DESIGN MANUAL (MAY 2018), AND SMITHSONIAN INSTITUTION CODE, STANDARDS AND GUIDELINES, FEBRUARY 2012. THE EQUIPMENT PROVIDED SHALL BE LISTED FOR THE INTENDED PURPOSE BY A NATIONAL RECOGNIZED TESTING LABORATORY. PROVIDE SOFTWARE, SYSTEM PROGRAMMING, TESTING AND CONSTRUCTION PERMITS REQUIRED FOR A COMPLETE OPERATING SYSTEM AND SHALL SECURE ALL NECESSARY CONSTRUCTION PERMITS, INSPECTIONS AND FINAL SYSTEM ACCEPTANCE FROM BUILDING OFFICIALS (AHJ).
2. INFORMATION CONTAINED IN THESE DRAWINGS IS BASED ON EXISTING DOCUMENTS, LIMITED FIELD SURVEYS, AS WELL AS EXISTING ARCHITECTURAL AND STRUCTURAL INFORMATION. THE INFORMATION CONTAINED HEREIN MAY REQUIRE ADJUSTMENTS AND/OR MODIFICATIONS TO CONFORM TO EXISTING AND NEW BUILDING CONDITIONS. ALL ELEVATIONS ABOVE THE FINISHED FLOOR (AFF) INDICATED FOR STRUCTURAL MEMBERS, CEILINGS, DEVICES, AND/OR OBSTRUCTIONS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. NOTIFY THE CONTRACTING OFFICER IF ANY DISCREPANCY IN BUILDING CONDITION SHOULD PROHIBIT EXECUTION OF THE DESIGN INTENT OF THESE DRAWINGS.
3. ALL CONTRACT DRAWINGS AND ALL CONTRACT SPECIFICATIONS ARE COMPLIMENTARY AND MUST BE USED IN CONJUNCTION TO OBTAIN COMPLETE CONSTRUCTION INFORMATION. QUESTIONS REGARDING DESIGN INTENT OR SYSTEM OPERATION SHALL BE PROMPTLY BROUGHT TO CONTRACTING OFFICER'S ATTENTION. IN ADDITION, ANY INFORMATION CONFLICTS BETWEEN THE SPECIFICATIONS AND DRAWINGS SHALL BE BROUGHT TO THE CONTRACTING OFFICER'S ATTENTION. DO NOT PROCEED WITH ANY WORK, EXCEPT AT THEIR OWN RISK, UNTIL CLARIFICATIONS OF THE CONFLICTS ARE ISSUED TO THE CONTRACTOR BY THE CONTRACTING OFFICER.
4. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB BEFORE PROCEEDING WITH PURCHASING, FABRICATION OR INSTALLATION OF NEW WORK.
5. AVOID ALL CONFLICTS WITH LIGHT FIXTURES, HVAC DIFFUSERS, GRILLS, ACCESS DOORS, SPRINKLERS, DUCTS, CONDUIT, RACKS, STORAGE UNITS, STORAGE PIPING OR OTHER OBSTRUCTIONS ENCOUNTERED. COORDINATE ALL WORK WITH FIELD CONDITIONS. NOTIFY THE CONTRACTING OFFICER PRIOR TO INITIATING WORK IF ANY MOUNTING LOCATIONS ARE OBSTRUCTED AND/OR IF ANY MOUNTING CONFLICTS OR PROBLEMS ARE DISCOVERED, AS A RESULT OF ANY FIELD INVESTIGATION.
6. MOUNT ALL VISUAL WARNING STROBE/AUDIBLE NOTIFICATION APPLIANCES TO ACHIEVE MAXIMUM AUDIBILITY AND VISIBILITY IN ACCORDANCE WITH CURRENT ADAAG GUIDELINES. PROVIDE CARE IN LOCATING VISUAL WARNING STROBE APPLIANCES TO INSURE VISIBILITY AND AVOID OBSTRUCTIONS. SYNCHRONIZATION IS REQUIRED FOR AREAS WHERE MORE THAN ONE VISUAL NOTIFICATION APPLIANCE IS LOCATED.
7. PROVIDE WALL MOUNTED NOTIFICATION APPLIANCES WITH THE ENTIRE LENS NOT LESS THAN 80 INCHES AND NOT MORE THAN 96 INCHES ABOVE THE FINISHED FLOOR.
8. STROBE NOTIFICATION APPLIANCE CIRCUIT POWER REQUIREMENTS AND CONDUCTOR SIZES SHALL NOT EXCEED A 10% VOLTAGE DROP. EACH VISUAL NOTIFICATION APPLIANCE CIRCUIT SHALL NOT EXCEED 80% OF ITS RATED OUTPUT, WHICH IS REQUIRED TO ASSUME THE MAXIMUM LOAD OF THE PANEL IS DISTRIBUTED EQUALLY OVER THE AVAILABLE CIRCUITS.
9. PROVIDE SIGNALING LINE CIRCUITS AND NOTIFICATION APPLIANCE CIRCUITS WITH 20 PERCENT SPARE CAPACITY. PROVIDE AMPLIFIERS WITH 20 PERCENT SPARE CAPACITY. BATTERY SIZE SHALL BE A MINIMUM OF 125% OF THE CALCULATED REQUIREMENT AND SHALL ALSO INCLUDE A 20% BATTERY DERATING FACTOR.
10. LOCATE SMOKE AND HEAT DETECTORS IN ACCESSIBLE LOCATIONS FOR TESTING AND MAINTENANCE AND ACCESS SHALL BE PER OSHA STANDARDS. ADDITIONAL AND/OR RELOCATED DETECTORS MAY BE REQUIRED BASED ON OSHEM PERSONNEL AND SUCH DEVICES SHALL BE PART OF THE BASE CONTRACT. IN AREAS WHERE DETECTORS ARE NOT ACCESSIBLE, PROVIDE REMOTE TEST STATIONS AND INDICATING LAMPS IN ACCESSIBLE LOCATIONS APPROVED BY OSHEM.
11. CONDUCT AUDIBILITY AND INTELLIGIBILITY TESTING INCLUDING PRE-TESTS AND FINAL TESTING FOR OSHEM. THE TESTS SHALL CONFIRM THE REQUIRED AUDIBILITY AND INTELLIGIBILITY PER NFPA, AND OSHEM. IN LOCATIONS WHERE MINIMUM AUDIBILITY AND/OR INTELLIGIBILITY IS NOT MET, PROVIDE ADDITIONAL DEVICES AS PART OF THE BASE CONTRACT.
12. DUCTWORK, PIPING, MECHANICAL EQUIPMENT, CEILINGS, FURNISHINGS AND FIXTURES SHALL NOT BE UTILIZED AS LADDERS, SCAFFOLDING OR WORK PLATFORMS.
13. ALL PENETRATIONS IN WALLS, FLOORS AND CEILINGS SHALL BE PROTECTED WITH UL LISTED THROUGH-PENETRATION FIRE-STOP SYSTEMS OF EQUAL OR GREATER FIRE RESISTANCE RATING TO THE ASSEMBLY PENETRATED. PENETRATIONS INTO NON-FIRE-RESISTANCE RATED ASSEMBLIES SHALL BE SEALED TO BE SMOKE-TIGHT, AT A MINIMUM.
14. ALL DAMAGE TO WALLS, CEILINGS AND FLOORS FROM PENETRATIONS, INSTALLATIONS OR OTHER ACTIONS OF THE CONTRACTOR SHALL BE PATCHED, REPAIRED AND PAINTED WITH NEW MATERIALS BY THE CONTRACTOR TO MATCH ADJACENT WORK, WHETHER SPECIFICALLY NOTED OR NOT.
15. ALL NEW FIRE ALARM CIRCUITS SHALL BE SUPERVISED AS FOLLOWS IN ACCORDANCE WITH NFPA 72:
  - INITIATING DEVICE CIRCUITS - CLASS B
  - SIGNALING LINE CIRCUITS - CLASS B
  - NOTIFICATION APPLIANCE CIRCUITS - CLASS B, SYNCHRONIZED
  - PANEL-TO-PANEL COMMUNICATING NETWORK - CLASS X
  - PATHWAY SURVIVABILITY LEVEL-1
16. UNLESS OTHERWISE NOTED, THE PROJECT ELECTRICAL CONDUIT STANDARD IS ELECTRICAL METALLIC TUBING (EMT) AND SHALL BE PROVIDED THROUGHOUT THE PROJECT. ALL EXPOSED FIRE ALARM CONDUIT SHALL BE PAINTED RED. CONCEAL ALL ELECTRICAL CONDUITS ABOVE CEILINGS, BELOW FLOORS AND BEHIND WALLS, EXCEPT IN UNFINISHED AREAS WHERE CONDUIT MAY BE SURFACE MOUNTED, UNLESS OTHERWISE SPECIFIED.
17. IN AREAS WITHOUT CEILINGS, PROVIDE CONDUIT AS UNOBTRUSIVELY AS POSSIBLE, AS CLOSE AS POSSIBLE TO FLOOR/ CEILING SLAB AND PARALLEL AND AT RIGHT ANGLES TO STRUCTURAL STEEL OR CONCRETE ELEMENTS. THESE DRAWINGS ARE DIAGRAMMATIC TO SHOW DESIGN INTENT ONLY.
18. PROVIDE SIGNALING LINE, NOTIFICATION APPLIANCE AND POWER CIRCUITS EACH IN SEPARATE CONDUIT.
19. PROVIDE SMOKE DETECTORS A MINIMUM 3-FEET FROM AIR DIFFUSERS.
20. PAINT ALL FIRE ALARM JUNCTION BOXES AND COVERS RED IN ALL AREAS UNFINISHED AND FINISHED (I.E., ABOVE CEILINGS, BELOW FLOORS, IN MECHANICAL ROOMS, ETC).
21. PROVIDE ELECTRICAL BOXES AS FOLLOWS:
  - U.N.O. CAST METAL BELL TYPE BOXES WITH THREADED HUBS SHALL BE PROVIDED ON EXPOSED WORK, EXCEPT WHERE FACTORY BOXES ARE PROVIDED. CONCEALED BOXES MAY BE STAMPED STEEL BOXES.
22. BOTH EXPOSED AND CONCEALED CONDUIT INCLUDING RISERS UP TO 2 INCHES IN DIAMETER SHALL UTILIZE COMPRESSION TYPE STEEL FITTINGS AND CONNECTORS. UNLESS OTHERWISE NOTED, ALL CONDUIT PROVIDED SHALL BE 3/4 INCH MINIMUM EMT TRADE SIZE. VERTICAL RISERS SHALL BE ONE INCH DIAMETER EMT MINIMUM. PROVIDE WIRING CONDUCTORS INSTALLED IN EMT FOR THE FOLLOWING CIRCUITS:
  - SIGNALING LINE CIRCUITS, 16/2 AWG, SOLID COPPER, SHIELDED
  - SPEAKER, 16/2 AWG, SOLID COPPER, TWISTED PAIR, UNSHIELDED
  - STROBE, 12/2 AWG, SOLID COPPER, TWISTED PAIR, SHIELDED
  - CONTROL, 16/2 AWG, SOLID COPPER, SHIELDED
  - INTERFACED CIRCUITS, 16/2 AWG, SOLID COPPER, SHIELDED
  - 120 VAC, 12 AWG WITH NO 12 AWG EQUIPMENT GROUND, 600VAC RATED MINIMUM, SOLID COPPER
23. PROVIDE INITIATING DEVICES AND NOTIFICATION APPLIANCES MOUNTED IN SUSPENDED CEILINGS IN THE CENTER OF TILE IN BOTH DIRECTIONS.
24. THE TERM "PROVIDE" SHALL MEAN THE CONTRACTOR SHALL FURNISH NEW, INSTALL AND CONNECT FOR A COMPLETE AND OPERATIONAL SYSTEM.
25. THE TERM "REMOVE" SHALL MEAN CONTRACTOR SHALL DISCONNECT, REMOVE FROM SITE AND LEGALLY DISPOSE.
26. EXISTING FIRE ALARM NOTIFICATION ZONING SHALL BE EXISTING TO REMAIN.
27. FIRE ALARM NOTIFICATION AND INITIATING APPLIANCES TO MATCH EXISTING FIRE ALARM NOTIFICATION AND INITIATING APPLIANCES THROUGHOUT THE BUILDING.

## SYMBOLS LIST

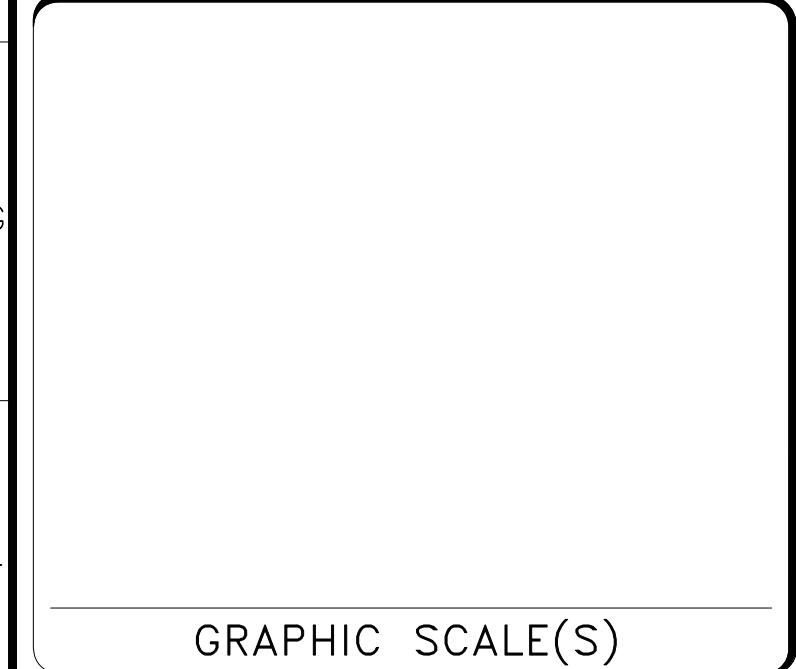
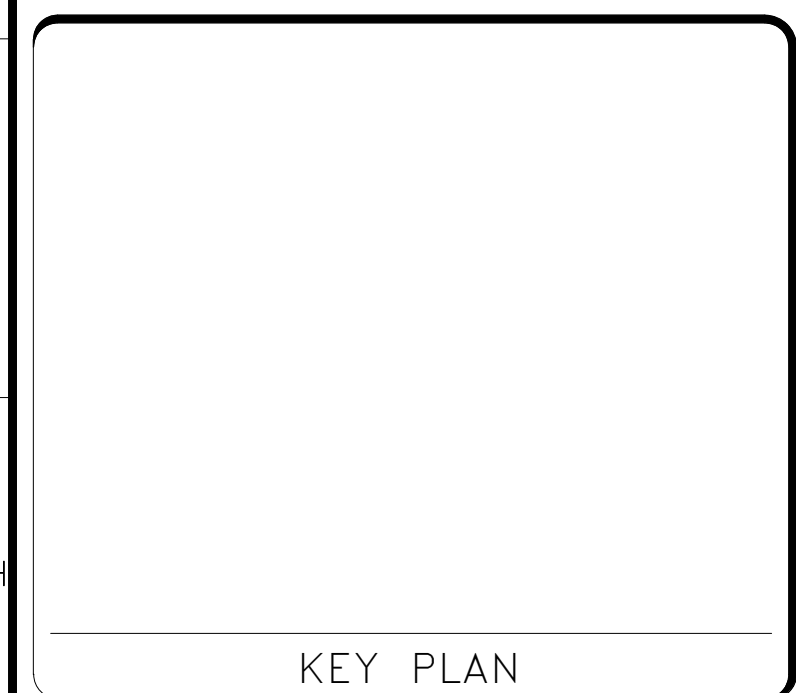
—————	LINE TYPE - EXISTING TO REMAIN
-----	LINE TYPE - EXISTING TO REMOVED
—————	LINE TYPE - NEW WORK
[F]	MANUAL PULL STATION
XX ○ X	VISUAL NOTIFICATION APPLIANCE X=MOUNTING LOCATION XX - CANDELA RATING
XX □ X	SPEAKER NOTIFICATION APPLIANCE X=MOUNTING LOCATION
XX □ X	SPEAKER/STROBE NOTIFICATION APPLIANCE X=MOUNTING LOCATION XX - CANDELA RATING
XX □ X	HORN NOTIFICATION APPLIANCE X=MOUNTING LOCATION
[VS]	VALVE TAMPER SWITCH - CONNECTION ONLY
[R]	PREACTION SOLENOID RELEASING CIRCUIT - CONNECTION ONLY
[AP]	HIGH/LOW AIR PRESSURE SWITCH - CONNECTION ONLY
[PS]	PRESSURE SWITCH - CONNECTION ONLY
[■]	120VAC EMERGENCY BACKED - PRIMARY POWER CONNECTION
[AM]	FIRE ALARM ADDRESSABLE INPUT MONITOR MODULE
[OM]	FIRE ALARM ADDRESSABLE OUTPUT MODULE
[X]	SMOKE DETECTOR - ADDRESSABLE X=MOUNTING LOCATION
[X]	SMOKE DETECTOR - DUCT MOUNTED
[FACP]	FIRE ALARM CONTROL PANEL
[FAA]	FIRE ALARM ANNUNCIATOR PANEL
[NAP]	NOTIFICATION APPLIANCE PANEL
[NCC]	NETWORK CONTROL CONSOLE
[#]	KEY NOTE INDICATOR

## SYMBOLS LIST

ABBREV	DESCRIPTION
AFF	ABOVE FINISHED FLOOR
AIM	ADDRESSABLE INTERFACE MODULE
AOM	ADDRESSABLE OUTPUT MODULE
AR	ADDRESSABLE RELAY
ARC	ADDRESSABLE RELAY CABINET
AWG	AMERICAN WIRE GAUGE
AMP	AMPERE
AHJ	AUTHORITY HAVING JURISDICTION
BM	BEAM
BFC	BELOW FINISHED CEILING
BOS	BOTTOM OF STEEL
DN	DOWN
EMT	ELECTRICAL METALLIC TUBING
EC	ELEVATOR CONTROL
EOL	END OF LINE SUPERVISION DEVICE
EQUIP	EQUIPMENT
EXST	EXISTING
EXP	EXPOSED
FT	FEET
FACP	FIRE ALARM CONTROL PANEL
FL	FLOOR
GSF	GROSS SQUARE FEET
GYP	GYP SUM BOARD
IN	INCH
IDC	INITIATING DEVICE CIRCUIT
I/F	INTERFACE
LAT	LAY-IN ACOUSTICAL TILE
MECH	MECHANICAL
MC	METAL CLAD
NCC	NETWORK CONTROL CONSOLE
NEC	NATIONAL ELECTRICAL CODE - NFPA 70
NFAC	NATIONAL FIRE ALARM CODE - NFPA 72
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NAC	NOTIFICATION APPLIANCE CIRCUIT
NAP	NOTIFICATION APPLIANCE PANEL
NO	NUMBER
OPS	OFFICE OF PROTECTION SERVICES
OSHEM	OFFICE OF SAFETY HEALTH AND ENVIRONMENTAL MANAGEMENT
OA	OUTSIDE AIR
PLS	PLASTER CEILING
PIV	POST INDICATING VALVE
RCP	REMOTE CONTROL PANEL
R	RETURN
RF	RETURN FAN
RMC	RIGID METAL CONDUIT
RM	ROOM
SLC	SIGNALING LINE CIRCUIT
SPDT	SINGLE POLE, DOUBLE THROW
SI	SMITHSONIAN INSTITUTION
SPL	SPLINE CEILING
STR	STAIRS
S	SUPPLY
TC	TERMINAL CABINET
TOS	TOP OF STEEL
TYP	TYPICAL
UD	UNDER DUCT
UF	UNDERFLOOR
UNO	UNLESS NOTED OTHERWISE
VAC	VOLTS ALTERNATING CURRENT
VDC	VOLTS DIRECT CURRENT
W	WATT
ZN	ZONE



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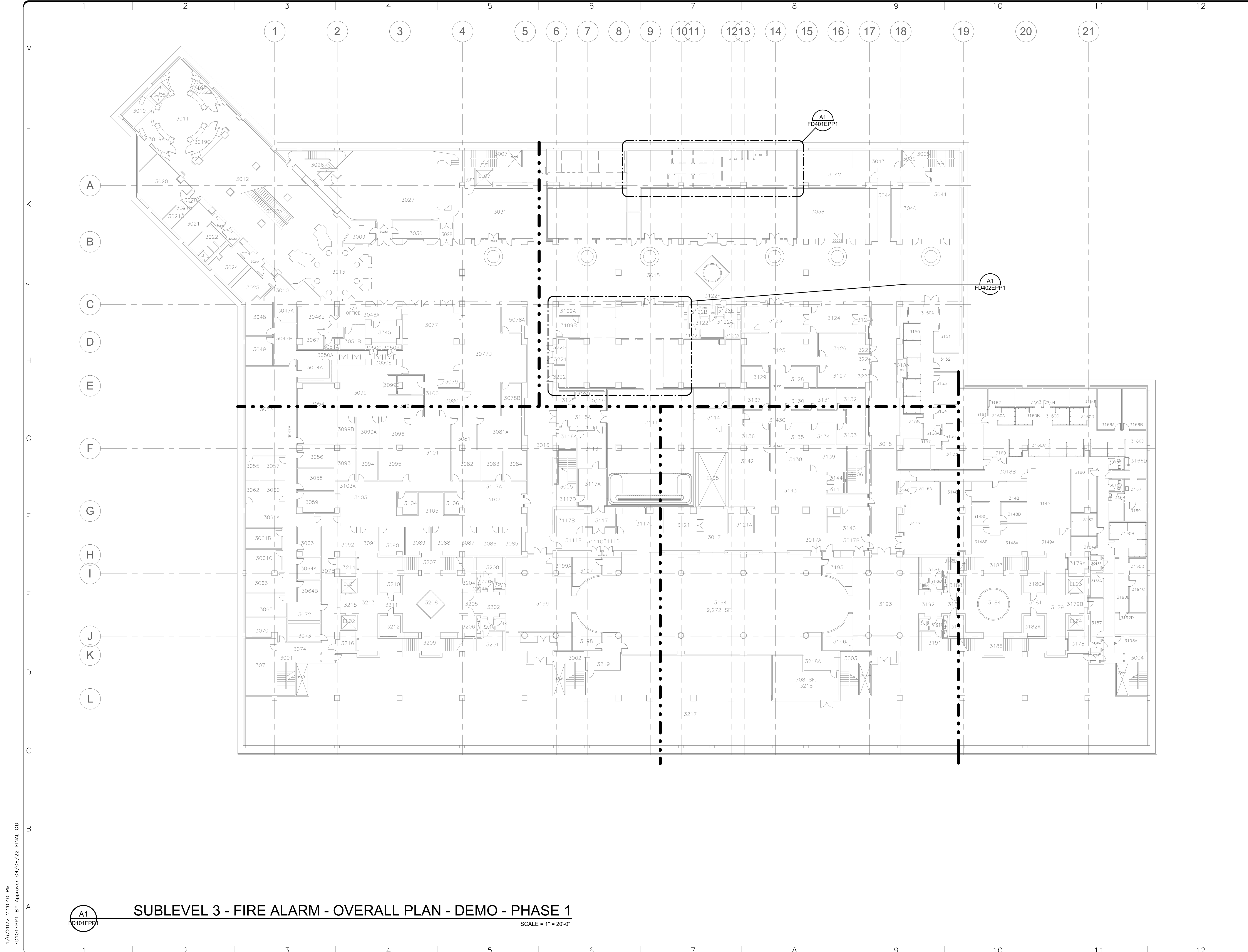
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Washington, DC 20024-2520

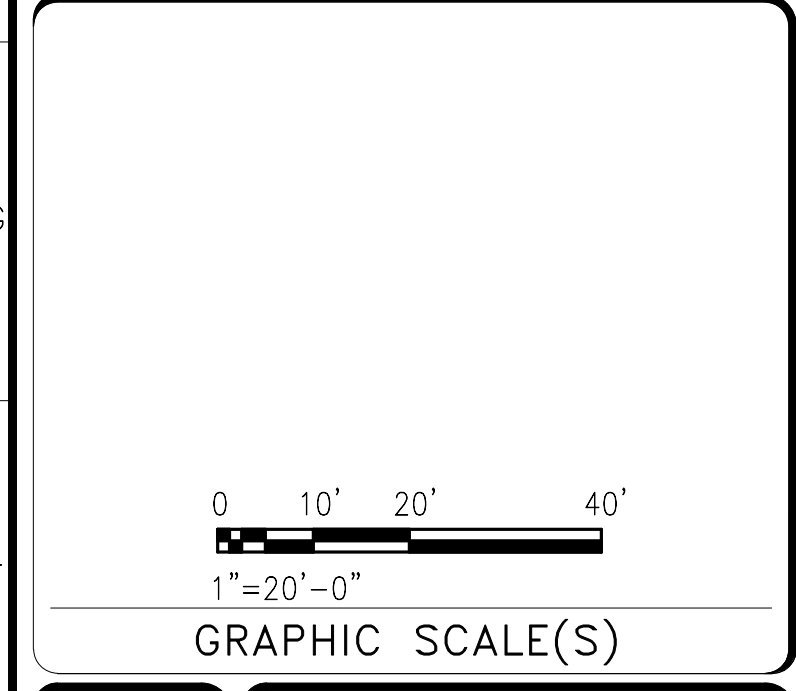
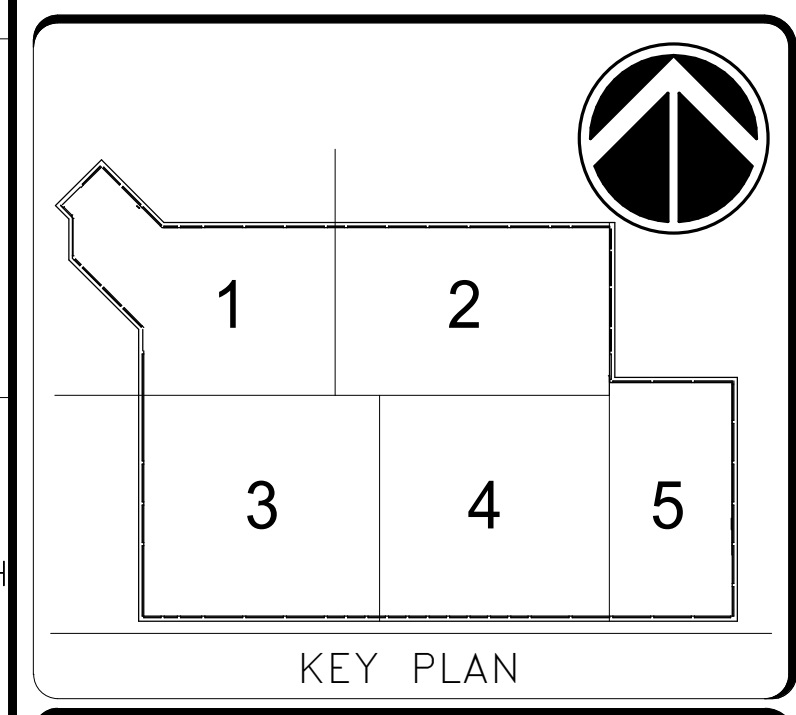
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A/E PROJECT NUMBER	11203201						
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DESIGNED BY	DRAWN BY	CHECKED BY					
MF	MF	KWL					

SHEET NO.	FA001P1
64 of 179	DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE





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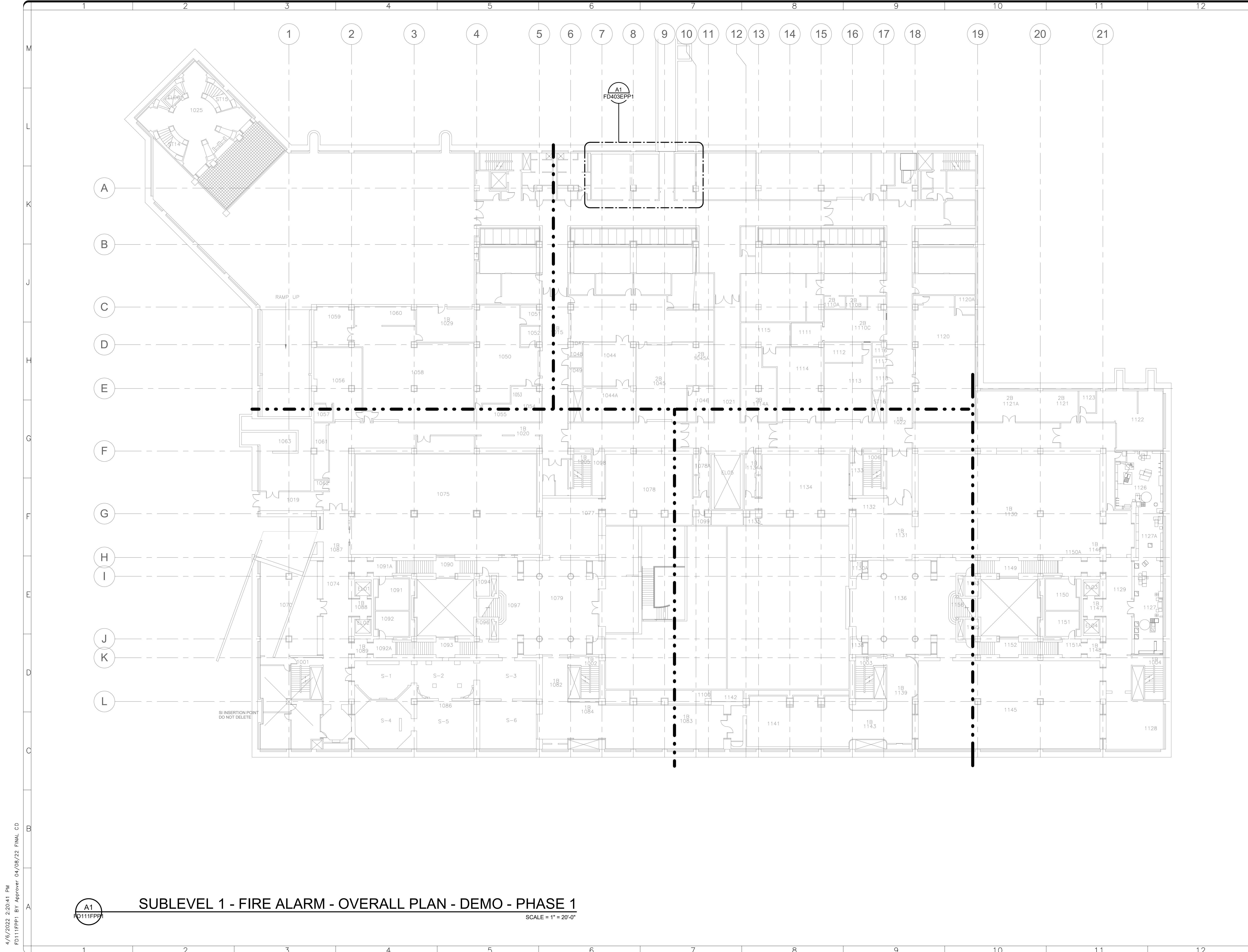
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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - FIRE ALARM - OVERALL PLAN - DEMO - PHASE 1
WORKING STAFF	MF MF KWL
	DESIGNED BY DRAWN BY CHECKED BY

SHEET NO. **FD101FPP1**  
 65 of 179

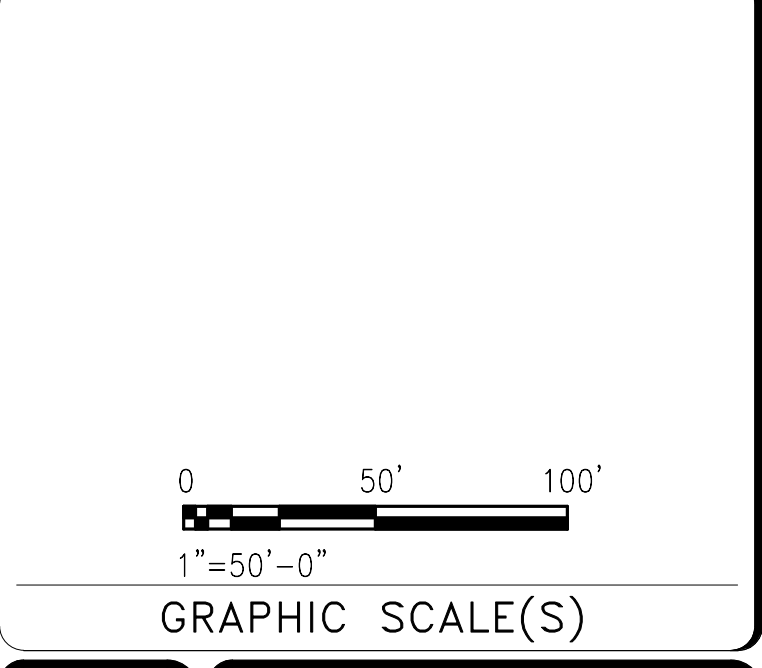
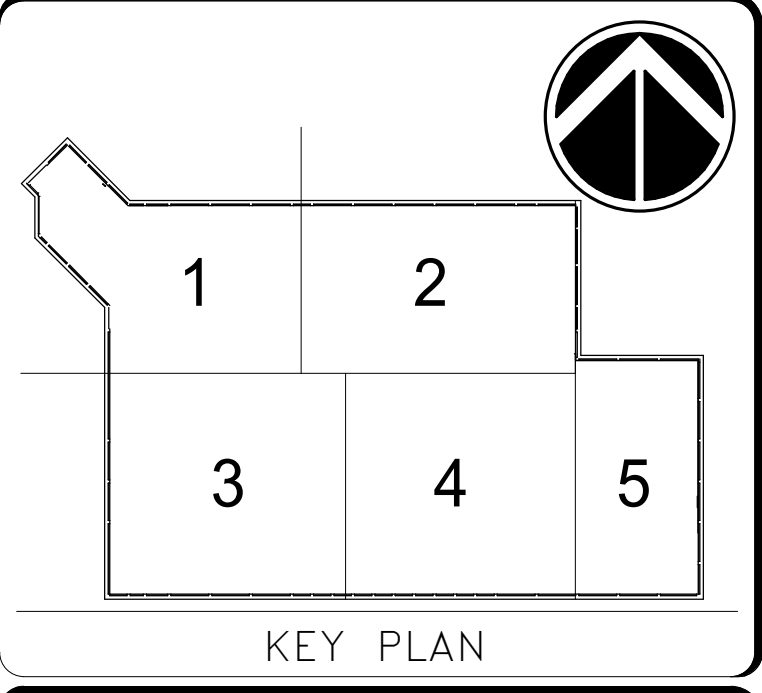
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**A1** **FD101FPP1** **SUBLEVEL 3 - FIRE ALARM - OVERALL PLAN - DEMO - PHASE 1**  
 SCALE = 1" = 20'-0"



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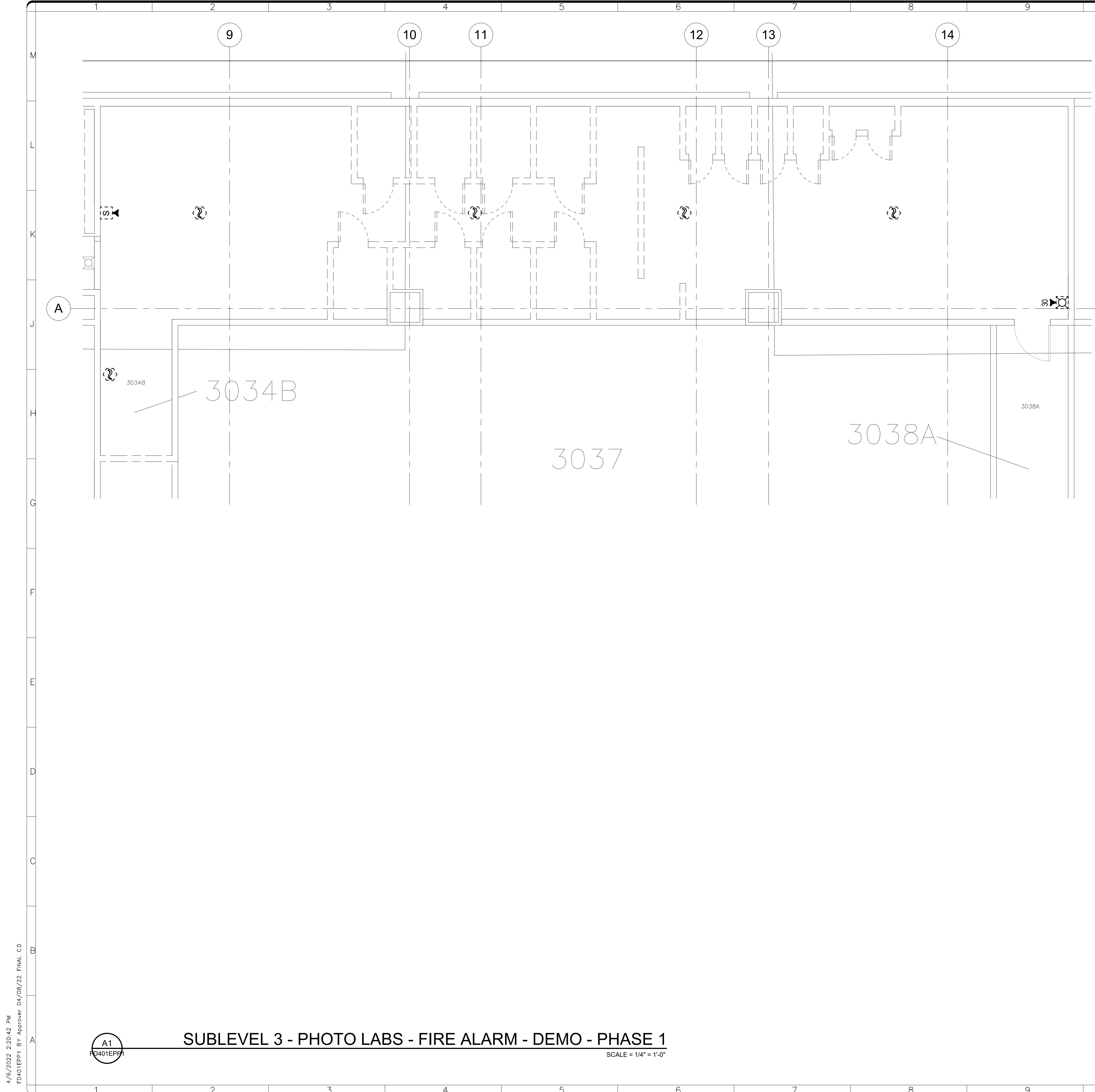
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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
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SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 1 - FIRE ALARM - OVERALL PLAN - DEMO - PHASE 1
WORKING STAFF	MF MF KWL DESIGNED BY DRAWN BY CHECKED BY

SHEET NO. **FD111FPP1**  
 66 of 179

**A1** SUBLEVEL 1 - FIRE ALARM - OVERALL PLAN - DEMO - PHASE 1  
 SCALE = 1" = 20'-0"

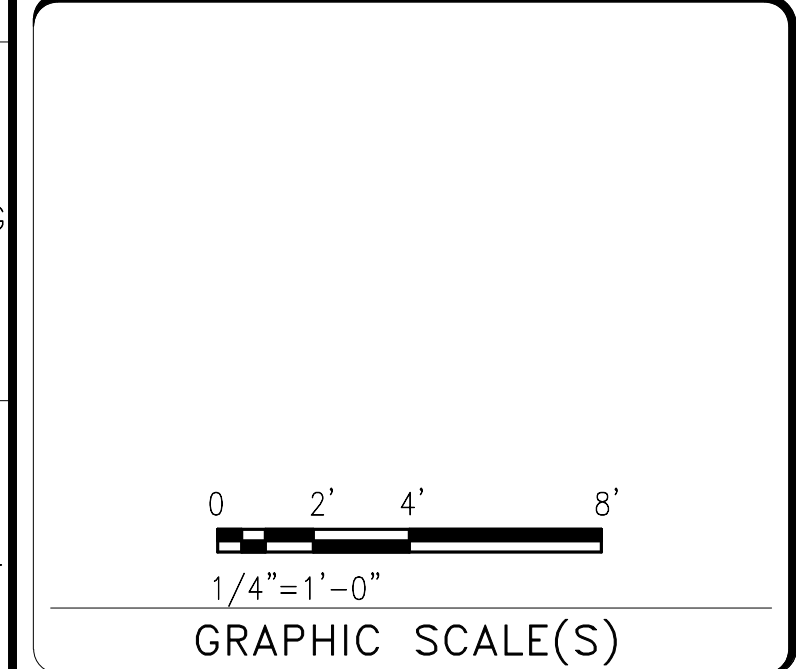
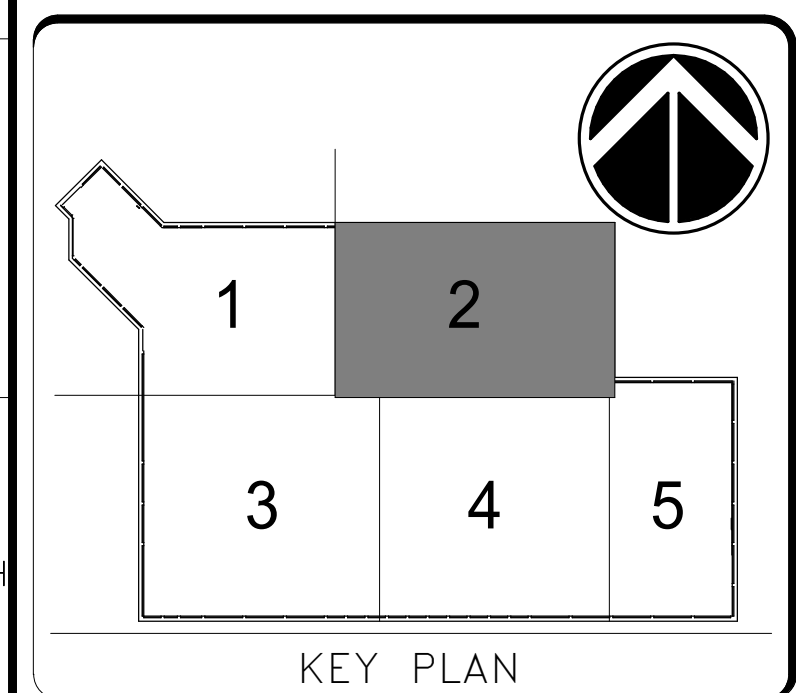
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**SHEET NOTES**

1. THERE ARE FIRE ALARM APPLIANCES LOCATED IN AREAS OUTSIDE OF THE WORK AREA WHICH ARE ON FIRE ALARM CIRCUITS WHICH WILL BE DISTURBED BY THE CONSTRUCTION ACTIVITIES IN THE WORK AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ARRANGING A NEW CONNECTION TO THOSE FIRE ALARM APPLIANCES OUTSIDE OF THE WORK AREA. AT NO TIME SHALL AREAS OUTSIDE OF THE WORK AREA BE LEFT WITHOUT FIRE ALARM DETECTION, INITIATION OR NOTIFICATION.
2. THE BUILDING FIRE ALARM SYSTEM SHALL REMAIN OPERATIONAL AT ALL TIMES DURING CONSTRUCTION. PROVIDE AND MAINTAIN CONNECTIONS AS NECESSARY TO COMPLETE WORK.
3. ALL EXISTING FIRE ALARM DEVICES IN WORK AREA TO BE REMOVED UNLESS OTHERWISE NOTED.
4. EXISTING-TO-REMAIN FIRE ALARM DEVICES IN AND ADJACENT TO WORK AREAS SHALL BE PROTECTED IN PLACE.

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ADDRESS	SW WASHINGTON, DC 20560	
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION	
SF PROJECT NUMBER	1909101	
A/E PROJECT NUMBER	11203201	
DRAWING TITLE	ENLARGED PLANS - SUBLEVEL 3 - PHOTO LABS - FIRE ALARM - DEMO - PHASE 1	
WORKING STAFF	MF MF KWL	
DESIGNED BY	DRAWN BY	CHECKED BY

SHEET NO. **FD401EPP1**  
67 of 179


**A1** SUBLEVEL 3 - PHOTO LABS - FIRE ALARM - DEMO - PHASE 1  
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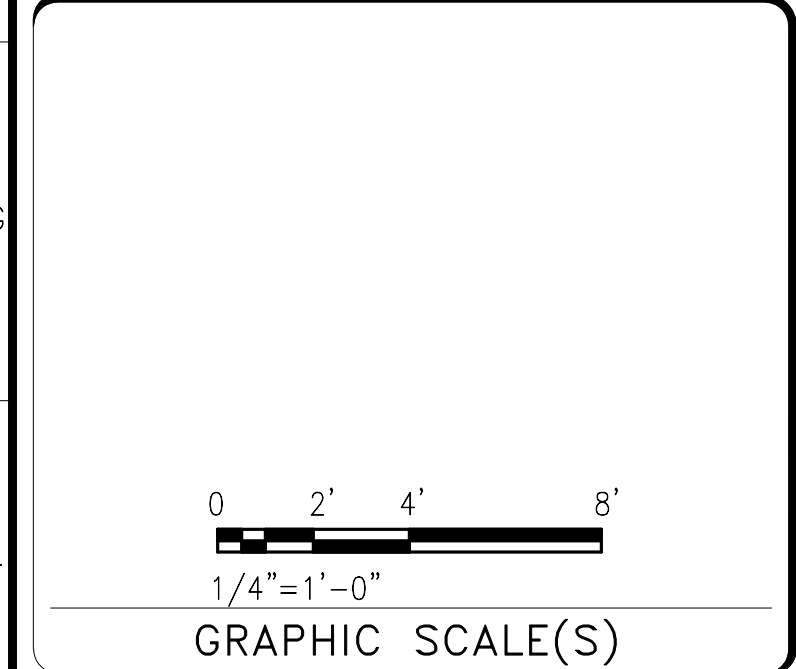
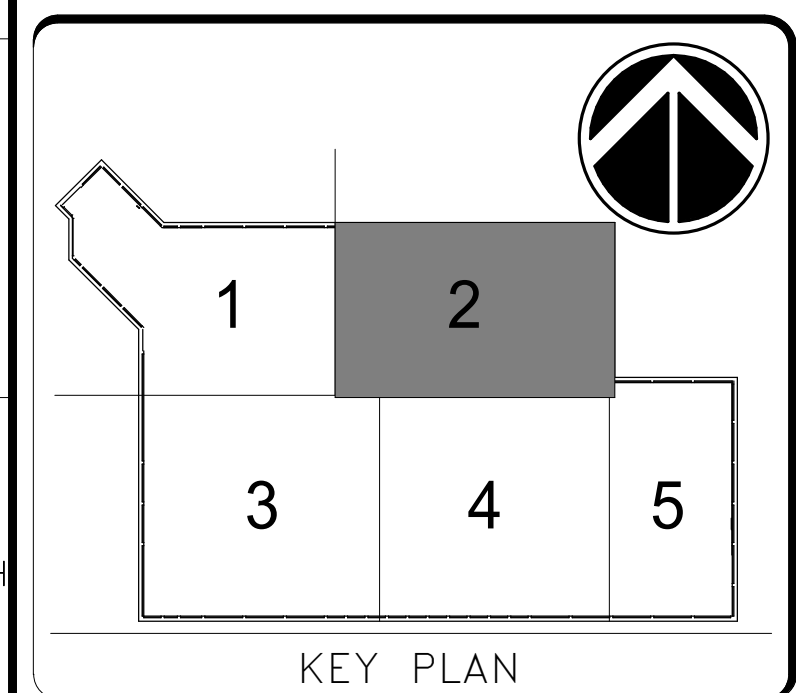
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### SHEET NOTES

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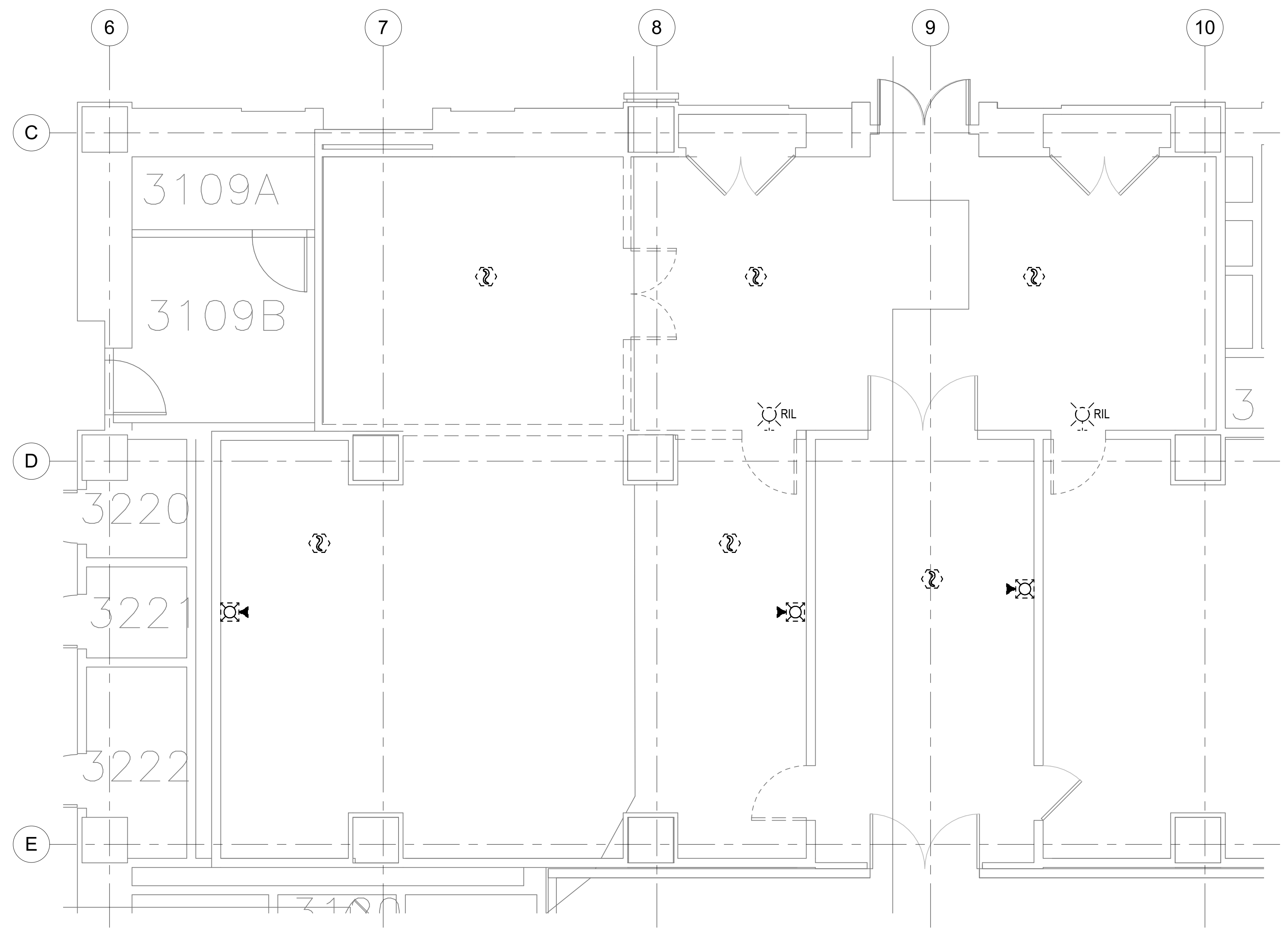
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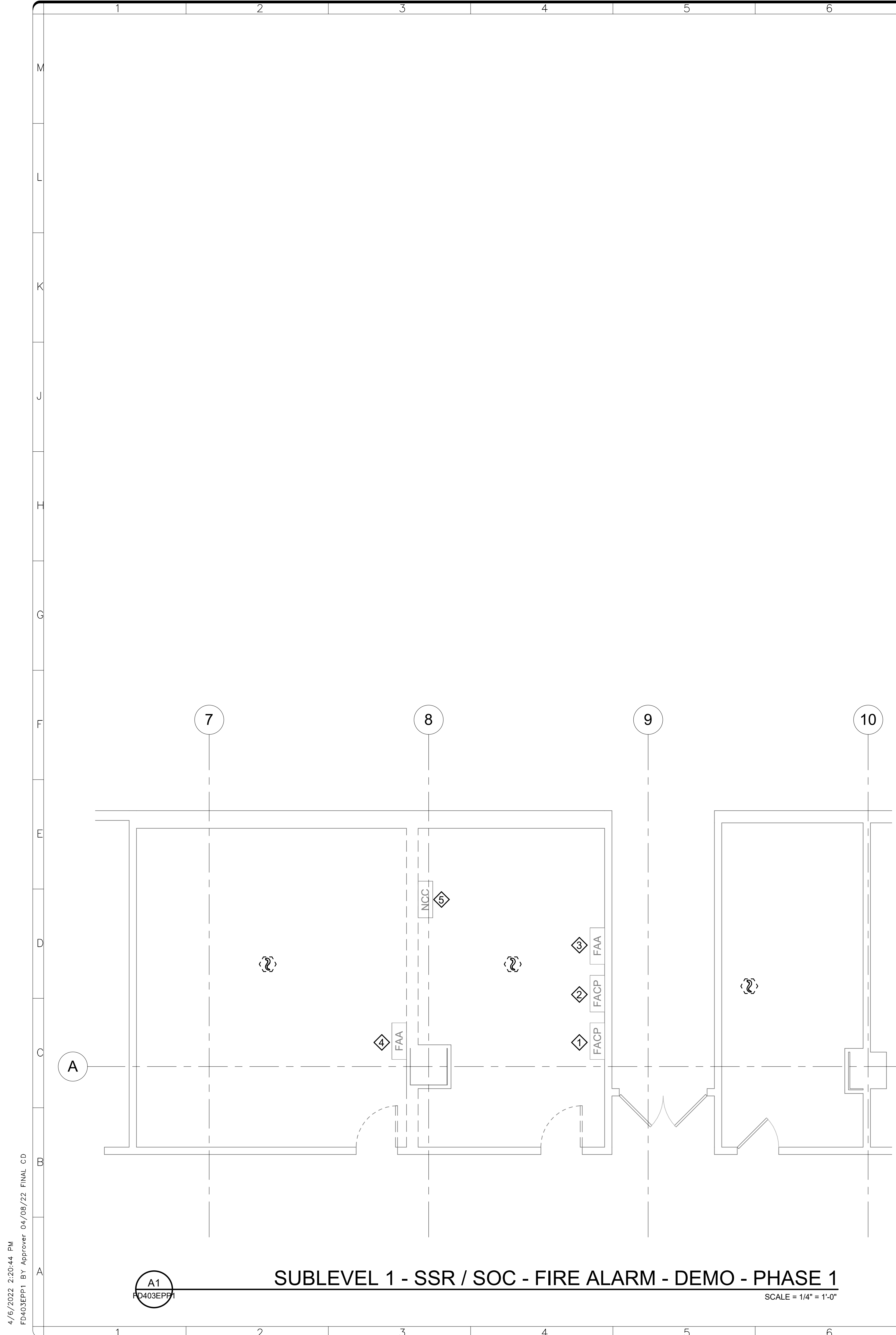
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PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	ENLARGED PLANS - SUBLEVEL 3 - ROOMS 3108, 3109, 3112 - FIRE ALARM - DEMO - PHASE 1
WORKING STAFF	DESIGNED BY MF    DRAWN BY MF    CHECKED BY KWL

SHEET NO.	FD402EPP1
68 of 179	DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE



**SUBLEVEL 3 - ROOMS 3108, 3109, 3112 - FIRE ALARM - DEMO - PHASE 1**  
 SCALE = 1/4" = 1'-0"

A1  
 FD402EPP1



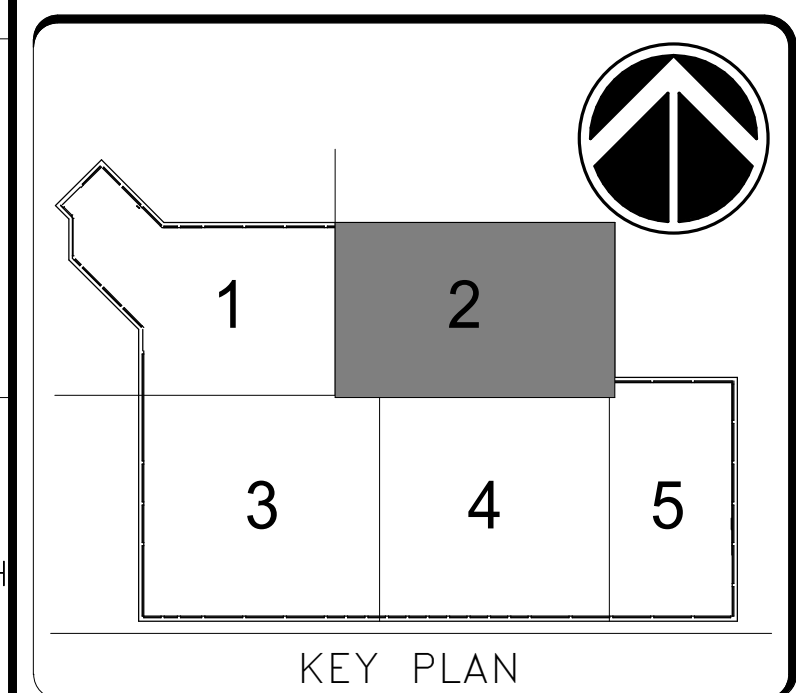
**SHEET NOTES**

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2. THE BUILDING FIRE ALARM SYSTEM SHALL REMAIN OPERATIONAL AT ALL TIMES DURING CONSTRUCTION. PROVIDE AND MAINTAIN CONNECTIONS AS NECESSARY TO COMPLETE WORK.
3. ALL EXISTING FIRE ALARM DEVICES IN WORK AREA TO BE REMOVED UNLESS OTHERWISE NOTED.
4. EXISTING-TO-REMAIN FIRE ALARM DEVICES IN AND ADJACENT TO WORK AREAS SHALL BE PROTECTED IN PLACE.

**KEYNOTES**

- ◆ RELOCATE EXISTING SIEMENS MXL FIRE ALARM CONTROL PANEL SERVING FREER BUILDING - SEE FA402EP FOR NEW LOCATION.
- ◆ RELOCATE EXISTING SIEMENS XLS FIRE ALARM CONTROL PANEL SERVING QUAD BUILDING - SEE FA402EP FOR NEW LOCATION.
- ◆ RELOCATE REMOTE GRAPHIC ANNUNCIATOR PANEL - SEE FA402EP FOR NEW LOCATION.
- ◆ RELOCATE EXISTING SIEMENS RCC-1F REMOTE GRAPHIC ANNUNCIATOR PANEL SERVING CASTLE BUILDING - SEE FA402EP FOR NEW LOCATION.
- ◆ RELOCATE EXISTING NCC WORKSTATION - SEE FA402EP FOR NEW LOCATION.

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0 2' 4' 8'  
1/4"=1'-0"  
GRAPHIC SCALE(S)

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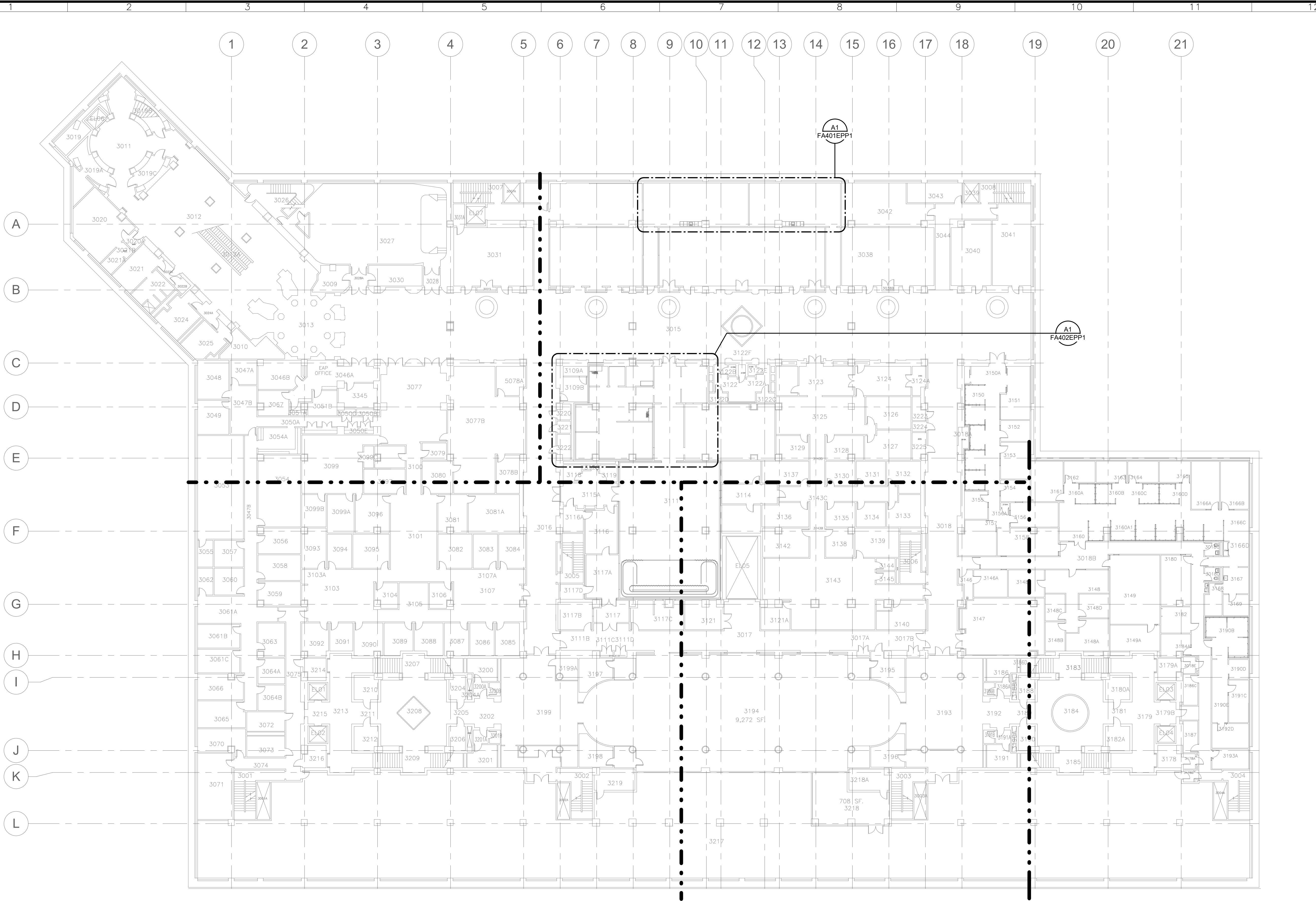
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SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	ENLARGED PLANS - SUBLEVEL 1 - SSR / SOC - FIRE ALARM - DEMO - PHASE 1
WORKING STAFF	MF MF KWL
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO.	FD403EPP1
69 of 179	

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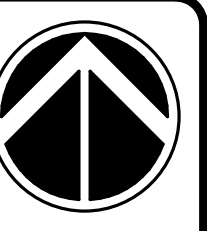
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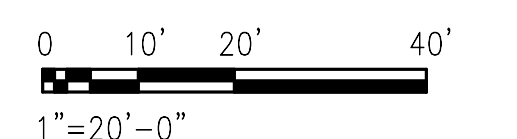
**SUBLEVEL 3 - FIRE ALARM - OVERALL PLAN - NEW WORK - PHASE 1**  
SCALE = 1" = 20'-0"



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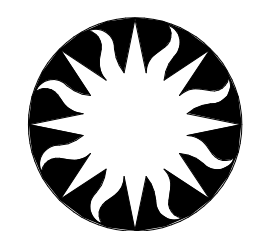


KEY PLAN



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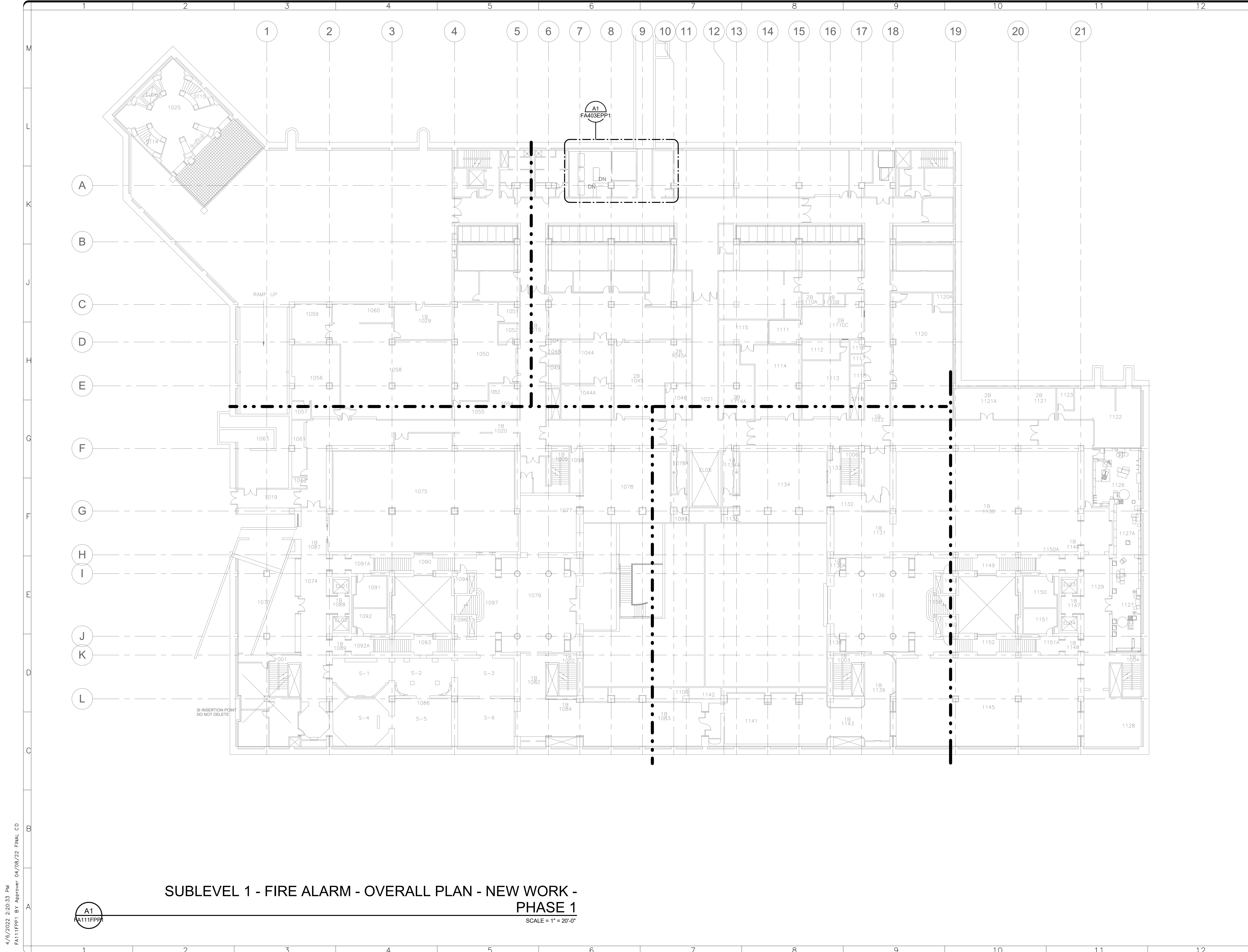
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A/E PROJECT NUMBER	11203201	
DRAWING TITLE	SUBLEVEL 3 - FIRE ALARM - OVERALL PLAN - NEW WORK - PHASE 1	
WORKING STAFF	MF MF KWL	
DESIGNED BY	DRAWN BY	CHECKED BY
SHEET NO.	70 of 179	FA101FPP1
	DISCIPLINE	TYPE SEQUENCE DRAWING TYPE PHASE



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 FIRE PROTECTION  
 PROFESSIONAL ENGINEER

KEY PLAN

0 10' 20' 40'  
 1"=20'-0"  
 GRAPHIC SCALE(S)

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REVISION #		REVISION DESCRIPTION	

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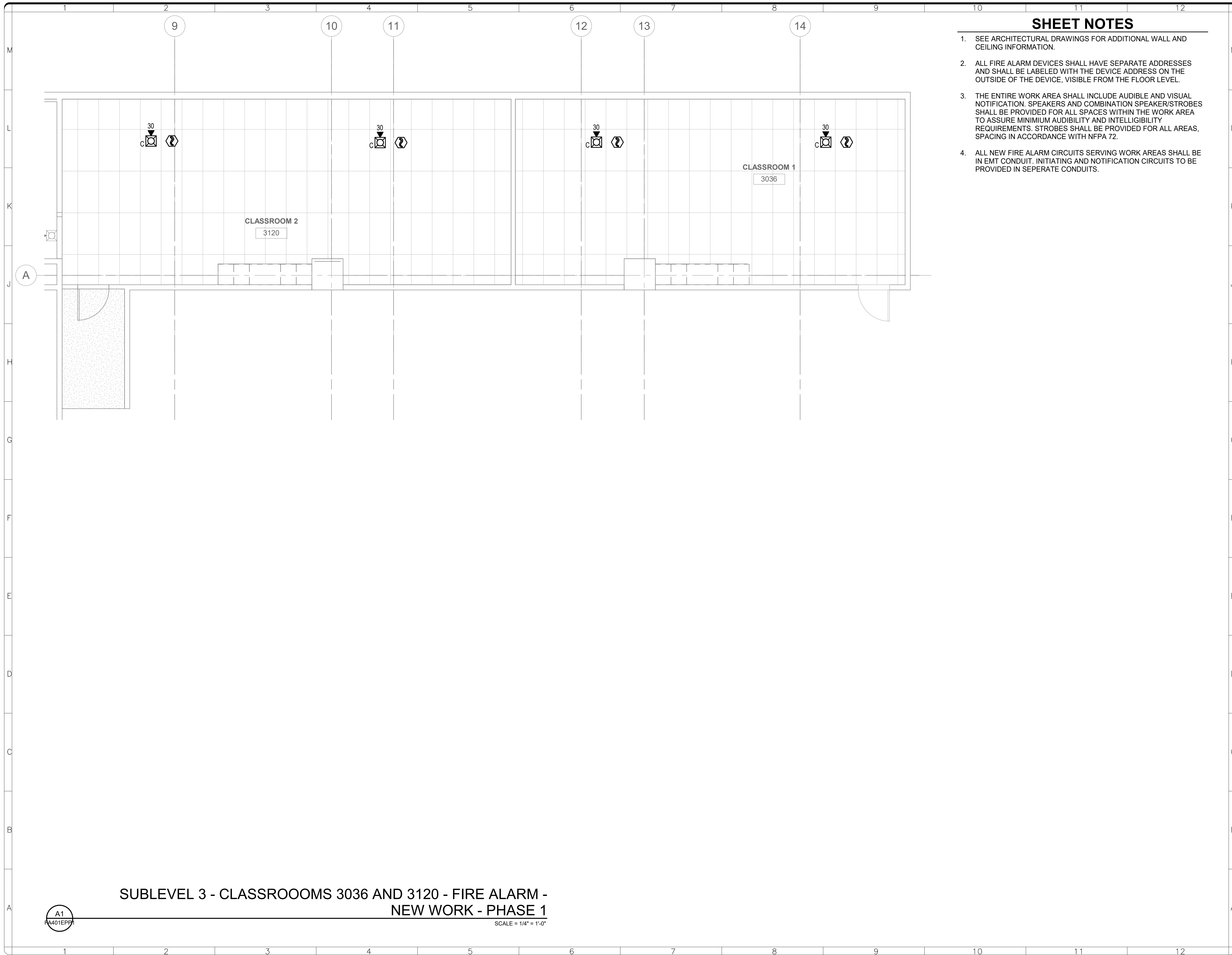
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A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 1 - FIRE ALARM - OVERALL PLAN - NEW WORK - PHASE 1
WORKING STAFF	MF MF KWL DESIGNED BY DRAWN BY CHECKED BY

SHEET NO. 71 OF 179  
 FA111FPP1

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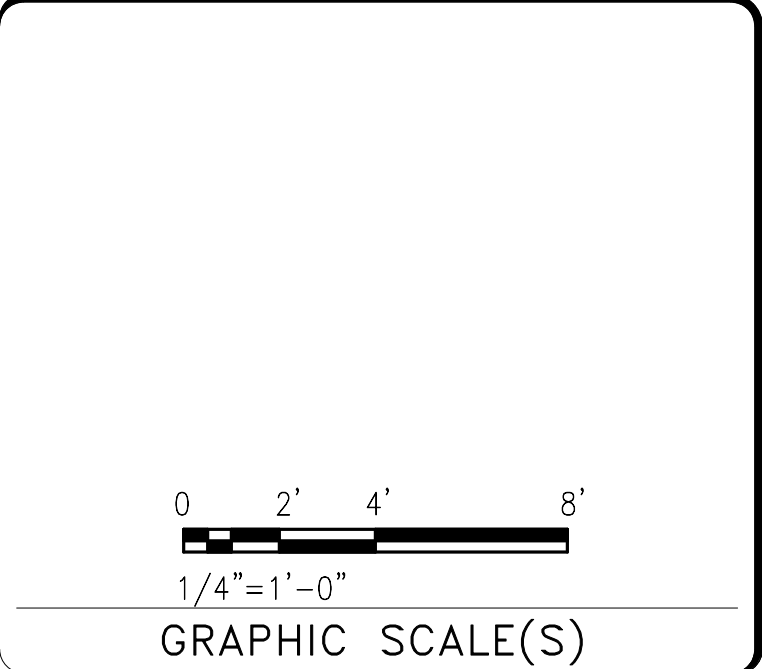
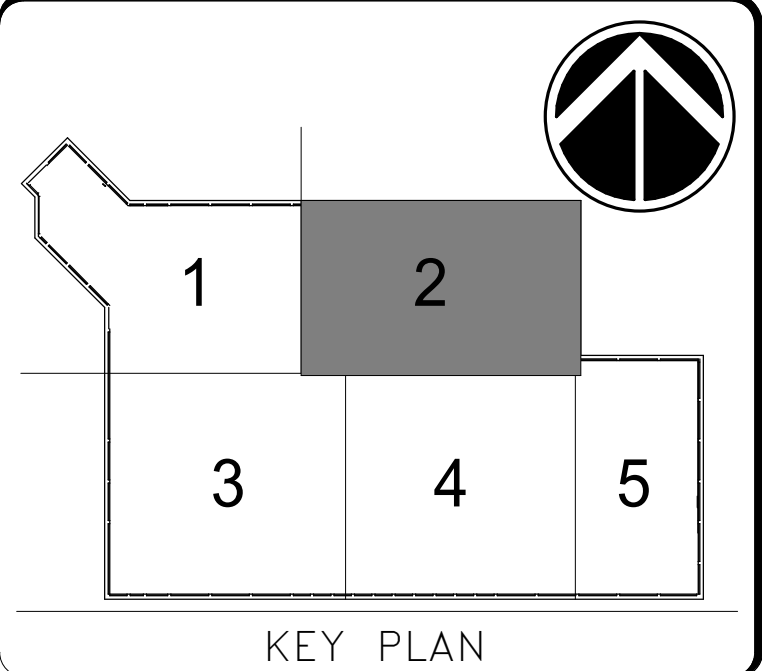
**SUBLEVEL 1 - FIRE ALARM - OVERALL PLAN - NEW WORK - PHASE 1**  
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**SHEET NOTES**

1. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL WALL AND CEILING INFORMATION.
2. ALL FIRE ALARM DEVICES SHALL HAVE SEPARATE ADDRESSES AND SHALL BE LABELED WITH THE DEVICE ADDRESS ON THE OUTSIDE OF THE DEVICE, VISIBLE FROM THE FLOOR LEVEL.
3. THE ENTIRE WORK AREA SHALL INCLUDE AUDIBLE AND VISUAL NOTIFICATION. SPEAKERS AND COMBINATION SPEAKER/STROBES SHALL BE PROVIDED FOR ALL SPACES WITHIN THE WORK AREA TO ASSURE MINIMUM AUDIBILITY AND INTELLIGIBILITY REQUIREMENTS. STROBES SHALL BE PROVIDED FOR ALL AREAS, SPACING IN ACCORDANCE WITH NFPA 72.
4. ALL NEW FIRE ALARM CIRCUITS SERVING WORK AREAS SHALL BE IN EMT CONDUIT. INITIATING AND NOTIFICATION CIRCUITS TO BE PROVIDED IN SEPERATE CONDUITS.

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SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	ENLARGED PLANS - SUBLEVEL 3 - CLASSROOMS 3036 AND 3120 - FIRE ALARM - NEW WORK - PHASE 1
WORKING STAFF	DESIGNED BY MF DRAWN BY MF CHECKED BY KWL

SHEET NO. **FA401EPP1**  
 72 of 179

**SUBLEVEL 3 - CLASSROOMS 3036 AND 3120 - FIRE ALARM - NEW WORK - PHASE 1**

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

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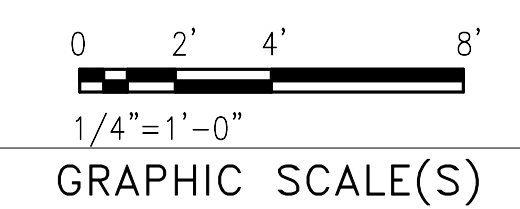
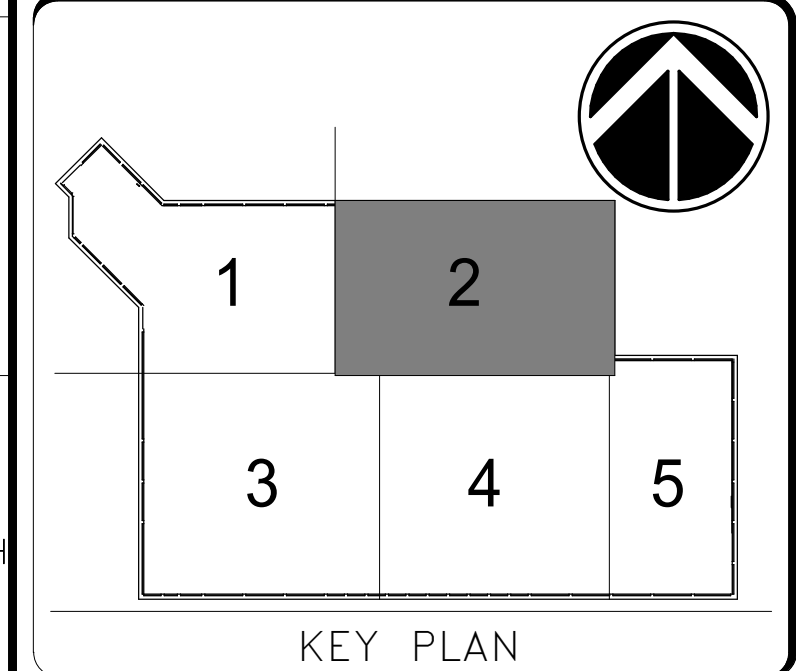


**SHEET NOTES**

1. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL WALL AND CEILING INFORMATION.
2. ALL FIRE ALARM DEVICES SHALL HAVE SEPARATE ADDRESSES AND SHALL BE LABELED WITH THE DEVICE ADDRESS ON THE OUTSIDE OF THE DEVICE, VISIBLE FROM THE FLOOR LEVEL.
3. THE ENTIRE WORK AREA SHALL INCLUDE AUDIBLE AND VISUAL NOTIFICATION. SPEAKERS AND COMBINATION SPEAKER/STROBES SHALL BE PROVIDED FOR ALL SPACES WITHIN THE WORK AREA TO ASSURE MINIMUM AUDIBILITY AND INTELLIGIBILITY REQUIREMENTS. STROBES SHALL BE PROVIDED FOR ALL AREAS, SPACING IN ACCORDANCE WITH NFPA 72.
4. ALL NEW FIRE ALARM CIRCUITS SERVING WORK AREAS SHALL BE IN EMT CONDUIT. INITIATING AND NOTIFICATION CIRCUITS TO BE PROVIDED IN SEPERATE CONDUITS.



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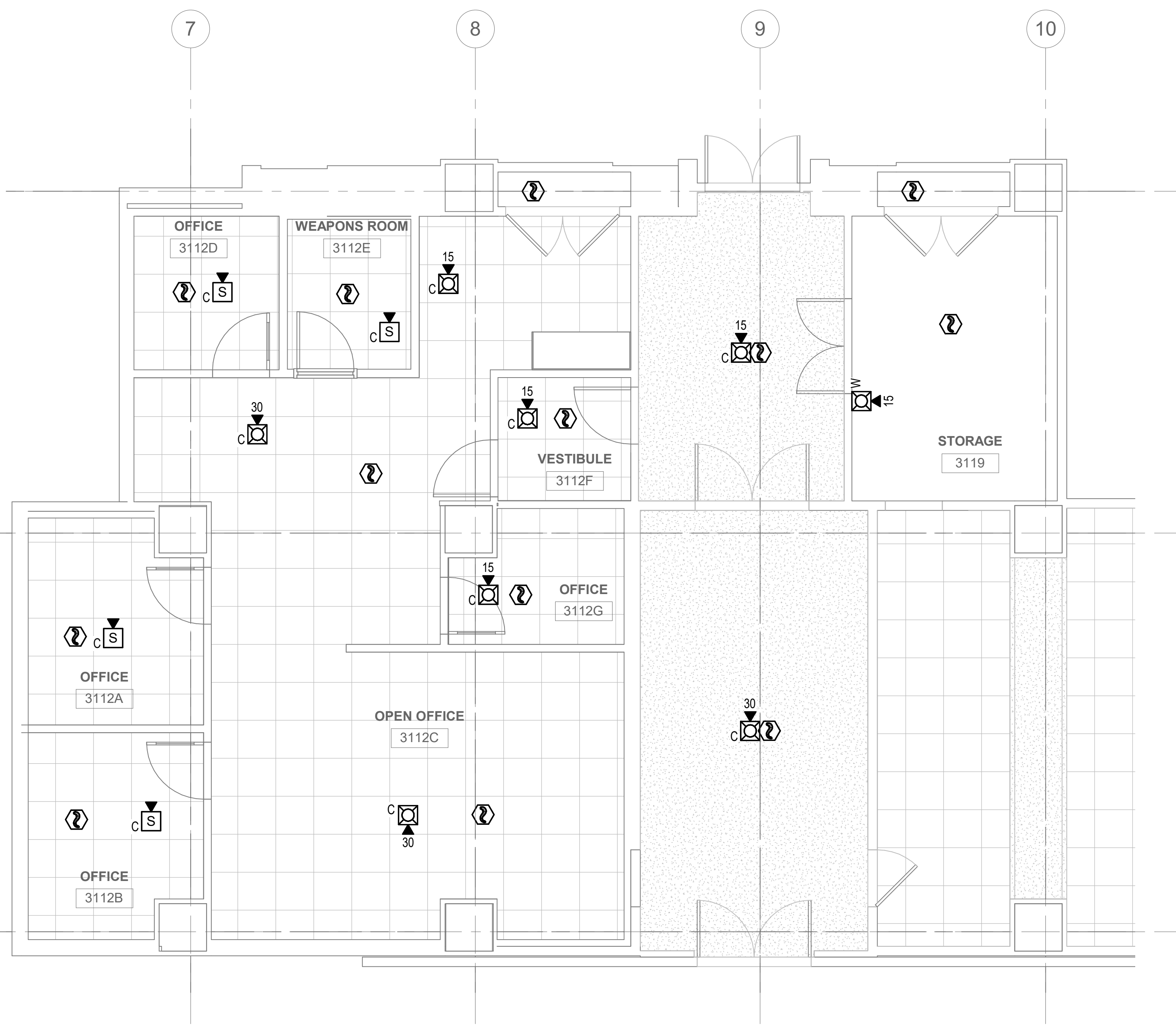


DATE	04/08/22	REVISION	FINAL CD
REVISION #	DATE	REVISION DESCRIPTION	

**Smithsonian Institution**  
Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AF/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AF/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	ENLARGED PLANS - SUBLEVEL 3 - OPS SUITE - FIRE ALARM - NEW WORK - PHASE 1
WORKING STAFF	MF MF KWL
DESIGNED BY	MF
DRAWN BY	MF
CHECKED BY	KWL

SHEET NO. **FA402EPP1**  
73 of 179

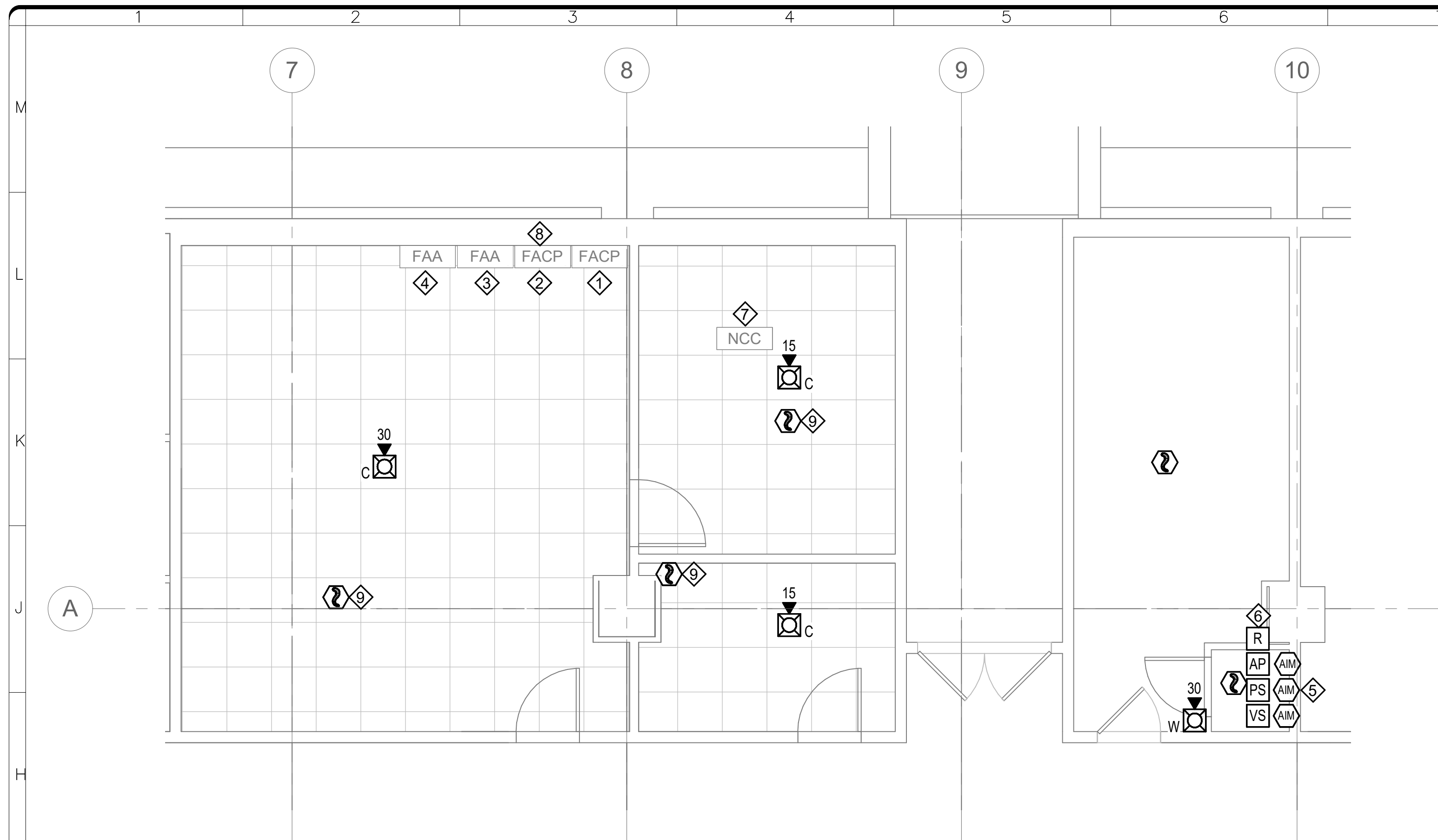


**SUBLEVEL 3 - OPS SUITE - FIRE ALARM - NEW WORK - PHASE 1**

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

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**SUBLEVEL 1 - COMMAND CENTER - FIRE ALARM - NEW WORK - PHASE 1**

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

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FA403EPP1

FIRE ALARM INPUT	Operation								
	Activate Audible FA Evacuation Throughout Building	Activate Visual "Alert" Strobes Throughout Building	Alarm Condition At FACU	Supervisory Condition At FACU	Transmit Signal To Keitron	Unlock Magnetic Lock Doors And Delayed Egress Doors	Release Roll Up Doors And Door Holders	Activate Stairwell Pressurization	Release Magnetically Held-Open Doors
Smoke Detector - Associated With Preaction System			X		X		X		X
Alarm Pressure Switch - Associated With Preaction System	X	X	X		X	X	X	X	X
High/Low Air Switch - Associated With Preaction System				X	X				

Notes:  
1. Existing fire alarm sequences to remain. Sequence of operations above pertains only to new devices provided as part of this project.

**\*\*CONTACTOR SHALL FIELD VERIFY THE EXISTING FIRE ALARM SEQUENCE OF OPERATIONS AND PROVIDE UPDATED MATRIX AS PART OF SHOP DRAWINGS/AS-BUILT DOCUMENTS.**

**PARTIAL FIRE ALARM MATRIX**

SCALE = N.T.S

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FA403EPP1

**SHEET NOTES**

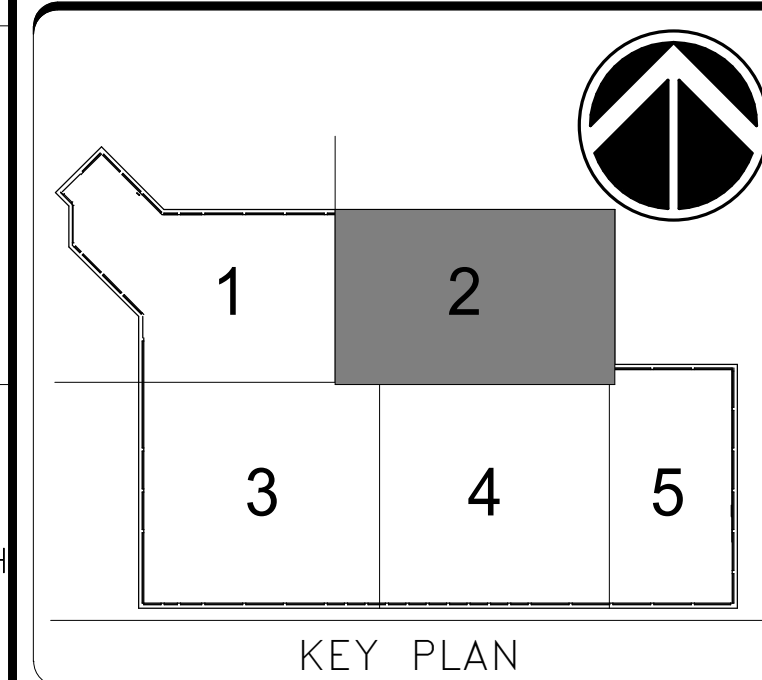
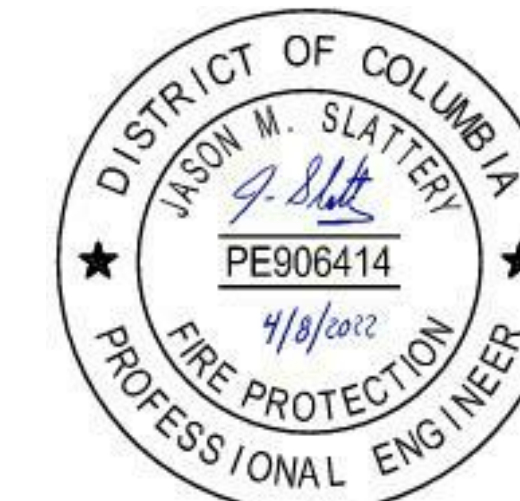
- SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL WALL AND CEILING INFORMATION.
- ALL FIRE ALARM DEVICES SHALL HAVE SEPARATE ADDRESSES AND SHALL BE LABELED WITH THE DEVICE ADDRESS ON THE OUTSIDE OF THE DEVICE, VISIBLE FROM THE FLOOR LEVEL.
- THE ENTIRE WORK AREA SHALL INCLUDE AUDIBLE AND VISUAL NOTIFICATION. SPEAKERS AND COMBINATION SPEAKER/STROBES SHALL BE PROVIDED FOR ALL SPACES WITHIN THE WORK AREA TO ASSURE MINIMUM AUDIBILITY AND INTELLIGIBILITY REQUIREMENTS. STROBES SHALL BE PROVIDED FOR ALL AREAS, SPACING IN ACCORDANCE WITH NFPA 72.
- ALL NEW FIRE ALARM CIRCUITS SERVING WORK AREAS SHALL BE IN EMT CONDUIT. INITIATING AND NOTIFICATION CIRCUITS TO BE PROVIDED IN SEPERATE CONDUITS.

**KEYNOTES**

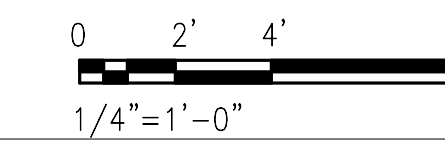
- ◇ RELOCATED EXISTING SIEMENS MXL FIRE ALARM CONTROL PANEL SERVING FREER BUILDING.
- ◇ RELOCATED EXISTING SIEMENS XLS FIRE ALARM CONTROL PANEL SERVING QUAD BUILDING.
- ◇ RELOCATED REMOTE GRAPHIC ANNUNCIATOR PANEL
- ◇ RELOCATED EXISTING SIEMENS RCC-1F REMOTE GRAPHIC ANNUNCIATOR PANEL SERVING CASTLE BUILDING.
- ◇ PROVIDE ADDRESSABLE INTERFACE DEVICES TO MONITOR VALVE SUPERVISORY SWITCH, ALARM PRESSURE SWITCH, AND HIGH/LOW AIR PRESSURE SUPERVISORY SWITCH ASSOCIATED WITH THE PREACTION SPRINKLER SYSTEM.
- ◇ PROVIDE RELEASING CIRCUIT FOR PREACTION SPRINKLER SYSTEM. RELEASING SOLENOID SHALL ACTIVATE UPON SMOKE DETECTOR ACTIVATION WITHIN COMMAND CENTER.
- ◇ RELOCATED EXISTING NCC WORKSTATION.
- ◇ PROVIDE RELEASING CIRCUIT FOR PREACTION SPRINKLER SYSTEM IN EXISTING SIEMENS XLS SERVING QUAD BUILDING. RELEASING SOLENOID SHALL ACTIVATE UPON SMOKE DETECTOR ACTIVATION WITHIN COMMAND CENTER.
- ◇ PROVIDE SMOKE DETECTOR AS PART OF THE ELECTRIC RELEASE PORTION OF THE PREACTION SYSTEM.



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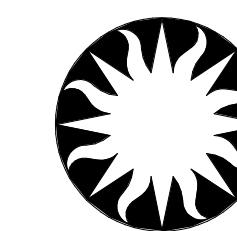


KEY PLAN



GRAPHIC SCALE(S)

DATE 04/08/22	REVISION FINAL CD
REVISION # DATE	REVISION DESCRIPTION



**Smithsonian Institution**

Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/FA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/FA/ QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	ENLARGED PLANS - SUBLEVEL 1 - COMMAND CENTER - FIRE ALARM - NEW WORK - PHASE 1
WORKING STAFF	DESIGNED BY: MF, DRAWN BY: MF, CHECKED BY: KWL

SHEET NO. FA403EPP1  
74 of 179



KEY PLAN

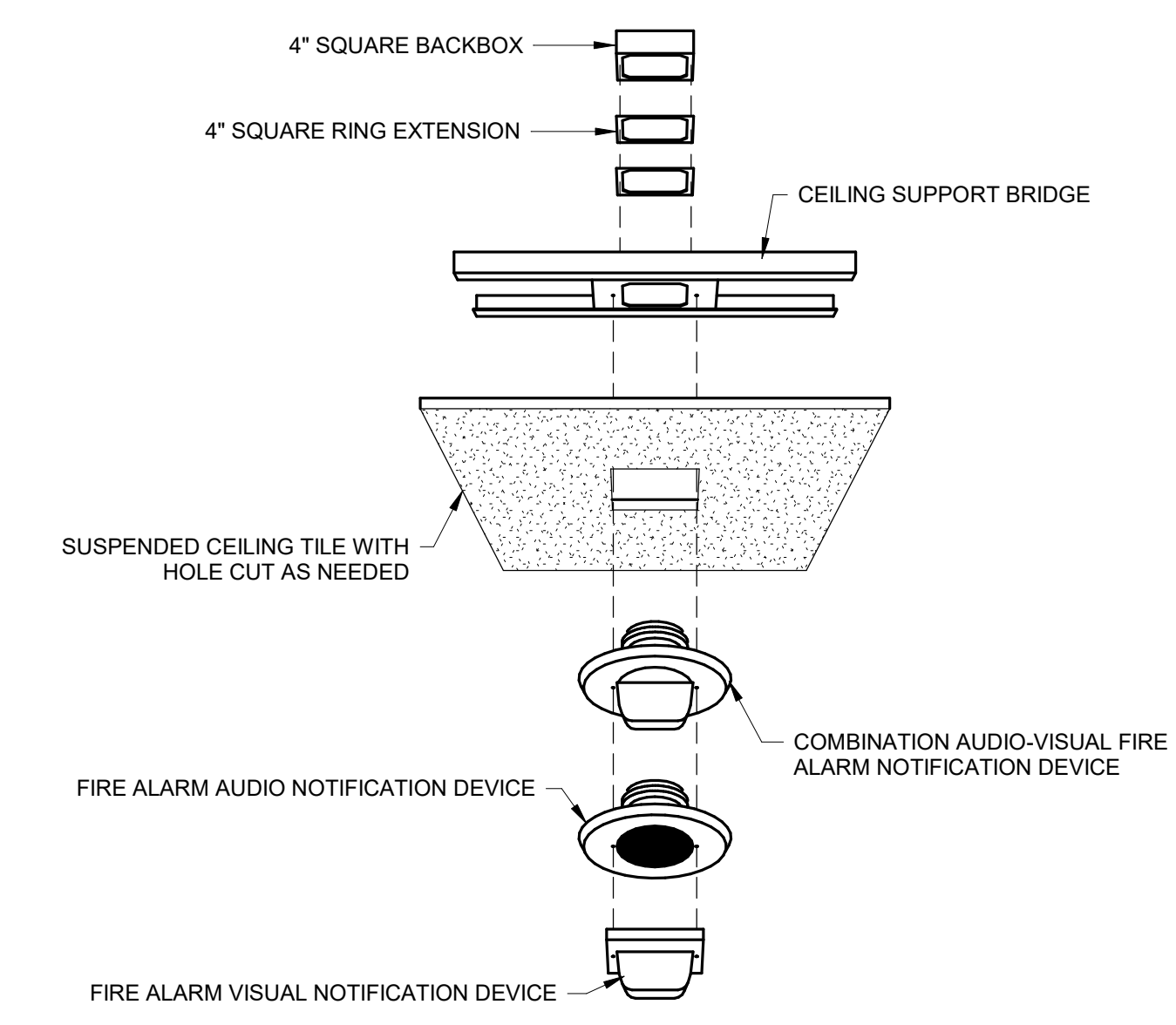
GRAPHIC SCALE(S)

DATE	04/08/22	REVISION	FINAL CD
REVISION #	DATE	REVISION DESCRIPTION	

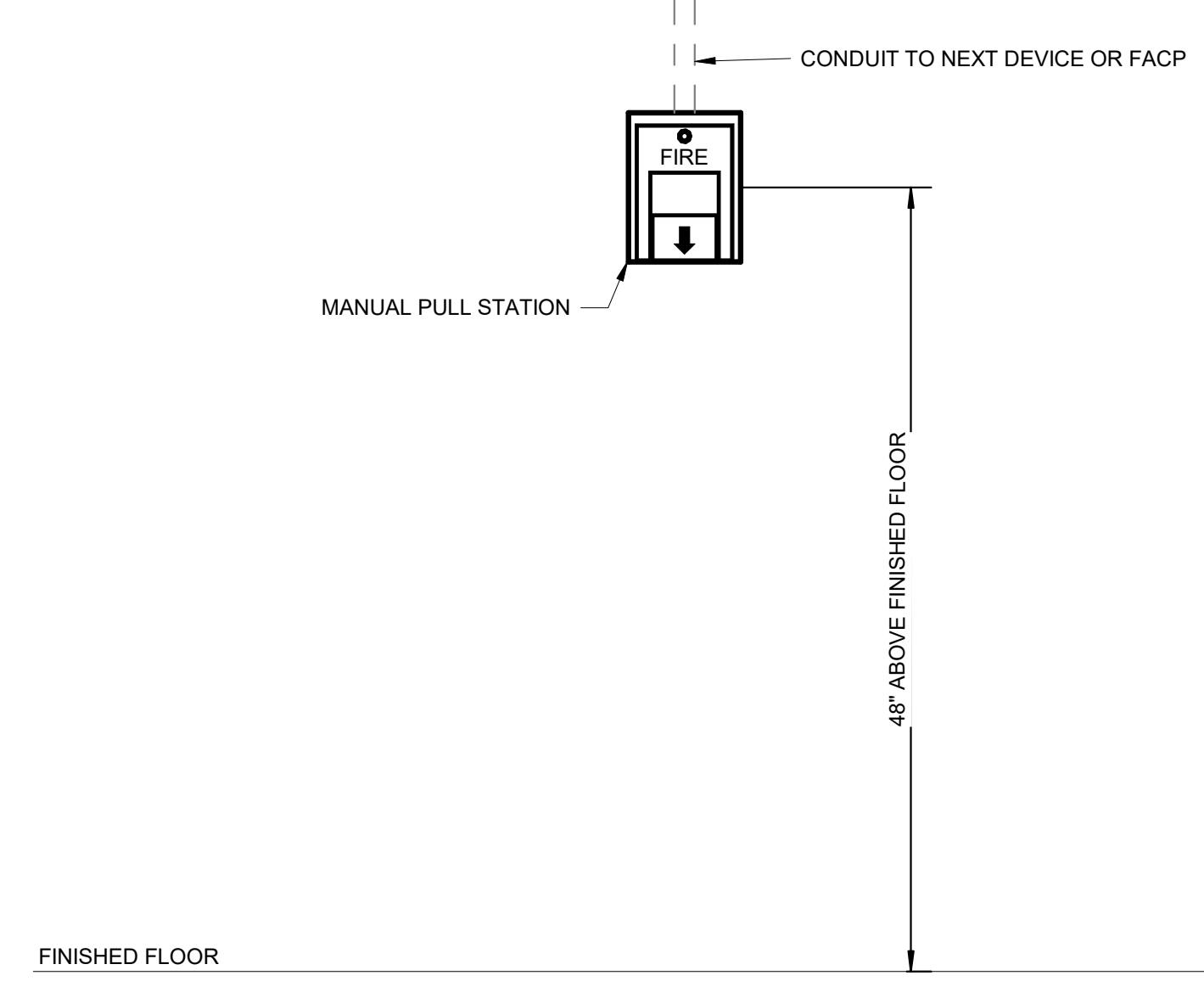
**Smithsonian Institution**  
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BUILDING NAME	FREER/SACKLER/FA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/FA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	DETAILS - FIRE ALARM - PHASE 1
WORKING STAFF	MF MF KWL
DESIGNED BY	MF
DRAWN BY	MF
CHECKED BY	KWL

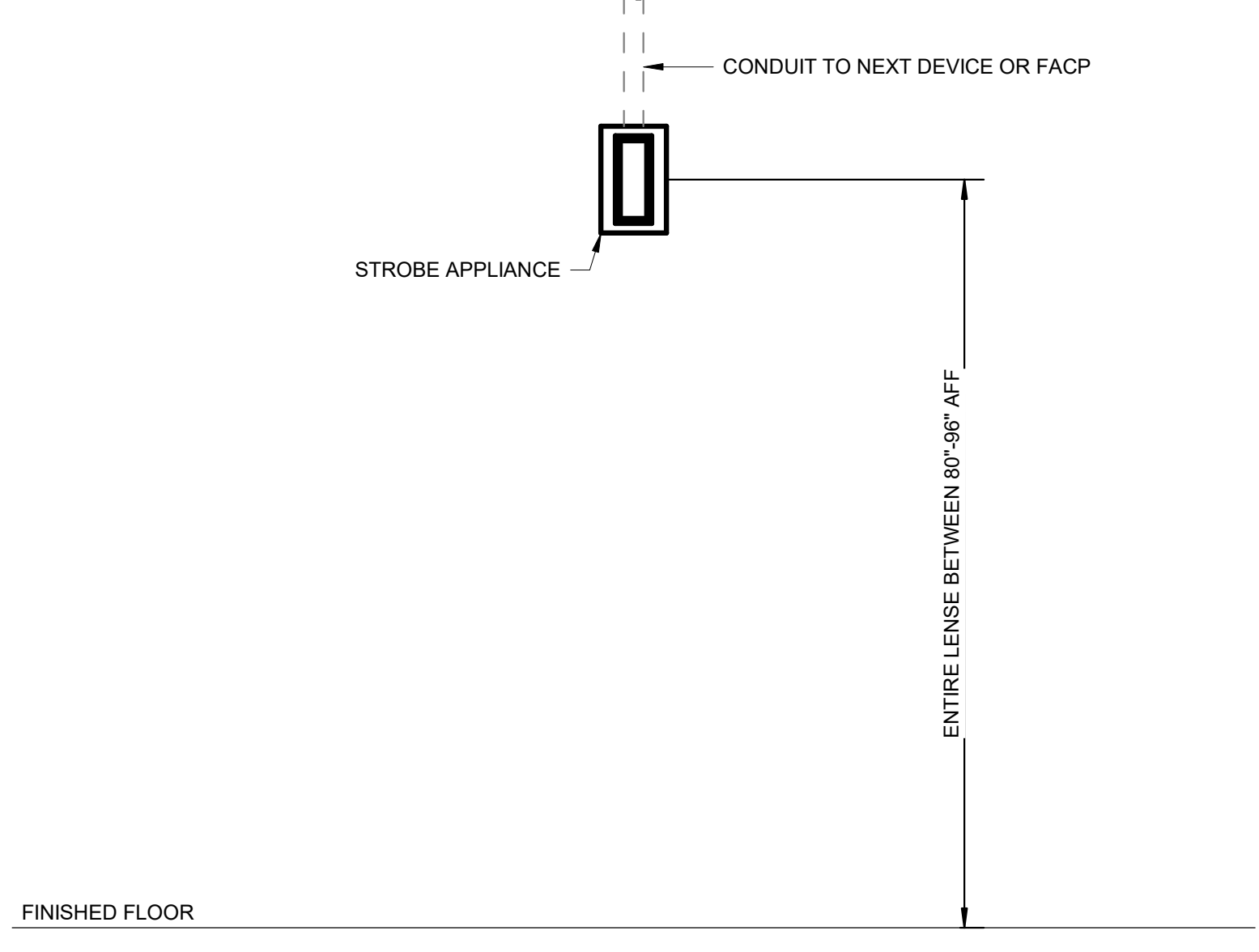
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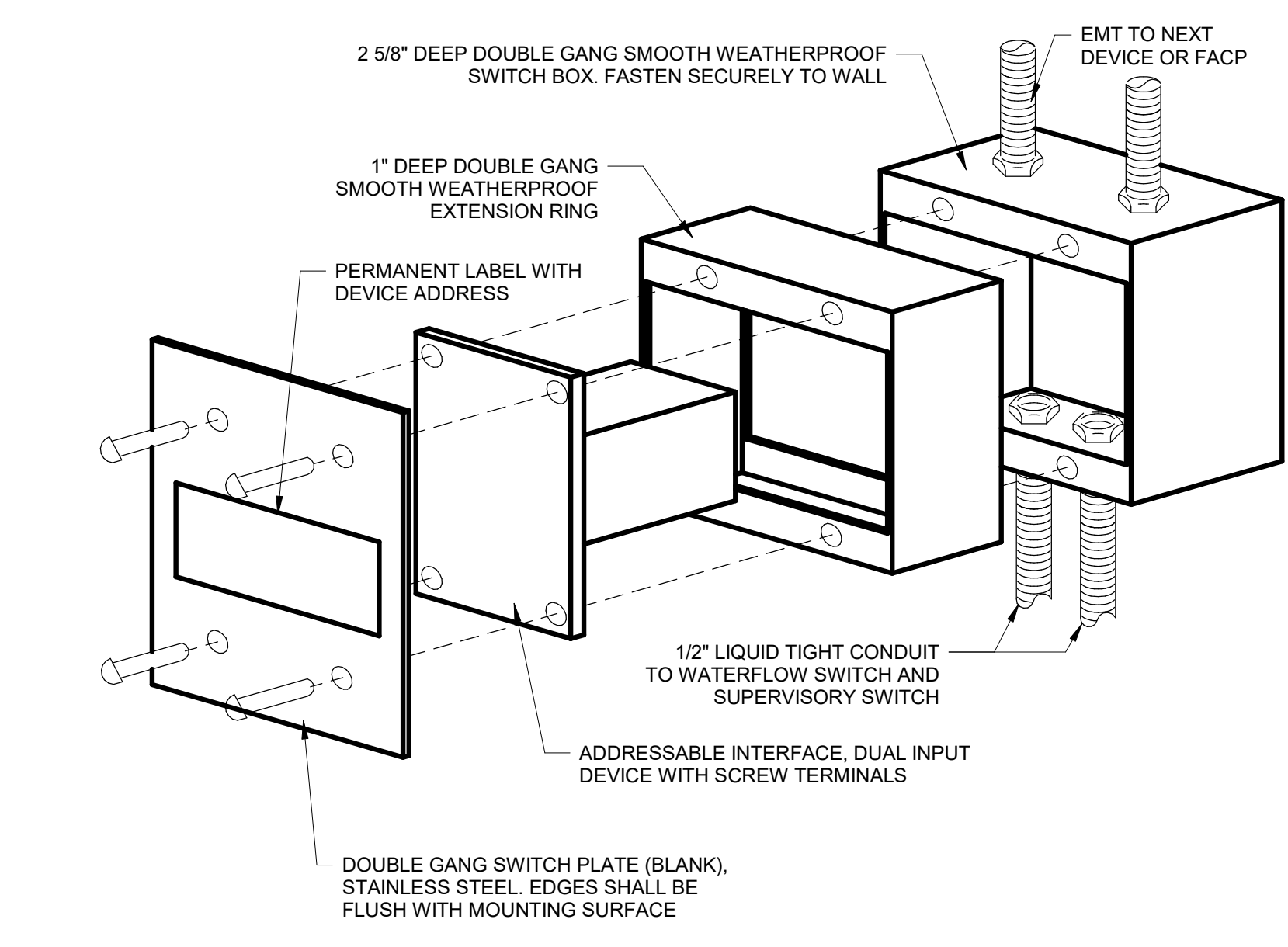
**DETAIL - MOUNTING OF NOTIFICATION APPLIANCE IN SUSPENDED CEILING**  
 SCALE = N.T.S.



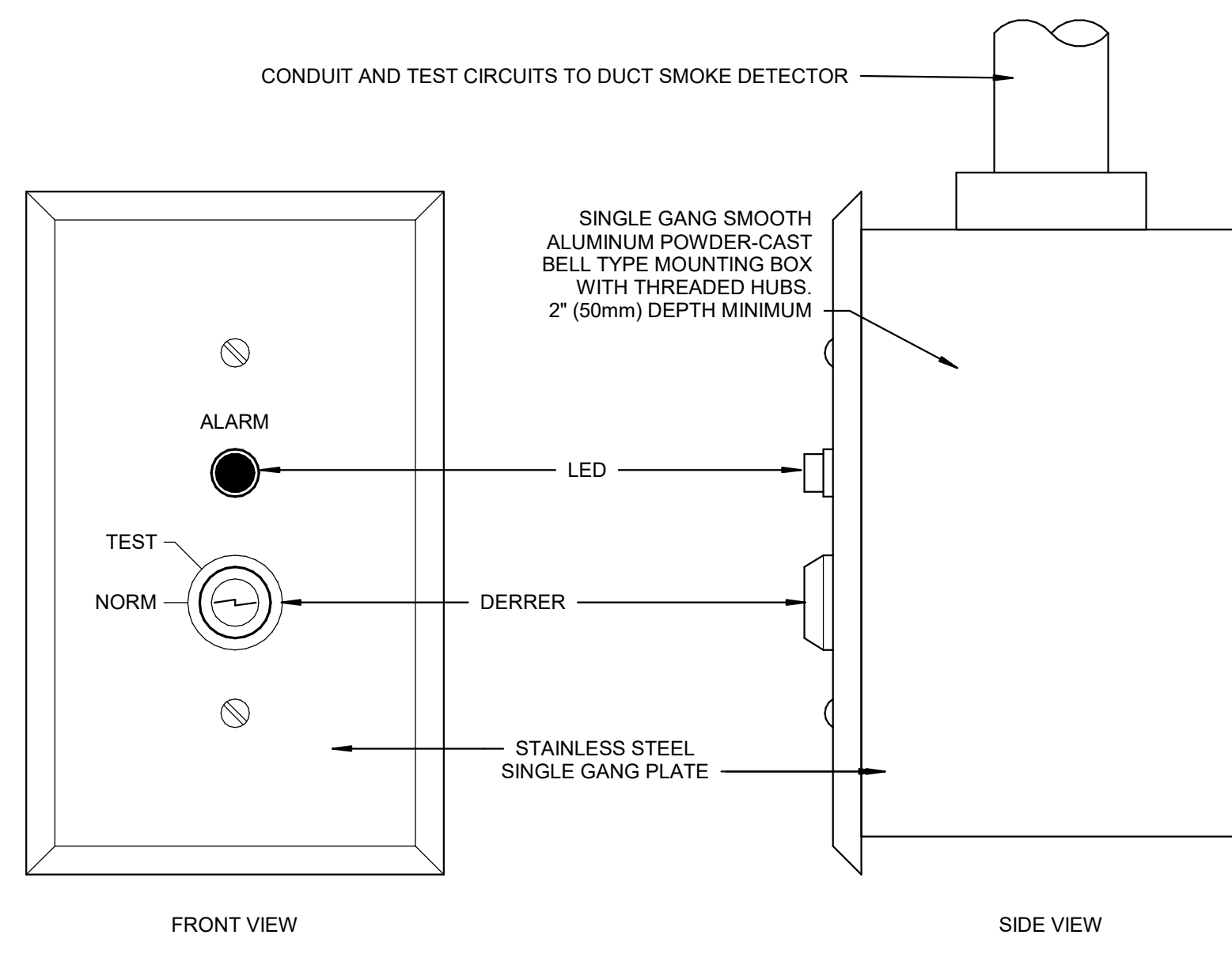
**DETAIL - MOUNTING OF MANUAL PULL STATION**  
 SCALE = N.T.S.



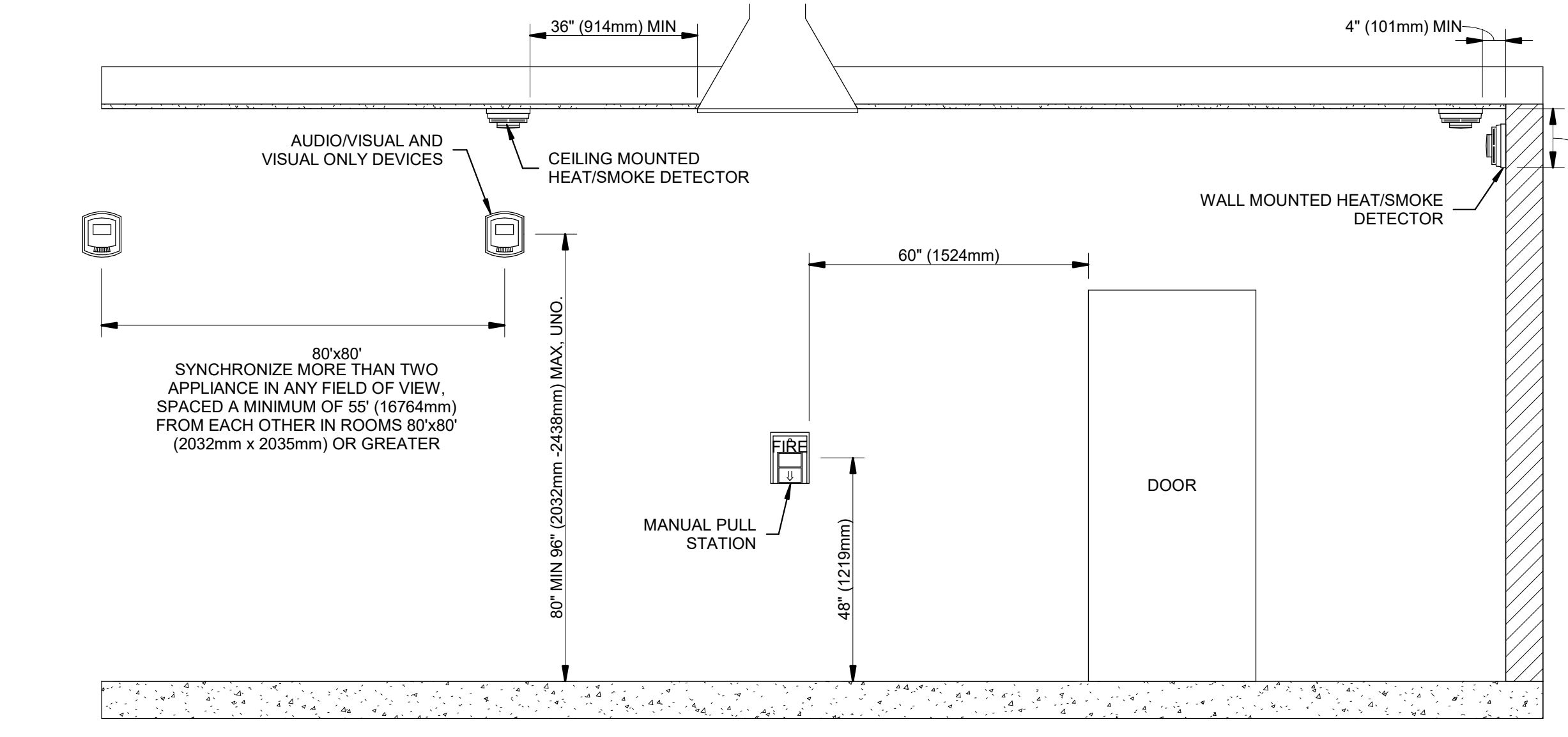
**DETAIL - MOUNTING OF STROBE APPLIANCE**  
 SCALE = N.T.S.



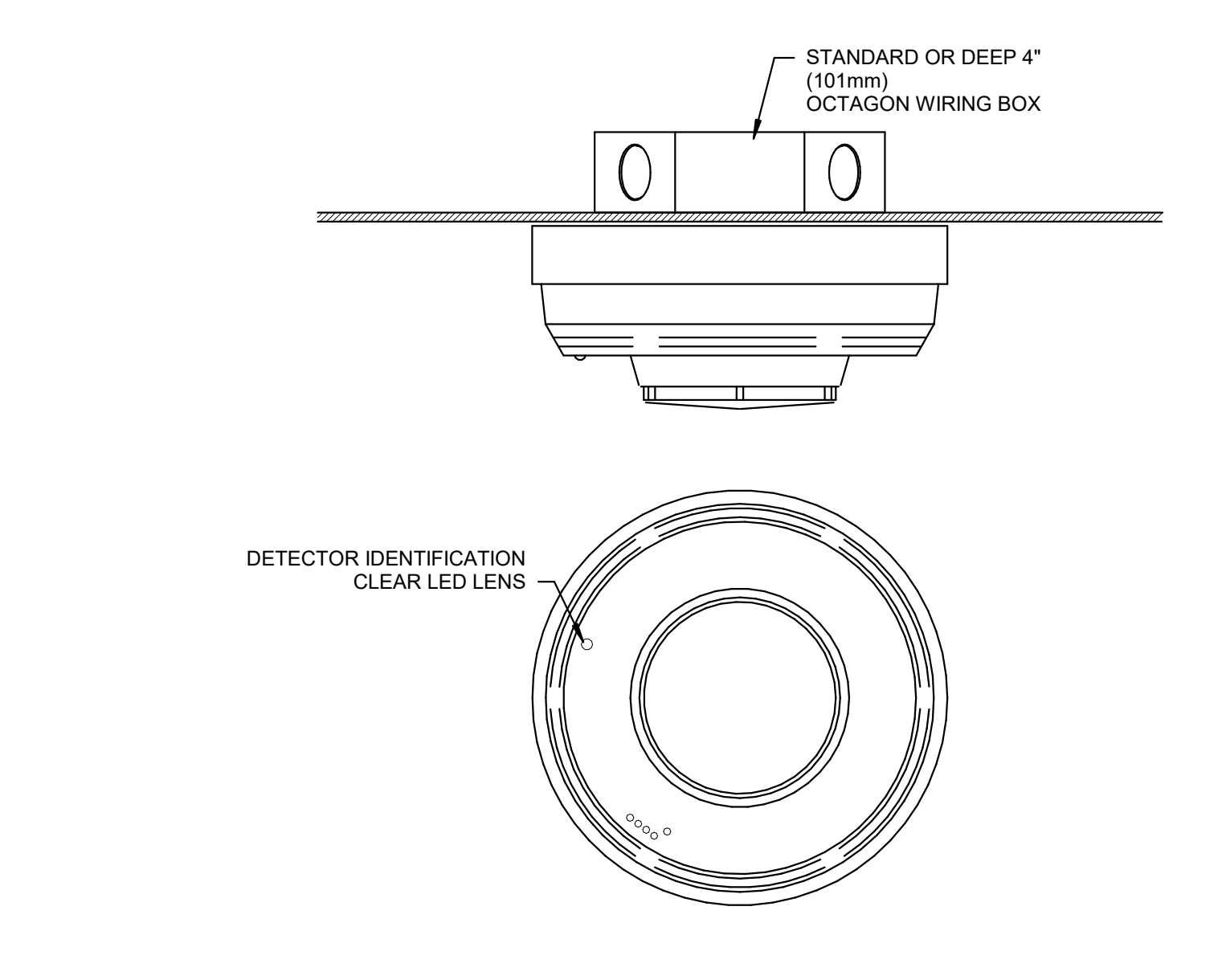
**DETAIL - ADDRESSABLE INTERFACE MODULE MOUNTING**  
 SCALE = N.T.S.



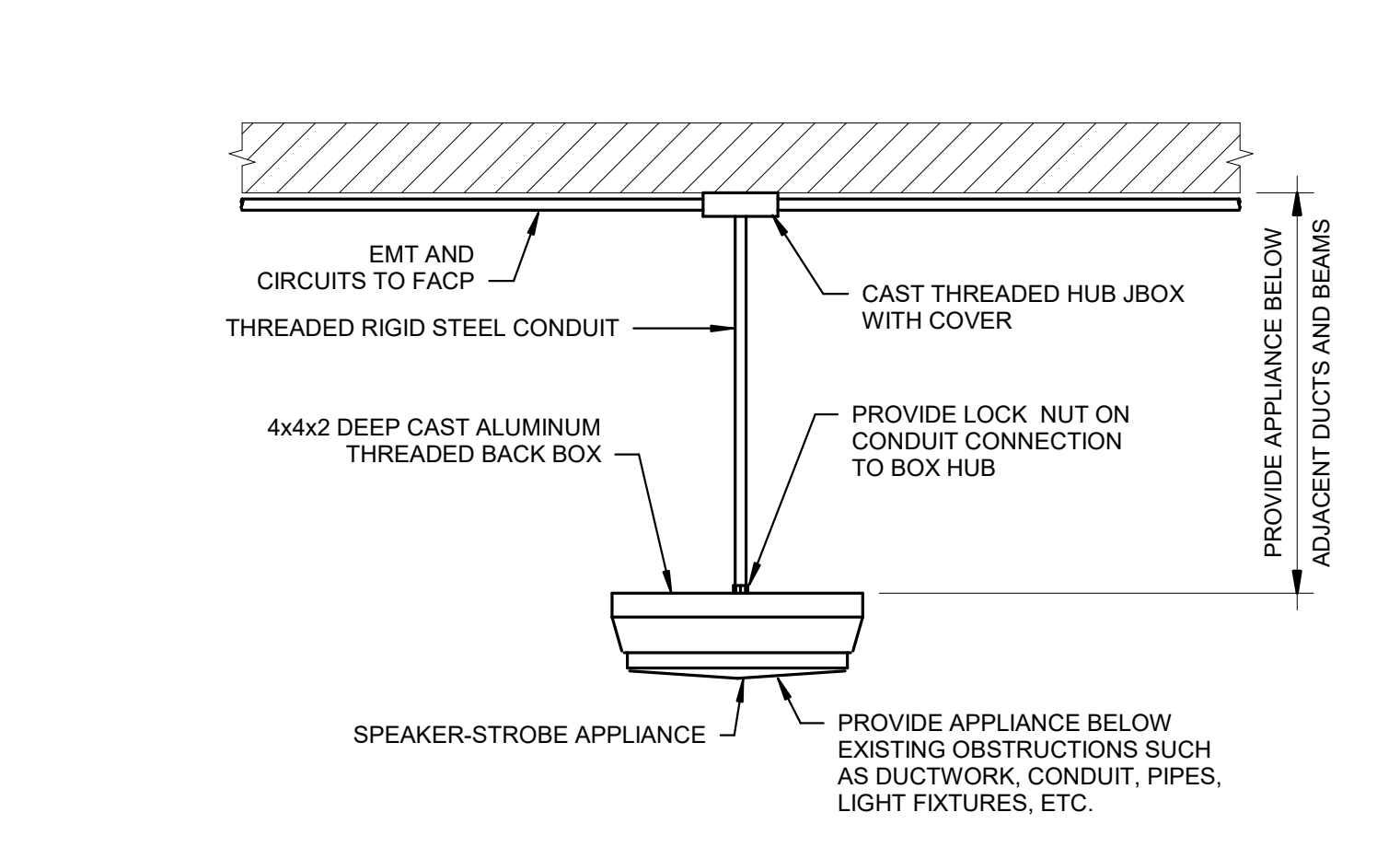
**DUCT SMOKE DETECTOR TEST STATION**  
 SCALE = N.T.S.



**DEVICE MOUNTING HEIGHTS**  
 SCALE = N.T.S.



**SMOKE DETECTOR MOUNTED TO CEILING**  
 SCALE = N.T.S.



**MOUNTING OF NOTIFICATION APPLIANCE IN COLLECTIONS/STORAGE ROOM CEILING**  
 SCALE = N.T.S.

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## FIRE SUPPRESSION GENERAL NOTES

1. THE SCOPE OF THIS PROJECT INCLUDES MODIFICATION OF THE EXISTING SPRINKLER SYSTEM IN THE OPS OFFICE SUITE, THE EXISTING SECURITY CONTROL ROOMS AND PHOTO LAB SPACE IN THE SI QUAD BUILDING. THE EXISTING SPRINKLER SYSTEM IN THE OPS OFFICE SUITE SHALL BE REMOVED AND MODIFIED TO ACCOMMODATE THE RENOVATION. THE SPRINKLER SYSTEM IN THE SECURITY CONTROL ROOMS SHALL BE REMOVED AND REPLACED WITH A NEW DOUBLE INTERLOCKED PREACTION SPRINKLER SYSTEM. ALL WORK AND INSTALLATION SHALL CONFORM TO APPLICABLE NFPA STANDARDS, FEDERAL STANDARDS AND REGULATIONS AND THE SPECIFIC REQUIREMENTS INDICATED ON THESE CONTRACT DRAWINGS.
2. INFORMATION CONTAINED IN THESE DRAWINGS IS BASED ON EXISTING DOCUMENTS AND FIELD MEASUREMENTS. THE INFORMATION CONTAINED HEREIN MAY REQUIRE ADJUSTMENTS AND/OR MODIFICATIONS TO CONFORM TO EXISTING CONDITIONS. IN ADDITION, THE CONTRACTOR SHALL NOTIFY CONTRACTING OFFICER IF ANY DISCREPANCY IN EXISTING CONDITION SHOULD PROHIBIT EXECUTION OF THE DESIGN INTENT OF THESE DRAWINGS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE CONCERNING EXISTING AND NEW WORK BEFORE PROCEEDING WITH EITHER FABRICATION OR INSTALLATION OF NEW WORK.
3. ALL CONTRACT DRAWINGS (INCLUDING ALL DISCIPLINES, I.E.: ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, CIVIL, ETC.) AND ALL CONTRACT SPECIFICATIONS ARE COMPLIMENTARY AND MUST BE USED IN CONCERT TO OBTAIN COMPLETE CONSTRUCTION INFORMATION. CONTRACTOR SHALL COORDINATE ALL DRAWINGS AND SPECIFICATIONS PRIOR TO COMMENCING WORK. QUESTIONS REGARDING DESIGN INTENT OR SYSTEM OPERATION SHALL BE PROMPTLY BROUGHT TO THE CONTRACTING OFFICER'S ATTENTION.
4. ANY INFORMATION THAT CONFLICTS BETWEEN THE SPECIFICATIONS AND DRAWINGS SHALL BE BROUGHT TO THE CONTRACTING OFFICER'S ATTENTION. THE CONTRACTOR(S) SHALL NOT PROCEED WITH ANY WORK, EXCEPT AT THEIR OWN RISK, UNTIL CLARIFICATIONS OF THE CONFLICTS ARE ISSUED TO THE CONTRACTOR(S) BY THE CONTRACTING OFFICER.
5. SPRINKLER SYSTEM SHOP DRAWINGS SHALL BE SUBMITTED AND APPROVED PRIOR TO THE PURCHASE, FABRICATION OR INSTALLATION OF ANY EQUIPMENT.
6. ALL SPRINKLER SYSTEM PIPING INDICATED ON THE DRAWINGS IS EITHER EXISTING-TO-REMAIN OR IS TO BE REMOVED AND REPLACED AS INDICATED.
7. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO WELDING AND CUTTING OPERATIONS.
8. CONTRACTOR SHALL NOT INFRINGE ON ANY REQUIRED CLEARANCES OF EXISTING ELECTRICAL PANELS.
9. ALL WALL PENETRATIONS SHALL BE CORE-DRILLED. ALL PENETRATIONS IN WALLS AND CEILINGS SHALL BE PROTECTED WITH UL LISTED THROUGH-PENETRATION FIRE-STOP SYSTEMS OF EQUAL OR GREATER FIRE RESISTANCE RATING TO THE PENETRATING MEMBER. IN ADDITION, ALL EXISTING PENETRATIONS LEFT AS A RESULT OF THE DEMOLITION OF THE EXISTING SPRINKLER SYSTEMS SHALL BE PROTECTED WITH UL LISTED THROUGH-PENETRATION FIRE-STOP SYSTEMS OF EQUAL OR GREATER FIRE RESISTANCE RATING TO THE PENETRATING MEMBER.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EQUIPMENT, FURNISHINGS, FIXTURES AND CONTENTS OF EACH SPACE FROM DAMAGE, DUST AND DEBRIS ASSOCIATED WITH NEW WORK. EXTREME CARE AND CAUTION RELATED TO THE EXISTING SPACES SHALL BE PROVIDED THROUGHOUT THE CONSTRUCTION PROCESS. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT THE MUSEUM DURING CONSTRUCTION. WORK IN OCCUPIED AREAS SHALL BE PROPERLY SECURED WITH BARRIERS SO AS NOT TO CREATE A SAFETY HAZARD. PROVIDE DROP CLOTH OR OTHERWISE PROTECT BUILDING FINISHES FROM ALL CONSTRUCTION DEBRIS AND DUST. REMOVE ALL TRASH AND DEBRIS ON A DAILY BASIS AND RESTORE AREAS TO PRE-CONSTRUCTION CONDITION AS WORK IS COMPLETED. CONTRACTOR IS RESPONSIBLE FOR DAILY CLEAN UP, INCLUDING THE REMOVAL OF DEBRIS AND CONSTRUCTION MATERIAL.
11. NO STRUCTURAL MEMBERS OR STRUCTURAL SYSTEMS SHALL BE CUT, DRILLED, BURNED OR MODIFIED IN ANY WAY.
12. SPRINKLERS INSTALLED IN PROXIMITY TO DUCTS, PIPES, LIGHTS OR OTHER OBSTRUCTIONS SHALL BE LOCATED TO MINIMIZE OBSTRUCTION TO DISCHARGE IN ACCORDANCE WITH NFPA 13.
13. SPRINKLERS SHALL BE PROVIDED BELOW ALL OBSTRUCTIONS WIDER THAN 48 INCHES OR ALL GROUPS OF OBSTRUCTIONS IN CLOSE PROXIMITY TO EACH OTHER WITH A COMBINED WIDTH OF OVER 48 INCHES.
14. ALL SPRINKLER PIPING SHALL BE INSTALLED SO THAT ALL PORTIONS OF THE SYSTEM CAN BE DRAINED BACK THROUGH THE DRAIN VALVE(S). ALL SYSTEM PIPING SHALL BE PITCHED IN ACCORDANCE WITH NFPA 13 REQUIREMENTS. WHERE PIPING CANNOT BE DRAINED BACK TO ZONE CONTROL DRAIN VALVES, PROVIDE AUXILIARY DRAIN(S) IN ACCORDANCE WITH NFPA 13.
15. ALL SPRINKLERS SUBJECT TO MECHANICAL DAMAGE SHALL BE PROTECTED WITH GUARDS IN ACCORDANCE WITH NFPA 13, INCLUDING ELECTRICAL EQUIPMENT ROOMS AND ALL AREAS WHERE SPRINKLERS ARE INSTALLED AT OR BELOW 7 FEET AFF.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR AVOIDING ALL CONFLICTS WITH LIGHTING FIXTURES, DIFFUSERS, GRILLS, DUCTS, STRUCTURAL MEMBERS, PIPES AND OTHER OBSTRUCTIONS ENCOUNTERED.
17. ALL DAMAGE TO EXISTING WALLS, CEILINGS, FLOORS, AND STRUCTURAL MEMBERS FROM PENETRATIONS, REMOVALS, INSTALLATIONS OR OTHER ACTIONS OF THE CONTRACTOR SHALL BE PATCHED, REPAIRED AND PAINTED WITH NEW MATERIALS BY THE CONTRACTOR TO MATCH ADJACENT WORK, WHETHER SPECIFICALLY NOTED OR NOT.
18. DUCTWORK, PIPING, MECHANICAL EQUIPMENT AND CEILINGS SHALL NOT BE UTILIZED AS LADDERS, SCAFFOLDING OR WORK PLATFORMS.
19. CONTRACTOR IS RESPONSIBLE FOR DRAINING DOWN AND RE-FILLING THE EXISTING SPRINKLER SYSTEM(S) IN THE WORK AREAS. CONTRACTOR SHALL CONTACT THE CONTRACTING OFFICER NO LESS THAN 3 DAYS IN ADVANCE OF PROPOSED INTERRUPTION OF SPRINKLER SERVICE. IN ADDITION, THE DRAIN-DOWN AND RE-FILL MUST TAKE PLACE DURING A FIRE ALARM OUTAGE. THE CONTRACTOR IS RESPONSIBLE FOR REQUESTING THIS OUTAGE, THROUGH THE CONTRACTING OFFICER, AND FOR OBTAINING THE SERVICES OF AN APPROVED FIRE ALARM COMPANY TO MONITOR THE FIRE ALARM PANEL DURING THE OUTAGE.
20. THE TERM "PROVIDE" SHALL MEAN THE CONTRACTOR SHALL FURNISH, INSTALL AND CONNECT FOR A COMPLETE AND OPERATIONAL SYSTEM IN ACCORDANCE WITH MANUFACTURER'S CRITERIA, NFPA STANDARDS AND FEDERAL STANDARDS AND REGULATIONS.
21. THE TERM "REMOVE" SHALL MEAN CONTRACTOR SHALL DISCONNECT AND CLEAR FROM SITE.
22. ALL WORK AND INSTALLATION SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THE INTERNATIONAL BUILDING CODE-2018, INTERNATIONAL FIRE CODE-2018, NFPA 13-2019, NFPA 72-2019, SI-OSHEM FIRE PROTECTION & LIFE SAFETY DESIGN MANUAL-2018, SI OSHEM SAFETY MANUAL.
23. ONLY LISTED HANGERS AND SUPPORTS SHALL BE USED FOR FIRE PROTECTION EQUIPMENT.
24. HANGERS FOR FIRE PROTECTION PIPING AND EQUIPMENT SHALL ONLY BE USED FOR SUPPORTING THE PIPE OR EQUIPMENT. OTHER MECHANICAL, PLUMBING OR ELECTRICAL SYSTEMS AND EQUIPMENT SHALL NOT BE SUPPORTED BY FIRE PROTECTION SYSTEM SUPPORTS. FIRE PROTECTION SUPPORTS SHALL BE DIRECTLY CONNECTED TO THE STRUCTURE AND SHALL NOT BE CONNECTED TO OTHER EQUIPMENT, EQUIPMENT SUPPORTS, OR EQUIPMENT SUCH AS TRAPEZE HANGERS WHICH ARE NOT DEDICATED FOR THE SOLE USE OF THE FIRE PROTECTION SYSTEMS.
25. ALL SPRINKLERS SHALL BE QUICK RESPONSE TYPE EXCEPT AS NOTED OR WHERE QUICK RESPONSE TYPES ARE NOT LISTED FOR USE.
26. ALL QUICK RESPONSE GLASS BULB SPRINKLERS SHALL BE EQUIPPED WITH A PROTECTIVE DEVICE TO REDUCE DAMAGE PRIOR TO INSTALLATION. THE PROTECTIVE DEVICE SHALL ONLY BE REMOVED AFTER SPRINKLERS ARE INSTALLED AND CONSTRUCTION ACTIVITIES IN THE VICINITY OF THE SPRINKLER HAVE BEEN COMPLETED.
27. WHERE THE MAXIMUM STATIC OR FLOWING PRESSURE APPLIED TO A SPRINKLER EXCEEDS 100 PSI (6.9 BARS), UNSUPPORTED LENGTHS OF PIPES AND ARM-OVERS SHALL BE SUPPORTED AND RESTRAINED FROM UPWARD MOVEMENT AS REQUIRED BY NFPA 13. UNSUPPORTED LENGTHS OF PIPE SHALL BE WITHIN THE LIMITATIONS OF NFPA 13.
28. HANGER LOCATIONS SHALL BE PER NFPA 13 AND THEY SHALL ALSO MEET THE MANUFACTURER'S REQUIREMENTS.

## SYMBOLS LIST

	SPRINKLER PIPING / EQUIPMENT - EXISTING TO REMAIN
	SPRINKLER PIPING / EQUIPMENT - EXISTING TO BE REMOVED
	SPRINKLER PIPING / EQUIPMENT - NEW WORK
	90° ELBOW TURNED AWAY FROM VIEWER
	TEE TURNED AWAY FROM VIEWER
	CAPPED SPRINKLER PIPING
	PIPE CONTINUATION
	INDICATING TYPE CONTROL VALVE WITH SUPERVISORY SWITCH MOUNTED ON RISER
	OS&Y CONTROL VALVE WITH SUPERVISORY SWITCH
	RISER MOUNTED AIR COMPRESSOR
	PRE-ACTION VALVE - SEE DETAIL A9 ON FX501DT
	SOLENOID VALVE
	PRESSURE SWITCH
	PRESSURE GAUGE
	QUICK RESPONSE CONCEALED PENDENT SPRINKLER - SEE DETAIL E5 ON FX502DT
	QUICK RESPONSE RECESSED PENDENT SPRINKLER - SEE DETAIL E9 ON FX502DT
	QUICK RESPONSE UPRIGHT SPRINKLER
	QUICK RESPONSE RECESSED DRY SPRINKLER - SEE DETAIL J1 ON FX502DT
	KEY NOTE INDICATOR
	START OF WORK INDICATOR
	DETAIL IDENTIFICATION NUMBER
	DETAIL IDENTIFICATION BUBBLE
	SHEET DETAIL IS SHOWN ON SHEET
	SHEET SECTION IS TAKEN FROM
	SECTION IDENTIFICATION NUMBER
	SECTION IDENTIFICATION BUBBLE
	SHEET SECTION IS SHOWN ON SHEET
	SHEET SECTION IS TAKEN FROM

## EQUIVALENT NOMINAL PIPE SIZES

US CUSTOMARY (in)	METRIC (mm)
¾	20
1	25
1¼	32
1½	40
2	50
2½	65
3	80
4	100
6	150
8	200
10	250
12	300

## ABBREVIATIONS

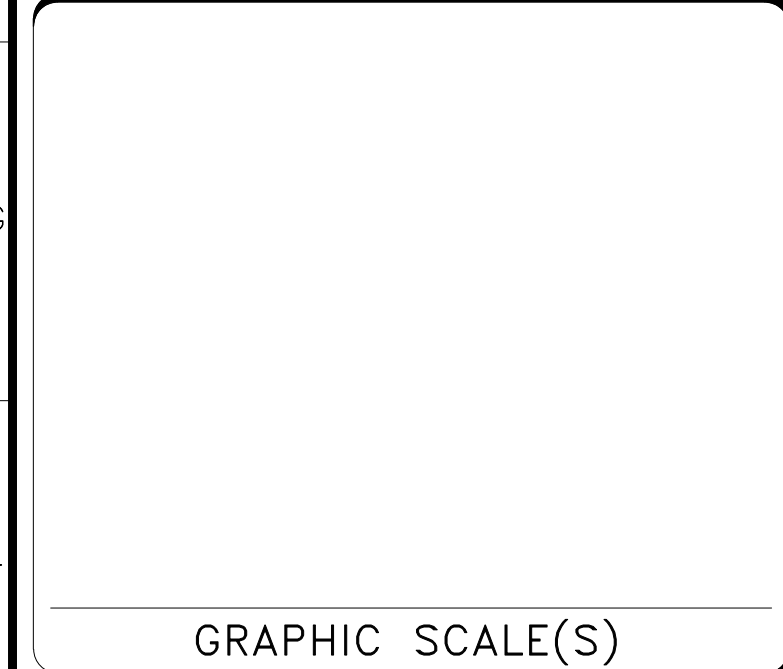
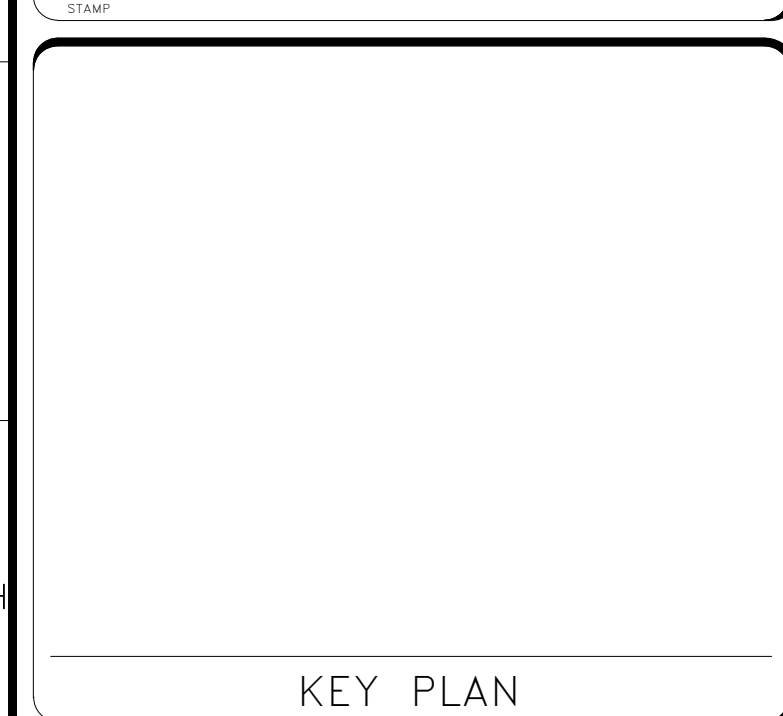
ABBREVIATION	DESCRIPTION
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ATC	ACOUSTICAL TILE CEILING
AV	AUDIO VISUAL
BM	BEAM
BOB	BOTTOM OF BEAM
CON	CONCRETE
CONC	CONCRETE SLAB AND BEAMS
CONF	CONFERENCE
COTR	CONTRACTING OFFICER TECHNICAL REPRESENTATIVE
DEMO	DEMOLITION
DN	DOWN
ELEC	ELECTRICAL
EXST	EXISTING
FDC	FIRE DEPARTMENT CONNECTION
FH	FIRE HYDRANT
FL	FLOOR
FM	FACTORY MUTUAL
FS	FLOW SWITCH
FT	FEET
GPM	GALLONS PER MINUTE
GYP	GYPSUM BOARD ON WOOD OR METAL JOISTS
IN	INCH
LAT	LAY-IN ACOUSTICAL TILE - SUSPENDED
LPM, L/MIN	LITERS PER MINUTE
LTH	LIGHT HAZARD
M	METER
M.SQ	METER SQUARE
MECH	MECHANICAL
MIN	MINUTE
MM	MILLIMETER
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE
OH-1	ORDINARY HAZARD GROUP 1
OH-2	ORDINARY HAZARD GROUP 2
OPS	OFFICE OF PROTECTION SERVICES
OSHEM	OFFICE OF SAFETY, HEALTH AND ENVIRONMENTAL MANAGEMENT
OTA	OPEN TO ABOVE
PSI	POUND PER SQUARE INCH
QRS	QUICK RESPONSE SPRINKLER
RM	ROOM
SEC	SECOND
SERV	SERVICE
SP	STANDPIPE
SQ	SQUARE
SR	STANDARD RESPONSE
SSP	SPRINKLER / STANDPIPE (COMBINED)
ST	STEEL DECK
TBD	TO BE DETERMINED
TELE	TELEPHONE
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED

## NFPA 13 HAZARD CLASSIFICATIONS

ALL SPACES IN THE BUILDING SHALL BE CONSIDERED ORDINARY HAZARD GROUP 2 OCCUPANCY PER NFPA 13 (8.15 L/MIN OVER REMOTE 139 M SQ. DESIGN AREA (0.20 GPM PER SQ. FT. OVER REMOTE 1,500 SQ. FT DESIGN AREA)).



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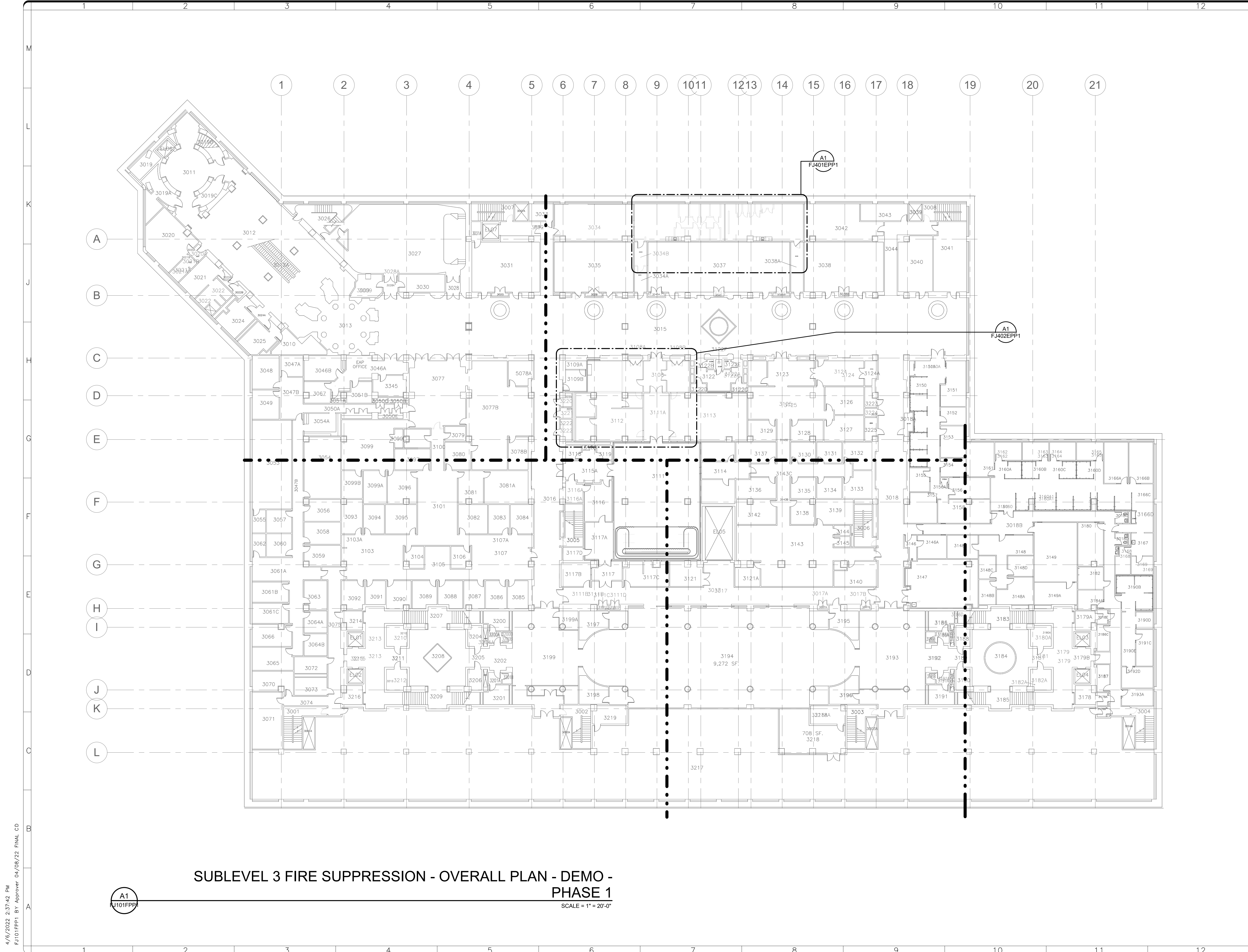


DATE 04/08/22	REVISION FINAL CD
ACTION # DATE	REVISION DESCRIPTION



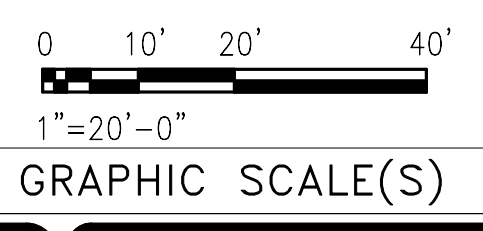
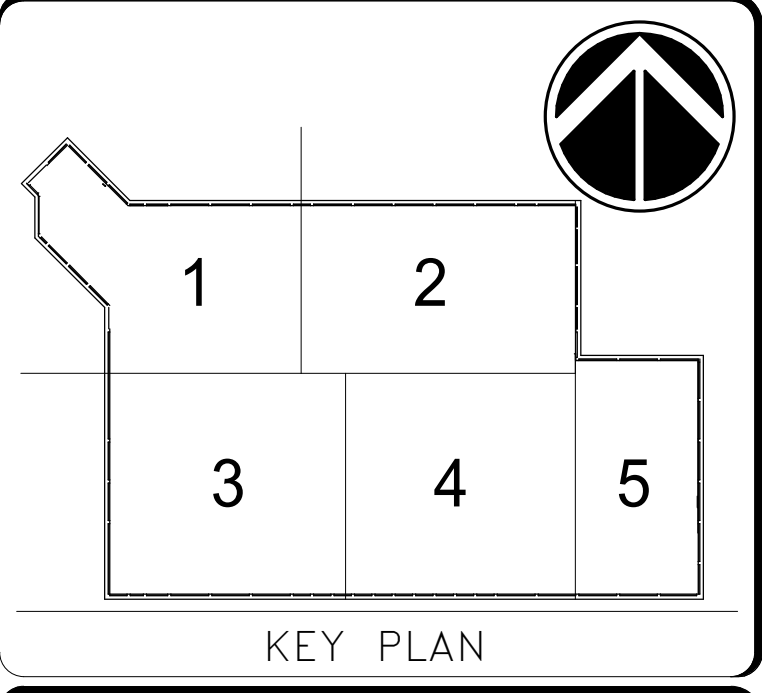
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ADDRESS	SW WASHINGTON, DC 20560						
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION						
SF PROJECT NUMBER	1909101						
A/E PROJECT NUMBER	11203201						
DRAWING TITLE	REFERENCE SHEET -- FIRE SUPPRESSION -- PHASE 1						
WORKING STAFF	<table border="1"> <tr> <td>DESIGNED BY</td> <td>DPH</td> <td>DRAWN BY</td> <td>DPH</td> <td>CHECKED BY</td> <td>KWL</td> </tr> </table>	DESIGNED BY	DPH	DRAWN BY	DPH	CHECKED BY	KWL
DESIGNED BY	DPH	DRAWN BY	DPH	CHECKED BY	KWL		

SHEET NO.	FX001P1
76 of 179	



**SUBLEVEL 3 FIRE SUPPRESSION - OVERALL PLAN - DEMO - PHASE 1**  
 SCALE = 1" = 20'-0"

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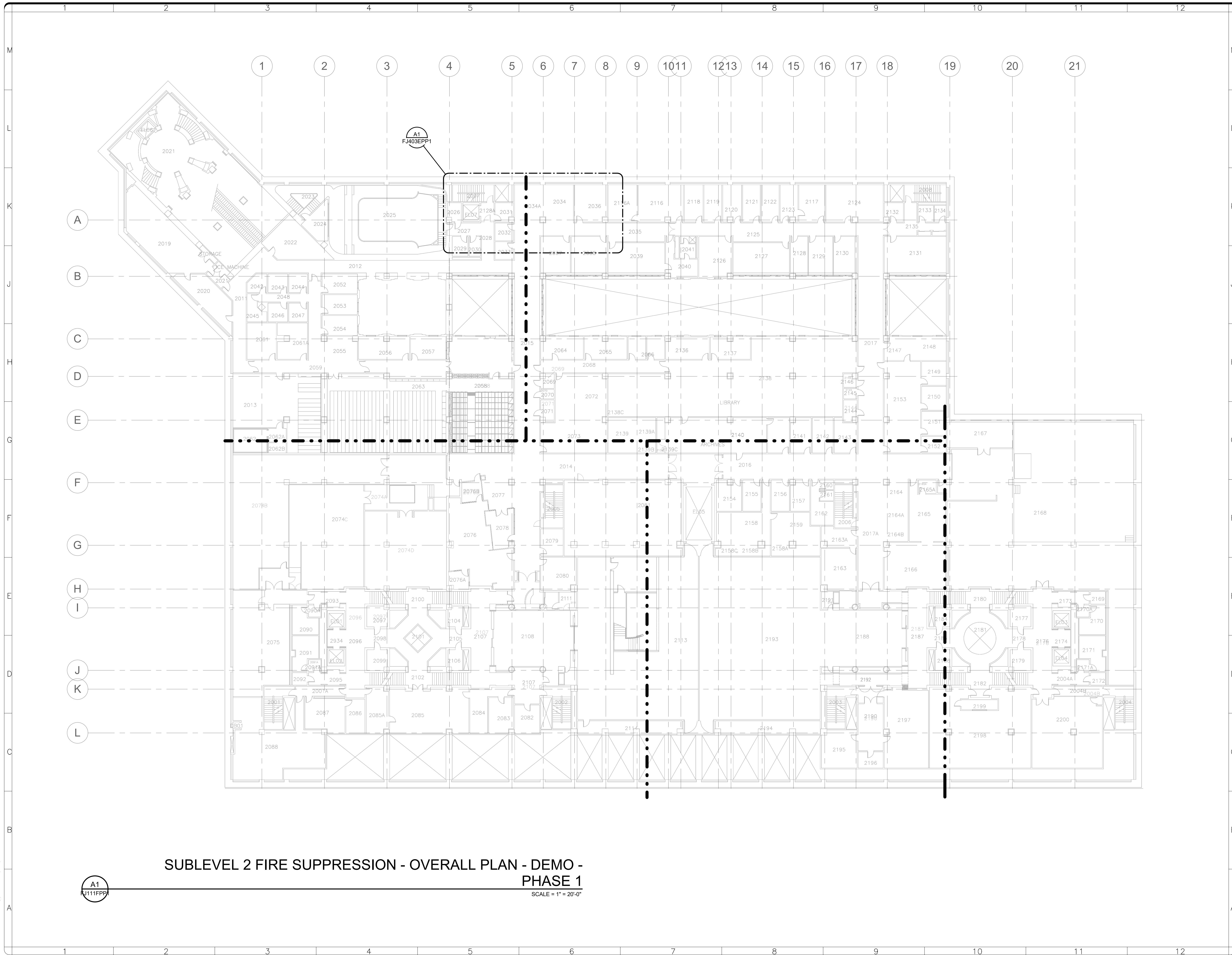
DATE	04/08/22	REVISION	FINAL CD
ISSUED #		REVISION DESCRIPTION	

**Smithsonian Institution**  
 Smithsonian Facilities  
 600 Maryland Avenue S.W. Suite 5001  
 Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AF/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AF/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 FIRE SUPPRESSION - OVERALL PLAN - DEMO - PHASE 1
WORKING STAFF	DPH    DPH    KWL DESIGNED BY    DRAWN BY    CHECKED BY

SHEET NO.	F J 10 1 F P P 1
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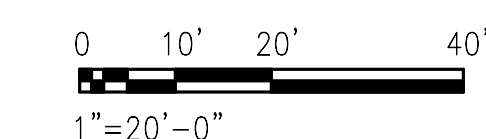
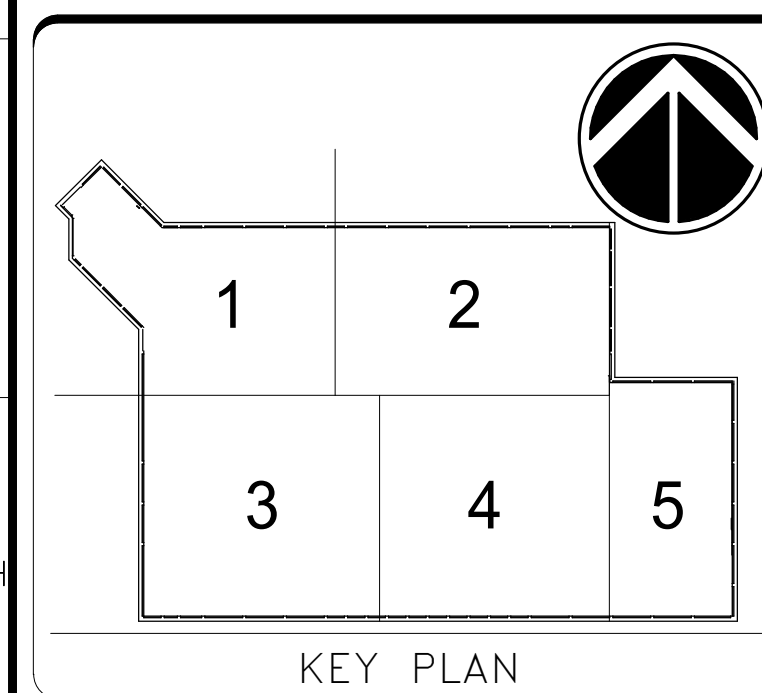
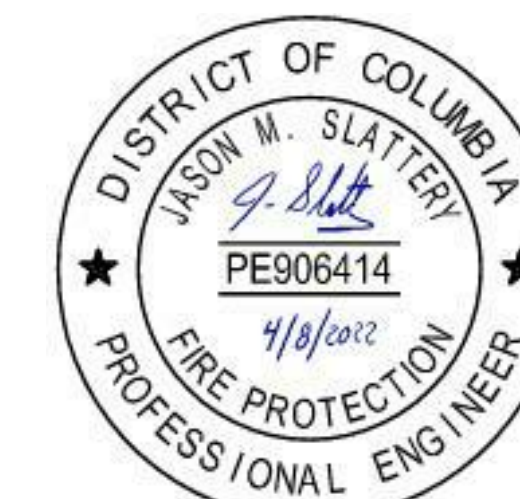


**SUBLEVEL 2 FIRE SUPPRESSION - OVERALL PLAN - DEMO - PHASE 1**

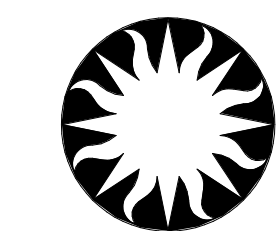
SCALE = 1" = 20'-0"



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BUILDING NAME	FREER/SACKLER/FAA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/FAA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 2 FIRE SUPPRESSION - OVERALL PLAN - DEMO - PHASE 1
WORKING STAFF	DPH    DPH    KWL
DESIGNED BY	DRAWN BY
CHECKED BY	

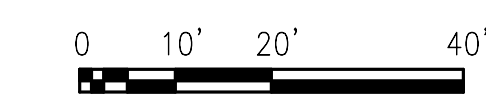
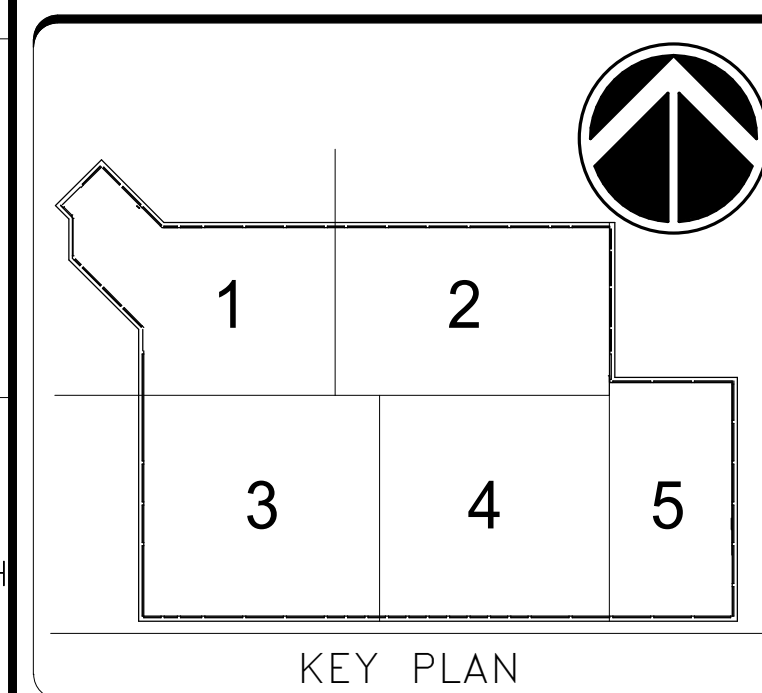
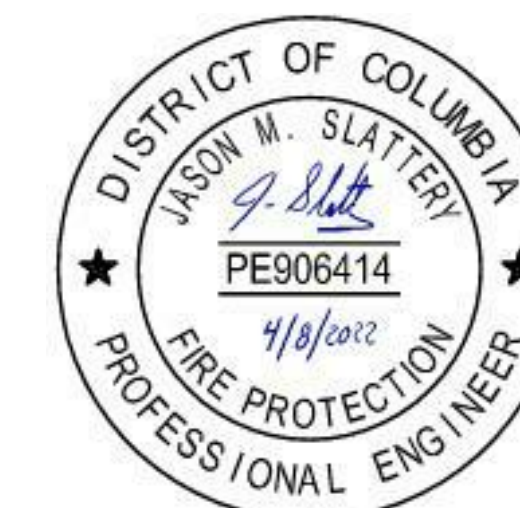
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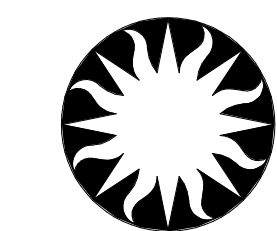
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FJ1111FPP1



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REVISION # DATE	REVISION DESCRIPTION



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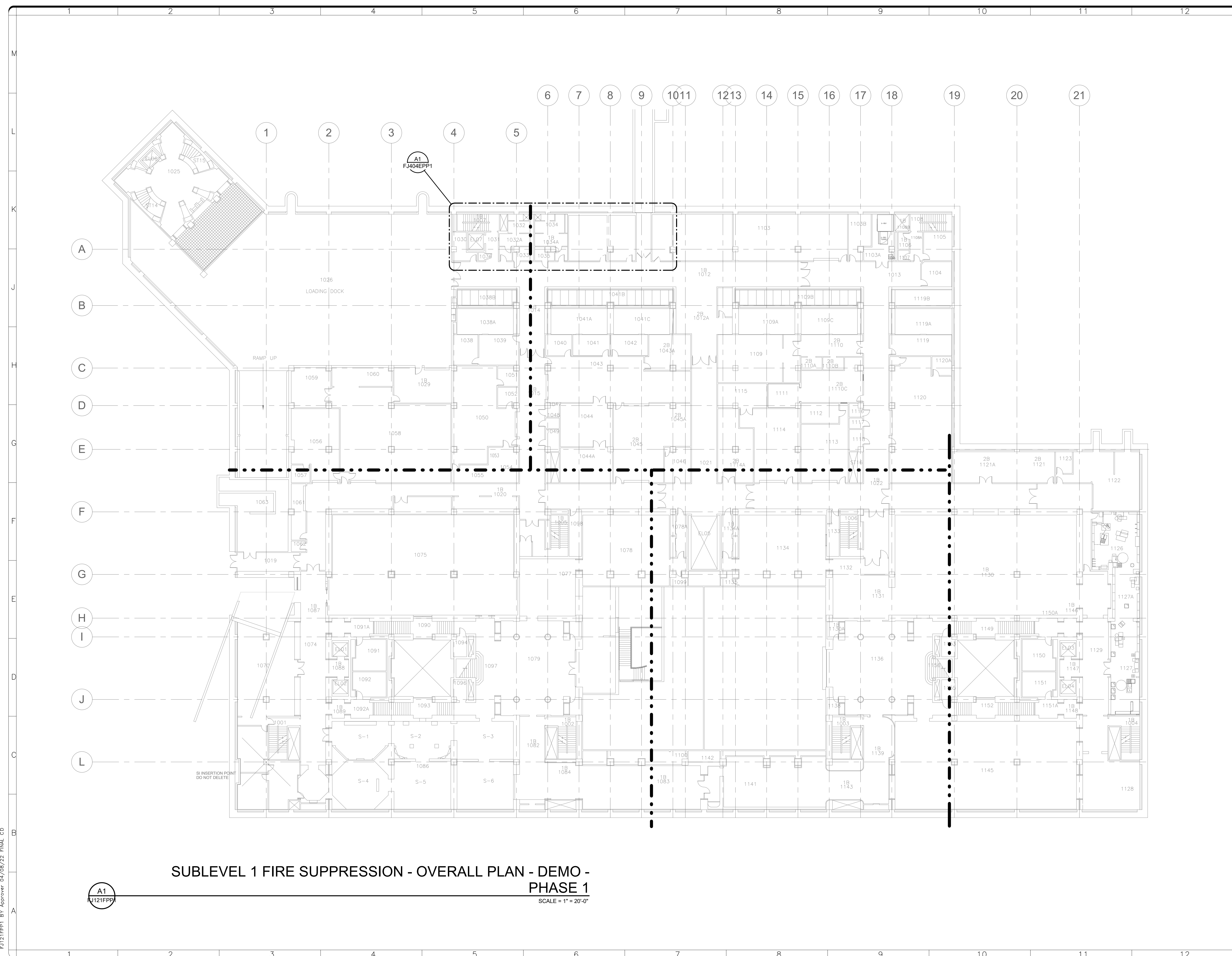
Smithsonian Facilities  
 600 Maryland Avenue S.W. Suite 5001  
 Washington, DC 20024-2520

BUILDING NAME: FREER/SACKLER/AF/QUAD  
 ADDRESS: SW WASHINGTON, DC 20560

PROJECT TITLE: FREER/SACKLER/AF/ QUAD  
 ESS' MODERNIZATION  
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 A/E PROJECT NUMBER: 11203201

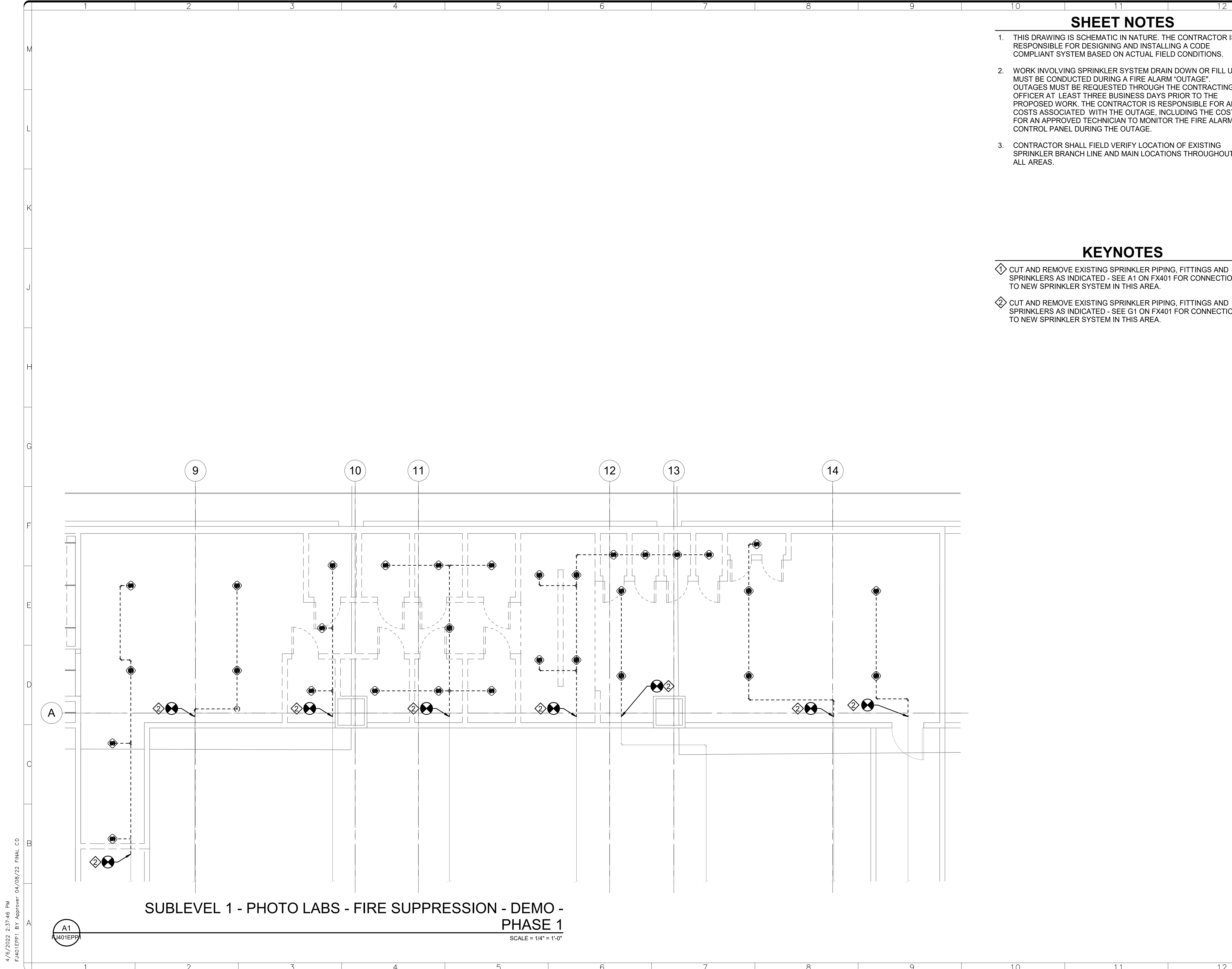
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 OVERALL PLAN - DEMO -  
 PHASE 1  
 WORKING STAFF: DPH, DPH, KWL  
DESIGNED BY DRAWN BY CHECKED BY

SHEET NO. FJ121FPP1  
 79 of 179  
DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE



**SUBLEVEL 1 FIRE SUPPRESSION - OVERALL PLAN - DEMO -  
 PHASE 1**  
 SCALE = 1" = 20'-0"

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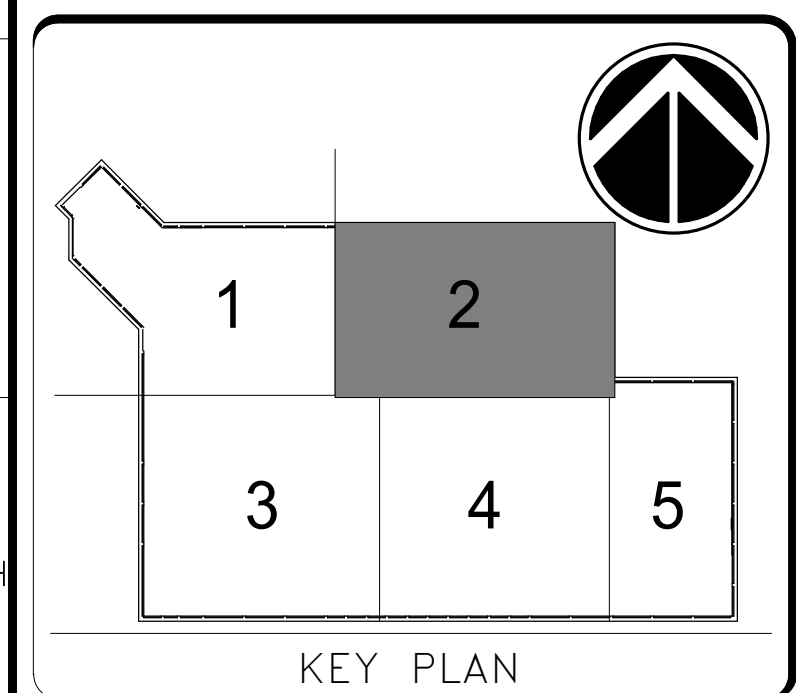
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1. THIS DRAWING IS SCHEMATIC IN NATURE. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND INSTALLING A CODE COMPLIANT SYSTEM BASED ON ACTUAL FIELD CONDITIONS.
2. WORK INVOLVING SPRINKLER SYSTEM DRAIN DOWN OR FILL UP MUST BE CONDUCTED DURING A FIRE ALARM "OUTAGE". OUTAGES MUST BE REQUESTED THROUGH THE CONTRACTING OFFICER AT LEAST THREE BUSINESS DAYS PRIOR TO THE PROPOSED WORK. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE OUTAGE, INCLUDING THE COST FOR AN APPROVED TECHNICIAN TO MONITOR THE FIRE ALARM CONTROL PANEL DURING THE OUTAGE.
3. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING SPRINKLER BRANCH LINE AND MAIN LOCATIONS THROUGHOUT ALL AREAS.

**KEYNOTES**

- ◆ CUT AND REMOVE EXISTING SPRINKLER PIPING, FITTINGS AND SPRINKLERS AS INDICATED - SEE A1 ON FX401 FOR CONNECTION TO NEW SPRINKLER SYSTEM IN THIS AREA.
- ◆ CUT AND REMOVE EXISTING SPRINKLER PIPING, FITTINGS AND SPRINKLERS AS INDICATED - SEE G1 ON FX401 FOR CONNECTION TO NEW SPRINKLER SYSTEM IN THIS AREA.

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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 1 - PHOTO LABS - FIRE SUPPRESSION - DEMO - PHASE 1
WORKING STAFF	DPH    DPH    KWL DESIGNED BY    DRAWN BY    CHECKED BY
SHEET NO.	F J 4 0 1 E P P 1
80 of 179	DISCIPLINE    TYPE    SEQUENCE    DRAWING TYPE    PHASE

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**SHEET NOTES**

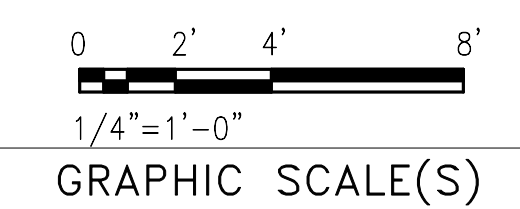
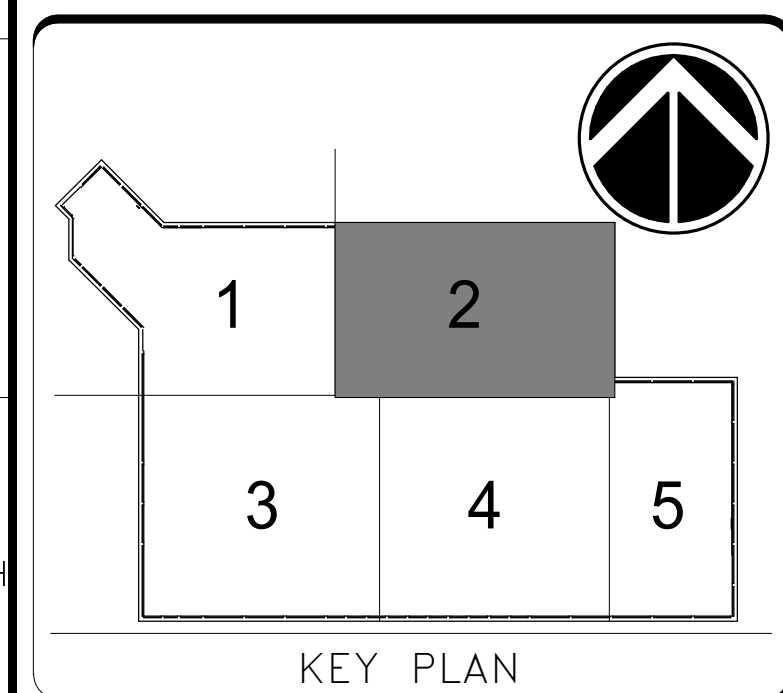
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3. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING SPRINKLER BRANCH LINE AND MAIN LOCATIONS THROUGHOUT ALL AREAS.

**KEYNOTES**

- ◇ CUT AND REMOVE EXISTING SPRINKLER PIPING, FITTINGS AND SPRINKLERS AS INDICATED - SEE A1 ON FX402 FOR CONNECTION TO NEW SPRINKLER SYSTEM IN THIS AREA.



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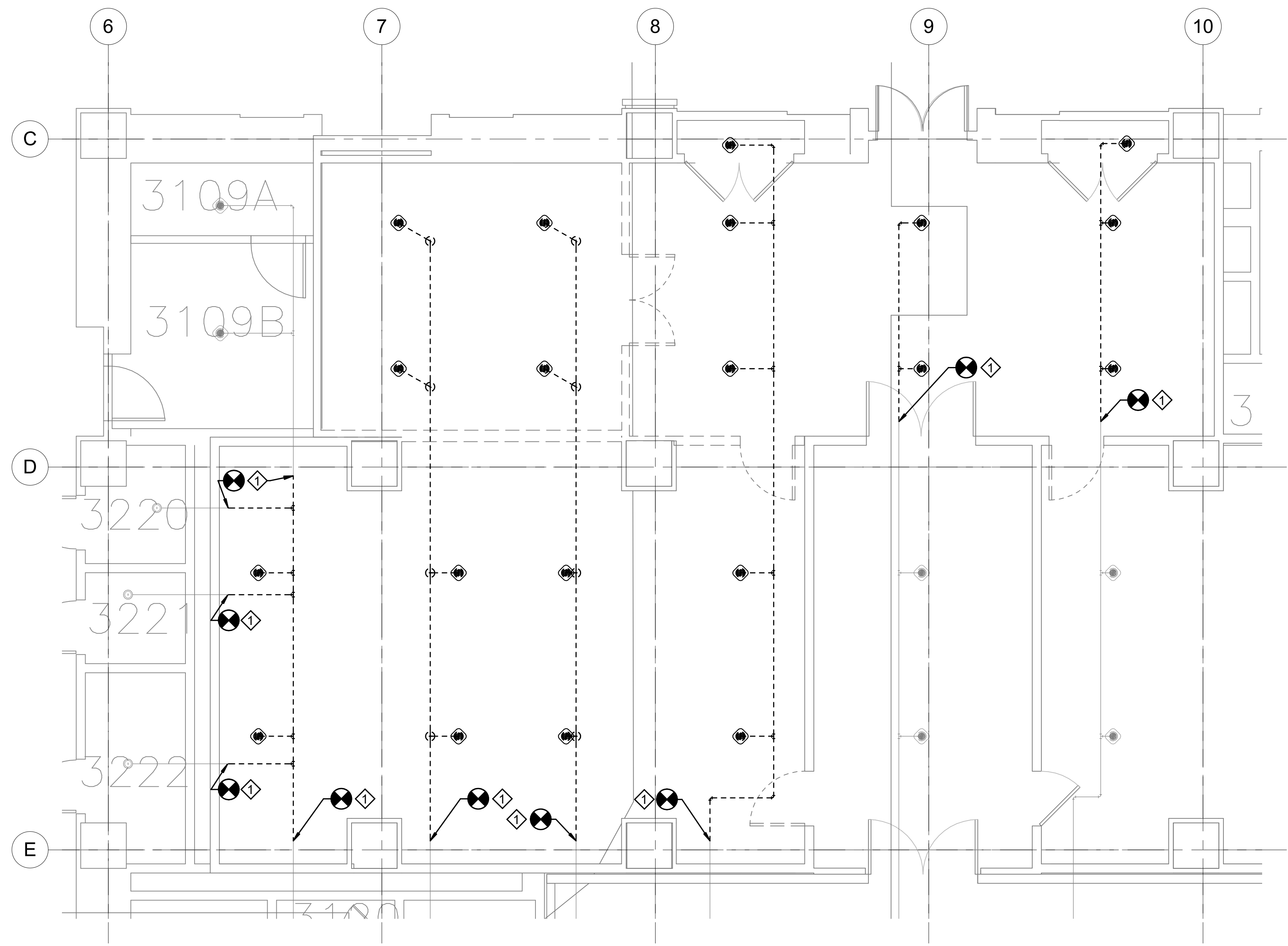


DATE 04/08/22	REVISION FINAL CD
REVISION # DATE	REVISION DESCRIPTION

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Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AF/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AF/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - ROOMS 3108, 3109, 3112-FIRE SUPPRESSION-DEMO PHASE 1
WORKING STAFF	DPH    DPH    KWL DESIGNED BY    DRAWN BY    CHECKED BY

SHEET NO. 81 OF 179  
F J 4 0 2 E P P 1



**SUBLEVEL 3 - ROOMS 3108, 3109, 3112 - FIRE SUPPRESSION DEMO - PHASE 1**  
SCALE = 1/4" = 1'-0"



4/16/2022 2:37:47 PM  
FX402EPP1 BY Approver: 04/08/22 FINAL CD

**SHEET NOTES**

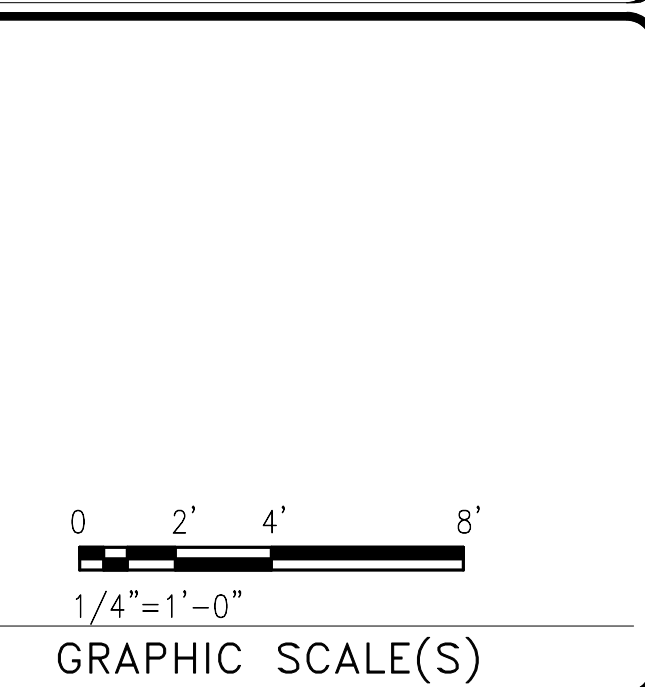
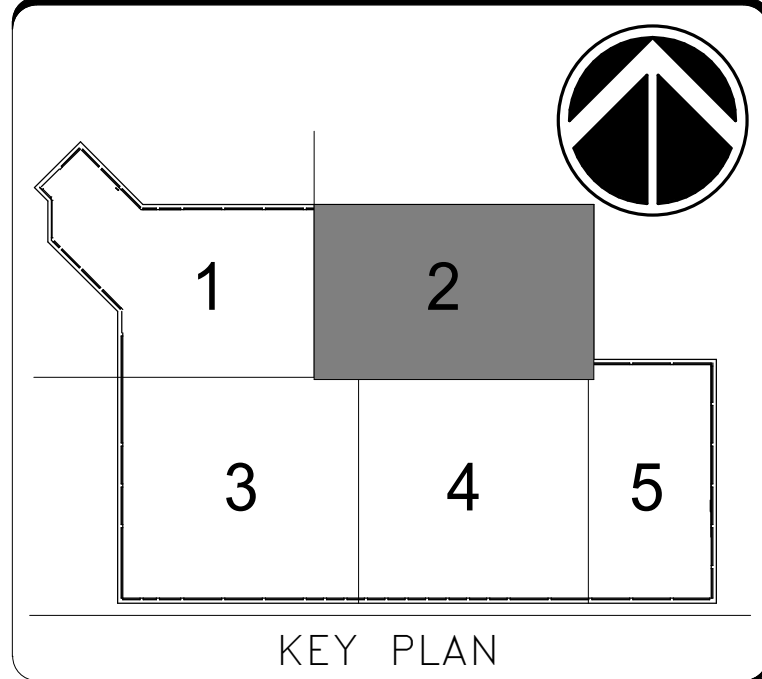
1. THIS DRAWING IS SCHEMATIC IN NATURE. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND INSTALLING A CODE COMPLIANT SYSTEM BASED ON ACTUAL FIELD CONDITIONS.
2. WORK INVOLVING SPRINKLER SYSTEM DRAIN DOWN OR FILL UP MUST BE CONDUCTED DURING A FIRE ALARM "OUTAGE". OUTAGES MUST BE REQUESTED THROUGH THE CONTRACTING OFFICER AT LEAST THREE BUSINESS DAYS PRIOR TO THE PROPOSED WORK. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE OUTAGE, INCLUDING THE COST FOR AN APPROVED TECHNICIAN TO MONITOR THE FIRE ALARM CONTROL PANEL DURING THE OUTAGE.
3. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING SPRINKLER BRANCH LINE AND MAIN LOCATIONS THROUGHOUT ALL AREAS.

**KEYNOTES**

- ◇ EXISTING 6" (150mm) SPRINKLER-STANDPIPE RISER TO REMAIN.
- ◇ EXISTING SUBLEVEL 2 SPRINKLER ZONE CONTROL ASSEMBLY TO REMAIN.
- ◇ EXISTING EXPRESS DRAIN RISER DOWN FROM SUBLEVEL 1 AND DOWN TO SUBLEVEL 3 TO REMAIN. EXISTING EXPRESS DRAIN RISER IS CONNECTED INTO DRAIN PIPING ON SUBLEVEL 3.



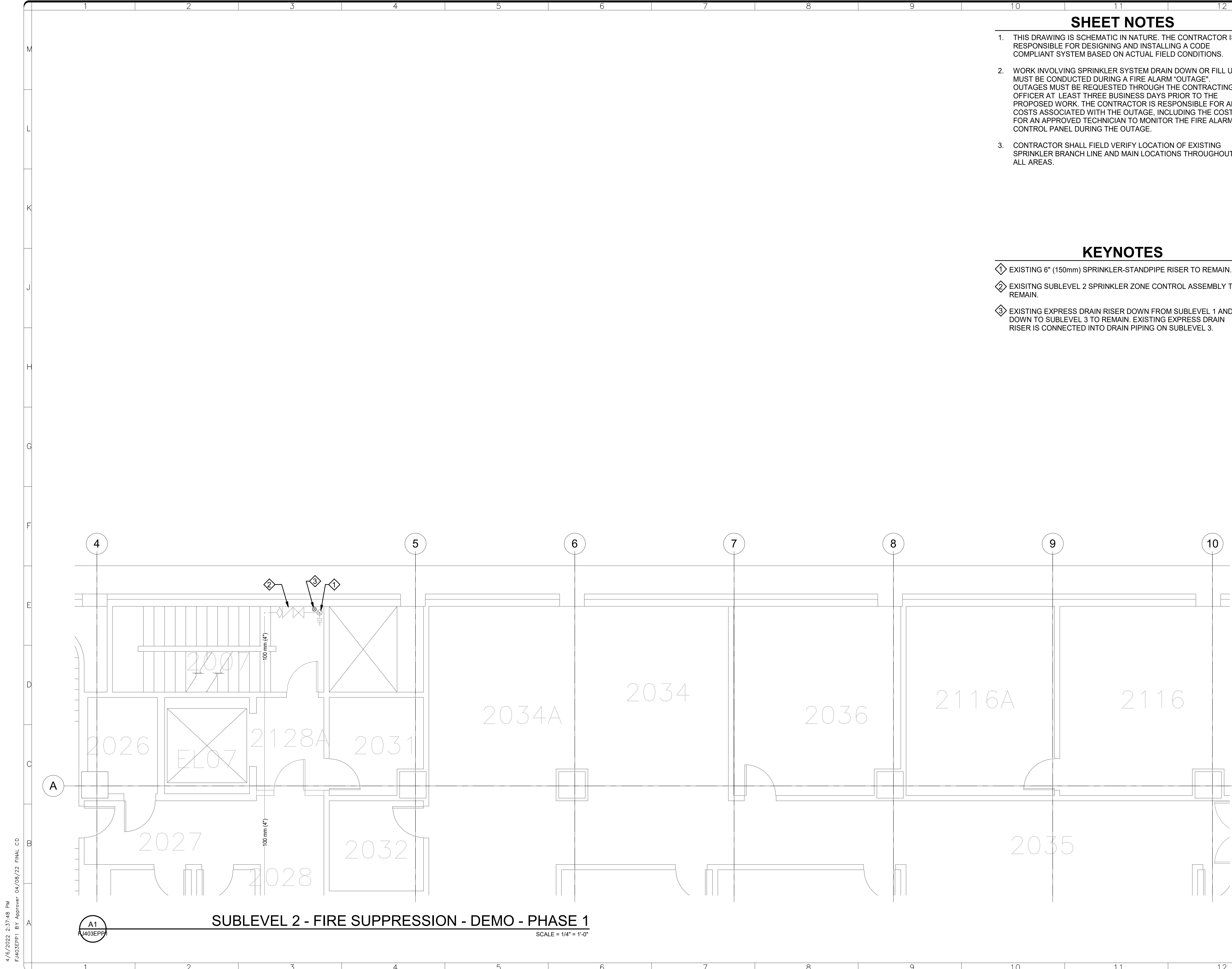
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REVISION # DATE	REVISION DESCRIPTION

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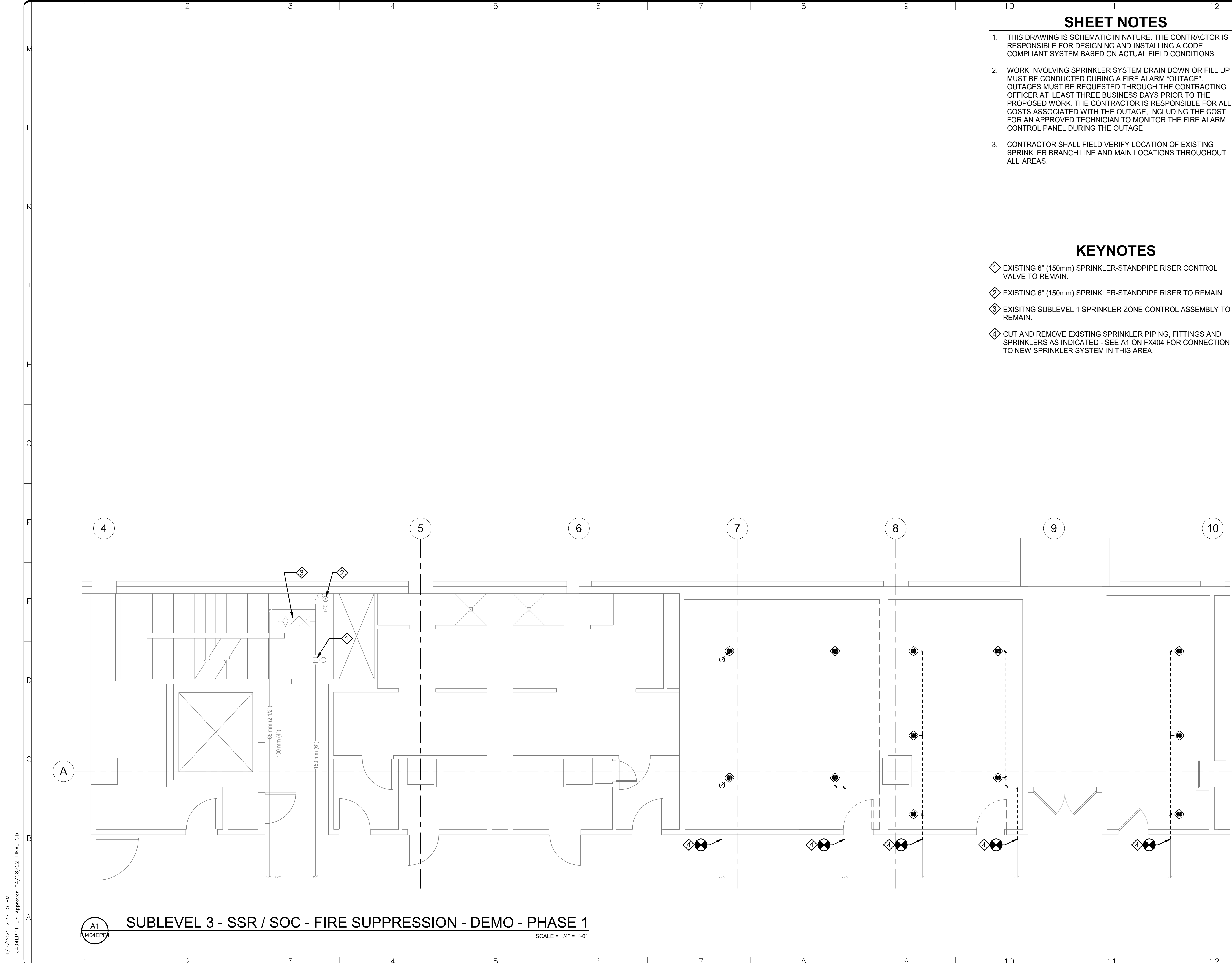
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PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 2 - FIRE SUPPRESSION - DEMO - PHASE 1
WORKING STAFF	DPH    DPH    KWL DESIGNED BY    DRAWN BY    CHECKED BY
SHEET NO.	FJ403EPP1
82 of 179	DISCIPLINE    TYPE    SEQUENCE    DRAWING TYPE    PHASE



**SUBLEVEL 2 - FIRE SUPPRESSION - DEMO - PHASE 1**  
SCALE = 1/4" = 1'-0"

4/6/2022 2:37:48 PM  
FJ403EPP1 BY Approver: 04/08/22 FINAL CD

A1  
FJ403EPP1

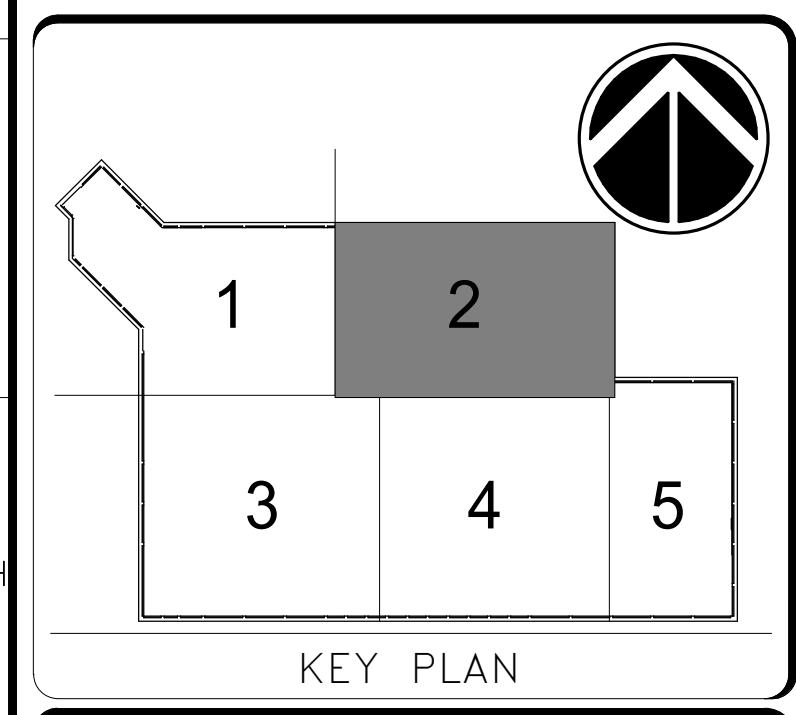


**SHEET NOTES**

1. THIS DRAWING IS SCHEMATIC IN NATURE. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND INSTALLING A CODE COMPLIANT SYSTEM BASED ON ACTUAL FIELD CONDITIONS.
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3. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING SPRINKLER BRANCH LINE AND MAIN LOCATIONS THROUGHOUT ALL AREAS.

**KEYNOTES**

- ◇ EXISTING 6" (150mm) SPRINKLER-STANDPIPE RISER CONTROL VALVE TO REMAIN.
- ◇ EXISTING 6" (150mm) SPRINKLER-STANDPIPE RISER TO REMAIN.
- ◇ EXISTING SUBLEVEL 1 SPRINKLER ZONE CONTROL ASSEMBLY TO REMAIN.
- ◇ CUT AND REMOVE EXISTING SPRINKLER PIPING, FITTINGS AND SPRINKLERS AS INDICATED - SEE A1 ON FX404 FOR CONNECTION TO NEW SPRINKLER SYSTEM IN THIS AREA.



GRAPHIC SCALE(S)

DATE	04/08/22	REVISION	FINAL CD
REVISION #		REVISION DESCRIPTION	

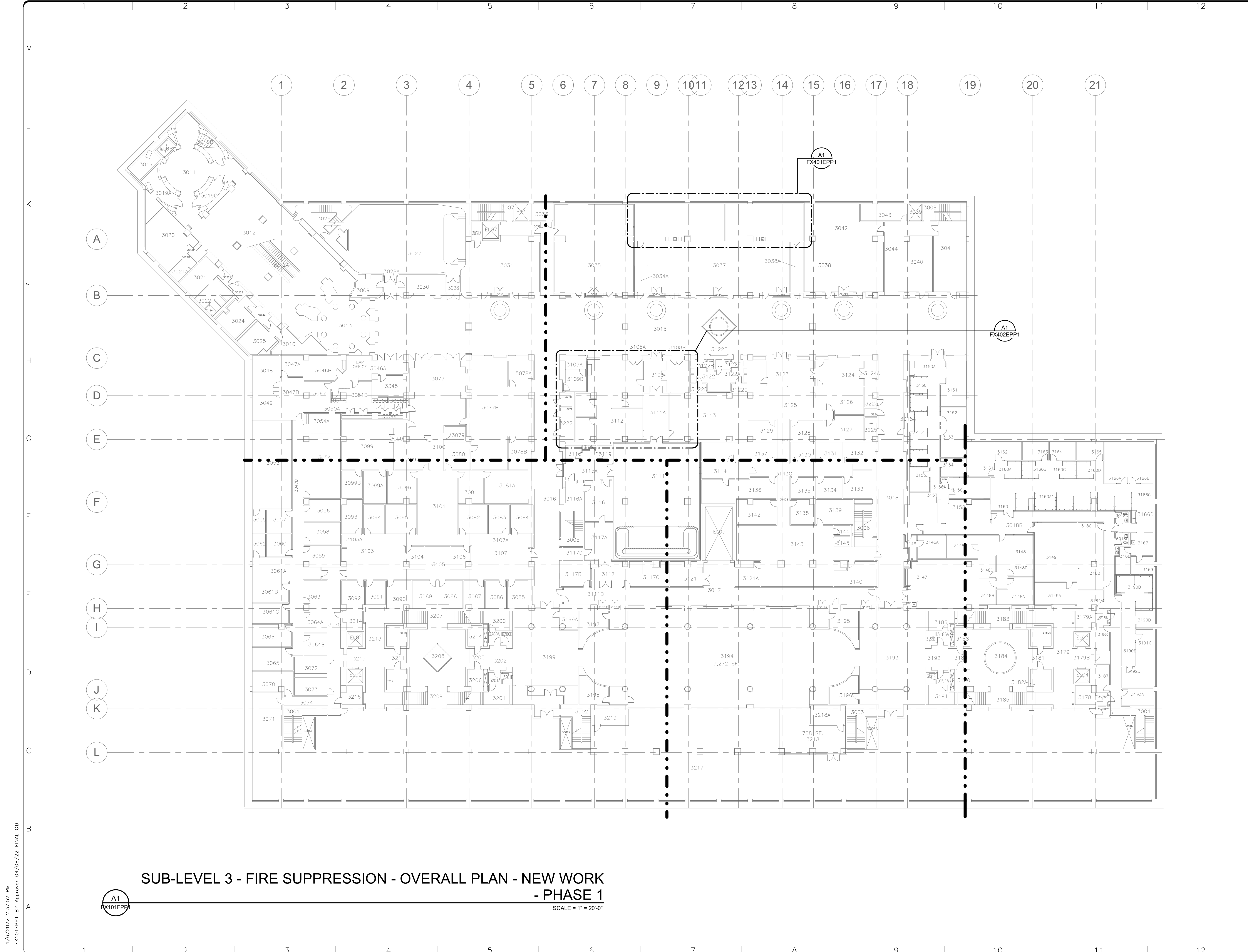
**Smithsonian Institution**  
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 Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - SSR / SOC - FIRE SUPPRESSION - DEMO - PHASE 1
WORKING STAFF	DESIGNED BY: DPH, DRAWN BY: DPH, CHECKED BY: KWL

SHEET NO.	F J 4 0 4 E P P 1
83 of 179	DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE

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**A1 SUBLEVEL 3 - SSR / SOC - FIRE SUPPRESSION - DEMO - PHASE 1**  
 SCALE = 1/4" = 1'-0"

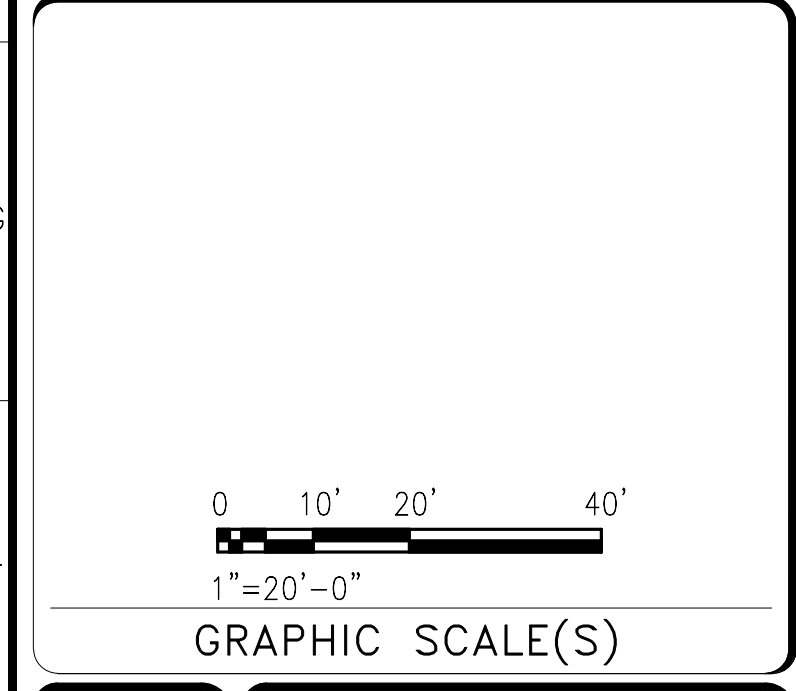
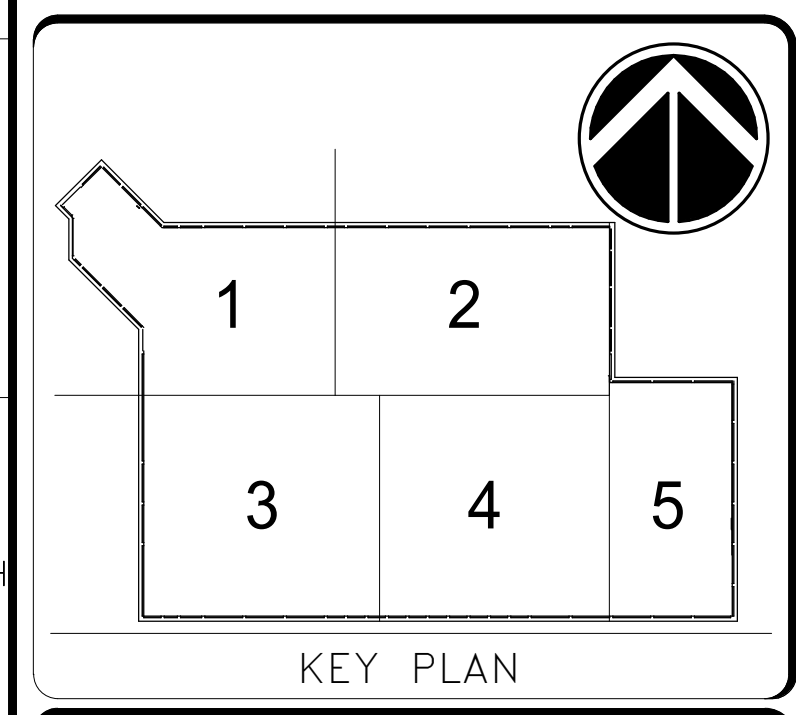


**SUB-LEVEL 3 - FIRE SUPPRESSION - OVERALL PLAN - NEW WORK  
- PHASE 1**

SCALE = 1" = 20'-0"

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DISTRICT OF COLUMBIA  
 JASON M. SLATTERY  
 PE906414  
 4/8/2022  
 FIRE PROTECTION  
 PROFESSIONAL ENGINEER



DATE 04/08/22	REVISION FINAL CD
DESIGNER	REVISION DESCRIPTION

**Smithsonian Institution**

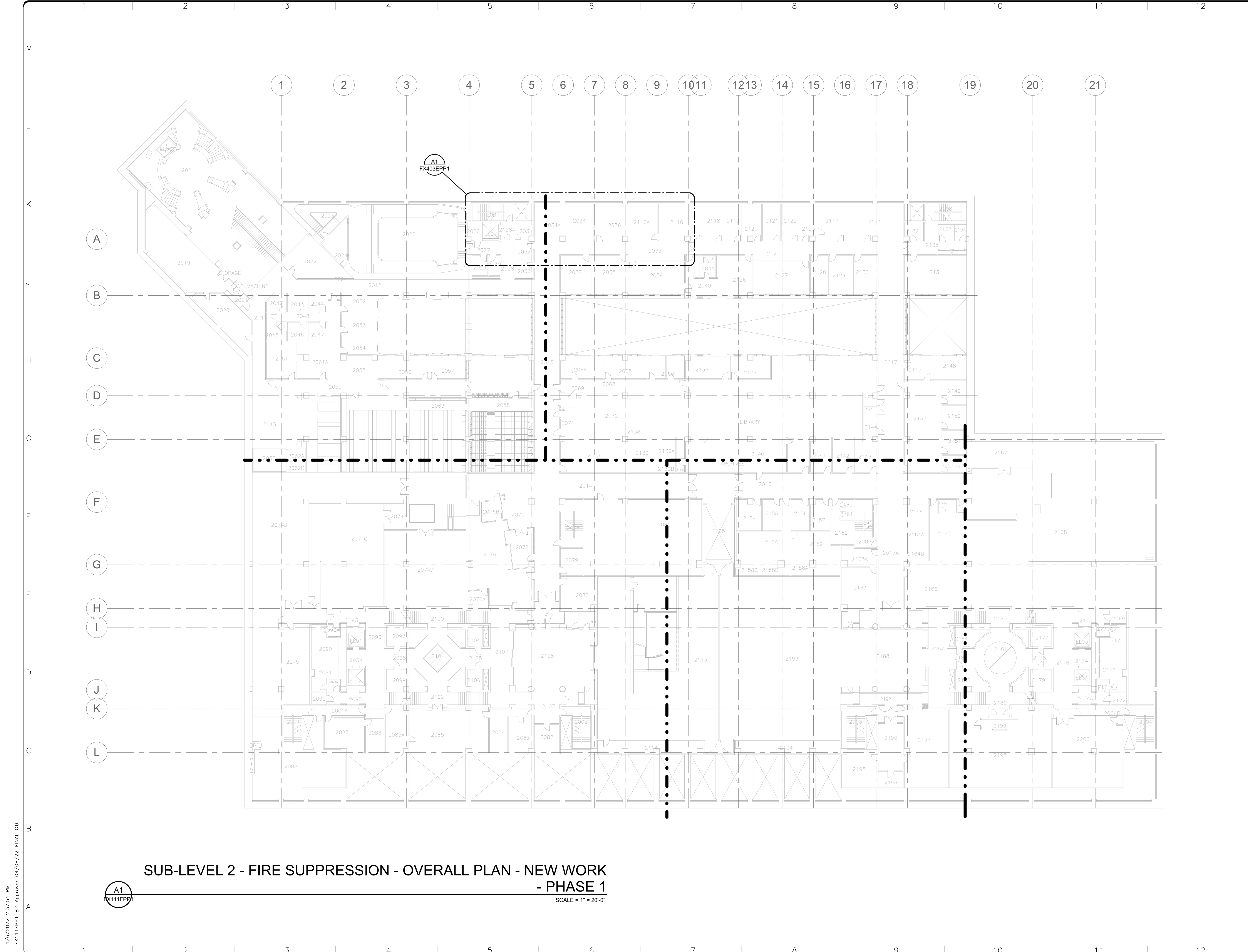
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BUILDING NAME	FREER/SACKLER/FAA/QUAD
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SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUB-LEVEL 3 - FIRE SUPPRESSION - OVERALL PLAN - NEW WORK - PHASE 1
WORKING STAFF	DPH    DPH    KWL
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO. 84 of 179	FX101FPP1
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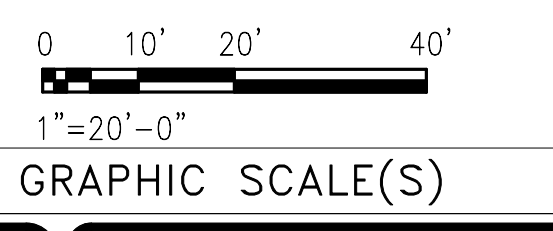
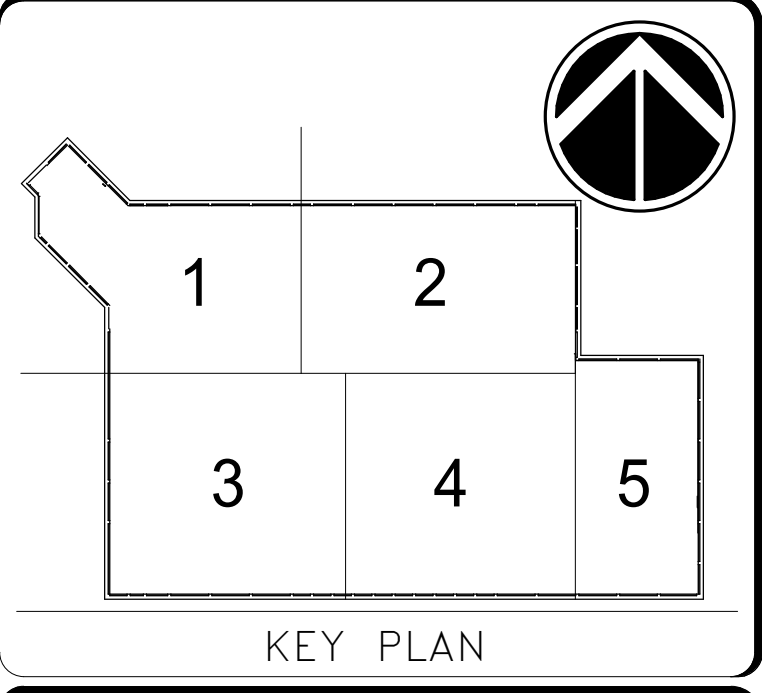
**SUB-LEVEL 2 - FIRE SUPPRESSION - OVERALL PLAN - NEW WORK  
- PHASE 1**

SCALE = 1" = 20'-0"

A1  
FX111FPP1

4/6/2022 2:37:54 PM  
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REVISION # DATE		REVISION DESCRIPTION	

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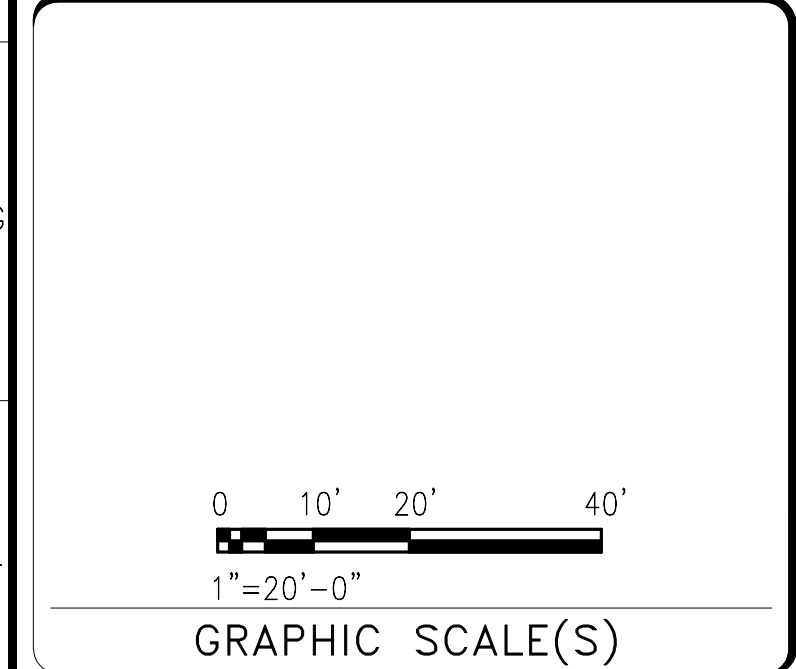
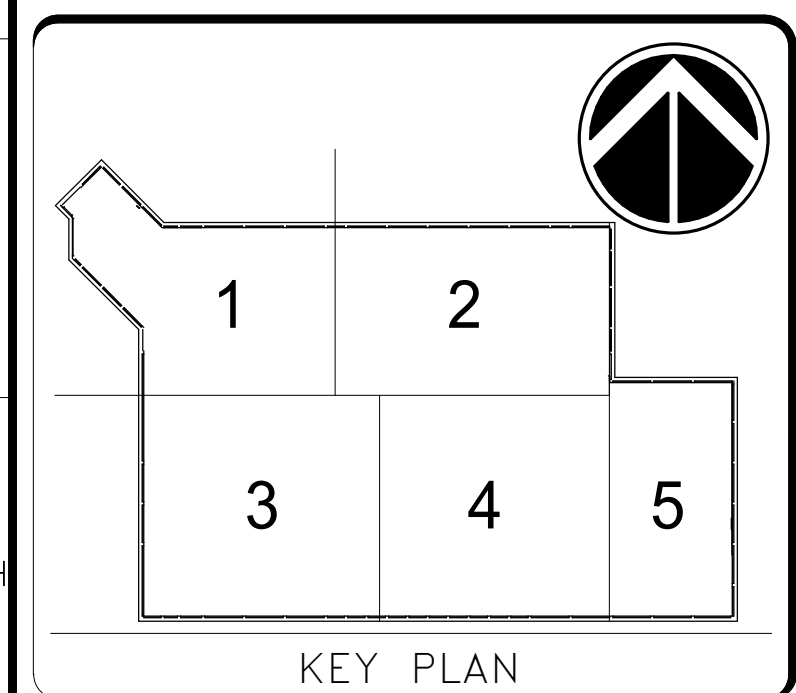
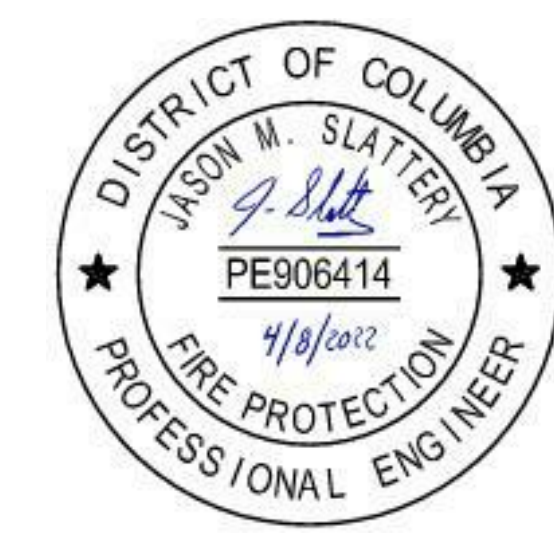
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SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUB-LEVEL 2 - FIRE SUPPRESSION - OVERALL PLAN - NEW WORK - PHASE 1
WORKING STAFF	DPH    DPH    KWL
	DESIGNED BY    DRAWN BY    CHECKED BY

SHEET NO. **FX 111 FPP 1**  
85 of 179

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FX121FPP1 BY Approver 04/08/22 FINAL CD



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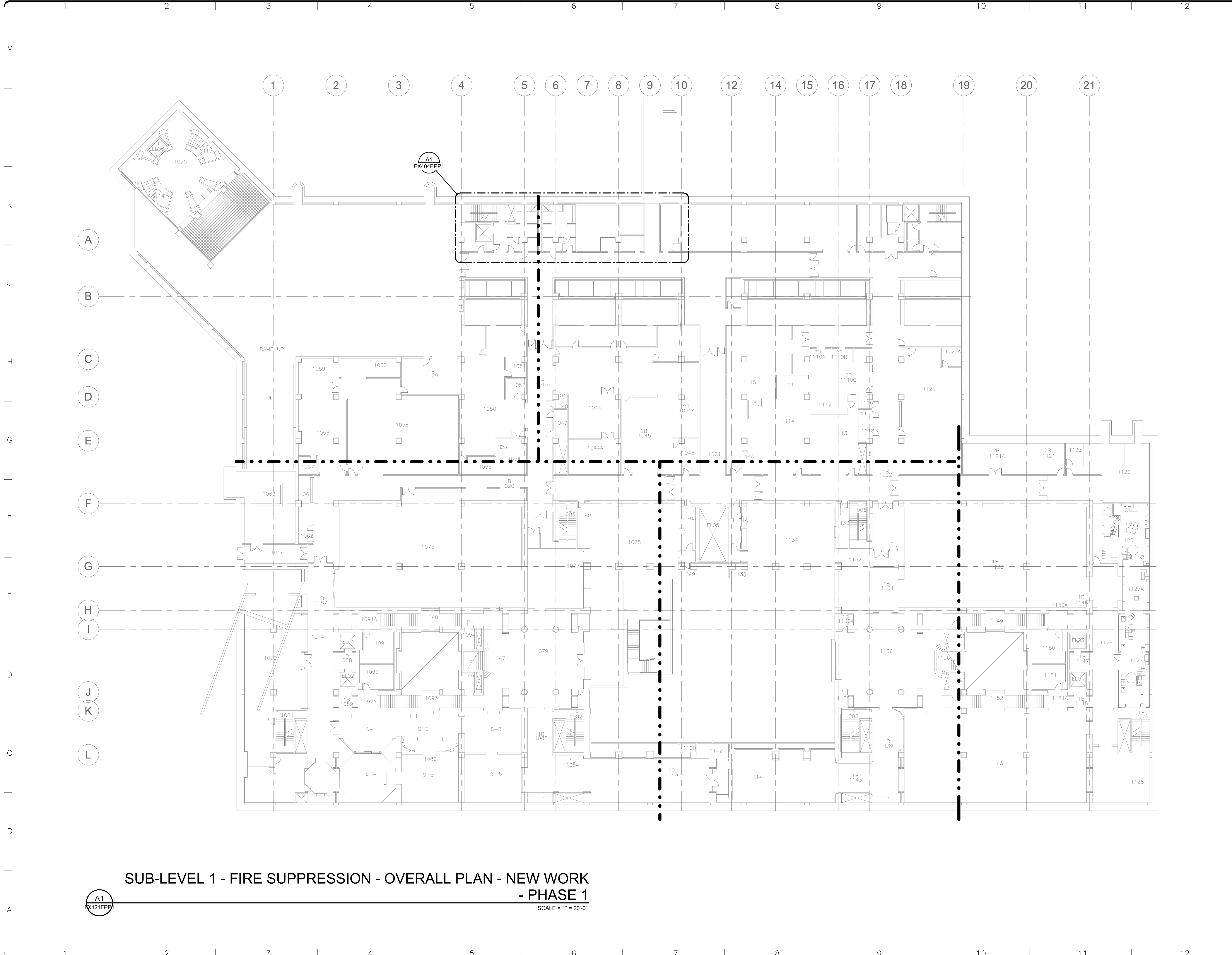
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Washington, DC 20024-2520

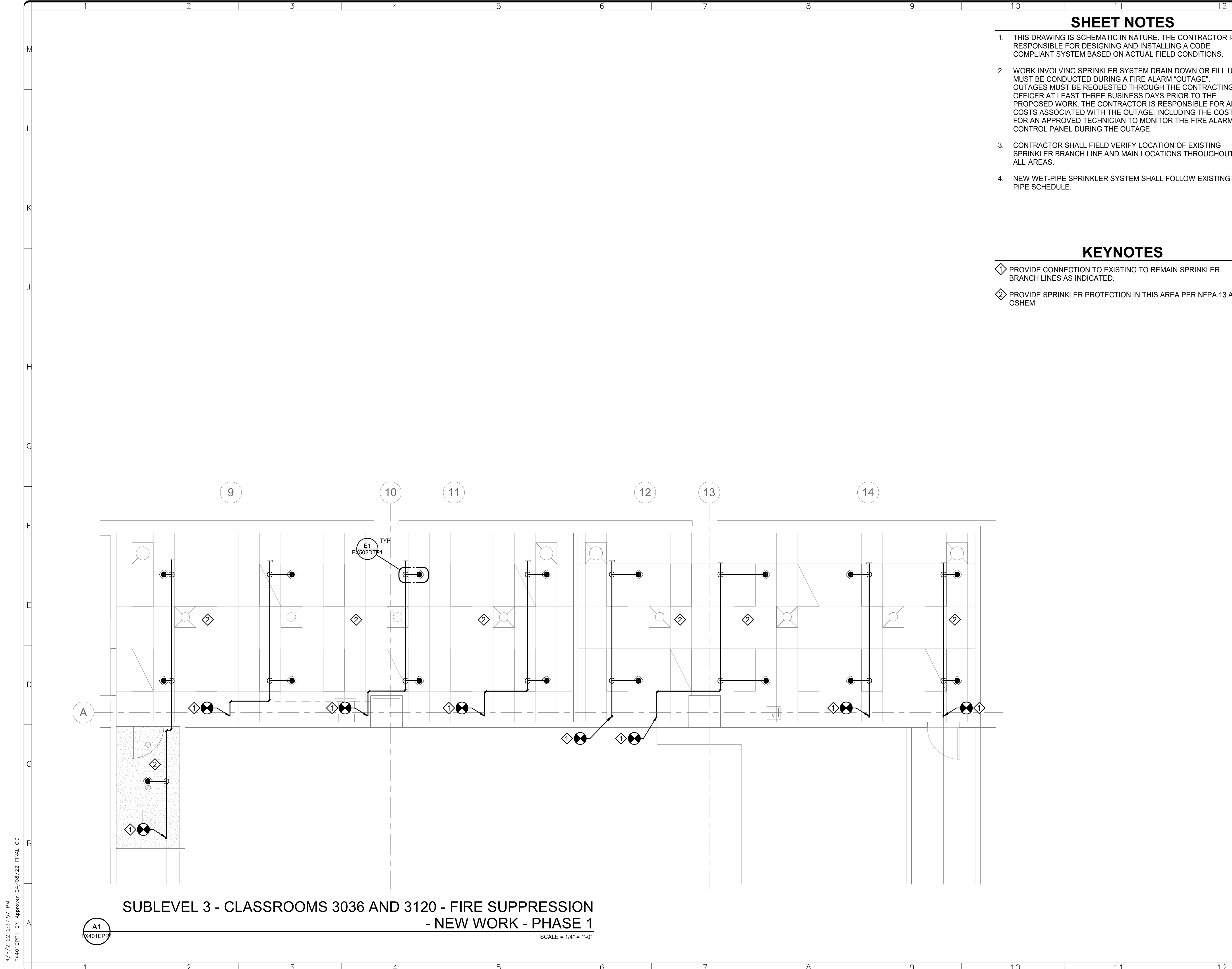
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ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUB-LEVEL 1 - FIRE SUPPRESSION - OVERALL PLAN - NEW WORK - PHASE 1
WORKING STAFF	DPH      DPH      KWL DESIGNED BY      DRAWN BY      CHECKED BY

SHEET NO. 86 OF 179      FX 12 1 FPP 1



**SUB-LEVEL 1 - FIRE SUPPRESSION - OVERALL PLAN - NEW WORK  
- PHASE 1**  
SCALE = 1" = 20'-0"

A1  
FX121FPP1



**SUBLEVEL 3 - CLASSROOMS 3036 AND 3120 - FIRE SUPPRESSION  
- NEW WORK - PHASE 1**  
SCALE = 1/4" = 1'-0"

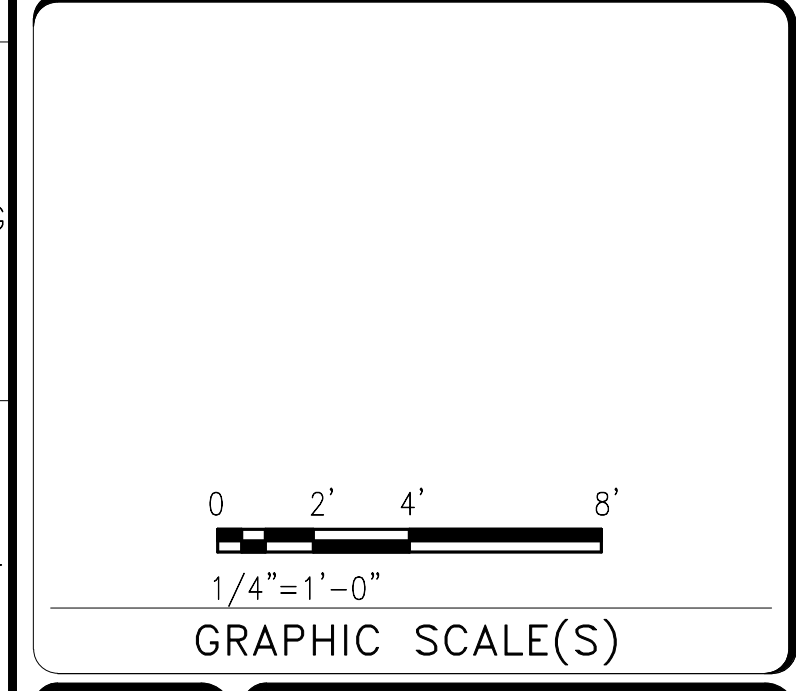
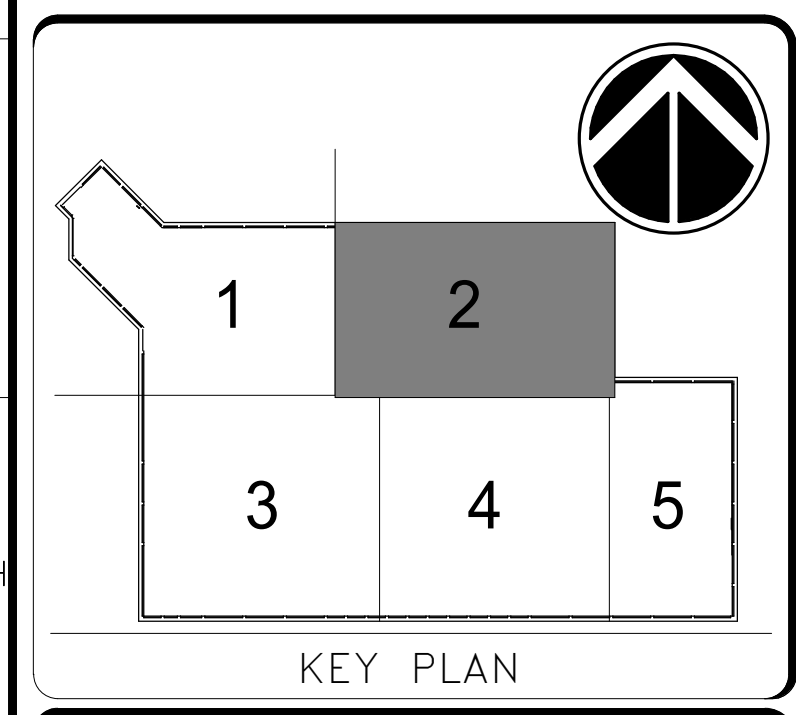
**SHEET NOTES**

1. THIS DRAWING IS SCHEMATIC IN NATURE. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND INSTALLING A CODE COMPLIANT SYSTEM BASED ON ACTUAL FIELD CONDITIONS.
2. WORK INVOLVING SPRINKLER SYSTEM DRAIN DOWN OR FILL UP MUST BE CONDUCTED DURING A FIRE ALARM "OUTAGE". OUTAGES MUST BE REQUESTED THROUGH THE CONTRACTING OFFICER AT LEAST THREE BUSINESS DAYS PRIOR TO THE PROPOSED WORK. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE OUTAGE, INCLUDING THE COST FOR AN APPROVED TECHNICIAN TO MONITOR THE FIRE ALARM CONTROL PANEL DURING THE OUTAGE.
3. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING SPRINKLER BRANCH LINE AND MAIN LOCATIONS THROUGHOUT ALL AREAS.
4. NEW WET-PIPE SPRINKLER SYSTEM SHALL FOLLOW EXISTING PIPE SCHEDULE.

**KEYNOTES**

- ◇ PROVIDE CONNECTION TO EXISTING TO REMAIN SPRINKLER BRANCH LINES AS INDICATED.
- ◇ PROVIDE SPRINKLER PROTECTION IN THIS AREA PER NFPA 13 AND OSHEM.

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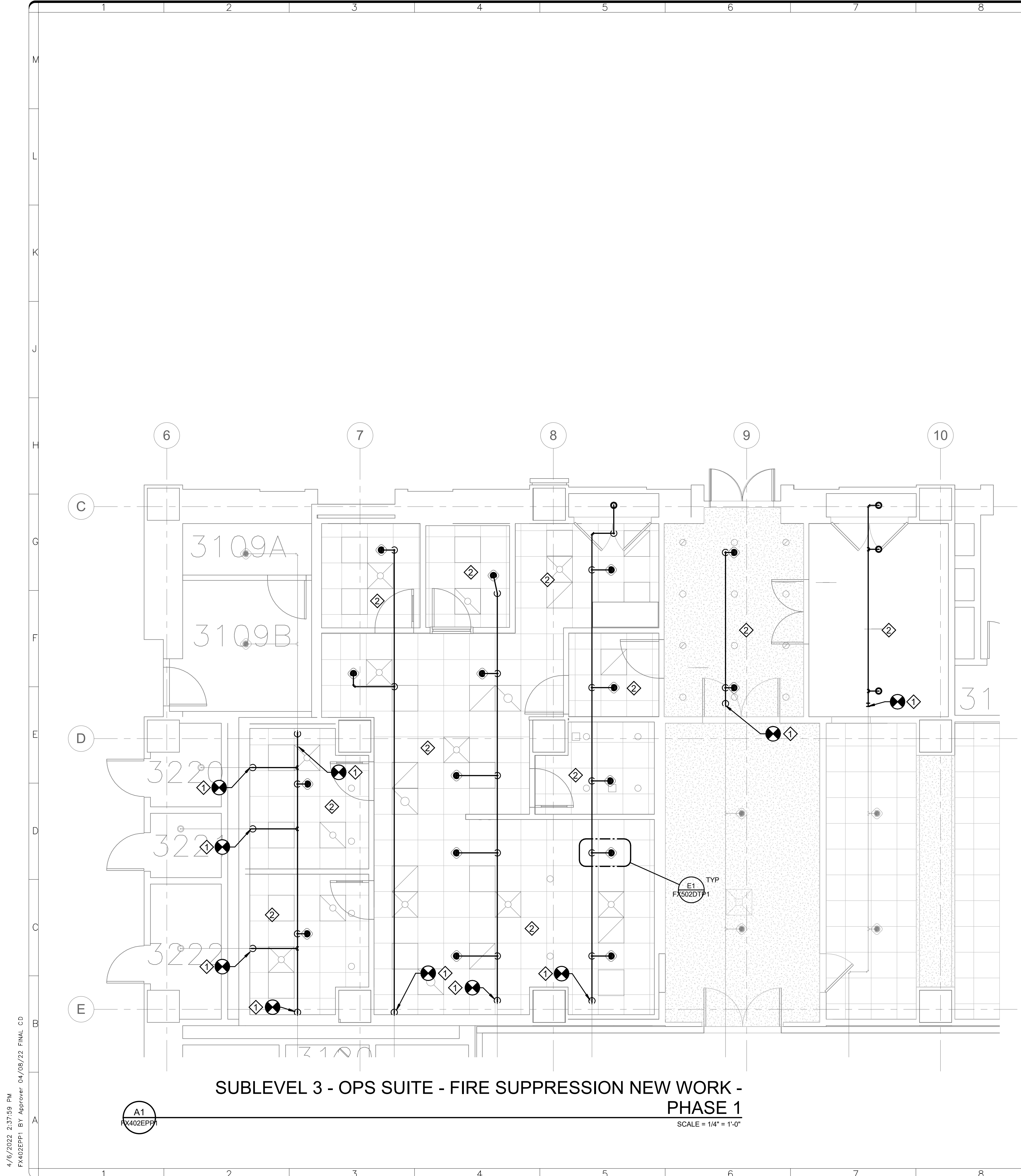
DATE 04/08/22	REVISION FINAL CD
REVISION # DATE	REVISION DESCRIPTION

**Smithsonian Institution**  
Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - CLASSROOMS 3036 AND 3120-FIRE SUPPRESSION-NEW WORK-PHASE 1
WORKING STAFF	DESIGNED BY: DPH    DRAWN BY: DPH    CHECKED BY: KWL

SHEET NO. 87 of 179	FX401EPP1
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**SUBLEVEL 3 - OPS SUITE - FIRE SUPPRESSION NEW WORK - PHASE 1**

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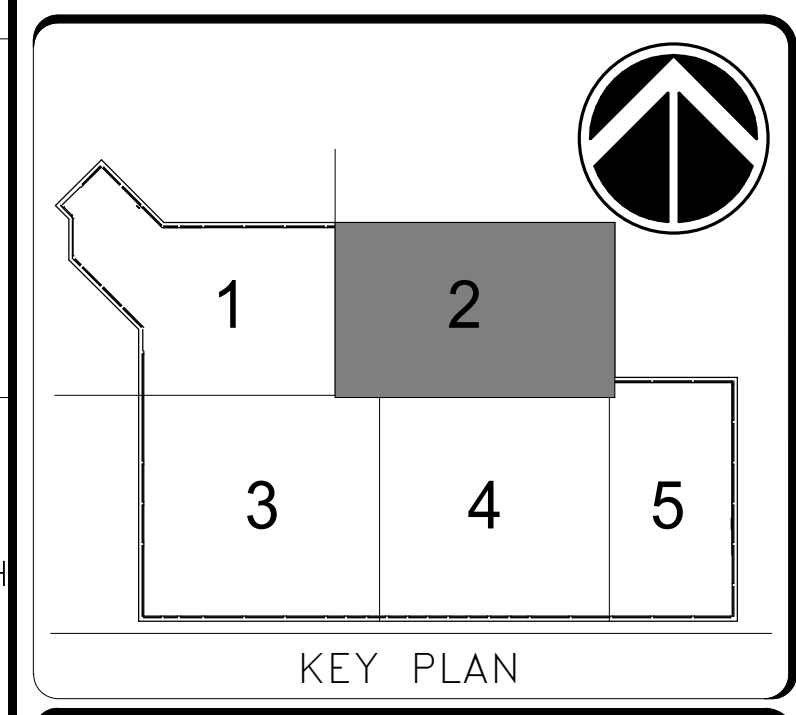
**SHEET NOTES**

1. THIS DRAWING IS SCHEMATIC IN NATURE. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND INSTALLING A CODE COMPLIANT SYSTEM BASED ON ACTUAL FIELD CONDITIONS.
2. WORK INVOLVING SPRINKLER SYSTEM DRAIN DOWN OR FILL UP MUST BE CONDUCTED DURING A FIRE ALARM "OUTAGE". OUTAGES MUST BE REQUESTED THROUGH THE CONTRACTING OFFICER AT LEAST THREE BUSINESS DAYS PRIOR TO THE PROPOSED WORK. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE OUTAGE, INCLUDING THE COST FOR AN APPROVED TECHNICIAN TO MONITOR THE FIRE ALARM CONTROL PANEL DURING THE OUTAGE.
3. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING SPRINKLER BRANCH LINE AND MAIN LOCATIONS THROUGHOUT ALL AREAS.
4. NEW WET-PIPE SPRINKLER SYSTEM SHALL FOLLOW EXISTING PIPE SCHEDULE.

**KEYNOTES**

- ◇ PROVIDE CONNECTION TO EXISTING TO REMAIN SPRINKLER BRANCH LINES AS INDICATED.
- ◇ PROVIDE SPRINKLER PROTECTION IN THIS AREA PER NFPA 13 AND OSHEM.

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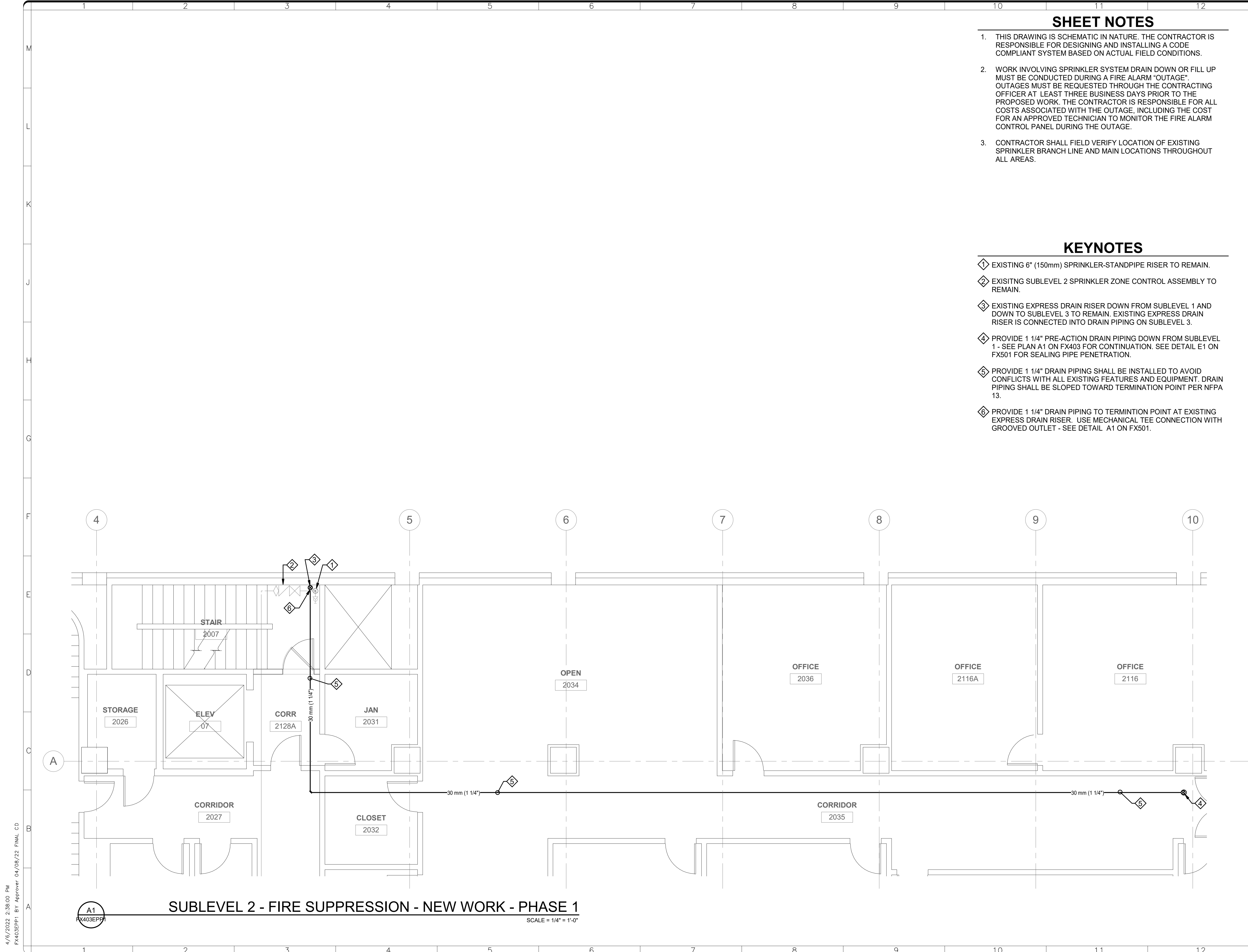
**Smithsonian Institution**  
Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - OPS SUITE - FIRE SUPPRESSION NEW WORK - PHASE 1
WORKING STAFF	DPH    DPH    KWL
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO. **FX402EPP1**  
88 of 179

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**SHEET NOTES**

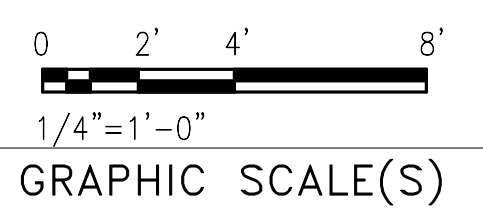
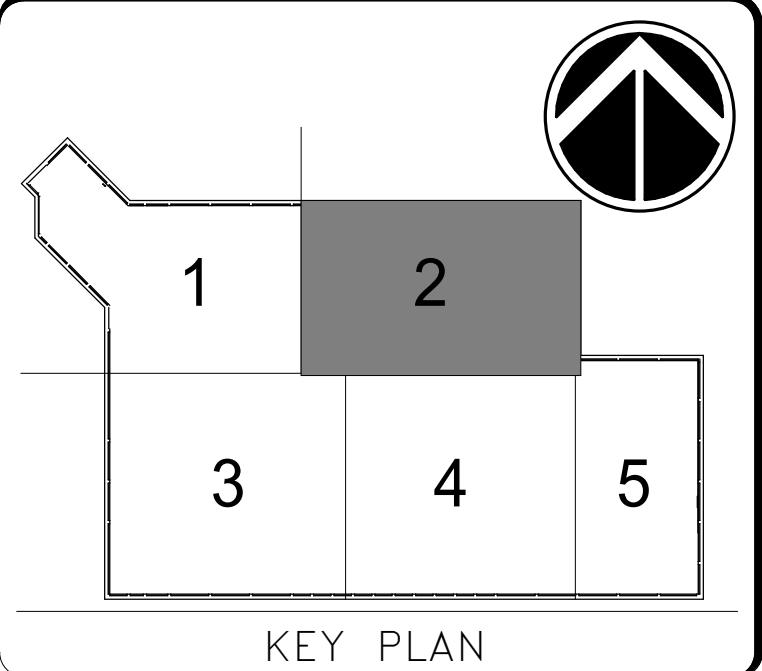
1. THIS DRAWING IS SCHEMATIC IN NATURE. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND INSTALLING A CODE COMPLIANT SYSTEM BASED ON ACTUAL FIELD CONDITIONS.
2. WORK INVOLVING SPRINKLER SYSTEM DRAIN DOWN OR FILL UP MUST BE CONDUCTED DURING A FIRE ALARM "OUTAGE". OUTAGES MUST BE REQUESTED THROUGH THE CONTRACTING OFFICER AT LEAST THREE BUSINESS DAYS PRIOR TO THE PROPOSED WORK. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE OUTAGE, INCLUDING THE COST FOR AN APPROVED TECHNICIAN TO MONITOR THE FIRE ALARM CONTROL PANEL DURING THE OUTAGE.
3. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING SPRINKLER BRANCH LINE AND MAIN LOCATIONS THROUGHOUT ALL AREAS.

**KEYNOTES**

- ◇ EXISTING 6" (150mm) SPRINKLER-STANDPIPE RISER TO REMAIN.
- ◇ EXISTING SUBLEVEL 2 SPRINKLER ZONE CONTROL ASSEMBLY TO REMAIN.
- ◇ EXISTING EXPRESS DRAIN RISER DOWN FROM SUBLEVEL 1 AND DOWN TO SUBLEVEL 3 TO REMAIN. EXISTING EXPRESS DRAIN RISER IS CONNECTED INTO DRAIN PIPING ON SUBLEVEL 3.
- ◇ PROVIDE 1 1/4" PRE-ACTION DRAIN PIPING DOWN FROM SUBLEVEL 1 - SEE PLAN A1 ON FX403 FOR CONTINUATION. SEE DETAIL E1 ON FX501 FOR SEALING PIPE PENETRATION.
- ◇ PROVIDE 1 1/4" DRAIN PIPING SHALL BE INSTALLED TO AVOID CONFLICTS WITH ALL EXISTING FEATURES AND EQUIPMENT. DRAIN PIPING SHALL BE SLOPED TOWARD TERMINATION POINT PER NFPA 13.
- ◇ PROVIDE 1 1/4" DRAIN PIPING TO TERMINATION POINT AT EXISTING EXPRESS DRAIN RISER. USE MECHANICAL TEE CONNECTION WITH GROOVED OUTLET - SEE DETAIL A1 ON FX501.



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Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 2 - FIRE SUPPRESSION - NEW WORK - PHASE 1
WORKING STAFF	DPH    DPH    KWL
	DESIGNED BY    DRAWN BY    CHECKED BY

SHEET NO. **FX403EPP1**  
89 of 179

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FX403EPP1 BY Approver 04/08/22 FINAL CD

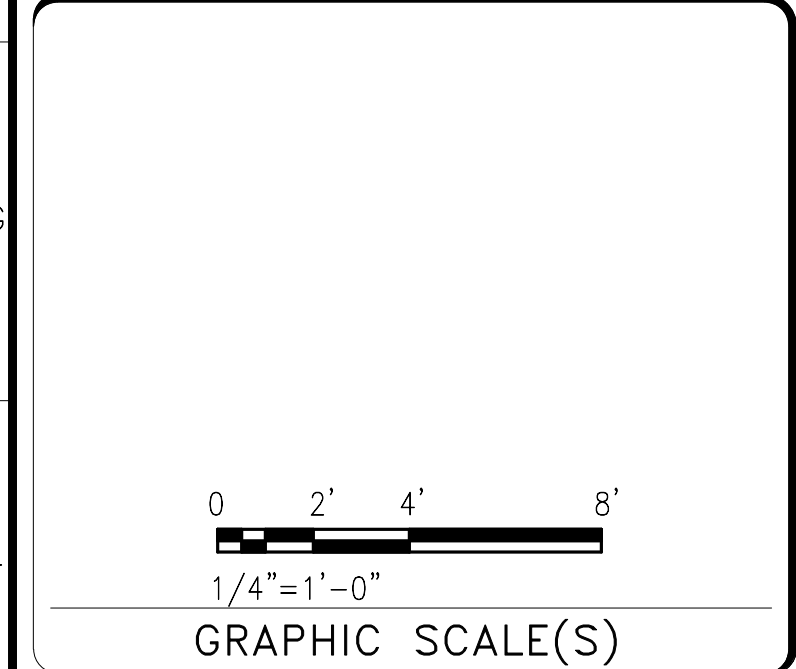
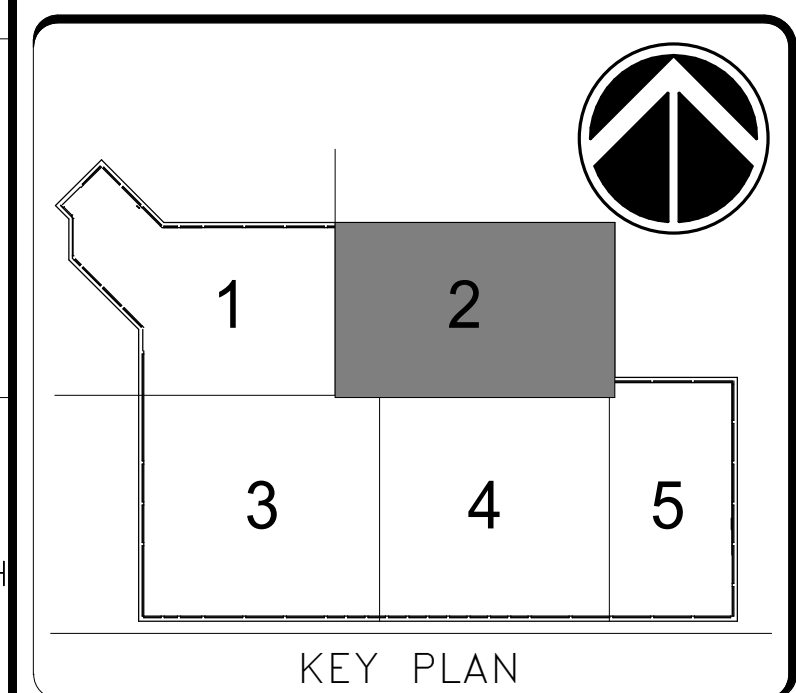
**A1** SUBLEVEL 2 - FIRE SUPPRESSION - NEW WORK - PHASE 1  
SCALE = 1/4" = 1'-0"

**SHEET NOTES**

1. THIS DRAWING IS SCHEMATIC IN NATURE. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND INSTALLING A CODE COMPLIANT SYSTEM BASED ON ACTUAL FIELD CONDITIONS.
2. WORK INVOLVING SPRINKLER SYSTEM DRAIN DOWN OR FILL UP MUST BE CONDUCTED DURING A FIRE ALARM "OUTAGE". OUTAGES MUST BE REQUESTED THROUGH THE CONTRACTING OFFICER AT LEAST THREE BUSINESS DAYS PRIOR TO THE PROPOSED WORK. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE OUTAGE, INCLUDING THE COST FOR AN APPROVED TECHNICIAN TO MONITOR THE FIRE ALARM CONTROL PANEL DURING THE OUTAGE.
3. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING SPRINKLER BRANCH LINE AND MAIN LOCATIONS THROUGHOUT ALL AREAS.

**KEYNOTES**

- ◇ EXISTING 6" (150mm) SPRINKLER-STANDPIPE RISER CONTROL VALVE TO REMAIN.
- ◇ EXISTING 6" (150mm) SPRINKLER-STANDPIPE RISER TO REMAIN.
- ◇ EXISTING SUBLEVEL 1 SPRINKLER ZONE CONTROL ASSEMBLY TO REMAIN.
- ◇ PROVIDE CONNECTION TO EXISTING TO REMAIN SPRINKLER BRANCHLINES AS INDICATED.
- ◇ PROVIDE SPRINKLER PROTECTION IN THIS AREA PER NFPA 13.
- ◇ PROVIDE CAP ON EXISTING SPRINKLER BRANCH LINE AS INDICATED.
- ◇ PROVIDE CONNECTION TO EXISTING TO REMAIN 4" FEED MAIN AS INDICATED.
- ◇ PROVIDE 2" (50mm) PREACTION SYSTEM SUPPLY PIPING AS INDICATED.
- ◇ PROVIDE 2" (50mm) DOUBLE INTERLOCK PREACTION SPRINKLER SYSTEM VALVE ASSEMBLY LOCATED AS INDICATED. PREACTION SYSTEM VALVE ASSEMBLY SHALL INCLUDE CONTROL VALVE WITH SUPERVISORY SWITCH SUPERVISED OPEN, RISER MOUNTED AIR COMPRESSOR AND ALL ASSOCIATED TRIM, INCLUDING PRIMER WATER CONTROL VALVE WITH SUPERVISORY SWITCH, CHECK VALVE PRESSURE SWITCH, SOLENOID VALVE, PNEUMATIC ACTUATOR, AIR PRESSURE MAINTENANCE DEVICE, HIGH/LOW AIR SUPERVISORY SWITCH AND ALL ASSOCIATED TRIM COMPONENTS FOR A COMPLETE PRE-ACTION VALVE ASSEMBLY - SEE DETAIL A5 ON FX501. DOUBLE INTERLOCK PRE-ACTION SYSTEM SHALL BE CONTROLLED BY ELECTRIC/PNEUMATIC RELEASE. SEE FIRE ALARM DRAWINGS FOR ADDITIONAL INFORMATION ON THE ELECTRIC PORTION OF THE RELEASING SYSTEM.
- ◇ PROVIDE 2" (50mm) SPRINKLER PIPING TO PREACTION SYSTEM AS INDICATED.
- ◇ PROVIDE PREACTION SYSTEM SPRINKLER PROTECTION IN THIS AREA PER NFPA 13. RECESSED DRY PENDENT SPRINKLERS SHALL BE USED IN PREACTION SYSTEM AREAS WITH SUSPENDED CEILINGS - SEE DETAIL J1 ON FX502.
- ◇ PROVIDE 1 1/4" (30mm) PREACTION DRAIN PIPING TO BE PIPED DOWN TO THE SUBLEVEL 2 - SEE PLAN A1 ON FX402 FOR CONTINUATION. SEE DETAIL E1 ON FX501 FOR SEALING PIPE PENETRATION.

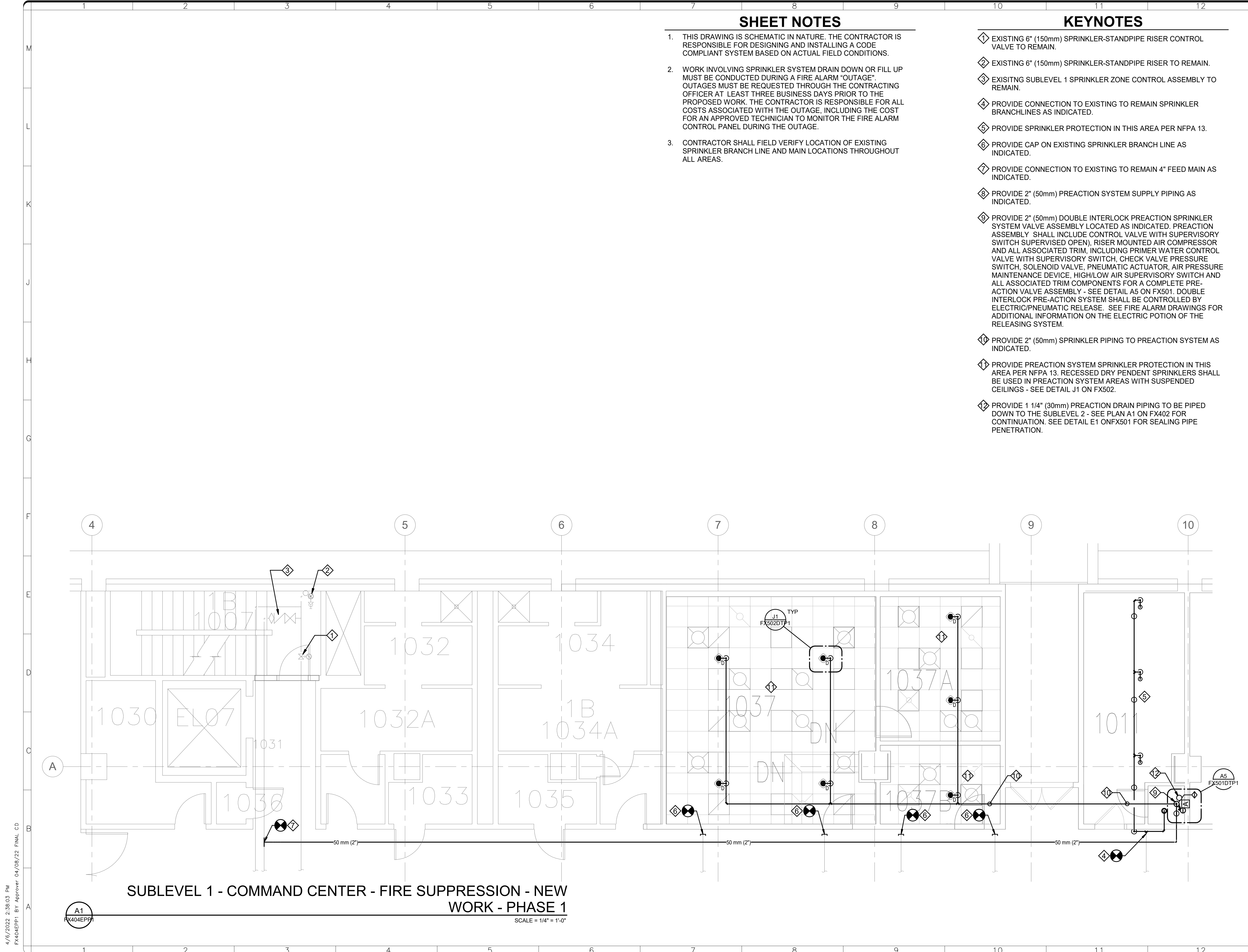


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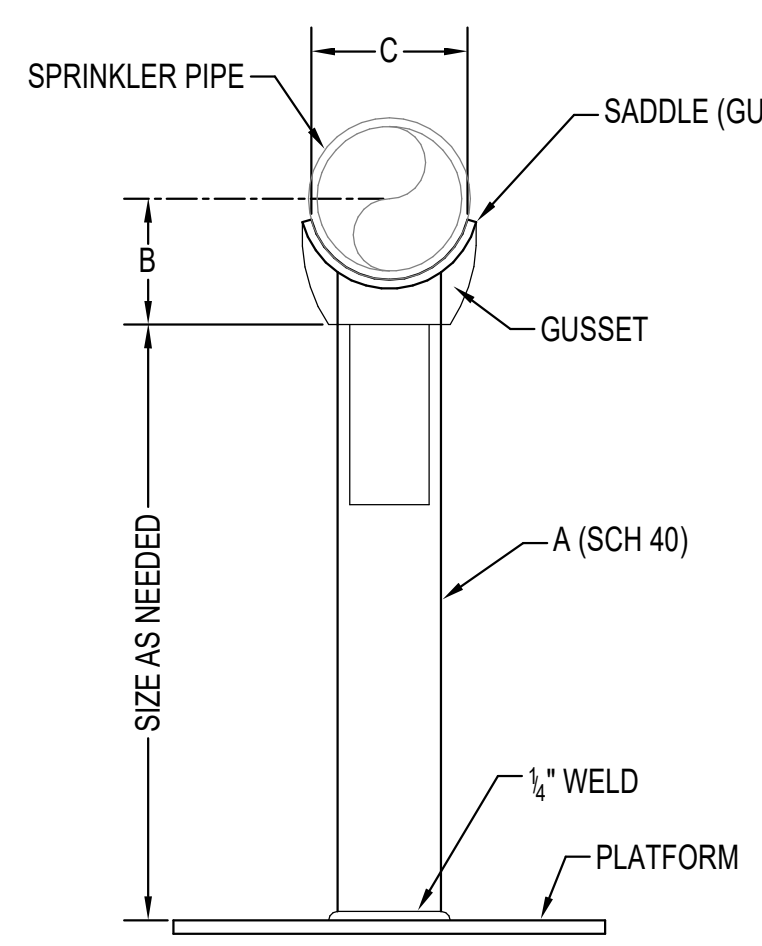
**Smithsonian Institution**  
 Smithsonian Facilities  
 600 Maryland Avenue S.W. Suite 5001  
 Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 1 - COMMAND CENTER - FIRE SUPPRESSION - NEW WORK - PHASE 1
WORKING STAFF	DPH    DPH    KWL
DESIGNED BY	DPH
DRAWN BY	DPH
CHECKED BY	KWL

SHEET NO.	FX404EPP1
90 of 179	



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 FX404EPP1 BY Approver 04/08/22 FINAL CD



PIPE SIZE	A	B	C	PLATFORM SIZE	BOLT SIZE
1	3/4	1 1/2	1 1/8	1/2 x 6 x 6	5/8
1 1/4	3/4	2 1/4	1 1/8	1/2 x 6 x 6	5/8
1 1/2	3/4	2 1/4	1 1/8	1/2 x 6 x 6	5/8
2	3/4	2 1/4	2 1/8	1/2 x 6 x 6	5/8
2 1/2	1 1/2	2 1/4	2 1/8	3/4 x 8 x 8	3/4
3	1 1/2	3	3 1/8	3/4 x 8 x 8	3/4
4	2 1/2	3 1/2	4 1/4	3/4 x 12 x 12	3/4
5	2 1/2	4 1/2	4 1/4	3/4 x 12 x 12	3/4
6	2 1/2	4 1/2	6 1/8	3/4 x 12 x 12	3/4
8	2 1/2	6 1/8	7 1/8	3/4 x 12 x 12	3/4
10	2 1/2	7 1/4	9 1/8	3/4 x 12 x 12	3/4
12	2 1/2	8 1/4	11 1/8	3/4 x 12 x 12	3/4

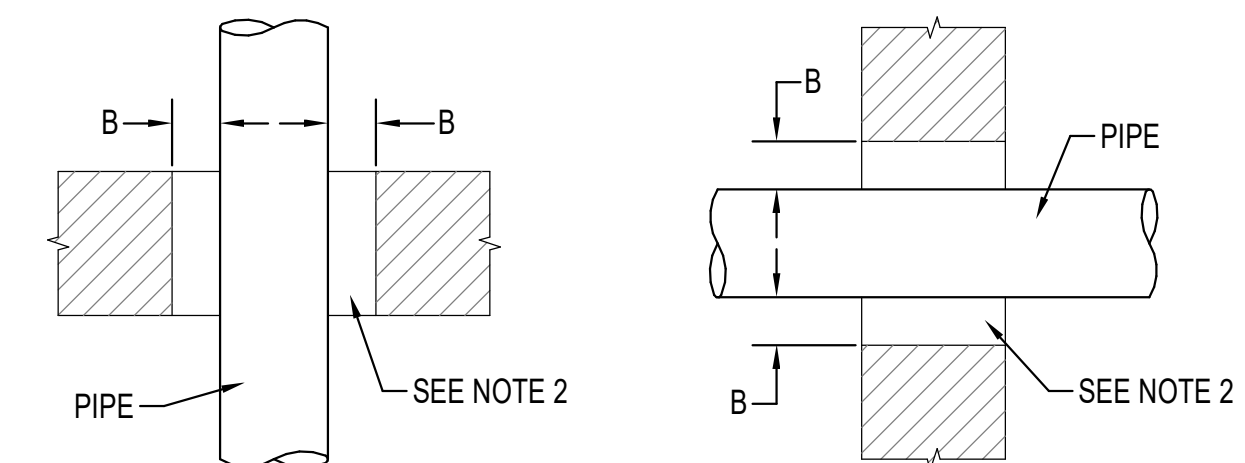
ALL SIZES ARE IN INCHES

**PIPE SADDLE SUPPORT STAND**

J1 FX501DTP1 FX501DTP1 SCALE = N.T.S.

NOMINAL PIPE SIZE	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12
MIN. CLEARANCE (B)	1	1	1	1	1	1	2	2	2	2	2	2

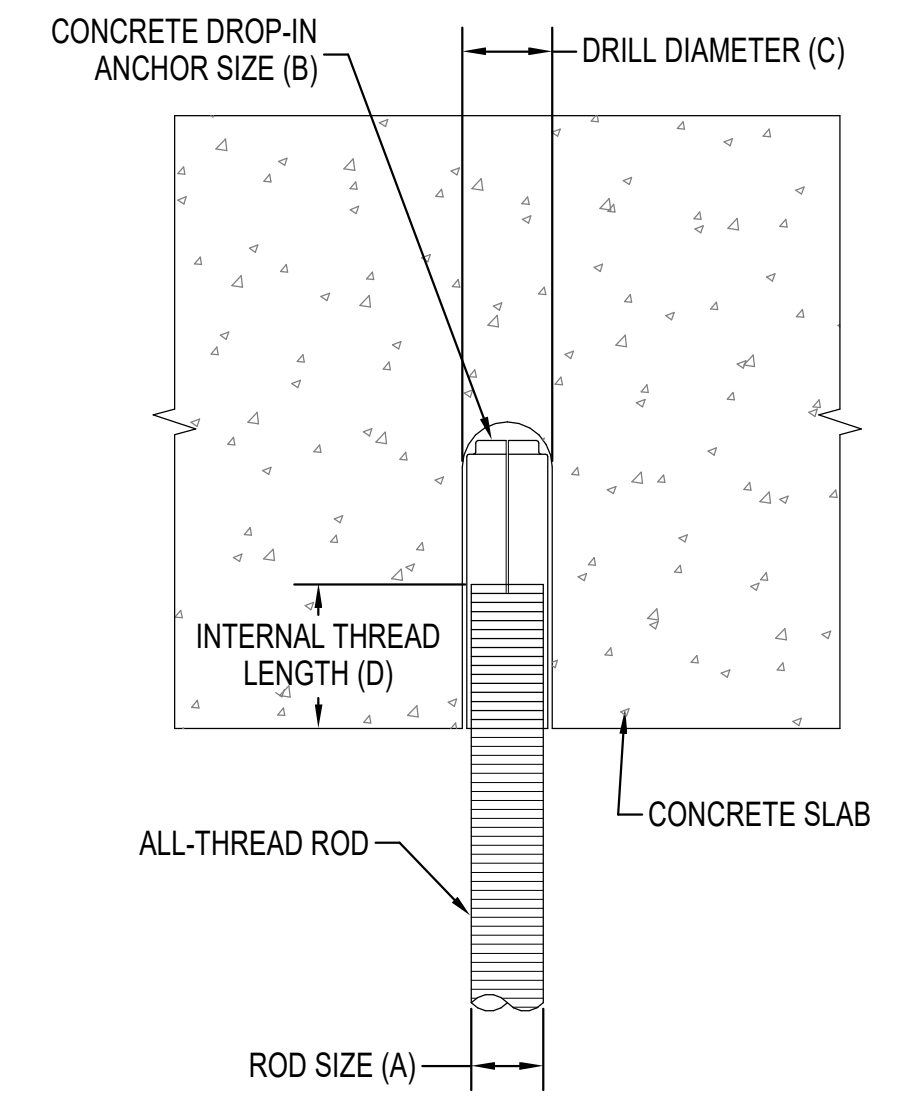
ALL SIZES ARE IN INCHES



- NOTES:**
- VERTICAL PENETRATION**
  - HORIZONTAL PENETRATION**
  - 1. CLEARANCE SHALL BE PROVIDED AROUND ALL PIPING EXTENDING THROUGH WALLS, FLOORS, PLATFORMS AND FOUNDATIONS INCLUDING DRAINS, FIRE DEPARTMENT CONNECTIONS AND OTHER AUXILIARY PIPING.
  - 2. PENETRATIONS THROUGH FIRE RATED ASSEMBLIES THE OPENING SHALL BE PROTECTED BY A LISTED THROUGH PENETRATION FIRE STOP SYSTEM WHICH UTILIZES A FLEXIBLE FIRE STOP MATERIAL.
  - 3. NO CLEARANCE IS REQUIRED IF FLEXIBLE COUPLINGS ARE LOCATED WITHIN 12" OF EACH SIDE OF A WALL, FLOOR, PLATFORM AND FOUNDATION.
  - 4. NO CLEARANCE IS REQUIRED FOR PIPING PASSING THROUGH GYPSUM BOARD OR EQUALLY FRANGIBLE CONSTRUCTION THAT IS NOT REQUIRED TO HAVE A FIRE RESISTANCE RATING.

**PIPE PENETRATION CLEARANCES**

E1 FX501DTP1 SCALE = N.T.S.

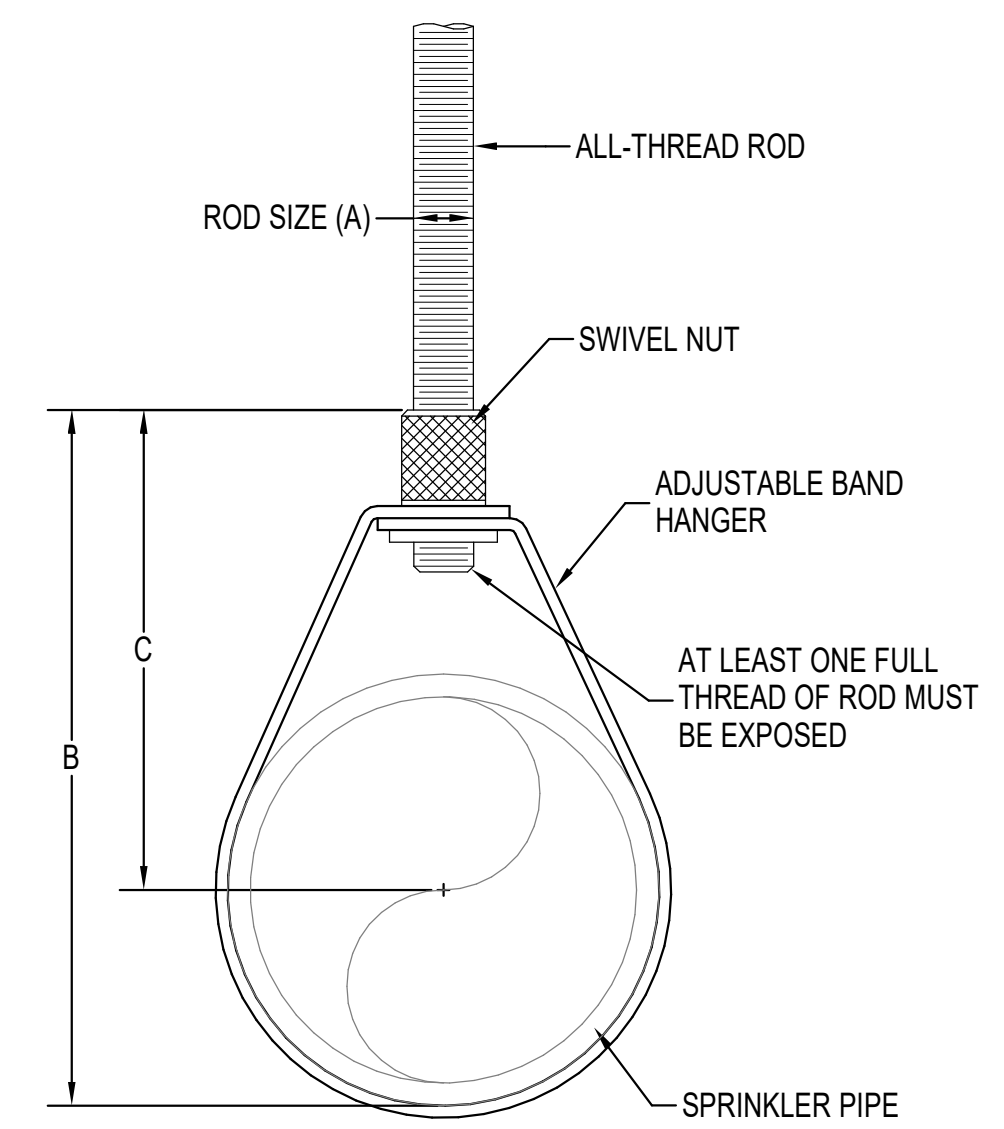


PIPE SIZE	A	B	C	D
1/2	3/8	1 1/16	1/2	5/8
3/4	3/8	1 1/16	1/2	5/8
1	3/8	1 1/16	1/2	5/8
1 1/4	3/8	1 1/16	1/2	5/8
1 1/2	3/8	1 1/16	1/2	5/8
2	3/8	1 1/16	1/2	5/8
2 1/2	3/8	1 1/16	1/2	5/8
3	3/8	1 1/16	1/2	5/8
4	3/8	1 1/16	1/2	5/8
5	1/2	1/2 x 2	1/2	1 1/8
6	1/2	1/2 x 2	1/2	1 1/8
8	1/2	1/2 x 2	1/2	1 1/8
10	3/8	5/8 x 2 3/16	2 1/2	3 1/8
12	3/8	5/8 x 2 3/16	2 1/2	3 1/8

ALL SIZES ARE IN INCHES

**CONCRETE ANCHOR FOR ALL-THREAD ROD**

J5 FX501DTP1 SCALE = N.T.S.

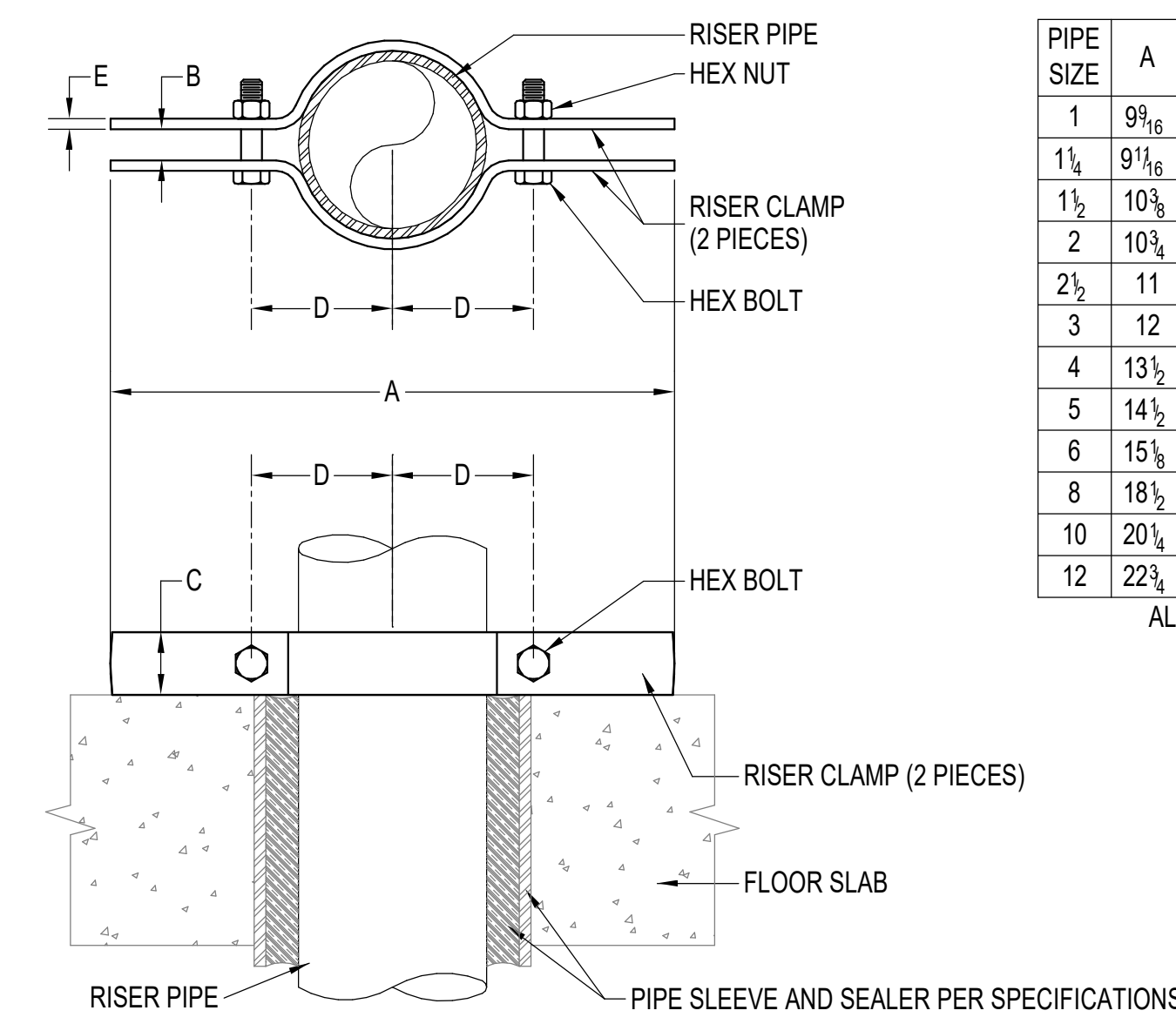


PIPE SIZE	A	B	C
1/2	3/8	3 1/8	2 3/8
3/4	3/8	3 1/8	2 3/8
1	3/8	3 3/8	2 3/8
1 1/4	3/8	3 3/8	2 3/8
1 1/2	3/8	3 3/8	2 3/8
2	3/8	4 1/2	3
2 1/2	3/8	5 5/8	4 1/8
3	3/8	5 5/8	4
4	3/8	7 3/8	5
5	1/2	9 1/8	6 1/4
6	1/2	10 3/8	6 3/4
8	1/2	13 3/8	8 3/4

ALL SIZES ARE IN INCHES

**ADJUSTABLE BAND HANGER**

J9 FX502DTP1 FX501DTP1 SCALE = N.T.S.

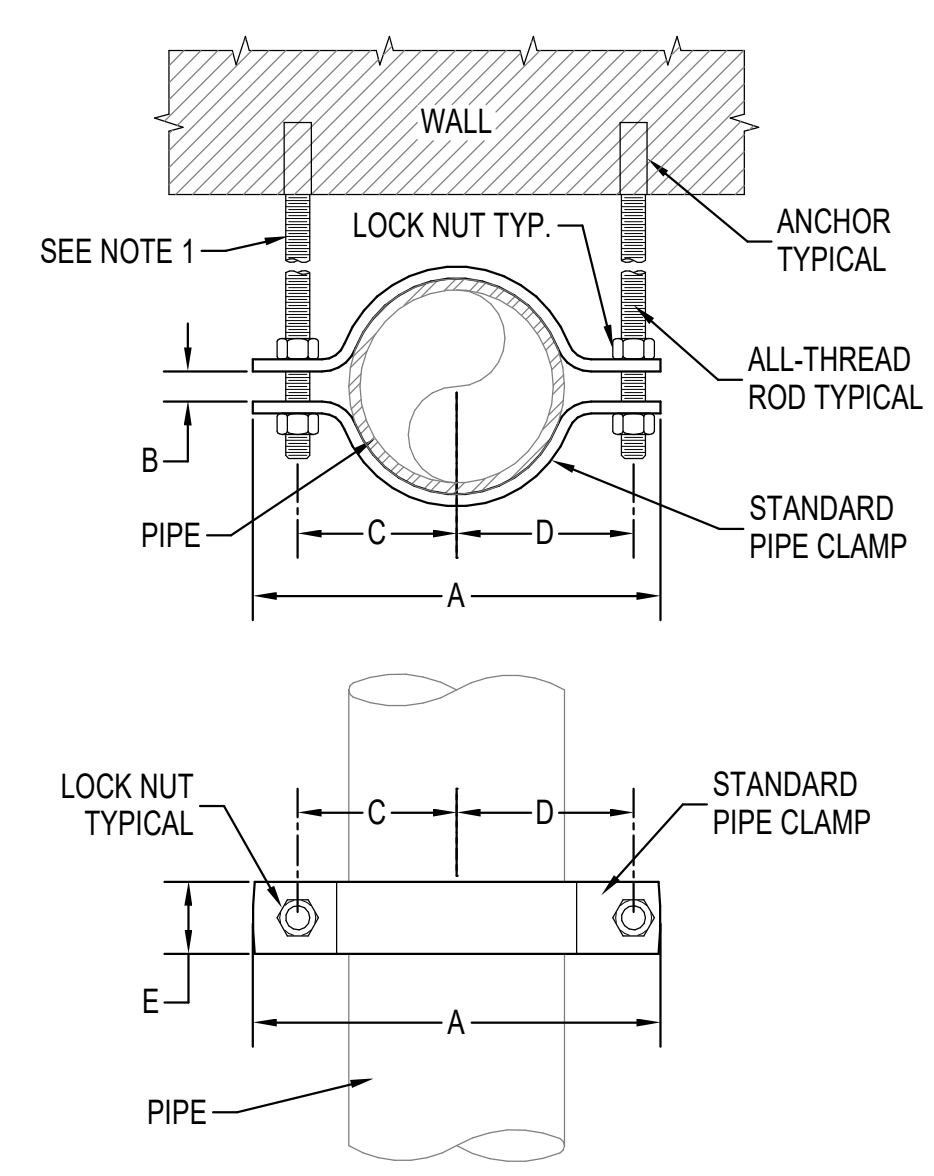


PIPE SIZE	A	B	C	D	E	BOLT SIZE
1	9 1/16	1/2	1 1/4	1 1/4	3/16	3/8
1 1/4	9 1/16	1/2	1 1/4	1 3/8	1/4	3/8
1 1/2	10 3/8	1/2	1 1/4	1 1/2	1/4	3/8
2	10 3/8	1/2	1 1/4	2	1/4	3/8
2 1/2	11	5/8	1 1/4	2 1/4	1/4	3/8
3	12	5/8	1 1/4	3	1/4	3/8
4	13 1/2	3/4	1 1/2	3 3/8	1/4	3/8
5	14 1/2	3/4	2	4 3/8	1/4	3/8
6	15 1/2	7/8	2	4 7/8	1/4	3/8
8	18 1/2	1	2	5 3/4	1/4	3/8
10	20 1/4	1	2	7 1/4	1/4	3/8
12	22 3/4	1	2	8 1/4	1/2	3/8

ALL SIZES ARE IN INCHES

**RISER SUPPORT CLAMP**

E5 FX501DTP1 FX501DTP1 SCALE = N.T.S.

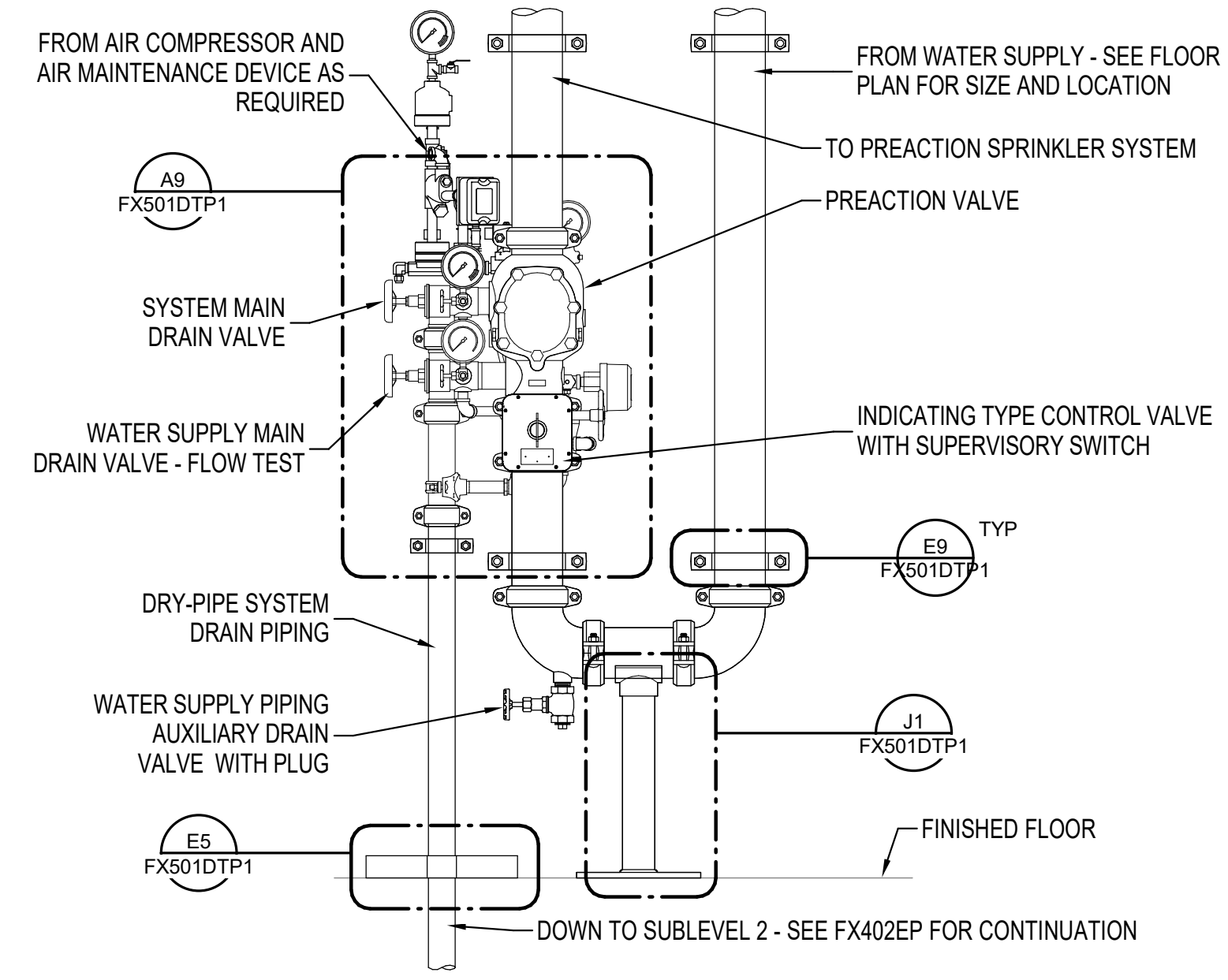


PIPE SIZE	A	B	C	D	E	ROD SIZE
1	3 3/8	1/2	1 1/4	1 5/16	1 1/4	5/16
1 1/4	4 3/8	3/8	1 1/4	1 1/8	1 1/4	5/16
1 1/2	4 3/8	3/8	1 1/4	1 1/8	1 1/4	5/16
2	5 3/8	3/8	2	2 1/4	1 1/4	1/2
2 1/2	6 3/8	3/8	2 1/2	2 3/4	1 1/4	1/2
3	7	3/8	2 1/2	3 1/8	1 1/4	1/2
4	8 1/2	3/8	3 3/8	3 1/8	1 1/2	1/2
5	9 1/2	3/4	3 3/4	4 3/8	2	3/8
6	11 1/8	3/4	4 1/8	5 1/8	2	3/4
8	13 3/8	1	5 3/8	6	2	3/4
10	16 1/2	1	7 1/4	7 1/4	2	3/8
12	18 1/2	1	8 1/4	8 1/4	2	3/8

ALL SIZES ARE IN INCHES

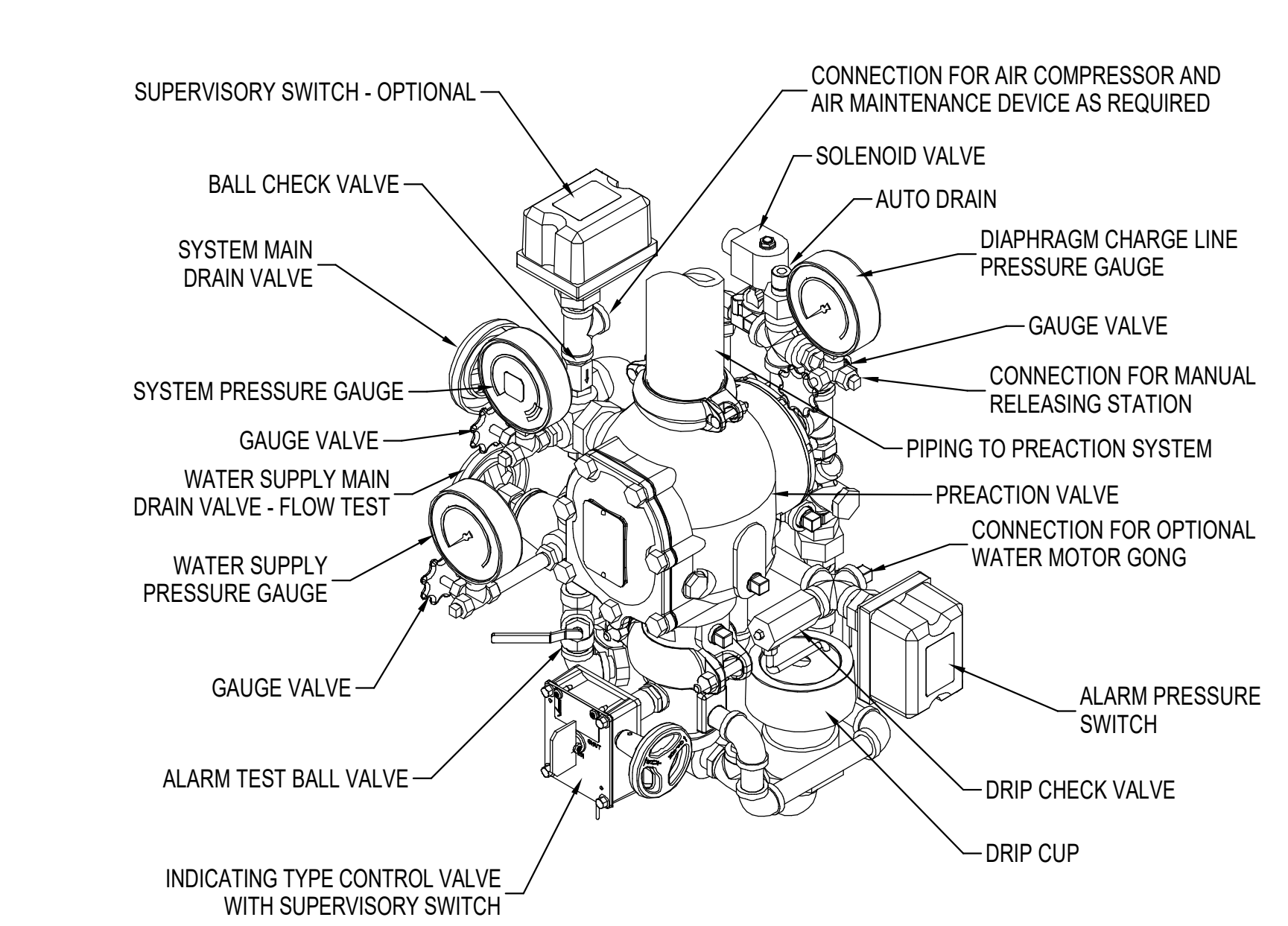
**PIPE RESTRAINING CLAMP ASSEMBLY**

E9 FX501DTP1 FX501DTP1 SCALE = N.T.S.



**PREACTION VALVE MANIFOLD**

A5 FX404EPP1 FX501DTP1 SCALE = N.T.S.



**PREACTION VALVE ASSEMBLY**

A9 FX501DTP1 FX501DTP1 SCALE = N.T.S.

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DISTRICT OF COLUMBIA  
JASON M. SLATTERY  
PE906414  
4/8/2022  
FIRE PROTECTION  
PROFESSIONAL ENGINEER

KEY PLAN

GRAPHIC SCALE(S)

DATE: 04/08/22  
SUBMISSION: FINAL CD

REVISION # DATE: REVISION DESCRIPTION:

**Smithsonian Institution**  
Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME: FREER/SACKLER/AFA/QUAD  
ADDRESS: SW WASHINGTON, DC 20560

PROJECT TITLE: FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION  
SF PROJECT NUMBER: 1909101  
A/E PROJECT NUMBER: 11203201

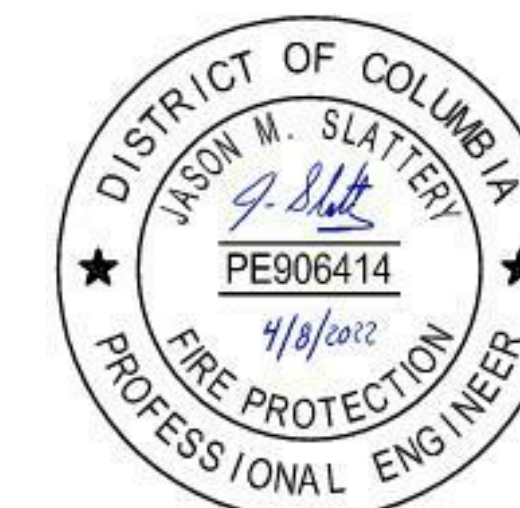
DRAWING TITLE: FIRE SUPPRESSION DETAILS - PHASE 1

WORKING STAFF: DPH, DPH, KWL  
DESIGNED BY: DPH, DRAWN BY: DPH, CHECKED BY: KWL

SHEET NO. 91 OF 179  
FX501DTP1  
DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE



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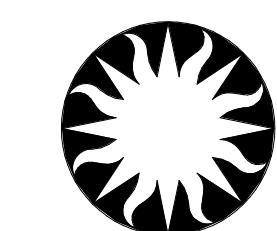


STAMP

KEY PLAN

GRAPHIC SCALE(S)

DATE	04/08/22	REVISION	FINAL CD
REVISION #		REVISION DESCRIPTION	



**Smithsonian Institution**

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600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

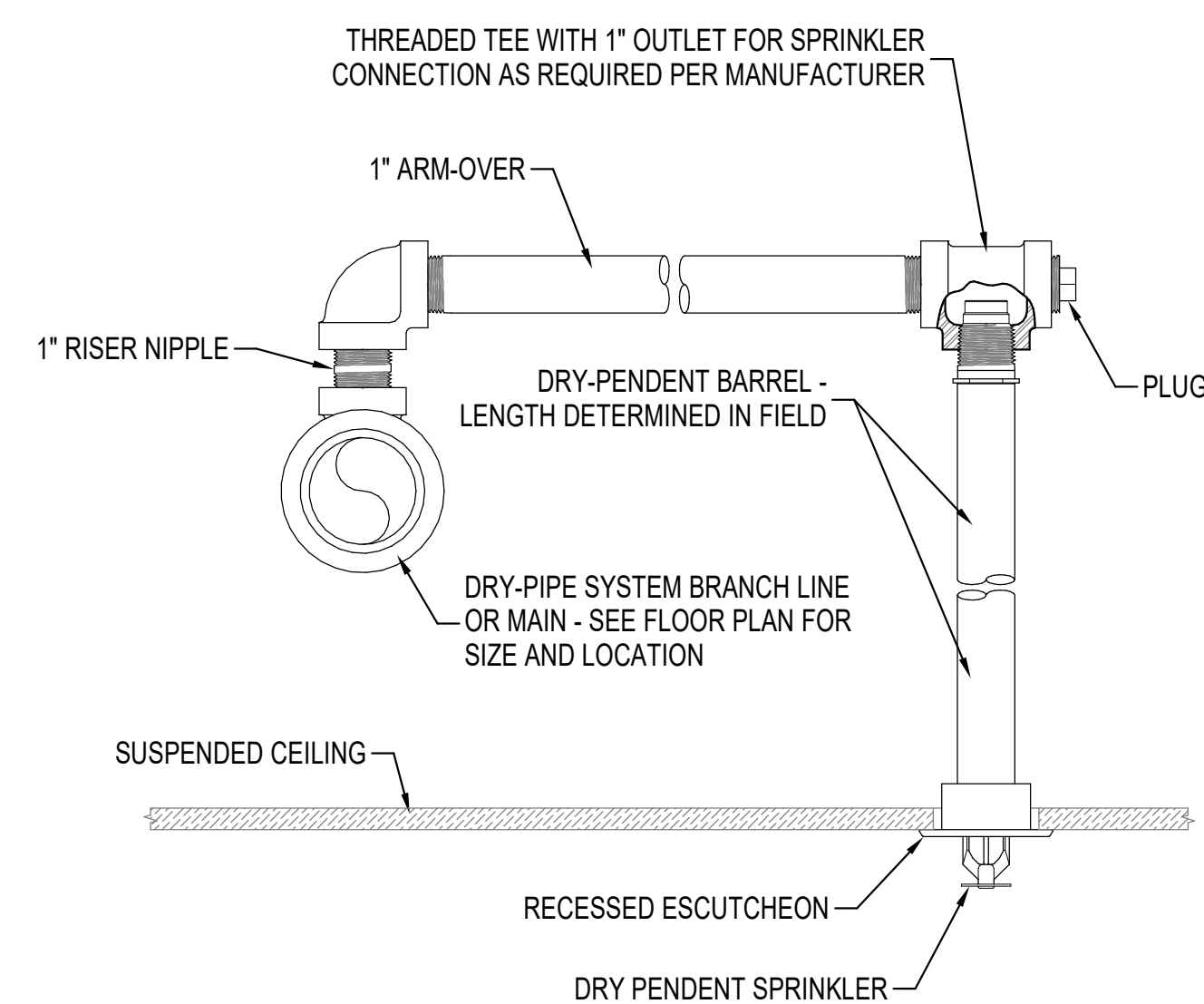
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ADDRESS: SW WASHINGTON, DC 20560

PROJECT TITLE: FREER/SACKLER/FAA/ QUAD  
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SF PROJECT NUMBER: 1909101  
A/E PROJECT NUMBER: 11203201

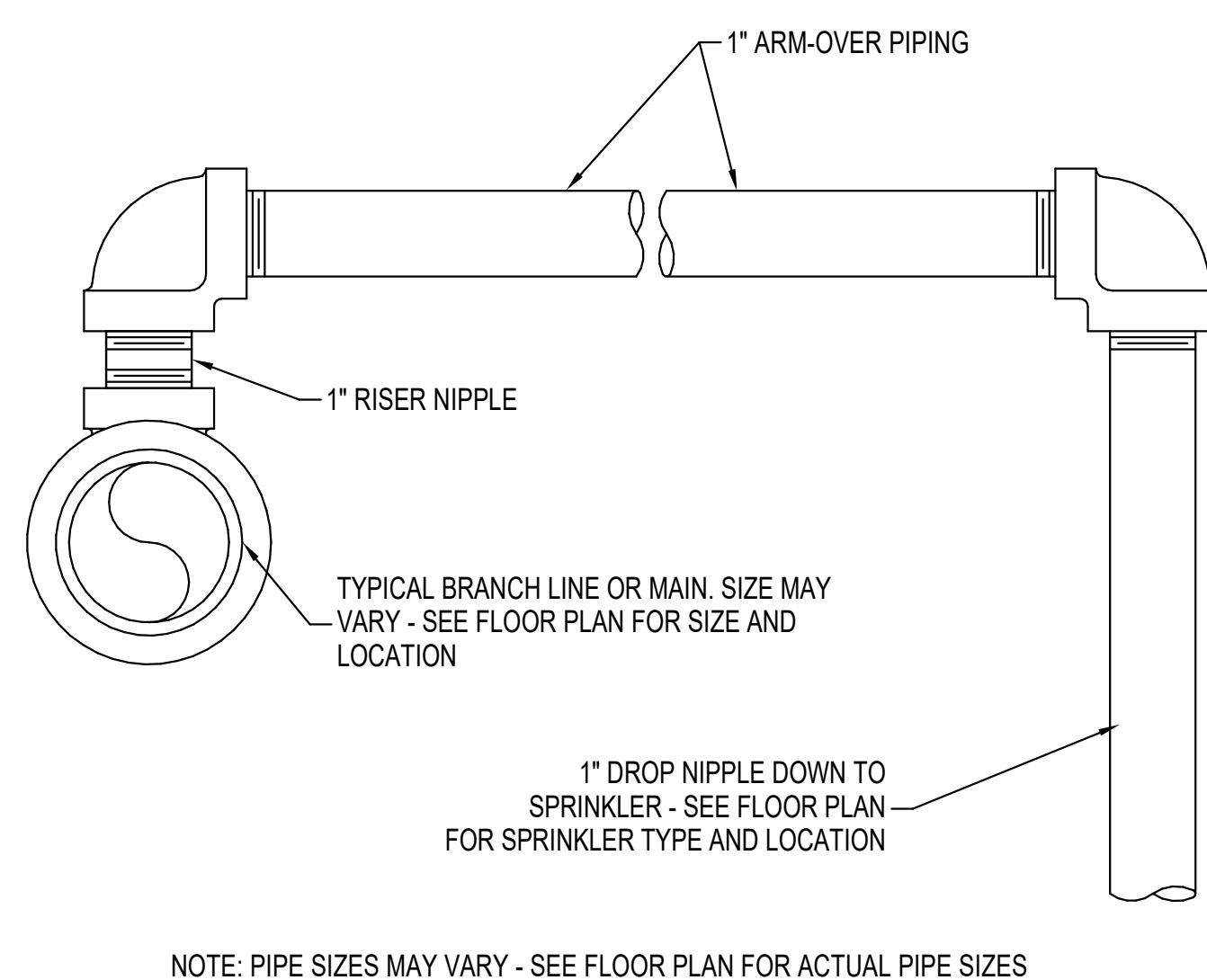
DRAWING TITLE: FIRE SUPPRESSION DETAILS -  
PHASE 1  
WORKING STAFF: DESIGNED BY: DPH, DRAWN BY: DPH, CHECKED BY: KWL

SHEET NO. 92 OF 179  
FX502DTP1

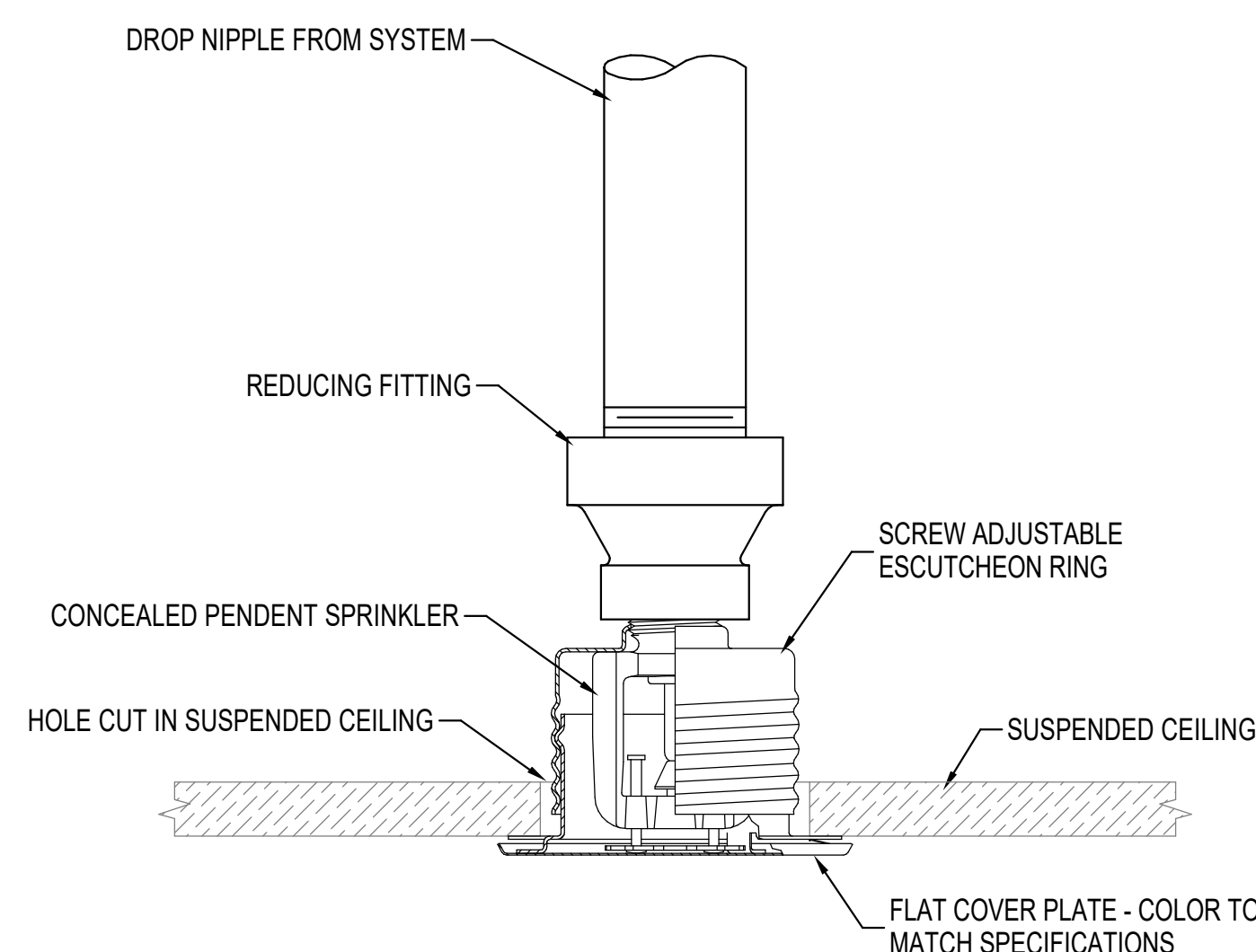
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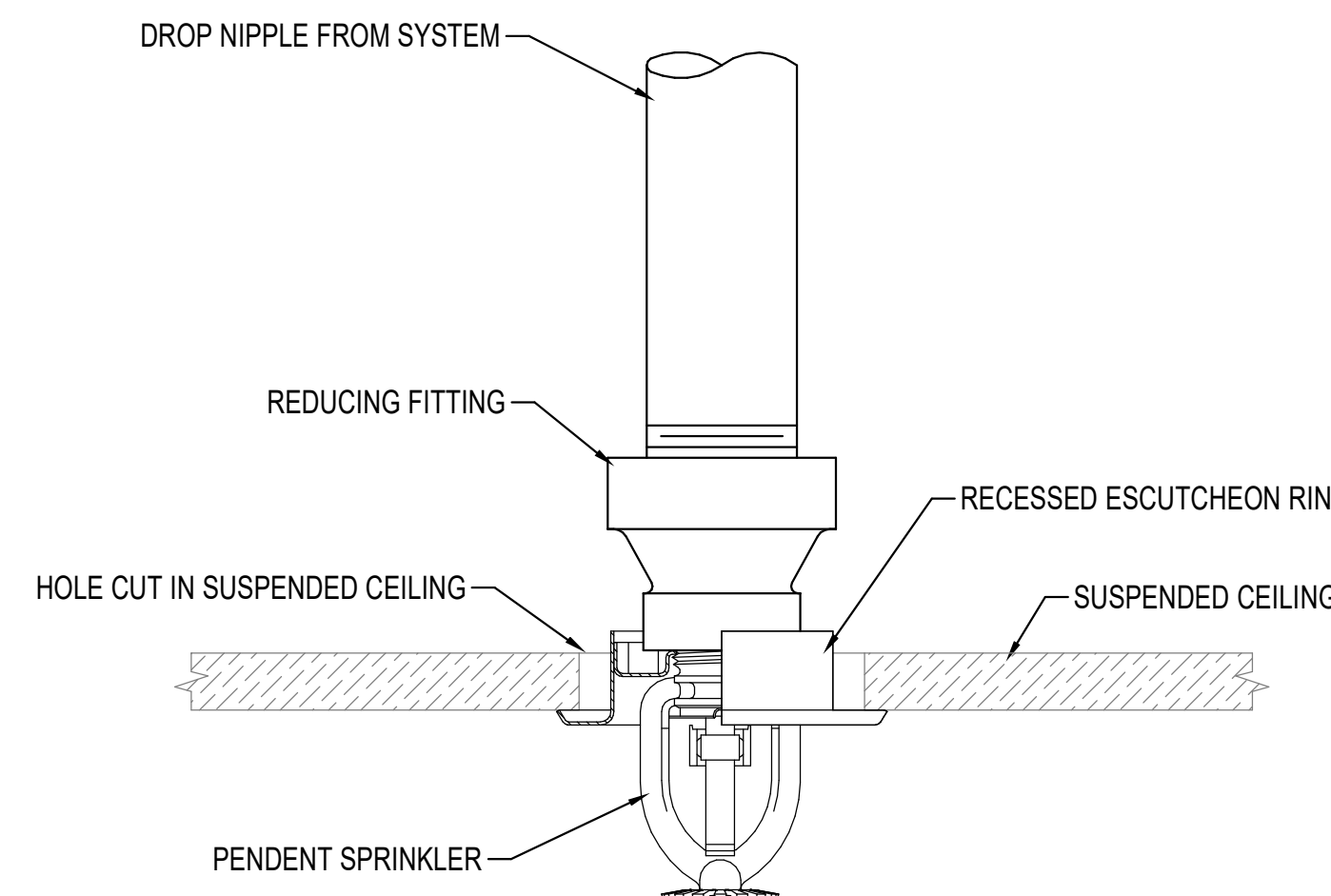
**J1 RECESSED DRY PENDENT SPRINKLER**  
FX404EPP1 FX502DTP1 SCALE = 12" = 1'-0"



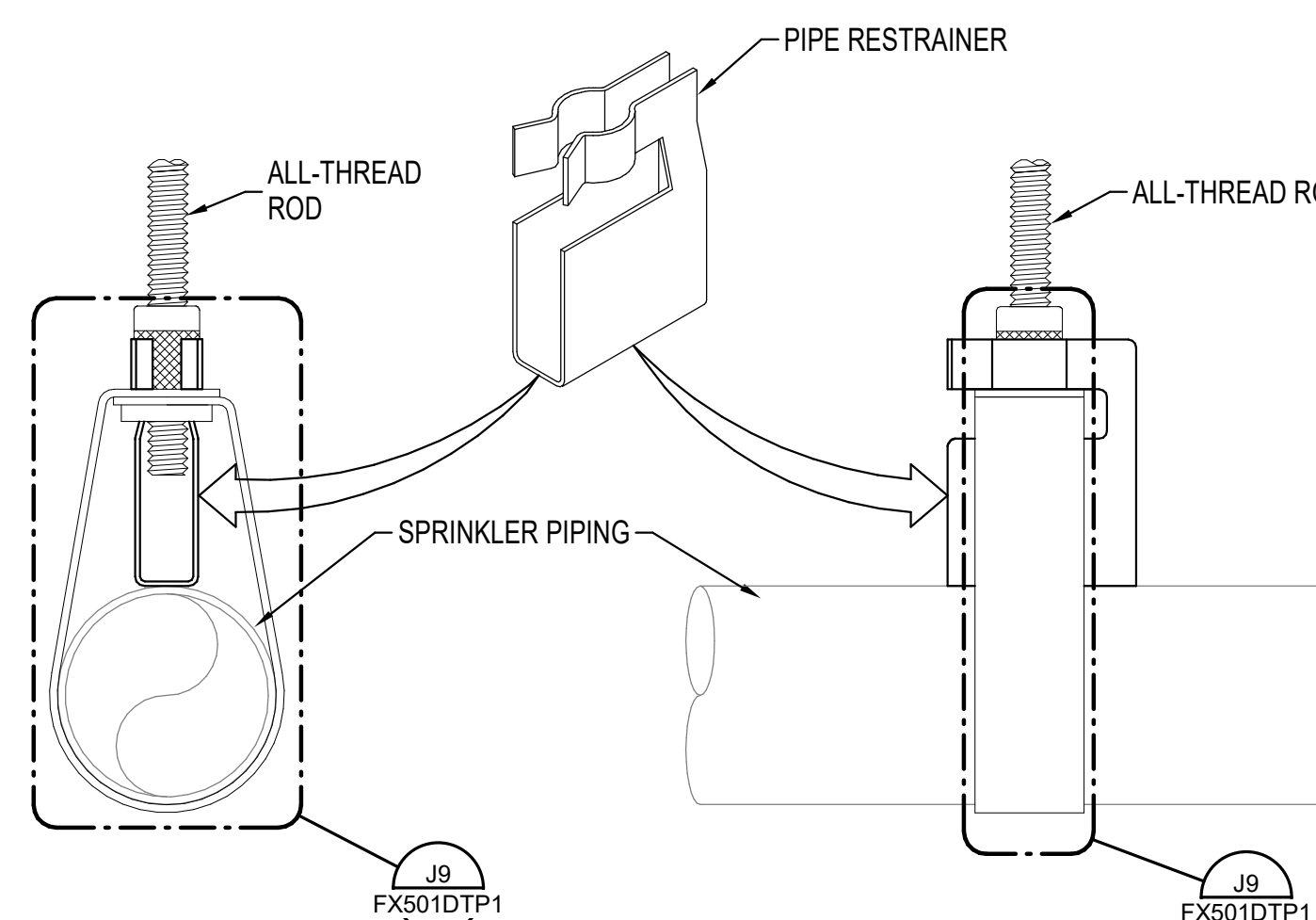
**E1 SPRINKLER ARM-OVER PIPING**  
FX401EPP1 FX502DTP1 SCALE = N.T.S.



**E5 CONCEALED PENDENT SPRINKLER**  
FX502DTP1 SCALE = N.T.S.



**E9 RECESSED PENDENT SPRINKLER**  
FX502DTP1 SCALE = 12" = 1'-0"



NOTE: PIPE RESTRAINERS SHALL BE PROVIDED ON ALL FIRE SUPPRESSION PIPING 2" AND SMALLER. RESTRAINERS SHALL BE PLACED IN ACCORDANCE WITH NFPA 13.  
**A9 SURGE RESTRAINER ON ADJUSTABLE BAND HANGER**  
FX502DTP1 SCALE = N.T.S.

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FX502DTP1 BY Approver: 04/08/22 FINAL CD

ABBREVIATIONS

A	AMPERE(S)
AC	ALTERNATING CURRENT
ACU	AIR CONDITIONING UNIT
ADA	AMERICANS WITH DISABILITIES ACT
AF	AMPERES FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
AIC	AMPERES INTERRUPTING CAPACITY
ARCH	ARCHITECTURAL
AT	AMPERES TRIP
ATC	AUTOMATIC TEMPERATURE CONTROL
ATS	AUTOMATIC TRANSFER SWITCH
AV	AUDIOVISUAL
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BLDG	BUILDING
C	CONDUIT
CB	CIRCUIT BREAKER
CCT	CORRELATED COLOR TEMPERATURE
CKT	CIRCUIT
CLG	CEILING
CRI	COLOR RENDERING INDEX
CX	CONNECT TO EXISTING
DC	DIRECT CURRENT
DESIG	DESIGNATION
DIST	DISTRIBUTION
DN	DOWN
DWG	DRAWING
DX	DISCONNECT EXISTING
EA	EACH
EC	EMPTY CONDUIT
ECB	ENCLOSED CIRCUIT BREAKER
EF	EXHAUST FAN
EH	ELECTRIC HEATER
ELEC	ELECTRIC
ENT	ELECTRICAL METALLIC TUBING
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EX	EXISTING
F	FUSE
FDAS	FIRE DETECTION ALARM SYSTEM
FDR	FEEDER
FLA	FULL LOAD AMPERES
FMC	FLEXIBLE METAL CONDUIT
FS	FUSED SWITCH
FT	FOOT OR FEET
FVNR	FULL VOLTAGE NON-REVERSING
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HTR	HEATER
HZ	HERTZ
IMC	INTERMEDIATE METAL CONDUIT
JB	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT(S)
KVA	KILOVOLT-AMPERE(S)
KW	KILOWATT(S)
LED	LIGHT EMITTING DIODE
LFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
LTG	LIGHTING
MAFC	MAKE ALL FINAL CONNECTIONS
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MFR	MANUFACTURER
MH	MOUNTING HEIGHT (TO CENTERLINE OF DEVICE UNLESS OTHERWISE NOTED)
MLO	MAIN LUGS ONLY
MOA	MULTI-OUTLET ASSEMBLY
MS	MANUAL STARTER
MTD	MOUNTED
N	NEUTRAL
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFS	NON-FUSED SWITCH
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
OL	OVERLOAD
P	POLE
PH	PHASE
PNL	PANEL
PVC	POLYVINYL CHLORIDE
RECEPT	RECEPTACLE(S)
REOD	REQUIRED
REL	RELOCATE OR RELOCATED
RF	RETURN FAN
RMC	RIGID METAL CONDUIT
RM(S)	ROOM(S)
RX	REMOVE EXISTING
SMR	SUPPLY FAN
SPD	SURFACE METAL RACEWAY
SPD	SURGE PROTECTIVE DEVICE
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TA	TRIP AMPERES
TTB	TELEPHONE TERMINAL BOARD
TTC	TELEPHONE TERMINAL CABINET
TYP	TYPICAL
UG	UNDERGROUND
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
V	VOLT(S)
VA	VOLT-AMPERE(S)
VFC	VARIABLE FREQUENCY CONTROLLER
VT	VOLTAGE TRANSFORMER
W	WIRE
W/	WITH
WP	WEATHERPROOF
XFMR	TRANSFORMER

SYMBOLS

LIGHTING	
	SINGLE POLE SWITCH MOUNTED 48" ABOVE FINISHED FLOOR, UNLESS OTHERWISE NOTED
	SUBSCRIPTS AS FOLLOWS: 3 - THREE WAY SWITCH OS - OCCUPANCY SENSOR a - LOWER CASE LETTER INDICATES SWITCH LEG
	0-10V LIGHTING CONTROL WALL STATION WITH ON, RAISE, LOWER, AND OFF BUTTONS
	LIGHTING FIXTURE
	LIGHTING FIXTURE, PENDANT MOUNTED
	LIGHTING FIXTURE, WALL MOUNTED
	INDUSTRIAL LIGHTING FIXTURE
	LIGHTING TRACK
	LIGHTING FIXTURE, TRACK MOUNTED
	LIGHTING FIXTURE, CEILING MOUNTED
	LIGHTING FIXTURE, WALL MOUNTED
	LIGHTING FIXTURE, WALL WASHER
	EXIT SIGN - BACK MOUNTED WITH DIRECTIONAL INDICATORS AS SHOWN
	EXIT SIGN - TOP OR PENDANT MOUNTED, SINGLE FACE WITH DIRECTIONAL INDICATORS AS SHOWN
	EXIT SIGN - TOP OR PENDANT MOUNTED, DOUBLE FACE WITH DIRECTIONAL INDICATORS AS SHOWN
	EMERGENCY LIGHTING UNIT MOUNTED 90° AFF
	OCCUPANCY SENSOR, CEILING MOUNTED - ARROWS INDICATE DIRECTION OF SENSOR BEAM AIMING
POWER (ONE LINE)	
	GROUND
	TRANSFORMER
	CURRENT TRANSFORMER
	VOLTAGE TRANSFORMER
	STATIONARY CIRCUIT BREAKER
	DRAW-OUT CIRCUIT BREAKER
	SHUNT-TRIP CIRCUIT BREAKER
	NETWORK PROTECTOR
	FUSE
	DISCONNECT SWITCH
	THERMAL OVERLOADS
	CONTACTS
	TRANSFER SWITCH
	KEY OPERATED MECHANICAL INTERLOCK
	FUSED DISCONNECT SWITCH
	ENGINE GENERATOR SET
POWER - FLOOR PLANS	
	SINGLE RECEPTACLE MOUNTED 18" AFF, UNLESS OTHERWISE NOTED
	DUPLEX RECEPTACLE MOUNTED 18" AFF, UNLESS OTHERWISE NOTED
	SUBSCRIPTS AS FOLLOWS (APPLIES TO ALL RECEPTACLES) E - CONNECTED TO EMERGENCY CIRCUIT G - GROUND FAULT CIRCUIT INTERRUPTER TYPE IG - ISOLATED GROUND 84" - MOUNTING HEIGHT AS INDICATED
	DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER, 6" ABOVE BACKSPASH
	QUAD RECEPTACLE MOUNTED 18" AFF, UNLESS OTHERWISE NOTED
	NEMA L6-20R RECEPTACLE MOUNTED 18" AFF, UNLESS OTHERWISE NOTED. PROVIDE 2-12#, #12 GROUND IN 3/4" CONDUIT UON
	SUBSCRIPTS AS FOLLOWS (APPLIES TO ALL RECEPTACLES) A - NEMA L6-30R. PROVIDE 2-#10, #10 GROUND IN 3/4" CONDUIT UON
	SINGLE RECEPTACLE MOUNTED IN FLOOR
	DUPLEX RECEPTACLE MOUNTED IN FLOOR
	QUAD RECEPTACLE MOUNTED IN FLOOR
	SPECIAL RECEPTACLE MOUNTED IN FLOOR (NEMA CONFIGURATION AS INDICATED)
	JUNCTION BOX MOUNTED IN FLOOR
	DUPLEX RECEPTACLE MOUNTED FLUSH IN CEILING
	QUAD RECEPTACLE MOUNTED FLUSH IN CEILING
	208Y/120V PANELBOARD (SURFACE MOUNTED) RACEWAY
	480Y/277V PANELBOARD (SURFACE MOUNTED)
	JUNCTION BOX (CEILING MOUNTED) JUNCTION BOX (WALL MOUNTED)
	FURNITURE WHIP (WALL MOUNTED)
	PROJECTOR CONNECTION. PROVIDE DUPLEX RECEPTACLE MOUNTED FLUSH IN CEILING.
	MOTOR CONNECTION
	PUSHBUTTON
	NON-FUSIBLE SWITCH
	FUSIBLE SWITCH
	MAGNETIC MOTOR CONTROLLER
	COMBINATION MAGNETIC MOTOR CONTROLLER
	ENCLOSED CIRCUIT BREAKER
	TRANSFORMER
	FRACTIONAL MANUAL MOTOR CONTROLLER MOUNTED 5'-0" AFF
	GROUND ROD

DRAWING CONVENTIONS

SYMBOL	DESCRIPTION
	POINT OF CONNECTION - NEW TO EXISTING
	DEMOLITION WORK TERMINATION POINT
	INDICATES FEEDER
	NUMBER INDICATES FEEDER DESIGNATION. REFER TO FEEDER SCHEDULE FOR CONDUCTOR AND CONDUIT SIZE
	INDICATES SPECIAL NOTE
	NUMBER INDICATES SPECIAL NOTE DESIGNATION REFER TO SPECIAL NOTE LIST ON DRAWING FOR DESCRIPTION OF ITEM
	LIGHTING FIXTURE
	SWITCH DESIGNATION
	LIGHTING FIXTURE TYPE. REFER TO LIGHTING FIXTURE SCHEDULE
	DIAGONAL LINE INDICATES EMERGENCY LIGHTING FIXTURE
	INDICATES DETAIL DESIGNATION
	DRAWING WHERE DETAIL IS DRAWN
	INDICATES DIRECTION OF CUTTING PLANE
	NUMBER OR LETTER INDICATES SECTION OR ELEVATION
	DRAWING NUMBER WHERE ELEVATION OR SECTION IS TAKEN OR DRAWN
	INDICATES PANELBOARD AND CIRCUIT NUMBER
	BRANCH CIRCUIT HOME RUN; ARROWHEADS INDICATE NUMBER OF CIRCUITS. INCLUDE ONE EQUIPMENT GROUND CONDUCTOR.
	INDICATES WIRE SIZE (AWG OR CIRCULAR MILS) IF OTHER THAN BRANCH CIRCUIT WIRE SIZING STANDARD
	EACH BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL CONDUCTOR
	"E" INDICATES EMERGENCY CIRCUIT WITH 3#10 MINIMUM IN 3/4" CONDUIT
	NUMBER OF PANEL OR EQUIPMENT
	SECTION OF BUILDING
	H = 480Y/277V L = 208Y/120V M = MOTOR CONTROL CENTER T = TRANSFORMER P = DEDICATED PANEL E = EMERGENCY S = STANDBY D = DISTRIBUTION
BRANCH CIRCUIT WIRE SIZING STANDARD	
WIRE	DISTANCE
#12	UP TO 75 FEET FOR 120V
#10	UP TO 120 FEET FOR 120V
#8	UP TO 190 FEET FOR 120V
#12	UP TO 150 FEET FOR 277V
#10	UP TO 260 FEET FOR 277V
#8	UP TO 400 FEET FOR 277V
	CONDUIT RUN CONCEALED IN WALL OR CEILING IN FINISHED AREAS, EXPOSED IN UNFINISHED AREAS
	CONDUIT UNDERGROUND OR UNDER SLAB
	CONDUIT UP
	CONDUIT DOWN
	HEAVY LINE WEIGHT DESIGNATES NEW WORK ON NEW WORK PLANS
	DASHED LINE DESIGNATES REMOVAL WORK ON DEMOLITION PLANS
	LIGHT LINE WEIGHT DESIGNATES EXISTING WORK TO REMAIN

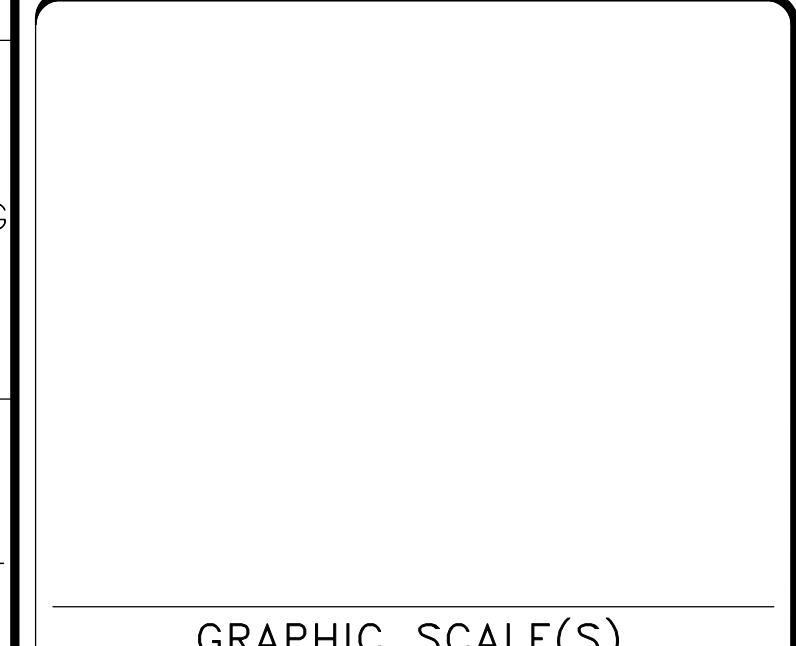
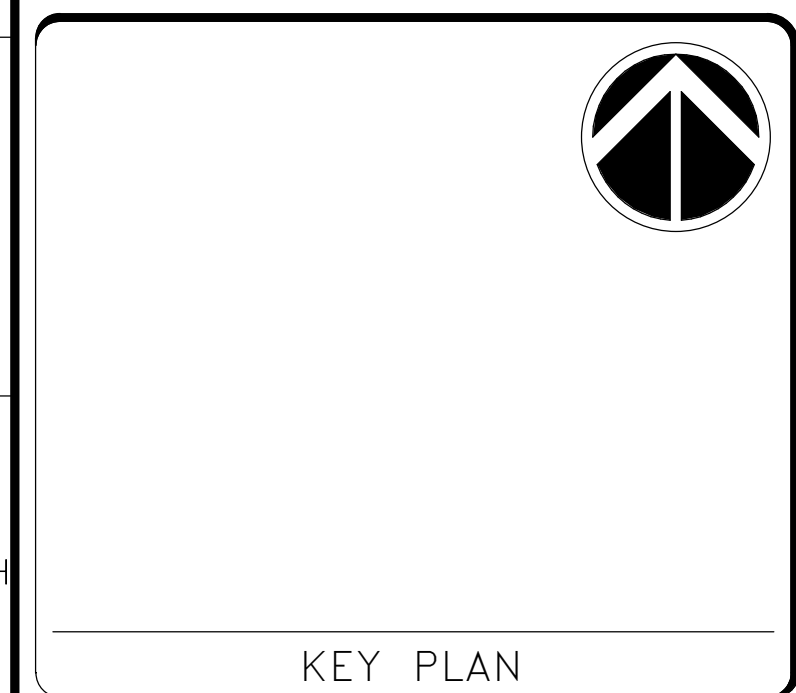
GENERAL NOTES

- CONTRACTOR SHALL THOROUGHLY EXAMINE PREMISES AND OBSERVE CONDITIONS UNDER WHICH THE WORK WILL BE PERFORMED, AND SHALL COMPLETELY FAMILIARIZE THEMSELVES WITH RELATED REQUIREMENTS OF THE JOB THAT WILL AFFECT WORK UNDER THIS CONTRACT. NO ALLOWANCES WILL BE MADE FOR ERRORS OR NEGLIGENCE IN THIS RESPECT.
- THE CONTRACT DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. NOT ALL CONDUIT RACEWAY OFFSETS, RISES AND DROPS HAVE BEEN INDICATED. THEREFORE, THE CONTRACTOR MUST CAREFULLY INVESTIGATE THE CONDITIONS AFFECTING THE WORK, AND ARRANGE SUCH ACCORDINGLY, PROVIDING NECESSARY FITTINGS AND ACCESSORIES THAT MAY BE NEEDED TO MEET SUCH CONDITIONS.
- CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NECESSARY TO MEET INTENT OF CONTRACT DRAWINGS.
- EXISTING ABANDONED CONDUIT THAT REMAINS CONCEALED, BURIED, OR OTHERWISE CONTAINED IN OR BELOW THE REMAINING SLABS AND WALLS SHALL BE CAPPED, PLUGGED, OR OTHERWISE SEALED. ABANDONED CONDUITS SHALL BE CUT SO THAT CAPPED OR PLUGGED ENDS WILL BE FAR ENOUGH BEHIND FINISHED SURFACES TO ALLOW FOR THE INSTALLATION OF THE NORMAL THICKNESS OF FINISHED MATERIAL.
- EXISTING ELECTRICAL CIRCUITS AFFECTED BY REMOVAL WORK AND REQUIRED TO REMAIN IN SERVICE ON A TEMPORARY OR PERMANENT BASIS SHALL BE RECONNECTED AS REQUIRED IN ACCORDANCE WITH GENERALLY ACCEPTED PRACTICE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR INCREASING WIRE SIZES AND CONDUIT AS NEEDED TO ACCOMMODATE VOLTAGE DROP PER INFORMATIONAL NOTES ON NEC 2017 (E.G. 210.19(A), 215.2(A)(1)(b), ETC.). VOLTAGE DROP SHALL NOT EXCEED 2% FOR FEEDERS AND 3% FOR BRANCH CIRCUITS FOR A TOTAL OF 5% MAXIMUM VOLTAGE DROP FROM THE NOMINAL SYSTEM VOLTAGE, REGARDLESS OF WIRE SIZES PUBLISHED ON THE DRAWINGS.

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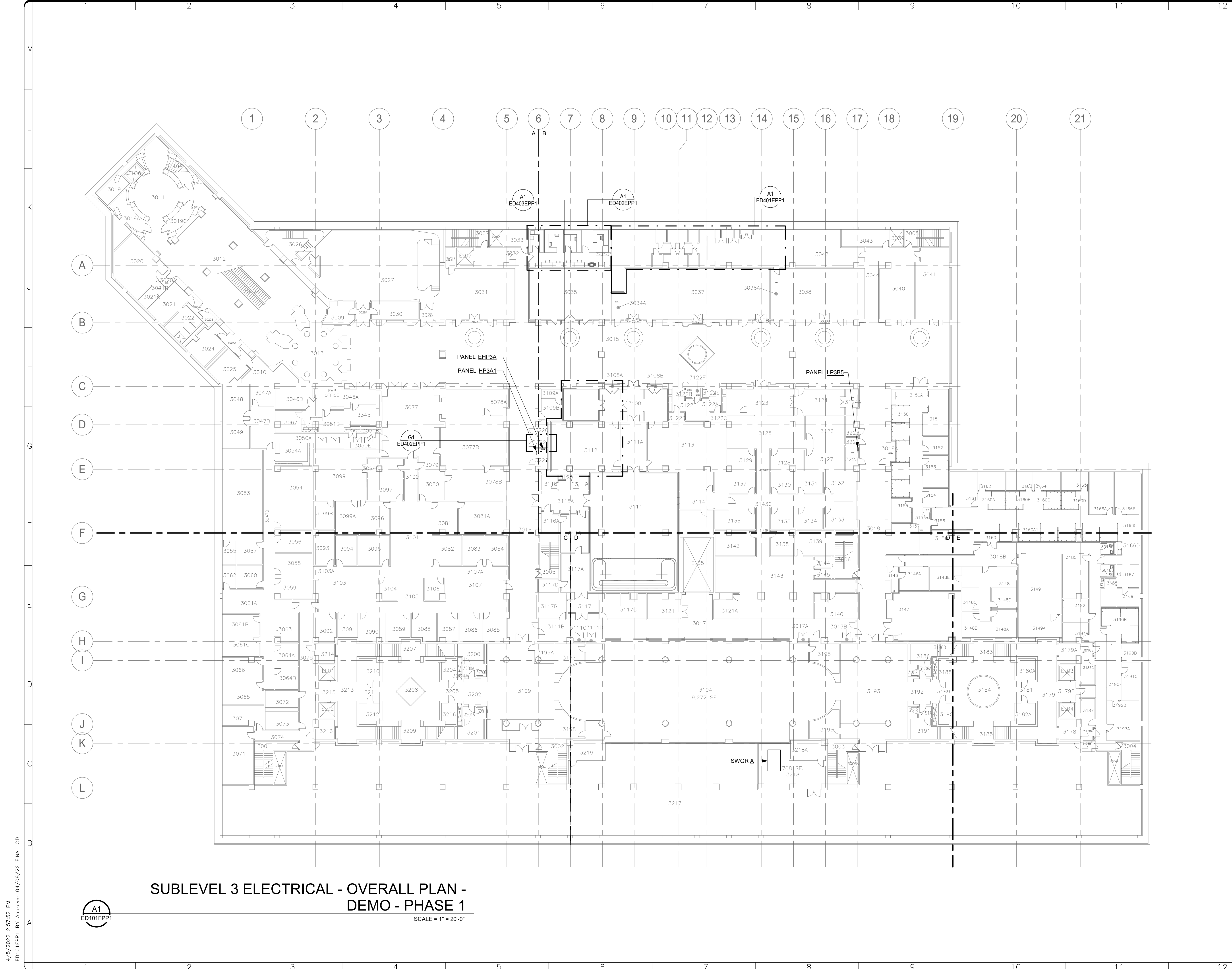


DATE	04/08/22	SUBMISSION	FINAL CD
REVISION #	DATE	DESCRIPTION	

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Smithsonian Facilities  
600 Maryland Avenue S.W., Suite 5001  
Washington, DC 20024-2520

DESIGNED NAME	FREER/SACKLER/AFA/QUAD	
ADDRESS	SW WASHINGTON, DC 20560	
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION	
SF PROJECT NUMBER	1909101	
A/E PROJECT NUMBER	11203201	
DRAWING TITLE	ELECTRICAL LEGEND -- PHASE 1	
WORKING STAFF	SNA SNA CEC	
DESIGNED BY	DRAWN BY	CHECKED BY

SHEET NO.	E - 001P1			
93 of 179				
DISCIPLINE	TYPE	SEQUENCE	DRAWING TYPE	PHASE



**SUBLEVEL 3 ELECTRICAL - OVERALL PLAN - DEMO - PHASE 1**

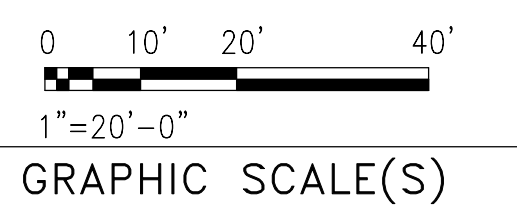
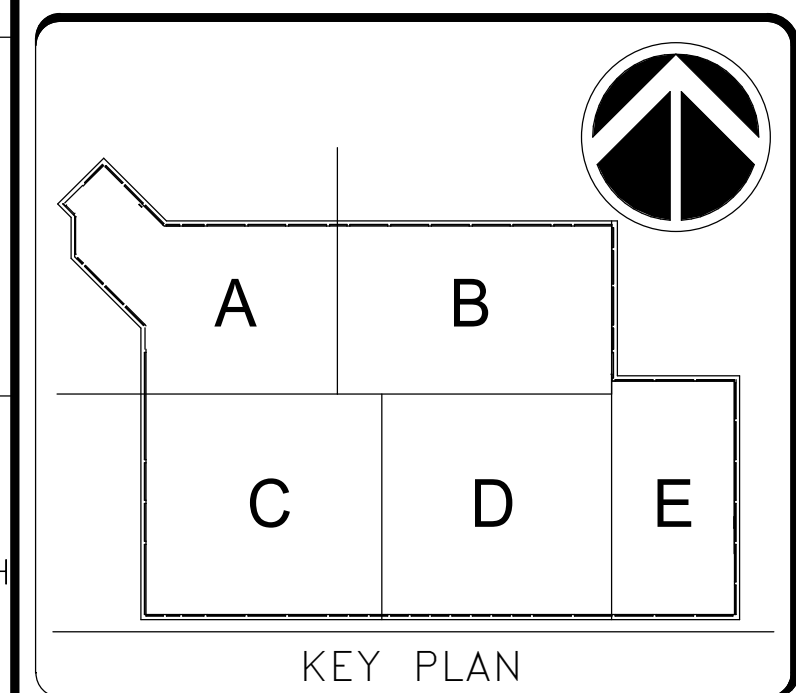
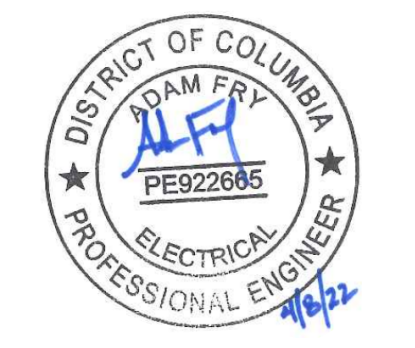
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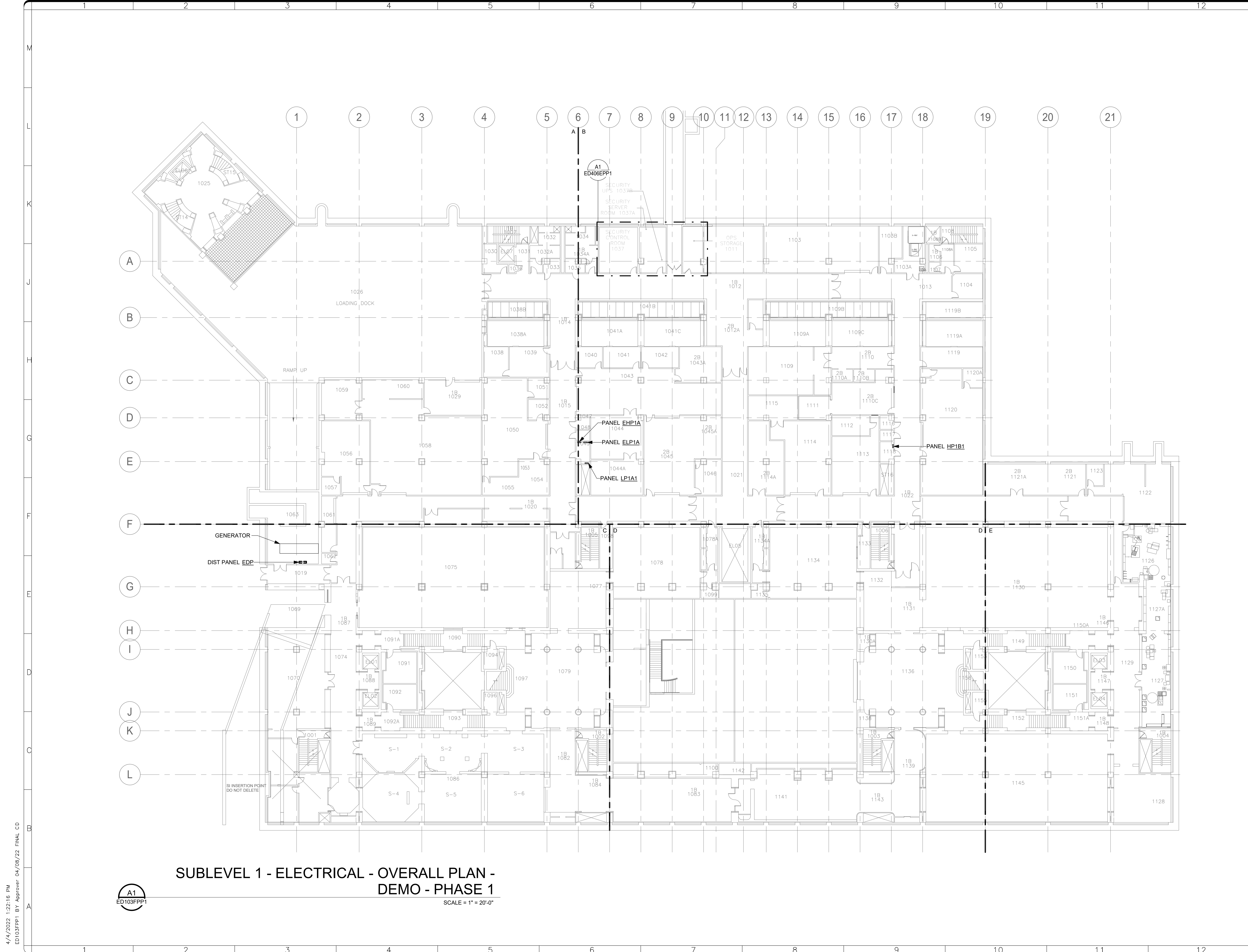


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A/E PROJECT NUMBER	11203201												
DRAWING TITLE	SUBLEVEL 3 - ELECTRICAL - OVERALL PLAN - DEMO - PHASE 1												
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SHEET NO.	ED101FPP1												
94 OF 179													



**SUBLEVEL 1 - ELECTRICAL - OVERALL PLAN -  
DEMO - PHASE 1**

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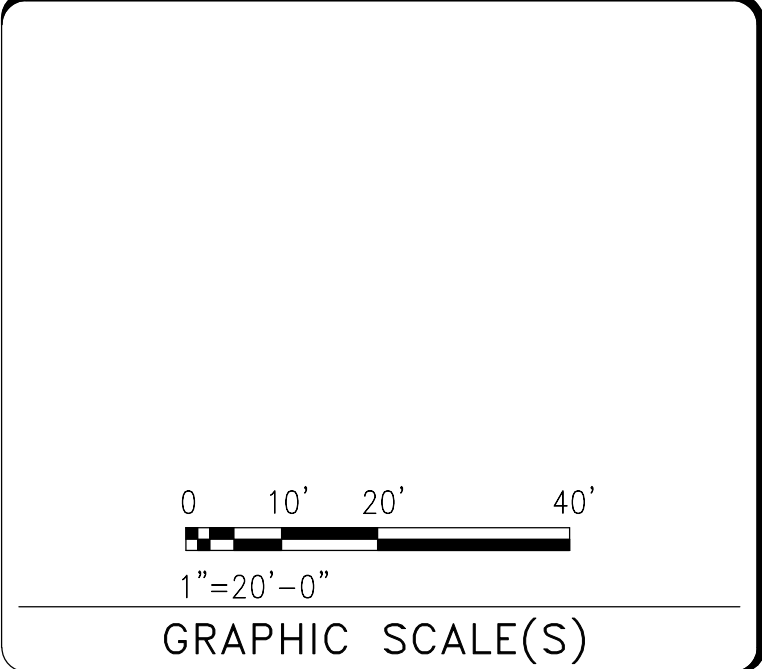
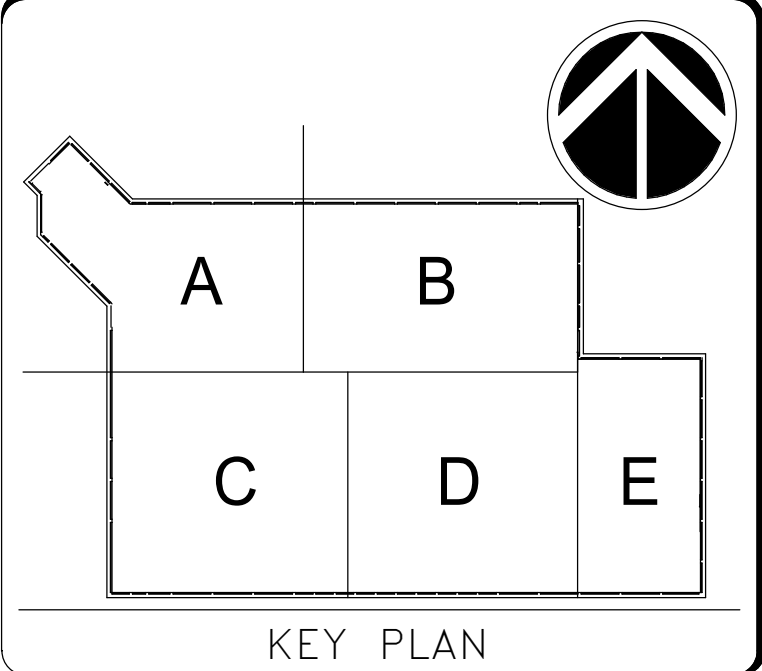
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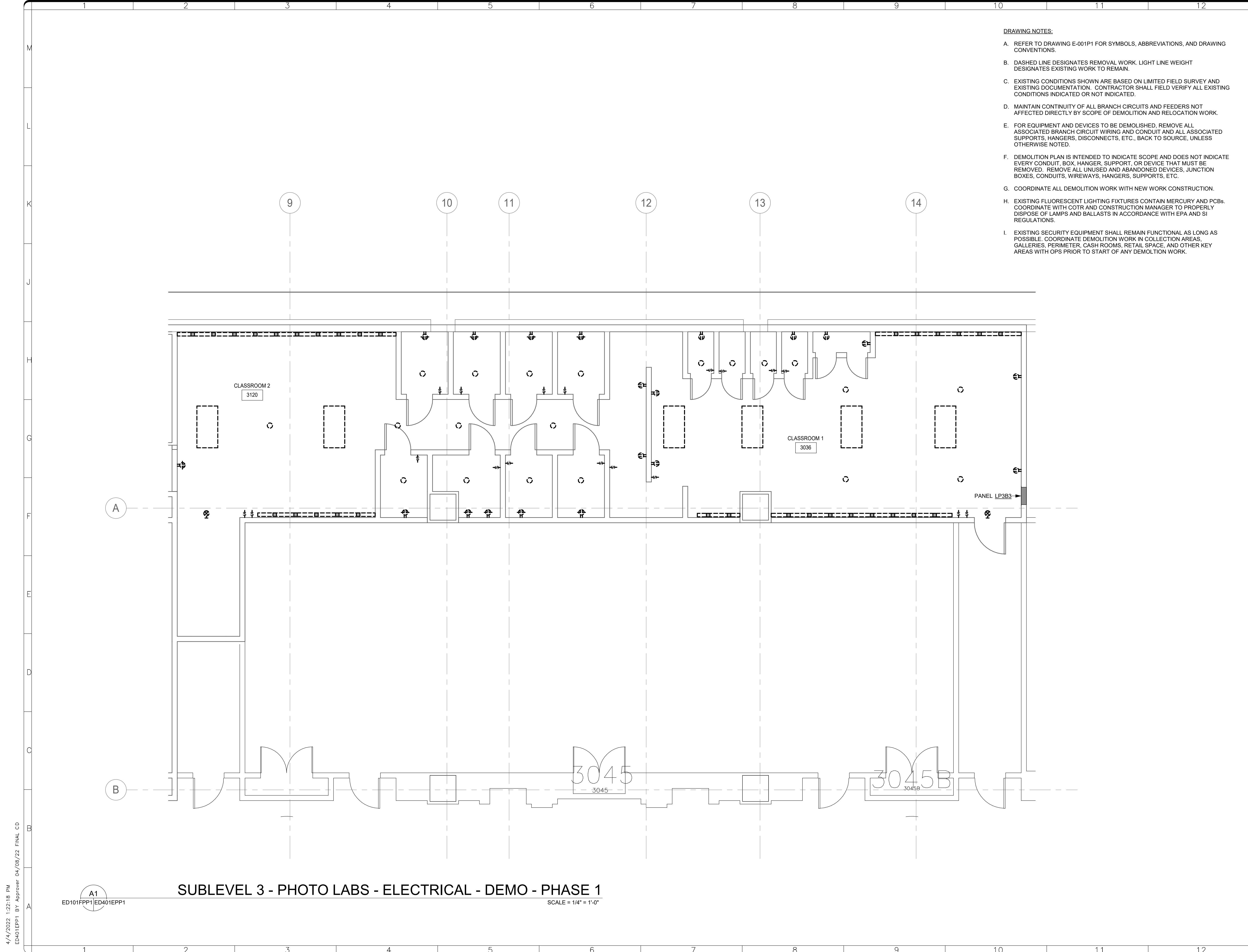
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A/E PROJECT NUMBER	11203201						
DRAWING TITLE	SUBLEVEL 1 - ELECTRICAL - OVERALL PLAN - DEMO - PHASE 1						
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SHEET NO. 95 of 179  
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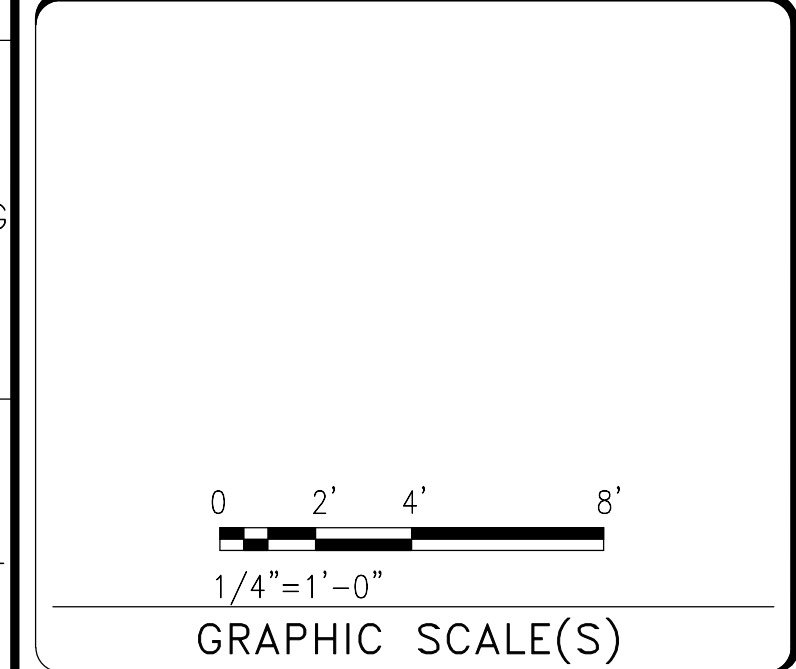
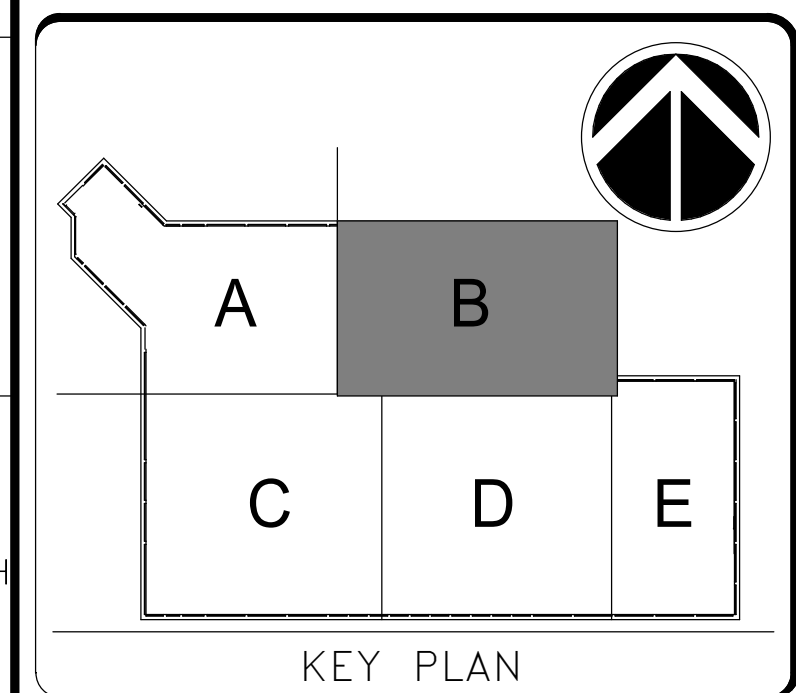


- DRAWING NOTES:**
- A. REFER TO DRAWING E-001P1 FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS.
  - B. DASHED LINE DESIGNATES REMOVAL WORK. LIGHT LINE WEIGHT DESIGNATES EXISTING WORK TO REMAIN.
  - C. EXISTING CONDITIONS SHOWN ARE BASED ON LIMITED FIELD SURVEY AND EXISTING DOCUMENTATION. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS INDICATED OR NOT INDICATED.
  - D. MAINTAIN CONTINUITY OF ALL BRANCH CIRCUITS AND FEEDERS NOT AFFECTED DIRECTLY BY SCOPE OF DEMOLITION AND RELOCATION WORK.
  - E. FOR EQUIPMENT AND DEVICES TO BE DEMOLISHED, REMOVE ALL ASSOCIATED BRANCH CIRCUIT WIRING AND CONDUIT AND ALL ASSOCIATED SUPPORTS, HANGERS, DISCONNECTS, ETC., BACK TO SOURCE, UNLESS OTHERWISE NOTED.
  - F. DEMOLITION PLAN IS INTENDED TO INDICATE SCOPE AND DOES NOT INDICATE EVERY CONDUIT, BOX, HANGER, SUPPORT, OR DEVICE THAT MUST BE REMOVED. REMOVE ALL UNUSED AND ABANDONED DEVICES, JUNCTION BOXES, CONDUITS, WIREWAYS, HANGERS, SUPPORTS, ETC.
  - G. COORDINATE ALL DEMOLITION WORK WITH NEW WORK CONSTRUCTION.
  - H. EXISTING FLUORESCENT LIGHTING FIXTURES CONTAIN MERCURY AND PCBs. COORDINATE WITH COTR AND CONSTRUCTION MANAGER TO PROPERLY DISPOSE OF LAMPS AND BALLASTS IN ACCORDANCE WITH EPA AND SI REGULATIONS.
  - I. EXISTING SECURITY EQUIPMENT SHALL REMAIN FUNCTIONAL AS LONG AS POSSIBLE. COORDINATE DEMOLITION WORK IN COLLECTION AREAS, GALLERIES, PERIMETER, CASH ROOMS, RETAIL SPACE, AND OTHER KEY AREAS WITH OPS PRIOR TO START OF ANY DEMOLITION WORK.

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DRAWING TITLE	SUBLEVEL 3 - PHOTO LABS - ELECTRICAL - DEMO - PHASE 1												
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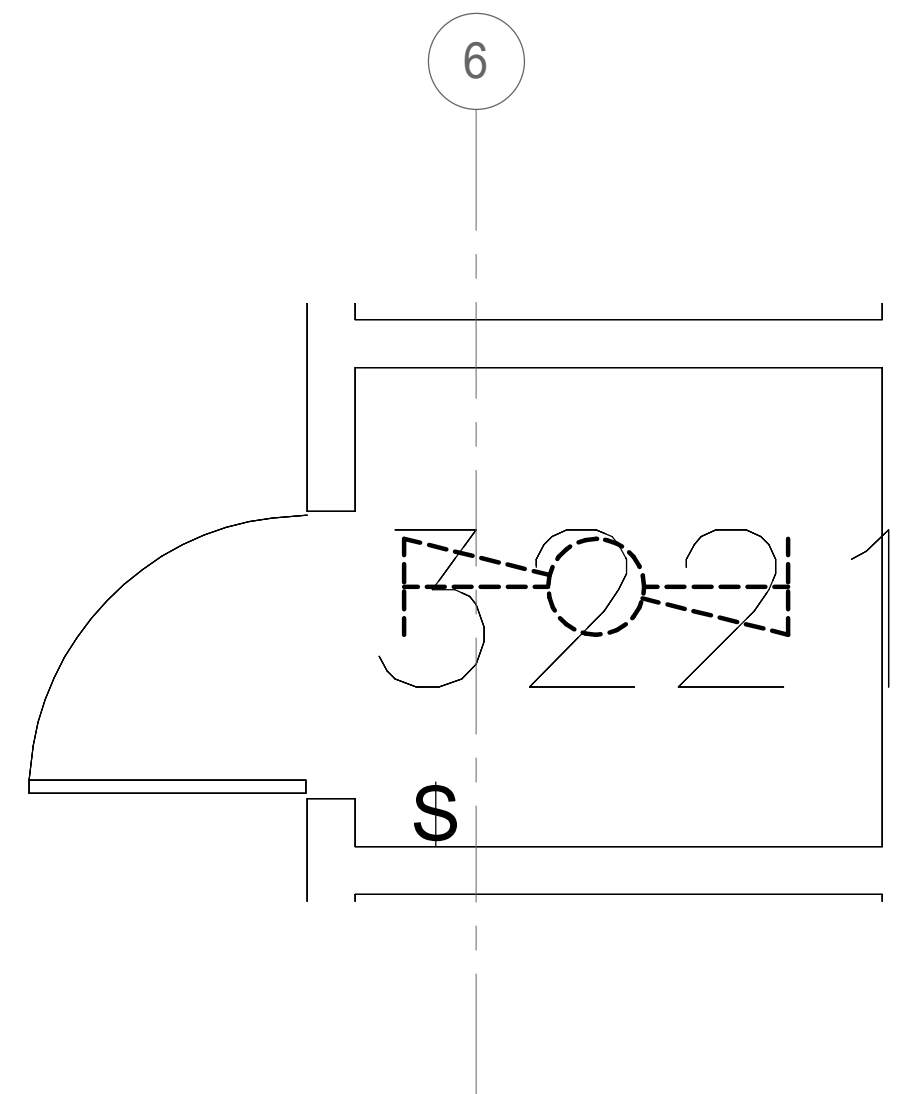
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96 of 179	

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**SUBLEVEL 3 - PHOTO LABS - ELECTRICAL - DEMO - PHASE 1**  
 SCALE = 1/4" = 1'-0"

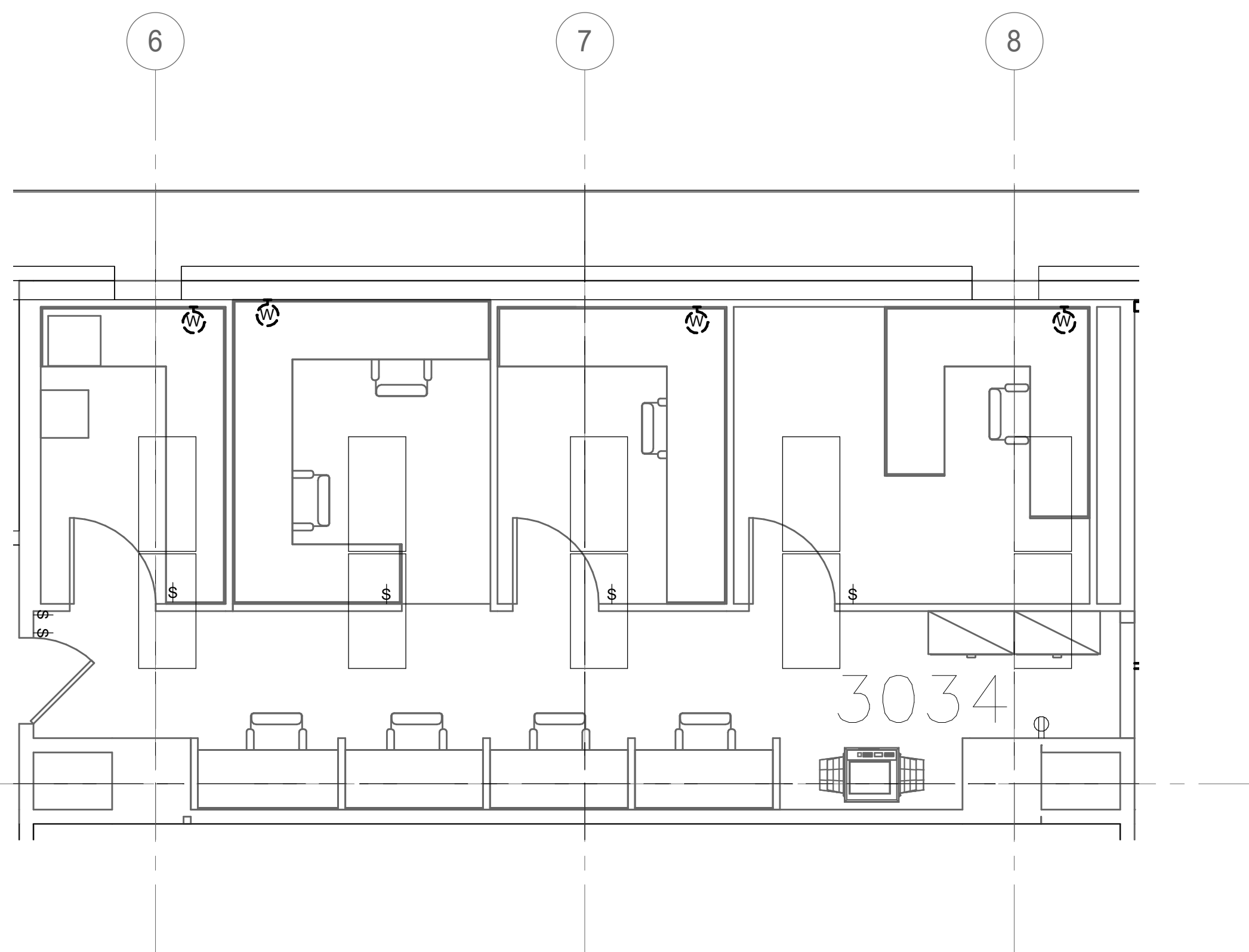




**SUBLEVEL 3 - SECURITY ROOM 3221 - ELECTRICAL - DEMO - PHASE 1**

G1  
ED101FPP1 ED402EPP1

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



**SUBLEVEL 3 - EXISTING OPS SUITE - ELECTRICAL - DEMO - PHASE 1**

A1  
ED101FPP1 ED402EPP1

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

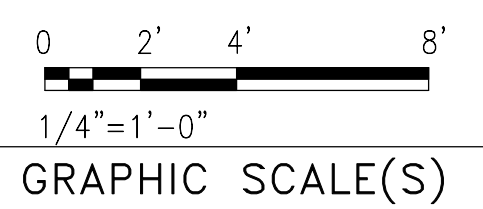
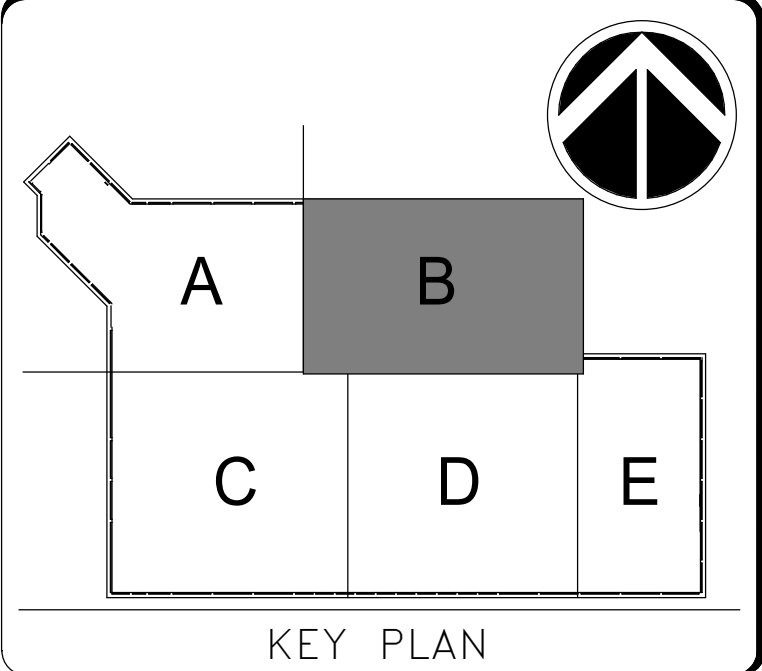
**DRAWING NOTES:**

- A. REFER TO DRAWING E-001P1 FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS.
- B. DASHED LINE DESIGNATES REMOVAL WORK. LIGHT LINE WEIGHT DESIGNATES EXISTING WORK TO REMAIN.
- C. EXISTING CONDITIONS SHOWN ARE BASED ON LIMITED FIELD SURVEY AND EXISTING DOCUMENTATION. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS INDICATED OR NOT INDICATED.
- D. MAINTAIN CONTINUITY OF ALL BRANCH CIRCUITS AND FEEDERS NOT AFFECTED DIRECTLY BY SCOPE OF DEMOLITION AND RELOCATION WORK.
- E. FOR EQUIPMENT AND DEVICES TO BE DEMOLISHED, REMOVE ALL ASSOCIATED BRANCH CIRCUIT WIRING AND CONDUIT AND ALL ASSOCIATED SUPPORTS, HANGERS, DISCONNECTS, ETC., BACK TO SOURCE, UNLESS OTHERWISE NOTED.
- F. DEMOLITION PLAN IS INTENDED TO INDICATE SCOPE AND DOES NOT INDICATE EVERY CONDUIT, BOX, HANGER, SUPPORT, OR DEVICE THAT MUST BE REMOVED. REMOVE ALL UNUSED AND ABANDONED DEVICES, JUNCTION BOXES, CONDUITS, WIREWAYS, HANGERS, SUPPORTS, ETC.
- G. COORDINATE ALL DEMOLITION WORK WITH NEW WORK CONSTRUCTION.
- H. EXISTING FLUORESCENT LIGHTING FIXTURES CONTAIN MERCURY AND PCBs. COORDINATE WITH COTR AND CONSTRUCTION MANAGER TO PROPERLY DISPOSE OF LAMPS AND BALLASTS IN ACCORDANCE WITH EPA AND SI REGULATIONS.
- I. EXISTING SECURITY EQUIPMENT SHALL REMAIN FUNCTIONAL AS LONG AS POSSIBLE. COORDINATE DEMOLITION WORK IN COLLECTION AREAS, GALLERIES, PERIMETER, CASH ROOMS, RETAIL SPACE, AND OTHER KEY AREAS WITH OPS PRIOR TO START OF ANY DEMOLITION WORK.

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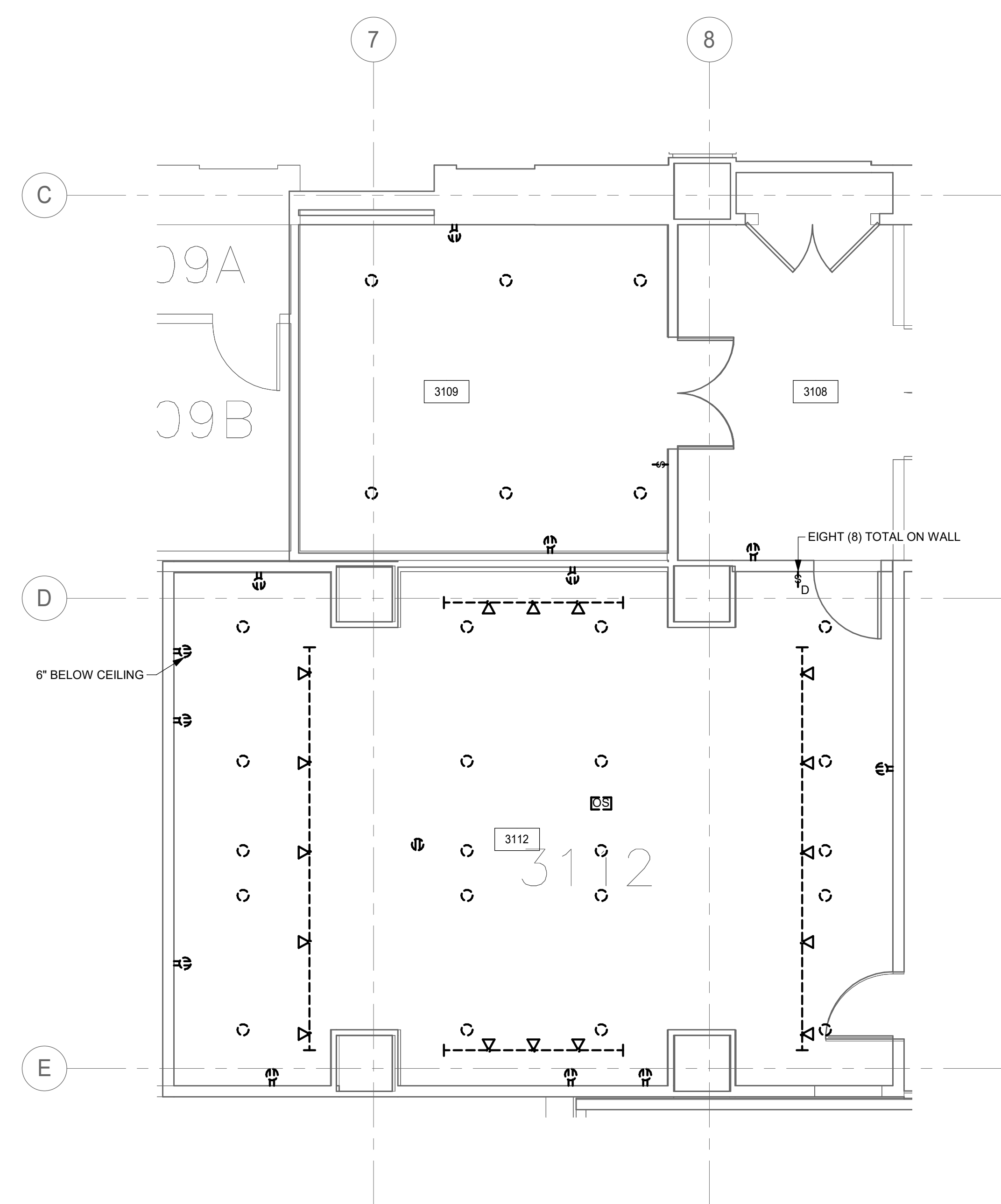
BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - EXISTING OPS SUITE - ELECTRICAL - DEMO - PHASE 1
WORKING STAFF	SNA SNA CEC
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO. ED402EPP1  
97 of 179

4/11/2022 1:22:19 PM  
ED403EPP1 BY: Approver 04/08/22 FINAL CD

**DRAWING NOTES:**

- A. REFER TO DRAWING E-001P1 FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS.
- B. DASHED LINE DESIGNATES REMOVAL WORK. LIGHT LINE WEIGHT DESIGNATES EXISTING WORK TO REMAIN.
- C. EXISTING CONDITIONS SHOWN ARE BASED ON LIMITED FIELD SURVEY AND EXISTING DOCUMENTATION. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS INDICATED OR NOT INDICATED.
- D. MAINTAIN CONTINUITY OF ALL BRANCH CIRCUITS AND FEEDERS NOT AFFECTED DIRECTLY BY SCOPE OF DEMOLITION AND RELOCATION WORK.
- E. FOR EQUIPMENT AND DEVICES TO BE DEMOLISHED, REMOVE ALL ASSOCIATED BRANCH CIRCUIT WIRING AND CONDUIT AND ALL ASSOCIATED SUPPORTS, HANGERS, DISCONNECTS, ETC., BACK TO SOURCE, UNLESS OTHERWISE NOTED.
- F. DEMOLITION PLAN IS INTENDED TO INDICATE SCOPE AND DOES NOT INDICATE EVERY CONDUIT, BOX, HANGER, SUPPORT, OR DEVICE THAT MUST BE REMOVED. REMOVE ALL UNUSED AND ABANDONED DEVICES, JUNCTION BOXES, CONDUITS, WIREWAYS, HANGERS, SUPPORTS, ETC.
- G. COORDINATE ALL DEMOLITION WORK WITH NEW WORK CONSTRUCTION.
- H. EXISTING FLUORESCENT LIGHTING FIXTURES CONTAIN MERCURY AND PCBs. COORDINATE WITH COTR AND CONSTRUCTION MANAGER TO PROPERLY DISPOSE OF LAMPS AND BALLASTS IN ACCORDANCE WITH EPA AND SI REGULATIONS.
- I. EXISTING SECURITY EQUIPMENT SHALL REMAIN FUNCTIONAL AS LONG AS POSSIBLE. COORDINATE DEMOLITION WORK IN COLLECTION AREAS, GALLERIES, PERIMETER, CASH ROOMS, RETAIL SPACE, AND OTHER KEY AREAS WITH OPS PRIOR TO START OF ANY DEMOLITION WORK.



**SUBLEVEL 3 - ROOMS 3108, 3109, 3112 -  
ELECTRICAL - DEMO - PHASE 1**

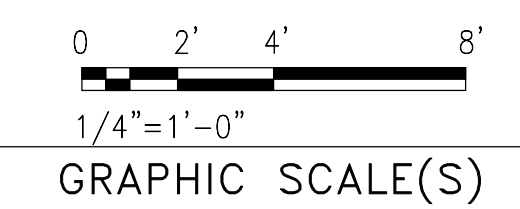
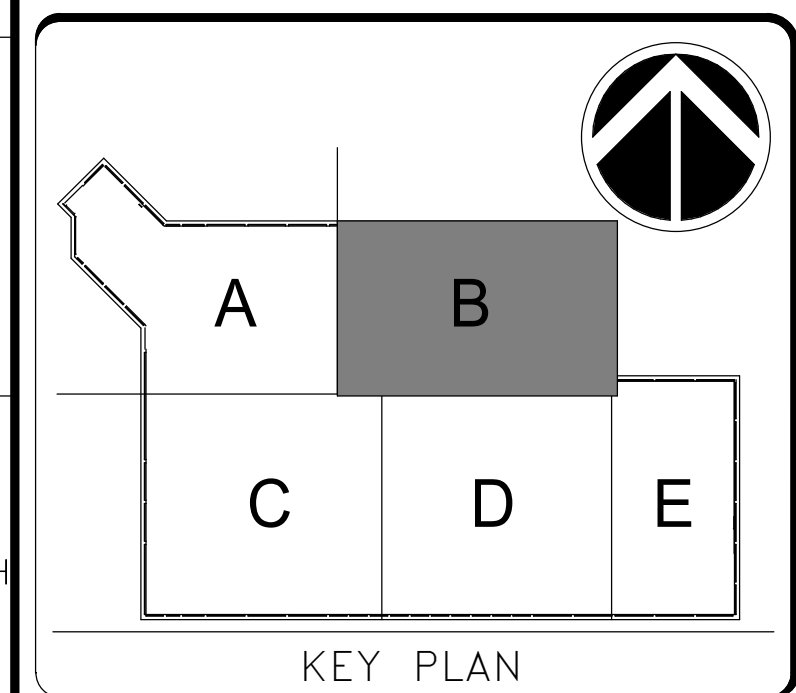
A1  
ED101FPP1 ED403EPP1

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

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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - ROOMS 3108, 3109, 3112 - ELECTRICAL - DEMO - PHASE 1
WORKING STAFF	SNA SNA CEC
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO. ED403EPP1  
98 of 179

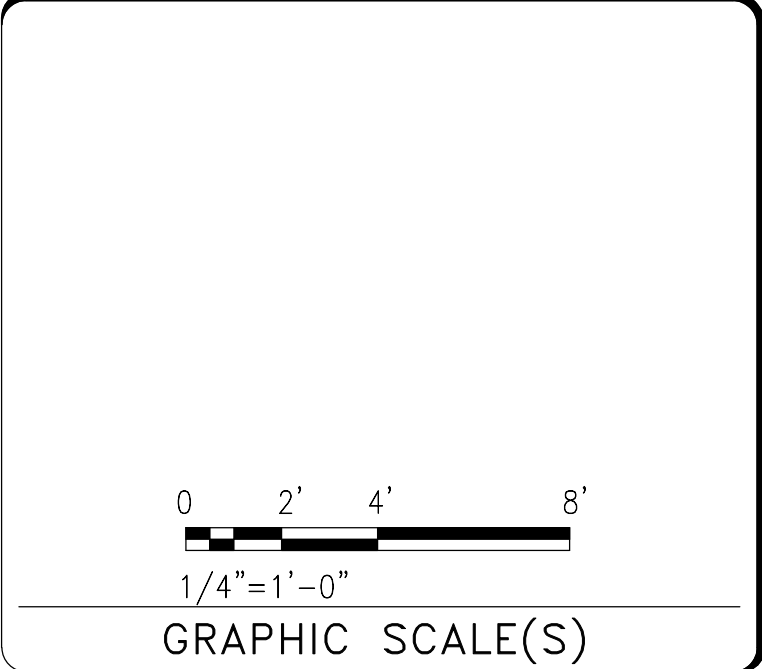
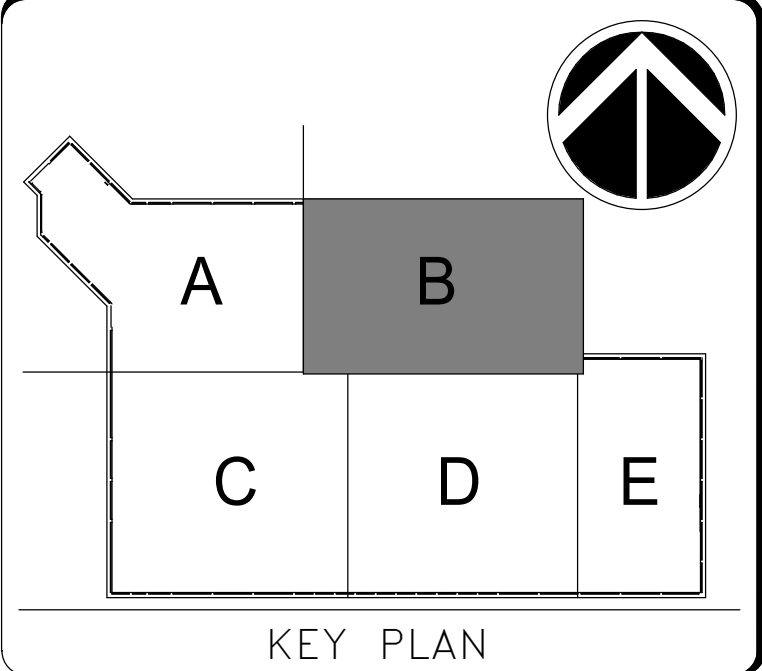
**DRAWING NOTES:**

- A. REFER TO DRAWING E-001P1 FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS.
  - B. DASHED LINE DESIGNATES REMOVAL WORK. LIGHT LINE WEIGHT DESIGNATES EXISTING WORK TO REMAIN.
  - C. EXISTING CONDITIONS SHOWN ARE BASED ON LIMITED FIELD SURVEY AND EXISTING DOCUMENTATION. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS INDICATED OR NOT INDICATED.
  - D. MAINTAIN CONTINUITY OF ALL BRANCH CIRCUITS AND FEEDERS NOT AFFECTED DIRECTLY BY SCOPE OF DEMOLITION AND RELOCATION WORK.
  - E. FOR EQUIPMENT AND DEVICES TO BE DEMOLISHED, REMOVE ALL ASSOCIATED BRANCH CIRCUIT WIRING AND CONDUIT AND ALL ASSOCIATED SUPPORTS, HANGERS, DISCONNECTS, ETC., BACK TO SOURCE, UNLESS OTHERWISE NOTED.
  - F. DEMOLITION PLAN IS INTENDED TO INDICATE SCOPE AND DOES NOT INDICATE EVERY CONDUIT, BOX, HANGER, SUPPORT, OR DEVICE THAT MUST BE REMOVED. REMOVE ALL UNUSED AND ABANDONED DEVICES, JUNCTION BOXES, CONDUITS, WIREWAYS, HANGERS, SUPPORTS, ETC.
  - G. COORDINATE ALL DEMOLITION WORK WITH NEW WORK CONSTRUCTION.
  - H. EXISTING FLUORESCENT LIGHTING FIXTURES CONTAIN MERCURY AND PCBs. COORDINATE WITH COTR AND CONSTRUCTION MANAGER TO PROPERLY DISPOSE OF LAMPS AND BALLASTS IN ACCORDANCE WITH EPA AND SI REGULATIONS.
  - I. COORDINATE TEMPORARY POWER REQUIREMENTS WITH PHASED INSTALLATION OF SECURITY EQUIPMENT.
  - J. EXISTING SECURITY EQUIPMENT SHALL REMAIN FUNCTIONAL AS LONG AS POSSIBLE. COORDINATE DEMOLITION WORK IN COLLECTION AREAS, GALLERIES, PERIMETER, CASH ROOMS, RETAIL SPACE, AND OTHER KEY AREAS WITH OPS PRIOR TO START OF ANY DEMOLITION WORK.
- SPECIAL NOTES:**
- 1 MOUNTED ON TOP OF SERVER.
  - 2 EX 10KVA XFMR.

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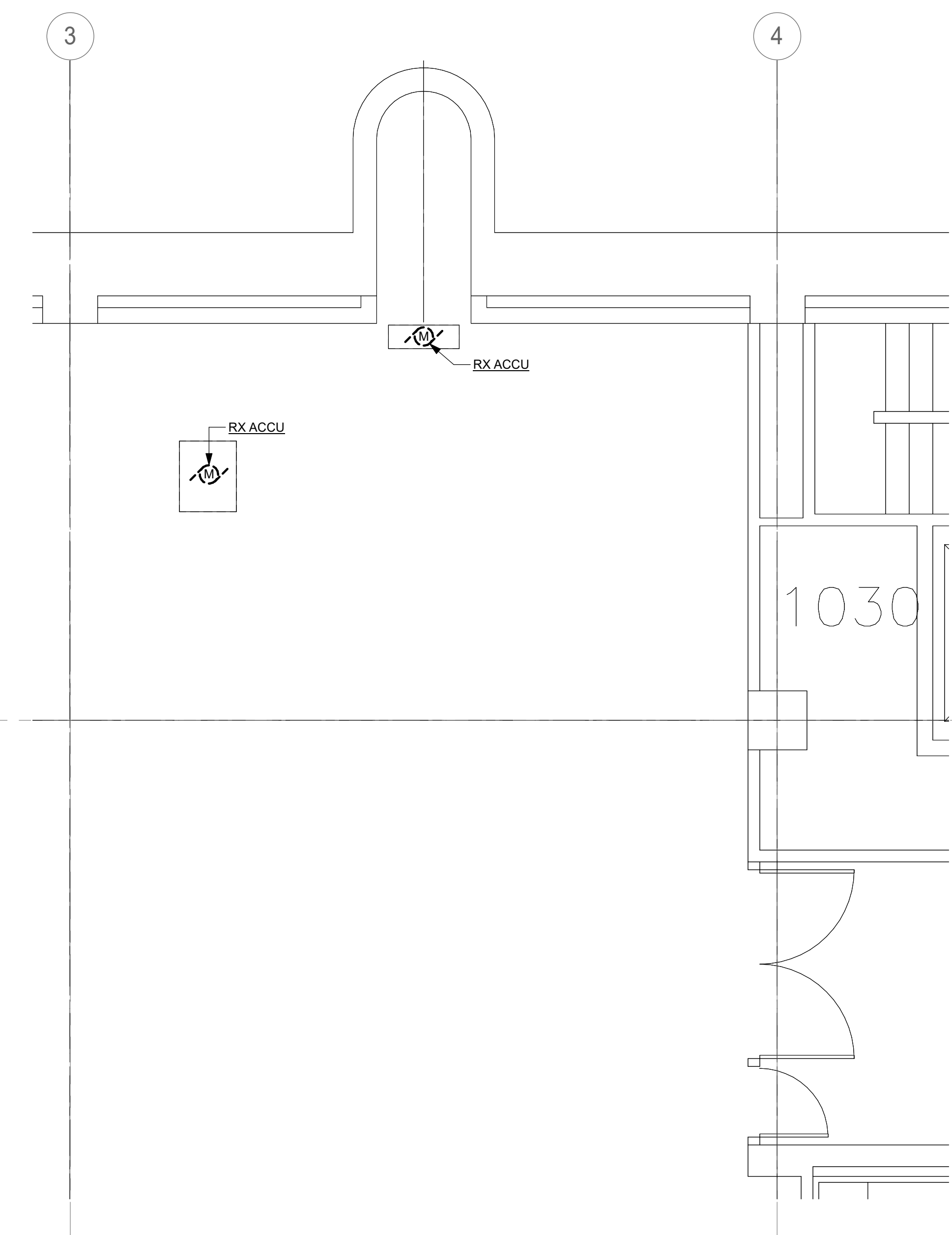
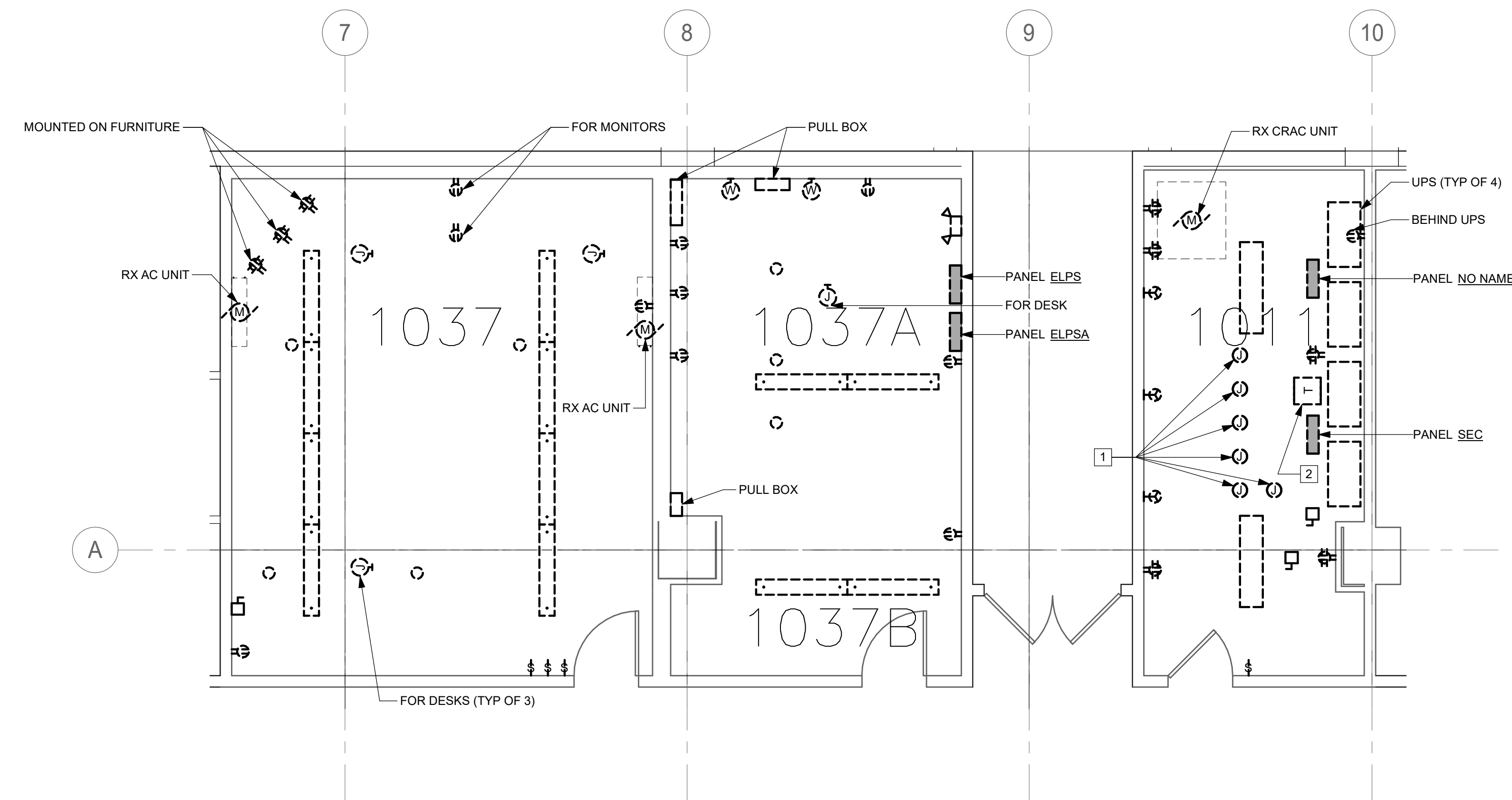
DATE	04/08/22	REVISION	FINAL CD
REVISION #	DATE	REVISION DESCRIPTION	

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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 1 - COMMAND CENTER - ELECTRICAL - DEMO - PHASE 1
WORKING STAFF	SNA SNA CEC
DESIGNED BY	SNA
DRAWN BY	SNA
CHECKED BY	CEC

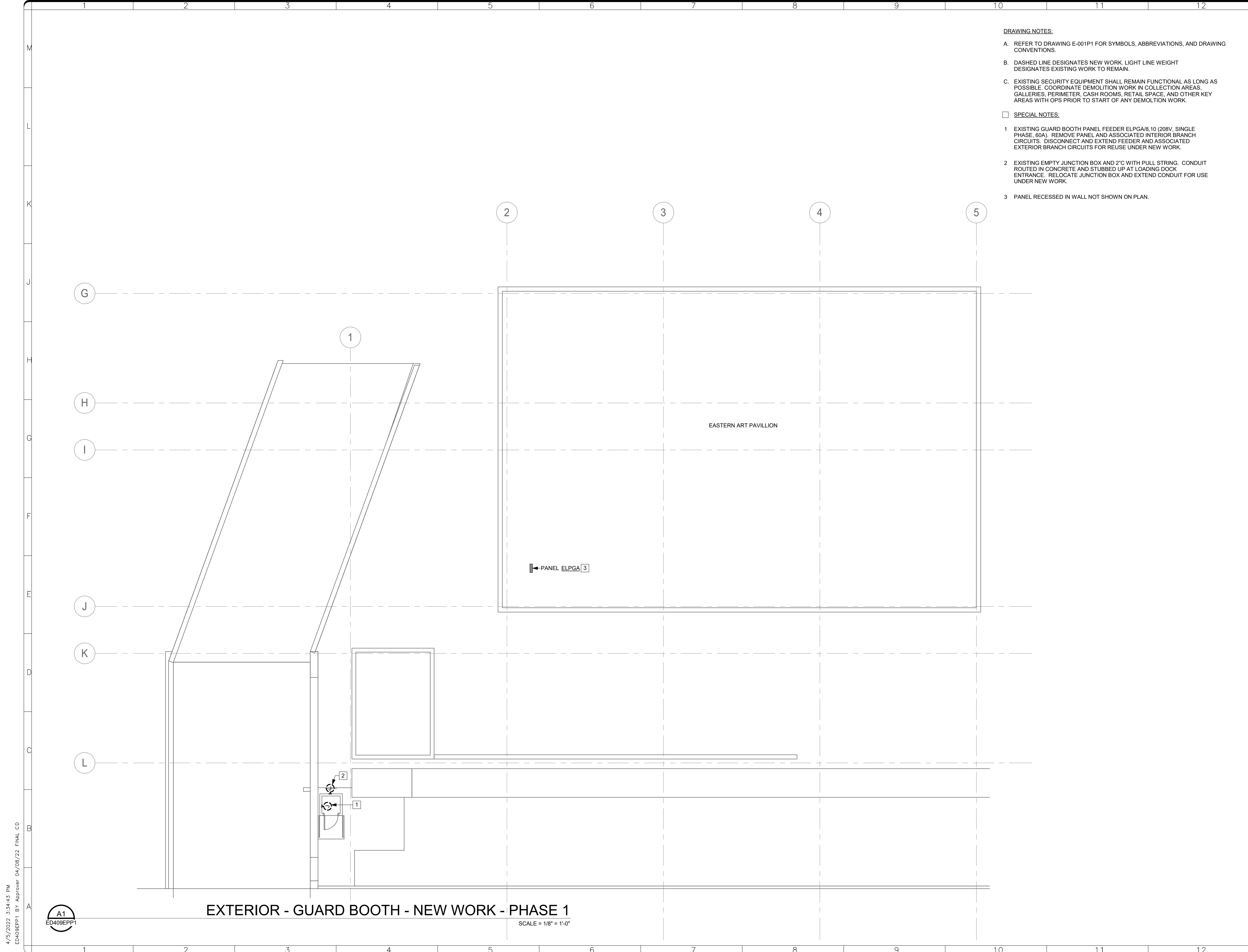
SHEET NO.	ED406EPP1
99 of 179	



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**A1** SUBLEVEL 1 - COMMAND CENTER - ELECTRICAL - DEMO - PHASE 1  
 ED103FPP1 ED406EPP1 SCALE = 1/4" = 1'-0"

**A7** SUBLEVEL 1 - LOADING DOCK - ELECTRICAL - DEMO - PHASE 1  
 ED406EPP1 SCALE = 1/4" = 1'-0"

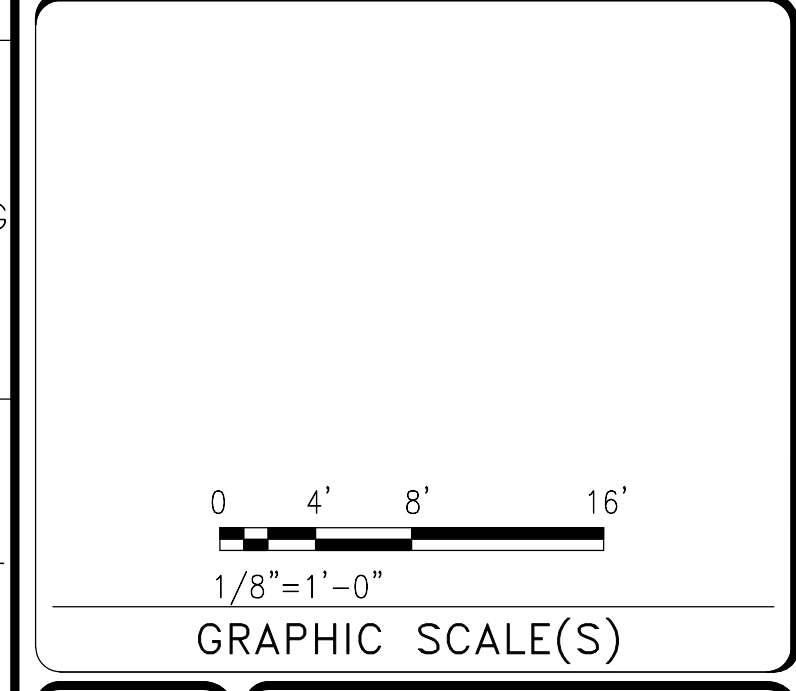
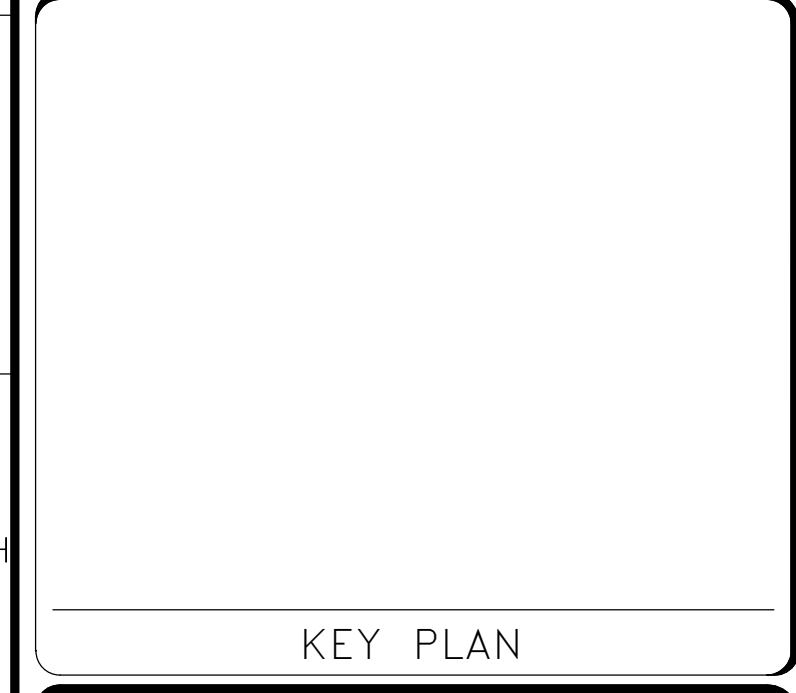


- DRAWING NOTES:**
- A. REFER TO DRAWING E-001P1 FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS.
  - B. DASHED LINE DESIGNATES NEW WORK. LIGHT LINE WEIGHT DESIGNATES EXISTING WORK TO REMAIN.
  - C. EXISTING SECURITY EQUIPMENT SHALL REMAIN FUNCTIONAL AS LONG AS POSSIBLE. COORDINATE DEMOLITION WORK IN COLLECTION AREAS, GALLERIES, PERIMETER, CASH ROOMS, RETAIL SPACE, AND OTHER KEY AREAS WITH OPS PRIOR TO START OF ANY DEMOLITION WORK.
- SPECIAL NOTES:**
- 1 EXISTING GUARD BOOTH PANEL FEEDER ELPGA/8, 10 (208V, SINGLE PHASE, 60A). REMOVE PANEL AND ASSOCIATED INTERIOR BRANCH CIRCUITS. DISCONNECT AND EXTEND FEEDER AND ASSOCIATED EXTERIOR BRANCH CIRCUITS FOR REUSE UNDER NEW WORK.
  - 2 EXISTING EMPTY JUNCTION BOX AND 2" C WITH PULL STRING. CONDUIT ROUTED IN CONCRETE AND STUBBED UP AT LOADING DOCK ENTRANCE. RELOCATE JUNCTION BOX AND EXTEND CONDUIT FOR USE UNDER NEW WORK.
  - 3 PANEL RECESSED IN WALL NOT SHOWN ON PLAN.

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DATE	04/08/22	SUBMISSION	FINAL CD
REVISION #	DATE	DESCRIPTION	

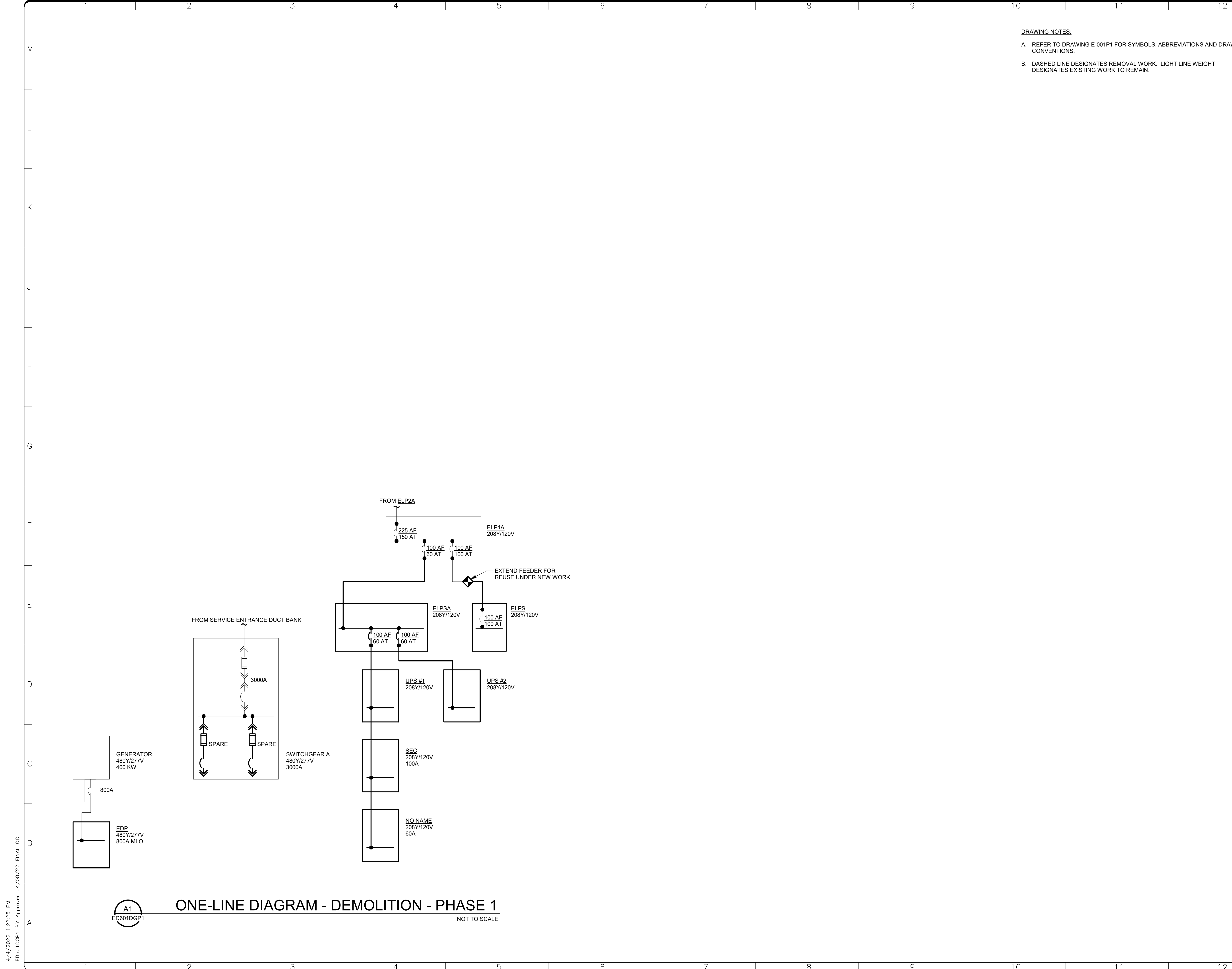
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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	EXTERIOR - GUARD BOOTH - DEMO - PHASE 1
WORKING STAFF	SNA SNA CEC
DESIGNED BY	DRAWN BY
CHECKED BY	
SHEET NO.	ED409EPP1
100 of 179	DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE

4/15/2022 3:34:43 PM  
 ED409EPP1 BY: Approver 04/08/22 FINAL CD

A1  
 ED409EPP1

**EXTERIOR - GUARD BOOTH - NEW WORK - PHASE 1**  
 SCALE = 1/8" = 1'-0"

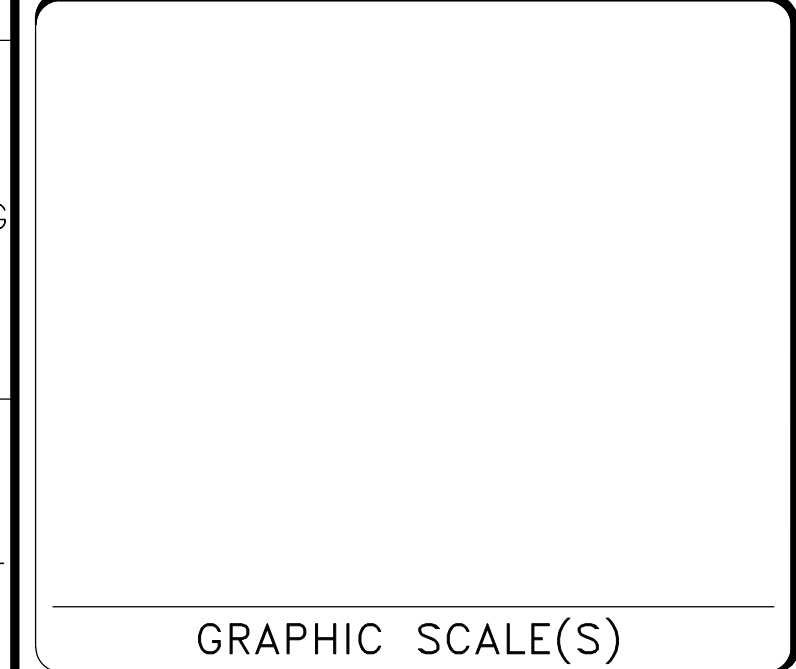
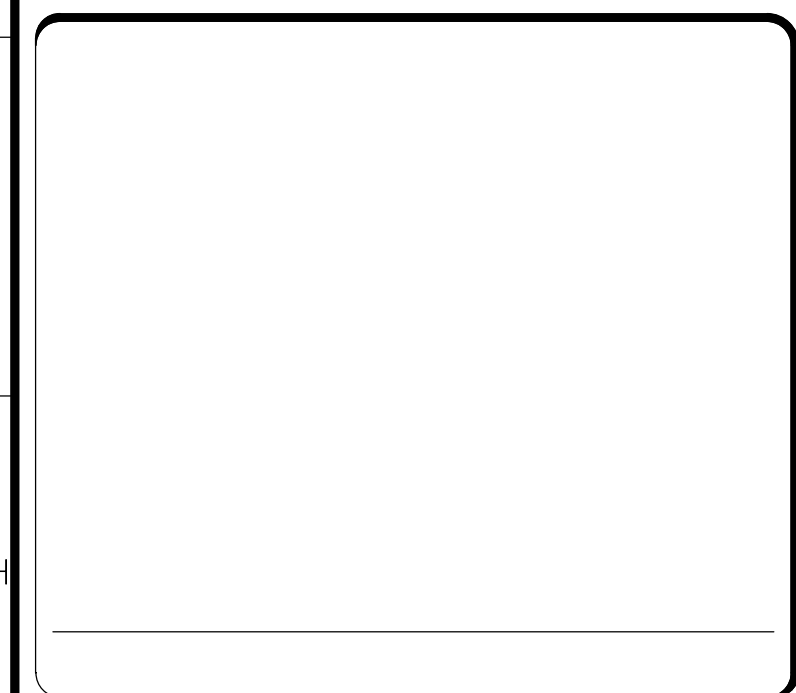


**DRAWING NOTES:**  
 A. REFER TO DRAWING E-001P1 FOR SYMBOLS, ABBREVIATIONS AND DRAWING CONVENTIONS.  
 B. DASHED LINE DESIGNATES REMOVAL WORK. LIGHT LINE WEIGHT DESIGNATES EXISTING WORK TO REMAIN.

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GRAPHIC SCALE(S)

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REVISION #	DATE	REVISION DESCRIPTION	

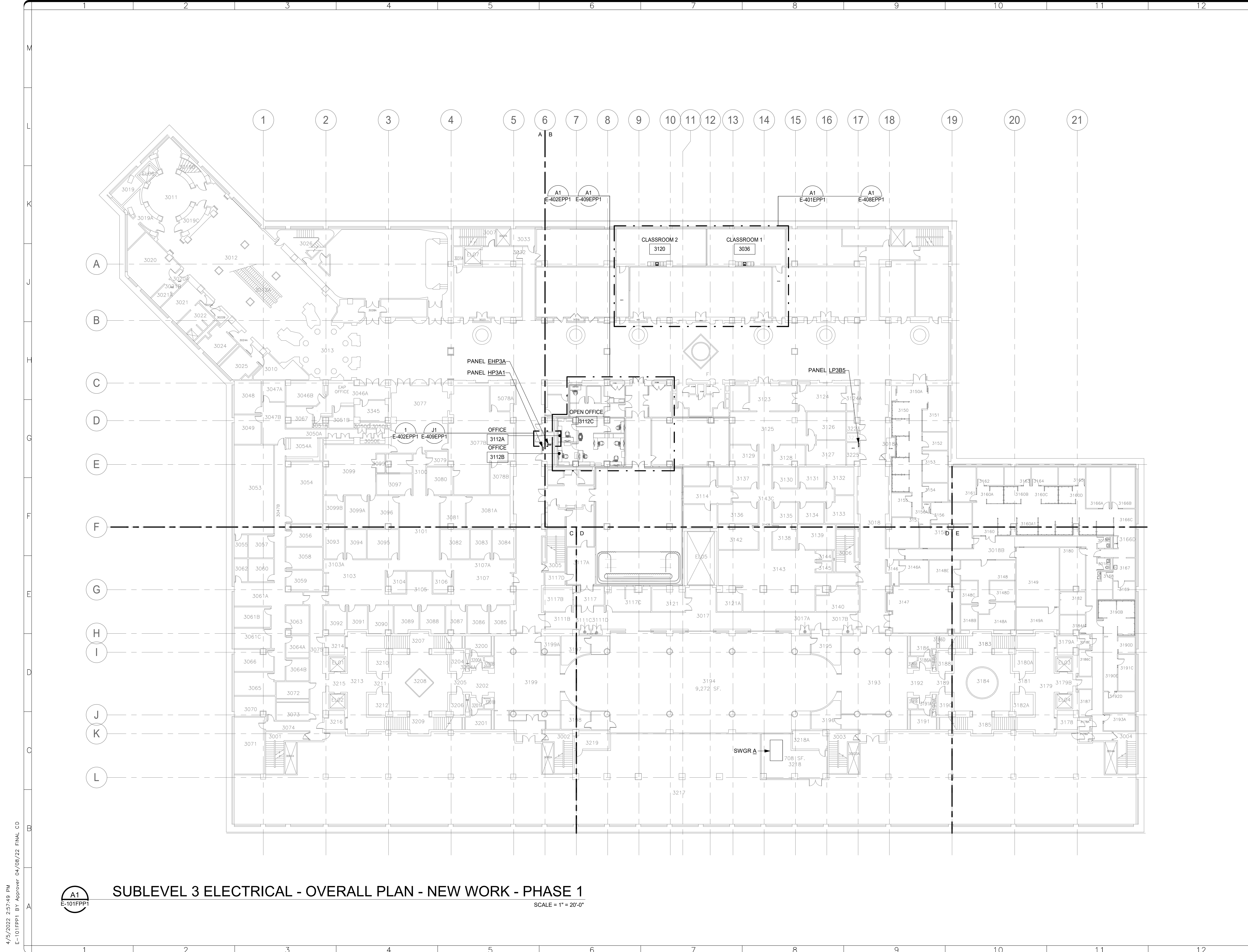
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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	ELECTRICAL ONE-LINE DIAGRAM - DEMOLITION - PHASE 1
WORKING STAFF	SNA SNA CEC
	DESIGNED BY DRAWN BY CHECKED BY

SHEET NO.	ED601DGP1
101 of 179	DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE

4/11/2022 1:22:25 PM  
 ED601DGP1 BY Approver 04/08/22 FINAL CD

**A1**  
 ED601DGP1  
**ONE-LINE DIAGRAM - DEMOLITION - PHASE 1**  
 NOT TO SCALE



**A1**  
E-101FPP1

**SUBLEVEL 3 ELECTRICAL - OVERALL PLAN - NEW WORK - PHASE 1**

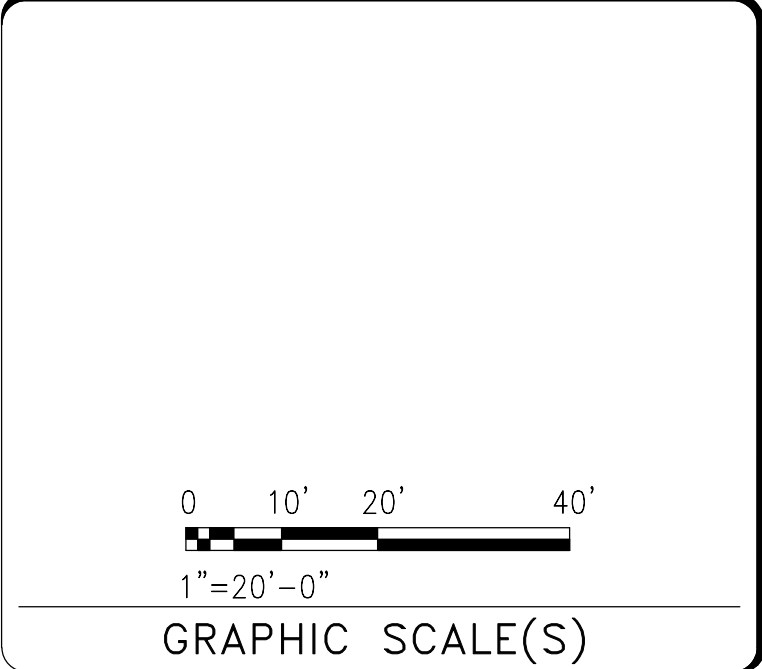
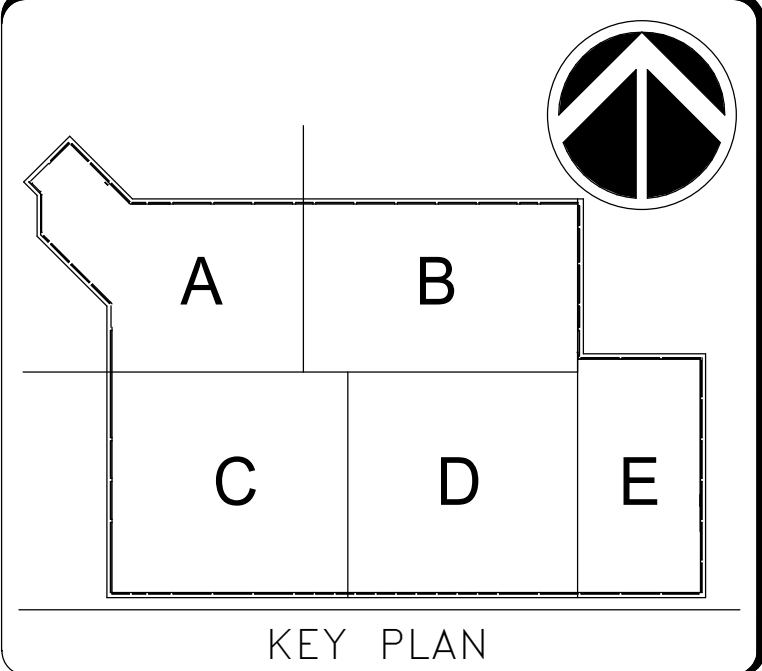
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4/15/2022 2:57:49 PM  
E-101FPP1 BY Approver 04/08/22 FINAL CD

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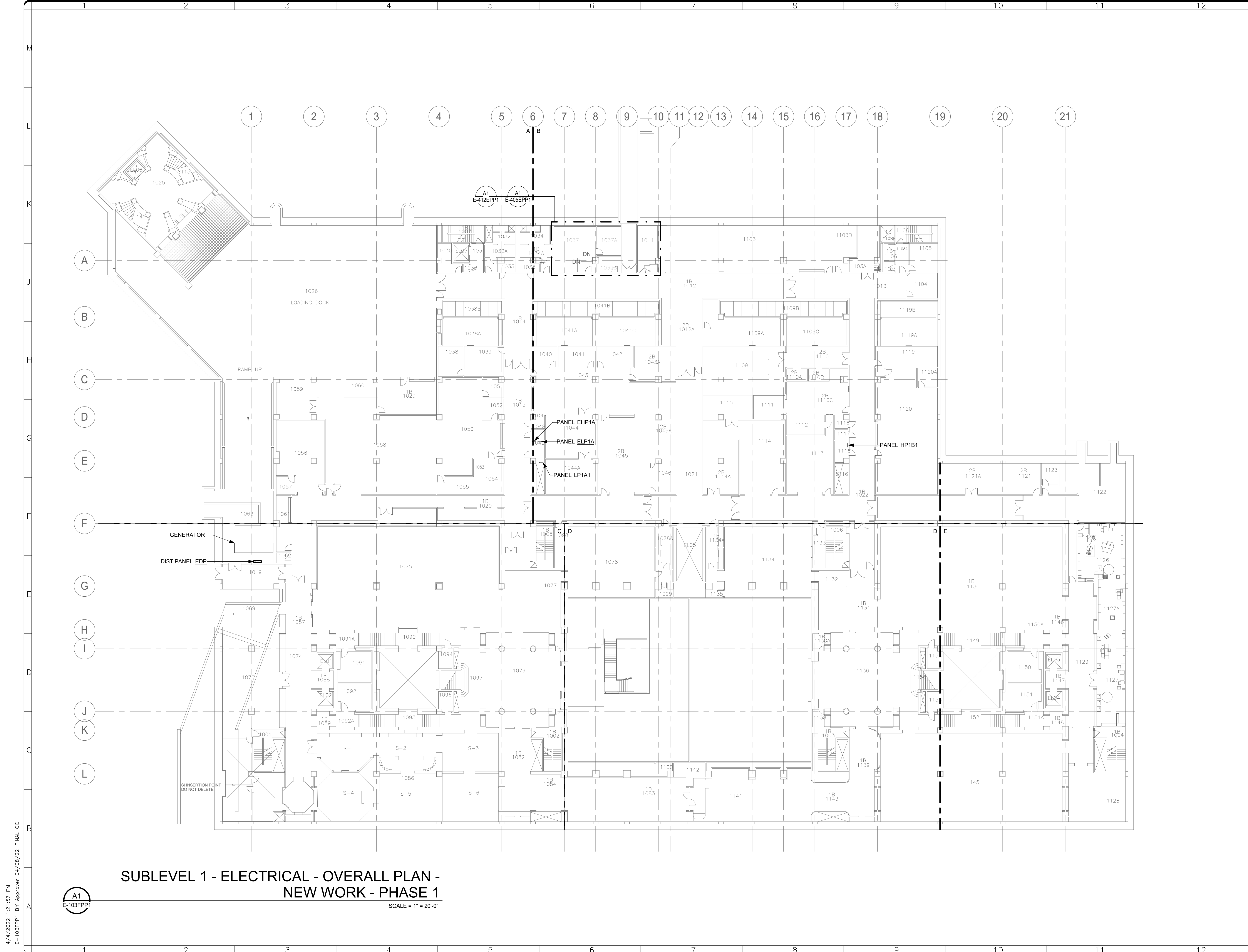


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REVISION # DATE	REVISION DESCRIPTION

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BUILDING NAME ADDRESS	FREER/SACKLER/AFA/QUAD SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - ELECTRICAL - OVERALL PLAN - NEW WORK - PHASE 1
WORKING STAFF	SNA    SNA    CEC DESIGNED BY    DRAWN BY    CHECKED BY
SHEET NO. 102 of 179	E - 101FPP1 DISCIPLINE    TYPE    SEQUENCE    DRAWING    TITLE    PHASE



**SUBLEVEL 1 - ELECTRICAL - OVERALL PLAN -  
NEW WORK - PHASE 1**

SCALE = 1" = 20'-0"

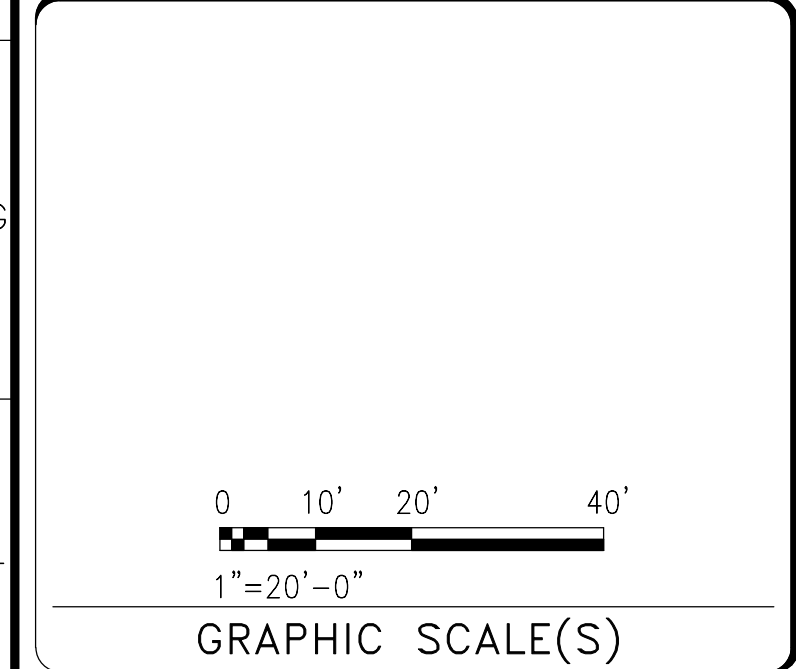
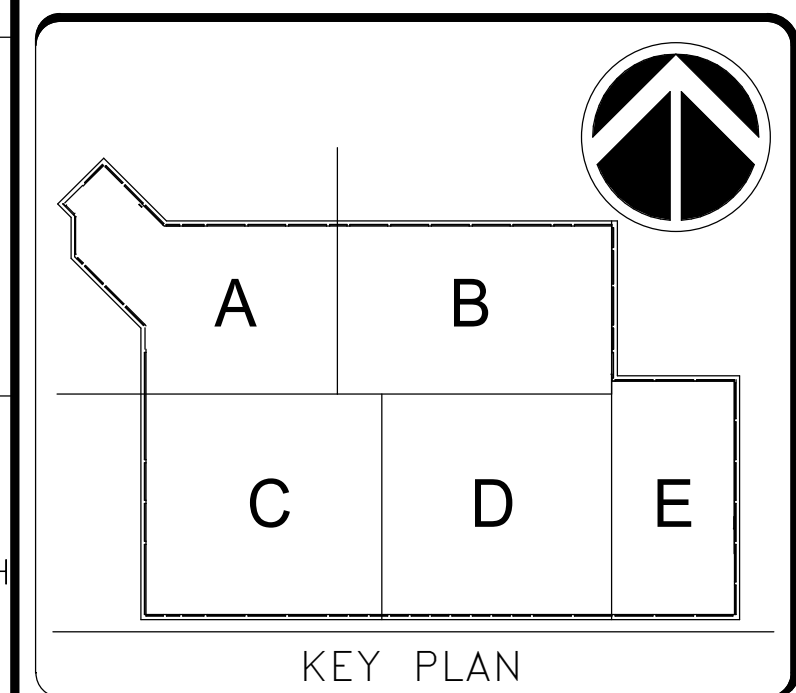
A1  
E-103FPP1

4/11/2022 1:21:57 PM  
E-103FPP1 BY Approver 04/08/22 FINAL CD

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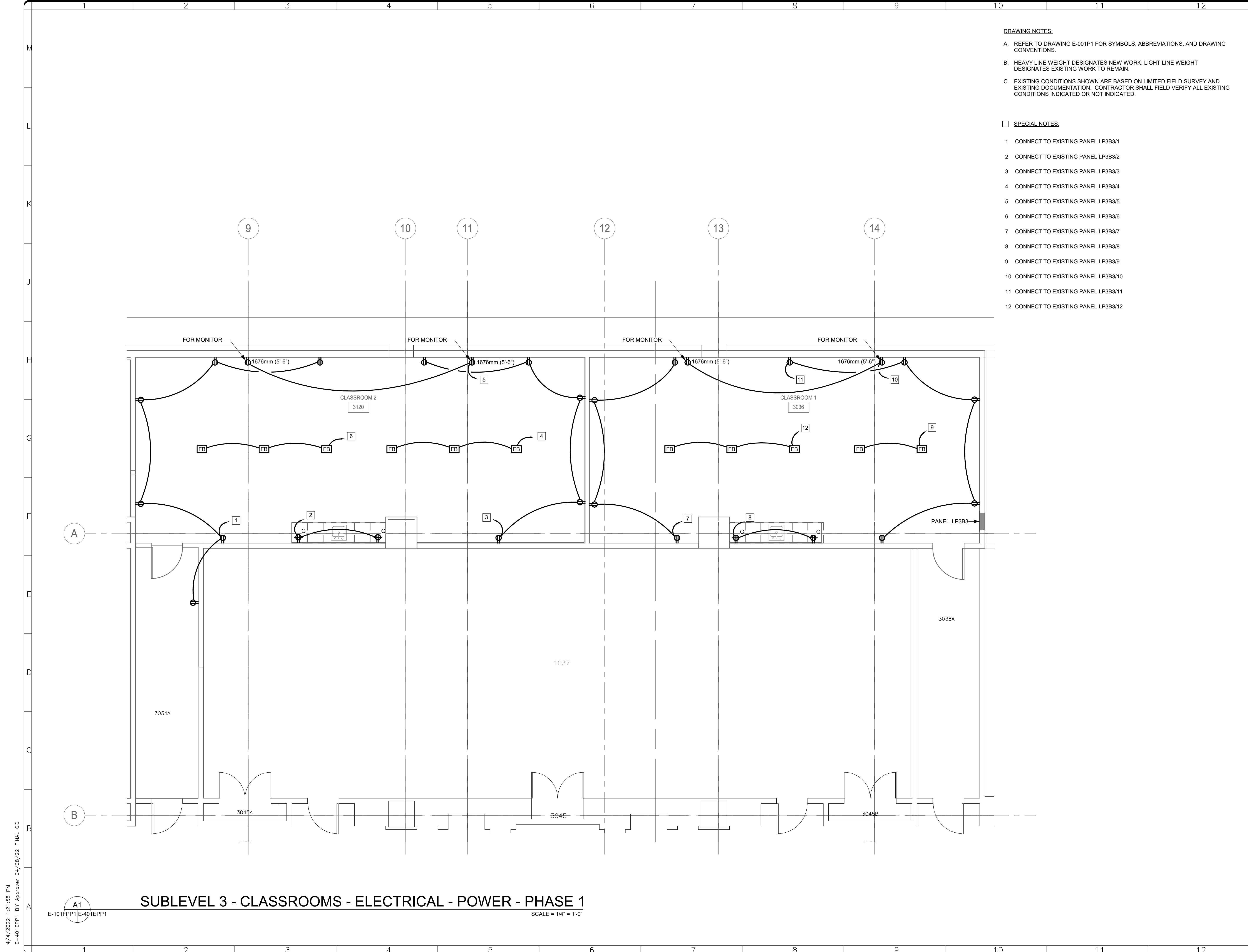
DISTRICT OF COLUMBIA  
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DATE	04/08/22	REVISION	FINAL CD
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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 1 - ELECTRICAL - OVERALL PLAN - NEW WORK - PHASE 1
WORKING STAFF	DESIGNED BY: SNA    DRAWN BY: SNA    CHECKED BY: CEC
SHEET NO.	E - 103FPP1
103 of 179	DISCIPLINE    TYPE    SEQUENCE    DRAWING TYPE    PHASE



**DRAWING NOTES:**

A. REFER TO DRAWING E-001P1 FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS.

B. HEAVY LINE WEIGHT DESIGNATES NEW WORK. LIGHT LINE WEIGHT DESIGNATES EXISTING WORK TO REMAIN.

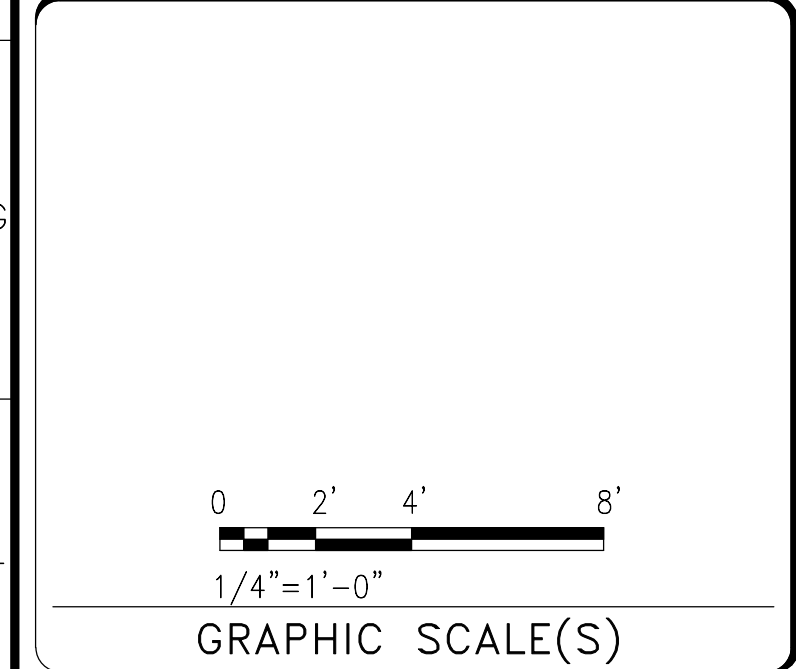
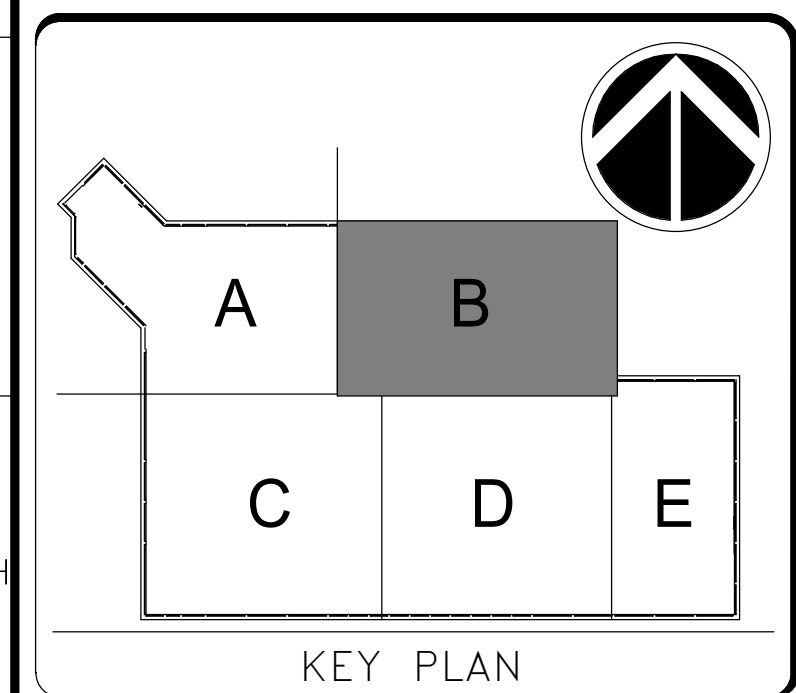
C. EXISTING CONDITIONS SHOWN ARE BASED ON LIMITED FIELD SURVEY AND EXISTING DOCUMENTATION. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS INDICATED OR NOT INDICATED.

- SPECIAL NOTES:**
- CONNECT TO EXISTING PANEL LP3B3/1
  - CONNECT TO EXISTING PANEL LP3B3/2
  - CONNECT TO EXISTING PANEL LP3B3/3
  - CONNECT TO EXISTING PANEL LP3B3/4
  - CONNECT TO EXISTING PANEL LP3B3/5
  - CONNECT TO EXISTING PANEL LP3B3/6
  - CONNECT TO EXISTING PANEL LP3B3/7
  - CONNECT TO EXISTING PANEL LP3B3/8
  - CONNECT TO EXISTING PANEL LP3B3/9
  - CONNECT TO EXISTING PANEL LP3B3/10
  - CONNECT TO EXISTING PANEL LP3B3/11
  - CONNECT TO EXISTING PANEL LP3B3/12

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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - CLASSROOMS - ELECTRICAL - POWER - PHASE 1
WORKING STAFF	SNA SNA CEC
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO. 104 of 179

E-401EPP1

DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE

4/11/2022 1:21:58 PM E-401EPP1 BY Approver 04/08/22 FINAL CD

A1  
 E-101FPP1/E-401EPP1  
**SUBLEVEL 3 - CLASSROOMS - ELECTRICAL - POWER - PHASE 1**  
 SCALE = 1/4" = 1'-0"



**DRAWING NOTES:**

- A. REFER TO DRAWING E-001P1 FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS.
- B. HEAVY LINE WEIGHT DESIGNATES NEW WORK. LIGHT LINE WEIGHT DESIGNATES EXISTING WORK TO REMAIN.



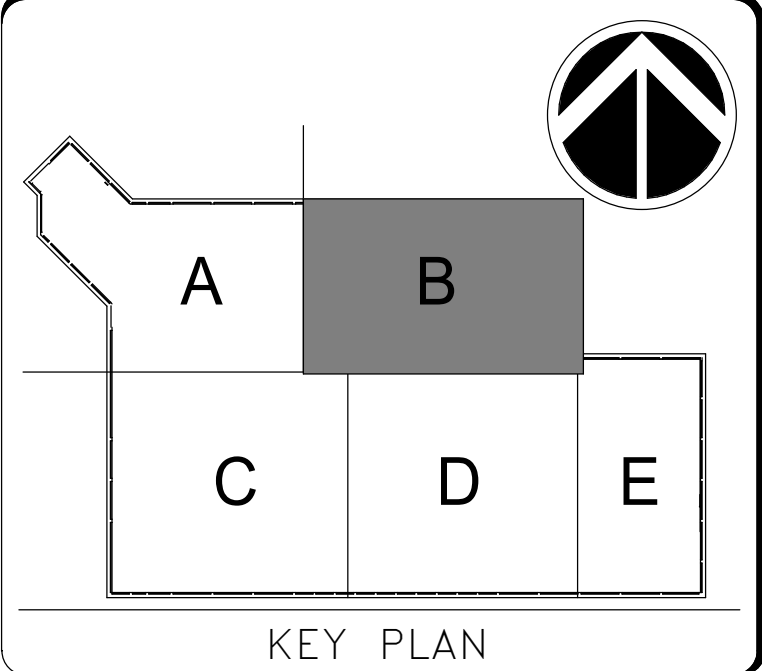
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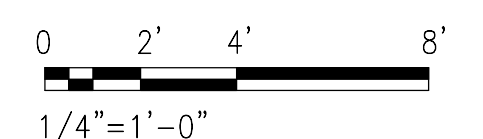
1306 Concourse Drive, Suite 100  
Linthicum, MD 21090  
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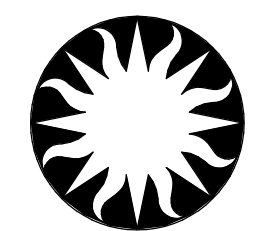


KEY PLAN



GRAPHIC SCALE(S)

DATE	04/08/22	REVISION	FINAL CD
REVISION #	DATE	DESCRIPTION	

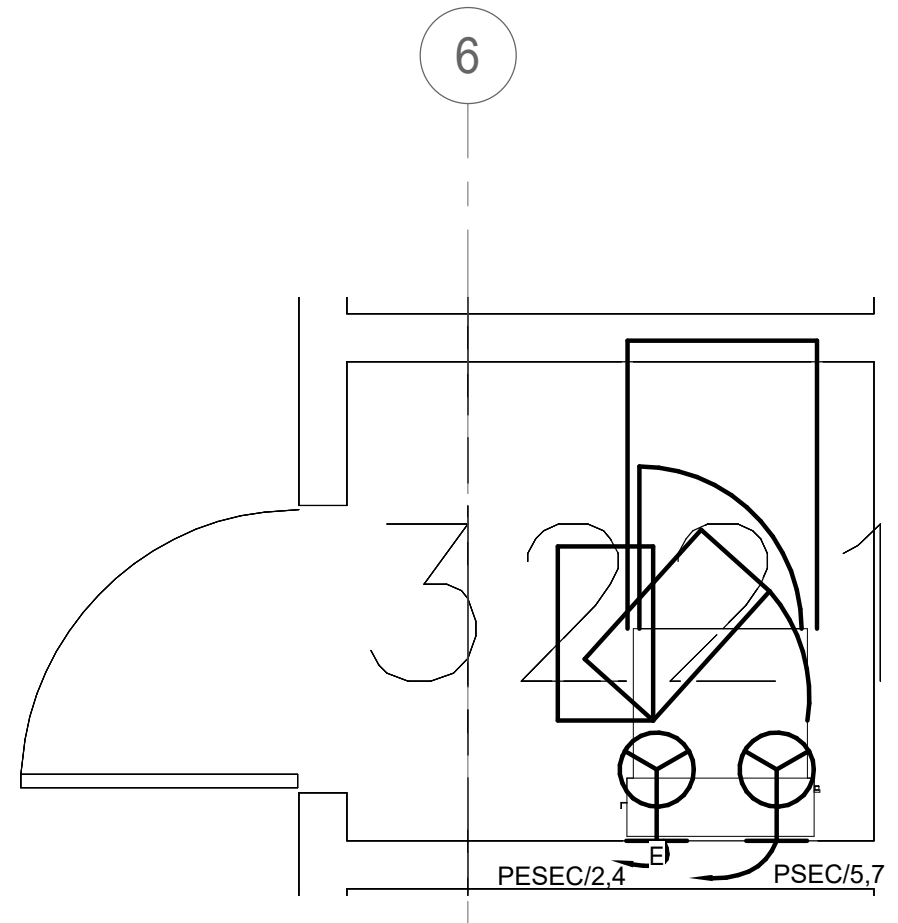


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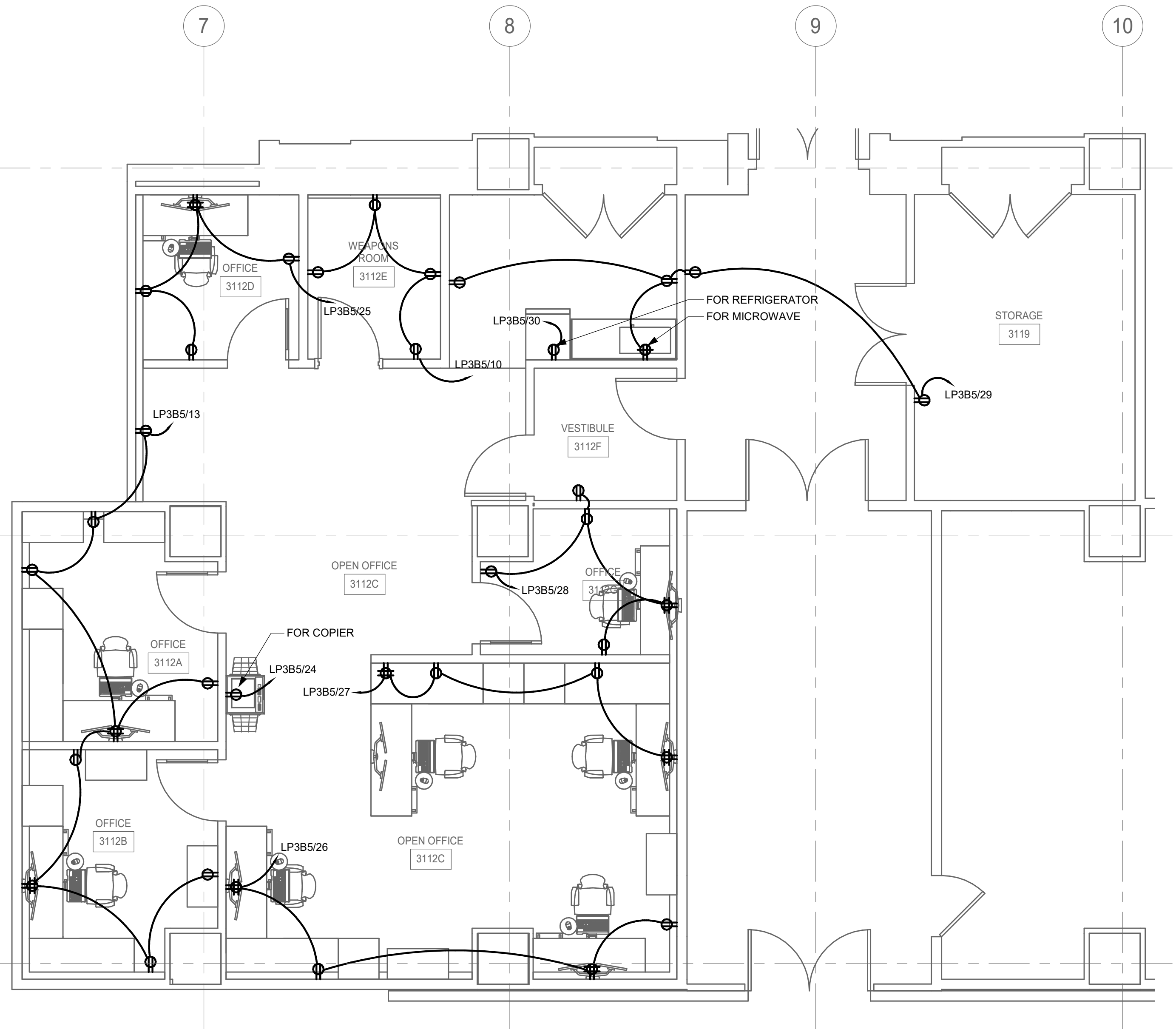
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ADDRESS	SW WASHINGTON, DC 20560						
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION						
SF PROJECT NUMBER	1909101						
A/E PROJECT NUMBER	11203201						
DRAWING TITLE	SUBLEVEL 3 - OPS SUITE - ELECTRICAL - POWER - PHASE 1						
WORKING STAFF	<table border="1"> <tr> <td>DESIGNED BY</td> <td>SNA</td> <td>DRAWN BY</td> <td>SNA</td> <td>CHECKED BY</td> <td>CEC</td> </tr> </table>	DESIGNED BY	SNA	DRAWN BY	SNA	CHECKED BY	CEC
DESIGNED BY	SNA	DRAWN BY	SNA	CHECKED BY	CEC		

SHEET NO.	E - 4 0 2 E P P 1
105 of 179	



**SUBLEVEL 3 - SECURITY ROOM 3221 - ELECTRICAL - POWER - PHASE 1**

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



**SUBLEVEL 3 - OPS SUITE - ELECTRICAL - POWER - PHASE 1**

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

4/11/2022 1:21:59 PM E-402EPP1 BY Approver 04/08/22 FINAL CD

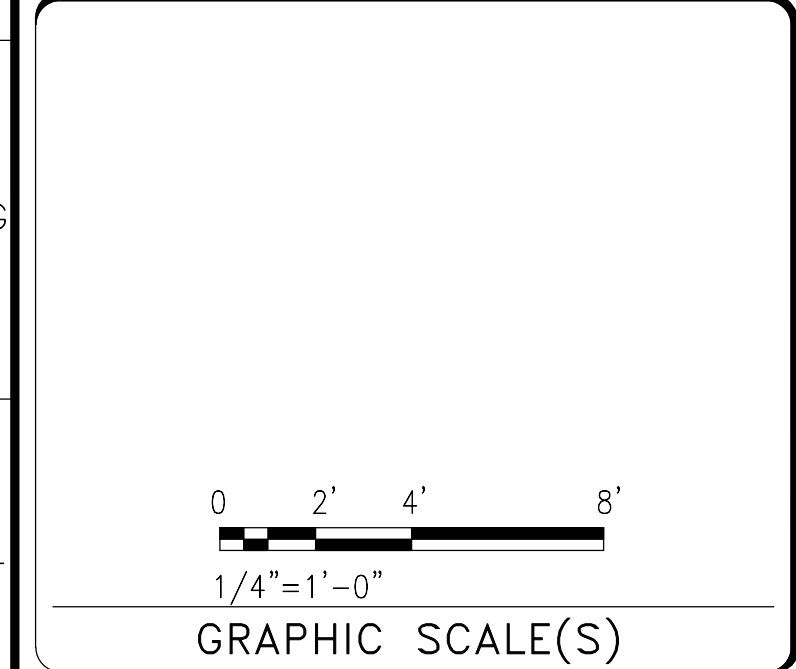
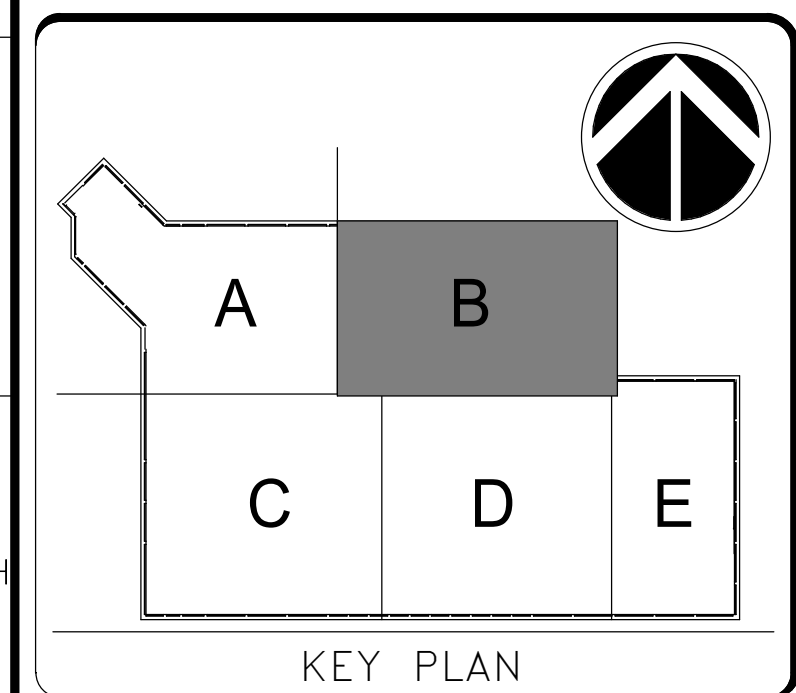
4/11/2022 1:22:03 PM E-405EPP1 BY Approver 04/08/22 FINAL CD

- DRAWING NOTES:**
- A. REFER TO DRAWING E-001P1 FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS.
  - B. HEAVY LINE WEIGHT DESIGNATES NEW WORK. LIGHT LINE WEIGHT DESIGNATES EXISTING WORK TO REMAIN.
  - C. EXISTING CONDITIONS SHOWN ARE BASED ON LIMITED FIELD SURVEY AND EXISTING DOCUMENTATION. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS INDICATED OR NOT INDICATED.
- SPECIAL NOTES:**
- 1 SIZE PER NEC REQUIREMENTS.
  - 2 MOUNT NEXT TO CABLE TRAY. RACEWAY SHALL NOT BE MOUNTED ONTO CABLE TRAY.
  - 3 CONNECT TO EXISTING PANEL LP1A1/26
  - 4 CONNECT TO EXISTING PANEL LP1A1/2
  - 5 CONNECT TO EXISTING PANEL LP1A1/4

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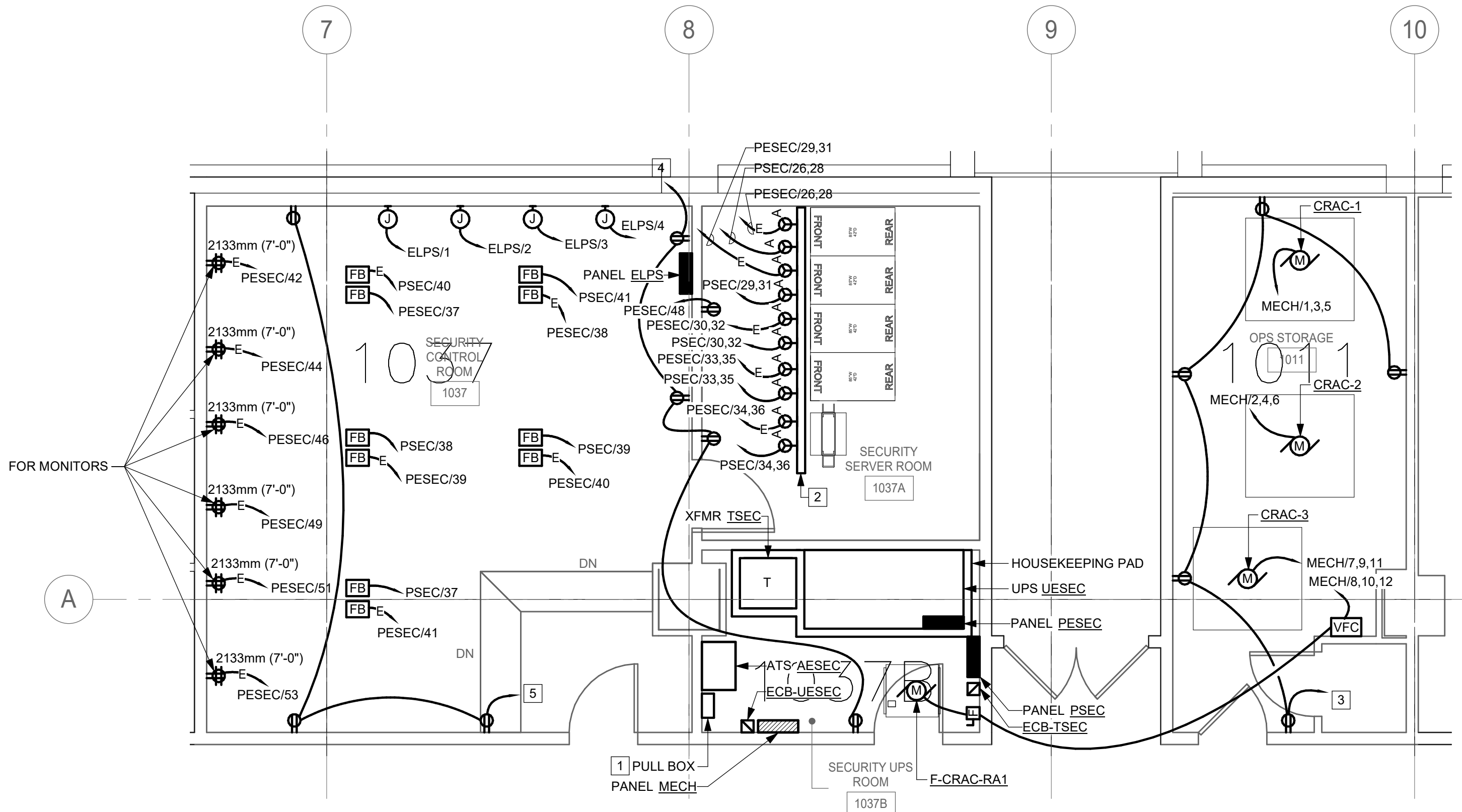


DATE 04/08/22	REVISION FINAL CD
REVISION # DATE	REVISION DESCRIPTION

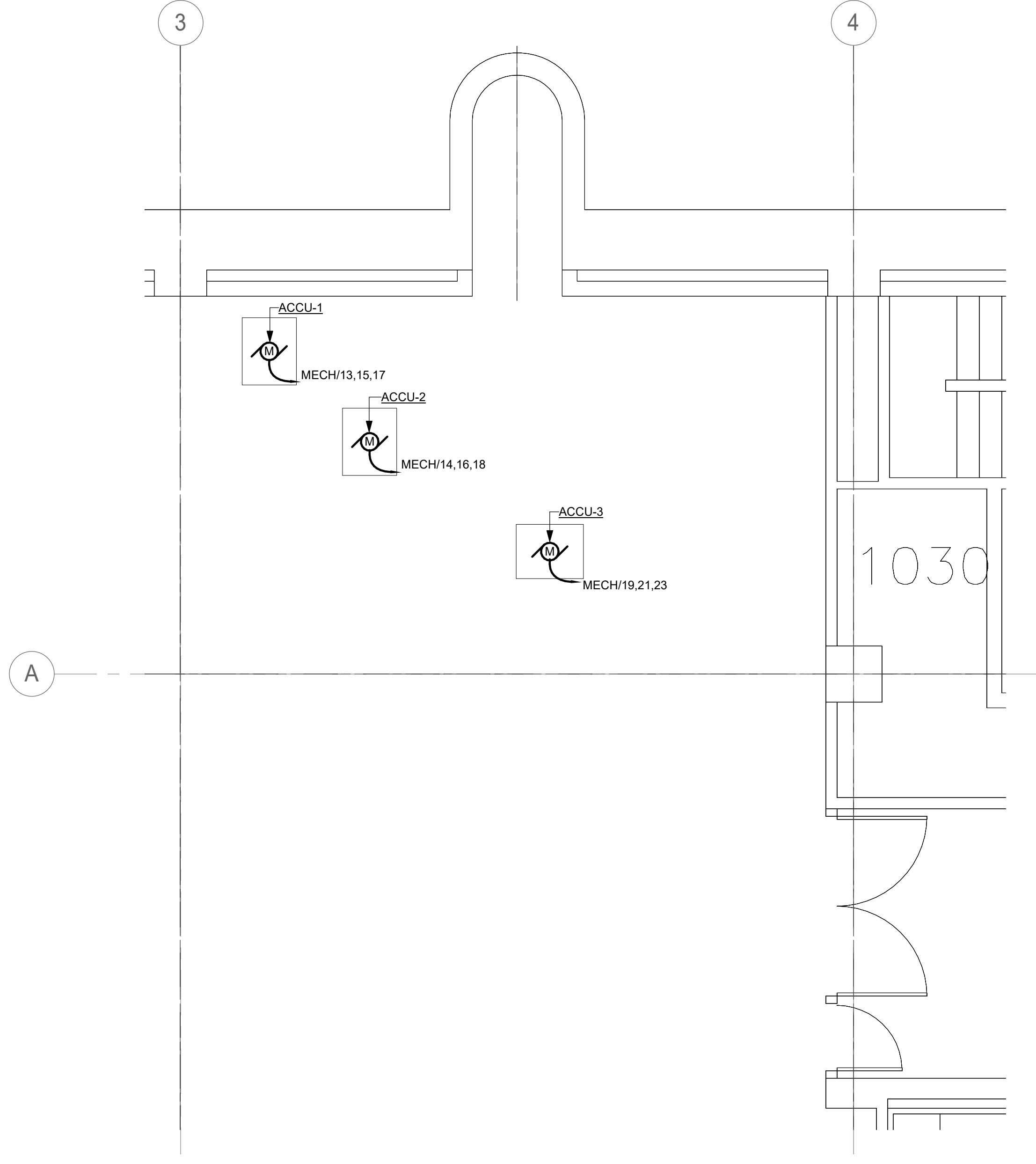
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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 1 - COMMAND CENTER - ELECTRICAL - POWER - PHASE 1
WORKING STAFF	DESIGNED BY: SNA    DRAWN BY: SNA    CHECKED BY: CEC
SHEET NO.	E-405EPP1
106 of 179	DISCIPLINE    TYPE    SEQUENCE    DRAWING    TITLE    PHASE



**SUBLEVEL 1 - COMMAND CENTER - ELECTRICAL - POWER - PHASE 1**  
 SCALE = 1/4" = 1'-0"

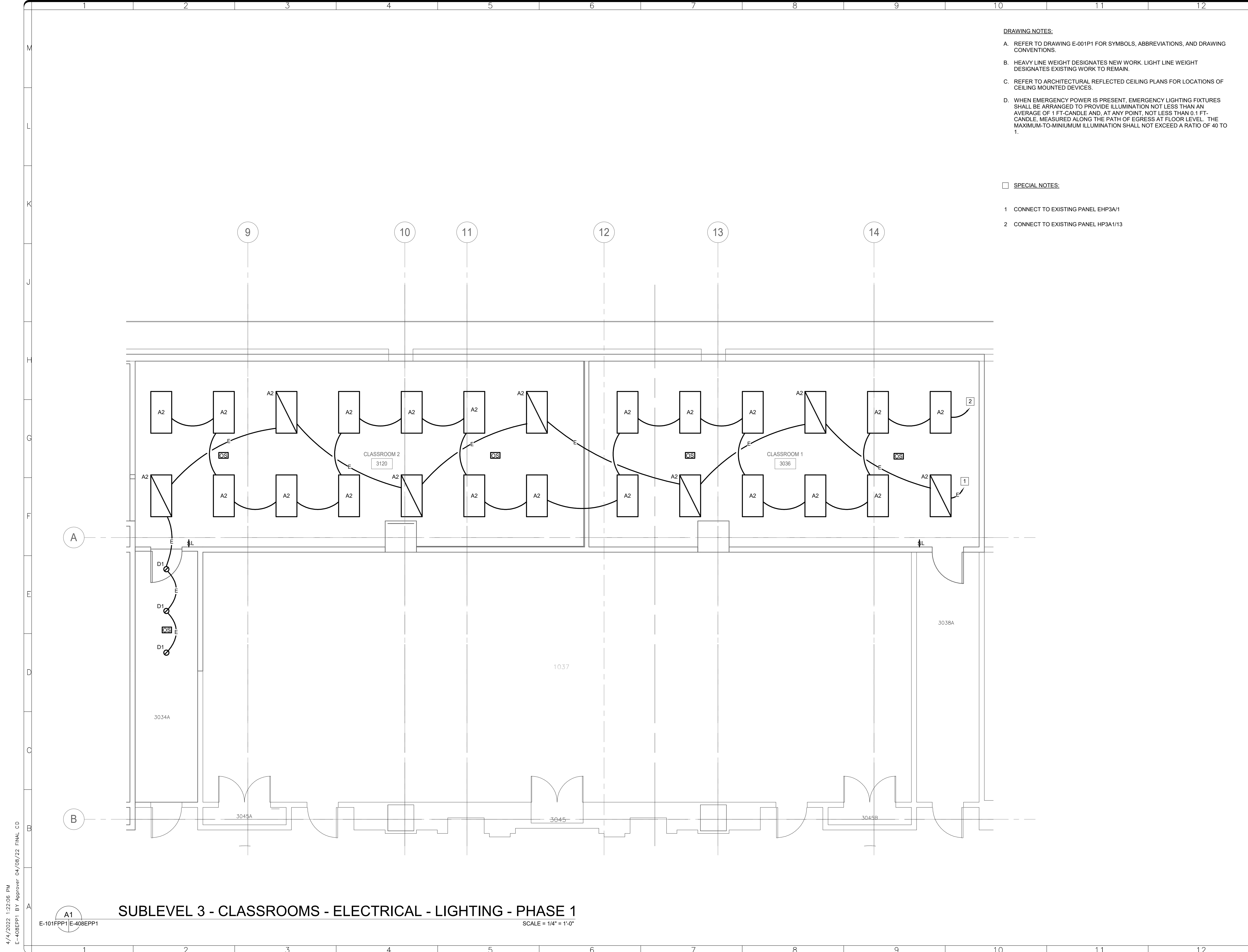


**SUBLEVEL 1 - LOADING DOCK - ELECTRICAL NEW WORK - PHASE 1**  
 SCALE = 1/4" = 1'-0"

1030

A1  
 E-103FPP1/E-405EPP1

A7  
 E-405EPP1



**DRAWING NOTES:**

- A. REFER TO DRAWING E-001P1 FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS.
- B. HEAVY LINE WEIGHT DESIGNATES NEW WORK. LIGHT LINE WEIGHT DESIGNATES EXISTING WORK TO REMAIN.
- C. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATIONS OF CEILING MOUNTED DEVICES.
- D. WHEN EMERGENCY POWER IS PRESENT, EMERGENCY LIGHTING FIXTURES SHALL BE ARRANGED TO PROVIDE ILLUMINATION NOT LESS THAN AN AVERAGE OF 1 FT-CANDLE AND, AT ANY POINT, NOT LESS THAN 0.1 FT-CANDLE, MEASURED ALONG THE PATH OF EGRESS AT FLOOR LEVEL. THE MAXIMUM-TO-MINIUMUM ILLUMINATION SHALL NOT EXCEED A RATIO OF 40 TO 1.

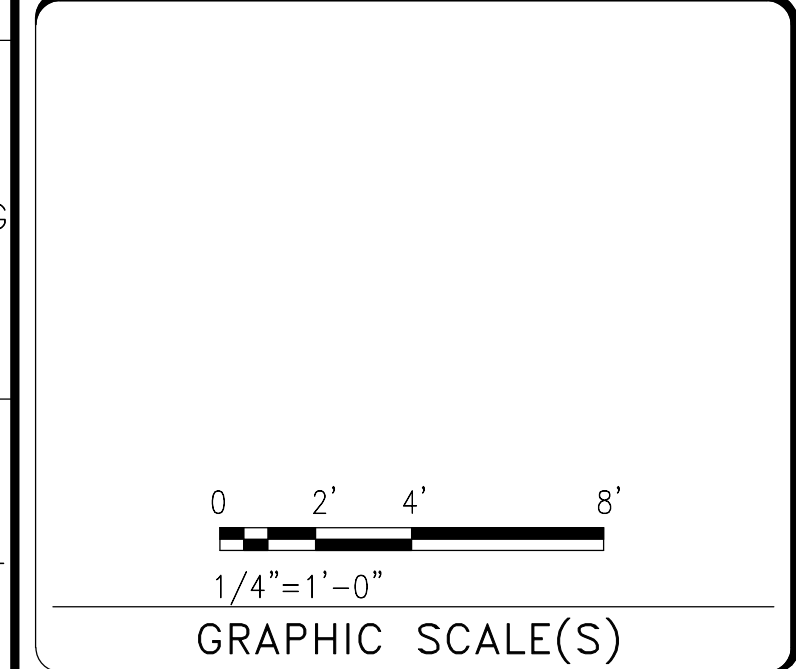
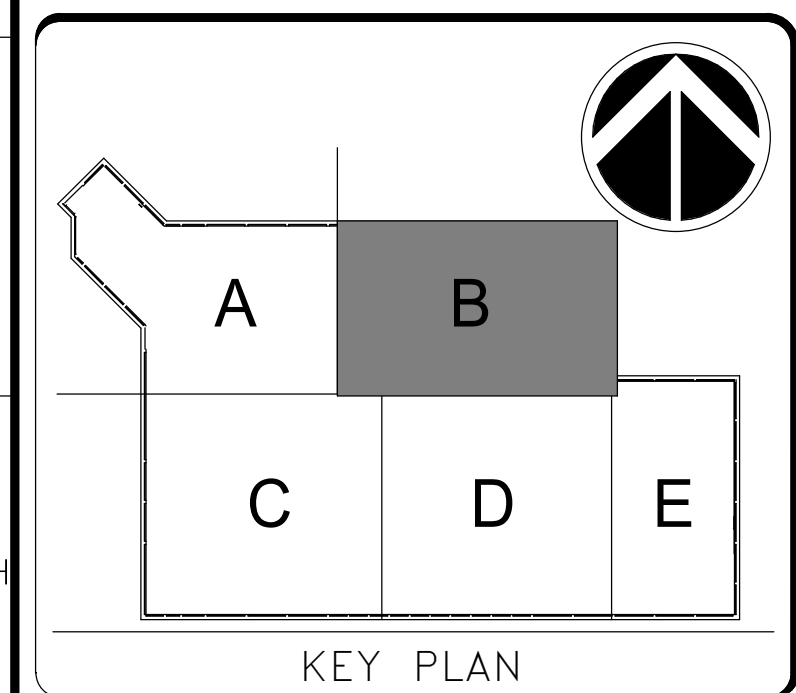
**SPECIAL NOTES:**

- 1 CONNECT TO EXISTING PANEL EHP3A/1
- 2 CONNECT TO EXISTING PANEL HP3A1/13

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ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - CLASSROOMS - ELECTRICAL - LIGHTING - PHASE 1
WORKING STAFF	SNA SNA CEC
DESIGNED BY	DRAWN BY
CHECKED BY	

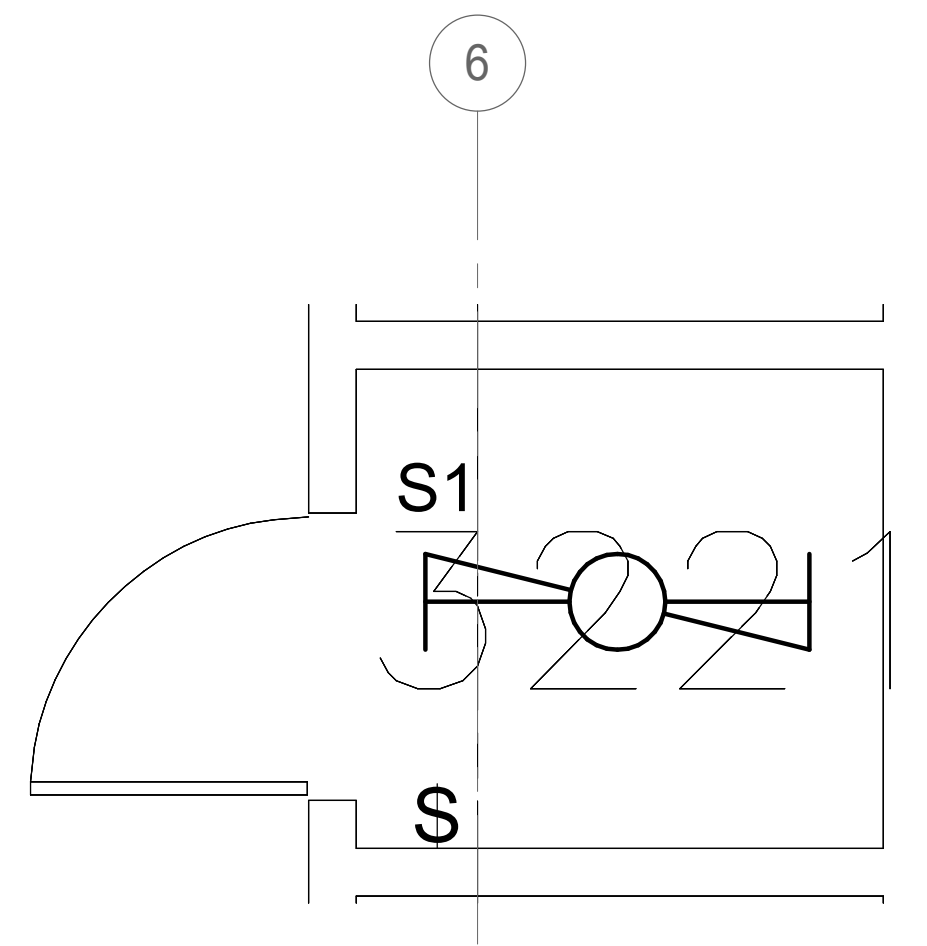
SHEET NO. 107 of 179

E - 4 0 8 E P P 1

DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE

4/11/2022 1:22:06 PM  
 E-408EPP1 BY Approver 04/08/22 FINAL CD

A1  
 E-101FPP1 E-408EPP1  
**SUBLEVEL 3 - CLASSROOMS - ELECTRICAL - LIGHTING - PHASE 1**  
 SCALE = 1/4" = 1'-0"



**SUBLEVEL 3 - SECURITY ROOM 3221 - ELECTRICAL - LIGHTING - PHASE 1**

J1  
E-101FPP1/E-409EPP1

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

**DRAWING NOTES:**

- A. REFER TO DRAWING E-001P1 FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS.
- B. HEAVY LINE WEIGHT DESIGNATES NEW WORK. LIGHT LINE WEIGHT DESIGNATES EXISTING WORK TO REMAIN.
- C. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATIONS OF CEILING MOUNTED DEVICES.
- D. WHEN EMERGENCY POWER IS PRESENT, EMERGENCY LIGHTING FIXTURES SHALL BE ARRANGED TO PROVIDE ILLUMINATION NOT LESS THAN AN AVERAGE OF 1 FT-CANDLE AND, AT ANY POINT, NOT LESS THAN 0.1 FT-CANDLE, MEASURED ALONG THE PATH OF EGRESS AT FLOOR LEVEL. THE MAXIMUM-TO-MINIUMUM ILLUMINATION SHALL NOT EXCEED A RATIO OF 40 TO 1.

**SPECIAL NOTES:**

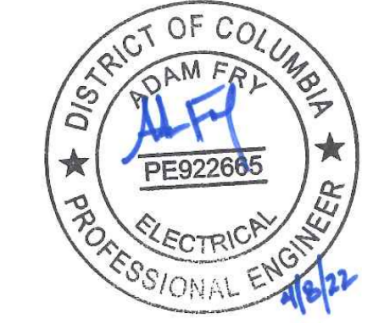
- 1 CONNECT TO EXISTING PANEL HP3A1/15
- 2 CONNECT TO EXISTING PANEL EHP3A/6



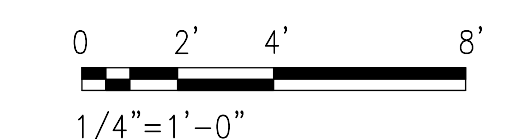
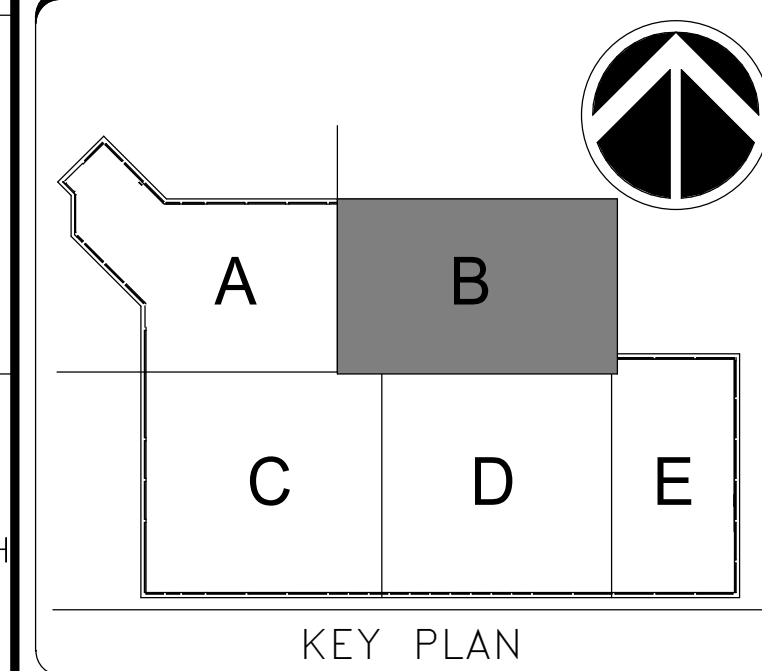
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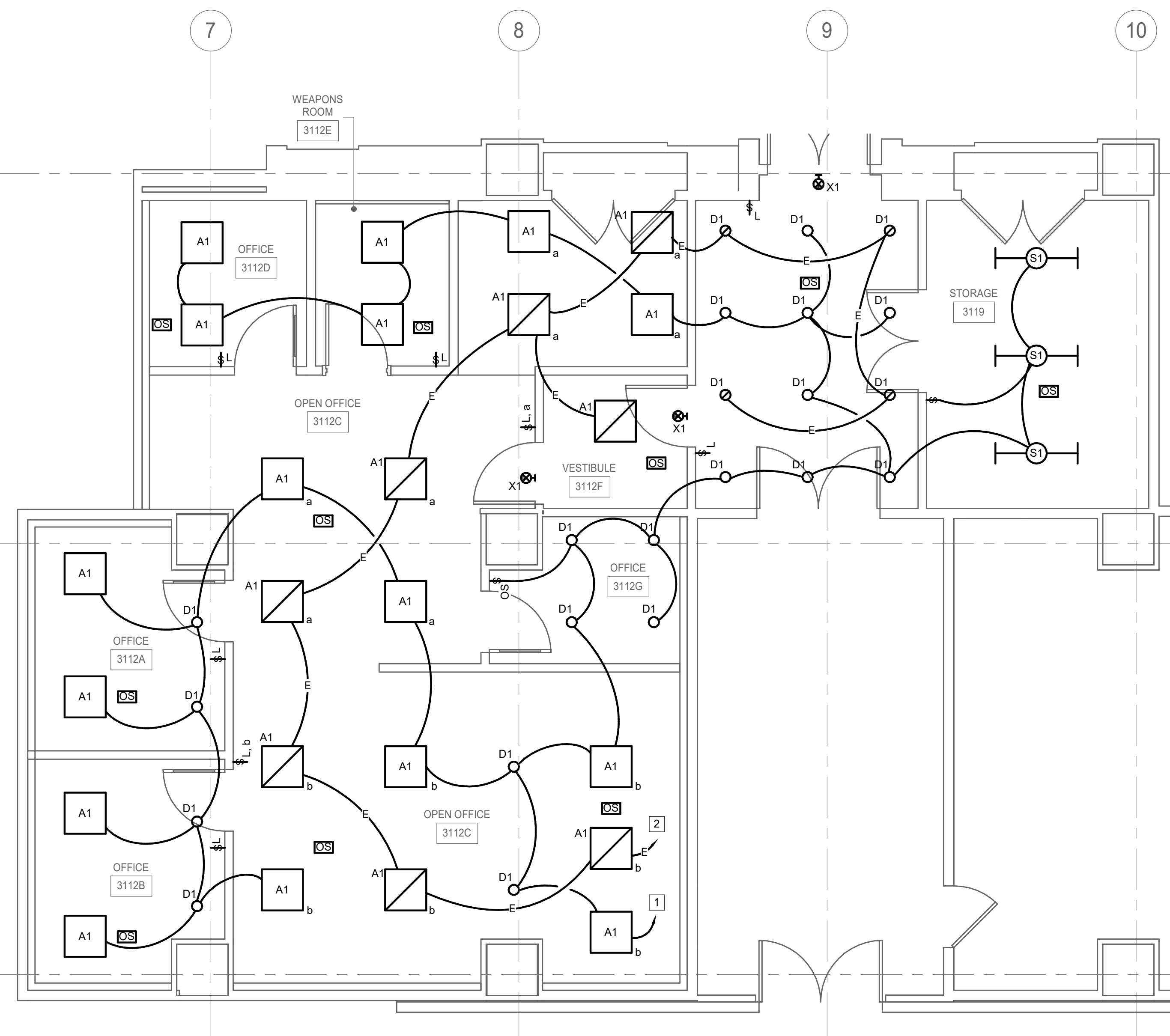


DATE	04/08/22	REVISION	FINAL CD
REVISION #	DATE	DESCRIPTION	

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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - OPS SUITE - ELECTRICAL - LIGHTING - PHASE 1
WORKING STAFF	SNA SNA CEC
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO. **E-409EPP1**  
108 of 179



**SUBLEVEL 3 - OPS SUITE - ELECTRICAL - LIGHTING - PHASE 1**

A1  
E-101FPP1/E-409EPP1

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

4/15/2022 2:57:50 PM E-409EPP1 BY Approver 04/08/22 FINAL CD

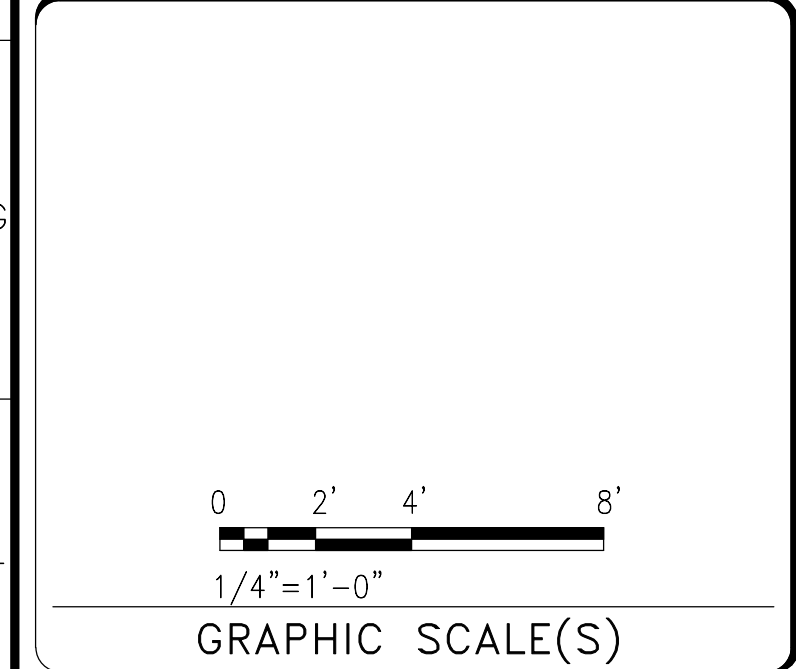
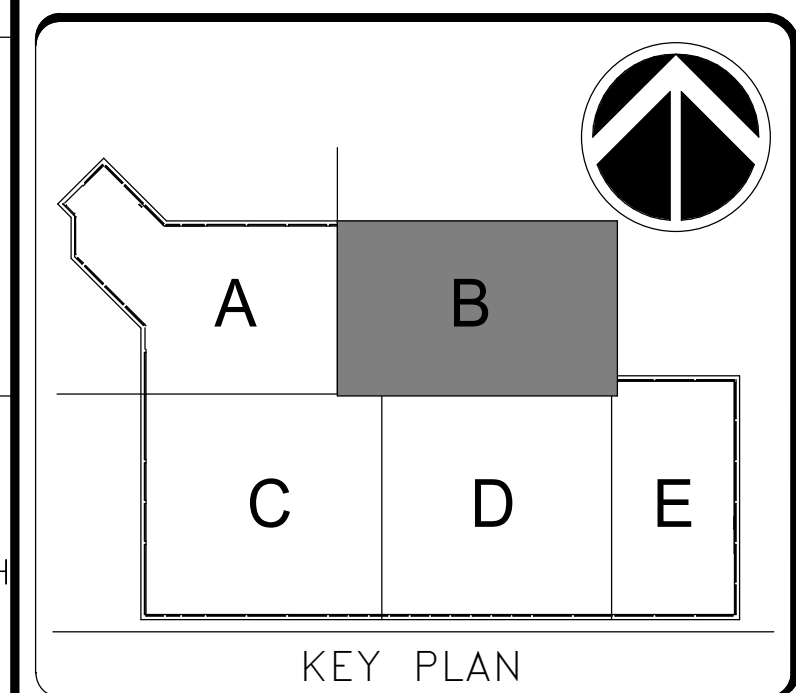
4/11/2022 1:22:09 PM  
E-412EPP1 BY Approver 04/08/22 FINAL CD

- DRAWING NOTES:**
- A. REFER TO DRAWING E-001P1 FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS.
  - B. HEAVY LINE WEIGHT DESIGNATES NEW WORK. LIGHT LINE WEIGHT DESIGNATES EXISTING WORK TO REMAIN.
  - C. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATIONS OF CEILING MOUNTED DEVICES.
  - D. WHEN EMERGENCY POWER IS PRESENT, EMERGENCY LIGHTING FIXTURES SHALL BE ARRANGED TO PROVIDE ILLUMINATION NOT LESS THAN AN AVERAGE OF 1 FT-CANDLE AND, AT ANY POINT, NOT LESS THAN 0.1 FT-CANDLE, MEASURED ALONG THE PATH OF EGRESS AT FLOOR LEVEL. THE MAXIMUM-TO-MINIUMUM ILLUMINATION SHALL NOT EXCEED A RATIO OF 40 TO 1.
- SPECIAL NOTES:**
- 1 CONNECT TO EXISTING PANEL EHP1A/13
  - 2 CONNECT TO EXISTING PANEL HP1B1/5

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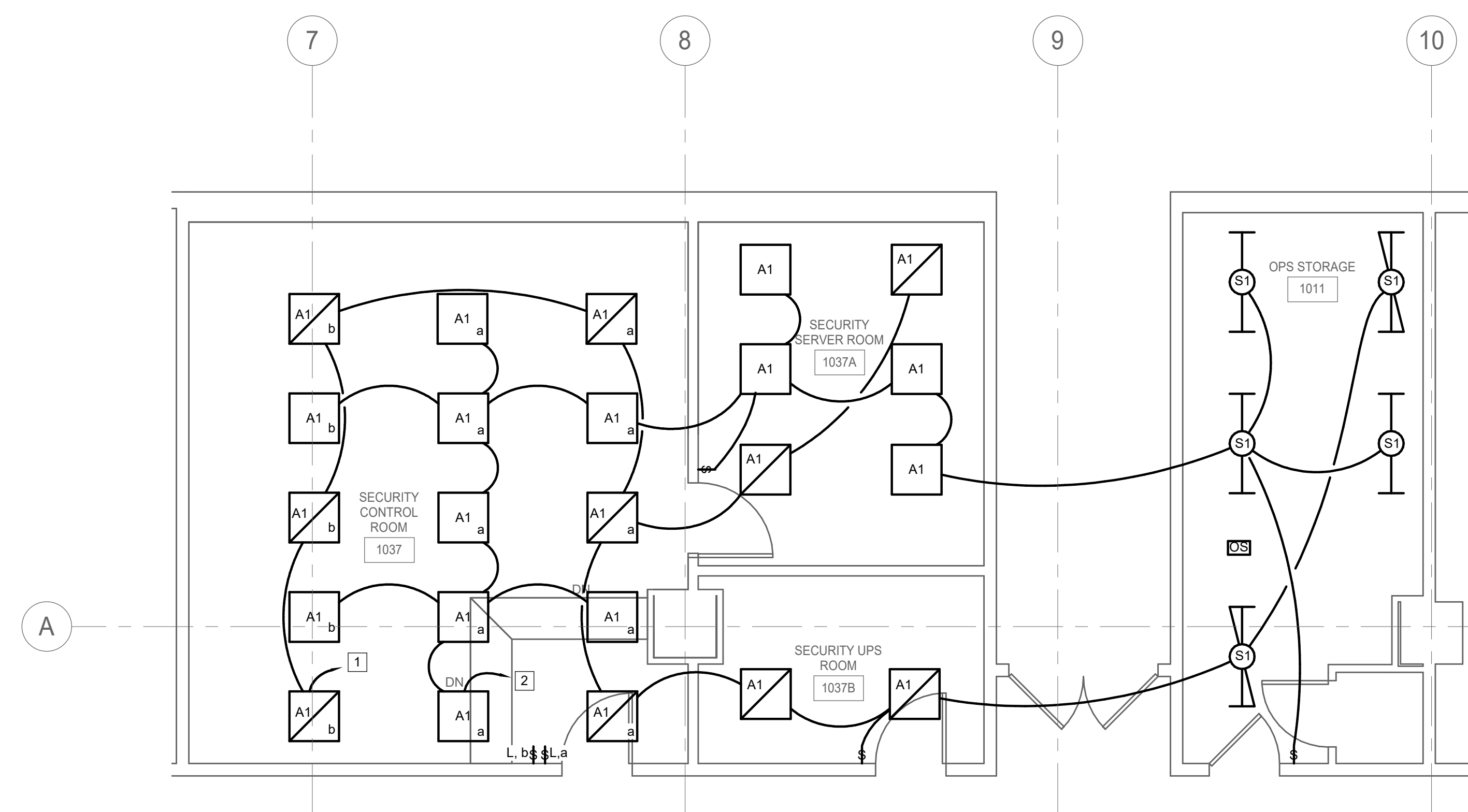


DATE	04/08/22	SUBMISSION	FINAL CD
REVISION #	DATE	DESCRIPTION	

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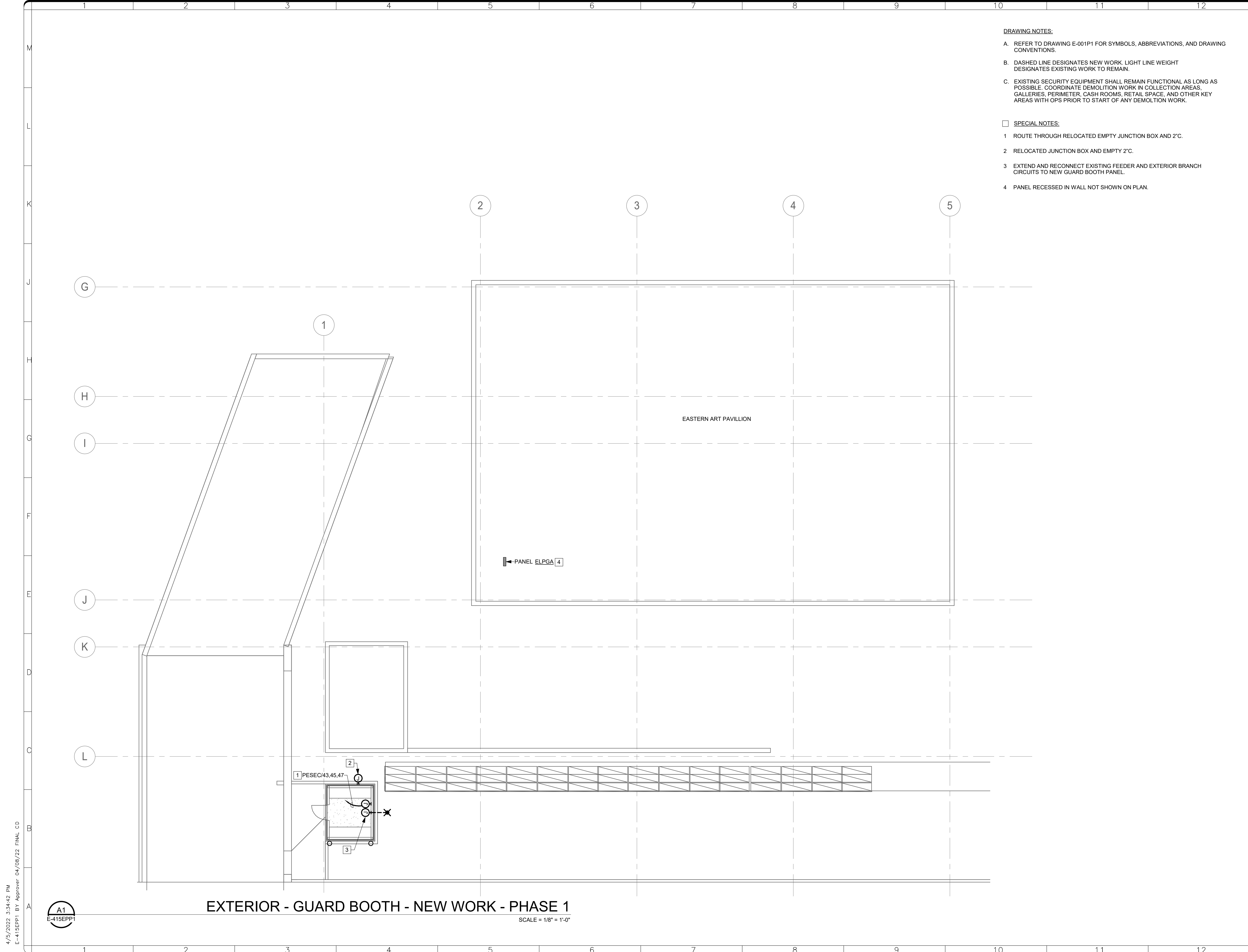
Smithsonian Facilities  
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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 1 - COMMAND CENTER - ELECTRICAL - LIGHTING - PHASE 1
WORKING STAFF	DESIGNED BY: SNA    DRAWN BY: SNA    CHECKED BY: CEC
SHEET NO.	E - 4 1 2 E P P 1
109 of 179	DISCIPLINE    TYPE    SEQUENCE    DRAWING TYPE    PHASE



**SUBLEVEL 1 - COMMAND CENTER - ELECTRICAL - LIGHTING - PHASE 1**

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E-103FPP1|E-412EPP1  
SCALE = 1/4" = 1'-0"

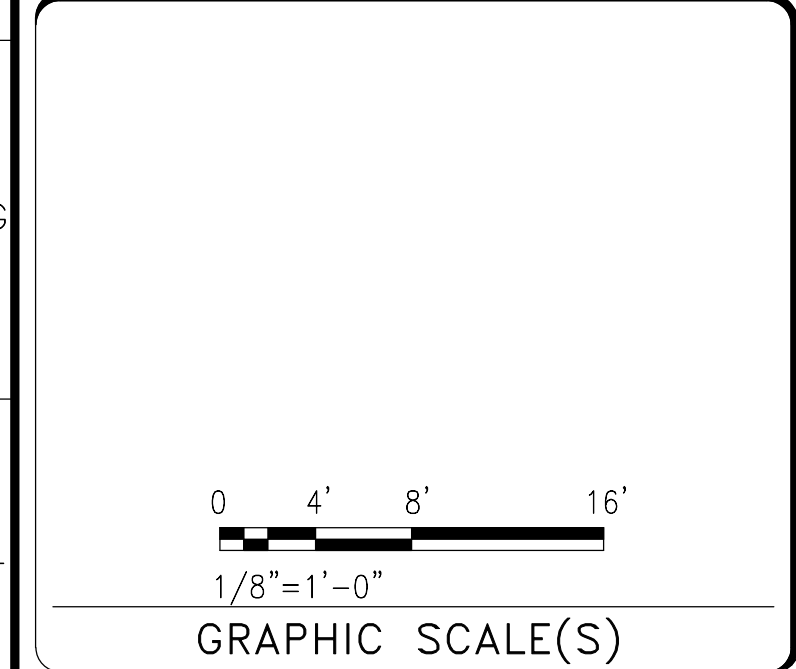
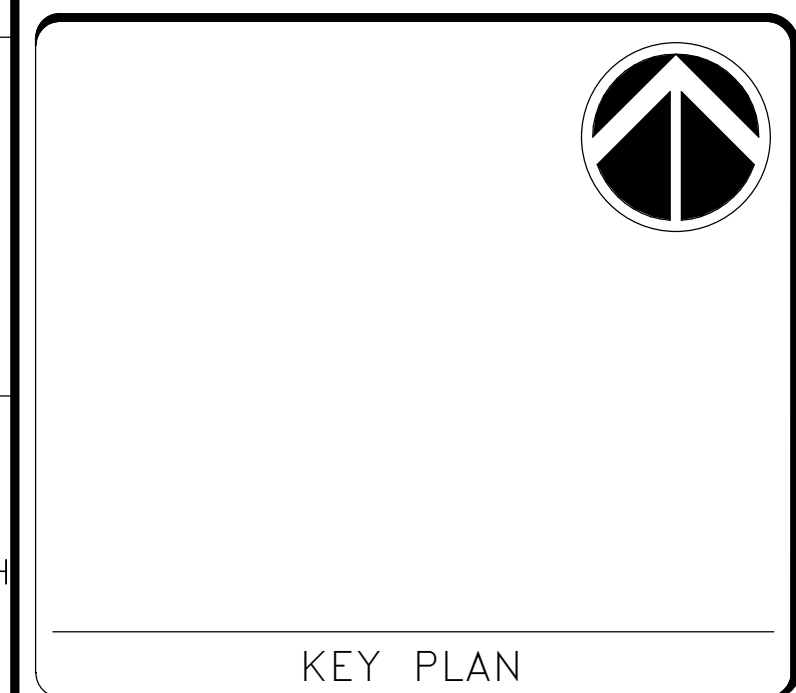


- DRAWING NOTES:**
- A. REFER TO DRAWING E-001P1 FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS.
  - B. DASHED LINE DESIGNATES NEW WORK. LIGHT LINE WEIGHT DESIGNATES EXISTING WORK TO REMAIN.
  - C. EXISTING SECURITY EQUIPMENT SHALL REMAIN FUNCTIONAL AS LONG AS POSSIBLE. COORDINATE DEMOLITION WORK IN COLLECTION AREAS, GALLERIES, PERIMETER, CASH ROOMS, RETAIL SPACE, AND OTHER KEY AREAS WITH OPS PRIOR TO START OF ANY DEMOLITION WORK.
- SPECIAL NOTES:**
- 1 ROUTE THROUGH RELOCATED EMPTY JUNCTION BOX AND 2\"/>

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DATE	04/08/22	SUBMISSION	FINAL CD
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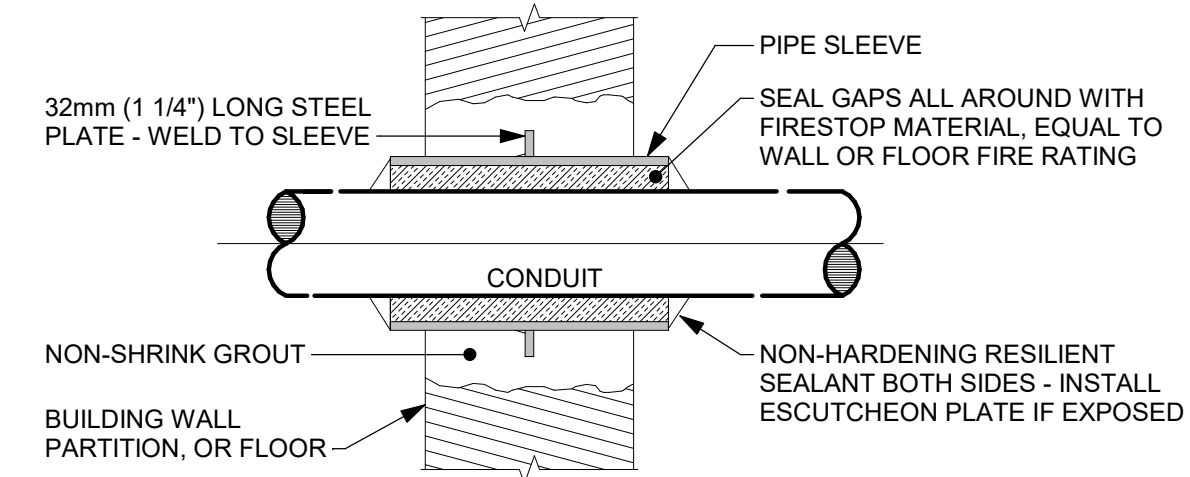
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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	EXTERIOR - GUARD BOOTH - NEW WORK - PHASE 1
WORKING STAFF	SNA SNA CEC
DESIGNED BY	DRAWN BY
CHECKED BY	
SHEET NO.	E - 4 15 E P P 1
110 of 179	

4/15/2022 3:34:42 PM  
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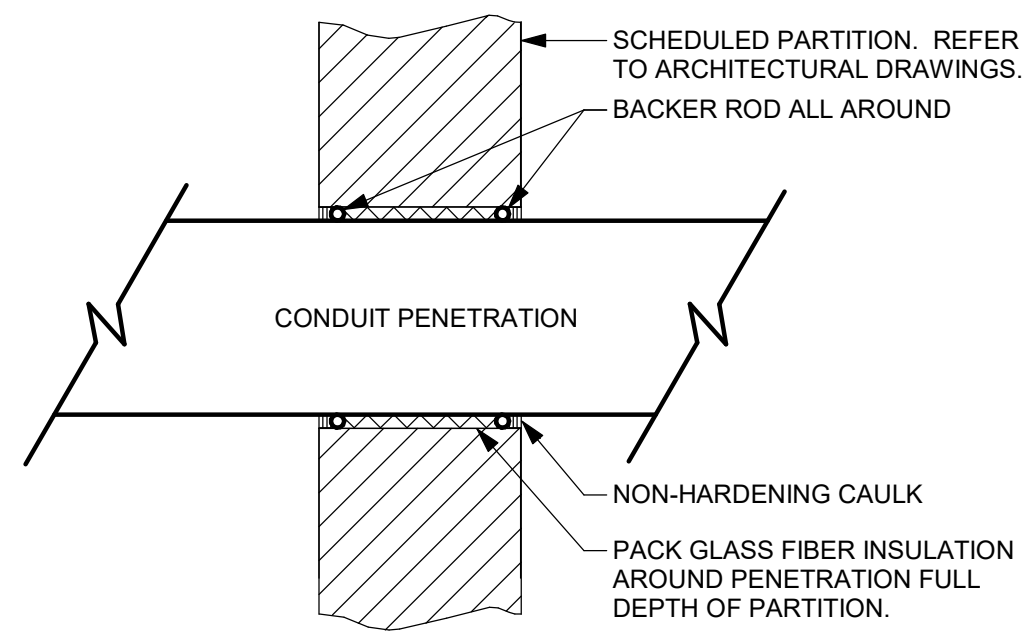
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E-415EPP1



**MASONRY PENETRATION**

K1  
E-501DTP1

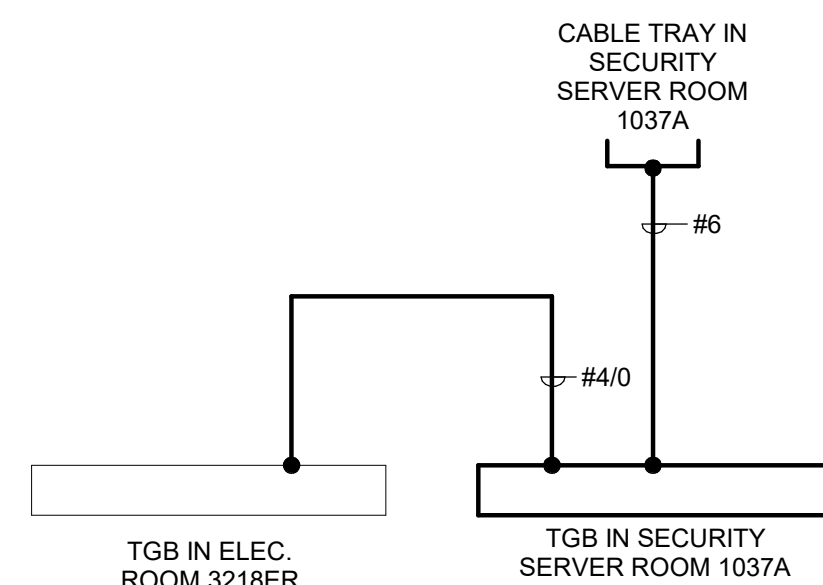
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**PARTITION PENETRATION**

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E-501DTP1

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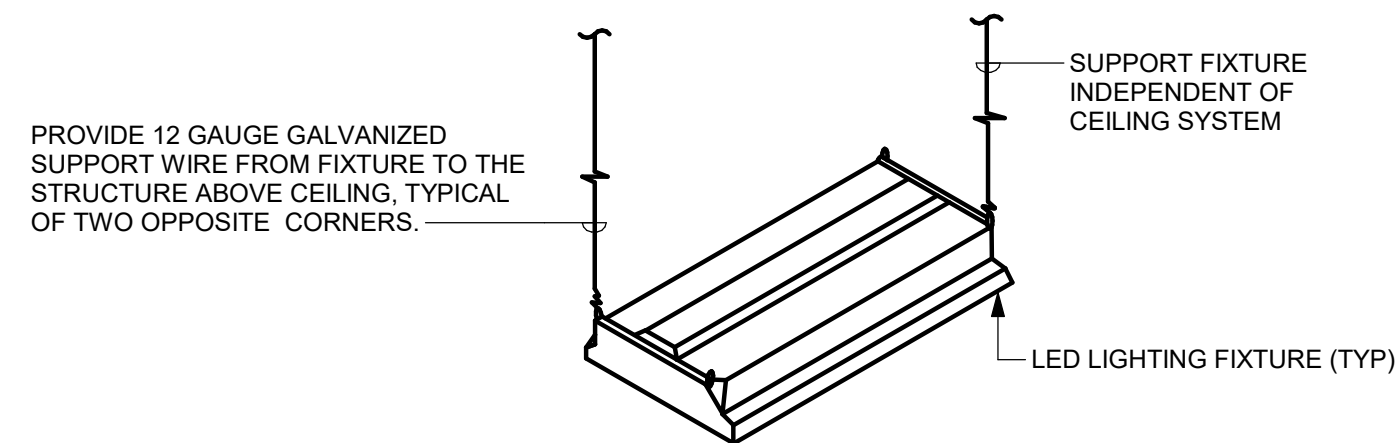


NOTE: REFER TO SECURITY DRAWINGS FOR TGB LOCATIONS AND ADDITIONAL REQUIREMENTS

**SECURITY GROUND RISER DIAGRAM**

G1  
E-501DTP1

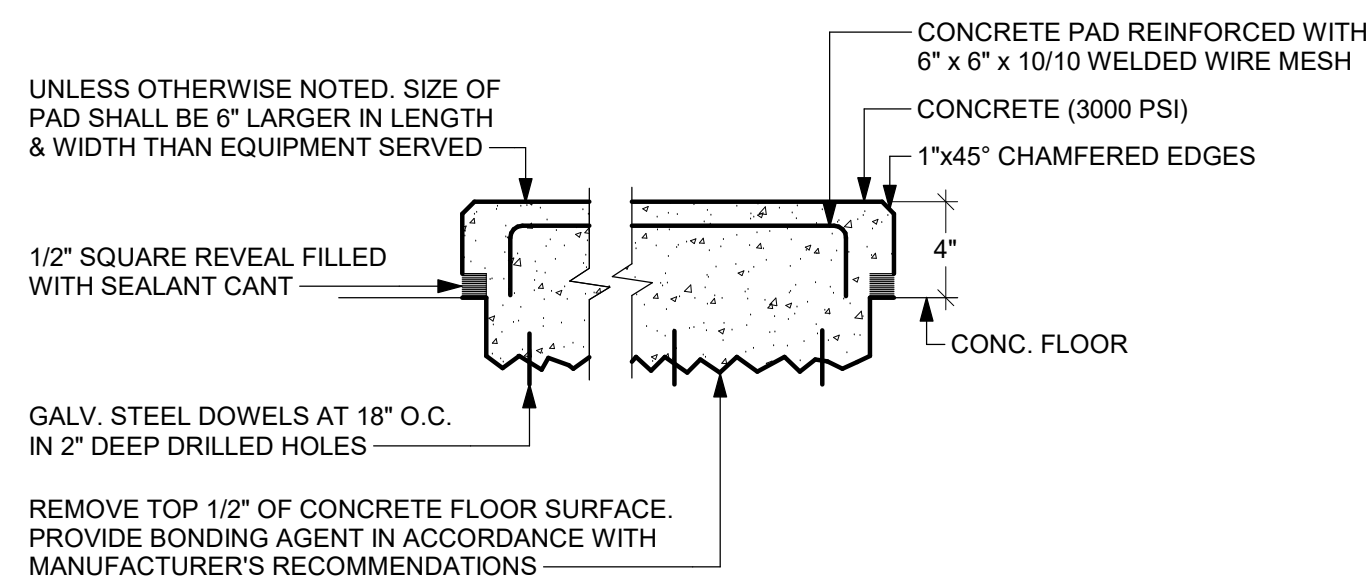
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**LIGHTING FIXTURE MOUNTING**

G5  
E-501DTP1

NOT TO SCALE



**HOUSEKEEPING PAD**

D1  
E-501DTP1

NOT TO SCALE

**DRAWING NOTES:**

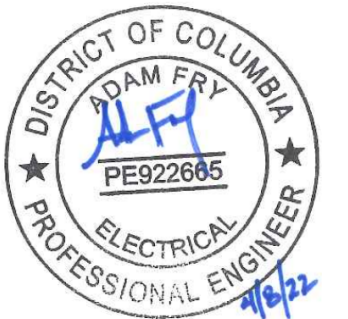
- A. REFER TO DRAWING E-001P1 FOR SYMBOLS, ABBREVIATIONS AND DRAWING CONVENTIONS.
- B. HEAVY LINE WEIGHT DESIGNATES NEW WORK. LIGHT LINE WEIGHT DESIGNATES EXISTING WORK TO REMAIN.



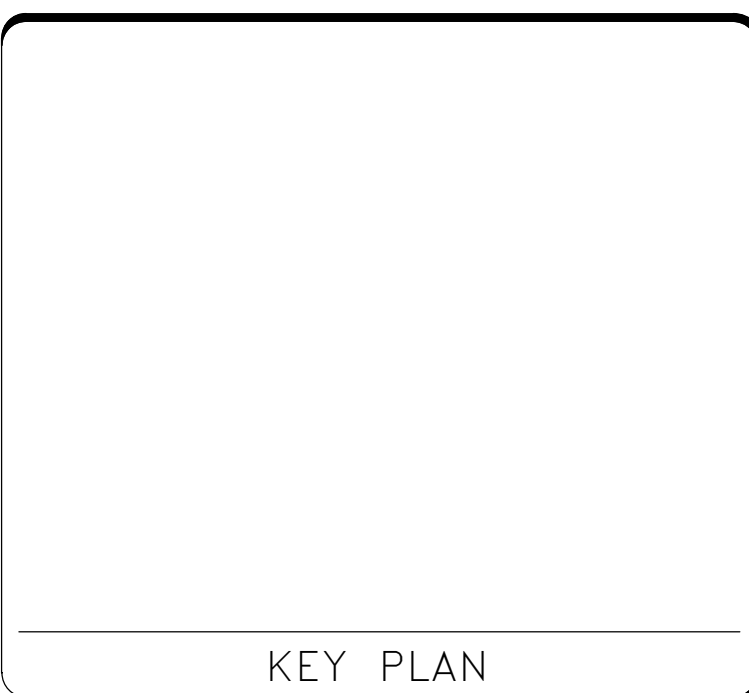
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REVISION #	DATE	DESCRIPTION	

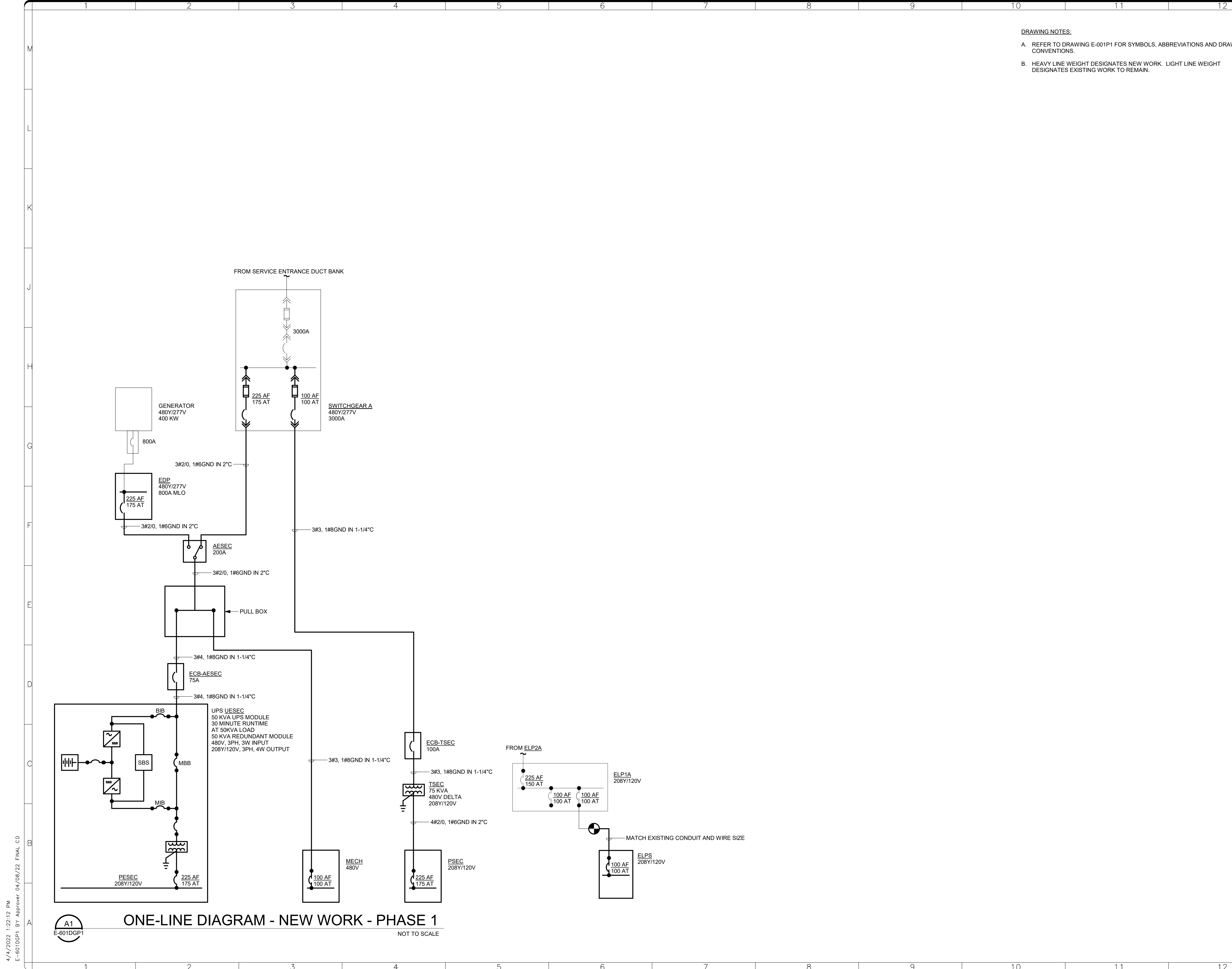
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ADDRESS	SW WASHINGTON, DC 20560						
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION						
SF PROJECT NUMBER	1909101						
A/E PROJECT NUMBER	11203201						
DRAWING TITLE	ELECTRICAL DETAILS -- PHASE 1						
WORKING STAFF	<table border="1"> <tr> <td>DESIGNED BY</td> <td>SNA</td> <td>DESIGNED BY</td> <td>SNA</td> <td>CHECKED BY</td> <td>CEC</td> </tr> </table>	DESIGNED BY	SNA	DESIGNED BY	SNA	CHECKED BY	CEC
DESIGNED BY	SNA	DESIGNED BY	SNA	CHECKED BY	CEC		

SHEET NO.	111 of 179	E - 5 0 1 D T P 1
DISCIPLINE	TYPE	SEQUENCE
DRAWING	TITLE	PHASE

4/11/2022 1:22:11 PM E-501DTP1 BY Approver 04/08/22 FINAL CD



**DRAWING NOTES:**  
 A. REFER TO DRAWING E-001P1 FOR SYMBOLS, ABBREVIATIONS AND DRAWING CONVENTIONS.  
 B. HEAVY LINE WEIGHT DESIGNATES NEW WORK. LIGHT LINE WEIGHT DESIGNATES EXISTING WORK TO REMAIN.

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**DISTRICT OF COLUMBIA**  
 PE922685  
 ELECTRICAL ENGINEER  
 7/8/22

KEY PLAN

GRAPHIC SCALE(S)

DATE	04/08/22	SUBMISSION	FINAL CD
REVISION #	DATE	DESCRIPTION	

**Smithsonian Institution**  
 Smithsonian Facilities  
 600 Maryland Avenue S.W., Suite 5001  
 Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	ELECTRICAL ONE-LINE DIAGRAM - NEW WORK - PHASE 1
WORKING STAFF	SNA SNA CEC
DESIGNED BY	SNA
DRAWN BY	SNA
CHECKED BY	CEC

SHEET NO. 112 OF 179  
 E-601DGP1

4/11/2022 1:22:12 PM E-601DGP1 BY Approver 04/08/22 FINAL CD



**LIGHTING FIXTURE SCHEDULE**

FIXTURE TYPE	MOUNTING	MANUFACTURERS	CATALOG OR MODEL NUMBER	LAMPS	VOLTAGE (V)	DESCRIPTION
A1	CEILING RECESSED	HUBBELL LIGHTING COOPER LIGHTING LITHONIA	LCA22-35MLG-EDU	LED (INCLUDED)	277	2X2 LED FIXTURE, COLD ROLLED STEEL HOUSING, WHITE POLYESTER POWDER PAINT FINISH, 3500 LUMEN MINIMUM, 3500K CCT, 0-10V DIMMING DOWN TO 10%.
A2	CEILING RECESSED	HUBBELL LIGHTING COOPER LIGHTING LITHONIA	LCA24-35XWG-EDU	LED (INCLUDED)	277	SAME AS TYPE A1 EXCEPT 2X4 LED FIXTURE AND 2500 LUMEN MINIMUM.
D1	CEILING RECESSED	HUBBELL LIGHTING COOPER LIGHTING LITHONIA	LTR-6RD-H-SL06L-DM1-LTR-6RD-T-SL35K8WD-SWT	LED (INCLUDED)	277	6" LED DOWNLIGHT FIXTURE, GALVANIZED STEEL HOUSING, WHITE MATTE DIFFUSE FINISH, 600 LUMEN MINIMUM, 3500K CCT, 0-10V DIMMING DOWN TO 10%.
S1	CEILING SUSPENDED 9'-0" AFF	HUBBELL LIGHTING COOPER LIGHTING HE WILLIAMS	LCL4-35LW-EU-LCLWG4	LED (INCLUDED)	277	4' STRIP LED LIGHTING FIXTURE, COLD ROLLED STEEL HOUSING WITH WHITE POLYESTER COAT FINISH, 2600 LUMEN MINIMUM, 3500K CCT, 11 GAUGE WIREGUARD.
X1	WALL	LITHONIA COOPER LIGHTING HUBBELL LIGHTING	EDG_-1-G	LED (INCLUDED)	277	LED EXIT SIGN, EDGE LIT, SATIN ALUMINUM HOUSING, GREEN LETTERS, SINGLE FACE, WITH MIRRORRED BACKGROUND.

**LIGHTING FIXTURE SCHEDULE NOTES:**

- REFER TO L SERIES DRAWINGS IN EXHIBIT DESIGN PACKAGE FOR FRONT OF HOUSE LIGHTING FIXTURE SCHEDULE. SCHEDULE ABOVE CONTAINS INFORMATION ON BACK OF HOUSE LIGHTING FIXTURES AND EXIT SIGNS.
- LISTED CATALOG NUMBER IS FOR FIRST NAMED MANUFACTURER. THIS MANUFACTURER AND FIXTURE CONSTITUTES THE "BASIS OF DESIGN". LISTING OF ALTERNATE MANUFACTURER'S NAMES DOES NOT IMPLY ACCEPTANCE OF THEIR STANDARD PRODUCT. MANUFACTURERS ARE RESPONSIBLE FOR PROVIDING FIXTURES THAT ARE EQUAL IN ALL RESPECTS TO THE "BASIS OF DESIGN" FIXTURE.
- SUBSTITUTIONS OF FIXTURES PROVIDED BY MANUFACTURERS NOT USED IN THE SCHEDULE ARE NOT ACCEPTABLE.
- LIGHTING FIXTURE SUBMITTALS SHALL INCLUDE, AS A MINIMUM:  
-FIXTURE TYPE, DIMENSIONS, & FINISH  
-DRIVER DATA FOR EACH FIXTURE TYPE & FIXTURE VOLTAGE
- VERIFY ALL LIGHTING FIXTURE VOLTAGES, CEILING TRIM, AND OTHER ACCESSORIES FOR COMPATIBILITY WITH CIRCUITS, CEILING TYPES AND OTHER CONDITIONS PRESENT WHERE LIGHTING FIXTURES WILL BE INSTALLED PRIOR TO PURCHASE AND INSTALLATION OF LIGHTING FIXTURES.
- COORDINATE LIGHTING CONTROL SYSTEM SHOP DRAWINGS WITH LIGHTING FIXTURE SHOP DRAWINGS. VERIFY COMPATIBILITY WITH LED DIMMING DRIVERS WITH LIGHTING CONTROL EQUIPMENT PRIOR TO PURCHASE AND INSTALLATION.
- MOUNTING HEIGHTS SHOWN ARE TO BOTTOM OF FIXTURES.

**ENCLOSED CIRCUIT BREAKER SCHEDULE**

DESIGNATION	VOLTAGE (V)	POLES	AMPACITY (A)	MIN AIC RATING (KA)	REMARKS
ECB-TSEC	480	3	100	10,000	-
ECB-TSEC	480	3	75	10,000	-
ECB-UESEC	480	3	75	65,000	-

**ENCLOSED CIRCUIT BREAKER SCHEDULE NOTES:**

- MINIMUM AIC RATING SUBJECT TO CONTRACTOR'S SHORT CIRCUIT STUDY RESULTS.

**AUTOMATIC TRANSFER SWITCH SCHEDULE**

DESIGNATION	VOLTAGE (V)	AMPACITY (A)	POLES	MINIMUM WITHSTAND RATING (A)	REMARKS
AESEC	480	200	3	14,000	-

**AUTOMATIC TRANSFER SWITCH SCHEDULE NOTES:**

- MINIMUM WITHSTAND CLOSING RATING SUBJECT TO CONTRACTOR'S SHORT CIRCUIT STUDY RESULTS.

**TRANSFORMER SCHEDULE**

DESIGNATION	KVA	HZ	PRIMARY	SECONDARY	IMPEDANCE	REMARKS
TSEC	75.0	60	480V DELTA	208Y/120V	5%	-

**EQUIPMENT CIRCUIT SCHEDULE**

DESIGNATION	HP	LOAD		VOLTAGE (V)	PH	LOCAL DISCONNECT		CONTROLLER					CIRCUIT			REMARKS	
		KVA	AMPS			AMPS	DEVICE	DISCONNECT		TYPE	NEMA SIZE	AUXILIARIES	NEMA / UL ENCLOSURE	WIRE	GND		C"
								AMPS	DEVICE								
AC-4	-	0.0	2.3	120	0												
AC-8	-	0.0	2.3	120	0												
AC-9	-	0.0	2.3	120	0												
ACCU-1	-	1.9	2.3	480	3	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	3#12	#12	3/4
ACCU-2	-	1.9	2.3	480	3	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	3#12	#12	3/4
ACCU-2	-	1.9	2.3	480	3	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	3#12	#12	3/4
ACCU-3	-	1.9	2.3	480	3	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	3#12	#12	3/4
CRAC-1	-	18.3	22.0	480	3	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	3#10	#10	3/4
CRAC-2	-	18.3	22.0	480	3	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	3#10	#10	3/4
CRAC-3	-	18.3	22.0	480	3	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	BY DIV 23	3#10	#10	3/4
CV-8-12	-	0.0	0.0	480	3												
EF-17	-	0.0	0.0	0	0												
F-CRAC-RA1	2	2.8	3.4	480	3	30	FS	-	-	VFC	-	-	-	-	3#12	#12	3/4

**EQUIPMENT CIRCUIT SCHEDULE NOTES:**

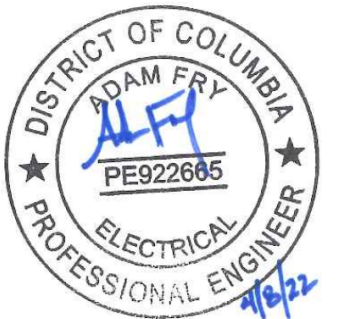
- PROVIDE FUSES AS RECOMMENDED BY EQUIPMENT MANUFACTURER FOR ALL FUSED SAFETY SWITCHES PROVIDED UNDER DIVISION 26 AND OTHER DIVISIONS.
- WHERE CONTROLLER IS REMOTE, PROVIDE 2 NC, 2 NO CONTACTS AT LOCAL DISCONNECT AND PROVIDE 2 #12 AND #12 GND IN 3/4" C FROM SWITCH TO CONTROLLER TO STOP IT BEFORE LOCAL SWITCH BLADES OPEN.
- ALL DISCONNECT AND VFC ENCLOSURES SHALL BE NEMA TYPE 1.



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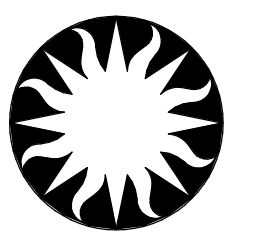


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600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME: FREER/SACKLER/AFA/QUAD  
ADDRESS: SW WASHINGTON, DC 20560

PROJECT TITLE: FREER/SACKLER/AFA/QUAD ESS MODERNIZATION  
SF PROJECT NUMBER: 1909101  
A/E PROJECT NUMBER: 11203201

DRAWING TITLE: ELECTRICAL SCHEDULES -- PHASE 1

WORKING STAFF: SNA SNA CEC  
DESIGNED BY: DRAWN BY: CHECKED BY:

SHEET NO. 113 of 179  
E-701SHP1  
DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE



## GENERAL NOTES

- DRAWINGS, SPECIFICATIONS, ADDENDUMS, SKETCHES AND OTHER DOCUMENTATION COMPRISE THE PROJECT CONTRACT DOCUMENTS AND MUST BE USED IN COMBINATION. PERFORM ALL WORK WHICH IS NECESSARY TO CARRY OUT THE INTENT OF THE DRAWINGS AND SPECIFICATIONS, OR WHICH ARE CUSTOMARILY PERFORMED.
- THE DRAWINGS INDICATE THE GENERAL PROPOSED LOCATION OF EQUIPMENT, CABLE PATHWAYS AND OUTLETS. COORDINATE LOCATION OF EQUIPMENT AND OUTLETS AND OTHER SUPPORTING ITEMS WITH ALL OTHER EXISTING UTILITIES AND TRADES.
- THE TERM "CONTRACTOR" MEANS THE PRIME CONTRACTOR RESPONSIBLE FOR ALL WORK DEFINED IN THE DRAWINGS AND SPECIFICATIONS.
- THE TERM "CONTRACTING OFFICER'S REPRESENTATIVE" MEANS THE AUTHORIZED REPRESENTATIVE.
- THE TERM "PROVIDE" MEANS FURNISH AND INSTALL, COMPLETE AND READY FOR USE.
- COORDINATE ALL DRAWINGS AND SPECIFICATIONS. BRING ANY CONFLICT BETWEEN DRAWINGS AND SPECIFICATIONS TO THE COR'S ATTENTION IMMEDIATELY. PROCEEDING WITH ANY WORK PRIOR TO THE COR ISSUING CLARIFICATION OF CONFLICTS IS AT THE CONTRACTOR(S) OWN RISK.
- FIELD VERIFY AND COORDINATE DEVICE LOCATIONS AND POWER REQUIREMENTS. WHERE CONFLICTS OCCUR, COORDINATE AND VERIFY FINAL LOCATIONS WITH THE CONTRACTING OFFICER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- PROVIDE COORDINATION AND VERIFICATION OF CONDITIONS INCLUDING EQUIPMENT AND DEVICES INSTALLED BY OTHER TRADES, THE WORK OF THE CONTRACTOR AND SUBCONTRACTORS.
- DETAIL REFERENCES ARE NOT NECESSARILY NUMBERED INCREMENTALLY. A GAP IN NUMBERING DOES NOT INDICATE MISSING INFORMATION. DETAIL NAMES AND NUMBERS ARE SPECIFIC TO THIS DESIGN PACKAGE AND DO NOT CORRESPOND TO OTHER PUBLISHED DOCUMENTS.

## CONDUIT AND RACEWAY NOTES

- PROVIDE CONDUITS AND RACEWAYS FOR A COMPLETE INSTALLATION. WHERE AVAILABLE, AV CABLES WILL BE IN SHARED IT CABLE TRAY. PROVIDE CONDUIT CONCEALED AREAS. IN AREAS WITH ACCESSIBLE CEILING CONDUIT IS NOT REQUIRED.
- PROVIDE PLASTIC BUSHING AND PULL STRING WITH ALL CONDUITS.
- PROVIDE CONDUIT AND RACEWAYS THAT COMPLY WITH NEC REQUIREMENTS OR COMPLY WITH LOCAL CODES AND ORDINANCES. THE MOST STRINGENT REQUIREMENTS GOVERN.
- REGARDLESS OF NEC OR LOCAL CODES AND ORDINANCES, PROVIDE CONDUIT AND SIZED FOR A MAXIMUM FILL OF 40%.
- PROVIDE COMPRESSION TYPE CONDUIT FITTINGS. SET SCREW TYPE FITTINGS ARE NOT ACCEPTABLE.
- REGARDLESS OF NEC OR LOCAL CODES AND CONDUIT FILL REQUIREMENTS, CONDUIT SHALL BE 1 1/4" MINIMUM DIAMETER UNLESS OTHERWISE NOTED.
- PROVIDE COLOR CODING OF ALL AV CONDUITS AND RACEWAYS. ALL CONDUITS AND RACEWAYS SHALL BE PERMANENTLY MARKED BY A 1 INCH BAND EVERY 10 FEET.
- PROVIDE SEPARATE RACEWAY. CONDUITS, JUNCTION BOXES AND ENCLOSURES FOR ALL AV WIRE AND CABLE. DO NOT COMBINE 120VAC OR ANY POWER DISTRIBUTION CIRCUIT WITH AV WIRE AND CABLE.
- ELECTRICAL FEEDS OR LIGHTING ARE NOT TO BE RUN PARALLEL WITH AV LINES OR RACEWAYS. IF ELECTRICAL FEEDS OR LIGHTING MUST RUN PARALLEL TO AV LINES, A MINIMUM OF 4 FT OF SEPARATION MUST BE MAINTAINED.
- INSTALL CONDUIT AND CABLE TRAY/LADDER RACK TO MAINTAIN A MINIMUM OF 5" SEPARATION FROM FLUORESCENT LIGHTING.
- ALL CONDUIT SHALL BE DEBURRED, CLEANED, CAPPED, TAGGED, BUSHED, AND FURNISHED WITH MEASURED PULL STRINGS
- PENETRATION IN FIRE RESISTIVE WALLS, FLOORS, CEILINGS, OR ROOF ASSEMBLES SHALL BE PROPERLY CLEANED AND SEALED PER FIRESTOPPING SPECIFICATION.

## WIRE & CABLE NOTES

- PROVIDE UTP CAT6A CABLE FOR ALL ETHERNET CONNECTIONS TERMINATED T568B.
- WIRE AND CABLE SPLICES ARE NOT PERMITTED.

## DEMO NOTES

- THE TERM "DEMO" MEANS DISCONNECT AND REMOVED BACK TO SOURCE. STOP REMOVAL WHERE DAMAGE WOULD OCCUR IF FURTHER REMOVAL OCCURRED. CUT CONDUIT OFF AND REMOVE WIRE CONDUCTORS UNDER THESE CONDITIONS.



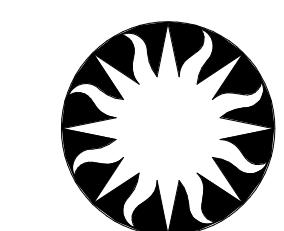
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GRAPHIC SCALE(S)

DATE	04/08/22	REVISION	FINAL CD
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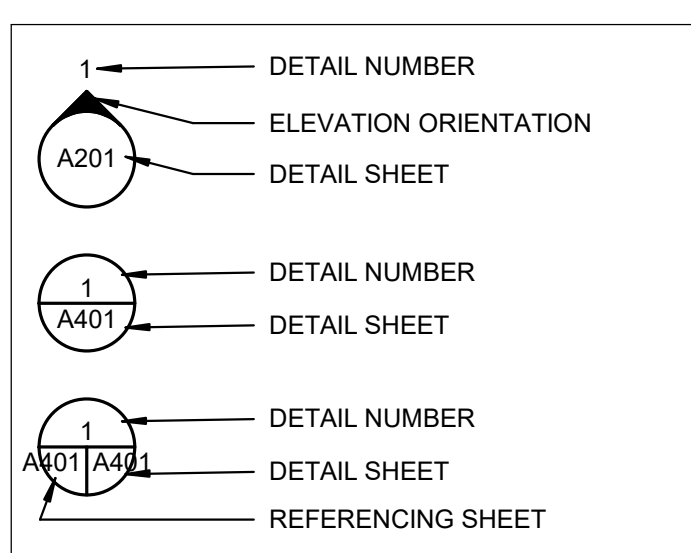
BUILDING NAME	FREER/SACKLER/AFA/QUAD												
ADDRESS	SW WASHINGTON, DC 20560												
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION												
SF PROJECT NUMBER	1909101												
A/E PROJECT NUMBER	11203201												
DRAWING TITLE	REFERENCE SHEET -- AV -- PHASE 1												
WORKING STAFF	<table border="1"> <tr> <td>DESIGNED BY</td> <td>DE</td> <td>DE</td> <td>DB</td> </tr> <tr> <td>DRAWN BY</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CHECKED BY</td> <td></td> <td></td> <td></td> </tr> </table>	DESIGNED BY	DE	DE	DB	DRAWN BY				CHECKED BY			
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CHECKED BY													

SHEET NO.	TA001P1
115 of 179	DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE

### SYMBOL LIST

SYMBOL	USE / DESCRIPTION
	2-POST RACK WITH VERTICAL CABLE MANAGEMENT
	4-POST CABINET
AC-1	4-11/16" SQUARE BACK BOX WITH MIN. 2.5" DEPTH AND 2-GANG MUD RING FOR A/V CABLE ACCESS. WITH (1) MIN. 1-1/4" CONDUIT TO NACC WITH PULL STRING FOR A/V CABLING. 5'-6" AFF UON.
AC-2	4-11/16" SQUARE BACK BOX WITH MIN. 2.5" DEPTH AND 2-GANG MUD RING FOR A/V CABLE ACCESS. WITH (1) MIN. 1-1/2" CONDUIT TO NACC WITH PULL STRING FOR A/V CABLING. WITH (1) MIN. 1-1/4" CONDUIT TO RAISED ACCESS FLOOR (RAF) WITH PULL STRING. 5' AFF UON.
AI-1	2-GANG BACK BOX WITH 1-GANG MUD RING AT 18" AFF UON. WITH (1) 1-1/4" CONDUIT TO NACC
FB-X	SHARED AUDIOVISUAL, TELECOM, AND ELECTRICAL FLOOR FLOOR BOX. X DENOTES FLOOR BOX TYPE. SEE DETAILS FOR MORE INFORMATION
PT-X <sub>Y</sub>	SHARED AUDIOVISUAL, TELECOM, AND ELECTRICAL FLOOR POKE-THRU. X DENOTES TYPE. Y DENOTES HOLE SIZE. SEE DETAILS FOR MORE INFORMATION.
CLK	WALL MOUNTED MULTI-ZONE CLOCK WITH 1-GANG BOX AND 1-1/4" CONDUIT TO NACC. WITH DUPLEX 120V/20AMP RECEPTACLE PROVIDED BY DIVISION 26.
TP-1	DESKTOP AV 5" TOUCH PANEL
TP-2	DESKTOP AV 7" TOUCH PANEL
43" VW	43" VIDEO WALL DISPLAY RATED FOR 24/7 OPERATION <u>PROVIDE EACH DISPLAY WITH:</u> 1. VIDEO WALL MOUNTING SYSTEM (LANDSCAPE) 2. 3/4" FIRE RATED PLYWOOD BLOCKING 3. QUAD RECEPTACLE, DIVISION 26. ONE PER COLUMN OF THREE DISPLAYS. ONE DEDICATED 120V/20 AMP CIRCUIT PER SIX DISPLAYS.
75" GFGI	75" VIDEO DISPLAY. DISPLAY AND MOUNT GOVERNMENT FURNISHED AND GOVERNMENT INSTALLED. CONTRACTOR TO PROVIDE INFRASTRUCTURE ONLY. <u>PROVIDE EACH DISPLAY WITH:</u> 1. 3/4" FIRE RATED PLYWOOD BLOCKING, MIN. 48" X 48" 2. DUPLEX RECEPTACLE, DIVISION 26.

### ELEVATION AND DETAIL CALLOUT



### REFERENCE SPECIFICATIONS

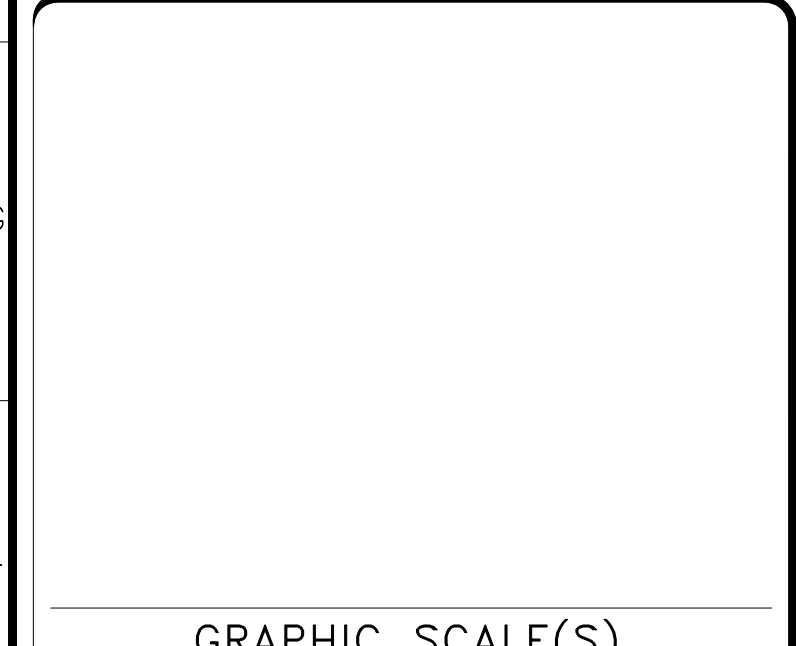
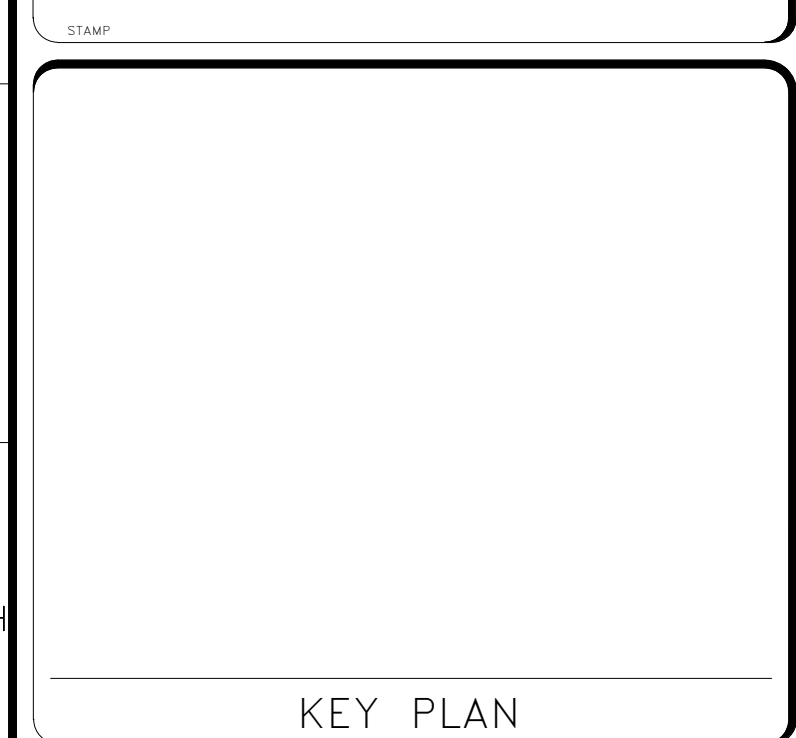
- 27 4116 AUDIOVISUAL SYSTEMS AND EQUIPMENT
- 28 5119 CONTROL ROOM AND MONITORING EQUIPMENT

### ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AMP	AMPLIFIER
ATC	AUDIO TELECONFERENCING
AUD	AUDIO
AV	AUDIO VISUAL
BAL	BALANCED AUDIO
CAM	CAMERA
CAT	CATEGORY
CATV	COMMUNITY ANTENNA TELEVISION
CM	CEILING MOUNTED
DP	DISPLAYPORT
DS	DIGITAL SIGNAGE
DSP	DIGITAL SIGNAL PROCESSOR
DVI	DIGITAL VIDEO INTERFACE
EMI	ELECTRICAL MAGNETIC INTERFERENCE
EMT	ELECTRICAL METALLIC TUBING
ENET	ETHERNET
ER	EQUIPMENT ROOM
F	F STYLE COAX CONNECTOR. OFTEN USED FOR CATV
FAS	FIRE ALARM SYSTEM
FB	FLOOR BOX
FO	FIBER OPTIC
FUT	FUTURE
GPI	GENERAL PURPOSE INPUT
GPO	GENERAL PURPOSE OUTPUT
HD	HIGH DEFINITION
HDMI	HIGH DEFINITION MULTI MEDIA INTERFACE
IN	INPUT
IP	INTERNET PROTOCOL
IPTV	INTERNET PROTOCOL TELEVISION
IR	INFRARED
LAN	LOCAL AREA NETWORK
LCD	LIQUID CRYSTAL DISPLAY
MAX	MAXIMUM
MIC	MICROPHONE
MIN	MINIMUM
MISC	MISCELLANEOUS
MMF	MULTIMODE FIBER
MTD	MOUNTED
NACC	NEAREST ACCESSIBLE CEILING CAVITY
NET	ETHERNET
NETSW	NETWORK SWITCH
NTS	NOT TO SCALE
OC	ON CENTER
OFE	OWNER FURNISHED EQUIPMENT
OPE	SEE OFE
OUT	OUTPUT
PA	PUBLIC ADDRESS
PAS	PUBLIC ADDRESS SYSTEM
PC	PERSONAL COMPUTER
POE	POWER OVER ETHERNET
POTS	PLAIN OLD TELEPHONE SERVICE
PP	PATCH PANEL
PR	PAIR
PROJ	PROJECTOR
PT	POKE THRU
PTT	PUSH TO TALK
PTZ	PAN-TILT-ZOOM CAMERA
RM	ROOM
RMU	RACK MOUNTING UNIT (1.75")
RS232	SERIAL INTERFACE
SD	STANDARD DEFINITION
SMF	SINGLEMODE FIBER
SPK	SPEAKER
STB	SET TOP BOX
STP	SHIELDED TWISTED PAIR
SW	SWITCH OR SWITCHER
TBD	TO BE DETERMINED
TV	TELEVISION
TYP	TYPICAL
UNBAL	UNBALANCED AUDIO
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTED POWER SUPPLY
USB	UNIVERSAL SERIAL BUS
UTP	UNSHIELDED TWISTED PAIR
VAC	VOLTS ALTERNATING CURRENT
VDC	VOLTS DIRECT CURRENT
VGA	VIDEO GRAPHICS ARRAY
VOIP	VOICE OVER INTERNET PROTOCOL
VTC	VIDEO TELECONFERENCING
WAP	WIRELESS ACCESS POINT
WM	WALL MOUNTED
WP	WALL PLATE



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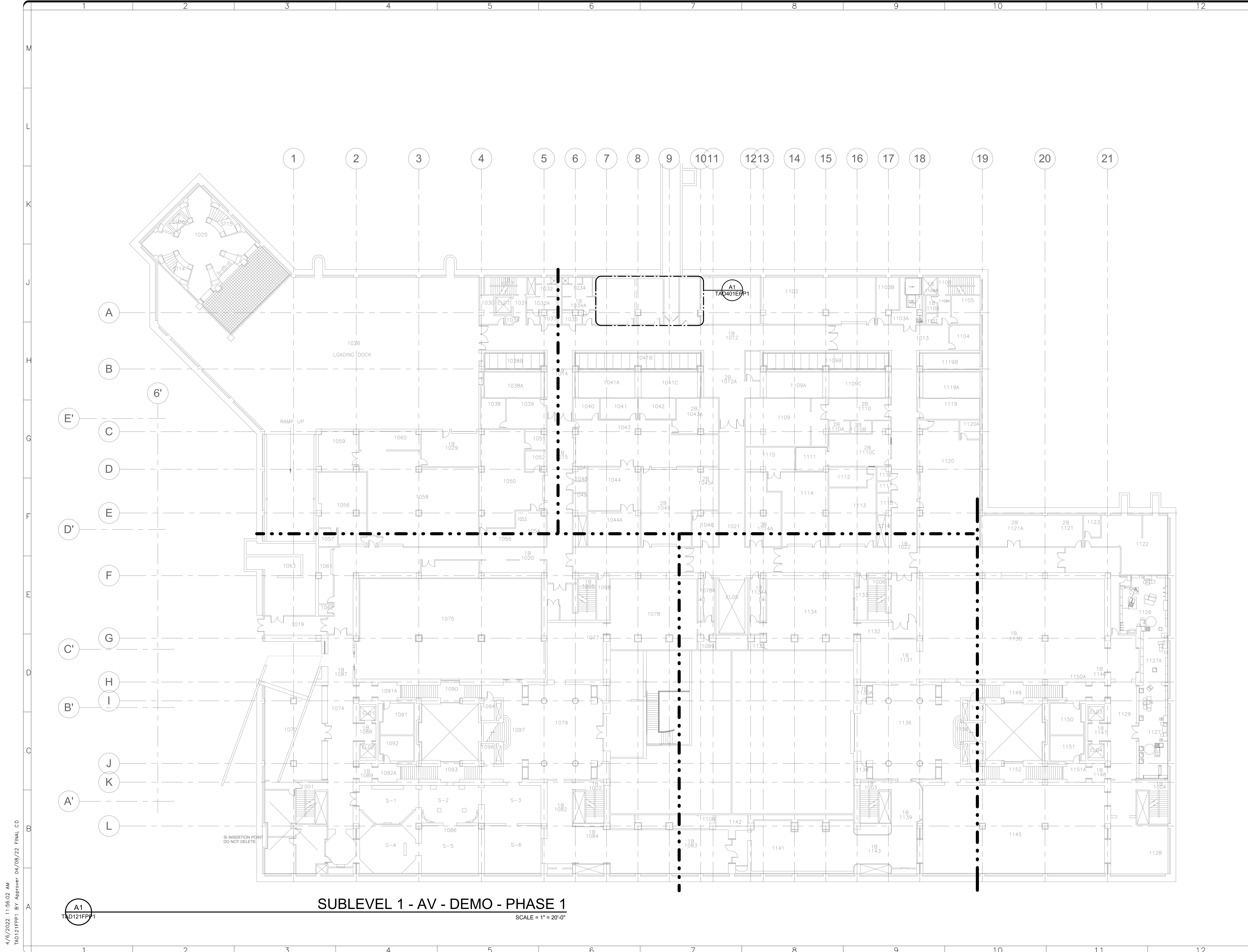


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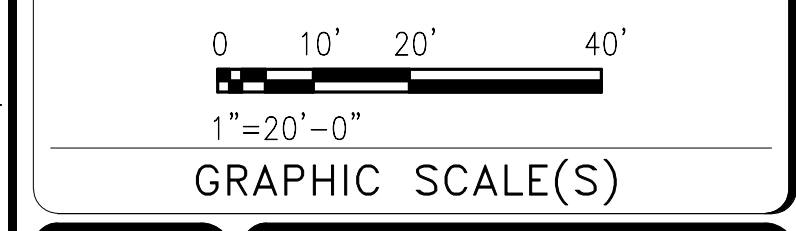
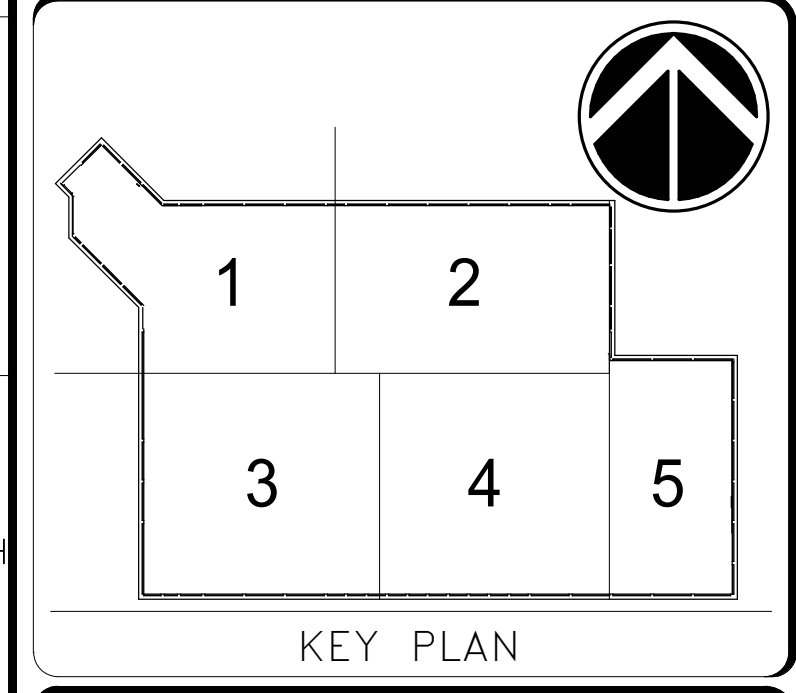
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A/E PROJECT NUMBER	11203201
DRAWING TITLE	AV SYMBOLS AND ABBREVIATIONS - PHASE 1
DESIGNED BY	DE
DRAWN BY	DE
CHECKED BY	DB

SHEET NO.	116 of 179	T A 0 0 2 P 1
DISCIPLINE	TYPE	SEQUENCE
DRAWING TYPE	PHASE	



**SUBLEVEL 1 - AV - DEMO - PHASE 1**  
SCALE = 1" = 20'-0"

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A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 1 PLAN - AV - OVERALL PLAN - DEMO - PHASE 1
WORKING STAFF	DESIGNED BY: DE    DRAWN BY: DE    CHECKED BY: DB

SHEET NO. 117 of 179  
TAD121FPP1

4/6/2022 11:56:02 AM  
TAD121FPP1 BY Approver: 04/08/22 FINAL CD

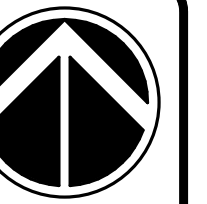
**SHEET NOTES**

**KEYNOTES**

1. DEMO EXISTING AUDIOVISUAL. DOES NOT REQUIRE INVENTORY AND TURN OVER TO OWNER.



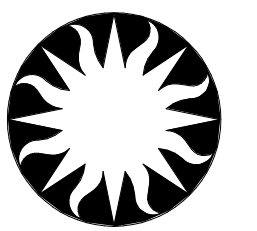
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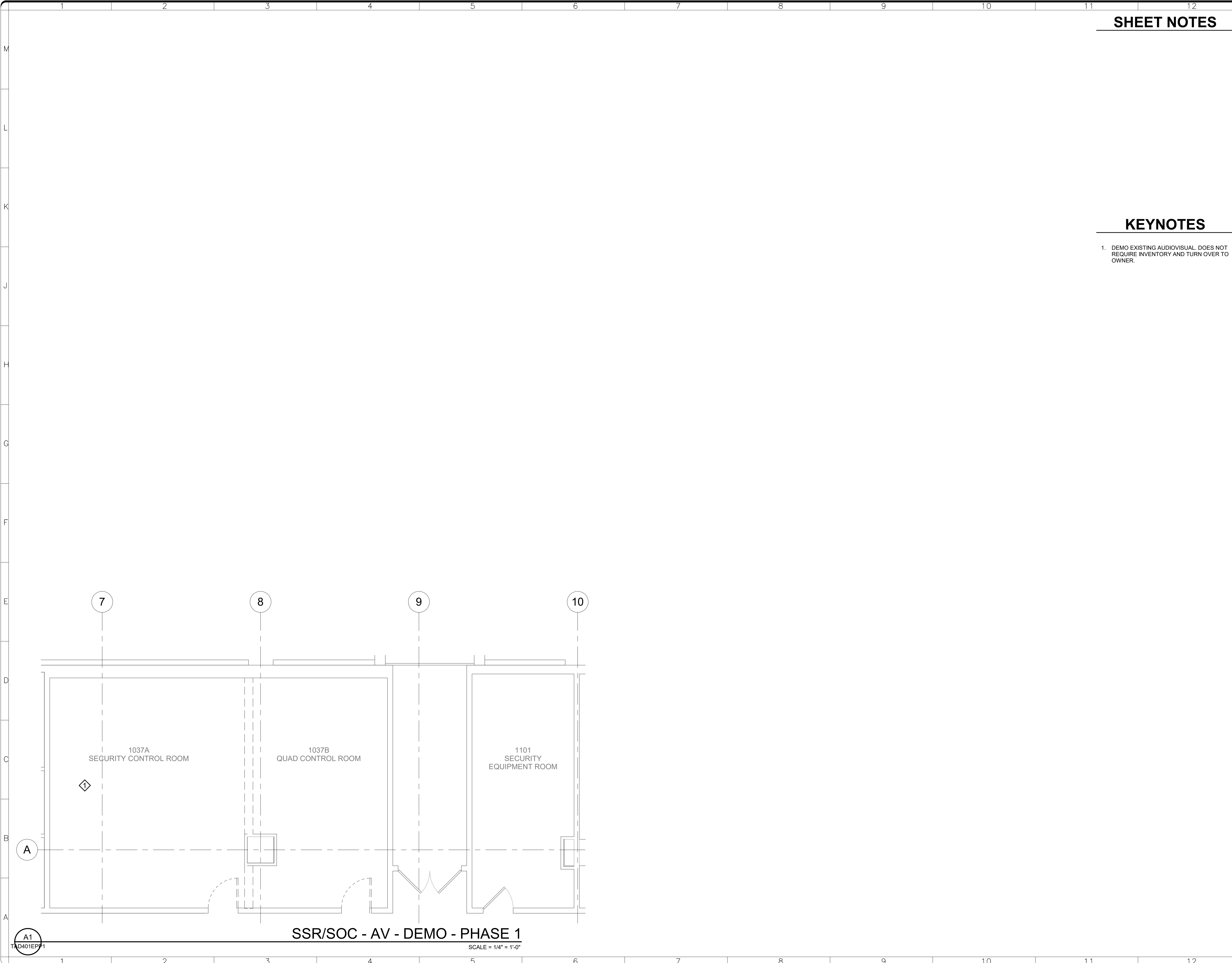
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ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	ENLARGED PLANS -- AV -- OVERALL PLAN -- DEMO -- PHASE 1
WORKING STAFF	DESIGNED BY: DE    DRAWN BY: DE    CHECKED BY: DA

SHEET NO.	TAD401EPP1
118 of 179	DISCIPLINE    TYPE    SEQUENCE    DRAWING TYPE    PHASE

4/6/2022 11:56:03 AM TAD401EPP1 BY Approver 04/08/22 FINAL CD



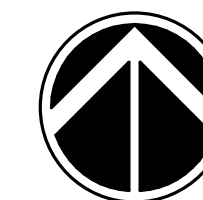
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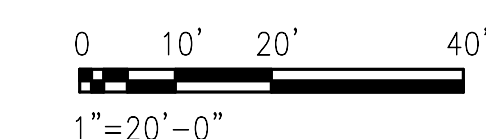


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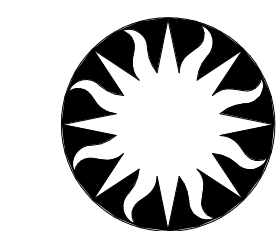


KEY PLAN



GRAPHIC SCALE(S)

DATE	04/08/22	REVISION	FINAL CD
REVISION #		REVISION DESCRIPTION	

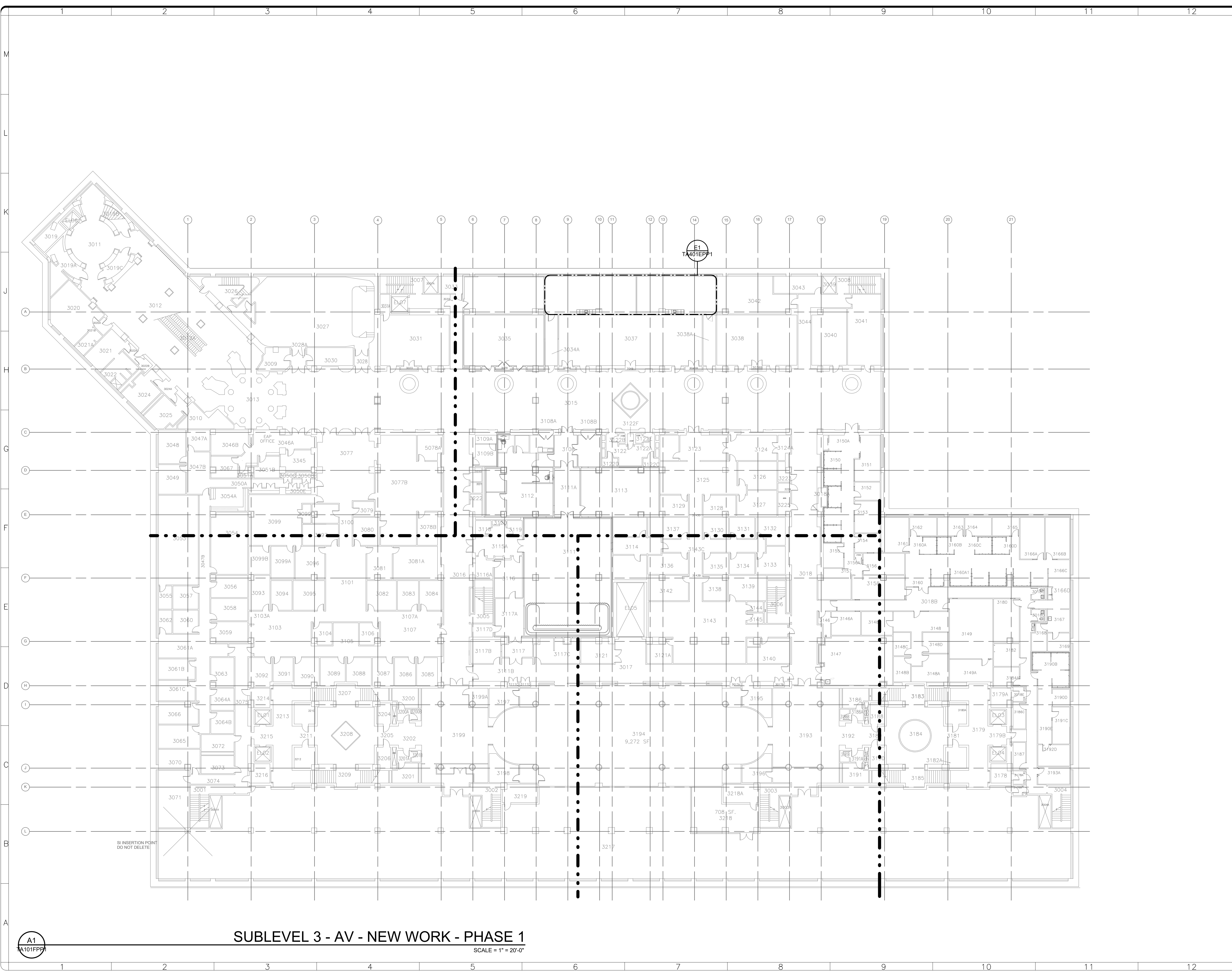


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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 PLAN - AV - OVERALL PLAN - NEW WORK - PHASE 1
WORKING STAFF	DESIGNED BY: DE    DRAWN BY: JL    CHECKER BY: [Signature]

SHEET NO. TA101FPP1  
 119 of 179

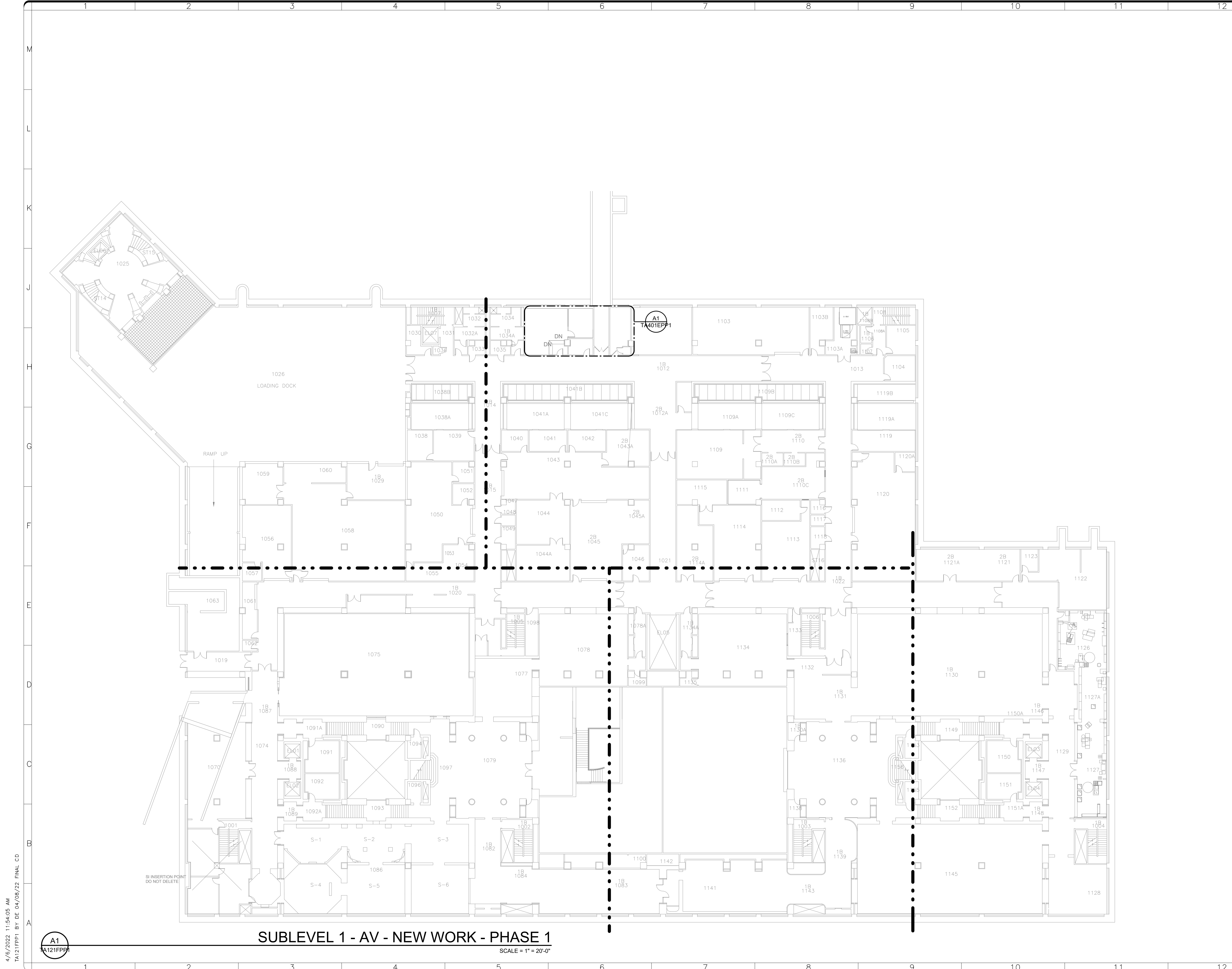


**SUBLEVEL 3 - AV - NEW WORK - PHASE 1**

SCALE = 1" = 20'-0"

4/6/2022 11:54:04 AM  
 TA101FPP1 BY DE 04/08/22 FINAL CD

A1  
 TA101FPP1



**SUBLEVEL 1 - AV - NEW WORK - PHASE 1**

SCALE = 1" = 20'-0"

4/6/2022 11:54:05 AM  
TA121FPP1 BY DE 04/08/22 FINAL CD

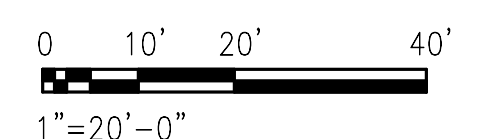
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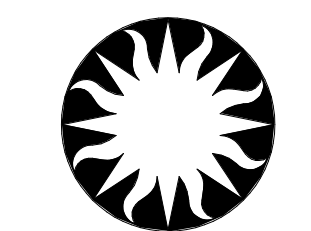


KEY PLAN



GRAPHIC SCALE(S)

DATE	REVISION
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BUILDING NAME	FREER/SACKLER/AFA/QUAD
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PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 1 PLAN - AV - OVERALL PLAN - NEW WORK - PHASE 1
WORKING STAFF	DESIGNED BY DE    DRAWN BY DE    CHECKED BY DB

SHEET NO. TA 121 FPP 1  
120 of 179

DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE

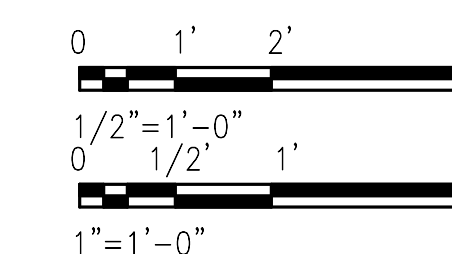




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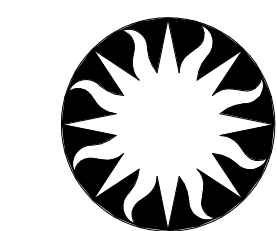
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KEY PLAN



GRAPHIC SCALE(S)

DATE	04/08/22	REVISION	FINAL CD
REVISION #	DATE	REVISION DESCRIPTION	



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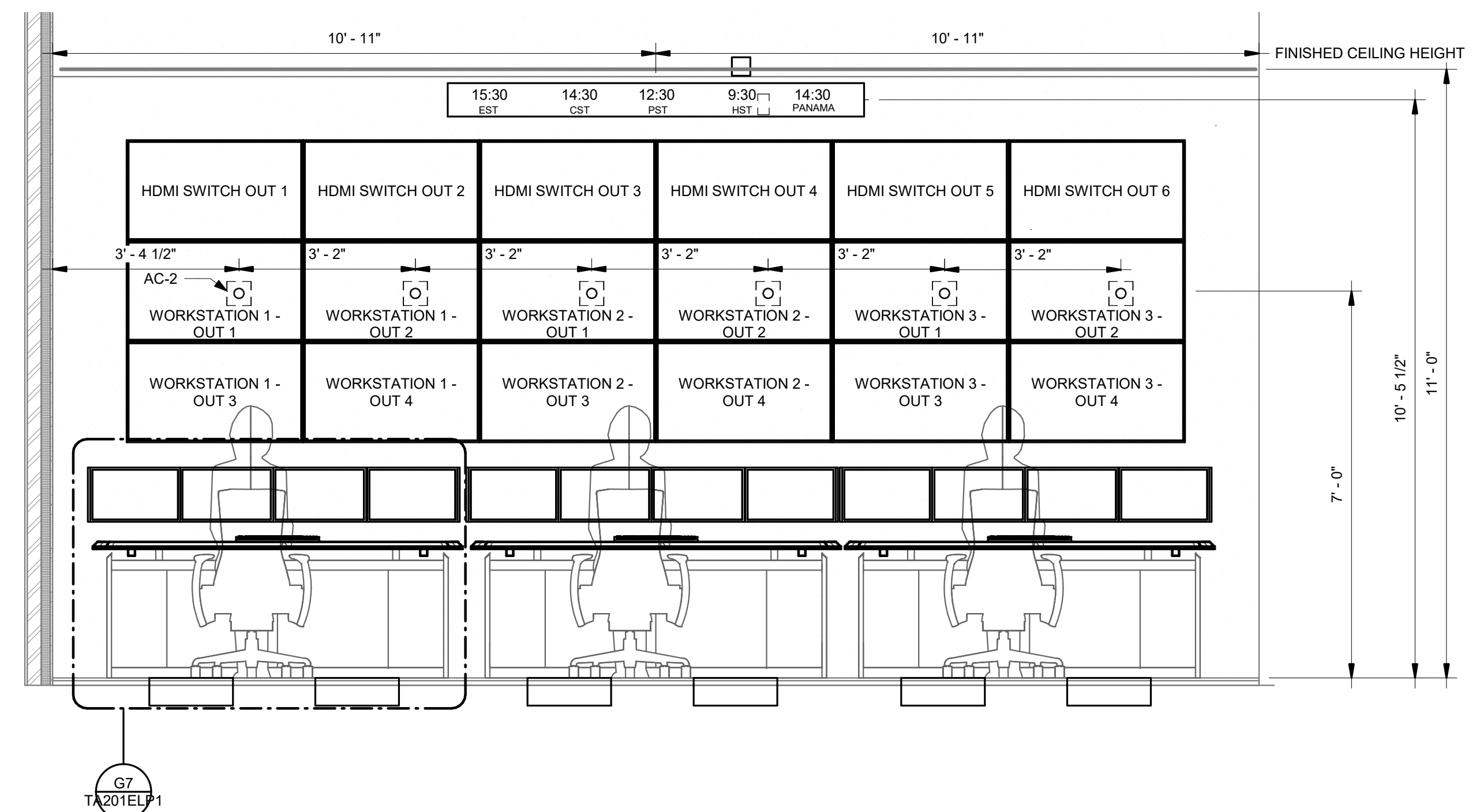
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ADDRESS: SW WASHINGTON, DC 20560

PROJECT TITLE: FREER/SACKLER/AFA/ QUAD  
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SF PROJECT NUMBER: 1909101  
A/E PROJECT NUMBER: 11203201

DRAWING TITLE: ELEVATIONS - AV - PHASE 1

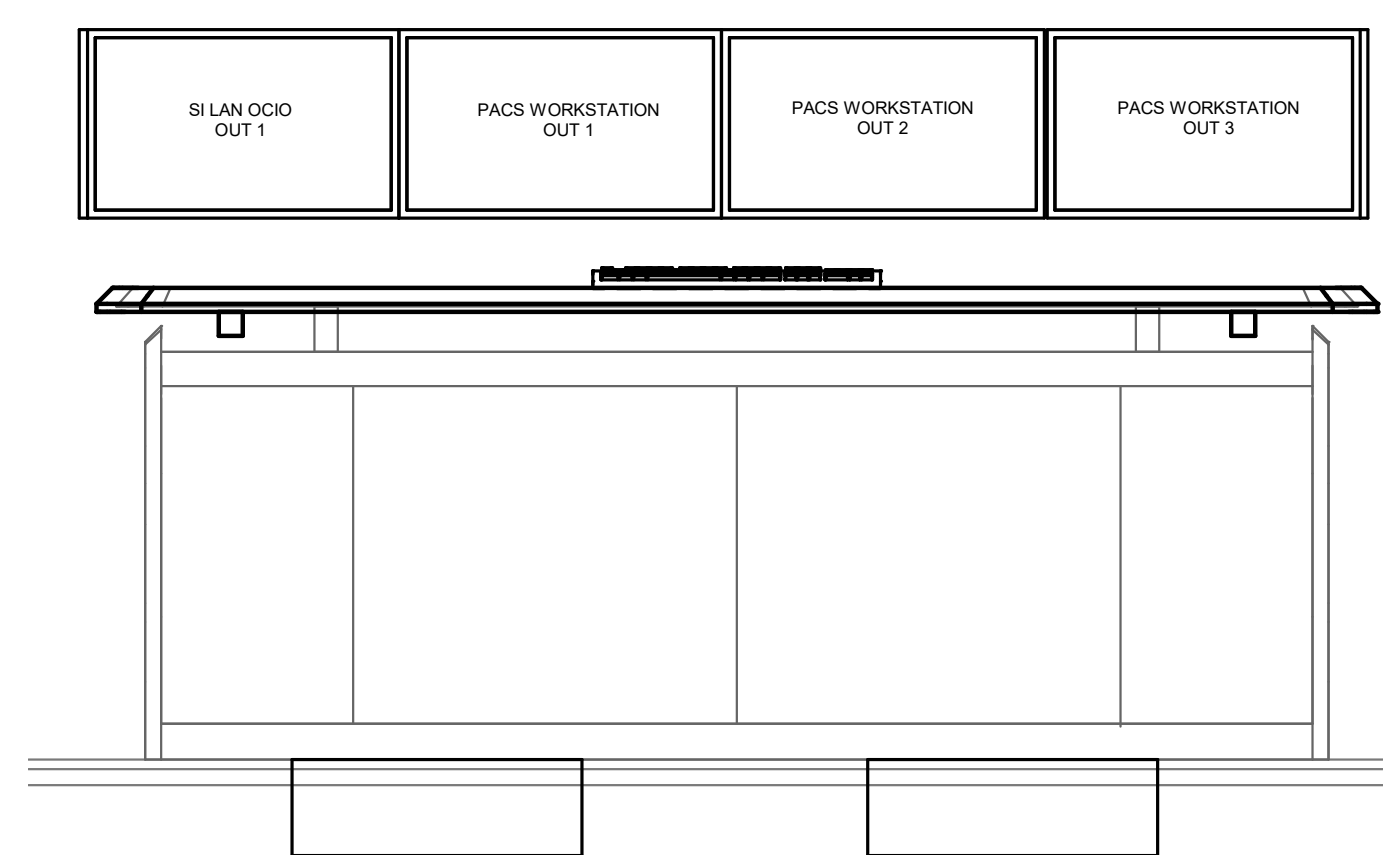
WORKING STAFF: DE, DE, DB  
DESIGNED BY: DE, DRAWN BY: DE, CHECKED BY: DB

SHEET NO. 121 OF 179  
TA201ELP1



SECURITY CONTROL ROOM 1037 - FRONT ELEVATION

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



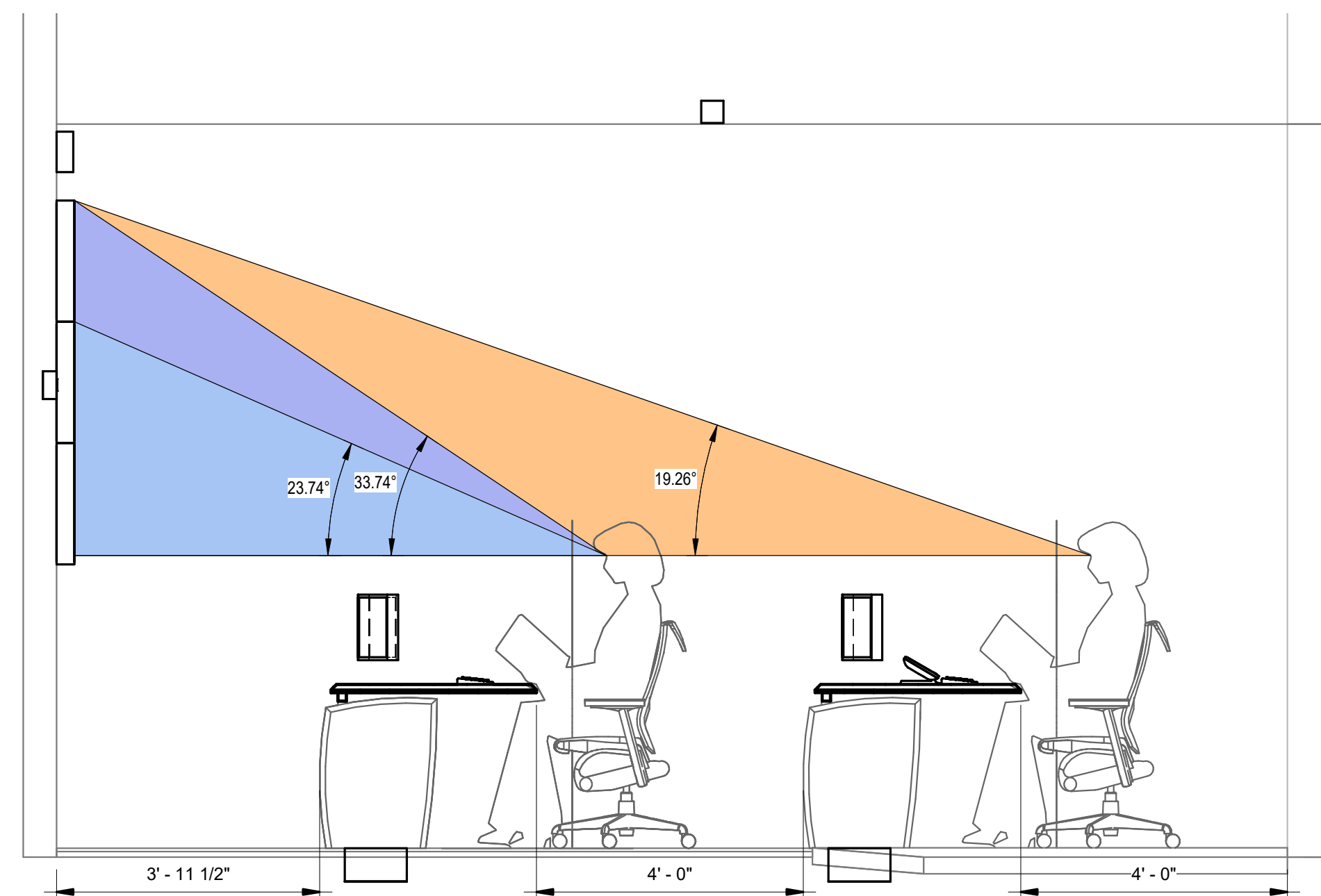
SECURITY CONTROL ROOM 1037 -TYPICAL STATION ELEVATION

SCALE = 1" = 1'-0"



SECURITY CONTROL ROOM 1037 - ISO

SCALE =



SECURITY CONTROL ROOM 1037 - SIDE ELEVATION

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

4/6/2022 11:55:51 AM  
TA201ELP1 BY: Approver 04/08/22 FINAL CD

A1 TA201ELP1

A7 TA201ELP1

4/6/2022 11:55:53 AM  
TA202ELP1 BY Approver 04/08/22 FINAL CD



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KEY PLAN

GRAPHIC SCALE(S)

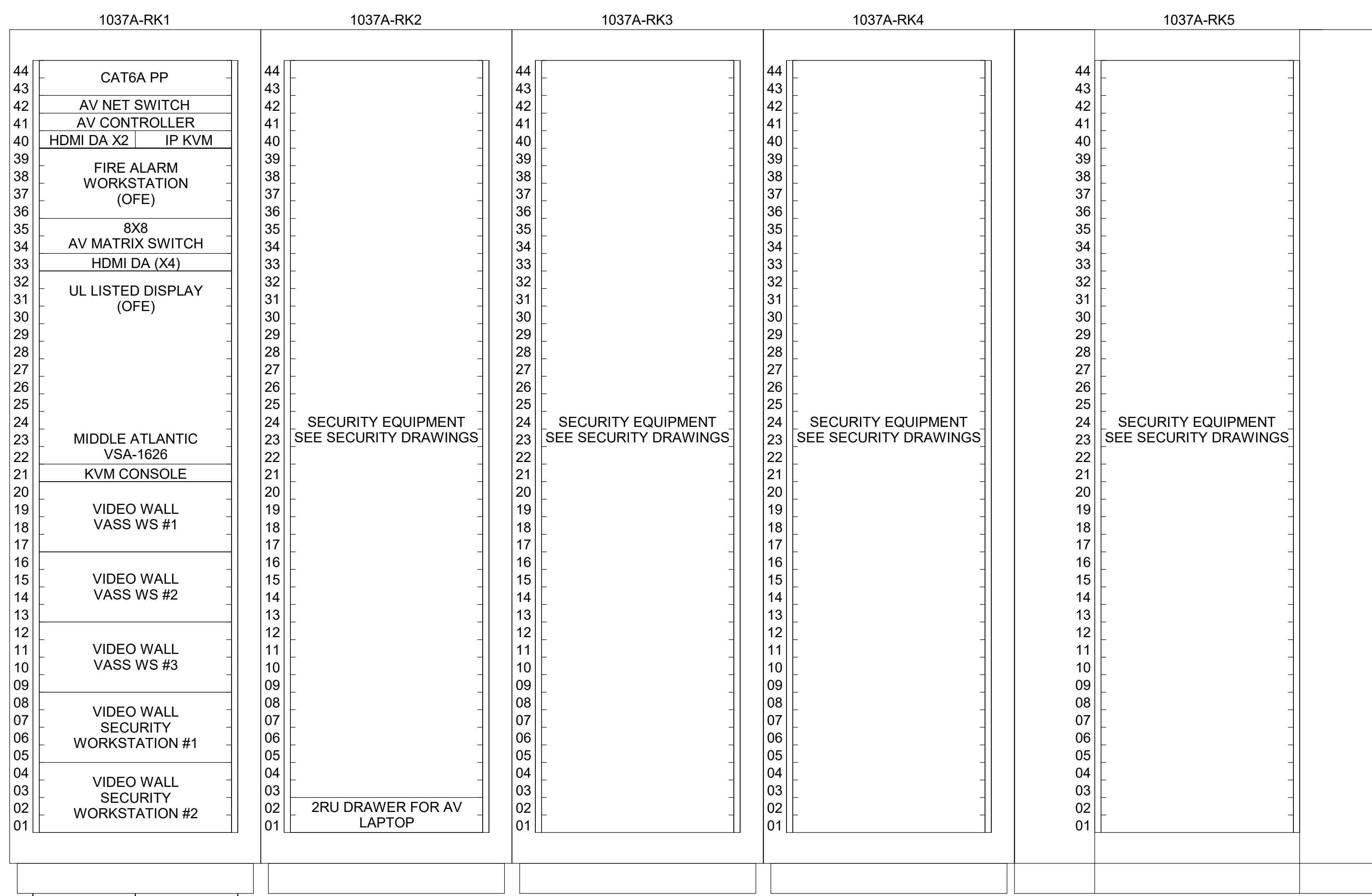
DATE	04/08/22	REVISION	FINAL CD
REVISION # DATE		REVISION DESCRIPTION	



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BUILDING NAME	FREER/SACKLER/FAA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/FAA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	ELEVATIONS - AV - PHASE 1
WORKING STAFF	DESIGNED BY: DE    DRAWN BY: GK    CHECKED BY: DB

SHEET NO. 122 of 179  
TA202ELP1



**GENREAL KEY NOTES:**  
1. NONE

**DETAIL KEY NOTES:**  
1. 44RU X 42" DEEP X 24" WIDE RACK WITH THREADED RACK RAILS. DIVISION 271116.10  
2. VERTICAL POWER STRIP. 271116.10

**SECURITY SERVER ROOM AV RACK ELEVATIONS**

A1  
TA401EPP1 TA202ELP1  
SCALE = NOT TO SCALE



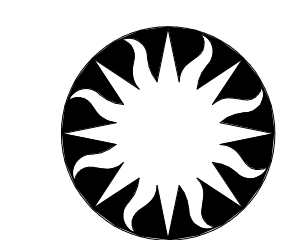
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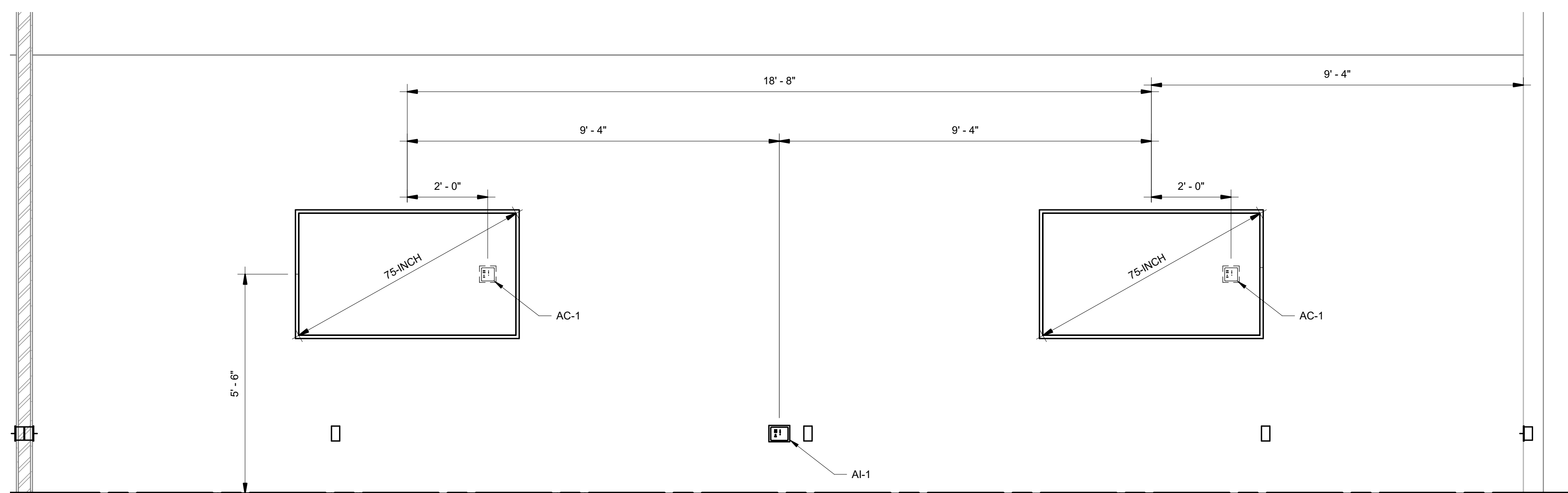
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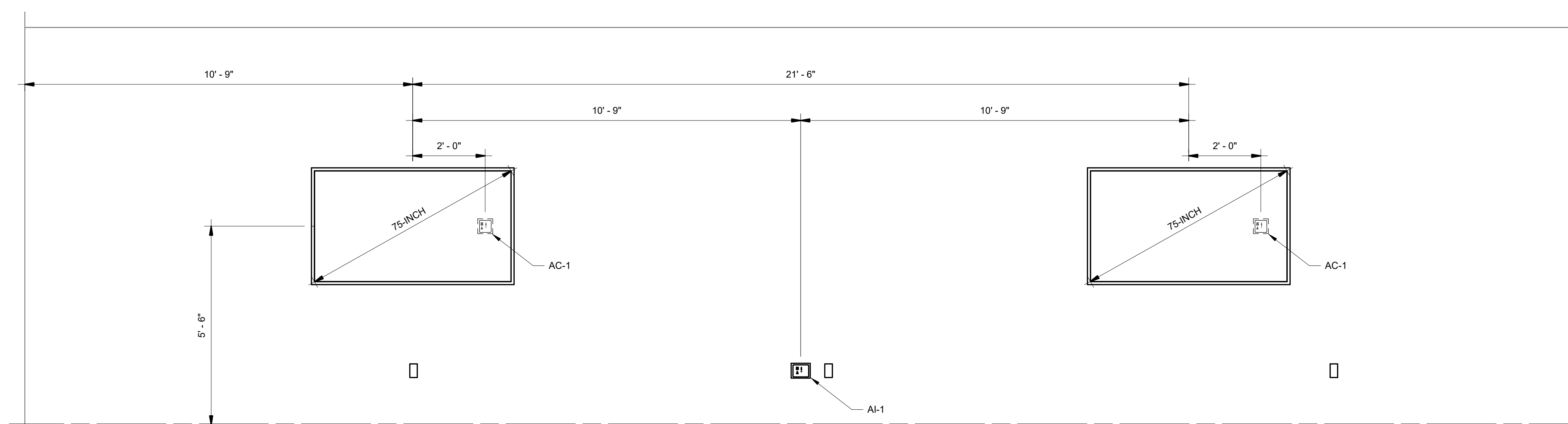
BUILDING NAME	FREER/SACKLER/AFA/QUAD												
ADDRESS	SW WASHINGTON, DC 20560												
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS MODERNIZATION												
SF PROJECT NUMBER	1909101												
A/E PROJECT NUMBER	11203201												
DRAWING TITLE	ELEVATIONS - AV - PHASE 1												
WORKING STAFF	<table border="1"> <tr> <td>DESIGNED BY</td> <td>MO</td> <td>KM</td> <td>Checker</td> </tr> <tr> <td>DRAWN BY</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CHECKED BY</td> <td></td> <td></td> <td></td> </tr> </table>	DESIGNED BY	MO	KM	Checker	DRAWN BY				CHECKED BY			
DESIGNED BY	MO	KM	Checker										
DRAWN BY													
CHECKED BY													

SHEET NO. TA203ELP1  
 123 of 179

DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE



**F1 CLASSROOM 1 (3036) - AV ELEVATION**  
 TA401EPP1 TA203ELP1 SCALE = 1/2" = 1'-0"



**A1 CLASSROOM 2 (3120) - AV ELEVATION**  
 TA401EPP1 TA203ELP1 SCALE = 1/2" = 1'-0"

**SHEET NOTES**

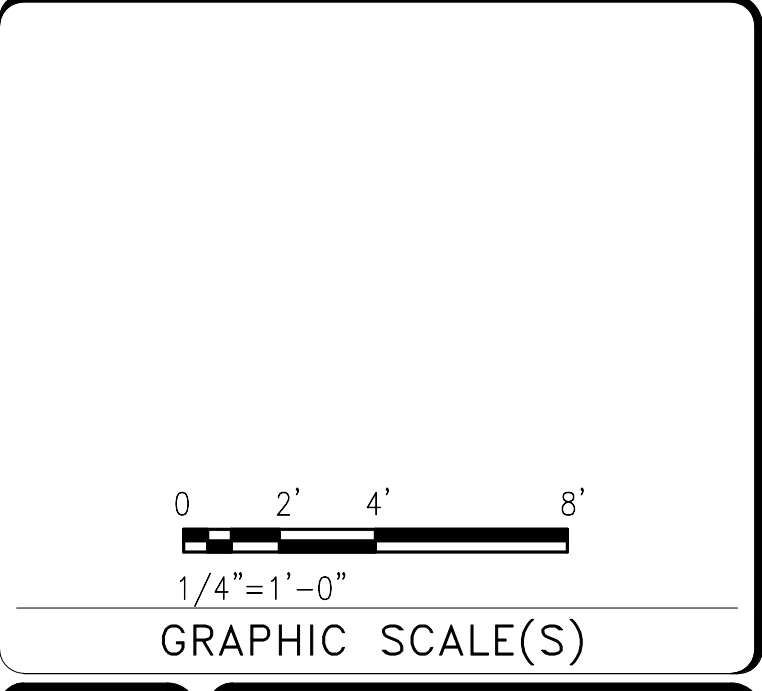
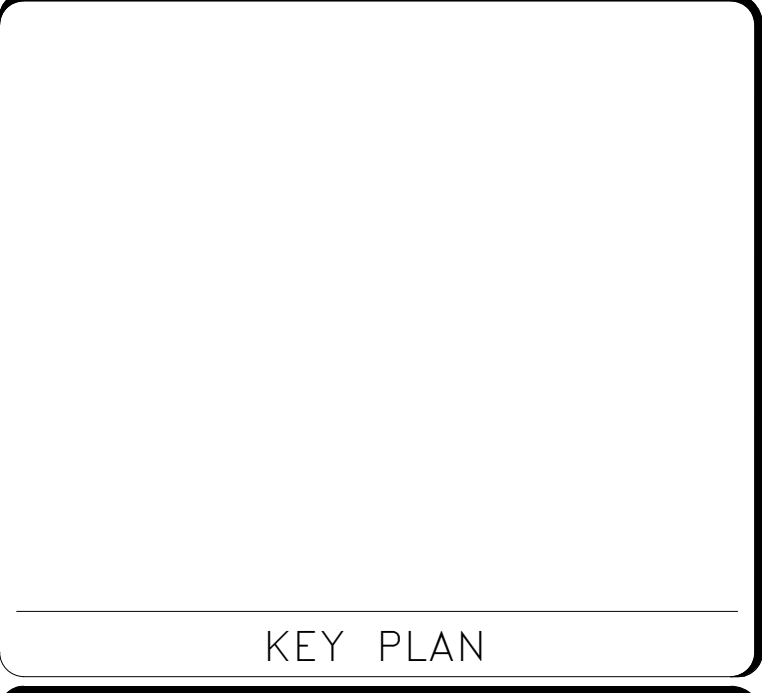
- 1. RACKS AND CONSOLES PROVIDED BY DIVISION 28.



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**KEYNOTES**

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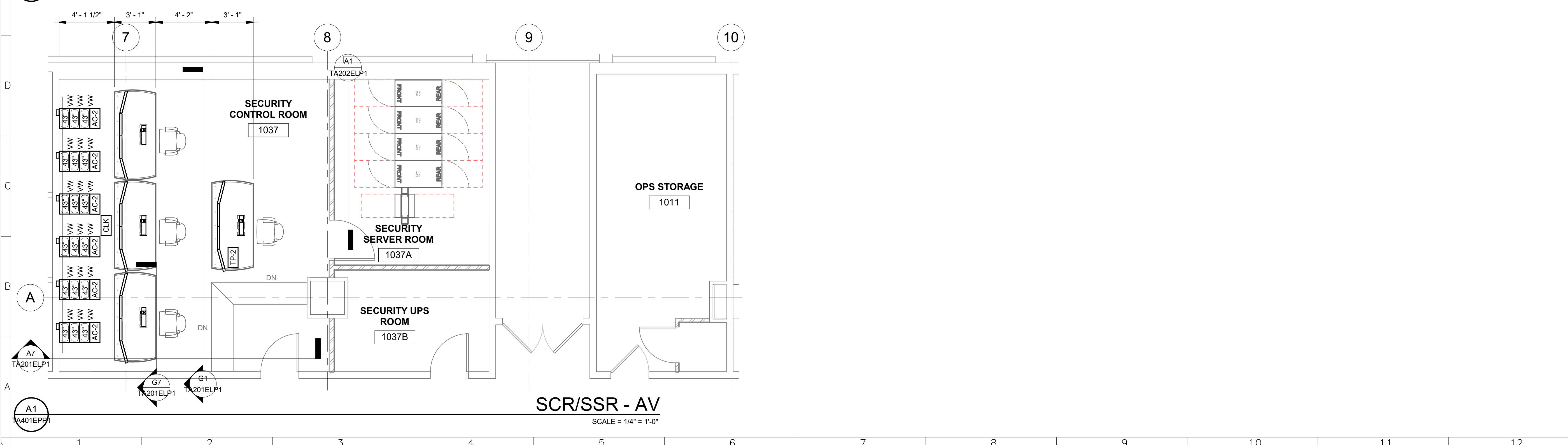
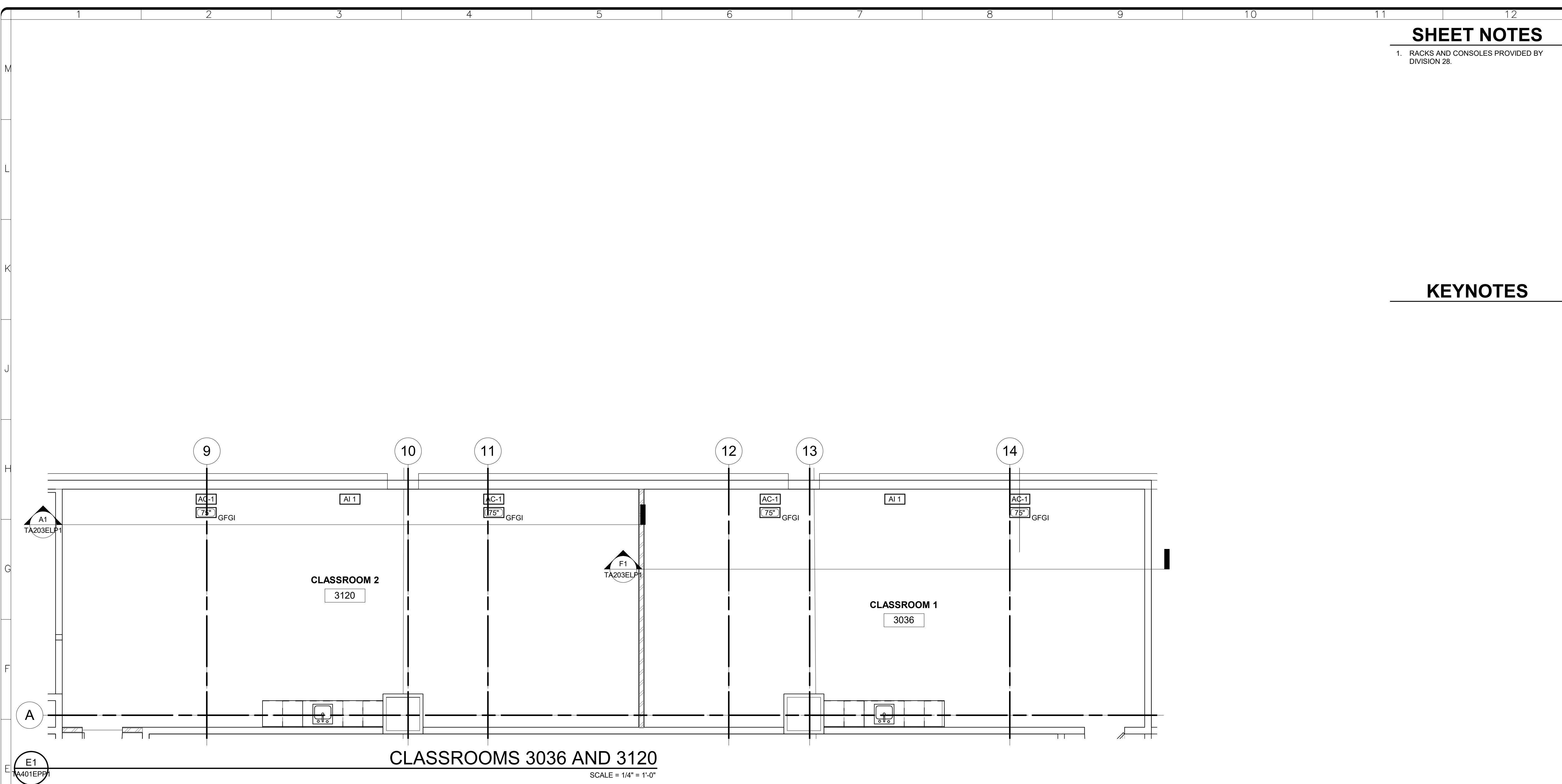


DATE	04/08/22	REVISION	FINAL CD
REVISION #		REVISION DESCRIPTION	

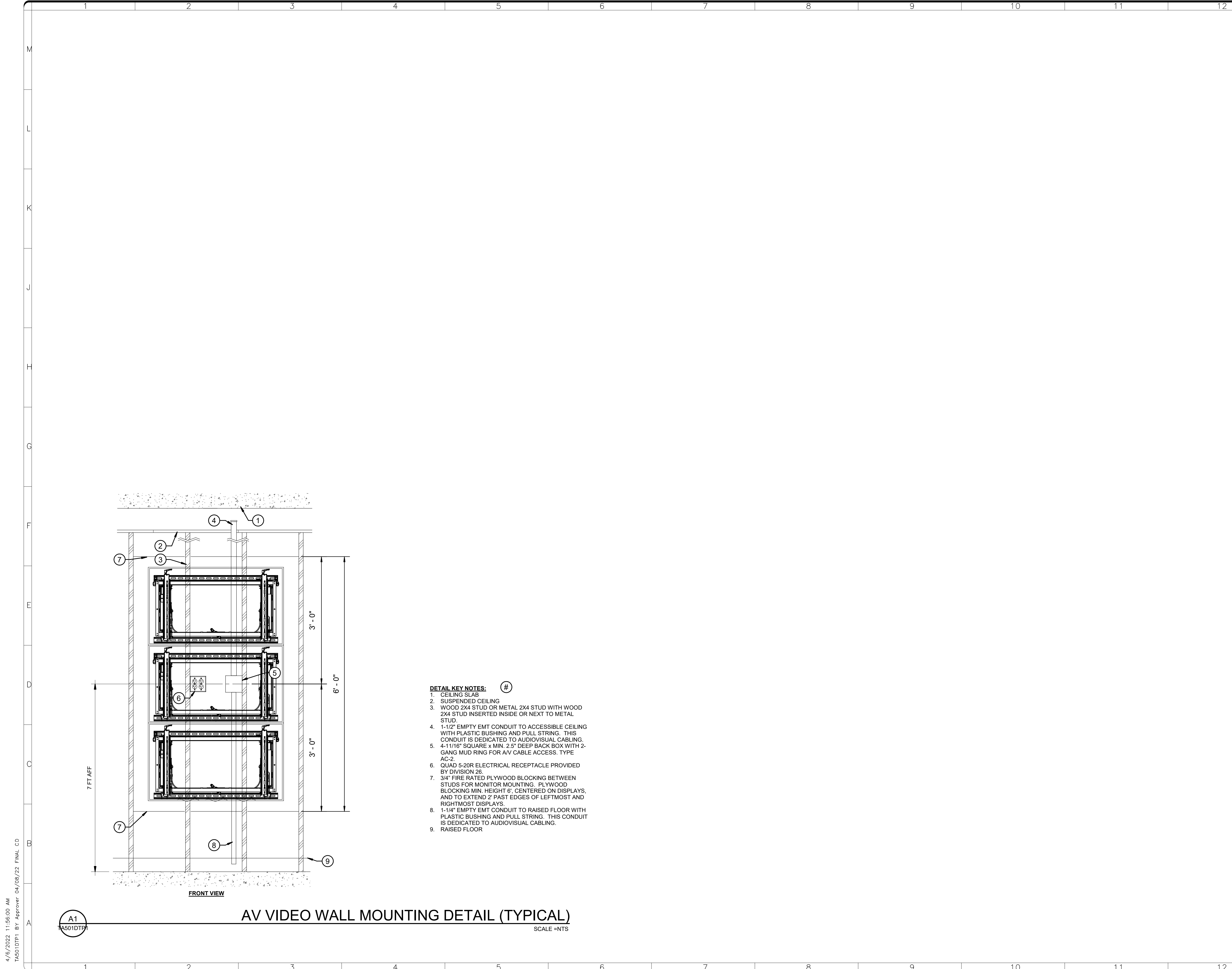
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BUILDING NAME	FREER/SACKLER/FAA/QUAD												
ADDRESS	SW WASHINGTON, DC 20560												
PROJECT TITLE	FREER/SACKLER/FAA/ QUAD ESS MODERNIZATION												
SF PROJECT NUMBER	1909101												
A/E PROJECT NUMBER	11203201												
DRAWING TITLE	ENLARGED PLANS - AV - PHASE 1												
WORKING STAFF	<table border="1"> <tr> <td>DESIGNED BY</td> <td>DE</td> <td>DE</td> <td>DB</td> </tr> <tr> <td>DRAWN BY</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CHECKED BY</td> <td></td> <td></td> <td></td> </tr> </table>	DESIGNED BY	DE	DE	DB	DRAWN BY				CHECKED BY			
DESIGNED BY	DE	DE	DB										
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SHEET NO.	TA401EPP1
124 of 179	



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TA401EPP1 BY Approver 04/08/22 FINAL CD



- DETAIL KEY NOTES:**
1. CEILING SLAB
  2. SUSPENDED CEILING
  3. WOOD 2X4 STUD OR METAL 2X4 STUD WITH WOOD 2X4 STUD INSERTED INSIDE OR NEXT TO METAL STUD.
  4. 1-1/2" EMPTY EMT CONDUIT TO ACCESSIBLE CEILING WITH PLASTIC BUSHING AND PULL STRING. THIS CONDUIT IS DEDICATED TO AUDIOVISUAL CABLING.
  5. 4-11/16" SQUARE x MIN. 2.5" DEEP BACK BOX WITH 2-GANG MUD RING FOR AV CABLE ACCESS. TYPE AC-2.
  6. QUAD 5-20R ELECTRICAL RECEPTACLE PROVIDED BY DIVISION 26.
  7. 3/4" FIRE RATED PLYWOOD BLOCKING BETWEEN STUDS FOR MONITOR MOUNTING. PLYWOOD BLOCKING MIN. HEIGHT 6", CENTERED ON DISPLAYS, AND TO EXTEND 2" PAST EDGES OF LEFTMOST AND RIGHTMOST DISPLAYS.
  8. 1-1/4" EMPTY EMT CONDUIT TO RAISED FLOOR WITH PLASTIC BUSHING AND PULL STRING. THIS CONDUIT IS DEDICATED TO AUDIOVISUAL CABLING.
  9. RAISED FLOOR

**AV VIDEO WALL MOUNTING DETAIL (TYPICAL)**  
SCALE = NTS

4/6/2022 11:56:00 AM  
TA501DTP1 BY Approver: 04/08/22 FINAL CD

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KEY PLAN

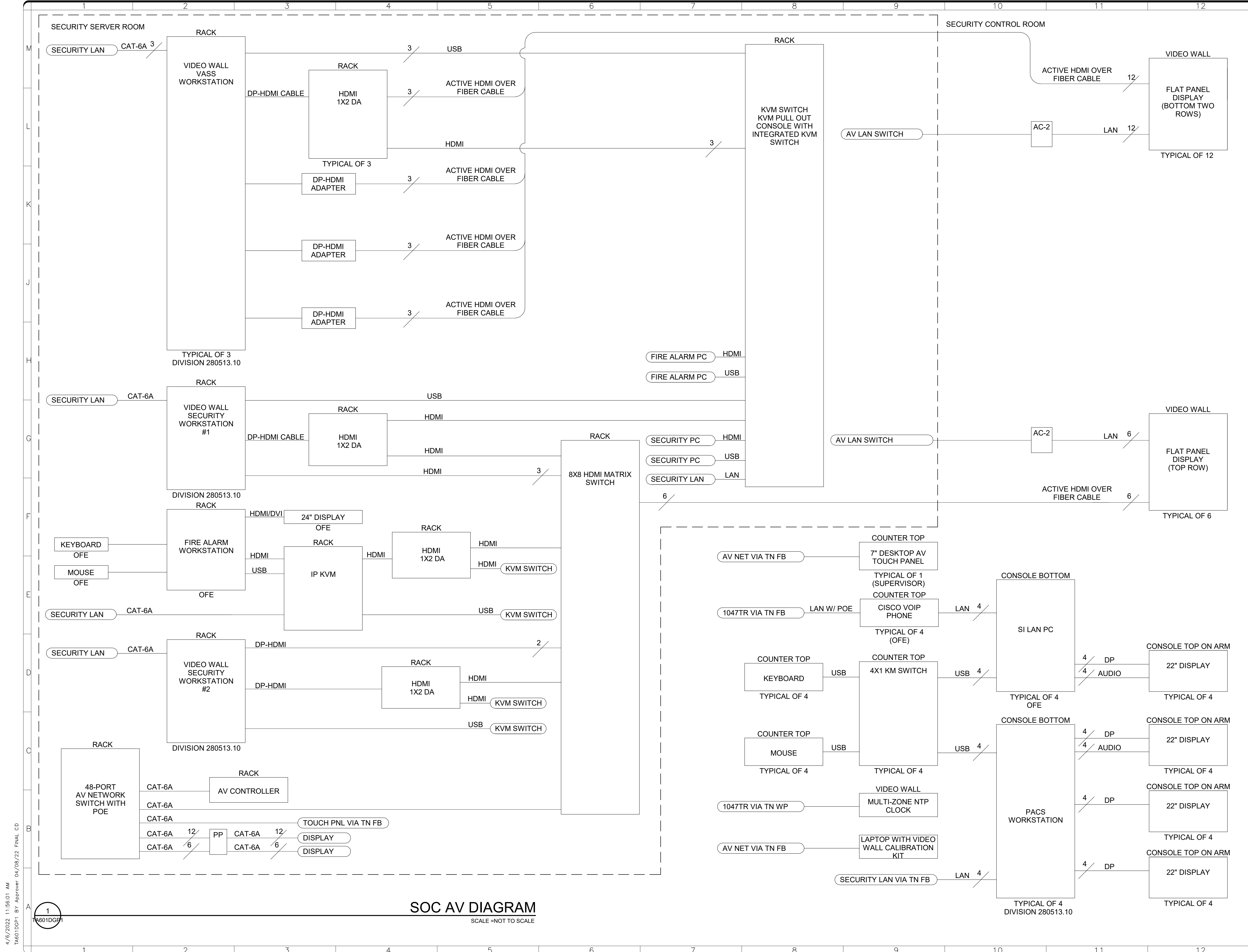
GRAPHIC SCALE(S)

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ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	DETAILS - AV - PHASE 1
WORKING STAFF	DESIGNED BY: DE    DRAWN BY: GK    CHECKED BY: Checker

SHEET NO. 125 of 179  
TA501DTP1



4/6/2022 11:56:01 AM  
 TA601DGP1 BY Approver 04/08/22 FINAL CD

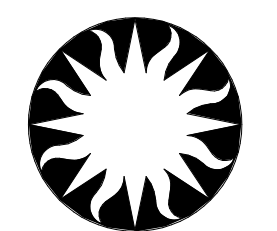
**SOC AV DIAGRAM**  
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SF PROJECT NUMBER	1909101												
A/E PROJECT NUMBER	11203201												
DRAWING TITLE	DIAGRAM -- AV -- PHASE 1												
WORKING STAFF	<table border="1"> <tr> <td>DESIGNED BY</td> <td>DE</td> <td>GK</td> <td>DB</td> </tr> <tr> <td>DRAWN BY</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CHECKED BY</td> <td></td> <td></td> <td></td> </tr> </table>	DESIGNED BY	DE	GK	DB	DRAWN BY				CHECKED BY			
DESIGNED BY	DE	GK	DB										
DRAWN BY													
CHECKED BY													

SHEET NO. **TA601DGP1**  
 126 OF 179

**GENERAL NOTES:**

1. THE SCOPE OF THIS PROJECT INCLUDES COMMUNICATIONS CABLING AND SUPPORTING INFRASTRUCTURE WORK AS SHOWN ON THE DRAWINGS AND DESCRIBED WITH THE ACCOMPANYING SPECIFICATION FOR THE FACILITY IDENTIFIED. PERFORM ALL WORK NECESSARY TO CARRY OUT THE INTENT OF THE CONTRACT DOCUMENTS AND PROVIDE COMPLETE SYSTEMS EVEN THOUGH EACH ITEM MAY NOT BE SPECIFICALLY MENTIONED OR DESCRIBED.
2. THE TERM CONTRACT DOCUMENTS MEANS THE SPECIFICATIONS, DRAWINGS, ADDENDUMS, SKETCHES, AND OTHER DOCUMENTATION THAT DEFINE THE WORK.
3. THE TERM PROVIDE MEANS FURNISH AND INSTALL, COMPLETE AND READY FOR USE.
4. THE TERM OWNER MEANS TENANT, MSC OR ITS DESIGNATED REPRESENTATIVE OR AGENT.
5. THE TERM CONTRACTOR OR GENERAL CONTRACTOR MEANS THE PRIME CONTRACTOR RESPONSIBLE FOR ALL WORK DEFINED IN THE CONSTRUCTION DOCUMENTS.
6. THE TERM ELECTRICAL CONTRACTOR MEANS A LICENSED AND QUALIFIED SUBCONTRACTOR PERFORMING WORK FOR THE CONTRACTOR.
7. THE TERM CABLING CONTRACTOR MEANS A LICENSED AND QUALIFIED SUBCONTRACTOR PERFORMING WORK FOR THE CONTRACTOR.
8. THE TERM NEW MEANS CONTRACTOR TO PROVIDE NEW.
9. COORDINATE CONSTRUCTION DOCUMENTS AND EXISTING CONDITIONS PRIOR TO COMMENCING WORK. BRING CONFLICTS TO THE OWNER'S ATTENTION IMMEDIATELY. PROCEEDING WITH WORK PRIOR TO THE OWNER ISSUING CLARIFICATION IS AT THE CONTRACTOR'S OWN RISK.
10. PROVIDE ALL LABOR, MATERIAL, CABLE, CONNECTORS, TERMINATION FIELDS, CORDS, TESTING, TRAYS, CONDUITS AND RACEWAYS FOR A COMPLETE INSTALLATION.
11. THE CONTRACT DOCUMENTS ARE DIAGRAMMATIC AND DEFINE THE GENERAL ARRANGEMENT.
12. EXERCISE EXTREME CARE WHEN ROUGHING IN DEVICES TO NOT DAMAGE NEW OR EXISTING TO REMAIN BUILDING FINISHES.
13. PROVIDE AND MAINTAIN ALL DOCUMENTATION INCLUDING DESIGN DOCUMENTATION, AS-BUILT DOCUMENTATION, PROGRAMMING WORKSHEETS AND PROJECT COMMUNICATIONS.
14. FIELD VERIFY AND COORDINATE ALL DEVICE LOCATIONS. WHERE CONFLICTS OCCUR, COORDINATE AND VERIFY FINAL LOCATIONS WITH THE OWNER PRIOR TO INSTALLATION.
15. PAY ALL FEES AND OBTAIN ALL PERMITS AND LICENSES AS REQUIRED TO PERFORM THE WORK DEFINED IN THE SPECIFICATIONS AND AS SHOWN ON THE DRAWINGS.
16. PROVIDE NEW MATERIAL AND EQUIPMENT THAT CONFORMS TO THE APPLICABLE STANDARDS OF UL, NEC, NEMA, ASTM, AND OTHERS AS IDENTIFIED IN THE TECHNICAL SPECIFICATIONS.
17. GUARANTEE ALL WORK FOR A MINIMUM OF ONE YEAR COMMENCING FROM THE DATE OF FINAL ACCEPTANCE OF THE SYSTEM BY THE OWNER.
18. PROVIDE LABOR, TOOLS, CONTAINERS, AND SERVICES AS REQUIRED TO MAINTAIN A CLEAN AND SAFE WORK SITE. REMOVE EXCESS MATERIAL AND DEBRIS FROM THE WORK SITE. CLEAN THE WORK SITE DAILY.
19. PROVIDE COORDINATION OF WORK WITH OWNER'S NEW AND EXISTING EQUIPMENT PLANS, AND IN CONJUNCTION WITH WORK INSTALLED BY OTHER TRADES.
20. CABLING, CONNECTIVITY COMPONENTS, AND SUPPORTING INFRASTRUCTURE ELEMENTS TO COMPLY WITH NFPA, NEC, UL, LOCAL CODES AND ORDINANCES, BEST INDUSTRY PRACTICES, AND MANUFACTURER INSTALLATION INSTRUCTIONS.
21. PROPERLY SECURE WORK IN OCCUPIED AREAS WITH BARRIERS TO NOT CREATE A SAFETY HAZARD. KEEP MATERIALS SUCH AS TOOLS, LADDERS AND INSTALLATION MATERIAL TO A MINIMUM AND ALLOW EASY PASSAGE OF BUILDING TENANTS. PROVIDE DROP CLOTHS OR OTHERWISE PROTECT BUILDING FINISHES FROM ALL CONSTRUCTION DEBRIS AND DUST. REMOVE TRASH AND DEBRIS ON A DAILY BASIS AND RESTORE AREAS TO PRE CONSTRUCTION CONDITIONS AS WORK IS COMPLETED.
22. OWNER IS VERY SENSITIVE TO VIBRATION, DUST, AND NOISE. ANY WORK ACTIVITIES THAT GENERATE VIBRATION NEED TO BE TESTED AND SCHEDULED IN ADVANCED. SHOULD ACTIVITIES EXCEED OWNER'S SET LIMITS, THE OWNER HAS THE RIGHT TO STOP WORK, PROVIDE AN ALTERNATE DATE AND TIME TO COMPLETE VIBRATION GENERATING WORK.
23. SLEEVES IN WALLS AND FLOORS SHALL EXTEND 1" TO 3" BEYOND THE FINISHED SURFACE. PROVIDE NYLON BUSHINGS ON ENDS OF SLEEVES. PROVIDE 4" SLEEVES UNLESS NOTED OTHERWISE.
24. FINISH ALL CONDUITS AT LEAST 4" BEYOND FINISHED SURFACE. PROVIDE NYLON BUSHINGS ON ALL ENDS.
25. PROVIDE PULL ROPE OR PULL-LINES IN ALL EMPTY LOW VOLTAGE CONDUITS. PROVIDE A LABEL AT EACH END OF CONDUIT RUN NOTING THE LOCATION OF THE OTHER END.
26. ALL PENETRATIONS OF RATED WALLS AND FLOORS SHALL BE SLEEVED AND FIRE-STOPPED IN AN APPROVED MANNER TO MAINTAIN THE ORIGINAL F- AND T-RATINGS.
27. ALL TELECOMMUNICATION PATHWAYS SHALL BE COORDINATED WITH OTHER TRADES. MAINTAIN A MINIMUM SEPARATION OF 48" BETWEEN LARGE MOTORS/TRANSFORMERS AND TELECOM PATHWAYS; MINIMUM 12" SEPARATION BETWEEN PARALLEL RUNS OF TELECOM PATHWAYS AND ELECTRICAL CIRCUITS; MINIMUM SEPARATION OF 5" BETWEEN LIGHT FIXTURES AND TELECOM PATHWAYS.
28. INSTALLATION OF 24" x 24" ACCESS PANELS ARE REQUIRED IN GWB AND PLASTER CEILINGS WHERE TELECOMMUNICATION DEVICES OR INFRASTRUCTURE REQUIRE ACCESS. REFER TO ARCHITECT'S SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
29. INSTALLATION OF ALL CABLE TRAY SYSTEMS IS PREDICATED ON NOMINAL PROVISIONS CONSISTING OF 12" MINIMUM CLEARANCES ABOVE SIDE RAILS AND TO ONE SIDE OF THE ROUTE IN ORDER TO FACILITATE TECHNICIAN ACCESS DURING CABLE INSTALLATION ACTIVITIES.
30. REFER TO "E" SERIES DRAWINGS FOR COORDINATION OF OUTLET LOCATIONS, AND ELEVATIONS TO MATCH POWER RECEPTACLES.
31. AVOID PLACING BACK-TO-BACK WALL BOXES AT OPPOSITE SIDES OF THE SAME WALL PARTITION.

**GENERAL DEMOLITION NOTES:**

1. SYMBOLS SHOWN WITHIN THE DEMOLITION AREA BORDERS ON THIS PLAN ARE BASED ON VISUAL SURVEY REPRESENTATIONS ONLY. THEY DO NOT CONVEY EVERY INDIVIDUAL LOCATION SUBJECT TO REMOVAL; NOR DO THEY QUANTIFY THE NUMBER OR TYPES OF CABLES CONFIGURED WITHIN EACH OUTLET.
2. ALL EXISTING WORK AREA COMMUNICATIONS EQUIPMENT, DESKTOP DEVICES, AND OTHER ON- OR IN-CEILING WAPS, ANTENNAS, ETC. SHALL BE DISCONNECTED AND REMOVED BY OWNER'S IT REPRESENTATIVES.
3. ALL REMAINS STATION CABLING ASSOCIATED WITH DECOMMISSIONED WORK AREAS, CEILING DEVICES, OR CABLES FOUND TO BE ABANDONED IN-PLACE SHALL BE FULLY REMOVED FROM THEIR FAR-END RECEPTACLE OR DISCONNECTED END-POINT BACK TO THE TR OR OTHER LOW-VOLTAGE POINT ORIGINATION.
4. TONE/TUG/TAG ALL CABLES TO THEIR DISCONNECTED END-POINT PRIOR TO INITIATING ANY REMOVAL ACTIVITIES.
5. PROTECT IN-PLACE AND VISIBLY TAG ANY AND ALL EXISTING-TO-REMAIN CABLING FOUND TO PASS-THRU THE DEMO AREA INTO OTHER TENANT SPACES; OR TO OTHER FLOOR LEVELS OF THE BUILDING; OR THOSE FOUND TO STILL BE ACTIVE AND THUS NEEDING TO REMAIN IN OPERATION.
6. QUESTION ANY INSTANCES OF UNCERTAINTY WITH THE BUILDING OWNER AND/OR TENANT'S REPRESENTATIVES PRIOR TO INITIATING REMOVAL ACTIVITIES.

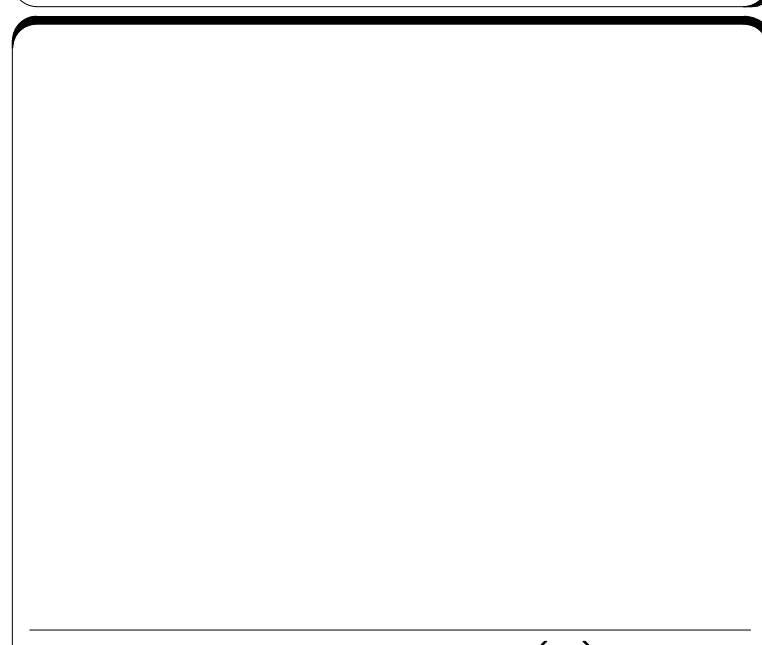
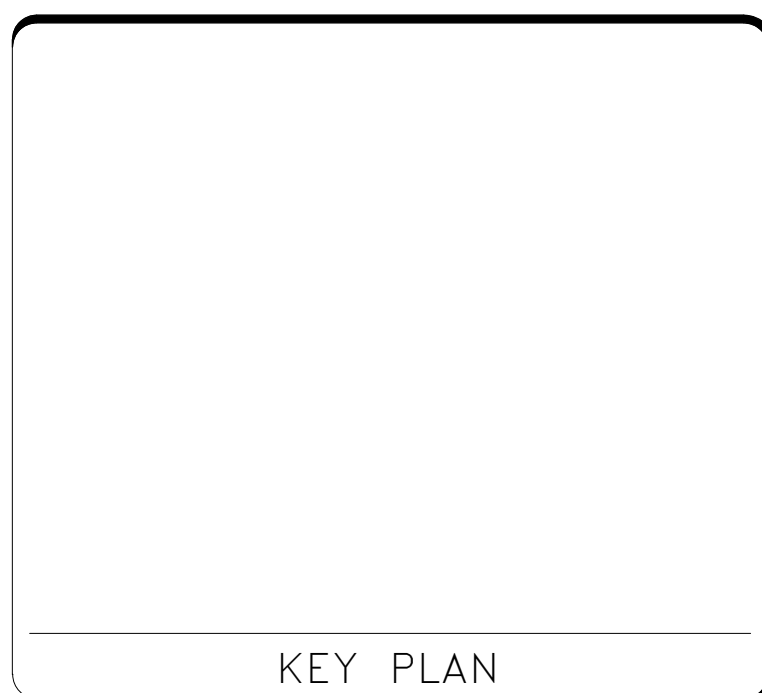
**EXISTING TELECOM ROOM NOTES:**

1. EXISTING TR-SPACE TO REMAIN FULLY OPERATIONAL. ANY ACTIVITIES RELATED TO EXISTING STATION CABLING ORIGINATING, TERMINATING, AND ROUTED TO OR WITHIN OTHER TENANT SUITE LOCATIONS IS CONSIDERED NIC.
2. ALL EXISTING BACKBONE CABLING AND ANY SPECIALTY CIRCUIT STATION CABLING LEADING TO/FROM EXISTING TR OR TENANT SPACES (LOCATED ON FLOOR PLATE ABOVE OR BELOW) SHALL BE PROTECTED IN-PLACE AND VISIBLY TAGGED AS IT PASSES-THRU DEMO AREAS IN ROUTE TO RESPECTIVE BUILDING RISER SPACES.
3. ONLY CABLES LEAVING THE EXISTING TENANT BOUNDARIES SHALL BE SUBJECT TO VALIDATION OF ACTIVE STATUS. TONE/TUG/TRACE/TAG CABLES AS APPROPRIATE AND NECESSARY. FULLY REMOVE ANY AND ALL INACTIVE, DISCONNECTED AND ABANDONED CABLING BACK TO THEIR RESPECTIVE POINTS OF ORIGINATION.
4. QUESTION ANY INSTANCES OF UNCERTAINTY WITH THE BUILDING OWNER PRIOR TO INITIATING REMOVAL ACTIVITIES. LEAVE ALL VACATED TERMINATION FIELDS IN-PLACE WITHIN THE EXISTING BUILDING RISER SPACE OR TR-SPACE.

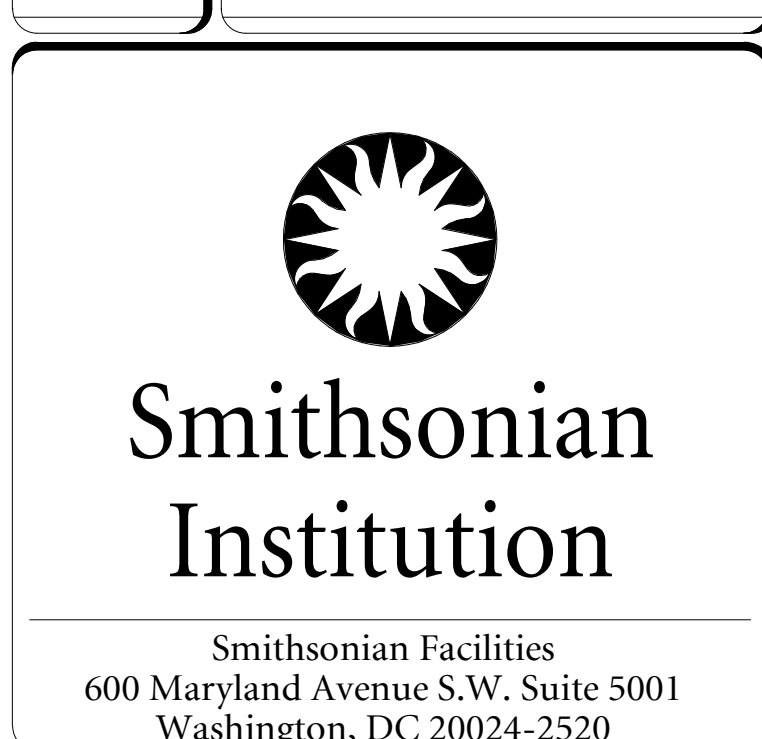


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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	REFERENCE SHEET -- TELECOM -- PHASE 1
WORKING STAFF	WD SK DB
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO. 127 of 179	TN001P1
DISCIPLINE	TYPE SEQUENCE DRAWING TYPE PHASE

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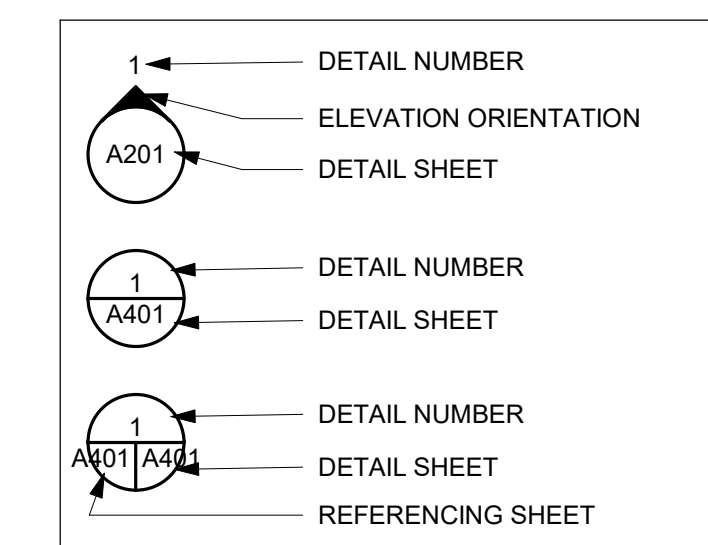
### SYMBOL LIST

	NEW WORK LINE TYPE
	EXISTING WORK LINE TYPE
	DEMO WORK LINE TYPE
	EXISTING CABLE TRAY
	NEW CABLE TRAY
	SHEET KEYNOTE TAG
	DETAIL KEY NOTE TAG
	REVISION TAG
	TELECOMMUNICATIONS RACK, 2-POST RACK WITH VERTICAL CABLE MANAGEMENT. DASHED AREA REPRESENTS MIN 36" WORKING CLEARANCE REQUIREMENT FROM FRONT/REAR EQUIPMENT PLANE.
	IT/AV/SECURITY CABINET
	WALL MOUNTED SWING-OUT RACK
	WALL MOUNTED DATA CAT6A DROPSET D = CABLE FOR DATA CONNECTION # = NUMBER OF CABLES
	WALL MOUNTED DATA AND VOICE CAT6A DROPSET D = CABLE FOR DATA CONNECTION V = CABLE FOR VOICE CONNECTION # = NUMBER OF CABLES
	WALL MOUNTED VOICE CAT6A DROPSET V = CABLE FOR VOICE CONNECTION # = NUMBER OF CABLES
	CEILING MOUNTED DATA DROPSET W = CABLE FOR WIRELESS ACCESS POINT CONNECTION # = NUMBER OF CABLES
	IT FLOOR BOX WITH QUAD RECEPTACLES ON UPS/GENERATOR, DIVISION 26. WITH FOUR (4) CAT6A NETWORK JACKS (TWO YELLOW AND TWO WHITE) AND FOUR (4) CAT6A CABLES (TWO YELLOW AND TWO WHITE) TERMINATED ON A NEW AND DEDICATED CAT6A RJ45 PATCH PANEL IN TR ROOM 1047. FLOOR BOX MUST BE COMPATIBLE WITH FREEAXEZ GRIDD 40 (1.6") RAISED FLOOR SYSTEM. USE FREEAXEZ FLOOR BOX GP 708-FAS-4001-001 WITH FREEAXEZ LV40-005 LOW VOLTAGE DEVICE PLATE WITH (4) RJ45 CUTOUTS.
	IT FLOOR BOX WITH QUAD RECEPTACLES ON UTILITY POWER, DIVISION 26. WITH SIX (6) CAT6A NETWORK JACKS AND CABLES (BLUE) TERMINATED ON A DEDICATED 48-PORT 2RU CAT6A PATCH PANEL IN 2-POST RACK IN SECURITY SERVER ROOM 1037A. WITH (2) CAT6A AV NETWORK JACKS (PURPLE) AND TWO (2) CAT6A CABLES (PURPLE) TO RJ45 PATCH PANEL IN AV CABINET 1037A-RK1 IN SECURITY SERVER ROOM 1037A. FLOOR BOX MUST BE COMPATIBLE WITH FREEAXEZ GRIDD 40 (1.6") RAISED FLOOR SYSTEM. USE FREEAXEZ FLOOR BOX GP 708-FAS-4001-001 WITH FREE AXEZ LV40-012 LOW VOLTAGE DEVICE PLATE WITH (8) RJ45 CUTOUTS.

### ABBREVIATIONS

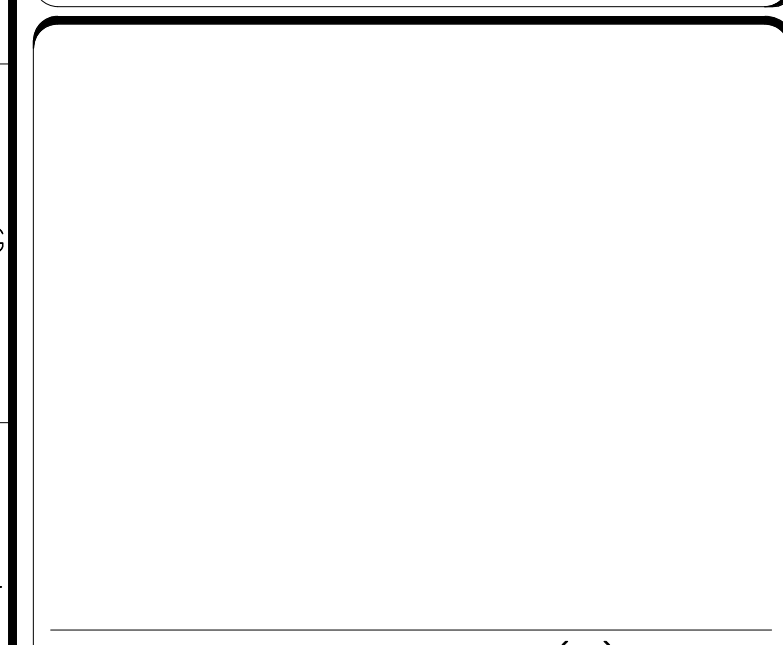
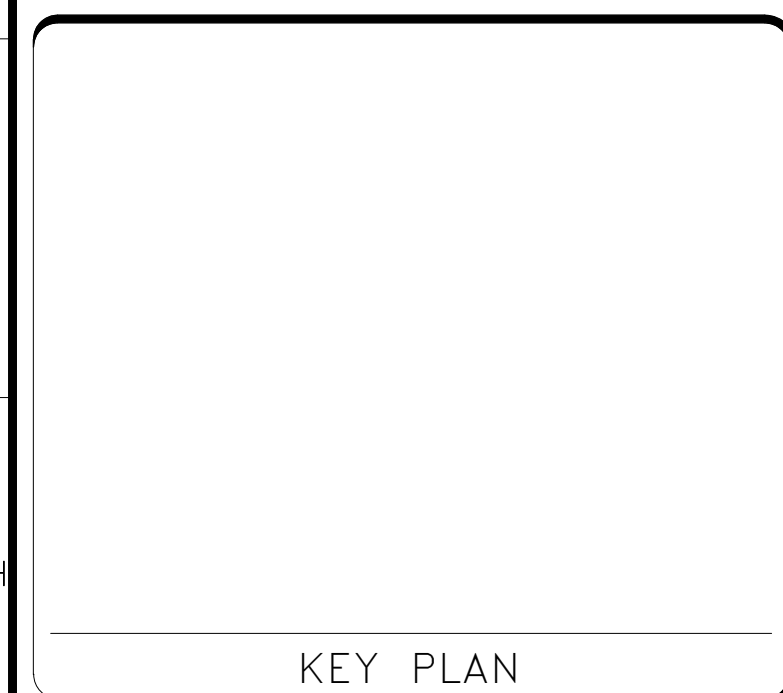
ABC	APPARATUS BONDING CONDUCTOR
ACG	ABOVE CEILING GRID
AFF	ABOVE FINISHED FLOOR
AV	AUDIO VISUAL
CAT	CATEGORY
CATV	COMMUNITY ANTENNA TELEVISION
CM	CEILING MOUNTED
CX	COAX
DAS	DISTRIBUTED ANTENNA SYSTEM
EF	ENTRANCE FACILITY
EMI	ELECTRICAL MAGNETIC INTERFERENCE
EMT	ELECTRICAL METALLIC TUBING
ER	EQUIPMENT ROOM
FB	FLOOR BOX
FO	FIBER OPTIC
FOPP	FIBER OPTIC PATCH PANEL
GE	GROUNDING EQUALIZER
GWB	GYPSTUM WALL BOARD
IAW	IN ACCORDANCE WITH
IMT	INTERMEDIATE METALLIC TUBING
ISP	INSIDE PLANT
ITS	INFORMATION TECHNOLOGY SYSTEMS
LAN	LOCAL AREA NETWORK
LBC	LOCAL BONDING CONDUCTOR
LV	LOW-VOLTAGE (COMMUNICATIONS)
MAX	MAXIMUM
MFA	MODULAR FURNITURE ACCESS ASSEMBLY
MIN	MINIMUM
MISC	MISCELLANEOUS
MMF	MULTIMODE FIBER
MPOP	MAIN POINT OF PRESENCE
MPTL	MODULAR PLUG TERMINATED LINK
MTD	MOUNTED
NACC	NEAREST ACCESSIBLE CEILING CAVITY
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
OFE	OWNER FURNISHED EQUIPMENT
OSP	OUTSIDE PLANT
PB	PULL BOX
PC	PERSONAL COMPUTER
POE	POWER OVER ETHERNET
PP	PATCH PANEL
PR	PAIR
PT	POKE-THRU
RAF	RAISED ACCESS FLOOR
RCP	REFLECTED CEILING PLAN
RM	ROOM
RU	RACK UNIT = 44.45 mm (1.75)
SMF	SINGLEMODE FIBER
SP	SERVICE PROVIDER
STP	SHIELDED TWISTED PAIR
TBB	TELECOMMUNICATIONS BONDING BACKBONE
TBD	TO BE DETERMINED
TE	TELECOMMUNICATION ENCLOSURE
TGB	TELECOMMUNICATIONS GROUNDING BUSBAR
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
TR	TELECOMMUNICATIONS ROOM
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTED POWER SUPPLY
UTP	UNSHIELDED TWISTED PAIR
VAC	VOLTS ALTERNATING CURRENT
WAO	WORK AREA OUTLET
WAP	WIRELESS ACCESS POINT

### ELEVATION AND DETAIL CALLOUT



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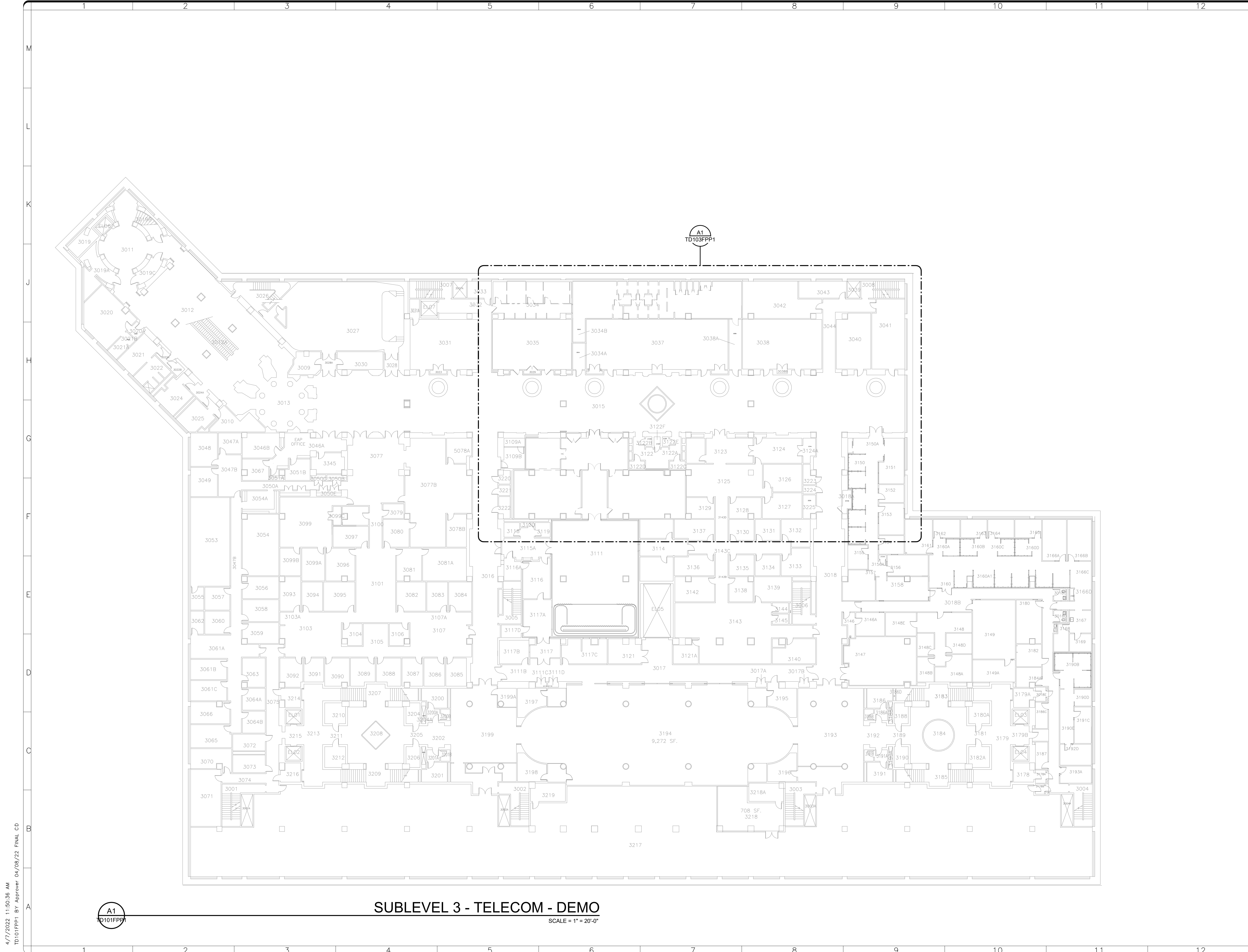
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ADDRESS	SW WASHINGTON, DC 20560												
PROJECT TITLE	FREER/SACKLER/FA/ QUAD ESS MODERNIZATION												
SF PROJECT NUMBER	1909101												
A/E PROJECT NUMBER	11203201												
DRAWING TITLE	TELECOM SYMBOLS AND ABBREVIATIONS - PHASE 1												
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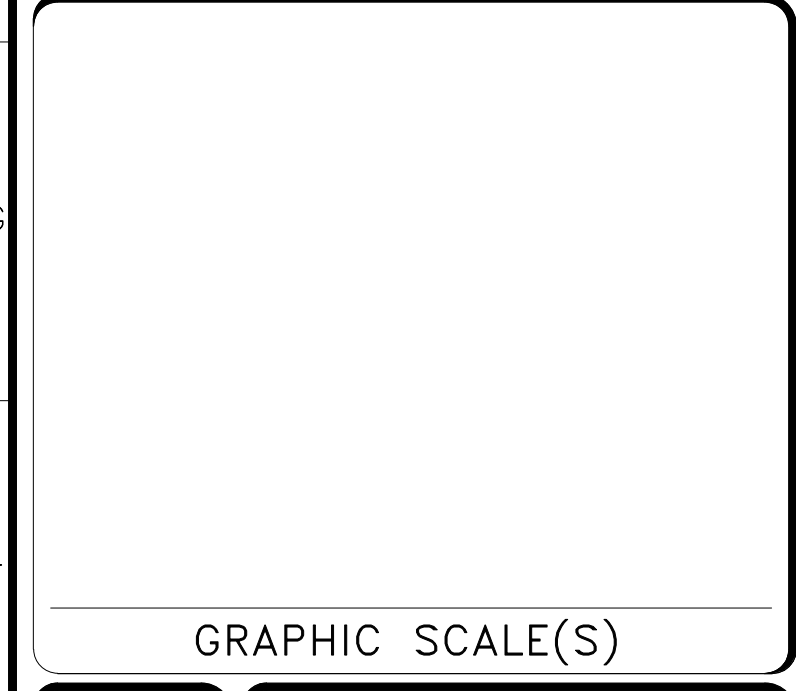
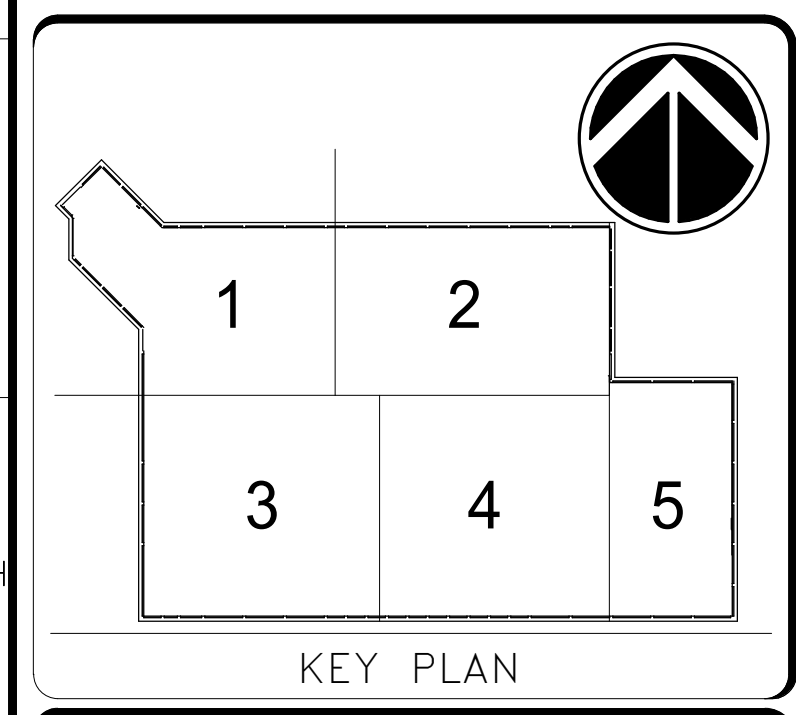
SHEET NO.	TN002P1
128 of 179	

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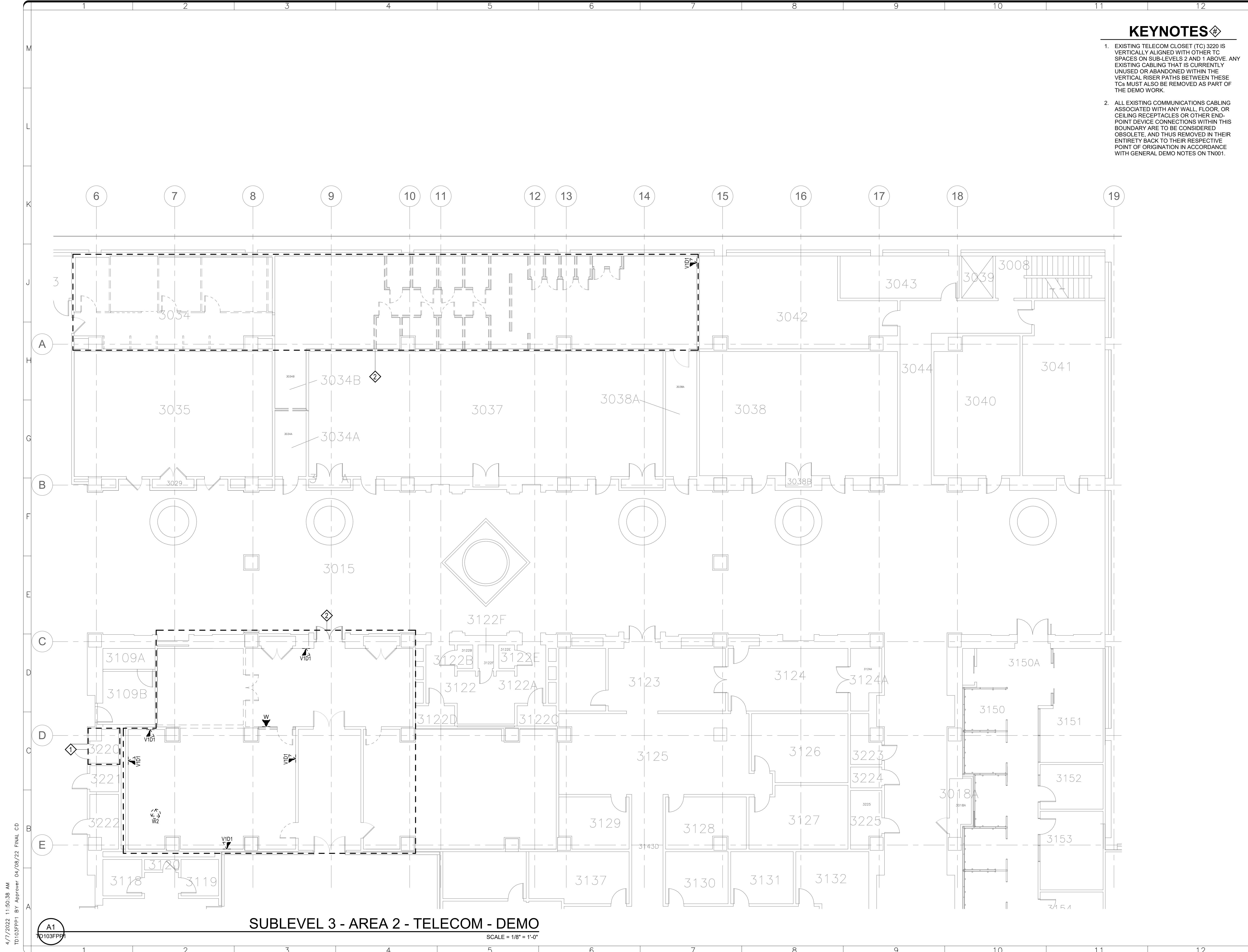
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PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 PLAN -- TELECOM -- OVERALL PLAN -- DEMO -- PHASE 1
WORKING STAFF	WD SK DB
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SHEET NO. **TD101FPP1**  
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4/7/2022 11:50:36 AM  
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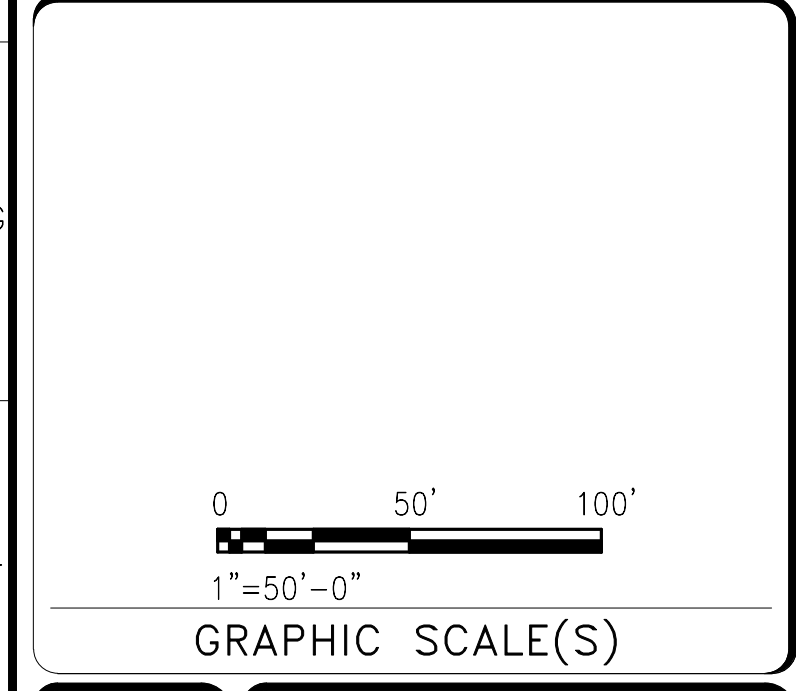
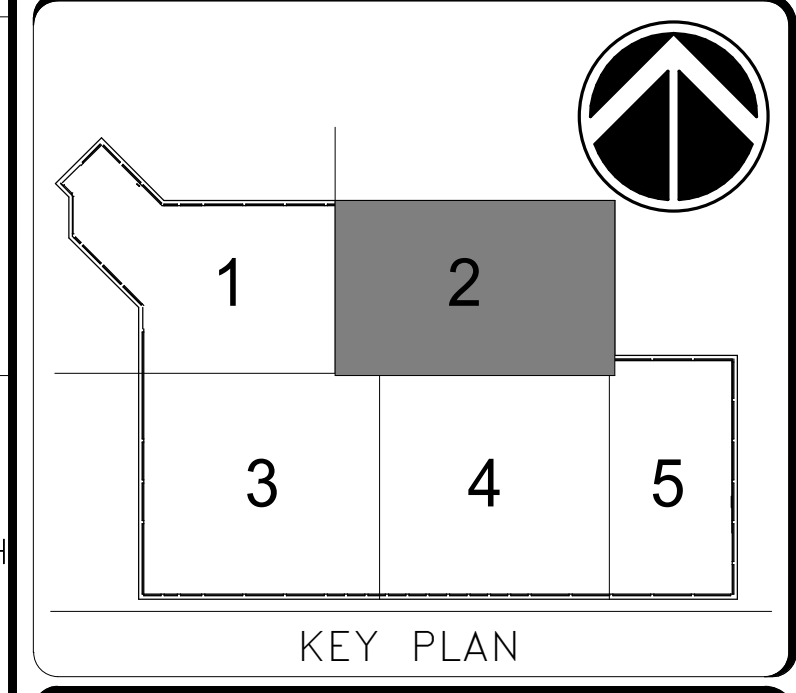
**SUBLEVEL 3 - TELECOM - DEMO**  
 SCALE = 1" = 20'-0"



**KEYNOTES**

1. EXISTING TELECOM CLOSET (TC) 3220 IS VERTICALLY ALIGNED WITH OTHER TC SPACES ON SUB-LEVELS 2 AND 1 ABOVE. ANY EXISTING CABLING THAT IS CURRENTLY UNUSED OR ABANDONED WITHIN THE VERTICAL RISER PATHS BETWEEN THESE TCs MUST ALSO BE REMOVED AS PART OF THE DEMO WORK.
2. ALL EXISTING COMMUNICATIONS CABLING ASSOCIATED WITH ANY WALL, FLOOR, OR CEILING RECEPTACLES OR OTHER END-POINT DEVICE CONNECTIONS WITHIN THIS BOUNDARY ARE TO BE CONSIDERED OBSOLETE, AND THUS REMOVED IN THEIR ENTIRETY BACK TO THEIR RESPECTIVE POINT OF ORIGIN IN ACCORDANCE WITH GENERAL DEMO NOTES ON TN001.

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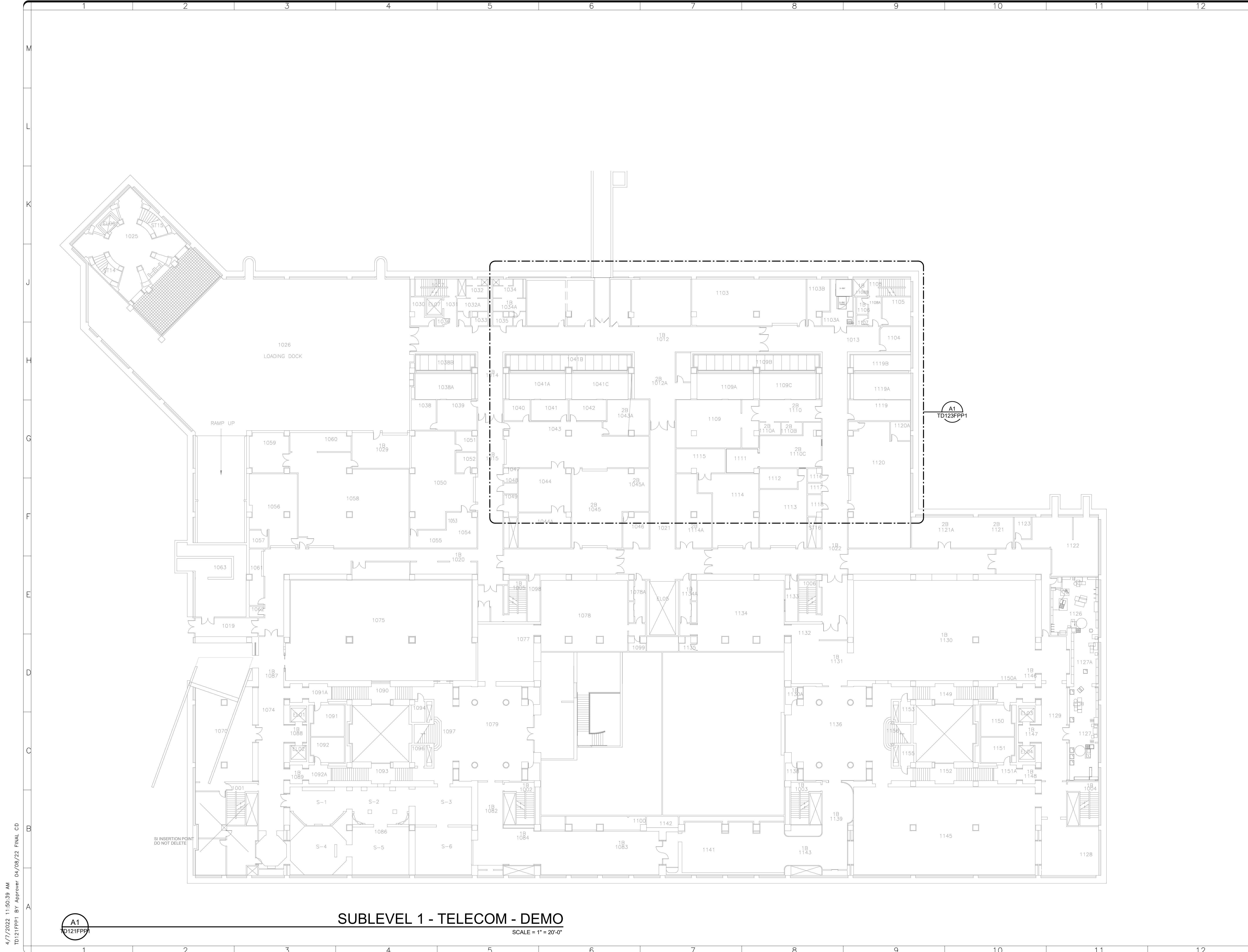
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WORKING STAFF	WD SK DB
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SHEET NO.	TD103FPP1
130 of 179	

**SUBLEVEL 3 - AREA 2 - TELECOM - DEMO**  
 SCALE = 1/8" = 1'-0"

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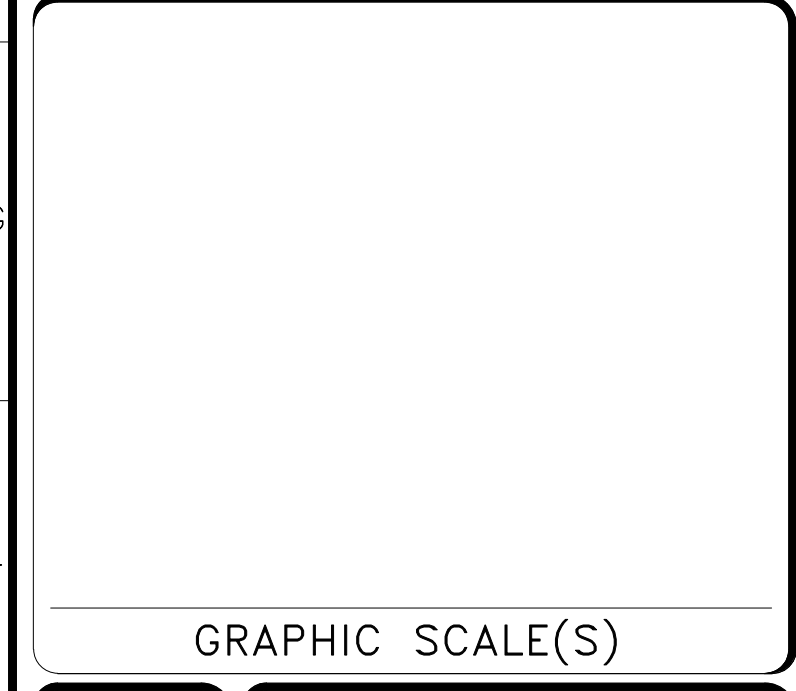
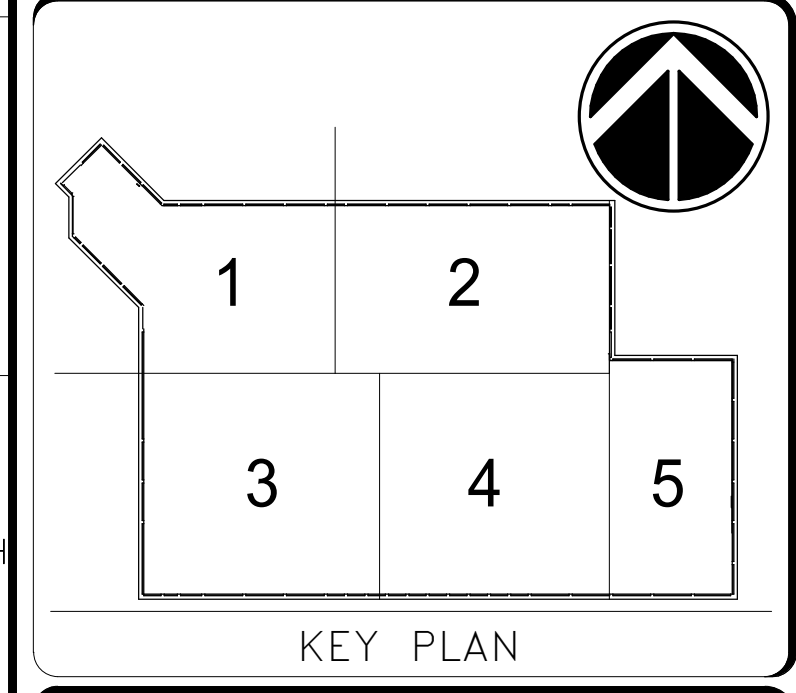
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**SUBLEVEL 1 - TELECOM - DEMO**  
SCALE = 1" = 20'-0"



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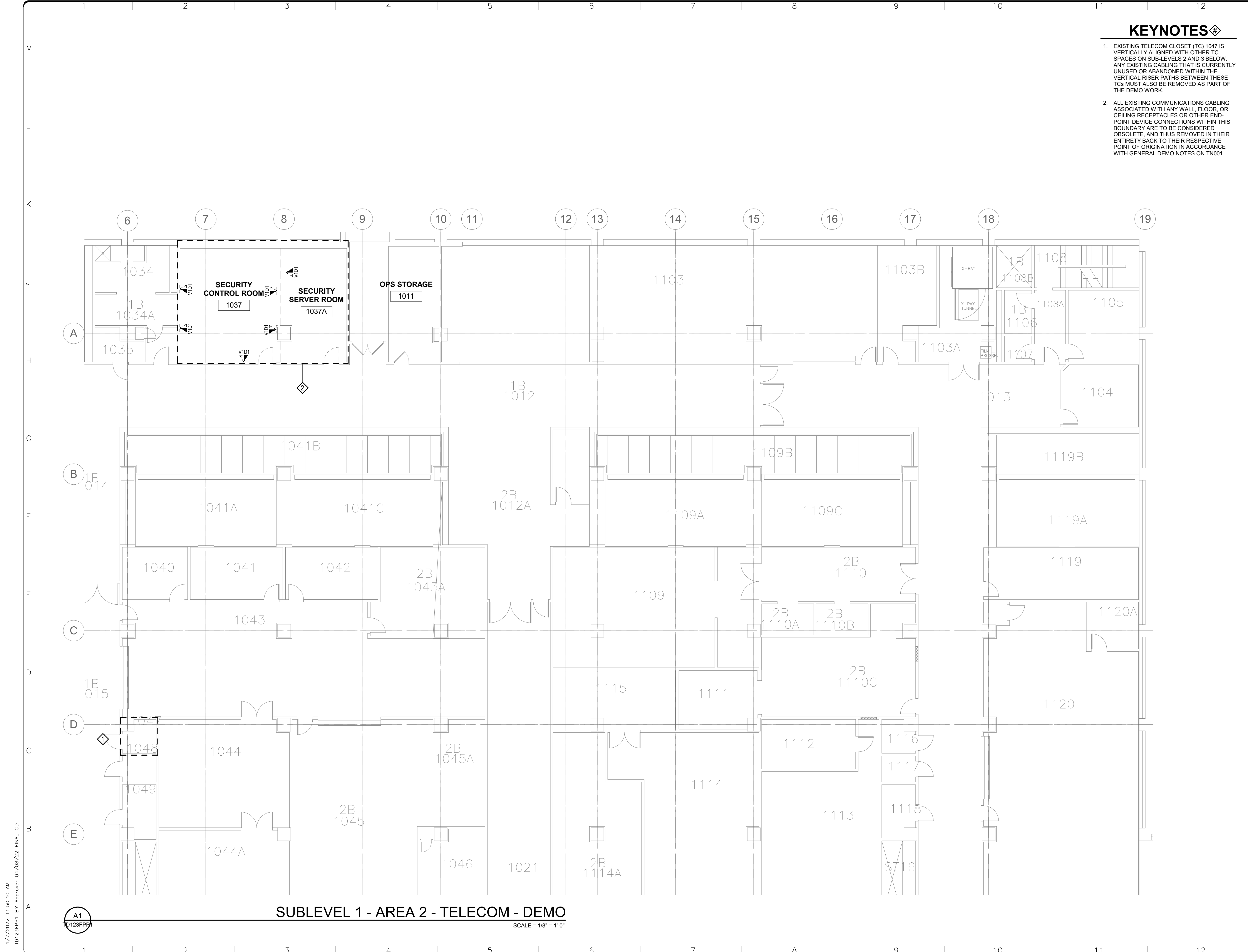
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SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
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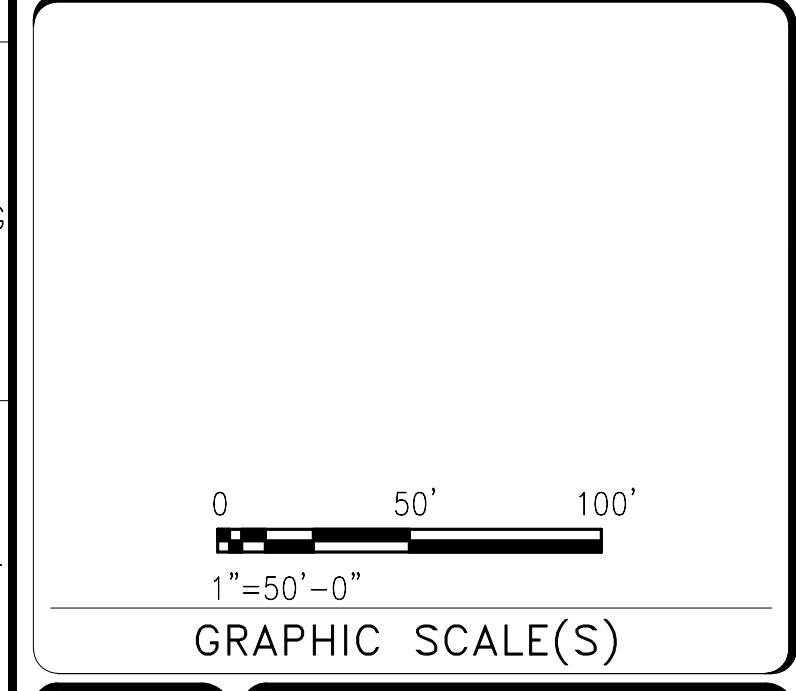
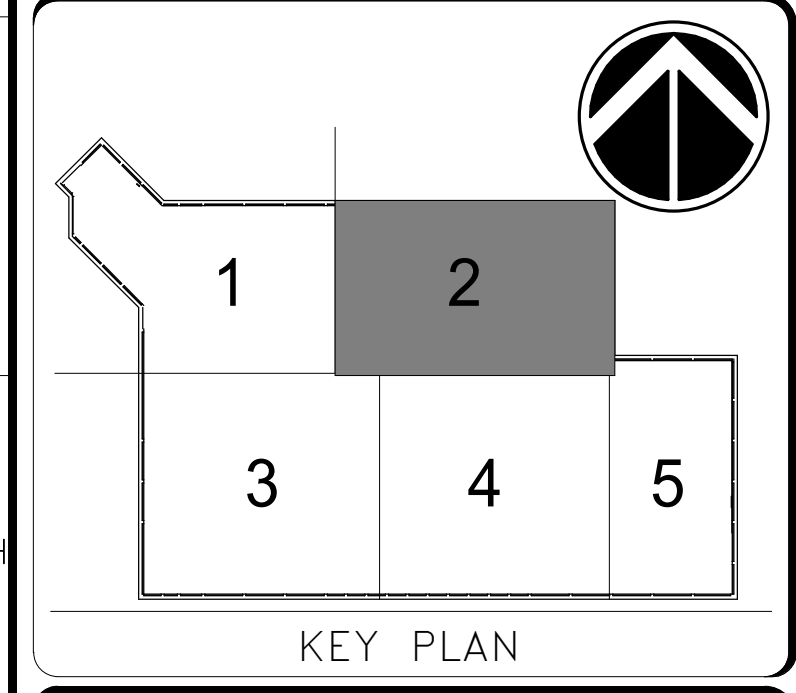
SHEET NO. **TD 121 FPP 1**  
131 of 179



**KEYNOTES**

1. EXISTING TELECOM CLOSET (TC) 1047 IS VERTICALLY ALIGNED WITH OTHER TC SPACES ON SUB-LEVELS 2 AND 3 BELOW. ANY EXISTING CABLING THAT IS CURRENTLY UNUSED OR ABANDONED WITHIN THE VERTICAL RISER PATHS BETWEEN THESE TCs MUST ALSO BE REMOVED AS PART OF THE DEMO WORK.
2. ALL EXISTING COMMUNICATIONS CABLING ASSOCIATED WITH ANY WALL, FLOOR, OR CEILING RECEPTACLES OR OTHER END-POINT DEVICE CONNECTIONS WITHIN THIS BOUNDARY ARE TO BE CONSIDERED OBSOLETE, AND THUS REMOVED IN THEIR ENTIRETY BACK TO THEIR RESPECTIVE POINT OF ORIGIN IN ACCORDANCE WITH GENERAL DEMO NOTES ON TN001.

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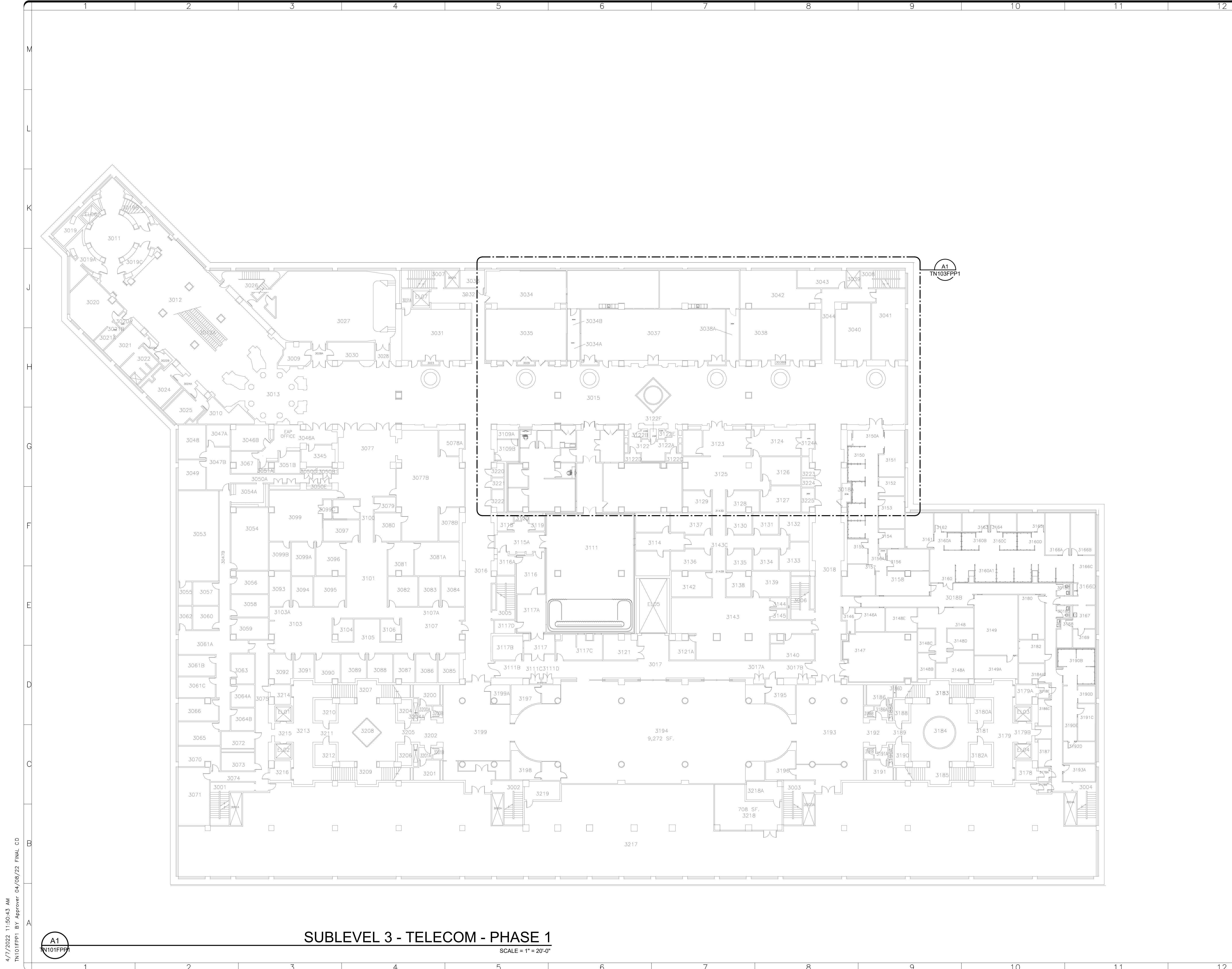
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PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 1 PLAN - AREA 2 - TELECOM - DEMO - PHASE 1
WORKING STAFF	WD SK DB
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SHEET NO.	TD 123 FPP 1
132 of 179	

**SUBLEVEL 1 - AREA 2 - TELECOM - DEMO**  
 SCALE = 1/8" = 1'-0"

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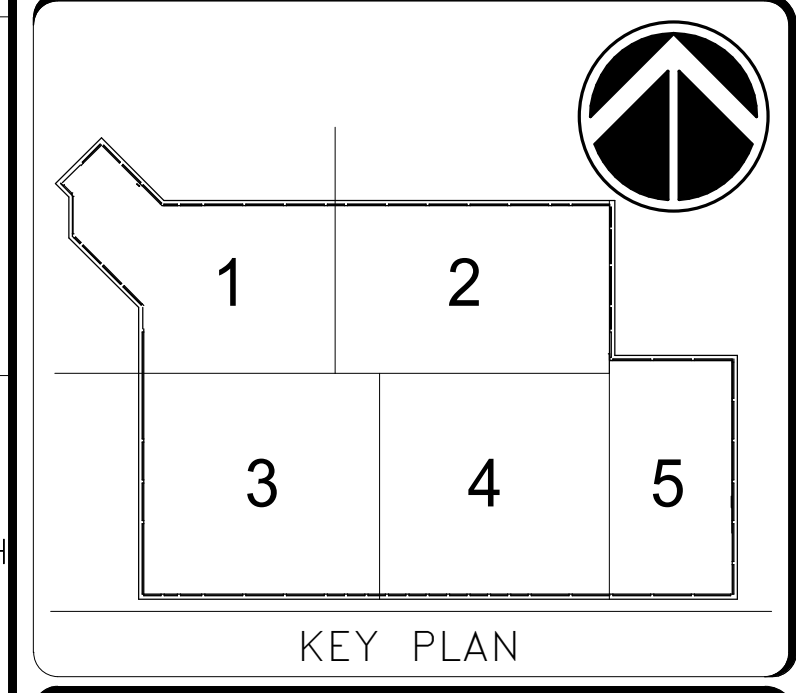


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**SUBLEVEL 3 - TELECOM - PHASE 1**  
 SCALE = 1" = 20'-0"

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0 10' 20' 40'  
 1"=20'-0"  
 GRAPHIC SCALE(S)

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SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 PLAN -- TELECOM -- OVERALL PLAN -- NEW WORK -- PHASE 1
WORKING STAFF	WD SK DB
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SHEET NO. TN101FPP1  
 133 of 179

**SHEET NOTES**

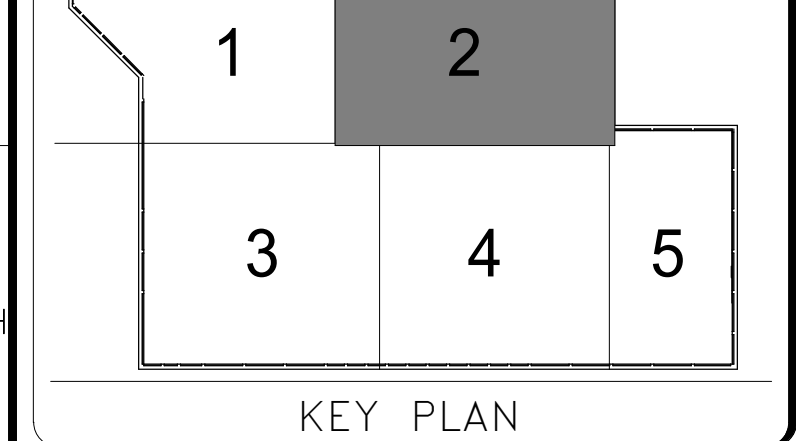
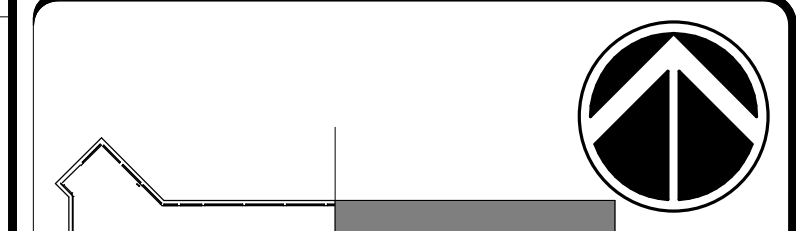
1. TELECOM CABLING CONTRACTOR SHALL UTILIZE EXISTING PATHWAY SLEEVES, CONDUITS, TRAYS, HOOKS, RINGS, AND OTHER PATHWAY SUPPORT HARDWARE THAT HAS BEEN VACATED FROM CABLE DEMO ACTIVITIES TO THE GREATEST EXTENT POSSIBLE. SUPPLEMENT WITH NEW J-HOOK HARDWARE ONLY WHERE NECESSARY.
2. TERMINATE NEW TELECOM CABLING FROM 3120, 3036, AND OPS SUITE 3112C, INCLUDING SURROUNDING OFFICES, IN TELECOM ROOM 3223 ON NEW RJ45 PATCH PANELS.
3. PROVIDE (1) 48-PORT PATCH PANEL AND (1) 24-PORT PATCH PANEL FOR NEW SUB-LEVEL 3 VOICE AND DATA CABLING. PROVIDE (1) 24-PORT PATCH PANEL FOR NEW SUB-LEVEL 3 WAP CABLING.

**KEYNOTES**

1. TERMINATE SECURITY SYSTEM MANAGEMENT WORK STATION DROP SET ON PATCH PANEL IN 2-POST RACK IN SECURITY SERVER ROOM 1037A



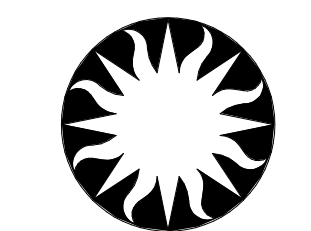
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KEY PLAN

GRAPHIC SCALE(S)

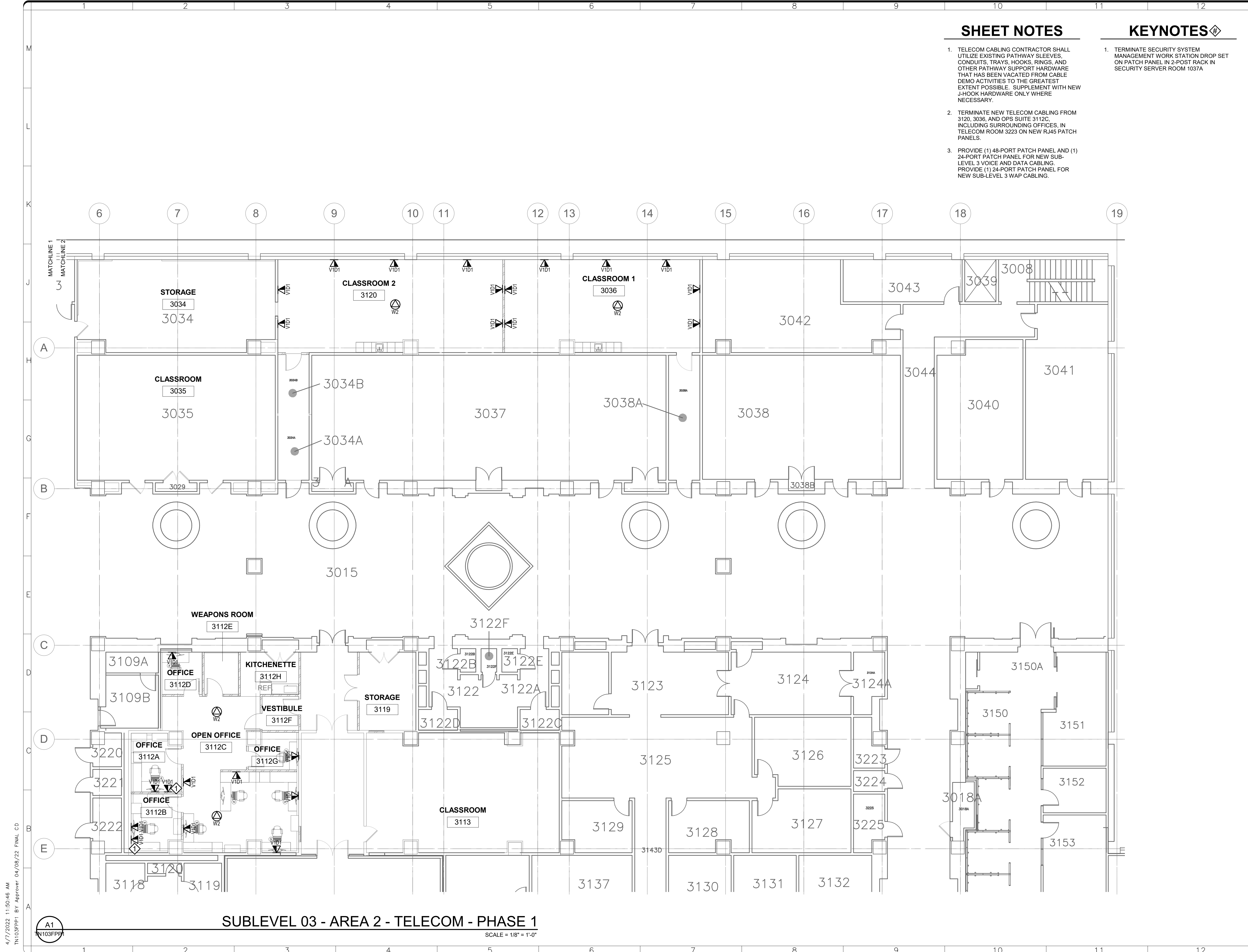
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A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 PLAN -- AREA 2 -- TELECOM -- PHASE 1
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134 of 179	

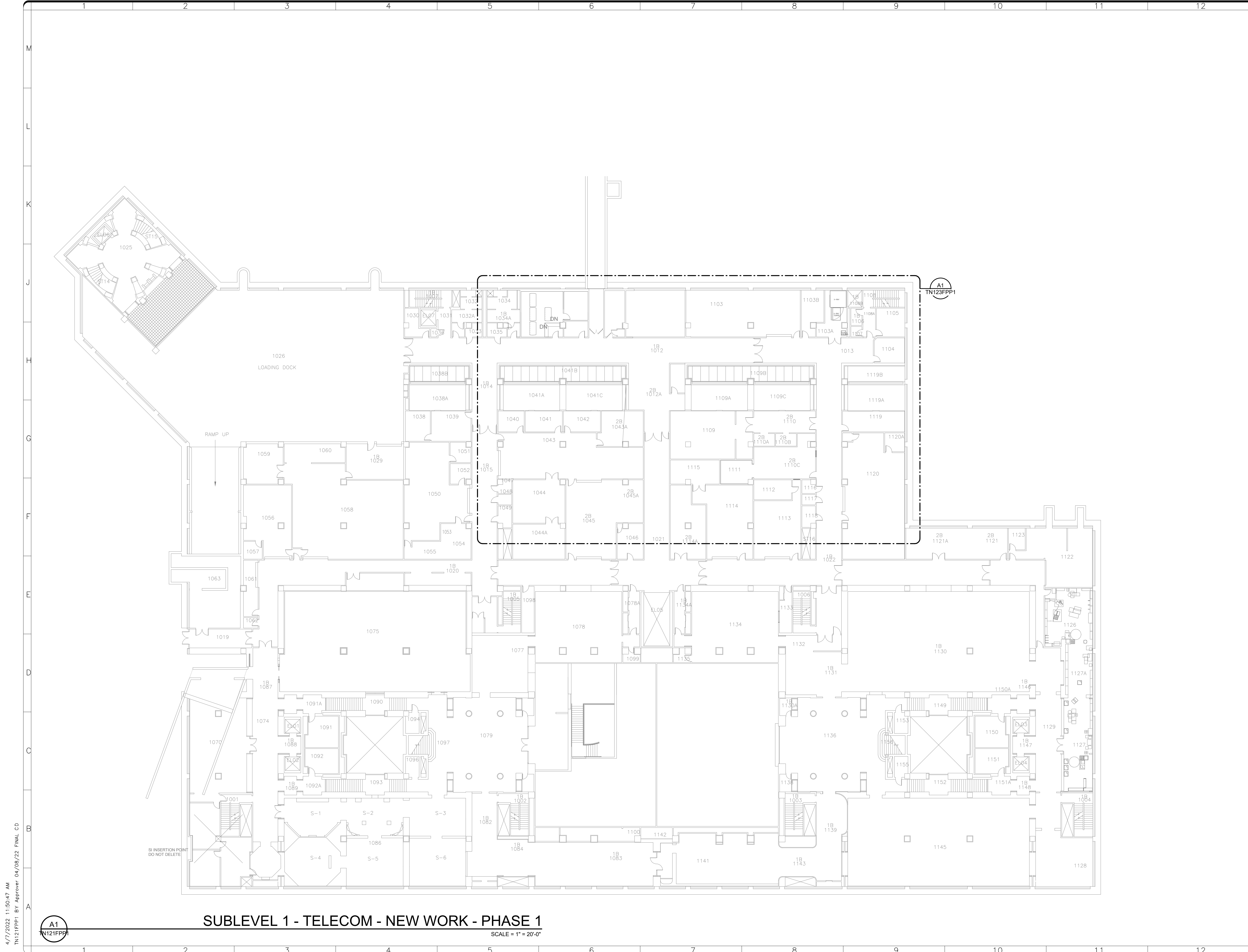


**SUBLEVEL 03 - AREA 2 - TELECOM - PHASE 1**

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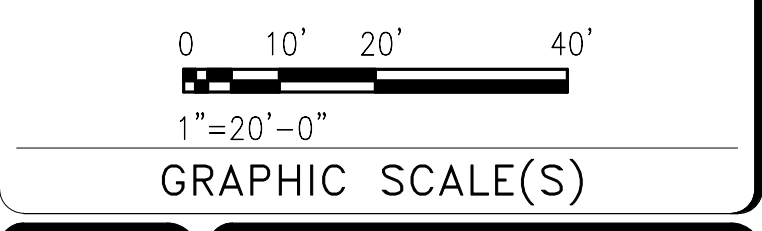
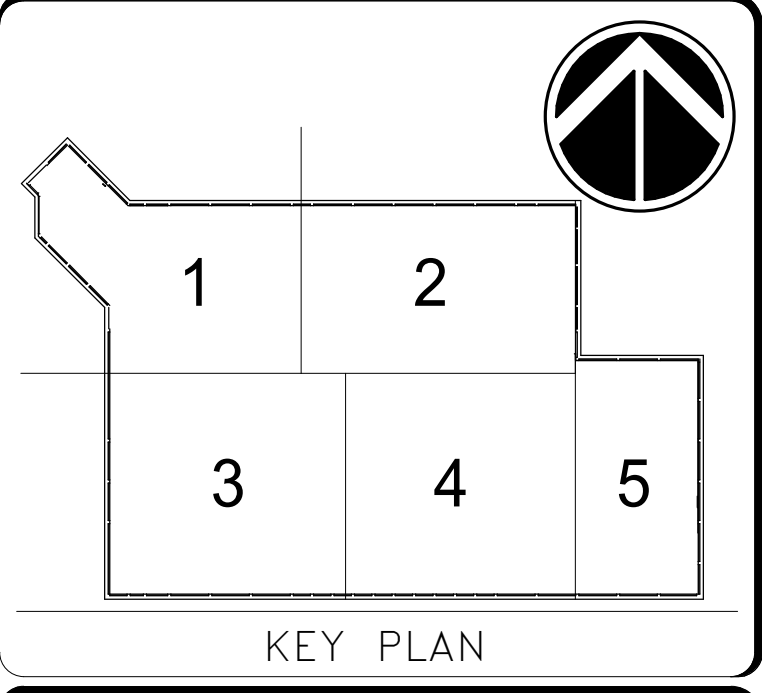
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**SUBLEVEL 1 - TELECOM - NEW WORK - PHASE 1**  
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WORKING STAFF	WD SK DB
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 135 of 179

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 TN121FPP1

**SHEET NOTES**

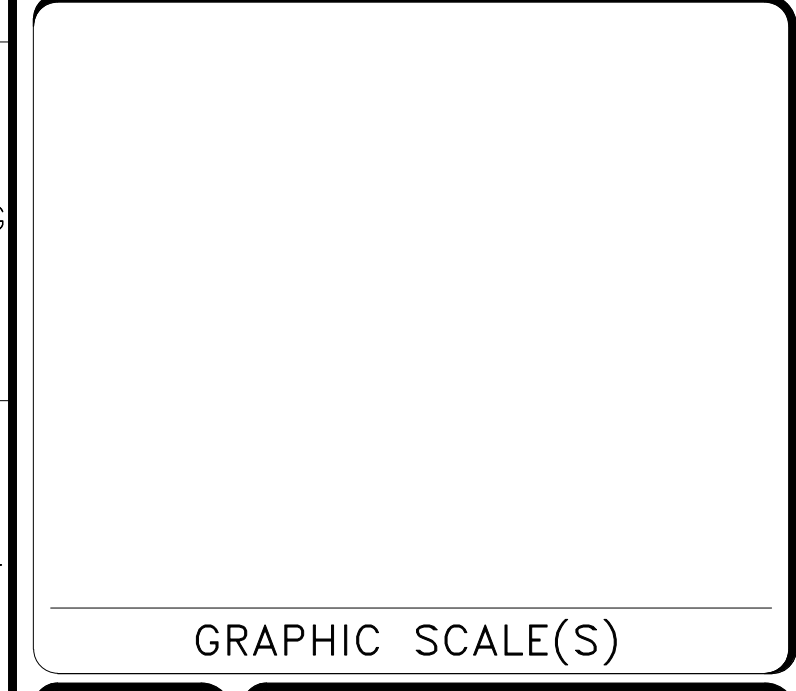
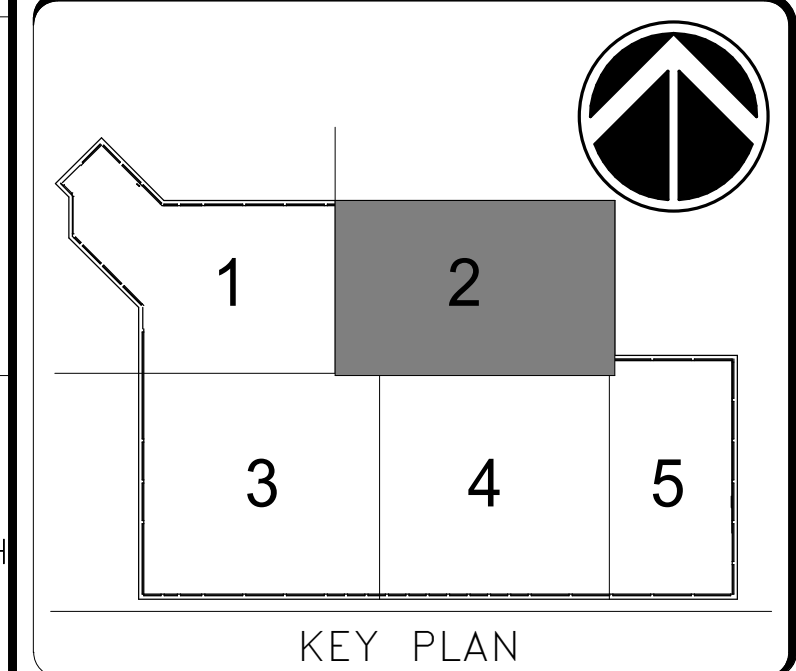
- TELECOM CABLING CONTRACTOR SHALL UTILIZE EXISTING PATHWAY SLEEVES, CONDUITS, TRAYS, HOOKS, RINGS, AND OTHER PATHWAY SUPPORT HARDWARE THAT HAS BEEN VACATED FROM CABLE DEMO ACTIVITIES TO THE GREATEST EXTENT POSSIBLE. SUPPLEMENT WITH NEW J-HOOK HARDWARE ONLY WHERE NECESSARY.
- TERMINATE NEW TELECOM CABLING FROM 1037, 1037A, AND 1037B IN TELECOM ROOM 1116 ON A NEW RJ45 PATCH PANELS.
- PROVIDE (1) 48-PORT PATCH PANEL FOR NEW SUB-LEVEL 1 VOICE AND DATA CABLING. PROVIDE (1) 24-PORT PATCH PANEL FOR NEW SUB-LEVEL 1 WAP CABLING.

**KEYNOTES**

- NETWORK CABLE FOR DIGITAL WALL CLOCK. 125.5" AFF.
- TWO (2) 4" SLEEVES BETWEEN RAISED FLOOR IN SECURITY CONTROL ROOM (SCR) AND SECURITY SERVER ROOM (SSR).
- SIX (6) 1" CONDUITS FROM UNDER RAISED ACCESS FLOOR (RAF) TO NACC.
- 12" x 4" CABLE BASKET. MOUNT AT 8" AFF.
- 4" SLEEVE BETWEEN ROOMS ABOVE CEILING FOR AV CABLING WITH FIRE STOPPING.



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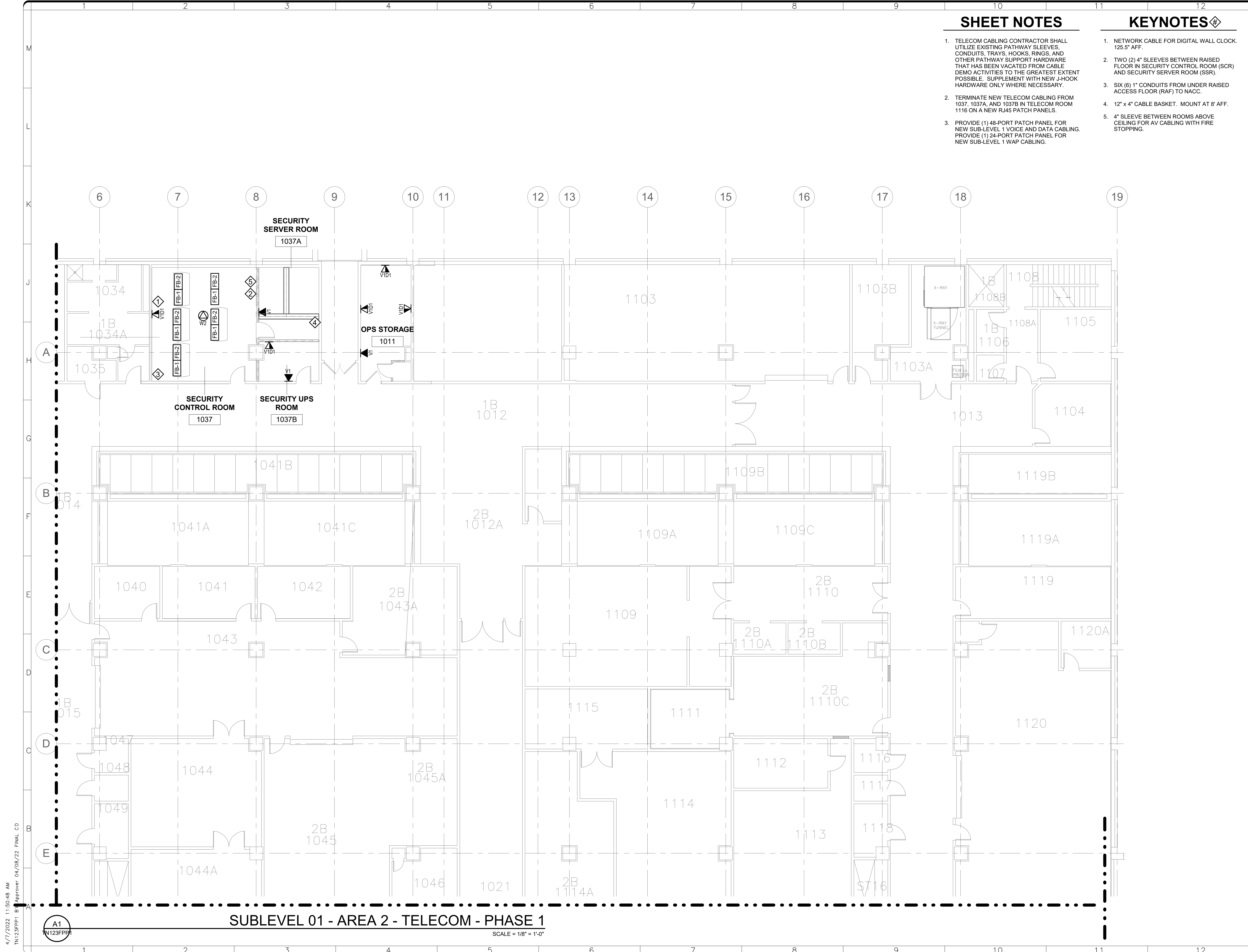
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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 1 PLAN -- AREA 2 -- TELECOM -- PHASE 1
WORKING STAFF	WD SK DB DESIGNED BY DRAWN BY CHECKED BY

SHEET NO.	TN123FPP1
136 of 179	DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE



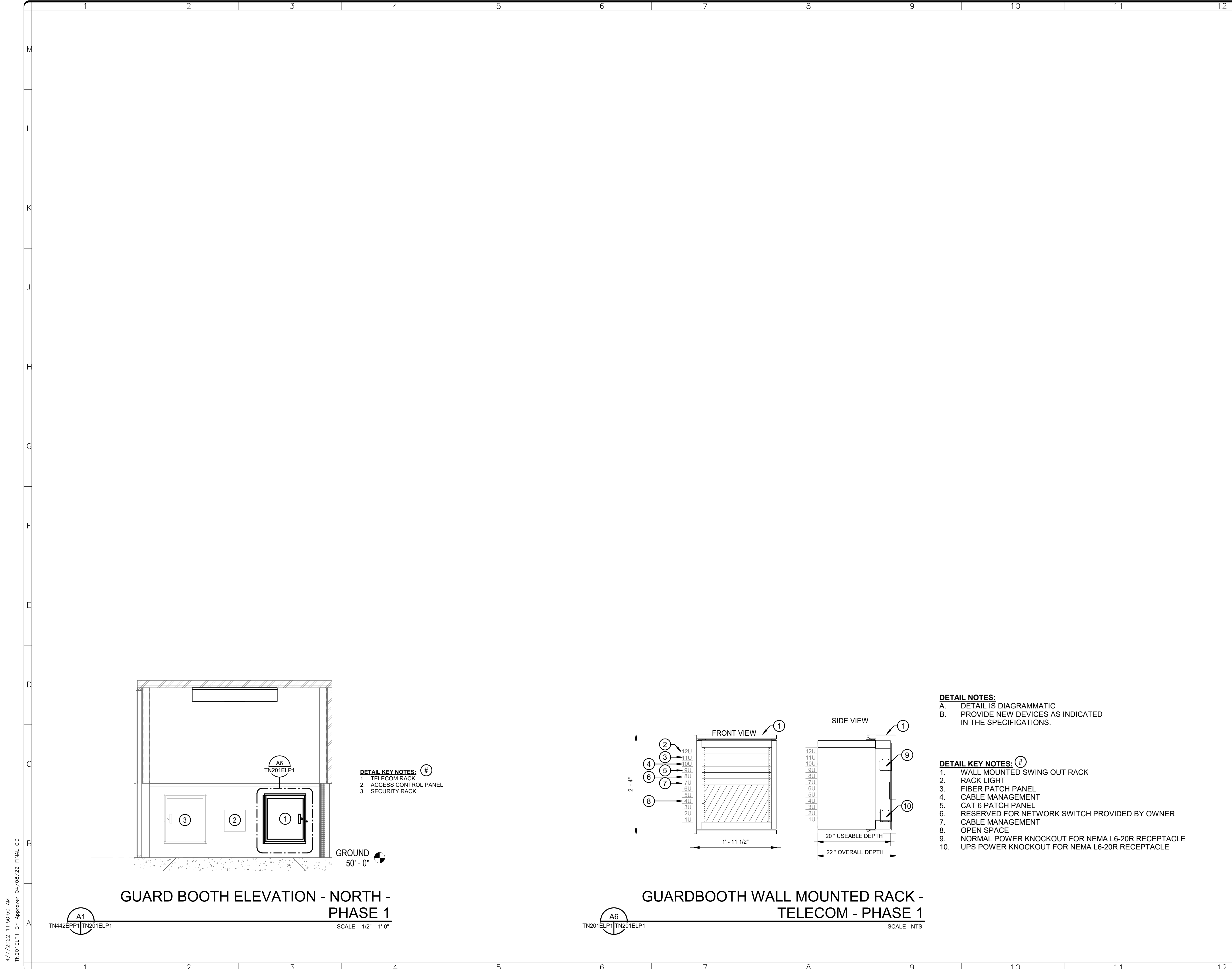
**SUBLEVEL 01 - AREA 2 - TELECOM - PHASE 1**

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

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KEY PLAN

0 1' 2' 4'  
1/2"=1'-0"  
GRAPHIC SCALE(S)

DATE 04/08/22	REVISION FINAL CD
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PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201

DRAWING TITLE	ELEVATIONS - TN - PHASE 1
WORKING STAFF	WD SK DB
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO.	TN201ELP1
137 of 179	DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE

**DETAIL NOTES:**  
A. DETAIL IS DIAGRAMMATIC  
B. PROVIDE NEW DEVICES AS INDICATED IN THE SPECIFICATIONS.

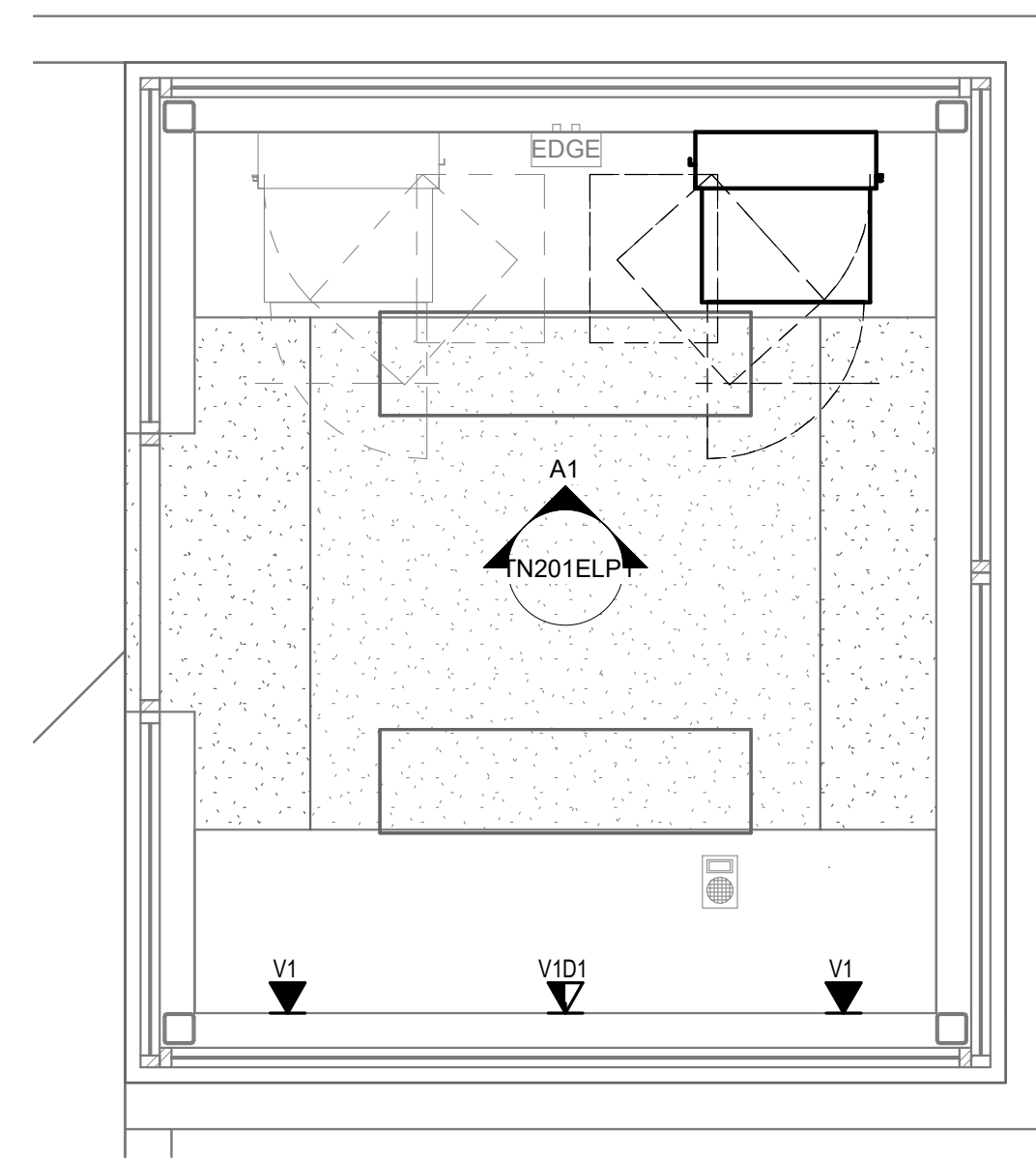
**DETAIL KEY NOTES: #**  
1. WALL MOUNTED SWING OUT RACK  
2. RACK LIGHT  
3. FIBER PATCH PANEL  
4. CABLE MANAGEMENT  
5. CAT 6 PATCH PANEL  
6. RESERVED FOR NETWORK SWITCH PROVIDED BY OWNER  
7. CABLE MANAGEMENT  
8. OPEN SPACE  
9. NORMAL POWER KNOCKOUT FOR NEMA L6-20R RECEPTACLE  
10. UPS POWER KNOCKOUT FOR NEMA L6-20R RECEPTACLE

**DETAIL KEY NOTES: #**  
1. TELECOM RACK  
2. ACCESS CONTROL PANEL  
3. SECURITY RACK

**GUARD BOOTH ELEVATION - NORTH - PHASE 1**  
SCALE = 1/2" = 1'-0"

**GUARDBOOTH WALL MOUNTED RACK - TELECOM - PHASE 1**  
SCALE = NTS

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**ENLARGED PLAN - GUARD BOOTH -  
PHASE 1**

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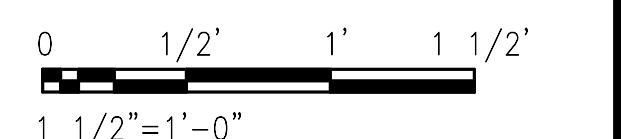
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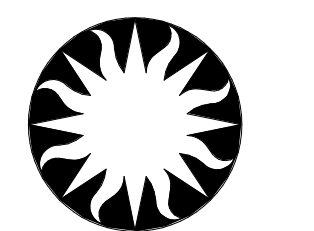


KEY PLAN



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PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	ENLARGED PLANS - GUARD BOOTH - PHASE 1
WORKING STAFF	WD SK DB
	DESIGNED BY DRAWN BY CHECKED BY

SHEET NO. **TN442EPP1**  
138 of 179

DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE



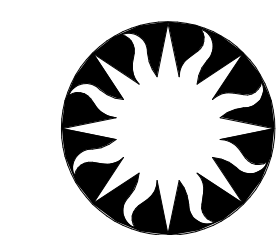
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KEY PLAN

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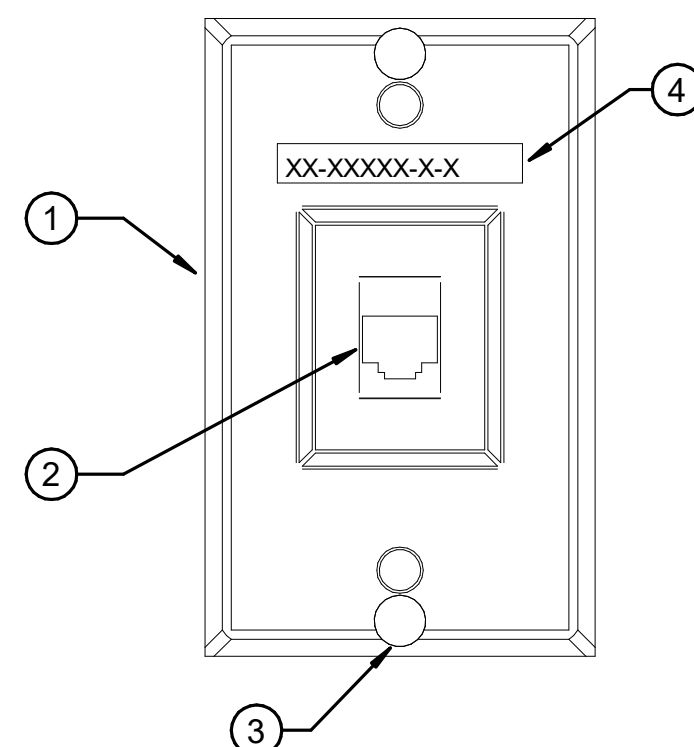
BUILDING NAME: FREER/SACKLER/FAA/QUAD  
 ADDRESS: SW WASHINGTON, DC 20560

PROJECT TITLE: FREER/SACKLER/FAA/ QUAD  
 ESS' MODERNIZATION  
 SF PROJECT NUMBER: 1909101  
 A/E PROJECT NUMBER: 11203201

DRAWING TITLE: DETAILS - TELECOM - PHASE  
 1

WORKING STAFF: WD SK DB  
DESIGNED BY DRAWN BY CHECKED BY

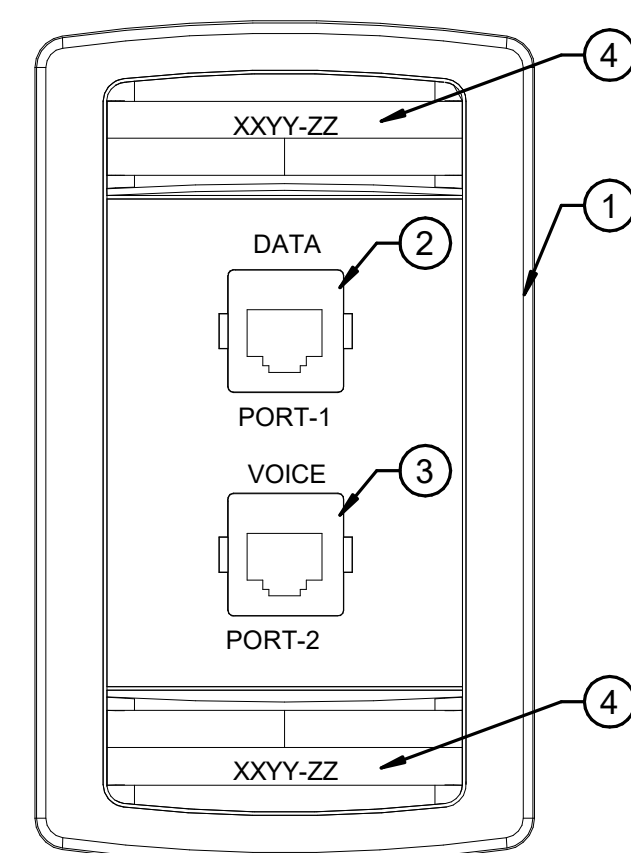
SHEET NO. 139 of 179  
 TN501DTP1  
DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE



TELECOM SYMBOL:

**DETAIL NOTES:**  
 A. ALL RACKS, PANELS, AND ASSOCIATED CABLING AND HARDWARE PROVIDED, INSTALLED, TERMINATED AND GROUNDED BY SI-OCIO CONTRACTOR.  
 B. 4-11/16" SQUARE x 2-1/8"D BACKBOX WITH SINGLE-GANG REDUCER RING @48" AFF. UON; ALONG WITH 1-1/4" CONDUIT WITH PULL-LINE STUBBED-UP TO NACC, UON

**DETAIL KEYNOTES: #**  
 1. SINGLE GANG METAL PLATE  
 2. CAT6A RJ45 MODULAR JACK, VOICE (WHITE)  
 3. METAL MOUNTING LUGS  
 4. OUTLET LABEL (CONFIRM OUTLET LABELING SCHEME WITH OWNER)



TELECOM SYMBOL:

**DETAIL NOTES:**  
 A. ALL RACKS, PANELS, AND ASSOCIATED CABLING AND HARDWARE PROVIDED, INSTALLED, TERMINATED AND GROUNDED BY SI-OCIO CONTRACTOR.  
 B. 4-11/16" SQUARE x 2-1/8"D BACKBOX WITH SINGLE-GANG REDUCER RING @18" AFF. UON; ALONG WITH 1-1/4" CONDUIT WITH PULL-LINE STUBBED-UP TO NACC, UON

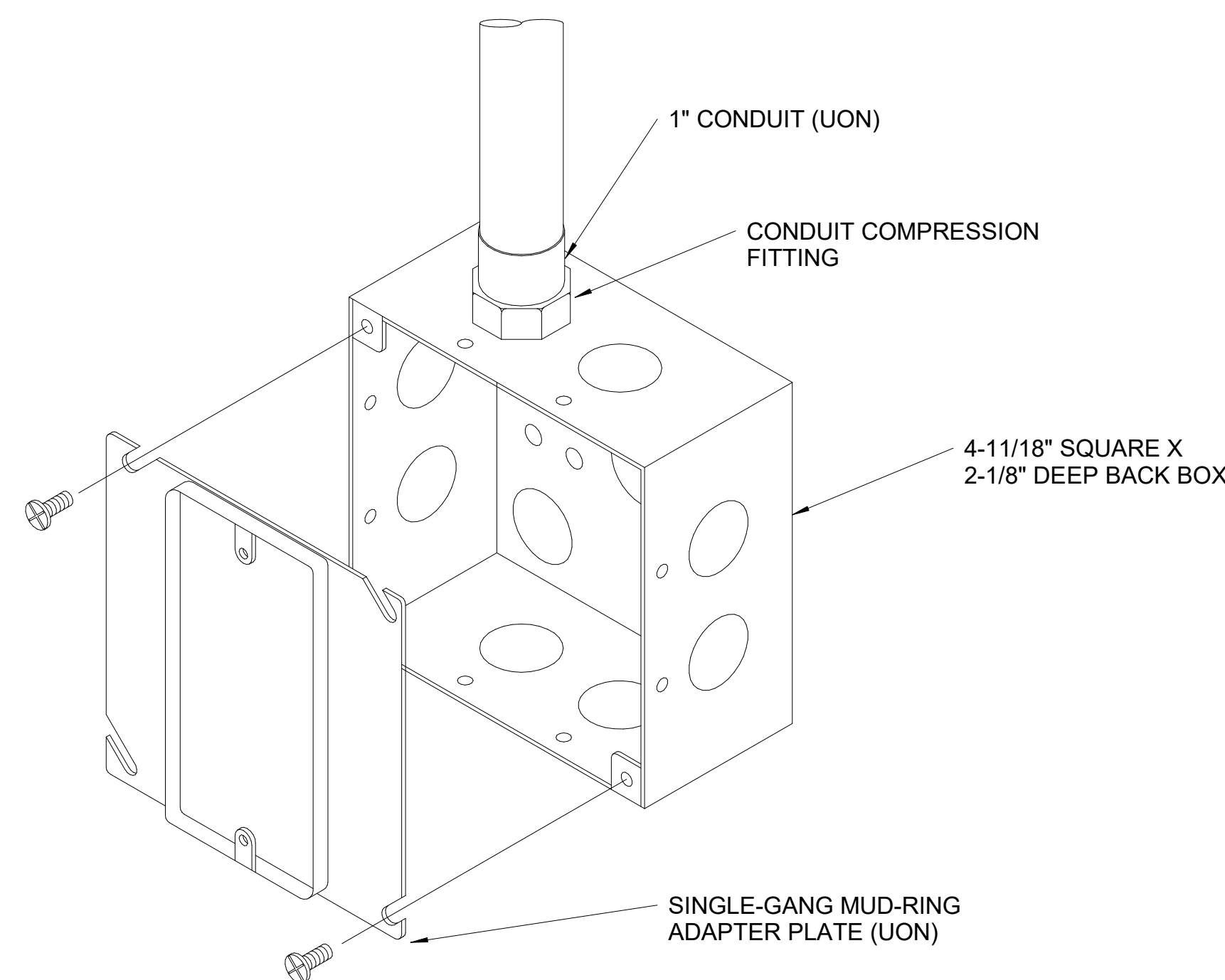
**DETAIL KEYNOTES: #**  
 1. SINGLE GANG METAL PLATE  
 2. CAT6A RJ45 MODULAR JACK, DATA (BLUE)  
 3. CAT6A RJ45 MODULAR JACK, VOICE (WHITE)  
 4. OUTLET LABEL (CONFIRM OUTLET LABELING SCHEME WITH OWNER)

**WALL MOUNTED PHONE**

G1 TN501DTP1 SCALE = 12" = 1'-0"

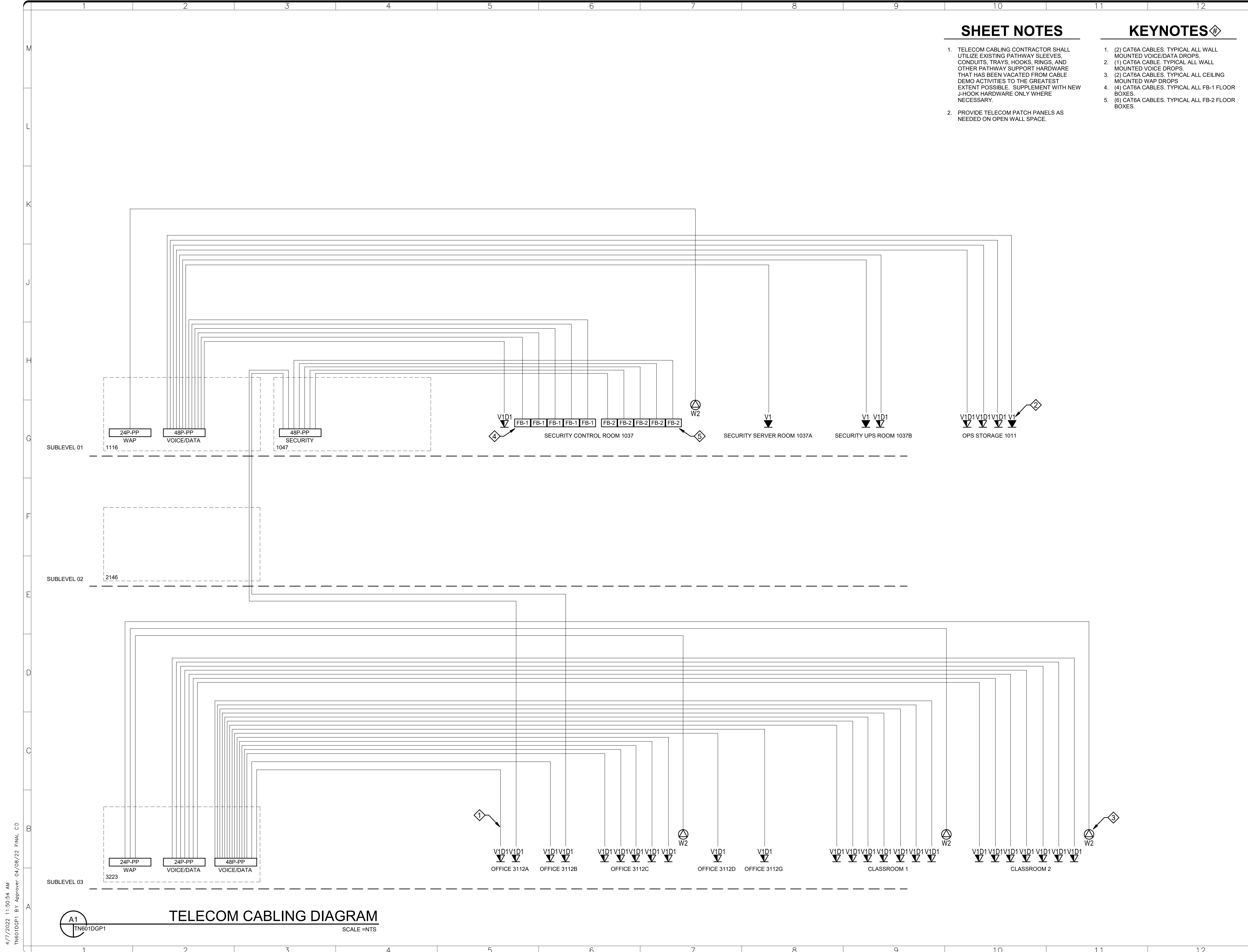
**2-PORT FACEPLATE CONFIGURATION VOICE/DATA**

G4 TN501DTP1 SCALE = 12" = 1'-0"



**BACK BOX WITH MUD RING**

B1 TN501DTP1 SCALE = 12" = 1'-0"



**SHEET NOTES**

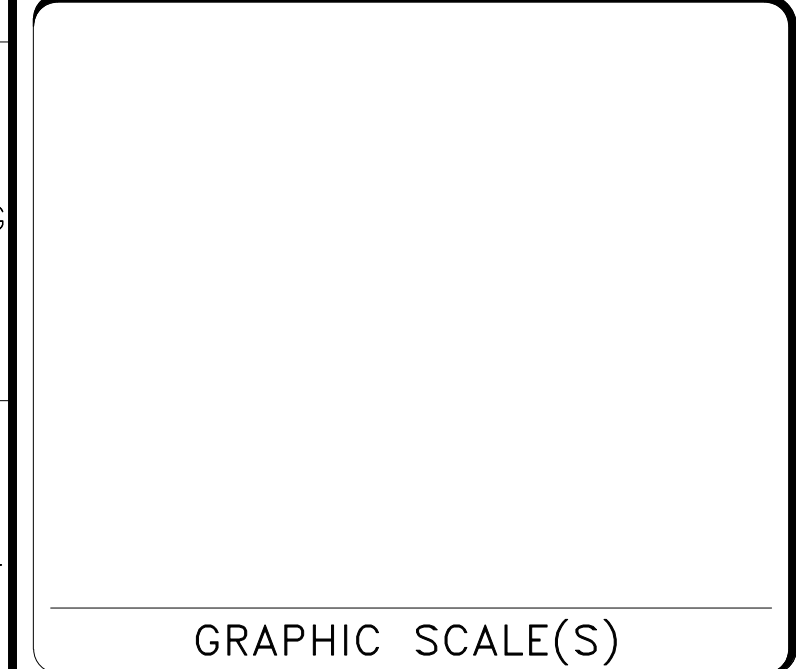
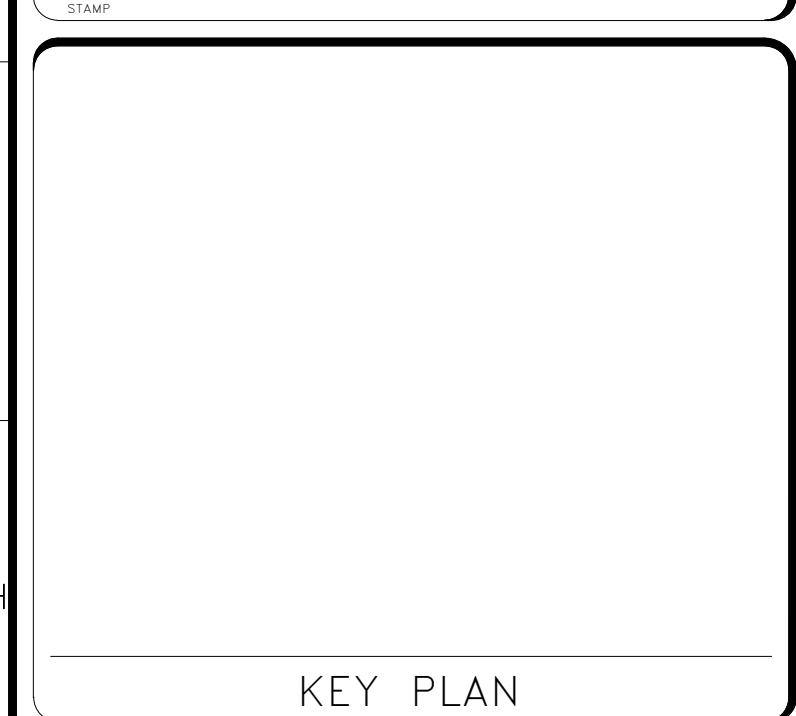
- TELECOM CABLING CONTRACTOR SHALL UTILIZE EXISTING PATHWAY SLEEVES, CONDUITS, TRAYS, HOOKS, RINGS, AND OTHER PATHWAY SUPPORT HARDWARE THAT HAS BEEN VACATED FROM CABLE DEMO ACTIVITIES TO THE GREATEST EXTENT POSSIBLE. SUPPLEMENT WITH NEW J-HOOK HARDWARE ONLY WHERE NECESSARY.
- PROVIDE TELECOM PATCH PANELS AS NEEDED ON OPEN WALL SPACE.

**KEYNOTES**

- (2) CAT6A CABLES. TYPICAL ALL WALL MOUNTED VOICE/DATA DROPS.
- (1) CAT6A CABLE. TYPICAL ALL WALL MOUNTED VOICE DROPS.
- (2) CAT6A CABLES. TYPICAL ALL CEILING MOUNTED WAP DROPS.
- (4) CAT6A CABLES. TYPICAL ALL FB-1 FLOOR BOXES.
- (6) CAT6A CABLES. TYPICAL ALL FB-2 FLOOR BOXES.



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SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	CABLING DIAGRAM - PHASE 1
WORKING STAFF	WD SK DB
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO. TN601DGP1  
140 of 179

4/7/2022 11:50:54 AM  
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**TELECOM CABLING DIAGRAM**  
SCALE = NTS

## GENERAL NOTES

1. THE SCOPE OF THIS PROJECT INCLUDES DESIGNING AND PROVIDING A SUPERVISED, ELECTRONIC SECURITY SYSTEM (ESS) CONSISTING OF ACCESS CONTROL, INTRUSION DETECTION, VIDEO, AND INTERCOMMUNICATION SYSTEMS AS SHOWN ON THE DRAWINGS AND DESCRIBED WITHIN THE ACCOMPANYING SPECIFICATIONS FOR THE FACILITY IDENTIFIED. THE SYSTEM IS AN EXTENSION OF THE OWNER'S EXISTING ESS.
2. PERFORM ALL WORK NECESSARY TO CARRY OUT THE INTENT OF THE CONTRACT DOCUMENTS AND PROVIDE COMPLETE SYSTEMS EVEN THOUGH EACH ITEM IS NOT SPECIFICALLY MENTIONED OR DESCRIBED.
3. THE TERM "CONTRACT DOCUMENTS" MEANS THE SPECIFICATIONS, DRAWINGS, ADDENDUMS, SKETCHES, AND OTHER DOCUMENTATION THAT DEFINE THE WORK.
4. THE TERM "PROVIDE" MEANS FURNISH AND INSTALL, COMPLETE AND READY FOR USE.
5. THE TERM "OWNER" MEANS SMITHSONIAN INSTITUTION OR ITS DESIGNATED REPRESENTATIVE OR AGENT
6. THE TERM "CONTRACTOR" OR "GENERAL CONTRACTOR" MEANS THE PRIME CONTRACTOR RESPONSIBLE FOR ALL WORK DEFINED IN THE CONSTRUCTION DOCUMENTS.
7. THE TERM "ELECTRICAL CONTRACTOR" MEANS A LICENSED AND QUALIFIED SUBCONTRACTOR PERFORMING WORK FOR THE CONTRACTOR.
8. THE TERM "SECURITY CONTRACTOR" MEANS AN OWNER APPROVED LICENSED AND QUALIFIED SUBCONTRACTOR PERFORMING WORK FOR THE CONTRACTOR.
9. THE TERM "EXISTING" MEANS EXISTING TO REMAIN.
10. THE TERM "NEW" MEANS CONTRACTOR TO PROVIDE NEW.
11. PROVIDE A FULLY INTEGRATED SYSTEM AS AN EXTENSION OF THE OWNER'S EXISTING SECURITY SYSTEMS.
12. COORDINATE CONSTRUCTION DOCUMENTS AND EXISTING CONDITIONS PRIOR TO COMMENCING WORK. BRING CONFLICTS TO THE OWNER'S ATTENTION IMMEDIATELY. PROCEEDING WITH WORK PRIOR TO THE OWNER ISSUING CLARIFICATION IS AT THE CONTRACTOR'S OWN RISK.
13. PROVIDE ALL LABOR, MATERIAL, EQUIPMENT, WIRE, CABLE, CONDUITS AND RACEWAYS FOR A COMPLETE INSTALLATION.
14. THE CONTRACT DOCUMENTS ARE DIAGRAMMATIC AND DEFINE THE GENERAL ARRANGEMENT.
15. PROVIDE AND MAINTAIN ALL DOCUMENTATION INCLUDING DESIGN DOCUMENTATION, AS-BUILT DOCUMENTATION, PROGRAMMING WORKSHEETS AND PROJECT COMMUNICATIONS.
16. FIELD VERIFY AND COORDINATE ALL DEVICE LOCATIONS. WHERE CONFLICTS OCCUR, COORDINATE AND VERIFY FINAL LOCATIONS WITH THE OWNER PRIOR TO INSTALLATION.
17. PAY ALL FEES AND OBTAIN ALL PERMITS AND LICENSES AS REQUIRED TO PERFORM THE WORK DEFINED IN THE SPECIFICATIONS AND AS SHOWN ON THE DRAWINGS.
18. PROVIDE NEW MATERIAL AND EQUIPMENT CONFORMING TO THE APPLICABLE STANDARDS OF UL, NEC, NEMA, ASTM, ANSI AND OTHERS AS IDENTIFIED IN THE TECHNICAL SPECIFICATIONS.
19. GUARANTEE ALL WORK FOR A MINIMUM OF ONE YEAR COMMENCING ON THE DATE OF FINAL ACCEPTANCE OF THE SYSTEM BY THE OWNER.
20. PROVIDE LABOR, TOOLS, CONTAINERS, AND SERVICES AS REQUIRED TO MAINTAIN A CLEAN AND SAFE WORK SITE. REMOVE EXCESS MATERIAL AND DEBRIS FROM THE WORK SITE. CLEAN THE WORK SITE DAILY.
21. PROVIDE INTEGRATION OF SECURITY DEVICES AND EQUIPMENT WITH BUILDING FIRE ALARM DEVICES AND EQUIPMENT TO COMPLY WITH NFPA, NEC, UL, AND LOCAL CODES AND ORDINANCES.
22. SECURE WORK IN OCCUPIED AREAS WITH BARRIERS TO NOT CREATE A SAFETY HAZARD. KEEP MATERIALS SUCH AS TOOLS, LADDERS AND INSTALLATION MATERIAL TO A MINIMUM AND ALLOW EASY PASSAGE OF BUILDING TENANTS. PROVIDE DROP CLOTHES OR OTHER WISE PROTECT BUILDING FINISHES FROM ALL CONSTRUCTION DEBRIS AND DUST. REMOVE TRASH AND DEBRIS ON A DAILY BASIS AND RESTORE AREAS TO PRE CONSTRUCTION CONDITIONS AS WORK IS COMPLETED.
23. OWNER IS VERY SENSITIVE TO VIBRATION, DUST AND NOISE. ANY WORK ACTIVITIES THAT GENERATE VIBRATION, NEED TO BE TESTED AND SCHEDULED IN ADVANCE. SHOULD ACTIVITIES EXCEED OWNERS SET LIMITS, THE OWNER HAS THE RIGHT TO STOP WORK, PROVIDE AN ALTERNATE DATE AND TIME TO COMPLETE VIBRATION GENERATING WORK.

## CONDUIT AND RACEWAY NOTES

1. PROVIDE CONDUITS AND RACEWAYS FOR A COMPLETE INSTALLATION. ROUTE SECURITY WIRE AND CABLE IN CABLE TRAYS, METALLIC CONDUITS, COVERED RACEWAYS, OR CLOSED WIRE TROUGHS. J-HOOKS ARE NOT AUTHORIZED.
2. PROVIDE CONDUITS AND RACEWAYS THAT COMPLY WITH NEC REQUIREMENTS OR COMPLY WITH LOCAL CODES AND ORDINANCES. THE MOST STRINGENT REQUIREMENTS GOVERN.
3. REGARDLESS OF NEC OR LOCAL CODES AND ORDINANCES, PROVIDE CONDUIT AND RACEWAY SIZED FOR A MAXIMUM FILL OF 40%.
4. REGARDLESS OF NEC OR LOCAL CODES AND CONDUIT FILL REQUIREMENTS, THE CONDUIT MINIMUM DIAMETER IS 19mm (3/4").
5. PROVIDE COMPRESSION TYPE CONDUIT FITTINGS. SET SCREW TYPE FITTINGS ARE NOT ACCEPTABLE.
6. PROVIDE COLOR CODING OF SECURITY CONDUITS AND RACEWAYS. PERMANENTLY MARK CONDUITS AND RACEWAYS WITH A 25mm (1") BLUE BAND EVERY 3 METERS (10 FEET), BLUE BANDING COLOR TO BE BENJAMIN MOORE #791 OR APPROVED EQUIVALENT.
7. PERMANENTLY PAINT JUNCTION BOXES, DEVICE BOXES, TERMINAL CABINETS, AND WIRE THROUGH BLUE, COLOR TO BE BENJAMIN MOORE #791 OR APPROVED EQUIVALENT.
8. PAINT EXPOSED CONDUIT TO MATCH ADJACENT FINISH.
9. CONCEAL CONDUIT AND RACEWAYS TO THE GREATEST EXTENT POSSIBLE. IN AREAS WITHOUT CEILINGS, INSTALL CONDUIT AS UNOBTRUSIVELY AS POSSIBLE, AS CLOSE AS POSSIBLE TO FLOOR/ CEILING SLAB AND PARALLEL AND AT RIGHT ANGLES TO STRUCTURAL STEEL OR CONCRETE ELEMENTS. THESE DRAWINGS ARE DIAGRAMMATIC TO SHOW DESIGN INTENT ONLY. WHERE CONDUITS AND RACEWAYS CANNOT BE CONCEALED, COORDINATE WITH THE OWNER TO OBTAIN APPROVAL PRIOR TO INSTALLATION.
10. PROVIDE SEPARATE RACEWAY, CONDUITS, JUNCTION BOXES, AND ENCLOSURES FOR ALL SECURITY WIRE AND CABLE. USE OF SHARED LOW-VOLTAGE CABLE TRAY IS AUTHORIZED. DO NOT COMBINE 120VAC CONDUCTORS OR ANY POWER DISTRIBUTION CIRCUIT WITH SECURITY WIRE AND CABLE.
11. PROVIDE OWNER APPROVED SECURITY SCREWS AND FASTENERS FOR ALL SECURITY JUNCTION BOXES AND SCREW COVER ENCLOSURES.
12. PROVIDE ACCESS COVERS OR HATCHES FOR ALL SECURITY JUNCTION BOXES CONCEALED IN STRUCTURE. PROVIDE ACCESS TO JUNCTION BOXES AND EQUIPMENT ENCLOSURES LOCATED WITHIN 3 METERS (10 FEET) OF SECURITY DEVICES.
13. PROPERLY CLEAN AND SEAL PENETRATIONS IN FIRE RESISTIVE WALLS, FLOOR, CEILING, OR ROOF ASSEMBLIES TO THE FULL THICKNESS OF THE PENETRATION WITH AN APPROVED THROUGH PENETRATION FIRE STOP SYSTEM. PROVIDE FIRE STOP SYSTEM WITH A FIRE RESISTANCE THAT IS EQUAL TO OR GREATER THAN THAT OF THE PENETRATED ASSEMBLY. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS AND RATINGS OF FIRE RESISTIVE ASSEMBLIES.
14. CORE DRILL WITH MASONRY TYPE CORE BIT AND SLEEVED AS SPECIFIED ALL PENETRATIONS IN MASONRY WALLS AND FLOOR/CEILING SLABS. UTILIZE X-RAY OR ULTRASOUND TECHNOLOGY TO DETECT AND AVOID CONCEALED STRUCTURAL REINFORCEMENT.
15. CONTRACTOR IS RESPONSIBLE FOR AVOIDING ALL CONFLICTS WITH LIGHT FIXTURES, HVAC DIFFUSERS, GRILLS, DUCTS, CONDUIT AND OTHER PIPING OR OTHER OBSTRUCTIONS ENCOUNTERED. COORDINATE ALL WORK WITH EXISTING FIELD CONDITIONS. PROMPTLY NOTIFY OWNER PRIOR TO INITIATING WORK IF ANY MOUNTING LOCATIONS ARE OBSTRUCTED AND/OR IF ANY MOUNTING CONFLICTS OR PROBLEMS ARE DISCOVERED.
16. EXCAVATE WITH EXTREME CARE. TAKE ALL REASONABLE ACTIONS TO PROPERLY PROTECT, SUPPORT AND BACKFILL UNDERGROUND UTILITY LINES. IMMEDIATELY NOTIFY THE UTILITY IF AN UNDERGROUND UTILITY LINE IS DAMAGED. IF DAMAGE CREATES AN EMERGENCY, TAKE IMMEDIATE STEPS TO SAFEGUARD LIFE, HEALTH AND PROPERTY.

## WIRE & CABLE NOTES

1. PROVIDE ALL WIRE AND CABLE FOR A COMPLETE AND FUNCTIONAL SECURITY SYSTEM.
2. PROVIDE WIRE AND CABLE THAT COMPLY WITH NEC AND UL REQUIREMENTS OR COMPLY WITH LOCAL CODES AND ORDINANCES. THE MOST STRINGENT REQUIREMENTS GOVERN.
3. PROVIDE WIRE AND CABLE CONDUCTORS FOR DATA CIRCUITS, CONTROL CIRCUITS AND COMMUNICATIONS WIRING #22 AWG MINIMUM.
4. PROVIDE WIRE AND CABLE CONDUCTORS FOR LOW VOLTAGE POWER DISTRIBUTION AND CONTROL CIRCUIT WIRING #18 AWG MINIMUM. UP SIZE CONDUCTORS AS REQUIRED TO PROVIDE A VOLTAGE DROP LESS THAN 10% UNLESS OTHERWISE NOTED.
5. PROVIDE MANUFACTURER'S INTERNAL INTERCONNECT WIRING UL APPROVED AND SIZED IN ACCORDANCE WITH THE MANUFACTURER'S MINIMUM REQUIREMENTS.
6. PROVIDE SHIELDED CABLE FOR ALL LOW SPEED SERIAL DATA CIRCUITS, CONTROL CIRCUITS, AND COMMUNICATIONS WIRING.
7. PROVIDE UTP CAT 6 CABLE FOR ALL HIGH SPEED DATA CIRCUITS (ETHERNET).
8. GROUND LOOPS ARE NOT PERMITTED. GROUND SHIELD DRAIN WIRES TO VERIFIED EARTH GROUND TERMINAL LUGS AT THE CONTROL CABINET OR ORIGINATING EQUIPMENT. INSULATE SHIELDS AND DRAIN WIRES AT THE DEVICE OR REMOTE TERMINATION POINT USING UL APPROVED INSULATORS. THE USE OF AC POWER NEUTRAL CONDUCTORS FOR GROUND CONNECTIONS IS UNACCEPTABLE.
9. PROVIDE UNSHIELDED TWISTED PAIR CABLE ASSEMBLIES FOR ALL DC LOW VOLTAGE POWER DISTRIBUTION AND CONTROL CIRCUITS.
10. PROVIDE TWISTED SHIELDED PAIR CABLE ASSEMBLIES FOR ALL AC LOW VOLTAGE POWER DISTRIBUTION.

## DEMO NOTES

1. PERFORM A "FUNCTIONAL CHECK" OF ALL ESS EQUIPMENT PRIOR TO INITIATING ANY DEMOLITION. COMPILE "FUNCTIONAL CHECK" RESULTS AND DELIVER TO THE OWNER.
2. THE TERM "DEMO" MEANS DISCONNECT AND REMOVED BACK TO SOURCE. STOP REMOVAL WHERE DAMAGE WOULD OCCUR IF FURTHER REMOVAL OCCURRED. CUT CONDUIT OFF AND REMOVE WIRE CONDUCTORS UNDER THESE CONDITIONS.
3. REMOVE SECURITY EQUIPMENT, COMPONENTS, AND DEVICES SCHEDULED FOR DEMOLITION IN A MANNER TO PRESERVE THE APPEARANCE AND OPERABILITY TO THE EXTENT POSSIBLE.
4. INVENTORY EQUIPMENT REMOVED DURING DEMOLITION AND TURN OVER TO OWNER.
5. MAINTAIN EXISTING SECURITY DEVICES OPERATIONALLY AS LONG AS POSSIBLE. KEY AREAS NEED TO BE COORDINATED WITH OPS PRIOR TO ANY DEMO WORK. KEY AREAS INCLUDE COLLECTIONS AREAS, GALLERIES, PERIMETER, CASH ROOMS, RETAIL SPACES ETC.
6. IF SYSTEM OUTAGE EXTENDS BEYOND NORMAL BUSINESS HOURS, THE CONTRACTOR INCURS THE COST FOR UTILIZING THE OWNERS UNIFORMED GUARD SERVICE TO PROVIDE ADDITIONAL SECURITY.



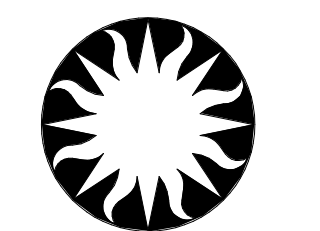
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A/E PROJECT NUMBER	11203201												
DRAWING TITLE	REFERENCE SHEET -- SECURITY -- PHASE 1												
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DESIGNED BY	MO	SK	DB										
DRAWN BY													
CHECKED BY													
SHEET NO.	TY001P1												
141 of 179	DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE												

### SYMBOL LIST

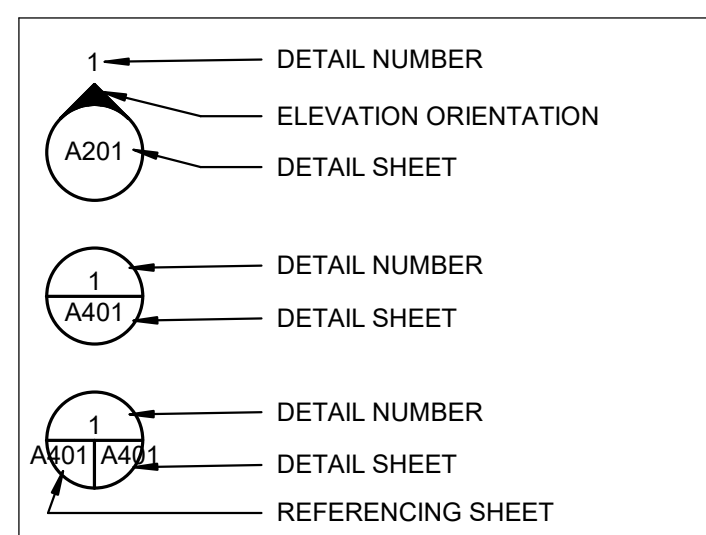
		NEW DEVICE LINE TYPE
		EXISTING DEVICE LINE TYPE
		DEMOLITION DEVICE LINE TYPE
28 2000		DOMES CAMERA
28 2000		MULTI-LENS DOMES CAMERA
28 1000		CARD READER, PM = MULLION, P = PROXIMITY, PK = KEYPAD, AD = ARM/DISARM
28 3100		DOOR CONTACT, R=RECESSED, S=SURFACE OH=OVERHEAD, RH=ROOF HATCH, HR=HIGH SECURITY RECESSED, OH HS=OVERHEAD HIGH SECURITY
28 1515		REQUEST TO EXIT PASSIVE INFRARED SENSOR
28 1515		ELECTRIFIED LOCKSET, R= INTEGRATED REX, L= ELECTRIFIED LOCKSET, M = ELECTROMAGNETIC, S = STRIKE
28 1515		LOCAL SOUNDER
28 3100		CEILING MOUNTED 360 DEGREES MOTION DETECTOR
N/A		WALL FIELD (SECURITY PANEL LOCATION)
28 1000		ULTRA PANEL
N/A		EXISTING SECURITY ENCLOSURE
28 1000		INPUT/OUTPUT EXPANSION ENCLOSURE
28 1000		EDGE G2 PANEL
N/A		PHYSICAL ACCESS CONTROL SERVER
28 0513.10		OPERATOR WORKSTATION
28 0513.10		MONITOR 24"
28 0531.10		FIBER CORE SWITCH, 48 PORT
28 0531.10		NETWORK SWITCH, 48 PORT
28 1000		READER MODULE
N/A		INTERCOM SYSTEM SERVER
27 1116.10		KEYBOARD VIDEO MOUSE CONTROLLER
28 0513.10		NETWORK VIDEO RECORDER
28 1300.10		FIBER PATCH PANEL
28 1500.10		COPPER PATCH PANEL
28 1525		KEY MANAGEMENT CABINET, 9 = 9 MODULE CABINET, 9E = 9 MODULE EXPANSION CABINET
28 1523		VIDEO INTERCOM
28 1523		MASTER INTERCOM
28 0507.10		POWER SUPPLY, X = VOLTAGE
27 1116.10.10		FOUR POST RACK
27 1116.10.10		TWO POST RACK
27 1116.10.10		WALL MOUNTED SWING-OUT RACK
N/A		DETAIL KEY NOTE

### CAMERA TYPE LEGEND

	NUMBER
	TYPE
	MOUNT
4MP	4 MEGAPIXEL CAMERA
8MP	8 MEGAPIXEL CAMERA
20MP	20 MEGAPIXEL CAMERA

CS	CEILING SURFACE MOUNT
CM	CORNER MOUNT
CR	CEILING RECESSED MOUNT
WS	SURFACE WALL MOUNT
WA	ARMATURE WALL MOUNT

### ELEVATION AND DETAIL CALLOUT



### SECURITY DEVICE TAGS

ALARM INPUT - CONNECTED TO I8 MODULE	<p>SQ ### ACM: # I8: ## XX</p> <p>BUILDING ABBREVIATION → ISTAR NUMBER → ACM BOARD NUMBER → DEVICE SIGNAL TYPE → I8 INPUT NUMBER → I8 NUMBER</p>
ALARM INPUT - CONNECTED TO ISTAR ULTRA BOARD	<p>SQ ### ACM: # M: ## XX</p> <p>BUILDING ABBREVIATION → ISTAR NUMBER → ACM BOARD NUMBER → DEVICE SIGNAL TYPE → INPUT NUMBER</p>
READER INPUT - CONNECTED TO ISTAR ULTRA BOARD	<p>SQ ### ACM: # RDR: #</p> <p>BUILDING ABBREVIATION → ISTAR NUMBER → ACM BOARD NUMBER → READER INPUT NUMBER</p>
OUTPUT - CONNECTED TO R8 MODULE	<p>SQ ### ACM: # R8: ## XX</p> <p>BUILDING ABBREVIATION → ISTAR NUMBER → ACM BOARD NUMBER → DEVICE SIGNAL TYPE → R8 INPUT NUMBER → R8 NUMBER</p>

### CABLE LEGEND

TYPE	WIRE SIZE	# OF CONDUCTORS	DESCRIPTION	BELDEN OR EQUIVALENT	SIGNAL
A	22AWG	6	SHIELDED	9942	CARD READER
B	18AWG	2	SHIELDED	8461	POWER
C	22AWG	2	TWISTED SHIELDED PAIR	8442	CONTACT
D	24AWG	4	TWISTED SHIELDED PAIR	9842	CONTROL (RS-485, 4-WIRE)
E	24AWG	2	TWISTED SHIELDED PAIR	9841	CONTROL (RS-485)
F	22AWG	4	TWISTED SHIELDED PAIR	8729	DEVICE WIRING
G	UTP	8	CAT6	7852A	VIDEO, COMMUNICATIONS
H	MM	6	FIBER OPTIC (50 MICRON)	FD4L006P9	COMMUNICATION
I	SM/MM	12SM/24MM	FIBER OPTIC HYBRID (0S2/0M4)	FIEDH12PK	COMMUNICATION

### ABBREVIATIONS

AC	ALTERNATING CURRENT
ACS	ACCESS CONTROL SYSTEM
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
C	CONDUIT
CAT	CATEGORY
CM	CEILING MOUNTED
DC	DIRECT CURRENT
EMI	ELECTRICAL MAGNETIC INTERFERENCE
EMT	ELECTRICAL METALLIC TUBING
ESS	ELECTRONIC SECURITY SYSTEM
FO	FIBER OPTIC
FOPP	FIBER OPTIC PATCH PANEL
FOT	FIBER OPTIC TRANSCIEVER
IDS	INTRUSION DETECTION SYSTEM
IMT	INTERMEDIATE METALLIC TUBING
ITS	INFORMATION TECHNOLOGY SYSTEMS
LAN	LOCAL AREA NETWORK
MAX	MAXIMUM
MIN	MINIMUM
MISC	MISCELLANEOUS
MM	MULTIMODE
MTD	MOUNTED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
NTS	NOT TO SCALE
OC	ON CENTER
OPE	OWNER PROVIDED EQUIPMENT
OPS	OFFICE OF PROTECTION SERVICES
OSP	OUTSIDE PLANT
PC	PERSONAL COMPUTER
PP	PATCH PANEL
PR	PAIR
PTZ	PAN-TILT-ZOOM
RM	ROOM
RMU	RACK MOUNTING UNIT (1.75')
SI	SMITHSONIAN INSTITUTION
SM	SINGLEMODE
STP	SHIELDED TWISTED PAIR
TBD	TO BE DETERMINED
TGB	TELECOMMUNICATIONS GROUNDING BUSBAR
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
TR	TELECOMMUNICATIONS ROOM
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTED POWER SUPPLY
UTP	UNSHIELDED TWISTED PAIR
VAC	VOLTS ALTERNATING CURRENT
VDC	VOLTS DIRECT CURRENT
VP	VANDAL PROOF
WM	WALL MOUNTED
WPE	WEATHER PROOF ENCLOSURE

### REFERENCE SPECIFICATIONS

- 27 0526.10 GROUNDING AND BONDING FOR SECURITY SYSTEMS
- 27 0528.10 PATHWAYS FOR SECURITY SYSTEMS
- 27 0536.10 CABLE TRAYS FOR SECURITY SYSTEMS
- 27 0544.10 SLEEVES AND SLEEVE SEALS FOR SECURITY PATHWAYS AND CABLING
- 27 1116.10 SECURITY CABINETS, RACKS, FRAMES, AND ENCLOSURES
- 27 1300.10 SECURITY BACKBONE CABLING
- 27 1500.10 SECURITY HORIZONTAL CABLING
- 28 0500.10 COMMON WORK RESULTS FOR ELECTRONIC SECURITY
- 28 0507.10 POWER SOURCES FOR ELECTRONIC SECURITY
- 28 0513.10 SERVERS, WORKSTATIONS, AND STORAGE FOR ELECTRONIC SECURITY
- 28 0531.10 COMMUNICATIONS EQUIPMENT FOR ELECTRONIC SECURITY
- 28 0800.10 COMMISSIONING OF ELECTRONIC SECURITY
- 28 1000 ACCESS CONTROL
- 28 1515 ELECTRIFIED LOCKING DEVICES AND ACCESSORIES
- 28 1523 INTERCOM ENTRY SYSTEMS
- 28 1525 ELECTRONIC KEY MANAGEMENT SYSTEMS
- 28 2000 VIDEO
- 28 3100 INTRUSION DETECTION
- 28 5119 CONTROL ROOM AND MONITORING EQUIPMENT



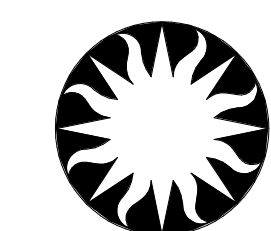
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STAMP

KEY PLAN

GRAPHIC SCALE(S)

DATE	04/08/22	REVISION	FINAL CD
ISSUED # DATE		ISSUED DESCRIPTION	



Smithsonian  
Institution

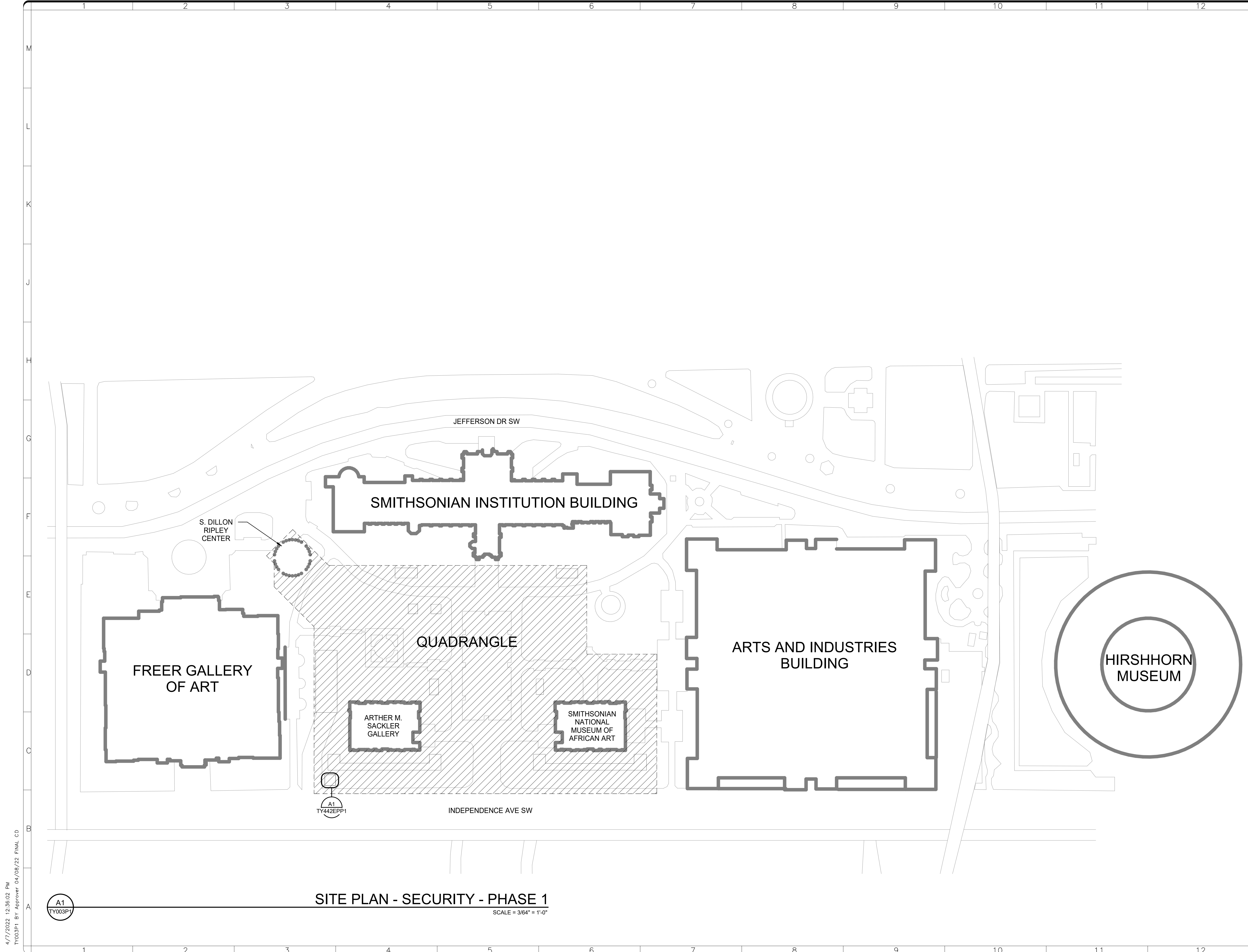
Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560

PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201

DRAWING TITLE	SECURITY SYMBOLS AND ABBREVIATIONS - PHASE 1
WORKING STAFF	MO SK DB
	DESIGNED BY DRAWN BY CHECKED BY

SHEET NO.	TY002P1
142 of 179	



4/7/2022 12:35:02 PM  
TY003P1 BY Approver 04/08/22 FINAL CD

A1  
TY003P1

**SITE PLAN - SECURITY - PHASE 1**  
SCALE = 3/64" = 1'-0"

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KEY PLAN

GRAPHIC SCALE(S)

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REVISION #		REVISION DESCRIPTION	

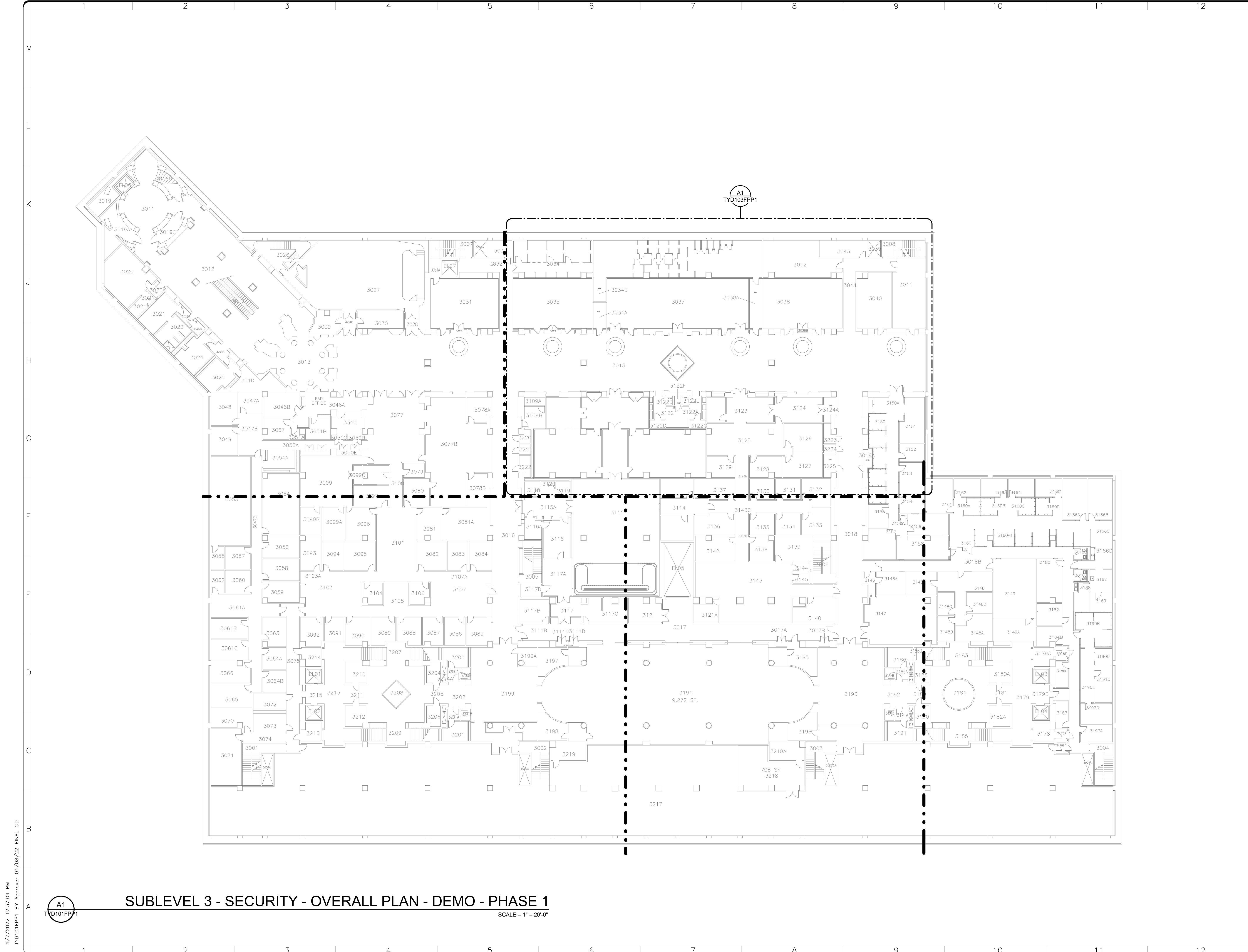
**Smithsonian Institution**  
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Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560

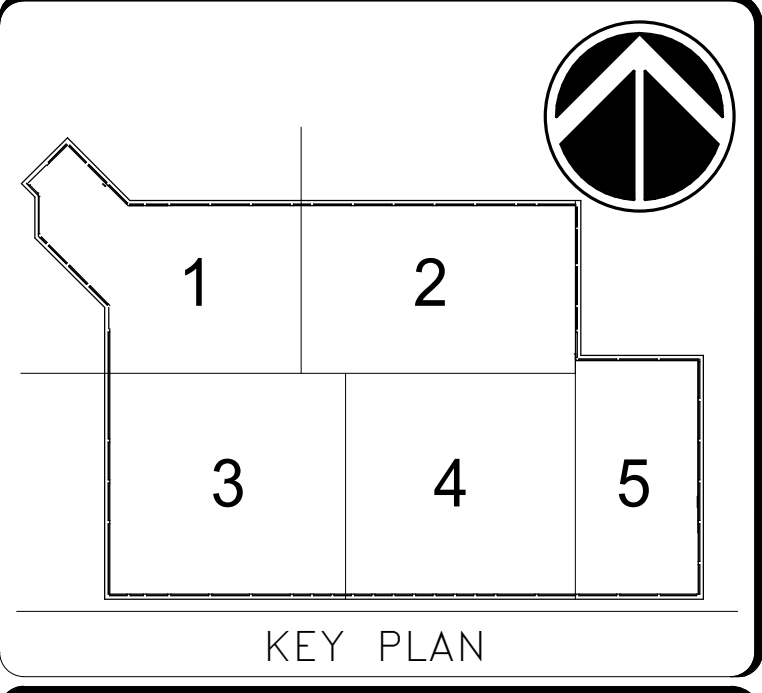
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SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201

DRAWING TITLE	SITE PLAN - SECURITY - PHASE 1
WORKING STAFF	MO SK DB
	DESIGNED BY DRAWN BY CHECKED BY

SHEET NO.	TY003P1
143 of 179	DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE



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0 10' 20' 40'  
 1"=20'-0"  
 GRAPHIC SCALE(S)

DATE	04/08/22	REVISION	FINAL CD
REVISION #		REVISION DESCRIPTION	

  
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ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/FAA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - SECURITY - OVERALL PLAN - DEMO - PHASE 1
WORKING STAFF	MO SK DB
	DESIGNED BY DRAWN BY CHECKED BY

SHEET NO. 144 of 179  
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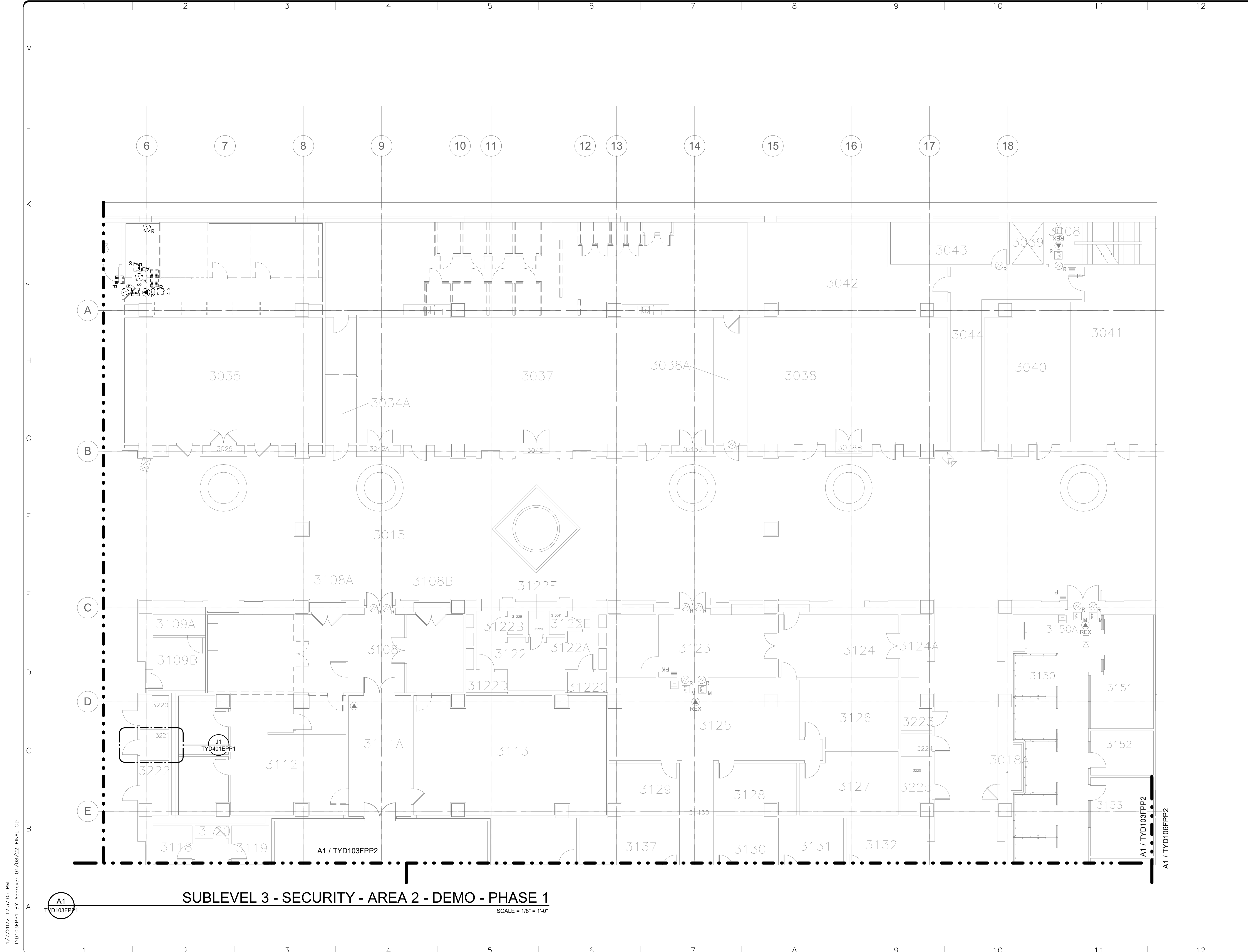
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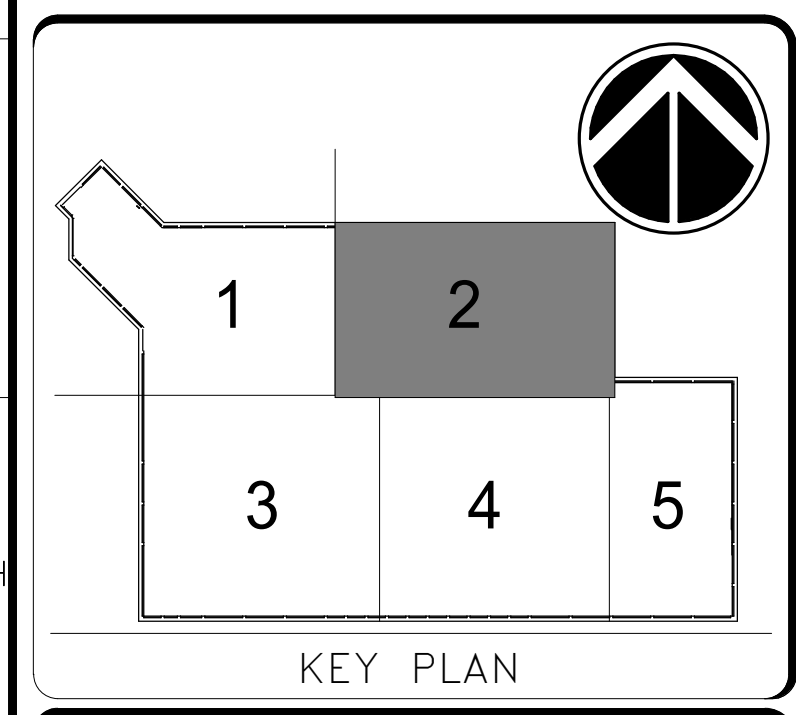
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SCALE = 1" = 20'-0"





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0 4' 8' 16'  
 1/8"=1'-0"  
 GRAPHIC SCALE(S)

DATE 04/08/22	REVISION FINAL CD
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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - SECURITY - AREA 2 - DEMO - PHASE 1
WORKING STAFF	MO SK DB
DESIGNED BY	DRAWN BY
CHECKED BY	

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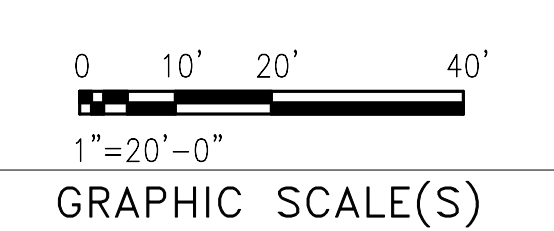
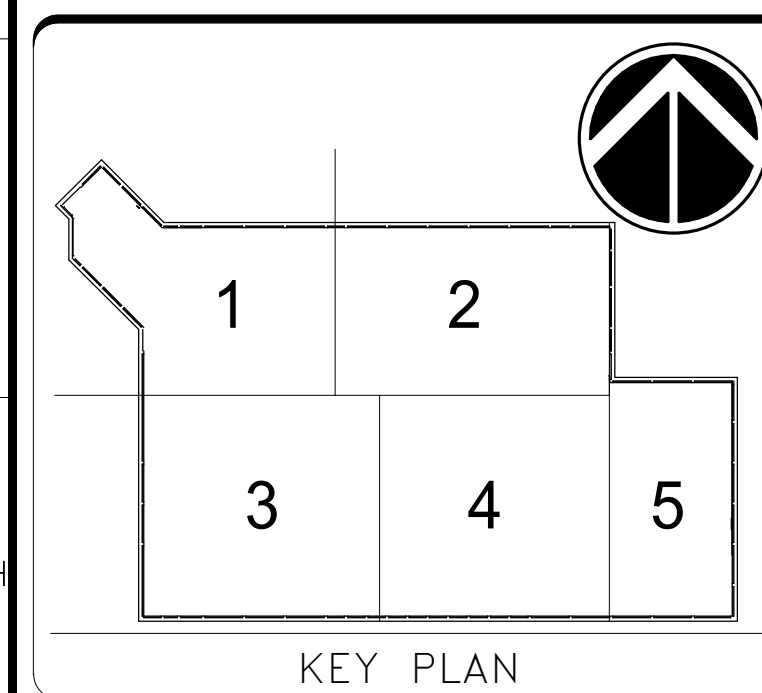
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**SUBLEVEL 3 - SECURITY - AREA 2 - DEMO - PHASE 1**  
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A1 / TYD103FPP2  
 A1 / TYD108FPP2



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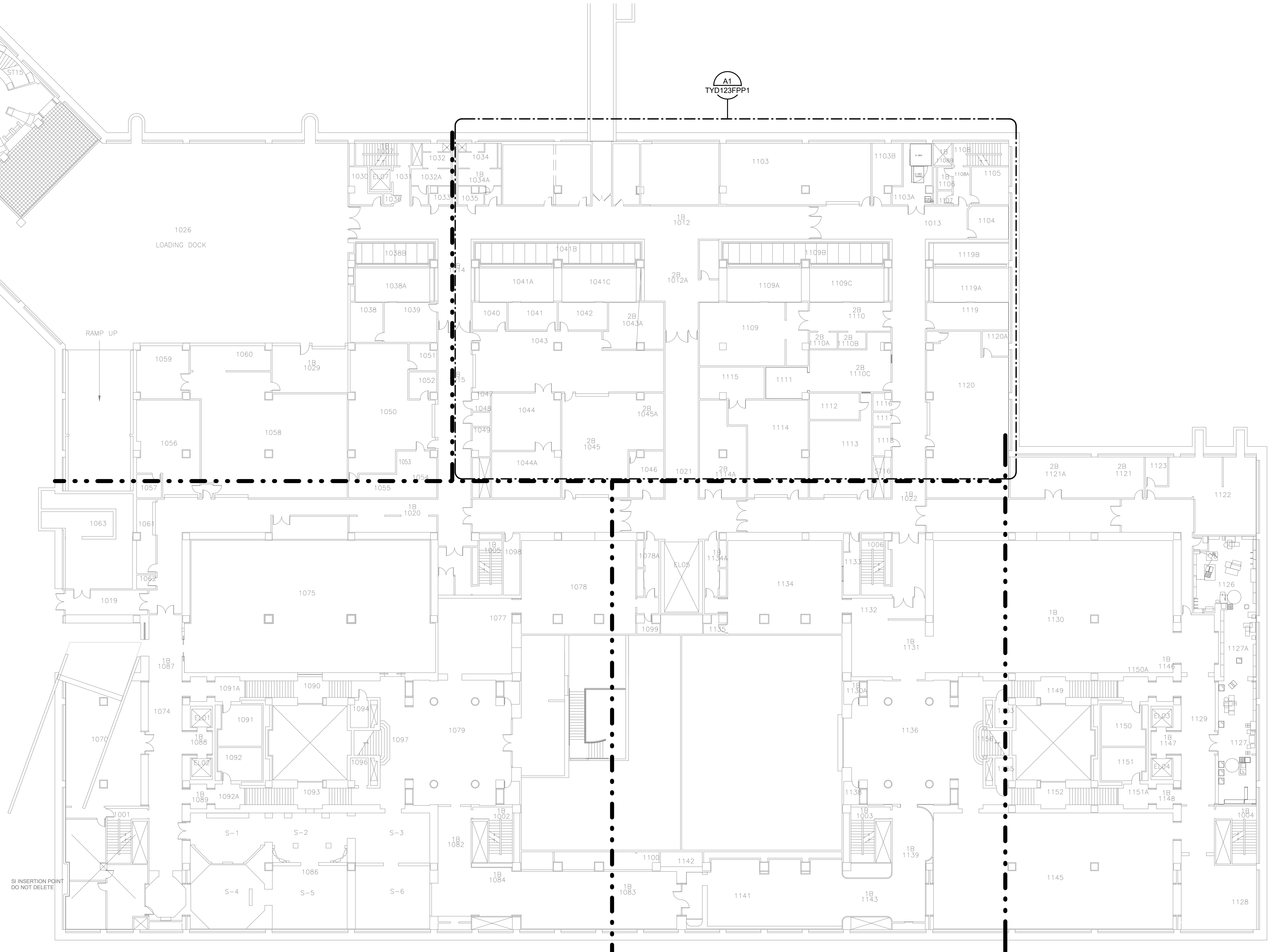
**Smithsonian Institution**  
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BUILDING NAME: FREER/SACKLER/AF/QUAD  
 ADDRESS: SW WASHINGTON, DC 20560

PROJECT TITLE: FREER/SACKLER/AF/QUAD  
 ESS' MODERNIZATION  
 SF PROJECT NUMBER: 1909101  
 A/E PROJECT NUMBER: 11203201

DRAWING TITLE: SUBLEVEL 1 - SECURITY -  
 OVERALL PLAN - DEMO -  
 PHASE 1  
 WORKING STAFF: MO SK DB  
DESIGNED BY DRAWN BY CHECKED BY

SHEET NO. 146 of 179  
 TYD121FPP1  
DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE



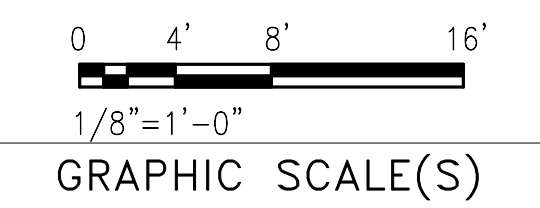
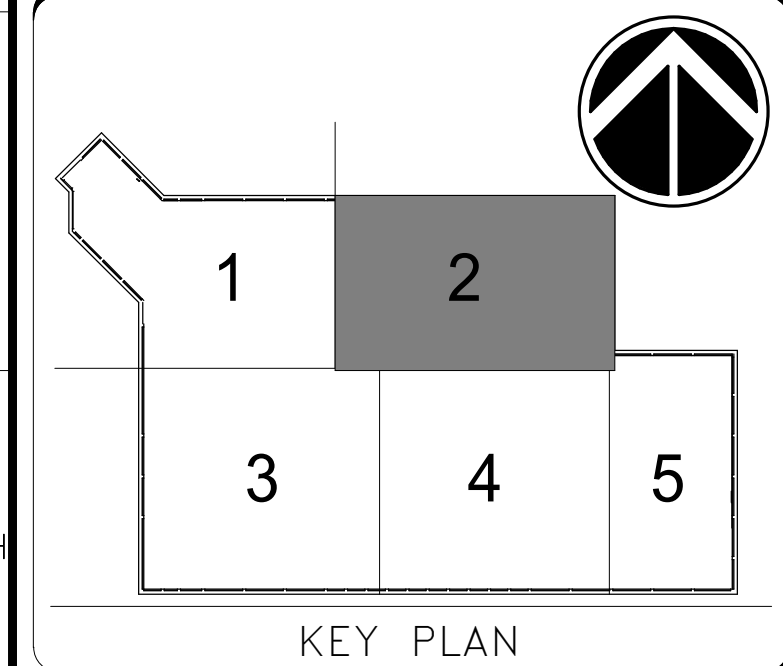
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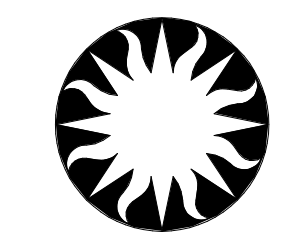




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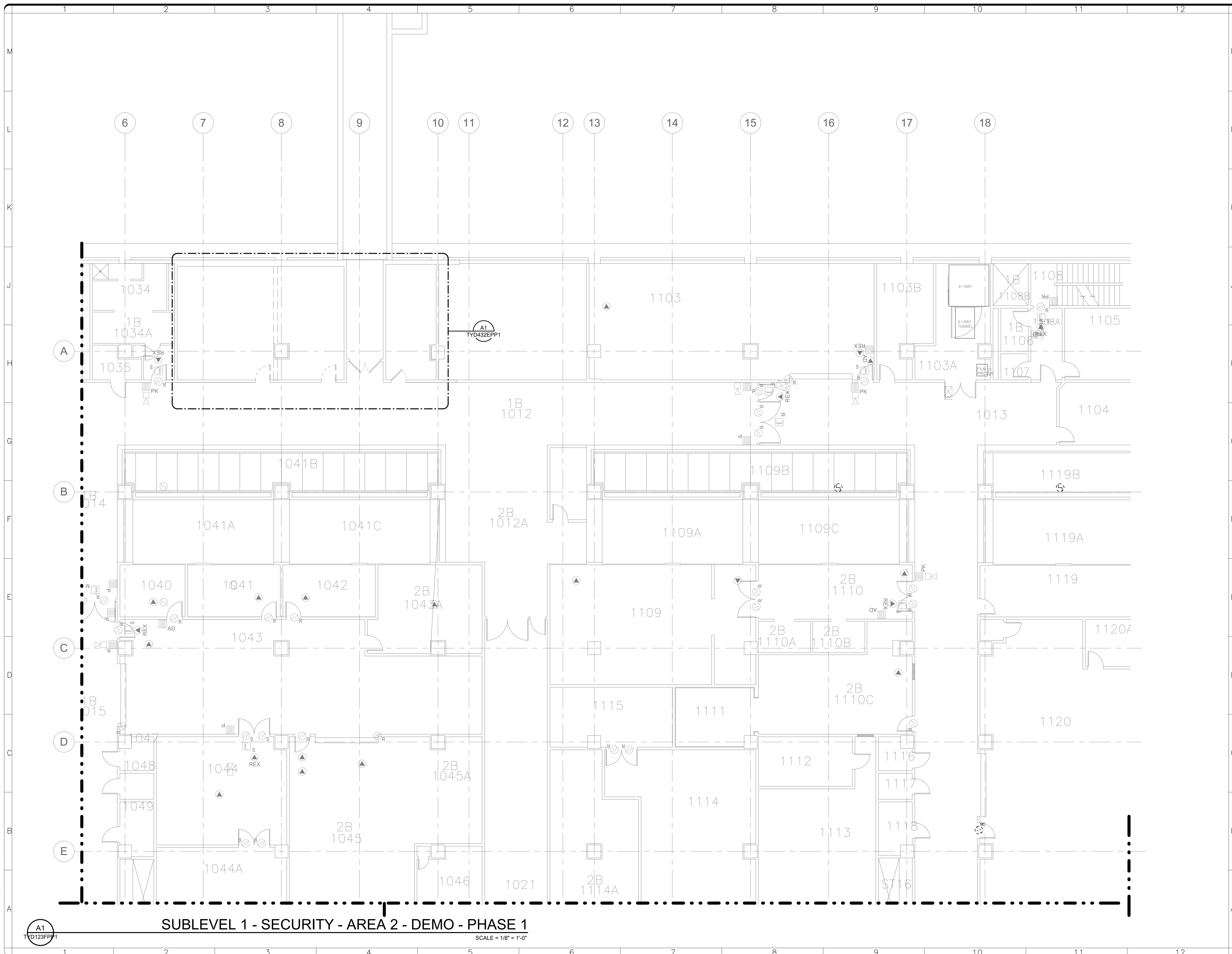
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REVISION #	REVISION DESCRIPTION



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BUILDING NAME	FREER/SACKLER/AFA/QUAD												
ADDRESS	SW WASHINGTON, DC 20560												
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS MODERNIZATION												
SF PROJECT NUMBER	1909101												
A/E PROJECT NUMBER	11203201												
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CHECKED BY													
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147 of 179	DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE												



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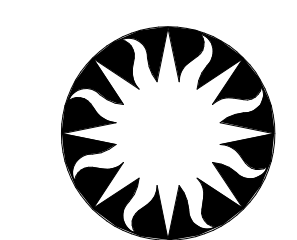
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DATE	04/08/22	REVISION	FINAL CD
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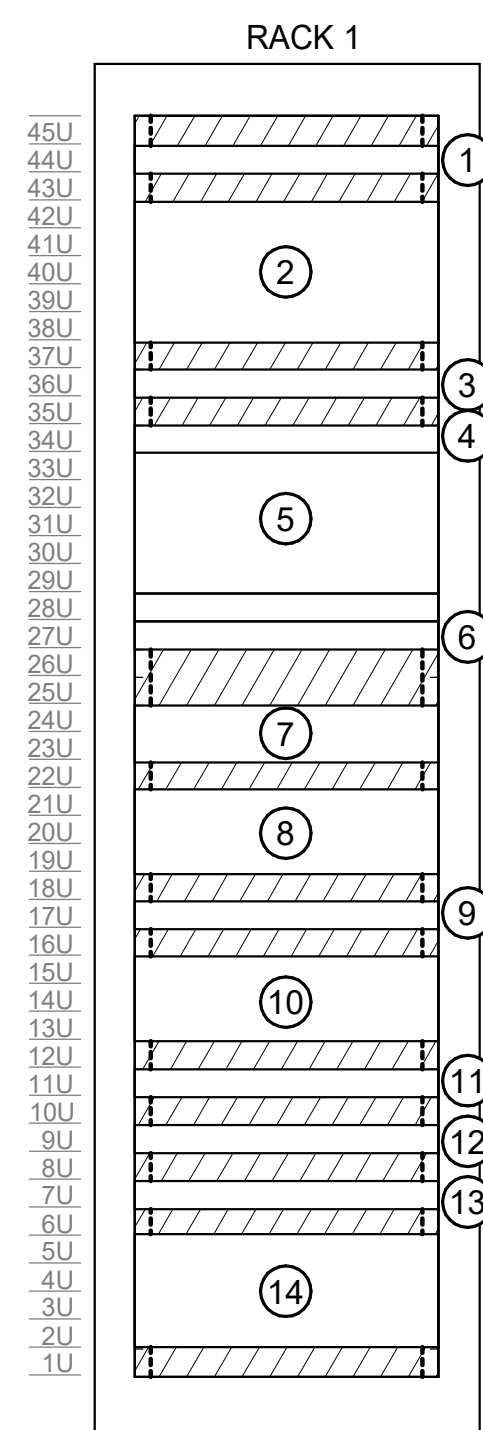
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SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201

DRAWING TITLE: RACK ELEVATIONS - PHASE 1

WORKING STAFF	MO	SK	DB
DESIGNED BY	DRAWN BY	CHECKED BY	

SHEET NO. 148 of 179  
 TYD231ELP1

DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE

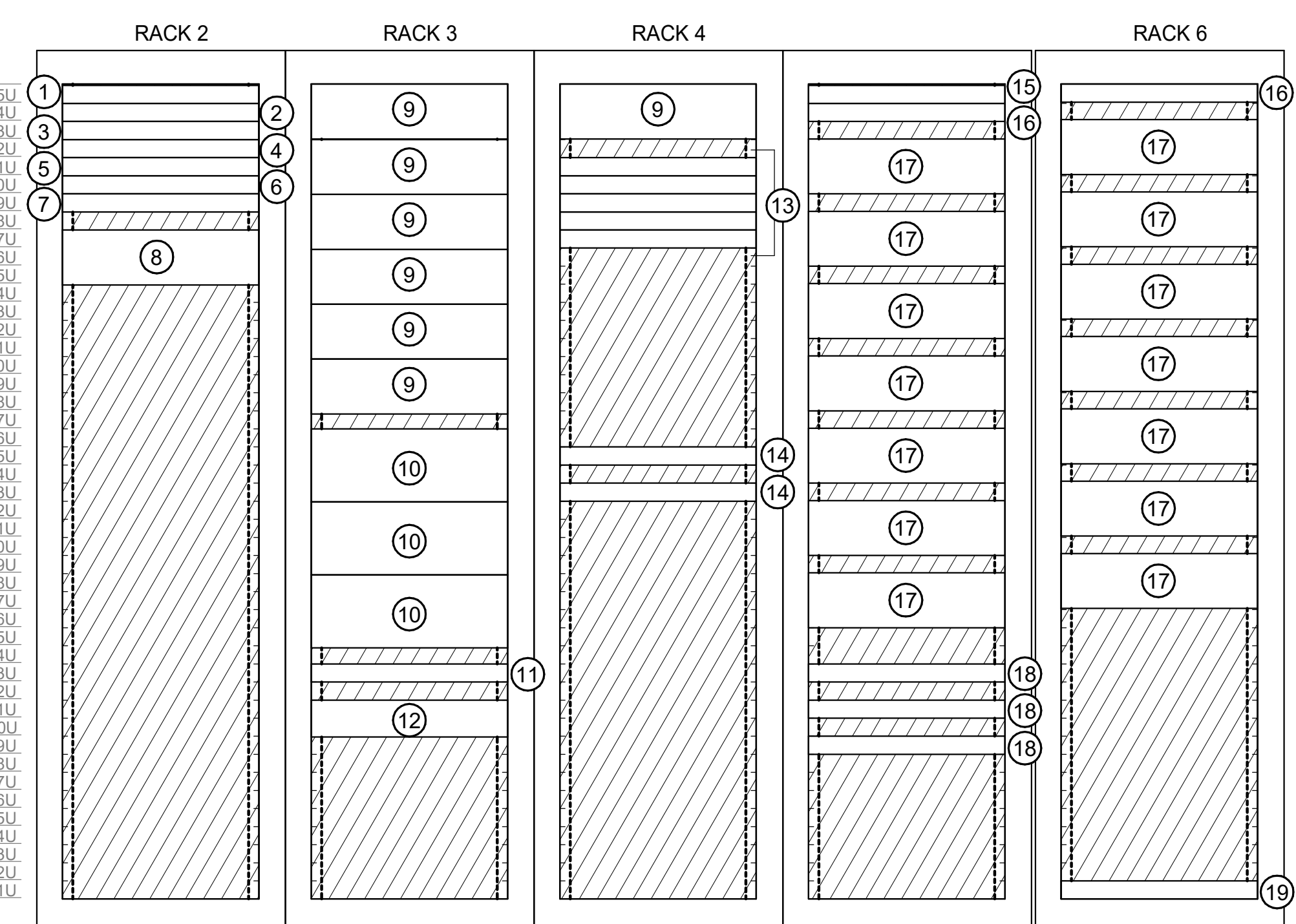


- DETAIL NOTES:**
- A. DETAIL IS DIAGRAMMATIC. ALL ELEMENTS MAY NOT BE ILLUSTRATED.
  - B. PROVIDE ALL SECURITY EQUIPMENT, NETWORKING EQUIPMENT, AND OTHER DEVICES AND MATERIAL TO PROVIDE A FULLY FUNCTIONAL SYSTEM.
- DETAIL KEY NOTES: #**
1. QUAD CCURE SERVER
  2. CCURE CENTRAL SERVER
  3. OPS BIRS SERVER
  4. SIB ALPHACOM XE1
  5. BLANK COVER
  6. SIB VPN
  7. NETWORK SWITCH
  8. QUAD VPN
  9. KVM
  10. RADIONICS COMMUNICATIONS RECEIVER/GATEWAY
  11. OPS DC SERVER
  12. SIB CCURE 9000 SERVER
  13. SIB CCURE SERVER
  14. NETWORK STORAGE

FRONT OF RACK

**SECURITY ROOM 1101 - RACK ELEVATIONS**

G1 TYD231ELP1 SCALE =NTS



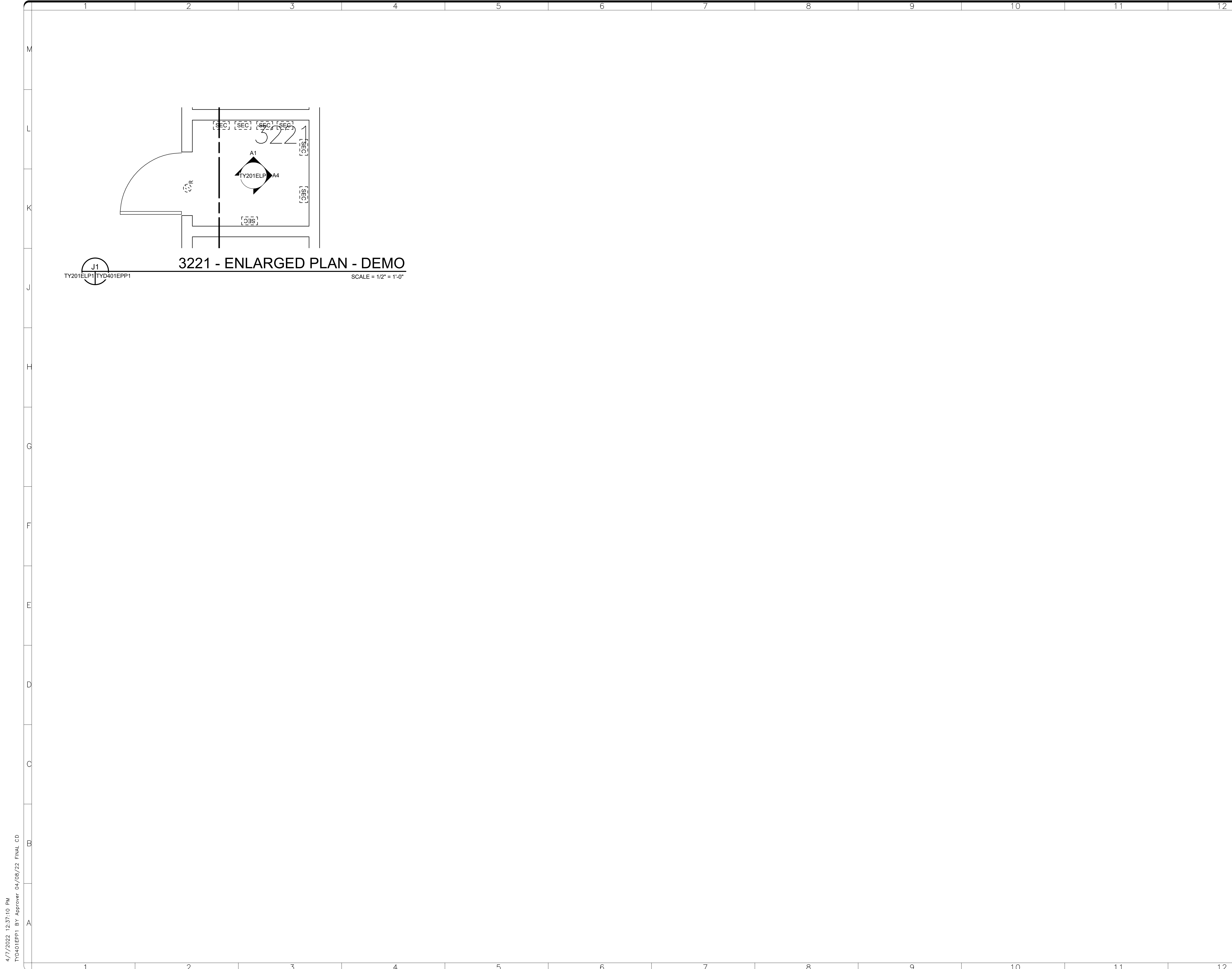
- DETAIL NOTES:**
- A. DETAIL IS DIAGRAMMATIC. ALL ELEMENTS MAY NOT BE ILLUSTRATED.
  - B. PROVIDE ALL SECURITY EQUIPMENT, NETWORKING EQUIPMENT, AND OTHER DEVICES AND MATERIAL TO PROVIDE A FULLY FUNCTIONAL SYSTEM.
  - C. EQUIPMENT WILL BE PHASED DEMO'D UNTIL NEW RACKS AND EQUIPMENT ARE FULLY FUNCTIONAL.
- DETAIL KEY NOTES: #**
1. AMERICAN DYNAMICS ADQUAD77 - NMAI
  2. AMERICAN DYNAMICS ADQUAD77 - NMAH
  3. AMERICAN DYNAMICS ADQUAD77 - NMNH
  4. AMERICAN DYNAMICS ADQUAD77 - NASM
  5. AMERICAN DYNAMICS ADQUAD77 - HMSG
  6. AMERICAN DYNAMICS ADQUAD77 - CASTLE
  7. AMERICAN DYNAMICS ADQUAD77 - QUAD
  8. BOGEN AMPLIFIER
  9. FIBER OPTIC TRANSCEIVER
  10. FOPP
  11. 24 PORT NETWORK SWITCH
  12. MEDIA CONVERTER CHASSIS
  13. VIDEO RECEIVER
  14. MONITOR CONNECTIONS
  15. AMERICAN DYNAMICS MEGAPOWER CPU
  16. NETWORK SWITCH
  17. DVR
  18. NVR
  19. VIDEO EDGE NVR

FRONT OF RACKS


**SECURITY ROOM 1101 - RACK ELEVATIONS 2**

A1 TYD231ELP1 SCALE =NTS

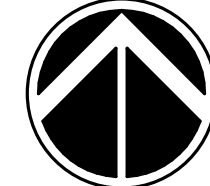
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**3221 - ENLARGED PLAN - DEMO**  
 TY201ELP1 TYD401EPP1 SCALE = 1/2" = 1'-0"



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KEY PLAN



0 1' 2' 4'  
 1/2" = 1'-0"  
 GRAPHIC SCALE(S)

DATE	04/08/22	REVISION	FINAL CD
REVISION # DATE		REVISION DESCRIPTION	



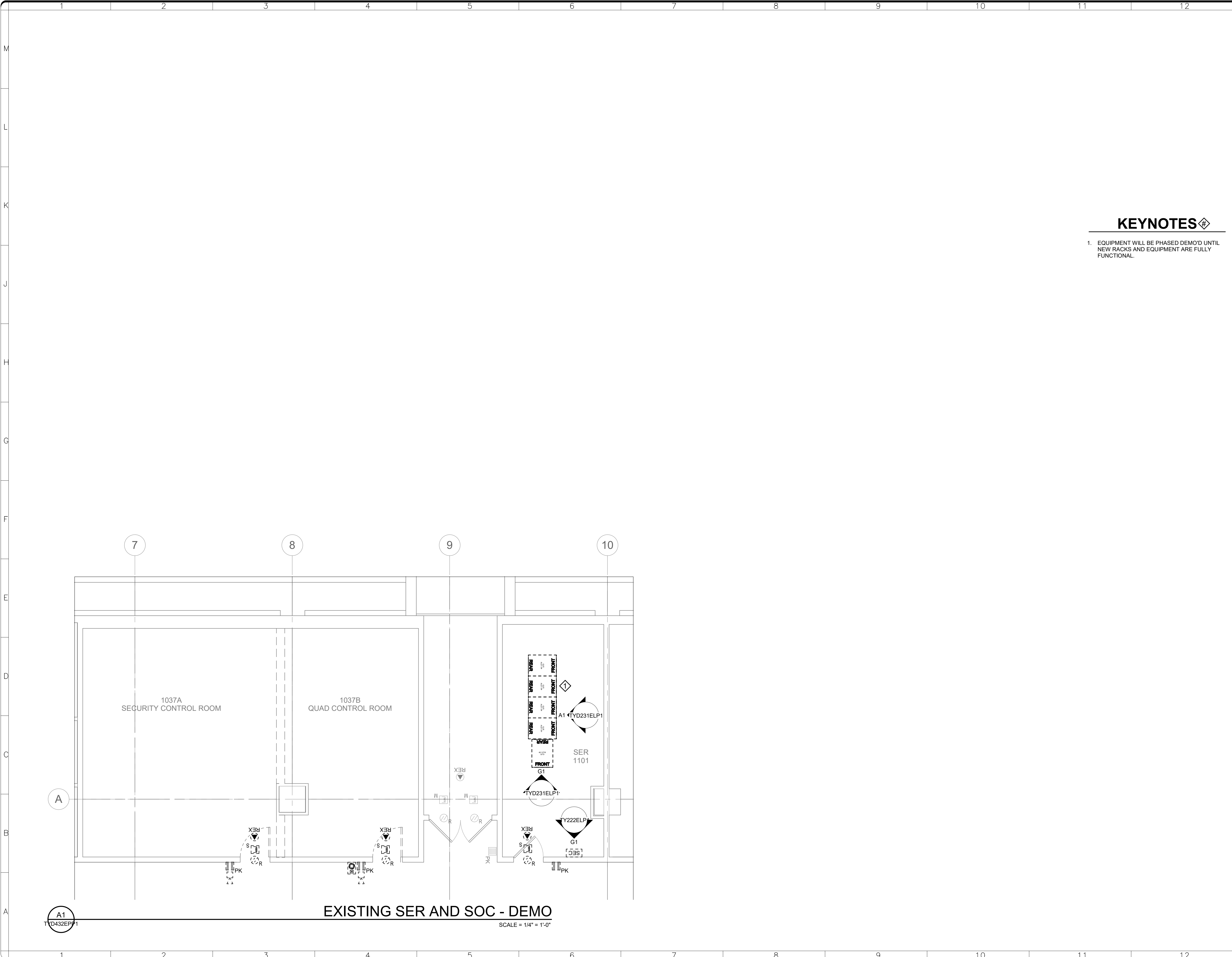
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 Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/FA/QUAD						
ADDRESS	SW WASHINGTON, DC 20560						
PROJECT TITLE	FREER/SACKLER/FA/ QUAD ESS' MODERNIZATION						
SF PROJECT NUMBER	1909101						
A/E PROJECT NUMBER	11203201						
DRAWING TITLE	SUBLEVEL 3 - ENLARGED PLANS - DEMO - PHASE 1						
WORKING STAFF	<table border="1"> <tr> <td>MO</td> <td>SK</td> <td>DB</td> </tr> <tr> <td>DESIGNED BY</td> <td>DRAWN BY</td> <td>CHECKED BY</td> </tr> </table>	MO	SK	DB	DESIGNED BY	DRAWN BY	CHECKED BY
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DESIGNED BY	DRAWN BY	CHECKED BY					

SHEET NO. **TYD401EPP1**  
 149 of 179  
DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE

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 TYD401EPP1 BY Approver 04/08/22 FINAL CD

4/7/2022 12:37:11 PM  
 TYD432EPP1 BY Approver 04/08/22 FINAL CD



**KEYNOTES**

- EQUIPMENT WILL BE PHASED DEMO'D UNTIL NEW RACKS AND EQUIPMENT ARE FULLY FUNCTIONAL.

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KEY PLAN

GRAPHIC SCALE(S)

0 2' 4' 8'

1/4"=1'-0"

DATE	04/08/22	REVISION	FINAL CD
REVISION #	DATE	REVISION DESCRIPTION	

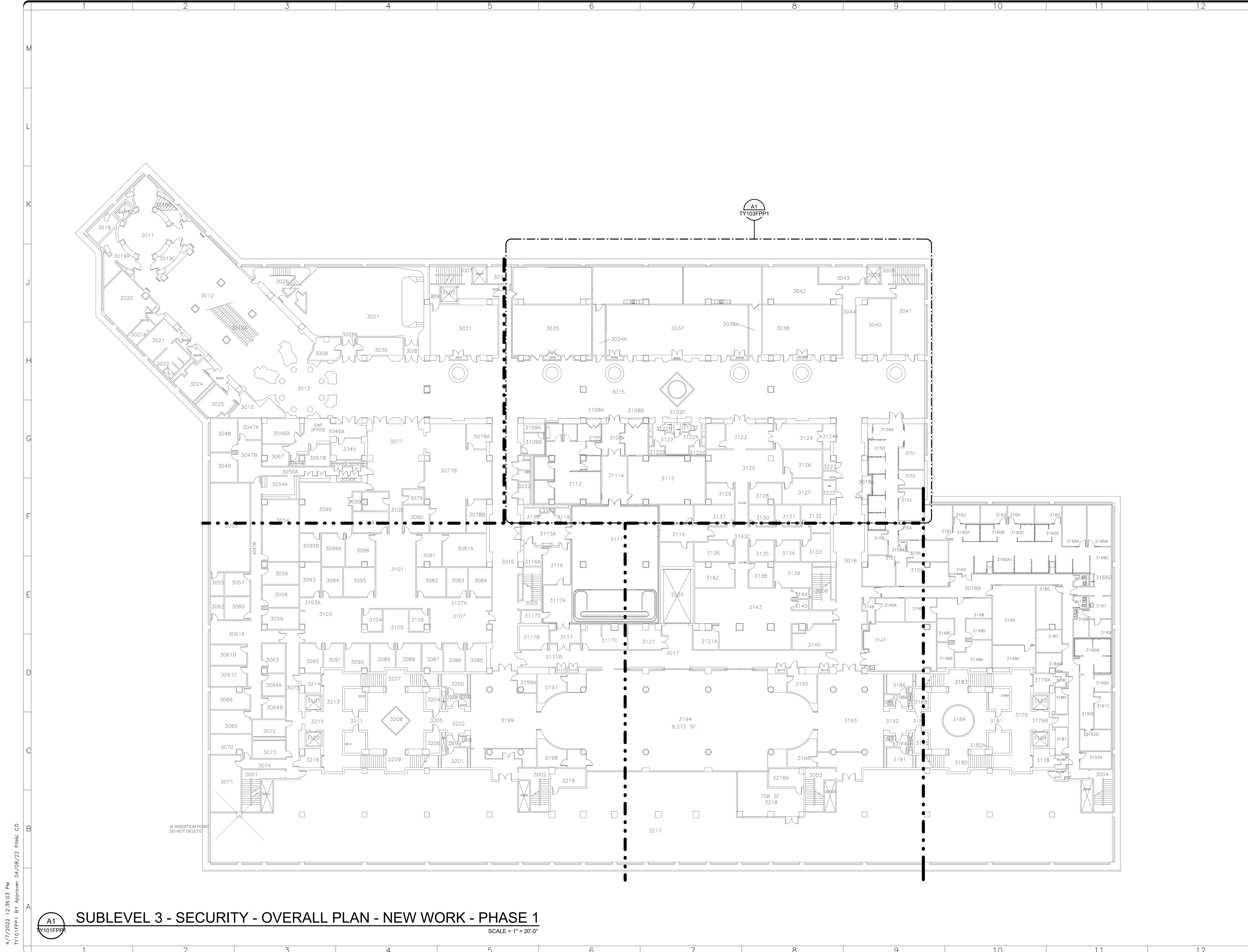
**Smithsonian Institution**

Smithsonian Facilities  
 600 Maryland Avenue S.W. Suite 5001  
 Washington, DC 20024-2520

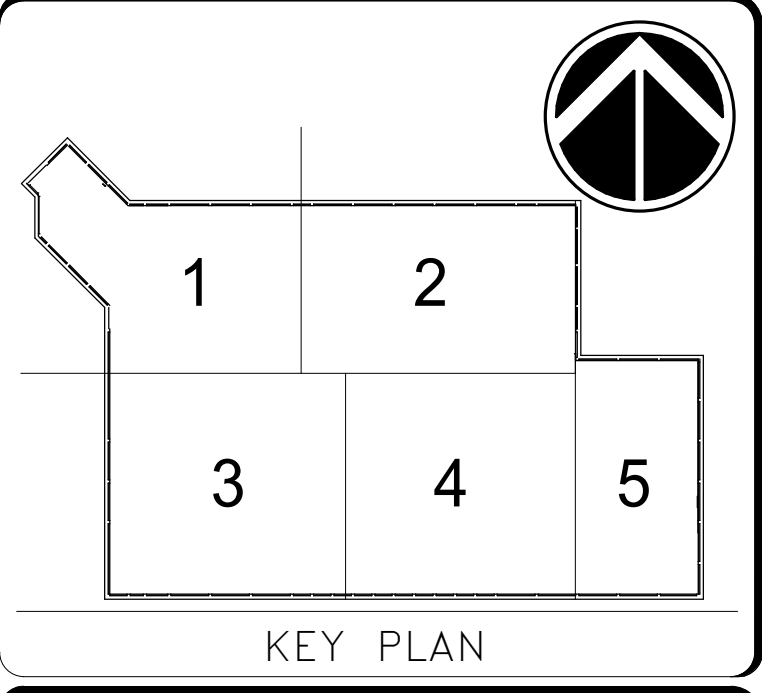
BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SECURITY -- ENLARGED PLANS -- DEMO -- PHASE 1
WORKING STAFF	MO SK DB
DESIGNED BY	MO
DRAWN BY	SK
CHECKED BY	DB

SHEET NO. TYD432EPP1  
 150 of 179

DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE



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0 10' 20' 40'  
 1"=20'-0"  
 GRAPHIC SCALE(S)

DATE	04/08/22	REVISION	FINAL CD
REVISION #		REVISION DESCRIPTION	

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ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - SECURITY - OVERALL PLAN - NEW WORK - PHASE 1
WORKING STAFF	MO SK DB
	DESIGNED BY DRAWN BY CHECKED BY

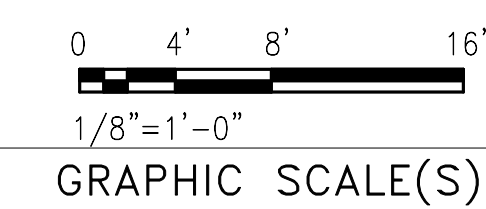
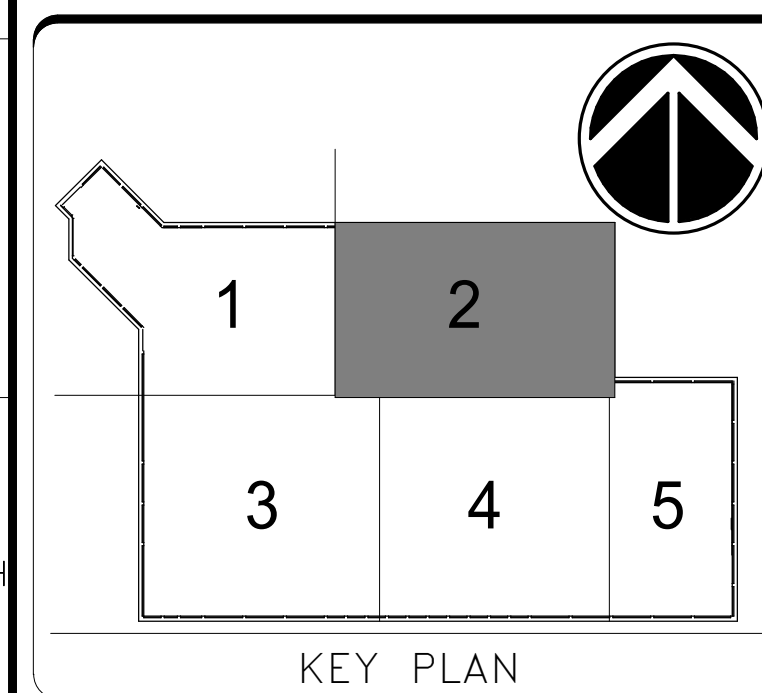
SHEET NO. TY101FPP1  
 151 of 179

4/7/2022 12:36:03 PM  
 TY101FPP1 BY Approver 04/08/22 FINAL CD

**A1** SUBLEVEL 3 - SECURITY - OVERALL PLAN - NEW WORK - PHASE 1  
 SCALE = 1" = 20'-0"



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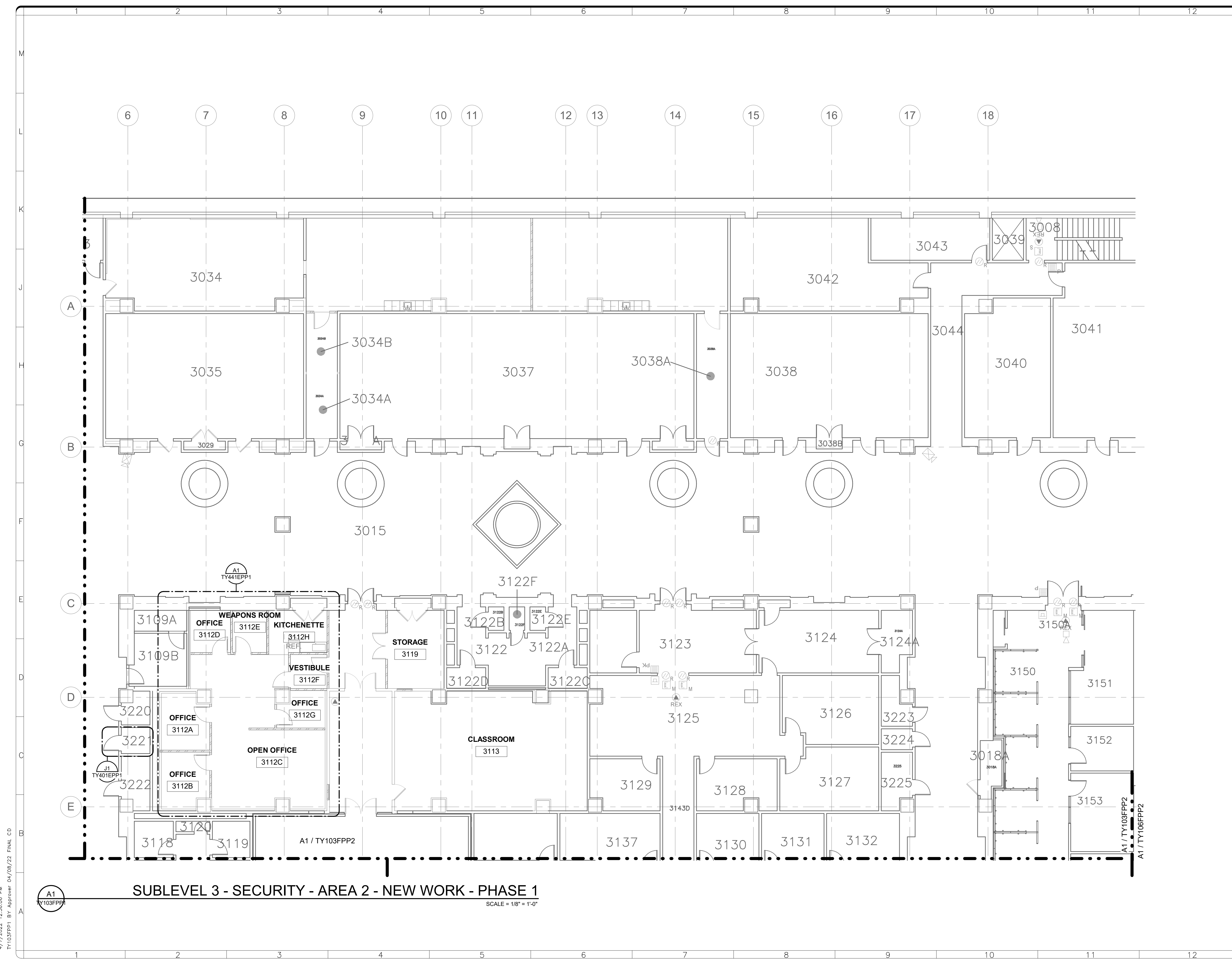
DATE	04/08/22	REVISION	FINAL CD
REVISION # DATE		REVISION DESCRIPTION	



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ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/FA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - SECURITY - AREA 2 - NEW WORK - PHASE 1
WORKING STAFF	MO SK DB
	DESIGNED BY DRAWN BY CHECKED BY

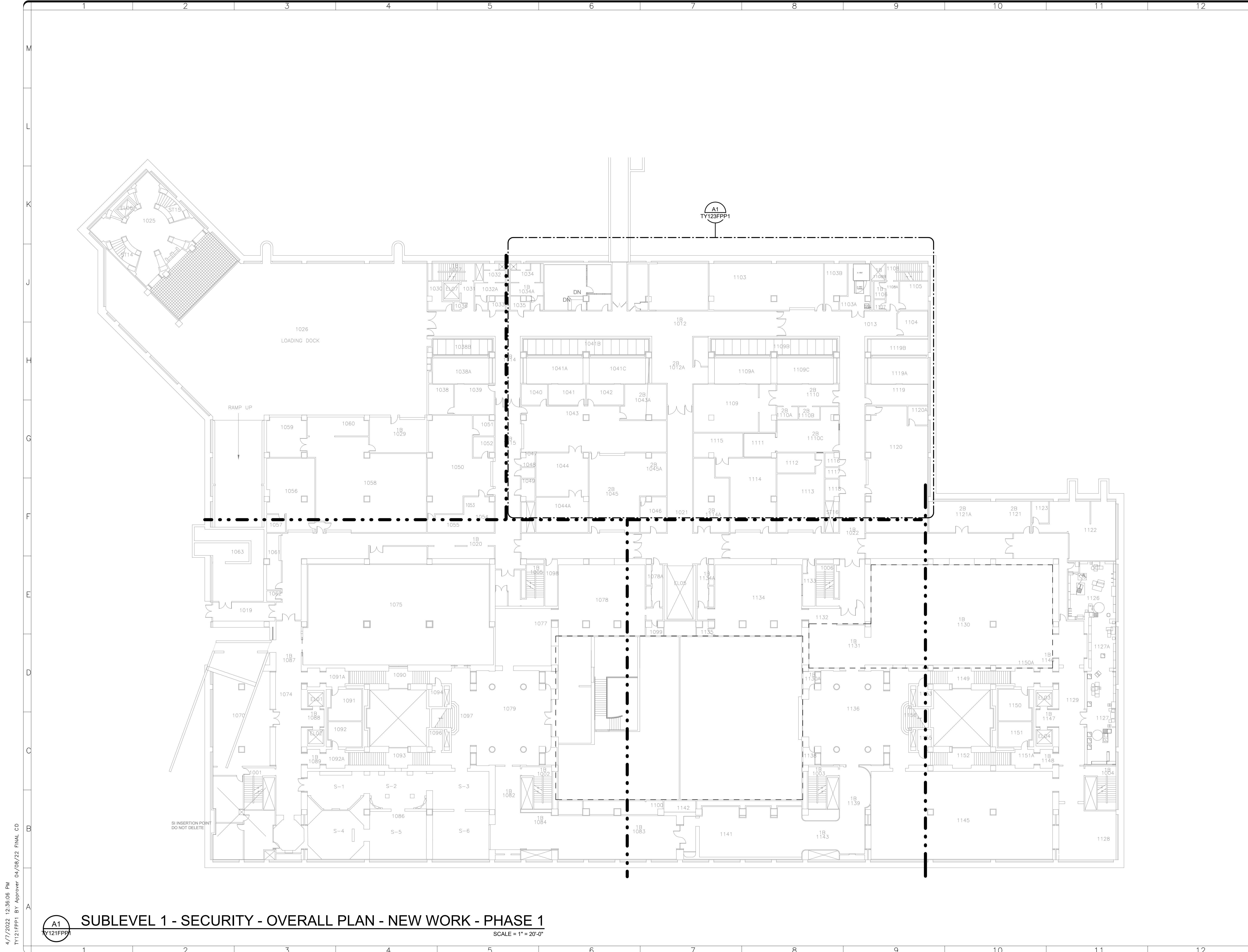
SHEET NO. TY 103 FPP 1  
 152 of 179



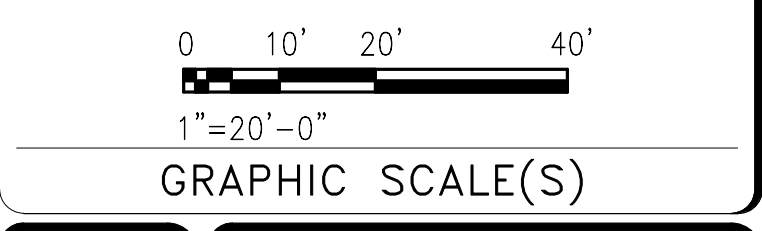
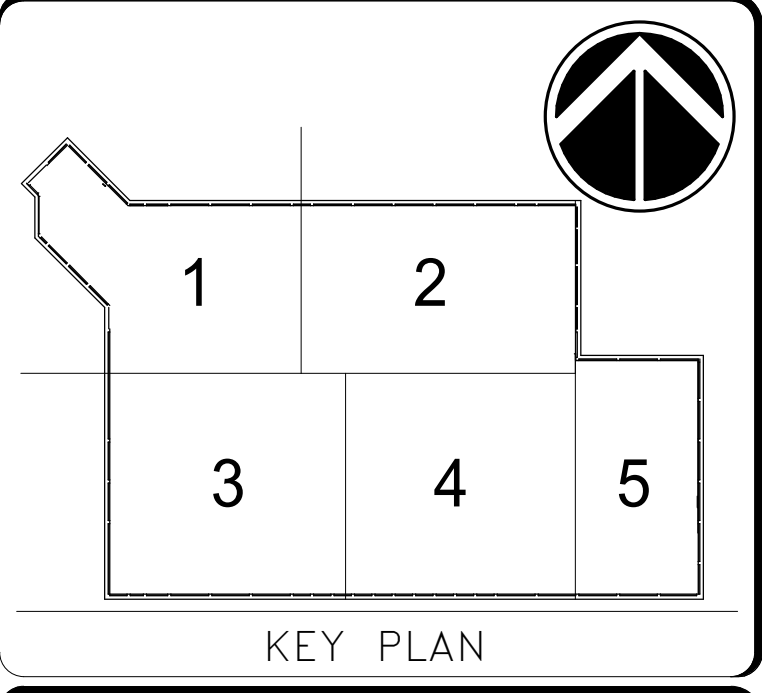
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 SCALE = 1/8" = 1'-0"

4/7/2022 12:35:06 PM  
 TY103FPP1 BY Approver 04/08/22 FINAL CD





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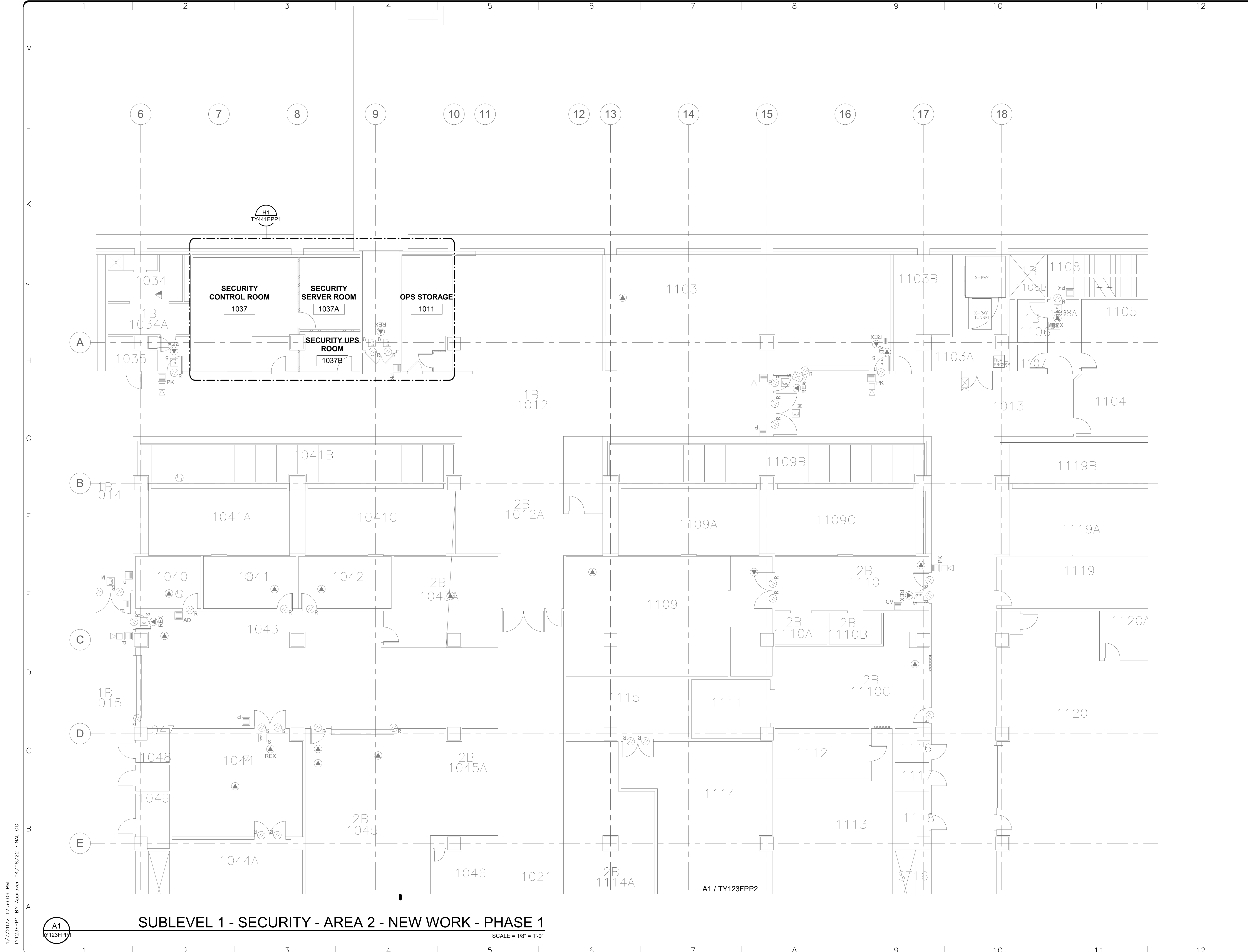
**Smithsonian Institution**  
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 600 Maryland Avenue S.W. Suite 5001  
 Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD		
ADDRESS	SW WASHINGTON, DC 20560		
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION		
SF PROJECT NUMBER	1909101		
A/E PROJECT NUMBER	11203201		
DRAWING TITLE	SUBLEVEL 1 - SECURITY - OVERALL PLAN - NEW WORK - PHASE 1		
WORKING STAFF	MO	SK	DB
	DESIGNED BY	DRAWN BY	CHECKED BY

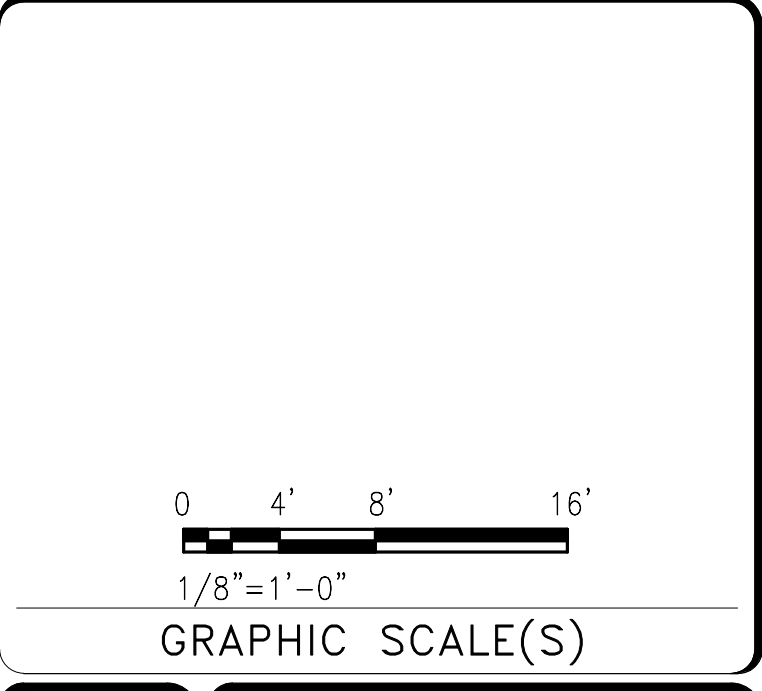
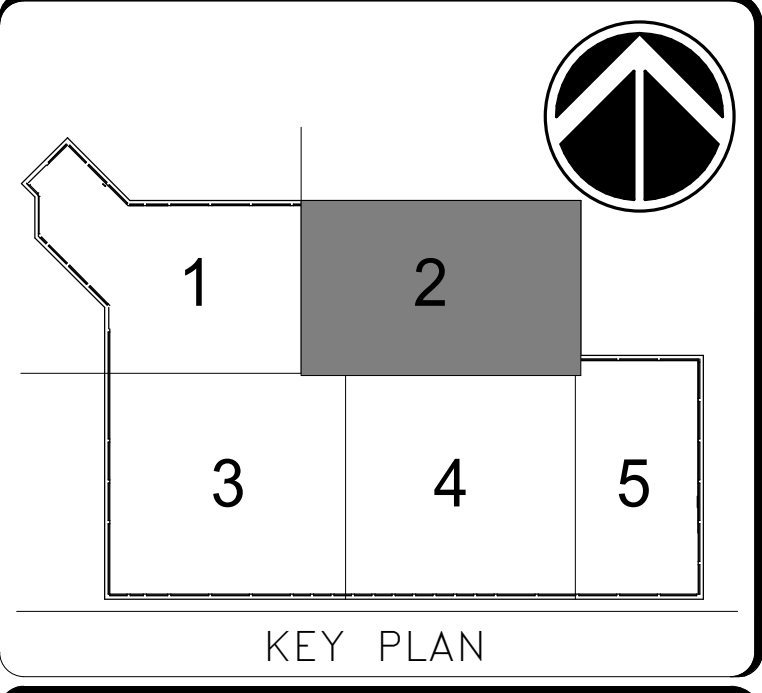
SHEET NO. **TY 121 FPP 1**  
 153 of 179

4/7/2022 12:35:06 PM  
 TY121FPP1 BY Approver 04/08/22 FINAL CD

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 SCALE = 1" = 20'-0"



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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 1 - SECURITY - AREA 2 - NEW WORK - PHASE 1
WORKING STAFF	MO SK DB
	DESIGNED BY DRAWN BY CHECKED BY
SHEET NO.	TY 123 FPP 1
154 of 179	DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE

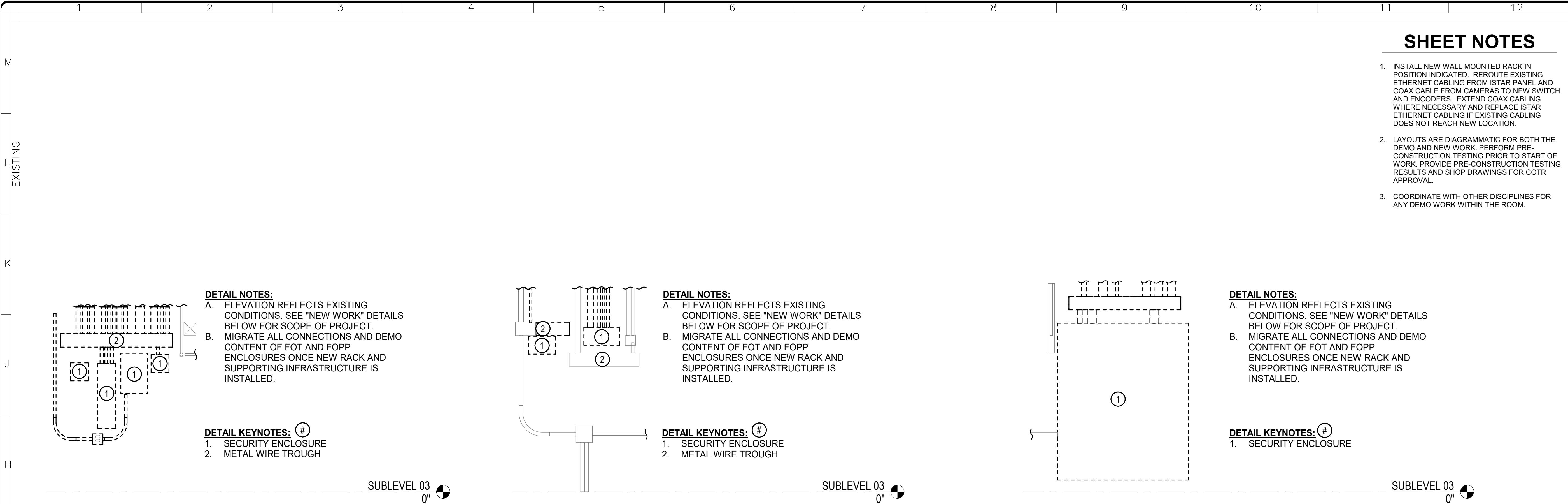
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 TY123FPP1 BY: Approver 04/08/22 FINAL CD

A1  
 TY123FPP1

**SUBLEVEL 1 - SECURITY - AREA 2 - NEW WORK - PHASE 1**  
 SCALE = 1/8" = 1'-0"

A1 / TY123FPP2

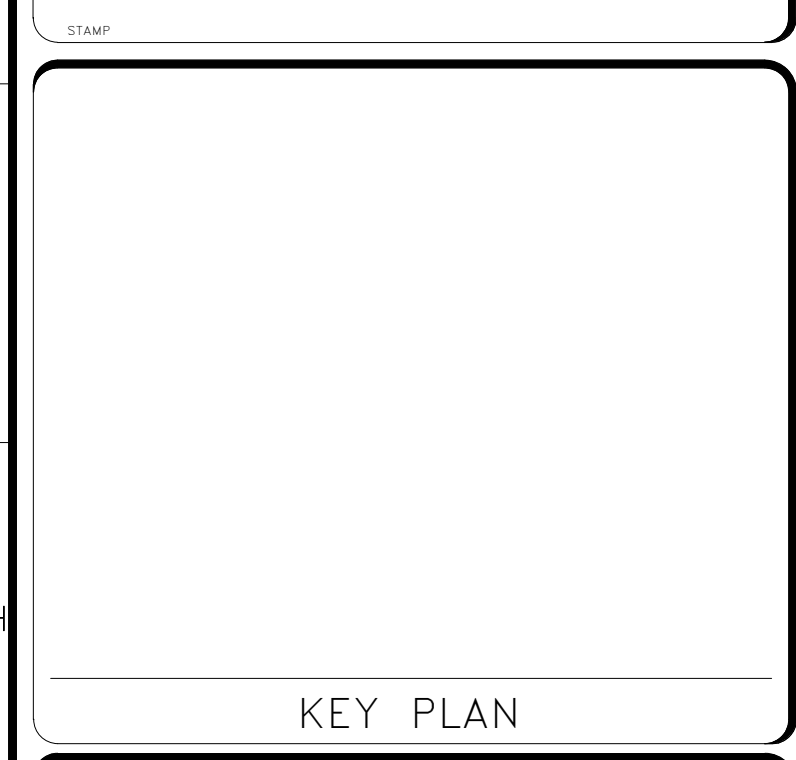
4/7/2022 12:35:12 PM  
TY201ELP1 BY DB 04/08/22 FINAL CD



### SHEET NOTES

- INSTALL NEW WALL MOUNTED RACK IN POSITION INDICATED. REROUTE EXISTING ETHERNET CABLING FROM ISTAR PANEL AND COAX CABLE FROM CAMERAS TO NEW SWITCH AND ENCODERS. EXTEND COAX CABLING WHERE NECESSARY AND REPLACE ISTAR ETHERNET CABLING IF EXISTING CABLING DOES NOT REACH NEW LOCATION.
- LAYOUTS ARE DIAGRAMMATIC FOR BOTH THE DEMO AND NEW WORK. PERFORM PRE-CONSTRUCTION TESTING PRIOR TO START OF WORK. PROVIDE PRE-CONSTRUCTION TESTING RESULTS AND SHOP DRAWINGS FOR COTR APPROVAL.
- COORDINATE WITH OTHER DISCIPLINES FOR ANY DEMO WORK WITHIN THE ROOM.

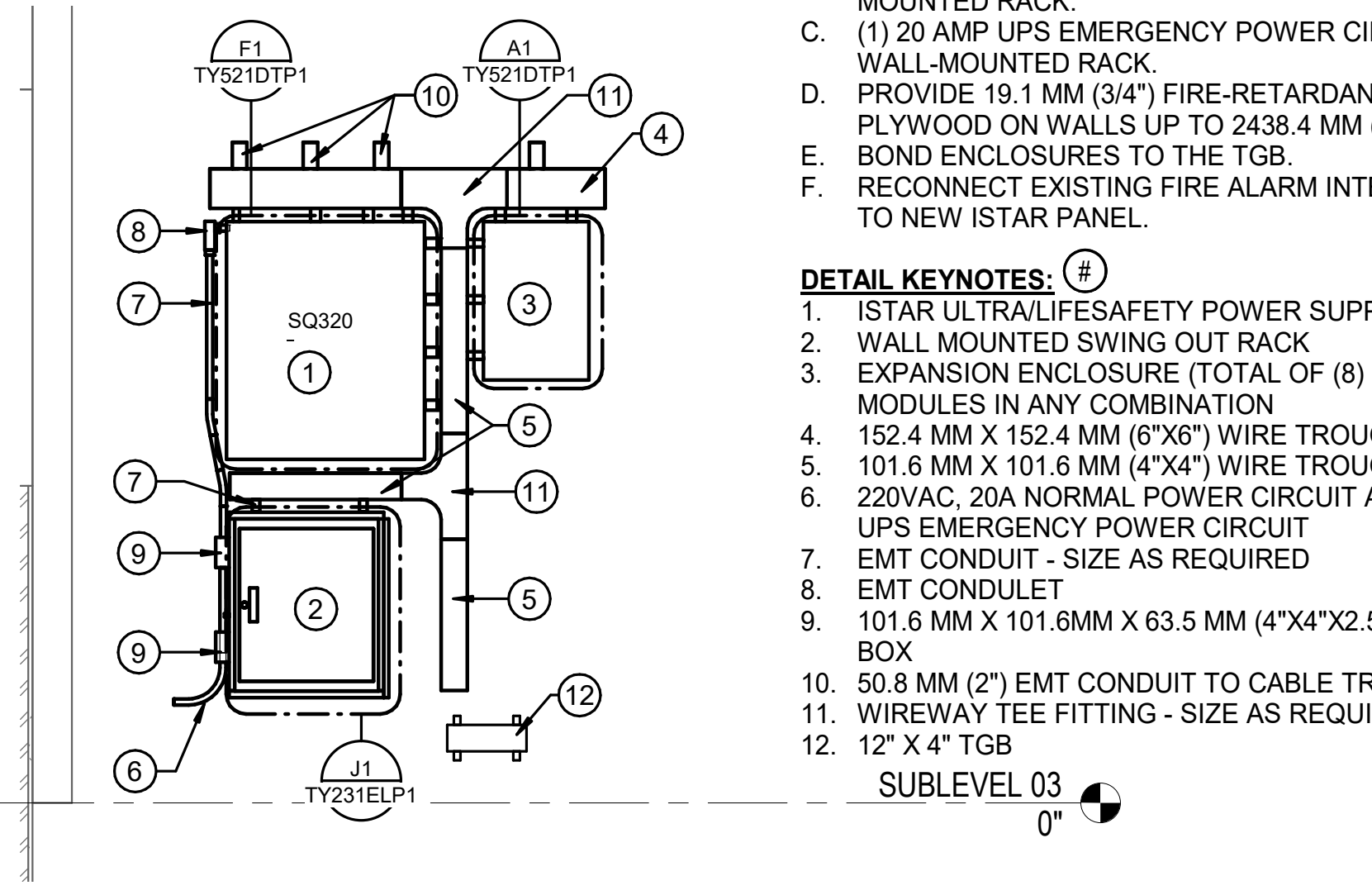
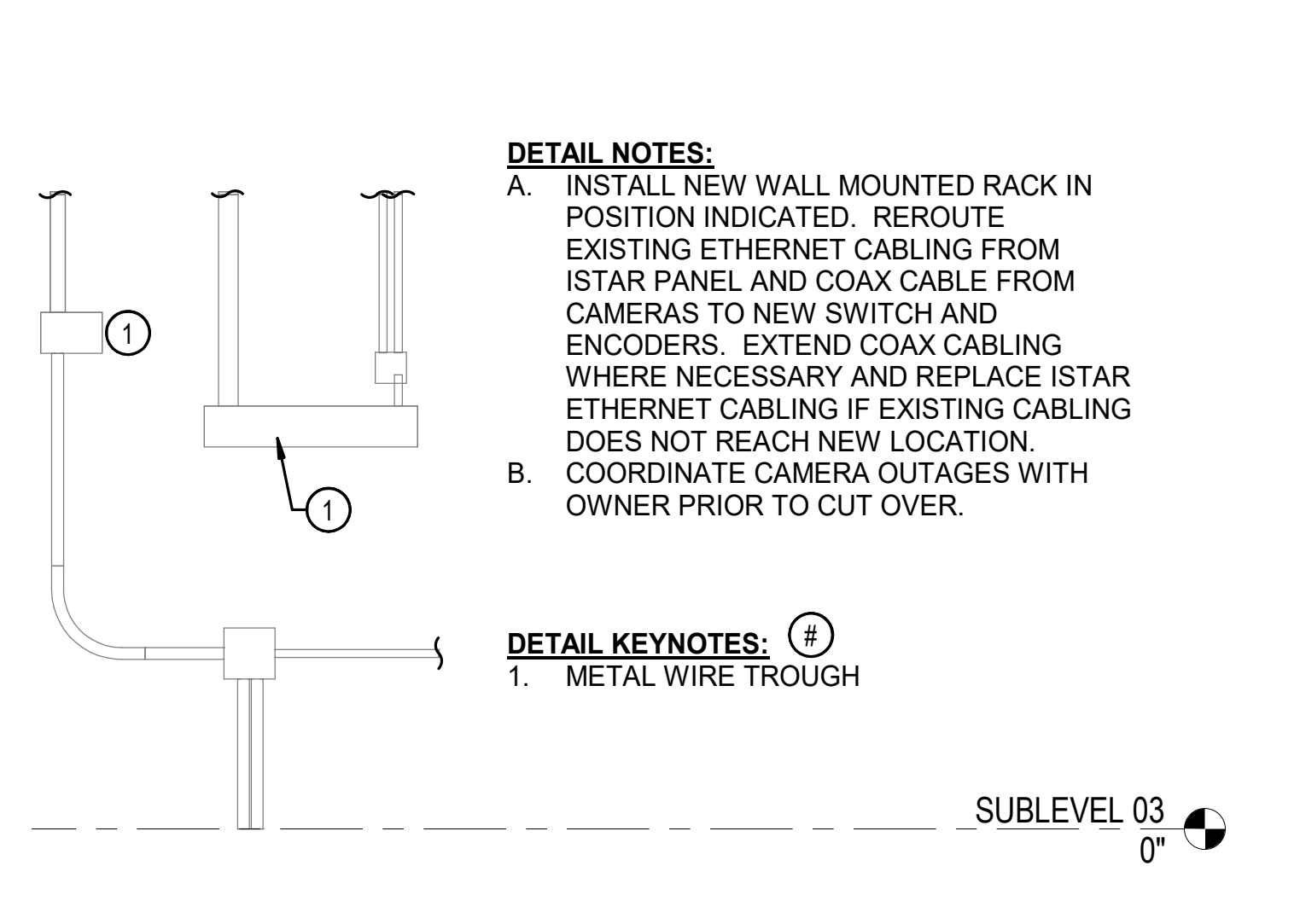
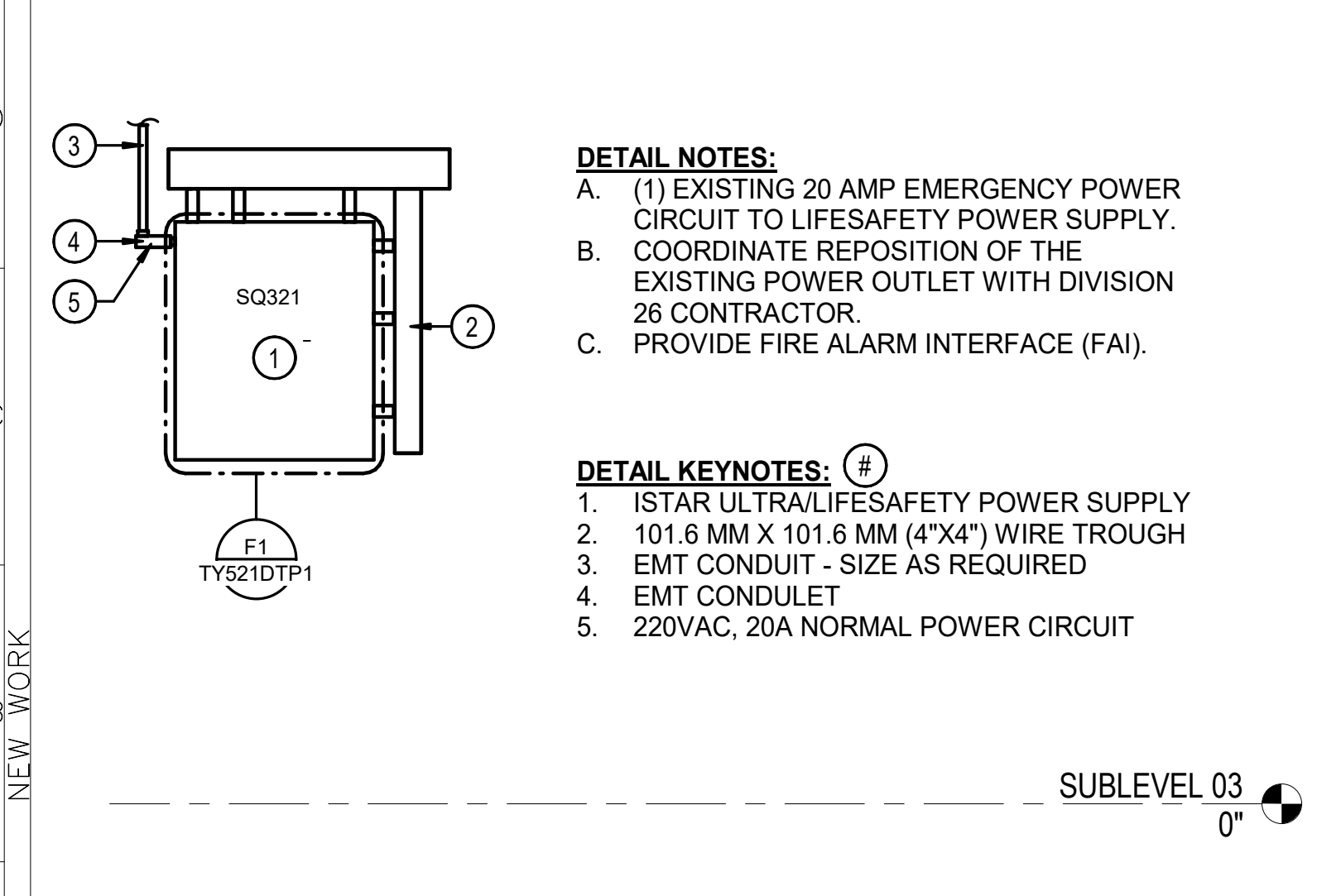
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**G1** 3221 - ELEVATION - NORTH - DEMO  
TY401EPP1 TY201ELP1 SCALE =NTS

**G4** 3221 - ELEVATION - EAST - DEMO  
TY401EPP1 TY201ELP1 SCALE =NTS

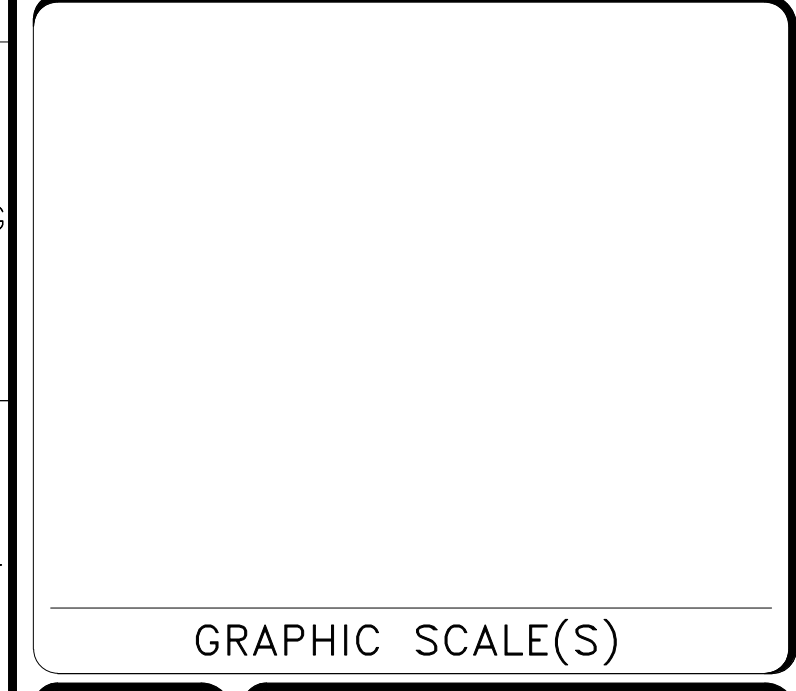
**G8** 3221 - ELEVATION - SOUTH - DEMO  
TY401EPP1 TY201ELP1 SCALE =NTS



**A1** 3221 - ELEVATION - NORTH - PHASE 1  
TY401EPP1 TY201ELP1 SCALE =NTS

**A4** 3221 - ELEVATION - EAST - PHASE 1  
TY401EPP1 TY201ELP1 SCALE =NTS

**A8** 3221 - ELEVATION - SOUTH - PHASE 1  
TY401EPP2 TY201ELP1 SCALE =NTS

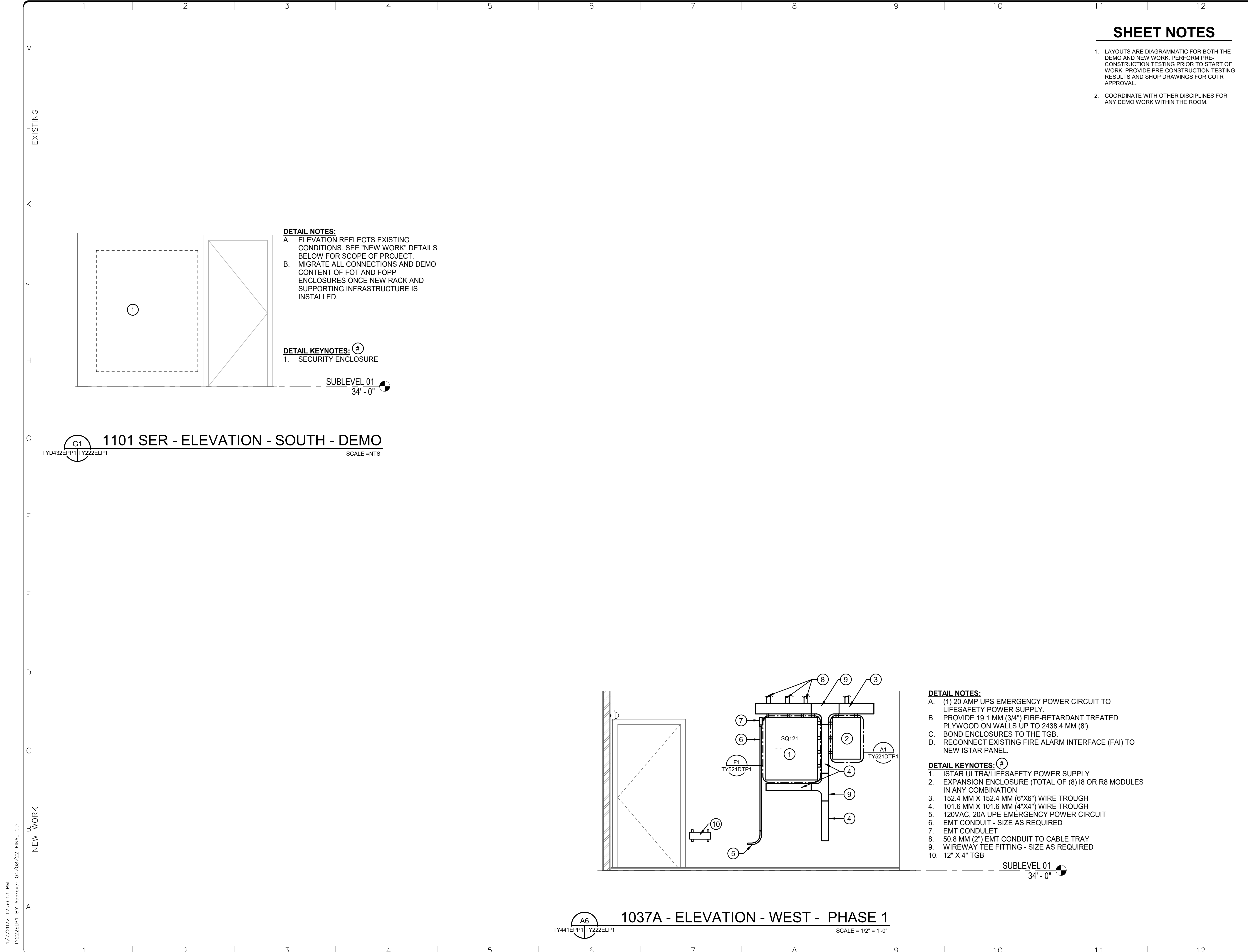


DATE 04/08/22	REVISION FINAL CD
REVISION # DATE	REVISION DESCRIPTION

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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 - ELEVATIONS - PHASE 1
WORKING STAFF	MO SK DB
DESIGNED BY	MO
DRAWN BY	SK
CHECKED BY	DB

SHEET NO. 155 of 179  
TY201ELP1



**SHEET NOTES**

- LAYOUTS ARE DIAGRAMMATIC FOR BOTH THE DEMO AND NEW WORK. PERFORM PRE-CONSTRUCTION TESTING PRIOR TO START OF WORK. PROVIDE PRE-CONSTRUCTION TESTING RESULTS AND SHOP DRAWINGS FOR COTR APPROVAL.
- COORDINATE WITH OTHER DISCIPLINES FOR ANY DEMO WORK WITHIN THE ROOM.

**DETAIL NOTES:**

- ELEVATION REFLECTS EXISTING CONDITIONS. SEE "NEW WORK" DETAILS BELOW FOR SCOPE OF PROJECT.
- MIGRATE ALL CONNECTIONS AND DEMO CONTENT OF FOT AND FOPP ENCLOSURES ONCE NEW RACK AND SUPPORTING INFRASTRUCTURE IS INSTALLED.

**DETAIL KEYNOTES:** (#)

- SECURITY ENCLOSURE

**DETAIL NOTES:**

- (1) 20 AMP UPS EMERGENCY POWER CIRCUIT TO LIFESAFETY POWER SUPPLY.
- PROVIDE 19.1 MM (3/4") FIRE-RETARDANT TREATED PLYWOOD ON WALLS UP TO 2438.4 MM (8').
- BOND ENCLOSURES TO THE TGB.
- RECONNECT EXISTING FIRE ALARM INTERFACE (FAI) TO NEW ISTAR PANEL.

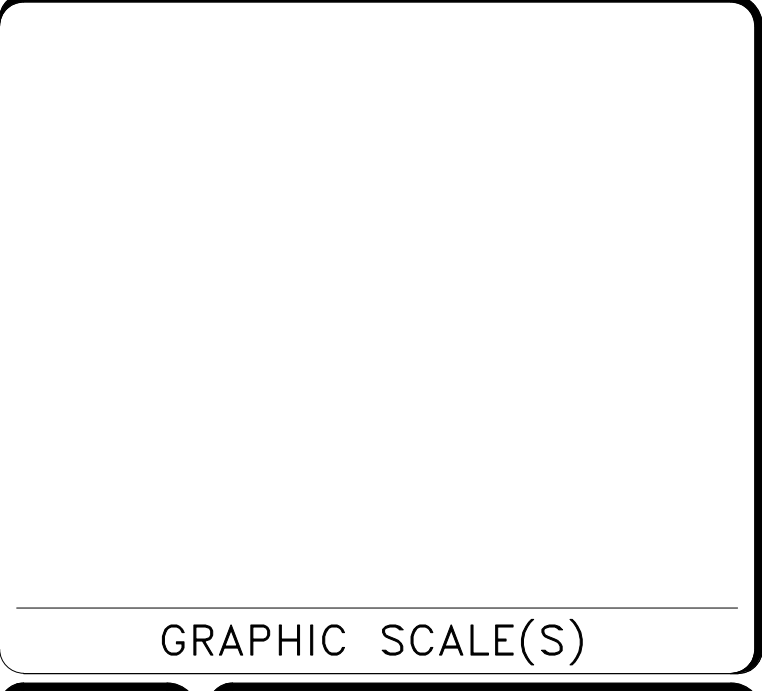
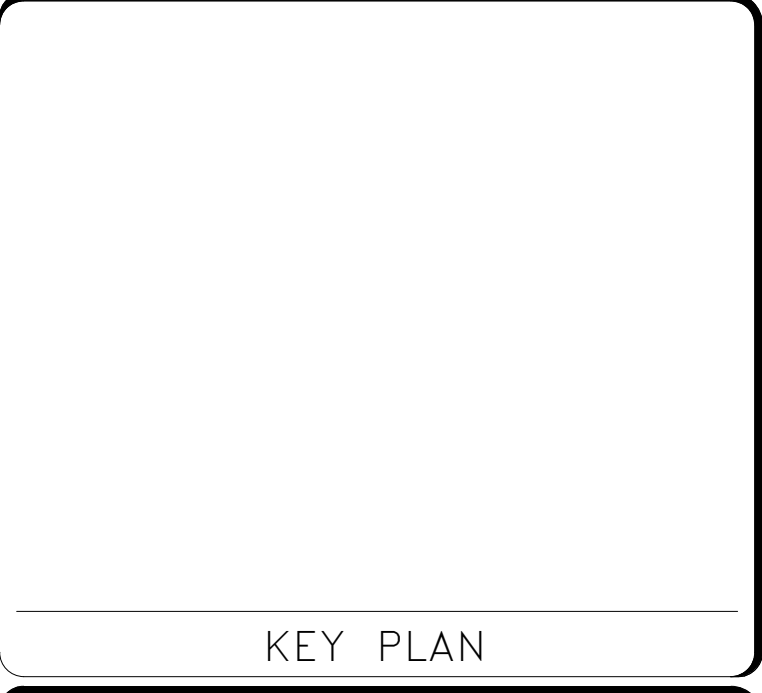
**DETAIL KEYNOTES:** (#)

- ISTAR ULTRALIFESAFETY POWER SUPPLY
- EXPANSION ENCLOSURE (TOTAL OF (8) I8 OR R8 MODULES IN ANY COMBINATION
- 152.4 MM X 152.4 MM (6"X6") WIRE TROUGH
- 101.6 MM X 101.6 MM (4"X4") WIRE TROUGH
- 120VAC, 20A UPE EMERGENCY POWER CIRCUIT
- EMT CONDUIT - SIZE AS REQUIRED
- EMT CONDULET
- 50.8 MM (2") EMT CONDUIT TO CABLE TRAY
- WIREWAY TEE FITTING - SIZE AS REQUIRED
- 12" X 4" TGB



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BUILDING NAME	FREER/SACKLER/AFA/QUAD						
ADDRESS	SW WASHINGTON, DC 20560						
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION						
SF PROJECT NUMBER	1909101						
A/E PROJECT NUMBER	11203201						
DRAWING TITLE	SUBLEVEL 01 -- ELEVATIONS -- PHASE 1						
WORKING STAFF	<table border="1"> <tr> <td>MO</td> <td>SK</td> <td>DB</td> </tr> <tr> <td>DESIGNED BY</td> <td>DRAWN BY</td> <td>CHECKED BY</td> </tr> </table>	MO	SK	DB	DESIGNED BY	DRAWN BY	CHECKED BY
MO	SK	DB					
DESIGNED BY	DRAWN BY	CHECKED BY					

SHEET NO. 156 of 179  
TY222ELP1

4/7/2022 12:36:13 PM  
TY222ELP1 BY Approver 04/08/22 FINAL CD

NEW WORK

EXISTING

A6

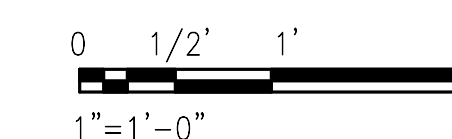
G1



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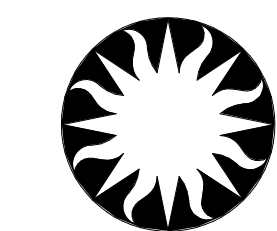
STAMP

KEY PLAN



GRAPHIC SCALE(S)  
1"=1'-0"

DATE	REVISION
04/08/22	FINAL CD
ISSUED # DATE	REVISION DESCRIPTION



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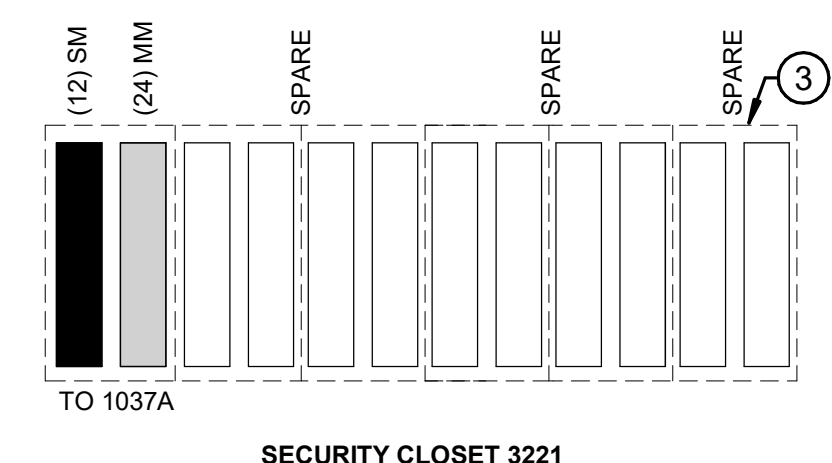
Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME: FREER/SACKLER/FAA/QUAD  
ADDRESS: SW WASHINGTON, DC 20560

PROJECT TITLE: FREER/SACKLER/FAA/ QUAD  
ESS' MODERNIZATION  
SF PROJECT NUMBER: 1909101  
A/E PROJECT NUMBER: 11203201

DRAWING TITLE: RACK ELEVATIONS - PHASE 1  
WORKING STAFF: MO SK DB  
DESIGNED BY: DRAWN BY: CHECKED BY:

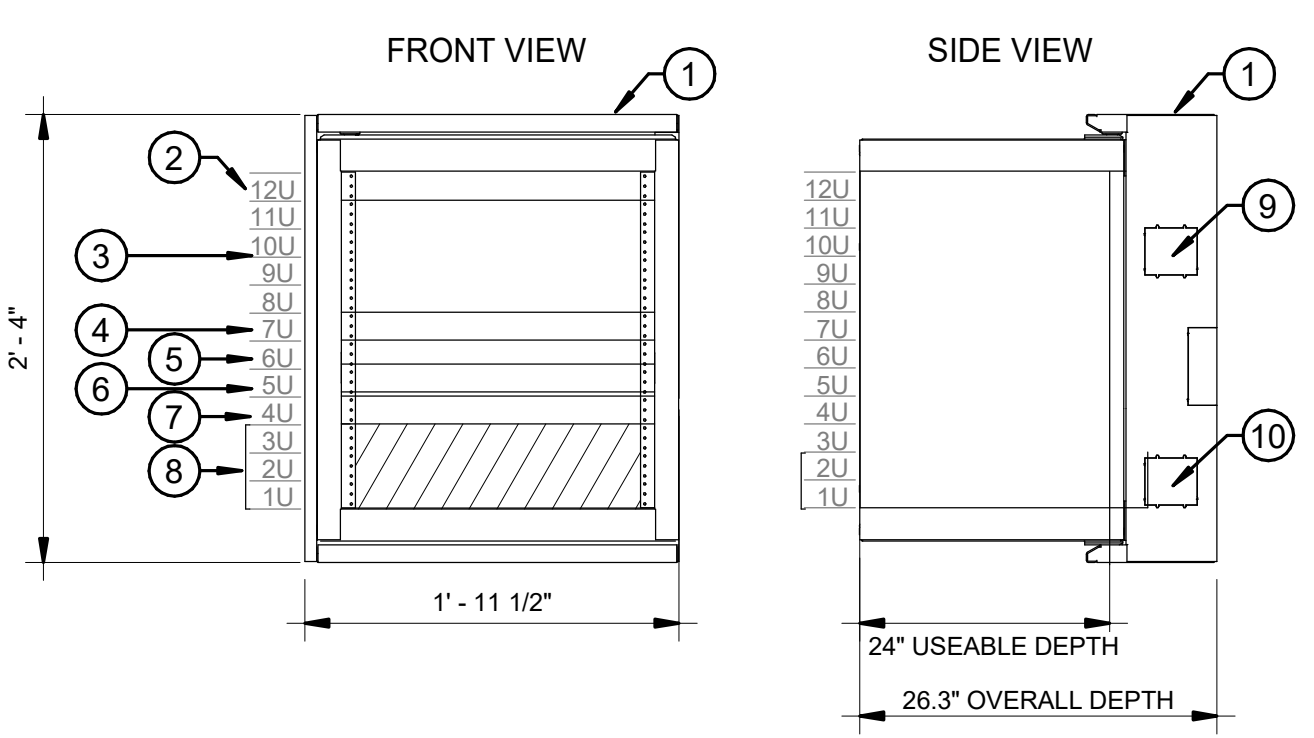
SHEET NO. TY231ELP1  
157 of 182



SECURITY CLOSET 3221

**DETAIL NOTES:**  
A. DETAIL IS DIAGRAMMATIC.  
B. PROVIDE NEW DEVICES AS INDICATED IN THE SPECIFICATIONS.  
C. REFER TO THE DIAGRAMS TO THE RIGHT FOR THE CONFIGURATION OF EACH FIBER PATCH PANEL.

- DETAIL KEY NOTES: #**
1. WALL MOUNTED SWING OUT RACK
  2. RACK LIGHT
  3. FIBER PATCH PANEL
  4. CABLE MANAGEMENT
  5. CAT 6 PATCH PANEL
  6. NETWORK SWITCH, 48-PORT
  7. CABLE MANAGEMENT
  8. OPEN SPACE
  9. NORMAL POWER KNOCKOUT FOR NEMA L6-20R RECEPTACLE
  10. UPS POWER KNOCKOUT FOR NEMA L6-20R RECEPTACLE

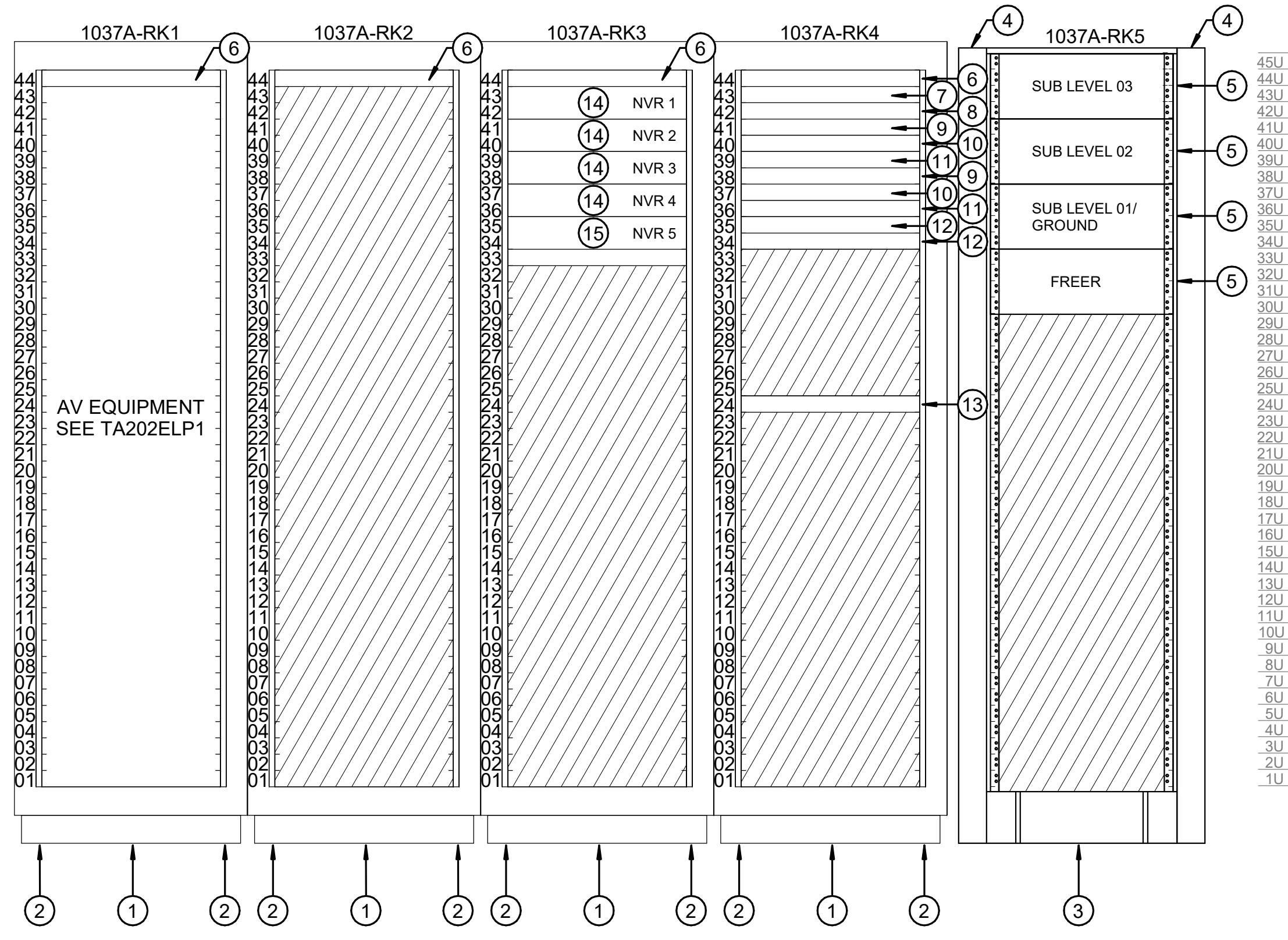
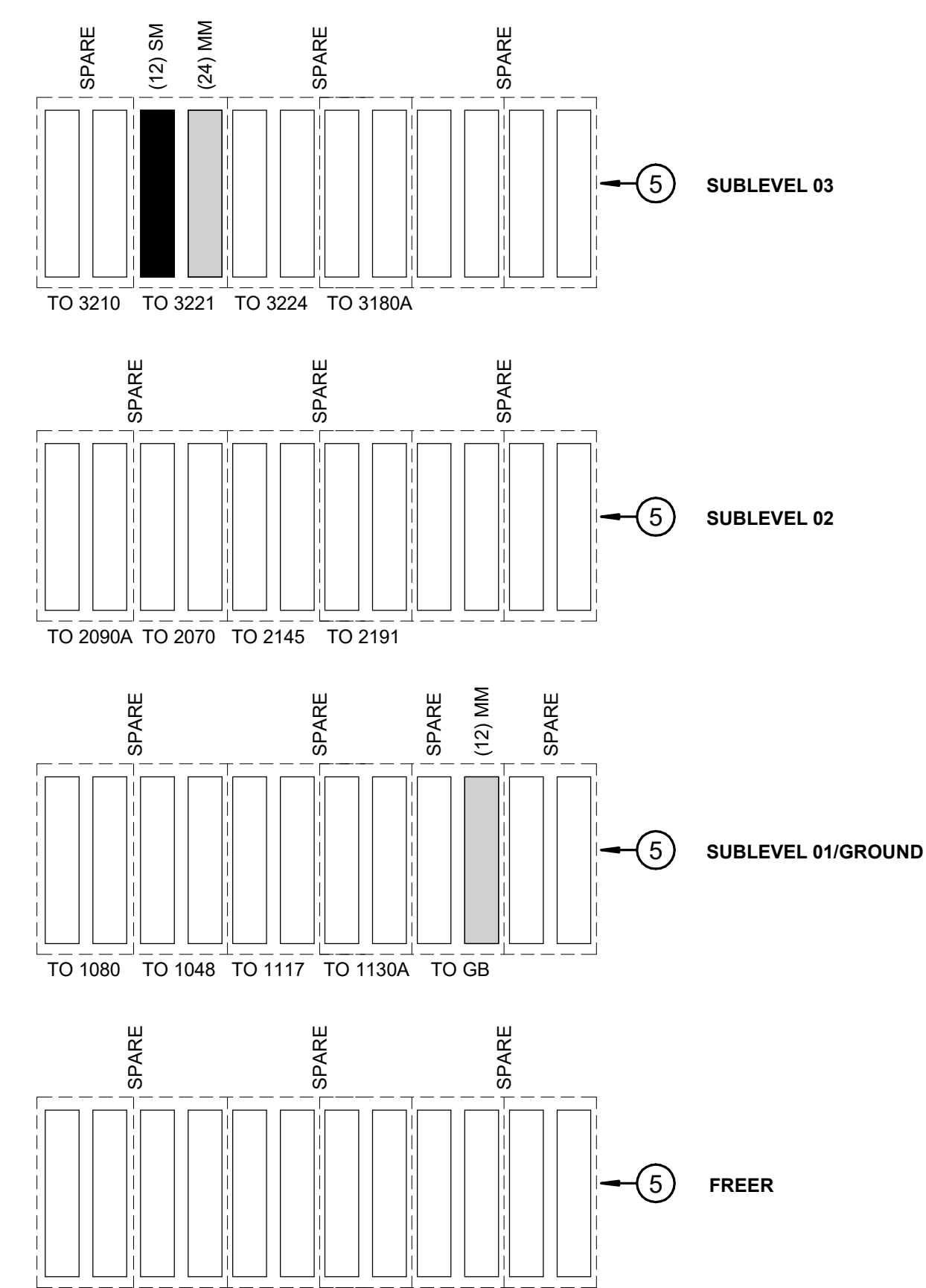


TYPICAL WALL MOUNTED SWING-OUT RACK 26" DEPTH

J1  
TY201ELP1 TY231ELP1  
SCALE = NTS

**DETAIL NOTES:**  
A. DETAIL IS DIAGRAMMATIC. ALL ELEMENTS MAY NOT BE ILLUSTRATED. PROVIDE ALL SECURITY EQUIPMENT, NETWORKING EQUIPMENT, AND OTHER DEVICES AND MATERIAL TO PROVIDE A FULLY FUNCTIONAL SYSTEM.  
B. PACS SERVER AND INTERCOM SYSTEM SERVER WERE RECENTLY UPGRADED AND ARE TO BE RELOCATED TO THE LOCATION SHOWN.

- DETAIL KEY NOTES: #**
1. 44RU X 42" DEEP X 24" WIDE RACK WITH THREADED RACK RAILS.
  2. VERTICAL POWER STRIP IN THE BACK OF THE RACK
  3. 2-POST RACK 45RU
  4. CABLE DUCT
  5. FIBER PATCH PANEL
  6. RACK LIGHT
  7. PACS SERVER
  8. INTERCOM SYSTEM SERVER
  9. CAT 6 PATCH PANEL, 48-PORT, TERMINATE EACH RJ-45 TO EIA 568B PIN OUT
  10. CABLE MANAGEMENT
  11. NETWORK SWITCH, 48-PORT
  12. FIBER SWITCH, 48-PORT
  13. KVM, 16-PORT
  14. NVR, FOR QUAD CAMERAS
  15. NVR, FOR REMOTE SI BUILDING CAMERAS

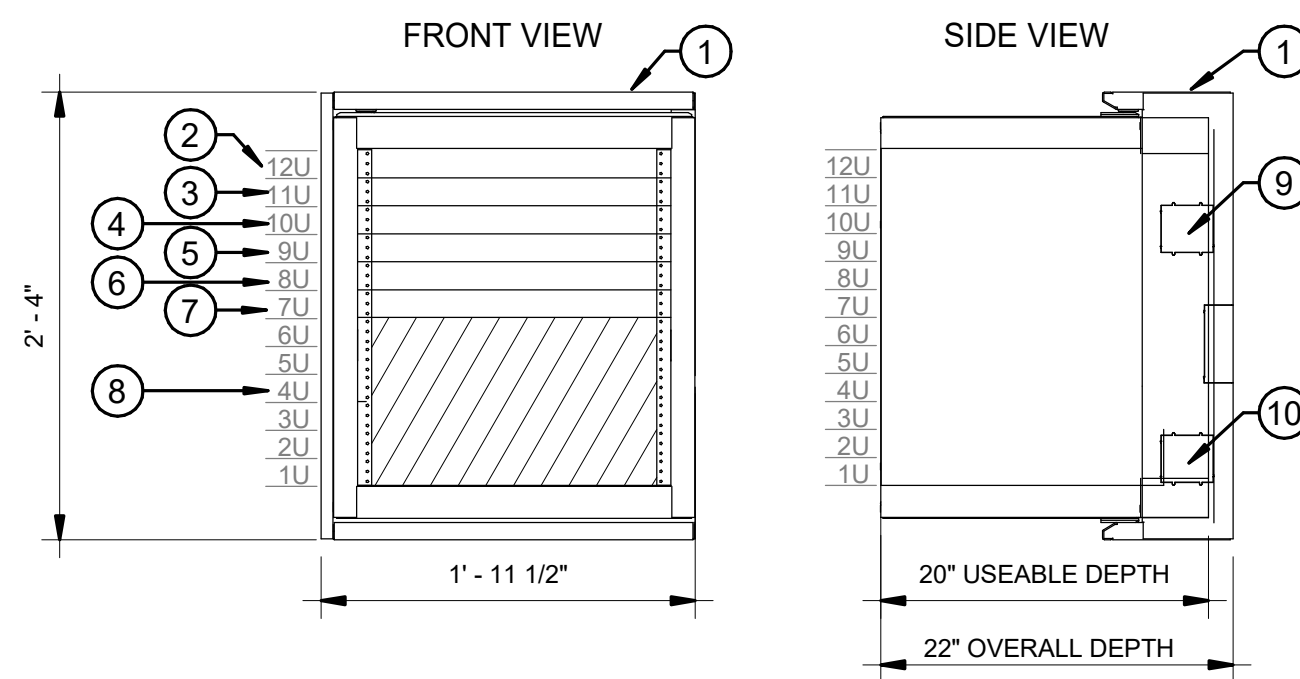


SECURITY SERVER ROOM 1037A  
SECURITY RACK ELEVATIONS

A1  
TY231ELP1  
SCALE = 1" = 1'-0"

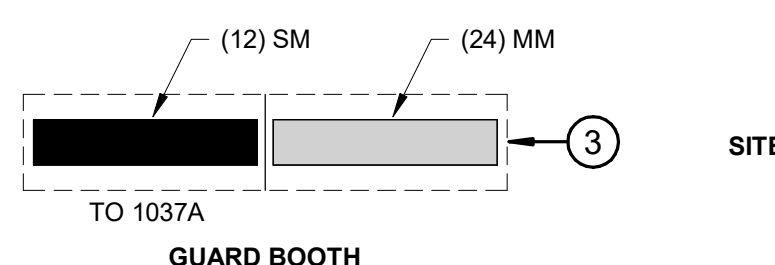


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**DETAIL NOTES:**  
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C. REFER TO THE DIAGRAMS TO THE RIGHT FOR THE CONFIGURATION OF EACH FIBER PATCH PANEL.

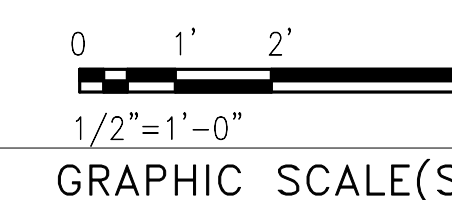
- DETAIL KEY NOTES:** (#)
1. WALL MOUNTED SWING OUT RACK
  2. RACK LIGHT
  3. FIBER PATCH PANEL
  4. CABLE MANAGEMENT
  5. CAT 6 PATCH PANEL
  6. NETWORK SWITCH, 24-PORT
  7. CABLE MANAGEMENT
  8. OPEN SPACE
  9. NORMAL POWER KNOCKOUT FOR NEMA L6-20R RECEPTACLE
  10. UPS POWER KNOCKOUT FOR NEMA L6-20R RECEPTACLE



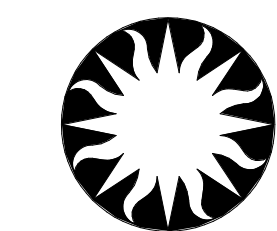
**GUARDBOOTH WALL MOUNTED SWING-OUT RACK 22" DEPTH - SECURITY**

J1 TY232ELP1 TY232ELP1 SCALE = NTS

KEY PLAN



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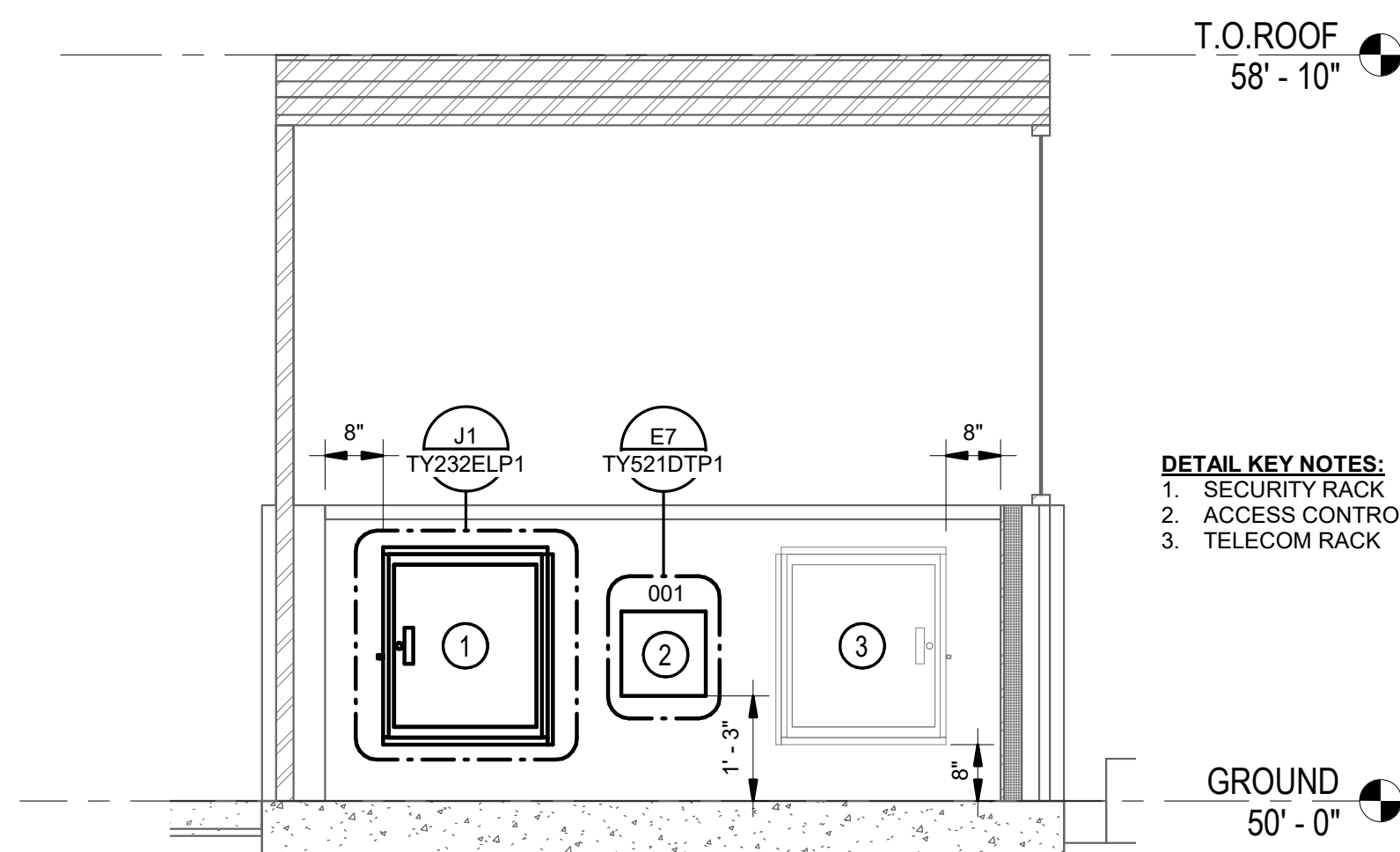
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DRAWING TITLE	RACK ELEVATIONS - PHASE 1
WORKING STAFF	MO SK DB
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO. 158 OF 182  
TY232ELP1

T.O. ROOF  
58' - 10"



- DETAIL KEY NOTES:** (#)
1. SECURITY RACK
  2. ACCESS CONTROL PANEL
  3. TELECOM RACK

**GUARD BOOTH ELEVATION - NORTH**

A1 TY442EPP1 TY232ELP1 SCALE = 1/2" = 1'-0"

4/7/2022 12:35:17 PM  
TY232ELP1 BY Approver: 04/08/22 FINAL CD

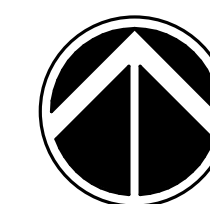


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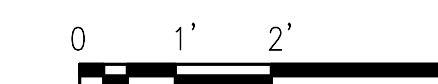
STAMP

**KEYNOTES** ◆

1. PROVIDE NEW PATHWAY TO SECURITY WALL FIELD WITHIN ROOM.



KEY PLAN

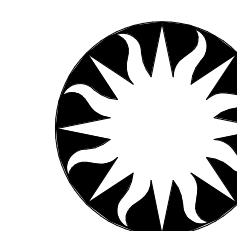


1/2" = 1'-0"

GRAPHIC SCALE(S)

DATE	04/08/22	REVISION	FINAL CD
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REVISION #	DATE	REVISION DESCRIPTION



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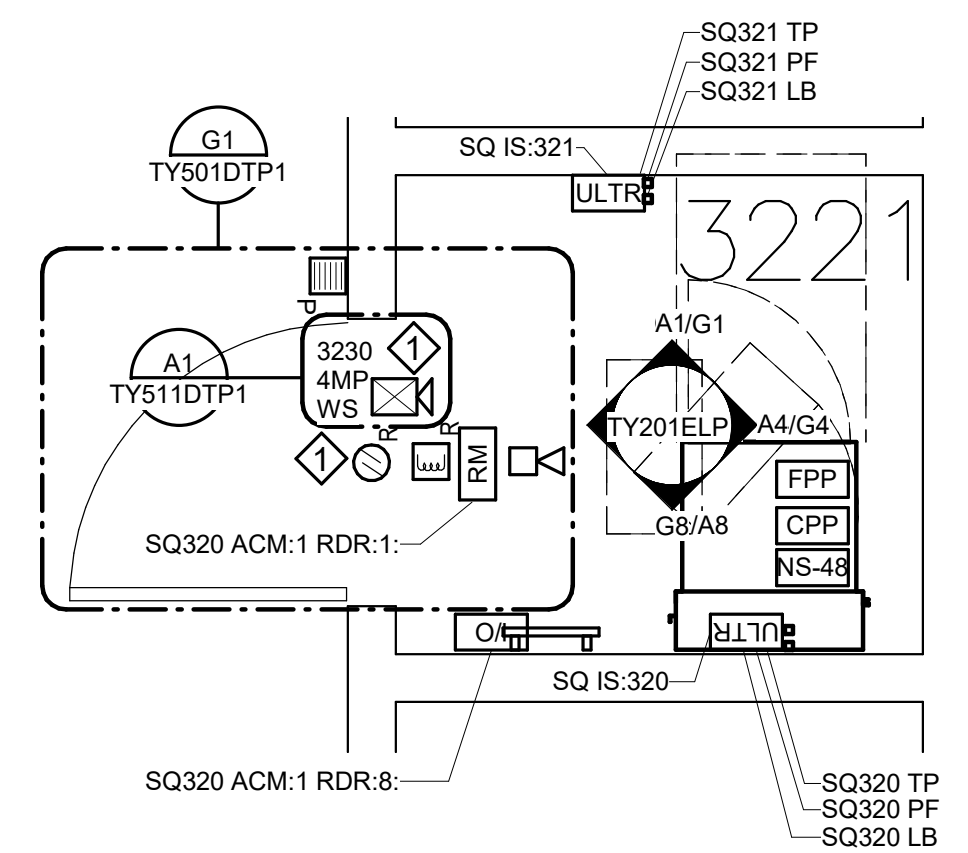
Smithsonian Facilities  
 600 Maryland Avenue S.W. Suite 5001  
 Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560

PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201

DRAWING TITLE	ENLARGED PLANS - SUBLEVEL 3 - PHASE 1
WORKING STAFF	MO SK DB
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO.	TY401EPP1
159 of 179	



**3221 - ENLARGED PLAN - PHASE 1**

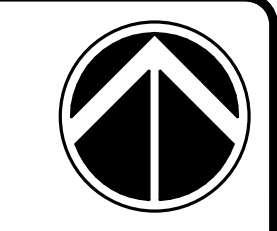
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 TY103FPP1 TY401EPP1

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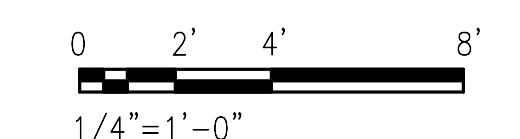


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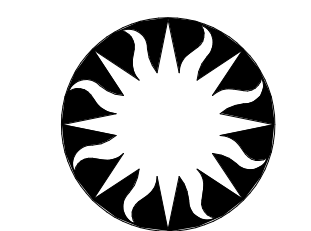


KEY PLAN



GRAPHIC SCALE(S)

DATE	04/08/22	REVISION	FINAL CD
REVISION #		REVISION DESCRIPTION	

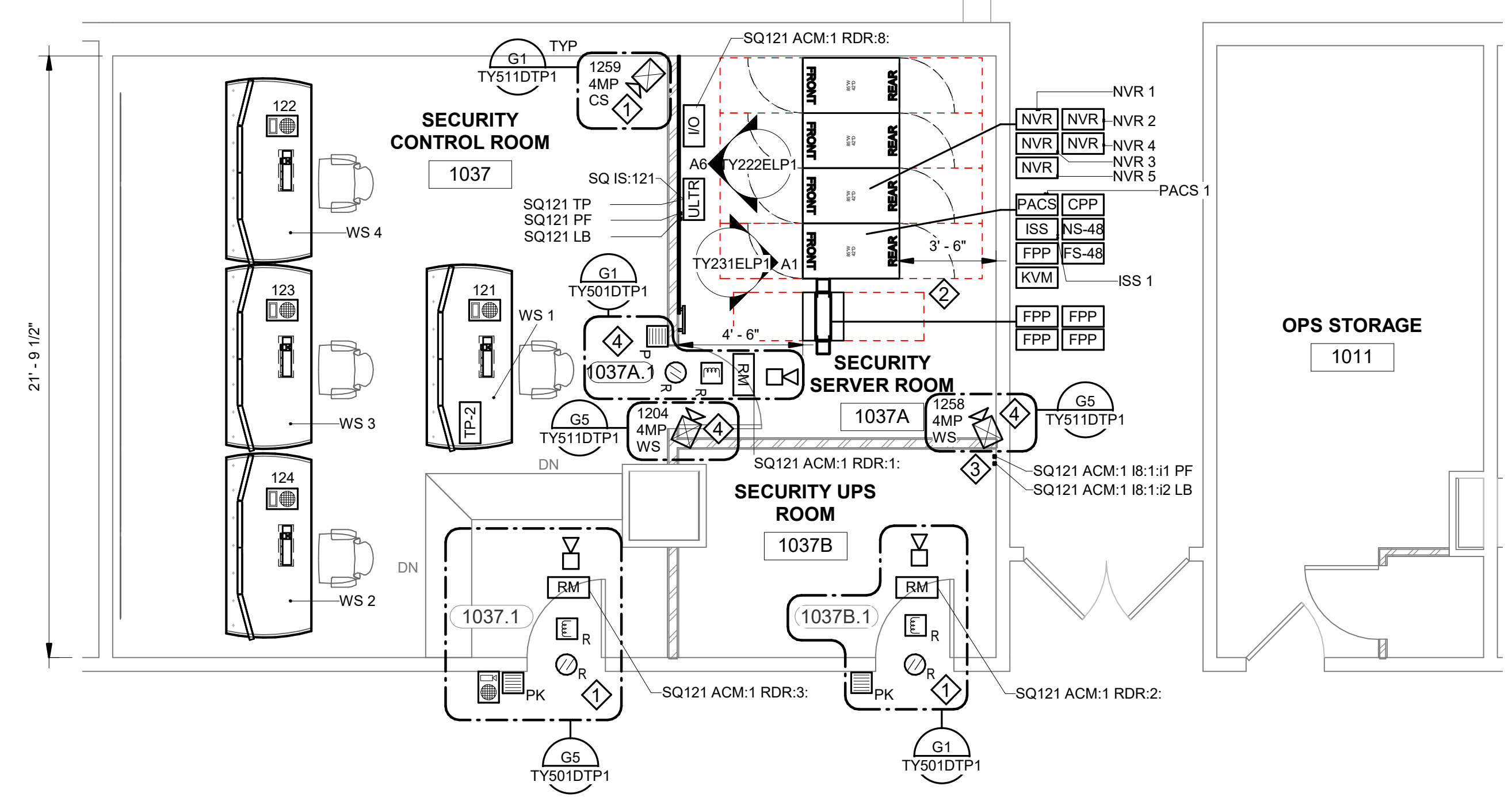


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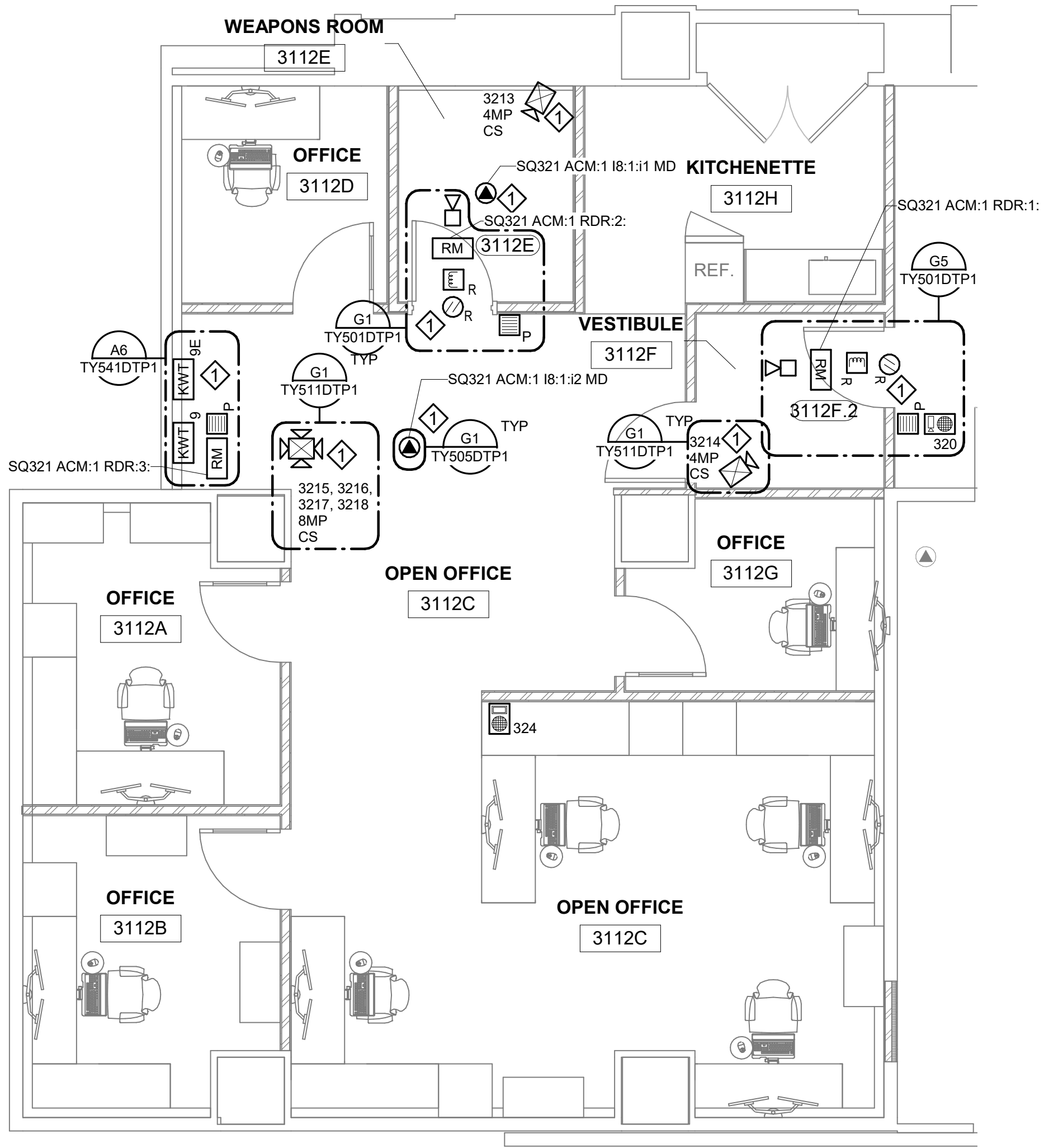
Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	ENLARGED PLANS - SECURITY - PHASE 1
WORKING STAFF	MO SK DB
	DESIGNED BY DRAWN BY CHECKED BY

SHEET NO. TY441EPP1  
160 of 179



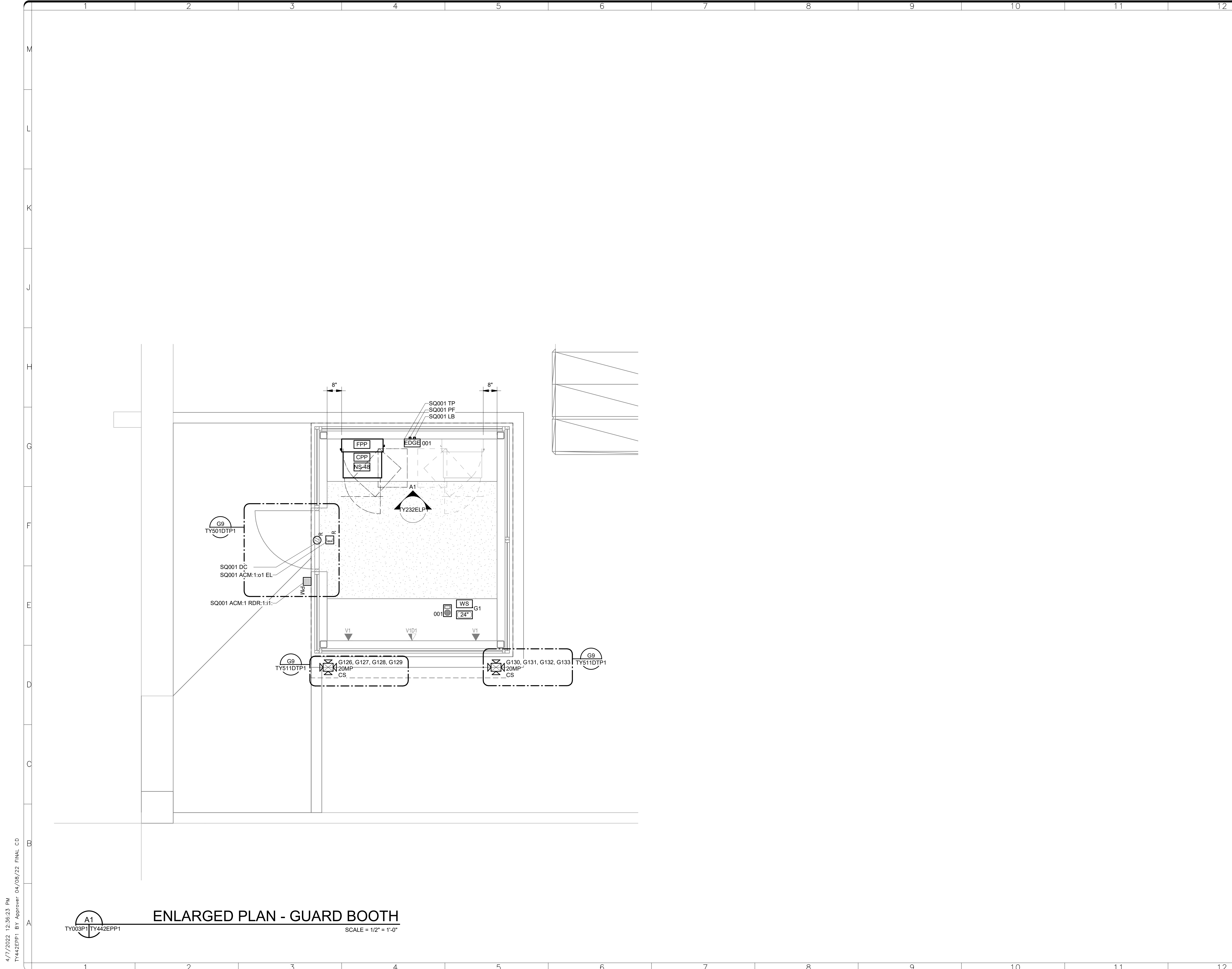
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TY123FPP1 TY441EPP1



A1  
TY103FPP1 TY441EPP1

4/7/2022 12:35:22 PM  
TY441EPP1 BY Approver 04/08/22 FINAL CD





**ENLARGED PLAN - GUARD BOOTH**  
 SCALE = 1/2" = 1'-0"

4/7/2022 12:36:23 PM  
 TY442EPP1 BY Approver 04/08/22 FINAL CD

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KEY PLAN

GRAPHIC SCALE(S)  
 0 1/2' 1' 1 1/2'  
 1 1/2" = 1'-0"

DATE	04/08/22	REVISION	FINAL CD
REVISION #	DATE	REVISION DESCRIPTION	

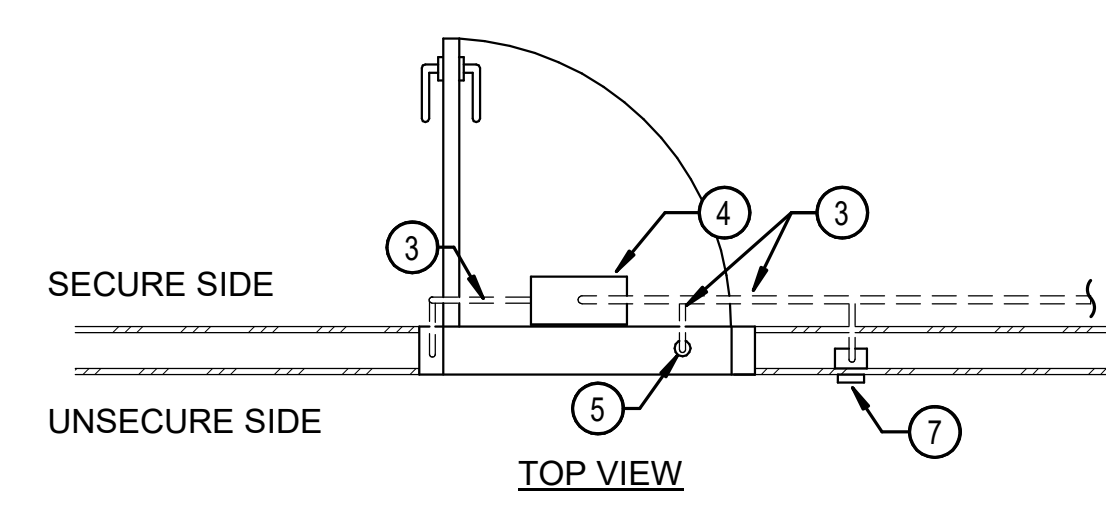
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BUILDING NAME	FREER/SACKLER/FAA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/FAA/ QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	ENLARGED PLANS - GUARD BOOTH - PHASE 1
WORKING STAFF	MO SK DB
DESIGNED BY	DRAWN BY
CHECKED BY	

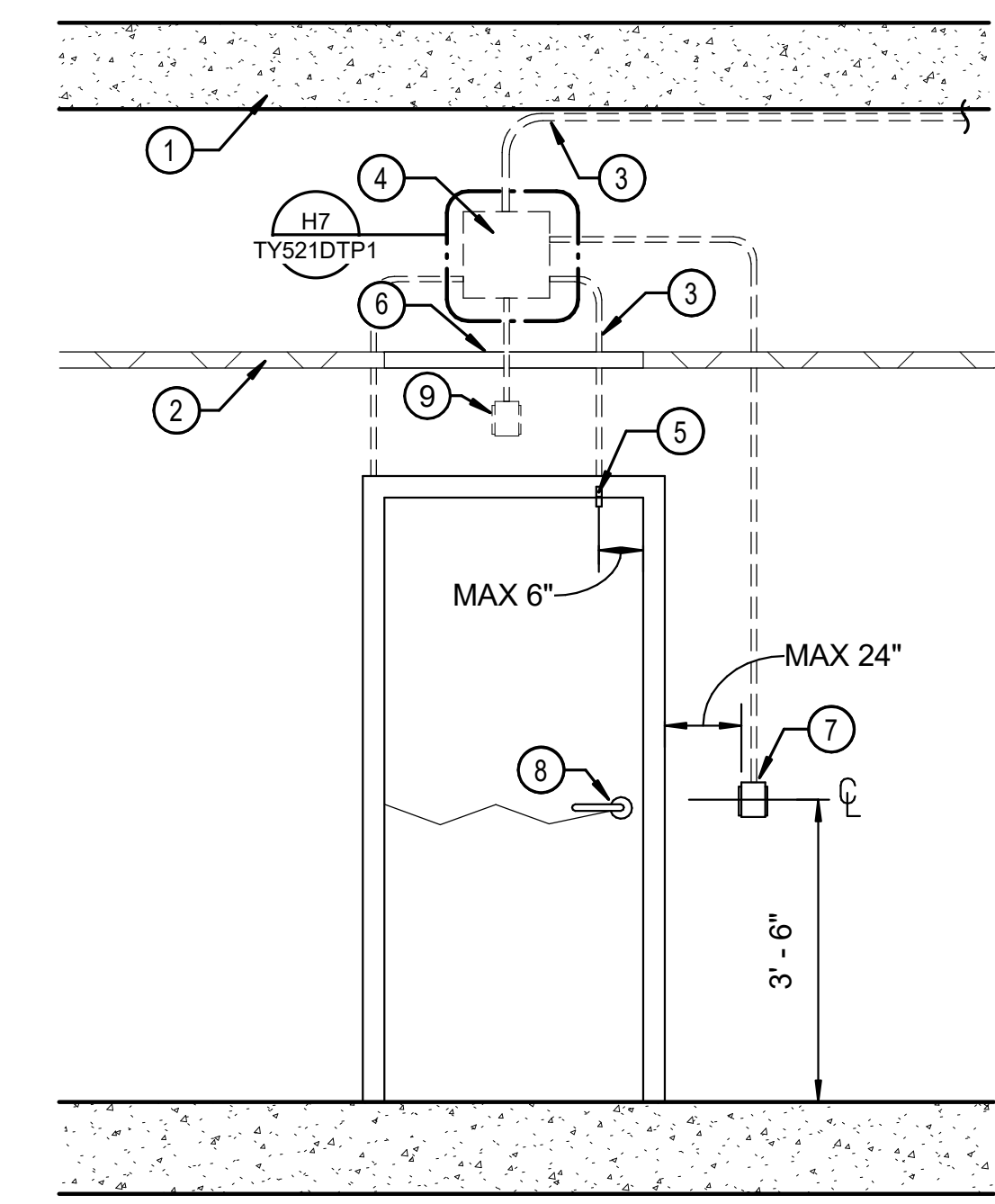
SHEET NO. **TY442EPP1**  
 161 of 179



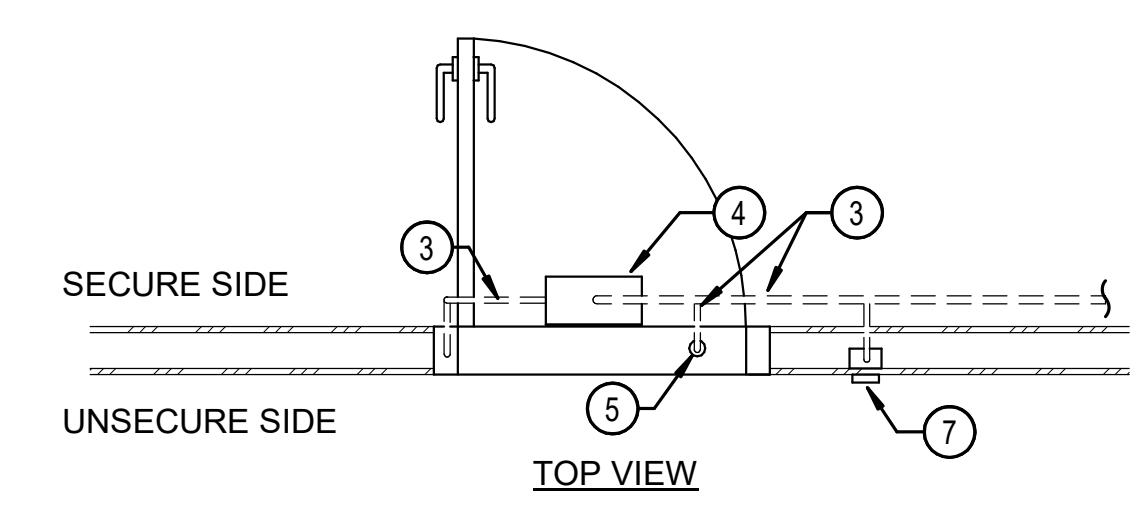
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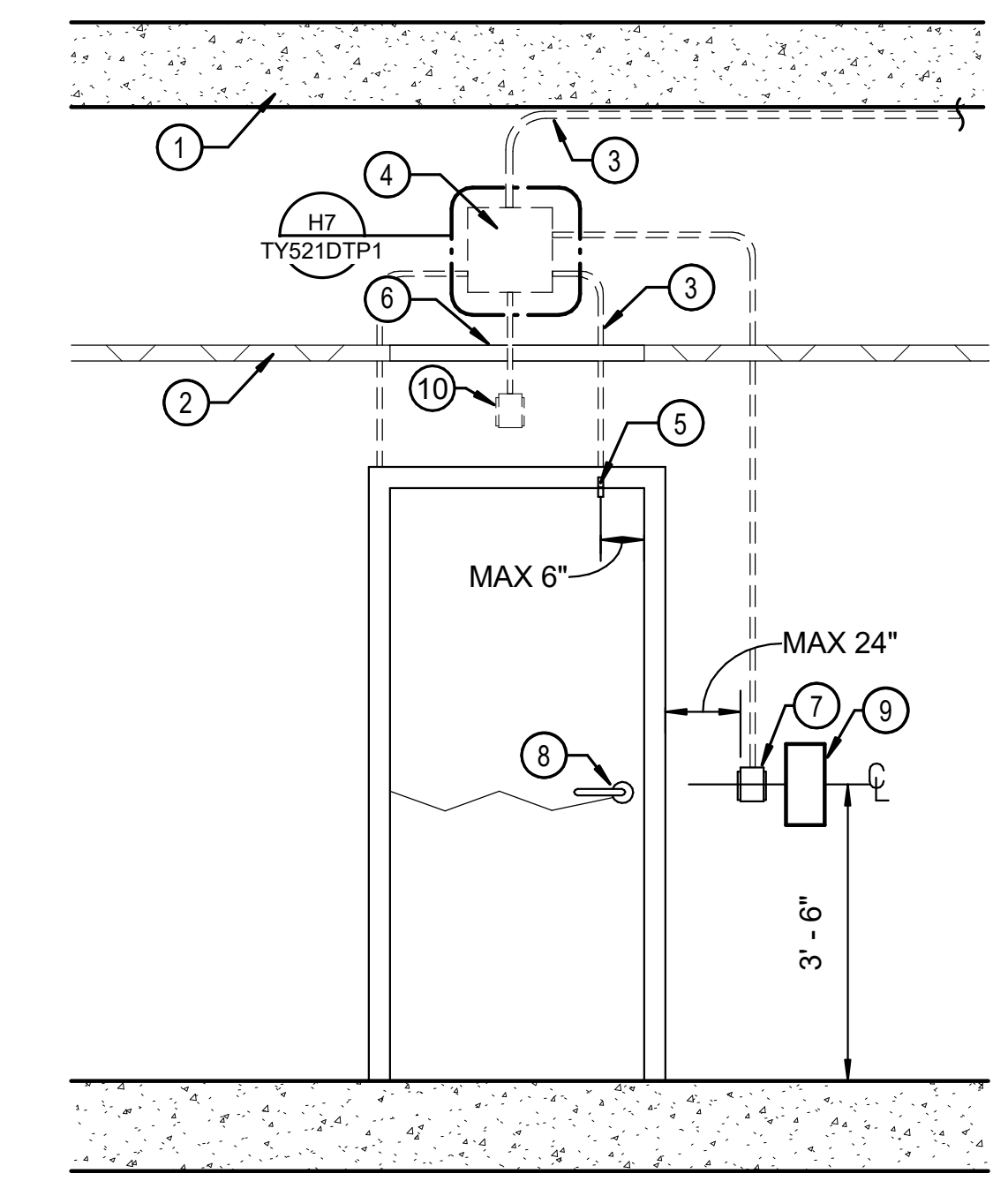
**DETAIL NOTES:**  
A. COORDINATE DOOR & DOOR FRAME PREPARATION WITH DIVISION 8 REQUIREMENTS.  
B. COORDINATE THE ACCESS PANEL LOCATION IN AREAS WITH INACCESSIBLE CEILINGS WITH ARCHITECT.



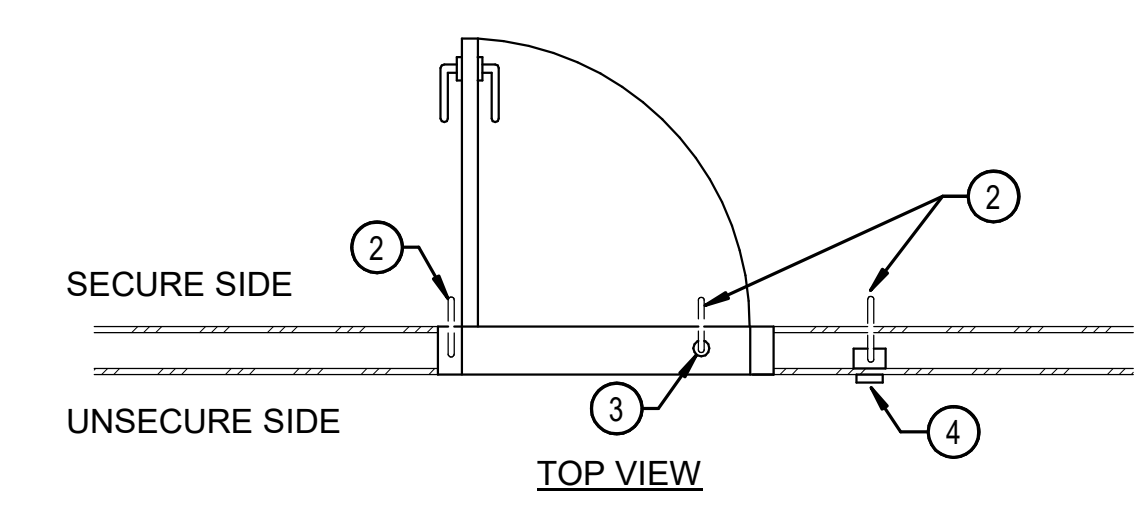
**SINGLE ACS DOOR**  
SCALE = 1/2" = 1'-0"



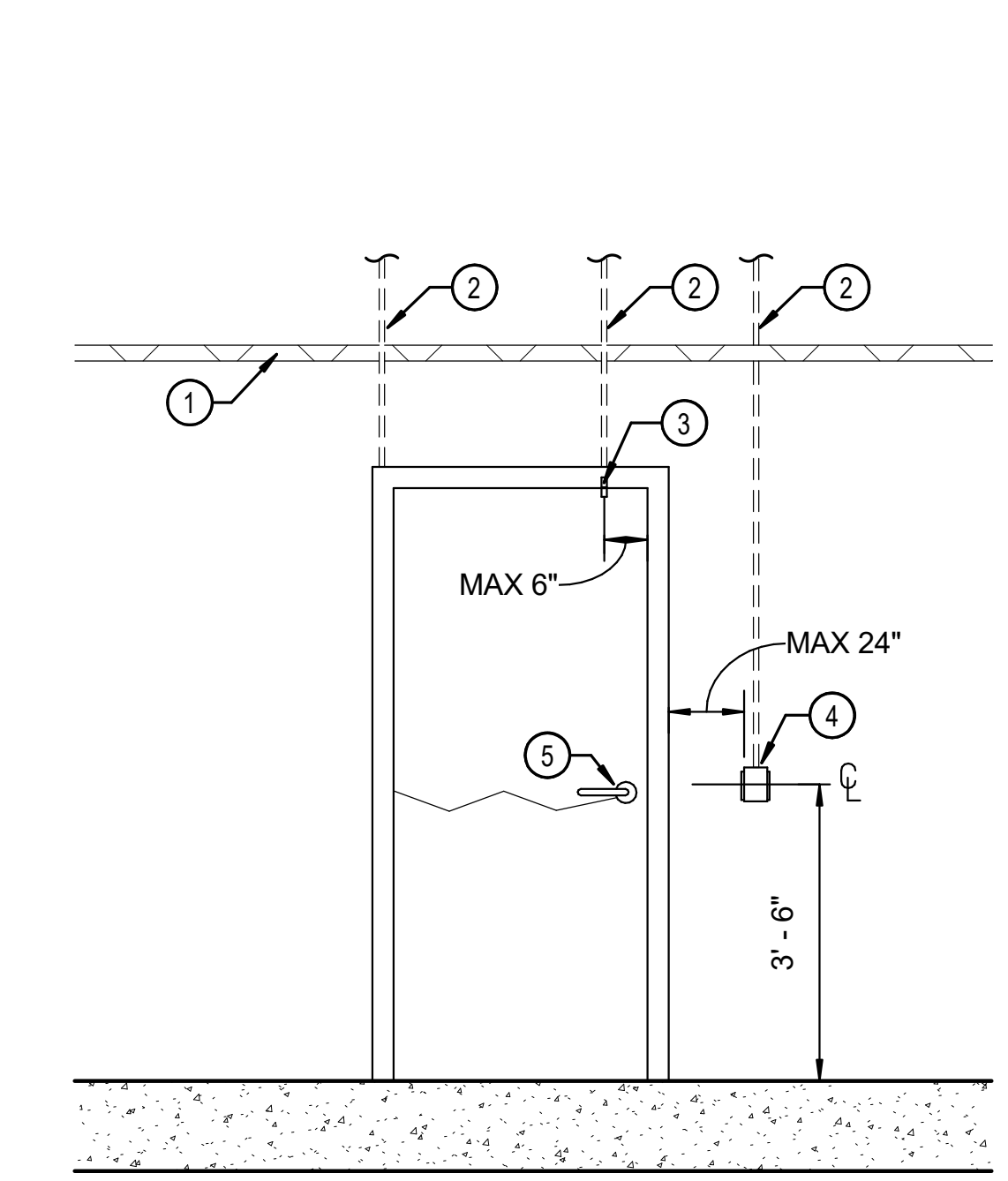
**DETAIL NOTES:**  
A. COORDINATE DOOR & DOOR FRAME PREPARATION WITH DIVISION 8 REQUIREMENTS.  
B. COORDINATE THE ACCESS PANEL LOCATION IN AREAS WITH INACCESSIBLE CEILINGS WITH ARCHITECT.



**SINGLE ACS DOOR WITH INTERCOM**  
SCALE = 1/2" = 1'-0"



**DETAIL NOTES:**  
A. COORDINATE DOOR & DOOR FRAME PREPARATION WITH DIVISION 8 REQUIREMENTS.  
B. COORDINATE THE ACCESS PANEL LOCATION IN AREAS WITH INACCESSIBLE CEILINGS WITH ARCHITECT.  
C. CONDUITS AND PULL STRINGS ARE PROVIDED WITH THE PRE-FABRICATED BOOTH.

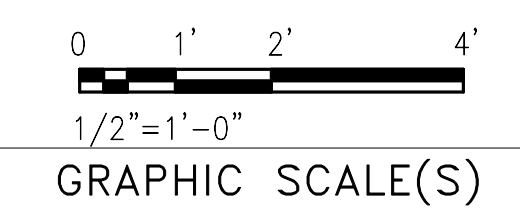
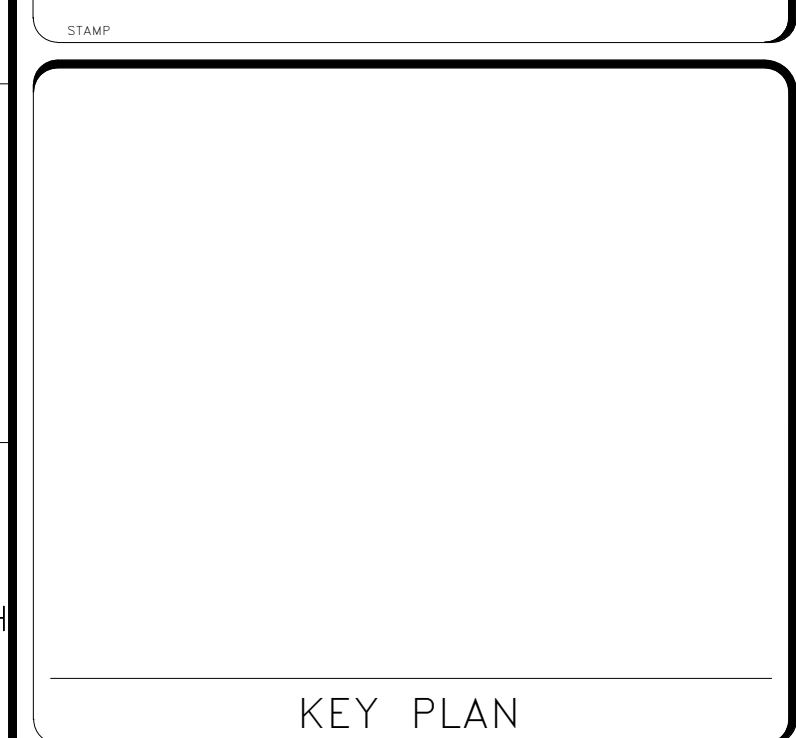


**GUARD BOOTH DOOR**  
SCALE = 1/2" = 1'-0"

**DETAIL KEY NOTES: #**  
1. CEILING SLAB  
2. FINISHED CEILING  
3. EMT CONDUIT  
4. JUNCTION BOX WITH COVER, SIZE AS REQUIRED  
5. DOOR POSITION SWITCH  
6. ACCESS PANEL - WHERE APPLICABLE  
7. CARD READER WITH BACK BOX  
8. ELECTRIFIED LOCKSET WITH INTEGRATED REX - COORDINATE WITH DIVISION 8 REQUIREMENTS  
9. DOOR SOUNDER WITH BACKBOX (SECURE SIDE)

**DETAIL KEY NOTES: #**  
1. CEILING SLAB  
2. FINISHED CEILING  
3. EMT CONDUIT  
4. JUNCTION BOX WITH COVER, SIZE AS REQUIRED  
5. DOOR POSITION SWITCH  
6. ACCESS PANEL - WHERE APPLICABLE  
7. CARD READER WITH BACK BOX  
8. ELECTRIFIED LOCKSET WITH INTEGRATED REX - COORDINATE WITH DIVISION 8 REQUIREMENTS  
9. VIDEO INTERCOM WITH BACK BOX  
10. DOOR SOUNDER WITH BACK BOX (SECURE SIDE)

**DETAIL KEY NOTES: #**  
1. FINISHED CEILING  
2. EMT CONDUIT  
3. DOOR POSITION SWITCH  
4. CARD READER WITH BACK BOX  
5. ELECTRIFIED LOCKSET WITH INTEGRATED REX - COORDINATE WITH DIVISION 8 REQUIREMENTS

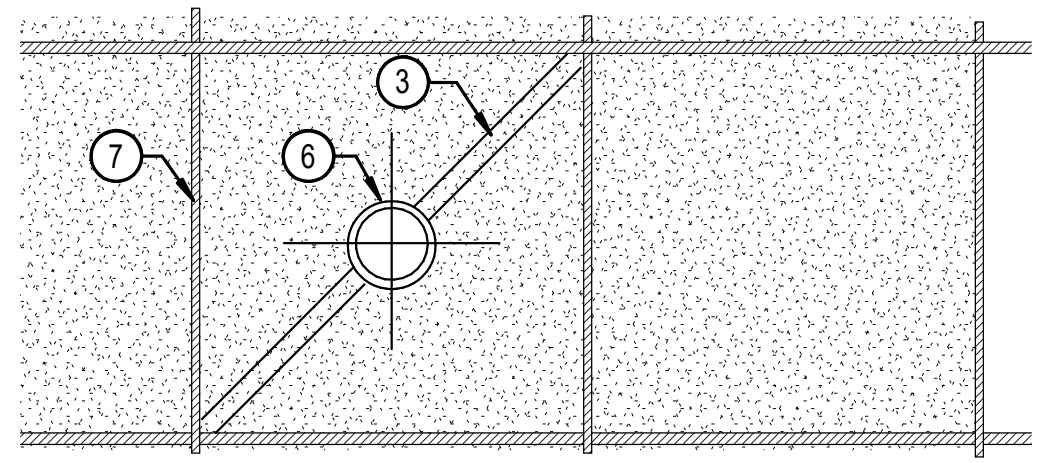


DATE	04/08/22	REVISION	FINAL CD
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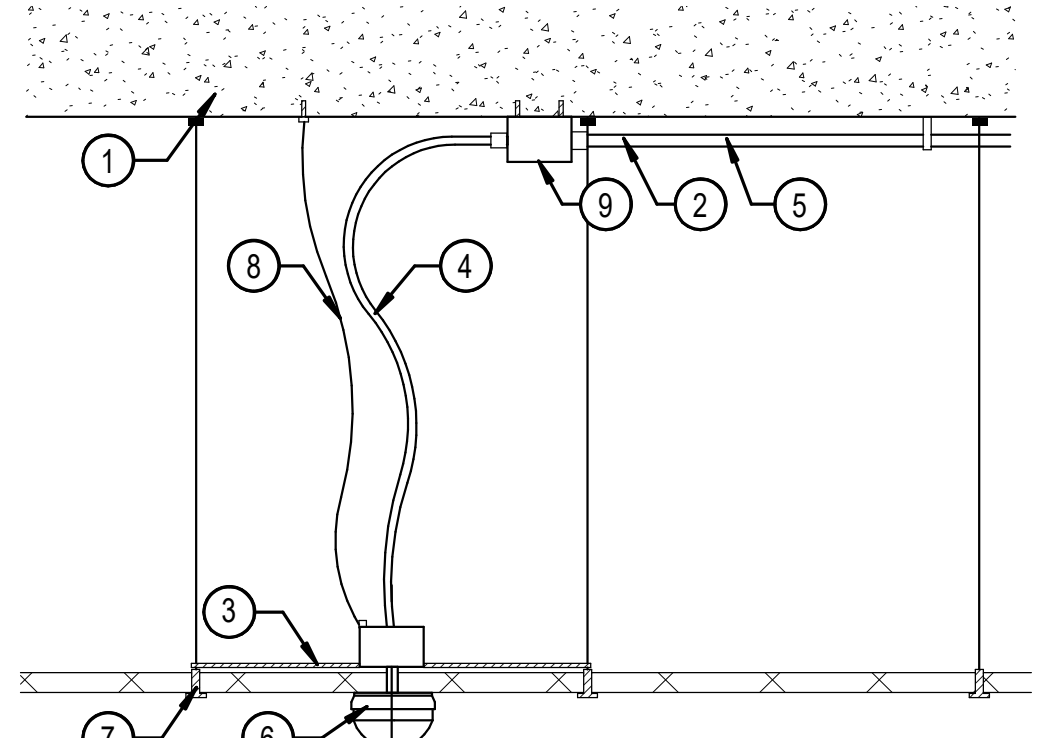
BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	DOOR DETAILS - PHASE 1
WORKING STAFF	Designer Author Checker

SHEET NO. TY501DTP1  
162 of 179



BOTTOM VIEW

- DETAIL NOTES:**
- A. MOUNT THE DETECTOR IN THE CENTER OF THE CEILING TILE.
  - B. COORDINATE THE DETECTOR LOCATION WITH OTHER DISCIPLINES TO PROVIDE REQUIRED COVERAGE.
  - C. SECURE DROP-CEILING TILES IF THE AREA ABOVE THE TILES IS USED AS AN AIR RETURN FOR HEATING, VENTILATING, AND AIR CONDITIONING (HVAC) SYSTEMS.
  - D. AVOID MOUNTING THE DETECTOR WITHIN 1 FT OF ANY FLUORESCENT LIGHT FIXTURES.



SIDE VIEW

- DETAIL KEY NOTES: (#)**
- 1. CEILING SLAB
  - 2. 3/4" EMT CONDUIT (PROVIDED BY DIVISION 26)
  - 3. SUPPORT PLATE
  - 4. 1/2" FLEXIBLE METALLIC CONDUIT
  - 5. ROUTE TO SECURITY PANELS
  - 6. 360° MOTION DETECTOR
  - 7. SUSPENDED CEILING GRID
  - 8. MINIMUM #12 HANGER WIRE, PER PROJECT SEISMIC REQUIREMENTS
  - 9. JUNCTION BOX SIZE AS REQUIRED (PROVIDED BY DIVISION 26)

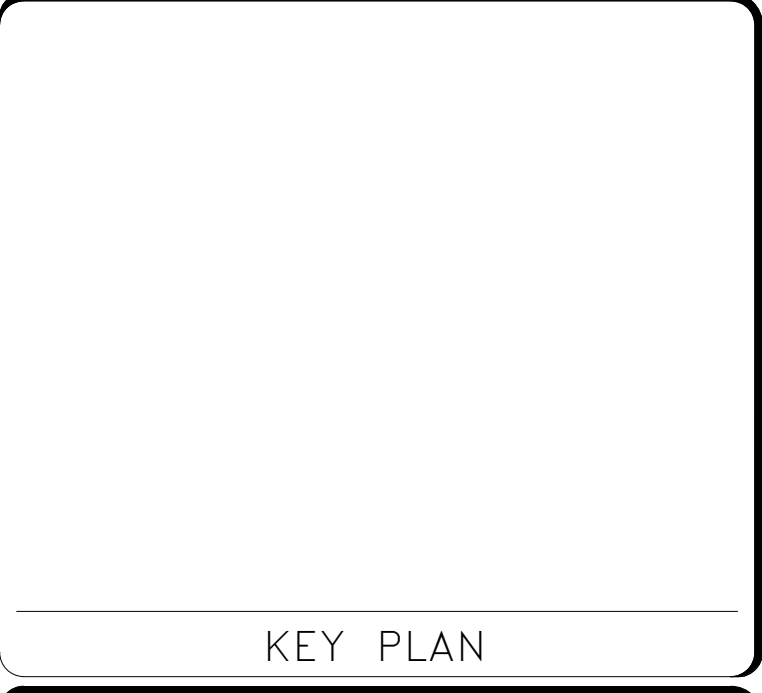
**G1 CEILING MOUNTED MOTION DETECTOR**

TY431EPP2/TY505DTP1 SCALE = 1" = 1'-0"

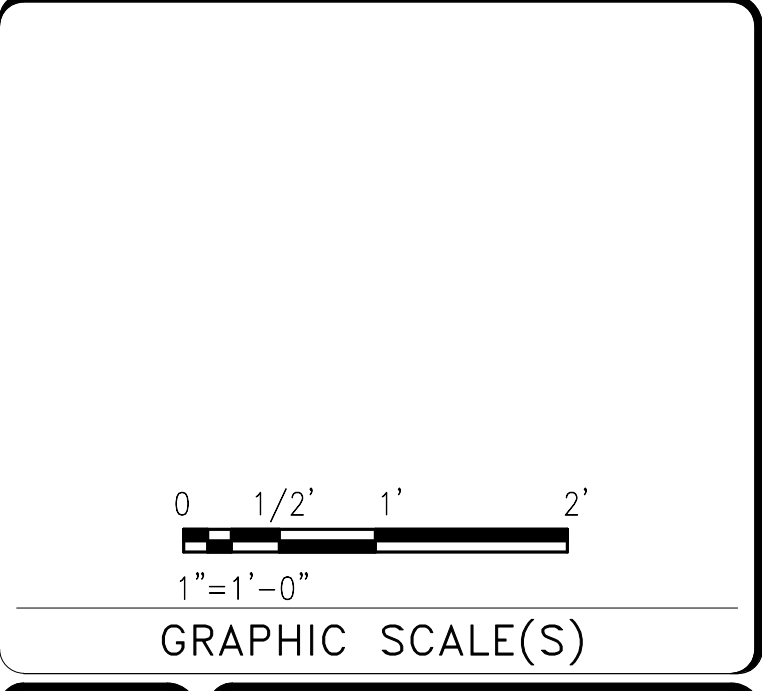


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KEY PLAN



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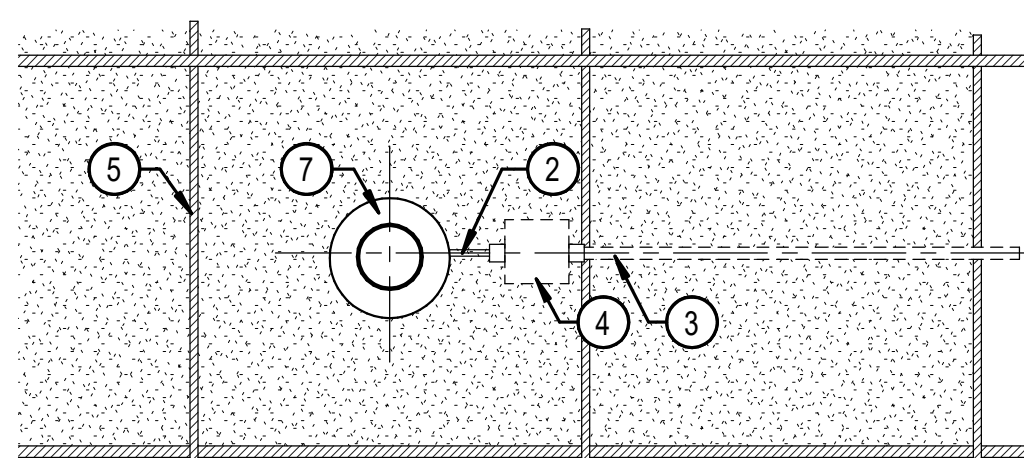
Smithsonian Facilities  
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Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	IDS DETAILS - PHASE 1
WORKING STAFF	Designer Author Checker
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO. TY505DTP1  
163 of 179



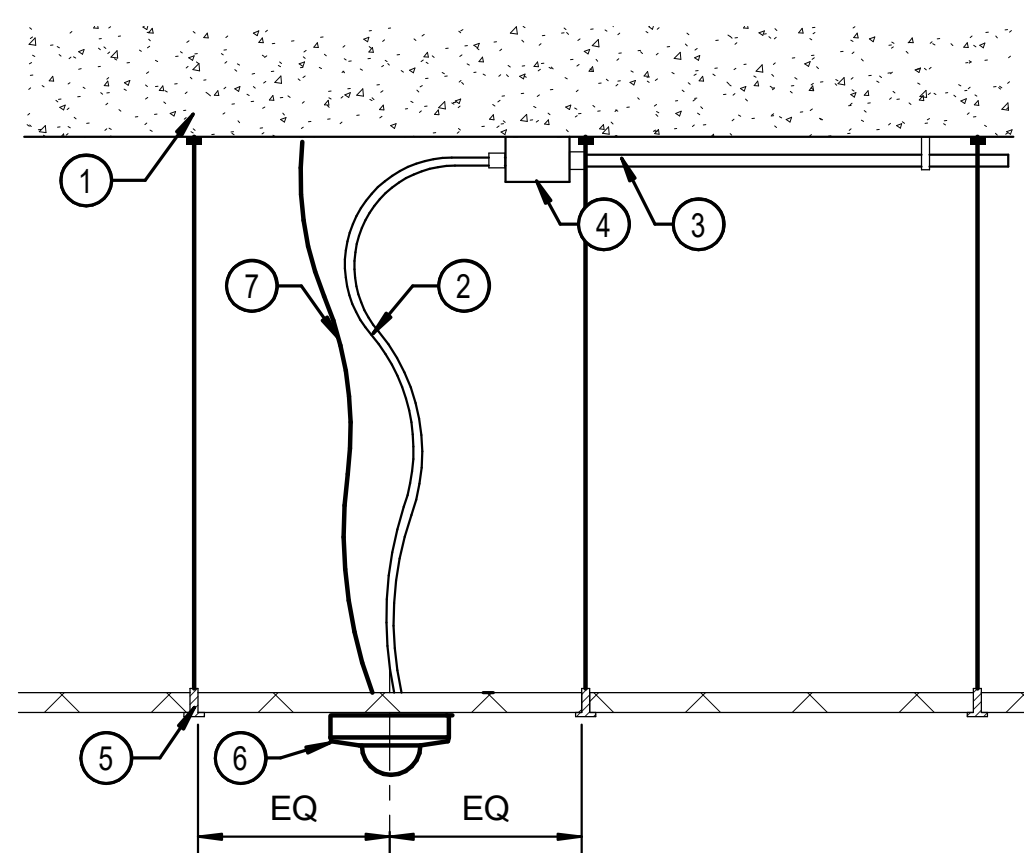
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BOTTOM VIEW

**DETAIL NOTES:**

- A. MOUNT THE CAMERA IN THE CENTER OF THE CEILING TILE.
- B. COORDINATE THE CAMERA LOCATION WITH OTHER DISCIPLINES TO PROVIDE REQUIRED VIDEO COVERAGE.
- C. COORDINATE FINAL CAMERA VIEWS WITH THE OWNER.



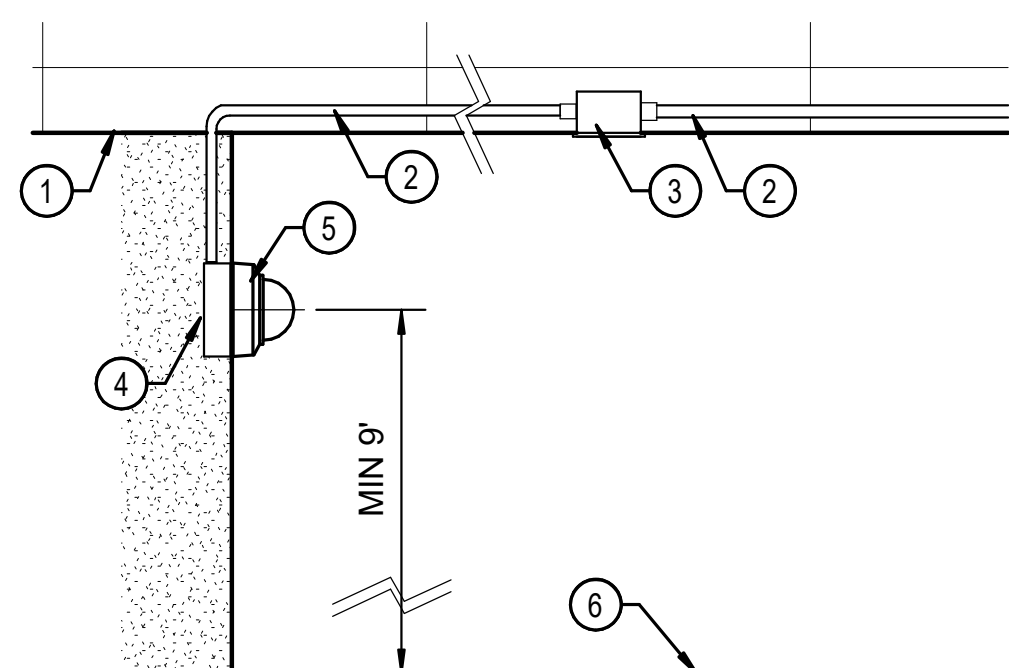
SIDE VIEW

**DETAIL KEY NOTES:** (#)

- 1. CEILING SLAB
- 2. FLEXIBLE METALLIC CONDUIT - SIZE AS REQUIRED
- 3. EMT CONDUIT - SIZE AS REQUIRED
- 4. JUNCTION BOX - SIZE AS REQUIRED
- 5. SUSPENDED CEILING GRID
- 6. INTERIOR DOME CAMERA
- 7. MINIMUM #12 HANGER WIRE, PER PROJECT SEISMIC REQUIREMENTS

**CAMERA - SURFACE CEILING MOUNT ACCESSIBLE CEILING**

G1 TY441EPP1 TY511DTP1 SCALE = 1" = 1'-0"



SIDE VIEW

**DETAIL NOTES:**

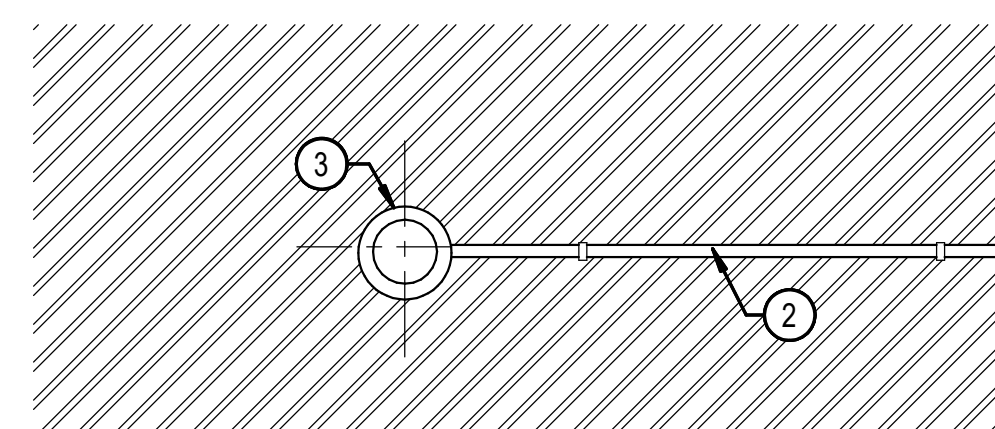
- A. DETAIL IS DIAGRAMMATIC, THE CAMERA MOUNTING ASSEMBLY VARIES WITH MANUFACTURER.
- B. MOUNT CAMERA ASSEMBLY AT MOST DESIRABLE HEIGHT ABOVE FINISHED FLOOR TO AVOID OBSTRUCTIONS AND TO PROVIDE THE FIELD-OF-VIEW DESIRED.
- C. ALL CAMERA ASSEMBLIES SHALL BE FIRMLY ATTACHED TO SUBSTANTIAL WALL SURFACES OR STRUCTURAL MEMBERS.
- D. COORDINATE THE CAMERA LOCATION WITH OTHER DISCIPLINES TO PROVIDE REQUIRED VIDEO COVERAGE.
- E. COORDINATE FINAL CAMERA VIEWS WITH THE OWNER.

**DETAIL KEY NOTES:** (#)

- 1. CEILING
- 2. EMT CONDUIT - SIZE AS REQUIRED
- 3. JUNCTION BOX - SIZE AS REQUIRED
- 4. CAMERA BACK BOX
- 5. DOME CAMERA
- 6. FINISHED FLOOR

**SURFACE WALL MOUNTED MOUNTED CAMERA**

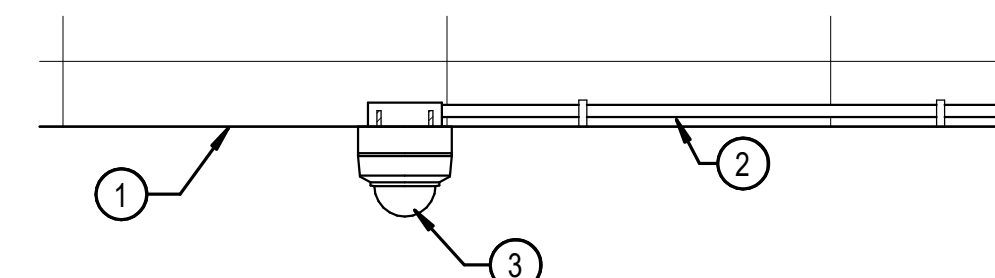
G5 TY441EPP1 TY511DTP1 SCALE = 1" = 1'-0"



BOTTOM VIEW

**DETAIL NOTES:**

- A. MOUNT CAMERA ASSEMBLY TO AVOID OBSTRUCTIONS AND TO PROVIDE THE FIELD-OF-VIEW DESIRED.
- B. ALL CAMERA ASSEMBLIES SHALL BE FIRMLY ATTACHED TO SUBSTANTIAL CEILING SURFACES OR STRUCTURAL MEMBERS.
- C. COORDINATE THE CAMERA LOCATION WITH OTHER DISCIPLINES TO PROVIDE REQUIRED VIDEO COVERAGE.
- D. COORDINATE FINAL CAMERA VIEWS WITH THE OWNER.



SIDE VIEW

**DETAIL KEY NOTES:** (#)

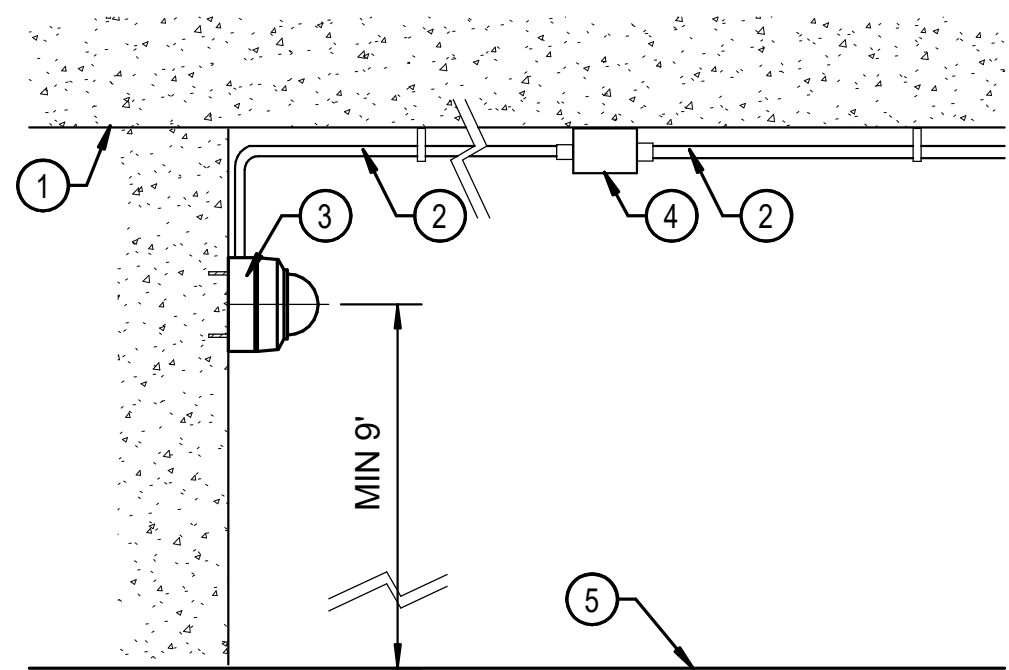
- 1. CEILING
- 2. EMT CONDUIT - PROVIDE BY GUARD BOOTH MANUFACTURER
- 3. SURFACE MOUNTED DOME CAMERA

**SURFACE CEILING MOUNTED CAMERA**

G9 TY442EPP1 TY511DTP1 SCALE = 1" = 1'-0"

**DETAIL NOTES:**

- A. DETAIL IS DIAGRAMMATIC, THE CAMERA MOUNTING ASSEMBLY VARIES BY MANUFACTURER.
- B. MOUNT CAMERA ASSEMBLY AT MOST DESIRABLE HEIGHT ABOVE FINISHED FLOOR TO AVOID OBSTRUCTIONS AND PROVIDE THE FIELD-OF-VIEW DESIRED.
- C. FIRMLY ATTACH CAMERA ASSEMBLIES TO SUBSTANTIAL CEILING SURFACES OR STRUCTURAL MEMBERS.
- D. COORDINATE THE CAMERA LOCATION WITH OTHER DISCIPLINES TO PROVIDE REQUIRED VIDEO COVERAGE.
- E. COORDINATE FINAL CAMERA VIEWS WITH THE OWNER.



SIDE VIEW

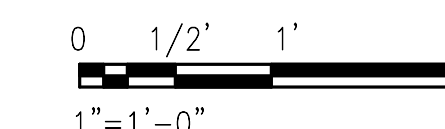
**DETAIL KEY NOTES:** (#)

- 1. CEILING SLAB
- 2. EMT CONDUIT - SIZE AS REQUIRED
- 3. DOME CAMERA
- 4. JUNCTION BOX - SIZE AS REQUIRED
- 5. FINISHED FLOOR

**SURFACE WALL MOUNTED CAMERA**

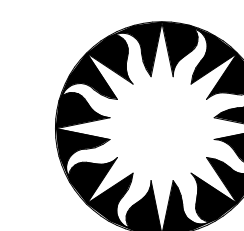
A1 TY401EPP1 TY511DTP1 SCALE = 1" = 1'-0"

KEY PLAN



GRAPHIC SCALE(S)

DATE	04/08/22	REVISION	FINAL CD
REVISION # DATE		REVISION DESCRIPTION	



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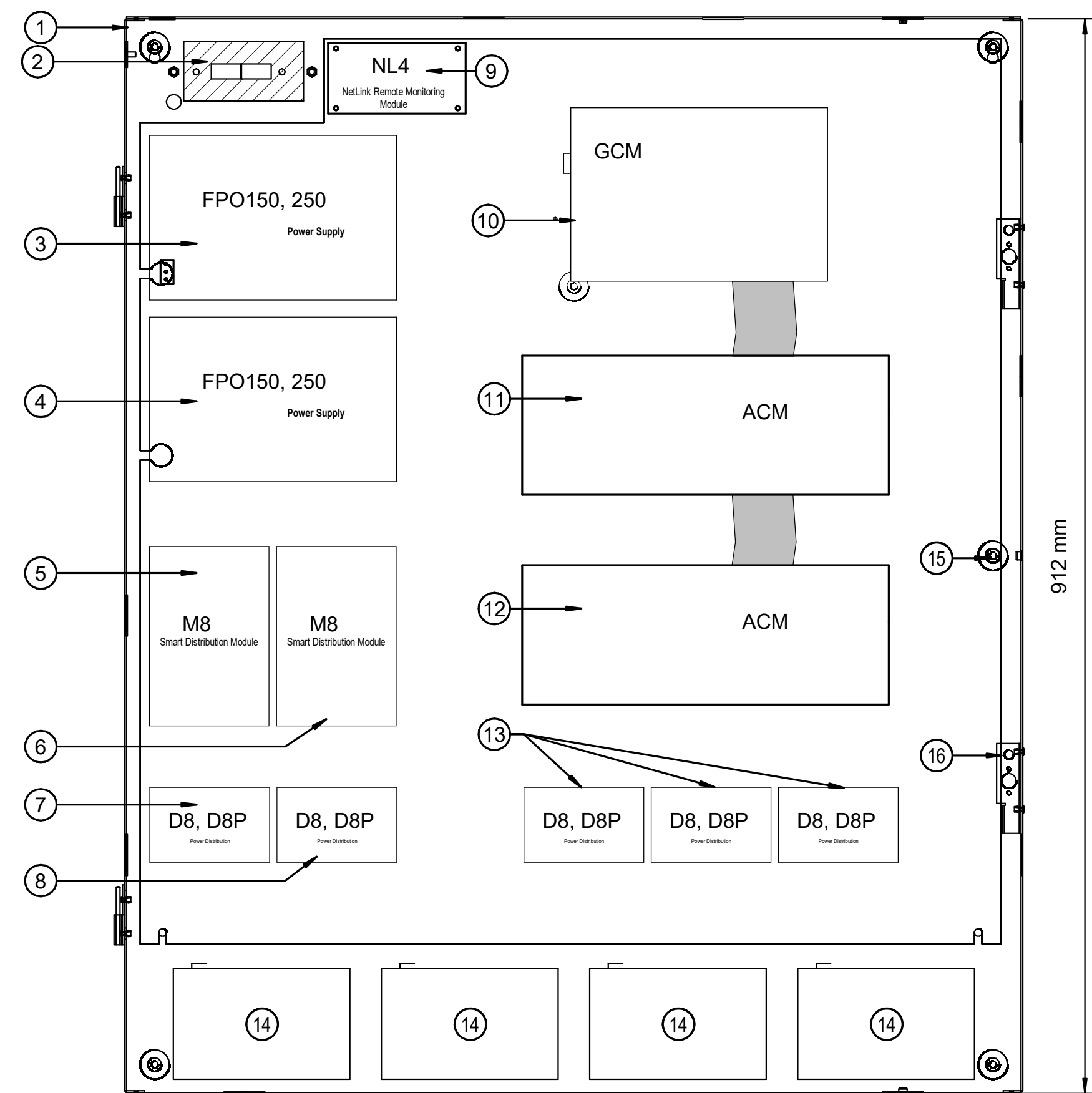
Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/FA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/FA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	CAMERA DETAILS - PHASE 1
WORKING STAFF	Designer Author Checker
	DESIGNED BY DRAWN BY CHECKED BY

SHEET NO. TY511DTP1  
164 of 179



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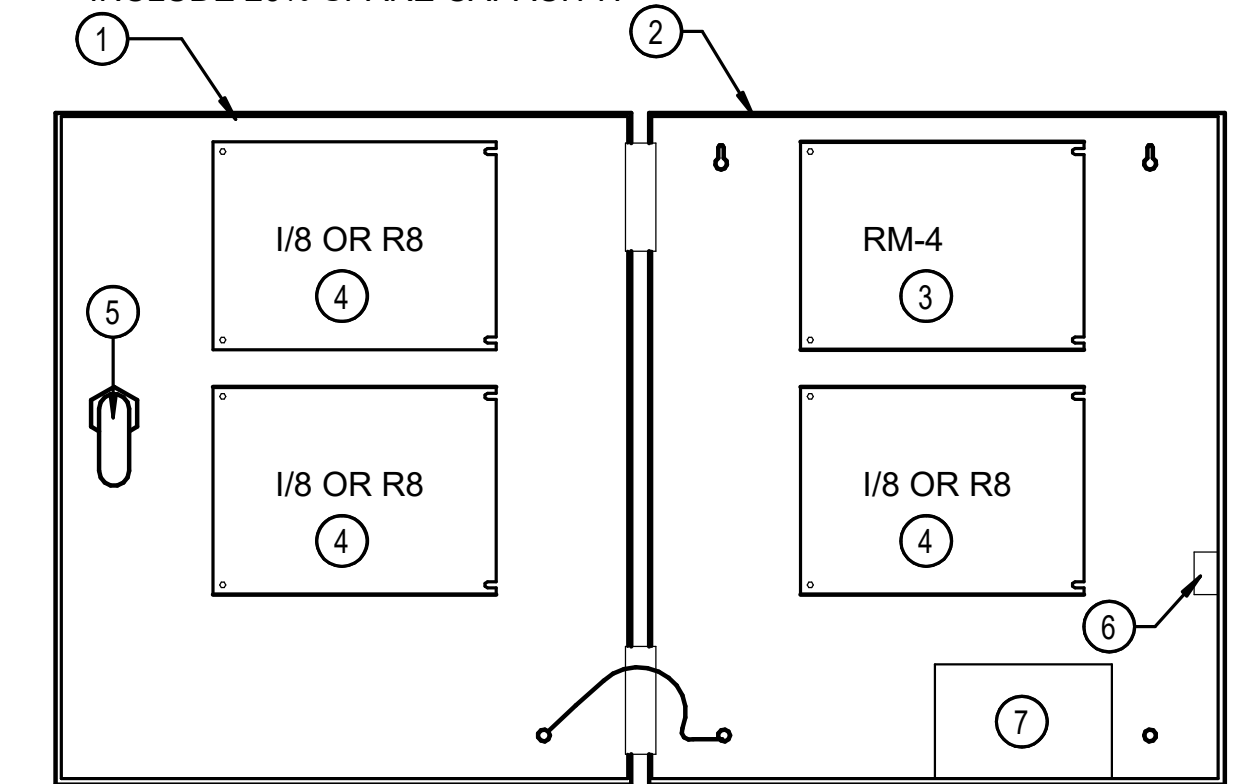


**LIFE SAFETY POWER SUPPLY ENCLOSURE WITH ISTAR ULTRA 16 READERS**  
SCALE = 3" = 1'-0"

**DETAIL NOTES:**  
A. INSTALL THE ENCLOSURE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.  
B. PRIOR TO WORKING ON THE PANEL GROUND THE PANEL TO THE LOCAL TGB.  
C. BOND THE DOOR TO THE PANEL.  
D. CONNECT THE SHIELD DRAIN OF ALL RS485 COMMUNICATION LINES TO THE PANELS (FROM CARD READERS, INPUT PANELS, OUTPUT PANELS AND READER MODULES).  
E. TERMINATE GCM TAMPER INPUT TO ENCLOSURE TAMPER.  
F. TERMINATE GCM LOW BATTERY INPUT TO POWER SUPPLY LOW BATTERY RELAY INPUT.

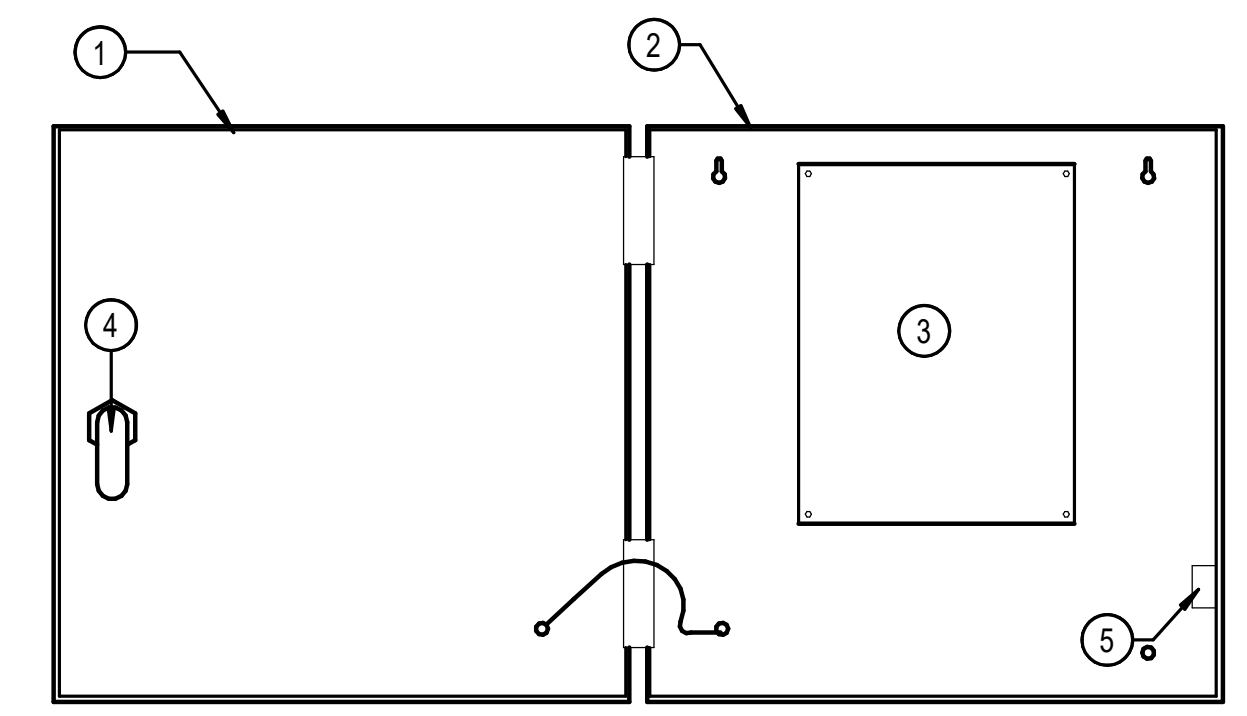
- DETAIL KEY NOTES: (#)**
1. FPO150/250-2C82D8E8S UL RATED 36"HX30"WX4.5"D [910mmx760mmx115mm] ENCLOSURE
  2. 120VAC POWER CIRCUIT SWITCH
  3. LIFE SAFETY POWER FPO 150, 250 POWER SUPPLY MODULE 1
  4. LIFE SAFETY POWER FPO 150, 250 POWER SUPPLY MODULE 2
  5. LIFE SAFETY POWER M8, SMART DISTRIBUTION MODULE 1 (INPUTS 1-8, OUTPUTS 1-8)
  6. LIFE SAFETY POWER M8, SMART DISTRIBUTION MODULE 2 (INPUTS 9-16, OUTPUTS 9-16)
  7. LIFE SAFETY POWER D8, D8P POWER DISTRIBUTION MODULE 1 (OUTPUTS 1-8)
  8. LIFE SAFETY POWER D8, D8P POWER DISTRIBUTION MODULE 2 (OUTPUTS 9-16)
  9. LIFE SAFETY POWER NL4, NETLINK REMOTE MONITORING MODULE (4 PORT)
  10. SOFTWARE HOUSE GCM MODULE
  11. SOFTWARE HOUSE ACM MODULE 1
  12. SOFTWARE HOUSE ACM MODULE 2
  13. SPACE FOR D8/D8P POWER DISTRIBUTION MODULES
  14. 12V BATTERY - SIZE AS REQUIRED FOR 8 HOUR BACKUP
  15. ENCLOSURE LOCK
  16. TAMPER SWITCH

**DETAIL NOTES:**  
A. DETAIL IS DIAGRAMMATIC REFER TO MANUFACTURER'S DOCUMENTATION FOR INSTALLATION REQUIREMENTS.  
B. WHERE REQUIRED I/8 MODULES MAY BE REPLACED WITH R/8 MODULES  
C. REFER TO FLOOR PLANS, DIAGRAMS, AND SCHEDULES FOR ALARM POINT ASSIGNMENT AND DOOR LOCATIONS.  
D. REFER TO INTRUSION SYSTEM DIAGRAMS TO DETERMINE A NUMBER OF I/8 INPUT MODULES PER ENCLOSURE. INCLUDE 20% SPARE CAPACITY.



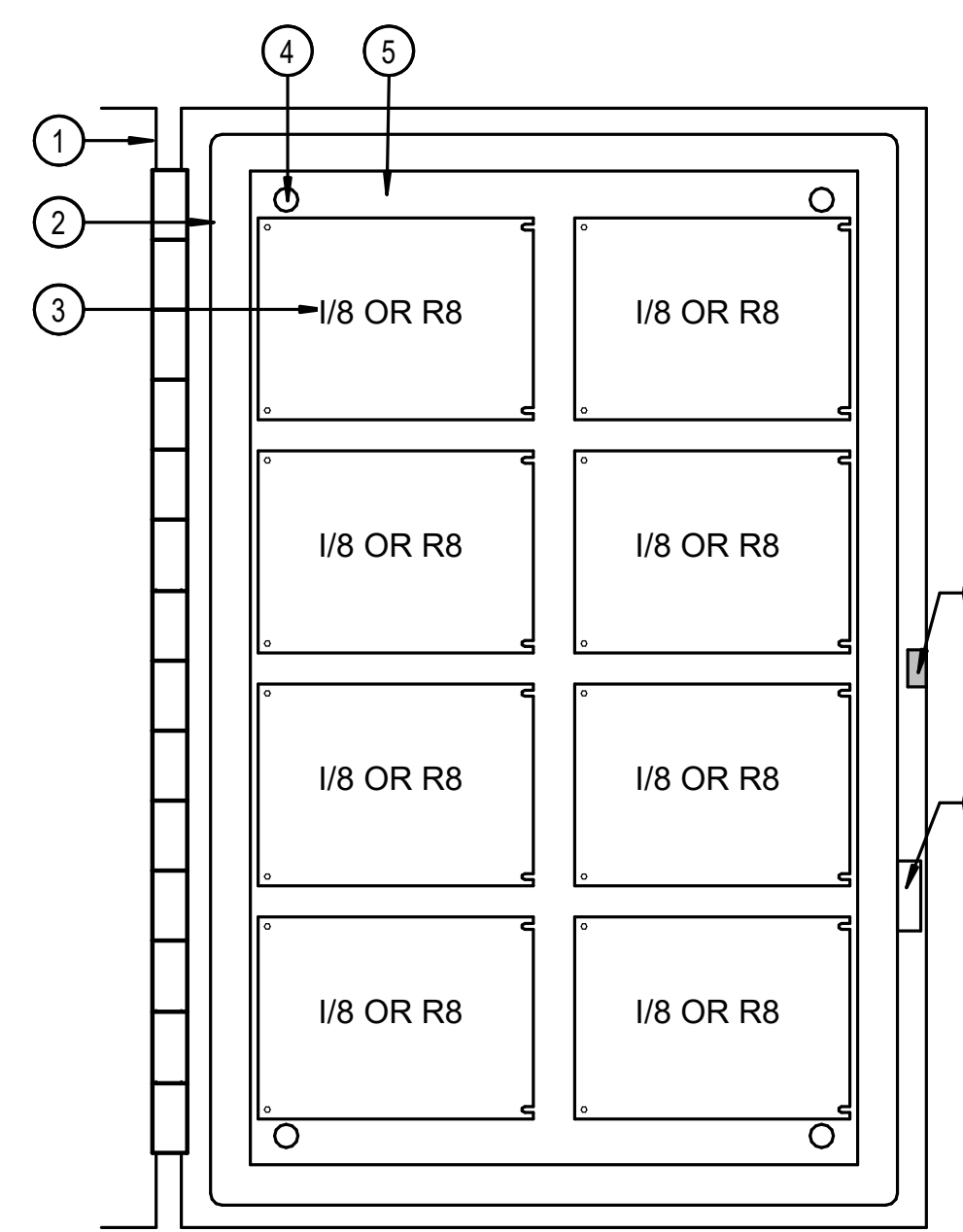
**SOFTWARE HOUSE RM-DCM-2 WITH READER MODULE**  
SCALE = NTS

- DETAIL KEY NOTES: (#)**
1. ENCLOSURE DOOR
  2. SOFTWARE HOUSE RM-DCM-2 ENCLOSURE 12"W X 14"H X 3.5"D [356mm X 305mm X 89 mm]
  3. RM-4 READER MODULE
  4. I/8 OR R8 MODULE (AS APPLICABLE)
  5. ENCLOSURE LOCK
  6. TAMPER SWITCH
  7. 12V BATTERY BACKUP (AS APPLICABLE)



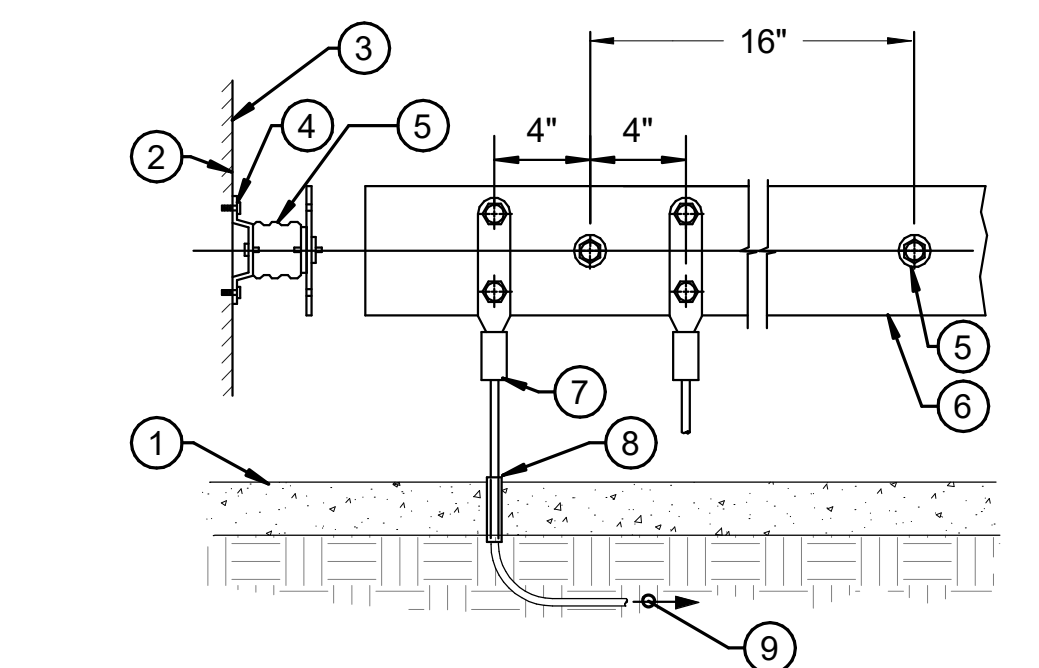
**SOFTWARE HOUSE RM-ISTAR EDGE G2**  
SCALE = NTS

- DETAIL NOTES:**  
A. DETAIL IS DIAGRAMMATIC REFER TO MANUFACTURER'S DOCUMENTATION FOR INSTALLATION REQUIREMENTS.
- DETAIL KEY NOTES: (#)**
1. ENCLOSURE DOOR
  2. SOFTWARE HOUSE ISTAR EDGE G2 ENCLOSURE 12"W X 12"H X 4"D [305mm X 305mm X 102 mm]
  3. ISTAR EDGE MODULE
  4. ENCLOSURE LOCK
  5. TAMPER SWITCH



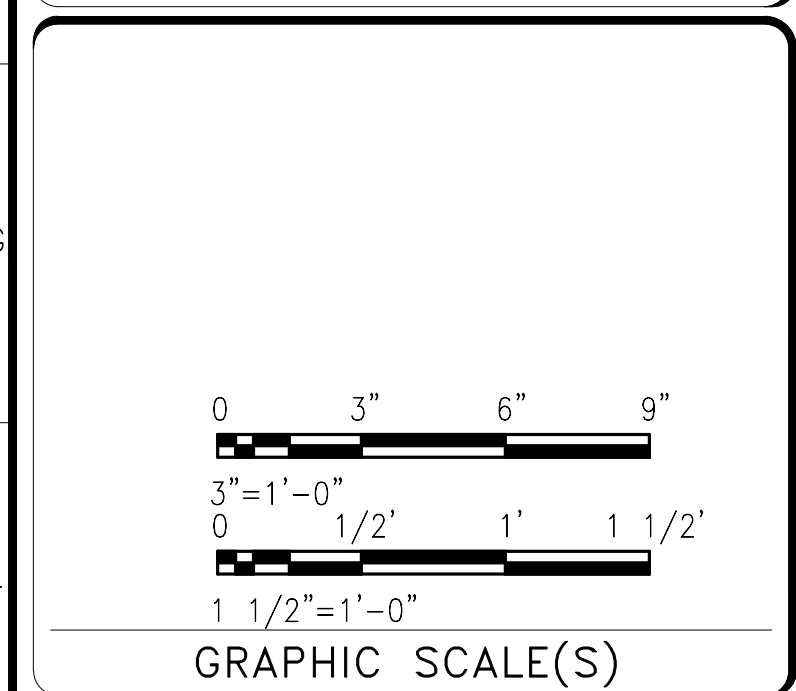
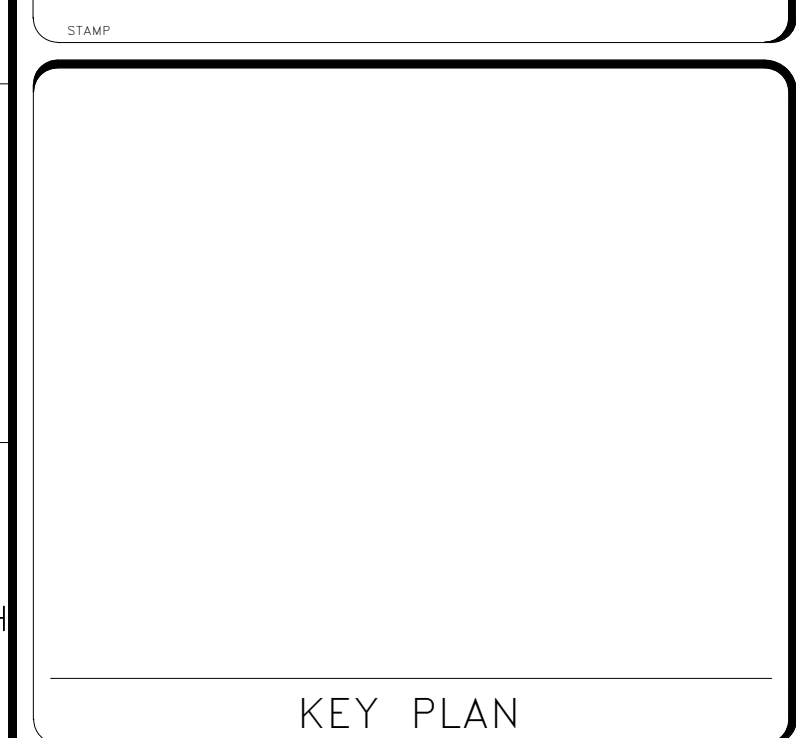
**I/O ENCLOSURE**  
SCALE = 3" = 1'-0"

- DETAIL NOTES:**  
A. DETAIL IS DIAGRAMMATIC REFER TO MANUFACTURER'S DOCUMENTATION FOR INSTALLATION REQUIREMENTS.
- DETAIL KEY NOTES: (#)**
1. ENCLOSURE DOOR
  2. NEMA 12 ENCLOSURE 24"HX16"WX8"D [610mmX406mmX203mm]
  3. I/8 OR R/8 BOARD
  4. PANEL MOUNTING LUG
  5. BACK PANEL
  6. ENCLOSURE LOCK
  7. TAMPER SWITCH



**GROUNDING BUS BAR MOUNTING DETAIL**  
SCALE = 1 1/2" = 1'-0"

- DETAIL KEY NOTES: (#)**
1. FINISHED FLOOR
  2. MOUNTING BASE
  3. FACE OF WALL
  4. 5/8" EXPANSION BOLT WITH STEEL WASHER AND LOCKWASHER
  5. 2 5/8" HIGH MOLDED FIBERGLASS REINFORCED POLYESTER INSULATOR (GE BENELEX) SPACED @ 16" CENTER
  6. GROUNDING BUS BAR, SOLID COPPER, 12" x 4"
  7. THERMOWELDED TWO HOLE LUG
  8. 1/4" PVC SLEEVE IN CONCRETE SLAB
  9. TO NEXT GROUND BUS



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DESIGNER		DATE	
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ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/FA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	PANEL DETAILS - PHASE 1
WORKING STAFF	MO SK DB

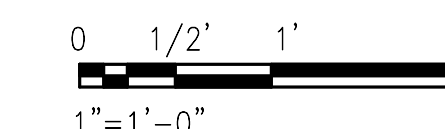
SHEET NO. 165 of 179  
TY521DTP1



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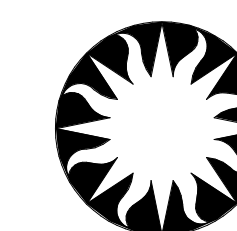
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KEY PLAN



1" = 1'-0"  
GRAPHIC SCALE(S)

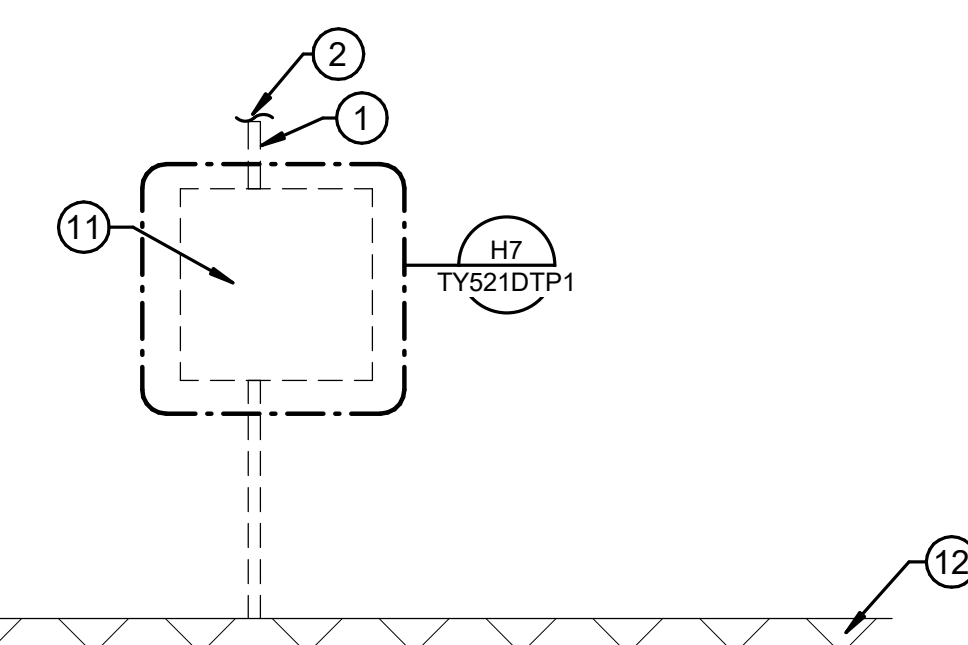
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REVISION # DATE	REVISION DESCRIPTION



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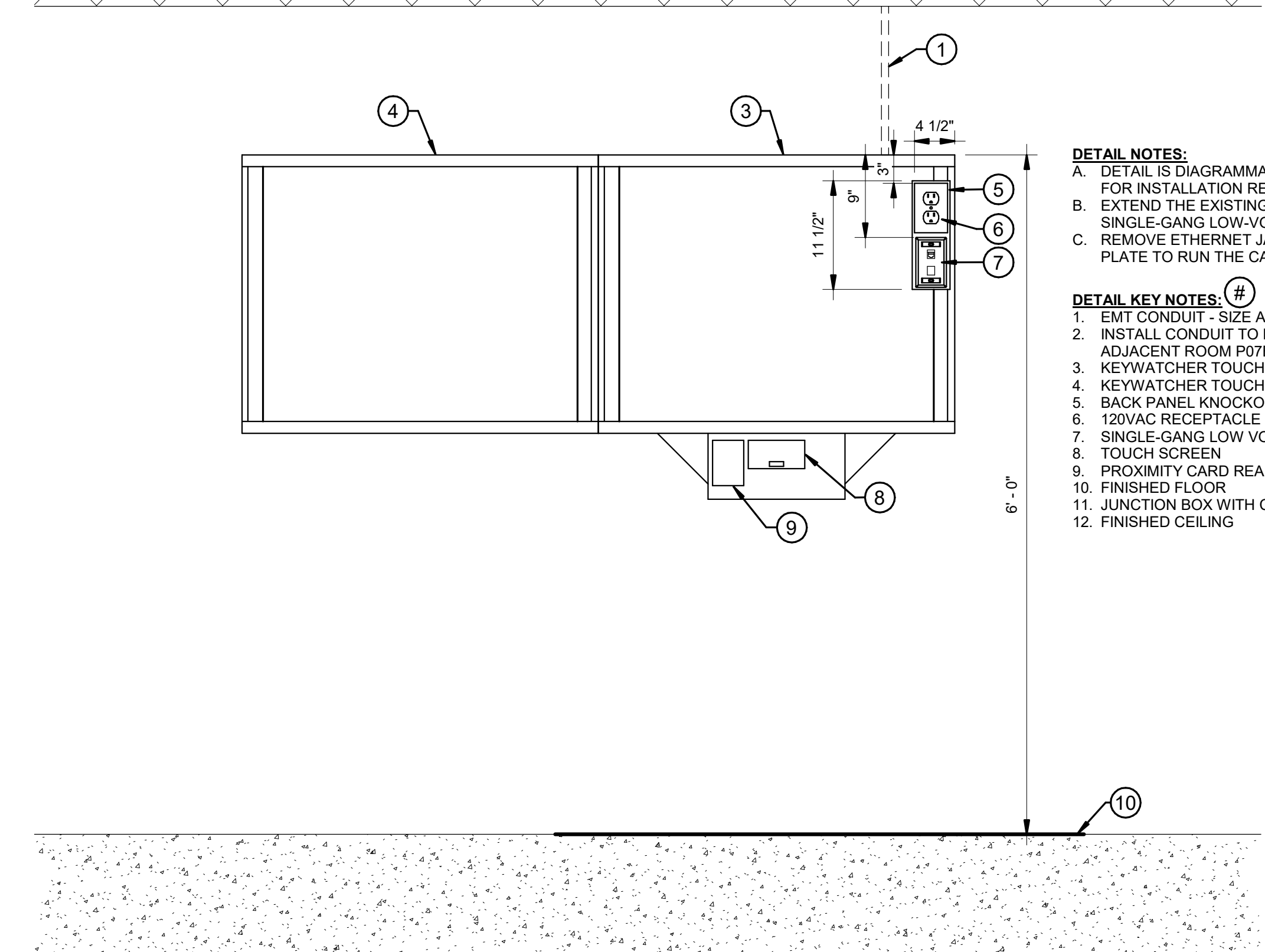
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BUILDING NAME	FREER/SACKLER/AFA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	DETAILS - PHASE 1
WORKING STAFF	MO SK DB
DESIGNED BY	DRAWN BY
CHECKED BY	
SHEET NO.	TY541DTP1
166 of 179	DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE



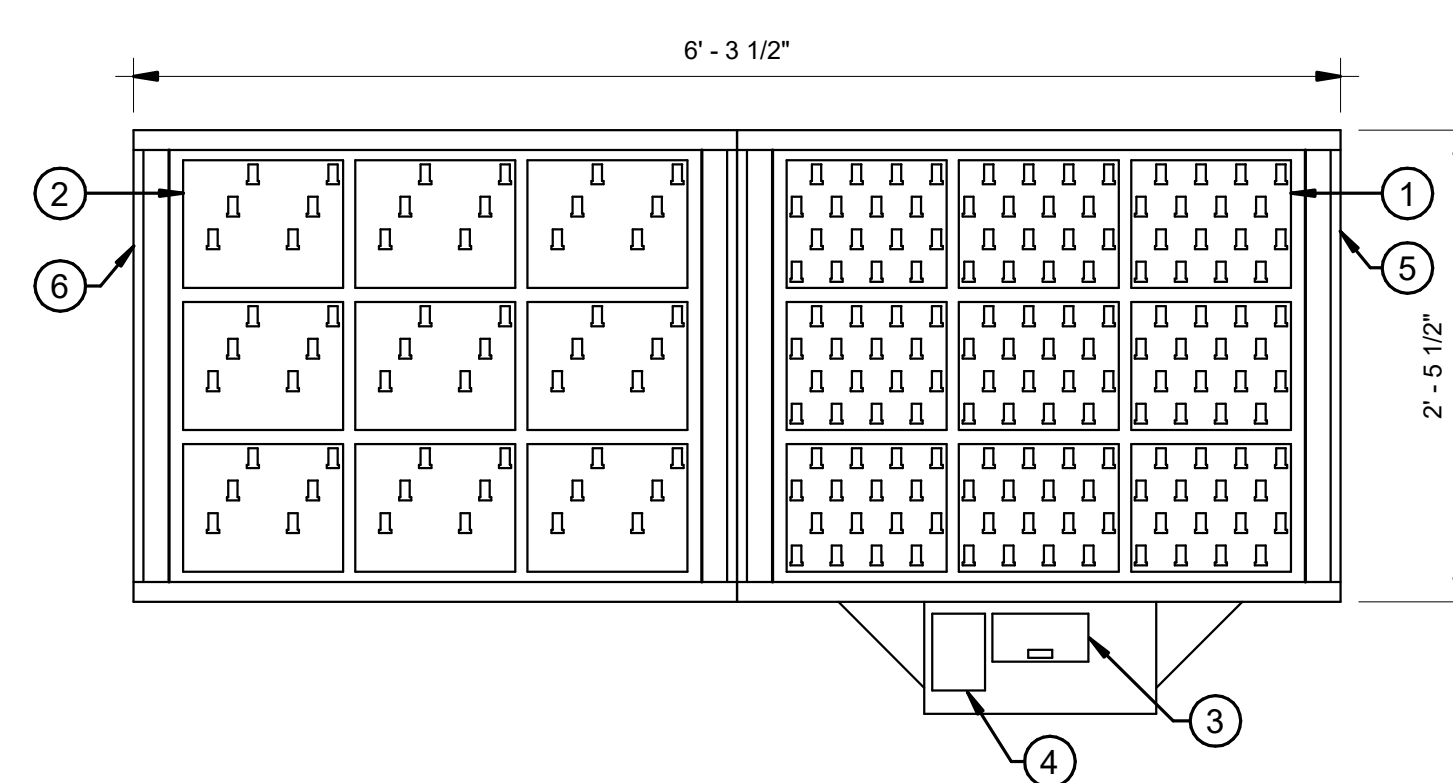
**DETAIL NOTES:**  
A. DETAIL IS DIAGRAMMATIC REFER TO MANUFACTURER'S DOCUMENTATION FOR INSTALLATION REQUIREMENTS.  
B. EXTEND THE EXISTING BACKPANEL KNOCKOUT TO ACCOMMODATE THE SINGLE-GANG LOW-VOLTAGE BOX.  
C. REMOVE ETHERNET JACK IN THE BOTTOM PORT OF THE DUAL PORT FACE PLATE TO RUN THE CARD READER CABLE INTO THE CABINET.

**DETAIL KEY NOTES:** #  
1. EMT CONDUIT - SIZE AS REQUIRED  
2. INSTALL CONDUIT TO NEAREST POINT ON CABLE TRAY IN ADJACENT ROOM P07B1  
3. KEYWATCHER TOUCH 9 MODULE STARTER CABINET  
4. KEYWATCHER TOUCH 9 MODULE ADD ON CABINET  
5. BACK PANEL KNOCKOUT  
6. 120VAC RECEPTACLE  
7. SINGLE-GANG LOW VOLTAGE BOX WITH DUAL PORT FACE PLATE  
8. TOUCH SCREEN  
9. PROXIMITY CARD READER  
10. FINISHED FLOOR  
11. JUNCTION BOX WITH COVER, SIZE AS REQUIRED  
12. FINISHED CEILING



**KEYWATCHER TOUCH BACKPANEL**

A6  
TY441EPP1 TY541DTP1 SCALE = 1" = 1'-0"



**KEYWATCHER TOUCH CABINET**

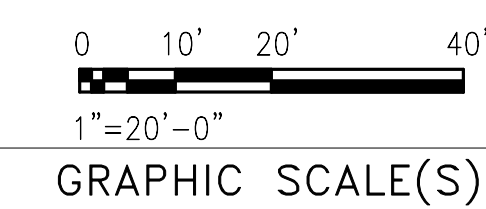
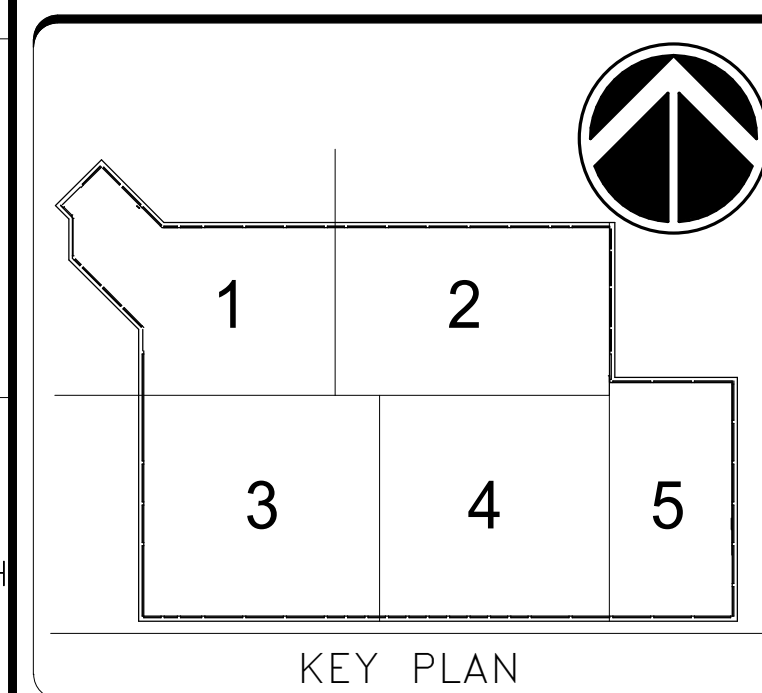
C1  
TY941DTP1 SCALE = 1" = 1'-0"

**DETAIL NOTES:**  
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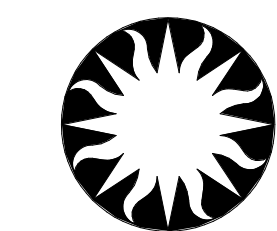
**DETAIL KEY NOTES:** #  
1. (9) 16-KEY MODULES  
2. (9) 9-KEY MODULES  
3. TOUCH SCREEN  
4. PROXIMITY CARD READER  
5. KEYWATCHER TOUCH 9 MODULE STARTER CABINET  
6. KEYWATCHER TOUCH 9 MODULE ADD ON CABINET



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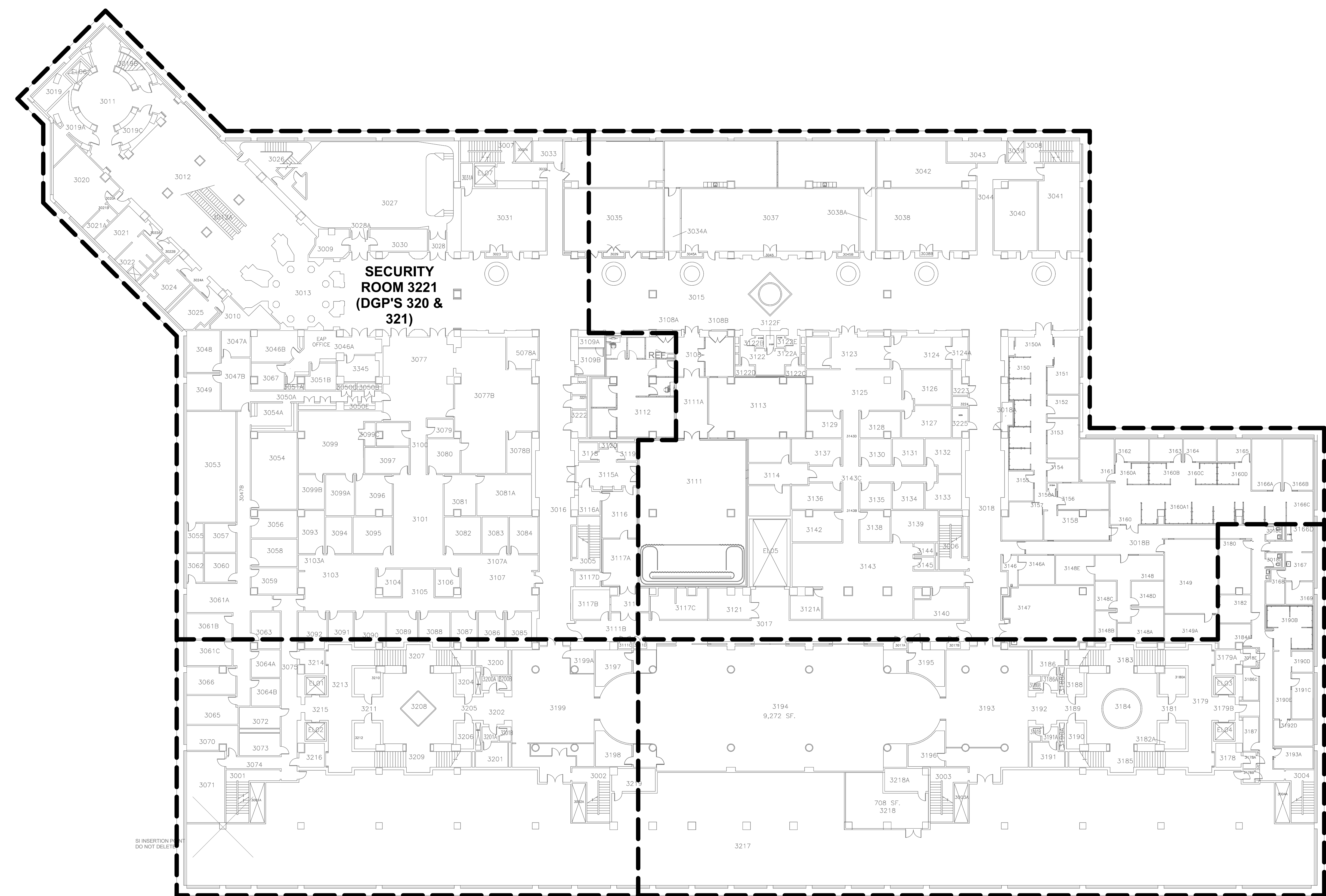
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 ADDRESS: SW WASHINGTON, DC 20560

PROJECT TITLE: FREER/SACKLER/FAA/ QUAD  
 ESS' MODERNIZATION  
 SF PROJECT NUMBER: 1909101  
 A/E PROJECT NUMBER: 11203201

DRAWING TITLE: SUBLEVEL 3 SECURITY ROOM  
 COVERAGE - PHASE 1  
 WORKING STAFF: MO SK DB  
DESIGNED BY DRAWN BY CHECKED BY

SHEET NO. TY601FPP1  
 167 of 179



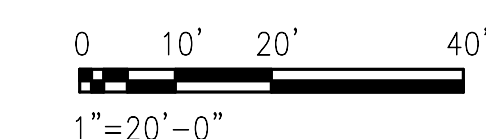
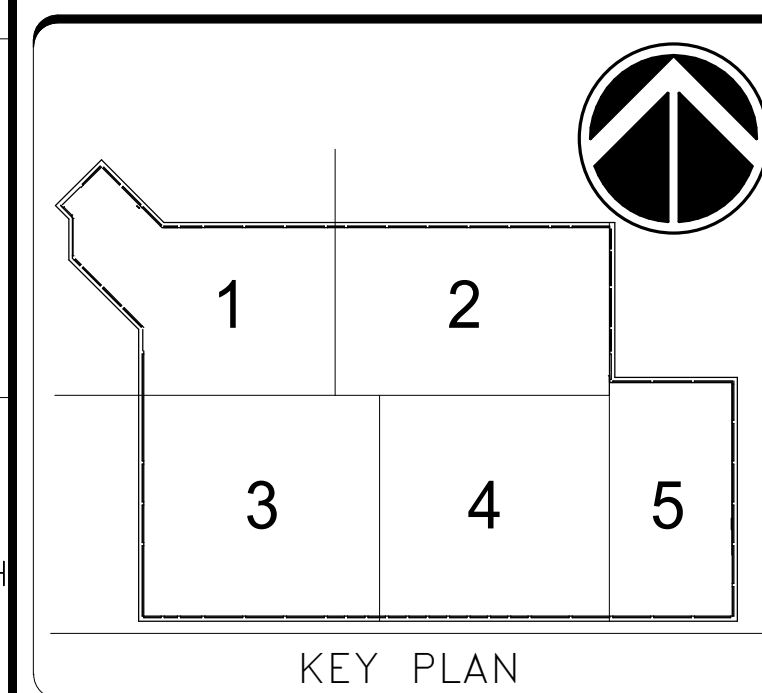
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 SCALE = 1" = 20'-0"

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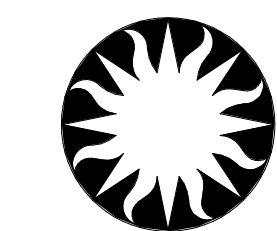
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 TY601FPP1



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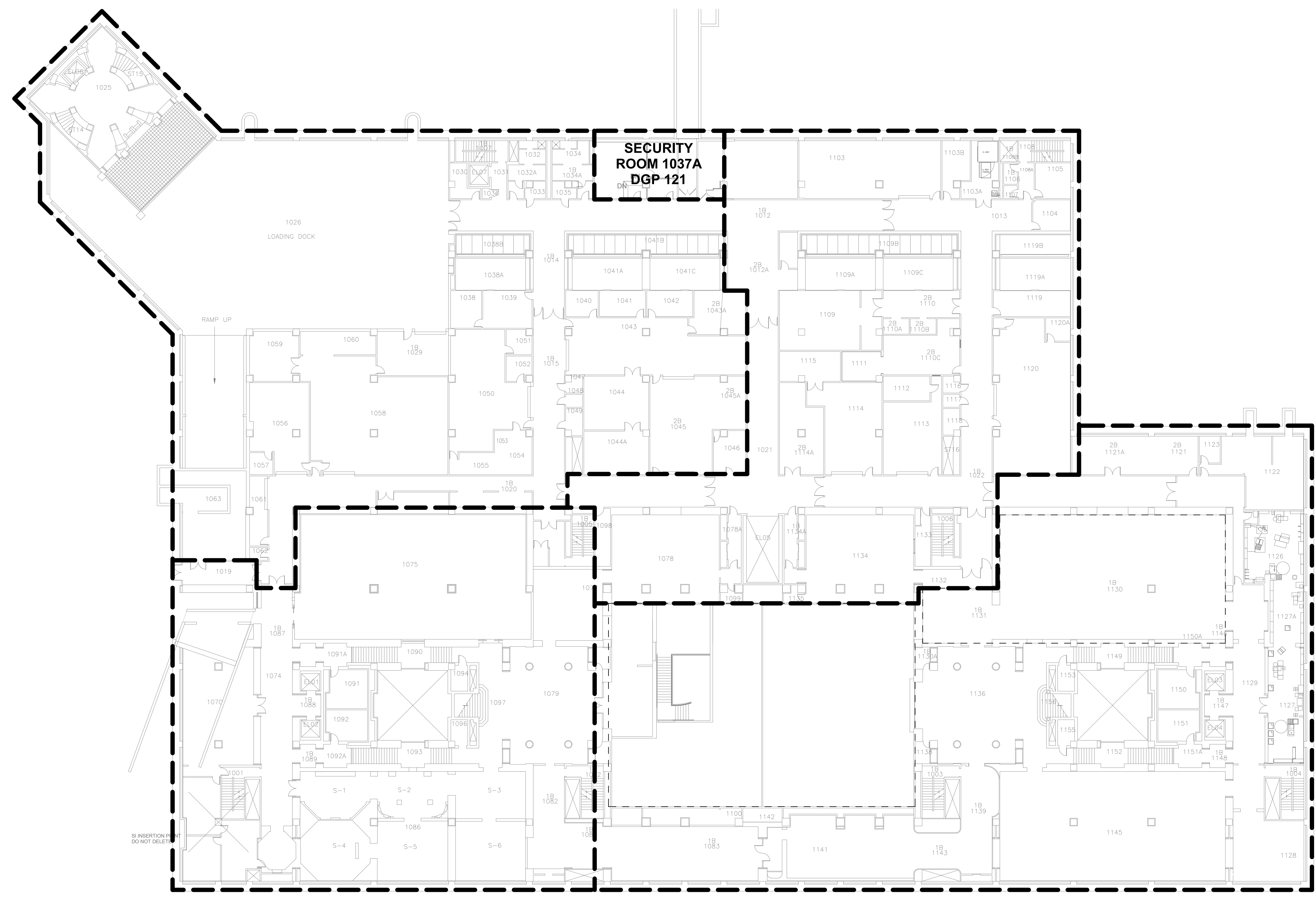
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PROJECT TITLE: FREER/SACKLER/FAA/ QUAD  
 ESS' MODERNIZATION  
 SF PROJECT NUMBER: 1909101  
 A/E PROJECT NUMBER: 11203201

DRAWING TITLE: SUBLEVEL 1 SECURITY ROOM  
 COVERAGE - PHASE 1  
 WORKING STAFF: MO SK DB  
DESIGNED BY DRAWN BY CHECKED BY

SHEET NO. TY603FPP1  
 168 of 179



**SUBLEVEL 1 SECURITY ROOM COVERAGE**

SCALE = 1" = 20'-0"

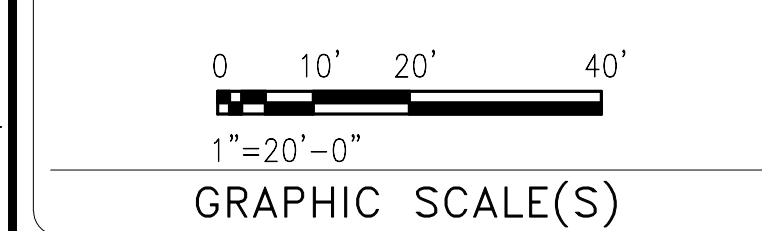
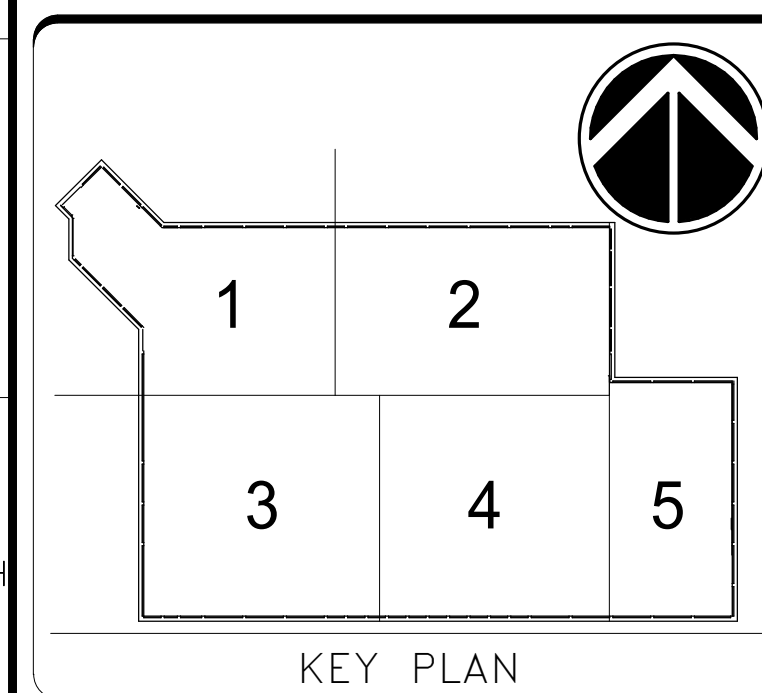
A1  
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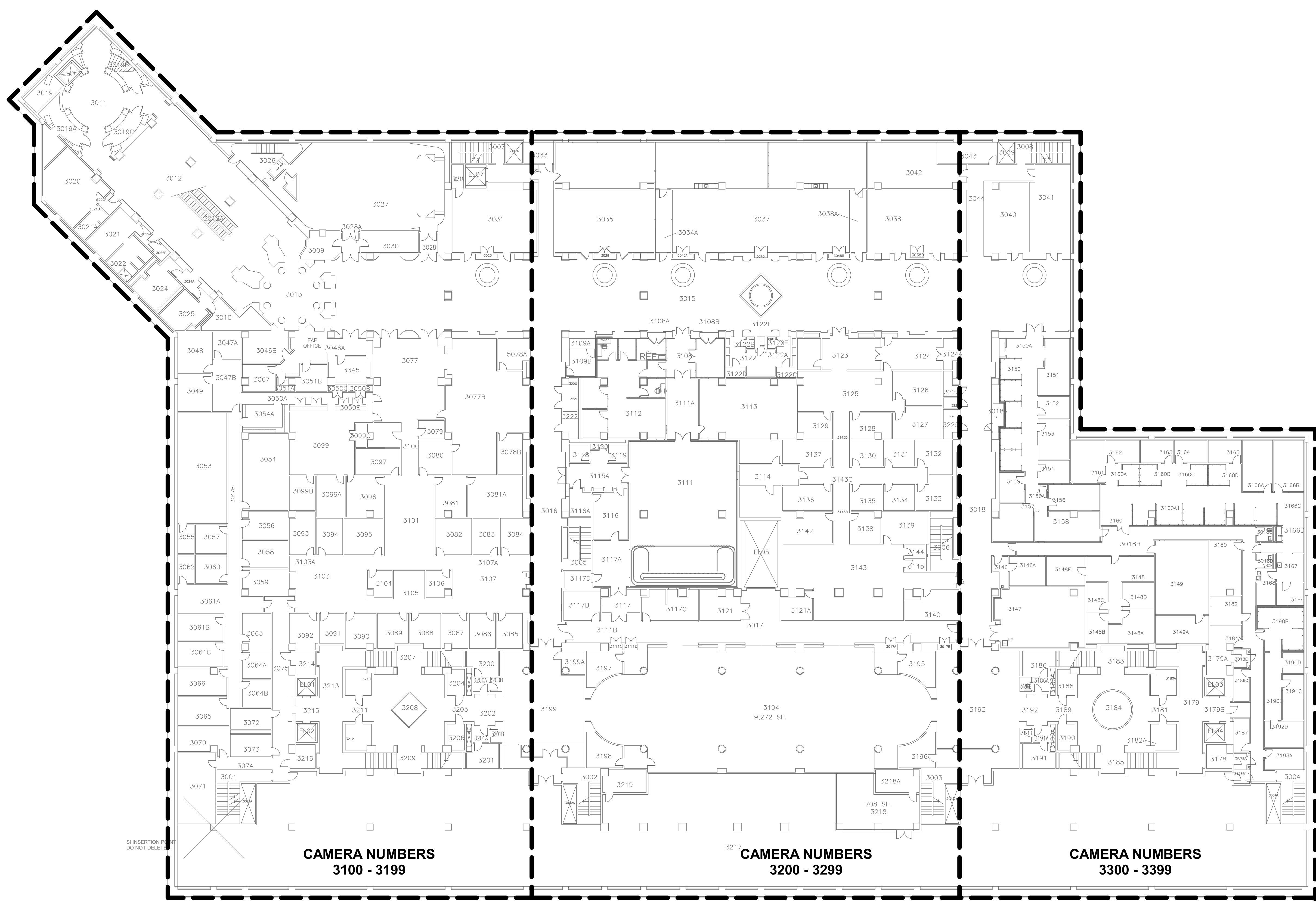
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PROJECT TITLE	FREER/SACKLER/FAA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 3 SECURITY CAMERA NUMBERING - PHASE 1
WORKING STAFF	MO SK DB
DESIGNED BY	MO
DRAWN BY	SK
CHECKED BY	DB

SHEET NO. **TY611FPP1**  
 169 of 179



**SUBLEVEL 3 SECURITY CAMERA NUMBERING**

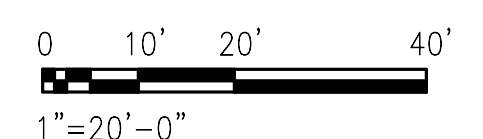
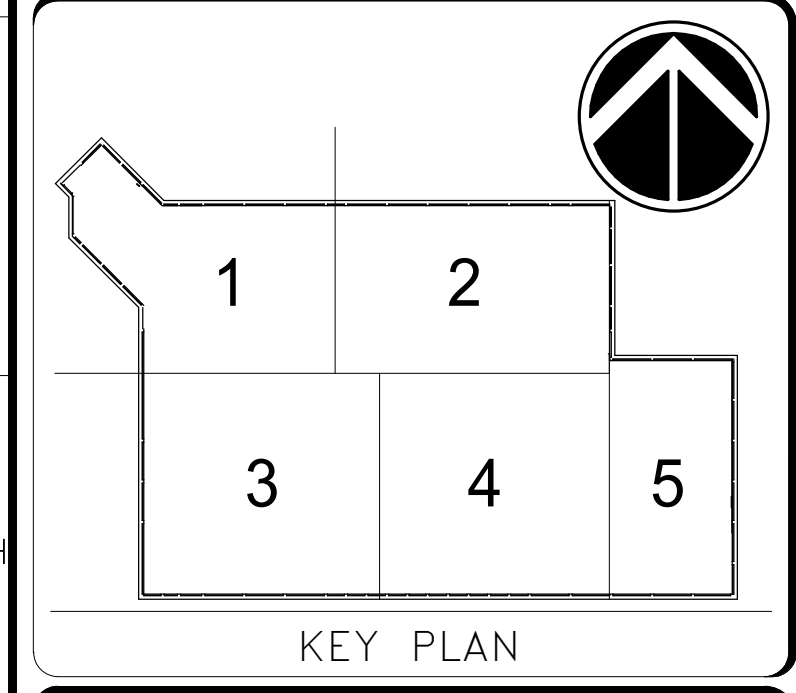
SCALE = 1" = 20'-0"

A1  
 TY611FPP1

4/7/2022 12:35:39 PM  
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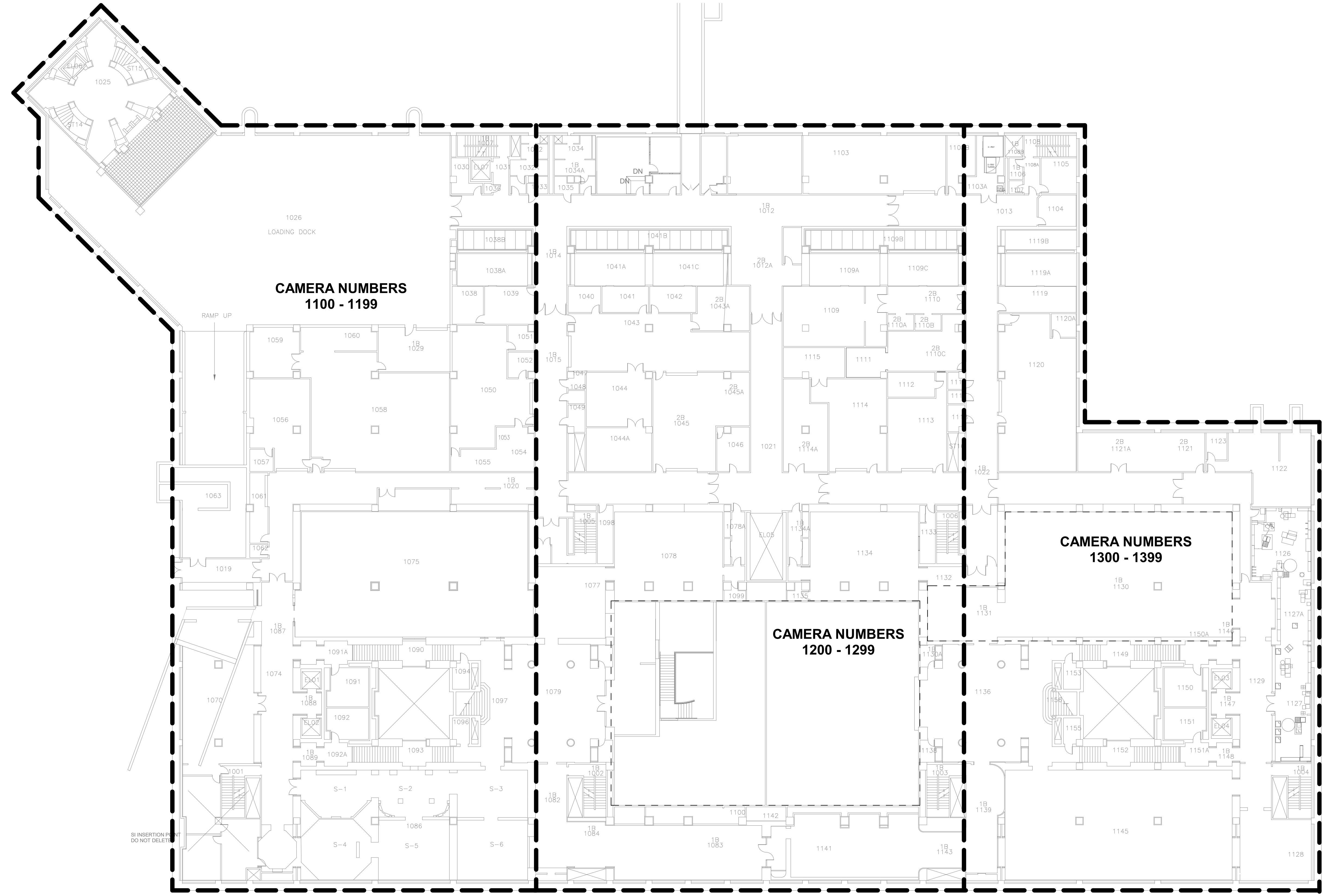


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ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AF/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SUBLEVEL 1 SECURITY CAMERA NUMBERING - PHASE 1
WORKING STAFF	MO SK DB
	DESIGNED BY DRAWN BY CHECKED BY

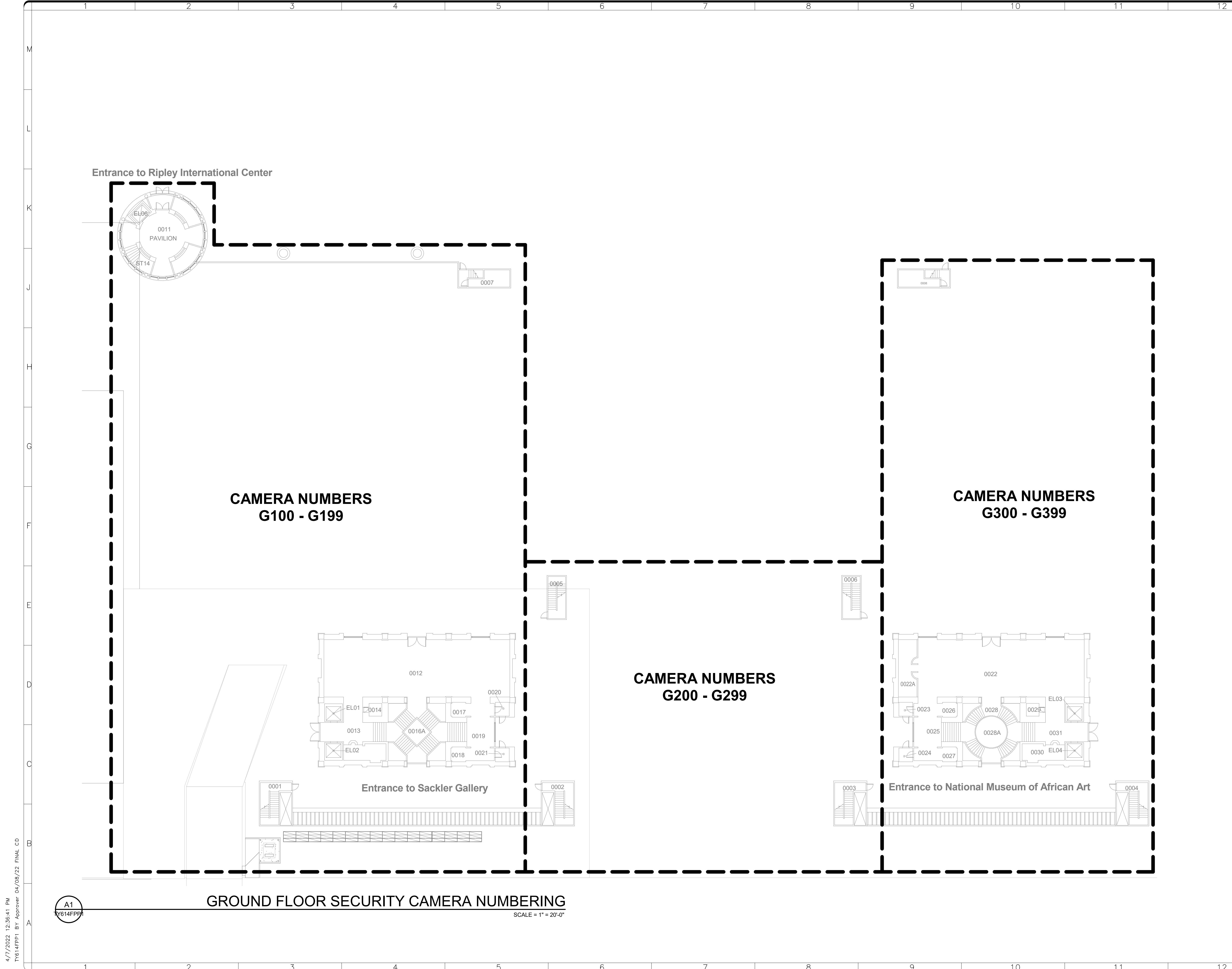
SHEET NO. 170 OF 179  
 TY613FPP1



**SUBLEVEL 1 SECURITY CAMERA NUMBERING**  
 SCALE = 1" = 20'-0"

A1  
 Y613FPP1

4/7/2022 12:35:40 PM  
 TY613FPP1 By: Approver 04/08/22 FINAL CD



**GROUND FLOOR SECURITY CAMERA NUMBERING**

SCALE = 1" = 20'-0"

A1  
TY614FPP

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KEY PLAN

0 10' 20' 40'  
1" = 20'-0"  
GRAPHIC SCALE(S)

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PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201

DRAWING TITLE	GROUND FLOOR SECURITY CAMERA NUMBERING - PHASE 1												
WORKING STAFF	<table border="1"> <tr> <td>DESIGNED BY</td> <td>MO</td> <td>SK</td> <td>DB</td> </tr> <tr> <td>DRAWN BY</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CHECKED BY</td> <td></td> <td></td> <td></td> </tr> </table>	DESIGNED BY	MO	SK	DB	DRAWN BY				CHECKED BY			
DESIGNED BY	MO	SK	DB										
DRAWN BY													
CHECKED BY													

SHEET NO.	171 of 179
DRAWING NO.	TY614FPP1

### CABLE LEGEND

TYPE	WIRE SIZE	# OF CONDUCTORS	DESCRIPTION	BELDEN OR EQUIVALENT	SIGNAL
A	22AWG	6	SHIELDED	9942	CARD READER
B	18AWG	2	SHIELDED	8461	POWER
C	22AWG	2	TWISTED SHIELDED PAIR	8442	CONTACT
D	24AWG	4	TWISTED SHIELDED PAIR	9842	CONTROL (RS-485, 4-WIRE)
E	24AWG	2	TWISTED SHIELDED PAIR	9841	CONTROL (RS-485)
F	22AWG	4	TWISTED SHIELDED PAIR	8729	DEVICE WIRING
G	UTP	8	CAT6	7852A	VIDEO, COMMUNICATIONS
H	MM	6	FIBER OPTIC (50 MICRON)	FD4L006P9	COMMUNICATION
I	SM/MM	12SM/24MM	FIBER OPTIC HYBRID (OS2/OM4)	FIEDH12PK	COMMUNICATION



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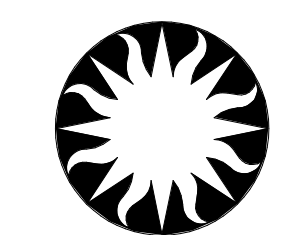
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KEY PLAN

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DATE: 04/08/22 REVISION: FINAL CD

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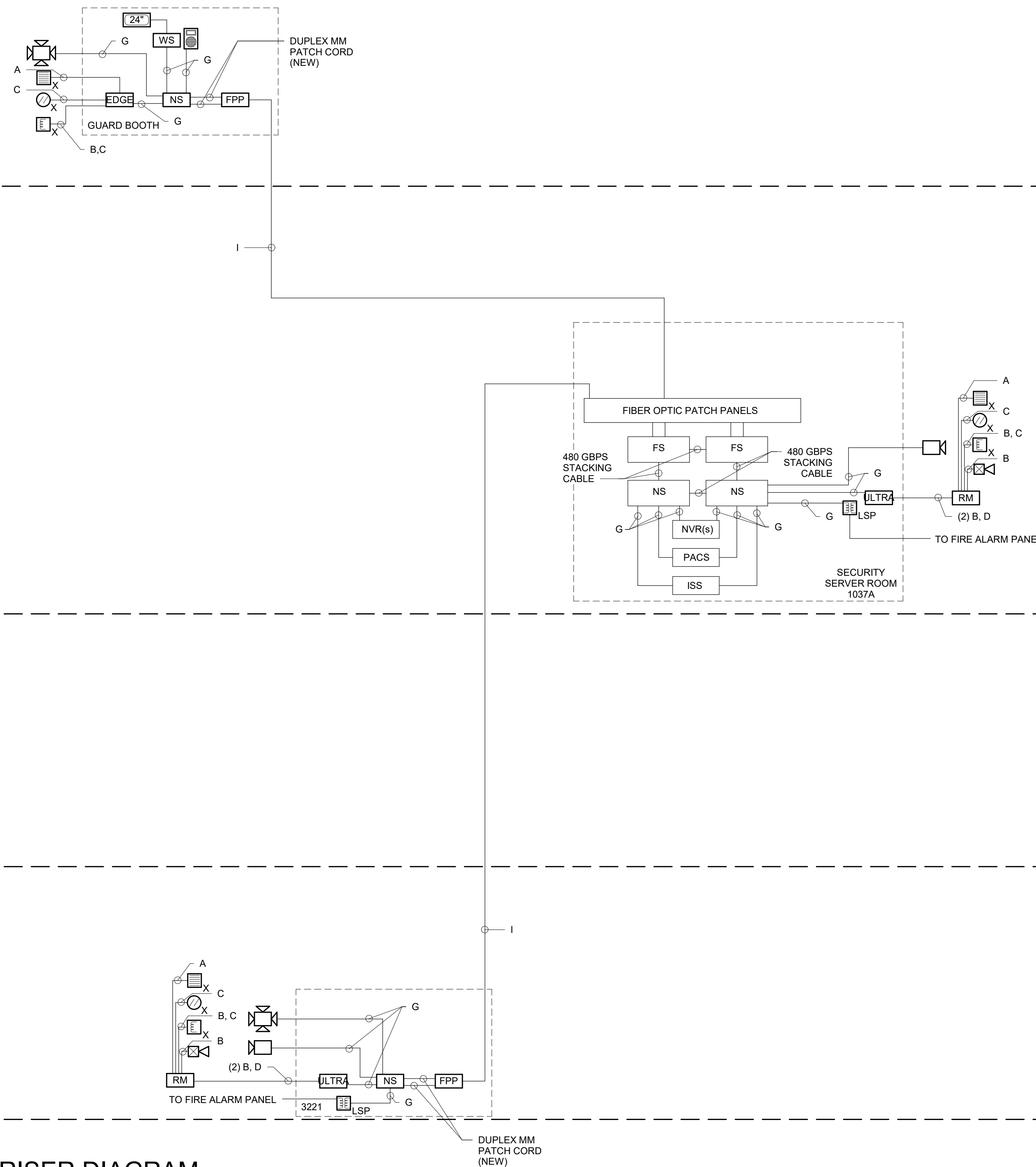
BUILDING NAME: FREER/SACKLER/AFA/QUAD  
ADDRESS: SW WASHINGTON, DC 20560

PROJECT TITLE: FREER/SACKLER/AFA/ QUAD  
ESS' MODERNIZATION  
SF PROJECT NUMBER: 1909101  
A/E PROJECT NUMBER: 11203201

DRAWING TITLE: SECURITY RISER DIAGRAM -  
QUADRANGLE - PHASE 1

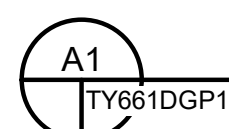
WORKING STAFF: MO SK DB  
DESIGNED BY: MO DRAWN BY: SK CHECKED BY: DB

SHEET NO. TY661DGP1  
172 of 179



### SECURITY RISER DIAGRAM - QUADRANGLE - PHASE 1

SCALE = NTS



4/7/2022 12:35:43 PM  
TY661DGP1 BY Approver 04/08/22 FINAL CD

DOOR SCHEDULE - QUAD SUBLEVEL 03															
DOOR NUMBER	READER TYPE		DOOR POSITION SWITCH					ELECTRIFIED LOCKS							
	PROXIMITY (P)	PROXIMITY WITH KEYPAD (PK)	BALANCED RECESSED	BALANCED SURFACE	RECESSED SURFACE	HIGH SECURITY RECESSED	HIGH SECURITY SURFACE	OVERHEAD	NO REQUEST TO EXIT	WITH REQUEST TO EXIT	ELECTROMAGNETIC LOCK	ELECTRIC STRIKE	REX PIR	DOOR SOUNDER	DELAYED EGRESS DEVICE
SUBLEVEL 03															
3112E	1	0	0	0	1	0	0	0	0	0	1	0	0	1	0
3112F.2	1	0	0	0	1	0	0	0	0	0	1	0	0	1	0
3221	1	0	0	0	1	0	0	0	0	0	1	0	0	1	0
KWT	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total: 17	4	0	0	0	3	0	0	0	0	0	3	0	0	3	0

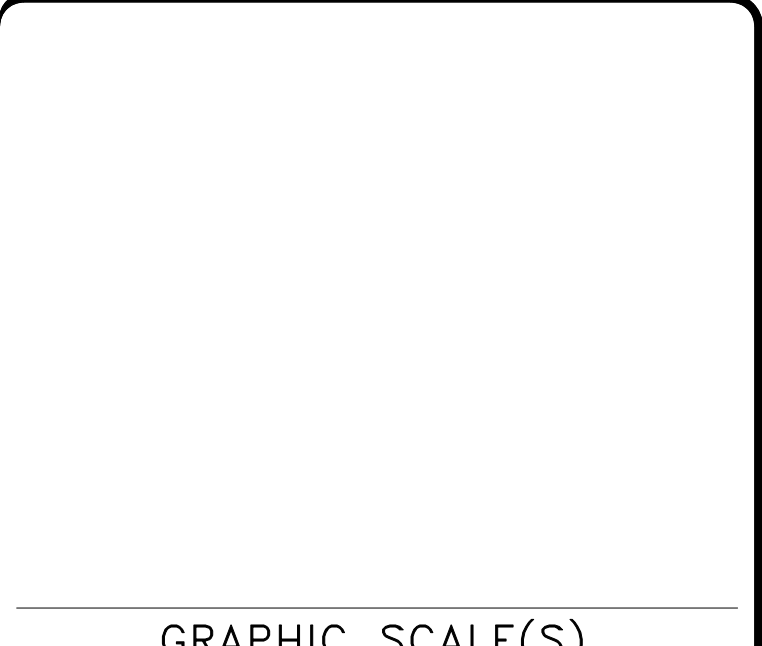
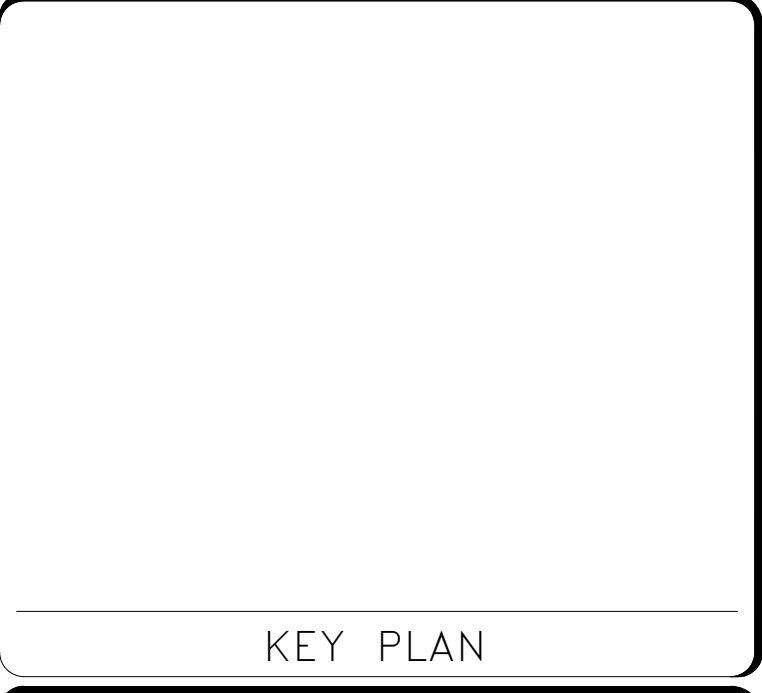
DOOR SCHEDULE - QUAD SUBLEVEL 01															
DOOR NUMBER	READER TYPE		DOOR POSITION SWITCH					ELECTRIFIED LOCKS							
	PROXIMITY (P)	PROXIMITY WITH KEYPAD (PK)	BALANCED RECESSED	BALANCED SURFACE	RECESSED SURFACE	HIGH SECURITY RECESSED	HIGH SECURITY SURFACE	OVERHEAD	NO REQUEST TO EXIT	WITH REQUEST TO EXIT	ELECTROMAGNETIC LOCK	ELECTRIC STRIKE	REX PIR	DOOR SOUNDER	DELAYED EGRESS DEVICE
SUBLEVEL 01															
1037.1	0	1	0	0	1	0	0	0	0	0	1	0	0	1	0
1037A.1	1	0	0	0	1	0	0	0	0	0	1	0	0	1	0
1037B.1	0	1	0	0	1	0	0	0	0	0	1	0	0	1	0
Total: 15	1	2	0	0	3	0	0	0	0	0	3	0	0	3	0

DOOR SCHEDULE - QUAD GROUND															
DOOR NUMBER	READER TYPE		DOOR POSITION SWITCH					ELECTRIFIED LOCKS							
	PROXIMITY (P)	PROXIMITY MILLION MOUNT (PM)	PROXIMITY WITH KEYPAD (PK)	BALANCED RECESSED	BALANCED SURFACE	RECESSED SURFACE	HIGH SECURITY RECESSED	HIGH SECURITY SURFACE	OVERHEAD	NO REQUEST TO EXIT	WITH REQUEST TO EXIT	ELECTROMAGNETIC LOCK	ELECTRIC STRIKE	REX PIR	DOOR SOUNDER
GROUND															
GB1	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0
Total: 3	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0



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PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SCHEDULES -- DOOR -- PHASE 1
WORKING STAFF	MO SK DB
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO. 173 of 179	TY701SHP1
DISCIPLINE	TYPE SEQUENCE DRAWING TYPE PHASE

4/7/2022 12:35:48 PM TY711SHP1 BY Approver 04/08/22 FINAL CD

CAMERA SCHEDULE - SUBLEVEL 03							
CAMERA NUMBER	SWITCH NUMBER	PORT #	LEVEL	ROOM NUMBER	POWER	DESCRIPTION	FOV DESCRIPTION
3213	320	23	SUBLEVEL 03	3112E	13 W	4MP SURFACE CEILING FIXED DOME INDOOR CAMERA	WEAPONS ROOM 3112E
3214	320	24	SUBLEVEL 03	3112F	13 W	4MP SURFACE CEILING FIXED DOME INDOOR CAMERA	VESTIBULE 3112F
3215, 3216, 3217, 3218	320	25	SUBLEVEL 03	3112C	35 W	8MP SURFACE CEILING FIXED DOME MULTILENS CAMERA	OPEN OFFICE 3112C
3230	320	30	SUBLEVEL 03	3221	13 W	4MP WALL MOUNT FIXED DOME INDOOR CAMERA	ROOM 3221

Grand total: 4

CAMERA SCHEDULE - SUBLEVEL 01							
CAMERA NUMBER	SWITCH NUMBER	PORT #	LEVEL	ROOM NUMBER	POWER	DESCRIPTION	FOV DESCRIPTION
1204	121	10	SUBLEVEL 01	1037A	13 W	4MP WALL MOUNT FIXED DOME INDOOR CAMERA	ROOM 1037A
1258	121	11	SUBLEVEL 01	1037A	13 W	4MP WALL MOUNT FIXED DOME INDOOR CAMERA	ROOM 1037A
1259	121	12	SUBLEVEL 01	1037	13 W	4MP SURFACE CEILING FIXED DOME INDOOR CAMERA	ROOM 1037A

Grand total: 3

CAMERA SCHEDULE - GROUND							
CAMERA NUMBER	SWITCH NUMBER	PORT #	LEVEL	ROOM NUMBER	POWER	DESCRIPTION	FOV DESCRIPTION
G126, G127, G128, G129	001	3	GROUND	GUARD BOOTH	35 W	20MP SURFACE CEILING FIXED DOME MULTILENS CAMERA	LOADING DOCK DRIVEWAY, FRONT AND WEST SIDE OF GUARD BOOTH
G130, G131, G132, G133	001	4	GROUND	GUARD BOOTH	35 W	20MP SURFACE CEILING FIXED DOME MULTILENS CAMERA	FRONT AND EAST SIDE OF GUARD BOOTH

Grand total: 2



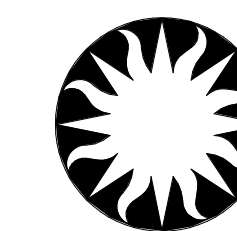
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KEY PLAN

GRAPHIC SCALE(S)

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PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SCHEDULES - CAMERA - PHASE 1
WORKING STAFF	MO SK DB
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO. **TY711SHP1**  
 174 of 179

DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE

NETWORK SWITCH SCHEDULE - QUAD SUBLEVEL 03									
SWITCH NUMBER	PORT #	DEVICE SUBSYSTEM	UNIT NUMBER	CAMERA NUMBER	LEVEL	ROOM NUMBER	POWER (POE)	DESCRIPTION	COMMENTS
320									
320	1,2	SEC PANELS	320		SUBLEVEL 03	3221	0 W	ISTAR ULTRA ACCESS CONTROL PANEL 16 READERS E8 ENCLOSURE	SQ320
320	3,4	SEC PANELS	321		SUBLEVEL 03	3221	0 W	ISTAR ULTRA ACCESS CONTROL PANEL 16 READERS E8 ENCLOSURE	SQ321
320	6	INT	320		SUBLEVEL 03	3112F	10 W	VIDEO INTERCOM SUBSTATION	
320	10	INT	324		SUBLEVEL 03	3112C	10 W	INTERCOM MASTER STATION DESK MOUNT	
320	23	VASS		3213	SUBLEVEL 03	3112E	13 W	4MP SURFACE CEILING FIXED DOME INDOOR CAMERA	
320	24	VASS		3214	SUBLEVEL 03	3112F	13 W	4MP SURFACE CEILING FIXED DOME INDOOR CAMERA	
320	25	VASS		3215, 3216, 3217, 3218	SUBLEVEL 03	3112C	35 W	8MP SURFACE CEILING FIXED DOME MULTILENS CAMERA	
320	30	VASS		3230	SUBLEVEL 03	3221	13 W	4MP WALL MOUNT FIXED DOME INDOOR CAMERA	
Grand total: 8							94 W		

NETWORK SWITCH SCHEDULE - QUAD SUBLEVEL 01									
SWITCH NUMBER	PORT #	DEVICE SUBSYSTEM	UNIT NUMBER	CAMERA NUMBER	LEVEL	ROOM NUMBER	POWER (POE)	DESCRIPTION	COMMENTS
121									
121	1,2	SEC PANELS	121		SUBLEVEL 01	1037A	0 W	ISTAR ULTRA ACCESS CONTROL PANEL 16 READERS E8 ENCLOSURE	SQ121
121	4	INT	121		SUBLEVEL 01	1037	10 W	INTERCOM MASTER STATION DESK MOUNT	
121	5	INT	122		SUBLEVEL 01	1037	10 W	INTERCOM MASTER STATION DESK MOUNT	
121	6	INT	123		SUBLEVEL 01	1037	10 W	INTERCOM MASTER STATION DESK MOUNT	
121	7	INT	124		SUBLEVEL 01	1037	10 W	INTERCOM MASTER STATION DESK MOUNT	
121	8	INT	ISS 1		SUBLEVEL 01	1037A	0 W	INTERCOM SERVER	
121	10	VASS		1204	SUBLEVEL 01	1037A	13 W	4MP WALL MOUNT FIXED DOME INDOOR CAMERA	
121	11	VASS		1258	SUBLEVEL 01	1037A	13 W	4MP WALL MOUNT FIXED DOME INDOOR CAMERA	
121	12	VASS		1259	SUBLEVEL 01	1037	13 W	4MP SURFACE CEILING FIXED DOME INDOOR CAMERA	
121	16	VASS	NVR 1		SUBLEVEL 01	1037A	0 W	NVR	
121	17	VASS	NVR 2		SUBLEVEL 01	1037A	0 W	NVR	
121	18	VASS	NVR 3		SUBLEVEL 01	1037A	0 W	NVR	
121	19	VASS	NVR 4		SUBLEVEL 01	1037A	0 W	NVR	
121	20	VASS	NVR 5		SUBLEVEL 01	1037A	0 W	NVR	
121	21	PACS	PACS 1		SUBLEVEL 01	1037A	0 W	PACS SERVER	
121	22	PACS	WS 1		SUBLEVEL 01	1037	0 W	SECURITY WORKSTATION	
121	23	PACS	WS 2		SUBLEVEL 01	1037	0 W	SECURITY WORKSTATION	
121	24	PACS	WS 3		SUBLEVEL 01	1037	0 W	SECURITY WORKSTATION	
121	25	PACS	WS 4		SUBLEVEL 01	1037	0 W	SECURITY WORKSTATION	
Grand total: 30							79 W		

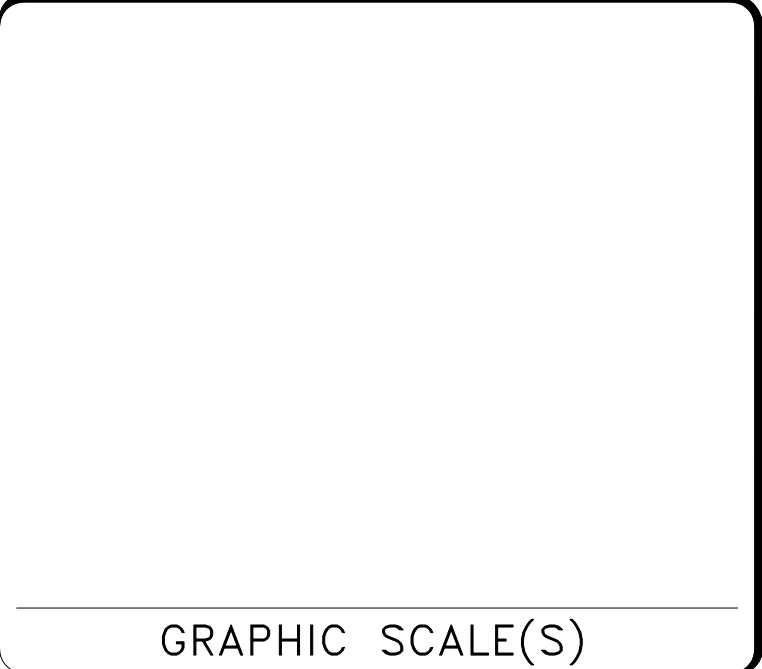
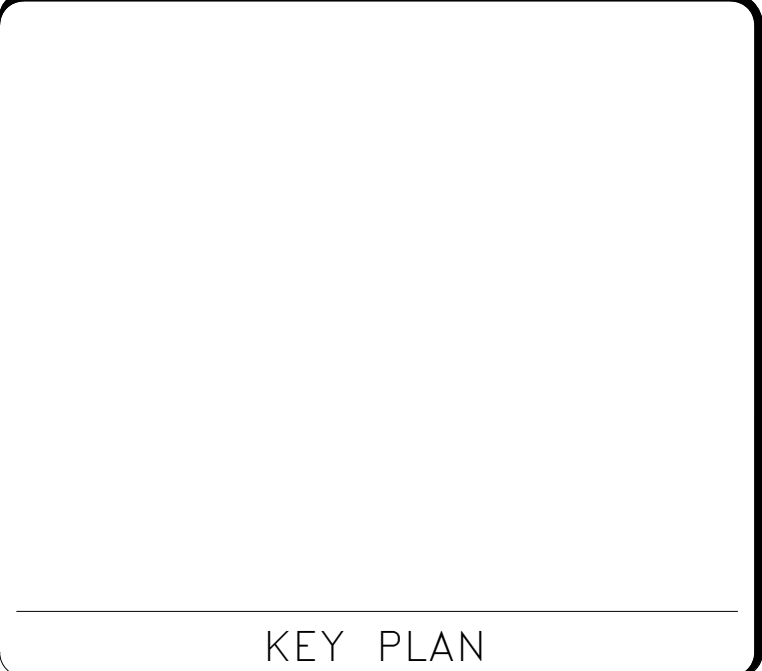
122									
122	1	INT	ISS 1		SUBLEVEL 01	1037A	0 W	INTERCOM SERVER	
122	2	VASS	NVR 1		SUBLEVEL 01	1037A	0 W	NVR	
122	3	VASS	NVR 2		SUBLEVEL 01	1037A	0 W	NVR	
122	4	VASS	NVR 3		SUBLEVEL 01	1037A	0 W	NVR	
122	5	VASS	NVR 4		SUBLEVEL 01	1037A	0 W	NVR	
122	6	VASS	NVR 5		SUBLEVEL 01	1037A	0 W	NVR	
122	7	PACS	PACS 1		SUBLEVEL 01	1037A	0 W	PACS SERVER	
122	8	PACS	WS 1		SUBLEVEL 01	1037	0 W	SECURITY WORKSTATION	
122	9	PACS	WS 2		SUBLEVEL 01	1037	0 W	SECURITY WORKSTATION	
122	10	PACS	WS 3		SUBLEVEL 01	1037	0 W	SECURITY WORKSTATION	
122	11	PACS	WS 4		SUBLEVEL 01	1037	0 W	SECURITY WORKSTATION	
Grand total: 30							79 W		

NETWORK SWITCH SCHEDULE - GROUND									
SWITCH NUMBER	PORT #	DEVICE SUBSYSTEM	UNIT NUMBER	CAMERA NUMBER	LEVEL	ROOM NUMBER	POWER (POE)	DESCRIPTION	COMMENTS
001									
001	1	SEC PANELS	001		GROUND	GUARD BOOTH	0 W	ISTAR EDGE G2 ENCLOSURE	
001	2	INT	001		GROUND	GUARD BOOTH	10 W	INTERCOM MASTER STATION DESK MOUNT	
001	3	VASS		G126, G127, G128, G129	GROUND	GUARD BOOTH	35 W	20MP SURFACE CEILING FIXED DOME MULTILENS CAMERA	
001	4	VASS		G130, G131, G132, G133	GROUND	GUARD BOOTH	35 W	20MP SURFACE CEILING FIXED DOME MULTILENS CAMERA	
001	5	PACS	WS G1		GROUND	GUARD BOOTH	0 W	SECURITY WORKSTATION	
Grand total: 5							80 W		



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**Smithsonian Institution**  
Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	FREER/SACKLER/FA/QUAD
ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/FA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SCHEDULES - NETWORK SWITCH - PHASE 1
WORKING STAFF	MO SK DB
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO.	TY721SHP1
175 of 179	

4/7/2022 12:35:51 PM  
TY721SHP1 BY Approver 04/08/22 FINAL CD

4/7/2022 12:35:54 PM  
TY731SHP1 BY Approver 04/08/22 FINAL CD

DGP SQ 320 RS485						
FACILITY BUILDING ABBREVIATION	DGP NUMBER	ACM NUMBER	RS485 PORT	DESCRIPTION	DOOR NUMBER	ROOM NUMBER LEVEL
320	SQ	320	1	1	READER MODULE	3221 SUBLEVEL 03
320:2	SQ	320	1	8	INPUT/OUTPUT MODULE ENCLOSURE - 8 TOTAL MODULES MAX	3221 SUBLEVEL 03

DGP SQ 320 I/B INPUTS										
FACILITY BUILDING ABBREVIATION	DGP NUMBER	ACM NUMBER	I/B NUMBER	I/B INPUT NUMBER	DEVICE TYPE ABBREVIATION	DESCRIPTION	COUNT	DOOR NUMBER	ROOM NUMBER	LEVEL

DGP SQ 320 GCM INPUTS						
FACILITY BUILDING ABBREVIATION	DGP NUMBER	GCM INPUT NAME	DEVICE TYPE ABBREVIATION	DESCRIPTION	ROOM NUMBER	LEVEL
320	SQ	320	TAMPER	TP	ISTAR ULTRA ACCESS CONTROL PANEL 16 READERS E8 ENCLOSURE	3221 SUBLEVEL 03
	SQ	320	AC FAIL	PF	ISTAR ULTRA ACCESS CONTROL PANEL AC PWR FAIL	3221 SUBLEVEL 03
	SQ	320	LO BAT	LB	ISTAR ULTRA ACCESS CONTROL PANEL AC LOW BATTERY	3221 SUBLEVEL 03

Grand total: 3



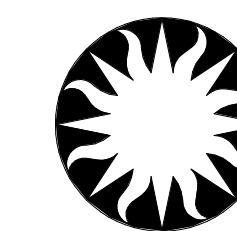
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ADDRESS	SW WASHINGTON, DC 20560
PROJECT TITLE	FREER/SACKLER/AFA/ QUAD ESS' MODERNIZATION
SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SCHEDULES -- DGP 320 -- PHASE 1
WORKING STAFF	MO SK DB
DESIGNED BY	DRAWN BY
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SHEET NO. TY731SHP1  
176 of 179

DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE



4/7/2022 12:36:57 PM  
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DGP SQ 321 RS485							
FACILITY BUILDING ABBREVIATION	DGP NUMBER	ACM NUMBER	RS485 PORT	DESCRIPTION	DOOR NUMBER	ROOM NUMBER	LEVEL
321							
SQ	321	1	1	READER MODULE	3112F.2		SUBLEVEL 03
SQ	321	1	2	READER MODULE	3112E		SUBLEVEL 03
SQ	321	1	3	READER MODULE	KWT		SUBLEVEL 03
Grand total: 3							

DGP SQ 321 I/8 INPUTS												
FACILITY BUILDING ABBREVIATION	DGP NUMBER	ACM NUMBER	I_8 NUMBER	I_8 INPUT NUMBER	DEVICE TYPE ABBREVIATION	DESCRIPTION	COUNT	DOOR NUMBER	ROOM NUMBER	LEVEL		
321												
SQ	321	1	1	1	MD	MOTION DETECTOR 360 DEGREES - CEILING MOUNT	1		3112E	SUBLEVEL 03		
SQ	321	1	1	2	MD	MOTION DETECTOR 360 DEGREES - CEILING MOUNT	1		3112	SUBLEVEL 03		
Grand total: 2												

DGP SQ 321 GCM INPUTS						
FACILITY BUILDING ABBREVIATION	DGP NUMBER	GCM INPUT NAME	DEVICE TYPE ABBREVIATION	DESCRIPTION	ROOM NUMBER	LEVEL
321						
SQ	321	TAMPER	TP	ISTAR ULTRA ACCESS CONTROL PANEL 16 READERS E8 ENCLOSURE	3221	SUBLEVEL 03
SQ	321	AC FAIL	PF	ISTAR ULTRA ACCESS CONTROL PANEL AC PWR FAIL	3221	SUBLEVEL 03
SQ	321	LO BAT	LB	ISTAR ULTRA ACCESS CONTROL PANEL AC LOW BATTERY	3221	SUBLEVEL 03
Grand total: 3						



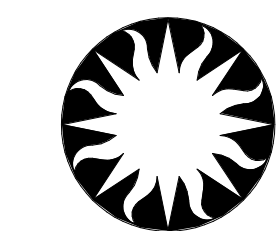
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Revision # DATE	Revision Description



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BUILDING NAME	FREER/SACKLER/AF/QUAD
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SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SCHEDULES -- DGP 321 -- PHASE 1
WORKING STAFF	MO SK DB
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SHEET NO.  
177 of 179

TY732SHP1

DISCIPLINE TYPE SEQUENCE DRAWING TYPE PHASE

DGP SQ 121 RS485							
FACILITY BUILDING ABBREVIATION	DGP NUMBER	ACM NUMBER	RS485 PORT	DESCRIPTION	DOOR NUMBER	ROOM NUMBER	LEVEL
121							
SQ	121	1	1	READER MODULE	1037A.1		SUBLEVEL 01
SQ	121	1	2	READER MODULE	1037B.1		SUBLEVEL 01
SQ	121	1	3	READER MODULE	1037.1		SUBLEVEL 01
SQ	121	1	8	INPUT/OUTPUT MODULE ENCLOSURE - 8 TOTAL MODULES MAX		1037A	SUBLEVEL 01

Grand total: 4

DGP SQ 121 I/8 INPUTS												
FACILITY BUILDING ABBREVIATION	DGP NUMBER	ACM NUMBER	I_8 NUMBER	I_8 INPUT NUMBER	DEVICE TYPE ABBREVIATION	DESCRIPTION	COUNT	DOOR NUMBER	ROOM NUMBER	LEVEL		
121												
SQ	121	1	1	1	PF	UPS AC PWR FAIL	1		1037B	SUBLEVEL 01		
SQ	121	1	1	2	LB	UPS AC LOW BATTERY	1		1037B	SUBLEVEL 01		

Grand total: 2

DGP SQ 121 GCM INPUTS						
FACILITY BUILDING ABBREVIATION	DGP NUMBER	GCM INPUT NAME	DEVICE TYPE ABBREVIATION	DESCRIPTION	ROOM NUMBER	LEVEL
121						
SQ	121	TAMPER	TP	ISTAR ULTRA ACCESS CONTROL PANEL 16 READERS E8 ENCLOSURE	1037A	SUBLEVEL 01
SQ	121	AC FAIL	PF	ISTAR ULTRA ACCESS CONTROL PANEL AC PWR FAIL	1037A	SUBLEVEL 01
SQ	121	LO BAT	LB	ISTAR ULTRA ACCESS CONTROL PANEL AC LOW BATTERY	1037A	SUBLEVEL 01

Grand total: 3



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SF PROJECT NUMBER	1909101
A/E PROJECT NUMBER	11203201
DRAWING TITLE	SCHEDULES -- DGP 121 -- PHASE 1
WORKING STAFF	MO SK DB
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SHEET NO. TY741SHP1  
178 of 179

4/7/2022 12:37:03 PM TY751SHP1 BY Approver 04/08/22 FINAL CD

DGP SQ 001 EDGE G2 RS485							
FACILITY BUILDING ABBREVIATION	DGP NUMBER	ACM NUMBER	RS485 PORT	DESCRIPTION	DOOR NUMBER	ROOM NUMBER	LEVEL
001	SQ	001	1	1	PROXIMITY MULLION	GB1	GROUND
Grand total: 1							

DGP SQ 001 I/8 INPUTS												
FACILITY BUILDING ABBREVIATION	DGP NUMBER	ACM NUMBER	I_8 NUMBER	I_8 INPUT NUMBER	DEVICE TYPE ABBREVIATION	DESCRIPTION	COUNT	DOOR NUMBER	ROOM NUMBER	LEVEL		

DGP SQ 001 EDGE G2 INPUTS							
FACILITY BUILDING ABBREVIATION	DGP NUMBER	EDGE G2 INPUT	DEVICE TYPE ABBREVIATION	DESCRIPTION	ROOM NUMBER	LEVEL	
001	SQ	001	TAMPER	TP	ISTAR EDGE G2 ENCLOSURE	GUARD BOOTH	GROUND
	SQ	001	BAT LO	LB	ISTAR EDGE G2 ACCESS CONTROL PANEL AC LOW BATTERY	GUARD BOOTH	GROUND
	SQ	001	AC FAIL	PF	ISTAR EDGE G2 ACCESS CONTROL PANEL AC PWR FAIL	GUARD BOOTH	GROUND
	SQ	001	1	DC	DOOR CONTACT, RECESSED MOUNTED	GUARD BOOTH	GROUND
Grand total: 4							

DGP SQ 001 EDGE G2 OUTPUTS										
FACILITY BUILDING ABBREVIATION	DGP NUMBER	EDGE G2 OUTPUT	DEVICE TYPE ABBREVIATION	DESCRIPTION	COUNT	DOOR NUMBER	ROOM NUMBER	LEVEL		
001	SQ	001	1	EL	ELECTRIFIED LOCKS WITH REX SWITCH	1	GB1	GUARD BOOTH	GROUND	
Grand total: 1										



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WORKING STAFF	MO SK DB
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179 of 179