ASHLEY MCGRAW
ARCHITECTS

BID DOCUMENTS

CORNELL UNIVERSITY
BEEBE HALL CU MAKER HUB RENOVATIONS
CORNELL UNIVERSITY

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Ashley McGraw Architects certify that to the best of our knowledge, information, and belief, the plans and specifications are in accordance with applicable requirements of the New York State Uniform Fire Prevention and Building Code, the State Energy Conservation Construction Code and the New York State Education Department Construction Laws, Regulations and Standards.

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PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

AM JOB NO:
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THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THIS ENTIRE PLOTTING FACTOR

THE SQUARES ABOVE ARE COLOR, WITH BLACK AND WHITE LETTERS, IF PRINTED CORRECTLY

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MEANS OF EGRESS

NOTE: VERIFY REQUIREMENT AT TIME OF CONSTRUCTION FOR RENOVATIONS

SECTION	COMPONENT	REQUIRED: BCNYS, FULLY SPRINKLERED
1005.1	MINIMUM WIDTH	
1005.3.1	STAIRWAYS (by occupant load)	0.3" PER OCCUPANT
1011.2	STAIRWAYS (min width, add row if needed)	44 INCHES
1005.7.1	DOORS	7 INCHES MAX ENCROACHMENT
1005.3.2	OTHER COMPONENTS	0.2" PER OCCUPANT
1017.2	EXIT ACCESS TRAVEL DISTANCE	
	OCCUPANCY B	300 FEET
TABLE 1020.3	CORRIDORS WIDTH	44 INCHES
1020.5	DEAD END CORRIDOR	50 FEET
1007.1.1	EXIT SEPARATION DISTANCE (WHERE 2 EXITS REQ'D)	MIN OF 1/3 OF DIAGONAL DIMENSION OF AREA SERVED
1006.3.3	NUMBER OF EXITS PER STORY	
TABLE 1006.3.3	AREAS REQUIRING 2 EXITS	1-500 OCCUPANTS
	AREAS REQUIRING 3 EXITS	501-1000 OCCUPANTS
	SPACES WITH A SINGLE EXIT	
TABLE 1006.2.1	OCCUPANT LOAD	49 OCCUPANTS MAX
	COMMON PATH OF TRAVEL DISTANCE	100 FEET MAX

INTERIOR FINISH FLAME SPREAD REQUIREMENTS BCNYS TABLE 803.13

OCCUPANCY CLASSIFICATION	EXIT ENCLOSURES AND EXIT PASSAGEWAYS	CORRIDORS	ROOMS AND ENCLOSED SPACES
ASSEMBLY - A-3	B	B	C
BUSINESS - B	B	C	C
FACTORY - F	C	C	C
STORAGE - S	C	C	C

COMMENTS:

THE INTERIOR FINISHES OF AREA CONTAINING OR SERVING MORE THAN ONE (1) OCCUPANCY SHOULD MEET THE MATERIAL CLASSIFICATION OF THE MOST RESTRICTIVE OCCUPANCY.

ASTM E84 CLASSIFIES CLASS A, B AND C MATERIALS BY FLAME SPREAD RATING. THE FLAME SPREAD RATING FOR EACH MATERIAL CLASSIFICATION IS AS FOLLOWS:

- CLASS A - 0-25
- CLASS B - 26-75
- CLASS C - 76-200

PLUMBING FIXTURE COUNT REQUIREMENTS PER BCNYS TABLE 2902.1 AND NOTES BELOW

CLASSIFICATION	WATER CLOSETS		LAVATORIES		DRINKING FOUNTAINS	TUBS / SHOWERS	SERVICE SINKS
	MALE	FEMALE	MALE	FEMALE			
FACTORY - F	1 PER 100 a,b		1 PER 100		1 PER 400	N/A	1
OCCUPANCY	121	121	121	121	241		
TOTAL REQUIRED FIXTURES	**2**	**2**	**2**	**2**	**1**		
TOTAL PROVIDED FIXTURES	**6**		**6**		**2**		**2**

NOTES:

a. URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 67% OF REQUIRED WATER CLOSETS IN ASSEMBLY AND EDCUATION OCCUPANCES.
b. URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 50% OF REQUIRED WATER CLOSETS IN ALL OTHER OCCUPANCES.
c. FIXTURE COUNTS DETERMINED BY BCNYS CHAPTER 29

BUILDING ENVELOPE REQUIREMENTS		
STATE: NEW YORK COUNTY: TOMPKINS ASHRAE CLIMATE ZONE: 5A		
	U - FACTOR PER ECCCNYS 2025 TABLE C402.1.2 & C402.5	PROVIDED U - FACTOR
EXTERIOR WALL SYSTEMS		
ABOVE GRADE WALL - METAL FRAMED	0.052	0.051
BELOW GRADE WALL	C-0.119	N/A (a)
OPAQUE DOORS - NONSWINGING DOOR	0.31	N/A
OPAQUE DOORS - SWINGING DOOR	0.37	N/A
GARAGE DOOR - SINGLE ROW OF GLAZING - NO MORE THAN 25% DOOR AREA	0.44	0.34
ROOFS		
INSULATION ENTIRELY ABOVE ROOF DECK	0.030	0.028
FLOORS		
SLAB ON GRADE - UNHEATED	F-0.52	N/A (a)
GLAZING SYSTEMS		
FIXED	0.34	0.30
OPERABLE	0.43	N/A
GLAZED DOORS (SWING)	0.63	0.60
ENERGY CODE COMPLIANCE STATEMENT	TO THE BEST OF THE ARCHITECTS KNOWLEDGE, BELIEF, AND PROFESSIONAL JUDGEMENT, THESE PLANS & SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2025 ENERGY CONSERVATION CODE OF NEW YORK STATE AND THE 2025 BUILDING CODE OF NEW YORK STATE	

(a.) NEW CONSTRUCTION (ENTRY ADDITION) IS ENTIRELY WITHIN FOOTPRINT OF CONDITIONED SPACE BELOW

FIRE RESISTANCE RATINGS

REQUIREMENTS IN HOURS

SECTION	BUILDING ELEMENT	REQUIRED RATING	PROVIDED RATING
TABLE 601	PRIMARY STRUCTURAL FRAME – COLUMNS, GIRDERS, HEAVY TRUSSES	0 HR (c)	0 HR
TABLE 601	BEARING WALLS INTERIOR BEARING WALLS	0 HR	0 HR
	EXTERIOR BEARING WALLS	0 HR	0 HR
TABLE 705.5	NONBEARING WALLS (F-1) EXTERIOR < 5 FT	2 HR	N/A
	EXTERIOR >5 FT < 10 FT	1 HR	N/A
	EXTERIOR > 10 FT < 30 FT	0 HR	N/A
	EXTERIOR > 30 FT	0 HR	0 HR
TABLE 601	FLOOR CONSTRUCTION – INCLUDING BEAMS & JOISTS	0 HR	0 HR
	ROOF CONSTRUCTION – INCLUDING BEAMS & JOISTS	0 HR (c)	0 HR
706.4	FIRE WALLS (incl. notes a and b)	3 HR	N/A
707.3.10	FIRE BARRIERS (vertical)	2 HR	N/A
711.2	HORIZONTAL ASSEMBLIES (i.e. horizontal barriers)	2 HR	N/A
TABLE 1020.2	CORRIDORS OCCUPANCY F	0 HR	0 HR
713.4	VERTICAL OPENINGS SHAFTS, 2-3 STORIES	1 HR	1 HR
1009.6.4	AREAS OF REFUGE	1 HR	N/A (b)
TABLE 509	INCIDENTAL USES N/A	N/A	N/A

NOTES: (a.) N/A
(b.) AREA OF REFUGE NOT REQUIRED IN THIS PROJECT
(c.) IN ALL OCCUPANCIES, HEAVY TIMBER COMPLYING WITH SECTION 2304.11 SHALL BE ALLOWED WHERE A 1-HOUR OR LESS FIRE-RESISTANCE RATING IS REQUIRED.

CODE SUMMARY

	CORNELL BEEBE HALL MAKER HUB	
GOVERNING CODES	1. BUILDING CODE OF NEW YORK STATE, 2025 2. EXISTING BUILDING CODE OF NEW YORK STATE, 2025 3. ENERGY CONSERVATION CODE OF NEW YORK STATE, 2025 4. FIRE CODE OF NEW YORK STATE, 2025 5. MECHANICAL CODE OF NEW YORK STATE, 2025 6. PLUMBING CODE OF NEW YORK STATE, 2025 7. NATIONAL ELECTRIC CODE, NFPA 70, 2023 8. NEW YORK STATE AMENDED VERSION OF ANSI A117.1 (2017 EDITION) 9. NFPA 10, 2022 EDITION, STANDARD FOR PORTABLE FIRE EXTINGUISHERS 10. NFPA 13, 2022 EDITION, STANDARD FOR INSTALLATION OF SPRINKLER SYSTEMS	
UNIFORM CODE STATEMENT	TO THE BEST OF THE REGISTERED DESIGN PROFESSIONAL'S KNOWLEDGE, BELIEF, AND PROFESSIONAL JUDGEMENT, THESE PLANS AND/OR SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2025 UNIFORM CODE OF NEW YORK STATE.	
CRITERIA	**DESCRIPTION**	
PRIMARY OCCUPANCY	F-1	MODERATE-HAZARD FACTORY INDUSTRIAL
SECONDARY OCCUPANCIES	B A-3 S-1	BUSINESS ASSEMBLY MODERATE-HAZARD STORAGE
CONSTRUCTION CLASSIFICATION EXISTING CONSTRUCTION NEW CONSTRUCTION	II B	NON-COMBUSTIBLE, UNPROTECTED
CLASSIFICATION OF WORK (EBCNYS) ADDITION (EBCNYS CHAPTER 11)	604 605 606	*LEVEL 3 ALTERATION* *CHANGE OF OCCUPANCY* *ADDITION*
FULLY SPRINKLERED	Y	NFPA 13
MIXED-USE	Y	NONSEPARATED MIXED USE

BUILDING HEIGHT AND AREA

BUILDING AREA DESIGNATION	HEIGHT IN FEET ABOVE LOWEST GRADE Table 504.3	STORIES Table 504.4	FLOOR AREA[a] Table 506.2
ASSEMBLY - A-3			
PERMITTED	75'	3	28,500 SF/FLOOR
EXISTING	36' - 6"	2	13,470 SF TOTAL
ADDITION	36' - 0"	2	340 SF NEW (13,810 SF TOTAL)

COMMENTS:
a. MOST RESTRICTIVE OCCUPANCY SHOWN (A-3) PER 508.3.2

ZONING SUMMARY

MUNICIPALITY	TOWN OF ITHACA - LDR (OUTSIDE UNA BOUNDARY)	
DISTRICT	BUSINESS B-1	
	REQUIREMENT	**PROPOSED**
ALLOWABLE USE	HIGHER EDUCATION (UPON RECEIPT OF SPECIAL USE PERMIT)	HIGHER EDUCATION
MAX. HEIGHT	38'	TOP OF EXISTING: 36'-6"; TOP OF ADDITION: 36'-0"
MIN. SITE AREA	EXISTING: APPROX 25,857 SF	28,943 SF (33,579 SF WITH ALTERNATES 1+2)
MAX. BLDG AREA	-	13,810 SF
MAX. COVERAGE	-	-
IMPERVIOUS COVERAGE	EXISTING: 17,500 SF	18,101 SF (21,321 SF WITH ALTERNATES 1+2)
SETBACKS		
FRONT:	30 FEET	60 FEET
SIDE:	40 FEET	-
REAR:	50 FEET	-
PARKING	EXISTING: 16 STANDARD SPACES 2 ADA SPACES	16 STANDARD SPACES 2 ADA SPACES

ENERGY CODE: ECCCNYS 2025 **FLOODPLAIN:** NO

ALLOWED CONSTRUCTION TYPES [I,II,III,IV,V][A,B] **ELECTRIFICATION REQUIRED:** Y **SPRINKLERS REQUIRED:** Y

NOTES: SITE PLAN REVIEW AND APPROVAL WILL BE OBTAINED FOR EXTERIOR ALTERATIONS TO BUILDING.

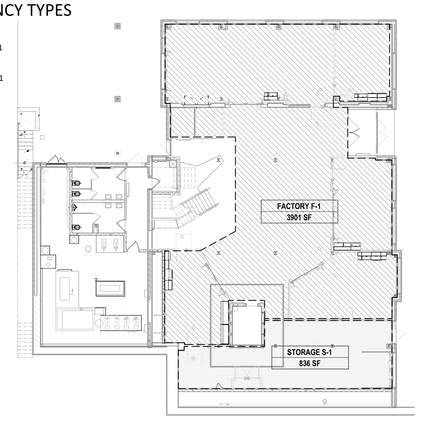
EXISTING BUILDING CODE SUMMARY

COMPLIANCE PATH	WORK AREA COMPLIANCE: CHAPTERS 6-12
CHAPTER 6-12: WORK AREA COMPLIANCE METHOD	ALTERATION LEVEL 3, CHANGE OF OCCUPANCY
703 / 803 / 904	COMPLIANT FIRE PROTECTION IS PROVIDED TO ALL AREAS OF THE BUILDING
704 / 805 / 905	EGRESS COMPLIES WITH ALL REQUIREMENTS INCLUDING QUANTITY OF EXISTS, FIRE PROTECTION, SIGNAGE, AND ILLUMINATION
705.1	RE-ROOFING TO COMPLY WITH BCNYS CHAPTER 15.
706.1	SECTION IS APPLICABLE-ADDITION/REPLACEMENT OF EQUIPMENT
706.2	EXISTING GRAVITY MEMBERS BEING MODIFIED/REPLACED IF REQUIRED BY 5% LOAD INCREASE RULE
706.3	SECTION NOT APPLICABLE-SEISMIC DESIGN CATEGORY = A AND BASIC WIND SPEED < 130 MPH
707 / 810 / 907	ALL NEW WORK COMPLIES WITH ECCNYS
805.1	SECTION IS APPLICABLE-ADDITION/REPLACEMENT OF EQUIPMENT
805.2	EXISTING GRAVITY MEMBERS BEING MODIFIED/REPLACED IF REQUIRED BY 5% LOAD INCREASE RULE
805.3	NOT APPLICABLE-INCREASE OF LOADS ON LATERAL LOAD RESISTING SYSTEM IS < 10%
906.1	SECTION IS APPLICABLE-LEVEL 3 ALTERATION
906.2	NOT APPLICABLE-ADDITION AND MODIFICATIONS TO EXISTING STRUCTURE NOT CONSIDERED SUBSTANTIAL STRUCTURAL ALTERATION AS REGARDS TO LATERAL LOAD RESISTING SYSTEM.
906.3, 906.4, 906.5, 906.6, 906.7	SECTIONS NOT APPLICABLE-SEISMIC DESIGN CATEGORY = A
1001	WORK RESULTS IN CHANGE OF OCCUPANCY AND COMPLIES WITH THE ENTIRETY OF EBCNYS CHAPTER 10
1009.1	OCCUPANT LOAD HAS NOT INCREASED BY MORE THAN 20%, PLUMBING FIXTURE COUNT IS IN COMPLIANCE WITH NYSBC TABLE 2902.1
1011.5	THE EXISTING MEANS OF EGRESS HAZARD LEVEL IS 4 (B OCCUPANCY); F-1 AND S-1 OCCUPANCIES HAVE THE SAME HAZARD LEVEL OF 4; A (ASSEMBLY) OCCUPANCY HAS HIGHER HAZARD LEVEL OF 3
1011.6	THE EXISTING HEIGHTS AND AREAS HAZARD LEVEL IS 4 (B OCCUPANCY); F-1 AND S-1 OCCUPANCIES HAVE AN INCREASED HAZARD LEVEL OF 3, A-3 (ASSEMBLY) OCCUPANCY HAS AN INCREASED HAZARD LEVEL OF 2
1011.7	THE EXISTING EXPOSURE OF EXTERIOR WALLS HAZARD LEVEL IS 3 (B OCCUPANCY); A (ASSEMBLY) OCCUPANCY HAS THE SAME HAZARD LEVEL OF 3; F-1 AND S-1 OCCUPANCIES HAVE AN INCREASED HAZARD LEVEL OF 2
1102.1 / 1102.2	ADDITION HEIGHT AND AREA INCREASE ARE WITHIN AMOUNTS PERMITTED IN NYSBC CHAPTER 5
1103	ALL STRUCTURE SUPPORTING AND AFFECTED BY ADDITION IS BEING ADEQUATELY REINFORCED TO COMPLY WITH NYSBC FOR NEW STRUCTURES

OCCUPANCY COUNTS						
Level	Number	Name	Occupancy Type	Area	Occupant Load Factor	Occupant Load
LEVEL 01						
LEVEL 01	101	MAKING EXPLORATION		1565 SF		
LEVEL 01	101A	MAKING EXPLORATION ANNEX	SHOP/VOCATIONAL	374 SF	50 SF	8
LEVEL 01	101B	PROTOTYPING WOOD STUDIO	SHOP/VOCATIONAL	431 SF	50 SF	9
LEVEL 01	101C	CLAY STUDIO	SHOP/VOCATIONAL	363 SF	50 SF	8
LEVEL 01	102	OPEN ASSEMBLY / PROTOTYPING	SHOP/VOCATIONAL	914 SF	50 SF	19
LEVEL 01	102A	SPRAY	SHOP/VOCATIONAL	99 SF	50 SF	2
LEVEL 01	102B	LIGHT METAL & JEWELRY SHOP	SHOP/VOCATIONAL	295 SF	50 SF	6
LEVEL 01	103	STORAGE	MECHANICAL/STORAGE	810 SF	300 SF	3
LEVEL 01	10060	MECH ROOM	MECHANICAL/STORAGE	902 SF	300 SF	4
LEVEL 01	10061	JC	MECHANICAL/STORAGE	54 SF	300 SF	1
LEVEL 01	10062	ACCESS CONTROL	MECHANICAL/STORAGE	48 SF	300 SF	1
LEVEL 01	10071	ELEVATOR CONTROL	MECHANICAL/STORAGE	17 SF	300 SF	1
LEVEL 01	EXTERIOR	EXTERIOR		60031 SF		
LEVEL 02						
LEVEL 02	201	MAKING EXPLORATION	ASSEMBLY	1329 SF	15 SF	89
LEVEL 02	201A	OFFICE	BUSINESS	82 SF	150 SF	1
LEVEL 02	201B	WORK AREA	BUSINESS	231 SF	150 SF	2
LEVEL 02	201C	LARGE COLLAB (4-6 PERSON)	BUSINESS	224 SF	150 SF	2
LEVEL 02	201D	MEDIUM COLLAB (2-4 PERSON)	BUSINESS	149 SF	150 SF	1
LEVEL 02	201E	KITCHENETTE	BUSINESS	203 SF	150 SF	2
LEVEL 02	201F	LOUNGE	BUSINESS	556 SF	150 SF	4
LEVEL 02	201G	SOCIAL	BUSINESS	106 SF	150 SF	1
LEVEL 02	202	EXPLORATION WORKSHOP	SHOP/VOCATIONAL	1162 SF	50 SF	24
LEVEL 02	202A	BALCONY	SHOP/VOCATIONAL	395 SF	50 SF	8
LEVEL 02	203	IT	MECHANICAL/STORAGE	69 SF	300 SF	1
LEVEL 02	204	ELECTRONICS WORKSHOP	SHOP/VOCATIONAL	229 SF	50 SF	5
LEVEL 02	205	MEDIA STUDIO	BUSINESS	390 SF	150 SF	3
LEVEL 02	20060	ELEC. CL	MECHANICAL/STORAGE	134 SF	300 SF	1
LEVEL 02	20063	JC	MECHANICAL/STORAGE	21 SF	300 SF	1
UPPER ENTRY						
UPPER ENTRY	EXTERIOR	EXTERIOR		13210 SF		
						207

OCCUPANCY TYPES

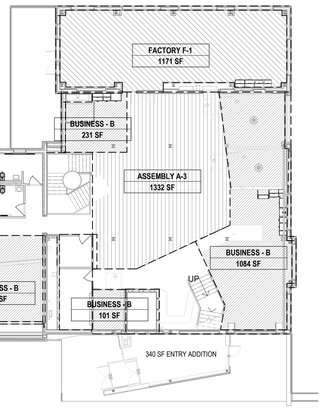
FACTORY F-1
STORAGE S-1



B2 BUILDING OCCUPANCIES - LEVEL 01
1/16" = 1'-0"

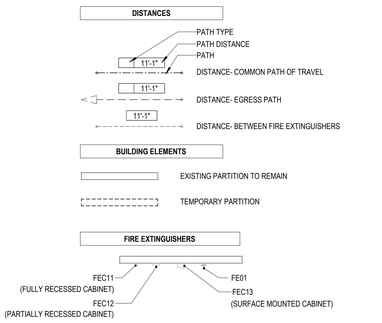
OCCUPANCY TYPES

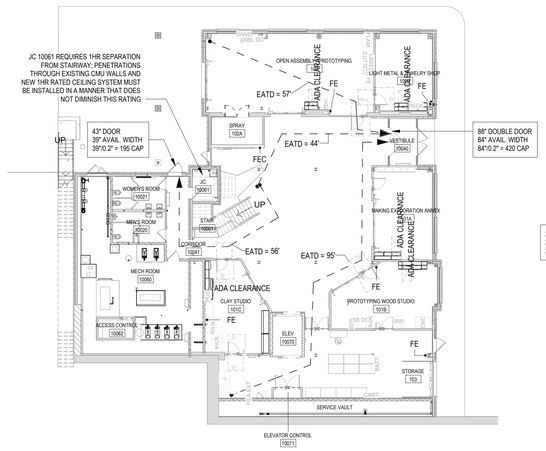
ASSEMBLY A-3
BUSINESS - B
FACTORY F-1



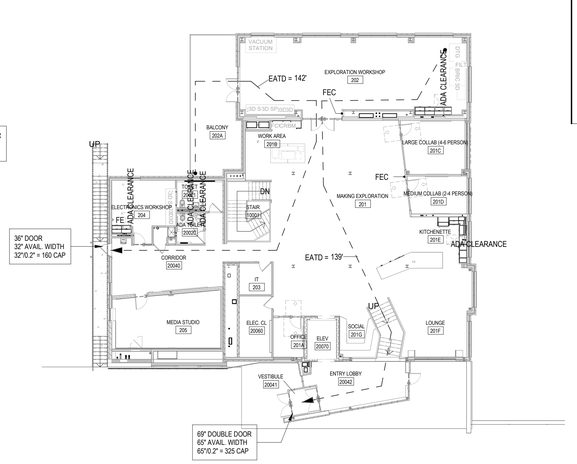
B4 BUILDING OCCUPANCIES - LEVEL 02
1/16" = 1'-0"

LEGEND- CODE COMP PLANS





A2 CODE COMPLIANCE PLAN- LEVEL 01
1/16" = 1'-0"



A4 CODE COMPLIANCE PLAN- LEVEL 02
1/16" = 1'-0"

ASHLEY MCGRAW
125 EAST JEFFERSON STREET
SYRACUSE, NEW YORK 13202
CONSULTANT:

SEAL:

REGISTERED ARCHITECT SUSANNE ANGLAND 046998 STATE OF NEW YORK

ARCH NAME ARCH ##

OWNER:
CORNELL UNIVERSITY
ITHACA, NEW YORK 14853

CORNELL UNIVERSITY
BEEBE HALL CU MAKER HUB RENOVATIONS
110 ARBORETUM RD,
ITHACA, NY 14850

AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

CODE COMPLIANCE SUMMARY

G100

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Autodesk Docs://Cornell University Beebe Hall Maker Hub Renv/24213_Cornell_ Beebe Hall Maker Hub Reno_R25.rvt

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THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THIS SCALE

D1 **UTILITY PLAN ALTERNATE #1 - BOTANIC GARDEN SOUTHERN CONCRETE WALK**
1" = 20'

Scale: 1" = 20'-0"

NORTH

A1 **UTILITY PLAN - BASE BID**
1" = 10'

Scale: 1" = 10'-0"

TRUE NORTH

PROJECT NORTH

ARBORETUM ROAD

EXISTING CATCH BASIN TO BE SHIFTED EXISTING PIPES TO TIE IN CONTRACTOR TO V.I.F. ELEVATIONS AND CONDITION. TO BE REPLACED IF IN POOR CONDITION.

26 LF OF 6" PERF. HDPE @ 0.5%
FLARED END SECTION
INV(W): 824.87 (6")

CAPPED END
INV(W): 825.00 (6")

EXISTING CATCH BASIN

EXISTING CATCH BASIN
TO BE PROTECTED, TYP.

EXISTING CATCH BASIN

EXISTING CATCH BASIN

NEW TRANSFORMER LOCATION

CONTRACT LIMIT LINE ALTERNATE 2

CONTRACT LIMIT LINE BASE BID

INV(S): 849.20(6")

70 LF OF TRENCH DRAIN
GRATE TO BE FLUSH WITH E.P.

EXISTING CATCH BASIN
CONTRACTOR TO V.I.F. INVS
AND REPORT TO ENGINEER.

10 LF OF 6" HDPE @ 0.5%

FACE OF CURB

CONCRETE WALL

LOWER SLOPED CONCRETE WALL

CONCRETE WALL

UTILITY PLAN LEGEND

KEY	MATERIAL
	CONTRACT LIMIT LINE BASE BID
	CONTRACT LIMIT LINE ALTERNATE 1
	CONTRACT LIMIT LINE ALTERNATE 2
W	EXSITING WATERLINE
CH	EXISTING CHILLED WATERLINE
St	EXISTING STORM LINE
Sa	EXISTING SANITARY LINE
E	EXISTING ELECTRIC
S	EXISTING STEAM PIPE
	EXISTING STRUCTURE

UTILITY NOTES

1. THERE SHALL BE NO INTERRUPTION OF ANY UTILITY SERVICE, UNLESS WRITTEN APPROVAL TO DO SO IS OBTAINED FROM UTILITY OWNER.
2. EXISTING UNDERGROUND UTILITIES THAT ARE NOT DESIGNATED TO BE REMOVED SHALL BE CONSIDERED ACTIVE. ALL EXISTING UNDERGROUND UTILITIES SHALL BE PROTECTED FROM DAMAGE UNLESS OTHERWISE SPECIFIED FOR ALTERATION OR REMOVAL AS PART OF THIS PROJECT.
3. ALL EXISTING UTILITIES TO BE CROSSED AND ALL UTILITY POLES NEAR EXCAVATIONS SHALL BE PROTECTED, PRESERVED, AND SUPPORTED AS NECESSARY BY THE CONTRACTOR AS PART OF ITS BASE BID.
4. ALL EXISTING PAVEMENTS TO BE CROSSED BY UTILITY INSTALLATIONS SHALL BE SAW CUT AT OR BEYOND THE REQUIRED LIMIT OF DISTURBANCE AND NEW PAVEMENT IS TO BE INSTALLED PER THE RESPECTIVE FULL DEPTH PAVEMENT SECTION. INSTALLATION OF UTILITIES UNDER NEW PROJECT PAVEMENTS SHALL NOT BE PERMITTED AFTER PAVEMENTS ARE INSTALLED UNLESS THE CONTRACTOR RESURFACES THE ENTIRE AREA AT THE CONTRACTOR'S EXPENSE.
5. TRENCH BOTTOMS AND BACKFILL UNDER PAVEMENT LOCATIONS SHALL BE COMPACTED IN ACCORDANCE WITH THE DETAILS AND SPECIFICATIONS.
6. THE CONTRACTOR IS RESPONSIBLE FOR ALL PUBLIC UTILITY CONNECTIONS (ELECTRIC, GAS) AS WELL AS PROVIDING INFRASTRUCTURES REQUIRED BY UTILITY COMPANY.
7. ALL UNDERGROUND UTILITIES SHALL BE INSTALLED PRIOR TO PAVEMENT GEOTEXTILE FABRIC.

ASHLEY MCGRAW
125 EAST JEFFERSON STREET
SYRACUSE, NEW YORK 13202
CONSULTANT:

FISHER ASSOCIATES

SEAL:

STATE OF NEW YORK · JOSHUA M. SCHMIDT · 098574-01 · LICENSED PROFESSIONAL ENGINEER

ARCH NAME ARCH ##

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ITHACA, NEW YORK 14853

CORNELL UNIVERSITY
BEEBE HALL CU MAKER HUB RENOVATIONS
110 ARBORETUM RD,
ITHACA, NY 14850

AM JOB NO. 24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS: **BID DOCUMENTS**

DATE ISSUED: **2026.09.14**

UTILITY PLAN

C200

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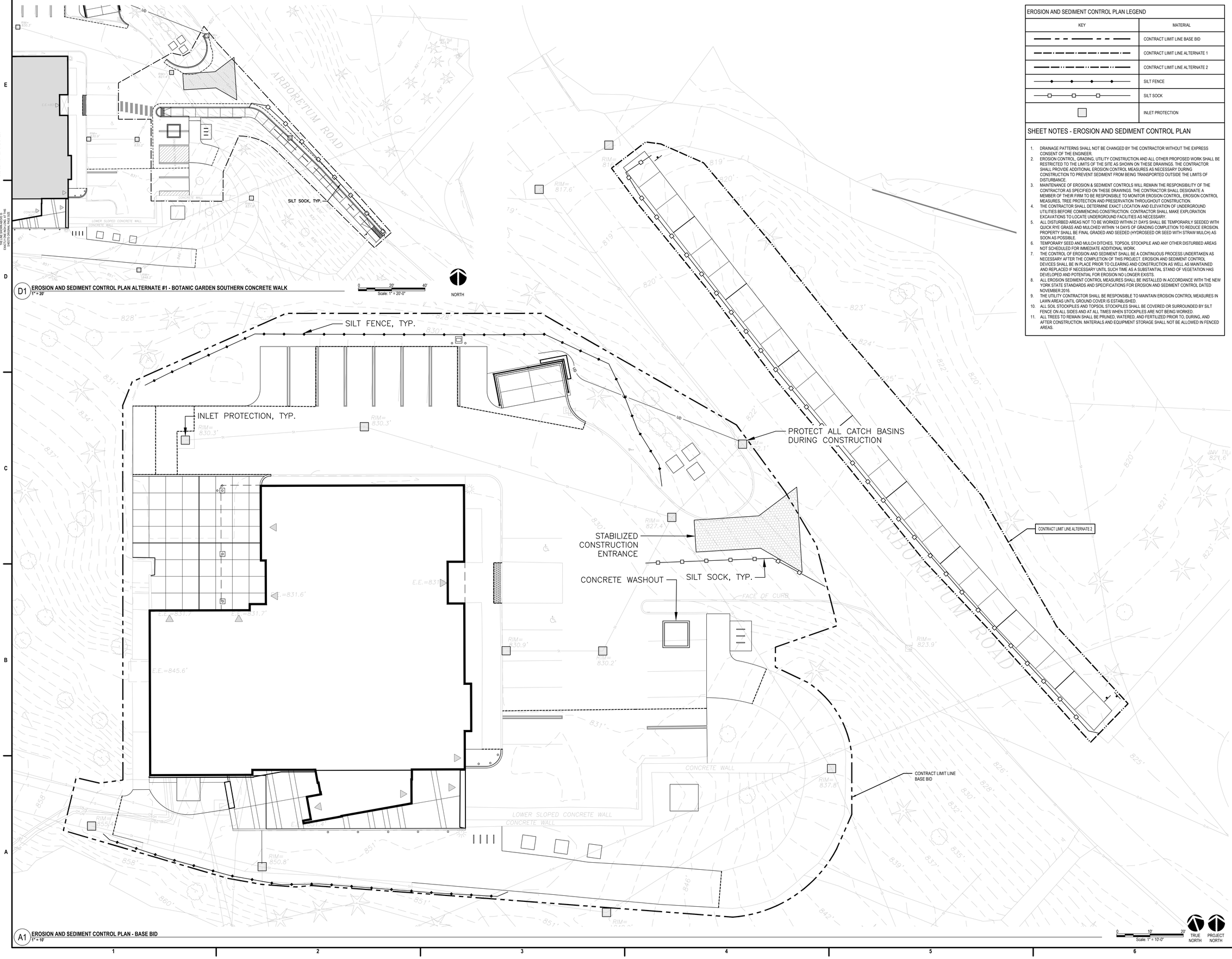
ARBORETUM ROAD
SILT SOCK, TYP.
SILT FENCE, TYP.
INLET PROTECTION, TYP.
PROTECT ALL CATCH BASINS DURING CONSTRUCTION
CONTRACT LIMIT LINE ALTERNATE 2
STABILIZED CONSTRUCTION ENTRANCE
CONCRETE WASHOUT
SILT SOCK, TYP.
CONTRACT LIMIT LINE BASE BID
CONCRETE WALL
LOWER SLOPED CONCRETE WALL
FACE OF CURB
RIM= 830.3'
RIM= 827.4'
RIM= 830.9'
RIM= 830.2'
RIM= 837.8'
RIM= 850.8'
RIM= 823.9'
E.E.=831.6'
E.E.=831.7'
E.E.=845.6'
E.E.=831.4'
E.E.=831.5'
E.E.=831.7'
E.E.=831.6'
E.E.=831.7'
E.E.=831.7'
E.E.=831.7

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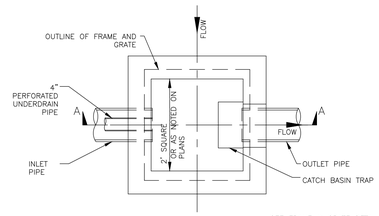
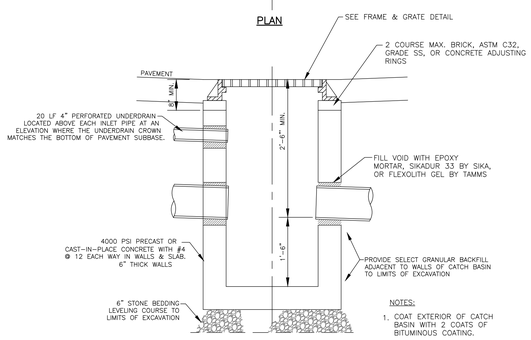
THIS LINE REPRESENTS 1" WHEN PRINTED AT FULL SCALE. IF THIS LINE IS NOT EXACTLY ONE INCH LONG, ALL DRAWINGS ARE NOT TO SCALE.



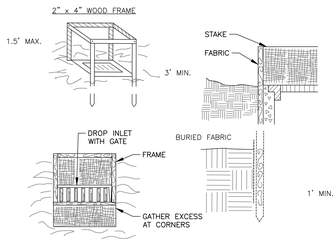
PLAN



SECTION A–A

CATCH BASIN DETAIL 1

SCALE: NTS

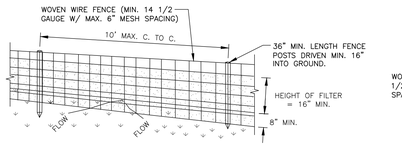


CONSTRUCTION SPECIFICATIONS:

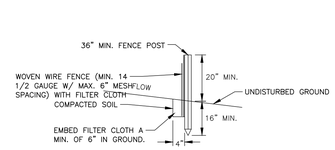
1. FILTER FABRIC SHALL HAVE AN EOS OF 40–85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2" x 4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.
4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
6. A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.

TYPICAL FILTER FABRIC DROP INLET PROTECTION DETAIL 4

SCALE: NTS



PERSPECTIVE VIEW



SECTION VIEW

CONSTRUCTION SPECIFICATIONS:

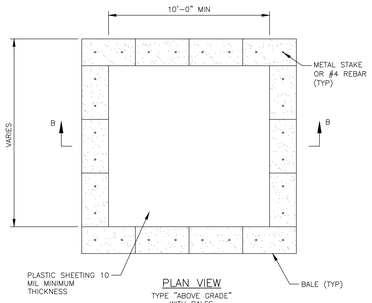
1. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES, FOLDED AND STAPLED TO PREVENT SEDIMENT BYPASS.
2. POSTS SHALL BE A MINIMUM 36" LONG AND SHALL BE TYPE T OR U STEEL WEIGHING NOT LESS THAN 1.0 LBS PER SQ.FT.; OR HARDWOOD WITH A MINIMUM CROSS SECTIONAL AREA OF 3.0 SQUARE INCHES.
3. FILTER CLOTH SHALL BE FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL.
4. WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
5. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 14½ GAUGE, 6" MAXIMUM MESH SPACING.
6. PREFABRICATED UNITS SHALL BE ENVIROFENCE OR APPROVED EQUAL.

MAINTENANCE NOTES:

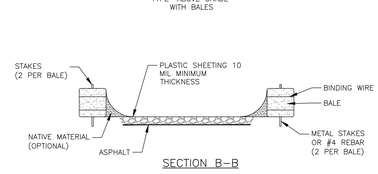
1. INSPECT SILT FENCE ONCE A WEEK AND AFTER RAINFALLS, REMOVE AND REPLACE THE FABRIC WHEN BULGES DEVELOP IN THE SILT FENCE.
2. MAINTENANCE SHALL BE PERFORMED AS NEEDED, REPLACE ALL SILT FENCE EVERY 9–MONTHS OR AS DIRECTED BY THE PROJECT REPRESENTATIVE.
3. UPON STABILIZATION OF THE SITE REMOVE SILT FENCE SO AS NOT TO BLOCK STORM FLOW OR DRAINAGE.

SILT FENCE DETAIL 2

SCALE: NTS



PLAN VIEW
TYPE "ABOVE GRADE" WITH BALES



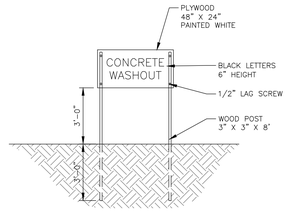
SECTION B–B

NOTES:

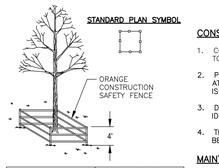
1. SUMPS TO BE LOCATED IN YARD BUT SHOULD BE KEPT AS FAR FROM DRAINAGE CHANNELS AND WETLAND AREAS AS PRACTICAL.
2. SUMPS TO BE CLEANED AND WASTE CONCRETE REMOVED AND PROPERLY DISPOSED OF UPON COMPLETION OF WORK.
3. METAL STAKES AND/OR #4 REBAR MUST BE LONG ENOUGH TO PENETRATE 6" OF GRAVEL AND ANCHOR INTO UNDERLYING ASPHALT.

CONCRETE WASHOUT AREA DETAIL 5

SCALE: NTS



CONCRETE WASHOUT SIGN DETAIL
(OR EQUIVALENT)



TREE DIAMETER (DBH)	DISTANCE OF FENCING FROM FACE OF TREE TRUNK
14" OR LESS	10'
15" TO 19"	12'
20" OR MORE	15'

CONSTRUCTION SPECIFICATIONS:

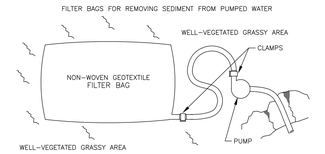
1. CONSTRUCT STURDY FENCE, OR BARRIER AROUND EACH TREE TO BE PRESERVED WITHIN THE DISTURBED AREA.
2. PLACE FENCE AT THE DRIP LINE OF THE TREE CANOPY OR AT THE DISTANCE LISTED IN THE CHART BELOW, WHICHEVER IS GREATER.
3. DO NOT LEAVE CONSTRUCTION EQUIPMENT RUNNING OR IDLING UNDER THE TREE CANOPIES.
4. THERE SHALL BE NO STORAGE OF CONSTRUCTION MATERIALS BENEATH THE TREE CANOPIES.

MAINTENANCE NOTES:

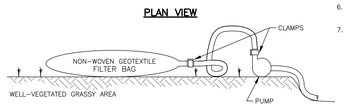
1. MAINTENANCE OF FENCES AROUND TREES AS NEEDED OR DIRECTED BY THE OWNER'S REPRESENTATIVE.
2. UPON STABILIZATION OF THE SITE REMOVE THE TREE PROTECTION FENCES.

TYPICAL TREE PROTECTION 3

SCALE: NTS



PLAN VIEW

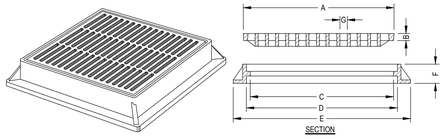


ELEVATION VIEW

1. FILTER BAGS SHALL BE MADE FROM NON–WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.
2. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE 1/2 FILLED WITH SEDIMENT.
3. BAGS SHALL BE LOCATED IN WELL–VEGETATED (GRASSY) AREA AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE FLOW PATH SHALL BE PROVIDED. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%.
4. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED.
5. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.
6. ALL FILTER BAGS AND TRAPPED SEDIMENT SHALL BE REMOVED TO A SUITABLE WASTE AREA WHEN ACCUMULATED SEDIMENTS REACH 1/2 TOTAL BAG CAPACITY.
7. IF SEDIMENT IS OBSERVED LEAVING THE FILTER BAG, UTILIZE STRAW BALE CONTAINMENT.

DEWATERING FILTER BAG DETAIL 6

SCALE: NTS



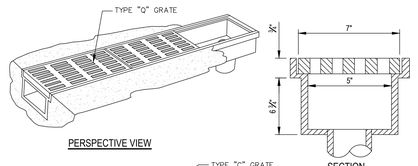
PERSPECTIVE VIEW
SECTION

FRAMES AND GRATES							
CATALOG NUMBER	A - GRATE SIZE	B - GRATE THICKNESS	C - CLEAR OPENING	D - FRAME OPENING	E - FRAME SIZE	F - FRAME HEIGHT	G - GRATE OPENINGS
V-5630	31 3/8 x 31 3/8	1 1/8	30 3/8 x 30 3/8	34x34	37 3/8 x 37 3/8	4	1 3/8 x 6 3/8
V-5636	37 1/2 x 37 1/2	1 1/2	36 x 36	37 1/2 x 37 1/2	37 1/2 x 37 1/2	4	0.875

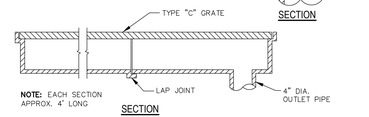
EAST JORDAN IRON WORKS MODEL V–5630–80 (FOR 30" C.B.) OR APPROVED EQUAL
EAST JORDAN IRON WORKS MODEL V–5636(FOR 36" C.B.) OR APPROVED EQUAL

CATCH BASIN FRAME & GRATE 7

SCALE: NTS



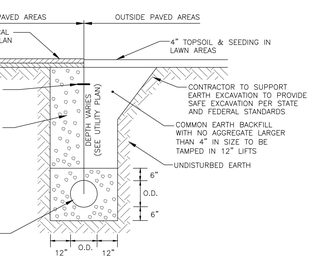
PERSPECTIVE VIEW
SECTION



SECTION

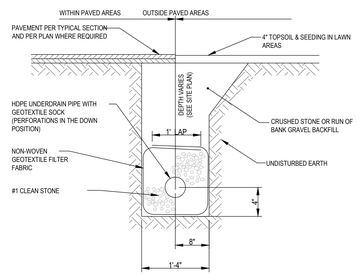
TRENCH DRAIN DETAIL 11

SCALE: NTS



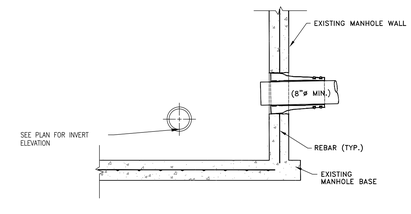
TYPICAL STORM SEWER TRENCH DETAIL 8

SCALE: NTS

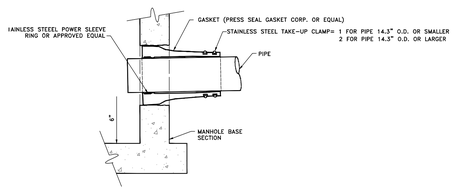


TYPICAL UNDERDRAIN DETAIL 9

SCALE: NTS



NOTES:
1. WATERTIGHT PIPE TO MANHOLE BOOT SEAL REQUIRED FOR ALL CORE DRILLED ENTRANCE HOLES IN MANHOLE BARREL AS SHOWN BELOW
2. DOES NOT APPLY TO HOUSE LATERALS.



CONNECTION TO EXISTING MANHOLE 10

SCALE: NTS

ASHLEY MCGRAW
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CONSULTANT:

FISHER ASSOCIATES

SEAL:

STATE OF NEW YORK
JOSHUA M. SCHMIDT
106574-01
LICENSED PROFESSIONAL ENGINEER

ARCH NAME ARCH ##

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AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

EROSION AND SEDIMENT CONTROL DETAILS

C400

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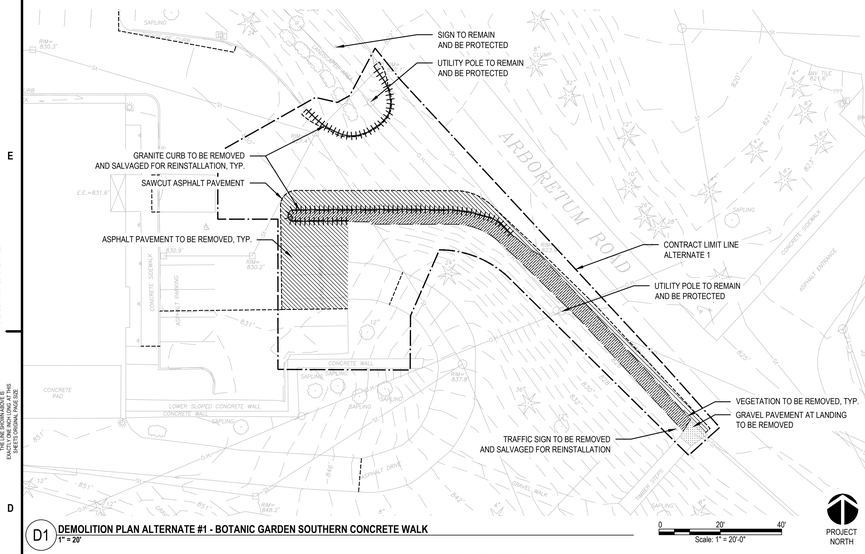
THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THIS ORIGINAL DRAWING SCALE

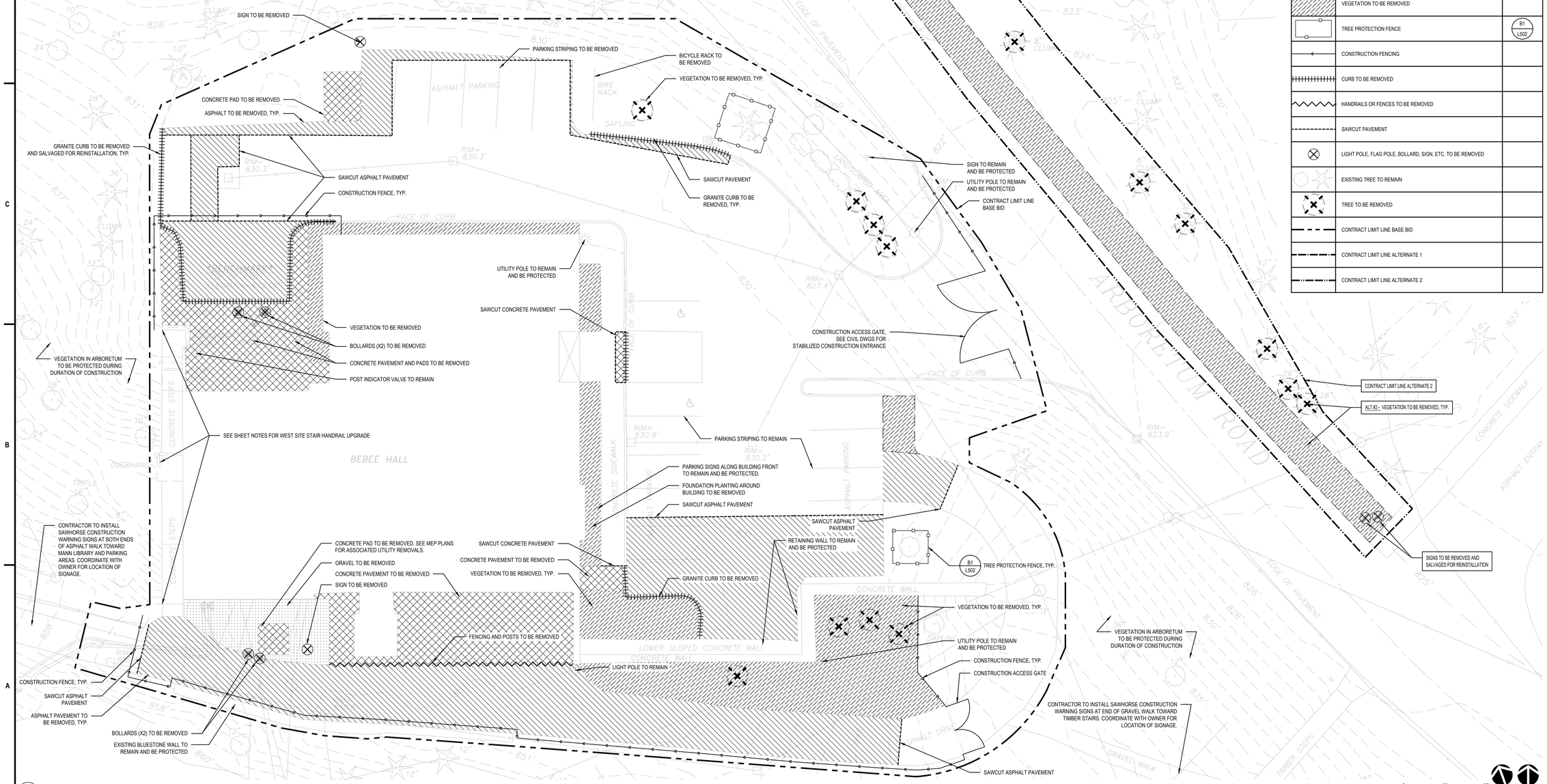
D1 DEMOLITION PLAN ALTERNATE #1 - BOTANIC GARDEN SOUTHERN CONCRETE WALK
1" = 20'



0 20' 40'
Scale: 1" = 20'-0"

PROJECT NORTH

A1 DEMOLITION PLAN - BASE BID
1" = 10'



0 10' 20'
Scale: 1" = 10'-0"

TRUE NORTH PROJECT NORTH

SITE DEMOLITION NOTES

1. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAY PRIOR TO DEMOLITION.
2. CONTRACTOR TO TAKE CARE TO NOT IMPACT OR DAMAGE VEGETATION, TREES, AND LANDSCAPE IN THE ADJACENT ARBORETUM AND FORESTED AREAS SURROUNDING THE SITE. ANY DAMAGE DONE TO THE VEGETATION, TREES, OR LANDSCAPE IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND REPLACE ANY DAMAGED MATERIAL.
3. AS PER N.Y.S. INDUSTRIAL CODE 743: CONTRACTOR TO CALL DIG SAFETY NEW YORK (1-800-962-7962) TO LOCATE BURIED CABLES OR OTHER UNDERGROUND UTILITIES NO LESS THAN TWO OR MORE THAN TEN WORKING DAYS PRIOR TO DIGGING, EXCAVATING, DRIVING POSTS, ETC.
4. CLEARING AND DEMOLITION SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED. PROVIDE SEDIMENTATION CONTROLS AT ALL EXISTING CATCH BASINS AFFECTED BY NEW CONSTRUCTION. SEE CIVIL EROSION AND SEDIMENT CONTROL PLANS AND SPECS.
5. CONSTRUCTION FENCING TO BE INSTALLED AS NECESSARY TO PROTECT PEDESTRIANS, CONTROL VEHICULAR TRAFFIC AND PROTECT ON-SITE CONSTRUCTION MATERIALS. CONTRACTOR TO COORDINATE LAYOUT OF CONSTRUCTION FENCING WITH OWNER PRIOR TO INSTALLATION.
6. PROTECT ALL SURFACE AND SUBSURFACE UTILITIES TO REMAIN DURING DEMOLITION WORK.
7. SEE CIVIL PLANS FOR UTILITY REMOVALS.
8. SEE ELECTRICAL DRAWINGS FOR ELECTRICAL REMOVALS.
9. ALL REMOVED/DEMOLISHED MATERIAL INCLUDING FENCES SHALL BECOME CONTRACTOR'S PROPERTY AND REMOVED FROM SITE, UNLESS NOTED OTHERWISE. OWNER TO RESERVE RIGHT OF FIRST REFUSAL ON ALL DEMOLISHED MATERIAL.
10. ALL TREE STUMPS ARE TO BE REMOVED COMPLETELY, ALONG WITH ALL ROOTS 6" AND LARGER.
11. PROTECT EXISTING TREES TO REMAIN. DO NOT STORE EQUIPMENT OR MATERIALS WITHIN THE DRIP LINE OF TREES.
12. PROTECT BENCHMARKS.
13. WESTERN SITE STAIR HANDRAIL UPGRADE: RAILINGS TO BE MODIFIED AT TOP AND BOTTOM OF STAIR TREADS TO MEET CODE. CUT AND FABRICATE NEW TOP AND BOTTOM CONNECTIONS, WELD AND PAINT ENTIRE RAILING. CONTRACTOR TO SUBMIT SHOP DRAWINGS OF PROPOSED HANDRAIL IMPROVEMENT SECTIONS.
14. ALT #1: MEDIUM DUTY CONCRETE WALK ALONG SOUTH EDGE OF FOREST HOME DR. INCLUDES A CROSSWALK AT THE SITE ENTRY, 8' WALKWAY WITH GRANITE CURB, REVISED SITE ENTRY GRANITE CURBING, AND ASSOCIATED SIGNAGE.
15. ALT #2: MEDIUM DUTY CONCRETE WALK ALONG NORTH EDGE OF FOREST HOME DR. INCLUDES 8' WALK WITH JOINTS.

SITE DEMOLITION LEGEND

KEY	MATERIAL	DETAIL
	ASPHALT PAVEMENT TO BE REMOVED	
	CONCRETE SIDEWALKS, PADS, AND PAVERS TO BE REMOVED	
	GRAVEL PAVEMENT TO BE REMOVED	
	VEGETATION TO BE REMOVED	
	TREE PROTECTION FENCE	B1 / L502
	CONSTRUCTION FENCING	
	CURB TO BE REMOVED	
	HANDRAILS OR FENCES TO BE REMOVED	
	SAWCUT PAVEMENT	
	LIGHT POLE, FLAG POLE, BOLLARD, SIGN, ETC. TO BE REMOVED	
	EXISTING TREE TO REMAIN	
	TREE TO BE REMOVED	
	CONTRACT LIMIT LINE BASE BID	
	CONTRACT LIMIT LINE ALTERNATE 1	
	CONTRACT LIMIT LINE ALTERNATE 2	

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AM JOB NO. 24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS: BID DOCUMENTS
DATE ISSUED: 2026.09.14

SITE DEMOLITION PLAN

L101

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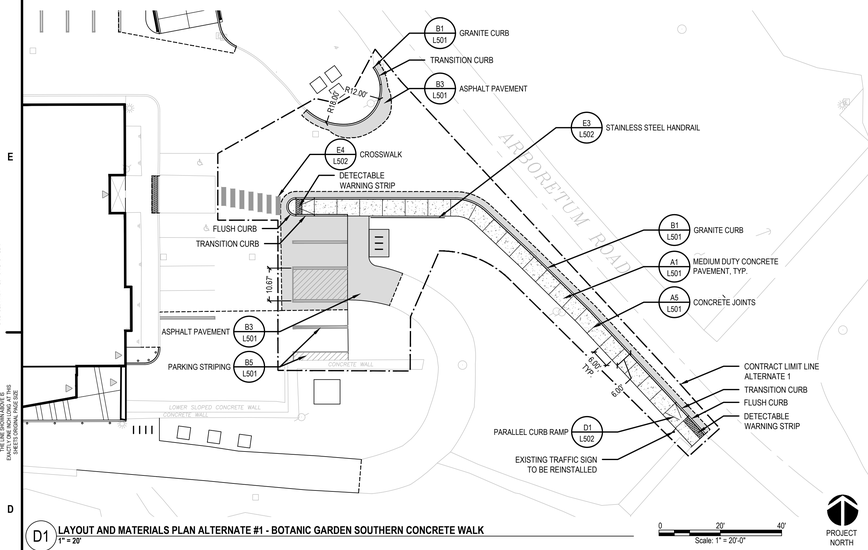
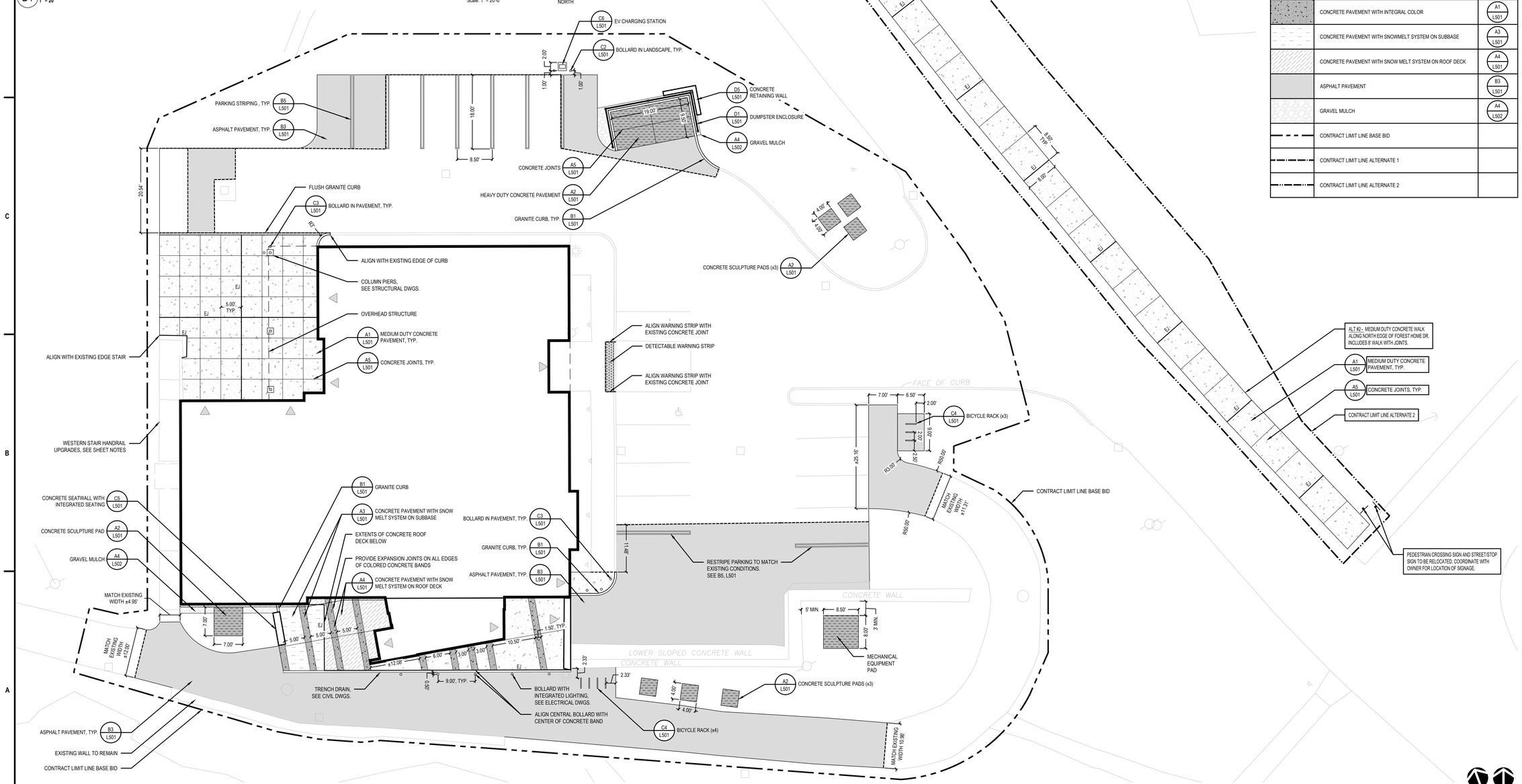


D1 **LAYOUT AND MATERIALS PLAN ALTERNATE #1 - BOTANIC GARDEN SOUTHERN CONCRETE WALK**
1" = 20'

0 20' 40'
Scale: 1" = 20'-0"

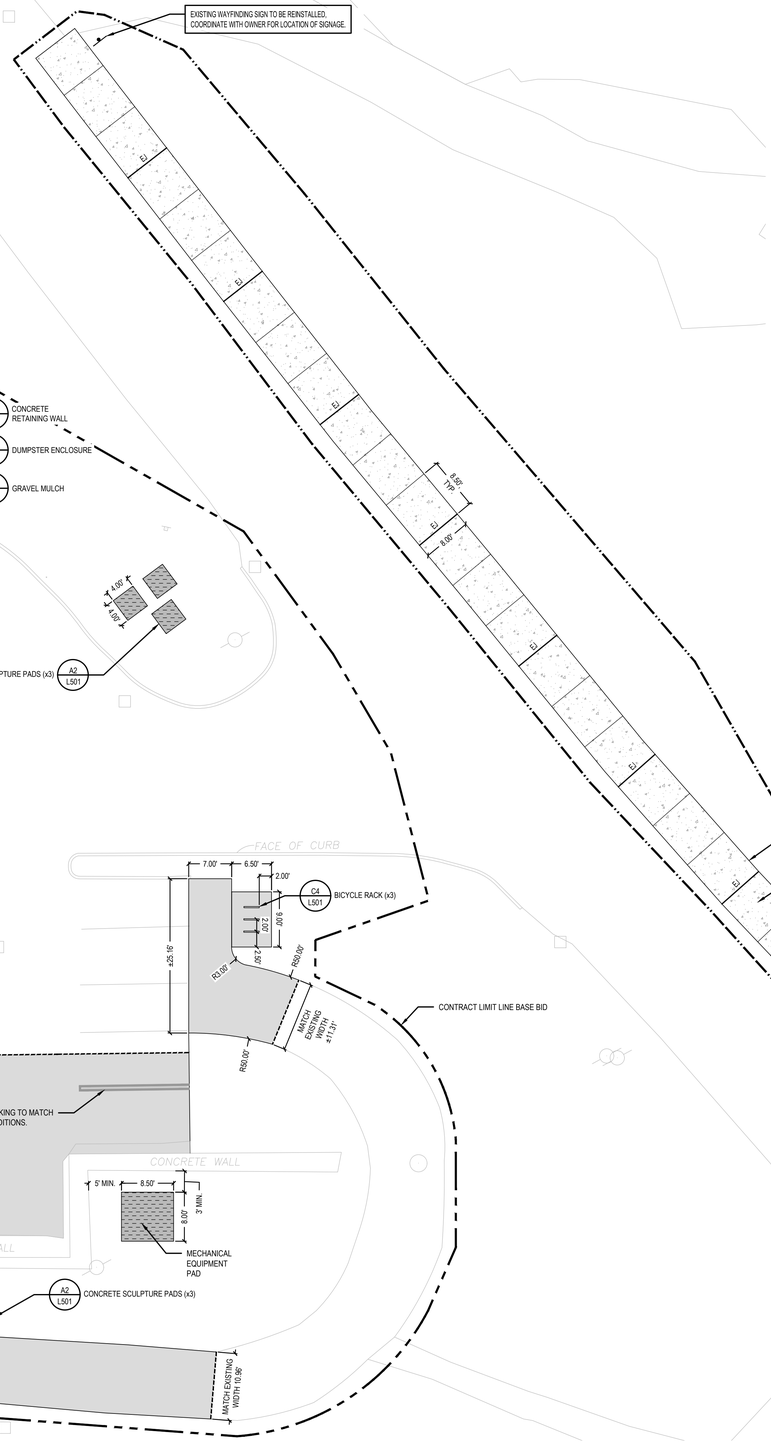
PROJECT NORTH



A1 **LAYOUT AND MATERIALS PLAN - BASE BID**
1" = 10'

0 10' 20'
Scale: 1" = 10'-0"

TRUE NORTH PROJECT NORTH



LAYOUT AND MATERIALS NOTES

GENERAL NOTES:

1. GENERAL CONTRACTOR SHALL NOTIFY ALL UTILITY OWNERS HAVING UNDERGROUND UTILITIES ON SITE PRIOR TO EXCAVATION.
2. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY AND LOCATE ALL UTILITIES PRIOR TO ANY EXCAVATION.
3. VERIFY DIMENSIONS AND ACCEPT CONDITIONS BEFORE PROCEEDING WITH WORK. REPORT ANY DISCREPANCIES TO LANDSCAPE ARCHITECT BEFORE PROCEEDING.
4. DO NOT SCALE FROM MEASURING DRAWINGS.
5. WALKS, DRIVES AND WALLS TO BE STAKED OUT IN THE FIELD BY A LICENSED SURVEYOR.
6. LAYOUT DIMENSIONS AND RADII TO WALLS, CURBS, AND OTHER FEATURES ARE TO EXPOSED FACES UNLESS OTHERWISE NOTED.
7. ALL PAVEMENT RADII ARE 5' UNLESS OTHERWISE NOTED ON PLAN.
8. INSTALL SIGNS PER MUTCD Sec. 2A.18. CONTRACTOR TO VERIFY SIGN LOCATIONS WITH LANDSCAPE ARCHITECT BEFORE INSTALLATION.
13. WESTERN SITE STAIR HANDRAIL UPGRADE: RAILINGS TO BE MODIFIED AT TOP AND BOTTOM OF STAIR TREADS TO MEET CODE. CUT AND FABRICATE NEW TOP AND BOTTOM CONNECTIONS, WELD AND PAINT ENTIRE RAILING. CONTRACTOR TO SUBMIT SHOP DRAWINGS OF PROPOSED HANDRAIL IMPROVEMENT SECTIONS.
14. ALT #1: MEDIUM DUTY CONCRETE WALK ALONG SOUTH EDGE OF FOREST HOME DR. INCLUDES A CROSSWALK AT THE SITE ENTRY, 6' WALKWAY WITH GRANITE CURB, REVISED SITE ENTRY GRANITE CURBING, AND ASSOCIATED SIGNAGE.
15. ALT #2: MEDIUM DUTY CONCRETE WALK ALONG NORTH EDGE OF FOREST HOME DR. INCLUDES 8' WALK WITH JOINTS.

SCORING NOTES:

1. SCORING SHOWN IS INTENDED TO MINIMIZE CRACKING AT RADIUS INTERSECTIONS.
2. WHERE POSSIBLE, RADIUS FLARES SHALL BE INCORPORATED INTO LARGER POURS TO MINIMIZE ACUTE ANGLES.
3. TYPICAL SCORING IS TO CREATE EQUAL SQUARES WHERE POSSIBLE, I.E. SPACING IS EQUAL TO WIDTH OF WALK.
4. ALL CONSTRUCTION JOINTS SHALL BE REINFORCED WITH DOWELS PER DETAIL.
5. INSTALL EXPANSION JOINTS EVERY 34' MAX IN CONCRETE PAVEMENT AND IN AREAS WHERE CONCRETE ABUTS CURBS OR OTHER FIXED OBJECTS.
6. PRE-POUR MEETING THAT INCLUDES CONTRACTOR, OWNER, LANDSCAPE ARCHITECT AND ENGINEER TO OCCUR.

LAYOUT AND MATERIALS LEGEND

KEY	MATERIAL	DETAIL
	MEDIUM DUTY CONCRETE PAVEMENT	A1 L501
	HEAVY DUTY CONCRETE PAVEMENT	A2 L501
	CONCRETE PAVEMENT WITH INTEGRAL COLOR	A1 L501
	CONCRETE PAVEMENT WITH SNOWMELT SYSTEM ON SUBBASE	A3 L501
	CONCRETE PAVEMENT WITH SNOW MELT SYSTEM ON ROOF DECK	A4 L501
	ASPHALT PAVEMENT	B3 L501
	GRAVEL MULCH	A4 L502
	CONTRACT LIMIT LINE BASE BID	
	CONTRACT LIMIT LINE ALTERNATE 1	
	CONTRACT LIMIT LINE ALTERNATE 2	

ASHLEY MCGRAW
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CORNELL UNIVERSITY

BEEBE HALL CU MAKER HUB RENOVATIONS
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ITHACA, NY 14850

AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

LAYOUT AND MATERIALS PLAN

L201

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THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT FULL SCALE

GRADING NOTES

1. GENERAL CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAY PRIOR TO EXCAVATION. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY AND LOCATE ALL UTILITIES PRIOR TO GRADING START.
2. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
3. GRADING AROUND EXISTING TREES TO BE MINIMIZED. SEE TREE PROTECTION DETAILS.
4. MINIMIZE IMPACT TO EXISTING, REMAINING LANDSCAPE WHILE EXCAVATING. GREAT CARE IS TO BE TAKEN TO AVOID DISTURBING ROOTS OF EXISTING TREES. HAND EXCAVATION WILL BE REQUIRED WHERE EXISTING TREE ROOTS ARE PRESENT.
5. ALL EXISTING UTILITY COVERS AND GRATES WITHIN THE AREA OF DISTURBANCE ARE TO BE ADJUSTED TO MEET PROPOSED GRADES.
6. MATCH EXISTING GRADE AT ALL EDGES WHERE PROJECT WORK MEETS EXISTING SITE.
7. SEE ELECTRICAL DRAWINGS FOR PROPOSED UTILITIES.
8. IF GRADING INTERFERES WITH EXISTING SHRUB PLANTING, LIFT AND REPLANT SHRUB WHEN GRADING IS COMPLETE.
9. ALL WALKWAYS TO HAVE A MAXIMUM 1.99% CROSS SLOPE.
10. ALL ADA ACCESSIBLE ROUTES INDICATED ON PLANS TO HAVE A MAXIMUM 4.99% RUNNING SLOPE AS REQUIRED BY CODE.
11. ALT #1: MEDIUM DUTY CONCRETE WALK ALONG SOUTH EDGE OF FOREST HOME DR. INCLUDES A CROSSWALK AT THE SITE ENTRY, 6' WALKWAY WITH GRANITE CURB, REVISED SITE ENTRY GRANITE CURBING, AND ASSOCIATED SIGNAGE.
12. ALT #2: MEDIUM DUTY CONCRETE WALK ALONG NORTH EDGE OF FOREST HOME DR. INCLUDES 8' WALK WITH JOINTS.

GRADING LEGEND

	EXISTING CONTOUR	EE=	ENTRY ELEVATION
	PROPOSED MAJOR CONTOUR	FFE=	FINISHED FLOOR ELEVATION
	PROPOSED CONTOUR	TC=	TOP OF CURB
	SAWCUT	BC=	BOTTOM OF CURB
	CONTRACT LIMIT LINE BASE BID	TW=	TOP OF WALL
	CONTRACT LIMIT LINE ALTERNATE 1	BW=	BOTTOM OF WALL
	CONTRACT LIMIT LINE ALTERNATE 2		
EL: XXX.XX	PROPOSED SPOT ELEVATION		
+ BC911.17	EXISTING SPOT ELEVATION		
	CATCH BASIN		

D1 **GRADING PLAN ALTERNATE #1 - BOTANIC GARDEN SOUTHERN CONCRETE WALK**
1" = 20'

0 20' 40'
Scale: 1" = 20'-0"

PROJECT NORTH

A1 **GRADING PLAN - BASE BID**
1" = 10'

0 10' 20'
Scale: 1" = 10'-0"

TRUE NORTH PROJECT NORTH

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AM JOB NO. 24213

REV. NO.	REV. DATE	REV. DESCRIPTION

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GRADING PLAN

L301

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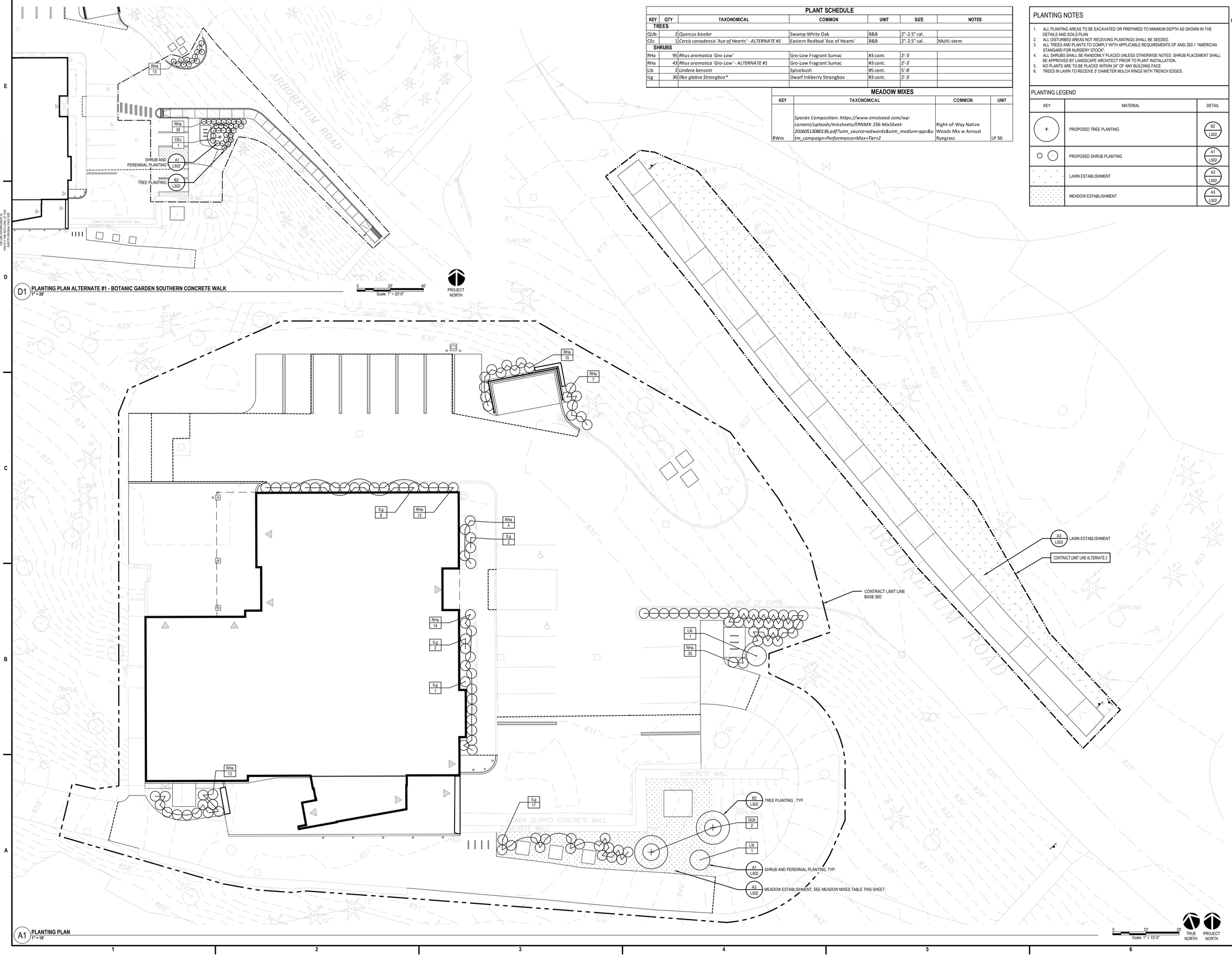
THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THIS SCALE. IF NOT, ADJUST ACCORDINGLY.



D1 **PLANTING PLAN ALTERNATE #1 - BOTANIC GARDEN SOUTHERN CONCRETE WALK**
1" = 20'

0 20' 40'
Scale: 1" = 20'-0"

PROJECT NORTH

A1 **PLANTING PLAN**
1" = 10'

0 10' 20'
Scale: 1" = 10'-0"

TRUE NORTH PROJECT NORTH

PLANT SCHEDULE

KEY	QTY	TAXONOMICAL	COMMON	UNIT	SIZE	NOTES
TREES						
QUb	2	*Quercus bicolor*	Swamp White Oak	B&B	2"-2.5" cal.	
CEc	1	*Cercis canadensis 'Ace of Hearts' - ALTERNATE #1*	Eastern Redbud 'Ace of Hearts'	B&B	2"-2.5" cal.	Multi-stem
SHRUBS						
RHa	95	*Rhus aromatica 'Gro-Low'*	Gro-Low Fragrant Sumac	#3 cont.	2'-3'	
RHa	43	*Rhus aromatica 'Gro-Low' - ALTERNATE #1*	Gro-Low Fragrant Sumac	#3 cont.	2'-3'	
Llb	2	*Lindera benzoin*	Spicebush	#5 cont.	5'-8'	
ILg	30	*Illex glabra Strongbox®*	Dwarf Inkberry Strongbox	#3 cont.	2'-3'	

MEADOW MIXES

KEY	TAXONOMICAL	COMMON	UNIT
RWm	*Species Composition: https://www.ernstseed.com/wp-content/uploads/mixsheets/ERNMX-156-MixSheet-20260513080136.pdf?utm_source=adwords&utm_medium=ppc&utm_campaign=Performance+Max+Tier+2*	Right-of-Way Native Woods Mix w Annual Ryegrass	LP 50

PLANTING NOTES

1. ALL PLANTING AREAS TO BE EXCAVATED OR PREPARED TO MINIMUM DEPTH AS SHOWN IN THE DETAILS AND SOILS PLAN.
2. ALL DISTURBED AREAS NOT RECEIVING PLANTINGS SHALL BE SEEDED.
3. ALL TREES AND PLANTS TO COMPLY WITH APPLICABLE REQUIREMENTS OF ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK".
4. ALL SHRUBS SHALL BE RANDOMLY PLACED UNLESS OTHERWISE NOTED. SHRUB PLACEMENT SHALL BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO PLANT INSTALLATION.
5. NO PLANTS ARE TO BE PLACED WITHIN 24" OF ANY BUILDING FACE.
6. TREES IN LAWN TO RECEIVE 5' DIAMETER MULCH RINGS WITH TRENCH EDGES.

PLANTING LEGEND

KEY	MATERIAL	DETAIL
+	PROPOSED TREE PLANTING	B2 / L502
○ ○ .	PROPOSED SHRUB PLANTING	A1 / L502
	LAWN ESTABLISHMENT	A3 / L502
	MEADOW ESTABLISHMENT	A3 / L502

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AM JOB NO.
24213

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PROJECT STATUS:
BID DOCUMENTS

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PLANTING PLAN

L401

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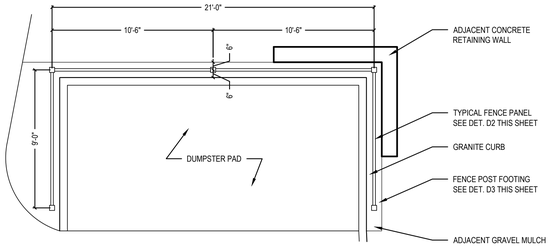
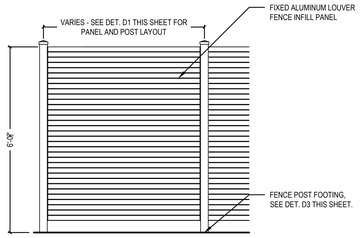
THIS LINE REPRESENTS 1" IF THIS DRAWING IS NOT EXACTLY ONE INCH ONLY, AT THIS RESOLUTION, SCALE ACCORDINGLY

NOTES:
1. CONTRACTOR SHALL FIELD VERIFY ALL BUILDING AND SITE ELEVATIONS, UTILITY LOCATIONS AND MECHANICAL EQUIPMENT PRIOR TO INSTALLATION AND NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.
2. CONTRACTOR TO SUBMIT FENCE AND FOOTING LAYOUT SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION.



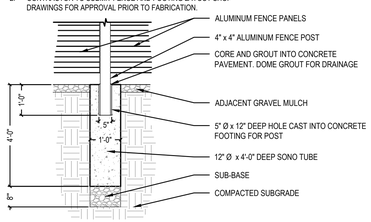
D1 **DUMPSTER ENCLOSURE**
1/4" = 1'-0"

NOTES:
1. BASIS OF DESIGN IS ECLIPSE ALUMINUM FIXED LOUVER FENCING, 80% VISUAL SCREENING AS MANUFACTURED BY AMETCO MANUFACTURING CORPORATION.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

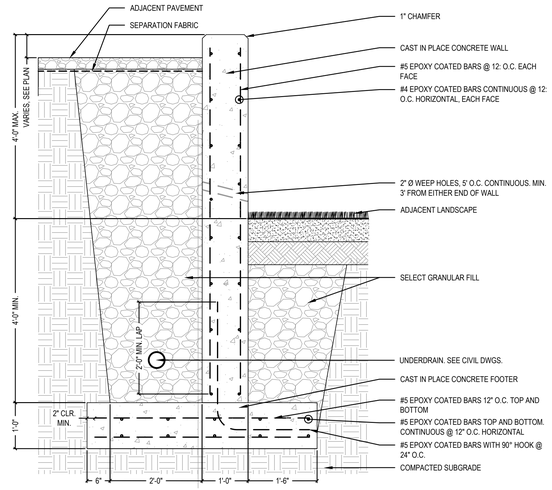


D2 **TYPICAL FENCE PANEL**
1/2" = 1'-0"

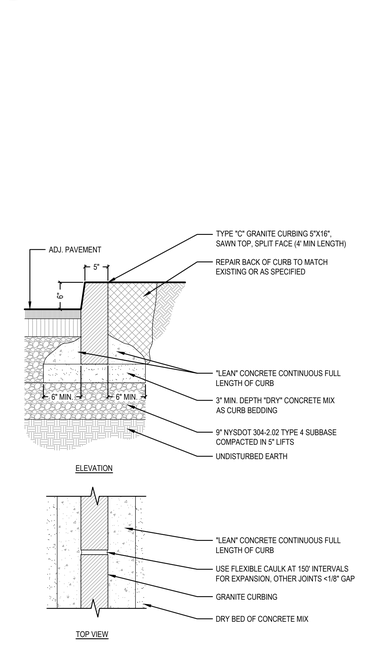
NOTES:
1. CONTRACTOR SHALL FIELD VERIFY ALL BUILDING AND SITE ELEVATIONS, UTILITY LOCATIONS AND MECHANICAL EQUIPMENT PRIOR TO INSTALLING SONO TUBES FOR POSTS AND NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.
2. CONTRACTOR TO SUBMIT FENCE AND FOOTING LAYOUT SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION.



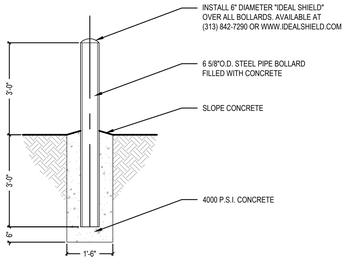
D3 **FENCE POST FOOTING**
1/2" = 1'-0"



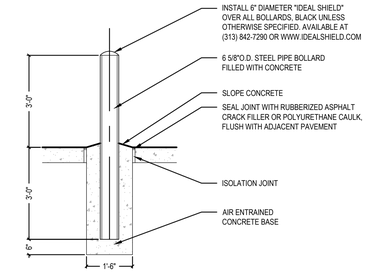
D5 **CONCRETE RETAINING WALL**
3/4" = 1'-0"



B1 **GRANITE CURB**
1" = 1'-0"

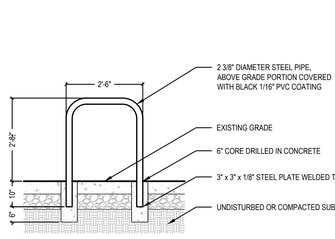


C2 **BOLLARD IN LANDSCAPE**
1/2" = 1'-0"

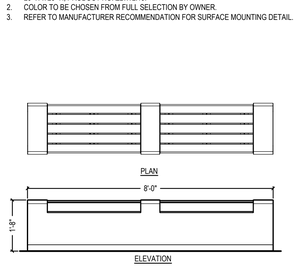


C3 **BOLLARD IN PAVEMENT**
1/2" = 1'-0"

NOTES:
1. BASIS OF DESIGN IS DERO 42 1/2 X 30" BICYCLE RACK HD: CORNELL HOOP.
2. PROVIDE SURFACE MOUNT OPTION WITH MANUFACTURER'S ANCHORS.

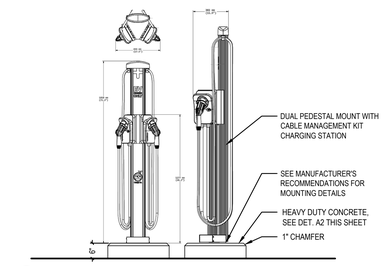


C4 **BICYCLE RACK**
1/2" = 1'-0"



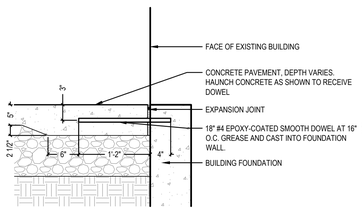
C5 **CONCRETE SEATWALL WITH INTEGRATED SEATING**
1/2" = 1'-0"

NOTES:
1. BASIS OF DESIGN: CHARGEPOINT, INC., MODEL: CPF50-L18-PEDMNT-CMK6-Dual .
2. SEE LAYOUT PLAN FOR DIMENSIONS OF CONCRETE BASE.



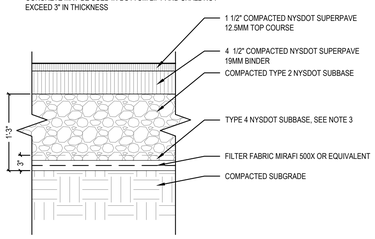
C6 **EV CHARGING STATION**
1/2" = 1'-0"

NOTES:
1. 2" MINIMUM CONCRETE COVERAGE AROUND PIN AND MESH

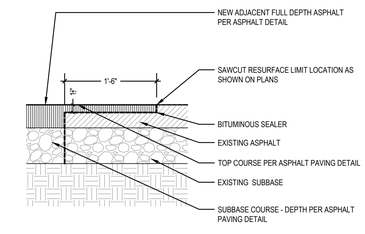


B2 **PIN AT BUILDING THRESHOLD**
1" = 1'-0"

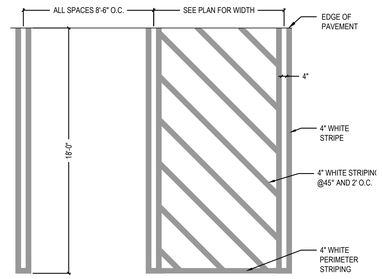
NOTES:
1. ALL SUBGRADE MATERIALS ARE EXISTING AND SHOWN FOR REFERENCE ONLY.
2. PLACE TACK COAT BETWEEN ASPHALT LAYERS.
3. APPROVED ASPHALT MILLINGS OR APPROVED RUBBLIZED CONCRETE MAY BE USED IN BOTTOM LIFT AND SHALL NOT EXCEED 3" IN THICKNESS



B3 **ASPHALT PAVEMENT**
1" = 1'-0"

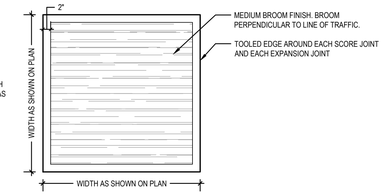


B4 **ASPHALT PATCH**
1" = 1'-0"



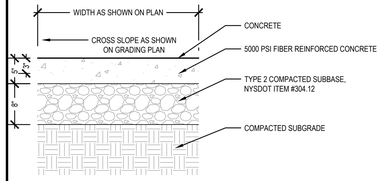
B5 **PARKING STRIPING**
1/4" = 1'-0"

NOTES:
1. SEE PLANS FOR LOCATION AND TYPE OF SCORE JOINTS.
2. BROOM PERPENDICULAR TO LINE OF TRAFFIC.



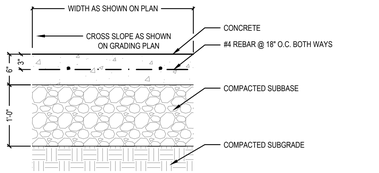
A6 **CONCRETE SIDEWALK BROOM FINISH**
3/4" = 1'-0"

NOTES:
1. CONCRETE SHALL HAVE 5000 PSI COMPRESSIVE STRENGTH AT 28 DAYS, 6% AIR ENTRAINMENT (±1%), MAXIMUM W/C = 0.40
2. USE VIBRATORY SCREEN DURING PLACEMENT IN CONFORMANCE WITH ACI 309, LATEST EDITION.
3. AFTER SURFACE SHEEN IS GONE, THE CONCRETE SURFACE SHALL BE CURED BY KEEPING CONCRETE CONTINUOUSLY WET FOR 7 DAYS MINIMUM.
4. SEAL ALL EXPOSED CONCRETE WITH PENETRATING SEALER AT COMPLETION OF WET CURE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
5. USE MACRO FIBER REINFORCING EQUIVALENT TO W2.9, 6X6, MIN #4/CY.



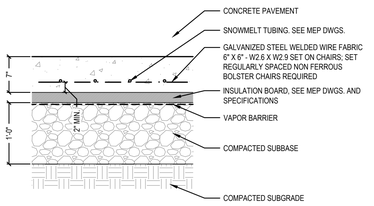
A1 **MEDIUM DUTY CONCRETE PAVEMENT**
1" = 1'-0"

NOTES:
1. 2" MINIMUM CONCRETE COVERAGE ON REBAR AND TIES



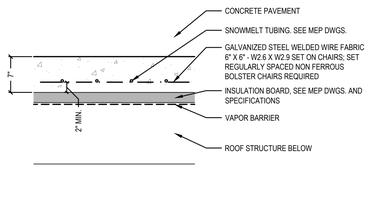
A2 **HEAVY DUTY CONCRETE PAVEMENT**
1" = 1'-0"

NOTES:
1. TOOLED CONCRETE JOINTS.
2. SEE PLANS FOR CONCRETE JOINTS, EXPANSION JOINTS (EJ), LAYOUT WIDTHS, RADII AND FINISHES.
3. SEE L201 FOR EXTENT OF SNOW MELT SYSTEM.

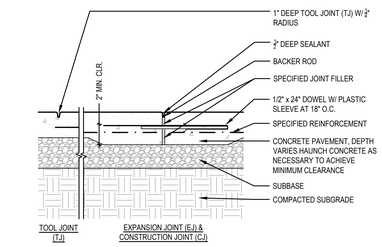


A3 **CONCRETE PAVEMENT WITH SNOW MELT SYSTEM ON SUBBASE**
1" = 1'-0"

NOTES:
1. TOOLED CONCRETE JOINTS.
2. SEE PLANS FOR CONCRETE JOINTS, EXPANSION JOINTS (EJ), LAYOUT WIDTHS, RADII AND FINISHES.
3. SEE L201 FOR EXTENT OF SNOW MELT SYSTEM.



A4 **CONCRETE PAVEMENT WITH SNOW MELT SYSTEM ON ROOF DECK**
1" = 1'-0"



A5 **CONCRETE JOINTS**
1" = 1'-0"

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CONSULTANT:

FISHER ASSOCIATES

SEAL:

ARCH NAME ARCH ##

OWNER:
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ITHACA, NEW YORK 14853

CORNELL UNIVERSITY
BEEBE HALL CU MAKER HUB RENOVATIONS
110 ARBORETUM RD, ITHACA, NY 14850

AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

SITE DETAILS

L501

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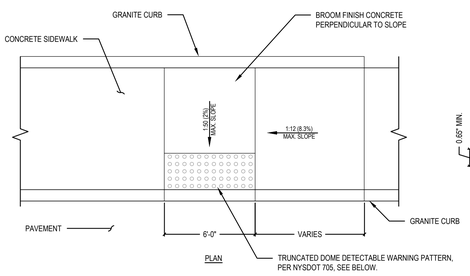
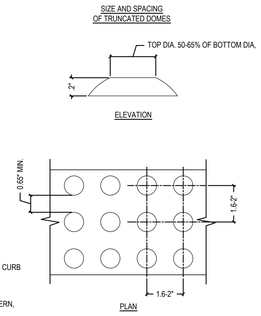
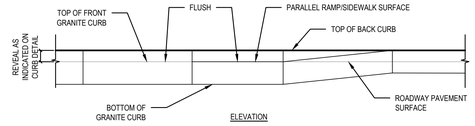
THE ONE INCH BOX ABOVE IS EXACTLY ONE INCH LONG AT THIS ORIGINAL PLOTTED SIZE.



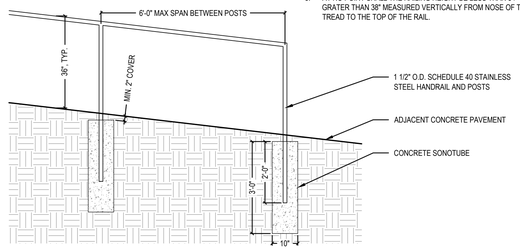




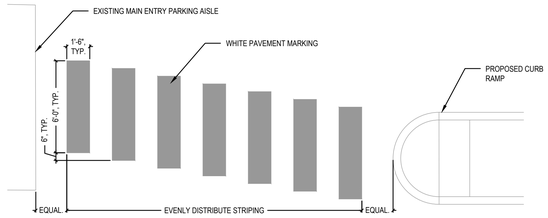
DETECTABLE WARNING PATTERN NOTES:
1. NEENAH FOUNDRY - CAST IRON OR EQUAL (UNPAINTED).
2. THE SIZE OF THE WARNING FIELD SHALL BE 2' IN DIRECTION OF TRAVEL AND FULL WIDTH OF RAMP. EXCLUSIVE OF SIDE FLARES.
3. LOCATE DETECTABLE WARNING FIELD AT BACK EDGE OF CURB. IF NO CURB, LOCATE 6" FROM ROADWAY PAVEMENT.
4. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE DIRECTION OF TRAVEL.
5. SEE CORNELL UNIVERSITY STANDARD DETAIL 1.5.4 FOR ADDITIONAL INFORMATION.

D1 **PARALLEL CURB RAMP - ALTERNATE 1**
1/2" = 1'-0"

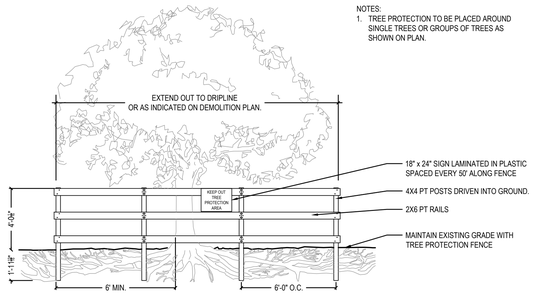
NOTES:
1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.
2. PROVIDE SHOP DRAWINGS FOR ALL SET OF HANDRAILS.
3. AT NO POINT SHALL THE RAILING HEIGHT BE LESS THAN 34" OR GRATER THAN 38" MEASURED VERTICALLY FROM NOSE OF THE TREAD TO THE TOP OF THE RAIL.



E3 **STAINLESS STEEL HANDRAIL - ALTERNATE 1**
1/2" = 1'-0"



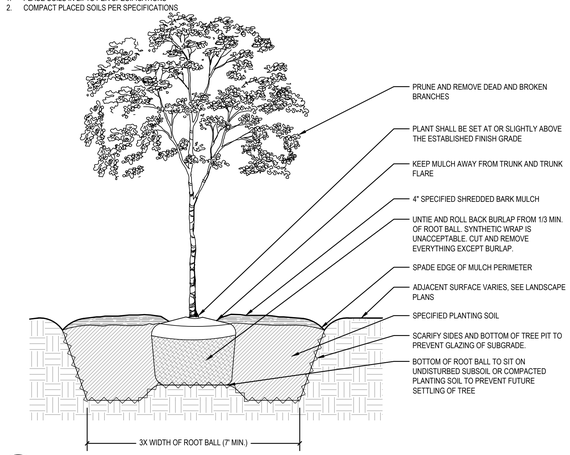
E4 **CROSSWALK - ALTERNATE 1**
1/4" = 1'-0"



NOTES:
1. TREE PROTECTION TO BE PLACED AROUND SINGLE TREES OR GROUPS OF TREES AS SHOWN ON PLAN.

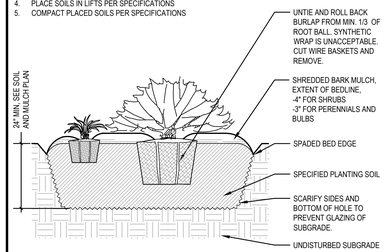
B1 **TREE PROTECTION FENCE**
1/4" = 1'-0"

NOTES:
1. PLACE SOILS IN LIFTS PER SPECIFICATIONS
2. COMPACT PLACED SOILS PER SPECIFICATIONS

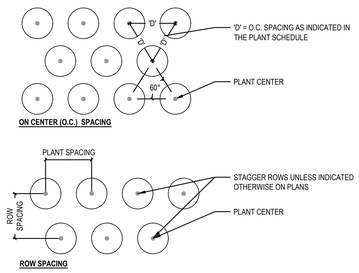


B2 **TREE PLANTING**
1/2" = 1'-0"

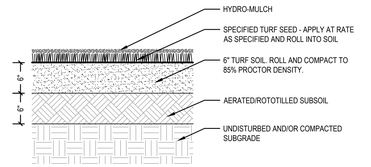
NOTES:
1. PLANT AT SAME DEPTH AS PREVIOUSLY PLANTED IN NURSERY OR CONTAINER
2. PROVIDE COMPACTED BASE UNDER ROOT BALL ONLY TO PREVENT SETTLING
3. ENTIRE BED TO BE EXCAVATED AND BACKFILLED WITH PLANTING MIX
4. PLACE SOILS IN LIFTS PER SPECIFICATIONS
5. COMPACT PLACED SOILS PER SPECIFICATIONS



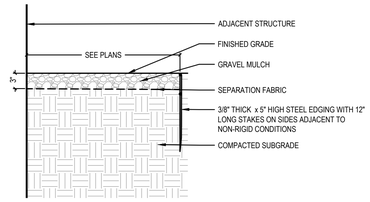
A1 **SHRUB AND PERENNIAL PLANTING**
1/2" = 1'-0"



A2 **SHRUB AND PERENNIAL SPACING**
1/2" = 1'-0"



A3 **LAWN AND MEADOW ESTABLISHMENT**
1" = 1'-0"



A4 **GRAVEL MULCH**
1" = 1'-0"

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SEAL:

REGISTERED LANDSCAPE ARCHITECT JAMES RYAN FISHER 002026 STATE OF NEW YORK

ARCH NAME ARCH ##

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CORNELL UNIVERSITY

BEEBE HALL CU MAKER HUB RENOVATIONS

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ITHACA, NY 14850

AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

SITE DETAILS

L502

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THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THIS ORIGINAL PLOTTED SIZE

THE SQUARES ABOVE ARE COLOR, WITH BLACK AND WHITE LETTERS, IF PRINTED CORRECTLY

9/14/2026 2:00:18 PM

MISCELLANEOUS NOTES

1. NOT ALL STEEL OR CONCRETE WORK IS NOTED OR DETAILED ON THE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL WORK REQUIRED. BOTH ARCHITECTURAL AND STRUCTURAL DRAWINGS ARE INTENDED TO WORK TOGETHER AND DEFINE THE COMPLETE SCOPE OF WORK REQUIRED. IF DISCREPANCIES ARE FOUND, NOTIFY THE ARCHITECT IMMEDIATELY.

2. STRUCTURAL ASSEMBLY SHOWN HEREIN WAS DESIGNED TO BE SELF SUPPORTING IN ITS FINAL STATE ONLY. TEMPORARY BRACING TO SUPPORT LATERAL LOADS DURING CONSTRUCTION IS THE CONTRACTOR'S RESPONSIBILITY.

3. LEGEND OF ABBREVIATIONS:

ADD. or ADD'L	ADDITIONAL
ALT.	ALTERNATE
ANCH.	ANCHOR
APPROX.	APPROXIMATE
ARCH.	ARCHITECT(URAL)
B or BOTT.	BOTTOM
B/	BOTTOM OF
BFE	BOTTOM OF FOOTING ELEVATION
BM	BEAM
BS.	BOTH SIDES
COL.	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
C.J.	CONTROL JOINT
CLR	CLEAR
DIA	DIAMETER
DTL	DETAIL
DWG or DWG's	DRAWINGS
DWL's	DOWELS
EA.	EACH
E.F.	EACH FACE
E.J.	EXPANSION JOINT
EL.	ELEVATION
ELEV	ELEVATOR
EOC	EDGE OF CONCRETE
EOD	EDGE OF DECK
EOS	EDGE OF SLAB
EQ	EQUAL
E.W.	EACH WAY
EXG or EXIST.	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
F/	FACE OF
FDN	FOUNDATION
F.F.	FAIR FACE
FFE	FINISHED FLOOR ELEVATION
FIN	FINISHED
FRM'G	FRAMING
FS	FOOTING STEP
FTG.	FOOTING
ga	GAUGE
GALV	GALVANIZED
H.S.	HEADED STUD
I.F.	INSIDE FACE
INSUL.	INSULATION
INT.	INTERIOR
INV	INVERT
JT	JOINT
L	LENGTH
Ld	DEVELOPMENT LENGTH
LG	LONG
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LLO	LONG LEG OUTSTANDING
MAX.	MAXIMUM
MIN.	MINIMUM
MISC	MISCELLANEOUS
M.O.	MASONRY OPENING
MTL	METAL
N.F.	NEAR FACE
N.A.	NOT APPLICABLE
NTS	NOT TO SCALE
o.c.	ON CENTER
OPNG	OPENING
O.H.	OPPOSITE HAND
O.F.	OUTSIDE FACE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
R	RADIUS/RISER
R.D.	ROOF DRAIN
REINF	REINFORCING
REQ'D	REQUIRED
SCHED	SCHEDULE
SECT.	SECTION
SF	SQUARE FOOT
SHT.	SHEET
SIM.	SIMILAR
S.O.G.	SLAB-ON-GRADE
SP	SPACING
SPEC.	SPECIFICATION
S.S.	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURE or STRUCTURAL
SYM.	SYMETRICAL
SW	SHEAR WALL
T	TOP
T/	TOP OF
T/CONC.	TOP OF CONCRETE
T&B	TOP AND BOTTOM
TEMP	TEMPERATURE
TFE	TOP OF FOOTING
THK	THICK(NESS)
TPE	TOP OF PIER
T/STL	TOP OF STEEL ELEVATION
TYP	TYPICAL
TWE	TOP OF WALL ELEVATION
U.N.O.	UNLESS NOTED OTHERWISE
VB	VAPOR BARRIER
VERT.	VERTICAL
V.E.J.	VERTICAL EXPANSION JOINT
V.I.F.	VERIFY IN FIELD
V.S.C.	VERTICAL SLIDE CLIP
W	WIDTH
WP	WORK POINT
WWF	WELDED WIRE FABRIC
w/	WITH

B1 MISCELLANEOUS NOTES
SCALE: NO SCALE

STRUCTURAL STEEL NOTES

1. DETAILING, FABRICATION, AND ERECTION SHALL CONFORM WITH AISC 360-16 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS", WELDING SHALL CONFORM WITH AWS D1.1:2025 "STRUCTURAL WELDING CODE - STEEL"

2. STRUCTURAL STEEL MATERIALS SHALL CONFORM WITH THE FOLLOWING UNLESS NOTED OTHERWISE:

   a. W SHAPES.....ASTM A992
   b. CHANNELS AND ANGLES.....ASTM A36
   c. PLATES.....ASTM A36
      .....ASTM A572, GRADE 50
   d. HOLLOW STRUCTURAL SECTIONS.....ASTM A500, GRADE B
   e. BOLTS.....ASTM F3125, GRADE A325
      .....ASTM F3125, GRADE F1852
   f. ANCHOR RODS.....ASTM F1554, GRADE 36
   g. HEADED STUDS.....ASTM A108
   h. WELD ELECTRODES.....E70XX

3. STEEL BEAMS SHALL BE FABRICATED WITH MILL CAMBER UP.

4. SPLICES SHALL BE ALLOWED ONLY AT LOCATIONS SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS UNLESS APPROVED OTHERWISE BY THE ENGINEER IN WRITING.

5. FIELD MODIFICATION OF STRUCTURAL STEEL IS PROHIBITED WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.

6. BOLTS IN TRUSSES, MOMENT CONNECTIONS, BRACED FRAMES, BEAMS DESIGNATED TO RESIST BOTH SHEAR AND TENSION, AND OVERSIZED HOLES SHALL BE SLIP CRITICAL. ALL OTHER BOLTS MAY BE SNUG TIGHT.

7. STRUCTURAL STEEL MEMBERS AND CONNECTIONS EXPOSED TO WEATHER SHALL BE GALVANIZED UNLESS NOTED OTHERWISE. FIELD WELDS TO BE GALVANIZED SHALL BE TOUCHED UP WITH A ZINC RICH COATING AFTER COMPLETION AND INSPECTION OF THE WELD.

8. STEEL PRIMING AND COATINGS TO BE COORDINATED WITH THE ARCHITECTURAL DRAWINGS FOR FIREPROOFING AND FINISH REQUIREMENTS.

9. ALL CONNECTIONS UNLESS INDICATED AS BEING COMPLETELY DESIGNED ON THE STRUCTURAL DRAWINGS SHALL BE DESIGNED AND DETAILED BY A PROFESSIONAL ENGINEER IN ACCORDANCE WITH THE SPECIFICATIONS.

10. TYPICAL CONNECTION DETAILS PROVIDED ON THE DRAWINGS ARE INTENDED TO INDICATE PERMISSIBLE ASSEMBLIES AND DO NOT DEFINE FINAL CONNECTION COMPONENTS TO BE ENGINEERED AS DESCRIBED ABOVE. CONNECTIONS COMPLETELY DESIGNED BY THE ENGINEER OF RECORD WILL PROVIDE ALL REQUIRED CONNECTIONS COMPONENTS INCLUDING, BUT NOT LIMITED TO, PLATE SIZE, WELD SIZE, AND NUMBER OF BOLTS.

11. GROUT WHERE INDICATED AT BASE PLATES AND BEARING PLATES SHALL BE NON-METALLIC NON-SHRINK WITH A MINIMUM COMPRESSIVE STRENGTH OF 6000 PSI AT 28 DAYS CONFORMING WITH ASTM C1107.

D4 STRUCTURAL STEEL NOTES
SCALE: NO SCALE

TEMPORARY SHORING/UNDERPINNING NOTES

1. CONTRACTOR TO DESIGN, PROVIDE AND MAINTAIN SHORING/UNDERPINNING, AS REQUIRED TO PRESERVE STABILITY AND PREVENT MOVEMENT, SETTLEMENT, COLLAPSE, OR DAMAGE OF CONSTRUCTION AND FINISHES TO REMAIN, AND TO PREVENT UNEXPECTED OR UNCONTROLLED MOVEMENT OR COLLAPSE OF CONSTRUCTION BEING DEMOLISHED.

2. REVIEW PROJECT RECORD DOCUMENTS OF EXISTING CONSTRUCTION PROVIDED BY THE OWNER. EXISTING CONDITIONS MAY NOT BE AS THOSE INDICATED ON THESE DOCUMENTS.

3. SHORING DESIGN LOADS SHALL BE EXISTING CONSTRUCTION DEAD LOADS PLUS MINIMUM DESIGN LOADS PER ASCE 37-14. EXISTING CONSTRUCTION DEAD LOADS NOTED ON DEMO PLANS. LOADS PROVIDED ARE BASED ON EXISTING CONSTRUCTION TO REMAIN. ADD WEIGHT OF EXISTING CONSTRUCTION TO BE DEMOLISHED AS REQUIRED BY SHORING SEQUENCE.

4. ENGAGE A PROFESSIONAL ENGINEER TO DESIGN AND FULLY DEFINE ALL TEMPORARY SHORING (SHORING ENGINEER OF RECORD). PRIOR TO DESIGN, THE ENGINEER TO PERFORM VERIFICATION SURVEY OF ALL EXISTING CONDITIONS WITHIN AND AFFECTED BY AREA OF WORK. PRIOR TO START OF WORK, SUBMIT CALCULATIONS, SHORING SEQUENCE AND SHORING DRAWINGS / SPECIFICATIONS STAMPED AND SIGNED BY NYS PE FOR REVIEW.

5. REFER TO DEMO PLANS FOR SPECIFIC ITEMS REQUIRING SHORING DESIGN BASED ON INFORMATION INDICATED IN RECORD DOCUMENTS OF EXISTING CONSTRUCTION. DEMO PLANS MAY NOT INDICATE ALL ITEMS REQUIRING TEMPORARY SHORING

B4 TEMPORARY SHORING/ UNDERPINNING NOTES
SCALE: NO SCALE

GENERAL DESIGN NOTES

1. AS USED IN THE GENERAL NOTES:

   a. "DRAWINGS" MEANS THE LATEST STRUCTURAL DESIGN DRAWINGS, U.N.O.
   b. "SPECIFICATIONS" MEANS THE LATEST PROJECT SPECIFICATIONS, U.N.O.
   c. "CONTRACT DOCUMENTS" IS DEFINED AS THE DESIGN DRAWINGS AND SPECIFICATIONS.
   d. "SEOR" IS DEFINED AS THE STRUCTURAL ENGINEER OF RECORD FOR THE STRUCTURE IN ITS FINAL CONDITION.
   e. "DESIGN PROFESSIONAL" IS DEFINED AS THE OWNER'S ARCHITECT AND SEOR.
   f. "MEP" INCLUDES, BUT IS NOT LIMITED TO MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION.
   g. "CONTRACTOR" IS DEFINED TO INCLUDE ANY OF THE FOLLOWING: GENERAL CONTRACTOR AND THEIR SUBCONTRACTORS, CONSTRUCTION MANAGER AND THEIR SUBCONTRACTORS, STRUCTURAL STEEL FABRICATOR OR STRUCTURAL STEEL ERECTOR.
   h. "STRUCTURE IN ITS FINAL CONDITION" MEANS ALL STRUCTURAL ELEMENTS SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS ARE INSTALLED AND COMPLETELY CONNECTED AND INSPECTED WITH NO OUTSTANDING NON-COMPLIANCE ISSUES.
   i. "DELEGATE DESIGN" MEANS A SCOPE OF WORK THAT MEETS PERFORMANCE CRITERIA ESTABLISHED IN THE CONTRACT DOCUMENTS AND IS TO BE COMPLETED BY THE CONTRACTOR'S LICENSED ENGINEER.

2. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF STRUCTURAL WORK WITH THE ARCHITECTURAL, CIVIL, MEP CONTRACT DOCUMENTS, AS WELL AS ANY OTHER APPLICABLE TRADES.

3. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE UNTIL THE CONSTRUCTION OF THE STRUCTURE REACHES ITS FINAL CONDITION.

4. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN, INSTALLATION, AND REMOVAL OF TEMPORARY BRACING AND CONSTRUCTION SUPPORTS, FOR NEW AND EXISTING STRUCTURES, AS NECESSARY TO COMPLETE THE PROJECT. NO PORTION OF THE PROJECT WHILE UNDER CONSTRUCTION IS INTENDED TO BE STABLE IN THE ABSENCE OF THE CONTRACTOR'S TEMPORARY SUPPORTS AND BRACES. CONTRACTOR SHALL RETAIN A STRUCTURAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED TO DESIGN TEMPORARY BRACING AND CONSTRUCTION SUPPORTS.

5. THE SPECIFICATIONS ARE AN INTEGRAL PART OF THE CONTRACT DOCUMENTS AND SHALL BE USED IN CONJUNCTION WITH THE STRUCTURAL DRAWINGS.

6. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS AND COORDINATE WITH THE STRUCTURAL DRAWINGS, ARCHITECTURAL DRAWINGS, DRAWINGS FROM OTHER CONSULTANTS, PROJECTION SHOP DRAWINGS AND FIELD CONDITIONS.

7. IN CASES OF CONFLICT BETWEEN THE DRAWINGS AND/OR SPECIFICATIONS AND OTHER DISCIPLINES OR EXISTING CONDITIONS, CONTRACTOR SHALL NOTIFY THE DESIGN PROFESSIONALS AND OBTAIN CLARIFICATION PRIOR TO BIDDING AND PROCEEDING WITH WORK.

8. LAYOUT OF STRUCTURAL ELEMENTS AS SHOWN ON THE DRAWINGS AS FOLLOWS:

   a. DO NOT SCALE DRAWINGS. ONLY USE DIMENSIONS INDICATED ON THE DRAWINGS.
   b. ASSUME EQUAL SPACING BETWEEN ESTABLISHED DIMENSIONS U.N.O.
   c. CENTERLINES OF COLUMNS AND FOUNDATIONS COINCIDE WITH GRID LINE INTERSECTION U.N.O.
   d. CENTERLINES OF GRADE BEAMS AND WALLS COINCIDE WITH CENTERLINES OF FOUNDATIONS U.N.O.
   e. CENTERLINES OF FRAMING MEMBERS COINCIDE WITH COLUMN CENTERLINES U.N.O.

9. THE CONTRACTOR SHALL PROTECT EXISTING FACILITIES, STRUCTURES AND UTILITIES FROM DAMAGE.

10. THE CONTRACTOR SHALL VERIFY CONSTRUCTION LOADS DO NOT EXCEED THE CAPACITY OF THE STRUCTURE AT THE TIME THE LOAD IS APPLIED.

11. THE CONTRACTOR SHALL COORDINATE THE BOTTOM OF BASE PLATE ELEVATIONS WITH THE AS-BUILT TOP OF SUPPORT ELEVATIONS.

12. THE CONTRACTOR SHALL VERIFY ALL OPENING SIZES AND LOCATIONS WITH OTHER DISCIPLINES. THE DRAWINGS DO NOT SHOW ALL OPENINGS REQUIRED. ADDITIONAL OPENINGS, BLOCKOUTS AND SLEEVES MAY BE REQUIRED BY OTHER DISCIPLINES AND SHALL BE CONSTRUCTED USING THE TYPICAL DETAILS AND/OR THE CRITERIA INDICATED ON THE DRAWINGS. OPENINGS REQUIRED BUT NOT SHOWN ON THE STRUCTURAL DRAWINGS MUST BE APPROVED BY THE SEOR.

13. ELEVATOR GUIDERAIL SUPPORTS, MACHINE ROOMS, PITS, AND PENTHOUSES ARE BASED ON ELEVATOR TYPES INDICATED ON ARCHITECTURAL CONTRACT DOCUMENTS. CONTRACTOR SHALL SUBMIT FOR REVIEW ANY PLANNED CHANGE TO ELEVATORS TO DESIGN PROFESSIONALS PRIOR TO SUBMITTING CORRESPONDING STRUCTURAL SHOP DRAWINGS FOR ACTION.

14. MECHANICAL EQUIPMENT WEIGHTS ARE BASED ON EQUIPMENT INDICATED ON MEP CONTRACT DOCUMENTS. CONTRACTOR SHALL SUBMIT FOR REVIEW ANY PLANNED CHANGE TO MECHANICAL EQUIPMENT TO DESIGN PROFESSIONALS PRIOR TO SUBMITTING CORRESPONDING STRUCTURAL SHOP DRAWINGS FOR ACTION.

C5 GENERAL DESIGN NOTES
SCALE: NO SCALE

MASONRY NOTES

1. ALL MASONRY CONSTRUCTION SHALL CONFORM THE "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" TMS 402/602 - 22.

2. ALL CONCRETE MASONRY UNITS SHALL BE NORMAL WEIGHT WITH TWO (2) CELLS AND CONFORM TO ASTM C 90.

3. ALL MORTAR SHALL CONFORM TO ASTM C 270.

4. ALL GROUT SHALL CONFORM TO ASTM C 476.

5. THE MINIMUM SPECIFIED NET AREA COMPRESSIVE STRENGTH OF MASONRY (f' m) SHALL BE 2,000 PSI AND SHALL CONSIST OF THE FOLLOWING COMPONENTS:

   a. CONCRETE MASONRY UNITS.....3,250 PSI MINIMUM NET AREA COMPRESSIVE STRENGTH
   b. PORTLAND CEMENT MORTAR.....TYPE S
   c. GROUT.....2,000 PSI MINIMUM COMPRESSIVE STRENGTH

6. GROUT ALL REINFORCED BLOCK CORES AND BLOCKS CORES BELOW FINISHED GRADE TO BE GROUTED SOLID WITH GROUT NOTED ABOVE UNLESS NOTED OTHERWISE.

7. MASONRY REINFORCING BARS SHALL BE ASTM A615 GRADE 60 (Fy = 60 KSI) DEFORMED.

8. CONCRETE MASONRY CONSTRUCTION TO BE OBSERVED AND TESTED BY AN INDEPENDENT TESTING LABORATORY.

B5 MASONRY NOTES
SCALE: NO SCALE

CODE COMPLIANCE NOTES

1. PERFORM ALL CONSTRUCTION IN CONFORMANCE WITH THE BUILDING CODE REFERENCED WITHIN THESE CONTRACT DOCUMENTS. THE CONTRACT DOCUMENTS REFER TO THE FOLLOWING CODES AND STANDARDS:

   2025 BUILDING CODE OF NEW YORK STATE (NYSBC 2025)
   AND 2025 EXISTING BUILDING CODE OF NEW YORK STATE.

2. FLOOR LIVE LOAD: (NYSBC 2025 1603.1.1)
   100 PSF

3. ROOF SNOW LOAD DATA: (NYSBC 2025 1603.1.3)
   a. GROUND SNOW LOAD.....p_g = 92 PSF
   b. FLAT-ROOF SNOW LOAD.....p_f = 61 PSF
   c. SNOW LOAD IMPORTANCE FACTOR.....I_s = 1.0
   d. THERMAL FACTOR.....C_t = 1.18
   e. SLOPE FACTOR.....C_s = 1.0

4. WIND DESIGN DATA: (NYSBC 2025 1603.1.4)
   a. BASIC WIND SPEED.....V = 117 MPH
   b. RISK CATEGORY.....III
   c. WIND EXPOSURE.....B
   d. INTERNAL PRESSURE.....+/- 0.18

5. EARTHQUAKE DESIGN DATA: (NYSBC 2025 1603.1.5)
   a. RISK CATEGORY.....III
   b. SEISMIC IMPORTANCE FACTOR.....I_e = 1..25
   c. MAPPED SPECTRAL RESPONSE ACCELERATION.....S_S = 0.14 g
   d. MAPPED SPECTRAL RESPONSE ACCELERATION.....S_1 = 0.041 g
   e. SITE CLASS.....D
   f. DESIGN SPECTRAL RESPONSE ACCELERATION.....S_{DS} = 0.12 g
   g. DESIGN SPECTRAL RESPONSE ACCELERATION.....S_{D1} = 0.059 g
   h. SEISMIC DESIGN CATEGORY.....A
   i. BASIC SEISMIC FORCE-RESISTING SYSTEM.....MOMENT FRAME (ADDITION)

   j. SEISMIC RESPONSE COEFFICIENT.....C_S = 0.05
   k. RESPONSE MODIFICATION COEFFICIENT.....R = 3
   l. ANALYSIS PROCEDURE.....EQUIVALENT LATERAL FORCE

6. ROOF RAIN LOAD DATA: (NYSBC 2025 1603.1.9)
   a. RAIN INTENSITY - 15 MINUTE.....6.54 in./hr.
   b. RAIN INTENSITY - 60 MINUTE.....2.82 in./hr.

D6 CODE COMPLIANCE NOTES
SCALE: NO SCALE

CAST-IN-PLACE CONCRETE NOTES

1. ALL CONCRETE SHALL COMPLY WITH ACI 301-16 "SPECIFICATIONS FOR STRUCTURAL CONCRETE"

2. HOT WEATHER AND COLD WEATHER CONCRETE PLACEMENT SHALL COMPLY WITH ACI 305-10 "GUIDE TO HOT WEATHER CONCRETING" AND ACI 306-16 "GUIDE TO COLD WEATHER CONCRETING", RESPECTIVELY.

3. ALL CONCRETE SHALL BE NORMAL WEIGHT AND HAVE THE FOLLOWING PROPERTIES:

CONCRETE PROPERTIES SCHEDULE

CONCRETE TYPE	MINIMUM CEMENTITIOUS CONTENT (LB./CU. YD.)	MAX WATER/CEMENT RATIO	28-DAY COMPRESSIVE STRENGTH (PSI)	AIR CONTENT (% BY VOLUME)	NOMINAL MAXIMUM AGGREGATE SIZE (INCHES)
SPREAD FOOTINGS	-	0.5	3,000	4.5 +/- 1.5	1
FOUNDATION WALLS	-	0.45	4,500	4.5 +/- 1.5	1
INTERIOR SLAB ON GRADE	540	0.45	4,500	0-3	1
SLAB ON METAL DECK	540	0.45	4,500	0-3	3/4

NOTES:
A. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
B. MINIMUM CEMENTICIOUS CONTENT AND AIR CONTENT BASED ON MAXIMUM AGGREATE SIZE. ADJUST PER SELECTED AGGREATE PER ACI 381 AS REQUIRED.

4. THE USE OF CALCIUM CHLORIDE AND OTHER CHLORIDE CONTAINING AGENTS IS PROHIBITED.

5. PROPOSED CONCRETE MIX DESIGNS SHALL BE SUBMITTED WITH TESTING BY AN INDEPENDENT TESTING LABORATORY. VERIFICATION OF REQUIRED AVERAGE COMPRESSIVE STRENGTH IN ACCORDANCE WITH ACI 301 SHALL BE INCLUDED.

6. WHERE FRESH CONCRETE IS PLACED AGAINST HARDENED CONCRETE CLEAN EXISTING SURFACE OF ANY LATENCY OR FOREIGN MATERIAL AND PROVIDE SATURATED SURFACE DRY AT INTERFACE. APPLICATION OF A BONDING AGENT OR ROUGHENING SURFACE TO 1/4" AMPLITUDE AS REQUIRED BY THE DRAWINGS.

7. CONSTRUCTION JOINTS OTHER THAN SHOWN ON THE DRAWINGS ARE PERMITTED SUBJECT TO THE APPROVAL OF THE ENGINEER. AT WALLS CONSTRUCTION JOINTS SHALL BE LOCATED SO AS TO PROVIDE A 60'-0" MAXIMUM LENGTH IN ANY DIRECTION. PROVIDE CONSTRUCTION JOINT DETAILS AS INDICATED ON THE DRAWINGS AND INDICATE AS REQUIRED WITHIN REINFORCING STEEL SHOP DRAWINGS.

8. UNLESS NOTED OTHERWISE, PLACE VERTICAL CONTRACTION JOINTS IN CONCRETE WALLS AT 20'-0" MAXIMUM, NOT TO EXCEED THREE TIMES THE HEIGHT OF THE WALL, AND AT ANY CHANGE IN WALL THICKNESS. CONSTRUCTION JOINTS SHALL BE LOCATED AT CONTRACTION JOINTS AND DETAILED AS INDICATED ON THE DRAWINGS.

9. HORIZONTAL CONSTRUCTION JOINTS ARE PERMITTED ONLY WHERE INDICATED.

10. SAW CUT CONTROL JOINTS OR CONSTRUCTION JOINTS IN SLABS ON GRADE SHALL BE SPACED TO DIVIDE THE SLAB AT MAXIMUM SPACING INDICATED ON THE DRAWINGS. JOINTS SHALL BE LOCATED AT COLUMN CENTERLINES WHERE POSSIBLE. CONTRACTOR SHALL SUBMIT JOINT LAYOUT COORDINATED WITH FLOOR FINISHES TO ARCHITECT FOR APPROVAL PRIOR TO PLACEMENT. PROVIDE JOINT REINFORCEMENT AS INDICATED ON THE DRAWINGS.

11. BEGIN CURING SLABS IMMEDIATELY AFTER FINISHING IN ACCORDANCE WITH THE SPECIFICATIONS. CURING METHOD SHALL BE COMPATIBLE WITH FINISHES.

12. DO NOT PLACE CONDUITS, PIPES, OR OTHER SIMILAR ITEMS WITHIN SLABS, BEAMS, COLUMNS, OR WALLS UNLESS SPECIFICALLY SHOWN AND DETAILED ON THE DRAWINGS.

13. CONTRACTOR SHALL COORDINATE LOCATIONS AND DIMENSIONS OF ALL OPENINGS AND SLEEVES REQUIRED FOR MECHANICAL, ELECTRICAL, AND PLUMBING PENETRATIONS PRIOR TO CONCRETE PLACEMENT. INDICATE LOCATIONS ON SHOP DRAWINGS FOR REVIEW BY THE ENGINEER. OPENINGS SHALL NOT BE CUT OR DRILLED INTO THE SLAB WITHOUT APPROVAL BY THE ENGINEER.

14. CONCRETE REINFORCEMENT MATERIALS SHALL CONFORM TO THE FOLLOWING:

   a. REINFORCING BARS.....ASTM A615, GRADE 60
   b. WELDED WIRE FABRIC.....ASTM A1064

15. UNLESS OTHERWISE SHOWN, REINFORCING BAR SPLICES ARE TO BE CLASS 'B' SPLICES.

A6 CAST-IN-PLACE CONCRETE NOTES
SCALE: NO SCALE

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24213

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DATE ISSUED:
2026.09.14

GENERAL NOTES

S001

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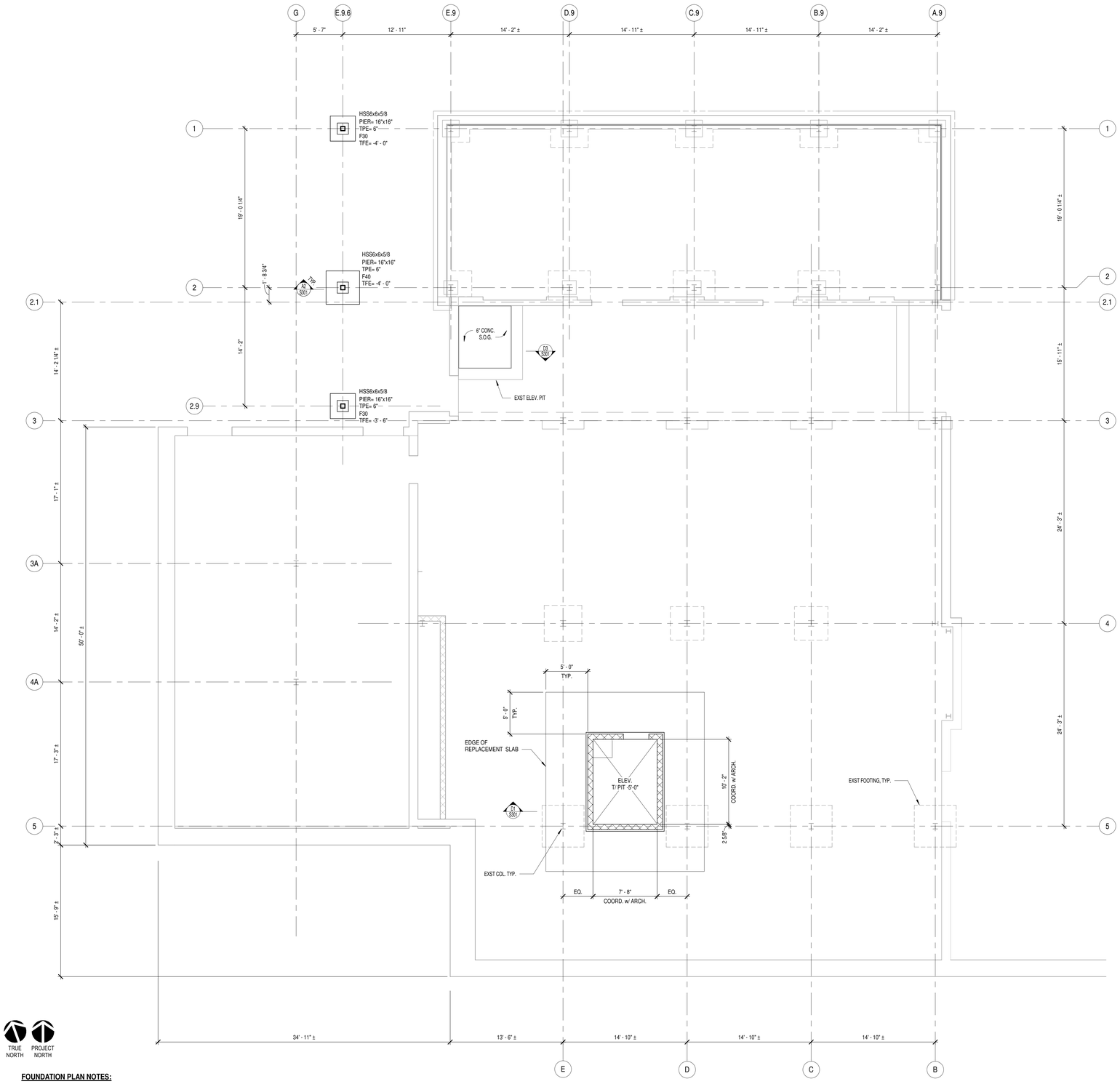

TRUE NORTH PROJECT NORTH

FOUNDATION PLAN NOTES:

1. TOP OF EXST CONCRETE SLAB ON GRADE ELEVATION 0'-0" REFERENCED (+/-) FROM FINISHED FLOOR ELEVATION. (DATUM ELEVATION = 831.62')
2. TOP OF FOOTING ELEVATION (TFE) REFERENCED FROM SLAB-ON-GRADE ELEVATION 0'-0", UNLESS NOTED (+/-) THEREFROM.
3. ' F## ' - DENOTES FOOTING DESIGNATION, SEE FOOTING SCHEDULE A5/S101 FOR SIZE AND REINFORCING.
4. TOP OF PIER/PILASTER ELEVATION (TPE) REFERENCED (+/-) FROM FINISHED FLOOR ELEVATION 0'-0".

FOOTING SCHEDULE

MARK	LENGTH	WIDTH	THICKNESS	REINFORCING STEEL
F30	3' - 0"	3' - 0"	1' - 0"	(4) #5 BARS, E.W., BOT.
F40	4' - 0"	4' - 0"	1' - 0"	(5) #5 BARS, E.W., BOT.

A1 FOUNDATION PLAN
SCALE: 3/16" = 1'-0"

A5 FOOTING SCHEDULE
SCALE: NO SCALE

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FOUNDATION PLAN

S101

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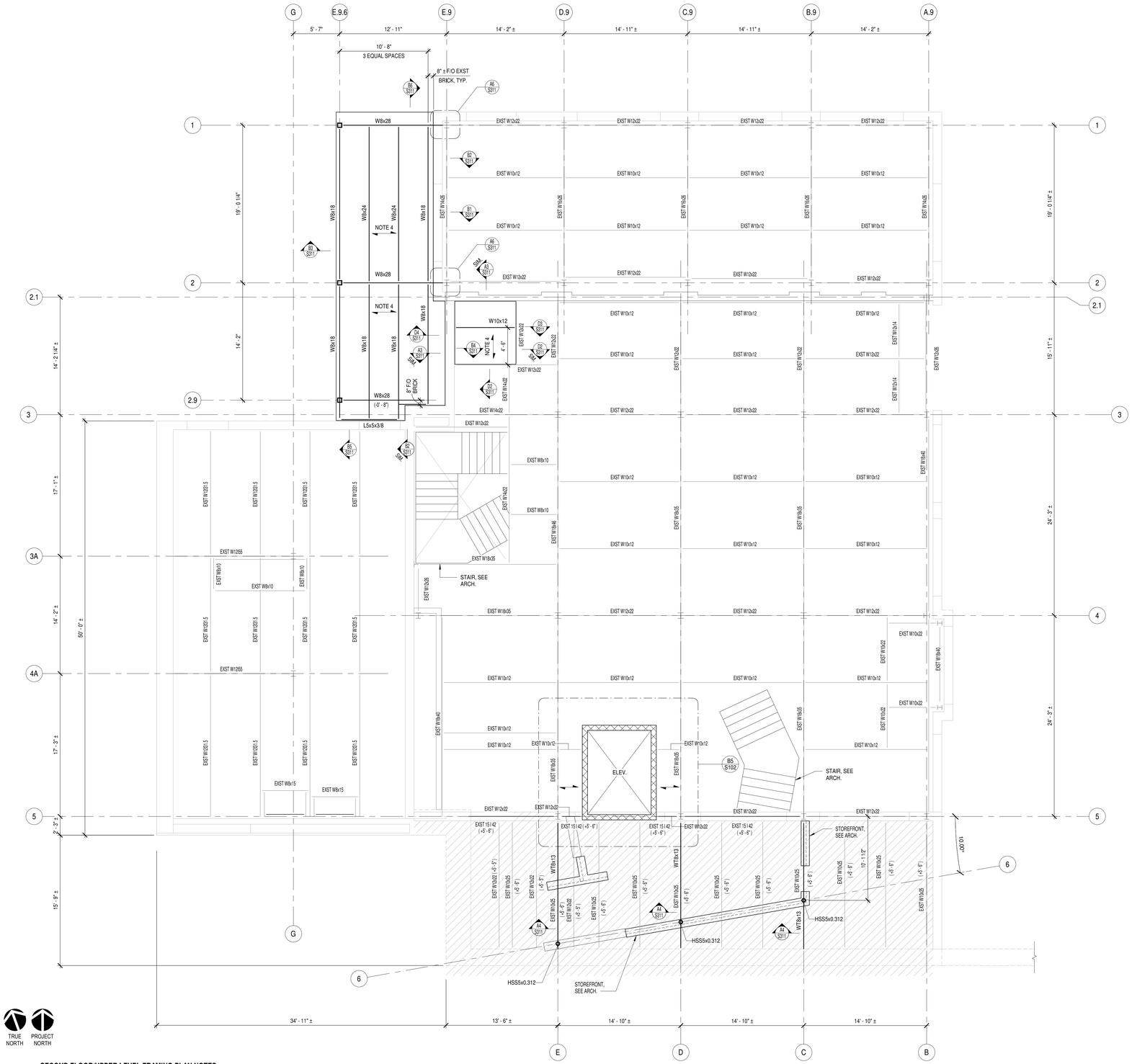


TRUE NORTH

PROJECT NORTH

SECOND FLOOR/UPPER LEVEL FRAMING PLAN NOTES:

1. EXST TOP OF STEEL ELEVATION = +13'-7 1/2" UNLESS NOTED (+/-) THEREFROM.
2. TOP OF NEW STEEL SHOWN (+/-) FROM ELEVATION +13'-7 1/2.
3. EXST TOP OF CONCRETE SLAB ELEVATION = +14'-0" UNLESS NOTED (+/-) THEREFROM.
4. FLOOR CONSTRUCTION :
   3" CONCRETE ON 1 1/2" 20 ga. COMPOSITE METAL DECK w/ 4x4 W2.9 x W2.9 WWF
   TOTAL SLAB THICKNESS = 4 1/2"
5. " " - DENOTES EXISTING 6" CONCRETE SLAB.
6. SHORE EXST 4 1/2" COMPOSITE SLAB PRIOR TO SLAB REMOVALS. SHORING TO REMAIN IN PLACE UNTIL SUPPORT FRAMING IS COMPLETED.
7. SHORE EXST BEAMS FOR ELEVATOR SHAFT CONSTRUCTION.

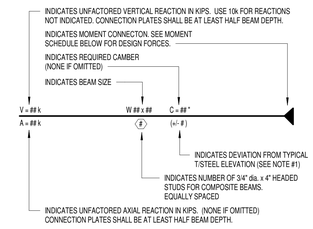
A1 SECOND FLOOR/UPPER LEVEL FRAMING PLAN

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

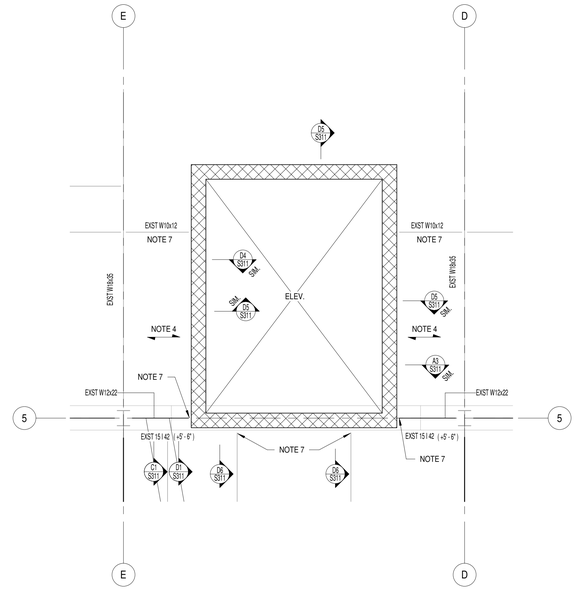
LEGEND

- INDICATES DIRECTION OF SPAN OF COMPOSITE METAL DECK. SEE PLAN NOTES FOR FLOOR CONSTRUCTION INFORMATION.

BEAM LEGEND



DESIGN CONNECTIONS FOR THE FOLLOWING LOAD COMBINATION : (CONNECTIONS SHALL BE DESIGNED ACCORDING TO AISC 15th EDITION)
1.0 V
0.9 V + 0.75 A
0.3 V + 1.0 A



B5 SECOND FLOOR/UPPER LEVEL ENLARGED FRAMING PLAN

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

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SECOND FLOOR/UPPER LEVEL FRAMING PLAN

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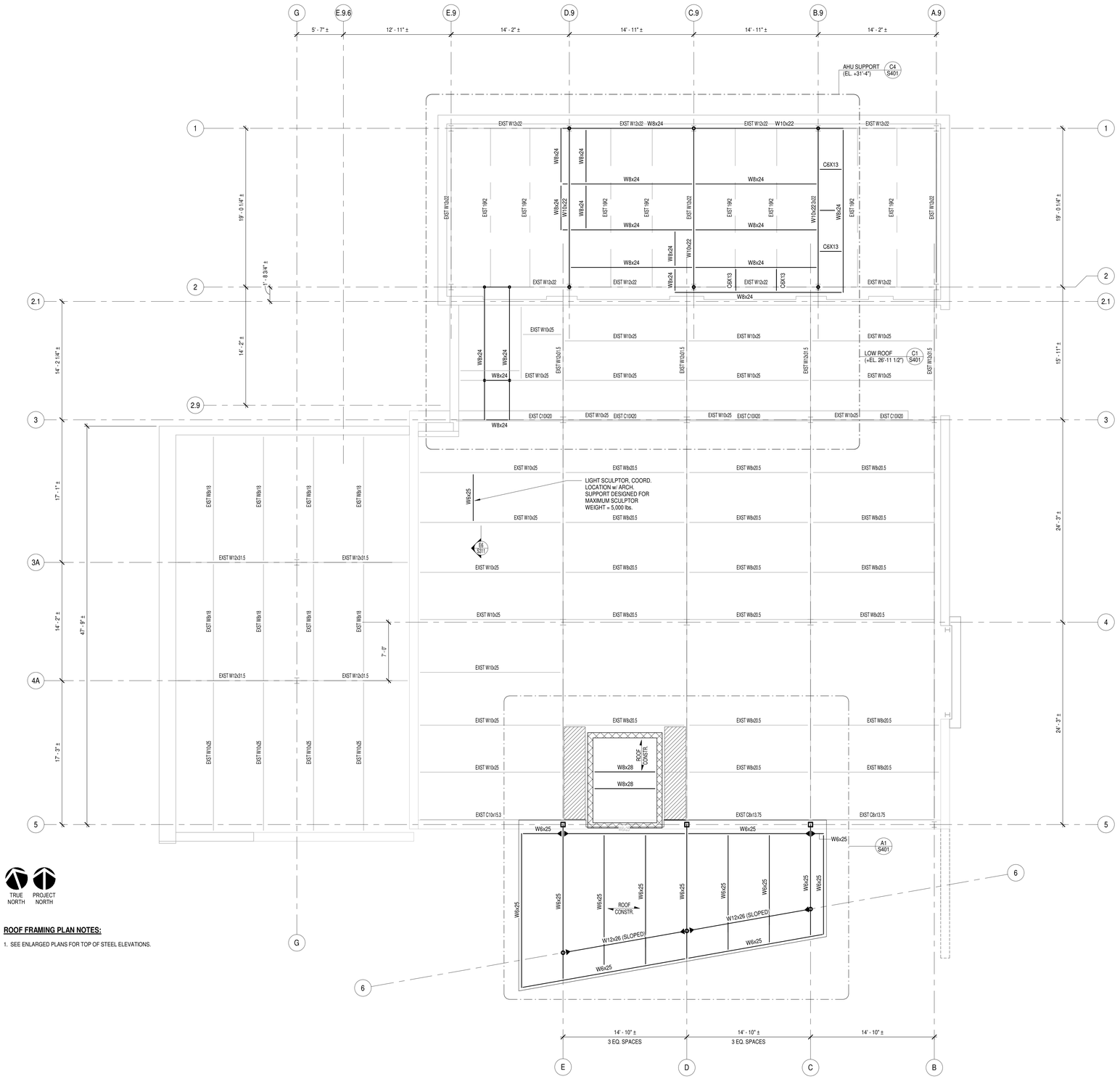
G
E.9.6
E.9
D.9
C.9
B.9
A.9
5' - 7" ±
12' - 11" ±
14' - 2" ±
14' - 11" ±
14' - 11" ±
14' - 11" ±
14' - 2" ±
AHU SUPPORT (EL. +31'-4") C4 S401
1
2
2.1
2.9
3
3A
4A
4
5
6
19' - 0 1/4" ±
1' - 8 3/4" ±
14' - 2 1/4" ±
14' - 2" ±
17' - 1" ±
14' - 2" ±
47' - 9" ±
17' - 3" ±
7' - 0"
15' - 11" ±
24' - 3" ±
EXT W12x22
EXT W12x22 W8x24
EXT W12x22 W10x22
EXT W12x22
EXT W12x22
W8x24
W8x24
W8x24

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THE SQUARES ABOVE ARE COLOR, MAGENTA, YELLOW, BLACK AND WHITE LETTERS, IF PRINTED CORRECTLY

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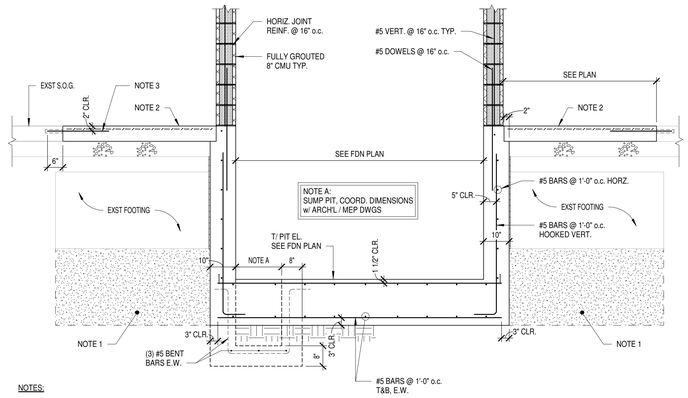
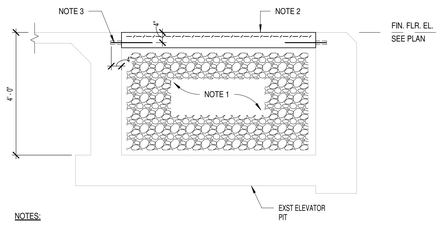


NOTES:

1. EXST COLUMN FOOTING UNDERPINNING. ALTERNATE TO UNDERPINNING IS TEMPORARY SHORING OF SUPER STRUCTURE. SEE TEMPORARY UNDERPINNING/SHORING NOTES B4/S001.
2. REMOVE EXST SLAB-ON-GRADE FOR ELEVATOR PIT CONSTRUCTION. REPLACE w/ 5" SLAB w/ 4x4 W2.9 x W2.9 WWF OVER 4" COMPACTED SUBBASE.
3. #4 x 2'-0" LG. DOWEL @ 18" o.c. ALL SIDES DRILL & GROUT INTO EXIST SLAB-ON-GRADE w/ NON-SHRINK GROUT.

D1 ELEVATOR PIT DETAIL

SCALE: NO SCALE

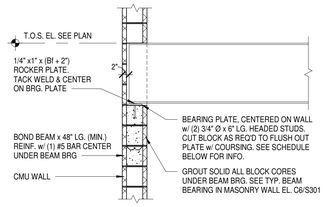


NOTES:

1. BACKFILL: NARROWLY GRADED MIXTURE OF CRUSHED STONE, OR CRUSHED OR UNCRUSHED GRAVEL; ASTM D448; COURSE-AGGREGATE GRADING SIZE 57; w/ 100 PERCENT PASSING A 1-1/2" INCH SIEVE AND ZERO TO 5 PERCENT PASSING A NO.8 SIEVE.
2. 6" CONCRETE SLAB-ON-GRADE w/ 4x4 W2.0 x W2.0 WWF.
3. #4 x 1' - 4" DOWEL @ 12: o.c. MAX. (4' FROM CORNERS) ALL SIDES. DRILL & GROUT INTO EXST PIT WALL w/ NON-SHRINK GROUT.

D3 EXST ELEVATOR PIT INFILL DETAIL

SCALE: NO SCALE



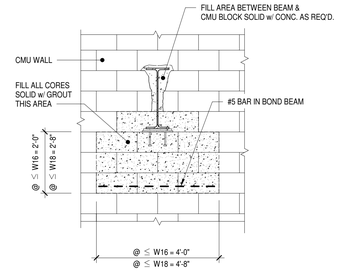
BEARING PLATE SCHEDULE

	8" CMU WALL	10" CMU WALL	12" CMU WALL
BEAM SIZE	BRG. PLATE SIZE	BRG. PLATE SIZE	BRG. PLATE SIZE
≤ W8	1/2" x 6" x 0'-8"	1/2" x 8" x 0'-8"	1/2" x 10" x 0'-8"
≤ W16	1/2" x 6" x 0'-10"	1/2" x 8" x 0'-10"	1/2" x 10" x 0'-10"
≤ W24	1/2" x 6" x 1'-0"	1/2" x 8" x 1'-0"	1/2" x 10" x 1'-0"

NOTE:
FLOOR / ROOF CONSTRUCTION NOT SHOWN FOR CLARITY.

C5 MASONRY BEAM BEARING DETAIL

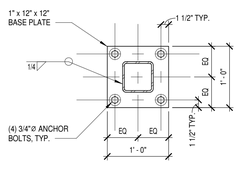
SCALE: NO SCALE



NOTE:
FLOOR / ROOF CONSTRUCTION NOT SHOWN FOR CLARITY.

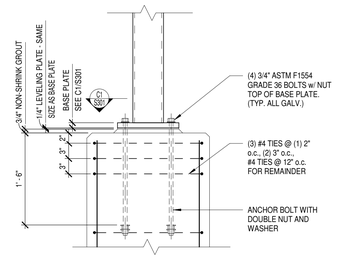
C6 MASONRY BEAM BEARING DETAIL

SCALE: NO SCALE



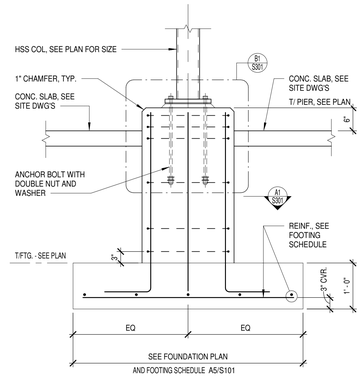
C1 BASE PLATE DETAIL

SCALE: NO SCALE



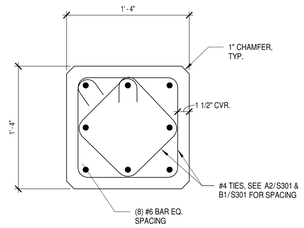
B1 FOUNDATION DETAIL

SCALE: NO SCALE



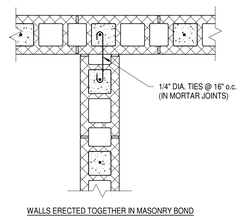
A2 FOUNDATION DETAIL

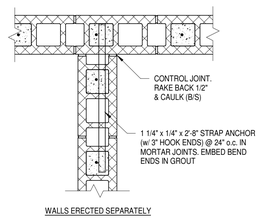
SCALE: NO SCALE



A1 CONC. PIER DETAIL

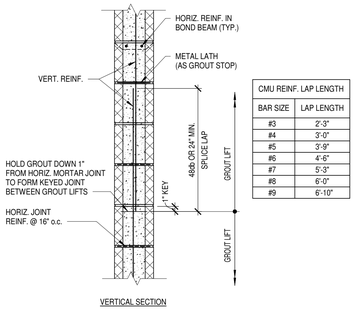
SCALE: NO SCALE





A3 TYP. CMU INTERSECTION REINF. DETAIL

SCALE: NO SCALE

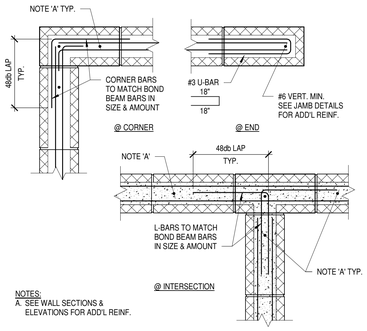


CMU REINF. LAP LENGTH	
BAR SIZE	LAP LENGTH
#3	2'-3"
#4	3'-0"
#5	3'-9"
#6	4'-6"
#7	5'-3"
#8	6'-0"
#9	6'-10"

VERTICAL SECTION

B5 TYP. CMU REINFORCING DETAIL

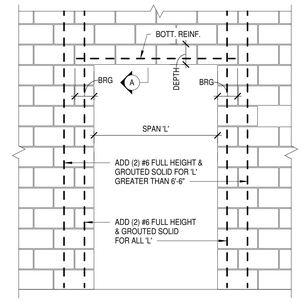
SCALE: NO SCALE

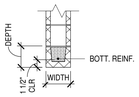


NOTES:
A. SEE WALL SECTIONS & ELEVATIONS FOR ADD'L REINF.

A5 TYP. BOND BEAM PLAN DETAIL

SCALE: NO SCALE





A SECTION

MASONRY LINTEL SCHEDULE				
SPAN 'L'	WIDTH	DEPTH	'BRG'	BOTT. REINF.
1'-4" TO 5'-0"	6"	8"	8"	(1) #4 BAR
1'-4" TO 5'-0"	8"	8"	8"	(1) #4 BAR
1'-4" TO 5'-0"	10"	8"	8"	(1) #4 BAR
1'-4" TO 5'-0"	12"	8"	8"	(1) #4 BAR
5'-1" TO 7'-0"	6"	8"	8"	(1) #6 BAR
5'-1" TO 7'-0"	8"	8"	8"	(1) #6 BAR
5'-1" TO 7'-0"	10"	8"	8"	(2) #5 BAR
5'-1" TO 7'-0"	12"	8"	8"	(2) #5 BAR
7'-1" TO 12'-0"	8"	16"	8"	(2) #5 BAR

NOTE:
1. USE MASONRY LINTEL SCHEDULE UNLESS OTHERWISE NOTED.

A6 MASONRY LINTEL SCHEDULE

SCALE: NO SCALE

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JPSEP # 225049.00

SEAL:

EXPIRES: 06/30/2028
CERT. OF AUTH: 0021135

OWNER:
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ITHACA, NEW YORK 14853

CORNELL UNIVERSITY
BEEBE HALL CU MAKER HUB RENOVATIONS
110 ARBORETUM RD, ITHACA, NY 14850

AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

FOUNDATION DETAILS AND TYP. CMU DETAILS

S301

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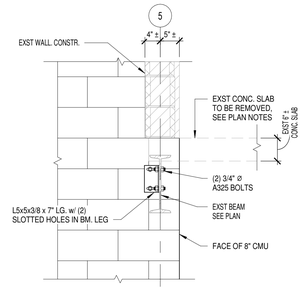
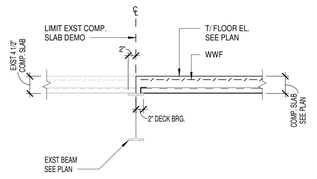


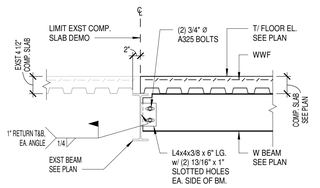
D1 FRAMING SECTION

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



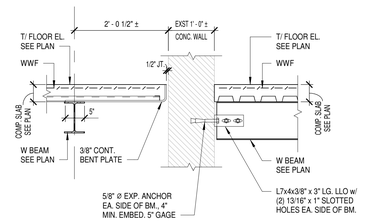
D2 FRAMING SECTION

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



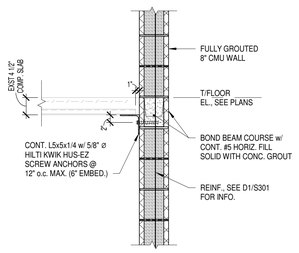
D3 FRAMING SECTION

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



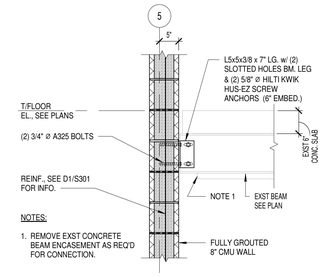
D4 FRAMING SECTION

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



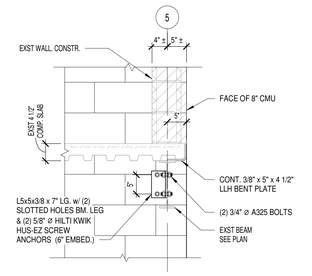
D5 FRAMING SECTION

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



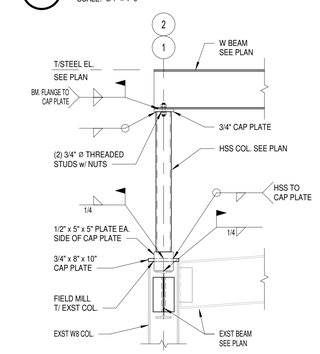
D6 FRAMING SECTION

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



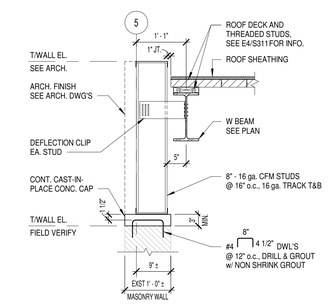
C1 FRAMING SECTION

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



C3 FRAMING DETAIL

SCALE: NO SCALE



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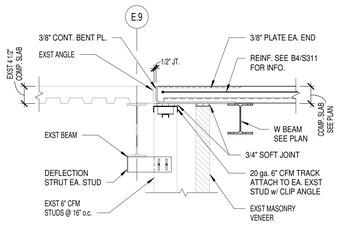
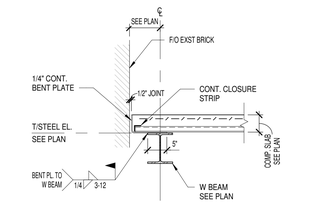


B1 FRAMING SECTION

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



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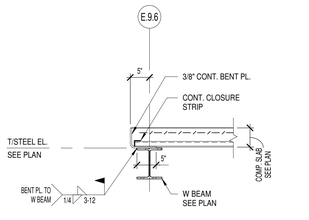

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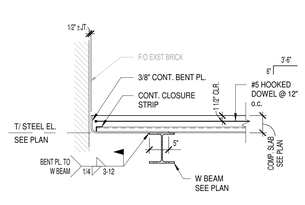

B4 FRAMING SECTION

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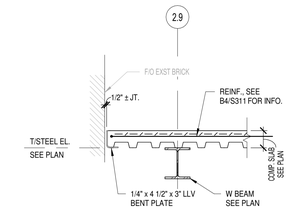

B5 FRAMING SECTION

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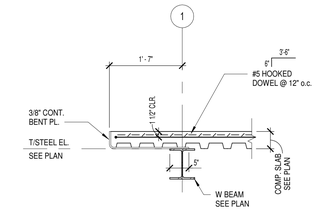

B6 FRAMING SECTION

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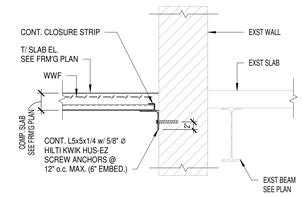
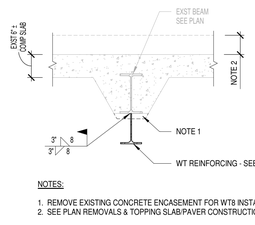


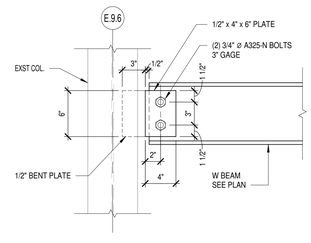
A3 EDGE OF SLAB SECTION

SCALE: NO SCALE



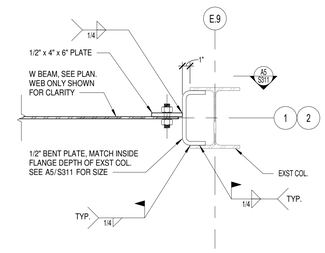
A4 EXISTING BEAM REINF. SECTION

SCALE: NO SCALE



A5 SECTION

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



A6 PLAN DETAIL

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

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JPSEP # 225049.00

SEAL:

EXPIRES: 06/30/2028
CERT. OF AUTH: 0021135

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CORNELL UNIVERSITY
BEEBE HALL CU MAKER HUB RENOVATIONS
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AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

FRAMING SECTIONS AND DETAILS

S311

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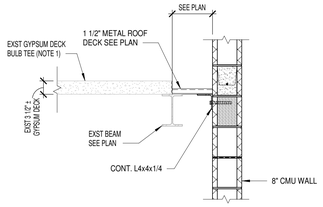
THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THIS PLOT'S ORIGINAL SCALE

THE SQUARES ABOVE ARE COLOR, WITH BLACK AND WHITE LETTERS, IF PRINTED CORRECTLY

9/14/2026 2:00:20 PM

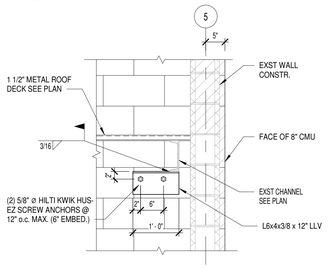


NOTES:

1. CUT AND REMOVE EXST GYPSUM DECK TO LIMITS SHOWN.

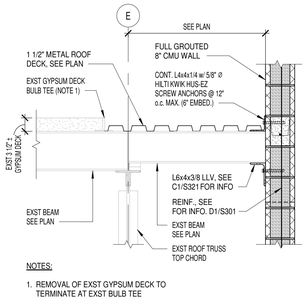
D1 ROOF FRAMING SECTON

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



C1 ROOF FRAMING SECTON

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

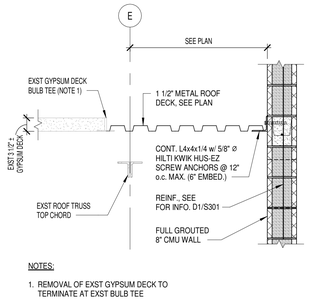


NOTES:

1. REMOVAL OF EXST GYPSUM DECK TO TERMINATE AT EXST BULB TEE

C2 ROOF FRAMING SECTON

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

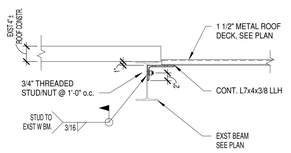


NOTES:

1. REMOVAL OF EXST GYPSUM DECK TO TERMINATE AT EXST BULB TEE

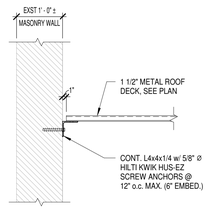
C3 ROOF FRAMING SECTON

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



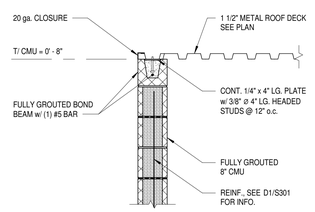
B1 ROOF FRAMING SECTION

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



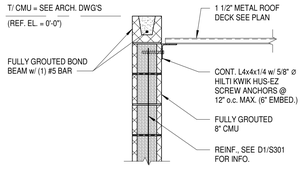
B2 ROOF FRAMING SECTION

SCALE: NO SCALE



A1 ROOF SECTION

SCALE: NO SCALE



A2 ROOF SECTION

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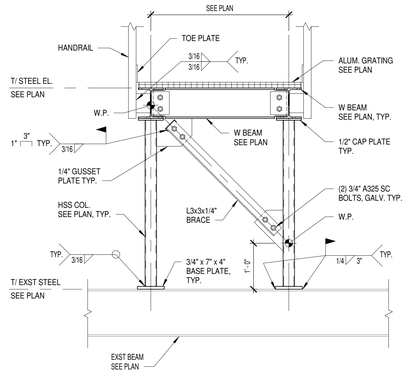
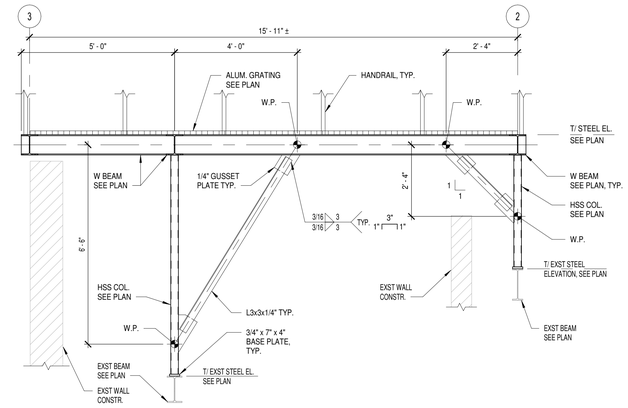


A3 WALKWAY FRAMING SECTION

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



A4 WALKWAY FRAMING ELEVATION

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

ASHLEY MCGRAW
125 EAST JEFFERSON STREET
SYRACUSE, NEW YORK 13202
CONSULTANT:

SEAL:

EXPIRES: 06/30/2028
CERT. OF AUTH: 0021135

OWNER:
CORNELL UNIVERSITY
ITHACA, NEW YORK 14853

CORNELL UNIVERSITY
BEEBE HALL CU MAKER HUB RENOVATIONS
110 ARBORETUM RD,
ITHACA, NY 14850

AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

ROOF FRAMING SECTIONS AND DETAILS

S321

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THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THIS ORIGINAL DRAWING SIZE

THE SQUARES ABOVE ARE COLOR, WITH BLACK AND WHITE LETTERS, IF PRINTED CORRECTLY

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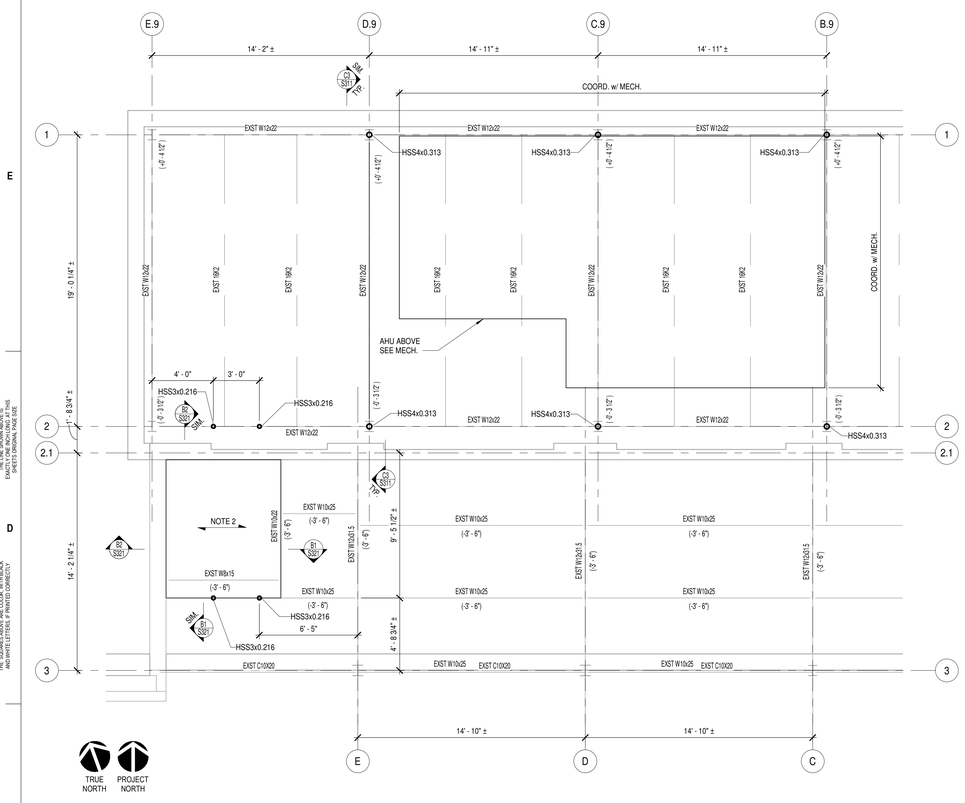


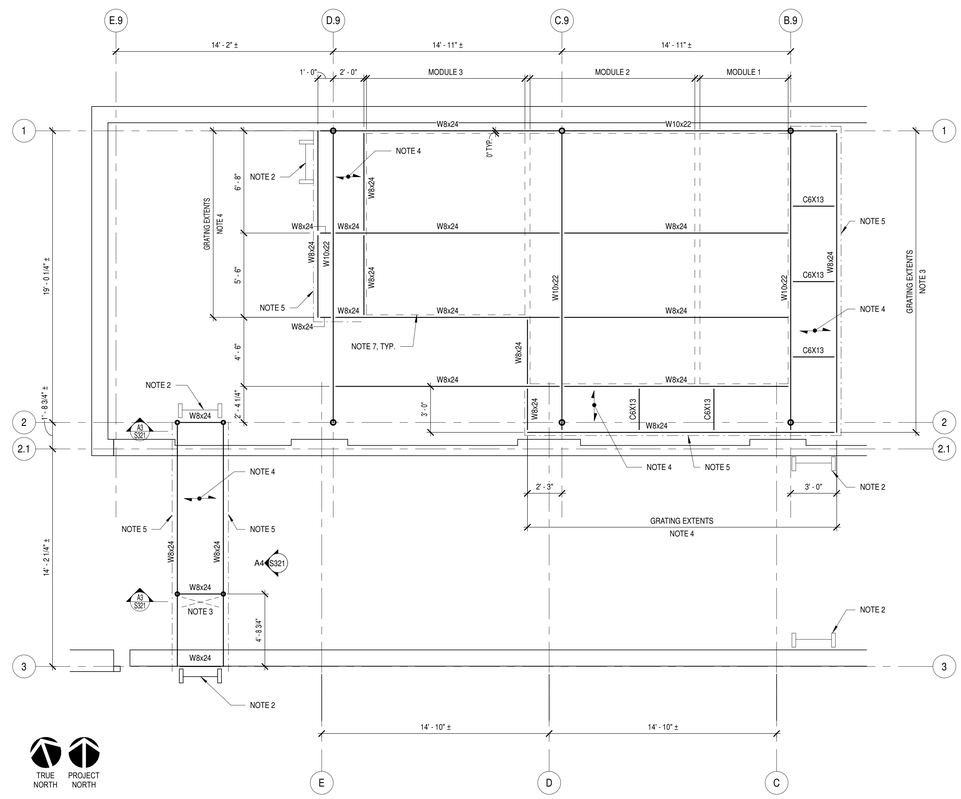
TRUE NORTH PROJECT NORTH

C1 LOW ROOF ENLARGED FRAMING PLAN (+EL. 26'-11 1/2")

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

LOW ROOF ENLARGED FRAMING PLAN NOTES:

1. TOP OF EXST STEEL ELEVATION = +26'-11 1/2" UNLESS NOTED (+/-) THEREFROM.
2. ROOF CONSTRUCTION: 1 1/2" 18 ga. TYPE B GALV. METAL DECK.


E.9
D.9
C.9
B.9
14' - 2" ±
14' - 11" ±
14' - 11" ±
1' - 0"
2' - 0"
MODULE 3
MODULE 2
MODULE 1
W8x24
W10x22
NOTE 4
NOTE 2
6' - 8"
GRATING EXTENTS
NOTE 4
W8x24
W8x24
W8x24
W8x24
W8x24
W10x22
W10x22
W10x22
W8x24
W8x24
W8x24
W8x24
W8x24

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THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THE INTENDED PLOTTING SCALE

THE SQUARES ABOVE ARE COLOR, WITH BLACK AND WHITE LETTERS, IF PRINTED CORRECTLY

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A1 DEMOLITION PLAN-OVERALL- LEVEL 01
3/16" = 1'-0"

TRUE NORTH
PROJECT NORTH

KEYED NOTES

DC.1	REMOVE SUSPENDED/APC CEILING SYSTEM, INCLUDING TRIM, HANGERS AND ACCESSORIES. ELECTRICAL DEVICES, AND LIGHT FIXTURES.
DC.3	REMOVE GYPSUM / PLASTER CEILING, INCLUDING TRIM, HANGERS AND ACCESSORIES. ELECTRICAL DEVICES, AND LIGHT FIXTURES.
DC.4	REMOVE SUSPENDED LIGHT FIXTURES. SALVAGE AND TURN OVER TO OWNER.
DC.5	REMOVE EXISTING CEILING TILES; EXISTING GRID TO REMAIN.
DE.2	REFER TO ELEV DRAWINGS FOR REMOVAL OF ELEVATOR.
DE.3	REMOVE EXISTING TOILET ROOM ACCESSORIES, INCLUDING TOILET TISSUE DISPENSER, PAPER TOWEL DISPENSER, SOAP DISPENSER, WASTE RECEPTACLES.
DE.7	REMOVE ROLLER SHADES.
DF.1	REMOVE RESILIENT FLOORING.
DF.2	REMOVE CARPET AND ADHESIVE.
DF.5	REMOVE CONCRETE FLOOR SLAB. COORDINATE WITH STRUCTURAL AND ELEVATOR DWGS.
DF.6	REMOVE EXISTING SLAB TO DEPTH REQUIRED TO ACCOMMODATE NEW WALK OFF GRILLE. COORDINATE EXTENTS WITH NEW WORK.
DM.1	REMOVE CASEWORK, INCLUDING COUNTERTOPS, BASE CABINETS, TRIM, ANCHORS AND ACCESSORIES. COORDINATE WITH PLUMBING DRAWINGS.
DM.2	REMOVE LAMINATE WINDOW SILL.
DO.1	REMOVE DOOR, FRAME AND HARDWARE IN THEIR ENTIRETY.
DO.2	REMOVE DOOR, FRAME AND HARDWARE. SALVAGE DOOR AND HARDWARE TO OWNER.
DO.5	REMOVE WINDOW ASSEMBLY AND CONCRETE SILL.
DS.2	REMOVE CONCRETE STAIR ASSEMBLY AND RAILINGS, INCLUDING STRUCTURE SOLELY SUPPORTING STAIR ASSEMBLY.
DW.1	REMOVE CMU MASONRY WALL.
DW.2	SELECTIVELY REMOVE EXTERIOR WALL ASSEMBLY BELOW WINDOW ASSEMBLY FOR NEW OPENING. SALVAGE BRICK FOR USE IN PATCHING EXTERIOR MASONRY OPENINGS.
DW.3	SELECTIVELY REMOVE MASONRY WALL FOR NEW OPENING; SEE STRUCTURAL DRAWINGS FOR INFORMATION REGARDING NEW LINTEL. SALVAGE BRICK FOR USE IN PATCHING INTERIOR MASONRY OPENINGS.
DW.4	REMOVE STUD WALL.

GENERAL DEMOLITION NOTES

NO.	Gen Demo Notes
A	GENERAL NOTES APPLY TO THE INTENDED WORK INCLUDED IN THE CONTRACT DOCUMENTS.
B	THE DEMOLITION DRAWINGS ARE INTENDED AS A SUMMARY OF THE DEMOLITION, BUT MAY NOT REPRESENT ALL OF THE DEMOLITION REQUIRED TO COMPLETE THE WORK. THE DEMOLITION DRAWINGS AND THE REMAINDER OF THE CONSTRUCTION DOCUMENTS ARE COMPLIMENTARY, AS ADDITIONAL INFORMATION REQUIRED TO COMPLETE THE DEMOLITION MAY BE INDICATED THROUGHOUT.
C	DEMOLITION REQUIRED TO COMPLETE THE WORK, BUT NOT INDICATED, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR COMPLETING THAT WORK.
D	DEMOLITION OF MECHANICAL, ELECTRICAL, AND PLUMBING ELEMENTS REQUIRED BY THE GENERAL DEMOLITION, BUT NOT INDICATED, SHALL BE COMPLETED BY THE APPROPRIATE TRADE CONTRACTORS. EACH TRADE CONTRACTOR SHALL COORDINATE THEIR DEMOLITION WITH EACH OTHER AND WITH THE SCOPE OF THE FINISHED WORK.
E	WHERE NEW FINISHES ARE TO BE APPLIED REMOVE ABANDONED, NON-FUNCTIONING ITEMS, SUCH AS SURFACE MOUNTED CONDUIT, RACEWAYS, JUNCTION BOXES, CLIPS, BRACKETS, FASTENERS, ETC, MECHANICAL, ELECTRICAL, AND PLUMBING ELEMENTS SHALL BE REMOVED BY THE APPROPRIATE TRADE CONTRACTORS, UNLESS OTHERWISE INDICATED OR DIRECTED.
F	EXISTING CONDITIONS MAY VARY FROM THOSE INDICATED. NOTIFY THE ARCHITECT IN WRITING OF DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THE WORK.
G	WHEN REMOVING A MATERIAL, COMPONENT, ASSEMBLY OR SYSTEM, IT SHALL INCLUDE REMOVAL OF ASSOCIATED SUSPENSION, HANGERS, BRACING, SHIMS, FASTENERS, ANCHORS, TRIM, ACCESSORIES, TRANSITION PIECES, ADHESIVES, SEALANTS, ETC., THE PRESENCE OF WHICH SERVES NO OTHER DISCERNABLE PURPOSE OTHER THAN ITS ASSOCIATION WITH ITEM BEING REMOVED, UNLESS OTHERWISE INDICATED.
H	WHERE REMOVAL OF A MATERIAL, COMPONENT, ASSEMBLY OR SYSTEM IS INDICATED, IT SHALL INCLUDE THE REMOVAL OF RESIDUAL MATERIALS LEFT BEHIND ON ADJACENT SURFACES TO BE EXPOSED IN THE COMPLETED WORK, OR AS REQUIRED TO PREPARE SUCH SURFACES TO RECEIVE FINISHES INDICATED.
I	WHERE NEWLY EXPOSED SURFACES ARE TO REMAIN EXPOSED IN THE COMPLETED WORK CONTRACTORS SHALL PATCH SURFACES WITH IN-KIND MATERIAL TO LIKE-NEW CONDITION, SUBJECT TO ARCHITECT'S APPROVAL.
J	CONTRACTORS ARE RESPONSIBLE FOR DECONSTRUCTION OF ASSEMBLIES OR SYSTEMS AS REQUIRED TO SEPARATE RECYCLABLE MATERIALS INTO THEIR CORRECT CATEGORIES.
K	SALVAGE MATERIALS AND EQUIPMENT AND TURN OVER TO THE OWNER AS INDICATED. SALVAGING SHALL INCLUDE THE REMOVAL OF INTACT ASSEMBLIES, THEIR STORAGE, PROTECTION, ORGANIZING AND RELOCATION UNLESS OTHERWISE INDICATED OR AS DIRECTED.
L	WHEN REMOVING AN ITEM THAT HAS ATTACHED RIGID SIGNAGE, REMOVED SIGNAGE IN-TACT, AND REINSTALL ON THE NEW WORK OR TURN OVER AS DIRECTED BY OWNER 'S REPRESENTATIVE. PROVIDE APPROPRIATE FASTENERS, TAPE, OR ADHESIVE COMPATIBLE WITH SIGNAGE AND SURFACE.
M	WHEN REMOVING A UNIQUE, CUSTOM, OR DIFFICULT TO OBTAIN MATERIAL, VERIFY SALVAGE OPTIONS WITH OWNER 'S REPRESENTATIVE PRIOR TO DISCARDING. EXAMPLES MAY INCLUDE GLAZED BLOCK, MOLDED BRICKS, CAST TERRAZZO BASE, ETC.
N	WHEN REMOVING ITEMS INDICATED FOR REINSTALLATION, REMOVAL SHALL INCLUDE TRIM, ACCESSORIES, MOUNTING HARDWARE, ETC., REQUIRED FOR REINSTALLATION.
O	WHERE DEMOLITION EXPOSES ENCLOSED SPACE OR SURFACES THAT WILL REMAIN EXPOSED IN THE FINISHED WORK, PROVIDE A THOROUGH CLEANING OF ALL SURFACES PRIOR TO PATCHING / FINISHING.
P	CONTRACTORS SHALL ASSUME THE PRESENCE OF LEAD BASED PAINT AND OTHER LEAD CONTAINING MATERIALS IN BUILDING CONSTRUCTION BUILT PRIOR TO 1978, AND SHALL FOLLOW ALL REQUIRED WORK PRACTICES AND REGULATORY REQUIREMENTS REQUIRED TO CARRY OUT THE WORK. OTHER HAZARDOUS MATERIALS MAY BE PRESENT IN EXISTING CONSTRUCTION. INFORMATION ON THE PRESENCE OF KNOWN HAZARDOUS MATERIALS IS AVAILABLE FROM THE OWNER FOR CONTRACTORS' REVIEW. CONTRACTORS SHALL EXAMINE THE INFORMATION PRIOR TO BIDDING, AND BECOME FAMILIAR WITH LOCATIONS WHERE HAZARDOUS MATERIALS ARE KNOWN OR LIKELY TO BE PRESENT. CONTRACTORS ARE REQUIRED TO PLAN THEIR WORK IN ACCORDANCE WITH CONTRACT AND STATUTORY REQUIREMENTS, AND TO COORDINATE THEIR WORK WITH ANY REMEDIATION REQUIRED.
Q	SHORE, BRACE AND SUPPORT STRUCTURAL ELEMENTS DURING CUTTING AND PATCHING. DO NOT CUT AND PATCH STRUCTURAL ELEMENTS IN A MANNER THAT COULD CHANGE THEIR LOAD CARRYING CAPACITY OR LOAD DEFLECTION RATIO. WHERE CUTTING AND PATCHING INVOLVE ADDING REINFORCEMENT TO STRUCTURAL ELEMENTS, SUBMIT DETAILS AND ENGINEERING CALCULATIONS OF A REGISTERED PROFESSIONAL (STRUCTURAL) ENGINEER, CURRENTLY LICENSED IN NEW YORK STATE, SHOWING INTEGRATION OF REINFORCEMENT WITH ORIGINAL STRUCTURE.
R	WHERE NEW OR ENLARGED OPENINGS ARE INDICATED IN EXISTING CONSTRUCTION CONTRACTORS SHALL COORDINATE SIZES AND LOCATIONS OF OPENINGS WITH THE FINISHED WORK. REFRAME OPENINGS IN STUD WALLS, INCLUDING NEW HEADER.
S	WHERE NEW OR ENLARGED OPENINGS ARE INDICATED IN UNIT MASONRY THAT WILL BE LEFT EXPOSED, PATCH MASONRY WITH SALVAGED IN-KIND UNITS WITH FINISHED SURFACES, TOOTHED IN, TO MATCH SURROUNDING COURSING AND BOND. PROVIDE NEW LINTEL UNLESS OTHERWISE INDICATED.
T	WHERE NEW OR ENLARGED OPENINGS ARE INDICATED IN FLOOR AND ROOF CONSTRUCTION CUT DECK OPENING TO MINIMAL SIZE REQUIRED TO INSTALL NEW WORK. MODIFICATIONS TO EXISTING OPENINGS SHALL INCLUDE RELOCATION AND MODIFICATION OF EXISTING FRAMING. NEW OPENINGS SHALL INCLUDE NEW SUPPORT FRAMING, AND REMOVAL, REINFORCING, RELOCATION OR MODIFICATION OF EXISTING FRAMING UNLESS OTHERWISE INDICATED.
U	REMOVE WINDOW TREATMENTS UNLESS OTHERWISE INDICATED OR DIRECTED. REVIEW WITH OWNER IF ITEMS SHOULD BE TURNED OVER PRIOR TO DISPOSING OF. IF OWNER DECIDES NOT TO KEEP ITEMS, THEN CONTRACTOR IS TO DISPOSE OF.
V	WHERE REMOVAL OF DOORS IS INDICATED, BOX AND LABEL HARDWARE REVIEW WITH OWNER IF ITEMS SHOULD BE TURNED OVER PRIOR TO DISPOSING OF. IF OWNER DECIDES NOT TO KEEP ITEMS, THEN CONTRACTOR IS TO DISPOSE OF.
W	WHERE REMOVAL OF ADJUSTABLE SHELVING, MODULAR CHALK BOARDS ON STANDARDS, OR SIMILAR RELOCATABLE ITEMS IS REQUIRED, REVIEW WITH OWNER IF ITEMS SHOULD BE TURNED OVER PRIOR TO DISPOSING OF. IF OWNER DECIDES NOT TO KEEP ITEMS, THEN CONTRACTOR IS TO DISPOSE OF.
X	WHERE REMOVAL OF SUSPENDED CEILINGS IS INDICATED FOR ACCESS TO WORK ABOVE, GC SHALL REMOVE CEILING PANELS, GRID AND SUSPENSION COMPONENTS TO ALLOW UNENCUMBERED ACCESS. COORDINATE EXTENT WITH WORK OF OTHER TRADES REQUIRING ACCESS. GC SHALL REINSTALL CEILING UPON COMPLETION OF WORK ABOVE. WHERE REMOVAL OF CEILINGS IS REQUIRED, BUT NOT INDICATED, REMOVAL AND REPLACEMENT SHALL BE BY CONTRACTOR REQUIRING ACCESS.
Y	WHERE REMOVAL OF GWB/PLASTER CEILINGS IS INDICATED FOR ACCESS TO WORK ABOVE, GC SHALL REMOVE GWB/PLASTER AND FRAMING TO LOGICAL POINT OF SUPPORT TO ALLOW UNENCUMBERED ACCESS. COORDINATE EXTENT WITH WORK OF OTHER TRADES REQUIRING ACCESS. GC SHALL RECONSTRUCT CEILING IN-KIND TO LIKE-NEW CONDITION UNLESS OTHERWISE INDICATED. WHERE REMOVAL OF CEILINGS IS REQUIRED, BUT NOT INDICATED, REMOVAL AND RECONSTRUCTION SHALL BE BY CONTRACTOR REQUIRING ACCESS. RECONSTRUCTION SHALL INCLUDE PAINTING.

LEGEND- DEMOLITION PLANS

BUILDING ELEMENTS

- EXISTING PARTITION TO REMAIN
- DEMO PARTITION
- DEMO DOOR
- DEMO FLOOR
- EXISTING CONCRETE TO BE EXPOSED; COORDINATE EXTENTS WITH NEW FLOOR FINISH PLAN

ASHLEY MCGRAW
125 EAST JEFFERSON STREET
SYRACUSE, NEW YORK 13202
CONSULTANT:

SEAL:

REGISTERED ARCHITECT · SUSANNE ANGRAND · 046998 · STATE OF NEW YORK

ARCH NAME ARCH ##

OWNER:
CORNELL UNIVERSITY
ITHACA, NEW YORK 14853

CORNELL UNIVERSITY
BEEBE HALL CU MAKER HUB RENOVATIONS
110 ARBORETUM RD, ITHACA, NY 14850

AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

DEMOLITION PLAN- LEVEL 01

AD101

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THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THIS PLOTTED FORMAT SIZE

THE SQUARES ABOVE ARE COLOR, WHITE,BLACK AND WHITE LETTERS, IF PRINTED CORRECTLY

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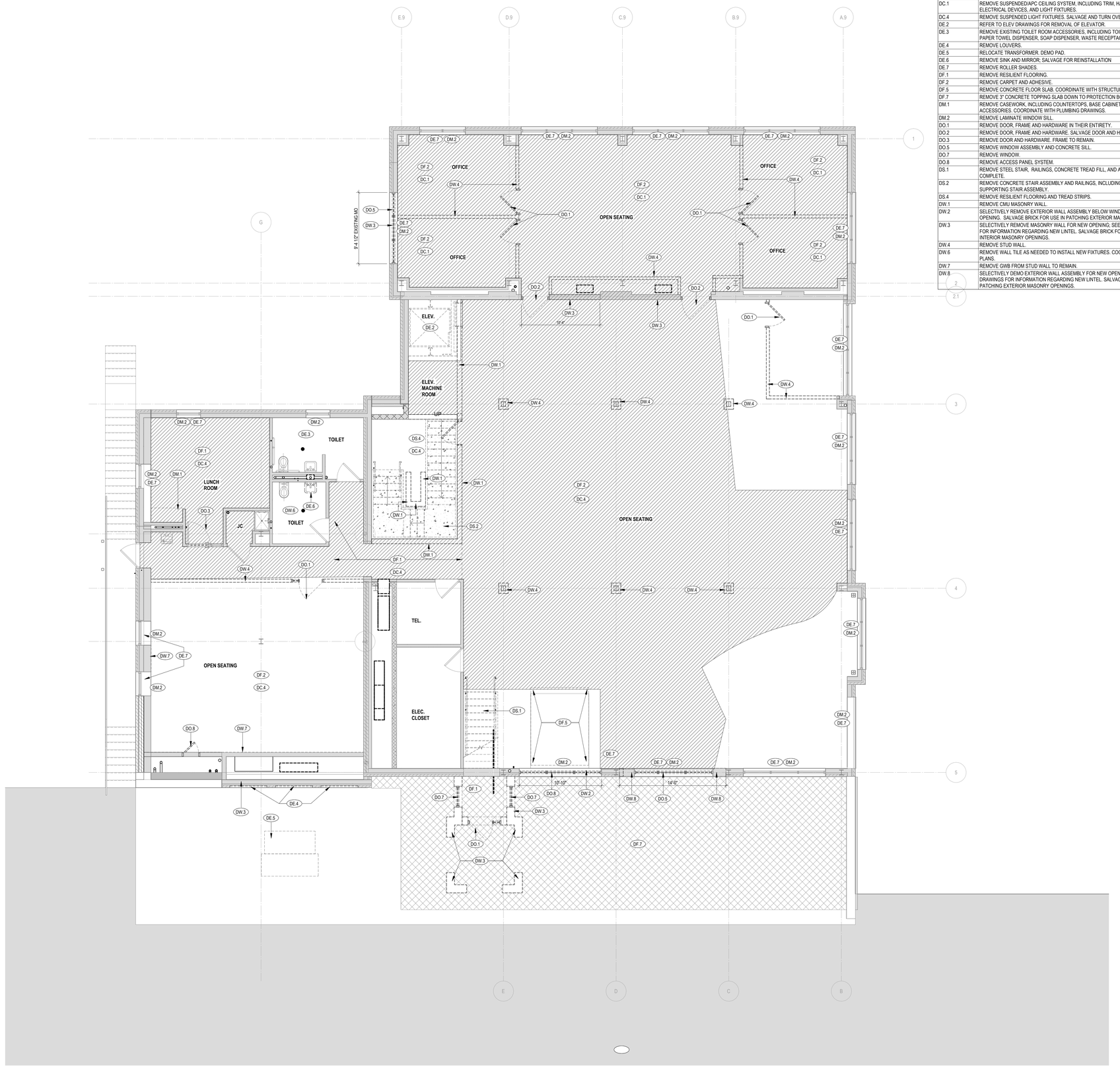

A1 DEMOLITION PLAN-OVERALL- LEVEL 02
3/16" = 1'-0"

TRUE NORTH PROJECT NORTH

KEYED NOTES

DC.1	REMOVE SUSPENDED/APC CEILING SYSTEM, INCLUDING TRIM, HANGERS AND ACCESSORIES. ELECTRICAL DEVICES, AND LIGHT FIXTURES.
DC.4	REMOVE SUSPENDED LIGHT FIXTURES. SALVAGE AND TURN OVER TO OWNER.
DE.2	REFER TO ELEV DRAWINGS FOR REMOVAL OF ELEVATOR.
DE.3	REMOVE EXISTING TOILET ROOM ACCESSORIES, INCLUDING TOILET TISSUE DISPENSER, PAPER TOWEL DISPENSER, SOAP DISPENSER, WASTE RECEPTACLES.
DE.4	REMOVE LOUVERS.
DE.5	RELOCATE TRANSFORMER. DEMO PAD.
DE.6	REMOVE SINK AND MIRROR; SALVAGE FOR REINSTALLATION
DE.7	REMOVE ROLLER SHADES.
DF.1	REMOVE RESILIENT FLOORING.
DF.2	REMOVE CARPET AND ADHESIVE.
DF.5	REMOVE CONCRETE FLOOR SLAB. COORDINATE WITH STRUCTURAL AND ELEVATOR DWGS.
DF.7	REMOVE 3" CONCRETE TOPPING SLAB DOWN TO PROTECTION BOARD
DM.1	REMOVE CASEWORK, INCLUDING COUNTERTOPS, BASE CABINETS, TRIM, ANCHORS AND ACCESSORIES. COORDINATE WITH PLUMBING DRAWINGS.
DM.2	REMOVE LAMINATE WINDOW SILL.
DO.1	REMOVE DOOR, FRAME AND HARDWARE IN THEIR ENTIRETY.
DO.2	REMOVE DOOR, FRAME AND HARDWARE. SALVAGE DOOR AND HARDWARE TO OWNER.
DO.3	REMOVE DOOR AND HARDWARE. FRAME TO REMAIN.
DO.5	REMOVE WINDOW ASSEMBLY AND CONCRETE SILL.
DO.7	REMOVE WINDOW.
DO.8	REMOVE ACCESS PANEL SYSTEM.
DS.1	REMOVE STEEL STAIR, RAILINGS, CONCRETE TREAD FILL, AND ASSOCIATED STRUCTURE COMPLETE.
DS.2	REMOVE CONCRETE STAIR ASSEMBLY AND RAILINGS, INCLUDING STRUCTURE SOLELY SUPPORTING STAIR ASSEMBLY.
DS.4	REMOVE RESILIENT FLOORING AND TREAD STRIPS.
DW.1	REMOVE CMU MASONRY WALL.
DW.2	SELECTIVELY REMOVE EXTERIOR WALL ASSEMBLY BELOW WINDOW ASSEMBLY FOR NEW OPENING. SALVAGE BRICK FOR USE IN PATCHING EXTERIOR MASONRY OPENINGS.
DW.3	SELECTIVELY REMOVE MASONRY WALL FOR NEW OPENING; SEE STRUCTURAL DRAWINGS FOR INFORMATION REGARDING NEW LINTEL. SALVAGE BRICK FOR USE IN PATCHING INTERIOR MASONRY OPENINGS.
DW.4	REMOVE STUD WALL.
DW.6	REMOVE WALL TILE AS NEEDED TO INSTALL NEW FIXTURES. COORDINATE WITH NEW WORK PLANS.
DW.7	REMOVE GWB FROM STUD WALL TO REMAIN.
DW.8	SELECTIVELY DEMO EXTERIOR WALL ASSEMBLY FOR NEW OPENING; SEE STRUCTURAL DRAWINGS FOR INFORMATION REGARDING NEW LINTEL. SALVAGE BRICK FOR USE IN PATCHING EXTERIOR MASONRY OPENINGS.

GENERAL DEMOLITION NOTES

NO.	Gen Demo Notes
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C	DEMOLITION REQUIRED TO COMPLETE THE WORK, BUT NOT INDICATED, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR COMPLETING THAT WORK.
D	DEMOLITION OF MECHANICAL, ELECTRICAL, AND PLUMBING ELEMENTS REQUIRED BY THE GENERAL DEMOLITION, BUT NOT INDICATED, SHALL BE COMPLETED BY THE APPROPRIATE TRADE CONTRACTORS. EACH TRADE CONTRACTOR SHALL COORDINATE THEIR DEMOLITION WITH EACH OTHER AND WITH THE SCOPE OF THE FINISHED WORK.
E	WHERE NEW FINISHES ARE TO BE APPLIED REMOVE ABANDONED, NON-FUNCTIONING ITEMS, SUCH AS SURFACE MOUNTED CONDUIT, RACEWAYS, JUNCTION BOXES, CLIPS, BRACKETS, FASTENERS, ETC. MECHANICAL, ELECTRICAL, AND PLUMBING ELEMENTS SHALL BE REMOVED BY THE APPROPRIATE TRADE CONTRACTORS, UNLESS OTHERWISE INDICATED OR DIRECTED.
F	EXISTING CONDITIONS MAY VARY FROM THOSE INDICATED. NOTIFY THE ARCHITECT IN WRITING OF DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THE WORK.
G	WHEN REMOVING A MATERIAL, COMPONENT, ASSEMBLY OR SYSTEM, IT SHALL INCLUDE REMOVAL OF ASSOCIATED SUSPENSION, HANGERS, BRACING, SHIMS, FASTENERS, ANCHORS, TRIM, ACCESSORIES, TRANSITION PIECES, ADHESIVES, SEALANTS, ETC., THE PRESENCE OF WHICH SERVES NO OTHER DISCERNABLE PURPOSE OTHER THAN ITS ASSOCIATION WITH ITEM BEING REMOVED, UNLESS OTHERWISE INDICATED.
H	WHERE REMOVAL OF A MATERIAL, COMPONENT, ASSEMBLY OR SYSTEM IS INDICATED, IT SHALL INCLUDE THE REMOVAL OF RESIDUAL MATERIALS LEFT BEHIND ON ADJACENT SURFACES TO BE EXPOSED IN THE COMPLETED WORK, OR AS REQUIRED TO PREPARE SUCH SURFACES TO RECEIVE FINISHES INDICATED.
I	WHERE NEWLY EXPOSED SURFACES ARE TO REMAIN EXPOSED IN THE COMPLETED WORK CONTRACTORS SHALL PATCH SURFACES WITH IN-KIND MATERIAL TO LIKE-NEW CONDITION, SUBJECT TO ARCHITECT`S APPROVAL.
J	CONTRACTORS ARE RESPONSIBLE FOR DECONSTRUCTION OF ASSEMBLIES OR SYSTEMS AS REQUIRED TO SEPARATE RECYCLABLE MATERIALS INTO THEIR CORRECT CATEGORIES.
K	SALVAGE MATERIALS AND EQUIPMENT AND TURN OVER TO THE OWNER AS INDICATED. SALVAGING SHALL INCLUDE THE REMOVAL OF INTACT ASSEMBLIES, THEIR STORAGE, PROTECTION, ORGANIZING AND RELOCATION UNLESS OTHERWISE INDICATED OR AS DIRECTED.
L	WHEN REMOVING AN ITEM THAT HAS ATTACHED RIGID SIGNAGE, REMOVED SIGNAGE IN-TACT, AND REINSTALL ON THE NEW WORK OR TURN OVER AS DIRECTED BY OWNER`S REPRESENTATIVE. PROVIDE APPROPRIATE FASTENERS, TAPE, OR ADHESIVE COMPATIBLE WITH SIGNAGE AND SURFACE.
M	WHEN REMOVING A UNIQUE, CUSTOM, OR DIFFICULT TO OBTAIN MATERIAL, VERIFY SALVAGE OPTIONS WITH OWNER`S REPRESENTATIVE PRIOR TO DISCARDING. EXAMPLES MAY INCLUDE GLAZED BLOCK, MOLDED BRICKS, CAST TERRAZZO BASE, ETC.
N	WHEN REMOVING ITEMS INDICATED FOR REINSTALLATION, REMOVAL SHALL INCLUDE TRIM, ACCESSORIES, MOUNTING HARDWARE, ETC., REQUIRED FOR REINSTALLATION.
O	WHERE DEMOLITION EXPOSES ENCLOSED SPACE OR SURFACES THAT WILL REMAIN EXPOSED IN THE FINISHED WORK, PROVIDE A THOROUGH CLEANING OF ALL SURFACES PRIOR TO PATCHING / FINISHING.
P	CONTRACTORS SHALL ASSUME THE PRESENCE OF LEAD BASED PAINT AND OTHER LEAD CONTAINING MATERIALS IN BUILDING CONSTRUCTION BUILT PRIOR TO 1978, AND SHALL FOLLOW ALL REQUIRED WORK PRACTICES AND REGULATORY REQUIREMENTS REQUIRED TO CARRY OUT THE WORK. OTHER HAZARDOUS MATERIALS MAY BE PRESENT IN EXISTING CONSTRUCTION. INFORMATION ON THE PRESENCE OF KNOWN HAZARDOUS MATERIALS IS AVAILABLE FROM THE OWNER FOR CONTRACTORS` REVIEW. CONTRACTORS SHALL EXAMINE THE INFORMATION PRIOR TO BIDDING, AND BECOME FAMILIAR WITH LOCATIONS WHERE HAZARDOUS MATERIALS ARE KNOWN OR LIKELY TO BE PRESENT. CONTRACTORS ARE REQUIRED TO PLAN THEIR WORK IN ACCORDANCE WITH CONTRACT AND STATUTORY REQUIREMENTS, AND TO COORDINATE THEIR WORK WITH ANY REMEDIATION REQUIRED.
Q	SHORE, BRACE AND SUPPORT STRUCTURAL ELEMENTS DURING CUTTING AND PATCHING. DO NOT CUT AND PATCH STRUCTURAL ELEMENTS IN A MANNER THAT COULD CHANGE THEIR LOAD CARRYING CAPACITY OR LOAD DEFLECTION RATIO. WHERE CUTTING AND PATCHING INVOLVE ADDING REINFORCEMENT TO STRUCTURAL ELEMENTS, SUBMIT DETAILS AND ENGINEERING CALCULATIONS OF A REGISTERED PROFESSIONAL (STRUCTURAL) ENGINEER, CURRENTLY LICENSED IN NEW YORK STATE, SHOWING INTEGRATION OF REINFORCEMENT WITH ORIGINAL STRUCTURE.
R	WHERE NEW OR ENLARGED OPENINGS ARE INDICATED IN EXISTING CONSTRUCTION CONTRACTORS SHALL COORDINATE SIZES AND LOCATIONS OF OPENINGS WITH THE FINISHED WORK. REFRAME OPENINGS IN STUD WALLS, INCLUDING NEW HEADER.
S	WHERE NEW OR ENLARGED OPENINGS ARE INDICATED IN UNIT MASONRY THAT WILL BE LEFT EXPOSED, PATCH MASONRY WITH SALVAGED IN-KIND UNITS WITH FINISHED SURFACES, TOOTHED IN, TO MATCH SURROUNDING COURSING AND BOND. PROVIDE NEW LINTEL UNLESS OTHERWISE INDICATED.
T	WHERE NEW OR ENLARGED OPENINGS ARE INDICATED IN FLOOR AND ROOF CONSTRUCTION CUT DECK OPENING TO MINIMAL SIZE REQUIRED TO INSTALL NEW WORK. MODIFICATIONS TO EXISTING OPENINGS SHALL INCLUDE RELOCATION AND MODIFICATION OF EXISTING FRAMING. NEW OPENINGS SHALL INCLUDE NEW SUPPORT FRAMING, AND REMOVAL, REINFORCING, RELOCATION OR MODIFICATION OF EXISTING FRAMING UNLESS OTHERWISE INDICATED.
U	REMOVE WINDOW TREATMENTS UNLESS OTHERWISE INDICATED OR DIRECTED. REVIEW WITH OWNER IF ITEMS SHOULD BE TURNED OVER PRIOR TO DISPOSING OF. IF OWNER DECIDES NOT TO KEEP ITEMS, THEN CONTRACTOR IS TO DISPOSE OF.
V	WHERE REMOVAL OF DOORS IS INDICATED, BOX AND LABEL HARDWARE REVIEW WITH OWNER IF ITEMS SHOULD BE TURNED OVER PRIOR TO DISPOSING OF. IF OWNER DECIDES NOT TO KEEP ITEMS, THEN CONTRACTOR IS TO DISPOSE OF.
W	WHERE REMOVAL OF ADJUSTABLE SHELVING, MODULAR CHALK BOARDS ON STANDARDS, OR SIMILAR RELOCATABLE ITEMS IS REQUIRED, REVIEW WITH OWNER IF ITEMS SHOULD BE TURNED OVER PRIOR TO DISPOSING OF. IF OWNER DECIDES NOT TO KEEP ITEMS, THEN CONTRACTOR IS TO DISPOSE OF.
X	WHERE REMOVAL OF SUSPENDED CEILINGS IS INDICATED FOR ACCESS TO WORK ABOVE, GC SHALL REMOVE CEILING PANELS, GRID AND SUSPENSION COMPONENTS TO ALLOW UNENCUMBERED ACCESS. COORDINATE EXTENT WITH WORK OF OTHER TRADES REQUIRING ACCESS. GC SHALL REINSTALL CEILING UPON COMPLETION OF WORK ABOVE. WHERE REMOVAL OF CEILINGS IS REQUIRED, BUT NOT INDICATED, REMOVAL AND REPLACEMENT SHALL BE BY CONTRACTOR REQUIRING ACCESS.
Y	WHERE REMOVAL OF GWB/PLASTER CEILINGS IS INDICATED FOR ACCESS TO WORK ABOVE, GC SHALL REMOVE GWB/PLASTER AND FRAMING TO LOGICAL POINT OF SUPPORT TO ALLOW UNENCUMBERED ACCESS. COORDINATE EXTENT WITH WORK OF OTHER TRADES REQUIRING ACCESS. GC SHALL RECONSTRUCT CEILING IN-KIND TO LIKE-NEW CONDITION UNLESS OTHERWISE INDICATED. WHERE REMOVAL OF CEILINGS IS REQUIRED, BUT NOT INDICATED, REMOVAL AND RECONSTRUCTION SHALL BE BY CONTRACTOR REQUIRING ACCESS. RECONSTRUCTION SHALL INCLUDE PAINTING.

LEGEND- DEMOLITION PLANS

BUILDING ELEMENTS

- EXISTING PARTITION TO REMAIN
- DEMO PARTITION
- DEMO DOOR
- DEMO FLOOR
- EXISTING CONCRETE TO BE EXPOSED; COORDINATE EXTENTS WITH NEW FLOOR FINISH PLAN

ASHLEY MCGRAW
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AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

DEMOLITION PLAN- LEVEL 02

AD102

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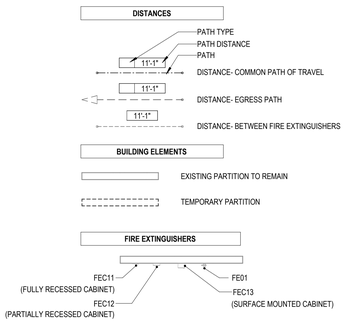
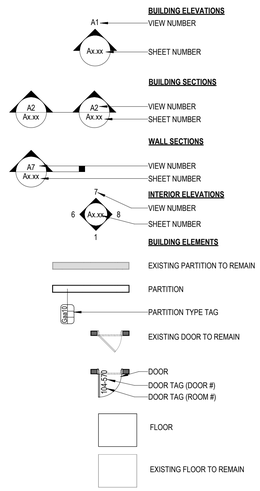
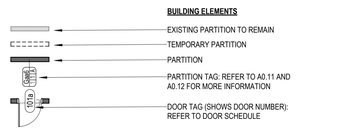
LEGEND- CODE COMP PLANS



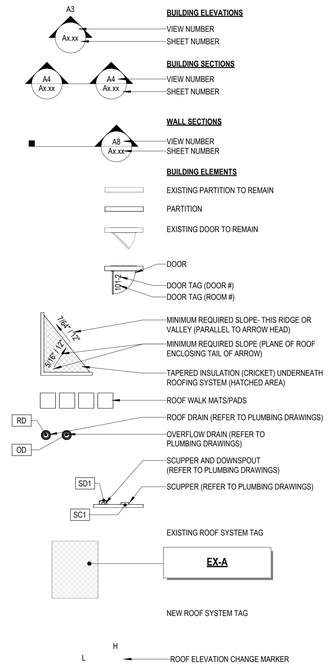
LEGEND- OVERALL FLOOR PLANS



LEGEND- PARTIAL FLOOR PLANS



LEGEND- ROOF PLANS



GENERAL NOTES- CODE PLANS

1. FIRE RESISTANCE RATINGS SHOWN ARE MINIMUM RATINGS REQUIRED. REFER TO PARTITION TYPES ON A0.11, AND SPECIFICATIONS, FOR MORE INFORMATION
2. FIRE RESISTANCE RATINGS IN PARTITIONS ARE SHOWN WHERE PARTITIONS ARE NOT CUT BY DOORS, WINDOWS, STOREFRONTS, OR OTHER OBJECTS. RATED PARTITION MAY EXIST ABOVE OBJECTS.
3. FIRE RESISTANCE OF DOORS IS INDICATED ON SHEET A601

GENERAL NOTES- OVERVIEW PLANS

1. DIMENSIONS TO FACE OF PARTITIONS ARE TO FACE OF SUBSTRATE LAYER AS SHOWN IN PARTITION TYPES ON A0.11. FINISHES DEPICTED IN FINISH PLANS AND ELEVATIONS ARE NOT SHOWN ON OVERALL FLOOR PLANS. REFER TO ENLARGED PLANS, ELEVATIONS, AND DETAILS.
2. REFER TO PARTIAL PLANS FOR MORE INFORMATION. OVERALL PLANS ARE INTENDED TO PROVIDE CONTEXT FOR PARTIAL PLANS.

GENERAL NOTES- PARTIAL PLANS

1. DIMENSIONS TO FACE OF PARTITIONS ARE TO FACE OF SUBSTRATE LAYER AS SHOWN IN PARTITION TYPES ON A0.11. FINISHES DEPICTED IN FINISH PLANS AND ELEVATIONS ARE NOT SHOWN ON PARTIAL FLOOR PLANS. REFER TO ENLARGED PLANS, ELEVATIONS, AND DETAILS.
2.

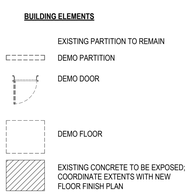
GENERAL NOTES- FINISH PLANS

1. DIMENSIONS TO FACE OF PARTITIONS ARE TO FACE OF SUBSTRATE LAYER AS SHOWN IN PARTITION TYPES ON A0.11. FINISHES DEPICTED IN FINISH PLANS AND ELEVATIONS ARE NOT SHOWN ON PARTIAL FLOOR PLANS. REFER TO ENLARGED PLANS, ELEVATIONS, AND DETAILS.
2.

GENERAL NOTES- ROOF PLANS

1. ITEMS FROM MECHANICAL, PLUMBING, AND ELECTRICAL SCOPES MAY BE SHOWN FOR REFERENCE AND COORDINATION ONLY. REFER TO MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR LOCATIONS OF PIPING, CURBS, VENTS, DUCTS, FANS, AND OTHER ITEMS ON THE ROOF SURFACE
2. ALL ROOF FLASHING TO BE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND RECOMMENDATIONS

LEGEND- DEMOLITION PLANS



GENERAL NOTES- DEMO PLANS

1. DIMENSIONS TO FACE OF PARTITIONS ARE TO FACE OF SUBSTRATE LAYER AS SHOWN IN PARTITION TYPES ON A0.11. FINISHES DEPICTED IN FINISH PLANS AND ELEVATIONS ARE NOT SHOWN ON OVERALL FLOOR PLANS. REFER TO ENLARGED PLANS, ELEVATIONS, AND DETAILS.
2. REFER TO PARTIAL PLANS FOR MORE INFORMATION. OVERALL PLANS ARE INTENDED TO PROVIDE CONTEXT FOR PARTIAL PLANS.

GENERAL NOTES- ELEVATIONS

1. LIGHT FIXTURES, AIR TERMINALS, GRILLES, ELECTRICAL FIXTURES, OUTLETS, DATA RECEPTACLES, AUDIO/VIDEO CONNECTIONS AND MEDICAL GAS FIXTURES SHOWN ARE FOR ARCHITECTURAL COORDINATION AND DIMENSIONAL CONTROL ONLY. REF: MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS AND SPECIFICATIONS.
2. NOT ALL FIXTURES MAY BE SHOWN ON ARCHTECTURAL ELEVATIONS
3.

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AM JOB NO.
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REV. NO.	REV. DATE	REV. DESCRIPTION

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LEGENDS (ARCHITECTURAL)

A001

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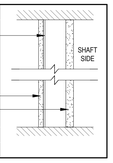
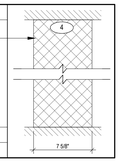
SHAFT PARTITIONS

WALL TYPE	DESCRIPTION	
Sa4	4" 'CH' STUDS @ 16" O.C. (1) LAYERS 5/8" FULL HEIGHT TYPE 'X' GWB ONE SIDE 1" SHAFT LINER OPPOSITE SIDE	
FIRE RATING	1 HR (60 MIN)	UL DESIGN NO. U415 SYSTEM A
STC		SOUND TEST NO.



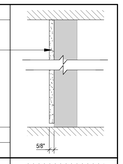
MASONRY PARTITIONS

WALL TYPE	DESCRIPTION	
M8	8" FULL HEIGHT CONCRETE MASONRY UNIT	
FIRE RATING	2 HOUR (120 MIN)	UL DESIGN NO. U905
STC		SOUND TEST NO.

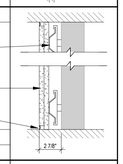


FURRING PARTITIONS

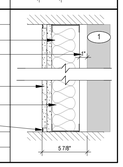
WALL TYPE	DESCRIPTION	
Fa0	5/8" FULL HEIGHT GWB ADHERED DIRECTLY TO EXISTING SUBSTRATE	
FIRE RATING		UL DESIGN NO.
STC		SOUND TEST NO.



WALL TYPE	DESCRIPTION	
Fx1	7/8" HAT CHANNELS WITH SOUND ISOLATION CLIPS, INSTALLED HORIZONTALLY ON EXISTING SUBSTRATE @ 24" O.C. (2) LAYER 5/8" FULL HEIGHT GWB ROOM SIDE SOUND SEALANT (TOP AND BOTTOM)	
FIRE RATING		UL DESIGN NO.
STC		SOUND TEST NO.

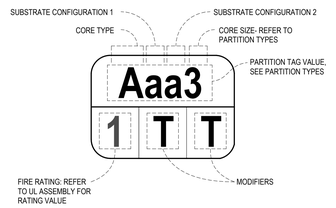


WALL TYPE	DESCRIPTION	
Fb3	3 5/8" FULL HEIGHT METAL STUD @ 16" O.C. 1" AIR GAP WITH NO BRACING (2) LAYER 5/8" FULL HEIGHT GWB ROOM SIDE 3" ACOUSTIC BATTS SOUND SEALANT (TOP AND BOTTOM)	
FIRE RATING		UL DESIGN NO.
STC	45	SOUND TEST NO.



1. PROVIDE COMPATIBLE DEFLECTION HEAD. SEE NON-RATED DEFLECTION HEAD DETAIL.
2. PROVIDE COMPATIBLE DEFLECTION HEAD. SEE FIRE-RESISTIVE DEFLECTION HEAD DETAIL.
3. PROVIDE UL LISTED RATED SEALANT AT FIRST LAYER OF GWB, MEETING REQUIREMENTS FOR SMOKE SEALING.
4. SEE LATERAL RESTRAINT DETAIL.

*FOR ACOUSTIC PARTITIONS, SEE ACOUSTIC DETAILS FOR ADDITIONAL REQUIREMENTS



CORE TYPES

C. CAST IN PLACE CONCRETE

M. CONCRETE MASONRY UNIT

G. METAL STUD FRAMING / METAL FURRING
GG. METAL STUD FRAMING (2 ROWS, PARALLEL WITH PRESCRIBED AIR GAP BETWEEN)

F. FURRING (METAL OR WOOD)

S. METAL SHAFT WALL CH STUD

T. TILT-UP CONCRETE PANEL

W. WOOD STUD FRAMING / WOOD FURRING
WW. WOOD STUD FRAMING (2 ROWS, PARALLEL WITH PRESCRIBED AIR GAP BETWEEN)

STUD SIZE DESIGNATIONS

0.....LAMINATED GWB
.5.....1/2"
1.....7/8", 1-5/8"
2.....2-5/8"
3.....3-5/8"
4.....4" METAL, 2X4 WOOD, 3-5/8" MASONRY
6.....6" METAL, 2X6 WOOD, 5-5/8" MASONRY
8.....8" METAL, 2X8 WOOD, 7-5/8" MASONRY
10.....10" METAL, 2X10 WOOD, 9-5/8" MASONRY
12.....12" METAL, 2X12 WOOD, 11-5/8" MASONRY

SUBSTRATE CONFIGURATIONS

a. 5/8" GWB (1 LAYER)
b. 5/8" GWB (2 LAYER)
c. 5/8" GWB (3 LAYER)
d. 5/8" GWB (4 LAYER)
e. 1/2" GWB (1 LAYER)
f. 1/2" GWB (2 LAYER)

g. 3/4" PLWD (1 LAYER)
h. 1/2" PLWD (1 LAYER)

i. 5/8" GWB (1 LAYER), 3/4" PLYWD (1 LAYER)
j. 5/8" GWB (1 LAYER), 1/2" PLYWD (1 LAYER)
k. 1/2" GWB (1 LAYER), 3/4" PLYWD (1 LAYER)
l. 1/2" GWB (1 LAYER), 1/2" PLYWD (1 LAYER)

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

r. 1/2" RESILIENT CHANNEL, 5/8" GWB (1 LAYER)

s. 1" SHAFT LINER (1 LAYER)

u. 5/8" GWB (1 LAYER), 1-1/8" ISOLATION CLIP
x. 5/8" GWB (2 LAYER), 1-1/8" ISOLATION CLIP

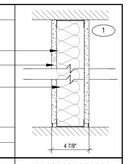
(None) CORE ONLY

MODIFIERS

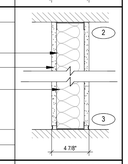
D DOUBLE WALL

METAL STUD PARTITIONS

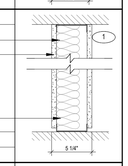
WALL TYPE	DESCRIPTION	
Ga3	3 5/8" FULL HEIGHT METAL STUD @ 16" O.C. 5/8" FULL HEIGHT GWB BOTH SIDES 3" ACOUSTIC BATTS	
FIRE RATING		UL DESIGN NO.
STC	45	SOUND TEST NO.



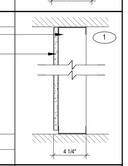
WALL TYPE	DESCRIPTION	
Ga3	3 5/8" FULL HEIGHT METAL STUD @ 16" O.C. 5/8" FULL HEIGHT TYPE 'X' GWB BOTH SIDES 3" ACOUSTIC BATTS	
FIRE RATING	1 HR (60 MIN)	UL DESIGN NO. U419
STC	45	SOUND TEST NO.



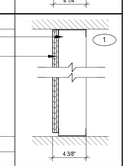
WALL TYPE	DESCRIPTION	
Ga4	4" FULL HEIGHT METAL STUD @ 16" O.C. 5/8" FULL HEIGHT GWB BOTH SIDES 3" ACOUSTIC BATTS	
FIRE RATING		UL DESIGN NO.
STC	45	SOUND TEST NO.



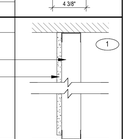
WALL TYPE	DESCRIPTION	
Ga5	3 5/8" FULL HEIGHT METAL STUD @ 16" O.C. 5/8" GWB FULL HEIGHT ONE SIDE	
FIRE RATING		UL DESIGN NO.
STC		SOUND TEST NO.



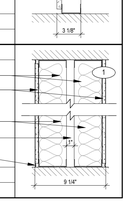
WALL TYPE	DESCRIPTION	
Gd3	3 5/8" FULL HEIGHT METAL STUD @ 16" O.C. 3/4" PLYWOOD FULL HEIGHT ONE SIDE	
FIRE RATING		UL DESIGN NO.
STC		SOUND TEST NO.



WALL TYPE	DESCRIPTION	
Gd2	2 1/2" FULL HEIGHT METAL STUD @ 16" O.C. 5/8" GWB FULL HEIGHT ONE SIDE	
FIRE RATING		UL DESIGN NO.
STC		SOUND TEST NO.



WALL TYPE	DESCRIPTION	
GGa3 S1	3 5/8" FULL HEIGHT METAL STUD @ 16" O.C. (1) LAYER 5/8" GWB 3" ACOUSTIC BATTS 1" UNUBSTRUCTED AIR SPACE SOUND SEALANT (TOP AND BOTTOM)	
FIRE RATING		UL DESIGN NO.
STC	60	SOUND TEST NO.



GENERAL PARTITION NOTES

Key Name	Gen Ptn Notes
A	THE PARTITION TYPES INDICATED ARE INTENDED AS A SUMMARY OF THE PARTITIONS REQUIRED, BUT MAY NOT REPRESENT ALL OF THE PARTITIONS REQUIRED TO COMPLETE THE WORK. THE DRAWINGS, THESE NOTES, AND THE REMAINDER OF THE CONSTRUCTION DOCUMENTS ARE COMPLIMENTARY, AS ADDITIONAL PARTITION TYPES MAY BE INDICATED THROUGHOUT.
B	NON-LOADBEARING PARTITIONS ARE TO EXTEND TO THE UNDERSIDE OF DECK/STRUCTURE ABOVE UNLESS OTHERWISE INDICATED. PROVIDE HEAD DETAIL TO ACCOMMODATE VERTICAL DEFLECTION OF DECK/STRUCTURE OF I/360 UNLESS OTHERWISE INDICATED.
C	PROVIDE COMPATIBLE UL LISTED FIRE-RESISTANT JOINT ASSEMBLIES AT TOP OF WALLS INDICATED TO BE FIRE RATED, INCLUDING INFILLING OF DECK FLUTES AND OTHER IRREGULAR SURFACES.
D	PROVIDE COMPATIBLE UL LISTED FIRESTOPPING DETAIL AT PENETRATIONS OF WALLS INDICATED TO BE FIRE RATED, BY TRADE PROVIDING PENETRATING ITEM. GC TO PROVIDE UL LISTED FIRESTOPPING DETAILS FOR EXISTING ITEMS PENETRATING NEW FIRE RATED CONSTRUCTION.
E	WHERE FIRE RATED WALLS CANNOT EXTEND STRAIGHT UP TO DECK, PROVIDE OFFSET OR OTHER ARCHITECT APPROVED ALTERNATIVE CONSTRUCTION TO MAINTAIN RATING UP TO DECK.
F	PROVIDE IDENTIFICATION OF RATED WALLS IN ACCESSIBLE CONCEALED SPACES AS REQUIRED BY BCNYS(2015) 703.7.
G	WHERE FIRE RATED PARTITIONS ARE REQUIRED, PROVIDE OPENING PROTECTIVES WITH APPROPRIATE TESTING AND LABELLING AS REQUIRED BY BCNYS AND AUTHORITIES HAVING JURISDICTION.
H	CONTROL JOINTS SHALL BE LAID OUT IN A MANNER LOGICAL TO THE GEOMETRY OF THE CONSTRUCTION, LOCATION OF OPENINGS, AND MATERIAL CHANGES, EQUALLY SPACED, AND CONSISTENT WITH THE DESIGN INTENT. SUBMIT PROPOSED JOINT LAYOUT TO ARCHITECT FOR REVIEW PRIOR TO INSTALLATION.

GENERAL STUD PARTITION NOTES

Key Name	Comments
A	IN ADDITION TO THE GENERAL PARTITION NOTES, GENERAL STUD PARTITION NOTES APPLY TO STUD PARTITIONS AND FURRED OUT WALL CONSTRUCTION, THROUGHOUT THE INTENDED WORK.
B	STUD PARTITIONS/WALLS ARE DIMENSIONED TO FACE OF GWB. DIMENSIONS ARE EXCLUSIVE OF APPLIED FINISHES UNLESS NOTED OTHERWISE.
C	FOR STUD CONSTRUCTION NOT EXTENDING TO STRUCTURE, PROVIDE DIAGONAL BRACING FROM TOP OF PARTITION TO STRUCTURE ABOVE, AT 48" OC MAX, AND AT EACH DOOR JAMB IN TWO DIRECTIONS.
D	WHERE GWB DOES NOT EXTEND TO DECK ON BOTH SIDES OF STUDS, PROVIDE INTERNAL BRIDGING AT 4'-0 " OC FOR FULL HEIGHT OF PARTITION.
E	PROVIDE CONTROL JOINTS IN GWB WALLS & CEILINGS PER THE GYPSUM CONSTRUCTION HANDBOOK, CURRENT EDITION, AND WHERE MOVEMENT JOINTS OCCUR IN UNDERLYING CONSTRUCTION, BUT NOT LESS THAN: 30 ' IN ANY DIRECTION AT WALLS AND RESTRAINED CEILINGS, AND 30' MAX AT UNRESTRAINED SUSPENDED CEILINGS GREATER THAN 50 ' IN ANY DIRECTION.
F	AT OPENINGS, RECESSES, AND CHANGES IN PLANE AT GWB ASSEMBLIES PROVIDE GWB AT RETURNS AND BACK OF RECESS TO MATCH SURROUNDING PARTITION TYPE AND FINISH, UNLESS OTHERWISE INDICATED.
G	PROVIDE MOISTURE RESISTANT GWB IN ALL WET AREAS: KITCHENS, TOILETS, CUSTODIAL CLOSETS, ETC., UNLESS OTHERWISE INDICATED.
H	WHERE TILE, STONE, OR SIMILAR ADHERED FINISH IS INDICATED, TYPE, GAGE, OR SPACING OF STUDS SHALL BE ADJUSTED TO LIMIT DEFLECTION TO L/600, AND SPECIFIED BACKER BOARD SHALL BE PROVIDED IN LIEU OF GWB.
I	PROVIDE APPROPRIATE STRAPPING OR WOOD BLOCKING AS REQUIRED FOR SURFACE MOUNTING OF CASEWORK, RAILINGS, FIXTURES, EQUIPMENT, ACCESSORIES, ETC., BY TRADE REQUIRING BLOCKING.
J	IT IS THE RESPONSIBILITY OF THE GWB INSTALLER TO COORDINATE WITH THE OTHER PRIME CONTRACTORS TO ALLOW COMPLETION OF THEIR WORK, INCLUDING REQUIRED TESTING AND INSPECTIONS, PRIOR TO INSTALLATION OF INSULATION OR GWB, UNLESS OTHERWISE INDICATED IN THE APPROVED PROJECT SCHEDULE.

GENERAL MASONRY PARTITION NOTES

Key Name	COMMENTS
A	IN ADDITION TO THE GENERAL PARTITION NOTES, GENERAL MASONRY PARTITION NOTES APPLY TO MASONRY PARTITIONS AND INFILL WALL CONSTRUCTION THROUGHOUT THE INTENDED WORK.
B	MASONRY PARTITIONS/WALLS ARE DIMENSIONED FROM FACE OF MASONRY. DIMENSIONS ARE EXCLUSIVE OF APPLIED FINISHES UNLESS NOTED OTHERWISE.
C	MASONRY SHALL BE LAID OUT TO MINIMIZE UNITS LESS THAN 4 " IN LENGTH.
D	WHERE MASONRY INFILL IS LEFT EXPOSED, MATCH SIZE, COURSING, AND BOND OF EXISTING.
E	MASONRY WALLS SHALL INCLUDE CONTINUOUS HORIZONTAL LADDER-STYLE REINFORCEMENT @ 16 "OC UNLESS OTHERWISE INDICATED.
F	SEE STRUCTURAL DRAWINGS FOR ADDITIONAL REINFORCEMENT IN MASONRY PARTITIONS.
G	PROVIDE LATERAL RESTRAINT DETAIL AT TOP OF NON-LOADBEARING MASONRY PARTITIONS.
H	WHERE MASONRY IS 7'-4" OR LESS IN HEIGHT, OR IS EXPOSED TO VIEW FROM ABOVE, PROVIDE SOLID UNITS OR OTHER ARCHITECT APPROVED FINISHED TOP COURSE.
I	PROVIDE CONTROL JOINTS IN INTERIOR MASONRY WALLS AT A SPACING NOT TO EXCEED 25 FT AND WHERE WALL THICKNESS OR HEIGHTS CHANGE. COORDINATE CONTROL JOINT DETAILS WITH FINISHES.
J	IT IS THE RESPONSIBILITY OF THE MASON TO COORDINATE WITH OTHER PRIME CONTRACTORS, FOR THE TURNOVER AND INSTALLATION OF EMBEDDED ANCHORS AND ACCESSORIES, AND FOR FILLING OF BLOCK CORES WHERE REQUIRED FOR BEARING OR ANCHORING.
K	WHERE MASONRY IS TO BE EXPOSED JOINTS SHALL BE TIGHTLY FILLED, AND TOOLED CONCAVE.
L	WHERE MASONRY IS TO RECEIVE DIRECTLY APPLIED FINISH, SURFACES SHALL BE CLEAN AND FREE OF HOLES OR MORTAR DROPPINGS, AND READY TO RECEIVE FINISH INDICATED.

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AR JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

PARTITION TYPES AND DETAILS

A002

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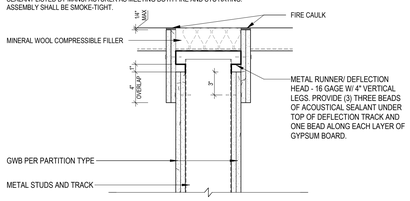
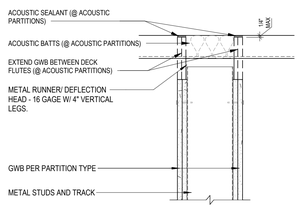
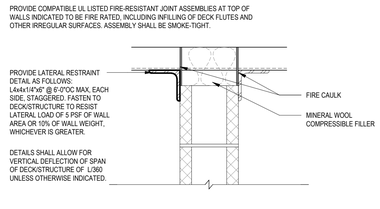


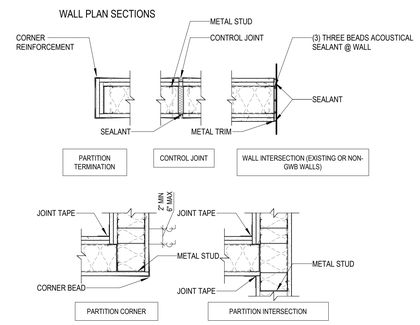
D1 DETAIL - FIRE-RESISTIVE DEFLECTION HEAD
Partitions



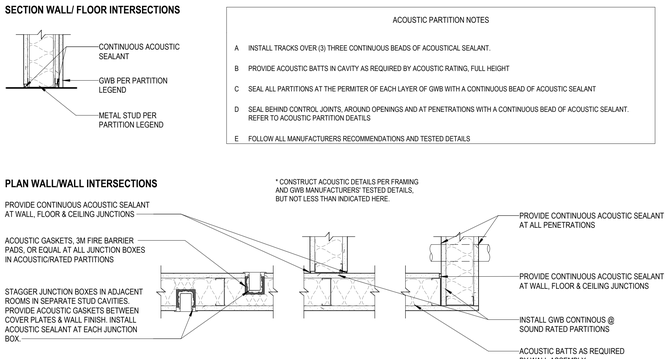
C1 DETAIL - NON-RATED DEFLECTION HEAD
1 1/2" = 1'-0"



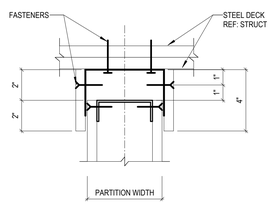
C1a DETAIL - LATERAL RESTRAINT @ MASONRY PARTITIONS
Partitions



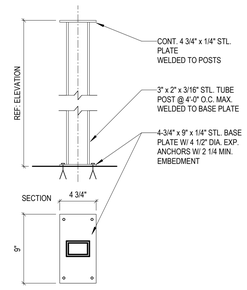
B1 TYPICAL PARTITION DETAILS
1 1/2" = 1'-0"



9 DETAILS - ACOUSTIC WALLS, TYPICAL
1 1/2" = 1'-0"

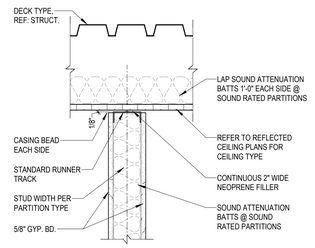


E3 EXPANSION HEAD
3" = 1'-0"



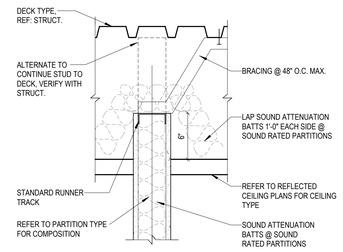
(PARTITION - FREE STANDING SUPPORT)

E4 HEAD CONDITION "5"
1 1/2" = 1'-0"



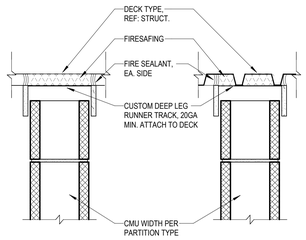
(PARTITION TERMINATED @ CEILING - ACOUSTIC AND NON-ACOUSTIC SHOWN)

E5 HEAD CONDITION "4"
1 1/2" = 1'-0"

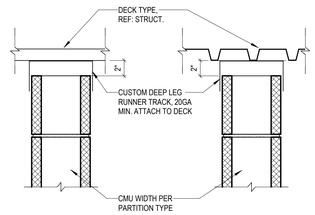


(PARTITION TERMINATED ABOVE CEILING - ACOUSTIC AND NON-ACOUSTIC SHOWN)

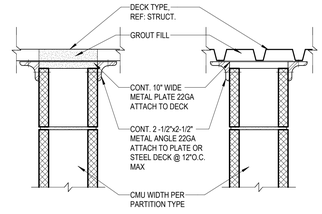
E6 HEAD CONDITION "3"
1 1/2" = 1'-0"



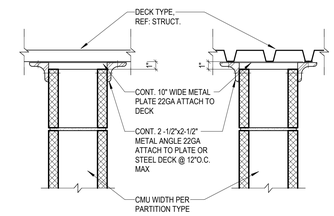
(CMU PARTITION EXPANSION @ DECK - FIRE RATED)



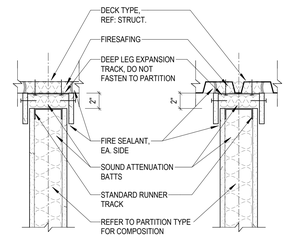
(CMU PARTITION EXPANSION @ DECK)



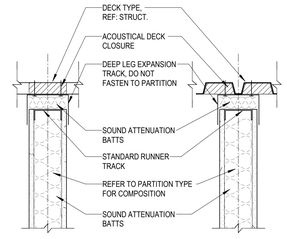
(CMU PARTITION TO DECK - FIRE RATED)



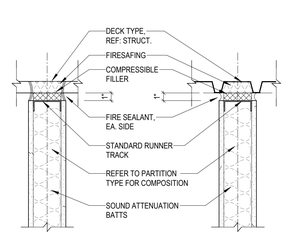
(CMU PARTITION TO DECK)



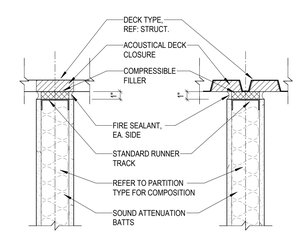
(PARTITION EXPANSION @ DECK - ACOUSTIC AND FIRE RATED)



(PARTITION EXPANSION @ DECK - ACOUSTIC)



(PARTITION TO DECK - ACOUSTIC AND FIRE RATED)



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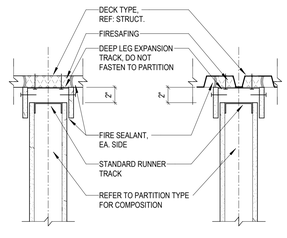

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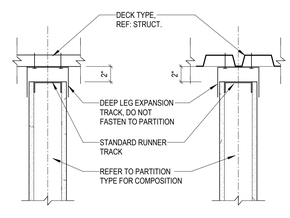

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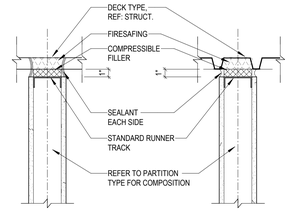

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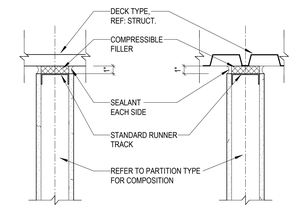

(PARTITION TO DECK)

A3 HEAD CONDITION "2"
1 1/2" = 1'-0"

A5 HEAD CONDITION "1"
1 1/2" = 1'-0"

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SEAL:

ARCH NAME ARCH ##

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AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

PARTITION DETAILS

A003

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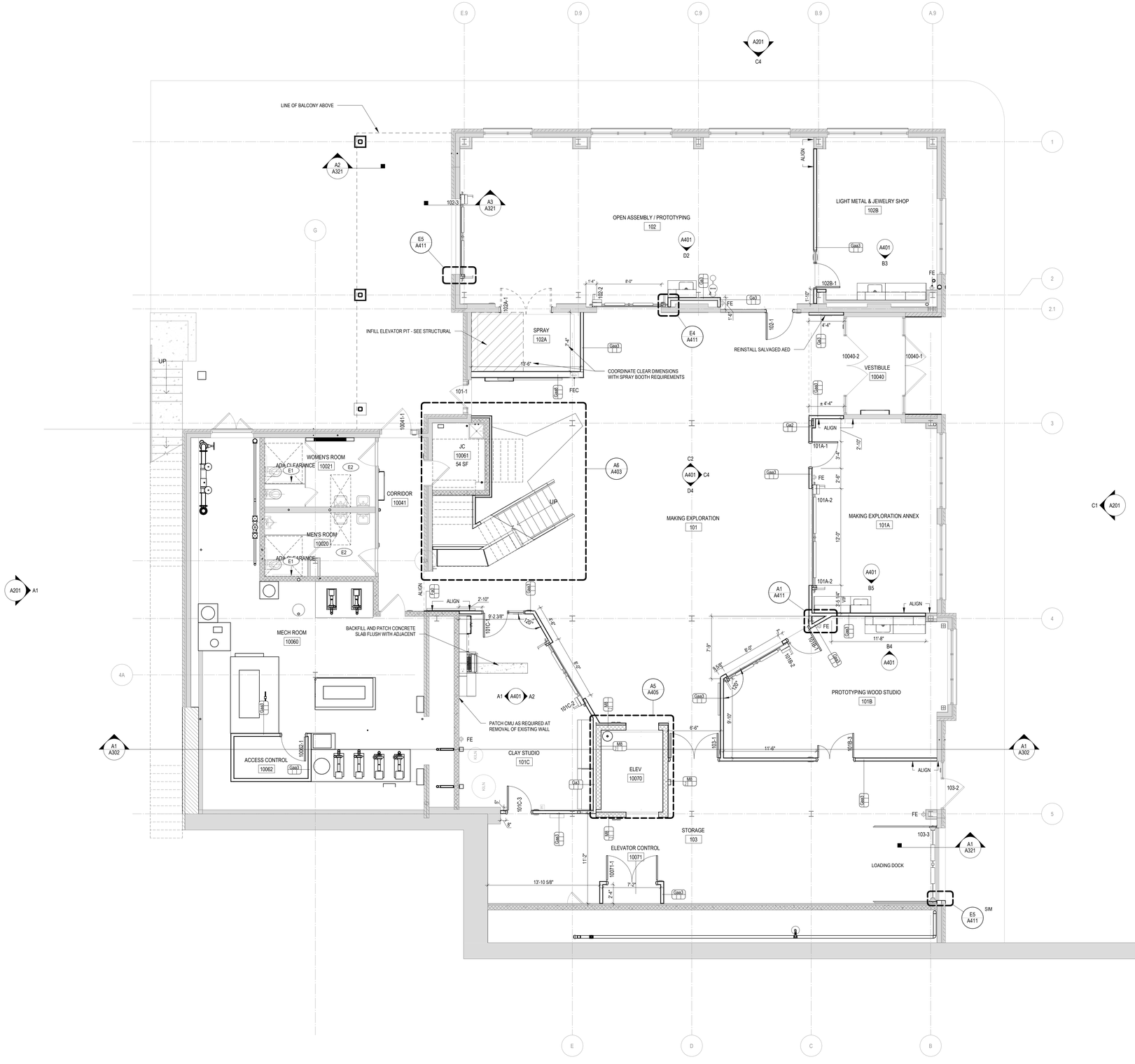

GENERAL DRAWINGS NOTES

Key Name	Gen Recon Notes
A	GENERAL NOTES APPLY TO THE INTENDED WORK INCLUDED IN THE CONTRACT DOCUMENTS.
B	EXISTING CONDITIONS AND PERTINENT UTILITIES INDICATED ARE BASED ON FIELD OBSERVATIONS, SURVEYS, AND DOCUMENTATION OF PRIOR CONSTRUCTION, AS AVAILABLE. EXISTING DIMENSIONS INDICATED ARE APPROXIMATE AND SUBJECT TO CONTRACTOR'S VERIFICATION.
C	EXISTING CONDITIONS MAY VARY FROM THOSE INDICATED. NOTIFY THE ARCHITECT IN WRITING OF DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THE WORK.
D	SHOULD CONFLICTS EXIST WITHIN THE CONSTRUCTION DOCUMENTS, VERIFY INTENT WITH ARCHITECT PRIOR TO BIDDING. CLARIFICATIONS ISSUED AFTER BIDDING SHALL NOT BE BASIS FOR ADDITIONAL COMPENSATION.
E	WHERE SPECIFIC NOTES CONFLICT WITH GENERAL NOTES, THE SPECIFIC NOTES SHALL GOVERN.
F	WHERE NEWLY EXPOSED SURFACES ARE TO REMAIN EXPOSED IN THE COMPLETED WORK CONTRACTORS SHALL PATCH SURFACES WITH IN-KIND MATERIAL TO LIKE-NEW CONDITION, SUBJECT TO ARCHITECT 'S APPROVAL.
G	ITEMS INDICATED FOR REINSTALLATION SHALL INCLUDE TRIM, ACCESSORIES, MOUNTING HARDWARE, ETC., AS WELL AS IN-KIND PATCHING OF ADJACENT CONSTRUCTION DISTURBED DURING REMOVAL.
H	WHEN DURING THE COURSE OF THE WORK, EXISTING CONSTRUCTION INDICATED TO REMAIN IS DAMAGED, THE CONTRACTOR SHALL REPAIR OR REPLACE WITH IN-KIND MATERIAL TO LIKE-NEW CONDITION, AT NO EXPENSE TO THE OWNER, AND SUBJECT TO ARCHITECT 'S APPROVAL.
I	CONTRACTORS SHALL BE RESPONSIBLE FOR CUTTING, PATCHING, AND TRIMMING REQUIRED TO INTEGRATE WORK WITH ADJACENT NEW WORK OR EXISTING CONDITIONS IN KEEPING WITH THE INTENDED INSTALLATION, DETAILS, AND ASSOCIATED FUNCTIONAL REQUIREMENTS, SUCH AS OPERATIONAL CLEARANCES OR MAINTENANCE ACCESS FOR EQUIPMENT. VERIFY WITH ARCHITECT SUCH CONDITIONS AND PROPOSED ACCOMMODATIONS PRIOR TO INSTALLATION.
J	IN THE ABSENCE OF DIMENSIONS LAYOUT OF ITEMS SHALL BE CENTERED IN A SPACE, EVENLY SPACED, ALIGNED WITH ADJACENT CONSTRUCTION, OR OTHERWISE SET TO LOGICAL POINTS. WHERE ITEMS ARE INDICATED IN AN UNUSUAL OR ASYMMETRICAL MANNER VERIFY INTENT WITH ARCHITECT BEFORE PROCEEDING WITH WORK.
K	WHERE ADJACENT SURFACES APPEAR FLUSH TO ONE ANOTHER IT IS INTENDED THAT THE FACE OF THE FINISHES ARE ALIGNED UNLESS OTHERWISE INDICATED.
L	REMEDIATION OF UNSATISFACTORY WORK DUE TO FAILURE TO FOLLOW THESE AND OTHER GENERAL NOTES SHALL BE SUBJECT TO ARCHITECT 'S APPROVAL, AND AT NO ADDITIONAL COST TO THE OWNER.
M	WHERE A DOOR IS LOCATED ADJACENT TO A PERPPENDICULAR WALL, LOCATE THE DOOR WITH SIX (6) INCHES FROM THE FACE OF THE WALL TO THE INSIDE FACE OF THE DOOR FRAME
N	LAYOUT DIMENSIONS ARE TO FINISH FACE OF WALL ASSEMBLY AS SHOWN ON THE PARTITION SHEET, EXCLUSIVE OF DECORATIVE SURFACES, UNLESS NOTED OTHERWISE

KEYED NOTES

E1	INSTALL NEW VERTICAL GRAB BAR; SEE MOUNTING HEIGHT SCHEDULE FOR DIMENSIONS
E2	INSTALL OWNER FURNISHED TOILET ROOM ACCESSORIES; SEE MOUNTING HEIGHT SCHEDULE FOR DIMENSIONS. INFILL HOLES AT AREAS OF REMOVAL AS NEEDED.

A1 FLOOR PLAN-OVERALL- LEVEL 01
3/16" = 1'-0"

TRUE NORTH
PROJECT NORTH

ASHLEY MCGRAW
125 EAST JEFFERSON STREET
SYRACUSE, NEW YORK 13202
CONSULTANT:

SEAL:

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ITHACA, NEW YORK 14853

CORNELL UNIVERSITY
BEEBE HALL CU MAKER HUB RENOVATIONS
110 ARBORETUM RD, ITHACA, NY 14850

AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

FLOOR PLAN- LEVEL 01

A101

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THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THIS ENTIRE ORIGINAL PLOTTED SIZE

THE SQUARES ABOVE ARE COLOR, WITH BLACK AND WHITE LETTERS, IF PRINTED CORRECTLY

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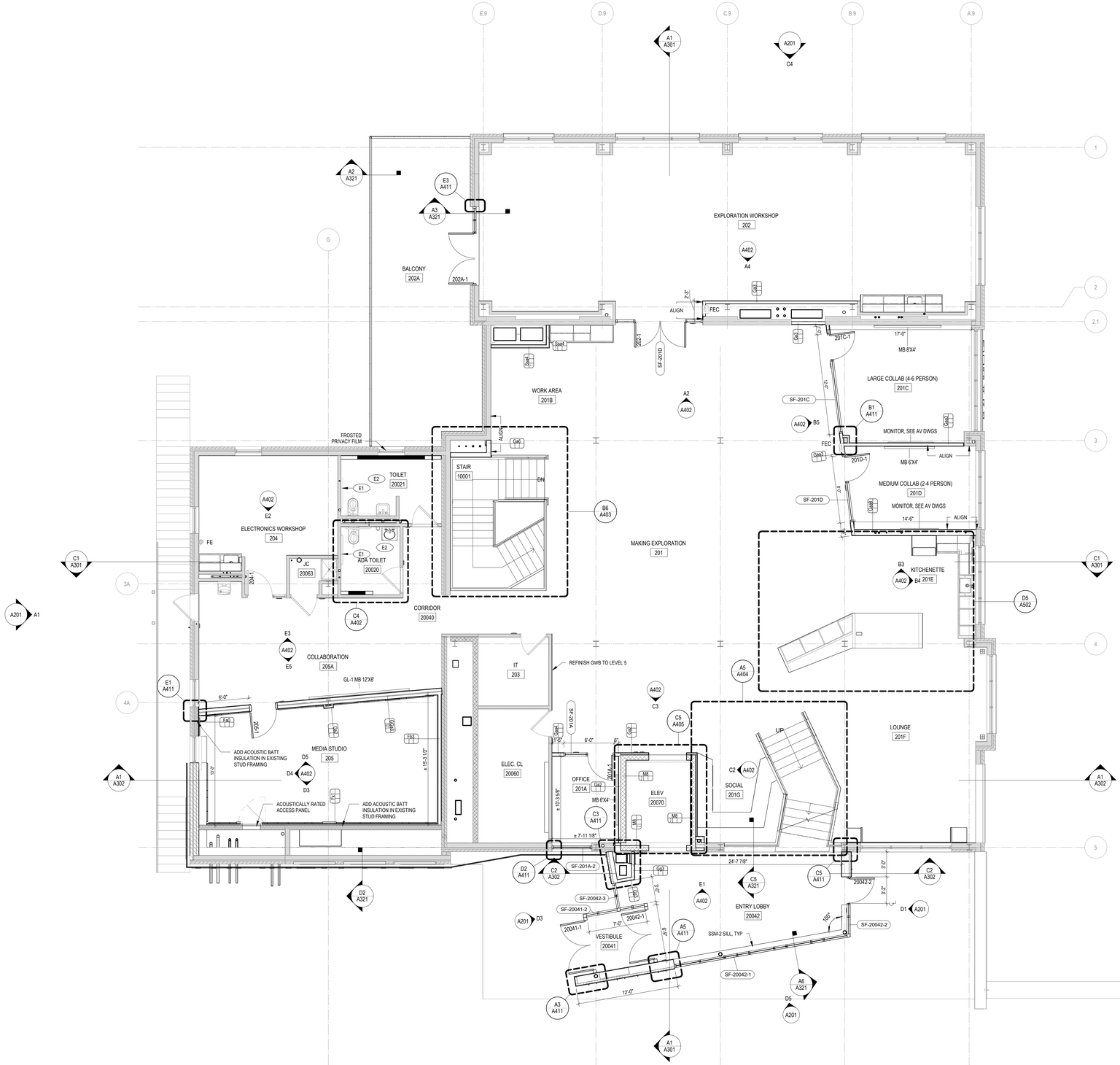

A1 FLOOR PLAN-OVERALL- LEVEL 02
3/16" = 1'-0"

GENERAL DRAWINGS NOTES

Key Name	Gen Recon Notes
A	GENERAL NOTES APPLY TO THE INTENDED WORK INCLUDED IN THE CONTRACT DOCUMENTS.
B	EXISTING CONDITIONS AND PERTINENT UTILITIES INDICATED ARE BASED ON FIELD OBSERVATIONS, SURVEYS, AND DOCUMENTATION OF PRIOR CONSTRUCTION, AS AVAILABLE. EXISTING DIMENSIONS INDICATED ARE APPROXIMATE AND SUBJECT TO CONTRACTOR'S VERIFICATION.
C	EXISTING CONDITIONS MAY VARY FROM THOSE INDICATED. NOTIFY THE ARCHITECT IN WRITING OF DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THE WORK.
D	SHOULD CONFLICTS EXIST WITHIN THE CONSTRUCTION DOCUMENTS, VERIFY INTENT WITH ARCHITECT PRIOR TO BIDDING. CLARIFICATIONS ISSUED AFTER BIDDING SHALL NOT BE BASIS FOR ADDITIONAL COMPENSATION.
E	WHERE SPECIFIC NOTES CONFLICT WITH GENERAL NOTES, THE SPECIFIC NOTES SHALL GOVERN.
F	WHERE NEWLY EXPOSED SURFACES ARE TO REMAIN EXPOSED IN THE COMPLETED WORK CONTRACTORS SHALL PATCH SURFACES WITH IN-KIND MATERIAL TO LIKE-NEW CONDITION, SUBJECT TO ARCHITECT 'S APPROVAL.
G	ITEMS INDICATED FOR REINSTALLATION SHALL INCLUDE TRIM, ACCESSORIES, MOUNTING HARDWARE, ETC., AS WELL AS IN-KIND PATCHING OF ADJACENT CONSTRUCTION DISTURBED DURING REMOVAL.
H	WHEN DURING THE COURSE OF THE WORK, EXISTING CONSTRUCTION INDICATED TO REMAIN IS DAMAGED, THE CONTRACTOR SHALL REPAIR OR REPLACE WITH IN-KIND MATERIAL TO LIKE-NEW CONDITION, AT NO EXPENSE TO THE OWNER, AND SUBJECT TO ARCHITECT 'S APPROVAL.
I	CONTRACTORS SHALL BE RESPONSIBLE FOR CUTTING, PATCHING, AND TRIMMING REQUIRED TO INTEGRATE WORK WITH ADJACENT NEW WORK OR EXISTING CONDITIONS IN KEEPING WITH THE INTENDED INSTALLATION, DETAILS, AND ASSOCIATED FUNCTIONAL REQUIREMENTS, SUCH AS OPERATIONAL CLEARANCES OR MAINTENANCE ACCESS FOR EQUIPMENT. VERIFY WITH ARCHITECT SUCH CONDITIONS AND PROPOSED ACCOMMODATIONS PRIOR TO INSTALLATION.
J	IN THE ABSENCE OF DIMENSIONS LAYOUT OF ITEMS SHALL BE CENTERED IN A SPACE, EVENLY SPACED, ALIGNED WITH ADJACENT CONSTRUCTION, OR OTHERWISE SET TO LOGICAL POINTS. WHERE ITEMS ARE INDICATED IN AN UNUSUAL OR ASYMMETRICAL MANNER VERIFY INTENT WITH ARCHITECT BEFORE PROCEEDING WITH WORK.
K	WHERE ADJACENT SURFACES APPEAR FLUSH TO ONE ANOTHER IT IS INTENDED THAT THE FACE OF THE FINISHES ARE ALIGNED UNLESS OTHERWISE INDICATED.
L	REMEDIATION OF UNSATISFACTORY WORK DUE TO FAILURE TO FOLLOW THESE AND OTHER GENERAL NOTES SHALL BE SUBJECT TO ARCHITECT 'S APPROVAL, AND AT NO ADDITIONAL COST TO THE OWNER.
M	WHERE A DOOR IS LOCATED ADJACENT TO A PERPENDICULAR WALL, LOCATE THE DOOR WITH SIX (6) INCHES FROM THE FACE OF THE WALL TO THE INSIDE FACE OF THE DOOR FRAME
N	LAYOUT DIMENSIONS ARE TO FINISH FACE OF WALL ASSEMBLY AS SHOWN ON THE PARTITION SHEET, EXCLUSIVE OF DECORATIVE SURFACES, UNLESS NOTED OTHERWISE.

KEYED NOTES (N)

E1	INSTALL NEW VERTICAL GRAB BAR; SEE MOUNTING HEIGHT SCHEDULE FOR DIMENSIONS
E2	INSTALL OWNER FURNISHED TOILET ROOM ACCESSORIES; SEE MOUNTING HEIGHT SCHEDULE FOR DIMENSIONS. INFILL HOLES AT AREAS OF REMOVAL AS NEEDED.

TRUE NORTH
PROJECT NORTH

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FLOOR PLAN- LEVEL 02

A102

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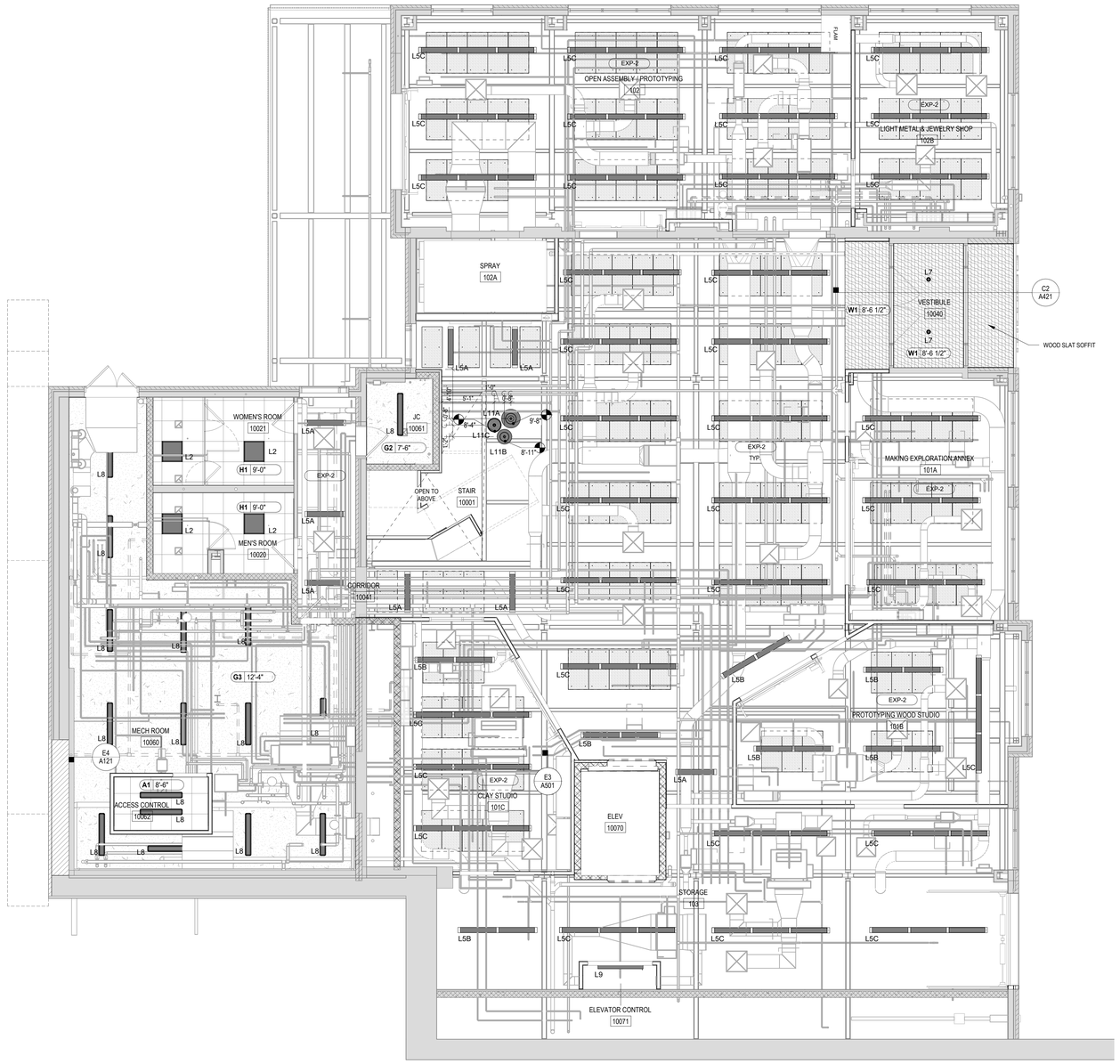
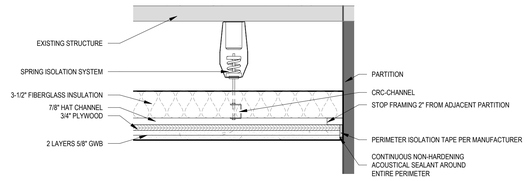


A1 REFLECTED CEILING PLAN- LEVEL 01
3/16" = 1'-0"

TRUE NORTH
PROJECT NORTH



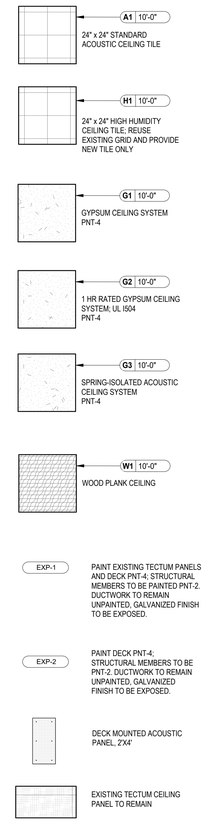
E4 SEC DTL - SPRING-ISOLATED CEILING
1 1/2" = 1'-0"

GENERAL CEILING NOTES

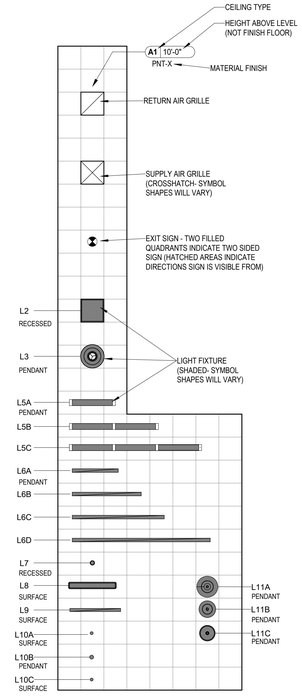
A	GENERAL CEILING NOTES APPLY TO THE SCOPE OF WORK INCLUDED IN THE CONTRACT DOCUMENTS.
B	CEILING TYPE SCHEDULES ARE GENERAL DESCRIPTIONS AND DO NOT SUPERSEDE SPECIFIC NOTES AND DETAILS WITHIN THE CONTRACT DOCUMENTS.
C	SHOULD CONFLICTS EXIST WITH THE CONSTRUCTION DOCUMENTS, VERIFY INTENT WITH ARCHITECT.
D	IT IS INTENDED THAT ALL EQUIPMENT AND FIXTURES ARESEE GENERAL DEMOLITION NOTES FOR REMOVAL AND REINSTALLATION OR REPLACEMENT OF EXISTING CEILINGS RELATED TO SCOPE ABOVE THE CEILINGS. LAID OUT ACCORDING TO THE ARCHITECTURAL REFLECTED CEILING PLANS.
E	CENTER CEILING PANELS IN ROOM AS GRAPHICALLY SHOWN IN THE CONTRACT DOCUMENTS, UNO.
F	ALL CEILING MOUNTED DEVICES, MECHANICAL GRILLES, AND LIGHT FIXTURES ARE ASSUMED TO BE CENTERED WITHIN CEILING PANELS AND GWB CEILINGS, UNO.
G	ITEMS INCLUDED IN THE CONTRACT DOCUMENTS NOT DEPICTED IN ARCHITECTURAL DRAWINGS SHALL BE CENTERED WITHIN THE CEILING PANELS OR IN LOCATIONS VERIFIED WITH ARCHITECT PRIOR TO INSTALLATION. GC TO COORDINATE THE WORK WITH ALL TRADES.
H	GC TO COORDINATE THE WORK OF ALL TRADES INVOLVED IN THE CEILING WORK TO ENSURE CLEARANCES OF FIXTURES, DUCTS, PIPING, CEILING SUSPENSION SYSTEMS AND THE LIKE ARE ACCOMMODATED TO MAINTAIN THE FINISHED CEILING HEIGHTS INDICATED ON THE ARCHITECT`S DRAWINGS.LOCATE AND INSTALL CONTROL JOINTS IN GWB CEILINGS AS INDICATED, BUT NOT LESS THAN REQUIRED PER GYPSUM CONSTRUCTION HANDBOOK (CURRENT EDITION), SUBJECT TO APPROVAL BY ARCHITECT.
I	IN SPACES WITH CLOSETS, ALCOVES, OR SIMILAR ANCILLARY AREAS, CEILING TYPES WILL CONTINUE INTO THOSE AREAS, UNO.
J	LOCATE AND INSTALL CONTROL JOINTS IN GWB CEILINGS AS INDICATED, BUT NOT LESS THAN REQUIRED PER GYPSUM CONSTRUCTION HANDBOOK (CURRENT EDITION), SUBJECT TO APPROVAL BY ARCHITECT.
K	PAINT GWB CEILINGS, SOFFITS, AND BULKHEADS WITH A STANDARD DUTY, INSTITUTIONAL LOW-ODOR/VOC LATEX PAINT, UNO.
L	PAINT GWB CEILINGS IN AREAS OF HIGH HUMIDITY, MOISTURE, AND FOOD PREPARATION WITH A HEAVY DUTY, WATERBORNE LIGHT INDUSTRIAL COATING (EPOXY PAINT), UNO.
M	AT EXPOSED OR SEMI-EXPOSED CEILINGS INDICATED TO BE PAINTED, PROVIDE CLEANING, PATCHING AT PENETRATIONS, PRIMING, AND PAINT AT ALL EXPOSED CEILING COMPONENTS INCLUDING BUT NOT LIMITED TO ALL STRUCTURAL MEMBERS, CONCRETE AND METAL DECK, PIPES, CONDUIT, AND DUCTS. INCLUDE THE REMOVAL OF ALL OIL, GREASE, DIRT, LOOSE PAINT, AND OTHER FOREIGN SUBSTANCES THAT WILL ADVERSELY AFFECT PROPER BONDING OF PAINT.
N	PAINT EXPOSED STRUCTURAL ELEMENTS, PIPING, CONDUITS, JUNCTION BOXES, AND MISCELLANEOUS METALS AT CEILINGS TO MATCH CEILING SURFACE, UNO.
O	PAINT EXPOSED WOOD GROUNDS, BACKERS, FILLERS, SPACES, AND OTHER UNFINISHED COMPONENTS ASSOCIATED WITH THE INSTALLATION OF EQUIPMENT OR ACCESSORIES TO MATCH CEILING SURFACE, UNO.
P	WHERE NON-REMOVABLE CEILINGS CONCEAL EQUIPMENT REQUIRING ACCESS, COORDINATE ACCESS DOOR SIZE AND LOCATION WITH ARCHITECT PRIOR TO ACCESS DOOR INSTALLATION.
Q	PAINT ACCESS DOORS INSTALLED IN CEILINGS OF DISSIMILAR COLOR TO MATCH CEILING, UNO.
R	PAINT HVAC GRILLES AND REGISTERS INSTALLED IN CEILINGS OF DISSIMILAR COLOR TO MATCH CEILING, UNO.
S	FINISH EXPOSED EDGES OF CEILING PANELS TO MATCH FACTORY SURFACE AND PROFILE PER MANUFACTURER`S RECOMMENDATIONS.

LEGEND- REFLECTED CEILING PLANS

CEILING TYPE LEGEND



FIXTURE AND DEVICE TYPE LEGEND



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REFLECTED CEILING PLAN- LEVEL 01

A121

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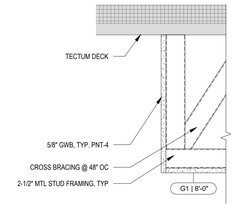
KEYED NOTES

C.3	ALTERNATE #5: PROVIDE DECK-MOUNTED ACOUSTIC CEILING PANELS.



E5 SEC DTL - GWB SOFFIT
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L	PAINT GWB CEILINGS IN AREAS OF HIGH HUMIDITY, MOISTURE, AND FOOD PREPARATION WITH A HEAVY DUTY, WATERBORNE LIGHT INDUSTRIAL COATING (EPOXY PAINT), UNO.
M	AT EXPOSED OR SEMI-EXPOSED CEILINGS INDICATED TO BE PAINTED, PROVIDE CLEANING, PATCHING AT PENETRATIONS, PRIMING, AND PAINT AT ALL EXPOSED CEILING COMPONENTS INCLUDING BUT NOT LIMITED TO ALL STRUCTURAL MEMBERS, CONCRETE AND METAL DECK, PIPES, CONDUIT, AND DUCTS. INCLUDE THE REMOVAL OF ALL OIL, GREASE, DIRT, LOOSE PAINT, AND OTHER FOREIGN SUBSTANCES THAT WILL ADVERSELY AFFECT PROPER BONDING OF PAINT.
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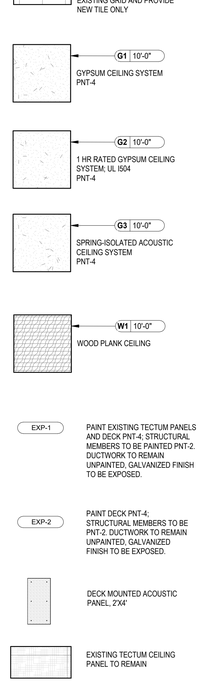
A1 REFLECTED CEILING PLAN- LEVEL 02
3/16" = 1'-0"

TRUE NORTH
PROJECT NORTH

LEGEND- REFLECTED CEILING PLANS

CEILING TYPE LEGEND



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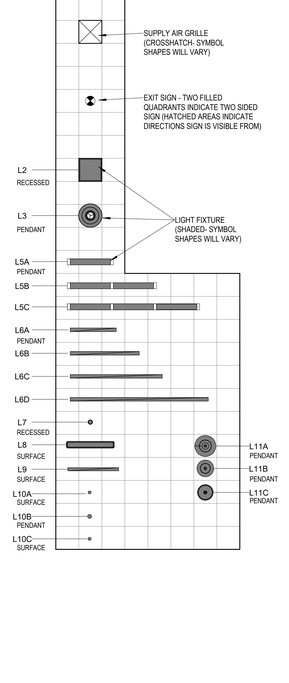

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REFLECTED CEILING PLAN- LEVEL 02

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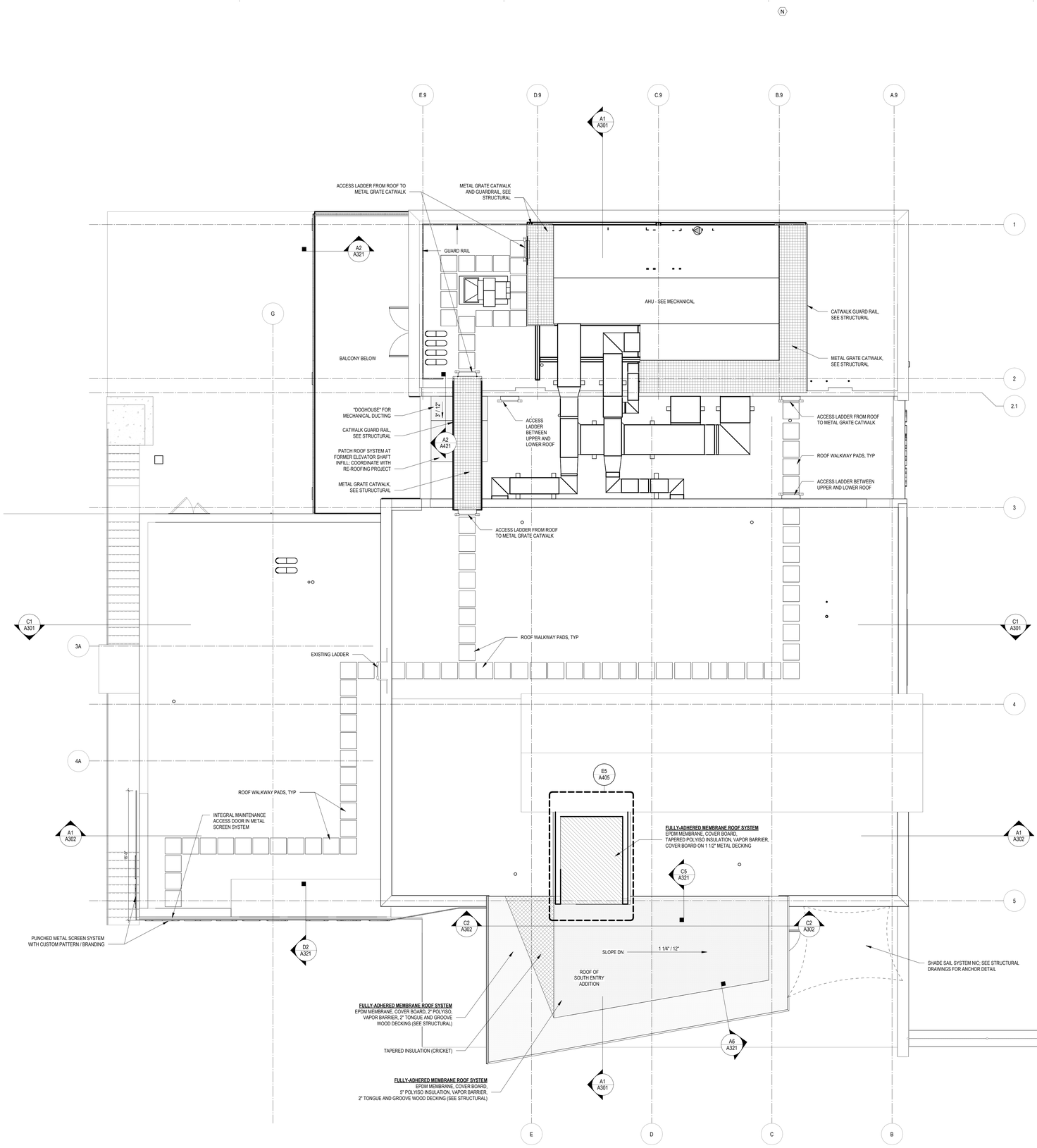


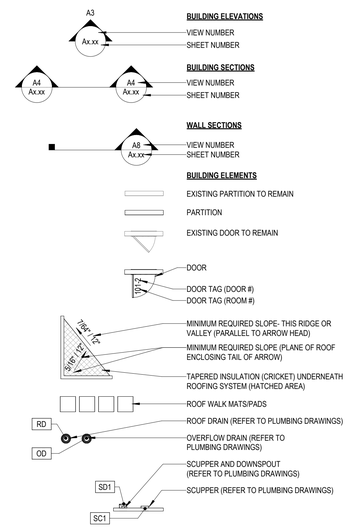
A1 ROOF PLAN- OVERALL
3/16" = 1'-0"

TRUE NORTH PROJECT NORTH

GENERAL ROOFING NOTES

A	EXISTING CONDITIONS - INFORMATION SHOWN PERTAINING TO EXISTING CONDITIONS IS BASED ON VISUAL INSPECTION AND EXISTING CONSTRUCTION DOCUMENTS PROVIDED BY THE OWNER. ANY DISCREPENCIES DISCOVERED BY THE CONTRACTOR SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION. DESCRIPTIONS AND DETAILS OF EXISTING CONDITIONS MAY VARY FROM THOSE INDICATED.
B	EXISTING EQUIPMENT - ALL EXISTING ROOF PENETRATIONS, EQUIPMENT AND ACCESSORIES ARE "EXISTING TO REMAIN" UNLESS INDICATED OTHERWISE. FIELD VERIFY COMPATIBILITY OF ANY NEW EQUIPMENT SIZES WITH THE EXISTING OPENINGS - NOTIFY ARCHITECT OF ANY DISCREPENCIES.
C	FIELD VERIFICATION - THE CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS AND THE EXTENT OF THE WORK PRIOR TO SUBMISSION OF A BID.
D	PROTECTION - THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS REQUIRED TO PROTECT THE ADJACENT ROOF SURFACES. ADJACENT ROOF SURFACES MAY CURRENTLY BE UNDERA A MANUFACTURER'S WARRANTY - THE CONTRACTOR SHALL VERIFY CONDITIONS. ANY WORK DONE AFFECTING ADJACENT SURFACES SHALL BE BY AUTHORIZED PERSONNEL, USING MATERIALS AND METHODS ACCEPTABLE BY THE WARRANTOR. OBTAIN APPROVALS, INSPECTIONS AND DOCUMENTATION AS NECESSARY TO SUBSTANTIATE ACCEPTANCE.
E	DECK INSPECTION - WHERE THE SCOPE OF WORK INVOLVES THE TOTAL REMOVAL OF THE EXISTING ROOF SYSTEM TO THE EXISTING DECK. THE CONTRACTOR SHALL INSPECT THE DECK WHEN EXPOSED FOR DISTRESS OR DETERIORATION. IF DISTRESS OF DETERIORATION IS FOUND, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND OWNER'S REPRESENTATIVE.
F	LOADING - THE CONTRACTOR SHALL AVOID EXCESSIVE LOADING OF THE BUILDING ELEMENTS WHEN PLACING AND HANDLING ROOFING MATERIALS AND EQUIPMENT. ROOF LOADING DURING CONSTRUCTION SHOULD NOT EXCEED THE STRUCTURAL DESIGN LOAD OF 55 POUNDS PER SQUARE FOOT.
G	ROOF DRAINS - EXISTING ROOF DRAINS ARE TO REMAIN UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL PROVIDE NEW MATCHING CLAMPS, BOLTS AND/OR STRAINERS WHERE THE EXISTING ARE MISSING OR DAMAGED. THE CONTRACTOR (ALONG WITH OWNER'S PROJECT REPRESENTATIVE) SHALL INSPECT ALL ROOF DRAIN LEADERS TO CONFIRM POSITIVE WATER FLOW PRIOR TO THE START OF WORK AND FOLLOWING THE COMPLETION OF THE WORK.
H	PLUMBING VENTS - EXISTING PLUMBING VENTS/ STACKS THAT WILL NOT EXTEND A MINIMUM OF 1'-0" ABOVE THE HEIGHT OF THE NEW ROOF SYSTEM SHALL BE EXTENDED AS PART OF THE WORK. COORDINATE MATERIALS WITH THE ARCHITECT PRIOR TO EXECUTION.
I	INSULATION CRICKETS - THE CONTRACTOR SHALL PROVIDE CRICKETS BEHIND ALL OBSTRUCTIONS TO WATER FLOW WHICH ARE WIDER THAN TWO FEET. BACK SLOPES OF CRICKETS SHALL BE TWICE THAT OF THE ADJACENT ROOF SLOPE.
J	ELECTRICAL DEVICES - UNLESS INDICATED OTHERWISE, THE CONTRACTOR SHALL REMOVE AND REINSTALL EXISTING LIGHT FIXTURES, ANTENNAS, SATELLITE DISHES AND SIMILAR DEVICES TO PERFORM THE ROOF REPLACEMENT WORK. ALL ELECTRICAL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICIAN.
K	CURB BLOCKING - THE CONTRACTOR SHALL REMOVE WITH CARE ALL EXISTING ROOF HATCHES, MECHANICAL VENTILATORS, SKYLIGHTS, ETC. AND RAISE THE ASSOCIATED CURBS OF EQUIPMENT TO BE REINSTALLED ON NEW WOOD BLOCKING AS DETAILED. MODIFY THICKNESSES SO THE NEW BLOCKING MATCHES THE HEIGHT OF THE NEW INSTALLATION. (ADJUST AS NECESSARY TO ACCOMMODATE TAPERED INSULATION). THE TOP OF ALL CURBS SHALL BE A MINIMUM OF 12" ABOVE THE NEW ROOF SURFACE. WHERE NECESSARY, THE WORK SHALL INCLUDE EXTENDING ELECTRICAL WIRING, CONTROLS, ETC. BY A LICENSED ELECTRICIAN.
L	DEWATERING - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF STANDING WATER ON THE ROOF AS REQUIRED TO PERFORM THE WORK.

LEGEND- ROOF PLANS



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AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
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ROOF PLAN

A131

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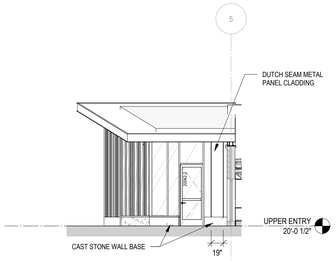
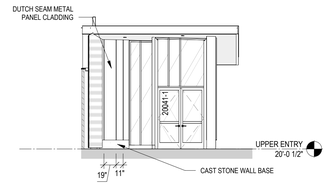
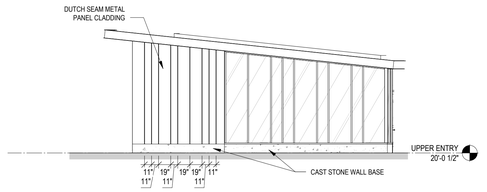


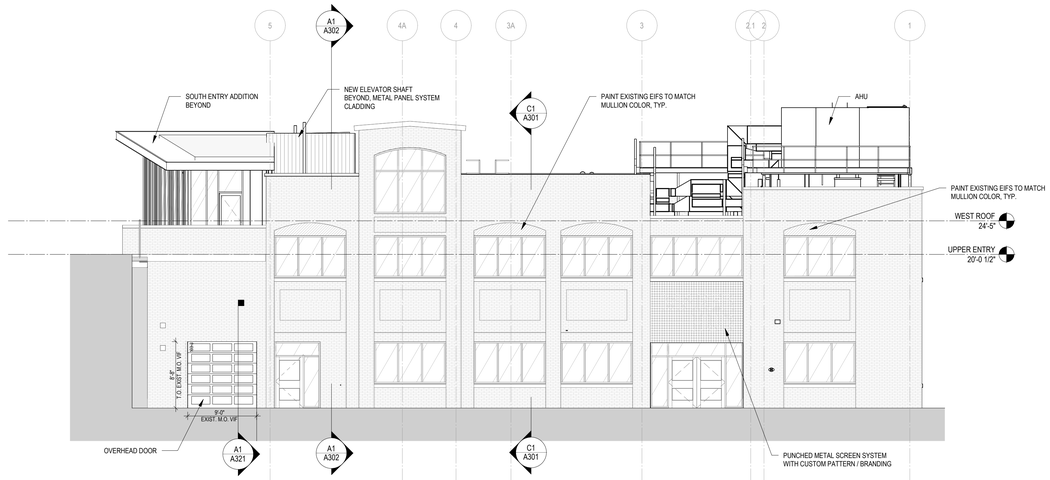
D1 ENTRY ADDITION - EAST ELEVATION
1/8" = 1'-0"



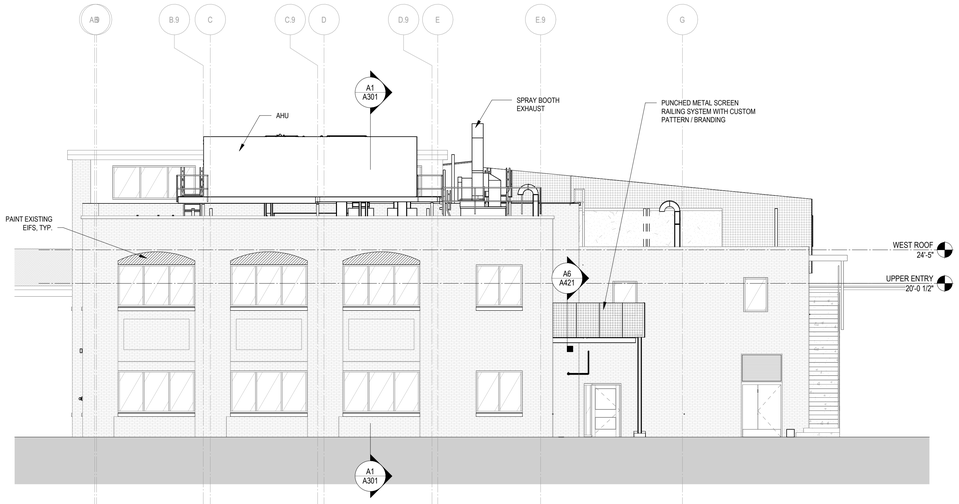
D3 ENTRY ADDITION - WEST ELEVATION
1/8" = 1'-0"



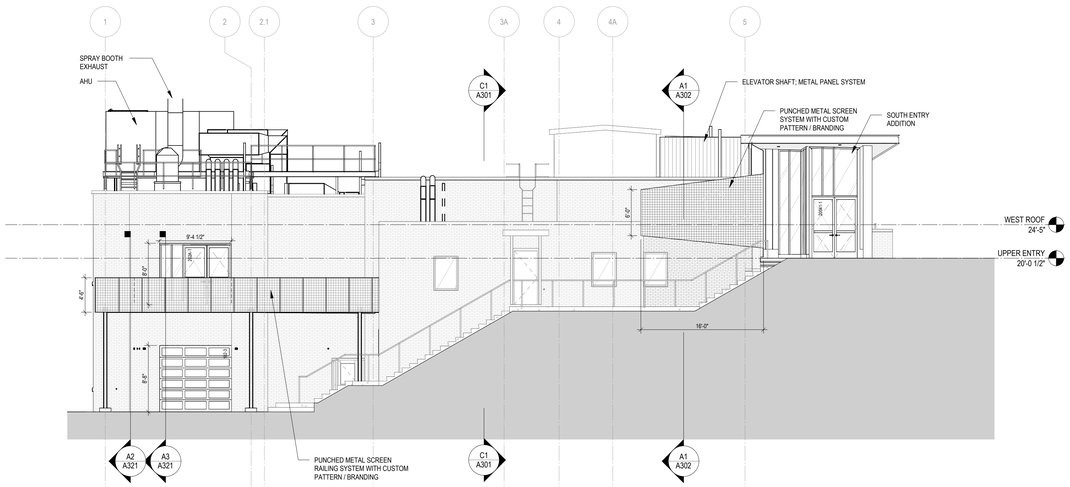
D5 ENTRY ADDITION - SOUTH ELEVATION
1/8" = 1'-0"



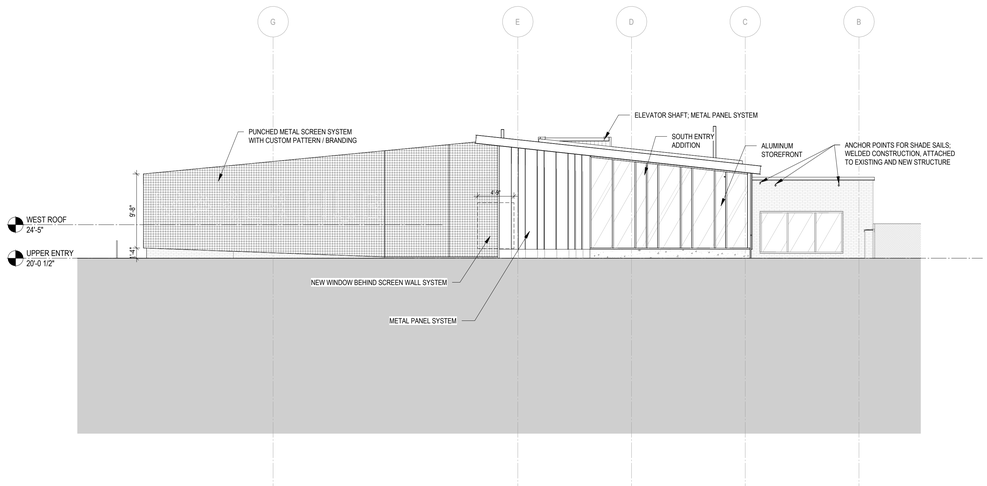
C1 BUILDING - EAST ELEVATION
1/8" = 1'-0"



C4 BUILDING - NORTH ELEVATION
1/8" = 1'-0"



A1 BUILDING - WEST ELEVATION
1/8" = 1'-0"



A4 BUILDING - SOUTH ELEVATION
1/8" = 1'-0"

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AM JOB NO. **24213**

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS: **BID DOCUMENTS**

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BUILDING ELEVATIONS

A201

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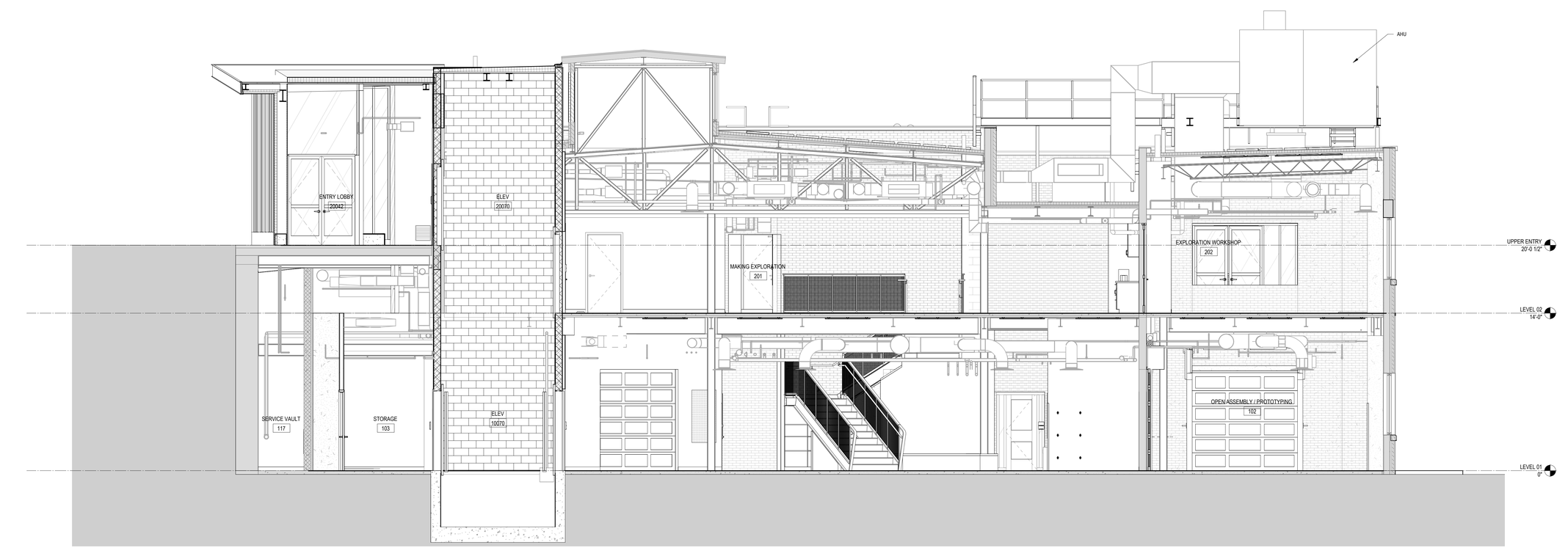
BUILDING SECTION NOTES

NUM.	NOTE

C1 EW SECTION LOOKING SOUTH
1/4" = 1'-0"



A1 NS SECTION LOOKING WEST
1/4" = 1'-0"

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BEEBE HALL

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BUILDING SECTIONS

A301

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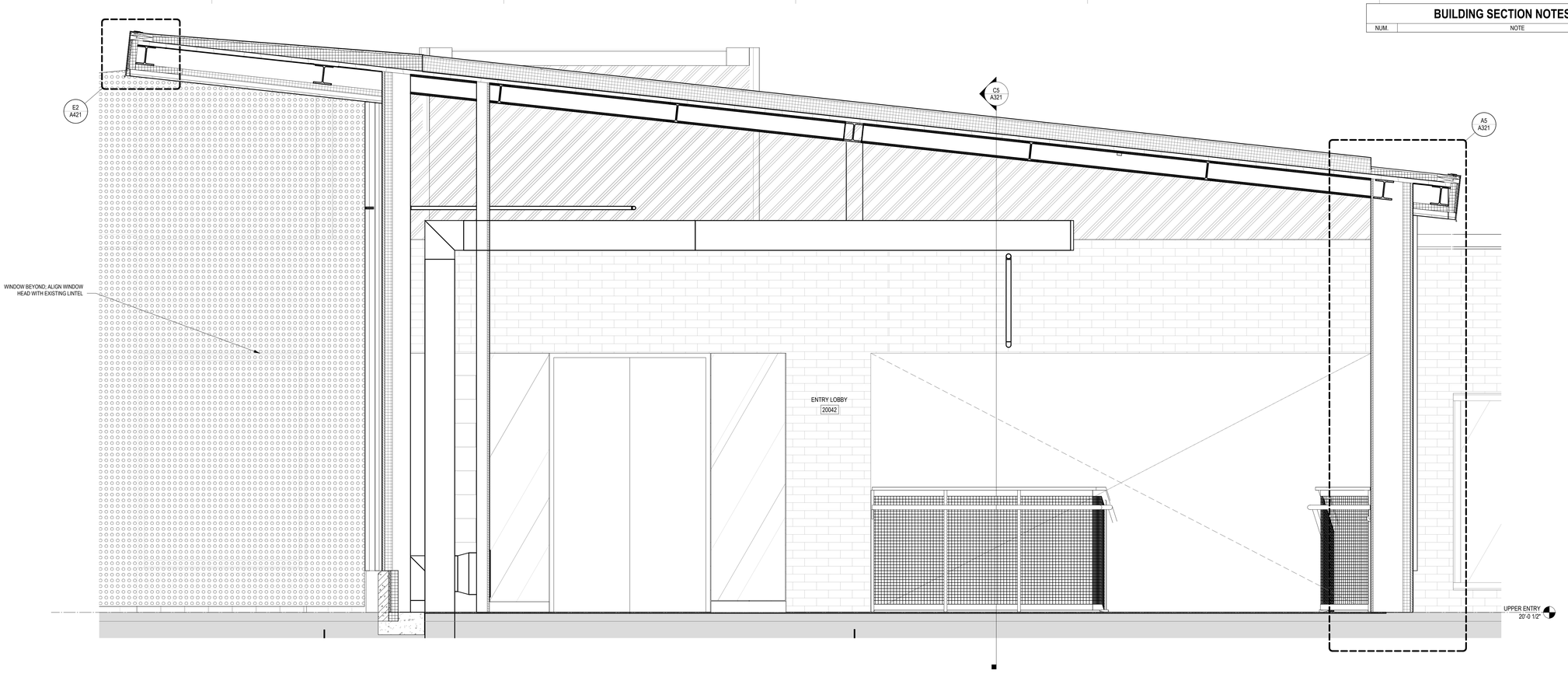
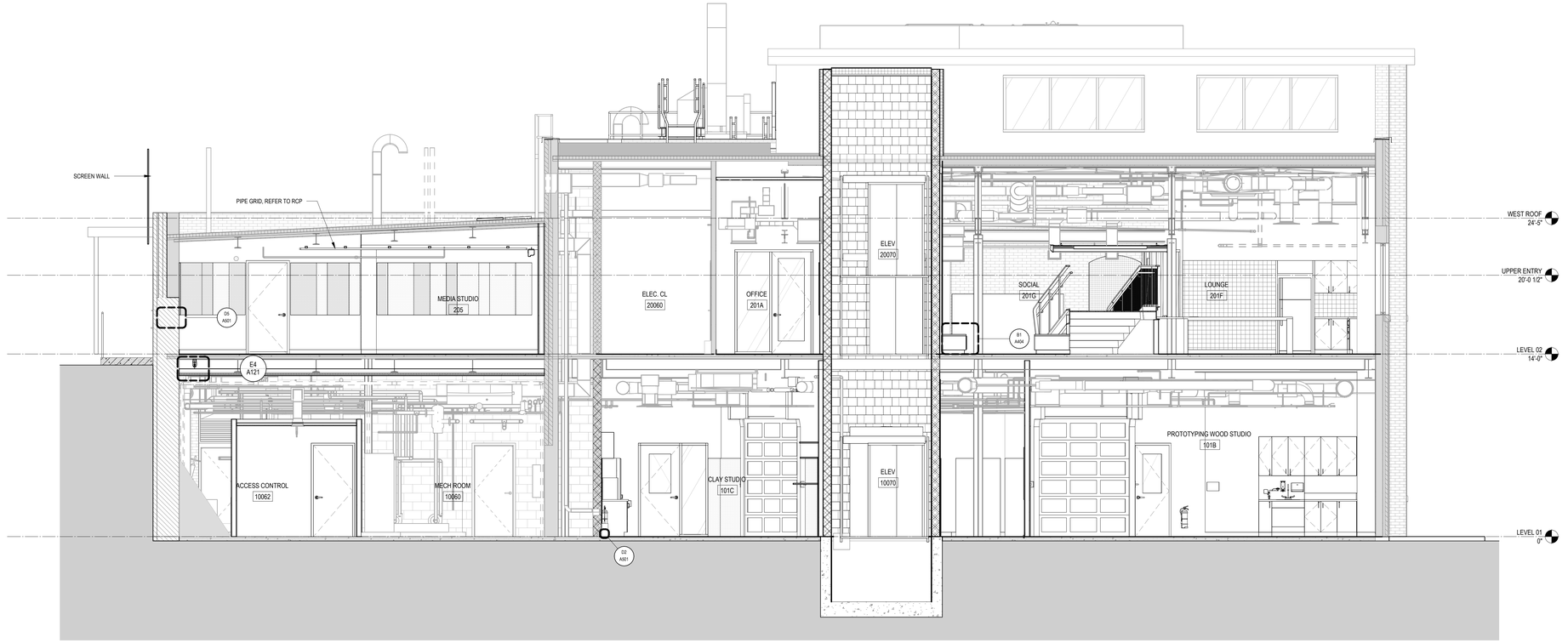
BUILDING SECTION NOTES

NUM.	NOTE



C2 EW SECTION LOOKING NORTH - ENTRY LOBBY
3/4" = 1'-0"



A1 EW SECTION LOOKING NORTH
1/4" = 1'-0"

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BUILDING SECTIONS

A302

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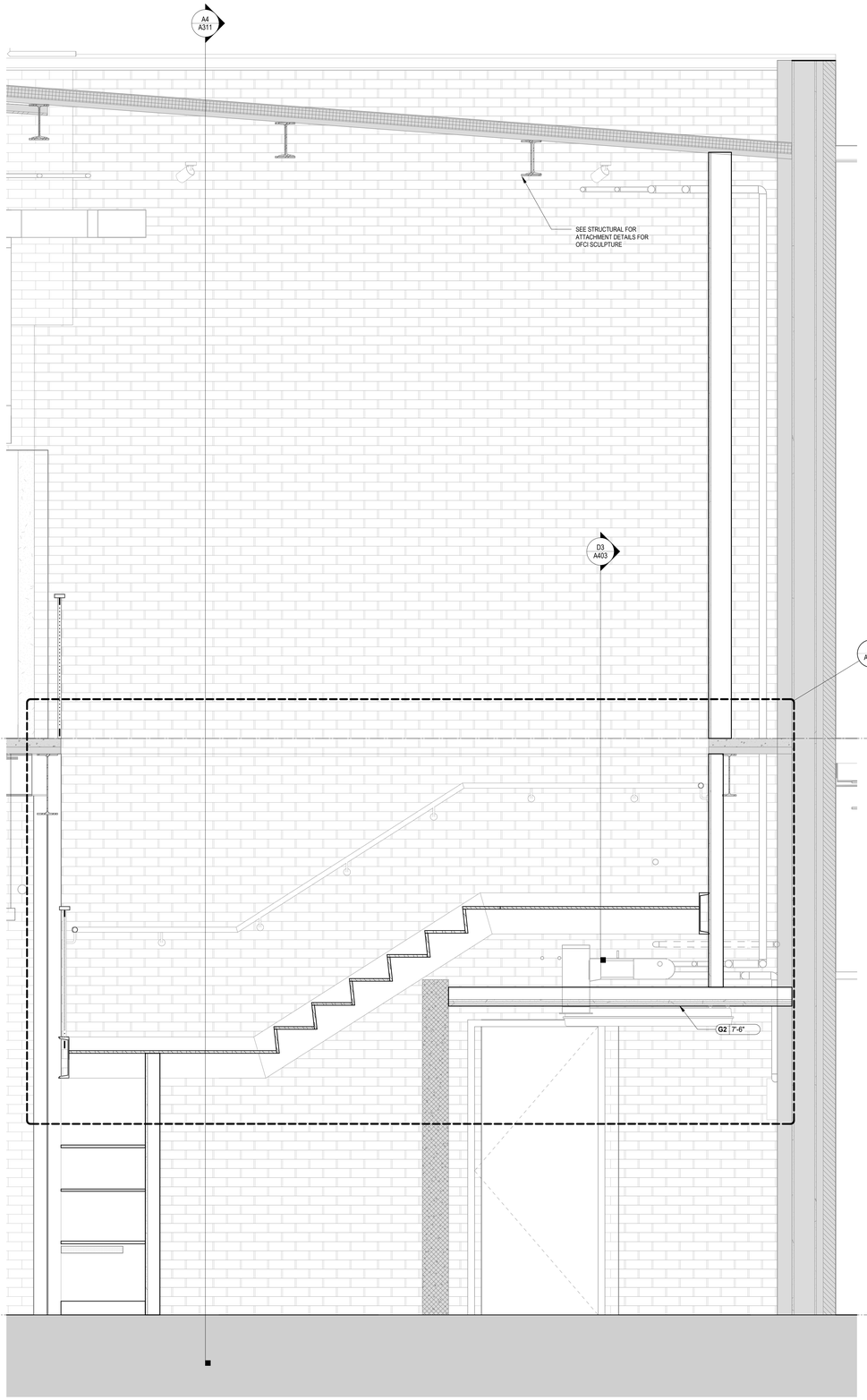
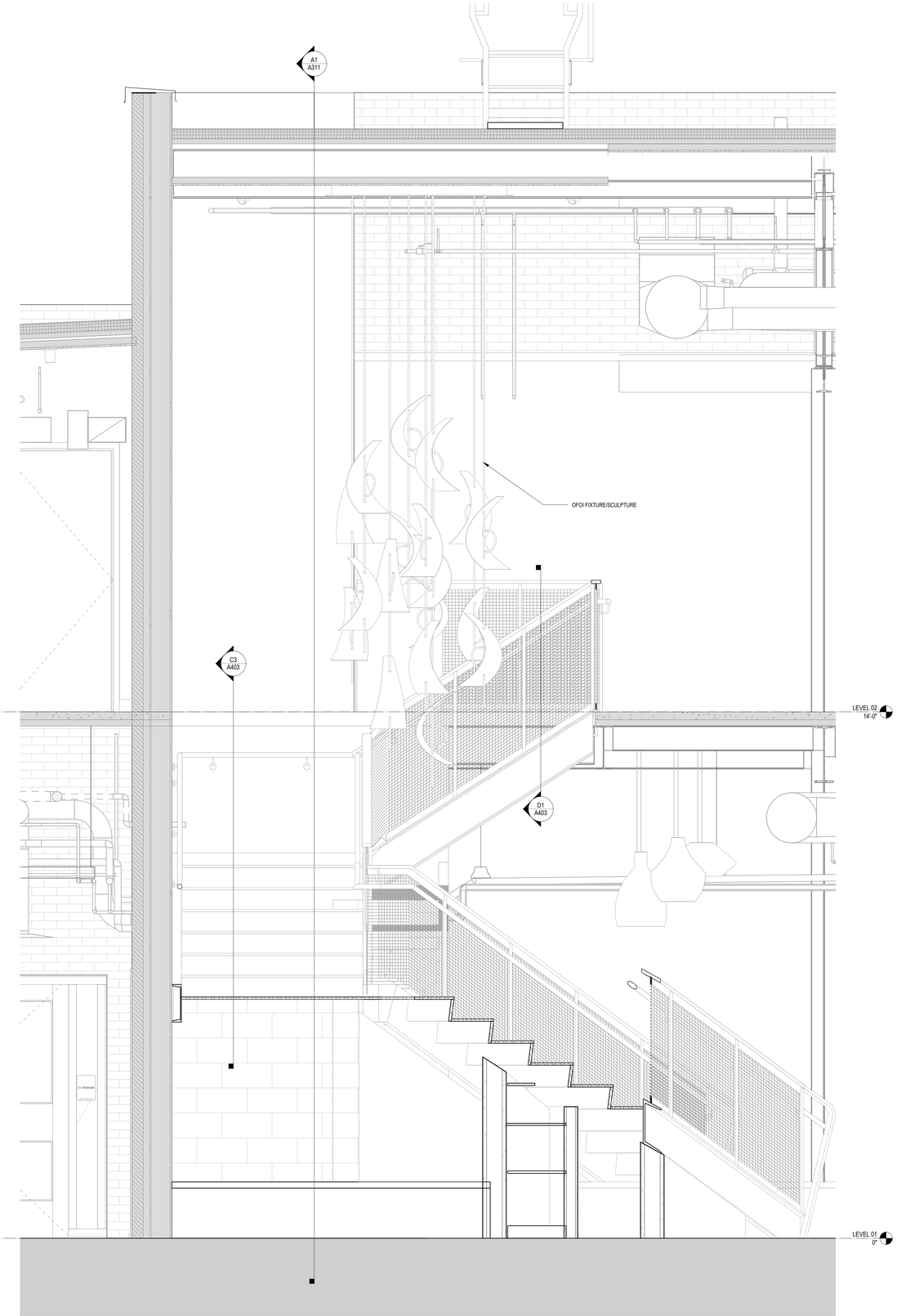


A1 STAIR SECTION - NS SECTION LOOKING WEST
3/4" = 1'-0"



A4 STAIR SECTION - EW SECTION LOOKING NORTH
3/4" = 1'-0"

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STAIR SECTIONS

A311

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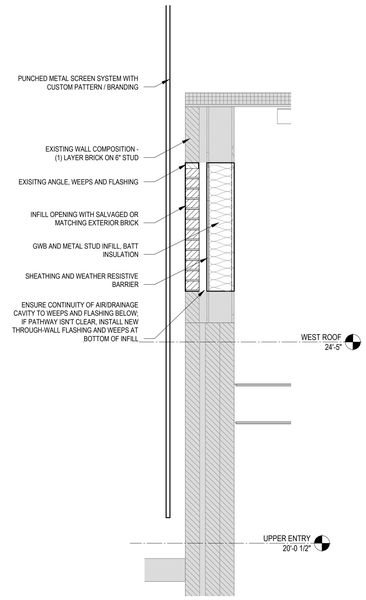
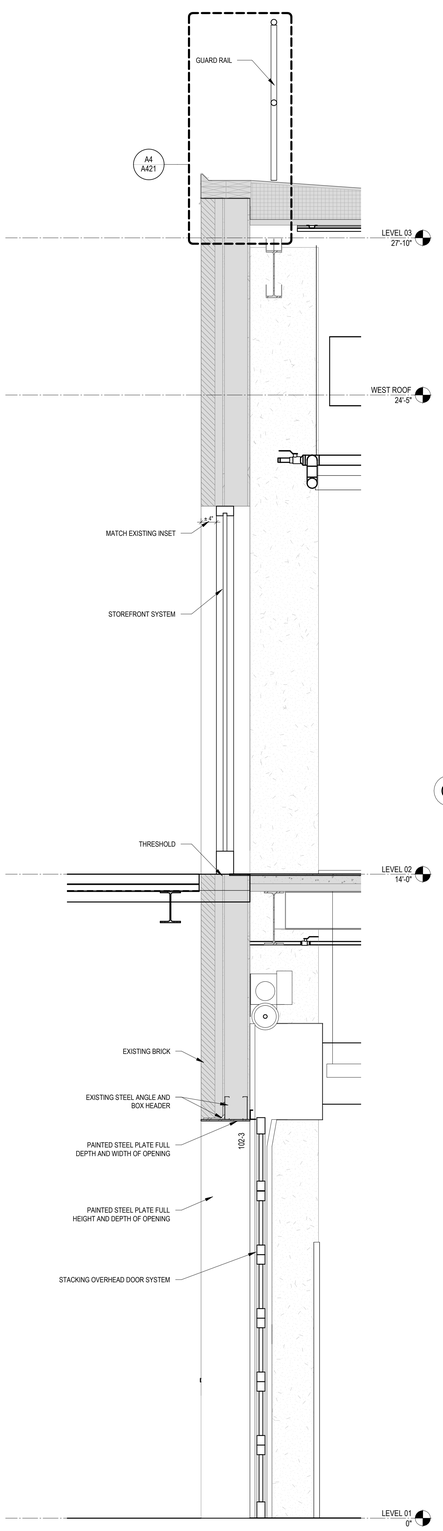
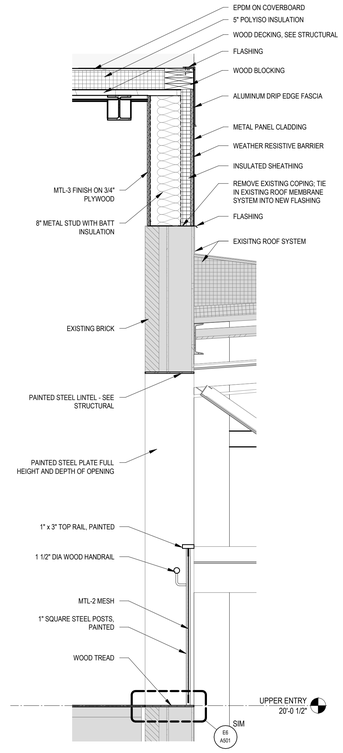
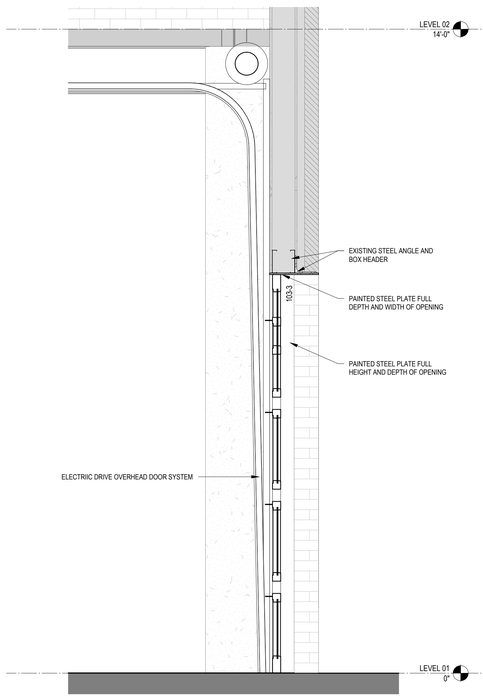


D2 SECTION - LOUVER INFILL
3/4" = 1'-0"

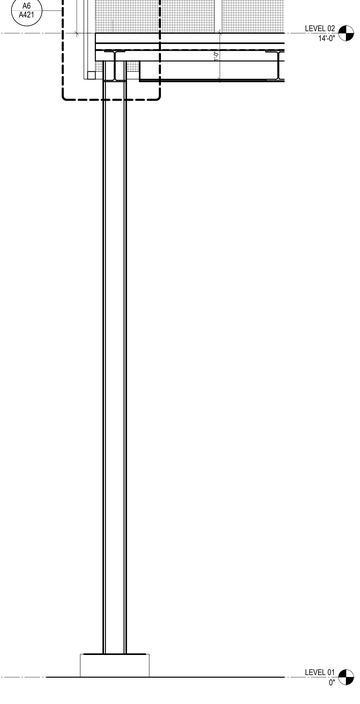




C5 SECTION - NORTH WALL AT ENTRY ADDITION
3/4" = 1'-0"

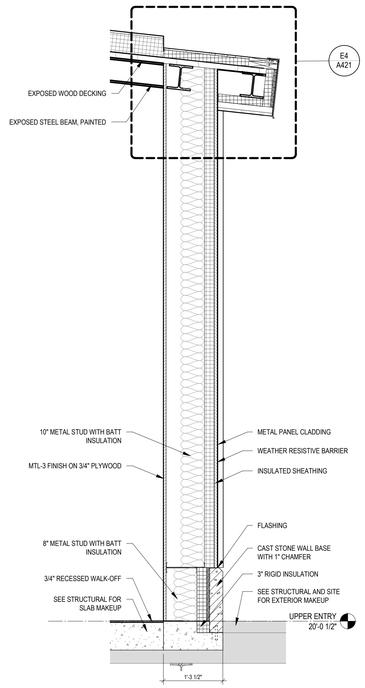


A1 SECTION - EXTERIOR OVERHEAD DOOR
3/4" = 1'-0"

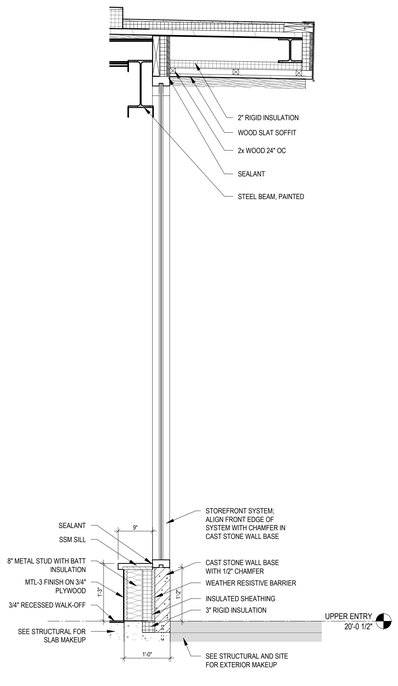


A2 SECTION - AT BALCONY
3/4" = 1'-0"

A3 SECTION - BALCONY TO EXIST. BLDG CONNECTION
3/4" = 1'-0"



A5 SECTION - EAST WALL AT ENTRY ADDITION
3/4" = 1'-0"



A6 SECTION - STOREFRONT AT ENTRY ADDITION
3/4" = 1'-0"

GENERAL DRAWINGS NOTES

Key Name	Gen Recon Notes
A	GENERAL NOTES APPLY TO THE INTENDED WORK INCLUDED IN THE CONTRACT DOCUMENTS.
B	EXISTING CONDITIONS AND PERTINENT UTILITIES INDICATED ARE BASED ON FIELD OBSERVATIONS, SURVEYS, AND DOCUMENTATION OF PRIOR CONSTRUCTION, AS AVAILABLE. EXISTING DIMENSIONS INDICATED ARE APPROXIMATE AND SUBJECT TO CONTRACTOR'S VERIFICATION.
C	EXISTING CONDITIONS MAY VARY FROM THOSE INDICATED. NOTIFY THE ARCHITECT IN WRITING OF DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THE WORK.
D	SHOULD CONFLICTS EXIST WITHIN THE CONSTRUCTION DOCUMENTS, VERIFY INTENT WITH ARCHITECT PRIOR TO BIDDING. CLARIFICATIONS ISSUED AFTER BIDDING SHALL NOT BE BASIS FOR ADDITIONAL COMPENSATION.
E	WHERE SPECIFIC NOTES CONFLICT WITH GENERAL NOTES, THE SPECIFIC NOTES SHALL GOVERN.
F	WHERE NEWLY EXPOSED SURFACES ARE TO REMAIN EXPOSED IN THE COMPLETED WORK CONTRACTORS SHALL PATCH SURFACES WITH IN-KIND MATERIAL TO LIKE-NEW CONDITION, SUBJECT TO ARCHITECT`S APPROVAL.
G	ITEMS INDICATED FOR REINSTALLATION SHALL INCLUDE TRIM, ACCESSORIES, MOUNTING HARDWARE, ETC., AS WELL AS IN-KIND PATCHING OF ADJACENT CONSTRUCTION DISTURBED DURING REMOVAL.
H	WHEN DURING THE COURSE OF THE WORK, EXISTING CONSTRUCTION INDICATED TO REMAIN IS DAMAGED, THE CONTRACTOR SHALL REPAIR OR REPLACE WITH IN-KIND MATERIAL TO LIKE-NEW CONDITION, AT NO EXPENSE TO THE OWNER, AND SUBJECT TO ARCHITECT `S APPROVAL.
I	CONTRACTORS SHALL BE RESPONSIBLE FOR CUTTING, PATCHING, AND TRIMMING REQUIRED TO INTEGRATE WORK WITH ADJACENT NEW WORK OR EXISTING CONDITIONS IN KEEPING WITH THE INTENDED INSTALLATION, DETAILS, AND ASSOCIATED FUNCTIONAL REQUIREMENTS, SUCH AS OPERATIONAL CLEARANCES OR MAINTENANCE ACCESS FOR EQUIPMENT. VERIFY WITH ARCHITECT SUCH CONDITIONS AND PROPOSED ACCOMMODATIONS PRIOR TO INSTALLATION.
J	IN THE ABSENCE OF DIMENSIONS LAYOUT OF ITEMS SHALL BE CENTERED IN A SPACE, EVENLY SPACED, ALIGNED WITH ADJACENT CONSTRUCTION, OR OTHERWISE SET TO LOGICAL POINTS. WHERE ITEMS ARE INDICATED IN AN UNUSUAL OR ASYMMETRICAL MANNER VERIFY INTENT WITH ARCHITECT BEFORE PROCEEDING WITH WORK.
K	WHERE ADJACENT SURFACES APPEAR FLUSH TO ONE ANOTHER IT IS INTENDED THAT THE FACE OF THE FINISHES ARE ALIGNED UNLESS OTHERWISE INDICATED.
L	REMEDIATION OF UNSATISFACTORY WORK DUE TO FAILURE TO FOLLOW THESE AND OTHER GENERAL NOTES SHALL BE SUBJECT TO ARCHITECT `S APPROVAL, AND AT NO ADDITIONAL COST TO THE OWNER.
M	WHERE A DOOR IS LOCATED ADJACENT TO A PERPENDICULAR WALL, LOCATE THE DOOR WITH SIX (6) INCHES FROM THE FACE OF THE WALL TO THE INSIDE FACE OF THE DOOR FRAME
N	LAYOUT DIMENSIONS ARE TO FINISH FACE OF WALL ASSEMBLY AS SHOWN ON THE PARTITION SHEET, EXCLUSIVE OF DECORATIVE SURFACES, UNLESS NOTED OTHERWISE

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WALL SECTIONS

A321

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GENERAL NOTES

FURNITURE AND EQUIPMENT BY OTHERS, SHOWN FOR REFERENCE ONLY.

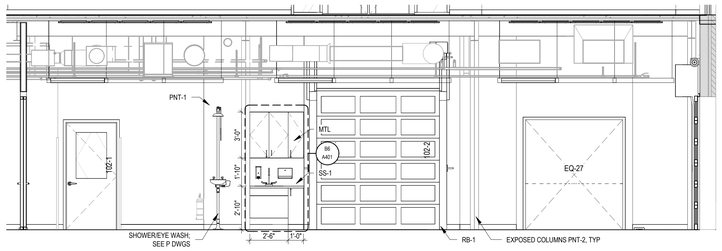
AT EXPOSED ENDS OF CASEWORK, PROVIDE FINISHED ENDS.

AT INSIDE CORNERS OF CASEWORK, PROVIDE FINISHED CORNER PANEL.

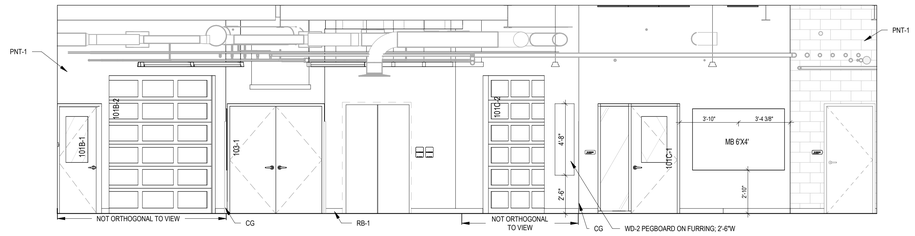
PROVIDE FILLER PANELS AT AREAS WHERE CASEWORK MEETS AN ADJACENT WALL.

PROVIDE ADJUSTABLE SHELVES AT CASEWORK AS FOLLOWS:
1. **ALL BASE CABINETS TO RECEIVE 1 SHELF.**
2. **WALL CABINETS 24" OR LESS IN HEIGHT TO RECEIVE 1 SHELF.**
3. **WALL CABINETS GREATER THAN 24" IN HEIGHT TO RECEIVE 2 SHELVES.**

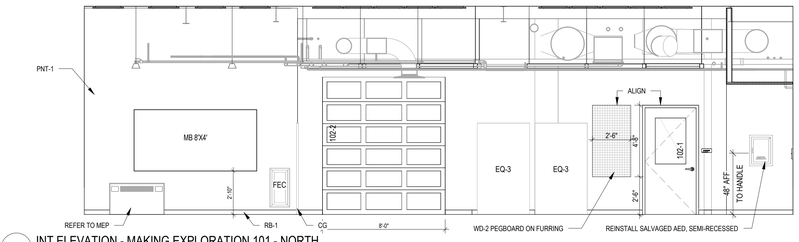
ALL CASEWORK TO BE LOCKABLE.



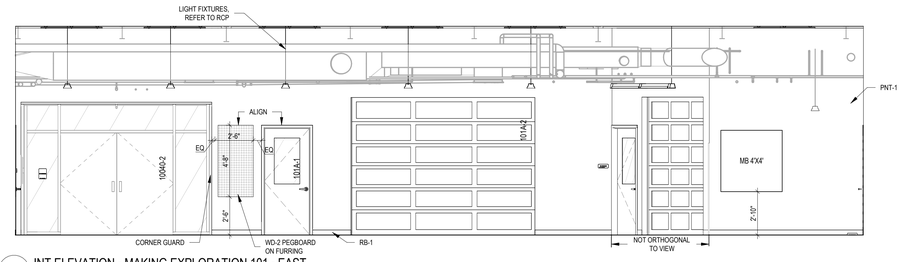
D2 INT ELEVATION - OPEN ASSEMBLY/PROTOTYPING 102 - SOUTH
1/4" = 1'-0"



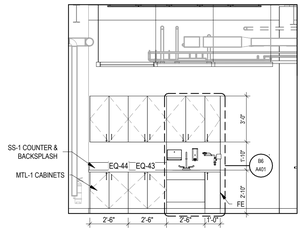
D4 INT ELEVATION - MAKING EXPLORATION 101 - SOUTH
1/4" = 1'-0"



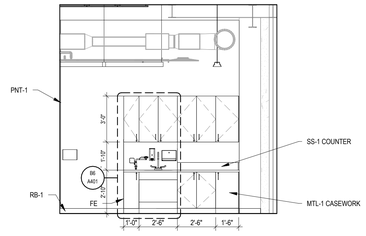
C2 INT ELEVATION - MAKING EXPLORATION 101 - NORTH
1/4" = 1'-0"



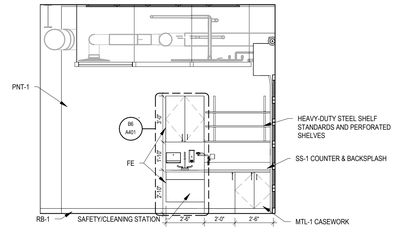
C4 INT ELEVATION - MAKING EXPLORATION 101 - EAST
1/4" = 1'-0"



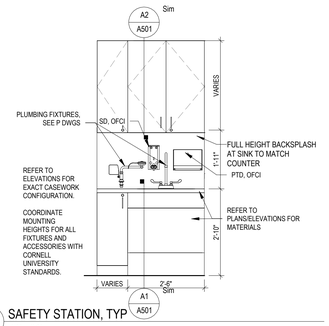
B3 INT ELEVATION - LIGHT METAL & JEWELRY SHOP 102B - SOUTH
1/4" = 1'-0"



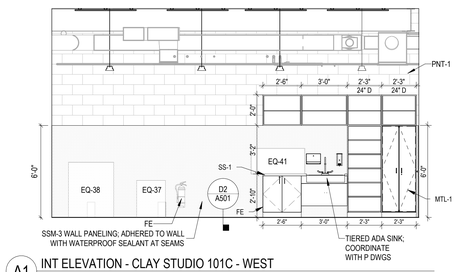
B4 INT ELEVATION - PROTOTYPING WOOD STUDIO 101B - NORTH
1/4" = 1'-0"



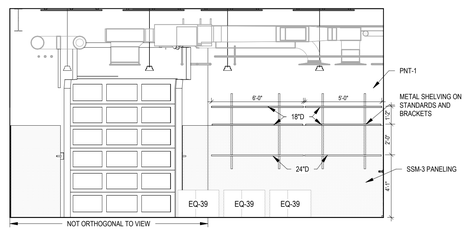
B5 INT ELEVATION - MAKING EXPLORATION ANNEX 101A - SOUTH
1/4" = 1'-0"



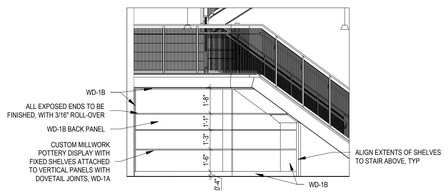
B6 SAFETY STATION, TYP
1/2" = 1'-0"



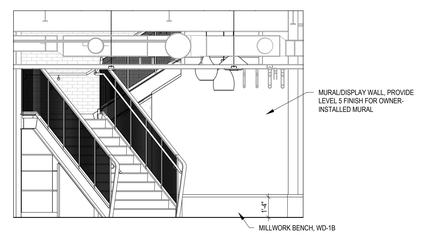
A1 INT ELEVATION - CLAY STUDIO 101C - WEST
1/4" = 1'-0"



A2 INT ELEV - CLAY STUDIO 102
1/4" = 1'-0"



A4 INT ELEVATION - STAIR 10001 - POTTERY DISPLAY
1/4" = 1'-0"



A6 INT ELEVATION - STAIR 10001 - WEST
1/4" = 1'-0"

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AM JOB NO.
24213

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PROJECT STATUS:
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DATE ISSUED:
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ENLARGED PLANS AND INTERIOR ELEVATIONS

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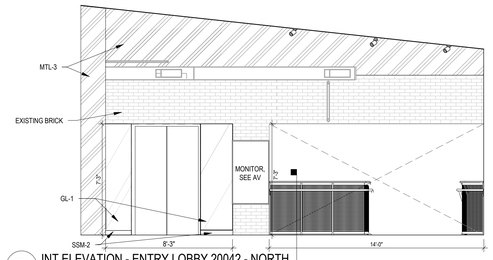
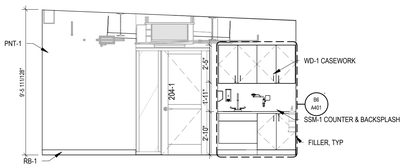
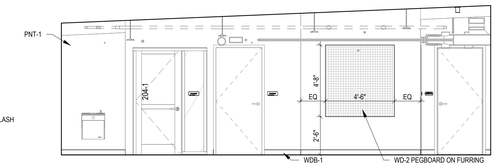


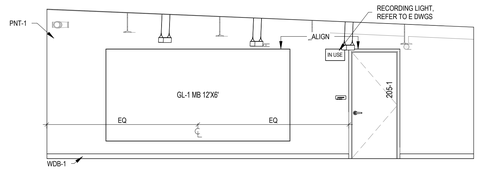
E1 INT ELEVATION - ENTRY LOBBY 20042 - NORTH
1/4" = 1'-0"



E2 INT ELEVATION - ELECTRONICS WORKSHOP 204 - NORTH
1/4" = 1'-0"



E3 INT ELEVATION - CORRIDOR 20040 - NORTH
1/4" = 1'-0"



E5 INT ELEVATION - COLLAB 205A - SOUTH
1/4" = 1'-0"

GENERAL NOTES

FURNITURE AND EQUIPMENT BY OTHERS, SHOWN FOR REFERENCE ONLY.

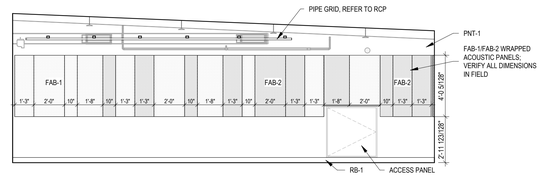
AT EXPOSED ENDS OF CASEWORK, PROVIDE FINISHED ENDS.

AT INSIDE CORNERS OF CASEWORK, PROVIDE FINISHED CORNER PANEL.

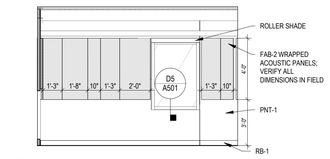
PROVIDE FILLER PANELS AT AREAS WHERE CASEWORK MEETS AN ADJACENT WALL.

PROVIDE ADJUSTABLE SHELVES AT CASEWORK AS FOLLOWS:
1. **ALL BASE CABINETS TO RECEIVE 1 SHELF.**
2. **WALL CABINETS 24" OR LESS IN HEIGHT TO RECEIVE 1 SHELF**
3. **WALL CABINETS GREATER THAN 24" IN HEIGHT TO RECEIVE 2 SHELVES.**

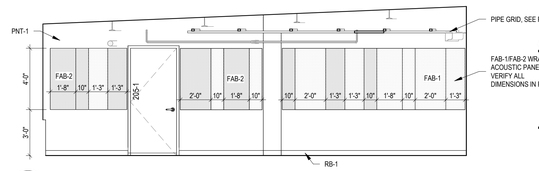
ALL CASEWORK TO BE LOCKABLE.



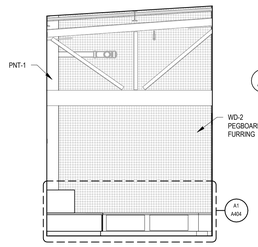
D3 INT ELEVATION - MEDIA STUDIO 205 - SOUTH
1/4" = 1'-0"



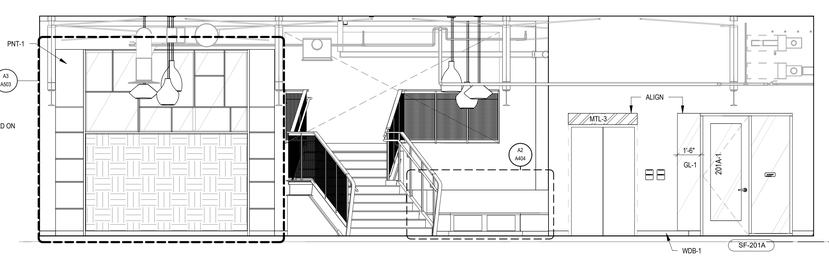
D4 INT ELEVATION - MEDIA STUDIO 205 - WEST
1/4" = 1'-0"



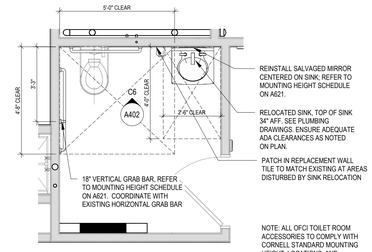
D5 INT ELEVATION - MEDIA STUDIO 205 - NORTH
1/4" = 1'-0"



C2 INT ELEVATION - SOCIAL 201G - WEST
1/4" = 1'-0"

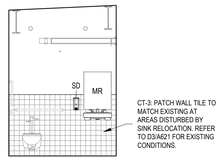


C3 INT ELEVATION - MAKING EXPLORATION 201 - SOUTH
1/4" = 1'-0"

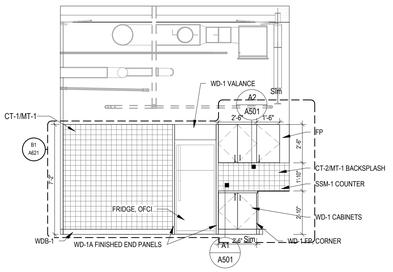


NOTE: ALL OFCI TOILET ROOM ACCESSORIES TO COMPLY WITH CORNELL STANDARD MOUNTING HEIGHT, LOCATIONS, AND CLEARANCES

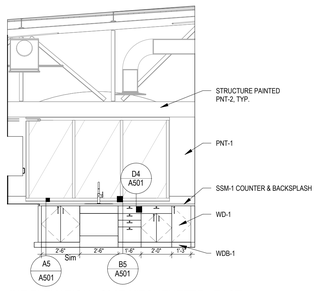
C4 ENLARGED PLAN - SECOND FLOOR ADA TOILET 20020
3/8" = 1'-0"



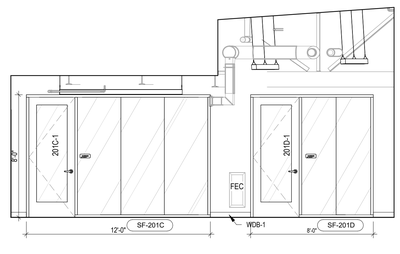
C6 INT ELEVATION - TOILET 20020
1/4" = 1'-0"



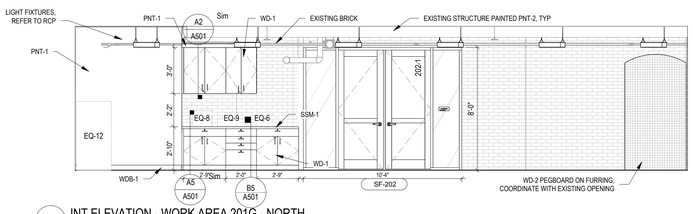
B3 INT ELEVATION - 201E KITCHENETTE - NORTH
1/4" = 1'-0"



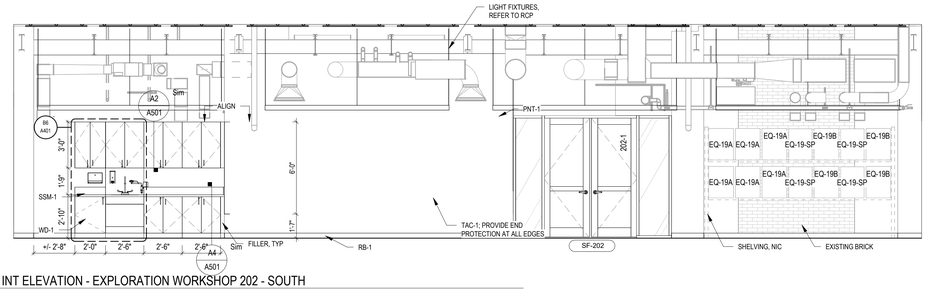
B4 INT ELEVATION - 201E KITCHENETTE - EAST
1/4" = 1'-0"



B5 INT ELEVATION - MAKING EXPLORATION 201 - EAST
1/4" = 1'-0"



A2 INT ELEVATION - WORK AREA 201G - NORTH
1/4" = 1'-0"



A4 INT ELEVATION - EXPLORATION WORKSHOP 202 - SOUTH
1/4" = 1'-0"

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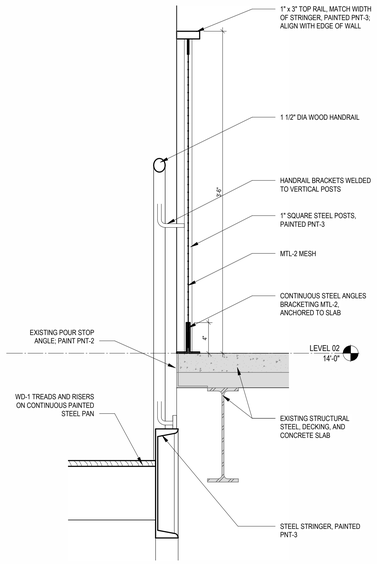
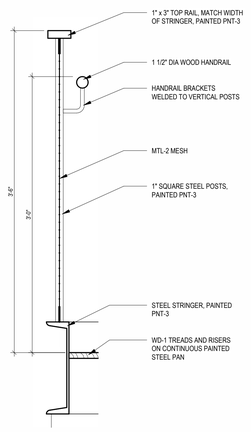
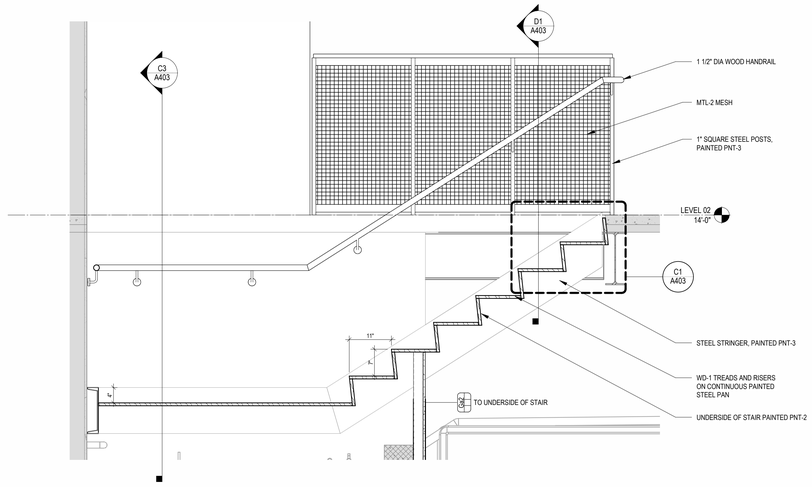


D1 SECTION - STAIR - GUARD RAIL AT EDGE OF SLAB
1 1/2" = 1'-0"



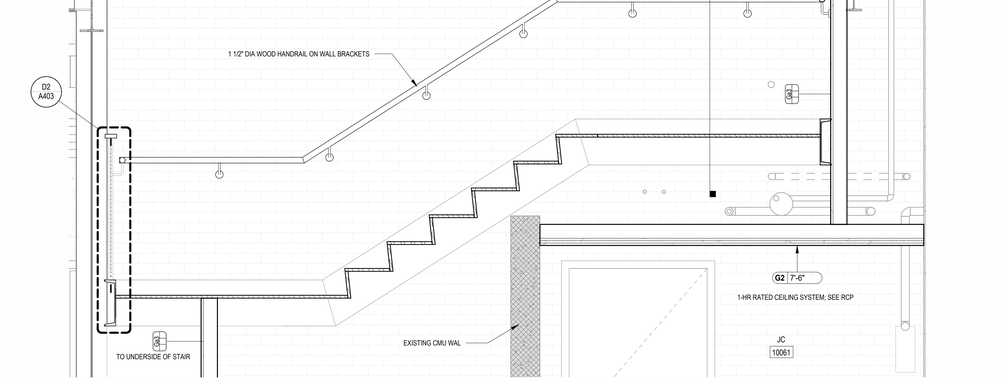
D2 SECTION - STAIR - TYPICAL HANDRAIL
1 1/2" = 1'-0"



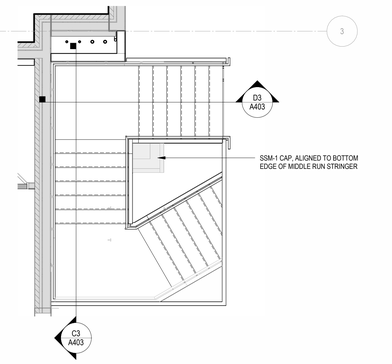
D3 SECTION - STAIR - UPPER RUN
3/4" = 1'-0"

E5 3D - STAIR 10001

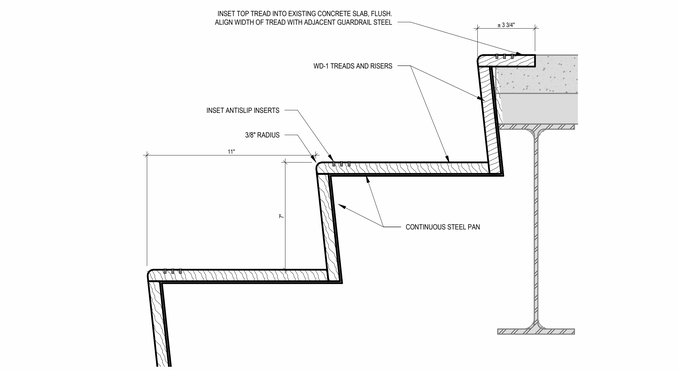
D6 3D - STAIR 10001 DISPLAY SHELVING



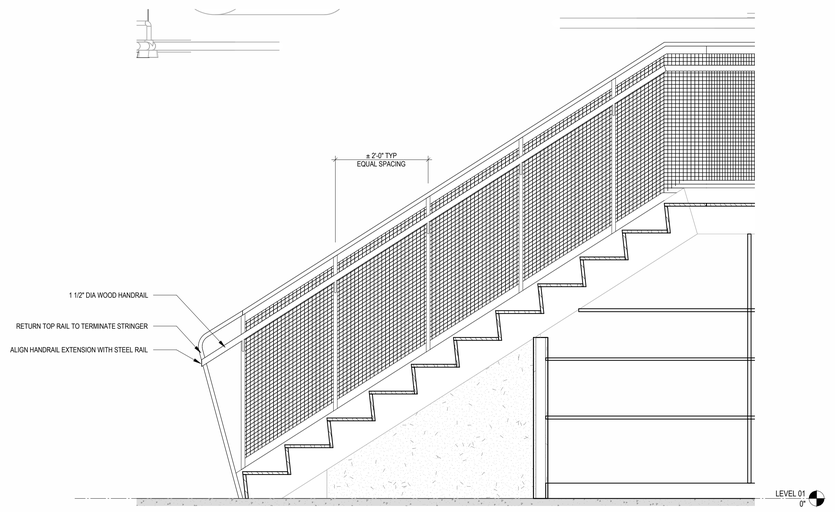
C3 SECTION - STAIR - MIDDLE RUN
3/4" = 1'-0"



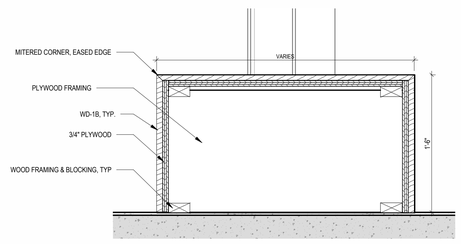
B6 ENLARGED PLAN - STAIR 20001
1/4" = 1'-0"



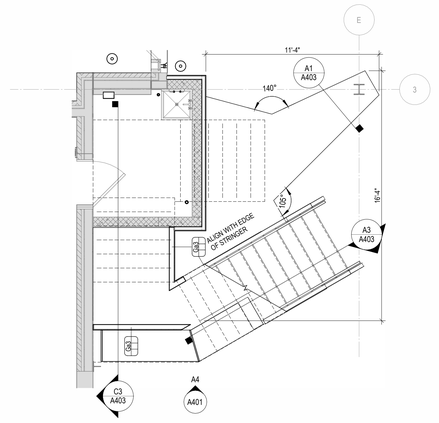
C1 SECTION - STAIR - TYPICAL TREAD AND RISER
3" = 1'-0"



A3 SECTION - STAIR - LOWER RUN
3/4" = 1'-0"



A1 SEC DTL - FIRST FLOOR MILLWORK BENCH
1 1/2" = 1'-0"



A6 ENLARGED PLAN - STAIR 10001
1/4" = 1'-0"

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FIRST FLOOR STAIR ENLARGED PLANS AND SECTIONS

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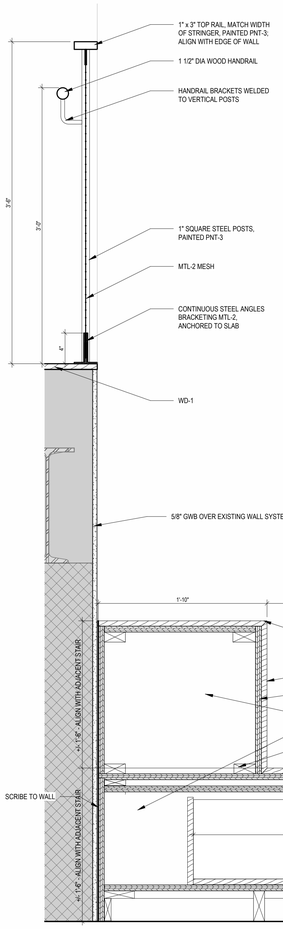
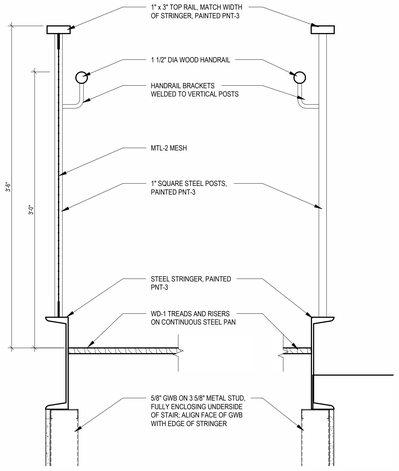


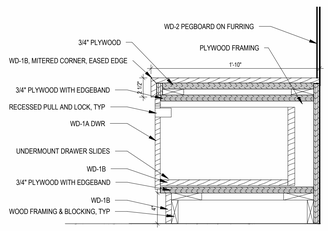
B1 SEC DTL - SOCIAL STAIR SINGLE LEVEL BENCH
1 1/2" = 1'-0"

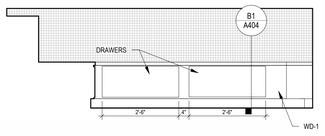
B2 SEC DTL - SOCIAL STAIR DOUBLE LEVEL BENCH AND ENTRY ADDITION GUARDRAIL
1 1/2" = 1'-0"



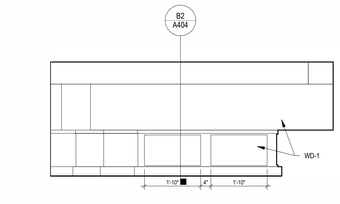
D3 DETAIL - SECTION AT SOCIAL STAIR RAILING
1 1/2" = 1'-0"

D4 3D - SOCIAL STAIR





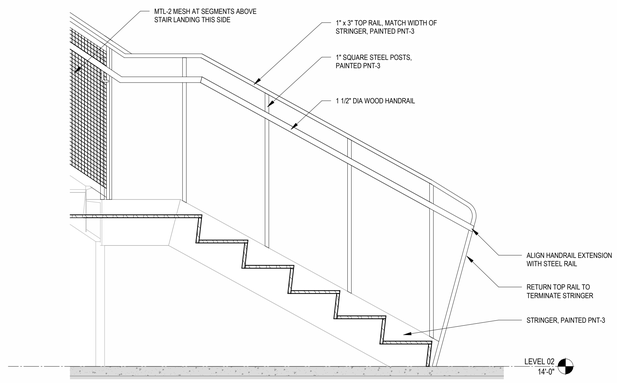
A1 INT ELEVATION - SOCIAL STAIR - WEST
1/2" = 1'-0"



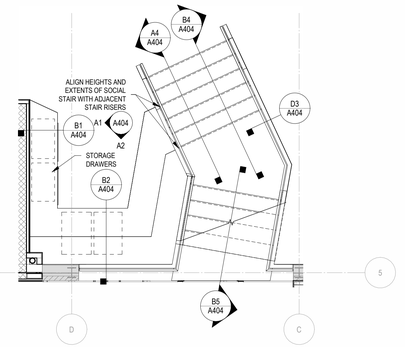
A2 INT ELEVATION - SOCIAL STAIR - SOUTH
1/2" = 1'-0"

B4 SECTION - SOCIAL STAIR - LOWER RUN
3/4" = 1'-0"

B5 SECTION - SOCIAL STAIR - UPPER RUN
3/4" = 1'-0"



A4 SECTION - SOCIAL STAIR - LOWER RUN OPPOSITE
3/4" = 1'-0"



A5 ENLARGED PLAN - SOCIAL STAIR 201
1/4" = 1'-0"

ASHLEY MCGRAW
125 EAST JEFFERSON STREET
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CONSULTANT:

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REGISTERED ARCHITECT
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046998
STATE OF NEW YORK

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CORNELL UNIVERSITY
BEEBE HALL CU MAKER HUB RENOVATIONS
110 ARBORETUM RD,
ITHACA, NY 14850

AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

SECOND FLOOR STAIR ENLARGED PLANS AND SECTIONS

A404

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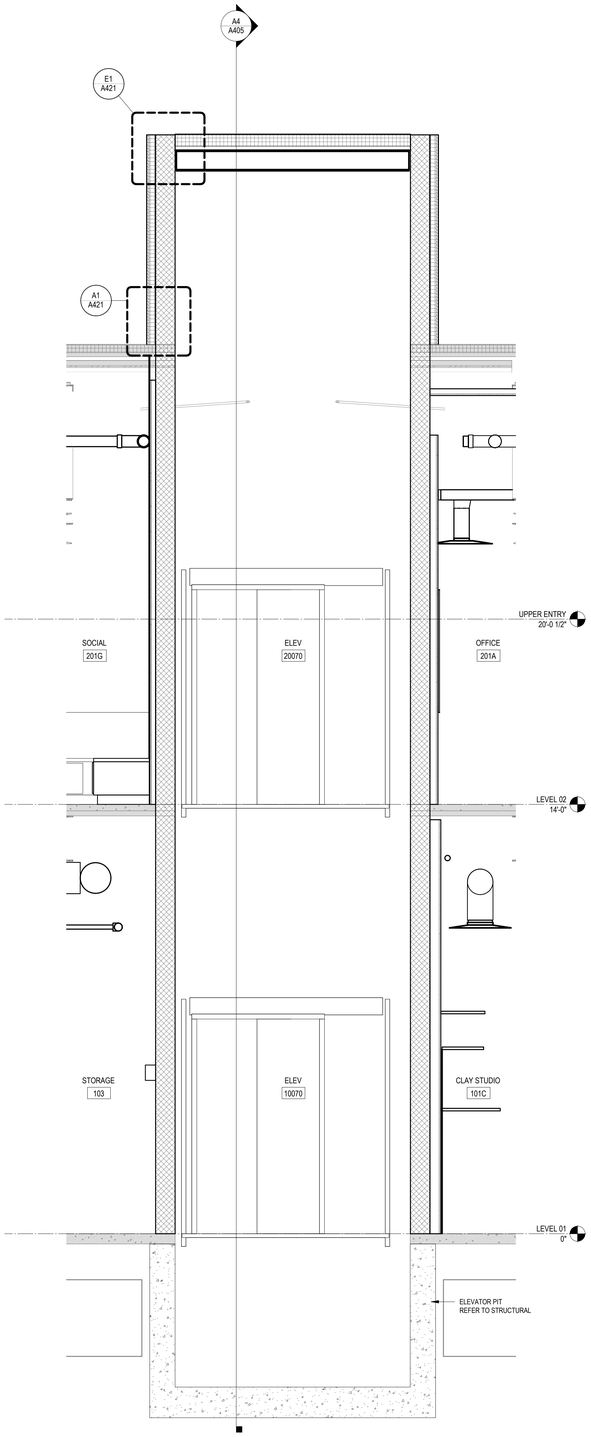
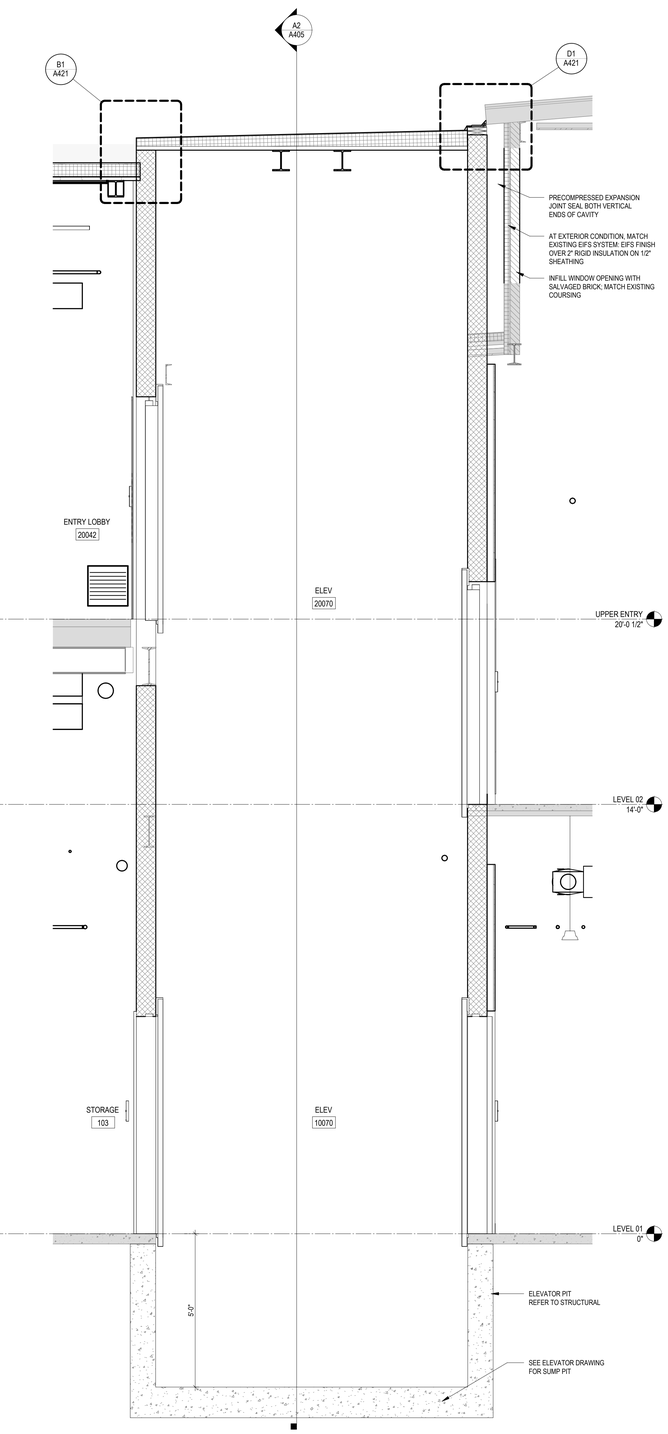
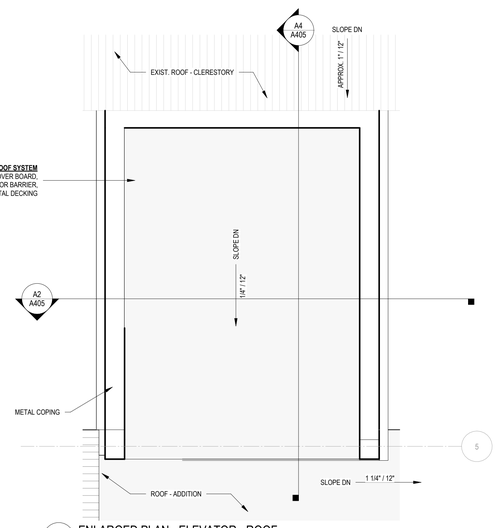


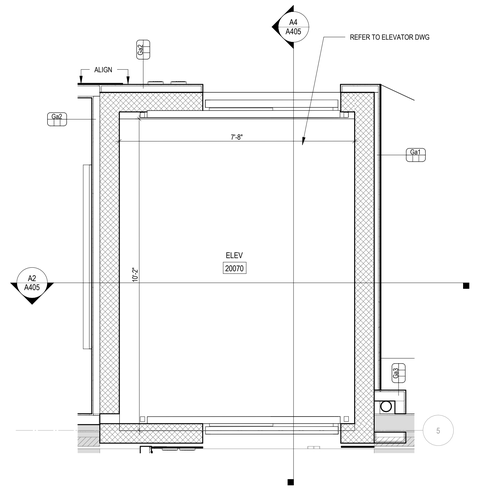
A2 SECTION - ELEVATOR - EW LOOKING SOUTH
1/2" = 1'-0"



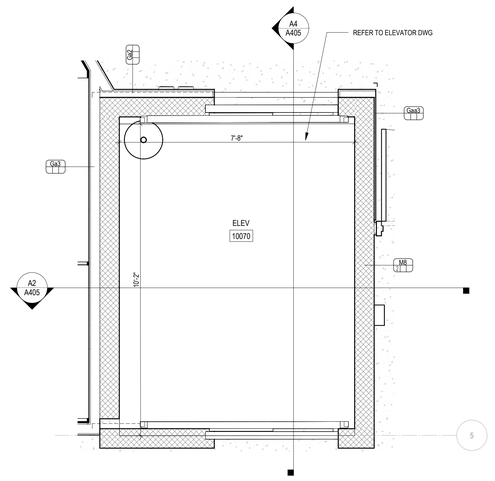
A4 SECTION - ELEVATOR - NS LOOKING WEST
1/2" = 1'-0"



E5 ENLARGED PLAN - ELEVATOR - ROOF
1/2" = 1'-0"



C5 ENLARGED PLAN - ELEVATOR - LEVEL 02
1/2" = 1'-0"



A5 ENLARGED PLAN - ELEVATOR - LEVEL 01
1/2" = 1'-0"

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ELEVATOR ENLARGED PLANS AND SECTIONS

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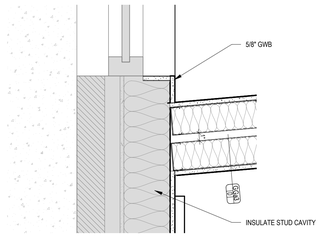
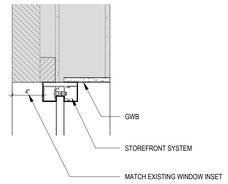
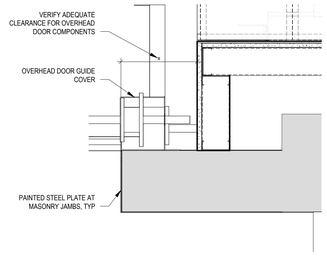


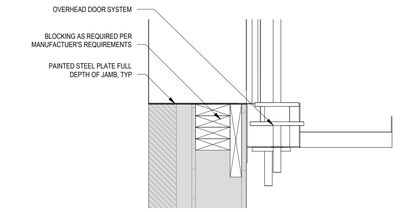
E1 PLAN DETAIL - ACOUSTIC WALL CONNECTION TO EXISTING
1 1/2" = 1'-0"



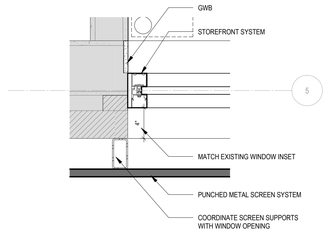
E3 PLAN DETAIL - TYPICAL STOREFRONT JAMB IN EXISTING
1 1/2" = 1'-0"



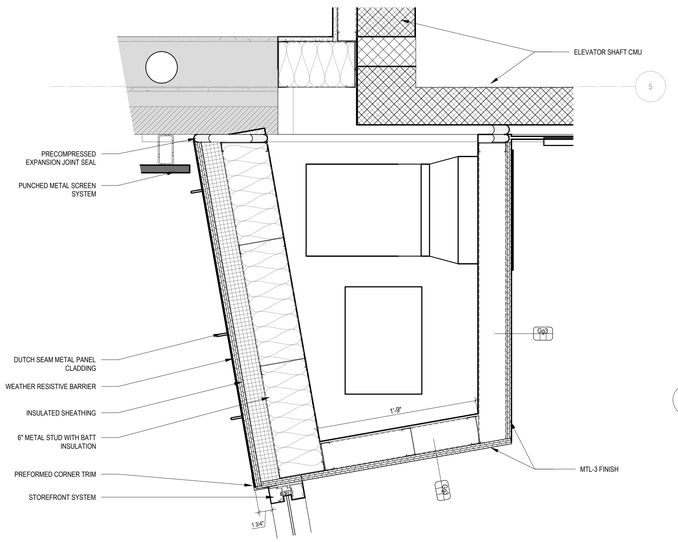
E4 PLAN DETAIL - OVERHEAD DOOR JAMB AT INTERIOR MASONRY
1 1/2" = 1'-0"



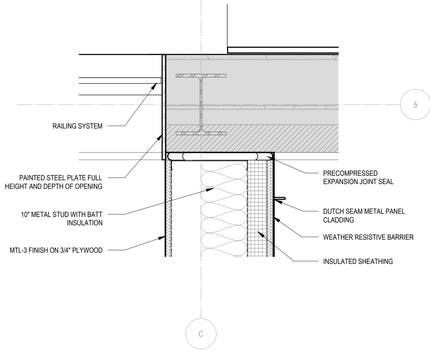
E5 PLAN DETAIL - TYPICAL OVERHEAD DOOR JAMB AT EXTERIOR
1 1/2" = 1'-0"



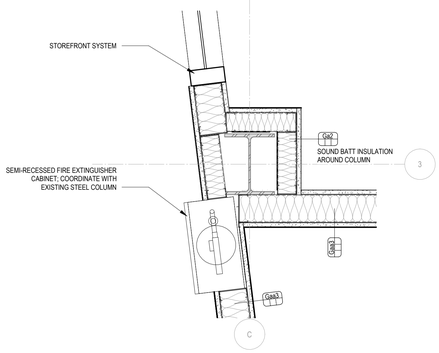
D2 PLAN DETAIL - JAMB AT NEW WINDOW
1 1/2" = 1'-0"



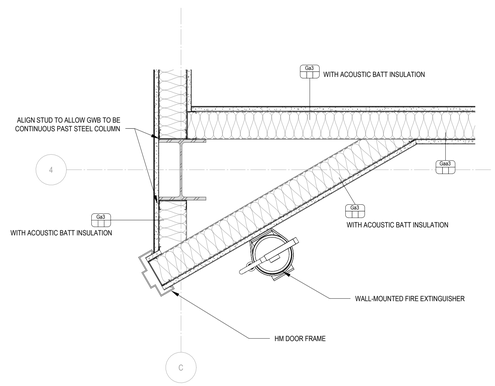
C3 PLAN DETAIL - ENTRY ADDITION - MECHANICAL CHASE
1 1/2" = 1'-0"



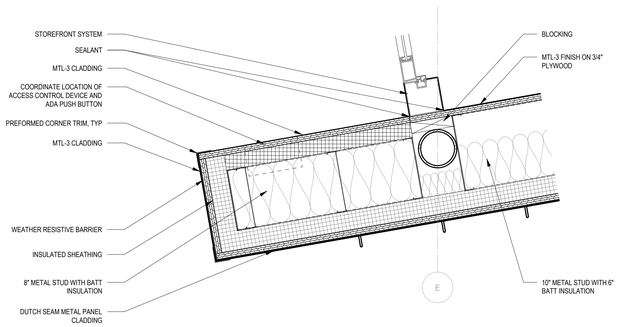
C5 PLAN DETAIL - ENTRY ADDITION - EXPANSION JOINT
1 1/2" = 1'-0"



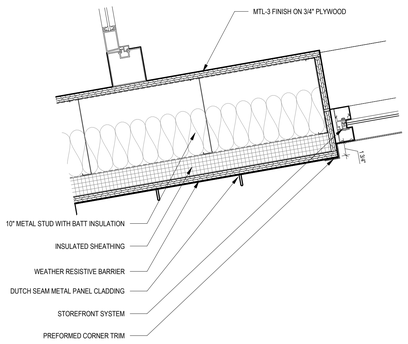
B1 PLAN DETAIL - SECOND FLOOR - COLUMN C3
1 1/2" = 1'-0"



A1 PLAN DETAIL - FIRST FLOOR - COLUMN C4
1 1/2" = 1'-0"



A3 PLAN DETAIL - ENTRY ADDITION - WING WALL
1 1/2" = 1'-0"



A5 PLAN DETAIL - ENTRY ADDITION - STOREFRONT JAMB
1 1/2" = 1'-0"

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ITHACA, NY 14850

AM JOB NO.
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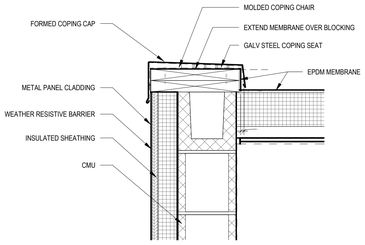
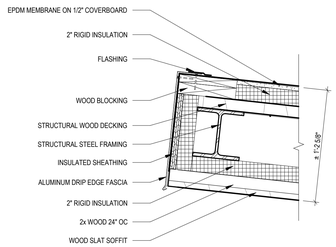
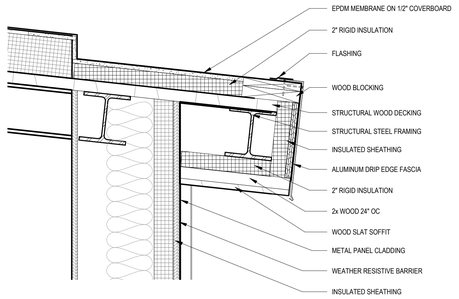


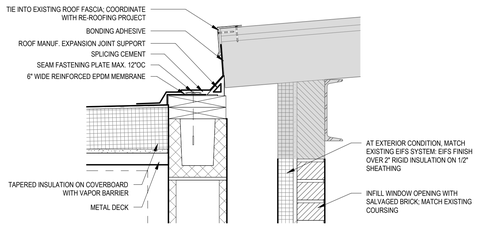
E1 DETAIL - SECTION - ELEVATOR SHAFT EAST / WEST ROOF EDGE
1 1/2" = 1'-0"



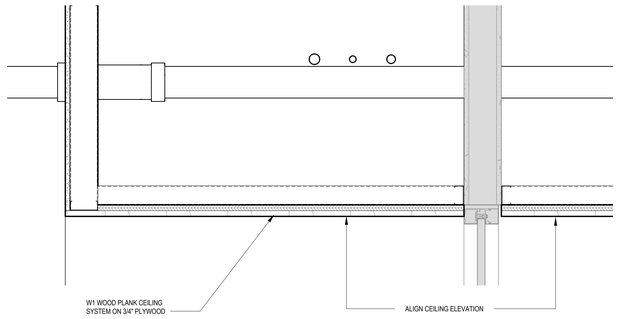
E2 DETAIL - SECTION - ENTRY ADDITION ROOF HIGH EDGE
1 1/2" = 1'-0"

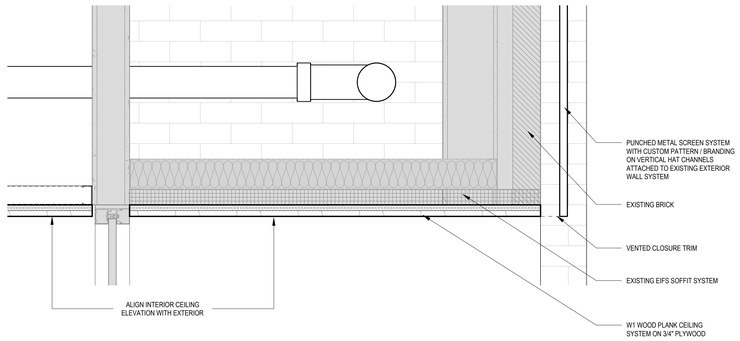


E4 DETAIL - SECTION - ENTRY ADDITION ROOF LOW EDGE
1 1/2" = 1'-0"

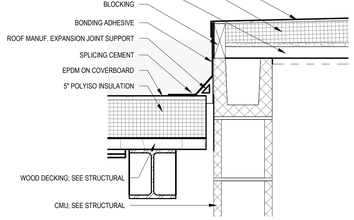


D1 DETAIL - SECTION - ELEVATOR SHAFT ROOF EDGE AT EXISTING CLEARSTORY
1 1/2" = 1'-0"

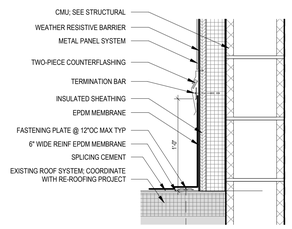




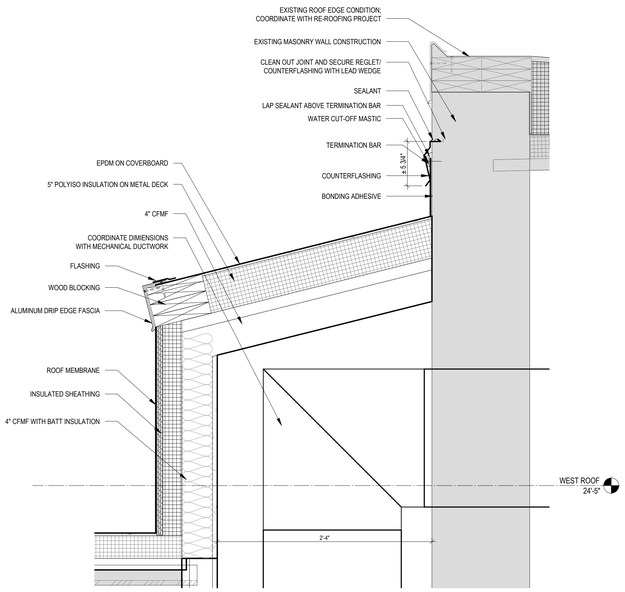
C2 DETAIL - SECTION - WOOD SOFFIT AT FIRST FLOOR ENTRY
1 1/2" = 1'-0"



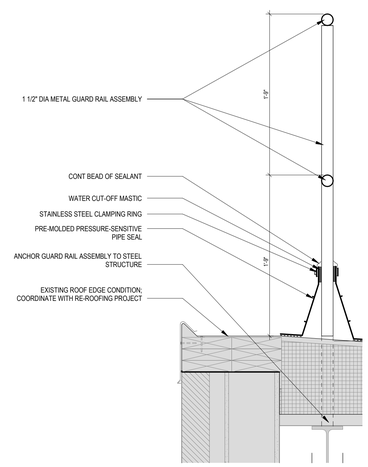
B1 DETAIL - SECTION - ELEVATOR SHAFT ROOF EDGE AT ENTRY ADDITION
1 1/2" = 1'-0"



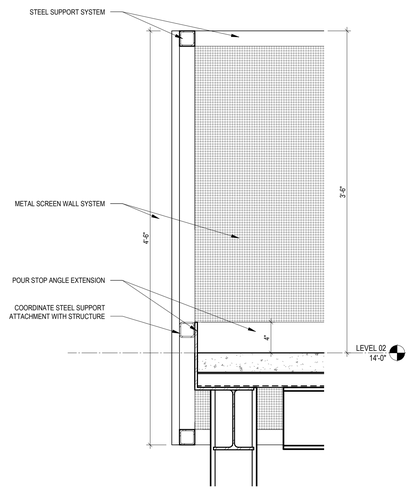
A1 DETAIL - SECTION - ELEVATOR SHAFT AT EXISTING ROOF
1 1/2" = 1'-0"



A2 DETAIL - SECTION - DOGHOUSE AT TOP OF MECHANCIAL CHASE
1 1/2" = 1'-0"



A4 DETAIL - SECTION - TYPICAL ROOF GUARDRAIL ANCHORAGE
1 1/2" = 1'-0"



A6 DETAIL - SECTION - BALCONY RAILING
1 1/2" = 1'-0"

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AM JOB NO.
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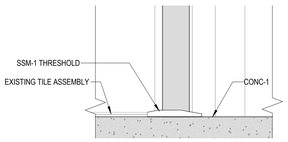
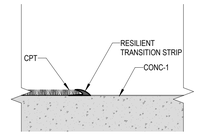
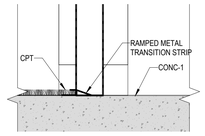


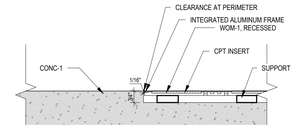
E2 CONC-EXISTING TILE FLOOR TRANSITION - TYP
3" = 1'-0"



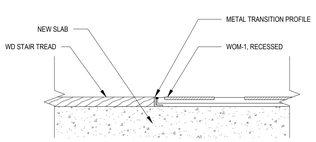
E3 CPT-CONC FLOOR TRANSITION - TYP
3" = 1'-0"



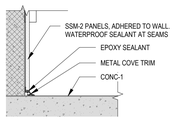
E4 CPT-CONC FLOOR TRANSITION @ DOOR - TYP
3" = 1'-0"



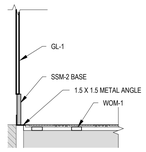
E5 WOM-1 - CONC TRANSITION- TYP
3" = 1'-0"



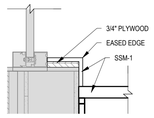
E6 SEC DTL - WOM-1 TO STAIRS
3" = 1'-0"



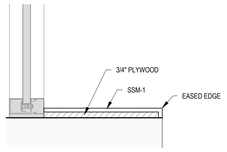
D2 SEC DTL - SSM-2 PANEL TO FLOOR
3" = 1'-0"



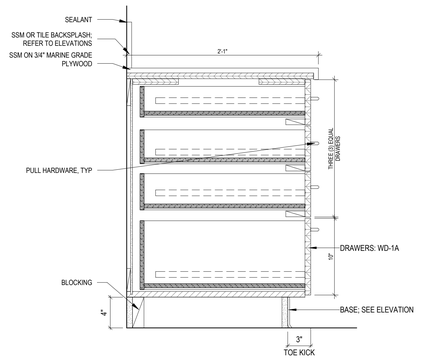
D3 SEC DTL - ENTRY LOBBY JOINT @ ELEVATOR
1 1/2" = 1'-0"



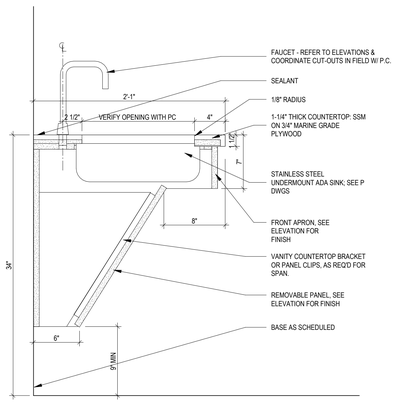
D4 SEC DTL - SSM SILL @ KITCHENETTE
1 1/2" = 1'-0"



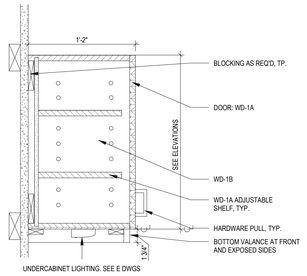
D5 SEC DTL - TYP SSM SILL
1 1/2" = 1'-0"



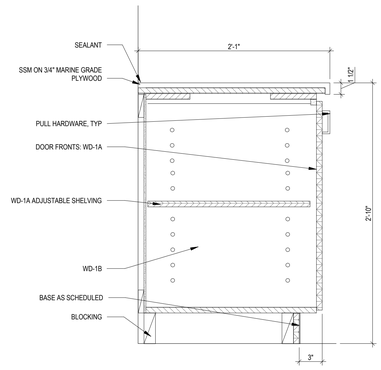
B5 SEC DTL - DWR BASE CABINET
1 1/2" = 1'-0"



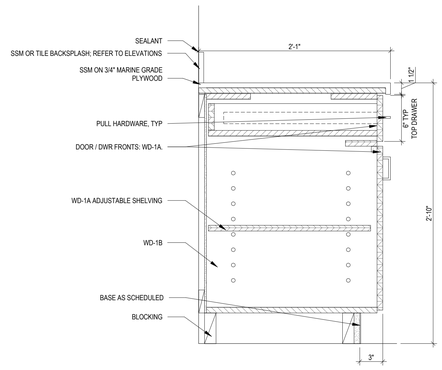
A1 SEC DTL - ADA SINK BASE
1 1/2" = 1'-0"



A2 SEC DTL - TYP WALL CABINET
1 1/2" = 1'-0"



A4 SEC DTL - TYP DR BASE CABINET
1 1/2" = 1'-0"



A5 SEC DTL - TYP DWR/DR BASE CABINET
1 1/2" = 1'-0"

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CONSULTANT:

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REGISTERED ARCHITECT
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046998
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AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

MILLWORK & INTERIOR DETAILS

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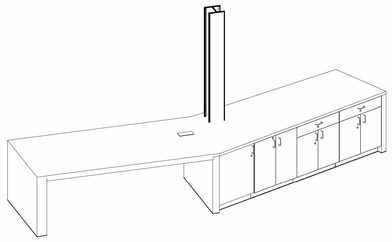
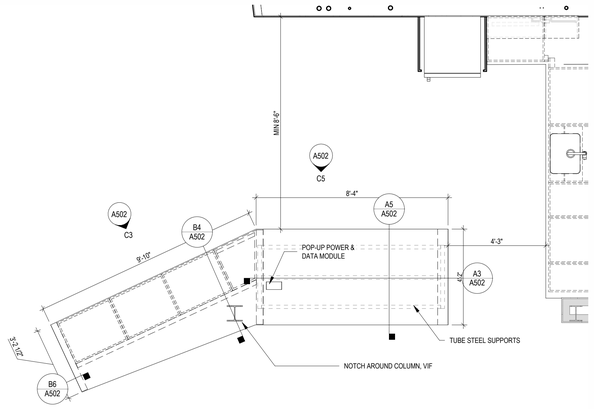
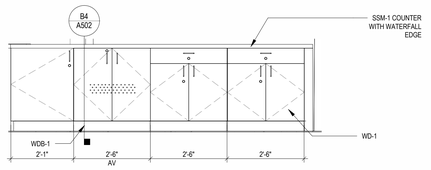


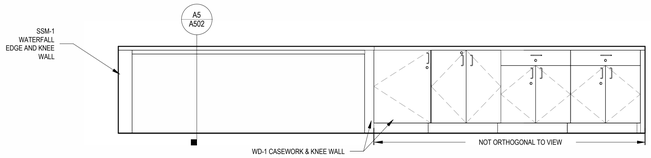
E3 3D VIEW - KITCHENETTE ISLAND



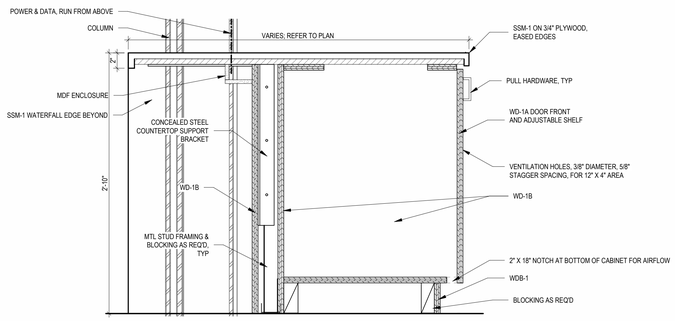
D5 ENLARGED PLAN - KITCHENETTE 201E
3/8" = 1'-0"



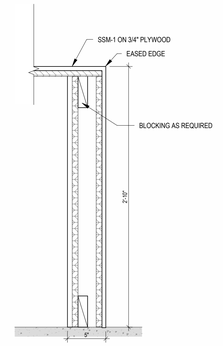
C3 INT ELEVATION - 201E KITCHENETTE - SOUTHWEST
1/2" = 1'-0"



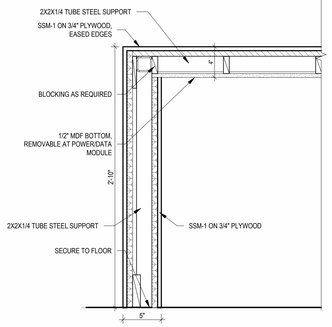
C5 INT ELEVATION - 201E KITCHENETTE - SOUTH
1/2" = 1'-0"



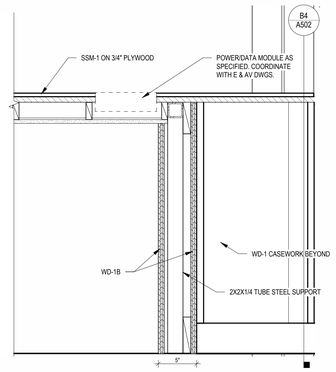
B4 SEC DTL - AV CABINET @ KITCHENETTE ISLAND
1 1/2" = 1'-0"

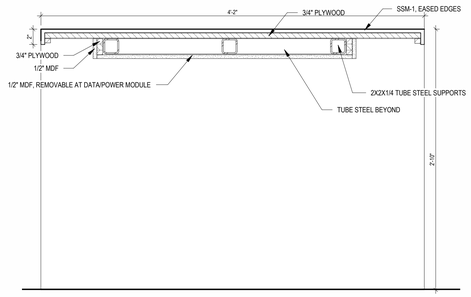


B6 SEC DTL - ISLAND WATERFALL EDGE
1 1/2" = 1'-0"



A3 SEC DTL - OPEN KITCHENETTE ISLAND
1 1/2" = 1'-0"





A5 SEC DTL - KITCHENETTE ISLAND
1 1/2" = 1'-0"

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AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

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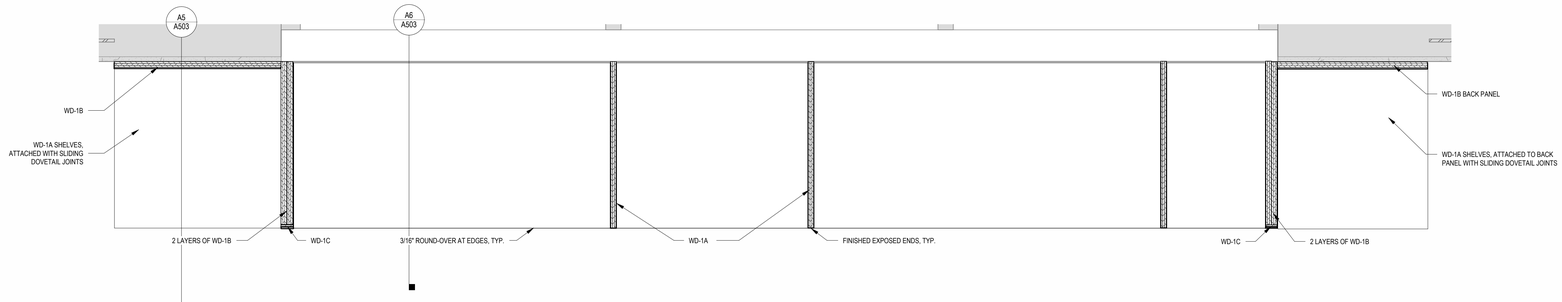
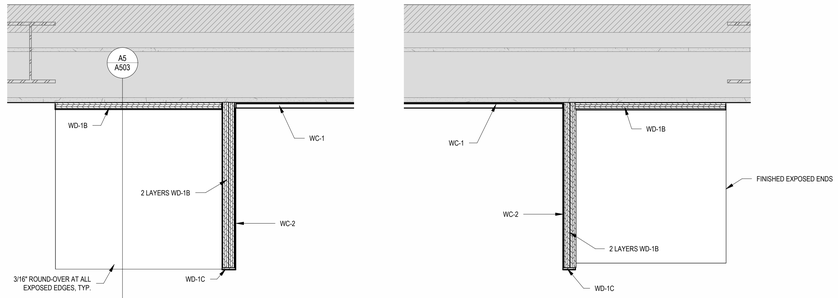
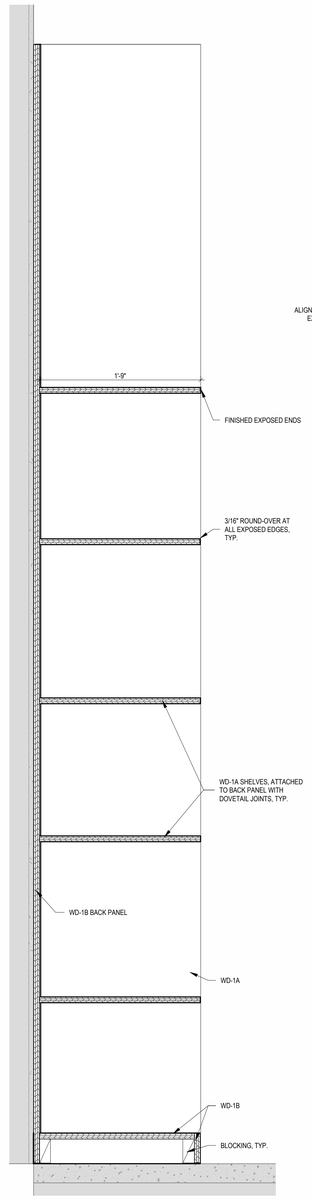


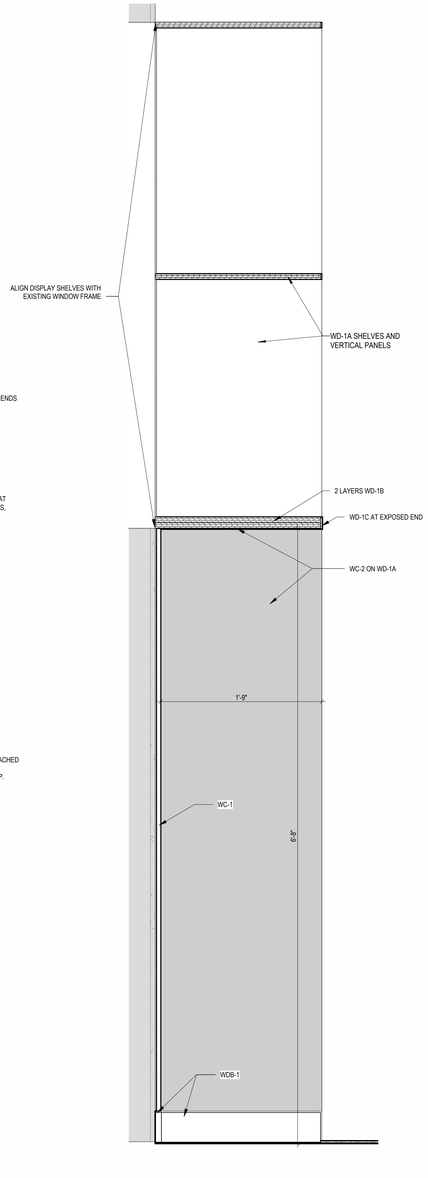
E2 SEC DTL - MILLWORK DISPLAY CUBBIES
1 1/2" = 1'-0"



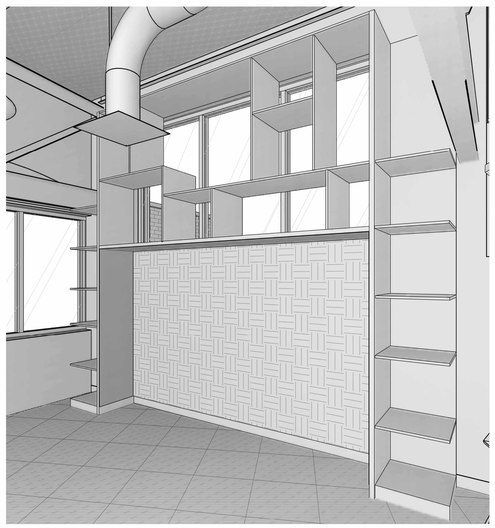
C2 SEC DTL - MILLWORK NOOK
1 1/2" = 1'-0"



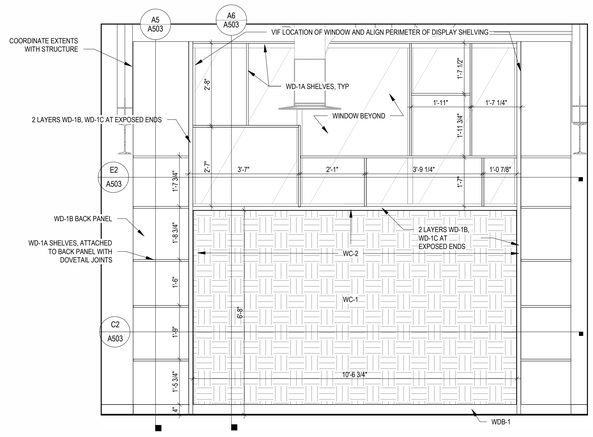
A5 SEC DTL - SHELVES @ MILLWORK DISPLAY
1 1/2" = 1'-0"



A6 SEC DTL - MILLWORK NOOK AND DISPLAY CUBBIES
1 1/2" = 1'-0"



A1 3D - LOUNGE MILLWORK DISPLAY



A3 INT ELEVATION - MAKING EXPLORATION 201 - MILLWORK DISPLAY
1/2" = 1'-0"

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GENERAL DOOR, FRAME, AND HARDWARE NOTES

A GENERAL NOTES APPLY TO THE INTENDED WORK INCLUDED IN THE CONTRACT DOCUMENTS.

B THE DOOR SCHEDULE IS INTENDED AS A SUMMARY, BUT MAY NOT REPRESENT ALL OF THE DOORS, FRAMES AND HARDWARE REQUIRED TO COMPLETE THE WORK. THE DOOR SCHEDULE AND THE REMAINDER OF THE CONSTRUCTION DOCUMENTS ARE COMPLIMENTARY, AS ADDITIONAL INFORMATION REQUIRED TO COMPLETE THE DOORS, FRAMES, AND HARDWARE MAY BE INDICATED THROUGHOUT.

C SHOULD CONFLICTS EXIST WITHIN THE CONSTRUCTION DOCUMENTS, VERIFY INTENT WITH ARCHITECT PRIOR TO BIDDING. CLARIFICATIONS ISSUED AFTER BIDDING SHALL NOT BE BASIS FOR ADDITIONAL COMPENSATION.

D VERIFY/COORDINATE THROAT SIZES OF HM FRAMES WITH EXISTING CONSTRUCTION PRIOR TO GENERATING SHOP DRAWINGS.

E IT IS INTENDED THAT ALL NEW DOORS RECEIVE HARDWARE. WHERE HARDWARE SETS ARE NOT INDICATED CONTRACTOR SHALL INCLUDE IN THEIR BID HARDWARE OF TYPE AND FUNCTION SIMILAR TO DOORS OF LIKE USE OR LOCATION.

F WOOD LITE KITS AND GLAZING STOPS SHALL BE OF SPECIES AND FINISH TO MATCH DOOR.

G METAL HARDWARE ACCESSORIES, SUCH AS ASTRAGALS, REMOVABLE MULLIONS, OR LITE KITS SHALL BE PAINTED PRIOR TO INSTALLATION, TO MATCH DOOR, IN COLOR SELECTED BY ARCHITECT.

H TOPS AND BOTTOMS OF DOORS THAT ARE FIELD CUT SHALL RECEIVE TWO COATS OF CLEAR SEALER AT STAINED DOORS, OR OTHERWISE FINISHED IN-KIND TO MATCH DOOR FACE.

I WHERE FIRE RESISTIVE RATED GLAZING IS REQUIRED PROVIDE FRAME TESTED AS AN ASSEMBLY WITH THE REQUIRED GLAZING, PER ASTM E119.

J WHERE NEW HARDWARE IS INSTALLED ON AN EXISTING DOOR OR FRAME, THE CONTRACTOR SHALL INCLUDE ALL MACHINING AND PATCHING OF THE EXISTING SURFACES WITH IN-KIND MATERIALS AND FINISHES, OR WHERE APPROVED BY ARCHITECT, PROVIDE ALTERNATIVE METHODS TO CONCEAL REMEDIAL WORK.

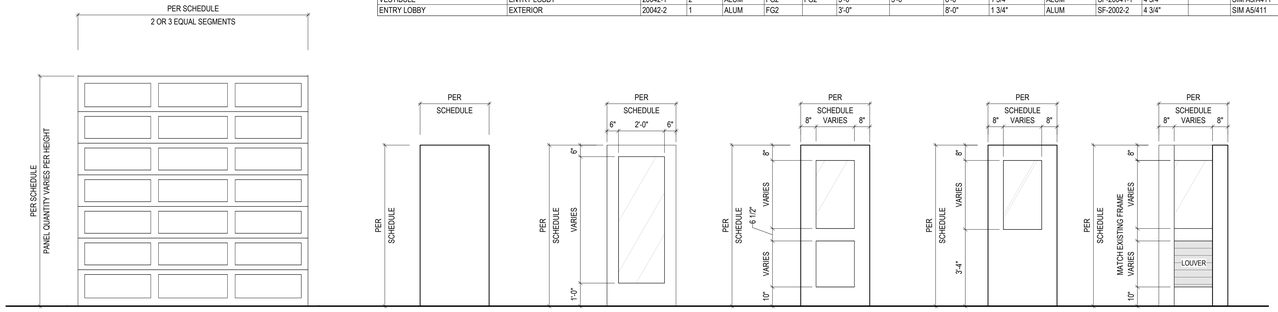
K THROUGH-BOLTING OF HARDWARE IS NOT PERMITTED UNLESS NOTED OTHERWISE.

L PREPARE DOORS AND FRAMES FOR ELECTRICAL AND SECURITY DEVICES. COORDINATE WITH OWNER AND WORK OF OTHER TRADES.

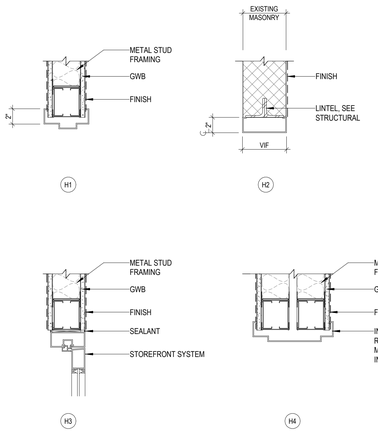
M ALL STOREFRONT IS TO RECEIVE CUSTOM LASER CUT SAFETY MARKING FILM.

DOOR SCHEDULE

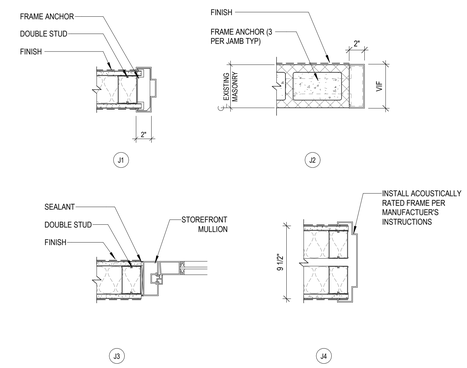
FROM ROOM	TO ROOM	DOOR NUMBER	DOOR PANELS: NUM OF PNLS	PANEL MATERIAL	PANEL 1 TYPE	PANEL 2 TYPE	PANEL DIMENSIONS WIDTH: PANEL 1	PANEL 2	HEIGHT	THICKNESS	DOOR FRAME: FRAME MATERIAL	FRAME TYPE	DEPTH	HEAD	JAMB	HW SET	ASSEMBLY FIRE RATING (MIN)	SMOKE SEAL	COMMENTS	NUMBER	CURRENT REV
LEVEL 01																					
EXTERIOR	STAIR	101-1		EXIST							EXIST					E04A			EXISTING DOOR; HARDWARE ONLY	101-1	
MAKING EXPLORATION	MAKING EXPLORATION ANNEX	101A-1	1	HM	G		3'-0"		7'-0"	1 3/4"	HM	F1	5 3/4"	H1	J1	01	N/A			101A-1	
MAKING EXPLORATION	MAKING EXPLORATION ANNEX	101A-2		ALUM	OH		12'-0"		9'-0"		ALUM					02	N/A		STACKING OVERHEAD DOOR	101A-2	
MAKING EXPLORATION	PROTOTYPING WOOD STUDIO	101B-1	1	HM	G		3'-0"		7'-0"	1 3/4"	HM	F1	5 3/4"	H1	J1	01	N/A			101B-1	
STORAGE	PROTOTYPING WOOD STUDIO	101B-3	2	HM	F	F	3'-0"	1'-6"	7'-0"	1 3/4"	HM	F1	5 3/4"	H1	J1	01B	N/A			101B-3	
CLAY STUDIO	MAKING EXPLORATION	101C-1	1	HM	G		3'-0"		7'-0"	1 3/4"	HM	F2	4 3/4"	H1	J1	01A	N/A			101C-1	
MAKING EXPLORATION	CLAY STUDIO	101C-2		ALUM	OH		8'-0"		9'-0"		ALUM					02	N/A		STACKING OVERHEAD DOOR	101C-2	
STORAGE	CLAY STUDIO	101C-3	1	HM	F		3'-0"		7'-0"	1 3/4"	HM	F1	5 3/4"	H1	J1	01A	N/A			101C-3	
OPEN ASSEMBLY / PROTOTYPING	MAKING EXPLORATION	102-1	1	HM	G		3'-4"		7'-0"	1 3/4"	HM	F1	5 1/8"	H1	J1	01A	N/A			102-1	
MAKING EXPLORATION	OPEN ASSEMBLY / PROTOTYPING	102-2		ALUM	OH		8'-0"		9'-0"		ALUM					02	N/A		STACKING OVERHEAD DOOR	102-2	
EXTERIOR	OPEN ASSEMBLY / PROTOTYPING	102-3		ALUM	OH		9'-4"		8'-8"		ALUM					E01	N/A		STACKING OVERHEAD DOOR	102-3	
OPEN ASSEMBLY / PROTOTYPING	SPRAY	102A-1	1	NONE	NONE		6'-4"		7'-2"	1 3/4"	HM	F1	8 7/8"	H2	J2	N/A	N/A		FRAME ONLY. COORDINATE DIMENSIONS WITH SPRAY BOOTH REQUIREMENTS	102A-1	
OPEN ASSEMBLY / PROTOTYPING	LIGHT METAL & JEWELRY SHOP	102B-1	1	HM	G		3'-0"		7'-0"	1 3/4"	HM	F2	4 3/4"	H1	J1	01D	N/A			102B-1	
STORAGE	MAKING EXPLORATION	103-1	2	HM	F	F	3'-0"	3'-0"	7'-0"	1 3/4"	HM	F1	5 3/4"	H1	J1	01C	N/A			103-1	
STORAGE	EXTERIOR	103-2		EXIST							EXIST					E04A	N/A		EXISTING DOOR; HARDWARE ONLY; PRIVACY FILM APPLIED TO GLAZING	103-2	
STORAGE	EXTERIOR	103-3		ALUM	OH		9'-0"		8'-8"		ALUM					E01	N/A		ELECTRIC DRIVE OVERHEAD DOOR	103-3	
VESTIBULE	EXTERIOR	10040-1		EXIST							EXIST					E04A	N/A		EXISTING DOOR; HARDWARE ONLY	10040-1	
CORRIDOR	EXTERIOR	10041-1		EXIST							EXIST					E05			EXISTING DOOR; HARDWARE ONLY	10041-1	
MECH ROOM	ACCESS CONTROL	10062-1	1	HM	F		3'-0"		7'-0"	1 3/4"	HM	F1	5 3/4"	H1	J1	03A	N/A			10062-1	
STORAGE	ELEVATOR CONTROL	10071-1	2	HM	F	F	3'-0"	3'-0"	7'-0"	1 3/4"	HM	F1	5 3/4"	H1	J1	03	N/A			10071-1	
LEVEL 02																					
OFFICE	CIRCULATION	201A-1	1	ALUM	FG		3'-0"		7'-10"	1 3/4"	ALUM	SF-201A	4 3/4"	H3	J3	04	N/A			201A-1	
MAKING EXPLORATION	MAKING EXPLORATION	201C-1	1	ALUM	FG		3'-0"		7'-10"	1 3/4"	ALUM	SF-201C	4 3/4"	H3	J3	04	N/A			201C-1	
MEDIUM COLLAB (2-4 PERSON)	MAKING EXPLORATION	201D-1	1	ALUM	FG		3'-0"		7'-10"	1 3/4"	ALUM	SF-201D	4 3/4"	H3	J3	04	N/A			201D-1	
EXPLORATION WORKSHOP	MAKING EXPLORATION	202-1	2	ALUM	FG2	FG2	3'-0"	3'-0"	7'-10"	1 3/4"	ALUM	SF-202	4 3/4"	H3	J3	04A	N/A		1" UNDERCUT	202-1	
EXTERIOR	EXPLORATION WORKSHOP	202A-1	2	ALUM	FG2	FG2	3'-0"	3'-0"	7'-9"	1 3/4"	ALUM	SF-202A	4 3/4"			E02	N/A			202A-1	
ELECTRONICS WORKSHOP	CORRIDOR	204-1	1	HM	GLV		3'-0"		7'-0"	1 3/4"	EXIST	EXIST	4 3/4"			01E	N/A		NEW PANEL AND HARDWARE IN EXISTING FRAME	204-1	
COLLABORATION	MEDIA STUDIO	205-1	1	HM	F		3'-0"		7'-0"	1 3/4"	HM	F1	10 3/8"	H4	J4	01F	N/A		ACOUSTIC DOOR - STC 50	205-1	
UPPER ENTRY																					
EXTERIOR	VESTIBULE	20041-1	2	ALUM	FG2	FG2	3'-0"	3'-0"	8'-0"	1 3/4"	ALUM	SF-20041-1	4 3/4"		A3/A411	E03	N/A			20041-1	
VESTIBULE	ENTRY LOBBY	20042-1	2	ALUM	FG2	FG2	3'-0"	3'-0"	8'-0"	1 3/4"	ALUM	SF-20041-1	4 3/4"		SIM A3/A411	E03A	N/A			20042-1	
ENTRY LOBBY	EXTERIOR	20042-2	1	ALUM	FG2		3'-0"		8'-0"	1 3/4"	ALUM	SF-2002-2	4 3/4"		SIM A5/411	E04	N/A			20042-2	



DOOR PANEL TYPES

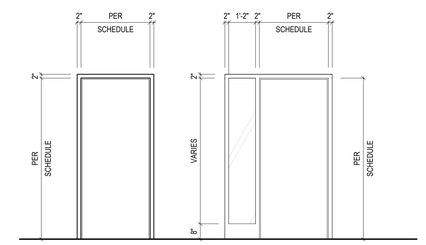


TYPICAL DOOR HEAD DETAILS

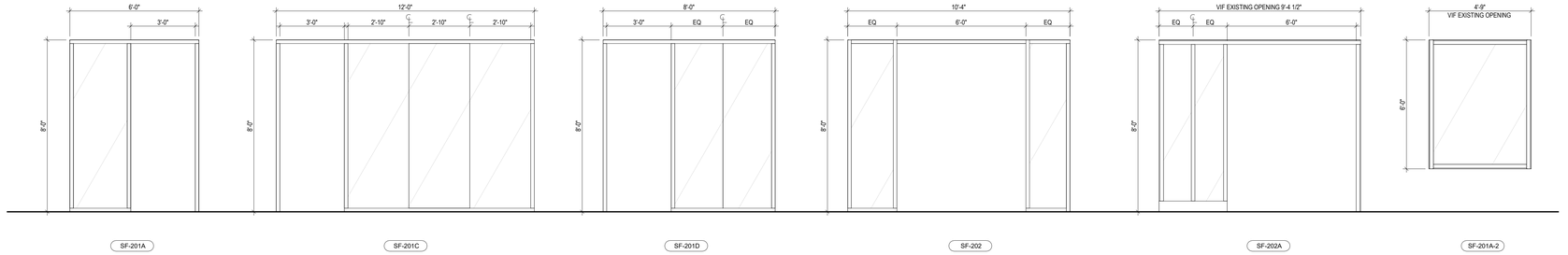


TYPICAL DOOR JAMB DETAILS

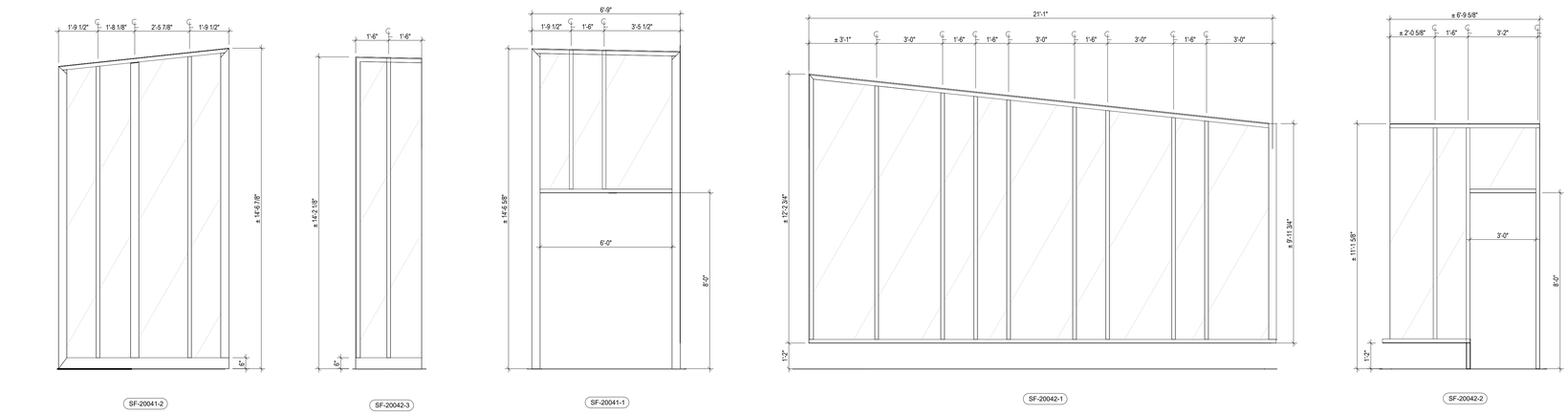
DOOR FRAME TYPES



STOREFRONT TYPES



STOREFRONT TYPES



TYPICAL DOOR JAMB DETAILS

STOREFRONT TYPES

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CONSULTANT:

SEAL:

REGISTERED ARCHITECT SUSANNE ANGLAND 046998 STATE OF NEW YORK

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110 ARBORETUM RD, ITHACA, NY 14850

AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.9.14

DOOR SCHEDULE AND STOREFRONT ELEVATIONS

A601

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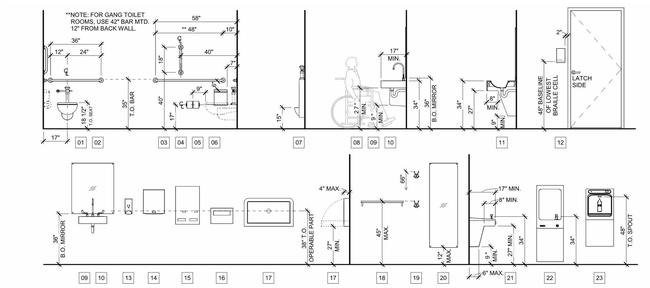


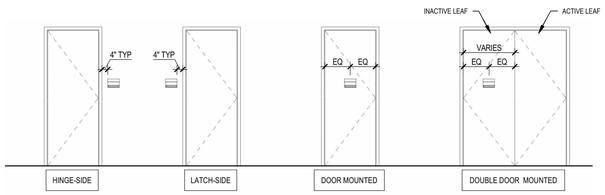
LEGEND

01	TOILET	09	WALL-MTD LAVATORY	17	BABY CHANGING STATION
02	36" GRAB BAR	10	LAVATORY MIRROR	18	SHELF
03	48" GRAB BAR	11	COUNTER-MTD LAVATORY	19	COAT/ BAG HOOK
04	18" GRAB BAR	12	ROOM SIGNAGE	20	FULL-LENGTH MIRROR
05	TOILET PAPER DISP.	13	SOAP DISPENSER	21	WALL-MTD DRINKING FOUNTAIN
06	SANITARY NAPKIN RECEPT.	14	PAPER TOWER DISPENSER	22	RECESSED DRINKING FOUNTAIN
07	URINAL	15	SANITARY NAPKIN DISP.	23	BOTTLE FILLING STATION
08	KNEE CLEARANCE	16	TOILET SEAT COVER DISP.		

ADDITIONAL NOTES:
1. MOUNTING HEIGHTS FOR SOME FIXTURES MAY CHANGE DEPENDING ON THE SPECIFIC FIXTURE SELECTED. **ALL PROPOSED FIXTURES MUST BE REVIEWED AND APPROVED BY A CORNELL UNIVERSITY REPRESENTATIVE.**
2. THESE ARE SPECIFIC HEIGHTS SELECTED WITHIN THE RANGES ALLOWED BY THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND ICC A117.1-2009.
3. COMPLETE COMPLIANCE WITH ALL ASPECTS OF 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND ICC A117.1-2009 IS REQUIRED OF ALL PROJECTS AND ACTIVITIES.
4. ALL OPERABLE HARDWARE, INCLUDING DOOR HARDWARE AND TOILET PARTITION HARDWARE, TO BE LEVER TYPE.
5. AVOID MOUNTING GRAB BARS ON TOILET PARTITIONS WHEREVER POSSIBLE.
6. WHERE A LOOSE TRASH RECEPTACLE IS PROVIDED, ENSURE THAT RECEPTACLE LOCATION DOES NOT INTERFERE WITH ANY REQUIRED MANEUVERING CLEARANCES.
7. DOOR THRESHOLDS SHALL BE FLUSH WHEREVER POSSIBLE. THRESHOLD HEIGHT SHALL NOT EXCEED 1/8".

D1 UNIVERSITY STANDARD MOUNTING HEIGHTS FOR ACCESSIBLE

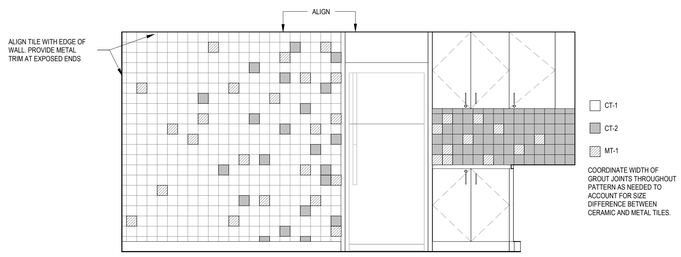
D3 EXISTING TILE - RESTROOM 20020



REFER TO CORNELL UNIVERSITY STANDARDS FOR MOUNTING HEIGHTS.

*REFER TO FLOOR FINISH PLAN FOR SIGNAGE MOUNTING LOCATIONS

C1 INTERIOR SIGN TYPICAL ELEVATIONS
1 1/2" = 1'-0"



B1 INT ELEVATION - TILE PATTERN @ 201E KITCHENETTE
1/2" = 1'-0"

FINISH MATERIAL LEGEND

TAG	MANUFACTURER	DESCRIPTION / STYLE	PRODUCT COLOR	PRODUCT SIZE	ADDITIONAL NOTES
03 3543 POLISHED CONCRETE FINISHING					
CONC-1		DENSIFIED AND POLISHED CONCRETE			
05 7000 DECORATIVE METAL					
MTL-2	AMICO ARCHITECTURAL	GRACIA	CUSTO FINISH TO MATCH PANTONE 187C		STAIR RAILING MESH
06 4100 - ARCHITECTURAL WOOD CASEWORK AND MILLWORK					
SSM-1	WILSONART	SOLID SURFACE	9245SS ASPEN QUARTZITE	1/2 THICK	KITCHENETTE COUNTER & WINDOW SILLS
SSM-2	WILSONART	SOLID SURFACE	TO MATCH MTL-3	1/2 THICK	ENTRY LOBBY BASE AND SILL
WD-1A	TORZO SURFACES	STRIATA 360	NATURAL	3/4" THICK	
WD-1B	TORZO SURFACES	STRIATA SURFACE	NATURAL	3/4" THICK	
WD-1C	TORZO SURFACES	STRIATA SURFACE	NATURAL	1/4" THICK	
WD-2		HARDBOARD PEGBOARD	CLEAR COAT FINISH		INSTALLED ON STANDOFFS
WDB-1			SOLID MAPLE WOOD BASE TO MATCH WD-1	3/4" THICK	
09 3000 - TILING					
CT-1	DALTILE	RELICCA	PRISTINE	4" X 4"	
CT-2	DALTILE	COLOR WHEEL CLASSIC	CURRANT	4" X 4"	
CT-3		MATCH EXISTING ADJACENT			
MT-1	DALTILE	METALLICA	OXIDIZED COPPER	4" X 4"	
SSM-4	WILSONART	SOLID SURFACE	TBD	1/2" THICK	RESTROOM THRESHOLDS
09 6500 - RESILIENT FLOORING, BASE AND ACCESSORIES					
RB-1	ROPPE	PINNACLE RUBBER BASE	LUNAR DUST	4" H	
RT-1	NORA	NORAMENT SATURA XP	5111 CASTOR	39.5" X 39.5"	ELEVATOR FLOORING
09 6700 - FLUID APPLIED FLOORING					
ERF-1	ACRYLICON	DECOR SYSTEM	TBD		ADD ALTERNATE #4; TO INCLUDE COVE BASE
09 6800 - CARPETING					
CPT-1	INTERFACE	UR103	GRASS	50CM X 50CM	INSTALLED NONDIRECTIONAL
CPT-2	INTERFACE	UR102	FLAX	50CM X 50CM	INSTALLED NONDIRECTIONAL
CPT-3	INTERFACE	UR101	FLAX/GRASS	50CM X 50CM	INSTALLED PATTERN BY TILE; NONDIRECTIONAL
CPT-4	INTERFACE	WW860	CHARCOAL TWEED	25CM X 1M	INSTALLED ASHLAR
09 7200 - WALL COVERINGS					
WC-1	FILZFELT	INDEX DIMENSIONAL	TBD	2'-0" X 6" TILE	
WC-2	FILZFELT	WOOL DESIGN FELT	TBD	3MM THICK, ROLL	
09 8430 - SOUND-ABSORBING WALL AND CEILING UNITS					
FAB-1	MAHARAM	MELD	013 ANTLER		FABRIC-WRAPPED ACOUSTIC PANELS
FAB-2	MAHARAM	MELD	014 CRATER		FABRIC-WRAPPED ACOUSTIC PANELS
09 9123 - INTERIOR PAINTING AND TRANSPARENT FINISHING					
PNT-1	BENJAMIN MOORE	WALL FIELD PAINT	CHANTILLY LACE OC-65		
PNT-2	BENJAMIN MOORE	EXPOSED STRUCTURE, UNDERSIDE OF STAIRS, AND DOOR FRAMES	BEAR CREEK 1470		
PNT-3	BENJAMIN MOORE	STAIR RAILINGS AND STRINGERS	CUSTOM MATCH TO PANTONE 187C		
PNT-4	BENJAMIN MOORE	GWB SOFFITS, EXPOSED DECK, TECTUM CEILING FIELD PAINT	CEILING WHITE		
10 1000 - VISUAL DISPLAY UNITS AND DISPLAY CASES					
GL-1	CLARUS	BACK PAINTED TEMPERED GLASS	CUSTOM TO MATCH PANTONE 187C		MAGNETIC
TAC-1	FORBO	BULLETIN BOARD	2182 POTATO SKIN	72" ROLL	
10 2600 - WALL PROTECTION					
FRP-1	INPRO	PVC-FREE FIBER REINFORCED PLASTIC PANEL			
SSM-3	WILSONART	SOLID SURFACE	D354SL DESIGNER WHITE	1/4" THICK	CLAY STUDIO WALL PANELING
12 3100 MANUFACTURED METAL CASEWORK					
MTL-1	MOTT MANUFACTURING	PAINTED STEEL	STEEL GREY		
SS-1		STAINLESS STEEL COUNTER			
12 4813 - ENTRANCE FLOOR MATS AND FRAMES					
WOM-1	CONSTRUCTION SPECIALTIES	FLOORMATIONS CROSSHATCH, CARPET INSERT	OBSIDIAN 00595	3/4" DEPTH	
WALLS- METAL PANEL					
MTL-3	ATAS	ALUMINUM COMPOSITE MATERIAL PANEL	TO MATCH EXTERIOR		

ROOM FINISH SCHEDULE

NUMBER	NAME	FLOOR		WALLS				REMARKS
				NORTH	SOUTH	EAST	WEST	
		FINISH	BASE	FINISH	FINISH	FINISH	FINISH	
LEVEL 01								
101	MAKING EXPLORATION	CONC-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	1,4,8
101A	MAKING EXPLORATION ANNEX	CONC-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	1,4,5,8
101B	PROTOTYPING WOOD STUDIO	CONC-1	RB-1	PNT-1	-	PNT-1	PNT-1	1,5,8
101C	CLAY STUDIO	CONC-1	RB-1	SSM-3/PNT-1	SSM-3/PNT-1	SSM-3/PNT-1	SSM-3/PNT-1	2, 7,8
102	OPEN ASSEMBLY / PROTOTYPING	CONC-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	1,4,5,8
102A	SPRAY	CONC-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	
102B	LIGHT METAL & JEWELRY SHOP	CONC-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	1, 5,8
103	STORAGE	CONC-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	1, 4
10020	MEN'S ROOM	ETR	ETR	PNT-1/ETR	PNT-1/ETR	PNT-1/ETR	PNT-1/ETR	9
10021	WOMEN'S ROOM	ETR	ETR	PNT-1/ETR	PNT-1/ETR	PNT-1/ETR	PNT-1/ETR	9
10040	VESTIBULE	WOM-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	
10041	CORRIDOR	CONC-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	8
10060	MECH ROOM	CONC-1	-	PNT-1	-	PNT-1	-	3
10061	JC	CONC-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	
10071	ELEVATOR CONTROL	CONC-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	
LEVEL 02								
201	MAKING EXPLORATION	CONC-1	WDB-1	PNT-1	PNT-1	PNT-1	PNT-1	3,5,8
201A	OFFICE	CPT-4	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	5
201B	WORK AREA	CONC-1	RB-1	PNT-1	-	-	-	3,8
201C	LARGE COLLAB (4-6 PERSON)	CPT-1/CPT-2/CPT-3	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	5
201D	MEDIUM COLLAB (2-4 PERSON)	CPT-1/CPT-2/CPT-3	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	5
201E	KITCHENETTE	CONC-1	WDB-1	PNT-1/CT-1	-	PNT-1	-	5,8
201F	LOUNGE	CPT-1/CPT-2/CPT-3	WDB-1	-	PNT-1	PNT-1	PNT-1	5
201G	SOCIAL	CONC-1	WDB-1	-	PNT-1	PNT-1	PNT-1	8
202	EXPLORATION WORKSHOP	CONC-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	3,5,8
204	ELECTRONICS WORKSHOP	CONC-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	5,8
205	MEDIA STUDIO	CPT-4	RB-1	PNT-1/FAB-1/FAB-2	PNT-1/FAB-1/FAB-2	PNT-1	PNT-1/FAB-1/FAB-2	5
205A	COLLABORATION	CPT-1/CPT-2/CPT-3	WDB-1	PNT-1	PNT-1	-	PNT-1	3,5
10001	STAIR	CONC-1	-	PNT-1	-	-	PNT-1	3
20020	ADA TOILET	ETR	ETR	ETR/CT-3/PNT-1	PNT-1/ETR	PNT-1/ETR	PNT-1/ETR	9
20021	TOILET	ETR	ETR	PNT-1/ETR	PNT-1/ETR	PNT-1/ETR	PNT-1/ETR	5,9
20060	ELEC. CL	CONC-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	
20063	JC	CONC-1	RB-1	FRP-1/PNT-1	FRP-1/PNT-1	FRP-1/PNT-1	PNT-1	6
UPPER ENTRY								
20042	ENTRY LOBBY	WOM-1	SSM-2	MTL-3/EXIST BRICK	-	MTL-3	MTL-3	3

GENERAL FINISH NOTES

A	GENERAL FINISH NOTES APPLY TO THE SCOPE OF WORK INCLUDED IN THE CONTRACT DOCUMENTS.
B	FINISH TYPE SCHEDULES ARE GENERAL DESCRIPTIONS AND DO NOT SUPERSEDE SPECIFIC NOTES AND DETAILS WITHIN THE CONTRACT DOCUMENTS.
C	SHOULD CONFLICTS EXIST WITH THE CONSTRUCTION DOCUMENTS, VERIFY INTENT WITH ARCHITECT PRIOR TO INSTALLATION.
D	IT IS INTENDED THAT EXPOSED AND SEMI-EXPOSED SURFACES SHALL RECEIVE A FINISH, MATCHING ADJACENT OR OTHER LIKE SURFACES WITHIN THE PROJECT, EVEN IF NOT SPECIFICALLY INDICATED IN THE CONSTRUCTION DOCUMENTS.
E	WHERE EXISTING CEILINGS ARE RAISED OR REMOVED, IT IS INTENDED THAT THE NEWLY EXPOSED WALL/DECK SHALL BE PATCHED, AND FINISHES AND CONSTRUCTION EXTENDED TO THE NEW CEILING/DECK.
F	PAINT WALLS AFFECTED BY THE WORK, TYP, UNO.
G	PAINT HM DOORS AND FRAMES, UNO.
H	PAINT EXPOSED OR SEMI-EXPOSED STEEL STAIR SYSTEM AND RAILING SYSTEM, UNO.
I	PAINT EXPOSED STRUCTURAL ELEMENTS AND EXPOSED MISCELLANEOUS METALS. WHERE THESE ELEMENTS ARE EMBEDDED IN WALLS, MATCH ADJACENT SURFACE, UNO.
J	PAINT ACCESS DOORS INSTALLED IN SURFACES OF DISSIMILAR COLOR TO MATCH SURFACE, UNO.
K	PAINT HVAC GRILLES AND REGISTERS INSTALLED IN SURFACES OF DISSIMILAR COLOR TO MATCH SURFACE, UNO.
L	IT IS INTENDED THAT ALL WINDOWS HAVE FINISHED STOOLS. WHERE STOOL FINISH IS NOT INDICATED, PROVIDE SSM STOOL IN COLOR SELECTED BY ARCHITECT.
M	FLOOR FINISH AND BASE CONTINUES UNDER OPEN BASE CASEWORK/MILLWORK AND OPEN COUNTERS.
N	IN SPACES WITH CLOSETS, ALCOVES, OR SIMILAR ANCILLARY AREAS, FINISHES WILL CONTINUE INTO THOSE AREAS UNO.
O	WHERE FLOORING IS INSTALLED, PROVIDE BASE IN COLOR SELECTED BY ARCHITECT, UNO.
P	PAINT HVAC GRILLES AND REGISTERS INSTALLED IN SURFACES OF DISSIMILAR COLOR TO MATCH SURFACE UNLESS OTHERWISE INDICATED.
Q	WHERE COUNTERTOP FINISH IS NOT INDICATED, PROVIDE SSM IN COLOR SELECTED BY ARCHITECT.
R	FLOOR FINISH TRANSITIONS OCCUR CENTERED UNDER DOOR PANEL. AT AMBIGUOUS CONDITIONS, VERIFY INTENT WITH ARCHITECT PRIOR TO FLOORING INSTALLATION.
S	WHERE A FINISH OR MATERIAL TERMINATES RESULTING IN AN EXPOSED EDGE THAT IS NOT DETAILED IN THE CONTRACT DOCUMENTS, PROVIDE A PRE-FINISHED EDGE, TRIM OR TRANSITION ACCESSORY BY FINISH MANUFACTURER, OR OTHER FINISH DETAIL APPROVED BY ARCHITECT.
T	AT RESILIENT BASE OVER MASONRY, PROVIDE CEMETTICIOUS PATCHING/LEVELING COMPOUND AS REQUIRED TO FILL MORTAR JOINTS, IRREGULARITIES, AND SURFACE TEXTURE AND PROVIDE A SMOOTH, CONTINUOUS SUBSTRATE SUITABLE FOR ADHERED RESILIENT BASE. PREPARE SUBSTRATE IN ACCORDANCE WITH RESILIENT BASE AND ADHESIVE MANUFACTURERS' WRITTEN REQUIREMENTS.

ROOM FINISH SCHEDULE KEYED NOTES

1	THIS ROOM TO RECEIVE IMPACT-RESISTANT GWB.
2	SSM-3 PANELING UP TO 6'-0" AFF; PNT-1 TO DECK.
3	EXISTING BRICK TO REMAIN EXPOSED. WHERE EXISTING BRICK HAS BEEN PAINTED, REPAINT.
4	THIS ROOM TO RECEIVE STAINESS STEEL CORNER GUARDS AT ALL OUTSIDE CORNERS.
5	WINDOWS TO RECEIVE NEW SSM-1 SILLS.
6	FRP-1 UP TO 4'-0" AFF AT MOP SINK; PNT-1 TO DECK.
7	THIS ROOM TO RECEIVE MOISTURE-RESISTANT GWB.
8	ALTERNATE #4: THIS SPACE TO RECEIVE ERF-1.
9	PAINT WALLS ABOVE EXISTING CERAMIC TILE.

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AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
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DATE ISSUED:
2026.09.14

ROOM FINISH SCHEDULE & FINISH MATERIAL LEGEND

A621

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THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THIS ENTIRE ORIGINAL PAPER SIZE

THE SQUARES ABOVE ARE COLOR, WITH BLACK AND WHITE LETTERS, IF PRINTED CORRECTLY

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THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THIS ENTIRE FORMAL PLOTTING

THE SQUARES ABOVE ARE COLOR, WITH BLACK AND WHITE LETTERS, IF PRINTED CORRECTLY

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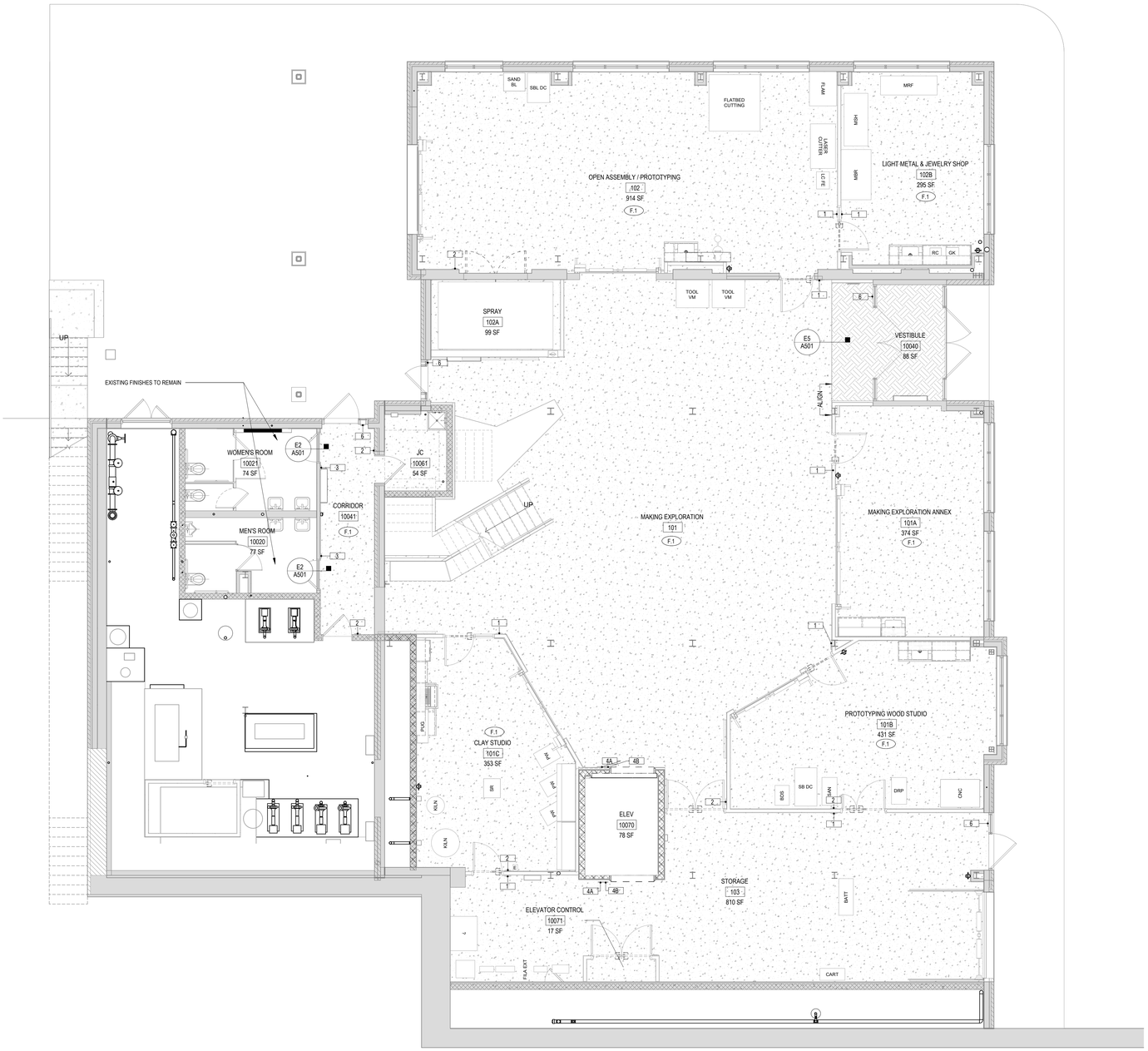

A1 FINISH PLAN-OVERALL- LEVEL 01
3/16" = 1'-0"

TRUE NORTH
PROJECT NORTH

FLOOR FINISH PLAN LEGEND

GR1 1 — SIGNAGE TAG; REFER TO SPEC FOR SIGNAGE TYPE

CONC-1

WOM-1

CPT-1/CPT-2/CPT-3

CPT-4

KEYED NOTES

F.1	ALTERNATE #4: PROVIDE ERF-1.

ASHLEY MCGRAW
125 EAST JEFFERSON STREET
SYRACUSE, NEW YORK 13202
CONSULTANT:

SEAL:

REGISTERED ARCHITECT SUSANNE ANGRAND 046998 STATE OF NEW YORK

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OWNER:
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ITHACA, NEW YORK 14853

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BEEBE HALL CU MAKER HUB RENOVATIONS
110 ARBORETUM RD, ITHACA, NY 14850

AM JOB NO. 24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS: **BID DOCUMENTS**

DATE ISSUED: **2026.09.14**

FINISH PLAN- LEVEL 01

A701

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THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THIS ENTIRE ORIGINAL SHEET SIZE

THE SQUARES ABOVE ARE COLOR, WITH BLACK AND WHITE LETTERS, IF PRINTED CORRECTLY

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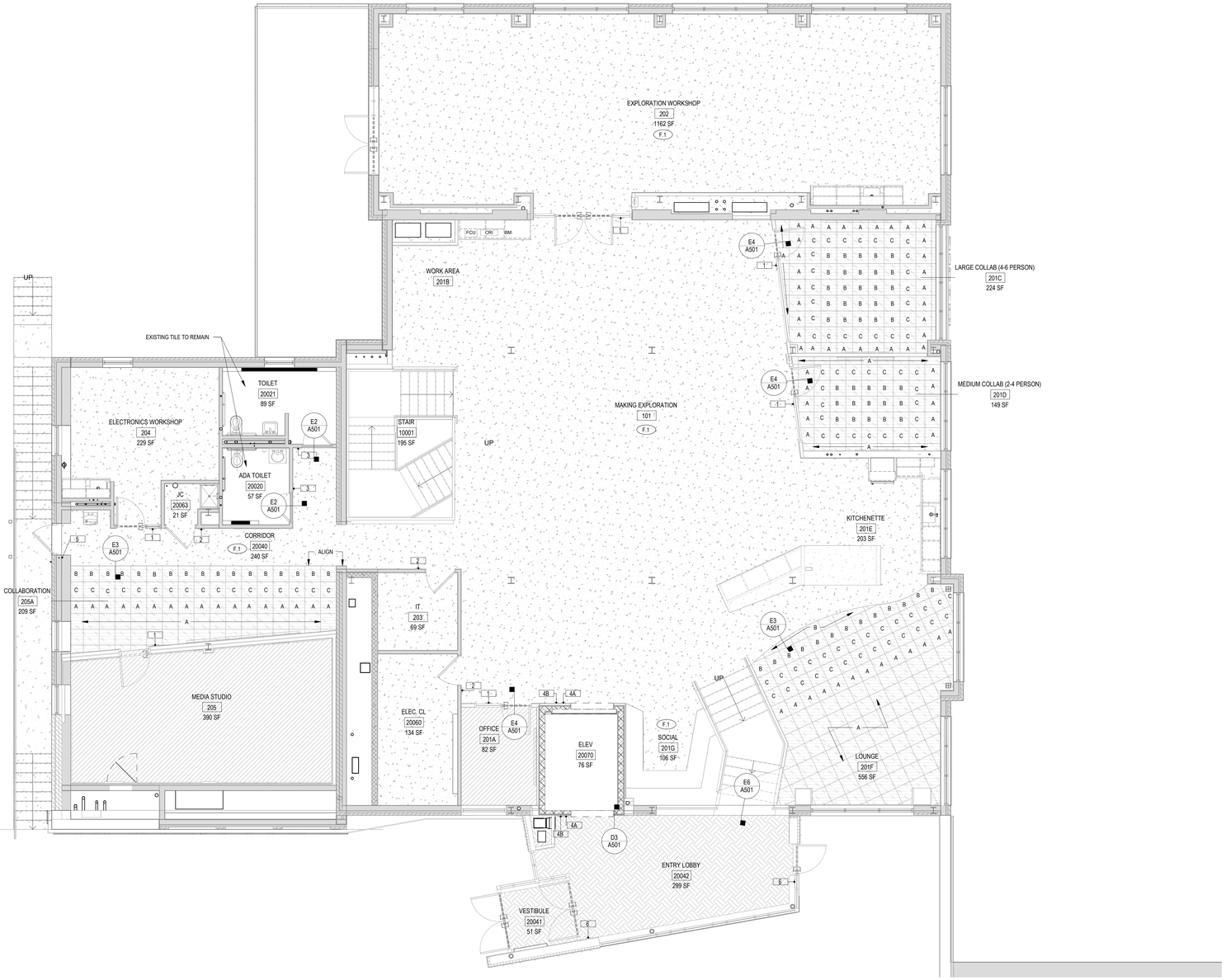

A1 FINISH PLAN-OVERALL- LEVEL 02
3/16" = 1'-0"

TRUE NORTH
PROJECT NORTH

FLOOR FINISH PLAN LEGEND

SIGNAGE TAG; REFER TO SPEC FOR SIGNAGE TYPE

CONC-1

WOM-1

CPT-1/CPT-2/CPT-3

CARPET PATTERNING
A: CPT-1
B: CPT-2
C: CPT-3

CPT-4

KEYED NOTES

F.1	ALTERNATE #4: PROVIDE ERF-1.

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125 EAST JEFFERSON STREET
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24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

FINISH PLAN- LEVEL 02

A702

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TYPICAL NOTE:

FURNITURE BY OTHERS.
EQUIPMENT IS NIC, UNLESS OTHERWISE NOTED. REFER TO EQUIPMENT MATRIX.

A1 FLOOR PLAN - LEVEL 01 - EQUIPMENT PLAN
3/16" = 1'-0"

TRUE NORTH
PROJECT NORTH

GENERAL DRAWINGS NOTES

Key Name	Gen Recon Notes
A	GENERAL NOTES APPLY TO THE INTENDED WORK INCLUDED IN THE CONTRACT DOCUMENTS.
B	EXISTING CONDITIONS AND PERTINENT UTILITIES INDICATED ARE BASED ON FIELD OBSERVATIONS, SURVEYS, AND DOCUMENTATION OF PRIOR CONSTRUCTION, AS AVAILABLE. EXISTING DIMENSIONS INDICATED ARE APPROXIMATE AND SUBJECT TO CONTRACTOR'S VERIFICATION.
C	EXISTING CONDITIONS MAY VARY FROM THOSE INDICATED. NOTIFY THE ARCHITECT IN WRITING OF DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THE WORK.
D	SHOULD CONFLICTS EXIST WITHIN THE CONSTRUCTION DOCUMENTS, VERIFY INTENT WITH ARCHITECT PRIOR TO BIDDING. CLARIFICATIONS ISSUED AFTER BIDDING SHALL NOT BE BASIS FOR ADDITIONAL COMPENSATION.
E	WHERE SPECIFIC NOTES CONFLICT WITH GENERAL NOTES, THE SPECIFIC NOTES SHALL GOVERN.
F	WHERE NEWLY EXPOSED SURFACES ARE TO REMAIN EXPOSED IN THE COMPLETED WORK CONTRACTORS SHALL PATCH SURFACES WITH IN-KIND MATERIAL TO LIKE-NEW CONDITION, SUBJECT TO ARCHITECT`S APPROVAL.
G	ITEMS INDICATED FOR REINSTALLATION SHALL INCLUDE TRIM, ACCESSORIES, MOUNTING HARDWARE, ETC., AS WELL AS IN-KIND PATCHING OF ADJACENT CONSTRUCTION DISTURBED DURING REMOVAL.
H	WHEN DURING THE COURSE OF THE WORK, EXISTING CONSTRUCTION INDICATED TO REMAIN IS DAMAGED, THE CONTRACTOR SHALL REPAIR OR REPLACE WITH IN-KIND MATERIAL TO LIKE-NEW CONDITION, AT NO EXPENSE TO THE OWNER, AND SUBJECT TO ARCHITECT `S APPROVAL.
I	CONTRACTORS SHALL BE RESPONSIBLE FOR CUTTING, PATCHING, AND TRIMMING REQUIRED TO INTEGRATE WORK WITH ADJACENT NEW WORK OR EXISTING CONDITIONS IN KEEPING WITH THE INTENDED INSTALLATION, DETAILS, AND ASSOCIATED FUNCTIONAL REQUIREMENTS, SUCH AS OPERATIONAL CLEARANCES OR MAINTENANCE ACCESS FOR EQUIPMENT. VERIFY WITH ARCHITECT SUCH CONDITIONS AND PROPOSED ACCOMMODATIONS PRIOR TO INSTALLATION.
J	IN THE ABSENCE OF DIMENSIONS LAYOUT OF ITEMS SHALL BE CENTERED IN A SPACE, EVENLY SPACED, ALIGNED WITH ADJACENT CONSTRUCTION, OR OTHERWISE SET TO LOGICAL POINTS. WHERE ITEMS ARE INDICATED IN AN UNUSUAL OR ASYMMETRICAL MANNER VERIFY INTENT WITH ARCHITECT BEFORE PROCEEDING WITH WORK.
K	WHERE ADJACENT SURFACES APPEAR FLUSH TO ONE ANOTHER IT IS INTENDED THAT THE FACE OF THE FINISHES ARE ALIGNED UNLESS OTHERWISE INDICATED.
L	REMEDIATION OF UNSATISFACTORY WORK DUE TO FAILURE TO FOLLOW THESE AND OTHER GENERAL NOTES SHALL BE SUBJECT TO ARCHITECT `S APPROVAL, AND AT NO ADDITIONAL COST TO THE OWNER.
M	WHERE A DOOR IS LOCATED ADJACENT TO A PERPENDICULAR WALL, LOCATE THE DOOR WITH SIX (6) INCHES FROM THE FACE OF THE WALL TO THE INSIDE FACE OF THE DOOR FRAME
N	LAYOUT DIMENSIONS ARE TO FINISH FACE OF WALL ASSEMBLY AS SHOWN ON THE PARTITION SHEET, EXCLUSIVE OF DECORATIVE SURFACES, UNLESS NOTED OTHERWISE

Plan Tag	EQUIPMENT	EQUIPMENT BRAND + MODEL	Qty	MATERIAL CATEGORY
	Community Space			
EQ-1	Projector		1	
EQ-2	Office Machine (EXCLUDED)			
EQ-3	Tool Vending Machine VX500	Autocrib / (Untech)	2	
	Collaboration Spaces + Exploration Workshop			
EQ-4	Paper Cutter	Dahle / 558 Professional Rotary Trimmer	1	craft
EQ-5	Laminator	GBC / Ultima 65 Thermal Roll Laminator	1	craft
EQ-6	Button Maker	Tecre Button Machine / 2.25" Model #225	1	craft
EQ-7	Sticker Maker	Roland /VersaSTUDIO BN2-20	1	craft
EQ-8	Foam Cutter	Proxxon / THERMOCUT 230/E	1	craft
EQ-9	Vinyl Cutter / Cricut	Cricut Maker 3	1	craft
EQ-10	Printer 1	HP Color LaserJet Pro MFP 4301fdw Wireless Printer, AI-capable	2	output
EQ-12	Plotter 1	HP DesignJet Z6810	2	output
EQ-13	Plotter 2	HP DesignJet Z6 Pro 64-in Production Printer, 2QU25A#B1K	1	output
EQ-14	Sewing Machine	Bernina / 475 QE	47	Fabric
EQ-15	Embroidery Machine	Bernina / E 16 PRO	1	Fabric
EQ-16	Serger	Juki / MO-6540E	1	Fabric
EQ-17	Fabric Cutter	Eastman / Blue Streak II 629	1	Fabric
EQ-18	Direct-to-Garment Printer	Brother / GTXpro	1	Fabric
EQ-19A	SLA 3D Printers	Bambu Lab /H2D	14	plastics
EQ-19B	SLA 3D Printers (with laser module)	Bambu Lab /H2D (with laser module)	6	plastics
EQ-19-SP	Smoke Purifier for H2D	Bambu Lab /H2D	20	
EQ-20	Fabric SLA 3D Printer	Stratasys / J850 TechStyle	1	plastics
EQ-20-FS	Air Filtration System	ProAero™+ Air Filtration System		
EQ-21	Injection Molding Machine	LNS Technologies / Model 150A	1	plastics
EQ-22	Small Scale Laser Cutter	Full Spectrum Laser / FSL PS24 P-Series	1	mill & mold
EQ-22-FE	Fume Extractor	FSL 300 Fume Extractor by Full Spectrum		
EQ-23	PCB (Printed Circuit Board) Mill	Bantam Tools / Desktop CNC Milling Machine	1	mill & mold
EQ-23-VA	Vacuum Accessory	Bantam Tools / Vacuum Accessory		
EQ-24	Table top Robotic Arm	Elephant Robotics / myCobot Pro 630	1	
EQ-25	Vacuum Pump	Vacu Press / Industrial Hi-Flo Pump	1	mill & mold
EQ-26	Benchtop Sandblasting Box	Vevor / 40 Gallon Sandblasting Cabinet	1	finish
EQ-26-DC	Portable Dust Collector	BAUER 35 Gallon Dust Collector		
	Experiment Lab			
EQ-27	Semi Downdraft Pressurized Spray Booth (CFCI)	LESMG-070812-PSB-SD-SP	1	finish
EQ-28	Bandsaw	Laguna 14 | 8X Bandsaw w/break	1	wood
EQ-29	Sander	Jet / 708598K /SG-6CS	1	wood
EQ-29-DC	Dust Collector	Laguna P|Flux Cyclone Dust Collector - P|FLUX: 2(OPDI)	1	wood
EQ-30	Drill Press	Jet / Floor Drill Press JDP-20MF	1	mill & mold
EQ-31	Flatbed Cutting System (with router module)	Durd / 53 Digital CNC Cutter (1.1800 Confirm)	1	mill & mold
EQ-32	Desktop CNC Router	Style CNC / STG6090	1	mill & mold
EQ-33	Filament Extruder - Full Recyling Setup	Filabot		plastics
EQ-33A	FE_Reclaimer	Filabot / Reclaimer	1	plastics
EQ-33B	FE_Extruder	Filabot / EX2	1	plastics
EQ-33C	FE_Airpath	Filabot / Airpath	1	plastics
EQ-33D	FE_Spooler	Filabot / Spooler	1	plastics
EQ-34E	FE_Pelletizer	Filabot / Pelletizer	1	plastics
	Light Metal & Jewelry Shop			
EQ-34	Metal Shearing Machine	Kaka / Stomp Shear Machine QD1-5216	1	metal
EQ-35	Metal Brake	Jet / BPF-1450	1	metal
EQ-36	Metal Roll Forming Machine (Manual)	Baileigh / SR-5016M Maual Slip Roll	1	metal
EQ-43	Resin Curing Machine	Resiners G3	1	resin
EQ-43-FE	Benchtop Fume Extractor	Arbe SFE-24 Benchtop Fume Extractor	1	
EQ-44	Glass Kiln	Paragon SC2 Pro	1	glass
EQ-44-VT	Kiln Vent | 20V	Orton VentMaster 120V (supplied by Paragon)	1	
	Clay Studio			
EQ-37	Kiln 1	L&L / e18S-3 (2.5 cu ft/Cone10)	1	clay
EQ-37-VS	Kiln Ventilation System	Vent Sure Downdraft System	1	clay
EQ-38	Kiln 2	L&L / eQ2827-3-208-3Ph (10.2 cu ft/Cone 10)	1	clay
EQ-38-VS	Kiln Ventilation System	Vent Sure Downdraft System	1	clay
EQ-39	Wheels	Brent Model CXC	4	clay
EQ-40	Slab Roller	Bailey Mini Might II	1	clay
EQ-41	Pugmill	Peter Pugger / VPM-20 Vacuum Power Wedger	1	clay
EQ-42	Extruder	North Star / Stainless Steel Extruder Package	1	clay
	Other			
EQ-45	Flammable Storage Cabinet	Flammable Storage Cabinet - Standard, Self-Closing Doors, Yellow, 90 Gallon	2	
EQ-46	Battery Charging Cabinet	Lithium-ion Battery Charging Cabinet, Self-Latch Standard 2-Door, 4 Shelves	1	
EQ-47	Hydraulic Lift Cart	Hydraulic Elevating Cart CART-1000-LD 63 x 31 1000 Lb. Cap.	1	

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ITHACA, NY 14850

AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

EQUIPMENT PLAN- LEVEL 01

A703

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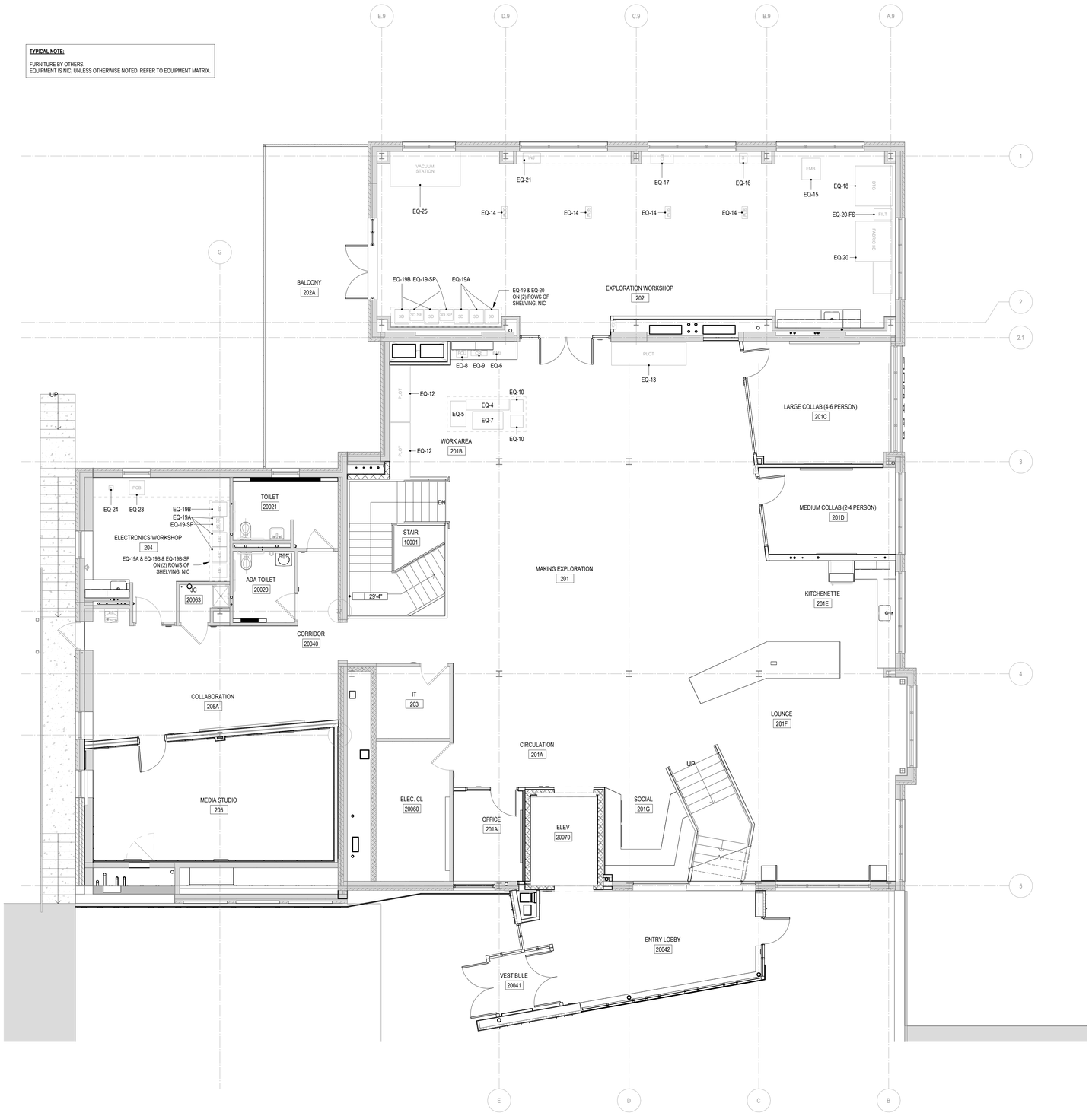

A1 FLOOR PLAN - LEVEL 02 - EQUIPMENT PLAN
3/16" = 1'-0"

GENERAL DRAWINGS NOTES

Key Name	Gen Recon Notes
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M	WHERE A DOOR IS LOCATED ADJACENT TO A PERPENDICULAR WALL, LOCATE THE DOOR WITH SIX (6) INCHES FROM THE FACE OF THE WALL TO THE INSIDE FACE OF THE DOOR FRAME
N	LAYOUT DIMENSIONS ARE TO FINISH FACE OF WALL ASSEMBLY AS SHOWN ON THE PARTITION SHEET, EXCLUSIVE OF DECORATIVE SURFACES, UNLESS NOTED OTHERWISE

Plan Tag	EQUIPMENT	EQUIPMENT BRAND + MODEL	Qty	MATERIAL CATEGORY
	Community Space			
EQ-1	Projector		1	
EQ-2	Coffee Machine (EXISTING)	(E)		
EQ-3	Vivi Vending Machine VSV00	Autocrib / (EXISTING)	2	
	Collaboration Spaces + Exploration Workshop			
EQ-4	Paper Cutter	Dahle / 558 Professional Rotary Trimmer	1	craft
EQ-5	Laminator	GBC / Ultima 65 Thermal Roll Laminator	1	craft
EQ-6	Button Maker	Tecre Button Machine / 2.25" Model #225	1	craft
EQ-7	Rocker Maker	Roland /VersaSTUDIO BN2-20	1	craft
EQ-8	Foam Cutter	Proxxon / THERMOCUT 230/E	1	craft
EQ-9	Vinyl Cutter / Cricut	Cricut Maker 3	1	craft
EQ-10	Printer 1	HP Color LaserJet Pro MFP 4301fdw Wireless Printer, Ai-capable	2	output
EQ-12	Plotter 1	HP Designjet Z6810	2	output
EQ-13	Plotter 2	HP Designjet Z6 Pro 64 in Production Printer, 2QU25A#B1K	1	output
EQ-14	Sewing Machine	Bernina / 475 QE	47	Fabric
EQ-15	Embroidery Machine	Bernina / E 16 PRO	1	Fabric
EQ-16	Serger	Juki / MO-6543E	1	Fabric
EQ-17	Fabric Cutter	Eastman / Blue Streak II 629	1	Fabric
EQ-18	Direct-to-Garment Printer	Brother / GTXpro	1	Fabric
EQ-19A	SLA 3D Printers	Bambu Lab /H2D	14	plastics
EQ-19B	SLA 3D Printers (with laser module)	Bambu Lab /H2D (with laser module)	6	plastics
EQ-19-SP	Smoke Purifier for H2D	Bambu Lab /H2D	20	
EQ-20	Fabric SLA 3D Printer	Stratasys / J850 TechStyle	1	plastics
EQ-20-FS	Air Filtration System	PrioAero™+ Air Filtration System		
EQ-21	Injection Molding Machine	LNS Technologies / Model 150A	1	plastics
EQ-22	Small-Scale Laser Cutter	Full Spectrum Laser / FSL PS24 P-Series	1	mill & mold
EQ-22-FE	Fume Extractor	FSL 300 Fume Extractor by Full Spectrum		
EQ-23	CNC Routing Desktop Board Mill	Bantam Tools / Desktop CNC Milling Machine	1	mill & mold
EQ-23-VA	Vacuum Accessory	Bantam Tools / Vacuum Accessory		
EQ-24	Table top Robotic Arm	Elephant Robotics / myCobot Pro 630	1	
EQ-25	Vacuum Pump	Vacu Press / Industrial Hi-Flo Pump	1	mill & mold
EQ-26	Benchtop Sandblasting Box	Vevor / 40 Gallon Sandblasting Cabinet	1	finish
EQ-26-DC	Portable Dust Collector	BAUER 35 Gallon Dust Collector		
	Experiment Lab			
EQ-27	Semi Downdraft Pressurized Spray Booth (CFCI)	LESMG-070812-PSB-SD-SP	1	finish
EQ-28	Bandsaw	Laguna 14 | BX Bandsaw w/break	1	wood
EQ-29	Sander	Jet / 708598K JSG-6CS	1	wood
EQ-29-DC	Dust Collector	Laguna P|Flux Cyclone Dust Collector - P|FLUX: 2(OFOI)		
EQ-30	Drill Press	Jet / Floor Drill Press JDP-20MF	1	wood
EQ-31	Flatbed Cutting System (with router module)	Zund / S3 Digital CNC Cutter (□ 1800 Confirm)	1	mill & mold
EQ-32	Desktop CNC Router	Style CNC / ST1G6090	1	mill & mold
EQ-33	Filament Extruder - Full Recycling Setup	Filabot		plastics
EQ-33A	FE_Reclaimer	Filabot / Reclaimer	1	plastics
EQ-33B	FE_Extruder	Filabot / EX2	1	plastics
EQ-33C	FE_Airpath	Filabot / Airpath	1	plastics
EQ-33D	FE_Spooler	Filabot / Spooler	1	plastics
EQ-34E	FE_Pelletizer	Filabot / Pelletizer	1	plastics
	Light Metal & Jewelry Shop			
EQ-34	Metal Shearing Machine	Kaka / Stomp Shear Machine QD1-5216	1	metal
EQ-35	Metal Brake	Jet / BPF-1400	1	metal
EQ-36	Metal Roll Forming Machine (Manual)	Baileigh / SR-5016M Maual Slip Roll	1	metal
EQ-43	Resin Curing Machine	Resiners G3	1	resin
EQ-43-FE	Benchtop Fume Extractor	Arbe SFE-24 Benchtop Fume Extractor	1	
EQ-44	Glass Kiln	Paragon SC2 Pro	1	glass
EQ-44.V	Kiln Vent (ADV)	Orton VentMaster 120V (supplied by Paragon)	1	
	Clay Studio			
EQ-37	Kiln 1	L&L / e18S-3 (2.5 cu ft/Cone10)	1	clay
EQ-37-VS	Kiln Ventilation System	Vent Sure Downdraft System	1	clay
EQ-38	Kiln 2	L&L / eQ2827-3-208-3Ph (10.2 cu ft/Cone 10)	1	clay
EQ-38-VS	Kiln Ventilation System	Vent Sure Downdraft System	1	clay
EQ-39	Wheels	Brent Model CXC	4	clay
EQ-40	Slab Roller	Bailey Mini Might II	1	clay
EQ-41	Pugmill	Peter Pugger / VPM-20 Vacuum Power Wedger	1	clay
EQ-42	Extruder	North Star / Stainless Steel Extruder Package	1	clay
	Other			
EQ-45	Flammable Storage Cabinet	Flammable Storage Cabinet - Standard, Self-Closing Doors, Yellow, 90 Gallon	2	
EQ-46	Battery Charging Cabinet	Lithium-Ion Battery Charging Cabinet, Self-Latch Standard 2-Door, 4 Shelves	1	
EQ-47	Hydraulic Lift Cart #1000mm	Hydraulic Elevating Cart CART-1000-LD 63 x 31 1000 Lb. Cap.	1	

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EQUIPMENT PLAN- LEVEL 02

A704

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THE LINE BROWN ABOVE IS EXACTLY ONE INCH LONG AT THIS PLOTTED DRAWING SCALE

THE SQUARES ABOVE ARE COLOR, WITH BLACK AND WHITE LETTERS, IF PRINTED CORRECTLY

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	EQUIPMENT	EQUIPMENT BRAND + MODEL	DIMENSIONS (WxDxH)	CLEARANCES REQUIRED (OVERHEAD, AROUND)	POWER REQUIREMENTS	EQUIPMENT AMPERAGE	EQUIPMENT FREQUENCY	VENTILATION REQUIREMENTS	AIR / GAS / WATER REQUIREMENTS	Qty	MATERIAL CATEGORY	LOCATION	FIXED (F) OR BENCH-TOP (B)	PROCURIMENT (OFCI/OFCI/CFCI)	DIMENSIONS (WxDxH)	CLEARANCES REQUIRED (OVERHEAD, AROUND)	VOLTAGE	PHASE	NEUTRAL REQ'D	FREQUENCY	AMP DRAW	VA/HP	NEMA PLUG TYPE	DATA	ELECTRICAL NOTES	VENTILATION NOTES	AIR	WATER	DRAIN	OTHER COMMENTS	MANUALS
Plan Tag	**Community Space**																													
EQ-1	Projector									1		201 - MAKING EXPLORATION		OFCI																
EQ-3	Cold Handing Stacking 43000	Autocity / Hildebrand	61"x31.2"x72"	18" overhead, 8" around (confirm)	220-240V AC	6A/1.5A MAX	50/60HZ	N/A	N/A	2		101 - MAKING EXPLORATION	F	OFCI	61"x31.2"x72"	18" overhead, 8" around (confirm)	120V	1	N	60Hz	6A	0.36KW	5-15P		N/A					Up to 40 lbs per tray - Total weight 628 lbs
	Colaboration Spaces + Exploration Workshop																													
EQ-4	Paper Cutter	Dahle / 558 Professional Rotary Trimmer								1		1stfl	B	OFCI	39" L x 15" W x 6.5" H															
EQ-5	Laminator	GBC / Ultima 65 Thermal Roll Laminator								1		1stfl	B	OFCI	31" W x 21" D x 14" H															
EQ-6	Button Maker	Tecre Button Machine / 2.25" Model #225								1		1stfl	B	OFCI	18" L x 9" W x 8" H															
EQ-7	Vinyl Cutter	Roland / VersaSTUDIO BN2-20								1		1stfl	B	OFCI	42.1" W x 24.3" D x 24.5" H															
EQ-8	Large Format Printer	Epson / SureColor P20070								1		1stfl	B	OFCI	61.1" L x 17.7" W x 8.1" H															
EQ-9	Vinyl Cutter / Plotter	Cricut Maker 3								1		1stfl	B	OFCI	21.1" L x 1.7" W x 6.1" H															
EQ-10	Printer 1	HP Color LaserJet Pro MFP 4302fdw Wireless Printer, Air-capable								2		2ndfl	B	OFCI	15.5" W x 17.2" D x 13.9" H															
EQ-11	Printer 2	HP Designjet Z6 Pro 64-in Production Printer, 2QU25A#B19								1		2ndfl	B	OFCI	102.6" W x 31.1" D x 55.2" H															
EQ-14	Sewing Machine	Bernina / 475 QE								47		2ndfl	B	OFCI	18.6" W x 7.9" D x 13.9" H		120V	1	N	60Hz	0.9 A	0.09 kW	5-15P	N						
EQ-15	Embroidery Machine	Bernina / E 16 PRO	25.3"x20.2"x28.9"	minimal (6" overhead, 8" around)	220V - 1 Phase	1.6A	50/60Hz	Optional external air compressor for "presser foot device"	N/A	1	Fabric	202 - EXPLORATION WORKSHOP	F	OFCI	16"x31"x40" (including cart)		120V	1	N	60Hz	0A	0.2 kW	5-15P	Y		N/A				Manual
EQ-16	Serger	Juki / MO-654DE	13.8"x13.9"x11.8"	minimal (8" overhead, 8" around)	120v	1.7-3A?	60Hz	N/A	N/A	1	Fabric	202 - EXPLORATION WORKSHOP	F	OFCI	13.8"x13.9"x11.8"	minimal (8" overhead, 8" around)	120V	1	N	60Hz	1.7A	0.2 kW	5-15P	Y		N/A				
EQ-17	Fabric Cutter	Eastman / Blue Streak II 629								1	Fabric	202 - EXPLORATION WORKSHOP	F	OFCI	11" W x 21" D x 21.5" H		120V	1	N	60Hz	1.5A	0.18 kW	5-15P	Y						
EQ-18	Sewing Machine / Embroidery Printer	Brother / CE75pro	35"x17"x21"	15.8" overhead, 15.7" back, 11" front, 39.4" sides	100V-240V AC	0.8A	50/60Hz	Use in well ventilated space, temperature between 50°F and 95°F	N/A	1	Fabric	202 - EXPLORATION WORKSHOP	F	OFCI	35"x17"x21"	15.8" overhead, 15.7" back, 11" front, 39.4" sides	120V	1	Y	60Hz	0.8 A	0.08 kw	5-15P	Y					Use in well ventilated space, temperature between 50°F and 95°F	
EQ-19A	3d 3D Printers	Bambu Lab /H2D	19.4"x20.2"x24.7"	8" overhead, 8" back, 4" sides	100V-240V AC		50/60Hz	External Venting	Exhaust tube to	14	plastics	202 - EXPLORATION WORKSHOP & 204 - ELECTRONICS WORKSHOP	B	OFCI	19.4"x20.2"x24.7"	8" overhead, 8" back, 4" sides	120V	1	Y	60Hz	heating/ heating)	1.32 Kw	5-15P	Y	Dedicated 15 Amp circuit recommended				Optional air assist pump (not required if functioning noisy as 3d printer). Optional smoke purifier. No Bath in air assist pump. Smoke purifier req'd. No gas/water req'd. Not connecting to WiFi	
EQ-19B	3d 3D Printers (with laser module)	Bambu Lab /H2D (with laser module)	19.4"x20.2"x24.7"	8" overhead, 8" back, 4" sides	100V-240V AC		50/60Hz	External Venting	Exhaust tube to	6	plastics	202 - EXPLORATION WORKSHOP & 204 - ELECTRONICS WORKSHOP	B	OFCI	19.4"x20.2"x24.7"	8" overhead, 8" back, 4" sides	120V	1	Y	60Hz	11 A	1.97 Kw	5-15P	Y	Dedicated 15 Amp circuit recommended					
EQ-19-SP	Smoke Purifier for H2D	Bambu Lab /H2D								20		202 - EXPLORATION WORKSHOP & 204 - ELECTRONICS WORKSHOP		OFCI (from 3D printer to purifier) and CFCI (duct connection from purifier to roof exhaust)			120V	1	Y	60Hz	3.8 A	0.2 kW	5-15P	N	Don't plug into shared circuit as H2D printers	smoke purifier will need to exhaust to roof, M/E to design ducting				While its not strictly required and can use external exhaust instead, the smoke purifier is designed specifically to handle the high volume of particulates and VOCs from laser cutting.	
EQ-20	Fabric Sub 3D Printer	Stratasys / J850 TechStyle	35.1"x49.6"x43.4" (System) 44"x25.4"x25.1" (cabinet)	39" all around				External venting recommended (1118~147 CFM)Internal filtration as	External air conn	1	plastics	202 - EXPLORATION WORKSHOP	F	OFCI	35.1"x49.6"x43.4" (System) 44"x25.4"x25.1" (cabinet)	39" all around	120V	1	Y	60Hz	11.5 A	1.5 Kw	5-15P	Y	Plugging into NEMA 5-20R (20 Amp) outlet on a dedicated 20A circuit recommended	Four air changes per hour (without external ventilation)				Eye wash station nearby recommended	Stratasys J850/J850 Site Preparation Guide
EQ-20-FS	Fabric Sub 3D Printer	Prodways™ Air Filtration System								1		202 - EXPLORATION WORKSHOP		OFCI											Dedicated 15a	Prodways™ Air Filtration System Recommended (OFCI)					
EQ-21	Injection Molding Machine	LNS Technologies / Model 150A	54"x45"x59"	30"/28"x28"/18" clear workspace (OSHA guidelines)	220-240VAC 7A		50/60Hz	N/A	Requires operati	1	plastics	202 - EXPLORATION WORKSHOP	B	OFCI	54"x45"x59"	30"/28"x28"/18" clear workspace (OSHA guidelines)	120V	1	Y	60Hz	0A	0.4 Kw	5-15P	N		Requires operation in a well-ventilated area				Standard included air compressor & Included water cooling system	
EQ-22	Small Scale Laser Cutter	Full Spectrum Laser / FSL PS24 P-Series	50"x31.5"x30.5"	8" back, 36" sides and front (confirm)	110VAC	6.5A	50/60Hz	Fume extractor (FSL 6-inch exhaust fan)	External air conn	1	mill & mold	302 - OPEN ASSEMBLY/PROTOTYPING	F	OFCI	50"x31.5"x30.5"	8" back, 36" sides and front (confirm)	120V	1	Y	60Hz	6.1 A	1.0 Kw	5-15P	Y	2.5L 300 Fume Extractor by Manufacturer (OFCI)				2.5L 300 Fume Extractor by Manufacturer (OFCI)	
EQ-23-FE	Small Fume Extractor	FSL 300 Fume Extractor by Full Spectrum								1		302 - OPEN ASSEMBLY/PROTOTYPING		OFCI			120V	1	N	60Hz	6.3 A	0.7 Kw	5-15P	N						
EQ-23	CNC Router Large Bench Mill	Bantam Tools / Desktop CNC Milling Machine	20.9"x19.8"x19.4"	6" sides and back, 36" front	100-240VAC		50/60Hz	Vacuum accessory (below 50 CFM)	Optional compon	1	mill & mold	304 - ELECTRONICS WORKSHOP	B	OFCI	20.9"x19.8"x19.4"	6" sides and back, 36" front	120V	1	Y	60Hz	0A	0.35 Kw	5-15P	N					Optional compressor air (3 scfm or higher at 40 psi)	
EQ-23-VA	Vacuum Accessory	Bantam Tools / Vacuum Accessory								1		304 - ELECTRONICS WORKSHOP	B	OFCI																
EQ-24	Table top Robotic Arm	Elephant Robotics / myCobot Pro 630	5.9"x5.9"x16.9"	50" all around	48 -58V			N/A	N/A	1		304 - ELECTRONICS WORKSHOP	B	OFCI	5.9"x5.9"x16.9"	50" all around	DC 48V (58						Center 1 50.5 A	0.18 Kw	5-15P	Y	N/A					
EQ-25	Vacuum Pump	Vanu Press / Industrial Hi-Flo Pump	10.3"x27"x10.5" (Pump) 36"x66" (Vacuum Bed - confirm)	36" around Vacuum Bed	120VAC, 1 Phase 3/4 HP			N/A		1	mill & mold	202 - EXPLORATION WORKSHOP	B	OFCI	10.3"x27"x10.5" (Pump) 36"x66" (Vacuum Bed - confirm)	36" around Vacuum Bed	1-Phase	1	Y	N	60Hz	0A	0.56 Kw	5-15P	N	N/A				Electric pump with an 11 CFM vacuum rate and does not require an external compressed air source.	
EQ-26	Benchtop Sandblasting Box	vevor / 40 Gallon Sandblasting Cabinet	37"x21.6"x24.8"	36" front, confirm side & back spaces per air compressor	110VAC for internal LED light only			Built in exhaust (External collector recommended)	Compressed air c	1	finish	302 - OPEN ASSEMBLY/PROTOTYPING	B	OFCI	37"x21.6"x24.8"	36" front, confirm side & back spaces per air compressor	120VAC 1A	1	N		60Hz	0A	0.11 Kw	5-15P	N		Provide compressed air			Connection between the equipment and the dust collector to be provided by CU	
EQ-26-DC	Benchtop Dust Collector	MAXX® 35 Gallon Dust Collector								1		302 - OPEN ASSEMBLY/PROTOTYPING		OFCI			120V	1	N	60Hz	11.5 A	1.4 Kw	5-15P	N						
	Experiment Lab																													
EQ-27	Paint Downdraft Pressurized Spray Booth 19342	STEMQ-070812-PSB-55-SP	54"-4"x56"-4"x51"-2"	36" all around	Core: 208,230, or 460VAC (3-Phase) / 3 HP Additional req. if using electric -fired heater		60Hz	approx. 12,200 CFM / Exhaust system / AMU	Compressed air c	1	finish	101A - SPRAY		CFCI	8'-4" W x 18'-4" D x 11'-8" H (Overall) 7' W x 12'-0" D x 8' H (Internal)	6'-6" W x 6'-0" D effective safe working area 4'-0" W x 7'-0" D effective safe working area										need to confirm airflow - coordinate with partner					
EQ-28	Benchsaw	Laguna 14	84 Benchsaw w/brush							1	wood	101B - PROTOTYPING WOOD STUDIO		OFCI	35" W x 18" D x 39" H											Connect both bandsaw and sander to the same standalone dust collector				Dust connection between the equipment and the dust collector to be provided by CU	
EQ-29	Sander	SKY / SSB36M (PC-SK7)	36"x36"x50"							1	wood	101B - PROTOTYPING WOOD STUDIO		OFCI	36" L x 36" W x 51.5" H															
EQ-29-DC	Dust Collector	Laguna P.Flow (unisex Dust Collector - P.FLUX- 1HP/3)								1	wood	101B - PROTOTYPING WOOD STUDIO		OFCI																
EQ-30	Wet Grinder	Wet / Food Drill Press (DP-1060)								1	wood	101B - PROTOTYPING WOOD STUDIO		OFCI	13" W x 13.5" D x 67" H															
EQ-31	Crafted Cutting System (with router module)	Zund / S3 Digital CNC Cutter (L-1800 Confirm)	64.1"x70.3"x25.4"	8" sides and back, 36" overhead, 72" front (confirm)	208VAC or 480VAC, 3-Phase		50/60Hz	Vacuum system if equipped with router module	Compressed air c	1	mill & mold	101 - OPEN ASSEMBLY/PROTOTYPING	F	OFCI	64.1"x70.3"x25.4"	8" sides and back, 36" overhead, 72" front (confirm)	208V	1	Y	60Hz	16A	5.5 Kw	NEMA L21-30R (twist-lock)	Y						
EQ-32	Desktop CNC Router	Style CNC / ST60090	55"x49.3"x26.4"	6" sides and back, 36" front and overhead (confirm)	220V or 110V		50/60Hz	External dust collection system	Water for spindl	1	mill & mold	101B - PROTOTYPING WOOD STUDIO	B	OFCI	55"x49.3"x26.4"	6" sides and back, 36" front and overhead (confirm)	120V	1	N	60Hz	0A	3 KW	5-15P	Y					Water cooling system is integral if the model with router module PA4 L. Other models don't require water cooling	
EQ-33	Desktop Extruder - Pet Recycling Setup	Filabot	13"x19"x19"						UV (confirm)	1	plastics	103 - STORAGE for use in 202 - Exploration Workshop	B	OFCI	13"x19"x19"		120V	1	N	60Hz	0A	0.1 Kw	5-15P	N	UV (confirm)					
EQ-33A	Fl_Reclaimer	Filabot / Reclaimer	22"x13.8"31.1"	36" around (confirm)						1	plastics	103 - STORAGE for use in 202 - Exploration Workshop		OFCI	22"x13.8"31.1"	36" around (confirm)	115V	1	Y	60Hz	16A	1.55 Kw	5-15P	N	Dedicated circuit recommended					
EQ-33B	Fl_Extruder	Filabot / EX3	17.5"x9.1"x20.1"	12" sides, 36" overhead, 2" front (to airport)	115VAC or 230VAC		50/60Hz			1	plastics	103 - STORAGE for use in 202 - Exploration Workshop		OFCI	17.5"x9.1"x20.1"	12" sides, 36" overhead, 2" front (to airport)	115V	1	N	60Hz	8A	0.9 Kw	5-15P	N						
EQ-33C	Fl_Airport	Filabot / Airport	7.1"x24"x3.2"	12" sides, 36" overhead, 2" front (to spooler)	110/220VAC		50/60Hz			1	plastics	103 - STORAGE for use in 202 - Exploration Workshop		OFCI	7.1"x24"x3.2"	12" sides, 36" overhead, 2" front (to spooler)	120V	1	N	60Hz	0A	0.12 Kw	5-15P	N						
EQ-33D	Fl_Spooler	Filabot / Spooler	17.5"x13.9"x9.4"	12" sides, 36" overhead, 12" front (to pelletizer)	115VAC and 220VAC					1	plastics	103 - STORAGE for use in 202 - Exploration Workshop		OFCI	17.5"x13.9"x9.4"	12" sides, 36" overhead, 12" front (to pelletizer)	120V	1	N	60Hz	0A	0.23 Kw	5-15P	N						
EQ-34G	Fl_Pelletizer	Filabot / Pelletizer	10.5"x21.1"x14.2"	12" around, 36" overhead	115VAC (6A or 230VAC-6.5A, 1 Phase		50/60Hz			1	plastics	103 - STORAGE for use in 202 - Exploration Workshop		OFCI	10.5"x21.1"x14.2"	12" around, 36" overhead	120V	1	Y	60Hz	5A	0.58 Kw	5-15P	N						
	Light Metal & Jewelry Shop																													
EQ-35	Wire Cutting Machine	Kolo / Shorty Shear Machine (SKS-323A	14"x8"x8"							1	metal	102A - LIGHT METAL & JEWELRY SHOP	B	OFCI	14" L x 10" W x 45" H															
EQ-36	Sheet Roller	wr / RPP-1400	wr / RPP-1400							1	metal	102A - LIGHT METAL & JEWELRY SHOP	B	OFCI	59" L x 39" W x 45" H															
EQ-37	Metal Roll Forming Machine (Manual)	Baileigh / SR-5016M Manual Slip Roll	Baileigh / SR-5016M							1	metal	102A - LIGHT METAL & JEWELRY SHOP	B	OFCI	59" L x 39" W x 45" H															
EQ-41	Plasma Cutting Machine	Hypertherm 63	14.37" W x 12.4" D x 9.88" H							1	resin	102A - LIGHT METAL & JEWELRY SHOP	B	OFCI	14.37" W x 12.4" D x 9.88" H		120V	1	N	60Hz	1.67 A	0.2 kW	5-15P	N						
EQ-43-FE	Benchtop Fume Extractor	Atlas VH-24 Benchtop Fume Extractor								1				OFCI																
EQ-44	Glass Kiln	Paragon SC2 Pro	13.5" W x 16.25" D x 15.5" H							1	glass	102B - LIGHT METAL & JEWELRY SHOP	B	OFCI	13.5" W x 15.25" D x 15.5" H		120V	1	N	60Hz	16A	1.68KW	5-15P	N						
EQ-45-VT	Kiln Vent Trolley	Orton AirMaster 1400 (supplied by Paragon)								1				OFCI																
	Clay Studio																													
EQ-37	Kiln 1	L&L / ai1814-3 (2.5 cu ft)Cone10)	27" Dia x 29" H (Exterior)	12"-18" minimum clearance from any combustibles on all sides						1	clay	101C - CLAY STUDIO	F	OFCI	27" Dia x 29" H (Exterior)	12"-18" minimum clearance from any combustibles on all sides	208V	1	N	60Hz	20.7A	4.98 Kw	15-50P	Needed if monitoring req'd					4 can hold approximately 12 standard 9-inch bowls/8 standard mugs	
EQ-37-VS	Clay Ventilation System	Vent Sure Downdraft System								1	clay	101C - CLAY STUDIO		OFCI			120V	1	Y	60Hz	1.37A	0.16 kW	5-15P	Optional WiFi for vent control necessary					
EQ-38	Kiln 2	L&L / ai1927-3 208-3Ph (10.2 cu ft/Cone 10)	35.4" Dia x 43.2" H (Exterior)	12"-18" minimum clearance from any combustibles on all sides						1	clay	101C - CLAY STUDIO	F	OFCI	35.4" Dia x 43.2" H (Exterior)	12"-18" minimum clearance from any combustibles on all sides	208V	3	N	60Hz	61.5A	18.95 Kw	15-50P	Needed if monitoring req'd	60 Amp breaker required 6 AWG copper wire recommended for the power supply connection				making this model direct-wired version only. Confirm with manufacturer	4 can hold approximately 74 standard 9-inch bowls in a single firing. Can handle crystalline glaze.
EQ-38-VS	Clay Ventilation System	Vent Sure Downdraft System								1	clay	101C - CLAY STUDIO		OFCI			120V	1	Y	60Hz	1.37A	0.16 kW	5-15P	Optional WiFi for vent control necessary					
EQ-39	Kiln 3	Orton Model C/E	22" W x 28" D x 21.5" H							1	clay	101C - CLAY STUDIO	F	OFCI	22" W x 28" D x 21.5" H															
EQ-40	Slab Roller	Bailey Mini Might II								1	clay	101C - CLAY STUDIO	B	OFCI																
EQ-41	Extruder	Peter Pugger / LPM 20 Vacuum Power Wedger								1	clay	101C - CLAY STUDIO	B	OFCI																
EQ-42	Extruder	North Star / Stainless Steel Extruder Package	4"-W x 4"-D x 31"-H							1	clay	101C - CLAY STUDIO	B	OFCI	4"-W x 4"-D x 31"-H															
	Other																													
EQ-45	Flammable Storage Cabinet	Flammable Storage Cabinet - Standard, Self-Closing Doors, Yellow, 90 Gallon	43" W x 34" D x 65" H							2		101A - SPRAY, 202 - EXPLORATION	F	OFCI	43" W x 34" D x 65" H															
EQ-46	Battery Charging Cabinet	Lithium Ion Battery Charging Cabinet, Self Latch Standard 2 Door, 4 Shelves	44" W x 18.5"D x 78" H/5-1/8" H							1		103 - STORAGE/LOADING DOCK	F	OFCI	44" W x 18.5"D x 78" H/5-1/8" H		110V	1	N	60Hz	0A	1.8KW	5-15P	N					Features an integrated active ventilation system	
EQ-47	Hydraulic Lift Cart 4,000lbs	Hydraulic Elevating Cart CART-1000-LO 63 x 31 1000 Lb. Cap	63" W x 31 1/2" D x 37 1/2" H							1		103 - STORAGE/LOADING DOCK	F	OFCI	63" W x 31 1/2" D x 37 1/2" H															

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BEEBE HALL

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General Notes

1. ALL WORK SHALL CONFORM TO ALL APPLICABLE RULES, REGULATIONS, CODES AND STANDARDS INCLUDING BUT NOT LIMITED TO THE BUILDING CODE OF NEW YORK STATE 2025 EDITION, NFPA, OSHA, FEDERAL, AND STATE ORDINANCES, CODES, LAWS AND REGULATIONS. CONFORM STRICTLY TO THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS PUBLICATION ASME A17.1, 2022 EDITION, – SAFETY CODE FOR ELEVATORS.
2. RECORD DRAWINGS: MAINTAIN ONE SET OF CONSTRUCTION DRAWINGS DENOTING ANY FIELD CHANGES WHICH ARE MADE AS THE WORK PROGRESSES. PROVIDE THIS DRAWING SET TO THE ENGINEER AT THE COMPLETION OF THE PROJECT FOR REPRODUCTION.
3. BUILDING PERMIT: CONTRACTOR SHALL OBTAIN A ELEVATOR PERMIT BEFORE COMMENCING WORK. CONTRACTOR SHALL PAY ALL PERMIT EXPENSES. PROVIDE ELEVATOR INSPECTION AND CERTIFICATE. PAY ALL FEES.
4. ALL CUTTING AND PATCHING SHOWN ON THE DRAWINGS ARE THE RESPONSIBILITY OF THE CONTRACTOR REQUIRING THE OPENING.

Scope Of Work

1. REMOVE AND DISCARD EXISTING HYDRAULIC ELEVATOR SYSTEM IN ITS ENTIRETY, INCLUDING TANK/PUMP UNIT, CONTROLLER, CAR INCLUDING FINISHES, PLATFORM/SLING, CYLINDERS, RAILS, BEAMS/SHEAVES, WIRING, ENTRANCES, ETC.
2. PROVIDE AND INSTALL NEW PACKAGED MACHINE–ROOM–LESS GEARLESS OVERHEAD TRACTION ELEVATOR WITH REMOTE CONTROL CLOSET. PROVIDE NEW TWO SPEED SIDE SLIDE HOISTWAY DOORS AND FRAMES AT ALL ENTRANCES.
3. PROVIDE ALL WORK NECESSARY TO OBTAIN A FULLY OPERATIONAL ELEVATOR SYSTEM INSPECTED AND ACCEPTED BY A NEW YORK STATE ELEVATOR INSPECTOR WITH NO VIOLATIONS.
4. THE PROPOSED ELEVATOR SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT.
5. THE PROPOSED ELEVATOR SHALL BE PROVIDED WITH PHASE 1 AND 2 FIREMAN'S SERVICE CAPABILITIES.
6. THE PROPOSED ELEVATOR SHALL BE SIZED FOR A 24" X 84" AMBULANCE STRETCHER
7. THE PROPOSED ELEVATOR SHALL BE PROVIDED WITH A RATH SMARTVIEW 2 EMERGENCY VISUAL TWO–WAY COMMUNICATIONS SYSTEM.
8. THIS WORK IS PLANNED FOR SUMMER TBD CONSTRUCTION.
9. CONTRACTOR SHALL INCLUDE 8 HOURS OF ELEVATOR OPERATOR TIME TO ALLOW ACCESS TO ELEVATOR SHAFT BY OTHER TRADES.

Disposal Notes

1. ALL DISCARDED MATERIAL, EQUIPMENT, ETC SHALL BE SORTED AND RECYCLED TO THE GREATEST EXTENT POSSIBLE. ANY MATERIALS, EQUIPMENT, ETC SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR, CLEANED OF ALL RESIDUAL LUBRICANTS, AND DISPOSED OF IN ACCORDANCE WITH BEST PRACTICES AND ALL ENVIRONMENTAL REGULATIONS.

Abbreviations:

COP	CAR OPERATING PANEL
PI	POSITION INDICATOR
FACP	FIRE ALARM CONTROL PANEL
DBG	DISTANCE BETWEEN GUIDES
EC	ELECTRICAL CONTRACTOR (DIV 26)
FP	FIRE PROTECTION CONTRACTOR (DIV 21)
GC	GENERAL CONTRACTOR (DIV 2–13)
PC	PLUMBING CONTRACTOR (DIV 22)
MC	MECHANICAL CONTRACTOR (DIV 23)
FAC	FIRE ALARM CONTRACTOR (DIV 28)
ACBM	ASBESTOS CONTAINING BUILDING MATERIAL

ELEVATOR SCHEDULE

CAR #	EQUIPMENT	DATA					ELECTRICAL			EXISTING HOISTWAY CLEAR DIMENSIONS				MACHINE TYPE	BASIS OF DESIGN
		TOTAL RISE	STOPS	OPENING	SPEED	CAPACITY	VOLTAGE	HP	STARTER TYPE	HOISTWAY WIDTH	HOISTWAY DEPTH	PIT DEPTH	OVERHEAD CLEARANCE	CAR DOOR	
1	EXISTING PASSENGER ELEVATOR	EXISTING TO BE DEMOLISHED & REMOVED													
1	PROPOSED SERVICE ELEVATOR	20'–0 1/2"	3	2F / 2R	150 FPM	4,000 LB	208	20	VFD	7'–8"	10'–2"	5'–0"	13'–8"	4'–0" X 7'–0" SSSO	MACHINE–ROOM–LESS GEARLESS TRACTION	PACKAGED PROPRIETARY: OTIS GEN3 EDGE

ELEVATOR FINISH SCHEDULE

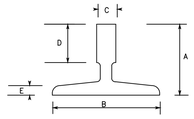
ITEM #	EQUIPMENT	DATA							
		WALLS	CEILING	LIGHTING	HOISTWAY DOORS AND FRAMES	CAR DOORS	FIXTURES AND HANDRAILS	FLOORING	REMARKS
1	PROPOSED SERVICE ELEVATOR	CUSTOM VERTICALLY APPLIED PANELS W/PATTERNED STAINLESS STEEL FINISH (CAMBRIDGE CHANNEL 29K)	SUSPENDED ISLAND STYLE, STAINLESS STEEL FINISH	LED DOWNLIGHTS	#4 STAINLESS STEEL	#4 STAINLESS STEEL	#4 STAINLESS STEEL	RUBBER TILE (RT–1)	ENGRAVED FIRE SERVICE INSTRUCTIONS AND PICTOGRAPHS. DIGITAL P.I. IN COP AND HALL LANTERNS.

NOTES:

1. ALL INTERIOR CAR FINISHES SHALL COMPLY WITH THE REQUIREMENTS OF ASME A.17.1, 2022 EDITION, 2.14.2. SPECIFICALLY NOTE THE REQUIREMENTS THAT ALL MATERIALS SHALL HAVE A FLAME SPREAD OF 0–75 AND SMOKE DEVELOPMENT 0–450 EXCEPT AS STATED THERIN. FLOOR COVERINGS SHALL HAVE A CRITICAL RADIANT FLUX OF NOT LESS THAN .45 W/CM^2.

ELEVATOR SECURITY SCHEDULE

ITEM #	EQUIPMENT	LOCATIONS			SECURED FUNCTIONS		SCHEDULE		REMARKS
		CAR CARD READER	HALL CARD READERS		CAR CARD READER	HALL CARD READERS	CAR CARD READER	HALL CARD READERS	
			FRONT	REAR					
1	PROPOSED SERVICE ELEVATOR	YES	NO	NO	1ST FLOOR REAR LANDING	N/A	SECURED 24/7	N/A	CAR READERS PROVIDED BY DIV 28. READERS IN CARS INSTALLED/WIRED BY DIV 14. DIV 14 SHALL PROVIDE TERMINAL STRIP IN CONTROLLER FOR TERMINATION OF ALL CARD READER AND SECURITY SYSTEM DRY CONTACT WIRING.



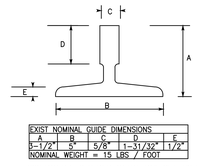
EXIST NOMINAL GUIDE DIMENSIONS				
A	B	C	D	E
3–1/2"	5"	5/8"	1–31/32"	1/2"

NOMINAL WEIGHT = 15 LBS / FOOT

CONTRACTOR TO VERIFY ACTUAL RAIL SIZE USED

1 V001 PROPOSED CAR GUIDE RAIL SECTION

NOT TO SCALE



EXIST NOMINAL GUIDE DIMENSIONS				
A	B	C	D	E
3–1/2"	5"	5/8"	1–31/32"	1/2"

NOMINAL WEIGHT = 15 LBS / FOOT

CONTRACTOR TO VERIFY ACTUAL RAIL SIZE USED

2 V001 PROPOSED COUNTERWEIGHT GUIDE RAIL SECTION

NOT TO SCALE

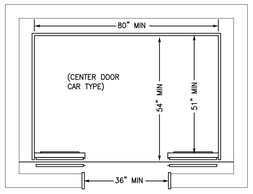


FIGURE 407.4.1 (a)

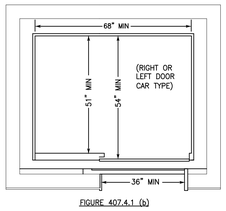


FIGURE 407.4.1 (b)

2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

2004 ADAAG SECTION 407 ELEVATORS

407.1 GENERAL ELEVATORS SHALL COMPLY WITH 407 AND WITH ASME A17.1 (INCORPORATED BY REFERENCE, SEE "REFERENCED STANDARDS" IN CHAPTER 1). THEY SHALL BE PASSENGER ELEVATORS AS CLASSIFIED BY ASME A17.1. ELEVATOR OPERATION SHALL BE AUTOMATIC.

407.4.1 CAR DIMENSIONS INSIDE DIMENSIONS OF ELEVATOR CARS AND CLEAR WIDTH OF ELEVATOR DOORS SHALL COMPLY WITH TABLE 407.4.1.

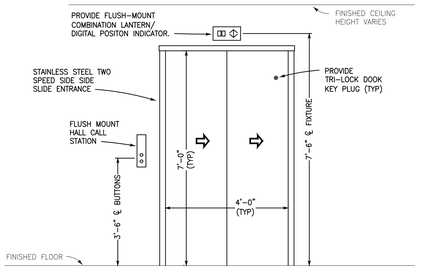
EXCEPTION: EXISTING ELEVATOR CAR CONFIGURATIONS THAT PROVIDE A CLEAR FLOOR AREA OF 16 SQUARE FEET MINIMUM AND ALSO PROVIDE AN INSIDE CLEAR DEPTH 54 INCHES MINIMUM AND A CLEAR WIDTH 36 INCHES MINIMUM SHALL BE PERMITTED.

TABLE 407.4.1 ELEVATOR CAR DIMENSIONS

MINIMUM DIMENSIONS				
DOOR LOCATION	DOOR CLEAR WIDTH	INSIDE CAR, SIDE TO SIDE	INSIDE CAR, BACK WALL TO FRONT WALL	INSIDE CAR, BACK WALL TO INSIDE FACE OF DOOR
CENTERED	42 INCHES	80 INCHES	51 INCHES	54 INCHES
SIDE (OFF–CENTERED)	36 INCHES	68 INCHES	51 INCHES	54 INCHES
ANY	36 INCHES	54 INCHES	80 INCHES	80 INCHES
ANY	36 INCHES	60 INCHES	60 INCHES	80 INCHES

4 V001 ADA REQUIREMENTS FOR MINIMUM DIMENSIONS OF ELEVATOR CARS

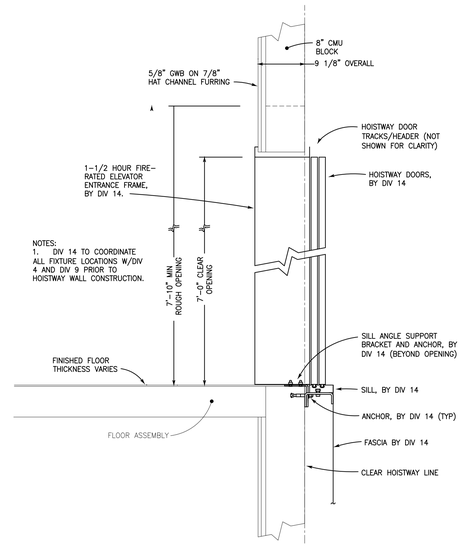
NOT TO SCALE



6 V001 TYPICAL HOISTWAY ENTRANCE ELEVATION

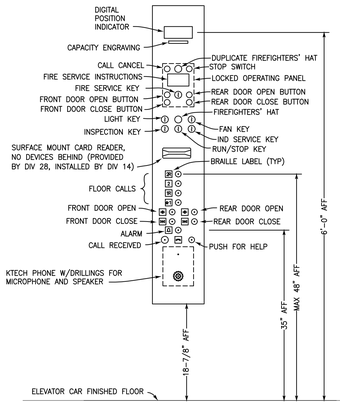
SCALE: 1/2" = 1'–0"

NOTE: FRONT ENTRANCES SHOWN, REAR SYMMETRICALLY OPPOSITE



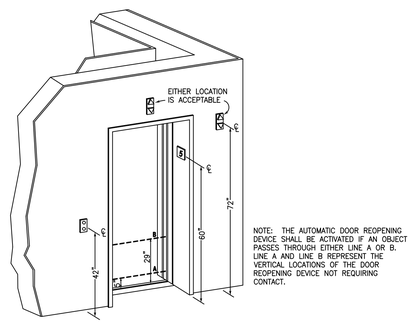
8 V001 SECTION AT TYPICAL HOISTWAY ENTRANCE

SCALE: 1" = 1'–0"



3 V001 ELEVATOR CAR OPERATING PANEL LAYOUT

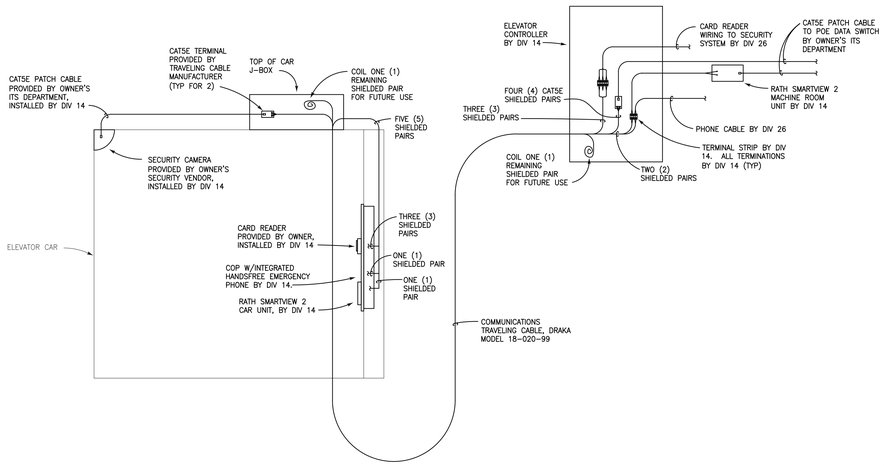
SCALE: 1" = 1'–0"



NOTE: THE AUTOMATIC DOOR REOPENING DEVICE SHALL BE ACTIVATED IF AN OBJECT PASSES THROUGH EITHER LINE A OR B. LINE A AND LINE B REPRESENT THE VERTICAL LOCATIONS OF THE DOOR REOPENING DEVICE NOT REQUIRING CONTACT.

5 V001 ADA REQUIREMENTS FOR HOISTWAY AND ELEVATOR ENTRANCES

NOT TO SCALE



7 V001 ELEVATOR COMMUNICATIONS CABLING SCHEMATIC

NOT TO SCALE

1" = 1'–0"

1/2" = 1'–0"

CONFORM TO INDICATED DIMENSIONS RATHER THAN DIMENSIONS SCALED FROM DRAWING. GRAPHIC SCALE PROVIDED HEREIN FOR GENERAL INFORMATION AND TO CONFIRM WHEN DRAWING SIZE HAS BEEN REDUCED OR INCREASED IN REPRODUCTION.

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AM JOB NO.: 24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS: BID DOCUMENTS

DATE ISSUED: 2026.09.14

ELEVATOR NOTES, SCHEDULES, AND DETAILS

V001

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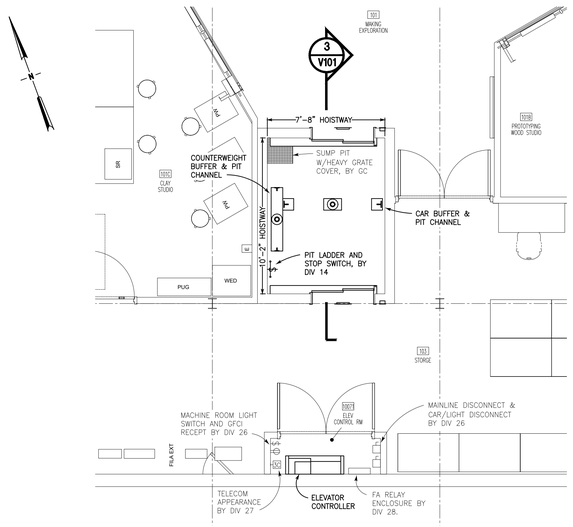
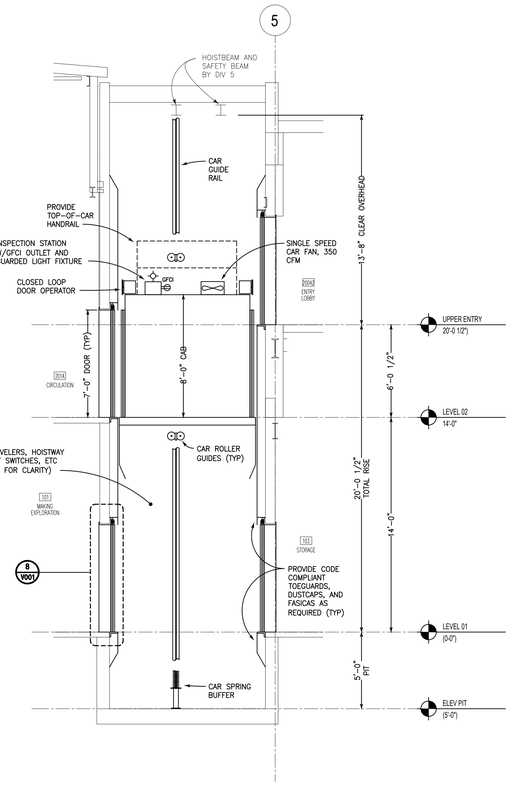
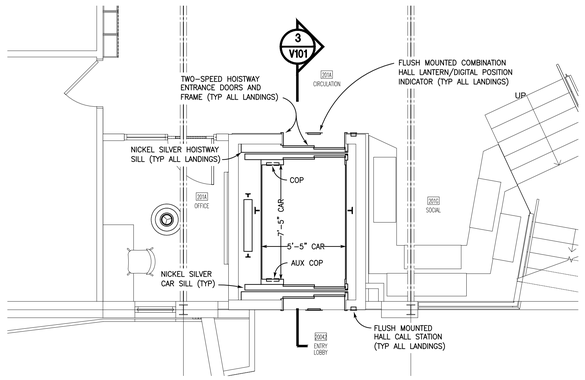


1 V101 **LEVEL 1 ELEVATOR PLAN**
SCALE: 1/4" = 1'-0"



3 V101 **ELEVATOR HOISTWAY SECTION**
SCALE: 1/4" = 1'-0"



2 V101 **LEVEL 2 ELEVATOR PLAN**
SCALE: 1/4" = 1'-0"

1/4" = 1'-0"

CONFORM TO INDICATED DIMENSIONS RATHER THAN DIMENSIONS SCALED FROM DRAWING. GRAPHIC SCALE PROVIDED HEREIN FOR GENERAL INFORMATION AND TO CONFIRM WHEN DRAWING SIZE HAS BEEN REDUCED OR INCREASED IN REPRODUCTION.

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REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

ELEVATOR PLANS AND HOISTWAY SECTION

V101

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THE SQUARES ABOVE ARE COLOR, WITH BLACK AND WHITE LETTERS, IF PRINTED CORRECTLY

THE LINE BELOW ABOVE IS EXACTLY ONE INCH LONG AT THIS NOTE'S ORIGINAL PLOTTED SIZE

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FLUSHING NOTES:

A. FLUSHING FULL-PORT BALL VALVES SHALL STILL BE PROVIDED ON UNDERGROUND MAINS (INSIDE THE BUILDING) AND ABOVE-GROUND MAINS, CROSS-MAINS, BRANCH LINES AND RUN OUTS OF NEW SPRINKLER SYSTEMS (WET AND DRY), TO FACILITATE ANY FUTURE PERIODIC INTERNAL INSPECTIONS, OBSTRUCTION INVESTIGATIONS AND AS-NEEDED FLUSHING WORK.

B. VALVES SHALL BE SIZED BY THE ENGINEER OF RECORD AND PER NFPA 25, IN ORDER TO OBTAIN THE NFPA REQUIRED MINIMUM VELOCITY OF 10 FT/S FOR ANY GIVEN PIPE SIZE. AS AN ALTERNATIVE TO THE HYDRAULIC CALCULATION VALVE SIZING METHOD, THE FOLLOWING SIZING RULES CAN BE APPLIED:

. - 1-INCH THRU 2 1/2-INCH PIPE: LINE-SIZE FULL-PORT BALL VALVE
- 3-INCH PIPE: ONE (1) 2 1/2-INCH BALL VALVE
- 4-INCH PIPE: TWO (2) 2 1/2-INCH BALL VALVES
- 6-INCH PIPE: THREE (3) 2 1/2 INCH BALL VALVES
- 8-INCH PIPE: FOUR (4) 2 1/2 INCH BALL VALVES

GENERAL NOTES:

A. EXISTING CONDITIONS ARE TAKEN FROM FIELD OBSERVATIONS AND PRIOR CONSTRUCTION DOCUMENTS WHEN AVAILABLE. THE LOCATIONS SHOWN MUST BE CONSIDERED APPROXIMATE. OTHER SUCH WORK MAY EXIST, HOWEVER, LOCATION AND SIZE ARE NOT PRESENTLY KNOWN. VISIT SITE PRIOR TO BID TO REVIEW EXISTING CONDITIONS AND DETERMINE SCOPE OF WORK.

B. WHEN EXISTING CONSTRUCTION IS DAMAGED DURING WORK BY THIS CONTRACTOR, REPAIR AND/OR REPLACE WITH SIMILAR OR LIKE MATERIALS AS MUCH AS POSSIBLE, SUBJECT TO ARCHITECTS APPROVAL.

C. DISPOSE OF ALL DEMOLITION AND/OR OTHER WASTE MATERIALS CAUSED BY WORK OF THIS CONTRACTOR. LEGALLY DISPOSE ALL MATERIALS TO A LOCATION OFF SITE.

D. COORDINATE AND SCHEDULE WORK AND SHUTDOWNS WITH THE OWNER AND OTHER TRADES PRIOR TO DEMOLITION.

E. ALL EXISTING PIPING TO REMAIN SHALL BE RECONNECTED TO ACTIVE SERVICE PIPING.

F. ALL PIPING TO BE REMOVED, SHALL BE REMOVED BACK TO ACTIVE PIPING AND CAPPED. VALVE AND CAP ALL WATER PIPING. REMOVE ALL INACTIVE PIPING UNLESS NOTED.

G. ALL PIPING TO BE REMOVED AND LOCATED WITHIN A WALL TO REMAIN MAY BE ABANDONED IN PLACE UNLESS NOTED. REMOVE PIPING BACK TO BEHIND THE FINISHED WALL SURFACE AND CAP.

H. PLUG HOLES IN EXISTING CONSTRUCTION LEFT BY THE REMOVAL OF PIPING OR EQUIPMENT. MAINTAIN FIRE/SMOKE RATING.

I. DEMOLITION SHALL INCLUDE, BUT NOT BE LIMITED TO: PIPING, VALVES, FIXTURES, EQUIPMENT, HANGERS, SUPPORTS, AND INSULATION EXCEPT ASBESTOS.

J. All SECURING AND ATTACHMENT POINTS TO EXISTING BUILDING STRUCTURE INCLUDING WALLS, CEILINGS, FLOORS, SLABS, DECKS, ETC. SHALL BE REVIEWED WITH CORNELL UNIVERSITY AND THE PROJECT ENVIRONMENTAL CONSULTANT PRIOR TO SECURING AND ATTACHING DEVICES AND EQUIPMENT. SOME BUILDING ELEMENTS MAY CONTAIN ASBESTOS AND ABATEMENT MAY BE REQUIRED. ABATEMENT SHALL BE PERFORMED BY SEPARATE CONTRACTOR WITH THE ASSISTANCE OF THIS CONTRACTOR FOR IDENTIFYING ATTACHMENT POINT LOCATIONS.

K. MIXING OF DEMOLITION AND CONSTRUCTION DEBRIS IN COMMON DUMPSTERS IS NOT ALLOWED. ALL DEMOLITION AND CONSTRUCTION DEBRIS SHALL BE SEPARATED AND SORTED THEN PLACED IN THE DESIGNATED DUMPSTER FOR THAT SPECIFIC MATERIAL IN COMPLIANCE WITH PROJECT LEED CONSTRUCTION WASTE MANAGEMENT REQUIREMENTS.

L. ABANDONING EXISTING SYSTEMS, EQUIPMENT AND APPURTENANCES IN PLACE IS NOT ALLOWED. ALL SYSTEMS, EQUIPMENT AND APPURTENANCES DEEMED FOR REMOVAL SHALL BE REMOVED. THE CONTRACTOR SHALL NOTIFY CORNELL UNIVERSITY IF EXISTING SYSTEMS, EQUIPMENT AND APPURTENANCES ARE FOUND THAT HAD NOT BEEN INDICATED ON THE PROJECT PLANS TO EITHER BE REMOVED OR TO REMAIN IN PLACE.

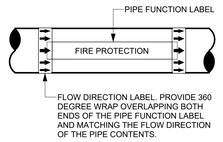
M. PIPE ROUTING DOES NOT SHOW PIPE FITTINGS THAT WILL BE REQUIRED. MOST LOCATIONS WILL REQUIRE PIPING TO RISE INTO STRUCTURAL CAVITY AND THEN BACK DOWN. (TYPICAL ALL LOCATIONS).

N. PROVIDE WIRE GAGES ON ALL SPRINKLERS IN ELECTRICAL AND TR ROOMS.

O. THESE DRAWINGS SHOW INTENT. CONTRACTOR IS REQUIRED TO DO FINAL DESIGN AND ADJUST PIPE SIZE AS REQUIRED. CONTRACTOR MUST MEET ALL FM GLOBAL AND NYS FIRE CODE REQUIREMENTS.

FIRE PROTECTION SYMBOL LIST

SYMBOL	DESCRIPTION
OR	EXISTING WORK TO BE REMOVED
	POINT OF CONNECTION
	POINT OF DISCONNECTION
NTS	NOT TO SCALE
(E)	EXISTING
(ETR)	EXISTING TO REMAIN
AFF	ABOVE FINISHED FLOOR
GC	GENERAL CONTRACTOR
MC	MECHANICAL CONTRACTOR
PC	PLUMBING CONTRACTOR
EC	ELECTRICAL CONTRACTOR
FC	FLUSHING CONNECTION
(E)	EXISTING PIPING
	NEW PIPING
FP	FIRE PROTECTION SERVICE (FP)
S	SPRINKLER MAIN/BRANCH PIPING (S)
D	SPRINKLER DRAIN PIPING (D)
	ELBOW DOWN
	45°OFFSET
	ELBOW UP
	BOTTOM/TEE CONNECTION
	TOP TEE CONNECTION
	PIPE CONTINUATION
	FLUSHING CONNECTION
	PENDENT SPRINKLER
	DRY PENDENT SPRINKLER
	QUICK RESPONSE PENDENT SPRINKLER
	CONCEALED PENDENT SPRINKLER
	RESIDENTIAL PENDENT SPRINKLER
	UPRIGHT SPRINKLER
	QUICK RESPONSE UPRIGHT SPRINKLER
	SIDEWALL SPRINKLER
	DRY SIDEWALL SPRINKLER
	RESIDENTIAL SIDEWALL SPRINKLER
	EXTENDED COVERAGE SIDEWALL SPRINKLER
	VERTICAL SIDEWALL SPRINKLER
	BACK TO BACK ATTIC SPRINKLER
	SINGLE DIRECTIONAL ATTIC SPRINKLER
	HIP ATTIC SPRINKLER
	DRAIN VALVE
	CHECK VALVE
	PRESSURE REDUCING VALVE
	RELIEF VALVE
	BACKFLOW PREVENTER (BFP)
OS&Y	SHUT-OFF VALVE WITH TAMPER SWITCH (TS)
FS	FLOW SWITCH (FS)
PS	PRESSURE SWITCH (PS)
	DRY PRE-ACTION ALARM VALVE
	ALARM CHECK VALVE WITH TRIM (ACV)
	FIRE DEPARTMENT VALVE (FDV)
	POST INDICATOR VALVE (PIV)
	WATER MOTOR GONG
	FIRE DEPARTMENT CONNECTION (FDC)
	FIRE PUMP TEST HEADER
	INSPECTOR'S TEST CONNECTION (ITC)
	FIRE HYDRANT (FH)
FHC	FIRE HOSE CABINET
FVC	FIRE VALVE CABINET
FE	FIRE EXTINGUISHER
X	DRAWING KEYNOTE
X	DEMOLITION/REMOVAL KEYNOTE
X X	STANDPIPE CALLOUT



DETAIL NOTES:

A. PROVIDE A PIPE LABEL FOR EACH PIPE FUNCTION.

B. PROVIDE AT LEAST ONE LABEL ON EACH PIPE FOR EVERY ROOM THE PIPE PASSES THROUGH.

C. PROVIDE LABELS IN LARGE SPACES ON MAXIMUM 20' CENTERS FOR EVERY PIPE UNLESS OTHERWISE NOTED IN THE SPECIFICATIONS.

D. LABELS TO BE LOCATED IN AN EASILY VISIBLE LOCATION AS THEY WOULD NORMALLY BE SEEN. IE. ON THE BOTTOM HALF OF PIPES IN THE AIR AND ON THE TOP HALF OR SIDES OF PIPES MOUNTED LOW.

E. LABELS SHALL BE, COLOR CODED, PRE-PRINTED, SELF ADHESIVE VINYL.

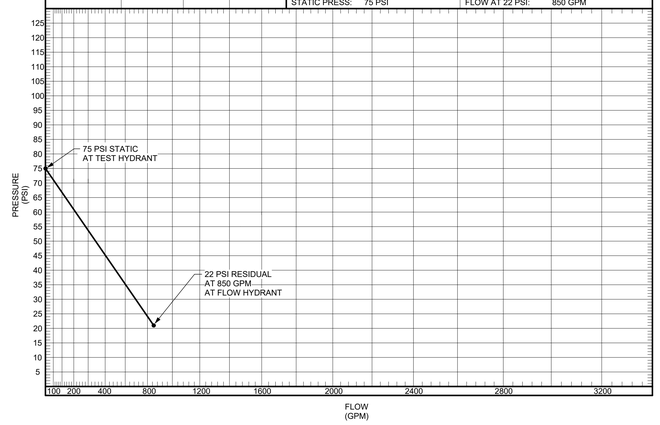
F. SEE SPECIFICATION FOR OTHER REQUIREMENTS AND LIST OF PIPE FUNCTIONS.

1 PIPING IDENTIFICATION LABEL DETAIL
NOT TO SCALE

HYDRANT NUMBER	STATIC PRESSURE (PSI)	FLOW (GPM)	RESIDUAL PRESSURE (PSI)
H-172	75	850	22

FIRE HYDRANT FLOW TEST DATA

DATE: 09/04/2025
FLOW TEST PERFORMED BY: CU FACILITIES
ADDRESS:110 ARBORETUM RD, ITHACA, NY 14850
STATIC PRESS: 75 PSI FLOW AT 22 PSI: 850 GPM



2 FIRE HYDRANT FLOW TEST DATA CHART
NOT TO SCALE

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SYRACUSE, NEW YORK 13202

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www.meengineering.com
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Reg. Exp: 04/30/2029
Cert. of Auth: 0018443

OWNER:
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ITHACA, NEW YORK 14853

CORNELL UNIVERSITY

BEEBE HALL CU MAKER HUB RENOVATIONS

110 ARBORETUM RD,
ITHACA, NY 14850

AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

GENERAL NOTES, DETAILS & SYMBOLS LIST - FIRE PROTECTION

FP000

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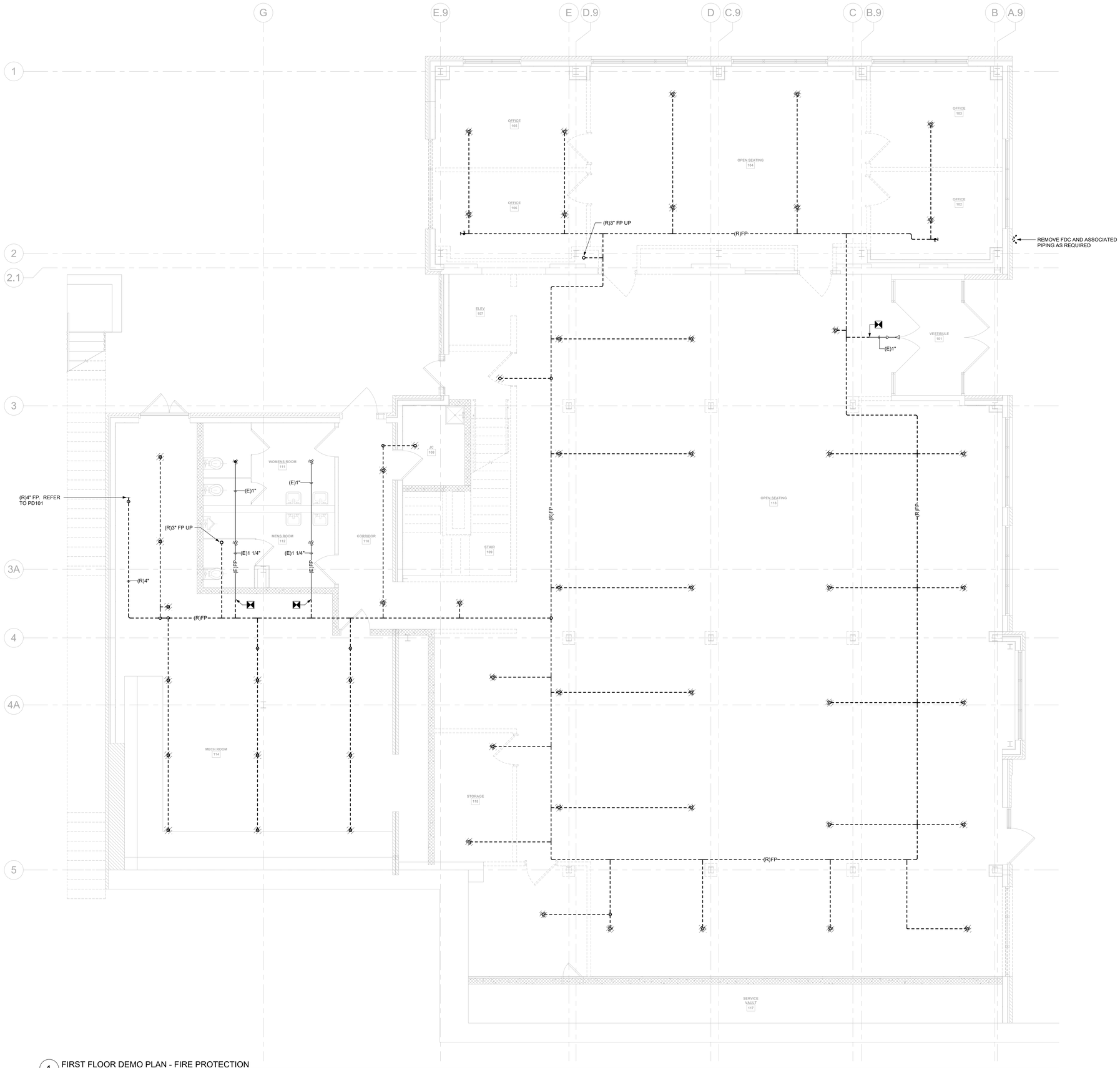

1 FIRST FLOOR DEMO PLAN - FIRE PROTECTION
1/4" = 1'-0"

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LEVEL 1 DEMOLITION PLAN - FIRE PROTECTION

TRUE NORTH
PROJECT NORTH

FPD101

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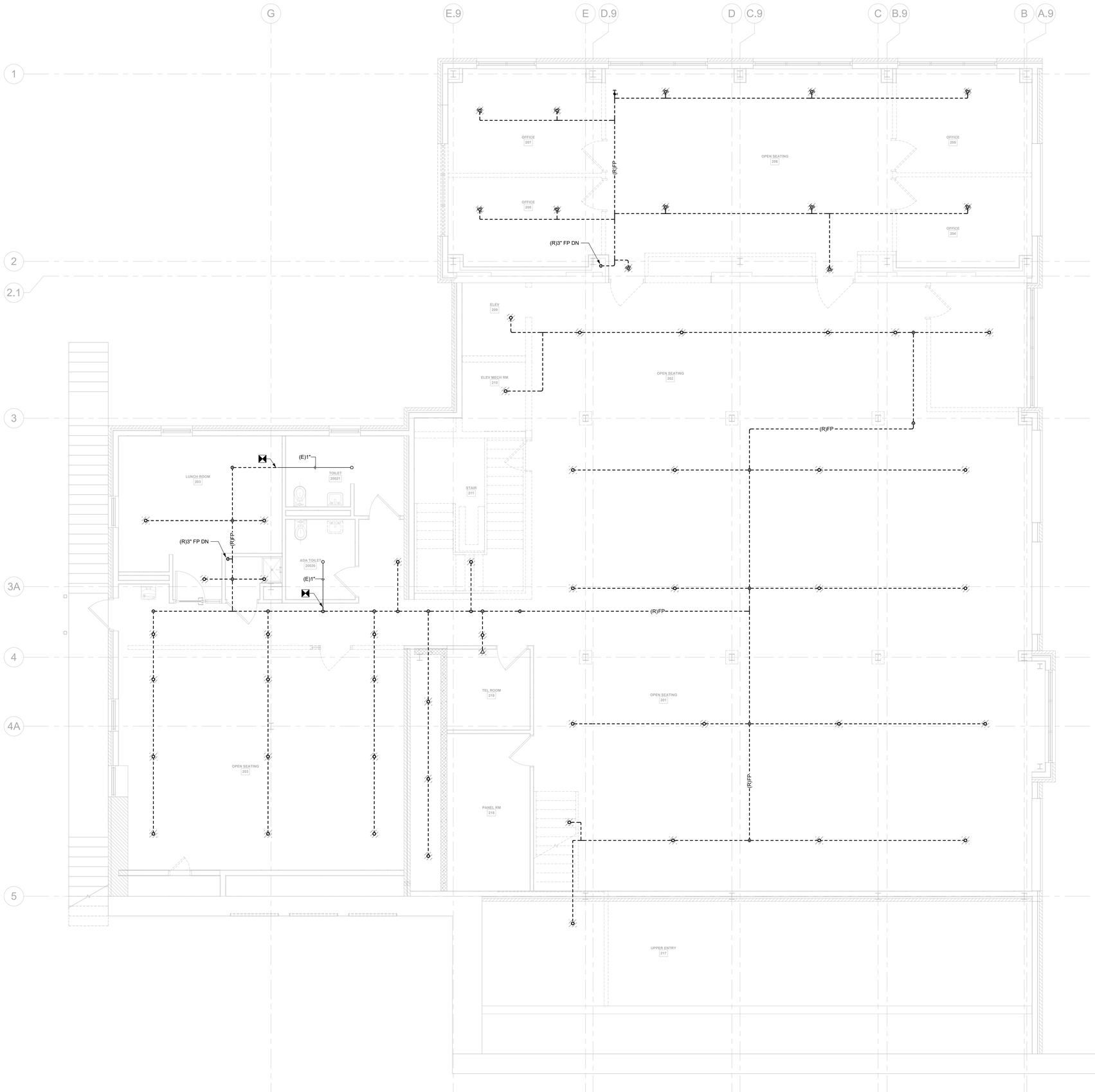

1 SECOND FLOOR DEMO PLAN - FIRE PROTECTION
1/4" = 1'-0"

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PROJECT STATUS:
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DATE ISSUED:
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LEVEL 2 DEMOLITION PLAN - FIRE PROTECTION

TRUE NORTH
PROJECT NORTH

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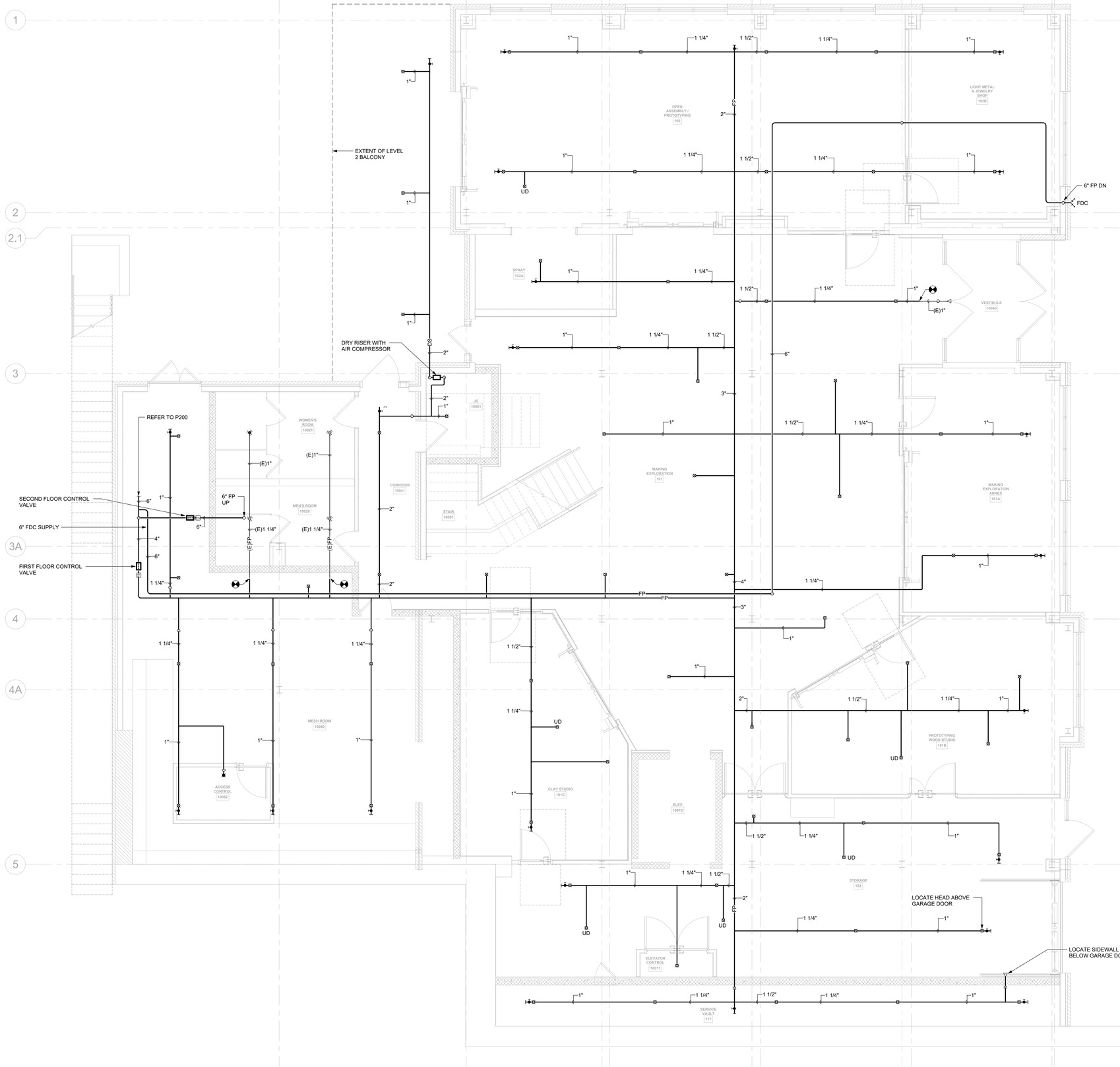

1 FIRST FLOOR PLAN - FIRE PROTECTION
1/4" = 1'-0"

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LEVEL 1 PLAN - FIRE PROTECTION

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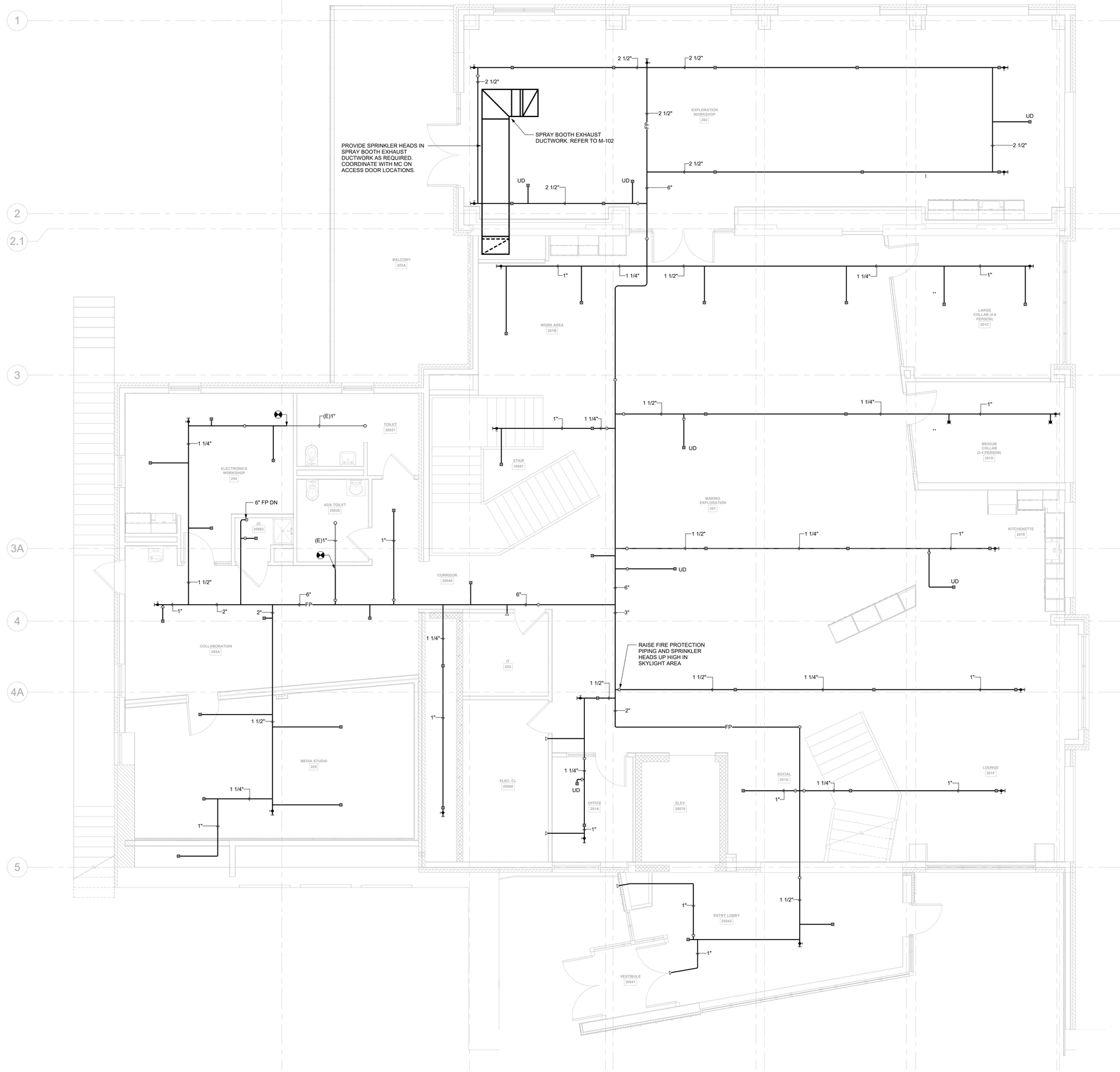

1 SECOND FLOOR PLAN - FIRE PROTECTION
1/4" = 1'-0"

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LEVEL 2 PLAN - FIRE PROTECTION

TRUE NORTH PROJECT NORTH

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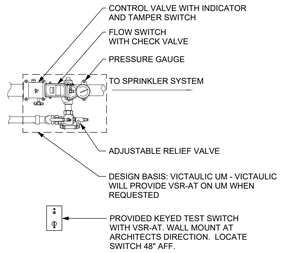
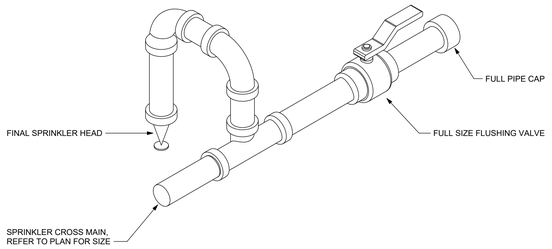
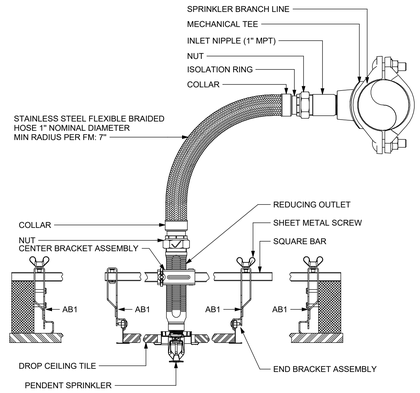


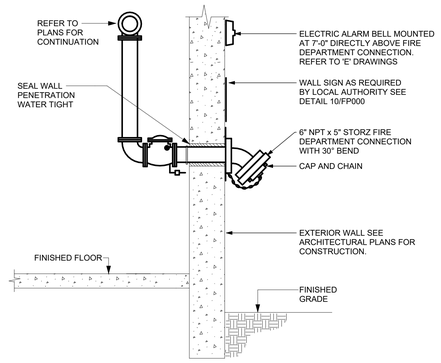
1 SPRINKLER FLOOR CONTROL ASSEMBLY
NOT TO SCALE



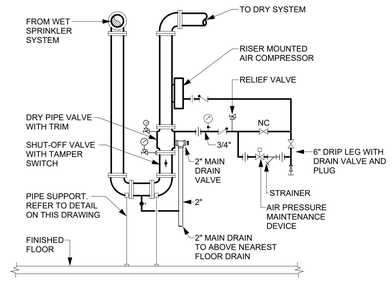
2 SPRINKLER LINE FLUSHING DETAIL
NOT TO SCALE



3 FLEXIBLE SPRINKLER HOSE CONNECTION
NOT TO SCALE



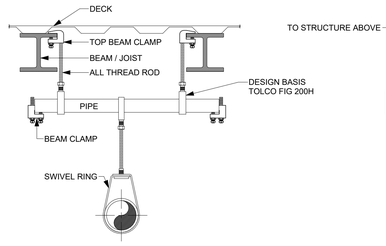
4 FIRE DEPARTMENT CONNECTION DETAIL
NOT TO SCALE



DETAIL NOTE:

A. REFER TO FLOOR PLANS FOR PIPE SIZES.

5 211300.P DRY PIPE VALVE DETAIL (NEW 10-02-19)
NOT TO SCALE



DETAIL NOTES:

A. FOLLOW ALL PROVISIONS OF NFPA 13 FOR ALL HANGING REQUIREMENTS.

B. ALL THREAD ROD MUST BE SIZED FOR THE PIPE SUPPORTED, NOT THE PIPE USED TO CREATE THE TRAPEZE.

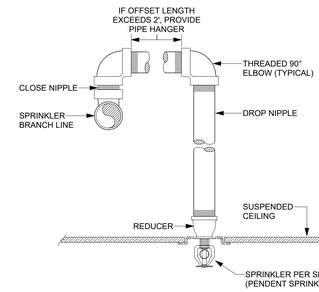
C. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE QUANTITY OF TRAPEZE REQUIRED FOR THE PROJECT AND CARRY THAT AS PART OF THE BID COST.

D. HEAVY DUTY SWIVEL RINGS SHALL BE USED ON ALL PIPE STYLE TRAPEZES.

E. PROVIDE CALCULATIONS SHAWING SPAN, SECTION MODULUS, AND PIPE SCHEDULE FOR ALL TRAPEZES.

F. PROVIDE CALCULATIONS SHAWING SPAN, SECTION MODULUS, AND PIPE SCHEDULE FOR ALL UNISTRUT STYLE TRAPEZE HANGERS.

6 TRAPEZE HANGER DETAIL
NOT TO SCALE

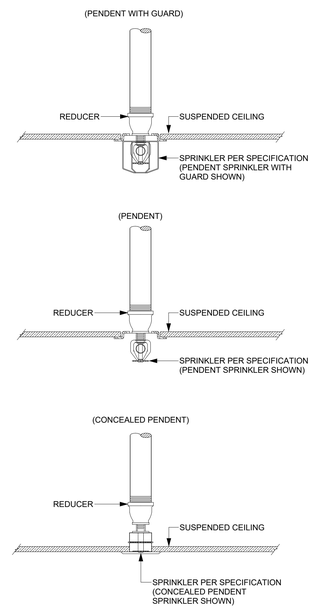


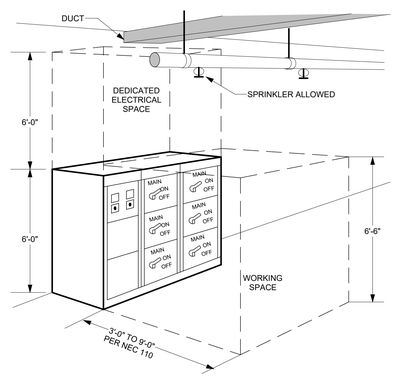
DETAIL NOTES:

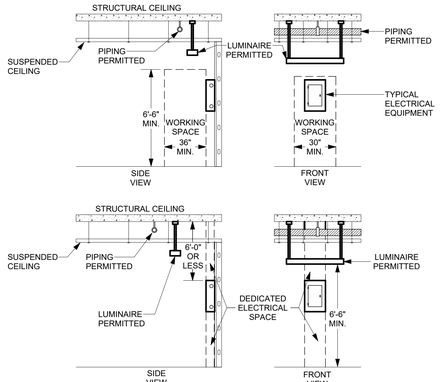
A. ALL TAPS OF PIPING MUST COME FROM THE SIDE OR THE TOP

B NO CONNECTIONS OFF THE BOTTOM

7 RETURN BEND DETAIL
NOT TO SCALE







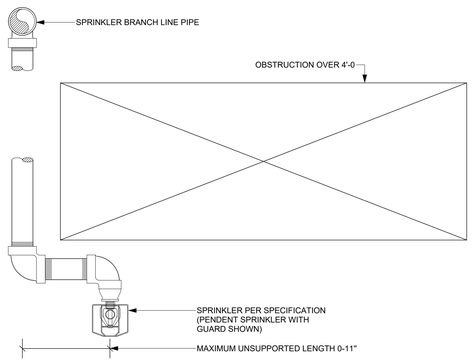
DETAIL NOTES:

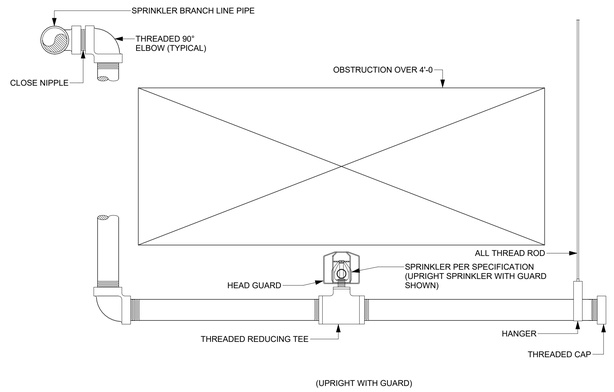
A. ELECTRICAL EQUIPMENT INCLUDES PANELS, TRANSFORMERS, DISCONNECTS, STARTERS, MOTOR CONTROL CENTERS, SWITCHGEAR, ADJUSTABLE SPEED DRIVES, AND FUSED SWITCHES.(THIS ALSO APPLIES TO ELECTRICAL GEAR MOUNTED DIRECTLY ON MECHANICAL EQUIPMENT).

B. DEDICATED ELECTRICAL SPACE IS DEFINED BY NEC 110.

C. NO PIPING OR DUCTWORK MAY BE INSTALLED IN DEDICATED ELECTRICAL SPACE OR WORKING SPACE.

8 PIPING OVER ELECTRICAL EQUIPMENT DETAIL
NOT TO SCALE





DETAIL NOTES:

A. THIS IS FOR REFERENCE ONLY REFER TO NFPA-13 AND FM 2-0 FOR ALL OBSTRUCTION RULES.

B. THIS DETAIL AND NOTES APPLY TO THE WHOLE PROJECT.

9 OBSTRUCTION OVER 4'-0
NOT TO SCALE

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REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
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DETAILS - FIRE PROTECTION

FP400

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FIXTURE AND EQUIPMENT CONNECTION SCHEDULE

DESIGNATION	DESCRIPTION	COLD WATER	HOT WATER	TEPID WATER	WASTE OR SANITARY	VENT	REMARKS
SK-A	SINK - ADA	1/2"	1/2"	-	1 1/2"	1 1/2"	-
SK-B	SINK - ADA	1/2"	1/2"	-	1 1/2"	1 1/2"	1
SK-C	KITCHEN SINK - ADA	1/2"	1/2"	-	1 1/2"	1 1/2"	-
SK-D	SINK	1/2"	1/2"	-	1 1/2"	1 1/2"	-
EEW-A	EYEWASH	-	-	1/2"	-	-	-
ES-A	EMERGENCY SHOWER AND EYEWASH COMBO	-	-	1 1/4"	-	-	-

NOTES:
1. PROVIDE SEDIMENT TRAP. DESIGN BASIS: STRIEM SIDEKICK.

HEAT EXCHANGER SCHEDULE - WATER TO WATER

NO.	LOCATION	HEATING FLUID			HEATED FLUID			DESIGN MAKE
		GPM	EWT. DEG F	LWT. DEG F	GPM	EWT. DEG F	LWT. DEG F	
DWH-1	MECH ROOM	12.04	180	105	9	40	140	CEMLINE CORPORATION PFH450-DW

PUMP SCHEDULE

NO.	LOCATION	SERVICE	GPM	HEAD FT WATER	MOTOR HP	VOLTAGE	PHASE	RPM	TYPE	DESIGN MAKE
RP-1	MECH ROOM	DOMESTIC	5	16	1/6	115	1	VARIABLE	RECIRC	GRUNDFOS MAGNA 32-60FS
RP-2	MECH ROOM	TEMPERED WATER	5	16	1/6	115	1	VARIABLE	RECIRC	GRUNDFOS MAGNA 32-60FS
ESP-1	ELEVATOR	SUMP	50	25	3/4	115	1	-	SUBMERSIBLE	LIBERTY PUMPS ELV290
UCP-1	VARIES	UNDER COUNTER	10	18	1/3	115	1	-	DRAIN	LIBERTY PUMPS MODEL 404
PCP-1	VARIES	INDIRECT WASTE	-	-	1/30	115	1	-	DRAIN	LIBERTY MODEL LC-20

EXPANSION TANK SCHEDULE

NO.	LOCATION	DIA	HEIGHT	TANK VOLUME	MAX ACCEPT VOLUME (20 PSI)	DESIGN MAKE
XT-1	MECH ROOM	9"	15"	3.2"	1.9	AMTROL ST-8

AIR COMPRESSOR SCHEDULE

NO.	LOCATION	SERVICE	ACFM (MAX PRESSURE)	MOTOR HP	VOLTAGE	PHASE	RPM	TYPE	DESIGN MAKE
CA-1	MECH ROOM	COMPRESSED AIR	36 (165 psi)	15	208	3	-	RECIPROCATING	QUINCY COMPRESSOR - QOUTE # QCY-1082266

TEMPERATURE MIXING VALVE SCHEDULE

NO.	LOCATION	SERVICE	PRESSURE LOSS (PSI)	FLOW RATE (GPM)	STANDARD	DESIGN MAKE
TMV-A	MECH ROOM	HOT WATER	5	34.0	ASSE 1071	WATTS IS2075VL
TMV-B	MECH ROOM	TEMPERED WATER	5	34.0	ASSE 1071	POWERS ETV 400

GENERAL NOTES:

A. THESE NOTES ARE APPLICABLE TO THE FULL SET OF CONTRACT DOCUMENTS.

B. EXISTING CONDITIONS ARE TAKEN FROM FIELD OBSERVATIONS AND PRIOR CONSTRUCTION DOCUMENTS WHEN AVAILABLE. THE LOCATIONS SHOWN MUST BE CONSIDERED APPROXIMATE. OTHER SUCH WORK MAY EXIST, HOWEVER, LOCATION AND SIZE ARE NOT PRESENTLY KNOWN. IT IS STRONGLY ENCOURAGED TO VISIT SITE PRIOR TO BID TO REVIEW EXISTING CONDITIONS AND CONFIRM SCOPE OF WORK.

C. WHEN EXISTING CONSTRUCTION IS DAMAGED DURING WORK BY THIS CONTRACTOR, REPAIR AND/OR REPLACE WITH SIMILAR MATERIALS AS MUCH AS POSSIBLE, SUBJECT TO ARCHITECTS APPROVAL.

D. DISPOSE OF ALL DEMOLITION AND/OR OTHER WASTE MATERIALS CAUSED BY WORK OF THIS CONTRACTOR. LEGALLY DISPOSE ALL MATERIALS TO A LOCATION OFF SITE.

E. COORDINATE AND SCHEDULE WORK AND SHUTDOWNS WITH THE OWNER AND OTHER TRADES PRIOR TO DEMOLITION.

F. ALL EXISTING PIPING TO REMAIN SHALL BE RECONNECTED TO ACTIVE SERVICE PIPING.

G. ALL PIPING TO BE REMOVED, SHALL BE REMOVED BACK TO ACTIVE PIPING AND CAPPED. VALVE AND CAP ALL WATER PIPING. REMOVE ALL INACTIVE PIPING UNLESS NOTED.

H. ALL PIPING TO BE REMOVED AND LOCATED WITHIN A WALL TO REMAIN MAY BE ABANDONED IN PLACE UNLESS NOTED. REMOVE PIPING BACK TO BEHIND THE FINISHED WALL SURFACE AND CAP.

I. PATCH HOLES IN EXISTING CONSTRUCTION LEFT BY THE REMOVAL OF PIPING OR EQUIPMENT WITH MATERIALS TO MATCH EXISTING CONSTRUCTION. MAINTAIN FIRE/SMOKE RATING.

J. DEMOLITION SHALL INCLUDE, BUT NOT BE LIMITED TO: PIPING, VALVES, FIXTURES, EQUIPMENT, HANGERS, SUPPORTS, AND INSULATION EXCEPT ASBESTOS.

K. REMOVE EXISTING CONSTRUCTION IN THE WAY OF NEW WORK. PROTECT BUILDING AND FURNISHINGS FROM DAMAGE.

L. WHERE NEW WORK IS TO BE INSTALLED ABOVE AN EXISTING CEILING, PROVIDE FOR THE REMOVAL OF THE CEILING. UPON COMPLETION OF WORK, REPAIR ALL DAMAGED CEILING SURFACES, REPLACE ALL DAMAGED TILES.

M. SLEEVE AND SEAL ALL WALL AND FLOOR PENETRATIONS. PROVIDE FIRESTOPPING FOR ALL PENETRATIONS.

N. MAINTAIN SERVICE CLEARANCES OF ALL EQUIPMENT. ADVISE OTHER TRADES OF THE REQUIRED SERVICE CLEARANCES.

O. PROVIDE FOR THE DRAINING AND REFILLING OF PIPING SYSTEMS, INCLUDING AIR REMOVAL, RESETTING OF FLUSH VALVES, FLUSHING SYSTEMS OF DIRT AND SCALE CAUSED BY SHUTDOWNS AND STARTUPS.

P. REFER TO EQUIPMENT/ FIXTURE SCHEDULE FOR FINAL CONNECTION SIZES.

Q. PROVIDE CLEANOUTS AT THE BASE OF ALL STORM, SANITARY AND WASTE STACKS.

R. PITCH 4" AND LARGER SANITARY AND WASTE PIPING AT 1/8" PER FOOT UNLESS OTHERWISE NOTED. FOR SANITARY AND WASTE PIPING 3" AND SMALLER PITCH AT 1/4" PER FOOT UNLESS OTHERWISE NOTED.

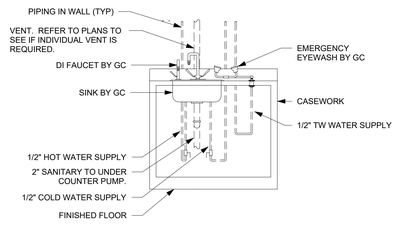
S. COORDINATE LOCATION AND ELEVATION OF STORM AND SANITARY LATERALS AND WATER SERVICE WITH THE SITE CONTRACTOR. NO ALLOWANCE WILL BE MADE FOR ADDITIONAL COSTS DUE TO THE CONTRACTORS FAILURE TO COORDINATE TERMINATION POINTS. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR THE FINAL CONNECTION TO THE SITE UTILITIES.

T. MINIMUM SIZE OF WASTE PIPING BELOW SLAB SHALL BE 3" EXCEPT PIPING SERVING FLOOR DRAINS SHALL BE 4". MINIMUM SIZE OF VENT PIPING BELOW SLAB SHALL BE 2".

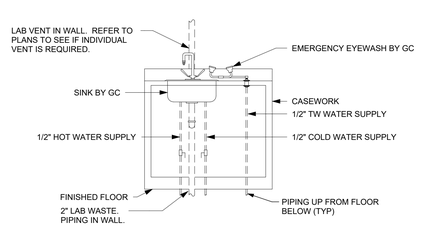
PLUMBING SYMBOL LIST

SYMBOL	DESCRIPTION
	WORK TO BE REMOVED
	POINT OF CONNECTION
	POINT OF DISCONNECTION
NTS	NOT TO SCALE
(E)	EXISTING
(ETR)	EXISTING TO REMAIN
AFF	ABOVE FINISHED FLOOR
BFF	BELOW FINISHED FLOOR
VTR	VENT THRU ROOF
GC	GENERAL CONTRACTOR
MC	MECHANICAL CONTRACTOR
PC	PLUMBING CONTRACTOR
EC	ELECTRICAL CONTRACTOR
(E)	EXISTING PIPING
	NEW PIPING LOCATED ABOVE FLOOR/SLAB
	NEW PIPING LOCATED BELOW FLOOR/SLAB
	COLD WATER PIPING (CW)
	HOT WATER PIPING (HW)
	HOT WATER RECIRCULATING PIPING (HWR)
TW	TEMPERED HOT WATER PIPING (TW)
TWR	TEMPERED HOT WATER RETURN PIPING (TWR)
W	WATER SERVICE - EXTERIOR
SAN	SANITARY SEWER PIPING
IW	INDIRECT WASTE PIPING (IW)
V	VENT PIPING (V)
ST	STORM WATER SEWER PIPING (ST)
CA	COMPRESSED AIR PIPING (CA)
	ELBOW DOWN
	45°OFFSET
	ELBOW UP
	BOTTOM/TEE CONNECTION
	TOP TEE CONNECTION
	"P" TRAP
	PIPE CONTINUATION
	CAP OR PLUG
	DECK PLATE CLEANOUT (DPCO)
	WALL PLATE CLEANOUT (WPCO)
	CLEANOUT (CO)
	FLOOR DRAIN (FD) / FLOOR SINK (FS)
	ROOF DRAIN
	WALL HYDRANT (WH) / HOSE BIBB (HB)
	STRAINER
M	WATER METER
	SHUT OFF VALVE
	BALANCING VALVE
	CHECK VALVE
	SOLENOID VALVE
	PRESSURE REDUCING VALVE
	RELIEF VALVE
	PIPE ANCHOR
	PIPE GUIDE
	UNION
	BACKFLOW PREVENTER (BFP)
	SHOCK ABSORBER (SA)
	RECIRCULATION PUMP
	THERMOMETER
	PRESSURE GAUGE
T	TRAP PRIMER (TP)
X	DRAWING KEYNOTE
X	DEMOLITION/REMOVAL KEYNOTE
X / X	PIPE RISER CALLOUT

TYPICAL LEVEL 1 SINKS



TYPICAL LEVEL 2 SINKS



NOTE: IF IN ADA CABINET, ALL PIPING SHALL MEET ANSI & ADA REQUIREMENTS

1 SINK WITH EYEWASH DETAIL
NOT TO SCALE

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REV. NO.	REV. DATE	REV. DESCRIPTION

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DATE ISSUED:
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GENERAL NOTES, SCHEDULES & SYMBOLS LIST - PLUMBING

P000

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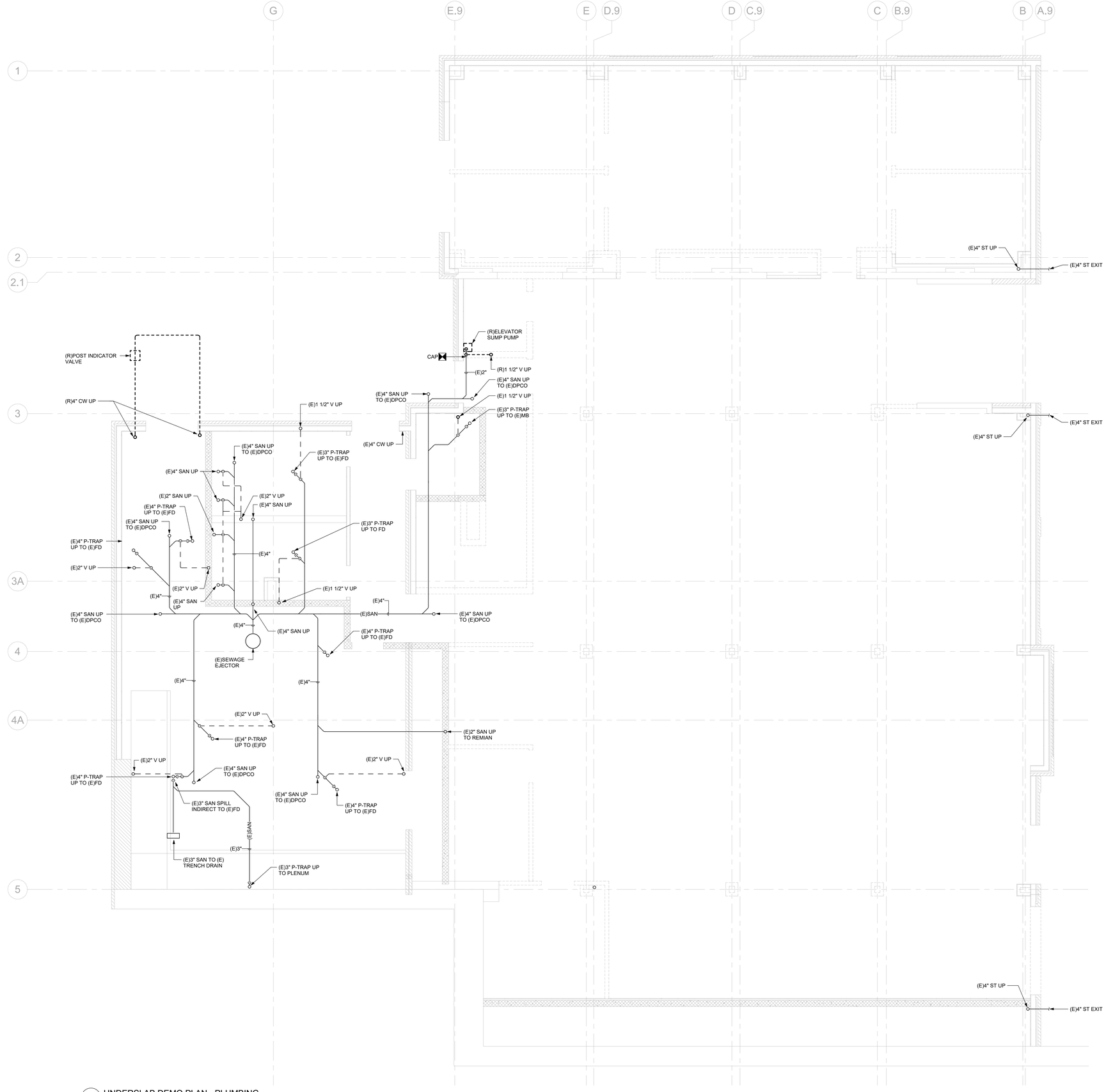

1 UNDERSLAB DEMO PLAN - PLUMBING
1/4" = 1'-0"

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UNDERSLAB DEMOLITION PLAN - PLUMBING

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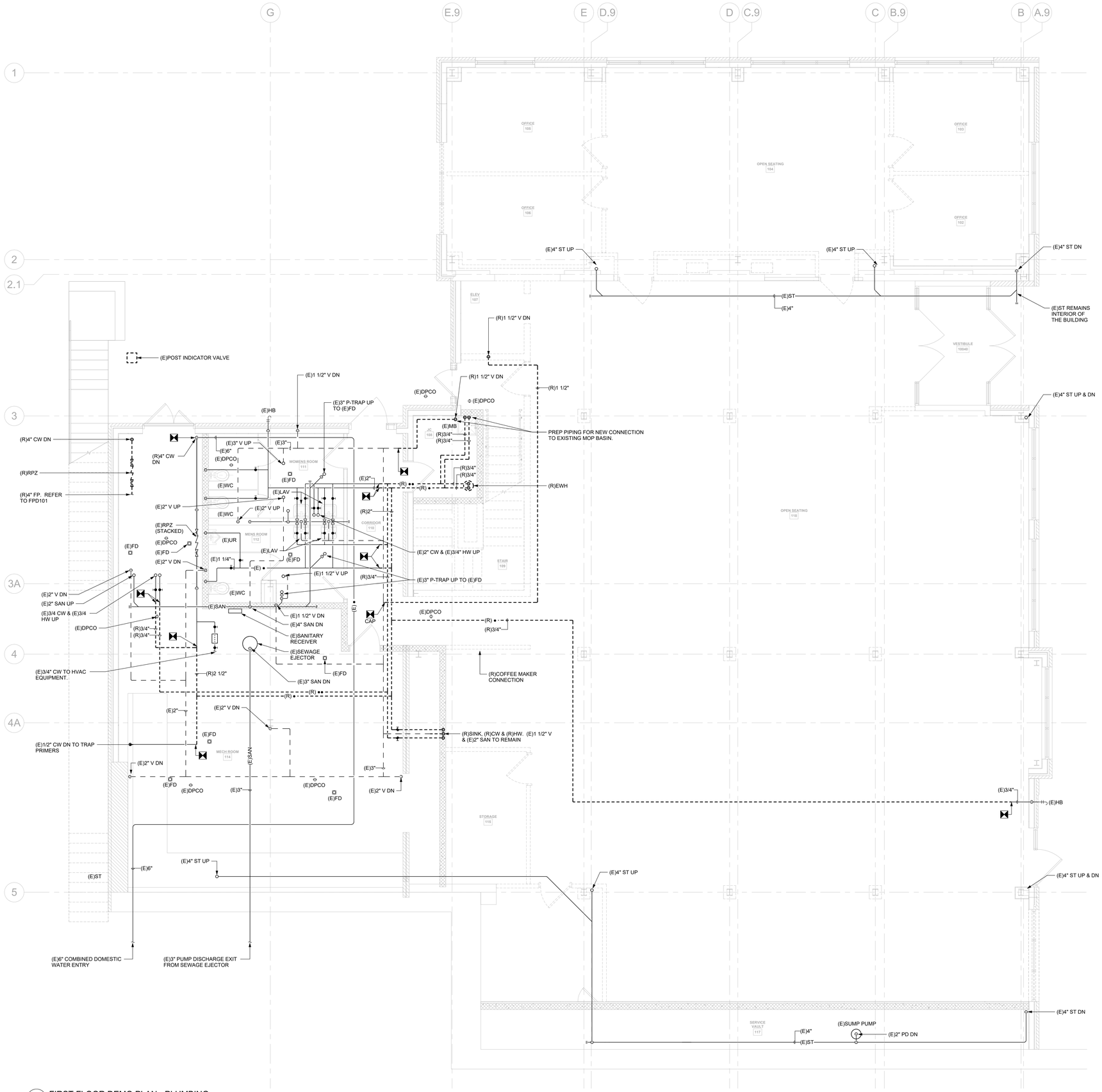

1 FIRST FLOOR DEMO PLAN - PLUMBING
1/4" = 1'-0"

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LEVEL 1 DEMOLITION PLAN - PLUMBING

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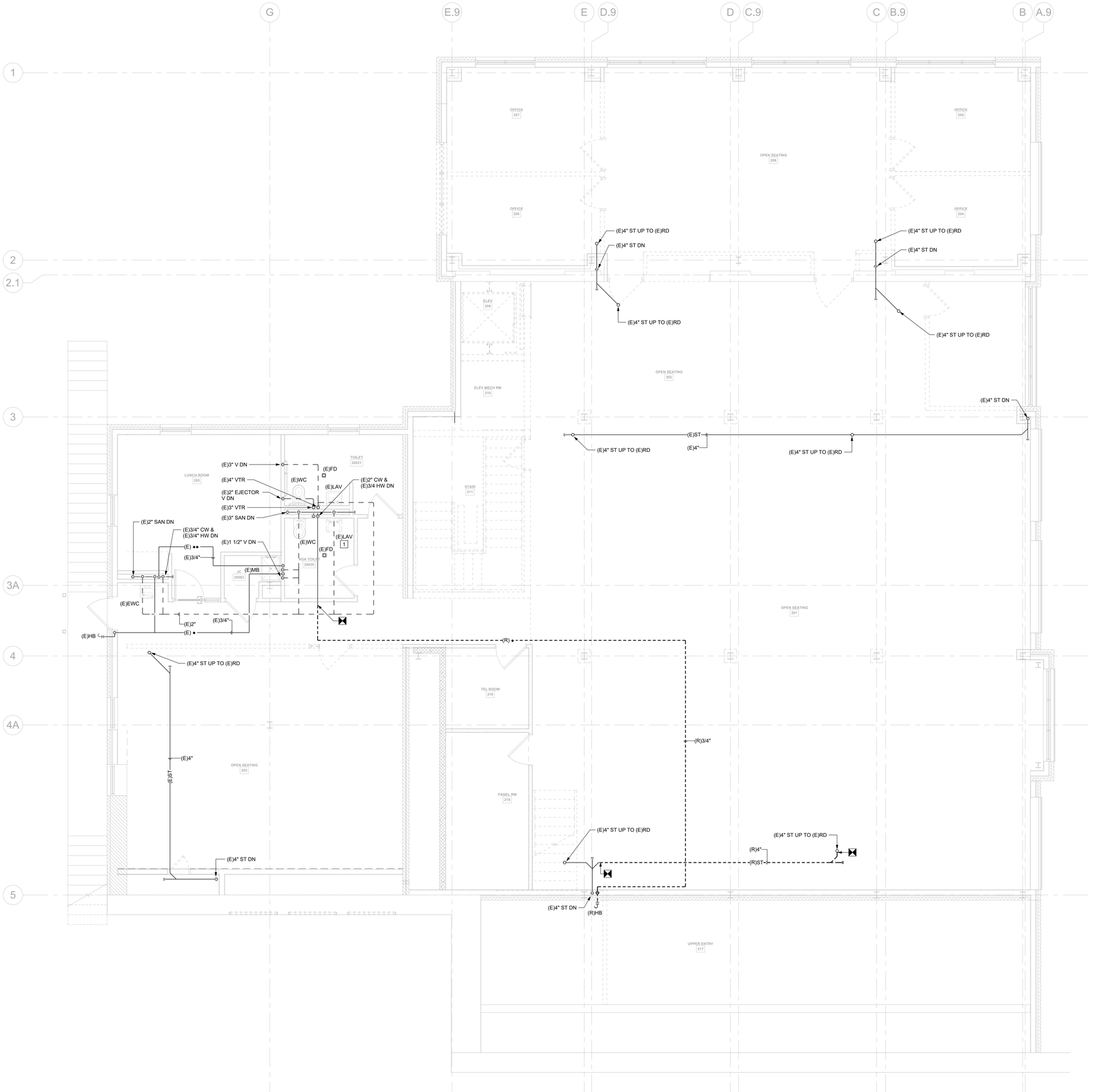
X DEMOLITION NOTES:

1 DISCONNECT LAVATORY AND PREP PIPING FOR NEW CONNECTION. EXISTING LAVATORY TO BE REINSTALLED. REFER TO NEW WORK FOR FURTHER REQUIREMENTS.



1 SECOND FLOOR DEMO PLAN - PLUMBING
1/4" = 1'-0"

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LEVEL 2 DEMOLITION PLAN - PLUMBING

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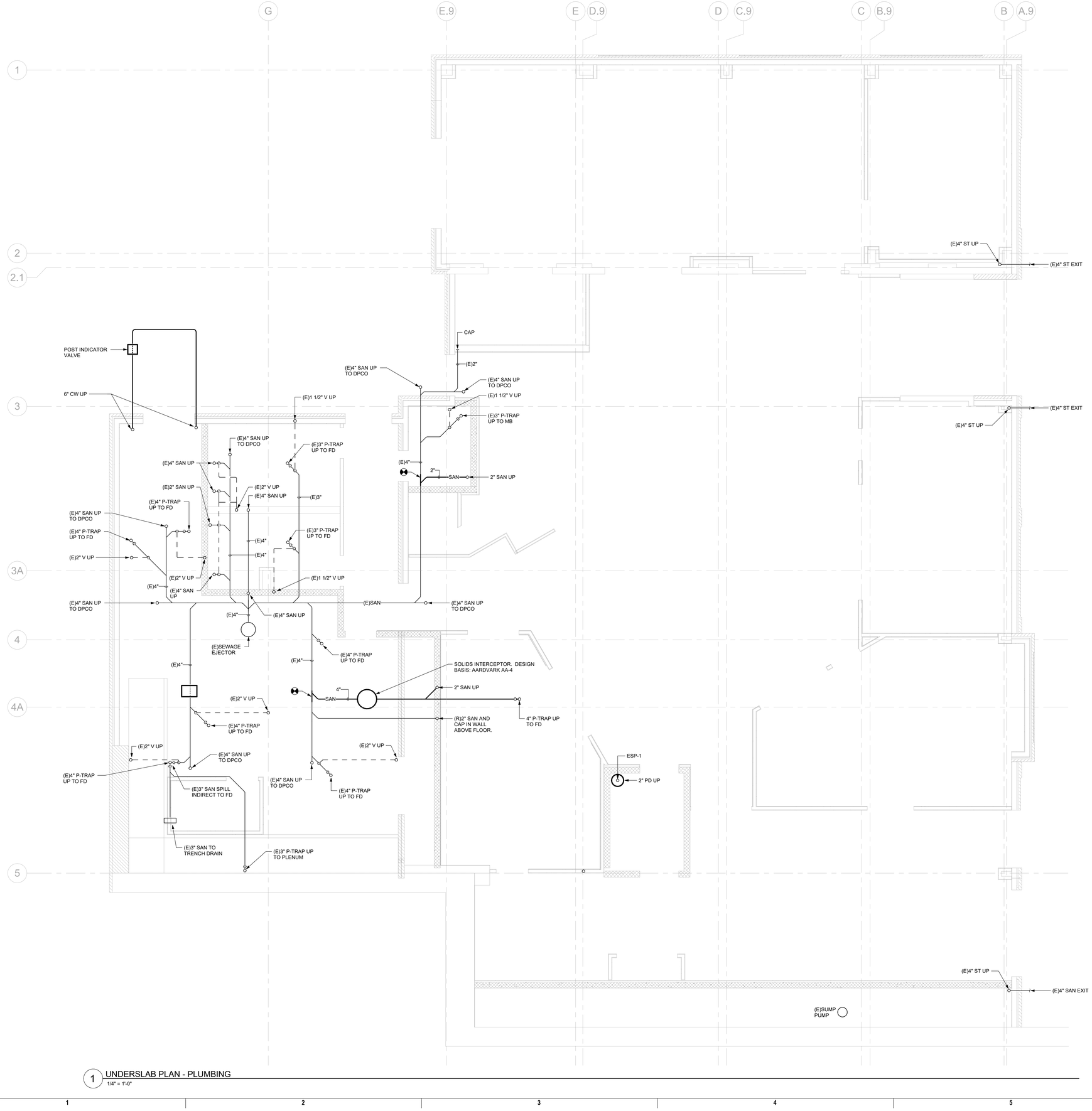

1 UNDERSLAB PLAN - PLUMBING
1/4" = 1'-0"

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UNDERSLAB PLAN - PLUMBING

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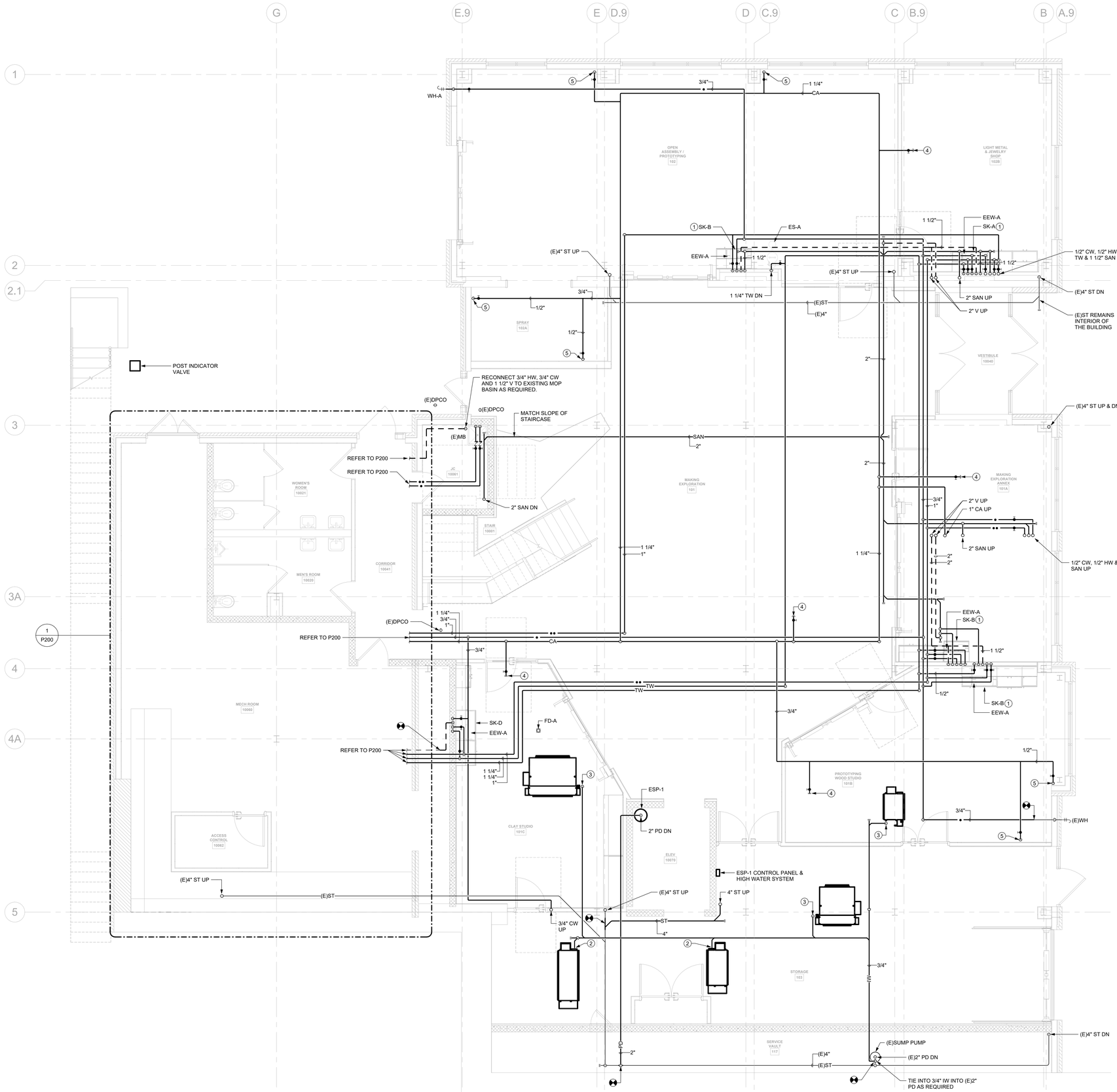

1 FIRST FLOOR PLAN - PLUMBING
1/4" = 1'-0"

ⓧ DRAWING NOTES:

1. PROVIDE PUMP UCP-1.
2. PROVIDE 3/4" IW TO HVAC EQUIPMENT.
3. PROVIDE 3/4" IW TO HVAC EQUIPMENT. PROVIDE PUMP PCP-1. REFER TO DETAIL 4 ON P400.
4. 3/4" CA TO BE CAPPED IN CEILING FOR FUTURE USE.
5. PROVIDE 1/2" CA DOWN TO FILTER REGULATOR MOUNTED 4 '-0" ABOVE FINISHED FLOOR. DESIGN BASIS: SPEED AIR 7D703 FILTER / REGULATOR. PROVIDE QUICK CONNECT FITTING AT OUTLET.

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LEVEL 1 PLAN - PLUMBING

TRUE NORTH PROJECT NORTH

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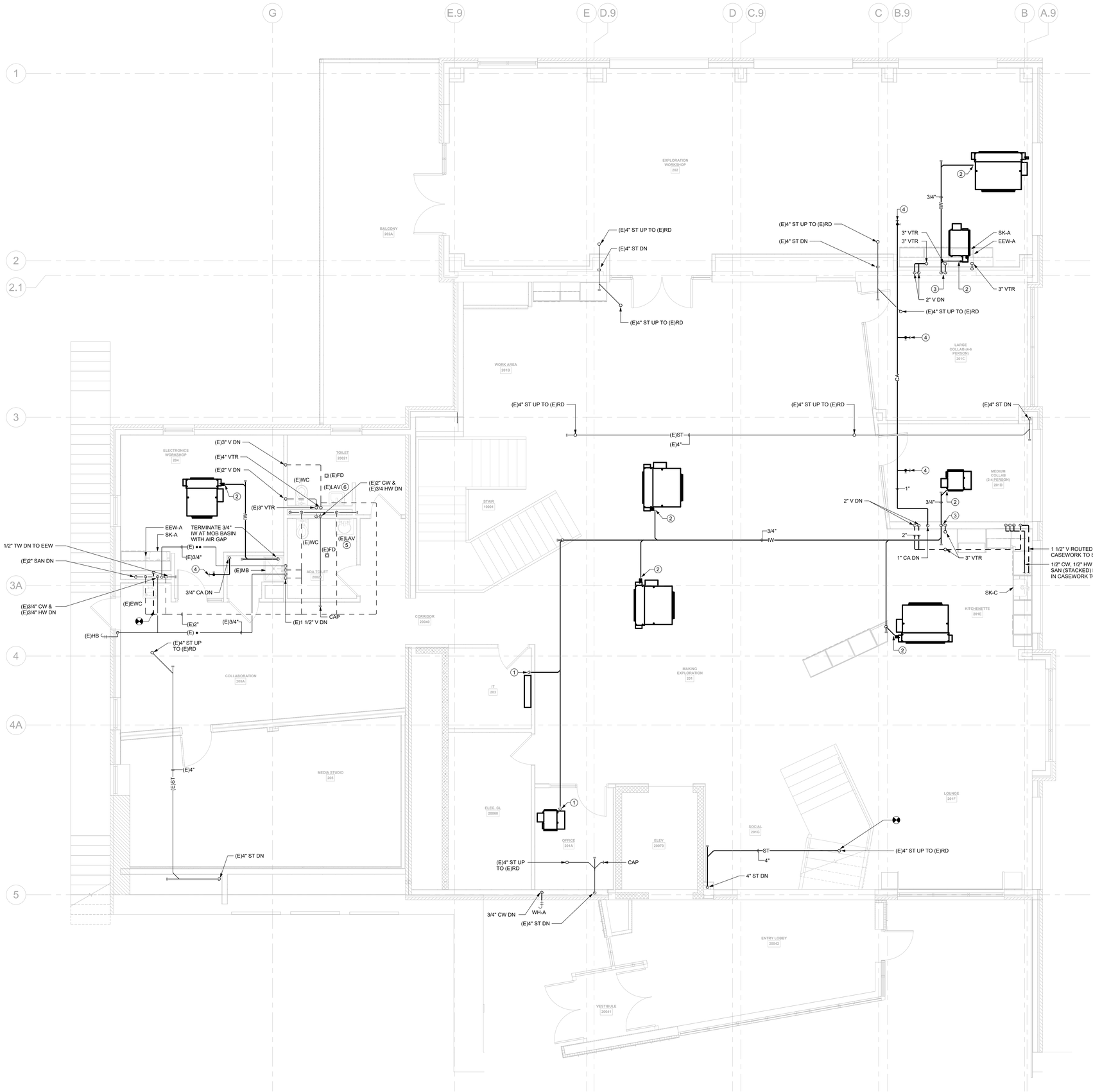

1 SECOND FLOOR PLAN - PLUMBING
1/4" = 1'-0"

ⓧ DRAWING NOTES:

1. PROVIDE 3/4" IW TO HVAC EQUIPMENT. PROVIDE PUMP PCP-1. REFER TO DETAIL 4 ON P400.
2. PROVIDE 3/4" IW TO HVAC EQUIPMENT.
3. PROVIDE INDIRECT WASTE FUNNEL. REFER TO DETAIL 11 ON P400 FOR FURTHER REQUIREMENTS.
4. 3/4" CA TO BE CAPPED IN CEILING FOR FUTURE USE.
5. REINSTALL LAVATORY TO MEET ADA STANDARDS. REVISE PIPING AS REQUIRED.
6. INSULATE PIPING BELOW EXISTING LAVATORY AS REQUIRED.

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AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

LEVEL 2 PLAN - PLUMBING

TRUE NORTH
PROJECT NORTH

P102

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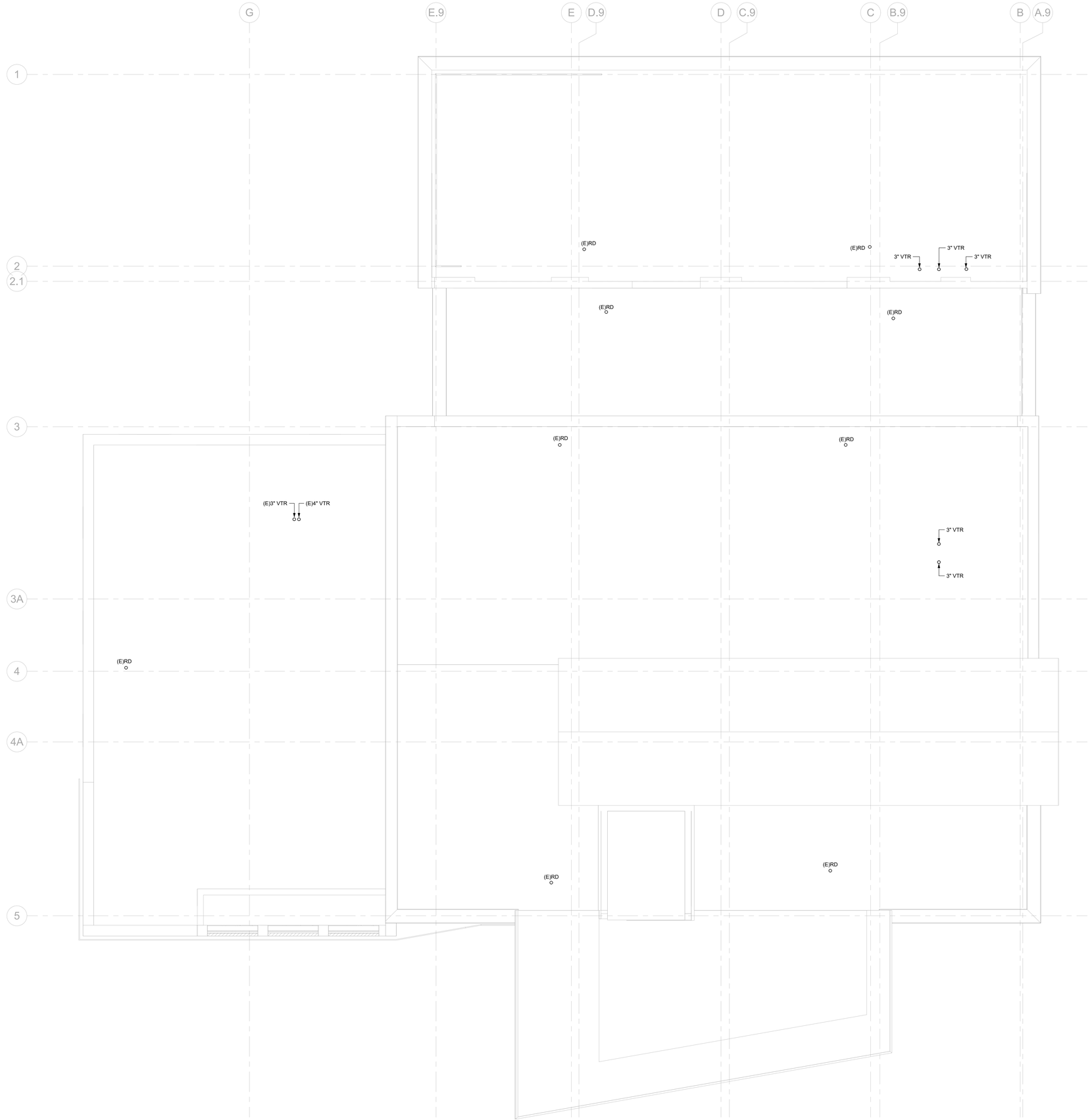

1 ROOF PLAN - PLUMBING
1/4" = 1'-0"

TRUE NORTH
PROJECT NORTH

ASHLEY MCGRAW
125 EAST JEFFERSON STREET
SYRACUSE, NEW YORK 13202

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300 TROLLEY BLVD.
ROCHESTER, NY 14607
585.288.5590
www.meengineering.com
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GARRET DANIEL DOKES
LICENSED PROFESSIONAL ENGINEER
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Reg. Exp: 04/30/2029
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CORNELL UNIVERSITY

BEEBE HALL CU MAKER HUB RENOVATIONS

110 ARBORETUM RD,
ITHACA, NY 14850

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ROOF PLAN - PLUMBING

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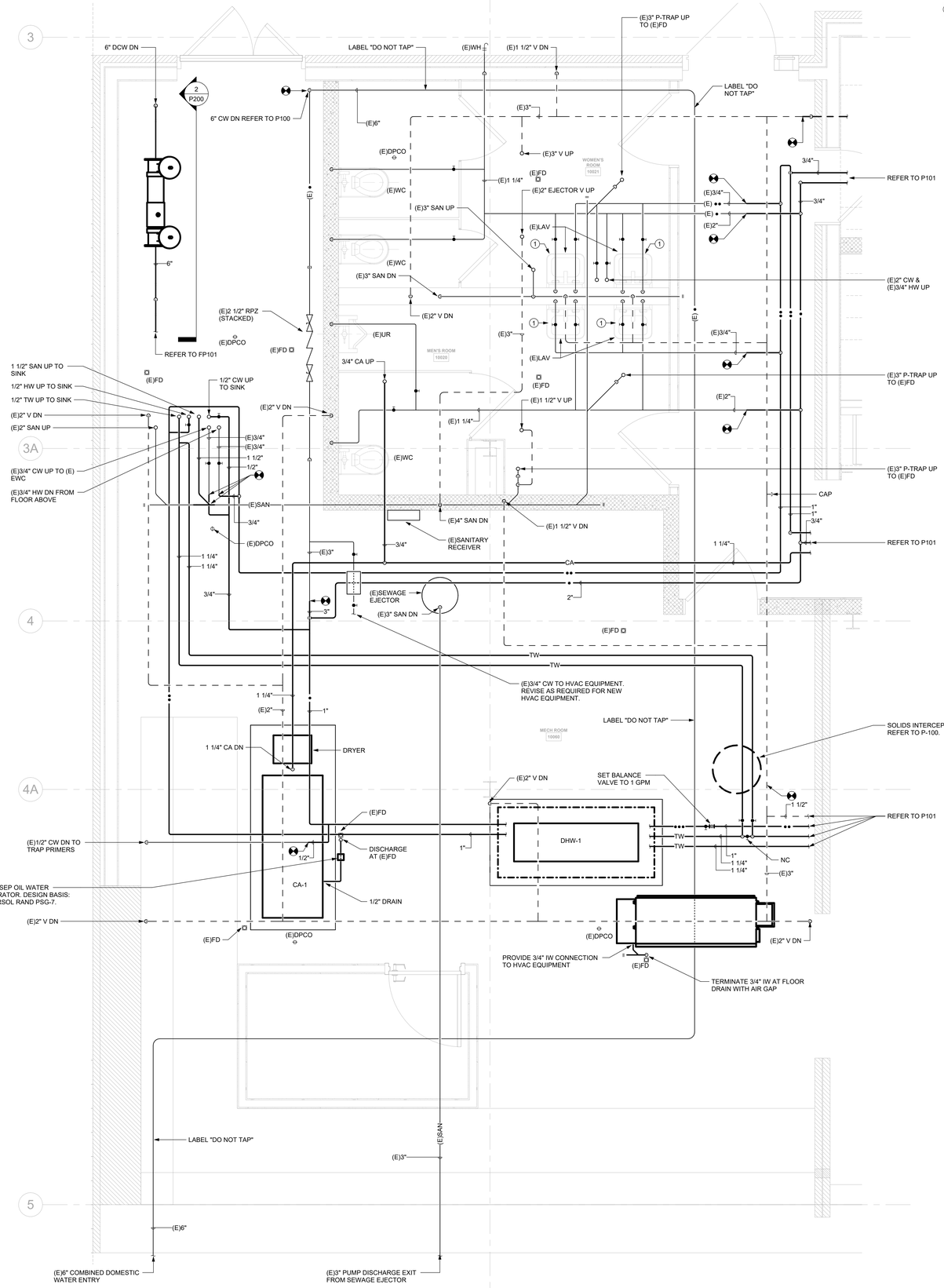
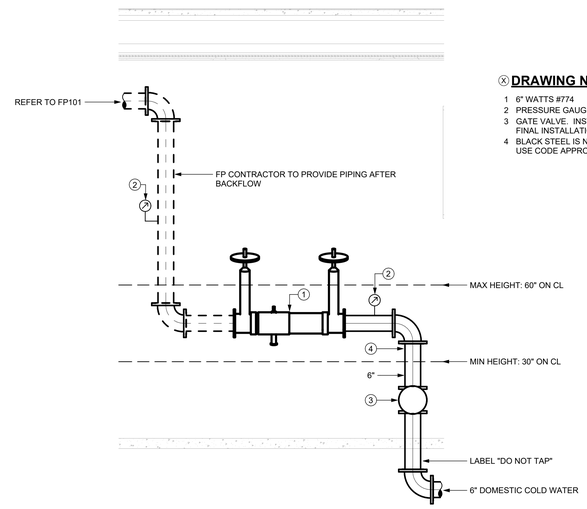
ⓧ DRAWING NOTES:

1 INSULATE PIPING BELOW EXISTING LAVATORY AS REQUIRED.



1 ENLARGED MECHANICAL ROOM - PLUMBING
1/2" = 1'-0"



ⓧ DRAWING NOTES:

1 6" WATTS #774
2 PRESSURE GAUGE
3 GATE VALVE. INSTALLED TEMPORARILY, REMOVE AS PART OF THE FINAL INSTALLATION.
4 BLACK STEEL IS NOT ALLOWED BEFORE BACKFLOW PREVENTER. USE CODE APPROVED MATERIALS PER SPECIFICATIONS.

2 FIRE PROTECTION ELEVATION
1/2" = 1'-0"

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MECHANICAL ROOM PLAN - PLUMBING

TRUE NORTH
PROJECT NORTH

P200

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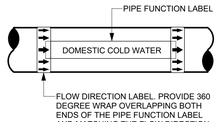


DETAIL NOTES:

A. PROVIDE A PIPE LABEL FOR EACH PIPE FUNCTION.

B. PROVIDE AT LEAST ONE LABEL ON EACH PIPE FOR EVERY ROOM THE PIPE PASSES THROUGH.

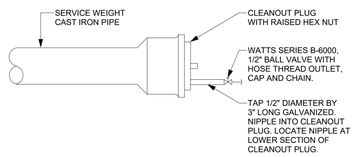
C. PROVIDE LABELS IN LARGE SPACES ON MAXIMUM 20' CENTERS FOR EVERY PIPE UNLESS OTHERWISE NOTED IN THE SPECIFICATIONS.

D. LABELS TO BE LOCATED IN AN EASILY VISIBLE LOCATION AS THEY WOULD NORMALLY BE SEEN. IE. ON THE BOTTOM HALF OF PIPES IN THE AIR AND ON THE TOP HALF OR SIDES OF PIPES MOUNTED LOW.

E. LABELS SHALL BE, COLOR CODED, PRE-PRINTED, SELF ADHESIVE VINYL.

F. SEE SPECIFICATION FOR OTHER REQUIREMENTS AND LIST OF PIPE FUNCTIONS.

1 PIPING IDENTIFICATION LABEL DETAIL
NOT TO SCALE



DETAIL NOTES:

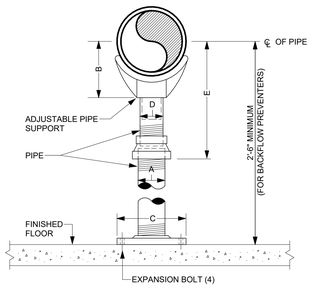
A. THE DRAIN NIPPLE AND BALL VALVE ALLOWS THE MAINTENANCE PERSONNEL/ PLUMBING CONTRACTOR TO CONNECT A HOSE TO THE BALL VALVE TO DRAIN ANY FLUID IN THE PIPING PRIOR TO REMOVING THE CLEANOUT PLUG.

B. THE ABOVE DETAIL IS APPLICABLE FOR HUB AND SPIGOT, NO-HUB AND DWV COPPER PIPING.

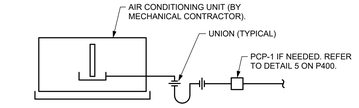
C. CLEANOUTS TO BE ACCESSIBLE. PROVIDE ACCESS PANELS IN AREAS WHERE CLEANOUTS ARE INSTALLED ABOVE DRY-WALL CEILINGS.

2 ABOVE FLOOR CLEANOUT DRAIN DETAIL
NOT TO SCALE

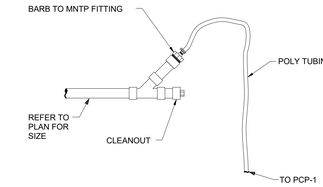
PIPE SIZE	A	B	C	D	DIMENSION E	
					MINIMUM	MAXIMUM
4"	3"	4 3/16"	9"	2 1/2"	9 1/4"	1'-2"
6"	3"	5 7/16"	9"	2 1/2"	10 1/2"	1'-3 1/4"
8"	3"	6 15/16"	9"	2 1/2"	11 3/4"	1'-4 1/2"



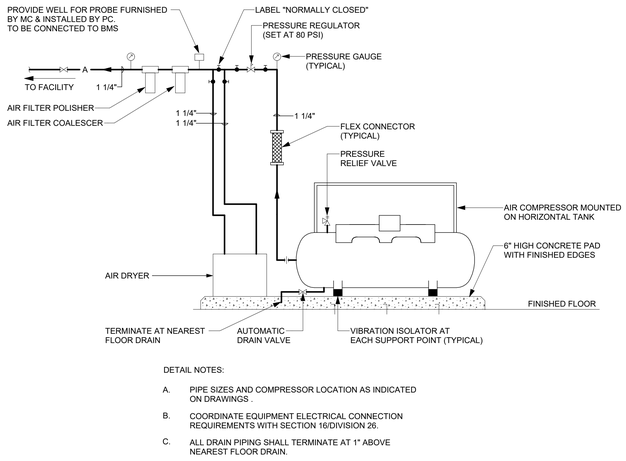
3 ADJUSTABLE PIPE SUPPORT DETAIL
NOT TO SCALE



4 CONDENSATE DRAIN DETAIL
NOT TO SCALE



5 PUMPED CONDENSATE DRAIN CONNECTION DETAIL
NOT TO SCALE



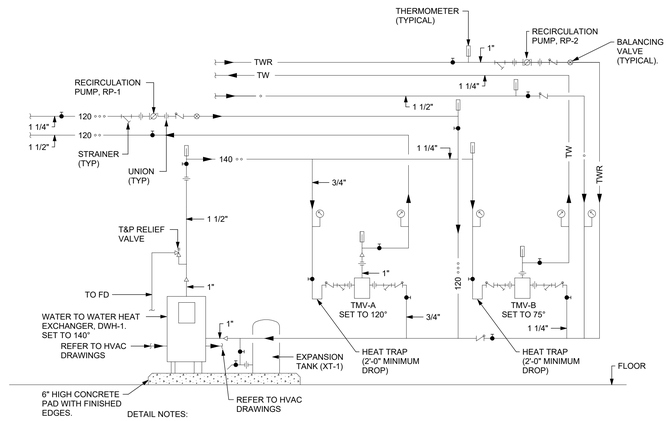
DETAIL NOTES:

A. PIPE SIZES AND COMPRESSOR LOCATION AS INDICATED ON DRAWINGS.

B. COORDINATE EQUIPMENT ELECTRICAL CONNECTION REQUIREMENTS WITH SECTION 16/DIVISION 26.

C. ALL DRAIN PIPING SHALL TERMINATE AT 1" ABOVE NEAREST FLOOR DRAIN.

6 AIR COMPRESSOR DETAIL
NOT TO SCALE



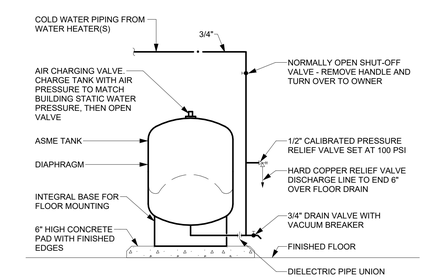
DETAIL NOTES:

A. INSTALL PIPING TO ALLOW FOR FUTURE REMOVAL OF WATER HEATER.

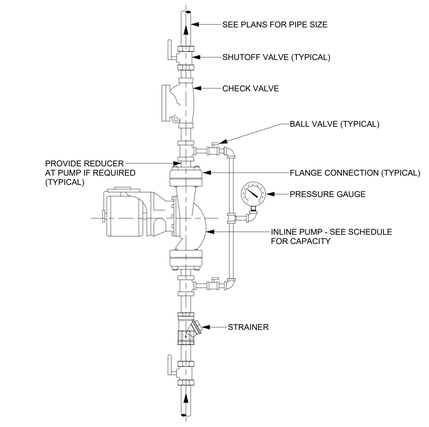
B. RELIEF VALVE DISCHARGE PIPE SIZE SHALL MATCH VALVE OUTLET SIZE - TERMINATE ABOVE FLOOR DRAIN WITH CODE REQUIRED AIR GAP.

C. REFER TO EXPANSION TANK AND CIRC PUMP DETAILS.

7 WATER HEATER DETAIL
NOT TO SCALE



8 THERMAL EXPANSION TANK DETAIL
NOT TO SCALE



DETAIL NOTES:

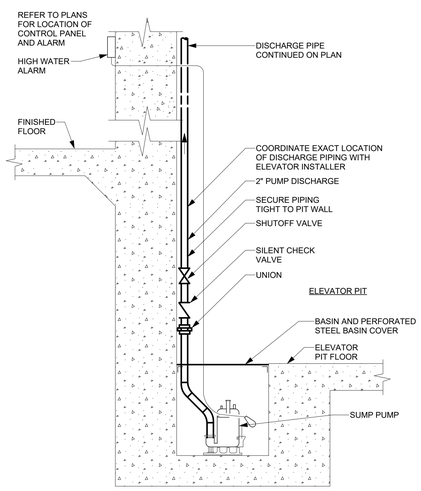
A. PRESSURE GAUGES - SELECT GAUGE RANGE TO PLACE MAXIMUM SYSTEM OPERATING PRESSURE IN MIDDLE THIRD OF RANGE.

B. PROVIDE UNION ON PUMP INLET AND OUTLET IF PUMP IS NOT FLANGED.

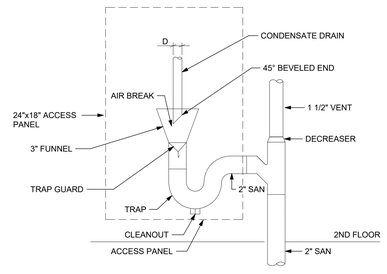
C. INSTALL PUMP WITH SHAFT HORIZONTAL. PIPING MAY BE INSTALLED VERTICAL, AS SHOWN, OR HORIZONTAL DEPENDING ON SITE CONDITIONS.

D. INSTALL CHECK VALVE HORIZONTALLY OR VERTICALLY WITH FLOW UPWARD.

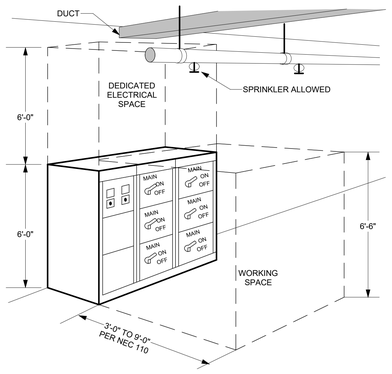
9 CIRC PUMP DETAIL
NOT TO SCALE

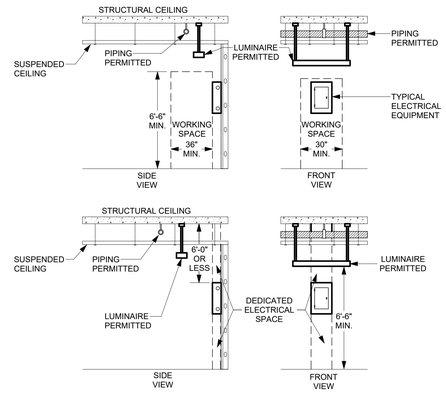


10 ELEVATOR SUMP PUMP DETAIL - BASIN IN SHAFT
NOT TO SCALE



11 INDIRECT WASTE DRAIN DETAIL
NOT TO SCALE





DETAIL NOTES:

A. ELECTRICAL EQUIPMENT INCLUDES PANELS, TRANSFORMERS, DISCONNECTS, STARTERS, MOTOR CONTROL CENTERS, SWITCHGEAR, ADJUSTABLE SPEED DRIVES, AND FUSED SWITCHES (THIS ALSO APPLIES TO ELECTRICAL GEAR MOUNTED DIRECTLY ON MECHANICAL EQUIPMENT).

B. DEDICATED ELECTRICAL SPACE IS DEFINED BY NEC 110.

C. NO PIPING OR DUCTWORK MAY BE INSTALLED IN DEDICATED ELECTRICAL SPACE OR WORKING SPACE.

12 PIPING OVER ELECTRICAL EQUIPMENT DETAIL
NOT TO SCALE

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SYRACUSE, NEW YORK 13202

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A B C D E

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HVAC SYMBOL LIST

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	EXISTING WORK TO BE REMOVED	A	COMPRESSED AIR
	POINT OF CONNECTION	V	VENT
		BBD	BOILER BLOW DOWN
	POINT OF DISCONNECTION	CS	CONDENSER WATER SUPPLY
		CR	CONDENSER WATER RETURN
X	DRAWING KEYNOTE	CWS	CHILLED WATER SUPPLY
		CWR	CHILLED WATER RETURN
X	DEMOLITION KEYNOTE	D	DRAIN
		FOF	FUEL OIL FILL
MBH	THOUSAND BTU/HOUR	FOG	FUEL OIL GAUGE
NTS	NOT TO SCALE	FOS	FUEL OIL SUPPLY
(E)	EXISTING	FOR	FUEL OIL RETURN
(L)	ACOUSTIC THERMAL LINING - 1-1/2" THICK	FOV	FUEL OIL TANK VENT
(2L)	ACOUSTIC THERMAL LINING - 2" THICK	G	GAS
(DBL)	DOUBLE WALL LINED DUCT	GHWS	GLYCOL HOT WATER SUPPLY
FPM	FEET PER MINUTE	GHWR	GLYCOL HOT WATER RETURN
CFM	CUBIC FEET PER MINUTE	GHRS	GLYCOL HEAT RECOVERY SUPPLY
AFF	ABOVE FINISHED FLOOR	GHRR	GLYCOL HEAT RECOVERY RETURN
AD	ACCESS DOOR	HWS	HOT WATER SUPPLY
W/W	WALL TO WALL	HWR	HOT WATER RETURN
G.C.	GENERAL CONTRACTOR	LPS	LOW PRESSURE STEAM
M.C.	MECHANICAL CONTRACTOR	LPC	LOW PRESSURE CONDENSATE
P.C.	PLUMBING CONTRACTOR	MPS	MEDIUM PRESSURE STEAM
E.C.	ELECTRICAL CONTRACTOR	MPC	MEDIUM PRESSURE CONDENSATE
N.O.	NORMALLY OPEN	HPS	HIGH PRESSURE STEAM
N.C.	NORMALLY CLOSED	HPC	HIGH PRESSURE CONDENSATE
	FLEXIBLE DUCTWORK	PC	PUMPED CONDENSATE
AxB FO	DUCT SECTION - FLAT OVAL (FO)	RD	REFRIGERANT DISCHARGE
		RL	REFRIGERANT LIQUID
12"	ROUND DUCT - IN INCHES	RS	REFRIGERANT SUCTION
		HG	HOT GAS
	DUCT SECTION - SUPPLY	VAC	VACUUM EXHAUST
		CW	DOMESTIC COLD WATER
	DUCT SECTION - RETURN	TD	TRIPLE DUTY VALVE
			GLOBE VALVE
A B	WIDTH A x DEPTH B		BALL VALVE
			GATE VALVE
	TRANSITION SQUARE TO ROUND		CONTROL VALVE
			THREE WAY CONTROL VALVE
R	RISE IN DUCT - IN DIRECTION OF AIRFLOW		CHECK VALVE
D	DROP IN DUCT - IN DIRECTION OF AIRFLOW		BALANCING VALVE
			BUTTERFLY VALVE
DN 24x12 UP	SUPPLY DUCT TURNING UP OR DOWN		RELIEF VALVE
		PRV	PRESSURE REDUCING VALVE
DN 24x12 UP	RETURN DUCT TURNING UP OR DOWN		PRESSURE/TEMPERATURE TEST PLUG
			SINGLE LINE PIPE CONTINUED
24x12 6" BOOT TAP 14x8	SUPPLY/RETURN RECTANGULAR MAIN RECTANGULAR BRANCH		DOUBLE LINE PIPE OR ROUND DUCT CONTINUED
			DOUBLE LINE RECTANGULAR DUCT CONTINUED
24x12 6" BOOT TAP 14"	SUPPLY/RETURN RECTANGULAR MAIN ROUND BRANCH		AIR FLOW
			PIPE ANCHOR
			PIPE GUIDE
18" CONICAL TEE 14"	SUPPLY/RETURN ROUND MAIN ROUND BRANCH		EXPANSION COMPENSATOR WITH GUIDES
			PRE-FAB EXPANSION LOOP
			STRAINER
18" LATERAL 14"	SUPPLY/RETURN ROUND MAIN ROUND BRANCH		PRESSURE GAUGE
			THERMOMETER
			UNION
		V	AIR VENT
	MITERED ELBOW WITH TURNING VANES	TT	THERMOSTATIC TRAP
		FT	FLOAT & THERMOSTATIC TRAP
		TD	THERMODYNAMIC TRAP
		BT	BUCKET TRAP
	SUPPLY DIFFUSER, REGISTER OR GRILLE		DIRECTION OF FLOW
			REDUCER
	RETURN REGISTER		CAP OR PLUG
			ELBOW DOWN
	EXHAUST GRILLE		ELBOW UP
			BOTTOM TAP
	FIN TUBE RADIATION	AAD	AUTOMATIC AIR DAMPER
	VALANCE	FD	FIRE DAMPER
		SD	SMOKE DAMPER
	RADIANT CEILING PANEL	CRD	CEILING RADIATION DAMPER
		FC	FLEX CONNECTOR - DUCTWORK
A B C	REGISTER, GRILLE OR DIFFUSER TAG A = TYPE B = NECK SIZE C = CFM	M	MOTORIZED DAMPER
		BG	BLAST GATE
			VOLUME DAMPER
		SD	SUCTION DIFFUSER
			FLEXIBLE CONNECTOR - PIPING
FT-A B C D	FIN TUBE RADIATION TAG FT-A = TYPE B = FIN TUBE LENGTH C = ENCLOSURE LENGTH D = GPM		DRAIN VALVE WITH HOSE CONNECTION, CAP AND CHAIN
		H	HUMIDISTAT
A B C	RADIANT CEILING PANEL TAG A = TYPE B = LENGTH C = GPM	S	TEMPERATURE SENSOR
		N	NITROGEN DIOXIDE SENSOR
		C	CARBON DIOXIDE SENSOR
A B C D	VALANCE TAG A = TYPE B = COIL SIZE C = COOLING GPM D = HEATING GPM	CO	CARBON MONOXIDE SENSOR
		G	GAS SENSOR
		T	PNEUMATIC THERMOSTAT
		T E	LINE VOLTAGE THERMOSTAT
VAV-X-XX	AIR TERMINAL UNIT AND TAG (OPTION 1)	T G S G	THERMOSTAT/SENSOR WITH GUARD
VAV-X-XX	AIR TERMINAL UNIT WITH FACTORY ATTENUATOR (OPTION 1)	A B C	AIR TERMINAL UNIT TAG (OPTION 2) A = UNIT NO. B = MAXIMUM CFM C = MINIMUM CFM
	LAB AIR VALVE	DSD	DUCT SMOKE DETECTOR

CONTROLS SCHEMATIC SYMBOL LIST

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
BI	BINARY INPUT (GENERAL)		SINGLE POINT SENSOR
BO	BINARY OUTPUT (GENERAL)	CT	CURRENT TRANSDUCER
AI	ANALOG INPUT (GENERAL)	I/P	ELECTRIC/PNEUMATIC TRANSDUCER
AO	ANALOG OUTPUT (GENERAL)	I/E	ELECTRONIC/ELECTRIC TRANSDUCER
	BINARY POINT		ELECTRICAL INTERFACE
	ANALOG POINT	S/S	START/STOP
BV	BINARY VALUE	O/C	OPEN/CLOSE
BI	BINARY INPUT	E/D	ENABLE/DISABLE
BO	BINARY OUTPUT		HARD WIRE INTERFACE
AV	ANALOG VALUE		PNEUMATIC CONTROL VALVE (3-WAY)
AI	ANALOG INPUT		PNEUMATIC CONTROL VALVE (2-WAY)
AO	ANALOG OUTPUT	E	ELECTRIC/ELECTRONIC CONTROL VALVE (3-WAY)
	THERMOWELL	E	ELECTRIC/ELECTRONIC CONTROL VALVE (2-WAY)
A	ALARM	S	SOLENOID VALVE
E	ELECTRIC ACTUATOR		THERMOSTATIC EXPANSION VALVE
FZ	FREEZE-STAT		AUTOMATIC AIR DAMPER (PARALLEL BLADE)
H	HUMIDIFIER		AUTOMATIC AIR DAMPER (OPPOSED BLADE)
	HUMIDIFIER DISPERSION GRID		BUTTERFLY CONTROL DAMPER
R	RELAY		PNEUMATIC ACTUATOR
S	STATUS	A	MAIN TEMPERATURE CONTROL AIR SOURCE
M	FLOW METER	EA	EXHAUST AIR
M	MOTOR	OA	OUTSIDE AIR
BTU	BTU ENERGY METER	RA	RETURN AIR
	AIR FLOW MEASURING STATION	SA	SUPPLY AIR
	AVERAGING SENSOR	F.L.	FAIL LAST
H	HUMIDITY SENSOR (DUCT MOUNTED)	F.O.	FAIL OPEN
T	TEMPERATURE SENSOR (DUCT OR PIPE MOUNTED)	SF	SUPPLY FAN
CO 2	CARBON DIOXIDE SENSOR (DUCT MOUNTED)	SC	SMOKE CONTROL FAN
CO	CARBON MONOXIDE SENSOR (DUCT MOUNTED)	RF	RETURN AIR FAN
SA S	SPACE SENSOR WITH SETPOINT ADJUSTMENT	EF	EXHAUST AIR FAN
OV S	SPACE SENSOR WITH OCCUPANCY OVERRIDE		FILTER BANK
D S	SPACE SENSOR WITH VISUAL DISPLAY		BASE MOUNTED PUMP
F S	SPACE SENSOR WITH FAN ON/OFF SWITCH		IN LINE PUMP
SA T	ROOM TEMPERATURE SENSOR WITH SETPOINT ADJUSTMENT	ASD	ADJUSTABLE SPEED DRIVE
OV T	ROOM TEMPERATURE SENSOR WITH OCCUPANCY OVERRIDE	VFD	VARIABLE FREQUENCY DRIVE
D T	ROOM TEMPERATURE SENSOR WITH VISUAL DISPLAY	C C	COOLING COIL
F T	ROOM TEMPERATURE SENSOR WITH FAN ON/OFF SWITCH	H C	HEATING COIL
OS	OCCUPANCY SENSOR	HR C	HEAT RECOVERY COIL
M	MOISTURE SENSOR	G B	GAS BURNER
	PROBE SENSOR	R134a	REFRIGERANT R134a SENSOR (WALL MOUNTED)
FS	FLOW SENSOR	HI	HIGH LEVEL SWITCH
F	FLOW SWITCH	LOW	LOW LEVEL SWITCH
ES	END SWITCH		VENTURI AIRFLOW CONTROL VALVE
S M	MANUAL SWITCH		TRANSFORMER
P	PRESSURE SWITCH	MS	MOTOR STARTER
ΔP	DIFFERENTIAL STATIC PRESSURE SWITCH	RD	ROTATION DETECTOR
ΔP	DIFFERENTIAL STATIC PRESSURE TRANSMITTER	SD	SMOKE DETECTOR
E/P	ELECTRIC/PNEUMATIC SWITCH OR RELAY	CS	CURRENT SENSOR
P/E	PNEUMATIC/ELECTRIC SWITCH OR RELAY	MOD	MODULATING
F	FLOW TRANSMITTER	SC	SPEED COMMAND
P	PRESSURE TRANSMITTER	AOM	ADDRESSABLE OUTPUT MODULE (FIRE ALARM INTERFACE)
DP	DEWPOINT SENSOR (DUCT MOUNTED)	COM	NETWORK COMMUNICATION INTERFACE POINT
SP	STATIC PRESSURE SENSOR (DUCT MOUNTED)	T	LIQUID IMMERSION TEMPERATURE SENSOR
C	CONDENSATE SENSOR	RH	RELATIVE HUMIDITY SENSOR
SIGNAL IN A AIR IN E/P SIGNAL OUT	ELECTRIC TO PNEUMATIC TRANSDUCER	FZ	LOW LIMIT TEMPERATURE SWITCH
SIGNAL IN A SIGNAL OUT	ELECTRIC TO PNEUMATIC SWITCH		

GENERAL NOTES:

A. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DISPOSE OF ALL DEMOLITION DEBRIS AND MATERIALS OFF SITE IN A PROPER LEGAL MANNER.

B. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL SHUTDOWNS OF AIR HANDLING, CHILLED WATER, HOT WATER, STEAM, ETC. SYSTEMS WITH CORNELL UNIVERSITY FACILITY PERSONNEL FOR TIE-IN CONNECTIONS. THE CONTRACTOR SHALL ASSIST THE UNIVERSITY PERSONNEL IN SHUTTING DOWN, DRAINING, VENTING, ETC. OF SYSTEM TO FACILITATE THE INTENDED WORK.

C. DAMAGE TO EXISTING SYSTEMS (EQUIPMENT, PIPING, DUCTWORK, CONTROLS AND ACCESSORIES) SHOWN TO REMAIN AS A RESULT OF THE CONTRACTORS WORK IS THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AND/OR REPLACE WITH SIMILAR OR LIKE MATERIALS AT NO ADDITIONAL COST TO THE OWNER.

D. THE DEMOLITION DRAWINGS SHOWN IN GENERAL MAJOR EQUIPMENT, PIPING AND DUCTWORK REMOVALS. THE INTENT IS NOT TO IDENTIFY ALL MISCELLANEOUS PIPING, PIPING ACCESSORIES, DUCTWORK, DUCTWORK ACCESSORIES, SUPPORTS, CONTROLS, CONTROL ACCESSORIES, CONTROL WIRING, CONDUIT, AND CONTROL PNEUMATIC TUBING AND ACCESSORIES TO BE DISCONNECTED AND REMOVED BUT IS THE REQUIREMENTS UNDER THIS CONTRACT. NO EQUIPMENT, PIPING OR DUCTWORK SHALL BE ABANDONED IN PLACE UNLESS OTHERWISE NOTED ON THE DRAWINGS.

E. EXISTING CONDITIONS ARE TAKEN FROM FIELD OBSERVATIONS AND PRIOR CONSTRUCTION DOCUMENTS AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BID. NO ALLOWANCE WILL BE MADE FOR ADDITIONAL COSTS DUE TO CONTRACTORS FAILURE TO VERIFY EXISTING CONDITIONS AND DIMENSIONS.

F. ALL WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN PIPING AND DUCTS (INCLUDING DIVIDED DUCTS) AND TRANSITIONS AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

G. VERIFY ALL EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS. VERIFY AND PROVIDE DUCT TRANSITIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND ALL DIMENSIONS BEFORE FABRICATION.

H. ALL MATERIAL AND EQUIPMENT SHALL BE NEW.

I. INSTALL ALL EQUIPMENT PER MANUFACTURER'S INSTRUCTION AND LOCAL, STATE, AND NATIONAL CODES.

J. MECHANICAL CONTRACTOR SHALL PROVIDE ALL PENETRATIONS THROUGH WALLS, FLOORS AND ROOFS NECESSARY FOR INSTALLATION OF MECHANICAL SYSTEMS. DO NOT DRILL, CORE OR CUT ANY PORTION OF COLUMNS, BEAMS, JOISTS OR BRIDGING RIBS.

K. IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW ALL AIR VENTS OR DRAINS FOR THE INSTALLATION OF THE PIPING SYSTEMS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AIR VENTS AT ALL SYSTEM HIGH POINTS AND AT AREAS WITHIN THE PIPING SYSTEMS THAT COULD ACCUMULATE OR TRAP AIR PREVENTING PROPER OPERATION OF THE SYSTEMS. DRAINS SHALL BE PROVIDED AT ALL LOW POINTS WITHIN THE PIPING SYSTEMS TO FACILITATE DRAINING OF THE SYSTEM COMPLETELY.

L. THE DUCTWORK SIZES AND TYPES (ROUND, FLAT OVAL AND RECTANGULAR) WERE SELECTED FOR WITHIN THE BUILDING. IN ADDITION, THE DUCTWORK SIZES AND TYPES WERE CHOSEN TO ALLOW SPACE ABOVE THE CEILINGS FOR FUTURE DUCTWORK, PIPING AND/OR CONDUIT. IT IS NOT ACCEPTABLE FOR THE CONTRACTOR TO CHANGE THE SIZE OR TYPE OF DUCTWORK FOR BIDDING OR INSTALLATION UNLESS SPECIFICALLY APPROVED BY THE ENGINEER.

M. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE LOCATIONS OF ALL ROOM TEMPERATURE SENSORS WITH THE ARCHITECT/ENGINEER. THE CONTRACTOR SHALL SCHEDULE A WALK THROUGH WITH THE ARCHITECT/ENGINEER TO LOCATE SENSOR LOCATIONS PRIOR TO INSTALLATION. THE TEMPERATURE SENSORS SHALL BE INSTALLED IN ALIGNMENT WITH ELECTRICAL, FIRE, AND OTHER DEVICES WHEN LOCATED ON COMMON WALLS. THE MOUNTING HEIGHT FOR ALL TEMPERATURE SENSORS SHALL BE 3'-10" TO CENTERLINE OF DEVICE.

N. ALL PENETRATIONS THROUGH WALLS, FLOORS AND ROOFS SHALL BE PROVIDED FOR INSTALLATION OF MECHANICAL SYSTEMS INCLUDING, BUT NOT LIMITED TO, EQUIPMENT, DUCTWORK, PIPING, ETC. ALL PENETRATIONS THROUGH RATED WALLS AND FLOORS SHALL BE FIRE/SMOKE STOPPED. ALL PENETRATIONS THROUGH NON RATED WALLS SHALL BE SEALED WITH A NON-HARDENING SEALANT ON BOTH SIDES OF WALL PENETRATION TO REDUCE NOISE TRANSMISSION.

O. THE CONTRACTOR SHALL PROVIDE MINIMUM 16x16 ACCESS DOORS WITHIN GYPSUM CEILINGS, GYPSUM WALLS AND MASONRY WALLS AT FIRE DAMPERS, SMOKE DAMPERS, COMBINATION FIRE/SMOKE DAMPERS TO ALLOW FULL ACCESS TO DUCTWORK MOUNTED ACCESS DOORS FOR SERVICING THE DAMPERS. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR CEILING AND WALL CONSTRUCTION TYPES AND RATING REQUIREMENTS FOR SELECTION OF ACCESS DOOR TYPES. REFER TO SPECIFICATIONS FOR ACCESS DOOR REQUIREMENTS. AT SMOKE DAMPER AND COMBINATION FIRE/SMOKE DAMPER INSTALLATIONS, THE CONTRACTOR SHALL PROVIDE A MINIMUM 16x16 ACCESS DOOR AT THE DUCT MOUNTED SMOKE DETECTORS.

P. PROVIDE A VOLUME DAMPER AT EACH DIFFUSER AND GRILLE FOR PROPER BALANCING REGARDLESS IF SHOWN ON DRAWINGS. ALL VOLUME DAMPERS SHALL BE INSTALLED AT THE MAIN BRANCH TAKEOFF WITH A MINIMUM OF 6'-0" FROM DIFFUSER OR GRILLE CONNECTION. IF FLEXIBLE DUCTWORK IS UTILIZED FOR FINAL CONNECTION AT GRILLES, THE CROSS SECTIONAL AREA OF THE FLEXIBLE DUCTWORK SHALL NOT BE LESS THAN THE CROSS SECTIONAL AREA OF THE GRILLE NECK. REFER TO DRAWING DETAILS FOR FURTHER REQUIREMENTS.

Q. PROVIDE A MINIMUM OF THREE DUCTWORK DIAMETERS OF STRAIGHT DUCT UPSTREAM OF ALL AIR TERMINAL UNITS FOR PROPER FLOW MEASURING AT FLOW SENSOR. A MINIMUM OF 1'-6" SHALL BE PROVIDED IN FRONT OF CONTROL ACCESS ENCLOSURES AT ALL TERMINAL UNITS. NO PIPING OR CONDUIT SHALL BE DIRECTLY INSTALLED BELOW AIR TERMINAL UNIT ACCESS ENCLOSURES THAT WILL PROHIBIT ACCESS UP TO THE CONTROL ENCLOSURE. COORDINATE THESE REQUIREMENTS WITH ALL OTHER TRADES ON THE PROJECT. IF PROPER SERVICE ACCESS IS NOT MAINTAINED BECAUSE OF POOR COORDINATION, THE CONTRACTOR SHALL RELOCATE OBSTRUCTIONS AT NO ADDITIONAL COST.

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AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

GENERAL NOTES AND SYMBOLS LIST - HVAC

M000

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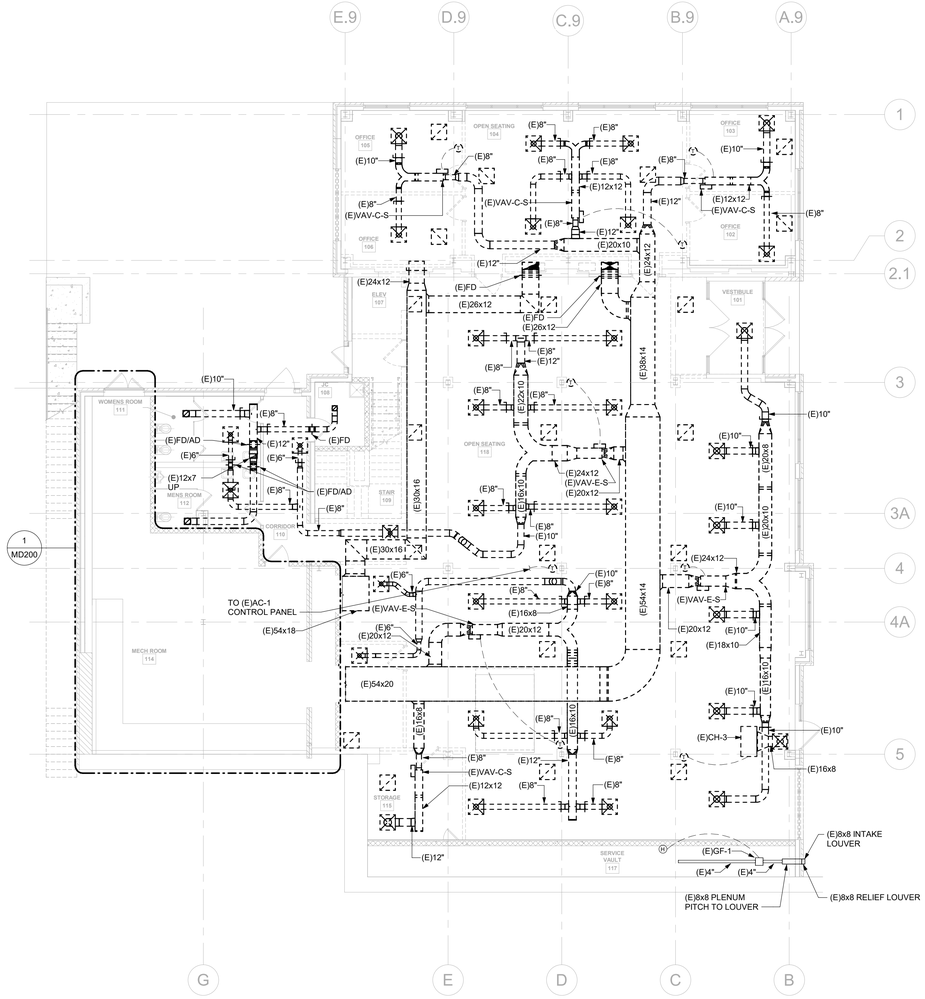
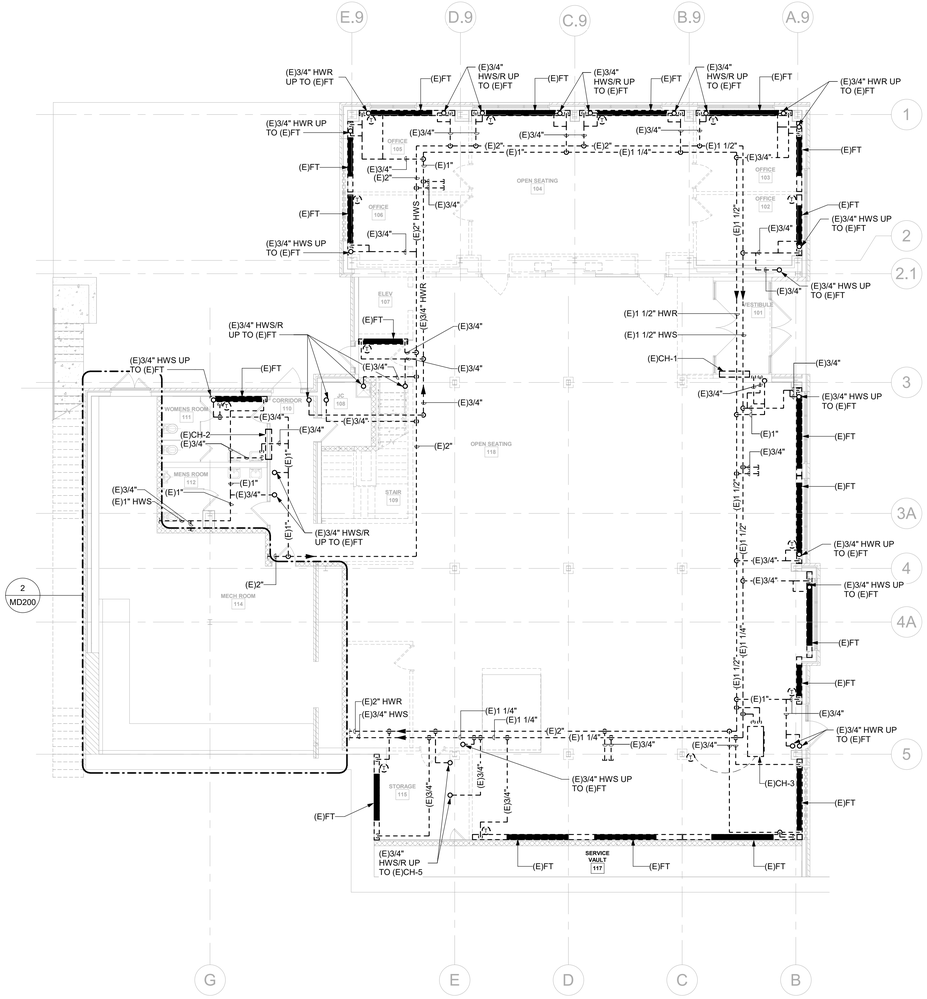
GENERAL NOTES:

A. UNLESS INDICATED OTHERWISE ON PLANS, DISCONNECT AND REMOVE ALL EXISTING MECHANICAL SYSTEMS WITHIN BEEBE HALL.



1 DEMOLITION PLAN - OVERALL - LEVEL 01 - DUCTWORK
1/8" = 1'-0"


E.9
D.9
C.9
B.9
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1
2
2.1
3
3A
4
4A
5
G
E
D
C
B
OFFICE 105
OPEN SEATING 104
OFFICE 103
OFFICE 106
OFFICE 102
ELEV 107
VESTIBULE 101
WOMENS ROOM 111
MENS ROOM 112
CORRIDOR 110
STAIR 109
MECH ROOM 114
STORAGE 115
SERVICE VAULT 117
(E)3/4" HWR UP TO (E)FT
(E)3/4" HWS/R UP TO (E)FT
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(E)3/4" HWS UP TO (E)FT
(E)3/4" HWS/R UP TO (E)FT
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(E)3/4" HWS

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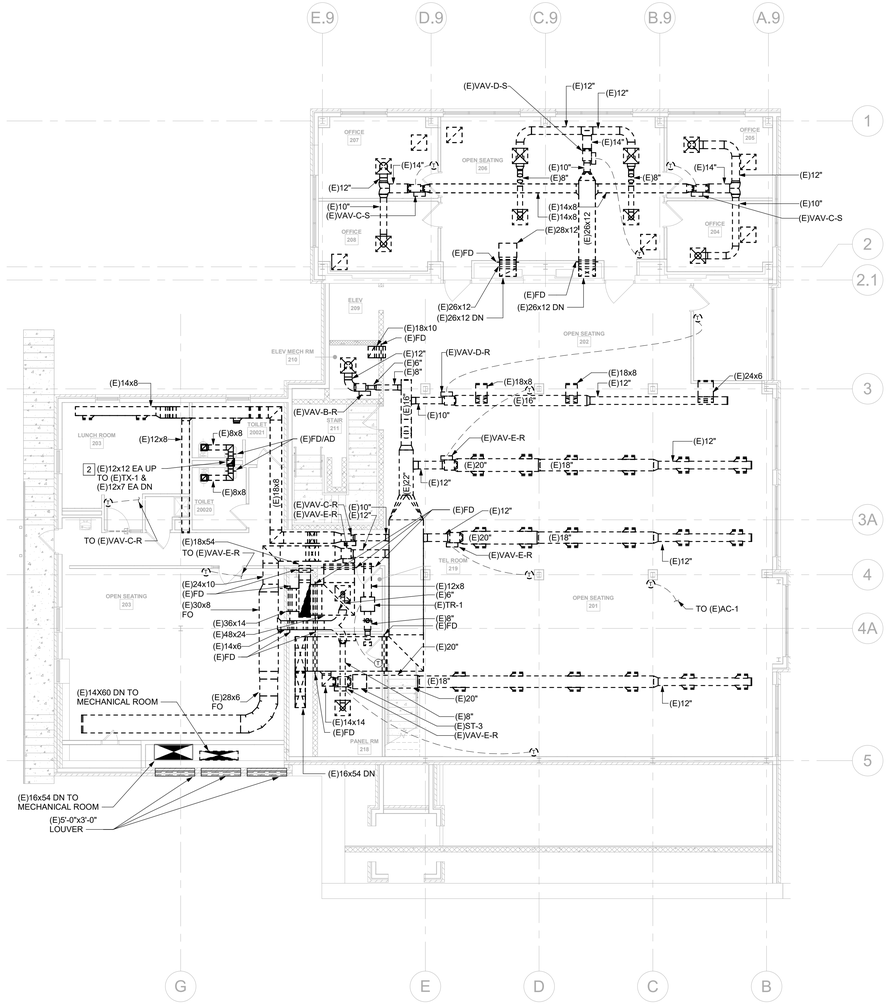
GENERAL NOTES:

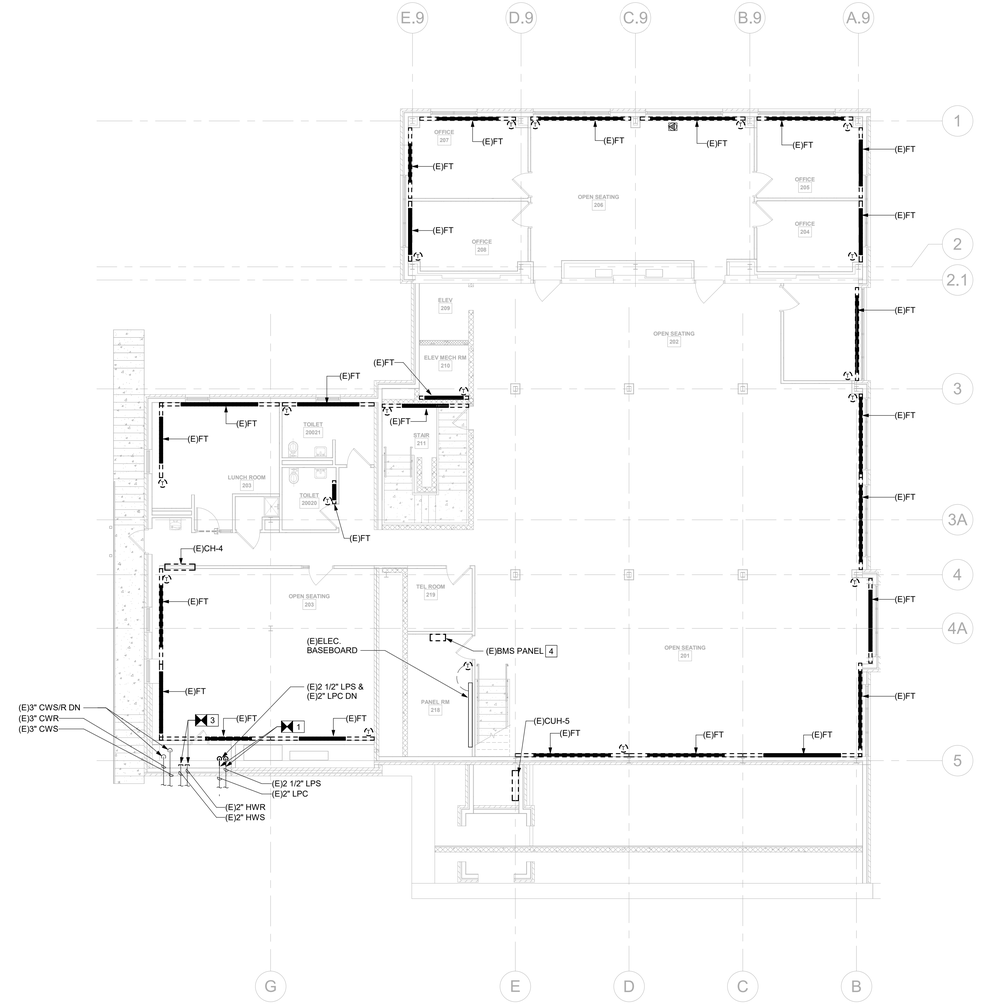
A. UNLESS INDICATED OTHERWISE ON PLANS, DISCONNECT AND REMOVE ALL EXISTING MECHANICAL SYSTEMS WITHIN BEEBE HALL.

X DEMOLITION NOTES:

1. DISCONNECT AND REMOVE EXISTING PIPING AND ACCESSORIES BACK TO INDICATED POINT. CAP PIPING.
2. DISCONNECT AND REMOVE EXISTING FAN ON ROOF AND ALL ASSOCIATED CONTROLS. REMOVE DUCTWORK AS NOTED.
3. DISCONNECT AND REMOVE EXISTING PIPING AND ACCESSORIES BACK TO INDICATED POINT. PREP FOR NEW CONNECTION.
4. DISCONNECT ALL EXISTING CONTROL WIRING AND REMOVE EXISTING BMS PANEL.



1 DEMOLITION PLAN - OVERALL - LEVEL 02 - DUCTWORK
1/8" = 1'-0"



2 DEMOLITION PLAN - OVERALL - LEVEL 02 - PIPING
1/8" = 1'-0"

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DEMOLITION PLANS - LEVEL 02 - HVAC

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GENERAL NOTES:

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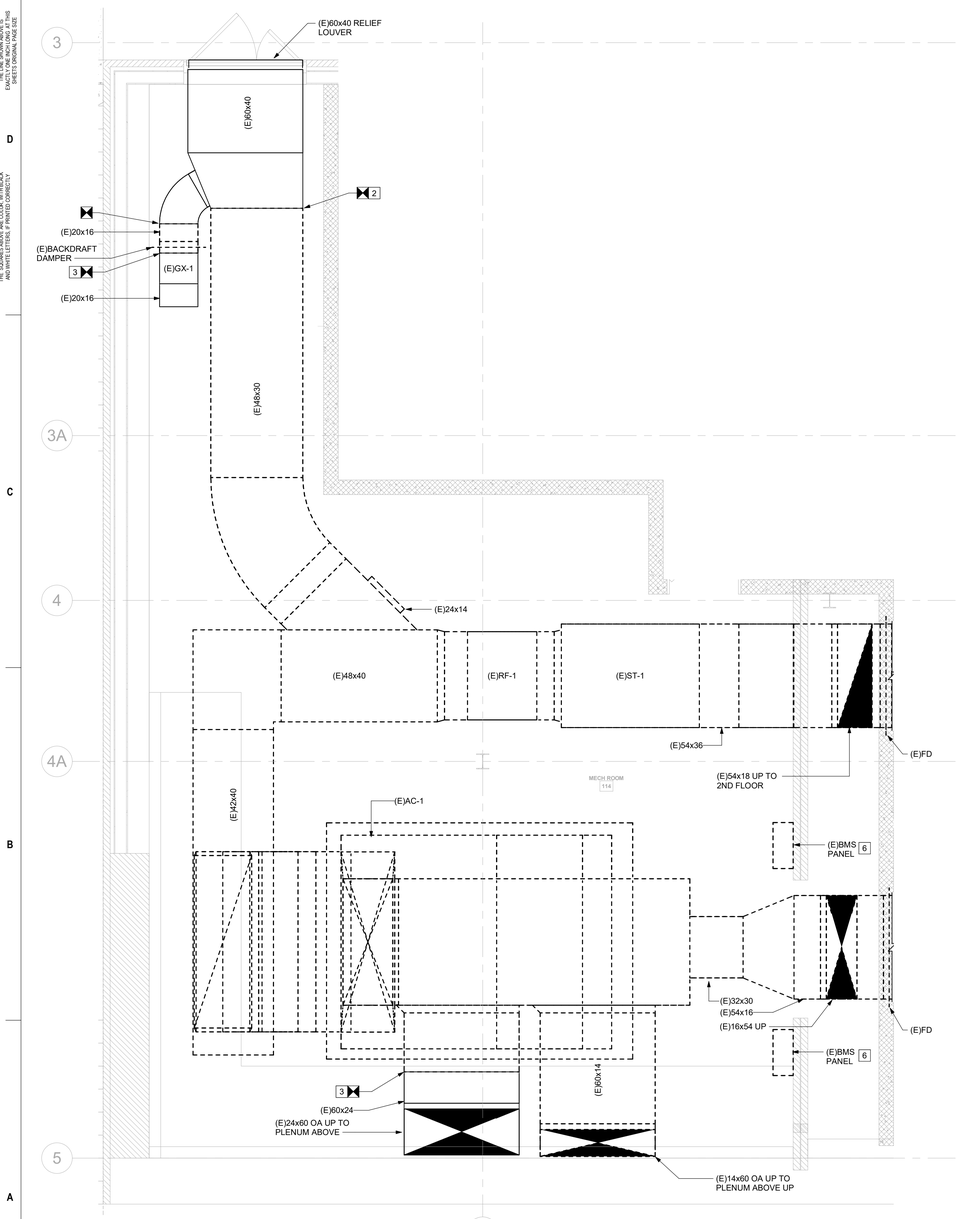
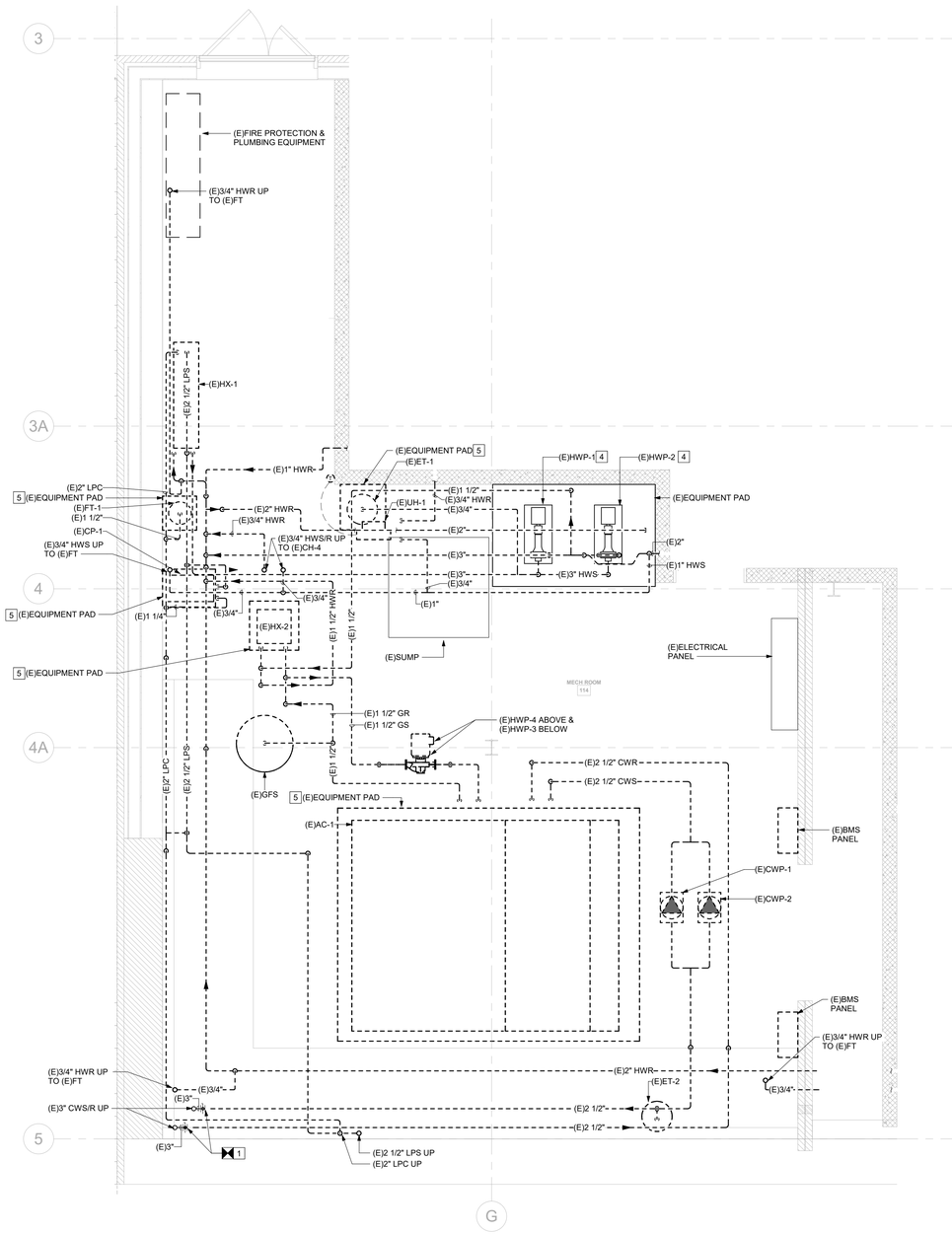
[X] DEMOLITION NOTES:

1 DISCONNECT AND REMOVE EXISTING PIPING AND ACCESSORIES BACK TO INDICATED POINT. PREP CONNECTION TO NEW.
2 DISCONNECT AND REMOVE EXISTING DUCTWORK AND ACCESSORIES BACK TO INDICATED POINT. CAP DUCTWORK.
3 DISCONNECT AND REMOVE EXISTING DUCTWORK AND ACCESSORIES BACK TO INDICATED POINT. PREP FOR NEW CONNECTION.
4 EXISTING PUMPS HWP-1 AND HWP-2 TO BE REUSED AND RELOCATED DURING CONSTRUCTION PHASE.
5 REMOVE EXISTING EQUIPMENT PAD AND REPAIR FLOOR AS REQUIRED.
6 DISCONNECT ALL EXISTING CONTROL WIRING AND REMOVE EXISTING BMS PANEL.



1 DEMOLITION PLAN - ENLARGED MECHANICAL ROOM - DUCTWORK
3/8" = 1'-0"



2 DEMOLITION PLAN - ENLARGED MECHANICAL ROOM - PIPING
3/8" = 1'-0"

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ENLARGED MECHANICAL ROOM DEMOLITION PLANS - HVAC

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MD200

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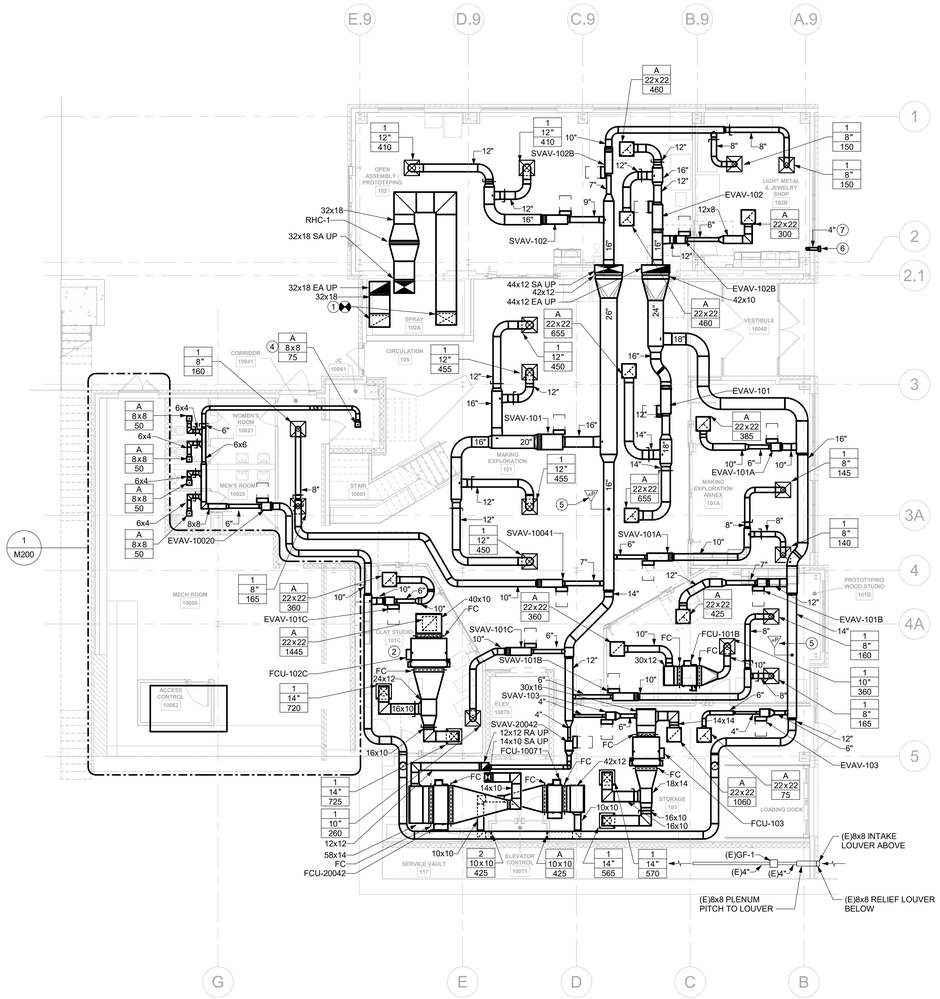
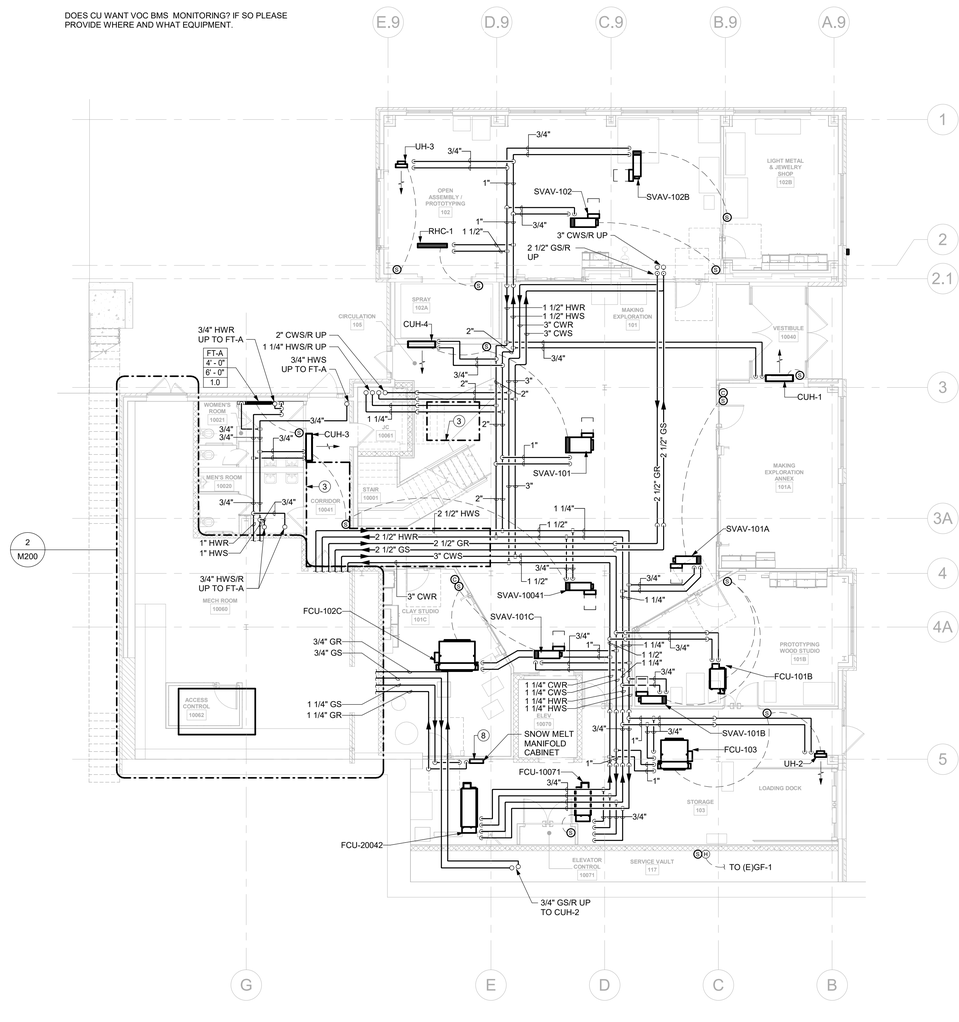
ⓧ DRAWING NOTES:

1 PROVIDE DUCTWORK CONNECTION TO SPRAY BOOTH. SEE MANUFACTURER'S INSTALLATION DOCUMENTS FOR CONNECTION REQUIREMENTS.
2 KILN VENTILATION KIT PROVIDED BY OWNER. CONTRACTOR TO INSTALL PER MANUFACTURER'S RECOMMENDATIONS. SEE M200 FOR KILN VENTING DUCTWORK.
3 LIGHTING CONTROLS SHALL BE TIED INTO THE BACS. ALL CONTROL WIRING AND BACS COMPONENTS FROM THE ELECTRICAL COMPONENTS (LIGHTS, SENSORS, SWITCHES) TO THE BACS CONTROL PANEL SHALL BE BY DIVISION 23. REFER TO THE E-SERIES DRAWINGS FOR LIGHTING CONTROL REQUIREMENT AND M-SERIES CONTROL SCHEMATICS FOR FURTHER INFORMATION.
4 PROVIDE CEILING RADIATION DAMPER. REFER TO SPECIFICATIONS.
5 PROVIDE STATIC PRESSURE SENSOR FOR AHU-1 IN LOCATION SHOWN.
6 PROVIDE WALL BROAN WALL CAP MODEL 88SNS. ARCHITECT TO SELECT PAINT COLOR.
7 PROVIDE 4" ALUMINUM DRYER EXHAUST DUCT TO OWNER PROVIDED GLASS KILN VENT MASTER SYSTEM FAN. SEE MANUFACTURER'S MANUAL FOR INSTALLATION INSTRUCTIONS.
8 SNOWMELT TUBING TO RUN UP WALL AND IN SLAB ABOVE.

DOES CU WANT VOC BMS MONITORING? IF SO PLEASE PROVIDE WHERE AND WHAT EQUIPMENT.



1 FLOOR PLAN - OVERALL - LEVEL 01 - DUCTWORK
1/8" = 1'-0"



2 FLOOR PLAN - OVERALL - LEVEL 01 - PIPING
1/8" = 1'-0"

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FLOOR PLANS - LEVEL 01 - HVAC

M101

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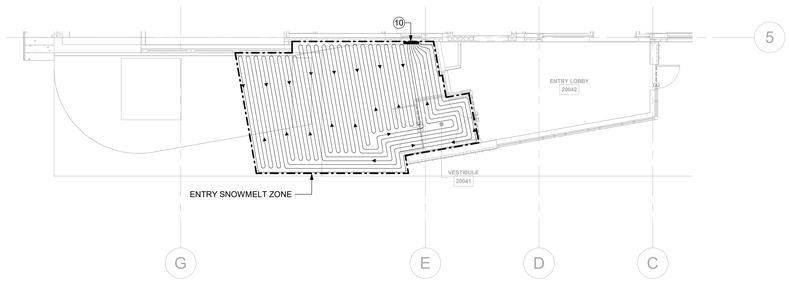
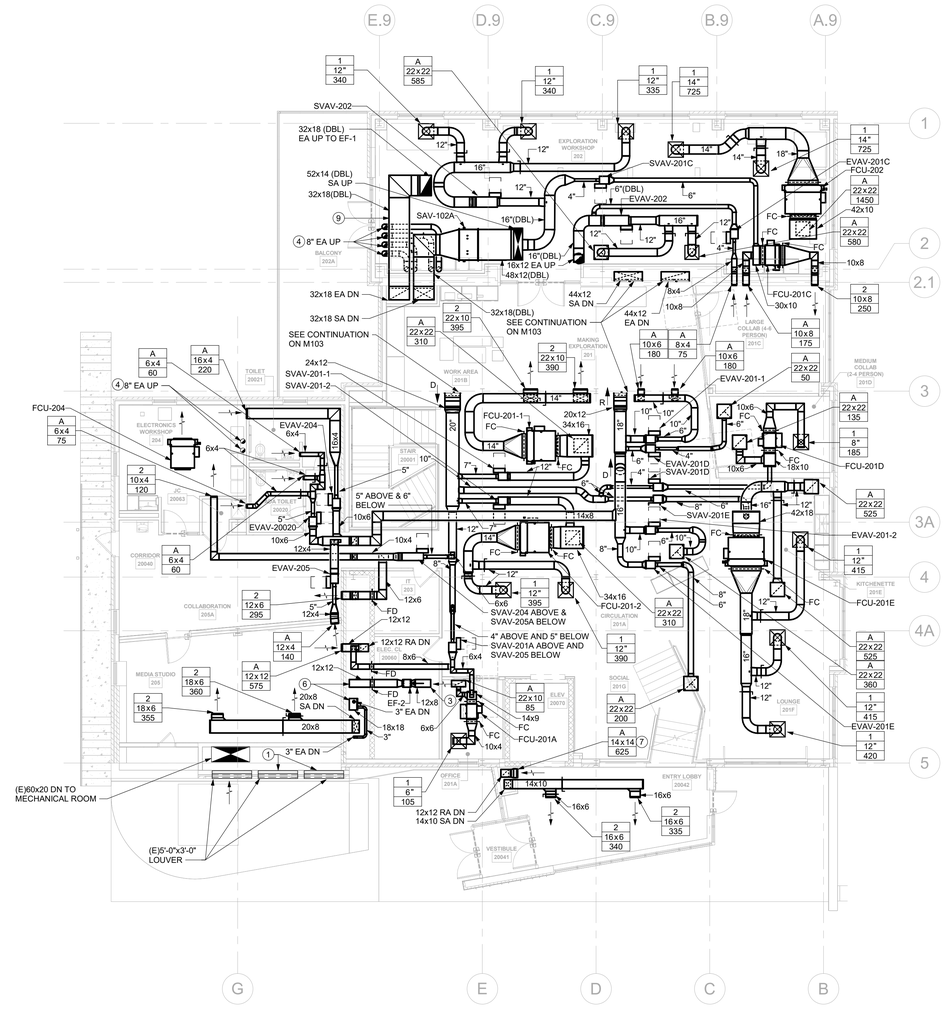
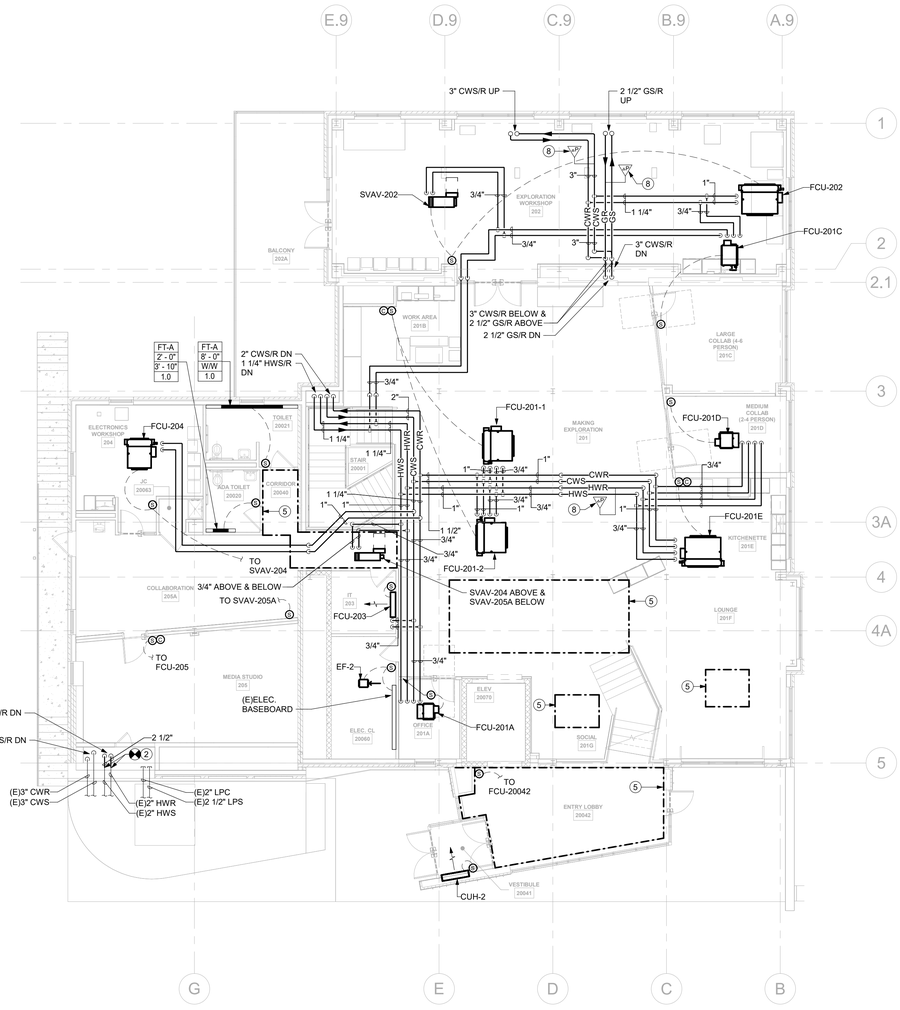


3 BUILDING ENTRY SNOWMELT ZONE TUBING LAYOUT
1/8" = 1'-0"



1 FLOOR PLAN - OVERALL - LEVEL 02 - DUCTWORK
1/8" = 1'-0"



2 FLOOR PLAN - OVERALL - LEVEL 02 - PIPING
1/8" = 1'-0"

DRAWING NOTES:

1. CAP AND PROVIDE 2" INSULATION BLANK-OFF PANEL ON THE INSIDE OF LOUVER. SEAL AIR AND WATER TIGHT. SEE ARCHITECTURAL DRAWINGS.
2. TIE PIPING INTO EXISTING. PROVIDE ALL PIPING MODIFICATIONS AS REQUIRED TO MAKE THE CONNECTION. REFER TO PIPING SCHEMATIC ON M400 FOR FURTHER INFORMATION.
3. PROVIDE WIRE MESH AT OPEN ENDED DUCT.
4. PROVIDE CONNECTION TO 3D PRINTER SMOKE PURIFIER. REFER TO DETAIL ON M600 AND MANUFACTURER'S INSTALLATION MANUAL.
5. LIGHTING CONTROLS SHALL BE TIED INTO THE BACS. ALL CONTROL WIRING AND BACS COMPONENTS FROM THE ELECTRICAL COMPONENTS (LIGHTS, SENSORS, SWITCHES) TO THE BACS CONTROL PANEL SHALL BE BY DIVISION 23. REFER TO THE E-SERIES DRAWINGS FOR LIGHTING CONTROL REQUIREMENT AND M-SERIES CONTROL SCHEMATICS FOR FURTHER INFORMATION.
6. PROVIDE EXHAUST DUCTWORK CONNECTION TO LOUVER. PROVIDE ALL DUCTWORK MODIFICATIONS AS REQUIRED TO MAKE THE CONNECTION. SEE M103 FOR LOCATION OF LOUVER.
7. PROVIDE ONE RETURN GRILLE 12" ABOVE FINISHED FLOOR.
8. PROVIDE DIFFERENTIAL PRESSURE TRANSMITTER IN LOCATION SHOWN.
9. COORDINATE WITH FIRE PROTECTION CONTRACTOR FOR LOCATIONS OF FIRE PROTECTION HEADS IN EXHAUST DUCTWORK. PROVIDE 12" X 12" ACCESS PANEL AT EACH HEAD LOCATION.
10. SNOWMELT MANIFOLD CABINET LOCATED ON FLOOR BELOW. SHOWN TO INDICATE WHERE TUBING PENETRATES SLAB FROM LEVEL BELOW.

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FLOOR PLANS - LEVEL 02 - HVAC

TRUE NORTH
PROJECT NORTH

M102

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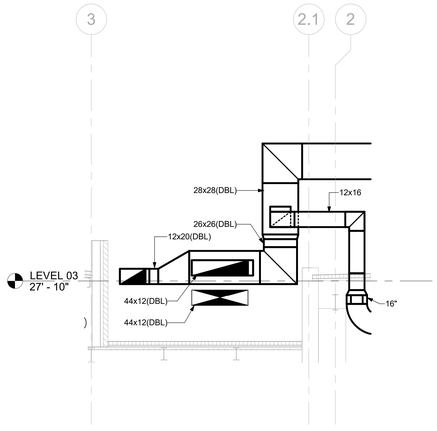
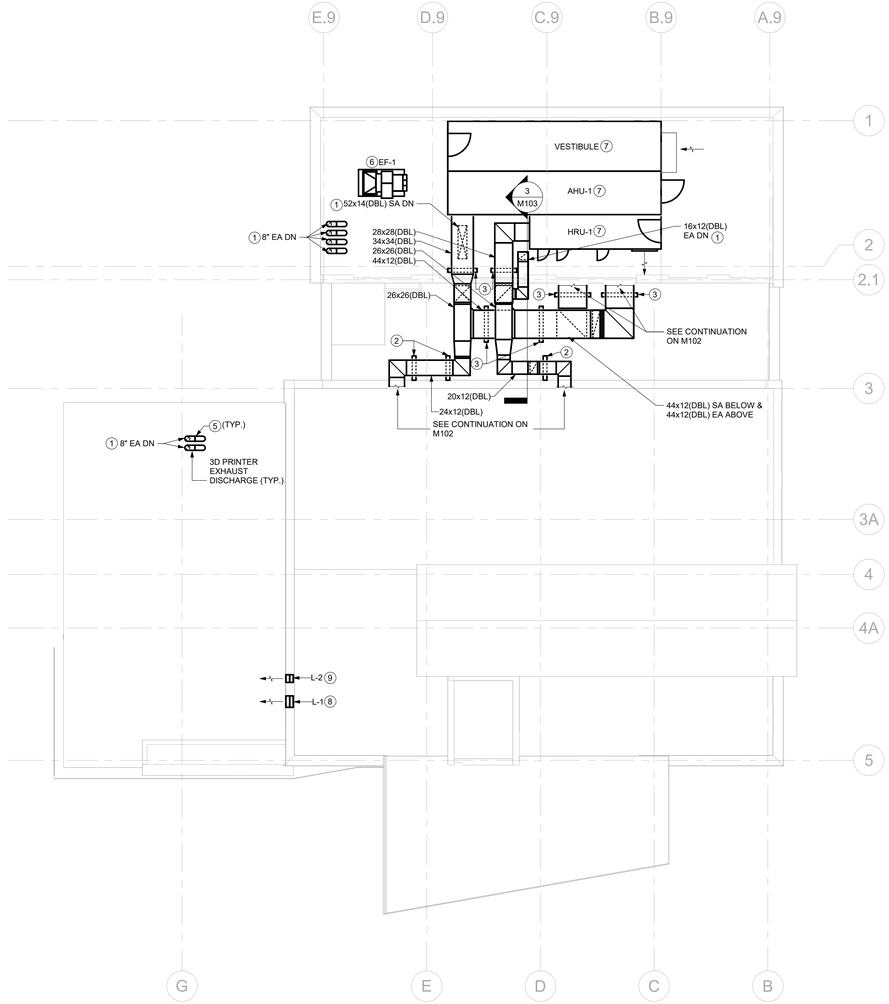
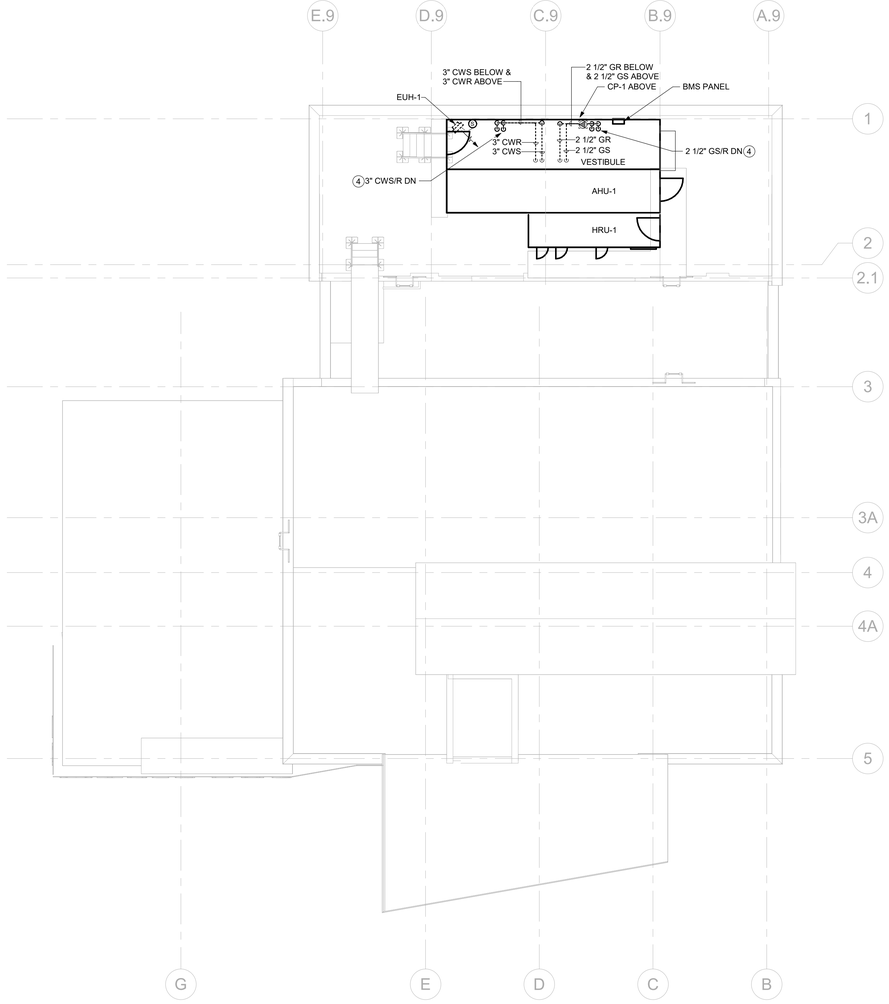


3 SECTION VIEW - PARTIAL ROOF PLAN - DUCTWORK
1/4" = 1'-0"



1 ROOF PLAN - OVERALL - DUCTWORK
1/8" = 1'-0"



2 ROOF PLAN - OVERALL - PIPING
1/8" = 1'-0"

X DRAWING NOTES:

1 PROVIDE DUCTWORK CURB AT PENETRATION. REFER TO DETAILS FOR FURTHER INFORMATION.
2 PROVIDE SIDEWALL DUCTWORK SUPPORTS. REFER TO DETAILS FOR FURTHER INFORMATION.
3 PROVIDE DUCTWORK SUPPORTS. REFER TO DETAILS FOR FURTHER INFORMATION.
4 PROVIDE INSULATED PIPE CURB AT PENETRATION. REFER TO DETAILS FOR FURTHER INFORMATION.
5 REFER TO DETAIL FOR INSTALLATION.
6 PROVIDE EQUIPMENT RAIL. REFER TO DETAIL FOR ROOF MOUNTED FAN SUPPORT.
7 HRU-1, AHU-1 AND VESTIBULE TO BE MOUNTED ON ROOF DUNNAGE
8 PROVIDE LOUVER FOR COMBINED VENTILATION DUCTWORK FOR KILNS.
9 PROVIDE LOUVER FOR EF-2 DUCTWORK.

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FLOOR PLANS - ROOF - HVAC

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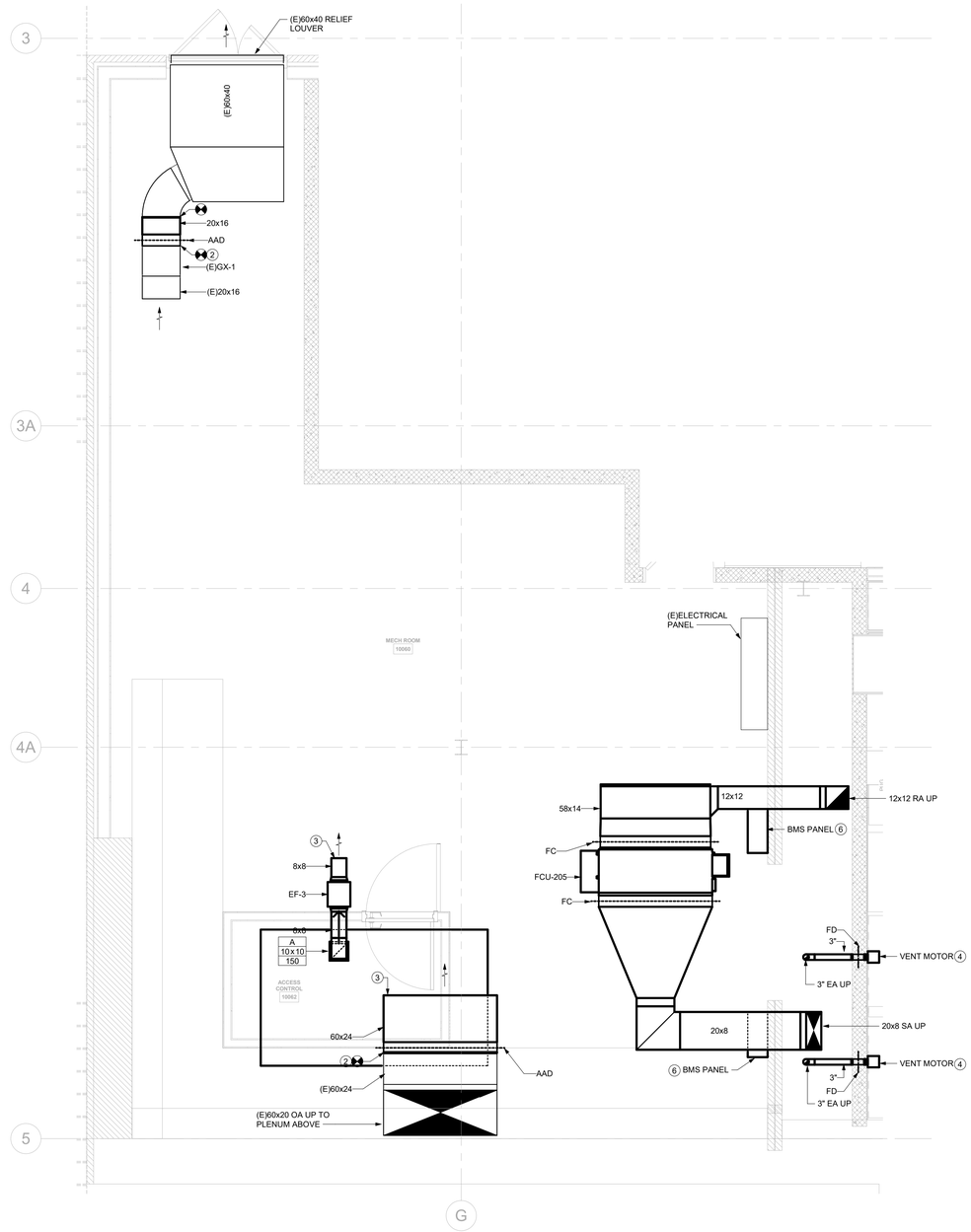
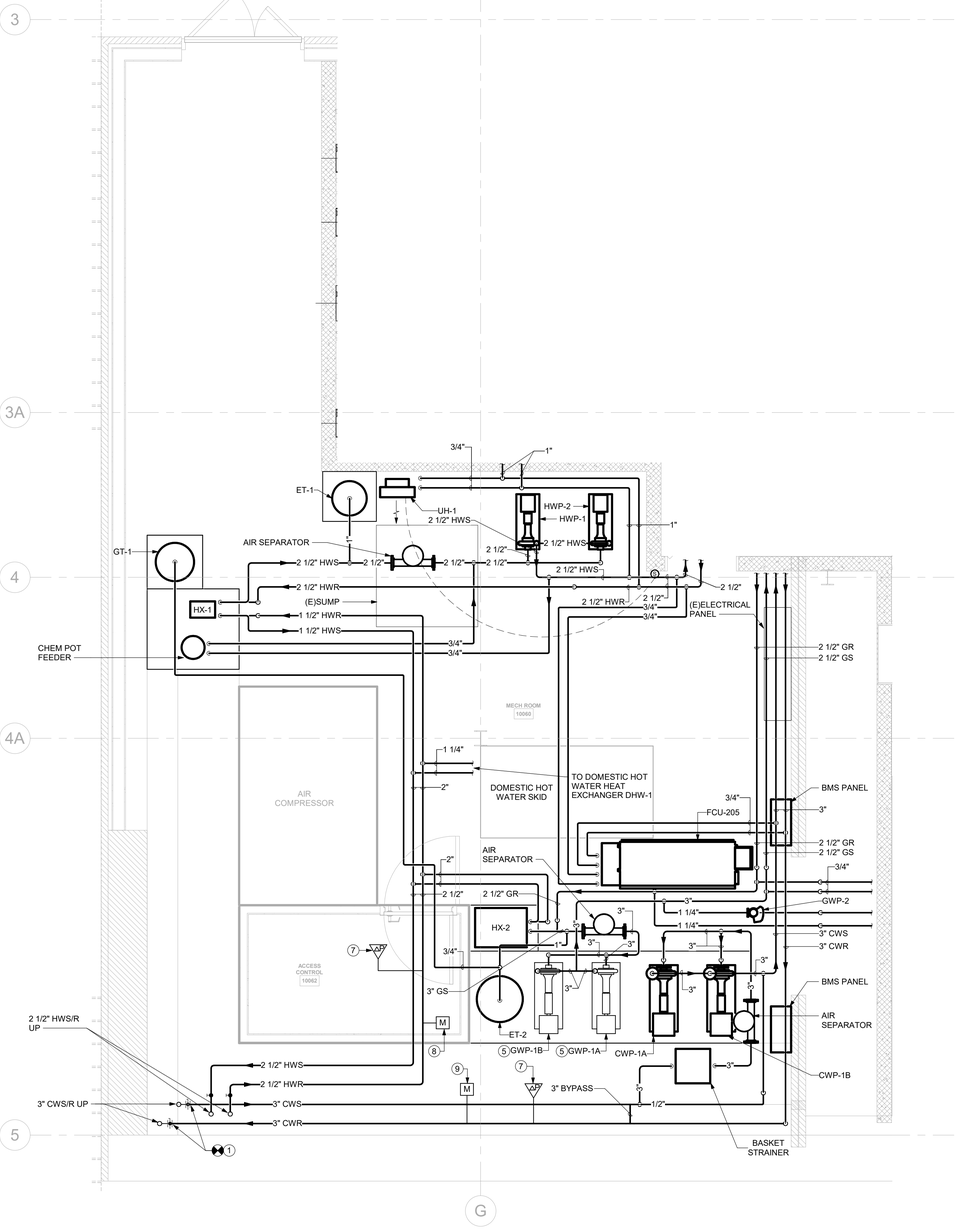
ⓧ DRAWING NOTES:

1. TIE PIPING INTO EXISTING. PROVIDE ALL PIPING MODIFICATIONS AS REQUIRED TO MAKE THE CONNECTION. REFER TO PIPING SCHEMATIC FOR FURTHER INFORMATION.
2. TIE DUCTWORK INTO EXISTING. PROVIDE ALL DUCTWORK MODIFICATIONS AS REQUIRED TO MAKE THE CONNECTION.
3. PROVIDE WIRE MESH AT OPEN ENDED DUCT.
4. PROVIDE DUCTWORK CONNECTION FROM THE VENT MOTOR INLET TO THE KILNS. SEE MANUFACTURER'S INSTALLATION DOCUMENTS FOR CONNECTION REQUIREMENTS.
5. RETAG RELOCATED PUMPS AS INDICATED ON DRAWING.
6. PROVIDE NEW BMS PANEL.
7. PROVIDE DIFFERENTIAL PRESSURE TRANSMITTER IN LOCATION SHOWN.
8. INSTALL OWNER FURNISHED FLOW METER PER THE DETAIL ON DRAWING M603 AND PROVIDE BMS INTEGRATION PER THE CONTROL SCHEMATIC AND SYSTEM SUMMARY DRAWINGS. REFER TO DETAIL FOR FURTHER REQUIREMENTS AND MINIMUM DIAMETERS OF STRAIGHT UNOBSTRUCTED PIPE UPSTREAM AND DOWNSTREAM OF THE METER.
9. INSTALL EXISTING CHILLED WATER FLOW METER PER THE DETAIL ON DRAWING M603 AND PROVIDE BMS INTEGRATION PER THE CONTROL SCHEMATIC AND SYSTEM SUMMARY DRAWINGS. REFER TO DETAIL FOR FURTHER REQUIREMENTS AND MINIMUM DIAMETERS OF STRAIGHT UNOBSTRUCTED PIPE UPSTREAM AND DOWNSTREAM OF THE METER.



1 FLOOR PLAN - ENLARGED MECHANICAL ROOM - DUCTWORK
3/8" = 1'-0"



2 FLOOR PLAN - ENLARGED MECHANICAL ROOM - PIPING
3/8" = 1'-0"

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ENLARGED MECHANICAL ROOM PLANS - HVAC

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CHILLED WATER LOAD SHED MATRIX				
CONTROL POINT	LOAD SHED 1 CHILLED WATER DAYTIME (DEFCON 2)	LOAD SHED 2 CHILLED WATER NIGHT (DEFCON 3)	LOAD SHED 3 CHILLED WATER EMERGENCY (DEFCON 1)	LOAD SHED 4 CHILLED WATER LSC EMERGENCY (DEFCON)
ZONE CONTROL				
NON-RESEARCH SPACES	INDEX SPACE TO UNOCCUPIED MODE			
	CHILLED WATER COIL CONTROL VALVE UNDER CONTROL	INDEX CHILLED WATER COIL CONTROL VALVE CLOSED		
AIR HANDLING SYSTEM CONTROL				
100% OUTSIDE AIR SYSTEMS - NON CRITICAL	INDEX DISCHARGE AIR TEMPERATURE SETPOINT TO 65°F (1)	INDEX DISCHARGE AIR TEMPERATURE SETPOINT TO 70°F (1)	INDEX DISCHARGE AIR TEMPERATURE SETPOINT TO 75°F (1)	INDEX CHILLED WATER CONTROL VALVE CLOSED
GENERAL EXHAUST SYSTEMS	UNDER CONTROL		INDEX "OFF"	
HYDRONIC SYSTEM CONTROL				
BUILDING RECIRCULATION LOOP - NON CRITICAL	INDEX CHILLED WATER TEMPERATURE TO 53°F		INDEX PUMPS "OFF" AND OPEN RECICULATING LOOP VALVE TO 100%	

NOTES:
(1) RETAIN FREE COOLING IF REQUIRED AND AVAILABLE.

1 CHILLED WATER LOAD SHED MATRIX
NOT TO SCALE

STEAM LOAD SHED MATRIX						
CONTROL POINT	LOAD SHED 1 STEAM	LOAD SHED 2 STEAM	LOAD SHED 3 STEAM	LOAD SHED 4 STEAM	LOAD SHED 5 STEAM	LOAD SHED 6 STEAM
ZONE CONTROL						
NON-RESEARCH SPACES	INDEX SPACE TO UNOCCUPIED MODE				INDEX TEMPERATURE SET POINT TO 60°F	
AIR HANDLING SYSTEM CONTROL						
100% OUTSIDE AIR SYSTEMS - NON CRITICAL	UNDER CONTROL		INDEX DISCHARGE AIR TEMPERATURE TO 55°F		INDEX UNIT "OFF"	
GENERAL EXHAUST SYSTEMS	UNDER CONTROL	INDEX "OFF"				
HYDRONIC SYSTEM CONTROL						
REHEAT LOOP SYSTEM - NON CRITICAL	UNDER CONTROL		INDEX LOOP TEMPERATURE TO 140°F OR MAINTAIN RESET SCHEDULE, WHICHEVER IS LOWER		CLOSE STEAM VALVE, PUMPS "ON"	
GLYCOL HEATING LOOP SYSTEM	UNDER CONTROL					

NOTES:
(1) RETAIN ORIGINAL SETPOINT IF LOWER THAN 55°F.

2 STEAM LOAD SHED MATRIX
NOT TO SCALE

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LOAD SHED MATRICES

M300

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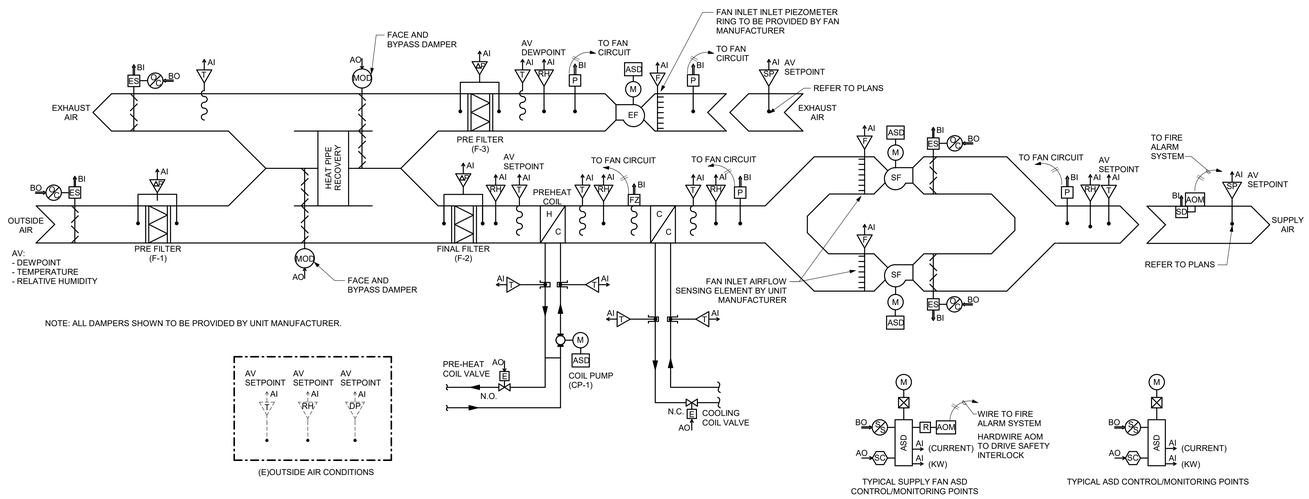

NOTE: ALL DAMPERS SHOWN TO BE PROVIDED BY UNIT MANUFACTURER.

POINT SCHEDULE

CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
									ALARM				
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
STEAM LOAD SHED						X (6)							BINARY NETWORK INPUTS FROM EMCS
CHILLED WATER LOAD SHED						X (4)							BINARY NETWORK INPUTS FROM EMCS
OUTSIDE AIR DAMPER COMMAND		X						X				X	
OUTSIDE AIR DAMPER STATUS (OPEN / CLOSED)	X							X				X	
OUTSIDE AIR RELATIVE HUMIDITY (% RH)			X					X				X	
OUTSIDE AIR DEWPOINT (°F)					X			X				X	
OUTSIDE AIR TEMPERATURE (°F)			X					X				X	
OA PRE-FILTER RACK DIFFERENTIAL PRESSURE (IN WC)			X					X	X	X	HIGH LIMIT	X	
EXHAUST HRC FACE AND BYPASS DAMPER POSITION COMMAND (%)				X				X				X	
SUPPLY HRC FACE AND BYPASS DAMPER POSITION COMMAND (%)				X				X				X	
HRC SUPPLY COIL LEAVING AIR TEMPERATURE / SETPOINT (°F)			X					X				X	
HRC SUPPLY COIL LEAVING AIR RELATIVE HUMIDITY (% RH)			X					X				X	
HRC EXHAUST COIL ENTERING AIR TEMPERATURE (°F)			X					X				X	
HRC EXHAUST COIL ENTERING AIR RELATIVE HUMIDITY (% RH)			X					X				X	
HRC EXHAUST COIL ENTERING AIR DEWPOINT (°F)					X			X				X	
HRC HEAT RECOVERY EFFECTIVENESS - WINTER					X			X				X	CALCULATE BASED ON ENTHALPY (IMBALANCED AIRFLOW)
HRC HEAT RECOVERY EFFECTIVENESS - SUMMER					X			X				X	CALCULATE BASED ON ENTHALPY (IMBALANCED AIRFLOW)
HRC RECOVERED ENERGY (BTUH) - WINTER					X			X				X	CALCULATE BASED ON ENTHALPY (IMBALANCED AIRFLOW)
HRC RECOVERED ENERGY (BTUH) - SUMMER					X			X				X	CALCULATE BASED ON ENTHALPY (IMBALANCED AIRFLOW)
HRC TOTALIZED RECOVERED ENERGY (BTUYR)					X			X				X	CALCULATE BASED ON ENTHALPY (IMBALANCED AIRFLOW)
OA FINAL-FILTER RACK DIFFERENTIAL PRESSURE (IN WC)			X					X	X	X	HIGH LIMIT	X	
COOLING COIL LOW LIMIT TEMPERATURE STATUS	X							X	X	X	LOW LIMIT	X	
COOLING COIL VALVE POSITION COMMAND (%)				X				X	X	X	5°F Δ ACROSS COIL WITH VALVE COMMANDED CLOSED	X	
COOLING COIL DISCHARGE AIR TEMPERATURE (°F)			X					X				X	
COOLING COIL DISCHARGE AIR RELATIVE HUMIDITY (% RH)			X					X				X	
COOLING COIL CHILLED WATER SUPPLY TEMPERATURE (°F)			X					X				X	
COOLING COIL CHILLED WATER RETURN TEMPERATURE (°F)			X					X				X	
SUPPLY FAN ISOLATION DAMPER COMMAND		X						X				X	(TYP=2)
SUPPL FAN ISOLATION DAMPER STATUS (OPEN / CLOSED)	X							X				X	(TYP=2)
SUPPLY FAN AIRFLOW (CFM)			X					X				X	INSTALL IN INLET CONE (TYP=2)
SUPPLY FAN ASD START/STOP COMMAND (ON/OFF)		X						X				X	INTERLOCK WITH FA SYSTEM (TYP=2)
SUPPLY FAN ASD SPEED COMMAND / SETPOINT (%)				X	X			X				X	(TYP=2)
SUPPLY FAN ASD STATUS (CURRENT)			X					X	X	X	FAILURE	X	VIA CONTACT ON DRIVE (TYP=2)
SUPPLY FAN ASD POWER (KW)			X					X				X	(TYP=2)
SUPPLY FAN DUCT SMOKE DETECTOR STATUS	X											X	
SUPPLY FAN DISCHARGE PRESSURE SWITCH STATUS / SETPOINT (IN WC)	X					X			X	X	HIGH LIMIT	X	
SUPPLY FAN SUCTION PRESSURE SWITCH STATUS / SETPOINT (IN WC)	X					X			X	X	LOW LIMIT	X	
AHU DISCHARGE AIR TEMPERATURE / SETPOINT (°F)			X			X		X	X	X	DEVIATION FROM SETPOINT	X	
AHU DISCHARGE AIR RELATIVE HUMIDITY			X					X				X	
SUPPLY FAN DOWNSTREAM STATIC PRESSURE / SETPOINT (IN WC)			X			X		X	X	X	10% DEVIATION FROM SETPOINT	X	
EXHAUST FAN DISCHARGE PRESSURE SWITCH STATUS / SETPOINT (IN WC)	X					X			X	X	HIGH LIMIT	X	
EXHAUST FAN SUCTION PRESSURE SWITCH STATUS / SETPOINT (IN WC)	X					X			X	X	LOW LIMIT	X	
EXHAUST FAN ASD START/STOP COMMAND (ON/OFF)		X						X				X	
EXHAUST FAN ASD SPEED COMMAND / SETPOINT (%)				X	X			X				X	
EXHAUST FAN ASD STATUS (CURRENT)			X					X	X	X	FAILURE	X	VIA CONTACT ON DRIVE
EXHAUST FAN ASD POWER (KW)			X					X				X	
EXHAUST ISOLATION DAMPER COMMAND		X						X				X	
EXHAUST ISOLATION DAMPER STATUS (OPEN / CLOSED)	X							X				X	
EXHAUST FAN AIRFLOW (FROM BUILDING) (CFM)			X					X				X	DUCT MOUNTED
EXHAUST FILTER RACK DIFFERENTIAL PRESSURE (IN WC)			X					X	X	X	HIGH LIMIT	X	
EXHAUST FAN DOWNSTREAM STATIC PRESSURE / SETPOINT (IN WC)	X					X		X	X	X	10% DEVIATION FROM SETPOINT	X	
EXHAUST LEAVING AIR TEMPERATURE (°F)			X					X				X	
PREHEAT COIL DISCHARGE AIR TEMPERATURE (°F)			X					X				X	
PREHEAT COIL DISCHARGE AIR RELATIVE HUMIDITY (% RH)			X					X				X	
PREHEAT CONTROL VALVE POSITION COMMAND (%)				X				X				X	FAIL OPEN
PREHEAT LOOP SUPPLY WATER TEMPERATURE / SETPOINT (°F)			X			X		X	X	X	± 4°F FROM SETPOINT	X	
PREHEAT LOOP RETURN WATER TEMPERATURE (°F)			X			X		X	X	X		X	
PREHEAT COIL PUMP ASD START/STOP COMMAND (ON/OFF)		X						X				X	
PREHEAT COIL PUMP ASD SPEED COMMAND / SETPOINT (%)				X	X			X				X	
PREHEAT COIL WATER PUMP ASD STATUS (CURRENT)			X					X	X	X	FAILURE	X	VIA CONTACT ON DRIVE
PREHEAT COIL WATER PUMP ASD POWER (KW)			X					X				X	

SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

100% OUTSIDE AIR HANDLING UNIT (AHU-1)
SUPPLY AIR FANS
HRU EXHAUST FAN
GYLCOL PRE-HEAT COIL
CHILLED WATER COOLING COIL
ENERGY RECOVERY COILS (HRC-1 & HRC-2)

GENERAL

SYSTEM SHALL BE CONTROLLED THROUGH THE BUILDING AUTOMATION AND CONTROL SYSTEM (BACS).

POWER FOR THE TEMPERATURE CONTROL PANEL SHALL BE FED FROM EMERGENCY POWER.

CONTROLLED EQUIPMENT SHALL BE FED FROM EMERGENCY POWER.

ALL SETPOINTS SHALL BE ADJUSTABLE.

THE BACS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK.

THE BACS SHALL BE CAPABLE OF RETAINING ITS PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST TEN HOURS.

ALL SAFETIES SHALL BE HARD WIRED INTO THE FAN MOTOR POWER CIRCUIT, AND SHALL REQUIRE MANUAL RESET.

DURING HEATING MODE, THE HEATING CONTROL VALVE SHALL CONTINUE TO CONTROL WHEN THE FAN IS OFF FOR CONTINUED FREEZE PROTECTION.

LOAD SHED: REFER TO LOAD SHED MATRICES FOR THE SYSTEM CONTROL REQUIREMENTS FOR NON-RESEARCH SPACES.

SETPOINTS

AHU DISCHARGE AIR TEMPERATURE (DAT): SEE RESET SCHEDULE

HRC DISCHARGE AIR TEMPERATURE: SAME AS AHU DAT SETPOINT

FREEZESTAT LOW LIMIT TEMPERATURE: 38ºF

FILTER DIFFERENTIAL PRESSURE HIGH LIMIT: 1.5" W.C.

SUPPLY FAN DISCHARGE HIGH STATIC PRESSURE LIMIT: 8.0" W.C.

SUPPLY FAN SUCTION LOW STATIC PRESSURE LIMIT: -8.0" W.C.

EXHAUST FAN SUCTION LOW STATIC PRESSURE LIMIT: -3.0" W.C.

SUPPLY FAN MINIMUM START SPEED: 2,660 CFM (20% OF MAX)

EXHAUST FAN MINIMUM START SPEED: 1,700 CFM (20% OF MAX)

GLYCOL PREHEAT LOOP SUPPLY TEMPERATURE: SEE RESET TEMPERATURE

FAN START/STOP

AIR HANDLING UNIT SUPPLY FAN SHALL BE INTERLOCKED WITH THE ASSOCIATED HEAT RECOVERY EXHAUST FAN.

OCCUPIED: SUPPLY AIR FAN AND ASSOCIATED EXHAUST FAN SHALL START AND OPERATE CONTINUOUSLY BASED ON THE TIME OF DAY SCHEDULE.

UNOCCUPIED: DURING THE SCHEDULED UNOCCUPIED PERIOD, THE SYSTEM SHALL BE INDEXED TO START WHENEVER ANY SPACE ASSOCIATED WITH THE SYSTEM IS OCCUPIED, AS DETERMINED VIA SPACE OCCUPANCY SENSORS. THE SYSTEM SHALL STOP AND INDEX BACK TO UNOCCUPIED MODE WHEN OCCUPANCY IS NOT SENSED FOR A PERIOD OF 30 MINUTES.

SHUTOFF DAMPER CONTROL

WHEN THE SYSTEM FANS ARE OFF, THE OUTSIDE AIR AND ASSOCIATED EXHAUST AIR DAMPERS SHALL BE CLOSED.

WHEN THE SYSTEM FANS ARE INDEXED TO START, THE OUTSIDE AIR AND ASSOCIATED EXHAUST AIR DAMPERS SHALL PROVE OPEN VIA END SWITCH PRIOR TO STARTING THE SYSTEM FANS.

FILTER STATUS

THE DDC CONTROL SYSTEM SHALL MONITOR THE DIFFERENTIAL PRESSURE ACROSS THE SYSTEM FILTER BANKS.

SUPPLY FAN SPEED CONTROL

THE SUPPLY AIR FAN SHALL MODULATE VIA A VARIABLE FREQUENCY DRIVE AS REQUIRED TO MAINTAIN THE DOWNSTREAM STATIC PRESSURE SETPOINT. THE DOWNSTREAM STATIC PRESSURE SETPOINT SHALL BE RESET AS NEEDED TO MAINTAIN THE CRITICAL ZONE DAMPER POSITION AT 95% OPEN.

THE DOWNSTREAM STATIC PRESSURE SETPOINT SHALL BE DETERMINED DURING SYSTEM BALANCING BY THE CONTROL AND TAB CONTRACTORS

EXHAUST FAN SYSTEM CONTROL

THE EXHAUST FANS SHALL MODULATE VIA A VARIABLE FREQUENCY DRIVE AS REQUIRED TO MAINTAIN THE DOWNSTREAM STATIC PRESSURE SETPOINT. THE DOWNSTREAM STATIC PRESSURE SETPOINT SHALL BE RESET AS NEEDED TO MAINTAIN THE CRITICAL ZONE DAMPER POSITIONS AT 95%.

HEAT PIPE RECOVERY SYSTEM CONTROL

WINTER MODE: WINTER MODE SHALL BE INITIATED WHEN THE OUTSIDE AIR TEMPERATURE IS 7-10ºF BELOW THE SUPPLY AIR DISCHARGE AIR TEMPERATURE SETPOINT AND THE HEAT PIPE DISCHARGE AIR TEMPERATURE IS BELOW SETPOINT. THE COIL FACE DAMPER SHALL BE OPEN AND THE OUTSIDE AIR AND EXHAUST AIR BYPASS DAMPERS SHALL BE CLOSED.

INTERMEDIATE MODE: INTERMEDIATE MODE SHALL BE INITIATED WHEN THE OUTSIDE AIR TEMPERATURE IS ABOVE THE SUPPLY AIR TEMPERATURE SETPOINT AND 5ºF BELOW THE EXHAUST AIR TEMPERATURE AND THE OUTSIDE AIR TEMPERATURE IS ABOVE THE HEAT PIPE DISCHARGE AIR TEMPERATURE SETPOINT. THE OUTSIDE AIR AND EXHAUST BYPASS DAMPERS SHALL MODULATE OPEN AND THE COIL FACE DAMPER SHALL BE CLOSED.

SUMMER MODE: SUMMER MODE SHALL BE INITIATED WHEN THE OUTSIDE AIR TEMPERATURE IS 7-10ºF ABOVE THE EXHAUST AIR TEMPERATURE SETPOINT. THE COIL FACE DAMPER SHALL BE OPEN AND THE OUTSIDE AIR AND EXHAUST BYPASS DAMPERS SHALL BE CLOSED.

ANTI-FROST MODE: ANTI-FROST MODE SHALL BE INITIATED WHEN THE LEAVING EXHAUST AIR TEMPERATURE FALLS BELOW 34 DEG F AND INLET EXHAUST AIR DEWPOINT TEMPERATURE IS GREATER THAN THE LEAVING EXHAUST AIR TEMPERATURE. THE FACE AND BYPASS DAMPERS SHALL MODULATE AS REQUIRED TO MAINTAIN THE EXHAUST AIR LEAVING TEMPERATURE ABOVE THE INLET EXHAUST AIR DEWPOINT TEMPERATURE.

SUPPLY AIR TEMPERATURE CONTROL

DISCHARGE AIR TEMPERATURE RESET: THE AHU DISCHARGE AIR TEMPERATURE SHALL BE ALLOWED TO RESET BASED ON THE FOLLOWING SCHEDULE:

OAT = 75°F & ABOVE	---	DAT = 55°F
OAT = 55°F & BELOW	---	DAT = 65°F

WHEN THE AHU DISCHARGE AIR TEMPERATURE SETPOINT IS 65°F AND A ZONE (WITHOUT SUPPLEMENTAL COOLING) CANNOT MEET THE COOLING SETPOINT, THE DISCHARGE AIR TEMPERATURE SHALL BE RESET INCREMENTALLY TO 55°F UNTIL THE ZONE SETPOINT IS SATISFIED.

WHEN THE AHU DISCHARGE AIR TEMPERATURE FALLS BELOW SETPOINT, THE CHILLED WATER CONTROL VALVE SHALL BE CLOSED, THE GLYCOL COIL PUMP SHALL START, AND THE PREHEAT COIL CONTROL VALVE SHALL MODULATE AS REQUIRED TO MAINTAIN THE DISCHARGE AIR TEMPERATURE SETPOINT.

WHEN AHU DISCHARGE AIR TEMPERATURE RISES ABOVE SETPOINT, THE PREHEAT COIL CONTROL VALVE SHALL BE CLOSED, THE GLYCOL COIL PUMP SHALL BE OFF AND THE CHILLED WATER CONTROL VALVE SHALL MODULATE AS REQUIRED TO MAINTAIN THE DISCHARGE AIR TEMPERATURE SETPOINT.

SAFETIES

FREEZE PROTECTION: THE SUPPLY AND EXHAUST AIR FANS SHALL SHUT DOWN, THE OUTSIDE AIR AND EXHAUST AIR DAMPERS SHALL CLOSE, THE GLYCOL COIL PUMPS SHALL START AND THE CONTROL VALVES SHALL OPEN UPON ACTIVATION OF THE LOW LIMIT TEMPERATURE SWITCH.

HIGH FAN STATIC: THE SUPPLY AND EXHAUST AIR FANS SHALL SHUT DOWN, THE OUTSIDE AIR AND EXHAUST AIR DAMPERS SHALL CLOSE UPON ACTIVATION OF THE HIGH FAN DISCHARGE STATIC PRESSURE SWITCH.

LOW FAN STATIC: THE SUPPLY AND EXHAUST AIR FANS SHALL SHUT DOWN, THE OUTSIDE AIR AND EXHAUST AIR DAMPERS SHALL CLOSE UPON ACTIVATION OF THE LOW FAN SUCTION STATIC PRESSURE SWITCH.

SMOKE DETECTION: THE SUPPLY FAN SHALL SHUT DOWN AND THE OUTSIDE AIR DAMPER SHALL CLOSE UPON ACTIVATION OF A DUCT SMOKE DETECTOR.

1 AIR HANDLING UNIT CONTROL SCHEMATIC AND SYSTEM SUMMARY
NOT TO SCALE

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REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

CONTROL SCHEMATIC AND SYSTEM SUMMARY

M301

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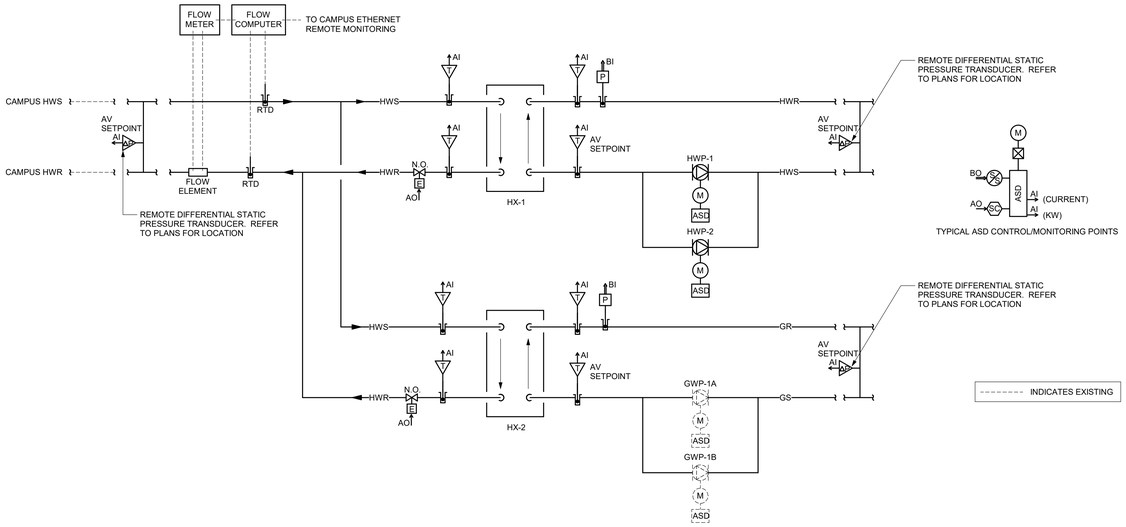


POINT SCHEDULE

CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
									ALARM				
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
STEAM LOAD SHED						X (6)							BINARY NETWORK INPUTS FROM EMCS
OUTSIDE AIR TEMPERATURE								X				X	ANALOG NETWORK INPUT (CALCULATED VALUE)
HOT WATER SUPPLY TEMPERATURE (°F)			X					X	X	X		X	(TYPICAL OF 2)
HOT WATER RETURN TEMPERATURE (°F)			X					X	X	X		X	(TYPICAL OF 2)
HOT WATER CONTROL VALVE POSITION COMMAND (%)				X				X				X	FAIL OPEN (TYPICAL OF 2)
HOT WATER LOOP DIFFERENTIAL PRESSURE / SETPOINT (PSID)			X		X			X	X	X	10% DEVIATION FROM SETPOINT	X	REFER TO PLANS
BUILDING HOT WATER PUMP ASD START/STOP COMMAND (ON/OFF)		X						X				X	(TYPICAL OF 2)
BUILDING HOT WATER PUMP ASD SPEED COMMAND / SETPOINT (%)				X	X			X				X	(TYPICAL OF 2)
BUILDING HOT WATER PUMP ASD STATUS (CURRENT)			X					X	X	X	FAILURE	X	VIA CONTACT ON DRIVE (TYPICAL OF 2)
BUILDING HOT WATER PUMP ASD POWER (KW)			X					X				X	(TYPICAL OF 2)
BUILDING WATER SUPPLY TEMPERATURE / SETPOINT (°F)			X		X			X	X	X	± 4°F FROM SETPOINT	X	
BUILDING HOT WATER LOOP RETURN WATER TEMPERATURE			X					X	X	X		X	
BUILDING HOT WATER LOOP DIFFERENTIAL PRESSURE			X					X	X	X	10% DEVIATION FROM SETPOINT	X	REFER TO PLANS
BUILDING HOT WATER LOOP DIFFERENTIAL PRESSURE SETPOINT					X			X				X	
BUILDING HOT WATER LOOP SYSTEM PRESSURE	X				X				X	X	LOW PRESSURE	X	REFER TO PLANS
GLYCOL HOT WATER SUPPLY TEMPERATURE / SETPOINT (°F)			X		X			X	X	X	± 4°F FROM SETPOINT	X	
GLYCOL HOT WATER LOOP RETURN WATER TEMPERATURE			X					X	X	X		X	
GLYCOL HOT WATER LOOP DIFFERENTIAL PRESSURE			X					X	X	X	10% DEVIATION FROM SETPOINT	X	REFER TO PLANS
GLYCOL HOT WATER LOOP DIFFERENTIAL PRESSURE SETPOINT					X			X				X	
GLYCOL HOT WATER LOOP SYSTEM PRESSURE	X				X				X	X	LOW PRESSURE	X	REFER TO PLANS
GLYCOL HOT WATER PUMP ASD START/STOP COMMAND (ON/OFF)		X						X				X	(TYPICAL OF 2)
GLYCOL HOT WATER PUMP ASD SPEED COMMAND / SETPOINT (%)				X	X			X				X	(TYPICAL OF 2)
GLYCOL HOT WATER PUMP ASD STATUS (CURRENT)			X					X	X	X	FAILURE	X	VIA CONTACT ON DRIVE (TYPICAL OF 2)
GLYCOL HOT WATER PUMP ASD POWER (KW)			X					X				X	(TYPICAL OF 2)

1 HEATING SYSTEM CONTROL SCHEMATIC AND SYSTEM SUMMARY
NOT TO SCALE

SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

HOT WATER LOOP CONTROL VALVE
EXISTING HOT WATER LOOP PUMPS ((E)HWP-1 & (E)HWP-2)
GLYCOL HOT WATER LOOP CONTROL VALVE
GLYCOL HOT WATER LOOP PUMPS (GWP-1A & GWP-1B)

GENERAL

SYSTEM SHALL BE CONTROLLED THROUGH THE BUILDING AUTOMATION AND CONTROL SYSTEM (BACS).

ALL SETPOINTS SHALL BE ADJUSTABLE.

THE BACS SHALL BE CAPABLE OF RETAINING ITS PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST TEN HOURS.

LOAD SHED: REFER TO LOAD SHED MATRICES FOR THE SYSTEM CONTROL REQUIREMENTS FOR NON-RESEARCH SPACES.

SETPOINTS

HOT WATER AND GLYCOL HOT WATER LOOP SUPPLY TEMPERATURE: SEE RESET SCHEDULE

HOT WATER LOOP CONTROL

START/STOP:

SYSTEM SHALL BE ENABLED WHEN ANY OF THE CONTROL VALVES ASSOCIATED WITH THE SYSTEM ARE OPEN AND CALLING FOR DEMAND. LEAD PUMP SHALL START, LAG PUMP SHALL BE OFF. AFTER 30 DAYS (ADJ) THE LAG PUMP SHALL INDEX TO LEAD AND RUN, AND THE LEAD PUMP SHALL INDEX TO LAG AND BE OFF. THE CHANGE OVER OF THE LEAD PUMP SHALL OCCUR BETWEEN 8 A.M. AND 12 P.M.

SPEED CONTROL:

WHEN ENABLED, PUMP SHALL MODULATE VIA VARIABLE FREQUENCY DRIVE AS REQUIRED TO MAINTAIN THE LOOP DIFFERENTIAL PRESSURE SETPOINT.

THE LOOP DIFFERENTIAL PRESSURE SETPOINT SHALL BE DETERMINED DURING SYSTEM BALANCING BY THE CONTROL AND TAB CONTRACTORS

THE LOOP DIFFERENTIAL PRESSURE SETPOINT SHALL BE RESET AS NEEDED TO MAINTAIN ONE SYSTEM VALVE AT 95% OPEN, AS DETERMINED VIA NETWORKED SYSTEM VALVE COMMANDS.

TEMPERATURE CONTROL:

THE HOT WATER LOOP CONTROL VALVE SHALL MODULATE AS REQUIRED TO MAINTAIN THE LOOP SUPPLY WATER TEMPERATURE SETPOINT.

THE SUPPLY WATER TEMPERATURE SHALL BE RESET BASED ON THE FOLLOWING SCHEDULE:

OAT = 10°F & BELOW --- SWT = 130°F

OAT = 55°F & ABOVE --- SWT = 110°F

GLYCOL HOT WATER LOOP CONTROL

START/STOP:

SYSTEM SHALL BE ENABLED WHEN THE OUTSIDE AIR TEMPERATURE IS BELOW 65°F. THE LEAD PUMP SHALL START. THE STANDBY PUMP SHALL BE OFF. AFTER 100 HOURS OF OPERATION, THE STANDBY PUMP SHALL INDEX TO LEAD AND RUN, AND THE LEAD PUMP SHALL INDEX TO STANDBY AND BE OFF.

SPEED CONTROL:

WHEN ENABLED, PUMP SHALL MODULATE VIA VARIABLE FREQUENCY DRIVE AS REQUIRED TO MAINTAIN THE LOOP DIFFERENTIAL PRESSURE SETPOINT.

THE LOOP DIFFERENTIAL PRESSURE SETPOINT SHALL BE DETERMINED DURING SYSTEM BALANCING BY THE CONTROL AND TAB CONTRACTORS

THE LOOP DIFFERENTIAL PRESSURE SETPOINT SHALL BE RESET AS NEEDED TO MAINTAIN ONE SYSTEM VALVE AT 95% OPEN, AS DETERMINED VIA NETWORKED SYSTEM VALVE COMMANDS.

TEMPERATURE CONTROL:

THE GLYCOL HOT WATER LOOP CONTROL VALVE SHALL MODULATE AS REQUIRED TO MAINTAIN THE LOOP SUPPLY WATER TEMPERATURE SETPOINT.

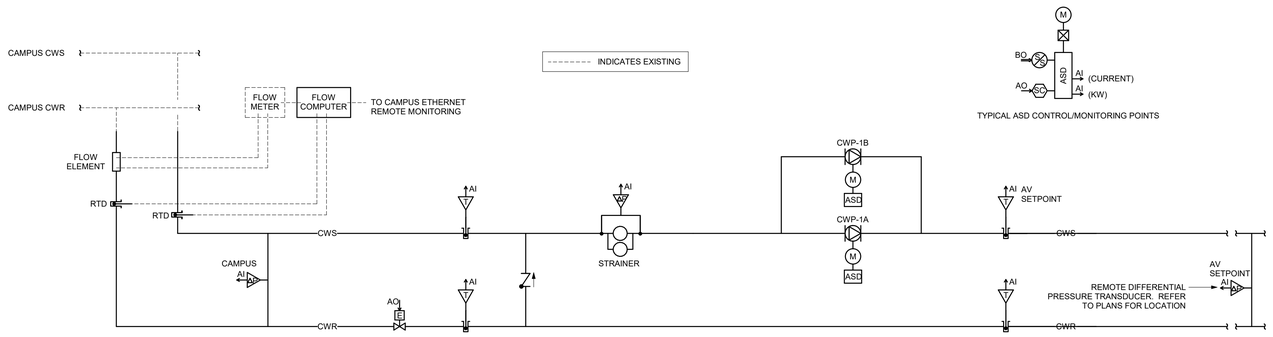
THE SUPPLY WATER TEMPERATURE SHALL BE RESET BASED ON THE FOLLOWING SCHEDULE:

OAT = 10°F & BELOW --- SWT = 130°F

OAT = 55°F & ABOVE --- SWT = 90°F

FAILURE MODES:

A STANDBY PUMP SHALL BE INDEXED TO OPERATE AND AN ALARM GENERATED ON FAILURE OF THE LEAD PUMP TO MAINTAIN THE SYSTEM DIFFERENTIAL PRESSURE SETPOINT.



POINT SCHEDULE

CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
									ALARM				
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
CHILLED WATER LOAD SHED						X (4)							BINARY NETWORK INPUTS FROM EMCS
OUTSIDE AIR RELATIVE HUMIDITY (% RH)					X			X				X	ANALOG NETWORK INPUT
OUTSIDE AIR DEWPOINT (°F)					X			X				X	ANALOG NETWORK INPUT
OUTSIDE AIR TEMPERATURE (°F)					X			X				X	ANALOG NETWORK INPUT (CALCULATED VALUE)
CAMPUS CHILLED WATER SUPPLY TEMPERATURE (°F)			X					X	X	X		X	
CAMPUS CHILLED WATER RETURN TEMPERATURE (°F)			X					X	X	X		X	
CAMPUS CHILLED WATER DIFFERENTIAL PRESSURE (PSID)			X					X				X	
BASKET STRAINER DIFFERENTIAL PRESSURE (PSID)			X		X			X	X	X	HIGH LIMIT	X	
CHW RECIRCULATING LOOP CONTROL VALVE POSITION COMMAND (%)				X				X				X	FAIL LAST
BUILDING CHILLED WATER SUPPLY TEMPERATURE / SETPOINT (°F)			X		X			X	X	X	± 4°F FROM SETPOINT	X	
BUILDING CHILLED WATER RETURN TEMPERATURE (°F)			X					X	X	X		X	
BUILDING CHILLED WATER LOOP DIFFERENTIAL PRESSURE / SETPOINT (PSID)			X		X			X	X	X	10% DEVIATION FROM SETPOINT	X	
CHILLED WATER PUMP ASD START/STOP COMMAND (ON/OFF)		X						X				X	TYPICAL OF 2
CHILLED WATER PUMP ASD SPEED COMMAND / SETPOINT (%)				X	X			X				X	TYPICAL OF 2
CHILLED WATER PUMP ASD STATUS (CURRENT)			X					X	X	X	FAILURE	X	VIA CONTACT ON DRIVE - TYPICAL OF 2
CHILLED WATER PUMP ASD POWER (KW)			X					X				X	TYPICAL OF 2

2 CHILLED WATER SYSTEM CONTROL SCHEMATIC AND SYSTEM SUMMARY
NOT TO SCALE

SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

BUILDING CHILLED WATER RECIRCULATING LOOP VALVE
BUILDING CHILLED WATER LOOP PUMPS (CWP-1 & CWP-2)

GENERAL

SYSTEM SHALL BE CONTROLLED THROUGH THE BUILDING AUTOMATION AND CONTROL SYSTEM (BACS).

ALL SETPOINTS SHALL BE ADJUSTABLE.

THE BACS SHALL BE CAPABLE OF RETAINING ITS PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST TEN HOURS.

LOAD SHED: REFER TO LOAD SHED MATRICES FOR THE SYSTEM CONTROL REQUIREMENTS FOR NON-RESEARCH SPACES.

SETPOINTS

MAIN CHILLED WATER LOOP SUPPLY TEMPERATURE: SEE RESET SCHEDULE

MAIN BUILDING CHILLED WATER CONTROL

START/STOP:

SYSTEM SHALL BE ENABLED WHEN ANY OF THE CONTROL VALVES ASSOCIATED WITH THE SYSTEM ARE OPEN AND CALLING FOR DEMAND. LEAD PUMP SHALL START, LAG PUMP SHALL BE OFF. AFTER 30 DAYS (ADJ) THE LAG PUMP SHALL INDEX TO LEAD AND RUN, AND THE LEAD PUMP SHALL INDEX TO LAG AND BE OFF. THE CHANGE OVER OF THE LEAD PUMP SHALL OCCUR BETWEEN 8 A.M. AND 12 P.M.

ON FAILURE OF THE LEAD PUMP, THE LAG PUMP SHALL INDEX TO LEAD AND RUN

SPEED CONTROL:

WHEN ENABLED, PUMP SHALL MODULATE VIA VARIABLE FREQUENCY DRIVE AS REQUIRED TO MAINTAIN THE LOOP DIFFERENTIAL PRESSURE SETPOINT. THE LOOP DIFFERENTIAL PRESSURE SETPOINT SHALL BE RESET AS NEEDED TO MAINTAIN THE CRITICAL ZONE CONTROL VALVE POSITION AT 95% OPEN.

THE LOOP DIFFERENTIAL PRESSURE SETPOINT SHALL BE DETERMINED DURING SYSTEM BALANCING BY THE CONTROL AND TAB CONTRACTORS

CHILLED WATER SUPPLY TEMPERATURE CONTROL:

THE CHILLED WATER MIXING CONTROL VALVE SHALL MODULATE AS REQUIRED TO MAINTAIN THE CHILLED WATER LOOP SUPPLY WATER TEMPERATURE SETPOINT.

THE SUPPLY WATER TEMPERATURE SHALL BE RESET BASED ON THE FOLLOWING SCHEDULE:

OAT = 40°F & BELOW --- SWT = 55°F

OAT = 50°F & ABOVE --- SWT = 47°F

SAFETIES

FREEZE PROTECTION:

IF NONE OF THE SYSTEMS CONTROL VALVES ARE OPEN AND THE OUTSIDE AIR TEMPERATURE IS BELOW 40°F, SYSTEM SHALL BE ENABLED TO MINIMUM SPEED TO MAINTAIN FLOW IN THE SYSTEM. LEAD PUMP SHALL START, LAG PUMP SHALL BE OFF. AFTER 30 DAYS (ADJ) THE LAG PUMP SHALL INDEX TO LEAD AND RUN, AND THE LEAD PUMP SHALL INDEX TO LAG AND BE OFF. THE CHANGE OVER OF THE LEAD PUMP SHALL OCCUR BETWEEN 8 A.M. AND 12 P.M.

IF THERE IS A CALL FOR COOLING WHEN THE OUTSIDE AIR TEMPERATURE IS BELOW 40°F, THE SYSTEM SHALL FOLLOW THE MAIN BUILDING CHILLED WATER CONTROL.

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PROJECT STATUS:
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CONTROL SCHEMATICS AND SYSTEM SUMMARIES

M302

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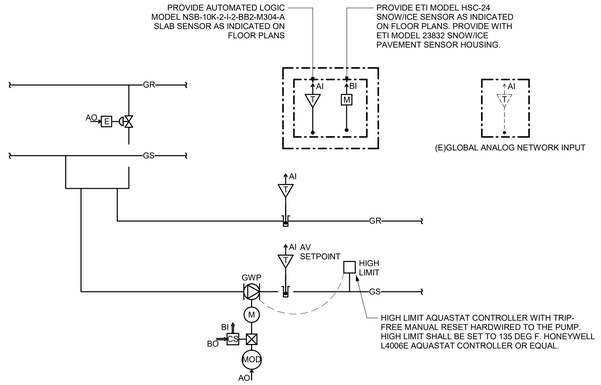


POINT SCHEDULE													
EQUIPMENT	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
									ALARM				
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
STEAM LOAD SHED						X (6)							BINARY NETWORK INPUTS FROM EMCS
SNOWMELT ZONE CONTROL VALVE POSITION COMMAND				X				X				X	FAIL LAST
ZONE PUMP ENABLE		X						X				X	
ZONE PUMP STATUS	X							X	X	X	PUMP IN HAND / FAILURE	X	
ZONE PUMP SPEED COMMAND				X				X				X	
ZONE WATER SUPPLY TEMPERATURE			X					X				X	
ZONE WATER SUPPLY TEMPERATURE SETPOINT					X			X	X	X	+/- 4 DEG F FROM SETPOINT	X	
ZONE WATER RETURN TEMPERATURE			X					X				X	
SLAB TEMPERATURE			X					X				X	
SLAB SNOW/ICE SENSOR	X							X				X	

SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

SNOWMELT SYSTEM

SECONDARY SNOWMELT LOOP PUMP

GENERAL

THE SNOW MELT SYSTEM IS USED TO PROVIDE HEATING IN WINTER FOR CLEARING SIDEWALKS.

THE SNOW MELT SYSTEM CONSIST TYPICALLY OF A TWO-WAY VALVE, MOISTURE/TEMPERATURE SENSORS AND PUMPS

SNOW MELT PUMP SHALL BE CONTROLLED THROUGH THE ENERGY MANAGEMENT AND CONTROL SYSTEM (EMCS).

ALL SETPOINTS SHALL BE ADJUSTABLE.

SETPOINTS

SECONDARY SIDEWALK LOOP SUPPLY TEMPERATURE: SEE SCHEDULES

SECONDARY LOOP PUMPS START/STOP

OPERATION MODE:

WHEN THE OUTSIDE AIR TEMPERATURE IS 35ºF OR BELOW, THE SECONDARY LOOP PUMP SHALL START. UPON A START COMMAND, THE PUMP SHALL RUN CONTINUOUSLY. ONCE STARTED, THE PUMP SHALL BE ON FOR A MINIMUM OF 10 MINUTES.

IF THE OUTSIDE AIR TEMPERATURE IS ABOVE 35ºF, THE PUMP SHALL BE OFF. THE PUMP SHALL BE OFF FOR A MINIMUM OF 10 MINUTES.

SECONDARY LOOP HEATING VALVE / SLAB TEMPERATURE CONTROL

IF THE SECONDARY PUMP IS OFF THE ASSOCIATED CONTROL VALVE SHALL BE CLOSED.

THE SLAB SENSORS SHALL BE COMPARED CONTINUOUSLY. IF A SENSOR IS OUT OF RANGE AN ALARM SHALL BE GENERATED (20°F ABOVE OR BELOW THE AVERAGE OF THE REMAINING SENSORS). THE SLAB TEMPERATURE SHALL BE CALCULATED AS EITHER THE MAX, MIN OR AVERAGE (SELECTABLE) IN THE RANGE OF SENSORS.

IDLE MODE: WHEN THE PUMP IS ENERGIZED AND THERE IS NO MOISTURE DETECTED ON THE SIDEWALK SURFACE, THE CONTROL VALVE SHALL MODULATE TO MAINTAIN THE SLAB AT THE SLAB IDLE SETPOINT. THE INITIAL IDLE SETPOINT IS 35°F.

MELTING MODE: IF THE SNOW SENSOR DETECTS MOISTURE, THE SLAB SETPOINT SHALL INCREASE TO 50°F. IF NO MOISTURE IS DETECTED FOR A PERIOD OF 2 HOURS (ADJUSTABLE), THE SYSTEM SHALL REVERT BACK TO THE IDLE MODE.

MANUAL MODE: THE GRAPHIC SHALL INCLUDE A MANUAL ON MODE. THE MANUAL ON MODE SHALL PLACE THE SYSTEM IN MELTING MODE FOR A MINIMUM OF 24 HOURS(ADJ). AT THE END OF MANUAL MODE, THE SYSTEM SHALL REVERT BACK TO IDLE.

SECONDARY GLYCOL HOT WATER LOOP CONTROL

THE SIDEWALK LOOP GLYCOL SUPPLY TEMPERATURE SETPOINT SHALL BE DETERMINED ACCORDING TO THE SLAB TEMPERATURE. AS THE SLAB TEMPERATURE RANGES FROM (SLABSTP + 5) TO (SLABSTP - 5), THE GLYCOL TEMPERATURE SETPOINTS SHALL RANGE FROM 60°F TO THE MINIMUM OF SLAB TEMPERATURE +70°F OR GLYCOL HIGH END. THE INITIAL VALUES FOR GLYCOL HIGH END AND GLYCOL LOW END ARE 135°F AND 60°F.

THE FINAL GLYCOL SUPPLY TEMPERATURE SETPOINT SHALL BE DETERMINED BY THE MINIMUM OF THE INITIAL GLYCOL SUPPLY SETPOINT OR THE GLYCOL RETURN TEMPERATURE + MAX DELTA T. THE INITIAL VALUE FOR MAX DELTA T IS 25°F.

SAFETIES

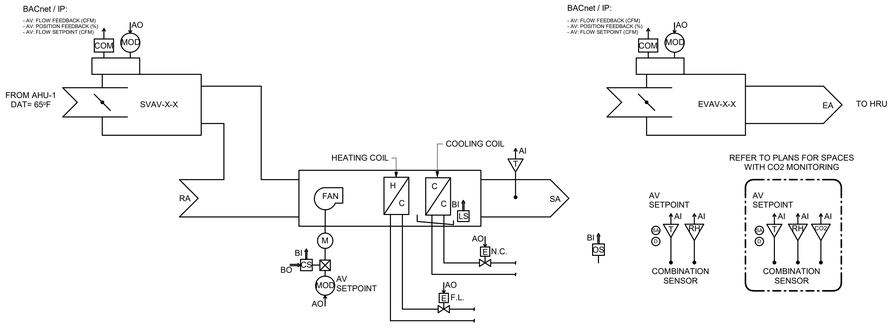
IF A PUMP IS COMMANDED ON AND STATUS IS NOT RECEIVED IN 30 SECONDS (ADJ), AN ALARM SHALL BE GENERATED.

IF A PUMP IS COMMANDED OFF AND STATUS IS ON FOR MORE THAN 30 SECONDS (ADJ), AN ALARM SHALL BE GENERATED.

IF ANY SLAB SENSOR IS MORE THAN 20°F ABOVE OR BELOW THE OTHER SENSORS IN THE SYSTEM, AN ALARM SHALL BE GENERATED.

IF THE SECONDARY LOOP GLYCOL SUPPLY TEMPERATURE EXCEEDS 130°F, THE PUMP SHALL BE DISABLED AND AN ALARM SHALL BE GENERATED.

1 SNOW MELT SYSTEM CONTROL SCHEMATIC AND SYSTEM SUMMARY
NOT TO SCALE



NOTE: REFER TO PLANS FOR EQUIPMENT QUANTITY PER SPACE

POINT SCHEDULE													
CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
									ALARM				
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
STEAM LOAD SHED						X (6)							BINARY NETWORK INPUTS FROM EMCS
CHILLED WATER LOAD SHED						X (4)							BINARY NETWORK INPUTS FROM EMCS
SUPPLY VAV DAMPER POSITION COMMAND (%)				X				X				X	
SUPPLY VAV AIRFLOW FEEDBACK (CFM)					X			X	X		10% FLOW DEVIATION FROM SETPOINT	X	BACnet IP NETWORK POINT
SUPPLY VAV AIRFLOW SETPOINT (CFM)					X			X				X	BACnet IP NETWORK POINT
SUPPLY VAV POSITION FEEDBACK (%)					X			X	X		COMMAND DOES NOT EQUAL FEEDBACK	X	BACnet IP NETWORK POINT
RETURN / EXHAUST VAV DAMPER POSITION COMMAND (%)				X				X				X	
RETURN / EXHAUST VAV AIRFLOW FEEDBACK (CFM)					X			X	X		10% FLOW DEVIATION FROM SETPOINT	X	BACnet IP NETWORK POINT
RETURN / EXHAUST VAV AIRFLOW SETPOINT (CFM)					X			X				X	BACnet IP NETWORK POINT
RETURN / EXHAUST VAV POSITION FEEDBACK (%)					X			X	X		COMMAND DOES NOT EQUAL FEEDBACK	X	BACnet IP NETWORK POINT
FAN COIL UNIT MOTOR STATUS (ON/OFF)	X							X	X		FAILURE	X	
FAN COIL UNIT MOTOR START/STOP		X						X				X	
FAN COIL UNIT MOTOR SPEED COMMAND (%) / SETPOINT				X				X				X	
FAN COIL UNIT HEATING COIL VALVE POSITION COMMAND (%)				X				X	X		5°F Δ ACROSS COIL WITH VALVE COMMANDED CLOSED	X	
FAN COIL UNIT COOLING COIL CONTROL VALVE POSITION COMMAND (%)				X				X	X		5°F Δ ACROSS COIL WITH VALVE COMMANDED CLOSED	X	
FAN COIL UNIT DISCHARGE AIR TEMPERATURE / SETPOINT (°F)			X		X			X	X		± 4°F FROM SETPOINT / SENSOR FAILURE	X	
FAN COIL UNIT CONDENSATE OVERFLOW SWITCH STATUS	X							X	X		OVERFLOW	X	
SPACE TEMPERATURE / SETPOINT (°F)			X		><			X	X		± 4°F FROM SETPOINT	X	
SPACE RELATIVE HUMIDITY (%RH)			X					X				X	MONITORING ONLY
SPACE CARBON DIOXIDE / SETPOINT			X		X			X				X	MONITORING ONLY, REFER TO PLANS
SPACE OCCUPANCY	X						X	X				X	

SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

4 PIPE FAN COIL UNIT
VENTILATION SUPPLY AIR TERMINAL UNIT
VENTILATION EXHAUST TERMINAL UNIT

GENERAL

SYSTEM SHALL BE CONTROLLED THROUGH THE BUILDING AUTOMATION AND CONTROL SYSTEM (BACS).

ALL SETPOINTS SHALL BE ADJUSTABLE.

THE BACS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK.

THE BACS SHALL BE CAPABLE OF RETAINING ITS PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST TEN HOURS.

ALL SAFETIES SHALL BE HARD WIRED INTO THE FAN MOTOR POWER CIRCUIT, AND SHALL REQUIRE MANUAL RESET.

LOAD SHED: REFER TO LOAD SHED MATRICES FOR THE SYSTEM CONTROL REQUIREMENTS FOR NON-RESEARCH SPACES.

SETPOINTS

SPACE COOLING TEMPERATURE SETPOINTS:

OCCUPIED: 75°F ± 1.5°F
UNOCCUPIED SETBACK: 75
F + 3.0°F
UNOCCUPIED: 75
F + 6.0°F

SPACE HEATING TEMPERATURE SETPOINTS:

OCCUPIED: 70°F ± 1.5°F
UNOCCUPIED SETBACK: 70°F - 3.0°F
UNOCCUPIED: 70°F - 6.0°F

MINIMUM SPACE OCCUPANCY INDEX TIME: 30 MINUTES

SUPPLY AIRFLOW RATE (CFM): SEE VAV SCHEDULE

RETURN AIRFLOW RATE (CFM): SEE VAV SCHEDULE

ZONE OCCUPANCY SCHEDULE: COORDINATE WITH OWNER

SPACE OCCUPANCY

ZONE OCCUPANCY SHALL BE DETERMINED BASED ON A COMBINATION OF TIME OF DAY SCHEDULE AND A SPACE OCCUPANCY SENSOR.

DURING THE SCHEDULED OCCUPANCY PERIOD, THE ZONE SHALL BE INITIALLY INDEXED TO OCCUPIED AND OPERATOR FOR A MINIMUM OF 30 MINUTES, AT WHICH TIME THE SPACE OCCUPANCY SENSOR SHALL INDEX THE SPACE BETWEEN OCCUPIED AND OCCUPIED SETBACK MODE.

DURING THE SCHEDULED UNOCCUPIED PERIOD, THE SPACE OCCUPANCY SENSOR SHALL INDEX THE ZONE TO OCCUPIED FOR THE DURATION OF OCCUPANCY. THE ZONE SHALL INDEX BACK TO UNOCCUPIED WHEN OCCUPANCY IS NOT SENSED FOR A PERIOD OF 30 MINUTES.

SUPPLY & RETURN AIR VAV BOX CONTROL

OCCUPIED: THE AIR TERMINAL UNIT SHALL MODULATE AS NEEDED TO MAINTAIN THE OCCUPIED AIRFLOW SETPOINT.

UNOCCUPIED: THE AIR TERMINAL UNIT SHALL BE CLOSED.

IF THE ZONE BECOMES OCCUPIED DURING THE SCHEDULED UNOCCUPIED PERIOD, THE OCCUPIED AIRFLOW CONTROL SEQUENCES SHALL APPLY FOR THE DURATION OF OCCUPANCY. WHEN THE ZONES BECOMES UNOCCUPIED AGAIN DURING THE SCHEDULED UNOCCUPIED PERIOD, THE ZONE SHALL INDEX BACK TO UNOCCUPIED MODE.

FAN COIL START/STOP

THE SYSTEM SHALL START AND INDEX TO MINIMUM POSITION TO WHENEVER THE SPACE IS IN OCCUPIED MODE AND SHALL START TO MAINTAIN THE HEATING AND COOLING SETPOINTS WHENEVER THE SPACE IS IN OCCUPIED SETBACK OR UNOCCUPIED MODE.

ZONE TEMPERATURE CONTROL

TEMPERATURE SETPOINTS SHALL BE DETERMINED BASED ON A COMBINATION OF PROGRAMMED SCHEDULED AND ZONE OCCUPANCY.

OCCUPIED HEATING: IF THE SPACE IS OCCUPIED DURING THE SCHEDULED OCCUPIED PERIOD AND IF THE ZONE TEMPERATURE FALLS BELOW THE OCCUPIED HEATING TEMPERATURE SETPOINT, THE HEATING COIL CONTROL VALVE SHALL FIRST MODULATE AS REQUIRED TO MAINTAIN SPACE TEMPERATURE SETPOINT. IF THE FAN COIL UNIT CANNOT MAINTAIN SPACE TEMPERATURE SETPOINT WITH THE HEATING COIL CONTROL VALVE AT 100% OPEN, THE FAN COIL SPEED SHALL MODULATE BETWEEN MINIMUM AND MAXIMUM POSITIONS TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. THE COOLING COIL CONTROL VALVE SHALL BE CLOSED.

OCCUPIED COOLING: IF THE SPACE IS OCCUPIED DURING THE SCHEDULED OCCUPIED PERIOD AND THE ZONE TEMPERATURE RISES ABOVE THE OCCUPIED COOLING TEMPERATURE SETPOINT, THE COOLING COIL VALVE SHALL FIRST MODULATE AS REQUIRED TO MAINTAIN SPACE TEMPERATURE SETPOINT. IF THE FAN COIL UNIT CANNOT MAINTAIN SPACE TEMPERATURE SET POINT WITH THE COOLING COIL CONTROL VALVE AT 100% OPEN, THE FAN COIL SPEED SHALL MODULATE BETWEEN MINIMUM AND MAXIMUM POSITIONS TO MAINTAIN THE SPACE TEMPERATURE SETPOINT.

OCCUPIED SETBACK: IF THE ZONE IS UNOCCUPIED DURING THE SCHEDULED OCCUPIED PERIOD, THE ABOVE OCCUPIED HEATING/COOLING SEQUENCES SHALL APPLY. THE SPACE SHALL BE MAINTAINED AT THE OCCUPIED SETBACK TEMPERATURE SETPOINTS.

UNOCCUPIED HEATING SETBACK: WHEN THE SPACE IS UNOCCUPIED DURING THE SCHEDULED UNOCCUPIED PERIOD. IF THE ZONE TEMPERATURE FALLS BELOW THE UNOCCUPIED HEATING TEMPERATURE SETPOINT, THE FAN COIL UNIT SHALL START AND THE ABOVE OCCUPIED HEATING SEQUENCE SHALL APPLY. THE SPACE SHALL BE MAINTAINED AT THE UNOCCUPIED TEMPERATURE SETPOINTS.

UNOCCUPIED COOLING SETBACK: WHEN THE SPACE IS UNOCCUPIED DURING THE SCHEDULED UNOCCUPIED PERIOD. IF THE ZONE TEMPERATURE RISES ABOVE THE UNOCCUPIED COOLING TEMPERATURE SETPOINT, THE FAN COIL UNIT SHALL START AND THE ABOVE OCCUPIED COOLING SEQUENCE SHALL APPLY. THE SPACE SHALL BE MAINTAINED AT THE UNOCCUPIED TEMPERATURE SETPOINTS.

2 TYPICAL 4-PIPE FAN COIL, VENTILATION AIR SVAV AND EVAV CONTROL SCHEMATIC AND SYSTEM SUMMARY
NOT TO SCALE

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BID DOCUMENTS

DATE ISSUED:
2026.09.14

CONTROL SCHEMATICS AND SYSTEM SUMMARIES

M303

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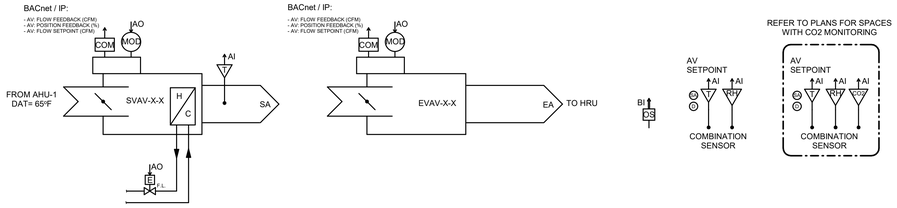


POINT SCHEDULE

CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
									ALARM				
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
STEAM LOAD SHED						X (6)							BINARY NETWORK INPUTS FROM EMCS
SUPPLY VAV DAMPER POSITION COMMAND (%)				X				X				X	
SUPPLY VAV AIRFLOW FEEDBACK (CFM)					X			X	X		10% FLOW DEVIATION FROM SETPOINT	X	BACnet IP NETWORK POINT
SUPPLY VAV AIRFLOW SETPOINT (CFM)					X			X				X	BACnet IP NETWORK POINT
SUPPLY VAV POSITION FEEDBACK (%)					X			X	X		COMMAND DOES NOT EQUAL FEEDBACK	X	BACnet IP NETWORK POINT
REHEAT COIL VALVE POSITION COMMAND (%)				X				X	X		5°F Δ ACROSS COIL WITH VALVE COMMANDED CLOSED	X	
REHEAT COIL DISCHARGE AIR TEMPERATURE			X					X				X	
RETURN / EXHAUST VAV DAMPER POSITION COMMAND (%)				X				X				X	
RETURN / EXHAUST VAV AIRFLOW FEEDBACK (CFM)					X			X	X		10% FLOW DEVIATION FROM SETPOINT	X	BACnet IP NETWORK POINT
RETURN / EXHAUST VAV AIRFLOW SETPOINT (CFM)					X			X				X	BACnet IP NETWORK POINT
RETURN / EXHAUST VAV POSITION FEEDBACK (%)					X			X	X		COMMAND DOES NOT EQUAL FEEDBACK	X	BACnet IP NETWORK POINT
SPACE TEMPERATURE / SETPOINT (°F)			X		><			X	X		± 4°F FROM SETPOINT	X	
SPACE RELATIVE HUMIDITY (%RH)			X					X				X	MONITORING ONLY
SPACE CARBON DIOXIDE / SETPOINT			X		X			X				X	MONITORING ONLY, REFER TO PLANS
SPACE OCCUPANCY	X						X	X				X	

1 TYPICAL SVAV WITH REHEAT AND EVAV CONTROL CONTROL SCHEMATIC AND SYSTEM SUMMARY
NOT TO SCALE

SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

SUPPLY AIR TERMINAL UNIT WITH REHEAT
EXHAUST AIR TERMINAL UNIT

GENERAL

SYSTEM SHALL BE CONTROLLED THROUGH THE BUILDING AUTOMATION AND CONTROL SYSTEM (BACS).

ALL SETPOINTS SHALL BE ADJUSTABLE.

THE BACS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK.

THE BACS SHALL BE CAPABLE OF RETAINING ITS PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST TEN HOURS.

ALL SAFETIES SHALL BE HARD WIRED INTO THE FAN MOTOR POWER CIRCUIT, AND SHALL REQUIRE MANUAL RESET.

LOAD SHED: REFER TO LOAD SHED MATRICES FOR THE SYSTEM CONTROL REQUIREMENTS FOR NON-RESEARCH SPACES.

SETPOINTS

SPACE COOLING TEMPERATURE SETPOINTS:

OCCUPIED: 75°F ± 1.5°F
UNOCCUPIED SETBACK: 75
F + 3.0°F
UNOCCUPIED: 75
F + 6.0°F

SPACE HEATING TEMPERATURE SETPOINTS:

OCCUPIED: 70°F ± 1.5°F
UNOCCUPIED SETBACK: 70°F - 3.0°F
UNOCCUPIED: 70°F - 6.0°F

MINIMUM SPACE OCCUPANCY INDEX TIME: 30 MINUTES

SUPPLY AIRFLOW RATE (CFM): SEE VAV SCHEDULE

EXHAUST AIRFLOW RATE (CFM): SEE VAV SCHEDULE

ZONE OCCUPANCY SCHEDULE: 6 AM TO 6 PM, MON-FRI

SPACE OCCUPANCY

ZONE OCCUPANCY SHALL BE DETERMINED BASED ON A COMBINATION OF TIME OF DAY SCHEDULE AND A SPACE OCCUPANCY SENSOR.

DURING THE SCHEDULED OCCUPANCY PERIOD, THE ZONE SHALL BE INITIALLY INDEXED TO OCCUPIED AND OPERATE FOR THE MINIMUM DURATION, AT WHICH TIME THE SPACE OCCUPANCY SENSOR SHALL INDEX THE SPACE BETWEEN OCCUPIED AND OCCUPIED SETBACK MODE.

DURING THE SCHEDULED UNOCCUPIED PERIOD, THE SPACE OCCUPANCY SENSOR SHALL INDEX THE ZONE TO OCCUPIED FOR THE DURATION OF OCCUPANCY. THE ZONE SHALL INDEX BACK TO UNOCCUPIED WHEN OCCUPANCY IS NOT SENSED FOR A PERIOD OF MINIMUM DURATION.

SUPPLY AIR VAV BOX CONTROL

OCCUPIED: THE SUPPLY AIR VAV SHALL MODULATE AS NEEDED TO MAINTAIN THE OCCUPIED AIRFLOW SETPOINT.

UNOCCUPIED: THE SUPPLY AIR VAV SHALL BE CLOSED.

EXHAUST AIR VAV BOX CONTROL

OCCUPIED: THE EXHAUST AIR VALVE SHALL MODULATE AS NEEDED TO MAINTAIN THE SUPPLY AIRFLOW RATE MINUS THE SPECIFIED AIRFLOW DIFFERENTIAL.

UNOCCUPIED: THE EXHAUST AIR VAV SHALL BE CLOSED.

ZONE TEMPERATURE CONTROL AND FAN SPEED CONTROL

TEMPERATURE SETPOINTS SHALL BE DETERMINED BASED ON A COMBINATION OF PROGRAMMED SCHEDULED AND ZONE OCCUPANCY.

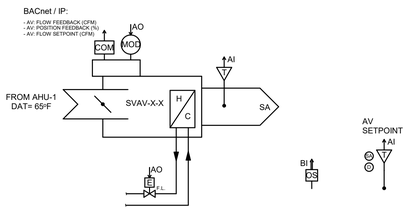
OCCUPIED HEATING: IF THE SPACE IS OCCUPIED DURING THE SCHEDULED OCCUPIED PERIOD AND IF THE ZONE TEMPERATURE FALLS BELOW THE OCCUPIED HEATING TEMPERATURE SETPOINT THE REHEAT COIL CONTROL VALVE SHALL MODULATE AS REQUIRED TO MAINTAIN SPACE TEMPERATURE SETPOINT. THE COOLING COIL CONTROL VALVE SHALL BE CLOSED.

OCCUPIED COOLING: IF THE SPACE IS OCCUPIED DURING THE SCHEDULED OCCUPIED PERIOD AND THE ZONE TEMPERATURE RISES ABOVE THE OCCUPIED COOLING TEMPERATURE SETPOINT, THE REHEAT COIL CONTROL VALVE SHALL BE CLOSED.

OCCUPIED SETBACK: IF THE ZONE IS UNOCCUPIED DURING THE SCHEDULED OCCUPIED PERIOD, THE ABOVE OCCUPIED HEATING/COOLING SEQUENCES SHALL APPLY. THE SPACE SHALL BE MAINTAINED AT THE OCCUPIED SETBACK TEMPERATURE SETPOINTS.

UNOCCUPIED HEATING SETBACK: WHEN THE SPACE IS UNOCCUPIED DURING THE SCHEDULED UNOCCUPIED PERIOD. IF THE ZONE TEMPERATURE FALLS BELOW THE UNOCCUPIED HEATING TEMPERATURE SETPOINT, THE ABOVE OCCUPIED HEATING SEQUENCE SHALL APPLY. THE SPACE SHALL BE MAINTAINED AT THE UNOCCUPIED TEMPERATURE SETPOINTS.

UNOCCUPIED COOLING SETBACK: WHEN THE SPACE IS UNOCCUPIED DURING THE SCHEDULED UNOCCUPIED PERIOD. IF THE ZONE TEMPERATURE RISES ABOVE THE UNOCCUPIED COOLING TEMPERATURE SETPOINT, THE ABOVE OCCUPIED COOLING SEQUENCE SHALL APPLY. THE SPACE SHALL BE MAINTAINED AT THE UNOCCUPIED TEMPERATURE SETPOINTS.



POINT SCHEDULE

CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
									ALARM				
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
STEAM LOAD SHED						X (6)							BINARY NETWORK INPUTS FROM EMCS
SUPPLY VAV DAMPER POSITION COMMAND (%)				X				X				X	
SUPPLY VAV AIRFLOW FEEDBACK (CFM)					X			X	X		10% FLOW DEVIATION FROM SETPOINT	X	BACnet IP NETWORK POINT
SUPPLY VAV AIRFLOW SETPOINT (CFM)					X			X				X	BACnet IP NETWORK POINT
SUPPLY VAV POSITION FEEDBACK (%)					X			X	X		COMMAND DOES NOT EQUAL FEEDBACK	X	BACnet IP NETWORK POINT
REHEAT COIL VALVE POSITION COMMAND (%)				X				X	X		5°F Δ ACROSS COIL WITH VALVE COMMANDED CLOSED	X	
REHEAT COIL DISCHARGE AIR TEMPERATURE			X					X				X	
SPACE TEMPERATURE / SETPOINT (°F)			X		><			X	X		± 4°F FROM SETPOINT	X	
SPACE OCCUPANCY	X						X	X				X	

2 CORRIDOR VAV WITH REHEAT CONTROL SCHEMATIC AND SYSTEM SUMMARY
NOT TO SCALE

SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

CORRIDOR SUPPLY AIR TERMINAL UNIT

GENERAL

SYSTEM SHALL BE CONTROLLED THROUGH THE BUILDING AUTOMATION AND CONTROL SYSTEM (BACS).

ALL SETPOINTS SHALL BE ADJUSTABLE.

THE BACS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK.

THE BACS SHALL BE CAPABLE OF RETAINING ITS PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST TEN HOURS.

ALL SAFETIES SHALL BE HARD WIRED INTO THE FAN MOTOR POWER CIRCUIT, AND SHALL REQUIRE MANUAL RESET.

LOAD SHED: REFER TO LOAD SHED MATRICES FOR THE SYSTEM CONTROL REQUIREMENTS FOR NON-RESEARCH SPACES.

SETPOINTS

SPACE COOLING TEMPERATURE SETPOINTS:

OCCUPIED: 75°F
UNOCCUPIED: 81°F

SPACE HEATING TEMPERATURE SETPOINTS:

OCCUPIED: 70°F
UNOCCUPIED: 64°F

SUPPLY AIRFLOW RATE (CFM): SEE AIRFLOW SCHEDULE

ZONE OCCUPANCY SCHEDULE: 6 AM TO 6 PM, MON-FRI

SUPPLY AIR VAV BOX CONTROL

SPACE OCCUPANCY SETPOINTS SHALL BE DETERMINED BASED ON TIME OF DAY SCHEDULE.

OCCUPIED: THE SUPPLY AIR TERMINAL UNIT SHALL MODULATE AS NEEDED TO MAINTAIN THE OCCUPIED AIRFLOW SETPOINT.

UNOCCUPIED: THE SUPPLY AIR TERMINAL UNIT SHALL MODULATE AS NEEDED TO MAINTAIN THE UNOCCUPIED AIRFLOW SETPOINT.

ZONE TEMPERATURE CONTROL

TEMPERATURE SETPOINTS SHALL BE DETERMINED BASED ON A PROGRAMMED SCHEDULED OCCUPANCY.

OCCUPIED HEATING: IF THE ZONE TEMPERATURE FALLS BELOW THE OCCUPIED HEATING TEMPERATURE SETPOINT, THE HEATING COIL CONTROL VALVE SHALL MODULATE AS REQUIRED TO MAINTAIN SPACE TEMPERATURE SETPOINT.

OCCUPIED COOLING: THE ZONE TEMPERATURE RISES ABOVE THE OCCUPIED COOLING TEMPERATURE SETPOINT, THE REHEAT COIL VALVE SHALL BE CLOSED.

UNOCCUPIED HEATING / COOLING: THE ABOVE OCCUPIED SEQUENCE SHALL APPLY, BUT THE SPACE SHALL BE MAINTAINED AT THE UNOCCUPIED HEATING / COOLING TEMPERATURE SETPOINT.

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REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
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CONTROL SCHEMATICS AND SYSTEM SUMMARIES

M304

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THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THIS ENTIRE ORIGINAL DRAWING

THE SQUARE ABOVE ARE COLOR WITH BLACK AND WHITE LETTERS, IF PRINTED CORRECTLY

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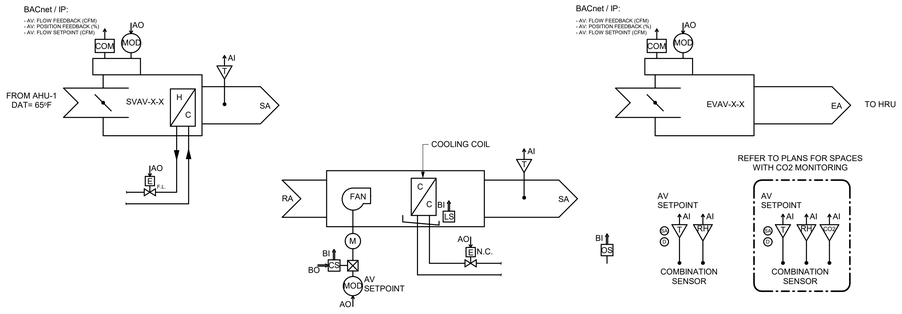


POINT SCHEDULE

CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
									ALARM				
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
STEAM LOAD SHED						X (6)							BINARY NETWORK INPUTS FROM EMCS
CHILLED WATER LOAD SHED						X (4)							BINARY NETWORK INPUTS FROM EMCS
SUPPLY VAV DAMPER POSITION COMMAND (%)				X				X				X	
SUPPLY VAV AIRFLOW FEEDBACK (CFM)					X			X	X		10% FLOW DEVIATION FROM SETPOINT	X	BACnet IP NETWORK POINT
SUPPLY VAV AIRFLOW SETPOINT (CFM)					X			X				X	BACnet IP NETWORK POINT
SUPPLY VAV POSITION FEEDBACK (%)					X			X	X		COMMAND DOES NOT EQUAL FEEDBACK	X	BACnet IP NETWORK POINT
REHEAT COIL VALVE POSITION COMMAND (%)				X				X	X		5°F Δ ACROSS COIL WITH VALVE COMMANDED CLOSED	X	
REHEAT COIL DISCHARGE AIR TEMPERATURE			X					X				X	
RETURN / EXHAUST VAV DAMPER POSITION COMMAND (%)				X				X				X	
RETURN / EXHAUST VAV AIRFLOW FEEDBACK (CFM)					X			X	X		10% FLOW DEVIATION FROM SETPOINT	X	BACnet IP NETWORK POINT
RETURN / EXHAUST VAV AIRFLOW SETPOINT (CFM)					X			X				X	BACnet IP NETWORK POINT
RETURN / EXHAUST VAV POSITION FEEDBACK (%)					X			X	X		COMMAND DOES NOT EQUAL FEEDBACK	X	BACnet IP NETWORK POINT
FAN COIL UNIT MOTOR STATUS (ON/OFF)	X							X	X		FAILURE	X	
FAN COIL UNIT MOTOR START/STOP		X						X				X	
FAN COIL UNIT MOTOR SPEED COMMAND (%) / SETPOINT				X				X				X	
FAN COIL UNIT COOLING COIL CONTROL VALVE POSITION COMMAND (%)				X				X				X	
FAN COIL DISCHARGE AIR TEMPERATURE / SETPOINT (°F)			X		X			X	X		± 4°F FROM SETPOINT / SENSOR FAILURE	X	
FAN COIL UNIT CONDENSATE OVERFLOW SWITCH STATUS	X							X	X		OVERFLOW	X	
SPACE TEMPERATURE / SETPOINT (°F)			X		><			X	X		± 4°F FROM SETPOINT	X	
SPACE RELATIVE HUMIDITY (%RH)			X					X				X	MONITORING ONLY
SPACE CARBON DIOXIDE / SETPOINT			X		X			X				X	MONITORING ONLY, REFER TO PLANS
SPACE OCCUPANCY	X						X	X				X	

1 TYPICAL 2-PIPE FAN COIL, SVAV WITH REHEAT AND EVAV CONTROL SCHEMATIC AND SYSTEM SUMMARY
NOT TO SCALE

SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

2 PIPE FAN COIL UNIT
SUPPLY AIR TERMINAL UNIT WITH REHEAT
EXHAUST AIR TERMINAL UNIT

GENERAL

SYSTEM SHALL BE CONTROLLED THROUGH THE BUILDING AUTOMATION AND CONTROL SYSTEM (BACS).

ALL SETPOINTS SHALL BE ADJUSTABLE.

THE BACS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK.

THE BACS SHALL BE CAPABLE OF RETAINING ITS PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST TEN HOURS.

ALL SAFETIES SHALL BE HARD WIRED INTO THE FAN MOTOR POWER CIRCUIT, AND SHALL REQUIRE MANUAL RESET.

LOAD SHED: REFER TO LOAD SHED MATRICES FOR THE SYSTEM CONTROL REQUIREMENTS FOR NON-RESEARCH SPACES.

SETPOINTS

SPACE COOLING TEMPERATURE SETPOINTS:

OCCUPIED: 75°F ± 1.5°F
UNOCCUPIED SETBACK: 75
F + 3.0°F
UNOCCUPIED: 75
F + 6.0°F

SPACE HEATING TEMPERATURE SETPOINTS:

OCCUPIED: 70°F ± 1.5°F
UNOCCUPIED SETBACK: 70°F - 3.0°F
UNOCCUPIED: 70°F - 6.0°F

MINIMUM SPACE OCCUPANCY INDEX TIME: 30 MINUTES

SUPPLY AIRFLOW RATE (CFM): SEE VAV SCHEDULE

RETURN AIRFLOW RATE (CFM): SEE VAV SCHEDULE

ZONE OCCUPANCY SCHEDULE: COORDINATE WITH OWNER

SPACE OCCUPANCY

ZONE OCCUPANCY SHALL BE DETERMINED BASED ON A COMBINATION OF TIME OF DAY SCHEDULE AND A SPACE OCCUPANCY SENSOR.

DURING THE SCHEDULED OCCUPANCY PERIOD, THE ZONE SHALL BE INITIALLY INDEXED TO OCCUPIED AND OPERATOR FOR A MINIMUM OF 30 MINUTES, AT WHICH TIME THE SPACE OCCUPANCY SENSOR SHALL INDEX THE SPACE BETWEEN OCCUPIED AND OCCUPIED SETBACK MODE.

DURING THE SCHEDULED UNOCCUPIED PERIOD, THE SPACE OCCUPANCY SENSOR SHALL INDEX THE ZONE TO OCCUPIED FOR THE DURATION OF OCCUPANCY. THE ZONE SHALL INDEX BACK TO UNOCCUPIED WHEN OCCUPANCY IS NOT SENSED FOR A PERIOD OF 30 MINUTES.

SUPPLY & RETURN AIR VAV BOX CONTROL

OCCUPIED: THE AIR TERMINAL UNIT SHALL MODULATE AS NEEDED TO MAINTAIN THE OCCUPIED AIRFLOW SETPOINT.

UNOCCUPIED: THE AIR TERMINAL UNIT SHALL BE CLOSED.

IF THE ZONE BECOMES OCCUPIED DURING THE SCHEDULED UNOCCUPIED PERIOD, THE OCCUPIED AIRFLOW CONTROL SEQUENCES SHALL APPLY FOR THE DURATION OF OCCUPANCY. WHEN THE ZONES BECOMES UNOCCUPIED AGAIN DURING THE SCHEDULED UNOCCUPIED PERIOD, THE ZONE SHALL INDEX BACK TO UNOCCUPIED MODE.

ZONE TEMPERATURE CONTROL

TEMPERATURE SETPOINTS SHALL BE DETERMINED BASED ON A COMBINATION OF PROGRAMMED SCHEDULED AND ZONE OCCUPANCY.

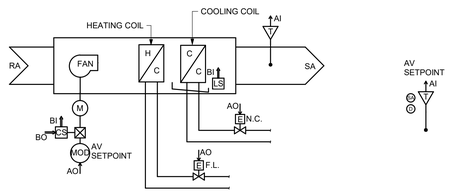
OCCUPIED HEATING: IF THE SPACE IS OCCUPIED DURING THE SCHEDULED OCCUPIED PERIOD AND THE SPACE TEMPERATURE FALLS BELOW THE OCCUPIED HEATING TEMPERATURE SETPOINT, THE REHEAT CONTROL VALVE SHALL MODULATE TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. THE COOLING COIL CONTROL VALVE SHALL BE CLOSED.

OCCUPIED COOLING: IF THE SPACE IS OCCUPIED DURING THE SCHEDULED OCCUPIED PERIOD AND THE ZONE TEMPERATURE RISES ABOVE THE OCCUPIED COOLING TEMPERATURE SETPOINT, THE FAN COIL UNIT FAN SHALL INDEX TO MINIMUM POSITION AND THE COOLING COIL VALVE SHALL FIRST MODULATE AS REQUIRED TO MAINTAIN SPACE TEMPERATURE SETPOINT. IF THE FAN COIL UNIT CANNOT MAINTAIN SPACE TEMPERATURE SET POINT WITH THE COOLING COIL CONTROL VALVE AT 100% OPEN, THE FAN COIL SPEED SHALL MODULATE BETWEEN MINIMUM AND MAXIMUM POSITIONS TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. THE REHEAT COIL CONTROL VALVE SHALL BE CLOSED.

OCCUPIED SETBACK: IF THE SPACE BECOMES UNOCCUPIED DURING THE SCHEDULED OCCUPIED PERIOD, THE ABOVE OCCUPIED HEATING/COOLING SEQUENCE SHALL APPLY, BUT THE SPACE SHALL BE MAINTAINED AT THE OCCUPIED SETBACK TEMPERATURE SETPOINT.

UNOCCUPIED HEATING: IF THE SPACE IS UNOCCUPIED DURING THE SCHEDULED UNOCCUPIED PERIOD AND THE SPACE TEMPERATURE FALLS BELOW THE UNOCCUPIED HEATING TEMPERATURE SETPOINT, THE REHEAT COIL CONTROL VALVE SHALL MODULATE AS REQUIRED TO MAINTAIN SPACE TEMPERATURE SETPOINT. THE COOLING COIL CONTROL VALVE SHALL BE CLOSED.

UNOCCUPIED COOLING: IF THE SPACE IS UNOCCUPIED DURING THE SCHEDULED UNOCCUPIED PERIOD AND THE SPACE TEMPERATURE RISES ABOVE THE UNOCCUPIED COOLING TEMPERATURE SETPOINT, THE ABOVE OCCUPIED SEQUENCE SHALL APPLY, BUT THE SPACE SHALL BE MAINTAINED AT THE UNOCCUPIED COOLING TEMPERATURE SETPOINT AND THE REHEAT COIL CONTROL VALVE SHALL CLOSE.



POINT SCHEDULE

CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
									ALARM				
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
STEAM LOAD SHED						X (6)							BINARY NETWORK INPUTS FROM EMCS
CHILLED WATER LOAD SHED						X (4)							BINARY NETWORK INPUTS FROM EMCS
FAN COIL UNIT MOTOR STATUS (ON/OFF)	X							X	X		FAILURE	X	
FAN COIL UNIT MOTOR START/STOP		X						X				X	
FAN COIL UNIT MOTOR SPEED COMMAND (%) / SETPOINT				X				X				X	
FAN COIL HEATING COIL VALVE POSITION COMMAND (%)				X				X	X		5°F Δ ACROSS COIL WITH VALVE COMMANDED CLOSED	X	
FAN COIL UNIT COOLING COIL CONTROL VALVE POSITION COMMAND (%)				X				X				X	
FAN COIL UNIT DISCHARGE AIR TEMPERATURE / SETPOINT (°F)			X		X			X	X		± 4°F FROM SETPOINT / SENSOR FAILURE	X	
FAN COIL UNIT CONDENSATE OVERFLOW SWITCH STATUS	X							X	X		OVERFLOW	X	
SPACE TEMPERATURE / SETPOINT (°F)			X		><			X	X		± 4°F FROM SETPOINT	X	

2 ELEVATOR CONTROLLER ROOM CONTROL SCHEMATIC AND SYSTEM SUMMARY
NOT TO SCALE

SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

4 PIPE FAN COIL UNIT

GENERAL

SYSTEM SHALL BE CONTROLLED THROUGH THE BUILDING AUTOMATION AND CONTROL SYSTEM (BACS).

ALL SETPOINTS SHALL BE ADJUSTABLE.

THE BACS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK.

THE BACS SHALL BE CAPABLE OF RETAINING ITS PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST TEN HOURS.

ALL SAFETIES SHALL BE HARD WIRED INTO THE FAN MOTOR POWER CIRCUIT, AND SHALL REQUIRE MANUAL RESET.

LOAD SHED: REFER TO LOAD SHED MATRICES FOR THE SYSTEM CONTROL REQUIREMENTS FOR NON-RESEARCH SPACES.

SETPOINTS

SPACE COOLING TEMPERATURE SETPOINTS:

OCCUPIED: 75°F ± 1.5°F
UNOCCUPIED SETBACK: 75°F + 3.0°F
UNOCCUPIED: 75°F + 6.0°F

SPACE HEATING TEMPERATURE SETPOINTS:

OCCUPIED: 70°F ± 1.5°F
UNOCCUPIED SETBACK: 70°F - 3.0°F
UNOCCUPIED: 70°F - 6.0°F

MINIMUM SPACE OCCUPANCY INDEX TIME: 30 MINUTES

ZONE OCCUPANCY SCHEDULE: COORDINATE WITH OWNER

SPACE OCCUPANCY

ZONE OCCUPANCY SHALL BE DETERMINED BASED ON A COMBINATION OF TIME OF DAY SCHEDULE AND A SPACE OCCUPANCY SENSOR.

DURING THE SCHEDULED OCCUPANCY PERIOD, THE ZONE SHALL BE INITIALLY INDEXED TO OCCUPIED AND OPERATOR FOR A MINIMUM OF 30 MINUTES, AT WHICH TIME THE SPACE OCCUPANCY SENSOR SHALL INDEX THE SPACE BETWEEN OCCUPIED AND OCCUPIED SETBACK MODE.

DURING THE SCHEDULED UNOCCUPIED PERIOD, THE SPACE OCCUPANCY SENSOR SHALL INDEX THE ZONE TO OCCUPIED FOR THE DURATION OF OCCUPANCY. THE ZONE SHALL INDEX BACK TO UNOCCUPIED WHEN OCCUPANCY IS NOT SENSED FOR A PERIOD OF 30 MINUTES.

ZONE TEMPERATURE CONTROL

TEMPERATURE SETPOINTS SHALL BE DETERMINED BASED ON A COMBINATION OF PROGRAMMED SCHEDULED AND ZONE OCCUPANCY.

OCCUPIED HEATING: IF THE SPACE IS OCCUPIED DURING THE SCHEDULED OCCUPIED PERIOD AND IF THE ZONE TEMPERATURE FALLS BELOW THE OCCUPIED HEATING TEMPERATURE SETPOINT THE FAN COIL UNIT FAN SHALL INDEX TO MINIMUM POSITION AND THE HEATING COIL CONTROL VALVE SHALL FIRST MODULATE AS REQUIRED TO MAINTAIN SPACE TEMPERATURE SETPOINT. IF THE FAN COIL UNIT CANNOT MAINTAIN SPACE TEMPERATURE SETPOINT WITH THE HEATING COIL CONTROL VALVE AT 100% OPEN, THE FAN COIL SPEED SHALL MODULATE BETWEEN MINIMUM AND MAXIMUM POSITIONS TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. THE COOLING COIL CONTROL VALVE SHALL BE CLOSED.

OCCUPIED COOLING: IF THE SPACE IS OCCUPIED DURING THE SCHEDULED OCCUPIED PERIOD AND THE ZONE TEMPERATURE RISES ABOVE THE OCCUPIED COOLING TEMPERATURE SETPOINT, THE FAN COIL UNIT FAN SHALL INDEX TO MINIMUM POSITION AND THE COOLING COIL VALVE SHALL FIRST MODULATE AS REQUIRED TO MAINTAIN SPACE TEMPERATURE SETPOINT. IF THE FAN COIL UNIT CANNOT MAINTAIN SPACE TEMPERATURE SET POINT WITH THE COOLING COIL CONTROL VALVE AT 100% OPEN, THE FAN COIL SPEED SHALL MODULATE BETWEEN MINIMUM AND MAXIMUM POSITIONS TO MAINTAIN THE SPACE TEMPERATURE SETPOINT.

OCCUPIED SETBACK: IF THE ZONE IS UNOCCUPIED DURING THE SCHEDULED OCCUPIED PERIOD, THE ABOVE OCCUPIED HEATING/COOLING SEQUENCES SHALL APPLY. THE SPACE SHALL BE MAINTAINED AT THE OCCUPIED SETBACK TEMPERATURE SETPOINTS.

UNOCCUPIED HEATING SETBACK: WHEN THE SPACE IS UNOCCUPIED DURING THE SCHEDULED UNOCCUPIED PERIOD. IF THE ZONE TEMPERATURE FALLS BELOW THE UNOCCUPIED HEATING TEMPERATURE SETPOINT, THE ABOVE OCCUPIED HEATING SEQUENCE SHALL APPLY. THE SPACE SHALL BE MAINTAINED AT THE UNOCCUPIED TEMPERATURE SETPOINTS.

UNOCCUPIED COOLING SETBACK: WHEN THE SPACE IS UNOCCUPIED DURING THE SCHEDULED UNOCCUPIED PERIOD. IF THE ZONE TEMPERATURE RISES ABOVE THE UNOCCUPIED COOLING TEMPERATURE SETPOINT, THE ABOVE OCCUPIED COOLING SEQUENCE SHALL APPLY. THE SPACE SHALL BE MAINTAINED AT THE UNOCCUPIED TEMPERATURE SETPOINTS.

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AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

CONTROL SCHEMATICS AND SYSTEM SUMMARIES

M305

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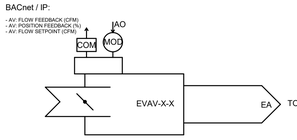
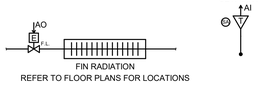
BACnet / IP:
- AV: FLOW FEEDBACK (CFM)
- AV: POSITION FEEDBACK (%)
- AV: FLOW SETPOINT (CFM)





REFER TO FLOOR PLANS FOR LOCATIONS

SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

TOILET EXHAUST AIR TERMINAL UNIT
FIN RADIATION

GENERAL

SYSTEM SHALL BE CONTROLLED THROUGH THE BUILDING AUTOMATION AND CONTROL SYSTEM (BACS).

ALL SETPOINTS SHALL BE ADJUSTABLE.

THE BACS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK.

THE BACS SHALL BE CAPABLE OF RETAINING ITS PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST TEN HOURS.

ALL SAFETIES SHALL BE HARD WIRED INTO THE FAN MOTOR POWER CIRCUIT, AND SHALL REQUIRE MANUAL RESET.

LOAD SHED: REFER TO LOAD SHED MATRICES FOR THE SYSTEM CONTROL REQUIREMENTS FOR NON-RESEARCH SPACES.

SETPOINTS

EXHAUST AIRFLOW RATE (CFM):
OCCUPIED: SEE VAV SCHEDULE
UNOCCUPIED: COMMAND BOX CLOSED

SPACE HEATING TEMPERATURE SETPOINT: 65°F

ZONE OCCUPANCY SCHEDULE: COORDINATE WITH OWNER

EXHAUST AIR VAV BOX CONTROL

OCCUPIED: THE EXHAUST AIR VALVE SHALL MODULATE AS NEEDED TO MAINTAIN THE EXHAUST AIRFLOW RATE.

UNOCCUPIED: THE EXHAUST AIR VAV SHALL BE CLOSED.

ZONE TEMPERATURE CONTROL

TEMPERATURE SETPOINTS SHALL BE DETERMINED BASED ON A COMBINATION OF PROGRAMMED SCHEDULED AND ZONE OCCUPANCY.

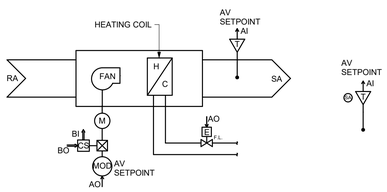
HEATING: IF THE ZONE TEMPERATURE FALLS BELOW THE HEATING TEMPERATURE SETPOINT, THE FIN RADIATION CONTROL VALVE SHALL MODULATE TO MAINTAIN SETPOINT.

POINT SCHEDULE

CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
								ALARM					
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
STEAM LOAD SHED						X (6)							BINARY NETWORK INPUTS FROM EMCS
EXHAUST VAV DAMPER POSITION COMMAND (%)				X				X				X	
EXHAUST VAV AIRFLOW FEEDBACK (CFM)					X			X	X		10% FLOW DEVIATION FROM SETPOINT	X	BACnet IP NETWORK POINT
EXHAUST VAV AIRFLOW SETPOINT (CFM)					X			X				X	BACnet IP NETWORK POINT
EXHAUST VAV POSITION FEEDBACK (%)					X			X	X		COMMAND DOES NOT EQUAL FEEDBACK	X	BACnet IP NETWORK POINT
FIN RADIATION COIL VALVE POSITION COMMAND (%)				X				X	X		5°F Δ ACROSS COIL WITH VALVE COMMANDED CLOSED	X	REFER TO PLANS
SPACE TEMPERATURE / SETPOINT (°F)			X		✕			X	X		± 4°F FROM SETPOINT	X	REFER TO PLANS

1 TOILET ROOM AND JANITORS CLOSET CONTROL SCHEMATIC AND SYSTEM SUMMARY

NOT TO SCALE



POINT SCHEDULE

CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
								ALARM					
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
STEAM LOAD SHED						X (6)							BINARY NETWORK INPUTS FROM EMCS
FAN MOTOR STATUS (ON/OFF)	X							X	X		FAILURE	X	
FAN MOTOR START/STOP		X						X				X	
FAN MOTOR SPEED COMMAND (%) / SETPOINT				X				X				X	
HEATING COIL VALVE POSITION COMMAND (%)				X				X	X		5°F Δ ACROSS COIL WITH VALVE COMMANDED CLOSED	X	
HEATING COIL LEAVING AIR TEMPERATURE / SETPOINT (°F)			X		X			X				X	
SPACE TEMPERATURE / SETPOINT (°F)			X		✕			X	X		± 4°F FROM SETPOINT	X	

SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

CABINET UNIT HEATER

GENERAL

SYSTEM SHALL BE CONTROLLED THROUGH THE BUILDING AUTOMATION AND CONTROL SYSTEM (BACS).

THE BACS SHALL BE CAPABLE OF RETAINING ITS PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST TEN HOURS.

ALL SETPOINTS SHALL BE ADJUSTABLE.

THE BACS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK.

LOAD SHED: REFER TO LOAD SHED MATRICES FOR THE SYSTEM CONTROL REQUIREMENTS FOR NON-RESEARCH SPACES.

SETPOINTS

SPACE HEATING TEMPERATURE SETPOINTS:

OCCUPIED: 70°F ± 1.5°F
UNOCCUPIED: 70°F - 6.0°F

SPACE OCCUPANCY

OCCUPANCY SHALL BE DETERMINED BASED UPON A TIME OF DAY SCHEDULE.

START/STOP

THE FANS SHALL START TO MAINTAIN THE HEATING SETPOINTS WHENEVER THE SPACE IS IN OCCUPIED OR UNOCCUPIED MODE.

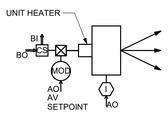
ZONE TEMPERATURE CONTROL

TEMPERATURE SETPOINTS SHALL BE DETERMINED BASED ON A PROGRAMMED SCHEDULE.

OCCUPIED/UNOCCUPIED HEATING: IF THE ZONE TEMPERATURE FALLS BELOW THE OCCUPIED HEATING TEMPERATURE SETPOINT THE FAN SHALL INDEX TO MINIMUM POSITION AND THE HEATING COIL VALVE SHALL FIRST MODULATE AS REQUIRED TO MAINTAIN SPACE TEMPERATURE SETPOINT. IF THE UNIT CANNOT MAINTAIN SPACE TEMPERATURE SET POINT WITH THE HEATING COIL CONTROL VALVE AT 100% OPEN, THE FAN SPEED SHALL MODULATE BETWEEN MINIMUM AND MAXIMUM POSITIONS TO MAINTAIN THE SPACE TEMPERATURE SETPOINT.

2 TYPICAL CABINET UNIT HEATER CONTROL SCHEMATIC AND SYSTEM SUMMARY

NOT TO SCALE



POINT SCHEDULE

CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
								ALARM					
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
FAN MOTOR STATUS (ON/OFF)	X							X	X		FAILURE	X	
FAN MOTOR START/STOP		X						X				X	
FAN MOTOR SPEED COMMAND (%) / SETPOINT		X						X				X	
ELECTRIC COIL COMMAND				X				X				X	
SPACE TEMPERATURE / SETPOINT (°F)			X		✕			X	X		± 4°F FROM SETPOINT	X	

SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

ELECTRIC UNIT HEATER

GENERAL

SYSTEM SHALL BE CONTROLLED THROUGH THE BUILDING AUTOMATION AND CONTROL SYSTEM (BACS).

ALL SETPOINTS SHALL BE ADJUSTABLE.

THE BACS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK.

THE BACS SHALL BE CAPABLE OF RETAINING ITS PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST TEN HOURS.

ALL SAFETIES SHALL BE HARD WIRED INTO THE FAN MOTOR POWER CIRCUIT, AND SHALL REQUIRE MANUAL RESET.

LOAD SHED: REFER TO LOAD SHED MATRICES FOR THE SYSTEM CONTROL REQUIREMENTS FOR NON-RESEARCH SPACES.

SETPOINTS

SPACE HEATING TEMPERATURE SETPOINT: 65°F

START/STOP

THE FAN SHALL START BASED ON SPACE TEMPERATURE FALLING BELOW THE SPACE TEMPERATURE SETPOINT AS SENSED BY THE SPACE TEMPERATURE SENSOR.

THE FAN SHALL OPERATE AT CONSTANT SPEED WHENEVER THE SYSTEM IS INDEXED TO OPERATE.

ZONE TEMPERATURE CONTROL

IF THE SPACE IS OCCUPIED DURING THE SCHEDULED OCCUPIED PERIOD AND IF THE ZONE TEMPERATURE FALLS BELOW THE OCCUPIED HEATING TEMPERATURE SETPOINT, THE UNIT HEATER SHALL ENERGIZE TO MAINTAIN SPACE TEMPERATURE SETPOINT.

3 AHU VESTIBULE ELECTRIC UNIT HEATER CONTROL SCHEMATIC AND SYSTEM SUMMARY

NOT TO SCALE

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REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

CONTROL SCHEMATICS AND SYSTEM SUMMARIES

M306

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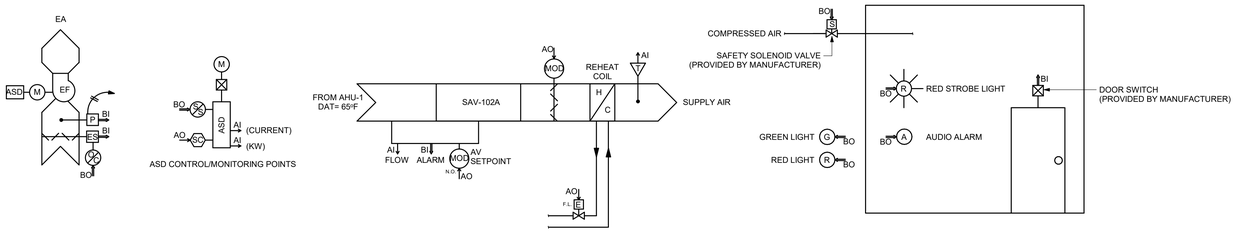


POINT SCHEDULE

CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
									ALARM				
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
STEAM LOAD SHED						X (6)							BINARY NETWORK INPUTS FROM EMCS
EXHAUST FAN SUCTION PRESSURE SWITCH STATUS / SETPOINT (IN WC)	X				X				X		LOW LIMIT	X	
EXHAUST FAN ASD START/STOP COMMAND (ON/OFF)		X						X				X	
EXHAUST FAN ASD SPEED COMMAND / SETPOINT (%)				X	X			X				X	
EXHAUST FAN ASD STATUS (CURRENT)			X					X	X		FAILURE	X	
EXHAUST FAN ASD POWER (KW)			X					X				X	
EXHAUST FAN ISOLATION DAMPER COMMAND		X						X				X	
EXHAUST FAN ISOLATION DAMPER STATUS (OPEN / CLOSED)	X							X				X	
SUPPLY AIR DAMPER POSITION COMMAND (%)				X				X				X	
SUPPLY AIR VALVE FLOW FEEDBACK (CFM)			X					X				X	
SUPPLY AIR VALVE ALARM	X								X		FAILURE	X	
SUPPLY AIR VALVE POSITION COMMAND / SETPOINT (CFM)				X	X			X			10% FLOW DEVIATION FROM SETPOINT	X	
DISCHARGE AIR TEMPERATURE (°F)			X					X				X	
REHEAT CONTROL VALVE POSITION COMMAND (%)				X				X				X	FAIL OPEN
SPRAY BOOTH DOOR SWITCH STATUS	X								X			X	
AUDIO ANNUNCIATION ALARM IN SPRAY BOOTH		X						X				X	
RED STROBE LIGHT IN SPRAY BOOTH FAULT/NO OPERATION		X						X				X	
GREEN ANNUNCIATION LIGHT OUTSIDE SPRAY BOOTH NORMAL OPERATION		X						X				X	
RED ANNUNCIATION LIGHT OUTSIDE SPRAY BOOTH FAULT/NO OPERATION		X						X				X	
COMPRESSED AIR SAFETY SOLENOID VALVE (OPEN/CLOSED)		X						X				X	

SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

SPRAY BOOTH EXHAUST FAN
SUPPLY AIR VALVE W/ REHEAT COIL

GENERAL

SYSTEM SHALL BE CONTROLLED THROUGH THE BUILDING AUTOMATION AND CONTROL SYSTEM (BACS).

ALL SETPOINTS SHALL BE ADJUSTABLE.

THE BACS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK.

THE BACS SHALL BE CAPABLE OF RETAINING ITS PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST TEN HOURS.

ALL SAFETIES SHALL BE HARD WIRED INTO THE FAN MOTOR POWER CIRCUIT, AND SHALL REQUIRE MANUAL RESET.

SPRAY BOOTH DOOR SHALL BE OPEN AT ALL TIMES WHEN SPRAY BOOTH IS NOT IN OPERATION.

LOAD SHED: REFER TO LOAD SHED MATRICES FOR THE SYSTEM CONTROL REQUIREMENTS FOR NON-RESEARCH SPACES.

SETPOINTS

SPACE COOLING DISCHARGE AIR SETPOINT: 55°F WHEN OAT IS ABOVE 65°F

SPACE HEATING DISCHARGE AIR SETPOINT: 90°F WHEN OAT IS BELOW 65°F

SUPPLY VALVE AIRFLOW: 4800 CFM

INITIAL PURGE RUN TIME: 10 MINUTES (ADJ)

AFTER USE TIME DELAY: 15 MINUTES (ADJ)

SPACE OCCUPANCY

ZONE OCCUPANCY SHALL BE DETERMINED BASED ON SPRAY BOOTH DOOR SWITCH.

EXHAUST FAN AND SUPPLY AIR VALVE CONTROL (INITIAL PURGE)

UPON CLOSING THE SPRAY BOOTH DOOR, THE EXHAUST FAN SHALL BE ENERGIZED AND RUN CONTINUOUSLY. THE SUPPLY AIR VALVE SHALL INDEX OPEN TO SCHEDULED AIRFLOW AND THE COMPRESSED AIR SAFETY SOLENOID VALVE SHALL BE OPEN.

EXHAUST FAN AND SUPPLY AIR VALVE CONTROL (IN USE)

AFTER INITIAL SPRAY BOOTH PURGE IS COMPLETE, THE SPRAY BOOTH DOOR SHALL OPEN TO ALLOW USER TO ENTER. THE EXHAUST FAN SHALL REMAIN ENERGIZED AND RUN CONTINUOUSLY. THE SUPPLY AIR VALVE SHALL REMAIN INDEXED OPEN TO SCHEDULED AIRFLOW AND THE COMPRESSED AIR SAFETY SOLENOID VALVE SHALL BE OPEN.

EXHAUST FAN AND SUPPLY AIR VALVE CONTROL (AFTER USE TIME DELAY)

UPON DOOR OPENING AND USER EXITING SPRAY BOOTH, THE EXHAUST FAN SHALL REMAIN ENERGIZED AND RUN CONTINUOUSLY. THE SUPPLY AIR VALVE SHALL REMAIN INDEXED OPEN TO SCHEDULED AIRFLOW AND THE COMPRESSED AIR SAFETY SOLENOID VALVE SHALL BE CLOSED FOR THE DURATION OF THE AFTER USE TIME DELAY.

EXHAUST FAN AND SUPPLY AIR VALVE CONTROL

UPON AFTER USE TIME DELAY PERIOD BEING COMPLETE THE EXHAUST FAN SHALL BE INDEXED OFF. THE SUPPLY AIR VALVE SHALL INDEX CLOSE AND THE COMPRESSED AIR SAFETY SOLENOID VALVE SHALL BE CLOSED. THE SPRAY BOOTH DOOR SHOULD REMAIN OPEN.

EXHAUST FAN SPEED CONTROL

THE FAN SHALL OPERATE AT A MAXIMUM SPEED WHENEVER THE SYSTEM IS INDEXED TO OPERATE.

EXHAUST FAN DAMPER CONTROL

IF THE FAN IS INDEXED TO START, THE ASSOCIATED ISOLATION DAMPER SHALL PROVE OPEN VIA AN END SWITCH PRIOR TO STARTING THE FAN. THE ISOLATION DAMPER SHALL CLOSE UPON COMPLETION OF THE AFTER USE TIME DELAY.

SUPPLY DUCTWORK AUTOMATIC AIR DAMPER CONTROL

UPON ACTIVATION OF THE SPRAY BOOTH DOOR SWITCH, THE SUPPLY DUCTWORK AUTOMATIC AIR DAMPER SHALL OPEN. THE AUTOMATIC AIR DAMPER SHALL CLOSE UPON COMPLETION OF THE AFTER USE TIME DELAY.

HORN, STROBE AND ANNUNCIATOR CONTROL

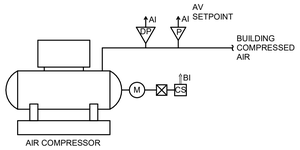
UPON CLOSING THE SPRAY BOOTH DOOR, THE GREEN ANNUNCIATOR LIGHT OUTSIDE OF THE SPRAY BOOTH SHOULD ACTIVATE IF THE SPRAY BOOTH VENTILATION SYSTEM IS OPERATING. IF THE VENTILATION SYSTEM IS NOT OPERATING WITH THE SPRAY BOOTH DOOR CLOSED THE RED ANNUNCIATOR LIGHT OUTSIDE OF THE SPRAY BOOTH SHOULD BE ACTIVATED, THE STROBE LIGHT AND HORN WITHIN THE SPRAY BOOTH SHALL BE ACTIVATED.

REHEAT COIL CONTROL

IF THE USER OPERATED SPRAY BOOTH PUSH BUTTON IS ACTIVATED AND THE OUTSIDE AIR TEMPERATURE IS BELOW 65°F, THE REHEAT CONTROL VALVE SHALL MODULATE AS REQUIRED TO MAINTAIN THE DISCHARGE AIR SETPOINT.

IF THE USER OPERATED SPRAY BOOTH PUSH BUTTON IS ACTIVATED AND THE OUTSIDE AIR TEMPERATURE IS ABOVE 65°F, THE REHEAT CONTROL VALVE SHALL BE CLOSED.

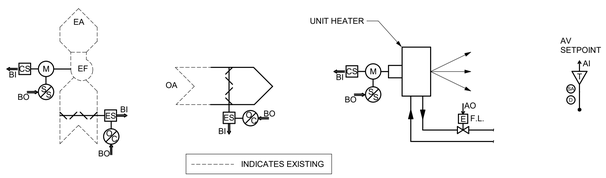
1 SPRAY BOOTH CONTROL SCHEMATIC AND SYSTEM SUMMARY
NOT TO SCALE



POINT SCHEDULE

CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
									ALARM				
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
COMPRESSED AIR SYSTEM PRESSURE / SETPOINT			X		X			X	X	X	LOW PRESSURE	X	
COMPRESSED AIR SYSTEM DEWPOINT			X					X				X	
AIR COMPRESSOR DRYER STATUS	X							X	X	X	FAILURE	X	VIA CURRENT SENSOR

2 COMPRESSED AIR SERVICE MONITORING CONTROL SCHEMATIC AND SYSTEM SUMMARY
NOT TO SCALE



POINT SCHEDULE

CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
									ALARM				
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
STEAM LOAD SHED						X (6)							BINARY NETWORK INPUTS FROM EMCS
OA ISOLATION DAMPER OPEN/CLOSED		X										X	
OA ISOLATION DAMPER STATUS	X							X				X	
EXHAUST FAN ISOLATION DAMPER OPEN/CLOSED		X										X	
EXHAUST FAN ISOLATION DAMPER STATUS	X							X				X	
EXHAUST FAN MOTOR STATUS (ON/OFF)	X							X	X		FAILURE	X	
EXHAUST FAN MOTOR START/STOP		X						X				X	
UNIT HEATER MOTOR STATUS (ON/OFF)	X							X	X		FAILURE	X	
UNIT HEATER MOTOR START/STOP		X						X				X	
HEATING COIL VALVE POSITION COMMAND (%)				X				X	X		5°F Δ ACROSS COIL WITH VALVE COMMANDED CLOSED	X	
SPACE TEMPERATURE / SETPOINT (°F)			X		X			X	X		± 4°F FROM SETPOINT	X	

SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

EXHAUST FAN
UNIT HEATER

GENERAL

SYSTEM SHALL BE CONTROLLED THROUGH THE BUILDING AUTOMATION AND CONTROL SYSTEM (BACS).

THE BACS SHALL BE CAPABLE OF RETAINING ITS PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST TEN HOURS.

ALL SETPOINTS SHALL BE ADJUSTABLE.

THE BACS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK.

LOAD SHED: REFER TO LOAD SHED MATRICES FOR THE SYSTEM CONTROL REQUIREMENTS FOR NON-RESEARCH SPACES.

SETPOINTS

SPACE COOLING TEMPERATURE SETPOINT: 80°F

SPACE HEATING TEMPERATURE SETPOINTS:

OCCUPIED: 70°F ± 1.5°F
UNOCCUPIED: 70°F - 10.0°F

SPACE OCCUPANCY

OCCUPANCY SHALL BE DETERMINED BASED UPON AN OCCUPANCY SENSOR.

START/STOP

THE FAN SHALL START TO MAINTAIN THE COOLING SETPOINT WHENEVER THE SPACE IS IN OCCUPIED OR UNOCCUPIED MODE.

ZONE HEATING TEMPERATURE CONTROL

TEMPERATURE SETPOINTS SHALL BE DETERMINED BASED ON A PROGRAMMED SCHEDULE.

OCCUPIED/UNOCCUPIED HEATING: IF THE ZONE TEMPERATURE FALLS BELOW THE OCCUPIED HEATING TEMPERATURE SETPOINT THE FAN SHALL INDEX TO MINIMUM POSITION AND THE HEATING COIL VALVE SHALL FIRST MODULATE AS REQUIRED TO MAINTAIN SPACE TEMPERATURE SETPOINT.

ZONE COOLING CONTROL

IF THE ZONE TEMPERATURE EXCEEDS THE SPACE COOLING TEMPERATURE SETPOINT AS SENSED BY A SPACE TEMPERATURE SENSOR, THE EXHAUST FAN SHALL INDEX ON TO MAINTAIN THE SETPOINT.

DAMPER CONTROL

THE MAKE-UP AIR DAMPER SHALL FULLY OPEN WHEN EXHAUST FAN IS ON. DAMPER SHALL BE CLOSED WHEN THE EXHAUST FAN IS OFF.

3 MECHANICAL ROOM CONTROL SCHEMATIC AND SYSTEM SUMMARY
NOT TO SCALE

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REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

CONTROL SCHEMATICS AND SYSTEM SUMMARIES

M307

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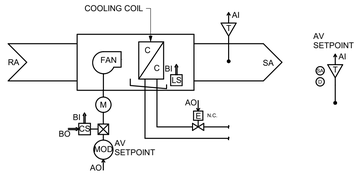


POINT SCHEDULE													
CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
									ALARM				
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
CHILLED WATER LOAD SHED						X (4)							BINARY NETWORK INPUTS FROM EMCS
FAN COIL UNIT MOTOR STATUS (ON/OFF)	X							X	X		FAILURE	X	
FAN COIL UNIT MOTOR START/STOP		X						X				X	
FAN COIL UNIT MOTOR SPEED COMMAND (%) / SETPOINT		X						X				X	
FAN COIL UNIT COOLING COIL CONTROL VALVE POSITION COMMAND (%)				X				X				X	
FAN COIL UNIT DISCHARGE AIR TEMPERATURE / SETPOINT (°F)			X		X			X	X		± 4°F FROM SETPOINT / SENSOR FAILURE	X	
FAN COIL UNIT CONDENSATE OVERFLOW SWITCH STATUS	X							X	X		OVERFLOW	X	
SPACE TEMPERATURE / SETPOINT (°F)			X		×			X	X		± 4°F FROM SETPOINT	X	

1 IT ROOM TWO PIPE FAN COIL CONTROL SCHEMATIC AND SYSTEM SUMMARY

NOT TO SCALE

SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

2 PIPE FAN COIL UNIT

GENERAL

SYSTEM SHALL BE CONTROLLED THROUGH THE BUILDING AUTOMATION AND CONTROL SYSTEM (BACS).

ALL SETPOINTS SHALL BE ADJUSTABLE.

THE BACS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK.

THE BACS SHALL BE CAPABLE OF RETAINING ITS PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST TEN HOURS.

ALL SAFETIES SHALL BE HARD WIRED INTO THE FAN MOTOR POWER CIRCUIT, AND SHALL REQUIRE MANUAL RESET.

LOAD SHED: REFER TO LOAD SHED MATRICES FOR THE SYSTEM CONTROL REQUIREMENTS FOR NON-RESEARCH SPACES.

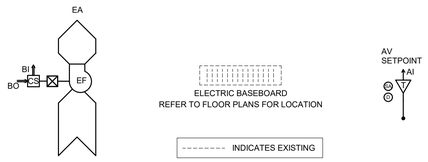
SETPOINTS

SPACE COOLING TEMPERATURE SETPOINT: 80°F

MINIMUM SPACE OCCUPANCY INDEX TIME: 30 MINUTES

ZONE TEMPERATURE CONTROL

COOLING: IF THE ZONE TEMPERATURE RISES ABOVE THE COOLING TEMPERATURE SETPOINT, THE FAN COIL UNIT FAN SHALL INDEX TO MINIMUM POSITION AND THE COOLING COIL VALVE SHALL FIRST MODULATE AS REQUIRED TO MAINTAIN SPACE TEMPERATURE SETPOINT. IF THE FAN COIL UNIT CANNOT MAINTAIN SPACE TEMPERATURE SET POINT WITH THE COOLING COIL CONTROL VALVE AT 100% OPEN, THE FAN COIL SPEED SHALL MODULATE BETWEEN MINIMUM AND MAXIMUM POSITIONS TO MAINTAIN THE SPACE TEMPERATURE SETPOINT.



SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

EXHAUST FAN
ELECTRIC BASEBOARD HEATER (WHERE APPLICABLE)

GENERAL

SYSTEM SHALL BE CONTROLLED THROUGH THE BUILDING AUTOMATION AND CONTROL SYSTEM (BACS).

ALL SETPOINTS SHALL BE ADJUSTABLE.

THE BACS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK.

THE BACS SHALL BE CAPABLE OF RETAINING ITS PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST TEN HOURS.

ALL SAFETIES SHALL BE HARD WIRED INTO THE FAN MOTOR POWER CIRCUIT, AND SHALL REQUIRE MANUAL RESET.

LOAD SHED: REFER TO LOAD SHED MATRICES FOR THE SYSTEM CONTROL REQUIREMENTS FOR NON-RESEARCH SPACES.

SETPOINTS

SPACE COOLING TEMPERATURE SETPOINTS:

OCCUPIED: 75°F
UNOCCUPIED: 81°F

SPACE HEATING TEMPERATURE SETPOINTS (WHERE APPLICABLE)

OCCUPIED: 70°F
UNOCCUPIED: 64°F

SPACE OCCUPANCY

ZONE OCCUPANCY SHALL BE DETERMINED BASED ON AN OCCUPANCY SENSOR.

ZONE TEMPERATURE CONTROL

OCCUPIED HEATING: IF THE SPACE IS OCCUPIED AND IF THE ZONE TEMPERATURE FALLS BELOW THE OCCUPIED HEATING TEMPERATURE SETPOINT, THE BASEBOARD HEATER SHALL ENERGIZE TO MAINTAIN SPACE TEMPERATURE SETPOINT.

OCCUPIED COOLING: IF THE SPACE IS OCCUPIED AND THE ZONE TEMPERATURE RISES ABOVE THE OCCUPIED COOLING TEMPERATURE SETPOINT, THE EXHAUST FAN SHALL INDEX ON AND THE BASEBOARD HEATER SHALL INDEX OFF.

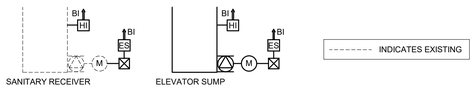
UNOCCUPIED HEATING SETBACK: WHEN THE SPACE IS UNOCCUPIED AND THE ZONE TEMPERATURE FALLS BELOW THE UNOCCUPIED HEATING TEMPERATURE SETPOINT, THE ABOVE OCCUPIED HEATING SEQUENCE SHALL APPLY. THE SPACE SHALL BE MAINTAINED AT THE UNOCCUPIED TEMPERATURE SETPOINTS.

UNOCCUPIED COOLING SETBACK: WHEN THE SPACE IS UNOCCUPIED AND THE ZONE TEMPERATURE RISES ABOVE THE UNOCCUPIED COOLING TEMPERATURE SETPOINT, THE ABOVE OCCUPIED COOLING SEQUENCE SHALL APPLY. THE SPACE SHALL BE MAINTAINED AT THE UNOCCUPIED TEMPERATURE SETPOINTS.

POINT SCHEDULE												
CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS						SHOWN ON GRAPHIC	NOTES
									ALARM			
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	DESCRIPTION		
STEAM LOAD SHED						X (6)						BINARY NETWORK INPUTS FROM EMCS
FAN MOTOR STATUS (ON/OFF)	X							X	X	FAILURE	X	
FAN MOTOR START/STOP		X						X			X	
SPACE TEMPERATURE / SETPOINT (°F)			X		×			X	X	± 4°F FROM SETPOINT	X	

2 ELECTRICAL ROOM AND ACCESS CONTROL ROOM CONTROL SCHEMATIC AND SYSTEM SUMMARY

NOT TO SCALE



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CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS						SHOWN ON GRAPHIC	NOTES
									ALARM			
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	DESCRIPTION		
SANITARY LEVEL	X							X	X	HIGH LEVEL	X	
SEWAGE EJECTOR PUMP (SE-1) STATUS	X							X	X	FAILURE	X	VIA CURRENT SENSOR
ELEVATOR SUMP LEVEL	X							X	X	HIGH LEVEL	X	
ELEVATOR SUMP PUMP (ESP-1) STATUS	X							X	X	FAILURE	X	VIA CURRENT SENSOR

3 PLUMBING MONITORING CONTROL SCHEMATIC AND SYSTEM SUMMARY

NOT TO SCALE

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CONTROL SCHEMATICS AND SYSTEM SUMMARIES

M308

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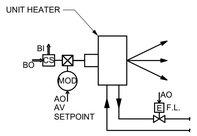

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CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
									ALARM				
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
STEAM LOAD SHED						X (6)							BINARY NETWORK INPUTS FROM EMCS
FAN MOTOR STATUS (ON/OFF)	X							X	X		FAILURE	X	
FAN MOTOR START/STOP		X						X				X	
HEATING COIL VALVE POSITION COMMAND (%)				X				X	X		5°F Δ ACROSS COIL WITH VALVE COMMANDED CLOSED	X	
SPACE TEMPERATURE / SETPOINT (°F)			X		✕			X	X		± 4°F FROM SETPOINT	X	

1 TYPICAL HOT WATER UNIT HEATER CONTROL SCHEMATIC AND SYSTEM SUMMARY
NOT TO SCALE

SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

UNIT HEATER

GENERAL

SYSTEM SHALL BE CONTROLLED THROUGH THE BUILDING AUTOMATION AND CONTROL SYSTEM (BACS).

THE BACS SHALL BE CAPABLE OF RETAINING ITS PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST TEN HOURS.

ALL SETPOINTS SHALL BE ADJUSTABLE.

THE BACS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK.

LOAD SHED: REFER TO LOAD SHED MATRICES FOR THE SYSTEM CONTROL REQUIREMENTS FOR NON-RESEARCH SPACES.

SETPOINTS

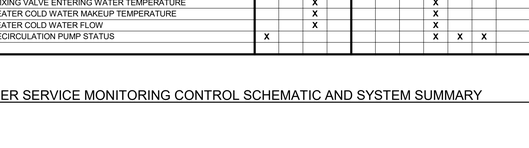
SPACE HEATING TEMPERATURE SETPOINT: 65°F

START/STOP

THE FANS SHALL START TO MAINTAIN THE SPACE HEATING TEMPERATURE SETPOINT.

ZONE TEMPERATURE CONTROL

HEATING: IF THE ZONE TEMPERATURE FALLS BELOW THE SPACE HEATING TEMPERATURE SETPOINT THE HEATING COIL VALVE SHALL MODULATE AS REQUIRED TO MAINTAIN SPACE TEMPERATURE SETPOINT.



INDICATES EXISTING

POINT SCHEDULE													
CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
									ALARM				
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
EXHAUST FAN MOTOR STATUS (ON/OFF)	X							X	X		FAILURE	X	
EXHAUST FAN MOTOR START/STOP		X						X				X	
SPACE RELATIVE HUMIDITY (%RH)			X					X				X	MONITORING ONLY
SPACE TEMPERATURE / SETPOINT (°F)			X		✕			X	X		± 4°F FROM SETPOINT	X	
SPACE FLOOR WATER LEVEL ALARM	X							X	X		HIGH LEVEL	X	

2 117 SERVICE VAULT CONTROL SCHEMATIC AND SYSTEM SUMMARY
NOT TO SCALE

SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

EXHAUST FAN

GENERAL

SYSTEM SHALL BE CONTROLLED THROUGH THE BUILDING AUTOMATION AND CONTROL SYSTEM (BACS).

THE BACS SHALL BE CAPABLE OF RETAINING ITS PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST TEN HOURS.

ALL SETPOINTS SHALL BE ADJUSTABLE.

THE BACS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK.

LOAD SHED: REFER TO LOAD SHED MATRICES FOR THE SYSTEM CONTROL REQUIREMENTS FOR NON-RESEARCH SPACES.

SETPOINTS

SPACE COOLING TEMPERATURE SETPOINT: 80°F

SPACE RELATIVE HUMIDITY SETPOINT: 70%

START/STOP

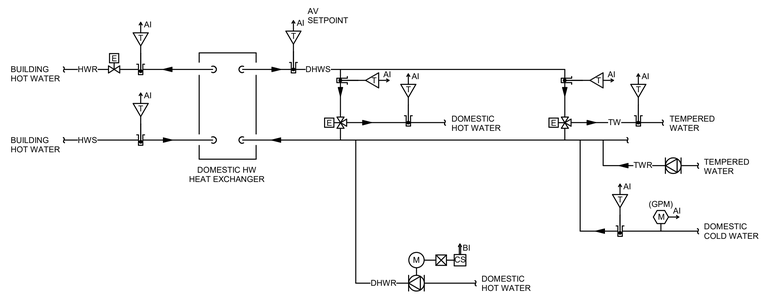
THE FAN SHALL START TO MAINTAIN THE COOLING SETPOINT OR THE RELATIVE HUMIDITY SETPOINT.

ZONE COOLING CONTROL

IF THE ZONE TEMPERATURE EXCEEDS THE SPACE COOLING TEMPERATURE SETPOINT AS SENSED BY A SPACE TEMPERATURE SENSOR, THE EXHAUST FAN SHALL INDEX ON TO MAINTAIN THE SETPOINT.

ZONE HUMIDITY CONTROL

IF THE ZONE TEMPERATURE EXCEEDS THE SPACE RELATIVE HUMIDITY SETPOINT AS SENSED BY A SPACE HUMIDITY SENSOR, THE EXHAUST FAN SHALL INDEX ON TO MAINTAIN THE SETPOINT.



POINT SCHEDULE													
CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
									ALARM				
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
BUILDING HIGH TEMP HOT WATER RETURN TEMPERATURE			X					X				X	
BUILDING HIGH TEMP HOT WATER SUPPLY TEMPERATURE			X					X				X	
DOMESTIC WATER HEATING LOOP SUPPLY TEMPERATURE / SETPOINT			X		X			X			+/- 4 DEG F FROM SETPOINT	X	
DOMESTIC HOT WATER TEMPERATURE			X					X				X	
DOMESTIC HOT WATER MIXING VALVE ENTERING WATER TEMPERATURE			X					X				X	
TEMPERED WATER TEMPERATURE			X					X				X	
TEMPERED WATER MIXING VALVE ENTERING WATER TEMPERATURE			X					X				X	
DOMESTIC WATER HEATER COLD WATER MAKEUP TEMPERATURE			X					X				X	
DOMESTIC WATER HEATER COLD WATER FLOW			X					X				X	
DOMESTIC WATER RECIRCULATION PUMP STATUS	X							X	X	X	FAILURE	X	VIA CURRENT SENSOR

3 DOMESTIC HOT WATER SERVICE MONITORING CONTROL SCHEMATIC AND SYSTEM SUMMARY
NOT TO SCALE

SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

DOMESTIC HOT WATER PUMP
TEMPERED WATER PUMP
DOMESTIC HOT WATER HEAT EXCHANGER

GENERAL

SYSTEM SHALL BE CONTROLLED BY PACKAGED DOMESTIC HOT WATER CONTROLLER.

SYSTEM SHALL BE MONITORED THROUGH THE BUILDING AUTOMATION AND CONTROL SYSTEM (BACS).

ALL SETPOINTS SHALL BE ADJUSTABLE.

THE BACS SHALL BE CAPABLE OF RETAINING ITS PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST TEN HOURS.

LOAD SHED: REFER TO LOAD SHED MATRICES FOR THE SYSTEM CONTROL REQUIREMENTS FOR NON-RESEARCH SPACES.

DOMESTIC HOT WATER LOOP CONTROL

START/STOP:

SYSTEM SHALL BE ENABLED AT ALL TIMES.

TEMPERATURE CONTROL:

THE DISTRICT FLOW CONTROL VALVE SHALL MODULATE TO MAINTAIN THE LOOP SUPPLY WATER TEMPERATURE SETPOINT. SETPOINT WILL BE 140°F AND THERE WILL BE NO TEMPERATURE RESET.

FAILURE MODES:

A STANDBY PUMP SHALL BE INDEXED TO OPERATE AND AN ALARM GENERATED ON FAILURE OF THE LEAD PUMP TO MAINTAIN THE SYSTEM DIFFERENTIAL PRESSURE SETPOINT.

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AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

CONTROL SCHEMATICS AND SYSTEM SUMMARIES

M309

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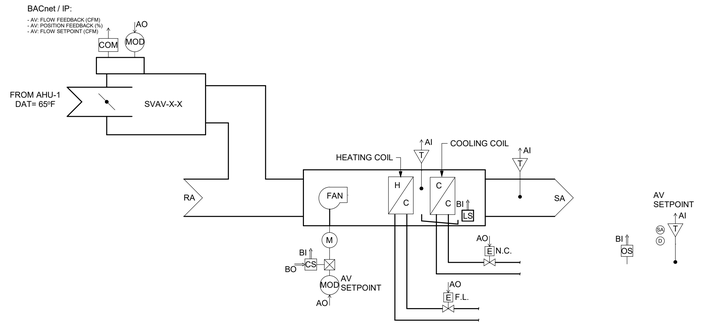


POINT SCHEDULE												
CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS						SHOWN ON GRAPHIC	NOTES
									ALARM			
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION	
STEAM LOAD SHED						X (6)						BINARY NETWORK INPUTS FROM EMCS
CHILLED WATER LOAD SHED						X (4)						BINARY NETWORK INPUTS FROM EMCS
SUPPLY VAV DAMPER POSITION COMMAND (%)				X				X				X	
SUPPLY VAV AIRFLOW FEEDBACK (CFM)					X			X	X		10% FLOW DEVIATION FROM SETPOINT	X	BACnet IP NETWORK POINT
SUPPLY VAV AIRFLOW SETPOINT (CFM)					X			X				X	BACnet IP NETWORK POINT
SUPPLY VAV POSITION FEEDBACK (%)					X			X	X		COMMAND DOES NOT EQUAL FEEDBACK	X	BACnet IP NETWORK POINT
FAN COIL UNIT MOTOR STATUS (ON/OFF)	X							X	X		FAILURE	X	
FAN COIL UNIT MOTOR START/STOP		X						X				X	
FAN COIL UNIT MOTOR SPEED COMMAND (%) / SETPOINT				X				X				X	
FAN COIL HEATING COIL VALVE POSITION COMMAND (%)				X				X	X		5°F Δ ACROSS COIL WITH VALVE COMMANDED CLOSED	X	
FAN COIL UNIT COOLING COIL CONTROL VALVE POSITION COMMAND (%)				X				X	X		5°F Δ ACROSS COIL WITH VALVE COMMANDED CLOSED	X	
FAN COIL UNIT DISCHARGE AIR TEMPERATURE / SETPOINT (°F)			X		X			X	X		± 4°F FROM SETPOINT / SENSOR FAILURE	X	
FAN COIL UNIT CONDENSATE OVERFLOW SWITCH STATUS	X							X	X		OVERFLOW	X	
SPACE TEMPERATURE / SETPOINT (°F)			X		✕			X	X		± 4°F FROM SETPOINT	X	
SPACE OCCUPANCY	X						X	X				X	

1 TYPICAL VENTILATION AIR SVAV AND FAN COIL CONTROL SCHEMATIC AND SYSTEM SUMMARY
NOT TO SCALE

SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

4 PIPE FAN COIL UNIT
VENTILATION AIR TERMINAL UNIT

GENERAL

SYSTEM SHALL BE CONTROLLED THROUGH THE BUILDING AUTOMATION AND CONTROL SYSTEM (BACS).

ALL SETPOINTS SHALL BE ADJUSTABLE.

THE BACS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK.

THE BACS SHALL BE CAPABLE OF RETAINING ITS PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST TEN HOURS.

ALL SAFETIES SHALL BE HARD WIRED INTO THE FAN MOTOR POWER CIRCUIT, AND SHALL REQUIRE MANUAL RESET.

LOAD SHED: REFER TO LOAD SHED MATRICES FOR THE SYSTEM CONTROL REQUIREMENTS FOR NON-RESEARCH SPACES.

SETPOINTS

SPACE COOLING TEMPERATURE SETPOINTS:

OCCUPIED: 75°F
OCCUPIED SETBACK: 78°F
UNOCCUPIED: 81°F

SPACE HEATING TEMPERATURE SETPOINTS:

OCCUPIED: 70°F
OCCUPIED SETBACK: 67°F
UNOCCUPIED: 64°F

SUPPLY AIRFLOW RATE (CFM): SEE AIRFLOW SCHEDULE

MINIMUM SPACE OCCUPANCY INDEX TIME: 30 MINUTES

ZONE OCCUPANCY SCHEDULE: COORDINATE WITH OWNER

SPACE OCCUPANCY

ZONE OCCUPANCY SHALL BE DETERMINED BASED ON A COMBINATION OF TIME OF DAY SCHEDULE AND A SPACE OCCUPANCY SENSOR.

DURING THE SCHEDULED OCCUPANCY PERIOD, THE ZONE SHALL BE INITIALLY INDEXED TO OCCUPIED AND OPERATOR FOR A MINIMUM OF 30 MINUTES, AT WHICH TIME THE SPACE OCCUPANCY SENSOR SHALL INDEX THE SPACE BETWEEN OCCUPIED AND OCCUPIED SETBACK MODE.

DURING THE SCHEDULED UNOCCUPIED PERIOD, THE SPACE OCCUPANCY SENSOR SHALL INDEX THE ZONE TO OCCUPIED FOR THE DURATION OF OCCUPANCY. THE ZONE SHALL INDEX BACK TO UNOCCUPIED WHEN OCCUPANCY IS NOT SENSED FOR A PERIOD OF 30 MINUTES.

SUPPLY AIR VAV BOX CONTROL

OCCUPIED / UNOCCUPIED: THE SUPPLY AIR VALVE SHALL MODULATE AS NEEDED TO MAINTAIN THE AIRFLOW RATE.

FAN COIL START/STOP

THE SYSTEM SHALL START AND INDEX TO MINIMUM POSITION TO WHENEVER THE SPACE IS IN OCCUPIED MODE AND SHALL START TO MAINTAIN THE HEATING AND COOLING SETPOINTS WHENEVER THE SPACE IS IN OCCUPIED SETBACK OR UNOCCUPIED MODE.

ZONE TEMPERATURE CONTROL

TEMPERATURE SETPOINTS SHALL BE DETERMINED BASED ON A COMBINATION OF PROGRAMMED SCHEDULED AND ZONE OCCUPANCY.

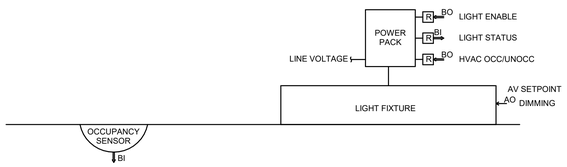
OCCUPIED HEATING: IF THE SPACE IS OCCUPIED DURING THE SCHEDULED OCCUPIED PERIOD AND IF THE ZONE TEMPERATURE FALLS BELOW THE OCCUPIED HEATING TEMPERATURE SETPOINT, THE HEATING COIL CONTROL VALVE SHALL FIRST MODULATE AS REQUIRED TO MAINTAIN SPACE TEMPERATURE SETPOINT. IF THE FAN COIL UNIT CANNOT MAINTAIN SPACE TEMPERATURE SETPOINT WITH THE HEATING COIL CONTROL VALVE AT 100% OPEN, THE FAN COIL SPEED SHALL MODULATE BETWEEN MINIMUM AND MAXIMUM POSITIONS TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. THE COOLING COIL CONTROL VALVE SHALL BE CLOSED.

OCCUPIED COOLING: IF THE SPACE IS OCCUPIED DURING THE SCHEDULED OCCUPIED PERIOD AND THE ZONE TEMPERATURE RISES ABOVE THE OCCUPIED COOLING TEMPERATURE SETPOINT, THE COOLING COIL VALVE SHALL FIRST MODULATE AS REQUIRED TO MAINTAIN SPACE TEMPERATURE SETPOINT. IF THE FAN COIL UNIT CANNOT MAINTAIN SPACE TEMPERATURE SET POINT WITH THE COOLING COIL CONTROL VALVE AT 100% OPEN, THE FAN COIL SPEED SHALL MODULATE BETWEEN MINIMUM AND MAXIMUM POSITIONS TO MAINTAIN THE SPACE TEMPERATURE SETPOINT.

OCCUPIED SETBACK: IF THE ZONE IS UNOCCUPIED DURING THE SCHEDULED OCCUPIED PERIOD, THE ABOVE OCCUPIED HEATING/COOLING SEQUENCES SHALL APPLY. THE SPACE SHALL BE MAINTAINED AT THE OCCUPIED SETBACK TEMPERATURE SETPOINTS.

UNOCCUPIED HEATING SETBACK: WHEN THE SPACE IS UNOCCUPIED DURING THE SCHEDULED UNOCCUPIED PERIOD. IF THE ZONE TEMPERATURE FALLS BELOW THE UNOCCUPIED HEATING TEMPERATURE SETPOINT, THE FAN COIL UNIT SHALL START AND THE ABOVE OCCUPIED HEATING SEQUENCE SHALL APPLY. THE SPACE SHALL BE MAINTAINED AT THE UNOCCUPIED TEMPERATURE SETPOINTS.

UNOCCUPIED COOLING SETBACK: WHEN THE SPACE IS UNOCCUPIED DURING THE SCHEDULED UNOCCUPIED PERIOD. IF THE ZONE TEMPERATURE RISES ABOVE THE UNOCCUPIED COOLING TEMPERATURE SETPOINT, THE FAN COIL UNIT SHALL START AND THE ABOVE OCCUPIED COOLING SEQUENCE SHALL APPLY. THE SPACE SHALL BE MAINTAINED AT THE UNOCCUPIED TEMPERATURE SETPOINTS.



GENERAL NOTES:

A. REFER TO E-SERIES DRAWINGS FOR LOCATIONS OF OCCUPANCY SENSORS.
B. REFER TO E-SERIES DRAWINGS FOR LOCATIONS OF LIGHTING CONTROL DEVICES.
C. REFER TO DIVISION 26 LIGHTING CONTROL SPECIFICATIONS FOR BACS LIGHTING CONTROL DEVICE REQUIREMENTS.
D. PROVIDE ONE LIGHTING CONTACT RELAY FOR EACH LIGHT FIXTURE FUNCTION. MULTIPLE FIXTURES IN THE SAME ZONE MAY BE COMBINED ON A SINGLE CONTACT RELAY TO 80% OF RELAY CAPACITY.
E. SEE DRAWINGS M101 AND M102 FOR LIGHTING ZONE AREAS.

POINT SCHEDULE												
CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS						SHOWN ON GRAPHIC	NOTES
									ALARM			
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION	
LIGHT ENABLE COMMAND		X						X				X	VIA PRIMARY POWER PACK RELAY
LIGHT STATUS	X							X				X	VIA PRIMARY POWER PACK RELAY
HVAC OCCUPANCY COMMAND		X						X				X	VIA SECONDARY POWER PACK RELAY
OCCUPANCY	X							X				X	
LIGHT FIXTURE DIMMING COMMAND SETPOINT				X				X				X	

2 CORRIDOR/GENERAL OCCUPANCY CONTROL LIGHTING CONTROL SCHEMATIC AND SYSTEM SUMMARY
NOT TO SCALE

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24213

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CONTROL SCHEMATICS AND SYSTEM SUMMARIES

M310

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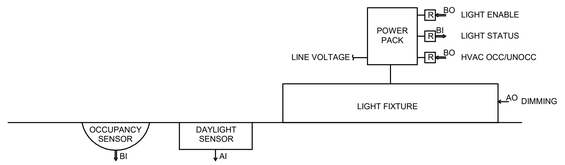


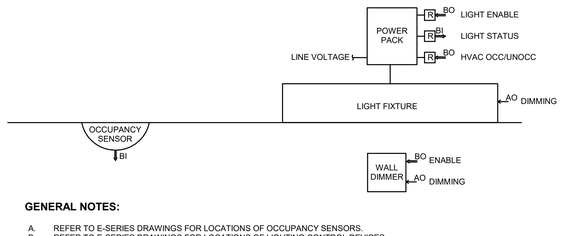
GENERAL NOTES:

A. REFER TO E-SERIES DRAWINGS FOR LOCATIONS OF OCCUPANCY SENSORS.
B. REFER TO E-SERIES DRAWINGS FOR LOCATIONS OF LIGHTING CONTROL DEVICES.
C. REFER TO DIVISION 26 LIGHTING CONTROL SPECIFICATIONS FOR BACS LIGHTING CONTROL DEVICE REQUIREMENTS.
D. PROVIDE ONE LIGHTING CONTACT RELAY FOR EACH LIGHT FIXTURE FUNCTION. MULTIPLE FIXTURES IN THE SAME ZONE MAY BE COMBINED ON A SINGLE CONTACT RELAY TO 80% OF RELAY CAPACITY.
E. SEE DRAWINGS M101 AND M102 FOR LIGHTING ZONE AREAS.

POINT SCHEDULE

CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
									ALARM				
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
LIGHT ENABLE COMMAND		X						X				X	VIA PRIMARY POWER PACK RELAY
LIGHT STATUS	X							X				X	VIA PRIMARY POWER PACK RELAY
HVAC OCCUPANCY COMMAND		X						X				X	VIA SECONDARY POWER PACK RELAY
DAYLIGHT			X					X				X	
OCCUPANCY	X							X				X	
LIGHT FIXTURE DIMMING COMMAND				X				X				X	

1 CORRIDOR/GENERAL OCCUPANCY AND DAYLIGHT CONTROL LIGHTING CONTROL SCHEMATIC AND SYSTEM SUMMARY
NOT TO SCALE



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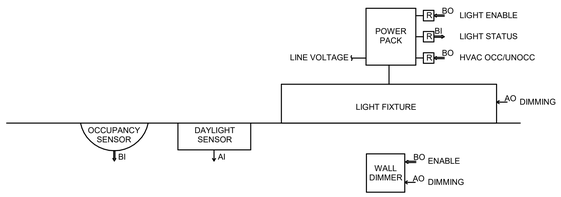
B. REFER TO E-SERIES DRAWINGS FOR LOCATIONS OF LIGHTING CONTROL DEVICES.
C. REFER TO DIVISION 26 LIGHTING CONTROL SPECIFICATIONS FOR BACS LIGHTING CONTROL DEVICE REQUIREMENTS.
D. PROVIDE ONE LIGHTING CONTACT RELAY FOR EACH LIGHT FIXTURE FUNCTION. MULTIPLE FIXTURES IN THE SAME ZONE MAY BE COMBINED ON A SINGLE CONTACT RELAY TO 80% OF RELAY CAPACITY.
E. SEE DRAWINGS M101 AND M102 FOR LIGHTING ZONE AREAS.

POINT SCHEDULE

CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
									ALARM				
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
LIGHT ENABLE COMMAND		X						X				X	VIA PRIMARY POWER PACK RELAY
LIGHT STATUS	X							X				X	VIA PRIMARY POWER PACK RELAY
HVAC OCCUPANCY COMMAND		X						X				X	VIA SECONDARY POWER PACK RELAY
DIMMING COMMAND				X				X				X	
DIMMING ENABLE COMMAND		X						X				X	
OCCUPANCY	X							X				X	
DAYLIGHT			X					X				X	
LIGHT FIXTURE DIMMING COMMAND				X				X				X	

2 GENERAL OCCUPANCY AND DIMMER SWITCH CONTROL LIGHTING CONTROL SCHEMATIC AND SYSTEM SUMMARY
NOT TO SCALE



GENERAL NOTES:

A. REFER TO E-SERIES DRAWINGS FOR LOCATIONS OF OCCUPANCY SENSORS.
B. REFER TO E-SERIES DRAWINGS FOR LOCATIONS OF LIGHTING CONTROL DEVICES.
C. REFER TO DIVISION 26 LIGHTING CONTROL SPECIFICATIONS FOR BACS LIGHTING CONTROL DEVICE REQUIREMENTS.
D. PROVIDE ONE LIGHTING CONTACT RELAY FOR EACH LIGHT FIXTURE FUNCTION. MULTIPLE FIXTURES IN THE SAME ZONE MAY BE COMBINED ON A SINGLE CONTACT RELAY TO 80% OF RELAY CAPACITY.
E. SEE DRAWINGS M101 AND M102 FOR LIGHTING ZONE AREAS.

POINT SCHEDULE

CONTROL POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							SHOWN ON GRAPHIC	NOTES
									ALARM				
	BI	BO	AI	AO	AV	BV	SCH	TREND	BACS	EMCS	DESCRIPTION		
LIGHT ENABLE COMMAND		X						X				X	VIA PRIMARY POWER PACK RELAY
LIGHT STATUS	X							X				X	VIA PRIMARY POWER PACK RELAY
HVAC OCCUPANCY COMMAND		X						X				X	VIA SECONDARY POWER PACK RELAY
DIMMING COMMAND				X				X				X	
DIMMING ENABLE COMMAND		X						X				X	
OCCUPANCY	X							X				X	
DAYLIGHT			X					X				X	
LIGHT FIXTURE DIMMING COMMAND				X				X				X	

3 GENERAL OCCUPANCY, DAYLIGHT AND DIMMER SWITCH CONTROL LIGHTING CONTROL SCHEMATIC AND SYSTEM SUMMARY
NOT TO SCALE

SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

LIGHT FIXTURES

GENERAL

SYSTEM SHALL BE CONTROLLED THROUGH THE BUILDING AUTOMATION AND CONTROL SYSTEM (BACS).

ALL SETPOINTS SHALL BE ADJUSTABLE.

THE BACS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK.

THE BACS SHALL BE CAPABLE OF RETAINING ITS PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST TEN HOURS.

THE LIGHT LEVEL SETPOINT SHALL BE DETERMINE DURING COMMISSIONING.

SETPOINTS

MINIMUM ZONE OCCUPANCY INDEX TIME: 30 MINUTES

GENERAL PURPOSE MAXIMUM LIGHT LEVEL: 100% (ADJ)

GENERAL PURPOSE MINIMUM LIGHT LEVEL: 20% (ADJ)

ZONE OCCUPANCY SCHEDULE: 8 AM TO 8 PM, MON-FRI

ZONE OCCUPANCY

ZONE OCCUPANCY SHALL BE DETERMINED BASED ON A COMBINATION OF TIME OF DAY SCHEDULE AND ZONE OCCUPANCY SENSOR(S).

DURING THE SCHEDULED OCCUPANCY PERIOD, THE ZONE SHALL BE INITIALLY INDEXED TO OCCUPIED MODE AND OPERATE FOR A MINIMUM DURATION, AT WHICH TIME THE ZONE OCCUPANCY SENSOR(S) SHALL INDEX THE SPACE BETWEEN OCCUPIED AND UNOCCUPIED MODE.

DURING THE SCHEDULED UNOCCUPIED PERIOD, THE ZONE SHALL BE INDEXED TO UNOCCUPIED MODE. IF OCCUPANCY IS SENSED DURING THE SCHEDULED UNOCCUPIED PERIOD, THE ZONE OCCUPANCY SENSOR(S) SHALL INDEX THE ZONE TO OCCUPIED MODE FOR THE DURATION OF OCCUPANCY. THE ZONE SHALL INDEX BACK TO UNOCCUPIED MODE WHEN OCCUPANCY IS NOT SENSED FOR THE MINIMUM DURATION.

GENERAL PURPOSE LIGHTING CONTROL

UNOCCUPIED MODE: THE LIGHTS IN THE ZONE SHALL BE OFF. THE BACS SHALL SIGNAL TO LIGHTING CONTACT RELAY (POWER PACK) TO TURN LIGHTS OFF.

OCCUPIED MODE: THE LIGHTS IN THE ZONE SHALL BE ON. THE BACS SHALL SIGNAL TO DIMMING CONTROL AND LIGHTING CONTACT RELAY (POWER PACK) TO TURN LIGHTS ON TO LIGHT LEVEL SETPOINT OR BASED ON DIMMING OR DAYLIGHT CONTROL OVERRIDE.

THE LIGHT FIXTURE SHALL MODULATE BETWEEN MINIMUM OUTPUT AND MAXIMUM OUTPUT BASED ON DIMMING CONTROL AT THE WALL MOUNTED SWITCH. THE LIGHT OUTPUT LEVEL SHALL BE MANUALLY OVERRIDDEN BY THE SWITCH UNTIL A CHANGE IN OCCUPANCY MODE BASED ON THE TIME OF DAY SCHEDULE.

PROVIDE NORMALLY-OPEN RELAY FOR GENERAL PURPOSE LIGHTS LIGHT LEVEL SETPOINT OUTPUT SUCH THAT DIMMING SIGNAL IS OPEN WHEN RELAY IS NOT ENERGIZED.

DAYLIGHT HARVESTING

WHERE DAYLIGHT CONTROL IS PROVIDE, THE LIGHT FIXTURE SHALL MODULATE BETWEEN MINIMUM OUTPUT AND MAXIMUM OUTPUT BASED ON DAYLIGHT SENSOR TO MAINTAIN CONSTANT LIGHT LEVEL UNDER VARIABLE DAYLIGHT CONTRIBUTION.

SEQUENCE OF OPERATION

SYSTEM DESCRIPTION

LIGHT FIXTURES

GENERAL

SYSTEM SHALL BE CONTROLLED THROUGH THE BUILDING AUTOMATION AND CONTROL SYSTEM (BACS).

ALL SETPOINTS SHALL BE ADJUSTABLE.

THE BACS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK.

THE BACS SHALL BE CAPABLE OF RETAINING ITS PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST TEN HOURS.

THE LIGHT LEVEL SETPOINT SHALL BE DETERMINE DURING COMMISSIONING.

SETPOINTS

MINIMUM ZONE OCCUPANCY INDEX TIME: 30 MINUTES

GENERAL PURPOSE MAXIMUM LIGHT LEVEL: 100% (ADJ)

GENERAL PURPOSE MINIMUM LIGHT LEVEL: 20% (ADJ)

ZONE OCCUPANCY SCHEDULE: 8 AM TO 8 PM, MON-FRI

ZONE OCCUPANCY

ZONE OCCUPANCY SHALL BE DETERMINED BASED ON A COMBINATION OF TIME OF DAY SCHEDULE AND ZONE OCCUPANCY SENSOR(S).

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24213

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CONTROL SCHEMATICS AND SYSTEM SUMMARIES

M311

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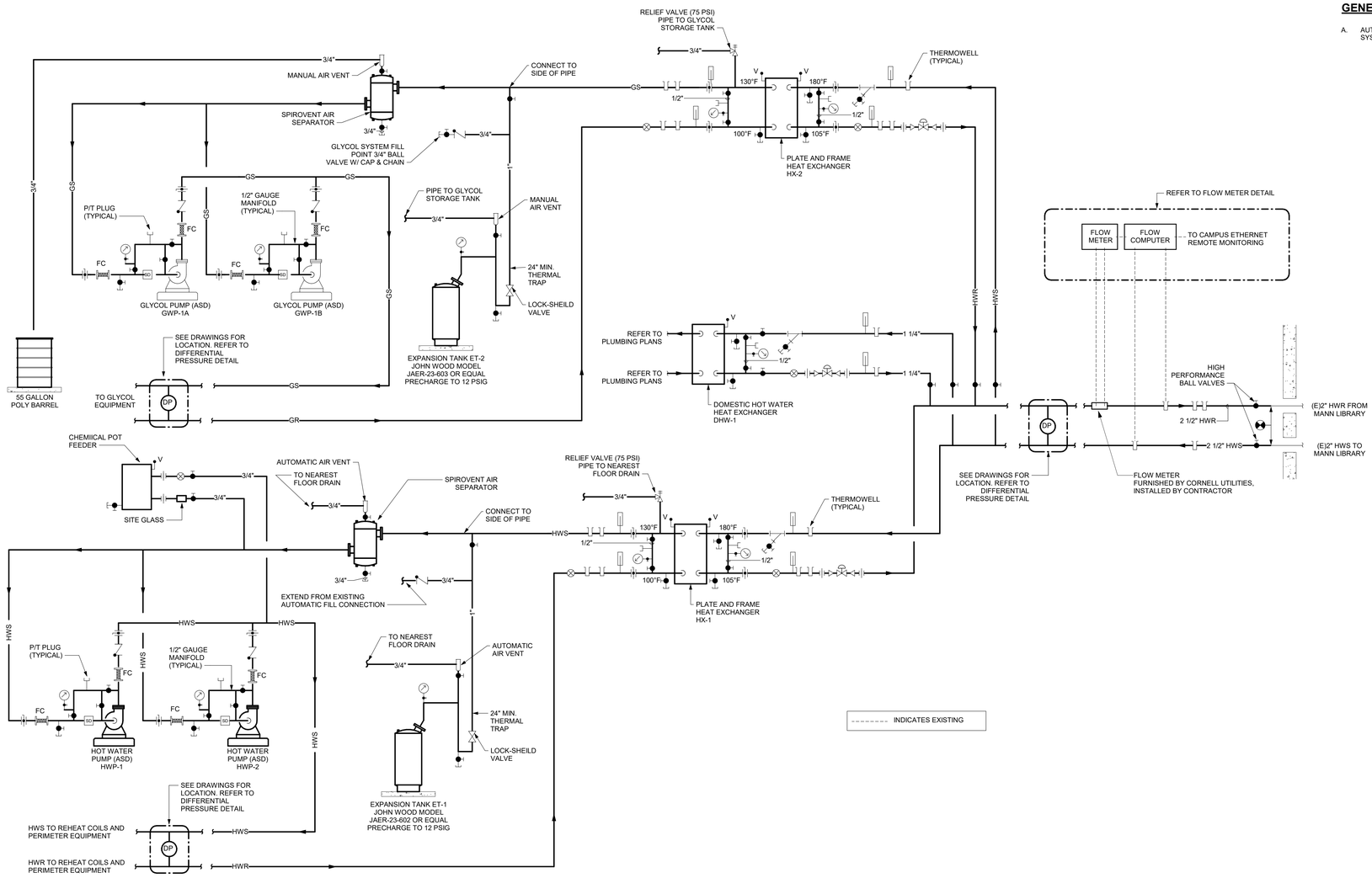
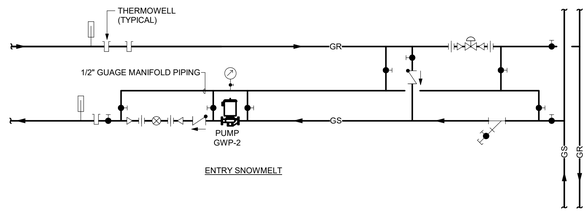


1 HEATING PIPING SCHEMATIC
NOT TO SCALE



2 SNOWMELT SYSTEM PIPING SCHEMATIC
NOT TO SCALE

GENERAL NOTES:

A. AUTOMATIC AIR VENTS ARE ONLY ACCEPTABLE ON 100% HEATING HOT WATER SYSTEMS, ALL OTHER SYSTEM SHALL USE MANUAL AIR VENTS.

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PIPING SCHEMATICS - HVAC

M400

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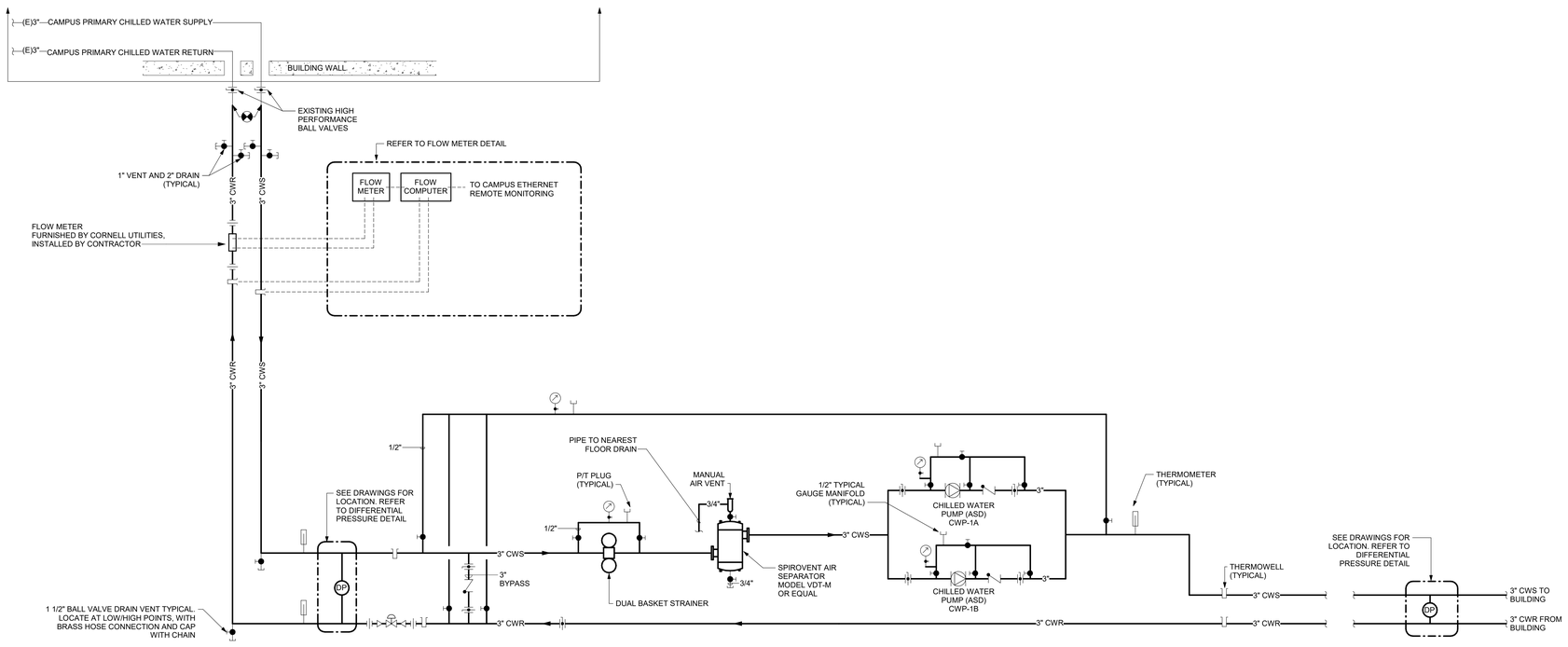

1 CHILLED WATER PIPING SCHEMATIC
NOT TO SCALE

GENERAL NOTES:

A. AUTOMATIC AIR VENTS ARE ONLY ACCEPTABLE ON 100% HEATING HOT WATER SYSTEMS, ALL OTHER SYSTEM SHALL USE MANUAL AIR VENTS.

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PIPING SCHEMATIC - HVAC

M401

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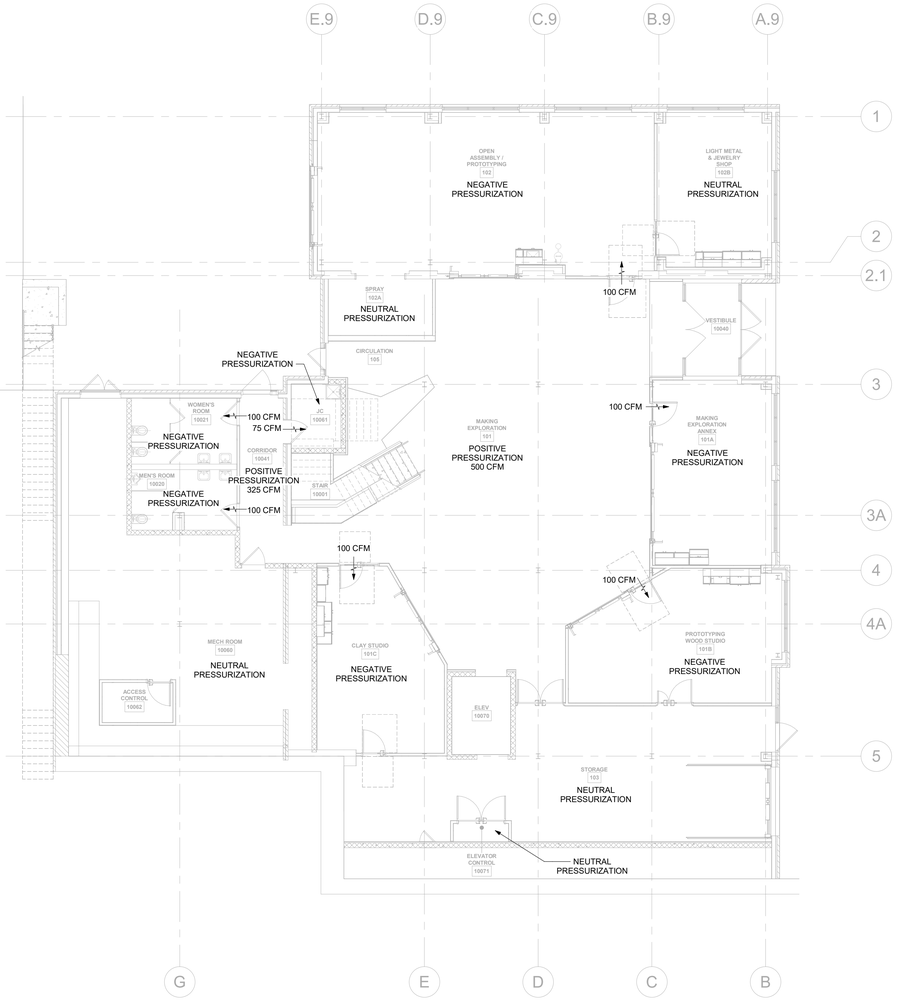

1 PRESSURIZATION PLAN - LEVEL 01
1/8" = 1'-0"

2 PRESSURIZATION PLAN - LEVEL 02
1/8" = 1'-0"

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PRESSURIZATION PLANS - HVAC

M500

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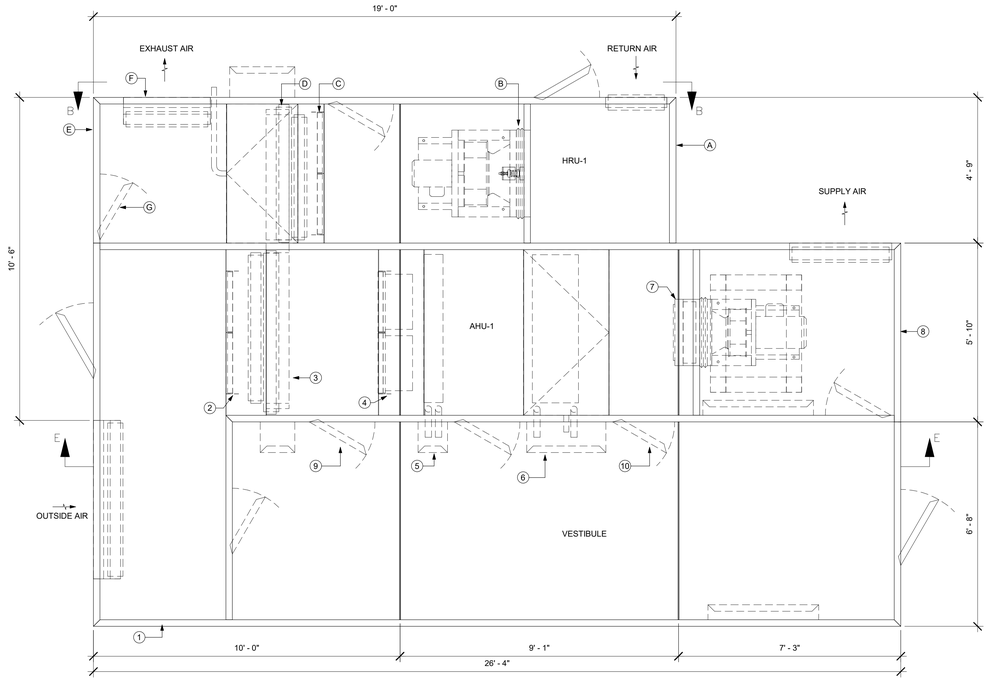


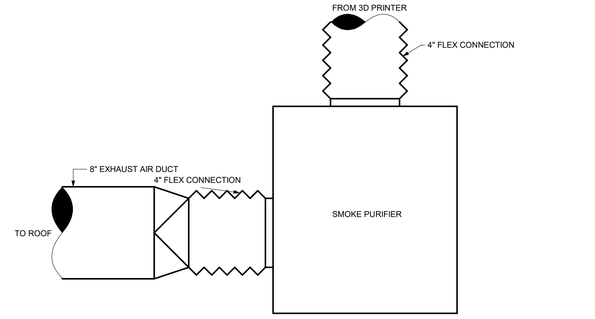
PLAN VIEW

Ⓧ AHU-1 COMPONENTS:

1. OUTSIDE AIR PLENUM
2. 2" MERV8 PREFILTER
3. HEAT PIPE SUPPLY
4. 12" MERV13 FILTER
5. PREHEAT COILS
6. CHILLED WATER COILS
7. SUPPLY FANS
8. SUPPLY AIR PLENUM
9. 24"x72" ACCESS DOOR (TYP.)
10. 22 9/16"x72" ACCESS DOOR

Ⓧ HRU-1 COMPONENTS:

A. RETURN AIR PLENUM
B. EXHAUST FAN
C. 2" MERV 8 PREFILTER
D. HEAT PIPE EXHAUST
E. EXHAUST AIR PLENUM
F. EXHAUST AIR OPENING WITH DAMPER AND LOUVER
G. 24"x72" ACCESS DOOR (TYP.)



2 SMOKE PURIFIER DETAIL
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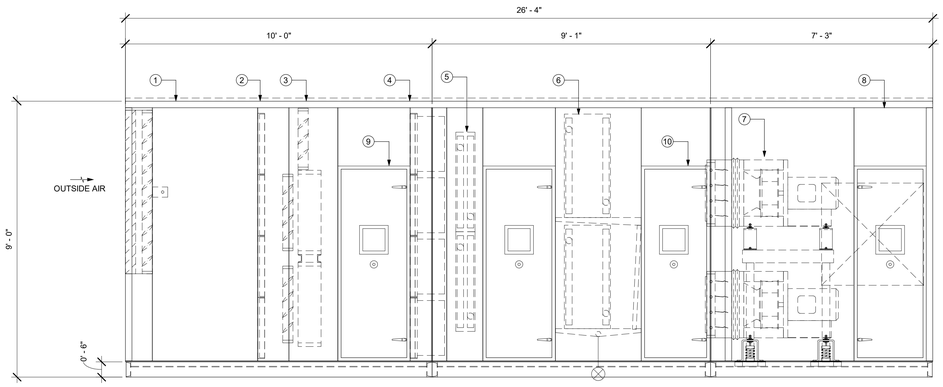
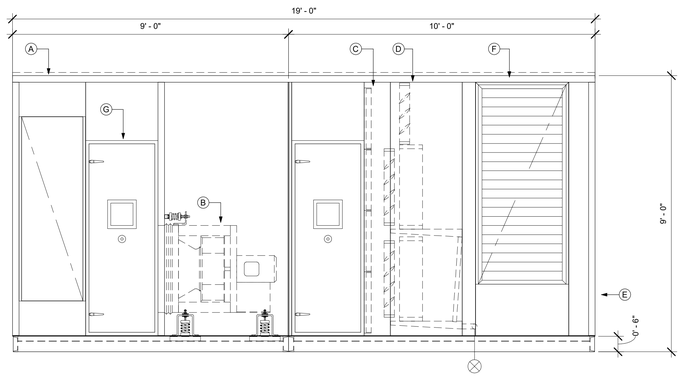


AHU-1 ELEVATION VIEW E-E



HRU-1 ELEVATION VIEW B-B

1 AHU-1 AND HRU-1 COMPONENT DETAIL
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DETAILS - HVAC

M600

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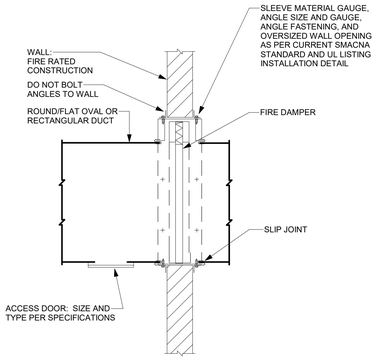

DETAIL NOTES:

A. HORIZONTAL AND 80% FREE AREA DAMPER INSTALLATION SIMILAR.

B. FOR DOUBLE WALL DUCT, USE INSULATION END CAP AND INSULATE SLEEVE.

C. FOR FIRE DAMPERS TO BE PROVIDED IN EXISTING OR NEW DUCTS PENETRATING EXISTING WALLS, THIS CONTRACTOR IS REQUIRED TO REFRAME AND RECONSTRUCT THE EXISTING WALL PENETRATION AND FRAMING AS PER SMACNA FIRE DAMPER OPENING PROTOCOL DETAIL FIG. 3-1 (FIRE DAMPER GUIDE) AS WELL AS MANUFACTURER AND UL LISTING INSTALLATION DETAIL.

1 FIRE DAMPER INSTALLATION DETAIL
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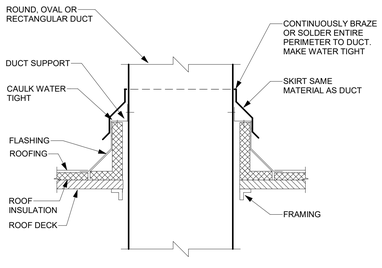


DETAIL NOTES:

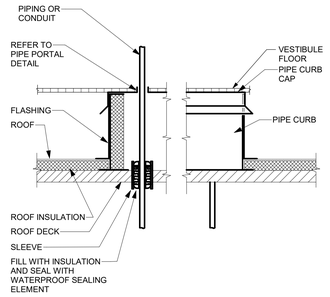
A. PROVIDE ROOF OPENING, FRAMING AND FLASHING.

B. LOCATE, SET AND SECURE CURB.

C. PROVIDE SHIMS WHERE REQUIRED TO LEVEL CURB.

D. PROVIDE WIND RESTRAINT PER SPECIFICATION SECTION 230550-WIND RESTRAINT FOR HVAC SYSTEMS.

2 DUCT PENETRATION CURB DETAIL
NOT TO SCALE



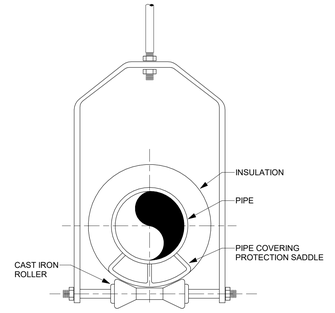
DETAIL NOTES:

A. CUT BACK INSULATION AND PROVIDE FLASHING.

B. LOCATE, SET AND SECURE CURB.

C. PROVIDE WIND RESTRAINT PER SPECIFICATION SECTION 230550-WIND RESTRAINT FOR HVAC SYSTEMS.

3 PIPE CURB DETAIL
NOT TO SCALE



DETAIL NOTES:

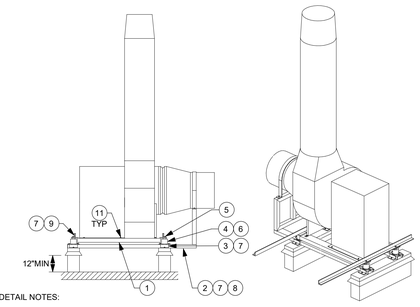
A. GRINNELL FIGURE 181 PIPE ROLL.

B. GRINNELL FIGURE 160 (SERIES) PROTECTION SADDLE.

C. MIN. THREADED ROD SERIES; 2" THRU 3 1/2" - 1/2" DIA., 4"&5" - 5/8" DIA., 6" & 8" - 3/4" DIA., 10" & 12" - 7/8" DIA., 14" - 1" DIA.

D. UPPER ATTACHMENTS VARY, EG. HORIZONTAL TRAVELERS, BEAM CLAMPS "C"-CLAMPS, WELD LEGS, CONSTANT SUPPORT HANGER ETC.

4 ADJUSTABLE STEEL YOKE PIPE ROLLER DETAIL
NOT TO SCALE



DETAIL NOTES:

A. M.C. TO PROVIDE, LOCATE, SET, SECURE AND FLASH CURB.

B. PROVIDE SHIMS WHERE REQUIRED TO LEVEL SUPPORT.

C. LENGTH OF SUPPORTS AS CALLED FOR. PROVIDE BLOCKING BENEATH SUPPORTS IN FLUTES OF METAL DECKS.

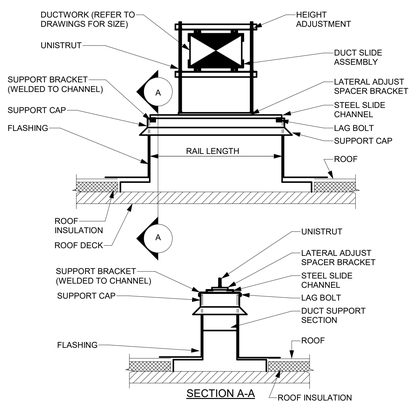
D. MEDIUM STRENGTH THREADLOCKER (LOCTITE BRAND 242, OR EQUAL) SHALL BE APPLIED TO ALL BOLTS AND NUTS PRIOR TO FINAL ASSEMBLY.

E. PROVIDE WIND RESTRAINT PER SPECIFICATION SECTION 230550-WIND RESTRAINT FOR HVAC SYSTEMS.

5 ROOF MOUNTED FAN SUPPORT DETAIL
NOT TO SCALE

KETED NOTES:

1. ISOLATION RAIL FURNISHED WITH THE EXHAUST FAN.
2. BASE RAIL. VERIFY ACTUAL BASE RAIL LENGTH. BASE RAIL SHALL BE "C" CHANNEL EQUIVALENT IN STRENGTH TO THE ISOLATION RAIL.
3. PROVIDE 4" LONG PIECES OF ANGLE IRON FOR THE MOUNTING BRACKETS TO FASTEN THE BASE RAIL TO THE EQUIPMENT SUPPORT RAILS. THE MOUNTING BRACKETS SHALL BE 4" LONG, 1 1/4"x1 1/4"x3/8" ANGLE IRON. WELD BRACKET TO THE NEW BASE RAIL "C" CHANNEL. FASTEN THE MOUNTING BRACKET TO THE CURB SUPPORT RAIL USING A SAE GRADE 8 BOLT AND (1) SAE GRADE 8 FLAT WASHER BETWEEN THE BOLT HEAD AND THE BRACKET PER BRACKET. THERE ARE A TOTAL OF (4) BRACKETS PER BASE RAIL.
4. FAIL-SAFE CAPTIVE DESIGN NEOPRENE-IN-SHEAR VIBRATION ISOLATOR MINIMUM STATIC DEFLECTION OF 0.75". VERIFY ISOLATOR LOADING REQUIREMENTS. A TOTAL OF (4) ISOLATORS PER FAN ARE REQUIRED.
5. FASTEN VIBRATION ISOLATOR TO THE ISOLATION RAIL WITH SAE GRADE 8 BOLTS. BOLT SHALL BE LONG ENOUGH TO PASS THROUGH THE OUTRIGGER ANGLE IRON AND THE ISOLATION RAIL. PROVIDE A SAE GRADE 8 FLAT WASHER BETWEEN THE BOLT HEAD AND THE OUTRIGGER ANGLE IRON.
6. FASTEN VIBRATION ISOLATOR TO BASE RAIL WITH SAE GRADE 8 BOLTS. PROVIDE (1) SAE GRADE 8 FLAT WASHER BETWEEN THE BOLT HEAD ANF THE ISOLATOR BASE AND (1) SAE GRADE 8 FLAT WASHER BETWEEN THE NUT AND BASE RAIL.
7. PAINT ALL RAW EXPOSED METAL ITEMS ASSOCIATED WITH THE NEW EXHAUST FANS WITH TWO PRIMER COATS AND TWO FINAL PAINT COATS OF EXTERIOR RUST RESISTANT PAINT. PAINT SHALL MATCH EXHAUST FAN COLOR.
8. NEW BASE RAILS SHALL EXTEND A MINIMUM OF 1'-0" PAST THE CURB SUPPORT RAIL TO PROVIDE A MOUNTING SURFACE FOR THE DUCTWORK SUPPORT AND THE FAN INLET.
9. PROVIDE 1 1/4"x1 1/4"x3/8" ANGLE IRON FOR THE OUTRIGGER FRAME. THE OUTRIGGER FRAME MEMBER SHALL BE A MINIMUM OF 6'-0" IN LENGTH. THE OUTRIGGER ANGLE IRON SHALL BE FULLY WELDED TO THE ISOLATION RAILS. PROVIDE A HOLE IN THE ANGLE IRON TO ALLOW THE ISOLATION RAILS TO BE ATTACHED TO THE VIBRATION ISOLATORS. THE HOLES SHALL BE LARGE ENOUGH TO ACCOMMODATE THE VIBRATION ISOLATOR BOLT. THE CENTERLINE OF THE OUTRIGGER FRAME SHALL CORRESPOND TO THE CENTERLINE OF THE EXHAUST STACK. OUTRIGGER FRAME SHALL EXTEND TO MAINTAIN 3" CLEARANCE BETWEEN FAN AND GUY WIRE.
11. FASTEN THE EXHAUST FAN TO THE ISOLATION RAIL BY USING SAE GRADE 8 BOLTS. PROVIDE A SAE GRADE 8 FLAT WASHER BETWEEN THE BOLT HEAD AND THE EXHAUST FAN AND A SAE GRADE 8 FLAT WASHER BETWEEN THE NUT AND THE ISOLATION RAIL. ALIGN EXHAUST FAN WITH THE MOUNTING HOLES IN THE ISOLATION RAILS.



SECTION A-A

SIZE CHART	
DUCT SIZE	EQUIPMENT RAIL LENGTH
UP TO 12"	2'-0"
12 1/4" TO 24"	3'-0"
24 1/4" TO 36"	4'-0"
36 1/4" TO 48"	5'-0"
48 1/4" TO 60"	6'-0"
60 1/4" TO 72"	7'-0"
72 1/4" TO 84"	8'-0"

DETAIL NOTES:

A. CUT BACK INSULATION AND PROVIDE FLASHING.

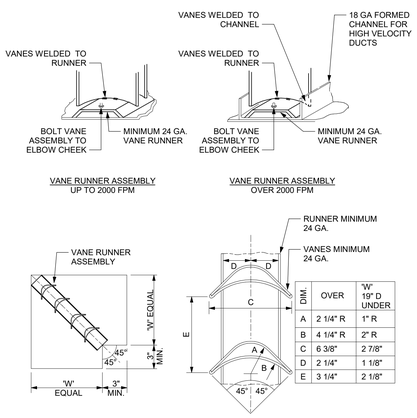
B. LOCATE, SET AND SECURE CURB.

C. PROVIDE SHIMS WHERE REQUIRED TO LEVEL SUPPORT.

D. LENGTH OF SUPPORTS AS CALLED FOR. PROVIDE BLOCKING BENEATH SUPPORTS IN FLUTES OF METAL DECKS.

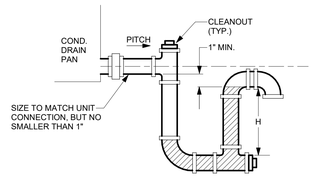
E. PROVIDE WIND RESTRAINT PER SPECIFICATION SECTION 230550-WIND RESTRAINT FOR HVAC SYSTEMS.

6 DUCTWORK SUPPORT DETAIL
NOT TO SCALE



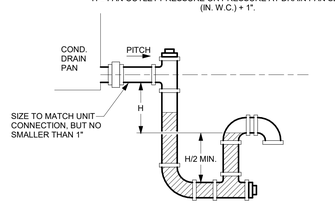
DIM.	OVER	"W" 19" D UNDER
A	2 1/4" R	1" R
B	4 1/4" R	2" R
C	6 3/8"	2 7/8"
D	2 1/4"	1 1/8"
E	3 1/4"	2 1/8"

7 VANED ELBOW DETAIL
NOT TO SCALE



BLOW THRU UNITS (POSITIVE STATIC PRESSURE)

H = FAN OUTLET PRESSURE OR PRESSURE AT DRAIN PAN SECTION (IN. W.C.) + 1".



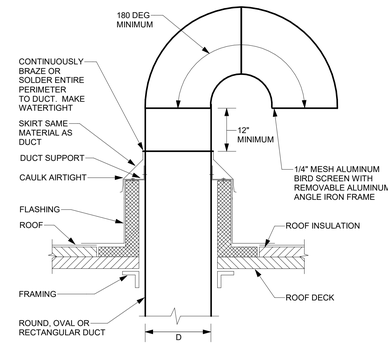
DRAW THRU UNITS

H = FAN INLET PRESSURE OR PRESSURE AT DRAIN PAN SECTION (IN. W.C.) + 1"

DETAIL NOTES:

A. AS AN ALTERNATE, IT IS ACCEPTABLE TO PIPE THE TRAP EXACTLY AS SHOWN IN THE MANUFACTURER'S INSTALLATION MANUAL.

9 ROOFTOP UNIT CONDENSATE DRAIN TRAP DETAIL
NOT TO SCALE



DETAIL NOTES:

A. PROVIDE ROOF OPENING, FRAMING AND FLASHING.

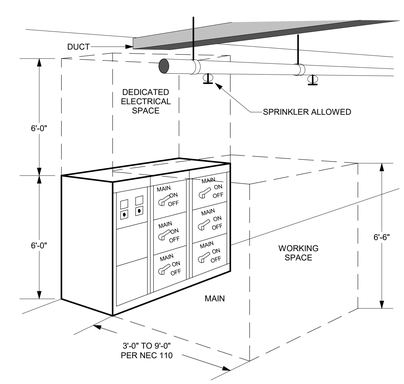
B. LOCATE, SET AND SECURE CURB.

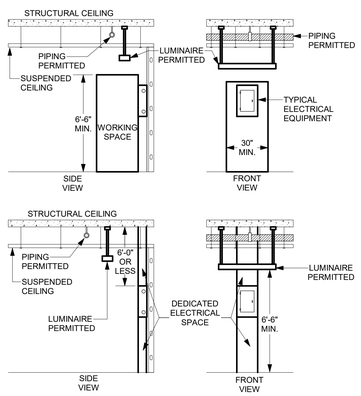
C. PROVIDE SHIMS WHERE REQUIRED TO LEVEL CURB.

D. FACE EAST UNLESS INDICATED OTHERWISE ON PLANS.

E. PROVIDE WIND RESTRAINT PER SPECIFICATION SECTION 230550-WIND RESTRAINT FOR HVAC SYSTEMS.

10 GOOSENECK VENT DETAIL
NOT TO SCALE





DETAIL NOTES:

A. ELECTRICAL EQUIPMENT INCLUDES PANELS, TRANSFORMERS, DISCONNECTS, STARTERS, MOTOR CONTROL CENTERS, SWITCHGEAR, ADJUSTABLE SPEED DRIVES, AND FUSED SWITCHES (THIS ALSO APPLIES TO ELECTRICAL GEAR MOUNTED DIRECTLY ON MECHANICAL EQUIPMENT).

B. DEDICATED ELECTRICAL SPACE IS DEFINED BY NEC 110.

C. NO PIPING OR DUCTWORK MAY BE INSTALLED IN DEDICATED ELECTRICAL SPACE OR WORKING SPACE.

8 PIPING AND DUCTWORK OVER ELECTRICAL EQUIPMENT DETAIL
NOT TO SCALE

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AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

DETAILS - HVAC

M601

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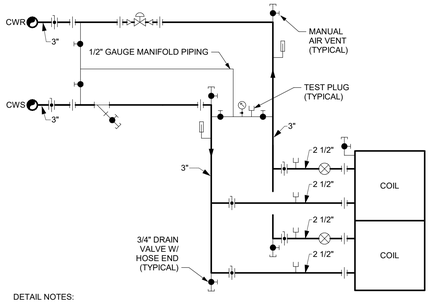
THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THIS ORIGINAL DRAWING SIZE

THE SQUARES ABOVE ARE COLOR, WITH BLACK AND WHITE LETTERS, IF PRINTED CORRECTLY

9/14/2026 1:39:09 PM



DETAIL NOTES:

A. ARRANGE PIPING TO ALLOW REMOVAL OF COIL WITHOUT REMOVAL OF PIPING AHEAD OF UNIONS AND TO ALLOW ACCESS TO FILTERS AND ACCESS PANELS.

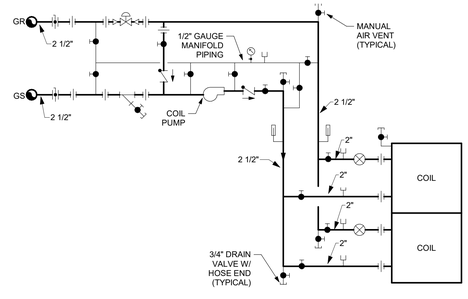
B. PIPE COIL FOR COUNTERFLOW ARRANGEMENT. SUPPLY CONNECTION SHALL BE ON THE DISCHARGE AIR SIDE OF THE COIL.

C. INSTALL STRAINER HORIZONTALLY.

D. LOCATE THE PRESSURE GAUGE AT A POINT ACCESSIBLE FROM THE FLOOR. IF THE GAUGE VALVES ARE NOT WITHIN REACH OF GAUGE LOCATION, ADD A SECOND SET OF VALVES AT THE GAUGE.

E. THE FOLLOWING ARE NOT ALLOWED: DIELECTRIC UNIONS, AUTOMATIC FLOW CONTROL VALVES, COMBINATION DEVICES OR PRE PIPIED COIL FIT OUT KITS.

1 AHU CHILLED WATER COIL PIPING DETAIL - 2 WAY
NOT TO SCALE



DETAIL NOTES:

A. ARRANGE PIPING TO ALLOW REMOVAL OF COIL WITHOUT REMOVAL OF PIPING AHEAD OF UNIONS AND TO ALLOW ACCESS TO FILTERSAND ACCESS PANELS.

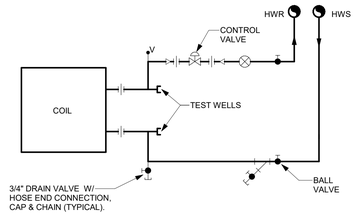
B. PIPE COIL FOR COUNTERFLOW ARRANGEMENT. SUPPLY CONNECTION SHALL BE ON THE DISCHARGE AIR SIDE OF THE COIL.

C. USE GAUGE TAPPINGS ON PUMP TO CONNECT TO THE GAUGE MANIFOLD.

D. INSTALL CHECK VALVE HORIZONTALLY, OR VERTICALLY WITH FLOW UPWARD. INSTALL STRAINER HORIZONTALLY.

E. THE FOLLOWING ARE NOT ALLOWED: DIELECTRIC UNIONS, AUTOMATIC FLOW CONTROL VALVES, COMBINATION DEVICES OR PRE PIPIED COIL FIT OUT KITS.

2 AHU GLYCOL PREHEAT COIL PIPING DETAIL - 2 WAY WITH PUMP
NOT TO SCALE



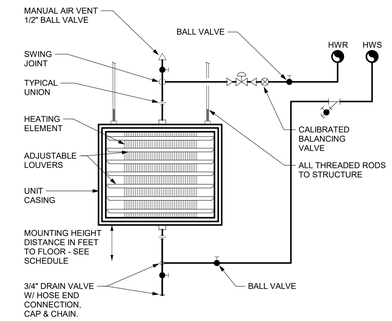
DETAIL NOTES:

A. ARRANGE PIPING FOR REMOVAL OF COIL WITHOUT DISTURBING PIPING AHEAD OF UNIONS.

B. PROVIDE DUCT ACCESS DOOR UPSTREAM OF COIL.

C. PIPE COIL FOR COUNTERFLOW ARRANGEMENT IF COIL IS MORE THEN ONE ROW. HOT WATER SUPPLY CONNECTION SHALL BE ON THE DISCHARGE AIR SIDE OF THE COIL.

3 TERMINAL REHEAT COIL PIPING DETAIL - HOT WATER
NOT TO SCALE

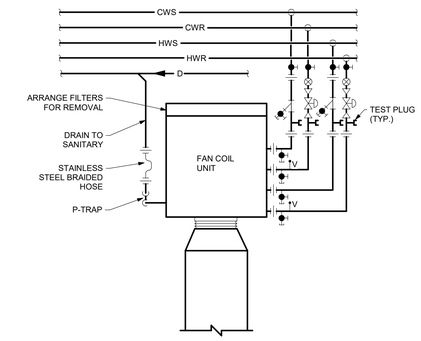


DETAIL NOTES:

A. SUPPORT HOT WATER SUPPLY AND RETURN PIPING INDEPENDENT OF UNIT HEATER.

B. THE FOLLOWING ARE NOT ALLOWED: DIELECTRIC UNIONS, AUTOMATIC CONTROL VALVES, COMBINATION DEVICES OR PRE-PIPED COIL FIT OUT KITS.

4 HORIZONTAL UNIT HEATER PIPING DETAIL - HOT WATER
NOT TO SCALE



DETAIL NOTES:

A. HANG UNIT FROM STRUCTURE AS HIGH AS POSSIBLE WITH STEEL ROD AND VIBRATION ISOLATORS.

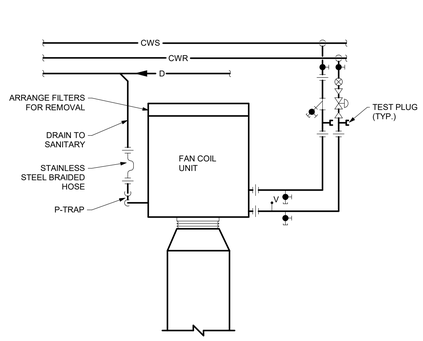
B. UNIT SHALL BE ACCESSIBLE FROM BELOW. MECHANICAL AND ELECTRICAL WORK SHALL NOT BE LOCATED BELOW UNIT. ARRANGEMENT SHALL PERMIT REMOVAL OF FAN COIL UNIT FOR MAJOR SERVICING.

C. CONTROL PANEL SHALL BE ACCESSIBLE FOR SERVICING.

D. DRAIN PIPING BY PLUMBING CONTRACTOR.

E. THE FOLLOWING ARE NOT ALLOWED: DIELECTRIC UNIONS, AUTOMATIC FLOW CONTROL VALVES, COMBINATION DEVICES OR PRE PIPIED COIL FIT OUT KITS.

5 CEILING MOUNTED FAN COIL UNIT DETAIL - FOUR PIPE
NOT TO SCALE



DETAIL NOTES:

A. HANG UNIT FROM STRUCTURE AS HIGH AS POSSIBLE WITH STEEL ROD AND VIBRATION ISOLATORS.

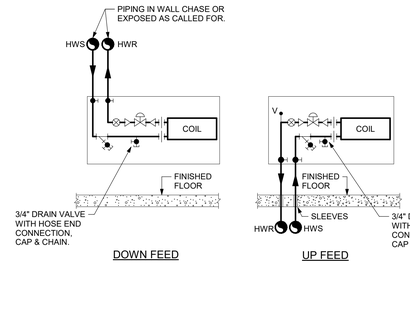
B. UNIT SHALL BE ACCESSIBLE FROM BELOW. MECHANICAL AND ELECTRICAL WORK SHALL NOT BE LOCATED BELOW UNIT. ARRANGEMENT SHALL PERMIT REMOVAL OF FAN COIL UNIT FOR MAJOR SERVICING.

C. CONTROL PANEL SHALL BE ACCESSIBLE FOR SERVICING.

D. DRAIN PIPING BY PLUMBING CONTRACTOR.

E. THE FOLLOWING ARE NOT ALLOWED: DIELECTRIC UNIONS, AUTOMATIC CONTROL VALVES, COMBINATION DEVICES OR PRE-PIPED COIL FIT OUT KITS.

6 CEILING MOUNTED FAN COIL UNIT DETAIL - TWO PIPE
NOT TO SCALE

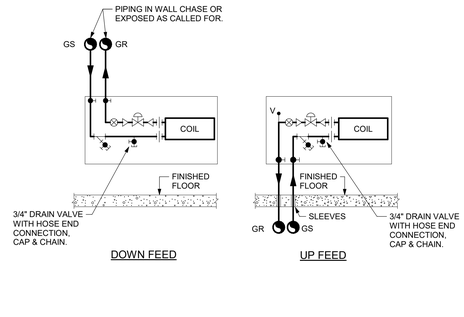


DETAIL NOTES:

A. PIPING FOR CEILING MOUNTED UNITS IS SIMILAR.

B. THE FOLLOWING ARE NOT ALLOWED: DIELECTRIC UNIONS, AUTOMATIC FLOW CONTROL VALVES, COMBINATION DEVICES OR PRE-PIPED FIT OUT KITS.

7 CABINET UNIT HEATER PIPNG DETAIL - HOT WATER
NOT TO SCALE

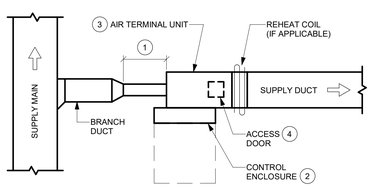


DETAIL NOTES:

A. PIPING FOR CEILING MOUNTED UNITS IS SIMILAR.

B. THE FOLLOWING ARE NOT ALLOWED: DIELECTRIC UNIONS, AUTOMATIC FLOW CONTROL VALVES, COMBINATION DEVICES OR PRE-PIPED FIT OUT KITS.

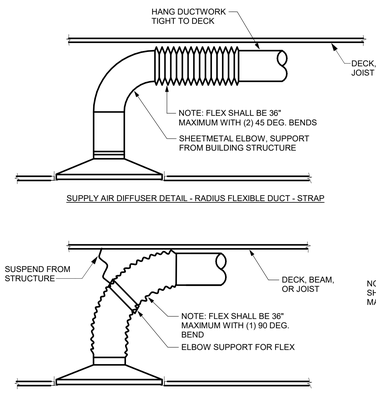
8 CABINET UNIT HEATER PIPNG DETAIL - GLYCOL
NOT TO SCALE



KEYED NOTES:

1. RIGID STRAIGHT DUCTWORK UPSTREAM OF THE TERMINAL UNIT SHALL BE A MINIMUM OF 3 TIMES THE DIAMETER OF INLET. NOT TO EXCEED 5'-0" TOTAL IN LENGTH.
2. MAINTAIN MINIMUM 1'-6" SERVICE CLEARANCE IN FRONT OF ENCLOSURE TO ALLOW FOR SERVICE/ACCESS.
3. COMPONENT ARRANGEMENT MAY VARY BY MANUFACTURER. PROVIDE INSULATION VAPOR BARRIER AS SPECIFIED.
4. ACCESS DOOR TO BE LOCATED AT THE BOTTOM OF THE UNIT. CONTRACTOR TO COORDINATE COIL AND CONTROL ENCLOSURE HANDING. ROTATING UNIT IN FIELD SUCH THAT ACCESS DOOR IS ON TOP OF UNIT IS NOT ACCEPTABLE.

9 VAV BOX DETAIL
NOT TO SCALE

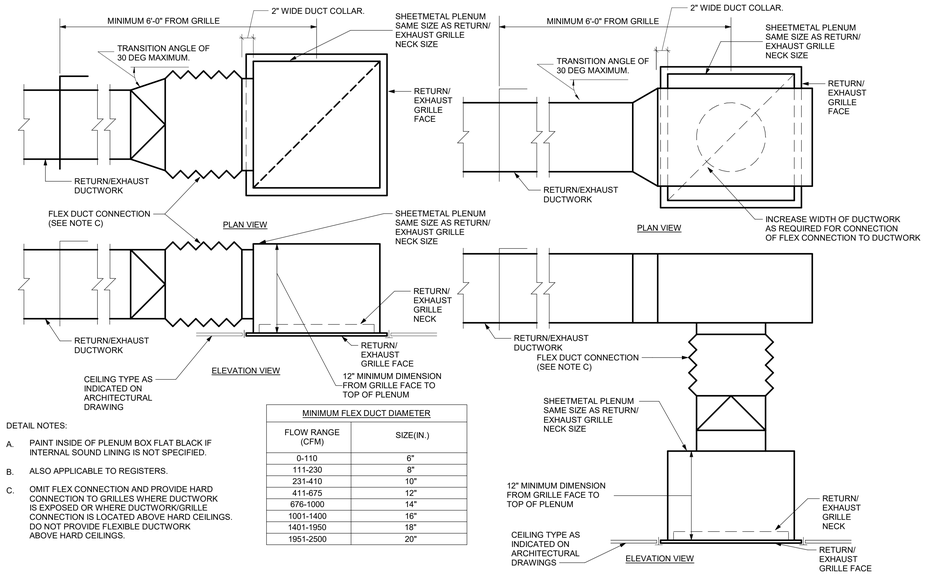


DETAIL NOTES:

A. DUCT AND DIFFUSER SIZE AND TYPE AS SHOWN ON DRAWINGS.

B. VOLUME DAMPER SHALL BE MINIMUM OF 4'-0" FROM DIFFUSER.

10 SUPPLY AIR DIFFUSER DETAIL
NOT TO SCALE



DETAIL NOTES:

A. PAINT INSIDE OF PLENUM BOX FLAT BLACK IF INTERNAL SOUND LINING IS NOT SPECIFIED.

B. ALSO APPLICABLE TO REGISTERS.

C. OMIT FLEX CONNECTION AND PROVIDE HARD CONNECTION TO GRILLES WHERE DUCTWORK IS EXPOSED OR WHERE DUCTWORK/GRILLE CONNECTION IS LOCATED ABOVE HARD CEILINGS. DO NOT PROVIDE FLEXIBLE DUCTWORK ABOVE HARD CEILINGS.

MINIMUM FLEX DUCT DIAMETER

FLOW RANGE (CFM)	SIZE(IN.)
0-110	6"
111-230	8"
231-410	10"
411-675	12"
676-1000	14"
1001-1400	16"
1401-1950	18"
1951-2500	20"

11 RETURN/EXHAUST GRILLE PLENUM DETAIL - DUCTED
NOT TO SCALE

ASHLEY MCGRAW
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SYRACUSE, NEW YORK 13202

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AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

DETAILS - HVAC

M602

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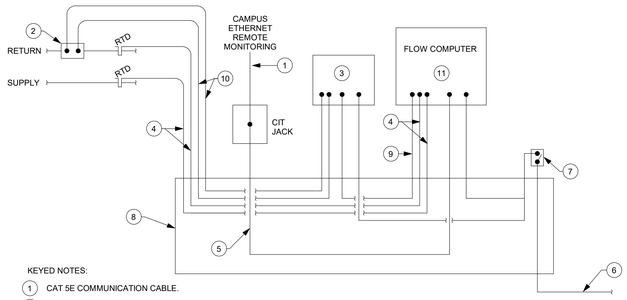
THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THIS ORIGINAL DRAWING SIZE

THE SQUARES ABOVE ARE COLOR, WITH BLACK AND WHITE LETTERS, IF PRINTED CORRECTLY

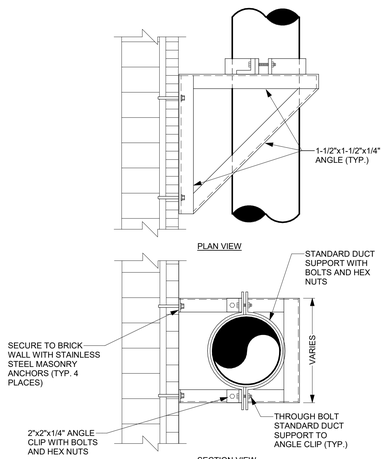
9/14/2026 1:39:10 PM



KEYED NOTES:

1. CAT 5E COMMUNICATION CABLE.
2. FLOW ELEMENT: ELECTROMAGNETIC OR ULTRASONIC PURCHASED FROM UTILITIES.
3. FLOW METER, PURCHASED FROM UTILITIES: ELECTROMAGNETIC: SIEMENS SITRANS MAG 3100. ULTRASONIC: FLEXIM FLUXUS F721.
4. TWO (2) 18/3 AWG STP RTD WIRING RUN IN 1/2" CONDUIT.
5. 24/8 AWG CAT 6 ETHERNET WIRING.
6. 120 VAC POWER WIRING.
7. POWER DISCONNECT SWITCH.
8. 6" x 6" ELECTRICAL WIREWAY.
9. ONE (1) 18/2 AWG STP METER FREQUENCY OUTPUT WIRING RUN IN 1/2" CONDUIT.
10. ELECTROMAGNETIC METERS: ONE (1) SIEMENS FDK:001SPCAB 18/2 CABLE AND ONE (1) 18/3 STP COIL CONDUCTOR RUN IN 1/2" CONDUIT. ULTRASONIC METERS: TWO (2) TRANSDUCED CABLE INPUT WIRES RUN IN 1/2" CONDUIT.
11. FLOW COMPUTER: KESSLER-ELLIS PRODUCTS ES749O13(MOD/IP)W.

1 FLOW METERING STATION DETAIL
NOT TO SCALE



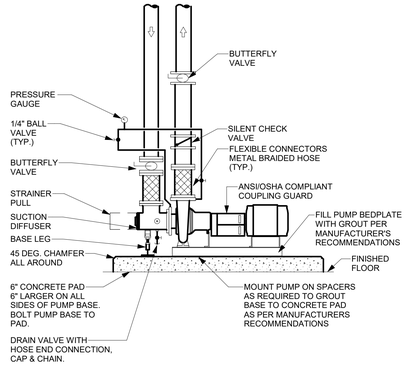
DETAIL NOTES:

A. ALL FASTENERS AND APPURTENANCES TO BE 316 STAINLESS STEEL.

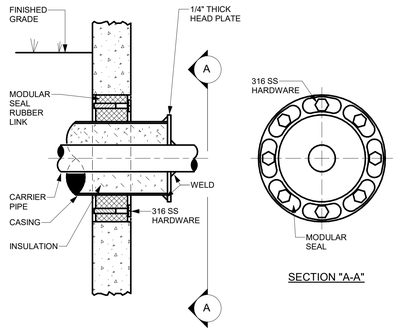
B. PAINT ANGLE IRON WITH TWO COATS OF RUST INHIBITIVE PRIMER AND ONE FINISH COAT.

C. PROVIDE WIND RESTRAINT PER SPECIFICATION SECTION 230550 - WIND RESTRAINT FOR HVAC SYSTEMS.

2 EXTERIOR HORIZONTAL PIPE/DUCT SUPPORT DETAIL - WALL-MOUNTED
NOT TO SCALE



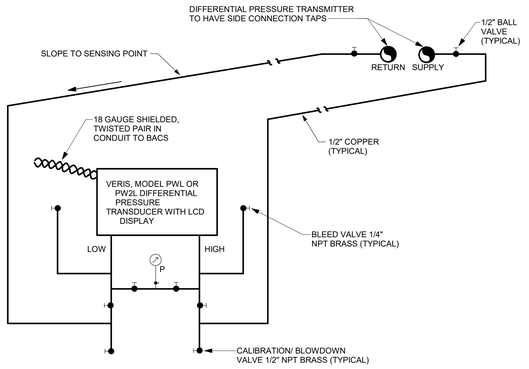
3 FLOOR MOUNTED PUMP PIPING DETAIL - ADJUSTABLE - END SUCTION
NOT TO SCALE



DETAIL NOTES:

A. CORE DRILL EXISTING CONSTRUCTION TO MATCH, SEAL PER MANUFACTURER'S RECOMMENDATIONS.

4 BELOW GRADE WALL PENETRATION DETAIL - EXISTING CONSTRUCTION
NOT TO SCALE



DETAIL NOTES:

A. INSTALL SENSING POINTS IN CENTERLINE OF PIPIE IN A HORIZONTAL RUN.

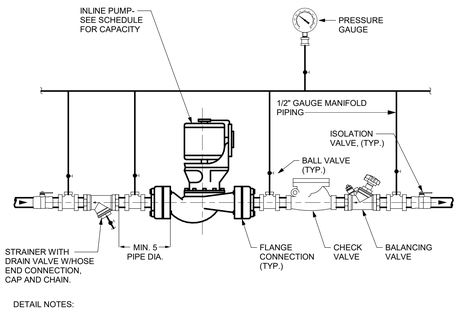
B. SENSING LINES SHALL BE SLOPED DOWN ALL THE WAY TO THE TRANSMITTER.

C. ONE VALVE TO PRESSURE GAUGE SHALL BE CLOSED.

D. DETAIL APPLIES TO CHILLED WATER, HOT WATER HEATING, AND GLYCOL HEATING SYSTEMS.

E. IF A 3-VALVE MANIFOLD IS USED WITH THE TRANSMITTER, THE VALVING SHOWN ON DETAIL SHALL ALSO BE PROVIDED.

5 DIFFERENTIAL PRESSURE TRANSMITTER DETAIL
NOT TO SCALE



DETAIL NOTES:

A. PROVIDE UNION ON PUMP INLET AND OUTLET IF PUMP IS NOT FLANGED.

B. INSTALL PUMP WITH SHAFT HORIZONTAL. PIPING MAY BE INSTALLED HORIZONTAL, AS SHOWN, OR VERTICAL DEPENDING ON SITE CONDITIONS.

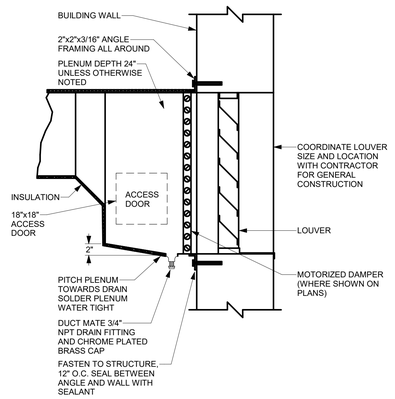
C. INSTALL CHECK VALVE HORIZONTALLY, OR VERTICALLY WITH FLOW UPWARD. INSTALL STRAINER HORIZONTALLY.

D. USE GAUGE TAPPINGS ON PUMP TO CONNECT TO THE GAUGE MANIFOLD. REFER TO COIL DETAIL [**OR PIPING SCHEMATIC**] FOR EXTENTS OF GAUGE MANIFOLD.

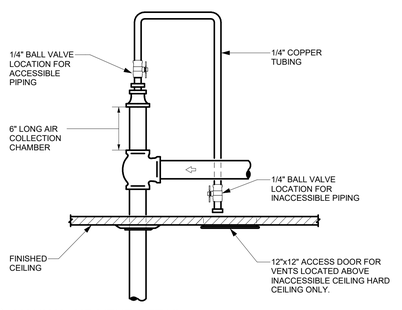
E. OMIT BALANCING VALVE ON VARIABLE FLOW SYSTEMS.

F. THE FOLLOWING ARE NOT ALLOWED: DIELECTRIC UNIONS, AUTOMATIC FLOW CONTROL VALVES, COMBINATION DEVICES OR PRE PIPED COIL FIT OUT KITS.

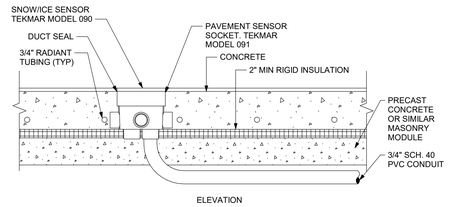
6 INLINE PUMP PIPING DETAIL
NOT TO SCALE



7 LOUVER PLENUM DETAIL
NOT TO SCALE



8 MANUAL AIR VENT DETAIL
NOT TO SCALE

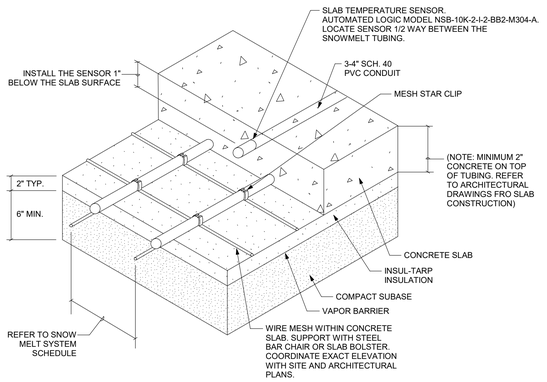


DETAIL NOTES:

A. LOCATE TEMPERATURE/SNOW SENSORS OUTSIDE OF THE MAIN WALKING PATH.

B. PROVIDE CAULK BETWEEN THE SENSOR HOUSING AND PAVED SURFACE.

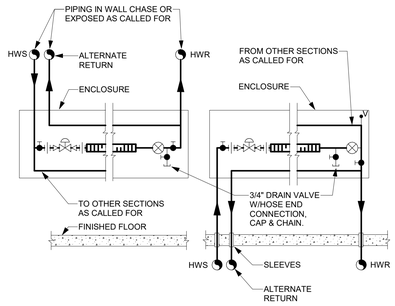
12 SNOWMELT SYSTEM - MOISTURE & TEMPERATURE SENSOR DETAIL
NOT TO SCALE



DETAIL NOTES:

A. ALL SENSOR WIRE SPLICES TO BE SOLDERED AND PROTECTED IN ACCESSIBLE, WATERPROOF JUNCTION BOXES.

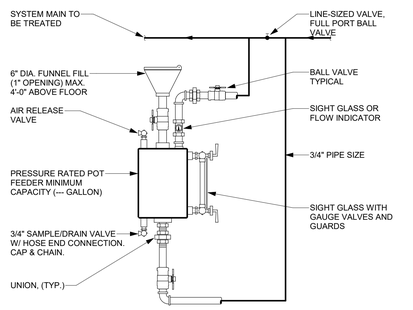
9 SNOWMELT SYSTEM - INSTALLATION DETAIL
NOT TO SCALE



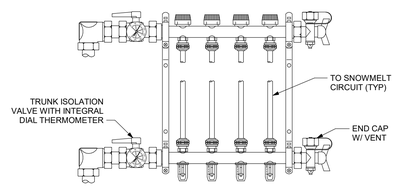
DETAIL NOTES:

A. THE FOLLOWING ARE NOT ALLOWED: DIELECTRIC UNIONS, AUTOMATIC FLOW CONTROL VALVES, COMBINATION DEVICES OR PRE-PIPED COIL FIT OUT KITS.

10 HOT WATER FIN RADIATION PIPING DETAIL
NOT TO SCALE



11 CHEMICAL POT FEEDER DETAIL - 3/4 GALLON AND LARGER
NOT TO SCALE



DETAIL NOTES:

A. MANIFOLD SHALL BE EQUIPPED WITH ISOLATION VALVES, BALANCE VALVES ON THE RETURN SIDE OF EACH CIRCUIT, DRAIN CONNECTIONS WITH VALVES, AND AIR VENTS.

B. REFER TO SCHEDULES FOR QUANTITIES OF CIRCUITS.

13 SNOWMELT SYSTEM - ZONE MANIFOLD DETAIL
NOT TO SCALE

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AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS
DATE ISSUED:
2026.09.14

DETAILS - HVAC

M603

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AIR HANDLING UNIT SCHEDULE - CHILLED WATER / HOT WATER

UNIT NO.	LOCATION	SERVICE	SUPPLY FAN AIR FLOW (CFM)	AIR FLOW (CFM)	EXT. STATIC (In. WC)	TOTAL STATIC (In. WC)	FAN CHARACTERISTICS TYPE	FAN NO. & MIN DIA.	MAX BHP	FAN RPM	DRIVE	MOTOR HP	MOTOR STARTER	COOLING COIL (CHILLED WATER) CAPACITY SENSIBLE (MBH)	CAPACITY TOTAL (MBH)	AIR SIDE AIR P.D. (In. WC)	EAT (DEG. F) DB	EAT (DEG. F) WB	LAT (DEG. F) DB	LAT (DEG. F) WB	MAX. FACE VEL. (FPM)	WATER SIDE - 100% WATER FLOW (GPM)	WATER P.D. (Ft. HD)	ENT. WATER TEMP. (DEG. F)	LVG. WATER TEMP. (DEG. F)	ROWS	FINS PER INCH	HEATING COIL (40% PROPLYENE GLYCOL) CAPACITY (MBH)	AIR SIDE ENT. AIR TEMP. (DEG. F)	AIR SIDE LVG. AIR TEMP. (DEG. F)	AIR SIDE MAX. FACE VEL. (FPM)	AIR SIDE AIR P.D. (In. WC)	WATER SIDE WATER FLOW (GPM)	WATER SIDE ENT. WATER TEMP. (DEG. F)	WATER SIDE LVG. WATER TEMP. (DEG. F)	WATER SIDE WATER P.D. (Ft. HD)	POWER VOLTS	POWER PHASE	MANUFACTURER	REMARKS
AHU-1	ROOF	BUILDING	13,300	13,300	3.0	7.75	PLENUM	2 @ 18	12.91	3271	DIRECT	15	ASD BY EC	517.3	899.6	1.2	88	73	52	52	414.5	90.1	21.2	47	67	12	12	860.9	5	65	464.3	0.23	63.9	130	100	17.1	208	3	SEMCO	1,2,3,4

REMARKS:
1. REFER TO AIR FILTER SCHEDULE FOR AIR FILTRATION REQUIREMENTS.
2. REFER TO HEAT PIPE SCHEDULE FOR PERFORMANCE DATA.
3. REFER TO FAN SCHEDULE FOR EXHAUST FAN PERFORMANCE DATA.
4. AHU-1 SYSTEM SIZED FOR 13,300 CFM TOTAL AIRFLOW WITH N-1 FAN REDUNDANCY.

HEATING COIL SCHEDULE - HOT WATER

UNIT NO.	LOCATION	SERVICE	TYPE	MOUNTING	CAPACITY (MBH)	AIR SIDE AIR FLOW (CFM)	AIR SIDE ENT. AIR TEMP. (DEG. F)	AIR SIDE LVG. AIR TEMP. (DEG. F)	AIR SIDE AIR P.D. (In. W.C.)	WATER SIDE MAX. FACE VELOCITY (FPM)	WATER SIDE WATER FLOW (GPM)	WATER SIDE ENT. WATER TEMP. (DEG. F)	WATER SIDE LVG. WATER TEMP. (DEG. F)	WATER SIDE WATER P.D. (Ft. HD)	ROWS DEEP	FINS PER INCH	COIL FACE DIMENSIONS LENGTH (In.)	COIL FACE DIMENSIONS WIDTH (In.)	MANUFACTURER & MODEL No.	REMARKS
RHC-1	OPEN ASSEMBLY 102	SPRAY BOOTH	STANDARD	FLANGED	181.5	4800	55	90	0.17	500	12.3	130	100	2.9	4	6.5	46	30	AEROFIN	-

AIR FILTER SCHEDULE

FILTER BANK NO.	LOCATION	SERVICE	TYPE	SYSTEM AIR FLOW (CFM)	MAX RATED VELOCITY (FPM)	INITIAL P.D. (In. WC)	FINAL P.D. (In. WC)	CARTRIDGES NO.	CARTRIDGES SIZE HEIGHT (In.)	CARTRIDGES SIZE WIDTH (In.)	CARTRIDGES SIZE LENGTH (In.)	CARTRIDGES ARRANGEMENT	HOLDING FRAME	EFFICIENCY MERV RATING	EFFICIENCY EFFICIENCIES (%)	MEDIA AREA (Sq. Ft.)	PLEATS PER LINEAR Ft.	MANUFACTURER & MODEL NO.	REMARKS
F-1	AHU-1	AHU-1 PRE-FILTER	PLEATED PANEL		500	0.31	0.62		24	12	2		FRONT ACCESS	MERV 8A	-	-	15	CAMFILL-FARR 30/30	1
									24	24	2								
F-2	AHU-1	AHU-1 FINAL FILTER	V-BANK		500	0.22	1		24	12	12		FRONT ACCESS	MERV 13A	80-90	131	-	VILEDON MV-85	1
									24	24	12					58			
F-3	HRU-1	HRU-1 PRE-FILTER	PLEATED PANEL		500	0.31	0.62		24	12	2		FRONT ACCESS	MERV 8A	-	-	15	CAMFILL-FARR 30/30	1
									24	24	2								

REMARKS:
1. PROVIDE SPARE SET OF FILTERS.

FAN SOUND SCHEDULE

UNIT NO.	LOCATION	EXHAUST FAN OUTLET SOUND POWER LEVELS [Db] 63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	LWA	REMARKS
AHU-1/SUPPLY	FAN INLET	92	92	99	103	93	89	88	83	102	1
AHU-1/SUPPLY	FAN OUTLET	92	92	100	104	99	97	93	86	105	1
AHU-1/RETURN	FAN INLET	80	89	95	79	77	77	74	68	88	2
AHU-1/RETURN	FAN OUTLET	87	90	91	89	85	82	78	74	91	2

REMARKS:
1. FAN SOUND POWER AT 13,300 CFM.
2. FAN SOUND POWER AT 8,500 CFM.

HEAT EXCHANGER SCHEDULE - WATER TO GLYCOL

UNIT NO.	LOCATION	SERVICE	TYPE	HIGH TEMP. SIDE FLOW RATE (GPM)	HIGH TEMP. SIDE WATER TEMP. ENT. (DEG. F)	HIGH TEMP. SIDE WATER TEMP. LVG. (DEG. F)	HIGH TEMP. SIDE CAPACITY (MBH)	HIGH TEMP. SIDE PRESS. DROP (Ft. HD)	HIGH TEMP. SIDE FLUID	LOW TEMP. SIDE FLOW RATE (GPM)	LOW TEMP. SIDE WATER TEMP. ENT. (DEG. F)	LOW TEMP. SIDE WATER TEMP. LVG. (DEG. F)	LOW TEMP. SIDE CAPACITY (MBH)	LOW TEMP. SIDE PRESS. DROP (Ft. HD)	LOW TEMP. SIDE FLUID	MIN. EFF. REQ. EFF %	MIN. EFF. REQ. TEST PROC.	HEAT TRANSFER SURFACE AREA (Sq. Ft.)	MANUFACTURER & MODEL NO.	REMARKS
HX-2	MECH. ROOM	BLDG PREHEAT	PLATE & FRAME	27.1	180	105	1000	0.62	WATER	72.4	100	130	1000	4.62	40% PG		AHRI 400	83.64	BELL & GOSSETT AP20	-

CABINET UNIT HEATER SCHEDULE - HOT WATER

UNIT NO.	LOCATION	TYPE	CAPACITY (MBH)	AIR SIDE AIR FLOW (CFM)	AIR SIDE ENT. AIR TEMP. (DEG. F)	AIR SIDE LVG. AIR TEMP. (DEG. F)	WATER SIDE FLOW RATE (GPM)	WATER SIDE WATER P.D. (Ft. HD)	WATER SIDE ENT. WATER TEMP. (DEG. F)	WATER SIDE LVG. WATER TEMP. (DEG. F)	WATER SIDE FLUID	FAN MOTOR RPM	FAN MOTOR HP	FAN MOTOR VOLTS	FAN MOTOR PHASE	NOMINAL DIMENSIONS LENGTH (In.)	NOMINAL DIMENSIONS HEIGHT (In.)	NOMINAL DIMENSIONS DEPTH (In.)	MANUFACTURER & MODEL No.	REMARKS
CUH-1	VESTIBULE 10040	RECESSED	9.9	270	60	80.3	1.5	0.16	130	100	WATER	1050	1/15	115	1	43	25	9.5	STERLING RW-1120-03	1,2,3,5
CUH-2	VESTIBULE 20041	RECESSED	10.5	335	60	80.9	2.0	0.38	130	100	GLYCOL	1050	1/15	115	1	43	25	9.5	STERLING RW-1120-03	1,2,3,4,5
CUH-3	CORRIDOR 10041	WALL MOUNTED	5.8	185	70	82	1.0	0.06	130	100	WATER	1050	1/15	115	1	35	25	9.5	STERLING W-1080-02	1,2,3
CUH-4	CIRCULATION 105	RECESSED	8.4	270	70	87.2	1.5	0.16	130	100	WATER	1050	1/15	115	1	43	25	9.5	STERLING RW-1120-03	1,2,3,5

REMARKS:
1. PROVIDE WITH EC MOTOR.
2. PROVIDE WITH UNIT MOUNTED UL LISTED DISCONNECT SWITCH.
3. PROVIDE WITH STANDARD COIL WITH LOW FAN SPEED.
4. PROVIDE WITH STANDARD COIL WITH HIGH FAN SPEED.
5. PROVIDE WALL SEAL.

ENERGY RECOVERY HEAT PIPE COIL SCHEDULE

UNIT NO.	LOCATION	SERVICE	TYPE	MOUNTING	SEASON	CAPACITY (MBH)	AIR SIDE AIR FLOW (CFM)	ENT. AIR TEMP. (DEG. F) DB	ENT. AIR TEMP. (DEG. F) WB	LVG. AIR TEMP. (DEG. F) DB	LVG. AIR TEMP. (DEG. F) WB	AIR P.D. (In. W.C.)	MAX. FACE VELOCITY (FPM)	ENTHALPY RECOVERY RATIO (ERR)	NUMBER IN FACE	ROWS DEEP	FINS PER INCH	COIL FACE DIMENSIONS LENGTH (In.)	COIL FACE DIMENSIONS WIDTH (In.)	MANUFACTURER & MODEL No.	REMARKS
HRC-1	AHU-1 TUNNEL	AHU-1	SPLIT-LOOP HORIZONTAL	SEE AHU-1	WINTER	558.3	13,330	-5	-6	33.9	13.8	0.64	541	-	2	6	12	59	30	ADVANCED COOLING TECHNOLOGY HRM	1,2,3,4,6
					SUMMER	60.3		88	73	83.9	71.8	0.75		-							
HRC-2	HRU TUNNEL	HRU	SPLIT-LOOP HORIZONTAL	SEE AHU-1	WINTER	558.3	13,330	75	61.1	33.7	33.7	0.57	345.8	-	2	6	12	59	30	ADVANCED COOLING TECHNOLOGY HRM	1,2,3,4,5,6
					SUMMER	60.3		75	61.1	81.5	63.3	0.35		-							

REMARKS:
1. FULL FLOW BYPASS DAMPERS; MAXIMUM 2000 FPM.
2. A1 REFRIGERANT. BASIS OF DESIGN: R410A. USE OF A2L REFRIGERANT SHALL BE REQUIRED TO PROVIDE AT ALL ADDITIONAL CODE REQUIREMENTS FOR THE UNIT AND MECHANICAL ROOM.
3. FOAM GAP FILL.
4. SPLIT COIL WITH FIELD INSTALLED PIPING IN FIELD ERECT UNIT.
5. E-COAT FIN COATING.
6 AIR PRESSURE DROP AT STANDARD CONDITIONS. AIR HANDLING UNIT FAN SELECTION SHALL ACCOUNT FOR ACTUAL PRESSURE DROP AT OPERATING CONDITIONS.

HEAT EXCHANGER SCHEDULE - WATER TO WATER

UNIT NO.	LOCATION	SERVICE	TYPE	HIGH TEMP. SIDE FLOW RATE (GPM)	HIGH TEMP. SIDE WATER TEMP. ENT. (DEG. F)	HIGH TEMP. SIDE WATER TEMP. LVG. (DEG. F)	HIGH TEMP. SIDE CAPACITY (MBH)	HIGH TEMP. SIDE PRESS. DROP (Ft. HD)	LOW TEMP. SIDE FLOW RATE (GPM)	LOW TEMP. SIDE WATER TEMP. ENT. (DEG. F)	LOW TEMP. SIDE WATER TEMP. LVG. (DEG. F)	LOW TEMP. SIDE CAPACITY (MBH)	LOW TEMP. SIDE PRESS. DROP (Ft. HD)	MIN. EFF. REQ. EFF %	MIN. EFF. REQ. TEST PROC.	HEAT TRANSFER SURFACE AREA (Sq. Ft.)	MANUFACTURER & MODEL NO.	REMARKS
HX-1	MECH. ROOM	BLDG HW	PLATE & FRAME	12.2	180	105	450	0.66	30.26	100	130	450	3.94		AHRI 400	33.91	BELL & GOSSETT AP20	-

UNIT HEATER SCHEDULE - HOT WATER

UNIT NO.	LOCATION	TYPE	CAPACITY (MBH)	AIR SIDE AIR FLOW (CFM)	AIR SIDE ENT. AIR TEMP (DEG. F)	AIR SIDE LVG. AIR TEMP (DEG. F)	WATER SIDE FLOW RATE (GPM)	WATER SIDE WATER P.D. (Ft. HD)	WATER SIDE ENT. WATER TEMP. (DEG. F)	WATER SIDE LVG. WATER TEMP. (DEG. F)	WATER SIDE FLUID	FAN MOTOR RPM	FAN MOTOR HP	FAN MOTOR VOLTS	FAN MOTOR PHASE	MOUNTING HEIGHT (Ft.-In.)	THROW (Ft.)	MANUFACTURER & MODEL No.	REMARKS
UH-1	MECHANICAL ROOM 10060	HORIZONTAL	11.75	480	65	94	2.7	0.09	130	110	WATER	1140	25W	115	1	9	28	STERLING HS-36	-
UH-2	LOADING DOCK	HORIZONTAL	11.75	480	65	94	2.7	0.09	130	110	WATER	1140	25W	115	1	9	28	STERLING HS-36	-
UH-3	OPEN ASSEMBLY/PROTOTYPING 102	HORIZONTAL	11.75	480	65	94	2.7	0.09	130	110	WATER	1140	25W	115	1	9	28	STERLING HS-36	-

FAN SCHEDULE

UNIT NO.	LOCATION	SERVICE	FAN CHARACTERISTICS TYPE	BLADE TYPE	CFM	E.S.P. (In. WC)	MAX. BHP	FAN RPM	MAX. TIP SPEED (RPM)	MAX. OUTLET VELOCITY (FPM)	SONES	DRIVE	MOTOR CHARACTERISTICS RPM	HP	VOLTS	PHASE	STARTER	SCCR (kA)	MANUFACTURER & MODEL NO.	REMARKS
EF-1	ROOF	SPRAY BOOTH	UPBLAST	BI	4800	0.75	1.12	890	5182	1873	14.8	BELT	1725	1.5	208	3	ASD BY EC		GREENHECK FJ-22	1,2,3
EF-2	ELEC. CLOSET	ELEC. CLOSET	INLINE	BI	150	0.25	0.02	1456	-	268	3.3	DIRECT	1800	1/15	120	1	SOFT START	5	GREENHECK SQ-70-VG	4
EF-3	MECH. ROOM	ACCESS CONTROL	INLINE	BI	150	0.25	0.02	1456	-	268	3.3	DIRECT	1800	1/15	120	1	SOFT START	5	GREENHECK SQ-70-VG	4
AHU/HRU EF	AHU/HRU	BUILDING	PLENUM	BI	8500	2.5	8.74	1670	10712	1824	35	DIRECT	1800	10	208	3	ASD		TWIN CITY FAN EPFN	5

REMARKS:
1. SPARK RESISTANTANCE - SPARK B.
2. SPECIAL COATING: PERMATECTOR, CONCRETE GRAY-RAL 7023.
3. STANDARD 7' HEIGHT.
4. EC MOTOR (ELECTRONICALLY COMMUTATED)
5. PROVIDED WITH AHU/HRU.

EXISTING PUMP SCHEDULE (TO BE REUSED)

PUMP NO.	ORIGINAL PUMP NO.	LOCATION	SERVICE	UNIT TYPE & DESCRIPTION	PUMP CAPACITY FLOW (GPM)	PUMP CAPACITY TOTAL HEAD IN FEET	MOTOR CHARACTERISTICS RPM	HP	VOLTS	PHASE	STARTER	IMPELLER SIZE (DIA. In.)	FLUID TEMP. (DEG. F)	MIN. PUMP EFF. (%)	MAX. BHP	SUCTION & DISCHARGE SIZES (In.)	MANUFACTURER & MODEL NO.	REMARKS
GWP-1A	HWP-1	MECH ROOM 10060	PREHEAT HW	BASE MOUNTED	75	45	1800	5	208	3	ASD BY EC	8.75	130	55.6	3.73	2/1.5	BELL & GOSSETT E-1510 1.5BC	1,3
GWP-1B	HWP-2	MECH ROOM 10060	PREHEAT HW	BASE MOUNTED	75	45	1800	5	208	3	ASD BY EC	8.75	130	55.6	3.73	2/1.5	BELL & GOSSETT E-1510 1.5BC	1,2,3
CP-1	CWP-1	AHU VESTIBULE	AHU COIL PUMP	IN-LINE	65	30	1800	2	208	3	ASD BY EC	6.25	130	70.1	1.03	2/2	BELL & GOSSETT e90 2AB	1

REMARKS:
1. GLYCOL - PROPYLENE, 40%
2. STAND-BY
3. RESHEAVE EXISTING PUMP MOTOR TO 1320 RPM.

PUMP SCHEDULE

PUMP NO.	LOCATION	SERVICE	UNIT TYPE & DESCRIPTION	PUMP CAPACITY FLOW (GPM)	PUMP CAPACITY TOTAL HEAD IN FEET	MOTOR CHARACTERISTICS RPM	HP	VOLTS	PHASE	STARTER	IMPELLER SIZE (DIA. In.)	FLUID TEMP. (DEG. F)	MIN. PUMP EFF. (%)	MAX. BHP	SUCTION & DISCHARGE SIZES (In.)	MANUFACTURER & MODEL NO.	REMARKS
GWP-2	MECH ROOM 10060	ENTRY SNOWMELT	INLINE	7	30	3450	1/2	208	1	INTEGRAL ASD	-	130	-	0.25	-	BELL & GOSSETT ECOCIRC XL 55-45	1,4,5
HWP-1	MECH ROOM 10060	REHEAT/PREHEAT	BASE MOUNTED	70	50	1800	3	208	3	ASD BY EC	7	130	67.1	2.13	2/1.5	BELL & GOSSETT E-1510 1.5AD	3
HWP-2	MECH ROOM 10060	REHEAT/PREHEAT	BASE MOUNTED	70	50	1800	3	208	3	ASD BY EC	7	130	67.1	2.13	2/1.5	BELL & GOSSETT E-1510 1.5AD	2,3
CWP-1A	MECH ROOM 10060	BLDG CW	BASE MOUNTED	140	85	1800	7.5	208	3	ASD BY EC	9.5	47	69.8	4.96	2.5/2	BELL & GOSSETT E-1510 2BD	3
CWP-1B	MECH ROOM 10060	BLDG CW	BASE MOUNTED	140	85	1800	7.5	208	3	ASD BY EC	9.5	47	69.8	4.96	2.5/2	BELL & GOSSETT E-1510 2BD	2,3

REMARKS:
1. GLYCOL - PROPYLENE, 40%
2. STAND-BY
3. INVERTER DUTY MOTOR
4. EC MOTOR (ELECTRONICALLY COMMUTATED)
5. INTEGRATED ADJUSTABLE SPEED DRIVE

ASHLEY MCGRAW
125 EAST JEFFERSON STREET
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AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

SCHEDULES - HVAC

M700

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THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THIS PLOTTED FORMAT SIZE

THE SQUARES ABOVE ARE COLOR, WHITE/BLACK AND WHITE LETTERS, IF PRINTED CORRECTLY

9/14/2026 1:39:13 PM

FAN COIL UNIT SCHEDULE - CHILLED WATER/HOT WATER

UNIT NO.	LOCATION	SERVICE	TYPE	AIR SIDE		COOLING COIL - 100% WATER											HEATING COIL - 100% WATER											SUPPLY FAN OUTLET SOUND POWER LEVELS [Db]								FAN MOTOR				MANUFACTURER & MODEL No.	REMARKS
				AIR FLOW (CFM)	EXT. STATIC (In. WC)	CAPACITY SENSIBLE (MBH)	CAPACITY TOTAL (MBH)	EAT (DEG. F) DB	EAT (DEG. F) WB	LAT (DEG. F) DB	LAT (DEG. F) WB	WATER FLOW (GPM)	WATER P.D. (Ft. HD)	ENT. WATER TEMP. (DEG. F)	LVG. WATER TEMP. (DEG. F)	ROWS	FPI	CAPACITY (MBH)	ENT. AIR TEMP. (DEG. F)	LVG. AIR TEMP. (DEG. F)	WATER FLOW (GPM)	WATER P.D. (Ft. HD)	ENT. WATER TEMP. (DEG. F)	LVG. WATER TEMP. (DEG. F)	ROWS	FPI	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	RPM	HP	VOLTS	PHASE		
FCU-101B	PROTOTYPING WOOD STUDIO	PROTOTYPING WOOD STUDIO	HORZ. EXPOSED	360	0.25	7.46	8.78	75	63	56	54.6	1.3	4.98	47	60.9	4	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	62	67	64	62	58	54	49	1310	(1) 1/4	115	1	SUPERIOR REX RBHC-A-06	2,3,4,5,6
FCU-101C	CLAY STUDIO	CLAY STUDIO	HORZ. EXPOSED	1445	0.25	30.87	35.12	75	63	56.4	55	4.9	2.97	47	61.9	6	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	71	67	66	68	63	61	53	1060	(2) 1/2	115	1	SUPERIOR REX RAHC-20	2,3,4,5,6
FCU-103	STORAGE	STORAGE	HORZ. CONCEALED	1135	0.25	24.32	27.9	75	63	55.3	54.4	4.0	3.98	47	61.8	6	12	24.03	64	83.6	2.0	3.19	130	107.4	1	12	70	67	66	68	63	61	53	1075	(2) 1/3	115	1	SUPERIOR REX RAHR-14	2,3,4,5,6
FCU-100?1	STORAGE	ELEVATOR CONTROLS	HORZ. CONCEALED	425	0.25	9.13	10.52	75	63	55.3	54.4	1.5	2.15	47	61.5	5	10	10.9	64	87.7	0.7	2.29	130	100.1	1	10	51	50	48	47	43	34	27	1600	(1) 1/4	115	1	SUPERIOR REX RBHR-A-09	2,3,4,5,6
FCU-201-1	MAKING EXPLORATION	MAKING EXPLORATION/WORK AREA	HORZ. EXPOSED	785	0.25	21.1	27.6	75	63	50.7	50.5	5.6	6.86	47	57.3	6	12	16.6	64	81.8	1	0.12	130	100.9	1	12	64	61	60	59	55	51	41	833	(2) 1/3	115	1	SUPERIOR REX RAHC-16	1,3,4,5,6
FCU-201-1	MAKING EXPLORATION	MAKING EXPLORATION/WORK AREA	HORZ. EXPOSED	785	0.25	21.1	27.6	75	63	50.7	50.5	5.6	6.86	47	57.3	6	12	16.6	64	81.8	1	0.12	130	100.9	1	12	64	61	60	59	55	51	41	833	(2) 1/3	115	1	SUPERIOR REX RAHC-16	1,3,4,5,6
FCU-201A	OFFICE	OFFICE	HORZ. CONCEALED	105	0.25	2.55	3.19	75	63	52.7	52.3	0.8	2.16	47	55.2	5	10	3.6	64	94.7	0.4	0.81	130	112.3	1	10	51	51	47	45	39	32	27	1126	(1) 1/4	115	1	SUPERIOR REX RBHR-A-02	1,3,4,5,6
FCU-201C	EXPLORATION WORKSHOP	LARGE COLLAB	HORZ. EXPOSED	250	0.24	5.86	6.87	76	63	54.4	53.4	1.2	4.34	47	58.9	4	10	6.71	64	87.7	0.4	1.05	130	97.4	1	10	62	67	64	62	58	54	49	1163	(1) 1/4	115	1	SUPERIOR REX RBHC-A-06	2,3,4,5,6
FCU-201D	MEDIUM COLLAB	MEDIUM COLLAB	HORZ. CONCEALED	185	0.22	4.03	4.78	75	63	55.1	54.1	0.7	7.61	47	61	4	10	4.87	64	88.3	0.4	0.48	130	105.9	1	10	52	49	44	44	39	32	26	1600	(1) 1/4	115	1	SUPERIOR REX RBHR-A-03	2,3,4,5,6
FCU-201E	KITCHENETTE	KITCHENETTE/LOUNGE	HORZ. EXPOSED	1250	0.25	27.82	33.21	75	63	54.7	53.8	4.8	5.26	47	61.4	6	12	29.03	64	84.3	1.7	0.84	130	97.1	1	12	70	66	65	66	61	59	50	994	(2) 1/2	115	1	SUPERIOR REX RAHC-20	2,3,4,5,6
FCU-202	EXPLORATION WORKSHOP	EXPLORATION WORKSHOP	HORZ. EXPOSED	1450	0.24	32.73	38.58	75	63	55.4	54.2	6.0	4.36	47	60.3	6	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	71	67	66	68	63	61	53	1055	(2) 1/2	115	1	SUPERIOR REX RAHC-20	2,3,4,5,6
FCU-203	IT ROOM	IT ROOM	WALL MOUNTED	190	0.0	5.0	6.5	80	66	55.2	54.5	1.4	5.9	47	54	1	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	28	39	43	45	39	29	20	-	1/60	115	1	AERMEC FCW3260HZVL1	2,3,4,5
FCU-204	ELECTRONICS WORKSHOP	ELECTRONICS WORKSHOP	HORZ. EXPOSED	850	0.23	19.77	24.14	75	63	53.7	53.1	5.0	2.81	47	56.8	6	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	67	65	64	59	53	47	1391	(2) 1/4	115	1	SUPERIOR REX RBHC-12	2,3,4,5,6
FCU-205	MECHANICAL ROOM	MEDIA STUDIO	HORZ. CONCEALED	715	0.25	11.55	12.53	75	63	60.1	57.1	1.7	2.35	47	62	3	10	15.66	64	84.3	0.8	4.30	130	91.5	1	10	48	45	44	41	35	25	25	1600	(2) 1/4	115	1	SUPERIOR REX RBHR-A-12	2,3,4,5,6
FCU-20042	STORAGE	ENTRY LOBBY	HORZ. CONCEALED	675	0.25	13.42	14.97	75	63	56.8	55.4	2.0	1.81	47	62	4	10	17.63	64	88.2	1.2	9.62	130	100	1	10	48	45	44	41	35	25	25	1600	(2) 1/4	115	1	SUPERIOR REX RBHR-A-12	2,3,4,5,6

REMARKS:
1. SPECIFIED COOLING AND AIR FLOW CHARACTERISTICS ARE BASED UPON LOW FAN SPEED.
2. SPECIFIED COOLING AND AIR FLOW CHARACTERISTICS ARE BASED UPON MEDIUM FAN SPEED.
3. VARIABLE SPEED EC MOTOR.
4. MERV 8 FILTER.
5. STAINLESS STEEL DRAIN PAN WITH CONDENSATE OVERFLOW SWITCH.
6. ELASTOMERIC CLOSED CELL FOAM INSULATION.

VAV - SINGLE DUCT - AIR TERMINAL UNIT SCHEDULE - HOT WATER REHEAT

UNIT NO.	SERVICE	MAX AIR FLOW (CFM)	MIN AIR FLOW (CFM)	MIN INLET PRESS AT MAX CFM (In. WC)	INLET SIZE (In.)	RAD N.C. AT 1" S.P.	DISCH N.C. AT 1" S.P.	REHEAT COIL CAPACITY (MBH)	AIR SIDE AIRFLOW (CFM)	AIR SIDE EAT (DEG F)	AIR SIDE LAT (DEG F)	WATER SIDE APD (In. WC)	WATER SIDE FLOW (GPM)	WATER SIDE WPD (Ft. HD)	WATER SIDE EWT (DEG F)	WATER SIDE LWT (DEG F)	WATER SIDE ROWS DEEP	FLUID	MANUFACTURER & MODEL NO.	REMARKS
SVAV-101	MAKING EXPLORATION	1810	620	0.29	16	15	15	58.9	1810	55	85	0.28	4.6	0.35	130	104.3	3	WATER	TITUS DESV	1,2
SVAV-101A	MAKING EXPLORATION ANNEX	285	90	0.18	6	17	24	9.3	285	55	85	0.11	1.9	0.43	130	120.3	2	WATER	TITUS DESV	1,2
SVAV-101B	PROTOTYPING WOOD STUDIO	325	50	0.13	7	18	22	10.6	325	55	85	0.09	1.4	0.38	130	115.1	2	WATER	TITUS DESV	1,2
SVAV-101C	CLAY STUDIO	260	60	0.15	6	16	23	8.5	260	55	85	0.1	1.5	0.29	130	118.5	2	WATER	TITUS DESV	1,2
SVAV-102	OPEN ASSEMBLY/PROTOTYPING	820	210	0.37	9	19	23	26.7	820	55	85	0.33	2.5	0.39	130	108.3	3	WATER	TITUS DESV	1,2
SVAV-102B	LIGHT METAL & JEWELRY SHOP	300	120	0.11	7	17	22	9.8	300	55	85	0.08	1.3	0.34	130	114.3	2	WATER	TITUS DESV	1,2
SVAV-10041	CORRIDOR	325	290	0.13	7	18	22	10.6	325	55	85	0.09	1.4	0.38	130	115.1	2	WATER	TITUS DESV	1,2
SVAV-202	EXPLORATION WORKSHOP	1015	315	0.28	12	18	22	33	1015	55	85	0.27	2.4	0.42	130	102.1	3	WATER	TITUS DESV	1,2
SVAV-204	ELECTRONICS WORKSHOP	120	25	0.04	5	N/A	22	4.9	120	55	92.9	0.03	0.9	0.16	130	119.1	2	WATER	TITUS DESV	1,2
SVAV-205A	CORRIDOR/COLLABORATION	295	295	0.19	6	18	24	9.6	295	55	85	0.12	2.2	0.53	130	121	2	WATER	TITUS DESV	1,3

REMARKS:
1. FIBER FREE LINER
2. INTEGRAL SOUND ATTENUATOR.

LOUVER SCHEDULE

UNIT NO.	LOCATION	SERVICE	TYPE	MATERIAL	FINISH	FREE AREA (Sq. Ft.)	DIMENSIONS (APPROX.) WIDTH (In.)	DIMENSIONS (APPROX.) HEIGHT (In.)	DIMENSIONS (APPROX.) DEPTH (In.)	AIR PERFORMANCE AIR FLOW (CFM)	AIR PERFORMANCE VEL (FPM)	AIR PERFORMANCE MAX P.D. (In. WC)	SCCR (kA)	MANUFACTURER & MODEL NO.	REMARKS
L-1	EXTERIOR WALL	CLAY KILNS	FIXED - HORIZONTAL	ALUMINUM	ANODIZED	0.87	18	18	4	260	299	0.011		CONSTRUCTION SPECIALTIES A4177	1,2
L-2	EXTERIOR WALL	ELECTRICAL CLOSET	FIXED - HORIZONTAL	ALUMINUM	ANODIZED	0.29	12	12	4	150	518	0.035		CONSTRUCTION SPECIALTIES A4177	1,2

REMARKS:
1. BIRD SCREEN.
2. ARCHITECT TO SELECT COLOR.

UNIT HEATER SCHEDULE - ELECTRIC

UNIT NO.	LOCATION	TYPE	CAPACITY MBH	AIR SIDE AIR FLOW (CFM)	AIR SIDE ENT. AIR TEMP. (DEG. F)	AIR SIDE LVG. AIR TEMP. (DEG. F)	AIR SIDE FAN SPEED (RPM)	MOUNTING HEIGHT (Ft.-In.)	THROW (Ft.)	ELECTRICAL CAPACITY (KW)	ELECTRICAL VOLTS	ELECTRICAL PHASE	ELECTRICAL FLA	ELECTRICAL MCA	ELECTRICAL MOP	ELECTRICAL SCCR (kA)	MANUFACTURER & MODEL No.	REMARKS
EUH-1	AHU VESTIBULE	HORIZONTAL	17.0	310	50	91	1490	7'-6"	20	5	208	3					STERLING HVE	-

SNOW MELT SYSTEM SCHEDULE

SYSTEM NO.	AREA SERVED	AREA (Sq. Ft.)	BTUH/ Sq. Ft. (MINIMUM) WITH BACKLOSS	TUBE SIZE (In.)	MAX SPACING (In.)	NO. OF CIRCUITS	CIRCUIT LENGTH (Ft.)	MANIFOLD NO.	FLUID	ENT. WATER TEMP. (DEG. F)	LVG. WATER TEMP. (DEG. F)	WATER FLOW (GPM)	P.D. (Ft. HD)	MANUFACTURER & MODEL No.	REMARKS
SM-1	ENTRY LOBBY	446	216	3/4	6	4	230	1	40% PG	130	100	6.93	6.1	MR PEX SYSTEMS 328 SERIES	1

REMARKS:
1. REFER TO SPECIFICATION FOR SNOWMELT SYSTEM DESIGN COMPONENTS

RADIATION SCHEDULE - HOT WATER

UNIT TYPE	CAPACITY (BTUH/LB)	AVERAGE WATER TEMP. (DEG. F)	ENT. AIR TEMP. (DEG. F)	ENT. WATER TEMP. (DEG. F)	LVG. WATER TEMP. (DEG. F)	HEATING ELEMENT TUBE SIZE (In.)	HEATING ELEMENT FIN SIZE (In.)	TIERS	FINS/ FT.	MIN. WATER VELOCITY (FT/SEC.)	ENCLOSURE HEIGHT (In.)	ENCLOSURE WIDTH (In.)	MOUNTING HEIGHT TO TOP	MANUFACTURER & MODEL No.	REMARKS
FT-A	595	115	70	130	100	1.25	4.25	1	40	3.0	24	5.3125	28	STERLING JVB-S	-

VAV - SINGLE DUCT - AIR TERMINAL UNIT SCHEDULE

UNIT NO.	SERVICE	MAX AIR FLOW (CFM)	MIN AIR FLOW (CFM)	MIN INLET PRESS AT MAX CFM (In. WC)	INLET SIZE (In.)	RAD N.C. AT 1" S.P.	DISCH N.C. AT 1" S.P.	MANUFACTURER & MODEL NO.	REMARKS
SVAV-103	STORAGE	75	65	0.01	4	NA	23	TITUS DESV	1
SVAV-201-1	MAKING EXPLORATION/WORK AREA	475	375	0.08	7	22	25	TITUS DESV	1
SVAV-201-2	MAKING EXPLORATION/WORK AREA	475	375	0.08	7	22	25	TITUS DESV	1
SVAV-201A	OFFICE	45	20	0.01	4	NA	18	TITUS DESV	1
SVAV-201C	LARGE COLLAB	75	55	0.01	4	NA	23	TITUS DESV	1
SVAV-201D	MEDIUM COLLAB	50	35	0.01	4	NA	19	TITUS DESV	1
SVAV-201E	KITCHENETTE/LOUNGE	200	195	0.03	6	14	22	TITUS DESV	1
SVAV-205	MEDIA STUDIO	140	140	0.01	5	12	24	TITUS DESV	1
SVAV-20042	ENTRY LOBBY	50	50	0.01	4	NA	19	TITUS DESV	1
EVAV-101	MAKING EXPLORATION	1310	120	0.01	12	25	27	TITUS DESV	1
EVAV-101A	MAKING EXPLORATION ANNEX	385	190	0.12	6	24	25	TITUS DESV	1
EVAV-101B	PROTOTYPING WOOD STUDIO	425	150	0.06	7	20	25	TITUS DESV	1
EVAV-101C	CLAY STUDIO	360	160	0.11	6	23	25	TITUS DESV	1
EVAV-102	OPEN ASSEMBLY/PROTOTYPING	920	310	0.01	12	20	24	TITUS DESV	1
EVAV-102B	LIGHT METAL & JEWELRY SHOP	300	120	0.07	6	20	23	TITUS DESV	1
EVAV-103	STORAGE	75	65	0.01	4	NA	23	TITUS DESV	1
EVAV-10020	JC/WOMEN'S/MEN'S	275	275	0.06	6	18	25	TITUS DESV	1
EVAV-201-1	MAKING EXPLORATION/WORK AREA	360	260	0.11	6	23	25	TITUS DESV	1
EVAV-201-2	MAKING EXPLORATION/WORK AREA	360	260	0.12	6	23	25	TITUS DESV	1
EVAV-201C	LARGE COLLAB	75	55	0.01	4	NA	23	TITUS DESV	1
EVAV-201D	MEDIUM COLLAB	50	35	0.01	4	NA	19	TITUS DESV	1
EVAV-201E	KITCHENETTE/LOUNGE	200	195	0.03	6	14	22	TITUS DESV	1
EVAV-202	EXPLORATION WORKSHOP	1165	465	0.01	12	24	25	TITUS DESV	1,2
EVAV-204	ELECTRONICS WORKSHOP	220	125	0.04	6	15	23	TITUS DESV	1
EVAV-205	MEDIA STUDIO	140	140	0.01	5	12	24	TITUS DESV	1
EVAV-20020	TOILETS/JC	195	195	0.02	5	18	28	TITUS DESV	1

REMARKS:
1. FIBER FREE LINER
2. INTEGRAL SOUND ATTENUATOR.

LAB AIR VALVE SCHEDULE

UNIT NO.	SERVICE	SIZE (In.)	FACTORY RANGE MAX AIR FLOW (CFM)	FACTORY RANGE MIN AIR FLOW (CFM)	OPERATIONAL RANGE MAX AIR FLOW (CFM)	OPERATIONAL RANGE MIN AIR FLOW (CFM)	MOUNTING POSITION	MANUFACTURER & MODEL NO.	REMARKS
SAV-102A	SPRAY ROOM	12x48	8000	700	4800	4800	HORIZONTAL	ACCUTROL AVC6000	1,2,3,4

REMARKS:
1. PROVIDE WITH TIGHT SHUT-OFF.
2. THE MAX/MIN POSITIONS ON THE VALVE WILL BE SET AT THE FACTORY TO THE FULL RANGE WITH ACTUAL SETPOINTS IN SOFTWARE.
3. PROVIDE THE FAN STATIC RESET IF VENTURI STYLE VALVE IS PROVIDED.
4. PROVIDE WITH FACTORY DRAW BAND CLAMPS.

REGISTER GRILLE AND DIFFUSER SCHEDULE

TYPE	APPLICATION	MATERIAL	FINISH	MANUFACTURER & MODEL NO.	REMARKS
1	SUPPLY	STEEL	WHITE	TITUS TMS	-
2	SUPPLY	STEEL	WHITE	TITUS 272RL	-
A	EXHAUST/RETURN	STEEL	WHITE	TITUS 355-RL	-

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SEAL:
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GARRET DANIEL DOKES
094525
LICENSED PROFESSIONAL ENGINEER
Reg. Exp: 04/30/2029
Cert. of Auth: 0018443

OWNER:
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AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

SCHEDULES - HVAC

M701

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THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT 100% WHEN PLOTTED AT FULL SIZE

THE SQUARES ABOVE ARE COLOR, WITH BLACK AND WHITE LETTERS, IF PRINTED CORRECTLY

9/15/2026 8:34:27 AM

ABBREVIATIONS

ABBREV.	DESCRIPTION
A	AMPERE
AAD	AUTOMATIC AIR DAMPER
AIC	AMPERE INTERRUPTING CURRENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFI	ARC FAULT INTERRUPTING
AII	AIRBORNE INFECTION ISOLATION
AL	ALUMINUM
ARS	ARC ENERGY REDUCTION SWITCH
ASD	ADJUSTABLE SPEED DRIVE
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AV	AUDIOVISUAL
AWG	AMERICAN WIRE GAUGE
BSMT	BASEMENT
C	CONDUIT
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CCTV	CLOSED-CIRCUIT TELEVISION
CLG	CEILING
CM	CONSTRUCTION MANAGER
CONT	CONTACTOR
CONTR	CONTRACTOR
CPT	CONTROL POWER TRANSFORMER
CT	CABLE TRAY
CU	COPPER
DN	DOWN
DP	DISTRIBUTION PANEL
EA	EACH
EC	ELECTRICAL CONTRACTOR
EG	EQUIPMENT GROUND
ELEC	ELECTRIC
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EWC	ELECTRIC WATER COOLER
EX	EXISTING
EXP	EXPLOSION PROOF
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FATP	FIRE ALARM TRANSPONDER PANEL
FBO	FURNISHED BY OTHERS
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GFI	GROUND FAULT CIRCUIT INTERRUPTOR
GND	GROUND
GRS	GALVANIZED RIGID STEEL
HH	HAND HOLE
HOA	HAND-OFF-AUTO
HP	HORSEPOWER
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
JB	JUNCTION BOX
KV	KILOVOLT
KVA	KILOVOLT-AMPERE
KW	KILOWATT
KWH	KILOWATT-HOUR
LED	LIGHT EMITTING DIODE
LTG	LIGHTING
MC	METAL CLAD
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MFR	MULTI-FUNCTION RELAY
MH	MAN HOLE
MI	MINERAL INSULATED CABLE
MLO	MAIN LUG ONLY
MTS	MANUAL TRANSFER SWITCH
MW	MICROWAVE
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NM	NON-METALLIC SHEATHED CABLE
NMT	NON-METALLIC TUBING
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	MOUNTED OVER COUNTER
OH	OVERHEAD
P	POLE
PB	PULL BOX
PC	PLUMBING CONTRACTOR OR PHOTOCELL
PH	PHASE
PG	POLYCARBONATE GUARD
PNL	PANEL
PT	POTENTIAL TRANFORMER
PTZ	PAN TILT ZOOM
PV	PHOTOVOLTAIC
REFR	REFRIGERATOR
RMC	RIGID METAL CONDUIT
SP	SPACE
SPD	SURGE PROTECTION DEVICE
SPEC	SPECIFICATION
STP	SHIELDED TWISTED PAIR
SW	SWITCH
SWBD	SWITCHBOARD
THD	TOTAL HARMONIC DISTORTION
TV	TELEVISION
TYP	TYPICAL
UC	MOUNTED UNDER COUNTER HEIGHT OR UNDERGROUND COMMUNICATION
UE	UNDERGROUND ELECTRICAL
UG	UNDERGROUND
UL	UNDERWRITER'S LABORATORY
UNO	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTP	UNSHIELDED TWISTED PAIR
V	VOLT
W	WIRE OR WATT
WG	WIRE GUARD
WP	WEATHERPROOF
XP	EXPLOSION PROOF
VP	VANDAL-PROOF POLYCARBONATE GUARD

BASIC MATERIALS AND METHODS

SYMBOL	DESCRIPTION
LP-404	HOME RUN TO PANELBOARD. LETTERS/ NUMBERS INDICATE PANEL. NUMBERS INDICATE CIRCUITS. NUMBER OF ARROWS EQUALS NUMBER OF CIRCUITS. CIRCUIT SHALL BE 20 AMP, 120 VOLT, 2-# 12, 1-#12 EG., IN 1" C, UNLESS NOTED OTHERWISE. BRANCH CIRCUIT WIRING SIZE AND NUMBER TO MATCH HOMERUN. REFER TO SPECS FOR RACEWAY TYPE.
	SOLID HALF-ARROW(S) INDICATE(S) 120V CIRCUIT TO SINGLE-POLE CIRCUIT BREAKER(S), UNLESS OTHERWISE NOTED.
	SOLID FULL-ARROW INDICATES 208V CIRCUIT TO MULTI-POLE CIRCUIT BREAKER, UNLESS OTHERWISE NOTED.
	OPEN HALF-ARROW(S) INDICATE(S) 277V CIRCUIT TO SINGLE-POLE CIRCUIT BREAKER(S), UNLESS OTHERWISE NOTED.
	OPEN FULL-ARROW INDICATES 480V CIRCUIT TO MULTI-POLE CIRCUIT BREAKER, UNLESS OTHERWISE NOTED.
(E)	EXISTING TO REMAIN - INDICATES EXISTING ITEM SHALL REMAIN. MAINTAIN EXISTING ELECTRICAL CONNECTIONS UNLESS OTHERWISE NOTED.
(ER)	EXISTING TO BE RELOCATED - INDICATES EXISTING ITEM SHALL BE RELOCATED. DISCONNECT AND REMOVE. REINSTALL AT NEW LOCATION AND RECONNECT ITEM AS REQUIRED.
(R)	EXISTING TO BE REPLACED - INDICATES EXISTING ITEM SHALL BE REPLACED. RECONNECT TO EXISTING ELECTRICAL CONNECTIONS UNLESS OTHERWISE NOTED.
	EXISTING ELECTRICAL WIRING OR EQUIPMENT OR DEVICE DASHED LIGHT IS EXISTING TO BE REMOVED OR RELOCATED.
	EXISTING ELECTRICAL WIRING OR EQUIPMENT OR DEVICE SOLID LIGHT IS EXISTING TO REMAIN OR EXISTING RELOCATED.
	HEAVY SOLID IS NEW
	REFERENCE TO DRAWING NOTE
#	REFERENCE TO DEMOLITION NOTE
J	JUNCTION BOX; SUBSCRIPT OR DRAWING NOTE INDICATES TYPE. C - MOUNTED IN ACCESSIBLE AREA ABOVE CEILING.
	SPECIAL PURPOSE RECEPTACLE. PROVIDE PROPER VOLTAGE, CLASS, CURRENT RATING AND NEMA CONFIGURATION AS REQUIRED BY BRANCH CIRCUIT AND/OR MATCH CAP ON EQUIPMENT BEING FURNISHED BY OTHERS. PROVIDE CORD AND CAP.
	DUPLEX RECEPTACLE 20 AMP, 125 VOLT SUBSCRIPTS INDICATE TYPE: AV - AV RECEPTACLE, COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL AND AV DRAWINGS. C - CONTROLLED RECEPTACLE EM - CONNECTED TO AN EMERGENCY CIRCUIT GFI - GROUND FAULT INTERRUPTOR OC - OVER-COUNTER TR - TAMPER-RESISTANT TV - TV RECEPTACLE, COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL AND AV DRAWINGS. UC - UNDER THE COUNTER USB - COMBINATION RECEPTACLE/USB CHARGING WP - WEATHERPROOF
	GFCI DUPLEX RECEPTACLE, 20 AMP, 125 VOLT. REFER TO DUPLEX RECEPTACLE FOR SUBSCRIPT DEFINITIONS.
	DUPLEX RECEPTACLE, 20 AMP, 125 VOLT. CONNECT TO AN EMERGENCY CIRCUIT. REFER TO DUPLEX RECEPTACLE FOR SUBSCRIPT DEFINITIONS.
	CEILING DUPLEX RECEPTACLE 20 AMP, 125 VOLT. REFER TO DUPLEX RECEPTACLE FOR SUBSCRIPT DEFINITIONS.
	SINGLE RECEPTACLE 20 AMP, 125 VOLT. REFER TO DUPLEX RECEPTACLE FOR SUBSCRIPT DEFINITIONS.
	TWO DUPLEX RECEPTACLE, SINGLE COVER. REFER TO DUPLEX RECEPTACLE FOR SUBSCRIPT DEFINITIONS.
	TWO DUPLEX RECEPTACLE, SINGLE COVER, EMERGENCY CIRCUIT. REFER TO DUPLEX RECEPTACLE FOR SUBSCRIPT DEFINITIONS.
CR	CEILING-MOUNTED CORD REEL: REELCRAFT MODEL# LD2030 163 9 UNLESS OTHERWISE NOTED
CD P	CORD DROP. SUBSCRIPTS INDICATE TYPE: P: NEMA 5-20R QUAD RECEPTACLE D: (3) CAT6 RJ45 DATA JACKS
	PUSH BUTTON
FB AV	FLOOR BOX. SHALL BE WIREMOLD RFB4E_OG, UNLESS OTHERWISE INDICATED. PROVIDE (1) 3/4" CONDUIT FOR POWER TO TWO DUPLEX RECEPTACLES, (1) 1" CONDUIT FOR FUTURE DATA DROP AND (2) 1" CONDUIT FOR AV TO ACCESSIBLE CEILING. COVER PER ARCHITECT.

COMMUNICATIONS

SYMBOL	DESCRIPTION
	TEL/DATA DROP, EXISTING
	TEL/DATA DROP: 4 11/16"x4 11/16"x2.125" BOX WITH A 1-GANG MUD RING & FACEPLATE WITH DUPLEX DESIGN. 1" CONDUIT EXTENDED TO NEAREST CABLE TRAY IN CORRIDOR (UNLESS OTHERWISE NOTED) FOR DATA/VOICE. TERMINATE CONDUIT AT J HOOK IN CORRIDOR WITH CONDUIT BUSHING. PULL (2) CAT 6A CABLE, TERMINATE AT PATCH PANEL IN BDF. W - SINGLE GANG BACK BOX WITH MUD RING AND 1" CONDUIT EXTENDED TO NEAREST CABLE TRAY IN CORRIDOR (UNLESS OTHERWISE NOTED) FOR DATA/VOICE. WALL MOUNT AT 46"AFF. PROVIDE (1) CAT 6A CABLE TO BDF. DDC - SINGLE GANG BOX WITH BLANK COVER PLATE. PROVIDE 3/4"C STUBBED TO ACCESSIBLE CEILING SPACE ABOVE. DDC ALARM WIRING BY DIV 23. C - CAMERA, COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL DRAWINGS. TV - COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL DRAWINGS. EM - EMERGENCY TELEPHONE.
WAP	WAP - WIRELESS ACCESS POINT MOUNTED FROM CEILING AT SAME AFF HEIGHT AS EXISTING LIGHT FIXTURES. SUPPORT WITH THREADED ROD. 4"x4"x2.25" BOX WITH DOUBLE GANG PLASTER RING. 1" EMT CONDUIT EXTENDED TO NEAREST CABLE TRAY IN CORRIDOR (UNLESS OTHERWISE NOTED). PROVIDE (2) CAT 6A CABLES. TERMINATE IN BDF AND 6-8" PIGTAIL WITHOUT FACEPLATE
	COMBINATION POWER/COMMUNICATION SURFACE RACEWAY WITH DEVICES AS INDICATED. WIREMOLD G4000. RACEWAY SHALL BE MOUNTED "OVER COUNTER" UNLESS OTHERWISE NOTED. REFER TO ARCHITECTURAL PLANS FOR FINAL MOUNTING HEIGHTS.
ANT	DAS ANTENNA
DC	DOOR CONTACT
CR	CARD READER
ML	MAG LOCK
P	PROJECTOR. PROVIDE (1) DUPLEX RECEPTACEL AND (1) TEL/DATA DROP.
CT-12X6	CABLE TRAY: REFER TO LOW VOLTAGE DRAWINGS FOR DETALS AND EXACT REQUIREMENTS

FIRE ALARM

SYMBOL	DESCRIPTION
F	MANUAL PULL STATION
S	SMOKE DETECTOR
H	COMBINATION SET TEMPERATURE AND RATE OF RISE HEAT DETECTOR
F C	NOTIFICATION APPLIANCE, AUDIBLE AND VISUAL C - INDICATES CEILING WP - INDICATES WEATHERPROOF
F C	NOTIFICATION APPLIANCE, VISUAL C - INDICATES CEILING WP - INDICATES WEATHERPROOF
SD	SMOKE DAMPER
DSD	DUCT SMOKE DETECTOR
RTS	DETECTOR REMOTE TEST STATION AND INDICATOR. WALL MOUNT AT 80" AFF.
STX	SMOKE DETECTOR, BEAM TYPE - TRANSMITTER
SRX	SMOKE DETECTOR, BEAM TYPE - RECEIVER
FSD	FAN SHUT DOWN RELAY
FACP	FIRE ALARM CONTROL PANEL
FAAP	FIRE ALARM ANNUNCIATION PANEL
TS	TAMPER SWITCH
PIV	POST INDICATOR VALVE
WF	SPRINKLER WATERFLOW SWITCH (PADDLE OR PRESSURE SWITCH TYPE)

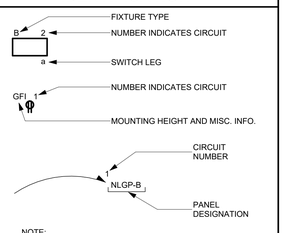
POWER DISTRIBUTION AND CONTROL

SYMBOL	DESCRIPTION
XTX-XX-XX	TRANSFORMER, REFER TO ONE LINE DIAGRAM AND TRANSFORMER SCHEDULE FOR SIZE AND TYPE
XX-XX	208/120 VOLT PANELBOARD
XX-XX	480/277 VOLT PANELBOARD
	DISTRIBUTION PANELBOARD (I-LINE OR EQUIV.)
ECB	ENCLOSED CIRCUIT BREAKER, SUBSCRIPT INDICATES AMP RATING
	DISCONNECT SWITCH AMP RATING AS INDICATED ON ELECTRICAL EQUIPMENT AND CONTROL SCHEDULE
	FUSED DISCONNECT SWITCH AMP RATING AS INDICATED
	COMBINATION FUSED DISCONNECT SWITCH AND MAGNETIC STARTER. AMP RATING AS INDICATED ON ELECTRICAL EQUIPMENT AND CONTROL SCHEDULE
	MOTOR STARTER. REFER TO ELECTRIC EQUIPMENT AND CONTROL SCHEDULE FOR SIZE AND TYPE.
ASD	ADJUSTABLE SPEED DRIVE
	CONTACTOR
M	ELECTRICAL CONNECTION. REFER TO ELECTRIC EQUIPMENT AND CONTROL SCHEDULE FOR DESCRIPTION. LETTERS AND NUMBERS REFER TO "ITEM DESIGNATION" ON THE SCHEDULE.
D	MOTORIZED DAMPER CONNECTION
	COMPLETE CONNECTION TO EQUIPMENT. SHALL INCLUDE ALL FEEDER CONNECTIONS AND POWER FROM SOURCE AS NOTED ON DRAWINGS. PROVIDE WITH DISCONNECT APPROPRIATE TO ENVIRONMENT AND EQUIPMENT RATING.

LUMINAIRES

SYMBOL	DESCRIPTION
FA d	LUMINAIRE CONNECTED TO NORMAL POWER. UPPER CASE LETTERS INDICATE FIXTURE TYPE ON SCHEDULE. LOWER CASE LETTER INDICATES SWITCHING DESIGNATION. 'NL' INDICATES UNSWITCHED.
FA d	WALL MOUNTED LUMINAIRE CONNECTED TO NORMAL POWER. UPPER CASE LETTERS INDICATE FIXTURE TYPE ON SCHEDULE. LOWER CASE LETTER INDICATES SWITCHING DESIGNATION. 'NL' INDICATES UNSWITCHED.
	LUMINAIRE CONNECTED TO LIFE SAFETY CIRCUIT. 'LS' ALSO INDICATES LIFE SAFETY CIRCUIT. PROVIDE UL 924 RELAY FOR EACH FIXTURE. 'NL' INDICATES UNSWITCHED.
	LUMINAIRE STRIP
	TRACK LIGHTING SYSTEM, LENGTH AND NUMBER OF HEADS AS INDICATED ON PLAN
	WALL-MOUNTED EMERGENCY LUMINAIRE WITH BATTERY PACK
	CEILING-MOUNTED EXIT LUMINAIRE
	WALL-MOUNTED EXIT LUMINAIRE
	CEILING-MOUNTED AREA-OF-RESCUE LUMINAIRE
	WALL-MOUNTED AREA-OF-RESCUE LUMINAIRE

BRANCH CIRCUITING IDENTIFICATION



NOTE:
TYPICAL FOR ALL DEVICES AND HOMERUNS.

ONE-LINE DIAGRAM

SYMBOL	DESCRIPTION
	FUSED DISCONNECT SWITCH
	NON-FUSED DISCONNECT SWITCH
	THERMAL MAGNETIC MOLDED-CASE CIRCUIT BREAKER
	TRANSFORMER; REFER TO SCHEDULE OR ONE-LINE
	GROUND CONNECTION
A	FEEDER DESIGNATION - REFER TO FEEDER SCHEDULE.
	CURRENT TRANSFORMER
	MOV-TYPE LIGHTNING ARRESTOR; SIZE AND CLASS AS INDICATED.
	POTENTIAL TRANSFORMER
SPD	SURGE PROTECTIVE DEVICE
A	4 POLE CLOSED TRANSITION BYPASS ISOLATION TRANSFER SWITCH, RATING AS INDICATED ATS = AUTOMATIC
G	GENERATOR SET
GRAP	GENERATOR REMOTE ANNUNCIATION PANEL
RTSA	REMOTE TRANSFER SWITCH ANNUNCIATION PANEL

LIGHTING CONTROLS

SYMBOL	DESCRIPTION
S a,b,c	SWITCH (DIMMING, MOMENTARY, DIGITAL, ETC.), VOLTAGE AS INDICATED ON FIXTURE SCHEDULE, SUBSCRIPTS INDICATE QUANTITY AND/OR TYPE: 3 - THREE-WAY SWITCH 4 - FOUR-WAY SWITCH OS - OCCUPANCY SENSOR PL - PILOT LIGHT LV - LOW VOLTAGE P - PRESET a,b,c - SWITCHING DESIGNATIONS NUMBER OF LETTERS EQUALS NO. OF GANGED SWITCHES REFER TO SPECIFICATIONS FOR ADDITIONAL LIGHT SWITCH DESCRIPTIONS.
D3 a,b,c	DIMMER SWITCH, VOLTAGE AS INDICATED ON FIXTURE SCHEDULE. DIMMER SHALL BE COMPATIBLE WITH PROVIDED LIGHT FIXTURE BEING CONTROLLED BY DIMMER. IF DIMMER PROVIDED DOES NOT OPERATE WITH A VACANCY SENSOR A DECORA-STYLE ON/OFF SWITCH SHALL BE PROVIDED IN THE SAME SWITCH BOX. SUBSCRIPTS INDICATE TYPE: 3 - THREE-WAY SWITCH 4 - FOUR-WAY SWITCH OS - OCCUPANCY SENSOR a,b,c - SWITCHING DESIGNATIONS NUMBER OF LETTERS EQUALS NO. OF GANGED SWITCHES
OS a OS a	DUAL-TECHNOLOGY CEILING- OR WALL-MOUNTED OCCUPANCY SENSOR UNLESS OTHERWISE NOTED. SUBSCRIPT INDICATES TYPE: U - ULTRASONIC
VS VS	DUAL-TECHNOLOGY CEILING- OR WALL-MOUNTED VACANCY SENSOR UNLESS OTHERWISE NOTED.
DS	DAYLIGHT SENSOR
PC	PHOTO SENSOR

BRANCH CIRCUIT WIRE SIZES

SYMBOL	SIZE
30A, 1P	2-#10 & 1-#10EG IN 3/4" C.
50A, 1P	2-#6 & 1-#10EG IN 1" C.
60A, 1P	2-#6 & 1-#10EG IN 1" C.
20A, 2P	3-#12 & 1-#12EG IN 3/4" C.
30A, 2P	3-#12 & 1-#12EG IN 3/4" C.
40A, 2P	3-#8 & 1-#10EG IN 3/4" C.
20A, 3P	3-#12 & 1-#12EG IN 3/4" C.
30A, 3P	3-#10 & 1-#10EG IN 3/4" C.
PROVIDE NEMA RECEPTACLE CONFIGURATION TO MATCH EQUIPMENT.	

GENERAL NOTES: (APPLY TO ALL DRAWINGS):

A. SLEEVE AND SEAL ALL WALL AND FLOOR PENETRATIONS. PROVIDE FIRESTOPPING FOR ALL FIRE-RATED PENETRATIONS. UTILIZE REMOVABLE FIRESTOPPING MATERIAL AT CABLE TRAY PENETRATIONS. PROVIDE ACOUSTICAL SEALANT FOR ALL NON RATED PENETRATIONS. ALL FIRE RATINGS SHALL BE MAINTAINED.

B. MAINTAIN SERVICE CLEARANCES OF ALL EQUIPMENT.

C. COORDINATE EXACT LOCATION OF ALL CONDUIT ROUTES, EQUIPMENT AND DEVICES WITH EXISTING CONDITIONS PRIOR TO CONSTRUCTION.

D. MINIMUM CONDUIT SIZE SHALL BE 3/4" FOR POWER CIRCUITS UOI.

E. PROVIDE NYLON PULLSTRING IN ALL EMPTY CONDUITS.

F. FIRE ALARM SIGNALING APPLIANCES SHALL BE MOUNTED SUCH THAT THE ENTIRE LENS IS NOT LESS THAN 80 INCHES AND NOT GREATER THAN 96 INCHES ABOVE THE FINISHED FLOOR.

G. CIRCUITING TO DEVICES/EQUIPMENT SHALL BE 2-#12AWG & 1-#12EG (MULTIPLE HOME RUNS IN SAME CONDUIT MAY SHARE SAME EQUIPMENT GROUND) FOR EACH 20 AMPERE CIRCUIT UNLESS OTHERWISE NOTED. ALL CIRCUITS SHALL HAVE SEPARATE NEUTRALS (CIRCUITS SHALL NOT SHARE NEUTRALS).

H. PROVIDE CONDUIT/WIRING (CIRCUITING) AND REQUIRED EQUIPMENT CONNECTIONS TO ALL DEVICES/EQUIPMENT. CONNECT TO CIRCUIT(S) AS INDICATED.

I. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REFERENCE STANDARD EDITION OF NFPA CODES, AS CITED BY THE FIRE CODE OF NEW YORK STATE, BUILDING CODE OF NEW YORK STATE AND CORNELL UNIVERSITY DESIGN STANDARDS.

J. ALL CONDUITS AND SUPPORTS SHALL BE AS TIGHT TO DECK AS POSSIBLE.

K. PROVIDE PULLBOX FOR EVERY 180 DEGREE OF BENDS FOR TEL/DATA AND 360 DEGREES OF BENDS FOR POWER CONDUITS.

L. ALL ELECTRICAL DEVICES (RECEPTACLES, SWITCHES, FIRE ALARM, ETC.) SHALL BE ALIGNED HORIZONTALLY AND VERTICALLY. CONTRACTOR TO SCHEDULE AND COORDINATE PROJECT WALKTHROUGH WITH ARCHITECT AND ENGINEER PRIOR TO COMMENCEMENT OF ANY DEVICE ROUGH-IN FOR FINALIZATION OF ALIGNMENTS.

M. ALL EXISTING DEVICES CIRCUITED TO PANELS BEING RENAMED SHALL BE PROVIDED WITH UPDATED LABELS.

N. PROVIDE ALL PATHWAYS AND BACK BOXES AS CALLED FOR ON AV DRAWINGS PROVIDED BY ANOTHER CONSULTANT.

O. COORDINATE IT SERVICE CHANGES OR DISRUPTIONS IN SERVICE WITH CIT OPERATIONS AT (607)255-5500.

P. ALL OUTLETS WITHIN 6' OF SINK EDGE SHALL BE GFCI RATED.

Q. FLEX CONDUIT IS PROHIBITED FOR USE IN DATA APPLICATIONS WITHOUT WRITTEN PERMISSION FROM CORNELL CIT INFRASTRUCTURE ENGINEERS.

R. ALL DATA WORK MUST BE COORDINATED WITH CORNELL CIT.

GENERAL DEMOLITION NOTES: (APPLY TO ALL DRAWINGS):

A. WHEN EXISTING CONSTRUCTION, WHICH IS TO REMAIN, IS DAMAGED DURING THE COURSE OF DEMOLITION AS A RESULT OF THE CONTRACTOR'S WORK, IT SHALL BE REPAIRED AND/OR REPLACED WITH SIMILAR OR LIKE MATERIALS, AS MUCH AS POSSIBLE, SUBJECT TO THE OWNERS APPROVAL.

B. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF EXISTING CONSTRUCTION IN THE WAY OF NEW WORK. PROTECT BUILDING AND FURNISHINGS FROM DAMAGE.

C. COORDINATE PHASING OF WORK WITH OWNER'S REPRESENTATIVE.

D. COORDINATE ALL SHUTDOWNS WITH UNIVERSITY PRIOR TO DEMOLITION. ALL FIRE ALARM SHUTDOWNS SHALL BE SCHEDULED THROUGH CUSTOMER SERVICE WITH AT LEAST 24 HOURS NOTICE BEFORE WORK IS TO BE STARTED.

E. EXISTING CONDITIONS ARE TAKEN FROM FIELD OBSERVATIONS AND PRIOR CONSTRUCTION DOCUMENTS WHEN AVAILABLE AND ARE NOT GUARANTEED. PRIOR TO SUBMITTING BID, VISIT SITE AND IDENTIFY EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT THE DEMOLITION WORK. NO COMPENSATION WILL BE GRANTED FOR ADDITIONAL WORK CAUSED BY UNFAMILIARITY WITH SITE CONDITIONS THAT ARE VISIBLE OR READILY CONSTRUED BY EXPERIENCED OBSERVERS. THIS CONTRACTOR SHALL PARTICIPATE IN SURVEY OF THE EXISTING ELECTRICAL SYSTEMS. THE CONTRACTOR SHALL DISCONNECT AND CAP ALL SERVICE LINES TO BE DISCONNECTED FOR THOSE SERVICES WHICH NORMALLY ARE INCLUDED IN HIS FIELD OF WORK. PARTICULAR CARE SHALL BE TAKEN TO AVOID CREATING HAZARD OR CAUSING DISRUPTION IN ADJOINING AREAS. NOT ALL DEVICES TERMINATIONS, JUNCTION BOXES AND WIRING HAVE BEEN SHOWN.

F. REFER TO PLUMBING CONTRACT DRAWINGS AND SPECIFICATIONS FOR EXACT QUANTITIES AND LOCATIONS OF ALL PLUMBING EQUIPMENT BEING ABANDONED OR REMOVED, WHICH WILL REQUIRE DE-ENERGIZATION, REMOVAL AND BLANK-OFF BY THE CONTRACTOR.

G. EXISTING FIRE ALARM SYSTEM SHALL BE KEPT OPERATIONAL DURING THE CONSTRUCTION PERIOD THE BUILDING UNDER RENOVATION MAY BE DISCONNECTED FROM SERVICE DURING THE HOURS THE CONTRACTOR IS WORKING, AT THE DISCRETION OF THE FIRE DEPARTMENT AND THE OWNER'S REPRESENTATIVE, BUT MUST BE PLACED BACK ON LINE DURING OTHER PERIODS. APPROVAL TO BE IN WRITING.

H. THE EXISTING ELECTRICAL EQUIPMENT AND DEVICES WITHIN DEMOLITION AREA SHALL BE DEMOLISHED ALONG WITH ALL FEEDERS AND CONDUITS BACK TO POINT OF SOURCE UNLESS OTHERWISE NOTED. ALL ITEMS SHOWN ON THE DEMOLITION DRAWINGS SHALL BE DISCONNECTED AND REMOVED UNLESS NOTED OTHERWISE. WALLBOXES, BACKBOXES AND CONDUIT SHALL BE REUSED AS DETERMINED BY CONTRACTOR. ALL UNUSED CONDUITS SHALL BE REMOVED. DISCONNECT AND MAKE SAFE ANY EQUIPMENT TO BE REMOVED BY OTHERS. COORDINATE REMOVAL OF EQUIPMENT WITH OTHER TRADES PRIOR TO DEMOLITION.

I. MAINTAIN AND RESTORE, IF INTERRUPTED BY REMOVALS OR IN PATH OF NEW CONSTRUCTION, ALL CIRCUITS, CONDUITS AND FEEDERS PASSING THROUGH AND SERVING UNDISTURBED AREAS (SHOWN OR NOT SHOWN).

J. ALL EXISTING CONDUITS STUBBED THROUGH FLOOR SERVING ITEMS TO BE REMOVED AND NOT SHOWN OR REQUIRED TO BE REUSED, SHALL BE CUT OFF FLUSH WITH SLAB LEVEL WITH CONCRETE.

K. IN ANY AREA REQUIRING THE PERFORMANCE OF ANY TRADE'S WORK, THIS CONTRACTOR SHALL CAREFULLY REMOVE AND STORE ANY OR ALL ELECTRICAL ITEMS IN PATH OF WORK, REINSTALLING AND RECONNECTING SAME AS REQUIRED, IN ACCORDANCE WITH THE PLANS AND/OR AS DIRECTED AFTER COMPLETION OF OTHER TRADE'S WORK IN THAT AREA.

L. DISCONNECT, MAKE SAFE AND REMOVE ALL TEMPORARY AND ABANDONED WIRE WITHIN THE SPACE.

M. BRANCH CIRCUIT WIRING TO DEVICES IN AREAS OF DEMOLITION SHALL BE DISCONNECTED, MADE SAFE AND REMOVED COMPLETELY BACK TO THE PANELBOARD. THE CONTRACTOR SHALL NOT ABANDON BRANCH CIRCUIT WIRING TO ANY AREAS WHICH ARE TO REMAIN BUT ARE AFFECTED BY THE DEMOLITION OR NEW CONSTRUCTION.

N. DISCONNECT AND REMOVE PANEL, FEEDERS AND BRANCH CIRCUITS BACK TO POINT OF SOURCE PRIOR TO THE START OF DEMOLITION, CONTRACTOR SHALL FIELD VERIFY ALL BRANCH CIRCUITS AND MAINTAIN THOSE CIRCUITS THAT EXTEND OUTSIDE OF THE SCOPE OF WORK.

O. AFTER RENOVATING EXISTING ELECTRICAL WORK, THE CONTRACTOR SHALL INSURE THAT ALL REMAINING AND NEW EQUIPMENT WILL OPERATE PROPERLY.

P. PROVIDE TEMPORARY HEAT DETECTORS IN AREAS WHERE SPRINKLERS ARE REMOVED FROM SERVICE DURING CONSTRUCTION. COORDINATE WITH FIRE PROTECTION CONTRACTOR. TEMPORARY HEAT NEED TO BE TESTED WITH EHS BEFORE REMOVAL OF SPRINKLER SYSTEM.

Q. REFER TO HVAC CONTRACT DRAWINGS AND SPECIFICATIONS FOR EXACT QUANTITIES AND LOCATIONS OF ALL HVAC EQUIPMENT BEING ABANDONED OR REMOVED, WHICH WILL REQUIRE DE-ENERGIZATION, REMOVAL AND BLANK-OFF BY THE CONTRACTOR.

R. DISCONNECT, SALVAGE AND TURN OVER ALL REMOVED ELECTRICAL PANELS TO CORNELL FACILITIES.

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GENERAL NOTES & SYMBOLS LIST - ELECTRICAL

E000

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1 SITE DEMOLITION PLAN - ELECTRICAL
1" = 20'-0"

DEMOLITION NOTES:

1 TRANSFORMER TO BE RELOCATED. COORDINATE OUTAGES WITH OWNER. REFER TO E-010 FOR DUCTBANK EXTENSION AND DETAILS.

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SITE DEMOLITION PLAN - ELECTRICAL

TRUE NORTH
PROJECT NORTH

ED010

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GENERAL NOTES

A FIRE ALARM CONTROL PANEL IS EXISTING TO REMAIN. REFEED ALL EXISITNG TO REMAIN FIRE ALARM COMPONENTS AS REQUIRED DUE TO DEMOLITION OF INTERMEDIARY WIRING AND DEVICES.

[X] DEMOLITION NOTES:

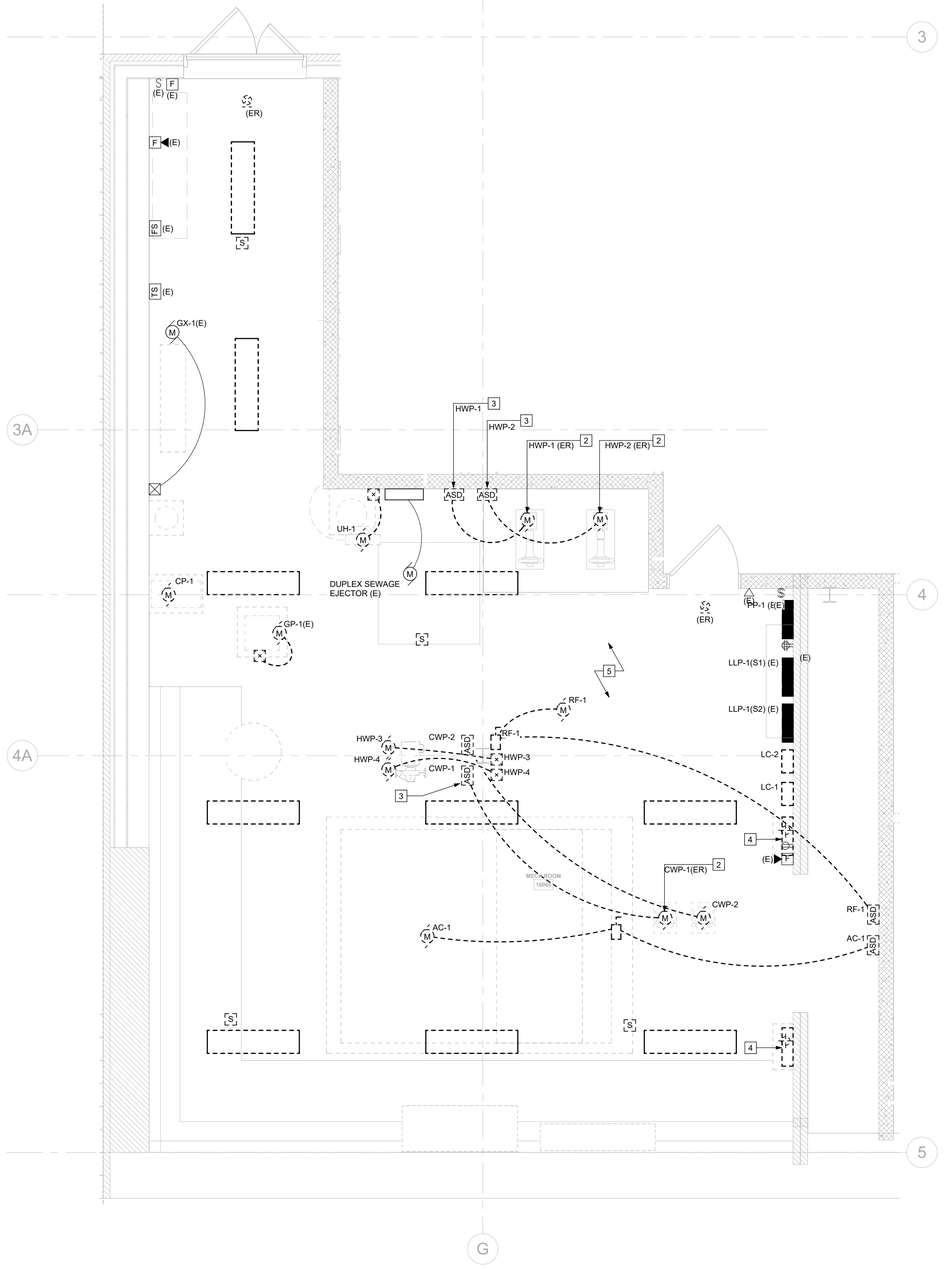
1 REMOVE EXISTING FIRE ALARM DEVICE. DEVICE BACK BOX TO BE SALVAGED FOR REUSE.

2 PUMP TO BE SALVAGED AND REINSTALLED IN CONSTRUCTION PHASE. REFER TO MECHANICAL PLANS.

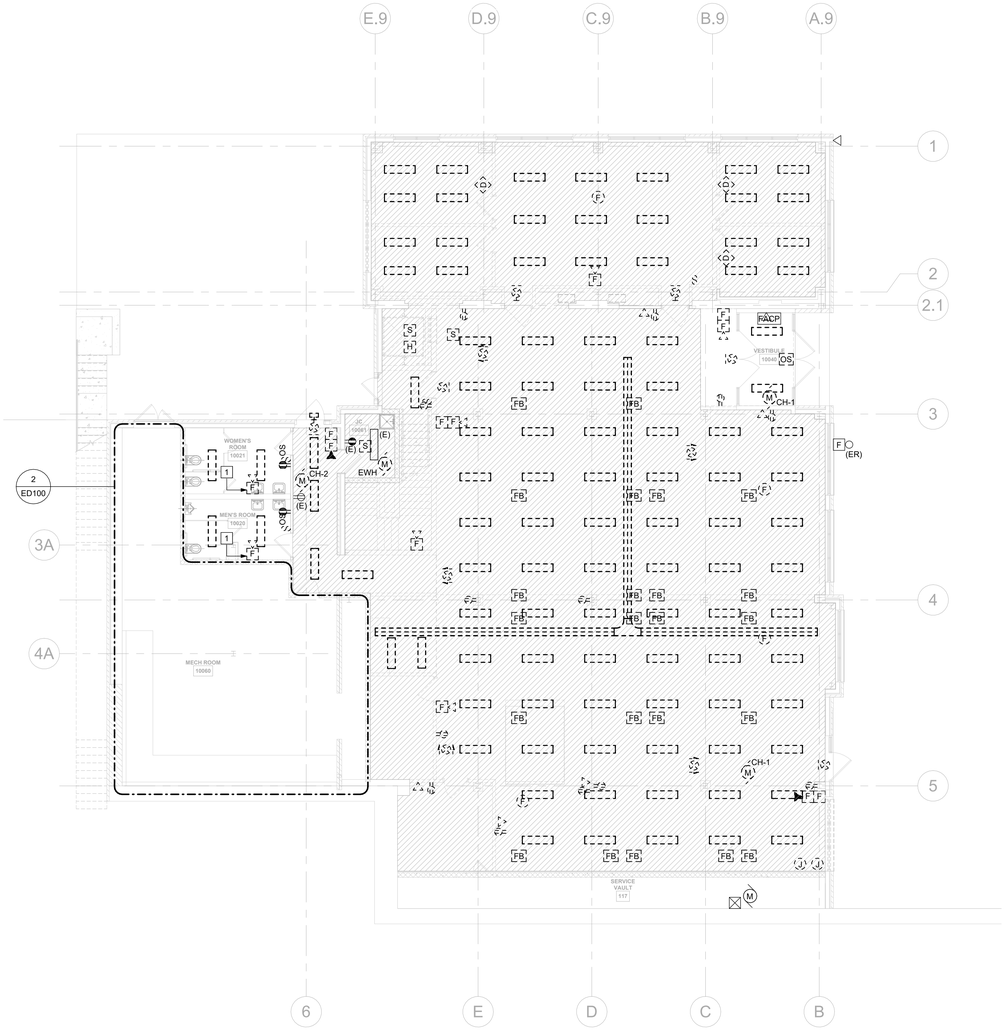
3 REMOVE ASD AND TURN OVER TO OWNER. IN CONSTRUCTION PHASE PROVIDE ASD PER SPECIFICATIONS FOR RELOCATED /RENAMED PUMP.

4 SALVAGE CIRCUIT TO BMS PANEL. PANEL TO BE DEMOLISHED. BMS PANEL TO BE PROVIDED IN CONSTRUCTION PHASE.

5 ALL CEILING-MOUNTED OR SUSPENDED COMPONENTS AND SERVICES WITHIN THIS SPACE TO BE REMOVED AND REINSTALLED AS SHOWN OR AS REQUIRED TO ENABLE MECHANICAL & PLUMBING DEMOLITION WORK, MECHANICAL AND PLUMBING CONSTRUCTION, AND ACOUSTIC TREATMENT INSTALLATION. SALVAGE WIRING AND CONDUIT AND EXTEND/RECONNECT WHEN OTHER WORK IS COMPLETE. COORDINATE WITH OTHER TRADES.



2 ENLARGED DEMOLITION PLAN - MECHANICAL ROOM
3/8" = 1'-0"



1 DEMOLITION PLAN - LEVEL 01 - ELECTRICAL
1/8" = 1'-0"

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DEMOLITION PLAN - LEVEL 01 - ELECTRICAL

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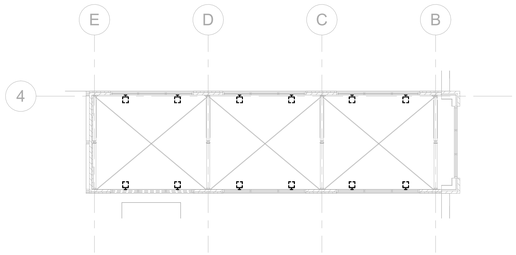
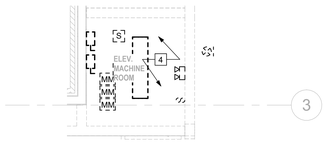
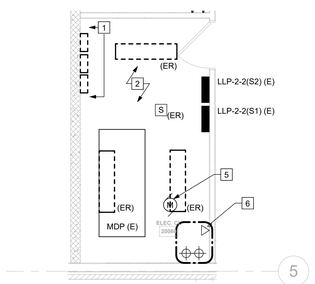


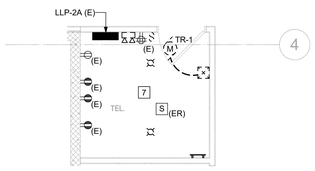
5 CLERESTORY LIGHTING DEMOLITION PLAN
1/8" = 1'-0"



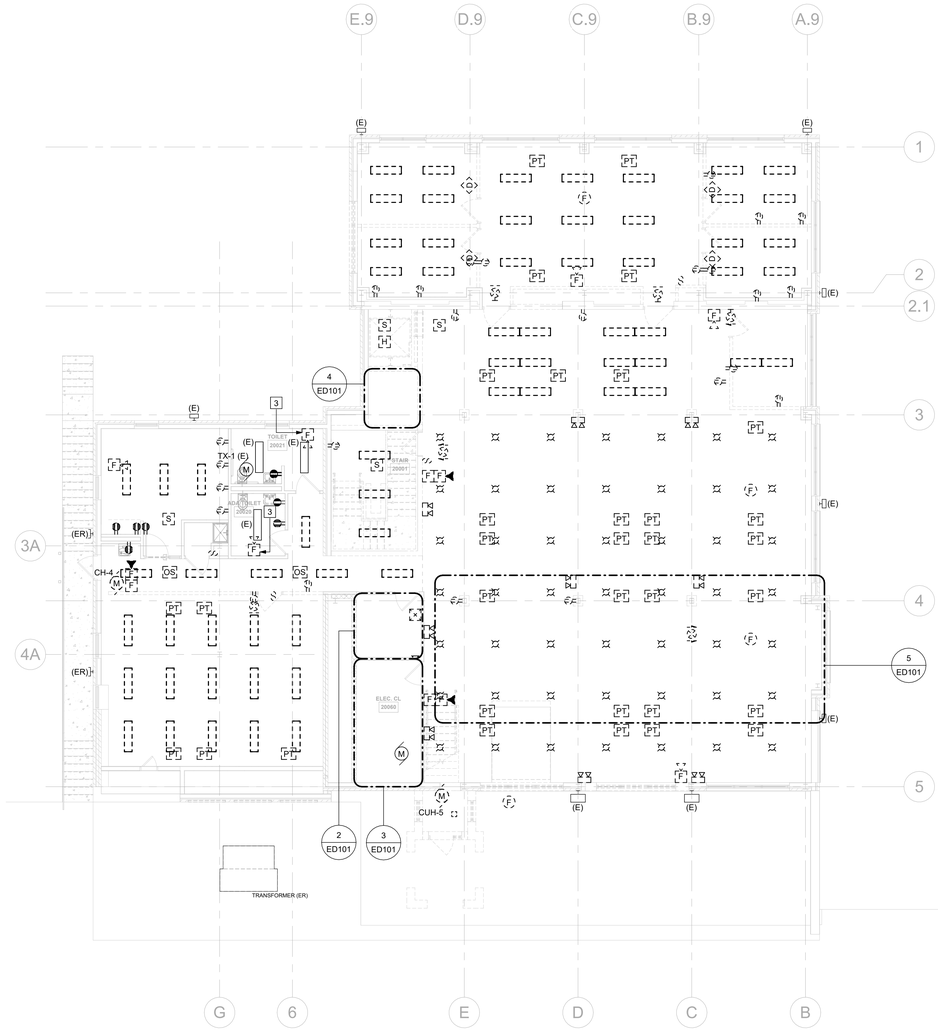
4 ENLARGED DEMOLITION PLAN - ELEVATOR MECHANICAL ROOM
1/4" = 1'-0"



3 ENLARGED DEMOLITION PLAN - ELECTRICAL CLOSET
1/4" = 1'-0"



2 ENLARGED DEMOLITION PLAN - TELECOM ROOM
1/4" = 1'-0"



1 DEMOLITION PLAN - LEVEL 02 - ELECTRICAL
1/8" = 1'-0"

GENERAL NOTES

A FIRE ALARM CONTROL PANEL IS EXISTING TO REMAIN. REFEED ALL EXISITNG TO REMAIN FIRE ALARM COMPONENTS AS REQUIRED DUE TO DEMOLITION OF INTERMEDIARY WIRING AND DEVICES.

[X] DEMOLITION NOTES:

1 ACCESS CONTROL PANELS TO BE RELOCATED. REFER TO ACCESS CONTROL DRAWINGS AND CONSTRUCTION DRAWINGS FOR ACCESS CONTROL ROOM FOR POWER, & DATA PROVISIONS.

2 CEILING-MOUNTED ELEMENTS TO BE REMOVED AND REINSTALLED TO ENABLE OTHER WORK IN THIS ROOM.

3 REMOVE EXISTING FIRE ALARM DEVICE. DEVICE BACK BOX TO BE SALVAGED FOR REUSE.

4 ALL ELEVATOR ACCESSORIES, FIRE ALARM MODULES, POWER CONNECTIONS, DISCONNECTS, AND LOW VOLTAGE SERVICES TO BE DEMOLISHED.

5 EXISTING ELECTRIC BASEBOARD HEATER TO REMAIN. CIRCUITRY IS EXISTING TO REMAIN.

6 EXISTING POWER METER CONNECTIONS TO REMAIN, INCLUDING 3P CIRCUIT AND 1P CIRCUIT FROM PANELBOARD LLP-2-2.

7 CEILING-MOUNTED FIXTURES TO BE DEMOLISHED. EXISTING PANEL AND RECEPTACLES TO REMAIN. EXISTING WALL-MOUNTED DEVICES OTHER THAN EM WALL PACK AND LIGHTING CONTROL ARE TO REMAIN. TELECOM RACK TO BE ADJUSTED AS REQUIRED TO ENABLE WORK ABOVE BY OTHER TRADES. ALL RECEPTACLES ARE TO BE REPLACED IN CONSTRUCTION PHASE.

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DEMOLITION PLAN - LEVEL 02 - ELECTRICAL

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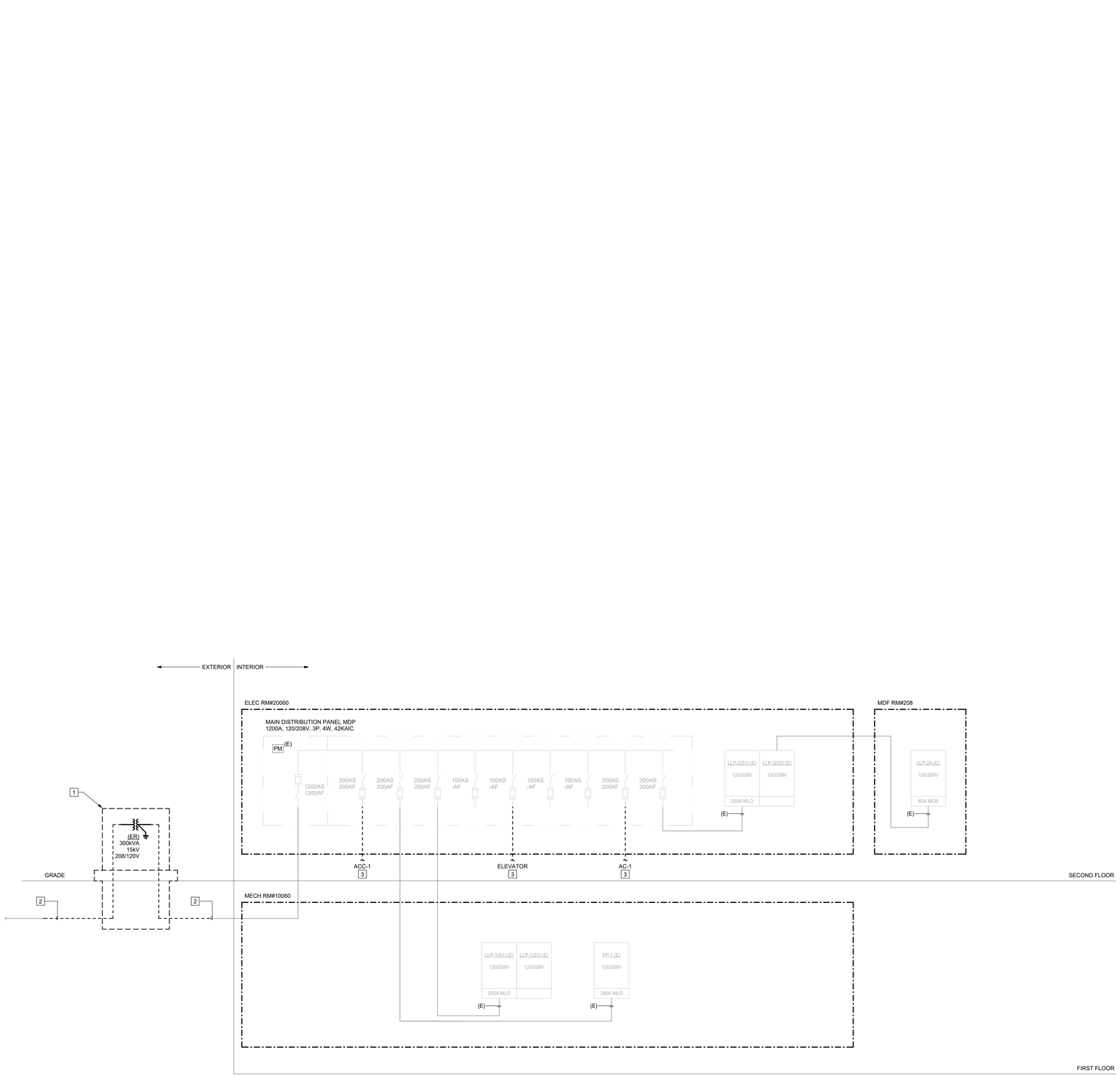
DEMOLITION NOTES:

1 EXISTING TRANSFORMER TO BE RELOCATED. REFER TO SITE PLAN ON SHEET E010 FOR MORE INFORMATION.

2 DEMOLISH EXISTING FEEDER IN PREPARATION FOR REROUTING DUE TO RELOCATION OF TRANSFORMER.

3 FEED TO BE DEMOLISHED. SWITCH TO BE MADE SPARE.



1 ONE LINE DIAGRAM - POWER - DEMOLITION
NTS

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ONE LINE DIAGRAM - POWER DEMOLITION

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GENERAL NOTES

A FIRE ALARM CONTROL PANEL IS EXISTING TO REMAIN. REFEED ALL EXISITNG TO REMAIN FIRE ALARM COMPONENTS AS REQUIRED DUE TO DEMOLITION OF INTERMEDIARY WIRING AND DEVICES.

FIRE ALARM NOTES:

A. DEVICES SHOWN ARE DIAGRAMMATICALLY ONLY. FOR EXACT LOCATIONS AND QUANTITIES SEE FLOOR PLANS.

B. ALL WIRING SHALL BE CLASS A FOR INITIATING CIRCUIT AND CLASS A FOR NOTIFICATION CIRCUITS. REFER TO SECTION 283102 OF THE SPECIFICATION FOR ADDITIONAL FIRE ALARM SYSTEM REQUIREMENTS.

C. ALL FIRE ALARM SYSTEM RACEWAY SIZES AND CIRCUITRY REQUIREMENTS SHALL BE IN ACCORDANCE WITH EQUIPMENT MANUFACTURERS RECOMMENDATIONS AND ALL CODES THAT MAY APPLY.

D. CABLING MUST BE UNIQUELY IDENTIFIED AND LABELED, AND A PERMANENT, ACCURATE RECORD OF THE IDENTIFICATION AND USE OF EACH ABLE MUST BE MADE AT THE TIME OF INSTALLATION. LABELING IS TO BE DONE WITH PERMANENT MARKERS ON CLEAR MYLAR TAPE. THE TAPE SHALL BE LONG ENOUGH SO WHEN WRAPPED ROUND THE CABLE IT WILL WRAP OVER ITSELF, PROTECTING THE WRITING.

E. FACP AND OTHER PANELS SHALL BE MOUNTED WITH CLEARANCES FOR OBSERVATION AND TESTING. ALL OTHER FIRE ALARM JUNCTION BOXES SHALL BE MARKED FOR IDENTIFICATION.

F. PROVIDE 120V, 20A DEDICATED BRANCH CIRCUITS FROM THE LOCAL AREA PANELBOARD TO CONTROL PANELS, TERMINAL CABINETS, ETC. AS REQUIRED. THE CIRCUIT BREAKER SHALL BE CLEARLY MARKED "FIRE ALARM CIRCUIT CONTROL" IN THE PANELBOARD DIRECTORY. PROVIDE CIRCUIT BREAKER LOCKS ON ALL BREAKERS ASSOCIATED WITH FIRE ALARM EQUIPMENT.

G. SPACE DETECTORS IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDED DISTANCE. PROVIDE ADDITIONAL DETECTORS WHERE REQUIRED.

H. ALL LOW VOLTAGE FIRE ALARM CIRCUITS MAY OCCUPY A COMMON CONDUIT. RUN AC POWER AND CONTROL WIRING (FAN SHUTDOWN, ETC.) IN SEPARATE CONDUIT. DO NOT RUN WITH ANY OTHER FIRE ALARM SYSTEM WIRING IN A COMMON CONDUIT.

I. ALL CONDUIT, MOUNTING BOXES AND PANELS SHALL BE HUNG AND FASTENED WITH FITTINGS TO ENSURE POSITIVE GROUNDING THROUGHOUT THE ENTIRE SYSTEM.

J. TRANSPOSING OR CHANGING COLOR CODING OF WIRES IS NOT PERMITTED. ALL CONDUCTORS IN CONDUIT CONTAINING MORE THAN ONE WIRE SHALL BE LABELED ON EACH END WITH "E-Z MARKERS".

K. CONDUCTORS IN CABINETS SHALL BE FORMED AND HARNESSED SO THAT EACH DROPS OFF DIRECTLY OPPOSITE ITS TERMINAL.

L. ALL WIRING SHALL BE CHECKED AND TESTED TO ENSURE THAT THERE ARE NO GROUNDS, OPENS, OR SHORTS.

M. WIRING COLOR CODES SHALL BE CONSISTENT THROUGHOUT THE SYSTEM AND SHALL ALLOW FOR EASY IDENTIFICATION OF INITIATING, INDICATING AND AUXILIARY CONTROL CIRCUITS.

N. THE FIRE ALARM RISER DENOTES THE GENERAL ARRANGEMENT OF THE SYSTEM WITH TYPICAL DEVICES AND MINIMUM QUANTITIES OF TERMINAL CABINETS & POWER BOOSTERS. PROVIDE ADDITIONAL TERMINAL CABINETS, BOOSTERS, ETC. AS REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.

O. ALL FIRE ALARM SYSTEM JUNCTION BOXES SHALL BE PAINTED RED WITH STENCIL LETTERING INDICATING "FIRE ALARM SYSTEM".

P. WIRING INDICATED ON THE RISER DIAGRAM IS DIAGRAMMATIC ONLY. IT IS NOT INTENDED TO INDICATE ROUTING OR QUANTITY OF WIRES REQUIRED. PROVIDE WIRING FOR A COMPLETE SYSTEM AS REQUIRED BY SYSTEM MANUFACTURER.

Q. REFER TO FLOOR PLANS FOR EQUIPMENT LOCATIONS.

R. PROVIDE MONITOR MODULES FOR INDICATION AT FIRE ALARM CONTROL PANEL OF THE FIRE PUMP RUNNING, FIRE PUMP FAULT AND FIRE PUMP POWER LOSS.

S. ALL FIRE ALARM WIRING SHALL BE INSTALLED IN RED 3/4" EMT CONDUIT.

T. PROVIDE LABELING FOR ALARM INITIATING DEVICES AND NOTIFICATION DEVICES PER CORNELL STANDARD 283100.

U. PROVIDE CO DETECTION AND ASSOCIATED NOTIFICATION AS PER NYS BUILDING CODE.

V. BATTERIES SHALL BE FOR 60 HOURS OF USAGE.

FIRE ALARM NOTES:

1. MANUAL FIRE ALARM BOXES: MOUNTING HEIGHT 42-48 INCHES TO HANDLE. LOCATE NO MORE THAN 5 FEET FROM THE ENTRANCE TO AN EXIT. LOCATE ON THE LATCH SIDE OF DOOR, IF POSSIBLE. BOXES ARE TO BE CONSPICUOUS, UNOBSTRUCTED, AND ACCESSIBLE.

2. SPOT TYPE HEAT AND SMOKE DETECTORS: FOR SMOOTH CEILINGS, ALL POINTS ON THE CEILING SHALL HAVE A DETECTOR WITHIN 0.7 TIMES THE DETECTOR SPACING. SPACING IS 30 FEET FOR SMOKE DETECTORS AND 50 FEET FOR HEAT DETECTORS. PROVIDE A SPACING OF 3 FEET OR MORE FROM SUPPLY AND RETURN DIFFUSERS. COORDINATE TRADES BY MEANS OF THE REFLECTED CEILING PLAN. (IF DESIGN CONDITIONS OTHER THAN SMOOTH CEILINGS OR CEILING HEIGHTS OVER 12 FEET ARE ENCOUNTERED, SHOW CONDITIONS AND GIVE REASONS FOR COVERAGE DESIGN.)

3. DOOR RELEASE: SMOKE DETECTION PROVIDING AREA COVERAGE ON EITHER SIDE OF THE DOORS MAY BE USED FOR DOOR RELEASE. SMOKE DETECTORS, WHICH ARE PROVIDED FOR DOOR RELEASE ONLY, SHALL BE ON THE CENTERLINE OF DOORWAY AND NOT MORE THAN 5 FEET FROM DOOR.

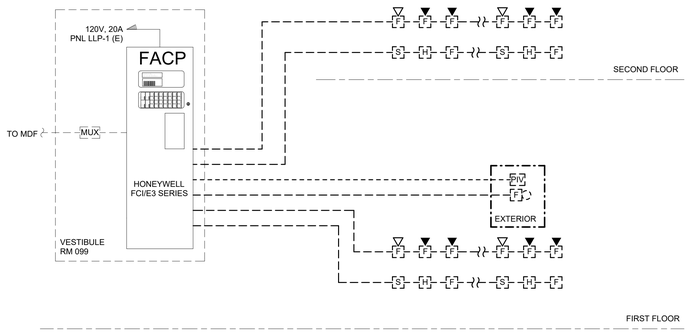
4. VISUAL AND COMBINATION AUDIBLE/VISUAL NOTIFICATION APPLIANCES: THE ENTIRE LENS SHALL BE WITHIN 80 INCHES-96 INCHES ABOVE THE FLOOR. DEPENDING ON CEILING HEIGHT, HIGHER MOUNTING IS PREFERRED. VISIBLE APPLIANCES SHALL BE LOCATED NOT MORE THAN 15 FEET FROM END OF THE CORRIDOR, WITH A SEPARATION NOT GREATER THAN 100 FEET BETWEEN APPLIANCES IN CORRIDORS. LOCATE AN APPLIANCE OPPOSITE EACH ACCESS DOOR TO AN EXIT STAIR SO THAT IT WILL BE VISIBLE TO PERSONS ENTERING THE FLOOR FROM THE EXIT STAIR.

5. AUDIBLE NOTIFICATION APPLIANCES: TOP OF DEVICE NOT LESS THAN 90 INCHES ABOVE FLOOR OR NOT LESS THAN 6 INCHES BELOW CEILING.

6. FIRE ALARM CONTROL PANELS, ANNUNCIATOR PANELS, WARDEN STATIONS, ETC.: MOUNT IN ACCESSIBLE LOCATION APPROXIMATELY 5 FEET IN HEIGHT TO PANEL DISPLAY READOUT. ALL PANELS SHALL HAVE 36 INCHES OF WORKING CLEARANCE IN FRONT OF PANEL.

7. REMOTE TEST STATIONS FOR DUCT DETECTORS AND BEAM DETECTORS: MOUNT APPROXIMATELY 80" AFF IN AN ACCESSIBLE AND CONSPICUOUS LOCATION.

8. ADDRESSABLE CONTROL DEVICES SHALL BE LOCATED WITHIN 3 FEET OF THE CONTROLLED DEVICE, SUCH AS VENTILATION FAN OR ELEVATOR CONTROLLER. ADDRESSABLE MONITOR DEVICES SHALL BE LOCATED ADJACENT TO MONITORED DEVICE.



1 ONE LINE DIAGRAM - FIRE ALARM DEMOLITION
NTS

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ONE LINE DIAGRAM - FIRE ALARM DEMOLITION

ED410

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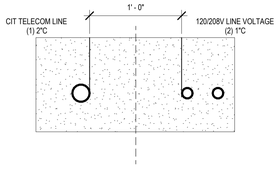


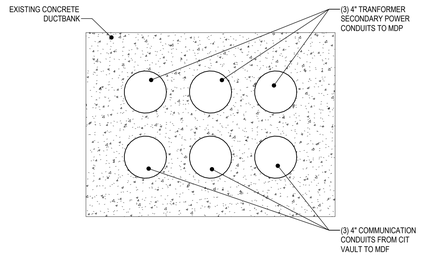
GENERAL DETAIL NOTES:

A. DETAIL TO SHOW CONFIGURATION ONLY OF CONDUITS IN COMBINED TELECOM AND LINE VOLTAGE TRENCH. REFER TO DIRECT BURIED DETAIL FOR REQUIREMENTS.

B. PROVIDE MINIMUM 12" SEPARATION BETWEEN TELECOM AND LINE VOLTAGE CONDUITS.

C. EXAMPLE CONFIGURATION. FINAL CONFIGURATION TO MEET ALL SPACING, AND ENCASEMENT REQUIREMENTS.

4 CONDUIT SECTION - TELECOM & EV CHARGER
NTS

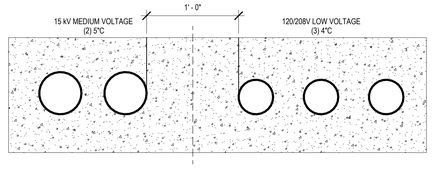


GENERAL DETAIL NOTES:

A. EXISTING CONCRETE DUCTBANK TO SHOW CONFIGURATION OF EXISTING DUCTS. CONTRACTOR TO VERIFY CONDUIT SIZES, TYPES, AND CONFIGURATION.

B. COMMUNICATION CONDUITS ARE EXISTING TO REMAIN. CONTRACTOR TO PROTECT EXISTING COMMUNICATION CONDUITS DURING THE COURSE OF CONNECTING INTO EXISTING POWER CONDUITS.

3 DUCTBANK SECTION - EXISTING TELECOM & LV
NTS



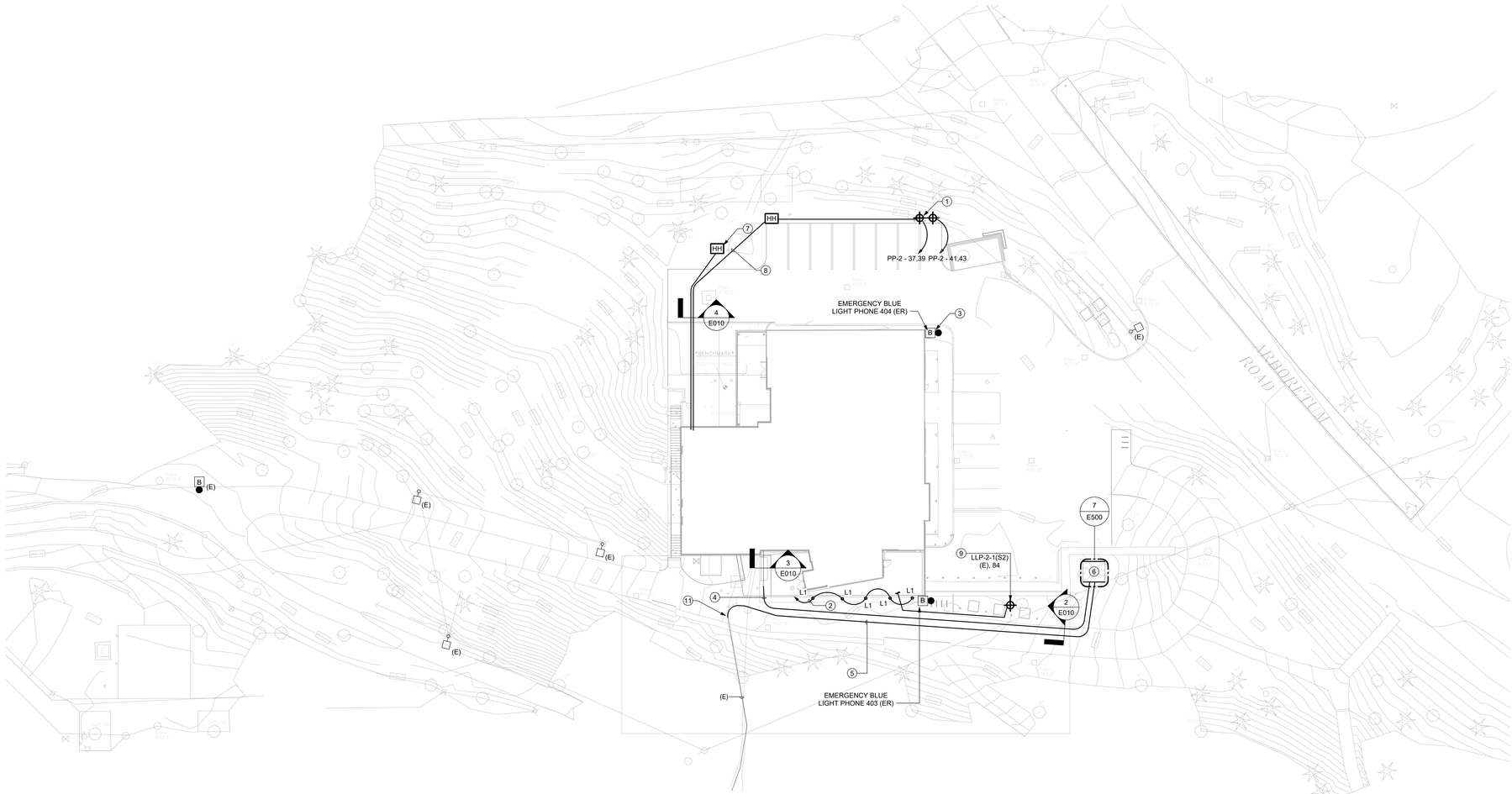
GENERAL DETAIL NOTES:

A. DETAIL TO SHOW CONFIGURATION ONLY OF CONDUITS IN COMBINED MEDIUM-VOLTAGE (MV) AND LOW-VOLTAGE (LV)DUCTBANK. REFER TO ELECTRICAL DUCTBANK DETAIL FOR REQUIREMENTS.

B. PROVIDE MINIMUM 12" SEPARATION BETWEEN MV AND LV DUCTS.

C. EXAMPLE CONFIGURATION. FINAL CONFIGURATION TO MEET ALL SPACING, AND ENCASEMENT REQUIREMENTS.

2 DUCTBANK SECTION - COMBINED MV AND LV
NTS



1 SITE PLAN - ELECTRICAL
1" = 20'-0"

DRAWING NOTES:

1 ELECTRIC VEHICLE CHARGER. PROVIDE (2) 40A, 2P CIRCUITS FROM EXISTING PANELBOARD PP-2. CIRCUIT WITH (4) #4 AWG AND (1) #8 EG IN 1-1/4"C.

2 EXTEND EXTERIOR LIGHTING CIRCUIT TO BOLLARD LIGHTS.

3 EXISTING BLUELIGHT PHONE TO BE REFED. REFER TO POWER AND TELECOM DRAWINGS FOR MORE INFORMATION.

4 TRANSFORMER SECONDARY, (3) 4" C. UTILIZE EXISTING (3) 4" CONDUIT FEEDS INTO BUILDING. INTERCEPT EXISTING DUCTBANK, DO NOT DAMAGE CIT CONDUITS BELOW.

5 INTERCEPT EXISTING (2) 5" CONDUITS AND EXTEND TO TRANSFORMER LOCATION. PROVIDE NEW 15Kv CABLING TO MV SWITCH VIA EXISTING MANHOLES S5 AND S110. REFER TO DRAWING E011.

6 PROVIDE TRANSFORMER VAULT AND (4) 3/4" X 10" GROUND RODS AND #2 AWG BARE COPPER GROUND GRID.

7 (1) 2" CONDUIT AND HANDHOLE FOR FUTURE EXTENSION BY CIT TO OTHER CAMPUS BLUE LIGHT PHONES OUTSIDE OF PROJECT AREA.

8 PROVIDE (1) SPARE 1"C FROM MECHANICAL ROOM TO POWER HANDHOLE. PROVIDE PULL STRING AND LABEL AT EACH END.

9 PROVIDE CIRCUIT AS NOTED TO HANDHOLE AT PROJECT DISPLAY AREA. SHALL BE (2)#10AWG & (1)#10EG IN 1"C.

11 EXCAVATION OF MEDIUM-VOLTAGE DUCTBANK NOT TO DISTURB RETAINING WALL. COORDINATE WITH CIVIL ENGINEER.

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SITE PLAN - ELECTRICAL

E010

TRUE NORTH
PROJECT NORTH

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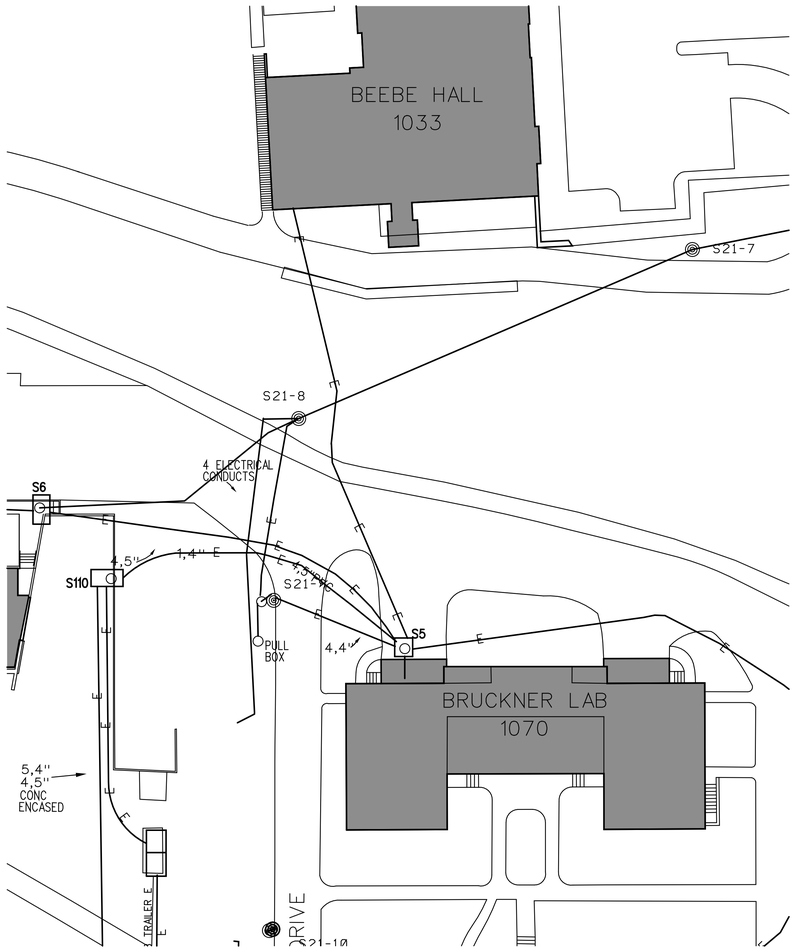
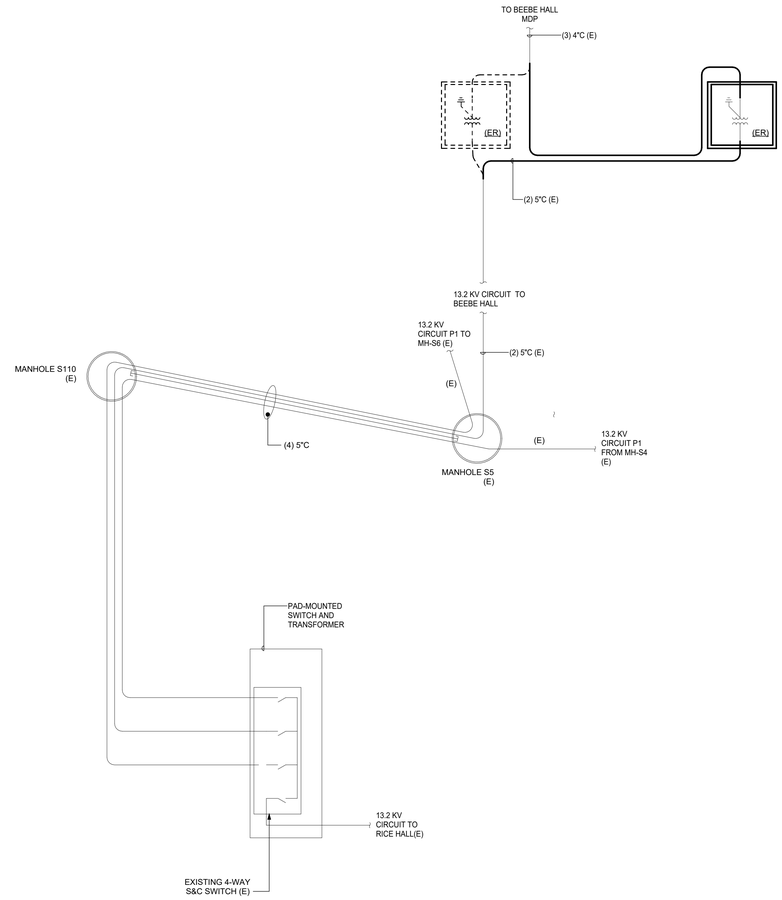


2 PARTIAL CAMPUS SITE PLAN - ELECTRICAL DISTRIBUTION
1" = 20'-0"



1 PARTIAL ELECTRICAL DISTRIBUTION MANHOLE AND DUCTBANK DIAGRAM
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CAMPUS SITE PLAN AND DUCTBANK DETAILS - ELECTRICAL

E011

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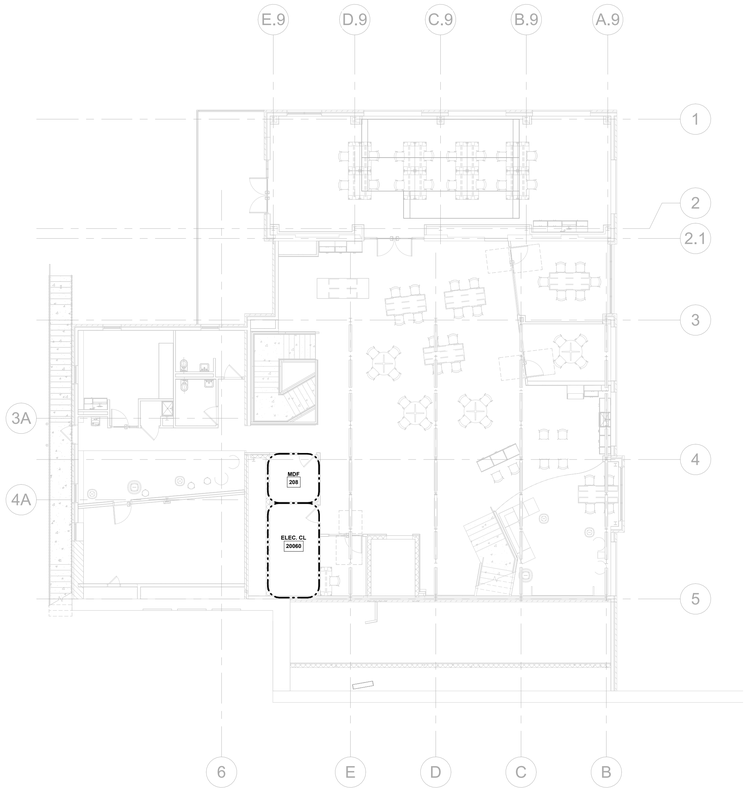
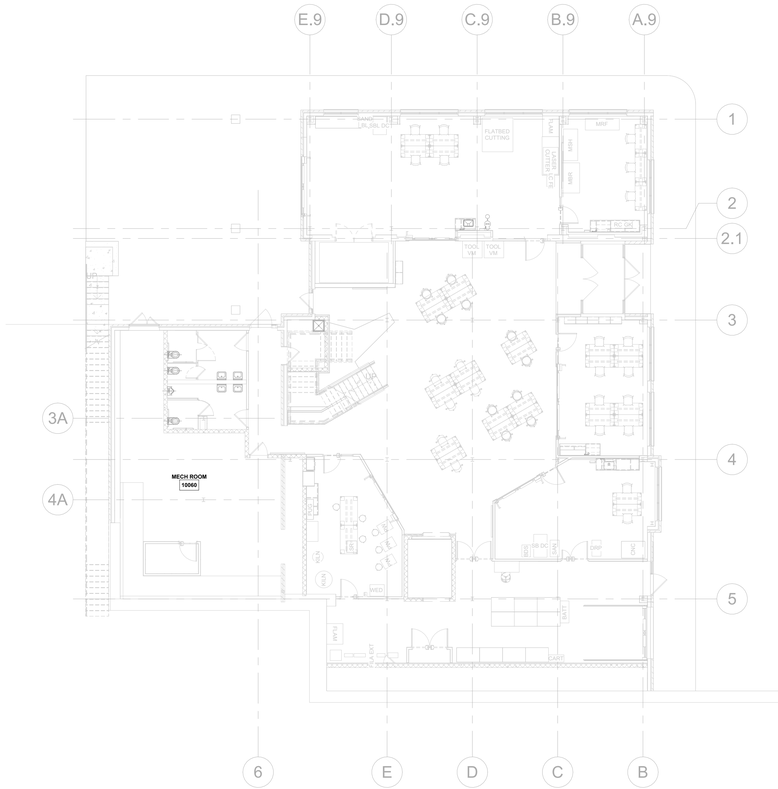


2 OVERALL FLOOR PLAN - LEVEL 02
3/32" = 1'-0"



1 OVERALL FLOOR PLAN - LEVEL 01
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OVERALL PLANS - ELECTRICAL

TRUE NORTH
PROJECT NORTH

E020

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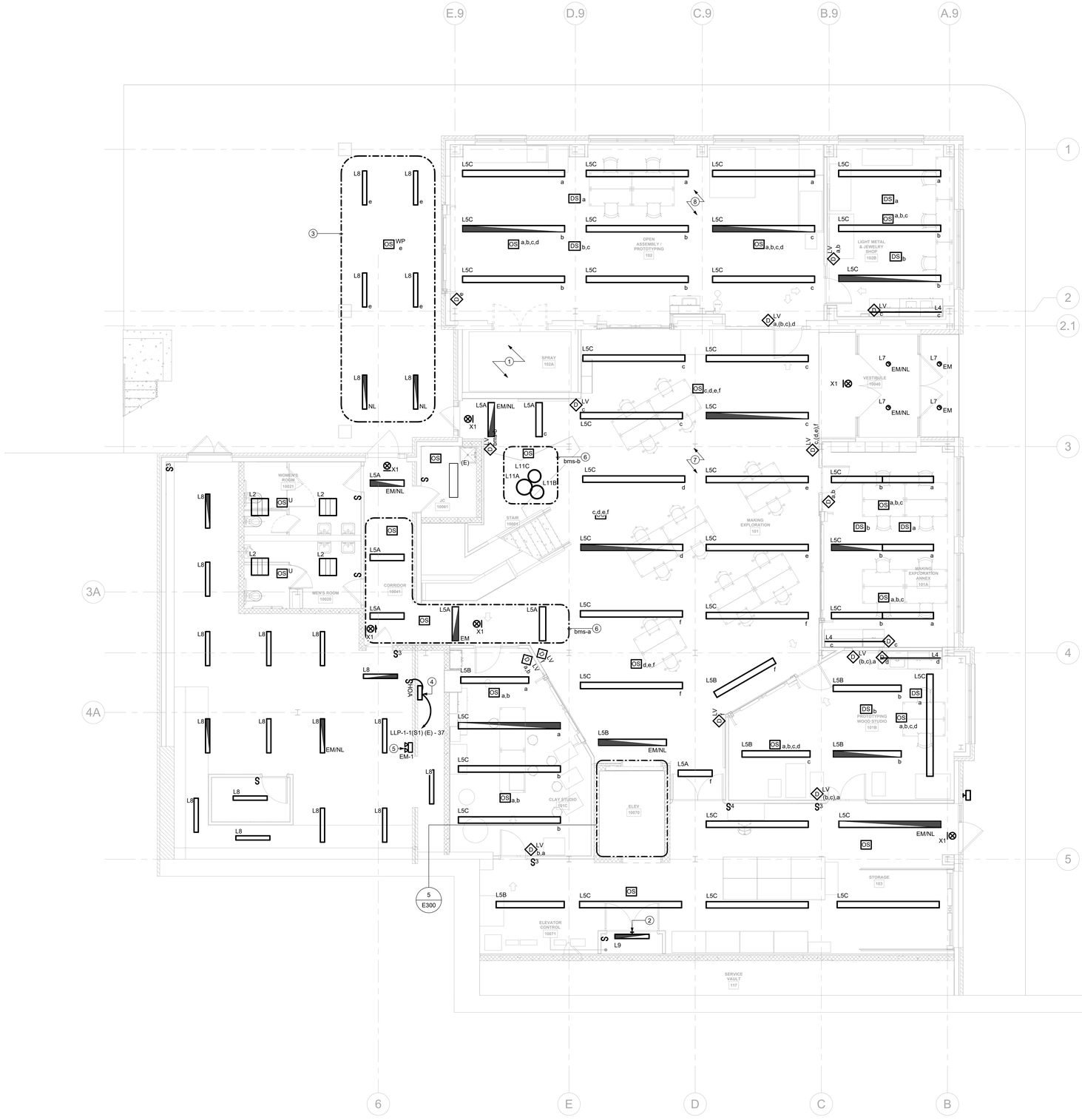


GENERAL NOTES

A OCCUPANCY SENSORS IN AREAS WITH EXPOSED CEILINGS SHALL BE PENDANT-MOUNTED AT THE SAME LEVEL AS LIGHT FIXTURES IN THE SAME AREA.

B CIRCUIT ALL EMERGENCY LIGHT FIXTURES TO INVERTER. PROVIDE UL924 RELAY DEVICES AHEAD OF ANY LIGHTING CONTROLS.

C REFER TO ARCHITECTURAL FLOOR PLANS AND REFLECTED CEILING PLANS FOR QUANTITY AND LOCATIONS OF FRON-OF-HOUSE FIXTURES.

D UNLESS OTHERWISE NOTED, PROVIDE DIGITAL LIGHTING CONTROLS FOR ALL SPACES. EACH ROOM TO BE A STANDALONE WIRED DIGITAL LIGHTING NETWORK NOT CONNECTED TO OTHER ROOMS, A BROADER SYSTEM, OR THE INTERNET.

ⓧ DRAWING NOTES:

1 LIGHTING TO BE PROVIDED BY SPRAY BOOTH VENDOR. REFER TO DRAWING E310 FOR DETAILS AND WIRING REQUIREMENTS.

2 WALL-MOUNT FIXTURE CENTERED ABOVE DOOR. COORDINATE WITH OTHER SERVICES AS NEEDED.

3 LIGHT FIXTURES IN THIS AREA AREA MOUNTED ON THE UNDERSIDE OF THE BALCONY ON THE FLOOR ABOVE.

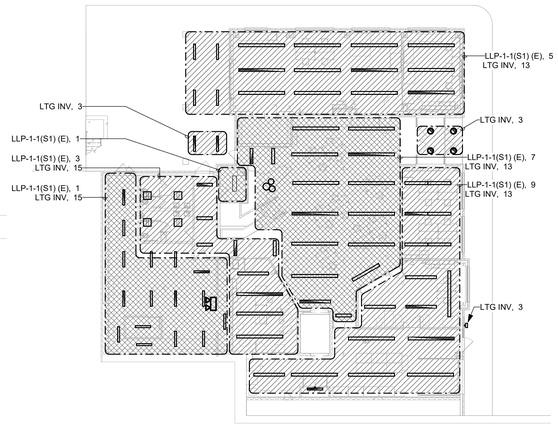
4 PROVIDE 12-POLE, 120V LIGHTING CONTACTOR AND HAND-OFF-AUTO SWITCH FOR ALL EXISTING AND NEW EXTERIOR LIGHTING CIRCUITS. LOCATE SWITCH ADJACENT TO PANELBOARDS. PROVIDE LAMACOID LABEL FOR SWITCH LABELED "EXTERIOR LIGHTS". AUTO OPERATION TO BE TIED TO 120V PHOTOCELL MOUNTED ON THE ROOF. PROVIDE WIRING TO ROOF-MOUNTED PHOTOCELL. REFER TO DRAWING E230 FOR PHOTOCELL LOCATION.

5 PROVIDE EM WALLPACK ABOVE LIGHTING INVERTER.

6 LIGHT FIXTURES IN THIS AREA ARE TO BE CONTROLLED BY BMS.

7 ADD ALTERNATE 3: PROVIDE LIGHTING ZONES AS NOTED. BASE BID: ZONES e AND d COMBINED AS ONE ZONE.

8 ADD ALTERNATE 3: PROVIDE LIGHTING ZONES AS NOTED. BASE BID: ZONES b AND c COMBINED AS ONE ZONE.



1 FLOOR PLAN - LEVEL 01 - LIGHTING
3/16" = 1'-0"

2 LEVEL 01 - LIGHTING CIRCUIT KEYPLAN
1/16" = 1'-0"

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FLOOR PLAN - LEVEL 01 - LIGHTING

E200

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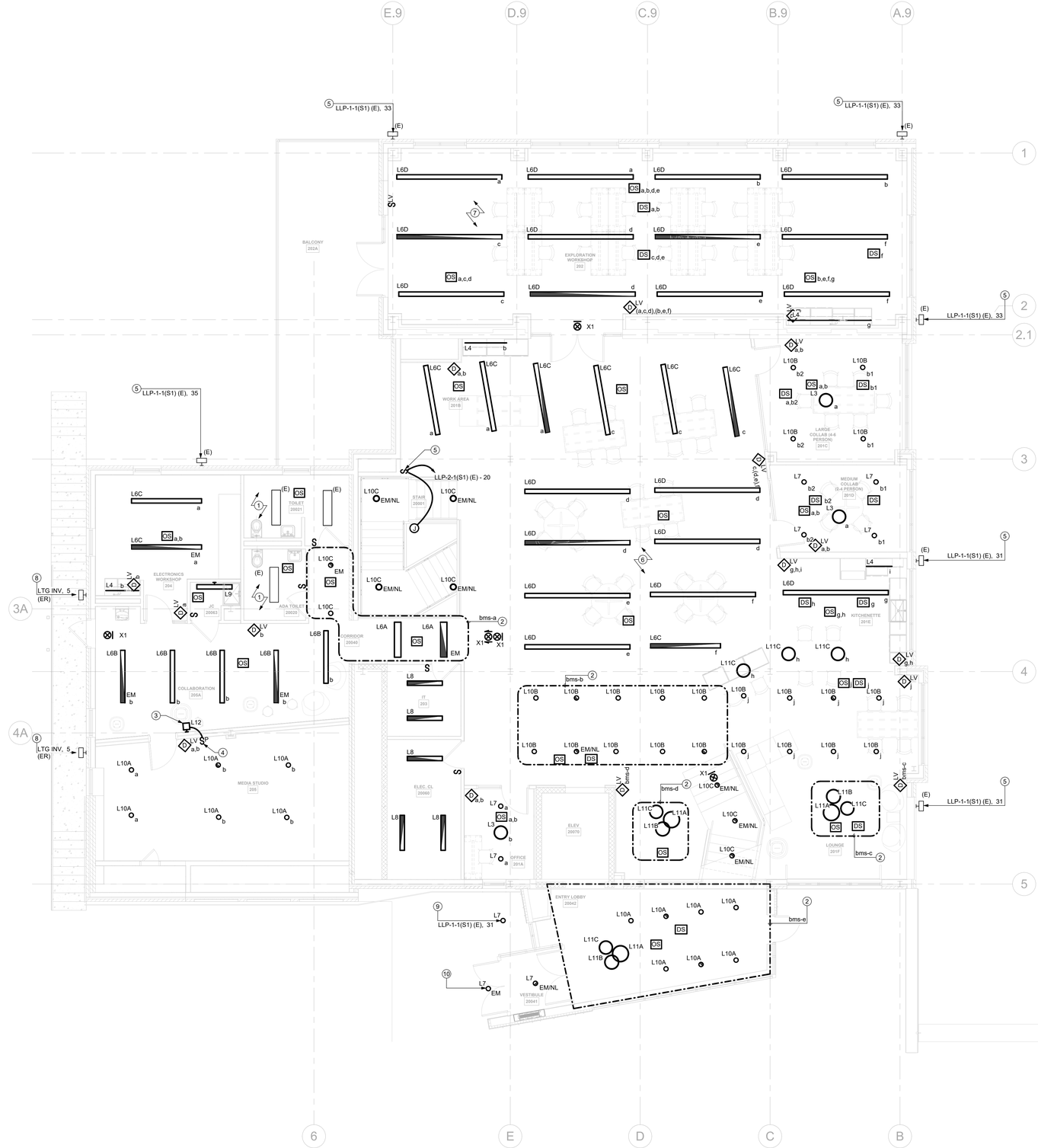

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B CIRCUIT ALL EMERGENCY LIGHT FIXTURES TO INVERTER. PROVIDE UL924 RELAY DEVICES AHEAD OF ANY LIGHTING CONTROLS.

C REFER TO ARCHITECTURAL FLOOR PLANS AND REFLECTED CEILING PLANS FOR QUANTITY AND LOCATIONS OF FRONT-OF-HOUSE FIXTURES.

D UNLESS OTHERWISE NOTED, PROVIDE DIGITAL LIGHTING CONTROLS FOR ALL SPACES. EACH ROOM TO BE A STANDALONE WIRED DIGITAL LIGHTING NETWORK NOT CONNECTED TO OTHER ROOMS, A BROADER SYSTEM, OR THE INTERNET.

ⓧ DRAWING NOTES:

1 PROVIDE CONTROLS AS SHOWN FOR EXISTING FIXTURES. PROVIDE CIRCUITING AS NOTED.

2 LIGHT FIXTURES IN THIS AREA ARE TO BE CONTROLLED BY BMS.

3 WALL-MOUNTED IN-USE LIGHT. COORDINATE LOCATION WITH ARCHITECTURAL ELEVATIONS AND WITH OWNER IN FIELD PRIOR TO ROUGH IN. TO BE CONTROLLED BY SWITCH WITH PILOT LIGHT INSIDE MEDIA STUDIO. CIRCUIT TO LIGHTING CIRCUIT IN THIS AREA.

4 PROVIDE SINGLE-GANG BACK BOX AND SWITCH WITH PILOT LIGHT. TO BE SIGNAL-TECH P/N#2110I OR ENGINEER'S APPROVED EQUAL. SINGLE-POLE, SINGLE-THROW, 120V SWITCH WITH RED INDICATOR LIGHT AND SINGLE-GANG PLATE. BACK-BOX TO BE MOUNTED ADJACENT TO LIGHTING CONTROL BACK BOX.

5 EXISTING CIRCUIT TO BE REFED AS REQUIRED TO ENABLE OTHER DEMOLITION AND CONSTRUCTION WORK. PROVIDE FEED VIA NEW EXTERIOR LIGHTING CONTACTOR. REFER TO E200.

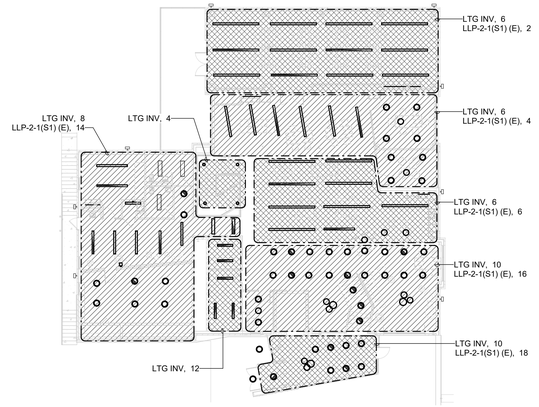
6 ADD ALTERNATE 3: PROVIDE LIGHTING ZONES AS NOTED. BASE BID: ZONES e AND d COMBINED AS ONE ZONE.

7 ADD ALTERNATE 3: PROVIDE LIGHTING ZONES AS NOTED. BASE BID: ZONES a AND b COMBINED AS ONE ZONE AND ZONES c, d, AND e COMBINED AS ONE ZONE.

8 PROVIDE CIRCUIT AS NOTED FROM EMERGENCY LIGHTING INVERTER TO FEED EXTERIOR LIGHTS. PROVIDE UL-924 RELAY CONNECTED TO NORMAL-POWER EXTERIOR LIGHTING CIRCUIT DOWNSTREAM OF CONTACTOR FOR SWITCH SENSE, AND UPSTREAM OF CONTACTOR FOR POWER LOSS SENSE.

9 REWORK AND EXTEND EXISTING EXTERIOR LIGHTING CIRCUIT FOR EAST-SIDE BUILDING-MOUNTED LUMINAIRES TO FEED THIS LIGHT. EXTEND CIRCUIT TO POWER BOLLARD LIGHTS AT UPPER WALKWAY. REFER TO SITE PLAN E010.

10 PROVIDE CIRCUIT AS NOTED FROM EMERGENCY LIGHTING INVERTER TO FEED EXTERIOR LIGHTS. PROVIDE UL-924 RELAY CONNECTED TO NORMAL-POWER EXTERIOR LIGHTING CIRCUIT DOWNSTREAM OF CONTACTOR FOR SWITCH SENSE; AND UPSTREAM OF CONTACTOR FOR POWER LOSS SENSE.



2 FLOOR PLAN - LEVEL 02 - LIGHTING
3/16" = 1'-0"

1 LEVEL 02 - LIGHTING CIRCUIT KEYPLAN
1/16" = 1'-0"

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FLOOR PLAN - LEVEL 02 - LIGHTING

E201

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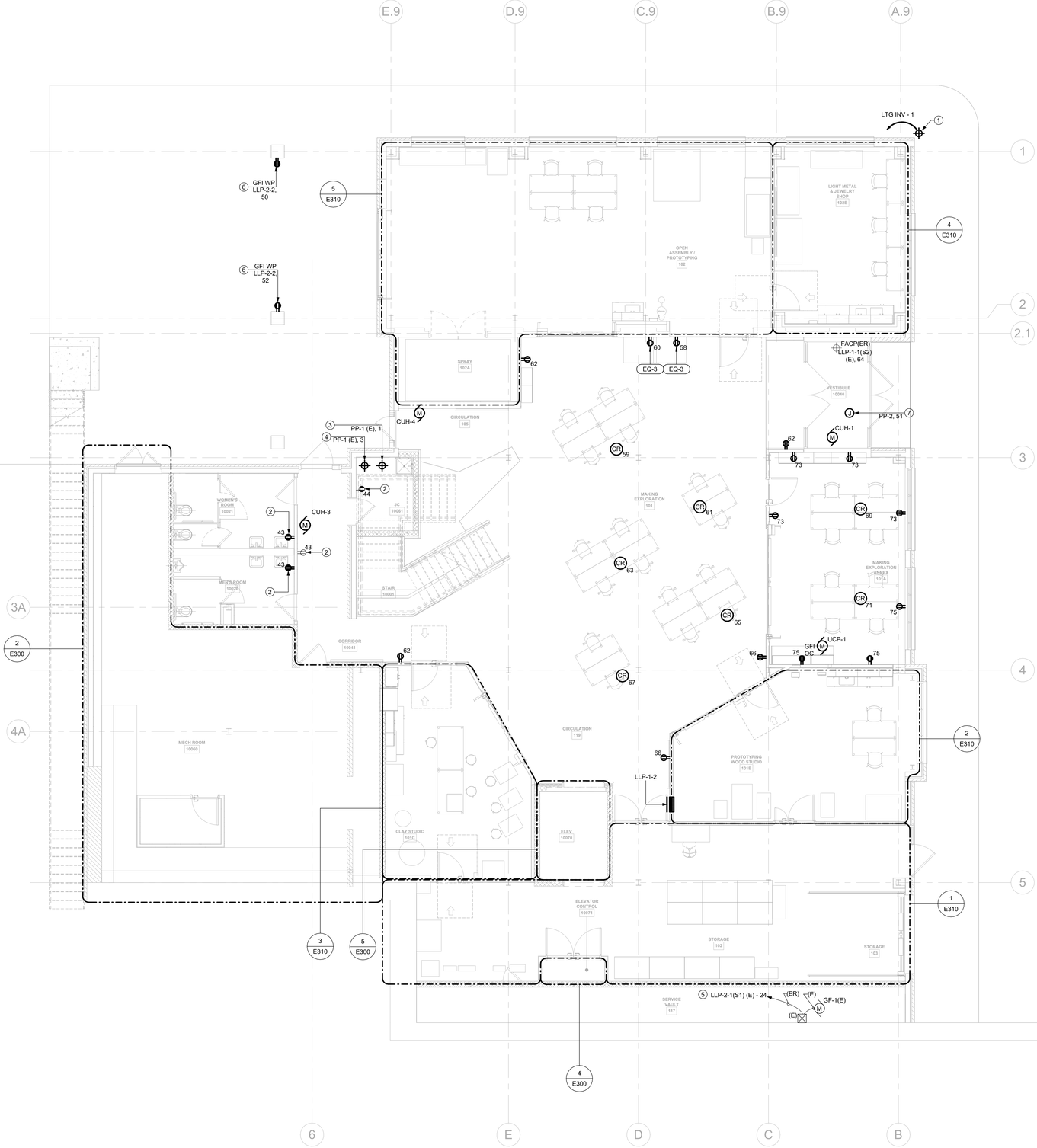

1 FLOOR PLAN - LEVEL 01 - POWER
3/16" = 1'-0"

GENERAL NOTES

A COORDINATE LOCATIONS OF ALL RECEPTACLES, EQUIPMENT CONNECTIONS, AND DATA WITH CORNELL PRIOR TO ROUGH IN. COORDINATE ELEVATIONS AND LOCATIONS WITH ARCHITECTURAL ELEVATIONS AND EQUIPMENT LAYOUTS.

B COORDINATE LOCATIONS OF CEILING-MOUNTED CORD REEL RECEPTACLES AND MOUNTING BRACKETS WITH CORNELL PRIOR TO FINAL INSTALLATION. REFER TO CORD REEL DETAIL 2 ON DRAWING E-501 FOR CORD REEL REQUIREMENTS.

C COORDINATE ELEVATIONS OF SURFACE RACEWAY WITH ARCHITECT. ALL RACEWAY TO BE FED FROM CONCEALED BACK-BOXES. REFER TO DETAIL 1 ON DRAWING E501.

D COORDINATE EQUIPMENT CONNECTION REQUIREMENTS WITH OWNER. PROVIDE CORDS, CORD CAPS, AND/OR FLEXIBLE CONNECTIONS TO EQUIPMENT AS REQUIRED FOR CONNECTION AND USE BY OWNER. ALL CORDS, CORDS, CORD CAPS, AND FLEXIBLE EQUIPMENT CONNECTIONS TO BE RATED FOR EQUIPMENT POWER REQUIREMENTS.

E UNLESS OTHERWISE NOTED, ALL RECEPTACLES AND DEVICES ON THIS PLAN TO BE CIRCUITED TO EXISTING PANELBOARD LLP-1-1, CIRCUIT NUMBER AS NOTED.

ⓧ DRAWING NOTES:

1 NEW POWER FEED FOR EXISTING EMERGENCY BLUE LIGHT PHONE 404. PROVIDE 20A, 1P CIRCUIT IN LIGHTING INVERTER. PROVIDE SEPERATE FEED TO SOURCE PANEL FOR EACH BLUE LIGHT PHONE. PROVIDE (2)#12AWG & (1)#12EG IN 3/4"C. REFER TO TELECOM DRAWINGS FOR ADDITIONAL REQUIREMENTS.

2 REUSE EXISTING BACK BOX SALVAGED DURING DEMOLITION. REWORK AND EXTEND EXISTING CIRCUIT. PROVIDE DEVICE AND WALLPLATE.

3 PROVIDE (1) 20A, 1P CIRCUIT FOR NITROGEN GENERATOR AT DRY SPRINKLER SYSTEM. CIRCUIT TO PANELBOARD NOTED WITH (2) #12 AWG & (1) #12 EG IN 3/4"C.

4 PROVIDE (1) 20A, 1P CIRCUIT FOR AIR COMPRESSOR AT DRY SPRINKLER SYSTEM. CIRCUIT TO PANELBOARD NOTED WITH (2) #12 AWG & (1) #12 EG IN 3/4"C. COORDINATE FINAL CIRCUIT REQUIREMENTS WITH FIRE PROTECTION SUBMITTALS.

5 EXISTING CIRCUIT TO REMAIN. PROVIDE REFEED IF REQUIRED FOR OTHER DEMOLITION OR CONSTRUCTION WORK.

6 PROVIDE ISOLATED GROUND BAR IN PANELBOARD.

7 PROVIDE 20A, 120V CIRCUIT FOR FUTURE DOOR OPERATOR. CIRCUIT TO BE (2)#12AWG & (1)#12EG IN 3/4"C.

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FLOOR PLAN - LEVEL 01 - POWER

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E210

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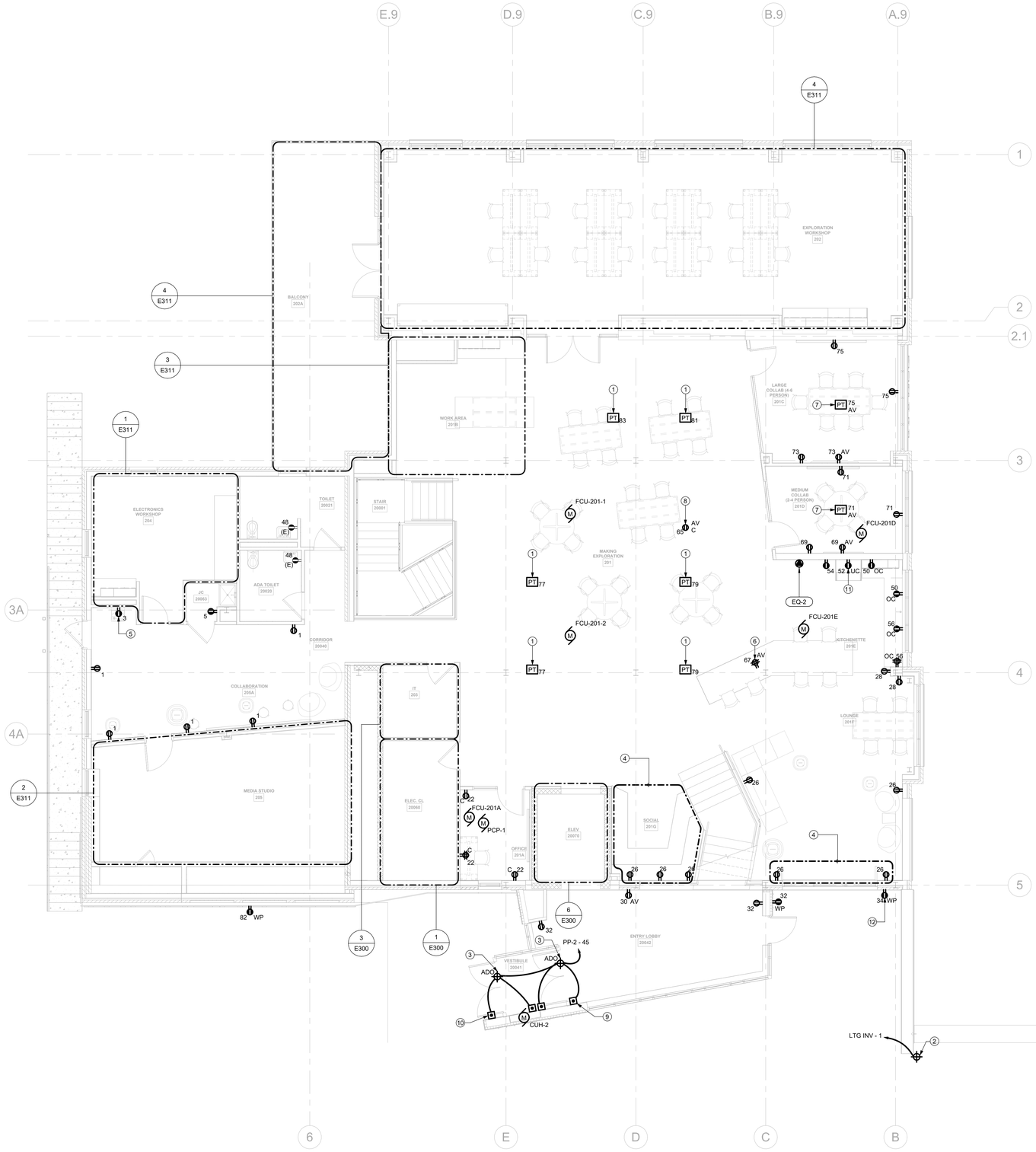

1 FLOOR PLAN - LEVEL 02 - POWER
3/16" = 1'-0"

GENERAL NOTES

A COORDINATE LOCATIONS OF ALL RECEPTACLES, EQUIPMENT CONNECTIONS, AND DATA WITH CORNELL PRIOR TO ROUGH IN. COORDINATE ELEVATIONS AND LOCATIONS WITH ARCHITECTURAL ELEVATIONS AND EQUIPMENT LAYOUTS.

B COORDINATE LOCATIONS OF CEILING-MOUNTED CORD REEL RECEPTACLES AND MOUNTING BRACKETS WITH CORNELL PRIOR TO FINAL INSTALLATION. REFER TO CORD REEL DETAIL 2 ON DRAWING E-501 FOR CORD REEL REQUIREMENTS.

C COORDINATE ELEVATIONS OF SURFACE RACEWAY WITH ARCHITECT. ALL RACEWAY TO BE FED FROM CONCEALED BACK-BOXES. REFER TO DETAIL 1 ON DRAWING E501.

D COORDINATE EQUIPMENT CONNECTION REQUIREMENTS WITH OWNER. PROVIDE CORDS, CORD CAPS, AND/OR FLEXIBLE CONNECTIONS TO EQUIPMENT AS REQUIRED FOR CONNECTION AND USE BY OWNER. ALL CORDS, CORDS, CORD CAPS, AND FLEXIBLE EQUIPMENT CONNECTIONS TO BE RATED FOR EQUIPMENT POWER REQUIREMENTS.

E UNLESS OTHERWISE NOTED, ALL RECEPTACLES AND DEVICES ON THIS PLAN TO BE CIRCUITED TO EXISTING PANELBOARD LLP-2-1, CIRCUIT NUMBER AS NOTED.

ⓧ DRAWING NOTES:

1 REUSE EXISTING CORE FROM POKE-THRUS REMOVED IN PREVIOUS PHASE FOR POKE-THRU.

2 NEW POWER FEED FOR EXISTING EMERGENCY BLUE LIGHT PHONE 404. PROVIDE 20A, 1P CIRCUIT IN LIGHTING INVERTER. PROVIDE SEPERATE FEED TO SOURCE PANEL FOR EACH BLUE LIGHT PHONE. PROVIDE (2)#12AWG & (1)#12EG IN 3/4"C. REFER TO TELECOM DRAWINGS FOR ADDITIONAL REQUIREMENTS.

3 POWER FOR DOOR OPERATOR. PROVIDE 20A, 1P CIRCUIT. SHALL BE (2)#12AWG & (1)#12EG IN 3/4"C. PANELBOARD AS INDICATED. PROVIDE 3/4"C TO ALL PUSH BUTTON LOCATIONS. PROVIDE SSU-PAM-1 RELAY TO INTERRUPT EXTERIOR DOOR PUSH BUTTON UNLESS VALID CREDENTIAL IS PRESENTED. TIE BACK TO ACCESS CONTROL EQUIPMENT.

4 COORDINATE FINAL LOCATION OR RECEPTACLES IN MILLWORK WITH ARCHITECT.

5 COORDINATE LOCATION OF RECEPTACLE FOR ELECTRIC WATER COOLER WITH PLUMBING CONTRACTOR AND FINAL APPROVED SUBMITTALS.

6 RECEPTACLE TO BE MOUNTED UNDER COUNTER FOR AV EQUIPMENT.

7 NEW POKETHRU. PROVIDE NEW CORE TO HOUSE POWER, DATA, AND AV PROVISIONS IN 8" POKETHRU.

8 CEILING MOUNTED RECEPTACLE FOR AV DEVICE.

9 COORDINATE FINAL LOCATION WITH FIRE ALARM PULL STATION.

10 COORDINATE FINAL LOCATION WITH CARD READER.

11 DEDICATED RECEPTACLE FOR REFRIGERATOR.

12 CIRCUIT TO EXTEND TO BOLLARD LIGHTS TO FEED INTEGRAL RECEPTACLE. CIRCUIT TO BE SEPARATE FROM LIGHTING CIRCUIT.

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FLOOR PLAN - LEVEL 02 - POWER

TRUE NORTH
PROJECT NORTH

E211

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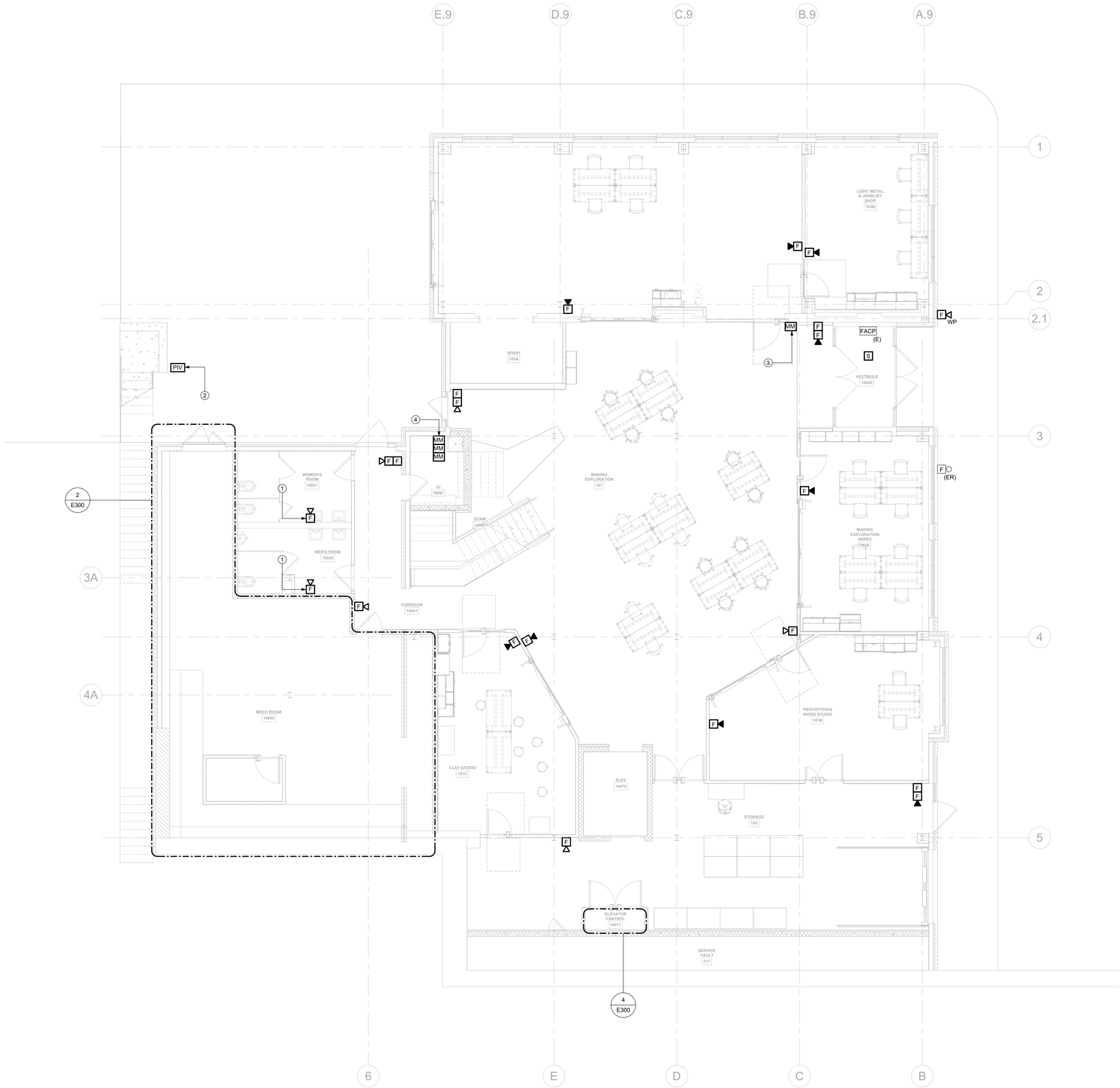

1 FLOOR PLAN - LEVEL 01 - FIRE ALARM
3/16" = 1'-0"

GENERAL NOTES

A REFEED ALL EXISTING FIRE ALARM DEVICES AND LOCATIONS AS REQUIRED BY EXTENT OF DEMOLITION.

ⓧ DRAWING NOTES:

1 INSTALL NEW FIRE ALARM DEVICE IN BACK BOX LEFT IN PLACE FROM PREVIOUS DEVICE.

2 COORDINATE FINAL LOCATION OF POST INDICATOR VALVE IN FIELD.

3 MONITORING MODULE FOR AED DEVICE.

4 PROVIDE FIRE ALARM CONNECTIONS FOR THE FOLLOWING DRY SPRINKLER SYSTEM COMPONENTS:
1. DRY PILOT LINE SUPERVISORY/ALARM SWITCH
2. WATER FLOW ALARM PRESSURE SWITCH
3. TAMPER SWITCH ON MAIN WATER SUPPLY CONTROL VALVE
COORDINATE REQUIREMENTS, CONNECTIONS, AND LOCATION WITH FINAL APPROVED FIRE PROTECTION SUBMITTALS AND SHOP DRAWINGS.

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FLOOR PLAN - LEVEL 01 - FIRE ALARM

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1 FLOOR PLAN - LEVEL 02 - FIRE ALARM
3/16" = 1'-0"

GENERAL NOTES

A REFEED ALL EXISTING FIRE ALARM DEVICES AND LOCATIONS AS REQUIRED BY EXTENT OF DEMOLITION.

DRAWING NOTES:

1 INSTALL NEW FIRE ALARM DEVICE IN BACK BOX LEFT IN PLACE FROM PREVIOUS DEVICE.

2 SMOKE DETECTOR FOR ELEVATOR RECALL.

3 SMOKE DETECTOR FOR ELEVATOR RECALL. MOUNT SMOKE DETECTOR ON WALL ABOVE ELEVATOR DOOR.

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FLOOR PLAN - LEVEL 02 - FIRE ALARM

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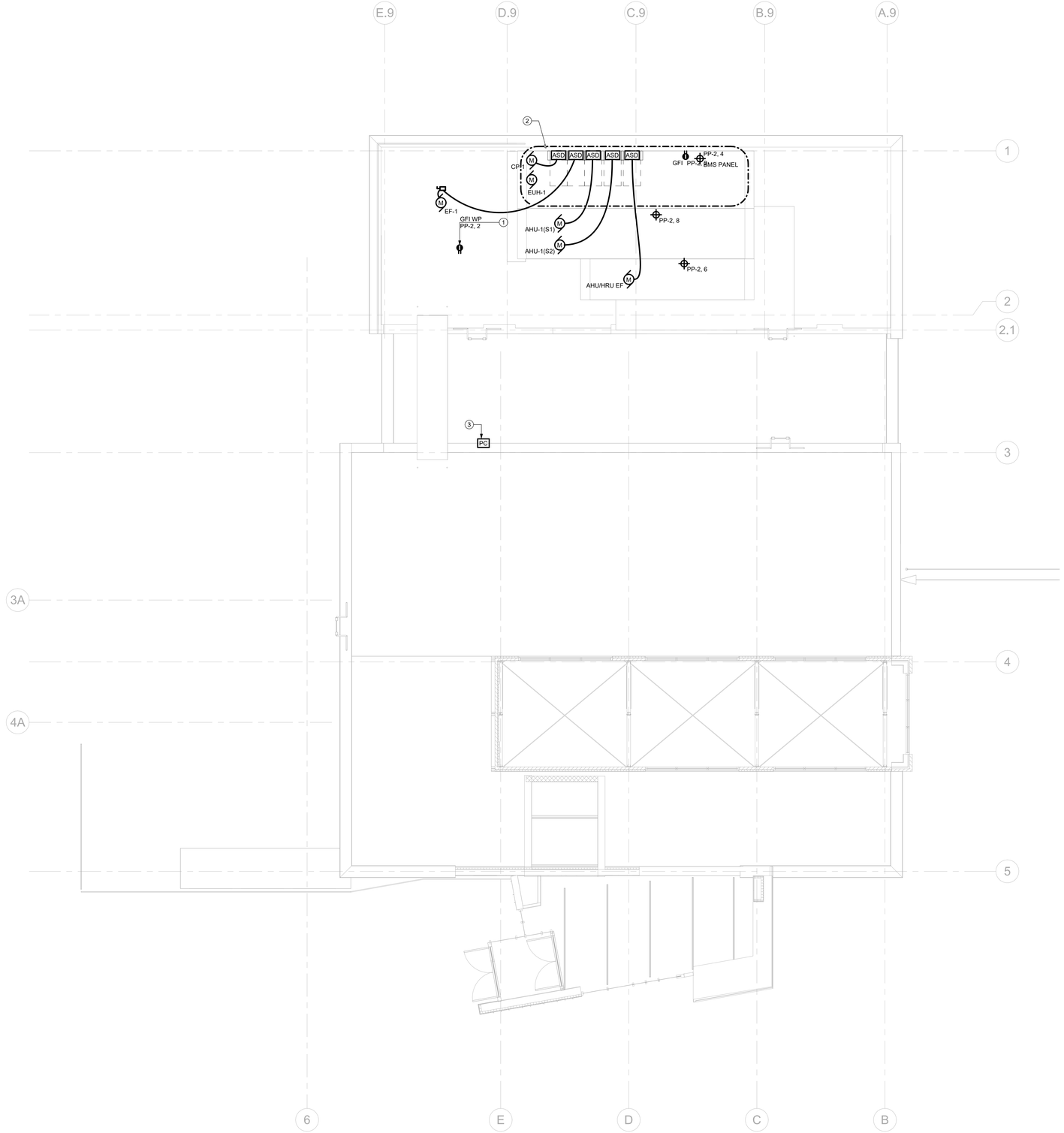

1 ROOF PLAN - POWER
3/16" = 1'-0"

GENERAL NOTES

DRAWING NOTES:

1 INSTALL GFCI WEATHERPROOF RECEPTACLE WITHIN 25'-0" OF EQUIPMENT PER NEC. MOUNT ON STAINLESS STEEL UNISTRUT.

2 INSTALL DEVICES AND DRIVES WITHIN AHU VESTIBULE. ENSURE WORKING CLEARANCES ARE MAINTAINED FOR ELECTRICAL EQUIPMENT AND FOR ALL AIR HANDLER REQUIREMENTS.

3 WALL-MOUNTED NORTH-FACING PHOTOCELL. COORDINATE LOCATION WITH EXISTING ROOF COMPONENTS. DO NOT BLOCK ACCESS LADDERS OR WALKING PATHWAYS. TO BE FLUSH-MOUNTED, 120V PHOTOCELL IN SURFACE-MOUNTED SINGLE-GANG BACK BOX. REFER TO DETAILS ON DRAWING E200.

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ROOF PLAN - ELECTRICAL

TRUE NORTH
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E230

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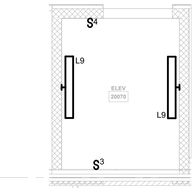
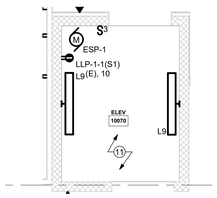
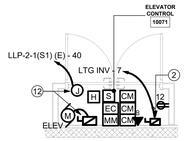
2 ENLARGED PLAN - MECHANICAL ROOM
3/8" = 1'-0"



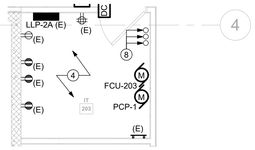
6 ENLARGED PLAN - ELEVATOR HOISTWAY TOP
1/4" = 1'-0"



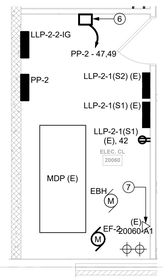
5 ENLARGED PLAN - ELEVATOR HOISTWAY PIT
1/4" = 1'-0"



4 ENLARGED PLAN - ELEVATOR CONTROL
1/4" = 1'-0"



3 ENLARGED PLAN - TELECOM ROOM - ELECTRICAL
1/4" = 1'-0"



1 ENLARGED PLAN - ELECTRICAL CLOSET - ELECTRICAL
1/4" = 1'-0"

DRAWING NOTES:

1 LIGHTING INVERTER FOR EMERGENCY LIGHTING. PROVIDE (1) 208V, 50A, 2P CIRCUIT FROM PANELBOARD PP-1. INVERTER TO HAVE (18) TOTAL 120V OUTPUT CIRCUITS. (8) 15A, 1P AND (10) 20A, 1P. BASIS OF DESIGN CRUCIAL POWER WAVERIDER 1 - 8KW.

2 DISCONNECT FOR ELEVATOR CAB LIGHTING. 20A, 1P CAB LIGHTING CIRCUIT SHALL BE FED FROM A DEDICATED CIRCUIT IN LIGHTING INVERTER IN MECH ROOM. PROVIDE 15A FUSE IN DISCONNECT.

3 REFER TO SHEET TE200 FOR ACCESS CONTROL PANEL INFORMATION.

4 REFER TO SHEET TE201 FOR TELECOM DETAILS IN THIS ROOM.

5 POWER CONNECTIONS FOR ACCESS CONTROL EQUIPMENT.

6 BUCK-BOOST TRANSFORMER FOR COFFEE ROBOT. WIRE TO 30A, 2-POLE CIRCUIT BREAKER WITH (2)#10AWG &(1)#10EG IN 3/4"C.

7 EXISTING DATA DROP FOR ELECTRICAL METER.

8 EXISTING DATA CONDUIT.

9 COORDINATE SMOKE DETECTOR MOUNTING WITH ALL ACOUSTICAL CEILING TREATMENTS AND ASSEMBLIES.

10 REFEED BMS CIRCUIT TO ALL BMS PANELS AS REQUIRED BY FINAL CONTROLS SUBMITTAL. EXTEND DESIGNATED BMS CIRCUITS TO FEED ALL PANELS IN PROJECT.

11 PROVIDE PARALLEL SWITCHLEG TO FOUR-WAY SYSTEM IN HOISTWAY THROUGH ELEVATOR CONTROLLER. PROVIDE (3)#12AWG & (1)#12EG IN 3/4"C TO ELEVATOR CONTROLLER FROM HOISTWAY. ALL HOISTWAY FIXTURES TO BE SWITCHED TOGETHER. COORDINATE LOCATION OF ALL HOISTWAY RECEPTACLES, SWITCHES, AND LIGHTS WITH ELEVATOR SHOP DRAWINGS AND REQUIREMENTS.

12 PROVIDE FUSED ELEVATOR DISCONNECT WITH SHUNT-TRIP BREAKER. SHUNT TRIP TO BE TIED TO HEAT DETECTOR IN ELEVATOR CONTROL ROOM. HEAT DETECTOR(S) TO BE INSTALLED WITHIN 2'-0" OF SPRINKLER HEAD(S) IN ELEVATOR CONTROL ROOM. SHUNT TRIP CIRCUIT AS NOTED.

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BID DOCUMENTS

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ENLARGED PLANS - ELECTRICAL

E300

TRUE NORTH PROJECT NORTH

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THE LINE BROKEN ABOVE IS EXACTLY ONE INCH LONG AT THIS PLOTTED SCALE SIZE

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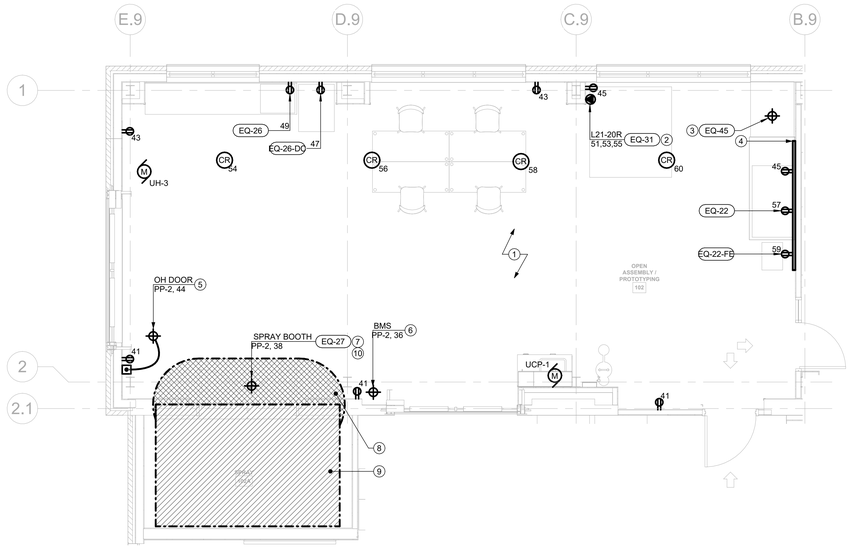
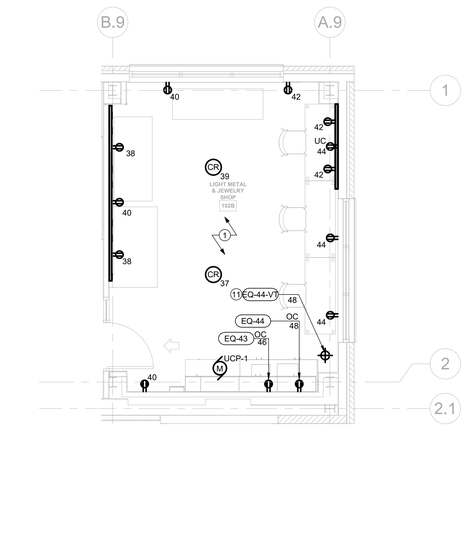
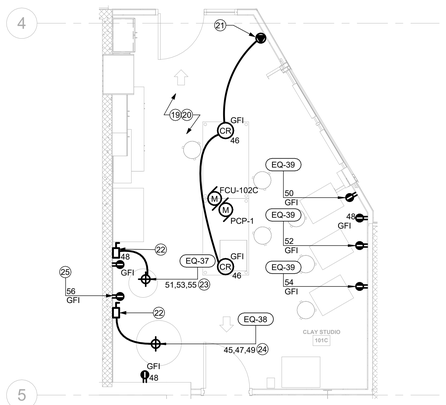


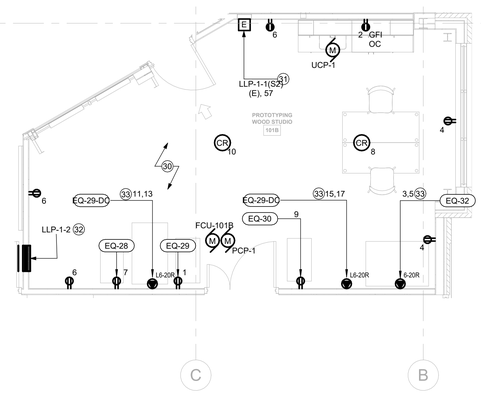
5 FLOOR PLAN - LEVEL 01 OPEN ASSEMBLY AND PROTOTYPING - POWER
1/4" = 1'-0"



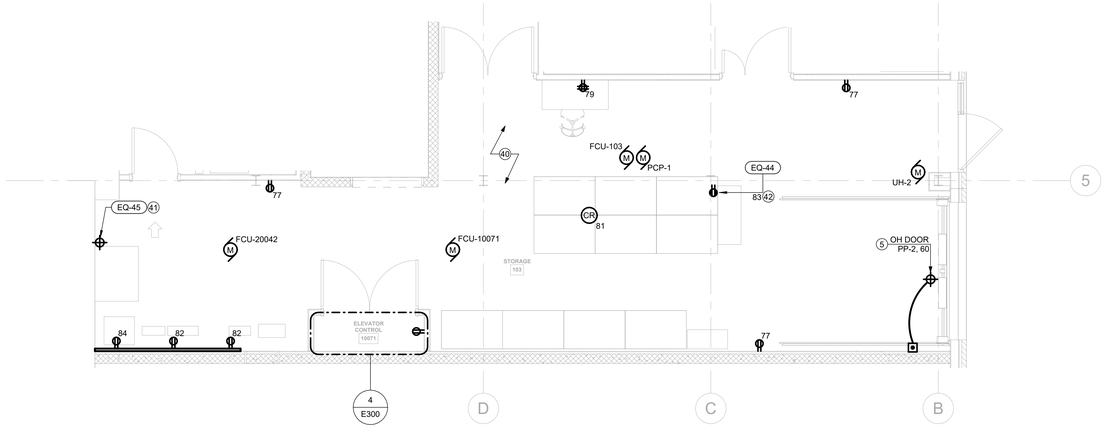
4 FLOOR PLAN - LEVEL 01 PROTOTYPING METAL STUDIO - POWER
1/4" = 1'-0"



3 FLOOR PLAN - LEVEL 01 CLAY STUDIO - POWER
1/4" = 1'-0"



2 FLOOR PLAN - LEVEL 01 PROTOTYPING WOOD STUDIO - POWER
1/4" = 1'-0"



1 FLOOR PLAN - LEVEL 01 STORAGE - POWER
1/4" = 1'-0"

GENERAL NOTES

A COORDINATE LOCATIONS OF ALL RECEPTACLES, EQUIPMENT CONNECTIONS, AND DATA WITH CORNELL PRIOR TO ROUGH IN. COORDINATE ELEVATIONS AND LOCATIONS WITH ARCHITECTURAL ELEVATIONS AND EQUIPMENT LAYOUTS.

B COORDINATE LOCATIONS OF CEILING-MOUNTED CORD REEL RECEPTACLES AND MOUNTING BRACKETS WITH CORNELL PRIOR TO FINAL INSTALLATION. REFER TO CORD REEL DETAIL 2 ON DRAWING E-501 FOR CORD REEL REQUIREMENTS.

C COORDINATE ELEVATIONS OF SURFACE RACEWAY WITH ARCHITECT. ALL RACEWAY TO BE FED FROM CONCEALED BACK-BOXES. REFER TO DETAIL 1 ON DRAWING E501.

D COORDINATE EQUIPMENT CONNECTION REQUIREMENTS WITH OWNER. PROVIDE CORDS, CORD CAPS, AND/OR FLEXIBLE CONNECTIONS TO EQUIPMENT AS REQUIRED FOR CONNECTION AND USE BY OWNER. ALL CORDS, CORDS, CORD CAPS, AND FLEXIBLE EQUIPMENT CONNECTIONS TO BE RATED FOR EQUIPMENT POWER REQUIREMENTS.

ⓧ DRAWING NOTES:

1 UNLESS OTHERWISE NOTED, ALL RECEPTACLES AND CORD REELS IN THIS ROOM TO BE CIRCUITED TO PANELBOARD LLP-2-2.

2 CIRCUIT TO BE (4)#12AWG & (1)#12EG IN 3/4"C. PROVIDE RECEPTACLE AS NOTED. COORDINATE RECEPTACLE REQUIREMENTS WITH FINAL USER EQUIPMENT.

3 PROVIDE (1) #6AWG IN 3/4" EMT TO FLAMMABLE CABINET FOR GROUND. PROVIDE GROUND WIRE FROM PANEL LPP-2-2. SOLIDLY GROUND CONDUIT PATHWAY AT EACH END. PROVIDE 4"X4"X2-1/8" BACK BOX WITH SINGLE-GANG MUD RING. PROVIDE SINGLE-GANG BLANK PLATE WITH GROMMET FOR GROUND WIRE. PROVIDE SOLID CONNECTION TO EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS. LABEL "FLAMMABLE CABINET GROUND" IN PANELBOARD.

4 COORDINATE WIREMOLD LENGTH WITH LOCATION AND SIZE OF FLAMMABLE CABINET.

5 PROVIDE 3/4" CONDUIT FROM FLUSH-MOUNTED CONTROL STATION BACK BOX TO OVERHEAD DOOR OPERATOR. COORDINATE BACK BOX REQUIREMENTS WITH OVERHEAD DOOR OPERATOR REQUIREMENTS. PROVIDE DISCONNECT SWITCH ADJACENT TO POWER CONNECTION FOR OVERHEAD DOOR CONTROLLER. COORDINATE FINAL LOCATION OF SWITCH WITH OWNER. COORDINATE CONNECTION LOCATIONS AND REQUIREMENTS WITH OVERHEAD DOOR INSTALLER.

6 POWER FOR BMS CONTROL PANELS. EXTEND TO ALL LOCATIONS ON THIS LEVEL AS REQUIRED BY FINAL APPROVED BMS CONTROLS SUBMITTAL.

7 PROVIDE 20A, 1P CIRCUIT FOR SPRAY BOOTH LIGHTING AND ACCESSORIES. PROVIDE WIRING TO LIGHTS, INCLUDING SIGNALING WIRING FOR FIXTURE LENS SIGNAL CIRCUIT. COORDINATE LIGHTING CONTROL CONNECTIONS WITH BMS CONTRACTOR. REFER TO ADDITIONAL DRAWING NOTES FOR WIRING METHOD REQUIREMENTS.

8 ALL ELECTRICAL WIRING WITHIN THIS BOUNDARY SHALL BE RATED FOR CLASS I DIVISION 2 GROUP D. BOUNDARY IS A 3' RADIUS AROUND THE OPENING OF THE SPRAY BOOTH DOORWAY. PROVIDE ALL SEALING FITTINGS AS REQUIRED. FOR CONTROLS AND POWER CIRCUITS.

9 ALL ELECTRICAL WIRING WITHIN THE SPRAY BOOTH SHALL BE RATED FOR CLASS I DIVISION 1 GROUP C. PROVIDE ALL SEALING FITTINGS AS REQUIRED. FOR CONTROLS AND POWER CIRCUITS.

10 PROVIDE (1) #6AWG IN 3/4" EMT TO GROUND ALL CONDUCTIVE COMPONENTS ASSOCIATED WITH SPRAY BOOTH AND SERVICES TO SPRAY BOOTH. PROVIDE GROUND WIRE FROM PANEL LPP-2-2. SOLIDLY GROUND PATHWAY AT EACH END. LABEL "SPRAY BOOTH GROUND" IN PANELBOARD.

11 PROVIDE CONNECTION TO KILN VENTILATION UNIT, COORDINATE LOCATION AND CONNECTION REQUIREMENTS WITH OWNER-FURNISHED EQUIPMENT.

19 UNLESS OTHERWISE NOTED, ALL RECEPTACLES AND CORD REELS IN THIS ROOM TO BE CIRCUITED TO EXISTING PANELBOARD LLP-1-1. PROVIDE ALL CIRCUIT BREAKERS IN EXISTING PANELBOARD AS REQUIRED. CIRCUIT BREAKERS TO MATCH EXISTING PANELBOARD MANUFACTURER AND RATINGS.

20 PROVIDE ALL-METAL, EXTRA-DUTY IN-USE COVERS ON ALL WALL RECEPTACLES IN THIS ROOM.

21 PROVIDE 20A BLANK-FACE GFI DEVICE FOR CORD REEL CIRCUIT. INSTALL ADJACENT TO LIGHTING CONTROL BACK BOX. PROVIDE ADHESIVE LABEL ON COVERPLATE "CORD REEL GFI." PROVIDE LABEL "GFCI PROTECTED" ON COVER OF CEILING RECEPTACLE WITH CIRCUIT LABEL.

22 PROVIDE 60A, NON-FUSED, NEMA 3R/12 RATED SAFETY SWITCH FOR KILN. PROVIDE FINAL WIRING TO OWNER-FURNISHED KILN. COORDINATE WITH OWNER FOR FINAL LENGTH OF FLEXIBLE CONNECTION TO EQUIPMENT.

23 CIRCUIT TO 40A, 3P CIRCUIT BREAKER IN EXISTING PANELBOARD. CIRCUIT WITH (3)#6AWG & (1)#10EG IN 3/4"C.

24 CIRCUIT TO 60A, 3P CIRCUIT BREAKER IN EXISTING PANELBOARD. CIRCUIT WITH (3)#6AWG & (1)#10EG IN 3/4"C.

25 RECEPTACLE FOR KILN VENTILATION. COORDINATE LOCATION(S) AS REQUIRED BY FINAL INSTALLATION LOCATION OF PLUG-IN KILN VENT. PROVIDE ADHESIVE LABEL ON IN-USE COVER "KILN VENTILATION RECEPTACLE". DEVICE TO BE GFCI WITH INTEGRAL ALARM - LEGRAND #2097TRAAPLW OR EQUIVALENT.

30 UNLESS OTHERWISE NOTED, ALL RECEPTACLES AND CORD REELS IN THIS ROOM TO BE CIRCUITED TO SHUNT-TRIP PANELBOARD LLP-1-2.

31 PROVIDE FLUSH-MOUNTED EMERGENCY-STOP BUTTON ADJACENT TO LIGHTING CONTROLS. PROVIDE 20A, 1P CIRCUIT THROUGH EMERGENCY-STOP BUTTON TO SHUNT-TRIP MODULE ON THE MAIN CIRRCUIT BREAKER IN PANELBORD PPL-1-2. WIRING TO BE (2)#12AWG & (1)#12EG IN 3/4"C.

32 PANELBOARD FACES INTO ADJACENT SPACE. PROVIDE 120V SHUNT-TRIP MAIN CIRCUIT BREAKER. PROVIDE LABEL ON PANELBOARD WITH SOURCE OF SHUNT-TRIP CIRCUIT.

33 PROVIDE (2)#12AWG & (1)#12EG IN 3/4"C TO 20A, 2P CIRCUIT BREAKER. PROVIDE RECEPTACLE OF TYPE NOTED. PROVIDE SO CORD AND CONRD CAP FOR OWNER-FURNISHED EQUIPMENT. COORDINATE WITH OWNER FOR FINAL LENGTH OF CORD.

40 UNLESS OTHERWISE NOTED, ALL RECEPTACLES AND CORD REELS IN THIS ROOM TO BE CIRCUITED TO EXISTING PANELBOARD LLP-1-1. PROVIDE ALL CIRCUIT BREAKERS IN EXISTING PANELBOARD AS REQUIRED. CIRCUIT BREAKERS TO MATCH EXISTING PANELBOARD MANUFACTURER AND RATINGS.

41 PROVIDE (1) #6AWG IN 3/4" EMT TO FLAMMABLE CABINET FOR GROUND. PROVIDE GROUND WIRE FROM PANEL LPP-2-2. SOLIDLY GROUND CONDUIT PATHWAY AT EACH END. PROVIDE 4"X4"X2-1/8" BACK BOX WITH SINGLE-GANG MUD RING. PROVIDE SINGLE-GANG BLANK PLATE WITH GROMMET FOR GROUND WIRE. PROVIDE SOLID CONNECTION TO EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS. LABEL "FLAMMABLE CABINET GROUND" IN PANELBOARD.

42 RECEPTACLE TO BE INSTALLED ON COLUMN AND TO BE WIRED FROM ABOVE. RECEPTACLE TO SERVE BATTERY CABINET. COORDINATE RECEPTACLE WITH OWNER-FUNISHED EQUIPMENT WITHIN REACH OF CORD.

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ENLARGED PLANS - LEVEL 01 - POWER

TRUE NORTH PROJECT NORTH

E310

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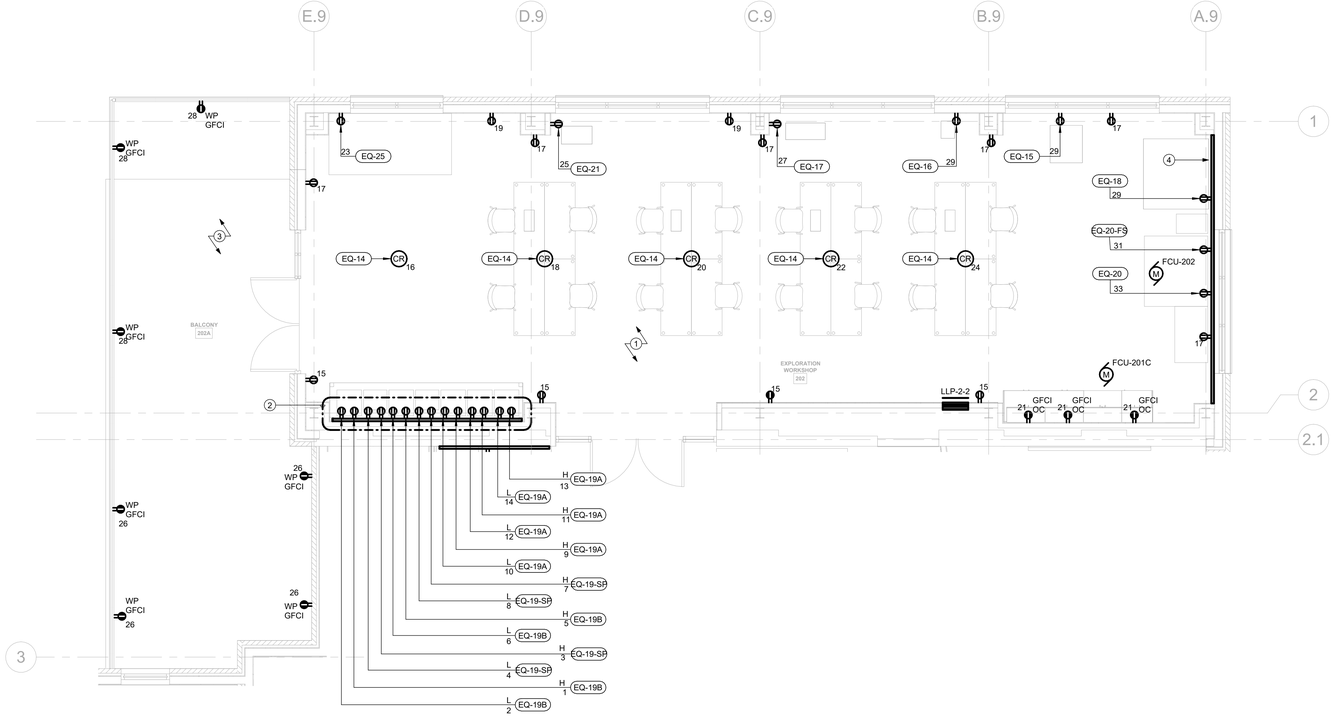
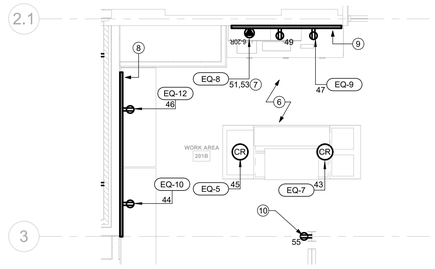
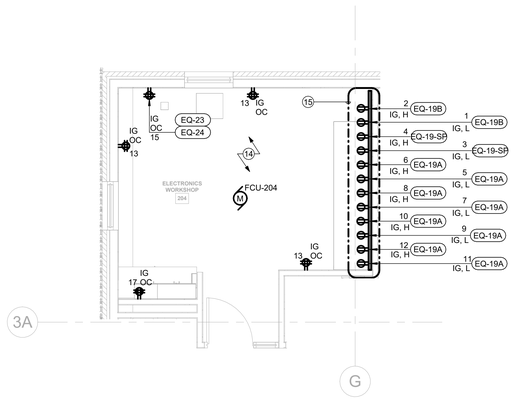


4 FLOOR PLAN - LEVEL 02 EXPLORATION WORKSHOP - POWER
1/4" = 1'-0"



3 FLOOR PLAN - LEVEL 02 WORK AREA - POWER
1/4" = 1'-0"

2 FLOOR PLAN - LEVEL 02 MEDIA STUDIO - POWER
1/4" = 1'-0"



1 FLOOR PLAN - LEVEL 02 ELECTRONICS WORKSHOP - POWER
1/4" = 1'-0"

GENERAL NOTES

A COORDINATE LOCATIONS OF ALL RECEPTACLES, EQUIPMENT CONNECTIONS, AND DATA WITH CORNELL PRIOR TO ROUGH IN. COORDINATE ELEVATIONS AND LOCATIONS WITH ARCHITECTURAL ELEVATIONS AND EQUIPMENT LAYOUTS.

B COORDINATE LOCATIONS OF CEILING-MOUNTED CORD REEL RECEPTACLES AND MOUNTING BRACKETS WITH CORNELL PRIOR TO FINAL INSTALLATION. REFER TO CORD REEL DETAIL 2 ON DRAWING E-501 FOR CORD REEL REQUIREMENTS.

C COORDINATE ELEVATIONS OF SURFACE RACEWAY WITH ARCHITECT. ALL RACEWAY TO BE FED FROM CONCEALED BACK-BOXES. REFER TO DETAIL 1 ON DRAWING E501.

D COORDINATE EQUIPMENT CONNECTION REQUIREMENTS WITH OWNER. PROVIDE CORDS, CORD CAPS, AND/OR FLEXIBLE CONNECTIONS TO EQUIPMENT AS REQUIRED FOR CONNECTION AND USE BY OWNER. ALL CORDS, CORDS, CORD CAPS, AND FLEXIBLE EQUIPMENT CONNECTIONS TO BE RATED FOR EQUIPMENT POWER REQUIREMENTS.

ⓧ DRAWING NOTES:

1 UNLESS OTHERWISE NOTED, ALL RECEPTACLES AND CORD REELS IN THIS ROOM TO BE CIRCUITED TO PANELBOARD LLP-2-2.

2 PROVIDE (1) SECTION OF DUAL-CHANNEL RACEWAY AT 3'-6" AFF AND (1) SECTION OF DUAL-CHANNEL RACEWAY AT 5'-0" AFF TO SERVE TWO-TIER 3D-PRINTER SHELVING UNIT. DEVICES DESIGNATED WITH (H) ARE TO BE INSTALLED IN UPPER RACEWAY. DEVICES DESIGNATED WITH (L) TO BE INSTALLED IN LOWER RACEWAY.

3 ALL RECEPTACLES ALONG RAILING TO BE SURFACE-MOUNTED TO VERTICAL RAILING SUPPORTS. COORDINATE WITH RAILING DETAILS. PROVIDE ALL-METAL, EXTRA DUTY IN-USE COVERS ON ALL EXTERIOR RECEPTACLES. PROVIDE 20A, 1P GFCI CIRCUIT BREAKER FOR EACH EXTERIOR RECEPTACLE CIRCUIT.

4 PROVIDE (1) SECTION OF DUAL-CHANNEL RACEWAY AT 1'6" AFF. PROVIDE CONCEALED RACEWEAY FOR POWER AND DATA. REFER TO RACEWAY DETAIL.

5 PROVIDE CIRCUIT AS NOTED FOR FUTURE OWNER-FURNISHED LUMINAIRE OR OTHER INSTALLATION. PROVIDE CIRCUIT TO SINGLE-GANG BACK BOX AS NOTED. PROVIDE 3/4" PATHWAY FROM SWITCH LOCATION TO CEILING-MOUNTED JUNCTION BOX. COORDINATE LOCATION OF JUNCTION BOX WITH ARCHITECT. PROVIDE SINGEL-GANG BLANK PLATE. ON BACK SIDE OF PLATE PROVIDE PERMANENT ADHESIVE LABEL "FUTURE STAIRWELL LIGHT".

6 UNLESS OTHERWISE NOTED, ALL RECEPTACLES AND CORD REELS IN THIS AREA TO BE CIRCUITED TO EXISTING PANELBOARD LLP-2-1. PROVIDE CIRCUIT BREAKERS AS REQUIRED IN EXISTING PANELBOARD. CIRCUIT BREAKERS TO MATCH EXISTING MANUFACTURER AND RATINGS.

7 PROVIDE (2)#12AWG & (1)#12EG IN 3/4"C TO 20A, 2P CIRCUIT BREAKER. CONFIRM RECEPTACLE TYPE WITH OWNER PRIOR TO FINAL INSTALLATION.

8 PROVIDE (1) SECTION OF DUAL-CHANNEL SURFACE-MOUNTED RACEWAY AT 1'6" AFF. PROVIDE CONCEALED RACEWAY FOR POWER AND DATA. REFER TO RACEWAY DETAIL.

9 PROVIDE (1) SECTION OF DUAL-CHANNEL RACEWAY ABOVE COUNTER. PROVIDE CONCEALED RACEWAY FOR POWER AND DATA. REFER TO RACEWAY DETAIL, COORDINATE ELEVATION OF SURFACE-MOUNTED RACEWAY WITH ARCHITECTURAL ELEVATIONS AND MILLWORK COMPONENTS.

10 POWER AND DATA TO BE MOUNTED TO COLUMN. COORDINATE LOCATION IN FIELD WITH OWNER.

11 UNLESS OTHERWISE NOTED, ALL RECEPTACLES IN THIS ROOM TO BE CIRCUITED TO EXISTING PANELBOARD LLP-2-1.

12 COORDINATE FINAL LOCATION OF QUAD RECEPTACLE WITH OWNER. RECEPTACLE TO BE MOUNTED ON FINAL TUBING/SUPPORT/LIGHTING STRUCTURE PER OWNER REQUIREMENTS. CIRCUIT AS NOTED. PROVIDE INDUSTRIAL-STYLE BOX COVER AND DEVICE HOLDER.

13 PROVIDE #6AWG GROUND WIRE FROM EXISTING PANELBOARD LLP-2-1 TO SOLIDLY GROUND SUPPORT STRUCTURE. COORDINATE LOCATION AND CONNECTION METHOD WITH OWNER.

14 ALL RECEPTACLES TO BE ISOLATED GROUND TYPE IN THIS ROOM UNLESS OTHERWISE NOTED. CIRCUIT TO LLP-2B-IG WITH (2)#12AWG, (1)#12IG, & (1)#12EG. EQUIPMENT GROUND CONDUCTOR TO BE CONNECTED TO BACK BOX. ISOLATED GROUND CONDUCTOR TO BE CONNECTED ONLY TO ISOLATED GROUND RECEPTACLE AND ISOLATED GROUND BAR IN PANELBOARD.

15 PROVIDE (1) SECTION OF DUAL-CHANNEL RACEWAY AT 3'-6" AFF AND (1) SECTION OF DUAL-CHANNEL RACEWAY AT 5'-0" AFF TO SERVE TWO-TIER 3D-PRINTER SHELVING UNIT. DEVICES DESIGNATED WITH (H) ARE TO BE INSTALLED IN UPPER RACEWAY. DEVICES DESIGNATED WITH (L) TO BE INSTALLED IN LOWER RACEWAY.

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ENLARGED PLANS - LEVEL 02 - POWER

E311

TRUE NORTH PROJECT NORTH

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ⓧ DRAWING NOTES:

1 EXISTING TRANSFORMER TO BE RELOCATED. REFER TO SITE PLAN ON SHEET E010 FOR MORE INFORMATION. PROVIDE GROUNDING PER TRANSFORMER PAD DETAIL ON DRAWING E500.

2 PROVIDE DEAD-BREAK ELBOWS.

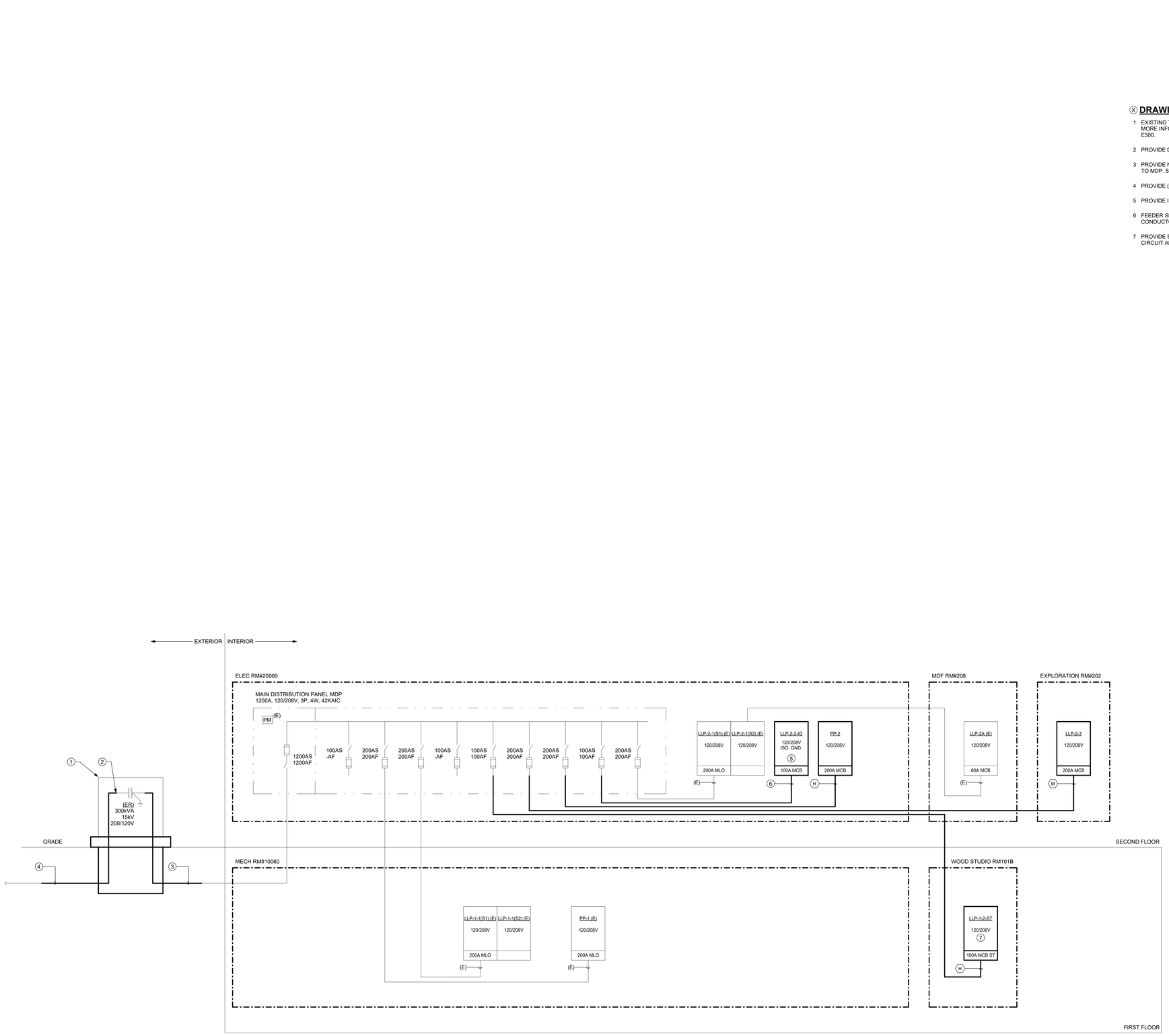
3 PROVIDE NEW CONDUCTOR FROM EXISTING EQUIPMENT TO RELOCATED TRANSFORMER TO MDP. SHALL BE (3) SETS OF (4)750KCMIL & (1)#4/0EG IN 4"C.

4 PROVIDE (3)#1, 15kV CABLES IN ACTIVE CONDUIT. PROVIDE PULL ROPE IN SPARE CONDUIT.

5 PROVIDE ISOLATED GROUND BAR IN PANELBOARD.

6 FEEDER SHALL BE (4)#3AWG, (1)#8EG, & (1)#8IG IN 1-1/4"C. ISOLATED GROUND (IG) CONDUCTOR TO HAVE GREEN WITH YELLOW STRIPE INSULATION.

7 PROVIDE SHUNT-TRIP MAIN CIRCUIT BREAKER. REFER TO DRAWING E310 FOR SHUNT TRIP CIRCUIT AND EMERGENCY STOP BUTTON DETAILS AND REQUIREMENTS.



2 ONE LINE DIAGRAM - POWER (NEW WORK)
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AM JOB NO.
24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

ONE LINE DIAGRAM - POWER

E400

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FIRE ALARM NOTES:

A. DEVICES SHOWN ARE DIAGRAMMATICALLY ONLY. FOR EXACT LOCATIONS AND QUANTITIES SEE FLOOR PLANS.

B. ALL WIRING SHALL BE CLASS A FOR INITIATING CIRCUIT AND CLASS A FOR NOTIFICATION CIRCUITS. REFER TO SECTION 283102 OF THE SPECIFICATION FOR ADDITIONAL FIRE ALARM SYSTEM REQUIREMENTS.

C. ALL FIRE ALARM SYSTEM RACEWAY SIZES AND CIRCUITRY REQUIREMENTS SHALL BE IN ACCORDANCE WITH EQUIPMENT MANUFACTURERS RECOMMENDATIONS AND ALL CODES THAT MAY APPLY.

D. CABLING MUST BE UNIQUELY IDENTIFIED AND LABELED, AND A PERMANENT, ACCURATE RECORD OF THE IDENTIFICATION AND USE OF EACH ABLE MUST BE MADE AT THE TIME OF INSTALLATION. LABELING IS TO BE DONE WITH PERMANENT MARKERS ON CLEAR MYLAR TAPE. THE TAPE SHALL BE LONG ENOUGH SO WHEN WRAPPED ROUND THE CABLE IT WILL WRAP OVER ITSELF, PROTECTING THE WRITING.

E. FACP AND OTHER PANELS SHALL BE MOUNTED WITH CLEARANCES FOR OBSERVATION AND TESTING. ALL OTHER FIRE ALARM JUNCTION BOXES SHALL BE MARKED FOR IDENTIFICATION.

F. PROVIDE 120V, 20A DEDICATED BRANCH CIRCUITS FROM THE LOCAL AREA PANELBOARD TO CONTROL PANELS, TERMINAL CABINETS, ETC. AS REQUIRED. THE CIRCUIT BREAKER SHALL BE CLEARLY MARKED "FIRE ALARM CIRCUIT CONTROL" IN THE PANELBOARD DIRECTORY. PROVIDE CIRCUIT BREAKER LOCKS ON ALL BREAKERS ASSOCIATED WITH FIRE ALARM EQUIPMENT.

G. SPACE DETECTORS IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDED DISTANCE. PROVIDE ADDITIONAL DETECTORS WHERE REQUIRED.

H. ALL LOW VOLTAGE FIRE ALARM CIRCUITS MAY OCCUPY A COMMON CONDUIT. RUN AC POWER AND CONTROL WIRING (FAN SHUTDOWN, ETC.) IN SEPARATE CONDUIT. DO NOT RUN WITH ANY OTHER FIRE ALARM SYSTEM WIRING IN A COMMON CONDUIT.

I. ALL CONDUIT, MOUNTING BOXES AND PANELS SHALL BE HUNG AND FASTENED WITH FITTINGS TO ENSURE POSITIVE GROUNDING THROUGHOUT THE ENTIRE SYSTEM.

J. TRANSPOSING OR CHANGING COLOR CODING OF WIRES IS NOT PERMITTED. ALL CONDUCTORS IN CONDUIT CONTAINING MORE THAN ONE WIRE SHALL BE LABELED ON EACH END WITH "E-Z MARKERS".

K. CONDUCTORS IN CABINETS SHALL BE FORMED AND HARNESSED SO THAT EACH DROPS OFF DIRECTLY OPPOSITE ITS TERMINAL.

L. ALL WIRING SHALL BE CHECKED AND TESTED TO ENSURE THAT THERE ARE NO GROUNDS, OPENS, OR SHORTS.

M. WIRING COLOR CODES SHALL BE CONSISTENT THROUGHOUT THE SYSTEM AND SHALL ALLOW FOR EASY IDENTIFICATION OF INITIATING, INDICATING AND AUXILIARY CONTROL CIRCUITS.

N. THE FIRE ALARM RISER DENOTES THE GENERAL ARRANGEMENT OF THE SYSTEM WITH TYPICAL DEVICES AND MINIMUM QUANTITIES OF TERMINAL CABINETS & POWER BOOSTERS. PROVIDE ADDITIONAL TERMINAL CABINETS, BOOSTERS, ETC. AS REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.

O. ALL FIRE ALARM SYSTEM JUNCTION BOXES SHALL BE PAINTED RED WITH STENCIL LETTERING INDICATING "FIRE ALARM SYSTEM".

P. WIRING INDICATED ON THE RISER DIAGRAM IS DIAGRAMMATIC ONLY. IT IS NOT INTENDED TO INDICATE ROUTING OR QUANTITY OF WIRES REQUIRED. PROVIDE WIRING FOR A COMPLETE SYSTEM AS REQUIRED BY SYSTEM MANUFACTURER.

Q. REFER TO FLOOR PLANS FOR EQUIPMENT LOCATIONS.

R. PROVIDE MONITOR MODULES FOR INDICATION AT FIRE ALARM CONTROL PANEL OF THE FIRE PUMP RUNNING, FIRE PUMP FAULT AND FIRE PUMP POWER LOSS.

S. ALL FIRE ALARM WIRING SHALL BE INSTALLED IN RED 3/4" EMT CONDUIT.

T. PROVIDE CO DETECTION AND ASSOCIATED NOTIFICATION AS PER NYS BUILDING CODE.

U. BATTERIES SHALL BE FOR 60 HOURS OF USAGE.

FIRE ALARM NOTES:

1. MANUAL FIRE ALARM BOXES: MOUNTING HEIGHT 42-48 INCHES TO HANDLE. LOCATE NO MORE THAN 5 FEET FROM THE ENTRANCE TO AN EXIT. LOCATE ON THE LATCH SIDE OF DOOR, IF POSSIBLE. BOXES ARE TO BE CONSPICUOUS, UNOBSTRUCTED, AND ACCESSIBLE.

2. SPOT TYPE HEAT AND SMOKE DETECTORS: FOR SMOOTH CEILINGS, ALL POINTS ON THE CEILING SHALL HAVE A DETECTOR WITHIN 0.7 TIMES THE DETECTOR SPACING. SPACING IS 30 FEET FOR SMOKE DETECTORS AND 50 FEET FOR HEAT DETECTORS. PROVIDE A SPACING OF 3 FEET OR MORE FROM SUPPLY AND RETURN DIFFUSERS. COORDINATE TRADES BY MEANS OF THE REFLECTED CEILING PLAN. (IF DESIGN CONDITIONS OTHER THAN SMOOTH CEILINGS OR CEILING HEIGHTS OVER 12 FEET ARE ENCOUNTERED, SHOW CONDITIONS AND GIVE REASONS FOR COVERAGE DESIGN.)

3. DOOR RELEASE: SMOKE DETECTION PROVIDING AREA COVERAGE ON EITHER SIDE OF THE DOORS MAY BE USED FOR DOOR RELEASE. SMOKE DETECTORS, WHICH ARE PROVIDED FOR DOOR RELEASE ONLY, SHALL BE ON THE CENTERLINE OF DOORWAY AND NOT MORE THAN 5 FEET FROM DOOR.

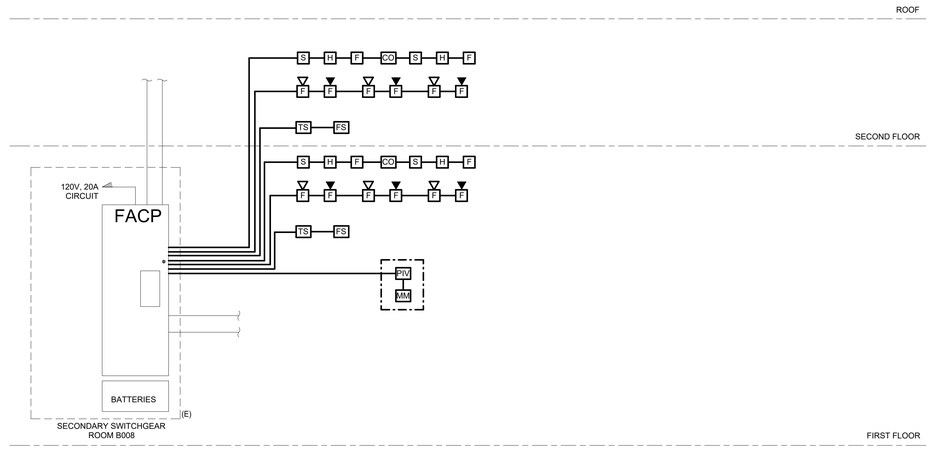
4. VISUAL AND COMBINATION AUDIBLE/VISUAL NOTIFICATION APPLIANCES: THE ENTIRE LENS SHALL BE WITHIN 80 INCHES-96 INCHES ABOVE THE FLOOR, DEPENDING ON CEILING HEIGHT, HIGHER MOUNTING IS PREFERRED. VISIBLE APPLIANCES SHALL BE LOCATED NOT MORE THAN 15 FEET FROM END OF THE CORRIDOR, WITH A SEPARATION NOT GREATER THAN 100 FEET BETWEEN APPLIANCES IN CORRIDORS. LOCATE AN APPLIANCE OPPOSITE EACH ACCESS DOOR TO AN EXIT STAIR SO THAT IT WILL BE VISIBLE TO PERSONS ENTERING THE FLOOR FROM THE EXIT STAIR.

5. AUDIBLE NOTIFICATION APPLIANCES: TOP OF DEVICE NOT LESS THAN 90 INCHES ABOVE FLOOR OR NOT LESS THAN 6 INCHES BELOW CEILING.

6. FIRE ALARM CONTROL PANELS, ANNUNCIATOR PANELS, WARDEN STATIONS, ETC.: MOUNT IN ACCESSIBLE LOCATION APPROXIMATELY 5 FEET IN HEIGHT TO PANEL DISPLAY READOUT. ALL PANELS SHALL HAVE 36 INCHES OF WORKING CLEARANCE IN FRONT OF PANEL.

7. REMOTE TEST STATIONS FOR DUCT DETECTORS AND BEAM DETECTORS: MOUNT APPROXIMATELY 5 FEET HIGH IN AN ACCESSIBLE AND CONSPICUOUS LOCATION.

8. ADDRESSABLE CONTROL DEVICES SHALL BE LOCATED WITHIN 3 FEET OF THE CONTROLLED DEVICE, SUCH AS VENTILATION FAN OR ELEVATOR CONTROLLER. ADDRESSABLE MONITOR DEVICES SHALL BE LOCATED ADJACENT TO MONITORED DEVICE.



1 FIRE ALARM ONE LINE DIAGRAM
NTS

GENERAL NOTES

A. FIRE ALARM CONTROL PANEL IS EXISTING TO REMAIN. REFEED ALL EXISITNG TO REMAIN FIRE ALARM COMPONENTS AS REQUIRED DUE TO DEMOLITION OF INTERMEDIARY WIRING AND DEVICES.

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RISER DIAGRAM - FIRE ALARM

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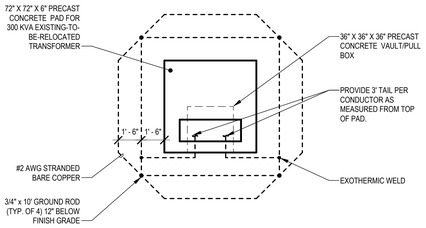


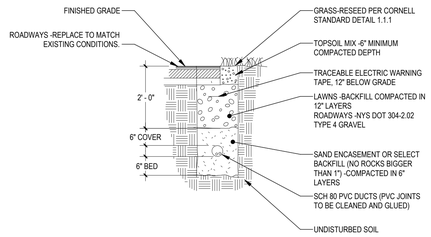
GENERAL DETAIL NOTES:

A. ALL CONNECTIONS FROM CONDUCTOR TO CONDUCTOR OR CONDUCTOR TO GROUND ROD TO BE EXOTHERMICALLY WELDED.

B. ROUTE GROUND CABLES THROUGH VAULT/PULL BOX LOCATED UNDER PRECAST CONCRETE PAD AND THROUGH PAD OPENING.

C. COORDINATE PAD OPENINGS WITH EXISTING TRANSFORMER CONFIGURATION AND REQUIREMENTS.

7 PRECAST CONCRETE PAD AND PULL BOX DETAIL
NTS



GENERAL DETAIL NOTES:

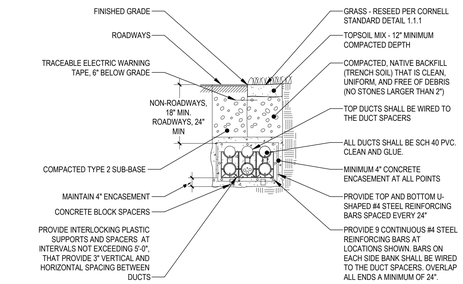
A. DIRECT BURIED CABLES NOT ALLOWED.

B. SEAL DUCTS AT END OF DAY DURING CONSTRUCTION.

C. CONTRACTOR TO CONTACT CORNELL FACILITIES ENGINEERING TO GPS AND PHOTOGRAPH LOCATION PRIOR TO BACKFILLING TRENCH.

D. PULL MANDREL THROUGH WITH REPRESENTATIVES OF CORNELL UTILITIES TO WITNESS.

6 DIRECT BURIED CONDUIT DETAIL
NTS



GENERAL DETAIL NOTES:

A. MAINTAIN 4" OF CONCRETE UNDER DUCTS AT ALL TIMES. USE CONCRETE BLOCK SUPPORTS.

B. MINIMUM 12" CLEAR FROM OTHER UTILITIES; USE RIGID INSULATION AS REQUIRED TO SEPARATE DUCTBANK CONCRETE FROM OTHER UTILITIES CROSSED.

C. CONTRACTOR TO CONTACT CORNELL FACILITIES ENGINEERING TO GPS AND PHOTOGRAPH LOCATION PRIOR TO BACKFILLING TRENCH.

5 DUCTBANK DETAIL
NTS

COPPER FEEDER SIZE SCHEDULE (600V)										
OCPD RATING	3-WIRE FEEDER AND EQUIPMENT GROUNDING CONDUCTOR (EGC)					4-WIRE FEEDER AND EQUIPMENT GROUNDING CONDUCTOR (EGC)				
	IDENT.	NUMBER OF SETS	WIRE SIZE	EGC	EMT CONDUIT	IDENT.	NUMBER OF SETS	WIRE SIZE	EGC	EMT CONDUIT
20	A1	1	12	12	3/4"	A	1	12	12	3/4"
25,30	B1	1	10	10	3/4"	B	1	10	10	3/4"
35,40	C1	1	8	10	3/4"	C	1	8	10	3/4"
45	D1	1	6	10	3/4"	D	1	8	10	3/4"
50,60	E1	1	6	10	3/4"	E	1	6	10	1"
70,80	F1	1	4	8	1"	F	1	4	8	1 1/4"
90	G1	1	3	8	1"	G	1	3	8	1 1/4"
100	H1	1	2	8	1 1/4"	H	1	3	8	1 1/4"
110	I1	1	2	6	1 1/4"	I	1	2	6	1 1/4"
125	J1	1	2	6	1 1/4"	J	1	1	6	1 1/2"
150	K1	1	1/0	6	1 1/2"	K	1	1/0	6	1 1/2"
175	L1	1	2/0	6	1 1/2"	L	1	2/0	6	2"
200	M1	1	3/0	6	2"	M	1	3/0	6	2"
225	N1	1	4/0	4	2"	N	1	4/0	4	2 1/2"
250	O1	1	4/0	4	2"	O	1	250	4	2 1/2"
300	P1	1	300	4	2 1/2"	P	1	350	4	2 1/2"
350	Q1	1	400	3	2 1/2"	Q	1	500	3	3"
400	R1	1	500	3	2 1/2"	R	1	600	3	3 1/2"
450	S1	1	600	2	3"	S	2	4/0	2	2 1/2"
500	T1	2	4/0	2	2"	T	2	250	2	2 1/2"
600	U1	2	300	1	2 1/2"	U	2	350	1	2 1/2"
700	V1	2	400	1/0	2 1/2"	V	2	400	1/0	3"
800	W1	2	600	1/0	2 1/2"	W	2	600	1/0	4"
1000	X1	3	400	2/0	2 1/2"	X	3	500	2/0	3"
1200	Y1	3	600	3/0	3"	Y	4	400	3/0	3"
1600	Z1	4	600	4/0	3"	Z	5	500	4/0	3"
2000	AA1	5	600	250	3"	AA	6	500	250	3"
2500	BB1	6	600	350	3"	BB	7	600	350	4"
3000	CC1	8	500	400	3"	CC	8	600	400	4"
4000	DD1	10	600	500	3"	DD	11	600	500	4"
5000	EE1	12	600	700	4"	EE	14	600	700	4"
6000	FF1	15	600	800	4"	FF	16	600	800	4"

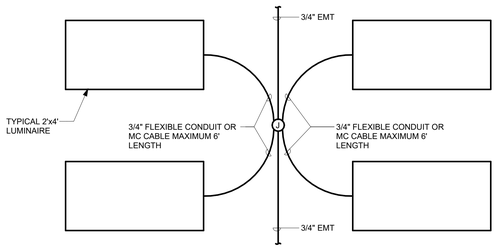
NOTES:

A. WHERE MULTIPLE SETS ARE SPECIFIED, PROVIDE PHASE, NEUTRAL (IF REQUIRED), AND EGC OF WIRE SIZE INDICATED IN EACH CONDUIT. CONDUCTORS AND CONDUITS SHALL BE EQUAL IN LENGTH AND EACH BE OF SAME MANUFACTURER.

B. MINIMUM EMT CONDUIT SIZE IS BASED ON 40% FILL.

C. A 3-WIRE FEEDER IS (3) PHASE CONDUCTORS WHEN PROTECTED BY A 3-POLE OCPD.
A 3-WIRE FEEDER IS (2) PHASE CONDUCTORS AND (1) NEUTRAL CONDUCTOR WHEN PROTECTED BY A 2-POLE OCPD.
A 4-WIRE FEEDER IS (3) PHASE CONDUCTORS & (1) NEUTRAL CONDUCTOR.
A 5-WIRE FEEDER IS (3) PHASE CONDUCTORS & (2) NEUTRAL CONDUCTORS.

4 COPPER FEEDER SCHEDULES
NTS



3 TYPICAL BRANCH CIRCUIT WIRING FOR CEILING
NTS

EQUIPMENT: "INSERT DESIGNATION"

POWER SOURCE: "INSERT SOURCE"

TYPE SUPPLY: INSERT-NORMAL, OR CRITICAL OPERATION POWER, OR OPTIONAL STANDBY, OR LEGALLY REQUIRED, OR LIFE SAFETY EMERGENCY AS APPLICABLE"

VOLTAGE: "INSERT APPLICABLE VOLTAGE-208/120V OR 480/277V, ETC."

CONDUCTOR COLOR CODING:
PHASE A - "BLACK OR BROWN"
PHASE B - "RED OR ORANGE"
PHASE C - "BLUE OR YELLOW"
NEUTRAL - "WHITE OR GRAY"
GROUND - GREEN

AVAILABLE SHORT CIRCUIT CURRENT: "INSERT AMPS RMS"

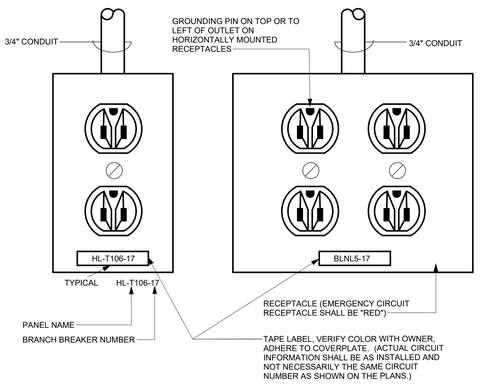
SERVICE OCPD CLEARING TIME: XX SECONDS

"INFORMATION DATE: XX"

DETAIL NOTES:

1. PROVIDE CUSTOM NAMEPLATE AS INDICATED FOR ALL PANELBOARDS, MCC'S, SWITCHBOARDS, SWITCHGEAR, TRANSFER SWITCHES, GENERATORS ETC.
2. NAMEPLATE SHALL BE ENGRAVED (WHITE LETTERING, BLACK BACKGROUND) AND ATTACHED TO THE EQUIPMENT WITH SCREWS. LETTERING SHALL BE 1/4" HIGH WITH SPACE BETWEEN LINES 1/8" MINIMUM. MINIMUM SHALL BE 8"H x 8"W.
3. PROVIDE SAMPLE NAMEPLATE FOR REVIEW.
4. THE AVAILABLE SHORT CIRCUIT AND OCPD CLEARING TIME SHOULD BE PROVIDED AT THE SERVICE ENTRANCE IF GREATER THAN OR EQUAL TO 1200A.

2 EQUIPMENT NAMEPLATE DETAIL
NTS



GENERAL DETAIL NOTES:

A. PROVIDE GREEN GROUND WIRE IN ALL RECEPTACLE CIRCUITS. CONNECT TO GROUND BUS IN PANEL.

B. DO NOT INSTALL RECEPTACLES, COMPUTER OR TELEPHONE OUTLETS BACK TO BACK. INSTALL IN ADJACENT STUD CAVITIES, TO REDUCE SOUND TRANSMISSION.

1 TYPICAL RECEPTACLE IDENTIFICATION REQUIREMENTS
NTS

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E500

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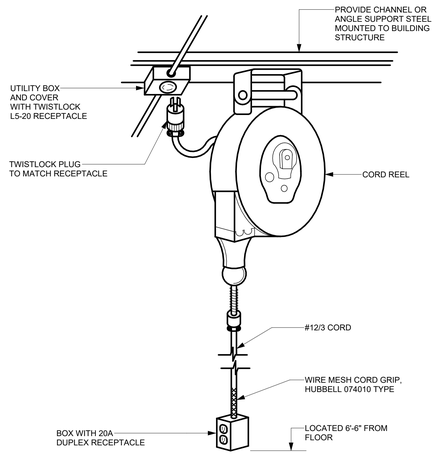
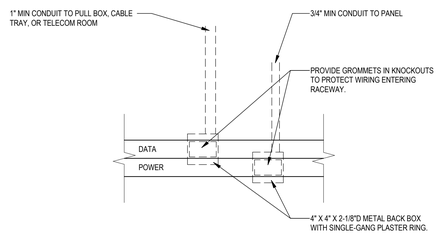


2 CORD REEL DETAIL
NTS



NOTES

A. DUAL-CHANNEL SURFACE METAL RACEWAY BASIS OF DESIGN IS LEGRAND WIREMOLD 4000-SERIES WITH DIVIDER.

B. REFER TO FLOOR PLANS FOR DEVICE LOCATIONS, QUANTITES, AND CIRCUITING.

C. PROVIDE QUANTITY OF BACK BOXES AND FEEDS AS NEEDED TO SERVE ALL POWER AND LOW-VOLTAGE DEVICES. PROVIDE (1) 1"C PER 4 CABLE DROPS TO ALLOW FOR FUTURE EXPANSION.

D. FINISH PER ARCHITECT.

E. COORDINATE ELEVATION WITH ARCHITECTURAL DRAWINGS.

1 SURFACE METAL RACEWAY DETAIL - CONCEALED FEED
NTS

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THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT 100% WHEN CORRECTLY PLOTTED

THE SQUARES ABOVE ARE COLOR, WHITE,BLACK AND WHITE LETTERS, IF PRINTED CORRECTLY

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ELECTRIC EQUIPMENT AND CONTROL SCHEDULE

ABBREVIATIONS

AU	AT UNIT	H	HAR...	R	REDU...
B	ASD WITH BYPASS	HOA	HAND-OFF-AUTO WITH RELAY		ASD
D	DV/DT FILTER	IU	INTEGRAL WITH UNIT	RE	REM...
ECB	ENCLOSED CIRCUIT BREAKER	M	MULTIPLE MOTOR ASD		
F	FUSED	NF	NON-FUSED		

GENERAL NOTES

A. REFER TO SPECIFICATIONS FOR EQUIPMENT REQUIREMENTS

B. PROVIDE CONTROLLER SIZED PER HP/AMPS.

C. LOCATIONS/QUANTITIES OF FIRE ALARM DUCT DETECTORS ARE SHOWN ON PLANS

EQUIPMENT								POWER SOURCE, PROTECTION & WIRING					MOTOR CONTROLLER								DISCONNECTING MEANS					CONNECTIONS				EQUIPMENT	
ITEM ID	NAME	ROOM LOCATION	HP	KW	AMPERAGE	PHASE	VOLTAGE	SOURCE	OCPD RATING	WIRING FROM SOURCE TO EQUIPMENT VIA CONTROLLER / DISCONNECTING MEANS			MANUAL MOTOR STARTER	MAGNETIC MOTOR STARTER W/ RELAY	COMBINATION MAGNETIC STARTER AND SAFETY SWITCH	ADJUSTABLE SPEED DRIVE	PACKAGED CONTROL UNIT	NEMA ENCLOSURE TYPE	NEMA STARTER SIZE	LOCATION	SAFETY SWITCH	SAFETY SWITCH AMPERE RATING	FUSE/CB AMPERE RATING	NEMA ENCLOSURE TYPE	LOCATION	FIRE ALARM SHUTDOWN	FIRE ALARM DUCT DETECTOR(S)	MOTORIZED DAMPER	LINE VOLTAGE TEMPERATURE CONTROL	REFERENCE NOTES	ITEM ID
										PHASE	GROUND	CONDUIT																			
AHU-1 (S1)	AHU-1 SUPPLY FAN 1	ROOF	20		59.4	3	208	PP-2	100/3	3#3	1# 6	1-1/4"C				X		1		AU	Y	100	NF	1	AU	X	X				AHU-1 (S1)
AHU-1 (S2)	AHU-1 SUPPLY FAN 2	ROOF	20		59.4	3	208	PP-2	100/3	3#3	1# 6	1-1/4"C				X		1		AU	Y	100	NF	1	AU	X	X				AHU-1 (S2)
AHU/HRU EF	HEAT RECOVERY UNIT EXHAUST FAN	ROOF	10		30.8	3	208	PP-2	60/3	3#6	1#8	3/4"C				X		1		AU	Y	60	NF	1	AU	X	X				AHU/HRU EF
EF-1	EXHAUST FAN - SPRAY BOOTH	ROOF	1 1/2		6.6	3	208	PP-2	15/3	3#12	1#12	3/4"C				X		1		RE	Y	30	NF	3R	AU						EF-1
EF-2	EXHAUST FAN - ELECTRICAL ROOM	ELEC CLOSET #20060	1/15		1.6	1	120	PP-2	20/1	2#12	1#12	3/4"C		X				1		AU	Y	30	NF	1	AU						EF-2
EF-3	EXHAUST FAN - ACCESS CONTROL	MECH RM #10060	1/15		1.6	1	120	PP-1(E)	20/1	2#12	1#12	3/4"C		X				1		AU	Y	30	NF	1	AU						EF-3
CUH-1	CABINET UNIT HEATER	VESTIBULE #10040	1/15		1.6	1	120	PP-2	20/1	2#12	1#12	3/4"C		X				1		AU	Y	30	NF	1	AU						CUH-1
CUH-2	CABINET UNIT HEATER	VESTIBULE #20041	1/15		1.6	1	120	PP-2	20/1	2#12	1#12	3/4"C		X				1		AU	Y	30	NF	1	AU						CUH-2
CUH-3	CABINET UNIT HEATER	CORRIDOR #10041	1/15		1.6	1	120	PP-1(E)	20/1	2#12	1#12	3/4"C		X				1		AU	Y	30	NF	1	AU						CUH-3
CUH-4	CABINET UNIT HEATER	CIRCULATION #105	1/15		1.6	1	120	PP-2	20/1	2#12	1#12	3/4"C		X				1		AU	Y	30	NF	1	AU						CUH-4
UH-1	UNIT HEATER	MECH RM #10060		0.05	0.4	1	120	PP-1(E)	20/1	2#12	1#12	3/4"C		X				1		AU	Y	30	NF	1	AU						UH-1
UH-2	UNIT HEATER	STORAGE #103		0.05	0.4	1	120	PP-2	20/1	2#12	1#12	3/4"C		X				1		AU	Y	30	NF	1	AU						UH-2
UH-3	UNIT HEATER	OPEN ASSEMBLY #102		0.05	0.4	1	120	PP-2	20/1	2#12	1#12	3/4"C		X				1		AU	Y	30	NF	1	AU						UH-3
EUH-1	ELECTRIC UNIT HEATER	ROOF (AHU VESTIBULE)		5	13.9	3	208	PP-2	20/3	3#12	1#12	3/4"C		X				1		AU	Y	30	NF	1	AU						EUH-1
GWP-1A	GLYCOL WATER PUMP	MECH RM #10060	5		16.7	3	208	PP-1(E)	30/3	3#10	1#10	3/4"C				X		1		AU	Y	30	NF	1	AU						GWP-1A
GWP-1B	GLYCOL WATER PUMP	MECH RM #10060	5		16.7	3	208	PP-1(E)	30/3	3#10	1#10	3/4"C				X		1		AU	Y	30	NF	1	AU						GWP-1B
GWP-2	GLYCOL WATER PUMP	MECH RM #10060	1/2		5.4	1	208	PP-1(E)	15/2	2#12	1#12	3/4"C					X			IU	Y	30	NF	1	AU						GWP-2
CP-1	CONDENSATE PUMP	ROOF	2		7.5	3	208	LLP-2	15/3	3#12	1#12	3/4"C				X		1		AU	Y	30	NF	1	AU						CP-1
CWP-1A	CHILLED WATER PUMP	MECH RM #10060	7 1/2		24.2	3	208	PP-1(E)	45/3	3#8	1#8	3/4"C				X		1		AU	Y	30	NF	1	AU						CWP-1A
CWP-1B	CHILLED WATER PUMP	MECH RM #10060	7 1/2		24.2	3	208	PP-1(E)	45/3	3#8	1#8	3/4"C				X		1		AU	Y	30	NF	1	AU						CWP-1B
HWP-1	HOT WATER PUMP	MECH RM #10060	3		10.6	3	208	PP-1(E)	20/3	3#12	1#12	3/4"C				X		1		AU	Y	30	NF	1	AU						HWP-1
HWP-2	HOT WATER PUMP	MECH RM #10060	3		10.6	3	208	PP-1(E)	20/3	3#12	1#12	3/4"C				X		1		AU	Y	30	NF	1	AU						HWP-2
FCU-101B	FAN COIL UNIT	STUDIO RM #101B	1/4		5.8	1	120	PP-2	20/1	2#12	1#12	3/4"C						X		IU	Y	30	NF	1	AU						FCU-101B
FCU-102C	FAN COIL UNIT	STUDIO RM #101C	(2) 1/2		13.0	1	120	PP-2	20/1	2#12	1#12	3/4"C						X		IU	Y	30	NF	1	AU						FCU-102C
FCU-103	FAN COIL UNIT	LOADING DOCK #118	(2) 1/3		10.0	1	120	PP-2	20/1	2#12	1#12	3/4"C						X		IU	Y	30	NF	1	AU						FCU-103
FCU-10071	FAN COIL UNIT	LOADING DOCK #118	1/4		5.8	1	120	PP-2	20/1	2#12	1#12	3/4"C						X		IU	Y	30	NF	1	AU						FCU-10071
FCU-201-1	FAN COIL UNIT	EXPLORATION #101	(2) 1/3		10.0	1	120	PP-2	20/1	2#12	1#12	3/4"C						X		IU	Y	30	NF	1	AU						FCU-201-1
FCU-201-2	FAN COIL UNIT	EXPLORATION #101	(2) 1/3		10.0	1	120	PP-2	20/1	2#12	1#12	3/4"C						X		IU	Y	30	NF	1	AU						FCU-201-2
FCU-201A	FAN COIL UNIT	OFFICE #201A	(2) 1/3		10.0	1	120	PP-2	20/1	2#12	1#12	3/4"C						X		IU	Y	30	NF	1	AU						FCU-201A
FCU-201E	FAN COIL UNIT	KITCHENETTE #201D	1/4		5.8	1	120	PP-2	20/1	2#12	1#12	3/4"C						X		IU	Y	30	NF	1	AU						FCU-201E
FCU-201D	FAN COIL UNIT	COLLAB #201E	1/4		5.8	1	120	PP-2	20/1	2#12	1#12	3/4"C						X		IU	Y	30	NF	1	AU						FCU-201D
FCU-201C	FAN COIL UNIT	EXPLORATION #202	(2) 1/2		13.0	1	120	PP-2	20/1	2#12	1#12	3/4"C						X		IU	Y	30	NF	1	AU						FCU-201C
FCU-202	FAN COIL UNIT	EXPLORATION #202	(2) 1/2		13.0	1	120	PP-2	20/1	2#12	1#12	3/4"C						X		IU	Y	30	NF	1	AU						FCU-202
FCU-203	FAN COIL UNIT	IT RM #203	1/10		2.7	1	120	PP-2	20/1	2#12	1#12	3/4"C						X		IU	Y	30	NF	1	AU						FCU-203
FCU-204	FAN COIL UNIT	ELECTRONICS SHOP #204	(2) 1/4		8.0	1	120	PP-2	20/1	2#12	1#12	3/4"C						X		IU	Y	30	NF	1	AU						FCU-204
FCU-205	FAN COIL UNIT	MECH RM #10060	(2) 1/4		8.0	1	120	PP-1(E)	20/1	2#12	1#12	3/4"C						X		IU	Y	30	NF	1	AU						FCU-205
FCU-20042	FAN COIL UNIT	LOADING DOCK #118	(2) 1/4		8.0	1	120	PP-2	20/1	2#12	1#12	3/4"C						X		AU	Y	30	NF	1	AU						FCU-20042
CA-1	COMPRESSED AIR	MECH RM #10060	15		46.2	3	208	MDP	90/3	3#4	1#6	1"C						X		IU	Y	100	NF	1	AU				1	CA-1
CAD-1	COMPRESSED AIR DRYER	MECH RM #10060		0.4	3.3	1	120	PP-1(E)	20/3	2#12	1#12	3/4"C						X		IU	Y	30	NF	1	AU						CAD-1
RP-1	RECIRC PUMP	MECH RM #10060	1/6		3.9	1	120	PP-1	15/1	2#12	1#12	3/4"C						X		IU	Y	30	NF	1	AU						RP-1
RP-2	RECIRC PUMP	MECH RM #10060	1/6		3.9	1	120	PP-1	15/1	2#12	1#12	3/4"C						X		IU	Y	30	NF	1	AU						RP-2
ESP-1	ELEVATOR SUMP PUMP	VARIIOUS	3/4		13.8	1	120	LLP-1-1	20/1	2#10	1#10	3/4"C						X		RE	Y	30	NF	1	AU						ESP-1
UCP-1	UNDERCOUNTER PUMP	VARIOUS	1/3		7.2	1	120	VARIOUS	15/1	2#12	1#12	3/4"C						X		IU	Y	30	NF	1	AU				2	UCP-1
PCP-1	CONDENSATE PUMP	VARIOUS	1/10		2.7	1	120	VARIOUS	15/1	2#12	1#12	3/4"C						X		IU	Y	30	NF	1	AU				2	PCP-1
ELEV	ELEVATOR	ELEVATOR CONTROL #10071	20		59.4	3	208	MDP	90/3	3#3	1# 6	1-1/4"C						X		IU	Y	100	90A	1	AU				1	ELEV

END OF SCHEDULE

REFERENCE NOTES

1. PROVIDE FUSES IN EXISTING 100A FUSIBLE SWITCH CABINET IN EXISTING SWITCHGEAR.
2. REFER TO PANELBOARD SCHEDULES FOR CIRCUITING INFORMATION.

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24213

REV. NO.	REV. DATE	REV. DESCRIPTION

PROJECT STATUS:
BID DOCUMENTS

DATE ISSUED:
2026.09.14

SCHEDULES - ELECTRICAL

E600

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ⓧ DRAWING NOTES:

1 EXISTING TWO-SECTION PANELBOARD LLP-1 SHALL BE REDESIGNATED AS PANELBOARD LLP-1-1. PROVIDE UPDATED LABEL AND PLACARD. UPDATE LABELS ON ALL EXISTING-TO-REMAIN OR EXISTING-TO-BE-REFED DOWNSTREAM EQUIPMENT.

2 EXISTING TWO-SECTION PANELBOARD LLP-2 SHALL BE REDESIGNATED AS PANELBOARD LLP-2-1. PROVIDE UPDATED LABEL AND PLACARD. UPDATE LABELS ON ALL EXISTING-TO-REMAIN OR EXISTING-TO-BE-REFED DOWNSTREAM EQUIPMENT.

3 CIRCUIT BREAKER IN EXISTING PANEL IS SPARE OR IS TO BE MADE SPARE DURING DEMOLITION.

4 CIRCUIT IS EXISTING TO REMAIN. REFEED AS REQUIRED BY OTHER DEMOLITION WORK.

5 CIRCUIT BREAKER(S) TO BE REMOVED AND TURNED OVER TO OWNER. PROVIDE CIRCUIT BREAKER(S) NOTED. MATCH EXISTING MANUFACTURER (GE) AND RATING (22KAIC)

GENERAL NOTES

A EXISTING PANELBOARD SCHEDULES ARE PROVIDED FOR REFERENCE. INFORMATION INCLUDED WAS GATHERED FROM AS-BUILT DRAWINGS AND FIELD OBSERVATIONS. UNLESS OTHERWISE NOTED, TURN OVER ALL REMOVED CIRCUIT BREAKERS TO OWNER. CONTRACTOR TO PROVIDE ALL CIRCUIT BREAKERS REQUIRED FOR NEW WORK AND VERIFT CONDITION OF CIRCUIT BREAKERS INTENDED TO BE REUSED. CIRCUIT BREAKERS PROVIDED FOR EXISTING PANELBOARDS SHALL MATCH PANELBOARD MANUFACTURER AND RATINGS.

B CONTRACTOR TO PROVIDE UPDATED TYPED PANELBOARD SCHEDULES FOR ALL PANELBOARDS AND SWITCHGEAR IN BUILDING.

C ALL CIRCUITS NOTED AS (E) OR (ER) IN EXISTING PANELBOARDS SHALL BE REFED AS NEEDED TO ENABLE ELECTRICAL AND OTHER TRADE'S WORK ASSOCIATED WITH THIS PROJECT. PROVIDE NEW CIRCUITRY AS REQUIRED. ALL WIRING SHALL BE AT MINIMUM #12AWG IN MINIMUM 3/4" CONDUIT.

② LLP-2-1(S1) (E)

Mains Type: MLO **Volts:** 208Y/120V **Location:** ELEC. CL 20060
Mains Rating: 200 A **Phases:** 3 **Enclosure:** Type 1
A.I.C. Rating: **Wires:** 4 **Mounting:** SURFACE

CKT	Circuit Description	Trip	A	B	C	Trip	Circuit Description	CKT
1	RECEP - RM #205A	20 A	...			20 A	LTG - RM #202	2
3	EWC - RM #205A	20 A		...		20 A	LTG - RMS #201C & 201D	4
5	RECEP - RM #20063	20 A			...	20 A	LTG - RM #201	6
7	RECEP - RM #205	20 A	...					8
9	RECEP - RM #205	20 A		...		20 A	(E) POWER METER	10
11	RECEP - RM #205	20 A			...			12
13	RECEP - CLG - RM #205	20 A	...			20 A	LTG - RMS #204, #205, #205A, TOILETS, HALL	14
15	RECEP - CLG - RM #205	20 A		...		20 A	LTG - RMS #201, 201E, 201F	16
17	RECEP - CLG - RM #205	20 A			...	20 A	LTG - RM#20042	18
19	SPARE	20 A	...			20 A	LTG - STAIR 20001	20
21	SPARE	20 A		...		20 A	RECEP - RM #201A	22
23	SPARE	20 A			...	20 A	(E) SERVICE VAULT 117 - GENERAL FAN 1	24
25	SPARE	20 A	...			20 A	RECEP - RM #201G, #201F	26
27	SPARE	20 A		...		20 A	RECEP - RM #201F	28
29	SPARE	20 A			...	20 A	RECEP - AV - RM #20042	30
31	SPARE	20 A	...			20 A	RECEP - RM #20042 & EXT	32
33	SPARE	20 A		...		20 A	RECEP - SE EXT	34
35	SPARE	20 A			...	20 A	SPARE	36
37			...			20 A	SPARE	38
39	LLP-2A (E)	70 A		...		20 A	ELEVATOR SHUNT TRIP - RM#10071	40
41					...	20 A	RECEP - ELEC RM#20060	42
Load Classification								

② LLP-2-1(S2) (E)

Mains Type: MLO **Volts:** 208Y/120V **Location:** ELEC. CL 20060
Mains Rating: 200 A **Phases:** 3 **Enclosure:** Type 1
A.I.C. Rating: **Wires:** 4 **Mounting:** SURFACE

CKT	Circuit Description	Trip	A	B	C	Trip	Circuit Description	CKT
43	CORD REEL - EQ-7 - RM #201B	20 A	...			20 A	RECEP - EQ-10 - RM #201B	44
45	CORD REEL - EQ-5 - RM #201B	20 A		...		20 A	RECEP - EQ-12 - RM #201B	46
47	SMR RECEP - EQ-9 - RM #201B	20 A			...	20 A	(ER) GFI TOILET RM 20020 & 20021	48
49	SMR RECEP - RM #201B	20 A	...			20 A	RECEP - RM #201D	50
51	SMR RECEP - EQ-8 - RM #201B	20 A		...		20 A	RECEP - RM #201D	52
53					...	20 A	RECEP - RM #201D	54
55	RECEP - RM #201B	20 A	...			20 A	RECEP - RM #201D	56
57	SPARE	20 A		...		20 A	SPARE	58
59	SPARE	20 A			...	20 A	SPARE	60
61	SPARE	20 A	...			20 A	SPARE	62
63	SPARE	20 A		...		20 A	SPARE	64
65	PROJECTOR - RM #201	20 A			...	20 A	SPARE	66
67	UNDER-COUNTER AV RECEP - RM #201	20 A	...			20 A	SPARE	68
69	RECEP - RM #201D	20 A		...		20 A	SPARE	70
71	RECEP & POKETHRU - RM #201D	20 A			...	20 A	SPARE	72
73	RECEP - RM #201C	20 A	...			20 A	(E) POWER METER	74
75	RECEP & POKETHRU - RM #201C	20 A		...		20 A	SPARE	76
77	POKE-THRU RECEPS - RM #201	20 A			...	20 A	SPARE	78
79	POKE-THRU RECEPS - RM #201	20 A	...			20 A	SPARE	80
81	POKE-THRU RECEPS - RM #201	20 A		...		20 A	EXT POWER - WALKWAY	82
83	POKE-THRU RECEPS - RM #201	20 A			...	20 A	EXT POWER - WALKWAY	84
Load Classification								

PP-1 (E)

Mains Type: MLO **Volts:** 208Y/120V **Location:** MECH ROOM 10060
Mains Rating: 200 A **Phases:** 3 **Enclosure:** Type 1
A.I.C. Rating: 22k **Wires:** 4 **Mounting:** SURFACE

CKT	Circuit Description	Trip	A	B	C	Trip	Circuit Description	CKT
1	DRY SPRINKLER - N2 GEN - RM#10061	20 A	...			20 A	HWP-1 - MECH RM#10060	2
3	DRY SPRINKLER - AIR COMP - RM#10061	20 A		...				4
5					...	20 A	HWP-2 - MECH RM#10060	6
7	CWP-1A - MECH RM#10060	45 A	...					8
9				...		20 A		10
11	(E) EBH - ELEC RM#20060	20 A			...			12
13	CUH-3 - CORRIDOR #10041	20 A	...			20 A	UH-1 - MECH RM#10060	14
15				...		20 A	SPARE	16
17					...	20 A	(E) GX-1 - MECH RM#10060	18
19	CWP-1B - MECH RM#10060	45 A	...			20 A	COMPRESSED AIR DRYER - MECH RM#10060	20
21				...		20 A	GWP-2 - MECH RM#10060	22
23					...			24
25	GWP-1A - MECH RM#10060	30 A	...			20 A	SPARE	26
27				...		20 A	FCU-205 - MECH RM#10060	28
29					...	20 A	EF-3 - MECH RM#10060	30
31	(E) DUPLEX SEWAGE EJECTOR - MECH RM#10060	50 A	...			20 A	SPARE	32
33				...		20 A	DWH-1 - MECH RM#10060	34
35					...	20 A	RP-1 - MECH RM#10060	36
37	GWP-1B - MECH RM#10060	30 A	...			20 A	RP-2 - MECH RM#10060	38
39				...		20 A	(E) PANEL REC	40
41	(E) DAMPER - MECH RM#10060	30 A			...	20 A	(ER) BMS PANELS - MECH RM#10060	42
Load Classification								

① LLP-1-1(S2) (E)

Mains Type: MCB **Volts:** 208Y/120V **Location:** MECH ROOM 10060
Mains Rating: 200 A **Phases:** 3 **Enclosure:** Type 1
A.I.C. Rating: 22k **Wires:** 4 **Mounting:** SURFACE

CKT	Circuit Description	Trip	A	B	C	Trip	Circuit Description	CKT
43	(E) GFI RM 111, 112, CORR 110	20 A	...			20 A	(E) RECEP - JC RM#10061	44
45				...		20 A	CORD REELS - RM #101C	46
47	EQ-38 - RM #101C	60 A			...	20 A	RECEP - RM #101C	48
49			...			20 A	RECEP - EQ-39 - RM #101C	50
51				...		20 A	RECEP - EQ-39 - RM #101C	52
53	EQ-37 - RM #101C	40 A			...	20 A	RECEP - EQ-39 - RM #101C	54
55			...			20 A	RECEP - EQ-37-VS & EQ-38-VS - RM #101C	56
57	SHUNT-TRIP CKT - ROOM #101B	20 A		...		20 A	RECEP - EQ-3 - RM#101	58
59	CORD REEL - RM #101	20 A			...	20 A	RECEP - EQ-3 - RM#101	60
61	CORD REEL - RM #101	20 A	...			20 A	RECEP - RM#101	62
63	CORD REEL - RM #101	20 A		...		20 A	(ER) FACP - VESTIBULE RM#10040	64
65	CORD REEL - RM #101	20 A			...	20 A	RECEP - RM#101	66
67	CORD REEL - RM #101	20 A	...					68
69	CORD REEL - RM #101A	20 A		...				70
71	CORD REEL - RM #101A	20 A			...			72
73	RECEP - RM #101A	20 A	...					74
75	RECEP - RM #101A	20 A		...		20 A	ESP-1 RM # 10070	76
77	RECEP - RM#103	20 A			...	20 A	(E) RECEP UNDER BMS PANEL - MECH RM#10060	78
79	RECEP - RM#103	20 A	...					80
81	CORD REEL - RM #103	20 A		...		20 A	EQ-33B, 33C, 33D, 33E RM #103	82
83	RECEP - EQ-44 - RM #103	20 A			...	20 A	EQ-33A RM #103	84
Load Classification								

① LLP-1-1(S1) (E)

Mains Type: MCB **Volts:** 208Y/120V **Location:** MECH ROOM 10060
Mains Rating: 200 A **Phases:** 3 **Enclosure:** Type 1
A.I.C. Rating: 22k **Wires:** 4 **Mounting:** SURFACE

CKT	Circuit Description	Trip	A	B	C	Trip	Circuit Description	CKT
1	LTG - RMS #10060, #10061, #10062	20 A	...			20 A	ACCESS CONTROLS - RM# 10062	2
3	LTG - RMS #10020, #10021, #10041, #101C	20 A		...		20 A	ACCESS CONTROLS - RM# 10062	4
5	LTG - RMS #102, #102B, EXT	20 A			...	20 A	RECEP - RM# 10062	6
7	LTG - RM #101	20 A	...			20 A	RECEP - RM# 10060	8
9	LTG - RMS #101A, #101B, #103	20 A		...		20 A	RECEPTACLE RM #10070	10
11	SPARE	20 A			...	20 A	RECEPTACLE RM #10071	12
13	SPARE	20 A	...			20 A	SPARE	14
15	SPARE	25 A		...		20 A	SPARE	16
17	SPARE	25 A			...	20 A	SPARE	18
19	SPARE	20 A	...			20 A	SPARE	20
21	SPARE	20 A		...		20 A	SPARE	22
23	SPARE	20 A			...	20 A	SPARE	24
25	SPARE	20 A	...			20 A	SPARE	26
27	SPARE	20 A		...		20 A	SPARE	28
29	SPARE	20 A			...	20 A	SPARE	30
31	(ER) OUTSIDE LIGHTS - EAST	20 A	...			20 A	SPARE	32
33	(ER) OUTSIDE LIGHTS - NORTH & EAST	20 A		...		20 A	SPARE	34
35	(ER) OUTSIDE LIGHTS - WEST	20 A			...	20 A	SPARE	36
37	CONTACTOR - EXT LTG - MECH RM#10060	20 A	...			20 A	SPARE	38
39	LTG INVERTER - 8KW - MECH RM#10060	50 A		...		20 A	SPARE	40
41					...	20 A	SPARE	42
Load Classification								

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AM JOB NO.
24213

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PANELBOARD SCHEDULES - ELECTRICAL

E601

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A B C D E

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ⓧ DRAWING NOTES:

1 PROVIDE ISOLATED GROUND BAR IN PANELBOARD.

2 MAIN CIRCUIT BREAKER IN PANELBOARD TO HAVE 120V SHUNT-TRIP MODULE CONNECTED TO EMERGENCY POWER OFF BUTTON IN WOOD SHOP. REFER TO E310.

3 FOR REFERENCE ONLY. LIGHTING INVERTER OUTPUT TO BE INTEGRAL TO INVERTER.

GENERAL NOTES

A CONTRACTOR TO PROVIDE UPDATED TYPED PANELBOARD SCHEDULES FOR ALL PANELBOARDS AND SWITCHGEAR IN BUILDING.

B [GF] PREFIX IN CIRCUIT DESCRIPTION INDICATES GROUND-FAULT CIRCUIT BREAKER.

PP-2

Mains Type: MLO **Volts:** 208Y/120V **Location:** ELEC. CL 20060
Mains Rating: 200 A **Phases:** 3 **Enclosure:** Type 1
A.I.C. Rating: 14k **Wires:** 4 **Mounting:** SURFACE

CKT	Circuit Description	Trip	A	B	C	Trip	Circuit Description	CKT
1						20 A	RECEP - ROOF	2
3	AHU-1 S1 ROOF	90 A				20 A	BMS PANEL - AHU/HRU - ROOF	4
5						20 A	AHU/HRU ACC. POWER - ROOF	6
7						20 A	AHU/HRU ACC. POWER - ROOF	8
9	AHU-1 S2 ROOF	90 A				20 A	EF-2 - ELEC RM#20060	10
11						20 A	FCU-201A - RM #201A	12
13						20 A	PCP-1 - RMS #201A & #203	14
15	AHU/HRU EF - ROOF	60 A				20 A	CUH-2 - RM #20041	16
17						20 A	FCU-202 - RM #202	18
19						20 A	FCU-201C - RM #202	20
21	EF-1 - ROOF	15 A				20 A	FCU-201D - RM #210D	22
23						20 A	FCU-201E - RM #201E	24
25						20 A	FCU-201-1 - RM# 201	26
27	EUH-1 - ROOF	20 A				20 A	FCU-201-2 - RM# 201	28
29						20 A	FCU-204 RM #204	30
31						20 A	FCU-203 - TELECOM - RM #203	32
33	CP-1 - ROOF	15 A						34
35						20 A	BMS PANEL - RM#102	36
37	EV CHARGER	40 A				20 A	SPRAY BOOTH - RM#102	38
39						20 A	UCP-1 - RMS#102 & #102A	40
41	EV CHARGER	40 A				20 A	UH-3 - RM#102	42
43						20 A	OVERHEAD DOOR - RM#102	44
45	DOOR OPERATOR - RM#20041	20 A				20 A	FCU-102C - RM#102C	46
47	2KVA BUCK-BOOST, 120 V/208 V, SINGLE PHASE, 3 WIRES	20 A				20 A	FCU-101B - RM #101B	48
49						20 A	PCP-1 - RMS#102C, #101B, & #103	50
51	DOOR OPERATOR - VESTIBULE 10040	20 A				20 A	FCU-20042 - RM #103	52
53						20 A	FCU-10071 - RM #103	54
55	UCP-1 - RMS #101A & #101B	20 A				20 A	FCU-103 - RM #103	56
57	CUH-1 - RM #10040	20 A				20 A	UH-2 - RM#103	58
59	CUH-4 - RM #106	20 A				20 A	OVERHEAD DOOR - RM#103	60
Load Classification								

LLP-2-2

Mains Type: **Volts:** 208Y/120V **Location:** EXPLORATION WORKSHOP 202
Mains Rating: 200 A **Phases:** 3 **Enclosure:** Type 1
A.I.C. Rating: 14K **Wires:** 4 **Mounting:** RECESSED

CKT	Circuit Description	Trip	A	B	C	Trip	Circuit Description	CKT
1	SMR RECEP - EQ-19B - RM #202	20 A				20 A	SMR RECEP - EQ-19B - RM #202	2
3	SMR RECEP - EQ-19-SP- RM #202	20 A				20 A	SMR RECEP - EQ-19-SP - RM #202	4
5	SMR RECEP - EQ-19B - RM #202	20 A				20 A	SMR RECEP - EQ-19B - RM #202	6
7	SMR RECEP - EQ-19-SP - RM #202	20 A				20 A	SMR RECEP - EQ-19-SP- RM #202	8
9	SMR RECEP - EQ-19A - RM #202	20 A				20 A	SMR RECEP - EQ-19A - RM #202	10
11	SMR RECEP - EQ-19A - RM #202	20 A				20 A	SMR RECEP - EQ-19A - RM #202	12
13	SMR RECEP - EQ-19A - RM #202	20 A				20 A	SMR RECEP - EQ-19A - RM #202	14
15	RECEP - RM #202	20 A				20 A	CORD REEL - RM #202	16
17	RECEP - RM #202	20 A				20 A	CORD REEL - RM #202	18
19	RECEP - RM #202	20 A				20 A	CORD REEL - RM #202	20
21	RECEP - RM #202	20 A				20 A	CORD REEL - RM #202	22
23	RECEP - EQ-25 - RM #202	20 A				20 A	CORD REEL - RM #202	24
25	RECEP - EQ-21 - RM #202	20 A				20 A	[GF] RECEP - RM #202A	26
27	RECEP - EQ-17 - RM #202	20 A				20 A	[GF] RECEP - RM #202A	28
29	RECEP - EQ-15, EQ-16, EQ-18 - RM #202	20 A				20 A	SPARE	30
31	RECEP - EQ-20-FS - RM #202	20 A				20 A	SPARE	32
33	RECEP - EQ-20 - RM #202	20 A				20 A	SPARE	34
35	SPARE	20 A				20 A	SPARE	36
37	CORD REEL - RM #102B	20 A				20 A	RECEP RM #120B	38
39	CORD REEL - RM #102B	20 A				20 A	RECEP RM #120B	40
41	RECEP - RM #102	20 A				20 A	RECEP RM #120B	42
43	RECEP - RM #102	20 A				20 A	RECEP RM #120B	44
45	RECEP - RM #102	20 A				20 A	RECEP - EQ-43 - RESIN CUTTER - RM #102B	46
47	RECEP - EQ-26DC - DUST COLL. - RM #102	20 A				20 A	RECEP - EQ-44 - GLASS KILN - RM #102B	48
49	RECEP - EQ-26 - SANDBLASTING CAB - RM #102	20 A				20 A	RECEP - NE PLAZA	50
51						20 A	RECEP - NE PLAZA	52
53	RECEP - EQ-31 - RM #102	20 A				20 A	CORD REEL - RM #102	54
55						20 A	CORD REEL - RM #102	56
57	RECEP - EQ-22 - LASER CUTTER - RM #102	20 A				20 A	CORD REEL - RM #102	58
59	RECEP - EQ-22-FE - FUME EXTRACTOR - RM #102	20 A				20 A	CORD REEL - RM #102	60
Load Classification								

① LLP-2-3-IG

Mains Type: MCB **Volts:** 208Y/120V **Location:** ELEC. CL 20060
Mains Rating: 100 A **Phases:** 3 **Enclosure:** Type 1
A.I.C. Rating: 14k **Wires:** 4 **Mounting:** SURFACE

CKT	Circuit Description	Trip	A	B	C	Trip	Circuit Description	CKT
1	SMR RECEP - EQ-19B - RM #204	20 A				20 A	SMR RECEP - EQ-19B - RM #204	2
3	SMR RECEP - EQ-19-SP- RM #204	20 A				20 A	SMR RECEP - EQ-19-SP - RM #204	4
5	SMR RECEP - EQ-19A - RM #204	20 A				20 A	SMR RECEP - EQ-19A - RM #204	6
7	SMR RECEP - EQ-19A - RM #204	20 A				20 A	SMR RECEP - EQ-19A - RM #204	8
9	SMR RECEP - EQ-19A - RM #204	20 A				20 A	SMR RECEP - EQ-19A - RM #204	10
11	SMR RECEP - EQ-19A - RM #204	20 A				20 A	SMR RECEP - EQ-19A - RM #204	12
13	RECEP - RM #204	20 A				20 A	SPARE	14
15	RECEP - EQ-24 - RM #204	20 A				20 A	SPARE	16
17	RECEP - EQ-23 - RM #204	20 A				20 A	SPARE	18
19	SPARE	20 A				20 A	SPARE	20
21	SPARE	20 A				20 A	SPARE	22
23	SPARE	20 A				20 A	SPARE	24
25	SPARE	20 A				20 A	SPARE	26
27	SPARE	20 A				20 A	SPARE	28
29	SPARE	20 A				20 A	SPARE	30
31	SPARE	20 A				20 A	SPARE	32
33	SPARE	20 A						34
35	SPARE	20 A				20 A	SPARE	36
37	SPARE	20 A						38
39	SPARE	20 A				20 A	SPARE	40
41	SPARE	20 A						42
Load Classification								

③ LTG INV

Mains Type: **Volts:** 208/120 **Location:** MECH ROOM 10060
Mains Rating: 50 A **Phases:** 1 **Enclosure:** Type 1
A.I.C. Rating: 14k **Wires:** 3 **Mounting:** RECESSED

CKT	Circuit Description	Trip	B	C	Trip	Circuit Description	CKT
1	BLUE LIGHT PHONES	15 A			15 A	EXIT SIGNS - ALL FLOORS	2
3	EM EXT LTG	15 A			15 A	EM LTG - STAIR 20001	4
5	EM EXT LTS - WEST STAIR	15 A			20 A	EM LTG - RMS #201, #202	6
7	ELEV CAB LTG - ELEVATOR CONTROL RM #10071	15 A			20 A	EM LTG - RMS #204, #205, #205A	8
9	EM LTG - ELEVATOR CONTROL RM #10071	15 A			20 A	EM LTG - RMS #201, #201F, #20042	10
11	EM LTG - HOISTWAY RMS #10070 & 20070	15 A			20 A	EM LTG - RMS #20060 & #206	12
13	EM LTG - RMS #101, #101A, #101B, #102, #102B	20 A			20 A	SPARE	14
15	EM LTG - RMS #10041, #10060, #101C, #103	20 A			20 A	SPARE	16
17	SPARE	20 A			20 A	SPARE	18
19							20
21							22
23							24
Load Classification							

② LLP-1-2-ST

Mains Type: **Volts:** 208Y/120V **Location:** MAKING EXPLORATION 101
Mains Rating: 100 A **Phases:** 3 **Enclosure:** Type 1
A.I.C. Rating: 14k **Wires:** 4 **Mounting:** RECESSED

CKT	Circuit Description	Trip	A	B	C	Trip	Circuit Description	CKT
1	RECEP - EQ-29 - RM #101B	20 A				20 A	RECEP - RM #101B	2
3	RECEP - EQ-32 - RM #101B	20 A				20 A	RECEP - RM #101B	4
5						20 A	RECEP - RM #101B	6
7	RECEP - EQ-28 - RM #101B	20 A				20 A	CORD REEL - RM #101B	8
9	RECEP - EQ-30 - RM #101B	20 A				20 A	CORD REEL - RM #101B	10
11	RECEP - EQ-29-DC - RM #101B	20 A				20 A	SPARE	12
13						20 A	SPARE	14
15	RECEP - EQ-29-DC - RM #101B	20 A				20 A	SPARE	16
17						20 A	SPARE	18
19	SPARE	20 A						20
21						20 A	SPARE	22
23	SPARE	20 A						24
25								26
27	SPARE	30 A				30 A	SPARE	28
29								30
Load Classification								

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PANELBOARD SCHEDULES - ELECTRICAL

E602

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LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MFR. & CATALOG No.	OUTPUT LUMENS	LAMP	DRIVER	MOUNTING	UNIT WATTS	REMARKS
L1	EXTERIOR BOLLARD LIGHT WITH INTEGRAL RECEPTACLE	HESS CITY ELEMENTS 180: CE180B-XX-AR450-XX-30K-DIM-UNV-XX-XX-GFCI	1342	3000K	120V 0-10V, 10%	SURFACE	15	1, 2, 5
L2	2X2 TROFFER	METALUX: 22CGTS-L3C3	4048	3500K 80 CRI	120V 0-10V, 10%	RECESSED	27.7	1, 5
L3	DECORATIVE PENDANT	EUREKA LIGHTING: 4276D-25-LED.REG-35-90-120-DV-AC-XX-XX-XX-XX-XX-XX-XX	1915	3500K 90 CRI	120V 0-10V, 10%	PENDANT	30.5	1, 3, 5
L4	UNDERCABINET LIGHTING	SIGNIFY DAY-BRITE: LINCS100E-LXX-935-UNV-XX-DIM	391	3500K 90 CRI	120V ELV DIMMING	SURFACE	4.9	1, 4
L5A	LINEAR PENDANT - 4FT	CORLITE RZL: RZL-XX-50L-9-35-1-X-UNV-STD-_-_-X-X-X-X-4	5000	3500K 90 CRI	120V 0-10V, 1%	PENDANT	41	1, 3, 5, 6
L5B	LINEAR PENDANT - 8FT	CORLITE RZL: RZL-XX-40L-9-35-1-X-UNV-STD-X-X-X-X-X-X-8	10000	3500K 90 CRI	120V 0-10V, 1%	PENDANT	82	1, 3, 5, 6
L5C	LINEAR PENDANT - 12FT	CORLITE RZL: RZL-XX-40L-9-35-1-X-UNV-STD-X-X-X-X-X-X-12	15000	3500K 90 CRI	120V 0-10V, 1%	PENDANT	133	1, 3, 5, 6
L6A	LINEAR PENDANT - 4FT	CORELITE CONTINUA: QS-SQ4-X-0U-100D-935-1-D-UNV-STD-X-X-X-X-X-4	4000	3500K 90 CRI	120V 0-10V, 1%	PENDANT	32.8	1, 3, 5, 6
L6B	LINEAR PENDANT - 6FT	CORELITE CONTINUA: QS-SQ4-X-0U-100D-935-1-D-UNV-STD-X-X-X-X-X-6	6000	3500K 90 CRI	120V 0-10V, 1%	PENDANT	49.2	1, 3, 5, 6
L6C	LINEAR PENDANT - 8FT	CORELITE CONTINUA: QS-SQ4-X-0U-100D-935-1-D-UNV-STD-X-X-X-X-X-8	8000	3500K 90 CRI	120V 0-10V, 1%	PENDANT	65.6	1, 3, 5, 6
L6D	LINEAR PENDANT - 12FT	CORELITE CONTINUA: QS-SQ4-X-0U-100D-935-1-D-UNV-STD-X-X-X-X-X-12	12000	3500K 90 CRI	120V 0-10V, 1%	PENDANT	98.4	1, 3, 5, 6
L7	RECESSED ROUND DOWNLIGHT SELECTABLE LUMENS: 1500/2000/2500	COOPER LIGHTING: HCDQC-LS1525-935-D-XX-R-XX-XX	2000	3500K 90 CRI	120V 0-10V, 1%	RECESSED	20.8	1, 5, 7
L8	UTILITY LIGHT - 4 FT	METALUX: 4VT2-LED5-4-XX-UNV-L835-CD1	4000	3500K 80 CRI	120V 0-10V, 10%	SURFACE	30	5
L8A	UTILITY LIGHT - 4 FT - EXTERIOR, 3000K	METALUX: 4VT2-LED5-4-XX-UNV-L830-CD1	4000	3000K 80 CRI	120V 0-10V, 10%	SURFACE	30	5
L9	UTILITY LIGHT - WALL MOUNTED - 4 FT	METALUX: 4SRL-LD5-42SL0LC-UNV-L835-CD-1	4214	3500K 90 CRI	120V 0-10V, 10%	WALL-MOUNT	29.6	5
L10A	CYLINDER DOWNLIGHT - PIVOT	LUMENWERX AERA 3" FLEX CYLINDER: AE3FXCYS-D-4.5IN-XX-XX-XX-XX-XX-35DEG-XX-90CRI-35K-XX-120V-14W-D1-XX-XX	1444	3500K 90 CRI	120V 0-10V, 10%	SURFACE	14	1, 5
L10B	CYLINDER PENDANT DOWNLIGHT	LUMENWERX AERA 4" CYLINDER: AE4CYP-D-8IN-XX-BVLD-XX-XX-XX-35DEG-XX-90CRI-35K-XX-120V-20W-D1-1C-XX-XX-XX	1931	3500K 90 CRI	120V 0-10V, 10%	PENDANT	20	1, 5
L10C	CYLINDER DOWNLIGHT	LUMENWERX AERA 3" CYLINDER: AE3CYS-D-4IN-XX-BVL-XX--XX-XX-XX-35DEG-XX-90CRI-3500K-XX-120-14W-D1-XX-XX	1444	3500K 90 CRI	120V 0-10V, 10%	SURFACE	14	1, 5
L11A	DECORATIVE PENDANT - D1	LIGHTART COIL D SERIES: COL-COIL-PEND-D1-XX-935CK-2000LM-FL-LV01-ST-XX-XX	1664	3500K 90 CRI	120V 0-10V, 10%	PENDANT	19.6	1, 3, 5
L11B	DECORATIVE PENDANT - D2	LIGHTART COIL D SERIES: COL-COIL-PEND-D2-XX-935CK-2000LM-FL-LV01-ST-XX-XX	1664	3500K 90 CRI	120V 0-10V, 10%	PENDANT	19.6	1, 3, 5
L11C	DECORATIVE PENDANT - D3	LIGHTART COIL D SERIES: COL-COIL-PEND-D3-XX-935CK-2000LM-FL-LV01-ST-XX-XX	1664	3500K 90 CRI	120V 0-10V, 10%	PENDANT	19.6	1, 3, 5
L12	SURFACE-MOUNTED SINGLE-FACE DIE-CAST ALUMINUM SPECIALTY SIGN - RED LETTERING "ON-AIR"	EXITRONIX: 402EX-LB-XX-SS26	N/A	N/A	120V	WALL-MOUNT - SURFACE	5	8
L13	EXTERIOR WALL PACK	WILLIAMS VWPH VWPH - L30 - 8 - 30 - TFT - XXX - CGL - 120	3000	3000K	120V	SURFACE	27	1, 9
EM1	EMERGENCY WALL PACK	EXITRONIX: LED-51-WH-G2	220	-	120V	SURFACE	2	
X1	EXIT SIGN	EXITRONIX: S900-SM-R-XX-XX	-	-	120V	SURFACE	5	

END OF SCHEDULE

REMARKS:

1. ARCHITECT TO SPECIFY FINISH.
2. CIVIL ENGINEER TO SPECIFY DISTRIBUTION AND BASE MOUNTING TYPE.
3. COORDINATE CABLE LENGTH REQUIREMENT WITH CEILING/SUPPORT AND MOUNTING HEIGHT OF FIXTURE.
4. PROVIDE ALL ACCESSORIES AS REQUIRED FOR A COMPLETE INSTALLATION. PROVIDE QUANTITY AND LENGTHS OF FIXTURES REQUIRED FOR ENTIRE LENGTH OF RUN AS SHOWN ON DRAWINGS. CONCEAL FEEDS TO FIXTURES. PROVIDE ALL DIMMERS AND LIGHTING CONTROL ACCESSORIES REQUIRED.
5. COORDINATE MOUNTING REQUIREMENTS WITH CEILING TYPE AND REQUIREMENTS.
6. REFER TO DRAWINGS FOR QUANTITY OF CIRCUITS AND EM LOCATIONS. ALL EM WIRING AND UL-924 DEVICES TO BE INSTALLED AHEAD OF FIXTURE.
7. PROVIDE FINAL LUMEN ADJUSTMENT IN FIELD WITH OWNER PRIOR TO PROJECT TURNOVER.
8. VERIFY WORDING, LETTER COLOR, AND FINISH WITH OWNER PRIOR TO ORDERING.
9. PROVIDE ALL FIXTURE ACCESSORIES FOR CONDUIT ENTRY AND BACK BOX COVERAGE.

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SCHEDULES - LIGHTING

E610

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ABBREVIATIONS

ABBREV.	DESCRIPTION
A	AMPERE
AAD	AUTOMATIC AIR DAMPER
AIC	AMPERE INTERRUPTING CURRENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFI	ARC FAULT INTERRUPTING
AII	AIRBORNE INFECTION ISOLATION
AL	ALUMINUM
ARS	ARC ENERGY REDUCTION SWITCH
ASD	ADJUSTABLE SPEED DRIVE
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AV	AUDIOVISUAL
AWG	AMERICAN WIRE GAUGE
BSMT	BASEMENT
C	CONDUIT
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CCTV	CLOSED-CIRCUIT TELEVISION
CLG	CEILING
CM	CONSTRUCTION MANAGER
CONT	CONTACTOR
CONTR	CONTRACTOR
CPT	CONTROL POWER TRANSFORMER
CT	CABLE TRAY
CU	COPPER
DN	DOWN
DP	DISTRIBUTION PANEL
EA	EACH
EC	ELECTRICAL CONTRACTOR
EG	EQUIPMENT GROUND
ELEC	ELECTRIC
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EWC	ELECTRIC WATER COOLER
EX	EXISTING
EXP	EXPLOSION PROOF
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FATP	FIRE ALARM TRANSPONDER PANEL
FBO	FURNISHED BY OTHERS
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GFI	GROUND FAULT CIRCUIT INTERRUPTOR
GND	GROUND
GRS	GALVANIZED RIGID STEEL
HH	HAND HOLE
HOA	HAND-OFF-AUTO
HP	HORSEPOWER
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
JB	JUNCTION BOX
KV	KILOVOLT
KVA	KILOVOLT-AMPERE
KW	KILOWATT
KWH	KILOWATT-HOUR
LED	LIGHT EMITTING DIODE
LTG	LIGHTING
MC	METAL CLAD
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MFR	MULTI-FUNCTION RELAY
MH	MAN HOLE
MI	MINERAL INSULATED CABLE
MLO	MAIN LUG ONLY
MTS	MANUAL TRANSFER SWITCH
MW	MICROWAVE
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NM	NON-METALLIC SHEATHED CABLE
NMT	NON-METALLIC TUBING
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	MOUNTED OVER COUNTER
OH	OVERHEAD
P	POLE
PB	PULL BOX
PC	PLUMBING CONTRACTOR OR PHOTOCELL
PH	PHASE
PG	POLYCARBONATE GUARD
PNL	PANEL
PT	POTENTIAL TRANFORMER
PTZ	PAN TILT ZOOM
PV	PHOTOVOLTAIC
REFR	REFRIGERATOR
RMC	RIGID METAL CONDUIT
SP	SPACE
SPD	SURGE PROTECTION DEVICE
SPEC	SPECIFICATION
STP	SHIELDED TWISTED PAIR
SW	SWITCH
SWBD	SWITCHBOARD
THD	TOTAL HARMONIC DISTORTION
TV	TELEVISION
TYP	TYPICAL
UC	MOUNTED UNDER COUNTER HEIGHT OR UNDERGROUND COMMUNICATION
UE	UNDERGROUND ELECTRICAL
UG	UNDERGROUND
UL	UNDERWRITER'S LABORATORY
UNO	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTP	UNSHIELDED TWISTED PAIR
V	VOLT
W	WIRE OR WATT
WG	WIRE GUARD
WP	WEATHERPROOF
XP	EXPLOSION PROOF
VP	VANDAL-PROOF POLYCARBONATE GUARD

TELECOMMUNICATION SYMBOLS

SYMBOL	DESCRIPTION
▼	TEL/DATA DROP: 4 11/16"x4 11/16"x2.125" BOX WITH A 1-GANG MUD RING & FACEPLATE WITH DUPLEX DESIGN. 1" CONDUIT EXTENDED TO NEAREST CABLE TRAY IN CORRIDOR (UNLESS OTHERWISE NOTED) FOR DATA/VOICE. TERMINATE CONDUIT AT J HOOK IN CORRIDOR WITH CONDUIT BUSHING. PULL (2) CAT 6A CABLE, TERMINATE AT PATCH PANEL IN BDF. W: WALL PHONE DROP. MOUNT AT 46"AFF. PROVIDE (1) CAT6A CABLE TO BDF. B: BASIC DROP. PROVIDE (1) CAT6A CABLE IN 1" CONDUIT TO 4-11/16" X 4-1/16" X 2.125" JUNCTION BOX WITH BLANK PLATE ADJACENT TO EQUIPMENT. TERMINATE CABLE IN JUNCTION BOX. AV: AVCOORDINATE MOUNTING HEIGHT AND LOCATION WITH ARCHITECTURAL AND AV DRAWINGS. EM: EMERGENCY WALL PHONE DROP. WALL MOUNT AT 46"AFF. PROVIDE (1) CAT 6A CABLE TO BDF. PROVIDE YELLOW VIKING E-1600-45. CONFIRM WITH OWNER PRIOR TO PURCHASE. C: SECURITY CAMERA DROP. PROVIDE (1) CAT 6A CABLE TO BDF.
WAP	WIRELESS ACCESS POINT MOUNTED FROM CEILING AT SAME AFF HEIGHT AS LIGHT FIXTURES. SUPPORT WITH THREADED ROD. 4"x4"x2.25" BOX WITH DOUBLE GANG PLASTER RING. 1" EMT CONDUIT EXTENDED TO NEAREST CABLE TRAY IN CORRIDOR (UNLESS OTHERWISE NOTED). PROVIDE (2) CAT 6A CABLES. TERMINATE IN BDF AND 6-8" PIGTAIL WITHOUT FACEPLATE.
B	BLUE LIGHT EMERGENCY TELEPHONE. PROVIDE (3) OUTDOOR-RATED CAT 6A CABLES. PROVIDE SURGE PROTECTION MODULE IN JUNCTION BOX AT BUILDING ENTRANCE. PROVIDE GROUND WIRE FROM SURGE MODULE TO BUILDING STRUCTURE OR TELECOM GROUND BAR.
WAP EXT	EXTERIOR BUILDING-MOUNTED WIRELESS ACCESS POINT. PROVIDE SURGE PROTECTION MODULE IN JUNCTION BOX AT BUILDING ENTRANCE. PROVIDE GROUND WIRE FROM SURGE MODULE TO BUILDING STRUCTURE OR TELECOM GROUND BAR. PROVIDE OSP PATCH CABLE FROM SURGE MODULE TO EXTERIOR ACCESS POINT. COORDINATE BRACKET REQUIREMENTS WITH CIT. CIT TO PROVIDE ACCESS POINT.

GENERAL NOTES: (APPLY TO ALL DRAWINGS):

A. FLEX CONDUIT IS PROHIBITED FOR USE IN DATA APPLICATIONS WITHOUT WRITTEN PERMISSION FROM CORNELL CIT INFRASTRUCTURE ENGINEERS.

B. ALL DATA WORK MUST BE COORDINATED WITH CORNELL CIT.

C. ALL GENERAL NOTES AND GENERAL DEMOLITION NOTES ON E000 APPLY TO THE TELECOM COMPONENTS.

D. ALL TELECOM WIRING TO BE IN CONDUIT OR COVERED CABLE TRAY. J-HOOKS ARE NOT ACCEPTABLE UNLESS WRITTEN PERMISSION IS PROVIDED BY CIT INFRASTRUCTURE ENGINEERS.

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GENERAL NOTES & SYMBOLS LIST - TELECOM

TE000

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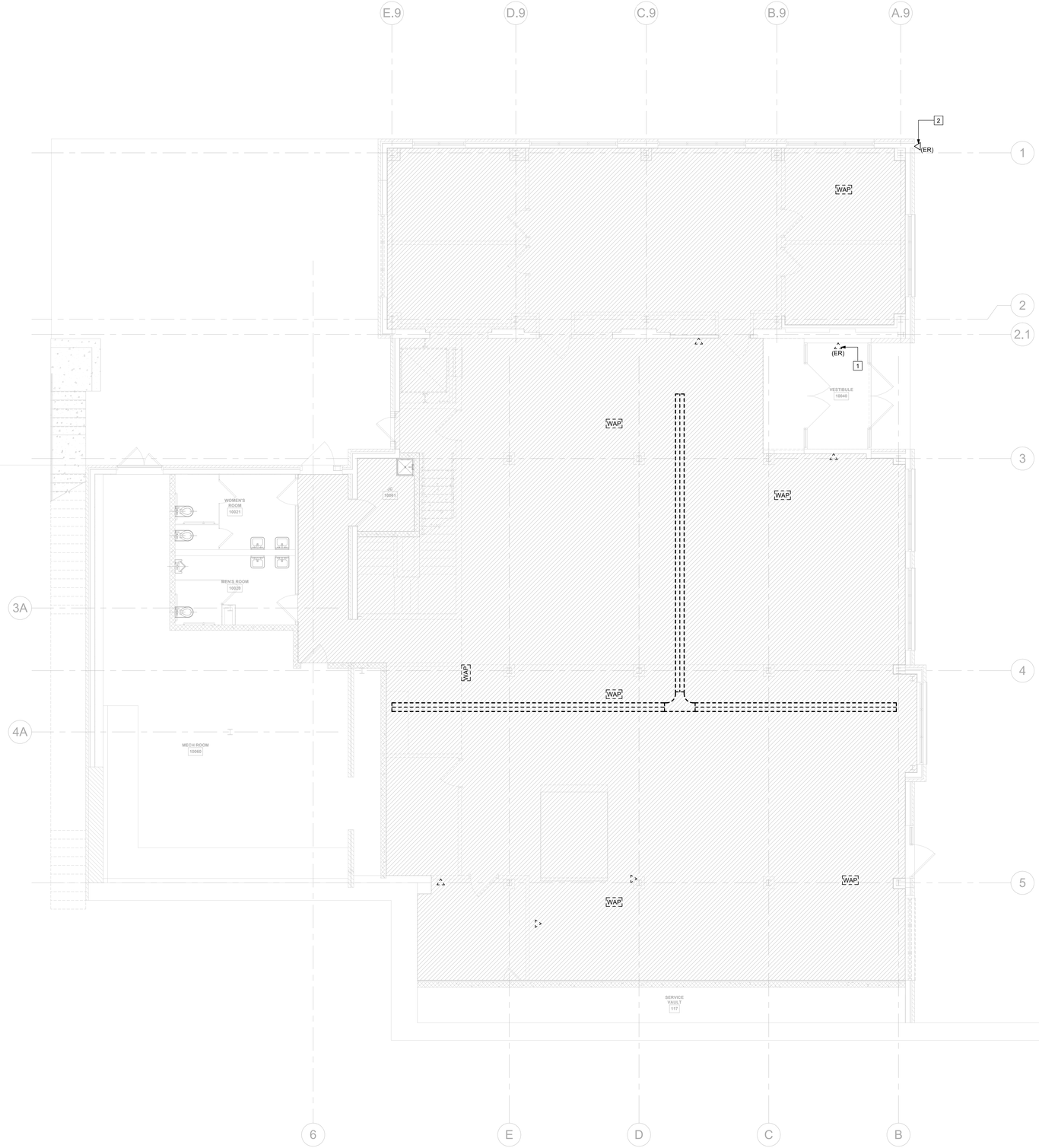

GENERAL NOTES

A COORDINATE WITH CIT FOR DECOMMISSIONING AND TURNOVER OF EXISTING WIRELESS ACCESS POINTS. CONTRACTOR TO SALVAGE DEVICES AND BRACKETS.

B ALL EXISTING TELECOM PATHWAYS AND DROPS WITHIN THE BUILDING ARE TO BE DEMOLISHED OR REFED. CONTRACTOR TO SALVAGE EXISTING TELECOM EQUIPMENT FOR REINSTALLATION AFTER WORK IS COMPLETE BY OTHER TRADES IN TELECOM ROOM.

[X] DEMOLITION NOTES:

1 PROVIDE NEW TELECOM CABLES TO EXISTING FACP FROM MDF. PROVIDE COPPER LINE FROM MUXPAD AND CAT6A LINE. COPPER LINE TO TERMINATE ON EXISTING PUNCHDOWN BLOCKS IN TELECOM ROOM.

2 BLUE LIGHT PHONE LOCATION IS EXISTING TO REMAIN. CABLE IS TO BE REPLACED. REFER TO TE200.

1 DEMOLITION PLAN - LEVEL 01 - TELECOM
3/16" = 1'-0"

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DEMOLITION PLAN - LEVEL 01 - TELECOM

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1 DEMOLITION PLAN - LEVEL 02 - TELECOM
3/16" = 1'-0"

GENERAL NOTES

A COORDINATE WITH CIT FOR DECOMMISSIONING AND TURNOVER OF EXISTING WIRELESS ACCESS POINTS. CONTRACTOR TO SALVAGE DEVICES AND BRACKETS.

B ALL EXISTING TELECOM PATHWAYS AND DROPS WITHIN THE BUILDING ARE TO BE DEMOLISHED OR REFED. CONTRACTOR TO SALVAGE EXISTING TELECOM EQUIPMENT FOR REINSTALLATION AFTER WORK IS COMPLETE BY OTHER TRADES IN TELECOM ROOM.

[X] DEMOLITION NOTES:

1 BLUE LIGHT PHONE LOCATION IS EXISTING TO REMAIN. CABLE IS TO BE REPLACED. REFER TO TE200.

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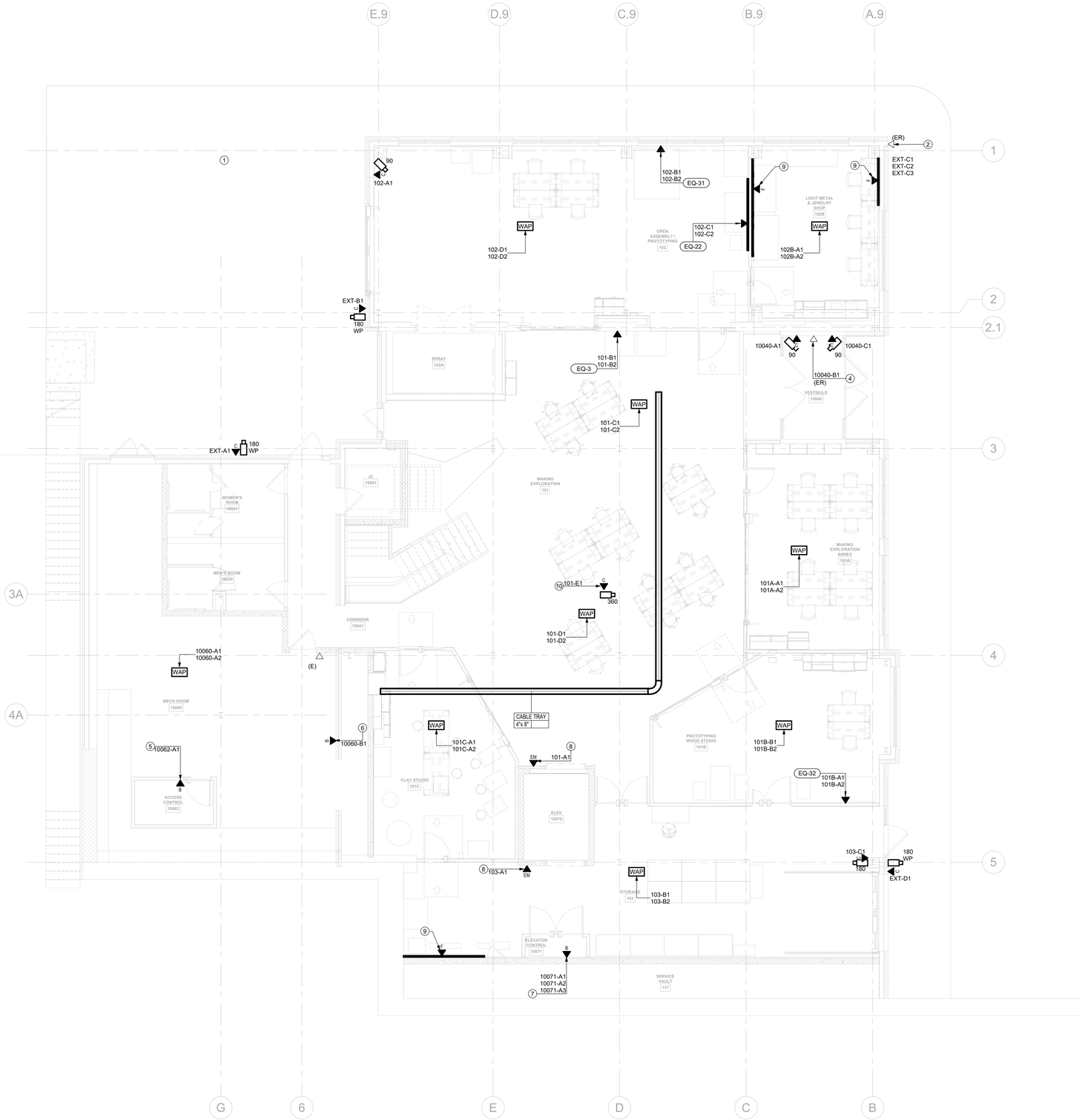

1 FLOOR PLAN - LEVEL 01 - TELECOM
3/16" = 1'-0"

GENERAL NOTES

A WIRELESS ACCESS POINTS IN AREAS WITH EXPOSED CEILINGS SHALL BE PENDANT-MOUNTED AT THE SAME LEVEL AS LIGHT FIXTURES IN THE SAME AREA.

ⓧ DRAWING NOTES:

1 REFER TO SITE PLAN ON SHEET E-010 FOR 2" PATHWAY ON SITE ACROSS PARKING LOT.

2 DATA DROP FOR EXISTING EMERGENCY BLUE PHONE LIGHT 404. PROVIDE (3) CAT 6A CABLES. PROVIDE SURGE DITEK SURGE MODULES AFTER CABLES ENTER BUILDING. PROVIDE JUNCTION BOX FOR MODULES. PROVIDE GROUND WIRE TO BUILDING STEEL.

4 REFEED TELECOM CABLES TO EXISTING FACP FROM MDF AS REQUIRED BY DEMOLITION IN OTHER AREAS.

5 PROVIDE (1) CAT 6A DROP TO 4-11/16" SQUARE BOX WITH BLANK COVER ADJACENT TO ACCESS CONTROL PANEL FOR ACCESS CONTROL CONNECTIONS.

6 PROVIDE (1) CAT 6A DROP TO 4-11/16" SQUARE BOX WITH BLANK COVER ADJACENT TO BMS CONTROL PANEL FOR BMS CONNECTION. COORDINATE PATHWAY CONNECTION TO BMS CABINET. FINAL PATCH CORD BY CONTROLS CONTRACTOR.

7 PROVIDE (3) CAT 6A DROPS TO 4-11/16" SQUARE BOX WITH BLANK COVER ADJACENT TO ELEVATOR CONTROL PANEL. COORDINATE LOCATION WITH ELEVATOR CONTRACTOR.

8 PROVIDE (1) CAT 6A DROPS SINGLE-GANG BACK BOX FOR EMERGENCY PHONE. PROVIDE PHONE, VIKING E-1600-45. COORDINATE LOCATION WITH ELEVATOR CONTROLS.

9 PROVIDE PATHWAY TO DATA RACEWAY PORTION OF DUAL-CHALLEN RACEWAY FROM CEILING SPACE. PROVIDE BLANK PLATE AND DEVICE-MOUNTING BRACKET FOR FUTURE DEVICE.

10 CAMERA TO BE CEILING-MOUNTED. COORDINATE FINAL LOCATION WITH ACCESS CONTROL AND VIDEO SECURITY GROUP.

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FLOOR PLAN - LEVEL 01 - TELECOM

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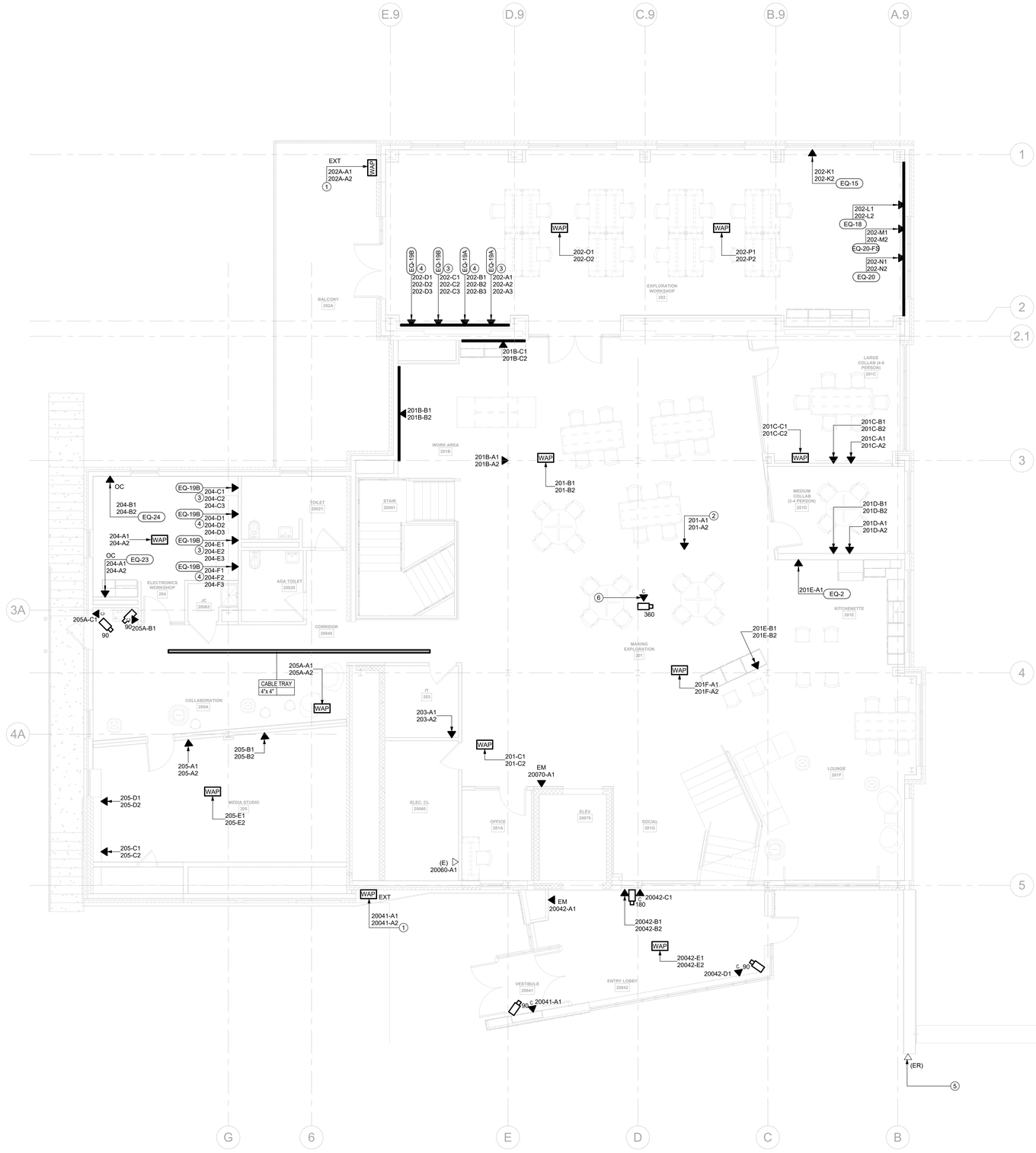

1 FLOOR PLAN - LEVEL 02 - TELECOM
3/16" = 1'-0"

GENERAL NOTES

A WIRELESS ACCESS POINTS IN AREAS WITH EXPOSED CEILINGS SHALL BE PENDANT-MOUNTED AT THE SAME LEVEL AS LIGHT FIXTURES IN THE SAME AREA.

ⓧ DRAWING NOTES:

1 EXTERIOR WALL-MOUNTED WIRELESS ACCESS POINTS FOR EXTERIOR PLAZA SPACES.

2 DATA DROP SERCES CEILING-MOUNTED AV DEVICES. REFER TO AV DRAWINGS FOR MORE INFORMATION.

3 PROVIDE THREE-PORT DATA DROP IN UPPER WIREMOLD SECTION.

4 PROVIDE THREE-PORT DATA DROP IN LOWER WIREMOLD SECTION.

5 DATA DROP FOR EXISTING EMERGENCY BLUE PHONE LIGHT 404. PROVIDE (3) CAT 6A CABLES. PROVIDE SURGE DITEK SURGE MODULES AFTER CABLES ENTER BUILDING. PROVIDE JUNCTION BOX FOR MODULES. PROVIDE GROUND WIRE TO BUILDING STEEL.

6 CAMERA TO BE CEILING-MOUNTED. COORDINATE FINAL LOCATION WITH ACCESS CONTROL AND VIDEO SECURITY GROUP.

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FLOOR PLAN - LEVEL 02 - TELECOM

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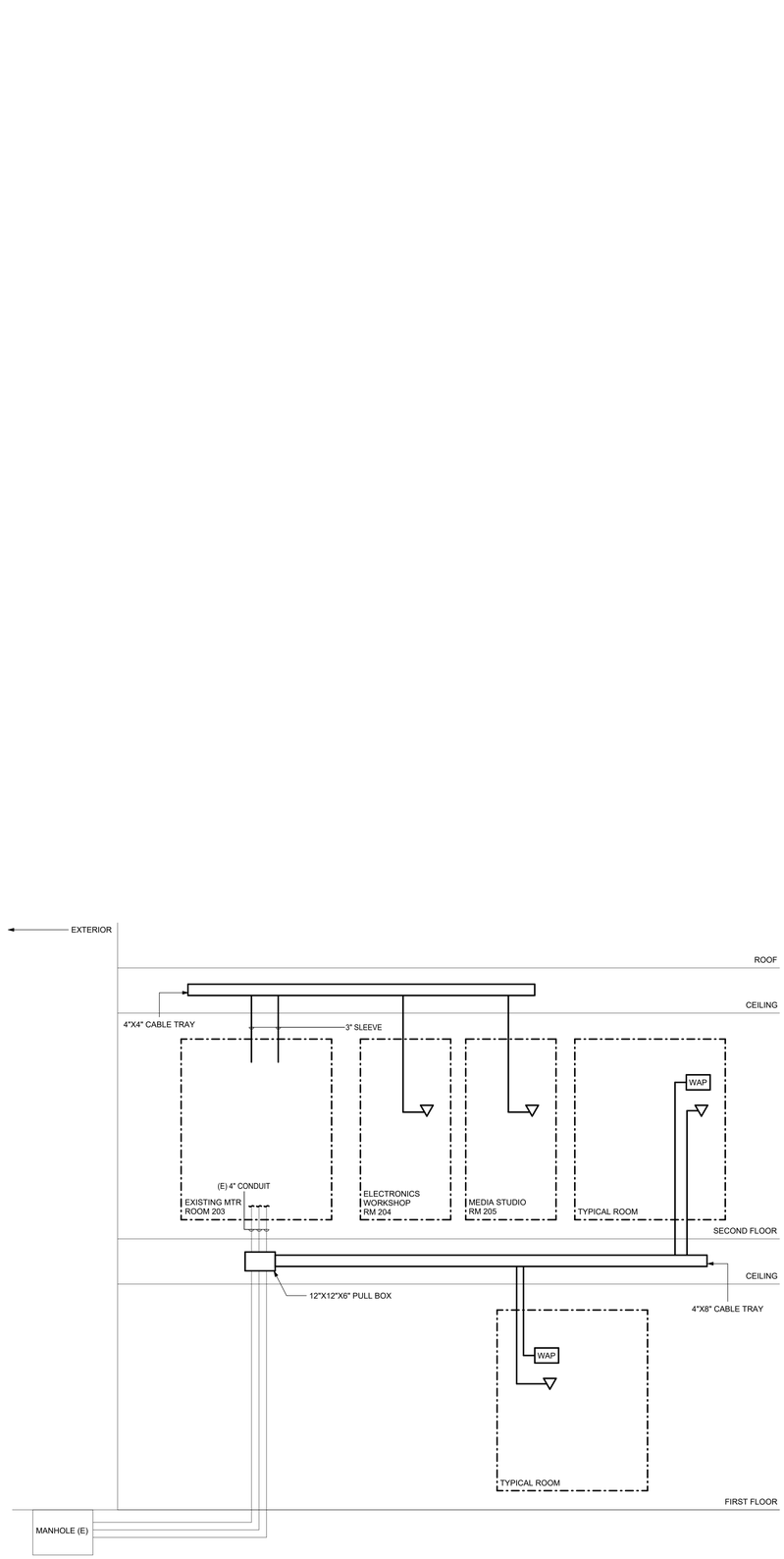
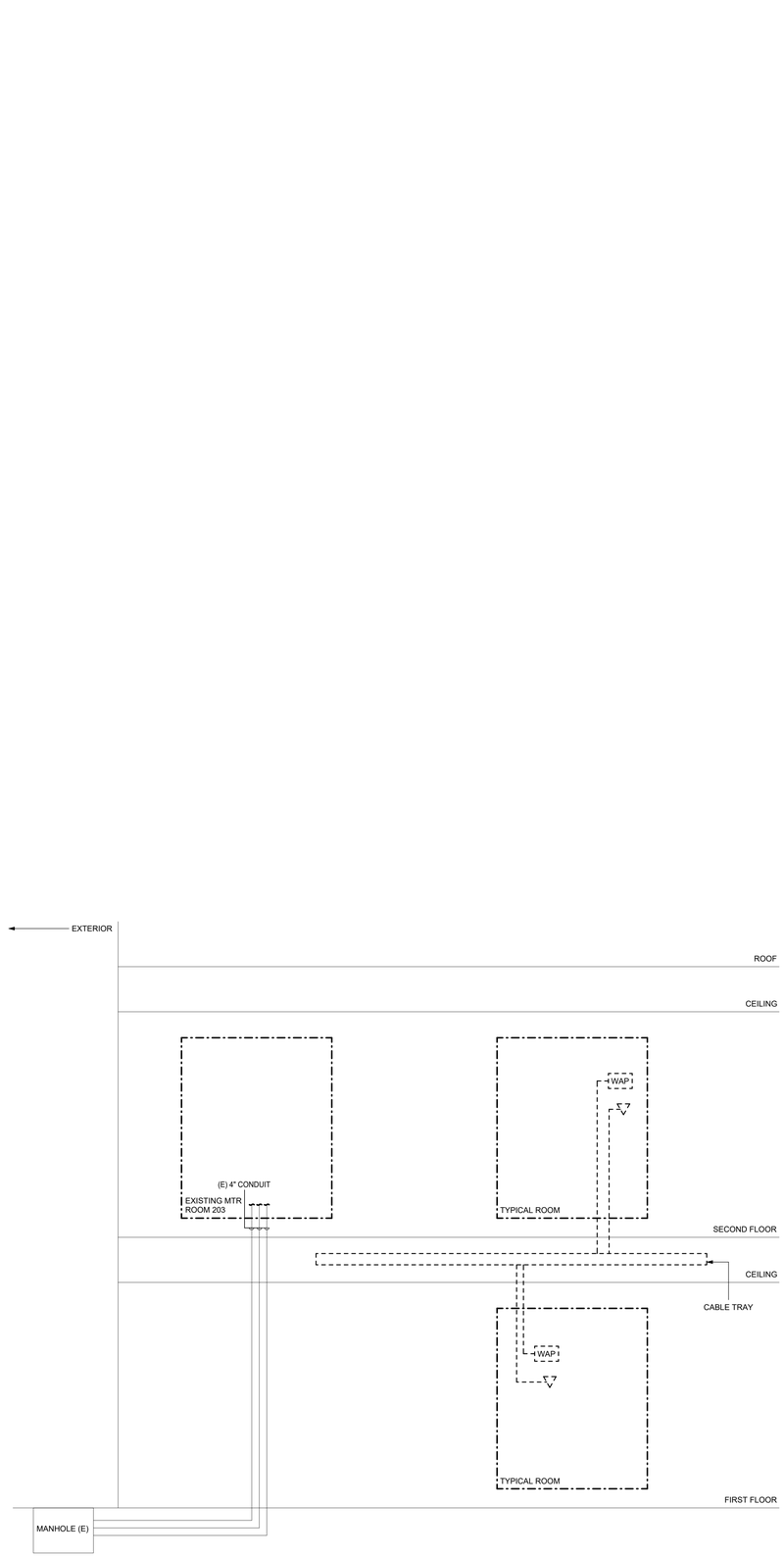


2 TELECOM RISER DIAGRAM - NEW WORK
NTS



1 TELECOM RISER DIAGRAM - DEMOLITION
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24213

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RISER DIAGRAMS - TELECOM

TE400

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ABBREVIATIONS

ABBREV.	DESCRIPTION
A	AMPERE
AAD	AUTOMATIC AIR DAMPER
AIC	AMPERE INTERRUPTING CURRENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFI	ARC FAULT INTERRUPTING
AII	AIRBORNE INFECTION ISOLATION
AL	ALUMINUM
ARS	ARC ENERGY REDUCTION SWITCH
ASD	ADJUSTABLE SPEED DRIVE
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AV	AUDIOVISUAL
AWG	AMERICAN WIRE GAUGE
BSMT	BASEMENT
C	CONDUIT
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CCTV	CLOSED-CIRCUIT TELEVISION
CLG	CEILING
CM	CONSTRUCTION MANAGER
CONT	CONTACTOR
CONTR	CONTRACTOR
CPT	CONTROL POWER TRANSFORMER
CT	CABLE TRAY
CU	COPPER
DN	DOWN
DP	DISTRIBUTION PANEL
EA	EACH
EC	ELECTRICAL CONTRACTOR
EG	EQUIPMENT GROUND
ELEC	ELECTRIC
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EWC	ELECTRIC WATER COOLER
EX	EXISTING
EXP	EXPLOSION PROOF
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FATP	FIRE ALARM TRANSPONDER PANEL
FBO	FURNISHED BY OTHERS
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GFI	GROUND FAULT CIRCUIT INTERRUPTOR
GND	GROUND
GRS	GALVANIZED RIGID STEEL
HH	HAND HOLE
HOA	HAND-OFF-AUTO
HP	HORSEPOWER
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
JB	JUNCTION BOX
KV	KILOVOLT
KVA	KILOVOLT-AMPERE
KW	KILOWATT
KWH	KILOWATT-HOUR
LED	LIGHT EMITTING DIODE
LTG	LIGHTING
MC	METAL CLAD
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MFR	MULTI-FUNCTION RELAY
MH	MAN HOLE
MI	MINERAL INSULATED CABLE
MLO	MAIN LUG ONLY
MTS	MANUAL TRANSFER SWITCH
MW	MICROWAVE
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NM	NON-METALLIC SHEATHED CABLE
NMT	NON-METALLIC TUBING
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	MOUNTED OVER COUNTER
OH	OVERHEAD
P	POLE
PB	PULL BOX
PC	PLUMBING CONTRACTOR OR PHOTOCELL
PH	PHASE
PG	POLYCARBONATE GUARD
PNL	PANEL
PT	POTENTIAL TRANFORMER
PTZ	PAN TILT ZOOM
PV	PHOTOVOLTAIC
REFR	REFRIGERATOR
RMC	RIGID METAL CONDUIT
SP	SPACE
SPD	SURGE PROTECTION DEVICE
SPEC	SPECIFICATION
STP	SHIELDED TWISTED PAIR
SW	SWITCH
SWBD	SWITCHBOARD
THD	TOTAL HARMONIC DISTORTION
TV	TELEVISION
TYP	TYPICAL
UC	MOUNTED UNDER COUNTER HEIGHT OR UNDERGROUND COMMUNICATION
UE	UNDERGROUND ELECTRICAL
UG	UNDERGROUND
UL	UNDERWRITER'S LABORATORY
UNO	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTP	UNSHIELDED TWISTED PAIR
V	VOLT
W	WIRE OR WATT
WG	WIRE GUARD
WP	WEATHERPROOF
XP	EXPLOSION PROOF
VP	VANDAL-PROOF POLYCARBONATE GUARD

ACCESS CONTROL

SYMBOL	DESCRIPTION
CR	CARD READER
DC	DOOR CONTACT
J AC	ACCESS CONTROL JUNCTION BOX
	ACCESS CONTROL PANEL

SECURITY

SYMBOL	DESCRIPTION
	SECURITY CAMERA - INTERIOR. PROVIDE (1) CAT 6A BACK TO TELECOM ROOM.
WP	SECURITY CAMERA - EXTERIOR. PROVIDE (1) CAT 6A CABLE BACK TO TELECOM ROOM. PROVIDE AXIS-SPECIFIED SURFACE-MOUNTED CONDUIT BACK BOX. COORDINATE WITH ARCHITECTURAL ELEMENTS. PROVIDE DUCT SEAL ON EITHER SIDE OF CONDUIT AFTER CABLE IS PULLED.

GENERAL NOTES: (APPLY TO ALL DRAWINGS):

A. THESE DRAWINGS MUST BE USED IN CONJUCTION WITH THE SECURITY SYSTEM AND ELECTRICAL SPECIFICATIONS.

B. FURNISH AND INSTALL FIRE STOP TO ALL SLAB AND WALL PENETRATIONS PROVIDED FOR THE INSTALLATION OF SECURITY CABLE AS REQUIRED TO MAINTAIN FIRE RATING OF SLAB OR WALL.

C. NOTIFY THE ENGINEER OF ANY DISCREPACIES BETWEEN THESE CONTRACT DRAWINGS AND FIELD CONDITIONS.

D. INSTALL ALL COMPONENTS AS PER MANUFACTURER'S RECOMMENDATION AND PER ALL APPLICABLE CODES.

E. INDICATE ALL MOUNTING REQUIREMENTS IN THE LEGEND UNLESS OTHERWISE NOTED.

F. VERIFY AND COORDINATE THE EXACT MOUNTING LOCATION OF ALL DEVICES PRIOR TO INSTALLATION.

G. THE MOUNTING HEIGHTS ARE TO THE CENTERLINE OF THE DEVICE UNLESS OTHERWISE NOTED.

H. RESTORE CEILINGS AND WALLS AND ANY OTHER SURFACES AFFECTED BY THIS WORK WITH LIKE MATERIALS TO MATCH EXISTING CONSTRUCTION UPON COMPLETION OF THE SECURITY WORK.

I. ALL NOTES AND SYMBOLS ON SHEET E-000 SHALL APPLY TO THE TY-SERIES DRAWINGS.

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GENERAL NOTES & SYMBOLS LIST - SECURITY

YE000

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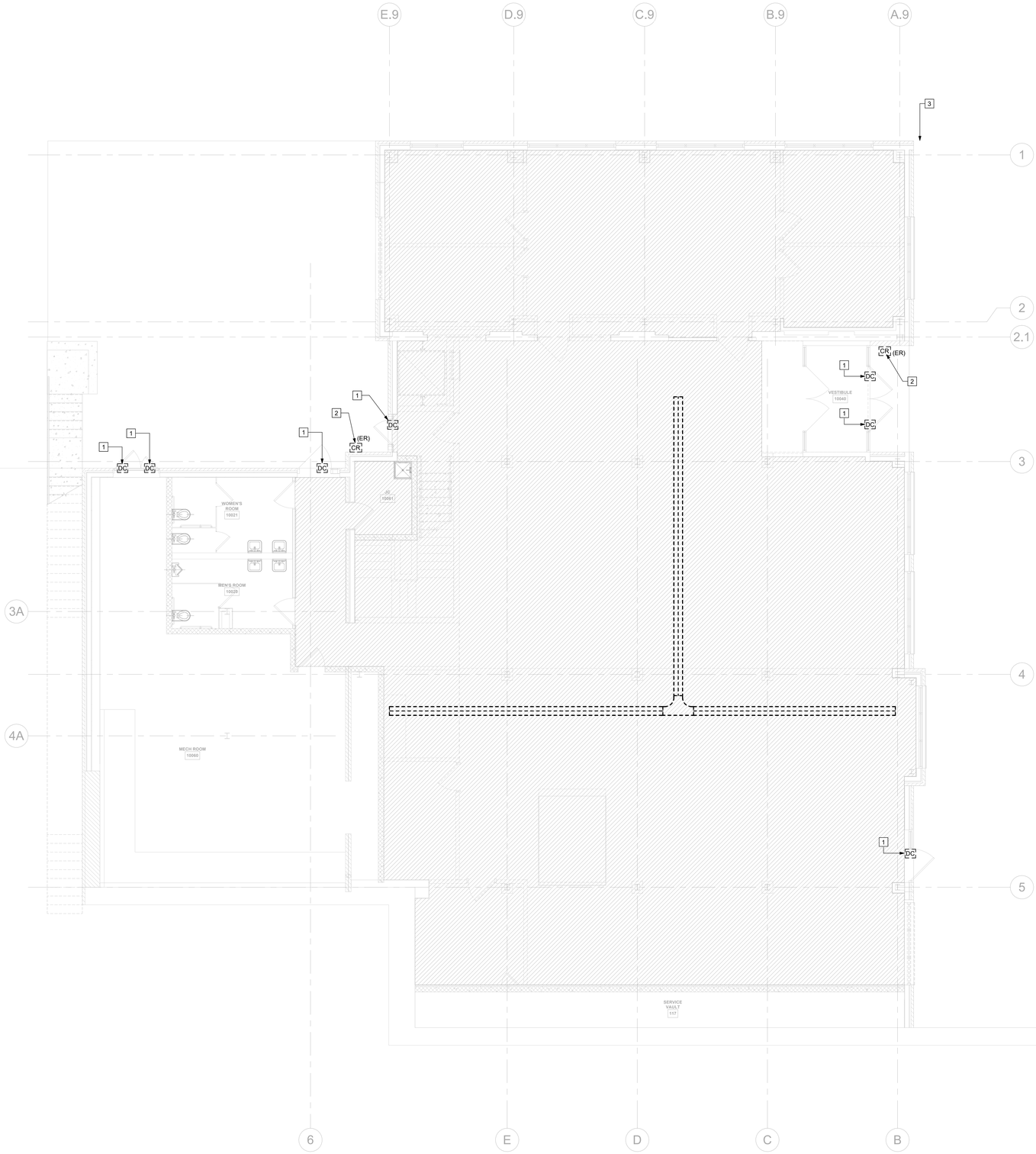

1 DEMOLITION PLAN - LEVEL 01 - SECURITY
3/16" = 1'-0"

GENERAL NOTES

A DUE TO EXISTING TO BE RELOCATED ACCESS CONTROL HEAD END COMPONENTS AND DEMOLITION ASSOCIATED WITH RENOVATION, ALL ACCESS CONTROL CONDUITS, JUNCTION BOXES, AND WIRING TO BE REPLACED.

[X] DEMOLITION NOTES:

1 DOOR CONTACT TO BE REPLACED TO ALIGN WITH CURRENT STANDARDS. DUE TO RELOCATION OF HEAD-END PANELS ALL WIRING TO BE PROVIDED. REFER TO YE100 FOR ADDTIONAL DETAILS.

2 CARD READER LOCATION IS EXISTING TO REMAIN. ALL WIRING TO BE DEMOLISHED AND PROVIDED AS NEW BACK TO ACCESS CONTROL ROOM. REFER TO YE100.

3 BLUE LIGHT PHONE LOCATION IS EXISTING TO REMAIN, DATA AND POWER REWIRING IS DETAILED ON DATA AND POWER DRAWINGS.

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DEMOLITION PLAN - LEVEL 01 - SECURITY

TRUE NORTH
PROJECT NORTH

YED100

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1 DEMOLITION PLAN - LEVEL 02 - SECURITY
3/16" = 1'-0"

GENERAL NOTES

A DUE TO EXISTING TO BE RELOCATED ACCESS CONTROL HEAD END COMPONENTS AND DEMOLITION ASSOCIATED WITH RENOVATION, ALL ACCESS CONTROL CONDUITS, JUNCTION BOXES, AND WIRING TO BE REPLACED.

[X] DEMOLITION NOTES:

1 DISCONNECT AND SALVAGE (6) HEAD-END ACCESS CONTROL PANELS AND POWER SUPPLIES FOR REINSTALLATION IN DEDICATED ACCESS CONTROL ROOM. REWORK AND EXTEND WIRING AS NECESSARY. REPLACE ALL DOOR CONTACTS WITH NEW UNITS TO MEET CURRENT STANDARDS.

2 DEVICE LOCATIONS TO BE DEMOLISHED. SALVAGE AND TURN OVER CARD READER TO OWNER.

3 BLUE LIGHT PHONE LOCATION IS EXISTING TO REMAIN, DATA AND POWER REWIRING IS DETAILED ON DATA AND POWER DRAWINGS.

4 DOOR CONTACT TO BE REPLACED TO ALIGN WITH CURRENT STANDARDS. DUE TO RELOCATION OF HEAD-END PANELS ALL WIRING TO BE PROVIDED. REFER TO YE100 FOR ADDITIONAL DETAILS.

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DEMOLITION PLAN - LEVEL 02 - SECURITY

TRUE NORTH
PROJECT NORTH

YED101

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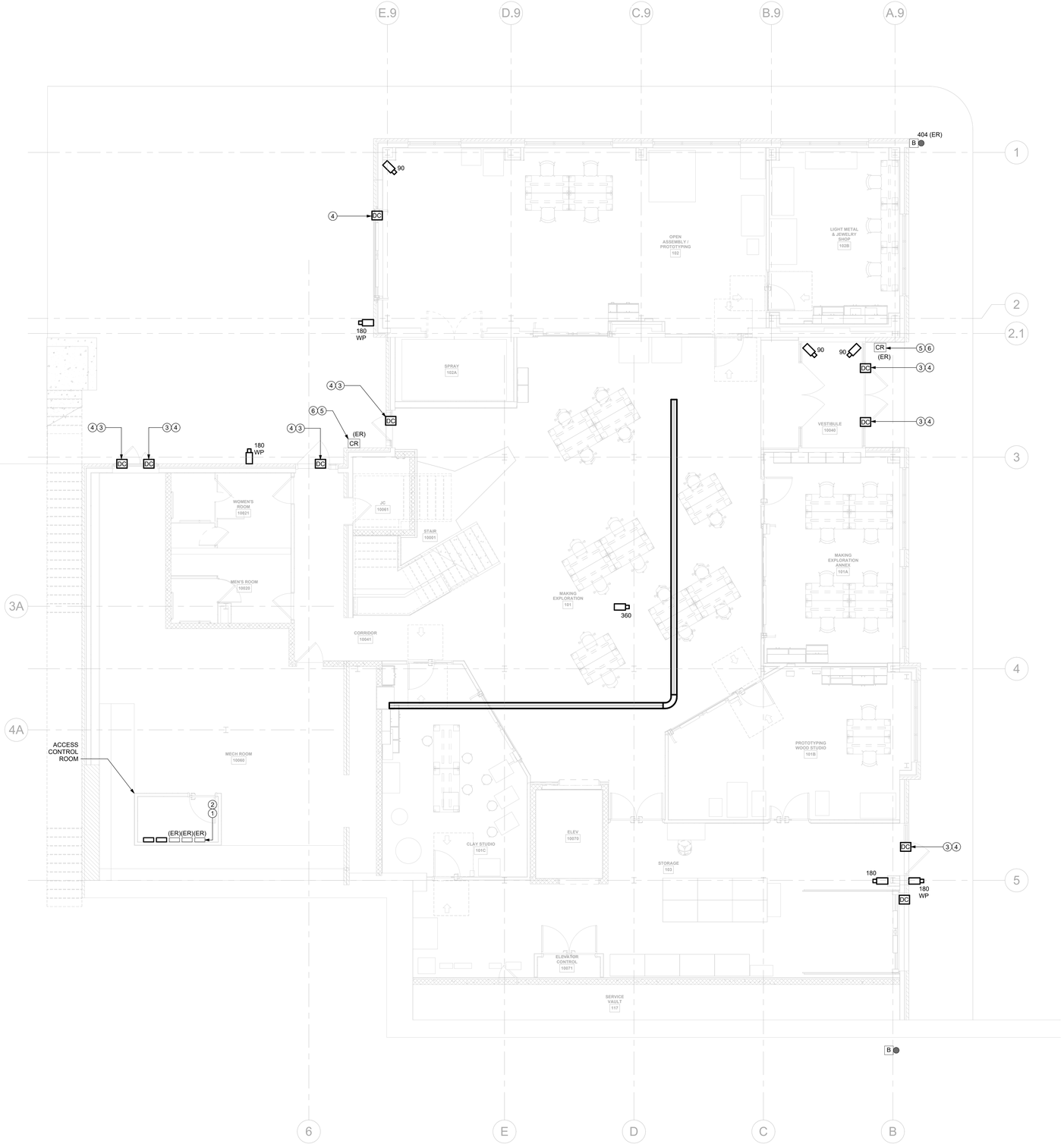

1 FLOOR PLAN - LEVEL 01 - SECURITY
3/16" = 1'-0"

GENERAL NOTES

A ALL ACCESS CONTROLS TO BE WIRED BACK TO HEAD END EQUIPMENT IN ACCESS CONTROL ROOM 10062. JUNCTION BOXES ABOVE DOORS TO PROVIDE INTERFACE BETWEEN DOOR HARDWARE TO ACCESS CONTROL CABLING.

B UNLESS OTHERWISE NOTED, ALL CAMERAS TO BE INSTALLED AT 84"AFF ON WALL. COORDINATE LOCATIONS AND MOUNTING WITH ARCHITECT.

C ALL CABLING FOR SECURITY EQUIPMENT, INCLUDING CAMERAS AND ACCESS CONTROL, TO BE IN RACEWAYS.

(X) DRAWING NOTES:

1 REINSTALL (6) HEAD-END ACCESS CONTROL PANELS. REWORK AND EXTEND CIRCUITRY AS NECESSARY FOR A COMPLETE AND FUNCTIONAL SYSTEM.

2 REFER TO TELECOM DRAWING TE200 FOR DATA DROP ADDED IN THE ACCESS CONTROL ROOM.

3 DOOR CONTACT INSTALLED IN EXSITING DOOR CONTACT LOCATION. REWORK WIRING AS NEEDED FOR A COMPLETE INSTALLATION.

4 CONTRACTOR TO PROVIDE DEDICATED INPUT AND OUTPUT BOARDS. DOORS WITH ONLY DOOR CONTACTS SHALL BE CONNECTED AND PROGRAMMED AS INDIVIDUAL DOORS.

5 CARD READER LOCATION AND DEVICE TO BE REUSED. PROVIDE NEW WIRING BACK TO ACCESS CONTROL ROOM.

6 PROVIDE GASKET BETWEEN CARD READER AND BUILDING EXTERIOR.

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FLOOR PLAN - LEVEL 01 - SECURITY

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PROJECT NORTH

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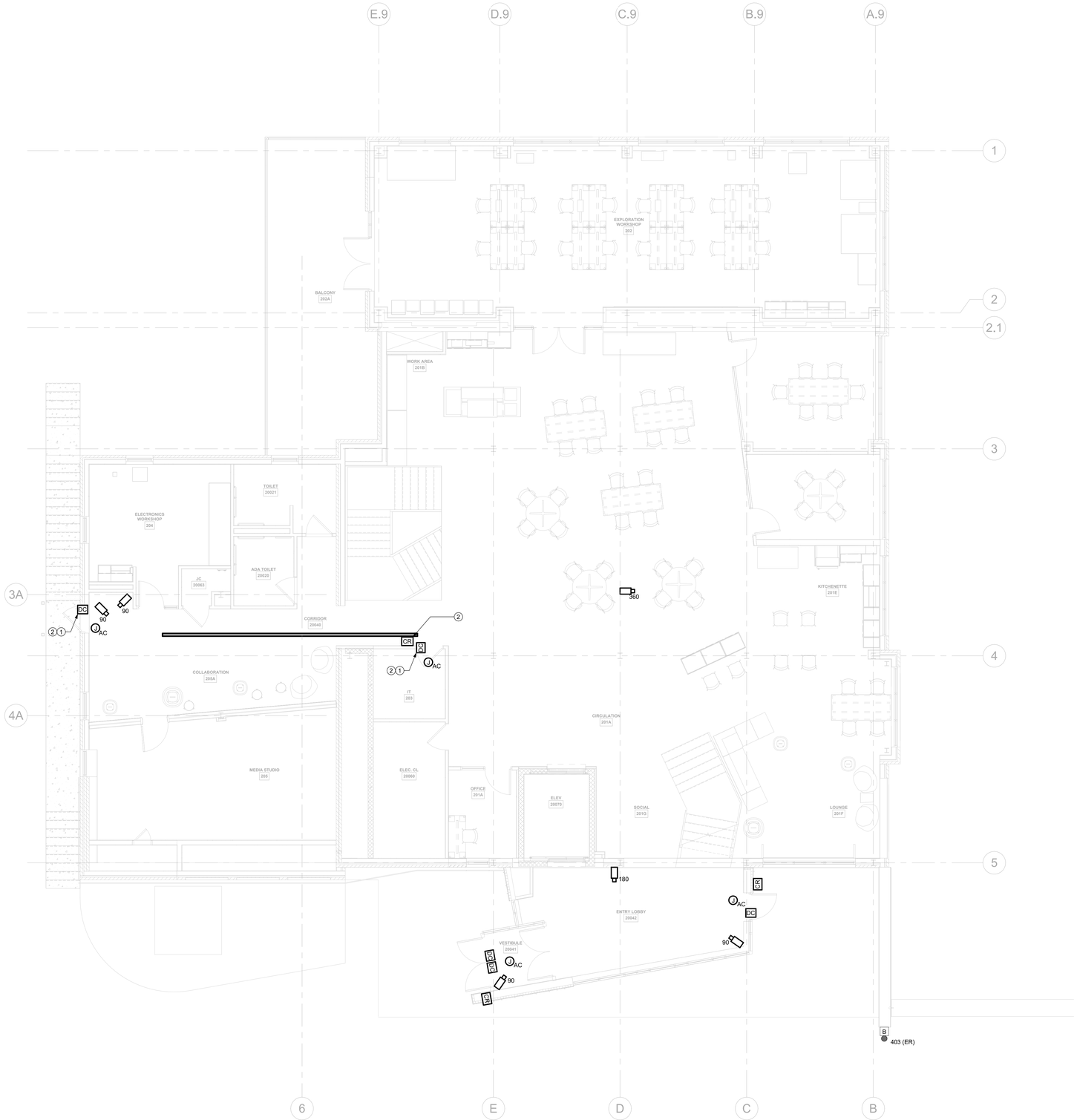

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FLOOR PLAN - LEVEL 02 - SECURITY

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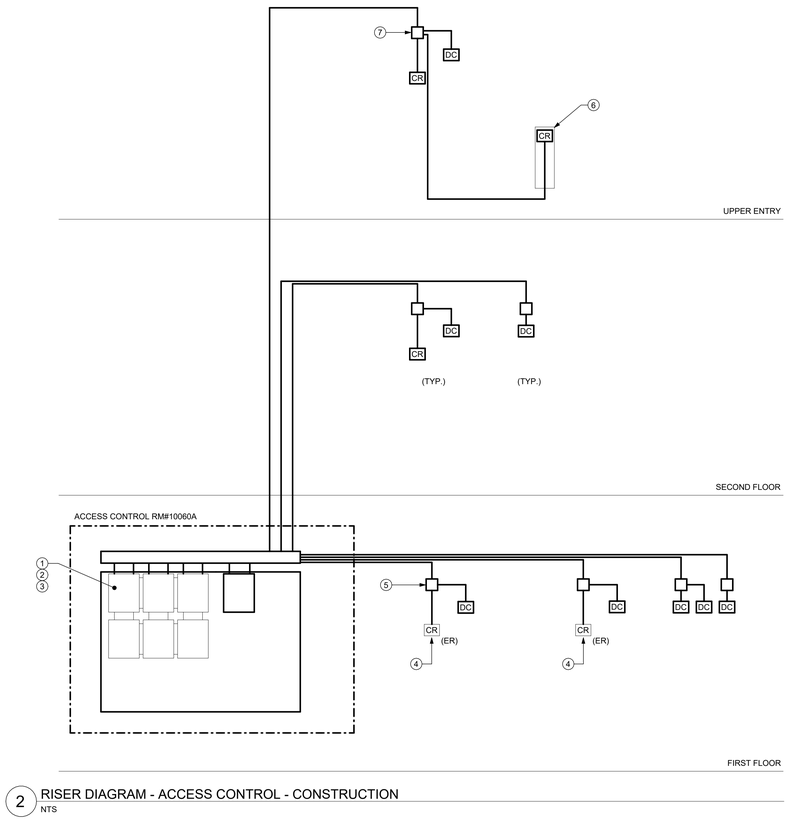
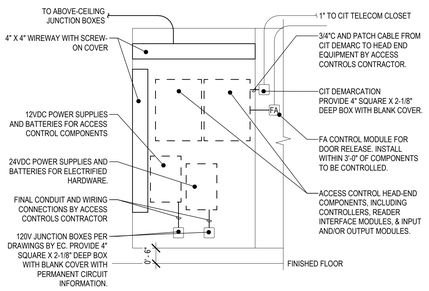


2 RISER DIAGRAM - ACCESS CONTROL - CONSTRUCTION
NTS



GENERAL DETAIL NOTES:

A. THIS IS A TYPICAL LAYOUT EXAMPLE. PROVIDE BACKBOARDS, CABINETS, WIREWAYS, AND ALL INTERCONNECTING CONDUITS FOR A COMPLETE SYSTEM.

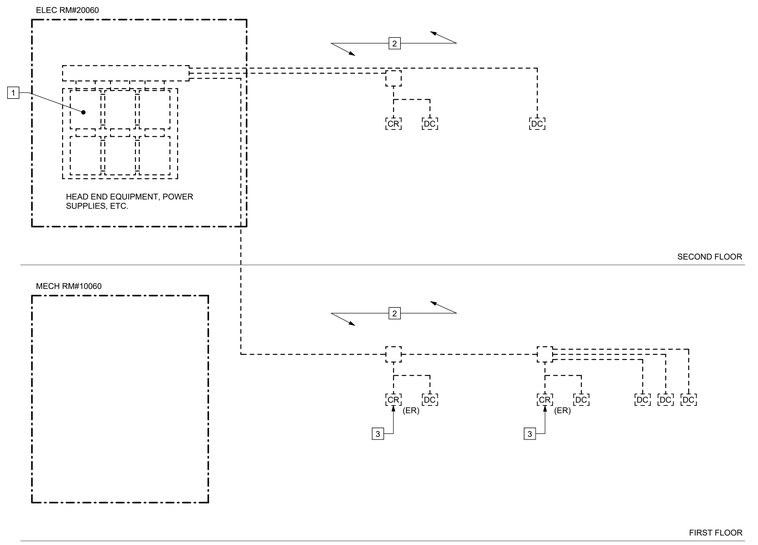
B. ALL RACEWAY AND BOXES FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.

C. PROVIDE ACCESS CONTROL DEVICES AS INDICATED ON PLANS. PROVIDE ALL POWER SUPPLIES AND HEAD-END EQUIPMENT AS REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM.

D. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL POWER SUPPLIES FOR ELECTRIC LATCHES AND PANIC BARS.

E. PROVIDE DATA DROP ADJACENT TO HEAD-END CONTROLLER. TERMINATE DATA DROP WITH RJ-45 CONNECTOR(S) IN 4-11/16" SQUARE X 2-1/8" DEEP BACK BOX WITH BLANK COVER. PROVIDE PERMANENT "CIT" LABEL ON BLANK COVER. PROVIDE 3/4" C NIPPLE TO HEAD-END CONTROLLER CABINET.

3 TYPICAL ACCESS CONTROL AND DOOR HARDWARE BACKBOARD
Not To Scale



1 RISER DIAGRAM - ACCESS CONTROL - DEMOLITION
Not To Scale

GENERAL NOTES

A COORDINATE ALL WORK WITH CORNELL UNIVERSITY SECURITY AND ACCESS CONTROL GROUP.

B RISER DEVICES ARE SHOWN DIAGRAMMATICALLY. FOR EXACT LOCATIONS AND QUANTITIES REFER TO FLOOR PLANS.

(X) DRAWING NOTES:

1 ACCESS CONTROL EQUIPMENT RELOCATED FROM ELECTRICAL ROOM.

2 PROVIDE INPUT MODULE(S) AS REQUIRED AT HEAD END FOR ALL DOOR CONTACT-ONLY DOORS. DOORS TO BE PROGRAMMED AS INDIVIDUAL DOORS.

3 PROVIDE ADDITIONAL CABINETS AND POWER SUPPLIES ADJACENT TO RELOCATED EQUIPMENT. PROVIDE SUFFICIENT BATTERY CAPACITY TO ENSURE SYSTEM IS OPERATIONAL AND FUNCTIONAL FOR 24 HOURS. THIS BUILDING HAS NO EMERGENCY OR STANDBY POWER.

4 EXISTING CARD READER LOCATION TO BE REUSED. INSTALL SALVAGED CARD READER. PROVIDE NEW GASKET FOR CARD READER.

5 TYPICAL - PROVIDE JUNCTION BOX LOCATED ABOVE DOORS WITH ACCESS CONTROL EQUIPMENT. AT DOORS WITH CARD READERS PROVIDE A 8" X 8" X 4" MINIMUM NEMA 1 ENCLOSURE. AT DOORS WITH DOOR CONTACTS ONLY PROVIDE 4" X 4" X 2-1/8" BOX WITH BLANK COVER. PROVIDE "ACCESS CONTROLS JUNCTION BOX" LABEL. ENCLOSURE TO BE INSTALLED ABOVE ACCESSIBLE CEILING IN AREAS WITH CEILINGS. COORDINATE WITH OTHER SERVICES TO ENSURE BOX IS ACCESSIBLE.

6 BOLLARD BY OTHERS.

7 REFER TO DETAILS FOR INTERFACE REQUIREMENTS AT AUTOMATIC DOOR OPENERS.

(X) DEMOLITION NOTES:

1 HEAD END EQUIPMENT AND POWER SUPPLIES TO BE RELOCATED TO ACCESS CONTROL ROOM. REFER TO CONSTRUCTION RISER DIAGRAM.

2 ALL EXISTING ACCESS CONTROL CONDUITS, PULL BOXES, WIRING, AND BRIDLE RINGS TO BE DEMOLISHED.

3 CARD READER LOCATION TO REMAIN. DEVICE TO BE SALVAGED. PROVIDE ALL NEW WIRING BACK TO ACCESS CONTROL ROOM. SALVAGE BACK BOXES AND PATHWAYS.

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RISER DIAGRAMS & DETAILS - SECURITY

YE400

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TECHNOLOGY ABBREVIATIONS

GENERAL

_____ A _____	
&	AND
+18"	MOUNTING HEIGHTS ARE TO CENTERLINE OF DEVICE ABOVE FINISHED FLOOR OR FINISHED GRADE
@	AT
AC	ALTERNATING CURRENT
ACT	ACOUSTIC CEILING TILE
ADA	AMERICANS WITH DISABILITIES ACT
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
ARCH	ARCHITECT OR ARCHITECTURAL
AV	AUDIOVISUAL
AVC	AUDIOVISUAL CONTRACTOR
AWG	AMERICAN WIRE GAUGE
_____ B _____	
B	BURIED
BD	BLACK DROP
BET	BUILDING ENTRANCE TERMINAL
BLDG	BUILDING
BLKG	BLOCKING
_____ C _____	
C	CONDUIT
CA	CABLE
CAB	CABINET
CAT	CATALOG
CATV	CABLE TELEVISION
CCTV	CLOSED CIRCUIT TLEVISION
CD	CASE DEPTH
CH	CASE HEIGHT
CL	CENTER LINE
CLG	CEILING
CW	CASE WIDTH
_____ D _____	
DWG	DRAWING
_____ E _____	
EC	ELECTRICAL CONTRACTOR
EMT	ELECTRIC METALLIC TUBING
EQUIP	EQUIPMENT
EST	ESTIMATE
EXIST, (E)	EXISTING
_____ F _____	
FACP	FIRE ALARM CONTROL PANEL
FACP	FIRE ALARM CONTROL PANEL
FCU	FAN COIL UNIT
FPD	FLAT PANEL DISPLAY
_____ G _____	
GC	GENERAL CONTRATOR
_____ H _____	
HH	HANDHOLE
_____ I _____	
IH	IMAGE HEIGHT
IHAF	BOTTOM OF IMAGE HEIGHT ABOVE FINISHED FLOOR
IO	INPUT/OUTPUT
IW	IMAGE WIDTH
_____ J _____	
JB	JUNCTION BOX
_____ K _____	
KO	KNOCK OUT
_____ L _____	
LV	LOW VOLTAGE
_____ M _____	
M, MIC	MICROPHONE
MAX	MAXIMUM
MFR	MANUFACTURE
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MTR	MOTOR
_____ N _____	
NA	NOT APPLICABLE
NEC	NETWORK ELECTRONICS CONTRACTOR
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCATION
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
_____ O _____	
O	OWNER
OC	ON CENTER
OFCI	OWNER FURNISHED - CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OTHER INSTALLED
OH	OVERHEAD
_____ P _____	
PLYWD	PLYWOOD
_____ Q _____	
QTY	QUANTITY
_____ R _____	
RCP	REFLECTED CEILING PLAN
REF	REFER / REFERENCE
REQ'D	REQUIRED
RGS	RIGID GALVANIZED STEEL
RHAFF	BOTTOM OF ROLLER HOUSING ABOVE FINISHED FLOOR
RM	ROOM
_____ S _____	
SCC	STRUCTURED CABLE CONTRACTOR
_____ T _____	
TYP	TYPICAL
_____ U _____	
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTP	UNSHIELDED TWISTED-PAIR
_____ V _____	
VIF	VERIFY IN FIELD
_____ W _____	
W/	WITH
W/O	WITHOUT
WP	WATERPROOF(ING)
_____ X _____	
XP	EXPLOSION PROOF

TECHNOLOGY SPECIFIC

J#	AV JUNCTION BOX
N#	TELECOM JUNCTION BOX
P#	POWER OUTLET
J#(N#)	JUNCTION BOX W/ AV AND TELECOM
J#(P#)	JUNCTION BOX W/ AV AND POWER
J#(N#,P#)	JUNCTION BOX W/ AV, TELECOM AND POWER
F#	FLOOR BOX
F#(N#)	FLOOR BOX W/ TELECOM
F#(P#)	FLOOR BOX W/ AV AND POWER
F#(N#,P#)	FLOOR BOX W/ AV, TELECOM AND POWER
PT#	FLOOR POKE-THRU DEVICE
PT#(N#)	FLOOR POKE-THRU DEVICE W/ TELECOM
PT#(P#)	FLOOR POKE-THRU DEVICE W/ AV AND POWER
PT#(N#,P#)	FLOOR POKE-THRU DEVICE W/ AV, TELECOM AND POWER
FS#	FLOOR CONDUIT STUB

(JUNCTION BOX "J#" LETTER CODE MAY VARY BY BOX JUNCTION)

TECHNOLOGY SYMBOLS LEGEND

(THIS IS A MASTER LEGEND, NOT ALL SYMBOLS MAY APPEAR ON DRAWINGS.)

GENERAL

SYMBOL	DESCRIPTION
	NEW WORK
	EXISTING WORK TO REMAIN
	EXISTING WORK TO BE REMOVED (DEMO)
	BELOW FLOOR OR GRADE
# T### RISER	CONDUIT RISER - DETAIL # / SHEET #
# T###	CALLOUT SYMBOL - DETAIL # / SHEET #
T### #	ELEVATION SYMBOL - DETAIL # / SHEET #
# T###	SECTION SYMBOL - DETAIL # / SHEET #

TECHNOLOGY TAG DESIGNATIONS

DISPLAY TYPE

NUMBER DESIGNATES THE DISPLAY TYPE — 2

(REFER TO THE DISPLAY TYPE LEGEND FOR MORE INFORMATION)

PROJECTION TYPE

LETTER DESIGNATES THE PROJECTION SCREEN TYPE — A

(REFER TO THE PROJECTION SCREEN TYPE LEGEND FOR MORE INFORMATION)

TELECOM DESIGNATORS

SYMBOL DESIGNATES FLOOR, WALL OR CEILING

N-NUMBER DESIGNATES BOX-TYPE & MOUNTING STYLE — N2A — LETTER DESIGNATES CABLE PULL TYPE

(REFER TO THE TELECOM CABLING LEGEND FOR MORE INFORMATION)

VERTICAL PLACEMENT

J#,J# OR J#,N# OR N#,N#

(DENOTES DEVICES WHICH FALL ON THE SAME VERTICAL PLANE)

TECHNOLOGY DEVICES

SYMBOL	DESCRIPTION
	FLOOR BOX / FLOOR POKE-THRU DEVICE / FLOOR CONDUIT STUB
	WALL JUNCTION BOX
	CEILING JUNCTION BOX
	FLOOR TELECOM OUTLET
	WALL TELECOM OUTLET
	CEILING TELECOM OUTLET
	FLOOR POWER CIRCUIT
	FLOOR POWER DUPLEX RECEPTACLE
	FLOOR POWER DOUBLE DUPLEX RECEPTACLE
	WALL POWER CIRCUIT
	WALL POWER DUPLEX RECEPTACLE
	WALL POWER DOUBLE DUPLEX RECEPTACLE
	CEILING POWER CIRCUIT
	CEILING DUPLEX RECEPTACLE
	CEILING DOUBLE DUPLEX RECEPTACLE
	CEILING LOUDSPEAKER BY AV CONTRACTOR - SHOWN FOR COORDINATION PURPOSES ONLY. EXACT LOCATION TO BE COORDINATED BY THE AV CONTRACTOR. SUBSCRIPT NUMBER DESIGNATES THE SPEAKER ZONE.
	CEILING AV CAMERA BY AV CONTRACTOR - SHOWN FOR COORDINATION PURPOSES ONLY. EXACT LOCATION TO BE COORDINATED BY THE AV CONTRACTOR.
	CEILING AV MICROPHONE BY AV CONTRACTOR - SHOWN FOR COORDINATION PURPOSES ONLY. EXACT LOCATION TO BE COORDINATED BY THE AV CONTRACTOR.
	FLAT PANEL DISPLAY BY AV CONTRACTOR - SHOWN FOR COORDINATION PURPOSES ONLY. REFER TO DETAIL SHEETS FOR MORE INFORMATION.
	PROJECTOR BY AV CONTRACTOR - SHOWN FOR COORDINATION PURPOSES ONLY. REFER TO DETAIL SHEETS FOR MORE INFORMATION.
	PROJECTION SCREEN - REFER TO THE PROJECTION SCREEN TYPE LEGEND AND NOTES FOR MORE INFORMATION.

TECHNOLOGY DEVICES

SYMBOL	DESCRIPTION
	ACCESS PANEL
	LARGE JUNCTION BOX
	CABLE BASKET - REFER TO PLANS FOR SIZE
	CABLE RUNWAY - REFER TO PLANS FOR SIZE
	CONDUIT - REFER TO PLANS FOR SIZE
	J-HOOK - REFER TO SPECIFICATIONS FOR DETAILS
FB	CONDUIT - RESERVED FOR FIBER BACKBONE
CB	CONDUIT - RESERVED FOR COPPER BACKBONE
HC	CONDUIT - RESERVED FOR HORIZONTAL CABLING
FC	CONDUIT - RESERVED FOR FUTURE
SC	CONDUIT - RESERVED FOR SECURITY
/	FIRE RATED ASSEMBLY
	BUILDING ENTRANCE TERMINAL
	CATV TAP
	GROUNDING BUSBAR
	MAIN GROUNDING BUSBAR
	ELECTRICAL / SECURITY PANEL
	TERMINATION BLOCK - 66 STYLE
	TERMINATION BLOCK - 110 STYLE
	VERTICAL CABLE MANAGER
/	RACK - 2 POST
	RACK - 4 POST
	EQUIPMENT RACK
	PLYWOOD BACKBOARD

TELECOM BUILDING RISER

SYMBOL	DESCRIPTION
	48 - PORT COPPER PATCH PANEL, RACK MOUNT
	48 - PORT OPTICAL FIBER PANEL, RACK MOUNT
	110 - STYLE PUNCHDOWN BLOCK, WALL MOUNT
	TELECOM MAIN GROUNDING BUSBAR (TMGB), WALL MOUNT
	TELECOM GROUNDING BUSBAR (TGB), WALL MOUNT
	PRIMARY CABLE PROTECTION, WALL MOUNT
	CATV HEAD END EQUIPMENT
	CATV TAP
	CONDUIT - REFER TO PLANS FOR SIZE

ERRCS - DAS

SYMBOL	DESCRIPTION
	ERRCS - DAS ANTENNA J-BOX
	ERRCS - DAS SPLITTER J-BOX
	ERRCS - DAS ANTENNA
	ERRCS - DAS SPLITTER

AUDIOVISUAL ROOM RISERS

SYMBOL	DESCRIPTION
N A G	AN AUDIOVISUAL DEVICE WHICH CONTAINS A POWER RECEPTACLE AND A TELECOM OUTLET
A	AUDIOVISUAL JUNCTION BOX
N	TELECOM JUNCTION BOX
	POWER DESIGNATIONS
	CONDUIT STUB
	FLEXIBLE CONDUIT RUN
	J-HOOK

TECHNOLOGY SHEET INDEX

ISSUE: 2025-09-14 IFC SET	2025-08-21 - 95% CD	2026/07.22 90% CD	2026-05-13 100% DD	SHEET NUMBER	SHEET DESCRIPTION
●	●	●	●	T001	TECHNOLOGY INFRASTRUCTURE LEGENDS AND NOTES
●	●	●	●	T002	TECHNOLOGY INFRASTRUCTURE LEGENDS AND LEGEND NOTES
●	●	●	●	T003	TECHNOLOGY INFRASTRUCTURE LEGENDS AND SCHEDULES
●	●	●	●	T101	TECHNOLOGY INFRASTRUCTURE PLAN - LEVEL 01
●	●	●	●	T102	TECHNOLOGY INFRASTRUCTURE PLAN - LEVEL 02
●	●	●	●	T201	TECHNOLOGY INFRASTRUCTURE REFLECTED CEILING PLAN - LEVEL 01
●	●	●	●	T202	TECHNOLOGY INFRASTRUCTURE REFLECTED CEILING PLAN - LEVEL 02
●	●	●	●	T501	AUDIOVISUAL INFRASTRUCTURE TYPICAL RISER
●	●	●		T701	TECHNOLOGY INFRASTRUCTURE ELEVATIONS
●	●	●	●	T801	TECHNOLOGY INFRASTRUCTURE DETAILS

TECHNOLOGY GENERAL NOTES

DRAWINGS:
NOTIFY THE DESIGNER OF ANY DISCREPANCIES BETWEEN THESE CONTRACT DRAWINGS AND FIELD CONDITIONS.

INSTALLATION:
INSTALL ALL COMPONENTS AS PER MANUFACTURERS RECOMMENDATIONS AND PER ALL APPLICABLE CODES.

SUBSTITUTIONS:
THE MAKE AND MODEL OF LOW VOLTAGE INFRASTRUCTURE DEVICES IN THE TECHNOLOGY LEGENDS HAVE BEEN LISTED TO ESTABLISH THE DESIRED LEVEL OF QUALITY AND PERFORMANCE FOR EACH DEVICE. UNLESS OTHERWISE INDICATED, THE INSTALLING CONTRACTOR MAY SUBSTITUTE THESE DEVICES WITH EQUIVALENT APPROVED PRODUCT BY OTHER MANUFACTURERS.

DEVICE MOUNTING:
DEVICE SPECIFIED MOUNTING ELEVATIONS ARE "ON CENTER" UNLESS OTHERWISE NOTED. ALL DEVICE HEIGHTS SHALL COMPLY WITH ANSI 117.1 CHAPTER 3, SECTION 307, PROTRUDING OBJECTS AND CHAPTER 3, SECTION 308, REACH RANGES. IF ANY DEVICE OR BOX SPECIFIED WITHIN IS FOUND TO BE IN CONFLICT WITH ABOVE SECTIONS A CONFIRMING RFI SHOULD BE PLACED PRIOR TO RELOCATING.

FLOOR BOX, JUNCTION BOX, AND PULL BOX COVERS:
UNLESS OTHERWISE DIRECTED, ALL FLOOR BOXES, JUNCTION BOXES, AND PULL BOXES MUST BE PROVIDED WITH A COVER. WHERE SINGLE OR MULTI-DEVICE RAISED DEVICE COVERS ARE SPECIFIED IN THE SCHEDULE, MATCH THE RAISED COVER DEPTH TO THE WALL THICKNESS. PROVIDE ALL FLOOR BOXES, JUNCTION BOXES, AND PULL BOXES WITH APPROPRIATE KNOCKOUTS TO MATCH CONDUIT REQUIREMENTS. WHERE JUNCTION BOXES AND PULL BOXES ARE MOUNTED AT OR ABOVE FINISHED CEILING HEIGHT, INSTALL BOXES WITH OPEN SIDE FACING DOWN.

FIRE STOPPING:
THE FIRE STOP SYSTEM SHALL COMPLY WITH THE IBC, NEC AND WITH NFPA 101-LIFE SAFETY CODE (LATEST EDITION) AND SHALL BE MADE AVAILABLE FOR INSPECTION BY THE LOCAL INSPECTION AUTHORITIES PRIOR TO CABLE SYSTEM ACCEPTANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE FIRE RATING OF ALL WALLS AND FLOORS HAVING PENETRATIONS. COORDINATE SEALANT INSTALLATION WITH WORK OF OTHER TRADES. REFER TO GENERAL AND / OR ELECTRICAL SPECIFICATION SECTIONS FOR FURTHER MATERIAL AND INSTALLATION PARAMETERS.

EMERGENCY COMMUNICATIONS:
CONTRACTOR TO VERIFY ALL CODE AND TELECOMMUNICATIONS REQUIREMENTS FOR AEDS, EMERGENCY PHONES, AND AREA OF REFUGE SYSTEMS AND SIGNAGE PER THE AHJ. REFERENCE ARCHITECTURAL DRAWINGS FOR EMERGENCY COMMUNICATIONS SIGNAGE AND ELECTRICAL AND FIRE PROTECTION DRAWINGS FOR EMERGENCY COMMUNICATIONS REQUIREMENTS.

GROUNDING:
GROUND COMMUNICATIONS SYSTEMS AND EQUIPMENT IN ACCORDANCE WITH THE ANSI/TIA-607-(LATEST EDITION) GROUNDING STANDARD AND APPLICABLE NEC REQUIREMENTS EXCEPT WHERE THE DRAWINGS OR SPECIFICATIONS EXCEED NEC REQUIREMENTS. ALL RACKS, METALLIC BACKBOARDS, CABLE SHEATHS, METALLIC STRENGTH MEMBERS, SPLICE CASES, CABLE TRAYS, ETC. ENTERING OR RESIDING IN TECHNICAL EQUIPMENT SPACES SHALL BE GROUNDED TO THEIR RESPECTIVE GROUND SYSTEM USING A MINIMUM #6 AWG STRANDED COPPER BONDING CONDUCTOR AND COMPRESSION CONNECTORS. ALL WIRES USED FOR TECHNICAL POWER SYSTEMS GROUNDING PURPOSES SHALL BE IDENTIFIED WITH GREEN INSULATION OR IDENTIFIED AT EACH TERMINATION POINT WITH A WRAP OF GREEN TAPE. ALL CABLES AND BUS BARS SHALL BE IDENTIFIED AND LABELED "TECHNICAL POWER SYSTEM GROUND".

TECHNICAL POWER & GROUNDING SYSTEM:
DUE TO THE SENSITIVE NATURE OF ELECTRONIC EQUIPMENT THAT IS BEING USED, POWER QUALITY MUST BE ASSURED. POWER FOR TECHNOLOGY SYSTEMS SHOULD BE DERIVED FROM DEDICATED TECHNICAL POWER PANELS WHICH DO NOT SHARE CIRCUITS WITH EQUIPMENT LOADS THAT GENERATE ELECTRICAL NOISE ON THE POWER LINE. THIS MIGHT INCLUDE: AIR CONDITIONING EQUIPMENT, MOTORS, HEAVY INDUSTRIAL EQUIPMENT, OR DIMMED LIGHTING LOADS; ALL OF WHICH CREATE TRANSIENTS, HARMONICS, SURGES AND SPIKES. FOR ADDITIONAL GUIDELINES REFER TO THE IEEE STD. 1100 (2005) EMERALD BOOK 'RECOMMENDED PRACTICE FOR POWERING AND GROUNDING ELECTRONIC EQUIPMENT'. WHERE PRACTICAL, ALL TECHNICAL POWER CIRCUITS FOR EQUIPMENT WITHIN A ROOM SHOULD BE ON THE SAME PHASE TO ENSURE PROPER EQUIPMENT TIMING WITHIN THE SYSTEM.

TRANSIENT VOLTAGE SURGE SUPPRESSION (TVSS) DEVICES SHOULD BE PROVIDED AT POWER DISTRIBUTION PANELS SERVING TECHNICAL POWER CIRCUITS. THESE TVSS DEVICES MUST BE INSTALLED ACCORDING TO NEC ARTICLE 285. ALL DEVICES MUST BE UL 1449 COMPLIANT. IN BROADCAST APPLICATIONS OR IN LARGE SYSTEMS, A SEPARATELY DERIVED TECHNICAL POWER SOURCE PROVIDED BY AN ELECTROSTATIC SHIELDED ISOLATION TRANSFORMER MAY BE REQUIRED.

ALL TECHNICAL POWER OUTLETS MUST BE WIRED AS "ALWAYS ON". NO OUTLETS SERVING TECHNOLOGY SYSTEMS SHALL BE ON SWITCHED, TIME OF DAY, OR OCCUPANCY CONTROLLED OUTLETS.

TECHNICAL GROUND SYSTEM (TGS)
TECHNICAL GROUND SHALL CONSIST OF AN INSULATED GROUND CONDUCTOR FROM THE PANEL BOARD TO EACH TECHNICAL GROUND RECEPTACLE. AT THE RECEPTACLE, THE GROUND CONDUCTOR SHALL BE ELECTRICALLY ISOLATED FROM THE ELECTRICAL BOX AND CONDUIT SYSTEM.

TECHNICAL ELECTRICAL SUPPLY GROUNDING SHALL BE VIA A GROUNDING ELECTRODE AND MEET NEC ARTICLE 250 REQUIREMENTS. A TECHNICAL POWER SYSTEM IS FURTHER DEFINED IN NEC ARTICLE 640 AS "AN ELECTRICAL DISTRIBUTION SYSTEM WITH GROUNDING IN ACCORDANCE WITH 250.146(D), WHERE THE EQUIPMENT GROUNDING CONDUCTOR IS ISOLATED FROM THE PREMISES GROUNDING CONDUCTOR EXCEPT AT A SINGLE GROUNDED TERMINATION POINT WITHIN A BRANCH-CIRCUIT PANEL BOARD, AT THE ORIGINATING (MAIN BREAKER) BRANCH-CIRCUIT PANEL BOARD, OR AT THE PREMISES GROUNDING ELECTRODE".

INSULATED GROUNDING CONDUCTORS FROM THE BREAKER PANEL BOARDS SHALL BE IN A "STAR" CONFIGURATION AND NOT LOOP FROM ONE PANEL TO THE NEXT PANEL. AT EACH BREAKER PANEL, PROVIDE AN INSULATED GROUND BUS BAR FOR CONNECTIONS OF ALL TGS INSULATED GROUND CONDUCTORS AND NO OTHERS. THE GREEN SAFETY GROUND WIRES FROM EACH TGS RECEPTACLE OR CIRCUIT ARE BROUGHT TO THIS BUS. EACH TECHNICAL POWER RECEPTACLE SHALL BE OF A UNIQUE COLOR AND / OR CLEARLY AND PERMANENTLY LABELED "TECHNICAL POWER".

CONTRACTOR RESPONSIBILITY MATRIX

#	ITEM /TASK	FURNISH	INSTALL
1	UNISTRUT, THREADED ROD, SUPPORT CABLE, FASTENERS OR OTHER HARDWARE REQUIRED TO ATTACH AUDIOVISUAL WALL OR CEILING MOUNTS TO STRUCTURE	GC	GC
2	ROUGH OR FINISHED TRIM, CASEWORK AND MILLWORK	GC	GC
3	STRUCTURAL BACKING ("BLOCKING") AS REQUIRED TO SUPPORT WALL MOUNTED AUDIOVISUAL COMPONENTS AND STRUCTURAL WORK FOR SPECIAL CONSTRUCTION	GC	GC
4	AC POWER SYSTEMS, CONDUIT, RACEWAYS, ELECTRICAL BACK BOXES, JUNCTION BOXES, PULL BOXES, FLOOR BOXES AND OTHER INFRASTRUCTURE	GC	GC
5	LIGHTING FIXTURES, DIMMING SYSTEMS AND WALL CONTROLLERS	GC	GC
6	LOW VOLTAGE AV CONTROL INTERFACE FOR LIGHTING SYSTEM (DIMMER SIDE) AND PATHWAY TO AUDIOVISUAL CONTROL SYSTEM EQUIPMENT RACK	GC	GC
7	LOW VOLTAGE AV CONTROL INTERFACE FOR MOTORIZED WINDOW SHADES AND PATHWAY TO AUDIOVISUAL CONTROL SYSTEM EQUIPMENT RACK	GC	GC
10	PROJECTION SCREENS - WALL MOUNTED, CEILING MOUNTED, OR FIXED FRAME	GC	GC
11	AUDIOVISUAL CONNECTOR INSERT PLATES FOR FLOOR BOXES AND / OR WALL BOXES	AVC	AVC
12	AUDIOVISUAL CABLING AND TERMINATIONS FOR AUDIOVISUAL SYSTEMS	AVC	AVC
13	PROJECTORS, FLAT PANEL DISPLAYS, CONTROL PANELS, MICROPHONES, SPEAKERS AND OTHER AUDIOVISUAL EQUIPMENT	AVC	AVC
14	MOTORIZED PROJECTOR LIFTS	GC	GC
15	LECTERNS / SPECIALTY TECHNICAL FURNITURE	AVC	AVC
16	AUDIOVISUAL EQUIPMENT RACKS	AVC	AVC

NOTES:

1. ALL ITEMS AND TASKS LISTED ARE THE RESPONSIBILITY OF THE NOTED CONTRACTOR.

TECHNOLOGY RISER GENERAL NOTES

RISER DRAWINGS AND CONDUIT ROUTING
THE ROOM RISER DRAWINGS ARE DIAGRAMMATIC IN NATURE. CONDUIT PATHS SHOWN ON THE ROOM RISERS ARE INTENDED TO CONVEY REQUIRED DEVICE INTERCONNECTION AND SIZES ONLY. ACTUAL CONDUIT ROUTING IN THE FIELD MAY BE REQUIRED TO FOLLOW ROUTING CONTRARY TO THAT IMPLIED BY THE ROOM RISER. CONDUIT ROUTING IS AT CONTRACTORS DISCRETION, BUT THE CONTRACTOR SHALL PROVIDE A PULL BOX IMMEDIATELY BEFORE AND AFTER ANY CONDUIT RUN SECTION CONTAINING TWO NINETY-DEGREE TURNS, OR ANY SINGLE RUN EXCEEDING FIFTY FEET IN LENGTH REGARDLESS OF WHETHER PULL BOXES ARE SHOWN ON THE DRAWINGS OR NOT. IN ALL CASES, CONDUIT ROUTES SHALL FOLLOW THE SHORTEST PATH POSSIBLE WHILE COMPLYING WITH INDUSTRY STANDARDS AND BEST PRACTICES.

CONDUIT RUNS:
ALL CONDUIT RUNS SHALL BE STEEL, THIN-WALL ELECTRICAL METALLIC TUBING (EMT) UNLESS OTHERWISE INDICATED. THE USE OF FLEXIBLE CONDUIT IS NOT PERMISSIBLE EXCEPT WHERE INDICATED ON THE DRAWINGS. CONDUIT SIZES AND INTERCONNECTIONS SHALL BE AS INDICATED ON THE DRAWINGS.

CONDUIT STUBS
TERMINATE CONDUIT STUBS INTO CLEAR SPACE 18 INCHES ABOVE ACCESSIBLE CEILING IN ROOM INDICATED.

NYLON BUSHINGS
PROVIDE A NYLON BUSHING ON ALL CONDUIT STUBS AND NON-TERMINATING CONDUIT ENDS TO PROTECT WIRE PULLS.

PULL STRINGS
ALL CONDUIT RUNS SHALL BE PROVIDED WITH A #12 PULL STRING OR EQUAL.

POWER DESIGNATORS AND RECEPTACLES
POWER DESIGNATORS AND RECEPTACLES WHICH APPEAR ON THE ROOM RISER DRAWINGS ARE SHOWN TO INDICATE THEIR ASSOCIATION WITH AND REQUIRED ADJACENCY TO AUDIOVISUAL COMPONENTS. NOTE THAT NOT ALL POWER RECEPTACLES REQUIRED TO SUPPORT THE AUDIOVISUAL SYSTEMS ARE SHOWN ON THE ROOM RISER DIAGRAMS; ONLY THOSE THAT ARE PART OF OR INTERFACE WITH THE AUDIOVISUAL JUNCTION BOXES ARE SHOWN. REFER TO THE AUDIOVISUAL INFRASTRUCTURE PLANS, ELEVATIONS AND DETAILS FOR ADDITIONAL GUIDANCE REGARDING AUDIOVISUAL POWER LOCATIONS. REFER TO THE ELECTRICAL DRAWINGS FOR COMPLETE POWER LAYOUTS AND CIRCUITING DETAILS.

AV SPECIFIC ROOM RISERS
NOT ALL TELECOM OUTLETS REQUIRED TO SUPPORT THE AUDIOVISUAL SYSTEMS ARE SHOWN ON THE ROOM RISER DIAGRAMS; ONLY THOSE THAT ARE PART OF OR INTERFACE WITH AUDIOVISUAL JUNCTION BOXES ARE SHOWN. REFER TO THE AUDIOVISUAL INFRASTRUCTURE PLANS, ELEVATIONS AND DETAILS FOR ADDITIONAL GUIDANCE REGARDING AUDIOVISUAL TELECOM OUTLET LOCATIONS. REFER TO THE STRUCTURED CABLING DRAWINGS FOR COMPLETE TELECOMMUNICATIONS PATHWAYS, OUTLETS AND CABLING REQUIREMENTS.

CONDUITS SHOWN ON THE ROOM RISER DRAWINGS ARE FOR AV ONLY AND SHALL NOT BE USED FOR TELECOM CABLES.

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24213

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TECHNOLOGY INFRASTRUCTURE LEGENDS AND NOTES

T001

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TECHNOLOGY JUNCTION BOX LEGEND

TYPE		FUNCTION	ENCLOSURE DIMENSIONS			ENCLOSURE DESCRIPTION	ENCLOSURE MAKE & MODEL	MOUNTING STYLE	REFERENCE DETAIL	LEGEND NOTES
SYM	STYLE		LENGTH	WIDTH	DEPTH					
PT2	FLOOR	FLOOR RECESS POKE-THRU W/ AV TELECOM AND POWER	6"	6"	16 1/4"	POKE-THRU DEVICE	WIREMOLD 6AT	FLUSH WITH FINISHED FLOOR	1/T801	G, H
D8	WALL	DISPLAY BOX W/ AV TELECOM AND POWER	10 7/8"	11 1/4"	3 7/8"	DISPLAY BOX	WIREMOLD EFSB4	FLUSH (UNO) - REFER TO ROOM DISPLAY SCHEDULE AND ELEVATIONS	2, 3/T801	A
R2	WALL	EQUIPMENT RACK PULL BOX	4 11/16"	10 7/16"	2 1/2"	PULL BOX W/ RAISED FOUR-DEVICE COVER	RACO 943	PER PROJECT STANDARD OUTLET HEIGHT - FLUSH (UNO) - REFER TO ARCH. DRAWINGS	-	-
TP2	WALL	CONTROL PANEL	4 11/16"	4 11/16"	2 1/8"	PULL BOX W/ RAISED TWO-DEVICE COVER	RACO 258 259 OR 265	PER PROJECT STANDARD SWITCH HEIGHT - FLUSH (UNO) - REFER TO ARCH. DRAWINGS	-	-
W2	WALL	AV IO PANEL	4 11/16"	4 11/16"	3 1/4"	PULL BOX W/ RAISED TWO-DEVICE COVER - DEEP	RACO 260	PER PROJECT STANDARD OUTLET HEIGHT - FLUSH (UNO) - REFER TO ARCH. DRAWINGS	-	-
W4	WALL	AV IO PANEL	4 11/16"	10 7/16"	2 1/2"	PULL BOX W/ RAISED FOUR-DEVICE COVER	RACO 943	PER PROJECT STANDARD OUTLET HEIGHT - FLUSH (UNO) - REFER TO ARCH. DRAWINGS	-	-
AT2-2	CEILING	ANTENNA PULL BOX	4 11/16"	4 11/16"	2 1/8"	PULL BOX W/ FLAT COVER	RACO 258 259 OR 265	SURFACE MOUNT TO DECK	-	-
D26	CEILING	DISPLAY BOX W/ AV TELECOM AND POWER	14"	14"	4 3/4"	PLENUM ENCLOSURE ASSEMBLY	NIGEL B. NB-PEBPM	18" ABOVE ACCESSIBLE CEILING - REFER TO DETAIL FOR MOUNTING INFORMATION	4, 5/T801	E
L11-2	CEILING	LOUDSPEAKER PULL BOX	4 11/16"	4 11/16"	2 1/8"	PULL BOX W/ FLAT COVER	RACO 258 259 OR 265	SURFACE MOUNT TO DECK	-	-

TECHNOLOGY TELECOM JUNCTION BOX LEGEND

TYPE		FUNCTION	ENCLOSURE DIMENSIONS			ENCLOSURE DESCRIPTION	ENCLOSURE MAKE & MODEL	MOUNTING STYLE	REFERENCE DETAIL	LEGEND NOTES
SYM	STYLE		LENGTH	WIDTH	DEPTH					
N1	FLOOR	TELECOM OUTLET - FLOOR	-	-	-	FLOOR DEVICE INDICATED BY BOX NUMBER	COORDINATE W/ ASSOCIATED FLOOR DEVICE	INSTALL IN FLOOR DEVICE PER MFR DIRECTIONS	1/T801	B, G, H
N2	WALL	TELECOM OUTLET - DISPLAY	-	-	-	WALL BOX INDICATED BY BOX NUMBER	COORDINATE W/ ASSOCIATED DISPLAY BOX	INSTALL IN DISPLAY BOX PER MFR DIRECTIONS	2, 3/T801	A, B
N4	WALL	TELECOM OUTLET - STANDARD	4 11/16"	4 11/16"	2 1/8"	PULL BOX W/ RAISED ONE-DEVICE COVER	RACO 258 259 OR 265	PER PROJECT STANDARD OUTLET HEIGHT - FLUSH (UNO) - REFER TO ARCH. DRAWINGS	-	B
N12	WALL	TELECOM OUTLET - WALL-MOUNTED DISPLAY	4 11/16"	4 11/16"	2 1/8"	PULL BOX W/ RAISED ONE-DEVICE COVER	RACO 258 259 OR 265	ADJACENT TO DISPLAY BOX	-	B
N20	CEILING	TELECOM OUTLET - CEILING DISPLAY	-	-	-	CEILING BOX INDICATED BY BOX NUMBER	COORDINATE W/ ASSOCIATED CEILING DISPLAY BOX	INSTALL IN CEILING DISPLAY BOX PER MFR DIRECTIONS	4, 5/T801	B, E

TECHNOLOGY POWER LEGEND

TYPE		FUNCTION	VOLTS	AMPS	NEMA	DESCRIPTION	ADDITIONAL REQUIREMENTS	MOUNTING STYLE	REFERENCE DETAIL	LEGEND NOTES
SYM	STYLE									
P1	FLOOR	POWER RECEPTACLE - FLOOR DEVICE	120	20	5-20R	DUPLEX RECEPTACLE INSIDE FLOOR DEVICE	-	INSTALL IN FLOOR DEVICE PER MFR DIRECTIONS	1/T801	F, G, H
P2	WALL	POWER RECEPTACLE - DISPLAY	120	20	5-20R	DUPLEX RECEPTACLE INSIDE DISPLAY BOX	-	INSTALL IN DISPLAY BOX PER MFR DIRECTIONS	2, 3/T801	A, F
P4	WALL	POWER RECEPTACLE - TECHNOLOGY	120	20	5-20R	DUPLEX RECEPTACLE	-	PER PROJECT STANDARD OUTLET HEIGHT - FLUSH (UNO) - REFER TO ARCH. DRAWINGS	-	C, F
P12	WALL	POWER RECEPTACLE - WALL- MOUNTED VIDEO DISPLAY	120	20	5-20R	DUPLEX RECEPTACLE	-	REFER TO PLANS & ELEVATIONS	-	F
P20	CEILING	POWER RECEPTACLE - CEILING DISPLAY	120	20	5-20R	DUPLEX RECEPTACLE INSIDE CEILING DISPLAY BOX	-	INSTALL IN CEILING DISPLAY BOX PER MFR DIRECTIONS	4, 5/T801	E, F
P22	CEILING	POWER CIRCUIT - MOTORIZED PROJECTION SCREEN	120	20	-	WORKBOX W/ POWER CIRCUIT	-	TERMINATE AT PROJECTION SCREEN PER MFR INSTRUCTIONS	-	D, F

TECHNOLOGY LEGEND NOTES

[A] D8(N), P2] FLAT PANEL DISPLAY BOX CONFIGURATION:
WIREMOLD EVOLUTION SERIES EFSB4 FLAT PANEL DISPLAY WALL BOX. VERIFY COVER COLOR WITH ARCHITECT PRIOR TO ORDERING. INCLUDED COMPONENTS: TUNNEL, DEVICE MODULES, TRIM FLANGE, AND DECORATIVE COVER. PROVIDE AS REQUIRED: POWER RECEPTACLES, COMMUNICATION JACKS, DEVICE PLATES, BLANK DEVICE PLATES, KNOCKOUT PLATES, AND OTHER ACCESSORIES AS NEEDED. CONFIGURE BOX ACCORDING TO DETAILS.

[B] TELECOM OUTLETS AND ASSOCIATED CONDUITS:
CONDUIT MUST BE PROVIDED FOR ALL TELECOM JUNCTION BOXES. SEE THE "TELECOM TYPICAL CONDUIT RISER" FOR CONDUIT REQUIREMENTS BY TELECOM JUNCTION BOX TYPE. REFER TO THE TELECOM PLANS FOR THE LOCATIONS OF JUNCTION BOXES AND FLOOR BOXES, AND THE "TELECOM CABLING LEGEND" FOR OUTLET CONFIGURATION REQUIREMENTS. TELECOM CABLING, OUTLETS AND COVER PLATES PROVIDED BY THE STRUCTURED CABLING SYSTEMS CONTRACTOR.

[C] POWER RECEPTACLES ADJACENT TO INDICATED TELECOM WALL OUTLETS:
INDICATED TELECOM WALL OUTLETS SHALL HAVE A DUPLEX POWER RECEPTACLE LOCATED WITHIN 36" OF THE TELECOM WALL OUTLET. IDEALLY, THE TELECOM OUTLET BOX WILL BE MOUNTED TO ONE SIDE OF A STUD, AND THE POWER BOX TO THE OPPOSITE SIDE OF THE STUD.

[D] NOT USED

[E] D26(N20, P20) CEILING MOUNTED PROJECTOR ENCLOSURE CONFIGURATION:
NIGEL-B DESIGN NB-PEBPM PLENUM CEILING ENCLOSURE WITH POLE MOUNT. INCLUDED COMPONENTS: ONE INSTALLED AC OUTLET. PROVIDE AS REQUIRED: HANGING KIT, CEILING TILE SUPPORTS, AND OTHER ACCESSORIES AS NEEDED. CONFIGURE BOX ACCORDING TO DETAILS.

[F] POWER RECEPTACLES AND DIRECT CIRCUIT CONNECTIONS:
TECHNICAL POWER RECEPTACLES AND DIRECT CIRCUIT CONNECTIONS, INCLUDING THOSE WITHIN FLOOR BOXES, WALL BOXES, OR CEILING BOXES, ARE PROVIDED BY ELECTRICAL CONTRACTOR AND APPEAR ON THE ELECTRICAL DRAWINGS. TECHNICAL POWER APPEARS ON THE TECHNOLOGY INFRASTRUCTURE DRAWINGS FOR COORDINATION AND LOCATION PURPOSES. THE LOCATION OF TECHNICAL POWER IN RELATION TO OTHER TECHNOLOGY INFRASTRUCTURE MAY BE CRITICAL. REFER TO THE ELECTRICAL DRAWINGS FOR COMPLETE POWER LAYOUTS AND CIRCUITING DETAILS.

[G] PT2(N1, P1) POKE-THRU CONFIGURATION:
WIREMOLD EVOLUTION SERIES 6AT POKE-THRU DEVICE WITH FINISHED COVER. VERIFY COVER STYLE AND FINISH WITH ARCHITECT PRIOR TO ORDERING. INCLUDED COMPONENTS: TEMPORARY CONSTRUCTION COVER, 5PTHA 1/2-GANG PASS-THRU HOUSING, 1PTHA 1-GANG PASS-THRU HOUSING ASSEMBLY, AND 575CHA 1/2-GANG ¾" CONDUIT HOUSING ASSEMBLY. PROVIDE AS REQUIRED: POWER RECEPTACLES, COMMUNICATION JACKS, CENTER MOUNT DEVICE PLATES, SIDE MOUNT DEVICE PLATES, BOTTOM FEED ASSEMBLIES, AND OTHER ACCESSORIES AS NEEDED. CONFIGURE BOX ACCORDING TO DETAILS. VERIFY EXACT LOCATION WITH ARCHITECT PRIOR TO INSTALLATION.

[H] FLOOR BOXES AND FLOOR PENETRATIONS:
VERIFY EXACT LOCATION, COVER STYLE AND FINISH WITH ARCHITECT PRIOR TO INSTALLATION. PROVIDE ON-GRADE OR FIRE-RATED VERSION FLOOR BOXES AS REQUIRED.

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TECHNOLOGY INFRASTRUCTURE LEGENDS AND LEGEND NOTES

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PROJECTION SCREEN TYPE LEGEND

ALL DIMENSIONS IN INCHES / WEIGHT IN POUNDS

TYPE	IMAGE SIZE		CASE SIZE			WEIGHT	INSTALLATION	OPERATION	MAKE & MODEL	IMAGE SURFACE MATERIAL	CONTROL	CASE PROVIDED BY	FABRIC & ROLLER PROVIDED BY	REFERENCE DETAIL
	HEIGHT (IH)	WIDTH (IW)	HEIGHT (CH)	WIDTH (CW)	DEPTH (CD)									
A	58"	104"	6 3/8"	125 3/4"	5 11/16"	85	TRUSS MOUNTED - SUSPENDED	MOTORIZED	DA-LITE TENSION CONTOUR ELECTROL	HD PROGRESSIVE 1.0	INCLUDED LVC	GENERAL CONTRACTOR	GENERAL CONTRACTOR	1/T003
B	108"	108"	5 7/8"	111 1/2"	5 1/4"	50	WALL MOUNTED	MANUAL	DRAPER LUMA 2	CHROMA KEY GREEN	N/A	GENERAL CONTRACTOR	GENERAL CONTRACTOR	1/T003

NOTES:
1. SEE THE ROOM PROJECTION SCREEN SCHEDULE ON THIS SHEET FOR LOCATIONS.
2. PROJECTION SCREEN CASE, PROJECTION SCREEN CONTROL SWITCHES, MOUNTING HARDWARE, CONDUITS, AND ELECTRICAL PROVIDED BY GENERAL CONTRACTOR.
3. REFER TO LEGEND ABOVE TO DETERMINE WHO SHALL PROVIDE THE PROJECTION SCREEN ROLLER AND FABRIC.
4. REFER TO THE DETAILS LISTED IN THE LEGEND FOR EACH PROJECTION SCREEN TYPE.

ROOM PROJECTION SCREEN SCHEDULE

ALL DIMENSIONS IN INCHES

ROOM NUMBER	QTY	SCREEN TYPE	SCREEN				PROJECTOR MOUNT	
			BOTTOM OF IMAGE AFF	BLACK DROP (EST)	DISTANCE [D2]	DISTANCE [D2x]	DISTANCE [D1]	DISTANCE [D1x]
	1	B	0"	0"	1"	0"	0"	0"
201	1	A	36"	2"	0"	0"	201"	18"

NOTES:
1. PROJECTION SCREEN / VIDEO PROJECTOR RELATIONSHIP IS CRITICAL (SEE GRAPHIC - TYPICAL PROJECTION SCREEN / VIDEO PROJECTOR RELATIONSHIP).

ROOM DISPLAY SCHEDULE

ALL DIMENSIONS IN INCHES

ROOM NUMBER	DISPLAY QTY	DISPLAY TYPE	ELEV AFF OC
201C	1	3	60"
201D	1	1	60"
20042	1	2	60"

NOTES:
1. VERTICAL AND HORIZONTAL CENTERLINE OF THE DISPLAY AND BACK BOX MAY DIFFER. REFER TO ELEVATIONS TO CONFIRM CENTERLINE RELATIONSHIPS.

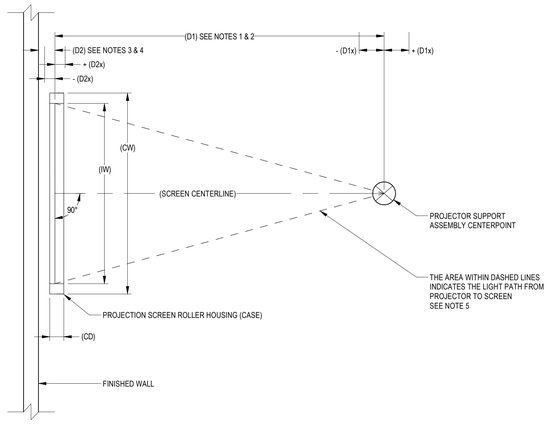
DISPLAY TYPE LEGEND

ALL DIMENSIONS IN INCHES / WEIGHT IN POUNDS

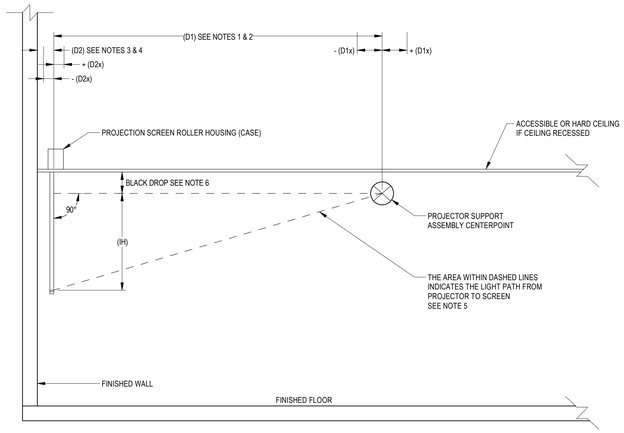
TYPE	NOMINAL IMAGE DIAGONAL	NOMINAL CASE SIZE			NOMINAL WEIGHT	BACKING	
		HEIGHT (H)	WIDTH (W)	DEPTH (D)		HEIGHT (H)	WIDTH (W)
1	55"	29"	50"	4"	60	24"	48"
2	55"	50"	29"	4"	60	48"	24"
3	65"	34"	59"	4"	77	24"	48"

NOTES:
1. SEE THE ROOM DISPLAY SCHEDULE ON THIS SHEET FOR LOCATIONS.
2. BACKING, JUNCTION BOXES, CONDUIT AND ELECTRICAL BY GENERAL CONTRACTOR.
3. DISPLAY, DISPLAY MOUNT AND CABLING PROVIDED BY AV CONTRACTOR.
4. DISPLAY IMAGE DIAGONAL, CASE SIZE AND WEIGHT ARE PROVIDED TO ESTABLISH THE APPROPRIATE BACKING REQUIREMENTS. THESE SIZES ARE SUBJECT TO CHANGE.
5. WHEN CEILING MOUNTED, NO BACKING IS REQUIRED.

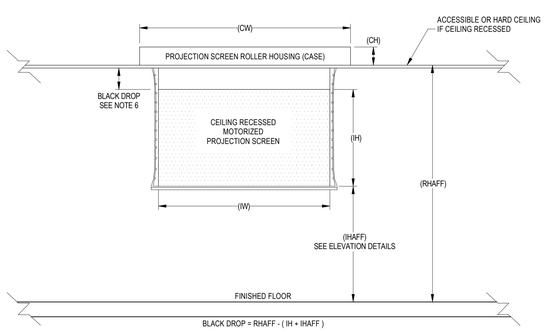
CEILING MOUNTED VIDEO PROJECTION SCREEN & PROJECTOR LAYOUT (TYP) - PLAN VIEW



CEILING MOUNTED VIDEO PROJECTION SCREEN & PROJECTION LAYOUT (TYP) - SECTION



CEILING MOUNTED VIDEO PROJECTION SCREEN (TYP) (AUDIENCE VIEW)



PROJECTION SCREEN / VIDEO PROJECTOR RELATIONSHIP NOTES

1. [D1] – CRITICAL DISTANCE: D1 IS THE DISTANCE FROM THE PROJECTION SCREEN SURFACE TO THE CENTER OF THE PROJECTOR CEILING MOUNT ASSEMBLY.
   - IMPORTANT: IF DISTANCE D2 IS ADJUSTED, D1 MUST REMAIN CONSTANT.
2. [D1X] – ALLOWABLE D1 VARIANCE: D1X DEFINES THE PERMISSIBLE ± VARIANCE FOR D1 TO ACCOMMODATE STRUCTURAL OR OTHER OBSTRUCTIONS.
   - EXAMPLE: IF D1 = 300" AND D1X = 10", THE PROJECTOR CEILING MOUNT CENTER MAY BE LOCATED BETWEEN 290" AND 310" FROM THE SCREEN SURFACE ALONG THE SCREEN CENTERLINE.
3. [D2] – MINIMUM PROJECTION WALL CLEARANCE: D2 IS THE MINIMUM DISTANCE FROM THE PROJECTION WALL TO THE PROJECTION SCREEN SURFACE.
   - IF D2 MUST INCREASE BEYOND D2 + D2X TO AVOID OBSTRUCTIONS, CONTACT THE CONSULTANT FOR DIRECTION.
4. [D2X] – ALLOWABLE D2 VARIANCE: D2X DEFINES THE PERMISSIBLE ± VARIANCE FOR D2.
   - EXAMPLE: IF D2 = 6" AND D2X = 2", THE SCREEN SURFACE MAY BE LOCATED BETWEEN 4" AND 8" FROM THE PROJECTION WALL ON THE SCREEN CENTERLINE.
5. CLEAR PROJECTION PATH: THE PROJECTOR MUST HAVE AN UNOBSTRUCTED VIEW OF THE ENTIRE SCREEN IMAGE AREA AT ALL TIMES.
6. [BLACK DROP] – FIELD VERIFICATION REQUIRED: THE BLACK DROP AMOUNT LISTED IN THE ROOM PROJECTION SCREEN SCHEDULE IS A DESIGN ESTIMATE.
   - FIELD-VERIFY EACH SCREEN PRIOR TO SUBMITTAL.
   - REQUIRED BLACK DROP (BD) = (RHAFF) – (IHAFF + IH)
   - RHAFF: ROLLER HOUSING ELEVATION ABOVE FINISHED FLOOR
   - IHAFF: BOTTOM OF IMAGE HEIGHT ABOVE FINISHED FLOOR
   - IH: IMAGE HEIGHT
   - EXCESS BLACK DROP REMAINING ON THE ROLLER WHEN THE SCREEN IS DEPLOYED SHOULD NOT EXCEED ONE WRAP.
   - IF ACTUAL CEILING HEIGHT DIFFERS FROM DRAWINGS, THE SPECIFIED IMAGE HEIGHT ABOVE FINISHED FLOOR (IHAFF) GOVERNS.
7. POWER JUNCTION BOX LOCATION: LOCATE THE PROJECTION SCREEN POWER JUNCTION BOX ON THE SAME SIDE AS THE SCREEN'S ELECTRICAL CONNECTIONS (VARIES BY SCREEN TYPE). VERIFY LOCATION PRIOR TO INSTALLATION.

1 / T003 TYPICAL PROJECTION SCREEN / VIDEO PROJECTOR RELATIONSHIP
12" = 1'-0"

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TECHNOLOGY INFRASTRUCTURE LEGENDS AND SCHEDULES

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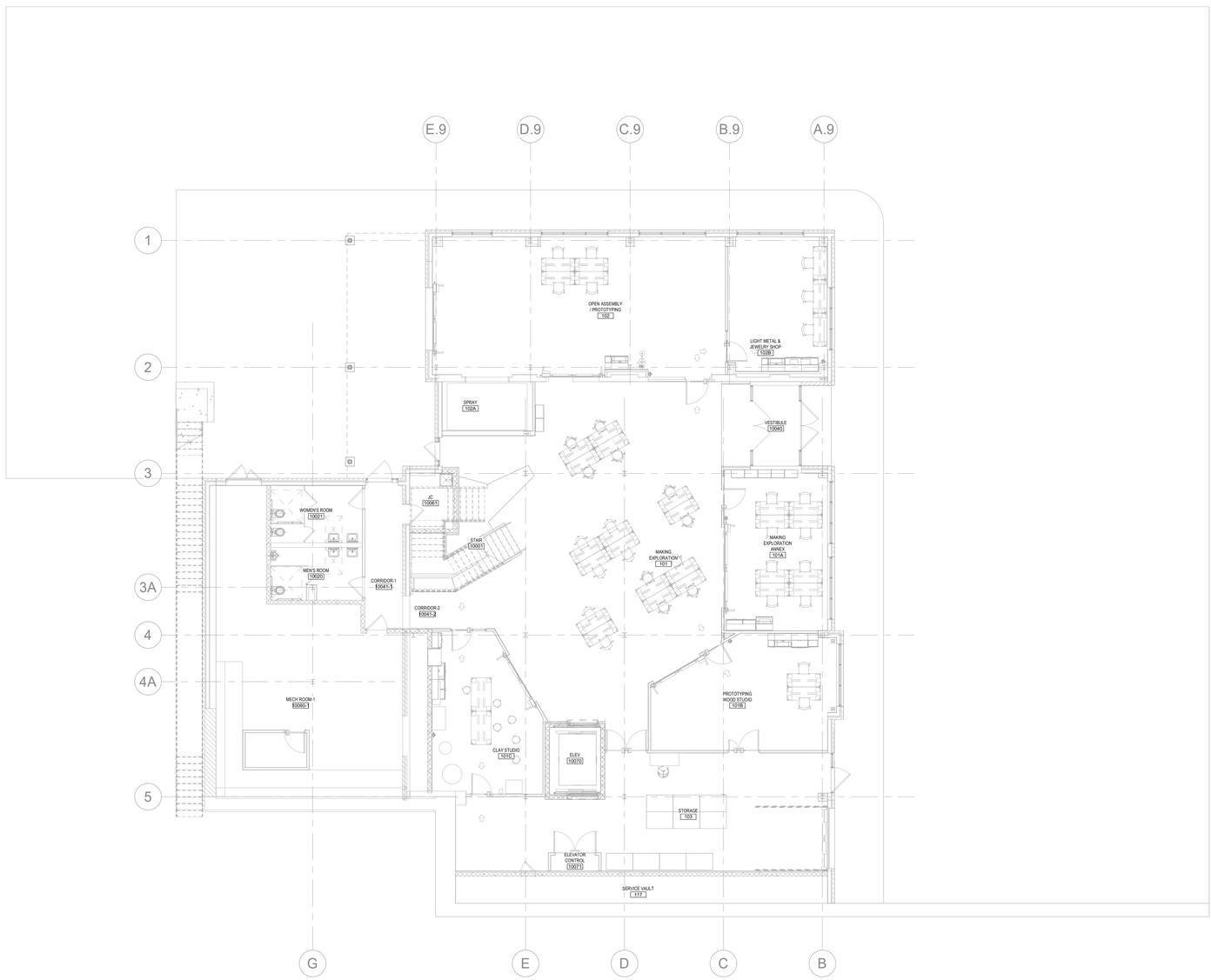

1 / T101 TECHNOLOGY INFRASTRUCTURE PLAN - LEVEL 01
1/8" = 1'-0"

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TECHNOLOGY INFRASTRUCTURE PLAN - LEVEL 01

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1 / T102 TECHNOLOGY INFRASTRUCTURE PLAN - LEVEL 02
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2026.09.14

TECHNOLOGY INFRASTRUCTURE REFLECTED CEILING PLAN - LEVEL 01

T201

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TECHNOLOGY INFRASTRUCTURE REFLECTED CEILING PLAN - LEVEL 02

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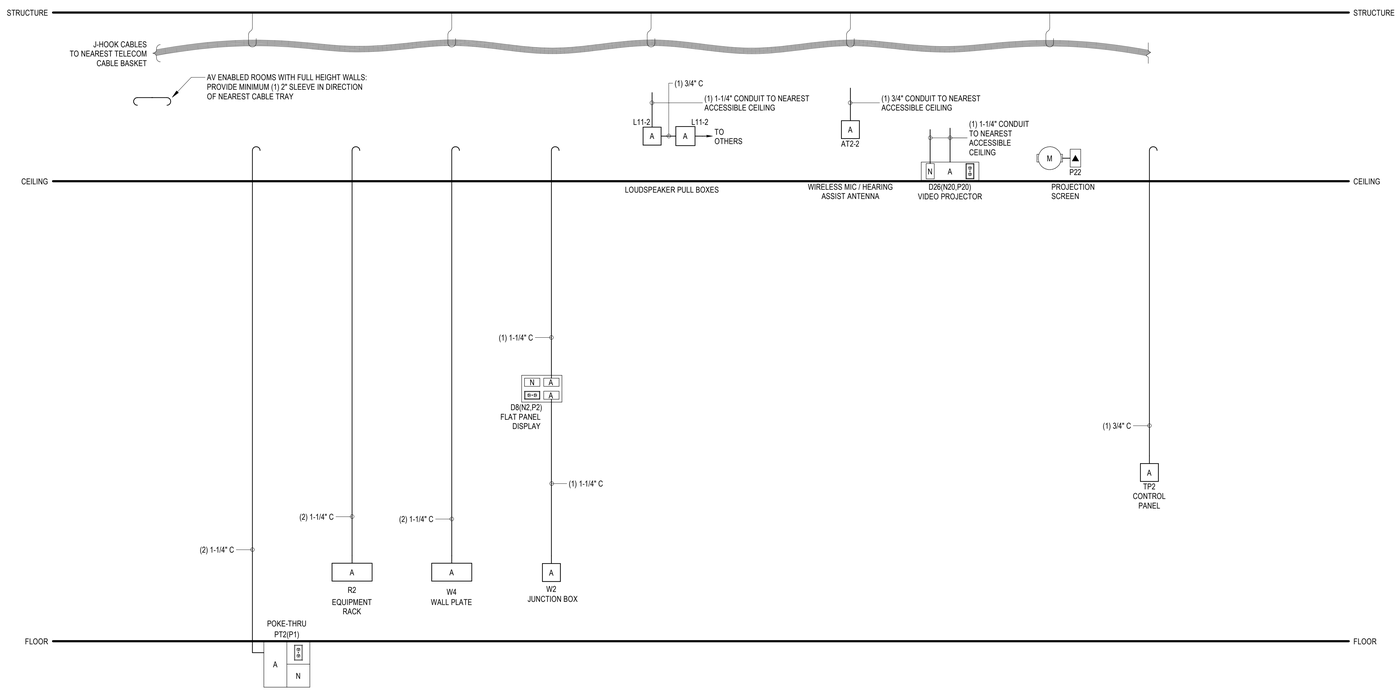

NOTES:

1. REFER TO TELECOM TYPICAL CONDUIT RISER FOR ASSOCIATED TELECOM CONDUIT SIZE AND PATHWAY REQUIREMENTS.

1 / T501 AUDIOVISUAL TYPICAL CONDUIT RISER
NTS

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AUDIOVISUAL INFRASTRUCTURE TYPICAL RISER

T501

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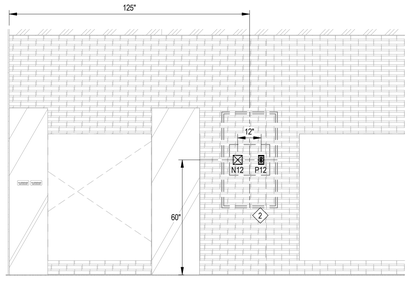
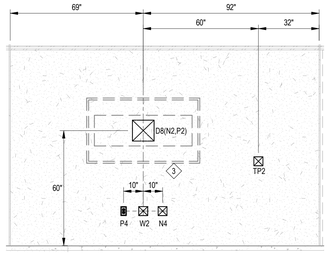
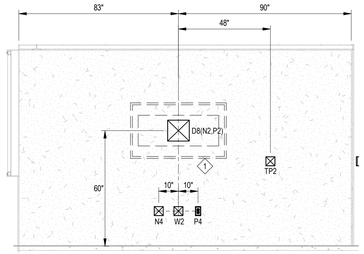


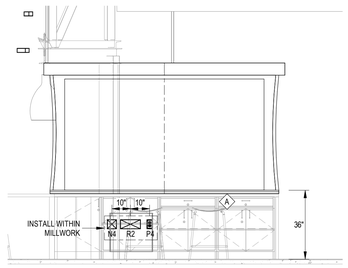
1 / T701 ENTRY LOBBY - 20042 - PLAN NORTH
3/8" = 1'-0"



2 / T701 LARGE COLLAB (4-6 PERSON) - 201D - PLAN SOUTH
3/8" = 1'-0"



3 / T701 MEDIUM COLLABE (2-4 PERSON) - 201E - PLAN SOUTH
3/8" = 1'-0"



4 / T701 MAKING EXPLORATION - 201 - PLAN SOUTH
3/8" = 1'-0"

5 / T701 MEDIA STUDIO - 205 - PLAN SOUTH
3/8" = 1'-0"

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TECHNOLOGY INFRASTRUCTURE ELEVATIONS

T701

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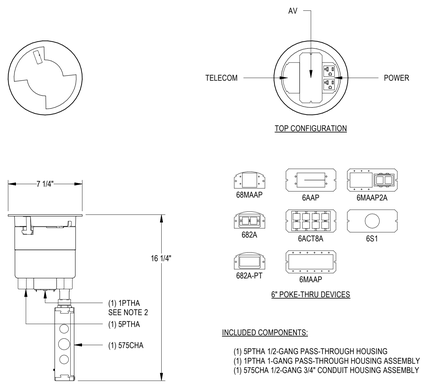


TOP CONFIGURATION

6" POKE-THRU DEVICES

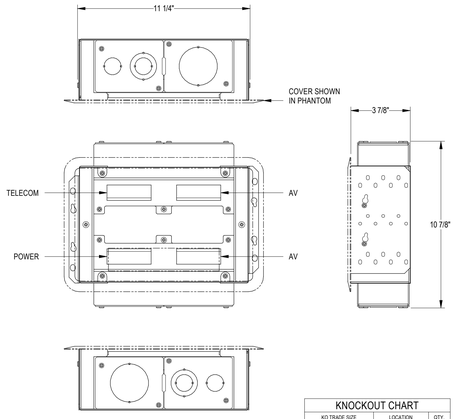
INCLUDED COMPONENTS:

(1) 5PTHA 1/2-GANG PASS-THROUGH HOUSING
(1) 1PTHA 1-GANG PASS-THROUGH HOUSING ASSEMBLY
(1) 575CHA 1/2-GANG 3/4" CONDUIT HOUSING ASSEMBLY

NOTES:

1. NO DEVICE PLATES ARE INCLUDED WITH THE POKE-THRU. DEVICE PLATES SHALL BE ORDERED AS NECESSARY TO MEET THE TOP CONFIGURATION REQUIREMENTS.
2. BOTTOM FEED MOUNT ASSEMBLIES SHOWN ARE INCLUDED. ADDITIONAL BOTTOM FEED MOUNT ASSEMBLIES SHALL BE ORDERED TO MEET THE CONDUIT REQUIREMENTS FROM THE AUDIOVISUAL INFRASTRUCTURE ROOM RISERS AND THE TELECOM TYPICAL CONDUIT RISER.

1 / T801 WIREMOLD-LEGRAND 6AT (6ATC2P / 6AT2P) 6" POKE-THRU
NTS

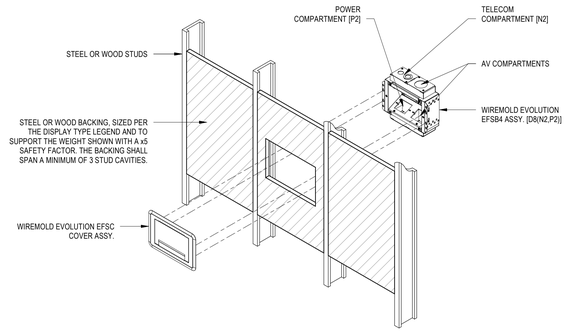


NOTES:

1. BOX IS SUPPLIED WITH (2) 3/4, 1-1/4" KNOCKOUT PLATES AND (2) 2" KNOCKOUT PLATES. ADDITIONAL KNOCKOUT PLATES SHALL BE ORDERED AS NECESSARY TO MEET THE CONDUIT REQUIREMENTS FROM THE AUDIOVISUAL INFRASTRUCTURE ROOM RISERS AND THE TELECOM TYPICAL CONDUIT RISER.

KNOCKOUT CHART		
KO TRADE SIZE	LOCATION	QTY.
3/4"	TOP	1
3/4", 1-1/4"	TOP	1
2"	TOP	1
3/4"	BOTTOM	1
3/4", 1-1/4"	BOTTOM	1
2"	BOTTOM	1

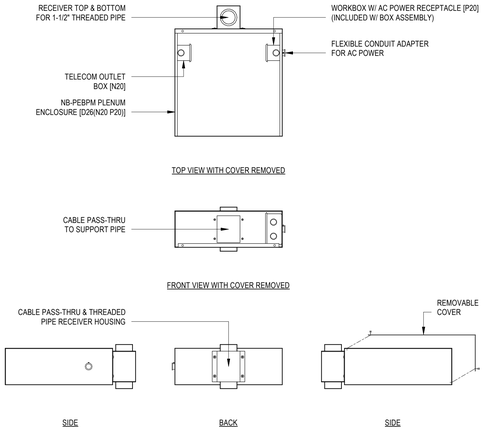
2 / T801 WIREMOLD EVOLUTION EFSB4 FLAT PANEL DISPLAY WALL BOX
NTS



NOTES:

1. BACKING CENTERED AT LOCATION OF FLAT PANEL DISPLAY.
2. ALWAYS SPAN BETWEEN AT LEAST THREE STUD CAVITIES.
3. SEE PARTITION TYPES FOR STUD SIZE AND MATERIAL.
4. VERIFY LOCATIONS OF BACKING WITH PLANS & ROOM ELEVATIONS.
5. FLAT PANEL DISPLAYS AND MOUNTING BRACKETS BY AV CONTRACTOR.

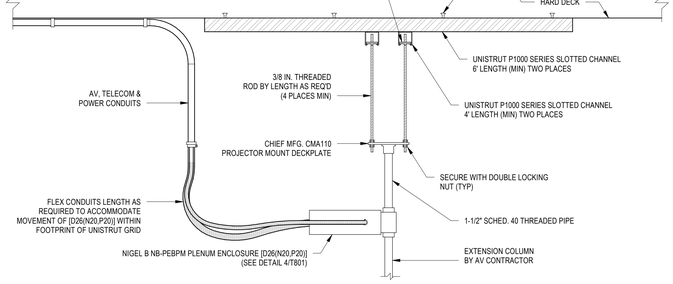
3 / T801 WIREMOLD EVOLUTION EFSB4 FLAT PANEL DISPLAY AND WALL BOX BACKING
NTS



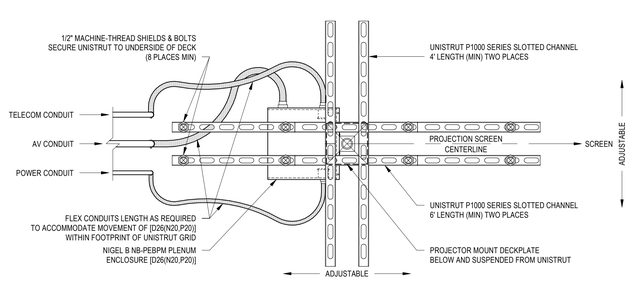
NOTES:

1. PLENUM EQUIPMENT BOX BY GENERAL CONTRACTOR.

4 / T801 NIGEL B DESIGN NB-PEBPM PLENUM ENCLOSURE
NTS



PLAN VIEW



NOTES:

1. UNLESS OTHERWISE INDICATED GENERAL CONTRACTOR TO PROVIDE ALL ELEMENTS SHOWN.

5 / T801 NIGEL B NB-PEBPM CEILING MOUNTED VIDEO PROJECTOR SUPPORT ASSEMBLY
NTS

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TECHNOLOGY INFRASTRUCTURE DETAILS

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