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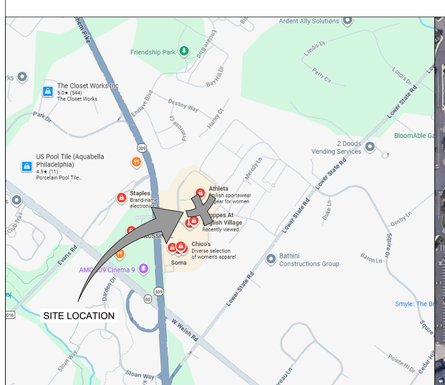
[solidcore]

THE SHOPPES AT ENGLISH VILLAGE

1460 BETHLEHEM PIKE, SUITE 150,
NORTH WALES, PA 19454



PLAN NORTH

VICINITY MAP A4
SCALE: N.T.S.

PLAN NORTH

SITE PLAN A3
SCALE: N.T.S.

PROJECT DATA

BUILDING ANALYSIS

PROJECT AREA:	3,009 SF
OCCUPANCY GROUP:	B (BUSINESS)
CONSTRUCTION TYPE:	NO CHANGE
HEIGHT / STORIES:	1 STORY BUILDING

SCOPE OF WORK

THIS PROJECT CONSIST OF AN INTERIOR ALTERATION OF AN EXISTING BUSINESS UNIT. WORK INCLUDES NEW INTERIOR PARTITIONS, CEILINGS, FINISHES, MECHANICAL, ELECTRICAL AND PLUMBING WORK.

DEFERRED /SEPARATE SUBMITTALS

1. FIRE SPRINKLER
2. SIGNAGE
3. FIRE ALARM

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[solidcore]
THE SHOPPES AT ENGLISH VILLAGE
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NORTH WALES, PA 19454

REVISIONS

△		DESCRIPTION
	06/01/26	PERMIT SET

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PERMIT SET

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SHEET NAME:
TITLE SHEET

DATE: 06/01/2026	PROJECT NO.: 42559
DRAWN: NSA	SCALE: AS NOTED

SHEET NO.:
T000

STANDARD ABBREVIATIONS

@	AT	H.P.	HIGH POINT	SC	SOLID CORE
A/C	AIR CONDITIONING	HC	HOLLOW CORE	SCHED	SCHEDULE
AB	ANCHOR BOLT	HCWD	HOLLOW CORE WOOD DOOR	SCN	SCREEN
ABV	ABOVE	HDWD	HARDWOOD	SD	SMOKE DETECTOR
ACT	ACOUSTICAL CEILING TILE	HDWR	HARDWARE	SECT	SECTION
AD	AREA DRAIN	HM	HOLLOW METAL	SF	SQUARE FOOT (FEET)
ADA	AMERICAN'S W/ DISABILITIES ACT	HMF	HOLLOW METAL FRAME	SHT	SHEET
ADJ	ADJACENT	HORIZ	HORIZONTAL	SIM	SIMILAR
ADJT	ADJUSTABLE	HT	HEIGHT	SIPS	STRUCTURAL INSULATED PANEL
AFF	ABOVE FINISHED FLOOR	HVAC	HEATING, VENTILATION & COOLING	SND	INS SOUND INSULATION
AGG	AGGREGATE	HW	HOT WATER	SPEC	SPECIFICATION
AL	ALUMINUM			SPK	SPEAKER
ALT	ALTERNATE	ID	INSIDE DIAMETER	SPL	SPECIAL
ANC	ANCHOR, ANCHORAGE	IN	INCH	SQ	SQUARE
ANOD	ANODIZED	INCL	INCLUDE, (ED), (ING)	SS	STAINLESS STEELOUP
AP	ACCESS PANEL	INSUL	INSULATION	STD	STANDARD
ARCH	ARCHITECT, ARCHITECTURAL	INT	INTERIOR	STG	SEATING
ASPH	ASPHALT			STL	STEEL
		JC	JANITOR'S CLOSET	STN	STAIN
BD	BOARD	JF	JOINT FILLER	STO	STONE TILE
BEL	BELOW	JT	JOINT	SUSP	SUSPENDED
BL	BASE LINE			SYM	SYMMETRY, (ICAL)
BLDG	BUILDING	KEC	KITCHEN EQUIPMENT CONTRACTOR	SYS	SYSTEM
BLK	BLOCK	KIT	KITCHEN		
BLKG	BLOCKING	KPL	KICK PLATE	T	TREAD
BM	BEAM			T&G	TONGUE & GROOVE
BM	BENCH MARK	L	LONG (LENGTH)	THK	THICKNESS
BO	BOTTOM OF	L.O.D.	LEASE OUTLINE DRAWING	THR	THRESHOLD
BPL	BEARING PLATE	L.P.	LOW POINT	TO	TOP OF
BRG	BEARING	L/T	LIGHT TRACK	TOB	TOP OF BEAM
BRK	BRICK	LAM	LAMINATE	TOC	TOP OF CONCRETE
BRKT	BRACKET	LAV	LAVATORY	TOJ	TOP OF JOIST
BRS	BRASS	LBS	POUNDS	TOM	TOP OF MASONRY
BRZ	BRONZE	LF	LINEAR FOOT	TOS	TOP OF SLAB
BS	BOTH SIDES	LGL	LAMINATED GLASS	TOS	TOP OF STEEL
BUR	BUILT UP ROOFING	LH	LEFT-HANDED	TOW	TOP OF WALL
		LL	LANDLORD	TPG	TOPPING
CB	CEMENTITIOUS BACKER BOARD	LT	LIGHT	TYP	TYPICAL
CEM	CEMENT	LTL	LINTEL		
CG	CORNER GUARD			UC	UNDERCUT
CL	CENTER LINE	MAT	MATERIAL	UNF	UNFINISHED
CLG	HT CEILING HEIGHT	MAX	MAXIMUM	UNO	UNLESS NOTED OTHERWISE
CLG	CEILING	MBR	MEMBER	UTL	UTILITY
CLR	CLEAR, CLEARANCE	MDO	MEDIUM DENSITY OVERLAY	VCT	VINYL COMPOSITE TILE
CMU	CONCRETE MASONRY UNIT	MECH	MECHANICAL	VERT	VERTICAL
COL	COLUMN	MFR	MANUFACTURER	VF	VINYL FABRIC
CONC	CONCRETE	MIN	MINIMUM	VG	VERTICAL GRAIN
CONN	CONNECTION	MISC	MISCELLANEOUS	V.I.F/VIF	VERIFY IN FIELD
CONST	CONSTRUCTION	MR	MOISTURE RESISTANT GYP. BOARD	VT	VINYL TILE
CONT	CONTINUE, CONTINUOUS	MOD	MODIFIED		
CONTR	CONTRACT(OR)	MTD	MOUNTED	W/	WITH
CORR	CORRUGATED	MTL	METAL	W/O	WITHOUT
CPT	CARPET			WA	WALL ANCHOR
CSMT	CASEMENT	NAT	NATURAL	WC	WATER CLOSET
CTR	COUNTER	NIC	NOT IN CONTRACT	WD	WOOD
		NO	NUMBER	WF	WIDE FLANGE
DFE	DESIGN FLOOD ELEVATION	NOM	NOMINAL	WFAB	WALL FABRIC
DIA	DIAMETER	NR	NOISE REDUCTION	WH	WATER HEATER
DIAG	DIAGONAL	NTS	NOT TO SCALE	WIN	WINDOW
DIM	DIMENSION			WP	WORKING POINT
DIV	DIVISION	OA	OVERALL	WRB	WATER RESISTIVE BARRIER
DN	DOWN	OC	ON CENTER	WWF	WELDED WIRE FABRIC
DR	DOOR	OD	OUTSIDE DIAMETER		
DS	DENS SHIELD	OPP	OPPOSITE		
DTL	DETAIL	ORD	OVERFLOW ROOF DRAIN		
DWG	DRAWING				
		PA	PAINT		
(E)	EXISTING	PT	PRESSURE TREATED		
EA	EACH	PBD	PARTICLE BOARD		
EIFS	EXTERIOR INSULATION & FINISHING SYSTEM	PERF	PERFORATE(D)		
EL	ELEVATION	PLAM	PLASTIC LAMINATE		
ELEC	ELECTRICAL	PLBG	PLUMBING		
ELEV	ELEVATOR	PLT	PLATE		
EMER	EMERGENCY	PLYWD	PLYWOOD		
EQ	EQUAL	POS	POINT OF SALE		
EQUIP	EQUIPMENT	PR	PAIR		
ETR	EXISTING TO REMAIN	PTD	PAINTED		
EWC	ELECTRIC WATER COOLER	PTN	PARTITION		
EXH	EXHAUST	PVC	POLYVINYL CHLORIDE		
EXT	EXTERIOR	QT	QUARRY TILE		
		R	RISER		
FA	FIRE ALARM	RAD	RADIUS		
FD	FLOOR DRAIN	RB	RUBBER BASE		
FE	FIRE EXTINGUISHER	RD	ROOF DRAIN		
FEC	FIRE EXTINGUISHER CABINET	REC	RECESSED		
FF EL	FINISH FLOOR ELEVATION	REF	REFERENCE		
FF	FINISH FLOOR	REQD	REQUIRED		
FIN	FINISH	RESIL	RESILIENT		
FIXT	FIXTURE	REV	REVISION		
FLR	FLOOR	RH	RIGHT HAND		
FLUOR	FLUORESCENT	RM	ROOM		
F.O./ FO	FINISHED OPENING	R.O./RO	ROUGH OPENING		
FOC	FACE OF CONCRETE	ROW	RIGHT OF WAY		
FOF	FACE OF FINISH				
FOS	FACE OF STUD				
FRT	FIRE RETARDANT TREATED				
FT	FOOT (FEET)				
FTG	FOOTING				
FV	FIELD VERIFY				
GA	GAGE, GAUGE				
GALV	GALVANIZED				
GC	GENERAL CONTRACTOR				
GCMU	GLAZED CONCRETE MASONRY				
GD	GRADE, GRADING				
GL	GLASS, GLAZING				
GLAM	GLUED LAMINATE				
GB	GYPSUM BOARD				
GYP	GYPSUM				

SYMBOLS LEGEND

- A1 / A310 — DETAIL NUMBER / SHEET NUMBER — ELEVATION MARKER
- A1 / A310 — DETAIL NUMBER / SHEET NUMBER — DETAIL CALLOUT
- A1 / A310 — DETAIL NUMBER / SHEET NUMBER — WALL SECTION MARKER
- A1 / A310 — DETAIL NUMBER / SHEET NUMBER — BUILDING SECTION MARKER
- A1 / A310 — DETAIL NUMBER / SHEET NUMBER — DETAIL MARKER
- B2 / C2 / A210 / A2 / D2 — INTERIOR ELEVATION TAG
- 555 — KEY NOTE REFERENCE
- XX — DOOR NUMBER
- 555 — WINDOW NUMBER
- ## — WALL TYPE MARKER
- XXX — FINISH TYPE MARKER / FURNITURE TYPE
- XXX — FIXTURE / EQUIPMENT / TYPE MARKER
- AREA DINING 101 — ROOM NAME
- MATCH LINE A200 — MATCH LINE
- #'-#" DESCRIPTION — ELEVATION MARKER
- A — 1 — COLUMN REFERENCE GRIDS
- ℄ — CENTERLINE
- BREAK LINE
- 1 — REVISION
- UP/DN +0'-0" / -1'-6" — STAIR / RAMP DIRECTION SYMBOL
- NORTH SYMBOL

ACCESSIBILITY GENERAL NOTES

A. ALL PUBLIC ACCOMMODATION SPACES AND COMMERCIAL FACILITIES ARE REQUIRED TO MEET ***2010 ADA STANDARDS AND ANSI***

B. TYPICAL ACCESSIBILITY NOTES AND GRAPHICS USED IN THIS PROJECT ARE NOT INTENDED TO REPRESENT THE ENTIRE SCOPE OF THE ADA ANSI GUIDELINES.

C. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE STANDARD BUILDING ENTRANCES WITH ALL ACCESSIBLE SPACES AND ELEMENTS WITHIN THE BUILDING OR FACILITY WHICH ARE OTHERWISE CONNECTED BY A CIRCULATION PATH (ADA 206.2.4).

D. A CLEAR FLOOR SPACE OF 30 " X 48" MINIMUM IS REQUIRED FOR A FORWARD OR PARALLEL APPROACH (ADA 305.3).

E. CLEAR FLOOR SPACE REQUIREMENTS SHALL NOT BE OBSTRUCTED BY FINISH ITEMS SUCH AS BASEBOARDS, WALL FINISHES OR FURNITURE.

F. OPERABLE PARTS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE OPERABLE PARTS SHALL BE 5 POUNDS MAXIMUM (ADA 309.4). OPERABLE PARTS FOR DOOR HARDWARE SHALL BE 34 " MINIMUM AND 48" MAXIMUM ABOVE THE FLOOR (ADA 404.2.7).

G. EMPLOYEE WORK AREAS DEFINITION (ADA 106.5): ALL OR ANY PORTION OF A SPACE USED ONLY BY EMPLOYEES AND USED ONLY FOR WORK. (CORRIDORS, TOILET ROOMS, KITCHENETTES AND BREAK ROOMS ARE NOT EMPLOYEE WORK AREAS.) THESE SPACES ARE DESIGNED TO ALLOW PERSONS WITH DISABILITIES TO APPROACH, ENTER AND EXIT (ADA SECTION 203.9). EMPLOYEE WORK AREAS ARE REQUIRED TO COMPLY WITH ADA SECTIONS
1. 206.2.8: COMMON USE CIRCULATION PATHS LOCATED WITHIN EMPLOYEE WORK AREAS SHALL COMPLY WITH 402 (ACCESSIBLE ROUTES).
2. 207.1: MEANS OF EGRESS SHALL COMPLY WITH THE IBC.
3. 215.3: IF AUDIBLE ALARMS ARE USED, VISIBLE ALARMS COMPLYING WITH ADA SECTION 702 ARE ALSO INTEGRATED

H. EXEMPT SPACES (ADA SECTION 203): AMONG OTHERS, THE FOLLOWING SPACES ARE NOT REQUIRED TO COMPLY WITH ADA REQUIREMENTS: ELECTRICAL OR COMMUNICATIONS EQUIPMENT ROOMS.

I. NO FEWER THAN TWO DRINKING FOUNTAINS SHALL BE PROVIDED (ADA 211.2). HI LO DRINKING FOUNTAINS SHALL BE PROVIDED THAT COMPLY WITH ADA STANDARDS (SECTION 602). IF CITY AMENDMENT ALLOWS A DRINKING FOUNTAIN SUBSTITUTION, THE SUBSTITUTION SHALL ALSO MEET THE ADA STANDARDS FOR ACCESS AND USE.

J. OBJECTS WITH LEADING EDGES MORE THAN 27 INCHES AND NOT MORE THAN 80 INCHES ABOVE FINISH FLOOR SHALL PROTRUDE 4 INCHES MAXIMUM HORIZONTALLY INTO THE CIRCULATION PATH. (ADA 307.2)

K. DOORWAYS SHALL PROVIDE A CLEAR OPENING OF 32 INCHES MINIMUM (ADA 404.2.

L. THRESHOLDS AND CHANGES IN LEVEL AT DOORWAYS SHALL BE ½ " MAXIMUM (ADA 404.2.5).

M. WHERE MULTIPLE SINGLE USER TOILET ROOMS ARE CLUSTERED AT A SINGLE LOCATION, NO MORE THAN 50 PERCENT OF THE SINGLE USER TOILET ROOMS FOR EACH USE AT EACH CLUSTER SHALL BE REQUIRED TO BE ADA COMPLIANT (ADA 213.2 EXCEPTION 4).

N. TOILET ROOMS: SHALL CONTAIN A TURNING SPACE OF EITHER 60 INCHES DIAMETER (304.3.1) OR A T-SHAPED SPACE (304.3.2). REQUIRED CLEAR FLOOR SPACES, CLEARANCE AT FIXTURES, AND TURNING SPACE SHALL BE PERMITTED TO OVERLAP (ADA 603.2.2).

O. WHERE THE TOILET ROOM IS FOR INDIVIDUAL USE AND A 30 "X48" CLEAR FLOOR SPACE IS PROVIDED IN THE ROOM BEYOND THE ARC OF THE DOOR SWING, DOORS ARE PERMITTED TO SWING INTO THE CLEAR FLOOR SPACE OR CLEARANCE FOR ANY FIXTURE. (ADA 603.2.3 EXCEPTION 2)

P. WHEN THE DOOR TO THE TOILET ROOM IS PLACED DIRECTLY IN FRONT OF THE WATER CLOSET, THE WATER CLOSET CANNOT OVERLAP THE REQUIRED MANEUVERING CLEARANCE FOR THE DOOR INSIDE THE ROOM. (ADA ADVISORY 604.3.2)

Q. CONVENIENCE FIXTURES SUCH AS BABY CHANGING TABLES MUST ALSO BE ACCESSIBLE AND CANNOT OBSTRUCT THE WHEELCHAIR MANEUVERING SPACE (ADA ADVISORY 604.8.1.1).

R. MIRRORS NOT LOCATED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE 40 INCHES MAXIMUM ABOVE FINISH FLOOR (ADA 603.3).

S. SALES AND SERVICE COUNTERS SHALL PROVIDE PARALLEL OR FORWARD APPROACH (ADA 904.4). PARALLEL APPROACH: COUNTER SURFACE TO BE 36 INCHES LONG MINIMUM. FORWARD APPROACH: COUNTER SURFACE TO BE 30 INCHES LONG MINIMUM. WHERE PROVIDED, AT LEAST ONE OF EACH TYPE OF SALES COUNTER AND SERVICE COUNTER SHALL COMPLY WITH 904.4. WHERE COUNTERS ARE DISPERSED THROUGHOUT THE BUILDING, COUNTERS COMPLYING WITH 904.4 MUST ALSO BE DISPERSED.

GENERAL NOTES

1. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AND SHALL REPORT ALL DISCREPENCIES TO THE ARCHITECT PRIOR TO COMMENCING WORK.
2. THE GENERAL CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UTILITIES AND SHALL NOTIFY ARCHITECT OF ANY AND ALL DISCREPENCIES PRIOR TO COMMENCING CONSTRUCTION.
3. ALL WORK SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL CODES, ORDINANCES AND ANY APPLICABLE AMENDMENTS.
4. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY BRACING AS REQUIRED TO ENSURE THE VERTICAL AND LATERAL STABILITY OF THE ENTIRE STRUCTURE OR A PORTION THEREOF DURING CONSTRUCTION.
5. THE GENERAL CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES, INCLUDING ADVISING ALL TRADES OF FEATURES OF CONSTRUCTION AND PROVIDING BLOCKS, HOLES, DEPRESSIONS, ETC., AS REQUIRED, FOR A COMPLETE JOB. REFER TO ALL DRAWINGS FOR SLAB DEPRESSIONS, SLOPES, CURBS, DRAINS, OPENINGS, ETC.
6. THE GENERAL CONTRACTOR IS TO BUILD AND MAINTAIN CONSTRUCTION BARRICADES AND ALL NECESSARY LIGHTS, SIGNAGE, ETC., FOR THE PROTECTION OF THE PUBLIC, AS PER LOCAL ORDINANCES AND LANDLORD REQUIREMENTS.
7. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT FOR ANY DAMAGE CAUSED BY HIM OR HIS SUBCONTRACTORS TO EXISTING WORK IN PLACE.
8. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MISCELLANEOUS PERMITS, FEES, AND INSPECTIONS AS MAY BE REQUIRED FOR COMPLETION OF THE JOB AS PER ALL GOVERNING AGENCIES.
9. NO STRUCTURAL CHANGES FROM THE APPROVED PLANS SHALL BE MADE IN THE FIELD WITHOUT PRIOR WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER AND LANDLORD. IF CHANGES ARE MADE WITHOUT WRITTEN APPROVAL, SUCH CHANGES SHALL BE THE LEGAL AND FINANCIAL RESPONSIBILITY OF THE CONTRACTOR TO REPLACE OR REPAIR AS DIRECTED BY THE STRUCTURAL ENGINEER.
10. ALL CONTRACTORS SHALL PROVIDE LIABILITY INSURANCE AND WORKERS COMPENSATION BENEFITS IN ACCORDANCE WITH STATE LAW FOR ALL WORKERS AND AGENTS WHO WILL BE ON THE SITE AT ANY TIME. TENANT'S GENERAL CONTRACTOR MUST PROVIDE INSURANCE CERTIFICATE WITH COVERAGES AND ADDITIONAL INSURANCE AS REQUIRED BY LANDLORD PRIOR TO CONSTRUCTION START.
11. THE GENERAL CONTRACTOR SHALL REPORT ANY DEFECTS, DISCREPANCIES, PROBLEMS OR UNCERTAINTIES TO THE ARCHITECT FOR RESOLUTION PRIOR TO PROCEEDING WITH THE WORK AFFECTED.
12. THE GENERAL CONTRACTOR AND HIS SUBCONTRACTORS SHALL BE FULLY ACQUAINTED WITH SCOPE OF THE WORK TO BE PERFORMED AND SHALL INSPECT SITE CONDITIONS PRIOR TO BID SUBMITTAL. BID SHALL INCLUDE ALL LABOR AND MATERIALS REQUIRED TO COMPLETE THE SCOPE OF WORK.
13. IT IS UNDERSTOOD THAT THE OWNER MAY BE PURCHASING AND/OR INSTALLING MATERIALS, EQUIPMENT, AND FURNISHINGS UNDER SEPARATE CONTRACTS. THE GENERAL CONTRACTOR AND HIS SUBCONTRACTORS SHALL COOPERATE WITH THE OWNER TO ALLOW THE DELIVERY AND INSTALLATION OF SUCH MATERIALS, EQUIPMENT, AND FURNISHINGS BY OTHER CONTRACTORS AND SUPPLIERS WHICH MAY COMMENCE PRIOR TO FINAL ACCEPTANCE OF THE REMODELED SPACE BY THE OWNER SO AS TO ASSURE THE OWNER OF THE EARLIEST POSSIBLE COMPLETION DATE.
14. NO EXTRAS WILL BE ALLOWED FOR CLAIMS DUE TO UNFORESEEN OR UNANTICIPATED CONDITIONS WHICH COULD HAVE BEEN DISCOVERED BY THE BIDDING CONTRACTOR DURING INSPECTION OF THE SITE DURING THE BIDDING PERIOD AND PRIOR TO THE COMMENCEMENT OF THE WORK.
15. THESE DRAWINGS ARE NOT TO BE SCALED. IF REQUIRED DIMENSIONS OR INFORMATION CANNOT BE FOUND WITHIN THE DRAWINGS OR SPECIFICATIONS, THE ARCHITECT SHALL BE REQUESTED TO INTERPRET THE DOCUMENT AND HIS INTERPRETATIONS SHALL BE FINAL AND BINDING.
16. ANY PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED TO THE OWNER, LANDLORD AND THE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO INCORPORATION INTO THE WORK. THE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR ANY CHANGES TO DETAILS OR CONDITIONS MADE NECESSARY BY ANY SUBSTITUTION.
17. TENANT AND CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING THEIR WORK AREA AND PROVIDE LANDLORD WITH ALL NECESSARY ITEMS REQUIRED UNDER THE LEASE AND TENANT WORK LETTER. ADDITIONALLY TENANT AND CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING THEIR WORK AREA INCLUDING DISPOSAL OF ALL DEBRIS AND LIMITING THE STORAGE OF MATERIALS OUTSIDE THE DEMISED PREMISES.
18. GENERAL CONTRACTOR SHALL COORDINATE SUBMITTAL OF FIRE ALARM PLANS AND OBTAIN APPROVAL PRIOR TO INSTALLATION
19. AN AUTOMATIC FIRE SPRINKLER SYSTEM IS EXISTING WITHIN THIS SPACE. THE CONTRACTOR SHALL REWORK AND MODIFY FOR NEW ROOM LAYOUT AND CEILING HEIGHTS IN CONFORMANCE WITH N.F.P.A. 13 STANDARDS AND LOCAL CODES AND REGULATIONS. ALL WORK SHALL BE DONE BY A QUALIFIED SPRINKLER CONTRACTOR WHO SHALL DESIGN AND PREPARE SHOP DRAWINGS AND SPRINKLER CONTRACTOR SHALL BE LANDLORD APPROVED. HEADS TO BE SEMI-RECESSED IN NON-PUBLIC AREAS. HEADS SHALL BE CONCEALED TYPE IN ALL PUBLIC AREAS. CENTER SPRINKLER HEADS IN CENTER OF LAY-IN CEILING TILE.

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SHEET NAME:
ARCHITECTURAL ABBREVIATIONS, SYMBOLS & GENERAL NOTES

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: DP
SCALE: AS NOTED

SHEET NO.:
T001

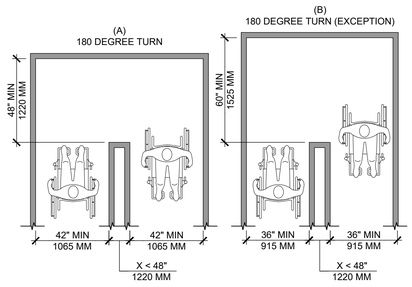

FIGURE 403.5.2
CLEAR WIDTH AT TURN D5

SCALE: N.T.S.

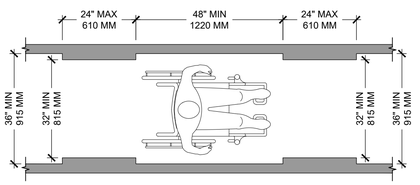

FIGURE 403.5.1 CLEAR
WIDTH OF AN ACCESSIBLE ROUTE D4

SCALE: N.T.S.

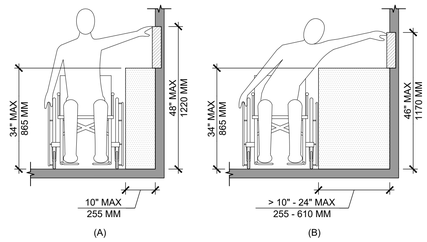

FIGURE 308.3.2
OBSTRUCTED HIGH SIDE REACH D3

SCALE: N.T.S.

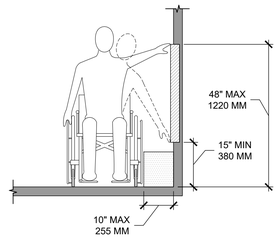

FIGURE 308.3.1
UNOBSTRUCTED SIDE REACH D2

SCALE: N.T.S.

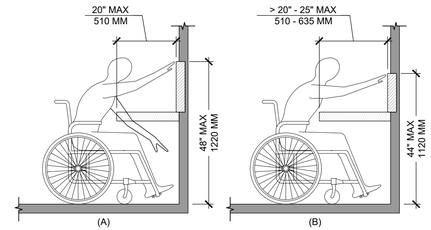

FIGURE 308.2.2
OBSTRUCTED HIGH FORWARD REACH D1

SCALE: N.T.S.

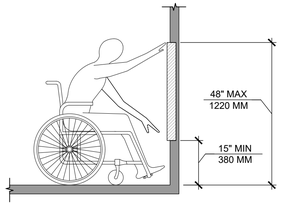

FIGURE 308.2.1
UNOBSTRUCTED FORWARD REACH C5

SCALE: N.T.S.

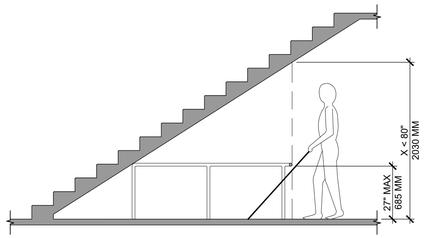

FIGURE 307.4
VERTICAL CLEARANCE C4

SCALE: N.T.S.

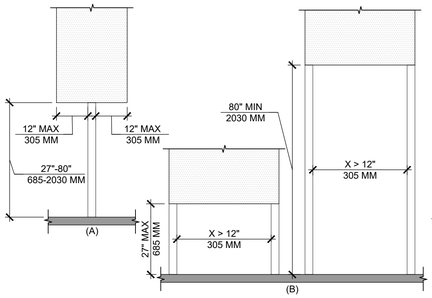

FIGURE 307.3
POST-MOUNTED PROTRUDING OBJECTS C3

SCALE: N.T.S.

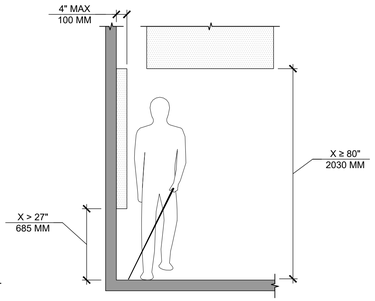

FIGURE 307.2
LIMITS OF PROTRUDING OBJECTS C2

SCALE: N.T.S.

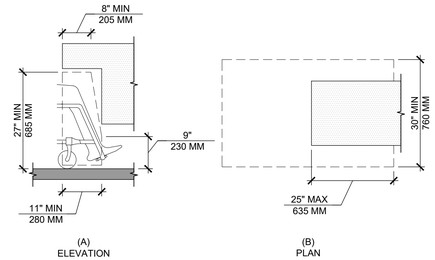

FIGURE 306.3
KNEE CLEARANCE C1

SCALE: N.T.S.

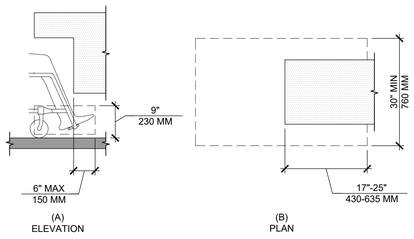

FIGURE 306.2
TOE CLEARANCE B5

SCALE: N.T.S.

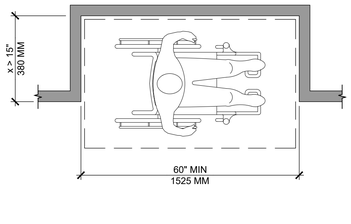

FIGURE 305.7.2
MANEUVERING CLEARANCE
IN AN ALCOVE, PARALLEL APPROACH B4

SCALE: N.T.S.

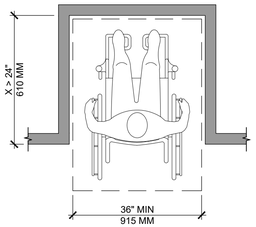

FIGURE 305.7.1
MANEUVERING CLEARANCE
IN AN ALCOVE, FORWARD APPROACH B3

SCALE: N.T.S.

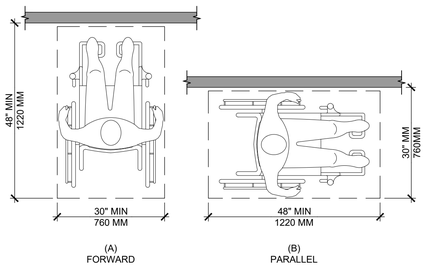

FIGURE 305.5 POSITION OF
CLEAR FLOOR OR GROUND SPACE B2

SCALE: N.T.S.

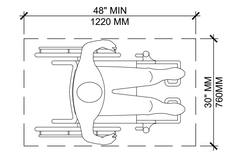

FIGURE 305.3
CLEAR FLOOR OR GROUND SPACE B1

SCALE: N.T.S.

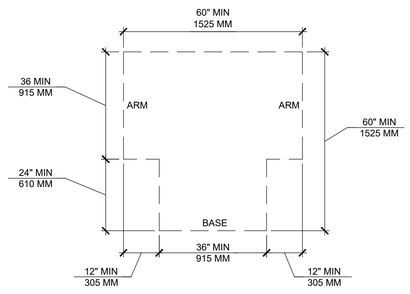

FIGURE 304.3.2
T-SHAPED TURNING SPACES A5

SCALE: N.T.S.

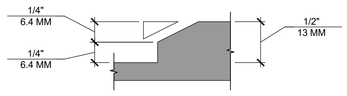

FIGURE 303.3
BEVELED CHANGE IN LEVEL A4

SCALE: N.T.S.

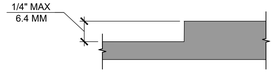

FIGURE 303.2
VERTICAL CHANGE IN LEVEL A3

SCALE: N.T.S.

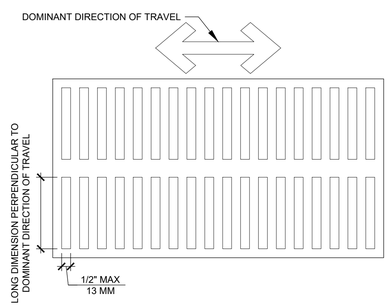

FIGURE 302.3 ELONGATED OPENINGS
IN FLOOR OR GROUND SURFACES A2

SCALE: N.T.S.

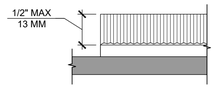

FIGURE 302.2
CARPET PILE HEIGHT A1

SCALE: N.T.S.

zebra
ZEBRA ARCHITECTURE, PLLC.
14614 N KIERLAND BLVD., SUITE N300
SCOTTSDALE, ARIZONA 85254
PHONE: 480.912.1169 www.zbr.global

STORE NO.:

Solscape
THE SHOPPES AT ENGLISH VILLAGE
1460 BETHLEHEM PIKE, SUITE 150,
NORTH WALES, PA 19454

REVISIONS

△		DESCRIPTION
	06/01/26	PERMIT SET

STATUS:
PERMIT SET

FIELD VERIFICATION:
The Contractor shall verify all figured dimensions and conditions at the project site and notify Zebra Architecture, PLLC. of any dimensional errors, omissions or discrepancies before beginning or fabricating any work. Do not scale these drawings.

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SHEET NAME:
2010
ACCESSIBILITY
STANDARDS DETAILS

DATE:	PROJECT NO.:
06/01/2026	42559
DRAWN: DP	SCALE: AS NOTED

SHEET NO.:
T002

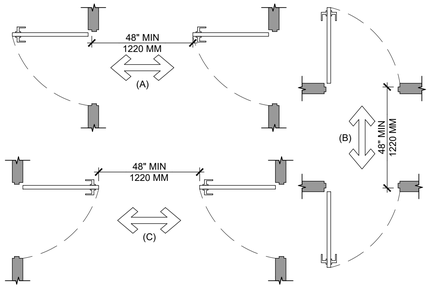

FIGURE 404.2.6
DOORS IN SERIES & GATES IN SERIES (D3)
SCALE: N.T.S.

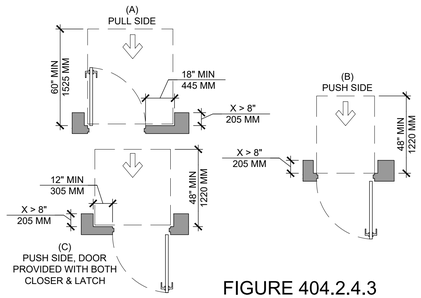

FIGURE 404.2.4.3
MANEUVERING CLEARANCES
AT RECESSED DOORS & GATES (D2)
SCALE: N.T.S.

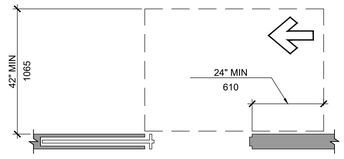

FIGURE 404.2.4.2 (D)
STOP OR LATCH APPROACH (D1)
SCALE: N.T.S.

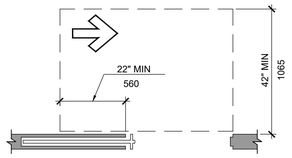

FIGURE 404.2.4.2 (C)
POCKET OR HINGE APPROACH (C5)
SCALE: N.T.S.

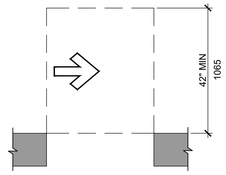

FIGURE 404.2.4.2 (B)
SIDE APPROACH (C4)
SCALE: N.T.S.

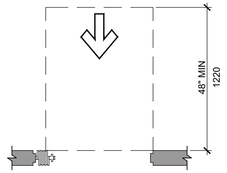

FIGURE 404.2.4.2 (A)
FRONT APPROACH (C3)
SCALE: N.T.S.

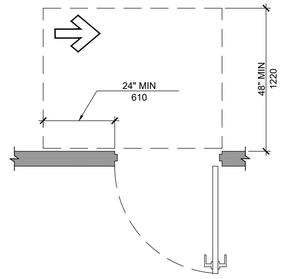

FIGURE 404.2.4.1 (K)
LATCH APPROACH, PUSH SIDE
DOOR PROVIDED WITH CLOSER (C2)
SCALE: N.T.S.

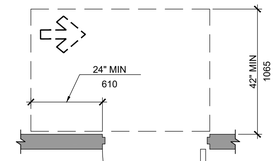

FIGURE 404.2.4.1 (J)
LATCH APPROACH, PUSH SIDE (C1)
SCALE: N.T.S.

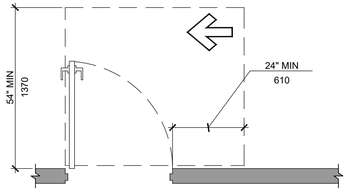

FIGURE 404.2.4.1 (I)
LATCH APPROACH, PULL SIDE, DOOR
PROVIDED WITH CLOSER (B5)
SCALE: N.T.S.

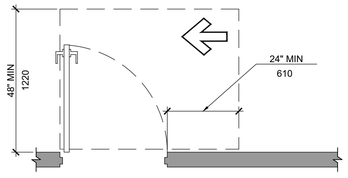

FIGURE 404.2.4.1 (H)
LATCH APPROACH, PULL SIDE (B4)
SCALE: N.T.S.

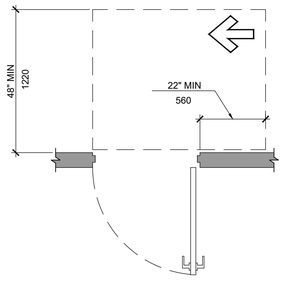

FIGURE 404.2.4.1 (G)
HINGE APPROACH, PUSH SIDE DOOR
PROVIDED WITH CLOSER AND LATCH (B3)
SCALE: N.T.S.

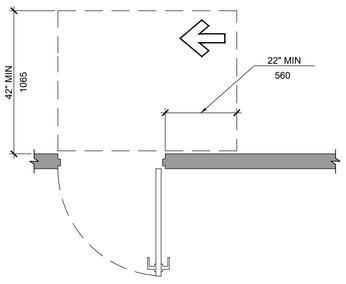

FIGURE 404.2.4.1 (F)
HINGE APPROACH, PUSH SIDE (B2)
SCALE: N.T.S.

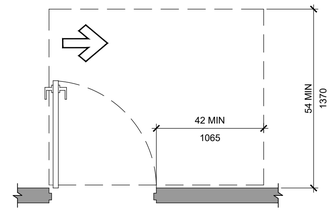

FIGURE 404.2.4.1 (E)
HINGE APPROACH, PULL SIDE (B1)
SCALE: N.T.S

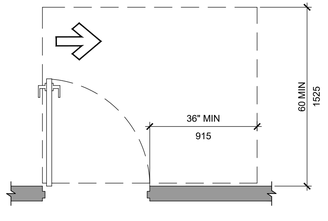

FIGURE 404.2.4.1 (D)
HINGE APPROACH, PULL SIDE (A5)
SCALE: N.T.S

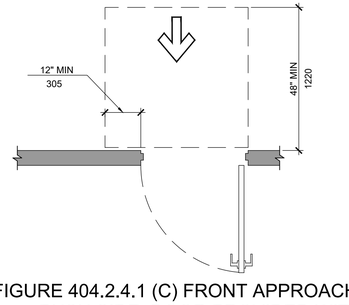

FIGURE 404.2.4.1 (C) FRONT APPROACH,
PUSH SIDE, DOOR PROVIDED WITH
BOTH CLOSER AND LATCH (A4)
SCALE: N.T.S

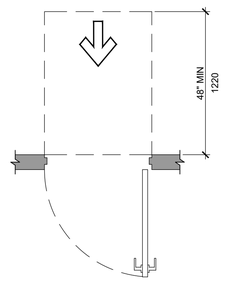

FIGURE 404.2.4.1 (B)
FRONT APPROACH, PUSH SIDE (A3)
SCALE: N.T.S

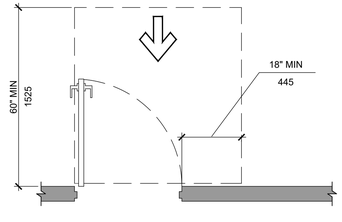

FIGURE 404.2.4.1 (A)
FRONT APPROACH, PULL SIDE (A2)
SCALE: N.T.S

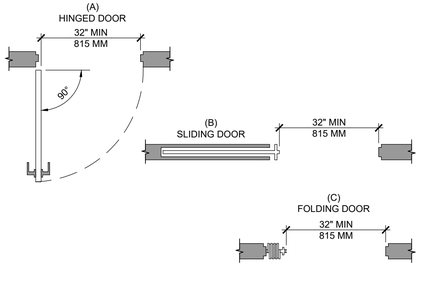

FIGURE 404.2.3
CLEAR WIDTH OF DOORWAYS (A1)
SCALE: N.T.S

zebra
ZEBRA ARCHITECTURE, PLLC.
14614 N KIERLAND BLVD., SUITE N300
SCOTTSDALE, ARIZONA 85254
PHONE: 480.912.1169 www.zbr.global

STORE NO.:

Solidcore
THE SHOPPES AT ENGLISH VILLAGE
1460 BETHLEHEM PIKE, SUITE 150,
NORTH WALES, PA 19454

REVISIONS

	DESCRIPTION
06/01/26	PERMIT SET

STATUS:
PERMIT SET

FIELD VERIFICATION:
The Contractor shall verify all figured dimensions and conditions at the project site and notify Zebra Architecture, PLLC, of any dimensional errors, omissions or discrepancies before beginning or fabricating any work. Do not scale these drawings.

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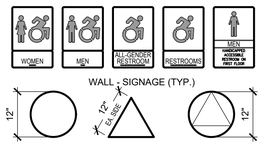
SHEET NAME:
2010
ACCESSIBILITY
STANDARDS DETAILS

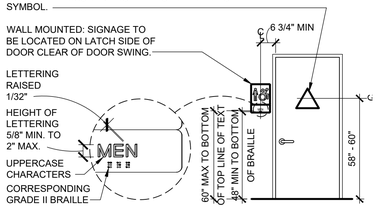
DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: DP
SCALE: AS NOTED

SHEET NO.:
T003



NOTE: PICTOGRAMS AND/OR LETTERING ARE NOT REQUIRED ON DOOR - MOUNTED SIGNAGE.

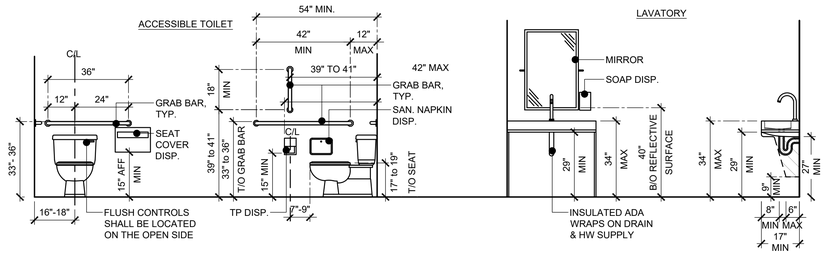
DOOR - MOUNTED SIGNAGE MOUNTED AT 58" MIN AND 60" MAX ABOVE THE FINISH FLOOR OR GROUND SURFACE MEASURED FROM THE CENTERLINE OF THE SYMBOL.

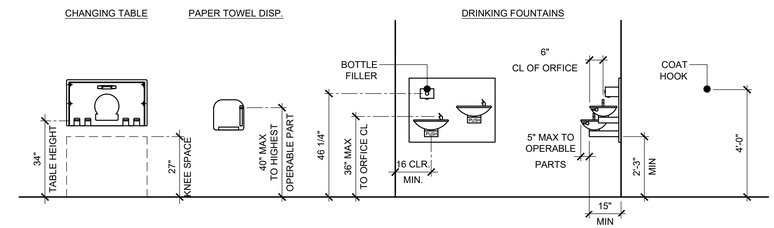


NOTES:

1. INTERNATIONAL SYMBOL OF ACCESSIBILITY COLORS TO BE A WHITE FIGURE ON A BLUE BACKGROUND.
2. TACTILE CHARACTERS ON SIGNS SHALL BE LOCATED 48 INCHES ABOVE TH FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE LOWEST BRAILLE CELLS AND 60 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE HIGHEST LINE OF RAISED CHARACTERS.

ACCESSIBILITY DOOR AND WALL SIGNAGE DETAIL C5
SCALE: 3/8"=1'-0"





FIXTURE MOUNTING HEIGHTS - FOR REFERENCE ONLY D1
SCALE: N.T.S.

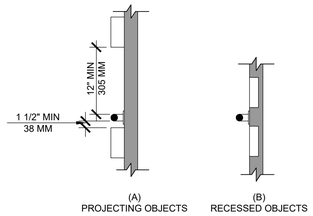


FIGURE 609.3 SPACING OF GRAB BARS C3
SCALE: N.T.S.

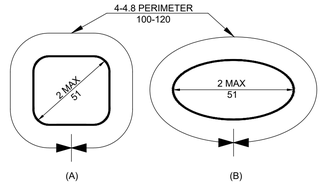


FIGURE 609.2.2 GRAB BAR NON-CIRCULAR CROSS SECTION C2
SCALE: N.T.S.

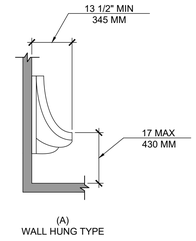


FIGURE 605.2 HEIGHT AND DEPTH OF URINALS C1
SCALE: N.T.S.

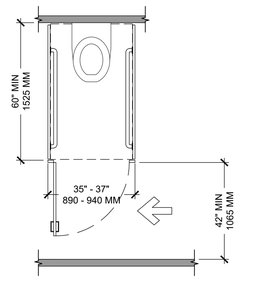


FIGURE 604.8.2 AMBULATORY ACCESSIBLE TOILET COMPARTMENT B5
SCALE: N.T.S.

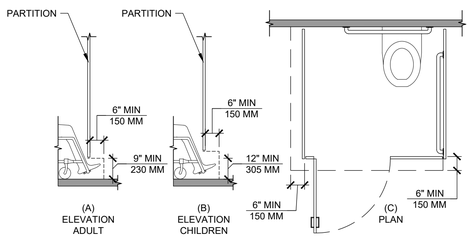


FIGURE 604.8.1.4 WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT TOE CLEARANCE B4
SCALE: N.T.S.

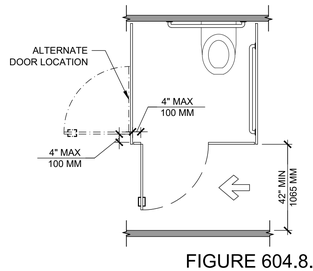


FIGURE 604.8.1.2 WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT DOORS B3
SCALE: N.T.S.

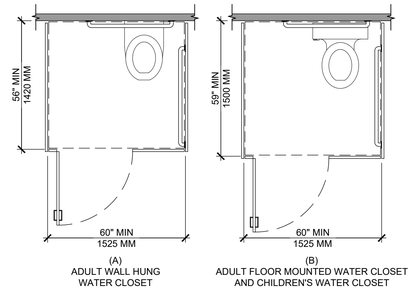


FIGURE 604.8.1.1 SIZE OF WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT B2
SCALE: N.T.S.

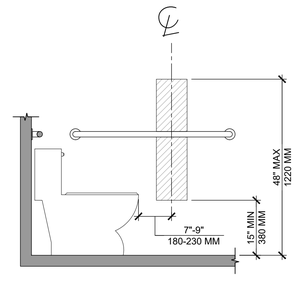


FIGURE 604.7 DISPENSER OUTLET LOCATION B1
SCALE: N.T.S.

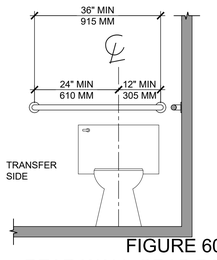


FIGURE 604.5.2 REAR WALL GRAB BAR AT WATER CLOSETS A5
SCALE: N.T.S.

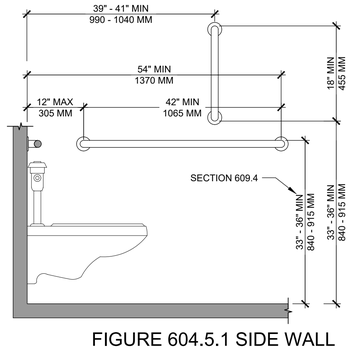


FIGURE 604.5.1 SIDE WALL GRAB BAR AT WATER CLOSETS A4
SCALE: N.T.S.

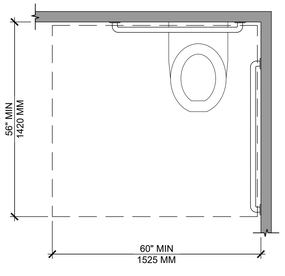


FIGURE 604.3.1 SIZE OF CLEARANCE AT WATER CLOSET A3
SCALE: N.T.S.

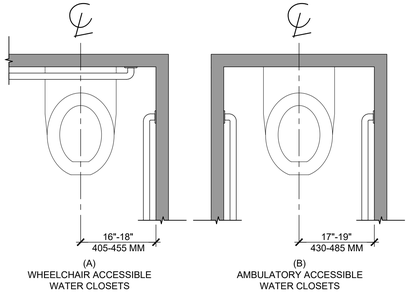


FIGURE 604.2 WATER CLOSET LOCATION A2
SCALE: N.T.S.

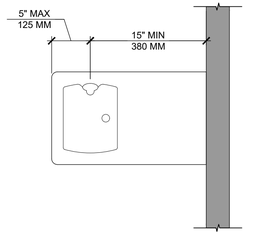


FIGURE 602.5 DRINKING FOUNTAIN SPOUT LOCATION A1
SCALE: N.T.S.

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NORTH WALES, PA 19454

REVISIONS

	DESCRIPTION
06/01/26	PERMIT SET

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SHEET NAME:
2010 ACCESSIBILITY STANDARDS DETAILS

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: DP
SCALE: AS NOTED

SHEET NO.:
T004

	EXISTING	LANDLORD SUPPLY	LANDLORD INSTALL	SOLIDCORE SUPPLY	SOLIDCORE INSTALL	GENERAL CONTRACTOR SUPPLY	GENERAL CONTRACTOR INSTALL	SOLIDCORE (VENDOR) SUPPLY	SOLIDCORE (VENDOR) INSTALL	
GENERAL CONDITIONS										
BUILDING PERMIT (INTERIOR & EXTERIOR)				●	●					GC TO HELP PULL PERMITS AS NEEDED FROM DOB-INCLUDING FIRE ALARM AND SPRINKLER WHICH ARE GC SCOPE
SIGNAGE PERMIT								●	●	SEE VENDOR CONTACT ON SHEET T000
OTHER PERMITS & FEES						●	●			TRADE PERMITS & LOW VOLTAGE PERMIT IF REQUIRED
GENERAL AND SPECIAL INSPECTIONS						●	●			
CONSTRUCTION CLEAN-UP & FINAL CLEAN						●	●			
TRASH REMOVAL & DUMPSTERS						●	●			
BARRICADE / CONSTRUCTION FENCE										NOT APPLICABLE
TEMPORARY POWER & LIGHTING						●	●			
TEMPORARY UTILITIES- SPRINKLER, FA, WATER						●	●			
PARKING LOT / SITEWORK										NOT APPLICABLE
UTILITY COMPANY COORDINATION				●	●					GC TO HELP SOLIDCORE AS REQUIRED WITH UTILITY COMPANIES
PROJECT CLOSE-OUT						●	●			
CERTIFICATE OF OCCUPANCY						●	●			
AS-BUILT DRAWINGS						●	●			
DEMOLITION										
DEMOLITION OF INTERIOR-BROOM SWEPT CONDITION						●	●			
DEMOLITION OF EXTERIOR TENANT SIGNAGE										NOT APPLICABLE
OVER HEAD PIPING						●	●			
SLAB TRENCHING						●	●			GC TO CONFIRM AS-BUILT CONDITION
SLAB CORES / PENETRATIONS										NOT APPLICABLE
DEMOLITION OF STAIR/ RAMP										NOT APPLICABLE
DEMO/ SEAL EGRESS DOOR										NOT APPLICABLE
STOREFRONT	●									EXISTING TO REMAIN. CLEAN AS NEEDED TO LIKE NEW CONDITION
GENERAL CONSTRUCTION										
DEMISING WALL CONSTRUCTION	●					●	●			INSULATION AND SHEATING AS REQUIRED
FLOOR PREPARATION / LEVELING						●	●			AS REQUIRED
CARPENTRY- ROUGH & FINISH						●	●			
INTERIOR DOORS, FRAMES & HARDWARE						●	●			
BLOCKING & FURRING						●	●			
MIRRORS						●	●			PLYWOOD, BLOCKING AND CLEATS BY GC
FLOOR FINISHING						●	●			
FLOOR PROTECTION						●	●			
TILE						●	●			SEE VENDOR CONTACT ON SHEET T000
WALL BASE						●	●			
STACKED WOOD						●	●			
COUNTERTOPS						●	●			BLOCKING BY GC
REDUCER STRIPS & METAL TRIMS						●	●			
ACOUSTICAL CEILING MATERIALS						●	●			GC TO COORDINATE WITH MASON INDUSTRIES
ACOUSTICAL WALL MATERIALS						●	●			GC TO COORDINATE WITH MASON INDUSTRIES
CEILING CONSTRUCTION MATERIALS & ACCESS PANELS						●	●			
PAINT & PREP TO RECEIVE TRADE DRESS						●	●			
RAILINGS										NOT APPLICABLE
FIRESTOPPING						●	●			
STRUCTURAL STEEL										NOT APPLICABLE

	EXISTING	LANDLORD SUPPLY	LANDLORD INSTALL	SOLIDCORE SUPPLY	SOLIDCORE INSTALL	GENERAL CONTRACTOR SUPPLY	GENERAL CONTRACTOR INSTALL	SOLIDCORE (VENDOR) SUPPLY	SOLIDCORE (VENDOR) INSTALL	
STOREFRONT										
STOREFRONT & EGRESS DOORS, FRAMES & HARDWARES	●									EXISTING TO REMAIN. CLEAN AS NEEDED TO LIKE NEW CONDITION
EXTERIOR EXIT SYSTEM								●	●	SEE VENDOR CONTRACT ON SHEET T000
MAINTENANCE OF EXISTING STOREFRONT DOOR							●			GC TO ENSURE GOOD WORKING ORDER
CONSTRUCTION PAPER						●	●			
STOREFRONT LOUVERS										NOT APPLICABLE
WEATHERPROOFING / DOOR SWEEPS	●		●				●			GC TO ENSURE REAR DOOR WEATHER TIGHT.
EXTERIOR SIGNAGE								●	●	SEE VENDOR CONTACT ON SHEET T000; ELECTRIC & BLOCKING BY GC
FIXTURES & TRADE DRESS										
LOCKERS							●	●		SEE VENDOR CONTACT ON SHEET T000
RETAIL MILLWORK							●	●		POWER BEVERAGE COOLER BY GC
COUNTERTOPS						●	●			
COACH'S STATION						●	●			GC TO COORDINATE HVAC, LIGHTING AND AUDIO CONTROLS WITH APPROPRIATE SUBCONTRACTOR / VENDOR. SUPPLIED BY D&A.
COAT RACK / HANGER						●	●			
BEVERAGE FRIDGE						●	●			
FITNESS MACHINES							●	●		SEE VENDOR CONTACT ON SHEET T000
STORAGE SHELVING						●	●			
RECEPTION DESK						●	●			
RESTROOM ACCESSORIES						●	●			INCLUDES MOP BROOM HOLDER & HAND DRYER; BLOCKING BY GC.
FIRE EXTINGUISHERS						●	●			
CODE SIGNAGE						●	●			
OPERATIONS TRADE DRESS (SWEATBAGS)							●	●		
INTERIOR SIGNAGE								●	●	SEE VENDOR CONTACT ON SHEET T000; ELECTRIC & BLOCKING BY GC
FIRE PROTECTION - FA & SPRINKLER										
MAGLOCK CONNECTIONS (IF APPLICABLE)						●	●			
BUILDING CONNECTIONS	●					●	●			
FA DEVICES AND DISTRIBUTION						●	●			
EGRESS DOOR PULLSTATIONS						●	●			
HVAC DUCT SMOKE DETECTORS						●	●			
FA PANEL						●	●			TIE INTO LL CENTRAL FIRE ALARM CONTROL
FA PERMITS, APPROVALS & INSPECTIONS						●	●			
CARBON / SMOKE DETECTORS						●	●			
SPRINKLER PERMIT, APPROVALS & INSPECTION						●	●			GC TO CONTACT LL REQ. SPRINKLER VENDOR
SPRINKLER MAIN	●					●	●			
SPRINKLER SHUT-DOWN / DRAIN DOWNS						●	●			GC TO COORDINATE WITH LL REQUIREMENTS
EXISTING SPRINKLER SYSTEM MODIFICATIONS/ DEMOLITION						●	●			
SPRINKLER DISTRIBUTION, CONNECTIONS & HEADS						●	●			
SPRINKLER FLOW / TAMPER DEVICES										
MECHANICAL										
HVAC UNITS & SUPPORTS						●	●			REFER TO MECHANICAL DRAWINGS
HVAC DISTRIBUTION- DUCTWORK, DIFFUSERS ETC.						●	●			
GRILLES & LOUVERS						●	●			
BUILDING CONNECTIONS						●	●			
BMS SYSTEM (IF APPLICABLE)						●	●			
EXHAUST FAN & VENTING						●	●			
AIR BALANCING & PROGRAMMING						●	●			
THERMOSTATS						●	●			

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NORTH WALES, PA 19454

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	06/01/26	PERMIT SET

STATUS:
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SHEET NAME:
RESPONSIBILITY SCHEDULE

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: JB
SCALE: AS NOTED

SHEET NO.:
T005

	EXISTING	LANDLORD SUPPLY	LANDLORD INSTALL	SOLIDCORE SUPPLY	SOLIDCORE INSTALL	GENERAL CONTRACTOR SUPPLY	GENERAL CONTRACTOR INSTALL	SOLIDCORE (VENDOR) SUPPLY	SOLIDCORE (VENDOR) INSTALL	
ELECTRICAL										
ELECTRICAL SERVICE	●						●			GC TO ENSURE GOOD WORKING ORDER, AND BRING ANY CONCERNS TO AOR AND OWNER.
ELECTRICAL SUB-METER (IF APPLICABLE)						●	●			GC TO ENSURE GOOD WORKING ORDER, AND BRING ANY CONCERNS TO AOR AND OWNER.
STEP-DOWN TRANSFORMER & SUPPORTS	●						●			REFER TO ELECTRICAL
DISTRIBUTION & ELECTRICAL PANELS	●						●			
WIRING, CICUITING, RECEPTACLES, SWITCHES, ETC.						●	●			SEE VENDOR CONTACT ON LIGHTING SCHEDULE
COMPLATE LIGHT PACKAGE INCLUDING FIXTURES, LAMPS & DRIVERS						●	●			
EMERGENCY LIGHTING, EMERGENCY RELAY & EXIT SIGNS PER CODE						●	●			
LIGHTING CONTROLS						●	●			
HVAC CONNECTIONS						●	●			
EXTERIOR SIGNAGE CONNECTIONS AND TIMER						●	●			
ELECTRIC STRIKE / EXIT DOOR RELEASE								●	●	SEE VENDOR CONTACT ON SHEET T000
BUILDING CONNECTIONS						●	●			
LIFT / ELEVATOR ELECTRIC										NOT APPLICABLE
LOW VOLTAGE										
CONDUIT & PULL STRING						●	●			
TELEPHONE / WIFI WIRING & CONNECTIONS				●	●	●	●			GC TO PROVIDE POWER AS REQUIRED
FIRE-RATED PLYWOOD BACKING						●	●			
IT RACK								●	●	
CAT 6 WIRING & CONNECTIONS								●	●	
SPEAKER & MIC WIRING & CONNECTIONS								●	●	
AUDIO & MIC EQUIPMENT INSTALL & TESTING								●	●	
TELEPHONE & IT EQUIPMENT INSTALL & TESTING				●	●	●	●			GC TO PROVIDE POWER AS REQUIRED
EXIT RELEASE WIRING & CONNECTIONS						●	●	●	●	CONNECTION BY GC; WIRING BY SOLIDCORE VENDOR
EXIT RELEASE INSTALL & TESTING								●	●	
PLUMBING										
WATER SERVICE	●						●			GC TO ENSURE GOOD WORKING ORDER, AND BRING ANY CONCERNS TO AOR AND OWNER.
WATER SUBMETER						●	●			VERIFY IN FIELD IF THERE IS EXISTING
WATER CONNECTIONS & DISTRIBUTION	●					●	●			
SANITARY SERVICE	●									EXISTING 4" SANITARY BELOW
SANITARY CONNECTIONS & DISTRIBUTIONS						●	●			
SANITARY VENT CONNECTIONS & DISTRIBUTIONS						●	●			
GAS AND / OR STEAM SERVICE	●									REFER TO PLUMBING
GAS AND / OR STEAM CONNECTIONS & DISTRIBUTION	●					●	●			REFER TO PLUMBING
GAS AND / OR STEAM SUBMETER	●									REFER TO PLUMBING
PLUMBING FIXTURES						●	●			INCLUDES MOP SINK & DRINKING FOUNTAIN
FLOOR DRAINS & CLEAN-OUTS						●	●			
BACKFLOW PREVENTOR						●	●			
HVAC CONNECTIONS						●	●			

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NORTH WALES, PA 19454

REVISIONS

		DESCRIPTION
1	06/01/26	PERMIT SET

STATUS:
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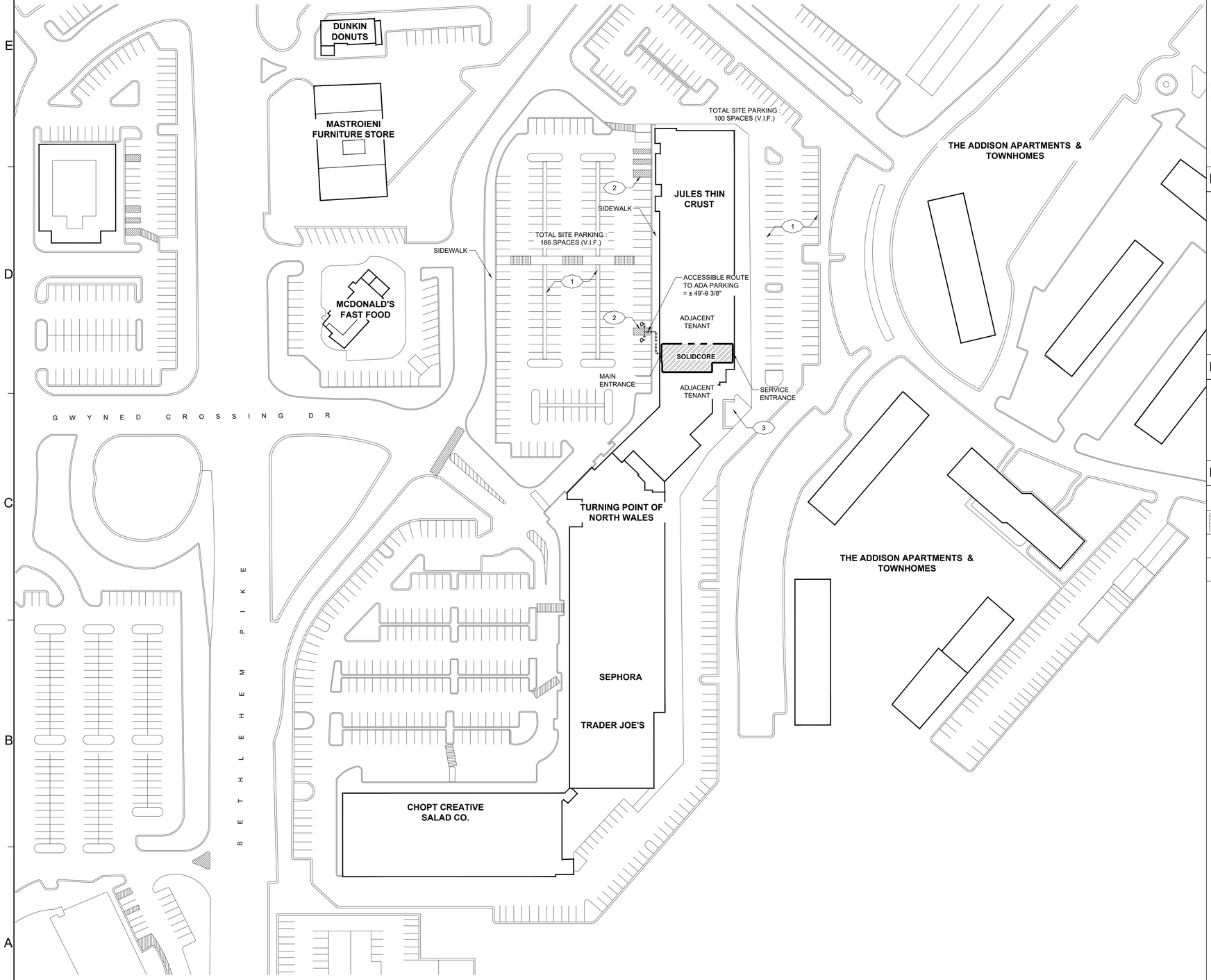
SHEET NAME:
RESPONSIBILITY SCHEDULE

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: JB
SCALE: AS NOTED

SHEET NO.:
T006



NORTH

ARCHITECTURAL SITE PLAN A2

SCALE: 1/32" = 1'-0"

GENERAL NOTES

A. THIS DRAWING IS PART OF A COORDINATED SET OF DOCUMENTS. DO NOT SEPARATE BOUND SETS.

B. DRAWINGS AND DIMENSIONS OF THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM FIELD MEASUREMENTS. BE ALERT TO DIMENSIONAL DISCREPANCIES, STRUCTURAL SUPPORTS AND OTHER ELEMENTS CONCEALED IN WALLS, NOT SHOWN. REPORT DISCREPANCIES PRIOR TO PROCEEDING.

C. IN THE EVENT OF INCONSISTENCIES BETWEEN ARCHITECTURAL AND CONSULTANT BASE PLANS THE ARCHITECTURAL SHEET SHALL TAKE PRECEDENCE. REPORT DISCREPANCIES PRIOR TO PROCEEDING WITH AFFECTED WORK.

D. DO NOT SCALE DRAWINGS FOR CONSTRUCTION DIMENSIONS OR TOLERANCES. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER DRAWINGS. REQUEST CLARIFICATION IN WRITING PRIOR TO PROCEEDING.

E. DIMENSIONS ARE TO FACE OF METAL STUDS UNLESS NOTED OTHERWISE.

F. DIMENSIONS AND CLEARANCES SHOWN ON DRAWINGS RELATING TO ACCESSIBILITY OR EGRESS ARE FROM FACE OF FINISH MATERIAL. ALLOW FOR FINISHES IN FABRICATING AND/OR INSTALLING ITEMS. REPORT DISCREPANCIES PRIOR TO PROCEEDING WITH AFFECTED ITEMS.

G. COORDINATE DIMENSIONS ON PLANS AND FIELD VERIFY PRIOR TO CONSTRUCTION. REPORT DISCREPANCIES PRIOR TO PROCEEDING WITH AFFECTED WORK.

H. EXISTING CONDITIONS ARE TO REMAIN AND BE PROTECTED IN PLACE DURING THE COURSE OF CONSTRUCTION UNLESS SPECIFICALLY NOTED OTHERWISE.

KEYNOTES -X-

1. (E) ON SITE PARKING.
2. (E) ACCESSIBLE PARKING SPACE.
3. (E) TRASH ENCLOSURE - TBC

NOTE:

1. THERE IS NO MODIFICATION TO THE PROPOSED USED OF THIS PROJECT AND NO PARKING MODIFICATIONS ARE PROPOSED WITH THIS SCOPE OF WORK. THE EXISTING SHARED MALL PARKING SHALL REMAIN FOR THE PROPOSED SPACE.
2. THIS SITE PLAN SHOWN WITHOUT THE BENEFIT OF A SURVEY AND IS ESTIMATED. THE EXACT INFORMATION IS UNKNOWN BUT IS UNCHANGED.

LEGEND:

LEGEND	DESCRIPTION
	TENANT SPACE
	LEASE LINE
	PATH OF TRAVEL

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SHEET NAME:
ARCHITECTURAL SITE PLAN

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: NSA
SCALE: AS NOTED

SHEET NO.:
SP100

KEY NOTES

1. EXISTING DEMISING WALL TO REMAIN.
2. HIDDEN LINE INDICATES EXISTING ELEMENTS TO BE DEMOLISHED.
3. ALL EXISTING CEILING, LIGHTING, ACCESSORIES TO BE REMOVED. COORDINATE WITH REFLECTED CEILING PLAN.
4. GC TO DEMO EXISTING FLOOR, CLEAN, LEVEL AND PREP FOR NEW FLOOR FINISH. SEE A103 FOR MORE DETAILS.
5. EXISTING DOOR TO REMAIN. PROTECT DURING CONSTRUCTION AND DEMOLITION. GC TO ENSURE GOOD WORKING ORDER, REPLACE HARDWARE AS REQUIRED TO BRING TO LIKE NEW CONDITIONS. DOOR TO BE RELOCKED.
6. EXISTING DOOR TO BE MADE INACTIVE. PROTECT DURING CONSTRUCTION AND DEMOLITION.
7. EXISTING STOREFRONT SYSTEM TO REMAIN. PROTECT DURING CONSTRUCTION AND DEMOLITION.
8. EXISTING PLUMBING FIXTURES TO BE REMOVED BACK TO SOURCE AND THEN GC TO CAP UNUSED PLUMBING CONNECTION AS REQUIRED.
9. NEW FLOOR BOX. REFER TO PROPOSED FLOOR PLAN AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
10. NEW PLUMBING FIXTURE LOCATION. GC TO TRENCH FLOOR AS REQUIRED. REFER TO PROPOSED FLOOR PLAN AND PLUMBING DRAWINGS FOR MORE INFORMATION.
11. EXISTING COLUMNS TO REMAIN. GC TO PROTECT DURING CONSTRUCTION.
12. EXISTING ELECTRICAL PANEL AND TRANSFORMER TO REMAIN.

DEMOLITION GENERAL NOTES

A. THIS DRAWING IS PART OF A COORDINATED SET OF DOCUMENTS. DO NOT SEPARATE BOUND SETS.

B. DRAWINGS AND DIMENSIONS OF THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM FIELD MEASUREMENTS. BE ALERT TO DIMENSIONAL DISCREPANCIES, STRUCTURAL SUPPORTS AND OTHER ELEMENTS CONCEALED IN WALLS, NOT SHOWN. REPORT DISCREPANCIES PRIOR TO PROCEEDING.

C. DO NOT SCALE DRAWINGS FOR CONSTRUCTION DIMENSIONS OR TOLERANCES. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER DRAWINGS. REQUEST CLARIFICATION IN WRITING PRIOR TO PROCEEDING.

D. EXISTING CONDITIONS IDENTIFIED TO REMAIN SHALL BE PROTECTED IN PLACE DURING THE COURSE OF CONSTRUCTION UNLESS SPECIFICALLY NOTED OTHERWISE.

E. THE SCOPE OF DEMOLITION SHALL INCLUDE ALL ITEMS INDICATED ON PLANS AND ALL OTHER ITEMS REQUIRED TO BE DEMOLISHED IN ORDER TO FACILITATE ALL NEW WORK AS INDICATED IN THE CONTRACT DOCUMENTS.

F. ALL EXISTING MECHANICAL EQUIPMENT AND DUCT WORK SHALL BE REMOVED UNLESS NOTED OTHERWISE. RESTROOM EXHAUST FANS TO REMAIN. THE CONTRACTOR SHALL NOTIFY ARCHITECT IF THERE IS ROUTING OUTSIDE OF DEMISED SPACE.

G. ALL ELECTRICAL BRANCH CIRCUITRY SCHEDULED FOR DEMOLITION SHALL BE REMOVED IN ITS ENTIRETY AND TERMINATED AT THE SOURCE IN ACCORDANCE WITH ALL APPLICABLE CODES AND ORDINANCES.THE DEMOLITION SHALL INCLUDE THE REMOVAL OF ALL WIRING, CONDUIT, JUNCTION BOXES, SUPPORTS, OR ALL OTHER ASSOCIATED DEVICES.

H. ALL GAS, WATER AND DRAIN LINES SUPPLYING EXISTING EQUIPMENT OR FIXTURES SCHEDULED FOR DEMOLITION SHALL BE DISCONNECTED IN A MANOR AS TO NOT DAMAGE THE EQUIPMENT. ALL UTILITIES SUPPLYING THE EQUIPMENT SHALL BE REMOVED IN THEIR ENTIRETY AND CAPPED AT THEIR SOURCE ABOVE CEILING OR BELOW FLOOR.

I. THE CONTRACTOR SHALL PROMPTLY REMOVE ALL CONSTRUCTION WASTE AND DEBRIS FROM THE SITE. ALL CONSTRUCTION WASTE AND DEBRIS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LAWS AND ORDINANCES.

J. THE CONTRACTOR SHALL UTILIZE THE STANDARD OF CARE TO IDENTIFY HAZARDOUS OR TOXIC MATERIALS. SHOULD THE CONTRACTOR DISCOVER OR SUSPECT THE PRESENCE OF MATERIALS CONTAINING HAZARDOUS OR TOXIC MATERIALS, THE CONTRACTOR SHALL NOTIFY THE OWNER AND ABATE SUCH MATERIAL IN ACCORDANCE WILL ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS.

K. THE CONTRACTOR SHALL VERIFY WITH THE OWNER WHICH ITEMS ARE TO BE SALVAGED. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER THE STORAGE REQUIREMENTS OF SALVAGED ITEMS.

L. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF THE CONSTRUCTION WASTE CONTAINER WITH THE OWNER PRIOR TO THE COMMENCEMENT OF WORK.

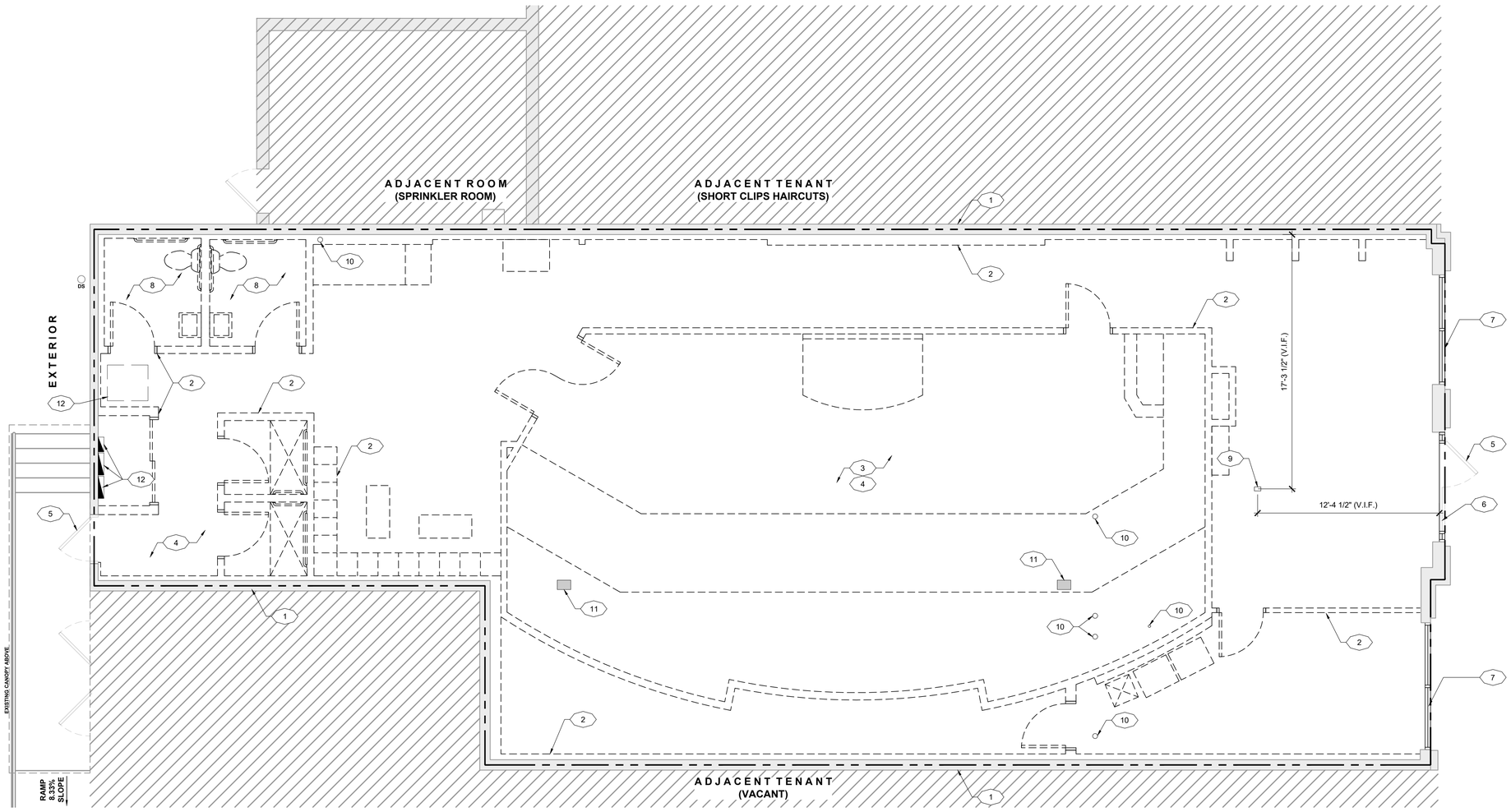
M. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES CAUSED BY THE CONTRACTOR, BY THE ACTIONS OF THEIR SUBCONTRACTORS, OR THE ACTIONS OF THEIR VENDORS.

N. THE CONTRACTOR SHALL CLEAN, REPAIR AND RESTORE ALL EXISTING FINISHES SCHEDULED TO REMAIN THAT HAVE BEEN AFFECTED BY THE SCOPE OF WORK.

O. THE CONTRACTOR SHALL REVIEW RULES AND REGULATIONS PRIOR TO DEMOLITION START. GC TO REVIEW ALL DEMOLITION SCOPE WITH OWNER INCLUDING BARRICADE REQUIREMENTS

WALL TYPE LEGEND

SYMBOL	DESCRIPTION
	EXISTING DEMISING WALL
	DEMOLITION WALL



PLAN NORTH

DEMOLITION PLAN A1

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

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PHONE: 480.912.1169 www.zbr.global

STORE NO.:

Solidcore

THE SHOPPES AT ENGLISH VILLAGE
1460 BETHLEHEM PIKE, SUITE 150,
NORTH WALES, PA 19454

REVISIONS

		DESCRIPTION
1	06/01/26	PERMIT SET

STATUS:
PERMIT SET

FIELD VERIFICATION:
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SHEET NAME:
DEMOLITION PLAN

DATE:	PROJECT NO.:
06/01/2026	42559
DRAWN: NSA	SCALE: AS NOTED

SHEET NO.:
D100

KEYNOTES

1. (E) GYPSUM CEILING TO BE REMOVED.
2. (E) CEILING TILES TO BE REMOVED.
3. (E) LIGHTS TO BE REMOVED.
4. (E) MECHANICAL DIFFUSERS TO BE REMOVED.
5. (E) EXIT/EMERGENCY LIGHT TO BE REMOVED.
6. EXISTING TRANSFORMER ABOVE TO REMAIN. GC TO PROTECT DURING CONSTRUCTION.

WALL TYPE LEGEND

SYMBOL	DESCRIPTION
	EXISTING DEMISING WALL
	DEMOLITION WALL

DEMOLITION GENERAL NOTES

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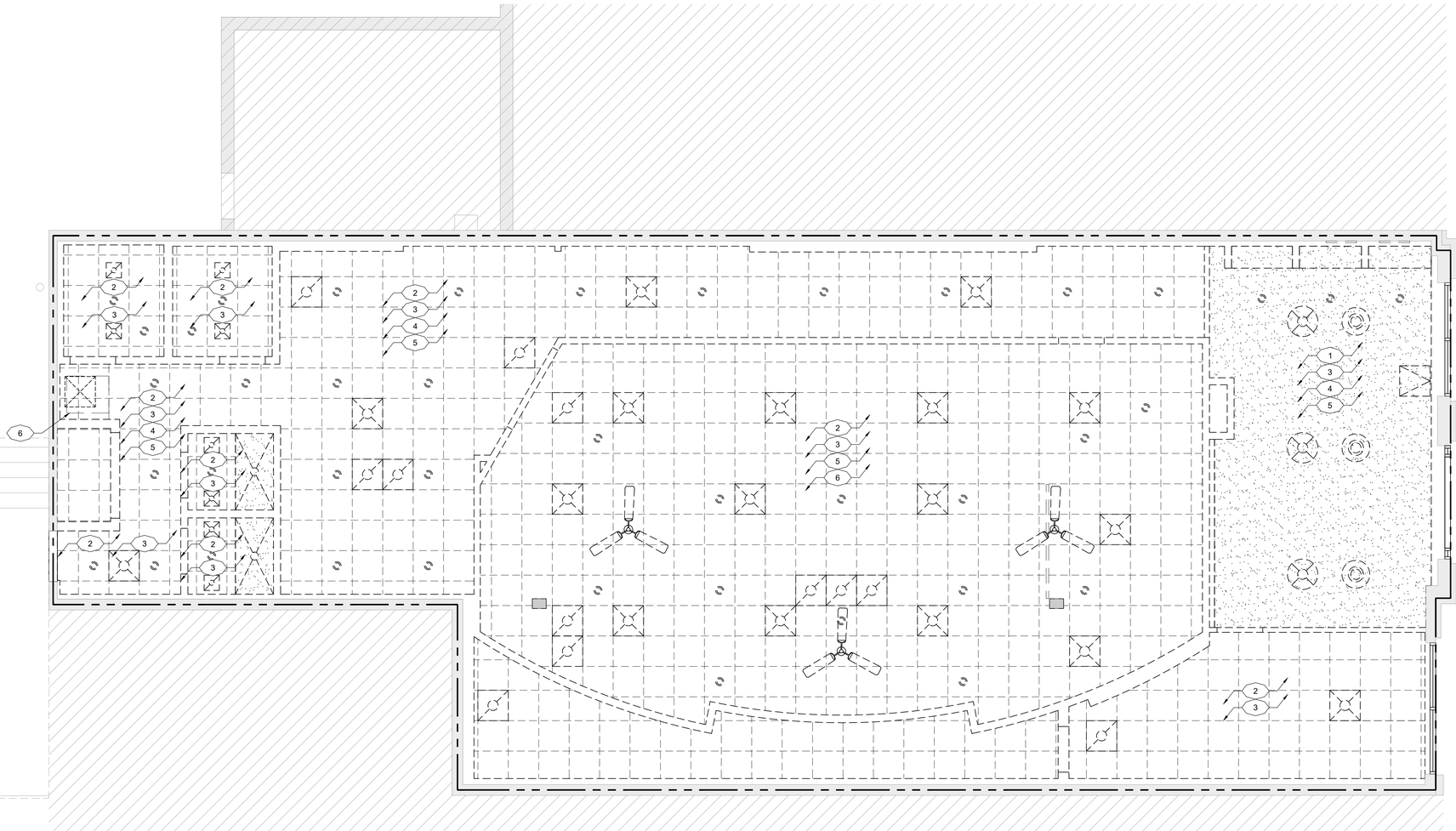

PLAN NORTH

DEMOLITION REFLECTED CEILING PLAN (A1)

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

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NORTH WALES, PA 19454

REVISIONS

△		DESCRIPTION
	06/01/26	PERMIT SET

STATUS:
PERMIT SET

FIELD VERIFICATION:
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SHEET NAME:
DEMOLITION REFLECTED CEILING PLAN

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: NSA
SCALE: AS NOTED

SHEET NO.:
D200

KEY NOTES -X-

1. DIMENSION STARTING POINT.
2. (E) DEMISING WALL.
3. LEASE LINE. GC TO VERIFY EXACT LOCATION IN FIELD.
4. EXISTING COLUMN TO REMAIN.

NOTES

GC SHALL CONFIRM ALL EXISTING SPACE DIMENSIONS ONCE MOBILIZED ON SITE AND PRIOR TO START OF CONSTRUCTION BUT AFTER DEMOLITION IS COMPLETED. NOTE ACTUAL SITE DIMENSION ON SITE VERIFICATION PLAN AND SUBMIT PRIOR TO FRAMING NEW LAYOUT. NOTIFY ARCHITECT AND DOCUMENT ANY CONDITIONS THAT DIFFER FROM THE PLANS HEREIN.

GENERAL NOTES

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B. DRAWINGS AND DIMENSIONS OF THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM FIELD MEASUREMENTS. BE ALERT TO DIMENSIONAL DISCREPANCIES, STRUCTURAL SUPPORTS AND OTHER ELEMENTS CONCEALED IN WALLS, NOT SHOWN. REPORT DISCREPANCIES PRIOR TO PROCEEDING.

C. IN THE EVENT OF INCONSISTENCIES BETWEEN ARCHITECTURAL AND CONSULTANT BASE PLANS THE ARCHITECTURAL SHEET SHALL TAKE PRECEDENCE. REPORT DISCREPANCIES PRIOR TO PROCEEDING WITH AFFECTED WORK.

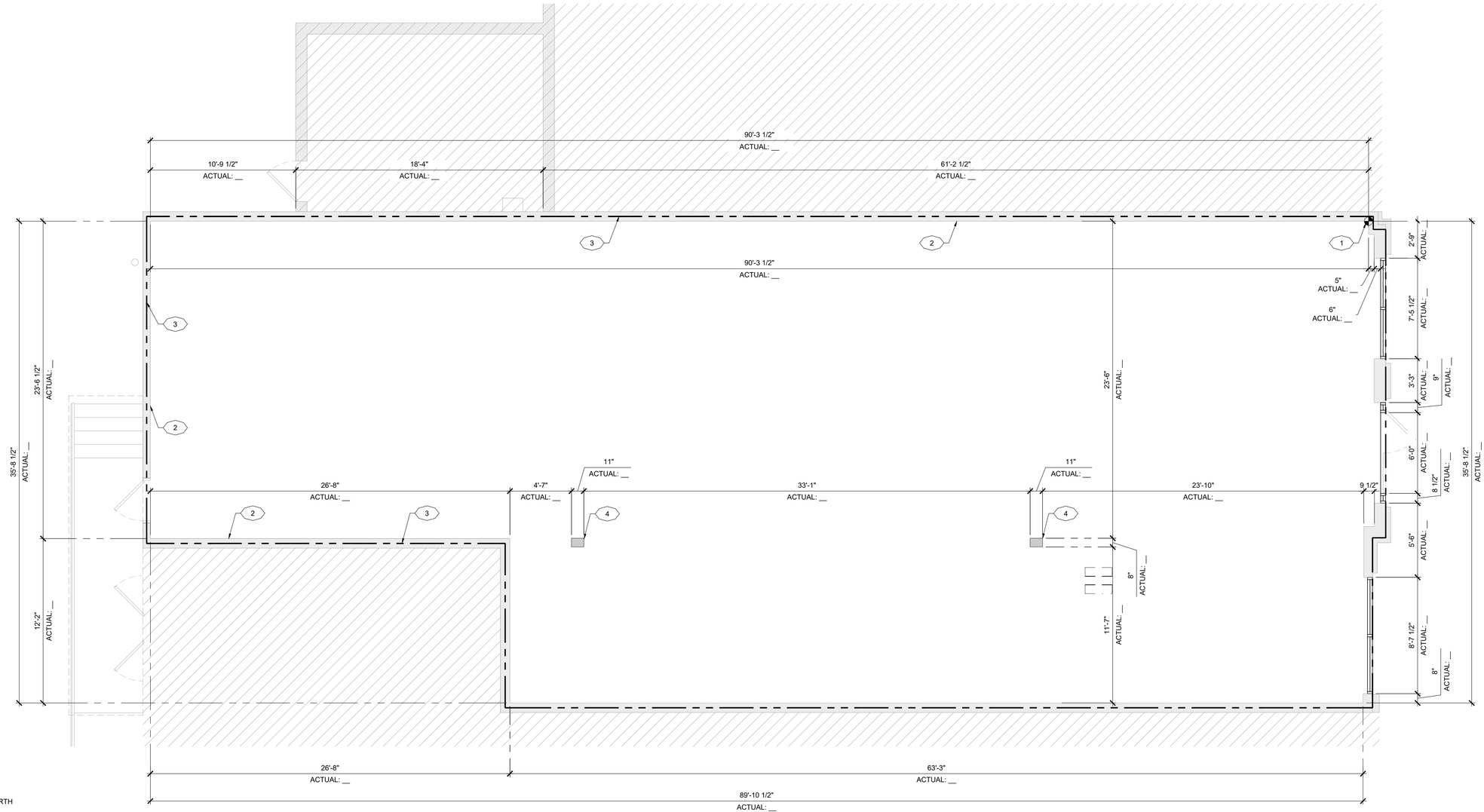
D. DO NOT SCALE DRAWINGS FOR CONSTRUCTION DIMENSIONS OR TOLERANCES. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER DRAWINGS. REQUEST CLARIFICATION IN WRITING PRIOR TO PROCEEDING.

E. DIMENSIONS ARE TO FACE OF METAL STUDS UNLESS NOTED OTHERWISE.

F. DIMENSIONS AND CLEARANCES SHOWN ON DRAWINGS RELATING TO ACCESSIBILITY OR EGRESS ARE FROM FACE OF FINISH MATERIAL. ALLOW FOR FINISHES IN FABRICATING AND/OR INSTALLING ITEMS. REPORT DISCREPANCIES PRIOR TO PROCEEDING WITH AFFECTED ITEMS.

G. COORDINATE DIMENSIONS ON PLANS AND FIELD VERIFY PRIOR TO CONSTRUCTION. REPORT DISCREPANCIES PRIOR TO PROCEEDING WITH AFFECTED WORK.

H. EXISTING CONDITIONS ARE TO REMAIN AND BE PROTECTED IN PLACE DURING THE COURSE OF CONSTRUCTION UNLESS SPECIFICALLY NOTED OTHERWISE.



PLAN NORTH

PREMISE VERIFICATION PLAN (A1)

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

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REVISIONS

△		DESCRIPTION
	06/01/26	PERMIT SET

STATUS:
PERMIT SET

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SHEET NAME:
PREMISE VERIFICATION PLAN

DATE:	PROJECT NO.:
06/01/2026	42559
DRAWN: NSA	SCALE: AS NOTED

SHEET NO.:
A001

FIRE EXTINGUISHER TYPES

(VERIFY WITH LOCAL FIRE DEPARTMENT)

SYMBOL	DESCRIPTION
2-A	TYPE 2-A EXTINGUISHER (PER NFPA 10): PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A MINIMUM RATING OR 2-A:10:B:C WITHIN A 75FT. TRAVEL DISTANCE OF ANY POINT IN THIS FACILITY. FINAL PLACEMENT PER FIRE MARSHAL.

LIFE SAFETY LEGEND

- INDICATES PATH OF TRAVEL; (MINIMUM 36" CLEAR, UNLESS NOTED OTHERWISE)
- INDICATES LONGEST PATH OF EGRESS TRAVEL; (MINIMUM 36" CLEAR, UNLESS NOTED OTHERWISE)
- COMMON PATH OF TRAVEL
- START POINT
- END POINT / EXIT
- 30"x48" CLEAR SPACE (MINIMUM 28" TO 34" MAXIMUM TO TOP OF SURFACE A.F.F.)
- FIRE EXTINGUISHER, SEE SCHEDULE
- X-1 X-1 — X-1 EXIT SIGN (SEE PLAN SYMBOL FOR WALL VS. CEILING MOUNT)
- EXIT # — EXIT NUMBER
- # MAX. — MAXIMUM CALCULATED LOAD
- # OCC. — ACTUAL EGRESS
- EXISTING 1 HR. RATED DEMISING WALLS

GENERAL NOTES

1. THE ARCHITECT HAS ENDEAVORED TO DESIGN THIS PROJECT IN CONFORMANCE WITH APPLICABLE CODE AND ACCESSIBILITY REQUIREMENTS GOVERNING THE PLACE OF THE WORK AT THE TIME OF PERMIT ISSUANCE.
2. ALL WORK SHALL COMPLY WITH ALL PROVISIONS OF ALL NATIONAL, STATE, AND LOCAL CODES AND ORDINANCES ("ORDINANCES") GOVERNING THE PLACE OF THIS WORK, WHICH INCLUDE ACCESSIBILITY REQUIREMENTS SET FORTH IN THE 2021 INTERNATIONAL BUILDING CODE CHAPTER 11 APPENDIX E AND APPENDIX B OF 2021 INTERNATIONAL EXISTING BUILDING CODE, AS AMENDED BY THE AUTHORITY HAVING JURISDICTION AND THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND 521 CMR. THESE DRAWINGS AND SPECIFICATIONS DO NOT CONTAIN ALL THE PROVISIONS OF THESE "ORDINANCES." CONTRACTOR IS TO BOTH KNOW OF AND UNDERSTAND THESE "ORDINANCES" AND TO BRING TO THE ATTENTION OF THE OWNER AND THE ARCHITECT ANY CONFLICTS OR DISCREPANCIES BETWEEN THE VARIOUS CONSTRUCTION DOCUMENTS AND THE "ORDINANCES," OR ANY DISCREPANCIES OR CONFLICTS CONTAINED WITHIN THE CONSTRUCTION DOCUMENTS. THE ARCHITECT WILL ISSUE A CLARIFICATION FOR THE USE BY CONTRACTOR IN RESOLVING SUCH DISCREPANCY OR CONFLICT. CONTRACTOR IS RESPONSIBLE FOR PROVIDING SUCH LABOR AND MATERIAL TO COMPLY WITH THE "ORDINANCES" WHETHER OR NOT SHOWN CORRECTLY HEREIN.
3. APPLICABLE CODES AND ACCESSIBILITY REQUIREMENTS ARE AVAILABLE ONLINE, FREE OF CHARGE AT: WWW.CODES.ICCSAFE.ORG. CONTRACTOR SHALL REFER AND ADHERE TO THESE DOCUMENTS.
4. BY EXECUTING THE CONTRACT, CONTRACTOR REPRESENTS THAT IT IS AWARE OF AND FULLY FAMILIAR WITH ALL APPLICABLE "ORDINANCES" GOVERNING THE WORK.
5. FIGURES INCLUDED ON THIS SHEET, ARE FOR INFORMATION AND REFERENCE ONLY. CONTRACTOR SHALL REFER TO THE ENTIRE TEXT OF THE ACCESSIBILITY REQUIREMENTS IN PERFORMING THE WORK.
6. REFER TO ELECTRICAL LIGHTING PLAN FOR EMERGENCY LIGHTING.

EXIT ANALYSIS

PER APPLICABLE BUILDING CODE

MEANS OF EGRESS SIZING	DOORS & OTHER EGRESS COMPONENT UNIT WIDTH = 0.2 X INTERIOR OCCUPANT LOAD = 0.2 X 21 = 4.2" REQUIRED WIDTH EXIT WIDTH PROVIDED = 72" (MINIMUM CLEAR WIDTH OF EXIT DOOR = 34")
REQUIRED EXITS	REQUIRED EXITS = 1 (1-500 OCCUPANT LOAD PER SPACE) EXITS PROVIDED = 2
REQUIRED EXIT SEPARATION	MINIMUM REQUIRED EXIT SEPARATION = MAXIMUM DIAGONAL DISTANCE / 3 = 96'-9 1/2" ÷ 3 = 32'-3 1/4" ACTUAL EXIT SEPARATION DISTANCE = 91'-3 1/2"
EXIT ACCESS TRAVEL DISTANCE	MAXIMUM ALLOWABLE EXIT ACCESS TRAVEL DISTANCE = 300'-0" (SPRINKLERED) ACTUAL MAXIMUM EXIT ACCESS TRAVEL DISTANCE = 81'-7 5/8" COMMON PATH OF TRAVEL = 45'-4"
DEAD END REQUIREMENT AND EXCEPTION FOR SPRINKLER = 43'-4" (UP TO 50' ALLOWED FOR SPRINKLERED BUILDINGS)	

PLUMBING FACILITIES SUMMARY

2021 INTERNATIONAL PLUMBING CODE (IPC), TABLE 403.1

GROUP B 40

FIXTURE TYPE	MALE		FEMALE		COMBINED	
	REQ'D	PROVIDED	REQ'D	PROVIDED	REQ'D	PROVIDED
WATER CLOSETS (1 PER 25)	1	1	1	1	NA	NA
URINAL	NA	NA	NA	NA	NA	NA
LAVATORIES (1 PER 40)	1	1	1	1	NA	NA
DRINKING FOUNTAINS (1 PER 100)	NA	NA	NA	NA	1	1
SERVICE SINK	NA	NA	NA	NA	1	1

PROJECT DATA

ADDRESS: 1460 BETHLEHEM PIKE, SUITE 150, NORTH WALES, PA 19454

EXISTING BUILDING INFORMATION:
CONSTRUCTION TYPE: NO CHANGE
FIRE PROTECTION: SPRINKLERED
NUMBER OF STORIES: 1 STORY

TENANT INFORMATION:
LOCATION: GROUND FLOOR
TENANT AREA: 3,009
OCCUPANCY: GROUP B - BUSINESS

GOVERNING CODES

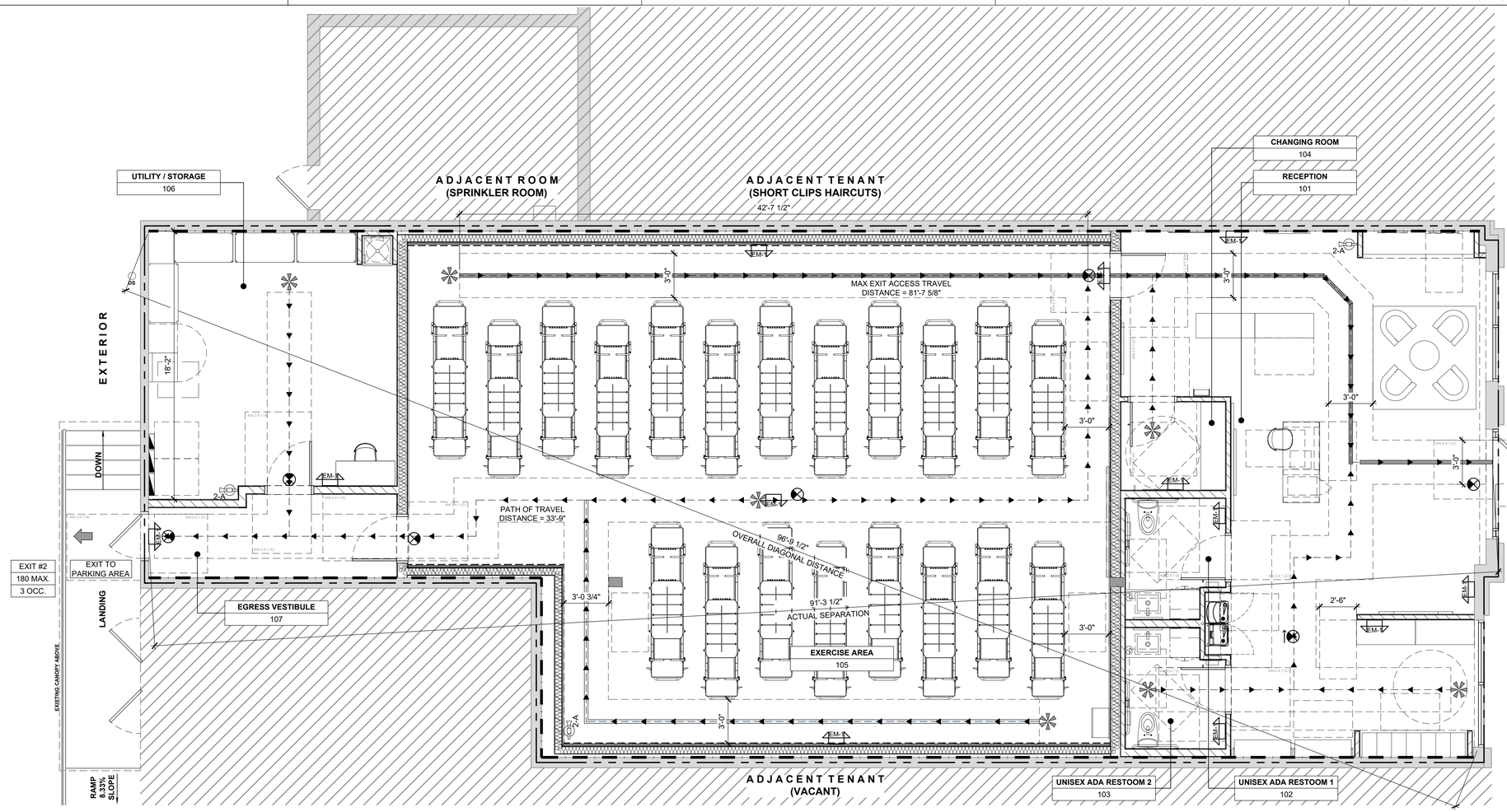
BUILDING:	2021 INTERNATIONAL BUILDING CODE (IBC), CHAPTERS 2-10, 12-29, 31-35
EXISTING BUILDING:	2021 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
MECHANICAL:	2021 INTERNATIONAL MECHANICAL CODE (IMC)
PLUMBING:	2021 INTERNATIONAL PLUMBING CODE (IPC)
ELECTRICAL:	2020 NATIONAL ELECTRICAL CODE (NEC)
FIRE:	2021 INTERNATIONAL FIRE CODE (IFC)
ACCESSIBILITY:	2018 IBC CHAPTER 11 & 2009 ANSI/ ICC A117.1
ENERGY:	2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
GAS:	2021 INTERNATIONAL FUEL GAS CODE (IFGC)

NOTE: ALL WITH CITY AMENDMENTS

OCCUPANT LOAD

	FUNCTION	AREA	OCC LOAD FACTOR / OCC / FACTOR	OCC LOAD
	BUSINESS	3,009 SF	150 GROSS	21
INTERIOR OCC LOAD (FOR EXIT ANALYSIS)				21
TOTAL OCCUPANTS (FOR PLUMBING FACILITIES)				MALE: 11 FEMALE: 11

NOTE: EM LIGHTS AND EXITS SIGNS TO BE COORDINATED WITH MEP.



PLAN NORTH

CODE ANALYSIS AND EGRESS PLAN (A1)

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

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06/01/26	PERMIT SET

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SHEET NAME: CODE ANALYSIS AND EGRESS PLAN

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: NSA
SCALE: AS NOTED

SHEET NO.: A100

WALL TYPE LEGEND

SYMBOL	DESCRIPTION	DETAIL
	EXISTING WALL	SEE SHEET A500
	NEW FULL HEIGHT WALL	SEE SHEET A500
	NEW ACOUSTIC WALL	SEE SHEET A500
	EXISTING 1 HR. RATED DEMISING WALLS	

FRAMING / DIMENSIONING NOTE:
ALL DIMENSIONS ARE TO FACE OF FRAMING AT FRAMED WALLS & SOFFITS, TYPICAL, U.N.O.

ALL MILLWORK BY OTHERS INSTALLED AS PER MANUFACTURER'S REQUIREMENTS FOR FIELD PRIOR TO INSTALLATION. G.C. TO COORDINATE.

GENERAL NOTE:
I. ISOLATED HEAD AND SILL TRACKS ARE NOT REQUIRED ON THIS PROJECT
II. PROVIDE MINERAL WOOL SOUND ATTENUATION BATT
III. AT RESTROOMS, STUDIO WALL SHALL BE SEPARATED FROM RESTROOM WALL

KEYNOTES -X-

1. (E) DEMISING WALL TO REMAIN
2. (E) ELECTRICAL PANELS TO REMAIN. G.C. TO FIELD VERIFY EXACT LOCATION AND NOTIFY AOR AND OWNER IF THERE ARE ANY CONCERNS.
3. (N) DOOR PANEL SHALL HAVE A MINIMUM STC-35 PERFORMANCE. REFER TO DOOR SCHEDULE FOR MORE INFORMATION.
4. (E) REAR EGRESS DOOR TO REMAIN.
5. (E) EXTERIOR LANDLORD WALL TO REMAIN.
6. (E) GLASS / METAL STOREFRONT SYSTEM AND DOORS TO REMAIN.
7. G.C. TO INSTALL THREE (3) LAYERS OF GWB ON ONE SIDE OF METAL STUD FRAMING FACING EXERCISE AREA. SEE C1/A500.
8. G.C. TO INSTALL TWO (2) LAYERS OF GWB ON BOTH SIDES OF METAL STUD FRAMING FACING EXERCISE AREA.
9. SOFFIT ABOVE. REFER TO RCP.
10. SOLIDCORE SIDE OF (E) DEMISING WALL. EXISTING DRYWALL TO BE REMOVED. PROVIDE MINERAL WOOL IN ALL CAVITIES. SEAL PENETRATIONS WITH NON HARDENING CAULK AND APPLY PUTTY PADS TO BACK SIDE OF ANY ELECTRICAL BOXES IN DEMISING WALL OR AS SIMILAR TO KINETICS ISOBACKER. GC TO INSTALL TYPE 'X' ONE LAYER OF GYP BOARD ON DEMISING WALL AND ENSURE 1 HR FIRE RATING IS MAINTAINED. INSTALL FURROUT PER PLAN.
11. (E) MAIN DOOR TO REMAIN.
12. (E) COLUMN TO REMAIN.
13. (E) DOOR TO BE MADE INACTIVE.
14. (E) TRANSFORMER ABOVE TO REMAIN. G.C. TO INSPECT EXISTING CONDITION AND BRING ANY CONCERNS TO AOR AND OWNER.
15. EXISTING DOWNSPOUT, STAIRS, LANDING, CANOPY ABOVE ALL TO REMAIN AS IS.

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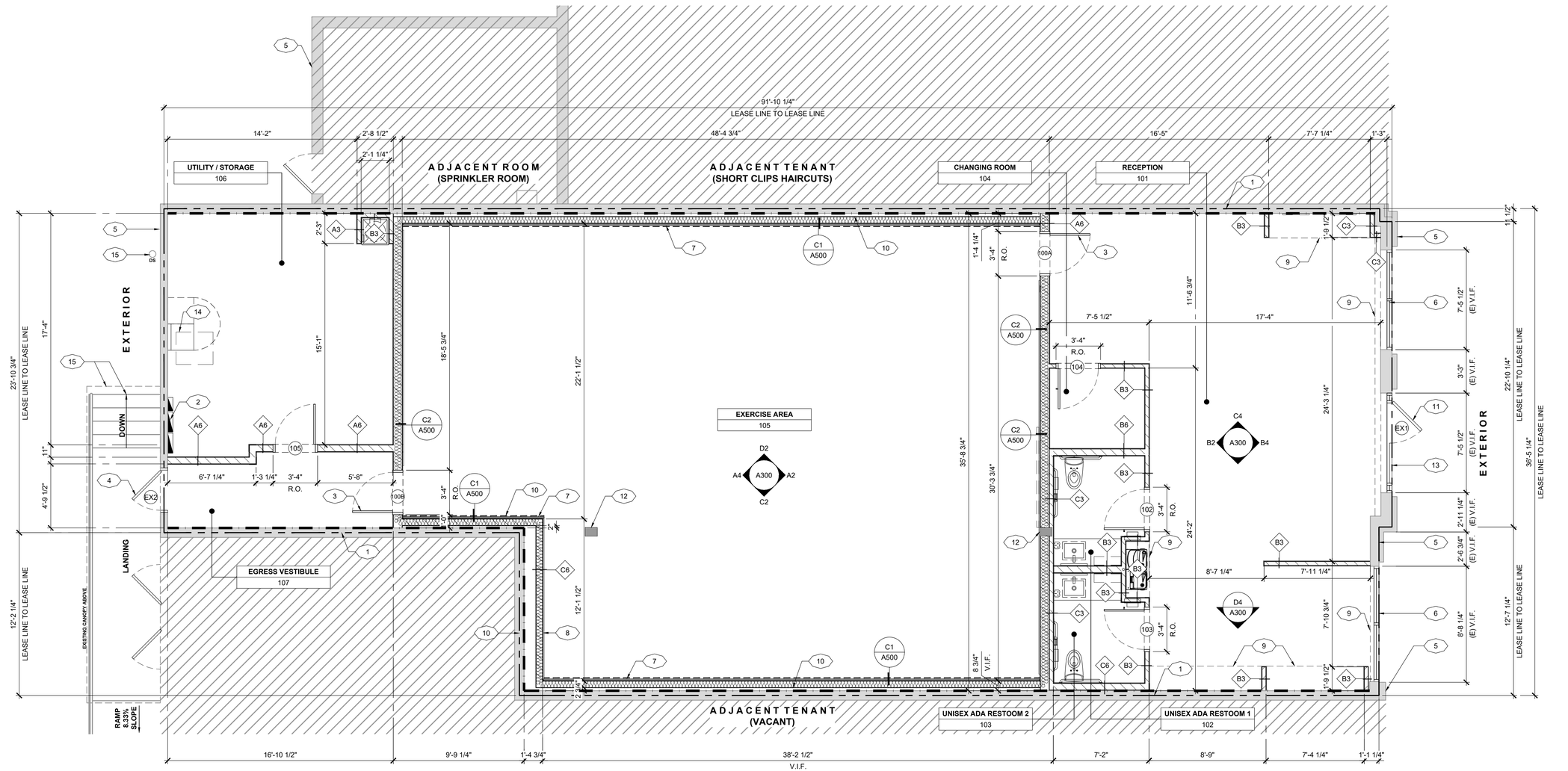

PLAN NORTH

DIMENSION PLAN (A1)

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

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SCOTTSDALE, ARIZONA 85254
PHONE: 480.912.1169 www.zbr.global

STORE NO.:

Solidcore
THE SHOPPES AT ENGLISH VILLAGE
1460 BETHLEHEM PIKE, SUITE 150,
NORTH WALES, PA 19454

REVISIONS

	DESCRIPTION
06/01/26	PERMIT SET

STATUS:
PERMIT SET

FIELD VERIFICATION:
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SHEET NAME:
DIMENSION PLAN

DATE:	PROJECT NO.:
06/01/2026	42559
DRAWN: NSA	SCALE: AS NOTED

SHEET NO.:
A101

FIXTURE SCHEDULE

FIXTURE TYPE	ITEM	DESCRIPTION	FINISH	DIMENSIONS
MILLWORK	M-1	RECEPTION DESK	WD-1 / PT-3	PER PLAN & ELEVATIONS
	M-2	COACH STATION	PT-6	PER PLAN
	M-3	LOCKERS	PT-6	PER PLAN & ELEVATIONS
	M-4	BENCHES	PT-6	PER PLAN & ELEVATIONS
	M-5	VANITY	CN-1 / PT-6	PER PLAN & ELEVATIONS
	M-6	STORAGE CABINET	PT-6	PER PLAN & ELEVATIONS
	M-7	STUDIO FEATURE WALLS	WD-1B	PER ELEVATION
	M-8	LOBBY FEATURE WALL	WD-1A	PER ELEVATION

KEYNOTES

1. FITNESS MACHINES BY SWEATLANA. PROVIDED BY OWNER. GC TO COORDINATE INSTALLATION.
2. ADA COMPLIANT HIGH-LOW WATER FOUNTAIN WITH BOTTLE FILL FUNCTION.SEE INTERIOR ELEVATIONS AND PLUMBING DRAWINGS FOR MORE INFORMATION.
3. DRY VANITY CASEWORK PROVIDED BY MILLWORKER. G.C. TO INSTALL AND VERIFY LOCATIONS.
4. MOP SINK WITH WATER HEATER ABOVE. REFER TO PLUMBING PLANS FOR MORE INFORMATION.
5. LOCKERS PROVIDED BY MILLWORKER, INSTALLED BY G.C., VERIFY SIZE, CONFIGURATION AND QUANTITY OF LOCKERS WITH SOLIDCORE. REFER TO SHEET A512 FOR DETAILS.
6. STORAGE CABINET UNDER SOFFIT ABOVE DRINKING FOUNTAIN PROVIDED BY MILLWORKER. REFER TO SHEET A1/A510 FOR DETAILS.
7. COACH BOARD, PROVIDED BY SIGN VENDOR.
8. STORAGE RACKS, PROVIDED BY GC.
9. LOGO SIGN - PROVIDED AND INSTALLED BY SIGN VENDOR.
10. SOUND RACK, SEE DETAIL AT A4/A502.
11. CHALLENGE BOARD, PROVIDED BY SIGN VENDOR.
12. SWEAT BAG DISPENSER, PROVIDED BY GC.
13. G.C. TO INSTALL WALL-MOUNTED STUDIO MIRRORS ACROSS ENTIRE LENGTH OF WALL SEE SHEET A502 FOR DETAIL.
14. HIDDEN LINE INDICATES BLOCKING SUPPORT.
15. COMMUNITY BOARD. PROVIDED BY SIGN VENDOR.
16. MIRROR PROVIDED AND INSTALLED BY GC.
17. FURNITURE PROVIDED BY MILLWORKER. INSTALLED BY GC.
18. KEYPAD AT EXTERIOR OF DOOR WITH ELECTRIC RELEASE LOCK BY SECURITY VENDOR. EXACT REQUIREMENTS TO BE COORDINATED WITH (E) HARDWARE. CONNECT TO FIRE ALARM SYSTEM AND SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION.
19. FURNITURE AND RUG PROVIDED BY OWNER.

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F. DIMENSIONS AND CLEARANCES SHOWN ON DRAWINGS RELATING TO ACCESSIBILITY OR EGRESS ARE FROM FACE OF FINISH MATERIAL. ALLOW FOR FINISHES IN FABRICATING AND/OR INSTALLING ITEMS. REPORT DISCREPANCIES PRIOR TO PROCEEDING WITH AFFECTED ITEMS.

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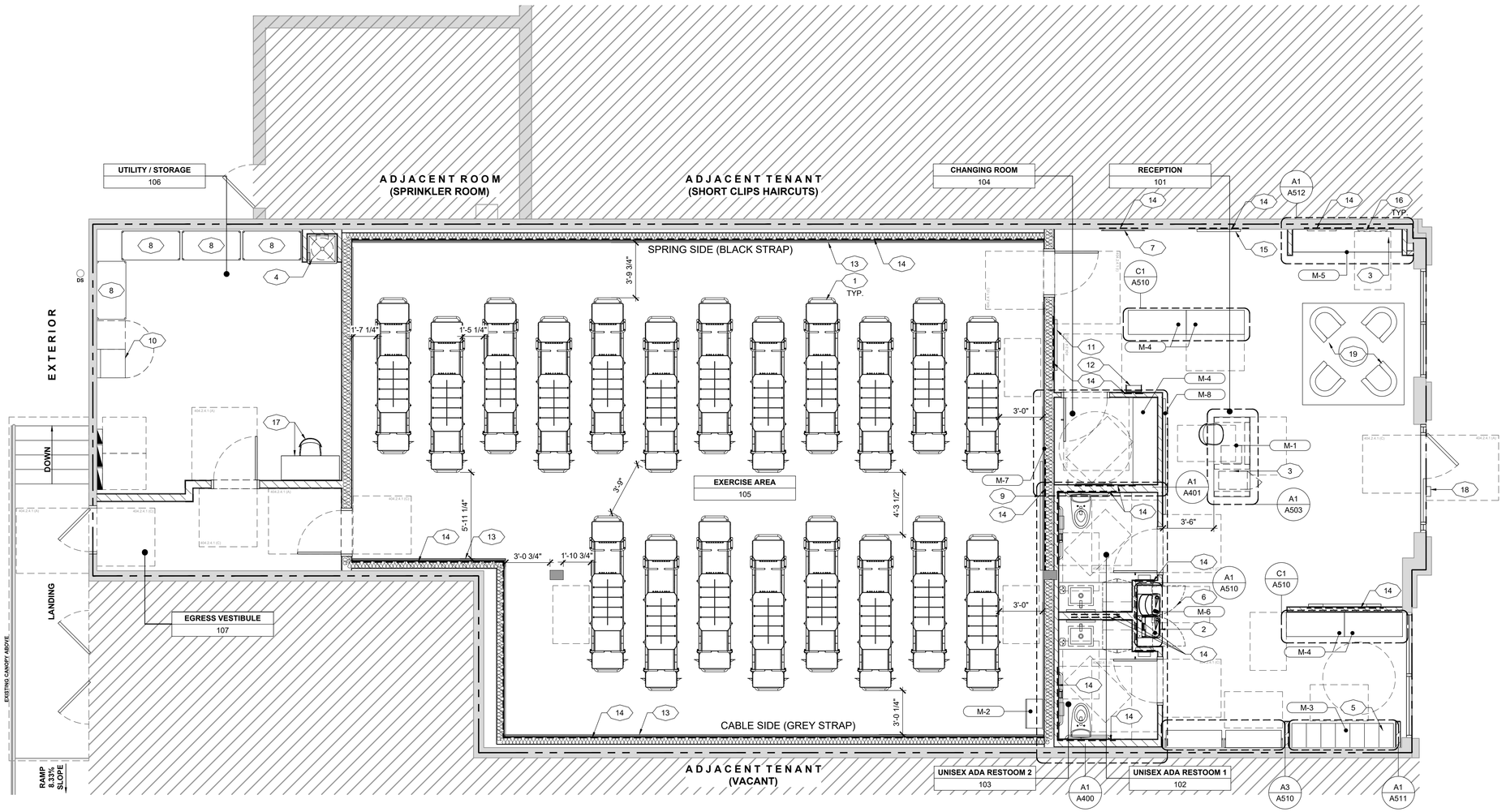

PLAN NORTH

N

FURNITURE AND FIXTURE PLAN (A1)

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

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06/01/26	PERMIT SET

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SHEET NAME:
FURNITURE AND FIXTURE PLAN

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: VC/NSA
SCALE: AS NOTED

SHEET NO.:
A102

FLOORING LEGEND

SYMBOL	DESCRIPTION
	CON-1 = LATICRETE FLOOR FINISH

KEYNOTES

1. (E) COLUMN TO REMAIN.
2. CONTRACTOR TO VERIFY THE FLOOR LANDING AT BOTH SIDES OF ENTRANCE IS AT THE SAME LEVEL. NOTIFY ARCHITECT IF OTHERWISE. THRESHOLD TO BE REMOVED AND REPLACED WITH NEW TO MATCH (E).
3. REFER TO FINISH SCHEDULE FOR ADDITIONAL FINISH INFORMATION.
4. FINISH LOCATIONS START / STOP POINTS TO BE REVIEWED WITH SOLIDCORE IN FIELD PRIOR TO INSTALLATION.
5. WALLS TO BE PAINTED PT-1 UNLESS NOTED OTHERWISE.
6. RESTROOMS WALLS TO BE PAINTED PT-1 UNLESS NOTED OTHERWISE. REFER TO A400 ENLARGED RESTROOM ELEVATIONS FOR MORE INFORMATION.
7. WALL BASE TO BE B-1 ACROSS THE WALL.
8. FLOOR TO BE SEALED CONCRETE WITH SLIP RESISTANT GRIT.
9. FLOOR TO BE TRENCH AS NOTED ON MEP PLANS, AND DETAIL E4/A501. GC TO BRING ANY CONCERNS OR DISCREPANCIES PRIOR WORK COMMENCEMENT TO THE AOR AND OWNER, TYP.
10. G.C. TO PATCH AND REPAIR EXISTING CONCRETE FLOOR AND PROVIDE A LEVELED FLOOR FOR NEW FLOOR FINISH.
11. EXISTING THRESHOLD TO REMAIN.

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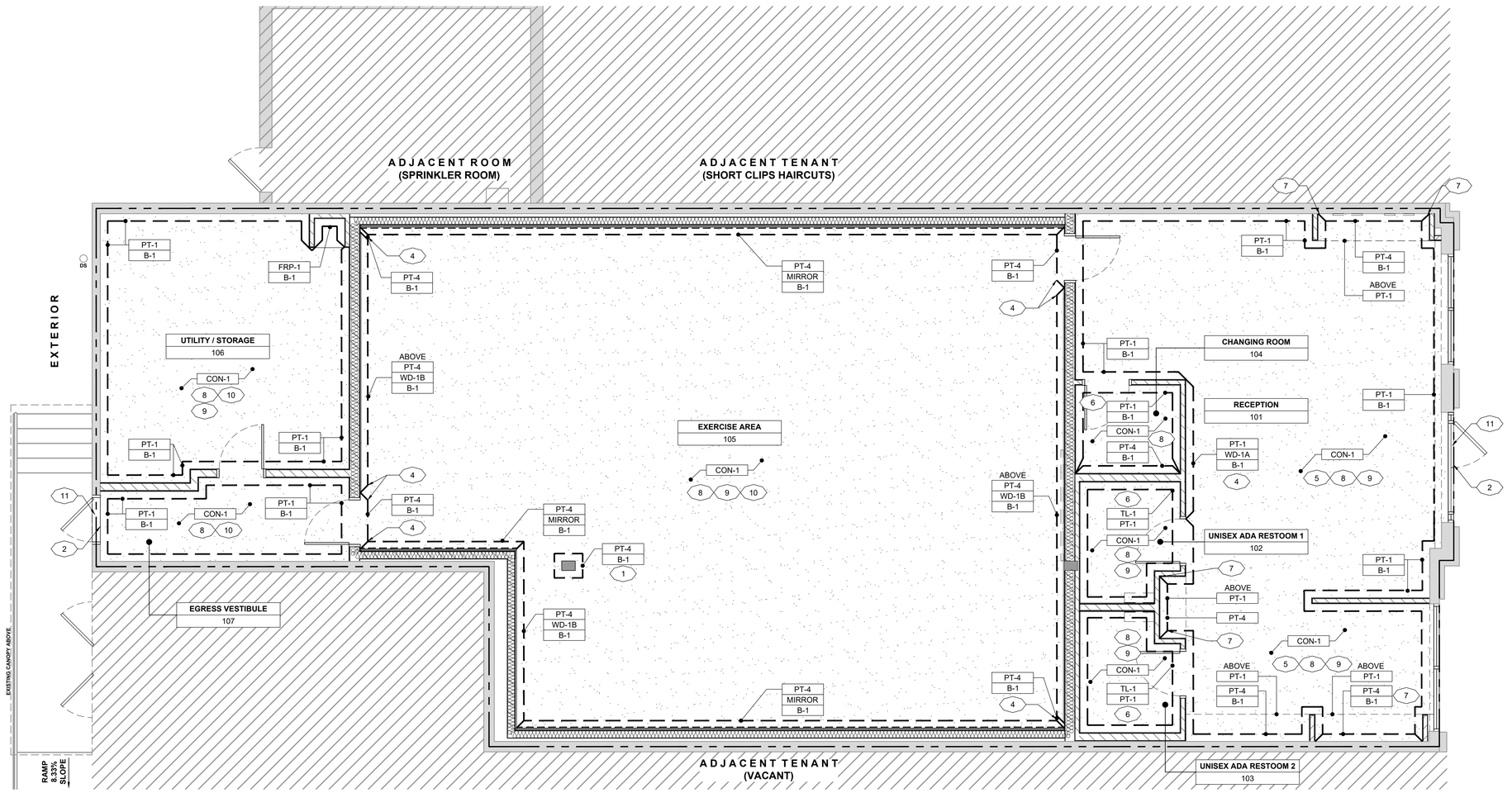

PLAN NORTH

N

FINISH PLAN (A1)

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

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THE SHOPPES AT ENGLISH VILLAGE
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REVISIONS

	DESCRIPTION
06/01/26	PERMIT SET

STATUS:
PERMIT SET

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SHEET NAME:
FINISH PLAN

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: NSA
SCALE: AS NOTED

SHEET NO.:
A103

LEGEND

L1	RECESSED LIGHT	AC DIFFUSER SEE MECHANICAL DRAWINGS	DIRECTIONAL EXIT SIGN
A	LED LINEAR LIGHT	RETURN DIFFUSER SEE MECHANICAL DRAWINGS	WALL MOUNTED EMERGENCY LIGHT
D	RECESSED LINEAR LIGHT	SUPPLY DIFFUSER SEE MECHANICAL DRAWINGS	EXIT SIGN WITH LIGHT
WL	WALL LIGHT	EXHAUST SEE MECHANICAL DRAWINGS	NEW GYP. CEILING
G	BLUE LED TAPE LIGHT	ACCESS PANEL	24" x 24" X 5/8" THEATRE BLACK F ACOUSTIC CEILING TILE
S	WALL MOUNTED LIGHTED MIRROR		
H	RECESSED DOWNLIGHT		
P	WALL SCONCE		
Q	ELECTRIC MIRROR		
F	WHITE LED TAPE LIGHT		
	LINEAR SUPPLY DIFFUSER SEE MECHANICAL DRAWINGS		

KEY NOTES -X-

1. LED BLUE LIGHTS MOUNTED ABOVE & BELOW MIRROR.
2. STARTING LOCATION OF ACT CEILING (ACT-1) AT CENTER OF ROOM.
3. SUSPENDED GYP. BD CEILING, FRAME ALL DRY WALL GRID SYSTEM BY ARMSTRONG OR EQUIVALENT.
4. SUSPENDED ACT CEILING ASSEMBLY.
5. RECESSED LIGHT FIXTURES TO ALIGN AS SHOWN.
6. RECESSED LED LIGHT FOR HALLWAY AND LOBBY-FIXTURES TO ALIGN AS SHOWN.
7. SUSPENDED LED LIGHT. BOTTOM OF LIGHT AT 10'-0" AFF. TYP.
8. RECESSED CAN LIGHT AT FINISHED CEILING.
9. INSTALL UNI-STRUT CHANNEL FACING UP, RUNNING DOWN THE LENGTH OF THE STUDIO AND LOBBY AREA, THE ENTIRE LENGTH, 6" ABOVE CEILING GRID. UNI-STRUT TO BE OFFSET FROM PARALLEL CEILING GRID 1"-2" TO AVOID PUNCTURING THROUGH THE MIDDLE OF THE TILES. USE MASON INDUSTRIES CEILING HANGER MODEL 30CC WITH MINIMUM 1" STATIC DEFLECTION. G.C. TO COORDINATE WITH FIRE SPRINKLER LAYOUT SO SPRINKLER RUN IS NOT DIRECTLY CENTERED WHERE UNI-STRUT IS TO BE INSTALLED.
10. SUSPENDED GYP BD SOFFIT SYSTEM - SIMPLE SOFFIT BY ARMSTRONG OR EQUIVALENT.
11. LIGHT BE CENTERED ON SIGNAGE.
12. HIDDEN LINES INDICATES SOLIDCORE SIGN BY SIGNAGE VENDOR.
13. EXISTING CANOPY TO REMAIN. GC TO PATCH AND REPAIR TO LIKE NEW CONDITION.
14. EXISTING TRANSFORMER TO REMAIN. G.C. TO INSPECT AND CONFIRM GOOD WORKING ORDER.
15. WATER HEATER. REFER TO PLUMBING DRAWINGS FOR MORE INFORMATION.

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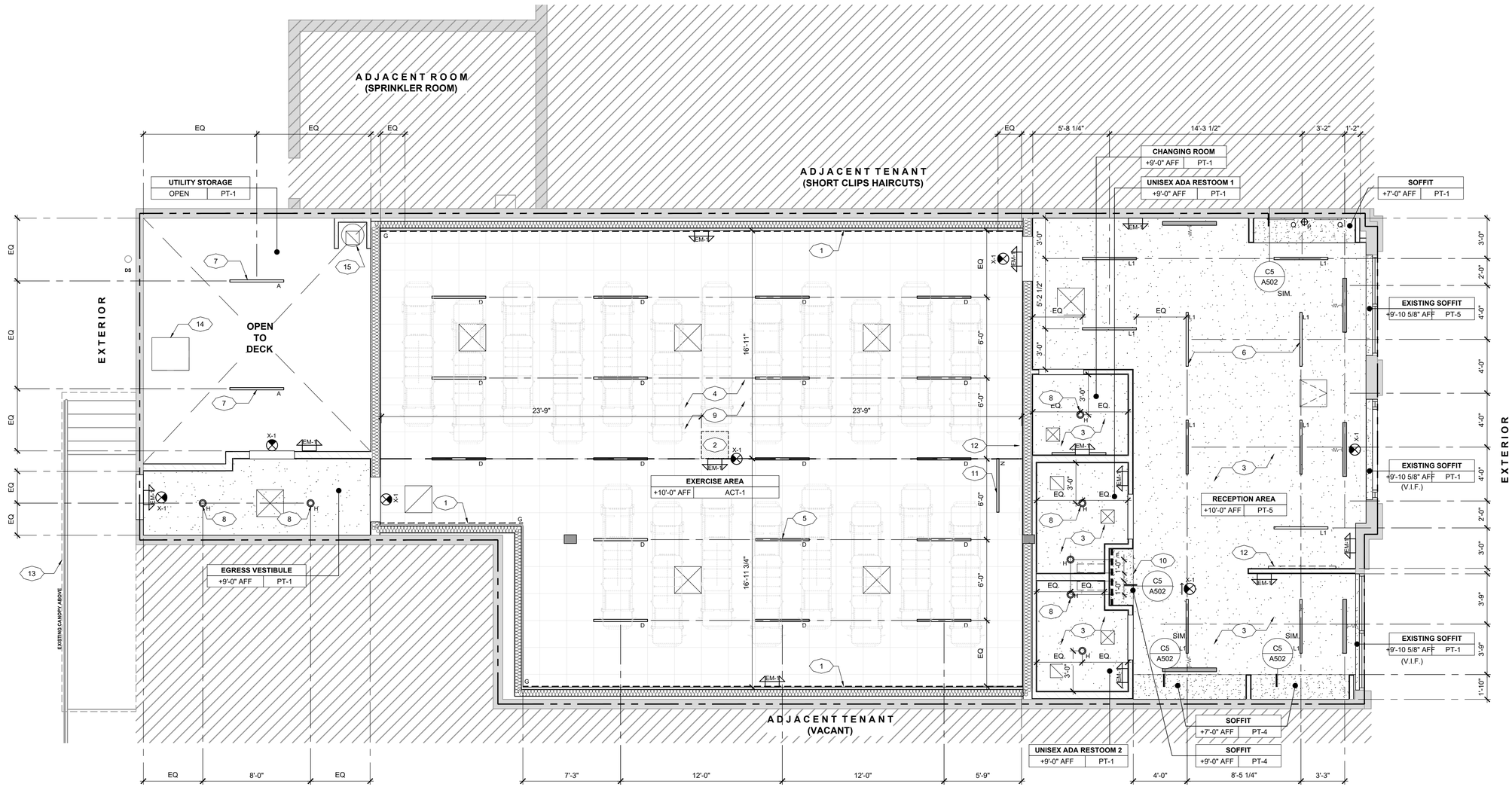

PLAN NORTH

REFLECTED CEILING PLAN (A1)

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

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NORTH WALES, PA 19454

REVISIONS

	DESCRIPTION
06/01/26	PERMIT SET

STATUS: PERMIT SET

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SHEET NAME: REFLECTED CEILING PLAN

DATE:	PROJECT NO.:
06/01/2026	42559
DRAWN: CS/NSA	SCALE: AS NOTED

SHEET NO.: A104

KEYNOTES

1. LEASE LINE.
2. DEMISING WALLS BELOW.
3. RTU LOCATION, SEE MECHANICAL PLANS FOR MORE INFORMATION.

GENERAL NOTES

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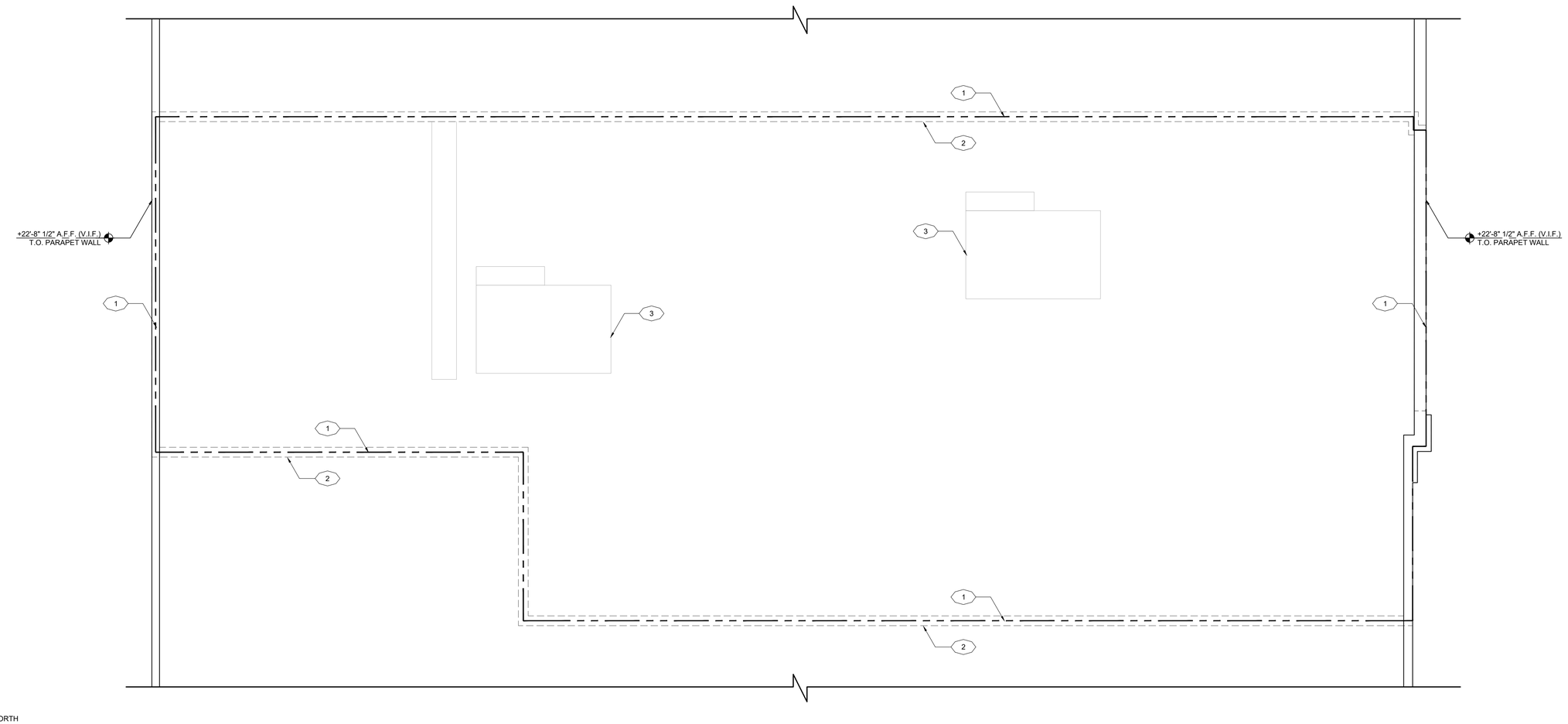

PLAN NORTH

ROOF PLAN A1

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

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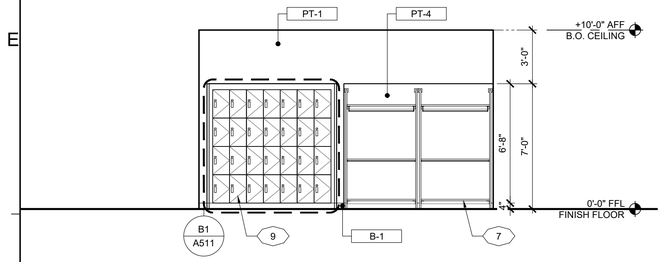
SHEET NAME: ROOF PLAN

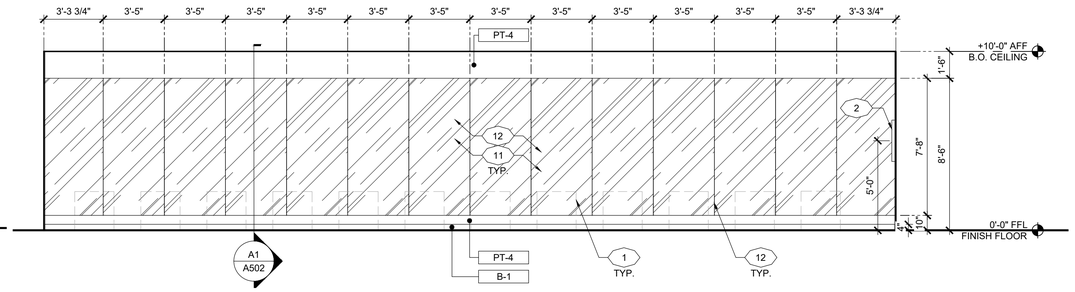
DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: NSA
SCALE: AS NOTED

SHEET NO.: A105



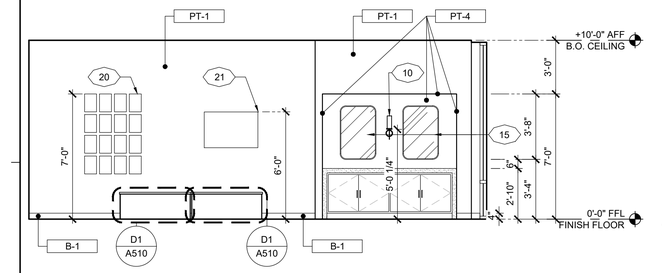
INTERIOR ELEVATION - RECEPTION AREA D4

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



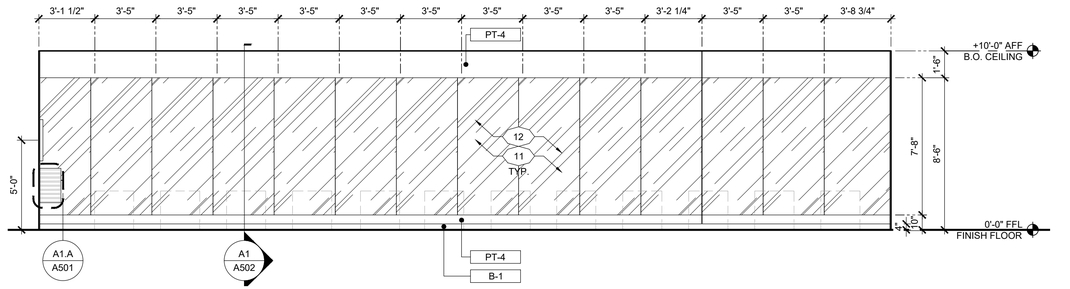
INTERIOR ELEVATION - EXERCISE AREA D2

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



INTERIOR ELEVATION - RECEPTION AREA C4

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



INTERIOR ELEVATION - EXERCISE AREA C2

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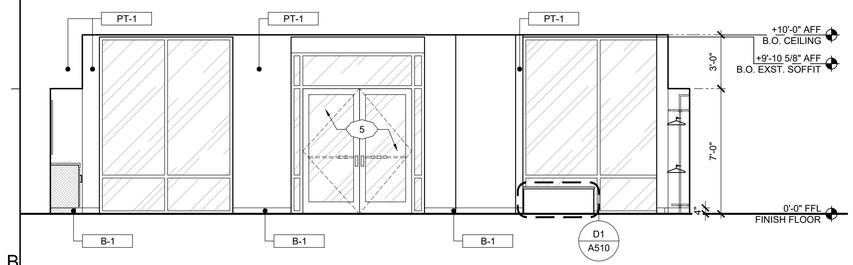
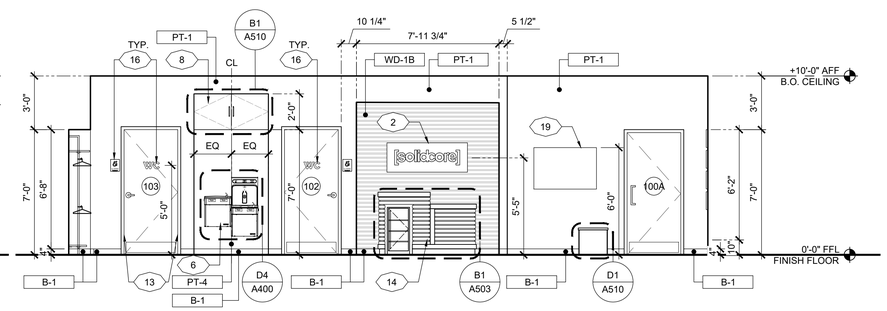


INTERIOR ELEVATION - RECEPTION AREA B4

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



INTERIOR ELEVATION - RECEPTION AREA B2

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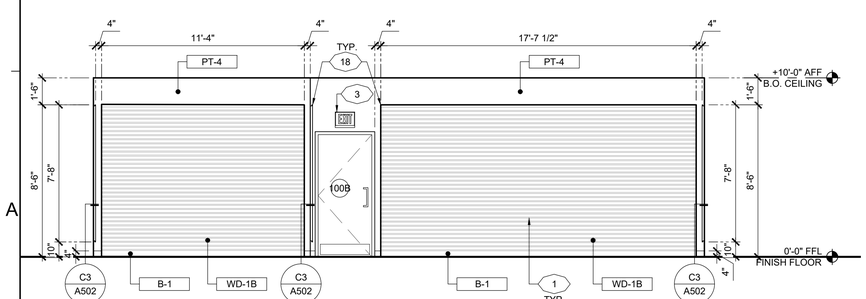

INTERIOR ELEVATION - EXERCISE AREA A4

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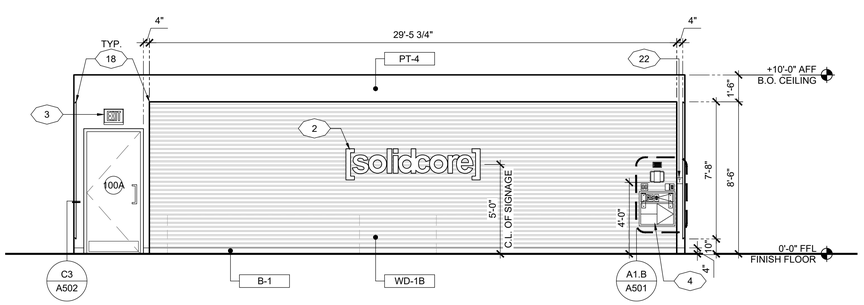

INTERIOR ELEVATION - EXERCISE AREA A2

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

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E. DIMENSIONS ARE TO FACE OF METAL STUDS UNLESS NOTED OTHERWISE.

F. DIMENSIONS AND CLEARANCES SHOWN ON DRAWINGS RELATING TO ACCESSIBILITY OR EGRESS ARE FROM FACE OF FINISH MATERIAL. ALLOW FOR FINISHES IN FABRICATING AND/OR INSTALLING ITEMS. REPORT DISCREPANCIES PRIOR TO PROCEEDING WITH AFFECTED ITEMS.

G. COORDINATE DIMENSIONS ON PLANS AND FIELD VERIFY PRIOR TO CONSTRUCTION. REPORT DISCREPANCIES PRIOR TO PROCEEDING WITH AFFECTED WORK.

H. EXISTING CONDITIONS ARE TO REMAIN AND BE PROTECTED IN PLACE DURING THE COURSE OF CONSTRUCTION UNLESS SPECIFICALLY NOTED OTHERWISE.

KEYNOTES

1. DASHED LINE INDICATES FITNESS MACHINES BY SWEATLANA. PROVIDED BY OWNER.
2. LOGO SIGN TO BE PROVIDED AND INSTALLED BY SIGN VENDOR. G.C. TO COORDINATE INSTALLATION AND PROVIDE BLOCKING AS REQUIRED.
3. EXIT SIGN TO BE PROVIDED AND INSTALLED BY SIGN VENDOR. G.C. TO COORDINATE INSTALLATION AND PROVIDE BLOCKING AS REQUIRED.
4. COACH'S CABINET AND SHELF- SEE DETAIL A1/A501. PROVIDED BY MILLWORKER.
5. EXISTING SHOPFRONT TO REMAIN. G.C. TO CLEAN, REPAIR AND REPLACE HARDWARE AS REQUIRED.
6. ADA COMPLIANT HIGH-LOW WATER FOUNTAIN WITH BOTTLE FILL FUNCTION. SEE PLUMBING DRAWINGS FOR MORE INFORMATION.
7. FURNITURE PROVIDED BY SOLIDCORE. G.C. TO INSTALL AND VERIFY LOCATIONS.
8. STORAGE CABINET UNDER SOFFIT ABOVE DRINKING FOUNTAIN. REFER TO DETAIL B1/A510. PROVIDED BY MILLWORKER.
9. LOCKERS AND TRIM PROVIDED BY MILLWORKER. INSTALLED BY G.C. VERIFY SIZE, CONFIGURATION AND QUANTITY OF LOCKERS WITH SOLIDCORE. REFER TO SHEET A511 FOR DETAILS.
10. WALL SCONCE. REFER TO LIGHTING SCHEDULE AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
11. 7'-8" HIGH MIRROR (TYPICAL), U.N.O. - PROVIDED AND INSTALLED BY G.C. G.C. TO PROVIDE ALL MATERIALS REQUIRED FOR INSTALLATION AND VERIFY WIDTH. PROVIDE 1/16" GAP BETWEEN ALL MIRROR PANELS- TYPICAL. MOUNT BOTTOM OF MIRRORS 10" ABOVE FINISHED FLOOR. SEE DETAIL A1/A502.
12. MIRROR TO BE MOUNTED TO ENSURE SEAM IS SPACED BETWEEN FITNESS EQUIPMENT, NOT DIRECTLY IN FRONT OF EQUIPMENT. ALSO TOP OF MIRROR TO BE ALIGNED WITH TOP OF FEATURE WOOD WALL.
13. (NOT USED)
14. CUSTOM MILLWORK DESK PROVIDED BY MILLWORKER. G.C. TO PROVIDE, INSTALL, AND VERIFY LOCATIONS. REFER TO SHEET A503 FOR DETAILS.
15. MIRROR PROVIDED AND INSTALLED BY GC.
16. RESTROOM SIGN BY GC.
17. (NOT USED)
18. TOP OF WD-1B PANEL TO ALIGN WITH TOP OF MIRROR AT 8'-6" AFF.
19. CHALLENGE BOARD PROVIDED BY SIGN VENDOR. G.C. TO COORDINATE INSTALLATION AND PROVIDE BLOCKING AS REQUIRED.
20. COACH BOARD, PROVIDED BY SIGN VENDOR. G.C. TO COORDINATE INSTALLATION AND PROVIDE BLOCKING AS REQUIRED.
21. COMMUNITY BOARD, PROVIDED BY SIGN VENDOR. G.C. TO COORDINATE INSTALLATION AND PROVIDE BLOCKING AS REQUIRED.
22. THERMOSTAT. REFER TO MECHANICAL DRAWING FOR MORE INFORMATION.

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STORE NO.:

Solidcore
THE SHOPPES AT ENGLISH VILLAGE
1460 BETHLEHEM PIKE, SUITE 150,
NORTH WALES, PA 19454

REVISIONS

		DESCRIPTION
1	06/01/26	PERMIT SET

STATUS: PERMIT SET

FIELD VERIFICATION:
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SHEET NAME: INTERIOR ELEVATIONS

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: NSA
SCALE: AS NOTED

SHEET NO.: A300

EQUIPMENT SCHEDULE

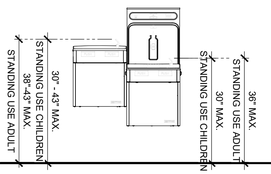
TAG	DESCRIPTION
A1	42" GRAB BAR
A2	36" GRAB BAR
A3	18" GRAB BAR
B	40" A.F.F. MIRROR
C	TOILET PAPER DISPENSER (BY GC)
D	LAVATORY PIPE INSULATION
E	COAT HOOK -48"AFF
F	SANITARY NAPKIN DISPOSAL
S1	LAVATORY
WC1	WATER CLOSET
6	HAND DRYER (RECESSED)
G	WALL-MOUNTED SOAP DISPENSER

FINISH SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	FINISH / PATTERN	COLOR
CN-1	COUNTER SURFACE	SILESTONE	ICONIC WHITE	WHITE
TL-1	3"x 10" WALL TILE	TBC	STACKED VERTICAL	BRUT GLOSSY
TR-1	1/2" ALUMINUM TRIM	SCHLUTER	TEXTURED	MATTE BLACK

KEYNOTES -X-

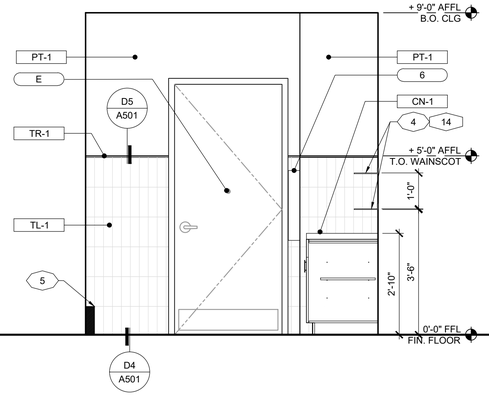
1. VERIFY FINISHES AND ACCESSORY LOCATIONS WITH OWNER.
2. TYPICAL GRAB BAR DETAILS- SEE DETAIL A5/A502.
3. HIDDEN LINE INDICATES BLOCKING SUPPORT.
4. FLOATING SHELVES - MODERN METAL FLOATING SHELF 2"Hx24"Wx8"D, BLACK, PROVIDED AND INSTALLED BY GC. REFER TO A503 AND FIXTURE SCHEDULE FOR MORE INFORMATION.
5. TILE START POINT.



0'-0" FFL
FIN. FLOOR

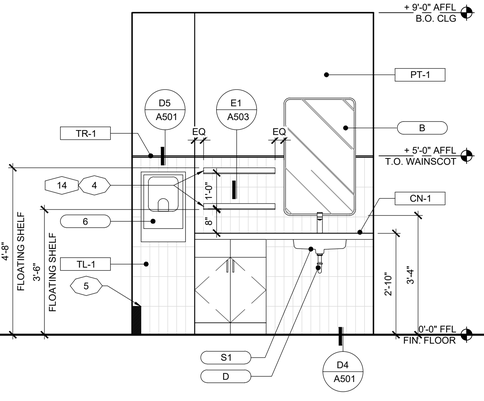
ENLARGED DRINKING FOUNTAIN ELEVATION D4

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



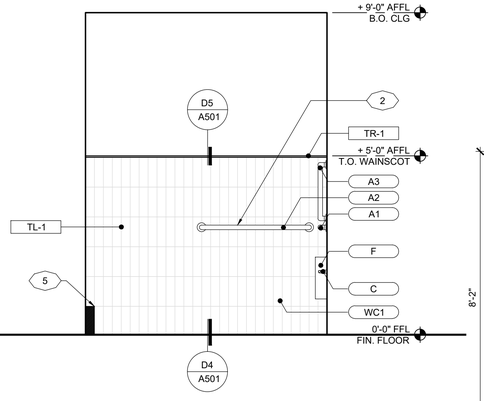
RESTROOM ELEVATION D3

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



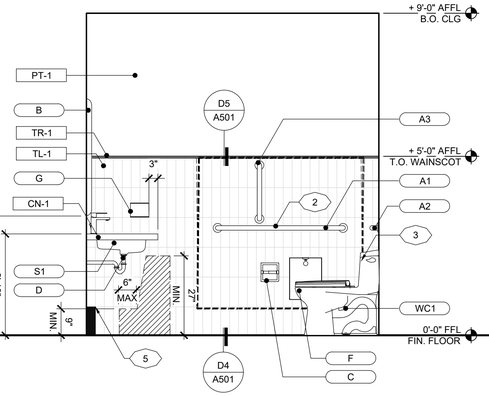
RESTROOM ELEVATION D2

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



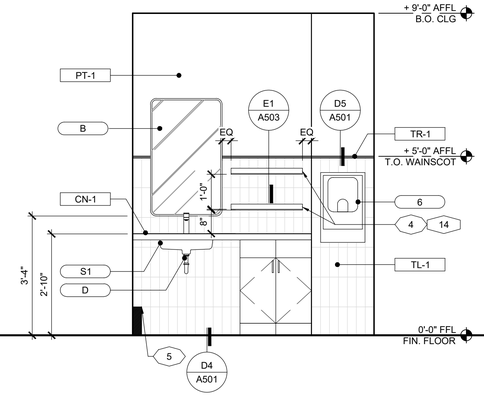
RESTROOM ELEVATION B4

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



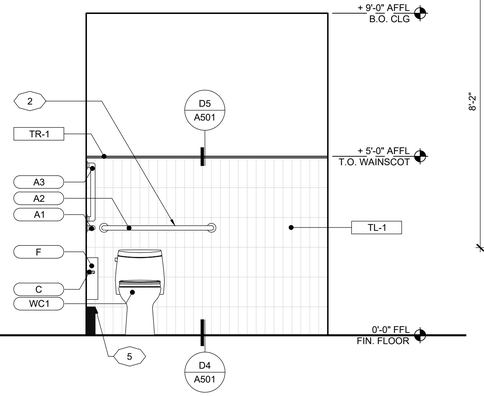
RESTROOM ELEVATION B3

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



RESTROOM ELEVATION B2

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



RESTROOM ELEVATION A4

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

RESTROOM ELEVATION A3

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

RESTROOM ELEVATION A2

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

ENLARGED RESTROOM PLAN A1

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

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△	DESCRIPTION
06/01/26	PERMIT SET

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SHEET NAME:
ENLARGED RESTROOM AND DRINKING FOUNTAIN PLAN AND ELEVATIONS

DATE:	PROJECT NO.:
06/01/2026	42559
DRAWN: NSA	SCALE: AS NOTED

SHEET NO.:
A400

GENERAL NOTES

A. THIS DRAWING IS PART OF A COORDINATED SET OF DOCUMENTS. DO NOT SEPARATE BOUND SETS.

B. DRAWINGS AND DIMENSIONS OF THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM FIELD MEASUREMENTS. BE ALERT TO DIMENSIONAL DISCREPANCIES, STRUCTURAL SUPPORTS AND OTHER ELEMENTS CONCEALED IN WALLS, NOT SHOWN. REPORT DISCREPANCIES PRIOR TO PROCEEDING.

C. IN THE EVENT OF INCONSISTENCIES BETWEEN ARCHITECTURAL AND CONSULTANT BASE PLANS THE ARCHITECTURAL SHEET SHALL TAKE PRECEDENCE. REPORT DISCREPANCIES PRIOR TO PROCEEDING WITH AFFECTED WORK.

D. DO NOT SCALE DRAWINGS FOR CONSTRUCTION DIMENSIONS OR TOLERANCES. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER DRAWINGS. REQUEST CLARIFICATION IN WRITING PRIOR TO PROCEEDING.

E. DIMENSIONS ARE TO FACE OF METAL STUDS UNLESS NOTED OTHERWISE.

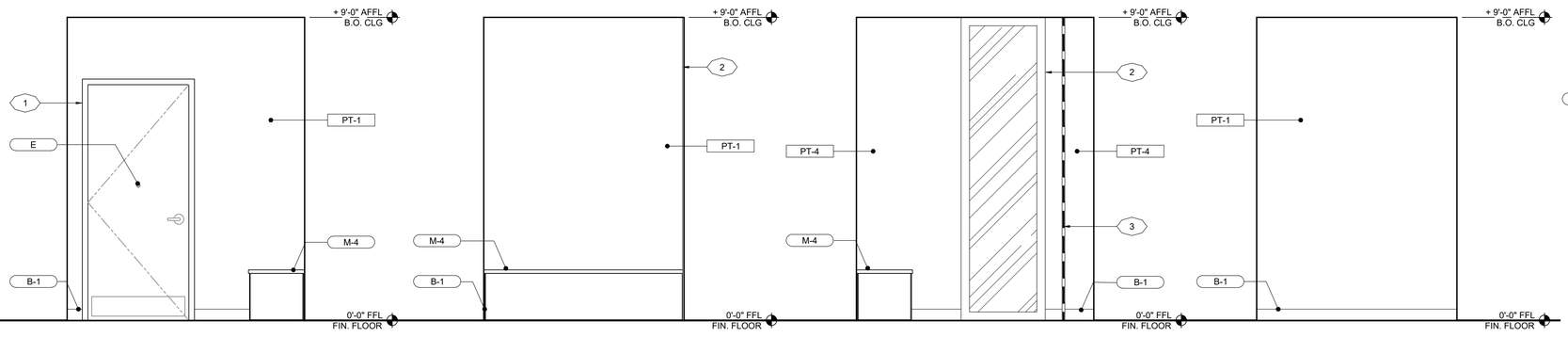
F. DIMENSIONS AND CLEARANCES SHOWN ON DRAWINGS RELATING TO ACCESSIBILITY OR EGRESS ARE FROM FACE OF FINISH MATERIAL. ALLOW FOR FINISHES IN FABRICATING AND/OR INSTALLING ITEMS. REPORT DISCREPANCIES PRIOR TO PROCEEDING WITH AFFECTED ITEMS.

G. COORDINATE DIMENSIONS ON PLANS AND FIELD VERIFY PRIOR TO CONSTRUCTION. REPORT DISCREPANCIES PRIOR TO PROCEEDING WITH AFFECTED WORK.

H. EXISTING CONDITIONS ARE TO REMAIN AND BE PROTECTED IN PLACE DURING THE COURSE OF CONSTRUCTION UNLESS SPECIFICALLY NOTED OTHERWISE.

KEYNOTES -X-

1. NEW DOOR. REFER TO SHEET A60 FOR MORE INFORMATION.
2. FULL HEIGHT MIRROR. PROVIDED BY CLIENT'S VENDOR.
3. VERTICAL LIGHT BAR. PROVODED BY CLIENT'S VENDOR.

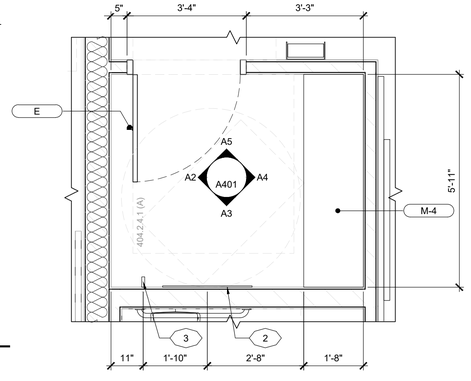


INTERIOR ELEVATION A5
SCALE: 1/2" = 1'-0"

INTERIOR ELEVATION A4
SCALE: 1/2" = 1'-0"

INTERIOR ELEVATION A3
SCALE: 1/2" = 1'-0"

INTERIOR ELEVATION A2
SCALE: 1/2" = 1'-0"



ENLARGED PLAN A1
SCALE: 1/2" = 1'-0"

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SHEET NAME:
ENLARGED ADA CHANGING ROOM PLAN AND ELEVATIONS

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: NSA
SCALE: AS NOTED

SHEET NO.:
A401

TYPICAL INTERIOR NON-LOAD BEARING STUD WALL-SLIP TRACK AT TOP

STUDS TO BE USED:

SIZE	SPACING	ALLOWABLE HEIGHT	BOTTOM TRACK GAUGE	TOP - "SLIP" TRACK GAUGE (3" DEEP TRACK)
3 5/8" - 25G STN	16"	15.4'	20	18
3 5/8" - 20G STN	16"	17.0'	20	18
3 5/8" - 18G STN	16"	22.6'	20	18
6" - 20G STR	16"	24.5'	20	18
6" - 18G HDS	16"	33.6'	20	18

NOTES:

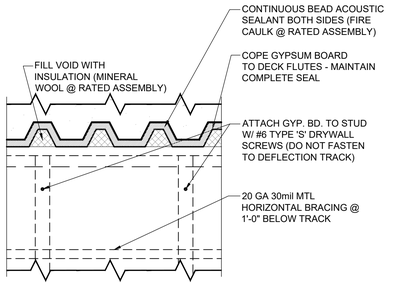
BUILDING CODE REQUIRES THAT INTERIOR PARTITION WALLS BE DESIGNED FOR A LATERAL LOAD OF 5 PSI. THE FOLLOWING GUIDELINES ARE BASED ON THIS LOAD. ALL STUDS GIVEN ARE ASSUMED TO BE EQUIVALENT TO THOSE MANUFACTURED BY DIETRICH INDUSTRIES, INC. ALL STUDS AND TRACKS ARE ASSUMED TO HAVE AN Fy= 33.0 KSI. ALL STUDS ARE ASSUMED TO HAVE 5/8" GYP. BD. ON BOTH FACES FOR THE FULL HEIGHT OR ARE PROVIDED WITH BRIDGING AS REQUIRED. DETAILS ARE PROVIDED TO ACCOMMODATE VERTICAL MOVEMENT AT THE TOP USING A 3" DEEP TRACK CONNECTION OR NO MOVEMENT. MAXIMUM HORIZONTAL DEFLECTION IS ASSUMED TO BE LIMITED TO A/240. PROVIDE LATERAL BRACING PER SCHEDULE.

1. BOTTOM TRACK GAUGES MAY BE SUBSTITUTED FOR TOP-SLIP TRACK GAUGES IF STUDS ARE PERMANENTLY ATTACHED TO BOTH FLANGES OF THE TRACK WITH #10 SCREWS.

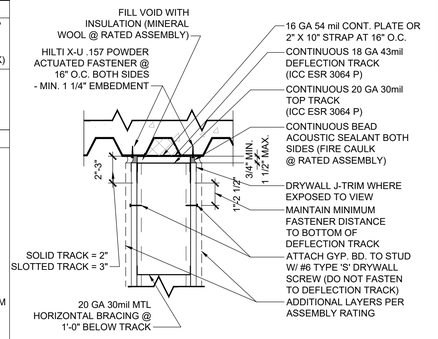
2. ATTACH BOTTOM TRACK TO SLAB WITH HILTI X-DNI 32 P8S15 @ 3'-0" O.C.

3. IF GYP. BD. IN ON ONE SIDE ONLY, ALL HORIZONTAL BRIDGING AT 5'-0" O.C. VERTICALLY.

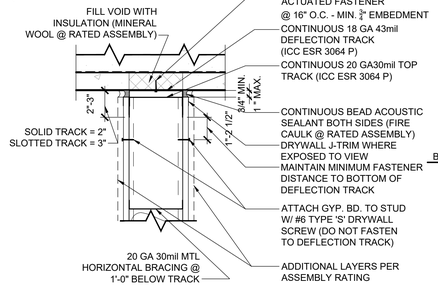
4. IF YOU HAVE A CASE THAT DIFFERS FROM THE ABOVE, PLEASE CONTACT THE ARCHITECT.



STEEL DECK - ELEVATION
(UL HW-D-0024)



STEEL DECK - PARALLEL TO FLUTES
(UL HW-D-0456)



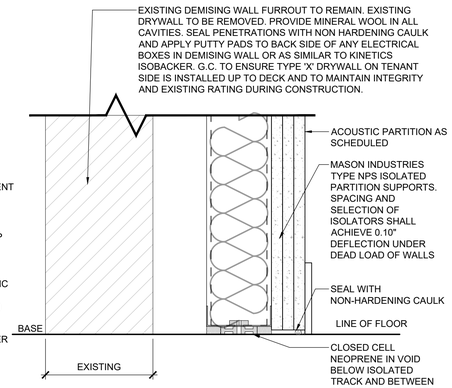
STEEL DECK - PERPENDICULAR TO FLUTES
(UL HW-D-0024)

HEAD WALL DETAILS C4

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

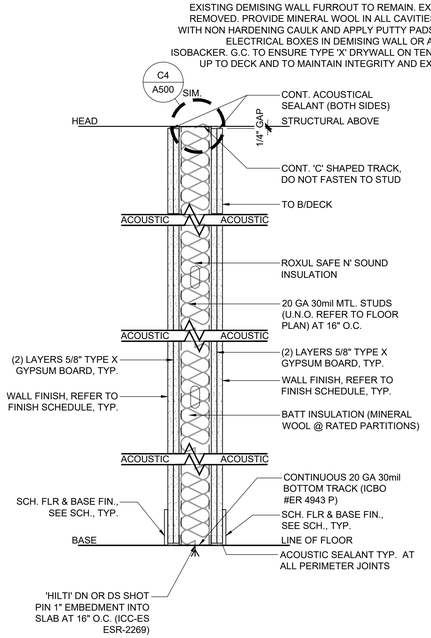
LANDLORD GENERAL NOTES

1. GENERAL COMMENT ON FULL HEIGHT PARTITION TYPES: THE LANDLORD SHALL NOT BE RESPONSIBLE FOR ANY DAMAGED CAUSED THE TENANT'S CONSTRUCTION AS A RESULT OF ROOF DEFLECTION BASED ON THE TENANT'S USE OF NON-SLIP TRACKS AT THE CONNECTION TO THE METAL DECK.



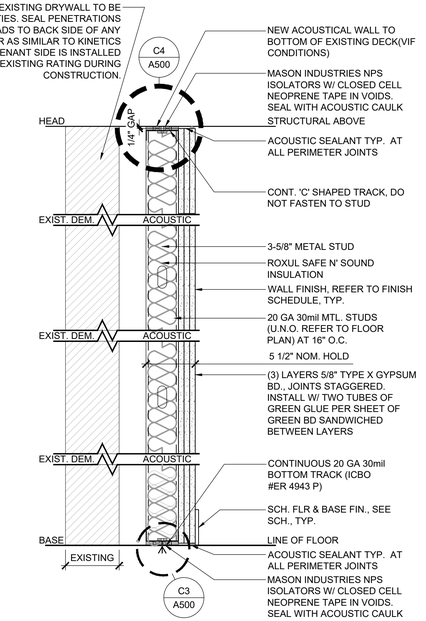
ISOLATED PARTITION DETAIL C3

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



ACOUSTIC WALL - INTERIOR WALL (FLOOR TO BOTTOM OF DECK) C2

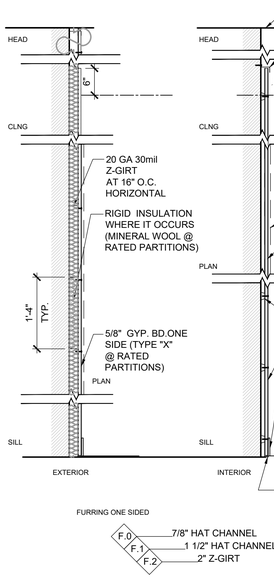
SCALE: 1 1/2" = 1'-0"

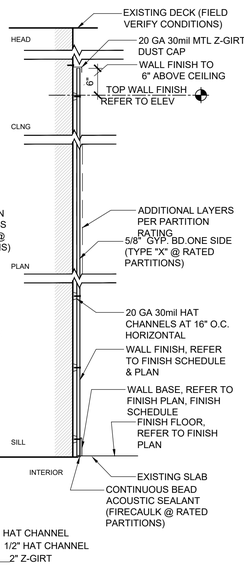


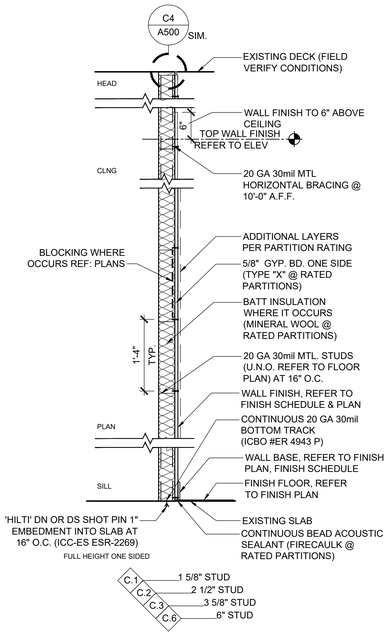
NOTE: 1-HR RATED DEMISING PARTITION - UL U466 FIRE RATING. ALL PENETRATIONS IN FIRE RATED DEMISING WALLS TO E SEALED/CAULKED TO MAINTAIN FIRE RATING. ALL JUNCTION BOXES IN FIRE RATED WALLS TO BE FIRE RATED JUNCTION BOXES TO MAINTAIN FIRE RATING.

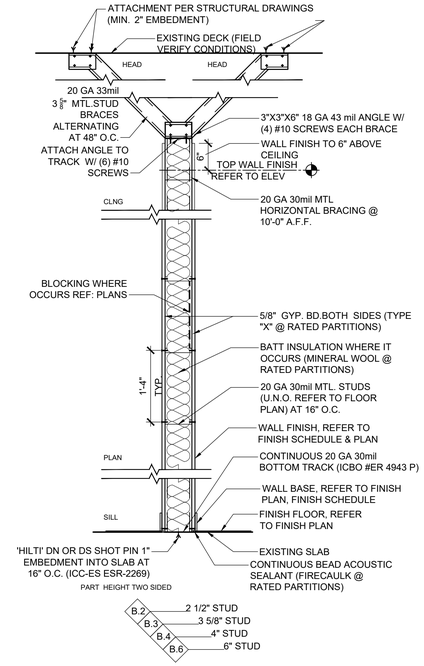
ACOUSTIC WALL - INTERIOR WALL (FLOOR TO BOTTOM OF DECK) C1

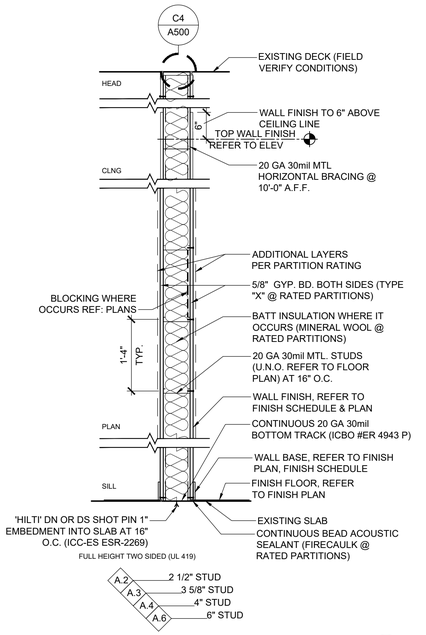
SCALE: 1 1/2" = 1'-0"





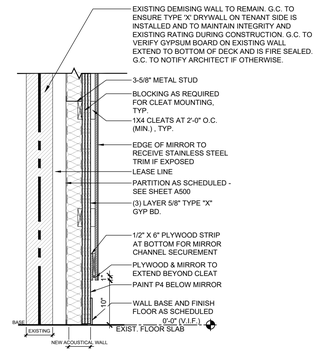






PARTITION TYPES A2

SCALE: 1" = 1'-0"



ACOUSTIC WALL WITH MIRROR PARTITION A1

SCALE: 1" = 1'-0"

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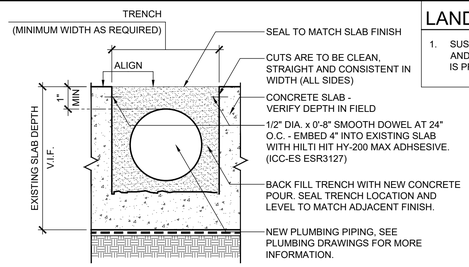
SHEET NAME:
WALL TYPES

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: JB
SCALE: AS NOTED

SHEET NO.:
A500

LANDLORD GENERAL NOTES

1. SUSPENDED PARTITIONS SHALL BE SUPPORTED BY THE TOP CHORDS OF JOIST AND/OR BEAMS. DIRECT CONNECTION TO THE METAL DECK FOR SUSPENDED ITEMS IS PROHIBITED

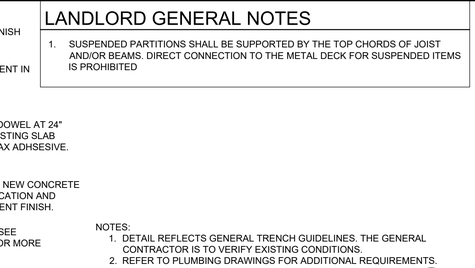


NOTES:
1. DETAIL REFLECTS GENERAL TRENCH GUIDELINES. THE GENERAL CONTRACTOR IS TO VERIFY EXISTING CONDITIONS.
2. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL REQUIREMENTS.

TRENCH DRAIN DETAIL E4

SCALE: 3" = 1'-0"

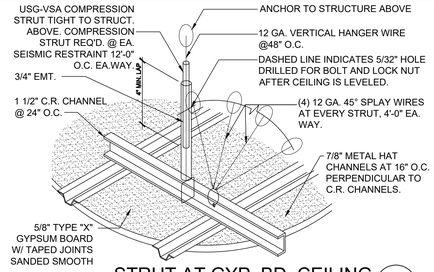
MAXIMUM COMPRESSION STRUT SIZE	
SIZE	MAX HT.
1/2" Ø X 22 GA.	3'-0"
3/4" Ø X 22 GA.	4'-3"
1" Ø X 20 GA.	5'-0"
1 1/4" Ø X 20 GA.	7'-0"
1 1/2" Ø X 20 GA.	8'-6"
2" Ø X 20 GA.	11'-6"
2 1/2" Ø X 18 GA.	14'-6"
3" Ø X 18 GA.	17'-3"
3 1/2" Ø X 16 GA.	23'-3"



NOTES:
ACOUSTICAL TILE CEILING MATERIALS & INSTALLATION SHALL COMPLY W/ ICC ESR #1308 FOR FIRE & NON-FIRE RESISTANCE RATED SUSPENDED CEILING FRAMING SYSTEMS

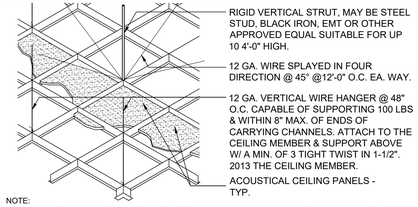
SUSPENDED CEILING DETAIL E3

SCALE: 3" = 1'-0"



STRUT AT GYP. BD. CEILING E2

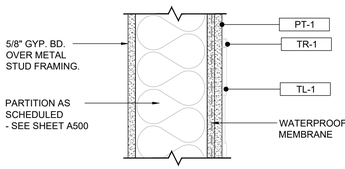
SCALE: 3" = 1'-0"



NOTE:
1. VERTICAL STRUT AT 12'-0" O.C. EACH WAY WITH FIRST POINT TO BE WITHIN 6' FROM EACH WALL FASTENED TO MAIN RUNNER AND STRUCTURE ABOVE.
2. 12 GA. VERTICAL HANGER WIRE AT 4'-0" EACH WAY WITH MIN. TIGHT TURNS IN 1-1/2" AT BOTH ENDS OR WIRE (TYP.)
3. BRACING WIRES SECURED TO MAIN RUNNERS WITHIN 2" OF THE CROSS RUNNER INTERSECTIONS AND SPLAYED 90Ø FROM EZ OTHER @ AN ANGLE NOT EXCEEDING 45Ø FROM THE PLANE OF THE CEILING.

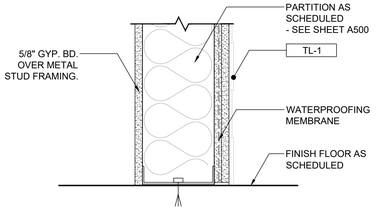
CEILING SUSPENSION SYSTEM - TYP. E1

SCALE: 3" = 1'-0"



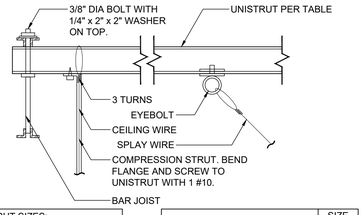
RESTROOM WALL TRANSITION DETAIL D5

SCALE: 3" = 1'-0"



RESTROOM WALL TO FLOOR TILE DETAIL D4

SCALE: 3" = 1'-0"

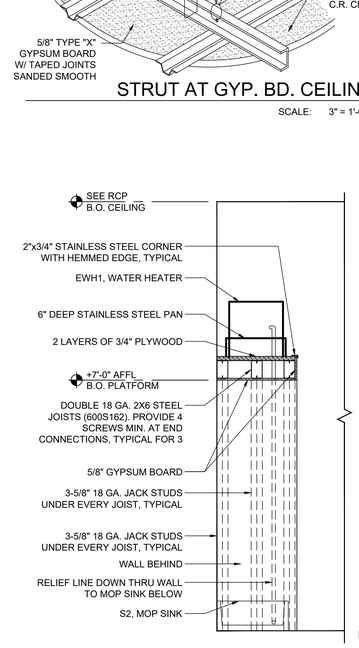


UNISTRUT SIZES:
L = 10'-0" MAX FIELD VERIFY AND NOTIFY E.O.R. IF DIFFERENT.

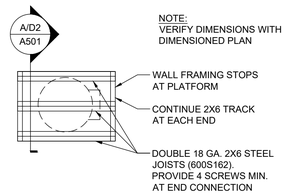
	SIZE
SUPPORTING VERTICAL WIRES	P1001
SUPPORTING SPLAY WIRES	P5001

ATTACHMENT TO METAL DECK D3

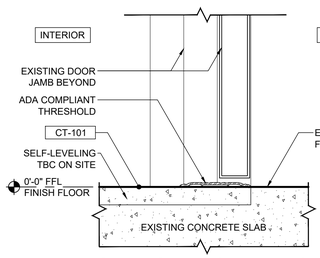
SCALE: 3" = 1'-0"



A. WATER HEATER PLATFORM FRAMING SECTION

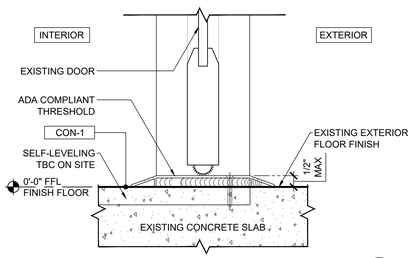


B. WATER HEATER PLATFORM FRAMING PLAN



SERVICE DOOR TRANSITION C5

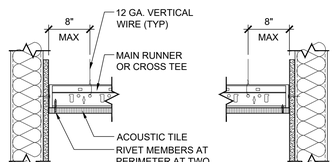
SCALE: 3" = 1'-0"



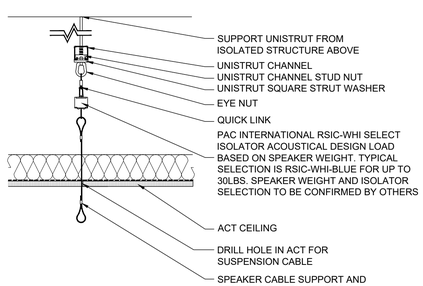
EXTERIOR TO INTERIOR TRANSITION C4

SCALE: 3" = 1'-0"

NOTES:
1. SPRINKLER HEADS & OTHER PENETRATIONS THRU CEILING TILE SHALL HAVE AN OVERSIZED SLEEVE OR ADAPTER THAT ALLOWS FREE HORIZONTAL MOVEMENT OF AT LEAST 1" IN ALL DIRECTIONS EXCEPT WHERE RIGID BRACES ARE USED TO LIMIT LATERAL DEFLECTIONS.
2. HEAVY DUTY T-BAR GRID MEMBERS SHALL BE USED THROUGHOUT.
3. ATTACHMENT METHOD OF LIGHT FIXTURES TO GRID MEMBERS SHALL BE CAPABLE TO WITHSTAND 100% OF THE LIGHT FIXTURE WEIGHT.
4. LIGHT FIXTURES WEIGHING LESS THAN 10 POUNDS SHALL BE PROVIDED WITH (1) 12GA WIRE ATTACHED TO STRUCTURE - LIGHT FIXTURES WEIGHING MORE THAN 10 POUNDS AND LESS THAN 56 POUNDS SHALL BE PROVIDED WITH (2) 12GA WIRES AT OPPOSING CORNERS ATTACHED TO STRUCTURE - THESE WIRES MAY BE SLACK.
5. PENDANT LIGHTS SHALL BE PROVIDED WITH (1) 9GA WIRE ATTACHED DIRECTLY TO THE STRUCTURE - LIGHT SHALL NOT BE SUPPORTED BY THE GRID MEMBERS.
6. CEILINGS LESS THAN 1000 S.F. ARE EXEMPT FROM THE HORIZONTAL RESTRAINT REQUIREMENT.
7. CEILINGS GREATER THAN 2500 S.F. SHALL BE PROVIDED WITH A SEISMIC SEPARATION JOINT.
8. LATERAL BRACING MEMBERS SHALL BE LOCATED MINIMUM OF 6" FROM ALL UNBRACED HORIZONTAL DUCTWORK AND PIPING. BRACING WIRE SHALL BE ATTACHED TO THE GRID AND STRUCTURE AND SHALL SUPPORT A DESIGN LOAD OF THE GREATER OF 200 POUNDS OR THE ACTUAL LOAD WITH A SAFETY FACTOR OF 2.



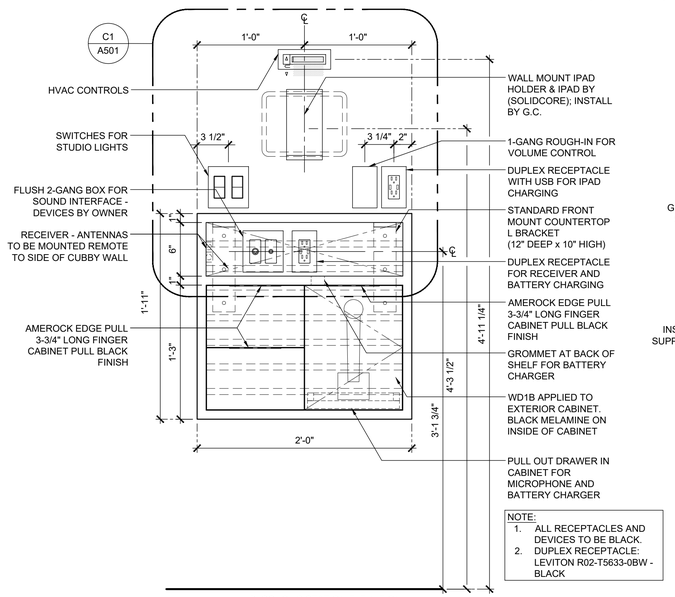
B. DETAIL AT PERIMETER WALL



A. DETAIL OF ACT CEILING CONSTRUCTION

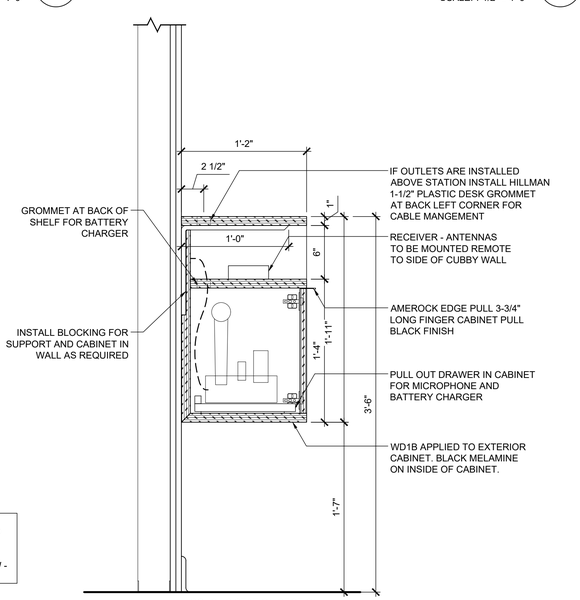
SUSPENDED CEILING DETAIL A4

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



NOTE:
1. ALL RECEPTACLES AND DEVICES TO BE BLACK.
2. DUPLEX RECEPTACLE: LEVITON R02-T5633-0BW - BLACK

B. COACH'S STATION ELEVATION



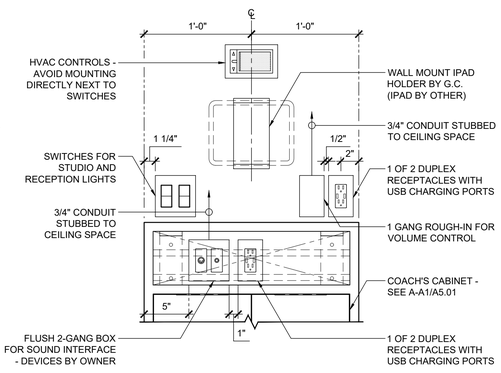
A. COACH'S STATION SECTION

WATER HEATER PLATFORM C2

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

CONTROLS AT COACH'S STATION C1

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



COACH'S STATION DETAIL A1

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

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NORTH WALES, PA 19454

REVISIONS

		DESCRIPTION
1	06/01/26	PERMIT SET

STATUS:
PERMIT SET

FIELD VERIFICATION:
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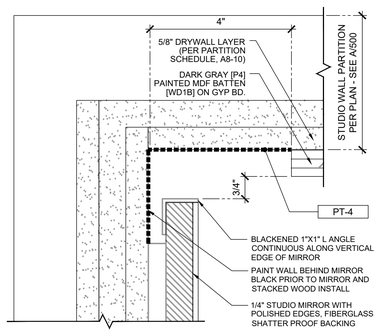
SHEET NAME:
INTERIOR DETAILS

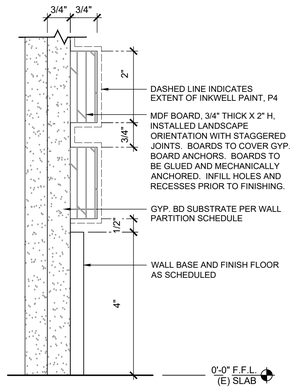
DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: JB
SCALE: AS NOTED

SHEET NO.:
A501



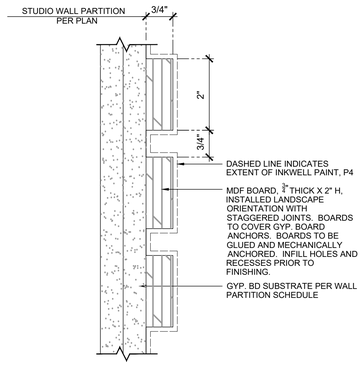
STUDIO MIRROR / STACKED WOOD SECTION DETAIL [WD-1B] D5

SCALE: 6" = 1'-0"



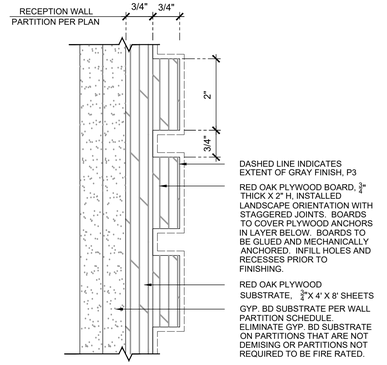
STACKED WOOD AND BASE SECTION DETAIL D4

SCALE: 6" = 1'-0"



STUDIO STACKED WOOD SECTION DETAIL [WD-1B] D3

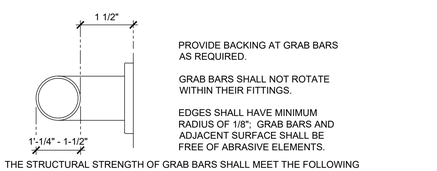
SCALE: 6" = 1'-0"



RECEPTION STACKED WALL MOCK UP BELOW

RECEPTION STACKED WOOD SECTION DETAIL [WD-1A] D1

SCALE: 6" = 1'-0"



PROVIDE BACKING AT GRAB BARS AS REQUIRED.

GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.

EDGES SHALL HAVE MINIMUM RADIUS OF 1/8"; GRAB BARS AND ADJACENT SURFACE SHALL BE FREE OF ABRASIVE ELEMENTS.

THE STRUCTURAL STRENGTH OF GRAB BARS SHALL MEET THE FOLLOWING SPECIFICATIONS:

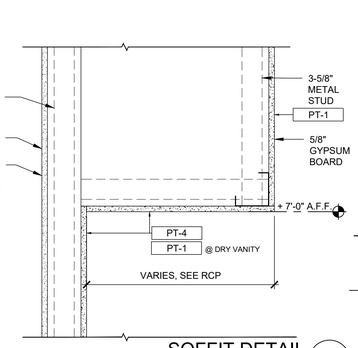
A. BENDING STRESS AND SHEAR STRESS INDUCED IN A GRAB BAR BY THE APPLICATION OF A 250-POUND POINT LOAD SHALL BE LESS THAN THE ALLOWABLE SHEAR STRESS FOR THE MATERIAL OF THE GRAB BAR, AND ITS MOUNTING BRACKET OR OTHER SUPPORT IS CONSIDERED TO BE FULLY RESTRAINED, THEN DIRECT AND TORSIONAL SHEAR STRESSES SHALL NOT EXCEED THE ALLOWABLE SHEAR STRESS.

B. SHEAR FORCE INDUCED IN FASTENER OR MOUNTING DEVICE FROM THE APPLICATION OF A 250-POUND POINT LOAD SHALL BE LESS THAN THE ALLOWABLE LATERAL LOAD OF EITHER THE FASTENER OR MOUNTING DEVICE OR THE SUPPORTING STRUCTURE, WHICHEVER IS THE SMALLER ALLOWABLE LOAD.

C. TENSILE FORCE INDUCED IN A FASTENER BY A DIRECT TENSION FORCE OF A 250-POUND POINT LOAD, PLUS THE MAXIMUM MOMENT FROM THE APPLICATION OF A 250-POUND POINT LOAD, SHALL BE LESS THAN THE ALLOWABLE WITHDRAWAL LOAD BETWEEN FASTENER AND SUPPORTING STRUCTURE.

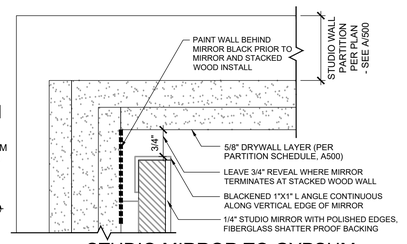
TYPICAL GRAB BAR DETAIL A5

SCALE: 6" = 1'-0"



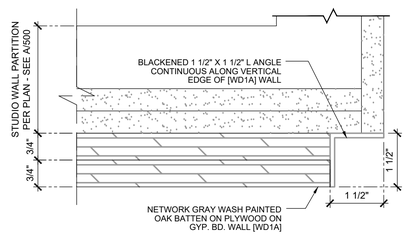
SOFFIT DETAIL C5

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



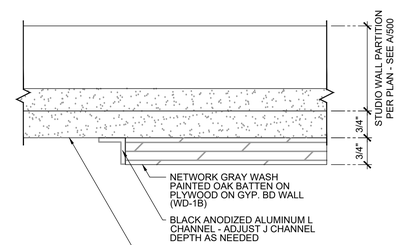
STUDIO MIRROR TO GYPSUM BOARD DETAIL @ CORNER C5

SCALE: 6" = 1'-0"



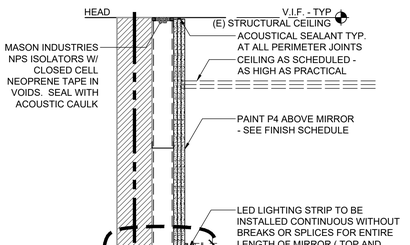
STACKED WOOD TRANSITION DETAILS C4

SCALE: 6" = 1'-0"



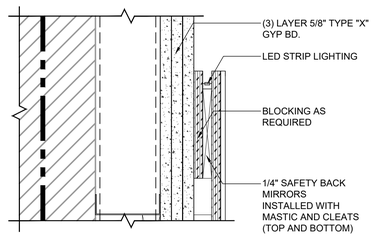
LINEAR FINISH TRANSITION C3

SCALE: 6" = 1'-0"



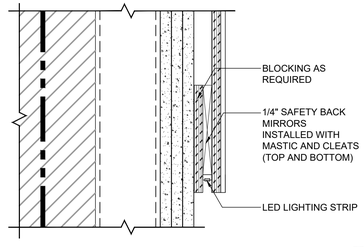
STUDIO MIRROR A1

SCALE: 1" = 1'-0"



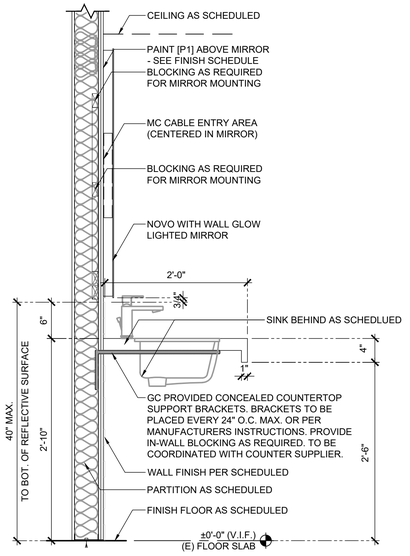
DETAIL B3

SCALE: 3" = 1'-0"



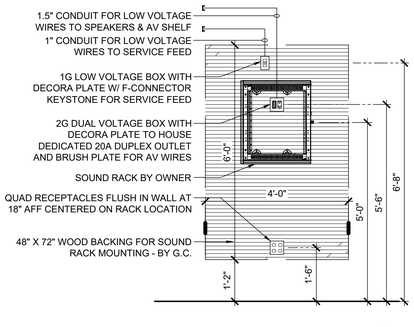
DETAIL A3

SCALE: 3" = 1'-0"



TOILET ROOM MIRROR A2

SCALE: 1" = 1'-0"



UTILITY ROOM SOUND RACK A4

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

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STATUS: PERMIT SET

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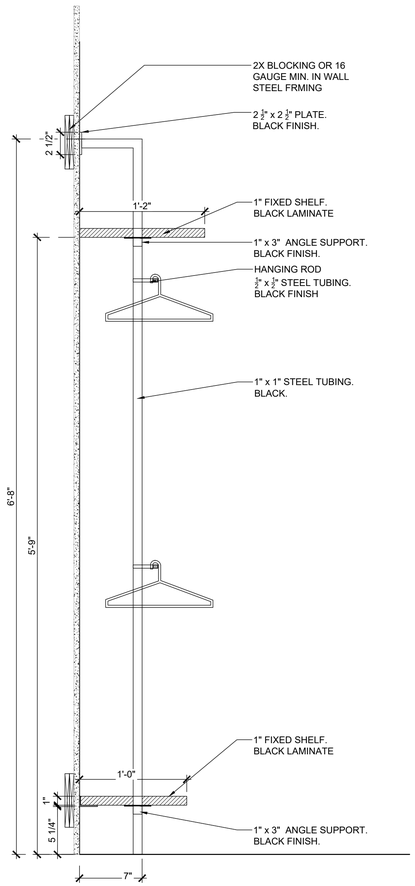
SHEET NAME: INTERIOR DETAILS

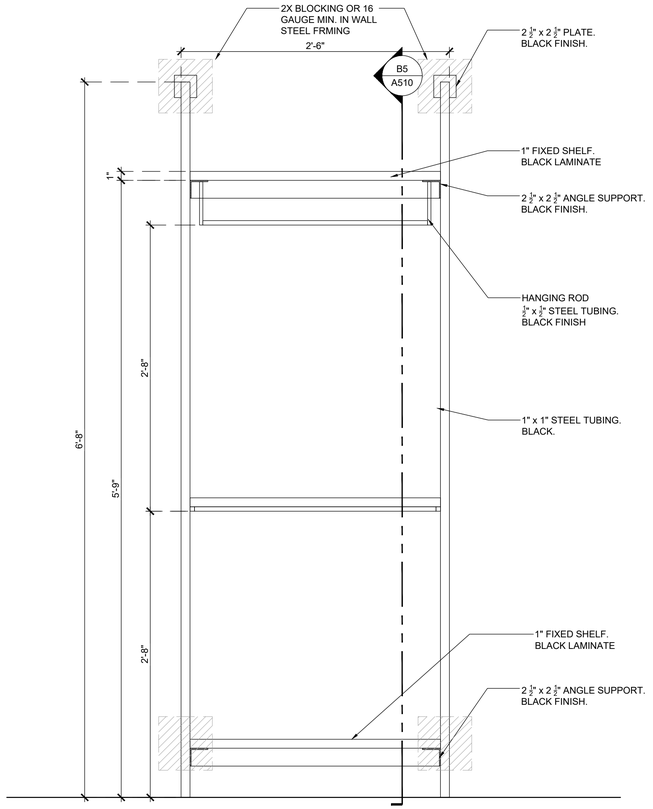
DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: JB
SCALE: AS NOTED

SHEET NO.: A502



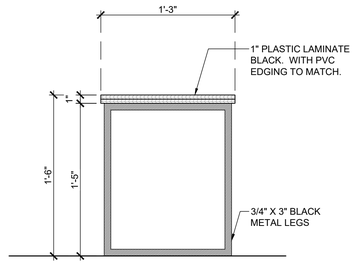
COAT RACK - SECTION B5

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



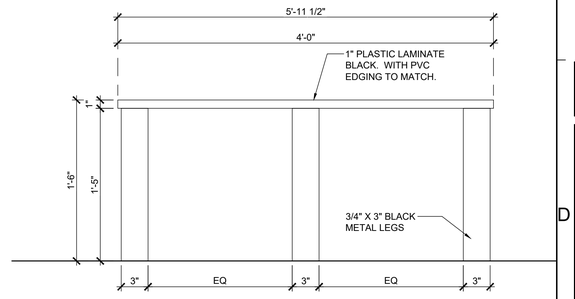
COAT RACK - ELEVATION B3

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



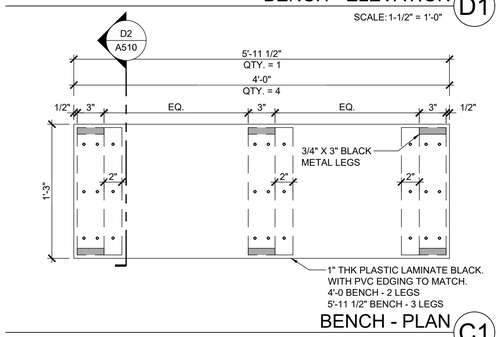
BENCH - SECTION D2

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



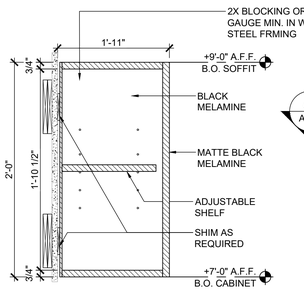
BENCH - ELEVATION D1

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



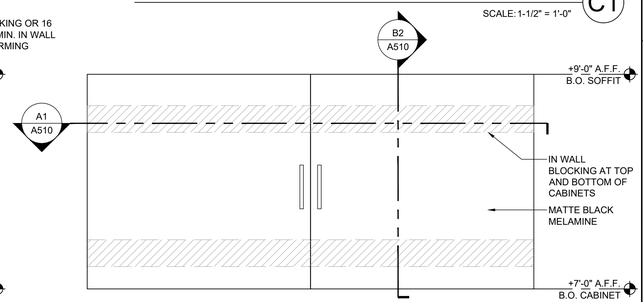
BENCH - PLAN C1

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



STORAGE CABINET - SECTION B2

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

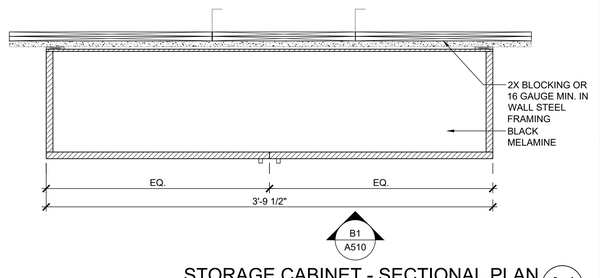


STORAGE CABINET - ELEVATION B1

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

COAT RACK - PLAN A3

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



STORAGE CABINET - SECTIONAL PLAN A1

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

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1460 BETHLEHEM PIKE, SUITE 150,
NORTH WALES, PA 19454

REVISIONS

		DESCRIPTION
	06/01/26	PERMIT SET

STATUS: PERMIT SET

FIELD VERIFICATION:
The Contractor shall verify all figured dimensions and conditions at the project site and notify Zebra Architecture, PLLC. of any dimensional errors, omissions or discrepancies before beginning or fabricating any work. Do not scale these drawings.

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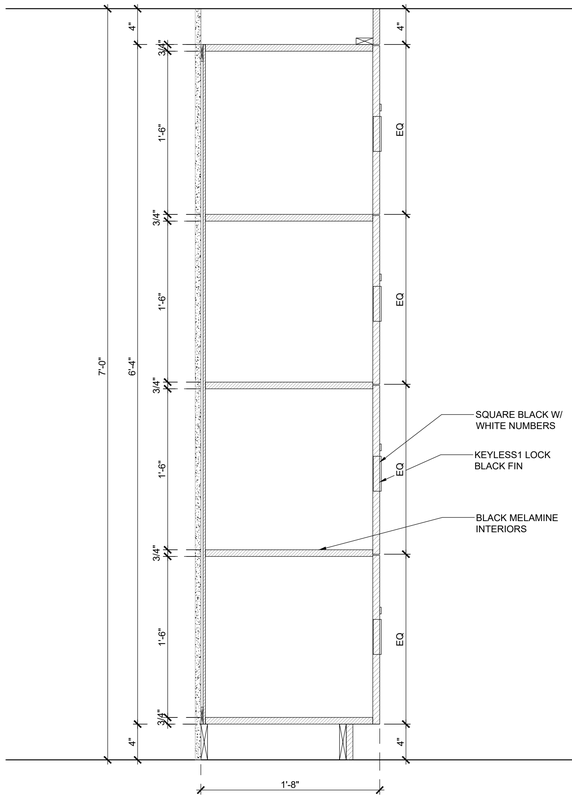
SHEET NAME: MILLWORK DETAILS

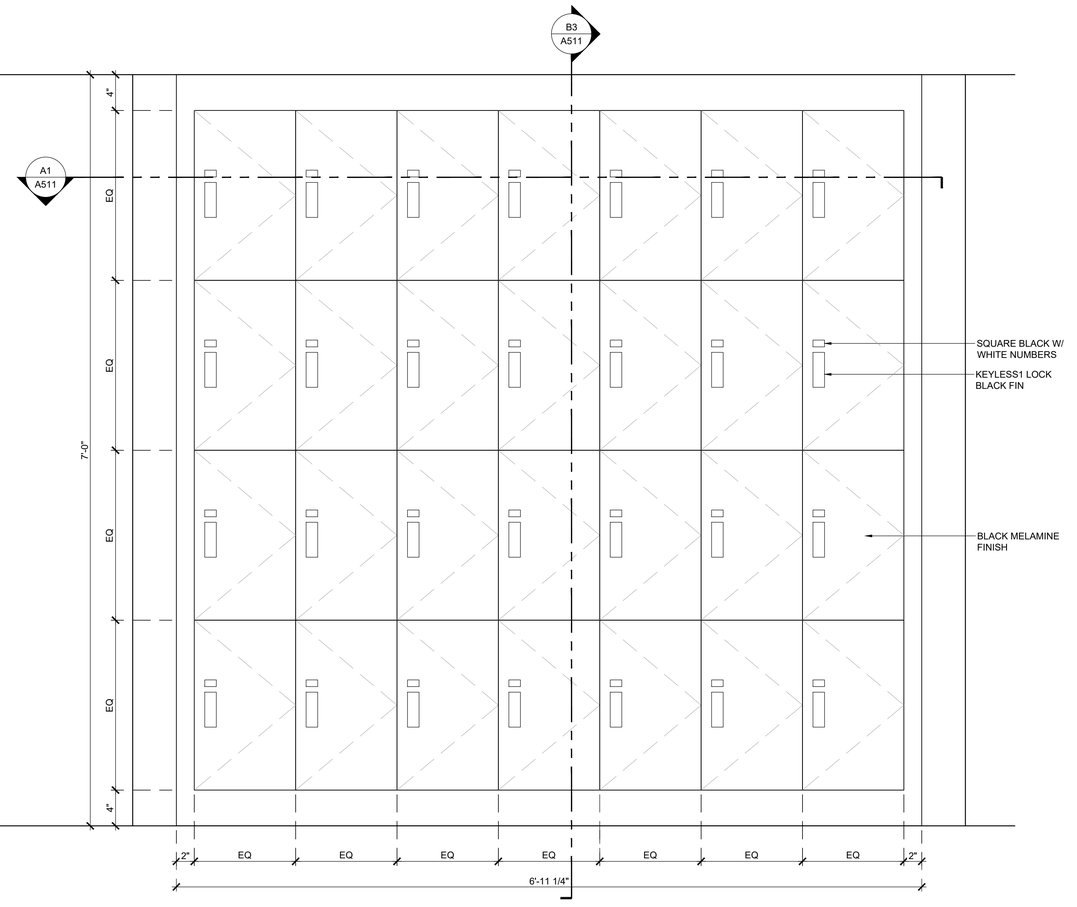
DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: JB/NSA
SCALE: AS NOTED

SHEET NO.: A510



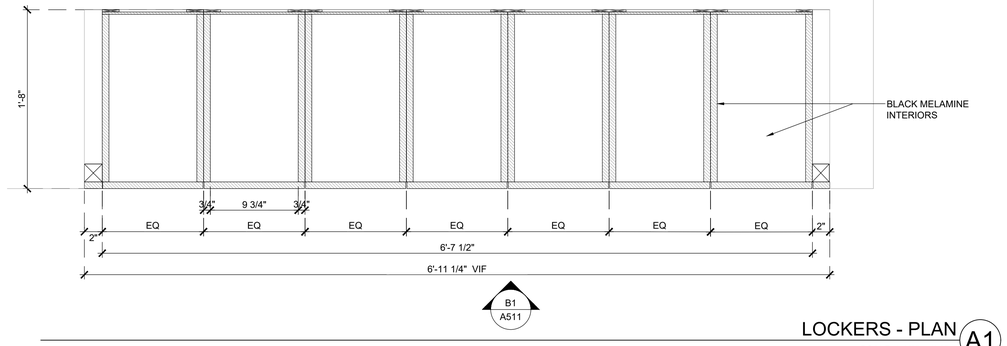
LOCKERS - SECTION B3

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



LOCKERS - ELEVATION B1

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



LOCKERS - PLAN A1

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

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SCOTTSDALE, ARIZONA 85254
PHONE: 480.912.1169 www.zbr.global

STORE NO.:

[solscape]

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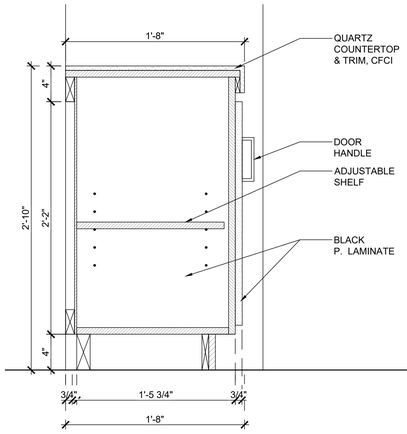
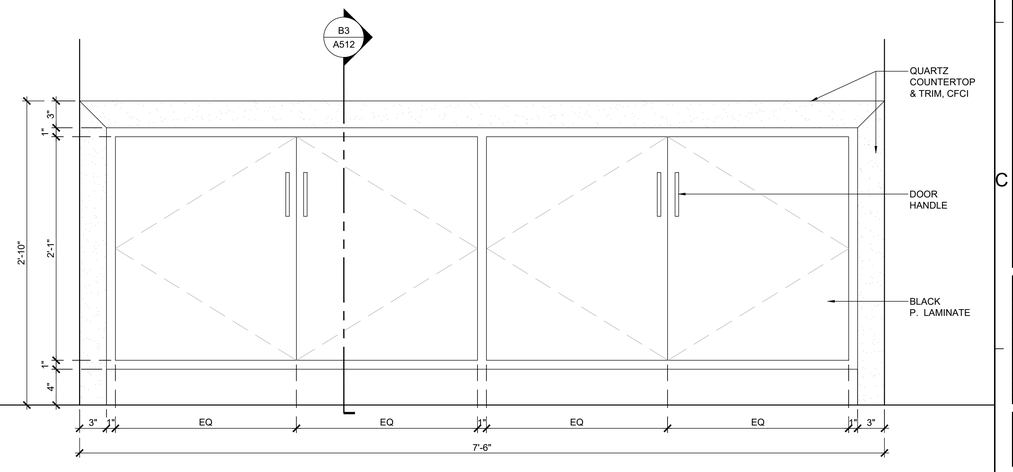
06/01/2026	42559
DRAWN: JB	SCALE: AS NOTED

SHEET NO.:
A511



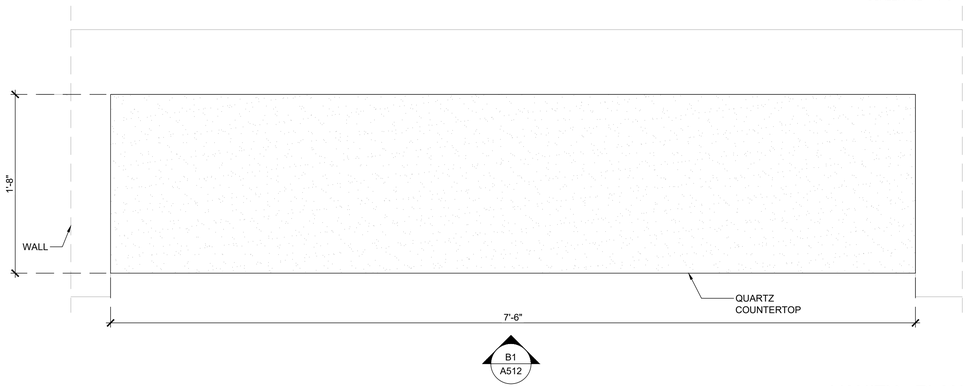
VANITY - SECTION B3

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



VANITY - ELEVATION B1

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



VANITY - PLAN A1

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

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5(9,6,216

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SHEET NAME:
MILLWORK DETAILS

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: JB/NSA
SCALE: AS NOTED

SHEET NO.:
A512

FINISH MATERIAL SCHEDULE

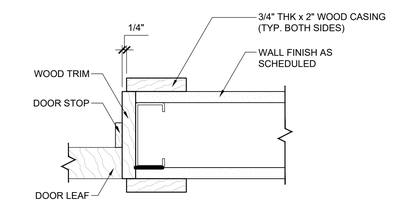
TAG	MATERIAL / FINISH DESCRIPTION	MANUFACTURER	FINISH / PATTERN	COLOR	LOCATION / REMARKS
CON-1	LATICRETE	LUMISEAL FX SEALANT	GLOSSY COAT	CLEAR SEALER ON CONCRETE	THROUGHOUT - CLEAN EXISTING CONCRETE BEFORE APPLYING COAT, APPLY WITH ADDED GRIT FOR SLIP RESISTANCE.
B-1	WALL BASE	MANNINGTON COMMERCIAL	SCULPTURED WALL BASE, EDGE EFFECTS, SIMPLE- 4SM	701 BLACK	THROUGHOUT
FRP	FIBERGLASS REINF. PANEL	-	-	WHITE	AT MOPSINK
PT-1	WALL PAINT	SHERWIN WILLIAMS	SW7005	PURE WHITE	BENJAMIN MOORE ULTRA SPEC SCUFF X BASE -EGGSHELL TYP. - EPOXY AT TOILET ROOMS & B.O.H., CEILING FINISH TO BE FLAT
PT-3	ACCENT PAINT	SHERWIN WILLIAMS	SW7073	NETWORK GRAY	ENAMEL EGGSHELL TYP. TO BE ON ALL DOORS AND FRAMES IN LOBBY
PT-4	ACCENT PAINT	SHERWIN WILLIAMS	SW6992	INKWELL	ENAMEL EGGSHELL TYP. TO BE ON ALL DOORS AND FRAMES IN EXERCISE AREA
PT-6	ACCENT PAINT	SHERWIN WILLIAMS	SEE REMARKS	BLACK	MILLWORK FINISH
ACT-1	ACOUSTIC CEILING TILE	CERTAINTEED OR SIM.	PERFORMA - THEATRE BLACK F	BLACK	24" x 24" x 5/8", SEE A2-11 & A7-10
ACT-2	ACOUSTIC CEILING TILE	CERTAINTEED	PERFORMA - BAROQUE	WHITE	24" x 24" x 5/8", SEE A2-11 & A7-10
WD-1A	SLATWALL	CNC WOOD PATTERN	3/4" RED OAK PLYWOOD - CLEAR POLURETHANE WOOD FINISH	NETWORK GRAY WASH	PROVIDED BY MILLWORKER AND INSTALLED BY G.C. - TO BE IN LOBBY. MIX NETWORK GRAY (P3) WITH EQUAL PARTS WATER TO CREATE WASH. APPLY NO-BURN ORIGINAL SPRAY. SEE 5/A7-20 FOR ASSEMBLY DETAILS AND SECTION.
WD-1B	SLATWALL	MDF CUT BATTENS	3/4" MDF	INKWELL	PROVIDED BY MILLWORKER AND INSTALLED BY G.C. - TO BE IN STUDIO. PAINTED P4. APPLY NO-BURN ORIGINAL SPRAY. SEE 6/A7-20 FOR ASSEMBLY DETAILS AND SECTION.
CN-1	COUNTER SURFACE	SILESTONE	ICONIC WHITE	WHITE	RESTROOM VANITY
TL-1	RESTROOM TILE	VIVANT	3" x 10" STACKED VERTICAL	BRUT GLOSSY	GROUT: MAPEI 77 FROST, 60"AFF WITH TOP OF TILE AT SCHLUTER. START TILE LAY OUT WITH A FULL PIECE AT SCHLUTER EDGE AND IN THE CORNER.
TR-1	TRIM	SCHLUTER	QUADEC	MATTE BLACK	TEXTURED COLOR-COATED ALUMINUM 1/2" X 8FT 2-1/2" IN. METAL SQUARE EDGE TILE EDGINING TRIM, RESTROOM

EQUIPMENT SCHEDULE

TAG	QTY	LOCATION	DESCRIPTION	MANUFACTURER	STYLE / MODEL	SIZE	PROVIDED BY	INSTALLED BY	NOTE
1	1	EXERCISE AREA	WALL MOUNTED iPAD HOLDER	TFY	B07RGDK9CZ	2.7 IN (MIN.) - 7.48 IN (MAX.)	GC	GC	SEE DETAIL D1/A501 FOR MOUNTING DETAILS
2	1	LOCKERS	4 - TIER LOCKERS	D & A	BLACK	EACH TIER: 12" W X 20" D X 72" H	OWNER	GC	SEE VENDOR CONTACT ON SHEET T000; EACH LOCKER INCLUDES SQUARESILVER NUMBER DISC WITH BLACK FONT & OJMAR OMBI PRO SILVER LOCK TYPE.
3	1	RECEPTION	RECEPTION CHAIR	-	-	-	OWNER	GC	GC TO ASSEMBLE / INSTALL
4	16	EXERCISE AREA	FITNESS MACHINES	-	SWEATLANA	-	OWNER		GC TO ASSEMBLE / INSTALL. CONFIRM QUANTITY WITH OWEN
5	2	STORAGE	WIRE SHELVING	ULINE	H-1749-72	48" W X 18" D X 72" H	GC	GC	GC TO ASSEMBLE / INSTALL
6	2	RESTROOM	XLERATOR HAND DRYER	EXCEL	XLERATOR HAND DRYER-XL-GR & #40502	-	GC	GC	BLACK COVER W / BLACK ADA RECESSED KIT
7	1	RECEPTION	BEVERAGE COOLER	EDGESTAR	CBR902SG	15" W X 32" H	GC	GC	
8	1	STORAGE	MOP BROOM HOLDER	BRADLEY CORP.	9953	-	GC	GC	INSTALL AT 5'-0" AFF; PROVIDE 2X FRT WOOD BLOCKING AS REQUIRED
9	1	GENERAL	13" ACRYLIC SWEAT BAG DISPENSER	D & A	30039-DSP	13"	SIGNAGE VENDOR	SIGNAGE VENDOR	SEE INTERIOR ELEVATIONS FOR MOUNTING HEIGHTS
10	1	RECEPTION	FILING CABINET	DEVAISE	PCA002B1	17.1" D X 14.6" W X 23.6" H	GC	GC	TO GO UNDER RECEPTION DESK
11	1	RECEPTION	COAT RACK	D & A	33433	39" W X 15.25" D X 69.5" H	OWNER	GC	PROVIDE BLOCKING AS REQUIRED
12	2	CORRIDOR	DRY BAR MIRROR	KOHLER	K-26051-BLL	20-1/16"W X 40-1/16" H X 1-3/8" D	GC	GC	PROVIDE BLOCKING AS REQUIRED- SEE INTERIOR ELEVATIONS FOR MOUNTING HEIGHTS. (CONFIRM SPEC WITH SC PROJECT MANAGER)
13	1	STORAGE	IT RACK	LOWELL	LWR-1223	23" W X 23" D X 27" H	OWNER	GC	PROVIDE POWER, DATA, AND BLOCKING AS REQUIRED
14	4	RESTROOM	METAL FLOATING SHELF	-	-	24" W X 8" D X 2" H	GC	GC	PROVIDE BLOCKING AS REQUIRED. REFER TO ELEVATIONS AND INTERIOR DETAILS.

RESTROOM ACCESSORY SCHEDULE

TAG	DESCRIPTION	MODEL #	NOTES / MOUNTING HEIGHTS
A1	42" GRAB BAR	GRAB BAR SPECIALISTS 991-GBS-1-14-MB	34" TO HORIZONTAL C.L. - MOUNT AT SIDE WALL OF WATER CLOSET, 12" FROM CENTERLINE OF BRACKET TO BACK WALL - SMOOTH FINISH MATTE BLACK
A2	36" GRAB BAR	GRAB BAR SPECIALISTS 991-GBS-1-14-MB	34" TO HORIZONTAL C.L. - MOUNT AT BACK WALL OF WATER CLOSET, 6" FROM CENTERLINE OF BRACKET TO SIDE WALL - SMOOTH FINISH MATTE BLACK
A3	18" GRAB BAR	GRAB BAR SPECIALISTS 991-GBS-1-14-MB	MOUNT VERTICAL, 40" A.F.F. TO CENTERLINE OF BRACKET - SMOOTH FINISH MATTE BLACK
B	43.3" W X 39.4" H X 1.22" D	L141	BOTTOM OF REFLECTIVE SURFACE AT 40" A.F.F. - SEE SHEET A400
C	RECESSED MULTI-ROLL TOILET TISSUE DISPENSER	BOBRICK B-35883.MBLK	24" A.F.F. AT CENTERLINE, 7" TO 9" CENTERLINE IN FRONT OF WATER CLOSET
D	LAVATORY PIPE INSULATION	LAVGUARD TRUEBRO 100 SERIES, GREY	INSTALL OVER HOT / COLD WATER AND DRAIN PIPES
E	COAT HOOK	BOBRICK B-9542.MBLK	MOUNT 48" A.F.F. TO CENTERLINE OF HOOK - SEE SHEET A400 FOR MOUNTING LOCATION
F	RECESSED SANITARY DISPENSER	BOBRICK B-3513.MBLK	PROVIDED & INSTALLED BY G.C. - SEE SHEET A400 FOR MORE INFORMATION
G	WALL-MOUNTED SOAP DISPENSER	SALT & STONE	OWNER PROVIDED & CONTRACTOR INSTALLED. MOUNT 42" A.F.F TO CENTERLINE OF DISPENSER.



DOOR JAMB DETAIL A4
SCALE: NTS

PLUMBING FIXTURE SCHEDULE
(SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION)

TAG	DESCRIPTION	ITEM	MANUFACTURER	STYLE/MODEL	NO.	COLOR / FINISH	NOTE
S-1	LAVATORY	BATHROOM SINK	KOHLER	VERTICYL	K-2882-0	WHITE	SEE SHEET A400 & PLUMBING DWGS FOR MORE INFO
		BATHROOM FAUCET	SLOAN	OPTIMA SENSOR FAUCET	EAF-250-ISM	GRAPHITE	-
S-2	MOP SINK	MOP SINK BASIN	FIAT	MOLDED STONE	MSB2424	-	G.C. TO PROVIDE A 4" RUBBER SINK HOSE ATTACHMENT FOR FILLING A MOP BUCKET.
		FAUCET	FIAT	830-AA SERVICE FAUCET	-	CHROME PLATED	
		HOSE	-	-	-	-	
WC1	WATER CLOSET	FLOOR MOUNTED WATER CLOSET	TOTO	ULTRAMAX II ON-PIECE TOILET	MS604124CEFG (LEFT), MS504124CEFRG (RIGHT)	COTTON	-
EWC	ELECTRIC WATER COOLER	BI-LEVEL REFRIGERATED BOTTLE FILLING STATION, FILTERED	HALSEY TAYLOR	-	HHB-HACG8BLPV-WF	GRAY	SEE PLUMBING DWGS FOR MORE INFORMATION
EWH	ELECTRIC WATER HEATER	ELECTRIC WATER HEATER	A. O SMITH	DEL-20	-	-	SEE PLUMBING DWGS FOR MORE INFORMATION

DOOR, FRAME AND HARDWARE SCHEDULE

NUMBER	LOCATION	NOMINAL SIZE	MATERIALS	FIN.	FRA.	FRA. TYP.	DOOR TYPE	DOOR PRVD	DOOR INST	HARDWARE TYP.	HARDWARE PRVD.	HARDWARE	REMARKS
EX1	ENTRY (EXISTING)	3'-0" x 7'-0" x 1 3/4" (2)	EX	EX	EX	EX	EX	EX	EX	3	EX	EX	VERIFY GOOD WORKING CONDITION. ONE DOOR TO BE MADE INACTIVE.
EX2	REAR (EXISTING)	3'-0" x 7'-0" x 1 3/4"	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	VERIFY GOOD WORKING CONDITION
100a	EXERCISE AREA	3'-0" x 7'-0" x 1 3/4"	SCWD	PT-3 PT-4	PT-3 PT-4	1	A	GC	GC	2	GC	GC	PAINT DOOR AND FRAME PT-4 ON STUDIO SIDE ONLY, PAINT DOOR AND DOOR FRAME PT-3 ON LOBBY SIDE
100b	EXERCISE AREA	3'-0" x 7'-0" x 1 3/4"	SCWD	PT-3 PT-4	PT-3 PT-4	1	A	GC	GC	2	GC	GC	PAINT DOOR AND FRAME PT-4 ON STUDIO SIDE ONLY, PAINT DOOR AND DOOR FRAME PT-3 ON LOBBY SIDE. DOOR PANEL SHALL HAVE MINIMUM STC-35 PERFORMANCE. PROVIDE ADJUSTABLE NEOPRENE GASKETS AT DOOR JAMBS AS SIMILAR TO ZERO INTERNATIONAL TYPE 770. PROVIDE AUTOMATIC DOOR BOTTOM AS OR SIMILAR TO ZERO INTERNATIONAL TYPE 364.
102	WOMEN'S ADA RESTROOM	3'-0" x 7'-0" x 1 3/4"	SCWD	PT-3	PT-3	1	A	GC	GC	1	GC	GC	SEE SHEET A400 FOR SIGNAGE MOUNTING HEIGHTS AND LOCATIONS. PAINT DOOR AND FRAME PT-3
103	MEN'S ADA RESTROOM	3'-0" x 7'-0" x 1 3/4"	SCWD	PT-3	PT-3	1	A	GC	GC	1	GC	GC	SEE SHEET A400 FOR SIGNAGE MOUNTING HEIGHTS AND LOCATIONS.
104	CHANGING ROOM	3'-0" x 7'-0" x 1 3/4"	SCWD	PT-3	PT-3	1	A	GC	GC	1	GC	GC	
105	EGRESS VESTIBULE	3'-0" x 7'-0" x 1 3/4"	SCWD	PT-3	PT-3	2	A	GC	GC	1	GC	GC	REAR STUDIO DOOR PANEL SHALL HAVE A MIN. STC-35 PERFORMANCE. PROVIDE ADJUSTABLE NEOPRENE GASKETS AT DOOR JAMBS OR SIMILAR TO ZERO INTERNATIONAL TYPE 770. PROVIDE AUTOMATIC DOOR BOTTOM OR SIMILAR TO ZERO INTERNATIONAL TYPE 364

DOOR HARDWARE GROUPS

SET #1: RESTROOM DOOR

HINGES:	AS REQUIRED	IVES	FUNCTION: L9496 PRIVACY WITH "OCCUPIED" INDICATOR. DEADBOLT ACTUATION BY OUTSIDE OR INSIDE THUMB TURN. INSIDE KNOB /LEVER RETRACTS BOTH DEADBOLT AND LATCH BOLT AND UNLOCKS OUTSIDE LEVER.
PRIVACY LOCK W/ INDICATOR:	L9496 17B	SCHLAGE	
PROTECTION PLATE:	8400 10" X 2" LDW B-CS / BOTH SIDES OF DOOR	IVES	
WALL STOP:	WS406	IVES	
CLOSER:	S-DS, BLACK	DORMA	

SET #2: EXERCISE AREA DOOR

HINGES:	AS REQUIRED	IVES	FUNCTION: RM7927 GEOMETEK DOOR PULLS. ROCKWOOD ROLLER LATCH WITH ASA STRIKE. BLACK SUEDE POWERCOAT (BSP).
PROTECTION PLATE:	8400 10" X 2" LDW B-CS / BOTH SIDE OF DOOR	IVES	
WALL STOP:	WS406	IVES	
CLOSER:	S-DS, BLACK	DORMA	
PULLS:	RM7927 GEOMETEK	ROCKWOOD	
LATCH:	ROLLER LATCH	ROCKWOOD	
STRIKE:	ASA STRIKE (BSP)		
KICKSTAND	FS452.	IVES	

SET #3: ENTRY DOOR

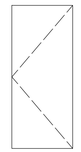
EXISTING HARDWARE (BY LL)		FUNCTION: INTERIOR ACTUATOR ALWAYS ACTIVE TO UNLOCK AND OPEN THE DOOR. A VALID CREDENTIAL WILL UNLOCK THE DOOR AND MAKE THE EXTERIOR ACTUATOR ACTIVE. CONFIRM OPERATION WITH TENANT.
KEYPAD / ELEC. STRIKE:	BY SECURITY VENDOR	

*G.C. TO MAINTAIN THROUGHOUT CONSTRUCTION

DOOR ABBREVIATIONS

ALUM.=	ALUMINUM	PTD.=	PAINTED (PT-X)
SCWD =	SOLID CORE WOOD	WD =	STAIN (ST-X)
H.M.=	HOLLOW METAL	GL =	GLASS
ETR =	EXISTING DOOR TO REMAIN		

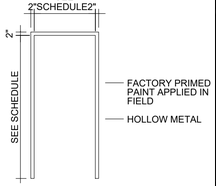
DOOR TYPES



TYPE A

DOOR FRAME TYPES

SEE 2"SCHEDULE2"



TYPE 1

GENERAL NOTES

A. SC WD DOOR MATERIAL TO BE PLAIN SLICED MAPLE VENEER PAINTED. MATCH ARCHITECTS CONTROLS SAMPLE.

B. NEW DOORS ARE TO MATCH EXISTING DOOR HEIGHTS. FIELD VERIFY AND COORDINATE WITH ARCHITECT.

C. HARDWARE MOUNTING AND FUNCTION TO MEET ADA REQUIREMENTS.

D. COORDINATE WITH LANDLORD/TENANT FOR DOORS/FRAMES TO BE PREPARED WITH SECURITY HARDWARE AND FUNCTIONS.

E. FOR FRAME CONDITIONS AND SIZES, SEE PARTITION TYPES AND REFER TO DETAILS. COORDINATE THROAT DIMENSIONS WITH PARTITION TYPES.

F. SEE INTERIOR ELEVATIONS AND DETAILS FOR FURTHER INFORMATION.

G. SEE FINISH SCHEDULE FOR ADDITIONAL INFORMATION.

H. ELECTRIC LOCKING DEVICES TO ALLOW ACCESS IN DIRECTION OF INGRESS VIA CARD READER AND UNIMPEDED ACCESS IN DIRECTION OF EGRESS IN COMPLIANCE WITH CODE.

I. COORDINATE FAIL SADE LOCKS WITH REQUIREMENTS OF FIRE MARSHAL AND FIRE ALARM SYSTEM.

J. PROVIDE RING AND STRING FOR LOW VOLTAGE DOOR SECURITY REQUIREMENTS. SECURITY VENDOR TO PROVIDE TIE-INS.

K. DIMENSION, MATERIALS, AND INSTALLATION AS PER MANUFACTURER'S SPECIFICATION AND RECOMMENDATION.

L. SEPARATE SHOP DRAWINGS TO BE PROVIDED FOR ELECTRIC LOCKING DEVICE CARD READER PROVIDED AT NEW ENTRANCE DOOR.

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SHEET NAME:
SCHEDULES

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: JB
SCALE: AS NOTED

SHEET NO.:
A600

LIGHTING FIXTURE SCHEDULE

SYMBOL	LABEL	MANUFACTURER	CATALOG NO.	FIXTURE DESCRIPTION	LAMP DATA	VOLTAGE	INPUT WATTS	MOUNTING	REMARKS
	A	LITHONIA LIGHTING	CLX L48 5000LM SEF RDL MVOLT GZ10 35K 80CRI MB	48" BLACK LED LINEAR, ROUND DIFFUSE LENS, BLACK FINISH, 3500K COLOR TEMP.	LED	UNIV	35	SUSPENDED	HANG FIXTURE TO 10'-0" A.F.F. TO BOTTOM OF FIXTURE. VERIFY WITH ARCHITECTURAL DRAWINGS. PROVIDE CHAIN HANGING ACCESSORIES AS NEEDED.
	D	PINACLE	A-30-4-G1-U-PL2-1-0-BL	4FT LONG EV3D 3" RECESSED LINEAR LIGHTS, SUSPENDED, SATINE LENS, BLACK FINISH, 3000K COLOR TEMP.	10W LED TRACK HEAD, 3000K	120	11	CEILING	MOUNTED AT 9'-0" AFF - SEE RCP
	E1	BARRON LIGHTING	S900C-SM-G-BL / S900C-SM-G-WH	SINGLE/DOUBLE FACE LED EXIT LIGHT/EMERGENCY LIGHT W/ 2 EMERGENCY LIGHTS, GREEN LETTERS, BLACK FINISH IN STUDIO, WHITE IN ALL OTHER SPACES	LED	UNIV	5	CEILING	
	EM1	COMPASS	CU2B	DUAL-HEAD ADJUSTABLE LED EMERGENCY LIGHT, BLACK FINISH, WALL MOUNTED	1W LAMP HEADS	UNIV	27	CEILING/WALL	WITH 90 MINUTE (MIN.) EMERGENCY BATTERY BACKUP
	EM2	COMPASS	CU2	DUAL-HEAD ADJUSTABLE LED EMERGENCY LIGHT, WHITE FINISH, CEILING/WALL MOUNTED	1W LAMP HEADS	UNIV	27	CEILING/WALL	WITH 90 MINUTE (MIN.) EMERGENCY BATTERY BACKUP
	EM3	COMPASS	CU2	DUAL-HEAD ADJUSTABLE LED EMERGENCY LIGHT, WHITE FINISH, CEILING MOUNTED	1W LAMP HEADS	UNIV	27	CEILING/WALL	WITH 90 MINUTE (MIN.) EMERGENCY BATTERY BACKUP
	F	NOVA FLEX LED	NF-PRO-O-120-24V-3225K	WHITE LED TAPE INSTALLED IN CONTINUOUS LENGTH AS NOTED ON PLANS, SURFACE 1612 ALUMINUM CHANNEL, 3225 COLOR TEMP	LED	UNIV	3W/FT	LED TAPE	PROVIDE LENGTH NEEDED TO RUN IN CHANNEL ALONG THE TOP AND BOTTOM OF THE ENTIRE VANITY MIRROR. PROVIDE ALL ACCESSORIES AND POWER SUPPLIES FOR A COMPLETE INSTALLATION.
	G	NOVA FLEX LED	NF-B-O-60-24V	BLUE LED TAPE INSTALLED IN CONTINUOUS LENGTH AS NOTED ON PLANS, PROVIDE DIMMER SWITCH COMPATIBLE WITH LED PRODUCT	LED	UNIV	1.5W/FT	LED TAPE	PROVIDE LENGTH NEEDED TO RUN IN CHANNEL ALONG THE ENTIRE TOP AND BOTTOM OF THE MIRROR FROM WALL TO WALL. PROVIDE ALL ACCESSORIES AND POWER SUPPLIES FOR A COMPLETE INSTALLATION.
	H	NDR ELECTRIC	OB400-0510-3K-WH	4 INCH LED RECESSED DOWNLIGHT, 3000K, WHITE TRIM	LED	UNIV	10	RECESSED	
	I1	LITECONTROL	2L-DW-4-04-SOF-C1-30K-D060-D01-1C-UNIV-FA1-W1	4' LENGTH RECESSED LIGHT, SOFT DIFFUSE LENS, CARBON WHITE FINISH, 3000K COLOR TEMP	LED	UNIV	24	RECESSED	RECESSED IN GYP. BD. CEILING
	N	PINNACLE	EV3WW-CL830650-6-GS-U-FSD-1-0-BL	6' LENGTH RECESSED LINEAR WALL-WASH LED LIGHT, BLACK FINISH	LED	UNIV	6W/FT	RECESSED	SUSPEND AT 9'-0" AFF, 24" FROM SIGNAGE WALL. FIXTURE TO BE CENTERED ON SIGNAGE.
	P	WING LIGHTINGS	WLW0035	MODERN SKYLARK WALL SCONCE, GLASS WALL LIGHT, BLACK FINISH	E26 T10 BULB	110	60	WALL MOUNTED	TO BE AT DRY BAR VANITY - SEE INTERIOR ELEVATIONS FOR MOUNTING HEIGHTS
	S	LIGHTED MIRROR	L141	43.3"W X 39.4"H X 1.22"D	LED	120	9.6W/M	WALL MOUNTED	TO BE IN RESTROOMS - HOLD 4" MINIMUM OR MORE FROM BOTH SIDES OF WALLS DEPENDING ON AVAILABLE MIRROR SIZE.

VENDORS

SIGNAGE

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SLAT WALL

AAADISPLAYS

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NOTE: LINEAR FIXTURES HAVE 4 WEEK LEAD TIME. G.C. TO ORDER LIGHTING FIXTURES THROUGH SOLIDCORE'S CED NATIONAL ACCOUNT - SEE VENDOR LIST BELOW.

ALL OUTLETS, DEVICES, SWITCH PLATES, COVER PLATES, ETC. TO BE BLACK, U.N.O.

zebra
ZEBRA ARCHITECTURE, PLLC.
14614 N KIERLAND BLVD., SUITE N300
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STORE NO.:

solidcore
THE SHOPPES AT ENGLISH VILLAGE
1460 BETHLEHEM PIKE, SUITE 150,
NORTH WALES, PA 19454

REVISIONS

		DESCRIPTION
1	06/01/26	PERMIT SET

STATUS:
PERMIT SET

FIELD VERIFICATION:
The Contractor shall verify all figured dimensions and conditions at the project site and notify Zebra Architecture, PLLC of any dimensional errors, omissions or discrepancies before beginning or fabricating any work. Do not scale these drawings.

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SHEET NAME:
SCHEDULES

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: JB
SCALE: AS NOTED

SHEET NO.:
A601

DIVISION 4 - MASONRY - cont.

SECTION 04200 (cont'd)

UNIT MASONRY

C. STAIN PREVENTION: PREVENT GROUT, MORTAR, AND SOIL FROM STAINING THE FACE OF MASONRY TO BE LEFT EXPOSED OR PAINTED. IMMEDIATELY REMOVE GROUT, MORTAR, AND SOIL THAT COME IN CONTACT WITH SUCH MASONRY.

1. PROTECT BASE OF WALLS FROM RAIN-SPLASHED MUD AND FROM MORTAR SPLATTER BY SPREADING COVERINGS ON GROUND AND OVER WALL SURFACE.
2. PROTECT SILLS, LEDGES, AND PROJECTIONS FROM MORTAR DROPPINGS.
3. PROTECT SURFACES OF WINDOW AND DOOR FRAMES, AS WELL AS SIMILAR PRODUCTS WITH PAINTED AND INTEGRAL FINISHES, FROM MORTAR DROPPINGS.
4. TURN SCAFFOLD BOARDS NEAR THE WALL ON EDGE AT THE END OF EACH DAY TO PREVENT RAIN FROM SPLASHING MORTAR AND DIRT ONTO COMPLETED MASONRY.

D. COLD-WEATHER REQUIREMENTS: DO NOT USE FROZEN MATERIALS OR MATERIALS MIXED OR COATED WITH ICE OR FROST. DO NOT BUILD ON FROZEN SUBSTRATES. REMOVE AND REPLACE UNIT MASONRY DAMAGED BY FROST OR BY FREEZING CONDITIONS. COMPLY WITH COLD-WEATHER CONSTRUCTION REQUIREMENTS CONTAINED IN ACI 530.1/ASCE 6/TMS 602.

E. HOT-WEATHER REQUIREMENTS: COMPLY WITH HOT-WEATHER CONSTRUCTION REQUIREMENTS CONTAINED IN ACI 530.1/ASCE 6/TMS 602.

2.1 MASONRY UNITS, GENERAL

A. DEFECTIVE UNITS: REFERENCED MASONRY UNIT STANDARDS MAY ALLOW A CERTAIN PERCENTAGE OF UNITS TO CONTAIN CHIPS, CRACKS, OR OTHER DEFECTS EXCEEDING LIMITS STATED IN THE STANDARD. DO NOT USE UNITS WHERE SUCH DEFECTS WILL BE EXPOSED IN THE COMPLETED WORK.

B. FIRE-RESISTANCE RATINGS: WHERE INDICATED, PROVIDE UNITS THAT COMPLY WITH REQUIREMENTS FOR FIRE-RESISTANCE RATINGS INDICATED AS DETERMINED BY TESTING ACCORDING TO ASTM E 119, BY EQUIVALENT MASONRY THICKNESS, OR BY OTHER MEANS, AS ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.

2.2 CONCRETE MASONRY UNITS

A. REGIONAL MATERIALS: CMUS SHALL BE MANUFACTURED WITHIN 500 MILES (800 KM) OF PROJECT SITE FROM AGGREGATES AND CEMENT THAT HAVE BEEN EXTRACTED, HARVESTED, OR RECOVERED, AS WELL AS MANUFACTURED, WITHIN 500 MILES (800 KM) OF PROJECT SITE.

B. SHAPES: PROVIDE SHAPES INDICATED AND AS FOLLOWS, WITH EXPOSED SURFACES MATCHING EXPOSED FACES OF ADJACENT UNITS UNLESS OTHERWISE INDICATED.

1. PROVIDE SPECIAL SHAPES FOR LINTELS, CORNERS, JAMBS, SASHES, MOVEMENT JOINTS, HEADERS, BONDING, AND OTHER SPECIAL CONDITIONS.
2. PROVIDE SQUARE-EDGED UNITS FOR OUTSIDE CORNERS UNLESS OTHERWISE INDICATED.

C. INTEGRAL WATER REPELLENT: PROVIDE UNITS MADE WITH INTEGRAL WATER REPELLENT WHERE INDICATED.

1. INTEGRAL WATER REPELLENT: LIQUID POLYMERIC, INTEGRAL WATER-REPELLENT ADMIXTURE THAT DOES NOT REDUCE FLEXURAL BOND STRENGTH. UNITS MADE WITH INTEGRAL WATER REPELLENT, WHEN TESTED ACCORDING TO ASTM E 514 AS A WALL ASSEMBLY MADE WITH MORTAR CONTAINING INTEGRAL WATER-REPELLENT MANUFACTURER'S MORTAR ADDITIVE, WITH TEST PERIOD EXTENDED TO 24 HOURS, SHALL SHOW NO VISIBLE WATER OR LEAKS ON THE BACK OF TEST SPECIMEN.

2.3 CONCRETE AND MASONRY LINTELS

A. CONCRETE LINTELS: ASTM C 1623, MATCHING CMUS IN COLOR, TEXTURE, AND DENSITY CLASSIFICATION; AND WITH REINFORCING BARS INDICATED. PROVIDE LINTELS WITH NET-AREA COMPRESSIVE STRENGTH NOT LESS THAN CMUS.

B. MASONRY LINTELS: PREFABRICATED OR BUILT-IN-PLACE MASONRY LINTELS MADE FROM BOND BEAM CMUS WITH REINFORCING BARS PLACED AS INDICATED AND FILLED WITH COARSE GROUT. CURE PRECAST LINTELS BEFORE HANDLING AND INSTALLING. TEMPORARILY SUPPORT BUILT-IN-PLACE LINTELS UNTIL CURED.

2.4 BRICK

A. ALL BRICK, INCLUDING FACE BRICK, SHALL BE REUSED SALVAGED BRICK.

2.5 MORTAR AND GROUT MATERIALS

A. REGIONAL MATERIALS: AGGREGATE FOR MORTAR AND GROUT SHALL BE EXTRACTED, HARVESTED, OR RECOVERED, AS WELL AS MANUFACTURED, WITHIN 500 MILES (800 KM) OF PROJECT SITE.

B. PORTLAND CEMENT: ASTM C 150, TYPE I OR II, EXCEPT TYPE III MAY BE USED FOR COLD-WEATHER CONSTRUCTION. PROVIDE NATURAL COLOR OR WHITE CEMENT AS REQUIRED TO PRODUCE MORTAR COLOR INDICATED.

C. HYDRATED LIME: ASTM C 207, TYPE S.

D. MORTAR CEMENT: ASTM C 1329.

E. COLD-WEATHER ADMIXTURE: NON-CHLORIDE, NON-CORROSIVE, ACCELERATING ADMIXTURE COMPLYING WITH ASTM C 494/C 494M, TYPE C, AND RECOMMENDED BY MANUFACTURER FOR USE IN MASONRY MORTAR OF COMPOSITION INDICATED.

F. WATER-REPELLENT ADMIXTURE: LIQUID WATER-REPELLENT MORTAR ADMIXTURE INTENDED FOR USE WITH CMUS CONTAINING INTEGRAL WATER REPELLENT BY SAME MANUFACTURER.

N. WATER: POTABLE.

2.6 REINFORCEMENT

A. UNCOATED STEEL REINFORCING BARS: ASTM A 615/A 615M OR ASTM A 996/A 996M, GRADE 60 (GRADE 420).

B. MASONRY JOINT REINFORCEMENT, GENERAL: ASTM A 951/A 951M.

1. INTERIOR WALLS: HOT-DIP GALVANIZED, CARBON STEEL.
2. EXTERIOR WALLS: STAINLESS STEEL.
3. WIRE SIZE FOR SIDE RODS: 0.187-INCH (4.76-MM) DIAMETER.

DIVISION 4 - MASONRY - cont.

SECTION 04200 (cont'd)

UNIT MASONRY

4. WIRE SIZE FOR CROSS RODS: 0.187-INCH (4.76-MM) DIAMETER.
5. WIRE SIZE FOR VENEER TIES: 0.187-INCH (4.76-MM) DIAMETER.
6. SPACING OF CROSS RODS, TABS, AND CROSS TIES: NOT MORE THAN 16 INCHES (407 MM) O.C.
7. PROVIDE IN LENGTHS OF NOT LESS THAN 10 FEET (3 M), WITH PREFABRICATED CORNER AND TEE UNITS.

C. MASONRY JOINT REINFORCEMENT FOR SINGLE-WYTHE MASONRY: EITHER LADDER OR TRUSS TYPE WITH SINGLE PAIR OF SIDE RODS.

2.7 EMBEDDED FLASHING MATERIALS

A. METAL FLASHING: PROVIDE METAL FLASHING COMPLYING WITH SMACNA'S "ARCHITECTURAL SHEET METAL MANUAL"

[DIVISION 07 SECTION "SHEET METAL FLASHING AND TRIM" AND AS FOLLOWS:

1. METAL DRIP EDGE: FABRICATE FROM STAINLESS STEEL. EXTEND AT LEAST 3 INCHES (76 MM) INTO WALL AND 1/2 INCH (13 MM) OUT FROM WALL, WITH OUTER EDGE BENT DOWN 30 DEGREES AND HEMMED.
2. METAL SEALANT STOP: FABRICATE FROM STAINLESS STEEL. EXTEND AT LEAST 3 INCHES (76 MM) INTO WALL AND OUT TO EXTERIOR FACE OF WALL. AT EXTERIOR FACE OF WALL, BEND METAL BACK ON ITSELF FOR 3/4 INCH (19 MM) AND DOWN INTO JOINT 1/4 INCH (6 MM) TO FORM A STOP FOR RETAINING SEALANT BACKER ROD.
3. METAL EXPANSION-JOINT STRIPS: FABRICATE FROM STAINLESS STEEL TO SHAPES INDICATED.

B. FLEXIBLE FLASHING: USE ONE OF THE FOLLOWING UNLESS OTHERWISE INDICATED:

1. COPPER-LAMINATED FLASHING: 7-OZ./SQ. FT. (2-KG/SQ. M) COPPER SHEET BONDED BETWEEN 2 LAYERS OF GLASS-FIBER CLOTH. USE ONLY WHERE FLASHING IS FULLY CONCEALED IN MASONRY.
2. RUBBERIZED-ASPHALT FLASHING: COMPOSITE FLASHING PRODUCT CONSISTING OF A PLIABLE, ADHESIVE RUBBERIZED-ASPHALT COMPOUND, BONDED TO A HIGH-DENSITY, CROSS-LAMINATED POLYETHYLENE FILM TO PRODUCE AN OVERALL THICKNESS OF NOT LESS THAN 0.040 INCH (1.02 MM).
3. ELASTOMERIC THERMOPLASTIC FLASHING: COMPOSITE FLASHING PRODUCT CONSISTING OF A POLYESTER-REINFORCED ETHYLENE INTERPOLYMER ALLOY.
4. EPDM FLASHING: SHEET FLASHING PRODUCT MADE FROM ETHYLENE-PROPYLENE-DIENE TERPOLYMER, COMPLYING WITH ASTM D 4637, 0.040 INCH (1.0 MM) THICK.

C. ADHESIVES, PRIMERS, AND SEAM TAPES FOR FLASHINGS: FLASHING MANUFACTURER'S STANDARD PRODUCTS OR PRODUCTS RECOMMENDED BY FLASHING MANUFACTURER FOR BONDING FLASHING SHEETS TO EACH OTHER AND TO SUBSTRATES.

2.8 MISCELLANEOUS MASONRY ACCESSORIES

A. COMPRESSIBLE FILLER: PREMOLDED FILLER STRIPS COMPLYING WITH ASTM D 1056, GRADE 2A1; COMPRESSIBLE UP TO 35 PERCENT; OF WIDTH AND THICKNESS INDICATED; FORMULATED FROM NEOPRENE, URETHANE OR PVC.

B. PREFORMED CONTROL-JOINT GASKETS: MADE FROM STYRENE-BUTADIENE -RUBBER COMPOUND, COMPLYING WITH ASTM D 2000, DESIGNATION M2AA-805 OR PVC, COMPLYING WITH ASTM D 2287, TYPE PVC-65406 AND DESIGNED TO FIT STANDARD SASH BLOCK AND MAINTAIN LATERAL STABILITY IN MASONRY WALL; SIZE AND CONFIGURATION AS INDICATED.

C. BOND-BREAKER STRIPS: ASPHALT-SATURATED, ORGANIC ROOFING FELT COMPLYING WITH ASTM D 226, TYPE I (NO. 15 ASPHALT FELT).

2.9 MASONRY-CELL INSULATION

A. LOOSE-GRANULAR FILL INSULATION: PERLITE COMPLYING WITH ASTM C 549, TYPE II (SURFACE TREATED FOR WATER REPELLANCY AND LIMITED MOISTURE ABSORPTION) OR TYPE IV (SURFACE TREATED FOR WATER REPELLANCY AND TO LIMIT DUST GENERATION).

B. MOLDED-POLYSTYRENE INSULATION UNITS: RIGID, CELLULAR THERMAL INSULATION FORMED BY THE EXPANSION OF POLYSTYRENE-RESIN BEADS OR GRANULES IN A CLOSED MOLD TO COMPLY WITH ASTM C 578, TYPE I. PROVIDE SPECIALLY SHAPED UNITS DESIGNED FOR INSTALLING IN CORES OF MASONRY UNITS.

DIVISION 5 - METALS

SECTION 05500

METAL FABRICATIONS

1.1 GENERAL

A. SUBMITTALS

1. SHOP DRAWINGS: SHOW FABRICATION AND INSTALLATION DETAILS FOR METAL FABRICATIONS.
   a. INCLUDE PLANS, ELEVATION, SECTIONS, AND DETAILS OF METAL FABRICATIONS AND THEIR CONNECTIONS. SHOW ANCHORAGE AND ACCESSORY ITEMS.
2. SAMPLES: FOR EACH TYPE AND FINISH.

B. PRODUCTS

1. METAL SURFACES, GENERAL: PROVIDE MATERIALS WITH SMOOTH, FLAT SURFACES WITHOUT BLEMISHES.
2. FERROUS METALS
   a. STEEL TUBING: ASTM A 500, COLD-FORMED STEEL TUBING.
   b. STEEL PIPE: ASTM A 53/A 53M, STANDARD WEIGHT (SCHEDULE 40) UNLESS OTHERWISE INDICATED.
   c. SLOTTED CHANNEL FRAMING: COLD-FORMED METAL BOX CHANNELS (STRUTS) COMPLYING WITH MFMA-
      i) SIZE OF CHANNELS: 1-5/8 BY 1-5/8 INCHES (41 BY 41MM).
      ii) MATERIAL: GALVANIZED STEEL, ASTM A 653/A 653M, WITH G90 (Z275) COATING; 0.079-INCH (2-MM) NOMINAL THICKNESS.

DIVISION 5 - METAL - cont.

SECTION 05500 (cont'd)

METAL FABRICATIONS

C. FABRICATION

1. SHOP ASSEMBLY: PREASSEMBLE ITEMS IN THE SHOP TO GREATEST EXTENT POSSIBLE. USE CONNECTIONS THAT MAINTAIN STRUCTURAL VALUE OF JOINED PIECES.
2. CUT, DRILL, AND PUNCH METALS CLEANLY AND ACCURATELY. REMOVE BURRS AND EASE EDGES. REMOVE SHARP OR ROUGH AREAS ON EXPOSED SURFACES.
3. WELD CORNERS AND SEAMS CONTINUOUSLY TO COMPLY WITH THE FOLLOWING:
   a. USE MATERIALS AND METHODS THAT MINIMIZE DISTORTION AND DEVELOP STRENGTH AND CORROSION RESISTANCE OF BASE METALS.
   b. OBTAIN FUSION WITHOUT UNDERCUT OR OVERLAP.
   c. REMOVE WELDING FLUX IMMEDIATELY.
   d. AT EXPOSED CONNECTIONS, FINISH EXPOSED WELDS AND SURFACES SMOOTH AND BLENDED.
4. FORM EXPOSED CONNECTIONS WITH HAIRLINE JOINTS, FLUSH AND SMOOTH, USING CONCEALED FASTENERS OR WELDS WHERE POSSIBLE. LOCATE JOINTS WHERE LEAST CONSPICUOUS.
5. FABRICATE SEAMS AND OTHER CONNECTIONS THAT WILL BE EXPOSED TO WEATHER IN A MANNER TO EXCLUDE WATER. PROVIDE WEEP HOLES WHERE WATER MAY ACCUMULATE.
6. WHERE UNITS ARE INDICATED TO BE CAST INTO CONCRETE OR BUILT INTO MASONRY, EQUIP WITH INTEGRALLY WELDED STEEL STRAP ANCHORS NOT LESS THAN 24 INCHES (600 MM) O.C.
7. MISCELLANEOUS FRAMING AND SUPPORTS
   a. GENERAL: PROVIDE STEEL FRAMING AND SUPPORTS NOT SPECIFIED IN OTHER SECTIONS AS NEEDED TO COMPLETE THE WORK.
   b. FABRICATE UNITS FROM STEEL SHAPES, PLATES AND BARS OF WELDED CONSTRUCTION UNLESS OTHERWISE INDICATED. FABRICATE TO SIZES, SHAPES, AND PROFILES INDICATED AND AS NECESSARY TO RECEIVE ADJACENT CONSTRUCTION.
   c. WHERE WOOD NAILERS ARE ATTACHED TO GIRDERS WITH BOLTS OR LAG SCREWS, DRILL OR PUNCH HOLES AT 24 INCHES (600 MM) O.C.
8. MISCELLANEOUS STEEL TRIM
   a. UNLESS OTHERWISE INDICATED, FABRICATE UNITS FROM STEEL SHAPES, PLATES, AND BARS OF PROFILES SHOWN WITH CONTINUOUSLY WELDED JOINTS AND SMOOTH EXPOSED EDGES. MITER CORNERSAND USE CONCEALED FIELD SPLICES WHERE POSSIBLE.
   b. PROVIDE CUTOUTS, FITTINGS, AND ANCHORAGES AS NEEDED TO COORDINATE ASSEMBLY AND INSTALLATION WITH OTHER WORK.
   c. PRIME EXTERIOR MISCELLANEOUS STEEL TRIM WITH ZINC-RICH PRIMER.

D. STEEL AND IRON FINISHES

1. GALVANIZING: HOT-DIP GALVANIZE ITEMS AS INDICATED TO COMPLY WITH ASTM A 153/A 153M FOR STEEL AND IRON HARDWARE AND WITH ASTM A 123/A 123M FOR OTHER STEEL AND IRON PRODUCTS.
2. SHOP PRIME IRON AND STEEL ITEMS NOT INDICATED TO BE GALVANIZED UNLESS THEY ARE TO BE EMBEDDED IN CONCRETE, SPRAYED-ON FIREPROOFING, OR MASONRY, OR UNLESS OTHERWISE INDICATED.

E. EXECUTION

1. INSTALLATION, GENERAL
   a. CUTTING, FITTING, AND PLACEMENT: PERFORM CUTTING, DRILLING, AND FITTING REQUIRED FOR INSTALLING METAL FABRICATIONS. SET METAL FABRICATIONS ACCURATELY IN LOCATION, ALIGNMENT, AND ELEVATION; WITH EDGES AND SURFACES LEVEL, PLUMB, TRUE, AND FREE OF RACK; AND MEASURED FROM ESTABLISHED LINES AND LEVELS.
   b. FIT EXPOSED CONNECTIONS ACCURATELY TOGETHER TO FORM HAIRLINE JOINTS. WELD CONNECTIONS THAT ARE NOT TO BE LEFT AS EXPOSED JOINTS BUT CANNOT BE SHOP WELDED BECAUSE OF SHIPPING SIZE LIMITATIONS. DO NOT WELD, CUT, OR ABRADE SURFACES OF EXTERIOR UNITS THAT HAVE BEEN HOT-DIP GALVANIZED AFTER FABRICATION AND ARE FOR BOLTED OR SCREWED FIELD CONNECTIONS.
   c. FIELD WELDING: COMPLY WITH THE FOLLOWING REQUIREMENTS:
      i) USE MATERIALS AND METHODS THAT MINIMIZE DISTORTION AND DEVELOP STRENGTH AND CORROSION RESISTANCE OF BASE METALS.
      ii) OBTAIN FUSION WITHOUT UNDERCUT OR OVERLAP.
      iii) REMOVE WELDING FLUX IMMEDIATELY.
      iv) AT EXPOSED CONNECTIONS, FINISH EXPOSED WELDS AND SURFACES SMOOTH AND BLENDED.
   d. FASTENING TO IN-PLACE CONSTRUCTION: PROVIDE ANCHORAGE DEVICES AND FASTENERS WHERE METAL FABRICATIONS ARE REQUIRED TO BE FASTENED TO IN-PLACE CONSTRUCTION.
2. ADJUSTING AND CLEANING
   a. TOUCH UP PAINTING: IMMEDIATELY AFTER ERECTION, CLEAN FIELD WELDS, BOLTED CONNECTIONS, AND ABRADED AREAS. PAINT UNCOATED AND ABRADED AREAS WITH THE SAME MATERIALS AS USED FOR SHOP PAINTING TO COMPLY WITH SSPC-PA 1 FOR TOUCHING UP SHOP-PAINTED SURFACES.
   b. GALVANIZED SURFACES: CLEAN FIELD WELDS, BOLTED CONNECTIONS, AND ABRADED AREAS AND REPAIR GALVANIZING TO COMPLY WITH ASTM A 780.

DIVISION 6 - WOODS AND PLASTICS

SECTION 06100

ROUGH CARPENTRY

1.1 GENERAL

A. SUBMITTALS: NONE REQ'D

B. PRODUCTS

1. LUMBER: DOC PS 20 AND APPLICABLE RULES OF GRADING AGENCIES INDICATED. IF NO GRADING AGENCY IS INDICATED, PROVIDE LUMBER THAT COMPLIES WITH THE APPLICABLE RULES OF ANY RULES-WRITING AGENCY CERTIFIED BY THE ALSC BOARD OF REVIEW. PROVIDE LUMBER GRADED BY AN AGENCY CERTIFIED BY THE ALSC BOARD OF REVIEW TO INSPECT AND GRADE LUMBER UNDER THE RULES INDICATED.
2. USE INTERIOR TYPE A FIRE-RETARDANT-TREATED MATERIAL FOR CONCEALED BLOCKING IN WALLS, AND FRAMING FOR RAISED PLATFORMS. FOR EXPOSED ITEMS INDICATED TO RECEIVE A STAINED OR NATURAL FINISH, USE CHEMICAL FORMULATIONS THAT DO NOT BLEED THROUGH, CONTAIN COLORANTS, OR OTHERWISE ADVERSELY
3. PROVIDE MISCELLANEOUS LUMBER INDICATED AND LUMBER FOR SUPPORT OR ATTACHMENT OF OTHER CONSTRUCTION, INCLUDING BLOCKING, NAILERS, GROUNDS.
4. PLYWOOD BACKING PANELS AT TELEPHONE AND ELECTRICAL EQUIPMENT BACKING PANELS: DOC PS 1, EXTERIOR, AC FIRE-RETARDANT TREATED, IN THICKNESS INDICATED OR, IF NOT INDICATED, NOT LESS THAN 3/4-INCH (19-MM) NOMINAL THICKNESS.

C. INSTALLATION, GENERAL

1. PROVIDE BLOCKING AND FRAMING AS INDICATED AND AS REQUIRED TO SUPPORT FACING MATERIALS, FIXTURES AND SPECIALTY ITEMS.
2. PROVIDE FIRE BLOCKING IN FURRED SPACES, STUD SPACES, AND OTHER CONCEALED CAVITIES AS INDICATED AND AS REQUIRED BY CODE.

SECTION 06200

FINISH CARPENTRY

1.1 GENERAL

A. SUBMITTALS:

1. SHOP DRAWINGS AND HARDWARE CATALOG CUTS OF ALL MILLWORK HARDWARE FOR REVIEW BY THE ARCHITECT IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. SHOP DRAWINGS SHALL SHOW THE DESIGN AND DIMENSIONS, AND CLEARLY INDICATE IN LARGE SCALE THE CONSTRUCTION OF THE VARIOUS COMPONENTS, REINFORCEMENTS, AND ALL OTHER PERTINENT DATA AND INFORMATION AS REQUIRED FOR CONSTRUCTION. ANY VARIATION FROM THE DRAWINGS MUST BE CLEARLY NOTED AS A VARIATION FROM THE REQUIREMENTS. FABRICATION OF MILLWORK SHALL NOT PROCEED UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED BY THE ARCHITECT.
2. THREE (3) 8" X 10" SAMPLES OF ALL MILLWORK FINISHES (INCLUDING SOLID SURFACE AND METAL) FOR APPROVAL. THE ARCHITECT SHALL RETAIN TWO (2) SAMPLES OF FINISHES FOR RECORD AND RETURN A MINIMUM OF ONE SAMPLE TO CONTRACTOR. IN CIRCUMSTANCES AS APPROPRIATE, SIZE OF SAMPLES MAY BE REDUCED IF REQUESTED IN WRITING BY CONTRACTOR AND APPROVED BY ARCHITECT PRIOR TO SUBMISSION. FINISHING OF MILLWORK SHALL NOT PROCEED UNTIL SAMPLES HAVE BEEN REVIEWED.
3. THE CONTRACTOR SHALL PROVIDE THE ARCHITECT WITH ANTICIPATED DELIVERY DATE FOR ALL MILLWORK. THE CONTRACTOR SHALL CONTINUE TO MONITOR IN WRITING THE ANTICIPATED DELIVERY DATES UNTIL ALL FINISH MATERIALS HAVE BEEN RECEIVED.

B. VERIFICATION OF EXISTING CONDITIONS:

1. BEFORE PROCEEDING WITH THE MILLWORK, THE CONTRACTOR IS TO OBTAIN FIELD MEASUREMENTS, VERIFY DIMENSIONS, AND PROVIDE SHOP DRAWINGS AND DETAILS TO ENSURE AN ACCURATE FIT. ANY VARIANCE FOUND IN THE FIELD MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO FABRICATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE MILLWORK SUBCONTRACTOR ANY REVISIONS OR CLARIFICATIONS ISSUED BY THE ARCHITECT.
2. THE CONTRACTOR SHALL PROVIDE FIELD LAYOUT OF ALL WORK AND REPORT ANY DISCREPANCIES TO THE ARCHITECT.

C. PRODUCTS:

1. FINISH MATERIALS:
   a. WOOD SPECIES AND CUT FOR TRANSPARENT FINISH AS INDICATED ON FINISH SCHEDULE.
   b. WOOD SPECIES FOR OPAQUE FINISH: ANY CLOSED-GRAIN HARDWOOD.
   c. HIGH-PRESSURE DECORATIVE LAMINATE AS INDICATED ON FINISH SCHEDULE.
2. WOOD PRODUCTS:
   a. RECYCLED CONTENT OF MEDIUM-DENSITY FIBERBOARD AND PARTICLE BOARD: PROVIDE PRODUCTS WITH AN AVERAGE RECYCLED CONTENT SO POSTCONSUMER RECYCLED CONTENT PLUS ONE-HALF OF PRECONSUMER RECYCLED CONTENT IS NOT LESS THAN 30 PERCENT.
   b. HARDBOARD: AHA A135.4.
   c. MEDIUM-DENSITY FIBERBOARD: ANSI A208.2, GRADE MD, MADE WITH BINDER CONTAINING NO UREA FORMALDEHYDE.
   d. SOFTWOOD PLYWOOD: DOC PS 1, MEDIUM DENSITY OVERLAY.
   e. VENEER-FACED PANEL PRODUCTS (HARDWOOD PLYWOOD): HPVA HP-1, MADE WITH ADHESIVE CONTAINING NO UREA FORMALDEHYDE.
3. CABINET HARDWARE AND ACCESSORIES
   a. GENERAL: PROVIDE CABINET HARDWARE AND ACCESSORY MATERIALS ASSOCIATED WITH ARCHITECTURAL WOODWORK, EXCEPT FOR ITEMS SPECIFIED IN DIVISION 8 SECTION "DOOR HARDWARE (SCHEDULED BY DESCRIBING PRODUCTS)."

DIVISION 6 - WOODS AND PLASTICS - cont.

SECTION 06200 (cont'd)

FINISH CARPENTRY

   b. FRAMELESS CONCEALED HINGES (EUROPEAN TYPE): BHMA A156.9, B01602, 170 DEGREES OF OPENING, SELF-CLOSING.
   c. BACK-MOUNTED PULLS: DOUG MOCKETT DP3B BACK-MOUNTED PULLS OR APPROVED EQUAL
   d. DRAWER SLIDES: BHMA A156.9, B05091.
      i) STANDARD DUTY (GRADE 1, GRADE 2, AND GRADE 3): SIDE MOUNTED AND EXTENDING UNDER BOTTOM EDGE OF DRAWER; FULL-EXTENSION TYPE; ZINC-PLATED STEEL WITH POLYMER ROLLERS
      ii) BOX DRAWER SLIDES: GRADE 1; FOR DRAWERS NOT MORE THAN 6 INCHES (150 MM) HIGH AND 24 INCHES (600 MM) WIDE.
      iii) PENCIL DRAWER SLIDES: GRADE 1; FOR DRAWERS NOT MORE THAN 3 INCHES (75 MM) HIGH AND 24 INCHES (600 MM) WIDE.
   e. DOOR LOCKS: BHMA A156.11, E07121.
   f. DRAWER LOCKS: BHMA A156.11, E07041.
   g. EXPOSED HARDWARE FINISHES: BRIGHT CHROMIUM PLATED (BHMA 625 OR BHMA 651) UNLESS NOTED OTHERWISE ON DRAWINGS.

D. EXECUTION OF THE WORK:

1. THE METHOD OF MANUFACTURING, FABRICATING AND INSTALLING MILLWORK AND EQUIPMENT AND ITS STRUCTURAL COMPONENTS DEFINED IN THE CONTRACT DOCUMENTS IS REPRESENTATIVE AND INDICATES DESIGN INTENT ONLY. IF THE MATERIALS, DETAILS OR DIMENSIONAL PROPERTIES ARE AT VARIANCE WITH THE CONTRACTOR'S OR MANUFACTURER'S RECOMMENDATIONS, ALTERNATE DETAILS WILL BE CONSIDERED FOR REVIEW WHEN SHOP DRAWINGS ARE SUBMITTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO GUARANTEE THAT THE MILLWORK AND EQUIPMENT WILL HAVE PROPER SUPPORT, STABILITY, AND FAULT-FREE PERFORMANCE. ALL WORK SHALL CONFORM TO ARCHITECTURAL WOODWORK INSTITUTE (AWI) STANDARDS FOR PREMIUM CONSTRUCTION.
2. IT IS THE INTENT OF THE ARCHITECT THAT THE HARDWARE REPRESENTS THE HIGHEST QUALITY AND LASTING DURABILITY FOR ITS SPECIFIC FUNCTION. IF, IN THE OPINION OF THE CONTRACTOR, THE HARDWARE INDICATED ON THE DRAWINGS DOES NOT REPRESENT THE ABOVE-STATED INTENT, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING WITH STATED REASONS AND PROPOSED SUBSTITUTIONS.
3. MILLWORK INDICATED TO HAVE TRANSPARENT FINISHES SHALL BE CONSTRUCTED ACCORDING TO AWI STANDARDS FOR PREMIUM GRADE CONSTRUCTION.
4. MILLWORK COVERED IN WOOD VENEER OR PLASTIC LAMINATE SHALL BE FABRICATED AND ASSEMBLED BY SKILLED WORKMEN TO THE COMPLETE SATISFACTION OF THE ARCHITECT. REINFORCING AS REQUIRED TO ENSURE A RIGID AND SECURE ASSEMBLY SHALL BE PROVIDED, EVEN IF NOT DETAILED ON THE DRAWINGS. EXPOSED SURFACES SHALL BE FREE FROM DENTS, TOOL MARKS, WARPAGE, BUCKLE, GLUE AND OPEN JOINTS. ALL JOINT CORNERS AND MITER CONNECTIONS SHALL BE MADE TIGHTLY SO THAT THREADS ARE ENTIRELY CONCEALED. ALL EXPOSED LAMINATE JOINTS SHALL BE SHOWN ON SHOP DRAWINGS AND REVIEWED BY THE ARCHITECT.
5. FOR MILLWORK INDICATING PLASTIC LAMINATE EXTERIOR FINISHED SURFACES, PROVIDE GREY MELAMINE AS THE INTERIOR CABINET AND DRAWER SURFACE FINISH (UNLESS OTHERWISE NOTED IN THE DRAWINGS AND DETAILS).
6. INSTALL MILLWORK TO BE PLUMB, LEVEL, TRUE AND STRAIGHT WITH NO DISTORTIONS. SHIM AS REQUIRED USING CONCEALED SHIMS.
7. SCRIBE AND CUT WORK TO FIT ADJOINING WORK AND REFINISH CUT SURFACES OR REPAIR DAMAGED FINISH AT CUTS. PROVIDE CLEAR SEALANT AT ALL JOINTS.
8. ANCHOR MILLWORK TO BUILT-IN BLOCKING OR DIRECTLY ATTACH TO SUBSTRATE. SECURE TO GROUNDS, STRAPPING AND BLOCKING WITH COUNTER-SUNK, CONCEALED FASTENERS AND BLIND NAILING AS REQUIRED FOR A COMPLETE INSTALLATION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING CERTAIN THAT MILLWORK ITEMS ARE NOT DELIVERED UNTIL AREAS ARE SUFFICIENTLY DRY SO THAT THE MILLWORK WILL NOT BE DAMAGED BY EXCESSIVE CHANGES IN MOISTURE CONTENT. ALL DELIVERED UNITS SHALL MATCH THE FINAL APPROVED SHOP DRAWINGS AND SAMPLES. UNITS WHICH ARE MARRED, CHIPPED OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REPLACED AS DETERMINED BY THE ARCHITECT. UNITS SHALL BE PROTECTED DURING SHIPMENT AND INSTALLATION. AFTER INSTALLATION OF UNITS IN THEIR PROPER LOCATION, ALL PROTECTION SHALL BE REMOVED, AND ALL SURFACES THOROUGHLY CLEANED TO THE COMPLETE SATISFACTION OF THE ARCHITECT. SURFACES SHALL THEN BE RECOVERED AND PROTECTED.
10. REPAIR OR REPLACE DAMAGED OR DEFECTIVE MILLWORK WHEREVER DEEMED NECESSARY. IF MILLWORK CANNOT BE ADEQUATELY REPAIRED, IT SHALL BE REPLACED TO THE SATISFACTION OF THE ARCHITECT.
11. ALL STANDING AND RUNNING TRIM PIECES SHALL BE PLAIN SAWN HARDWOOD GRADE I LUMBER TO MEET AWI REQUIREMENTS FOR PREMIUM GRADE.

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REVISIONS

△		DESCRIPTION
	06/01/26	PERMIT SET

STATUS:
PERMIT SET

FIELD VERIFICATION:
The Contractor shall verify all figured dimensions and conditions at the project site and notify Zebra Architecture, PLLC. of any dimensional errors, omissions or discrepancies before beginning or fabricating any work. Do not scale these drawings.

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SHEET NAME:
SPECIFICATIONS

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: JB
SCALE: AS NOTED

SHEET NO.:
A700

DIVISION 6 - WOODS AND PLASTICS - cont.

SECTION 062013

EXTERIOR FINISH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 01 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.

1.2 SUMMARY

A. SECTION INCLUDES:

1. EXTERIOR DECKING.

B. RELATED REQUIREMENTS:

1. SECTION 055000 "METAL FABRICATIONS" FOR METAL SUPPORTS OF EXTERIOR BENCH SLATS.
2. SECTION 064013 "EXTERIOR ARCHITECTURAL WOODWORK" FOR EXTERIOR WOOD VENEER COMPOSITE PANEL ASSEMBLIES.

1.3 ACTION SUBMITTALS

A. PRODUCT DATA: FOR EACH TYPE OF PROCESS AND FACTORY-FABRICATED PRODUCT. INDICATE COMPONENT MATERIALS, DIMENSIONS, PROFILES, TEXTURES, AND COLORS AND INCLUDE CONSTRUCTION AND APPLICATION DETAILS.

1. INCLUDE DATA FOR WOOD-PRESERVATIVE TREATMENT FROM CHEMICAL-TREATMENT MANUFACTURER AND CERTIFICATION BY TREATING PLANT THAT TREATED MATERIALS COMPLY WITH REQUIREMENTS. INDICATE TYPE OF PRESERVATIVE USED AND NET AMOUNT OF PRESERVATIVE RETAINED. INCLUDE CHEMICAL-TREATMENT MANUFACTURER'S WRITTEN INSTRUCTIONS FOR FINISHING TREATED MATERIAL.
2. FOR PRODUCTS RECEIVING A WATERBORNE TREATMENT, INCLUDE STATEMENT THAT MOISTURE CONTENT OF TREATED MATERIALS WAS REDUCED BEFORE SHIPMENT TO PROJECT SITE TO LEVELS SPECIFIED.
3. INCLUDE COPIES OF WARRANTIES FROM CHEMICAL-TREATMENT MANUFACTURERS FOR EACH TYPE OF TREATMENT.

B. SAMPLES FOR INITIAL SELECTION: FOR EACH TYPE OF PRODUCT INVOLVING SELECTION OF COLORS, PROFILES, OR TEXTURES.

C. SAMPLES FOR VERIFICATION:

1. FOR EACH SPECIES AND CUT OF LUMBER AND PANEL PRODUCTS, WITH 1/2 OF EXPOSED SURFACE FINISHED; 50 SQ. IN. FOR LUMBER AND 8 BY 10 INCHES FOR PANELS.

1.4 INFORMATIONAL SUBMITTALS

A. COMPLIANCE CERTIFICATES:

1. FOR LUMBER THAT IS NOT MARKED WITH GRADE STAMP.
2. FOR PRESERVATIVE-TREATED WOOD THAT IS NOT MARKED WITH TREATMENT-QUALITY MARK.

B. EVALUATION REPORTS: FOR THE FOLLOWING, FROM ICC-ES:

1. WOOD-PRESERVATIVE-TREATED WOOD.

1.5 DELIVERY, STORAGE, AND HANDLING

A. STACK LUMBER, PLYWOOD, AND OTHER PANELS FLAT WITH SPACERS BETWEEN EACH BUNDLE TO PROVIDE AIR CIRCULATION. PROTECT MATERIALS FROM WEATHER BY COVERING WITH WATERPROOF SHEETING, SECURELY ANCHORED. PROVIDE FOR AIR CIRCULATION AROUND STACKS AND UNDER COVERINGS.

1.6 FIELD CONDITIONS

A. WEATHER LIMITATIONS: PROCEED WITH INSTALLATION ONLY WHEN EXISTING AND FORECAST WEATHER CONDITIONS PERMIT WORK TO BE PERFORMED AND AT LEAST ONE COAT OF SPECIFIED FINISH CAN BE APPLIED WITHOUT EXPOSURE TO RAIN, SNOW, OR DAMPNESS.

B. DO NOT INSTALL FINISH CARPENTRY MATERIALS THAT ARE WET, MOISTURE DAMAGED, OR MOLD DAMAGED.

1. INDICATIONS THAT MATERIALS ARE WET, OR MOISTURE DAMAGED INCLUDE, BUT ARE NOT LIMITED TO, DISCOLORATION, SAGGING, OR IRREGULAR SHAPE.
2. INDICATIONS THAT MATERIALS ARE MOLD DAMAGED INCLUDE, BUT ARE NOT LIMITED TO, FUZZY OR SPLOTCHY SURFACE CONTAMINATION AND DISCOLORATION.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. LUMBER: DOC PS 20.

B. FACTORY MARK EACH PIECE OF LUMBER WITH GRADE STAMP OF INSPECTION AGENCY INDICATING GRADE, SPECIES, MOISTURE CONTENT AT TIME OF SURFACING, AND MILL.

1. FOR EXPOSED LUMBER, MARK GRADE STAMP ON BACK OF EACH PIECE, OR OMIT GRADE STAMP AND PROVIDE CERTIFICATES OF GRADE COMPLIANCE ISSUED BY INSPECTION AGENCY.

2.2 DECKING

A. LUMBER FOR UNFINISHED APPLICATIONS:

1. SPECIES AND GRADE: IPE (TABEBUIA SPP.), HEARTWOOD, S-DRY OR KD, SELECT.
2. MOISTURE CONTENT: 12 PERCENT.
3. DRESSING: DRY.
4. FINGER JOINTING: NOT ALLOWED.
5. FACE SURFACE: SURFACED (SMOOTH).

2.3 MISCELLANEOUS MATERIALS

A. FASTENERS FOR BENCH SLATS: PROVIDE STAINLESS STEEL, HEX HEAD LAG SCREWS, MINIMUM 3/8-INCH THREAD SIZE AND IN SUFFICIENT LENGTH TO PENETRATE 1-INCH INTO WOOD BENCH SLAT.

2.4 FABRICATION

A. EASE EDGES OF LUMBER LESS THAN 1 INCH IN NOMINAL THICKNESS TO 1/8-INCH RADIUS AND EDGES OF LUMBER 1 INCH OR MORE IN NOMINAL THICKNESS TO 1/4-INCH RADIUS.

PART 3 - EXECUTION

3.1 EXAMINATION

A. EXAMINE SUBSTRATES, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS FOR INSTALLATION TOLERANCES

DIVISION 6 - WOODS AND PLASTICS - cont.

SECTION 062013 (cont'd)

EXTERIOR FINISH CARPENTRY

AND OTHER CONDITIONS AFFECTING PERFORMANCE.

B. EXAMINE FINISH CARPENTRY MATERIALS BEFORE INSTALLATION. REJECT MATERIALS THAT ARE WET, MOISTURE DAMAGED, AND MOLD DAMAGED.

C. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

3.2 PREPARATION

A. CLEAN SUBSTRATES OF PROJECTIONS AND SUBSTANCES DETRIMENTAL TO APPLICATION.

3.3 INSTALLATION, GENERAL

A. DO NOT USE MATERIALS THAT ARE UNSOUND, WARPED, IMPROPERLY TREATED OR FINISHED, INADEQUATELY SEASONED, OR TOO SMALL TO FABRICATE WITH PROPER JOINTING ARRANGEMENTS.

1. DO NOT USE MANUFACTURED UNITS WITH DEFECTIVE SURFACES, SIZES, OR PATTERNS.

B. INSTALL EXTERIOR FINISH CARPENTRY LEVEL, PLUMB, TRUE, AND ALIGNED WITH ADJACENT, MATERIALS. USE CONCEALED METAL WASHER SHIMS WHERE NECESSARY FOR ALIGNMENT.

1. SCRIBE AND CUT EXTERIOR FINISH CARPENTRY TO FIT ADJOINING WORK. REFINISH AND SEAL CUTS AS RECOMMENDED BY MANUFACTURER.
2. INSTALL TO TOLERANCE OF 1/8 INCH IN 96 INCHES FOR LEVEL AND PLUMB.

INSTALL ADJOINING EXTERIOR FINISH CARPENTRY WITH 1/32-INCH MAXIMUM

OFFSET FOR REVEAL INSTALLATION.

3. COORDINATE EXTERIOR FINISH CARPENTRY WITH MATERIALS AND SYSTEMS

IN OR ADJACENT TO IT.

C. COUNTERSINK FASTENERS, UNLESS OTHERWISE INDICATED.

3.4 ADJUSTING

A. REPLACE EXTERIOR FINISH CARPENTRY THAT IS DAMAGED OR DOES NOT COMPLY WITH REQUIREMENTS. EXTERIOR FINISH CARPENTRY MAY BE REPAIRED OR REFINISHED IF WORK COMPLIES WITH REQUIREMENTS AND SHOWS NO EVIDENCE OF REPAIR OR REFINISHING. ADJUST JOINERY FOR UNIFORM APPEARANCE.

3.5 CLEANING

A. CLEAN EXTERIOR FINISH CARPENTRY ON EXPOSED AND SEMI-EXPOSED SURFACES.

3.6 PROTECTION

A. PROTECT INSTALLED PRODUCTS FROM DAMAGE FROM WEATHER AND OTHER CAUSES DURING CONSTRUCTION.

B. REMOVE AND REPLACE FINISH CARPENTRY MATERIALS THAT ARE WET, MOISTURE DAMAGED, AND MOLD DAMAGED.

1. INDICATIONS THAT MATERIALS ARE WET OR MOISTURE DAMAGED INCLUDE, BUT ARE NOT LIMITED TO, DISCOLORATION, SAGGING, OR IRREGULAR SHAPE.
2. INDICATIONS THAT MATERIALS ARE MOLD DAMAGED INCLUDE, BUT ARE NOT LIMITED TO, FUZZY OR SPLOTCHY SURFACE CONTAMINATION AND DISCOLORATION.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION - cont.

SECTION 071416

COLD FLUID-APPLIED WATERPROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 01 SPECIFICATION SECTION, APPLY TO THIS SECTION.

1.2 SUMMARY

A. SECTION INCLUDES:

1. SINGLE-COMPONENT POLYURETHANE WATERPROOFING.

1.3 PERFORMANCE REQUIREMENTS

A. PROVIDE WATERPROOFING MEMBRANE ASSEMBLY THAT PREVENTS THE PASSAGE OF WATER.

1.4 ACTION SUBMITTALS

A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED. INCLUDE MANUFACTURER'S WRITTEN INSTRUCTIONS FOR EVALUATING, PREPARING, AND TREATING SUBSTRATE, TECHNICAL DATA, AND TESTED PHYSICAL AND PERFORMANCE PROPERTIES OF WATERPROOFING.

B. SHOP DRAWINGS: SHOW LOCATIONS AND EXTENT OF WATERPROOFING, INSULATION AND DRAINAGE PANEL. INCLUDE DETAILS FOR SUBSTRATE JOINTS AND CRACKS, SHEET FLASHINGS, PENETRATIONS, INSIDE AND OUTSIDE CORNERS, TIE-INS WITH ADJOINING WATERPROOFING, FLASHINGS AND OTHER TERMINATION CONDITIONS.

1. INCLUDE SETTING DRAWINGS SHOWING LAYOUT, SIZES, SECTIONS, PROFILES, AND JOINT DETAILS OF PEDESTAL-SUPPORTED CONCRETE PAVERS.
2. SHOW INSTALLATION DETAILS FOR TERMINATION CONDITIONS AT GRADE AND AT OTHER BARRIER ASSEMBLIES AND WATERPROOFING SYSTEMS.

C. SAMPLES: FOR THE FOLLOWING PRODUCTS:

1. FLASHING SHEET, 10 BY 8 INCHES.

1.5 INFORMATIONAL SUBMITTALS

A. QUALIFICATION DATA: FOR INSTALLER.

B. PRODUCT TEST REPORTS: FOR WATERPROOFING, BASED ON EVALUATION OF COMPREHENSIVE TESTS PERFORMED BY A QUALIFIED TESTING AGENCY.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION - cont.

SECTION 071416 (cont'd)

COLD FLUID-APPLIED WATERPROOFING

C. FIELD QUALITY-CONTROL REPORTS.

D. WARRANTY: SAMPLE OF SPECIAL WARRANTY.

1.6 QUALITY ASSURANCE

A. INSTALLER QUALIFICATIONS: A FIRM THAT IS ACCEPTABLE TO WATERPROOFING MANUFACTURER FOR INSTALLATION OF WATERPROOFING REQUIRED FOR THIS PROJECT.

1.7 DELIVERY, STORAGE, AND HANDLING

A. DELIVER LIQUID MATERIALS TO PROJECT SITE IN ORIGINAL CONTAINERS WITH SEALS UNBROKEN, LABELED WITH MANUFACTURER'S NAME, PRODUCT BRAND NAME AND TYPE, DATE OF MANUFACTURE, SHELF LIFE, AND DIRECTIONS FOR STORING AND MIXING WITH OTHER COMPONENTS.

B. STORE LIQUID MATERIALS IN THEIR ORIGINAL UNDAMAGED CONTAINERS IN A CLEAN, DRY, PROTECTED LOCATION AND WITHIN THE TEMPERATURE RANGE REQUIRED BY WATERPROOFING MANUFACTURER.

C. REMOVE AND REPLACE LIQUID MATERIALS THAT CANNOT BE APPLIED WITHIN THEIR STATED SHELF LIFE.

D. PROTECT STORED MATERIALS FROM DIRECT SUNLIGHT.

1.8 PROJECT CONDITIONS

A. ENVIRONMENTAL LIMITATIONS: APPLY WATERPROOFING WITHIN THE RANGE OF AMBIENT AND SUBSTRATE TEMPERATURES RECOMMENDED BY WATERPROOFING MANUFACTURER. DO NOT APPLY WATERPROOFING TO A DAMP OR WET SUBSTRATE, WHEN RELATIVE HUMIDITY EXCEEDS 85 PERCENT, OR WHEN TEMPERATURES ARE LESS THAN 5 DEG F ABOVE DEW POINT.

1. DO NOT APPLY WATERPROOFING IN SNOW, RAIN, FOG, MIST, OR WHEN SUCH WEATHER CONDITIONS ARE IMMINENT DURING APPLICATION AND CURING PERIOD.

B. MAINTAIN ADEQUATE VENTILATION DURING APPLICATION AND CURING OF WATERPROOFING MATERIALS.

PART 2 - PRODUCTS

2.1 WATERPROOFING MATERIALS, GENERAL

A. PROVIDE WATERPROOFING MATERIALS RECOMMENDED BY MANUFACTURER TO BE COMPATIBLE WITH ONE ANOTHER AND ABLE TO DEVELOP BOND TO SUBSTRATE UNDER CONDITIONS OF SERVICE AND APPLICATION, AS DEMONSTRATED BY WATERPROOFING MANUFACTURER BASED ON TESTING AND FIELD EXPERIENCE.

1. PRODUCT WATERPROOFING MATERIALS SUITABLE FOR APPLICATION TO VERTICAL, HORIZONTAL, AND SLOPED SUBSTRATES, AS APPLICABLE.
2. PROVIDE WATERPROOFING MATERIALS WITH NOT LESS THAN 90 PERCENT SOLIDS.

2.2 SINGLE COMPONENT POLYURETHANE WATERPROOFING

A. SINGLE-COMPONENT MODIFIED POLYURETHANE WATERPROOFING: COMPLY WITH ASTM C 836 AND WITH MANUFACTURER'S WRITTEN PHYSICAL REQUIREMENTS.

1. PRODUCTS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS AVAILABLE PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
   a. CARLISLE COATINGS & WATERPROOFING INC.; CCW-525.
   b. CETCO; LDC 60.
   c. TREMCO INCORPORATED; TREMPROOF 60.

2.3 AUXILIARY MATERIALS

A. GENERAL: PROVIDE AUXILIARY MATERIALS RECOMMENDED BY MANUFACTURER TO BE COMPATIBLE WITH ONE ANOTHER AND WITH WATERPROOFING, AS DEMONSTRATED BY WATERPROOFING MANUFACTURER, BASED ON TESTING AND FIELD EXPERIENCE.

B. PRIMER: MANUFACTURER'S STANDARD, FACTORY-FORMULATED POLYURETHANE OR EPOXY PRIMER.

C. SHEET FLASHING: 50-MIL-MINIMUM, NONSTAINING, UNCURED SHEET NEOPRENE.

1. ADHESIVE: MANUFACTURER'S RECOMMENDED CONTACT ADHESIVE.

D. JOINT REINFORCING STRIP: MANUFACTURER'S RECOMMENDED FIBERGLASS MESH OR POLYESTER FABRIC.

E. JOINT SEALANT: MULTI-COMPONENT POLYURETHANE SEALANT, COMPATIBLE WITH WATERPROOFING, COMPLYING WITH ASTM C 920 TYPE M, CLASS 25; GRADE NS FOR SLOPING AND VERTICAL APPLICATIONS OR GRADE P FOR DECK APPLICATIONS; USE NT EXPOSURE; AND AS RECOMMENDED BY MANUFACTURER FOR SUBSTRATE AND JOINT CONDITIONS.

1. BACKER ROD: CLOSED-CELL POLYETHYLENE FOAM.

2.4 PROTECTIONS COURSE

A. PROTECTION COURSE: ASTM D 6506, SEMI RIGID SHEETS OF FIBERGLASS OR MINERAL-REINFORCED-ASPHALTIC CORE, PRESSURE LAMINATED BETWEEN TWO ASPHALT-SATURATED FIBROUS LINERS AND AS FOLLOWS:

1. THICKNESS: 1/8 INCH, NOMINAL, FOR VERTICAL APPLICATIONS; 1/4 INCH, NOMINAL, ELSEWHERE.
2. ADHESIVE: RUBBER-BASED SOLVENT TYPE RECOMMENDED BY WATERPROOFING MANUFACTURER FOR TYPE OF PROTECTION COURSE.

PART 3 - EXECUTION

3.1 SURFACE PREPARATION

A. CLEAN AND PREPARE SUBSTRATE ACCORDING TO MANUFACTURER'S WRITTEN RECOMMENDATIONS. PROVIDE CLEAN, DUST-FREE, AND DRY SUBSTRATE FOR WATERPROOFING APPLICATION.

B. MASK OFF ADJOINING SURFACES NOT RECEIVING WATERPROOFING TO PREVENT SPILLAGE OR OVER SPRAY AFFECTING OTHER CONSTRUCTION.

C. CLOSE OFF DECK DRAINS AND OTHER DECK PENETRATIONS TO PREVENT SPILLAGE AND MIGRATION OF WATERPROOFING FLUIDS.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION - cont.

SECTION 071416 (cont'd)

COLD FLUID-APPLIED WATERPROOFING

D. REMOVE GREASE, OIL, BITUMEN, FORM-RELEASE AGENTS, PAINTS, CURING COMPOUND, ACID RESIDUES, AND OTHER PENETRATING CONTAMINANTS OR FILM-FORMING COATINGS FROM CONCRETE.

E. REMOVE FINS, RIDGES, AND OTHER PROJECTIONS AND FILL HONEYCOMB, AGGREGATE POCKETS, AND OTHER VOIDS.

3.2 PREPARATION AT TERMINATIONS AND PENETRATIONS

A. PREPARE VERTICAL AND HORIZONTAL SURFACES AT TERMINATIONS AND PENETRATIONS THROUGH WATERPROOFING AND EXPANSION JOINTS, DRAINS, AND SLEEVES ACCORDING TO ASTM C 898, ASTM C 1470 AND MANUFACTURER'S WRITTEN INSTRUCTIONS.

B. PRIME SUBSTRATE UNLESS OTHERWISE INSTRUCTED BY WATERPROOFING MANUFACTURER.

C. APPLY WATERPROOFING IN TWO SEPARATE APPLICATIONS, AND EMBED A JOINT REINFORCING STRIP IN THE FIRST PREPARATION COAT WHEN RECOMMENDED BY WATERPROOFING MANUFACTURER.

1. PROVIDE SEALANT CANTS AROUND PENETRATIONS AND AT INSIDE CORNERS OF DECK-TO-WALL BUTT JOINTS WHEN RECOMMENDED BY WATERPROOFING MANUFACTURER.

3.3 JOINT AND CRACK TREATMENT

A. PREPARE, TREAT, ROUT, AND FILL JOINTS AND CRACKS IN SUBSTRATE ACCORDING TO ASTM C 898, ASTM C 1471 AND WATERPROOFING MANUFACTURER'S WRITTEN INSTRUCTIONS. REMOVE DUST AND DIRT FROM JOINTS AND CRACKS, COMPLYING WITH ASTM D 4258, BEFORE COATING SURFACES.

1. COMPLY WITH ASTM C 1193 FOR JOINT-SEALANT INSTALLATION.
2. APPLY BOND BREAKER BETWEEN SEALANT AND PREPARATION STRIP.
3. PRIME SUBSTRATE AND APPLY SINGLE THICKNESS OF PREPARATION STRIP EXTENDING A MINIMUM OF 3 INCHES ALONG EACH SIDE OF JOINT. APPLY WATERPROOFING IN TWO SEPARATE APPLICATIONS AND EMBED A JOINT REINFORCING STRIP IN THE FIRST PREPARATION COAT.

B. INSTALL SHEET FLASHING AND BOND TO DECK AND WALL SUBSTRATES WHERE INDICATED OR REQUIRED ACCORDING TO WATERPROOFING MANUFACTURER'S WRITTEN INSTRUCTIONS.

1. EXTEND SHEET FLASHINGS ONTO PERPENDICULAR SURFACES AND OTHER WORK PENETRATING SUBSTRATE ACCORDING TO ASTM C 898.

3.4 WATERPROOFING APPLICATION

A. APPLY WATERPROOFING ACCORDING TO ASTM C 898, ASTM C 1471 AND MANUFACTURER'S WRITTEN INSTRUCTIONS.

B. APPLY PRIMER OVER PREPARED SUBSTRATE.

C. UNREINFORCED WATERPROOFING APPLICATIONS: MIX MATERIALS AND APPLY WATERPROOFING BY SPRAY, ROLLER, NOTCHED SQUEEGEE, TROWEL, OR OTHER APPLICATION METHOD SUITABLE TO SLOPE OF SUBSTRATE.

1. APPLY ONE OR MORE COATS OF WATERPROOFING TO OBTAIN A SEAMLESS MEMBRANE FREE OF ENTRAPPED GASES, WITH AN AVERAGE DRY FILM THICKNESS OF 60 MILS AND A MINIMUM DRY FILM THICKNESS OF 50 MILS AT ANY POINT.
2. APPLY WATERPROOFING TO PREPARED WALL TERMINATIONS AND VERTICAL SURFACES.

D. INSTALL PROTECTION COURSE WITH BUTTED JOINTS OVER NOMINALLY CURED MEMBRANE BEFORE STARTING SUBSEQUENT CONSTRUCTION OPERATIONS.

3.5 CURING, PROTECTION, AND CLEANING

A. CURE WATERPROOFING ACCORDING TO MANUFACTURER'S WRITTEN RECOMMENDATIONS, TAKING CARE TO PREVENT CONTAMINATION AND DAMAGE DURING APPLICATION STAGES AND CURING.

1. DO NOT PERMIT FOOT OR VEHICULAR TRAFFIC ON UNPROTECTED MEMBRANE.

B. PROTECT WATERPROOFING FROM DAMAGE AND WEAR DURING REMAINDER OF CONSTRUCTION PERIOD.

C. CLEAN SPILLAGE AND SOILING FROM ADJACENT CONSTRUCTION USING CLEANING AGENTS AND PROCEDURES RECOMMENDED BY MANUFACTURER OF AFFECTED CONSTRUCTION.

SECTION 07240

FRESCO ® MICROCEMENT (EXTERIOR)

PART 1 - GENERAL

1.1 SUMMARY

A. THIS SECTION INCLUDES THE FOLLOWING:

1. FRESCO® MICROCEMENT SYSTEM.

B. RELATED SECTIONS INCLUDE THE FOLLOWING:

1. DIVISION 6 SECTION "<ROUGH CARPENTRY><MISCELLANEOUS CARPENTRY>" FOR METAL AND WOOD FRAMING FOR FRESCO® PLASTER ASSEMBLIES.
2. DIVISION 7 SECTION "EXTERIOR WALL ASSEMBLIES" FOR ACCEPTABLE SUBSTRATES, FRAMING AND OTHER COMPONENTS OF FRESCO® PLASTER ASSEMBLIES.

1.2 SUBMITTALS

A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED.

B. SAMPLES: THREE, 12-INCH BY 12-INCH FINISHED SAMPLES OF FRESCO® MICROCEMENT ON RIGID BACKING.

1.3 QUALITY ASSURANCE

A. INSTALLER QUALIFICATIONS: USE ONLY A TRAINED INSTALLER EMPLOYED BY THE MANUFACTURER, WHO HAS COMPLETED FRESCO® PLASTER INSTALLATIONS SIMILAR TO THOSE INDICATED FOR THIS PROJECT AND WHOSE WORK HAS RESULTED IN SUCCESSFUL IN-SERVICE PERFORMANCE FOR A MINIMUM OF 3 YEARS.

SECTION 07240

FRESCO ® MICROCEMENT (EXTERIOR)

B. FIRE-TEST-RESPONSE CHARACTERISTICS: PROVIDE FRESCO® PLASTER SYSTEMS WITH THE FOLLOWING SURFACE-BURNING CHARACTERISTICS AS DETERMINED BY TESTING IDENTICAL PRODUCTS PER ASTM E 84 BY UL OR ANOTHER TESTING AND INSPECTING AGENCY.

1. FLAME SPREAD: 25 OR LESS.
2. SMOKE DEVELOPED: 450 OR LESS.

C. WATER PERMEABILITY: PROVIDE FRESCO® PLASTER SYSTEMS THAT COMPLY WITH ASTM E 514 BY UL OR ANOTHER TESTING AND INSPECTING AGENCY.

1.4 DELIVERY, STORAGE, AND HANDLING

A. DELIVER MATERIALS IN ORIGINAL PACKAGES, CONTAINERS, OR BUNDLES BEARING BRAND NAME AND IDENTIFICATION OF MANUFACTURER OR SUPPLIER.

B. STORE MATERIALS INSIDE AT ROOM TEMPERATURE, AS CLOSE TO INSTALLATION CONDITIONS AS POSSIBLE. PROTECT AGAINST DAMAGE FROM WEATHER, DIRECT SUNLIGHT, AND FREEZING TEMPERATURES.

1.5 PROJECT CONDITIONS

A. AMBIENT TEMPERATURES: MAINTAIN NOT LESS THAN 45 DEG F OR MORE THAN 95 DEG F FOR 7 DAYS BEFORE APPLICATION OF FRESCO PLASTER, CONTINUOUSLY DURING APPLICATION, AND AFTER APPLICATION UNTIL FRESCO® PLASTER IS DRY.

B. LIGHTING: MAINTAIN A MINIMUM 60 FOOT-CANDLE ILLUMINATION OF WORK SURFACED BY EITHER PERMANENT OR TEMPORARY LIGHTING DURING DURATION OF FRESCO® PLASTER APPLICATION.

C. AVOID CONDITIONS THAT RESULT IN FRESCO® PLASTER DRYING TOO RAPIDLY.

1. DISTRIBUTE HEAT EVENLY; PREVENT CONCENTRATED OR UNEVEN HEAT ON FRESCO® PLASTER.
2. MAINTAIN RELATIVE HUMIDITY LEVELS FOR PREVAILING AMBIENT TEMPERATURE THAT PRODUCES NORMAL DRYING CONDITIONS.
3. VENTILATE BUILDING SPACES IN A MANNER THAT PREVENTS DRAFTS OF AIR FROM CONTACTING SURFACES DURING FRESCO® PLASTER APPLICATION AND UNTIL IT IS DRY.

1.6 WARRANTY

A. WARRANTY: MANUFACTURER AGREES TO REPLACE FRESCO® PLASTER THAT DOES NOT COMPLY WITH REQUIREMENTS OR THAT FAILS WITHIN SPECIFIED WARRANTY PERIOD. WARRANTY DOES NOT INCLUDE DETERIORATION OR FAILURE OF FRESCO® PLASTER DUE TO UNUSUAL TRAFFIC, FAILURE OF SUBSTRATE, VANDALISM, ABUSE, OR SEISMIC MOVEMENTS FOR A PERIOD OF TEN YEARS FROM DATE OF SUBSTANTIAL COMPLETION. WARRANTY IS CONTINGENT UPON PAYMENT IN FULL FOR WORK COMPLETED UNDER CONTRACT.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. MANUFACTURER: PROVIDE PRODUCTS BY NÄSS FRESCO® FINISHES, 301 RIDGE ROAD, BARRINGTON, IL 60010, (847) 277-1484.

B. SUBSTITUTIONS ARE NOT ALLOWED.

2.2 FRESCO® MICROCEMENT

A. PRODUCTS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE THE FOLLOWING:

1. NÄSS FRESCO® FINISHES; SAMPLE #TBD
2. FRESCO® MICROCEMENT TECHNIQUE

B. FRESCO® PLASTER: PROVIDE SEAMLESS, WITHOUT PATTERN, PROPRIETARY, TWO-COAT, PORTLAND CEMENT BASED FRESCO® MICROCEMENT SYSTEM DESIGNED TO BE A WASHABLE, DURABLE, FLEXIBLE FINISH TO WITHSTAND CRACKING AND TO COMPLY WITH THE FOLLOWING REQUIREMENTS:

1. PROTECTIVE FINISH: PROVIDE PROTECTIVE FINISH, WHERE APPLICABLE, AS DIRECTED BY MANUFACTURER.

2.3 PLASTER MIXES

A. BASE COAT: MECHANICALLY MIX PROPORTIONS OF BASE COAT MATERIAL, CEMENT PLASTER, AND COLORANT AS REQUIRED TO ACHIEVE INTEGRALLY COLORED SUBSTRATE AND COMPLY WITH FRESCO® PLASTER MANUFACTURER'S WRITTEN RECOMMENDATIONS.

B. OVERLAY COAT: MECHANICALLY MIX PROPORTIONS OF OVERLAY COAT MATERIAL, CEMENT PLASTER, AND COLORANT AS REQUIRED TO ACHIEVE INTEGRALLY COLORED FINISH SURFACE AND TO COMPLY WITH FRESCO® PLASTER MANUFACTURER'S WRITTEN RECOMMENDATIONS.

PART 3 - EXECUTION

3.1 EXAMINATION

A. EXAMINE AREAS AND SUBSTRATES, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS AND OTHER CONDITIONS AFFECTING PERFORMANCE. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

1. THE TENANT'S GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A GOOD QUALITY SUBSTRATE COMPRISING OF DENSGLASS® SHEATHING BY GEORGIA-PACIFIC MECHANICALLY FASTENED TO FRAMING MEMBERS.

A. THE SUBSTRATE IS TO INCLUDE THE FOLLOWING ACCESSORIES:

1. CORNER BEADS
   A. VINYL CORP (800) 648-4695
      I. PRODUCT #CB158E
   B. PLASTIC COMPONENTS (800) 327-7077
      I. PRODUCT #2209XL; #2209 IF XL VERSION UNAVAILABLE

zebra

ZEBRA ARCHITECTURE, PLLC.
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SCOTTSDALE, ARIZONA 85254
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STORE NO.:

Solebaro

THE SHOPPES AT ENGLISH VILLAGE
1460 BETHLEHEM PIKE, SUITE 150,
NORTH WALES, PA 19454

REVISIONS

△		DESCRIPTION
	06/01/26	PERMIT SET

STATUS:
PERMIT SET

FIELD VERIFICATION:
The Contractor shall verify all figured dimensions and conditions at the project site and notify Zebra Architecture, PLLC. of any dimensional errors, omissions or discrepancies before beginning or fabricating any work. Do not scale these drawings.

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SHEET NAME:
SPECIFICATIONS

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: JB
SCALE: AS NOTED

SHEET NO.:
A701

DIVISION 7 - THERMAL AND MOISTURE PROTECTION - cont.

SECTION 07240 (cont'd)

FRESCO ® MICROCEMENT (EXTERIOR)

2. EDGE TRIM BEADS
A. VINYL CORP (800) 648-4695
I. PRODUCT #SBL58E
B. PLASTIC COMPONENTS (800) 327-7077
I. PRODUCT #2221-58
3. CONTROL JOINTS – REQUIRED FOR EVERY 130-140 SQ. FT. WITH NO ONE SIDE BEING LONGER THAN 15 FT.
A. VINYL CORP (800) 648-4695
I. PRODUCT #CJV-16E
B. PLASTIC COMPONENTS (800) 327-7077
I. PRODUCT #2027-16

3.2 FRESCO® PLASTERING

A. FRESCO® PLASTER APPLICATION: COMPLY WITH FRESCO® PLASTER MANUFACTURER'S WRITTEN RECOMMENDATIONS. PRIOR TO BEGINNING INSTALLATION, PROTECT ADJACENT AREAS. WET TROWEL BY HAND IN DIFFERENT DIRECTIONS WITH VARYING DEGREES OF PRESSURE TO ACHIEVE THE DESIRED APPEARANCE. TROWEL SMOOTH AS REQUIRED TO MATCH SAMPLES APPROVED BY ARCHITECT.

B. B. REPAIR: REPAIR DAMAGED FRESCO® PLASTER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

SECTION 079200

JOINT SEALANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 01 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.

1.2 SUMMARY

A. SECTION INCLUDES:

1. SILICONE JOINT SEALANTS
2. URETHANE JOINT SEALANTS

1.3 PRECONSTRUTION TESTING

A. PRECONSTRUCTION FIELD-ADHESION TESTING: BEFORE INSTALLING SEALANTS, FIELD TEST THEIR ADHESION TO PROJECT JOINT SUBSTRATES AS FOLLOWS:

1. LOCATE TEST JOINTS WHERE INDICATED ON PROJECT OR, IF NOT INDICATED, AS DIRECTED BY ARCHITECT.
2. CONDUCT FIELD TESTS FOR EACH APPLICATION INDICATED BELOW:
   a. EACH KIND OF SEALANT AND JOINT SUBSTRATE INDICATED.
3. NOTIFY ARCHITECT THREE DAYS IN ADVANCE OF DATES AND TIMES WHEN TEST JOINTS WILL BE ERECTED.
   a. TEST METHOD: TEST JOINT SEALANTS ACCORDING TO METHOD A, FIELD-APPLIED SEALANT JOINT HAND PULL TAB, IN APPENDIX X1 IN ASTM C 1193 OR METHOD A, TAIL PROCEDURE, IN ASTM C 1521.
      i) FOR JOINTS WITH DISSIMILAR SUBSTRATES, VERIFY ADHESION TO EACH SUBSTRATE SEPARATELY; EXTEND CUT ALONG ONE SIDE, VERIFYING ASHESION TO OPPOSITE SIDE. REPEAT PROCEDURE FOR OPPOSITE SIDE.
4. REPORT WHETHER SEALANT FAILED TO ADHERE TO JOINT SUBSTRATES OR TORE COHESIVELY. INCLUDE DATA ON PULL DISTANCE USED TO TEST EACH KIND OF PRODUCT AND JOINT SUBSTRATE. FOR SEALANTS THAT FAIL ADHESIVELY, RETEST UNTIL SATISFACTORY ADHESION IS OBTAINED.
5. EVALUATION OF PRECONSTRUCTION FIELD-ADHESION-TEST RESULTS: SEALANTS NOT EVIDENCING ADHESIVE FAILURE FROM TESTING, IN ABSENCE OF OTHER INDICATIONS OF NONCOMPLIANCE WITH REQUIREMENTS, WILL BE CONSIDERED SATISFACTORY. DO NOT USE SEALANTS THAT FAIL TO ADHERE TO JOINT SUBSTRATES DURING TESTING.

1.4 ACTION SUBMITTALS

A. PRODUCT DATA: FOR EACH JOINT-SEALANT PRODUCT INDICATED.

B. SAMPLES FOR INITIAL SELECTION: MANUFACTURER'S COLOR CHARTS CONSISTING OF STRIPS OF CURED SEALANTS SHOWING THE FULL RANGE OF COLORS AVAILABLE FOR EACH PRODUCT EXPOSED TO VIEW.

C. SAMPLES FOR VERIFICATION: FOR EACH KIND AND COLOR OF JOINT SEALANT REQUIRED, PROVIDE SAMPLES WITH JOINT SEALANTS IN 1/2-INCH WIDE JOINTS FORMED BETWEEN TWO 6-INCH-LONG STRIPS OF MATERIAL MATCHING THE APPEARANCE OF EXPOSED SURFACES ADJACENT TO JOINT SEALANTS.

D. JOINT-SEALANT SCHEDULE: INCLUDE THE FOLLOWING INFORMATION:

1. JOINT-SEALANT APPLICATION, JOINT LOCATION, AND DESIGNATION.
2. JOINT-SEALANT MANUFACTURER AND PRODUCT NAME.
3. JOINT-SEALANT FORMULATION.
4. JOINT-SEALANT COLOR.

1.5 INFORMATIONAL SUBMITTALS

A. QUALIFICATION DATA: FOR QUALIFIED INSTALLER.

B. PRODUCT CERTIFICATES: FOR EACH KIND OF JOINT SEALANT AND ACCESSORY, FROM MANUFACTURER.

C. PRODUCT TEST REPORTS: BASED ON EVALUATION OF COMPREHENSIVE TESTS PERFORMED BY A QUALIFIED TESTING AGENCY, INDICATING THAT SEALANTS COMPLY WITH REQUIREMENTS.

D. PRE-CONSTRUCTION FIELD-ADHESION TEST REPORTS: INDICATE WHICH SEALANTS AND JOINT PREPARATION METHODS RESULTED IN OPTIMUM ADHESION TO JOINT SUBSTRATES BASED ON TESTING SPECIFIED IN "PRE-CONSTRUCTION TESTING" ARTICLE.

E. FIELD-ADHESION TEST REPORTS: FOR EACH SELANT APPLICATION TESTED.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION - cont.

SECTION 079200 (cont'd)

JOINT SEALANTS

1.6 QUALITY ASSURANCE

A. INSTALLER QUALIFICATIONS: MANUFACTURERR'S AUTHORIZED REPRESENTATIVE WHO IS TRAINED AND APPROVED FOR INSTALLATION OF UNITS REQUIRED FOR THIS PROJECT.

B. SOURCE LIMITATIONS: OBTAIN EACH KIND OF JOINT SEALANT FROM SINGLE SOURCE FROM SINGLE MANUFACTURER.

C. MOCKUPS: INSTALL SEALANT IN MOCKUPS OF ASSEMBLIES SPECIFIED IN OTHER SECTIONS THAT ARE INDICATED TO RECEIVE JOINT SEALANTS SPECIFIED IN THIS SECTION. USE MATERIALS AND INSTALLATION METHODS SPECIFIED IN THIS SECTION.

1.7 PROJECT CONDITIONS

A. DO NOT PROCEED WITH INSTALLATION OF JOINT SEALANTS UNDER THE FOLLOWING CONDITIONS:

1. WHEN AMBIENT AND SUBSTRATE TEMPERATURE CONDITIONS ARE OUTSIDE LIMITS PERMITTED BY JOINT-SEALANT MANUFACTURER OR ARE BELOW 40 DEG F.
2. WHEN JOINT SUBSTRATE ARE WET.
3. WHERE JOINT WIDTHS ARE LESS THAN THOSE ALLOWED BY JOINT-SEALANT MANUFACTURER FOR APPLICATIONS INDICATED.
4. WHERE CONTAMINANTS CAPABLE OF INTERFERING WITH ADHESION HAVE NOT YET BEEN REMOVED FROM JOINT SUBSTRATES.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. COMPATIBILITY: PROVIDE JOINT SEALANTS, BACKINGS, AND OTHER RELATED MATERIALS THAT ARE COMPATIBLE WITH ONE ANOTHER AND WITH JOINT SUBSTRATES UNDER CONDITIONS OF SERVICE AND APPLICATION, AS DEMONSTRATED BY JOINT-SEALANT MANUFACTURER, BASED ON TESTING AND FIELD EXPERIENCE.

B. STAIN-TEST-RESPONSE CHARACTERISTICS: WHERE SEALANTS ARE SPECIFIED TO BE NON-STAINING TO POROUS SUBSTRATES, PROVIDE PRODUCTS THAT HAVE UNDERGONE TESTING ACCORDING TO ASTM C 1248 AND HAVE NOT STRAINED POROUS JOINT SUBSTRATES INDICATED FOR PROJECT.

C. COLORS OF EXPOSED JOINT SEALANTS: AS SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE, FOR EACH APPLICATION AND SUBSTRATE.

2.2 SILICONE JOINT SEALANTS

A. SINGLE-COMPONENT, NON-SAG, NON-STAINING, NEUTRAL-CURING SILICONE JOINT SEALANT: ASTM C 920, TYPE S, GRADE NS, CLASS 50, FOR USE NT.

1. PRODUCTS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
   a. DOW CORNING CORPORATION; 795.
   b. GE SEALANTS; SILPRUF NB SCS9000.
   c. PECORA CORPORATION; 895 NST.
   d. TREMCO, SPECTRUM 3.

2.3 URETHANE JOINT SEALANTS

A. SINGLE-COMPONENT, POURABLE, TRAFFIC-GRADE, URETHANE JOINT SEALANT: ASTM C 920, TYPE S, GRADE P, CLASS 25, FOR USE T.

1. PRODUCTS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
   a. PECORA CORPORATION; UREXPAN NR-201.
   b. TREMCO INCORPORATED; VULKEM 45.

2.4 JOINT SEALANT BACKING

A. GENERAL: PROVIDE SEALANT BACKINGS OF MATERIAL THAT ARE NON-STAINING; ARE COMPATIBLE WITH JOINT SUBSTRATES, SEALANTS, PRIMERS, AND OTHER JOINT FILLERS; AND ARE APPROVED FOR APPLICATIONS INDICATED BY SEALANT MANUFACTURER BASED ON FIELD EXPERIENCE AND LABORATORY TESTING.

B. CYLINDRICAL SEALANT BACKINGS: ASTM C 1330, TYPE C (CLOSED-CELL MATERIAL WITH A SURFACE SKIN), AND OF SIZE AND DENSITY TO CONTROL SEALANT DEPTH AND OTHERWISE CONTRIBUTE TO PRODUCING OPTIMUM SEALANT PERFORMANCE.

C. CORK JOINT FILLER: RESILIENT AND NON-EXTRUDING, ASTM D1752, TYPE II AND AASHTO M 153, TYPE II.

2.5 MISCELLANEOUS MATERIAL

A. PRIMER: MATERIAL RECOMMENDED BY JOINT-SEALANT MANUFACTURER WHERE REQUIRED FOR ADHESION OF SEALANT TO JOINT SUBSTRATES INDICATED, AS DETERMINED FROM PRE-CONSTRUCTION JOINT-SEALANT-SUBSTRATE TESTS AND FIELD TESTS.

B. CLEANERS FOR NONPOROUS SURFACES: CHEMICAL CLEANERS ACCEPTABLE TO MANUFACTURERS OF SEALANTS AND SEALANT BACKING MATERIALS, FREE OF OILY RESIDUES OR OTHER SUBSTANCES CAPABLE OF STAINING OR HARMING JOINT SUBSTRATES AND ADJACENT NONPOROUS SURFACES IN ANY WAY, AND FORMULATED TO PROMOTE OPTIMUM ADHESION OF SEALANTS TO JOINT SUBSTRATES.

C. MASKING TAPE: NON-STAINING, NON-ABSORBENT MATERIAL COMPATIBLE WITH JOINT SEALANTS AND SURFACES ADJACENT TO JOINTS.

PART 3 - EXECUTION 3.1 EXAMINATION

A. EXAMINE JOINTS INDICATED TO RECEIVE JOINT SEALANTS, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS FOR JOINT CONFIGURATION, INSTALLATION TOLERANCES, AND OTHER CONDITIONS AFFECTING JOINT-SEALANT PERFORMANCE.

B. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

3.2 PREPARATION

A. SURFACE CLEANING OF JOINTS: CLEAN OUT JOINTS IMMEDIATELY BEFORE INSTALLING JOINT SEALANTS TO COMPLY WITH JOINT-SEALANT MANUFACTURER'S WRITTEN INSTRUCTIONS AND THE FOLLOWING REQUIREMENTS:

DIVISION 7 - THERMAL AND MOISTURE PROTECTION - cont.

SECTION 079200 (cont'd)

JOINT SEALANTS

1. REMOVE ALL FOREIGN MATERIAL FROM JOINT SUBSTRATES THAT COULD INTERFERE WITH ADHESION OF JOINT SEALANT, INCLUDING DUST, PAINTS (EXCEPT FOR PERMANENT, PROTECTIVE COATINGS TESTED AND APPROVED FOR SEALANT ADHESION AND COMPATIBILITY BY SEALANT MANUFACTURER), OLD JOINT SEALANTS, OIL, GREASE, WATERPROOFING, WATER REPELLENTS, WATER, SURFACE DIRT, AND FROST.
2. CLEAN POROUS JOINT SUBSTRATE SURFACES BY BRUSHING, GRINDING, MECHANICAL ABRADING, OR A COMBINATION OF THESE METHODS TO PRODUCE A CLEAN, SOUND SUBSTRATE CAPABLE OF DEVELOPING OPTIMUM BOND WITH JOINT SEALANTS. REMOVE LOOSE PARTICLES REMAINING AFTER CLEANING OPERATIONS ABOVE BY VACUUMING OR BLOWING OUT JOINTS WITH OIL-FREE COMPRESSED AIR. POROUS JOINT SUBSTRATES INCLUDE THE FOLLOWING:
   a. CONCRETE.
   b. MASONRY.
3. REMOVE LAITANCE AND FORM-RELEASE AGENTS FROM CONCRETE.
4. CLEAN NONPOROUS JOINT SUBSTRATE SURFACES WITH CHEMICAL CLEANERS OR OTHER MEANS THAT DO NOT STAIN, HARM SUBSTRATES, OR LEAVE RESIDUES CAPABLE OF INTERFERING WITH ADHESION OF JOINT SEALANTS. NONPOROUS JOINT SUBSTRATES INCLUDE THE FOLLOWING:
   a. METAL.

B. JOINT PRIMING: PRIME JOINT SUBSTRATES WHERE RECOMMENDED BY JOINT-SEALANT MANUFACTURER OR AS INDICATED BY PRE-CONSTRUCTION JOINT-SEALANT-SUBSTRATE TESTS OR PRIOR EXPERIENCE. APPLY PRIMER TO COMPLY WITH JOINT-SEALANT MANUFACTURER'S WRITTEN INSTRUCTIONS. CONFINE PRIMERS TO AREAS OF JOINT-SEALANT BOND; DO NOT ALLOW SPILLAGE OR MIGRATION ONTO ADJOINING SURFACES.

C. MASKING TAPE: USE MASKING TAPE WHERE REQUIRED TO PREVENT CONTACT OF SEALANT OR PRIMER WITH ADJOINING SURFACES THAT OTHERWISE WOULD BE PERMANENTLY STAINED OR DAMAGED BY SUCH CONTACT OR BY CLEANING METHODS REQUIRED TO REMOVE SEALANT SMEARS. REMOVE TAPE IMMEDIATELY AFTER TOOLING WITHOUT DISTURBING JOINT SEAL.

3.3 INSTALLATION OF JOINT SEALANTS

A. GENERAL: COMPLY WITH JOINT-SEALANT MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS FOR PRODUCT AND APPLICATIONS INDICATED, UNLESS MORE STRINGENT REQUIREMENTS APPLY.

B. SEALANT INSTALLATION STANDARD: COMPLY WITH RECOMMENDATIONS IN ASTM C 1193 FOR USE OF JOINT SEALANTS AS APPLICABLE TO MATERIALS, APPLICATIONS, AND CONDITIONS INDICATED.

C. INSTALL SEALANT BACKINGS OF KIND INDICATED TO SUPPORT SEALANTS DURING APPLICATION AND AT POSITION REQUIRED TO PRODUCE CROSS-SECTIONAL SHAPES AND DEPTHS OF INSTALLED SEALANTS RELATIVE TO JOINT WIDTHS THAT ALLOW OPTIMUM SEALANT MOVEMENT CAPABILITY.

1. DO NOT LEAVE GAPS BETWEEN ENDS OF SEALANT BACKINGS.
2. DO NOT STRETCH, TWIST, PUNCTURE, OR TEAR SEALANT BACKINGS.
3. REMOVE ABSORBENT SEALANT BACKINGS THAT HAVE BECOME WET BEFORE SEALANT APPLICATION AND REPLACE THEM WITH DRY MATERIALS.

D. INSTALL SEALANTS USING PROVEN TECHNIQUES THAT COMPLY WITH THE FOLLOWING AND AT THE SAME TIME BACKINGS ARE INSTALLED:

1. PLACE SEALANTS SO THEY DIRECTLY CONTACT AND FULLY WET JOINT SUBSTRATES.
2. COMPLETELY FILL RECESSES IN EACH JOINT CONFIGURATION.
3. PRODUCE UNIFORM, CROSS-SECTIONAL SHAPES AND DEPTHS RELATIVE TO JOINT WIDTHS THAT ALLOW OPTIMUM SEALANT MOVEMENT CAPABILITY.

E. TOOLING OF NON-SAG SEALANTS: IMMEDIATELY AFTER SEALANT APPLICATION AND BEFORE SKINNING OR CURING BEGINS, TOOL SEALANTS ACCORDING TO REQUIREMENTS SPECIFIED IN SUBPARAGRAPHS BELOW TO FORM SMOOTH, UNIFORM BEADS OF CONFIGURATION INDICATED; TO ELIMINATE AIR POCKETS; AND TO ENSURE CONTACT AND ADHESION OF SEALANT WITH SIDES OF JOINT.

1. REMOVE EXCESS SEALANT FROM SURFACES ADJACENT TO JOINTS.
2. USE TOOLING AGENTS THAT ARE APPROVED IN WRITING BY SEALANT MANUFACTURER AND THAT DO NOT DISCOLOR SEALANTS OR ADJACENT SURFACES.
3. PROVIDE CONCAVE JOINT PROFILE PER FIGURE 8A IN ASTM C 1193, UNLESS OTHERWISE INDICATED.
   a. USE MASKING TAPE TO PROTECT SURFACES ADJACENT TO RECESSED TOOLED JOINTS.

3.4 FIELD QUALITY CONTROL

A. FIELD-ADHESION TESTING: FIELD TEST JOINT-SEALANT ADHESION TO JOINT SUBSTRATES AS FOLLOWS:

1. EXTENT OF TESTING: TEST COMPLETED AND CURED SEALANT JOINTS AS FOLLOWS:
   a. PERFORM 1 TEST FOR EACH 1000 FEET JOINT LENGTH THEREAFTER OR 1 TEST PER EACH FLOOR PER ELEVATION.
2. TEST METHOD: TEST JOINT SEALANTS ACCORDING TO METHOD A, FIELD-APPLIED SEALANT JOINT HAND PULL TAB, IN APPENDIX X1 IN ASTM C 1193 OR METHOD A, TAIL PROCEDURE, IN ASTM C 1521.
   a. FOR JOINTS WITH DISSIMILAR SUBSTRATES, VERIFY ADHESION TO EACH SUBSTRATE SEPARATELY; EXTEND CUT ALONG ONE SIDE, VERIFYING ADHESION TO OPPOSITE SIDE.
   b. REPEAT PROCEDURE FOR OPPOSITE SIDE.
3. INSPECT TESTED JOINTS AND REPORT ON THE FOLLOWING:
   a. WHETHER SEALANTS FILLED JOINT CAVITIES AND ARE FREE OF VOIDS.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION - cont.

SECTION 079200 (cont'd)

JOINT SEALANTS

   b. WHETHER SEALANT DIMENSIONS AND CONFIGURATIONS COMPLY WITH SPECIFIED REQUIREMENTS.
   c. WHETHER SEALANTS IN JOINT CONNECTED TO PULLED-OUT PORTION FAILED TO ADHERE TO JOINT SUBSTRATE OR TORE COHESIVELY. INCLUDE DATA ON PULL DISTANCE USED TO TEST EACH KIND OF PRODUCT AND JOINT SUBSTRATE. COMPARE THESE RESULTS TO DETERMINE IF ADHESION PASSES SEALANT MANUFACTURER'S FIELD-ADHESION HAND-PULL TEST CRITERIA.
4. RECORD TEST RESULTS IN A FIELD-ADHESION-TEST LOG. INCLUDE DATES WHEN SEALANTS WERE INSTALLED, NAMES OF PERSONS WHO INSTALLED SEALANTS, TEST DATES, TEST LOCATIONS, WHETHER JOINTS WERE PRIMED, ADHESION RESULTS AND PERCENT ELONGATIONS, SEALANT FILL, SEALANT CONFIGURATION, AND SEALANT DIMENSIONS.
5. REPAIR SEALANTS PULLED FROM TEST AREA BY APPLYING NEW SEALANTS FOLLOWING SAME PROCEDURES USED ORIGINALLY TO SEAL JOINTS. ENSURE THAT ORIGINAL SEALANT SURFACES ARE CLEAN AND THAT NEW SEALANT CONTACTS ORIGINAL SEALANT.

B. EVALUATION OF FIELD-ADHESION TEST RESULTS: SEALANTS NOT EVIDENCING ADHESIVE FAILURE FROM TESTING OR NON-COMPLIANCE WITH OTHER INDICATED REQUIREMENTS WILL BE CONSIDERED SATISFACTORY.

3.5 CLEANING

A. CLEAN OFF EXCESS SEALANT OR SEALANT SMEARS SDJACENT TO JOINTS AS THE WORK PROGRESSES BY METHODS AND WITH CLEANING MATERIALS APPROVED IN WRITING BY MANUFACTURERS OF JOINT SEALANTS AND OF PRODUCTS IN WHICH JOINTS OCCUR.

3.6 PROTECTION

A. PROTECT JOINT SEALANTS DURING AND AFTER CURING PERIOD FROM CONTACT WITH CONTAMINATING SUBSTANCES AND FROM DAMAGE RESULTING FROM CONSTRUCTION OPERATIONS OR OTHER CAUSES SO SEALANTS ARE WITHOUT DETERIORATION OR DAMAGE AT TIME OF SUBSTANTIAL COMPLETION. IF, DESPITE SUCH PROTECTION, DAMAGE OR DETERIORATION OCCURS, CUT OUT AND REMOVE DAMAGED OR DETERIORATED JOINT SEALANTS IMMEDIATELY SO INSTALLATIONS WITH REPAIRED AREAS ARE INDISTINGUISHABLE FROM ORIGINAL WORK.

3.7 JOINT-SEALANT SCHEDULE

A. JOINT-SEALANT APPLICATION: EXTERIOR JOINTS IN HORIZONTAL TRAFFIC SURFACES.

1. JOINT LOCATIONS:
   a. CONTROL AND EXPANSION JOINTS IN BRICK PAVERS.
   b. ISOLATION AND CONTRACTION JOINTS IN CAST-IN-PLACE CONCRETE PAVING AND SLABS.
   c. ISOLATION JOINTS IN NON-METALLIC, NON-SHRINK GROUTING.
   d. ISOLATION AND CONTRACTION JOINTS IN ASPHALT PAVING.
   e. JOINTS BETWEEN DIFFERENT MATERIALS LISTED ABOVE.
   f. OTHER JOINTS AS INDICATED.
2. URETHANE JOINT SEALANT: SINGLE COMPONENT, POURABLE, TRAFFIC-GRADE, CLASS 25.

B. JOINT-SEALANT APPLICATION: EXTERIOR JOINTS IN VERTICAL SURFACES AND HORIZONTAL NON-TRAFFIC SURFACES.

1. JOINT LOCATIONS:
   a. CONSTRUCTION JOINTS IN CAST-IN-PLACE CONCRETE.
   b. CONTROL AND EXPANSION JOINTS IN UNIT MASONRY.
   c. JOINTS BETWEEN DECORATIVE FORMED METAL PANELS.
   d. JOINTS BETWEEN DIFFERENT MATERIALS LISTED ABOVE.
   e. PERIMETER JOINTS BETWEEN MATERIALS LISTED ABOVE AND FRAMES OF DOORS.
   f. CONTROL, EXPANSION AND PERIMETER JOINTS IN CEILINGS AND OTHER OVERHEAD SURFACES.
   g. OTHER JOINTS AS INDICATED.
2. SILICONE JOINT SEALANT: SINGLE COMPONENT, NON-STAINING, NON-SAG, NEUTRAL CURING, CLASS 50.

DIVISION 8 - DOORS AND WINDOWS

SECTION 08100

STEEL DOORS AND FRAMES

1.1 GENERAL

A. SUBMITTALS

1. SHOP DRAWINGS:
   a. SUBMIT SHOP DRAWINGS THAT SHOW ELEVATIONS OF EACH DOOR DESIGN, DOOR CONSTRUCTION DETAILS, AND METHODS OF ASSEMBLING SECTIONS, HARDWARE LOCATIONS, AND INSTALLATION METHODS, DIMENSION, AND SHAPES OF MATERIALS, ANCHORAGE AND FASTENING METHODS, DOOR FRAME TYPES AND DETAILS, WALL OPENING CONSTRUCTION DETAILS, AND FINISH REQUIREMENTS.
   b. INDICATE LOCATION OF EACH UNIT IN PROJECT.
   c. SHOP DRAWINGS SUBMITTAL SHALL BE COORDINATED WITH SHOP DRAWINGS SUBMISSION OF RELATED PORTIONS OF WORK, SUCH AS:
      i) WOOD DOORS
      ii) HARDWARE

DIVISION 8 - DOORS AND WINDOWS - cont.

SECTION 08100 (cont'd)

STEEL DOORS AND FRAMES

B. QUALITY ASSURANCE
1. QUALIFICATIONS:
   a. SINGLE SOURCE RESPONSIBILITY:
      i) TO GREATEST EXTENT POSSIBLE, FRAMES, ANCHORS, ETC. SHALL BE PRODUCTS OF A SINGLE MANUFACTURER OR ITEMS STANDARD WITH MANUFACTURER OF HOLLOW METAL PRODUCTS.
      ii) PROVIDE SECONDARY MATERIALS WHICH ARE PRODUCED OR ARE SPECIFICALLY RECOMMENDED BY HOLLOW METAL PRODUCTS MANUFACTURER TO ENSURE COMPATIBILITY.
2. CERTIFICATIONS:
   a. FIRE DOORS SHALL BEAR LABELS APPROVED BY UNDERWRITERS LABORATORIES, INC OR WARNOCK HERSEY INTERNATIONAL. PROVIDE FIRE RATED DOORS WITH A LABEL PERMANENTLY ATTACHED TO EITHER HINGE STILE OR TO TOP RAIL, SHOWING TESTING AGENCY APPROVAL FOR CLASSIFICATION SCHEDULED.

C. HOLLOW METAL DOORS
1. NON-RATED DOORS: SEAMLESS HOLLOW STEEL DOORS
   a. GRADE: SDI GRADE II, HEAVY DUTY; MODEL 2
   b. GAUGE: 18 GAUGE
   c. CORE MATERIAL: ACOUSTICAL INSULATION AT INTERIOR APPLICATIONS, THERMAL INSULATION AT EXTERIOR APPLICATIONS.

D. HOLLOW METAL FRAMES
1. NON-RATED FRAMES:
   a. GAUGE: 16 GAUGE
   b. FRAMES OVER 4'-0" (1200 MM) WIDE: GAUGE
2. FIRE RATED FRAMES:
   a. RATED HOLLOW METAL FRAMES SHALL FOLLOW SAME GENERAL CRITERIA AS INDICATED FOR NON-RATED UNITS.
   b. PROVIDE RATED UNITS IN COMPLIANCE WITH ASTM E 152.
   c. RATED UNITS SHALL BEAL UL LABEL CERTIFICATE INDICATED ON DRAWINGS.

E. FINISHES
1. SHOP PRIMING:
   a. DOORS AND FRAMES SHALL BE CHEMICALLY TREATED TO ENSURE MAXIMUM PAINT ADHESION AND COATED, ON EXPOSED SURFACES, WITH A RUST-INHIBITIVE PRIMER SUITABLE AS A BASE FOR FINISH PAINTS.
   b. APPLY PRIMER OF EVEN CONSISTENCY TO PROVIDE A UNIFORM FINISHED SURFACE. ALLOW TO FULLY CURE BEFORE SHIPMENT.

F. FRAME TOLERANCES:
1. SQUARENESS: ± 1/16" (1.5 MM)
   a. MEASURED ON A LINE 90 DEGREES FROM ONE JAMB, AT UPPER CORNER OF FRAME AT OTHER JAMB.
2. ALIGNMENT: ± 1/16" (1.5 MM)
   a. MEASURED ON JAMBS ON A HORIZONTAL LINE PARALLEL TO PLANE OF WALL.
3. TWIST: ± 1/16" (1.5 MM)
   a. MEASURED AT FACE CORNERS OF JAMBS ON PARALLEL LINES PERPENDICULAR TO PLANE OF WALL.
4. PLUMBNESS: ± 1/16" (1.5 MM)
   a. MEASURED ON JAMBS AT FLOOR.

G. DOOR CLEARANCES SUBJECT TO ± 1/32" (.08 MM) TOLERANCE:
1. HEAD AND JAMBS: 1/8" (3 MM).
2. UNDERCUT DOORS SUFFICIENTLY TO ALLOW CLEARANCE ABOVE FINISH FLOORS AND WHERE INDICATED ON DRAWINGS TO ALLOW FOR ADEQUATE AIR TRANSFER.
   a. WHERE SCHEDULED FLOOR FINISH MATERIAL IS LESS THAN 1/2" (12 MM) THICK, ALLOW NOT MORE THAN 5/8" (16 MM) ABOVE TOP OF SUBSTRATE TO WHICH IT IS APPLIED.
   b. WHERE SCHEDULED FLOOR FINISH MATERIAL IS MORE THAN 1/2" (21 MM) THICK, ALLOW NOT MORE THAN 1/4" (6MM) ABOVE FINISH MATERIAL.
   c. WHERE A THRESHOLD IS USED, ALLOW NOT MORE THAN 1/4" (6 MM) ABOVE THRESHOLD.

H. ADJUSTMENTS
1. PRIME COAT TOUCH-UP:
   a. SAND SMOOTH ALL RUSTED OR DAMAGED AREAS OF PRIME COAT AND TOUCH-UP WITH COMPATIBLE AIR-DRYING PRIMER.
   b. TOUCH-UP AREAS SHALL NOT BE OBVIOUS.
2. FINAL ADJUSTMENTS:
   a. CHECK AND RE-ADJUST OPERATING FINISH HARDWARE JUST PRIOR TO FINAL INSPECTION AND AFTER PAINTING HINGES IF HINGES ARE INDICATED TO BE PAINTED.
   b. REMOVE AND REPLACE DEFECTIVE WORK.

SECTION 08411

ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

1.1 GENERAL

A. PERFORMANCE REQUIREMENTS

1. DELEGATED DESIGN: DESIGN ALUMINUM-FRAMED SYSTEMS, INCLUDING COMPREHENSIVE ENGINEERING ANALYSIS BY A QUALIFIED PROFESSIONAL ENGINEER, USING PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA INDICATED.
2. WIND LOADS: 90 MPH (40 M/S).
3. DEFLECTION OF FRAMING MEMBERS:
   a. DEFLECTION NORMAL TO WALL PLANE: LIMITED TO EDGE OF GLASS IN A DIRECTION PERPENDICULAR TO GLASS PLANE SHALL NOT EXCEED L/175 OF THE GLASS EDGE LENGTH FOR EACH INDIVIDUAL GLAZING LITE OR AN AMOUNT THAT RESTRICTS EDGE DEFLECTION OF INDIVIDUAL GLAZING LITES TO 3/4 INCH (19 MM), WHICHEVER IS LESS.
   b. DEFLECTION PARALLEL TO GLAZING PLANE: LIMITED TO L/360 OF CLEAR SPAN OR 1/8 INCH (3.2 MM), WHICHEVER IS SMALLER.

B. SUBMITTALS

1. SHOP DRAWINGS: FOR ALUMINUM-FRAMED SYSTEMS. INCLUDE PLANS, ELEVATIONS, SECTIONS, DETAILS, AND ATTACHMENTS TO OTHER WORK.
2. SAMPLES: FOR EACH TYPE OF EXPOSED FINISH REQUIRED.
3. ENTRANCE DOOR HARDWARE SCHEDULE: PREPARED BY OR UNDER THE SUPERVISION OF SUPPLIER, DETAILING FABRICATION AND ASSEMBLY OF ENTRANCE DOOR HARDWARE, AS WELL AS PROCEDURES AND DIAGRAMS.

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REVISIONS

		DESCRIPTION
1	06/01/26	PERMIT SET

STATUS: PERMIT SET

FIELD VERIFICATION:
The Contractor shall verify all figured dimensions and conditions at the project site and notify Zebra Architecture, PLLC. of any dimensional errors, omissions or discrepancies before beginning or fabricating any work. Do not scale these drawings.

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SHEET NAME: SPECIFICATIONS

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: JB
SCALE: AS NOTED

SHEET NO.: A700

DIVISION 8 - DOORS AND WINDOWS - cont.

SECTION 08411 (cont'd)

ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

4. DELEGATED-DESIGN SUBMITTAL: FOR ALUMINUM-FRAMED SYSTEMS INDICATED TO COMPLY WITH PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA, INCLUDING ANALYSIS DATA SIGNED AND SEALED BY THE QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION.

C. QUALITY ASSURANCE

1. ENGINEERING RESPONSIBILITY: PREPARE DATA FOR ALUMINUM-FRAMED SYSTEMS, INCLUDING SHOP DRAWINGS, BASED ON TESTING AND ENGINEERING ANALYSIS OF MANUFACTURER'S STANDARD UNITS IN SYSTEMS SIMILAR TO THOSE INDICATED FOR THIS PROJECT.
2. PRODUCT OPTIONS: INFORMATION ON DRAWINGS AND IN SPECIFICATIONS ESTABLISHES REQUIREMENTS FOR SYSTEMS' AESTHETIC EFFECTS AND PERFORMANCE CHARACTERISTICS. AESTHETIC EFFECTS ARE INDICATED BY DIMENSIONS, ARRANGEMENTS, ALIGNMENT, AND PROFILES OF COMPONENTS AND ASSEMBLIES AS THEY RELATE TO SIGHT LINES, TO ONE ANOTHER, AND TO ADJOINING CONSTRUCTION. PERFORMANCE CHARACTERISTICS ARE INDICATED BY CRITERIA SUBJECT TO VERIFICATION BY ONE OR MORE METHODS INCLUDING PRE-CONSTRUCTION TESTING, FIELD TESTING, AND IN-SERVICE PERFORMANCE.
3. ACCESSIBLE ENTRANCES: COMPLY WITH APPLICABLE PROVISIONS IN THE U.S. ARCHITECTURAL & TRANSPORTATION BARRIERS COMPLIANCE BOARD'S ADA-ABA ACCESSIBILITY GUIDELINES AND ICC/ANSI A117.1.
4. SOURCE LIMITATIONS FOR ALUMINUM-FRAMED SYSTEMS: OBTAIN FROM SINGLE SOURCE FROM SINGLE MANUFACTURER.

D. PRODUCTS

1. MANUFACTURERS
   a. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE MANUFACTURERS OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
      ARCADIA, INC.
      ARCH ALUMINUM & GLASS CO., INC.
      CMI ARCHITECTURAL.
      EFCO CORPORATION.
      KAWNEER NORTH AMERICA; AN ALCOA COMPANY.
      YKK AP AMERICA INC.
      RACO INC
2. FRAMING SYSTEMS
   a. FRAMING MEMBERS: MANUFACTURER'S STANDARD EXTRUDED-ALUMINUM FRAMING MEMBERS OF THICKNESS REQUIRED AND REINFORCED AS REQUIRED TO SUPPORT IMPOSED LOADS.
   b. CONSTRUCTION OF EXTERIOR: THERMALLY BROKEN.
      GLAZING SYSTEM: RETAINED MECHANICALLY WITH GASKETS ON FOUR SIDES.
      GLAZING PLANE: FRONT.
   c. BRACKETS AND REINFORCEMENTS: MANUFACTURER'S STANDARD HIGH-STRENGTH ALUMINUM WITH NONSTAINING, NONFERROUS SHIMS FOR ALIGNING SYSTEM COMPONENTS.
   d. FASTENERS AND ACCESSORIES: MANUFACTURER'S STANDARD CORROSION-RESISTANT, NONSTAINING, NONBLEEDING FASTENERS AND ACCESSORIES COMPATIBLE WITH ADJACENT MATERIALS.
   e. FRAMING SYSTEM GASKETS AND SEALANTS: MANUFACTURER'S STANDARD, RECOMMENDED BY MANUFACTURER FOR JOINT TYPE.
3. GLAZING SYSTEMS
   a. GLAZING GASKETS: MANUFACTURER'S STANDARD COMPRESSION TYPES; REPLACEABLE, MOLDED OR EXTRUDED, OF PROFILE AND HARDNESS REQUIRED TO MAINTAIN WATERTIGHT SEAL.
   b. SPACERS AND SETTING BLOCKS: MANUFACTURER'S STANDARD ELASTOMERIC TYPE.
4. ENTRANCE DOOR SYSTEMS
   a. ENTRANCE DOORS: MANUFACTURER'S STANDARD GLAZED ENTRANCE DOORS FOR MANUAL-SWING OPERATION. DOOR CONSTRUCTION: 1-3/4-INCH (44.5-MM) OVERALL THICKNESS, WITH MINIMUM 0.125-INCH- (3.2-MM) THICK, EXTRUDED-ALUMINUM TUBULAR RAIL AND STILE MEMBERS. MECHANICALLY FASTEN CORNERS WITH REINFORCING BRACKETS THAT ARE DEEPLY PENETRATED, AND FILLET WELDED OR THAT INCORPORATE CONCEALED TIE RODS.
   b. GLAZING STOPS AND GASKETS: SQUARE EDGE, SNAP-ON, EXTRUDED-ALUMINUM STOPS AND PREFORMED GASKETS WITH NONREMOVABLE GLAZING STOPS ON OUTSIDE OF DOOR.
   c. ENTRANCE DOOR HARDWARE: AS INDICATED ON DRAWINGS AND AS SPECIFIED IN DIVISION 8 SECTION "DOOR HARDWARE."

E. FABRICATION

1. FORM OR EXTRUDE ALUMINUM SHAPES BEFORE FINISHING.
2. WELD IN CONCEALED LOCATIONS TO GREATEST EXTENT POSSIBLE TO MINIMIZE DISTORTION OR DISCOLORATION OF FINISH. REMOVE WELD SPATTER AND WELDING OXIDES FROM EXPOSED SURFACES BY DESCALING OR GRINDING.
3. FRAMING MEMBERS, GENERAL: FABRICATE COMPONENTS THAT, WHEN ASSEMBLED, HAVE THE FOLLOWING CHARACTERISTICS:
   a. PROFILES THAT ARE SHARP, STRAIGHT, AND FREE OF DEFECTS OR DEFORMATIONS.
   b. ACCURATELY FITTED JOINTS WITH ENDS COPED OR MITERED.

DIVISION 8 - DOORS AND WINDOWS - cont.

SECTION 08411 (cont'd)

ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

   c. MEANS TO DRAIN WATER PASSING JOINTS, CONDENSATION WITHIN FRAMING MEMBERS, AND MOISTURE MIGRATING WITHIN THE SYSTEM TO EXTERIOR.
   d. PHYSICAL AND THERMAL ISOLATION OF GLAZING FROM FRAMING MEMBERS.
   e. ACCOMMODATIONS FOR THERMAL AND MECHANICAL MOVEMENTS OF GLAZING AND FRAMING TO MAINTAIN REQUIRED GLAZING EDGE CLEARANCES.
   f. PROVISIONS FOR FIELD REPLACEMENT OF GLAZING FROM INTERIOR FOR VISION GLASS AND EXTERIOR FOR SPANDREL GLAZING OR METAL PANELS.
   g. FASTENERS, ANCHORS, AND CONNECTION DEVICES THAT ARE CONCEALED FROM VIEW TO GREATEST EXTENT POSSIBLE.
4. MECHANICALLY GLAZED FRAMING MEMBERS: FABRICATE FOR FLUSH GLAZING WITHOUT PROJECTING STOPS.
5. ENTRANCE DOOR FRAMES: REINFORCE AS REQUIRED TO SUPPORT LOADS IMPOSED BY DOOR OPERATION AND FOR INSTALLING ENTRANCE DOOR HARDWARE.
6. ENTRANCE DOORS: REINFORCE DOORS AS REQUIRED FOR INSTALLING ENTRANCE DOOR HARDWARE
7. ENTRANCE DOOR HARDWARE INSTALLATION: FACTORY INSTALL ENTRANCE DOOR HARDWARE TO THE GREATEST EXTENT POSSIBLE. CUT, DRILL, AND TAP FOR FACTORY-INSTALLED ENTRANCE DOOR HARDWARE BEFORE APPLYING FINISHES.

F. INSTALLATION

1. GENERAL:
   a. COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
   b. DO NOT INSTALL DAMAGED COMPONENTS.
   c. FIT JOINTS TO PRODUCE HAIRLINE JOINTS FREE OF BURRS AND DISTORTION.
   d. RIGIDLY SECURE NONMOVEMENT JOINTS.
   e. INSTALL ANCHORS WITH SEPARATORS AND ISOLATORS TO PREVENT METAL CORROSION AND ELECTROLYTIC DETERIORATION.
   f. SEAL JOINTS WATERTIGHT UNLESS OTHERWISE INDICATED.
2. WHERE ALUMINUM AT EXTERIOR DOORS WILL CONTACT DISSIMILAR METALS, PROTECT AGAINST GALVANIC ACTION BY PAINTING CONTACT SURFACES WITH PRIMER OR APPLYING SEALANT OR TAPE, OR BY INSTALLING NONCONDUCTIVE SPACERS AS RECOMMENDED BY MANUFACTURER FOR THIS PURPOSE. WHERE ALUMINUM WILL CONTACT CONCRETE OR MASONRY, PROTECT AGAINST CORROSION BY PAINTING CONTACT SURFACES WITH BITUMINOUS PAINT.
3. INSTALL COMPONENTS PLUMB AND TRUE IN ALIGNMENT WITH ESTABLISHED LINES AND GRADES, AND WITHOUT WARP OR RACK AND PRODUCE SMOOTH OPERATION AND TIGHT FIT AT CONTACT POINTS.
4. INSTALL EXTERIOR DOORS AND SOUND RATED INTERIOR DOORS TO PRODUCE WEATHER TIGHT ENCLOSURE AND TIGHT FIT AT WEATHER STRIPPING AND SOUNDPROOF GASKETING AND INSTALL COMPONENTS TO DRAIN WATER PASSING JOINTS, CONDENSATION OCCURRING WITHIN FRAMING MEMBERS, AND MOISTURE MIGRATING WITHIN THE SYSTEM TO EXTERIOR. SET CONTINUOUS SILL MEMBERS AND FLASHING IN FULL SEALANT BED.
5. SOUND RATED INTERIOR DOORS TO PRODUCE A TIGHT FIT AT SOUNDPROOF GASKETING AND INSTALL COMPONENTS.

DIVISION 9 - FINISHES - cont.

SECTION 09300 (cont'd)

3.2 PREPARATION

A. PROTECT SURROUNDING WORK FROM DAMAGE.
B. REMOVE ANY CURING COMPOUNDS OR OTHER CONTAMINATES.
C. VACUUM CLEAN SURFACES AND DAMP CLEAN.
D. SEAL SUBSTRATE SURFACE CRACKS WITH FILLER. LEVEL EXISTING SUBSTRATE SURFACES TO ACCEPTABLE FLATNESS TOLERANCE.
E. INSTALL CEMENTITIOUS BACKER BOARD IN ACCORDANCE WITH ANSI A109.11 AND BOARD MANUFACTURER'S INSTRUCTIONS. TAPE JOINTS AND CORNERS, COVER WITH SKIM COAT OF DRY-SET MORTAR TO A FEATHER EDGE.
F. PREPARE SUBSTRATE SURFACES FOR ADHESIVE INSTALLATION IN ACCORDANCE WITH ADHESIVE MANUFACTURER'S INSTRUCTIONS.

3.3 INSTALLATION - GENERAL

A. INSTALL TILE AND GROUT IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF ANSI A108.1 THROUGH A108.13, MANUFACTURER'S INSTRUCTIONS, AND TCA HANDBOOK RECOMMENDATIONS.
B. LAY TILE TO PATTERN INDICATED. ARRANGE PATTERN SO THAT A FULL TILE OR JOINT IS CENTERED ON EACH WALL AND THAT NO TILE LESS THAN 1/2 WIDTH IS USED. DO NOT INTERRUPT TILE PATTERN THROUGH OPENINGS.
C. CUT AND FIT TILE TO PENETRATIONS THROUGH TILE, LEAVING SEALANT JOINT SPACE. FORM CORNERS AND BASES NEATLY. ALIGN FLOOR JOINTS.
D. PLACE TILE JOINTS UNIFORM IN WIDTH, SUBJECT TO VARIANCE IN TOLERANCE ALLOWED IN TILE SIZE. MAKE JOINTS WATERTIGHT, WITHOUT VOIDS, CRACKS, EXCESS MORTAR, OR EXCESS GROUT.

DIVISION 9 - FINISHES - cont.

SECTION 09300 (cont'd)

E. FORM INTERNAL ANGLES SQUARE AND EXTERNAL ANGLES BULL NOSED OR CORNER TRIM PIECES AS INDICATED IN DRAWINGS. STAGGER DIRECTION OF BLUENOSE EXTERNAL ANGLES AS INDICATED IN DRAWINGS.
F. INSTALL CERAMIC ACCESSORIES RIGIDLY IN PREPARED OPENINGS.
G. INSTALL NON-CERAMIC TRIM IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
H. INSTALL THRESHOLDS WHERE INDICATED.
I. SOUND TILE AFTER SETTING. REPLACE HOLLOW SOUNDING UNITS.
J. KEEP EXPANSION JOINTS FREE OF ADHESIVE OR GROUT. APPLY SEALANT TO JOINTS.
K. ALLOW TILE TO SET FOR A MINIMUM OF 48 HOURS PRIOR TO GROUTING.
L. GROUT TILE JOINTS. USE STANDARD GROUT UNLESS OTHERWISE INDICATED.
M. APPLY SEALANT TO JUNCTION OF TILE AND DISSIMILAR MATERIALS AND JUNCTION OF DISSIMILAR PLANES.

3.4 INSTALLATION - FLOORS - THIN-SET METHODS

A. OVER EXTERIOR CONCRETE SUBSTRATES, INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD F102, WITH STANDARD GROUT.
B. OVER INTERIOR CONCRETE SUBSTRATES, INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD F113, DRY-SET OR LATEX-PORTLAND CEMENT BOND COAT, WITH STANDARD GROUT, UNLESS OTHERWISE INDICATED.
   1. WHERE WATERPROOFING MEMBRANE IS INDICATED, INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD F122, WITH LATEX-PORTLAND CEMENT GROUT.
   2. WHERE EPOXY BOND COAT AND GROUT ARE INDICATED, INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD F131.
C. OVER WOOD SUBSTRATES, INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD F142, WITH STANDARD GROUT, UNLESS OTHERWISE INDICATED.
   1. WHERE EPOXY BOND COAT AND GROUT ARE INDICATED, INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD F143.

3.5 INSTALLATION - FLOORS - MORTAR BED METHODS

A. OVER EXTERIOR CONCRETE SUBSTRATES, INSTALL IN ACCORDANCE WITH TCA F101, BONDED, WITH STANDARD GROUT.
B. OVER INTERIOR CONCRETE SUBSTRATES, INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD F111, WITH CLEAVAGE MEMBRANE, UNLESS OTHERWISE INDICATED.
   1. WHERE WATERPROOFING MEMBRANE IS INDICATED, WITH STANDARD GROUT OR NO MENTION OF GROUT TYPE, INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD F121.
   2. WHERE EPOXY BOND COAT AND GROUT ARE INDICATED, INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD F132, BONDED.
   3. WHERE EPOXY OR FURAN GROUT IS INDICATED, BUT NOT EPOXY OR FURAN BOND COAT, INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD F114, WITH CLEAVAGE MEMBRANE.
C. OVER WOOD SUBSTRATES, INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD F141, WITH STANDARD GROUT, UNLESS OTHERWISE INDICATED.
D. CLEAVAGE MEMBRANE: LAP EDGES AND ENDS.
E. WATERPROOFING MEMBRANE: INSTALL AS SPECIFIED IN ANSI A108.13.
F. MORTAR BED THICKNESS: 1-1/4 TO 2 INCH (32 TO 51 MM) MAXIMUM, UNLESS OTHERWISE INDICATED.

3.6 INSTALLATION - KITCHEN AND BAR DIE WALLS

A. AT TILED KITCHEN AND BAR INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD B415, MORTAR BED FLOOR, AND W244, THIN-SET OVER CEMENTITIOUS BACKER UNIT WALLS.
B. INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD B412, OVER CEMENTITIOUS BACKER UNITS WITH WATERPROOFING MEMBRANE EXTENDING UP WALLS 6" MIN.
C. GROUT WITH STANDARD GROUT AS SPECIFIED ABOVE.
D. SEAL JOINTS BETWEEN TILE WORK AND OTHER WORK WITH SEALANT.

3.7 INSTALLATION - WALL TILE

A. OVER CEMENTITIOUS BACKER UNITS ON STUDS, INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD W244, USING MEMBRANE AT TOILET ROOMS.
B. OVER CEMENTITIOUS BACKER UNITS INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD W223, ORGANIC ADHESIVE.
C. OVER GYPSUM WALLBOARD ON WOOD OR METAL STUDS INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD W243, THIN-SET WITH DRY-SET OR LATEX-PORTLAND CEMENT BOND COAT, UNLESS OTHERWISE INDICATED.
   1. WHERE MORTAR BED IS INDICATED, INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD W222, ONE COAT METHOD.
   2. WHERE WATERPROOFING MEMBRANE IS INDICATED OTHER THAN AT KITCHEN AND BAR WALLS, INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD W222, ONE COAT METHOD.
D. OVER INTERIOR CONCRETE AND MASONRY INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD W202, THIN-SET WITH DRY-SET OR LATEX-PORTLAND CEMENT BOND COAT.
E. OVER WOOD STUDS WITHOUT BACKER INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD W231, MORTAR BED, WITH MEMBRANE WHERE INDICATED.
F. OVER METAL STUDS WITHOUT BACKER INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD W241, MORTAR BED, WITH MEMBRANE WHERE INDICATED.

3.8 CLEANING

A. CLEAN TILE AND GROUT SURFACES.

3.9 PROTECTION OF FINISHED WORK

A. DO NOT PERMIT TRAFFIC OVER FINISHED FLOOR SURFACE FOR 72 HOURS AFTER INSTALLATION.

DIVISION 9 - FINISHES - cont.

SECTION 09300 (cont'd)

B. COVER FLOORS WITH KRAFT PAPER AND PROTECT FROM DIRT AND RESIDUE FROM OTHER TRADES.
C. WHERE FLOOR WILL BE EXPOSED FOR PROLONGED PERIODS COVER WITH PLYWOOD OR OTHER SIMILAR TYPE WALKWAYS.

SECTION 09510

ACOUSTICAL CEILING TILE

1.1 GENERAL

A. SUBMITTALS
   1. SUBMIT A MINIMUM OF THREE SAMPLES OF THE FOLLOWING:
      a. ACOUSTICAL CEILING PANELS: 6" X 6" MINIMUM
      b. SUSPENSION SYSTEM COMPONENTS: 12" IN LENGTH
B. QUALITY ASSURANCE
   1. TO THE GREATEST EXTENT POSSIBLE, MATERIALS, INCLUDING EXPOSED WALL MOLDINGS, SUSPENSIONS SYSTEMS, AND ACCESSORIES, SHALL BE PRODUCTS OF A SINGLE MANUFACTURER OR ITEMS STANDARD WITH MANUFACTURER OF ACOUSTICAL CEILING PANEL UNITS.
C. MATERIALS
   1. ACOUSTICAL TILES AND SUSPENSION SYSTEM AS SCHEDULED IN DRAWINGS. PROVIDE MANUFACTURER STANDARD COMPONENTS AS SHOWN IN DETAILS.
D. INSTALLATION
   1. GRID SYSTEM:
      a. INSTALL GRID SYSTEM IN COMPLIANCE WITH ASTM C636, MANUFACTURER'S INSTRUCTIONS, AND AS SUPPLEMENTED IN THIS SECTION.
      b. INSTALL GRID SYSTEM IN A TRUE, EVEN PLANE AND IN STRAIGHT COURSES AS INDICATED ON DRAWINGS AND ACCEPTED SHOP DRAWINGS.
      c. COORDINATE AND FIT CEILING COMPONENTS TO GRILLES, LIGHTING FIXTURES, AND OTHER RELATED ITEMS. IN DETERMINING LOCATION AND SPACING OF HANGERS AND PRIMARY RUNNERS, TAKE INTO CONSIDERATION WEIGHT OF GRILLES, LIGHT FIXTURES, ETC., THAT ARE TO BE INSTALLED IN CONJUNCTION WITH ACOUSTICAL CEILINGS.
      d. PROVIDE STABILIZER BARS, CLIPS, SPLICES, AND EDGE MOLDINGS NEEDED FOR A COMPLETE INSTALLATION.
      e. HANG GRID SYSTEM INDEPENDENT OF WALLS, COLUMNS, DUCTS, PIPES AND CONDUIT. WHERE CARRYING MEMBERS ARE SPLICED, AVOID VISIBLE DISPLACEMENT OF FACE PLANE OF ADJACENT MEMBERS.
      f. WHERE DUCTS OR OTHER EQUIPMENT PREVENT REGULAR SPACING OF HANGERS, REINFORCE NEAREST AFFECTED HANGERS AND RELATED CARRYING CHANNELS TO SPAN EXTRA DISTANCE.
      g. DO NOT SUPPORT COMPONENTS ON MAIN RUNNERS OR CROSS RUNNERS IF WEIGHT CAUSES TOTAL DEAD LOAD TO EXCEED MAXIMUM DEFLECTION LIMITATIONS. SUPPORT FIXTURE LOADS BY SUPPLEMENTARY HANGERS LOCATED WITHIN 6" (150 MM) OF EACH CORNER; OR SUPPORT COMPONENTS INDEPENDENTLY.
      h. DO NOT ECCENTRICALLY LOAD SYSTEM, OR PRODUCE ROTATION OF RUNNERS.
   2. MOLDINGS AND TRIM
      a. INSTALL WALL MOLDINGS AT INTERSECTION OF SUSPENDED CEILING AND VERTICAL SURFACES, USING LONGEST PRACTICAL LENGTHS. PROVIDE MOLDINGS AT JUNCTIONS WITH OTHER INTERRUPTIONS AND AS NEEDED TO COVER EDGES OF ACOUSTICAL CEILING PANELS.
      b. ATTACH MOLDINGS AND TRIMS WITH SCREWS SPACED NOT MORE THAN 16" (400 MM) ON CENTER AND WITHIN 3" (75 MM) OF ENDS OF EACH PIECE BEING INSTALLED.
      c. MOLDINGS AND TRIM SHALL BE LEVEL WITH SUSPENSION SYSTEM AND WITHIN TOLERANCES SPECIFIED FOR SUSPENSION SYSTEM.
      d. MITER CORNERS AND ALIGN BUTT JOINTS WHERE WALL MOLDINGS INTERSECT TO FORM TIGHT, HAIRLINE JOINTS.
      e. FACE RIVETING OF MOLDINGS AND TRIM SHALL NOT BE ACCEPTABLE.
   3. TOLERANCES
      a. DEFLECTION OF GRID COMPONENTS SHALL NOT EXCEED 1/360 OF SPAN.
      b. VARIATION FROM FLAT AND LEVEL SURFACE: 1/8" (3 MM) IN 10 FEET (3000 MM) MAXIMUM.
      c. VARIATION FROM PLUMB OF GRID MEMBERS: 2 DEGREES MAXIMUM; CAUSED BY ECCENTRIC LOADS.
E. ADJUSTING AND CLEANING
   1. FOLLOW GRID SYSTEM MANUFACTURER'S RECOMMENDATIONS FOR METHODS AND MATERIALS TO CLEAN AND TOUCH-UP EXPOSED COMPONENTS.
   2. REPLACE COMPONENTS WHICH ARE DISCOLORED OR DAMAGED IN ANY WAY, IN A MANNER WHICH RESULTS IN GRID SYSTEM SHOWING NO EVIDENCE OF REPLACEMENT WORK.

DIVISION 9 - FINISHES - cont.

SECTION 09650

RESILIENT FLOORING

1.1 GENERAL

A. SUBMITTALS:
   1. VINYL COMPOSITION TILE SAMPLE.
   2. BLACK RESILIENT TRANSITION/REDUCER STRIP (PROVIDED AT CHANGES IN FLOORING).
   3. VINYL COVE AND STRAIGHT BASE.
B. PREPARE THE EXISTING, BASE BUILDING SLAB PRIOR TO INSTALLATION OF THE SCHEDULED FLOORING. ALL SURFACES SHALL BE SEALED, SIZED OR PROPERLY PREPARED PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS. THE CONTRACTOR SHALL FLASH PATCH ALL UNEVEN FLOOR SLAB SURFACES IN ORDER TO PROVIDE A FLAT, SMOOTH AND CONTINUOUS FLOOR SURFACE.
C. VCT SHALL BE LAID IN STRAIGHT GRID (NOT BASKET WEAVE) DIRECTION. REFER TO DRAWINGS FOR COLOR PATTERNS AND DIRECTION.
D. 2 1/2" COVE BASE SHALL BE USED AT ALL VCT LOCATIONS. 2 1/2" STRAIGHT BASE SHALL BE USED AT CARPET LOCATIONS UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL USE INSIDE AND OUTSIDE CORNERS AND END STOPS FOR ALL AREAS SPECIFIED. USE ROLL GOODS ONLY. NO SEAM SHALL OCCUR WITHIN 6" OF AN OUTSIDE CORNER.
E. INSTALL BLACK RESILIENT TRANSITION/REDUCER STRIP BETWEEN VCT AND OTHER FLOOR FINISHES.

SECTION 09900

PAINTING

1.1 GENERAL
A. SUBMITTALS
   1. PROVIDE A MINIMUM OF THREE 8"X10" SAMPLES FOR EACH COLOR AND EACH FINISH INDICATED IN THE FINISH SCHEDULE.
B. PRODUCTS
   1. SEE FINISH SCHEDULE FOR MANUFACTURERS, COLORS AND FINISHES.
C. EXECUTION
   1. GENERAL:
      a. PRIOR TO PAINT APPLICATION, THE CONTRACTOR SHALL SCHEDULE A REVIEW OF FINAL PAINT COLOR LOCATIONS WITH THE ARCHITECT IN THE FIELD.
      b. SEE FINISH PLAN AND INTERIOR ELEVATIONS FOR SPECIFIC LOCATIONS OF PAINT COLORS AND FINISHES.
      c. WHERE PAINTS OF TWO DIFFERENT TYPES OR COLORS ABUT, THE SEAM SHALL BE ON AN INSIDE CORNER ONLY.
      d. FINAL COAT OF PAINT SHALL BE ROLL APPLIED AT ALL GWB SURFACES.
   2. PREPARATION:
      a. REMOVE BLISTERED, PEELING AND SCALING PAINT OR CHALK DEPOSITS TO SOUND SUBSTRATES.
      b. COMPLETELY REMOVE SEALANTS OR CAULKING.
      c. DULL GLOSSY SURFACES.
      d. AT METAL SURFACES, REMOVE RUST, OIL, GREASE AND OTHER CONTAMINANTS HARMFUL TO PAINTING. SAND CLEAN AND SPOT PRIME.
      e. AT GWB SURFACES; REPAIR SURFACE DEFECTS WITH JOINT COMPOUND, FILL FLUSH AND SAND SMOOTH. CLEAN SURFACES OF DUST, GREASE AND DIRT.
      f. AT WOOD SURFACES; SAND SMOOTH AND REMOVE DUST. COUNTERSINK NAILS AND FILL NAIL HOLES, CRACKS AND OPEN JOINTS WITH PUTTY OR WOOD FILLER.
   3. APPLICATION (UNLESS NOTED OTHERWISE):
      a. AT GWB SURFACES:
         ONE (1) PRIMER COAT: VINYL ACRYLIC PRIMER SEALER.
         TWO (2) FINISH COATS: VINYL ACRYLIC LATEX; EGGSHELL FINISH @ WALLS, FLAT @ CEILINGS.
      b. AT INTERIOR WOOD SURFACES TO BE PAINTED:
         ONE (1) PRIMER COAT: ALKYD ENAMEL UNDERBODY.
         TWO (2) FINISH COATS: VINYL ACRYLIC LATEX SEMI-GLOSS ENAMEL.
      c. AT INTERIOR METAL SURFACES TO BE PAINTED:
         ONE (1) PRIMER COAT: RUST-INHIBITING ALKYD PRIMER.
         TWO (2) FINISH COATS: ALKYD GLOSS ENAMEL.
   4. CLEAN-UP:
      a. THE CONTRACTOR SHALL PROVIDE ONE FINAL TOUCH-UP OF PAINT SURFACES AFTER THE OWNER HAS MOVED INTO THE SPACE.

SECTION 099113

EXTERIOR PAINTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 01 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.

1.2 SUMMARY

A. SECTION INCLUDES SURFACE PREPARATION AND THE APPLICATION OF PAINT SYSTEMS ON THE FOLLOWING EXTERIOR SUBSTRATES:
   1. CONCRETE.
   2. CLAY MASONRY.
   3. STEEL.
   4. GALVANIZED METAL.
   5. WOOD.
   6. EXTERIOR PORTLAND CEMENT PLASTER (STUCCO).
   7. EXTERIOR GYPSUM BOARD.
B. RELATED REQUIREMENTS:
   1. SECTION 099316 "DECORATIVE CONCRETE STAINING" FOR SURFACE PREPARATION AND THE APPLICATION OF STAINS AND SEALERS ON EXTERIOR CONCRETE PAVING SUBSTRATES.

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REVISIONS

△		DESCRIPTION
	06/01/26	PERMIT SET

STATUS:
PERMIT SET

FIELD VERIFICATION:
The Contractor shall verify all figured dimensions and conditions at the project site and notify Zebra Architecture, PLLC. of any dimensional errors, omissions or discrepancies before beginning or fabricating any work. Do not scale these drawings.

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SHEET NAME:
SPECIFICATIONS

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: JB
SCALE: AS NOTED

SHEET NO.:
A703

DIVISION 9 - FINISHES - cont.

SECTION 099113 (cont'd)

EXTERIOR PAINTING

1.3 DEFINITIONS

A. GLOSS LEVEL 1: NOT MORE THAN 5 UNITS AT 60 DEGREES AND 10 UNITS AT 85 DEGREES, ACCORDING TO ASTM D 523.

B. GLOSS LEVEL 3: 10 TO 25 UNITS AT 60 DEGREES AND 10 TO 35 UNITS AT 85 DEGREES, ACCORDING TO ASTM D 523.

C. GLOSS LEVEL 4: 20 TO 35 UNITS AT 60 DEGREES AND NOT LESS THAN 35 UNITS AT 85 DEGREES, ACCORDING TO ASTM D 523.

D. GLOSS LEVEL 5: 35 TO 70 UNITS AT 60 DEGREES, ACCORDING TO ASTM D 523.

E. GLOSS LEVEL 6: 70 TO 85 UNITS AT 60 DEGREES, ACCORDING TO ASTM D 523.

F. GLOSS LEVEL 7: MORE THAN 85 UNITS AT 60 DEGREES, ACCORDING TO ASTM D 523.

1.4 ACTION SUBMITTALS

A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT. INCLUDE PREPARATION REQUIREMENTS AND APPLICATION INSTRUCTIONS.

B. SAMPLES FOR INITIAL SELECTION: FOR EACH TYPE OF TOPCOAT PRODUCT.

C. SAMPLES FOR VERIFICATION: FOR EACH TYPE OF PAINT SYSTEM AND EACH COLOR AND GLOSS OF TOPCOAT.

1. SUBMIT SAMPLES ON RIGID BACKING, 8 INCHES SQUARE.
2. STEP COATS ON SAMPLES TO SHOW EACH COAT REQUIRED FOR SYSTEM.
3. LABEL EACH COAT OF EACH SAMPLE.
4. LABEL EACH SAMPLE FOR LOCATION AND APPLICATION AREA.

D. PRODUCT LIST: FOR EACH PRODUCT INDICATED, INCLUDE THE FOLLOWING:

1. CROSS-REFERENCE TO PAINT SYSTEM AND LOCATIONS OF APPLICATION AREAS. USE SAME DESIGNATIONS INDICATED ON DRAWINGS AND IN SCHEDULES.
2. PRINTOUT OF CURRENT "MPI APPROVED PRODUCTS LIST" FOR EACH PRODUCT CATEGORY SPECIFIED, WITH THE PROPOSED PRODUCT HIGHLIGHTED.
3. VOC CONTENT.

1.5 MAINTENANCE MATERIAL SUBMITTALS

A. FURNISH EXTRA MATERIALS, FROM THE SAME PRODUCT RUN, THAT MATCH PRODUCTS INSTALLED AND THAT ARE PACKAGED WITH PROTECTIVE COVERING FOR STORAGE AND IDENTIFIED WITH LABELS DESCRIBING CONTENTS.

1. PAINT: 5 PERCENT, BUT NOT LESS THAN 1 GAL. OF EACH MATERIAL AND COLOR APPLIED.

1.6 QUALITY ASSURANCE

A. MOCKUPS: APPLY MOCKUPS OF EACH PAINT SYSTEM INDICATED AND EACH COLOR AND FINISH SELECTED TO VERIFY PRELIMINARY SELECTIONS MADE UNDER SAMPLE SUBMITTALS AND TO DEMONSTRATE AESTHETIC EFFECTS AND SET QUALITY STANDARDS FOR MATERIALS AND EXECUTION.

1. ARCHITECT WILL SELECT ONE SURFACE TO REPRESENT SURFACES AND CONDITIONS FOR APPLICATION OF EACH PAINT SYSTEM SPECIFIED IN PART 3.
   a. VERTICAL AND HORIZONTAL SURFACES: PROVIDE SAMPLES OF AT LEAST 100 SQ. FT.
   b. OTHER ITEMS: ARCHITECT WILL DESIGNATE ITEMS OR AREAS REQUIRED.
2. FINAL APPROVAL OF COLOR SELECTIONS WILL BE BASED ON MOCKUPS.
   a. IF PRELIMINARY COLOR SELECTIONS ARE NOT APPROVED, APPLY ADDITIONAL MOCKUPS OF ADDITIONAL COLORS SELECTED BY ARCHITECT AT NO ADDED COST TO OWNER.
3. APPROVAL OF MOCKUPS DOES NOT CONSTITUTE APPROVAL OF DEVIATIONS FROM THE CONTRACT DOCUMENTS CONTAINED IN MOCKUPS UNLESS ARCHITECT SPECIFICALLY APPROVES SUCH DEVIATIONS IN WRITING.
4. SUBJECT TO COMPLIANCE WITH REQUIREMENTS, APPROVED MOCKUPS MAY BECOME PART OF THE COMPLETED WORK IF UNDISTURBED AT TIME OF SUBSTANTIAL COMPLETION.

1.7 DELIVERY, STORAGE, AND HANDLING

A. STORE MATERIALS NOT IN USE IN TIGHTLY COVERED CONTAINERS IN WELL-VENTILATED AREAS WITH AMBIENT TEMPERATURES CONTINUOUSLY MAINTAINED AT NOT LESS THAN 45 DEG F.

1. MAINTAIN CONTAINERS IN CLEAN CONDITION, FREE OF FOREIGN MATERIALS AND RESIDUE.
2. REMOVE RAGS AND WASTE FROM STORAGE AREAS DAILY.

1.8 FIELD CONDITIONS

A. APPLY PAINTS ONLY WHEN TEMPERATURE OF SURFACES TO BE PAINTED AND AMBIENT AIR TEMPERATURES ARE BETWEEN 50 AND 95 DEG F.

B. DO NOT APPLY PAINTS IN SNOW, RAIN, FOG, OR MIST; WHEN RELATIVE HUMIDITY EXCEEDS 85 PERCENT; AT TEMPERATURES LESS THAN 5 DEG F ABOVE THE DEW POINT; OR TO DAMP OR WET SURFACES.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE MANUFACTURERS OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

1. BENJAMIN MOORE & CO.
2. CLOVERDALE PAINT.
3. DURON, INC.
4. ICI PAINTS.
5. KELLY-MOORE PAINTS.
6. PPG ARCHITECTURAL FINISHES, INC.
7. SHERWIN-WILLIAMS COMPANY (THE).

2.2 PAINT, GENERAL

A. MPI STANDARDS: PROVIDE PRODUCTS THAT COMPLY WITH MPI STANDARDS INDICATED AND THAT ARE LISTED IN ITS "MPI APPROVED PRODUCTS LIST."

B. MATERIAL COMPATIBILITY:

1. PROVIDE MATERIALS FOR USE WITHIN EACH PAINT SYSTEM THAT ARE COMPATIBLE WITH ONE ANOTHER AND SUBSTRATES INDICATED, UNDER CONDITIONS OF SERVICE AND APPLICATION AS DEMONSTRATED BY MANUFACTURER, BASED ON TESTING AND FIELD EXPERIENCE.
2. FOR EACH COAT IN A PAINT SYSTEM, PROVIDE PRODUCTS RECOMMENDED IN WRITING BY MANUFACTURERS OF TOPCOAT FOR USE IN PAINT SYSTEM AND ON SUBSTRATE INDICATED.

C. VOC CONTENT: PROVIDE MATERIALS THAT COMPLY WITH VOC LIMITS OF AUTHORITIES HAVING JURISDICTION.

D. COLORS: MATCH ARCHITECT'S SAMPLES.

PART 3 - EXECUTION

3.1 EXAMINATION

A. EXAMINE SUBSTRATES AND CONDITIONS, WITH APPLICATOR PRESENT, FOR COMPLIANCE WITH REQUIREMENTS FOR MAXIMUM MOISTURE CONTENT AND OTHER CONDITIONS AFFECTING PERFORMANCE OF THE WORK.

B. MAXIMUM MOISTURE CONTENT OF SUBSTRATES: WHEN MEASURED WITH AN ELECTRONIC MOISTURE METER AS FOLLOWS:

1. CONCRETE: 12 PERCENT.
2. MASONRY (CLAY AND CMU): 12 PERCENT.
3. WOOD: 15 PERCENT.
4. PORTLAND CEMENT PLASTER: 12 PERCENT.
5. GYPSUM BOARD: 12 PERCENT.

C. PORTLAND CEMENT PLASTER SUBSTRATES: VERIFY THAT PLASTER IS FULLY CURED.

D. EXTERIOR GYPSUM BOARD SUBSTRATES: VERIFY THAT FINISHING COMPOUND IS SANDED SMOOTH.

E. VERIFY SUITABILITY OF SUBSTRATES, INCLUDING SURFACE CONDITIONS AND COMPATIBILITY WITH EXISTING FINISHES AND PRIMERS.

F. PROCEED WITH COATING APPLICATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

1. APPLICATION OF COATING INDICATES ACCEPTANCE OF SURFACES AND CONDITIONS.

3.2 PREPARATION

A. COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS IN "MPI MANUAL" AND "MPI MAINTENANCE REPAINTING MANUAL" APPLICABLE TO SUBSTRATES AND PAINT SYSTEMS INDICATED.

B. REMOVE HARDWARE, COVERS, PLATES, AND SIMILAR ITEMS ALREADY IN PLACE THAT ARE REMOVABLE AND ARE NOT TO BE PAINTED. IF REMOVAL IS IMPRACTICAL OR IMPOSSIBLE BECAUSE OF SIZE OR WEIGHT OF ITEM, PROVIDE SURFACE-APPLIED PROTECTION BEFORE SURFACE PREPARATION AND PAINTING.

1. AFTER COMPLETING PAINTING OPERATIONS, USE WORKERS SKILLED IN THE TRADES INVOLVED TO REINSTALL ITEMS THAT WERE REMOVED. REMOVE SURFACE-APPLIED PROTECTION.

C. CLEAN SUBSTRATES OF SUBSTANCES THAT COULD IMPAIR BOND OF PAINTS, INCLUDING DUST, DIRT, OIL, GREASE, AND INCOMPATIBLE PAINTS AND ENCAPSULANTS.

1. REMOVE INCOMPATIBLE PRIMERS AND REPRIME SUBSTRATE WITH COMPATIBLE PRIMERS OR APPLY TIE COAT AS REQUIRED TO PRODUCE PAINT SYSTEMS INDICATED.

D. CONCRETE SUBSTRATES: REMOVE RELEASE AGENTS, CURING COMPOUNDS, EFFLORESCENCE, AND CHALK. DO NOT PAINT SURFACES IF MOISTURE CONTENT OR ALKALINITY OF SURFACES TO BE PAINTED EXCEEDS THAT PERMITTED IN MANUFACTURER'S WRITTEN INSTRUCTIONS.

E. MASONRY SUBSTRATES: REMOVE EFFLORESCENCE AND CHALK. DO NOT PAINT SURFACES IF MOISTURE CONTENT OR ALKALINITY OF SURFACES OR MORTAR JOINTS EXCEEDS THAT PERMITTED IN MANUFACTURER'S WRITTEN INSTRUCTIONS.

F. STEEL SUBSTRATES: REMOVE RUST, LOOSE MILL SCALE, AND SHOP PRIMER IF ANY. CLEAN USING METHODS RECOMMENDED IN WRITING BY PAINT MANUFACTURER, BUT NOT LESS THAN THE FOLLOWING:

1. SSPC-SP 3, "POWER TOOL CLEANING."

G. GALVANIZED-METAL SUBSTRATES: REMOVE GREASE AND OIL RESIDUE FROM GALVANIZED SHEET METAL BY MECHANICAL METHODS TO PRODUCE CLEAN, LIGHTLY ETCHED SURFACES THAT PROMOTE ADHESION OF SUBSEQUENTLY APPLIED PAINTS.

H. WOOD SUBSTRATES:

1. SCRAPE AND CLEAN KNOTS. BEFORE APPLYING PRIMER, APPLY COAT OF KNOT SEALER RECOMMENDED IN WRITING BY TOPCOAT MANUFACTURER FOR EXTERIOR USE IN PAINT SYSTEM INDICATED.
2. SAND SURFACES THAT WILL BE EXPOSED TO VIEW, AND DUST OFF.
3. PRIME EDGES, ENDS, FACES, UNDERSIDES, AND BACKSIDES OF WOOD.
4. AFTER PRIMING, FILL HOLES AND IMPERFECTIONS IN THE FINISH SURFACES WITH PUTTY OR PLASTIC WOOD FILLER. SAND SMOOTH WHEN DRIED.

3.3 APPLICATION

A. APPLY PAINTS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS IN "MPI MANUAL."

1. USE APPLICATORS AND TECHNIQUES SUITED FOR PAINT AND SUBSTRATE INDICATED.
2. PAINT SURFACES BEHIND MOVABLE ITEMS SAME AS SIMILAR EXPOSED SURFACES. BEFORE FINAL INSTALLATION, PAINT SURFACES BEHIND PERMANENTLY FIXED ITEMS WITH PRIME COAT ONLY.
3. PAINT BOTH SIDES AND EDGES OF EXTERIOR DOORS AND ENTIRE EXPOSED SURFACE OF EXTERIOR DOOR FRAMES.
4. DO NOT PAINT OVER LABELS OF INDEPENDENT TESTING AGENCIES OR EQUIPMENT NAME, IDENTIFICATION, PERFORMANCE RATING, OR NOMENCLATURE PLATES.
5. PRIMERS SPECIFIED IN PAINTING SCHEDULES MAY BE OMITTED ON ITEMS THAT ARE FACTORY PRIMED OR FACTORY FINISHED IF ACCEPTABLE TO TOPCOAT MANUFACTURERS.

B. IF UNDERCOATS OR OTHER CONDITIONS SHOW THROUGH TOPCOAT, APPLY ADDITIONAL COATS UNTIL CURED FILM HAS A UNIFORM PAINT FINISH, COLOR, AND APPEARANCE.

C. APPLY PAINTS TO PRODUCE SURFACE FILMS WITHOUT CLOUDINESS, SPOTTING, HOLIDAYS, LAPS, BRUSH MARKS, ROLLER TRACKING, RUNS, SAGS, ROPINESS, OR OTHER SURFACE IMPERFECTIONS. CUT IN SHARP LINES AND COLOR BREAKS.

D. PAINTING FIRE SUPPRESSION, PLUMBING, HVAC, ELECTRICAL, COMMUNICATION, AND ELECTRONIC SAFETY AND SECURITY WORK:

1. PAINT THE FOLLOWING WORK WHERE EXPOSED TO VIEW:
   a. EQUIPMENT, INCLUDING PANEL BOARDS AND SWITCH GEAR.
   b. UNINSULATED METAL PIPING.
   c. UNINSULATED PLASTIC PIPING.
   d. PIPE HANGERS AND SUPPORTS.
   e. METAL CONDUIT.
   f. PLASTIC CONDUIT.
   g. TANKS THAT DO NOT HAVE FACTORY-APPLIED FINAL FINISHES.

SECTION 099113 (cont'd)

EXTERIOR PAINTING

3.4 CLEANING AND PROTECTION

A. AT END OF EACH WORKDAY, REMOVE RUBBISH, EMPTY CANS, RAGS, AND OTHER DISCARDED MATERIALS FROM PROJECT SITE.

B. AFTER COMPLETING PAINT APPLICATION, CLEAN SPATTERED SURFACES. REMOVE SPATTERED PAINTS BY WASHING, SCRAPING, OR OTHER METHODS. DO NOT SCRATCH OR DAMAGE ADJACENT FINISHED SURFACES.

C. PROTECT WORK OF OTHER TRADES AGAINST DAMAGE FROM PAINT APPLICATION. CORRECT DAMAGE TO WORK OF OTHER TRADES BY CLEANING, REPAIRING, REPLACING, AND REFINISHING, AS APPROVED BY ARCHITECT, AND LEAVE IN AN UNDAMAGED CONDITION.

D. AT COMPLETION OF CONSTRUCTION ACTIVITIES OF OTHER TRADES, TOUCH UP AND RESTORE DAMAGED OR DEFACED PAINTED SURFACES.

3.5 EXTERIOR PAINTING SCHEDULE

A. CONCRETE SUBSTRATES, NONTRAFFIC SURFACES:

1. LATEX SYSTEM:
   a. PRIME COAT: LATEX, EXTERIOR, MATCHING TOPCOAT.
   b. INTERMEDIATE COAT: LATEX, EXTERIOR, MATCHING TOPCOAT.
   c. TOPCOAT: LATEX, EXTERIOR SEMI-GLOSS (GLOSS LEVEL 5), MPI #11.

B. CLAY-MASONRY SUBSTRATES:

1. HIGH-BUILD LATEX SYSTEM: DRY FILM THICKNESS NOT LESS THAN 10 MILS.
   a. PRIME COAT: AS RECOMMENDED IN WRITING BY TOPCOAT MANUFACTURER.
   b. INTERMEDIATE COAT: AS RECOMMENDED IN WRITING BY TOPCOAT MANUFACTURER.
   c. TOPCOAT: LATEX, EXTERIOR, HIGH BUILD, MPI #40.

C. STEEL SUBSTRATES:

1. WATER-BASED LIGHT INDUSTRIAL COATING SYSTEM:
   a. PRIME COAT: PRIMER, ALKYD, ANTI-CORROSIVE FOR METAL, MPI #79.
   b. INTERMEDIATE COAT: LIGHT INDUSTRIAL COATING, EXTERIOR, WATER BASED, MATCHING TOPCOAT.
   c. TOPCOAT: LIGHT INDUSTRIAL COATING, EXTERIOR, WATER BASED, SEMI-GLOSS (GLOSS LEVEL 5), MPI #163.

D. GALVANIZED-METAL SUBSTRATES:

1. WATER-BASED LIGHT INDUSTRIAL COATING SYSTEM:
   a. PRIME COAT: PRIMER, GALVANIZED METAL, AS RECOMMENDED IN WRITING BY TOPCOAT MANUFACTURER FOR EXTERIOR USE ON GALVANIZED-METAL SUBSTRATES WITH TOPCOAT INDICATED.
   b. INTERMEDIATE COAT: LIGHT INDUSTRIAL COATING, EXTERIOR, WATER BASED, MATCHING TOPCOAT.
   c. TOPCOAT: LIGHT INDUSTRIAL COATING, EXTERIOR, WATER BASED, SEMI-GLOSS (GLOSS LEVEL 5), MPI #163.

E. WOOD SUBSTRATES: INCLUDING PLYWOOD SOFFITS.

1. LATEX OVER ALKYD PRIMER SYSTEM:
   a. PRIME COAT: PRIMER, ALKYD FOR EXTERIOR WOOD, MPI #5.
   b. INTERMEDIATE COAT: LATEX, EXTERIOR, MATCHING TOPCOAT.
   c. TOPCOAT: LATEX, EXTERIOR FLAT (GLOSS LEVEL 1), MPI #10.

F. PORTLAND CEMENT PLASTER SUBSTRATES:

1. LATEX OVER ALKALI-RESISTANT PRIMER SYSTEM:
   a. PRIME COAT: PRIMER, ALKALI RESISTANT, WATER BASED, MPI #3.
   b. INTERMEDIATE COAT: LATEX, EXTERIOR, MATCHING TOPCOAT.
   c. TOPCOAT: LATEX, EXTERIOR FLAT (GLOSS LEVEL 1), MPI #10.

G. EXTERIOR GYPSUM BOARD SUBSTRATES:

1. LATEX SYSTEM:
   a. PRIME COAT: LATEX, EXTERIOR, MATCHING TOPCOAT.
   b. INTERMEDIATE COAT: LATEX, EXTERIOR, MATCHING TOPCOAT.
   c. TOPCOAT: LATEX, EXTERIOR FLAT (GLOSS LEVEL 1), MPI #10.

GENERAL SPECIFICATION

BOOTH / BANQUETTE

ALL UPHOLSTERED AND CHAIR SEATING TO BE CONTRACT QUALITY AND SUITABLE FOR COMMERCIAL USE.
ALL METHODS OF FABRIC TREATMENT SHALL NOT AFFECT FABRIC COLOR, TEXTURE, OR FABRIC MANUFACTURER'S GUARANTEES. SHOULD FABRIC TREATMENT PROCESS CAUSE CHANGE IN COLOR AND EFFECT ON FINISH MATERIAL, THE ARCHITECT TO BE PROVIDED WITH A SAMPLE FOR REVIEW PRIOR TO PROCEEDING.
URETHANE FOAM CUSHIONING: MUST BE COMBUSTION MODIFIED HIGH RESILIENCY (ICMR) FOAM. SEAT CUSHIONS IN EXCESS OF 1-1/2" (40MM) THICKNESS MUST HAVE AN ILD OF 25. SEAT CUSHIONS 1-1/2" (40MM) THICKNESS OR LESS MUST HAVE AN ILD OF
35 OR GREATER.
SEAT SPRINGING: UNLESS OTHERWISE SPECIFIED OR APPROVED SPRINGS BENEATH SEATS OF FULLY UPHOLSTERED SEATING SHALL BE 8 WAY HAND TIED SPRINGS WITH L2 OZ BONDED POLYESTER DECK INSULATOR.
WHERE SINUOUS (NO SAG) SPRINGS ARE SPECIFIED OR OTHERWISE APPROVED BY THE DESIGNER, SPRINGS SHALL BE CONSTRUCTED OF 8 GAUGE SPRING WIRE AT 5 INCHES OR LESS ON CENTER. MANUFACTURER SHALL PROVIDE NOISE ABATING COATED SPRING CLIPS AND LATERAL STABILIZING WRAPPED EDGE WIRE. MANUFACTURER SHALL PROVIDE 2 OZ BONDED POLYESTER DECK INSULATOR
BACK SPRINGING: SINUOUS (NO-SAG) CONSTRUCTION USING 11 OR 12 GAUGE WIRE WITH LATERAL STABILIZING WRAPPED EDGE WIRE. MANUFACTURER SHALL PROVIDE NOISE ABATING COATED SPRING CLIPS WITH LATERAL STABILIZING WRAPPED EDGE WIRE.
MANUFACTURER TO SUBMIT REPRODUCIBLE SHOP DRAWINGS TO THE ARCHITECT FOR APPROVAL PRIOR TO PRODUCTION.
NO SUBSTITUTIONS OR CHANGES OF EXPLICITLY SPECIFIED MATERIALS ARE TO BE MADE UNLESS APPROVED BY THE ARCHITECT.
MANUFACTURER TO MAKE ALTERNATE SIZE RECOMMENDATIONS TO ARCHITECT IF SCALE AND PROPORTION ARE NOT APPROPRIATE.
ALL UPHOLSTERED AND CHAIR SEATING MUST MEET APPLICABLE CODES.
CONSTRUCTION: FRAME TO BE CONSTRUCTED OF FIVE QUARTER KILN-DRIED HARDWOOD, REINFORCED WITH CORNER BLOCKS, GLUED AND SCREWED TO RAIL. ALL RAILS AND POSTS TO BE DOUBLE DOWELED, SCREWED AND GLUED IN PLACE. COMPONENTS TO BE FIRE-RETARDANT.
MANUFACTURER TO USE CONTRACT FIRM, FIRE-RETARDANT FOAM.
STANDARD FOAM TO BE POLYDACRON WRAP WITH MUSLIN COVER UNLESS OTHERWISE NOTED. FORM CORE AND WRAP MUST PASS CAL 117.
CUSHIONS TO BE FABRICATED USING POLYESTER WRAPPED IN HIGH RESILIENT POLYURETHANE UNLESS OTHERWISE NOTED. MANUFACTURER AND/OR PA TO CONFIRM YARDAGE OR SQUARE FOOTAGE UPHOLSTERY REQUIREMENTS PRIOR TO FABRICATION.
MANUFACTURER TO SUBMIT FINISH SAMPLES, EITHER STANDARD OR CUSTOM, TO ARCHITECT FOR APPROVAL PRIOR TO FABRICATION.
FABRICS FOR A SINGLE PIECE OF UPHOLSTERED FURNITURE SHOULD BE FROM THE SAME DYE LOT.
ALL INTERNAL HARDWARE (HINGES, SCREWS, BOLTS, ETC) TO BE CORROSION PROOF.
ALL WOOD LEGS TO BE SEALED ON THE UNDERSIDE.
MANUFACTURER TO PROVIDE HEAVY-DUTY CARPET GLIDES OR LEVELERS FOR LEGS AS SPECIFIED.
DEALER/MANUFACTURER TO PROVIDE DELIVERY OF SEATING TO INSIDE OF SPACE, UNCRATING AND REMOVAL OF DEBRIS FOR CONTRACTOR INSTALLATION, UNLESS OTHERWISE NOTED.
WOOD SPECIES ON ALL EXPOSED SOLIDS AND/OR VENEERS TO BE PREMIUM GRADE HARDWOOD UNLESS OTHERWISE NOTED.
ALL DIMENSIONS ARE TO BE COORDINATED WITH THE ARCHITECT PRIOR TO ORDERING.
MANUFACTURER TO FOLLOW WOOD GRAIN DIRECTION PER ARCHITECT'S DRAWINGS.
IN THE EVENT THAT LOCAL CODES EXCEED THE REQUIREMENTS CONTAINED HEREIN, THE LOCAL CODES MUST BE INTERPRETED AS MINIMUM REQUIREMENTS.

16050 BASIC MATERIALS

(NOTE: REFER TO ENGINEERING DRAWINGS FOR COMPLETE ELECTRICAL SPECIFICATIONS.)

A. ELECTRICAL RECEPTACLES SHALL BE DECORA BY LEVITON (800-323-8920). COLOR SHALL BE BLACK EXCEPT FOR RECEPTACLES ON DEDICATED CIRCUITS WHICH SHALL BE GRAY AND ISOLATED GROUND RECEPTACLES WHICH SHALL BE ORANGE. RECEPTACLE FACEPLATES SHALL BE STAINLESS STEEL WITH A SATIN OR BRUSHED FINISH.
B. SWITCHES SHALL BE DECORA BY LEVITON (800-323-8920). COLOR SHALL BE BLACK. SWITCH FACEPLATES SHALL BE STAINLESS STEEL WITH A SATIN OR BRUSHED FINISH.
C. DIMMERS SHALL BE DECORA BY LEVITON (800-323-8920) OR VISUALLY MATCH DECORA STYLE. DIMMERS SHALL BE COMPATIBLE WITH LIGHT FIXTURES AND BALLASTS. COLOR SHALL BE BLACK. FACEPLATES SHALL BE STAINLESS STEEL WITH A SATIN OR BRUSHED FINISH WHERE POSSIBLE - FACEPLATES SHALL MATCH DIMMER AT OTHER LOCATIONS.

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REVISIONS

△		DESCRIPTION
	06/01/26	PERMIT SET

STATUS:
PERMIT SET

FIELD VERIFICATION:
The Contractor shall verify all figured dimensions and conditions at the project site and notify Zebra Architecture, PLLC. of any dimensional errors, omissions or discrepancies before beginning or fabricating any work. Do not scale these drawings.

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SHEET NAME:
SPECIFICATIONS

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN: JB
SCALE: AS NOTED

SHEET NO.:
A704

1. GENERAL
   A. THE GENERAL CONDITIONS OF THE GENERAL SPECIFICATIONS, AND ALL APPLICABLE INSTRUCTIONS TO BIDDERS SHALL BE PART OF THESE SPECIFICATIONS.
   B. THE WORD "PROVIDE" AS USED HEREIN MEANS TO FURNISH AND INSTALL COMPLETE.
   C. THE TERM "CONTRACTOR" AS USED HEREIN MEANS ANY CONTRACTOR OR SUBCONTRACTOR CONTRACTED TO PERFORM WORK INCLUDED IN AND DEFINED BY THIS SECTION.
   D. MECHANICAL WORK SHALL BE PROVIDED IN STRICT COMPLIANCE WITH THE INTERNATIONAL MECHANICAL CODE, NATIONAL ELECTRICAL CODE (NEC), AND ALL APPLICABLE LOCAL ORDINANCES, STATE LAWS AND FEDERAL LAWS.

2. PRIOR TO BIDDING:
   A. THOROUGHLY REVIEW THE BID INSTRUCTIONS INCLUDING ALL CIVIL, ARCHITECTURAL, STRUCTURAL, AND MEP CONSTRUCTION DOCUMENTS. OBTAIN AND THOROUGHLY EXAMINE THE MANUFACTURERS'S WRITTEN INSTALLATION INSTRUCTIONS, DETAILS, AND REQUIREMENTS FOR THE SCHEDULED AND SPECIFIED EQUIPMENT AND MATERIALS. FOR AMBIGUOUS, CONTRADICTORY, OR CONFLICTING ITEMS WITHIN THE CONSTRUCTION DOCUMENTS, THE CONTRACTOR SHALL REQUEST CLARIFICATION IN WRITTEN "REQUEST FOR INFORMATION" (RFI), AT LEAST FIVE (5) WORKING DAYS PRIOR TO BID DATE. RFI NOT CLARIFIED PRIOR TO BID SHALL BE PROVIDED PER THE ARCHITECT (ENGINEER) IN STRICT ACCORDANCE WITH THE MOST STRINGENT MATERIALS, EQUIPMENT, AND SCOPE OF WORK.
   B. EXISTING CONDITIONS: THE CONTRACT DOCUMENTS ARE BASED ON INFORMATION PROVIDED TO CASE ENGINEERING AT THE TIME OF DESIGN. THIS CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS INCLUDING BUT NOT LIMITED TO: EXISTING HVAC SYSTEM LOCATIONS, EXISTING DUCT AND PIPING LAYOUTS, CLEARANCES, ETC. REPORT IN WRITING ANY DISCREPANCIES TO THE ARCHITECT (ENGINEER) AT LEAST FIVE (5) BUSINESS DAYS PRIOR TO BID. DISCREPANCIES NOT CLARIFIED PRIOR TO BID SHALL BE PROVIDED PER THE ARCHITECT (ENGINEER) IN STRICT ACCORDANCE WITH THE MOST STRINGENT MATERIALS, EQUIPMENT, AND SCOPE OF WORK.
   C. IF THE CONTRACTOR BELIEVES THE DRAWINGS AND SPECIFICATIONS CONFLICT WITH CODE REQUIREMENTS, IMMEDIATELY NOTIFY THE ARCHITECT (ENGINEER) IN WRITING.
   D. NO ALLOWANCES WILL BE MADE DUE TO CONTRACTOR'S UNFAMILIARITY WITH THE CONSTRUCTION DOCUMENTS OR FOR THE FAILURE OF THE CONTRACTOR TO OBTAIN CLARIFICATIONS PRIOR TO BID.
   E. VISIT THE JOB SITE AND THOROUGHLY INVESTIGATE CONDITIONS. THE LACK OF SPECIFIC INFORMATION ON THE DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY.
   F. REFER TO APPLICABLE CODES CITED IN CONSTRUCTION DOCUMENTS, EXAMINE GOVERNING STATE AND LOCAL CODES, AND LOCAL REGULATIONS AND ORDINANCES, AND PROVIDE ALL EQUIPMENT AND INSTALLATION IN STRICT ACCORDANCE WITH SAME.
   G. REFER TO CONSTRUCTION DOCUMENTS FOR SCHEDULED AND SPECIFIED MATERIALS AND EQUIPMENT. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND DETAILS.

3. BIDDING
   A. SUBMISSION OF A BID ACKNOWLEDGES THAT THE CONTRACTOR HAS REVIEWED THE BID INSTRUCTIONS, HAS VISITED THE SITE, EXAMINED ALL CONSTRUCTION DOCUMENTS, AND AGREES TO ALL ITEMS AND CONDITIONS WITHIN THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR'S BID SHALL INCLUDE ALL MECHANICAL WORK IN THE CONSTRUCTION DOCUMENTS, INCLUDING MECHANICAL WORK RELATED TO EQUIPMENT FURNISHED/PROVIDED BY OTHERS.

4. PERMITS
   A. SECURE AND PAY FOR ALL PERMITS, LICENSES, AND INSPECTIONS REQUIRED BY THE AHJ FOR THIS WORK.

5. SUBSTITUTIONS
   A. MANUFACTURERS' EQUIPMENT AND MATERIALS SCHEDULED, NOTED, AND SPECIFIED IN THE CONSTRUCTION DOCUMENTS ARE THE DESIGN STANDARD. NO SUBSTITUTIONS WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL BY THE ARCHITECT OR ENGINEER. IN BIDDING, DO NOT ASSUME ACCEPTANCE OF SUBSTITUTIONS. CONTRACTOR MUST STATE IN SUBSTITUTION REQUEST: "PROPOSED SUBSTITUTIONS ARE EQUAL OR OF HIGHER QUALITY, EFFICIENCY AND DEPENDABILITY COMPARED TO THE SPECIFIED EQUIPMENT AND MATERIAL. CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ADDITIONAL ENGINEERING COSTS AND COSTS TO OTHER CONTRACTORS DUE TO SUBSTITUTIONS." IF DEEMED NECESSARY BY THE ARCHITECT OR ENGINEER, SUBSTITUTIONS WHICH ARE NOT APPROVED OR NOT EQUAL TO DESIGN STANDARD SHALL BE REMOVED AND THE SCHEDULED, NOTED, AND SPECIFIED EQUIPMENT AND MATERIALS SHALL BE INSTALLED AT CONTRACTOR'S EXPENSE. SUBMITTING CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ADDITIONAL ENGINEERING COSTS AND COSTS TO OTHER CONTRACTORS DUE TO SUBSTITUTIONS.

6. SCHEDULING
   A. ALL PERFORMANCE OF CONSTRUCTION SHALL BE AS REQUIRED BY THE PACE OF THE GENERAL CONSTRUCTION, AS SCHEDULED BY THE GC. PROVIDE COMPLETE INFORMATION AND FULL COOPERATION WITH OTHER CONTRACTORS AND TRADES, AS REQUIRED FOR THE TIMELY COMPLETION AND COORDINATION OF THE COMPLETE PROJECT.
   B. PROVIDE ALL TESTS AND INSPECTIONS REQUIRED BY AHJ.
   C. PROVIDE A SIGNED CERTIFICATE OF INSPECTION AT THE PROJECT COMPLETION.

7. SCOPE
   A. PROVIDE PERMIT(S), INSPECTIONS, FINAL CERTIFICATE(S) OF INSPECTION BY AHJ, PERMIT AND INSPECTION FEES, AND ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY FOR A COMPLETE AND FULLY OPERATING HVAC SYSTEM.
   B. INSTALL ALL WORK AND EQUIPMENT RIGID, DEAD LEVEL, PLUMB, AND TRUE-TO-LINE. UNLESS NOTED OTHERWISE, SUPPORT AND MOUNTING OF EQUIPMENT, DUCT, PIPING, ETC., ARE THIS CONTRACTOR'S MEANS AND METHODS. THE CONTRACTOR SHALL UNDERSTAND THE SPECIFIED AND SCHEDULED EQUIPMENT AND MATERIALS AND MEANS AND METHODS OF INSTALLATION. THIS CONTRACTOR SHALL PROVIDE ALL ACCESSORIES REQUIRED FOR PROPER SUPPORT WHETHER SHOWN ON THE DRAWINGS OR NOT. IF SUPPORTS ARE REQUIRED, CONTRACTOR SHALL SUBMIT DRAWINGS TO THE ARCHITECT FOR APPROVAL.
   C. PROVIDE ACCESSORY MOUNTING HARDWARE INCLUDING BUT NOT LIMITED TO STRUCTURAL STEEL, STRUT SYSTEMS, ALL THREAD RODS, AND BRACES, AS REQUIRED TO MOUNT EQUIPMENT. PROVIDE STEEL SHAPES AND FRAMES TO SUPPORT EQUIPMENT WHERE NEEDED. ALL SYSTEMS SHALL BE SUPPORTED INDEPENDENT OF AND ISOLATED FROM EQUIPMENT VIBRATION.
   D. PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' PRINTED INSTALLATION AND MAINTENANCE LITERATURE. COMPONENTS REQUIRING PERIODIC MAINTENANCE OR ADJUSTMENTS SHALL BE INSTALLED AS TO PERMIT ACCESS WITHOUT DAMAGE TO STRUCTURE, FINISHES, OR OTHER EQUIPMENT.
   E. DEMOLITION: REFER TO THE ARCHITECTURAL DRAWINGS FOR THE GENERAL SCOPE OF DEMOLITION. THIS CONTRACTOR SHALL DISCONNECT AND CAREFULLY REMOVE ALL EXISTING HVAC EQUIPMENT LOCATED IN DEMOLISHED AREAS INCLUDING ROOF, PLENUMS, CEILINGS, WALLS, AND FLOORS. U.N.O., DISCONNECT AND REMOVE EXISTING HVAC SYSTEMS COMPLETE, INCLUDING EQUIPMENT, CURBS, DUCTS, INSULATION, AIR DEVICES, AND PIPING LOCATED IN THESE AREAS. ALL HVAC SYSTEM COMPONENTS INCLUDING AIR TERMINAL UNITS, FANS, MOTORS, CONTROL DEVICES AND SENSORS, DAMPERS, ACTUATORS, HANGERS, RESTRAINTS, MOUNTING HARDWARE, ETC., SHALL BE REMOVED AND LEGALLY DISPOSED OF BY THIS CONTRACTOR.
   F. UNLESS NOTED OTHERWISE, ABANDONMENT IN PLACE (AIP) IS NOT ACCEPTABLE. UNUSED EQUIPMENT, DUCT, PIPING, AND OTHER COMPONENTS WITHIN OR SERVING THIS SPACE MUST BE COMPLETELY REMOVED TO POINT OF ORIGIN. ENDS OF SYSTEMS BEYOND GENERAL SCOPE OF DEMOLITION MAY BE ABANDONED ONLY WITH WRITTEN APPROVAL OF ARCHITECT (ENGINEER). WHERE THESE ABANDONED ENDS TERMINATE, TRIM CLEANLY AND PROPERLY CAP OR SEAL IN AN APPROVED MANNER, LEAVING TERMINATION SAFE AND SECURE BEHIND NEW FINISHES. MAINTAIN SYSTEM CONTINUITY TO HVAC SYSTEMS SERVING AREAS BEYOND GENERAL DEMOLITION, AS NEEDED. THIS INCLUDES BUT IS NOT LIMITED TO REMOVAL, MODIFICATION AND/OR REINSTALLATION OF EQUIPMENT, AS NEEDED. COMPLETION OF THIS PROJECT SHALL INCLUDE RETURNING THESE ADJACENT AREAS TO FULLY FUNCTIONING OPERATION.
   G. CONTRACTOR SHALL PROVIDE DAILY CLEAN-UP, REMOVAL AND LEGAL DISPOSAL OF ALL RUBBISH GENERATED BY THIS WORK.
   H. AS-BUILT DRAWINGS: DURING CONSTRUCTION, AS WORK PROCEEDS, MAINTAIN AS-BUILT MARK-UPS OF ACTUAL INSTALLATION. AT CONSTRUCTION COMPLETION AND PRIOR TO TURNOVER TO OWNER (TENANT), PROVIDE FINAL MARK-UPS IN PDF FORMAT TO ARCHITECT AND ENGINEER.
   I. PROVIDE FINAL CONNECTIONS TO EQUIPMENT FURNISHED/PROVIDED BY OTHERS, AS NOTED (GAS FIRED EQUIPMENT, COMMERCIAL KITCHEN EQUIPMENT, ETC.).
   J. DO NOT ROUTE ANY PIPING OR DUCTWORK ABOVE ELECTRICAL PANELS.
   K. UNLESS NOTED OTHERWISE, ALL DUCT AND PIPE SHALL BE RUN PARALLEL TO OR AT RIGHT ANGLES TO WALLS, BEAMS, OR COLUMNS. PIPE SHALL BE RUN AS DIRECT AS POSSIBLE - AVOID UNNECESSARY OFFSETS AND MAXIMIZE HEADROOM.
   L. PRIOR TO ORDERING EQUIPMENT, THIS CONTRACTOR SHALL PROVIDE FINAL COORDINATION OF ELECTRICAL POWER REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.
   M. CONTRACTOR SHALL MAINTAIN ACTIVITIES WITHIN AREA APPROVED BY OWNER OR GC. CONTRACTOR'S ACTIVITIES SHALL NOT INTERFERE WITH THE OWNER'S OPERATIONS, EXCEPT AS APPROVED.
   N. EXCEPT THOSE COORDINATED AND APPROVED BY THE G.C., CONTINUITY OF ALL BUILDING SERVICES AND UTILITIES SERVING BUILDING FACILITIES SHALL BE MAINTAINED UNINTERRUPTED AT NO ADDITIONAL COST. PROVIDE ALL NECESSARY CROSS CONNECTIONS AND TEMPORARY CONNECTIONS REQUIRED TO PERFORM THE CONSTRUCTION, AS DETERMINED BY THE G.C., AND NEEDED TO MAINTAIN CONTINUITY OF THE BUILDING SERVICE(S). THIS CONTRACTOR SHALL SCHEDULE WORK SUCH THAT ANY AND ALL CONNECTIONS, AND/OR REARRANGEMENT OF EXISTING EQUIPMENT, PIPING, ETC., SHALL ASSURE FULL RESUMPTION OF SERVICE(S) AT THE G.C.'S DESIGNATED TIME.

8. CODE REQUIREMENTS
   A. ALL WORK SHALL COMPLY WITH THE CONSTRUCTION DOCUMENTS OR, AS DIRECTED BY THE ARCHITECT (ENGINEER), AND SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES, AND REGULATIONS OF THE AHJ, WHETHER SO SHOWN OR NOT. CONTRACTOR SHALL BE FAMILIAR WITH PROVISIONS OF ALL APPLICABLE CODES AND SHALL INSURE THE WORK COMPLIES WITH ALL LOCAL, STATE AND FEDERAL CODES. TRADE STANDARDS AND MANUFACTURER'S RECOMMENDATIONS. IF CONTRACTOR BELIEVES THE DRAWINGS AND/OR SPECIFICATIONS CONFLICT WITH CODE REQUIREMENTS, IMMEDIATELY NOTIFY THE G.C. IN WRITING. DO NOT INSTALL WORK NOT COMPLYING WITH CODE REQUIREMENTS. IN CASE OF CONFLICT BETWEEN THE CONSTRUCTION DOCUMENTS AND THE CODES AND ORDINANCES, THE HIGHEST STANDARD SHALL APPLY. AS A MINIMUM STANDARD, CONTRACTOR SHALL SATISFY CODE REQUIREMENTS. ALL MODIFICATIONS REQUIRED BY AHJ SHALL BE MADE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. BEFORE COMMENCING WORK NOT SHOWN IN DOCUMENTS BUT REQUIRED TO ACHIEVE FULL COMPLIANCE WITH CODES, CONTRACTOR SHALL NOTIFY ARCHITECT (ENGINEER).

9. CUTTING & PATCHING
   A. CORE-DRILL OR SAW-CUT EXISTING FLOORS, WALLS, ROOF, ETC., AS REQUIRED FOR EQUIPMENT, PIPE, OR DUCTWORK. PRIOR TO CUTTING, PERFORM NON-DESTRUCTIVE TESTING TO VERIFY LOCATION OF STRUCTURAL COMPONENTS. NOTIFY ARCHITECT (ENGINEER) OF ANY DISCREPANCIES. PATCH SURROUNDING AREAS FLUSH WITH ADJACENT SURFACE AND READY TO RECEIVE FINISH. PATCH AND REPAIR ROOF TO MATCH EXISTING ROOFING. ALL ROOF WORK SHALL MEET WARRANTY REQUIREMENTS OF EXISTING ROOFING. COORDINATE REQUIRED OPENINGS AND PENETRATIONS WITH THE GC AND OTHER TRADES. (OPENINGS IN FOUNDATIONS, FLOORS, WALLS, CEILINGS, AND ROOF SHALL BE BUILT INTO THE STRUCTURE WITH SLEEVES, CURBS, ETC.)

10. FIRE STOPPING
   A. PROVIDE FIRE STOPPING FOR PENETRATIONS OF DUCT, PIPING, AND OTHER MECHANICAL EQUIPMENT THROUGH FIRE-RATED VERTICAL BARRIERS (WALLS AND PARTITIONS), HORIZONTAL BARRIERS (FLOOR/CEILING ASSEMBLIES), AND VERTICAL SERVICE SHAFT WALLS AND PARTITIONS. FIRESTOP SYSTEM INSTALLATION MUST MEET REQUIREMENTS OF ASTM E 814 OR UL 1479 TESTED ASSEMBLIES THAT PROVIDE A FIRE RATING EQUAL TO OR GREATER THAN THAT OF CONSTRUCTION BEING PENETRATED. INSTALL IN STRICT ACCORDANCE WITH UL FIRE RESISTANCE DIRECTORY, AHJ, AND MANUFACTURER'S SPECIFIED REQUIREMENTS. ONLY TESTED FIRESTOP SYSTEMS BY "3M", "HILTI", OR EQUAL SHALL BE USED. REFER TO ARCHITECTURAL DRAWINGS FOR ASSEMBLY RATING.

11. MATERIALS AND WORKMANSHIP
   A. ALL MANUFACTURED ARTICLES, MATERIALS, AND EQUIPMENT SHALL BE NEW U.N.O., FREE OF DEFECTS, AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND DETAILS, AND INDEPENDENTLY TESTED AND LABELED BY A NATIONALLY RECOGNIZED TESTING LABORATORY - UNDERWRITERS LABORATORIES (UL) OR INTERTEK (ETL). ALL LIKE MATERIALS USED SHALL BE OF THE SAME MANUFACTURE AND QUALITY U.N.O.
   B. ALL MATERIALS WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E84 OR UL 723. ALL MATERIALS INSTALLED IN PLENUM SPACES SHALL BE LISTED AND LABELED FOR SUCH APPLICATION.
   C. ALL WORK SHALL BE SUPERVISED BY THE INSTALLING CONTRACTOR'S COMPETENT AND SKILLED FOREMAN. ALL WORK SHALL BE PERFORMED BY COMPETENT AND SKILLED WORKERS, WITH ALL TRADE AND MANUFACTURER REQUIRED TRAINING, AND EXECUTED IN A NEAT AND WORKMANLIKE MANNER. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE BEST QUALITY STANDARDS OF THE TRADE AND IN CONFORMANCE WITH ALL FEDERAL, STATE, AND LOCAL CODES AND STANDARDS, INCLUDING APPLICABLE OSHA REGULATIONS. PROPERLY PROTECT WORK DURING CONSTRUCTION. AT CONSTRUCTION COMPLETION, THOROUGHLY CLEAN WORK AND REMOVE ALL DEBRIS FROM THE PREMISES.

12. PROTECTION OF WORK AND PROPERTY
   A. PROTECT ALL WORK FROM DAMAGE AND PROTECT THE OWNER'S PROPERTY FROM DIRT, DAMAGE, OR LOSS ARISING FROM CONTRACTOR WORK.
   B. COMPLY WITH OSHA REQUIREMENTS AND TAKE ALL NECESSARY PRECAUTIONS FOR EMPLOYEE SAFETY.
   C. PROTECT ALL OPEN PIPING, DUCT, AND EQUIPMENT, EXISTING AND NEW FROM CONSTRUCTION DIRT AND DUST. COVER, CAP, OR PLUG OPEN ENDS OF PIPING AND DUCT. KEEP EQUIPMENT CLOSED OR COVER AND SEAL EQUIPMENT OPENINGS. ANY MECHANICAL SYSTEMS, NEW AND/OR EXISTING OPERATED DURING CONSTRUCTION SHALL BE PROTECTED BY COVERING EACH RETURN AIR DUCT OPENING WITH MERV 8 FILTERS AND INSTALLING MERV 8 FILTER(S) IN EQUIPMENT FILTER RACK. PRIOR TO TESTING AND BALANCING, REMOVE FILTERS FROM FILTER RACKS AND INSTALL NEW MERV 8 FILTERS.
   D. AT COMPLETION OF WORK, PRIOR TO EQUIPMENT START-UP, REMOVE COVERS, CAPS, OR PLUGS ON DUCT AND PIPING.

13. DAMAGE BY LEAKS
   A. THIS CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL DAMAGES TO THE PROPERTY (GROUNDS, WALKS, ROADS, BUILDING COMPONENTS, FINISHES, PIPING SYSTEMS, ELECTRICAL SYSTEMS, HVAC SYSTEMS, AND THEIR EQUIPMENT AND CONTENT) CAUSED BY LEAKS IN THE SYSTEMS BEING INSTALLED OR HAVING BEEN INSTALLED AS PART OF THIS WORK. ALL REPAIRS WILL BE MADE AT THIS CONTRACTOR'S EXPENSE.

14. DRAWINGS AND SPECIFICATIONS
   A. DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO SHOW GENERAL LOCATIONS OF DUCTS, PIPES, AND EQUIPMENT AND THE METHODS OF CONNECTING AND CONTROL. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONDITIONS AND THE WORK OF OTHER TRADES PERMIT. THE DRAWINGS ARE NOT INTENDED TO SHOW EVERY CONNECTION IN DETAIL OR ALL OFFSETS, TRANSITIONS, OR FITTINGS REQUIRED FOR A COMPLETE SYSTEM NOR IS IT IMPLIED THAT ALL CONFLICTS BETWEEN BUILDING ELEMENTS AND/OR OTHER TRADES ARE INDICATED. DO NOT SCALE DRAWINGS. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR EXACT LOCATION OF DOORS, WINDOWS, LIGHTS, ETC.
   B. THE DRAWINGS AND SPECIFICATIONS ARE MUTUALLY COMPLEMENTARY, AND ANY WORK REQUIRED BY ONE BUT NOT BY THE OTHER SHALL BE REQUIRED BY BOTH.
   C. PRIOR TO INSTALLING EQUIPMENT, DUCT, OR PIPE COORDINATE PROPOSED LOCATIONS WITH EACH TRADE/DISCIPLINE AND GC. EXAMINE EACH DISCIPLINE'S DRAWINGS FOR CONSTRUCTION DETAILS, CEILING HEIGHTS, REQUIRED CLEARANCES, AND SPACE CONSTRAINTS. PROVIDE SYSTEMS INSTALLATION BASED ON THIS EXAMINATION AND COORDINATION. IMMEDIATELY REPORT INSTALLATION CONFLICTS IN WRITING TO THE GC. RESOLVE ALL CONFLICTS WITH GC AND OTHER TRADES PRIOR TO PROCEEDING. INSTALLING CONTRACTOR IS FULLY RESPONSIBLE FOR CORRECT INTERPRETATION AND APPLICATION OF ALL SIZES AND DIMENSIONS.
   D. SIGNIFICANT DEVIATIONS OR CHANGES FROM THE DRAWINGS, WHICH ARE REQUIRED TO ACCOMPLISH THE INTENT OF THE CONTRACT DOCUMENTS MUST BE REVIEWED AND APPROVED BY THE ARCHITECT (ENGINEER) BEFORE PROCEEDING. IF THE CONTRACTOR BELIEVES CHANGES TO THE CONTRACT DRAWINGS ARE NECESSARY, SHOP DRAWINGS WITH WRITTEN DESCRIPTIONS OF THE PROPOSED CHANGES SHALL BE SUBMITTED TO THE ARCHITECT (ENGINEER) FOR APPROVAL.
   E. ALL PIPE, DUCTS, VENTS, ETC., EXTENDING THROUGH WALLS AND ROOF SHALL BE FLASHED WATERPROOF. PROVIDE ALL FLASHING FOR PIPE AND DUCTWORK PENETRATING BUILDING ENVELOPE. PROVIDE DUCT AND/OR PIPE SLEEVES AT WALL PENETRATIONS. SEAL ANNULAR SPACE WEATHER TIGHT.

15. CONTROLS
   A. PROVIDE COMPLETE EQUIPMENT CONTROLS, INCLUSIVE OF ALL COMPONENTS, VOLTAGES, PROGRAMMING, (PNEUMATIC TUBING), WIRING ETC. FOR COMPLETE AND OPERATIONAL SYSTEMS. MOUNT THERMOSTATS AND SWITCHES 4'-0" ABOVE FINISHED FLOOR. MOUNT OTHER SENSORS (HUMIDITY, CO2, CO, NOX, ETC.) PER MANUFACTURER'S IOM. PRIOR TO MOUNTING, COORDINATE THERMOSTAT LOCATION(S) WITH FINAL FIXTURES AND EQUIPMENT. DO NOT MOUNT THERMOSTATS IN DIRECT SUNLIGHT, IN DISCHARGE OF SUPPLY GRILLE(S), NEAR HEAT PRODUCING APPLIANCES OR EQUIPMENT, ON WALLS WITH INTERNAL HEAT SOURCES (DUCT OR PIPING), OR ON EXTERIOR WALLS. IF EXTERIOR WALL MOUNTING IS NECESSARY, PROVIDE INSULATED MOUNTING BASE. WHERE THERMOSTAT LOCATION IS SUBJECT TO DAMAGE, PROVIDE LOCKABLE HIGH-IMPACT GUARD.

16. PIPING
   A. IN FINISHED AREAS, ALL PIPING SHALL BE CONCEALED UNLESS NOTED OTHERWISE.
   B. SEE PIPE SCHEDULE FOR PIPE MATERIALS AND PIPE INSULATION.
   C. DO NOT INSTALL PVC PIPING IN PLENUM AREAS.
   D. BRANCH TAKE-OFFS SHALL BE MADE WITH SWING CONNECTIONS AS REQUIRED TO AVOID STRESS AT THESE POINTS.
   E. DO NOT INSTALL ANY PIPING ABOVE ELECTRICAL PANELS AND/OR TRANSFORMERS.
   F. LABEL PIPE PER BUILDING STANDARD OR AS SCHEDULED.
   G. PAINT PIPE TO MATCH OWNER'S OR BUILDING STANDARD.
   H. INSTALL AND SIZE REFRIGERANT PIPE IN STRICT ACCORDANCE WITH EQUIPMENT/APPLIANCE MANUFACTURER'S IOM. DO NOT INSTALL REFRIGERANT PIPE BELOW GROUND. REFRIGERANT PIPE INSTALLED ON BUILDING EXTERIOR SHALL BE ROUTED TO MINIMIZE EXTERIOR EXPOSURE. INSULATE REFRIGERANT PIPE PER MANUFACTURER'S IOM. PROVIDE INSULATION EXPOSED TO AMBIENT CONDITIONS SHALL WITH CONTINUOUS 3O MIL PVC JACKET.
   I. ROUTE PIPE THROUGH ROOF WITH ALUMINUM PIPE HOOD, PATE CURB MODEL "PHA-2" WITH 14" TALL MODEL "PC-2" CURB. SEAL PIPE THROUGH CURB WEATHER-TIGHT.
   J. ON HYDRONIC PIPING, PROVIDE MANUAL AIR VENTS AT ALL HIGH POINTS TO ALLOW BLEEDING OF AIR FROM THE SYSTEM, AND BALL VALVES WITH HOSE END DRAIN FITTINGS AT ALL LOW POINTS TO ALLOW DRAINING THE SYSTEM.
   K. PRIOR TO INSTALLING EQUIPMENT/APPLIANCES, CAREFULLY CONSIDER FALL REQUIREMENTS OF CONDENSATE DRAIN PIPE. PROVIDE MINIMUM 1/8" / FOOT SLOPE. EXTEND CONDENSATE DRAIN PIPE TO AN APPROVED RECEPTOR AND TERMINATE VIA AN INDIRECT CONNECTION.
   L. ALL HOLES REQUIRED THROUGH EXISTING FLOORS AND MASONRY WALLS SHALL BE CORE DRILLED.

17. DUCT MOUNTED SMOKE DETECTORS
   A. RETURN AIR DUCT MOUNTED SMOKE DETECTORS SHALL BE PROVIDED BY E.C. AND UPON DETECTING SMOKE, SHALL SHUT DOWN PROTECTED AIR SYSTEM (APPLICABLE TO UNITS >2000 CFM).

18. SHOP DRAWINGS
   A. SUBMIT SHOP DRAWINGS ON SCHEDULED AND NOTED EQUIPMENT AND MATERIALS. PRIOR TO SUBMITTAL, EACH SHOP DRAWING SHALL BE REVIEWED BY THE CONTRACTOR TO ASSURE THAT THE PROPOSED EQUIPMENT IS CLEARLY MARKED, HIGHLIGHTED, AND NOTED. ALL DIMENSIONS, QUANTITIES, CONNECTIONS, CAPACITATES AND ACCESSORIES SHALL BE CLEARLY SHOWN IN CONFORMANCE WITH THE CONTRACT DOCUMENTS, AND SHALL BE MARKED OR STAMPED TO CONFIRM THAT SUCH REVIEW WAS MADE AND COMPLIANCE WAS CONFIRMED. SHOP DRAWING SUBMITTED WITHOUT BEING MARKED, HIGHLIGHTED, AND NOTED WILL BE REJECTED WITHOUT REVIEW.
   B. PROVIDE ADEQUATE TIME FOR REVIEW AND CORRECTIONS, IF ANY, TO PREVENT CONSTRUCTION DELAY.
   C. REVIEW OF SHOP DRAWINGS BY THE OWNER, OWNER'S AGENT, ARCHITECT, OR ENGINEER IS FOR GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBILITY FOR COMPLYING WITH ALL TERMS OF THE CONTRACT DOCUMENTS AND FOR PERFORMANCE OF ALL EQUIPMENT AND MATERIALS PURCHASED, FOR QUANTITIES, PROPER FIT, AND OTHER DIMENSIONAL REQUIREMENTS.

19. DUCTWORK
   A. REFER TO DUCT INSULATION SCHEDULE FOR CLARIFICATION OF DUCT DIMENSIONS. PROVIDE ALL DUCTWORK IN STRICT ACCORDANCE WITH THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA) "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE", LATEST EDITION. U.N.O. ALL RIGID DUCTWORK SHALL BE GALVANIZED SHEET METAL. NO FIBERGLASS DUCTBOARD WILL BE ALLOWED. ALL EXPOSED DUCTWORK SHALL HAVE A MILL-PHOSPHATIZED FINISH FOR PAINT ADHESION. EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM TYPE.
   B. REMOVE UNUSED SECTIONS OF DUCTWORK AS DESIGNATED. UNUSED OPENINGS IN EXISTING DUCT SHALL BE SEALED WITH GALVANIZED SHEET METAL OF THE SAME GAUGE AS THE DUCT. INSULATE AND/OR LINE WITH INSULATION TO MATCH EXISTING. SEAL GALVANIZED SHEET METAL CAP TO EXISTING DUCT WITH APPROVED MASTIC. EXISTING DUCT INSULATION AND/OR INSULATION SCRIM DAMAGED BY THIS WORK SHALL BE REPAIRED. SEAL ALL INSULATION SEAMS AND JOINTS.
   C. PROVIDE DAMPERS AT EACH BRANCH DUCT SERVING AIR DEVICES AND AS SHOWN AND DETAILED. ALL FLEXIBLE DUCT SHALL BE THERMAFLEX TYPE MKE, MAXIMUM 8'-0" LONG. FLEXDUCT SHALL BE INSTALLED IN ACCESSIBLE CONCEALED SPACES ONLY AND WITHOUT SAGS. INSTALLATION ABOVE INACCESSIBLE CEILINGS IS UNACCEPTABLE.

20. DUCT SEALING
   A. IN CONDITIONED AREAS, SEAL ALL LONGITUDINAL AND TRANSVERSE JOINTS WITH A NON-HARDENING, NON-MIGRATING MASTIC OR LIQUID ELASTIC SEALANT, WITH VOC CONTENT NO GREATER THAN 250G/L AND RECOMMENDED BY THE MANUFACTURER FOR SEALING SHEET METAL DUCT. SEAL ALL JOINTS, SPIN-IN FITTINGS, AND FASTENING SCREWS WITH MASTIC. HVAC SYSTEM LEAKAGE SHALL NOT EXCEED 5% OF DESIGN FLOW.
   B. IN UNCONDITIONED AREAS (INCLUDING BUT NOT LIMITED TO EXTERIOR OF BUILDING, ATTIC, CRAWL SPACES, ETC.): SEAL ALL LONGITUDINAL AND TRANSVERSE JOINTS WITH CARLISLE'S "HARDCAST FOIL-SEALANT DUCT SEALING SYSTEM" - NO EXCEPTIONS. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE INITIAL SEALANT OF HARDCAST'S IRON-GRIP 601, SPRAY-SEAL, OR VERSA-GRIP 181 LIQUID MASTIC SEALANT. AFTER SEALANT HAS CURED COMPLETELY, OVERLAY THE MASTIC WITH 4" WIDE STRIP OF AFT-701 ROLLED SEALANT. SEAL ALL JOINTS, SPIN-IN FITTINGS, AND FASTENERS. HVAC SYSTEM LEAKAGE SHALL NOT EXCEED 5% OF DESIGN FLOW.

22. DUCT INSULATION
   A. SEE DUCT INSULATION SCHEDULE.

23. EQUIPMENT
   A. INSTALL ALL EQUIPMENT AND MATERIALS IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION AND OPERATIONS MANUAL AND IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND REGULATIONS.
   B. U.N.O. PROVIDE ALL MOTORIZED EQUIPMENT WITH VIBRATION ISOLATION MOUNTING AND FLEXIBLE DUCT AND FLEXIBLE PIPE CONNECTIONS.
   C. LABEL EQUIPMENT WITH ENGRAVED PHENOLIC RESIN NAMEPLATES ADHERED TO UNIT CABINET WITH RTV SILICONE. LETTERING SHALL BE 1" HIGH BLACK ON WHITE BACKGROUND.
   D. ALL EQUIPMENT, DUCT, PIPE, ETC. MOUNTED FROM BOLTED CONNECTIONS SHALL HAVE DOUBLE NUTS AT ATTACHMENT TO STRUCTURE AND HANGER, NO EXCEPTIONS.

24. FIRE AND FIRE-SMOKE DAMPERS
   A. PROVIDE FIRE DAMPERS AND/OR FIRE SMOKE DAMPERS AT DUCT PENETRATIONS OF RATED ASSEMBLIES AND AS REQUIRED BY AHJ. REFER TO ARCHITECTURAL DRAWINGS FOR ASSEMBLY RATINGS. INSTALL DAMPERS IN STRICT ACCORDANCE WITH MANUFACTURER'S DETAILS AND MAINTAIN MANUFACTURER'S DETAILS ONSITE FOR AHJ REVIEW. PROVIDE ACCESS PANELS OF ADEQUATE SIZE TO FACILITATE SERVICE ACCESS OF DAMPER. IN LIEU OF ACCESS PANELS, A REMOVABLE DUCT SECTION IS ACCEPTABLE.

25. OUTDOOR AIR INTAKES
   A. PROVIDE A MINIMUM (10'-0") HORIZONTAL CLEARANCE BETWEEN MECHANICAL EQUIPMENT OUTDOOR AIR INTAKES AND EXHAUST FAN DISCHARGES, COMBUSTION EXHAUST, PLUMBING VENTS, AND ANY OTHER HAZARDOUS OR NOXIOUS CONTAMINANT.

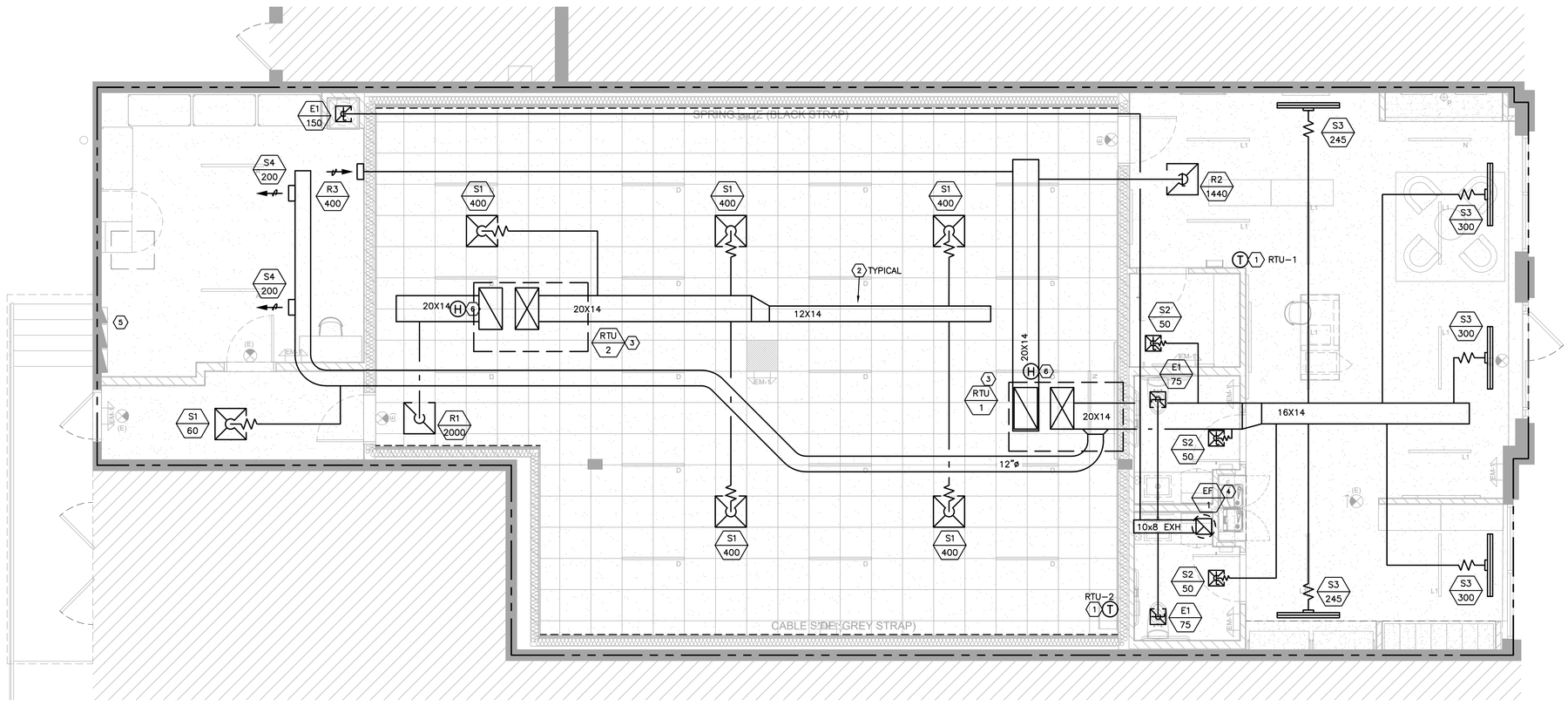
26. AIR FILTERS
   A. PROVIDE THREE (3) SETS OF NEW MERV 8 DISPOSABLE AIR FILTERS, PER THE FOLLOWING: FOR HVAC SYSTEMS OPERATED DURING CONSTRUCTION, PROVIDE FILT

ALL DIFFUSERS LOCATED IN GYP BOARD CEILINGS SHALL HAVE FACE MOUNTED DAMPERS OR CABLE OPERATED DAMPERS SO THAT ACCESS PANELS ARE NOT REQUIRED FOR DAMPER ADJUSTMENT

PRESERVE ACOUSTICAL PROPERTIES OF ALL ACOUSTICAL WALL AT ALL WALL PENETRATIONS. SEE DETAIL ON ARCHITECTURAL SHEETS

MECHANICAL KEYED NOTES

1. PROVIDE EMERSON SENSI TOUCH SMART THERMOSTAT FOR CONTROLLING TEMPERATURE – REFERENCE CONTROLS SEQUENCE OF OPERATIONS. PROVIDE INTERLOCKS, CONDUITS, CONDUCTORS, PROGRAMMING AND TESTING. COORDINATE EQUIPMENT LOCATIONS WITH OTHER ELEMENTS OF WALL. VERIFY LOCATION AND SETPOINTS WITH OWNER. INSTALL PER MANUFACTURERS GUIDELINES AND RECOMMENDATIONS. T-STAT TO BE BLACK MODEL IN THE STUDIO, AND WHITE MODEL IN THE LOBBY.
2. FURNISH AND INSTALL GALVANIZED STEEL DUCTWORK, SIZES AS NOTED ON DRAWINGS. DUCTWORK SIZES ARE CLEAR INTERNAL DIMENSIONS. ALL NEW RECTANGULAR AND SPIRAL DUCTWORK SHALL BE INSULATED WITH R-6 DUCT WRAP. ALL DUCTWORK TO BE INSTALLED AS HIGH AND TIGHT TO DECK AS POSSIBLE. COORDINATE LOCATIONS WITH EXISTING CONDITIONS, LIGHTING FIXTURES, AND OTHER TRADES PRIOR TO INSTALLATION.
3. CONTRACTOR SHALL FURNISH AND INSTALL NEW ROOFTOP UNIT (RTU-1,2) IN LOCATION OF EXISTING ROOFTOP UNIT TO BE REMOVED. VERIFY EXACT LOCATION OF UNIT IN FIELD. COORDINATE LOCATION WITH ALL EXISTING FIELD OBSTRUCTIONS. PROVIDE TRANSITION FROM UNIT OPENINGS TO DUCTWORK SIZES SHOWN. CONTRACTOR SHALL RECONNECT EXISTING GAS LINE TO NEW UNIT. PROVIDE NEW DRIP LEG AND SHUTOFF VALVES.
4. FURNISH AND INSTALL ROOF MOUNTED EXHAUST FAN IN LOCATION OF EXHAUST FAN TO BE REMOVED. EXHAUST FAN MUST BE AT LEAST 10'-0" FROM ALL BUILDING INTAKES. VERIFY EXACT LOCATION IN FIELD.
5. MAINTAIN ALL CODE REQUIRED CLEARANCES ABOVE ELECTRICAL PANEL.
6. FURNISH AND INSTALL DUCT MOUNTED HUMIDITY SENSOR TO CONTROL ROOFTOP UNIT HOT GAS REHEAT.



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

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NORTH WALES, PA 19454

REVISIONS

		DESCRIPTION
1	06/01/26	PERMIT SET

STATUS:
PERMIT SET

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MATTHEW RICHARD CASE
ENGINEER
PE090863
6/1/26

FIELD VERIFICATION:
The Contractor shall verify all figured dimensions and conditions at the project site and notify Zebra Architecture, PLLC. of any dimensional errors, omissions or discrepancies before beginning or fabricating any work. Do not scale these drawings.

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SHEET NAME:
MECHANICAL PLAN

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN:
SCALE: AS NOTED

SHEET NO.:
M1-01

DUCT CONSTRUCTION SCHEDULE

DUCT SYSTEM	MATERIAL	PRESSURE CLASS W.C.	SEAL CLASS	INSULATION
LOW PRESSURE SUPPLY	STEEL	2"	A	• TYPICAL: CONCEALED DUCTWORK: R-6 DUCT WRAP EXPOSED DUCTWORK: R-6 DUCT LINER
RETURN/TRANSFER DUCTS	STEEL	2"	A	1" DUCT LINER. 10'-0" FROM THE UNIT ONLY FOR RETURN
GENERAL EXHAUST	STEEL	2"	A	(NOT REQUIRED)
EXTERIOR DUCTWORK	STEEL/ALUM	4"	A	SEE DETAIL THIS SHEET

- CONTRACTOR CAN USE 1" DUCT LINER INSTEAD OF DUCT WRAP IN CONDITION SPACES.
- CONTRACTOR CAN USE 1-1/2" Ø R5 DUCT LINER INSTEAD OF DUCT WRAP IN NON-CONDITION SPACES.

ALL DUCTWORK DIMENSIONS INDICATED ON THE PLANS ARE CLEAR, INSIDE DIMENSIONS. CONTRACTOR SHALL INCREASE SHEETMETAL SIZE AS REQUIRED TO ACCOMMODATE DUCT LINER.

GENERAL DUCTWORK NOTES

A. All rectangular ducts shall be 'Pittsburgh Lock' longitudinal joints. Snaplock is not acceptable.
B. All round ducts and flat oval ducts shall have spiral seams or continuously welded longitudinal seams.
C. All transverse joints in rectangular ductwork 48" and larger shall be Ductmate, SMACNA T-25, or approved equivalent. All flanged ductwork, regardless of pressure class, shall use gaskets, corner closures, and be TEK screwed or riveted on 10' centers with a minimum of two (2) per side.
D. Transverse joints in rectangular ductwork smaller than 48" shall be made in accordance with SMACNA suitable with the pressure class.
E. All transverse joints in round and oval ductwork 24" and larger shall be Ductmate, or approved equivalent. Transverse joints in round and overall ductwork smaller than 24" shall be beaded sleeve joints.

ROOFTOP UNIT SCHEDULE

MARK	MFR	MODEL NO.	TONS	CFM	O.A. CFM	ESP	HP	COOLING MBH TOT.	COOLING MBH SENS.	COOLING EAT DB/WB	COOLING LAT DB/WB	COOLING EER/SEER	COOLING IEER	HEATING GAS MBH IN/OUT	HEATING EAT/LAT	HEATING EFF	ELECTRICAL MCA	ELECTRICAL MOCP	ELECTRICAL VOLT/PHASE	WEIGHT	REMARKS
RTU-1	TRANE	YSK072	6	2000	250	0.8	1.0	72	50	80/67	56/55	11/14.6	–	150/121.5	60/100	80%	20	25	480/3	1200	1-13
RTU-2	TRANE	YSK072	6	2000	420	0.8	1.0	72	50	80/67	56/55	11/14.6	–	150/121.5	60/100	80%	20	25	480/3	1200	1-13

1. FURNISH AND INSTALL NEW UNIT IN EXISTING ROOFTOP UNIT LOCATION.
2. PROVIDE NEW FULLY INSULATED ROOF CURB WITH SLOPE TO MATCH ROOF PITCH AS REQUIRED OR CURB ADAPTER.
3. PROVIDE ECONOMIZER WITH BAROMETRIC RELIEF AND DIFFERENTIAL ENTHALPY CONTROL. PROVIDE WITH CODE REQUIRED ECONOMIZER FAULT DETECTION.
4. PROVIDE 2-STAGE COOLING COMPRESSOR ASSEMBLY.
5. PROVIDE 2-STAGE HEATING GAS ASSEMBLY.
6. PROVIDE 2-SPEED INDOOR FAN MOTOR CONTROLLED BY VFD.
7. PROVIDE CONDENSER COIL HAIL GUARDS.
8. PROVIDE 2" PLEATED DISPOSABLE MERV 8 MINIMUM FILTERS.
9. PROVIDE FACTORY INSTALLED DISCONNECT SWITCH AND NON-POWERED GFI RECEPTACLE.
10. PROVIDE 5 YEAR COMPRESSOR AND 10 YEAR HEAT EXCHANGER WARRANTIES.
11. PROVIDE DUCT SMOKE DETECTOR, RELAY, AND TEST INDICATOR DEVICES. COORDINATE REQUIREMENTS WITH ELECTRICAL CONTRACTOR.
12. VERIFY ELECTRICAL CHARACTERISTICS WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING UNIT.
13. PROVIDE HOT GAS REHEAT DEHUMIDIFICATION SYSTEM WITH FIELD INSTALLED HUMIDITY SENSOR.

FAN SCHEDULE

MARK	MANUF.	MODEL NO.	CFM	SP	FAN HP	SONE	VOLTS/PH	WEIGHT	REMARKS
EF-1	GREENHECK	G-095-VG	300	0.8	1/6	11.6	120/1	40	1,2,3

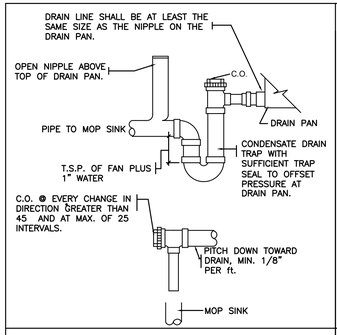
1. VERIFY ELECTRICAL VOLTAGE AND PHASE WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING UNIT.
2. PROVIDE FAN WITH FAN SPEED CONTROLLER, ROOF CURB AND BACKDRAFT DAMPER.
3. FAN TO OPERATE DURING ALL OCCUPIED HOURS.

DIFFUSER NECK SIZE SCHEDULE	
NECK SIZE	CFM
6"ø	0 – 140
8"ø	150 – 250
10"ø	260 – 440
12"ø	450 – 600
14"ø	610 – 1000
16"ø	1010 – 1400
18"ø	1410 – 1900

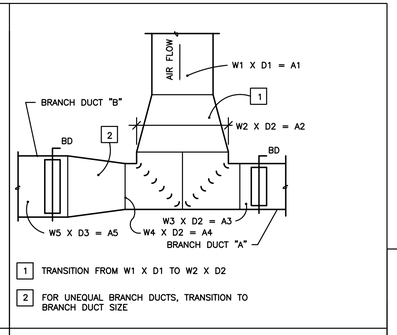
AIR DEVICE SCHEDULE

PLAN MARK	MFGR	MODEL	MATL.	NECK SIZE	FRAME TYPE	PANEL SIZE	NOTES
S1	TITUS	OMNI	ST	SCHED.	LAY-IN	24"x24"	1,2
S2	TITUS	OMNI	ST	SCHED.	FLANGED	12"x12"	1,2,3
S3	TITUS	ML39	ST	SCHED.	FLANGED	48"x6"	1,2,5
S4	TITUS	300RL	ST	12"x12"	FLANGED	14"x14"	1,2,3,4
R1	TITUS	50F	ST	SCHED.	LAY-IN	24"x24"	1,2
R2	TITUS	50F	ST	SCHED.	FLANGED	24"x24"	1,2,3
R3	TITUS	350RL	ST	12"x12"	FLANGED	14"x14"	1,2,3,4
E1	TITUS	50F	ST	SCHED.	FLANGED	12"x12"	1,2,3

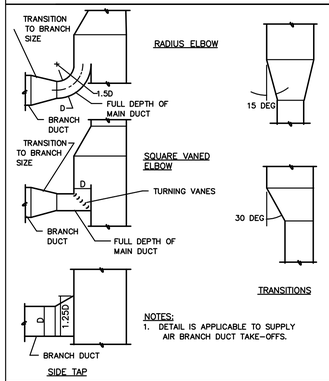
1. AIR DEVICE RUN-OUT SHALL BE SAME SIZE AS DIFFUSER NECK. FLEX DUCT, MAXIMUM LENGTH 5'-0".
2. VERIFY FINISH COLOR WITH ARCHITECT PRIOR TO ORDERING. AIR DEVICES IN STUDIO TO BE BLACK. REMAINDER OF AIR DEVICES OUTSIDE OF STUDIO TO BE WHITE/PAINTED TO MATCH CEILING/WALL.
3. PROVIDE FACE MOUNTED VOLUME DAMPER.
4. WALL/DUCT MOUNTED AIR DEVICE.
5. 2 SLOT, 1" SLOT WIDTH. PROVIDE WITH INSULATED SUPPLY PLENUM AND DISCHARGE PATTERN CONTROLLER. PROVIDE CABLE OPERATED DAMPER.



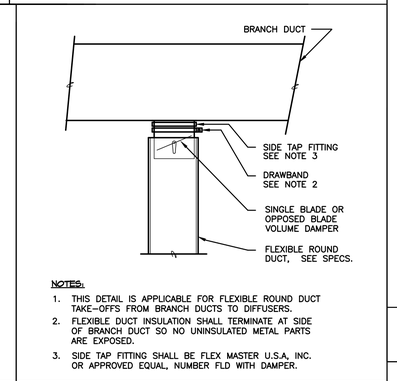
CONDENSATE DRAIN TRAP DETAIL
NO SCALE



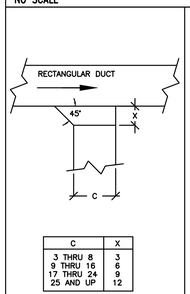
DUCT TEE FITTING
NO SCALE



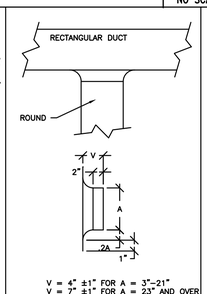
BRANCH DUCT TAKEOFFS AND TRANSITIONS
NO SCALE



FLEXIBLE DUCT CONNECTION TO BRANCH
NO SCALE



RECTANGULAR TAP DETAIL
NO SCALE



BELLMOUTH TAP DETAIL
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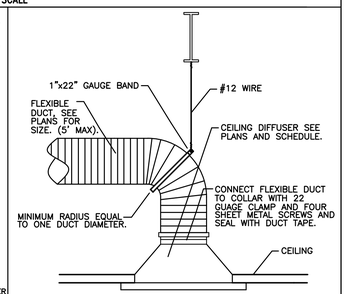
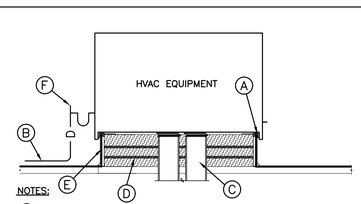
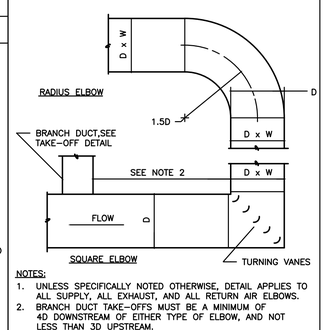


DIFFUSER INSTALLATION DETAIL
NOT TO SCALE

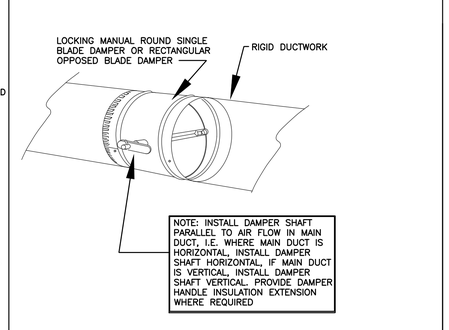


NOTES:
- (A) OMIT COUNTER FLASHING FOR EQUIPMENT WITH BUILT-IN COUNTER FLASHING.
- (B) MINIMUM 3/4" OR FULL DIAMETER HOSE, SCREW TO CONDENSATE DRAIN, TERMINATE TO NEAREST ROOF DRAIN.
- (C) SUPPLY & RETURN DUCTS WITH INSULATED LINING AND FLEXIBLE CONNECTIONS.
- (D) 2 LAYERS EXTERIOR DRYWALL AND INSULATION FOR SOUND ATTENUATION.
- (E) FACTORY CURB BY HVAC.
- (F) OPEN TO ATMOSPHERE.

RTU CURB AND PIPING DETAIL
NO SCALE



DUCT ELBOW
NO SCALE



VOLUME DAMPER DETAIL
NO SCALE

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REVISIONS

△		DESCRIPTION
	06/01/26	PERMIT SET

STATUS:
PERMIT SET

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MATTHEW RICHARD CASE
ENGINEER
PE090963
6/1/26

FIELD VERIFICATION:
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SHEET NAME:
MECHANICAL DETAILS

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN:
SCALE: AS NOTED

SHEET NO.:
M2-01

COM*check* Software Version COMcheckWeb

Mechanical Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: Solidcore - North Wales
Location: North Wales, Pennsylvania
Climate Zone: 4a
Project Type: New Construction

Construction Site:
1460 Bethlehem pike
North Wales, Pennsylvania 19454

Owner/Agent:

Designer/Contractor:

Additional Efficiency Package(s)

Credits: 1.0 Required 0.0 Proposed

Mechanical Systems List

Quantity System Type & Description

1 RTU-1,2 (Single Zone):
Heating: 1 each - Central Furnace, Gas, Capacity = 150 kBtu/h
Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00 % Et or 80% AFUE
Cooling: 1 each - Single Package DX Unit, Capacity = 72 kBtu/h, Air-Cooled Condenser, Air Economizer
Proposed Efficiency = 11.00 EER, Required Efficiency = 11.00 EER
Proposed Part Load Efficiency = 14.60 IEER, Required Part Load Efficiency = 12.60 IEER
Fan System: FAN SYSTEM 1 -- Compliance (Motor nameplate HP and fan efficiency method) : Passes

Fans:
FAN 1 Supply, Constant Volume, 2000 CFM, 1.0 motor nameplate hp, 0.0 fan efficiency grade, 0.0 total fan efficiency, 0.0 design fan efficiency , fan exception: Single fan <= 5HP

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2018 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Matthew Case — Name - Title
6/1/26 — Date

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL MATTHEW RICHARD CASE ENGINEER PE090983 6/1/26

COM*check* Software Version COMcheckWeb

Inspection Checklist

Energy Code: 2018 IECC

Requirements: 100.0% were addressed directly in the COM*check* software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR2]¹	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems that are required to demonstrate where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C406 [PR9]¹	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
C403.12.3 [FO9]¹ C403.12.3 [FO9]¹	Snow/ice melting system and freeze protection systems have sensors and controls configured to limit service for pavement temperature and outdoor temperature, future connection to controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Plumbing Rough-In Inspection	Complies?	Comments/Assumptions
C404.5, C404.5.1, C404.5.2 [PL6]¹	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C404.6.3 [PL7]¹	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C404.7 [PL8]¹	Demand recirculation water systems have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance and limits the temperature of the water entering the cold-water piping to 104°F.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C402.2.6 [ME41]¹	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.8.4 [ME142]¹	Motors for fans that are not less than 1/12 hp and less than 1 hp are electronically commutated motors or have a minimum motor efficiency of 70 percent. These motors have the means to adjust motor speed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.8.5 [ME143]¹	Each DX cooling system > 65 kBtu and chiller water/evaporative cooling system with fans > 1/4 hp are designed to vary the indoor fan airflow as a function of load and comply with detailed requirements of this section.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.12.1 [ME71]¹	Systems that heat outside the building envelope are radiant heat systems controlled by an occupancy sensing device or timer switch.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.5.5 [ME113]¹	Fault detection and diagnostics installed with air-cooled unitary DX units having economizers.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.2 [ME59]¹	Natural or mechanical ventilation is provided in accordance with International Mechanical Code Chapter 4. Mechanical ventilation has capability to reduce outdoor air supply to minimum per IMC, Chapter 4.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.7.1 [ME59]¹	Demand control ventilation provided for spaces >500 ft2 and >25 people/1000 ft2 occupant density and served by systems with air side economizer, auto modulating outside air control, or design airflow >3,000 cfm	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.7.2 [ME115]¹	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.7.6 [ME141]¹	HVAC systems serving guestrooms in Group R-1 buildings with > 50 guestrooms: Each guestroom is provided with controls to automatically manage temperature setpoint and ventilation (see sections C403.7.6.1 and C403.7.6.2).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.7.4 [ME57]¹	Exhaust air energy recovery on systems meeting Table C403.7.4(1) and C403.7.4(2).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.7.5 [ME116]¹	Kitchen exhaust systems comply with replacement air and conditioned supply air limitations, and satisfy hood rating requirements and maximum exhaust rate criteria.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.11.1 [ME60]¹ C403.11.2 [ME60]¹	HVAC ducts and plenums insulated in accordance with C403.11.1 and constructed in accordance with C403.11.2, verification may need to occur during Foundation inspection.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.5, C403.5.1, C403.5.2 [ME62]¹	Air economizers provided where required, meet the requirements for design capacity, control signal, ventilation controls, high-limit shut-off, integrated economizer control, and provide a means to relieve excess outside air during operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.5.3.3 [ME124]¹	Air economizers automatically reduce outdoor air intake to the design minimum outdoor air quantity when outdoor air intake will not reduce cooling energy usage. See Table C403.5.3.3 for applicable device types and climate zones.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.5.3.4 [ME125]¹	System capable of relieving excess outdoor air during air economizer operation to prevent overpressurizing the building. The relief air outlet located to avoid recirculation into the building.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.5.3.5 [ME126]¹	Return, exhaust/relief and outdoor air dampers used in economizers have motorized dampers that automatically shut when not in use and meet maximum leakage rates. Reference section C403.7.7 for details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.4.1.4 [ME63]¹	Heating for vestibules and air curtains with integral heating include automatic controls that shut off the heating system when outdoor air temperatures > 45F. Vestibule heating and cooling systems controlled by a thermostat in the vestibule with heating setpoint <= 60F and cooling setpoint >= 85F.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.3.3 [ME35]¹	Hot gas bypass limited to: <=240 kBtu/h – 50% >240 kBtu/h – 25%	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.2.1 [ME83]¹	Air outlets and zone terminal devices have means for air balancing.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.5, C403.5.1, C403.5.2 [ME123]¹	Refrigerated display cases, walk-in coolers or walk-in freezers served by remote compressors and remote condensers not located in a condensing unit, have fan-powered condensers that comply with Sections C403.5.1 and refrigeration compressor systems that comply with C403.5.2..	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.6 [EL26]¹	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.7 [EL27]¹	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.8.2.1 [EL28]¹	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.9 [EL29]¹	Total voltage drop across the combination of feeders and branch circuits <= 5%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.3 [FI8]¹	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.2 [FI27]¹	HVAC systems and equipment capacity does not exceed calculated loads.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.1 [FI47]¹	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.4.1.2 [FI38]¹	Thermostatic controls have a 5 °F deadband.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.1.3 [FI20]¹	Temperature controls have setpoint overlap restrictions.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.2 [FI39]¹	Each zone equipped with setback controls using automatic time clock or programmable control system.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.2.1, C403.2.4.2.2 [FI40]¹	Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.2.3 [FI41]¹	Systems include optimum start controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.1.1 [FI57]¹	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.1 [FI28]¹	Commissioning plan developed by registered design professional or approved agency.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** n/a
C408.2.3.1 [FI31]¹	HVAC equipment has been tested to ensure proper operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C408.2.3.2 [FI10]¹	HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.3.3 [FI32]¹	Economizers have been tested to ensure proper operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.4 [FI29]¹	Preliminary commissioning report completed and certified by registered design professional or approved agency.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** n/a
C408.2.5.1 [FI7]¹	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.5.3 [FI43]¹	An air and/or hydronic system balancing report is provided for HVAC systems.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.5.4 [FI30]¹	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** n/a

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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REVISIONS

△		DESCRIPTION
	06/01/26	PERMIT SET

STATUS:
PERMIT SET

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL MATTHEW RICHARD CASE ENGINEER PE090983 6/1/26

FIELD VERIFICATION:
The Contractor shall verify all figured dimensions and conditions at the project site and notify Zebra Architecture, PLLC. of any dimensional errors, omissions or discrepancies before beginning or fabricating any work. Do not scale these drawings.

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SHEET NAME:
MECHANICAL COMCHECK

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN:
SCALE: AS NOTED

SHEET NO.:
M3-01

SUMMARY

A. GENERAL AND SUPPLEMENTARY CONDITIONS WITHIN THE SPECIFICATIONS ARE HEREBY INCORPORATED AND BECOME PART OF THESE SPECIFICATIONS AND AS SUCH SHALL BE APPLICABLE TO THE WORK OF THE ELECTRICAL CONTRACT.

B. PRIOR TO SUBMISSION OF A BID PROPOSAL, THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH ALL EXISTING CONDITIONS AND LIMITATIONS THAT IMPACT THE WORK OF THIS CONTRACT. NO ADDITIONAL COSTS TO THE OWNER SHALL BE PERMITTED FOR CHANGES TO THE WORK AS A RESULT OF THE CONTRACTORS FAILURE TO VISIT THE SITE PRIOR TO BIDDING AND IDENTIFY ITEMS THAT WERE ABLE TO BE VERIFIED DURING A SITE VISIT PRIOR TO THE SUBMISSION OF A BID PROPOSAL.

C. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL, EQUIPMENT, RIGGING, AND MISCELLANEOUS ITEMS AS REQUIRED FOR A COMPLETE, OPERATIONAL, FUNCTIONAL AND CODE COMPLIANT ELECTRICAL INSTALLATION AS SHOWN ON THE DRAWINGS AND AS SPECIFIED IN THESE SPECIFICATIONS.

LANDLORDS REQUIREMENTS

A. ALL WORK OF THIS CONTRACT SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL APPLICABLE LANDLORD REQUIREMENTS INCLUDING BUT NOT NECESSARILY LIMITED TO; LANDLORD'S WORK LETTER, LANDLORD'S CONSTRUCTION CRITERIA AND/OR THE TENANT/LANDLORD AGREEMENT. THIS CONTRACTOR SHALL EXAMINE THESE DOCUMENTS PRIOR TO THE SUBMISSION OF A BID PROPOSAL.

B. ALL APPLICABLE LANDLORD REQUIREMENTS INCLUDING BUT NOT NECESSARILY LIMITED TO THE LANDLORD'S WORK LETTER, LANDLORDS CONSTRUCTION CRITERIA AND/OR THE TENANT/LANDLORD AGREEMENT DOCUMENTS SHALL BE CONSIDERED PART OF THESE SPECIFICATIONS.

EXISTING CONDITIONS

A. THE CONTRACT DOCUMENTS ARE BASED ON INFORMATION PROVIDED TO THE CONSULTANT AT THE TIME OF DESIGN. THIS CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING A BID PROPOSAL.

BIDS AND SUBSTITUTIONS

A. PRIOR TO SUBMISSION OF A BID PROPOSAL, CONTRACTOR SHALL THOROUGHLY REVIEW THE BID INSTRUCTIONS AND ALL CIVIL, ARCHITECTURAL, STRUCTURAL AND MEPFP AND TELECOMMUNICATION CONSTRUCTION DOCUMENTS.

B. SHOULD THE CONTRACTOR WISH TO SUBMIT AN ALTERNATE PRODUCT TO THE MANUFACTURERS NAMED IN THESE SPECIFICATIONS OR ON THE DRAWINGS FOR ANY EQUIPMENT, THE CONTRACTOR SHALL SUBMIT A VOLUNTARY ALTERNATIVE A MINIMUM OF SEVEN (7) CALENDAR DAYS PRIOR TO BID, STATING THE MANUFACTURER'S NAME, MODEL NUMBER, WRITTEN, DETAILED PRODUCT DATA.

C. WORK PERFORMED OR CONSTRUCTED WITH UNAPPROVED EQUALS IS AT CONTRACTOR'S RISK AND ANY REQUIRED CORRECTION OF WORK INCORPORATING UNAPPROVED EQUALS SHALL BE AT CONTRACTOR'S SOLE COST AND EXPENSE.

D. NO SUBSTITUTIONS PERMITTED FOR LIGHTING FIXTURES.

QUALITY ASSURANCE

A. ALL MATERIALS AND EQUIPMENT SHALL BE NEW.

B. PROVIDE PERMITS, INSPECTIONS, FINAL CERTIFICATES OF INSPECTION BY THE AUTHORITY HAVING JURISDICTION, PERMIT AND INSPECTION FEES AND ALL MATERIALS, EQUIPMENT AND LABOR AS REQUIRED FOR A COMPLETE, FUNCTIONAL, FULLY OPERATIONAL AND CODE COMPLIANT ELECTRICAL SYSTEM.

C. THIS CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR AND ACCESSORIES FOR A COMPLETE FUNCTIONAL AND CODE COMPLIANT ELECTRICAL INSTALLATION, WHETHER OR NOT SHOWN ON THE DRAWINGS OR SPECIFIED IN THESE SPECIFICATIONS.

D. EC SHALL VERIFY THE VOLTAGE AND AMPERAGE REQUIREMENTS OF ALL EQUIPMENT DELIVERED TO THE SITE PRIOR TO CONNECTION. EC SHALL NOTIFY THE OWNER OF ANY DIFFERENCES

E. REQUIREMENTS OF REGULATORY AGENCIES:

1. PERMITS: ARRANGE AND PAY FOR ALL PERMITS, INSPECTIONS AND UTILITY CONNECTIONS REQUIRED.
2. PROVIDE ALL TESTS AND INSPECTIONS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
3. PROVIDE A SIGNED CERTIFICATE OF INSPECTION AT THE COMPLETION OF THE PROJECT. INCLUDE IN OPERATION AND MAINTENANCE MANUALS.

F. CODES AND STANDARDS

1. COMPLY WITH SPECIFIED CODES AND STANDARDS. IF CONFLICT EXISTS BETWEEN CODES OR STANDARDS AND DRAWINGS, PROJECT MANUAL OR ADDENDA REQUIREMENTS, REQUEST CLARIFICATION FROM ARCHITECT/ENGINEER.
2. CONFORM TO THE INSTALLATION RULES AND REGULATIONS OF THE CODES AND STANDARDS LISTED INCLUDING ALL SUBSEQUENTLY PUBLISHED AMENDMENTS THERETO ISSUED PRIOR TO THE DATE OF THE BIDDING DOCUMENTS.
3. CONFORM TO THE REQUIREMENTS OF ALL LOCAL, STATE AND FEDERAL AGENCIES WHICH HAVE AUTHORITY OVER THIS PROJECT.
4. COMPLY WITH THE APPLICABLE EDITION OF THE FOLLOWING CODES AND STANDARDS THAT HAVE BEEN ADOPTED BY AND ARE ENFORCED BY THE AUTHORITY HAVING JURISDICTION:
   a. INTERNATIONAL BUILDING CODE.
   b. INTERNATIONAL ENERGY CONSERVATION CODE
   c. INTERNATIONAL MECHANICAL CODE
   d. NATIONAL ELECTRICAL CODE
   e. INTERNATIONAL FIRE CODE
   f. LIFE SAFETY CODE, NFPA 101
   g. AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES
   h. ALL LOCAL CODES AND ORDINANCES ADOPTED AND ENFORCED BY THE AUTHORITY HAVING JURISDICTION.

G. REFERENCED STANDARDS:

1. ALL EQUIPMENT, APPARATUS, MATERIALS AND SYSTEMS SHALL BE RATED, TESTED, FABRICATED AND INSTALLED IN ACCORDANCE WITH THE APPLICABLE INDUSTRY STANDARDS.
2. ALL EQUIPMENT, APPARATUS, MATERIALS AND SYSTEMS SHALL BE LISTED AND LABELED BY A NATIONALLY RECOGNIZED TESTING LABORATORY (UL, ETL, ETC)

ELECTRICAL CONTRACT DOCUMENTS

A. THE ELECTRICAL DRAWINGS (DRAWINGS) AND THE SPECIFICATIONS SHALL TOGETHER FORM A SET OF CONTRACT DOCUMENTS FOR THE ELECTRICAL WORK. NEITHER THE DRAWINGS OR THE SPECIFICATIONS SHALL BE COMPLETE WITHOUT THE OTHER. ANY ITEM SHOWN ONLY ON THE DRAWINGS OR SPECIFIED ONLY IN THE SPECIFICATIONS SHALL BE CONSIDERED AS IF SHOWN AND SPECIFIED IN BOTH.

B. ELECTRICAL DRAWINGS AND SPECIFICATIONS: COMPLY WITH THE FOLLOWING REQUIREMENTS:

1. CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH ALL DRAWINGS AND SPECIFICATIONS WITHIN THE CONTRACT DOCUMENTS, INCLUDING, BUT NOT NECESSARILY LIMITED TO, GEOTECHNICAL, LANDSCAPE, CIVIL, ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, TELECOMMUNICATION AND FIRE PROTECTION DRAWINGS AND SPECIFICATIONS.
2. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC IN NATURE AND ARE INTENDED TO INDICATE APPROXIMATE LOCATION ONLY OF ELECTRICAL WORK. THE ACTUAL LOCATION OF ANY ELECTRICAL WORK SHALL NOT INTERFERE WITH THE LOCATION, CLEARANCES, ETC. REQUIRED BY THE WORK OF OTHER TRADES.
3. PRIOR TO ROUGH-IN, CONTRACTOR SHALL COORDINATE ALL DEVICE LOCATIONS WITH THE ARCHITECTURAL WALL ELEVATIONS, CASEWORK/CABINETRY ELEVATIONS AND DETAILS AND THE FINAL, APPROVED FOOD SERVICE SHOP DRAWINGS.

C. DEFINITIONS: THE FOLLOWING TERMS ARE USED ON THE ELECTRICAL DRAWINGS AND IN THE SPECIFICATIONS AND SHALL BE DEFINED AS FOLLOWS:

1. CONTRACTOR – THE ELECTRICAL CONTRACTOR OR ANY OF THEIR SUB-CONTRACTORS.
2. WORK – ALL MATERIAL, LABOR, TRANSPORTATION OF THE ELECTRICAL CONTRACTOR OR ANY OF THEIR SUB-CONTRACTORS.
3. FURNISH – PURCHASE, SUBMIT FOR REVIEW AND APPROVAL, COORDINATE WITH THE CONTRACT DOCUMENTS AND DELIVER TO THE PROJECT SITE IN NEW, UNDAMAGED CONDITION, STORE AS DIRECTED, PROTECT FROM DAMAGE DURING STORAGE.
4. INSTALL – INSTALL IN PLACE, MAKE READY FOR CONNECTION TO THE REQUIRED SERVICE.
5. CONNECT – CONNECT TO THE REQUIRED SERVICE AS REQUIRED FOR PROPER OPERATION, TEST FOR PROPER OPERATION AND FUNCTIONALITY IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS AND REQUIREMENTS SPECIFIED WITHIN THESE SPECIFICATIONS AND TURN OVER TO THE OWNER IN FULL OPERATING CONDITION.
6. PROVIDE – FURNISH, INSTALL AND CONNECT AS DEFINED HEREIN FOR A COMPLETE, FUNCTIONAL AND CODE COMPLIANT INSTALLATION READY FOR INTENDED USE.
7. FINISHED SPACE – SPACES HAVING WALLS PAINTED OR FINISHED WITH WALL COVERING, LAY-IN OR DRYWALL CEILINGS, AND FINISHED FLOORING MATERIALS. EXAMPLES OF FINISHED SPACES INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, ALL SPACES IN A DWELLING UNIT, OFFICES, LOBBIES, CORRIDORS, TOILET ROOMS, ETC.
8. UNFINISHED SPACES – SPACES WITH UNFINISHED WALLS AND FLOORS AND TYPICALLY ARE NOT EQUIPPED WITH A CEILING. EXAMPLES INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, MECHANICAL ROOMS, ELECTRICAL ROOMS, SERVICE AREAS, ETC.
9. SHALL – ACTION THAT IS REQUIRED WITHOUT OPTION OR QUALIFICATION.
10. REMOVE – DETACH ITEMS FROM EXISTING CONSTRUCTION AND LEGALLY DISPOSE OF THEM OFF SITE UNLESS INDICATED TO BE REMOVED AND SALVAGED OR REMOVED AND RE-INSTALLED.
11. REMOVE AND SALVAGE – CAREFULLY DETACH FROM EXISTING CONSTRUCTION IN A MANNER TO PREVENT DAMAGE AND DELIVER TO OWNER READY FOR RE-USE.
12. REMOVE AND REINSTALL – DETACH ITEMS FROM EXISTING CONSTRUCTION, PREPARE FOR RE-USE, RE-INSTALL AND RECONNECT WHERE INDICATED SUCH THAT THE RE-INSTALLED ITEM IS FULLY OPERATIONAL.
13. EXISTING TO REMAIN – EXISTING ITEMS OF CONSTRUCTION THAT ARE NOT TO BE PERMANENTLY REMOVED AND THAT ARE NOT OTHERWISE INDICATED TO BE REMOVED, REMOVED AND SALVAGED OR REMOVED AND RE-INSTALLED.

SUBMITTALS

A. REVIEW OF THE SHOP DRAWINGS IS RENDERED AS A SERVICE ONLY AND SHALL NOT BE CONSIDERED AS A GUARANTEE OF MEASUREMENTS OR OF BUILDING CONDITIONS; NOR SHALL IT BE CONSTRUED AS RELIEVING THE CONTRACTOR'S OF BASIC RESPONSIBILITIES UNDER HIS CONTRACT. ARCHITECT/ENGINEER WILL REVIEW SHOP DRAWINGS ONLY FOR CONFORMANCE WITH DESIGN CONCEPT OF THE PROJECT. REVIEW BY THE ARCHITECT/ENGINEER SHALL NOT BE CONSTRUED:

1. AS PERMITTING ANY DEPARTURE FROM THE CONTRACT REQUIREMENTS.
2. AS RELIEVING THE CONTRACTOR OF THE RESPONSIBILITY FOR ANY ERROR IN DETAILS, DIMENSIONS OR OTHERWISE THAT MAY EXIST.
3. AS APPROVED DEPARTURES FROM ADDITIONAL DETAILS OR INSTRUCTIONS PREVIOUSLY FURNISHED BY THE ARCHITECT/ENGINEER.

B. SHOP DRAWINGS:

1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND DESCRIPTIVE LITERATURE OF EQUIPMENT TO BE FURNISHED UNDER THIS CONTRACT. DRAWINGS SHALL STATE CAPACITIES, SIZES, ETC., OF ALL EQUIPMENT AND SHALL BE CERTIFIED. SEE GENERAL CONDITIONS AND SUPPLEMENTARY CONDITIONS FOR ADDITIONAL REQUIREMENTS.
2. PROVIDE SUBMITTALS FOR LIGHTING FIXTURES, LIGHTING CONTROL DEVICES, CONTACTORS, WIRING DEVICES, DISCONNECT SWITCHES, POWER SYSTEM STUDY.

C. THE CONTRACTOR SHALL PERFORM NO PORTION OF THE WORK REQUIRING SUBMITTAL AND REVIEW OF SHOP DRAWINGS, PRODUCT DATA, SAMPLES OR SIMILAR SUBMITTALS UNTIL THE RESPECTIVE SUBMITTALS HAS BEEN APPROVED BY THE ENGINEER.

ELECTRICAL COORDINATION DRAWINGS

A. PREPARE ELECTRICAL COORDINATION DRAWINGS AS REQUIRED BY THE WORK AND AS DIRECTED BY THE GENERAL CONTRACTOR.

B. MEET WITH REPRESENTATIVES OF THE OTHER DISCIPLINES/TRADES TO COORDINATE THE ELECTRICAL WORK WITH THE WORK OF EACH DISCIPLINE AND TO OBTAIN INFORMATION REGARDING THEIR WORK THAT IS TO BE INDICATED ON THE COORDINATION DRAWINGS.

POWER SYSTEM STUDIES – GENERAL

A. PROVIDE COMPUTER-BASED, POWER SYSTEM STUDIES THAT INCLUDES:

1. A SHORT CIRCUIT STUDY TO DETERMINE THE MINIMUM INTERRUPTING CAPACITY OF CIRCUIT PROTECTIVE DEVICES;
2. AN ARC-FLASH STUDY TO DETERMINE THE ARC-FLASH HAZARD DISTANCE AND THE INCIDENT ENERGY TO WHICH PERSONNEL COULD BE EXPOSED DURING WORK ON OR NEAR ELECTRICAL EQUIPMENT.

B. STUDIES SHALL BE PERFORMED UTILIZING COMPUTER PROGRAMS THAT ARE DISTRIBUTED NATIONALLY AND ARE IN WIDE USE. SOFTWARE ALGORITHMS SHALL COMPLY WITH REQUIREMENTS OF STANDARDS AND GUIDES SPECIFIED IN THIS SECTION. MANUAL CALCULATIONS ARE UNACCEPTABLE.

C. SOFTWARE DEVELOPERS: SUBJECT TO COMPLIANCE WITH SPECIFIED REQUIREMENTS, PERFORM STUDIES UTILIZING SOFTWARE PRODUCTS BY ONE OF THE FOLLOWING:

1. EASY POWER
2. POWER ANALYTICS CORPORATION
3. SKM SYSTEMS ANALYSIS

D. ALL STUDIES SHALL BE BASED ON THE DEVICE CHARACTERISTICS OF ACTUAL EXISTING COMPONENTS AND THE NEW COMPONENTS BEING INSTALLED.

E. PROVIDE ALL FIELD LABOR AS REQUIRED TO OBTAIN ALL DATA NECESSARY TO CONDUCT THE STUDIES SPECIFIED HEREIN.

F. SUBMIT STUDIES FOR REVIEW BEFORE SUBMITTING THE SYSTEM OVERCURRENT PROTECTIVE DEVICE AND POWER DISTRIBUTION EQUIPMENT SUBMITTALS. SUBMIT STUDY REPORT FOR REVIEW PRIOR TO RECEIVING FINAL APPROVAL OF THE OVERCURRENT PROTECTIVE DEVICE AND DISTRIBUTION EQUIPMENT SUBMITTALS.

G. WHERE FORMAL COMPLETION OF STUDIES WILL CAUSE A DELAY IN THE ORDERING AND MANUFACTURING OF OVERCURRENT PROTECTIVE DEVICES AND POWER DISTRIBUTION EQUIPMENT, OBTAIN APPROVAL FROM ENGINEER FOR PRELIMINARY SUBMITTAL OF SUFFICIENT STUDY DATA TO ENSURE THAT THE SELECTION OF DEVICES AND ASSOCIATED CHARACTERISTICS IS SATISFACTORY AND IN COMPLIANCE WITH THE RESULTS OF THE STUDIES BEING PERFORMED.

H. POWER SYSTEMS STUDY SHALL BE SIGNED AND SEALED BY THE PROFESSIONAL ENGINEER RESPONSIBLE FOR PROVIDING THE STUDY.

SHORT CIRCUIT STUDY

A. PROVIDE A COMPUTER-BASED, SHORT CIRCUIT STUDY TO DETERMINE THE MINIMUM INTERRUPTING CAPACITY OF CIRCUIT PROTECTIVE DEVICES.

B. FOR NEW EQUIPMENT, USE CHARACTERISTICS SUBMITTED UNDER THE PROVISIONS OF ACTION SUBMITTALS AND INFORMATION SUBMITTALS FOR THIS PROJECT.

C. FOR EXISTING RELOCATED EQUIPMENT AND EXISTING EQUIPMENT THAT IS EXISTING TO REMAIN, OBTAIN REQUIRED ELECTRICAL DISTRIBUTION SYSTEM DATA BY FIELD INVESTIGATION AND SURVEYS, CONDUCTED BY QUALIFIED TECHNICIANS AND ENGINEERS. THE QUALIFICATIONS OF TECHNICIANS AND ENGINEERS SHALL BE QUALIFIED AS DEFINED BY NFPA 70E.

D. GATHER AND TABULATE ALL REQUIRED DATA TO SUPPORT THE SHORT-CIRCUIT STUDY. COMPLY WITH RECOMMENDATIONS IN IEEE 551 AS TO THE AMOUNT OF DETAIL THAT IS REQUIRED TO BE ACQUIRED IN THE FIELD.

E. BEGIN SHORT-CIRCUIT CURRENT ANALYSIS AT THE SERVICE, EXTENDING DOWN TO THE SYSTEM OVERCURRENT PROTECTIVE DEVICES AS FOLLOWS:

1. TO NORMAL SYSTEM LOW-VOLTAGE LOAD BUSES WHERE FAULT CURRENT IS 10 KA OR LESS.

ARC FLASH HAZARD STUDY

A. PROVIDE A COMPUTER-BASED, ARC-FLASH HAZARD STUDY TO DETERMINE THE ARC-FLASH HAZARD DISTANCE AND THE INCIDENT ENERGY TO WHICH PERSONNEL COULD BE EXPOSED DURING WORK ON OR NEAR EXISTING AND NEW ELECTRICAL EQUIPMENT.

B. ELECTRICAL SURVEY DATA: GATHER AND TABULATE ALL REQUIRED INPUT DATA TO SUPPORT STUDY. COMPLY WITH RECOMMENDATIONS IN IEEE 1584 AND NFPA 70E AS TO THE AMOUNT OF DETAIL THAT IS REQUIRED TO BE ACQUIRED IN THE FIELD.

C. FOR NEW EQUIPMENT, USE CHARACTERISTICS SUBMITTED UNDER THE PROVISIONS OF ACTION SUBMITTALS AND INFORMATION SUBMITTALS FOR THIS PROJECT.

D. FOR EXISTING EQUIPMENT, WHETHER OR NOT RELOCATED, OBTAIN REQUIRED ELECTRICAL DISTRIBUTION SYSTEM DATA BY FIELD INVESTIGATION AND SURVEYS, CONDUCTED BY QUALIFIED TECHNICIANS AND ENGINEERS.

E. HAZARD LABELS SHALL HAVE AN ORANGE HEADER WITH THE WORDING, "WARNING, ARC-FLASH HAZARD," AND SHALL INCLUDE THE FOLLOWING INFORMATION TAKEN DIRECTLY FROM THE ARC-FLASH HAZARD ANALYSIS:

1. LOCATION DESIGNATION.
2. NOMINAL VOLTAGE.
3. FLASH PROTECTION BOUNDARY.
4. HAZARD RISK CATEGORY.
5. INCIDENT ENERGY.
6. WORKING DISTANCE.
7. ENGINEERING REPORT NUMBER, REVISION NUMBER, AND ISSUE DATE.

F. ARC FLASH HAZARD WARNING LABELS SHALL BE A 3.5-BY-5-INCH THERMAL TRANSFER LABEL OF HIGH-ADHESION POLYESTER FOR EACH WORK LOCATION INCLUDED IN THE ANALYSIS.

G. LABELS SHALL BE MACHINE PRINTED, WITH NO FIELD-APPLIED MARKINGS.

RECORD DOCUMENTS

A. DURING THE PROGRESS OF THE WORK, CONTRACTOR SHALL MAINTAIN A CURRENT (DAILY) AS-BUILT SET OF THE DRAWINGS AND SPECIFICATIONS, INDICATING THEREON ALL WORK INSTALLED AT VARIANCE WITH SUCH CONTRACT DOCUMENTS INCLUDING, WITHOUT LIMITATION, WORK COVERED BY ADDENDA, FIELD WORK ORDERS, CHANGE ORDERS, AND ENGINEERS

B. CONTRACTOR SHALL PROVIDE THE TENANT WITH THE FINAL AS-BUILT SET OF DRAWINGS AT THE COMPLETION OF THE WORK.

COORDINATION WITH LANDLORD

A. PRIOR TO COMMENCEMENT OF WORK, CONTRACTOR SHALL COORDINATE THE WORK OF THIS CONTRACT WITH THE LANDLORD'S AUTHORIZED REPRESENTATIVE

B. CONTRACTOR SHALL MEET WITH AUTHORIZED REPRESENTATIVES OF THE LANDLORD AND EACH UTILITY TO DISCUSS LANDLORD SCOPE OF WORK, CONTRACTOR SCOPE OF WORK, POINT OF SERVICE PICK-UP, DETAILS REGARDING SYSTEM INTERFACE STANDARDS TO BE COMPLIED WITH, ETC.

COORDINATION WITH OTHER TRADES

A. ELECTRICAL WORK SHALL BE INSTALLED SO AS TO NOT CONFLICT WITH THE WORK OF OTHER TRADES.

B. SET ALL SLEEVES AND CUT AND PATCH ALL MISCELLANEOUS HOLES NECESSARY FOR THE CONVENIENT AND PROPER INSTALLATION OF THE WORK.

C. CONFER WITH THE OTHER CONTRACTORS REGARDING THE LOCATION AND SIZE OF PIPES, EQUIPMENT, DUCTS, OPENINGS AND SPECIAL ARCHITECTURAL TREATMENTS IN ORDER THAT THERE MAY BE NO INTERFERENCES BETWEEN THE INSTALLATION OR THE PROGRESS OF THE WORK OF ANY CONTRACTOR ON THE PROJECT.

D. ALL LINE VOLTAGE WIRING AND FINAL CONNECTIONS TO COMPLETE MECHANICAL SYSTEMS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.

E. PROVIDE FINAL ELECTRICAL CONNECTIONS TO EQUIPMENT FURNISHED/PROVIDED BY OTHERS, (HVAC EQUIPMENT, PLUMBING EQUIPMENT, ETC.

F. COORDINATE THE NEMA CONFIGURATION OF THE RECEPTACLE TO BE PROVIDED WITH THE NEMA PLUG CONFIGURATION OF THE CORD/PLUG ASSEMBLY FURNISHED WITH THE EQUIPMENT TO BE INSTALLED. PROVIDE RECEPTACLES HAVING A NEMA CONFIGURATION THAT MATCHES THE NEMA CONFIGURATION OF THE PLUG ON THE EQUIPMENT.

G. PROVIDE FINAL COORDINATION OF AVAILABLE POWER (VOLTAGE/PHASE) WITH OTHER TRADES PRIOR TO THEIR ORDERING OF EQUIPMENT.

H. REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION REGARDING ELECTRICAL WORK TO BE PROVIDED ASSOCIATED WITH MECHANICAL EQUIPMENT.

I. WHERE ELECTRICAL WORK (CONDUIT BOXES, RECEPTACLES, DISCONNECT SWITCHES, ETC.) ARE SECURED DIRECTLY TO THE HOUSING OF MECHANICAL EQUIPMENT, THEY SHALL BE INSTALLED ON A PORTION OF THE EQUIPMENT HOUSING NOT REQUIRED TO BE REMOVED FOR ROUTINE MAINTENANCE. PRIOR TO INSTALLATION, COORDINATE ALL ELECTRICAL WORK AT MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR.

TEMPORARY POWER

A. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED TEMPORARY CONSTRUCTION POWER AND LIGHTING TO ALLOW ALL CONTRACTORS AND SUB-CONTRACTORS TO PERFORM THE WORK OF THEIR CONTRACTS.

B. PRIOR TO THE SUBMISSION OF A BID PROPOSAL, THE CONTRACTOR SHALL CONTACT THE GENERAL CONTRACTOR TO COORDINATE THE TYPE OF EQUIPMENT TO BE UTILIZED DURING THE WORK OF THIS CONTRACT

SEQUENCING AND SCHEDULING

A. COORDINATE ELECTRICAL EQUIPMENT INSTALLATION WITH OTHER BUILDING COMPONENTS AND THE PROJECT PHASING PLAN.

FIRE STOPPING

A. PROVIDE FIRE STOPPING FOR PENETRATIONS BY CONDUIT OR CABLES AND OTHER EQUIPMENT THROUGH FIRE-RATED VERTICAL BARRIERS (WALLS AND PARTITIONS), HORIZONTAL BARRIERS (FLOOR/CEILING ASSEMBLIES) AND VERTICAL SHAFT WALLS AND PARTITIONS.

B. FIRESTOP SYSTEM INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF ATME E 814 OR UL 1479 TESTED ASSEMBLIES THAT PROVIDE A FIRE RATING EQUAL TO OR GREATER THAN THAT OF THE CONSTRUCTION BEING PENETRATED.

SEISMIC RESTRAINT

A. PROVIDE SEISMIC RESTRAINT FOR ELECTRICAL WORK AND SYSTEMS AND EQUIPMENT IN STRICT ACCORDANCE WITH THE APPLICABLE BUILDING CODE AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.

B. SUBMIT ALL REQUIRED DETAILS TO THE AUTHORITY HAVING JURISDICTION FOR REVIEW AND APPROVAL.

CUTTING & PATCHING

A. PRIOR TO CORE DRILLING OR SAW CUTTING OPERATIONS, CONTRACTOR SHALL X-RAY OR GROUND PENETRATING RADAR (GPR) THE EXISTING SLAB TO DETERMINE THE LOCATION OF ANY EXISTING UTILITIES, STRUCTURAL MEMBERS. ETC. COORDINATE ALL SCANNING, CUTTING AND CORE DRILLING OPERATIONS WITH GC AND LANDLORD PRIOR TO COMMENCEMENT OF WORK.

B. CORE-DRILL OR SAW-CUT EXISTING FLOORS, WALLS, ROOF, ETC., AS REQUIRED FOR THE INSTALLATION OF THE ELECTRICAL WORK. EXISTING UTILITIES AND STRUCTURAL COMPONENTS, INCLUDING BUT NOT NECESSARILY LIMITED TO, COLUMNS, BEAMS, GIRDERS, PLATES OR JOISTS SHALL NOT BE CUT.

C. PATCH SURROUNDING AREAS FLUSH WITH ADJACENT SURFACES AND PREPARE TO RECEIVE SPECIFIED FINISHES.

D. PATCH AND REPAIR ROOF TO MATCH EXISTING ROOFING SYSTEM. ALL ROOF WORK SHALL BE PERFORMED TO MEET THE WARRANTY REQUIREMENTS OF THE EXISTING ROOFING SYSTEM.

GROUNDING

A. PROVIDE ELECTRICAL SYSTEM AND EQUIPMENT GROUNDING IN ACCORDANCE WITH APPLICABLE N.E.C. REQUIREMENTS.

B. THE METALLIC CONDUIT SYSTEM SHALL BE GROUNDED AND BONDED TO FORM AN EQUIPMENT GROUNDING CONDUCTOR.

C. PROVIDE AN INSULATED EQUIPMENT GROUND CONDUCTOR WITHIN ALL FEEDERS AND BRANCH CIRCUITS. THIS EQUIPMENT GROUND CONDUCTOR SHALL BE IN ADDITION TO THE EQUIPMENT GROUND CONDUCTOR FORMED BY THE METALLIC CONDUIT SYSTEM.

D. PROVIDE A #6 AWG GREEN INSULATED GROUNDING CONDUCTOR FROM THE GROUND BAR AT TELEPHONE TERMINAL BOARD TO THE ELECTRICAL SERVICE GROUND.

E. PROVIDE A COPPER GROUNDING BAR AT THE TELEPHONE TERMINAL BACKBOARD. GROUNDING BAR SHALL BE ¼ INCH X 4 INCHES X 12 INCHES, PRE-DRILLED FOR CONDUCTOR TERMINATIONS, WITH NON-METALLIC STAND-OFF BRACKETS WITH INSULATORS. CHATSWORTH PRODUCTS 10622-012 OR APPROVED EQUAL.

EQUIPMENT IDENTIFICATION

A. PROVIDE EQUIPMENT LABELS ON PANELBOARDS, DISCONNECT SWITCHES, CONTACTORS, TRANSFORMERS, CONTROLS, ETC. EQUIPMENT LABELS SHALL BE ENGRAVED PHENOLIC RESIN NAMEPLATES ATTACHED TO ENCLOSURE WITH MECHANICAL FASTENERS. SELF-ADHESIVE NAMEPLATES ARE NOT ACCEPTABLE. LETTERING SHALL BE 1/2" HIGH, BLACK TEXT ON WHITE BACKGROUND.

B. ENGRAVED NAMEPLATES ATTACHED TO COMPONENTS SHALL IDENTIFY THE EQUIPMENT DESIGNATION, NAME OF THE "UPSTREAM" POWER SOURCE (AS APPLICABLE), VOLTAGE AND PHASE.

C. THE COVERS OF ALL OUTLET AND JUNCTION BOXES INSTALLED ABOVE CEILINGS AND INSTALLED EXPOSED IN UNFINISHED SPACES SHALL BE LABELED TO IDENTIFY THE SERVING PANEL, VOLTAGE, PHASE AND CIRCUIT NUMBERS CONTAINED WITHIN THE BOX. LABEL SHALL BE LEGIBLY HANDWRITTEN WITH BLACK, FELT TIP PERMANENT MARKER.

D. THE COVER PLATES OF ALL WIRING DEVICES SHALL BE LABELED TO IDENTIFY THE SERVING PANEL AND THE CIRCUITS SERVING THE DEVICE. LABELS SHALL BE MACHINE PRINTED, BLACK TEXT ON A CLEAR, SELF ADHESIVE LABEL.

CONDUIT AND FITTINGS

A. ALL INTERIOR AND EXTERIOR CONDUITS SHALL BE INSTALLED AND SUPPORTED IN ACCORDANCE WITH N.E.C. REQUIREMENTS.

B. MINIMUM CONDUIT SIZE SHALL BE ¾" TRADE SIZE. SWITCH LEGS SHALL BE ½" TRADE SIZE.

C. WITHIN INTERIOR FINISHED SPACES, ALL CONDUIT SHALL BE INSTALLED CONCEALED WITHIN NEW AND EXISTING WALLS AND ABOVE NEW AND EXISTING CEILINGS.

D. CONDUIT INSTALLED WITHIN THE INTERIOR OF THE BUILDING SHALL BE GALVANIZED ELECTRICAL METALLIC TUBING (EMT). CONDUIT FITTINGS FOR INDOOR EMT CONDUITS SHALL BE CAST METAL, COMPRESSION TYPE.

E. EMT SHALL BE USED FOR INTERIOR FEEDERS AND BRANCH CIRCUITS INSTALLED EXPOSED IN UNFINISHED SPACES, CONCEALED ABOVE NEW OR EXISTING CEILINGS OR CONCEALED WITHIN EXISTING AND NEW INTERIOR PARTITIONS.

F. CONDUITS INSTALLED EXPOSED ON THE EXTERIOR OF THE BUILDING SHALL BE GALVANIZED RIGID STEEL. FITTINGS SHALL BE THREADED TYPE.

G. CONDUITS INSTALLED UNDER SLAB ON GRADE CONSTRUCTION SHALL BE RIGID NON-METALLIC (RNC), SCHEDULE 40 PVC. RNC COMPLYING WITH NEMA TC 2 AND UL 651 UNLESS OTHERWISE INDICATED. FITTINGS FOR RIGID NON-METALLIC CONDUIT SHALL COMPLY WITH NEMA TC 3; MATCH TO CONDUIT TYPE AND MATERIAL.

H. PROVIDE CONDUIT EXPANSION FITTINGS IN ALL CONDUIT RUNS THAT EXTEND ACROSS BUILDING EXPANSION JOINTS AND WHERE MOVEMENT MAY BE ENCOUNTERED.

I. CONDUIT SHALL BE SUPPORTED FROM STRUCTURE ONLY.

J. PVC CONDUIT SHALL ONLY BE USED BELOW GRADE.

K. PROVIDE FLEXIBLE METAL CONDUIT FOR CONNECTIONS TO VIBRATING EQUIPMENT WITHIN INTERIOR DRY LOCATIONS. MAXIMUM CONDUIT LENGTH SHALL BE 36 INCHES.

L. PROVIDE LIQUID-TIGHT FLEXIBLE METAL CONDUIT FOR CONNECTIONS TO VIBRATING EQUIPMENT IN WET OR OUTDOOR LOCATIONS. MAXIMUM CONDUIT LENGTH SHALL BE 36 INCHES.

M. PROVIDE FLEXIBLE METAL CONDUIT FOR FINAL CONNECTIONS TO RECESSED LIGHT FIXTURES (FIXTURE WHIPS). MAXIMUM CONDUIT LENGTH SHALL BE 72 INCHES.

N. CONDUITS THAT EXTEND UP TO THE ROOF LEVEL TO SERVE ROOF MOUNTED MECHANICAL EQUIPMENT INSTALLED ON A CURB SHALL BE ROUTED WITHIN THE EQUIPMENT CURB. COORDINATE ELECTRICAL WORK WITH MECHANICAL EQUIPMENT INSTALLER.

O. ACCEPTABLE MANUFACTURERS FOR GALVANIZED RIGID CONDUIT, EMT, FLEXIBLE METAL CONDUITS AND LIQUID-TIGHT FLEXIBLE METAL CONDUITS SHALL BE ALLIED, REPUBLIC, WHEATLAND, ELECTRI-FLEX AND ANACONDA.

P. ACCEPTABLE MANUFACTURERS FOR CONDUIT FITTINGS SHALL BE THOMAS AND BETTS OR APPROVED EQUAL.

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CONDUCTORS

A. ALL CONDUCTORS SHALL BE SOFT DRAWN, ANNEALED COPPER, #12 AWG MINIMUM.

B. CONDUCTORS #12 AND #10 AWG SHALL BE SOLID; #8 AWG AND LARGER SHALL BE STRANDED.

C. THE USE OF ALUMINUM CONDUCTORS IS NOT ACCEPTABLE.

D. EXPOSED, INTERIOR FEEDERS: TYPE THHN–THWN, SINGLE CONDUCTORS IN CONDUIT.

E. FEEDERS INSTALLED CONCEALED IN CEILINGS, WALLS, PARTITIONS: TYPE THHN–THWN, SINGLE CONDUCTORS IN CONDUIT.

F. FEEDERS INSTALLED CONCEALED IN CONCRETE, BELOW SLABS–ON–GRADE AND UNDERGROUND: TYPE THHN–THWN, SINGLE CONDUCTORS IN PVC CONDUIT.

G. EXPOSED, INTERIOR, BRANCH CIRCUITS: TYPE THHN–THWN, SINGLE CONDUCTORS IN CONDUIT.

H. BRANCH CIRCUITS CONCEALED IN EXISTING AND NEW CEILINGS, WALLS, AND PARTITIONS: TYPE THHN–THWN, SINGLE CONDUCTORS IN CONDUIT.

I. BRANCH CIRCUITS CONCEALED BELOW SLABS–ON–GRADE, AND UNDERGROUND: TYPE THHN–THWN, SINGLE CONDUCTORS IN CONDUIT.

J. ACCEPTABLE MANUFACTURERS FOR CONDUCTORS: GENERAL CABLE COMPANY, CAROL, ANACONDA, ROME, SOUTHWIRE.

K. CLASS 1 CONTROL CIRCUITS: TYPE THHN–THWN, IN CONDUIT.

L. CLASS 2 CONTROL CIRCUITS: POWER–LIMITED PLENUM RATED CABLE, CONCEALED IN BUILDING FINISHES.

M. THE USE OF NON–METALLIC–SHEATHED CABLE (TYPE NM) AND ARMORED CABLE (TYPE AC OR BX) IS NOT ACCEPTABLE

N. WIRE CONNECTORS SHALL BE EQUAL TO SCOTCH LOCK FOR #8 AWG AND SMALLER, THOMAS AND BETTS LOCK–TITE FOR #6 AND LARGER.

O. PROVIDE #10 AWG CONDUCTORS FOR BRANCH CIRCUITS HAVING A CONDUCTOR LENGTH LONGER THAN 75 FEET.

P. SIZE OF CONDUCTORS AND CABLES INDICATED OR SPECIFIED ARE IN AMERICAN WIRE GAGE (AWG – BROWN AND SHARPE).

Q. INSTALL ALL WIRING IN APPROVED RACEWAY AND ENCLOSURES, EXCEPT WHERE SPECIFIED OR INDICATED, FOR LOW–VOLTAGE WIRING OR, WHERE TYPE MC CABLE IS INDICATED, SPECIFIED AS ACCEPTABLE, OR BOTH.

R. SUPPORT ALL CONDUCTORS AND CABLES IN VERTICAL INSTALLATIONS, AS REQUIRED BY NFPA–70, BY INSTALLING CABLE SUPPORTS OR PLUG–TYPE CONDUIT RISER SUPPORTS, OR WIRE–MESH SAFETY GRIPS.

S. INSTALL ALL CONDUCTORS AND CABLE IN RACEWAYS CONTINUOUS WITHOUT TAPS OR SPLICES. SPLICE OR TAP ONLY IN APPROVED BOXES AND ENCLOSURES WITH APPROVED SOLDERLESS CONNECTORS, OR CRIMP CONNECTORS AND TERMINAL BLOCKS FOR CONTROL WIRING, AND KEEP TO THE MINIMUM REQUIRED. INSULATE ALL SPLICES, TAPS, AND JOINTS AS REQUIRED BY CODE.

T. ALL MATERIALS USED TO TERMINATE, SPLICE OR TAP CONDUCTORS: DESIGNED, PROPERLY SIZED, AND UL LISTED FOR THE SPECIFIC APPLICATION AND CONDUCTORS INVOLVED, AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, USING THE MANUFACTURER'S RECOMMENDED TOOLS.

U. WHERE WIRING IS INDICATED AS INSTALLED, BUT THE CONNECTION IS INDICATED "FUTURE" OR "BY OTHER DIVISION, TRADES, OR CONTRACTS", LEAVE A MINIMUM OF 3' FOOT "PIGTAIL" AT THE BOX, TAPE THE ENDS OF CONDUCTORS, AND COVER THE BOX.

V. VOLTAGE DROP IN BRANCH CIRCUITS SHALL NOT EXCEED 3 PERCENT.

W. WHEN NEW CONDUCTORS ARE CONNECTED TO EXISTING CONDUCTORS, THE NEW CONDUCTORS SHALL BE OF THE SAME AWG, CONDUCTOR MATERIAL, INSULATION TYPE TEMPERATURE RATING,. ETC. AS THE EXISTING CONDUCTORS TO WHICH BEING CONNECTED.

TYPE MC CABLE

A. A.TYPE MC CABLE: 600V, UNJACKETED: ANSI E119 AND E814, UL STANDARDS 44 OR 83 (AS APPLICABLE), AND 1569, NFPA 70 ARTICLE 330; ALUMINUM OR GALVANIZED STEEL INTERLOCKED ARMOR; THHN– OR XHHW–INSULATED CONDUCTORS; COLOR CODE: ICEA METHOD 1, WITH GREEN INSULATED GROUNDING CONDUCTOR.

B. USES PERMITTED

B.1. IN LIEU OF FLEXIBLE CONDUIT AND WIRING FROM LIGHT FIXTURES IN ACCESSIBLE CEILINGS TO JUNCTION BOXES (ATTACHED TO BUILDING STRUCTURE) ABOVE THE CEILING. PROVIDE CABLE WHIPS OF SUFFICIENT LENGTHS TO ALLOW FOR RELOCATING EACH LIGHT FIXTURE WITHIN A 5' FOOT RADIUS OF ITS INSTALLED LOCATION, BUT NOT EXCEEDING 6' FEET IN UNSUPPORTED LENGTHS.

B.2. FOR VERTICAL DROPS IN STUD WALLS.

C. USES NOT PERMITTED:

C.1. HOMERUNS TO PANELBOARDS.

C.2. WHERE EXPOSED TO VIEW.

C.3. WHERE EXPOSED TO DAMAGE.

C.4. HAZARDOUS LOCATIONS.

C.5. WET LOCATIONS

C.6. INSTALLED HORIZONTALLY WITHIN STUD WALL

C.7. WHEN RESTRICTED OTHERWISE ABOVE, AND WHEN SPECIFICALLY DISALLOWED BY THE LOCAL AHJ, OWNER OR BOTH

D. PRIOR TO THE SUBMISSION OF A BID PROPOSAL, E.C. SHALL VERIFY THE PERMISSIBLE USE OF M.C. CABLE WITH THE A.H.J.

E. REFER TO NOTES ON DRAWINGS REGARDING REQUIREMENTS FOR THE USE OF HCF TYPE MC CABLE WITHIN SELECT SPACES.

CONDUCTOR COLOR CODING

A. PROVIDE COLOR CODING SYSTEM AS LISTED BELOW FOR ALL FEEDERS AND BRANCH CIRCUITS AND USED AS A BASIS FOR BALANCING LOAD ON PANELS, AND FOR PHASE IDENTIFICATION.

B. COLOR CODING FOR CONDUCTOR #12 AWG THROUGH #10 AWG SHALL CONSIST OF COLOR CODED THERMOPLASTIC INSULATION OF THE COLORS SPECIFIED HEREIN.

C. COLOR CODING FOR CONDUCTORS #8 AWG AND LARGER SHALL BE FIELD APPLIED SELF ADHESIVE TAPE OF THE COLOR SPECIFIED HEREIN FOR THE PARTICULAR PHASE.

D. 120/208V: PHASE A––BLACK, PHASE B––RED, PHASE C––BLUE, NEUTRAL––WHITE, EQUIPMENT GROUND––GREEN, ISOLATED GROUND––GREEN WITH DISTINCTIVE WHITE OR YELLOW MARKINGS.

E. 277/480V: BROWN–A, ORANGE–B YELLOW–C, NEUTRAL – WHITE OR GRAY, EQUIPMENT GROUND ––GREEN.

BOXES AND FITTINGS

A. ALL OUTLET BOXES SHALL BE UL LISTED AND LABELED FOR USE IN THE SPACE THEY OCCUPY AND THE PURPOSE THEY SERVE.

B. SHEET METAL OUTLET AND DEVICE BOXES FOR DRY, INTERIOR APPLICATIONS: COMPLY WITH NEMA OS 1 AND UL 514A.

C. CAST–METAL OUTLET AND DEVICE BOXES FOR EXTERIOR APPLICATIONS: COMPLY WITH NEMA FB 1, FERROUS ALLOY, TYPE FS OR FD, WITH GASKETED COVER.

D. OUTLET BOXES INSTALLED WITHIN FIRE RATED ASSEMBLIES SHALL HAVE A FIRE RATING EQUAL TO OR GREATER THAN THE RATING OF THE WALL IN WHICH IT IS INSTALLED.

E. OUTLET BOXES SHALL BE 4 INCHES SQUARE BY 2 1/8 INCHES DEEP , EXCEPT FOR 2" PARTITIONS SHALL BE AT LEAST 1–1/2" DEEP.

F. OUTLET BOXES FOR VOICE AND DATA DEVICES SHALL BE 4 11/16 INCHES SQUARE BY 2 1/8 INCHES DEEP.

G. ALL PULLBOXES SHALL BE CONSTRUCTED OF GALVANIZED STEEL, OF METAL GAUGE AND PHYSICAL SIZE AS REQUIRED BY THE N.E.C. FOR THE NUMBER AND SIZE OF CONDUITS AND CONDUCTORS ASSOCIATED WITH THE PULLBOX.

H. FIXTURE OUTLET BOXES IN/OR ON CEILINGS SHALL NOT BE LESS THAN 1–1/2" DEEP OR LESS THAN 4" SQUARE. ALL OUTLET BOXES INTENDED TO SUPPORT FIXTURES SHALL BE EQUIPPED WITH 3/8" FIXTURE STUDS FASTENED THROUGH THE BOTTOM OF THE BOX WITH FOUR BOLTS.

I. PULLBOXES AND JUNCTION BOXES THAT ARE CUSTOM FABRICATED FOR THE APPLICATION SHALL BE FABRICATED BY A SHOP/FACILITY THAT IS CERTIFIED BY A NRTL FOR THE FABRICATION OF SUCH ENCLOSURES.

J. NEW OUTLET BOXES INSTALLED WITHIN NEW OR EXISTING STUD WALL CONSTRUCTION SHALL BE MOUNTED TO A STUD OR MOUNTED IN A BRACKET THAT SPANS STUD–TO–STUD, CADDY TSGB BRACKET OR APPROVED EQUAL. THE USE OF "OLD WORK" TYPE BOXES THAT. SECURE ONLY TO THE DRYWALL ARE NOT ACCEPTABLE.

K. ACCEPTABLE MANUFACTURERS FOR BOXES: APPLETON, STEEL CITY, RACO.

PANELBOARDS

A. CIRCUIT BREAKERS SHALL BE MOLDED CASE, BOLT–ON TYPE SUITABLE FOR VOLTAGE AND AMPERE RATINGS INDICATED ON DRAWINGS AND IN PANEL SCHEDULES. REFER TO THE PANEL SCHEDULES ON THE DRAWINGS FOR ADDITIONAL ACCESSORIES TO BE PROVIDED AT SELECT CIRCUIT BREAKERS.

B. CIRCUIT BREAKERS SHALL HAVE A MINIMUM AMPERE INTERRUPTING CAPACITY (AIC) AS DETERMINED BY THE POWER SYSTEM STUDY

C. WHERE THE POWER SYSTEM STUDY IDENTIFIES AVAILABLE FAULT CURRENT VALUES AT EXISTING AND NEW PANELS THAT ARE HIGHER THAN THE MINIMUM AIC RATINGS SPECIFIED HEREIN, PROVIDE CIRCUIT BREAKERS IN THE PANELS THAT HAVE AIC RATINGS GREATER THAN THE AVAILABLE FAULT CURRENT AT THE PANEL AS DETERMINED BY THE POWER SYSTEM STUDY.

D. PANELBOARDS SHALL BE EQUIPPED WITH FLUSH TYPE LOCK AND CATCH. ALL LOCKS SHALL BE KEYED ALIKE, WITH TWO KEYS SUPPLIED WITH EACH LOCK.

E. CIRCUIT BREAKERS SERVING LIGHTING CIRCUITS SHALL BE RATED FOR SWITCH DUTY.

F. CIRCUIT BREAKERS SERVING HVAC EQUIPMENT SHALL BE HACR RATED.

G. ALL LUGS SHALL BE OF THE SOLDERLESS TYPE AND RATED AT A MINIMUM OF 75'C.

H. PROVIDE NEW CIRCUIT DIRECTORIES WITHIN EXISTING PANELS TO REFLECT THE WORK OF THIS CONTRACT. DIRECTORY SHALL BE TYPEWRITTEN OR COMPUTER GENERATED. HANDWRITTEN CIRCUIT DIRECTORIES ARE NOT ACCEPTABLE.

I. UTILIZE FINAL, OWNER ASSIGNED ROOM NAMES AND NUMBERS TO IDENTIFY SPACES WITHIN THE CIRCUIT DIRECTORIES. COMPLY WITH N.E.C. 408.4 WHEN IDENTIFYING CIRCUITS IN CIRCUIT DIRECTORIES.

J. PANEL CIRCUITS SHALL BE CONFIGURED SUCH THAT THE LOAD IS DISTRIBUTED EVENLY ACROSS ALL THREE PHASES TO WITHIN 10%.

K. ALL EXISTING PANELBOARDS SHALL BE LABELED TO IDENTIFY THE AMOUNT OF FAULT CURRENT AVAILABLE AT THE PANEL AS DETERMINED BY THE POWER SYSTEM STUDY TO BE PERFORMED. LABEL SHALL BE MACHINE PRINTED, BLACK TEXT ON CLEAR, SELF ADHESIVE TAPE. INSTALL LABEL ADJACENT TO PANELBOARDS ENGRAVED NAMEPLATE.

L. ALL EXISTING PANELBOARDS SHALL BE LABELED TO IDENTIFY THE ARC FLASH HAZARD CHARACTERISTICS AT THE PANEL AS DETERMINED BY THE POWER SYSTEM STUDY TO BE PERFORMED.

M. ALL "SPARE" CIRCUIT BREAKERS SHALL BE SET TO THE "OFF" POSITION.

N. PROVIDE THREE (3) EMPTY 1 INCH CONDUITS FROM EACH FLUSH MOUNTED PANEL STUBBED UP TO ABOVE ACCESSIBLE CEILING.

O. PROVIDE HANDLE TIES ON ALL MULTI–WIRE BRANCH CIRCUITS IN ACCORDANCE WITH N.E.C. 210.4(B)

P. WHEN NEW CIRCUIT BREAKERS ARE ADDED TO AN EXISTING PANEL, THE NEW CIRCUIT BREAKERS SHALL BE OF THE SAME MANUFACTURE AS THE EXISTING PANEL, SHALL BE OF A 'LETTER TYPE' COMPATIBLE WITH THE EXISTING PANEL SUCH THAT THE UL LISTING OF THE EXISTING PANEL IS MAINTAINED AND SHALL HAVE AN AIC RATING EQUAL TO OR GREATER THAN THE AIC RATING OF THE EXISTING OVERCURRENT PROTECTIVE DEVICES WITHIN THE EXISTING PANEL.

SWITCHES

A. TOGGLE SWITCHES SHALL BE SINGLE POLE, 3–WAY OR 4–WAY AS NOTED ON THE DRAWINGS, 20 AMPERES, 120/277 VOLT AC TYPE, SPECIFICATION GRADE WITH SCREW TERMINALS. HUBBELL 1221–X, 1223–X OR 1224–X OR APPROVED EQUIVALENT BY ONE OF THE ADDITIONAL MANUFACTURERS SPECIFIED HEREIN.

B. TOGGLE SWITCHES SHALL BE MOUNTED AT DOORS, INSTALLED ADJACENT TO THE TRIM ON THE STRIKING SIDE OF THE DOOR, REGARDLESS OF THE LOCATION INDICATED ON THE DRAWINGS. VERIFY ALL DOOR SWINGS PRIOR TO INSTALLATION OF OUTLET BOXES FOR SWITCHES.

C. DEVICE COLOR SHALL BE AS SELECTED BY THE OWNER/ARCHITECT.

D. PROVIDE A NEUTRAL CONDUCTOR TO ALL SWITCH LOCATIONS

E. SWITCHES SHALL BE INSTALLED SURFACE MOUNTED IN UNFINISHED AREA. FLUSH MOUNTED IN FINISHED SPACES.

F. ADDITIONAL ACCEPTABLE MANUFACTURERS FOR SWITCHES: LEGRAND, LEVITON.

RECEPTACLES

A. RECEPTACLES SHALL BE 20 AMP, 125 VOLT, 2–POLE, 3–WIRE, GROUNDING TYPE, NEMA 5–20R WITH SCREW TERMINALS. HUBBELL 5362–W OR APPROVED EQUAL BY ONE OF THE ADDITIONAL MANUFACTURERS SPECIFIED HEREIN.

B. GFCI RECEPTACLES SHALL BE 20 AMP, 125 VOLT, 2–POLE, 3–WIRE, GROUNDING TYPE, NEMA 5–20R FEED THROUGH TYPE CAPABLE OF PROTECTING DOWNSTREAM RECEPTACLES ON A SINGLE CIRCUIT, SOLID STATE GROUND FAULT SENSING AND SIGNALING, 5 MILLIAMP TRIP LEVEL, NEMA 5–20R WITH SCREW TERMINALS. HUBBELL GF5362–X OR APPROVED EQUAL BY ONE OF THE ADDITIONAL MANUFACTURERS SPECIFIED HEREIN.

C. PROVIDE SPECIAL PURPOSE RECEPTACLES HAVING NEMA CONFIGURATIONS THAT MATE AND MATCH THE NEMA PLUG CONFIGURATION PROVIDED WITH THE EQUIPMENT TO BE CONNECTED.

D. COVER PLATES FOR EXTERIOR RECEPTACLES SHALL BE RATED FOR "WEATHERPROOF WHILE IN USE".

E. DEVICE COLOR SHALL BE AS SELECTED BY THE OWNER/ARCHITECT.

F. QUAD RECEPTACLES SHALL CONSIST OF (2) DUPLEX RECEPTACLES INSTALLED IN A SINGLE BOX UNDER A SINGLE COVER PLATE.

G. RECEPTACLES SHALL BE INSTALLED SURFACE MOUNTED IN UNFINISHED SPACES, FLUSH MOUNTED IN FINISHED SPACES.

H. ADDITIONAL ACCEPTABLE MANUFACTURERS FOR SWITCHES AND RECEPTACLES: LEGRAND, LEVITON.

TAMPER RESISTANT RECEPTACLES

A. RECEPTACLES AS IDENTIFIED ON THE ELECTRICAL DRAWINGS SHALL BE TAMPER RESISTANT TYPE IN COMPLIANCE WITH THE REQUIREMENTS OF N.E.C. 406.12. INDOOR NON–GFCI RECEPTACLES SHALL BE HUBBELL CRS20TR AND HUBBELL CRS15TR, OR APPROVED EQUAL AS MANUFACTURED BY LEGRAND OR LEVITON.

B. RECEPTACLES LOCATED GREATER THAN 5'–6" IN HEIGHT, RECEPTACLES AS PART OF A LUMINARE, OR AS DEDICATED FOR AN APPLIANCE ARE EXEMPT FROM TAMPER RESISTANT REQUIREMENTS.

GFCI PROTECTION:

A. ALL SINGLE PHASE RECEPTACLES RATED 150 VOLTS TO GROUND OR LESS, 50 AMPS OR LESS AND THREE PHASE RECEPTACLES RATED 150 VOLTS TO GROUND OR LESS, 100 AMPS OR LESS SHALL HAVE GROUND FAULT CIRCUIT INTERRUPTER PROTECTION FOR PERSONNEL IN ACCORDANCE WITH N.E.C. 210.8, (B), (1) – (10), OR THE EQUIVALENT REQUIREMENT WITHIN THE APPLICABLE ELECTRICAL CODE.

B. THE "GFCI" NOTATION AT A DEVICE OR CIRCUIT BREAKER INDICATES THAT GFCI PROTECTION SHALL BE PROVIDED FOR THE CIRCUIT OR CIRCUITS INDICATED. GFCI PROTECTION SHALL BE PROVIDED BY ONE OF THE FOLLOWING MEANS:

- INTEGRAL GFCI PROTECTION WITHIN THE DEVICE (NEMA 5–20R RECEPTACLES), WHEN THE DEVICE IS ABLE TO BE INSTALLED IN A READILY ACCESSIBLE LOCATION AS DEFINED BY THE APPLICABLE ELECTRICAL CODE.
- GFCI CIRCUIT BREAKER INSTALLED WITHIN THE PANEL FOR SERVICE TO THE CIRCUIT OR CIRCUITS.
- GFCI CIRCUIT BREAKER INSTALLED WITHIN AN INDIVIDUAL ENCLOSURE EXTERNAL TO THE PANEL FOR SERVICE TO THE CIRCUIT.
- DEAD–FRONT GFCI DEVICE INSTALLED IN A READILY ACCESSIBLE LOCATION AS DEFINED BY THE N.E.C. (APPLICABLE TO 20 AMP, 120 VOLT CIRCUITS).
- AN INDIVIDUALLY MOUNTED EXTERNAL SPECIAL PURPOSE GROUND FAULT CIRCUIT INTERRUPTER (SPGFCI) DEVICE SIMILAR TO "SHOCK BLOCK" PRODUCTS AS MANUFACTURED BY LITTLEFUSE, OR APPROVED EQUAL.
- DEAD FRONT DEVICES SHALL BE BE LABELED TO IDENTIFY THE CIRCUIT AND THE LOAD SERVED BY THE DEVICE.

C. ALL GFCI RECEPTACLES SHALL BE PROVIDED WITH A DEDICATED NEUTRAL CONDUCTOR.

COVER PLATES FOR TOGGLE SWITCHES AND RECEPTACLES

A. COVER PLATES SHALL BE NYLON, OF CONFIGURATION TO MATCH THE WIRING DEVICE.

B. CONFIGURATION AND COLOR OF COVER PLATE SHALL MATCH THAT OF THE WIRING DEVICE THAT THE PLATE WILL BE INSTALLED ON.

C. COVER PLATE COLOR SHALL BE AS SELECTED BY THE OWNER/ARCHITECT.

D. ADDITIONAL ACCEPTABLE MANUFACTURERS FOR COVER PLATES: LEGRAND, LEVITON.

E. COVERPLATES AS PROVIDED FOR RECEPTACLES AS CONTROLLED BY AN AUTOMATIC MEANS SHALL BE ENGRAVED OR OTHERWISE PERMANENTLY MARKED TO NOTIFY THAT THE RECEPTACLE IS TO BE CONTROLLED BY AUTOMATIC MEANS, AND SHALL BE MARKED TO IDENTIFY WHICH OUTLETS WITHIN THE RECEPTACLE ARE BEING CONTROLLED.

MOUNTING HEIGHTS FOR ELECTRICAL DEVICES AND EQUIPMENT

A. DEVICES AND EQUIPMENT SHALL BE INSTALLED AT THE MOUNTING HEIGHTS NOTED BELOW UNLESS NOTED OTHERWISE ON THE DRAWINGS OR REQUIRED BY APPLICABLE CODES AND STANDARDS:

1. TOGGLE SWITCHES, WALL SWITCH OCCUPANCY SENSORS, VACANCY SENSORS AND DIMMERS FOR LIGHTING CONTROL – TOP OF DEVICE 48" AFF
2. CONVENIENCE RECEPTACLES –TOP OF DEVICE 18" AFF
3. CONVENIENCE RECEPTACLES AT COUNTERTOPS – BOTTOM OF DEVICE 44" AFF OR AS NOTED ON THE DRAWINGS
4. TELEPHONE AND DATA OUTLETS – TOP OF DEVICE 18" AFF, 44" AFF WHEN INSTALLED AT COUNTER TOPS.
5. DISCONNECT SWITCHES – TOP OF ENCLOSURE 66" AFF
6. PANELBOARDS – TOP OF ENCLOSURE 72" AFF

DISCONNECT SWITCHES

A. DISCONNECT SWITCHES SHALL BE HEAVY DUTY TYPE, UL LISTED AND LABELED, EQUIPPED WITH A LUG FOR TERMINATION OF THE EQUIPMENT GROUNDING CONDUCTOR.

B. DISCONNECT SWITCHES SHALL BE LOCKABLE WITH NEMA 1 ENCLOSURES FOR DRY, INDOOR APPLICATIONS; NEMA 3R ENCLOSURES FOR OUTDOOR OR WET LOCATION APPLICATIONS.

C. TOGGLE DISCONNECTS SHALL BE 20A OR 30A AS REQUIRED. SINGLE POLE, 2–POLE OR 3–POLE AS REQUIRED, SINGLE THROW, MOTOR RATED SWITCH WITHOUT OVERLOAD PROTECTION. NEMA 1, 3R OR 4X STAINLESS STEEL ENCLOSURE AS REQUIRED BY APPLICATION, PADLOCK ATTACHMENT

D. ALL DISCONNECT SWITCHES SHALL BE EQUIPPED WITH AN ENGRAVED NAMEPLATE TO IDENTIFY THE SERVING PANEL, CIRCUIT NUMBERS AND THE LOAD SERVED BY THE SWITCH.

E. ACCEPTABLE MANUFACTURERS FOR DISCONNECT SWITCHES: SCHNEIDER, ABB, SIEMENS OR EATON.

LIGHTING FIXTURES

A. ALL LIGHTING FIXTURES AND LIGHT SOURCES SHALL BE FURNISHED, INSTALLED AND CONNECTED BY THE ELECTRICAL CONTRACTOR, UNLESS NOTED OTHERWISE.

B. THIS CONTRACTOR SHALL INSTALL LIGHTING FIXTURES AND LIGHT SOURCES AS INDICATED ON THE DRAWINGS AND AS SPECIFIED BELOW. PROVIDE LIGHTING FIXTURES COMPLETE WITH HANGERS, PLASTER FRAMES, AND ALL OTHER NECESSARY ACCESSORIES

C. LED DRIVERS SHALL BE SOLID STATE AND ACCEPT 120 THROUGH 277 VAC AT 60 HZ INPUT.

D. THE LED LIGHT SOURCE SHALL BE FULLY DIMMABLE WITH USE OF COMPATIBLE DIMMER SWITCH DESIGNATED FOR LOW VOLTAGE LOADS.

E. THE CONTRACTOR SHALL PROVIDE LIGHTING CONTROL DEVICES (DIMMERS) THAT ARE COMPATIBLE WITH LED DRIVER BEING PROVIDED WITH THE FIXTURE.

F. EXIT SIGNS INDICATED AS PROVIDING POWER TO REMOTE EXTERIOR EGRESS LIGHTS SHALL BE EQUIPPED WITH THE INCREASED BATTERY CAPACITY TO SERVE THE REMOTE EMERGENCY LIGHT. REMOTE EMERGENCY LIGHT SHALL BE A STANDARD ACCESSORY OF THE INTERIOR EXIT SIGN TO WHICH CONNECTED.

LIGHTING CONTROLS

A. TIME SWITCHES, PHOTOCELLS AND CONTACTORS SHALL BE AS DETAILED ON DRAWINGS.

B. WALL SWITCH OCCUPANCY SENSORS SHALL BE WATT STOPPER WS–301 OR APPROVED EQUAL.

C. PROVIDE A NEUTRAL CONDUCTOR TO ALL SWITCH LOCATIONS

ROUGH–IN SYSTEM FOR VOICE AND DATA

A. PROVIDE A ROUGH–IN SYSTEM AS SPECIFIED HEREIN FOR SERVICE TO THE OWNER'S VOICE AND DATA NETWORK.

B. PROVIDE A PLYWOOD BACKBOARD FOR TERMINATION OF TELEPHONE SERVICE AND DISTRIBUTION COMPONENTS. PLYWOOD BACKBOARD SHALL BE 2' X 3' X 3/4", FIRE RATED, PAINTED WITH TWO (2) COATS OF LIGHT GRAY ENAMEL PAINT. MASK FIRE RATED LABEL TO PREVENT THE LABEL FROM BEING PAINTED OVER.

C. OUTLET BOXES FOR TELEPHONE AND DATA DEVICES SHALL CONSIST OF 4 11/16 IN SQUARE BY 2 1/8 INCH DEEP OUTLET BOXES WITH SINGLE DEVICE COVER.

D. PROVIDE A 3" EMPTY CONDUIT WITH PULLSTRING FROM THE WALL MOUNTED PLYWOOD TELEPHONE TERMINAL BOARD IN THE TENANT SPACE TO THE LANDLORDS TELEPHONE DISTRIBUTION OR POINT OF SERVICE DELIVERY. PROVIDE A NYLON BUSHING ON EACH END OF CONDUIT FOR CABLE PROTECTION.

E. ROUGH–IN FOR WIRING DROPS TO WALL MOUNTED VOICE AND DATA DEVICES SHALL BE INSTALLED WITHIN EMT CONDUIT, 1". PROVIDE A CONDUIT STUB FROM THE DEVICE BOX TO ABOVE ACCESSIBLE CEILING. PROVIDE A PLENUM RATED NYLON BUSHING ON THE END OF THE CONDUIT STUB FOR PROTECTION OF THE WIRING.

F. PRIOR TO BEGINNING WORK, THIS CONTRACTOR SHALL FULLY COORDINATE HIS CONSTRUCTION OPERATIONS AND ALL TERMINATION LOCATIONS WITH AUTHORIZED REPRESENTATIVE OF THE TELEPHONE UTILITY COMPANY AND THE OWNER'S DATA NETWORK PROVIDER BY TIMELY NOTICE OR SCHEDULING OF SERVICE EQUIPMENT DATES, SERVICE MODIFICATION DATES AND NOTIFICATION OF REQUIRED OWNER AUTHORIZATIONS INVOLVING THE UTILITY COMPANY.

DUCT MOUNTED SMOKE DETECTORS

A. PROVIDE A 120 VOLT POWER SOURCE TO ALL DUCT MOUNTED SMOKE DETECTORS INSTALLED WITHIN NEW AND EXISTING MECHANICAL EQUIPMENT

B. PROVIDE A DUCT MOUNTED SMOKE DETECTORS WITHIN NEW AND EXISTING MECHANICAL EQUIPMENT AS REQUIRED BY APPLICABLE CODES. FINAL ELECTRICAL CONNECTION AND ALL INTERLOCK WIRING BY THE ELECTRICAL CONTRACTOR.

C. PROVIDE ALL INTERLOCK WIRING IN CONDUIT BETWEEN ALL DUCT DETECTORS SUCH THAT UPON DETECTING SMOKE IN ANY ONE DETECTOR, ALL ROOF TOP UNITS SHALL BE SHUT DOWN.

D. PROVIDE TEST/RESET SWITCH AND PIEZO ALERT SOUNDER AND REMOTE ANNUNCIATOR ALARM LED MOUNTED AS DIRECTED BY LOCAL AHJ. EC TO PROVIDE ALL REQUIRED INTERLOCK WIRING BETWEEN DUCT DETECTOR AND REMOTE SWITCH.

E. REFER TO DETAILS ON MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

TESTING

A. PROVIDE ALL TESTS AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

B. PROVIDE THE TESTS AS OUTLINED HEREINAFTER AND OTHER TESTS REQUIRED TO ESTABLISH THE ADEQUACY, QUALITY, SAFETY, COMPLETED STATUS AND SUITABLE OPERATION OF EACH SYSTEM.

C. PROMPTLY CORRECT ANY FAILURES, DEFICIENCIES AND/OR DEFECTS REVEALED BY THESE TESTS. AFTER CORRECTING FAILURES, DEFICIENCIES OF DEFECTS, CONDUCT NEW TESTING TO VERIFY THAT THE DEFICIENCY HAS BEEN RECTIFIED AND THE SYSTEM IS FUNCTIONING PROPERLY.

D. EXISTING PANELBOARDS SHALL HAVE PHASE CURRENTS BALANCED TO WITHIN +/– 10% VARIATION BETWEEN AVERAGE PHASE CURRENT AND MEASURED INDIVIDUAL PHASE.

E. AN OPERATIONAL TEST OF THE EMERGENCY LIGHTING/EXIT SIGNAGE SYSTEM SHALL BE PERFORMED IN THE PRESENCE OF THE OWNER AND THE AUTHORITY HAVING JURISDICTION TO DEMONSTRATE PROPER OPERATION AND COMPLIANCE WITH APPLICABLE CODES AND SPECIFIED REQUIREMENTS.

OPERATION AND MAINTENANCE MANUALS

A. THIRTY (30) DAYS PRIOR TO SUBSTANTIAL COMPLETION, SUBMIT OPERATING AND MAINTENANCE MANUALS FOR EQUIPMENT TO ENGINEER FOR APPROVAL. INCLUDE ONE COPY OF EACH FINAL APPROVED SUBMITTAL FOR RECORD PURPOSES, INDICATING THE ACTUAL PRODUCT INSTALLED. INCLUDE SIGNIFICANT CHANGES IN THE PRODUCT DELIVERED TO PROJECT SITE AND CHANGES IN MANUFACTURER'S WRITTEN INSTRUCTIONS FOR INSTALLATION.

B. PROVIDE COMPREHENSIVE CONTACT LIST INCLUDING CONTRACTOR AND SUBCONTRACTOR'S NAMES, ADDRESSES, TELEPHONE AND CONTACT PERSON FOR OWNER'S USE.

WARRANTY

A. THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS, EQUIPMENT AND THE INSTALLATION TO BE FREE OF DEFECTS THAT MAY DEVELOP IN ANY PART OF THEIR WORK CAUSED BY FAULTY WORKMANSHIP, MATERIAL OR EQUIPMENT FAILURES, FOR A MINIMUM OF ONE (1) YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION OR FOR AS LONG AS NORMAL EQUIPMENT MANUFACTURER WARRANTIES ARE IN EFFECT FROM THE DATE OF OWNER ACCEPTANCE OF THE PROJECT, WHICHEVER IS LATER.

B. DURING THE ONE (1) YEAR WARRANTY PERIOD, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR DEFECTS IN THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED UNDER THE WORK OF THE ELECTRICAL CONTRACT.

FIRE ALARM SYSTEM

A. FIRE ALARM SYSTEM WORK IS A DELEGATED DESIGN AND IS NOT INCLUDED AS PART OF THE ELECTRICAL SCOPE OF WORK.

B. FIRE ALARM SYSTEM WORK SHALL BE PROVIDED BY THE GENERAL CONTRACTOR AS A DELEGATED DESIGN.

C. GENERAL CONTRACTOR (GC) SHALL BE RESPONSIBLE FOR RETAINING THE SERVICES OF A FIRE ALARM SYSTEM VENDOR/DESIGN PROFESSIONAL TO PREPARE THE FIRE ALARM SYSTEM DESIGN, DETAILS, CALCULATIONS, ETC. AS REQUIRED BY ALL APPLICABLE CODES AND THE AUTHORITY HAVING JURISDICTION.

D. GC/VENDOR/DESIGN PROFESSIONAL SHALL BE RESPONSIBLE FOR VERIFYING ALL APPLICABLE CODE REQUIREMENTS AND ALL LOCAL FIRE ALARM SYSTEM REQUIREMENTS WITH THE LOCAL AUTHORITY HAVING JURISDICTION.

E. GC/VENDOR/DESIGN PROFESSIONAL SHALL BE RESPONSIBLE FOR PROVIDING ALL REQUIRED SUBMITTAL DRAWINGS TO THE AUTHORITY HAVING JURISDICTION FOR REVIEW AND APPROVAL PRIOR TO COMMENCING WORK.

F. GC/VENDOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS FOR THE FIRE ALARM WORK.

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REVISIONS

△		DESCRIPTION
	06/01/26	PERMIT SET

STATUS:
PERMIT SET

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REGISTERED PROFESSIONAL
MATTHEW RICHARD CABE
ENGINEER
PE090963
6/1/26

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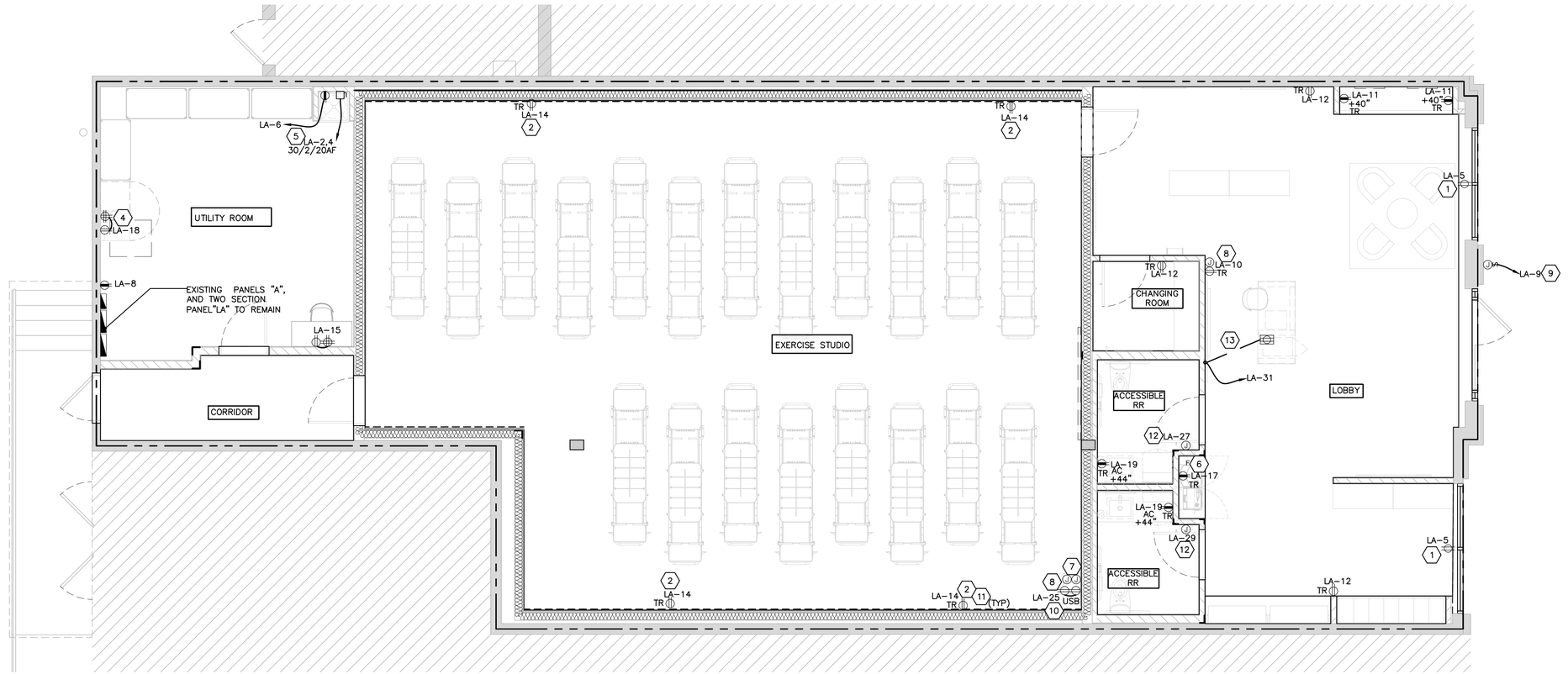
SHEET NAME:
ELECTRICAL SPECIFICATION

DATE:	PROJECT NO.:
06/01/2026	42559
DRAWN:	SCALE:
	AS NOTED

SHEET NO.:
E1-01

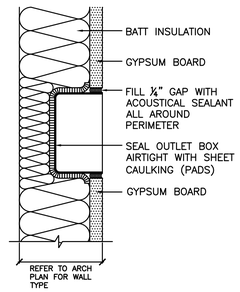
5 4 3 2 1



N

1 E2-00 ELECTRICAL POWER PLAN

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



NOTES:
1. SEPARATE OUTLETS ON OPPOSITE SIDES OF THE WALL BY 16" MINIMUM
2. CEILING CONDITIONS SIMILAR
3. APPLICABLE AT ALL SOUND-RATED CONSTRUCTION, INCLUDING INTERIOR INSULATED ASSEMBLIES.

PADS MANUFACTURED AND DISTRIBUTED BY:
LOWRY'S, INC.
23030 KIDDER STREET
HAYWARD, CA. 94545
800-252-2449; www.halowry.com

NOTE: WHERE FIRE-RATED PADS ARE REQUIRED, NELSON FSP FIRESTOP PUTTY PADS MAY BE USED; MANUFACTURED BY:
NELSON FIRESTOP PRODUCTS
4135 SOUTH 100TH EAST AVENUE - SUITE 100
TULSA, OK. 74146
800-331-7325; www.nelsonfirestop.com

2 E2-00 JUNCTION BOX ISOLATION IN SOUND-RATED CONSTRUCTION

SCALE: NTS

POWER PLAN GENERAL ELECTRICAL NOTES

1. EXACT LOCATION, CUT-OUTS AND MOUNTING HEIGHTS FOR WIRING DEVICES IN CASEWORK SHALL BE COORDINATED WITH OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN.
2. VERIFY ALL EXISTING CONDITIONS IN THE FIELD PRIOR TO BID. NOTIFY OWNER OF ANY DISCREPANCIES. IF ACCEPTABLE TO OWNER'S REPRESENTATIVE, EXISTING EQUIPMENT MAY BE RE-USED. IF NOT ACCEPTABLE, FURNISH AND INSTALL NEW.
3. ALL RECEPTACLES, DATA AND TELEPHONE OUTLETS ARE TO BE MOUNTED AT +18" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE.
4. PRIOR TO CONNECTION EC SHALL VERIFY THE VOLTAGE AND AMPERAGE REQUIREMENTS OF ALL EQUIPMENT DELIVERED TO THE SITE. EC SHALL NOTIFY OWNER OF ANY DIFFERENCE.
5. EC TO VERIFY PLUG TYPE, AMPERAGE, VOLTAGE, AND LOCATION PRIOR TO BID AND ROUGH IN.
6. EC TO VERIFY ALL POWER REQUIREMENTS WITH EQUIPMENT MANUFACTURER. PROVIDE HACR BREAKERS AS REQUIRED.

POWER PLAN KEYED NOTES

1. PROVIDE SHOW WINDOW RECEPTACLES PER N.E.C REQUIREMENTS. FIELD VERIFY EXACT MOUNTING HEIGHT AND LOCATIONS PRIOR TO BID AND ROUGH IN. CIRCUIT WIRED TO PANEL VIA CONTACTOR CONTROLLED BY TIME-CLOCK. SEE LIGHTING CONTROL DIAGRAM DETAIL ON SHEET E3-00.
2. RECEPTACLE TO BE MOUNTED HORIZONTALLY AT THE BASE BELOW THE MIRRORED WALLS.
3. NOT USED
4. EC TO PROVIDE 4' X 6' PLYWOOD BACKING AT +/- 1'-2" A.F.F. FOR RACK MOUNTING WITH:
   1. PROVIDE 2G DUAL VOLTAGE BOX WITH DECORA PLATE TO HOUSE DEDICATED 20A DUPLEX RECEPTACLE AND BRUSH PLATE FOR AV WIRES WITH 1-1/2"C, EMPTY W/ PULL STRING FOR LOW VOLTAGE WIRES TO SPEAKERS AND AV SHELF, AND 3/4"C (MIN) FOR POWER AT 5'-6" A.F.F.
   2. PROVIDE 1G LOW VOLTAGE BOX WITH DECORA PLATE WITH F-CONNECTOR KEYSTONE WITH 1"C, EMPTY W/ PULL STRING FOR SERVICE FEED AT 6'-8" A.F.F.
   3. PROVIDE QUAD RECEPTACLE FLUSH IN WALL AT 18" A.F.F. CENTERED ON RACK LOCATION.

   GC TO PROVIDE CONDUIT FOR AV CONTROLS, SPEAKERS, VOLUME CONTROLS TO 12X12 JUNCTION BOX ABOVE CEILING. CONDUIT RUN TO BE NO LONGER THAN 100' LONG AND HAVE NO MORE THAN 2 90 DEGREE BENDS.
5. EC TO PROVIDE FUSED DISCONNECT SWITCH FOR ELECTRIC WATER HEATER. COORDINATE ALL THE ELECTRICAL REQUIREMENT WITH PLUMBING CONTRACTOR.
6. EC TO PROVIDE POWER TO DRINKING FOUNTAIN REFILL STATION. COORDINATE ACTUAL DEVICE LOCATION WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN.
7. PROVIDE A TWO GANG JUNCTION BOX FOR SOUND INTERFACE, 3/4"C EMPTY WITH PULL STRING STUBBED INTO THE CEILING FOR INSTALLATION OF CAT-6 CABLING FROM THE AV RACK BY THE AV VENDOR. SEE DETAIL ON SHEET 2/E4-00 VERIFY WITH FIRE MARSHAL'S OFFICE IF RELAY FOR SHUTTING DOWN SOUND SYSTEM WILL BE REQUIRED
8. PROVIDE SINGLE GANG JUNCTION BOX FOR VOLUME CONTROLS, 3/4"C EMPTY WITH PULL STRING STUBBED INTO THE CEILING FOR CABLING FROM THE AV RACK BY THE AV VENDOR. SEE DETAIL ON SHEET 2/E4-00
9. EC TO PROVIDE JUNCTION BOX AND LOCAL DISCONNECT FOR EXTERIOR SIGN. PROVIDE PHOTOCELL FOR CONTROL OF EXTERIOR SIGNS AND FEED THROUGH TIMECLOCK, SEE LIGHTING CONTROL DETAIL ON SHEET E3-00
10. PROVIDE (2) DEDICATED RECEPTACLES AT SHELF FOR INSTRUCTOR MUSIC. DEVICE SHALL HAVE INTEGRAL 3 AMP (MIN) USB PORT. SEE DETAIL ON SHEET 2/E4-00
11. ALL NEW RECEPTACLES AND SWITCHES ARE TO BE BLACK WITH BLACK COVERS, ALL WALL PENETRATIONS ARE TO BE SEALED FOR SOUND TRANSFER. BOXES ARE TO BE WRAPPED WITH PUTTY PADS TO MINIMIZE SOUND TRANSFER. SEE DETAIL ON THIS SHEET. ALL OTHER WALL PENETRATIONS (CONDUIT, ETC.) ARE TO BE SEALED USING GREEN GLUE NOISE-PROOFING SEALANT.
12. E.C. TO PROVIDE JUNCTION BOX FOR CONNECTION OF HAND DRYERS AT 48" A.F.F. OR AS DIRECTED BY G.C.
13. EC TO CORE EXISTING FLOOR SLAB FOR INSTALLATION OF IN FLOOR CONDUITS. PATCH FLOOR TO MATCH SURROUNDING FLOOR AREA. PRIOR TO TRENCHING, OBTAIN LANDLORD APPROVAL AND EXAMINE SLAB FOR PRESENCE OF EXISTING UTILITIES, STRUCTURAL MEMBERS, ETC. DO NOT CROSS EXISTING UNDERGROUND UTILITIES. EC TO PROVIDE 6' LONG WHIP FOR CONNECTION TO OUTLETS.

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REVISIONS

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6/1/26

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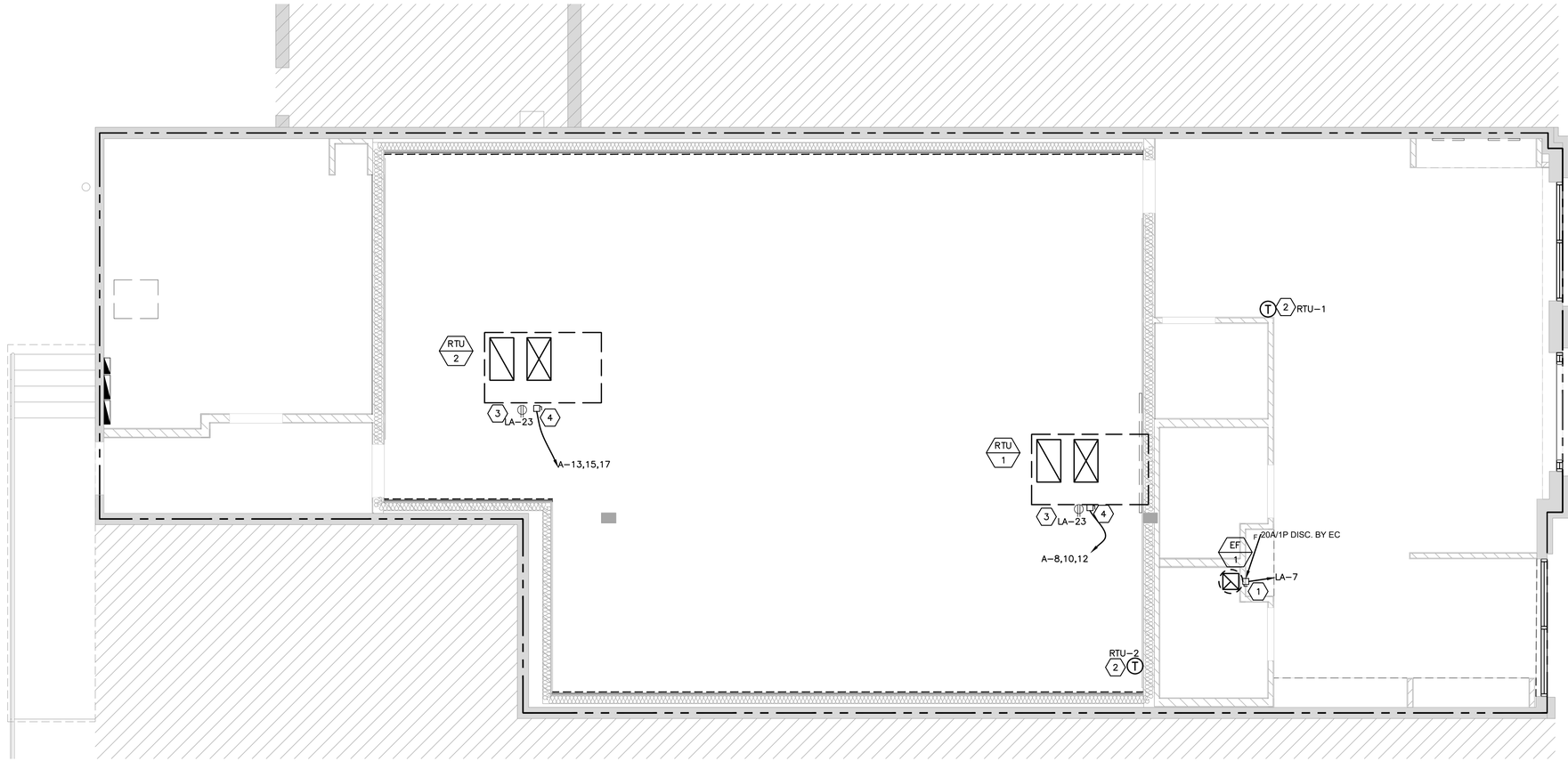
SHEET NAME:
ELECTRICAL POWER PLAN

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN:
SCALE: AS NOTED

SHEET NO.:
E2-00



1 E2-01 ELECTRICAL HVAC POWER PLAN

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

ELECTRICAL HVAC POWER PLAN KEYED NOTES

1. MC TO PROVIDE FAN SPEED CONTROLLER FOR ROOM EXHAUST FAN. FEED THROUGH TIMECLOCK, SEE LIGHTING CONTROL DIAGRAM ON SHEET E3-00
2. PROVIDE JUNCTION BOX AND EMPTY 3/4" CONDUIT WITH PULLSTRING TO ACCESSIBLE CEILING FOR THERMOSTAT. COORDINATE LOCATION AND REQUIREMENTS OF SMART THERMOSTAT WITH MC PRIOR TO ROUGH-IN.
3. EC TO PROVIDE POWER TO FACTORY INSTALLED FIELD WIRED RECEPTACLE.
4. EC TO PROVIDE POWER TO FACTORY INSTALLED DISCONNECT. EC TO PROVIDE (3)#10, (1)#10G IN 3/4"C

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PE090863
6/1/26

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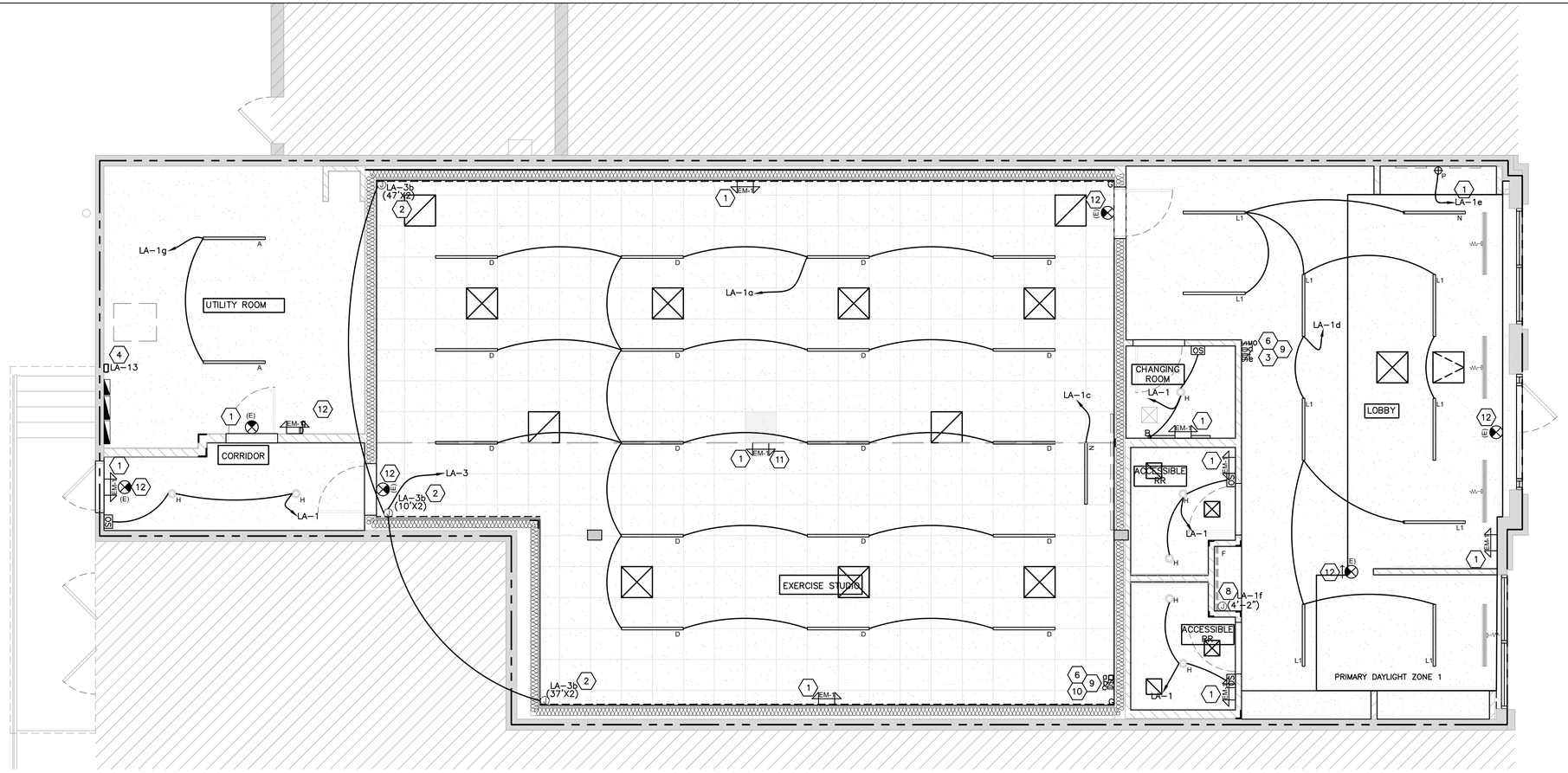
SHEET NAME:
ELECTRICAL HVAC POWER PLAN

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN:
SCALE: AS NOTED

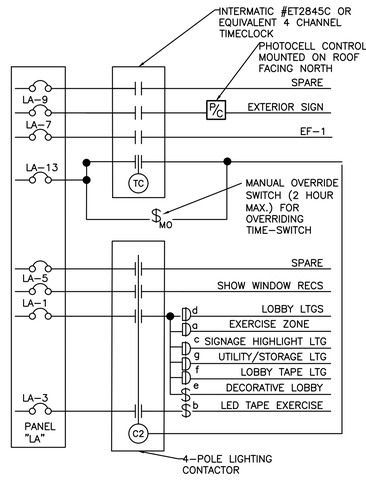
SHEET NO.:
E2-01



1 ELECTRICAL LIGHTING PLAN

E3-00

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



2 LIGHTING CONTROL DIAGRAM

E3-00

SCALE: NTS

GENERAL ELECTRICAL NOTES

1. PLACEMENT OF LIGHT FIXTURES SHALL BE SET AS DIMENSIONED & AS SCHEDULED.
2. LIGHT FIXTURES SHALL BE SUPPLIED AS SCHEDULED WITH NO EXCEPTIONS.
3. ALL EMERGENCY AND EXIT LIGHTING SHALL BE WIRED AHEAD OF THE SWITCHING. EMERGENCY LIGHTING SHALL BE ON THE SAME CIRCUITRY AS THE GENERAL LIGHTING IN THE AREA THEY SERVE. EMERGENCY LIGHTING WIRING SHALL BE IDENTIFIED (MARKED) PER NEC 700.9. PROVIDE GENERAL LIGHTING CIRCUITS, WHICH HAVE EMERGENCY LIGHTING CONNECTIONS, WITH LOCK-OUT ON BREAKER.
4. EC TO TEST ALL LIGHTING SYSTEMS TO ENSURE PROPER CALIBRATIONS, ADJUSTMENT, PROGRAMING, AND OPERATION.
5. ALL EMERGENCY, EXIT LIGHTS IN SUPPORT AREAS SHALL BE CIRCUITED TO LIGHTING CIRCUIT SERVICING SAME AREA WITH A LOCK ON DEVICE AT THE BREAKER PER NEC 700.12.

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NO.	DESCRIPTION	VOLTS	WATTS
A	LITHONIA LIGHTING	CLX L48 5000LM SEF RDL MVOLT G710 35K BOOBI WH	48" BLACK LED LINEAR, ROUND DIFFUSE LENSE, BLACK FINISH, 3500K	UNIV	35
B	LITECONTROL --	2L-PT-0-6-06-SOF-C5-30K -D030-D01-1C-UNV-W1	6' LENGTH RECESSED LIGHT (VERTICAL ORIENTATION), SOFT DIFFUSE LENS CARBON BLACK FINISH, 3000K COLOR TEMP	UNIV	17.4
D	PINNACLE ARCH LTG	EV3D-A-830-4-G1-U-PL2-1-0-BL --	4' LONG EV3D 3" RECESSED LINEAR LIGHTS, SATINE LENS, BLACK FINISH, 3000K COLOR TEMP.	UNIV	11
F	NOVA FLEX --	NF-PRO-0-120-24V-3225K WHITE - SURFACE 1812	WHITE LED TAPE INSTALLED IN CONTINUOUS LENGTH AS NOTED, MAX 60' PER DRIVER. UNDERSIDE OF CABINETRY. 0-10V DIMMING	120	3W/FT
G	NOVA FLEX --	NF-B-0-60-24V --	BLUE LED TAPE INSTALLED IN CONTINUOUS LENGTH AS NOTED, 60' MAX PER DRIVER. TOP AND BOTTOM OF STUDIO MIRRORS. 0-10V DIMMING	120	1.5W/FT
H	NDR ELECTRIC --	OB400-CCT27 --	4" LED RECESSED DOWNLIGHT, 3000K, WHITE TRIM 0-10V DIMMING	UNIV	10
L1	PINNACLE ARCH LTG	EV3D-A-830-4-SFS-U-PL2-1-0-W	CARBON WHITE 4'-0" RECESSED LINEAR LED FIXTURE, SOFFIT DIFFUSE LENS, 3000K 0-10V DIMMING	UNIV	20
N	PINNACLE ARCH LTG	EV3WW-CL830260-6-G1-U-FSD-1-0-BL	6' BLACK RECESSED MOUNTED LINEAR WALL WASH LED. 24" FROM SIGNAGE WALL. FIXTURE TO BE CENTERED ON SIGNAGE, 0-10V DIMMING	UNIV	6W/FT
P	WING LIGHTING	WLW0036	MODERN SKYLARK WALL SCONCE, GLASS WALL LIGHT, BLACK FINSH	UNIV	60
EM-2	BARRON LIGHTING/ EXITRONIX	LED-95-WH	CEILING/WALL MOUNTED DUAL ADJUSTABLE HEAD LED EMERGENCY LIGHT W/90 (MIN) MINUTE EMERGENCY BATTERY BACKUP.	UNIV	1.25
EM-1	BARRON LIGHTING/ EXITRONIX	LED-95-BL	CEILING/WALL MOUNTED DUAL ADJUSTABLE HEAD LED EMERGENCY LIGHT W/90 (MIN) MINUTE EMERGENCY BATTERY BACKUP.	UNIV	1.25
E1	BARRON LIGHTING/ EXITRONIX	VLEDC-51-BL-R4/ VLEDC-51-WH-R4	SINGLE/DOUBLE FACE LED EXIT SIGN W/2 EM HEADS, RED LETTERS, BLACK FINISH IN STUDIO, WH IF NOT; 90 (MIN) MINUTE EMERGENCY BATTERY BACKUP.	UNIV	1
X-1	BARRON LIGHTING/ EXITRONIX	S900U-SM-R-BL-R/ S900U-SM-R-WH-R	SINGLE/DOUBLE FACE LED EXIT LIGHT, GREEN LETTERS, BLACK FINISH IN STUDIO WHITE EVERYWHERE ELSE W/90 (MIN) MINUTE EMERGENCY BATTERY BACKUP.	UNIV	4
WL	ILLUMINATED BATHROOM	CHICO243366000-BLK --	SEE ARCHITECTURE DRAWINGS FOR MORE INFORMATION	110	36
RH	BARRON LIGHTING /EXITRONIX	2RL1WP --	2-LAMP REMOTE HEAD FIXTURE AS COMPATIBLE WITH FIXTURE 'E1'	120	2

NOTE:
1. FIXTURES USED FOR EXIT AND/OR EMERGENCY LIGHTING TO BE ON LOCKOUT CIRCUIT AND HAVE 90 MINUTE BATTERY BACK UP.
2. GC TO ORDER LIGHTING FIXTURES THROUGH SOLIDCORE'S CED NATIONAL ACCOUNT.
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   RYAN.DENNEY@CED.COM
   OFFICE: 817-923-1983
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LIGHTING PLAN KEYED NOTES

1. CONNECT EMERGENCY LIGHTING FIXTURES AHEAD OF SWITCHED LEG OF LOCAL LIGHTING CIRCUIT SERVING AREA SHOWN.
2. LIGHTING TYPE "G" – BLUE LED TAPE TO BE INSTALLED ALONG THE TOP AND BOTTOM OF THE MIRROR AND EXTEND TO THE ENDS. COORDINATE INSTALLATION WITH THE ARCHITECT AND MIRROR INSTALLER. VERIFY DIMENSIONS IN FIELD. TRANSFORMER TO BE INSTALLED ABOVE NEAREST ACCESSIBLE CEILING.
3. MANUAL OVERRIDE SWITCH TORK A502HW OR APPROVED EQUAL. REFER TO LIGHTING CONTROL DIAGRAM ON THIS SHEET.
4. TIMECLOCK FOR CONTROL OF LIGHTING LOADS EC TO PROVIDE CONTACTORS AND ALL ELECTRICAL WORK REQUIRED TO CONTROL LIGHTS VIA THE CONTROL TIME CLOCK. SEE LIGHTING CONTROL DIAGRAM, THIS SHEET
5. NOT USED
6. NEW SWITCHBANK, EC TO COORDINATE LOCATION WITH GC PRIOR TO ROUGH-INS
7. NOT USED
8. LIGHTING TYPE "F" – WHITE LED TAPE TO BE INSTALLED ALONG THE RECESS BETWEEN WALL AND CABINET. FLUSH W/UNDERSIDE OF CABINET. COORDINATE INSTALLATION WITH THE ARCHITECT AND MIRROR INSTALLER. TRANSFORMER TO BE INSTALLED ABOVE NEAREST ACCESSIBLE CEILING.
9. ALL RECEPTACLES AND SWITCHES ARE TO BE BLACK WITH BLACK COVERS, ALL WALL PENETRATIONS ARE TO BE SEALED FOR SOUND TRANSFER. BOXES ARE TO BE WRAPPED WITH PUTTY PADS TO MINIMIZE SOUND TRANSFER. ALL OTHER WALL PENETRATIONS (CONDUIT, ETC.) ARE TO BE SEALED USING GREEN GLUE NOISE-PROOFING SEALANT.
10. PROVIDE WALL CONTROLLER, LUTRON PICO 4-BUTTON WIRELESS REMOTE TO CONTROL TYPE 'A' LIGHT FIXTURES.
11. EC TO COORDINATE FINAL LOCATION OF CEILING MOUNTED EMERGENCY FIXTURES WITH GC PRIOR TO INSTALLATION OF SPEAKERS IN STUDIO
12. EXISTING EMERGENCY LIGHTS TO REMAIN, CLEAN AND REPAIR AS NECESSARY.

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REVISIONS

△		DESCRIPTION
	06/01/26	PERMIT SET

STATUS:
PERMIT SET

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MATTHEW RICHARD CASE
ENGINEER
PE090963
6/1/26

FIELD VERIFICATION:
The Contractor shall verify all figured dimensions and conditions at the project site and notify Zebra Architecture, PLLC. of any dimensional errors, omissions or discrepancies before beginning or fabricating any work. Do not scale these drawings.

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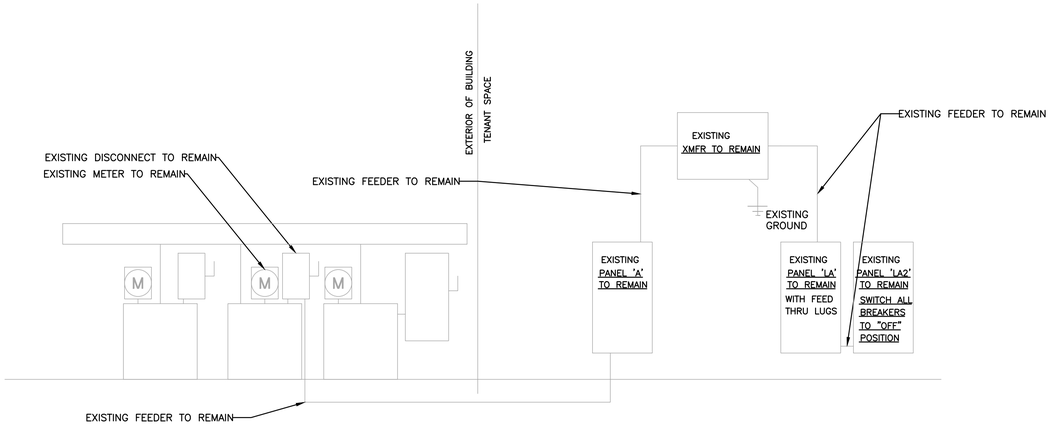
SHEET NAME:
ELECTRICAL LIGHTING PLAN

DATE:	PROJECT NO.:
06/01/2026	42559
DRAWN:	SCALE: AS NOTED

SHEET NO.:
E3-00



1 / E4-00 RISER DIAGRAM

SCALE: NTS

ALL INFORMATION REGARDING CURRENT CONDITIONS OF THE ELECTRICAL SERVICE ARE VIA SECOND PARTY FIELD SURVEY. EC IS RESPONSIBLE FOR FIELD VERIFICATION OF SITE CONDITIONS AND REPORTING ANY DIFFERENCES OR DISCREPANCIES TO OWNERS REPRESENTATIVE PRIOR TO BID. NO EXTRAS OR CHANGE ORDERS SHALL BE GIVEN FOR CONTRACTOR'S FAILURE TO VERIFY SITE CONDITIONS PRIOR TO BIDDING.

EC SHALL PROVIDE ARC FLASH LABELS FOR NEW AND EXISTING SWITCHBOARDS AND PANELBOARDS AS PER NEC REQUIREMENTS.
EC SHALL PROVIDE AVAILABLE FAULT CURRENT LABELS FOR NEW AND EXISTING SWITCHBOARDS AND PANELBOARDS AS PER NEC. REQUIREMENTS.

ELECTRICAL SYMBOLS

SYMBOL	DESCRIPTION
AC	ABOVE COUNTER
CLG	CEILING MOUNTED
GC	GENERAL CONTRACTOR
EC	ELECTRICAL CONTRACTOR
MC	MECHANICAL CONTRACTOR
WP	WEATHERPROOF
NL	NIGHT LIGHT (CONNECT TO UNSWITCHED LEG OF CIRCUIT NOTED)
GFCI	GROUND FAULT CURRENT INTERRUPTER PROTECTED DEVICE
ST	SHUNT TRIP CIRCUIT
AFF	ABOVE FINISHED FLOOR
UNO	UNLESS NOTED OTHERWISE
TTB	TELEPHONE TERMINAL BOARD
PROVIDE	FURNISH AND INSTALL COMPLETE
TYP	TYPICAL
(J)	JUNCTION BOX, MOUNTING HEIGHT
	20A, 1P, 125V, GROUNDING TYPE DUPLEX RECEPTACLE (+18" AFF UNO)
	20A, 1P, 125V, GROUNDING TYPE DOUBLE DUPLEX RECEPTACLE
	20A, 1P, 125V, GFCI TYPE DUPLEX RECEPTACLE
30/NF/3	DISCONNECT SWITCH: SEE KEY NOTES
$	LIGHT SWITCH –20A TOGGLE SWITCH (MANUAL ONLY)
OS	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR SWITCH AT 3'–6" AFF TO CENTERLINE (LUTRON MSA102BL OR EQUAL)
SD	SMOKE/DUCT DETECTOR – COORDINATE WITH MECHANICAL CONTRACTOR/PLANS
OS	CEILING MOUNTED OCCUPANCY SENSOR (WATT STOPPER #DT–355 OR EQUAL)
	DIMMER SWITCH: LEVITON IP710DZL OR EQUIVALENT SLIDE DIMMER COMPATIBLE WITH LOW VOLTAGE LIGHTING FIXTURES AND RATED FOR LOAD NOTED IN PANEL SCHEDULE. REFER TO LOADS AT PANELBOARD SCHEDULE. MOUNTING HEIGHT AS INDICATED PER PLAN.
	COMMUNICATIONS JUNCTION BOX FOR DATA/COMM. DEVICE PLATE. EC TO ROUTE 3/4" CONDUIT WITH PULL STRING TO 6" ABOVE ACCESSIBLE CEILING AND BEND AT 90° TOWARDS TTB. EC TO PROVIDE PLASTIC BUSHING ON END OF CONDUIT.
+12"	12" ABOVE FINISHED FLOOR TO CENTERLINE
F 5a	LIGHTING FIXTURE SWITCHING DESIGNATION – LETTER 'F' INDICATES THE FIXTURE TYPE (SEE FIXTURE SCHEDULE)
	PANELBOARD
	CONDUIT INSTALLED BELOW FLOOR SLAB
USB	20A, 1P, 125V, GROUNDING TYPE DUPLEX RECEPTACLE WITH INTEGRAL 3 AMP (MIN) USB PORT
	20A, 1P, 125V, DUPLEX RECEPTACLE CEILING MOUNTED
	LUTRON PICO 4–BUTTON WIRELESS REMOTE.
	20A, 1P, 125V, DUPLEX RECEPTACLE FLOOR MOUNTED

MOUNT: SURFACE	277/480	3-PHASE, 4W	PANEL A	CAPACITY: 200A	INT CAP: EXISTING
LOCATION: UTILITY ROOM			LUGS: 125A MLO	DEMAND LOAD: 86A	AV. FAULT: EXISTING

CKT	LTG	REC	HVAC	MISC	KIT	DESCRIPTION	AMP	POLE		AMP	POLE	DESCRIPTION	LTG	REC	HVAC	MISC	KIT	CKT
1						SPACE		1	A				0.67	1.62	8.21	2.50	0.00	2
3						SPACE		1	B	60	3	TRANSFORMER	1.60	0.72	7.68	2.94	0.00	4
5						SPACE		1	C				0.00	2.34	7.68	1.74	0.00	6
7									A						5.54			8
9						SPARE	15	3	B	25	3	RTU-1			5.54			10
11									C						5.54			12
13			5.54						A		1	SPACE						14
15			5.54			RTU-2	25	3	B		1	SPACE						16
17			5.54						C		1	SPACE						18

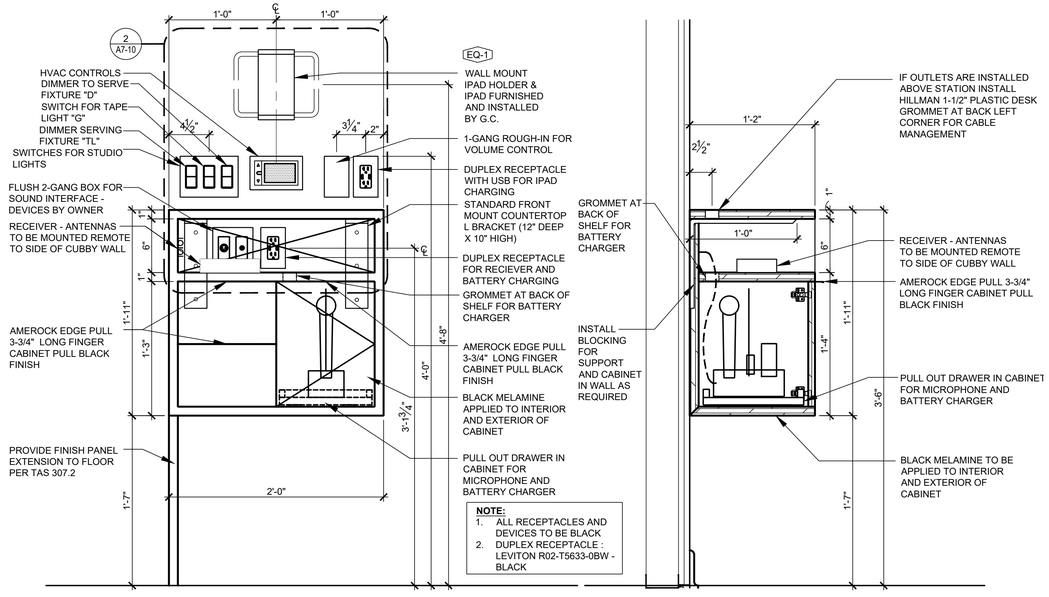
PHASE BALANCE			LOAD TYPE	CONNECTED	DEMAND	DEMAND FORMULA	TOTAL LOAD	
			LIGHTING	2.3 KVA	2.8 KVA	LOAD X 125% NEC 210.19 CONTINUOUS	CONNECTED	DEMAND
	LOAD	%	RECEPTACLE	4.7 KVA	4.7 KVA	10KVA + 50% REMAINDER NEC 220.44	71.0 KVA	71.5KVA
A	24.1 KVA	34%	HVAC	56.8 KVA	56.8 KVA	LOAD X 100% (USED MCA IN CALCULATION)	85.4A	86.0A
B	24.0 KVA	34%	MISC	7.2 KVA	7.2 KVA	LOAD X 100% NEC 210.19 NON-CONT.		
C	22.8 KVA	32%	KIT	0.0 KVA	0.0 KVA	65% PER NEC TABLE 220.56		

NOTES	MOUNT: SURFACE	120/208	3-PHASE, 4W	PANEL LA	CAPACITY: 225A	INT CAP: EXISTING	NOTES
	LOCATION: UTILITY ROOM			LUGS: 150A MCB	DEMAND LOAD: 42A	AV. FAULT: EXISTING	

	CKT	LTG	REC	HVAC	MISC	KIT	DESCRIPTION	AMP	POLE		AMP	POLE	DESCRIPTION	LTG	REC	HVAC	MISC	KIT	CKT	
C	1	0.67					LIGHTING	20	1	A	20	2	WATER HEATER				1.50		2	B
C	3	0.40					LIGHTING EXERCISE TAPE	20	1	B							1.50		4	
C	5		0.36				SHOW WINDOW RECS	20	1	C	20	1	RECIRCULATION PUMP				0.30		6	C
C	7			0.53			EF-1	20	1	A	20	1	PANEL REC		0.18				8	C
C	9	1.20					EXTERIOR SIGN	20	1	B	20	1	LOBBY REC		0.18				10	C
C	11		0.36				VANITY REC	20	1	C	20	1	LOBBY AND CHANGING ROOM REC		0.54				12	C
C	13				0.40		TIMECLOCK	20	1	A	20	1	EXERCISE ROOM REC		0.72				14	C
C	15		0.54				DESK RECS	20	1	B	20	1	SPARE						16	C
A,B	17		0.18				EWC	20	1	C	20	1	A/V RACK		0.54				18	C
C	19		0.36				BATHROOM REC	20	1	A	20	1	SPARE						20	C
C	21						SPARE	20	1	B	20	1	SPARE						22	C
C	23		0.36				HVAC RECS	20	1	C	20	1	SPARE						24	C
C	25		0.36				COACH REC	20	1	A	20	1	SPARE						26	C
C	27				1.44		HAND DRYER	20	1	B	20	1	SPARE						28	C
C	29				1.44		HAND DRYER	20	1	C	20	1	SPARE						30	C
A,B	31				0.60		FRIDGE	20	1	A	20	1	SPARE						32	C
C	33						SPARE	20	1	B	20	1	SPARE						34	C
C	35						SPARE	20	1	C	20	1	SPARE						36	C
C	37						SPARE	20	1	A	20	1	SPARE						38	C
C	39						SPARE	20	1	B	20	1	SPARE						40	C
C	41						SPARE	20	1	C	20	1	SPARE						42	C

PHASE BALANCE			LOAD TYPE	CONNECTED	DEMAND	DEMAND FORMULA	TOTAL LOAD	
			LIGHTING	2.3 KVA	2.8 KVA	LOAD X 125% NEC 210.19 CONTINUOUS	CONNECTED	DEMAND
	LOAD	%	RECEPTACLE	4.7 KVA	4.7 KVA	10KVA + 50% REMAINDER NEC 220.44	14.7 KVA	15.2KVA
A	5.3 KVA	36%	HVAC	0.5 KVA	0.5 KVA	LOAD X 100% (USED MCA IN CALCULATION)	40.7A	42.3A
B	5.3 KVA	36%	MISC	7.2 KVA	7.2 KVA	LOAD X 100% NEC 210.19 NON-CONT.		
C	4.1 KVA	28%	KIT	0.0 KVA	0.0 KVA	65% PER NEC TABLE 220.56		

NOTES:
A. PROVIDE 5mA TRIP GFCI TYPE CIRCUIT BREAKER.
B. NEW BREAKER
C. EXISTING BREAKER



B. COACH'S STATION ELEVATION

A. COACH'S STATION SECTION

2 / E4-00 CONTROLS AT COACH'S STATION

SCALE: NTS

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STORE NO.:

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NORTH WALES, PA 19454

REVISIONS

	DESCRIPTION
06/01/26	PERMIT SET

STATUS:
PERMIT SET

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MATTHEW RICHARD CASE
ENGINEER
PE090983
6/1/26

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SHEET NAME:
ELECTRICAL PANELS/SCHEDULES

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN:
SCALE: AS NOTED

SHEET NO.:
E4-00

COM*check* Software Version COMcheckWeb

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: Solidcore - North Wales
Project Type: New Construction

Construction Site:
1460 Bethlehem pike
North Wales, Pennsylvania 19454

Owner/Agent:

Designer/Contractor:

Additional Efficiency Package(s)

Credits: 1.0 Required 1.0 Proposed
Reduced Lighting Power, 1.0 credit

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts
1-Gymnasium/Fitness Center:Exercise Area	1634	0.45	735
2-Common Space Types:Lobby - General	741	0.90	667
3-Common Space Types:Restrooms	127	0.77	98
4-Common Space Types:Locker Room	53	0.43	23
5-Common Space Types:Electrical/Mechanical	330	0.39	129
6-Common Space Types:Corridor/Transition <8 ft wide	101	0.59	60
		Total Allowed Watts =	1711

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
1-Gymnasium/Fitness Center:Exercise Area				
LED: Other:	1	18	11	198
LED: Other:	1	4	80	320
LED: Other:	1	1	36	36
2-Common Space Types:Lobby - General				
LED: Other:	1	9	20	180
LED: Other:	1	1	60	60
LED: Other:	1	1	30	30
3-Common Space Types:Restrooms				
LED: Other:	1	4	11	44
4-Common Space Types:Locker Room				
LED: Other:	1	1	11	11
LED: Other:	1	1	17	17
5-Common Space Types:Electrical/Mechanical				
LED: Other:	1	2	35	70
6-Common Space Types:Corridor/Transition <8 ft wide				
LED: Other:	1	2	11	22

Total Proposed Watts = 988

Interior Lighting PASSES: Design 42% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2018 IECC requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Matthew Case — 6/1/26
Name - Title — Date

6/1/26

COM*check* Software Version COMcheckWeb

Inspection Checklist

Energy Code: 2018 IECC

Requirements: 0.0% were addressed directly in the COM*check* software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR4][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C406 [PR9][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.2.2 [EL22][1]	Spaces required to have light-reduction controls have a manual control that allows the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern >= 50 percent.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.1, C405.2.1.1 [EL18][1]	Occupancy sensors installed in classrooms/lecture/training rooms, conference/meeting/multipurpose rooms, copy/print rooms, lounges/breakrooms, enclosed offices, open plan office areas, restrooms, storage rooms, locker rooms, warehouse storage areas, and other spaces <= 300 sqft that are enclosed by floor-to-ceiling height partitions. Reference section language C405.2.1.2 for control function in warehouses and section C405.2.1.3 for open plan office spaces.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.1.2 [EL19][1]	Occupancy sensors control function in warehouses: In warehouses, the lighting in aisleways and open areas is controlled with occupant sensors that automatically reduce lighting power by 50% or more when the areas are unoccupied. The occupant sensors control lighting in each aisleway independently and do not control lighting beyond the aisleway being controlled by the sensor.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.1.3 [EL20][1]	Occupant sensor control function in open plan office areas: Occupant sensor controls in open office spaces >= 300 sq.ft. have controls 1) configured so that general lighting can be controlled separately in control zones with floor areas <= 600 sq.ft. within the space, 2) automatically turn off general lighting in all control zones within 20 minutes after all occupants have left the space, 3) are configured so that general lighting power in each control zone is reduced by >= 80% of the full zone general lighting power within 20 minutes of all occupants leaving that control zone, and 4) are configured such that any daylight responsive control will activate space general lighting or control zone general lighting only when occupancy for the same area is detected.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.2, C405.2.2.1, C405.2.2.2 [EL21][2]	Each area not served by occupancy sensors (per C405.2.1) have time-switch controls and functions detailed in sections C405.2.2.1 and C405.2.2.2.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.3, C405.2.3.1, C405.2.3.2 [EL23][2]	Daylight zones provided with individual controls that control the lights independent of general area lighting. See code section C405.2.3 Daylight-responsive controls for applicable spaces, C405.2.3.1 Daylight responsive control function and section C405.2.3.2 Sidelit zone.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.4 [EL26][1]	Separate lighting control devices for specific uses installed per approved lighting plans.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.4 [EL27][1]	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.3 [EL6][1]	Exit signs do not exceed 5 watts per face.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.6 [EL26][2]	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.7 [EL27][2]	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.8.2, C405.8.2.1 [EL28][2]	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.9 [EL29][2]	Total voltage drop across the combination of feeders and branch circuits <= 5%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.2 [FI17][3]	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.4.1 [FI18][1]	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Interior Lighting fixture schedule for values.*
C408.1.1 [FI57][1]	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.5.1 [FI16][3]	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.3 [FI33][1]	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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NORTH WALES, PA 19454

REVISIONS

△		DESCRIPTION
	06/01/26	PERMIT SET

STATUS:
PERMIT SET

6/1/26

FIELD VERIFICATION:
The Contractor shall verify all figured dimensions and conditions at the project site and notify Zebra Architecture, PLLC. of any dimensional errors, omissions or discrepancies before beginning or fabricating any work. Do not scale these drawings.

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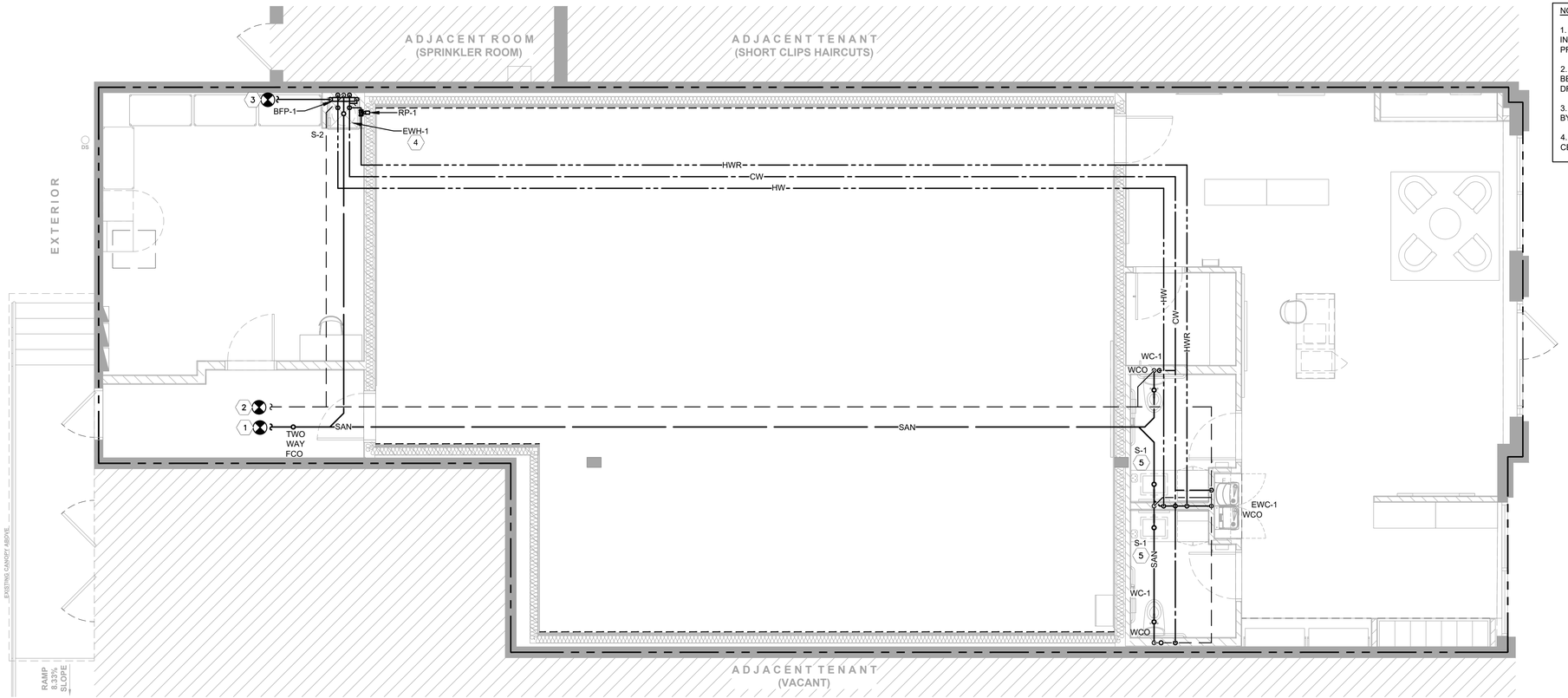
SHEET NAME:
ENERGY CODE COMPLIANCE FORMS

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN:
SCALE: AS NOTED

SHEET NO.:
E5-00



NOTE:

1. POINT OF USE THERMOSTATIC MIXING VALVES MUST BE INSTALLED AT EACH FIXTURE REQUIRING ADA & IAC THERMAL PROTECTION.

2. WATER HAMMER ARRESTORS AND ISOLATION VALVES SHALL BE PROVIDED AT EVERY FIXTURE SUPPLY. SEE DETAIL ON DRAWING P2-01 FOR ADDITIONAL INFORMATION.

3. ALL FLOOR CORE DRILLING TO BE X-RAYED AND APPROVED BY LL STRUCTURAL ENGINEER PRIOR TO START OF WORK.

4. G.C. TO COORDINATE REMOVAL/REPAIR OF INSULATION AT CEILING OF PARKING GARAGE BELOW REQUIRED FOR CORING.

TABLE TO CALCULATE HOT WATER GPH

PLUMBING FIXTURE	WATER GALLONS PER HOUR	NO. OF FIXTURES	TOTAL HOT WATER GPH
LAUNDRY TUB	10	1	10
LAVATORIES	5	2	10
TOTAL HOT WATER GALLONS PER HOUR FOR ALL FIXTURES:			20 GPH
10	GALLONS USABLE STORAGE (75% TOTAL STORAGE)		8 GALLONS
TOTAL HOT WATER GALLONS PER HOUR NEEDED FOR RECOVERY:			12.5 GPH
TEMPERATURE RISE (°F)			100 °F
GPH RECOVERY x 8.33 x TEMP. RISE / THERMAL EFFICIENCY		X (DEMAND FACTOR %)	TOTAL BTU NEEDED FOR RECOVERY
10,846 BTU		0.75	8,135 BTU
BTU -> KW CONVERSION		3,413 BTU / KW	2.4 kW

TABLE TO CALCULATE DRAINAGE FIXTURE UNITS

PLUMING FIXTURE	DRAINAGE FIXTURE UNITS	NUMBER OF FIXTURES	TOTAL DRAINAGE FIXTURE UNITS
WATER CLOSET	4	2	8
LAVATORIES	1	2	2
LAUNDRY TUB	2	1	2
ELECTRIC WATER COOLER	1	1	1
TOTAL DRAINAGE FIXTURE UNITS			13

TABLE TO CALCULATE WATER FIXTURE UNITS

PLUMING FIXTURE	SUPPLY FIXTURE UNITS	NUMBER OF FIXTURES	TOTAL SUPPLY FIXTURE UNITS
WATER CLOSET	5.0	2	10.0
LAVATORIES	2.0	2	4.0
LAUNDRY TUB	3.0	1	3.0
ELECTRIC WATER COOLER	1.0	1	1.0
TOTAL SUPPLY FIXTURE UNITS			18.0
WATER SERVICE SIZE, TYPE L COPPER:			1"

LEGEND

WATER SERVICE	CIP	CAST IRON PIPE	FD FLUSH FLOOR DRAIN AND GRATE
COLD WATER SUPPLY PIPING	CP	CHROME PLATED	POINT OF CONNECTION TO EXISTING
HOT WATER SUPPLY PIPING	ETR	EXISTING TO REMAIN	
HOT WATER RETURN PIPING	FCO	FLOOR CLEANOUT	
SANITARY DRAINAGE & WASTE PIPING/SEWER	FD	FLOOR DRAIN	
SANITARY VENT PIPING	GCO	GROUND CLEANOUT	
G NATURAL GAS PIPING	GW	GREASE WASTE	
LINE SIZE GATE VALVE	NC	NEW CONNECTION	
LINE SIZE BALL VALVE (2" & SMALLER)	SAN	SANITARY	
LINE SIZE BALANCING VALVE	V	VENT	
LINE SIZE CHECK VALVE	WCO	WALL CLEAN OUT	
LINE SIZE UNION	VTR	VENT THRU ROOF	
LINE SIZE GAS COCK VALVE	W	WASTE	
AFF ABOVE FINISHED FLOOR	FS.	RECOMMENDED FLOOR SINK LOCATION. VERIFY WITH ARCHITECT.	
CB CAST BRASS	IND	INDIRECT WASTE DRAIN, HUB DRAIN, FLOOR DRAIN W/ FUNNEL OR SIMILAR. VERIFY WITH ARCHITECT	

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

PUMP SCHEDULE

MARK	MFR	MODEL	GPM	TDH	OUTLET	VOLT / PHASE	REMARKS
RP-1	GRUNDFOS	15-55 HWR SF/T	1	10	3/4"	120/1	1, 2

1. CONSULT MANUFACTURER PRIOR TO PURCHASE FOR EXACT MODEL AND ALL ACCESSORIES FOR A COMPLETE SYSTEM.
2. COORDINATE EXACT VOLTAGE/PHASE WITH EC PRIOR TO PURCHASE AND ROUGH IN

HOT WATER BALANCING NOTE:

PLUMBING CONTRACTOR SHALL PROVIDE JOMAR VALVE RECIRCSETTER™AUTOMATIC VARIABLE SET POINT BALANCING VALVE OR EQUIVALENT AT EACH HOT WATER CIRCULATION CONNECTION TO THE HOT WATER SYSTEM. ENSURE VALVES ARE INSTALLED IN AN ACCESSIBLE LOCATION FOR ADJUSTMENT AND SERVICE. SYSTEM SHALL BE SET FOR A 5 DEGREE TEMPERATURE DIFFERENCE FROM WATER HEATER SET POINT. CONSULT WITH THE CIRCULATING PUMP MANUFACTURER FOR ADDITIONAL CONTROLS AND BALANCING INSTRUCTION.

EXISTING WATER SERVICE CONDITIONS NOTE:

WATER PRESSURE IS SHOWN AS DIAGRAMMATIC ONLY. CONTRACTOR SHALL VERIFY EXISTING WATER PRESSURE IN FIELD PRIOR TO ANY WORK AND PIPING ROUGH IN. IF DISCOVERED ON SITE THAT EXISTING WATER PRESSURE IS LESS THAN 68 PSI, CONTACT ENGINEER IMMEDIATELY FOR PIPING DESIGN CHANGES. IF PRESSURE IS GREATER THAN 80 PSI PROVIDE PRESSURE REDUCING VALVE AND REDUCE DOWN TO 77 PSI.

PRIOR TO WORK VERIFY INCOMING WATER QUALITY TO SPACE. WHEN INCOMING WATER IS ABOVE 3.5 GRAINS PER GALLON (60 PARTS PER MILLION) SCALE BUILD-UP WILL FORM INSIDE THE PLUMBING SYSTEM CAUSING DAMAGE TO SYSTEM COMPONENTS AND COPPER PIPE. TO AVOID DAMAGE DUE TO SCALE BUILD-UP, EITHER A WATER SOFTENER OR ANTI-SCALE DEVICE SHOULD BE INSTALLED AT POINT-OF-ENTRY. APPLICATIONS WHERE THERE IS A CONCERN FOR WATER SPOTS ON GLASS SHOWER DOORS, GLASS DISHES, VEHICLES IN CARWASHES, ETC., AND/OR THE EFFECTS OF HARD WATER ON HUMAN SKIN, A WATER SOFTENER SHOULD BE USED INSTEAD OF AN ANTI-SCALE DEVICE. ANTI-SCALE DEVICES REDUCE THE FORMATION OF SCALE IN A PLUMBING SYSTEM BUT DO NOT REMOVE THE CALCIUM AND MAGNESIUM FROM THE WATER, WHICH WILL REMAIN ONCE THE WATER HAS EVAPORATE LEAVING WATER SPOTS AND/OR DRYING OUT HUMAN SKIN. WATER SOFTENERS REMOVE CALCIUM AND MAGNESIUM FROM THE WATER BUT REQUIRE ROUTINE REFILLING OF SALT LEVELS IN THE BRINE TANK.

EXISTING SANITARY SEWER CONDITIONS NOTE:

SANITARY SEWER PIPING SHOWN ON DRAWINGS IS DIAGRAMMATIC AND MAY DIFFER SLIGHTLY FROM ACTUAL FIELD CONDITIONS. PLUMBING CONTRACTOR (PC) SHALL COORDINATE WITH EXISTING FIELD CONDITIONS VIA A SANITARY VIDEO SURVEY/SCOPE TO DETERMINE THE EXACT SIZE, LOCATION, INVERT ELEVATIONS AT THE PROPOSED CONNECTIONS TO EXISTING PLUMBING SERVICES PRIOR TO CONSTRUCTION. IF ACTUAL FIELD FINDINGS VARY SIGNIFICANTLY FROM THOSE AS INDICATED ON PLANS, PC SHALL NOTIFY GENERAL CONTRACTOR (GC) IMMEDIATELY PRIOR TO STARTING ANY WORK. THE OWNER SHALL NOT BE RESPONSIBLE FOR ADDITIONAL COSTS INCURRED BY FAILED COORDINATION AFTER CONSTRUCTION HAS BEGUN. PC SHALL BE RESPONSIBLE FOR UTILIZING A REPUTABLE UTILITY LOCATING SERVICE PRIOR TO ANY EXCAVATION.

PLUMBING CONTRACTOR SHALL CONFIRM EXACT SANITARY CONNECTION INVERT ELEVATION IS DEEP ENOUGH TO ACHIEVE GRAVITY FLOW AT CODE REQUIRED SLOPE FROM FURTHEST FIXTURE TO POINT OF CONNECTION PRIOR TO ANY FLOOR TRENCHING OR ROUGH IN WORK. CONTACT ENGINEER IMMEDIATELY IF GRAVITY DRAINAGE CAN NOT BE ACHIEVED WITH EXISTING FIELD CONDITIONS.

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	SAN.	VENT	C.W.	H.W.	REMARKS
WC-1	FLOOR MOUNTED WATER CLOSET ULTRAMAX II ONE-PIECE TOILET, 1.28 GPF	4"	2"	3/4"	-	MS604124CEFG (LEFT) MS504124CEFRG (RIGHT) PROVIDE TRIP LEVER ON OPEN SIDE OF ADA TOILET
S-1	UNDERMOUNT SINK KOHLER K-2882-0	2"	1-1/2"	1/2"	1/2"	VITREOUS CHINA, RECANGULAR BASIN WITH CONTEMPORARY DESIGN, W/OVERFLOW. PROVIDE WITH SLOAN OPTIMA SENSOR FAUCET MODEL EAF-250-ISM IN GRAPHITE.
S-2	MOP SINK	3"	2"	3/4"	3/4"	FIAT MSB2424 MOLDED STONE SINK BASIN WITH FIAT 830-AA CHROME PLATED SINK FAUCET, 1.5 GPM FLOW RATE
EWC-1	ELECTRIC WATER COOLER HALSEY TAYLOR HHB-HACG8BLPV-WF	2"	2"	1/2"	-	BI-LEVEL REFRIGERATED BOTTLE FILLING STATION
BFP-1	WATTS LF919QT	-	-	1"	-	RPZ, DRAIN INTO S-2
MV-1	ACORN ST-70	-	-	1/2"	1/2"	

WATER HEATER SCHEDULE

MARK	MFR	MODEL	EFFICIENCY	STORAGE	RECOVERY	T. RISE	VOLT/PHASE	HEAT INPUT	REMARKS
EWH	A.O. SMITH	DEL-10	98%	10	12 GPH	100	208V/1PH	3 KW	1,2

1: SET WATER HEATER STORAGE TEMPERATURE TO 140°F
2: GC TO FURNISH AND INSTALL WATER HEATER.

PLUMBING KEYED NOTES

1. SANITARY WASTE PIPING SHALL ROUTE TO CONNECT SANITARY WASTE PIPING OR SITE SANITARY SEWER SERVING SPACE. PLUMBING CONTRACTOR SHALL VERIFY EXACT SIZE, LOCATION, ROUTING, AND CONNECTION REQUIREMENTS WITH LANDLORD AND UTILITY COMPANY PRIOR TO BIDDING AND PERFORMING ANY EXCAVATION WORK.
2. ROUTE TO CONNECT TO LANDLORD 3" VENT CONNECT IN SPACE. VERIFY EXACT SIZE AND LOCATION IN FIELD PRIOR TO WORK. AT POC, THE EXISTING VENT PIPE SHALL NOT BE SMALLER THAN THE NEW EXISTING PIPING.
3. ROUTE NEW 1" WATER LINE TO CONNECT TO EXISTING 2" WATER MAIN IN SPACE. VERIFY EXACT LOCATION IN FIELD. PLUMBING CONTRACTOR SHALL PROVIDE AN ALTERNATE BID TO PROVIDE A NEW REDUCED PRESSURE ZONE BACKFLOW PREVENTER ABOVE LAUNDRY TUB IF THE EXISTING BUILDING DOMESTIC WATER SUPPLY DOES NOT ALREADY EXIST AND IF REQUIRED BY LOCAL AHJ. PROVIDE PRESSURE REDUCING VALVE IF FOUND THAT PRESSURE IS GREATER THAN 80 PSI. REDUCE DOWN TO 77 PSI.
4. PROVIDE DEL-10 WATER HEATER ON PLATFORM OVER MOP SINK. SEE DETAIL 3/A7-10. SEE WATER HEATER SCHEDULE.
5. PROVIDE AND INSTALL ANTI-SCALD MIXING VALVE AT HAND WASH FIXTURES TO TEMPER HOT WATER AT FOR PUBLIC USE. SET VALVE FOR HOT WATER DISCHARGE AT SINK TO 105°F MAXIMUM.

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REVISIONS

△		DESCRIPTION
	06/01/26	PERMIT SET

STATUS:
PERMIT SET

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MATTHEW RICHARD CASE
ENGINEER
PE090963
6/1/26

FIELD VERIFICATION:
The Contractor shall verify all figured dimensions and conditions at the project site and notify Zebra Architecture, PLLC. of any dimensional errors, omissions or discrepancies before beginning or fabricating any work. Do not scale these drawings.

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SHEET NAME:
OVERALL PLUMBING PLAN

DATE:	PROJECT NO.:
06/01/2026	42559
DRAWN:	SCALE:
	AS NOTED

SHEET NO.:
P1-01

PLUMBING GENERAL AND PRE–BID NOTES

1. PLUMBING CONTRACTOR SHALL ABIDE BY THE LOCAL CODES AND ORDINANCES. ALL WORK SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, LAWS, ACTS AND ALL AUTHORITIES HAVING JURISDICTION AND LANDLORD'S/TENANT CRITERIA.

2. IF COMPLIANCE WITH TWO OR MORE STANDARDS IS SPECIFIED AND THE STANDARDS ESTABLISH DIFFERENT OR CONFLICTING REQUIREMENTS FOR MINIMUM QUANTITIES OR QUALITY LEVELS, COMPLY WITH THE MOST STRINGENT REQUIREMENT. REFER CONFLICTING REQUIREMENTS THAT ARE DIFFERENT, BUT APPARENTLY EQUAL, TO ARCHITECT/ENGINEER FOR A DECISION BEFORE PROCEEDING.

3. PLUMBING CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATIONS AND SIZES OF ALL UTILITIES, INCLUDING THE DEPTHS OF ALL BELOW GRADE SANITARY SEWERS, PRIOR TO START OF WORK. THIS DRAWING IS NOT INTENDED TO INDICATE ALL EXISTING UTILITIES. VIDEO SURVEY EXISTING SANITARY WASTE AND GREASE WASTE (IF APPLICABLE) PIPING AND INSPECT AND PROVIDE REPORT OF THE QUALITY OF EXISTING PIPING. REMOVE ANY CLOGS, OBSTRUCTIONS AND MAKE REPAIRS TO ANY DAMAGED SECTIONS OF EXISTING PIPING. VERIFY THAT SEWER HAS SUFFICIENT DEPTH FOR THE NEW WORK AND TO VERIFY THE DIRECTION OF FLOW. PRESSURE TEST THE EXISTING SANITARY DRAIN PRIOR TO THE START OF WORK. VERIFY THAT SEWER IS ACTIVE BY FLUSHING WITH WATER, A MINIMUM OF FIVE GALLONS PER MINUTE FOR FOUR HOURS PRIOR TO START OF WORK.

4. PLUMBING CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATIONS AND SIZES OF ALL UTILITIES, INCLUDING THE DEPTHS, SIZES AND EXISTING PRESSURES OF ALL BELOW GRADE DOMESTIC WATER SERVICES, PRIOR TO START OF WORK. THIS DRAWING IS NOT INTENDED TO INDICATE ALL EXISTING UTILITIES. CONTRACTOR SHALL VERIFY EXISTING STATIC AND RESIDUAL WATER PRESSURE PRIOR TO ANY WORK. CONTACT ENGINEER IMMEDIATELY IF ANY DISCREPANCIES FROM THE PRESSURES LISTED ON DRAWINGS ARE DISCOVERED.

5. CONTRACTOR SHALL BE FAMILIAR WITH LANDLORD'S AND TENANT STANDARDS (IF APPLICABLE), RULES AND REGULATIONS. OBTAIN COPY OF CRITERIA PACKAGE AND CONFORM TO ALL REQUIREMENTS. ALL LANDLORD'S AND TENANT CRITERIA SHALL BE COMPILED WITH AND INCLUDED IN THIS BID.

6. CONTRACTOR SHALL VISIT SITE PRIOR TO SUBMITTING BID AND FIELD VERIFY EXISTING CONDITIONS TO ENSURE THAT THE WORK REPRESENTED ON THE DRAWINGS AND IN THESE SPECIFICATIONS CAN BE INSTALLED AS INDICATED. CONTRACTOR SHALL TAKE ALL INTERFERENCES INTO CONSIDERATION. PROVIDE ALL NECESSARY OFFSETS TO SUIT FIELD CONDITIONS AS REQUIRED.

7. CONTRACTOR SHALL COORDINATE FULLY WITH ALL DISCIPLINES AND EXISTING FIELD CONDITIONS PRIOR TO PERFORMING ANY WORK SO THAT CONTRACTS MAY BE CARRIED OUT SMOOTHLY, WITHOUT INTERFERING OR DELAYING WORK UNDER THIS CONTRACT. NOTIFY THE ENGINEER OF ANY DISCREPANCIES WITH THE CONTRACT DOCUMENTS BEFORE COMMENCING ANY WORK.

8. MAKE ALL UTILITY CONNECTIONS AND INSTALLATIONS IN FULL ACCORDANCE WITH ALL LOCAL UTILITY REGULATIONS. PROVIDE ALL ADDITIONAL APPURTENANCES AS REQUIRED BY UTILITY COMPANY. THE COMPLETED INSTALLATION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE INDUSTRY STANDARDS OF GOOD PRACTICE AND SAFETY, AND THE MANUFACTURER'S STRICTEST RECOMMENDATIONS FOR EQUIPMENT AND PRODUCT APPLICATION AND INSTALLATION. CONTRACTOR SHALL COORDINATE CONNECTION REGULATIONS WITH LOCAL UTILITY PRIOR TO PERFORMING ANY WORK.

9. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND INSPECTIONS RELATED TO THE INSTALLATION OF THE WORK.

10. CONTRACTOR SHALL NO INTERRUPT UTILITIES SERVING OTHER FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED BY THE FOLLOWING CONDITIONS.
    - 10.1. NOTIFY ARCHITECT, CONSTRUCTION MANAGER, LANDLORD AND TENANT NOT LESS THAN 2 DAYS IN ADVANCE OF PROPOSED UTILITY INTERRUPTIONS.
    - 10.2. OBTAIN WRITTEN PERMISSION BEFORE PROCEEDING WITH UTILITY INTERRUPTIONS.

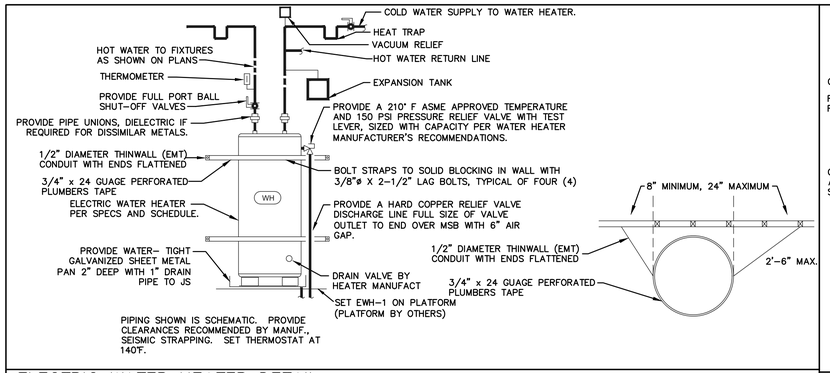
11. MAINTAIN ALL MANUFACTURER'S RECOMMENDED SERVICE CLEARANCES FOR ALL FIXTURES AND EQUIPMENT. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS OF PLUMBING FIXTURES.

12. CONTRACTOR SHALL COORDINATE TIMES TO WORK IN SPECIFIC AREA OF THE EXISTING BUILDING (IF APPLICABLE) WITH THE LANDLORD/BUILDING MANAGER AND WITH THE OCCUPANTS OF THE AREA AFFECTED BY THE WORK.

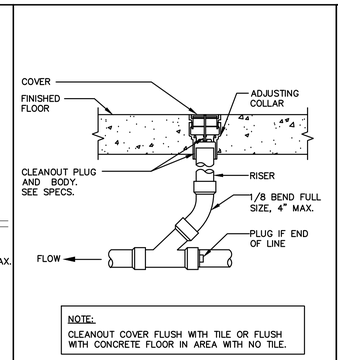
13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN AS–BUILT DRAWINGS. IT IS IMPORTANT TO NOTE THAT THIS EFFORT MUST BE MADE THROUGHOUT THE COURSE OF THE PROJECT AND THAT PLUMBING AS–BUILT DRAWINGS, IN PARTICULAR, CANNOT BE ACCURATELY CREATED AFTER SLABS ARE POURED, WALLS ARE CLOSED AND CEILINGS ARE IN PLACE. FOR THIS REASON, A SET OF CONSTRUCTION DOCUMENTS SHOULD BE KEPT AT THE JOB–SITE, CLEARLY MARKED "AS–BUILT" AND CONTINUALLY UPDATED AS WORK IS INSTALLED. THIS SET SHOULD BE MADE AVAILABLE FOR ROUTINE VIEWING, NOT FOR REVIEW, BUT SIMPLY TO ENSURE THAT THE AS–BUILT DRAWING EFFORT IS IN PROCESS.

14. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF ALL EQUIPMENT BEING PROPOSED AND INSTALLED FOR THIS CONTRACT. IF THE CONTRACTOR PROCEEDS WITHOUT APPROVED SHOP DRAWINGS, HE ASSUMES ALL RISK ASSOCIATED WITH THE REMOVAL AND REPLACEMENT OF THE WORK INCLUDING COST AND SCHEDULE IMPACTS. BY SUBMITTING SUBSTITUTIONS, THE CONTRACTOR REPRESENTS AND WARRANTS THAT THEY HAVE PERSONALLY INVESTIGATED THE PROPOSED SUBSTITUTION PRODUCT AND DETERMINED THAT IT IS EQUAL TO OR SUPERIOR IN ALL RESPECTS TO THAT SPECIFIED ON THE CONSTRUCTION DOCUMENTS AND CERTIFIES THAT IT INCLUDES ALL RELATED COSTS UNDER THIS CONTRACT INCLUDING BUT NOT LIMITED TO ANY MECHANICAL, PLUMBING, ELECTRICAL, ARCHITECTURAL AND STRUCTURAL REQUIREMENTS FOR THIS PROJECT. PROVIDE THE FOLLOWING INFORMATION FOR ALL SHOP DRAWINGS.
    - 14.1. MANUFACTURERS CUTS, INSTALLATION MANUALS AND PRODUCT SPECIFICATIONS.
    - 14.2. CLEARLY INDICATED OPTIONS AND ACCESSORIES.
    - 14.3. COMPLIANCE WITH REFERENCED STANDARDS AND LISTINGS.
    - 14.4. NOTATION FOR COORDINATION REQUIREMENTS.
    - 14.5. AVAILABILITY AND DELIVERY TIME INFORMATION.
    - 14.6. WIRING DIAGRAMS, PERFORMANCE CURVES AND DETAILED DESCRIPTION OF EQUIPMENT ANCHORAGE.

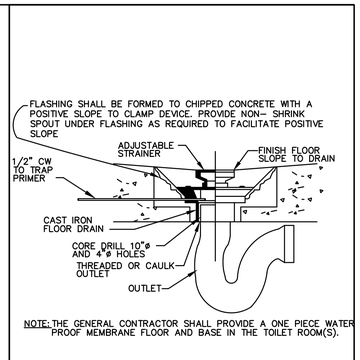
15. ANY REQUESTS FOR INFORMATION (RFI) ARE TO BE MADE IN WRITING. THE REPEATED OCCURRENCE OF URGENT RFIS IS AN INDICATION THAT THE CONTRACTOR IS NOT ADDRESSING COORDINATION IN A TIMELY FASHION. RFIS MUST INCLUDE A REFERENCE TO THE PLAN OR SPECIFICATION IN QUESTION AND A COMPLETE DESCRIPTION OF THE CONFLICT OR AMBIGUITY. THEY MUST ALSO INCLUDE SKETCHES, PHOTOGRAPHS, MANUFACTURER'S INFORMATION AND/OR CODE SECTIONS. A SUGGESTED SOLUTION WITH COST AND TIME IMPACTS IS ALSO REQUIRED.



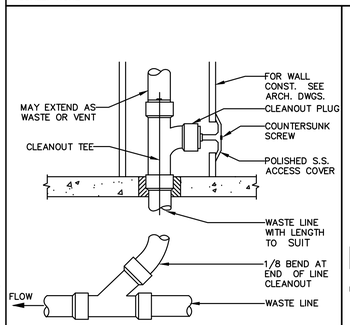
ELECTRIC WATER HEATER DETAIL
SCALE: NONE



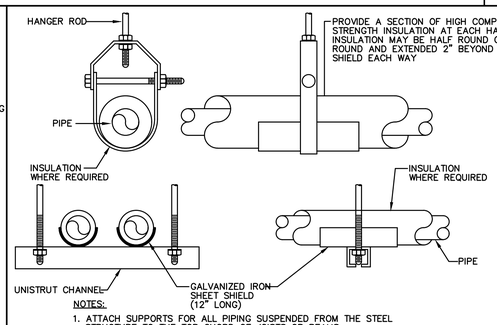
FLOOR CLEAN–OUT DETAIL
SCALE: NONE



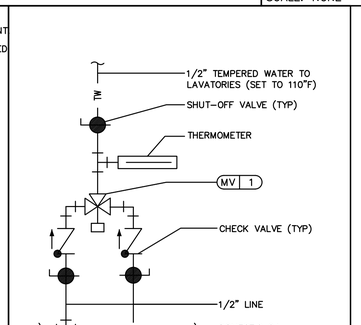
FLOOR DRAIN w/TRAP PRIMER
SCALE: NONE



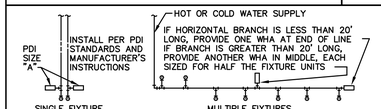
WALL CLEAN–OUT DETAIL
SCALE: NONE



PIPE HANGER DETAIL
SCALE: NONE



TEMPERING VALVE DETAIL
SCALE: NONE

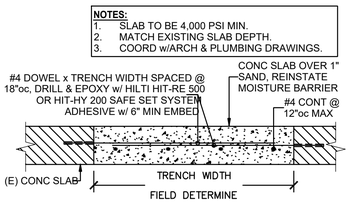


PDI SIZE	PIPE SIZE	FIXTURE UNIT LOAD
A	1/2"	1–11
B	3/4"	12–32
C	1"	33–60
D	1–1/4"	61–113
E	1–1/2"	114–154
F	2"	

FIXTURE UNIT TABULATION		
FIXTURE	COLD	HOT
VALVE WATER CLOSET	10	––
TANK WATER CLOSET	5	––
URINAL	5	––
LAVATORY/SINK	1.5	1.5
JANITOR'S SINK	3	3
SHOWER/BATHTUB	2	2

PC TO PROVIDE WATER HAMMER ARRESTERS BY SIOUX CHIEF, PRECISION PLUMBING PRODUCTS, WATTS OR APPROVED EQUIVALENT WITH PISTON AND O–RING CONSTRUCTION, HAVING PDI #WH– 201, ASSE #1010 AND ANSI #A112.26.1M CERTIFICATION. INSTALL IN HORIZONTAL OR VERTICAL POSITION, BUT NEVER UPSIDE DOWN. INSTALL IN LINE WITH WATER FLOW DIRECTION IF POSSIBLE. SIZE THE UNITS AS SHOWN ON THE DRAWINGS AND/OR PER THE TABLES SHOWN ABOVE. PROVIDE ACCESS PANEL FOR SERVICING OR REPLACEMENT, WHERE REQUIRED.

WATER HAMMER ARRESTOR DETAIL
SCALE: NONE



TRENCH REPAIR DETAIL
SCALE: NONE

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REVISIONS

△		DESCRIPTION
	06/01/26	PERMIT SET

STATUS:
PERMIT SET

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MATTHEW RICHARD CASE
ENGINEER
PE090063
6/1/26

FIELD VERIFICATION:
The Contractor shall verify all figured dimensions and conditions at the project site and notify Zebra Architecture, PLLC. of any dimensional errors, omissions or discrepancies before beginning or fabricating any work. Do not scale these drawings.

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SHEET NAME:
PLUMBING DETAILS

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN:
SCALE: AS NOTED

SHEET NO.:
P2-01

DIVISION 15 – PLUMBING SPECIFICATIONS

1. GENERAL
   A. THE GENERAL CONDITIONS OF THE GENERAL SPECIFICATIONS, AND ALL APPLICABLE INSTRUCTIONS TO BIDDERS SHALL BE PART OF THESE SPECIFICATIONS.
   B. THE WORD "PROVIDE" AS USED HEREIN MEANS TO FURNISH AND INSTALL COMPLETE.

2. PRIOR TO BIDDING:
   A. THOROUGHLY REVIEW THE BID INSTRUCTIONS INCLUDING ALL CIVIL, ARCHITECTURAL, STRUCTURAL, AND MEPFP CONSTRUCTION DOCUMENTS. IF CONTRACTOR BELIEVES THE DRAWINGS AND SPECIFICATIONS CONFLICT WITH CODE REQUIREMENTS, IMMEDIATELY NOTIFY THE ARCHITECT (ENGINEER) IN WRITING. NO ALLOWANCES WILL BE MADE DUE TO CONTRACTOR'S UNFAMILIARITY WITH THE CONSTRUCTION DOCUMENTS.
   B. VISIT THE JOB SITE AND THOROUGHLY INVESTIGATE CONDITIONS. THE LACK OF SPECIFIC INFORMATION ON THE DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY.
   C. REFER TO APPLICABLE CODES CITED IN CONSTRUCTION DOCUMENTS, EXAMINE GOVERNING STATE AND LOCAL CODES, AND LOCAL REGULATIONS AND ORDINANCES, AND PROVIDE ALL EQUIPMENT AND INSTALLATIONS IN STRICT ACCORDANCE WITH SAME.
   D. REFER TO CONSTRUCTION DOCUMENTS FOR SCHEDULED AND SPECIFIED MATERIALS AND EQUIPMENT. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND DETAILS.
   E. PROVIDE ALL WORK IN STRICT ACCORDANCE WITH THE LANDLORD'S CONSTRUCTION CRITERIA AND TENANT/LANDLORD AGREEMENT. THIS CONTRACTOR SHALL EXAMINE THE LANDLORD CRITERIA AND TENANT/LANDLORD AGREEMENT AND THEY SHALL BE PART OF THESE SPECIFICATIONS. NO ALLOWANCES WILL BE MADE DUE TO CONTRACTOR'S UNFAMILIARITY WITH THESE DOCUMENTS.

3. PERMITS
   A. SECURE AND PAY FOR ALL PERMITS AND LICENSES REQUIRED BY THE AHJ FOR THIS WORK.

4. SUBSTITUTIONS
   A. MANUFACTURERS' EQUIPMENT AND MATERIALS SCHEDULED, NOTED, AND SPECIFIED IN THE CONSTRUCTION DOCUMENTS ARE THE DESIGN STANDARD. NO SUBSTITUTIONS WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL BY THE ARCHITECT OR ENGINEER. IN BIDDING, DO NOT ASSUME ACCEPTANCE OF SUBSTITUTIONS. CONTRACTOR MUST STATE IN SUBSTITUTION REQUEST: "PROPOSED SUBSTITUTIONS ARE EQUAL OR OF HIGHER QUALITY, EFFICIENCY AND DEPENDABILITY TO SPECIFIED EQUIPMENT AND MATERIAL. CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR ADDITIONAL ENGINEERING COSTS AND COSTS TO OTHER CONTRACTORS DUE TO SUBSTITUTIONS." IF DEEMED NECESSARY BY THE ARCHITECT OR ENGINEER, SUBSTITUTIONS WHICH ARE NOT APPROVED OR NOT EQUAL TO DESIGN STANDARD SHALL BE REMOVED AND THE SCHEDULED, NOTED, AND SPECIFIED EQUIPMENT AND MATERIALS SHALL BE INSTALLED AT CONTRACTOR'S EXPENSE. SUBMITTING CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ADDITIONAL ENGINEERING COSTS AND COSTS TO OTHER CONTRACTORS DUE TO SUBSTITUTIONS.

5. SCHEDULING
   A. ALL PERFORMANCE OF CONSTRUCTION SHALL BE AS REQUIRED BY THE PACE OF THE GENERAL CONSTRUCTION AS SCHEDULED BY THE GC. PROVIDE COMPLETE INFORMATION AND FULL COOPERATION WITH OTHER CONTRACTORS AND TRADES, AS REQUIRED FOR THE TIMELY COMPLETION AND COORDINATION OF THE COMPLETE PROJECT.
   B. PROVIDE ALL TESTS AND INSPECTIONS REQUIRED BY AHJ INCLUDING BUT NOT LIMITED TO ALL DWV, STORM, AND WATER SYSTEM LEAK TESTS. SCHEDULE INSPECTIONS WITH AHJ.
   C. PROVIDE A SIGNED CERTIFICATE OF INSPECTION AT THE PROJECT COMPLETION.

6. SCOPE
   A. PROVIDE PERMIT(S), FINAL CERTIFICATE(S) OF INSPECTION BY AHJ, AND ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY FOR A COMPLETE AND FULLY OPERATING PLUMBING SYSTEM.
   B. DEMOLITION: REFER TO THE ARCHITECTURAL DRAWINGS FOR THE GENERAL SCOPE OF DEMOLITION. THIS CONTRACTOR SHALL DISCONNECT AND CAREFULLY REMOVE ALL EXISTING PLUMBING EQUIPMENT AND PIPING LOCATED IN DEMOLISHED AREAS INCLUDING ROOF, PLENUMS, CEILINGS, WALLS, AND FLOORS. U.N.O., DISCONNECT AND REMOVE EXISTING PLUMBING SYSTEMS COMPLETE, INCLUDING FIXTURES, WATER HEATERS, EQUIPMENT, HOUSEKEEPING PADS, FLUES, VENTS, INSULATION, AND PIPING LOCATED IN THESE AREAS. ALL PLUMBING SYSTEM COMPONENTS INCLUDING PUMPS, MOTORS, CONTROL DEVICES, GAUGES, THERMOMETERS, SENSORS, ACTUATORS, HANGERS, RESTRAINTS, MOUNTING HARDWARE, ETC., SHALL BE REMOVED AND LEGALLY DISPOSED OF BY THIS CONTRACTOR.
   C. UNLESS NOTED OTHERWISE, ABANDONMENT IN PLACE (AIP) IS NOT ACCEPTABLE. UNUSED EQUIPMENT, PIPING, AND OTHER COMPONENTS WITHIN OR SERVING THIS SPACE MUST BE COMPLETELY REMOVED TO POINT OF ORIGIN. ENDS OF SYSTEMS BEYOND GENERAL SCOPE OF DEMOLITION MAY BE ABANDONED ONLY WITH WRITTEN APPROVAL OF ARCHITECT (ENGINEER). WHERE THESE ABANDONED ENDS TERMINATE, TRIM CLEANLY AND PROPERLY CAP OR SEAL IN AN APPROVED MANNER, LEAVING TERMINATION SAFE AND SECURE BEHIND NEW FINISHES. MAINTAIN SYSTEM CONTINUITY TO PLUMBING SYSTEMS SERVING AREAS BEYOND GENERAL DEMOLITION, AS NEEDED. THIS INCLUDES BUT IS NOT LIMITED TO REMOVAL, MODIFICATION AND/OR REINSTALLATION OF EQUIPMENT, AS NEEDED. COMPLETION OF THIS PROJECT SHALL INCLUDE RETURNING THESE ADJACENT AREAS TO FULLY FUNCTIONING OPERATION.
   D. CONTRACTOR SHALL PROVIDE DAILY CLEAN-UP, REMOVAL AND LEGAL DISPOSAL OF ALL RUBBISH GENERATED BY THIS WORK.
   E. AS-BUILT DRAWINGS: DURING CONSTRUCTION, AS WORK PROCEEDS, MAINTAIN ON-SITE AS-BUILT MARK-UPS OF ACTUAL INSTALLATION. AT CONSTRUCTION COMPLETION AND PRIOR TO TURNOVER TO OWNER (TENANT), PROVIDE FINAL MARK-UPS IN PDF FORMAT TO ARCHITECT AND ENGINEER.
   F. PROVIDE FINAL CONNECTIONS TO EQUIPMENT FURNISHED BY OTHERS, AS NOTED (GAS FIRED APPLIANCES/EQUIPMENT, COMMERCIAL KITCHEN APPLIANCES/EQUIPMENT, LAUNDRY EQUIPMENT, IRRIGATION, ETC.).
   G. DO NOT ROUTE ANY PIPING ABOVE ELECTRICAL PANELS.
   H. UNLESS NOTED OTHERWISE, ALL PIPE SHALL BE RUN PARALLEL TO OR AT RIGHT ANGLES TO WALLS, BEAMS, OR COLUMNS. PIPE SHALL BE RUN AS DIRECT AS POSSIBLE - AVOID UNNECESSARY OFFSETS AND MAXIMIZE HEADROOM.
   I. PRIOR TO ORDERING EQUIPMENT, THIS CONTRACTOR SHALL PROVIDE FINAL COORDINATION OF ELECTRICAL POWER REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.
   J. CONTRACTOR SHALL MAINTAIN ACTIVITIES WITHIN AREA APPROVED BY OWNER OR GC. CONTRACTOR'S ACTIVITIES SHALL NOT INTERFERE WITH THE OWNER'S OPERATIONS, EXCEPT AS APPROVED.
   K. EXCEPT THOSE COORDINATED AND APPROVED BY THE G.C., CONTINUITY OF ALL BUILDING SERVICES AND UTILITIES SERVING BUILDING FACILITIES SHALL BE MAINTAINED UNINTERRUPTED AT NO ADDITIONAL COST. PROVIDE ALL NECESSARY CROSS CONNECTIONS AND TEMPORARY CONNECTIONS REQUIRED TO PERFORM THE CONSTRUCTION, AS DETERMINED BY THE G.C., AND NEEDED TO MAINTAIN CONTINUITY OF THE BUILDING SERVICE(S). THIS CONTRACTOR SHALL SCHEDULE WORK SUCH THAT ANY AND ALL CONNECTIONS, AND/OR REARRANGEMENT OF EXISTING EQUIPMENT, PIPING, ETC., SHALL ASSURE FULL RESUMPTION OF SERVICE(S) AT THE G.C.'S DESIGNATED TIME.

7. UTILITIES
   A. THE DRAWINGS ARE NOT INTENDED TO INDICATE ALL EXISTING UTILITIES. PRIOR TO START OF WORK, PLUMBING CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATIONS AND SIZES OF ALL UTILITIES, PER THE FOLLOWING:
      i. DOMESTIC WATER: IDENTIFY THE DEPTHS, SIZES, AND STATIC AND RESIDUAL PRESSURES OF ALL BELOW GRADE DOMESTIC WATER SERVICES. NOTIFY THE GC IN WRITING OF ANY DISCREPANCIES FROM THE LOCATIONS, SIZE(S), AND PRESSURES LISTED ON THE DRAWINGS.
      ii. SANITARY SEWERS: VERIFY THAT SEWER HAS SUFFICIENT DEPTH FOR THE NEW WORK AND VERIFY THE DIRECTION OF FLOW. NOTIFY THE GC IN WRITING OF ANY DISCREPANCIES FROM THE LOCATIONS, SIZE(S), AND DIRECTION OF FLOW LISTED ON THE DRAWINGS. PERFORM A FLOW TEST OF THE EXISTING SANITARY DRAIN WITH A MINIMUM OF FIVE GPM FOR TWO HOURS. REPORT ANY FLOW DEFICIENCIES IN WRITING TO GC INCLUDING FEE PROPOSAL TO REMOVE ANY OBSTRUCTIONS.
   B. PROVIDE ALL UTILITY CONNECTIONS AND INSTALLATIONS IN STRICT ACCORDANCE WITH UTILITY AND AHJ REGULATIONS. CONTRACTOR SHALL COORDINATE CONNECTION REGULATIONS WITH LOCAL UTILITY PRIOR TO PERFORMING ANY WORK. PROVIDE ALL ADDITIONAL APPURTENANCES, AS REQUIRED.
   C. PROVIDE TEMPORARY WATER SERVICE TO THE BUILDING FOR CONSTRUCTION REQUIREMENTS.

8. CODE REQUIREMENTS
   A. ALL WORK SHALL COMPLY WITH THE CONSTRUCTION DOCUMENTS, OR AS DIRECTED BY THE ARCHITECT (ENGINEER), AND SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES, OR REGULATIONS OF THE AHJ, WHETHER SO SHOWN OR NOT. IF CONTRACTOR BELIEVES THE DRAWINGS AND SPECIFICATIONS CONFLICT WITH CODE REQUIREMENTS, IMMEDIATELY NOTIFY THE G.C. IN WRITING. DO NOT INSTALL WORK NOT COMPLYING WITH CODE REQUIREMENTS. IN CASE OF CONFLICT BETWEEN THE CONSTRUCTION DOCUMENTS AND THE CODES AND ORDINANCES, THE HIGHEST STANDARD SHALL APPLY. AS A MINIMUM STANDARD, CONTRACTOR SHALL SATISFY CODE REQUIREMENTS WITHOUT ANY EXTRA COST TO OWNER. ALL MODIFICATIONS REQUIRED BY AHJ SHALL BE MADE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

9. CUTTING & PATCHING
   A. CORE-DRILL OR SAW-CUT EXISTING FLOORS, WALLS, ROOF, ETC., AS REQUIRED FOR EQUIPMENT OR PIPE. PRIOR TO CUTTING, PERFORM NON-DESTRUCTIVE TESTING TO VERIFY LOCATION OF STRUCTURAL COMPONENTS. NOTIFY ARCHITECT (ENGINEER) OF ANY DISCREPANCIES. PATCH SURROUNDING AREAS FLUSH WITH ADJACENT SURFACE AND READY TO RECEIVE FINISH. PATCH AND REPAIR ROOF TO MATCH EXISTING ROOFING. ALL ROOF WORK SHALL MEET WARRANTY REQUIREMENTS OF EXISTING ROOFING. COORDINATE REQUIRED OPENINGS AND PENETRATIONS WITH THE GC AND OTHER TRADES. (OPENINGS IN FOUNDATIONS, FLOORS, WALLS, CEILINGS, AND ROOF SHALL BE BUILT INTO THE STRUCTURE WITH SLEEVES, CURBS, ETC.)

10. FIRE STOPPING
   A. PROVIDE FIRE STOPPING FOR PENETRATIONS BY PIPING AND/OR OTHER EQUIPMENT THROUGH FIRE-RATED VERTICAL BARRIERS (WALLS AND PARTITIONS), HORIZONTAL BARRIERS (FLOOR/CEILING ASSEMBLIES), AND VERTICAL SERVICE SHAFT WALLS AND PARTITIONS. FIRESTOP SYSTEM INSTALLATION MUST MEET REQUIREMENTS OF ASTM E 814 OR UL 1479 TESTED ASSEMBLIES THAT PROVIDE A FIRE RATING EQUAL TO OR GREATER THAN THAT OF CONSTRUCTION BEING PENETRATED. INSTALL IN STRICT ACCORDANCE WITH UL FIRE RESISTANCE DIRECTORY, AHJ, AND MANUFACTURER'S SPECIFIED REQUIREMENTS. ONLY TESTED FIRESTOP SYSTEMS BY "3M", "HILTI", OR EQUAL SHALL BE USED. REFER TO ARCHITECTURAL DRAWINGS FOR ASSEMBLY RATING.

11. MATERIALS AND WORKMANSHIP
   A. ALL MANUFACTURED ARTICLES, MATERIALS, AND EQUIPMENT SHALL BE NEW U.N.O., FREE OF DEFECTS, AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND DETAILS, AND INDEPENDENTLY LABELED BY A NATIONALLY RECOGNIZED TESTING LABORATORY - UNDERWRITERS LABORATORIES (UL) OR INTERTEK (ETL). ALL LIKE MATERIALS USED SHALL BE OF THE SAME MANUFACTURE AND QUALITY U.N.O.
   B. ALL MATERIALS WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E84 OR UL 723. ALL MATERIALS INSTALLED IN PLENUM SPACES SHALL BE LISTED AND LABELED FOR SUCH APPLICATION.
   C. ALL WORK SHALL BE SUPERVISED BY THE INSTALLING CONTRACTOR'S COMPETENT AND SKILLED FOREMAN. ALL WORK SHALL BE PERFORMED BY COMPETENT AND SKILLED WORKERS, WITH ALL TRADE AND MANUFACTURER REQUIRED TRAINING, AND EXECUTED IN A NEAT AND WORKMANLIKE MANNER. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE BEST QUALITY STANDARDS OF THE TRADE AND IN CONFORMANCE WITH ALL FEDERAL, STATE, AND LOCAL CODES AND STANDARDS, INCLUDING APPLICABLE OSHA REGULATIONS. PROPERLY PROTECT WORK DURING CONSTRUCTION. AT CONSTRUCTION COMPLETION, THOROUGHLY CLEAN WORK AND REMOVE ALL DEBRIS FROM THE PREMISES.

12. PROTECTION OF WORK AND PROPERTY
   A. PROTECT ALL WORK FROM DAMAGE AND PROTECT THE OWNER'S PROPERTY FROM DIRT, DAMAGE, OR LOSS ARISING FROM CONTRACTOR WORK.
   B. COMPLY WITH OSHA REQUIREMENTS AND TAKE ALL NECESSARY PRECAUTIONS FOR EMPLOYEE SAFETY.
   C. PROTECT ALL OPEN PIPING AND EQUIPMENT, EXISTING AND NEW FROM CONSTRUCTION DIRT AND DUST. COVER, CAP, OR PLUG OPEN ENDS OF PIPING. KEEP EQUIPMENT CLOSED OR COVER AND SEAL EQUIPMENT OPENINGS.

13. DAMAGE BY LEAKS
   A. THIS CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL DAMAGES TO THE PROPERTY (GROUNDS, WALKS, ROADS, BUILDING COMPONENTS, FINISHES, PIPING SYSTEMS, ELECTRICAL SYSTEMS, HVAC SYSTEMS, AND THEIR EQUIPMENT AND CONTENT) CAUSED BY LEAKS IN THE PIPING SYSTEMS BEING INSTALLED OR HAVING BEEN INSTALLED AS PART OF THIS WORK. ALL REPAIRS WILL BE MADE AT THIS CONTRACTOR'S EXPENSE.

14. DRAWINGS AND SPECIFICATIONS
   A. DRAWING ARE DIAGRAMMATIC AND INTENDED TO SHOWN GENERAL LOCATIONS OF PIPES, CONDUITS, FIXTURES, AND EQUIPMENT AND THE METHODS OF CONNECTING AND CONTROL. IT IS NOT INTENDED TO SHOW EVERY CONNECTION IN DETAIL OR ALL FITTINGS REQUIRED FOR A COMPLETE SYSTEM. DO NOT SCALE DRAWINGS. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR EXACT LOCATION OF DOORS, WINDOWS, LIGHTS, ETC.
   B. PRIOR TO INSTALLING EQUIPMENT OR PIPE COORDINATE PROPOSED LOCATIONS OF EQUIPMENT AND PIPE WITH EACH DISCIPLINE, GC, AND EACH TRADE. EXAMINE EACH DISCIPLINE'S DRAWINGS FOR CONSTRUCTION DETAILS, CEILING HEIGHTS, REQUIRED CLEARANCES, AND SPACE CONSTRAINTS. PROVIDE SYSTEMS INSTALLATION BASED ON THIS EXAMINATION AND COORDINATION. IMMEDIATELY REPORT INSTALLATION CONFLICTS IN WRITING TO THE GC. RESOLVE ALL CONFLICTS WITH GC AND OTHER TRADES PRIOR TO PROCEEDING. INSTALLING CONTRACTOR IS FULLY RESPONSIBLE FOR CORRECT INTERPRETATION AND APPLICATION OF ALL SIZES AND DIMENSIONS.
   C. IF THE CONTRACTOR BELIEVES CHANGES TO THE CONTRACT DRAWINGS ARE NECESSARY, SHOP DRAWINGS WITH WRITTEN DESCRIPTIONS OF THE PROPOSED CHANGES SHALL BE SUBMITTED TO THE ARCHITECT (ENGINEER) FOR APPROVAL.
   D. ALL PIPE, VENTS, ETC., EXTENDING THROUGH WALLS AND ROOF SHALL BE FLASHED WATERPROOF. PROVIDE ALL FLASHING FOR PIPE AND OTHER PENETRATIONS OF THE BUILDING ENVELOPE. PROVIDE PIPE SLEEVES AT WALL PENETRATIONS. SEAL ANNULAR SPACE WEATHER TIGHT.

15. PIPING
   A. SEE PIPE SCHEDULE FOR PIPE MATERIALS AND PIPE INSULATION.
   B. DO NOT INSTALL PVC PIPING IN PLENUM AREAS.
   C. UNLESS NOTED OTHERWISE: INSTALL PIPING FREE OF SAGS AND BENDS. INSTALL WATER PIPING LEVEL AND VERTICAL PIPING PLUMB. PIPING SUSPENDED FROM A SLOPING ROOF STRUCTURE MAY FOLLOW ROOF SLOPE. WHERE FEASIBLE, INSTALL STORM, DRAIN, AND SANITARY PIPE AT 2% SLOPE BUT NOT LESS THAN 1% SLOPE. IN FINISHED AREAS, ALL PIPING SHALL BE CONCEALED. ALL PIPE SHALL BE RUN PARALLEL TO OR AT RIGHT ANGLES TO WALLS, BEAMS, OR COLUMNS. PIPE SHALL BE RUN AS DIRECT AS POSSIBLE - AVOID UNNECESSARY OFFSETS AND MAXIMIZE HEADROOM. UNDERGROUND WATER AND SEWER LINES SHALL BE LAID IN SEPARATE TRENCHES WITH A MINIMUM HORIZONTAL SPACING AS REQUIRED BY CODE. WHERE WATER LINES ARE ROUTED UNDER THE FLOOR SLAB, NO MECHANICAL JOINTS ARE ALLOWED.
   D. EXCAVATE TRENCHES TO THE PROPER DEPTH AND FOR STORM AND SANITARY PIPING, GRADE TO PRODUCE THE REQUIRED FALL.
   E. BRANCH TAKE-OFFS SHALL BE MADE WITH SWING CONNECTIONS AS REQUIRED TO AVOID STRESS AT THESE POINTS.
   F. INSTALLATION SHALL NOT EXPOSE ANY WET PIPE TO FREEZING CONDITIONS. WHERE WET PIPE IS SHOWN IN EXTERIOR WALL, INSTALL PIPE TIGHT TO INTERIOR SIDE OF WALL AND COORDINATE WITH G.C. INSTALLATION OF WALL INSULATION BETWEEN PIPE AND EXTERIOR WALL SURFACE.
   G. PROVIDE FLOOR AND/OR WALL CLEANOUTS AS INDICATED ON THE DRAWINGS AND WHERE REQUIRED BY CODE IN ALL STORM, SOIL, WASTE, AND DRAIN LINES. AT A MINIMUM, PROVIDE CLEAN OUTS IN THE BASE OF EACH STORM AND SANITARY RISER. PRIOR TO INSTALLATION, COORDINATE CLEAN OUT LOCATIONS WITH OWNER'S REPRESENTATIVE. IN AREAS WITH CERAMIC TILE OR CARPETED FLOORING, PROVIDE CLEANOUTS WITH SQUARE, ADJUSTABLE, NICKEL BRONZE TOP. IN AREAS WITH RESILIENT FLOORING, PROVIDE CLEANOUTS WITH SQUARE, ADJUSTABLE, NICKEL BRONZE TOP WITH TILE RECESS. CLEANOUTS SHALL BE SAME SIZE AS PIPE BUT NOT LARGER THAN 4". WHERE CLEANOUTS OCCUR IN WALLS OF FINISHED AREAS, THEY SHALL BE CONCEALED BEHIND CHROME PLATED ACCESS COVERS.
   H. INDIRECT WASTE: FOR APPLIANCES/EQUIPMENT WITH INDIRECT WASTE, TERMINATE DRAIN IN STRICT ACCORDANCE WITH LOCAL AHJ REQUIREMENTS - INCLUDING TERMINATION TO AN APPROVED RECEPTOR AND REQUIRED AIR GAP.
   I. PAINT PIPE TO MATCH OWNER'S OR BUILDING STANDARD.
   J. ALL HOLES REQUIRED THROUGH EXISTING FLOORS, MASONRY WALLS, AND ROOFS SHALL BE CORE DRILLED.
   K. ALL PIPING, VENTS, ETC. EXTENDING THROUGH EXTERIOR WALLS AND ROOFS SHALL BE FLASHED WATERPROOF. PROVIDE ALL FLASHING FOR PIPE AND VENTS PENETRATING BUILDING ENVELOPE. PROVIDE PIPE SLEEVES AT WALL PENETRATIONS. SEAL ANNULAR SPACE WEATHER TIGHT.
   L. PROVIDE PIPE PENETRATIONS OF WALLS, FLOORS, AND FINISHED CEILINGS WITH CHROME-PLATED ESCUTCHEONS. ESCUTCHEONS SHALL BE WIDE ENOUGH TO CLOSE ANNULAR SPACE BETWEEN PIPE OR PIPE COVERING, PIPE SLEEVE, AND SURROUNDING STRUCTURE. SECURE ESCUTCHEONS IN PLACE. SEAL WATERTIGHT AROUND PIPE IN UNFINISHED ROOMS.
   M. DOMESTIC WATER PIPE CLEANING: CLEAN AND DISINFECT POTABLE DOMESTIC WATER PIPING PER THE AHJ AND/OR PROCEDURES DESCRIBED IN EITHER AWWA C651 OR AWWA C652. PREPARE AND SUBMIT REPORTS OF PURGING AND DISINFECTING ACTIVITIES. PROVIDE COPIES OF WATER-SAMPLE APPROVALS FROM AHJ TO ARCHITECT (ENGINEER).
   N. PROVIDE DIELECTRIC PIPE UNIONS AT CONNECTIONS OF DISSIMILAR PIPE METALS. PROVIDE DIELECTRIC UNIONS OR FLANGES BETWEEN PIPE AND EQUIPMENT CONNECTIONS.
   O. PROVIDE THIN FILM PIPE MARKERS FOR ALL PIPING. MARKERS SHALL BE 1-1/8" HIGH FOR PIPES 3" AND UNDER AND 2-1/4" HIGH FOR PIPES OVER 3". MARKERS SHALL INDICATE TYPE OF SERVICE AND DIRECTION OF FLOW. LABEL PIPE PER BUILDING STANDARD OR AS SCHEDULED. PLACE PIPE MARKERS AT EQUIPMENT CONNECTIONS, ACCESS DOORS, BRANCH MAINS, AND ON ALL ACCESSIBLE PIPE AT MAXIMUM OF 75' BETWEEN MARKERS.
   P. THIS CONTRACTOR SHALL LOCATE AND FURNISH ACCESS PANELS FOR INSTALLATION BY THE GC. FOR INSTALLED SYSTEMS AND EQUIPMENT, FURNISH ALL ACCESS PANELS REQUIRED FOR VALVE ACCESS AND FOR SERVICING EQUIPMENT AND PIPES. ACCESS PANELS SHALL BE BY MILCOR TYPE: "M" ARCHITECTURAL GRADE FLUSH MOUNT; "DW" DRYWALL FLUSH MOUNT; "CT" ALUMINUM FOR SUSPENDED CEILINGS; "K" PLASTER FLUSH MOUNT; "UFR" FIRE-RATED PANELS UL 1-1/2 HOUR AND "CLASS B" LABEL ACCESS PANELS IN FIRE-RATED WALLS AND CEILINGS, AS INDICATED ON THE DRAWINGS. ACCESS DOORS SHALL BE MINIMUM 12"x12" FOR VALVES.

16. EQUIPMENT
   A. INSTALL ALL EQUIPMENT AND MATERIALS IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION AND OPERATIONS MANUAL AND IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND REGULATIONS.
   B. U.N.O. PROVIDE ALL MOTORIZED EQUIPMENT WITH VIBRATION ISOLATION MOUNTING AND FLEXIBLE PIPE CONNECTIONS.
   C. FOR ALL ELECTRICALLY POWERED EQUIPMENT FURNISHED BY THIS CONTRACTOR, PROVIDE MOTOR STARTER(S) AND ELECTRICAL DISCONNECTS.
   D. LABEL EQUIPMENT WITH ENGRAVED PHENOLIC RESIN NAMEPLATES ADHERED TO EQUIPMENT WITH RTV SILICONE. LETTERING SHALL BE 1" HIGH BLACK ON WHITE BACKGROUND.
   E. ALL EQUIPMENT, PIPE, ETC. MOUNTED FROM BOLTED CONNECTIONS SHALL HAVE DOUBLE NUTS AT ATTACHMENT TO STRUCTURE AND HANGER, NO EXCEPTIONS.

17. FIXTURES
   A. UNLESS NOTED OTHERWISE, ALL PLUMBING FIXTURES FOR THIS PROJECT SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR. PROVIDE ALL NECESSARY CARRIERS, MOUNTING AND INSTALLATION HARDWARE, HANGERS, ANCHORS, AND BRACKETS. ALL FIXTURES SHALL BE PROPERLY CONNECTED TO WATER AND DWV LINES. PRIOR TO INSTALLATION, WHERE FIXTURES WILL BE INSTALLED EXAMINE WALLS AND FLOORS TO ENSURE SUITABLE CONDITIONS. PROCEED WITH INSTALLATION ONLY AFTER UNSUITABLE CONDITIONS HAVE BEEN CORRECTED. INSTALL FIXTURES DEAD LEVEL AND PLUMB WITH FIXTURE. FIXTURE CARRIER, AND/OR FIXTURE HANGER PROPERLY ANCHORED TO BUILDING STRUCTURE. DO NOT DAMAGE ANY ADJOINING WORK OR FINISH. PROVIDE RTV SILICONE SEALANT AT ALL WALL AND FLOOR FINISHES COMPATIBLE WITH COLOR OF FIXTURE AND FINISH. SEALANT SUBJECT TO ARCHITECT'S APPROVAL.
   B. MAINTAIN MANUFACTURER'S RECOMMENDED SERVICE CLEARANCES FOR ALL FIXTURES AND EQUIPMENT. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS OF PLUMBING FIXTURES.
   C. PLUMBING CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING "ADA" WATER CLOSETS ARE PROPERLY ORDERED WITH CORRECT FLUSH HANDLE ORIENTATION. THIS CONTRACTOR'S SHOP DRAWING PROCESSING IS ACKNOWLEDGMENT THE P.C. HAS COORDINATED AND CORRECTLY ORDERED THE REQUIRED FLUSH HANDLE ORIENTATION, NO EXCEPTIONS OR EXCLUSIONS.
   D. ANCHOR ALL WALL-HUNG PLUMBING FIXTURE CARRIERS TO FLOOR SLAB. PROVIDE WALL HUNG WATER CLOSET CARRIERS WITH REAR FOOT ANCHORED TO FLOOR. WALL HUNG FIXTURES (SINKS, LAVATORIES, URINALS, OR WATER CLOSETS) INSTALLED ON MASONRY WALLS WITHOUT SPACE FOR CARRIERS SHALL BE MOUNTED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS ON FACTORY HANGERS ANCHORED TO WALL WITH HILTI "HY-150" ADHESIVE ANCHOR SYSTEM AND BOLTS. ANCHORING SYSTEM SHALL BE PART OF THE PLUMBING FIXTURE SUBMITTALS.
   E. PROVIDE ALL FAUCETS WITH UNION TAILPIECES FOR CONNECTION TO SUPPLIES. SLIP JOINTS OR GASKETED JOINTS ARE NOT ACCEPTABLE.
   F. PROVIDE ALL FIXTURES WITH INDEPENDENT VALVES WITH INTEGRAL STOPS, CONCEALED STOPS, OR STOPS BELOW THE FIXTURES. ALL FIXTURES SHALL HAVE CHROME PLATED BRASS TRIMMINGS.
   G. PROVIDE FIXTURES AS SCHEDULED ON THE DRAWINGS. THE FOLLOWING SIMILAR AND EQUAL FIXTURES WILL BE ACCEPTABLE FOR SUBMITTAL REVIEW: CHINA FIXTURES BY CRANE, ELJER, KOHLER, AND TOTO; STAINLESS STEEL FIXTURES BY JUST; TERRAZZO OR MOLDED STONE PRODUCTS BY STERN WILLIAMS AND SWAN. FAUCETS OF SIMILAR DESIGN AND EQUAL QUALITY TO THOSE SCHEDULED BY CHICAGO FAUCET, DELTA, MOEN, T&S BRASS, AND SYMMONS WILL BE ACCEPTABLE FOR REVIEW.

18. EXCAVATION AND BACKFILL
   A. PROVIDE ALL EXCAVATION AND BACKFILL REQUIRED FOR PIPE AND EQUIPMENT INSTALLATION SHOWN ON THE PLANS AND/OR AS REQUIRED. EXCESS EXCAVATION BELOW THE REQUIRED ELEVATION SHALL BE BACKFILLED WITH THOROUGHLY TAMPED SOIL. PRIOR TO BACKFILLING, UTILITY LINES SHALL BE INSPECTED AND APPROVED BY THE AHJ.
   B. EXCAVATED TRENCH BOTTOMS SHALL BE TAMPED THOROUGHLY AND GRADED TO THE REQUIRED SLOPE. WHERE ROCK IS ENCOUNTERED, EXCAVATE TO A DEPTH OF SIX INCHES (6") BELOW THE BOTTOM OF THE PIPE. BEFORE THE PIPE IS LAID, THE SPACE BETWEEN BOTTOM PIPE AND ROCK SURFACE SHALL BE FILLED WITH GRAVEL AND TAMPED. TRENCHES DEEPER THAN THE BOTTOM OF FLOORING OR WITHIN THREE FEET (3'-0") OF FOOTING SHALL BE FILLED WITH COHESIVE SOIL AND COMPACTED TO 95% OF MAXIMUM DENSITY, STANDARD PROCTOR, ASTM D- 698. COMPACT ALL OTHER EXCAVATIONS UNDER FLOOR SLABS TO 95% STANDARD PROCTOR.
   C. WHEN EXCESS DIRT HAS BEEN REMOVED, THE TRENCH SHALL BE BROUGHT TO THE REQUIRED LEVEL WITH SAND AND GRAVEL AND TAMPED THOROUGHLY.
   D. TRENCHES AND EXCAVATION SHALL BE BACKFILLED IN 6" LAYERS OF CLEAN SOIL (FREE OF CLODS AND STONES) AND THOROUGHLY TAMPED TO A DEPTH OF 12" ABOVE THE PIPE. AFTER THAT DEPTH HAS BEEN REACHED, BACKFILLING SHALL BE DONE IN 12" LAYERS AND THOROUGHLY TAMPED.

19. SHOP DRAWINGS
   A. SUBMIT SHOP DRAWINGS ON SCHEDULED AND NOTED EQUIPMENT AND MATERIALS. PROVIDE ADEQUATE TIME FOR REVIEW AND CORRECTIONS, IF ANY, TO PREVENT CONSTRUCTION DELAY.
   B. SUBMIT: MANUFACTURERS CUTS, INSTALLATION MANUALS AND PRODUCT SPECIFICATIONS; CLEARLY INDICATED OPTIONS AND ACCESSORIES; COMPLIANCE WITH REFERENCED STANDARDS AND LISTINGS; NOTATION FOR COORDINATION REQUIREMENTS; AVAILABILITY AND DELIVERY TIME INFORMATION; WIRING DIAGRAMS, PERFORMANCE CURVES AND DETAILED DESCRIPTION OF EQUIPMENT ANCHORAGE.

20. OUTDOOR AIR INTAKES
   A. PROVIDE A MINIMUM (10'-0") HORIZONTAL CLEARANCE BETWEEN PLUMBING VENTS AND/OR COMBUSTION EXHAUST AND MECHANICAL EQUIPMENT OUTDOOR AIR INTAKES.

21. TESTING AND BALANCING
   A. PROVIDE REQUIRED LEAK TESTING OF WATER, DWV, AND GAS PIPING.
   B. PROVIDE DISINFECTION TEST REPORT OF DOMESTIC WATER PIPING.
   C. PROVIDE BALANCE REPORT OF HOT WATER RETURN PIPING.

22. COMPLETION OF WORK
   A. UPON COMPLETION OF WORK, INSPECT INSTALLATION OF ALL EQUIPMENT AND SYSTEMS. OPEN ALL ACCESS COVERS ON EQUIPMENT. REMOVE ALL SURPLUS MATERIALS AND DEBRIS AND PROPERLY DISPOSE OF SAME.

25. CLOSEOUT - AT CONSTRUCTION COMPLETION AND PRIOR TO TURNOVER TO OWNER (TENANT)
   A. PROVIDE FINAL MARK-UPS IN PDF (DWG) FORMAT TO ARCHITECT AND ENGINEER.
   B. PROVIDE A

PLUMBING PIPE & PIPE INSULATION SCHEDULE

PIPE MATERIAL	SANITARY DWV (SAN, V) ABOVE GROUND, PLENUM SPACES	SANITARY DWV (SAN, V) BELOW GROUND	SANITARY DWV (SAN, V) ABOVE GROUND, NON-PLENUM SPACES	DOMESTIC HOT WATER (HW), BELOW GROUND	DOMESTIC HOT WATER (HW), ABOVE GROUND IN EXTR. WALL	DOMESTIC HOT WATER (HW), ABOVE GROUND	DOMESTIC COLD WATER (CW), BELOW GROUND	DOMESTIC COLD WATER (CW), ABOVE GROUND
HARD COPPER WATER TUBE, DRAWN TEMPER: ASTM B 88, TYPE L. SOLDER-JOINT FITTINGS: CAST-COPPER:ASME B16.18 OR WROUGHT COPPER:ASME B16.22. SOLDER: ASTM B 32, LEAD-FREE ALLOYS AND ASTM B 813 FLUX. PRESSED MECHANICAL FITTINGS:WROUGHT COPPER, CAST COPPER, AND BRONZE VIEGA PROPRESS AND PROPESS XL-C, APPOVALS & CERTIFICATES: NSF, IAPMO, UL, CAS, FM. COMPLIANT WITH: ICC, UPC, PHCC, NFPA 13, 13D, & 13R.	♦	♦	♦					
SOFT COPPER TUBE, ANNEALED TEMPER: ASTM B 88, TYPE K. FITTINGS ABOVE GRADE: WROUGHT COPPER-ASME B16.22, SOLDER-ASTM B 32, USE 95-5 TIN ANTIMONY OR ALLOY HB SOLDER TO JOIN COPPER SOCKET FITTINGS ON COPPER PIPE. FITTINGS BELOW GRADE: WROUGHT COPPER FLARE, STREAMLINED PATTERN-ASME B16.26 AND SAE J513. COPPER FITTINGS WITH LONG NUTS. METAL-TO-METAL GASKETLESS COMPRESSION SEAL, DRYSEAL THREADS COMPLYING WITH ASME B1.20.3.				♦	♦			
DRAWN-TEMPER COPPER TUBE: ASTM B 88, TYPE L. FITTINGS: WROUGHT-COPPER ASME B16.22. [COPPER OR BRONZE PRESSURE-SEAL FITTINGS WITH COPPER HOUSING, EPDM O-RINGS AND PIPE STOPS. TOOLS: MANUFACTURER'S SPECIAL TOOLS. MINIMUM 200-PSIG WORKING-PRESSURE RATING AT 250 DEG F.] SOLDER: ASTM B 32, LEAD-FREE ALLOYS WITH ASTM B 813 WATER-FLUSHABLE FLUX. BRAZING METALS: AWS A5.8, BCUP SERIES, COPPER-PHOSPHORUS ALLOYS FOR JOINING COPPER WITH COPPER; OR BAG-1, SILVER ALLOY FOR JOINING COPPER WITH BRONZE OR STEEL.	♦	♦						
CAST IRON PIPE AND FITTINGS: ASTM A 888 OR CISPI 301. STANDARDS: ASTM C 1277 AND CISPI 310. HEAVY-DUTY, HUBLESS-PIPING COUPLING STANDARDS: ASTM C 1277 AND ASTM C 1540, STAINLESS-STEEL SHIELD, BANDS, AND TIGHTENING DEVICES; AND ASTM C 564, RUBBER SLEEVE WITH INTEGRAL, CENTER PIPE STOP. PIPE AND FITTINGS SHALL BE MARKED WITH A COLLECTIVE TRADEMARK OF THE CAST IRON SOIL PIPE INSTITUTE.						♦	♦	♦
PIPE INSULATION (2016 NEW YORK ENERGY CODE)								
PIPE DIAMETER: ALL; 1/2" THICK INSULATION								
PIPE DIAMETER: ALL; 1" THICK INSULATION	A	A						
PIPE DIAMETER: < 1.5"; 1-1/2" THICK INSULATION			B		B			
PIPE DIAMETER: > 1.5"; 2" THICK INSULATION			B		B			
INSULATION TYPE								

A — FLEXIBLE CLOSED-CELL ELASTOMERIC: ASTM C 534, TYPE I. NFPA 90A, 90B. EXTERIOR EXPOSURES:PROVIDE CONTINUOUS 30 MIL PVC JACKET (UV, OZONE, MOISTURE RESISTANT). ON WATER PIPE SUBJECT TO FREEZING COORDINATE INSULATION WITH ELECTRICAL CONTRACTOR'S INSTALLATION HEAT TRACE. INSTALL PIPE INSULATION OVER HEAT TRACE.

B — MINERAL-FIBER, PREFORMED PIPE INSULATION: ASTM C 547, TYPE I, GRADE A, MINERAL OR GLASS FIBERS BONDED WITH THERMOSETTING RESIN, WITH FACTORY-APPLIED ASJ-SSL. NFPA 90A, 90B.

NOTE:
1. INSTALL ALL PIPING, PIPE INSULATION, AND JACKETING IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS, AND PER APPLICABLE CODE AND AHJ'S REQUIREMENTS.
2. ALL MATERIALS INSTALLED IN PLENUM SPACES SHALL CONFORM WITH NFPA 90A AND NFPA 90B AND BE LABELED ACCORDINGLY.
3. DO NOT INSTALL ANY PIPING ABOVE ELECTRICAL PANELS AND/OR TRANSFORMERS.
4. LABEL PIPE PER BUILDING STANDARD OR AS SCHEDULED.
5. PAINT PIPE TO MATCH OWNER'S OR BUILDING STANDARD.

PLUMBING UTILITIES ENTERING BUILDING ARE DIAGRAMTIC AND MAY DIFFER SLIGHTLY FROM ACTUAL FIELD CONDITIONS. P.C. SHALL COORDINATE WITH ALL OTHER TRADES, SPECIFICALLY WITH EXISTING FIELD CONDITIONS TO DETERMINE THE LOCATION AND CONNECTION TO EXISTING PLUMBING SERVICES PRIOR TO BID/CONSTRUCTION. IF ACTUAL FIELD FINDINGS VARY SIGNIFICANTLY FROM THOSE ON INDICATED ON PLANS, PC SHALL NOTIFY GC IMMEDIATELY PRIOR TO STARTING ANY WORK. THE OWNER SHALL NOT BE RESPONSIBLE FOR ADDITIONAL COSTS INCURRED BY FAILED COORDINATION AFTER CONSTRUCTION HAS BEGUN. PC SHALL BE RESPONSIBLE FOR UTILIZING A REPUTABLE UTILITY LOCATING SERVICE PRIOR TO ANY EXCAVATION.

PLUMBING PIPE VALVE SCHEDULE

VALVE TYPE	MANUFACTURER	MODEL NO.
CHECK VALVE (UP TO 2")	NIBCO	S-22
FULL PORT BALL VALVE (UP TO 3")	NIBCO	S-FP-600
GATE VALVE (UP TO 3")	NIBCO	S-113
TEMP. AND PRESSURE RELIEF VALVE	WILKINS	TP1100A
WATER HAMMER ARRESTOR	J.R. SMITH	SEE SCHEDULE
BACKFLOW PREVENTER (WHOLE-HOUSE)	WILKINS	950XLU
BACKFLOW PREVENTER (SINGLE DEVICE)*	WILKINS	700
VACUUM RELIEF VALVE	WILKINS	35VCH
PRESSURE REDUCING VALVE	WILKINS	500YSBR
TRAP SEAL PRIMER	JAY R. SMITH	2699-1

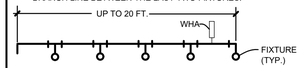
NOTES:
1. PROVIDE VALVES WHERE INDICATED ON PLANS AND, AS NECESSARY FOR PROPER SYSTEM OPERATION AND COMPONENT ISOLATION. AT A MINIMUM, PROVIDE VALVES AT EACH CW AND HW BRANCH, FOR EACH FIXTURE, AND EACH PIECE OF EQUIPMENT. UNLESS NOTED OTHERWISE, PROVIDE BRAIDED STAINLESS STEEL HOSE BETWEEN VALVE AND FIXTURE AND CONNECTED EQUIPMENT. CONNECTIONS SHALL BE IN STRICT ACCORDANCE WITH FIXTURE OR EQUIPMENT MANUFACTURER'S IOM. PROVIDE SHUT-OFF VALVES ADJACENT TO EQUIPMENT IN ACCESSIBLE LOCATION.
2. PROVIDE VALVES FOR WORKING PRESSURE IN WATER PIPING OF 125 PSI OR GREATER. UNLESS NOTED OTHERWISE VALVES SHALL BE AS FOLLOWS:
3. IF SUPPLY PRESSURE EXCEEDS 65 PSI, PROVIDE A PRESSURE REGULATOR AT ENTRY. SET DELIVERY PRESSURE TO 65 PSI. IF REQUIRED BY LOCAL AHJ, PROVIDE BACKFLOW PREVENTER ON WATER SERVICE.

* FOR EACH APPLIANCE AND PIECE OF EQUIPMENT DIRECTLY CONNECTED TO DOMESTIC WATER, PROVIDE APPROVED BFP IN STRICT ACCORDANCE WITH ALL AHJ.

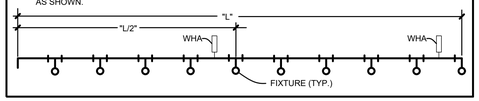
WATER HAMMER ARRESTER SCHEDULE

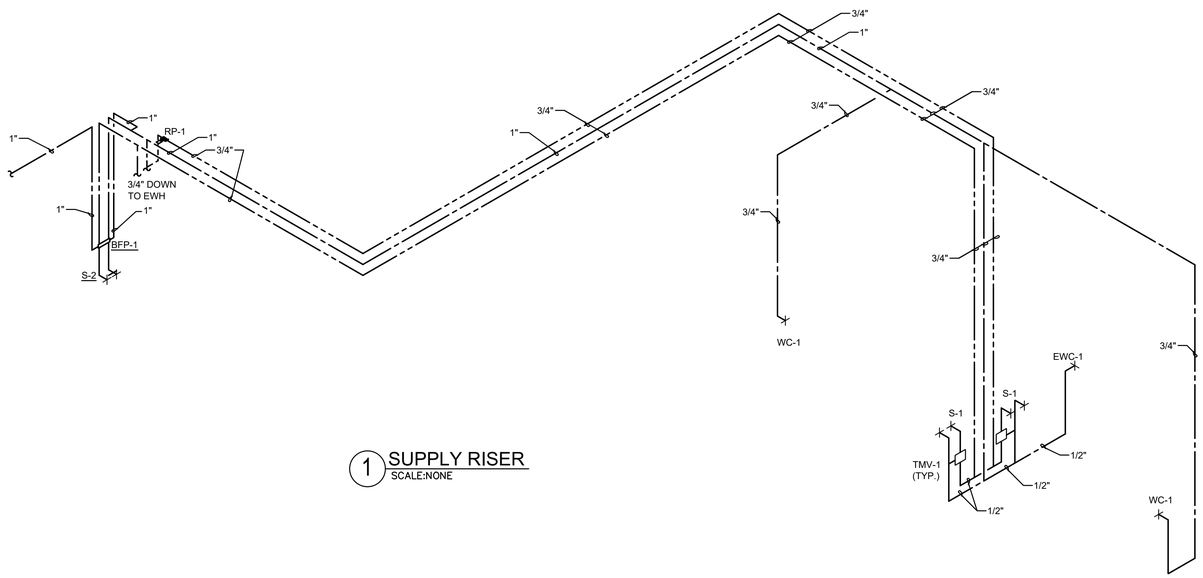
MFR: J.R. SMITH		CONNECTION SIZE	FIXTURE UNIT RATING	REMARKS
TAG	MODEL NO.			
WHA-A	5005	3/4"	1-11	THREADED NIPPLE CONNECTION
WHA-B	5010	1"	12-32	THREADED NIPPLE CONNECTION
WHA-C	5020	1"	33-60	THREADED NIPPLE CONNECTION

1. BRANCH LINE LESS THAN 20 FEET: THE PREFERRED PLACEMENT LOCATION IS AT THE END OF THE BRANCH LINE BETWEEN THE LAST TWO FIXTURES.

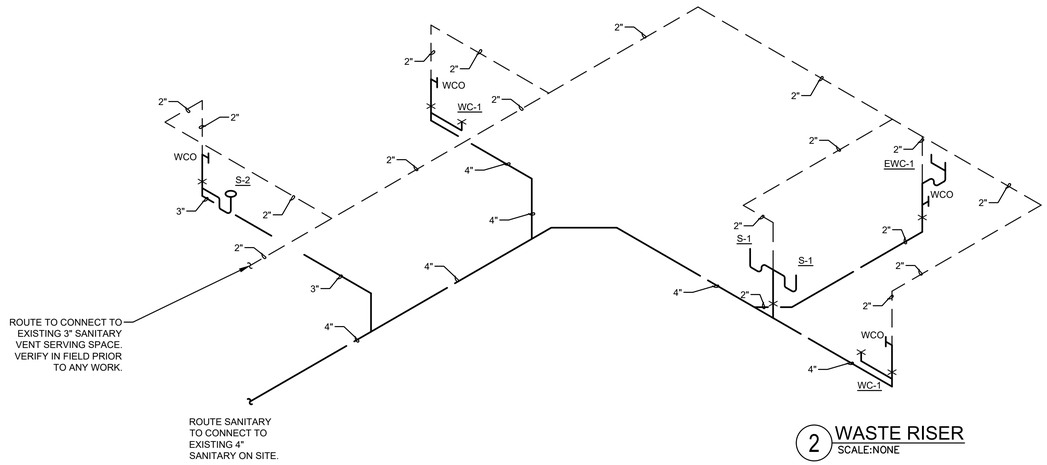


2. BRANCH LINES GREATER THAN 20 FEET: SIZE EACH W.H.A. FOR SUM OF BRANCH W.S.FU., PLACE W.H.A. AS SHOWN.





1 SUPPLY RISER
SCALE:NONE



2 WASTE RISER
SCALE:NONE

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REVISIONS

	DESCRIPTION
06/01/26	PERMIT SET

STATUS:
PERMIT SET

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MATTHEW RICHARD CASE
ENGINEER
PE090863
6/1/26

FIELD VERIFICATION:
The Contractor shall verify all figured dimensions and conditions at the project site and notify Zebra Architecture, PLLC. of any dimensional errors, omissions or discrepancies before beginning or fabricating any work. Do not scale these drawings.

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SHEET NAME:
PLUMBING RISERS

DATE: 06/01/2026
PROJECT NO.: 42559
DRAWN:
SCALE: AS NOTED

SHEET NO.:
P3-01