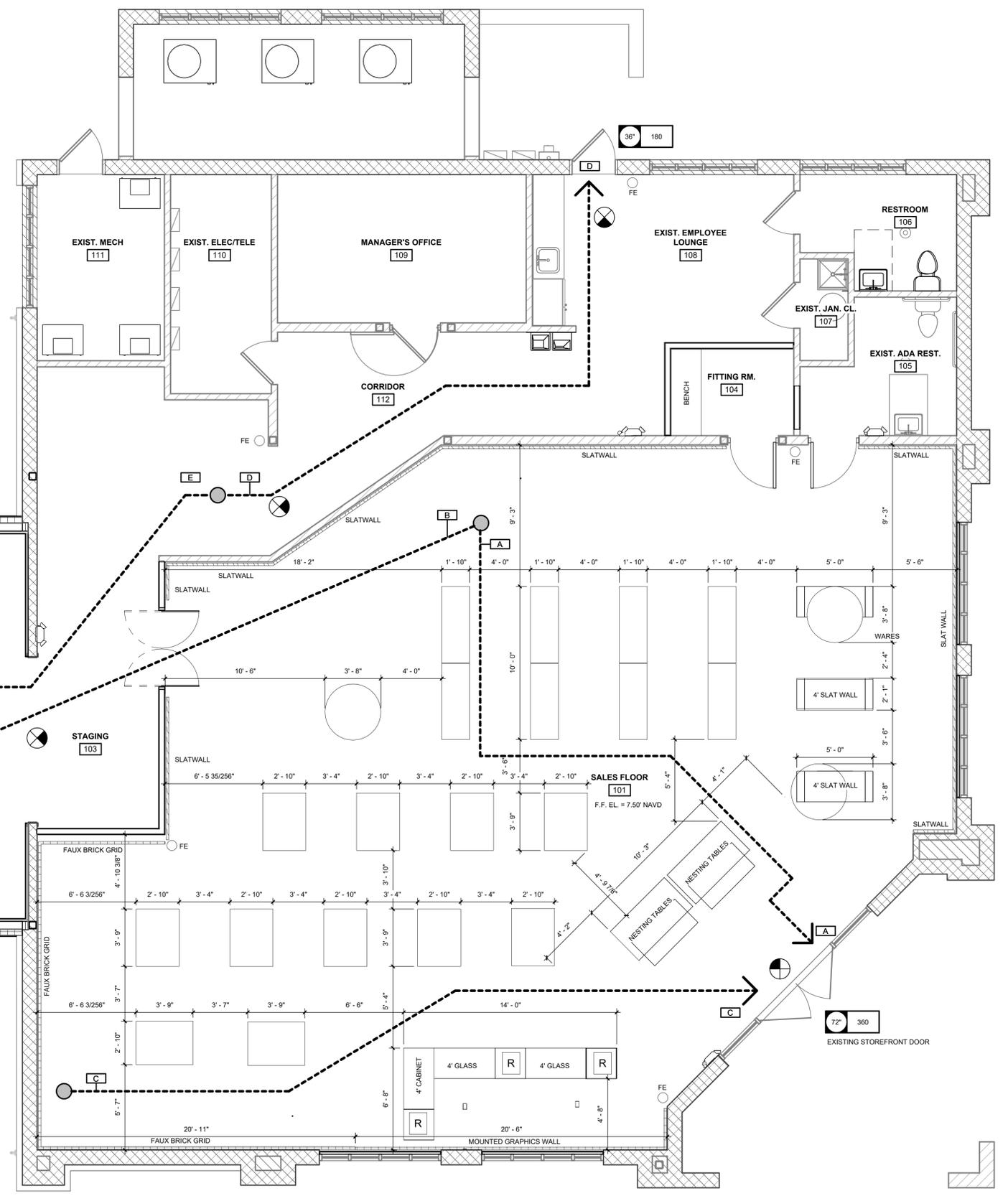
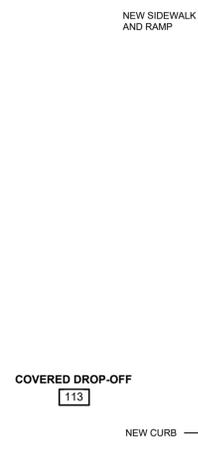
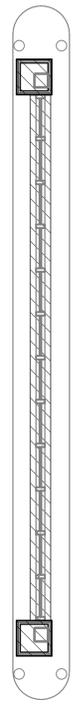


LIFE SAFETY PLAN LEGEND

- OL OCCUPANT LOAD
- 6 ACTUAL NO OF OCCUPANTS
- CLEAR WIDTH OF DOOR IN INCHES
- 36" 180 TOTAL MAX. EXIT CAPACITY ALLOWABLE
- P.H. PANIC HARDWARE
- FEC FIRE EXTINGUISHER CABINET
- FE FIRE EXTINGUISHER
- EXIT SIGN
- TRAVEL PATH
- EMERGENCY LIGHT
- 23' TRAVEL DISTANCE TO EXIT
- REFER TO ELECTRICAL DRAWINGS FOR EXIT SIGN LOCATIONS

EGRESS DISTANCES

Exit Path	Exit Path Distance
A	45'
B	54'
C	47'
D	39'
E	39'



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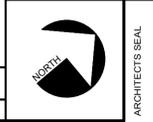
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LIFE SAFETY PLAN, LEGENDS, CODES

ISSUE HISTORY

DATE	DESCRIPTION	STATUS
12/24/25	PERMIT SET	COMPLETED



PLAN LEGEND

- EXISTING PARTITION WALL TO REMAIN
- EXISTING EXTERIOR WALL TO REMAIN
- NEW EIFS ON 6" MTL. WALL
- NEW PARTITION WALL
- NEW SWING DOOR
- EXISTING SWING DOOR

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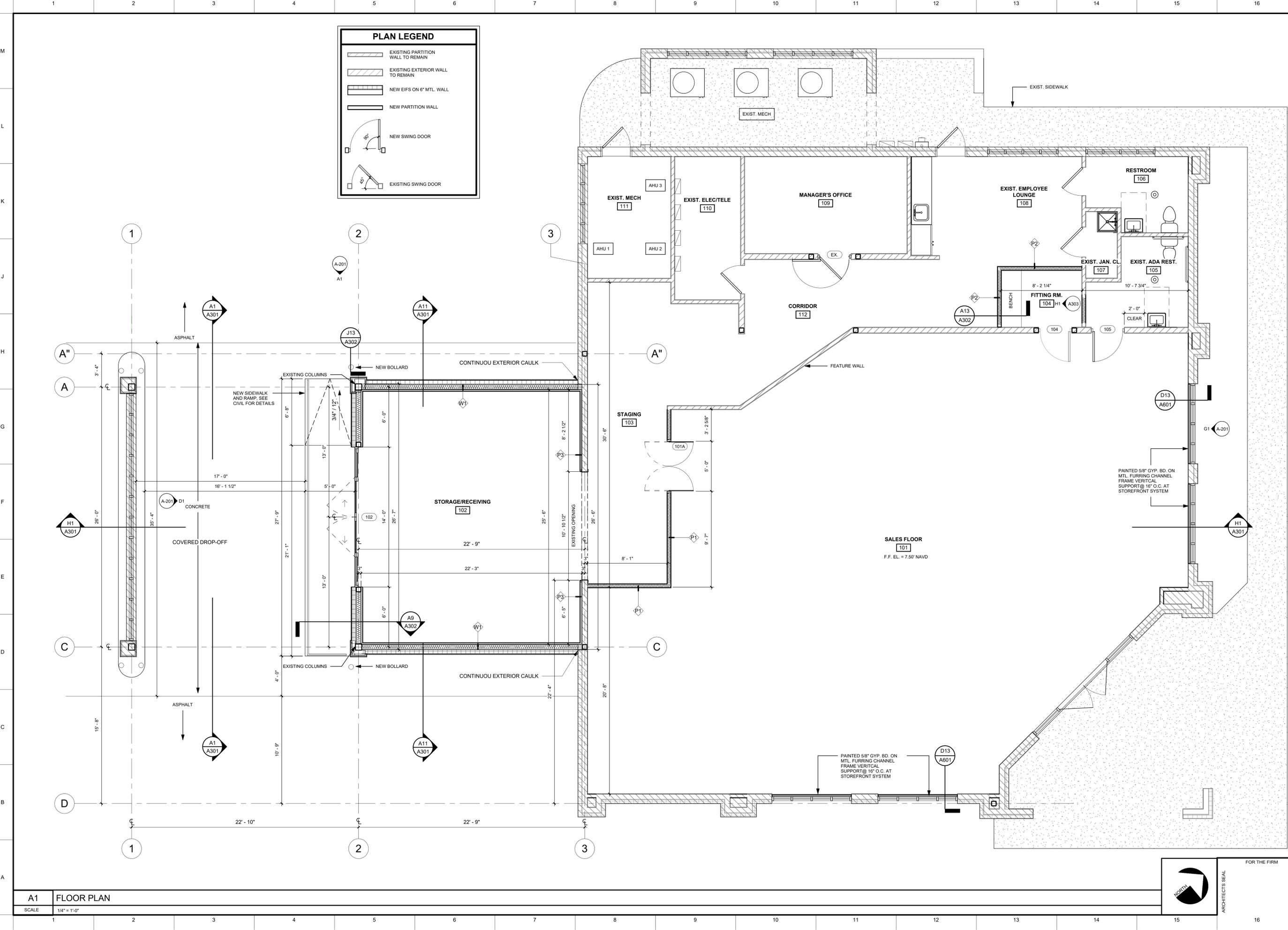
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FLOOR PLAN

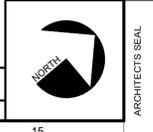
ISSUE HISTORY

DATE	DESCRIPTION
12/24/25	PERMIT SET

PAGE NUMBER: **A101**
 JOB NO.: 25024

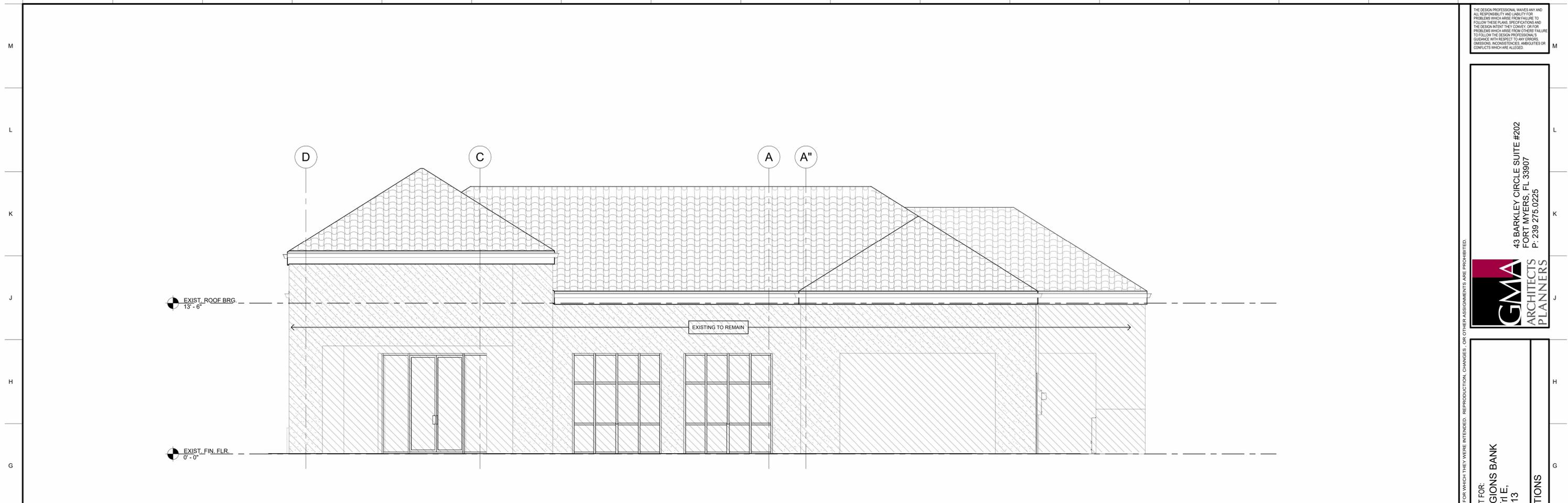


A1 FLOOR PLAN
 SCALE: 1/4" = 1'-0"

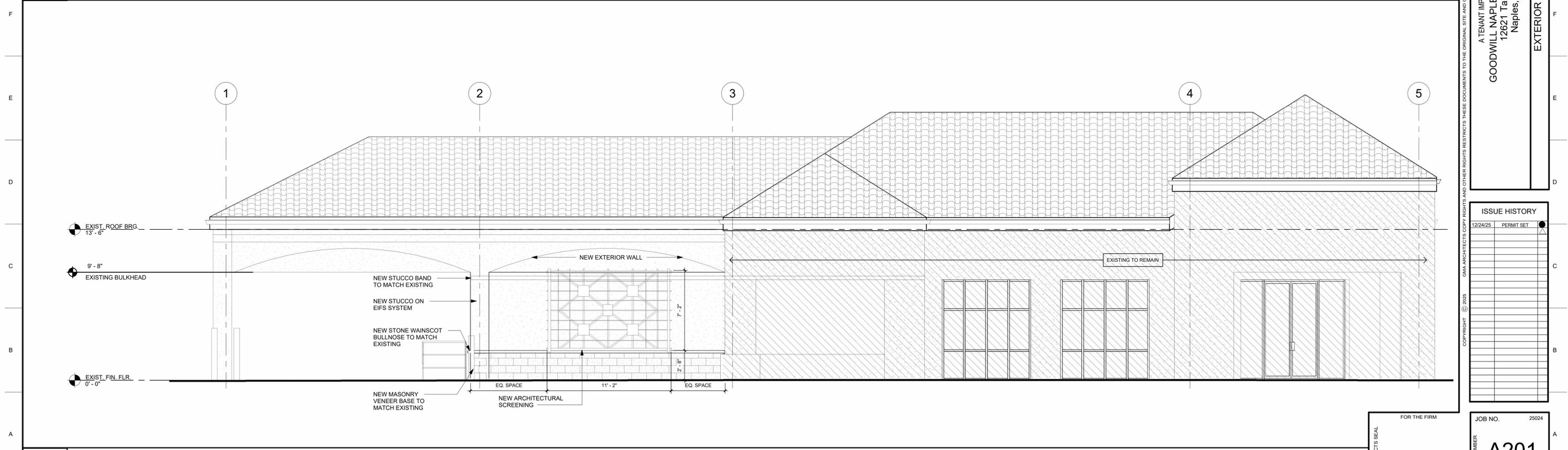


FOR THE FIRM
 ARCHITECTS SEAL

AutoDesk Docs/25024_Goodwill Naples Boutique/25024_Goodwill Naples Regions Bank_ssmHE1668D.rvt
 12/22/2025 10:43:26 AM



G1 NORTH ELEVATION
SCALE 1/4" = 1'-0"



A1 EAST ELEVATION
SCALE 1/4" = 1'-0"

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EXTERIOR ELEVATIONS

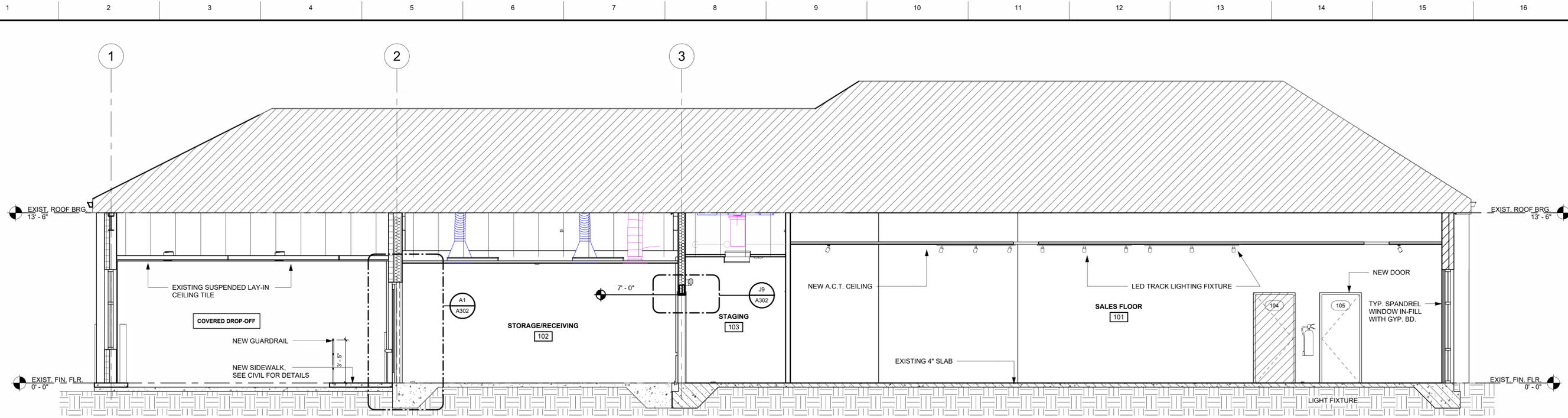
ISSUE HISTORY

DATE	DESCRIPTION
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FOR THE FIRM
ARCHITECTS SEAL

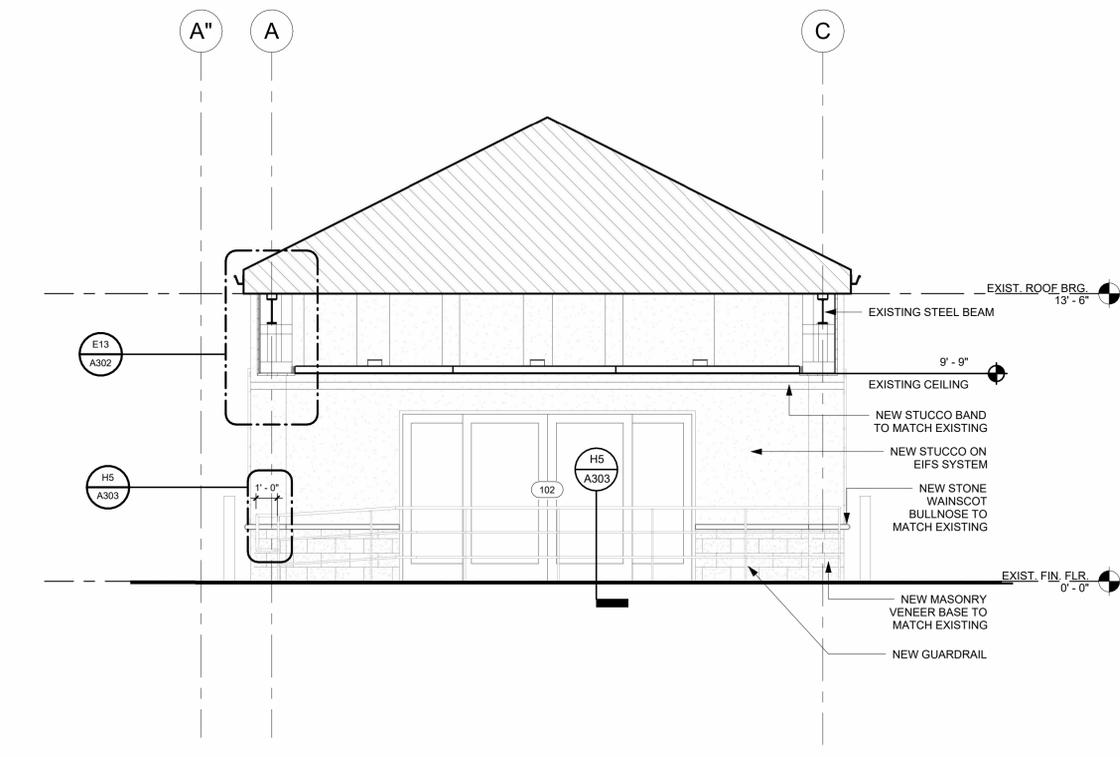
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A201



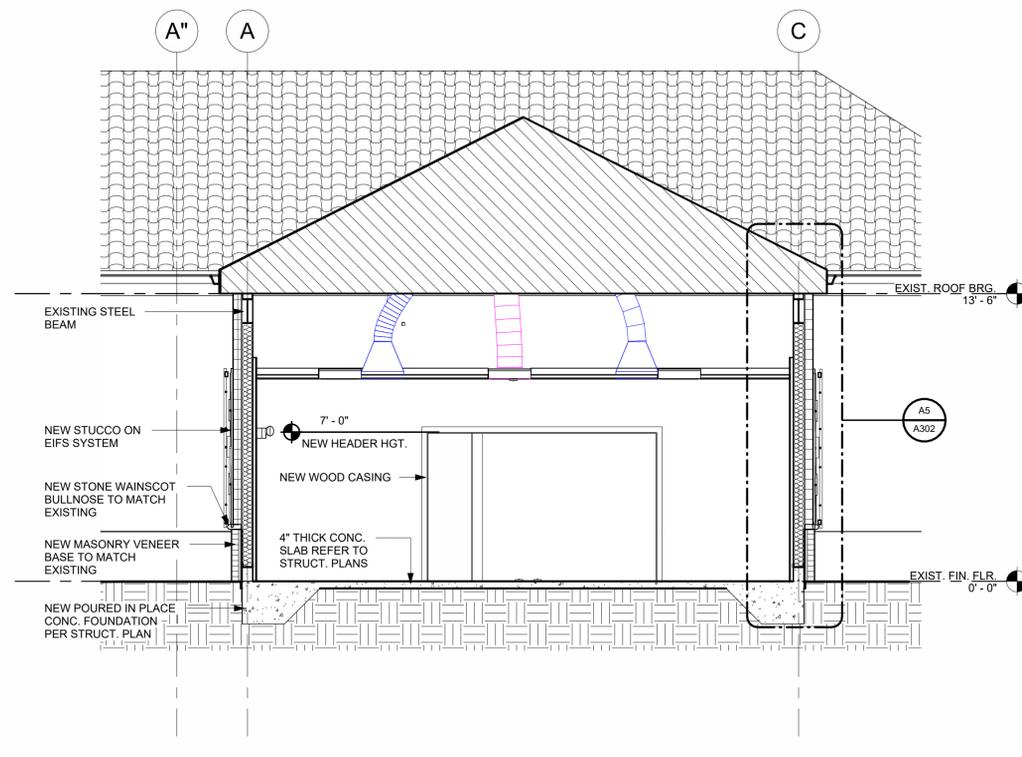
H1 BUILDING SECTION 1

SCALE 1/4" = 1'-0"



A1 BUILDING SECTION 2

SCALE 1/4" = 1'-0"



A11 BUILDING SECTION 3

SCALE 1/4" = 1'-0"

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BUILDING SECTIONS

ISSUE HISTORY	
DATE	DESCRIPTION
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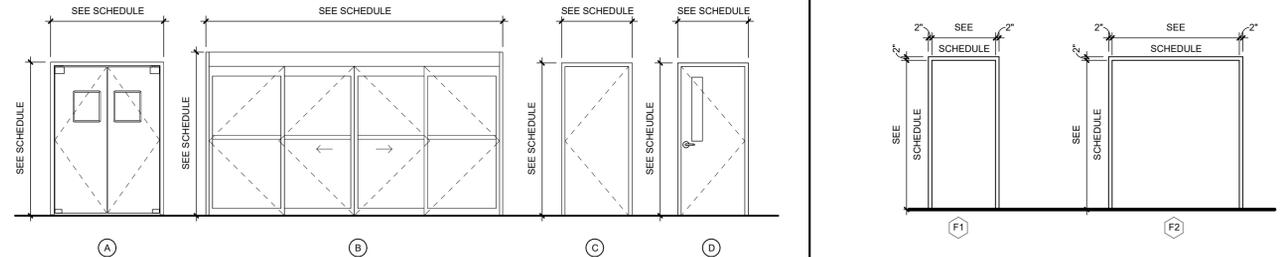
PAGE NUMBER **A301**

ROOM FINISH SCHEDULE										
NUMBER	ROOM NAME	AREA	BASE	FLOOR	CEILING	WALL				COMMENTS
						NORTH	SOUTH	EAST	WEST	
101	SALES FLOOR	2244 SF	VINYL	CARPET	EXISTING	PAINT GYP. BD.	PAINT GYP. BD.	PAINT GYP. BD.	PAINT GYP. BD.	
102	STORAGE/RECEIVING	551 SF	VINYL	SC	ACT	PAINT GYP. BD.	PAINT GYP. BD.	PAINT GYP. BD.	PAINT GYP. BD.	
103	STAGING	319 SF	VINYL	SC	ACT	PAINT GYP. BD.	PAINT GYP. BD.	PAINT GYP. BD.	PAINT GYP. BD.	
104	FITTING RM.	46 SF	VINYL	CARPET	EXISTING	FRP	FRP	FRP	FRP	
105	EXIST. ADA REST.	77 SF	EXISTING			FRP	FRP	FRP	FRP	
106	RESTROOM	69 SF	EXISTING			FRP	FRP	FRP	FRP	
107	EXIST. JAN. CL.	21 SF	EXISTING			FRP	FRP	FRP	FRP	
108	EXIST. EMPLOYEE LOUNGE	176 SF	EXISTING			4'-0" FRP	4'-0" FRP	4'-0" FRP	4'-0" FRP	
109	MANAGER'S OFFICE	158 SF	EXISTING							
110	EXIST. ELEC/TELE	95 SF	EXISTING							
111	EXIST. MECH	102 SF	EXISTING							
112	CORRIDOR	213 SF	EXISTING							
113	COVERED DROP-OFF	372 SF	EXISTING							

ROOM FINISH LEGEND				
FLOORS	BASE	WALLS		CEILINGS
CPT CARPET TILE	V VINYL BASE	GBP PAINTED GYPSUM BOARD	ACT ACOUSTIC CEILING TILE	
PC1 POLISHED CONCRETE 1500 GRIT	T PORCELAIN TILE	FRP FIBER REINFORCED PLASTIC	GB/P GYPSUM BOARD CEILING PAINTED	
PC2 POLISHED CONCRETE 800 GRIT			ES/P EXPOSED STRUCTURE PAINTED	
T PORCELAIN TILE			ECC EGG CRATE CEILING	

DOOR SCHEDULE														
DOOR NO.	SIZE		ROOM	DOOR			FRAME			HARDWARE FUNCTION	DETAILS			COMMENTS
	WIDTH	HEIGHT		TYPE	MATERIAL	FINISH	TYPE	MATERIAL	FINISH		HEAD	JAMB	SILL	
101A	5'-0"	7'-0"	SALES FLOOR	A	Polymer Cell Core With 5" Solid ABS Frame	WOOD CORE FINISH	F2	HOLLOW METAL		PASSAGE	D6/A601	SIM	A6/A601	
102	14'-0"	8'-0"	STORAGE/RECEIVING	B	ALUM.	CLEAR ANODIZE	MFG.	MFG.	MFG.	LOCK CYLINDER / THUMBTURN	D11/A601	SIM	A1/A601	
104	3'-0"	7'-0"	FITTING RM.	C	EXISTING		F1	EXISTING		STORAGE	D9/A601	SIM	A3/A601	
105	3'-0"	7'-0"	EXIST. ADA REST.	C	EXISTING		F1	EXISTING		STORAGE	D9/A601	SIM	A9/A601	

ABBREVIATIONS: HM = HOLLOW METAL, AL = ALUMINUM, PT = PAINT, ST = STAIN, WD = WOOD
EXISTING DOORS AND FRAME TO BE REUSE. ALL ITEMS TO BE PAINT.

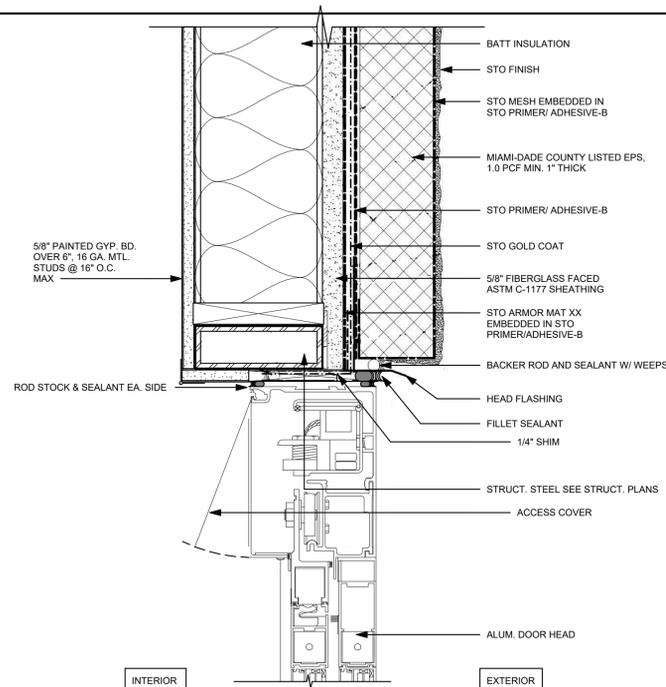


J9 DOOR ELEVATION

SCALE 1/4" = 1'-0"

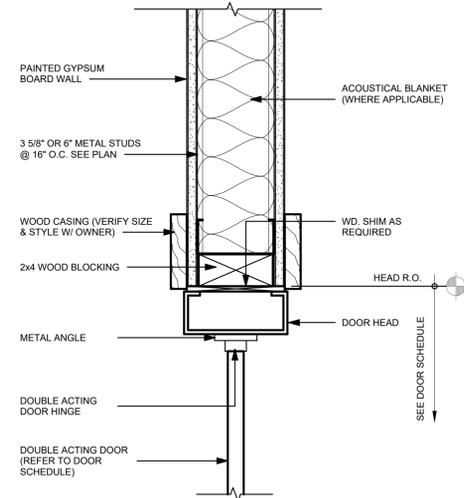
J14 DOOR FRAME TYPES

SCALE 1/4" = 1'-0"



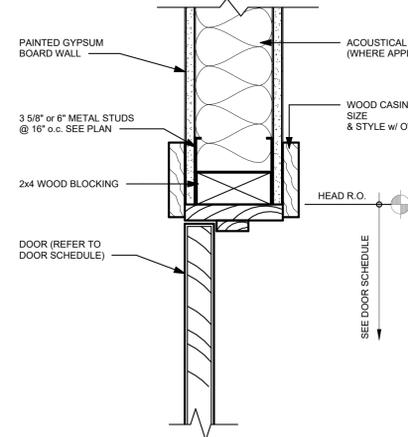
D1 EXTERIOR S.F. DOOR HEAD @ TRANSOM

SCALE 3" = 1'-0"



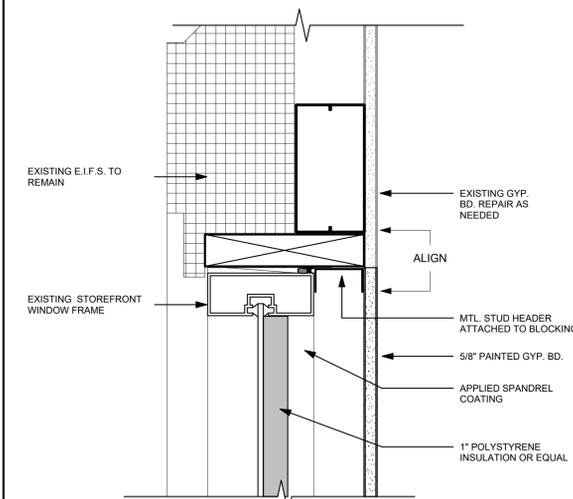
D6 DOUBLE ACTING DOOR HEAD DETAIL

SCALE 3" = 1'-0"



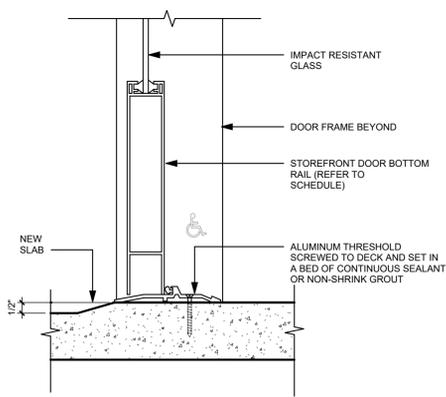
D9 INTERIOR HEAD DETAIL

SCALE 3" = 1'-0"



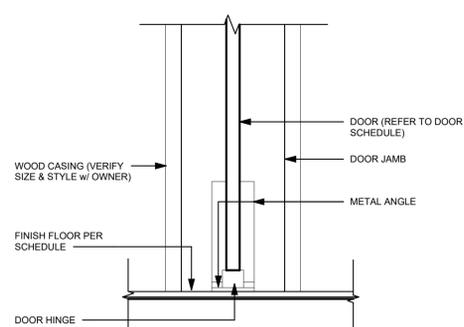
D13 EXISTING S.F. WINDOW HEAD DETAIL

SCALE 3" = 1'-0"



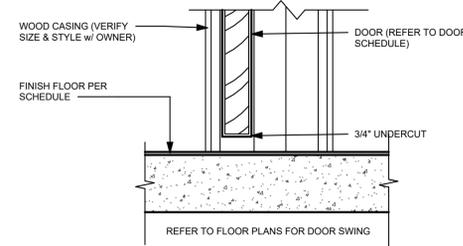
A1 EXTERIOR S.F. DOOR THRESHOLD DETAIL

SCALE 3" = 1'-0"



A6 DOUBLE ACTING DOOR THRESHOLD

SCALE 3" = 1'-0"



A9 INTERIOR THRESHOLD DETAIL

SCALE 3" = 1'-0"

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SCHEDULES & DOOR TYPES

ISSUE HISTORY	
DATE	DESCRIPTION
12/24/25	PERMIT SET

FOR THE FIRM
ARCHITECTS SEAL
JOB NO. 25024
PAGE NUMBER
A601

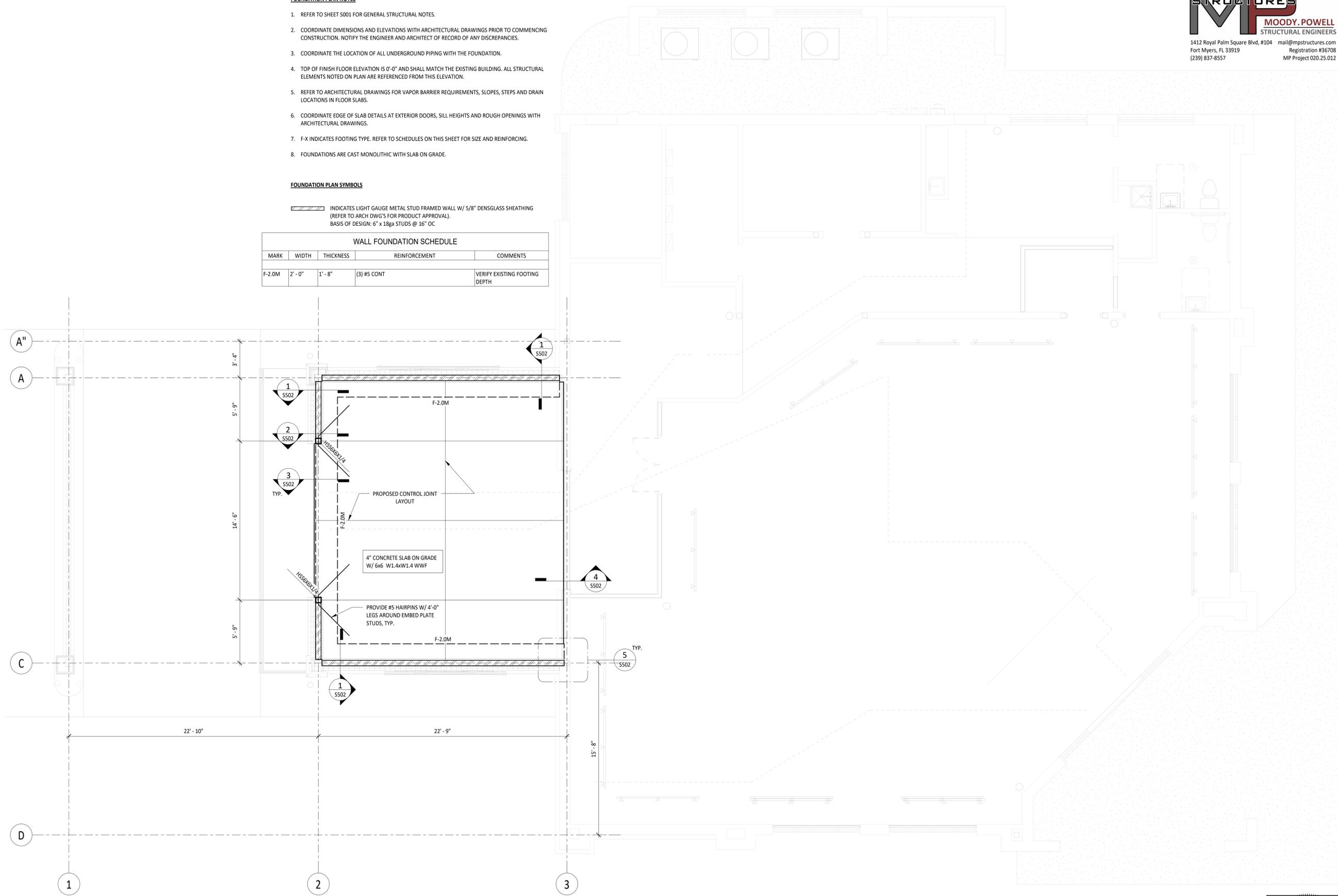
THE DESIGN PROFESSIONAL WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE AND SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHER FAILURE TO FOLLOW THE DESIGN PROFESSIONAL'S GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONTRADICTIONS, AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED.

- FOUNDATION PLAN NOTES**
- REFER TO SHEET S001 FOR GENERAL STRUCTURAL NOTES.
 - COORDINATE DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE ENGINEER AND ARCHITECT OF RECORD OF ANY DISCREPANCIES.
 - COORDINATE THE LOCATION OF ALL UNDERGROUND PIPING WITH THE FOUNDATION.
 - TOP OF FINISH FLOOR ELEVATION IS 0'-0" AND SHALL MATCH THE EXISTING BUILDING. ALL STRUCTURAL ELEMENTS NOTED ON PLAN ARE REFERENCED FROM THIS ELEVATION.
 - REFER TO ARCHITECTURAL DRAWINGS FOR VAPOR BARRIER REQUIREMENTS, SLOPES, STEPS AND DRAIN LOCATIONS IN FLOOR SLABS.
 - COORDINATE EDGE OF SLAB DETAILS AT EXTERIOR DOORS, SILL HEIGHTS AND ROUGH OPENINGS WITH ARCHITECTURAL DRAWINGS.
 - F-X INDICATES FOOTING TYPE. REFER TO SCHEDULES ON THIS SHEET FOR SIZE AND REINFORCING.
 - FOUNDATIONS ARE CAST MONOLITHIC WITH SLAB ON GRADE.

FOUNDATION PLAN SYMBOLS

 INDICATES LIGHT GAUGE METAL STUD FRAMED WALL W/ 5/8" DENSGLASS SHEATHING (REFER TO ARCH DWGS FOR PRODUCT APPROVAL). BASIS OF DESIGN: 6" x 18ga STUDS @ 16" OC

WALL FOUNDATION SCHEDULE				
MARK	WIDTH	THICKNESS	REINFORCEMENT	COMMENTS
F-2.0M	2'-0"	1'-8"	(3) #5 CONT	VERIFY EXISTING FOOTING DEPTH



FOUNDATION PLAN
 1/4" = 1'-0"

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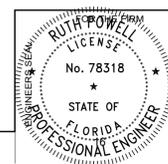
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FOUNDATION PLAN

ISSUE HISTORY

DATE	DESCRIPTION	BY
12/24/25	PERMIT SET	



JOB NO. 25024
 PAGE NUMBER **S101**

MECHANICAL SPECIFICATIONS

1 PART 1 - GENERAL
0.01 GENERAL SCOPE
A. THIS PROJECT WILL REQUIRE INSTALLATION OF NEW HVAC SYSTEMS AS INDICATED.
1.01 GENERAL DOCUMENTS
A. INSTALLATION SHALL BE IN ACCORDANCE WITH THE FLORIDA BUILDING CODE 8TH EDITION (EFFECTIVE 12/31/2023), WHICH INCLUDES THE FLORIDA BUILDING CODE, MECHANICAL, FLORIDA BUILDING CODE, ENERGY CONSERVATION, AS WELL AS FLORIDA FIRE PREVENTION CODE, 8TH EDITION (EFFECTIVE 12/31/2023). ALL EQUIPMENT SHALL BE UL LISTED.
B. THE MECHANICAL WORK SHALL INCLUDE FURNISHING ALL LABOR, EQUIPMENT, MATERIALS AND SERVICE NECESSARY FOR AN REASONABLY INCIDENTAL TO THE PROPER COMPLETION OF ALL MECHANICAL WORK SHOWN ON THE DRAWINGS AND AS SPECIFIED. ALL MATERIAL SHALL BE NEW.
C. EACH PROSPECTIVE MECHANICAL CONTRACTOR SHALL EVALUATE THE SCOPE OF WORK THOROUGHLY PRIOR TO SUBMITTING A BID.
D. SOME CONDUIT, PIPING, AND OTHER OBSTACLES MAY NEED TO BE RELOCATED AND SUCH RELOCATION SHOULD BE INCLUDED IN EACH PROSPECTIVE MECHANICAL CONTRACTOR'S BID.
E. THIS ENGINEER IS NOT RESPONSIBLE FOR MATERIALS, METHODS, INSTALLATION, AND CONSTRUCTION WHICH DEVIATE FROM THESE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS.
1.02 SUBMITTALS
A. MATERIALS OR PRODUCTS SPECIFIED HEREIN AND/OR INDICATED ON DRAWINGS BY TRADE NAME, MANUFACTURER'S NAME OR CATALOG NUMBERS SHALL BE INTERPRETED AS ESTABLISHING A STANDARD OF QUALITY AND DESIGN. THE MECHANICAL CONTRACTOR SHALL MEET THE QUALITY STANDARDS AND DESIGN INTENT, UNLESS OTHERWISE NOTED.
B. PRIOR TO STARTING THE PROJECT, THE MECHANICAL CONTRACTOR SHALL STUDY THE COMPLETE SET OF CONSTRUCTION DOCUMENTS AND COORDINATE WITH THE MANUFACTURER(S) AS REQUIRED TO PROVIDE EQUIPMENT SUBMITTALS TO SUBMIT TO THIS ENGINEER FOR REVIEW AND APPROVAL. THE EQUIPMENT SUBMITTALS SHALL INCLUDE DIMENSIONS, WEIGHTS, SPECIFIED ACCESSORIES AND REQUIRED CLEARANCES, AS WELL AS FAN CURVES, SOUND LEVELS, CONSTRUCTION DETAILS, WARRANTY INFORMATION, AND ALL OTHER RELEVANT DATA.
C. IF ALTERNATES TO THE BASIS OF DESIGN ARE SUBMITTED, THE MECHANICAL CONTRACTOR SHALL PROVIDE A CLEAR DETAILED SUMMARY IN THE SUBMITTALS OF THE DIFFERENCES BETWEEN THE SUBMITTED EQUIPMENT AND THE BASIS OF DESIGN. MECHANICAL ENGINEER OF RECORD MAY ACCEPT OR REJECT THE ALTERNATES.
1.03 SHOP DRAWINGS
A. PRIOR TO STARTING THE PROJECT, THE MECHANICAL CONTRACTOR SHALL STUDY THE COMPLETE SET OF CONSTRUCTION DOCUMENTS AND COORDINATE WITH THE OTHER TRADES AS REQUIRED TO PROVIDE SHOP DRAWINGS TO SUBMIT TO MECHANICAL ENGINEER OF RECORD FOR APPROVAL. THE SHOP DRAWINGS MAY BE SUBMITTED AS HAND-DRAWN NOTES UPON A COPY OF THE CONSTRUCTION DOCUMENTS. THE CONSTRUCTION DOCUMENTS ARE DIAGRAMMATIC IN NATURE AND INTENDED SOLELY TO CLARIFY THE SCOPE OF WORK AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS. THE CONSTRUCTION DOCUMENTS ARE NOT INTENDED TO ALERT THE MECHANICAL CONTRACTOR OF ALL OBSTACLES. THE SHOP DRAWINGS SHALL SHOW THE COORDINATION OF DUCTWORK AND MECHANICAL EQUIPMENT INSTALLATION WITH EXISTING AND NEW OBSTACLES INCLUDING, BUT NOT LIMITED TO, ELECTRICAL CONDUITS, FIRE PROTECTION PIPING, RAIN LEADERS, SANITARY DRAINS, STRUCTURAL MEMBERS, AND WATER PIPING, AS WELL AS THE MECHANICAL EQUIPMENT MANUFACTURER(S) RECOMMENDED CLEARANCES. THE MECHANICAL CONTRACTOR SHALL ALSO SHOW THE EXISTING CONDITIONS ON THE SHOP DRAWINGS WHERE THE EXISTING CONDITIONS ARE DIFFERENT FROM THOSE SHOWN ON THE CONSTRUCTION DOCUMENTS.
B. FURNISH SIX (6) COPIES OF SHOP DRAWINGS OF EQUIPMENT, MATERIALS AND SYSTEM LAYOUT TO GENERAL CONTRACTOR AND MECHANICAL ENGINEER OF RECORD PRIOR TO PURCHASING ANY EQUIPMENT AND BEGINNING WORK.
1.04 RECORD DRAWINGS
A. AFTER COMPLETION OF ALL WORK, THE MECHANICAL CONTRACTOR SHALL PROVIDE THE GENERAL CONTRACTOR WITH AS-BUILT RECORD DRAWINGS. MECHANICAL CONTRACTOR SHALL KEEP A RECORD OF THE LOCATIONS OF ALL CONCEALED WORK AND UPON COMPLETION OF THE JOB, SHALL SUPPLY AS-BUILT DRAWINGS SHOWING ANY DEVIATION FROM THE ORIGINAL DRAWINGS. THESE DRAWINGS SHALL INDICATE DIMENSION OF BURIED UTILITY LINES FROM BUILDING WALLS.
PART 2 - INSTALLATION
2.01 EQUIPMENT
A. ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED AS REQUIRED BY THE MANUFACTURER(S) INSTALLATION AND MAINTENANCE MANUALS. THOSE MANUALS WILL TYPICALLY PROVIDE MORE DETAIL THAN THE CONSTRUCTION DOCUMENTS. IF THERE IS A CONFLICT BETWEEN THE INSTALLATION AND MAINTENANCE MANUALS AND THE CONSTRUCTION DOCUMENTS, THEN THE MECHANICAL CONTRACTOR SHALL SUBMIT A REQUEST-FOR-INFORMATION TO MECHANICAL ENGINEER OF RECORD.
B. VIBRATION ISOLATION: THE MECHANICAL CONTRACTOR SHALL PROVIDE VIBRATION ISOLATION AS RECOMMENDED BY THE MANUFACTURER(S) AND/OR REQUIRED BY MECHANICAL ENGINEER OF RECORD TO ENSURE QUIET OPERATION OF THE MECHANICAL EQUIPMENT. NO UNDUCE VIBRATION OR SOUND SHALL BE TRANSMITTED TO THE STRUCTURE OR ANY OCCUPIED SPACES WITHIN THE STRUCTURE.
C. FILTERS: THE MECHANICAL CONTRACTOR SHALL PROVIDE FILTER RACKS FOR THE MECHANICAL EQUIPMENT AS REQUIRED. THE FILTER RACKS SHALL BE INSTALLED SUCH THAT SUFFICIENT CLEARANCES ARE PROVIDED FOR MAINTENANCE AND SHALL BE SEALED AIRTIGHT. THE MECHANICAL CONTRACTOR SHALL PROVIDE A TOTAL OF THREE (3) COMPLETE SETS OF FILTERS FOR ALL MECHANICAL EQUIPMENT IN THE SIZE AND ARRANGEMENT RECOMMENDED BY THE MANUFACTURER. THE FILTERS SHALL PROVIDE ASHRAE FILTRATION EFFICIENCY AS SHOWN ON THE CONSTRUCTION DOCUMENTS OR 30% ASHRAE FILTRATION EFFICIENCY (MERV 6) IF NO HIGHER VALUE IS SPECIFIED.
D. THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL STARTERS, CONTACTORS, RELAYS, CONTROLS, AND ACCESSORIES NECESSARY TO PROVIDE A COMPLETE AND WORKING POWER AND CONTROL SYSTEM FOR THE MECHANICAL EQUIPMENT WITHIN THE SCOPE OF WORK. THE ELECTRICAL CONTRACTOR WILL PROVIDE ALL DISCONNECT SWITCHES, CONDUIT, AND WIRING FOR THE MECHANICAL EQUIPMENT WITHIN THE SCOPE OF THE COMPLETE SYSTEM AND SHALL ENSURE THAT WIRING METHODS ARE PROVIDED TO THE GENERAL CONTRACTOR. NO WIRING OF ANY KIND SHALL BE EXPOSED IN FINISHED AREAS.
E. HOUSEKEEPING PADS: THE GENERAL AND MECHANICAL CONTRACTORS SHALL PROVIDE A 4" HIGH CONCRETE HOUSEKEEPING PAD UNDER ALL MECHANICAL EQUIPMENT, UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DOCUMENTS. THE HOUSEKEEPING PAD SHALL EXTEND 8" BEYOND THE MECHANICAL EQUIPMENT ON ALL SIDES.
F. ELECTRIC DUCT HEATERS: ELECTRIC DUCT HEATERS SHALL BE UNDERWRITERS' LABORATORIES LISTED, BEAR THE SEAL OR MARK OF AN APPROVED TESTING AGENCY, AND BE EQUIPPED WITH AN APPROVED AUTOMATICALLY RESETTING OUTLET AIR TEMPERATURE LIMIT CONTROL THAT WILL LIMIT THE OUTLET AIR TEMPERATURE TO NOT MORE THAN 200°F. THE MECHANICAL CONTRACTOR AND MANUFACTURER SHALL EQUIP THE ELECTRIC ELEMENTS OF THE HEATER WITH FUSIBLE LINKS OR A MANUAL RESET TEMPERATURE CONTROL THAT WILL PREVENT THE OUTLET AIR TEMPERATURE FROM EXCEEDING 200°F. EACH ELECTRIC DUCT HEATER SHALL BE INTERLOCKED WITH THE ASSOCIATED AIR HANDLER TO ENSURE ELECTRIC DUCT HEATER SHUTDOWN IN THE EVENT OF AN AIR HANDLER FAN FAILURE.
2.02 ACCESS PANELS, FIRE DAMPERS, AND FIRE/SMOKE DAMPERS
A. THE GENERAL AND MECHANICAL CONTRACTORS SHALL PROVIDE ACCESS PANELS TO ALLOW ACCESS TO VOLUME DAMPERS ABOVE PLASTER OR GYPSUM CEILINGS, TURNING VANES, FIRE DAMPERS, FIRE/SMOKE DAMPERS, DUCT-MOUNTED SMOKE DETECTORS, AND WHERE REQUIRED FOR THE MAINTENANCE OF ALL MECHANICAL EQUIPMENT. ACCESS PANELS SHALL HAVE A FIRE RATING EQUAL TO THE PENETRATING ASSEMBLY, WITH A MINIMUM FIRE RATING OF ONE (1) HOUR.
B. THE MECHANICAL CONTRACTOR SHALL ATTACH A BRIGHTLY-COLORED STRIP OF PLASTIC TAPE TO EVERY DUCT-MOUNTED ACCESS PANEL. THE STRIP SHALL BE OF SUFFICIENT LENGTH TO HANG A MINIMUM OF 12" BELOW THE BOTTOM OF THE ASSOCIATED DUCT.
C. EACH DX SPLIT SYSTEMS AIR HANDLER AND CONDENSING UNIT SHALL BE BY ONE MANUFACTURER AND SHALL HAVE OR EXCEED THE CAPACITIES LISTED IN THE EQUIPMENT SCHEDULES ON THE CONSTRUCTION DOCUMENTS. EACH ELECTRIC HEATER SHALL HAVE OR EXCEED THE CAPACITIES LISTED IN THE EQUIPMENT SCHEDULES ON THE CONSTRUCTION DOCUMENTS. THE MECHANICAL CONTRACTOR SHALL PROVIDE PROTECTION FOR ALL DX MECHANICAL EQUIPMENT INCLUDING, BUT NOT LIMITED TO, AN ANTI-SHORT-CYCLE TIMER FOR EACH COMPRESSOR, HEAD PRESSURE CONTROL, HIGH PRESSURE CONTROL (MANUAL RESET), AND LOW PRESSURE CONTROL (AUTO RESET).
C. R410A: EVACUATION AND CHARGING OF REFRIGERANT SYSTEM: AFTER THE COMPLETE REFRIGERANT SYSTEM IS INSTALLED, IT SHALL BE LEAK TESTED WITH OIL-PUMPED, DRY NITROGEN AT A PRESSURE OF 225 PSIG AND ALLOW IT TO REMAIN UNDER PRESSURE FOR TWO (2) HOURS. IF THERE IS NO APPRECIABLE PRESSURE CHANGE, THE SYSTEM MAY BE CONSIDERED LEAK FREE. THE SYSTEM SHALL THEN BE EVACUATED TO 600 MICRONS AS INDICATED BY A RELIABLE VACUUM GAUGE (A STANDARD TESTING AND CHARGING GAUGE WILL NOT BE ACCEPTABLE) FOR 60 MINUTES, THEN BREAK THE VACUUM, NOW RE-EVACUATE THE SYSTEM TO 600 MICRONS AND LET SYSTEM STAND FOR 12 HOURS. IF THE VACUUM IS NOT MAINTAINED FOR 12 HOURS, THEN THE SYSTEM IS READY FOR CHARGING. CHARGE AS PER MANUFACTURER'S RECOMMENDATIONS.

OR in return plenums
THE MECHANICAL CONTRACTOR SHALL ATTACH A BRIGHTLY-COLORED STRIP OF METAL TO EVERY DUCT-MOUNTED ACCESS PANEL. THE STRIP SHALL BE OF SUFFICIENT LENGTH TO HANG A MINIMUM OF 12" BELOW THE BOTTOM OF THE ASSOCIATED DUCT.
A. THE MECHANICAL CONTRACTOR SHALL PROVIDE A FIRE DAMPER AT EVERY DUCT PENETRATION OF A FIRE-RATED ASSEMBLY AND A FIRE/SMOKE DAMPER WITH A MINIMUM FIRE/SMOKE RATING OF TWO (2) HOURS AT EVERY DUCT PENETRATION OF A SMOKE ASSEMBLY OR CHASE. EACH FIRE/SMOKE DAMPER SHALL CLOSE AND THE ASSOCIATED AIR HANDLER SHALL SHUT DOWN IF EITHER OF THE AIR HANDLERS OR THE SPACE'S SMOKE DETECTORS ARE ACTIVATED.
B. THE MECHANICAL CONTRACTOR SHALL PROVIDE ADDITIONAL DUCTWORK AND PIPING SUPPORTS WITH EIGHTEEN (18) INCHES OF BOTH SIDES OF ALL FIRE-RATED ASSEMBLIES. DUCTWORK AND PIPING SHALL NOT BE SUPPORTED BY FIRE-RATED WALLS, BUT INSTEAD SHALL BE SUPPORTED BY THE BUILDING STRUCTURE.
2.04 DX SYSTEMS
A. ALL REFRIGERANT LINES AND ACCESSORIES SHALL BE SIZED AND INSTALLED PER THE EQUIPMENT MANUFACTURER(S) RECOMMENDATIONS. THE MECHANICAL CONTRACTOR AND MANUFACTURER(S) SHALL STUDY THE COMPLETE SET OF CONSTRUCTION DOCUMENTS AND EXISTING AND PROPOSED CONDITIONS TO ENSURE THAT THE MECHANICAL EQUIPMENT HAS THE CAPACITY TO PROPERLY RETURN OIL TO THE COMPRESSOR(S). THE MECHANICAL CONTRACTOR SHALL PROVIDE PROTECTION FOR ALL DX MECHANICAL EQUIPMENT INCLUDING, BUT NOT LIMITED TO, AN ANTI-SHORT-CYCLE TIMER FOR EACH COMPRESSOR, HEAD PRESSURE CONTROL (MANUAL RESET), AND LOW PRESSURE CONTROL (AUTO RESET).
B. EACH DX SPLIT SYSTEMS AIR HANDLER AND CONDENSING UNIT SHALL BE BY ONE MANUFACTURER AND SHALL HAVE OR EXCEED THE CAPACITIES LISTED IN THE EQUIPMENT SCHEDULES ON THE CONSTRUCTION DOCUMENTS. EACH ELECTRIC HEATER SHALL HAVE OR EXCEED THE CAPACITIES AND ELECTRICAL REQUIREMENTS LISTED IN THE EQUIPMENT SCHEDULES ON THE CONSTRUCTION DOCUMENTS. THE MECHANICAL CONTRACTOR SHALL PROVIDE PROTECTION FOR ALL DX MECHANICAL EQUIPMENT INCLUDING, BUT NOT LIMITED TO, AN ANTI-SHORT-CYCLE TIMER FOR EACH COMPRESSOR, HEAD PRESSURE CONTROL (MANUAL RESET), AND LOW PRESSURE CONTROL (AUTO RESET).
C. R410A: EVACUATION AND CHARGING OF REFRIGERANT SYSTEM: AFTER THE COMPLETE REFRIGERANT SYSTEM IS INSTALLED, IT SHALL BE LEAK TESTED WITH OIL-PUMPED, DRY NITROGEN AT A PRESSURE OF 225 PSIG AND ALLOW IT TO REMAIN UNDER PRESSURE FOR TWO (2) HOURS. IF THERE IS NO APPRECIABLE PRESSURE CHANGE, THE SYSTEM MAY BE CONSIDERED LEAK FREE. THE SYSTEM SHALL THEN BE EVACUATED TO 600 MICRONS AS INDICATED BY A RELIABLE VACUUM GAUGE (A STANDARD TESTING AND CHARGING GAUGE WILL NOT BE ACCEPTABLE) FOR 60 MINUTES, THEN BREAK THE VACUUM, NOW RE-EVACUATE THE SYSTEM TO 600 MICRONS AND LET SYSTEM STAND FOR 12 HOURS. IF THE VACUUM IS NOT MAINTAINED FOR 12 HOURS, THEN THE SYSTEM IS READY FOR CHARGING. CHARGE AS PER MANUFACTURER'S RECOMMENDATIONS.

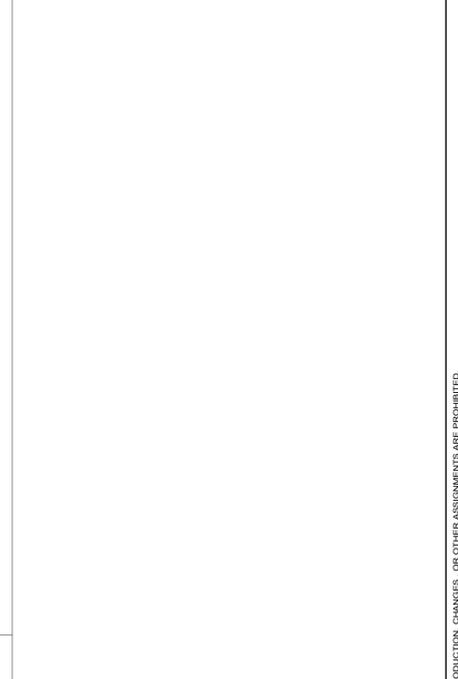
2.08 DUCTWORK CONSTRUCTION
A. THE SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION'S "FIBROUS GLASS DUCT CONSTRUCTION STANDARDS" AND "HVAC DUCT CONSTRUCTION STANDARDS" SHALL BE CONSIDERED PART OF THE SPECIFICATIONS FOR THIS PROJECT. ANY WORK THAT DOES NOT COMPLY WITH THESE STANDARDS MAY BE REJECTED AT ANY TIME DURING THE PROJECT.
B. REFER TO BASIC MATERIAL REQUIREMENTS ON THIS SHEET FOR DUCTWORK AND DUCT INSULATION MATERIAL SELECTIONS.
C. ALL DUCT DIMENSIONS SHOWN ON THE CONSTRUCTION DOCUMENTS ARE INSIDE CLEAR DIMENSIONS. THE MECHANICAL CONTRACTOR SHALL PROVIDE FLEXIBLE CONNECTIONS BETWEEN EACH ITEM OF MECHANICAL EQUIPMENT AND ITS ASSOCIATED DUCT(S). ALL ITEMS OF THE HEATING, VENTILATION, AND AIR CONDITIONING SYSTEM INCLUDING, BUT NOT LIMITED TO, AIR HANDLERS, FANS, DUCTWORK, DIFFUSERS, AND GRILLES SHALL NOT BE SUPPORTED BY THE CEILING OR CEILING SUSPENSION SYSTEM, BUT INSTEAD SHALL BE SUPPORTED BY THE BUILDING STRUCTURE.
D. ALL ELBOWS SHALL HAVE A ONE AND ONE-HALF (1.5) CENTERLINE RADIUS-TO-WIDTH OR RADIUS-TO-DEPTH RATIO OR SHALL BE CONSTRUCTED WITH SINGLE BLADE TURNING VANES. ANGULAR TAPERS SHALL BE LIMITED TO THIRTY (30) DEGREES FOR CONTRACTING TAPERS AND TWENTY (20) DEGREES FOR EXPANDING TAPERS.
E. THE MAXIMUM LENGTH OF NEW FLEXIBLE DUCT SHALL BE 10'-0" FLEXIBLE DUCT SHALL BE INSTALLED AND SUPPORTED SO AS TO PREVENT THE USE OF EXCESS DUCT MATERIAL, PREVENT DISLOCATION OR DAMAGE, AND PREVENT CONSTRUCTION OF THE DUCT BELOW THE RATED DUCT DIAMETER. FLEXIBLE DUCT BENDS SHALL MAINTAIN A CENTERLINE RADIUS OF NOT LESS THAN ONE AND ONE-HALF (1.5) DUCT DIAMETERS. SAGS SHALL NOT EXCEED ONE-HALF (0.5) INCH PER LINEAR FOOT OF FLEXIBLE DUCT. HANGERS, SHOCKERS, AND OTHER SUPPORTS SHALL HAVE A MINIMUM WIDTH OF ONE AND ONE-HALF (1.5) INCHES. THE MECHANICAL CONTRACTOR SHALL PROVIDE SUPPORT FOR NEW AND MODIFIED EXISTING FLEXIBLE DUCTWORK IN THE SCOPE OF WORK WITH A MAXIMUM SPACING OF 5'-0". UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DOCUMENTS OR AUTHORIZED BY MECHANICAL ENGINEER OF RECORD.
F. SURFACES UPON WHICH CLOSURE OR SEALING PRODUCTS ARE TO BE APPLIED SHALL BE CLEAN AND DRY. OPENINGS MADE BY SCREWS, VALVES, TRAPS, SIGHT GLASSES, AND OTHER ACCESSORIES AS RECOMMENDED BY THE MECHANICAL EQUIPMENT MANUFACTURER(S). SERVICE FITTINGS SHALL BE ACCESSIBLE. THE MECHANICAL CONTRACTOR SHALL PROVIDE PROTECTION FOR ALL DX MECHANICAL EQUIPMENT INCLUDING, BUT NOT LIMITED TO, AN ANTI-SHORT-CYCLE TIMER FOR EACH COMPRESSOR, HEAD PRESSURE CONTROL (MANUAL RESET), AND LOW PRESSURE CONTROL (AUTO RESET).
G. ALL DUCTWORK INSULATION, FITTINGS, COVERS, AND FINISHES SHALL HAVE A MAXIMUM FLAME SPREAD RATING OF 2.5, A MAXIMUM SMOKE DEVELOPMENT RATING OF 50, AND SHALL BE IN COMPLIANCE WITH NFPA 90A. PROVIDE MINIMUM OF 1/2" FIBERGLASS WITH FOLIOSKIM VAPOR BARRIER ON THE BACK PAN OF ALL NEW AIR DEVICES.
H. ALL OUTSIDE AIR INTAKES SHALL BE A MINIMUM OF 10'-0" FROM ANY EXHAUST OUTLET OR VENT PIPE UNLESS THE VENT PIPE IS AT LEAST TWO (2) FEET ABOVE THE EXHAUST OUTLET. THE MECHANICAL CONTRACTOR SHALL PROVIDE SCREENS ON ALL OUTSIDE AIR INTAKES AND EXHAUST OUTLETS AT NO LESS THAN 14" BY 14" AND NO GREATER THAN 18" BY 18". THE MECHANICAL CONTRACTOR SHALL PROVIDE MOTORIZED DAMPERS IN ALL OUTSIDE AIR DUCTS. EACH MOTORIZED DAMPER SHALL BE CONTROLLED TO OPEN IN OCCUPIED MODE.
I. THE MECHANICAL CONTRACTOR SHALL PROVIDE AN OPENED-BLADE VOLUME DAMPER FOR EVERY RECTANGULAR BRANCH AND OUTLET AND AT EVERY RECTANGULAR TAKE-OFF FOR A DIFFUSER OR GRILLE. (ROUND OR OVAL BRANCHES, OUTLETS, AND TAKE-OFFS FOR DIFFUSERS AND GRILLES SHALL BE PROVIDED WITH STANDARD VOLUME DAMPERS.) NOT ALL DAMPERS ARE SHOWN ON THE CONSTRUCTION DOCUMENTS. HOWEVER, DAMPERS ARE REQUIRED FOR EVERY BRANCH, OUTLET, AND TAKE-OFF. SOME DAMPERS MAY BE REQUIRED AFTER TRANSITIONS.
J. THE MECHANICAL CONTRACTOR SHALL ATTACH A BRIGHTLY-COLORED STRIP OF PLASTIC TAPE TO EVERY VOLUME DAMPER, EXCEPT THOSE AT THE HEAD OF A DIFFUSER OR GRILLE. THE STRIP SHALL BE OF SUFFICIENT LENGTH TO HANG A MINIMUM OF 12" BELOW THE BOTTOM OF THE ASSOCIATED DUCT.
OR in return plenums
THE MECHANICAL CONTRACTOR SHALL ATTACH A BRIGHTLY-COLORED STRIP OF METAL TO EVERY VOLUME DAMPER, EXCEPT THOSE AT THE HEAD OF A DIFFUSER OR GRILLE. THE STRIP SHALL BE OF SUFFICIENT LENGTH TO HANG A MINIMUM OF 12" BELOW THE BOTTOM OF THE ASSOCIATED DUCT.
K. THE MECHANICAL CONTRACTOR SHALL CLEARLY AND PERMANENTLY MARK EACH VOLUME DAMPERS OPEN AND CLOSED POSITIONS. THE MECHANICAL CONTRACTOR SHALL PROVIDE A VOLUME DAMPER WITH A 2" STANDOFF WITH A LOCKING QUADRANT THAT IS 24 GAUGES OR 2 GAUGES HEAVIER.
L. PROVIDE AND INSTALL "RUSKIN PRD-18" POSITIVE PRESSURE RELIEF DOORS IN SUPPLY DUCTWORK FOR ALL AIR HANDLER SYSTEMS WITH VAV BOXES, SMOKE DAMPERS OR FIRE DAMPERS, PROVIDE AND INSTALL "RUSKIN IRD-18" NEGATIVE PRESSURE RELIEF DOOR IN RETURN DUCTWORK FOR ALL AIR HANDLER SYSTEMS THAT HAVE MOTORIZED RETURN AIR DAMPERS, SMOKE DAMPERS OR FIRE DAMPERS.
M. ALL DUCT SHALL MEET THE FOLLOWING CONSTRUCTION REQUIREMENTS:
• SUPPLY DUCTWORK (UPSTREAM OF ANY VAV); 2.0 IWG POSITIVE STATIC PRESSURE AND VELOCITIES LESS THAN 2500 FPM.
• SUPPLY DUCTWORK (DOWNSTREAM OF ANY VAV); 1.0 IWG POSITIVE STATIC PRESSURE AND VELOCITIES LESS THAN 1800 FPM.
• ALL OTHER RETURN DUCTWORK; 1.0 IWG NEGATIVE STATIC PRESSURE AND VELOCITIES LESS THAN 1600 FPM.
• ALL EXHAUST AND OUTSIDE AIR DUCTWORK; 1.0 IWG POSITIVE OR NEGATIVE STATIC PRESSURE AND VELOCITIES LESS THAN 1600 FPM.
• ALL TRANSFER DUCTWORK; 0.5 IWG POSITIVE OR NEGATIVE STATIC PRESSURE AND VELOCITIES LESS THAN 500 FPM.
• ANY OTHER DUCTWORK: REFER TO SMACNA "HVAC DUCT CONSTRUCTION STANDARDS".
ALL RECTANGULAR METALLIC DUCTWORK SHALL BE SHOP FABRICATED OF GALVANIZED STEEL SHEETS. FOLLOWING ARE THE SMACNA RECOMMENDATIONS FOR GAUGES AND SEAMS, CONFORM TO THE RECOMMENDATIONS OF SMACNA AS TO SEAMS, JOINTS, CROSS BRACES AND REINFORCEMENT.
RECTANGULAR STEEL DUCT GAUGE
DUCT DIAMETER IN INCHES WITH FLAT "S" SLIP ON 5" SPACING (GA) WITH STANDING "S" SLIP ON 5" SPACING (GA)
0 - 12 26 B
13 - 14 24
15 - 18 22
19 - 20 26 C
21 - 26 26 B
27 - 28 16
29 - 30 26 D
31 - 36 24 D
37 - 42 24 E
43 - 60 22 G
STANDING "S" SLIP SIZE
B 1" x 26 GA
C 1" x 22 GA
D 1-1/8" x 22 GA
E 1-1/8" x 18 GA
F 5/8" x 18 GA
REFER TO SMACNA TABLES FOR REINFORCEMENT FOR DUCT LENGTHS OTHER THAN FIVE (5) FEET.
ALL ROUND RIGID METAL DUCTWORK CAN BE PREFABRICATED OR SHOP FABRICATED. FOLLOWING ARE THE SMACNA RECOMMENDATIONS FOR GAUGES AND SEAMS. ELBOWS SHALL HAVE CENTERLINE RADIUS OF 1-1/2 TIMES DUCT DIAMETER. THE CONTRACTOR MAY PROVIDE EQUIVALENT ROUND OR RECTANGULAR DUCT AS CONDITIONS AND SPACE PERMIT.

ROUND STEEL DUCT GAUGE
DUCT DIAMETER IN INCHES LONGITUDINAL SEAM IN INCHES
3 - 8 28
9 - 14 26
15 - 26 24
27 - 36 22
37 - 50 20
51 - 60 18
61 - 84 16
ROUND ALUMINUM DUCT GAUGE
DUCT DIAMETER IN INCHES LONGITUDINAL SEAM IN INCHES
3 - 14 025
15 - 26 032
27 - 36 040
37 - 50 053
2.09 DUCT LEAKAGE PERFORMANCE
A. FOR AIR CONDITIONING SYSTEMS OF FIFTEEN (15) TONS OR GREATER CAPACITY, AN INDEPENDENT TEST AND BALANCE CONTRACTOR SHALL PERFORM A DUCT LEAKAGE TEST IN COMPLIANCE WITH SMACNA'S "HVAC AIR DUCT LEAKAGE TEST MANUAL" TO VERIFY THE FUNCTION OF THE DESIGN AND THE WORKMANSHIP OF THE MECHANICAL CONTRACTOR. A DUCT LEAKAGE TEST USED TO CONFIRM DUCT LEAKAGE CLASS SHALL BE CONDUCTED AT THE PRESSURE FOR WHICH THE DUCT WAS DESIGNED AND CONSTRUCTED.
B. DUCT CONSTRUCTION AND SEALING SYSTEMS SHALL MEET THE REQUIREMENTS OF THE FLORIDA ENERGY CONSERVATION CODE AND SMACNA'S "FIBROUS GLASS DUCT CONSTRUCTION STANDARDS" AND "HVAC DUCT CONSTRUCTION STANDARDS". IF THERE IS A CONFLICT AMONG THE STANDARDS, THEN THE MORE STRINGENT STANDARD SHALL BE ENFORCED.
C. THE MECHANICAL CONTRACTOR SHALL SEAL ALL TRANSVERSE JOINTS, LONGITUDINAL SEAMS, AND DUCT WALL PENETRATIONS TO A MAXIMUM ALLOWABLE DUCT LEAKAGE CLASS OF THREE (3) FOR ROUND DUCT AND SIX (6) FOR FLAT DUCT AREA (1.5%) FOR ROUND DUCT AND SIX (6) CFM PER 100 SQUARE FEET OF DUCT AREA (3%) FOR ALL OTHER DUCT TYPES. UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DOCUMENTS OR AUTHORIZED BY MECHANICAL ENGINEER OF RECORD, TRANSVERSE JOINTS ARE CONNECTIONS OF TWO DUCT OR FITTING ELEMENTS ORIENTED PERPENDICULAR TO THE DIRECTION OF THE AIRFLOW. LONGITUDINAL SEAMS ARE JOINTS ORIENTED IN THE DIRECTION OF THE AIRFLOW. DUCT WALL PENETRATIONS ARE OPENINGS MADE BY SCREWS, NON-SELF-SEALING FASTENERS, PIPES, TUBING, RODS, AND WIRE. ROUND AND FLAT-OVAL SPIRAL LOCK SEAMS NEED NOT BE SEALED PRIOR TO ASSEMBLY BUT SHALL BE SEALED AFTER ASSEMBLY TO REDUCE LEAKAGE. ALL OTHER CONNECTIONS ARE CONSIDERED TRANSVERSE JOINTS INCLUDING, BUT NOT LIMITED TO, SPIN-IN TAPERS, OTHER BRANCH CONNECTIONS, ACCESS DOOR FRAMES, AND DUCT CONNECTIONS TO EQUIPMENT. MORE INFORMATION IS AVAILABLE IN CHAPTER 35 OF ASHRAE'S "FUNDAMENTALS OF HANDBOOK".
D. ALL DUCTWORK SHALL BE INSPECTED BY MECHANICAL ENGINEER OF RECORD PRIOR TO BEING COVERED OR INSULATED. THE OWNER AND MECHANICAL ENGINEER OF RECORD SHALL BE PRESENT DURING ALL DUCT LEAKAGE TESTING AND THE DUCTWORK SHALL BE TESTED AS INSTRUCTED BY MECHANICAL ENGINEER OF RECORD AND RETESTED IF REQUIRED BY MECHANICAL ENGINEER OF RECORD. IF ANY DISCREPANCIES ARE IDENTIFIED, THE DUCTWORK SHALL BE UNCOVERED AND REPAIRS SHALL BE MADE TO THE SATISFACTION OF MECHANICAL CONTRACTOR'S EXPENSE. THE MECHANICAL CONTRACTOR SHALL GIVE MECHANICAL ENGINEER OF RECORD TWO (2) WEEKS NOTICE BEFORE TESTING THE DUCTWORK.
E. EXISTING DUCTWORK SHALL BE RESEALED AND SHALL HAVE THE INSULATION REPLACED TO REDUCE LEAKAGE.
2.10 AIR DEVICES
A. THE MECHANICAL CONTRACTOR SHALL VERIFY THE LOCATIONS OF THE DIFFUSERS AND GRILLES. THE CONTRACTOR SHALL REQUEST-FOR-INFORMATION IF THERE IS A CONFLICT BETWEEN THE ARCHITECTURAL AND MECHANICAL PORTIONS OF THE CONSTRUCTION DOCUMENTS. THE MECHANICAL CONTRACTOR SHALL ALSO VERIFY THE TYPES OF CEILINGS IN THE SCOPE OF WORK PRIOR TO ORDERING DIFFUSERS AND GRILLES. FOR DIFFUSERS AND GRILLES LOCATED IN PLASTER OR GYPSUM CEILINGS, THE MECHANICAL CONTRACTOR SHALL PROVIDE METALARE MODEL TB9F / TITUS MODEL TRM PLASTER FRAMES AND FINISHES. FINISHES MAY BE ALUMINUM OR NON-FIRE-RATED CEILINGS BUT MUST BE STEEL IN FIRE-RATED CEILINGS. THE MECHANICAL CONTRACTOR SHALL PROVIDE AND REPAIRS SHALL BE MADE TO THE SATISFACTION OF MECHANICAL CONTRACTOR'S EXPENSE. ALL VISIBLE EXTERIOR COMPONENTS (SUCH AS EXPOSED DUCTWORK AND LOUVERS) SHALL BE PROVIDED WITH A PAINT-GRIP FINISH.
2.11 CONTROLS
A. THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL CONTROLS AND SUB-CONTRACT TO THE ELECTRICAL CONTRACTOR ALL CONTROLS POWER AND TRANSFORMERS NOT IDENTIFIED IN THE ELECTRICAL PORTION OF THE CONSTRUCTION DOCUMENTS.
B. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING WHAT IS REQUIRED TO INCORPORATE NEW MECHANICAL EQUIPMENT AND CONTROLS INTO THE EXISTING CONTROL SYSTEMS AND INCLUDING ALL COSTS ASSOCIATED WITH INCORPORATING NEW MECHANICAL EQUIPMENT AND CONTROLS INTO THE EXISTING CONTROL SYSTEMS IN HIS BID. THE CONTRACTOR SHALL PROVIDE A COMPLETE DESCRIPTION OF THE ENTIRE CONTROL SYSTEM, INCLUDING SCHEMATIC DRAWINGS.
C. THE MECHANICAL CONTRACTOR SHALL PROVIDE A HONEYWELL MODEL 7350 PROGRAMMABLE THERMOSTAT WITH A REMOTE SENSOR AND A LOCKABLE COVER FOR EACH NEW AND EXISTING AIR CONDITIONING SYSTEM. THE MECHANICAL CONTRACTOR SHALL ALSO PROVIDE ONE (1) PERSONAL DIGITAL ASSISTANT (PDA) AND HONEYWELL'S THERMOSTAT INTERFACE MODULE AND PROGRAMMING SOFTWARE. THE MECHANICAL CONTRACTOR SHALL COORDINATE THE INITIAL OCCUPANCY SCHEDULES AND PROGRAMMING WITH THE OWNER AND PROVIDE TRAINING AS REQUIRED. ALL PROGRAMMING SHALL BE COMPLETED USING HONEYWELL'S THERMOSTAT PROGRAMMING SOFTWARE.
D. EACH SENSOR SHALL BE INSTALLED AT 4'-6" ABOVE THE FINISHED FLOOR LEVEL UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DOCUMENTS. THE MECHANICAL CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF EACH SENSOR WITH THE OWNER AND SUBMIT THE PROPOSED LOCATION TO MECHANICAL ENGINEER OF RECORD FOR APPROVAL. THE MECHANICAL CONTRACTOR SHALL PROVIDE COORDINATION OF ALL SENSOR FINISHES WITH ROOM FINISHES AT NO ADDITIONAL COST TO THE OWNER.
E. ALL EXHAUST AND OUTSIDE AIR FANS SHALL BE INTERLOCKED WITH THE AIR HANDLER SERVING THE ASSOCIATED SPACE.
F. ALL 120-VOLT RESTROOM EXHAUST FANS WITH ELECTRICAL REQUIREMENTS OF UP TO 800 WATTS SHALL BE CONTROLLED BY AN OCCUPANCY SENSOR WITH A TIME DELAY. THE INITIAL TIME DELAY SHALL BE SET AT TWENTY (20) MINUTES.
G. THE MECHANICAL CONTRACTOR SHALL PROVIDE A TIME CLOCK FOR ALL OUTDOOR AIR FANS. THE MECHANICAL CONTRACTOR SHALL COORDINATE THE INITIAL OCCUPANCY SCHEDULE(S) AND SETTINGS WITH THE OWNER AND PROVIDE TRAINING AS REQUIRED.
R-VALUE:
• IN UNCONDITIONED SPACE, R-8
• ALL OTHER DUCTWORK, R-4.2
NOTES:
• UTILIZE MATERIALS ABOVE UNLESS NOTED OTHERWISE ON PLANS

PART 3 - EXECUTION
3.01 INSTALLATION
A. COORDINATE WORK WITH OTHER TRADES AND EXISTING CONDITIONS PRIOR TO BEGINNING WORK. MECHANICAL CONTRACTOR SHALL ROUTING AND OFFSETS NECESSARY TO AVOID CONFLICT WITH STRUCTURE, FINISHES, AND WORK OF OTHER TRADES.
3.02 DISINFECTING OF POTABLE WATER SYSTEM
A. THE SYSTEM SHALL BE FILLED WITH A SOLUTION CONTAINING 50 PARTS PER MILLION OF AVAILABLE CHLORINE AND ALL ALLOWED TO STAND 24 HOURS BEFORE FLUSHING AND RETURNING TO SERVICE. DISINFECTING PROCEDURE AND RESULT SHALL BE SUBJECT TO THE APPROVAL OF THE LOCAL MECHANICAL INSPECTOR.
3.03 TEST
A. ALL MECHANICAL SYSTEMS SHALL BE TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE MECHANICAL. ALL TESTS SHALL BE APPROVED BY THE LOCAL MECHANICAL INSPECTOR.
3.04 SYSTEM IDENTIFICATION
A. THE MECHANICAL CONTRACTOR SHALL PROVIDE IDENTIFICATION TAGS FOR ALL NEW EQUIPMENT, PIPING AND VALVES IN THE BUILDING. TAGS SHALL BE METAL WITH ENGRAVED UNITS/INCH NUMBER.
3.05 TESTING, ADJUSTING, BALANCING AND COMMISSIONING
A. THE MECHANICAL CONTRACTOR SHALL ENSURE THAT THE MECHANICAL SYSTEMS ARE TESTED AND BALANCED. THE MECHANICAL CONTRACTOR SHALL PROVIDE THE SERVICES OF AN INDEPENDENT TEST AND BALANCE AGENCY TO TEST THE PERFORMANCE OF ALL HVAC SYSTEMS. THE MECHANICAL CONTRACTOR SHALL ALSO PROVIDE THE SERVICES OF AN INDEPENDENT APPROVED AGENCY TO COMMISSION AND FUNCTIONALLY PERFORMANCE TEST THE SYSTEMS. THE APPROVED AGENCY SHALL PROVIDE EVIDENCE OF MECHANICAL SYSTEMS COMMISSIONING IN ACCORDANCE WITH SECTION 408.2, FBC, EC. THE TEST AND BALANCE CONTRACTOR SHALL BE AN APPROVED MEMBER OF THE ABC OR NEBB AND SHALL SPECIALIZE IN THE TESTING AND BALANCING OF HEATING, VENTILATION, AND AIR CONDITIONING SYSTEMS.
B. THE MECHANICAL TEST AND BALANCE CONTRACTOR SHALL PERFORM ALL TESTING, ADJUSTING, BALANCING, AND DATA RECORDING NECESSARY TO ESTABLISH THE CAPACITY AND QUALITY OF THE SYSTEMS AND CONFIRM THE SATISFACTORY COMPLETION OF ALL ASPECTS OF THE SCOPE OF WORK. TYPES, UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DOCUMENTS OR AUTHORIZED BY MECHANICAL ENGINEER OF RECORD, TRANSVERSE JOINTS ARE CONNECTIONS OF TWO DUCT OR FITTING ELEMENTS ORIENTED PERPENDICULAR TO THE DIRECTION OF THE AIRFLOW. LONGITUDINAL SEAMS ARE JOINTS ORIENTED IN THE DIRECTION OF THE AIRFLOW. DUCT WALL PENETRATIONS ARE OPENINGS MADE BY SCREWS, NON-SELF-SEALING FASTENERS, PIPES, TUBING, RODS, AND WIRE. ROUND AND FLAT-OVAL SPIRAL LOCK SEAMS NEED NOT BE SEALED PRIOR TO ASSEMBLY BUT SHALL BE SEALED AFTER ASSEMBLY TO REDUCE LEAKAGE. ALL OTHER CONNECTIONS ARE CONSIDERED TRANSVERSE JOINTS INCLUDING, BUT NOT LIMITED TO, SPIN-IN TAPERS, OTHER BRANCH CONNECTIONS, ACCESS DOOR FRAMES, AND DUCT CONNECTIONS TO EQUIPMENT. MORE INFORMATION IS AVAILABLE IN CHAPTER 35 OF ASHRAE'S "FUNDAMENTALS OF HANDBOOK".
D. THE MECHANICAL CONTRACTOR SHALL, UPON COMPLETION OF ALL NECESSARY TESTING AND BALANCING AND AT LEAST ONE (1) WEEK PRIOR TO SUBSTANTIAL COMPLETION, SUBMIT THREE (3) BOUND COPIES OF THE TEST AND BALANCE AND COMMISSIONING REPORTS TO THE GENERAL CONTRACTOR AND MECHANICAL ENGINEER OF RECORD.
E. THE MECHANICAL CONTRACTOR SHALL INCLUDE IN HIS BID THE COST OF ANY SHEAVE CHANGES REQUIRED FOR REBALANCING THE SYSTEM.
F. THE TEST AND BALANCE CONTRACTOR SHALL PRE-TEST AND RECORD ALL SUPPLY, RETURN, EXHAUST, AND OUTSIDE AIRFLOWS FOR THE EXISTING EQUIPMENT TO BE RE-USED.
G. THE TEST AND BALANCE CONTRACTOR SHALL MEET WITH THE MECHANICAL ENGINEER TO IDENTIFY ANY SYSTEM AIRFLOW DEFICIENCIES SO THAT THE MECHANICAL ENGINEER MAY PROVIDE DIRECTION AS TO HOW THE EXISTING SYSTEM(S) SHALL BE REBALANCED AFTER THE NEW AIR DISTRIBUTION IS COMPLETED.
3.06 SUBSTANTIAL AND FINAL COMPLETION
A. THE MECHANICAL CONTRACTOR SHALL MAINTAIN A SET OF CONTINUOUSLY UPDATED, REPRODUCIBLE AS-BUILT DRAWINGS DURING CONSTRUCTION AND PROVIDE A COMPLETE SET OF THESE DRAWINGS IN BOTH ELECTRONIC AND HARD COPY FORMATS TO THE GENERAL CONTRACTOR AND MECHANICAL ENGINEER OF RECORD UPON FINAL COMPLETION.
B. THE MECHANICAL CONTRACTOR SHALL CLEAN ALL COOLING AND HEATING COILS, CONDENSATE PANS, AND CONDENSATE DRAIN LINES PRIOR TO SUBSTANTIAL COMPLETION. THE MECHANICAL CONTRACTOR SHALL ALSO REPLACE ALL FILTERS AND BELTS PRIOR TO SUBSTANTIAL COMPLETION AND PRE-TEST AND BALANCE ALL MECHANICAL EQUIPMENT. THE MECHANICAL CONTRACTOR SHALL PROVIDE A COMPLETE DESCRIPTION OF THE ENTIRE CONTROL SYSTEM, INCLUDING SCHEMATIC DRAWINGS.
3.07 WARRANTY
A. THE MECHANICAL CONTRACTOR SHALL WARRANT ITS WORK TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE OF ALL WORK.
B. THE MECHANICAL CONTRACTOR SHALL PROVIDE FIVE (5) BOUND COPIES OF ALL MECHANICAL CONTRACTOR WARRANTIES, MANUFACTURER'S WARRANTIES, PARTS LISTS, AND INSTALLATION AND MAINTENANCE MANUALS FOR ALL MECHANICAL EQUIPMENT, AS WELL AS INSTRUCTIONS FOR OPERATING AND MAINTAINING ALL MECHANICAL EQUIPMENT TO THE OWNER UPON FINAL COMPLETION.

BASIC DUCTWORK MATERIAL REQUIREMENTS:
SUPPLY/RETURN:
[] SHEET METAL
[] DUCTBOARD
EXHAUST/OUTSIDE AIR:
[] SHEET METAL
[] DUCTBOARD
NOTES:
[] UTILIZE MATERIALS ABOVE UNLESS NOTED OTHERWISE ON PLANS
[] CONTRACTOR TO PROVIDE DEFLECTIVE COST ALTERNATE FOR USE OF DUCTBOARD
BASIC C.D. MATERIAL REQUIREMENTS:
CONDENSATE DRAIN:
[] SCHEDULE 40, PVC
[] COPPER, TYPE L, W/ARMFLEX INSULATION
NOTES:
[] UTILIZE MATERIALS ABOVE UNLESS NOTED OTHERWISE ON PLANS
BASIC INSULATION MATERIAL REQUIREMENTS:
ON CONCEALED DUCTWORK:
[] FLEXIBLE FIBERGLASS
[] FIBROUS DUCTBOARD
ON EXPOSED DUCTWORK:
[] FLEXIBLE FIBERGLASS
[] FIBROUS DUCTBOARD
R-VALUE:
• IN UNCONDITIONED SPACE, R-8
• ALL OTHER DUCTWORK, R-4.2
NOTES:
• UTILIZE MATERIALS ABOVE UNLESS NOTED OTHERWISE ON PLANS

MECHANICAL LEGEND



MECHANICAL SHEET INDEX

Table with 2 columns: Sheet Number and Description. Rows include M001 MECHANICAL GENERAL, M301 MECHANICAL DEMO FLOOR PLAN, M401 MECHANICAL CEILING PLAN, M701 MECHANICAL SCHEDULES, M901 MECHANICAL DETAILS.

BUILDING REWEL FOR:
GOODWILL NAPLES - REGIONS BANK
12621 Tamiami Trl E,
Naples, FL 34113
MECHANICAL - GENERAL

BASIC DUCTWORK MATERIAL REQUIREMENTS:

SUPPLY/RETURN:
[] SHEET METAL
[] DUCTBOARD
EXHAUST/OUTSIDE AIR:
[] SHEET METAL
[] DUCTBOARD
NOTES:
[] UTILIZE MATERIALS ABOVE UNLESS NOTED OTHERWISE ON PLANS
[] CONTRACTOR TO PROVIDE DEFLECTIVE COST ALTERNATE FOR USE OF DUCTBOARD

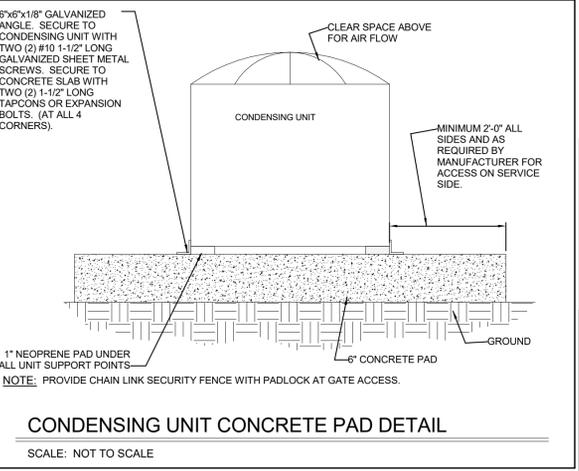
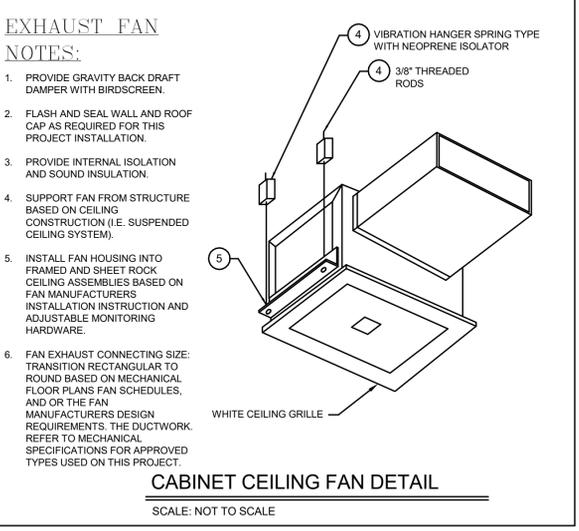
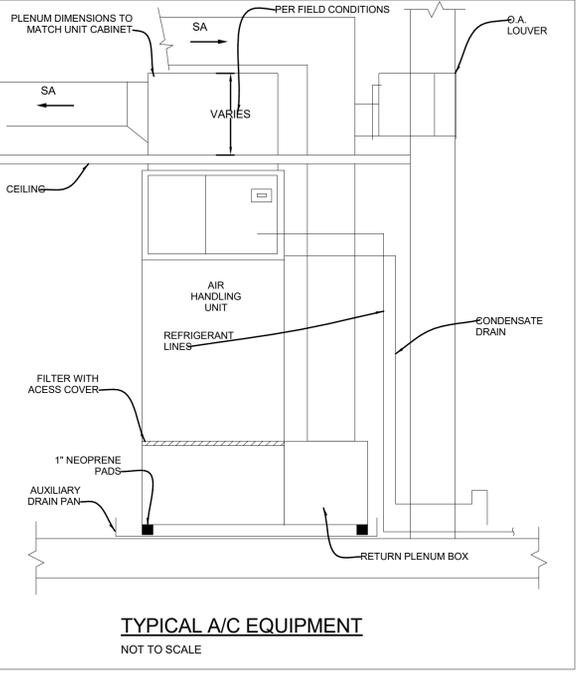
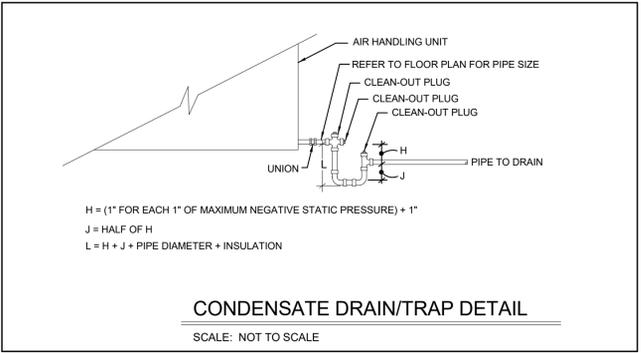
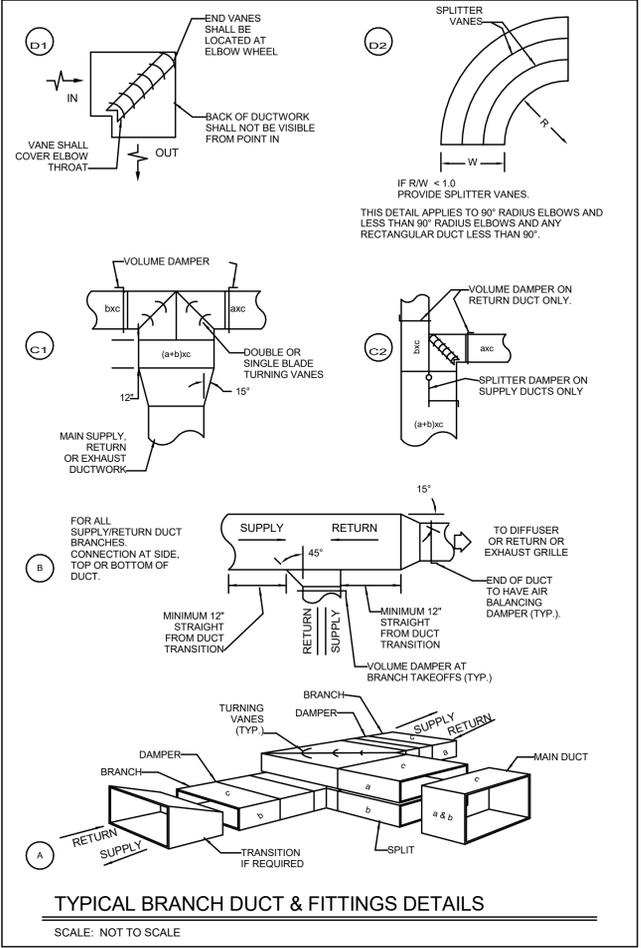
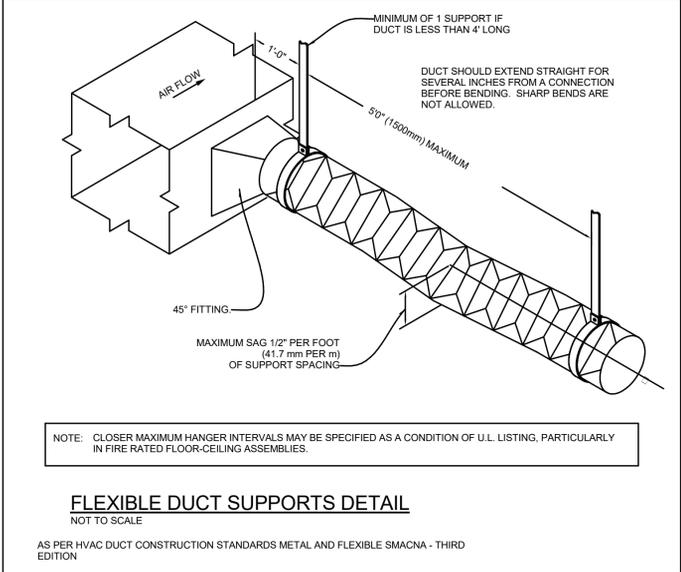
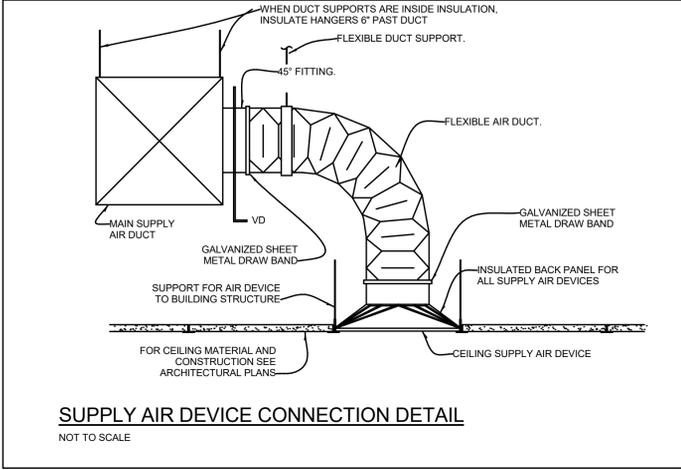
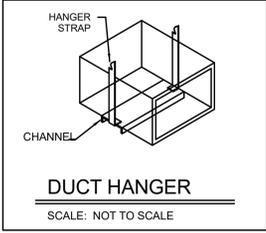
BASIC C.D. MATERIAL REQUIREMENTS:

CONDENSATE DRAIN:
[] SCHEDULE 40, PVC
[] COPPER, TYPE L, W/ARMFLEX INSULATION
NOTES:
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BASIC INSULATION MATERIAL REQUIREMENTS:

ON CONCEALED DUCTWORK:
[] FLEXIBLE FIBERGLASS
[] FIBROUS DUCTBOARD
ON EXPOSED DUCTWORK:
[] FLEXIBLE FIBERGLASS
[] FIBROUS DUCTBOARD
R-VALUE:
• IN UNCONDITIONED SPACE, R-8
• ALL OTHER DUCTWORK, R-4.2
NOTES:
• UTILIZE MATERIALS ABOVE UNLESS NOTED OTHERWISE ON PLANS

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43 BARKLEY CIRCLE SUITE #202
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GMA ARCHITECTS PLANNERS

BUILDING REMODEL FOR:
GOODWILL NAPLES - REGIONS BANK
12621 Tamiami Trl E,
Naples, FL 34113

MECHANICAL DETAILS

ISSUE HISTORY

DATE	DESCRIPTION	BY
12/24/25	PERMIT SET	

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY MAKSIM A. SEGAL ON THE DATE ADJACENT TO THE SEAL.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

06 JOB #: 0109.23.00

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JOB NO. TBD

PAGE NUMBER **M901**

Autodesk Docs: 25024 Goodwill Naples Bouliquin/25024 Goodwill Naples - MEP.rvt

LIGHT FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	LAMPS QTY	WATTS/TYPE	VOLTS	MOUNTING	COMMENTS
A	LITHONIA	CPHB 12000LM SEF GCL MD MVOLT G210 40K 80CRI DBL MEZZ26288	-	61W LED	120V	SUSPEND AT 12"-0" AFF	LED HIGH BAY LIGHT AND AIRCRAFT CABLE MOUNTING HARDWARE. COORDINATE SELECTION FINISH AND QUANTITY WITH OWNER.
B	LITHONIA	2BLT4 40L ADP 347 LP840	-	30W/LED	120V	CEILING GRID	LED 2' X 4' LAY-IN LIGHT FIXTURE. 4000K, LED. COORDINATE SELECTION FINISH AND QUANTITY WITH OWNER.
C	LITHONIA	LDN6 40/20 L06 AR LSS MVOLT EZ 10	-	-W LED	120V	RECESSED	ROUND RECESSED DOWNLIGHT, COORDINATE SELECTION FINISH AND QUANTITY WITH OWNER. WET RATED.
D	LITHONIA	SQP602 L1L35 FLD UL135 UFLD 40K MVOLT ESL UESL SWK FINISH	-	-W LED	MVOLT	WALL SURFACE	EXTERIOR WALL SCENCE COORDINATE SELECTION FINISH AND QUANTITY WITH OWNER. WET RATED.
L	JUNO	R606L-40K-80CRI-PDIM-WFL-BL	-	13W/LED	120V	TREC TRACK	TRACK LIGHT. COORDINATE FINAL TRACK LENGTH, CYLINDER TYPE AND SELECTION FINISH WITH OWNER BEFORE PURCHASE. ALL TRACK LIGHTING TO BE INSTALLED IAW NEC 410.151 / 220.43(B)
M	LITHONIA	LDN6 40/20 L06 AR LSS MVOLT EZ 10	-	-W LED	120V	RECESSED	ROUND RECESSED DOWNLIGHT, COORDINATE SELECTION FINISH AND QUANTITY WITH OWNER. WET RATED.
MEM	LITHONIA	LDN6 40/20 L06 AR LSS MVOLT EZ 10 / EZ10	-	-W LED	120V	RECESSED	ROUND RECESSED DOWNLIGHT WITH BATTERY BACKUP COORDINATE SELECTION FINISH AND QUANTITY WITH OWNER. WET RATED WITH BATTERY
S	LITHONIA	HZL1D L48 3000LM FST MVOLT 35K 80CRI	-	-W LED	120V	STRIP LIGHT	LED STRIP LIGHT WITH DROP LENS AND UPLIGHT 2', 4' AND 8'
WP	LITHONIA	WPX1 LEDP2 40K MVOLT DDBXD	-	-W LED	120V	SURFACE MOUNTED	WET RATED WALL PACK COORDINATE SELECTION FINISH AND QUANTITY WITH OWNER.
WP/EM	LITHONIA	WPX1 LEDP2 40K MVOLT DDBXD / E4WH	-	-W LED	120V	SURFACE MOUNTED	WET RATED WALL PACK WITH BATTERY BACKUP. COORDINATE SELECTION FINISH AND QUANTITY WITH OWNER.
EL	LITHONIA	EU2C B HO M6	-	1.8W/LED	120/277V	WALL MOUNT	120V OR 277V AC. EMERGENCY UNIT PROVIDED WITH TEST SWITCH, STATUS INDICATOR AND RECHARGEABLE BATTERY. MAINTENANCE-FREE NICKEL-CADMIUM BATTERY PROVIDES 90 MINUTES OF EMERGENCY POWER.
EM/EX	LITHONIA	ELM6L UVOLT LTP SDRT	-	10.6W LED	120/277V	SUSPEND @ 12" AFF	120V OR 277V AC. EMERGENCY UNIT PROVIDED WITH TEST SWITCH, STATUS INDICATOR AND RECHARGEABLE BATTERY. MAINTENANCE-FREE NICKEL-CADMIUM BATTERY PROVIDES 90 MINUTES OF EMERGENCY POWER.
EX	LITHONIA	LHQM LED B R HO SD M6	-	2W/LED	120/277V	CEILING OR WALL MOUNT	EXIT SIGN WITH RED LETTERS. WHITE THERMOPLASTIC HOUSING. MAINTENANCE-FREE NI-CAD BATTERY PROVIDES 90 MINUTES OF EMERGENCY POWER.

- NOTES:**
 1. SUBSTITUTIONS WILL NOT BE PERMITTED WITHOUT APPROVAL FROM THE ENGINEER, FOURTEEN DAYS PRIOR TO BID DATE.
 2. VERIFY LIGHTING FIXTURE COLOR/FINISH WITH ARCHITECT PRIOR TO ORDERING.
 3. ADJUST MOUNTING HEIGHTS/LOCATIONS TO SUIT FIELD CONDITIONS.
 4. (2) LAMPS TO BE WIRED IN PARALLEL FOR EMERGENCY BALLAST.

ELECTRICAL SHEET INDEX

Sheet Number	Sheet Name
E001	ELECTRICAL GENERAL
E100	ELECTRICAL SPECIFICATIONS
E201	ELECTRICAL LIGHTING DEMO CEILING PLAN
E301	ELECTRICAL POWER DEMO FLOOR PLAN
E401	ELECTRICAL LIGHTING CEILING PLAN
E501	ELECTRICAL POWER PLAN
E701	ELECTRICAL SCHEDULES
E801	ELECTRICAL RISER DIAGRAM
E901	ELECTRICAL DETAILS

ELECTRICAL SYMBOL LEGEND

SWITCHES

WITH POWER PACKS

MANUAL/AUTOMATIC SWITCH. SWITCH HAS PUSHBUTTON OVERRIDE IF INDICATED. WEATHER-RESISTANT. RECESS MOUNT 48" AFF TO CENTER OF BACKBOX. "3" OR "4" INDICATES SWITCH IS WIRED FOR 3-WAY OR 4-WAY OPERATION. FOLLOW MANUFACTURER'S WIRING DIAGRAM FOR CONNECTION OF SWITCHES.

MANUAL ONLY SWITCH. PROVIDE DECORA TYPE FOR DWELLING UNITS AND FINISHED SPACES. COORDINATE WITH ARCHITECT.

"3" / "4" INDICATES THREE-WAY OR FOUR-WAY SWITCH FOR SYMBOLS ABOVE.

"2P" INDICATES A 2-POLE SWITCH.

CEILING FAN SPEED CONTROLLER AND LIGHTING DIMMER. COORDINATE WITH FAN MANUFACTURER REQUIREMENTS.

"D" INDICATES DIMMER SWITCH. COORDINATE REQUIREMENTS WITH LIGHT FIXTURE(S) TO BE DIMMED.

"K" INDICATES KEY SWITCH. PROVIDE OWNER WITH (2) KEYS PER SWITCH. MATCH ANY EXISTING KEYS. SWITCHES IF RENOVATION. VERIFY KEY TYPE (MANUFACTURER) WITH OWNER.

"M" INDICATES THE SWITCH SHALL BE MOTOR DUTY RATED.

"OS" INDICATES OCCUPANCY SENSOR SWITCH.

"TS" INDICATES INTERVAL TIMER SWITCH PROGRAMMED FOR 20 MINUTES MAXIMUM ALLOWED TIME.

"R" INDICATES DEVICE SHALL BE A RED COLOR. DEVICE IS CONNECTED TO A CIRCUIT FED FROM A GENERATOR (IF APPLICABLE).

LOWER CASE LETTER (i.e. "a") INDICATES THE FIXTURE(S) CONTROLLED BY THE SWITCH.

LIGHTING FIXTURES (REFER TO THE "LIGHTING FIXTURE SCHEDULE")

2' x 4' LIGHT FIXTURE (SEE LIGHT FIXTURE SCHEDULE)
 NOTE: THE FOLLOWING ABBREVIATIONS APPLY TO LIGHTING FIXTURES WHERE INDICATED.
 UPPER CASE LETTER/NUMBER (i.e. "A2") INDICATES FIXTURE TYPE.
 LOWER CASE LETTER (i.e. "b") INDICATES CONNECTION TO INDICATED SWITCH.
 NOTE: THE FOLLOWING ABBREVIATIONS APPLY TO LIGHTING FIXTURES WHERE INDICATED.
 "EM" INDICATES LIGHT FIXTURE WITH EMERGENCY BATTERY PACK.

DOWNLIGHT
 WALL SCENCE
 PENDANT
 EXIT SIGN WITH BATTERY PACK, MOUNTED WITHIN 6"-8" OF TOP OF OPENING PER NFPA 101-7.10.1.9. FACES AND ARROWS SHALL BE AS INDICATED ON PLANS. CONNECT FIXTURE TO LIGHTING CIRCUIT SERVING THE AREA. AHEAD OF ANY SWITCHING OR CONTROLS.
 EMERGENCY EGRESS LIGHTING UNIT WITH BATTERY PACK MOUNTED 7'-8" AFF. AS INDICATED. CONNECT FIXTURE TO LIGHTING CIRCUIT SERVING THE AREA. AHEAD OF ANY SWITCHING OR CONTROLS.
 EXIT SIGN AND EMERGENCY EGRESS LIGHTING COMBO UNIT WITH BATTERY PACK MOUNTED 7'-8" AFF. CONNECT FIXTURE TO LIGHTING CIRCUIT SERVING THE AREA. AHEAD OF ANY SWITCHING OR CONTROLS.
 PASSIVE INFRARED (PIR) OCCUPANCY SENSOR. 360°, 450 SQ. FT. COVERAGE. SENSOR SWITCH CM-10. CONNECT TO LOCAL POWER PACK.
 MULTI-TECHNOLOGY (PIR & ULTRASONIC) OCCUPANCY SENSOR. 360°, 1000 SQ. FT. COVERAGE. SENSOR SWITCH CM-PDT-10. CONNECT TO LOCAL POWER PACK.
 EXTERIOR PASSIVE INFRARED (PIR) OCCUPANCY SENSOR SBO-10-OEX. CONNECT TO LOCAL POWER PACK. PROVIDE BOX FOR CEILING MOUNTING.
 OCCUPANCY SENSOR POWER PACK. 20A @120/277VAC. PROVIDE QUANTITY AS NEEDED. SENSOR SWITCH PP-20-2P. CONNECT TO LOCAL OCCUPANCY SENSORS.
 LED POWER SUPPLY (TECLED MODEL: VBS-12060D024)

COMMUNICATIONS

1-GANG, DEEP BOX FOR TELEPHONE OUTLET. RECESS MOUNT 18" TO CENTER OF BACKBOX AFF. ABOVE COUNTER OR AS NOTED. INSTALL 3/4" CONDUIT WITH BUSHINGS AND PULL STRING STUBBED INTO ACCESSIBLE CEILING SPACE ABOVE BACKBOX. INSTALL BLANK COVERPLATE. NUMBER OF PHONE JACKS AS INDICATED OR INSTALL BLANK COVERPLATE. "W" INDICATES PHONE WILL BE WALL MOUNTED. MOUNT AT 48" AFF TO CENTER OF BACKBOX AND INSTALL WALL PHONE PLATE.

(2) GANG, DEEP BOX FOR DECORA STYLE DUPLEX RECEPTACLE AND TELEVISION OUTLET. COORDINATE MOUNTING HEIGHT AND LOCATION. INSTALL 3/4" CONDUIT FOR LOW VOLTAGE WIRING WITH BUSHINGS AND PULL STRING STUBBED INTO ACCESSIBLE CEILING SPACE ABOVE BACKBOX. INSTALL DECORA COVERPLATE.

1-GANG, DEEP BOX FOR TELEPHONE / DATA OUTLET. RECESS MOUNT 18" TO CENTER OF BACKBOX AFF. ABOVE COUNTER OR AS NOTED. INSTALL 3/4" CONDUIT WITH BUSHINGS AND PULL STRING STUBBED INTO ACCESSIBLE CEILING SPACE ABOVE BACKBOX. INSTALL BLANK COVERPLATE.

COAXIAL CABLE OUTLET. COORDINATE WITH LOW VOLTAGE PROVIDER.

CABINET. SEE PLANS AND SPECIFICATIONS FOR USAGE AND REQUIREMENTS.

MISCELLANEOUS

KEYED NOTE INDICATOR. REFER TO THE "KEYED NOTES" WHERE INDICATED.
 EXHAUST FAN.
 "R" SYMBOL INDICATES TO PROVIDE AND INSTALL 10 MINUTE TIME DELAY OFF RELAY. EXHAUST FAN SHALL OPERATE FOR 10 MINUTES AFTER LIGHTING SWITCH IS TURNED OFF. CONNECT HOT LEAD FROM AHEAD OF SWITCH TO RELAY FOR DELAYED OPERATION AND SWITCH LEG TO RELAY FOR NORMAL OPERATION.
 "T" SYMBOL INDICATES TO PROVIDE AND INSTALL 277V-120V TRANSFORMER. WATTAGE OF TRANSFORMER VA SHALL BE A MINIMUM 20% GREATER THAN EXHAUST FAN POWER REQUIREMENTS. COORDINATE WITH MECHANICAL CONTRACTOR.
 MOTORIZED DAMPER. PROVIDE POWER AND MAKE CONNECTIONS AS INDICATED. COORDINATE WITH MECHANICAL CONTRACTOR.
 CEILING MOUNTED SPEAKER LOCATIONS ON AV SYSTEM

ABBREVIATIONS

AFF HEIGHT ABOVE FINISHED FLOOR PH PHASE
 AFG HEIGHT ABOVE FINISHED GRADE REL RELOCATED
 ETR EXISTING TO REMAIN REM TO BE REMOVED
 EXT EXTERIOR TYPE WIRING DEVICE OR CIRCUIT BREAKER REP REPLACE WITH NEW
 TBR TO BE RELOCATED
 LTG LIGHTING U.N.O. UNLESS NOTED OTHERWISE
 MH MOUNTING HEIGHT VA VOLT AMPERE (POWER)
 MTR MOTOR WP WEATHERPROOF ENCLOSURE
 N.I.C. NOT IN CONTRACT XFMR TRANSFORMER
 NF NON-FUSED +48" DEVICE MOUNTED AT HEIGHT INDICATED

WIRING DEVICES

NOTE: THE FOLLOWING ABBREVIATIONS APPLY TO WIRING DEVICES WHERE INDICATED:
 "WP" INDICATES WHILE-IN-USE ENCLOSURE. ENCLOSURE SHALL HAVE LOCKABLE COVER. DEVICES SHALL BE LISTED AS WEATHER RESISTANT. (WR)
 "EWC" INDICATES DEVICE MOUNTED BEHIND ELECTRIC WATER COOLER ENCLOSURE. COORDINATE DEVICE LOCATION WITH PLUMBING CONTRACTOR AND APPROVED SHOP DRAWINGS PRIOR TO ROUGH-IN. CIRCUIT BREAKER SHALL BE GFCI TYPE. INDICATES HORIZONTALLY MOUNTED WIRING DEVICE.
 "H" INDICATES DEVICE SHALL BE A RED COLOR. DEVICE IS CONNECTED TO A CIRCUIT FED FROM THE GENERATOR (IF APPLICABLE).
 "FD" INDICATES RECEPTACLE MOUNTED IN FLOOR DUCT. INSTALL ACCESSORIES FOR MOUNTING OF RECEPTACLE IN FLOOR DUCT SYSTEM.
 "IG" ISOLATED GROUND
 "USB" UNDER-SINK RECEPTACLE WITH USB OUTLETS
 "20A" 20 AMP DUPLEX RECEPTACLE. RECESS MOUNT 18" AFF TO CENTER OF BACKBOX OR AT HEIGHT INDICATED.
 "20" 20 AMP DUPLEX RECEPTACLE. RECESS MOUNT 18" AFF TO CENTER OF BACKBOX.
 "20A" 20 AMP DUPLEX RECEPTACLE. RECESS MOUNT AT HEIGHT INDICATED OR ABOVE COUNTER, CASEWORK, ETC. COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL ELEVATIONS AND EXISTING CONDITIONS PRIOR TO ROUGH-IN.
 "AFCI" 20 AMP DUPLEX RECEPTACLE WITH ARC FAULT CIRCUIT INTERRUPTER (AFCI) PROTECTION. RECESS MOUNT AT HEIGHT INDICATED OR ABOVE COUNTER, CASEWORK, ETC. COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL ELEVATIONS AND EXISTING CONDITIONS PRIOR TO ROUGH-IN.
 "AFCI" 20 AMP DUPLEX RECEPTACLE WITH ARC FAULT CIRCUIT INTERRUPTER (AFCI) PROTECTION. RECESS MOUNT 18" AFF TO CENTER OF BACKBOX. 1 OF 2 RECEPTACLES IS SWITCHED. REMOVE JUMPER BETWEEN OUTLETS.
 "AFCI" 20 AMP DUPLEX RECEPTACLE WITH ARC FAULT CIRCUIT INTERRUPTER (AFCI) PROTECTION. RECESS MOUNT 18" AFF TO CENTER OF BACKBOX.
 "20" 20 AMP DOUBLE DUPLEX (QUAD) RECEPTACLE WITH COMMON COVER PLATE. RECESS MOUNT 18" AFF TO CENTER OF BACKBOX.
 "20" 20 AMP DOUBLE DUPLEX (QUAD) RECEPTACLE WITH COMMON COVER PLATE. RECESS MOUNT ABOVE COUNTER, CASEWORK, ETC OR AT HEIGHT INDICATED. COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL ELEVATIONS AND CONDITIONS PRIOR TO ROUGH-IN.
 "20" 20 AMP DUPLEX RECEPTACLE. RECESS MOUNT 18" AFF TO CENTER OF BACKBOX. 1 OF 2 RECEPTACLES IS SWITCHED. REMOVE JUMPER BETWEEN OUTLETS.
 "20" 20 AMP DUPLEX RECEPTACLE. RECESS FLUSH WITH FLOOR IN SINGLE GANG FLOOR BOX. COVER SHALL BE BRASS WITH HINGED LID FOR EACH OUTLET OF RECEPTACLE.
 "20" 20 AMP DOUBLE DUPLEX (QUAD) RECEPTACLE. RECESS FLUSH WITH FLOOR IN DOUBLE GANG FLOOR BOX. COVER SHALL BE BRASS WITH HINGED LID FOR EACH OUTLET OF RECEPTACLES.
 "GFI" 20A SIMPLEX RECEPTACLE WITH GFCI PROTECTION MOUNTED AT HEIGHT OR AS INDICATED. VERIFY RATING AND NEMA CONFIGURATION FOR EQUIPMENT TO BE CONNECTED.
 "GFI" 20 AMP DUPLEX RECEPTACLE WITH GFCI PROTECTION. RECESS MOUNT 18" AFF TO CENTER OF BACKBOX.
 "GFI" 20 AMP DUPLEX RECEPTACLE WITH GFCI PROTECTION. RECESS MOUNT ABOVE SINK, COUNTER, CASEWORK, ETC. OR AT HEIGHT INDICATED. COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL ELEVATIONS AND CONDITIONS PRIOR TO ROUGH-IN.
 "GFI" 20 AMP DOUBLE DUPLEX (QUAD) RECEPTACLE WITH GFCI PROTECTION AND COMMON COVER PLATE. RECESS MOUNT 18" AFF TO CENTER OF BACKBOX.
 "MULTI" MULTI-POLE RECEPTACLE FOR APPLIANCE MOUNTED AS INDICATED. COORDINATE AMPERAGE RATING, POLES, NEMA CONFIGURATION, ETC. WITH EQUIPMENT TO BE CONNECTED.
 "20" 20 AMP DUPLEX RECEPTACLE. RECESS MOUNT HORIZONTALLY AT HEIGHT INDICATED.
 "20" 20 AMP DUPLEX RECEPTACLE MOUNTED 18" AFF. ABOVE COUNTER, OR AT HEIGHT INDICATED. INDICATES RECEPTACLE COORDINATED WITH DATA OUTLET FOR COMPUTER USE.
 "20" 20 AMP DOUBLE DUPLEX (QUAD) RECEPTACLE MOUNTED 18" AFF. ABOVE COUNTER, OR AT HEIGHT INDICATED. INDICATES RECEPTACLE COORDINATED WITH DATA OUTLET FOR COMPUTER USE.
 "2" 2-SECTION (POWER AND COMMUNICATIONS), 2" SQUARE METALLIC, BRUSHED ALUMINUM FINISH. DEVICES MOUNTED AT POLE AS SHOWN. POLE SHALL EXTEND FROM FLOOR TO CEILING. SECURE TO CEILING.
 "20" 20 AMP DUPLEX RECEPTACLE. FLUSH MOUNT AT CEILING. SUPPORT BACKBOX FROM STRUCTURE, NOT GRID.
 "2" 2-SECTION FLOOR BOX WITH DUPLEX RECEPTACLE AND DATA SECTION. FLOOR BOX SHALL BE FLUSH WITH FLOOR WITH CARPET/TILE PLATE AND TRAP DOOR FOR WIRING OUT OF BOX.
 "J" JUNCTION BOX. FAN RATED IN DWELLING UNITS.
 "DC" DROP CORD. RECEPTACLE AND BOX SUSPENDED FROM JUNCTION BOX AT CEILING WITH S/O CORD. PROVIDE STRAIN RELIEF AT EACH END OF CORD. RECEPTACLE SHALL BE TYPE OF DEVICE SHOWN.
 "PLUG" PLUGMOLD WITH RECEPTACLES 12" ON-CENTER. PLUGMOLD SHALL BE NON-METALLIC, 2-PIECE. MOUNT AS INDICATED. VERIFY COLOR OF FINISH.
POWER DISTRIBUTION (REFER TO THE "ELECTRICAL RISER DIAGRAM")
 "P" PANELBOARD. RECESS MOUNT IN FINISHED SPACES. SURFACE MOUNT IN BACK OF HOUSE. REFER TO THE "PANELBOARD SCHEDULE".
 "F" FEEDER OR BRANCH CIRCUIT RACEWAY CONCEALED IN WALL, CEILING.
 "F" FEEDER OR BRANCH CIRCUIT RACEWAY CONCEALED UNDER FLOOR, IN SLAB OR BELOW GRADE.
 "DIS" DISCONNECT SWITCH. PROVIDE DISCONNECT SWITCH AS INDICATED ON THE SCHEDULES. REFER TO PLANS AND SCHEDULES FOR ADDITIONAL REQUIREMENTS. FUSES SHALL BE DUAL ELEMENT TIME DELAY. VERIFY NAMEPLATE. RATINGS OF FRAME SIZE AND FUSING OF THE ACTUAL EQUIPMENT TO BE INSTALLED.
 "D" DRY-TYPE VENTILATED TRANSFORMER. SEE SPECIFICATIONS, PLANS AND RISER FOR REQUIREMENTS. TRANSFORMERS SHALL BE NEMA 1 UNLESS AT THE EXTERIOR OR IN AREAS WHERE WATER MAY BE PRESENT. MOUNT ON 4" HOLES KEEPING PAD BOLTED TO PAD. MAINTAIN REQUIRED CLEARANCE FROM WALLS OR OBSTRUCTIONS FOR VENTILATION.
 "G" GROUND TO METAL FRAME OF BUILDING, SLAB STEEL, OTHER MADE ELECTRODES, AND METAL UNDERGROUND WATER PIPE. PROVIDE A MINIMUM OF (3) 5/8" DIA, 10 FOOT LONG COPPER CLAD GROUND RODS LOCATED AT LEAST 6 FEET APART. ALL CONCEALED CONNECTIONS SHALL BE EXOTHERMICALLY WELDED. INTERIOR GROUND RODS SHALL STUB ABOVE FLOOR AT LOCATIONS NOT INTERFERING WITH FOOT TRAFFIC. LOCATE EXTERIOR GROUND ROD ASSEMBLY IN LANDSCAPE AREA OR PROVIDE WELL FOR ACCESS TO EACH GROUND ROD IF ASSEMBLY IS LOCATED IN HARD SURFACE AREAS, SUCH AS CONCRETE, ASPHALT, ETC. PROVIDE BOLTED PRESSURE CLAMP WITH AT LEAST TWO BOLTS ON RODS IN TEST WELLS. ALL GROUND ROD LOCATIONS SHALL BE ACCESSIBLE.
 "VFD" VARIABLE FREQUENCY DRIVE. REFER TO SPECIFICATIONS, AND FLOOR PLANS FOR ADDITIONAL ELECTRICAL REQUIREMENTS. VFD SUPPLIED BY MECHANICAL CONTRACTOR (U.N.O.) AND INSTALLED BY ELECTRICAL CONTRACTOR. ALL CONNECTIONS TO VFD, DISCONNECT AND EQUIPMENT SERVED SHALL BE BY THE ELECTRICAL CONTRACTOR. CIRCUIT SHALL UTILIZE METAL CONDUIT TO MINIMIZE RFI NOISE.
 "M" COMBINATION MOTOR STARTER WITH FUSED DISCONNECT OR CIRCUIT BREAKER DISCONNECT. REFER TO PLANS AND SCHEDULES FOR ADDITIONAL REQUIREMENTS. FUSES SHALL BE DUAL ELEMENT TIME DELAY. VERIFY NAMEPLATE RATINGS OF FRAME SIZE AND FUSING OF THE ACTUAL EQUIPMENT TO BE INSTALLED.
 "LP-1" PANEL HOMERUN/CIRCUIT
 "P" PANEL DESIGNATION/CIRCUIT NUMBER
 NOTE: NOT ALL SYMBOLS SHOWN ON LEGEND ARE USED ON FLOOR PLANS.

GENERAL NOTES

- **GENERAL NOTES APPLY TO ALL ELECTRICAL SHEETS****
- DO NOT SCALE FROM THESE DRAWINGS.
 - ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE 2020 EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) NFPA 70.
 - ELECTRICAL CONTRACTOR (E.C.) SHALL COORDINATE WORK WITH ALL OTHER TRADES TO ASSURE PROPER CLEARANCES FOR EQUIPMENT AND TO KEEP THE JOB PROGRESSING.
 - DRAWINGS ARE BASED ON FIELD OBSERVATION AND EXISTING DOCUMENTS. REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE DISTURBING EXISTING INSTALLATION.
 - EXISTING TO REMAIN ELECTRICAL CIRCUITRY DOWNSTREAM AND UPSTREAM OF DEMOLISHED DEVICES SHALL BE MAINTAINED. E.C. SHALL PROVIDE ALL ELECTRICAL COMPONENTS (BOXES, CONDUIT, WIRING, ETC.) AS REQUIRED.
 - ELECTRICAL CONTRACTOR SHALL BE REQUIRED TO CUT, CAPTURE AND EXTEND OR RE-ROUTE EXISTING CONDUITS AND CONDUCTORS AS REQUIRED TO ACCOMMODATE NEW DUCTWORK. COORDINATE WITH MECHANICAL CONTRACTOR AS REQUIRED.
 - REFER TO MECHANICAL DRAWINGS FOR EQUIPMENT NEEDING ELECTRICAL CONNECTIONS (MOTORS, FANS, PUMPS, ETC.). MAKE ALL CONNECTIONS AND PROVIDE APPROPRIATE WIRE, CONDUIT, AND OVERCURRENT PROTECTION FOR ALL EQUIPMENT. INSTALL ANY ELECTRICAL EQUIPMENT (STARTERS, RELAYS, VFD'S, ETC.) FURNISHED BY MECHANICAL CONTRACTOR (DIV 15). COORDINATE EXACT REQUIREMENTS WITH MECHANICAL CONTRACTOR.
 - VOLTAGE DROP: THE CONDUCTORS FOR FEEDERS AND BRANCH CIRCUITS COMBINED SHALL BE SIZED FOR A MAXIMUM OF 5% VOLTAGE DROP TOTAL PER FBC-ENERGY C405.5.3. USE 10 AWG CU. CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS LONGER THAN 75 FEET. USE 10 AWG CU. WHERE WIRE SIZE IS INCREASED IN SIZE FOR VOLTAGE DROP, E.G SHALL BE INCREASED PROPORTIONATELY. PER NEC 250.122 (B).
 - ALL CEILING MOUNTED ITEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. IF LOCATION FOR AN ITEM IS NOT SHOWN ON THE ARCHITECTURAL REFLECTED CEILING PLANS, VERIFY THE EXACT LOCATION OF THE ITEM WITH THE ARCHITECT PRIOR TO INSTALLATION.
 - WHERE DISCONNECTING MEANS IS NOT PROVIDED "WITHIN SIGHT" FROM EQUIPMENT SERVED, THE OVERCURRENT DEVICE SERVING SUCH EQUIPMENT SHALL HAVE PERMANENT PROVISION TO LOCK IN THE OPEN POSITION PER NEC 422.31 AND 110.25.
 - CONDUIT RUNS SHOWN ARE DIAGRAMMATIC IN NATURE. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING AND LOCATING PULL BOXES PER NEC.
 - CONNECT EXIT SIGNS AND EGRESS LIGHTS TO LOCAL LIGHTING CIRCUIT AHEAD OF ANY SWITCHING PER NEC 700.12(1).
 - RECEPTACLES IN MECHANICAL ROOMS, ELECTRICAL ROOMS, STORAGE ROOMS, AND JANITOR CLOSETS SHALL BE G.F.C.I. TYPE MOUNTED AT 48" A.F.F.
 - PROVIDE REVISED PHOTOMETRICS FOR ANY SUBSTITUTE FIXTURES.

CONDUIT AND CONDUCTOR SCHEDULE

C.B.	POLES	WIRE SIZE (TYPE THW)	CONDUIT	PHASE
20A	1	2-#12, 1-#12 E.G.	3/4"	1-2W
	2	2-#12, 1-#12 E.G.	1-2W	1-2W
	3	3-#12, 1-#12 E.G.	3-4W	3-4W
25A	1	2-#10, 1-#10 E.G.	3/4"	1-2W
	2	2-#10, 1-#10 E.G.	1-2W	1-2W
	3	3-#10, 1-#10 E.G.	3-4W	3-4W
30A	1	2-#10, 1-#10 E.G.	3/4"	1-2W
	2	2-#10, 1-#10 E.G.	1-2W	1-2W
	3	3-#10, 1-#10 E.G.	3-4W	3-4W
35A	1	3-#8, 1-#8 E.G.	1"	3-4W
	2	2-#8, 1-#8 E.G.	1-2W	1-2W
	3	3-#8, 1-#8 E.G.	3-4W	3-4W
40A	1	3-#8, 1-#8 E.G.	1"	3-4W
	2	2-#8, 1-#8 E.G.	1-2W	1-2W
	3	3-#8, 1-#8 E.G.	3-4W	3-4W
45A	1	3-#8, 1-#8 E.G.	1"	3-4W
	2	2-#8, 1-#8 E.G.	1-2W	1-2W
	3	3-#8, 1-#8 E.G.	3-4W	3-4W
50A	1	3-#8, 1-#8 E.G.	1"	3-4W
	2	2-#8, 1-#8 E.G.	1-2W	1-2W
	3	3-#8, 1-#8 E.G.	3-4W	3-4W
60A	1	3-#6, 1-#6 E.G.	1 1/4"	3-4W
	2	2-#4, 1-#6 E.G.	1"	1-2W
	3	3-#6, 1-#6 E.G.	3-4W	3-4W
70A	1	3-#4, 1-#6 E.G.	1 1/4"	3-4W
	2	2-#4, 1-#6 E.G.	1"	1-2W
	3	3-#4, 1-#4 N, 1-#8 E.G.	3-4W	3-4W
80A	1	2-#4, 1-#6 E.G.	1"	1-2W
	2	2-#4, 1-#6 E.G.	1-2W	1-2W
	3	3-#4, 1-#4 N, 1-#8 E.G.	3-4W	3-4W
90A	1	2-#3, 1-#6 E.G.	1 1/4"	3-4W
	2	2-#3, 1-#6 E.G.	1-2W	1-2W
	3	3-#3, 1-#6 E.G.	3-4W	3-4W
100A	1	2-#3, 1-#6 E.G.	1 1/4"	1-2W
	2	2-#3, 1-#6 E.G.	1-2W	1-2W
	3	3-#3, 1-#3 N, 1-#8 E.G.	3-4W	3-4W

- NOTES:**
- ALL CONDUCTORS SHALL BE COPPER
 - ALL CONDUIT SHALL HAVE EQUIPMENT GROUNDING CONDUCTOR INSTALLED.
 - CONDUIT BELOW GRADE OUTSIDE OF BUILDING SHALL BE 1" MINIMUM.
 - SIZING OF CONDUCTORS SHALL BE ALTERED FOR DERATING PER N.E.C. OR VOLTAGE DROP CONSIDERATIONS.
 - SEE RISER DIAGRAM FOR SIZING OF CIRCUITS GREATER THAN 100A.
 - USE #10 AWG. COPPER CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS LONGER THAN 75 FEET. USE #10 AWG. COPPER CONDUCTORS FOR 20 AMPERE, 277 VOLT BRANCH CIRCUITS LONGER THAN 200 FEET. WHERE WIRE SIZE IS INCREASED IN SIZE FOR VOLTAGE DROP, EQUIPMENT GROUND SHALL BE INCREASED PROPORTIONATELY PER NEC 250.122 (B).
 - WHERE MC CABLE IS ALLOWED BY THE AUTHORITY HAVING JURISDICTION, THE CONDUCTORS FOR MC CABLES SHALL BE THIN. JACKET SHALL BE THE MANUFACTURER'S STANDARD SIZE FOR CONDUCTORS UTILIZED.

SPECIAL INFORMATIONAL NOTE:

THIS DRAWING PREPARED FOR TENANT IMPROVEMENTS TO AN EXISTING BUILDING OR BUILDING CONSTRUCTED BY OTHERS

IT IS UNDERSTOOD THAT ANY WARRANTY INFORMATION CONCERNING EQUIPMENT INSTALLED MUST BE FORWARDED TO THE OWNER AND THAT ANY AND ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

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GMA ARCHITECTS PLANNERS

BUILDING REMODEL FOR:
GOODWILL NAPLES - REGIONS BANK
 12621 Tamiami Trl E,
 Naples, FL 34113

ELECTRICAL GENERAL

ISSUE HISTORY

DATE	DESCRIPTION	BY
12/24/25	PERMIT SET	

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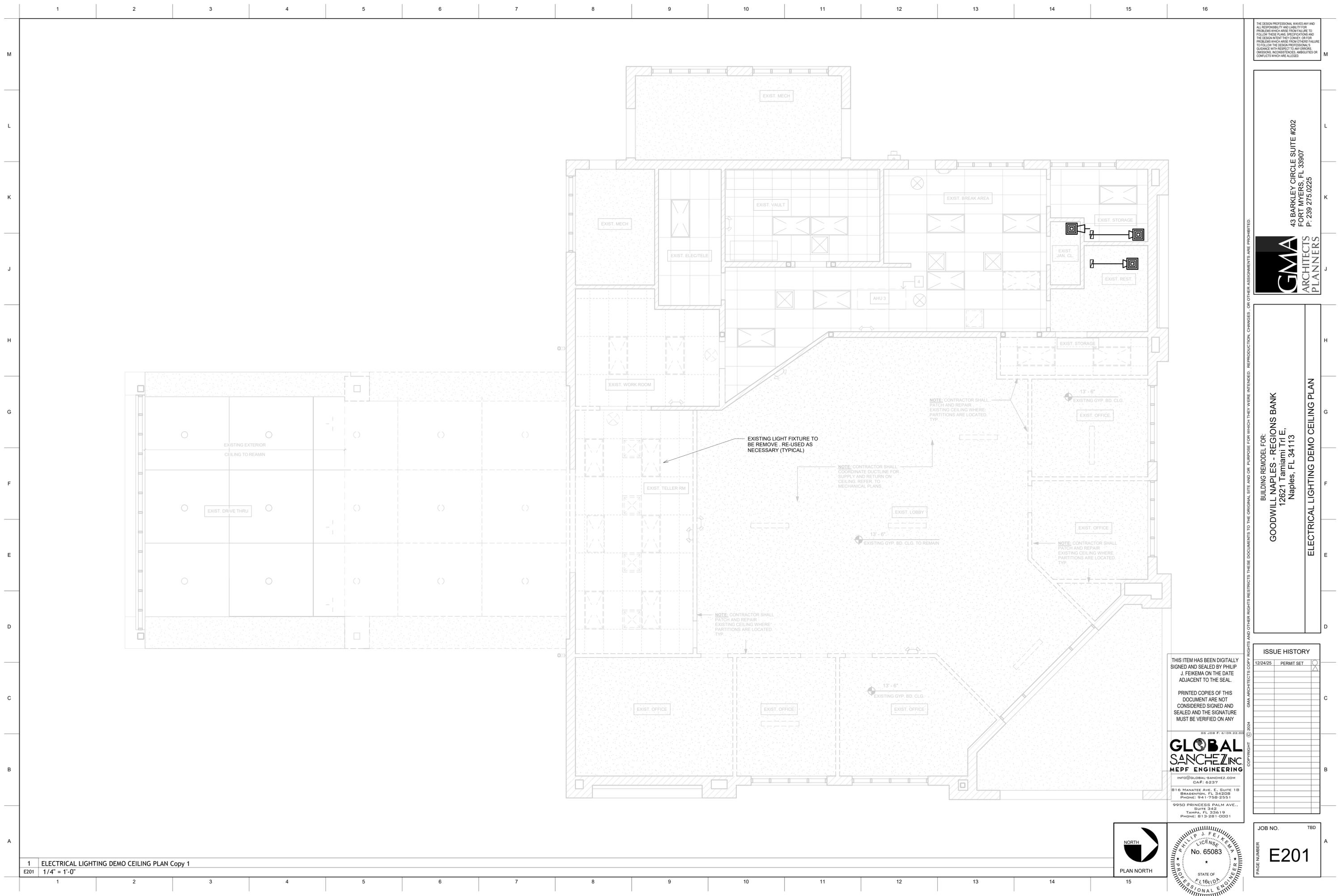
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ELECTRICAL LIGHTING DEMO CEILING PLAN

ISSUE HISTORY

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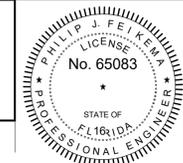
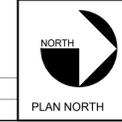
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