

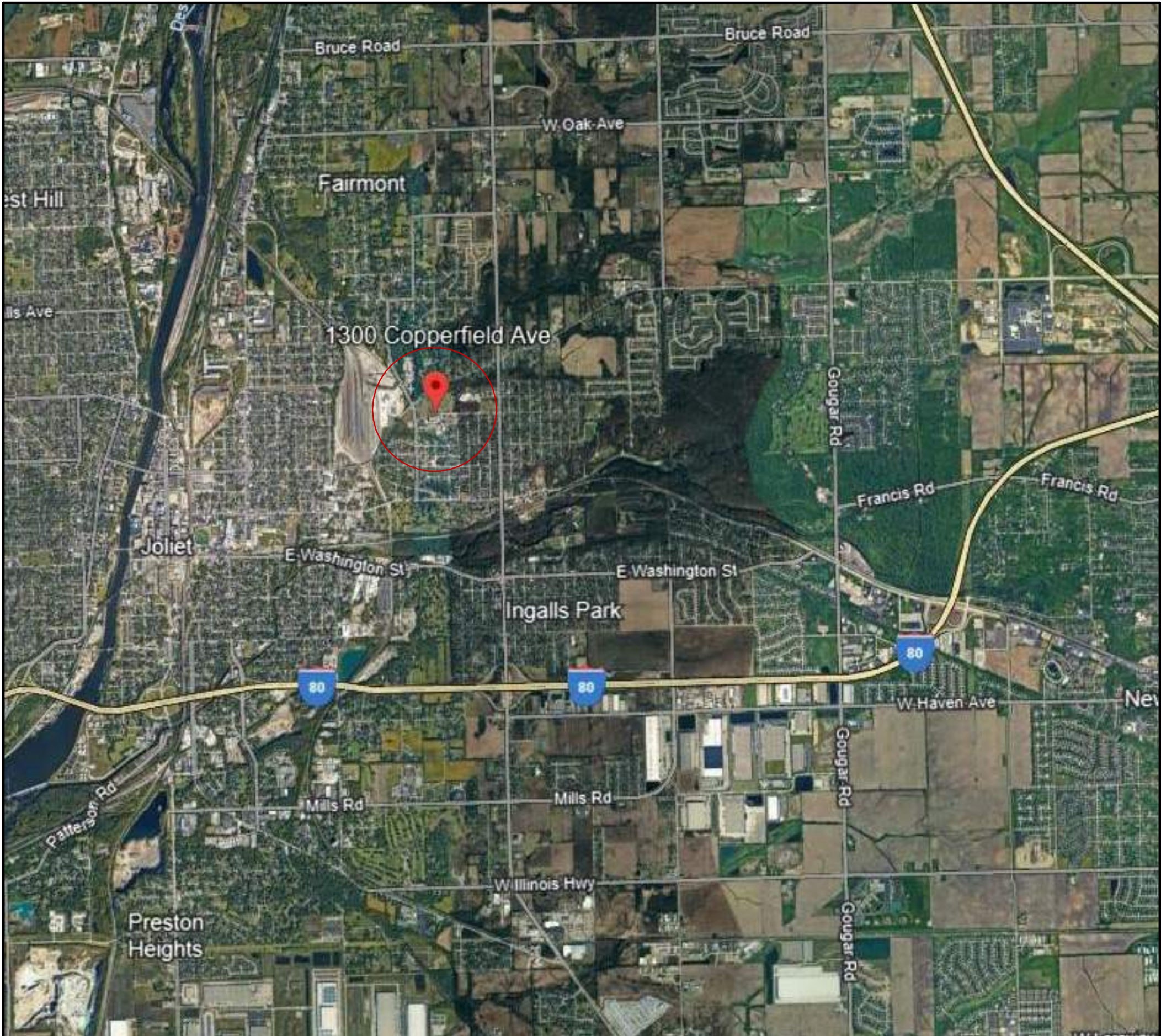
Will County

2025 Interior Improvements: Tenant Build Out

1300 Copperfield Avenue

Joliet, IL 60432

SITE LOCATION MAP



AREA MAP



SCHEDULE OF DRAWINGS

GENERAL DRAWINGS	G-001	TITLE SHEET
GENERAL DRAWINGS	G-101	CODE INFORMATION & SAFETY REFERENCE PLANS
GENERAL DRAWINGS	G-102	SAFETY REFERENCE PLANS CONTINUED
GENERAL DRAWINGS	G-201	SYMBOLS AND PROJECT GENERAL NOTES
ARCHITECTURAL DRAWINGS	AD-101	100 LEVEL FLOOR DEMOLITION PLANS
ARCHITECTURAL DRAWINGS	AD-102	200 LEVEL FLOOR DEMOLITION PLANS
ARCHITECTURAL DRAWINGS	A-101	100 LEVEL FLOOR PLANS
ARCHITECTURAL DRAWINGS	A-102	200 LEVEL FLOOR PLANS
ARCHITECTURAL DRAWINGS	A-103	300 & 400 LEVEL FLOOR PLANS
ARCHITECTURAL DRAWINGS	AC-101	100 LEVEL REFLECTED CEILING PLAN
ARCHITECTURAL DRAWINGS	AC-102	200 LEVEL REFLECTED CEILING PLAN
ARCHITECTURAL DRAWINGS	AC-103	300 & 400 LEVEL REFLECTED CEILING PLANS
ARCHITECTURAL DRAWINGS	A-201	EXTERIOR BUILDING ELEVATIONS
ARCHITECTURAL DRAWINGS	A-601	DOOR, FRAME, AND PARTITION DETAILS
PLUMBING DRAWINGS	P-000	PLUMBING GENERAL NOTES, SYMBOLS, & LEGENDS
PLUMBING DRAWINGS	P-101	PLUMBING SPECIFICATIONS
PLUMBING DRAWINGS	P-101	FIRST & SECOND FLOOR OVERALL PLUMBING PLAN
PLUMBING DRAWINGS	P-102	THIRD & FOURTH FLOOR OVERALL PLUMBING PLAN
PLUMBING DRAWINGS	P-201	PLUMBING SCHEDULES
PLUMBING DRAWINGS	P-301	PLUMBING DETAILS
MECHANICAL DRAWINGS	M-000	MECHANICAL GENERAL NOTES, SYMBOLS, & LEGENDS
MECHANICAL DRAWINGS	M-001	MECHANICAL SPECIFICATIONS
MECHANICAL DRAWINGS	M-101	FIRST & SECOND FLOOR MECHANICAL PLAN
MECHANICAL DRAWINGS	M-102	THIRD & FOURTH FLOOR MECHANICAL PLAN
MECHANICAL DRAWINGS	M-103	ROOF MECHANICAL PLAN
MECHANICAL DRAWINGS	M-201	MECHANICAL SCHEDULES AND SEQUENCES
MECHANICAL DRAWINGS	M-301	MECHANICAL DETAILS
ELECTRICAL DRAWINGS	E-000	ELECTRICAL GENERAL NOTES, SYMBOLS, & LEGENDS
ELECTRICAL DRAWINGS	E-001	ELECTRICAL SPECIFICATIONS
ELECTRICAL DRAWINGS	E-101	FIRST & SECOND FLOOR POWER & DATA PLAN
ELECTRICAL DRAWINGS	E-201	FIRST & SECOND FLOOR LIGHTING PLAN
ELECTRICAL DRAWINGS	E-302	SECOND & THIRD FLOOR LIGHTING PLAN
ELECTRICAL DRAWINGS	E-301	ELECTRICAL SCHEDULES
ELECTRICAL DRAWINGS	E-401	ELECTRICAL DETAILS

RELEASE

ISSUED FOR BID

DATE OF ISSUE

03.17.2025

ARCHITECT'S PROJECT NUMBER

224153.00

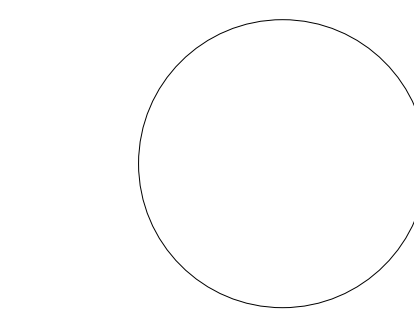
Will County

**2025 Interior
Improvements:
Tenant Build Out**

1300 Copperfield Avenue
Joliet, IL 60432

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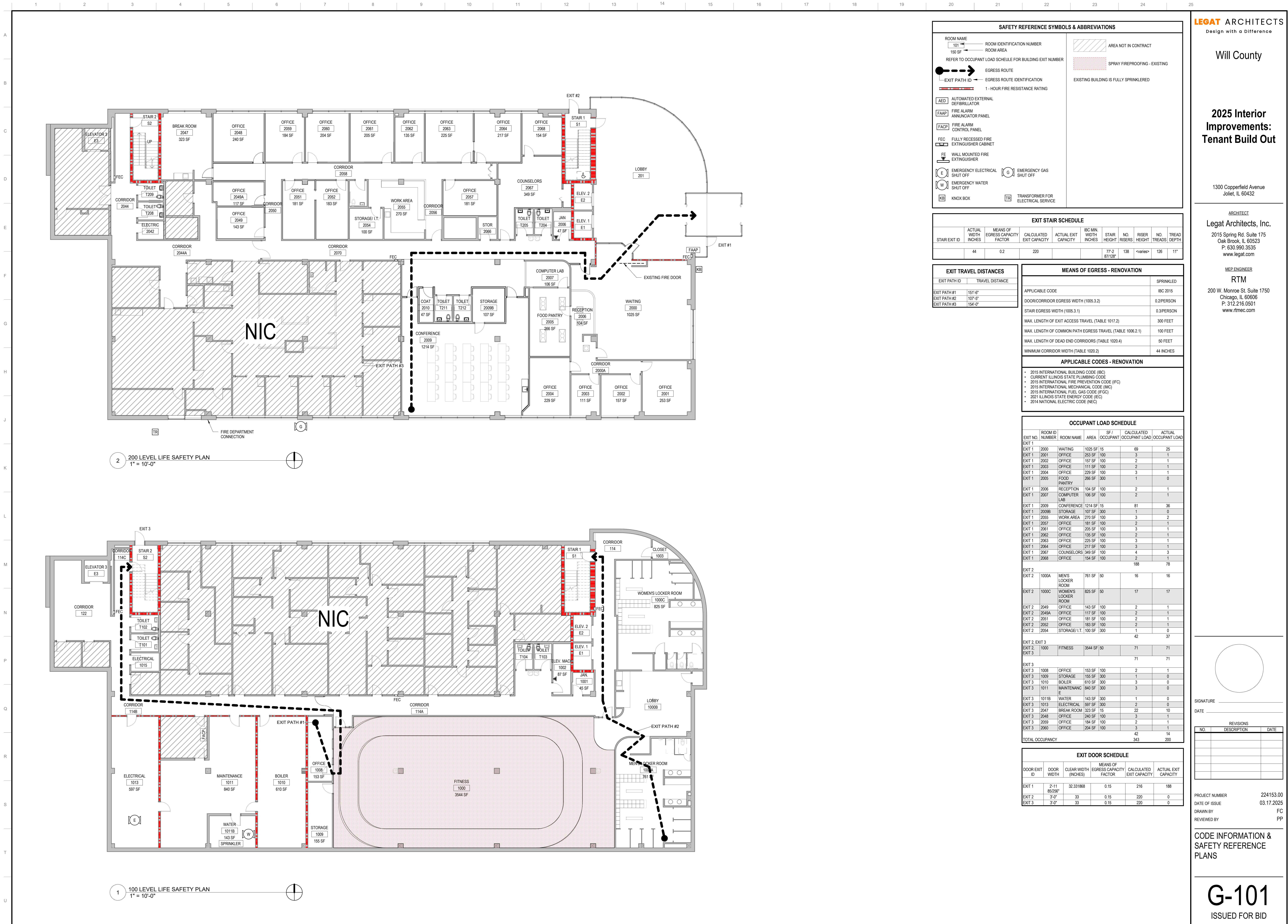
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REVISIONS		
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TITLE SHEET

G-001
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SAFETY REFERENCE SYMBOLS & ABBREVIATIONS			
ROOM NAME 101 150 SF	ROOM IDENTIFICATION NUMBER 101 150 SF	AREA NOT IN CONTRACT	EGRESS ROUTE
REFER TO OCCUPANT LOAD SCHEDULE FOR BUILDING EXIT NUMBER	EGRESS ROUTE IDENTIFICATION	EXISTING BUILDING IS FULLY SPRINKLERED	1-HOUR FIRE RESISTANCE RATING
AED AUTOMATED EXTERNAL DEFIBRILLATOR	FAAP FIRE ALARM ANNUNCIATOR PANEL	FACP FIRE ALARM CONTROL PANEL	FEC FULLY RECESSED FIRE EXTINGUISHER CABINET
FE WALL MOUNTED FIRE EXTINGUISHER	E EMERGENCY ELECTRICAL SHUT OFF	G EMERGENCY GAS SHUT OFF	W EMERGENCY WATER SHUT OFF
KB KNOX BOX	TR TRANSFORMER FOR ELECTRICAL SERVICE		

EXIT STAIR SCHEDULE									
STAIR EXIT ID	ACTUAL WIDTH INCHES	MEANS OF EGRESS CAPACITY FACTOR	CALCULATED EXIT CAPACITY	ACTUAL EXIT CAPACITY	IBC MIN. WIDTH INCHES	STAIR HEIGHT	NO. RISERS	RISER HEIGHT	NO. TREADS
44	0.2	220			77-2 87 1/2"	138	<varies>	126	11"

EXIT TRAVEL DISTANCES	
EXIT PATH ID	TRAVEL DISTANCE
EXIT PATH #1	151'-6"
EXIT PATH #2	107'-5"
EXIT PATH #3	154'-0"

MEANS OF EGRESS - RENOVATION	
APPLICABLE CODE	SPRINKLED
DOOR/CORRIDOR EGRESS WIDTH (1005.3.2)	IBC 2015
STAIR EGRESS WIDTH (1006.3.1)	0.2/PERSON
MAX. LENGTH OF EXIT ACCESS TRAVEL (TABLE 1017.2)	300 FEET
MAX. LENGTH OF COMMON PATH EGRESS TRAVEL (TABLE 1006.2.1)	100 FEET
MAX. LENGTH OF DEAD END CORRIDORS (TABLE 1020.4)	50 FEET
MINIMUM CORRIDOR WIDTH (TABLE 1020.2)	44 INCHES
APPLICABLE CODES - RENOVATION	
• 2015 INTERNATIONAL BUILDING CODE (IBC) • CURRENT ILLINOIS STATE PLUMBING CODE • 2015 INTERNATIONAL FIRE PREVENTION CODE (IFC) • 2015 INTERNATIONAL MECHANICAL CODE (IMC) • 2015 INTERNATIONAL FUEL GAS CODE (IFGC) • 2021 ILLINOIS STATE ENERGY CODE (IEC) • 2014 NATIONAL ELECTRIC CODE (NEC)	

OCCUPANT LOAD SCHEDULE						
EXIT NO.	ROOM ID	ROOM NAME	AREA	SF / OCCUPANT	CALCULATED OCCUPANT LOAD	ACTUAL OCCUPANT LOAD
EXIT 1	2000	WAITING	1025 SF	15	69	25
EXIT 1	2001	OFFICE	253 SF	100	3	1
EXIT 1	2002	OFFICE	157 SF	100	2	1
EXIT 1	2003	OFFICE	111 SF	100	2	1
EXIT 1	2004	OFFICE	229 SF	100	3	1
EXIT 1	2005	FOOD PANTRY	266 SF	300	1	0
EXIT 1	2006	RECEPTION	104 SF	100	2	1
EXIT 1	2007	COMPUTER LAB	106 SF	100	2	1
EXIT 1	2009	CONFERENCE	1214 SF	15	81	36
EXIT 1	2009B	STORAGE	107 SF	300	1	0
EXIT 1	2055	WORK AREA	270 SF	100	3	2
EXIT 1	2057	OFFICE	181 SF	100	2	1
EXIT 1	2061	OFFICE	205 SF	100	3	1
EXIT 1	2062	OFFICE	135 SF	100	2	1
EXIT 1	2063	OFFICE	225 SF	100	3	1
EXIT 1	2064	OFFICE	217 SF	100	3	1
EXIT 1	2067	COUNSELORS	349 SF	100	4	3
EXIT 1	2068	OFFICE	154 SF	100	2	1
EXIT 2					188	78
EXIT 2	1000A	MEN'S LOCKER ROOM	761 SF	50	16	16
EXIT 2	1000C	WOMEN'S LOCKER ROOM	825 SF	50	17	17
EXIT 2	2049	OFFICE	143 SF	100	2	1
EXIT 2	2049A	OFFICE	117 SF	100	2	1
EXIT 2	2051	OFFICE	181 SF	100	2	1
EXIT 2	2052	OFFICE	183 SF	100	2	1
EXIT 2	2054	STORAGE/I.T.	100 SF	300	1	0
EXIT 2	EXIT 3				42	37
EXIT 2	1000	FITNESS	3544 SF	50	71	71
EXIT 3					71	71
EXIT 3	1008	OFFICE	153 SF	100	2	1
EXIT 3	1009	STORAGE	155 SF	300	1	0
EXIT 3	1010	BOILER	610 SF	300	3	0
EXIT 3	1011	MAINTENANCE	840 SF	300	3	0
EXIT 3	1011B	WATER	143 SF	300	1	0
EXIT 3	1013	ELECTRICAL	597 SF	300	2	0
EXIT 3	2047	BREAK ROOM	323 SF	15	22	10
EXIT 3	2048	OFFICE	240 SF	100	3	1
EXIT 3	2059	OFFICE	194 SF	100	2	1
EXIT 3	2060	OFFICE	204 SF	100	3	1
TOTAL OCCUPANCY					42	14
					343	200

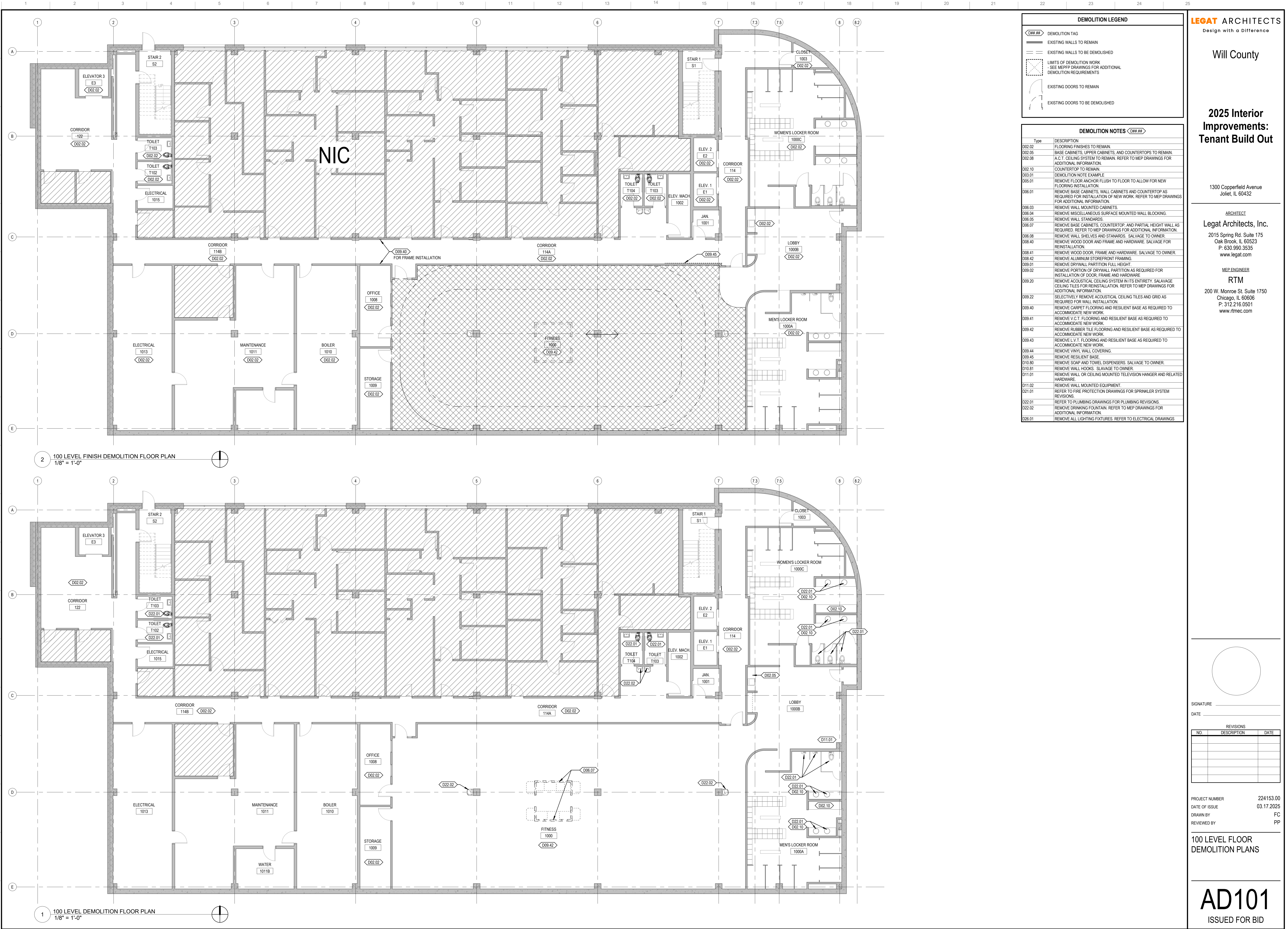
EXIT DOOR SCHEDULE				
DOOR EXIT ID	DOOR WIDTH	CLEAR WIDTH (INCHES)	MEANS OF EGRESS CAPACITY FACTOR	ACTUAL EXIT CAPACITY
EXIT 1	2'-11 85/256"	32	0.15	216
EXIT 2	3'-0"	33	0.15	220
EXIT 3	3'-0"	33	0.15	220

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CODE INFORMATION &
SAFETY REFERENCE
PLANS







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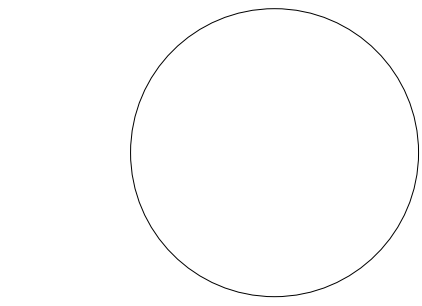
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DEMOLITION LEGEND	
	DEMOLITION TAG
	EXISTING WALLS TO REMAIN
	EXISTING WALLS TO BE DEMOLISHED
	LIMITS OF DEMOLITION WORK - SEE MEPP DRAWINGS FOR ADDITIONAL DEMOLITION REQUIREMENTS
	EXISTING DOORS TO REMAIN
	EXISTING DOORS TO BE DEMOLISHED

DEMOLITION NOTES < DB# >	
Type	DESCRIPTION
D02.02	FLOORING FINISHES TO REMAIN
D02.05	BASE CABINETS, UPPER CABINETS, AND COUNTERTOPS TO REMAIN.
D02.08	A.C.T. CEILING SYSTEM TO REMAIN. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
D02.10	COUNTERTOP TO REMAIN.
D03.01	DEMOLITION NOTE EXAMPLE
D05.01	REMOVE FLOOR ANCHOR FLUSH TO FLOOR TO ALLOW FOR NEW FLOORING INSTALLATION.
D06.01	REMOVE BASE CABINETS, WALL CABINETS AND COUNTERTOP AS REQUIRED FOR INSTALLATION OF NEW WORK. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
D06.03	REMOVE WALL MOUNTED CABINETS.
D06.04	REMOVE MISCELLANEOUS SURFACE MOUNTED WALL BLOCKING.
D06.05	REMOVE WALL STANDARDS.
D06.07	REMOVE BASE CABINETS, COUNTERTOP, AND PARTIAL HEIGHT WALL AS REQUIRED. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
D06.08	REMOVE WALL SHELVES AND STANDARDS. SALVAGE TO OWNER.
D08.40	REMOVE WOOD DOOR AND FRAME AND HARDWARE. SALVAGE FOR REINSTALLATION.
D08.41	REMOVE WOOD DOOR, FRAME AND HARDWARE. SALVAGE TO OWNER.
D08.42	REMOVE ALUMINUM STOREFRONT FRAMING.
D09.01	REMOVE DRYWALL PARTITION FULL HEIGHT.
D09.02	REMOVE PORTION OF DRYWALL PARTITION AS REQUIRED FOR INSTALLATION OF DOOR, FRAME AND HARDWARE.
D09.20	REMOVE ACOUSTICAL CEILING SYSTEM IN ITS ENTIRETY. SALVAGE CEILING TILES FOR REINSTALLATION. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
D09.22	SELECTIVELY REMOVE ACOUSTICAL CEILING TILES AND GRID AS REQUIRED FOR WALL INSTALLATION.
D09.40	REMOVE CARPET FLOORING AND RESILIENT BASE AS REQUIRED TO ACCOMMODATE NEW WORK.
D09.41	REMOVE V.C.T. FLOORING AND RESILIENT BASE AS REQUIRED TO ACCOMMODATE NEW WORK.
D09.42	REMOVE RUBBER TILE FLOORING AND RESILIENT BASE AS REQUIRED TO ACCOMMODATE NEW WORK.
D09.43	REMOVE L.V.T. FLOORING AND RESILIENT BASE AS REQUIRED TO ACCOMMODATE NEW WORK.
D09.44	REMOVE VINYL WALL COVERING.
D09.45	REMOVE RESILIENT BASE.
D10.80	REMOVE SOAP AND TOWEL DISPENSERS. SALVAGE TO OWNER.
D10.81	REMOVE WALL HOOKS. SALVAGE TO OWNER.
D11.01	REMOVE WALL OR CEILING MOUNTED TELEVISION HANGER AND RELATED HARDWARE.
D11.02	REMOVE WALL MOUNTED EQUIPMENT.
D21.01	REFER TO FIRE PROTECTION DRAWINGS FOR SPRINKLER SYSTEM REVISIONS.
D22.01	REFER TO PLUMBING DRAWINGS FOR PLUMBING REVISIONS.
D22.02	REMOVE DRINKING FOUNTAIN. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
D26.01	REMOVE ALL LIGHTING FIXTURES. REFER TO ELECTRICAL DRAWINGS.

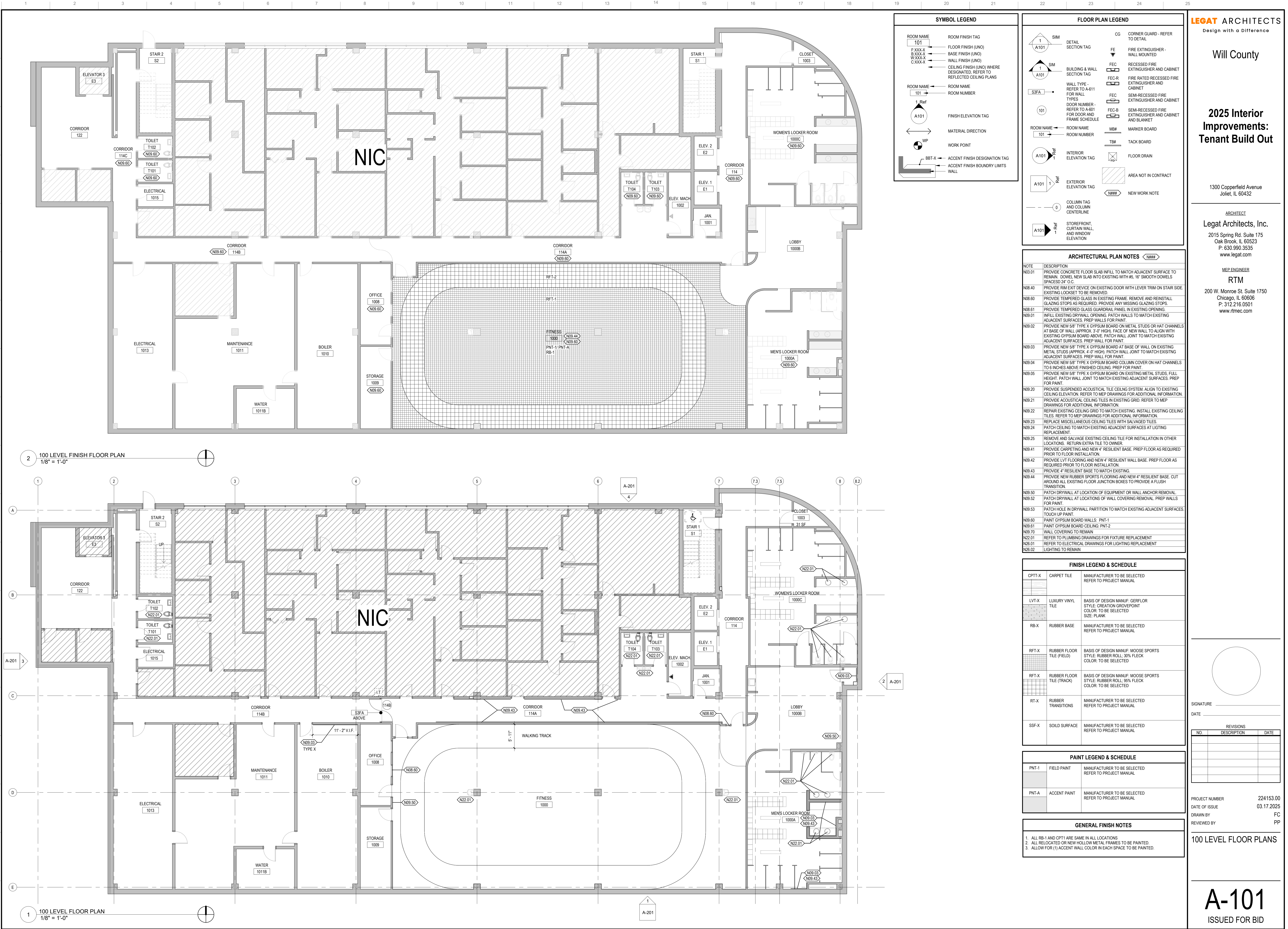


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100 LEVEL FLOOR
DEMOLITION PLANS



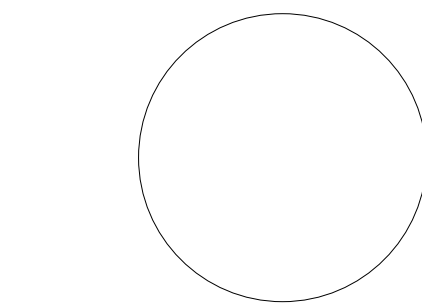
FLOOR PLAN LEGEND			
	1 A101	SIM	CG CORNER GUARD - REFER TO DETAIL
	1 A101	SIM	FE FIRE EXTINGUISHER - WALL MOUNTED
	101		FEC RECESSED FIRE EXTINGUISHER AND CABINET
	101		FEC-R FIRE RATED RECESSED FIRE EXTINGUISHER AND CABINET
	101		FEC SEMI-RECESSED FIRE EXTINGUISHER AND CABINET
	101		FEC-B SEMI-RECESSED FIRE EXTINGUISHER AND CABINET AND BLANKET
	101	Ref 1	MB# MARKER BOARD
	101	Ref 1	TB# TACK BOARD
	0		FLOOR DRAIN
	101	Ref 1	AREA NOT IN CONTRACT
			NEW WORK NOTE

ARCHITECTURAL PLAN NOTES	
NOTE	DESCRIPTION
N03.01	PROVIDE CONCRETE FLOOR SLAB INFILL TO MATCH ADJACENT SURFACE TO REMAIN. DOWEL NEW SLAB INTO EXISTING WITH #5, 16" SMOOTH DOWELS SPACED 24" O.C.
N08.40	PROVIDE RIM EXIT DEVICE ON EXISTING DOOR WITH LEVER TRIM ON STAIR SIDE. EXISTING LOCKSET TO BE REMOVED.
N08.60	PROVIDE TEMPERED GLASS IN EXISTING FRAME. REMOVE AND REINSTALL GLAZING STOPS AS REQUIRED. PROVIDE ANY MISSING GLAZING STOPS.
N08.61	PROVIDE TEMPERED GLASS GUARDRAIL PANEL IN EXISTING OPENINGS.
N09.01	INFILL EXISTING DRYWALL OPENING. PATCH WALL JOINT TO MATCH EXISTING ADJACENT SURFACES. PREP WALLS FOR PAINT.
N09.02	PROVIDE NEW 5/8" TYPE X GYPSUM BOARD ON METAL STUDS OR HAT CHANNELS AT BASE OF WALL (APPROX. 3'-0" HIGH). FACE OF NEW WALL TO ALIGN WITH EXISTING GYPSUM BOARD ABOVE. PATCH WALL JOINT TO MATCH EXISTING ADJACENT SURFACES. PREP WALL FOR PAINT.
N09.03	PROVIDE NEW 5/8" TYPE X GYPSUM BOARD AT BASE OF WALL ON EXISTING METAL STUDS (APPROX. 4'-0" HIGH). PATCH WALL JOINT TO MATCH EXISTING ADJACENT SURFACES. PREP WALL FOR PAINT.
N09.04	PROVIDE NEW 5/8" TYPE X GYPSUM BOARD COLUMN COVER ON HAT CHANNELS TO 6 INCHES ABOVE FINISHED CEILING. PREP FOR PAINT.
N09.05	PROVIDE NEW 5/8" TYPE X GYPSUM BOARD ON EXISTING METAL STUDS. FULL HEIGHT. PATCH WALL JOINT TO MATCH EXISTING ADJACENT SURFACES. PREP FOR PAINT.
N09.20	PROVIDE SUSPENDED ACOUSTICAL TILE CEILING SYSTEM. ALIGN TO EXISTING CEILING ELEVATION. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
N09.21	PROVIDE ACOUSTICAL CEILING TILES IN EXISTING GRID. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
N09.22	REPAIR EXISTING CEILING GRID TO MATCH EXISTING. INSTALL EXISTING CEILING TILES. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
N09.23	REPLACE MISCELLANEOUS CEILING TILES WITH SALVAGED TILES.
N09.24	PATCH CEILING TO MATCH EXISTING ADJACENT SURFACES AT LIGHTING REPLACEMENT.
N09.25	REMOVE AND SALVAGE EXISTING CEILING TILE FOR INSTALLATION IN OTHER LOCATIONS. RETURN EXTRA TILE TO OWNER.
N09.41	PROVIDE CARPETING AND NEW 4" RESILIENT BASE. PREP FLOOR AS REQUIRED PRIOR TO FLOOR INSTALLATION.
N09.42	PROVIDE LVT FLOORING AND NEW 4" RESILIENT WALL BASE. PREP FLOOR AS REQUIRED PRIOR TO FLOOR INSTALLATION.
N09.43	PROVIDE 4" RESILIENT BASE TO MATCH EXISTING.
N09.44	PROVIDE NEW RUBBER SPORTS FLOORING AND NEW 4" RESILIENT BASE. CUT AROUND ALL EXISTING FLOOR JUNCTION BOXES TO PROVIDE A FLUSH TRANSITION.
N09.50	PATCH DRYWALL AT LOCATION OF EQUIPMENT OR WALL ANCHOR REMOVAL.
N09.52	PATCH DRYWALL AT LOCATIONS OF WALL COVERING REMOVAL. PREP WALLS FOR PAINT.
N09.53	PATCH HOLE IN DRYWALL PARTITION TO MATCH EXISTING ADJACENT SURFACES. TOUCH UP PAINT.
N09.60	PAINT GYPSUM BOARD WALLS: PNT-1
N09.61	PAINT GYPSUM BOARD CEILING: PNT-2
N09.70	WALL COVERING TO REMAIN
N22.01	REFER TO PLUMBING DRAWINGS FOR FIXTURE REPLACEMENT
N26.01	REFER TO ELECTRICAL DRAWINGS FOR LIGHTING REPLACEMENT
N28.02	LIGHTING TO REMAIN

FINISH LEGEND & SCHEDULE		
CPTT-X	CARPET TILE	MANUFACTURER TO BE SELECTED REFER TO PROJECT MANUAL
LVT-X	LUXURY VINYL TILE	BASIS OF DESIGN MANUF: GERFLOR STYLE: CREATION GROVEPOINT COLOR: TO BE SELECTED SIZE: PLANK
RB-X	RUBBER BASE	MANUFACTURER TO BE SELECTED REFER TO PROJECT MANUAL
RFT-X	RUBBER FLOOR TILE (FIELD)	BASIS OF DESIGN MANUF: MOOSE SPORTS STYLE: RUBBER ROLL, 30% FLECK COLOR: TO BE SELECTED
RFT-X	RUBBER FLOOR TILE (TRACK)	BASIS OF DESIGN MANUF: MOOSE SPORTS STYLE: RUBBER ROLL, 95% FLECK COLOR: TO BE SELECTED
RT-X	RUBBER TRANSITIONS	MANUFACTURER TO BE SELECTED REFER TO PROJECT MANUAL
SSF-X	SOLID SURFACE	MANUFACTURER TO BE SELECTED REFER TO PROJECT MANUAL

PAINT LEGEND & SCHEDULE		
PNT-1	FIELD PAINT	MANUFACTURER TO BE SELECTED REFER TO PROJECT MANUAL
PNT-A	ACCENT PAINT	MANUFACTURER TO BE SELECTED REFER TO PROJECT MANUAL

GENERAL FINISH NOTES	
1. ALL RB-1 AND CPT1 ARE SAME IN ALL LOCATIONS 2. ALL RELOCATED OR NEW HOLLOW METAL FRAMES TO BE PAINTED 3. ALLOW FOR (1) ACCENT WALL COLOR IN EACH SPACE TO BE PAINTED.	

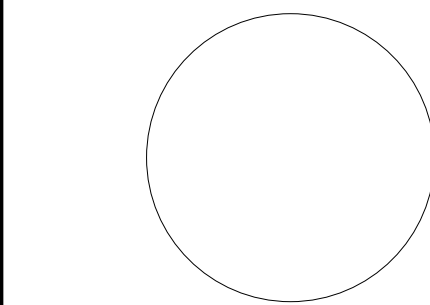


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100 LEVEL FLOOR PLANS



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200 LEVEL FLOOR PLANS



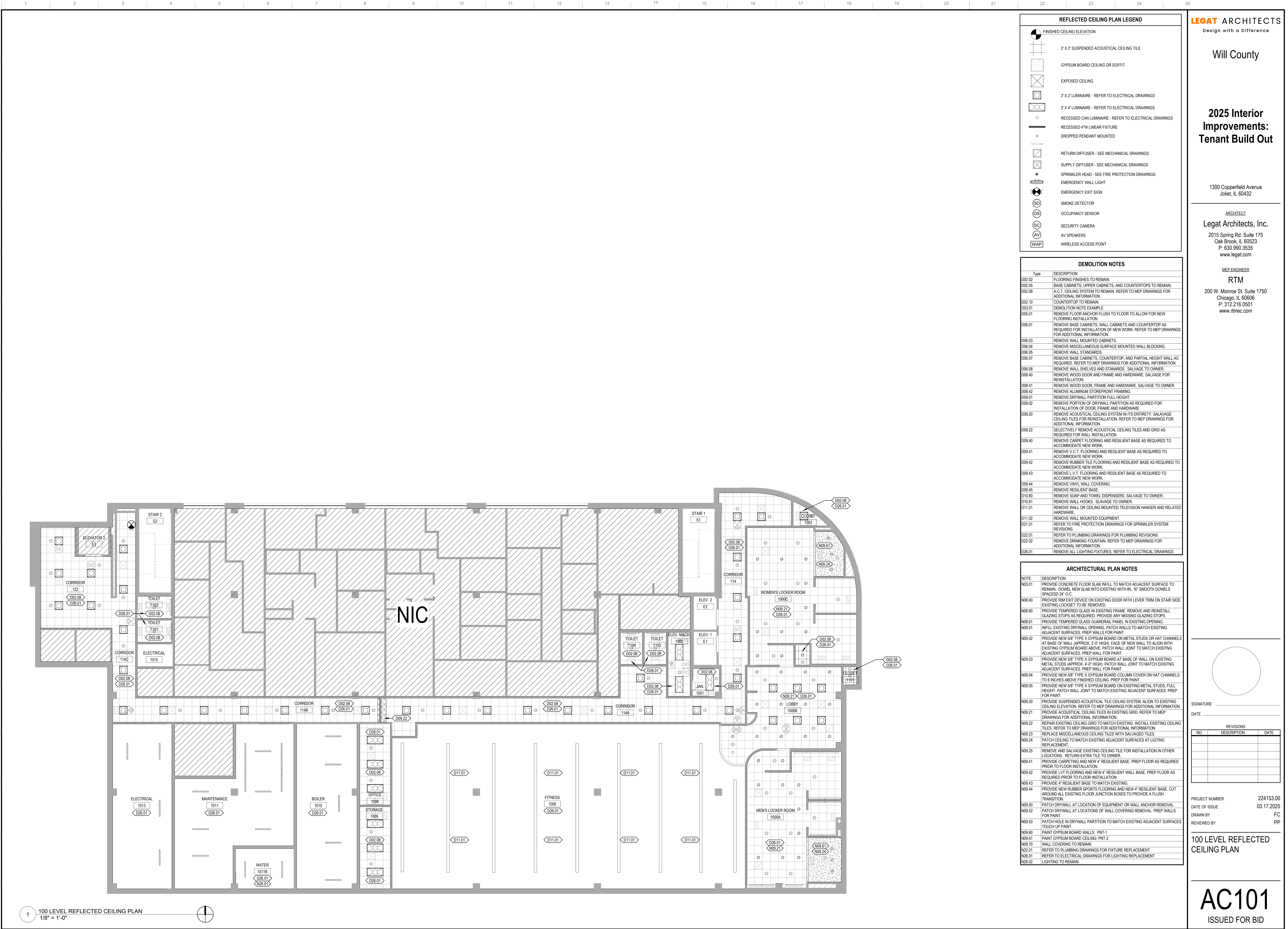
FLOOR PLAN LEGEND

	1 A101	SIM	DETAIL SECTION TAG		CG	CORNER GUARD - REFER TO DETAIL
	1 A101	SIM	BUILDING & WALL SECTION TAG		FE	FIRE EXTINGUISHER - WALL MOUNTED
	S3FA		WALL TYPE - REFER TO A-611 FOR WALL TYPES		FEC	RECESSED FIRE EXTINGUISHER AND CABINET
	101		DOOR NUMBER - REFER TO A-601 FOR DOOR AND FRAME SCHEDULE		FEC-R	FIRE RATED RECESSED FIRE EXTINGUISHER AND CABINET
	ROOM NAME		ROOM NAME		FEC	SEMI-RECESSED FIRE EXTINGUISHER AND CABINET
	101		ROOM NUMBER		FEC-B	SEMI-RECESSED FIRE EXTINGUISHER AND CABINET AND BLANKET
	A101	Ref	INTERIOR ELEVATION TAG		MB#	MARKER BOARD
	A101	Ref	EXTERIOR ELEVATION TAG		TB#	TACK BOARD
	0		COLUMN TAG AND COLUMN CENTERLINE			FLOOR DRAIN
	A101	Ref	STOREFRONT, CURTAIN WALL, AND WINDOW ELEVATION			AREA NOT IN CONTRACT
					N###	NEW WORK NOTE

ARCHITECTURAL PLAN NOTES < N### >	
NOTE	DESCRIPTION
N03.01	PROVIDE CONCRETE FLOOR SLAB INFILL TO MATCH ADJACENT SURFACE TO REMAIN. DOWEL NEW SLAB INTO EXISTING WITH #5, 16" SMOOTH DOWELS SPACED @ 24" O.C.
N08.40	PROVIDE RIM EXIT DEVICE ON EXISTING DOOR WITH LEVER TRIM ON STAIR SIDE. EXISTING LOCKSET TO BE REMOVED.
N08.60	PROVIDE TEMPERED GLASS IN EXISTING FRAME. REMOVE AND REINSTALL GLAZING STOPS AS REQUIRED. PROVIDE ANY MISSING GLAZING STOPS.
N08.61	PROVIDE TEMPERED GLASS GUARDRAIL PANEL IN EXISTING OPENING.
N09.01	INFILL EXISTING DRYWALL OPENING. PATCH WALLS TO MATCH EXISTING ADJACENT SURFACES. PREP WALLS FOR PAINT.
N09.02	PROVIDE NEW 5/8" TYPE X GYPSUM BOARD ON METAL STUDS OR HAT CHANNELS AT BASE OF WALL (APPROX. 3'-0" HIGH). FACE OF NEW WALL TO ALIGN WITH EXISTING GYPSUM BOARD ABOVE. PATCH WALL JOINT TO MATCH EXISTING ADJACENT SURFACES. PREP WALL FOR PAINT.
N09.03	PROVIDE NEW 5/8" TYPE X GYPSUM BOARD AT BASE OF WALL ON EXISTING METAL STUDS (APPROX. 4'-0" HIGH). PATCH WALL JOINT TO MATCH EXISTING ADJACENT SURFACES. PREP WALL FOR PAINT.
N09.04	PROVIDE NEW 5/8" TYPE X GYPSUM BOARD COLUMN COVER ON HAT CHANNELS TO 6 INCHES ABOVE FINISHED CEILING. PREP FOR PAINT.
N09.05	PROVIDE NEW 5/8" TYPE X GYPSUM BOARD ON EXISTING METAL STUDS, FULL HEIGHT. PATCH WALL JOINT TO MATCH EXISTING ADJACENT SURFACES. PREP FOR PAINT.
N09.20	PROVIDE SUSPENDED ACOUSTICAL TILE CEILING SYSTEM. ALIGN TO EXISTING CEILING ELEVATION. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
N09.21	PROVIDE ACOUSTICAL CEILING TILES IN EXISTING GRID. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
N09.22	REPAIR EXISTING CEILING GRID TO MATCH EXISTING. INSTALL EXISTING CEILING TILES. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
N09.23	REPLACE MISCELLANEOUS CEILING TILES WITH SALVAGED TILES.
N09.24	PATCH CEILING TO MATCH EXISTING ADJACENT SURFACES AT LIGHTING REPLACEMENT.
N09.25	REMOVE AND SALVAGE EXISTING CEILING TILE FOR INSTALLATION IN OTHER LOCATIONS. RETURN EXTRA TILE TO OWNER.
N09.41	PROVIDE CARPETING AND NEW 4" RESILIENT BASE. PREP FLOOR AS REQUIRED PRIOR TO FLOOR INSTALLATION.
N09.42	PROVIDE LVT FLOORING AND NEW 4" RESILIENT WALL BASE. PREP FLOOR AS REQUIRED PRIOR TO FLOOR INSTALLATION.
N09.43	PROVIDE 4" RESILIENT BASE TO MATCH EXISTING.
N09.44	PROVIDE NEW RUBBER SPORTS FLOORING AND NEW 4" RESILIENT BASE. CUT AROUND ALL EXISTING FLOOR JUNCTION BOXES TO PROVIDE A FLUSH TRANSITION.
N09.50	PATCH DRYWALL AT LOCATION OF EQUIPMENT OR WALL ANCHOR REMOVAL.
N09.52	PATCH DRYWALL AT LOCATIONS OF WALL COVERING REMOVAL. PREP WALLS FOR PAINT.
N09.53	PATCH HOLE IN DRYWALL PARTITION TO MATCH EXISTING ADJACENT SURFACES. TOUCH UP PAINT.
N09.60	PAINT GYPSUM BOARD WALLS. PNT-1
N09.61	PAINT GYPSUM BOARD CEILING. PNT-2
N09.70	WALL COVERING TO REMAIN.
N22.01	REFER TO PLUMBING DRAWINGS FOR FIXTURE REPLACEMENT.
N08.01	REFER TO ELECTRICAL DRAWINGS FOR LIGHTING REPLACEMENT.
N26.02	LIGHTING TO REMAIN.

SIGNATURE _____
DATE _____

REVISIONS		
NO.	DESCRIPTION	DATE



REFLECTED CEILING PLAN LEGEND

- FINISHED CEILING ELEVATION
- 2' X 2' SUSPENDED ACOUSTICAL CEILING TILE
- GYPSUM BOARD CEILING OR SOFFIT
- EXPOSED CEILING
- 2' X 2' LUMINAIRE - REFER TO ELECTRICAL DRAWINGS
- 2' X 4' LUMINAIRE - REFER TO ELECTRICAL DRAWINGS
- RECESSED CAN LUMINAIRE - REFER TO ELECTRICAL DRAWINGS
- RECESSED 4'W LINEAR FIXTURE
- DROPPED PENDANT MOUNTED
- RETURN DIFFUSER - SEE MECHANICAL DRAWINGS
- SUPPLY DIFFUSER - SEE MECHANICAL DRAWINGS
- SPRINKLER HEAD - SEE FIRE PROTECTION DRAWINGS
- EMERGENCY WALL LIGHT
- EMERGENCY EXIT SIGN
- SMOKE DETECTOR
- OCCUPANCY SENSOR
- SECURITY CAMERA
- AV SPEAKERS
- WIRELESS ACCESS POINT

DEMOLITION NOTES

Type	DESCRIPTION
D02.06	FLOORING FINISHES TO REMAIN.
D02.06	BASE CABINETS, UPPER CABINETS, AND COUNTERTOPS TO REMAIN.
D02.08	A.C.T. CEILING SYSTEM TO REMAIN. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
D02.10	COUNTERTOP TO REMAIN.
D03.01	DEMOLITION NOTE EXAMPLE
D05.01	REMOVE FLOOR ANCHOR FLUSH TO FLOOR TO ALLOW FOR NEW FLOORING INSTALLATION.
D06.01	REMOVE BASE CABINETS, WALL CABINETS AND COUNTERTOP AS REQUIRED FOR INSTALLATION OF NEW WORK. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
D06.03	REMOVE WALL MOUNTED CABINETS.
D06.04	REMOVE MISCELLANEOUS SURFACE MOUNTED WALL BLOCKING.
D06.05	REMOVE WALL STANDARDS.
D06.07	REMOVE BASE CABINETS, COUNTERTOP, AND PARTIAL HEIGHT WALL AS REQUIRED. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
D06.08	REMOVE WALL SHELVES AND STANDARDS. SALVAGE TO OWNER.
D08.40	REMOVE WOOD DOOR AND FRAME AND HARDWARE. SALVAGE FOR REINSTALLATION.
D08.41	REMOVE WOOD DOOR, FRAME AND HARDWARE. SALVAGE TO OWNER.
D08.42	REMOVE ALUMINUM STOREFRONT FRAMING.
D09.01	REMOVE DRYWALL PARTITION FULL HEIGHT.
D09.02	REMOVE PORTION OF DRYWALL PARTITION AS REQUIRED FOR INSTALLATION OF DOOR, FRAME AND HARDWARE.
D09.20	REMOVE ACOUSTICAL CEILING SYSTEM IN ITS ENTIRETY. SALVAGE CEILING TILES FOR REINSTALLATION. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
D09.22	SELECTIVELY REMOVE ACOUSTICAL CEILING TILES AND GRID AS REQUIRED FOR WALL INSTALLATION.
D09.40	REMOVE CARPET FLOORING AND RESILIENT BASE AS REQUIRED TO ACCOMMODATE NEW WORK.
D09.41	REMOVE V.C.T. FLOORING AND RESILIENT BASE AS REQUIRED TO ACCOMMODATE NEW WORK.
D09.42	REMOVE RUBBER TILE FLOORING AND RESILIENT BASE AS REQUIRED TO ACCOMMODATE NEW WORK.
D09.43	REMOVE L.V.T. FLOORING AND RESILIENT BASE AS REQUIRED TO ACCOMMODATE NEW WORK.
D09.44	REMOVE VINYL WALL COVERING.
D09.45	REMOVE RESILIENT BASE.
D10.80	REMOVE SOAP AND TOWEL DISPENSERS. SALVAGE TO OWNER.
D10.81	REMOVE WALL HOOKS. SALVAGE TO OWNER.
D10.11	REMOVE WALL OR CEILING MOUNTED TELEVISION HANGER AND RELATED HARDWARE.
D11.02	REMOVE WALL MOUNTED EQUIPMENT.
D21.01	REFER TO FIRE PROTECTION DRAWINGS FOR SPRINKLER SYSTEM REVISIONS.
D22.01	REFER TO PLUMBING DRAWINGS FOR PLUMBING REVISIONS.
D22.02	REMOVE DRINKING FOUNTAIN. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
D26.01	REMOVE ALL LIGHTING FIXTURES. REFER TO ELECTRICAL DRAWINGS

ARCHITECTURAL PLAN NOTES

NOTE	DESCRIPTION
N03.01	PROVIDE CONCRETE FLOOR SLAB INFILL TO MATCH ADJACENT SURFACE TO REMAIN. DOWEL NEW SLAB INTO EXISTING WITH #5, 16" SMOOTH DOWELS SPACED 24" O.C.
N08.40	PROVIDE RIM EXIT DEVICE ON EXISTING DOOR WITH LEVER TRIM ON STAIR SIDE. EXISTING LOCKSET TO BE REMOVED.
N08.60	PROVIDE TEMPERED GLASS IN EXISTING FRAME. REMOVE AND REINSTALL GLAZING STOPS AS REQUIRED. PROVIDE ANY MISSING GLAZING STOPS.
N08.61	PROVIDE TEMPERED GLASS GUARDRAIL PANEL IN EXISTING OPENING.
N09.01	INFILL EXISTING DRYWALL OPENING. PATCH WALLS TO MATCH EXISTING ADJACENT SURFACES. PREP WALLS FOR PAINT.
N09.02	PROVIDE NEW 5/8" TYPE X GYPSUM BOARD ON METAL STUDS OR HAT CHANNELS AT BASE OF WALL (APPROX. 3'-0" HIGH). FACE OF NEW WALL TO ALIGN WITH EXISTING GYPSUM BOARD ABOVE. PATCH WALL JOINT TO MATCH EXISTING ADJACENT SURFACES. PREP WALL FOR PAINT.
N09.03	PROVIDE NEW 5/8" TYPE X GYPSUM BOARD AT BASE OF WALL ON EXISTING METAL STUDS (APPROX. 4'-0" HIGH). PATCH WALL JOINT TO MATCH EXISTING ADJACENT SURFACES. PREP WALL FOR PAINT.
N09.04	PROVIDE NEW 5/8" TYPE X GYPSUM BOARD COLLUM COVER ON HAT CHANNELS TO 6 INCHES ABOVE FINISHED CEILING. PREP FOR PAINT.
N09.05	PROVIDE NEW 5/8" TYPE X GYPSUM BOARD ON EXISTING METAL STUDS, FULL HEIGHT. PATCH WALL JOINT TO MATCH EXISTING ADJACENT SURFACES. PREP FOR PAINT.
N09.20	PROVIDE SUSPENDED ACOUSTICAL TILE CEILING SYSTEM. ALIGN TO EXISTING CEILING ELEVATION. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
N09.21	PROVIDE ACOUSTICAL CEILING TILES IN EXISTING GRID. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
N09.22	REPAIR EXISTING CEILING GRID TO MATCH EXISTING. INSTALL EXISTING CEILING TILES. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
N09.23	REPLACE MISCELLANEOUS CEILING TILES WITH SALVAGED TILES.
N09.24	PATCH CEILING TO MATCH EXISTING ADJACENT SURFACES AT LISTING REPLACEMENT.
N09.25	REMOVE AND SALVAGE EXISTING CEILING TILE FOR INSTALLATION IN OTHER LOCATIONS. RETURN EXTRA TILE TO OWNER.
N09.41	PROVIDE CARPETING AND NEW 4" RESILIENT BASE. PREP FLOOR AS REQUIRED PRIOR TO FLOOR INSTALLATION.
N09.42	PROVIDE LVT FLOORING AND NEW 4" RESILIENT WALL BASE. PREP FLOOR AS REQUIRED PRIOR TO FLOOR INSTALLATION.
N09.43	PROVIDE 4" RESILIENT BASE TO MATCH EXISTING.
N09.44	PROVIDE NEW RUBBER SPORTS FLOORING AND NEW 4" RESILIENT BASE. CUT AROUND ALL EXISTING FLOOR JUNCTION BOXES TO PROVIDE A FLUSH TRANSITION.
N09.50	PATCH DRYWALL AT LOCATION OF EQUIPMENT OR WALL ANCHOR REMOVAL.
N09.52	PATCH DRYWALL AT LOCATIONS OF WALL COVERING REMOVAL. PREP WALLS FOR PAINT.
N09.53	PATCH HOLE IN DRYWALL PARTITION TO MATCH EXISTING ADJACENT SURFACES. TOUCH UP PAINT.
N09.60	PAINT GYPSUM BOARD WALLS: PNT-1
N09.61	PAINT GYPSUM BOARD CEILING: PNT-2
N09.70	WALL COVERING TO REMAIN
N22.01	REFER TO PLUMBING DRAWINGS FOR FIXTURE REPLACEMENT
N26.01	REFER TO ELECTRICAL DRAWINGS FOR LIGHTING REPLACEMENT
N26.02	LIGHTING TO REMAIN

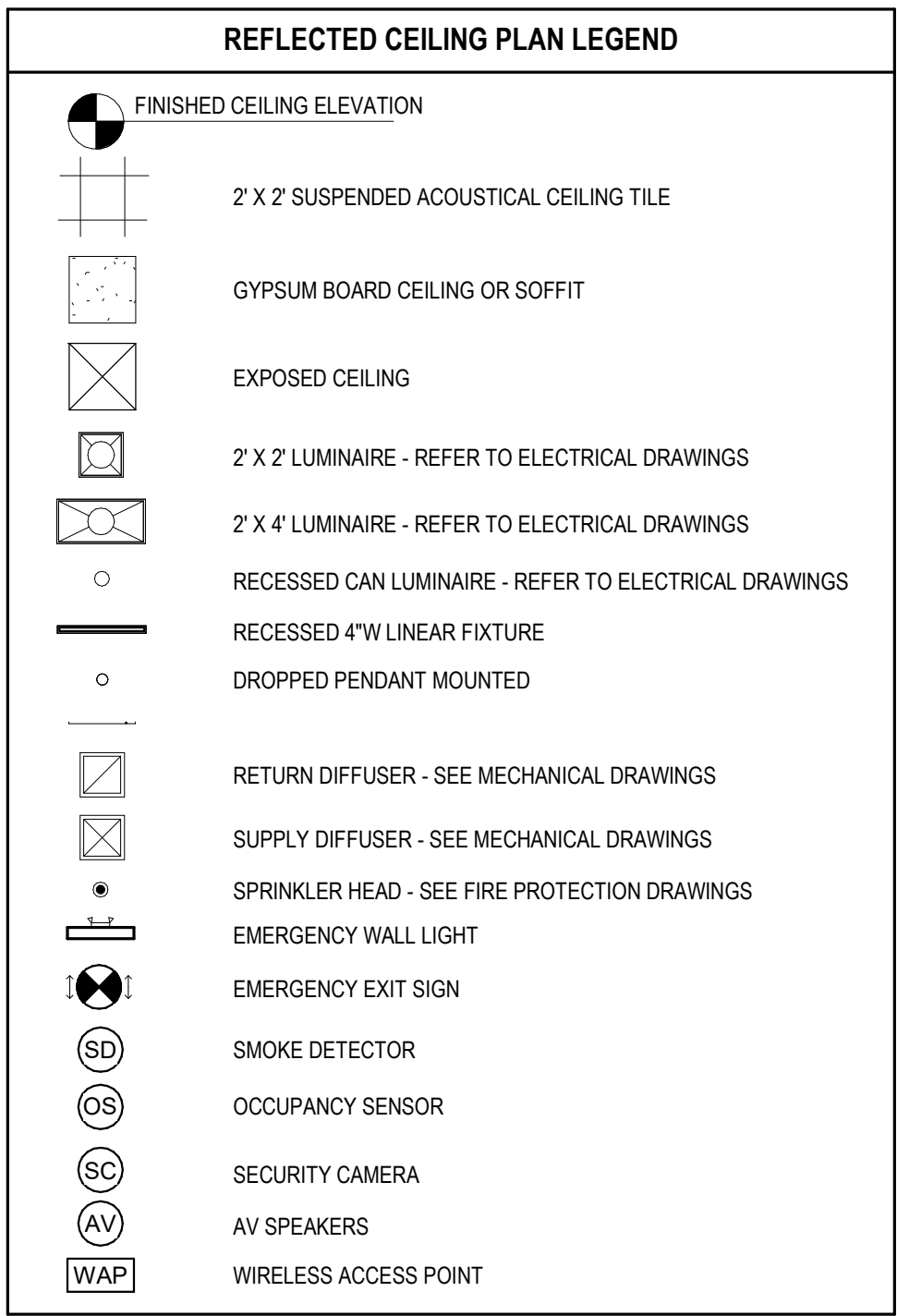
SIGNATURE
DATE

REVISIONS		
NO	DESCRIPTION	DATE

PROJECT NUMBER 224153.00
DATE OF ISSUE 03.17.2025
DRAWN BY FC
REVIEWED BY PP

100 LEVEL REFLECTED
CEILING PLAN

AC101
ISSUED FOR BID



Type	Description
D-02.02	FLOORING FINISHES TO REMAIN.
D-02.05	BASE CABINETS, UPPER CABINETS, AND COUNTERTOPS TO REMAIN.
D-02.08	A.C.T. CEILING SYSTEM TO REMAIN. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
D-02.10	COUNTERTOP TO REMAIN.
D-03.01	DEMOLITION NOTE EXAMPLE
D-03.01	REMOVE FLOOR ANCHOR FLUSH TO FLOOR TO ALLOW FOR NEW FLOOR INSTALLATION.
D-06.01	REMOVE BASE CABINETS, WALL CABINETS AND COUNTERTOP AS REQUIRED FOR INSTALLATION OF NEW WORK. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
D-06.03	REMOVE WALL MOUNTED CABINETS.
D-06.04	REMOVE MISCELLANEOUS SURFACE MOUNTED WALL BLOCKING.
D-06.05	REMOVE WALL STANDARDS.
D-06.07	REMOVE BASE CABINETS, COUNTERTOP, AND PARTIAL HEIGHT WALL AS REQUIRED. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
D-06.08	REMOVE SHELVEYS, PARTIAL HEIGHT WALLS, AND SILLAGE. SALVAGE TO OWNER.
D-06.40	REMOVE WOOD DOOR AND FRAME AND HARDWARE. SALVAGE FOR REINSTALLATION.
D-06.41	REMOVE WOOD DOOR, FRAME AND HARDWARE. SALVAGE TO OWNER.
D-06.42	REMOVE GLASS/ALUMINUM STOREFRONT FRAMING.
D-09.01	REMOVE DRYWALL PARTITION FULL HEIGHT.
D-09.02	REMOVE PORTION OF DRYWALL PARTITION AS REQUIRED FOR INSTALLATION OF DOOR, FRAME AND HARDWARE.
D-09.20	REMOVE ACOUSTICAL CEILING SYSTEM ITS ITS ENTIRETY. SALVAGE CEILING TILES FOR REINSTALLATION. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
D-09.22	SELECTIVELY REMOVE ACOUSTICAL CEILING TILES AND GRID AS REQUIRED FOR WALL INSTALLATION.
D-09.40	REMOVE CARPET FLOORING AND RESILIENT BASE AS REQUIRED TO ACCOMMODATE NEW WORK.
D-09.41	REMOVE V.C.T. FLOORING AND RESILIENT BASE AS REQUIRED TO ACCOMMODATE NEW WORK.
D-09.42	REMOVE RUBBER TILE FLOORING AND RESILIENT BASE AS REQUIRED TO ACCOMMODATE NEW WORK.
D-09.43	REMOVE V.T. FLOORING AND RESILIENT BASE AS REQUIRED TO ACCOMMODATE NEW WORK.
D-09.44	REMOVE VINYL WALL COVERING.
D-09.45	REMOVE RESILIENT BASE
D-10.80	REMOVE COIN AND TOKEN DISPENSERS. SALVAGE TO OWNER.
D-10.81	REMOVE WALL HOOKS. SALVAGE TO OWNER.
D-11.01	REMOVE WALL OR CEILING MOUNTED TELEVISION HANGER AND RELATED HARDWARE.
D-11.02	REMOVE WALL MOUNTED EQUIPMENT.
D-12.01	REFER TO FIRE PROTECTION DRAWINGS FOR SPRINKLER SYSTEM REVISIONS.
D-22.01	REFER TO PLUMBING DRAWINGS FOR PLUMBING REVISIONS.
D-22.02	REMOVE DRINKING FOUNTAIN. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
D-26.01	REMOVE ALL LIGHTING FIXTURES. REFER TO ELECTRICAL DRAWINGS

ARCHITECTURAL PLAN NOTES	
NOTE	DESCRIPTION
N001	PROVIDE CONCRETE FLOOR SLAB INFL TO MATCH ADJACENT SURFACE TO REMAIN. PROVIDE NEW FLOOR INFL EXISTING WITH #5, 16" SMOOTH DOWELS @ SPACED 24" O.C.
N0040	PROVIDE RIM EXIST DRIVE ON EXISTING DOWR WITH LEVEL TRIM ON STAIR SIDE. EXISTING DOCKET TO BE REMOVED.
N0060	PROVIDE TEMPERED GLASS IN EXISTING FRAME. REMOVE AND REINSTALL GLAZING STOPS AS REQUIRED. PROVIDE ANY MISSING GLAZING STOPS.
N0061	PROVIDE TEMPERED GLASS QUADRANGLE, PANEL IN EXISTING OPENING.
N0062	INFL EXISTING DRIVEWAY OPENING. PATCH WALLS TO MATCH EXISTING ADJACENT SURFACES. PREP WALLS FOR PAINT.
N002	PROVIDE NEW 5/8" TYPE GYPSUM BOARD ON METAL STUDS OR HAT CHANNELS AT BASE OF WALL (APPROX. 3'-4" HIGH). FACE OF NEW WALL TO ALIGN WITH EXISTING METAL STUDS OR HAT CHANNELS. PATCH WALL TO MATCH EXISTING ADJACENT SURFACES. PREP WALL FOR PAINT.
N003	PROVIDE NEW 5/8" TYPE GYPSUM BOARD ON METAL STUDS OR HAT CHANNELS AT BASE OF WALL (APPROX. 4'-0" HIGH). PATCH WALL TO MATCH EXISTING ADJACENT SURFACES. PREP WALL FOR PAINT.
N0004	PROVIDE NEW 5/8" TYPE GYPSUM BOARD COLUMN COVER ON HAT CHANNELS TO 6 INCHES ABOVE FINISHED CEILING. PREP FOR PAINT.
N005	PROVIDE NEW 5/8" TYPE GYPSUM BOARD ON EXISTING METAL STUDS, FULL HEIGHT. PATCH WALL TO MATCH EXISTING ADJACENT SURFACES. PREP FOR PAINT.
N0020	PROVIDE SOUNDING ACOUSTICAL TILE CEILING SYSTEM. ALIGN TO EXISTING CEILING ELECTION. REFER TO DRAWINGS FOR ADDITIONAL INFORMATION.
N0021	PROVIDE ACOUSTICAL CEILING TILES IN EXISTING GRID. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
N0022	INSTALL EXISTING CEILING GRID TO MATCH EXISTING. INSTALL EXISTING CEILING TILES TO MATCH DRAWING FOR ADDITIONAL INFORMATION.
N0023	REPLACE MISCELLANEOUS CEILING TILES WITH SALVAGED TILES.
N0024	PATCH CEILING TO MATCH EXISTING ADJACENT SURFACES AT LIGHTING REPLACEMENT.
N0025	REMOVE AND SAVE EXISTING CEILING TILE FOR INSTALLATION IN OTHER LOCATIONS. RETURN EXTRA TILE TO OWNER.
N0041	PROVIDE CARPETTING AND NEW 4" RESILIENT BASE. PREP FLOOR AS REQUIRED PRIOR TO FLOOR INSTALLATION.
N0042	PROVIDE LVT FLOORING AND NEW 4" RESILIENT WALL BASE. PREP FLOOR AS REQUIRED PRIOR TO FLOOR INSTALLATION.
N0043	PROVIDE 4" RESILIENT BASE TO MATCH EXISTING.
N0044	PROVIDE NEW RUBBER STOPS FLOORING AND NEW 4" RESILIENT BASE. CUT AROUND ALL EXISTING FLOOR JUNCTION BOXES TO PROVIDE A FLUSH TRANSITION.
N0050	PATCH DRYWALL AT LOCATION OF EQUIPMENT OR WALL ANCHOR REMOVAL.
N0052	PATCH DRYWALL AT LOCATIONS OF WALL COVERING REMOVAL. PREP WALLS FOR PAINT.
N0053	PATCH DRYWALL IN DRYWALL PARTITION TO MATCH EXISTING ADJACENT SURFACES. TOUCH UP PAINT.
N0060	PANEL GYPSUM BOARD WALLS: PNT-1
N0061	PANEL GYPSUM BOARD WALLS: PNT-2
N0062	PATCH WALL COVERING TO REMAIN
N0201	REFER TO PLUMBING DRAWINGS FOR FIXTURE REPLACEMENT
N0201	REFER TO ELECTRICAL DRAWINGS FOR LIGHTING REPLACEMENT
N0202	LIGHTING TO REMAIN

LEGAT ARCHITECTS
Design with a Difference

Will County

**2025 Interior
Improvements:
Tenant Build Out**

1300 Copperfield Avenue
Joliet, IL 60432

ARCHITECT

Legat Architects, Inc.

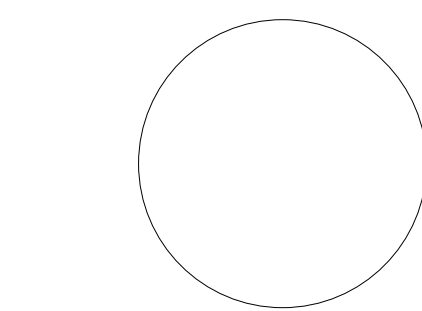
2015 Spring Rd. Suite 175
Oak Brook, IL 60523
P: 630.990.3535
www.legat.com

MEP ENGINEER

RTM

200 W. Monroe St. Suite 1750
Chicago, IL 60606
P: 312.216.0501
www.rtmec.com

2 200 LEVEL REFLECTED CEILING PLAN
1/8" = 1'-0"



SIGNATURE

DATE _____

REVISIONS		
NO.	DESCRIPTION	DATE

PROJECT NUMBER	224153.00
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DATE OF ISSUE 03.17.2025

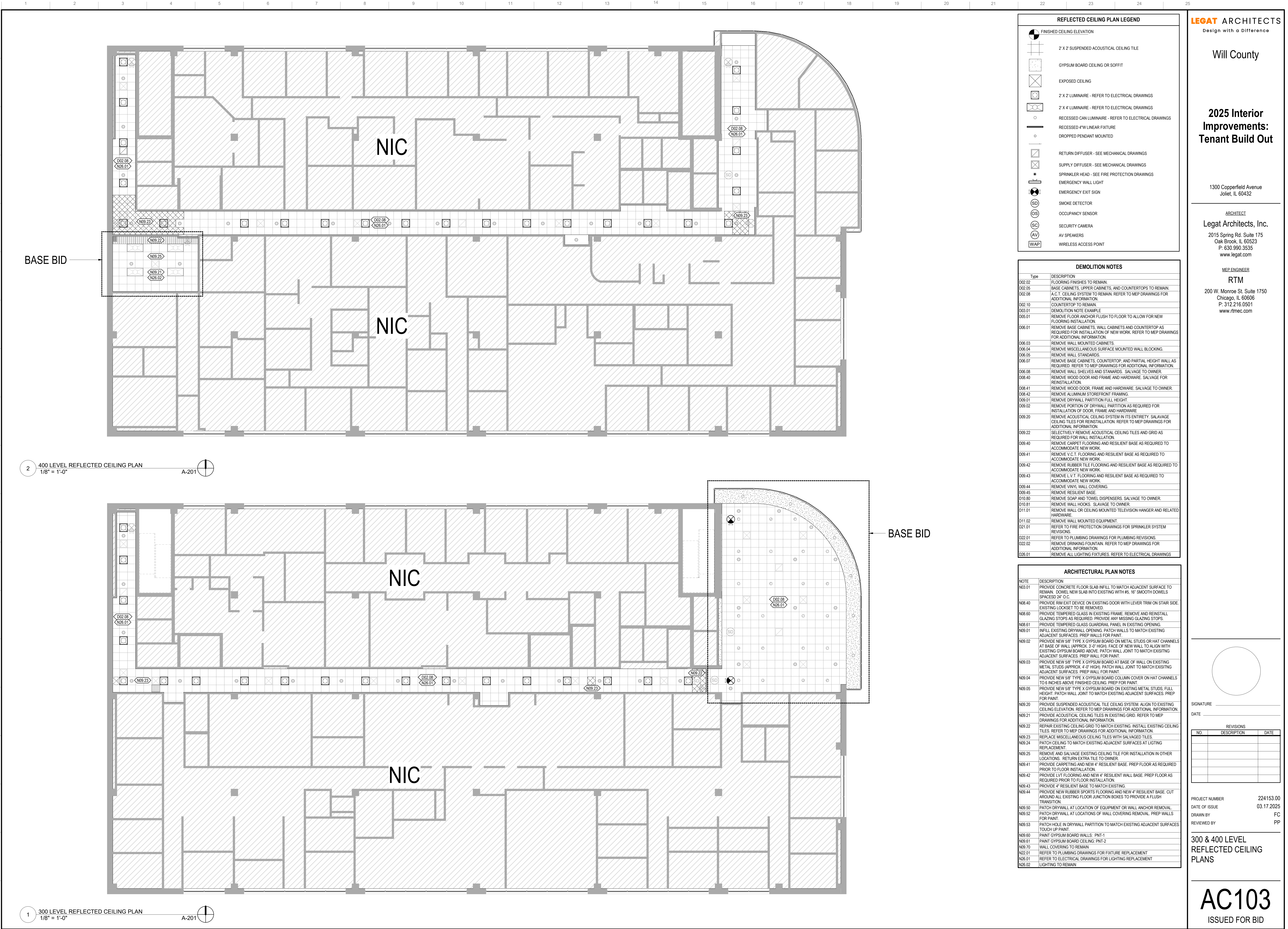
DRAWN BY FC
55

REVIEWED BY _____ PP _____

200 LEVEL REFLECTED
CEILING PLAN

AC102

ISSUED FOR BID



REFLECTED CEILING PLAN LEGEND	
	FINISHED CEILING ELEVATION
	2' X 2' SUSPENDED ACOUSTICAL CEILING TILE
	GYPSUM BOARD CEILING OR SOFFIT
	EXPOSED CEILING
	2' X 2' LUMINAIRE - REFER TO ELECTRICAL DRAWINGS
	2' X 4' LUMINAIRE - REFER TO ELECTRICAL DRAWINGS
	RECESSED CAN LUMINAIRE - REFER TO ELECTRICAL DRAWINGS
	RECESSED 4"W LINEAR FIXTURE
	DROPPED PENDANT MOUNTED
	RETURN DIFFUSER - SEE MECHANICAL DRAWINGS
	SUPPLY DIFFUSER - SEE MECHANICAL DRAWINGS
	SPRINKLER HEAD - SEE FIRE PROTECTION DRAWINGS
	EMERGENCY WALL LIGHT
	EMERGENCY EXIT SIGN
	SMOKE DETECTOR
	OCCUPANCY SENSOR
	SECURITY CAMERA
	AV SPEAKERS
	WIRELESS ACCESS POINT

DEMOLITION NOTES	
Type	DESCRIPTION
D02.02	FLOORING FINISHES TO REMAIN.
D02.05	BASE CABINETS, UPPER CABINETS, AND COUNTERTOPS TO REMAIN.
D02.08	A.C.T. CEILING SYSTEM TO REMAIN. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
D02.10	COUNTERTOP TO REMAIN.
D03.01	DEMOLITION NOTE EXAMPLE
D05.01	REMOVE FLOOR ANCHOR FLUSH TO FLOOR TO ALLOW FOR NEW FLOORING INSTALLATION.
D06.01	REMOVE BASE CABINETS, WALL CABINETS AND COUNTERTOP AS REQUIRED FOR INSTALLATION OF NEW WORK. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
D06.03	REMOVE WALL MOUNTED CABINETS.
D06.04	REMOVE MISCELLANEOUS SURFACE MOUNTED WALL BLOCKING.
D06.05	REMOVE WALL STANDARDS.
D06.07	REMOVE BASE CABINETS, COUNTERTOP, AND PARTIAL HEIGHT WALL AS REQUIRED. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
D06.08	REMOVE WALL SHELVES AND STANDARDS. SALVAGE TO OWNER.
D06.40	REMOVE WOOD DOOR AND FRAME AND HARDWARE. SALVAGE FOR REINSTALLATION.
D08.41	REMOVE WOOD DOOR, FRAME AND HARDWARE. SALVAGE TO OWNER.
D08.42	REMOVE ALUMINUM STOREFRONT FRAMING.
D09.01	REMOVE DRYWALL PARTITION FULL HEIGHT.
D09.02	REMOVE PORTION OF DRYWALL PARTITION AS REQUIRED FOR INSTALLATION OF DOOR, FRAME AND HARDWARE.
D09.20	REMOVE ACOUSTICAL CEILING SYSTEM IN ITS ENTIRETY. SALVAGE CEILING TILES FOR REINSTALLATION. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
D09.22	SELECTIVELY REMOVE ACOUSTICAL CEILING TILES AND GRID AS REQUIRED FOR WALL INSTALLATION.
D09.40	REMOVE CARPET FLOORING AND RESILIENT BASE AS REQUIRED TO ACCOMMODATE NEW WORK.
D09.41	REMOVE V.C.T. FLOORING AND RESILIENT BASE AS REQUIRED TO ACCOMMODATE NEW WORK.
D09.42	REMOVE RUBBER TILE FLOORING AND RESILIENT BASE AS REQUIRED TO ACCOMMODATE NEW WORK.
D09.43	REMOVE L.V.T. FLOORING AND RESILIENT BASE AS REQUIRED TO ACCOMMODATE NEW WORK.
D09.44	REMOVE VINYL WALL COVERING.
D09.45	REMOVE RESILIENT BASE.
D10.80	REMOVE SOAP AND TOWEL DISPENSERS. SALVAGE TO OWNER.
D10.81	REMOVE WALL HOOKS. SALVAGE TO OWNER.
D11.01	REMOVE WALL OR CEILING MOUNTED TELEVISION HANGER AND RELATED HARDWARE.
D11.02	REMOVE WALL MOUNTED EQUIPMENT.
D21.01	REFER TO FIRE PROTECTION DRAWINGS FOR SPRINKLER SYSTEM REVISIONS.
D22.01	REFER TO PLUMBING DRAWINGS FOR PLUMBING REVISIONS.
D22.02	REMOVE DRINKING FOUNTAIN. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
D26.01	REMOVE ALL LIGHTING FIXTURES. REFER TO ELECTRICAL DRAWINGS

ARCHITECTURAL PLAN NOTES	
NOTE	DESCRIPTION
N03.01	PROVIDE CONCRETE FLOOR SLAB INFILL TO MATCH ADJACENT SURFACE TO REMAIN. DOWEL NEW SLAB INTO EXISTING WITH #5, 16" SMOOTH DOWELS SPACED 24" O.C.
N08.40	PROVIDE RIM EXT. DEVICE ON EXISTING DOOR WITH LEVER TRIM ON STAIR SIDE. EXISTING LOCKSET TO BE REMOVED.
N08.60	PROVIDE TEMPERED GLASS IN EXISTING FRAME. REMOVE AND REINSTALL GLAZING STOPS AS REQUIRED. PROVIDE ANY MISSING GLAZING STOPS.
N08.61	PROVIDE TEMPERED GLASS GUARDRAIL PANELS IN EXISTING OPENINGS.
N09.01	INFILL EXISTING DRYWALL OPENING. PATCH WALLS TO MATCH EXISTING ADJACENT SURFACES. PREP WALLS FOR PAINT.
N09.02	PROVIDE NEW 5/8" TYPE X GYPSUM BOARD ON METAL STUDS OR HAT CHANNELS AT BASE OF WALL (APPROX. 3'-0" HIGH). PATCH WALL JOINT TO MATCH EXISTING ADJACENT SURFACES. PREP WALL FOR PAINT.
N09.03	PROVIDE NEW 5/8" TYPE X GYPSUM BOARD AT BASE OF WALL ON EXISTING METAL STUDS (APPROX. 4'-0" HIGH). PATCH WALL JOINT TO MATCH EXISTING ADJACENT SURFACES. PREP WALL FOR PAINT.
N09.04	PROVIDE NEW 5/8" TYPE X GYPSUM BOARD COLUMN COVER ON HAT CHANNELS TO 6 INCHES ABOVE FINISHED CEILING. PREP FOR PAINT.
N09.05	PROVIDE NEW 5/8" TYPE X GYPSUM BOARD ON EXISTING METAL STUDS. FULL HEIGHT. PATCH WALL JOINT TO MATCH EXISTING ADJACENT SURFACES. PREP FOR PAINT.
N09.20	PROVIDE SUSPENDED ACOUSTICAL TILE CEILING SYSTEM. ALIGN TO EXISTING CEILING ELEVATION. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
N09.21	PROVIDE ACOUSTICAL CEILING TILES IN EXISTING GRID. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
N09.22	REPAIR EXISTING CEILING GRID TO MATCH EXISTING. INSTALL EXISTING CEILING TILES. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
N09.23	REPLACE MISCELLANEOUS CEILING TILES WITH SALVAGED TILES.
N09.24	PATCH CEILING TO MATCH EXISTING ADJACENT SURFACES AT LIGHTING REPLACEMENT.
N09.25	REMOVE AND SALVAGE EXISTING CEILING TILE FOR INSTALLATION IN OTHER LOCATIONS. RETURN EXTRA TILE TO OWNER.
N09.41	PROVIDE CARPETING AND NEW 4" RESILIENT BASE. PREP FLOOR AS REQUIRED PRIOR TO FLOOR INSTALLATION.
N09.42	PROVIDE L.V.T. FLOORING AND NEW 4" RESILIENT WALL BASE. PREP FLOOR AS REQUIRED PRIOR TO FLOOR INSTALLATION.
N09.43	PROVIDE 4" RESILIENT BASE TO MATCH EXISTING.
N09.44	PROVIDE NEW RUBBER SPORTS FLOORING AND NEW 4" RESILIENT BASE. CUT AROUND ALL EXISTING FLOOR JUNCTION BOXES TO PROVIDE A FLUSH TRANSITION.
N09.50	PATCH DRYWALL AT LOCATION OF EQUIPMENT OR WALL ANCHOR REMOVAL.
N09.52	PATCH DRYWALL AT LOCATIONS OF WALL COVERING REMOVAL. PREP WALLS FOR PAINT.
N09.53	PATCH HOLE IN DRYWALL PARTITION TO MATCH EXISTING ADJACENT SURFACES.
N09.60	PAINT GYPSUM BOARD WALLS. PNT-1
N09.61	PAINT GYPSUM BOARD CEILING. PNT-2
N09.70	WALL COVERING TO REMAIN
N22.01	REFER TO PLUMBING DRAWINGS FOR FIXTURE REPLACEMENT
N26.01	REFER TO ELECTRICAL DRAWINGS FOR LIGHTING REPLACEMENT
N26.02	LIGHTING TO REMAIN

LEGAT ARCHITECTS
Design with a Difference

Will County

2025 Interior Improvements: Tenant Build Out

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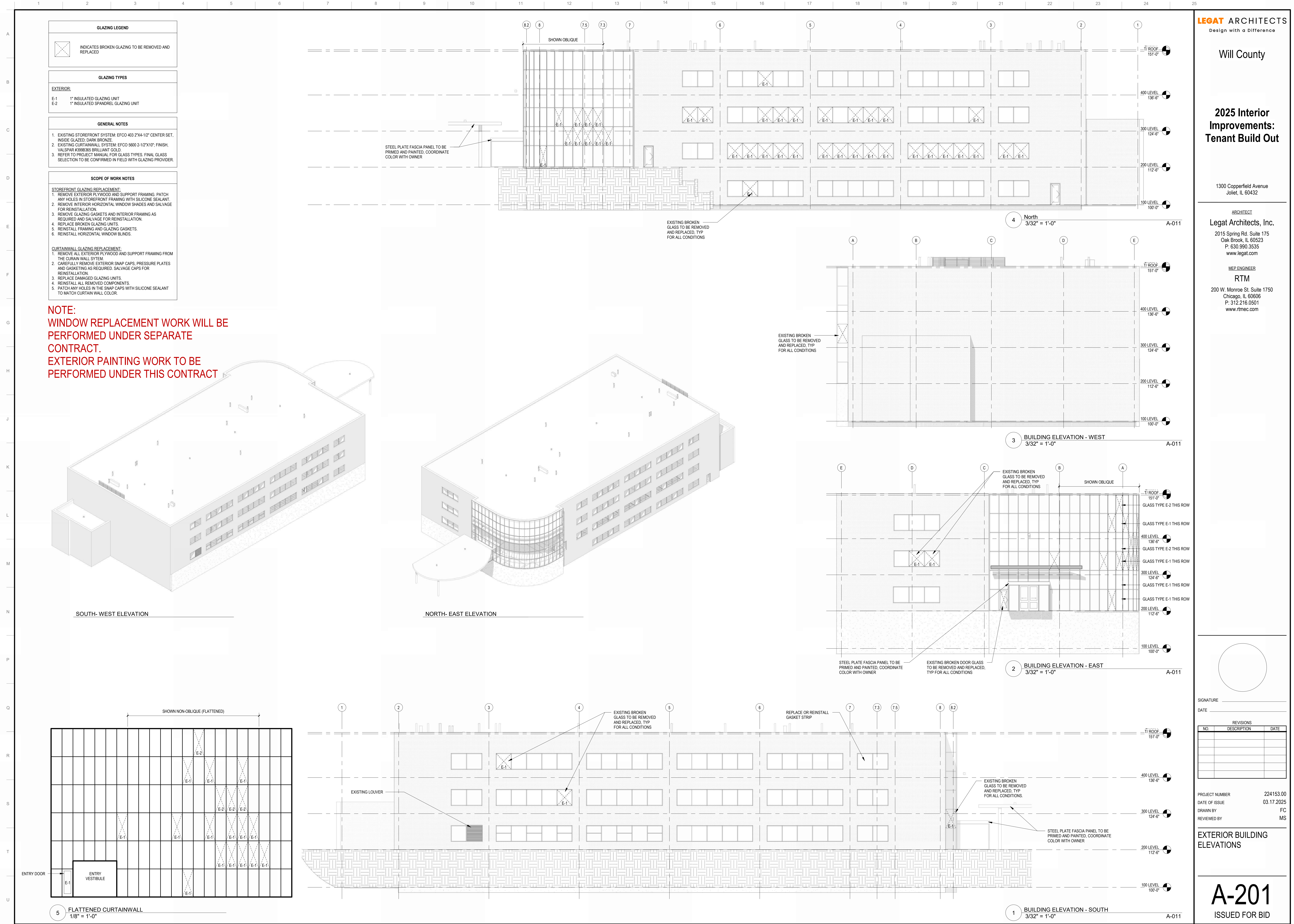
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DATE _____

REVISIONS		
NO	DESCRIPTION	DATE

PROJECT NUMBER 224153.00
DATE OF ISSUE 03.17.2025
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300 & 400 LEVEL REFLECTED CEILING PLANS

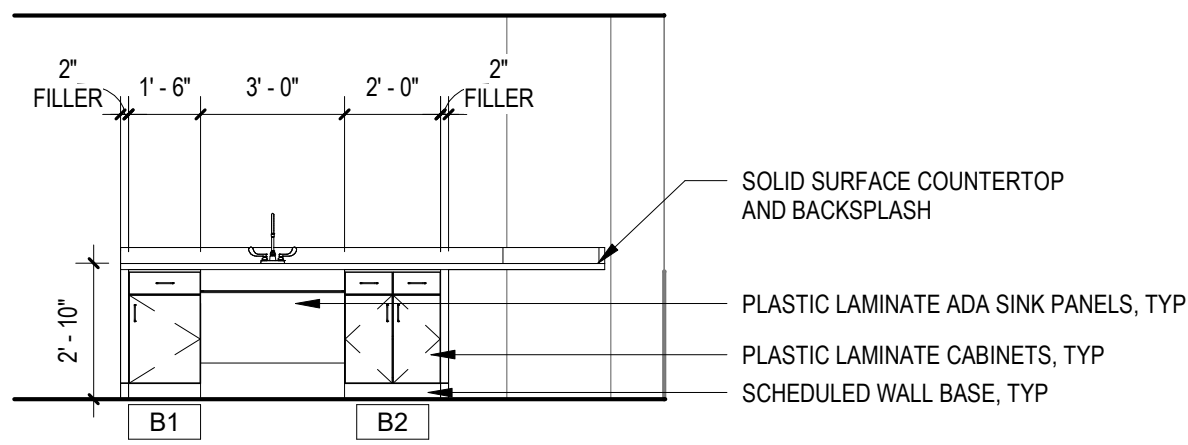
AC103
ISSUED FOR BID



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DATE		
REVISIONS		
NO	DESCRIPTION	DATE

PROJECT NUMBER 224153.00
DATE OF ISSUE 03.17.2025
DRAWN BY FC
REVIEWED BY MS

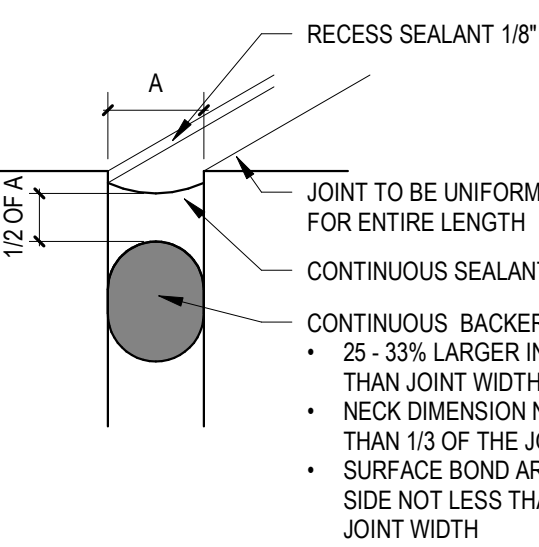
EXTERIOR BUILDING
ELEVATIONS



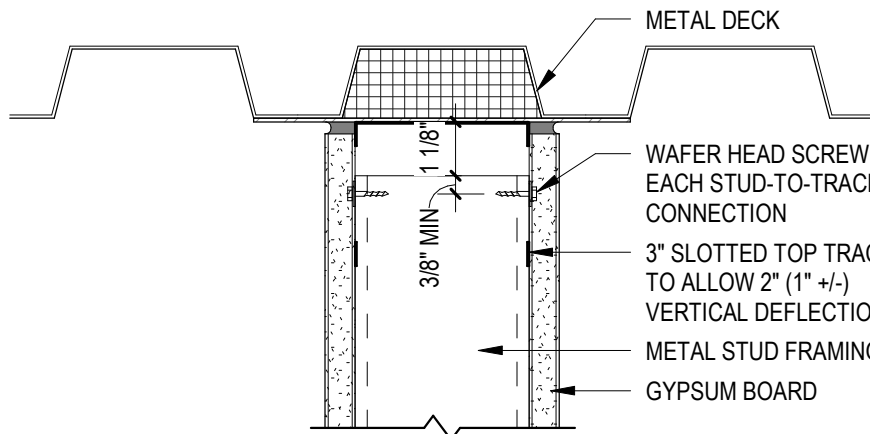
15 CONFERENCE ROOM 2009 CASEWORK ELEVATION
1/4" = 1'-0" A-102

INSTALLATION INSTRUCTIONS

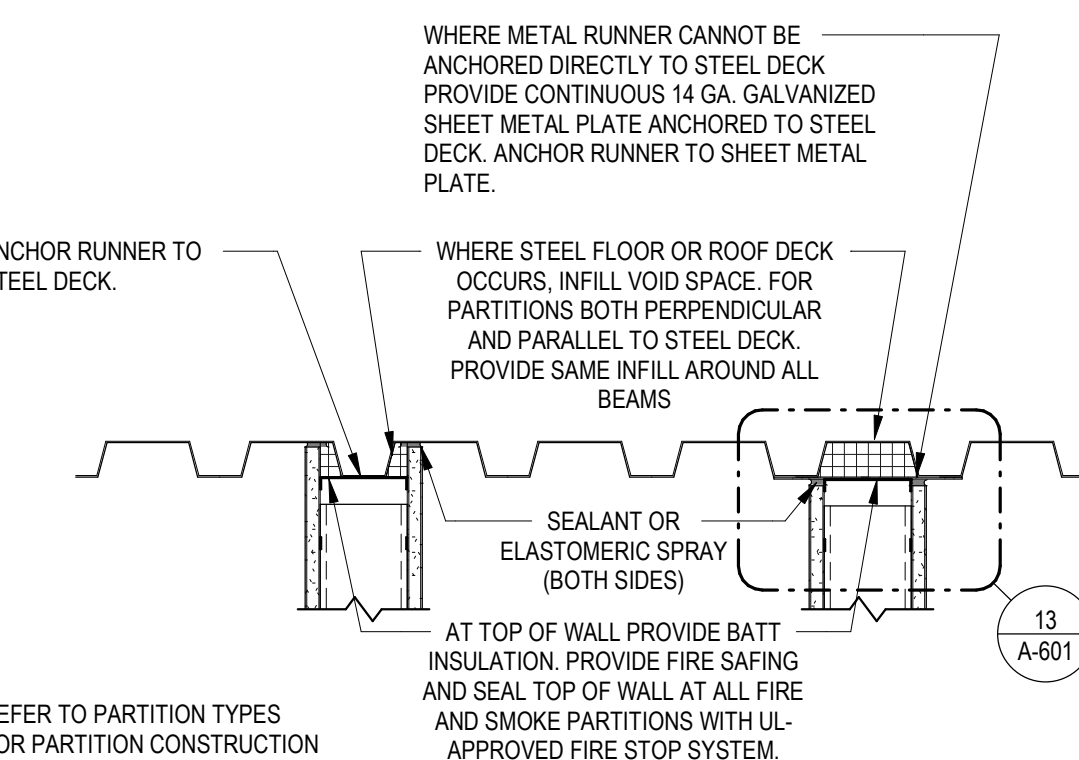
- REMOVE LOOSE MATERIALS AND FOREIGN MATTER THAT COULD IMPAIR ADHESION OF SEALANT
- CLEAN JOINT, AND PRIME AS NECESSARY, IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS
- PERFORM PREPARATION IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND ASTM C1193
- INSTALL BACKER ROD, USE BOND BREAKER BACKING TAPE WHERE BACKER ROD CANNOT BE USED
- MASK ELEMENTS AND SURFACES ADJACENT TO JOINTS FROM DAMAGE AND DISFIGUREMENT DUE TO SEALANT WORK. BE AWARE THAT SEALANT DRIPS AND SHEARS MAY NOT BE COMPLETELY REMOVABLE
- PERFORM INSTALLATION PER MANUFACTURER'S INSTRUCTIONS AND ASTM C1193
- TOOL SURFACE CONCAVE, UNLESS OTHERWISE INDICATED. REMOVE MASKING MATERIAL IMMEDIATELY AFTER TOOLING SEALANT SURFACE



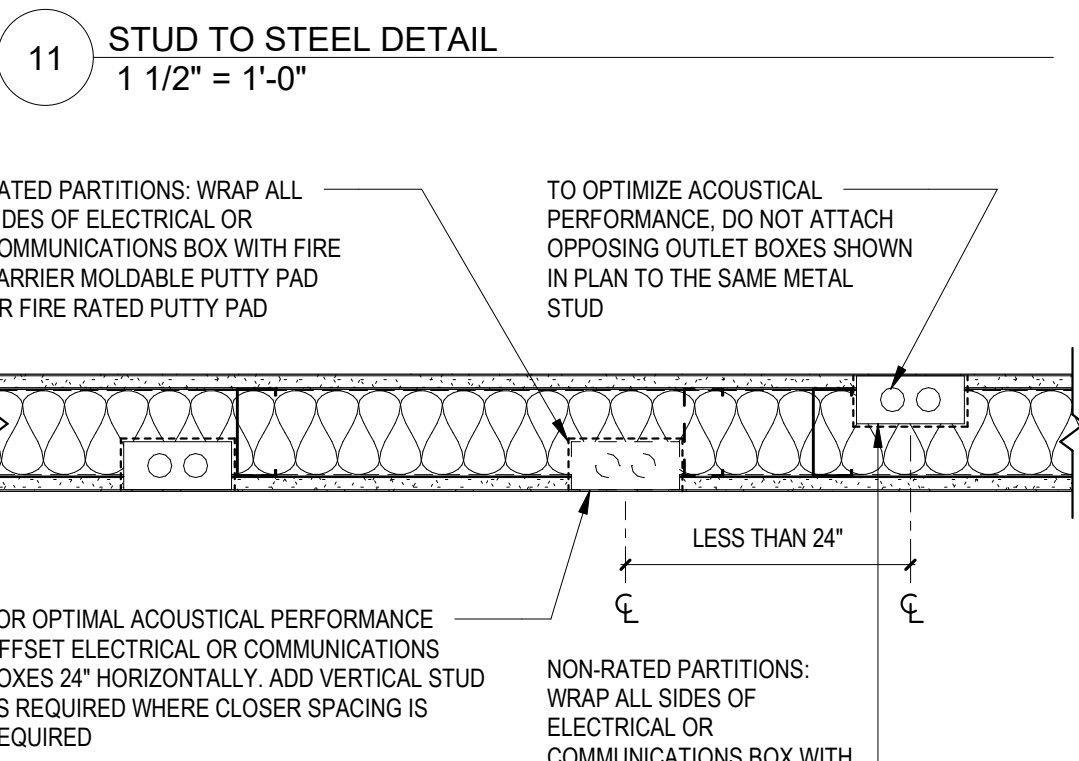
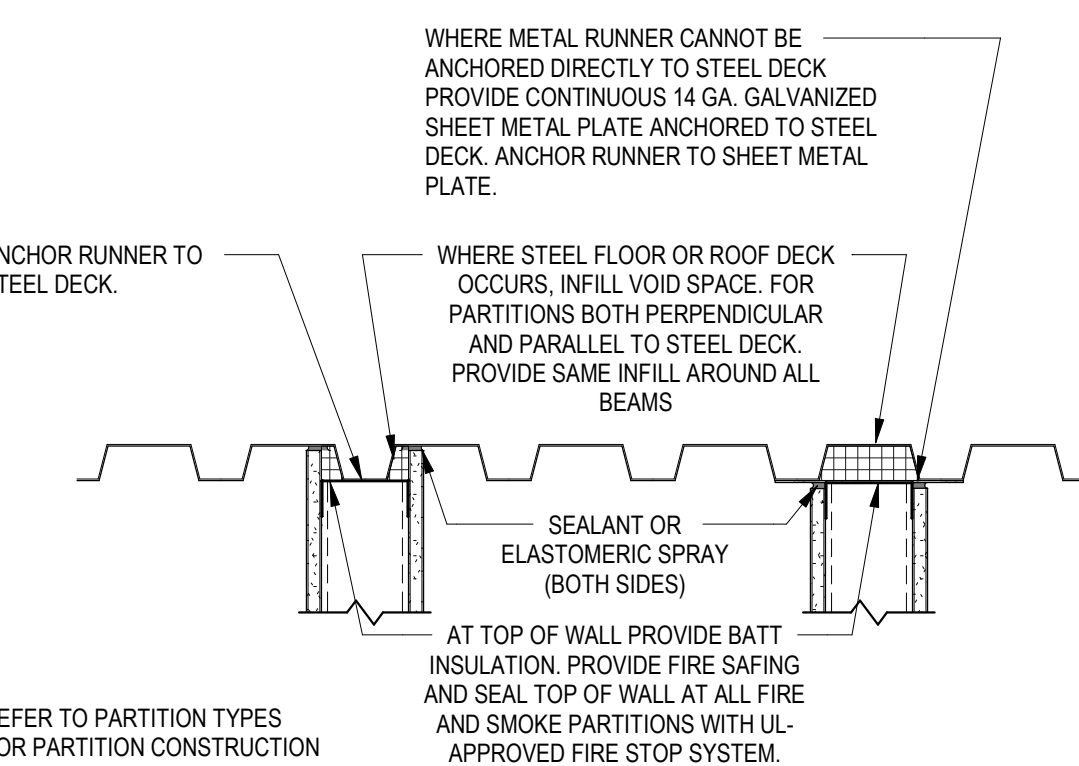
20 BACKER ROD & SEALANT DETAIL
12" = 1'-0"



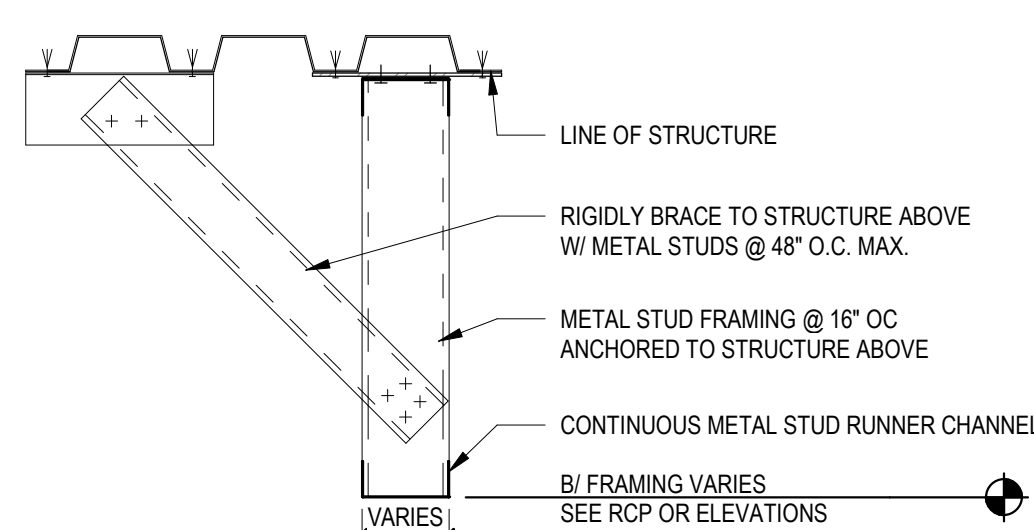
13 SLOTTED TRACK HEAD DETAIL
3" = 1'-0" A-601



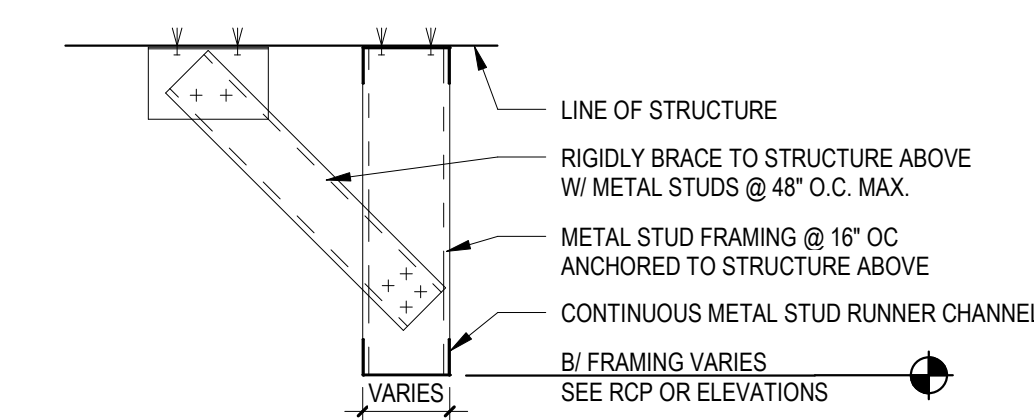
12 STUD TO STEEL SLOTTED TRACK DETAIL
1 1/2" = 1'-0"



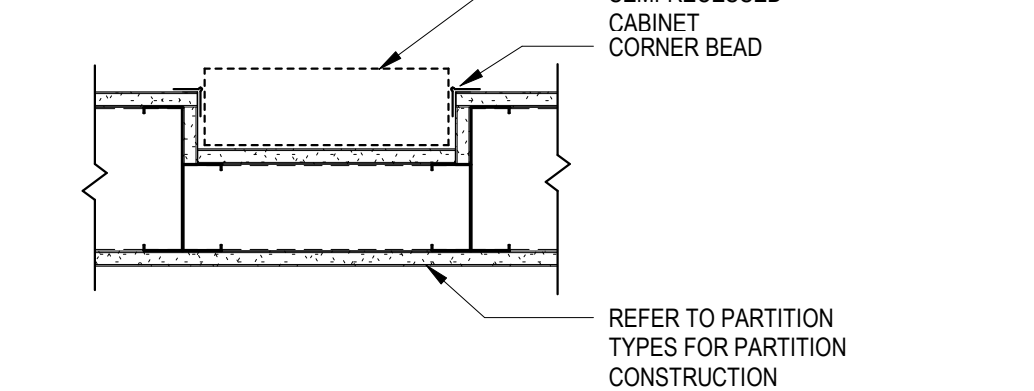
10 PLAN AT ALL ELECTRICAL OR COMMUNICATIONS BOXES
1 1/2" = 1'-0"



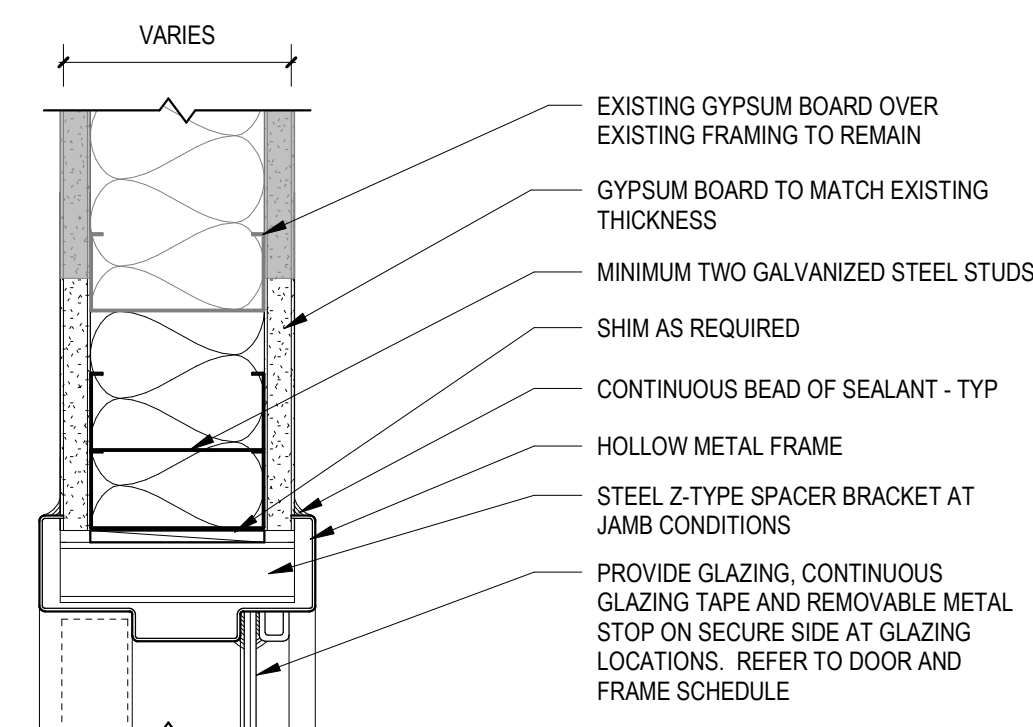
9 KICKER TO METAL DECK
1 1/2" = 1'-0"



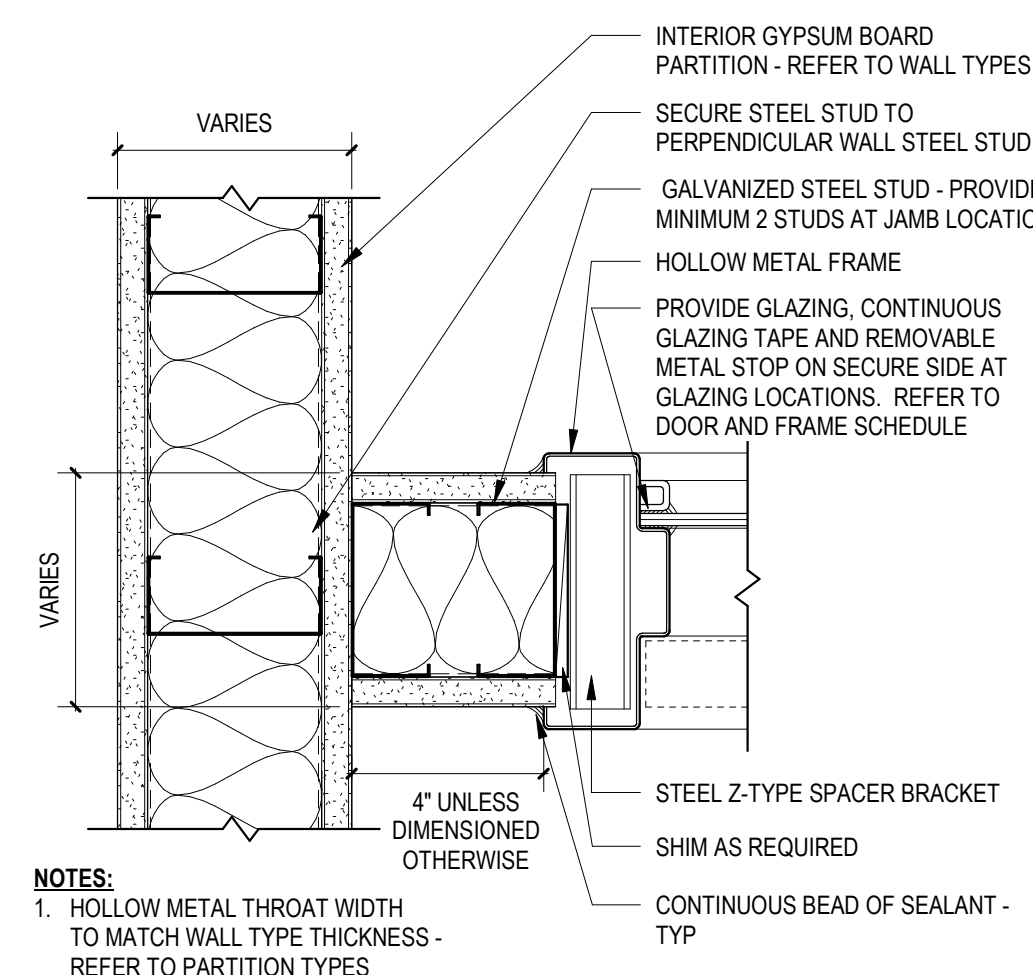
8 KICKER TO FLAT STRUCTURE
1 1/2" = 1'-0"



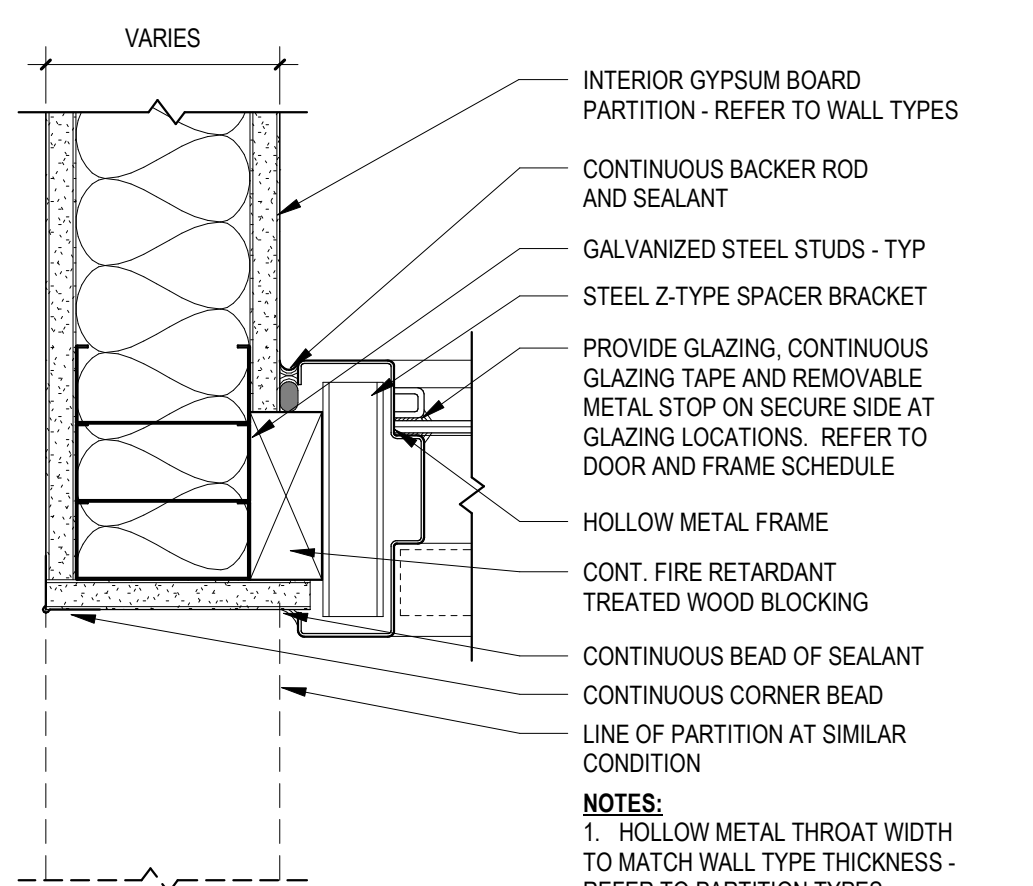
7 RECESSED POCKET
1 1/2" = 1'-0"



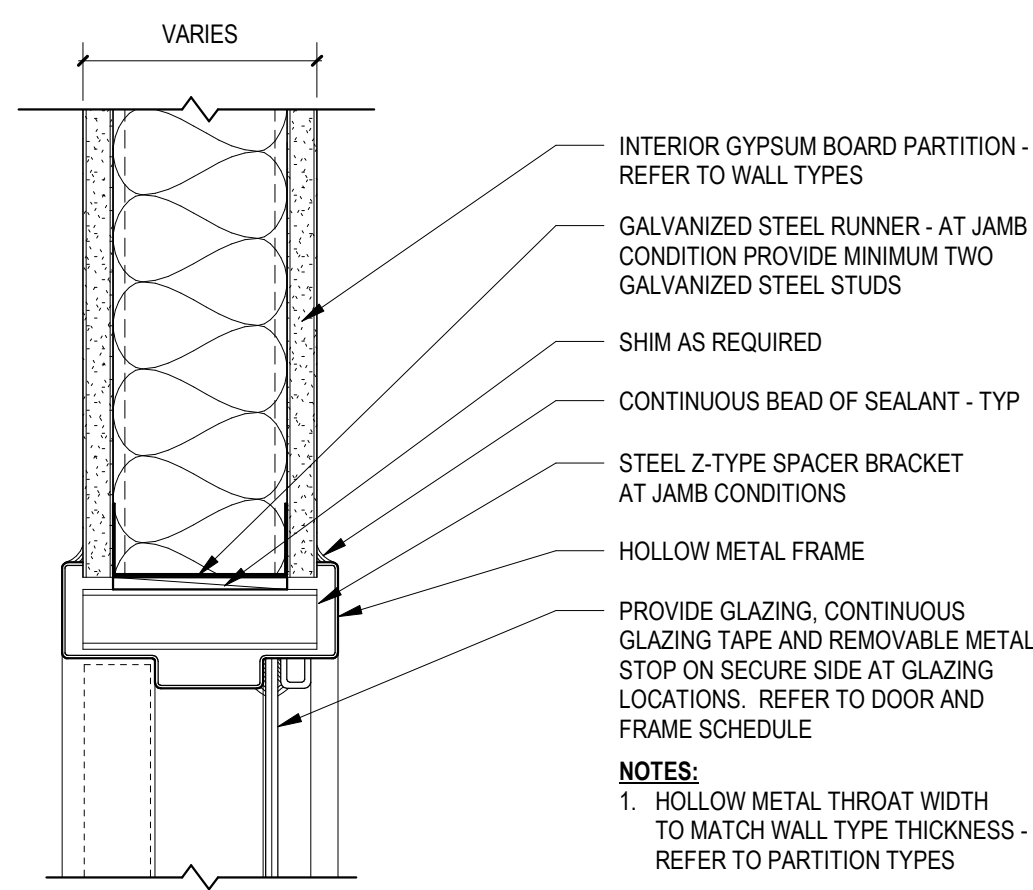
6 TYP. HM - HEAD/JAMB - NEW OPENING IN EXIST WALL
3" = 1'-0"



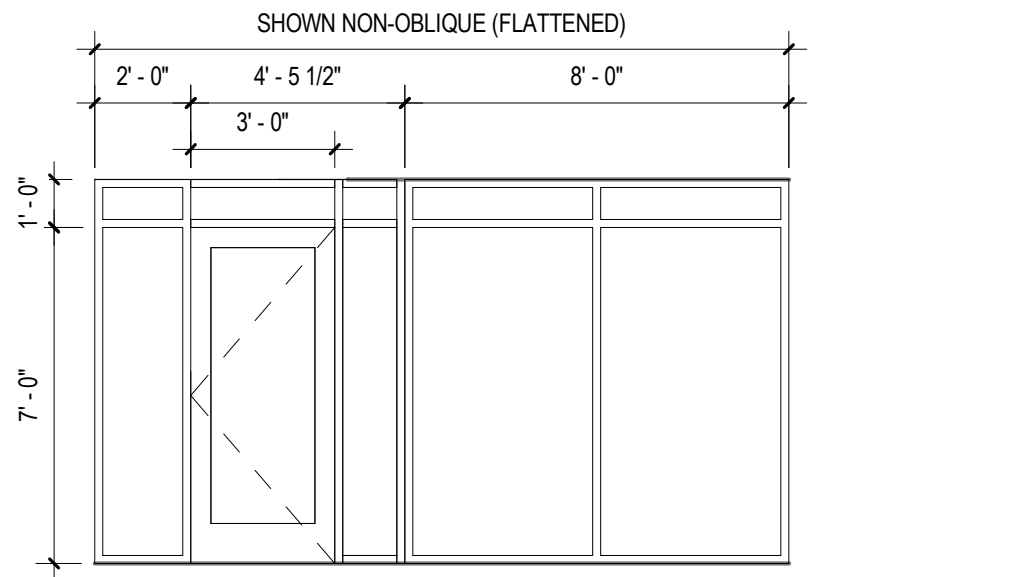
5 TYP. HOLLOW METAL - JAMB DETAIL - STUD WALL
3" = 1'-0"



4 TYP. HOLLOW METAL - JAMB DETAIL - STUD WALL
3" = 1'-0"



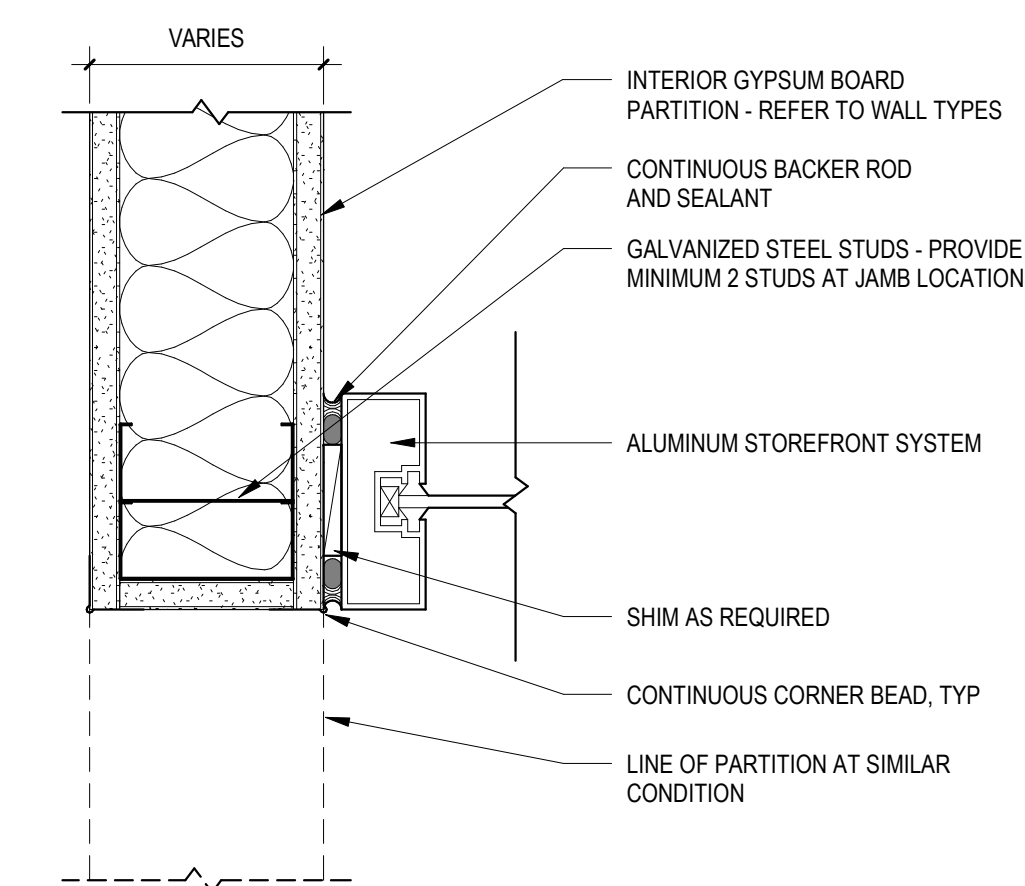
3 TYP. HOLLOW METAL - HEAD DETAIL - STUD WALL
3" = 1'-0"



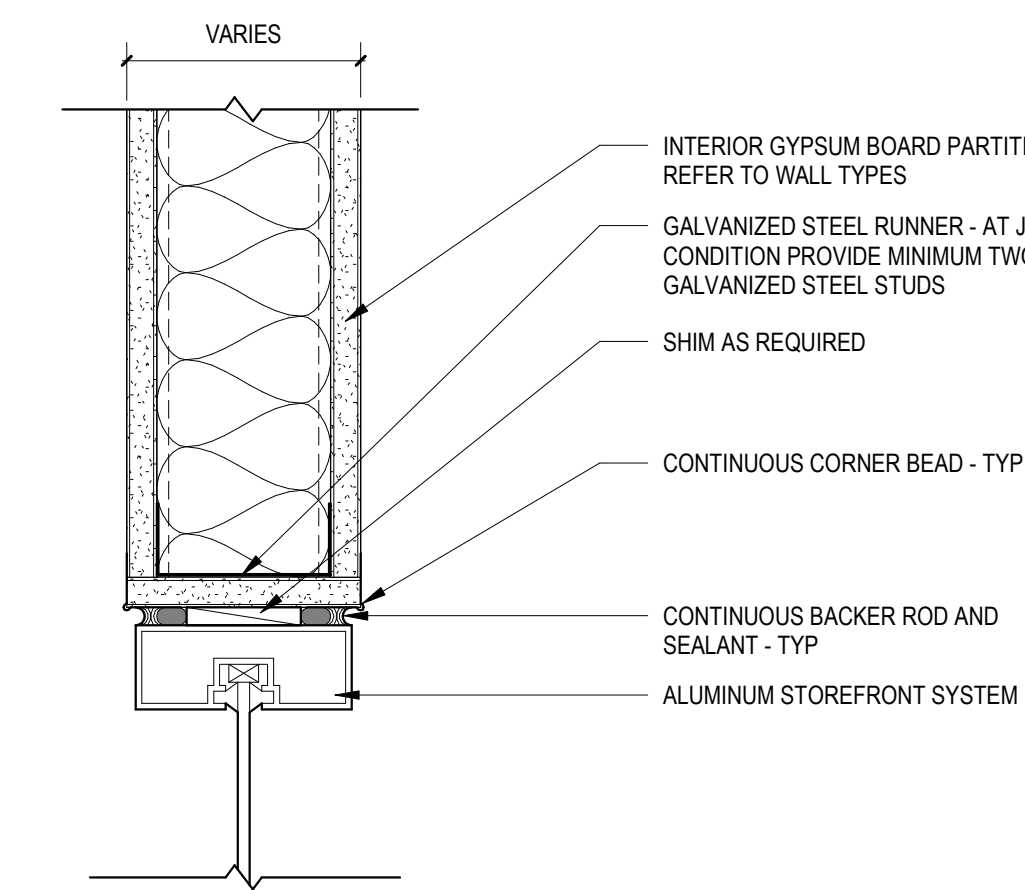
14 UNROLLED STOREFRONT ELEVATION
1/4" = 1'-0"



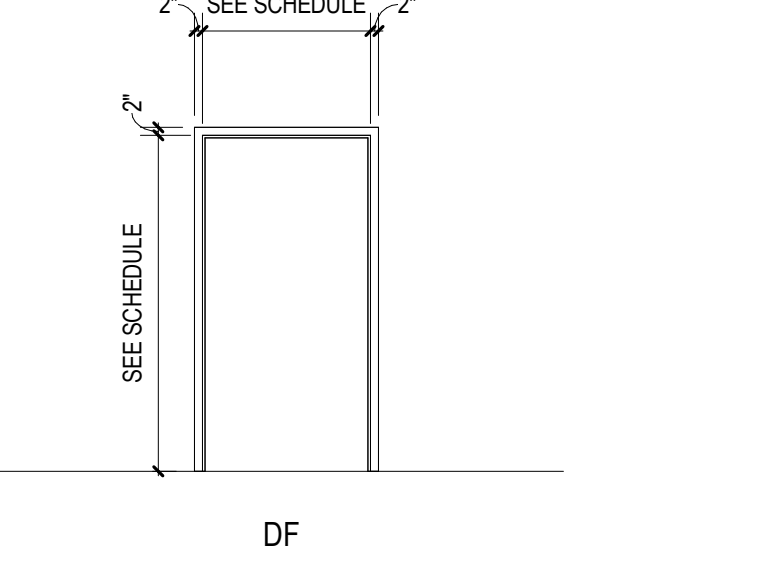
DOOR TYPES
1/4" = 1'-0"



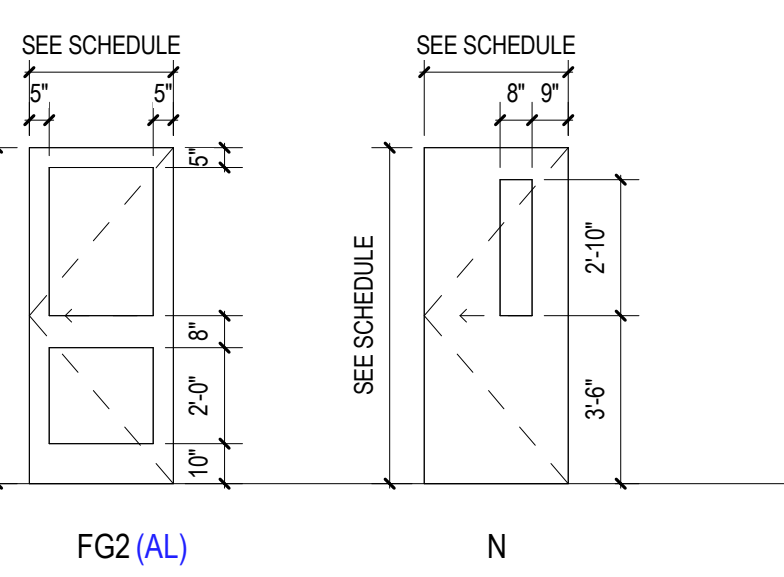
2 TYPICAL ALUMINUM STOREFRONT - JAMB DETAIL
3" = 1'-0"



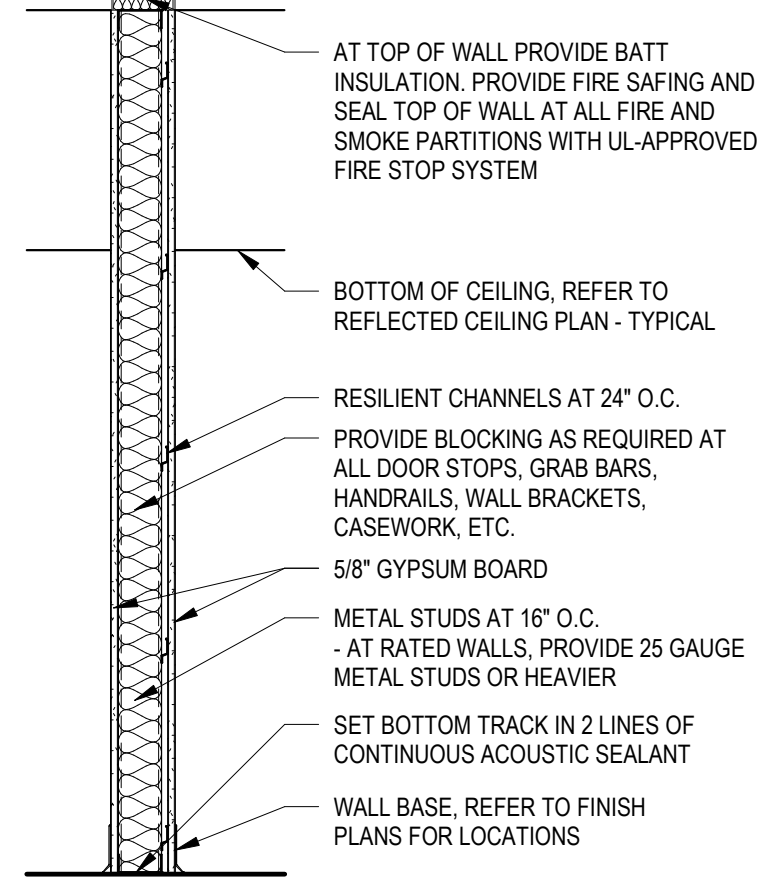
1 TYPICAL ALUMINUM STOREFRONT - HEAD DETAIL
3" = 1'-0"



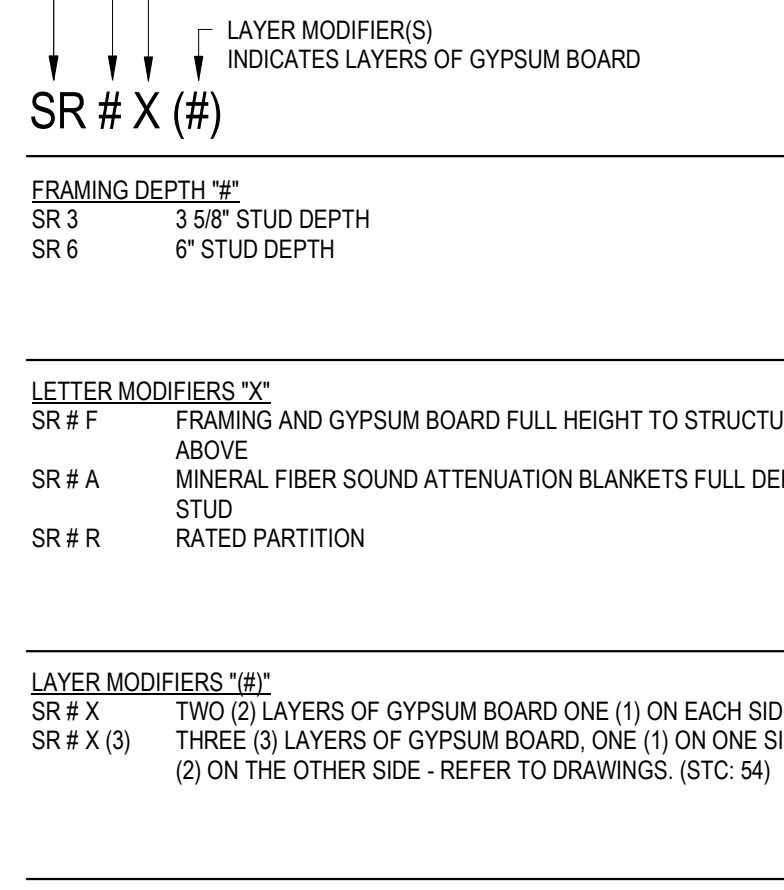
FRAME TYPES
1/4" = 1'-0"



DOOR TYPES
1/4" = 1'-0"



2 TYPICAL ALUMINUM STOREFRONT - JAMB DETAIL
3" = 1'-0"



1 TYPICAL ALUMINUM STOREFRONT - HEAD DETAIL
3" = 1'-0"

GENERAL NOTES

- ALL DOOR AND FRAME TYPES ARE SHOWN AS EXTERIOR VIEW.
- FRAME WIDTHS ARE INDICATED ON THE FLOOR PLANS. FRAME HEIGHTS ARE INDICATED ON THE FRAME TYPES. DOOR DIMENSIONS ARE INDICATED ON THE DOOR AND FRAME SCHEDULE.
- DIMENSIONS ARE INDICATED FOR BIDDING PURPOSES ONLY AND SHALL BE FIELD VERIFIED PRIOR TO PREPARATION OF SHOP DRAWINGS AND FABRICATION.
- THE MANUFACTURER(S) SHALL BE RESPONSIBLE FOR THE ENGINEERING AND STRUCTURAL INTEGRITY OF THEIR FRAME SYSTEMS.
- ALL FRAMES IN MASONRY OPENINGS REQUIRE A LINTEL. REFER TO DOOR AND FRAME SCHEDULE AND/OR STRUCTURAL DRAWINGS.
- ALL OPENINGS IN FRAMES REQUIRE GLAZING PANELS OR INFLU PANELS EXCEPT FOR DOOR OPENINGS. GLAZING TYPES FOR EXTERIOR FRAMES ARE INDICATED ON THE FRAME TYPES. GLAZING TYPES FOR INTERIOR FRAMES ARE INDICATED ON THE DOOR AND FRAME SCHEDULE OR HEREIN.
- ALL OPENINGS IN DOORS REQUIRE GLAZING PANELS UNLESS NOTED OTHERWISE. GLAZING TYPES FOR DOORS ARE INDICATED ON THE DOOR AND FRAME SCHEDULE OR HEREIN.
- HARDWARE SETS AND GLAZING TYPES ARE SPECIFIED IN THE PROJECT MANUAL.
- FRAMES SHALL BE DESIGNED, CUT, AND FABRICATED TO MINIMIZE JOINTS.
 - JOINTS IN HOLLOW METAL FRAMES SHALL RECEIVE METAL FILLER, BE GROUND SMOOTH AND SHORFLEAD PRIMED PRIOR TO FINISH PAINT.
 - JOINTS IN EXTERIOR ALUMINUM FRAMES SHALL BE AIR AND WATER TIGHT IN ACCORDANCE WITH THE REQUIREMENTS IDENTIFIED IN THE PROJECT MANUAL, LAP AND SEAL ALL JOINTS. ALLOW FOR EXPANSION IN THE TRIM AND AT JOINTS AND INTERSECTIONS OF ADJACENT FRAMES.
- ALUMINUM FRAMING SYSTEMS:
 - FACE WIDTH: 2"
 - FRAME DEPTH: 4-1/4"
- ANCHORAGE AT ALUMINUM STOREFRONT AND WINDOW SYSTEMS:
 - PROVIDE ANCHORAGE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS TO MEET THE REQUIRED DESIGN LOADS BUT NOT LESS THAN THREE (3) ANCHORS PER JAMB LOCATION.
 - PROVIDE ALUMINUM FASTENERS, NON-MAGNETIC STAINLESS STEEL FASTENERS, OR OTHER FASTENER TYPES WARRANTED BY THE SYSTEM MANUFACTURER TO BE NON-CORROSIVE, NON-CORRODIBLE, AND COMPATIBLE WITH OTHER BUILDING COMPONENTS.
 - PROVIDE REINFORCEMENT WHERE FASTENERS ARE SCREWED INTO ALUMINUM COMPONENTS LESS THAN 1/8" THICK.
 - DO NOT USE EXPOSED FASTENERS AT BUILDING EXTERIOR. AT BUILDING INTERIOR FASTENERS ARE TO MATCH THE FINISH OF THE FRAME.
 - INTERNALLY REINFORCE WALLS AS REQUIRED TO MEET SPANS AS INDICATED IN THE DRAWINGS AND PROJECT MANUAL.
 - NO EXPOSED FASTENERS.
- HOLLOW METAL DOORS AND FRAMES:
 - ALL HOLLOW METAL FRAMES SHALL HAVE THE FOLLOWING CHARACTERISTICS UNLESS NOTED OTHERWISE:
 - FACE WIDTH: 2"
 - FRAME DEPTH: 4-1/4"
 - THROAT: 4-7/8"
 - RETURN: 1/16"
 - ANCHORAGE AT HOLLOW METAL FRAMES:
 - PROVIDE FASTENERS AT 18" ON CENTER AND MINIMALLY THREE (3) ANCHORS PER JAMB.
 - AT FRAMES INSTALLED PRIOR TO MASONRY INSTALLATION PROVIDE GALVANIZED STEEL 1" ANCHORS.
 - AT FRAMES INSTALLED AFTER MASONRY INSTALLATION OR AT EXISTING MASONRY OPENINGS PROVIDE GALVANIZED STEEL SPACER BRACKETS, ANCHOR SLEEVES WELDED TO THE INTERIOR OF THE FRAME, AND COUNTERSUNK 3/8" FLATHEAD EXPANSION ANCHORS. COVER HEAD OF FASTENERS WITH METAL FILLER, GRIND SMOOTH, PRIME AND FINISH PAINT.
 - AT FRAMES INSTALLED IN STUD PARTITIONS PROVIDE GALVANIZED STEEL Z-TYPE SPACE BRACKETS.
 - JAMBS OF FRAMES INSTALLED IN EXTERIOR WALLS AND WHERE INDICATED SHALL BE GROUTED SOLID. COVER GROUT HOLES WITH METAL FILLER, GRIND SMOOTH, PRIME AND FINISH PAINT.
- GLAZING:
 - GLAZING AT INTERIOR DOORS AND FRAMES SHALL BE TYPE I-1 UNO.
 - GLAZING AT FIRE RATED INTERIOR DOORS AND FRAMES SHALL BE TYPE I-2 UNO.

GLAZING TYPES

INTERIOR:	
I-1	TEMPERED GLAZING UNIT
I-2	FIRE RATED GLAZING UNIT

REFERENCED NOTES

- PROVIDE MAGNETIC LOCK TIED TO FIRE ALARM SYSTEM.
- RELOCATED DOOR, FRAME AND HARDWARE SALVAGED FROM DEMOLITION.
- RELOCATED DOOR AND FRAME, CUT NEW NARROW LIGHT VISION PANEL INTO EXISTING DOOR. MODIFY DOOR AND FRAME FOR NEW PANEL HARDWARE.
- REMOVE LOCKSET. INSTALL RIM EXIT DEVICE WITH LEVER TRIM ON EXISTING DOOR TO REMAIN. ADJUST FRAME AS REQUIRED TO RECEIVE NEW HARDWARE.

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DATE OF ISSUE 03.17.2025

DRAWN BY FC

REVIEWED BY PP

DOOR, FRAME, AND PARTITION DETAILS

A-601

ISSUED FOR BID

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
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PLUMBING AND PIPING SYSTEMS
PART 1 - GENERAL
1.01 GENERAL REQUIREMENTS
A. CODES AND REGULATIONS: COMPLY WITH ALL APPLICABLE SECTIONS OF NATIONAL, STATE AND LOCAL CODES, LAWS, ORDINANCES, RULES AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION
B. THE DRAWINGS AND SPECIFICATIONS TAKE PRECEDENCE WHEN THEY CALL FOR MATERIALS OR CONSTRUCTION OF BETTER QUALITY OR LARGER SIZE THAN REQUIRED BY CODES, LAWS, RULES, REGULATIONS AND STANDARDS.
C. PERMITS: CONTRACTOR SHALL OBTAIN AND PAY FOR ALL FEES, PERMITS AND INSPECTIONS. DELIVER ALL CERTIFICATES OF INSPECTION TO THE OWNER'S REPRESENTATIVE.
D. FURNISH MATERIALS AND PERFORM LABOR REQUIRED TO COMPLETE THIS WORK FOR A COMPLETE AND OPERABLE FACILITY, INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:
1. PLUMBING EQUIPMENT AND ACCESSORIES.
2. SANITARY DRAINAGE, WASTE AND VENT SYSTEMS WITH PIPING, DRAINS AND ACCESSORIES.
3. DOMESTIC COLD AND HOT WATER SYSTEM WITH PIPING, VALVES, FIXTURES, TRIM, AND ACCESSORIES.
4. ROUGH-INS AND FINAL CONNECTIONS TO EQUIPMENT FURNISHED UNDER OTHER SECTIONS.

1.02 EQUIVALENTS
A. BASIS FOR DESIGN: THE MANUFACTURER'S NAME AND PRODUCT LISTED ON THE DRAWINGS ARE USED AS A BASIS FOR DESIGN TO ESTABLISH SPACE REQUIREMENTS, A STANDARD OF QUALITY AND PERFORMANCE.
B. EQUIVALENTS: PRODUCTS OF ONE OR MORE OTHER MANUFACTURERS' NAMES LISTED MAY BE SELECTED, SUBJECT TO MATCHING THE FEATURES, CONSTRUCTION, PERFORMANCE AND SIZE OF THOSE SELECTED FOR DESIGN. STANDARD CATALOGUED PRODUCT MAY REQUIRE CERTAIN MODIFICATIONS TO MEET SPECIFIED REQUIREMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR CHANGES IN ELECTRIC WIRING, MATERIALS AND FOR ALL OTHER ADDITIONAL COSTS OF CONSTRUCTION BY ALL TRADES INVOLVED TO ACCOMMODATE THE PRODUCT TO PERFORM SAME AS PRODUCT USED ON THE "BASIS OF DESIGN."

1.03 SUBMITTALS OF MATERIALS AND EQUIPMENT
A. MAKE SUBMITTALS FOR PRODUCTS OR MATERIALS AS SCHEDULED OR SPECIFIED SUCH AS VALVES, FIXTURES, INSULATION, PIPING, ETC.

1.04 DAMAGE BY LEAKS
A. BE RESPONSIBLE FOR DAMAGE TO ANY PART OF THE PREMISES CAUSED BY LEAKS IN THE EQUIPMENT, PIPE OR FIXTURES INSTALLED UNDER APPLICABLE SECTION, FOR THE PERIOD OF TWELVE MONTHS FROM THE DATE OF OCCUPANCY OF THE WORK BY THE OWNER'S REPRESENTATIVE.

1.05 GUARANTEE AND WARRANTIES
A. GUARANTEE ALL EQUIPMENT FURNISHED UNDER THIS SPECIFICATION FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE AGAINST DEFECTIVE WORKMANSHIP AND MATERIAL, AND IMPROPER INSTALLATION. UPON NOTIFICATION OF FAILURE, CORRECT COMPLAINT WITHOUT COST TO THE OWNER.
B. PARTS WARRANTY: PROVIDE STANDARD WARRANTY OF MANUFACTURER OF MORE THAN ONE YEAR FOR REPLACEMENT OF PARTS TO APPLY AFTER EXPIRATION OF ABOVE PERIOD.

1.06 UTILITY CONNECTIONS
A. WATER SERVICE: CONNECT TO EXISTING AS SHOWN ON THE DRAWINGS.
B. SEWER: CONNECT TO EXISTING AS SHOWN ON THE DRAWINGS.

1.07 SEISMIC RESTRAINT REQUIREMENTS
A. REFER TO SEISMIC SUPPORT NOTES ON SHEET P0.0.

PART 2 - PRODUCTS
2.01 GENERAL
A. CONFORM TO TYPE AND QUALITY OF EQUIPMENT AND MATERIALS AS DESCRIBED IN THIS PART OF THE SPECIFICATIONS, WHERE APPLICABLE.
B. PROVIDE EQUIPMENT AND MATERIALS OF NEW AND RECENT MANUFACTURE.
C. FOR EACH CATEGORY AND TYPE OF EQUIPMENT AND MATERIAL, PROVIDE THE SAME MANUFACTURE.
2.02 SANITARY SOIL, WASTE, VENT AND DRAIN PIPING
A. PIPE AND FITTINGS:
1. ABOVE GROUND, SIZES 1-1/2" AND SMALLER, SCHEDULE 40, ASTM A-53, GRADE A OR B, GALVANIZED STEEL PIPE, WITH ANSI B16.12 CAST IRON SCREWED DRAINAGE FITTINGS OR SERVICE WEIGHT, ASTM A-888, CAST IRON NO-HUB SOIL PIPE AND FITTINGS WITH HEAVY DUTY STAINLESS STEEL NO-HUB COUPLINGS OR TYPE DWV.
2. ABOVE GROUND, SIZES 2" AND LARGER: SERVICE WEIGHT, ASTM A-888, CAST IRON NO-HUB SOIL PIPE AND FITTINGS WITH HEAVY DUTY STAINLESS STEEL NO-HUB COUPLINGS OR TYPE DWV, ASTM B-360, SEAMLESS.
3. CAST IRON SOIL PIPE NO-HUB COUPLINGS: HEAVY DUTY, 24 GAUGE, TYPE 304 STAINLESS STEEL SHIELD AND CLAMP ASSEMBLY WITH ASTM C24 NEOPRENE SEALING SLEEVE. COUPLING SHALL BE FACTORY MUTUAL APPROVED PER STANDARD 1680, CLASS I, CLAMP-ALL OR EQUIVALENT BY AB&I OR ANACO.
E. EXPOSED LAVATORY PIPING:
1. INSULATED WRAP PER ADA REQUIREMENTS "LAVGUARD" OR EQUAL.

2.03 DOMESTIC WATER AND INDUSTRIAL COLD WATER PIPING
A. PIPING:
1. ABOVE GROUND: ASTM-888 TYPE I SEAMLESS COPPER TUBING, HARD TEMPER, COLD DRAWN.
B. FITTINGS:
1. COPPER TUBING: ANSI B16.22 WROUGHT COPPER SOLDER SWEAT TYPE, 95/5 LEAD FREE SOLDER JOINTS.
C. PIPE INSULATION (HOT WATER PIPING):
1. MINERAL-FIBER INSULATION: MINERAL OR GLASS FIBERS BONDED WITH A THERMOSETTING RESIN, SEMIRIGID BOARD MATERIAL WITH FACTOR-APPLIED ASJ COMPLIING WITH ASTM C 1583 TYPE II OR TYPE IIIA CATEGORY 2, OR WITH PROPERTIES SIMILAR TO ASTM C 812, TYPE IB; JOHNS MANVILLE MICROFLEX, OWENS CORNING ASJ MAX, OR EQUIVALENT.

2.04 VALVES
A. GENERAL:
1. "APOLLO," "NIBCO", OR APPROVED MANUFACTURER.
2. VALVES NOT ACCEPTABLE WHEN DESIGNED FOR LESS THAN 125 POUNDS PER SQUARE INCH STEAM WORKING PRESSURE.
3. LEAD FREE PER THE "SAFE DRINKING WATER ACT"
B. VALVES:
1. BALL VALVES: FULL PORT, THREE-PIECE, THREADED BRONZE BODY, TYPE 316 STAINLESS STEEL STEM AND BALL, REINFORCED TPE SEAT RING, LEVER OR TEE HANDLE, 150 LB. SWP.
2. BALANCING VALVES: COPPER-ALLOY CALIBRATED, BALL OR Y-PATTERN GLOBE STYLE, TWO INTEGRAL TEST PORTS, MEMORY STOP, POSITION HANDWHEEL, BRONZE BODY, LEAD FREE, NIBCO T-1810-LF.
3. ALL VALVES 2" AND SMALLER SHALL BE AB1953 COMPLIANT.

2.05 UNIONS
A. UNIONS:
1. COPPER TUBING: ANSI B16.18 CAST BRONZE, GROUND JOINT.
2.06 FLEXIBLE CONNECTION
A. DESCRIPTION: WATTS SERIES CFC-S OR EQUAL BRAIDED STAINLESS STEEL WATER SUPPLY CONNECTORS FOR FAUCETS. THESE CONNECTORS PROVIDE PROTECTION FROM VIBRATION AND BURSTING UNDER EXTREME PRESSURES SURGES. SERIES CFC-S CONSIST OF PVC TUBING JACKETED WITH BRAIDED STAINLESS STEEL. NSF 61 APPROVED HOSES FOR SAFER DRINKING WATER.
2.07 HANGERS AND SUPPORTS
A. MANUFACTURER: TOLCO OR EQUIVALENT BY MASON. FIGURE NUMBERS OF MANUFACTURERS ARE LISTED TO INDICATE A STANDARD OF QUALITY AND TYPE.
B. PIPE HANGER FOR INSULATED PIPE - PIPE SIZES 1/2" TO 2" INCLUSIVE: ADJUSTABLE ZINC PLATED CARBON STEEL SWIVEL RING HANGER WITH 1/4" THICK FELT LINING. EACH HANGER DESIGNED FOR MAXIMUM RECOMMENDED LOAD WITH A SAFETY FACTOR OF 5. TOLCO FIGURE 2.
C. PIPE HANGER FOR NON-INSULATED PIPE - PIPE SIZES 1/2" TO 2" INCLUSIVE: ADJUSTABLE ZINC PLATED CARBON STEEL SWIVEL RING HANGER WITH 1/4" THICK FELT LINING. EACH HANGER DESIGNED FOR MAXIMUM RECOMMENDED LOAD WITH A SAFETY FACTOR OF 5. TOLCO FIGURE 2F.
D. PIPE HANGER FOR NON-INSULATED PIPE - PIPE SIZES 2-1/2" AND LARGER: HEAVY DUTY ADJUSTABLE BLACK CARBON STEEL CLEVIS HANGER WITH 1/4" THICK FELT LINING AND PIPE SLEEVE SPACER OVER THE CROSS BOLT HAVING AN INSIDE DIAMETER 1/4" LARGER THAN THE OUTSIDE DIAMETER OF THE BOLT. EACH HANGER DESIGNED FOR MAXIMUM RECOMMENDED LOAD WITH A SAFETY FACTOR OF 5. TOLCO FIGURE 1F.
E. HANGER RODS: SOLID CARBON STEEL, THREADED ENDS OR CONTINUOUS THREAD. RODS DESIGNED FOR MAXIMUM RECOMMENDED LOAD WITH A SAFETY FACTOR OF 5. TOLCO FIGURE 103 OR 100.

PIPE SIZE	ROD SIZE
1/2" TO 2" INCLUSIVE	3/8"
2-1/2" - 3"	1/2"
4" TO 8" INCLUSIVE	5/8"

F. BEAM CLAMP: TWO MALLEABLE IRON JAWS, STEEL TIE ROD, NUTS, WASHERS AND EXTENSION PIECE. EACH CLAMP DESIGNED FOR MAXIMUM RECOMMENDED LOAD WITH A SAFETY FACTOR OF 5. GRINNELL FIGURE 218.
G. RISER CLAMPS FOR STEEL OR CAST IRON PIPING: HEAVY DUTY ELECTRO-GALVANIZED CARBON STEEL, ROUNDED EARS. EACH CLAMP DESIGNED FOR MAXIMUM LOAD WITH A SAFETY FACTOR OF 5. PROVIDE VIBRATION ISOLATION BETWEEN RISER CLAMP AND STRUCTURE. TOLCO FIGURE 6.
H. RISER CLAMP FOR COPPER PIPING: HEAVY DUTY COPPER PLATED CARBON STEEL, ROUNDED EARS. EACH CLAMP DESIGNED FOR MAXIMUM RECOMMENDED LOAD WITH A MINIMUM SAFETY FACTOR OF 5. PROVIDE VIBRATION ISOLATION BETWEEN RISER CLAMP AND STRUCTURE. TOLCO FIGURE 82.
I. ANCHORS: FABRICATED HEAVY DUTY ASTM A-36 CARBON STEEL. EACH ANCHOR DESIGNED TO WITHSTAND NOT LESS THAN 5 TIMES THE ANCHOR LOAD.
J. PROTECTION SHIELD: GALVANIZED CARBON STEEL, 180° COVERAGE. INSTALL ON INSULATED PIPING BETWEEN INSULATION AND HANGER OR SUPPORT. GRINNELL FIGURE 167.
K. EXPANSION ANCHOR BOLTS: SELF-DRILLING TYPE, HILTI "KWIK-BOLT 12" OR EQUIVALENT BY PHILLIPS "RED HEAD WEDGE".

2.08 PIPE LABELS
A. DESCRIPTION: PRETENSIONED PIPE LABELS, SEMIRIGID PLASTIC FORMED TO COVER PIPE, AND ATTACH W/O FASTENERS OR ADHESIVE. INCLUDE IDENTIFICATION OF PIPING SERVICE USING SAME DESIGNATIONS OR ABBREVIATIONS AS USED ON DRAWINGS; ALSO INCLUDE PIPE SIZE AND AN ARROW INDICATING FLOW DIRECTION.
1. FLOW-DIRECTION ARROWS: INTEGRAL WITH PIPING-SYSTEM SERVICE LETTERING TO ACCOMMODATE BOTH DIRECTIONS OR AS SEPARATE UNIT ON EACH PIPE LABEL TO INDICATE FLOW DIRECTION.
2. LETTERING SIZE: SIZE LETTERS ACCORDING TO ASME A13.1 FOR PIPING.
3. LABEL COLORS: LABELS SHALL CONFORM TO C.P.C. TABLE 1312.1 (NFPA 99: TABLE 5.1.11)

3.01 DRAWINGS AND SITE
A. SITE CONDITIONS: EXAMINE THE SITE AND ALL MECHANICAL, ARCHITECTURAL AND OTHER DRAWINGS, AND ACCEPT SUCH CONDITIONS AND MAKE ALLOWANCES FOR THEM IN PREPARING THE BID.
B. LOCATIONS:
1. SCALED AND FIGURED DIMENSIONS ARE APPROXIMATE AND ARE GIVEN FOR ESTIMATE PURPOSES ONLY. BEFORE PROCEEDING WITH ANY WORK, CAREFULLY CHECK AND VERIFY ALL DIMENSIONS, SIZES, ETC.
2. SO FAR AS POSSIBLE, THE WORK HAS BEEN INDICATED ON THE DRAWINGS IN SUCH POSITIONS AS TO SUIT AND ACCOMMODATE THE WORK OF THE OTHER TRADES, PREVENT OBSTRUCTIONS AND MAINTAIN CLEARANCES, BUT THE WORK AS INDICATED IS LARGELY DIAGRAMMATIC AND IS SHOWN PRIMARILY FOR CLARITY. IT IS NOT THE INTENT TO INDICATE ALL NECESSARY OFFSETS FOR PIPING.
3. CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE CORRECT PLACING OF HIS WORK AND THE PROPER LOCATION AND CONNECTION OF HIS WORK IN RELATION TO THE WORK OF OTHER TRADES AND TO PROVIDE ALL REQUIRED PIPING OFFSETS.

3.02 INSTALLATION OF PIPING, VALVES AND EQUIPMENT
A. GENERAL:
1. PITCH: RUN ALL HORIZONTAL SANITARY AND DRAIN PIPING SMALLER THAN 4" AT A UNIFORM GRADE OF NOT LESS THAN 1/4" PER FOOT. RUN ALL HORIZONTAL SANITARY AND DRAIN PIPING 4" AND LARGER AT A UNIFORM GRADE OF NOT LESS THAN 1/4" PER FOOT UNLESS OTHERWISE NOTED ON THE DRAWINGS.
2. WATER PIPING WITHIN WALLS AND ROUGH-INS FOR FIXTURES AND EQUIPMENT: PROVIDE COPPER PLATED STEEL SUPPORT SYSTEM SOLDERED TO PIPING AND SECURED TO BUILDING CONSTRUCTION SO THAT PIPES CANNOT BE DISPLACED. PROVIDE TRISOLATOR OR FIRE RETARDANT CLOSED CELL ELASTOMERIC MATERIAL BETWEEN SUPPORT SYSTEM AND BUILDING CONSTRUCTION OR OTHER PIPING. HOLDRITE OR EQUIVALENT.
3. WASTE AND VENT PIPING WITHIN WALLS AND ROUGH-INS FOR FIXTURES AND EQUIPMENT: SECURE SUPPORTS TO PIPING AND BUILDING CONSTRUCTION SO THAT PIPES CANNOT BE DISPLACED. PROVIDE FELT STRIP ISOLATION BETWEEN DISSIMILAR METALS.
4. ROUGH-IN WORK: PROCEED AS RAPIDLY AS THE BUILDING CONSTRUCTION WILL PERMIT, COMPLETED, TESTED AND APPROVED BEFORE BEING ENCLOSED.
5. CONCEAL PIPING WITHIN FINISHED ROOMS, UNLESS OTHERWISE NOTED ON DRAWINGS.
6. CUT PIPE ACCURATELY TO MEASUREMENTS ESTABLISHED AT THE BUILDING, WORK INTO PLACE AT RIGHT ANGLES TO THE BUILDING STRUCTURE WITHOUT SPRINGING OR FORCING; PROPERLY CLEAR ALL WINDOWS, DOORS AND OTHER OPENINGS. EXCESSIVE CUTTING OR OTHER WEAKENING OF THE BUILDING STRUCTURE TO FACILITATE PIPING INSTALLATION WILL NOT BE PERMITTED.

7. THOROUGHLY CLEAN PIPING BEFORE INSTALLATION. DURING CONSTRUCTION, PROPERLY CAP ALL PIPE OPENINGS TO EXCLUDE DIRT AND DEBRIS UNTIL FIXTURES AND EQUIPMENT ARE INSTALLED AND FINAL CONNECTIONS MADE.
8. JOINTS: REAM PIPE ENDS TO REMOVE BURRS, EACH LENGTH OF PIPE CAREFULLY INSPECTED, AND ALL OBSTRUCTIONS REMOVED PRIOR TO FABRICATION.
9. SHOW NO TOOL MARKS OR THREADS ON EXPOSED PLATED, POLISHED OR ENAMELED CONNECTIONS FROM FIXTURES. TAPE FINISHED SURFACES TO PREVENT DAMAGE DURING PLASTERING.
10. MAKE ALL CHANGES IN DIRECTION WITH FITTINGS AND CHANGES IN MAIN SIZES THROUGH ECCENTRIC REDUCING FITTINGS. BUSHINGS NOT ALLOWED.
11. INSTALL ALL PIPING PARALLEL TO OR AT RIGHT ANGLES TO THE BUILDING STRUCTURE.
12. DISSIMILAR METALS: PROVIDE COMPLETE DIELECTRIC ISOLATION BETWEEN ALL FERROUS AND NONFERROUS MATERIALS.
13. SECURELY BOLT IN PLACE TO BUILDING STRUCTURES, ALL EQUIPMENT, HANGERS, SUPPORTS, ETC.
14. MAKE ALL CHANGES IN WALLS WITH MANUFACTURED SUPPORT SYSTEM. USE OF MAKE-SHIFT DEVICES SUCH AS WIRE, ROPE, WOOD, TAPE, ETC., IS PROHIBITED FOR ANCHORING OR FASTENING PIPES.

B. COPPER TUBING:
1. CUT SQUARE, REMOVE BURRS AND CLEAN PIPE AND INSIDE OF FEMALE FITTING TO A BRIGHT FINISH WITH STEEL WOOL, WIRE BRUSH, SANDPAPER OR EMERY CLOTH. APPLY SOLDER FLUX WITH BRUSH TO TUBING. REMOVE INTERNAL PARTS OF SOLDER END VALVES PRIOR TO SOLDERING.
2. JOINING FOR COPPER PIPES: SILVABRITE, BRIDGIT, STAY-SAFE 50 OR EQUIVALENT LEAD FREE SOLDER.

3.03 CLEANOUTS
A. SIZE: CLEANOUTS OF SAME NOMINAL SIZE AS PIPE THEY SERVE.
B. ACCESSIBILITY: MAKE ALL CLEANOUTS ACCESSIBLE.
C. LOCATIONS:
1. AT ALL HORIZONTAL OFFSETS.
2. FOR CLEANOUTS IN FINISHED PORTIONS OF BUILDING, LOCATIONS SUBJECT TO OWNER'S REPRESENTATIVE APPROVAL BEFORE INSTALLATION.

3.04 DISINFECTION OF WATER SYSTEMS
A. GENERAL: DISINFECT ALL HOT AND COLD WATER SYSTEMS PER AWWA STANDARD C651-86 AND THE FOLLOWING. CONFORM TO SP5382.49(8)(1).a.
B. DISINFECTING AGENT: USE CHLORINE SOLUTION OF TYPE APPROVED FOR WATER SYSTEM DISINFECTION.
C. PREPARATION:
1. SERVICE COCK: PROVIDE SERVICE COCK OR VALVE WITHIN 3' OF SUPPLY MAIN FOR INTRODUCING DISINFECTING AGENT INTO LINES.
2. FLUSHING: LEAVE EACH FIXTURE OR OUTLET WIDE OPEN AFTER FINAL PRESSURE TESTS UNTIL FLOW SHOWS ONLY CLEAR WATER.
D. PROCEDURE:
1. FLUSHING: WITH SYSTEM FULL OF WATER AND UNDER MAIN PRESSURE, OPEN ALL OUTLETS.
2. INJECT DISINFECTANT THROUGH SERVICE COCK AT SLOW, EVEN, CONTINUOUS RATE UNTIL ORTHOTOLUIDINE TEST AT EACH OUTLET SHOWS CHLORINE RESIDUAL CONCENTRATION OF MORE THAN 50 PARTS PER MILLION (PPM).
3. CLOSE ALL OUTLETS AND VALVES INCLUDING SERVICE VALVE AT MAIN AND INJECTION COCK. MAINTAIN FOR 24 HOURS.
4. TEST: ORTHOTOLUIDINE TEST, AFTER 24 HOUR PERIOD, SHALL INDICATE MINIMUM CHLORINE RESIDUAL CONCENTRATION OF 50 PPM. IF NOT, REPEAT DISINFECTION PROCEDURE UNTIL THIS STANDARD IS ATTAINED.
5. FINAL FLUSHING: AFTER SATISFACTORY COMPLETION OF ABOVE TEST, FLUSH OUT SYSTEM UNTIL ORTHOTOLUIDINE TESTS SHOW MAXIMUM CHLORINE RESIDUAL OF 0.8 PPM.

E. BACTERIOLOGICAL ANALYSIS OF WATER: AFTER FINAL FLUSHING, ANALYZE WATER SAMPLES TO TEST NEGATIVE FOR COLIAEROGENE ORGANISMS. ANALYSIS TO INDICATE TOTAL PLATE COUNT LESS THAN 100 BACTERIA PER CC OR EQUAL TO CONTROL SAMPLE.
F. FINAL APPROVAL: IF ANALYSIS RESULTS ARE NOT SATISFACTORY, REPEAT DISINFECTION PROCEDURE UNTIL SPECIFIED STANDARDS ARE MET.

3.05 INSULATION
A. LONGITUDINAL LAP AND 4" WIDE JOINT SEALED STRIPS NEATLY IN PLACE WITH FIRE RETARDANT ADHESIVE. USE NO STAPLES.
B. TIGHTLY BUTT ALL JOINTS TOGETHER AND COVER WITH 2" WIDE FIRE RETARDANT JACKET STRIP AND FIRE RETARDANT ADHESIVE. USE NO STAPLES.
C. SEAL OFF ENDS OF PIPE INSULATION WITH FIRE RETARDANT ADHESIVE.
D. INSULATE FITTINGS, VALVES, AND FLANGES WITH THE SAME MATERIAL AND OF THE SAME THICKNESS AS THE ADJOINING PIPE. FACTORY PREMOLDED ONE-PIECE POLYVINYL CHLORIDE (PVC) FITTING COVERS SHALL BE INSTALLED IN ACCORDANCE WITH THE FITTING COVER MANUFACTURER'S RECOMMENDATIONS. APPLY A VAPOR BARRIER MASTIC AROUND THE EDGES OF THE ADJOINING PIPE INSULATION AND ALONG THE INSIDE OF THE FITTING COVER THROAT OVERLAP SEAM. PLACE THE FITTING COVER OVER THE INSULATION, LAPPING THE MASTIC COVERED EDGE OVER THE OTHER SIDE OF THE THROAT SEAM. APPLY PRESSURE SENSITIVE TAPE OVER THE CIRCUMFERENTIAL JOINTS. FACTORY PRECUT BLANKET INSERTS PROVIDED BY THE FITTING COVER MANUFACTURER MAY BE USED. INSERT SHALL BE INSTALLED IN ACCORDANCE WITH THE FITTING COVER MANUFACTURER'S RECOMMENDATIONS.
E. DO NOT APPLY ANY INSULATION UNTIL ALL ITEMS TO BE INSULATED ARE CLEAN AND IN DRY CONDITION AND FREE OF ANY GREASE, DIRT, RUST OR SCALE.
F. DO NOT APPLY INSULATION ON ANY PIPING SYSTEMS UNTIL ALL HYDROSTATIC TESTS HAVE BEEN MADE AND ACCEPTED.
G. APPLICATION OF ALL TYPES OF INSULATION NEAT IN APPEARANCE AND JOINTS SMOOTH AND UNIFORM.
H. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS FOR THEIR PARTICULAR MATERIALS.
I. REPAIR OR REPLACE ANY INSULATION DAMAGED OR REMOVED DUE TO THE WORK OF THIS SECTION.
J. PROVIDE 1" THICK INSULATION FOR PIPES 2" DIAMETER & LESS; 1 1/2" THICK INSULATION FOR PIPES 2 1/2" DIAMETER AND LARGER.

3.06 HANGERS AND SUPPORTS
A. SUPPORT SUSPENDED PIPING WITH APPROVED HANGERS AND RODS.
B. SUPPORT VERTICAL PIPES SO THAT THEY CANNOT BE DISPLACED.
C. SPACE HANGERS AND SUPPORTS FOR HORIZONTAL COPPER TUBING AT A MAXIMUM SPACING OF 6 FT. O.C. FOR 1 1/2" & SMALLER PIPING, 10 FT O.C. FOR PIPING 2" AND LARGER.
D. SPACE HANGERS AND SUPPORTS FOR HORIZONTAL NO-HUB PIPING AS FOLLOWS:
1. IMMEDIATELY ADJACENT TO EACH COUPLING AND AT EACH BRANCH CONNECTION WITH MAXIMUM SPACING NOT TO EXCEED 4 FT. O.C.
3.07 PROTECTION, CARE AND CLEANING
A. PROVIDE ADEQUATE MEANS FOR, AND FULLY PROTECT, ALL FINISHED PARTS OF THE MATERIALS AND EQUIPMENT AGAINST PHYSICAL DAMAGE FROM WHATEVER CAUSE DURING THE PROGRESS OF THIS WORK AND UNTIL FINAL COMPLETION.
B. DURING CONSTRUCTION, PROPERLY CAP ALL PIPING ND EQUIPMENT OPENINGS SO TO PREVENT THE ENTRANCE OF SAND, DIRT, DEBRIS, ETC. PROTECT EQUIPMENT AGAINST MOISTURE, PLASTER, CEMENT, PAINT OR OTHER WORK OF OTHER TRADES BY COVERING IT COMPLETELY WITH SECURED POLYETHYLENE SHEETS.
C. AFTER INSTALLATION HAS BEEN COMPLETED, CLEAN ALL SYSTEMS, FIXTURES AND EQUIPMENT THOROUGHLY TO REMOVE RUST, PLASTER, CEMENT, AND DIRT. PLUMBING FIXTURES SHALL BE CLEANED AND POLISHED IMMEDIATELY PRIOR TO FINAL INSPECTION OR OWNER'S OCCUPANCY. CLEAN FLOOR DRAIN GRATES; CHECK EACH FIXTURE AND DRAIN TO INSURE AGAINST TRAP STOPPAGE.
3.08 TESTING AND ADJUSTING
A. GENERAL: ADJUST EACH PIECE OF EQUIPMENT AND ALL SYSTEMS TO INSURE PROPER FUNCTIONING OF CONTROLS, ELIMINATION OF NOISE AND VIBRATION, AND LEFT IN FIRST-CLASS OPERATING CONDITION.
B. DEFECTIVE WORK: REMOVE AND REPLACE ANY PIECE OF APPARATUS, WORK, OR MATERIAL FAILING ANY TESTS. RETEST PORTION OF WORK REPLACED BY CONTRACTOR AT HIS OWN EXPENSE.
C. NOTICE: PROVIDE 48 HOUR NOTICE THAT PIPING IS READY FOR TESTING. TEST IN ACCORDANCE WITH ALL LOCAL AND STATE ORDINANCES.
D. PROTECTION: ISOLATE ALL EQUIPMENT SUBJECT TO DAMAGE FROM TEST PRESSURE. MAKE NO TEST AGAINST A SERVICE VALVE OR METER.
E. TESTS:
1. DOMESTIC WATER:
UPON COMPLETION OF A SECTION OR OF THE ENTIRE HOT AND COLD WATER SUPPLY SYSTEM, IT SHALL BE TESTED AND PROVED TIGHT UNDER A WATER PRESSURE NOT LESS THAN THE WORKING PRESSURE UNDER WHICH IT IS TO BE USED. THE WATER USED FOR TESTS SHALL BE OBTAINED FROM A POTABLE SOURCE OF SUPPLY. EXCEPT FOR PLASTIC PIPING, A FIFTY LB. AIR PRESSURE SHALL BE PERMITTED TO BE SUBSTITUTED FOR THE WATER TEST. IN EITHER METHOD OF TEST, THE PIPING SHALL WITHSTAND THE TEST WITHOUT LEAKING FOR A PERIOD OF NOT LESS THAN FIFTEEN MINUTES. CPC SECTION 609.4
2. WASTE AND VENT:
EACH SECTION SHALL BE FILLED WITH WATER, BUT NO SECTION SHALL BE TESTED WITH LESS THAN A TEN-FOOTED HEAD OF WATER. THE WATER SHALL BE KEPT IN THE SYSTEM, OR IN THE PORTION UNDER TEST, FOR NOT LESS THAN FIFTEEN MINUTES BEFORE INSPECTION STARTS. CPC SECTION 712.2, BUILDING SEWER TEST CPC SECTION 723. NO AIR TESTING FOR PLASTIC PIPING PER CPC SECTIONS 712, 713.
3. TEST GAUGES:
REQUIRED PRESSURE TESTS OF TEN PSI OR LESS SHALL BE PERFORMED WITH GAUGES OF ONE-TENTH OF A POUND INCREMENTATION OR LESS. CPC SECTION 318. REQUIRED PRESSURE TESTS EXCEEDING 10 PSI BUT LESS THAN OR EQUAL TO 100 PSI SHALL BE PERFORMED WITH GAUGES OF 1 PSI INCREMENTATION OR LESS. CPC SECTION 318.4
F. FLOW TEST: CONDUCT FLOW TEST ON ALL FIXTURE DRAINS, FLOOR DRAINS, ETC., PRIOR TO BUILDING OCCUPANCY. ALLOW FULL FLOW OF WATER INTO EACH DRAIN FOR 15 MINUTES AND CHECK FOR LEAKS, STOPPAGE OR SLUGGISH FLOW. CLEAN DRAINS WHERE NECESSARY. TEST MUST BE WITNESSED BY THE OWNER'S REPRESENTATIVE.
G. PERFORM OPERATIONAL TESTS ON ALL MACHINERY AND DEVICES TO DETERMINE COMPLIANCE WITH SPECIFICATIONS. EQUIPMENT TO FUNCTION QUIETLY AND EFFICIENTLY. REPAIR OR CORRECT UNDUE NOISE OR VIBRATION CAUSED BY MALFUNCTIONING OF PIPING AND EQUIPMENT BEFORE ACCEPTANCE.
H. MAKE ALL TESTS AS REQUIRED DURING THE PROGRESS OF THE WORK OR UPON ITS COMPLETION, IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE AND AUTHORITIES HAVING JURISDICTION. DO NOT TEST WORK WITHOUT WITNESSES. DO NOT COVER UNTESTED WORK.
I. PROVIDE APPARATUS AND TEMPORARY WORK NECESSARY FOR SUCH TESTS. TAKE PRECAUTIONS TO PREVENT DAMAGE TO THE BUILDING AND ITS CONTENTS. REPAIR ANY DAMAGE.
J. FURNISH OR ARRANGE FOR USE OF ELECTRICAL ENERGY, WATER, ETC REQUIRED FOR TESTS.
K. DO NOT CAULK PIPE JOINTS TO REMEDY LEAKS.
L. WHEN USING A PUMP OR COMPRESSED AIR TO TEST ANY SYSTEM, BRING SYSTEM TO TEST PRESSURE, AND TURN OFF PUMP OR COMPRESSED AIR. PRESSURE GAUGE READINGS SHALL BE RECORDED INITIALLY AND AT THE END OF EACH HOUR. SUBMIT GAUGE READINGS WITH TEST REPORT. DO NOT REAPPLY PRESSURE.

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1	ISSUE FOR BID	03/14/2025

PROJECT NUMBER 224153.00
DATE OF ISSUE 03.17.2025
DRAWN BY AB, AG, HH
REVIEWED BY DP

PLUMBING
SPECIFICATIONS



1 FIRST FLOOR DOMESTIC WATER PLAN
P-101 1/8" = 1'-0"



2 SECOND FLOOR DOMESTIC WATER PLAN
P-101 1/8" = 1'-0"

GENERAL NOTES

1. SAWCUT EXISTING FLOOR AND WALL CONSTRUCTION AS REQUIRED IN ORDER TO ACCOMMODATE NEW WASTE, VENT AND WATER SUPPLY PIPING. PATCH ALL NEW WORK TO MATCH EXISTING CONSTRUCTION. DEMOLITION OF ALL PLUMBING WASTE LINES SHALL NOT RESULT IN DEAD ENDS GREATER THAN 10'-0" IN LENGTH AND ALL WATER SUPPLY PIPING DEAD ENDS SHALL NOT EXCEED 2'-0" IN LENGTH.
2. PLUMBING CONTRACTOR TO VERIFY ALL EXISTING WASTE, VENT AND WATER SUPPLY PIPING WHERE NEW CONNECTIONS ARE TO BE MADE PRIOR TO BID. VERIFY EXACT SIZE, LOCATION, INVERT, CONDITION AND REQUIREMENTS IN FIELD. REPORT ANY MAJOR DISCREPANCIES TO ARCHITECT/ENGINEER IMMEDIATELY.
3. ALL VALVING AND SPECIALTY EQUIPMENT FOR THE PLUMBING INSTALLATION IS TO BE RUN IN ACCESSIBLE CEILING AREAS. NO VALVING OR EQUIPMENT IS TO BE INSTALLED ABOVE A DRYWALL CEILING OR WITHIN THE WALLS.
4. COORDINATE ROUTING OF ALL PIPING SYSTEMS TO AVOID DUCTWORK, ELECTRICAL CONDUIT, BEAMS AND OTHER STRUCTURAL MEMBERS.
5. PLUMBING CONTRACTOR TO RUN ALL PLUMBING WATER DISTRIBUTION PIPING AT THE SAME ELEVATION WHERE POSSIBLE. ALL PIPING IS TO BE LABELED AS TO TYPE AND DIRECTION OF FLOW ON THE OUTSIDE OF THE INSULATION SO THAT IT IS READABLE FROM THE GROUND.
6. ALL WORK MUST COMPLY WITH LOCAL AND STATE PLUMBING CODES.
7. ALL CLEANOUTS ARE TO BE ACCESSIBLE WITHOUT REMOVAL OF ANY ANCHORED FIXTURE OR FURNITURE. CONTRACTOR TO COORDINATE LOCATIONS PRIOR TO INSTALLATION. WALL CLEANOUTS TO RUN AT FULL LINE SIZE UP FROM BELOW GROUND IN WALL. CONTRACTOR TO PROVIDE AN ADEQUATE AMOUNT OF CLEANOUTS.
8. PROVIDE APPROVED BACKFLOW PREVENTION DEVICES ON ALL WATER SUPPLY LINES TO DISHWASHERS, COFFEE MAKERS, WATER DISPENSERS, ICE MACHINES, HUMIDIFIERS, WATER MAKEUP CONNECTIONS AND ANY OTHER APPLIANCES PER LOCAL CODE REQUIREMENTS AND EQUIPMENT/FIXTURE MANUFACTURER'S REQUIREMENTS. LOCATE IN AN ACCESSIBLE AREA.
9. BEFORE ANY FLOOR CORES ARE MADE, THE FLOOR STRUCTURE MUST BE X-RAYED TO DETERMINE THE LOCATION OF EXISTING REINFORCEMENT WITHIN THE FLOOR STRUCTURE. NO EXISTING REINFORCEMENT BARS SHALL BE DAMAGED OR CUT.

PLUMBING KEY NOTES

- ① EXISTING FIXTURES TO BE REPLACED WITH NEW ONE FOR ONE. SEE PLUMBING FIXTURE SCHEDULE FOR MODEL INFORMATION.
- ② EXISTING LAVATORIES AND SINKS TO REMAIN AS IS. EXISTING FAUCET AND TRIM TO BE DEMOLISHED AND REPLACED WITH NEW AUTO-BATTERY OPERATED FAUCETS. SEE PLUMBING FIXTURE SCHEDULE FOR MODEL INFORMATION.
- ③ EXISTING DRINKING FOUNTAIN TO BE REPLACED WITH NEW ONE FOR ONE. NEW DRINKING FOUNTAIN TO INCLUDE BOTTLE FILLER. SEE PLUMBING FIXTURE SCHEDULE FOR MODEL INFORMATION.
- ④ EXISTING WATER HEATERS TO BE DEMOLISHED AND REPLACED WITH NEW. ALL EXISTING CONNECTIONS TO REMAIN AND BE RECONNECTED TO NEW WATER HEATER.
- ⑤ EXISTING SHOWER HEAD TO BE REPLACED WITH NEW ONE FOR ONE. SEE PLUMBING FIXTURE SCHEDULE FOR MODEL INFORMATION.
- ⑥ NEW SINK TO BE INSTALLED AS SHOWN. CONNECT NEW 1/2" CWHWHWR TO EXISTING WATER MAINS IN SPACE. CONNECT NEW 2" SAN AND 1-1/2" VENT PIPING TO EXISTING MAINS IN SPACE.
- ⑦ EXISTING DRINKING FOUNTAIN TO BE REPLACED WITH NEW ONE FOR ONE. NEW HLOW DRINKING FOUNTAIN TO NOT INCLUDE BOTTLE FILLER. SEE PLUMBING FIXTURE SCHEDULE FOR MODEL INFORMATION.

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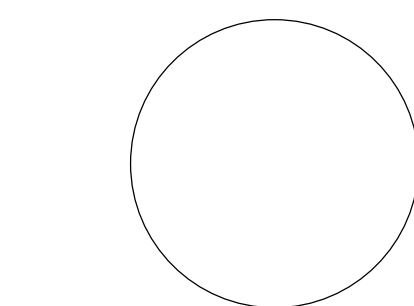
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**FIRST & SECOND FLOOR
OVERALL PLUMBING
PLAN**

P-101

ISSUED FOR BID



1 THIRD FLOOR DOMESTIC WATER PLAN
P-102 1/8" = 1'-0"



2 FOURTH FLOOR DOMESTIC WATER PLAN
P-102 1/8" = 1'-0"

GENERAL NOTES

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2. PLUMBING CONTRACTOR TO VERIFY ALL EXISTING WASTE, VENT AND WATER SUPPLY PIPING WHERE NEW CONNECTIONS ARE TO BE MADE PRIOR TO BID. VERIFY EXACT SIZE, LOCATION, INVERT, CONDITION AND REQUIREMENTS IN FIELD. REPORT ANY MAJOR DISCREPANCIES TO ARCHITECT/ENGINEER IMMEDIATELY.
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9. BEFORE ANY FLOOR CORES ARE MADE, THE FLOOR STRUCTURE MUST BE X-RAYED TO DETERMINE THE LOCATION OF EXISTING REINFORCEMENT WITHIN THE FLOOR STRUCTURE. NO EXISTING REINFORCEMENT BARS SHALL BE DAMAGED OR CUT.

PLUMBING KEY NOTES

- ① ALL EXISTING FIXTURES TO BE VALVED OFF FOR FUTURE REPLACEMENT.

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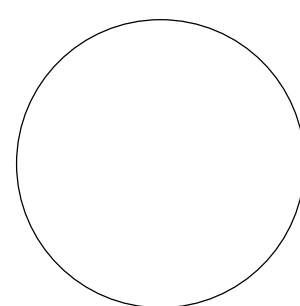
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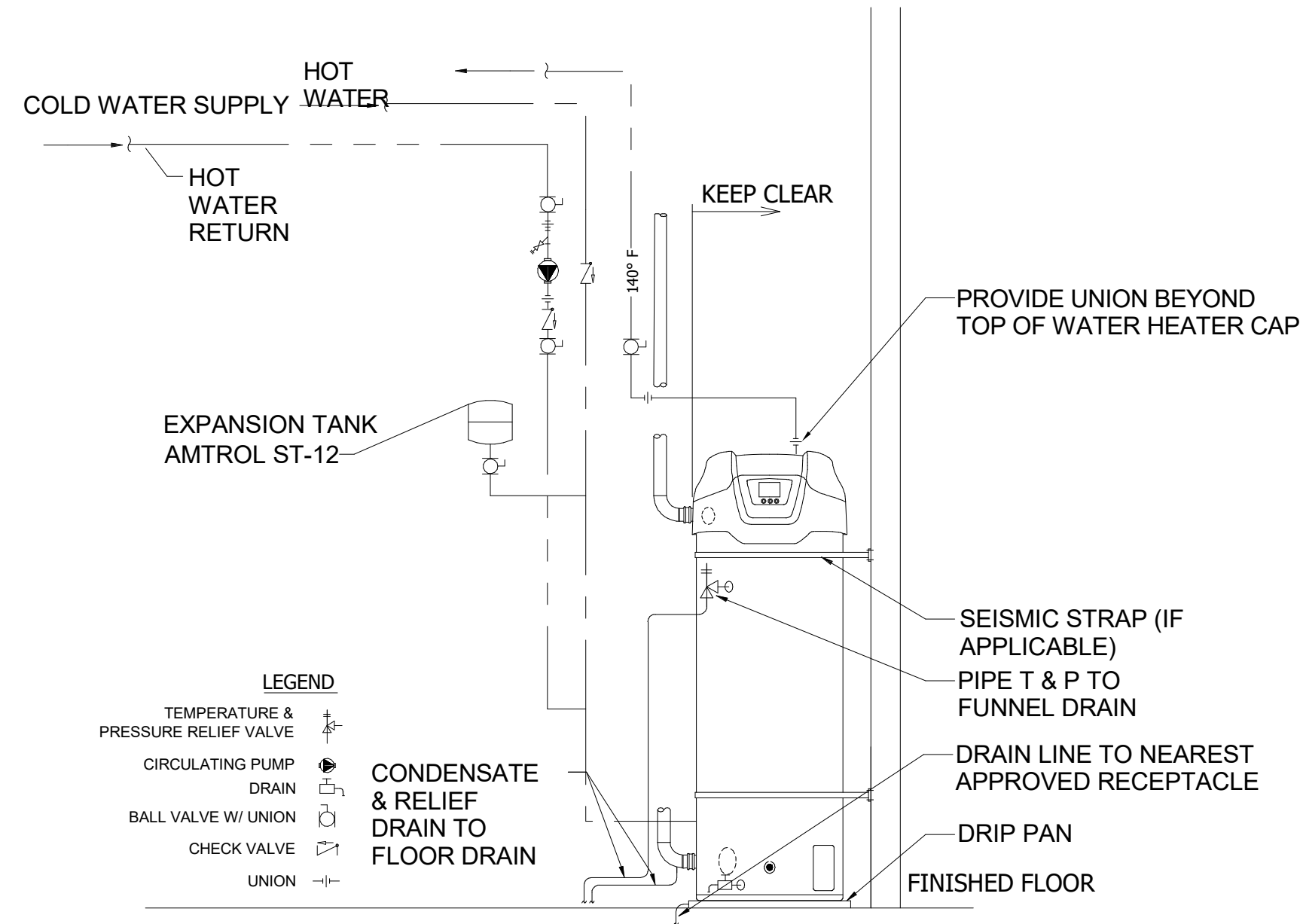
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THIRD & FOURTH FLOOR
OVERALL PLUMBING
PLAN

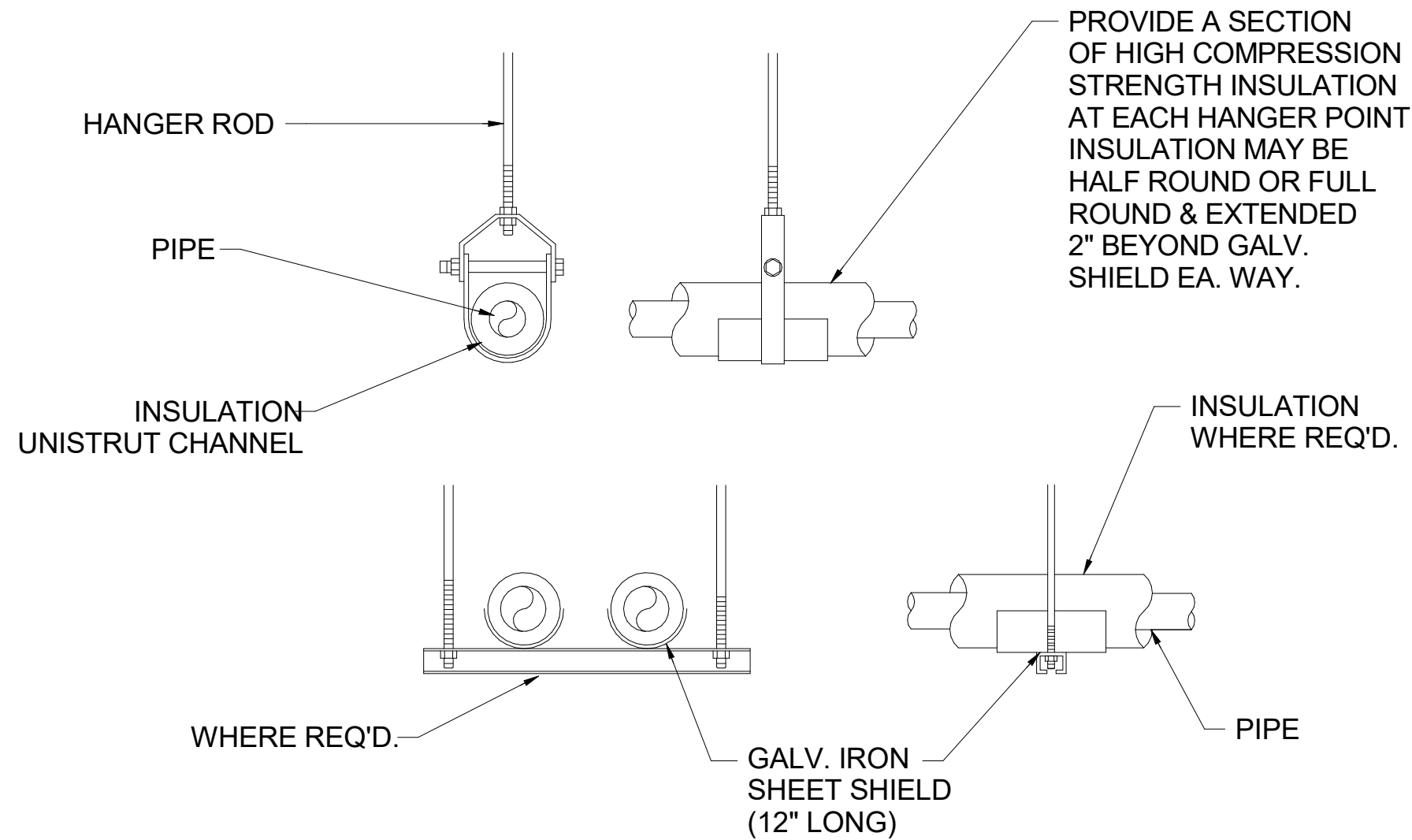
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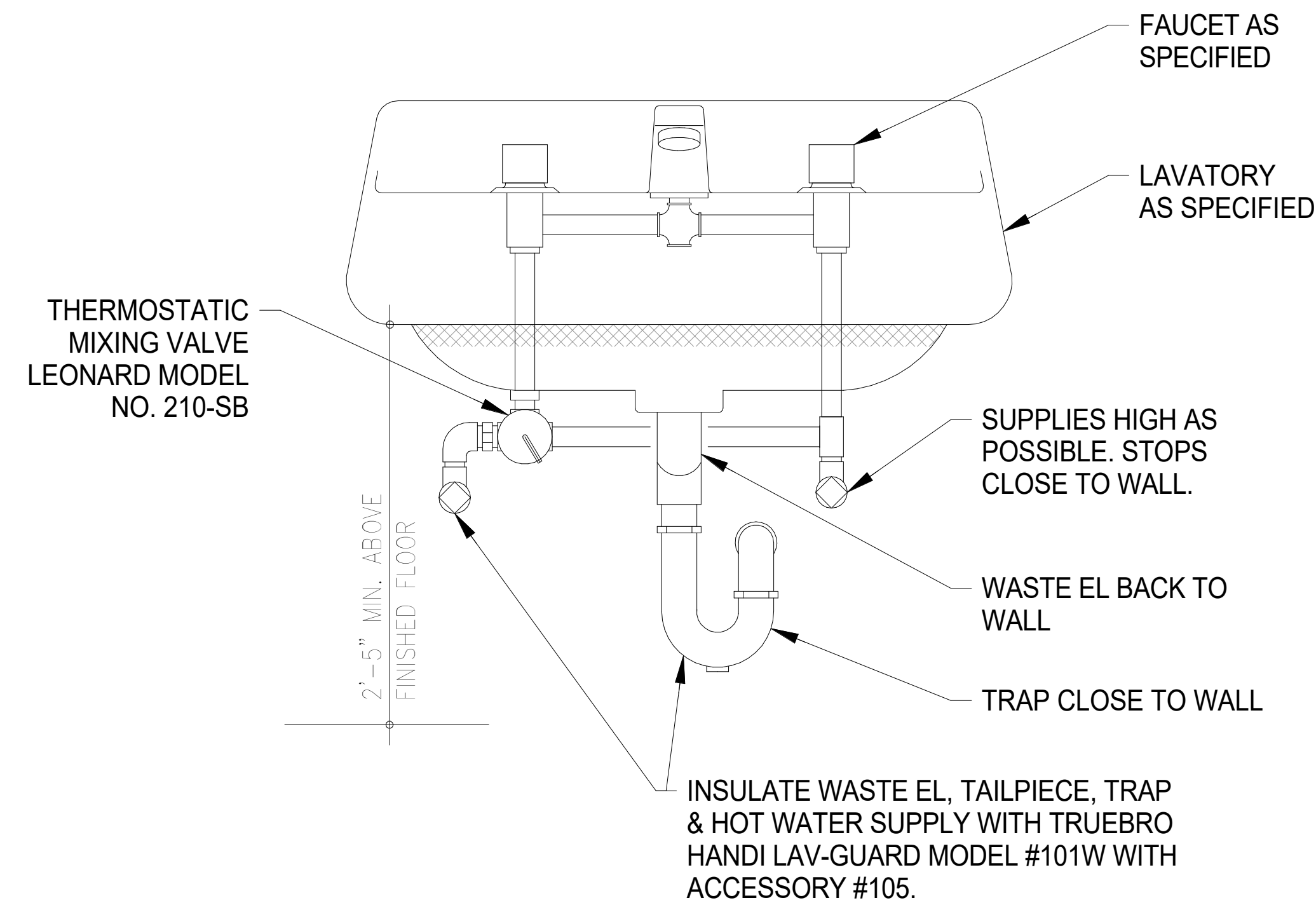
NOT ALL SYMBOLS MAY APPLY					
EXISTING COLD WATER PIPING	—	CO	CLEANOUT PLUG	FFPH-1	FROSTPROOF WALL HYDRANT
EXISTING HOT WATER PIPING	—	WCO	WALL CLEANOUT PLUG	HS-1	HOSE BIBB W/ YB
EXISTING HOT WATER PIPING	—	FO	FLOOR CLEANOUT	FFPR-1	FROST PROOF ROOF HYDRANT W/ BRACKET
EXISTING HOT WATER RETURN PIPING	—	YCO	YARD CLEANOUT	FFPR-1	DUAL CHECK BACKFLOW PREVENTERS USE WATTS #F FOR OIL & COFFEE MAKERS USE WATTS #ED-F FOR CARBONATORNS/CO2 DISP. (B.S. W/ ANTI-SIPHONIC PROTECT)
EXISTING UNDERGROUND SEWER	—	FD-1	FLOOR DRAIN (FINISHED FLR AREA)		
EXISTING SUSPENDED SEWER	—	FD-2	FLOOR DRAIN NON-FINISHED FLR AREA)		
EXISTING VENT PIPING	—	FD-3	FLOOR FLUENL DRAIN		
COLD WATER PIPING (INSULATED)	—	ORD	OPEN SITE DRAIN (PROVIDE FUNNEL AS REQ'D)		NEW CONNECT TO EXISTING DISCONNECT FROM EXISTING
HOT WATER PIPING (INSULATED)	—	AD-1	AREA DRAIN	SA-1	INDICATES SANITARY SEWER
HOT WATER RETURN PIPING (INSULATED)	—	FS-1	FLOOR SINK	ST	INDICATES STORM SEWER
UNDERGROUND SEWER	—	TD-1	PRE-SLOPED HOPE TRENCH DRAIN W/ T-1 GRATE	(EX)	INDICATES EXISTING
SURFACED SEWER	—	RD-1	ROOF DRAIN	AC	ABOVE CEILING
DRAIN TILE (RIGID PERFORATED PVC W/ GEOTEXTILE FILTER FABRIC)	—	ORD-1	OVERFLOW ROOF DRAIN WITH EXTENDER	UN	UNDERGROUND VENT
VENT PIPING	—		DOWNSPOUT NOZZLE FURNISH BRD SCREEN & SPLASH BLOCK AS REQ'D)	OW	INDICATES GEN-USE WASTE SEWER
Q/C PIPING	—	AP	ACCESS PANEL		
UNION	—	GV	GATE VALVE		
PIPE CAPPED	—	RP-1	IN-LINE RECIRCULATING PUMP		
PIPE CONTINUATION	—	BV	BALL VALVE		
PIPE DROP (ELBOW)	—		HVR BALANCING TRIM CONSISTS OF:		
PIPE UPRISE (ELBOW)	—	CS	CIRCUIT SETTER		
P-TRAP	—	STR	STRAINER (HORIZONTAL OR EQUAL)		
PIPE UPRISE (TEE)	—	CV	CHECK VALVE		
PIPE DROP (TEE)	—		BACKFLOW PREVENTER		



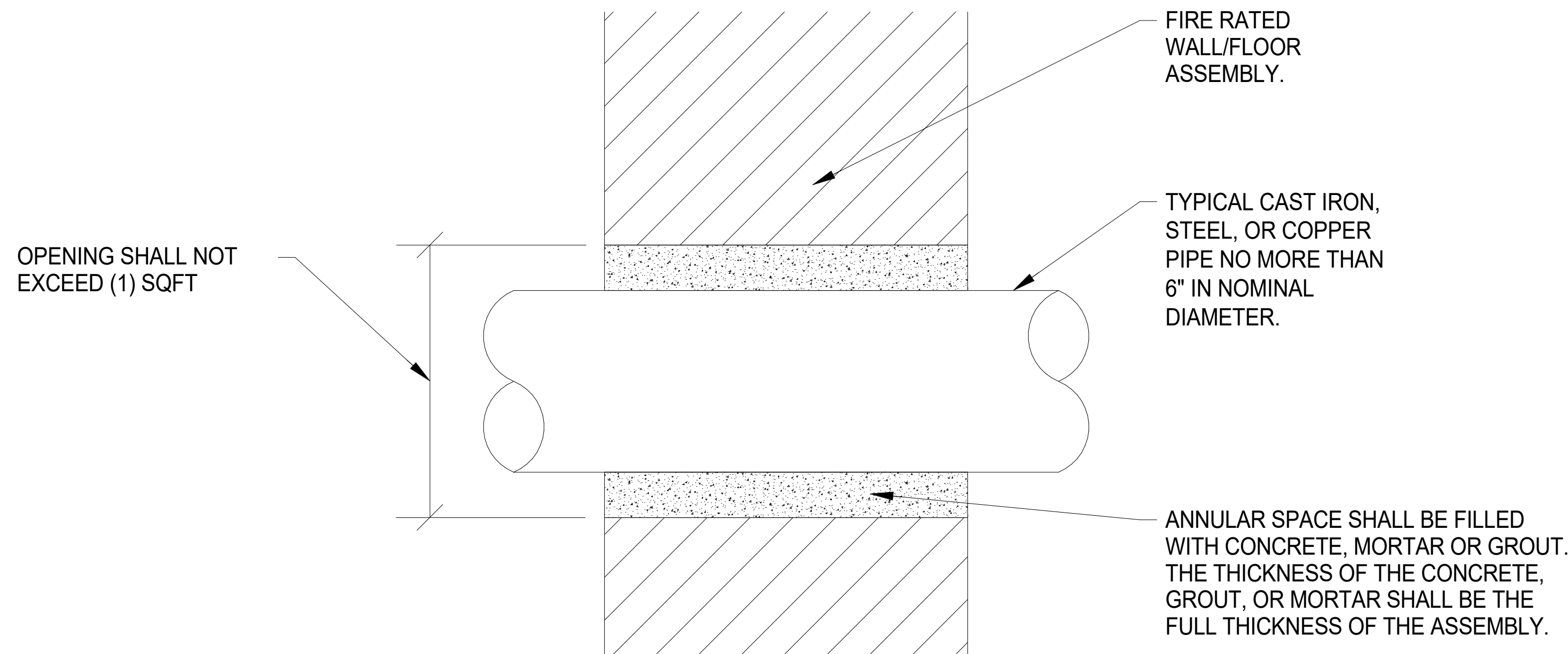
1 GAS FIRED WATER HEATER DETAIL
SCALE: NTS PLUMBING



2 PIPE HANGER DETAIL
SCALE: NTS PLUMBING



3 LAVATORY AND SINK DETAIL
SCALE: NTS PLUMBING



4 PIPE THRU WALL/FLOOR DETAIL
SCALE: NTS PLUMBING

SIGNATURE _____		
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REVISIONS		
NO.	DESCRIPTION	DATE
1	ISSUE FOR BID	03/14/2025

PROJECT NUMBER 224153.00
DATE OF ISSUE 03.17.2025
DRAWN BY AB, AG, HH
REVIEWED BY DP

PLUMBING DETAILS

GENERAL NOTES:

1. ALL WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES OF THE CITY OF JOULET AND THE STATE OF ILLINOIS.
2. THE MECHANICAL CONTRACTOR SHALL VISIT THE JOB SITE AND VERIFY ALL EXISTING CONDITIONS IN FIELD AND INCLUDE IN THEIR BID ALL REQUIRED CHANGES TO PROVIDE A COMPLETE OPERATING SYSTEM.
3. ALL EQUIPMENT SHALL BE U.L., ETL, AND/OR AGA LABELED AS REQUIRED.
4. THIS CONTRACTOR SHALL FURNISH AND INSTALL MATERIAL INDICATED ON DRAWINGS AND AS REQUIRED TO PROVIDE A COMPLETE AND SATISFACTORY OPERATING INSTALLATION.
5. ALL MATERIALS SHALL BE NEW AND OF STANDARD QUALITY UNLESS OTHERWISE NOTED; NO REJECTS. ALL MATERIALS FOR WHICH AN UNDERWRITERS LABORATORY STANDARD EXISTS SHALL BEAR A U.L. LABEL. PROTECT ALL EQUIPMENT AND WORK FROM DAMAGE DUE TO ANY CAUSE.
6. ALL WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE NATIONAL, STATE AND LOCAL CODES AND REGULATIONS GOVERNING THE INSTALLATION OF THE WORK INVOLVED. ALL PERMITS FOR THE INSTALLATION OF THE WORK AND ALL INSPECTIONS OF SAME SHALL BE ARRANGED FOR BY THIS CONTRACTOR. ALL FEES AND ASSESSMENTS IN CONNECTION THEREWITH SHALL BE PAID BY THIS CONTRACTOR. THE COST OF WHICH SHALL BE INCLUDED IN THEIR BID.
7. THE GENERAL CONDITIONS AND SPECIAL CONDITIONS ISSUED BY THE OWNER AND/OR ARCHITECT SHALL GOVERN WHERE APPLICABLE. GENERAL CONDITIONS AND SPECIAL CONDITION REQUIREMENTS RELATED BUT NOT LIMITED TO THE FOLLOWING SHALL APPLY:
 - A. RUBBISH REMOVAL.
 - B. COMPLIANCE WITH THE OWNER'S REQUIREMENTS.
 - C. OBTAINING AND PAYING FOR REQUIRED LICENSES AND PERMITS.
 - D. REPLACEMENT OF DAMAGED SYSTEM EQUIPMENT, AND/OR BUILDING DUE TO NEW INSTALLATIONS.
 - E. COMPLIANCE WITH ALL STATE AND LOCAL CODES AND ORDINANCES.
 - F. WORKMAN'S COMPENSATION INSURANCE, PUBLIC LIABILITY INSURANCE.
8. THE ENTIRE INSTALLATION SHALL BE PERFORMED IN A FIRST-CLASS WORKMANLIKE MANNER. THE COMPLETE SYSTEM SHALL BE FULLY OPERATIONAL AND ACCEPTANCE BY THE OWNER SHALL BE A CONDITION OF THE CONTRACT.
9. NEW DUCTWORK AND PIPING SHALL RUN IN STRAIGHT LINES PARALLEL AND/OR PERPENDICULAR TO THE BUILDING CONSTRUCTION, AS HIGH AS POSSIBLE.
10. THIS CONTRACTOR SHALL INCLUDE ALL MISCELLANEOUS ITEMS REQUIRED TO COMPLETE THE WORK INCLUDING MOVING AND RIGGING OF MATERIAL AND EQUIPMENT, HANGERS, SUPPORTS, STRUCTURAL FRAMING CHANGES, FITTINGS AND SLEEVES.
11. ALL MATERIAL, WORKMANSHIP AND EQUIPMENT SHALL BE GUARANTEED FOR ONE YEAR AFTER SYSTEM ACCEPTANCE. PROVIDE TYPEWRITTEN OPERATING INSTRUCTIONS, AND EQUIPMENT WARRANTIES.
12. ALL SHEET METAL DUCTS SHALL BE ERRECTED IN FIRST CLASS AND WORKMANLIKE MANNER TRUE TO THE DIMENSIONS INDICATED ON THE DRAWINGS. UNLESS OTHERWISE APPROVED, STRAIGHT AND SMOOTH ON THE INSIDE WITH NEATLY FINISHED AIRTIGHT JOINTS. ALL SLOP JOINTS SHALL BE MADE IN THE DIRECTION OF FLOW, AND UNLESS OTHERWISE INDICATED ON THE DRAWINGS, ALL ELBOWS SHALL HAVE A CENTERLINE RADIUS EQUAL TO 1.5 TIMES THE WIDTH OF THE DUCT. THE SHEET METAL USED SHALL BE GALVANIZED IRON, EXCEPT AS HEREINAFTER SPECIFIED. THE THICKNESS OF THE SHEET METAL AND SIZE AND SPACING OF THE STIFFENERS USED SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE SMACNA HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE BOOK. CONSTRUCT DUCTWORK IN ACCORDANCE WITH THE REQUIREMENTS OF SMACNA AND CURRENT LOCAL CODES. ASHRAE GUIDE AND DATA BOOK "SCHEDULE OF RECOMMENDED CONSTRUCTION FOR LOW PRESSURE RECTANGULAR SHEET METAL DUCTS". ALL DUCTWORK SHALL COMPLY WITH ASHRAE AND SMACNA STANDARDS.
13. ALL DUCTWORK TO BE SUPPORTED FROM BUILDING CONSTRUCTION WITH ROD HANGERS AND PROPERLY SIZED ANGLE IRON BOTTOM SUPPORTS. THE DUCTS SHALL BE SECURELY ANCHORED TO THE BUILDING IN AN APPROVED MANNER AND SHALL BE SO INSTALLED AS TO BE COMPLETELY FREE FROM VIBRATION UNDER ALL CONDITIONS OF OPERATION. THE DUCTS SHALL BE PROPERLY BRACED AND REINFORCED WITH STEEL ANGLES OR OTHER STRUCTURAL MEMBERS SPACED NOT MORE THAN 6' ON CENTERS. ALL SAGGING DUCTWORK WILL BE REMOVED AND REHUNG AS DIRECTED BY ENGINEER.
14. ALL SUPPLY DUCTWORK SHALL BE WRAPPED WITH FOIL FACED INSULATION MINIMUM R-8. ALL RETURN DUCTWORK SHALL BE LINED WITH 1" THICK GLASS FIBER INSULATION.
15. THE MECHANICAL CONTRACTOR SHALL SUBMIT (4) FOUR PRODUCT SHOP DRAWINGS FOR ALL NEW EQUIPMENT AND DUCT LAYOUT TO BE FURNISHED FOR ARCHITECT, OWNER, AND ENGINEERS APPROVAL. CATALOG CUT SHEETS FOR ALL EQUIPMENT AND MATERIAL SHALL BE MADE AVAILABLE ON SITE. ALL EQUIPMENT AND APPLIANCES MUST BEAR LABEL INDICATING SUITABLE FOR USE. THE MECHANICAL CONTRACTOR SHALL SUBMIT THE MANUFACTURER'S INSTALLATION INSTRUCTIONS TO THE BUILDING OWNER, INCLUDING INSTALLATION FOR OUTSIDE INSTALLATION WHEN APPLICABLE.
16. THE EQUIPMENT SPECIFIED TO SET STANDARDS. INTENTION IS "OR EQUAL" IF APPROVED PRIOR TO BID DUE DATE.
17. SYSTEMS SHALL BE BALANCED TO AIR QUANTITIES AS INDICATED ON PLANS. PROVIDE COPIES OF REPORT INCLUDING EQUIPMENT INFORMATION.
18. DUCTWORK CONSTRUCTION MATERIALS, INCLUDING COVERINGS, LININGS, AND ADHESIVES, EXPOSED WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED RATING OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E-84.
19. PROVIDE FIRE DAMPERS BY "NAILOR" OR APPROVED EQUAL AT ALL PENETRATIONS THRU RATED ASSEMBLIES. REFER TO ARCHITECTURAL PLANS FOR ALL LOCATIONS AND RATINGS. ALL FIRE DAMPERS MAY NOT BE SHOWN ON THE PLANS. THIS CONTRACTOR SHALL VERIFY EXACT LOCATIONS AND QUANTITIES.
20. MECHANICAL CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING GAS METERS.
21. EQUIPMENT AND APPLIANCES SHALL BE INSTALLED AS REQUIRED BY THE TERMS OF THEIR APPROVAL, IN ACCORDANCE WITH THE CONDITIONS OF THE LISTING. THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND THIS CODE. MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE AVAILABLE ON THE JOB SITE AT TIME OF INSPECTION, INCLUDING LISTING FOR OUTSIDE INSTALLATION WHEN APPLICABLE.
22. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT, UTILITY BOXES, AND WIRING FOR ALL THERMOSTATS. MECHANICAL CONTRACTOR SHALL FURNISH, MOUNT, AND TERMINATE THERMOSTATS ONLY.
23. NATURAL GAS DISTRIBUTION PIPING SHALL BE SCHEDULE 40 BLACK PIPE WITH 150# MALLEABLE IRON FITTINGS.
24. THE CONTRACTOR SHALL KEEP THE SITE AND AREAS UNDER CONSTRUCTION IN AN ORDERLY CONDITION AT ALL TIMES AND FREE OF ANY ACCUMULATION OF RUBBISH, DEBRIS, AND WASTE. CARE SHOULD BE TAKEN WHEN WORKING AROUND FINISHED SURFACES AND INSTALLATIONS. ALL EFFORTS SHALL BE MADE TO ENSURE CONSTRUCTION ACTIVITIES DO NOT EXPOSE AIR CONDITIONING SYSTEMS OR OCCUPIED SPACES TO ANY CONSTRUCTION DUST, DEBRIS, AND/OR CHEMICAL ODORS. CONTRACTOR SHALL SEAL ALL PLENUMS, TRANSFER GRILLES, AND OPENINGS AROUND WORK AREAS TO ACHIEVE THIS. IF THE CONTRACTOR FAILS TO CONTAIN CONSTRUCTION DUST, THE CONTRACTOR WILL BE RESPONSIBLE FOR ROUTINE CLEAN-UP OF MERCHANDISE AND FIXTURES. CONTRACTOR WOULD ALSO BE RESPONSIBLE FOR ROUTINE FILTER CHANGES DURING CONSTRUCTION.
25. THERMOSTATS TO BE MOUNTED AT 48" ABOVE FINISHED FLOOR UNLESS OTHERWISE SHOWN ON ARCHITECTURAL PLANS.

DEMOLITION NOTES:

1. WHERE SHOWN ON PLAN, MECHANICAL EQUIPMENT SHALL BE COMPLETELY DEMOLISHED. ALL MATERIALS AND EQUIPMENT INCLUDING, BUT NOT LIMITED TO RTU(S), AHU(S), EXHAUST FANS, DUCTWORK, AIR DEVICES, CONDENSATE PIPES, ALONG WITH ITS ASSOCIATED SUPPORTS AND CONTROLS ARE TO BE DISCONNECTED AND PROPERLY DISPOSED. ANY ASSOCIATED GAS PIPING SHALL BE CAPPED BACK TO ACTIVE MAIN. ASSOCIATED CURBS SHALL BE CAPPED.
2. CONTRACTOR IS TO PERFORM DEMOLITION WORK IN A NEAT, SKILLFUL, AND CAREFUL MANNER SO AS NOT TO DAMAGE OR DEFACE EXISTING CONSTRUCTION THAT IS TO REMAIN.
3. PATCH ALL HOLES IN ROOFS, WALLS AND CEILING WHERE MECHANICAL EQUIPMENT IS REMOVED. IF THE REMOVAL OF MECHANICAL EQUIPMENT COMPROMISES THE FIRE RATING OF THESE ITEMS, THE CONTRACTOR SHALL SEAL OPENINGS WITH CODE-APPROVED FIRE STOPPING MATERIAL.

MECHANICAL ABBREVIATIONS:

AC	AIR CONDITIONER
ACH	AIR CHANGES PER HOUR
AF	AIR FILTER
AHU	AIR HANDLING UNIT
APD	AIR PRESSURE DROP
BAS	BUILDING AUTOMATION SYSTEM
BHP	BRAKE HORSEPOWER
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
CC	COOLING COIL
CF	CUBIC FEET
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CO	CLEANOUT
CT	COOLING TOWER
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
CV	CONSTANT AIR VOLUME
DAT	DISCHARGE AIR TEMPERATURE
DB	DECEBEL OR DRY BULB TEMPERATURE
DDC	DIRECT DIGITAL CONTROL
DH	DUCT HEATER
DX	DIRECT EXPANSION
EAT	ENTERING AIR TEMPERATURE
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
EWT	ENTERING WATER TEMPERATURE
FV	FREE AREA
FC	FAN COIL
FD	FIRE DAMPER
FH	FUME HOOD
FPB	FAN POWERED BOX
FRM	FEET PER MINUTE
FPS	FEET PER SECOND
FS	FREEZE STAT
FSD	COMBINATION FIRE/SMOKE DAMPER
GA	GAUGE
GAL	GALLON
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
H	HUMIDISTAT
HC	HEATING COIL
HD	HOOD OR HEAT DETECTOR
HEPA	HIGH EFFICIENCY PARTICULATE AIR FILTER
HP	HORSEPOWER OR HEAT PUMP
HR	HOUR
HLM	HUMIDIFIER
HX	HEAT EXCHANGER
HZ	HERTZ
IN W.C.	INCHES WATER COLUMN
IN W.G.	INCHES WATER GAUGE
KW	KILOWATT
KWH	KILOWATT HOUR
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LWT	LEAVING WATER TEMPERATURE
MBH	THOUSAND BTUH
NC	NORMALLY CLOSED
NK	NECK
NO	NORMALLY OPEN
P	PUMP
PA	PASCAL
PH	PHASE
PRV	PRESSURE REDUCING VALVE
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQAURE INCH GAUGE
RF	RETURN FAN
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RO	RELIEF OPENING
RPM	REVOLUTIONS PER MINUTE
SAT	SUPPLY AIR TEMPERATURE
SD	SMOKE DAMPER OR SMOKE DETECTOR
SF	SQUARE FEET OR SUPPLY FAN
SPS	STATIC PRESSURE SENSOR
T	THERMOSTAT
TD	TEMPERATURE DIFFERENCE
TO	TRANSFER OPENING
TYP	TYPICAL
UC	UNDERCUT (DOOR)
UH	UNIT HEATER
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE
VSD	VARIABLE SPEED DRIVE
VTR	VENT THROUGH ROOF
W	WATT
WB	WET BULB TEMPERATURE
WC	WATER COLUMN
WPD	WATER PRESSURE DROP

MECHANICAL EQUIPMENT:

PLAN	SYMBOL	
		AIR SEPARATOR
		BASKET STRAINER
		EXPANSION TANK, FREE STANDING
		EXPANSION TANK, HANGING
		SIDE STREAM FILTER
		LOUVER
		HEAT EXCHANGER, PLATE AND FRAME
		HEAT EXCHANGER, SHELL AND TUBE
		STEAM TRAP
		VARIABLE FREQUENCY DRIVE
		CONTROL BOX
		ENERGY METER
		NATURAL GAS METER
		PUMP (SEE SCHEDULE FOR TYPE)
		VARIABLE AIR VOLUME BOX
		VAV BOX WITH ELECTRIC REHEAT
		VAV BOX WITH HYDRONIC REHEAT
		ROUND IN / ROUND OUT VAV BOX
		FAN POWERED BOX

DUCT SYSTEMS:

	BACKDRAFT DAMPER
	FIRE DAMPER
	SMOKE DAMPER
	COMBINATION FIRE SMOKE DAMPER
	MOTORIZED DAMPER
	VOLUME DAMPER
	SIDEWALL GRILLE
	CEILING DIFFUSER, SUPPLY 4-WAY BLOW PATTERN
	CEILING DIFFUSER, SUPPLY 3-WAY BLOW PATTERN
	CEILING DIFFUSER, SUPPLY 2-WAY BLOW PATTERN
	CEILING DIFFUSER, SUPPLY 1-WAY BLOW PATTERN
	CEILING DIFFUSER, RETURN
	CEILING DIFFUSER, EXHAUST
	DOOR UNDERCUT
	DUCT SECTION, SUPPLY
	DUCT SECTION, RETURN
	DUCT SECTION, EXHAUST
	FLEXIBLE DUCT
	DIRECTION OF AIR FLOW
	DUCT SIZE TRANSITION
	RECTANGULAR ELBOW DOWN - SINGLE LINE
	ROUND ELBOW DOWN - SINGLE LINE
	RECTANGULAR ELBOW UP - SUPPLY
	RECTANGULAR ELBOW DOWN - SUPPLY
	ROUND ELBOW UP - SUPPLY
	ROUND ELBOW DOWN - SUPPLY
	RECTANGULAR ELBOW UP - RETURN
	RECTANGULAR ELBOW DOWN - RETURN
	ROUND ELBOW UP - RETURN
	ROUND ELBOW DOWN - RETURN
	RECTANGULAR ELBOW UP - EXHAUST
	RECTANGULAR ELBOW DOWN - EXHAUST
	ROUND ELBOW UP - EXHAUST
	ROUND ELBOW DOWN - EXHAUST
	MITERED ELBOW
	MITERED ELBOW WITH TURNING VANES
	ACCESS DOOR - TOP/SIDE
	AIR FLOW MEASURING STATION
	SOUND ATTENUATOR
	FLEXIBLE CONNECTION

MECHANICAL TAGS:

	VISIBLE DIMENSION
	DUCT DIMENSIONS (CLEAR, INTERNAL)
	SYSTEM ABBREVIATION
	DIFFUSER TAG
	MECHANICAL EQUIPMENT TAG
	RISER TAG
	PIPE DIMENSION TAG
	POINT OF NEW CONNECTION
	POINT OF DISCONNECTION

HYDRONIC SYSTEM ABBREVIATIONS:

	PIPE TO BE DEMOLISHED
	DRAIN
	NATURAL GAS
	LIQUEFIED PETROLEUM
	VENT
	CHILLED WATER SUPPLY
	CHILLED WATER RETURN
	CONDENSER WATER SUPPLY
	CONDENSER WATER RETURN
	CONDENSATE DRAIN
	HEATING HOT WATER SUPPLY
	HEATING HOT WATER RETURN
	GLYCOL SUPPLY
	GLYCOL RETURN
	MAKEUP WATER
	HEAT PUMP WATER SUPPLY
	HEAT PUMP WATER RETURN
	GEO THERMAL WATER SUPPLY
	GEO THERMAL WATER RETURN
	REFRIGERANT HOT GAS
	REFRIGERANT LIQUID
	REFRIGERANT SUCTION
	HIGH PRESSURE STEAM
	MEDIUM PRESSURE STEAM
	LOW PRESSURE STEAM
	HIGH PRESSURE STEAM CONDENSATE
	MEDIUM PRESSURE STEAM CONDENSATE
	LOW PRESSURE STEAM CONDENSATE
	CONDENSATE RETURN
	PUMPED CONDENSATE
	VACUUM PUMP DISCHARGE
	BOILER BLOWDOWN
	BOILER FEEDWATER SUPPLY
	HUMIDIFICATION LINE
	FUEL OIL FILL
	FUEL OIL RETURN
	FUEL OIL SUPPLY
	FUEL OIL VENT
	COMPRESSED AIR
	VACUUM AIR

HYDRONIC SPECIALTIES:

	FLOW SWITCH
	AUTOMATIC AIR VENT
	MANUAL AIR VENT
	PRESSURE GAUGE
	PRESSURE SWITCH
	PUMP SUCTION DIFFUSER
	THERMOMETER
	STRAINER, BLOW DOWN
	STRAINER, HOSE CONNECTION
	STRAINER
	ANCHOR
	PIPING GUIDE
	EXPANSION LOOP
	EXPANSION JOINT
	FLOW METER

HYDRONIC FITTINGS:

	45° ELBOW
	CAP
	90° ELBOW
	ELBOW DOWN
	ELBOW UP
	TEE
	TEE DOWN
	TEE UP
	UNION
	FLEXIBLE CONNECTION
	PIPE CONTINUATION
	FLANGE

GENERAL ABBREVIATIONS:

AE	ARCHITECT/ENGINEER
ABV	ABOVE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ALT	ALTERNATE
ARCH	ARCHITECT
BFG	BELOW FINAL GRADE
BUDG	BUILDING
CLG	CEILING
DIR	DIRECT
DISC	DISCONNECT
DN	DOWN
EC	ELECTRICAL CONTRACTOR
ELEV	ELEVATION REFERENCE
EM	EMERGENCY
EP	EXPLOSION PROOF
EWFC	ELECTRIC WATER COOLER
FLUSH	FLUSH
FBO	FURNISHED BY OTHERS
FIXTURE	FIXTURE
FLA	FULL LOAD AMPS
FLR	FLOOR
FS	FLOW SWITCH
GC	GENERAL CONTRACTOR
GRD	GROUND
GYP	GYPNUM BOARD
HCP	HEATING CONTRACTOR
HVAC	HEATING & VENTILATING - AIR CONDITIONING
HW	HEAVYWALL
ID	INDIRECT
IU	INTERLOCK IN UNIT
J-BOX	JUNCTION BOX
LG	LAY-IN GRID
LTG	LIGHTING
LV	LOW VOLTAGE
LVT	LINE VOLTAGE THERMOSTAT
MC	MECHANICAL CONTRACTOR
MCA	MINIMUM CIRCUIT AMPS
MOCP	MAXIMUM OVERCURRENT PROTECTION
MTD	MOUNTED
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PLUG	PLUMBING CONTRACTOR
RM	ROOM
SURF	SURFACE
TS	TAMPER SWITCH
TYP	TYPICAL
UG	UNDERGROUND
VC	VENTILATION CONTRACTOR

HVAC SENSORS:

	CARBON DIOXIDE
	CARBON MONOXIDE
	DEWPOINT
	GAS
	HUMIDITY
	NITROGEN OXIDE
	RELATIVE PRESSURE MONITOR
	REFRIGERANT MONITOR
	SMOKE DETECTOR
	STATIC PRESSURE
	THERMOSTAT
	TEMPERATURE

HYDRONIC VALVES:

	TWO-POSITION 2-WAY VALVE
	MODULATING 2-WAY VALVE
	TWO-POSITION 3-WAY VALVE
	MODULATING 3-WAY VALVE
	BALANCING VALVE
	BALL VALVE
	BUTTERFLY VALVE
	CHECK VALVE
	DIFFERENTIAL PRESSURE VALVE
	FLOAT OPERATED VALVE
	GATE VALVE
	GLOBE VALVE
	PLUG VALVE
	PRESSURE INDEPENDENT VALVE
	PRESSURE REDUCING VALVE
	PRESSURE RELIEF VALVE
	TRIPLE DUTY VALVE
	BACKFLOW PREVENTER

MECHANICAL SHEET INDEX:

SHEET NO.	SHEET NAME
DNU, MD-01	FIRST FLOOR DEMO MECHANICAL PLAN
DNU, MD-02	SECOND FLOOR DEMO MECHANICAL PLAN
DNU, MD-03	THIRD FLOOR DEMO MECHANICAL PLAN
DNU, MD-04	FOURTH FLOOR DEMO MECHANICAL PLAN
DNU, MD-05	ROOF DEMO MECHANICAL PLAN
M-000	MECHANICAL GENERAL NOTES, SYMBOLS, & LEGENDS
M-001	MECHANICAL SPECIFICATIONS
M-101	FIRST & SECOND FLOOR MECHANICAL PLAN
M-102	THIRD & FOURTH FLOOR MECHANICAL PLAN
M-103	ROOF MECHANICAL PLAN
M-201	MECHANICAL SCHEDULES AND SEQUENCES
M-301	MECHANICAL DETAILS

Will County

1300 Copperfield
Exterior
Improvements

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Joliet, IL 60432

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SIGNATURE

DATE

REVISIONS		
NO	DESCRIPTION	DATE
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DRAWN BY AB, AG, HH
REVIEWED BY DP

MECHANICAL GENERAL
NOTES, SYMBOLS, &
LEGENDS

M-000
ISSUED FOR BID

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1.0 GENERAL REQUIREMENTS

- 1.01 SCOPE OF WORK
- A. THE GENERAL REQUIREMENTS OF THE ARCHITECTURAL SPECIFICATIONS ARE PART OF THESE SPECIFICATIONS. WHERE AN INCONSISTENCY EXISTS BETWEEN THE WORKING OR INTENT, THIS DIVISION SHALL TAKE PRECEDENCE.
- B. THE STANDARD FORM OF GENERAL CONDITIONS ISSUED BY THE AMERICAN INSTITUTE OF ARCHITECTS DOCUMENT A201, LATEST EDITION, SHALL FORM A PART OF THIS CONTRACT.
- C. ALL CONTRACTORS FOR THIS WORK SHALL VERIFY EQUIPMENT LOCATIONS, WEIGHTS, SIZES AND CLEARANCES IN THE FIELD PRIOR TO SUBMITTING BIDS TO VERIFY CONDITIONS, INTERFERENCES WITH OTHER TRADES, AND DIMENSIONS. NO ALLOWANCES WILL BE MADE AFTER ACCEPTANCE OF BIDS FOR FAILURE TO COMPLY. CONTRACTOR SHALL NOTIFY ENGINEER ANY DISCREPANCIES IMMEDIATELY.
- D. PROVIDE ALL LABOR AND MATERIALS, EQUIPMENT, FACILITIES, TRANSPORTATION AND SERVICES NECESSARY TO FURNISH, INSTALL AND COMPLETE THE HEATING, VENTILATING AND AIR CONDITIONING WORK AS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN. THE WORKMANSHIP SHALL BE COMPLETE IN EVERY RESPECT, BE TESTED AND APPROVED, AND BE SATISFACTORY TO THE ARCHITECT/ENGINEER AND IN ACCORDANCE WITH THE LOCAL, COUNTY AND STATE LAWS GOVERNING THIS INSTALLATION, INCLUDING THE FIRE MARSHAL.
- E. THE DRAWINGS INDICATE DIAGRAMMATICALLY THE EXTENT AND LOCATION OF THE WORK INCLUDED. WORK INDICATED, BUT HAVING MINOR DETAILS OBVIOUSLY OMITTED, SHALL BE PROVIDED, INCLUDING THESE DETAILS, WITHOUT EXTRA COST.
- F. IT IS THE DECLARED AND ACKNOWLEDGED INTENT OF THESE SPECIFICATIONS TO PROVIDE THE HEATING, VENTILATING AND AIR CONDITIONING SYSTEMS, INCLUSIVE OF ALL REQUIRED PARTS, ACCESSORIES AND CONTROLS COMPLETE AND READY FOR USE AS INDICATED ON THE ACCOMPANYING DRAWINGS. WORK INDICATED ON THE DRAWINGS, BUT NOT NECESSARILY INDICATED IN THESE SPECIFICATIONS SHALL BE PROVIDED AS REQUIRED.

1.02 RELATED WORK

- POWER WIRING (IE FEEDERS) TO MOTORS, INCLUDING FINAL CONNECTIONS TO EQUIPMENT, SHALL BE PROVIDED BY THE DIVISION 16 - ELECTRICAL CONTRACTOR.

1.03 VISITING THE SITE

- THE CONTRACTOR SHALL, PRIOR TO SUBMITTING HIS BID FOR DOING WORK AS DESCRIBED IN THIS SPECIFICATION AND ON THE ACCOMPANYING DRAWINGS, VISIT THE SITE AND COMPLETELY FAMILIARIZE HIMSELF WITH THE DIFFICULTIES AND FACILITIES THAT WILL BE INVOLVED FOR THE PROPER EXECUTION OF THE CONTRACT. NO EXTRA COMPENSATION SHALL BE ALLOWED FOR THE CONTRACTOR FAILING TO DO SO OR NOT TO FULLY APPRECIATE THE DIFFICULTIES AT HAND.

1.04 FEES AND INSPECTIONS

- GENERAL CONTRACTOR/OWNER SHALL APPLY FOR ALL PERMITS OR OTHER OBLIGATIONS THAT THE CITY, COUNTY, STATE OR UTILITIES MAY REQUIRE IN ORDER FOR HIM TO DO HIS WORK ACCORDING TO THE PLANS AND SPECIFICATIONS, UNLESS OTHERWISE NOTED. ALL PERMIT AND INSPECTION FEES WILL BE PAID FOR BY OWNER.

1.05 LAWS AND ORDINANCES

- THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES AND REGULATIONS BEARING ON THE CONDUCT OF WORK AS DRAWN AND SPECIFIED. IF THE CONTRACTOR OBSERVES THAT THE DRAWINGS AND SPECIFICATIONS ARE AT VARIANCE THEREWITH, HE SHALL PROMPTLY NOTIFY THE ENGINEER IN WRITING WHEN SUBMITTING HIS BID AND ANY NECESSARY CHANGES SHALL BE ADJUSTED AS PROVIDED IN THE CONTRACT FOR SUCH CHANGES IN WORK. IF THE CONTRACTOR PERFORMS ANY WORK CONTRARY TO SUCH LAWS, ORDINANCES, RULES AND REGULATIONS, HE SHALL BEAR ALL COSTS FOR CORRECTING THE WORK.

1.06 TRADE JURISDICTION

- WHEN IT BECOMES NECESSARY FOR THE COMPLETE FULFILLMENT OF THIS WORK, FOR THE CONTRACTOR TO FURNISH LABOR OR MATERIALS OTHER THAN WHICH IS GENERALLY ACCEPTED BY HIS TRADE OR BRANCH OF WORK, THE CONTRACTOR SHALL SUBLET SAME TO A CONTRACTOR NORMALLY ENGAGED IN THE TRADE OR BRANCH OF WORK, INVOLVED TO THE END, SO THAT THERE IS NO DELAY TO OR STOPPAGE OF WORK DUE TO THE INFRINGEMENT OR ALLEGED INFRINGEMENT TO TRADE AGREEMENTS AS TO THE JURISDICTION.

1.07 SUBMITTALS

- THIS CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL, COMPLETE LISTS INCLUDING CATALOG CUTS, ETC., AND WHERE APPLICABLE DIMENSIONED SHOP DRAWINGS OF ALL MATERIALS, FIXTURES AND EQUIPMENT TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT. INCLUDE SHEETMETAL DUCT LAYOUTS AND PIPING PLAN LAYOUTS. REFER TO THE ARCHITECT'S GENERAL CONDITIONS FOR NUMBER OF COPIES TO BE SUBMITTED. DO NOT ORDER EQUIPMENT, FABRICATE DUCTWORK, OR INSTALL EQUIPMENT, DUCTWORK OR PIPING BEFORE RECEIVING SHOP DRAWINGS WHICH HAVE BEEN REVIEWED AND APPROVED BY THE ENGINEER.

- REQUIRED ITEMS TO BE SUBMITTED SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:

- DIFFUSERS, GRILLES AND REGISTERS
ACCESS PANELS
LOUVERS
MOTORIZED DAMPERS
FIRE DAMPERS
EQUIPMENT
ROOF CURBS
INSULATION
CONTROLS
SPECIALTIES

1.08 RECORD DRAWING SUBMITTAL

- AT PROJECT CLOSEOUT, THE CONTRACTOR SHALL SUBMIT RECORD "AS-BUILT" DRAWINGS OF INSTALLED DUCTWORK, PIPING AND EQUIPMENT AS IT WAS ACTUALLY INSTALLED SO AS TO MAKE A PERMANENT RECORD. REFER TO THE ARCHITECTS GENERAL CONDITIONS FOR NUMBER OF COPIES TO BE SUBMITTED.

1.09 WORKMANSHIP AND MATERIALS

- ALL MATERIALS SHALL BE NEW AND OF FIRST QUALITY. ALL LABOR SHALL BE EXECUTED IN A NEAT WORKMANLIKE MANNER AND SHALL BE PERFORMED BY MECHANICS SKILLED IN THEIR RESPECTIVE TRADES. THE ENGINEER SHALL DECIDE ALL MATTERS PERTAINING TO THE QUALITY OF WORKMANSHIP AND MATERIALS.

- ALL DUCTWORK BEING STORED ON SITE AWAITING INSTALLATION AND ALL INSTALLED DUCTWORK WITH OPEN ENDS SHALL BE COVERED TO REDUCE THE CLEANING EFFORT ONCE THE SYSTEM IS PUT INTO OPERATION.

1.10 SPECIFICATIONS AND DRAWINGS

- SPECIFICATIONS AND DRAWINGS ARE INTENDED TO BE COOPERATIVE. WHAT IS CALLED FOR BY EITHER SHALL BE AS BINDING AS IF CALLED FOR BY BOTH. ANY WORK OR MATERIALS NOT SPECIFICALLY MENTIONED, THOUGH REQUIRED TO MAKE THE JOB COMPLETE, SHALL BE FURNISHED BY THE CONTRACTOR AT HIS EXPENSE.

1.11 OPERATING INSTRUCTIONS

- THIS CONTRACTOR SHALL PREPARE A TYPEWRITTEN LIST OF OPERATING INSTRUCTIONS FOR ALL THE EQUIPMENT INSTALLED UNDER THIS CONTRACT, AND SHALL INSTRUCT THE OWNER IN ITS OPERATION. INDIVIDUAL MANUALS PROVIDED BY THE EQUIPMENT MANUFACTURERS SHALL BE INCLUDED.

1.12 EQUIPMENT SCHEDULE

- THIS CONTRACTOR SHALL PREPARE AND FURNISH TO THE OWNER, TWO (2) BOUND BOOKLETS, EACH CONTAINING A COMPLETE LIST OF ALL EQUIPMENT AND VALVES INSTALLED UNDER THIS CONTRACT. EACH PIECE OF EQUIPMENT AND VALVE LISTED SHALL INCLUDE ITS TAG NUMBER, MANUFACTURERS MODEL NUMBER AND COMPONENTS THEREIN WHICH MAKE UP THE SPARE PARTS LIST.

1.13 GUARANTEE

- THIS CONTRACTOR SHALL GUARANTEE HIS WORK TO BE FREE FROM DEFECTIVE WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL CERTIFICATE. ANY REPAIRS OR REPLACEMENT DURING THE PERIOD SHALL BE MADE WITHOUT COST TO THE OWNER, UPON HIS OR HER REQUEST.

1.14 COORDINATION OF WORK

- THE CONTRACTOR SHALL CONFER WITH OTHER TRADES WHOSE WORK MAY AFFECT HIS INSTALLATION TO AVOID INTERFERENCE BEFORE STARTING THE INSTALLATION. ALL CHANGES IN THE WORK OF THIS CONTRACTOR CAUSED BY HIS NEGLIGENCE TO COMPARE AND CONFER WITH OTHER TRADES SHALL BE MADE BY HIM AT HIS OWN EXPENSE.

1.15 CUTTING AND PATCHING

- EACH CONTRACTOR SHALL DO HIS OWN CUTTING AND PATCHING. IF STRUCTURALLY REQUIRED, HE SHALL PROVIDE AND INSTALL THE NECESSARY STEEL WHEN GOING THROUGH A LOAD BEARING WALL. THIS CONTRACTOR SHALL NOT ENDANGER ANY WORK BY CUTTING, DIGGING OR OTHERWISE AND SHALL NOT CUT OR ALTER THE WORK OF OTHER TRADES WITHOUT CONSENT OF THE ARCHITECT/ENGINEER.

1.16 DEMOLITION

- A. PIPING, VALVES, DUCTWORK, EQUIPMENT, ETC., WHICH IS REQUIRED TO BE REMOVED TO PERFORM WORK UNDER THIS SPECIFICATION WILL BE PERFORMED BY THIS CONTRACTOR AND TURNED OVER AND DELIVERED TO THE BUILDING MAINTENANCE DEPARTMENT OR DISPOSED OF AS DIRECTED.
- B. ANY HOLES OR OPENINGS LEFT IN WALLS, ROOFS, FLOORS, CEILINGS, ETC., AFTER REQUIRED DEMOLITION WORK, SHALL BE FILLED IN AND PATCHED BY THIS CONTRACTOR IN A MANNER APPROVED BY THE ARCHITECT AND ENGINEER. FAILURE ON THIS CONTRACTORS PART TO COMPLY WITH ABOVE SHALL MAKE HIM RESPONSIBLE FOR ANY EXTRA EXPENSE INVOLVED.
- C. ANY EQUIPMENT OR ARCHITECTURAL ELEMENTS DAMAGED OR DESTROYED IN THE DEMOLITION WORK SHALL BE REPAIRED, REPLACED AND/OR BROUGHT BACK TO GOOD WORKING ORDER TO THE SATISFACTION OF THE ARCHITECT AND ENGINEER.

1.17 MECHANICAL IDENTIFICATION

- A. GENERAL. PROVIDE MECHANICAL IDENTIFICATION FOR ALL MECHANICAL EQUIPMENT, PIPING AND DUCT SYSTEMS. COMPLY WITH ANSI A13.1 FOR LETTERING SIZE, LENGTH OF COLOR FIELD, COLORS AND VIEWING ANGLES OF IDENTIFICATION DEVICES.
- B. EQUIPMENT: PROVIDE EQUIPMENT SYSTEM NUMBER, CAPACITY, FLOW RATE, STATIC PRESSURE, PUMP HEAD, HORSEPOWER AND VOLTAGE. PROVIDE SETON MODEL "VENTIMARK" MARKERS.
- C. PIPING: PROVIDE SYSTEM DESIGNATION NAME AND DIRECTION OF FLOW. PROVIDE SETON MODEL "SETIMARK" PIPE MARKERS.
- D. DUCTS: PROVIDE SYSTEM DESIGNATION NAME AND DIRECTION OF FLOW. PROVIDE SETON MODEL "VENTIMARK" MARKERS.
- E. VALVES: PROVIDE BRASS VALVE TAGS AND BRASS "8" HOOK FASTENERS WITH VALVE NUMBER AND TYPE OF SERVICE NOTED ON THE TAG. PROVIDE DUPLICATE VALVE CHARTS. THE CHART SHALL BE FOR ALL VALVES AND SHALL INDICATE VALVE IDENTIFICATION NUMBER, LOCATION AND PURPOSE. PROVIDE SETON BRASS VALVE TAGS AND VALVE CHARTS.

1.18 NOISE AND VIBRATION CONTROL

- THIS CONTRACTOR SHALL PROVIDE ACOUSTICAL AND VIBRATION TREATMENT FOR ALL EQUIPMENT WITH MOVING PARTS TO MEET CODE AND MAINTAIN THE FOLLOWING NOISE CRITERIA:
- | | |
|--------------------------------|-------|
| LOBBIES, TOILETS AND CORRIDORS | NC 40 |
| SPACE ADJACENT TO FAN ROOMS | NC 45 |
| OFFICES, CONFERENCE ROOM, ETC. | NC 35 |

- VIBRATION ISOLATORS AND FLEXIBLE CONNECTIONS SHALL BE USED AT EACH PIECE OF EQUIPMENT WITH MOVING PARTS.

2.0 PRODUCTS, MATERIALS AND CONTROLS

2.01 HANGERS AND SUPPORTS

- A. PIPING HANGERS AND SUPPORTS SHALL COMPLY WITH MSS SP-58. PROVIDE ONLY ONE TYPE OF HANGER/SUPPORT, BY ONE MANUFACTURER, FOR EACH PIPING SERVICE.
- B. DUCT HANGERS AND SUPPORTS SHALL BE IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS.

- C. EQUIPMENT HANGERS AND SUPPORTS SHALL BE PROVIDED AND INSTALLED PER THE EQUIPMENT MANUFACTURERS REQUIREMENTS.

2.02 ACCESS DOORS

- ACCESS DOORS SHALL BE INSTALLED FOR ALL NON-ACCESSIBLE EQUIPMENT, VALVES, OPERATIONS, CONTROLS, OR OTHER WORKING PARTS REQUIRING MAINTENANCE OR ADJUSTMENT. THIS CONTRACTOR SHALL FURNISH ALL SUCH ACCESS DOORS AND ADVISE GENERAL CONTRACTOR OF THE LOCATION OF ALL ACCESS DOORS REQUIRED THROUGHOUT THE PROJECT. ACCESS DOOR MANUFACTURERS DATA SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE ARCHITECT AND ENGINEER. COLOR OF ACCESS DOORS SHALL BE APPROVED BY THE ARCHITECT.

2.03 EQUIPMENT

- A. PROVIDE AND INSTALL ALL EQUIPMENT AS SHOWN IN THE EQUIPMENT SCHEDULES. SEE BELOW FOR APPROVED MANUFACTURERS.
- A.1. PACKAGED ROOFTOP UNITS
- | | |
|--------|---------|
| A.1.a. | TRANE |
| A.1.b. | CARRIER |
| A.1.c. | LENOX |
| A.1.d. | DANFON |
- A.2. VAV BOXES
- | | |
|--------|--------|
| A.2.a. | TITUS |
| A.2.b. | TRANE |
| A.2.c. | MAILOR |
| A.2.d. | PRICE |
- A.3. CONTROLS
- | | |
|--------|---------|
| A.3.a. | SIEMENS |
|--------|---------|
- B. ALL EQUIPMENT DATA SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE ARCHITECT AND ENGINEER.
- C. COLOR OF ALL DIFFUSERS, GRILLES AND REGISTERS SHALL BE APPROVED BY THE ARCHITECT.

- D. COORDINATE FINAL LOCATION OF ALL THERMOSTATS, DIFFUSERS, GRILLES AND REGISTERS WITH THE ARCHITECT'S REFLECTED CEILING PLAN.

2.04 DUCTWORK AND ACCESSORIES

- A. ALL DUCTWORK SHALL BE PRIME GALVANIZED SHEET STEEL, LOCK FORMING, FIRST QUALITY, FABRICATED IN ACCORDANCE WITH THE LATEST EDITION OF THE ASHRAE GUIDE, EXCEPT AS NOTED OTHERWISE.
- B. ROUND SPIRAL DUCTWORK SHALL BE LINDBAG GASKETED SPIRAL DUCTWORK TYPE DUCT FITTINGS, OR APPROVED EQUAL, INSTALLED AND SUSPENDED AS PER MANUFACTURERS RECOMMENDATIONS.
- C. ALL DUCTWORK ARE TO HAVE GALVANIZED STIFFENERS IN THE FORM OF SEAMS INVOLVING AT LEAST THREE FOLDS OF SHEET METAL (POCKET LOCKS, STANDING SEAMS, STANDING S-SLIPS, ETC.).
- D. VENTILATION CONSTRUCTION NOT COVERED BY THE ASHRAE GUIDE AND/OR GOVERNING AUTHORITIES SHALL BE IN ACCORDANCE WITH THE MAXIMUM STANDARDS AND TRADE PRACTICES AS SET FORTH BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA) INCLUDING THEIR MOST CURRENT DUCT MANUAL.
- E. DUCT DIMENSIONS SHOWN ON THE DRAWINGS INDICATE INSIDE DIMENSIONS. INCREASE DUCT SIZE WHEN LINING IS UTILIZED.
- F. LOW PRESSURE DUCTWORK SHALL BE CONSIDERED AS ALL DUCTWORK NOT DEFINED AS MEDIUM PRESSURE DUCTWORK, UNLESS NOTED OTHERWISE. PROVIDE 2" SP DUCT CONSTRUCTION FOR SUPPLY AIR DUCTS AND 1" SP CONSTRUCTION FOR RETURN AND EXHAUST AIR DUCTS, UNLESS OTHERWISE NOTED.
- G. ALL LOW AND MEDIUM PRESSURE DUCTWORK SHALL BE SEALED WITH AN APPROVED MASTIC.
- H. ALL DUCT SYSTEMS ARE TO BE TESTED FOR LEAKAGE. MAXIMUM ALLOWABLE LEAKAGE FOR ANY SYSTEM WILL BE .04 OF TOTAL AIR QUANTITY. SUBMIT TEST DATA SHEET(S) TO ARCHITECT/ENGINEER FOR APPROVAL.
- I. A 5'-0" MAXIMUM LENGTH OF INSULATED FLEXIBLE DUCT WILL BE PROVIDED TO EACH SUPPLY OUTLET AND RETURN INLET AS REQUIRED.
- J. DIFFUSER TAKE-OFF WHERE DIFFUSER IS LOCATED BELOW THE MAIN TRUNK, AND WHERE INDICATED, DEVICE SHALL BE COMPLETE WITH WORK GEAR MECHANISM FOR OPERATION OR ADJUSTMENTS THRU THE FACE OF THE DIFFUSER. IF TURNING DEVICE IS LOCATED REMOTELY FROM GRILLE, REGISTER OR DIFFUSER, PROVIDE EXTENSION ROD ON ADJUSTING DEVICE. TITLE AND BAILEY, "VENTROL, N.C." OR APPROVED EQUAL.
- K. PROVIDE FACTORY-FABRICATED TURNING VANES IN ALL SQUARE ELBOWS. VANES SHALL BE BARBER-COLEMAN "AIRTURNS" OR APPROVED EQUAL.
- L. TAPERED SPIN IN FITTING, WITH LOCK-IN QUADRANT AND VOLUME DAMPER SHALL BE PROVIDED FROM BRANCHES TO DIFFUSERS, FOR LOW PRESSURE DUCTWORK.
- M. ALL BRANCH DUCT TAKE-OFFS SHALL BE EQUIPPED WITH TAPERED FITTINGS.
- N. ALL FULL RADIUS ELBOWS SHALL HAVE A CENTERLINE RADIUS OF 1.5 TIMES THE DUCT WIDTH. ELBOWS WITH A CENTERLINE RADIUS LESS THAN 1.5 TIMES THE DUCT WIDTH SHALL HAVE TURNING VANES.
- O. VOLUME DAMPERS SHALL BE PROVIDED FOR AIR BALANCE PURPOSES. PROVIDE MANUAL VOLUME DAMPERS ON ALL LOW PRESSURE SUPPLY, RETURN AND EXHAUST DUCT BRANCHES AND TO AIR DIFFUSERS, REGISTERS AND GRILLES, UNLESS NOTED OTHERWISE. DAMPERS SHALL BE OPPOSED BLADE TYPE UNLESS NOTED OTHERWISE.

1. FOR VOLUME DAMPERS ABOVE DRYWALL CEILINGS AND OTHER INACCESSIBLE LOCATIONS, PROVIDE LEVER, POSITION INDICATOR AND LOCK NUT. ENCLOSED IN A DEEP DIE-CAST BOX WITH ADJUSTABLE 2'-6" DIAMETER COVER. YOUNG REGULATOR SERIES 315 OR VENTLOCK SERIES 677 AND/OR PROVIDE ACCESS PANEL, SIZED AS REQUIRED (12" X 12" MINIMUM).
2. FOR VOLUME DAMPERS ABOVE ACCESSIBLE CEILINGS, PROVIDE LOCKING TYPE WITH LEVER HANDLE, POSITION INDICATOR AND LOCK NUT. YOUNG REGULATOR SERIES 400 OR VENTLOCK SERIES 600.
3. DYNAMIC RATED FIRE DAMPERS SHALL BE PROVIDED PER CODE REQUIREMENTS. PROVIDE TYPE "B" FIRE DAMPERS FOR LOW PRESSURE DUCTWORK AND TYPE "C" FIRE DAMPERS FOR MEDIUM PRESSURE DUCTWORK. PROVIDE A DUCT ACCESS DOOR FOR EACH FIRE DAMPER.

2.05 PIPING

- A. ALL PIPING FOR WORK CONTAINED IN THIS SPECIFICATION AND ACCOMPANYING DRAWINGS SHALL BE IN CONFORMANCE WITH ASTM STANDARDS. ALL CHANGES IN DIRECTION WILL BE MADE WITH FITTINGS. REAM ALL PIPING AND CLEAN OUT SAME BEFORE ASSEMBLY. PROVIDE VALVES OF SIMILAR MATERIAL AS THE PIPING MATERIAL THEY ARE INSTALLED IN. FERROUS BODY VALVES WITH STEEL PIPING. BRASS AND BRONZE VALVES WITH COPPER PIPING. PROVIDE DIELECTRIC FITTINGS, UNIONS, ETC. WHERE PIPING, VALVES, FITTINGS, EQUIPMENT, ETC. OF DISSIMILAR METALS ARE JOINED. COVER OPEN PIPING DURING CONSTRUCTION. FLUSH OUT AND CLEAN PIPING IN A MANNER THAT IS APPROVED BY THE ENGINEER. FOR EACH BRANCH TAKE-OFF, PROVIDE A 3-ELBOW 2" SHAPE CONNECTION TO PROVIDE PIPING FLEXIBILITY FOR EXPANSION. PROVIDE GUIDES, ANCHORS, EXPANSION LOOPS, SUPPORTS, VENTS, DRAINS, MAKE-UP WATER, ETC., AS REQUIRED.
- B. COPPER PIPING SHALL HAVE SOCKET FITTINGS FOR SOLDER OR BRAZING CONNECTIONS.

- C. STEEL PIPING SHALL BE SCHEDULE 40, ASTM A120 OR A53, UNLESS OTHERWISE NOTED. THE FITTINGS IN PIPE 2" AND SMALLER SHALL BE CAST IRON OR MALLEABLE, UNLESS OTHERWISE NOTED. ALL PIPING 2-1/2" AND LARGER SHALL BE BUTT WELDED. WELDING SHALL BE DONE ONLY BY WELDERS CERTIFIED FOR THIS TYPE OF WORK. ALL FITTINGS SHALL BE AS MANUFACTURED BY STOCKHOLM, BONNEY FORGE, WALWORTH, GRINNEL, OR TUBE TURNS. PAINT ALL EXPOSED THREADS AFTER ASSEMBLY. FOR ALL PIPING EXPOSED TO THE OUTSIDE AIR, PAINT PIPING WITH ONE COAT OF RUST INHIBITING PRIMER AND ONE COAT OF BLACK FINISH PAINT.

2.06 INSULATION

- A. FURNISH AND INSTALL INSULATION AS SPECIFIED.
- B. DUCT INSULATION

- REFER TO ENERGY NOTES. INSULATION SHALL COMPLY TO IECC 2018 REQUIREMENTS.

2.07 CONTROLS

- A. THE NEW TEMPERATURE CONTROL SYSTEM SHALL BE INSTALLED AND CONTROLLED AS NOTED ON THE EQUIPMENT SCHEDULE.

- B. TYPICAL EXHAUST FAN CONTROL: THE FANS SHALL BE CONTROLLED AS NOTED ON THE EQUIPMENT SCHEDULE.

3.0 EXECUTION

3.01 INSPECTION

- PRIOR TO BEGINNING ANY WORK, CAREFULLY COORDINATE WITH THE WORK OF OTHER TRADES AND AT TIMES CONFIRM THAT THE WORK OF OTHERS IS COMPLETE TO THE POINT WHERE THE INSTALLATION CAN PROPERLY COMMENCE.

3.02 GENERAL INSTALLATION REQUIREMENTS

- VERIFY QUANTITIES, CAPACITIES, PERFORMANCE CHARACTERISTICS, OPERATING REQUIREMENTS AND CURRENT CHARACTERISTICS OF ALL EQUIPMENT PRIOR TO ITS INSTALLATION. VERIFY THAT SPACE ALLOTTED FOR EQUIPMENT IS SUFFICIENT FOR ENTRANCE AND INSTALLATION, MAINTENANCE AND SERVICE, AND REMOVAL AND REPLACEMENT.

3.03 COORDINATION OF INSTALLATION

- C. INSTALL WORK IN SUCH A MANNER THAT IT WILL CONFORM TO THE STRUCTURE, AVOID OBSTRUCTIONS, MAINTAIN HEADROOM AND KEEP OPENINGS AND PASSAGEWAYS CLEAR. GENERALLY, KEEP HORIZONTAL LINES AS HIGH AS POSSIBLE. MAKE LOCAL PROVISIONS FOR THE SERVICING AND REMOVAL OF EQUIPMENT.

- D. ANY INTERFERENCE WITH WORK OF OTHER TRADES ARISING FROM FAILURE TO COORDINATE THE WORK AND LACK OF COOPERATION HEREUNDER, SHALL REQUIRE THE REMOVAL AND REINSTALLATION OF ALL INTERFERING WORK WITHOUT ADDITIONAL COST TO THE OWNER.

3.04 IDENTIFICATION OF EQUIPMENT

- EACH PIECE OF EQUIPMENT SHALL DISPLAY A PERMANENT METAL OR PLASTIC NAMEPLATE WHICH SHALL BE LOCATED SO AS TO BE FULLY VISIBLE AFTER THE EQUIPMENT HAS BEEN INSTALLED. THE NAMEPLATE SHALL SHOW THE EQUIPMENT NUMBER AND OTHER PERTINENT INFORMATION.

3.05 CLEAN UP

- A. UPON COMPLETION OF THE INSTALLATION OF DUCTWORK, CLEAN THE ENTIRE SYSTEM OF RUBBISH, PLASTER, DIRT, ETC., BEFORE INSTALLING THE DIFFUSERS, REGISTERS AND GRILLES.
- B. REMOVE TEMPORARY FILTERS FROM RETURN INLETS.
- C. OPERATE AND MAKE ANY REQUIRED ADJUSTMENT TO EQUIPMENT, DUCTWORK, PIPING, ETC., AS MAY BE NECESSARY TO PUT THE SYSTEM IN PROPER OPERATING CONDITION.
- D. REMOVE ALL LABELS, TAGS, ETC., FROM ANY SPECIALTIES, EQUIPMENT, ETC., AND REMOVE ALL GREASE OR OTHER PROTECTIVE COATING FROM ALL EQUIPMENT, PIPING, ETC., AND LEAVE WORK IN A MANNER THAT IS ACCEPTABLE TO THE ARCHITECT/ENGINEER.
- 3.06 OPERATING AND MAINTENANCE INSTRUCTIONS
- AFTER HAVING COMPLETELY INSTALLED ALL SYSTEMS AND ALL NECESSARY TESTS ARE COMPLETED, THIS CONTRACTOR SHALL MAKE ARRANGEMENTS TO OPERATE ALL THE SYSTEMS FOR A PERIOD OF NOT LESS THAN FIVE (5) DAYS AT NO EXPENSE TO THE OWNER. A WRITTEN NOTIFICATION OF THIS TRIAL OPERATING PERIOD SHALL BE PRESENTED TO THE ARCHITECT/ENGINEER, TEN (10) DAYS IN ADVANCE, FOR APPROVAL. DURING THIS TRIAL OPERATING PERIOD, THE CONTRACTOR MAY MAKE NECESSARY MINOR, BUT NON-INTERFERITIVE, ADJUSTMENTS, AND ALSO SHALL GIVE INSTRUCTIONS TO THE OWNER'S OPERATING PERSONNEL OR REPRESENTATIVES, ON THE OPERATION AND MAINTENANCE OF THE VARIOUS ITEMS OF EQUIPMENT AND SYSTEMS.

- 3.07 INSPECTION
- A. VISUALLY INSPECT ALL EQUIPMENT FOR COMPLETENESS AND FUNCTIONAL READINESS.
- B. LUBRICATE ALL FAN AND MOTOR BEARINGS.
- C. CHECK ALL FANS FOR ALIGNMENT AND CLEARANCE.
- D. INSPECT ALL DAMPERS FOR PROPER LINKAGE AND SETTING FOR OPERATION.
- E. CONFIRM THAT THE CONTROL SYSTEM HAS BEEN COMPLETED, CALIBRATED AND IS IN OPERATION.
- 3.08 ELECTRICAL
- A. INSPECT THE MOTOR CONTROL CENTERS, DISCONNECT SWITCHES, OVERLOAD PROTECTION AND WIRING FOR THE HVAC EQUIPMENT PRIOR TO STARTUP OF THE EQUIPMENT.
- B. COORDINATE THE STARTUP OF EQUIPMENT WITH THE ELECTRICAL CONTRACTOR.

3.09 CLOSING IN WORK

- WORK SHALL BE INSPECTED AND THEN APPROVED BY THE ARCHITECT/ENGINEER AND/OR AUTHORITIES HAVING JURISDICTION, ANY WORK COVERED PRIOR TO SUCH INSPECTION, TEST AND APPROVAL SHALL BE UNCOVERED, IF SO REQUESTED, AND AFTER APPROVAL, COVERED AGAIN WITHOUT COST TO THE OWNER.
- 3.10 TESTING, ADJUSTING AND BALANCING
- A. THE HVAC CONTRACTOR SHALL PROVIDE BALANCING REPORTS FOR THE AIR AND HYDRONIC SYSTEMS, AS REQUIRED. THE HVAC CONTRACTOR SHALL SUBMIT A PROJECT CERTIFICATION GUARANTEE AND CERTIFIED BALANCE REPORT TO THE ENGINEER AND AHJ FOR APPROVAL BEFORE FINAL ACCEPTANCE.
- B. ADJUST ALL SUPPLY, RETURN AND EXHAUST DEVICES TO PLUS OR MINUS 5 PERCENT OF THE DESIGN AIRFLOW QUANTITIES.
- C. ADJUST HYDRONIC FLOW QUANTITIES TO PLUS OR MINUS 10 PERCENT OF INDICATED DESIGN FLOWS.
- D. THE HVAC CONTRACTOR SHALL REPORT ANY DEFICIENCIES TO THE ENGINEER. THE BALANCING CONTRACTOR SHALL ALSO RECOMMEND POSSIBLE ACTIONS TO REMEDY THE DEFICIENCIES.
- E. IN GENERAL, THE MECHANICAL CONTRACTOR SHALL CHANGE FAN SIEVES, PUMP IMPELLERS, DRIVES, ETC., TO REMEDY THE DEFICIENCIES AT NO ADDITIONAL COST TO THE OWNER.

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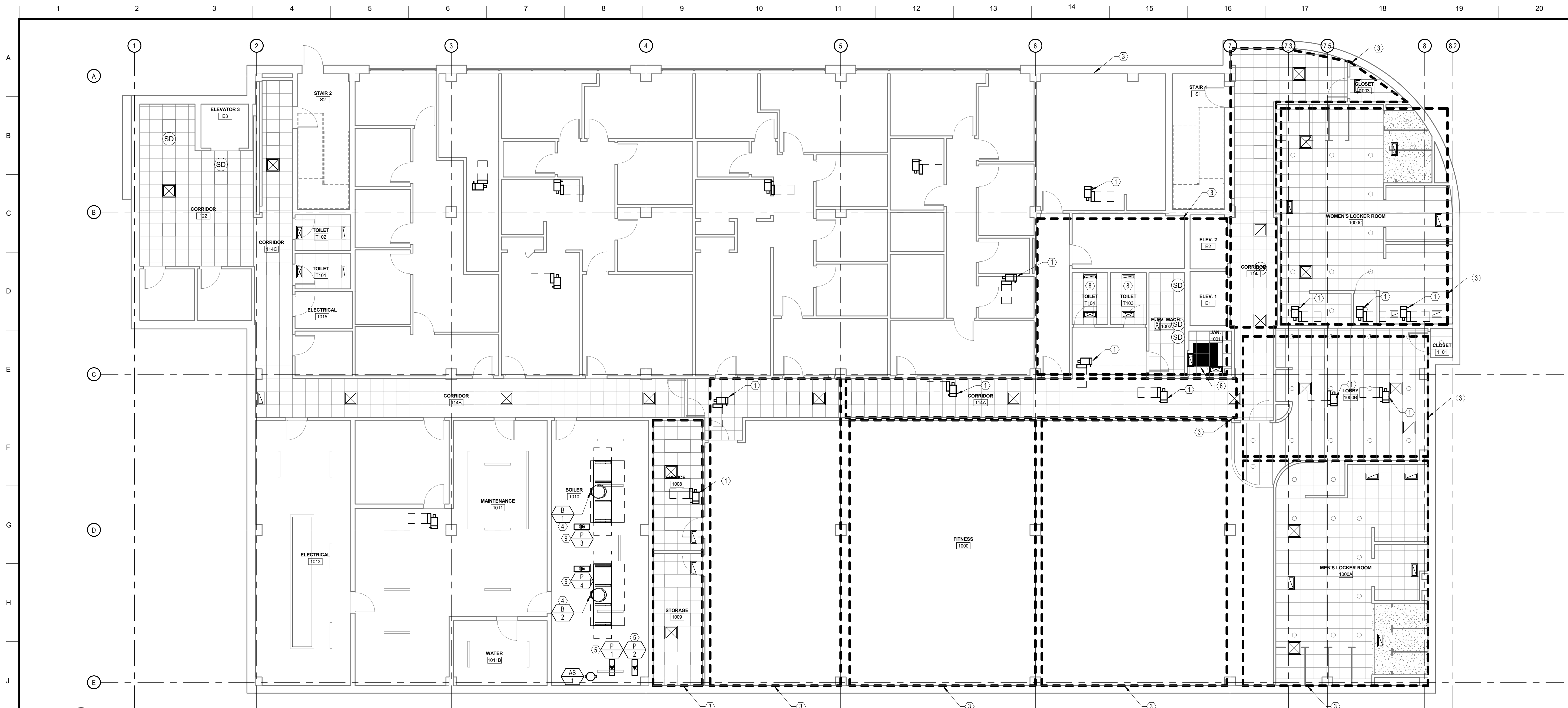
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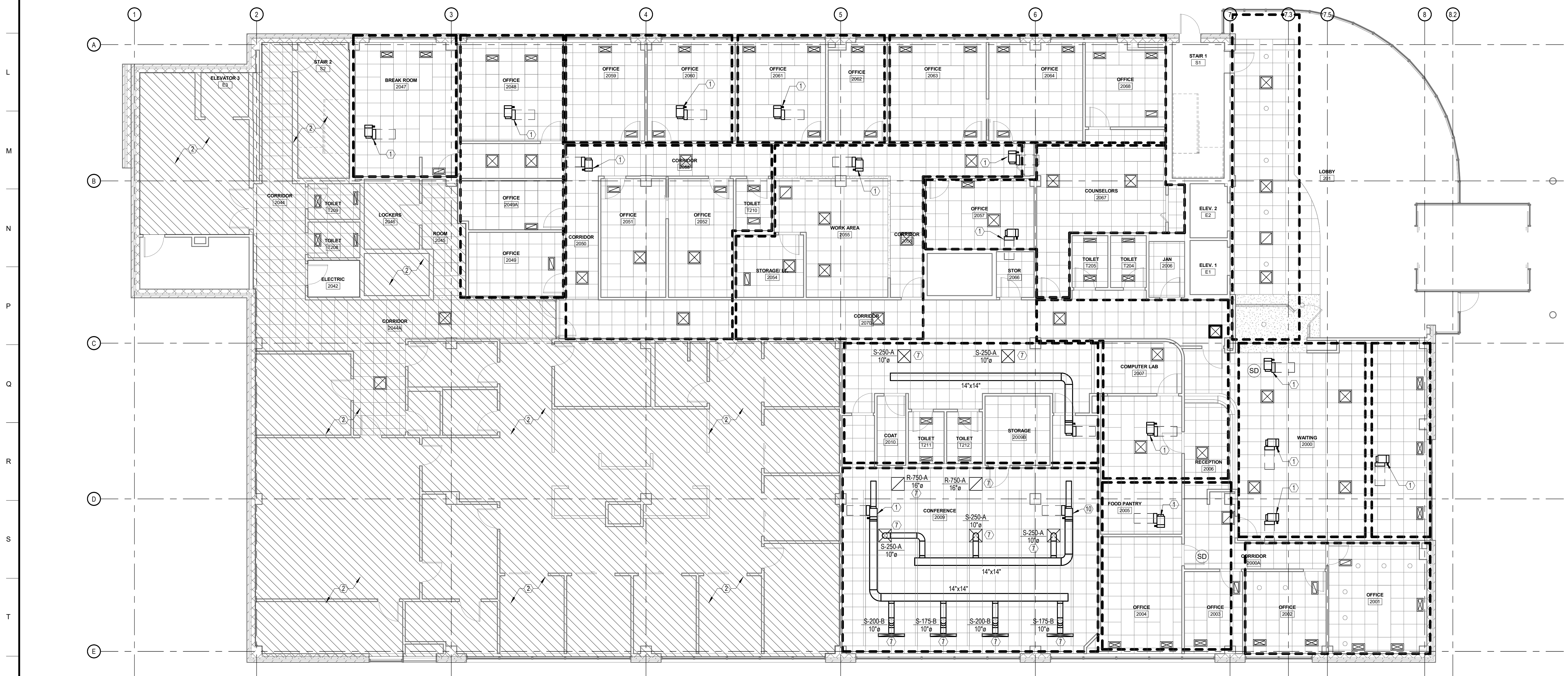
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MECHANICAL
SPECIFICATIONS

M-001
ISSUED FOR BID



1 FIRST FLOOR MECHANICAL PLAN
M-101 1/8" = 1'-0"



2 SECOND FLOOR MECHANICAL PLAN
M-101 1/8" = 1'-0"

- GENERAL NOTES**
1. REFER TO GENERAL MECHANICAL NOTES AND SCHEDULES ON SHEET M0.00.
 2. COMPLY WITH ALL BUILDING STANDARDS.
 3. CONTRACTOR IS RESPONSIBLE FOR ADJUSTING DIFFUSER AIRFLOWS AS SHOWN ON PLAN. PROVIDE A DETAILED TEST & BALANCE REPORT PRIOR TO CLOSEOUT.
 4. FLEX DUCT SHALL NOT EXCEED 5'-0".
 5. DIFFUSER NECK SIZES SHALL BE THE SAME AS ROUND DUCT THAT CONNECTS TO IT.
 6. CONTRACTOR SHALL VERIFY FOR EXACT LOCATION OF BEAMS AND COORDINATE NEW DUCT SIZES/ROUTING ACCORDINGLY.
 7. CONTRACTOR SHALL PROVIDE & INSTALL ALL CODE REQUIRED FIRE DAMPERS WHERE DUCTWORK PENETRATES FIRE RATED ASSEMBLIES.
 8. PROVIDE FIREPROOFING WHEN PENETRATING 1-HR RATED CEILING/ROOF ASSEMBLY.
 9. REBALANCE ALL DIFFUSERS, REGISTERS AND GRILLES. ENSURE AIR SUPPLY IS RETURNED.
 10. CONTRACTOR TO VERIFY WHAT WALLS ARE TO BE FULL HEIGHT & PROVIDE TRANSFER OPENINGS ABOVE CEILING AS NECESSARY FOR A CONTINUOUS RETURN AIR PATH BACK TO AIR HANDLER.
 11. LOCAL INSPECTOR SHALL FIELD VERIFY THE VENTILATION SYSTEM IS BALANCED BY AN APPROVED METHOD AND THAT A TEST AND BALANCE REPORT IS PROVIDED TO THE AUTHORITY HAVING JURISDICTION PRIOR TO THE FINAL CERTIFICATE OF OCCUPANCY INSPECTION FOR THEIR FILE. A COPY OF THE TEST AND BALANCE RESULTS SHALL ALSO BE PRESENTED TO THE LOCAL FIELD INSPECTOR AT TIME OF FINAL INSPECTION.
 12. COORDINATE ALL DUCTWORK WITH STRUCTURAL MEMBERS. DUCTWORK TO BE RUN THROUGH TRUSSES AS NECESSARY.

- KEY NOTES**
1. ALL FIRST FLOOR VAV BOXES TO BE REPLACED WITH NEW LIKE FOR LIKE. ALL COMPONENTS OF NEW BOX TO MATCH EXISTING. NEW VAV TO HAVE NEW DIGITAL CONTROLS.
 2. ALL VAV BOXES NOT IN SCOPE TO REMAIN AS IS. ALL DAMPERS TO BE SET TO A MINIMUM POSITION. ANY VAVS WITH FAULTY OR LEAKING COILS TO HAVE HOT WATER PIPING VALVES CLOSED.
 3. MECHANICAL ZONE SHOWN BY DASHED BORDER. ALL DUCTWORK IN THESE ZONES TO REMAIN AS IS UNLESS OTHERWISE SHOWN ON PLAN. ALL AIR DEVICES TO BE CLEANED AND REPAINTED AS NECESSARY. ANY AIR DEVICE NOT IN GOOD WORKING ORDER TO BE REPLACED WITH NEW OF SAME MAKE AND MODEL.
 4. NEW BOILER TO BE INSTALLED AND RECONNECTED TO EXISTING HYDRONIC PIPING, GAS PIPING AND ALL OTHER PLUMBING/UTILITY CONNECTIONS. EXISTING FLUE TO REMAIN AND BE RECONNECTED.
 5. NEW 7.5 HP HYDRONIC SUPPLY PUMPS TO BE INSTALLED AND RECONNECTED TO EXISTING HYDRONIC PIPING. PUMP REPLACEMENTS TO BE ONE FOR ONE AND MATCH EXISTING CONDITIONS. PUMP TO BE FROM LIST OF APPROVED MANUFACTURERS ON SHEET M-001.
 6. EXISTING EXHAUST FAN SERVING LOCKER ROOM SPACES TO REMAIN. VERIFY EXHAUST FAN IS IN GOOD WORKING ORDER. IF EXHAUST FAN IS IN NEED OF REPLACEMENT, CONTACT ENGINEER FOR NEW SPECIFICATION.
 7. NEW AIR DEVICE TO BE INSTALLED. MATCH EXISTING MAKE AND MODEL IN ADJOINING SPACES.
 8. EXISTING EXHAUST FAN SERVING BATHROOM SPACES TO REMAIN. VERIFY EXHAUST FAN IS IN GOOD WORKING ORDER. IF EXHAUST FAN IS IN NEED OF REPLACEMENT, CONTACT ENGINEER FOR NEW SPECIFICATION.
 9. NEW 1.5 HP HYDRONIC BOILER PUMPS TO BE INSTALLED AND RECONNECTED TO EXISTING HYDRONIC PIPING. PUMP REPLACEMENTS TO BE ONE FOR ONE AND MATCH EXISTING CONDITIONS. PUMP TO BE FROM LIST OF APPROVED MANUFACTURERS ON SHEET M-001.
 10. NEW VAV BOX TO BE INSTALLED AS SHOWN. VAV TO MATCH EXISTING MAKE AND MODEL IN SPACE. NEW HW SUPPLY AND RETURN PIPES TO MATCH EXISTING SIZES AND CONNECT BACK TO EXISTING MAINS.

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Will County

1300 Copperfield Exterior Improvements

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Joliet, IL 60432

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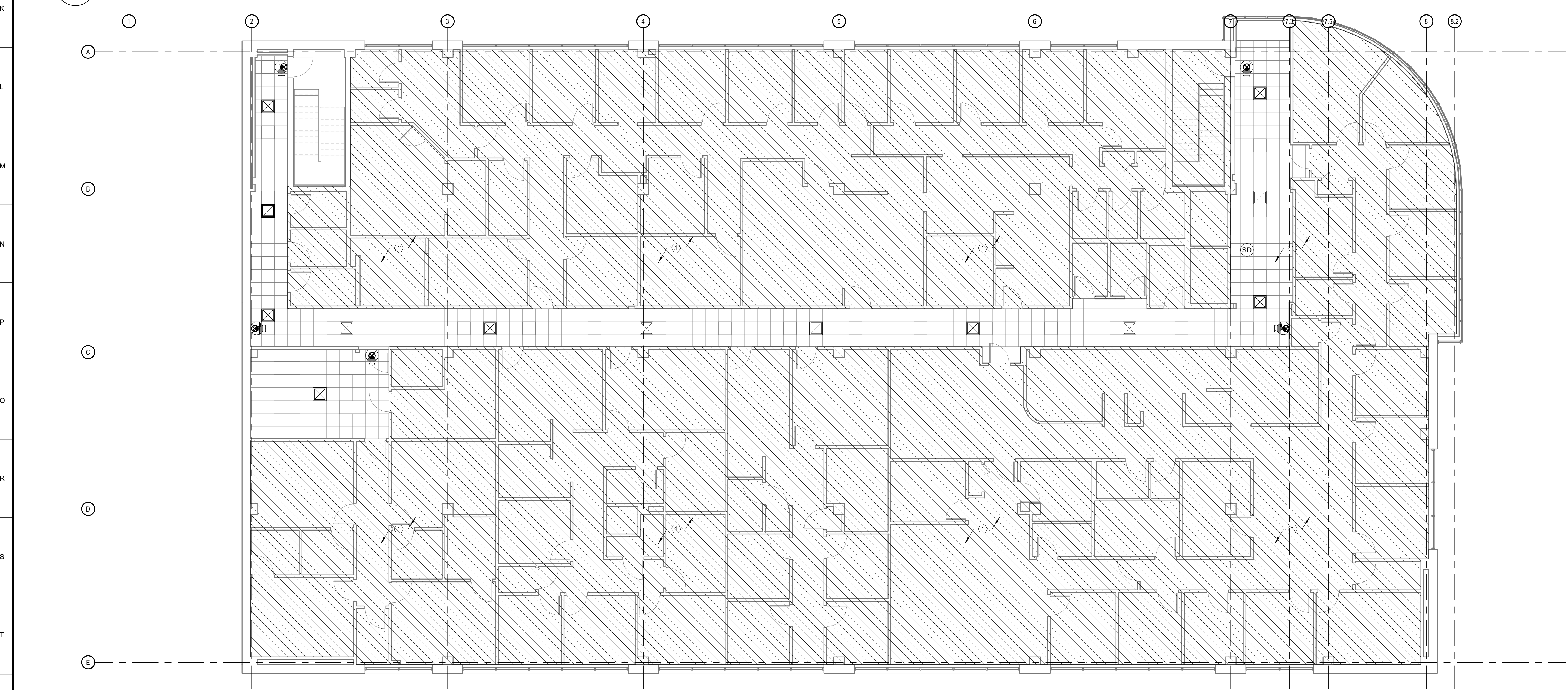
PROJECT NUMBER 224153.00
DATE OF ISSUE 03.17.2025
DRAWN BY AB, AG, HH
REVIEWED BY DP

FIRST & SECOND FLOOR
MECHANICAL PLAN

M-101
ISSUED FOR BID



1 THIRD FLOOR MECHANICAL PLAN
M-102 1/8" = 1'-0"



2 FOURTH FLOOR MECHANICAL PLAN
M-102 1/8" = 1'-0"

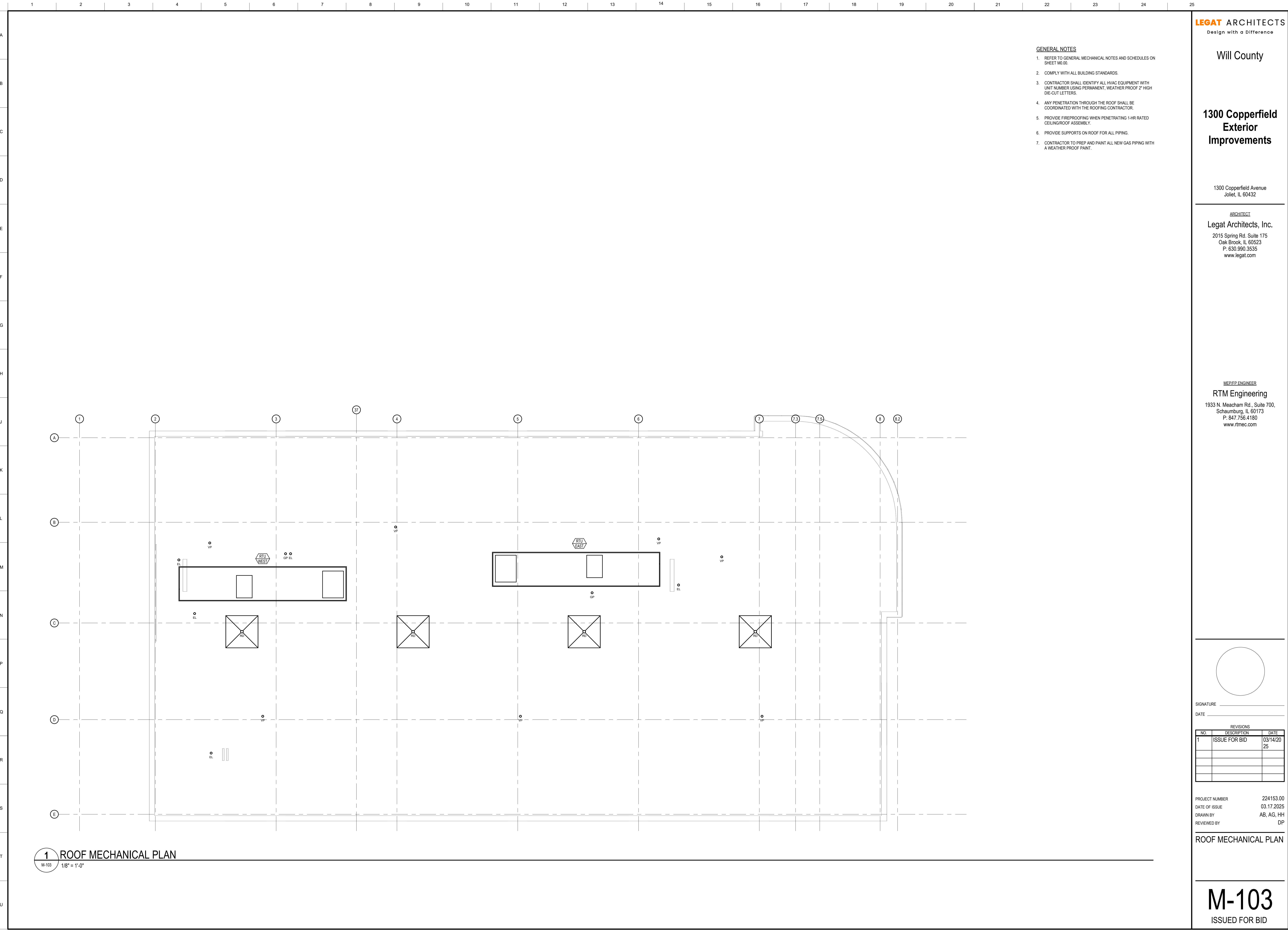
- GENERAL NOTES**
1. REFER TO GENERAL MECHANICAL NOTES AND SCHEDULES ON SHEET M-100.
 2. COMPLY WITH ALL BUILDING STANDARDS.
 3. CONTRACTOR IS RESPONSIBLE FOR ADJUSTING DIFFUSER AIRFLOWS AS SHOWN ON PLAN. PROVIDE A DETAILED TEST & BALANCE REPORT PRIOR TO CLOSEOUT.
 4. FLEX DUCT SHALL NOT EXCEED 5'-0".
 5. DIFFUSER NECK SIZES SHALL BE THE SAME AS ROUND DUCT THAT CONNECTS TO IT.
 6. CONTRACTOR SHALL VERIFY FOR EXACT LOCATION OF BEAMS AND COORDINATE NEW DUCT SIZES/ROUTING ACCORDINGLY.
 7. CONTRACTOR SHALL PROVIDE & INSTALL ALL CODE REQUIRED FIRE DAMPERS WHERE DUCTWORK PENETRATES FIRE RATED ASSEMBLIES.
 8. PROVIDE FIREPROOFING WHEN PENETRATING 1-HR RATED CEILING/ROOF ASSEMBLY.
 9. REBALANCE ALL DIFFUSERS, REGISTERS AND GRILLES. ENSURE ALL AIR SUPPLIED IS RETURNED.
 10. CONTRACTOR TO VERIFY WHAT WALLS ARE TO BE FULL HEIGHT & PROVIDE TRANSFER OPENINGS ABOVE CEILING AS NECESSARY FOR A CONTINUOUS RETURN AIR PATH BACK TO AIR HANDLER.
 11. LOCAL INSPECTOR SHALL FIELD VERIFY THE VENTILATION SYSTEM IS BALANCED BY AN APPROVED METHOD AND THAT A TEST AND BALANCE REPORT IS PROVIDED TO THE AUTHORITY HAVING JURISDICTION PRIOR TO THE FINAL CERTIFICATE OF OCCUPANCY INSPECTION FOR THEIR FILE. A COPY OF THE TEST AND BALANCE RESULTS SHALL ALSO BE PRESENTED TO THE LOCAL FIELD INSPECTOR AT TIME OF FINAL INSPECTION.
 12. COORDINATE ALL DUCTWORK WITH STRUCTURAL MEMBERS. DUCTWORK TO BE RUN THROUGH TRUSSES AS NECESSARY.
- KEY NOTES**
- ① ALL VAV BOXES NOT IN SCOPE TO REMAIN AS IS. ALL DAMPERS TO BE SET TO A MINIMUM POSITION. ANY VAVS WITH FAULTY OR LEAKING COILS TO HAVE HOT WATER PIPING VALVES CLOSED.

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**THIRD & FOURTH FLOOR
MECHANICAL PLAN**



- GENERAL NOTES**
1. REFER TO GENERAL MECHANICAL NOTES AND SCHEDULES ON SHEET M0.00.
 2. COMPLY WITH ALL BUILDING STANDARDS.
 3. CONTRACTOR SHALL IDENTIFY ALL HVAC EQUIPMENT WITH UNIT NUMBER USING PERMANENT, WEATHER PROOF 2" HIGH DIE-OUT LETTERS.
 4. ANY PENETRATION THROUGH THE ROOF SHALL BE COORDINATED WITH THE ROOFING CONTRACTOR.
 5. PROVIDE FIREPROOFING WHEN PENETRATING 1-HR RATED CEILING/ROOF ASSEMBLY.
 6. PROVIDE SUPPORTS ON ROOF FOR ALL PIPING.
 7. CONTRACTOR TO PREP AND PAINT ALL NEW GAS PIPING WITH A WEATHER PROOF PAINT.

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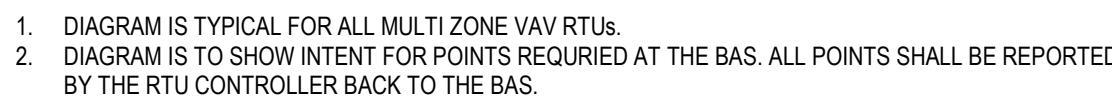
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ROOF MECHANICAL PLAN

M-103
ISSUED FOR BID

BOILER SCHEDULE																	
TAG	LOCATION	SERVICE	TYPE	INPUT (MBH)	OUTPUT (MBH)	AFUE (%)	TURNDOWN	EWT (DEG F)	LWT (DEG F)	DESIGN FLOW (GPM)	WPD (PSI)	ELECTRICAL DATA		WEIGHT	MANUFACTURER	MODEL NO.	REMARKS
												V/PHHZ	AMPS				
B-1	BOILER	HEATING HOT WATER	NON-CONDENSING	2,340	1,966	85.0	3:1	180.0	160.0	EXISTING	6.7	120/160	11.0	943	CAMUS	DF2000	ALL
B-2	BOILER	HEATING HOT WATER	NON-CONDENSING	2,340	1,966	85.0	3:1	180.0	160.0	EXISTING	6.7	120/160	11.0	943	CAMUS	DF2000	ALL
REMARKS:																	
1.	PROVIDE REUSABLE AIR FILTER.																
2.	PROVIDE COMBINATION TRAP/TANK CONDENSATE NEUTRALIZATION.																
3.	PROVIDE AUTO AIR VENT.																
4.	PROVIDE STACK THERMOMETER.																
5.	PROVIDE BOILER DRAIN VALVE.																
6.	PROVIDE BOILER ELECTRICAL DISCONNECT.																
7.	PROVIDE AUXILIARY LOW WATER CUT OFF.																
8.	PROVIDE GAS PRESSURE RELIEF VALVE.																
9.	PROVIDE FALCON LEAD LAG KIT.																
10.	PROVIDE LARM LIGHTS AND HORN PACKAGE.																
11.	PROVIDE OUTDOOR TEMPERATURE SENSOR WITH WEATHER COVER.																
12.	PROVIDE STACK TEMPERATURE LIMIT SENSOR.																
13.	PROVIDE FLOW SWITCH.																
14.	ALL CONTROLS SHALL BE COMPATIBLE WITH THE HONEYWELL EBI SYSTEM.																



M-201
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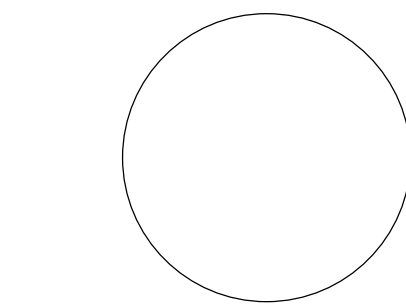
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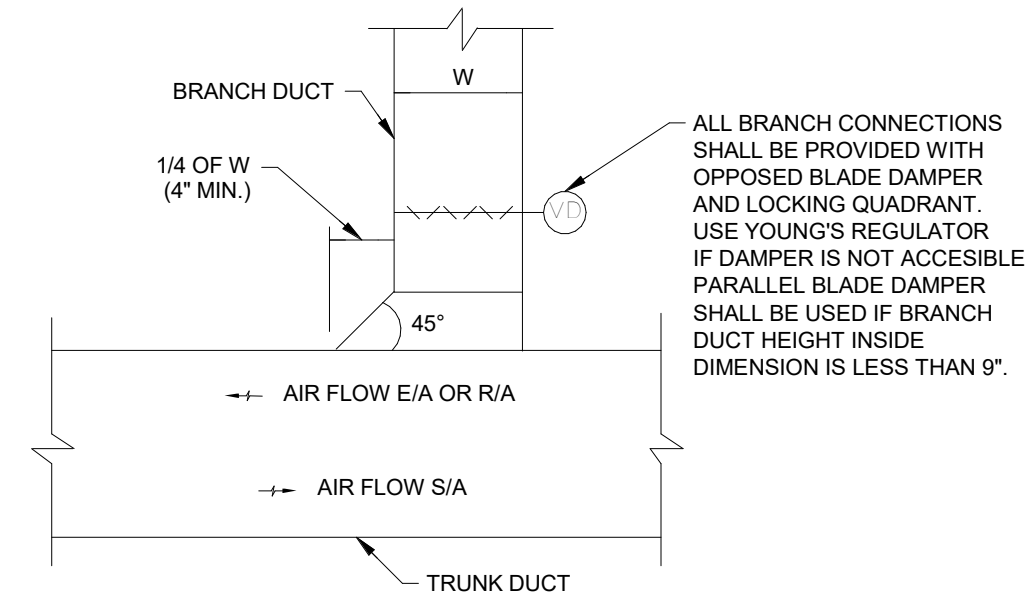
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MECHANICAL DETAILS

M-301
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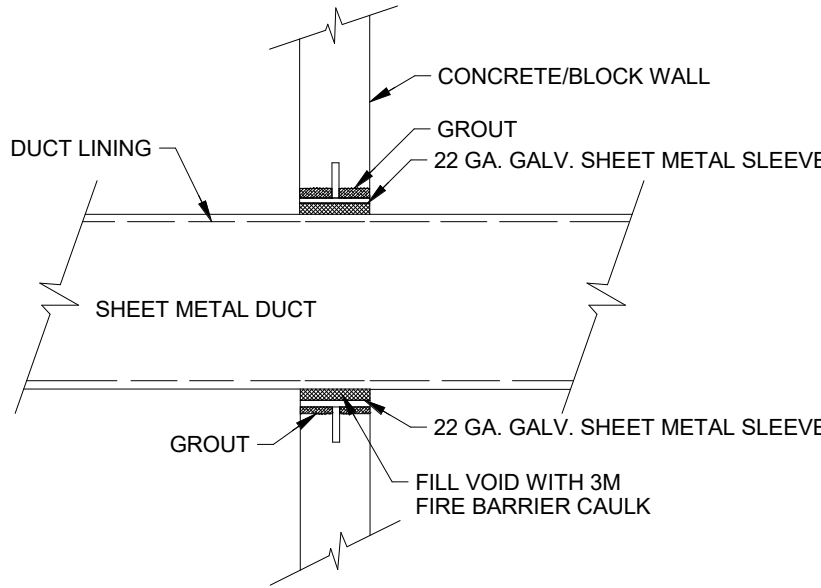


NOTES:
1. THIS CONNECTION SHALL BE TYPICAL FOR ALL RECTANGULAR BRANCH DUCT CONNECTIONS TO REGULAR TRUNK DUCTS, INCLUDING SUPPLY, RETURN, OUTSIDE AIR AND EXHAUST DUCTS.

1 RECTANGULAR BRANCH TAP DETAIL

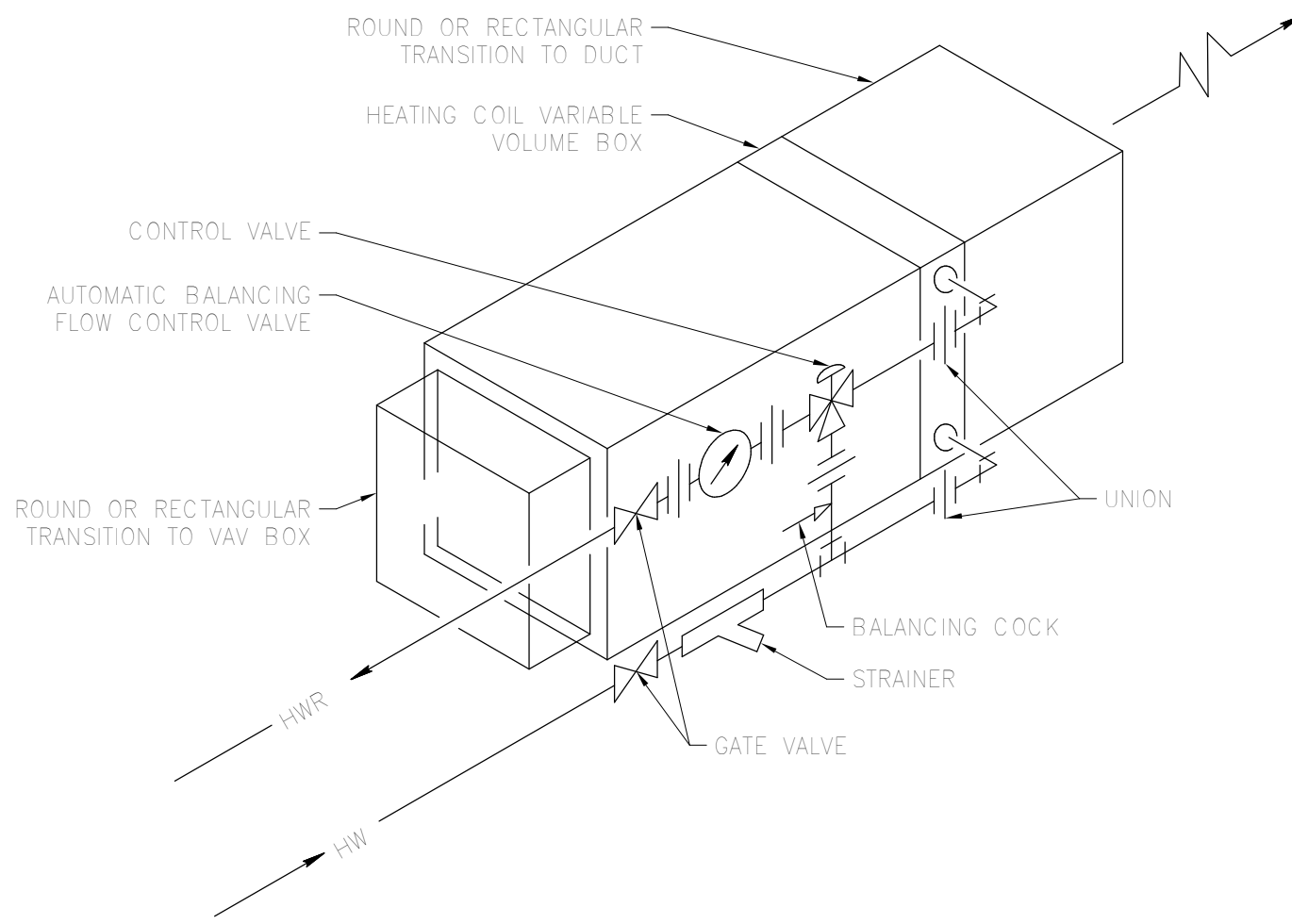
SCALE: NTS

MECHANICAL



2 DUCT PASSING THROUGH WALL DETAIL

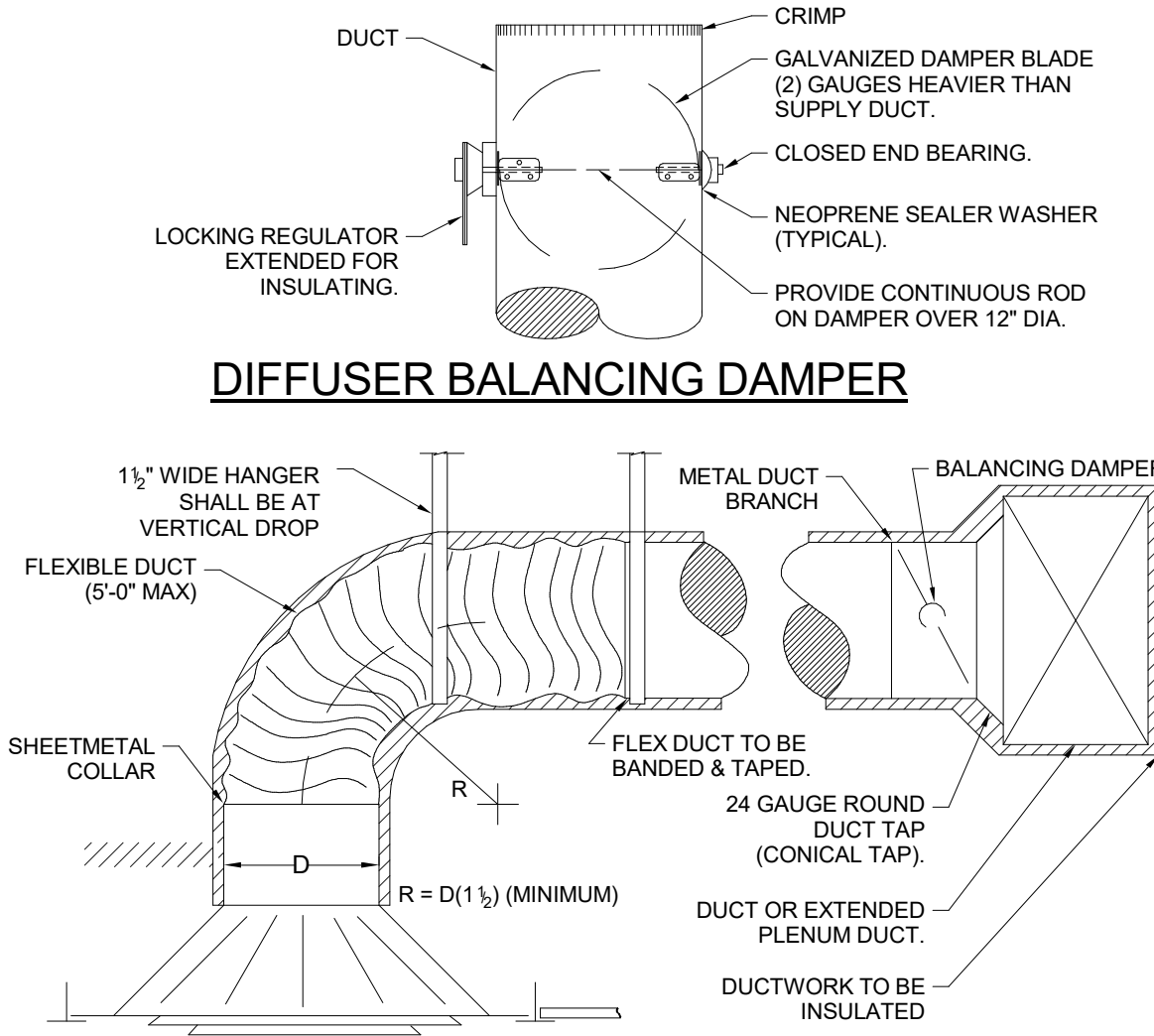
NO SCALE



3 VARIABLE AIR VOLUME BOX

SCALE: NTS

MECHANICAL



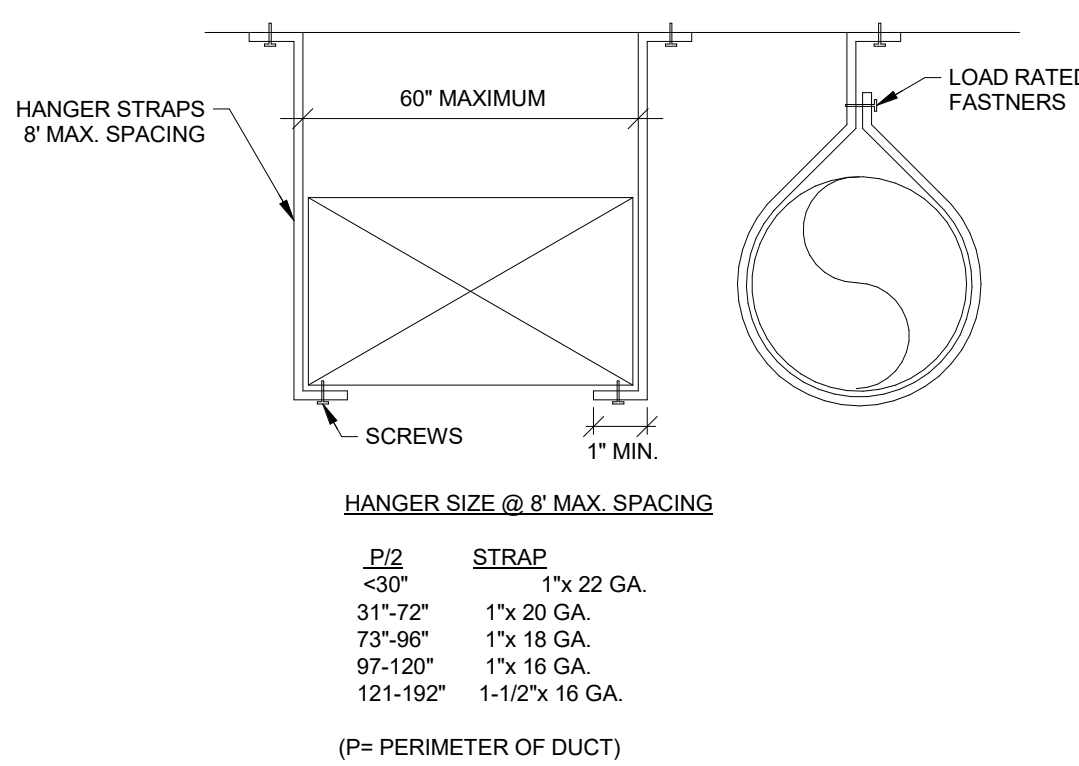
NOTES:
1. CEILING DIFFUSER SHALL BE SQUARE FACE, ROUND NECK & SIMILAR TO: TITUS TMS, CARNES SFTA, OR KRUEGER 1400.
2. DIFFUSER FRAME WITH EXTENDED PANELS IS NOT ACCEPTED.
3. PROVIDE LAY-IN TYPE DIFFUSER FRAMES FOR INVERTED T-BAR CEILING.
4. PROVIDE SURFACE MOUNTING FLANGE FOR GYP BOARD CEILING AND OTHER SPECIAL CEILING.
5. FLEX DUCT SHALL BE BANNED AND TAPED. PROVIDE BEAD ON METAL COLLAR IF DUCT SIZE EXCEEDS 12\"/>

MINIMUM CONICAL TAP METAL GAUGE		
TAP DIA. (IN.)	GAUGE - GALV. STOCK	DAMPER GAUGE
8 AND BELOW	24	22
9 - 14	24	22
15 - 16	22	20
17 - 36	20	18
37 - 50	18	16

4 CEILING DIFFUSERS AND BRANCH DUCTS

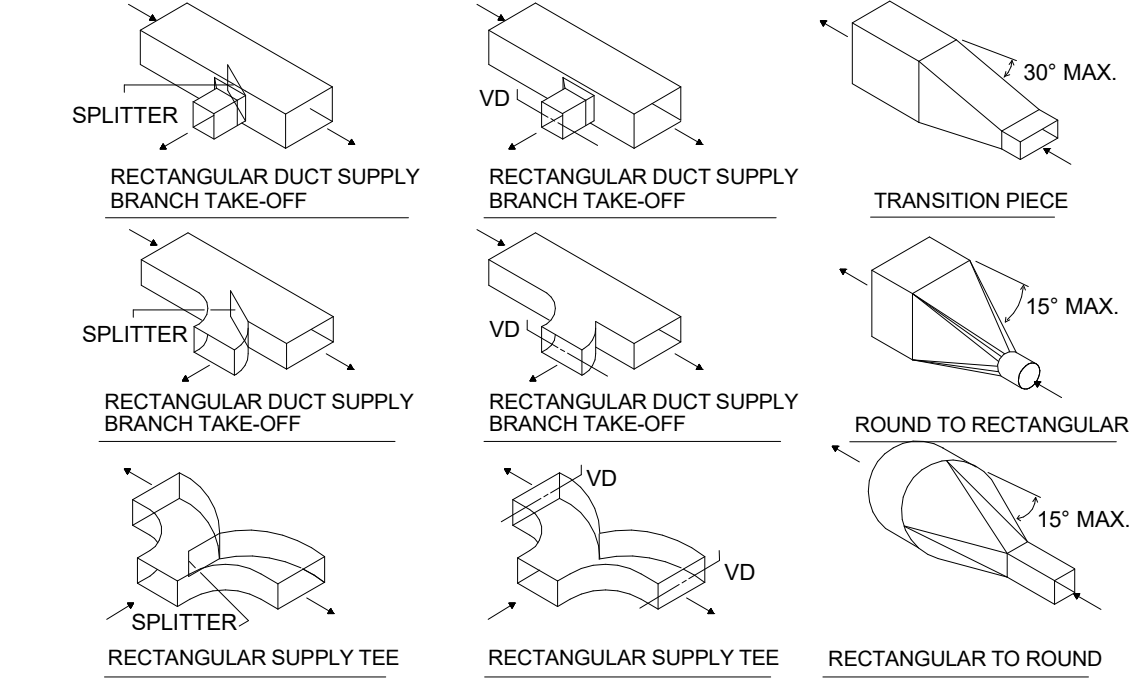
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MECHANICAL



5 DUCT HANGER DETAIL

NO SCALE

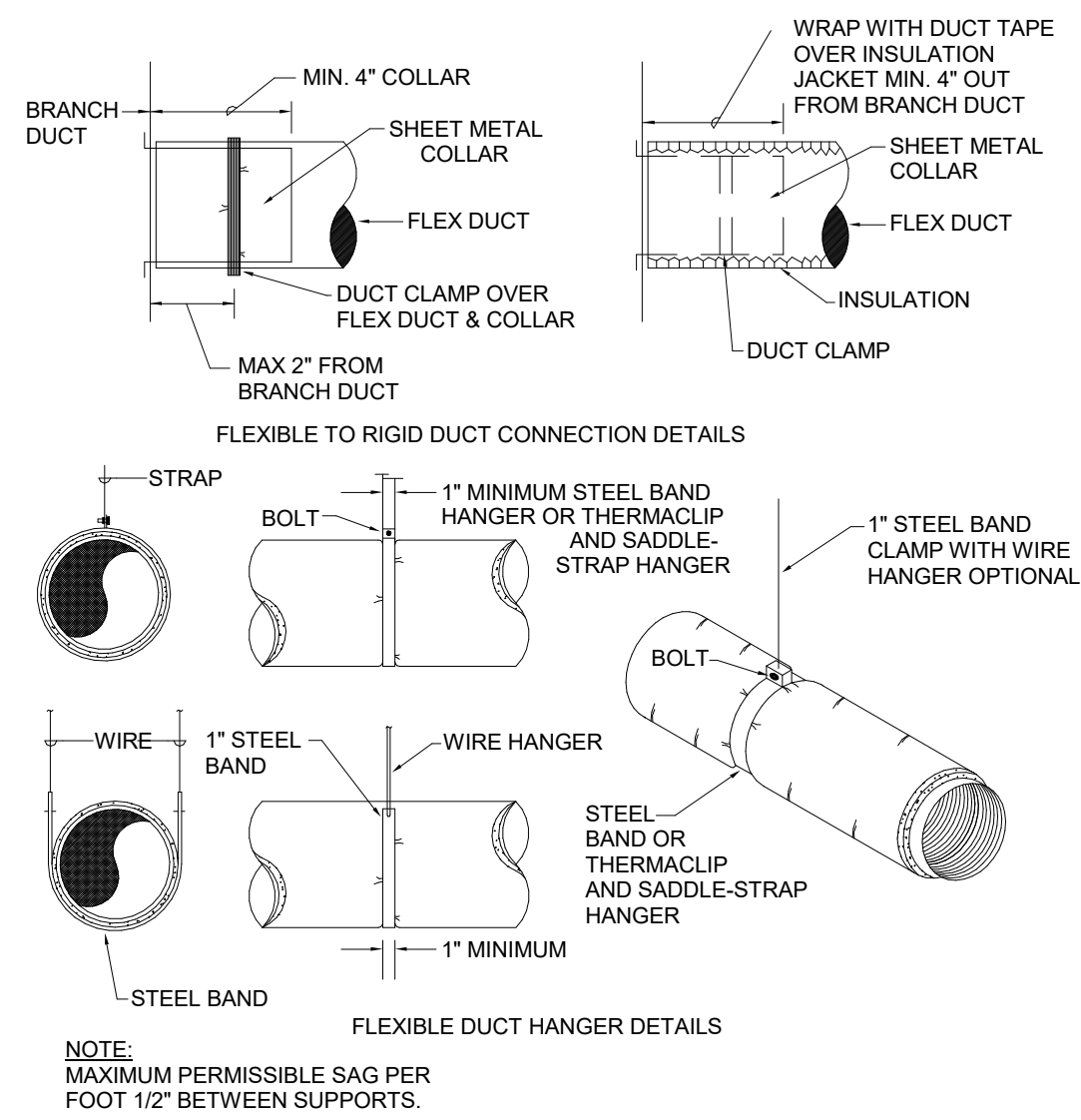


NOTES:
1. PROVIDE STANDARD RADIUS ELBOWS WHEN POSSIBLE - SHORT RADIUS WHERE REQUIRED.
2. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES. VANES SHALL BE CONSTRUCTED, SUPPORTED & FASTENED AS RECOMMENDED BY SMACNA.
3. NO SQUARE OR RECTANGULAR HEEL ELBOWS SHALL BE ALLOWED.

6 TYPICAL DUCT DETAILS

SCALE: NTS

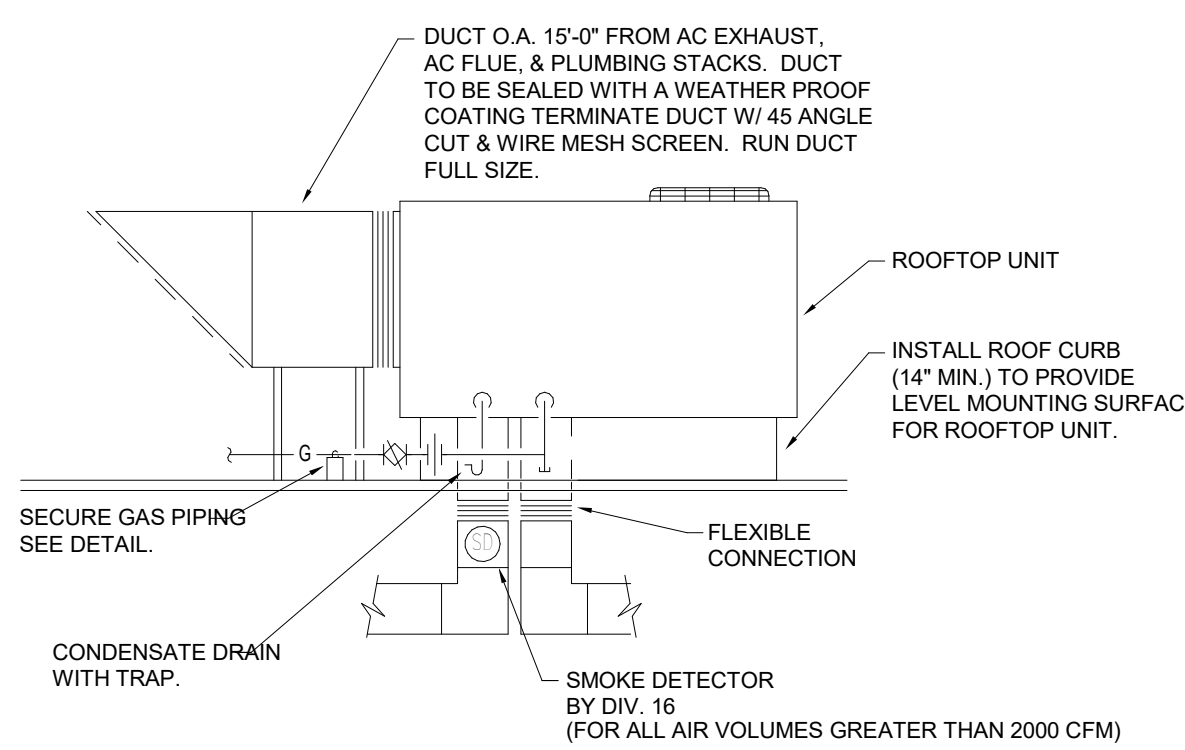
MECHANICAL



7 FLEXIBLE DUCT HANGER & CONNECTION DETAILS

SCALE: NTS

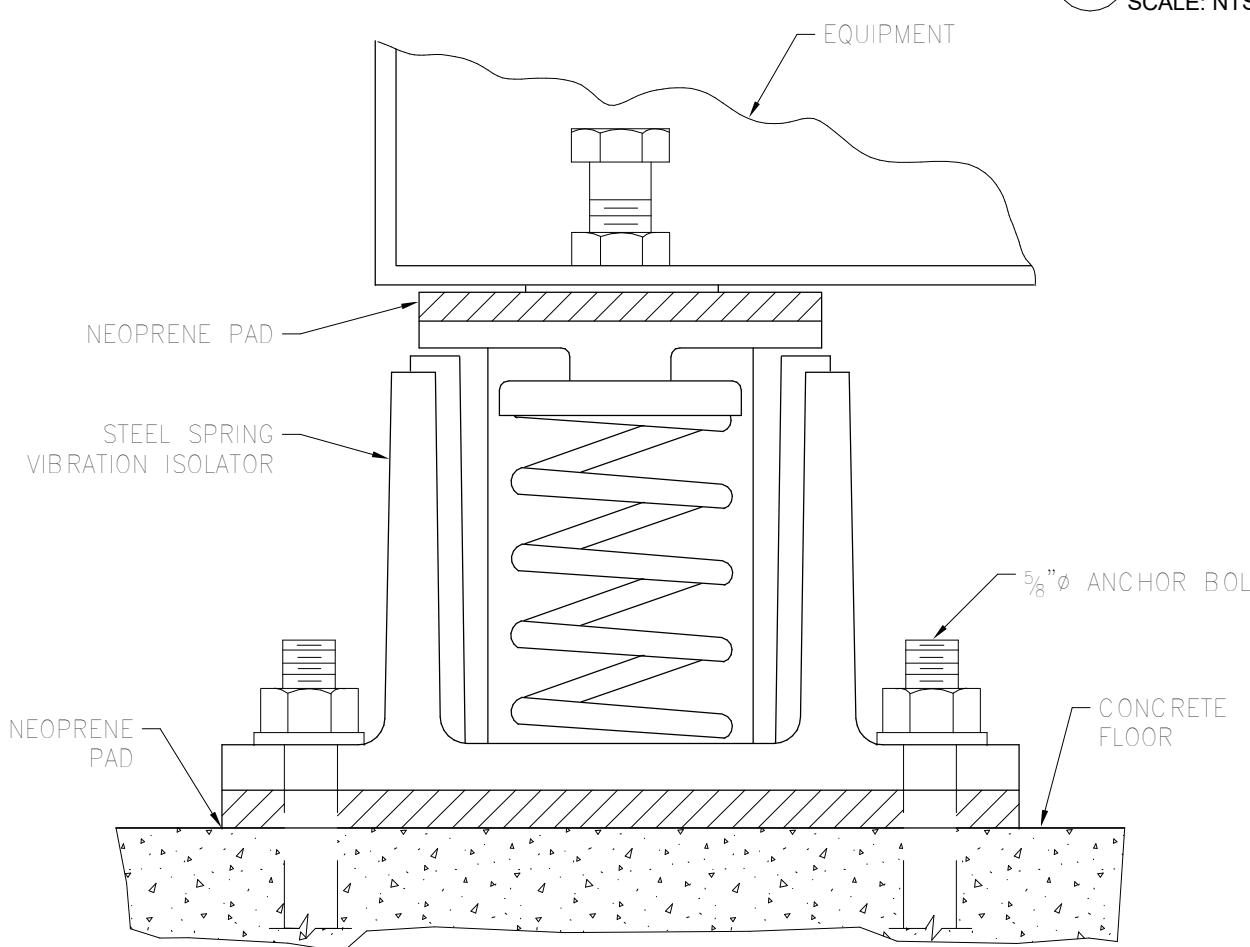
MECHANICAL



8 ROOF TOP UNIT DETAIL

SCALE: NTS

MECHANICAL



9 VIBRATION ISOLATOR DETAIL

SCALE: NTS

MECHANICAL

[illegible]

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LEGEND

X	EXISTING FIXTURE TO REMAIN
XO	EXISTING TO BE REMOVED
XL	EXISTING TO BE RELOCATED
XRC	EXISTING TO BE RE-CIRCUITED
XFP	EXISTING TO BE REPLACED WITH NEW
XRPC	EXISTING TO BE REPLACED WITH NEW & RE-CIRCUITED
XLRC	EXISTING TO BE RELOCATED & RE-CIRCUITED
N	NEW FIXTURE
NXL	EXISTING FIXTURE IN NEW LOCATION
NXC	EXISTING FIXTURE ON NEW CIRCUIT
NXP	EXISTING LOCATION WITH NEW FIXTURE
NXFP	EXISTING LOCATION WITH NEW FIXTURE & CIRCUIT
NXLC	EXISTING FIXTURE IN NEW LOCATION & ON NEW CIRCUIT

ELECTRICAL DRAWING LIST

ELECTRICAL SHEET INDEX:

SHEET NO.	SHEET NAME
E-000	ELECTRICAL GENERAL NOTES, SYMBOLS, & LEGENDS
E-001	ELECTRICAL SPECIFICATIONS
E-101	FIRST & SECOND FLOOR POWER & DATA PLANS
E-201	FIRST & SECOND FLOOR LIGHTING PLANS
E-202	THIRD & FOURTH FLOOR LIGHTING PLANS
E-301	ELECTRICAL SCHEDULES
E-401	ELECTRICAL DETAILS

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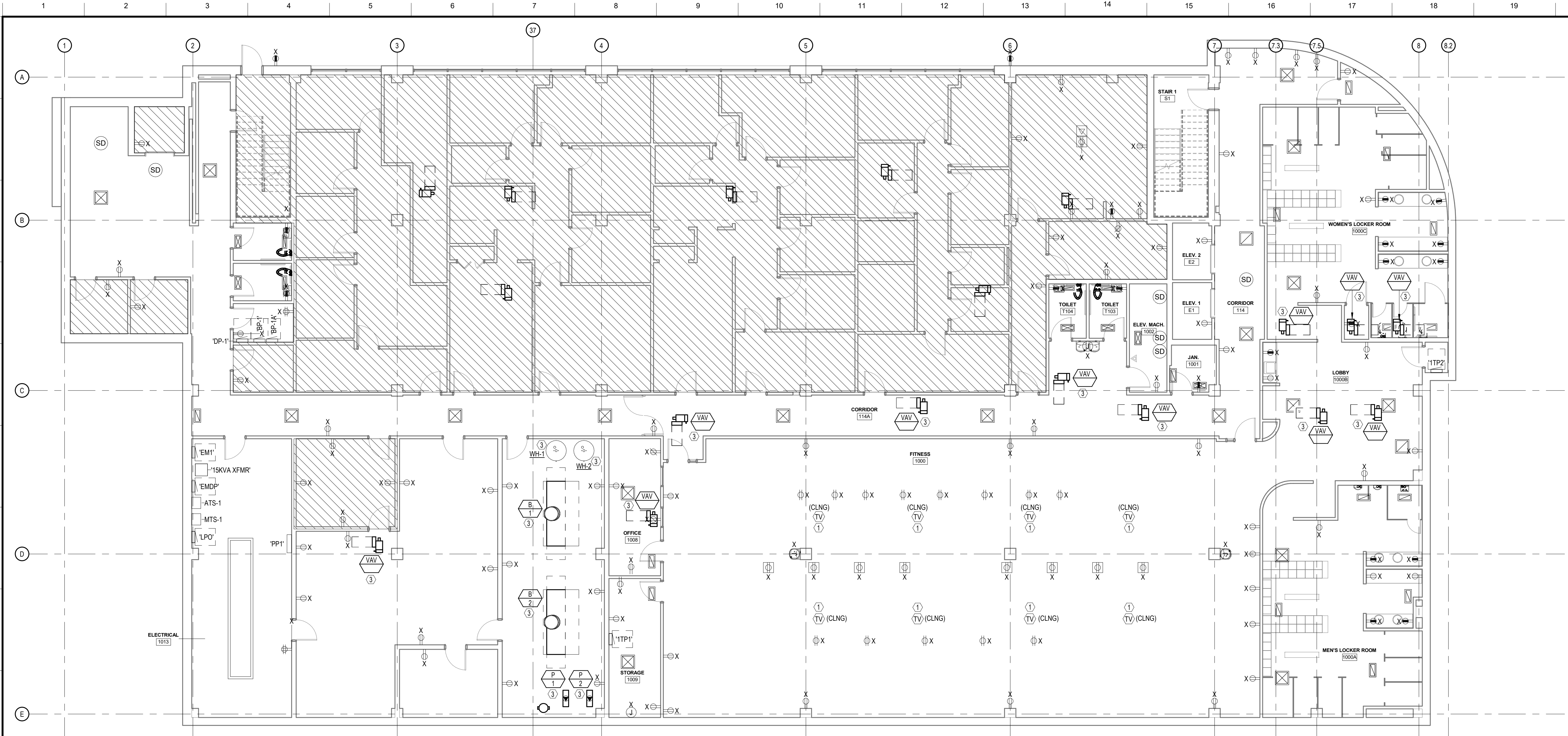
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ELECTRICAL GENERAL NOTES, SYMBOLS, & LEGENDS

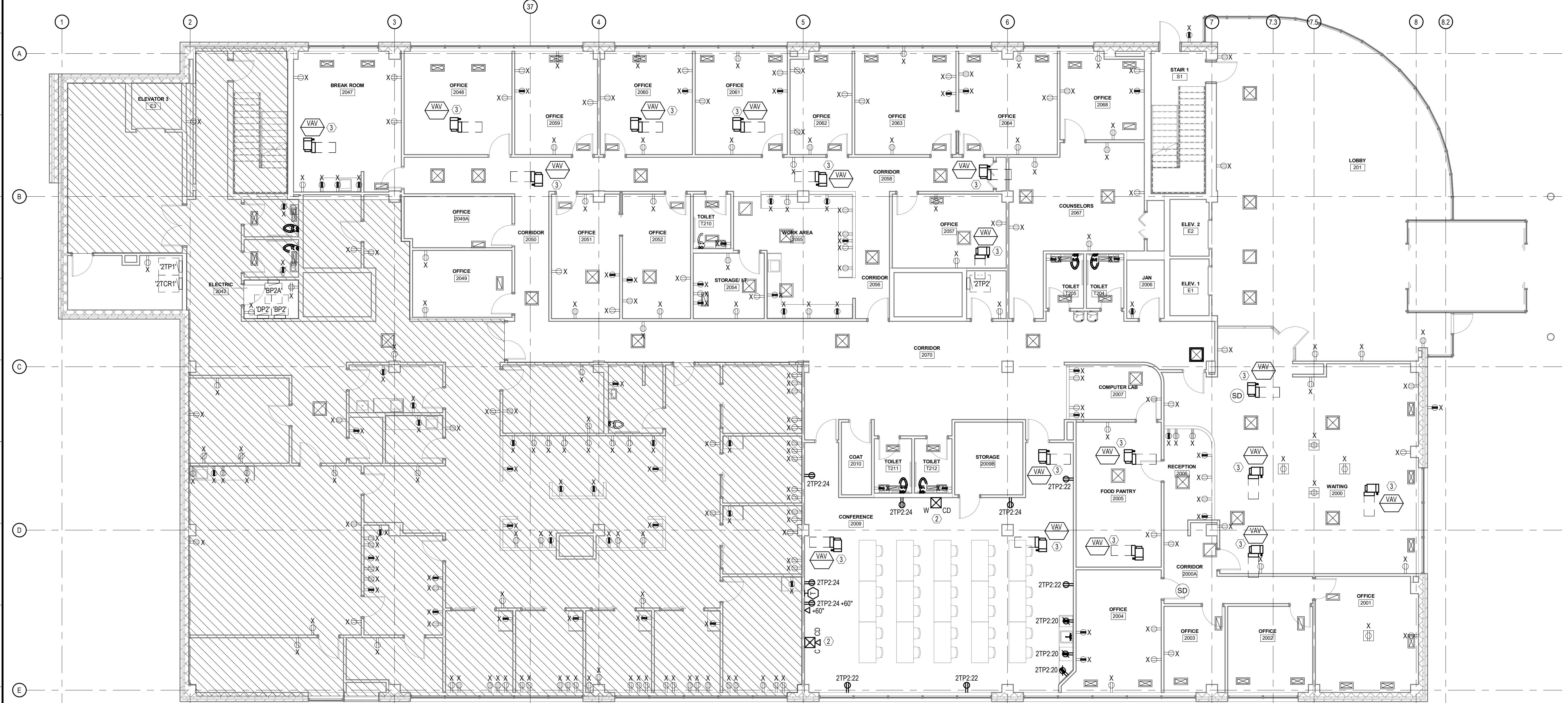
E-000

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ELECTRICAL SPECIFICATIONS																				
E-001 ISSUED FOR BID																				



1 FIRST FLOOR POWER & DATA PLAN
E-101 1/8" = 1'-0"



2 SECOND FLOOR POWER & DATA PLAN
E-101 1/8" = 1'-0"

GENERAL NOTES:

- REFER TO GENERAL NOTES ON SHEET E-000.
- REFER TO SPECIFICATIONS ON SHEET E-001.
- E.C. TO VERIFY ALL EXISTING GENERAL PURPOSE RECEPTACLES ARE IN WORKING CONDITION. E.C. TO REPAIR ANY NON-FUNCTIONING CIRCUITS.
- CIRCUITING SHOWN IS FOR REFERENCE ONLY. E.C. TO UTILIZE EXISTING BREAKER SPACES AND SPARES AS NECESSARY.
- ALL GENERAL POWER IS EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
- SEE MECHANICAL SHEETS FOR INSTRUCTION REGARDING MECHANICAL EQUIPMENT WITHIN OUT-OF-SCOPE AREAS.

FIRE ALARM GENERAL NOTES:

- REFER TO GENERAL NOTES ON SHEET E-000.
- REFER TO SPECIFICATIONS ON SHEET E-001.
- REFER TO FIRE ALARM SYMBOLS LEGEND ON SHEET E-001.
- ALL FIRE ALARM DEVICES ARE NEW.
- FIRE ALARM SHALL BE DESIGN-BUILD BY ELECTRICAL CONTRACTOR. DEVICES ARE SHOWN FOR REFERENCE ONLY. IT WILL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO VERIFY ANY ADDITIONAL REQUIREMENTS WITH THE FIRE MARSHALL AS PART OF THE BASE BID.
- THE FOLLOWING FIRE ALARM DRAWINGS ARE SCHEMATIC ONLY. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR BIDDING A COMPLETE & OPERATIONAL FIRE ALARM SYSTEM THAT MEETS LOCAL CODE. E.C. SHALL DEMO/DISCONNECT/RELOCATE ANY EXISTING DEVICES AS NECESSARY & PROVIDE NEW DEVICES AS REQUIRED TO MEET LOCAL MINIMUM REQUIREMENTS & NFPA FIRE CODE.
- ALL FIRE ALARM PANELS SHALL BE AN APPROVED ADDRESSABLE TYPE.
- A MAP INDICATING THE LOCATION OF ALL FIRE ALARM DEVICES SHALL BE POSTED DIRECTLY ADJACENT TO THE FIRE ALARM PANEL OR IN A LOCATION ACCEPTABLE TO THE FIRE PREVENTION BUREAU.
- COORDINATE ALL WORK WITH LOCAL FIRE MARSHALL PRIOR TO BID.
- ALL AUDIOVISUAL DEVICES MAY NOT BE SHOWN AS REQUIRED BY THE LOCAL JURISDICTION HAVING AUTHORITY. ALL DEVICES SHALL BE PROVIDED IN ACCORDANCE WITH NFPA 72, ADA, STATE & LOCAL CODES. A COMPLETE FIRE ALARM DEVICE LAYOUT SHALL BE PROVIDED BY THE FIRE ALARM CONTRACTOR.
- CONDUIT & WIRING FOR ALL FIRE ALARM DEVICES TO BE RUN WITHIN COLUMNS OR WALLS WHERE APPLICABLE. ALL WIRING SHALL BE CONCEALED.
- ALL FIRE ALARMS TO BE AUDIBLE & VISUAL, & COMPLY FULLY TO (CONS) A117.1 SECTION 702. ALL VISUAL ALARMS TO BE SYNCHRONIZED THROUGHOUT.
- ALL FIRE ALARM WIRING SHALL BE IN CONDUIT. IT SHALL BE PERMITTED TO RUN CABLES OPEN THROUGHOUT CEILING WITH OWNER & AHJ APPROVAL. CONDUIT SHALL BE PROVIDED WITHIN WALLS AND INACCESSIBLE CEILINGS, AS WELL AS FOR ALL SURFACE MOUNTED DEVICES UP TO THE CEILING SPACE.

KEYNOTES:

- EXISTING CEILING-SUSPENDED TELEVISION SYSTEM TO BE DEMOLISHED. REMOVE ALL ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE OF POWER.
- NEW FIRE ALARM DEVICES TO BE TIED INTO EXISTING FIRE ALARM SYSTEM.
- MECHANICAL EQUIPMENT SHALL BE REPLACED ONE FOR ONE. EXISTING FEEDS MAY BE UTILIZED FOR NEW EQUIPMENT CONNECTION. E.C. SHALL VERIFY CORRECT BREAKER SIZE AND WIRE SIZE PRIOR TO INSTALLATION.

FIRE ALARM SHALL BE DESIGN-BUILD BY ELECTRICAL CONTRACTOR. DEVICES ARE SHOWN FOR REFERENCE ONLY. IT WILL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO VERIFY ANY ADDITIONAL REQUIREMENTS WITH THE FIRE MARSHALL AS PART OF THE BASE BID.

RTM FIRE ALARM DRAWINGS ARE SCHEMATIC ONLY AND SHALL NOT BE SUBMITTED FOR PERMIT. ELECTRICAL CONTRACTOR SHALL PROVIDE STAMPED AND SEALED DRAWINGS TO THE AHJ FOR APPROVAL. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR BIDDING A COMPLETE & OPERATIONAL FIRE ALARM SYSTEM THAT MEETS LOCAL CODE. E.C. SHALL PROVIDE NEW DEVICES AS REQUIRED TO MEET LOCAL MINIMUM REQUIREMENTS & NFPA FIRE CODE.

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1 FIRST FLOOR LIGHTING PLAN
E-201 1/8" = 1'-0"



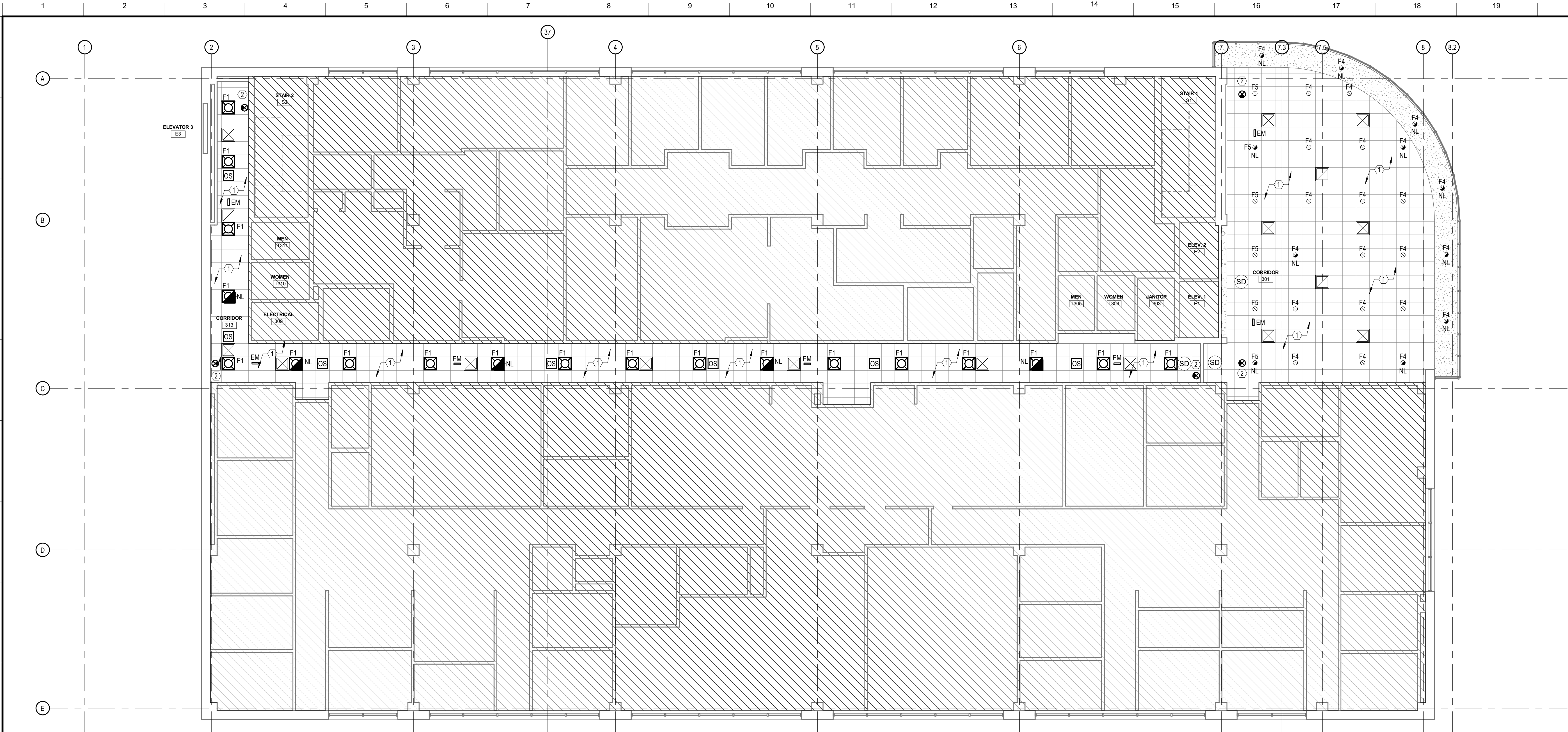
2 SECOND FLOOR LIGHTING PLAN
E-201 1/8" = 1'-0"

- GENERAL NOTES:
1. REFER TO GENERAL NOTES ON SHEET E-000.
 2. REFER TO SPECIFICATIONS ON SHEET E-001.
 3. FIXTURES DENOTED AS 'NL' SHALL OPERATE AS NIGHT LIGHTS AND SHALL BE CIRCUITED TO LOCAL EXISTING NIGHT LIGHT CIRCUIT. NIGHT LIGHTS SHALL BE ILLUMINATED 24/7.
 4. VERIFY EXISTING LIGHTING FIXTURE CONDITIONS PRIOR TO RELAMPING. SEE SHEET E-301 FOR RELAMPING SPECIFICATIONS.
 5. ALL BATTERY PACKS WITHIN GENERAL SPACES WITH NIGHT LIGHTS SHALL BE CIRCUITED TO THE NIGHT LIGHT CIRCUIT.
 6. ALL BATTERY PACKS WITHIN ENCLOSED ROOMS SHALL BE CIRCUITED TO LOCAL LIGHTING CIRCUIT AHEAD OF SWITCHING, TYPICAL.
- KEYNOTES:
1. ALL LIGHT FIXTURES IN THIS AREA SHALL BE CIRCUITED TO EXISTING LOCAL LIGHTING CIRCUIT. PROVIDE NEW CONTROLS AS SHOWN.
 2. EXIT SIGN SHALL BE CIRCUITED TO EXISTING EXIT SIGN CIRCUIT.
 3. LIGHTING IN THIS AREA IS NEW. CIRCUIT NEW FIXTURES TO EXISTING LOCAL LIGHTING CIRCUIT. COORDINATE FINAL SPECIFICATION WITH ARCHITECT PRIOR TO INSTALLATION.
 4. LIGHTING AND CONTROLS IN THIS AREA ARE EXISTING TO REMAIN.

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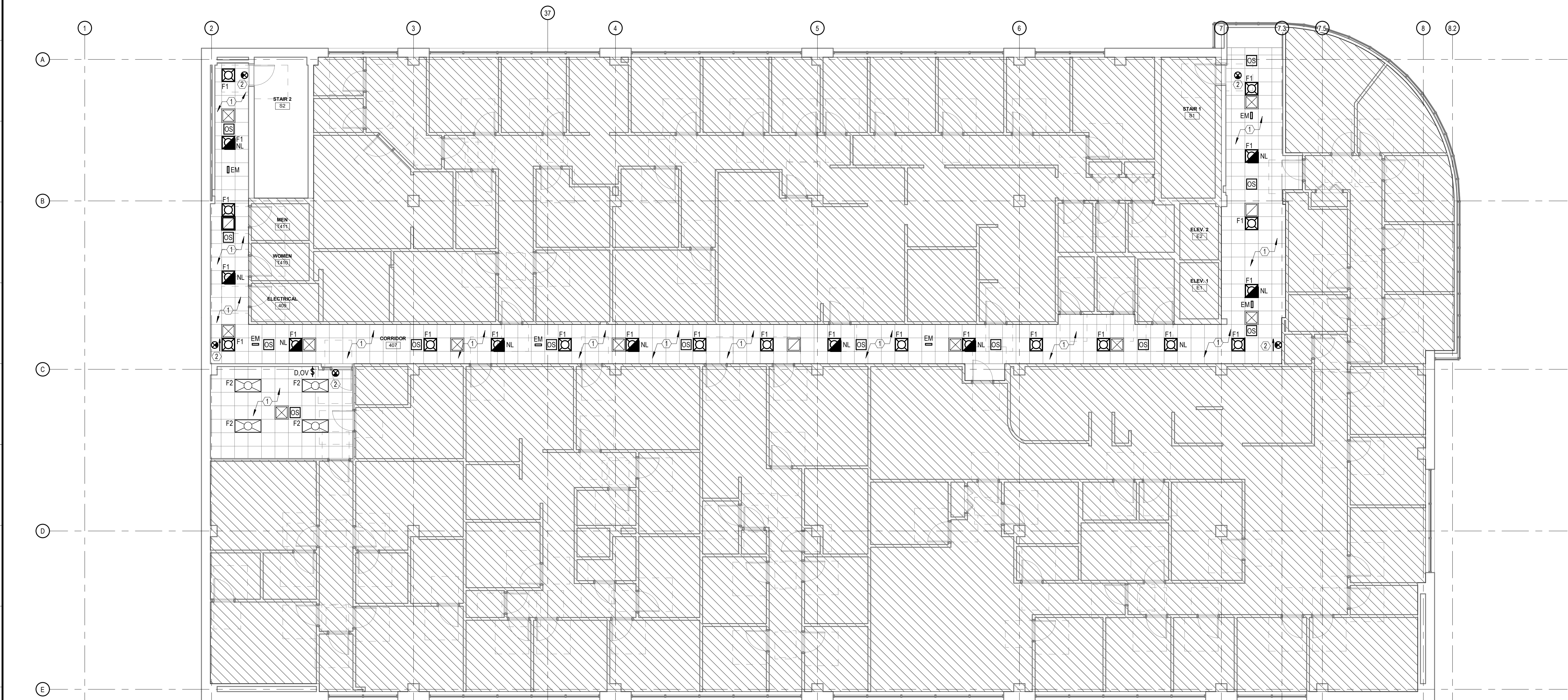
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FIRST & SECOND FLOOR
LIGHTING PLANS



1 THIRD FLOOR LIGHTING PLAN

E-202 1/8" = 1'-0"



2 FOURTH FLOOR LIGHTING PLAN

E-202 1/8" = 1'-0"

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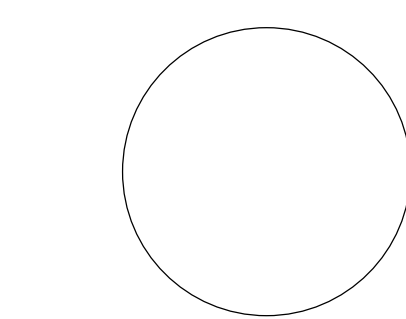
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2. REFER TO SPECIFICATIONS ON SHEET E-001.
3. FIXTURES DENOTED AS 'NL' SHALL OPERATE AS NIGHT LIGHTS AND SHALL BE CIRCUITED TO LOCAL EXISTING NIGHT LIGHT CIRCUIT.
4. VERIFY EXISTING LIGHTING FIXTURE CONDITIONS PRIOR TO RELAMPING. SEE SHEET E-301 FOR RELAMPING SPECIFICATIONS.
5. ALTERNATE E1 - E.C. TO PROVIDE ALTERNATE PRICING TO COMPLETE ALL LIGHTING WORK INDICATED ON THE 3RD AND 4TH FLOORS.

KEYNOTES:

- ① ALL LIGHT FIXTURES IN THIS AREA SHALL BE CIRCUITED TO EXISTING LOCAL LIGHTING CIRCUIT. PROVIDE NEW CONTROLS AS SHOWN.
- ② EXIT SIGN SHALL BE CIRCUITED TO EXISTING EXIT SIGN CIRCUIT.



SIGNATURE

DATE

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1	ISSUE FOR BID	03/14/2025

PROJECT NUMBER 224153.00
DATE OF ISSUE 03.17.2025
DRAWN BY AB, AG, HH
REVIEWED BY DP

THIRD & FOURTH FLOOR
LIGHTING PLANS

E-202

ISSUED FOR BID

A

B

C

D

E

F

G

H

J

K

L

M

N

P

Q

R

S

T

U

LIGHTING FIXTURE SCHEDULE											
TYPE	FIXTURE	LAMPS			MOUNTING				MANUFACTURER & CATALOG # OR APPROVED EQUAL	DESCRIPTION	
		VOLTS	TYPE	WATTS	REC.	CLG.	POLE	WALL			
F1	EXISTING FLUORESCENT	120V	LED (RELAMPED)	27W	R				LITHONIA 2PM3N-G-B-3-17-9LS-120-GE8	EXISTING FLUORESCENT 2x2 RECESSED TROFFER PROVIDE (3) QEO T8ACD2F98408 (OR APPROVED EQUIVALENT) RETROFIT LED BULBS.	
F2	EXISTING FLUORESCENT	120V	LED (RELAMPED)	42W	R				LITHONIA 2PM3N-G-B-3-32-A12125-120-GE8	EXISTING FLUORESCENT 2x4 RECESSED TROFFER PROVIDE (8) QEO T8D9F16840D (OR APPROVED EQUIVALENT) RETROFIT LED BULBS.	
F3	EXISTING FLUORESCENT	120V	LED (RELAMPED)	22W	R				LITHONIA AFZ-218D1T1-84LS-120-GE8	EXISTING 8" FLUORESCENT ROUND DOWNLIGHT - GENERAL SPACES PROVIDE (2) - MAXLITE 11PLG24QCS (OR APPROVED EQUIVALENT) RETROFIT LED BULBS.	
F4	EXISTING METAL HALIDE	120V	LED (RELAMPED)	45W	R				LITHONIA AH-100M-6AR-120	EXISTING 8" METAL HALIDE ROUND DOWNLIGHT - LOBBY PROVIDE (1) GE CURRENT LEDASED171835 (OR APPROVED EQUIVALENT) RETROFIT LED BULB.	
F5	EXISTING FLUORESCENT	120V	LED (RELAMPED)	22W	R				LITHONIA AFZ-228D1T1-84LS-120-A	EXISTING 8" FLUORESCENT ROUND DOWNLIGHT - LOBBY PROVIDE (2) - SUPER BRIGHT LEDSS GH-C2-11-400K-M-G24Q (OR APPROVED EQUIVALENT) RETROFIT LED BULBS.	
F6	NEW LED	120V	LED	14.4W	R				FOCAL POINT FAVBL-FL-37SLF-DN-35K-XX-XXX-XX-XXX-WH-4FT	NEW AVENUE 6 LED - 4" LINEAR FIXTURE - CONFERENCE ROOM VERIFY FINISHES WITH ARCHITECT PRIOR TO PROCUREMENT.	
F7	NEW LED	120V	LED	45W				S	LITHONIA ZLTN-L48-4000LM-XXX-MVOLT-35K-90CRI SUSPENSION CABLE: ZACVH M100	NEW SUSPENDED 96" LED LINEAR FIXTURE - FITNESS VERIFY FINISHES AND LENSING WITH ARCHITECT PRIOR TO PROCUREMENT.	
F8	NEW LED	120V	LED	28W				W	LITHONIA ZLTN-L48-3000LM-XXX-MVOLT-35K-90CRI	NEW SURFACE MOUNTED 48" LED LINEAR FIXTURE - LOCKER ROOMS VERIFY FINISHES, LENSING, AND MOUNTING WITH ARCHITECT PRIOR TO PROCUREMENT.	
F9	NEW LED	120V	LED	18W				W	LITHONIA FMVCSLS-24IN-MVOLT-35K-90CRI-BN-M6	NEW 24" LED VANITY FIXTURE - RESTROOMS VERIFY FINISHES WITH ARCHITECT PRIOR TO PROCUREMENT.	
 EM	NEW LED	120V	LED	<5W	C			W	DUAL-LITE (HUBBELL) CEILING MOUNTED: EV4R WALL MOUNTED: EV42L	EMERGENCY BATTERY PACK - WALL/CEILING MOUNTED	
	NEW LED	120V	LED	<5W	C			W	LITHONIA EDG-WX-EL RECESSED: EDGR-WX-EL	EXIT SIGN W/ 90 MIN. BATTERY BACKUP - WALL/CEILING MOUNTED VERIFY SELECTION WITH ARCHITECT.	
LIGHTING FIXTURE SCHEDULE NOTES											
1. INSTALLATION OF LIGHTING FIXTURES SHALL BE ACCORDING TO MANUFACTURER'S RECOMMENDATIONS AND APPLICABLE CODE REQUIREMENTS.											
2. ALL FLUORESCENT FIXTURES WITH DOUBLE-ENDED LAMPS AND BALLASTS SHALL HAVE A DISCONNECTING MEANS EITHER INTERNAL OR EXTERNAL TO EACH LUMINAIRE AS REQUIRED BY N.E.C. 410.130(G).											
3. ALL LIGHT FIXTURES SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE.											
4. COORDINATE ALL FIXTURE FINISHES AND MOUNTING HEIGHTS WITH ARCHITECT.											
5. VERIFY SPECIFICATIONS OF EXISTING FIXTURES. FIELD VERIFY COMPATIBILITY OF RETROFIT BULBS WITH EXISTING FIXTURE BALLASTS.											

Branch Panel: 2TP2																		
Location: STOR 2066						Volts: 120/208 Wye			A.I.C. Rating: EXISTING									
Supply From:						Phases: 3			Mains Type: MLO									
Mounting: Surface						Wires: 4			Bus Amps: 225 A									
Enclosure: Type 1									MCB Rating: 150 A									
CB Info	CKT	Circuit Description	Amps	Trip	Poles	A	B	C	Poles	Trip	Amps	Circuit Description	CKT	CB Info				
	1	R. OFFICE 2004	--	20 A	1	0 VA	0 VA		1	20 A	--	L EXAM ROOMS STORAGE	2					
	3	R. MANAGER 2003	--	20 A	1		0 VA	0 VA	1	20 A	--	L STRESS TEST/READING/CORR.	4					
	5	R. ADMINISTRATOR 2001	--	20 A	1			0 VA	0 VA	1	20 A	--	L WORK AREA/LAB	6				
	7	R. CHECK-IN/RECORDS 2005/2006	--	20 A	1	0 VA	0 VA		1	20 A	--	L CORRIDORS	8					
	9	R. WAITING 2000	--	20 A	1		0 VA	0 VA	1	20 A	--	L WAITING/ADMINISTRATION	10					
	11	R. WAITING 2000	--	20 A	1			0 VA	0 VA	1	20 A	--	L CHECK-OUT/RECORDS/OFFICE	12				
	13	R. COPIER/RECORDS 2005	--	20 A	1	0 VA	0 VA		1	20 A	--	L CHECK-IN/WAITING AREA	14					
	15	R. TLTS 2012/2013, WAITING 2008	--	20 A	1		0 VA	0 VA	1	20 A	--	L PATIENT RES. CH/TOILETS	16					
	17	R. CHECK OUT 2007/CORR. 2053	--	20 A	1			0 VA	0 VA	1	20 A	--	R. REFRIGERATOR - LAB 2054	18				
	19	R. STORAGE 2066/CLINIC 2069	--	20 A	1	0 VA	540 VA		1	20 A	4.5 A	(NEW) CONF 2009 GF/G COUNTER REC	20					
	21	R. WORK AREA 2054	--	20 A	1		0 VA	720 VA	1	20 A	6 A	(NEW) CONF 2009 GEN REC	22					
	23	R. WORK AREA 2054	--	20 A	1			0 VA	900 VA	1	20 A	7.5 A	(NEW) CONF 2009 GEN REC	24				
	25	R. LAB 2057/TLT 2056	--	20 A	1	0 VA	0 VA		1	20 A	--	SPARE	26					
	27	R. STRESS TEST 2063	--	20 A	1		0 VA	0 VA	1	20 A	--	SPARE	28					
	29	R. STRESS TEST 2064	--	20 A	1			0 VA	0 VA	1	20 A	--	SPARE	30				
	31	R. EXAM 2070/CLINIC 2069	--	20 A	1	0 VA	0 VA		1	20 A	--	SPARE	32					
	33	R. READING 2062	--	20 A	1		0 VA	0 VA	1	20 A	--	SPARE	34					
	35	SPARE	--	20 A	1			0 VA	0 VA	1	20 A	--	SPARE	36				
	37	R. STRESS TEST 2061	--	20 A	1	0 VA	0 VA		1	20 A	--	SPARE	38					
	39	SPARE	--	20 A	1		0 VA	0 VA	1	20 A	--	SPARE	40					
	41	SPARE	--	20 A	1			0 VA	0 VA	1	20 A	--	SPARE	42				
						Total Load:	540 VA	720 VA	900 VA									
						Tot...	5 A	6 A	8 A									
CIRCUIT BREAKER INFORMATION LEGEND:												ABBREVIATIONS:						
G = GROUND FAULT PROTECTION												MCB = MAIN CIRCUIT BREAKER						
S = SHUNT TRIP												CB = CIRCUIT BREAKER						
L = LOCK OUT												CKT = CIRCUIT						
A = ARC FAULT INTERRUPTER																		
Load Classification			Connected Load			Demand Factor			Estimated Demand			Panel Totals						
Power			2160 VA			100.00%			2160 VA									
												Total Conn. Load:			2160 VA			
												Total Est. Demand:			2160 VA			
												Total Conn.:			6 A			
												Total Est. Demand:			6 A			
Notes:																		

Will County

1300 Copperfield
Exterior
Improvements

1300 Copperfield Avenue
Joliet, IL 60432

ARCHITECT

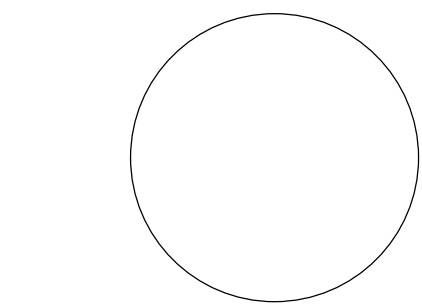
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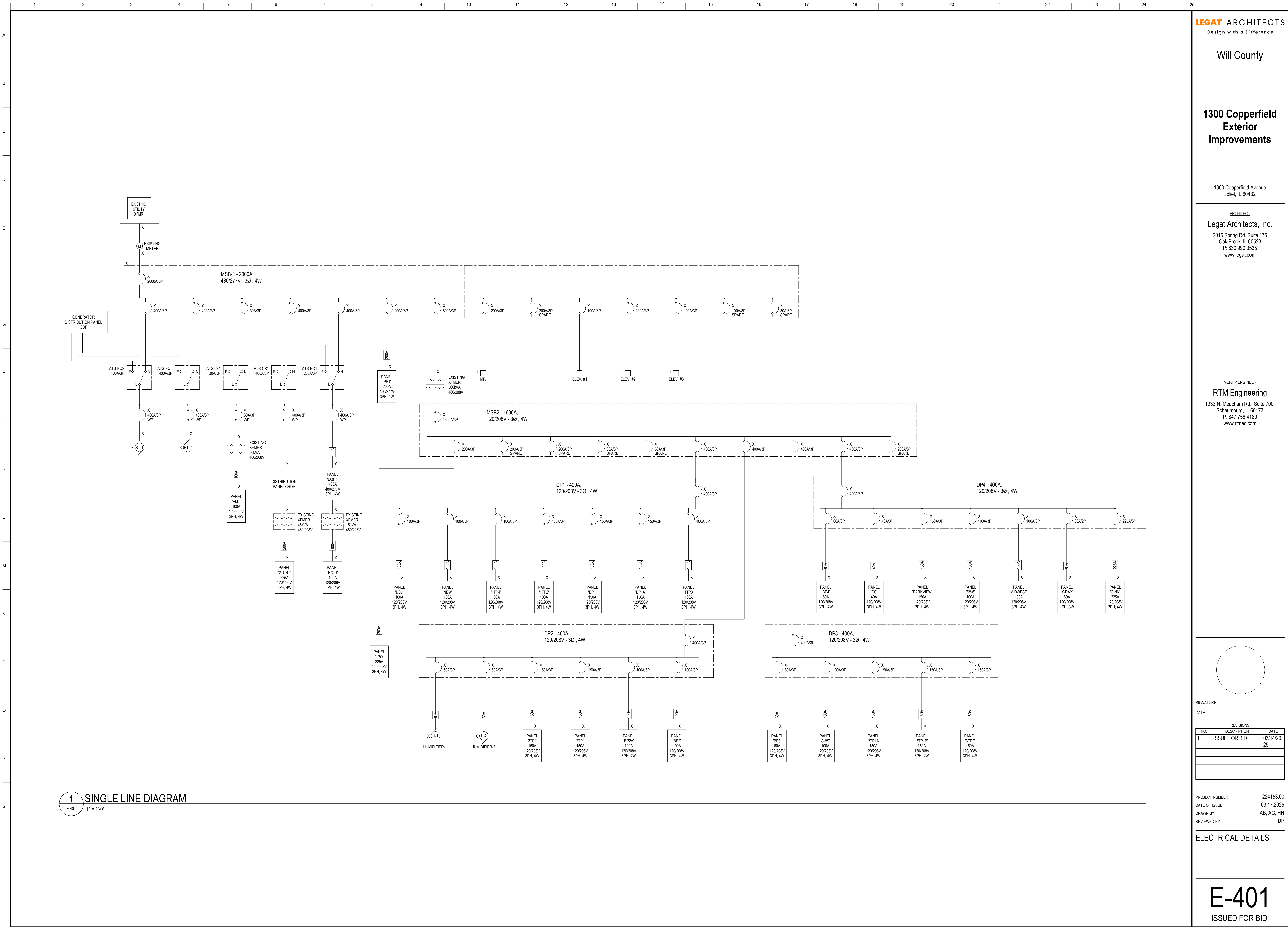
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REVIEWED BY DP

ELECTRICAL SCHEDULES



1 SINGLE LINE DIAGRAM
E-401 1" = 1'-0"

**1300 Copperfield
Exterior
Improvements**

1300 Copperfield Avenue
Joliet, IL 60432

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ELECTRICAL DETAILS