SEMCO EMERGENCY OPERATIONS CENTER

BUILD OUT PORT HURON, MICHIGAN

OWNER/PROPRIETOR

SEMCO ENERGY GAS COMPANY 1411 THIRD STREET PORT HURON, MICHIGAN 48061 MICHAEL CLYNE PHONE 810 887 3020

ARCHITECT

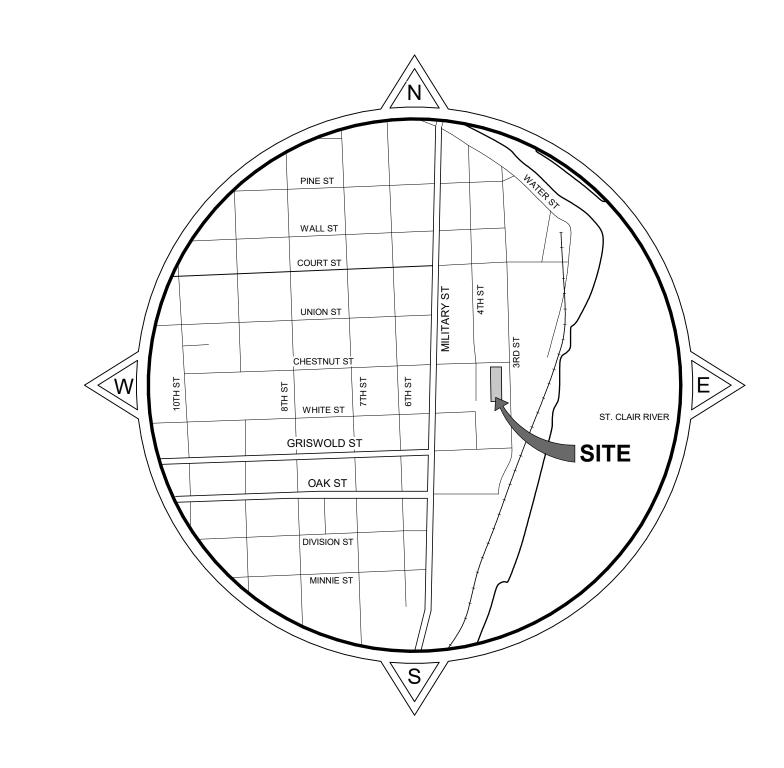
ANDERSON, ECKSTEIN AND WESTRICK, INC. 51301 SCHOENHERR ROAD SHELBY TOWNSHIP, MICHIGAN 48315 JASON ARLOW PHONE 586-726-1234

MECHANICAL/PLUMBING

KAISER CONSULTING, LLC
16577 EDINBURGH
CLINTON TOWNSHIP, MICHIGAN 48038
MICHAEL KAISER
PHONE 586 709 6813

ELECTRICAL

FSA ENGINEERING, LLC 3449 BREEZE POINTE CT LINDEN, MICHIGAN 48451 FARES ADBDALLAH PHONE 810 394 1379



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I HEREBY CERTIFY THAT I HAVE READ THE TOWNSHIP'S LAND DEVELOPMENT ORDINACE (AND ITS RELATED ENGINEERING AND CONSTRUCTION STANDARD), AND I HAVE PREPARED THESE PLANS IN CONFORMITY WITH THE REQUIREMENTS OF SAID ORDINACE

ANDERSON, ECKSTEIN AND WESTRICK, INC

CIVIL ENGINEERS, LAND SURVEYORS, ARCHITECTS SHELBY TOWNSHIP, MICHIGAN

ABBREVIATIONS

NOTE: NOT ALL ABBREVIATIONS USED. ABBREVIATIONS INCLUDE BUT NOT LIMITED TO THIS LIST. ABOVE FINISH FLOOR LEFT HAND REVERSE MANUFACTURER ACCOM ACCOMMODATE MAX ACCORD ACCORDANCE MAXIMUM MECHANICAL A.C.P. ACOUSTICAL PANEL MECH. MECHANICAL CONTRACT (OR) ACOUS ACOUSTICAL MECHANICAL, PLUMBING, ELECTRICAL M.P.E. ACCESS DOOF MET AI TERNATE METAI MINIMUM ALUM. ALUMINUM MIN MISC MISCELLANEOUS ARCH **ARCHITECT** N/A NOT APPLICABLE BFARING NOT IN CONTRACT **BEARING PLATE** NTS NOT TO SCALE NOISE REDUCTION COEFFICIENT **BITUMINOUS** NO OR# NUMBER ON CENTER BOTT воттом **OPPOSITE OUTSIDE DIAMETER** BRACKET BLDG BUILDINGS OVERHEAD PLAS. CABINET PLASTIC CLG. PLATE CEILING CL CIRC CENTER LINE **PLYWD** PLYWOOD CIRCUI ATION **POLYETHYLENE** POUNDS PER SQ. INCH CLO COL CLOSET COLUMN POUNDS PER SQ FOOT PVC RWC COMP COMPUTER POLYVINYL CHLORIDE CONC. RAIN WATER CONDUCTOR CONCRETE CMU CONF. CONCRETE MASONRY UNIT RECPT RECEPTION CONFERENCE RECESSED CONST CONSTRUCTION REF. REFLECTED CONTINUOUS REINF REINFORCING COORD COORDINATE RE-BAR REINFORCING BARS COAT RACK REPRESENTATIVE CRS REQ COURSES REQUIRED DEMO DEMOLISH, DEMOLITION ROOF FAN RECESSED FLOOR MAT DIAMETER DIMENSION RIGHT HAND RHR DIV RIGHT HAND REVERSE DIVISION DOOR ROW RIGHT OF WAY ROOF DRAIN DOWN DOWN SPOUT ROOM ROUGH OPENING ELEC ELECTRICAL ELECTRICAL WATER COOLER SCHED. SCHEDULE SIM. SPEC ELECTRICAL CONTRACTOR SIMII AR **SPECIFICATION** ELEV. ELEVATION, ELEVATOR ENGINEER **SPRINKLER** STAINLESS STEE STD STANDARD EXPANSION, EXPOSED **EXPANSION JOINT** STEEL JOIST STEEL STUD EXTERIOR STL STD **EXHAUST FAN** STORAGE STRUCTURE FABRIC WALL COVERING STRUCT. STR STL STRUCTURAL STEEL FIELD VERIFY F.R.P. FIBERGLASS REINFORCED PANEL SUSPENDED SUSP. SYS SYSTEM FINISHED FLOOR **TELEPHONE** TEL TEMP. FIRE EXTINGUISHER TEMPERED FIRE EXTINGUISHER CABINET TEMPERED GLAZED FLOOR TONGUE AND GROOVE FLOOR DRAIN TOC TOF TOP OF CURB FTG FOOTING TOP OF FOOTER TOS TOW GAGE, GAUGE TOP OF STEEL GALVANIZED TOP OF WALL GENERAL CONTRACTOR TOP OF MASONRY GYPSUM DRYWALL (WALLBOARD) TYP. GWB TYPE-X (FIRE RESISTIVE UNLESS NOTED OTHERWISE CLASSIFICATION) VAPOR BARRIER HANDICAP **HVAC** HEATING, VENTILATION, AND AIR VERIFY IN FIELD CONDITIONING VERTICAL HT. / HGT. VCT VINYL COMPOSITE TILE HEIGHT HOLLOW METAL STEEL VWB VWC WAIT H.M. VINYL WALL BASE HOR VINYL WALL COVERING HORIZONTAI INSIDE DIAMETER WAITING WATER CLOSET INCHES JOINT WEIGHT WELDED WIRE FABRIC WWF KIPS PER SQUARE FOOT WITH OUT LIN FT LINEAR FOOT WD. WOOD

THERMAL AND MOISTURE PROTECTION

CAULK DOOR AND WINDOW FRAMES AT MASONRY WALLS. CAULK COMPOUND SHALL BE AN ELASTIC, WATERPROOF ADHESIVE FROM AN APPROVED MANUFACTURER. COLOR SELECTION

GENERAL DEMOLITION NOTES

- REMOVE ALL ABANDONED MISC. HARDWARE, ACCESSORIES, SUPPORTS, BRACKETS, ANCHORS ETC. IN AREAS OF DEMOLITION (TYPICAL).
- REMOVE ALL ABANDONED WIRING, CABLES, RACEWAYS, SWITCHES AND OUTLETS AS REQUIRED.
- CUT AND CAP ALL ABANDONED PLUMBING BEHIND WALL. OR BELOW FLOOR.
- REMOVE ALL MISC. ATTACHMENTS THAT INTERFERE WITH NEW CONSTRUCTION OR AS SHOWN ON PLANS.
- OWNER HAS FIRST SALVAGE RIGHTS ON ALL ITEMS AND EQUIPMENT, VERIFY SALVAGE OF ITEMS AND EQUIPMENT WITH OWNER.
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE DEMOLITION AND/OR CONSTRUCTION. CONTRACTOR SHALL COORDINATE DEMOLITION AND CONSTRUCTION TO COMPLETE WORK AS DEFINED ON PLAN, ELEVATIONS AND DETAILS.
- COORDINATE ALL DIMENSIONS WITH PROPOSED CONSTRUCTION.
- CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES DURING DEMOLITION & CONSTRUCTION. (WATER, SEWER, ELECTRICAL, GAS) VERIFY ALL EXISTING LOCATIONS.
- CONTRACTOR SHALL PROTECT ALL BUILDING ELEMENTS DURING CONSTRUCTION, RESTORE AS
- ELEMENTS LABELED AS EXISTING ARE TO REMAIN UNLESS NOTED OTHERWISE
- DASHED LINES INDICATE ITEMS TO BE REMOVED AS NOTED.
- REMOVE ALL EXISTING ELECTRICAL LIGHTING FIXTURES AS INDICATED ON PLAN OR THAT INTERFERE
- REMOVE ALL EXISTING OUTLETS, SWITCHES AND COVER PLATES AS SHOWN ON PLANS OR THAT INTERFERE WITH CONSTRUCTION.
- REMOVE ALL MECHANICAL GRILLES, LOUVERS AND DIFFUSERS AS SHOWN ON PLAN OR THAT INTERFERE WITH CONSTRUCTION.
- COORDINATE AND VERIFY ALL DEMOLITION DIMENSIONS WITH ARCHITECTURAL DIMENSIONS.
- COORDINATE ALL DEMOLITION WITH MECHANICAL AND ELECTRICAL. TRADES.
- CONTRACTOR SHALL REMOVE ALL ITEMS (ATTACHED OR OTHERWISE) WHICH REQUIRE REMOVAL OR ARE AFFECTED BY THE PROPOSED NEW CONSTRUCTION. THE CONTRACTOR SHALL FAMILIARIZE WITH THE EXISTING CONDITIONS AND SHALL COMPLETE ALL REQUIRED DEMOLITION (REGARDLESS WEATHER EACH INDIVIDUAL ITEM HAS BEEN IDENTIFIED).
- THE CONTRACTOR SHALL LEVEL / ADJUST SUBFLOOR AND OR CONCRETE FLOOR SLAB AS REQUIRED FOR FLOOR FINISH.

GENERAL NOTES

- 1. THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS, FEES AND INSPECTIONS.
- ALL CONTRACTORS SHALL COORDINATE THE LOCATION OF DUCTS, PIPING, BOXES, CHASES, CONDUITS, ETC... .WITH THE MECHANICAL, ELECTRICAL AND ALL OTHER TRADES.
- SEAL/MORTAR ALL OPENINGS AROUND PIPES, CONDUITS, ETC.... WHICH PASS THROUGH FLOORS
- CAULK ALL JOINTS BETWEEN DOOR FRAMES, WINDOW FRAMES, MASONRY WALLS AND ALL DISSIMILAR MATERIALS.
- PROVIDE ALL NECESSARY BLOCKING AS REQUIRED TO SUPPORT LIGHTING, SIGNS, BRACKETS. ACCESSORIES, ETC...
- ALL DIMENSIONS ARE FROM FACE OF STUD TO FACE OF STUD.
- ALL ITEMS NOTED "BY OWNER" OR "N.I.C." ARE NOT IN CONTRACT.
- CONTRACTOR TO INSTALL ONLY TYPE "X" FIRECODE GYPSUM BOARD BOTH SIDES OF STUD WALL FULL HEIGHT OF PARTITION TO UNDERSIDE OF STRUCTURE (TIGHT) AT RATED WALLS IE. STORAGE ROOM AND ELEC. / MECHANICAL
- CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS EXISTING AND PROPOSED ON THE JOB. REPORT ALL DEVIATIONS FROM DRAWINGS PRIOR TO START OF CONSTRUCTION.
- ALL CONTRACTORS SHALL CONSTRUCT THIS PROJECT IN ACCORDANCE WITH ALL STATE, FEDERAL AND LOCAL CODES.
- ALL CONTRACTORS SHALL REPAIR ANY DAMAGES OR DISTURBANCES TO THE EXISTING BUILDING
- AND SITE. PATCH / REPAIR AND PAINT ANY WALLS DISTURBED FROM DEMOLITION.
- 12. ALL WOOD AND MISC. BLOCKING MUST BE NON-COMBUSTIBLE MATERIAL.
- ALL INTERIOR CONTROL JOINTS SHALL BE CONSTRUCTED AT 20'-0" O.C. MAXIMUM UNLESS NOTED
- ALL MATERIALS USED ARE REQUIRED TO BE OF GOOD QUALITY AND MEET OR EXCEED ALL APPLICABLE INDUSTRY STANDARDS.
- ALL WORK IS TO BE DONE WITH THE APPROPRIATE TOOLS AND MATERIALS. THE ARCHITECT HAS THE RIGHT TO REJECT ANY WORK NOT DONE APPROPRIATELY.
- REMOVE ALL TRASH AND DEBRIS FROM THE SITE. WASH ALL SURFACES DUST AND SWEEP TO REMOVE ALL DIRT. REMOVE ALL TEMPORARY LABELS.
- REPLACE ALL CONCRETE FLOOR WHICH WAS REMOVED AND OR DAMAGED FOR / DURING
- CONSTRUCTION. PREPARATION FOR FLOOR FINISH.
- ALL CONTRACTORS AND SUBCONTRACTORS SHALL PROVIDE ALL WORK SHOWN IN ANY PART OF THE DOCUMENTS, I.E. HAND DRYER SHOWN ON ARCHITECTURAL DRAWINGS MUST BE WIRED BY THE ELECTRICIAN WHETHER IT IS OR IS NOT SHOWN ON THE ELECTRICAL DRAWINGS.
- THE GENERAL CONTRACTOR SHALL PROVIDE A MIN. 1 YEAR (U.N.O.) WARRANTY ON ALL MATERIAL, EQUIPMENT AND WORK PERFORMED.
- ALL RATED WALLS TO BE UL IISTED PARTITITONS TIGHT TO METAL DECKING. FIRE CAULK ALL WALL PENETRATIONS AND FILL ALL VOIDS WITH FIRE SAFING BETWEEEN TOP OF WALL AND DECKING AS REQUIRED. SEE LIFE SAFETY PLAN AND UL LISTINGS.
- PROVIDE FIRE DAMPER IN ALL DUCT WALL THAT PENETRATE RATED WALLS, FLOORS, SHAFTS

2015 MICHIGAN BUILDING CODE

ALL ITEMS REFERENCE 2015 MICHIGAN BUILDING CODE UNLESS NOTED OTHERWISE USE GROUP (SECTION 302)

TYPE OF CONSTRUCTION (SECTION 601) EXISTING TO REMAIN

EXISTING TO REMAIN (4,589 S.F.)

BUILDING HEIGHT (SECTION 503)

ALLOWABLE HEIGHT (TABLE 504.3 AND 504.4) 'B' BUSINESS EXISTING TO REMAIN

OCCUPANT LOAD (TABLE 1004.1.2)

100 GROSS 4,589 S.F./100 = 46 TOTAL

1 PER 75 = 1 REQUIRED

1 PER 40 = 1 REQUIRED

2 REQUIRED, 3 PROVIDED

REQUIRED PLUMBING FIXTURES (MICHIGAN PLUBMING CODE TABLE 403.1) BUSINESS 1 PER 75 = 1 REQUIRED

WOMEN

2 REQUIRED, 3 UNISEX PROVIDED

1 PER 100 = 1 REQUIRED 1 REQUIRED, 1 PROVIDED

1 REQUIRED, 1 EXISTING PROVIDED

NUMBER OF EXITS (TABLE 1006.3.1) BUSINESS = 1 REQUIRED, 3 PROVIDED

FIRE RESISTANCE RATING REQUIRE'MTS FOR BUILDING ELEMENTS (TABLE 601)

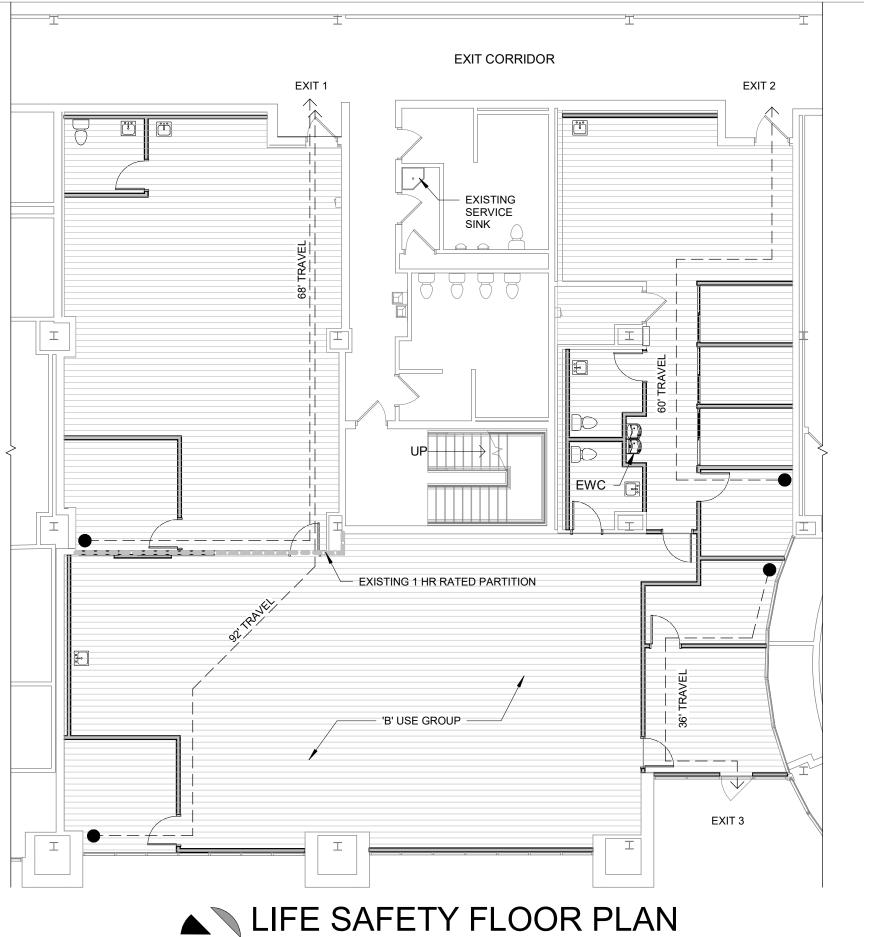
STRUCTURAL FRAME - 0 **BEARING WALLS** EXTERIOR INTERIOR NONBEARING WALLS (EXTERIOR/INTERIOR) - 0 FLOOR CONSTRUCTION - 0

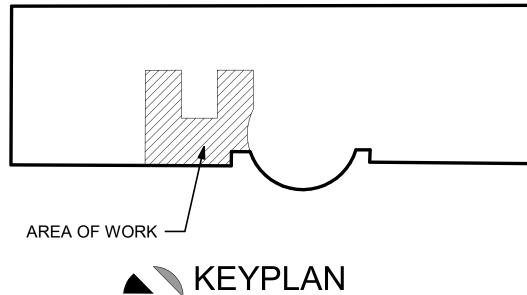
<u>DEAD-END CORRIDORS (SECTION 1020.4)</u> - NONE, MAXIMUM LENGTH (20'-0")

EXIT WIDTH (TABLE 1020.2) MINIMUM 36", 60" PROVIDED

ROOF CONSTRUCTION - 0

EXIST TRAVEL DISTANCE (TABLE 1017.2) MAXIMUM 300' (WITH SPRINKLER SYSTEM), 92' PROVIDED







AREA OF WORK LEGEND

PROJECT NO.

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Phone 586 726 1234

BID ISSUE

75% OWNER REVIEW

DD OWNER REVIEW

SUBMITTALS/REVISIONS

SEMCO

OPERATIONS

CENTER

GENERAL PROJECT

INFORMATION

SEMCO ENERGY GAS COMPANY

CHECKED BY:

AS NOTED

UTILITY INFORMATION, AS SHOWN, INDICATES

COMPLETENESS OR ACCURACY THEREOF

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DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

1584-0003

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EMERGENC

12/06/2024

11/11/2024

08/05/2024

DATE

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Fax 586 726 8780

51301 Schoenherr Road

Shelby Township

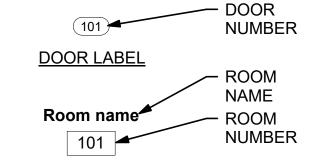
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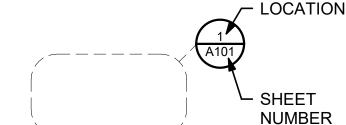
SYMBOL KEY

LEFT HAND

LAV

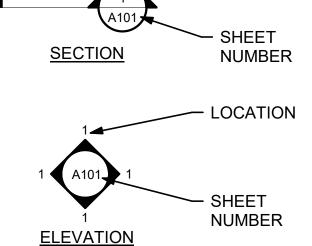


INCH, INCHES



DETAIL/ENLARGED PLAN

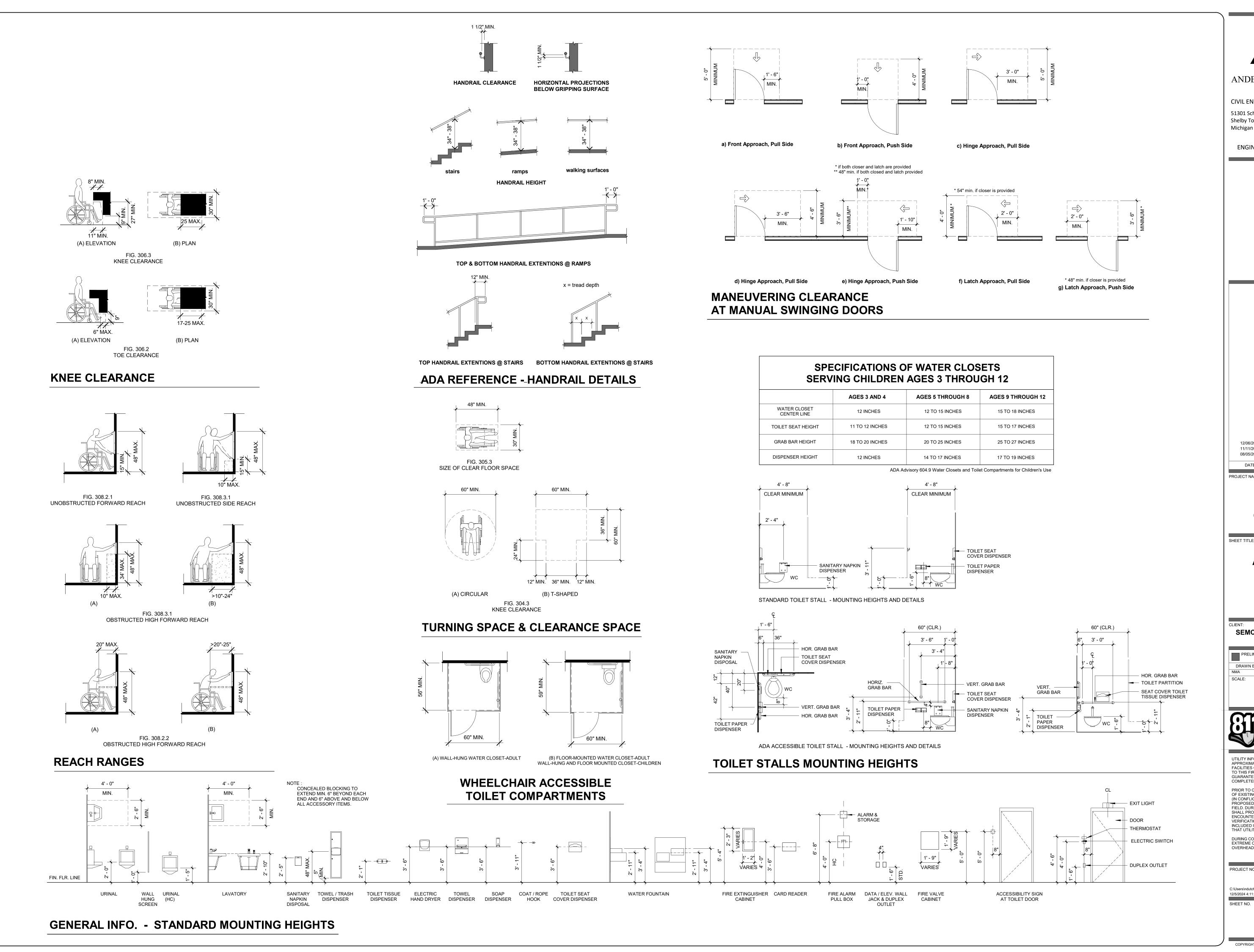
ROOM LABEL



LOCATION

NUMBER

WINDOW LABEL



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> **SEMCO EMERGENCY OPERATIONS CENTER**

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CHECKED BY: OCTOBER 2024 AS NOTED



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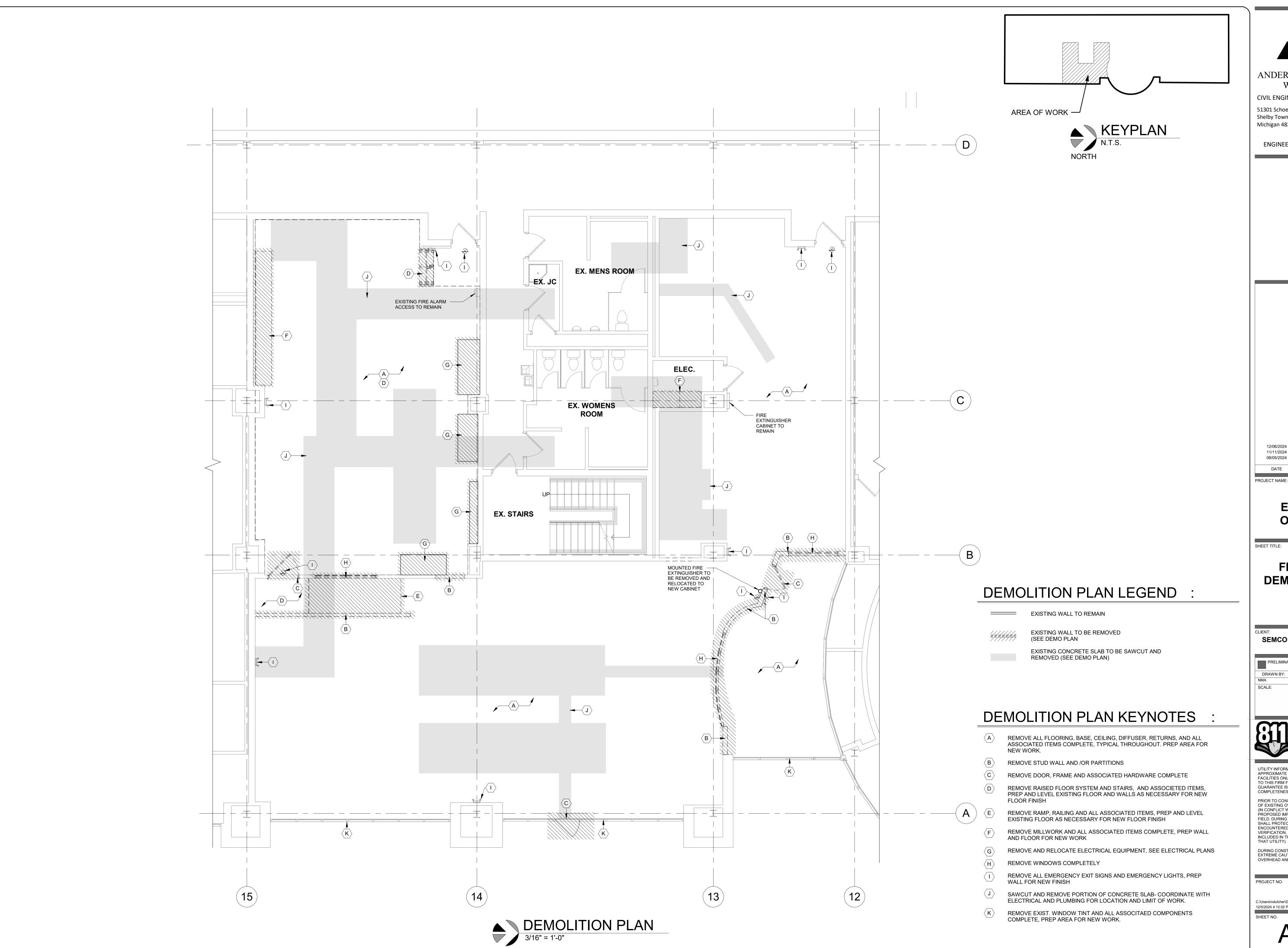
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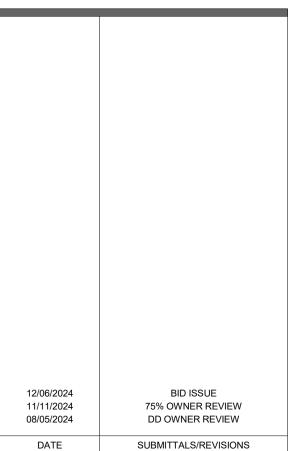




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FIRST FLOOR **DEMOLITION PLAN**

SEMCO ENERGY GAS COMPANY

PRELIMINAR	Y CONSTRU	CTION RECORD
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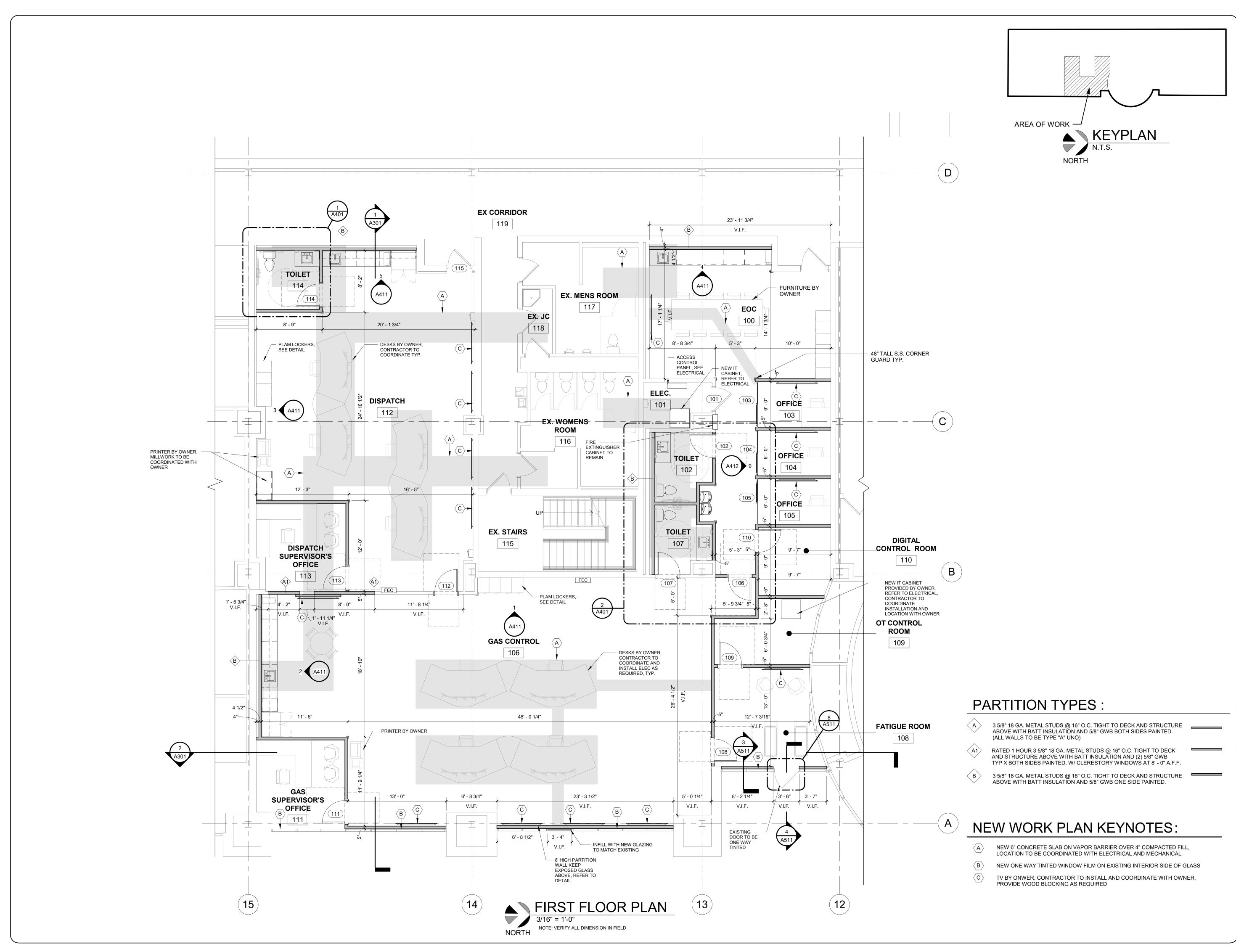
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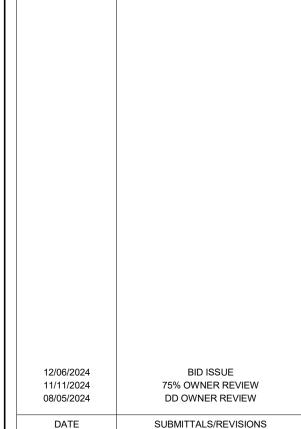




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FIRST FLOOR PLAN

SEMCO ENERGY GAS COMPANY

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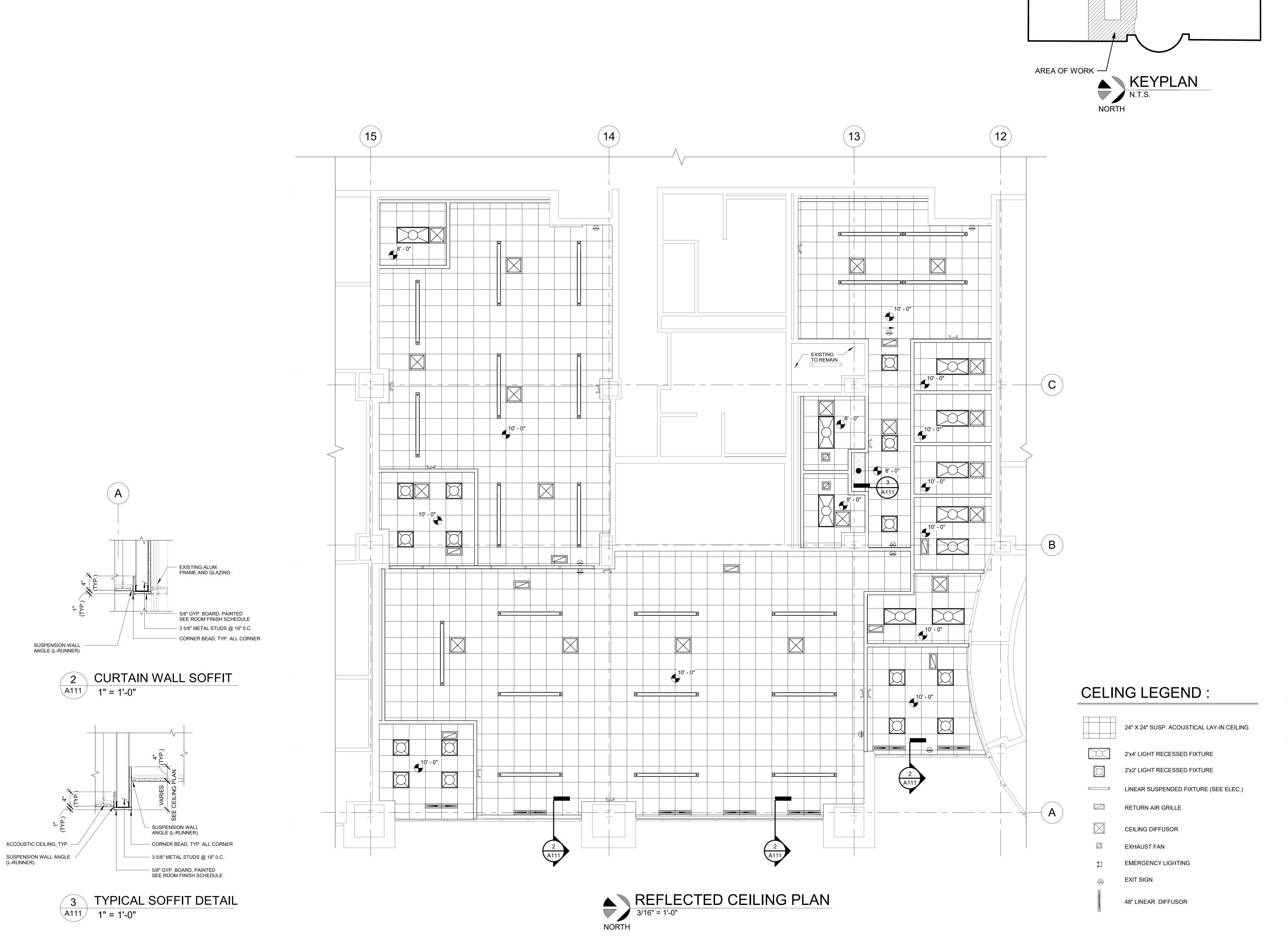
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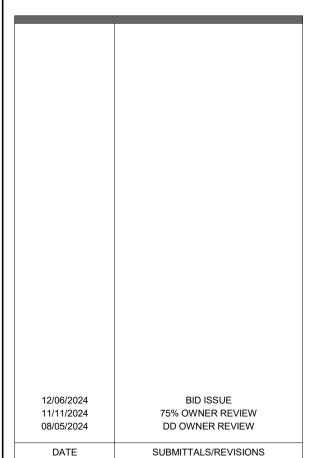


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FIRST FLOOR REFLECTED CEILING PLAN

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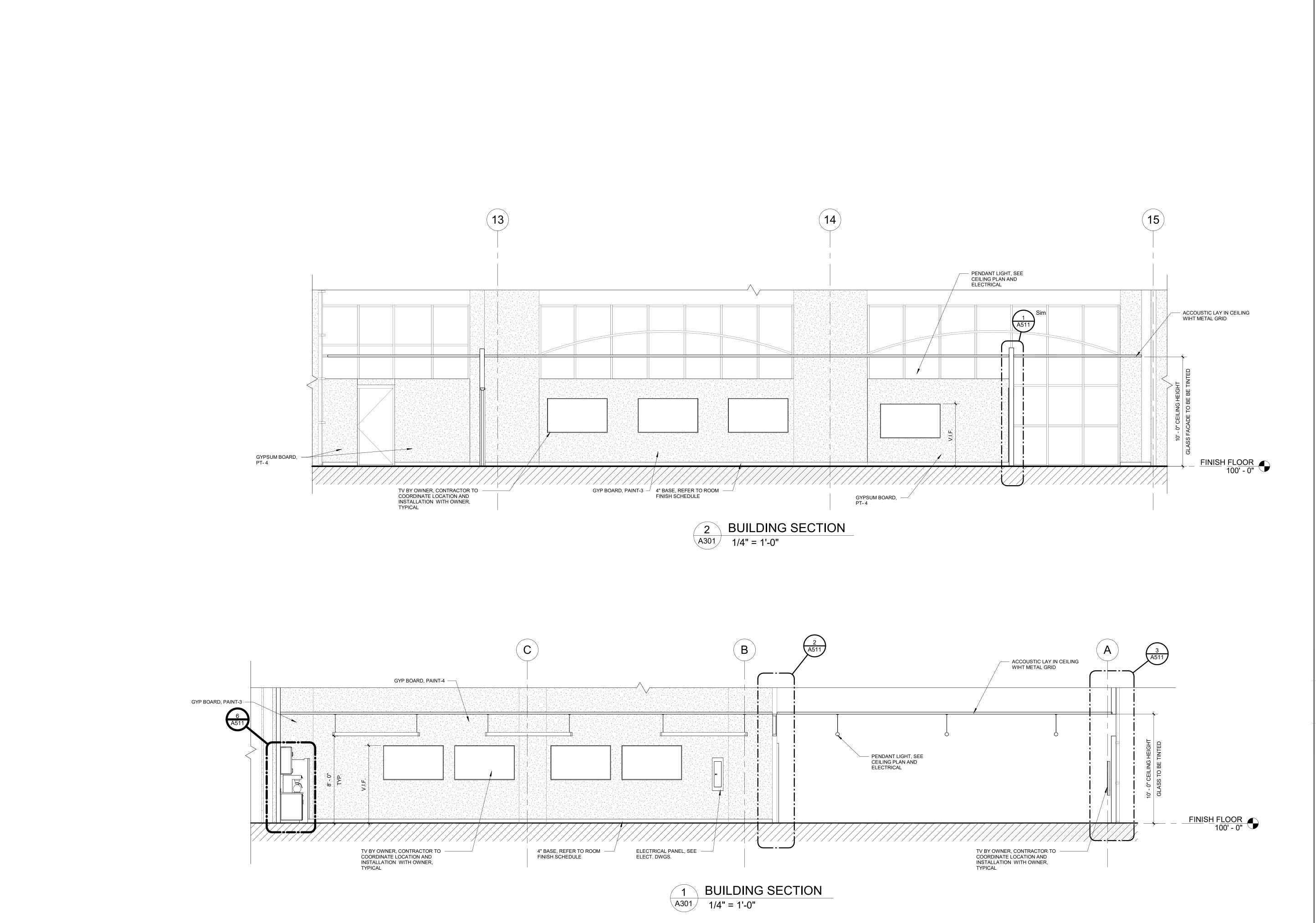
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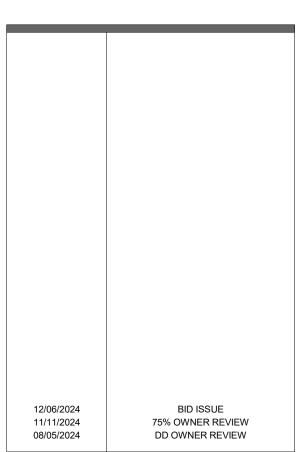


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BUILDING SECTIONS

SEMCO ENERGY GAS COMPANY

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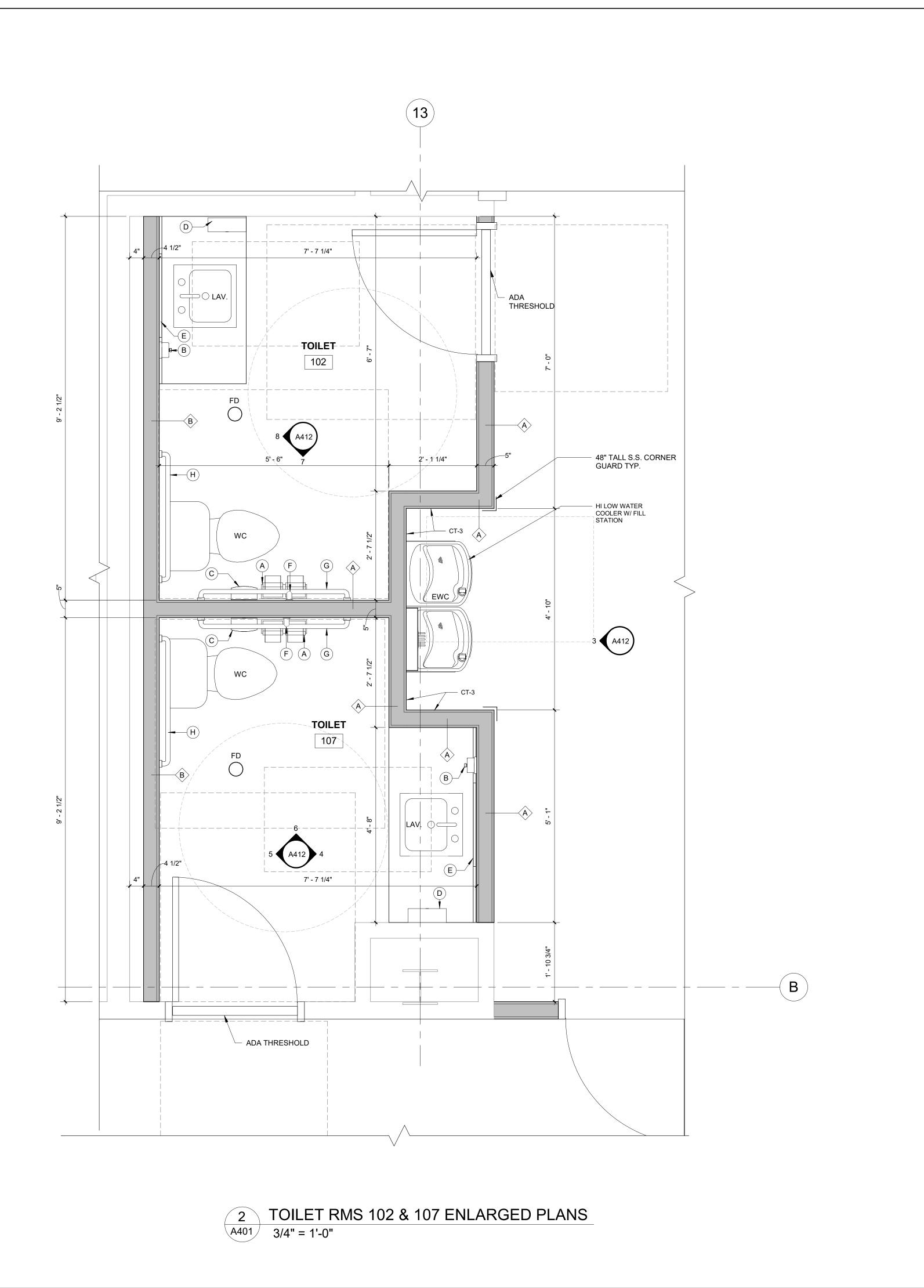
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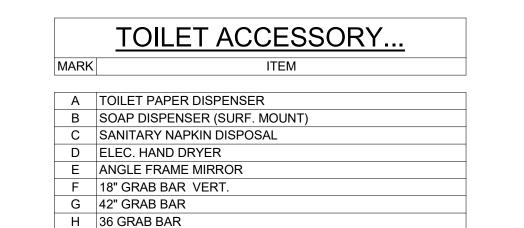
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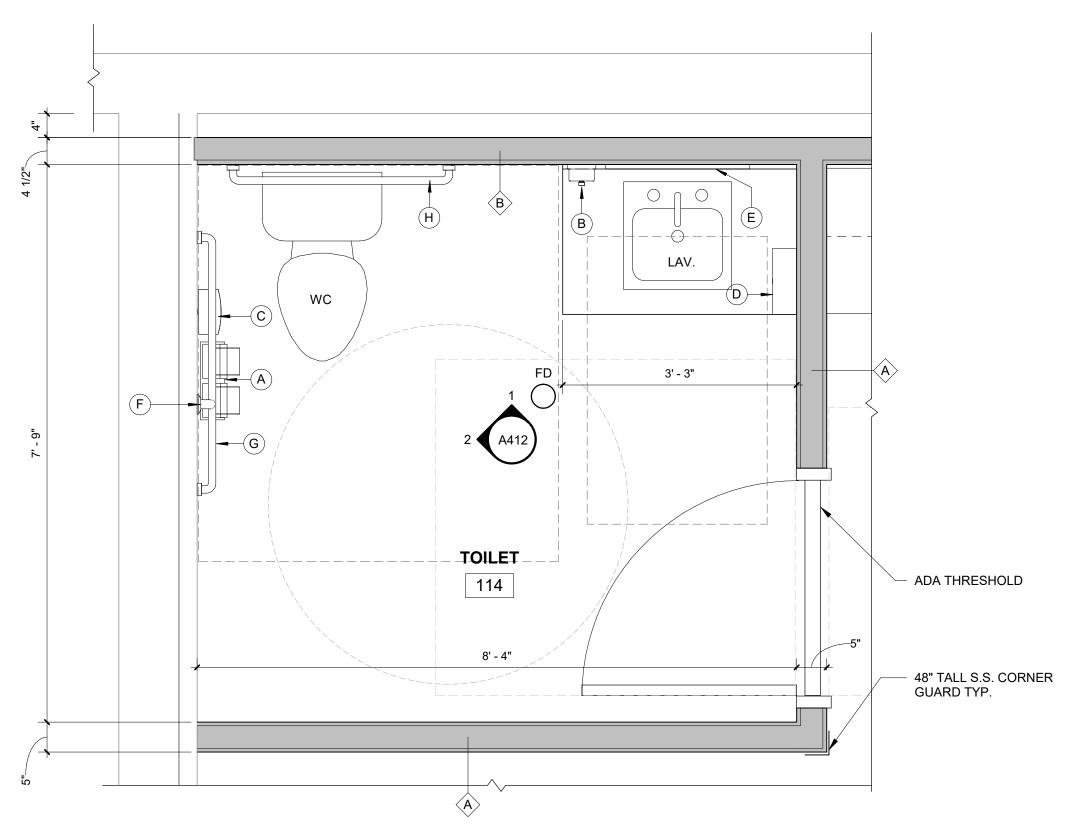
A30²



PARTITION TYPES:

- A 3 5/8" 18 GA. METAL STUDS @ 16" O.C. TIGHT TO DECK AND STRUCTURE ABOVE WITH BATT INSULATION AND 5/8" GWB BOTH SIDES PAINTED. (ALL WALLS TO BE TYPE "A" UNO)
- A1 RATED 1 HOUR 3 5/8" 18 GA. METAL STUDS @ 16" O.C. TIGHT TO DECK AND STRUCTURE ABOVE WITH BATT INSULATION AND (2) 5/8" GWB TYP X BOTH SIDES PAINTED. W/ CLERESTORY WINDOWS AT 8' 0" A.F.F.
- B 3 5/8" 18 GA. METAL STUDS @ 16" O.C. TIGHT TO DECK AND STRUCTURE ABOVE WITH BATT INSULATION AND 5/8" GWB ONE SIDE PAINTED.





1 TOILET 113 ENLARGED PLAN
3/4" = 1'-0"



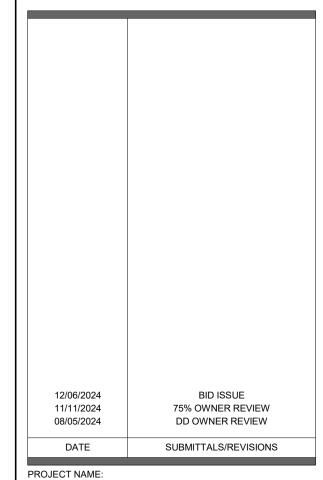
ANDERSON, ECKSTEIN AND WESTRICK, INC.

CIVIL ENGINEERS SURVEYORS ARCHITECTS

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Shelby Township Fax 586 726 8780
Michigan 48315

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SEMCO EMERGENCY OPERATIONS

T TITLE:

ENLARGED PLANS

CENTER

SEMCO ENERGY GAS COMPANY

PRELIMINAR	Y CONSTRU	CTION RECORD
DRAWN BY:	CHECKED BY:	DATE:
NMA	JRA	OCTOBER 2024
SCALE:		
	AS NOTED	



Know what's **below. Call**72 hours before you dig.

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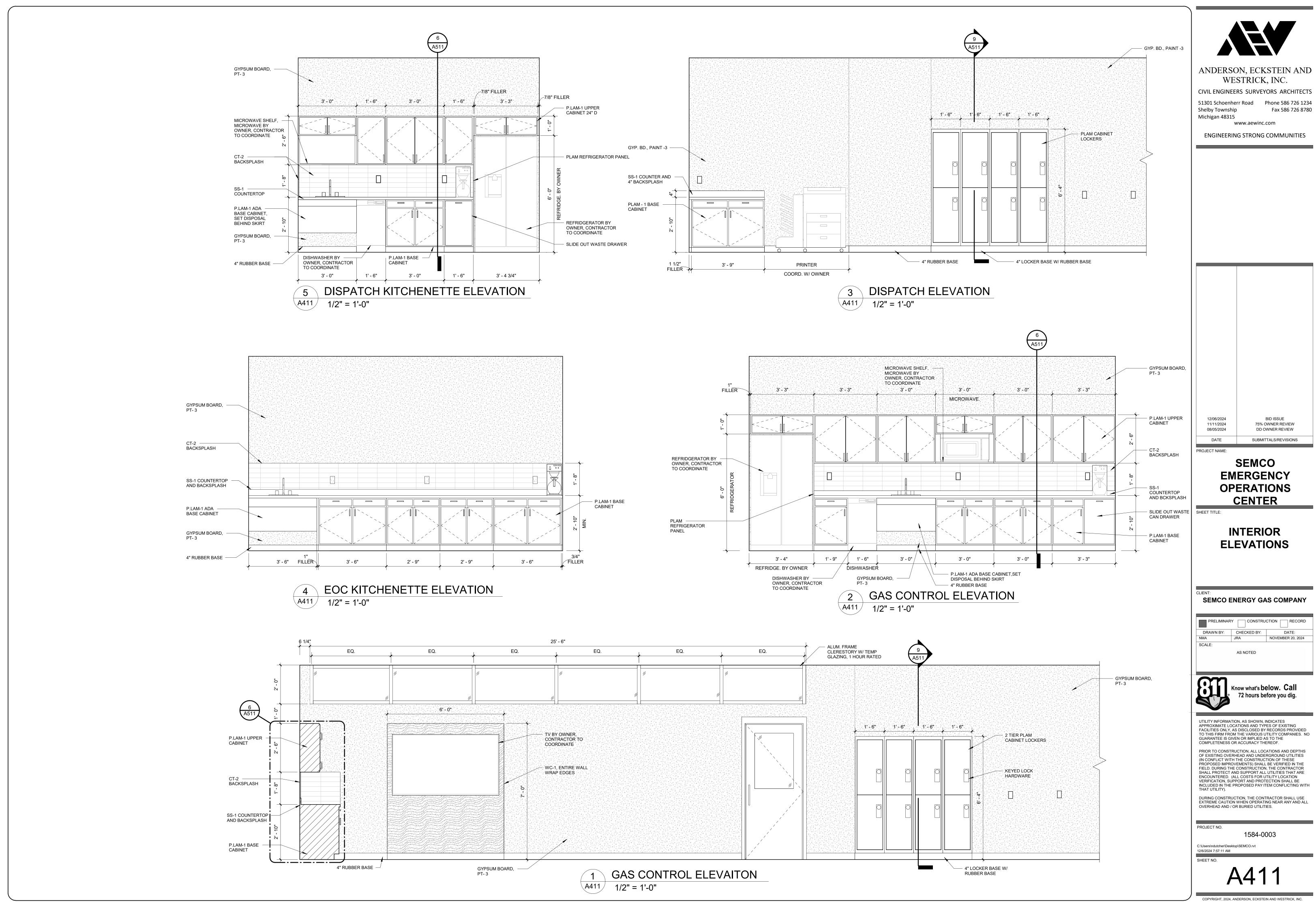
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PROJECT NO.

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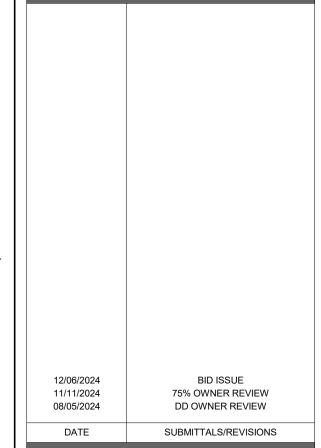
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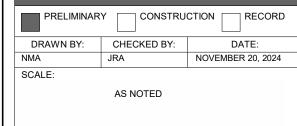
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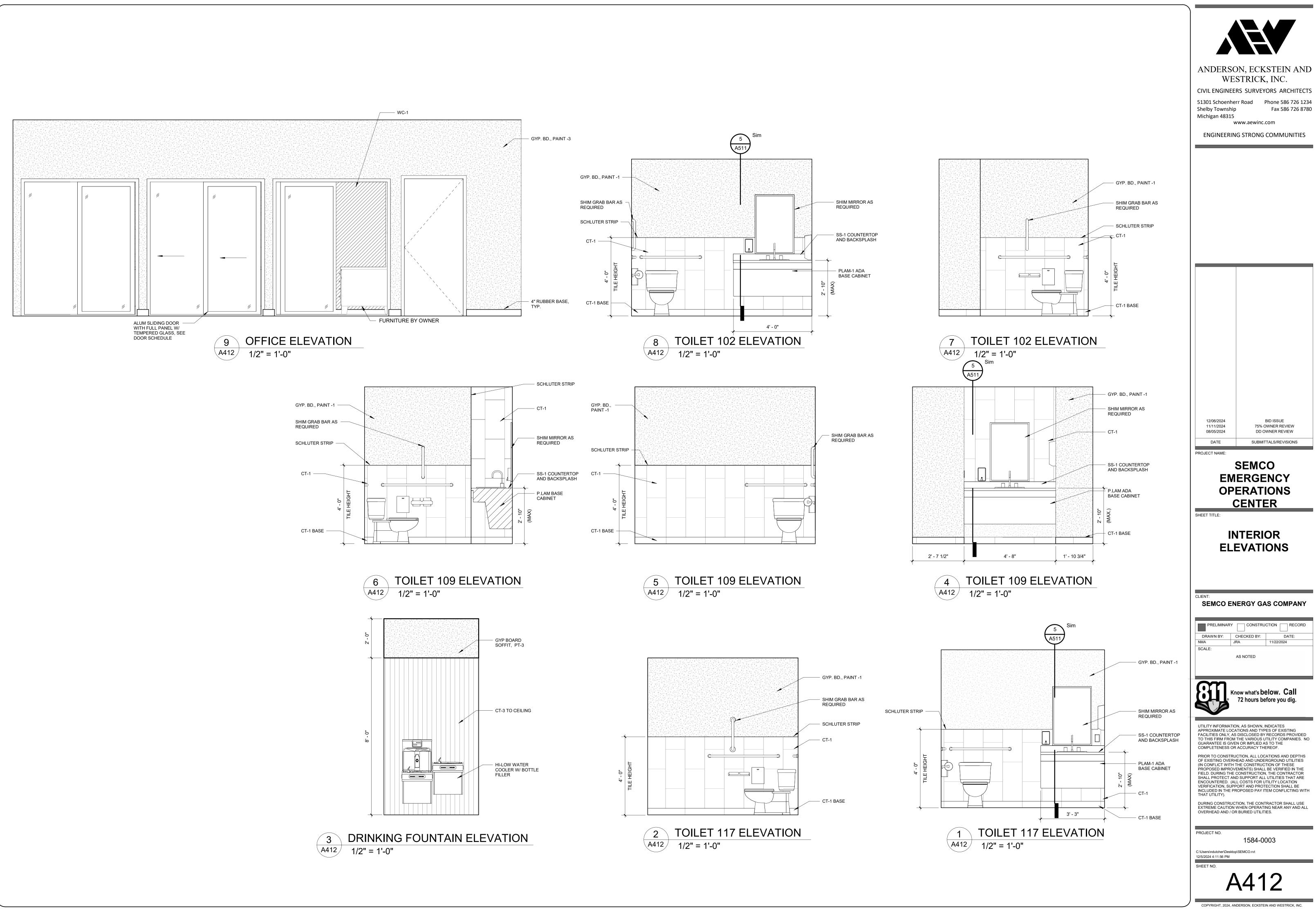


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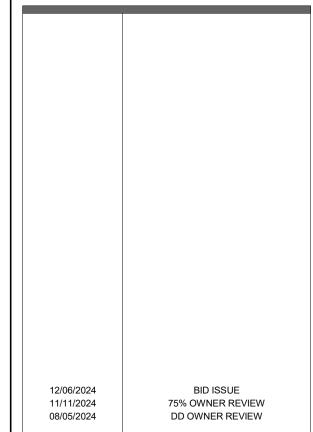


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SUBMITTALS/REVISIONS

EMERGENCY OPERATIONS

INTERIOR

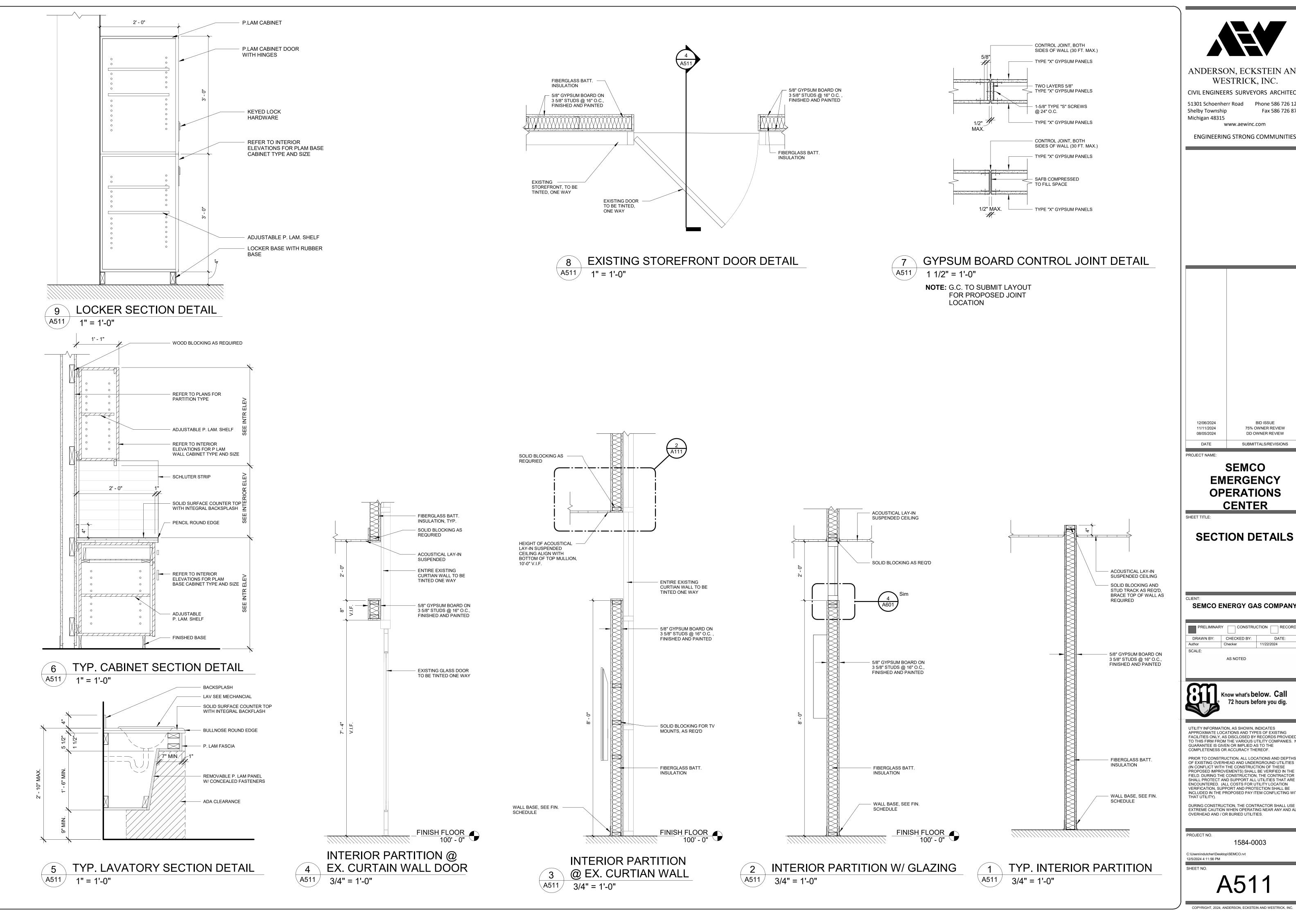
PRELIMINARY CONSTRUCTION RECORD



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1584-0003



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ENGINEERING STRONG COMMUNITIES

BID ISSUE 75% OWNER REVIEW

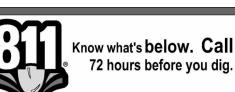
SUBMITTALS/REVISIONS

EMERGENCY OPERATIONS

SECTION DETAILS

SEMCO ENERGY GAS COMPANY

CHECKED BY:



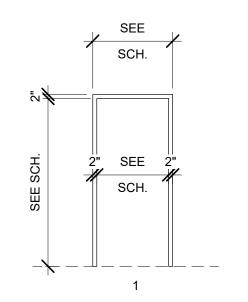
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1584-0003

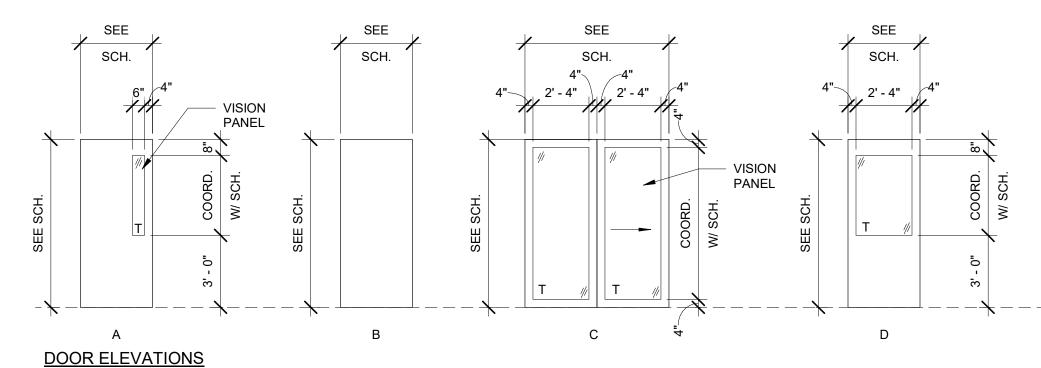
								DOOR SCHEDUL	.E						
					Door			Frame			Detail				
Rm. No.	Location	Width	Height	Thickness	DR. Elev.	DR. Material	Finish	Frame Type Frame Material	Finish	Head	Jamb	Sill	Threshold	HW Set	Comments
101	ELEC.	3' - 0"	7' - 0"	1 3/4"	В	НМ	PT	1 HM	PT	2/A601	2/A601	1/A601		1	CARD READER
	TOILET	3' - 0"	7' - 0"	1 3/4"	В	HM	PT	1 HM	PT	2/A601	2/A601	1/A601	MAR	2	CARD READER
103	OFFICE	6' - 0"	7' - 0"	1 3/4"	С	ALUM	PRE-FIN	1 ALUM	PRE-FIN	2/A601	2/A601	-		3	COORD. HARDWARE WITH MANUF.
104	OFFICE	6' - 0"	7' - 0"	1 3/4"	С	ALUM	PRE-FIN	1 ALUM	PRE-FIN	2/A601	2/A601	-		3	COORD. HARDWARE WITH MANUF.
105	OFFICE	6' - 0"	7' - 0"	1 3/4"	С	ALUM	PRE-FIN	1 ALUM	PRE-FIN	2/A601	2/A601	-		3	COORD. HARDWARE WITH MANUF.
106	GAS CONTROL	3' - 0"	7' - 0"	1 3/4"	D	HM	PT	1 HM	PT	2/A601	2/A601	1/A601		4	CARD READER
107	TOILET	3' - 0"	7' - 0"	1 3/4"	В	HM	PT	1 HM	PT	2/A601	2/A601	1/A601	MAR	2	
801	FATIGUE ROOM	3' - 0"	7' - 0"	1 3/4"	D	HM	PT	1 HM	PT	2/A601	2/A601	1/A601		5	CARD READER
109	OT CONTROL ROOM	3' - 0"	7' - 0"	1 3/4"	Α	HM	PT	1 HM	PT	2/A601	2/A601	1/A601		6	CARD READER
10	DIGITAL CONTROL ROOM	3' - 0"	7' - 0"	1 3/4"	В	HM	PT	1 HM	PT	2/A601	2/A601	1/A601		7	
	GAS SUPERVISOR'S OFFICE	3' - 0"	7' - 0"	1 3/4"	А	НМ	PT	1 HM	PT	2/A601	2/A601	1/A601		7	
112	DISPATCH	3' - 0"	7' - 0"	1 3/4"	D	НМ	PT	1 HM	PT	2/A601	2/A601	1/A601		4	CARD READER
	DISPATCH SUPERVISOR'S OFFICE	3' - 0"	7' - 0"	1 3/4"	А	НМ	PT	1 HM	PT	2/A601	2/A601	1/A601		7	
114	TOILET	3' - 0"	7' - 0"	1 3/4"	В	НМ	PT	1 HM	PT	2/A601	2/A601	1/A601	MAR	2	
115	DISPATCH	: -	7 -	1 -										8	EXISTING DOOR, INSTALL CARD READER

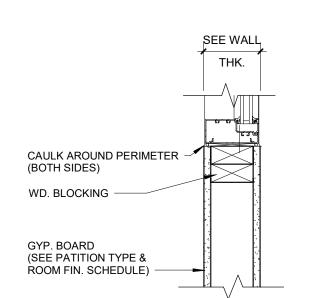


FRAME TYPES

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

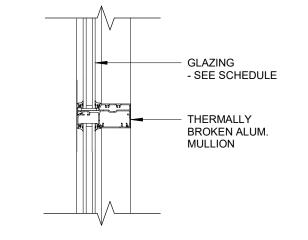
T = TEMPERED GLASS
1" INSULATED, LOW E, TINTED GLASS (EXTERIOR)



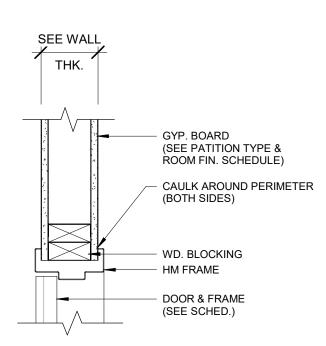


SCALE: 1/4"=1'-0"





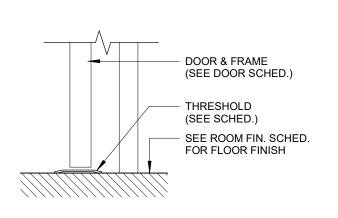
3 ALUM WINDOW MULLION 1 1/2" = 1'-0"



HM. DR. FRAME

2 HEAD / JAMB DETAIL

1 1/2" = 1'-0"



1 HM DR FRAME SILL DETAIL 1 1/2" = 1'-0"

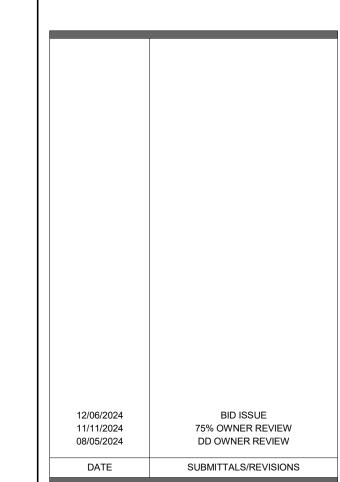


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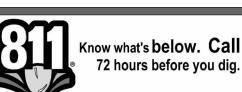
SEMCO EMERGENCY OPERATIONS CENTER

SHEET TITLE

DOOR SCHEDULE & DETAILS

SEMCO ENERGY GAS COMPANY

PRELIMINAF	RY CONSTRU	CTION RECORD
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NMA	JRA	11/22/2024
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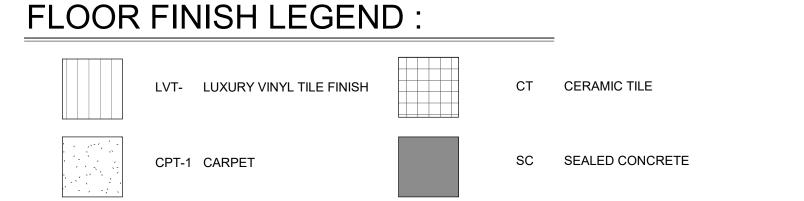
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PROJECT NO. 1584-0003

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ROOM FINISH ABBREVIATIONS:

18"x36" MANNINGTON COMMERCIAL COLORCAST SWELL COLOR UNCHARTED SHAW CONTRACT CODED 4143V COLOR CONVEY 12"x24" BEAVER TILE SEQUENCE PORCELAIN COLOR CURRENT 3"x12" BEAVER TILE EMOTIVE COLOR PRIDE BLUE GLOSSY 24"x48" BEAVER TILE CANNE 3D COLOR ECRU (VERTICAL) WILSONART PREMIUM LAMINATE COLOR LANDMARK WOOD

PLAM-1 SEALED CONCRETE SS-1 CORIAN SOLID SURFACE IN STONIQUE SS-2 CORIAN SOLID SURFACE IN CARRARA LINO

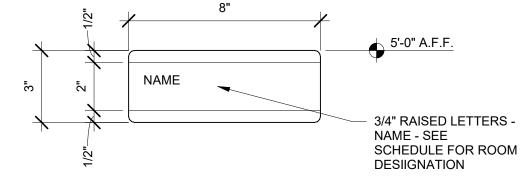
LVT - 1

CT-1

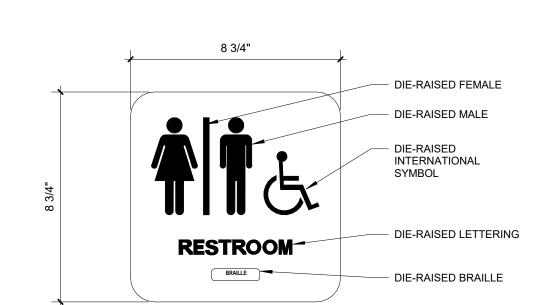
CT-2

CT-3

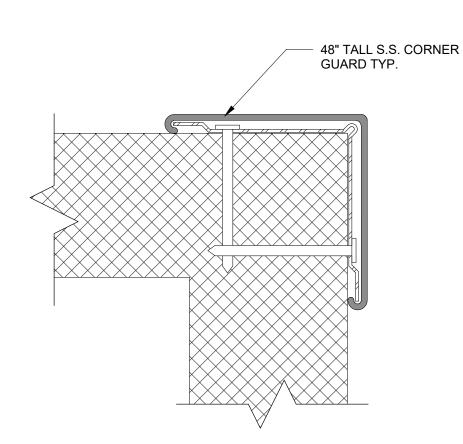
RB TARKETT GREY WG 48, VINYL RUBBER BASE PT - 1 GYPSUM BOARD PAINT FINISH KOROSEAL REIGN ON THE PIER, STORM SG26-08



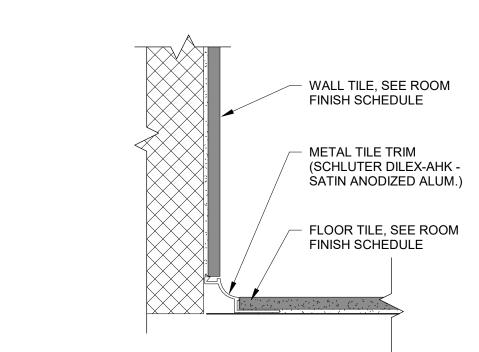
INTERIOR SIGN - TYPE 1



INTERIOR SIGN - TYPE 2



9 TYP. CORNER GUARD DETAIL



LVT / TILE MARBLE TRANSITION 3 TYP. TILE BASE DETAIL

CARPET

TRANSITION STRIP

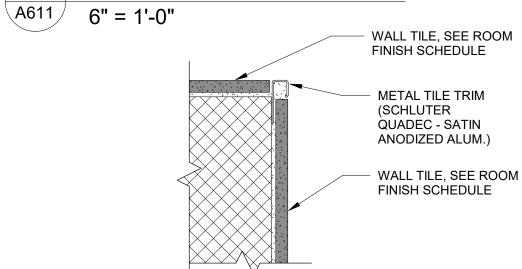
LVT FINISHED FLOOR

TILE FINISHED FLOOR

LVT FINISHED FLOOR

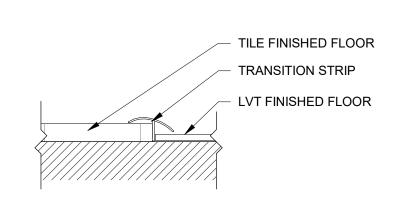
ADA MARBLE TRANSITION

A611 6" = 1'-0"



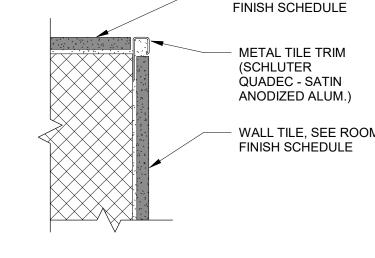
CARPET / LVT TRANSITION

\A611

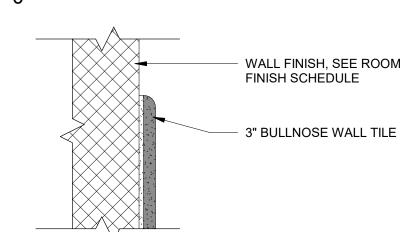


LVT / TILE TRANSITION

6" = 1'-0"

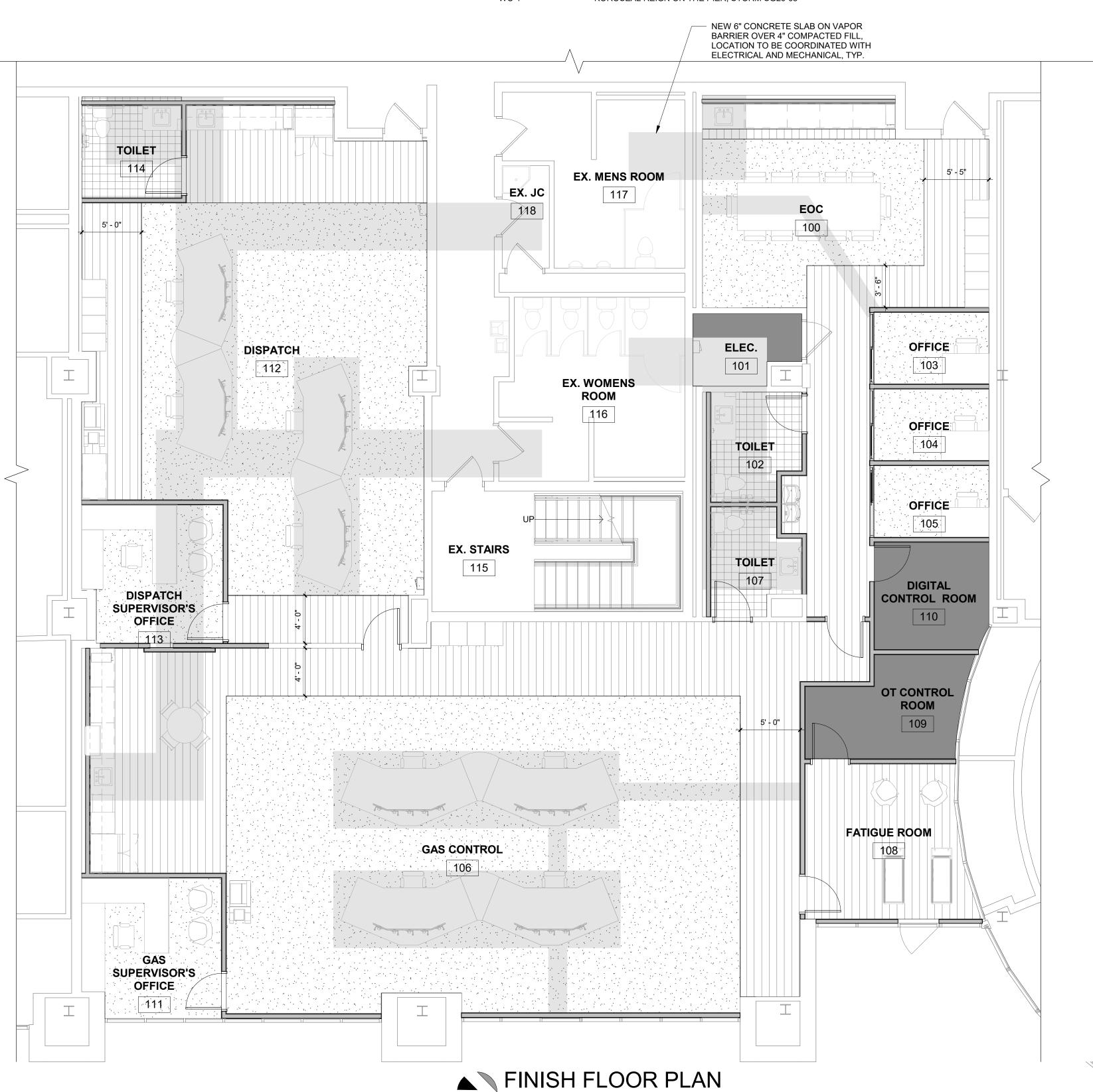


2 TYP. TILE DETAIL AT CORNER



TYP. TILE DETAIL AT TOP OF TILE

A611 6" = 1'-0"



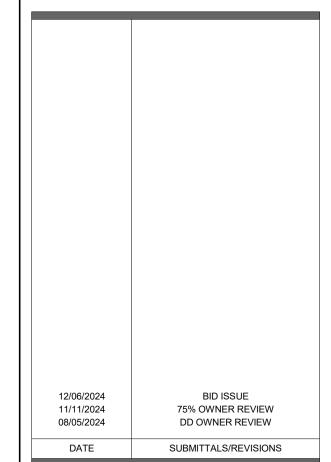


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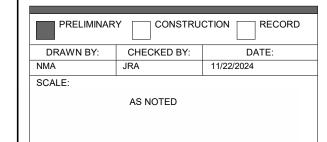


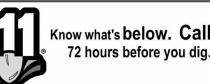
PROJECT NAME:

SEMCO EMERGENCY OPERATIONS CENTER

FLOOR FINISH PLAN & DETAILS

SEMCO ENERGY GAS COMPANY





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PROJECT NO.

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SHEET NO.

GENERAL REQUIREMENTS: Read and be bound by the architectural specifications. for the complete furnishing and installing of the entire mechanical system. either to accomplish complete mechanical systems. **GOVERNING AGENCIES:** DAMAGE TO OTHER WORK:

MECHANICAL SPECIFICATIONS

These specifications, all other documents attached hereto, all addenda issued and the accompanying plans are intended to provide

The work shall be done in accordance with best practice so as to contribute to efficiency of operation and minimum maintenance and shall be installed with proper accessibility. The materials and equipment, including all necessary accessories, shall be put into proper adjustment so that the component parts function together as a workable system. The mechanical contractor shall provide all equipment, materials and operations as indicated either on the drawings or contained herein or as may be reasonably implied by

The contractor shall be fully informed of all laws, ordinances and codes, and shall, in the performance of the contract, comply with all applicable Federal, State and Local aforesaid regulations. Any deviation from the plans or specifications and any additional work necessary to meet code requirements shall be made by the contractor without extra cost to the owner.

Repair and pay for all damage done to the existing and new work by mechanical trades workmen.

CUTTING AND PATCHING:

All cutting and patching required for installation shall be by mechanical trades and included in expense to aforementioned.

CLEANING:

Premises shall be cleaned upon completion of mechanical work.

COOPERATION WITH OTHER TRADES:

Coordinate work with other trades to avoid interference and present a neat appearance. Interference with result from poor coordination will not be considered as extra work.

INTERFERENCE:

All minor deviations required due to interference with the work of others shall be made by mechanical contractor at no additional cost. Verify locations of existing piping, ducts and building structural beams in the project area for connections to same and to avoid possible interference.

DRAWINGS:

The design drawings show the general arrangement and extent of the work. The drawings are diagrammatic and may not be drawn to scale in certain areas for purposes of clarity and legibility. It is intended that all apparatus be located symmetrical with architectural elements and be installed to avoid obstructions and preserve headroom. The contractor shall review the plans of other trades with his own work to avoid conflicts and interference's; he shall make use of all sources of data, including shop drawings and drawings of equipment furnished by others.

ACCESS TO EQUIPMENT:

All control devices, equipment, dampers, etc., shall be so located so as to provide for each access of operation, repairs and maintenance; if concealed, access panels or extended operators shall be provided.

SUPPORTS:

Provide all supports, framing, etc., for the proper installation of pipe, equipment. etc., fabricated from structural steel shapes and to prevent sagging, vibration and strain, and to provide for expansion and contraction.

SYSTEM BALANCING:

The heating, ventilating and air conditioning shall be tested and balanced to demonstrate that specified capacities of the various parts of all systems as indicated in the contract documents can be met and all controls are functioning properly.

GUARANTEE

All material and workmanship shall be guaranteed for a period of one year from the date of acceptance, and the contractor shall

SANITARY AND VENT PIPING:

Pipe and Fittings, shall be plastic PVC: Type DWV, per; ASTM D2665. Joints shall be plastic PVC solvent welded, per; ASTM D2665.

make good any defects within that period at no additional cost to the owner.

CLEANOUTS AND ACCESS COVERS (CO):

Provide cleanouts at the foot or base of each vertical waste or soil stack, in drainage lines at all changes in direction and at 100'-0" intervals having no changes in direction.

bronze top, with flushing connection. Provide trap primer for all floor drains per code to maintain trap water seal. FLOOR DRAIN (FD-1)

Zurn No. Z-415-B floor drain, sized on drawings, "Dura-Coated" cast iron body, with polished bronze top, with flushing connection. Provide trap primer for all floor drains per code to maintain trap water seal or Green Solution model SS2009V trap sealer.

GAS PIPING:

Standard weight schedule 40, ASTM 1-20 black steel pipe with class 150 screwed malleable iron fittings.

GAS VALVE:

Gas valve shall be non-lubricated plug valves; ACF or Dezurik. Provide plug valves at all connections to equipment.

DOMESTIC WATER PIPING:

Above ground: Type L, hard temper copper tube with wrought copper fittings and non-lead solder joints.

DOMESTIC WATER VALVES:

A. Gate valve: Jenkins 901-A bronze ball valve, screwed ends, or approved equal.

Balance valve: Dezurik 427S bronze or approved equal.

Thermostatic Mixing Valve - Line size, straight element, domestic water temperature, mixing valve. Provide stop check valve in cold and hot water inlet to valve. Provide the following for lavatories and hand sinks.

Thermostatic mixing valve applied at individual plumbing fixture shall be ASSE 1017/ASSE 1016 certified, anti-scald, anti-chill. Mechanical mixing valves are not acceptable.

- Unit shall be sized for capacity and temperature range to satisfy project use requirements
- Leonard Model 220, Model TA. Symmons Thermixer. Sparco Aquamix.

DOMESTIC WATER PIPING OPTION:

Cross-linked polyethylene (PEX) manufactured by the Silane method.

Shall have a pressure and temperature rating of 160 PSI at 73 degree F, 100 PSI at 180 degree F and 80 PSI at 200 degree F.

Tubing shall have a minimum of 6 months UV protection. Manufactured in accordance with aTM F876 and ASTM F877 and tested for compliance by an independent third-party agency.

Fittings shall be manufactured by Zurn PEX, Inc., identified by the letters "Q" or "Z". Manufactured in accordance with ASTM F1807 or ASTM F2159 and/or comply with

ASTM F877 system standard as identified on the fitting.

Qickclamp: Listed to ASTM F877, identified as a Zurn PEX Ind., Aickclamp by the "Qickclamp" and "Q" marking. Copper Crimp Ring: Listed to ASTM F1807 and/or ASTM F877, black in color and identified as a Zurn PEX Inc., ring by the letter

Qickclamp tools shall be supplied by the PEX tubing manufacturer, identified by the name "urn" on the tool Copper Crimp Ring tools shall be supplied by the PEX tubing manufacturer or approved by the PEX tubing manufacturer for use.

product.

Shall be of the plastic or metal type, meeting the requirements of ASTM F877, identified as such with the appropriate mark on the

FLUSHING AND STERILIZATION

Upon completion of water distribution piping system and prior to being placed into service, the system, including fittings and pumps, shall be flushed and disinfected as follows:

A. System shall be flushed with water at maximum system pressure.

B. Open all drains and fixture valves in the building, starting with the valve nearest the water service line and permit the water to run clear for ten (10) minutes.

C. Disinfecting shall be accomplished by introducing liquid chlorine into the system.

D. The chlorination agent shall be applied at the beginning of the water main to be disinfected.

PIPE INSULATION

Insulation shall be low pressure molded section fibrous glass pipe insulated with factory-applied all service jacket. Fittings and valve bodies shall be insulated with fibrous glass blanket built-up to the thickness of the adjacent insulation and secured with insulating tape and jacketed to match insulation, or with molded fibrous glass fittings installed with both longitudinal and circumferential joints fully buttered with proper adhesive. Laps shall be fastened with outward clinching staples. All joints shall be properly lapped and sealed. Staples, hangers, etc., shall not penetrate vapor barrier. In lieu of built-up insulation on fittings, Zeston fitting covers may be used.

All insulation shall be Class A in accordance with ASTM standard No. E-84 NFPA No. 255, and UL standard No. 723 as follows:

All material shall be manufactured by one of the listed approved manufacturer's instructions, except where these instructions conflict with the specification hereinafter stated, in which case the specifications shall govern. All adhesives, binds and other fastening materials and devices shall be supplied as required to properly install the insulation materials being furnished.

Approved Manufactures: Armstrong Co., Certain-Teed, Johns-Manville Co., Owens-Corning Fiberglas.

Pipe Insulation Schedule:

Pipe insulation thickness shall comply with the minimum requirements of ASHRAE 90-75 and the following:

Pipe diameter 1" and less

Domestic cold water

Under Sink/Lavatory Protective Pipe Cover

Domestic hot water

ADA – conforming wheelchair accessible assemblies shall be covered with an under sink/lavatory protective pipe cover. Cover must allow for access to p-trap clean-out and angle stop valve.

PLUMBING FIXTURES

General

Service

Provide and connect all fixtures shown on the Drawings or herein called for. All fixtures shall be equal in all respects to the figure/model numbers hereinafter listed. Figure/model numbers are used for establishing a standard. All fixture trim shall be by one manufacturer only. No mixing of trim or fixtures will be permitted unless otherwise specified.

Fixture connection shall be chrome-plated flexible brass pipe. Plumbing fixture types and mounting will comply with Barrier Free Design Regulations where required.

Provide all traps, valves, stops, shut-off valves, tailpieces, fittings, and piping.

WATER CLOSETS- FLUSH TANK (WC)

Avalanche GWS 31817 two-piece, floor mount elongated, dual feed siphon jet, 1.28 gpm closet and Z5955SS-EL white, open front toilet seat, less cover, with stainless steel check hinge. Provide 1/2" x 3/8" chrome plated brass loose key angle stops, escutcheon plate and supply.

LAVATORIES - COUNTER TOP (LAV)

Zurn Z5114.514.3.35.E7.L white vitreous china 20" x 17" drop-in lavatory with Z81000-XL-3M 0.5 gpm single control faucet, Z8743-PC grid drain; ZR361 p-trap, Z8804-XL-LRLK-PC loose key stop lavatory supply kit, trap wrap.

SINK (SK-1)

undercoating. Bowl 25" x 22" x 9" deep. Provide LK 2432BHC deck mounted faucet, 8" centers, 4" levers, LK-35 drain left rear placement, Z8804-XL-LRLK-PC loose key supply kits, ZW3870XLT-4P, trap

Elkey LRAD 252, 18-gauge, 304 stainless steel single bowl top mount sink with full

SINK (SK-2)

Elkey ECTSR15159, 18-gauge, 304 stainless steel double bowl top mount sink with full undercoating. Bowl #1 size 16 x 16 3/4"x 9", Provide LK 1000CR single lever faucet, LK-35 drain, Z8804- XL-LRLK-PC loose key supply kits, ZW3870XLT-4P, trap wrap.

GARBAGE DISPOSER

Food waste disposer(s) shall be In-Sink-Erator model 555ss, continuous feed, single direction, with 3/4 H.P. motor, corrosion protection shield, self-service wrench, stainless steel grinding elements with two stainless steel 360° swivel lugs. Warranty – 5-year parts and in-home service.

ELECTRIC WATER COOLER- BOTTLE FILLER (EWC)

Elkey LZOOTL8WSK, stainless steel finish bottle filling station and bi-level with dual level hands free activation water cooler with 3000-gallon filter and 8 gph capacity. Unit to have automatic 20-second shut-off timer on bottle filler and Green Ticker bottle counter, MLP200 in wall carrier, Z8804-XL-LRA supply and ZR365-PC p-trap.

SHEET METAL - GENERAL

Install ductwork in adherence to ceiling height schedules on architectural drawings. Coordinate and establish necessary space requirements with other trades so as to maintain required headroom.

Vary run and shape of ducts and make offsets during progress of work, if required, to meet structural or other interferences without extra cost to the owner. All sheet metal shall be best grade, prime sheets, open hearth galvanized steel, unless otherwise noted. Ducts 19" and over shall

be cross broken or beaded.

DUCTWORK:

Duct construction: All ductwork shall be constructed and supported in accordance with the requirements of the latest SMACNA'S issue of "2" W.C. Pressure Construction Standards" Provide joints for rectangular ducts as called for by standards. "Button Punch-Snap Lock" shall not be used. Seal all transverse joints with 3M EC-800 compound and tape with 3M 474 tape.

For round and oval duct, slip joints shall be used on ducts up to 36-inch diameter. Apply 3M EC-800 sealer to fittings and connectors while assembling. Secure joint with sheetmetal screws. Apply sealer over outside of joints and screws. Apply 3M 474 tape to wet joint. Alternate method of sealing with slip joints is with thermofit plastic bands. Secure joint with sheetmetal screws. Install band a shrink per manufacturer's recommendations. Use on ducts up to 36 inches in diameter.

Flexible Ductwork: All flexible ductwork shall be type 3, insulated, as manufactured by Flexmaster Corporation. The ducts shall be constructed of corrosion-resistant reinforcing wire Helix, permanently bonded and enclosed in Tedlar film and factory pre-insulated with 1 1/2", 3/4 pounds of density fiberglass blanket insulation sheathed in a vapor barrier of aluminum metalized polyester film laminated to glass mech. elastomer back coated. The duct shall comply with the latest NFPA bulletin 90A, and be listed as class 1 air duct material, UL standard 181. Maximum lengths of flexible ductwork shall be 6' - 0" to each connection.

All round take-offs downstream of terminal units shall be made with spin-in collar fitting as manufactured by Flexmaster Corporation. Balancing dampers shall be locking wing-nut for easy readjustment when required. The entire assembly shall be constructed of a minimum 26 gauge galvanized steel.

DUCT HANGERS AND SUPPORTS:

All duct hangers, supports and spacing for round and rectangular ductwork shall conform to the latest SMACNA standards, unless otherwise indicated.

GRILLES AND REGISTERS

(CD-1) Ceiling Diffuser Price ASPD, 24" X 24" module, steel, lay-in. See dwg. for neck size (NK).

(LD-1) Linear Diffuser Price TBDI3, 2-3/4" slots x 48" long. See dwgs. for neck size. Provide center notch for diffusers that are

(SR-2) Supply Register. Price 510D, ¾" blade spacing, adjustable, double def. with volume damper. See dwg. for neck size.

(RG) Return Grille Price 10 perforated face, T-bar Lay-in. See dwg. for neck (NK).

(ER) Exhaust Register, Price 10A, perforated face with volume damper. See dwg. for neck (NK).



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Shelby Township

ENGINEERING STRONG COMMUNITIES

Fax 586 726 8780

12/06/2024 BID ISSUE 75% OWNER REVIEW 11/11/2024

PROJECT NAME

SHEET TITLE:

DATE

SEMCO **EMERGENCY OPERATIONS CENTER**

SUBMITTALS/REVISIONS

MECHANICAL

SPECIFICAITON

SEMCO ENERGY GAS COMPANY

PRELIMINARY CONSTRUCTION RECORD DRAWN BY: CHECKED BY: DATE: 11/22/2024 AS NOTED



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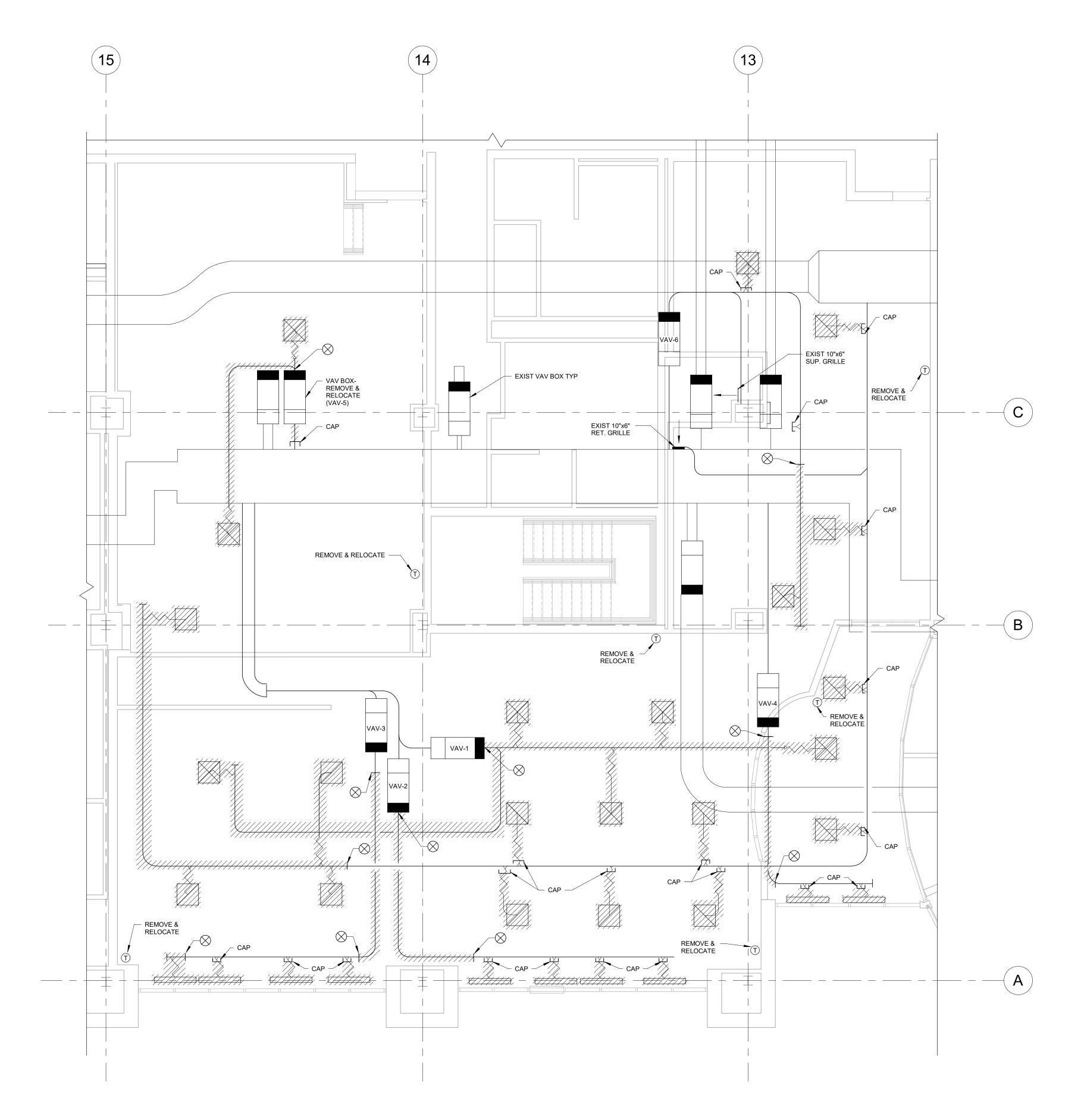
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NEW MECHANICAL SERVICE

NEW CONNECTION TO EXISTING

DEMOLITION LIMITS- POINT OF NEW CONNECTION

EXISTING





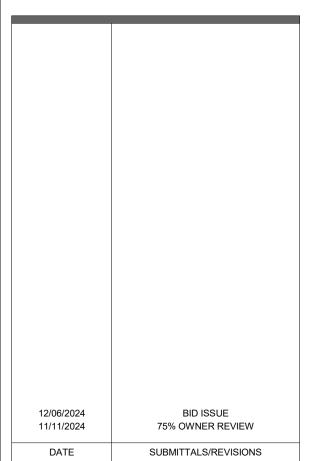


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PROJECT NAME:

SEMCO EMERGENCY OPERATIONS CENTER

HVAC DEMOLITION PLAN

SEMCO ENERGY GAS COMPANY

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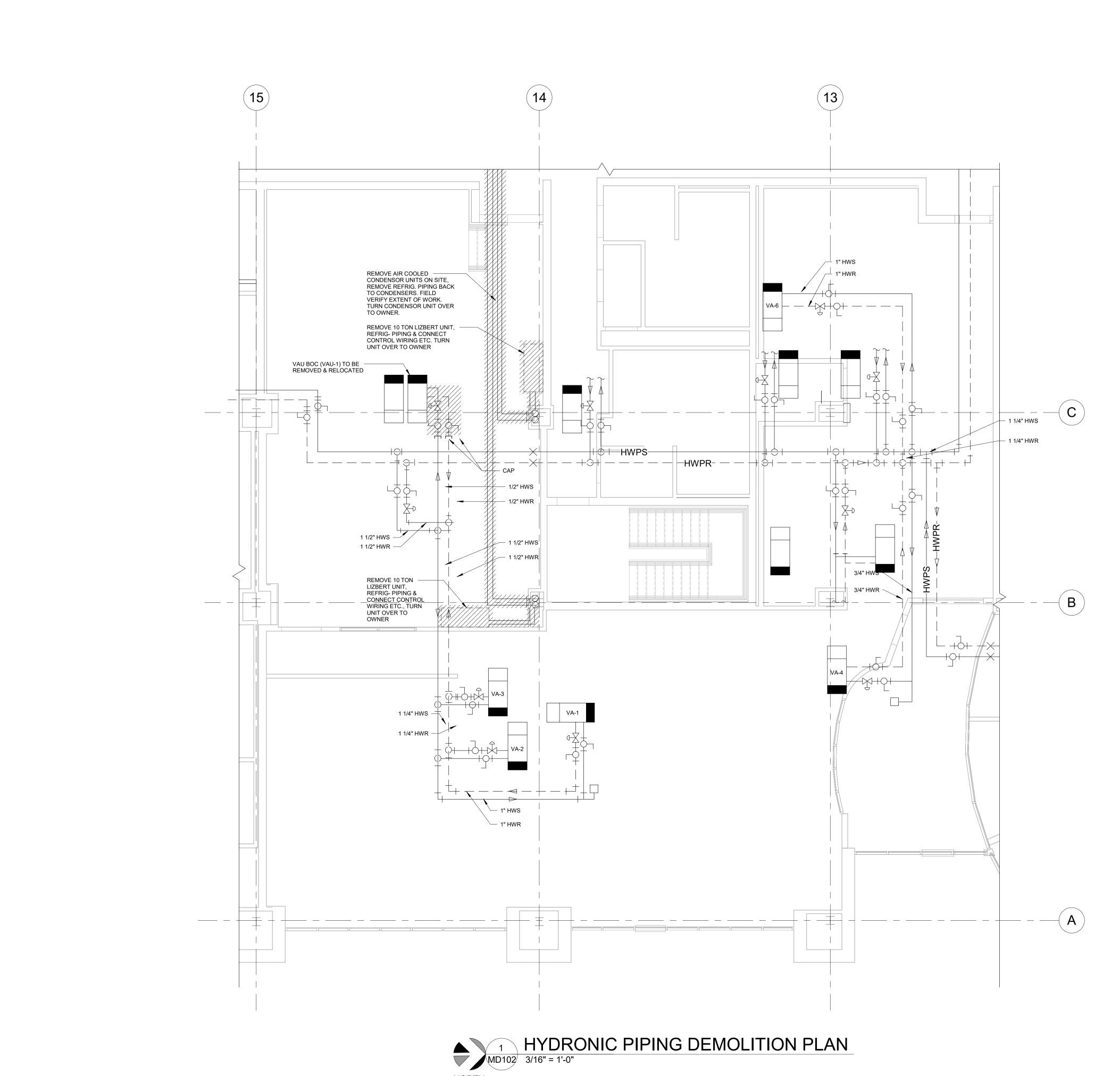
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HYDRONIC PIPING DEMOLITION PLAN

SEMCO ENERGY GAS COMPANY

PRELIMINARY CONSTRUCTION RECORD

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	SYSTEM			UI	NIT DATA			Н	IOT WATE	R COIL			
	PRICE	OFM	INLET	SP IN.	WG AT MAX C	FM	NO.	MIN. BTU	LVG	STD	WPD	CONN	REMARKS
TAG	MODEL NO.	CFM	SIZE "Ø	BOX ONLY	WITH ATT'N	WITH ATT'N & COIL	OF ROWS	AT 180° F EWT	AIR °F	GPM	FT WG	PIPE SIZE	
VAV - 1	SDV	1360	14	.13	.38	.62	1	36,000	80	4.0	3.6	1"	EXISTING
VAV - 2	SDV	600	12	.15	.31	.62	1	12,000	74	1.0	.95	1"	EXISTING
VAV - 3	SDV	500	12	.13	.27	.60	1	11,000	75	1.0	.95	1"	EXISTING
VAV - 4	SDV	200	10	.13	.27	.54	1	3,800	73	.5	.10	3/4"	EXISTING
VAV - 5	SDV	150	5	.12	.25	.37	1	3,000	79.4	.5	.10	1/2"	EXISTING- RELOCATED
VAV - 6	SDV	520	12	.12	.25	.50	1	12,000	75	1.0	.10	1"	EXISTING

1. VAV- VARIABLE VOLUME BOX

2. ALL BOXES HAVE SOUND ATTENUATORS
3. HOT WATER HEATING COILS ARE BASED ON 180°F ENTERING TEMP.

MECHANICAL LEGEND:

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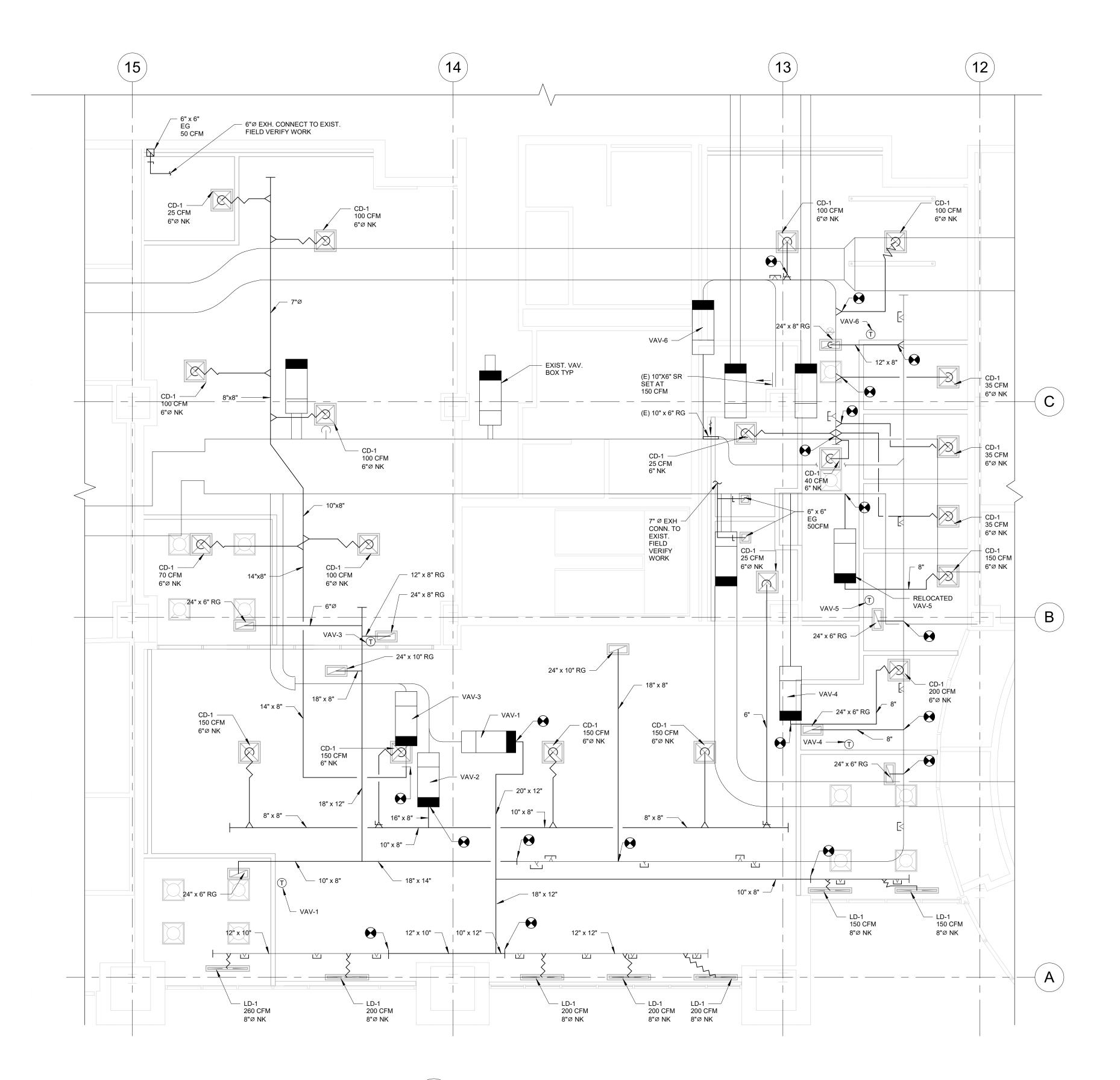
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HVAC PLAN

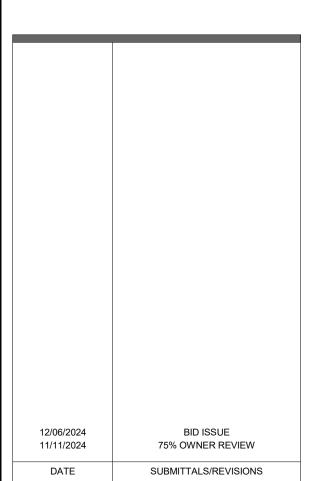


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PROJECT NAME: **SEMCO EMERGENCY**

OPERATIONS CENTER

HVAC PLAN

SEMCO ENERGY GAS COMPANY

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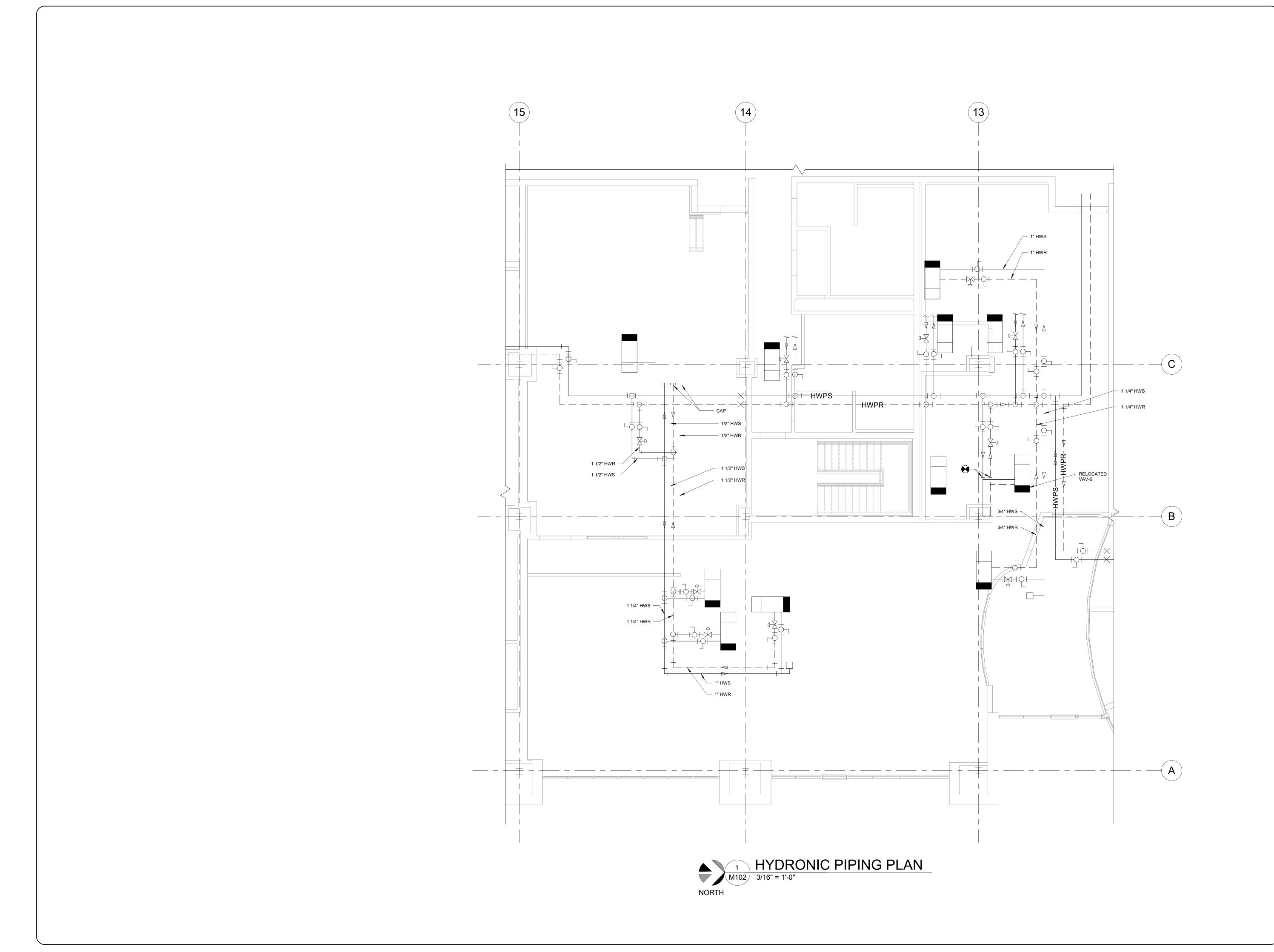
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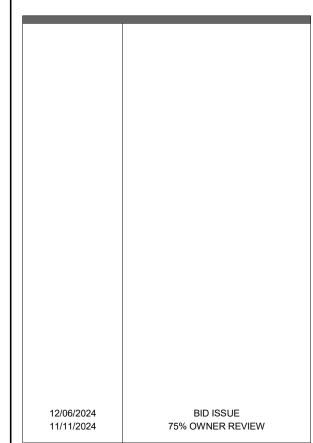




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SEMCO **EMERGENCY OPERATIONS** CENTER

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HYDRONIC PIPING **PLAN**

SEMCO ENERGY GAS COMPANY

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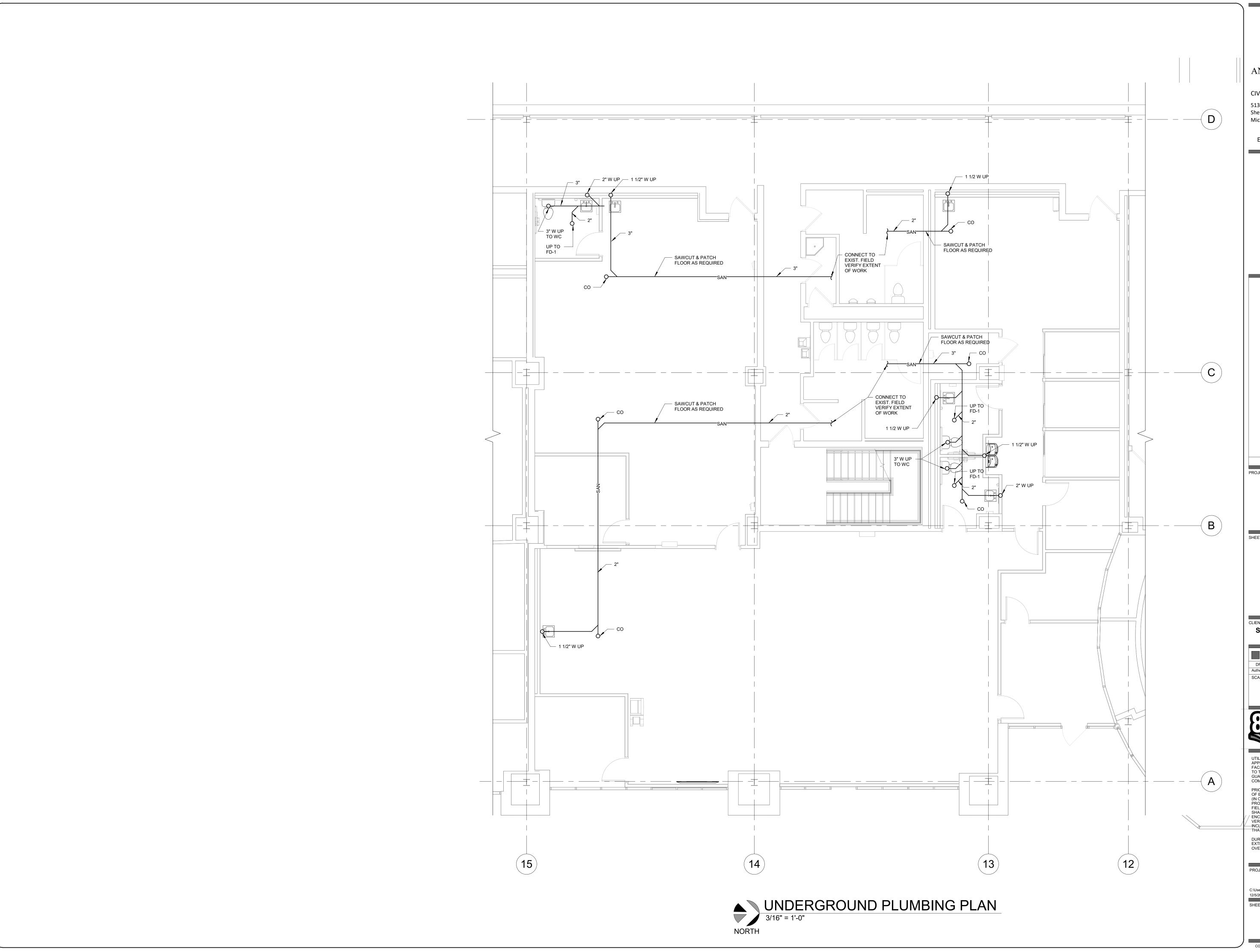
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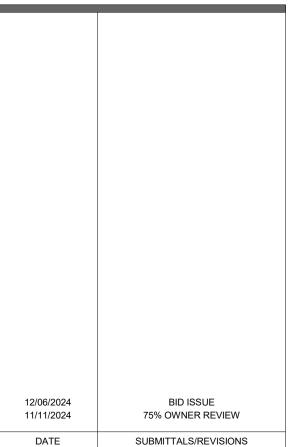




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DATE PROJECT NAME:

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UNDERGROUND **PLUMBING PLAN**

SEMCO ENERGY GAS COMPANY

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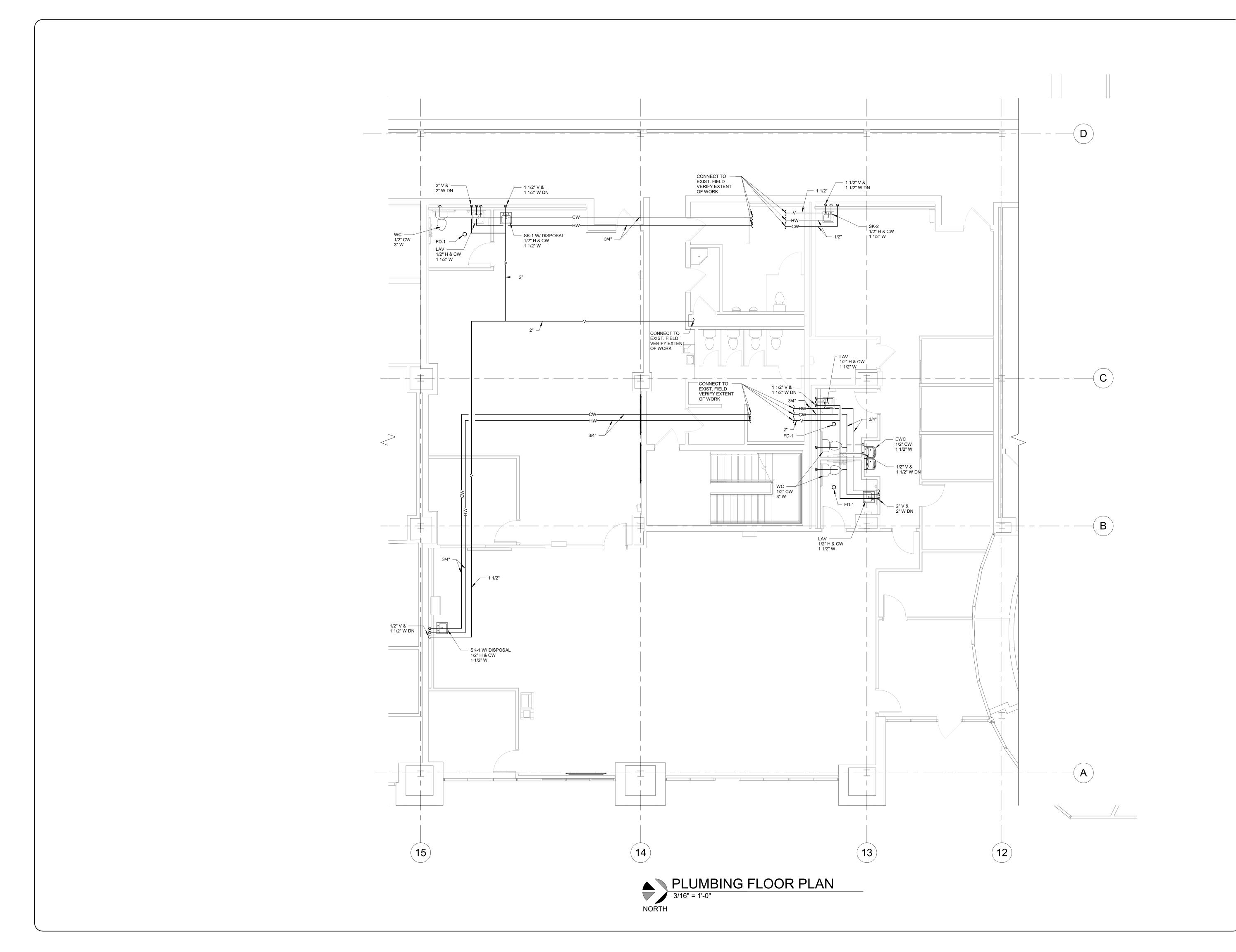
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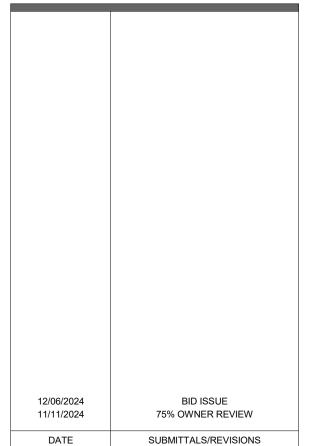


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PROJECT NAME:

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PLUMBING PLAN

SEMCO ENERGY GAS COMPANY

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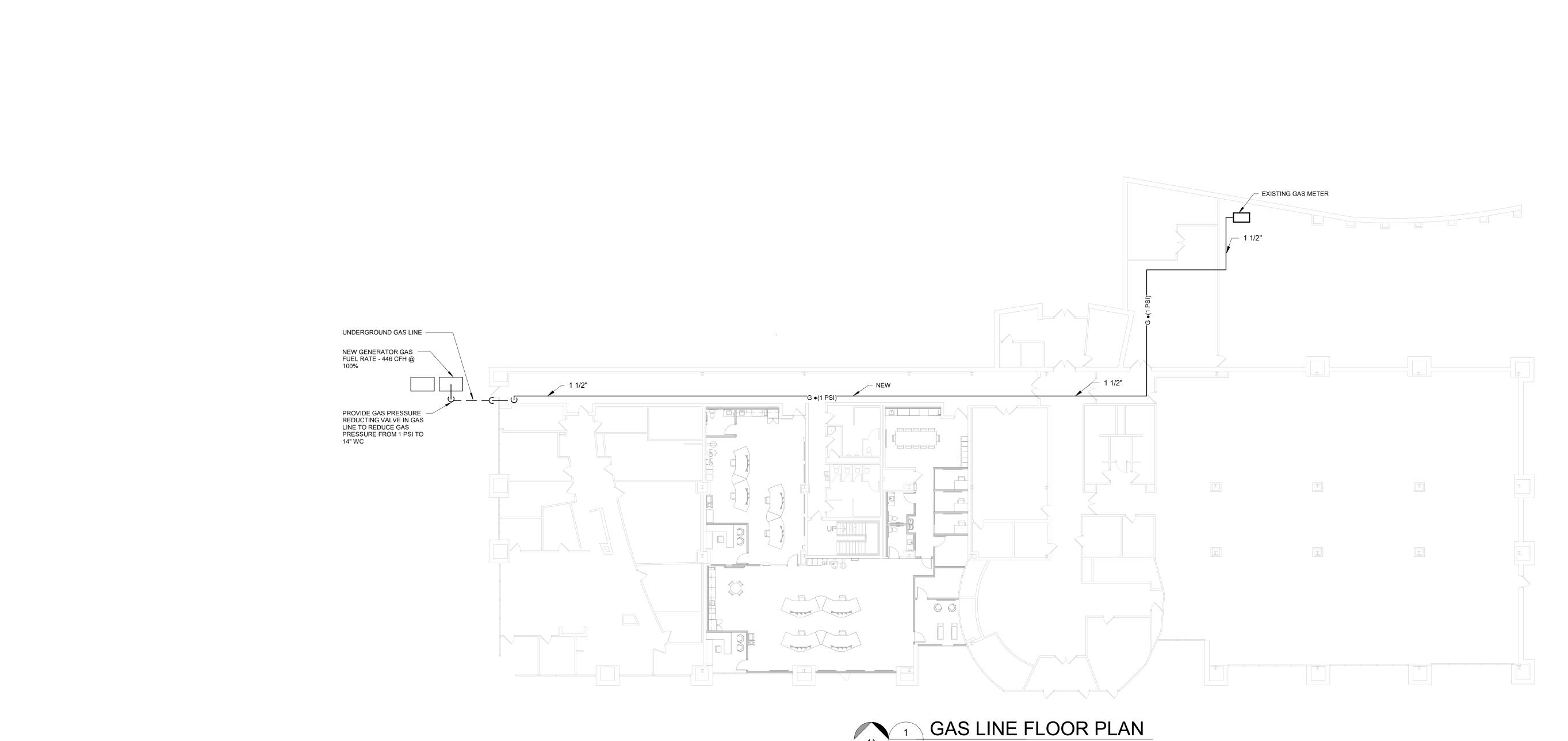
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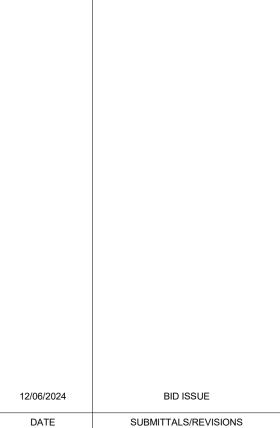




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PROJECT NAME:

GAS LINE FLOOR PLAN

SEMCO ENERGY GAS COMPANY

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		LUMINAIRE SCHEDULE			
FIXTURE SYMBOL	FIXTURE TAG	DESCRIPTION	MANUFACTURER(S)	LAMP SOURCE	WATTS
	A	2'x4' LOW PROFILE TROFFER VOLUMETRIC DISTRIBUTION LED LUMINAIRE, CENTER SQUARE SMOOTH DIFFUSER OPTION SUITABLE FOR RECESS MOUNTING IN LAY—IN TYPE GRID CEILING, DIE FORMED ENCLOSURE, HIGH REFLECTANCE BAKED MATTE WHITE ENAMEL FINISH, HIGH OPTICAL GRADE ACRYLIC LENS AND DIRECTED OPTICAL DISTRIBUTION, 4800 LUMENS, ELECTRONIC DRIVER, 4000K. 0—10V DIMMING CAPABLE, UNIVERSAL VOLTAGE.	 LITHONIA BLT LED SERIES COOPER LIGHTING COLUMBIA LIGHTING 	LP840 82CRI 4800 LUMENS	45
	В	2'x2' LOW PROFILE TROFFER EDGE LIT FLAT PANEL LED LUMINAIRE. A FULLY LUMINOUS APPEARANCE GLARE FREE. SUITABLE FOR RECESS MOUNTING IN LAY—IN TYPE GRID CEILING, ALUMINUM FRAME WITH SATIN WHITE LENS, 3400 LUMENS, ELECTRONIC DRIVER, 4000K. 0—10V DIMMING CAPABLE, UNIVERSAL VOLTAGE.	 LITHONIA EPANL LED FLAT PANEL COOPER LIGHTING COLUMBIA LIGHTING 	LP840 80CRI 3400 LUMENS	30.8
	BB	2'x2' LOW PROFILE TROFFER VOLUMETRIC DISTRIBUTION LED LUMINAIRE, CENTER SQUARE SMOOTH DIFFUSER OPTION SUITABLE FOR RECESS MOUNTING IN LAY—IN TYPE GRID CEILING, DIE FORMED ENCLOSURE, HIGH REFLECTANCE BAKED MATTE WHITE ENAMEL FINISH, HIGH OPTICAL GRADE ACRYLIC LENS AND DIRECTED OPTICAL DISTRIBUTION, 3200 LUMENS, ELECTRONIC DRIVER, 4000K. 0—10V DIMMING CAPABLE, UNIVERSAL VOLTAGE.	1. LITHONIA BLT LED SERIES 2. COOPER LIGHTING 3. COLUMBIA LIGHTING	LP840 82CRI 3200 LUMENS	34
	C	2.25" WIDE X 4" HIGH PENDANT MOUNTED DIRECT/INDIRECT LED FIXTURE, LENGTH AS SHOWN ON PLANS. EXTRUDED ALUMINUM BODY. RAL COLOR TO BE SELECTED BY ARCHITECT, FLUSH DOWNLIGHT DIFFUSER. USING VERY HIGH LUMEN OUTPUT PACKAGE FOR UP AND DOWN. 4000K, 80 CRI. SINGLE CIRCUIT, SWITCH FOR UP AND DOWN SEPERATLY 120 VOLT, 0-10V 10% DIMMING.	BG 96LG MVOLT SC FC-10% FA50 FE ### RAL 1BSL310LP	LP840 80CRI 961 LM/FT UP 786 LM/FT DN	
↑ €	X	EXIT LIGHT EMERGENCY LIGHT SHALL BE UNIVERSAL MOUNT, DIECAST ALUMINUM, HIGH OUTPUT LED DIFFUSE LIGHT PANEL, RED LETTERS WITH MAINTENANCE FREE NICKEL CADIUM BATTERY CAPABLE OF PROVIDING 90 MINUTE FULL LIGHT OPERATION.	1. LITEALARMS GRANDE SERIES CAT# 1 XDPC N W RW 2. LITHONIA CAT # LE S 1 W	120-277V	2.3

LUMINAIRE SCHEDULE GENERAL NOTES

- 1. REFER TO ELECTRICAL SPECIFICATIONS FOR MORE INFORMATION.
- 2. ALL LIGHT FIXTURES SHALL BE UL LABELED.
- 3. FIRST MANUFACTURER LISTED IS BASIS OF DESIGN. OTHER MANUFACTURERS LISTED ARE APPROVED MANUFACTURERS.
- 4. ELECTRICAL TRADES SHALL PROVIDE COMPLETE SUBMITTALS (SHOP DRAWINGS) ON ALL LIGHT FIXTURES, LAMPS, CONTROLS AND ACCESSORIES, ETC. REFER TO SPECIFICATION FOR SUBMITTAL FORMAT AND PROCESS.
- 5. ALL LUMINAIRES AND CONTROLS SHALL COMPLY WITH THE MICHIGAN UNIFORM ENERGY CODE AND ASHRAE 90.1.

LIGHTING SYMBOL LIST

\square LIGHT FIXTURE - CEILING/GRID MOUNT LIGHT FIXTURE — INTERIOR WALL MOUNT LINEAR

DESCRIPTION

LIGHT FIXTURE — DOWNLIGHT WITH WALLWASH DIST. LIGHT FIXTURE - INTERIOR WALL SCONCE LIGHT FIXTURE - INTERIOR SURFACE MOUNT

ОН LIGHT FIXTURE — INTERIOR WALL MOUNTED LIGHT FIXTURE - INTERIOR PENDANT MOUNT EXIT LIGHT - CEILING MOUNTED - ARROWS AS INDICATED ON PLAN (SHADED AREA INDICATES

SYMBOL

SYMBOL

FACE(S) OF FIXTURE) EXIT LIGHT — WALL MOUNTED — ARROWS AS INDICATED ON PLAN (SHADED AREA INDICATES FACE(S) OF FIXTURE)

EMERGENCY LIGHT FIXTURE — EMERGENCY BATTERY UNIT EMERGENCY LIGHT FIXTURE — BATTERY UNIT/EXIT SIGN LIGHT FIXTURE - EXTERIOR POLE MOUNT TYPE LIGHT FIXTURE — EXTERIOR WALL MOUNT TYPE LIGHT FIXTURE - EXTERIOR POST TOP TYPE

LIGHTING SYMBOLS AS INDICATED ON PLANS ARE NOT DRAWN TO SCALE UNLESS NOTED OTHERWISE.

LIGHTING CONTROLS LEGEND

DESCRIPTION

LIGHT FIXTURE - EXTERIOR BOLLARD TYPE

\$	SWITCH SINGLE POLE
\$ ₀	OCCUPANCY SENSOR SWITCH
\$ _V	VACANCY SENSOR SWITCH
\$ _D	LOW VOLTAGE DIMMER SWITCH
\$ _{VD}	VACANCY DIMMER SENSOR SWITCH
<u>os</u>	CEILING MOUNTED OCCUPANCY SENSO
(VS)	CEILING MOUNTED VACANCY SENSOR
\$3	SWITCH THREE-WAY

SINGLE POLE KEY SWITCH

POWER SYMBOL LIST

POWER RECEPTACLE - USB/DUPLEX COMBO. DEVICE

POWER RECEPTACLE - RECESSED FLOOR TYPE

TRANSFORMER (REFER TO SCHEDULES FOR INFO)

DESCRIPTION

MONITOR LOCATION- DETAIL DETAIL SHEET E-500

COMMUNICATIONS DEVICE - 6" ABOVE COUNTER

POWER AND DATA RECEPTACLES - RECESSED FLOOR TYPE

POWER RECEPTACLE - QUADRUPLEX TYPE

POWER RECEPTACLE - SPECIALTY TYPE

VARIABLE SPEED DRIVE

PLANS AND SCHEDULES.

CAMERA

CARD READER

PUSH BUTTON

SPEAKER

HTV

CR

SYMBOL

FAA

FACP

1. ALL DEVICE RATINGS/SIZES SHALL BE COORDINATED WITH

AUXILIARY SYST. SYMBOL LIST

COMMUNICATIONS DEVICE - FLOOR

COMMUNICATIONS DEVICE - WALL

MAGNETIC DOOR HOLDER

WALL CLOCK - SINGLE FACE

1. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR

FIRE ALARM SYMBOL LIST

DETECTION DEVICE - DUCT MOUNTED

DETECTION DEVICE - TAMPER SWITCH

FIRE DEPARTMENT COMMUNICATION OUTLET

NOTIFICATION DEVICE — WALL MOUNTED

NOTIFICATION DEVICE - CEILING MOUNTED

DETECTION DEVICE - FLOW SWITCH

FIRE ALARM ANNUNCIATOR PANEL

MANUAL DEVICE - PULL STATION

PROVIDED BY FIRE ALARM MANUFACTURER. REFER TO

PROJECT SPECIFICATIONS FOR APPROVED MANUFACTURERS.

FIRE ALARM CONTROL PANEL

1. DRAWINGS INDICATE DESIGN INTENT ONLY, FINAL LOCATIONS AND DEVICE SPECIFICATIONS SHALL BE

DESCRIPTION

BOX AND CONDUIT FOR ALL DEVICES INDICATED.

2. LOW VOLTAGE CONTRACTOR SHALL PROVIDE EXACT SPECIFICATIONS AND LOCATIONS OF ALL DEVICES.

DETECTION DEVICE

WALL CLOCK AND SPEAKER UNIT

POWER SYMBOL LIST		ELEC	TRICAL ABBREVIATIONS
SYMBOL	DESCRIPTION	ABBREV.	DESCRIPTION
•	CONDUIT DOWN	AFF	ABOVE FINISHED FLOOR
0	CONDUIT UP	А	AMPERE
С	CONTACTOR	AF	AMPERE FUSE/AMPERE FRAME
4	DISCONNECT SWITCH - NON FUSED	AWG	AMERICAN WIRE GAUGE
4	DISCONNECT SWITCH - FUSED	AT	AMPERE TRIP
4	DISCONNECT SWITCH - COMB. MOTOR STARTER	ATS	AUTOMATIC TRANSFER SWITCH
	ELECTRICAL PANEL - 208/240 VOLTS	AIC	AVAILABLE INTERRUPTING CURRENT (AMPS)
	ELECTRICAL PANEL - 480 VOLTS	С	CONDUIT OR CEILING MOUNTED
ledow	GROUNDING ROD	СВ	CIRCUIT BREAKER
=	GROUND	CU	COPPER
	GROUNDING BAR	СТ	CURRENT TRANSFORMER
	JUNCTION BOX	DIA	DIAMETER
	JUNCTION BOX WITH HARDWIRED CONNECTION	DISC	DISCONNECT
M	METER	EMT	ELECTRICAL METALLIC TUBING
\O \	MOTOR - SINGLE PHASE	EWC	ELECTRIC WATER COOLER
\ @\	MOTOR - THREE PHASE	EPO	EMERGENCY POWER OFF
\$м	MOTOR RATED SWITCH	(E)	EXISTING ELECTRICAL EQUIPMENT OR WORK
φ	POWER RECEPTACLE - SIMPLEX TYPE	FA	FIRE ALARM
Ψ	POWER RECEPTACLE - DUPLEX TYPE	FACP	FIRE ALARM CONTROL PANEL
	POWER RECEPTACLE - DUPLEX 6" ABOVE COUNTER	FLA	FULL LOAD AMPS

FUSE

GROUND

HAND-OFF-AUTO

ISOLATED GROUND

KILOVOLT AMPERE

KILOWATT HOUR

LIGHTING PANEL

MAIN LUG ONLY

MAXIMUM

MINIMUM

NON-FUSIBLE

NORMALLY CLOSED

NORMALLY OPEN

NOT IN CONTRACT

PHASE

POLE

POWER FACTOR

MAIN CIRCUIT BREAKER

MAIN DISTRIBUTION PANEL

NATIONAL ELECTRICAL CODE

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION

OWNER FURNISHED / CONTRACTOR INSTALLED

RELOCATED EXISTING ELECTRICAL EQUIPMENT

OWNER FURNISHED / OWNER INSTALLED

POLYVINYL CHOLRIDE (PLASTIC)

REMOVE AND REINSTALL

RIGID METALLIC CONDUIT

TELEPHONE BACKBOARD

UNIVERSAL SERIAL BUS

UNDERWRITERS LABORATORIES

UNINTERRUPTIBLE POWER SUPPLY

RECEPTACLE PANEL

SPECIFICATIONS

UNDER COUNTER

TYPICAL

VOLT

WATT

VOLT AMPERE

WIRE GUARD

WEATHERPROOF

TRANSFORMER

HORSEPOWER

KILOVOLT

KILOWATT

GROUND FAULT CIRCUIT INTERRUPTER

G/GRD

NEMA

N/NEU

OF/CI

OF/OI

PH. OR Ø

SPEC/SPECS

TBB

TYP.

USB

XFMR

DDAMINIC NOTATION

DRAWING INDEX

ELECTRICAL GENERAL INFORMATION

ELECTRICAL DEMOLITION PLAN

FIRST FLOOR POWER PLAN

FIRST FLOOR LIGHTING PLAN

ONE-LINE DIAGRAM AND SCHEDULES

ELECTRICAL SITE PLAN

ELECTRICAL DETAILS

PANEL SCHEDULES

DESCRIPTION

SHEET #

E100

ED101

E101

E102

E103

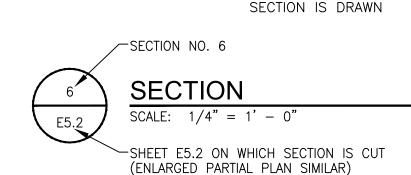
E200

E301

	DRAWING NOTATION			
SYMBOL	DESCRIPTION			
A	LIGHTING FIXTURE TAG			
(1)	CONSTRUCTION KEY NOTE NUMBER 1			
1	DEMOLITION KEY NOTE NUMBER 1			
<u>1</u>	FEEDER SIZE TAG (REFER TO FEEDER SCHEDULE ON THIS SHEET)			
EF 1	EQUIPMENT DESIGNATION, (I.E. EXHAUST FAN NUMBER 1)			
	EXISTING DEVICES OR EQUIPMENT			
	NEW OR MODIFIED DEVICES OR EQUIPMENT			
	NEW OR MODIFIED UNDERGROUND WIRING			

-SECTION NUMBER 4 -SHEET E5.2 ON WHICH

SHIFT SYSTEM COMPONENT TO BE REMOVED



APPLICABLE CODES AND DECLII ATIONS

AND REGULATIONS			
YEAR	CODE		
2015	MICHIGAN BUILDING CODE		
2015	MICHIGAN ENERGY CODE		
2023	MICHIGAN ELECTRICAL CODE RULES, PART 8		
2023	NATIONAL ELECTRICAL CODE (NFPA 70)		
2013	NFPA 20		
2013	NFPA 72		
2012	NFPA 101		
2013	NFPA 110		

2009 | ICC A117.1 ACCESSIBLE AND USABLE BUILDINGS & FACILITIES



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12/06/2024 **BID ISSUE** OWNER REVIEW 11/11/2024 DATE SUBMITTALS/REVISIONS

PROJECT NAME: **SEMCO EMERGENCY OPERATIONS** CENTER

ELECTRICAL GENERAL INFORMATION

SEMCO ENERGY GAS COMPANY

PRELIMINAR	Y CONSTRU	CTION RECORD
DRAWN BY:	CHECKED BY:	DATE:
NMA	JRA	OCTOBER 2024
SCALE:	•	
	AS NOTED	

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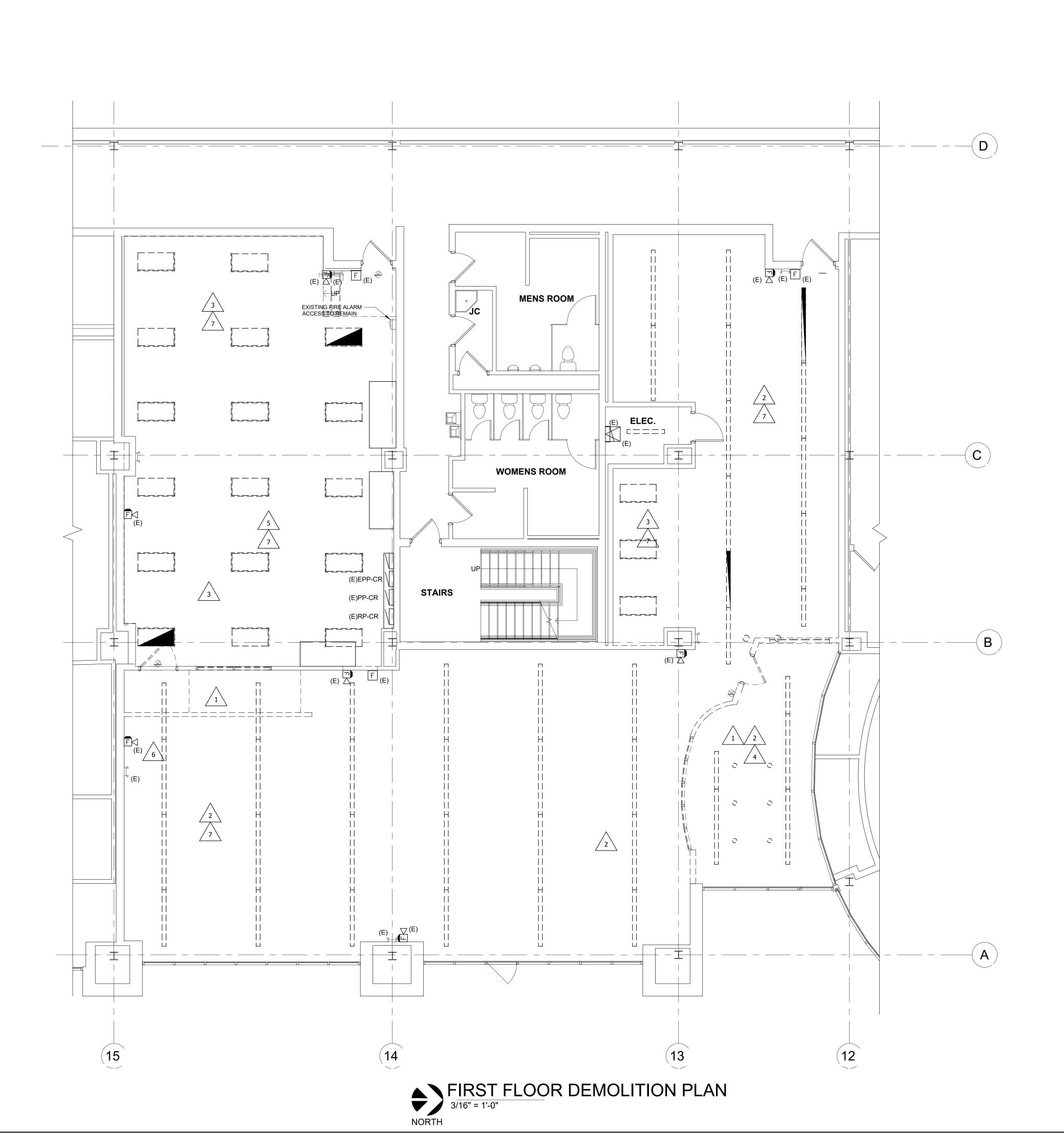
DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

PROJECT NO.

1584-0003

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E100



GENERAL DEMOLITION NOTES

DETERMINED BY THE NEW WORK.

ANY INTERRUPTIONS OF EXISTING SERVICES AND/OR EQUIPMENT SHALL BE PERFORMED AT A TIME APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE SO AS NOT TO INTERFERE WITH THE PRESENT BUILDING'S OPERATION.

THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF WORK TO BE PERFORMED. THE EXACT EXTENT OF DEMOLITION SHALL BE

PRIOR TO COMMENCEMENT OF WORK, CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING SITE CONDITIONS, SYSTEMS, AND UTLITIES. NOTIFY DESIGN PROFESSIONAL OF ANY INTERFERENCES OR DISCREPENCIES.

ALL ITEMS INDICATED WITH CROSS-HATCHING SHALL BE REMOVED COMPLETE

D WITH ALL RELATED ITEMS INCLUDING HANGARS, SUPPORTS, INSULATION,
CONTROLS, ETC. CAP ALL OPEN ENDED PIPES AND DUCTS.

THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED. ALL ITEMS REMOVED SHALL BE LEGALLY DISPOSED OF. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXISTING RELOCATED AND OWNER PROVIDED EQUIPMENT.

VERIFY DEPTH, SIZE, LOCATIONS, AND CONDITIONS OF EXISTING UTILITIES IN THE FIELD. INCLUDING POINTS OF CONNECTION PRIOR TO STARTING ANY WORK.

ALL ITEMS ON DEMOLITION PLAN SHALL BE CONSIDERED EXISTING UNLESS

G OTHERWISE NOTED. ALL WORK INDICATED ON PLANS HAS BEEN LOCATED PER EXISTING DRAWINGS AND/OR FIELD OBSERVATION AND REQUIRES FIELD VERIFICATION.

ALL EXISTING WORK TO REMAIN SHALL BE PROTECTED FROM DAMAGE. WHERE DUCT WORK PIPE INSULATION HAS BEEN DAMAGED DURING DEMOLITION, THE CONTRACTOR SHALL REPAIR INSULATION AS REQUIRED TO MATCH EXISTING.

DEMOLITION KEYED NOTES EXISTING RECEPTACLES ASSOCIATED WITH COUNTERS BEING REMOVED AND WALLS BEING DEMOLISHED SHALL BE REMOVED. REMOVE CONDUIT AND WIRING BACK TO SOURCE. SET BREAKERS TO OFF AND UPDATE PANEL SCHEDULE. EXISTING PENDANT MOUNTED FLUORESCENT LIGHT FIXTURES, EXIT SIGNS TO BE REMOVED COMPLETE, REMOVE CONDUIT, WIRING, AND SWITCHING BACK TO SOURCE. RETAIN BREAKERS AS SPARE. CIRCUITS MAYBE REUSED FOR NEW LIGHTING CIRCUITS, REFER TO NEW LIGHTING PLAN FOR ADDITIONAL INFORMATION. EXISTING RECESSED MOUNTED FLUORESCENT LIGHT FIXTURES, EXIT SIGNS TO BE REMOVED COMPLETE, REMOVE CONDUIT, WIRING, AND SWITCHING BACK TO SOURCE. RETAIN BREAKERS AS SPARE. CIRCUITS MAYBE REUSED FOR NEW LIGHTING CIRCUITS, REFER TO NEW LIGHTING PLAN FOR ADDITIONAL INFORMATION. EXISTING RECESSED FLUORESCENT DOWNLIGHTS TO BE REMOVED COMPLETE. CONDUIT AND WIRING BACK TO SOURCE. EXISTING ELECTRICAL PANELS, UPS SYSTEM AND COOLING SYSTEM TO BE REMOVED. REFER TO ONE-LINE DIAGRAM SHEET E300 FOR ADDITIONAL INFORMATION EXISTING FIRE ALARM DEVICE TO BE REMOVED COMPLETE. MAINTAIN CIRCUIT CONNECTION TO OTHER DEVICES TO REMAIN.

ALL EXISTING WALL MOUNTED EMERGENCY LIGHTING UNITS TO BE REMOVED

COMPLETE, REMOVE CONDUIT AND WIRING BACK TO SOURCE.



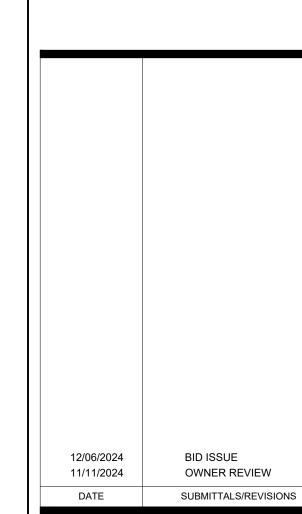
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Shelby Township Fax 586 726 8780
Michigan 48315

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SEMCO
EMERGENCY
OPERATIONS
CENTER

SHEET TITLE

FIRST FLOOR DEMOLITION PLAN

CLIENT:
SEMCO ENERGY GAS COMPANY

PRELIMINARY CONSTRUCTION RECORD

DRAWN BY: CHECKED BY: DATE:

NMA Checker 09/09/22

SCALE:

AS NOTED

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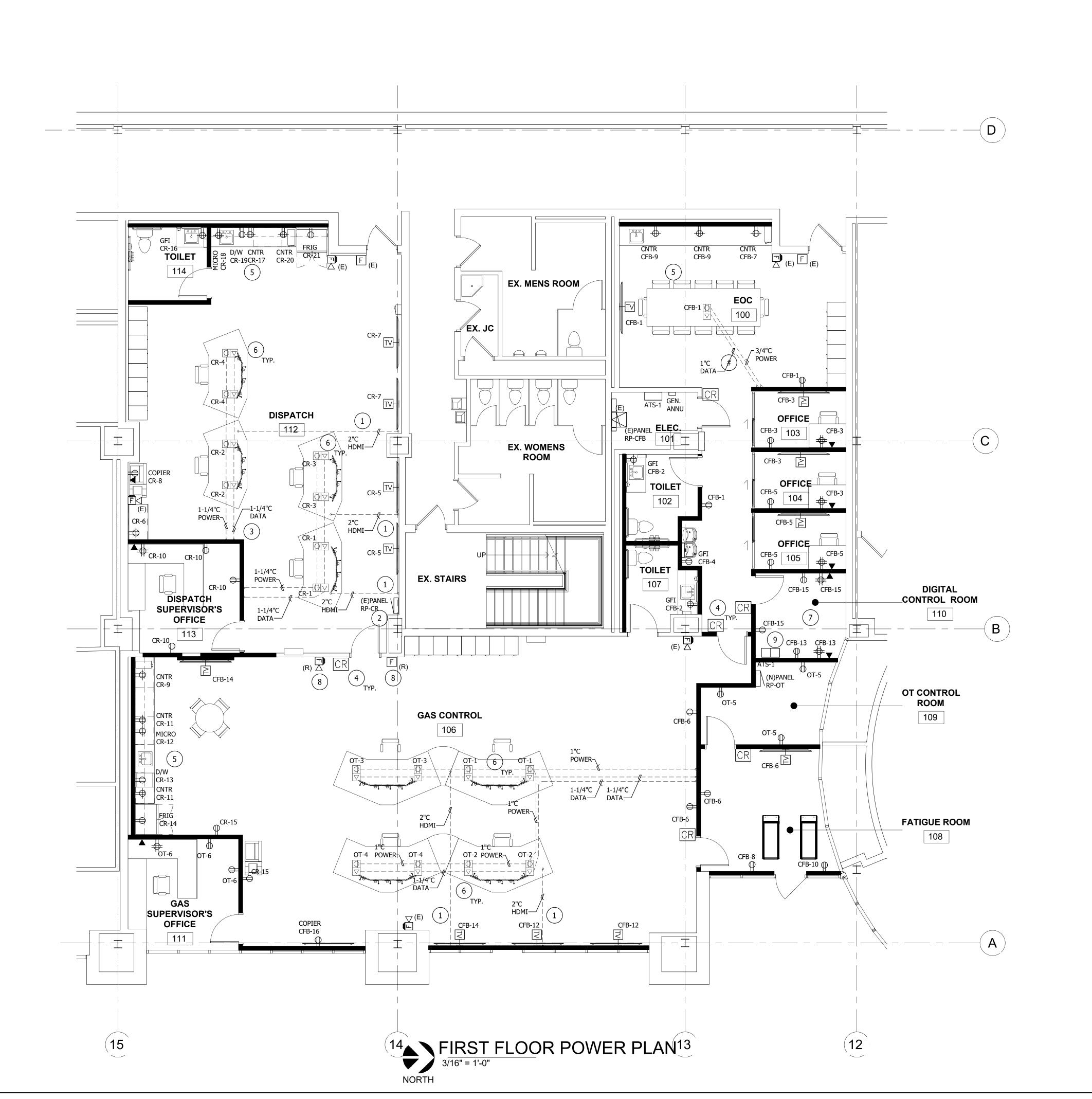
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SHEET NO.

AD101



ELECTRICAL GENERAL NOTES

- OF THE WORK TO BE PERFORMED. PROVIDE AND EXECUTE ALL HVAC SYSTEMS PER ENGINEER'S SPECIFICATION, AND LOCAL APPLICABLE CODES INCLUDING AND EQUIPMENT ESTABLISHED FOR THE BUILDINGS, AND REQUIREMENTS OF
- RECORD. IN ACCORDANCE WITH ALTERNATES OF OPTIONS AS STATED HEREINAFTER, ALL WORK MUST BE IN FULL ACCORDANCE WITH THE INTENT OF THE PLANS AND SPECIFICATIONS. SYSTEMS ARE TO BE COMPLETE, EFFICIENT, AND SATISFACTORY OPERATION WHEN PROJECT IS DELIVERED TO THE OWNER.
- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVAL FROM GOVERNING AUTHORITIES AND FILE NECESSARY FORMS, PAY ALL INSPECTION
- WIRING SHALL BE IN CONDUIT. CONDUIT SHALL BE 3/4" C ONDUIT MINIMUM. CONDUITS IN FINISHED AREAS SHALL BE CONCEALED
- OTHERWISE NOTED. FINAL CONNECTIONS TO EQUIPMENT, FURNISHED AND INSTALLED BY OTHERS, SHALL BE PROVIDED BY THIS CONTRACTOR.

- 1 STUB UP 6" OM DESK END AND 4FT ON TV SIDE. COORDINATE EXACT LOCATIONS
- NEXT JUNCTION BOX ABOVE CEILING AND CONNECT TO CIRCUIT SHOWN.
- CONNECTED TO EXISTING SYSTEM. PROVIDE POWER SUPPLY AS REQUIRED. COORDIANTE ALL WORK AND PROGRAMING WITH OWNER.
- ALL RECEPTACLES AT KITCHENETTE AREA SHALL BE GFIC TYPE OR GFIC PROTECTED. ALL RECEPTACLES SHALL BE ACCCESSIBLE PER CODE.
- FLOOR BOXES SHALL BE COMBINATION POWER AND DATA TYPE. PROVIDE 2 GANG BOXES COMPLETE WITH 20A RECEPTACLES, AND COVER PLATES. DATA OUTLETS AND DATA WIRING SHALL BE PROVIDED BY DATA CONTRACTOR. CAT # "LEGRAND 800 SERIES OR EQUAL".
- VERIFY EXACT MOUNTING HEIGHT OF ALL OUTLETS IN THIS ROOM WITH IT CONTRACTOR PRIOT YO ROUGH-IN.
- EXISTING FIRE ALARM DEVICE TO BE RELOCATED TO THIS WALL, REFER TO DEMOLITION PLAN FOR ORIGINAL LOCATION.
- PROPOSED LOCATION OF (2) 20KVA UPS SYSTEMS. ONE 20KVA UPS TO BE

- THESE DRAWINGS ARE DIAGRAMMAITC AND REPRESENT THE GENERAL EXTENT AMENDMENTS, BULLETINS, ETC. AS WELL AS THE STANDARDS OF INSTALLATION
- EXCEPT FOR CHANGES AS MAY BE SPECIFICALLY APPROVED BY THE ENGINEER OF
- ELECTRICAL CONTRACTOR SHALL COMPLY WITH THE LATEST NATIONAL ELECTRICAL CODE, LIFE SAFETY CODE AND APPLICABLE STATE AND LOCAL CODES AND ORDINANCES.
- ELECTRICAL EQUIPMENT AND WIRING SHALL BE NEW AND SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED.
- NEW WIRES SHALL BE TYPE THHN. MINIMUM SIZE SHALL BE #12 AWG, UNLESS

NEW WORK KEYED NOTES

- 2" UNDERGROUND CONDUIT WITH PULL STRING FOR HDMI CABLE CONNECTION. IN THE FIELD WITH DATA CONTRACTOR.
- NEW LOCATION OF EXISTING PANEL RP-CR, REFER TO ONE-LINE DIAGRAM AND PANEL SCHEDULE FOR ADDITIONAL INFORMATION.
- STUB UP DATA CONDUIT TO 6" ABOVE CEILING. POWER CONDUIT TO RUN TO
- ACCESS CONTROL/CARD READER LOCATION, REFER TO DETAIL ON SHEET E200. COORDINATE ALL WORK WITH ACCESS DOOR SUPPLIER. NEW READERS TO BE

- PROVIDED BY OWNER, OTHER TO BE PROVIDED BY ELECTRICAL CONTRACTOR.
 - CONTRACTOR TO PROVIDE ALL CONNECTIONS. NEW UPS SHALL MATCH EXISTING . COORDINATE WITH OWNER PRIOR TO PURCHASE.

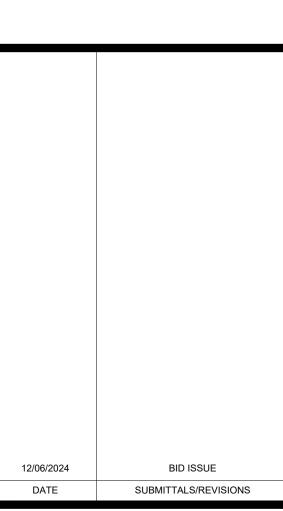


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PROJECT NAME:

SEMCO EMERGENCY OPERATIONS CENTER

FIRST FLOOR **POWER PLAN**

SEMCO ENERGY GAS COMPANY

PRELIMINARY CONSTRUCTION RECORD			
DRAWN BY:	CHECKED BY:	DATE:	
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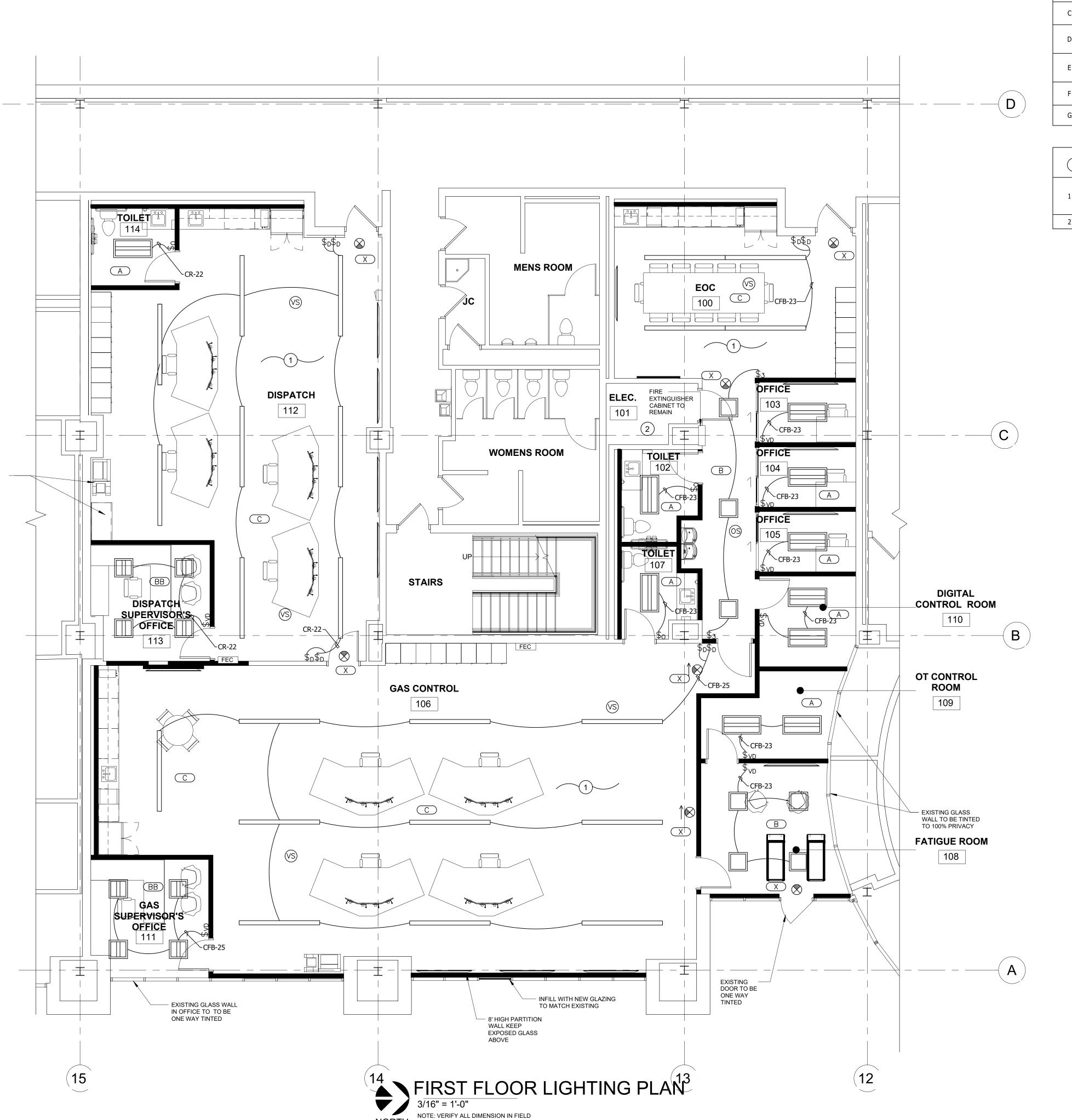
DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

PROJECT NO.

1584-0003

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NOTE: VERIFY ALL DIMENSION IN FIELD

NORTH

LIGHTING GENERAL NOTES

- REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL LIGHTING FIXTURES UNLESS OTHERWISE NOTED.
- ANY 120 VOLT BRANCH CIRCUIT FEEDER LONGER THAN 120'-0" TO LAST DEVICE SHALL BE SIZED TO THE NEXT LARGER STANDARD AWG SIZE. E.C. SHALL FIELD VERIFY ALL LENGTHS OF FEEDERS
- SEE LIGHT FIXTURE SCHEDULE SHEET E00. ALL ELECTRICAL DEVICES ON THIS SHEET SHALL BE NEW UNLESS OTHERWISE NOTED.
- WHERE MORE THEN ONE LIGHT SWITCH IS INDICATED TO BE INSTALLED AT THE SAME LOCATION, THEY SHALL BE GROUPED UNDER ONE COMMON FACEPLATE.
- ELECTRICAL CONTRACTOR SHALL COMPLY WITH THE LATEST NATIONAL ELECTRICAL CODE, LIFE SAFETY CODE AND APPLICABLE STATE AND LOCAL
- CODES AND ORDINANCES. ELECTRICAL EQUIPMENT AND WIRING SHALL BE NEW AND SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED.
- WIRING SHALL BE IN CONDUIT. CONDUIT SHALL BE 3/4" C ONDUIT MINIMUM. CONDUITS IN FINISHED AREAS SHALL BE CONCEALED

NEW WORK KEYED NOTES

FIXTURES TO BE PENDANT MOUNTED AT 8'-6" AFF TO BOTTOM OF FIXTURE, AND CONTROLLED THROUGH CEILING MOUNTED VACANCY SENSOR AND DIMMER WALL SWITCHES AS SHOWN. ONE SWITCH TO CONTROL UPLIGHTS, OTHER TO CONTROL DOWN LIGHTS.

2 EXISTING LIGHT FIXTURE IN THIS ROOM TO REMAIN.

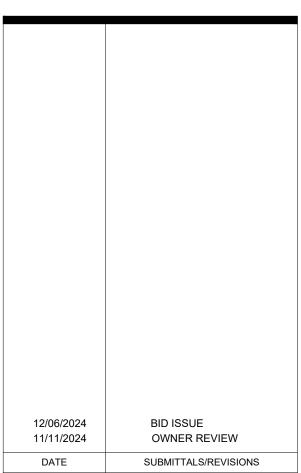


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PROJECT NAME:

SEMCO EMERGENCY OPERATIONS CENTER

FIRST FLOOR **LIGHTING PLAN**

SEMCO ENERGY GAS COMPANY

PRELIMINARY CONSTRUCTION RECORD				
DRAWN BY:	CHECKED BY:	DATE:		
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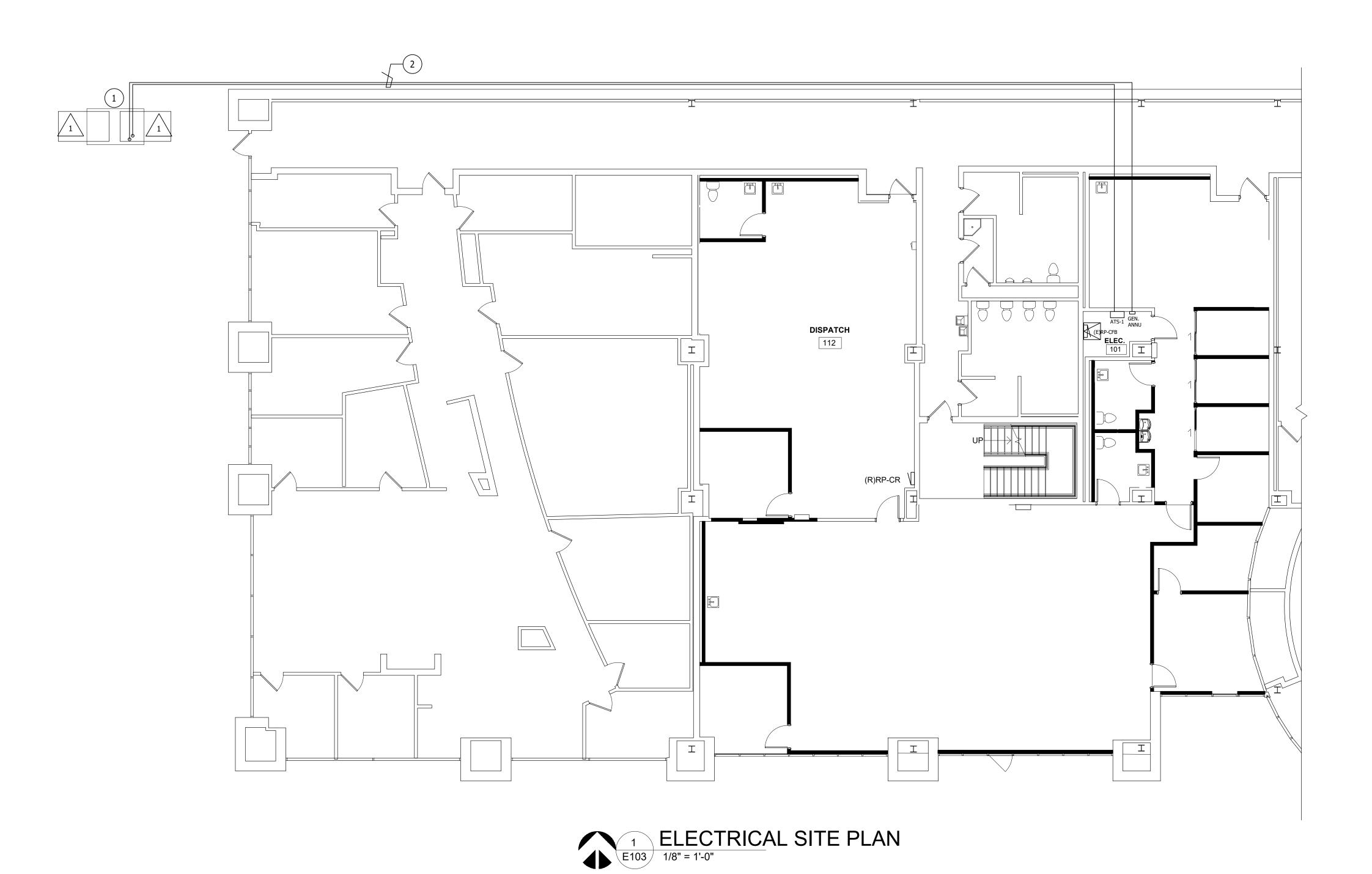
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PROJECT NO.

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ELECTRICAL GENERAL NOTES

- THESE DRAWINGS ARE DIAGRAMMAITC AND REPRESENT THE GENERAL EXTENT
 OF THE WORK TO BE PERFORMED. PROVIDE AND EXECUTE ALL HVAC SYSTEMS
 PER ENGINEER'S SPECIFICATION, AND LOCAL APPLICABLE CODES INCLUDING
 AMENDMENTS, BULLETINS, ETC. AS WELL AS THE STANDARDS OF INSTALLATION
 AND EQUIPMENT ESTABLISHED FOR THE BUILDINGS, AND REQUIREMENTS OF
 THE OWNER
- THE OWNER.

 EXCEPT FOR CHANGES AS MAY BE SPECIFICALLY APPROVED BY THE ENGINEER OF RECORD. IN ACCORDANCE WITH ALTERNATES OF OPTIONS AS STATED HEREINAFTER, ALL WORK MUST BE IN FULL ACCORDANCE WITH THE INTENT OF
- THE PLANS AND SPECIFICATIONS. SYSTEMS ARE TO BE COMPLETE, EFFICIENT,
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 CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVAL FROM
 GOVERNING AUTHORITIES AND FILE NECESSARY FORMS, PAY ALL INSPECTION
- ELECTRICAL CONTRACTOR SHALL COMPLY WITH THE LATEST NATIONAL
 E ELECTRICAL CODE, LIFE SAFETY CODE AND APPLICABLE STATE AND LOCAL
- F ELECTRICAL EQUIPMENT AND WIRING SHALL BE NEW AND SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED.
- G WIRING SHALL BE IN CONDUIT. CONDUIT SHALL BE 3/4" C ONDUIT MINIMUM. CONDUITS IN FINISHED AREAS SHALL BE CONCEALED
- NEW WIRES SHALL BE TYPE THHN. MINIMUM SIZE SHALL BE #12 AWG, UNLESS OTHERWISE NOTED. FINAL CONNECTIONS TO EQUIPMENT, FURNISHED AND INSTALLED BY OTHERS, SHALL BE PROVIDED BY THIS CONTRACTOR.

DEMOLITION KEYED NOTES

CODES AND ORDINANCES.

EXISTING CONDENSING UNIT BEING REMOVED BY MECHANICAL TRADES.

1 ELECTRICAL CONTRACTOR TO MAKE SAFE, DISCONNECT AND REMOVE CONDUIT AND WIRING BACK TO PANEL PP-CR IN DISPATCH ROOM 112.

NEW WORK KEYED NOTES

- NEW GENERATOR TO BE INSTALLED IN PLACE OF CONDENSING UNITS BEING
 REMOVED. PROVIDE NEW PAD, CONDUIT AND WIRING AS DETAILED IN ONE-LINE
 DIAGRAM SHEET E300 AND DETAIL SHEET E200. COORDINATE EXACT ROUTING IN
 THE FIELD.
- POSSIBLE ROUTING FOR POWER AND DATA CONDUITS FROM NEW GENERATOR LOCATION TO ATS AND REMOTE ANNUNCIATOR.



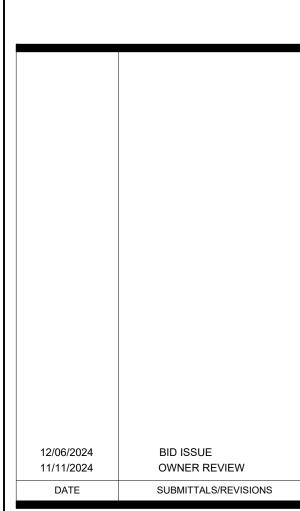
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Shelby Township Fax 586 726 8780
Michigan 48315

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SEMCO
EMERGENCY
OPERATIONS
CENTER

SHEET TITLE

ELECTRICAL SITE PLAN

CLIENT: SEMCO ENERGY GAS COMPANY

PRELIMINAR	CTION RECORD	
DRAWN BY:	CHECKED BY:	DATE:
Author	Checker	12/21/23
SCALE:		
	AS NOTED	

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UTILITY INFORMATION, AS SHOWN, INDICATES
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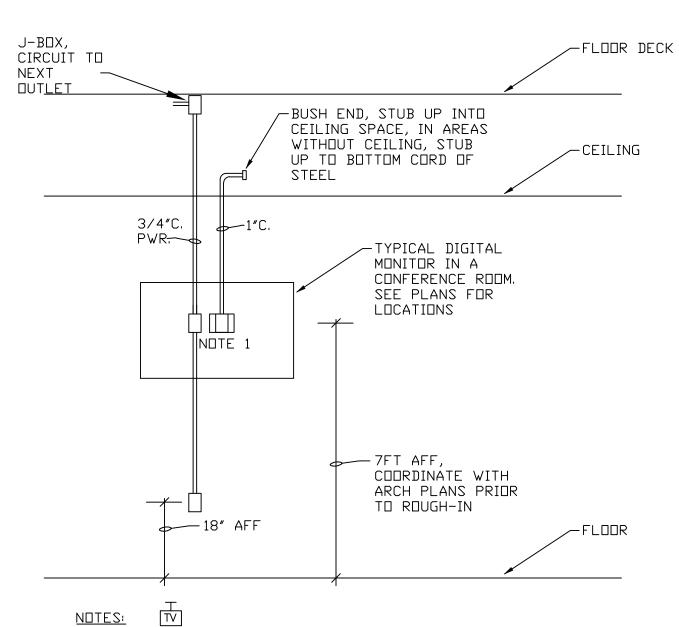
DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

PROJECT NO.

1584-0003

SHEET NO.

E103

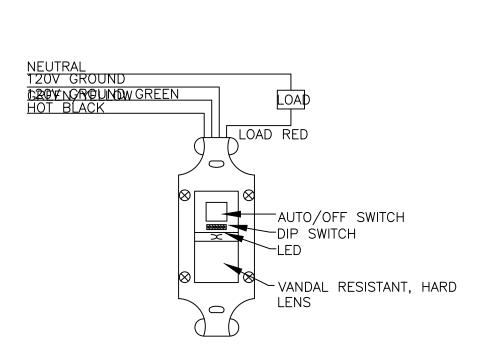


1. CONFIRM ALL JUNCTION BOX AND CONDUIT REQUIREMENTS WITH

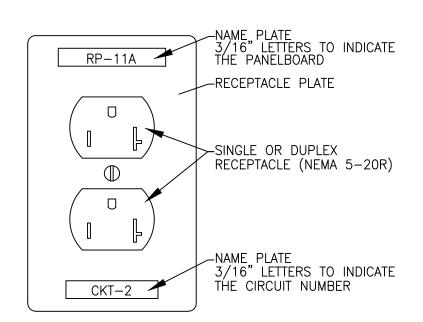
OWNER'S IT REPRESENTATIVE PRIOR TO ROUGH-IN.

2. PROVIDE SINGLE GANG BOX FOR POWER, 2 GANG BOX WITH WITH SINGLE GANG OPENING FOR CABLE/DATA.

DIGITAL MONITOR ROUGH-IN DETAIL NO SCALE

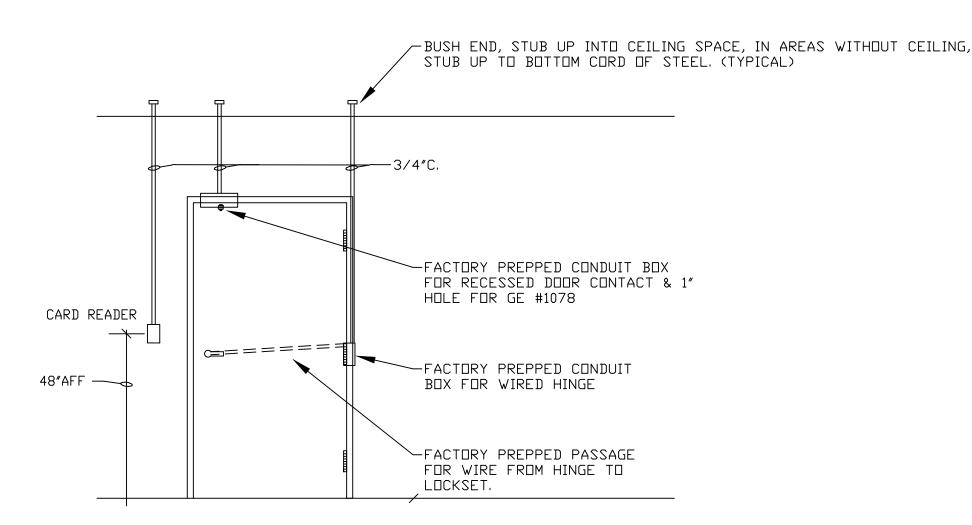


OFFICE VACANCY SENSOR SCHEMATIC NO SCALE



DETAIL OF BRANCH CIRCUIT NUMBER
ON RECEPTACLE PLATE

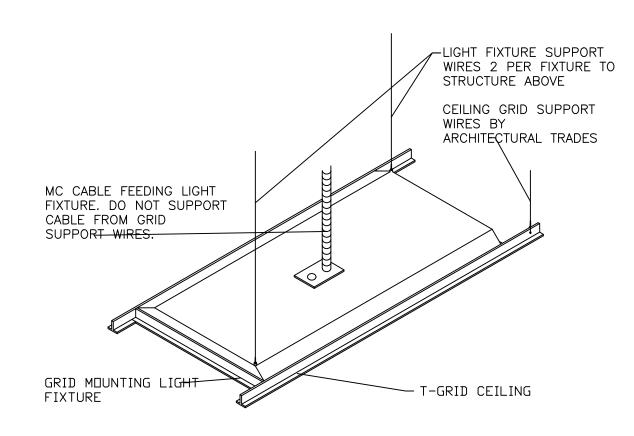
NO SCALE



NUTES:

- 1. REFER TO DOOR SCHEDULE AND HARDWARE SPECIFICATIONS FOR EXACT LOCKING STYLE USED.
- 2. COORDINATE ALL WORK WITH ARCHITECTURAL TRADES AND SECURITY CONTRACTOR PRIOR TO ROUGH-IN, IN MANY CASES DOOR IS ADJACENT TO GLASS WALL. ALL WIRING SHALL BE CONCEALED.
- 3. DOORS IN THE PATH OF EGRESS MUST BE UNLOCKED DURING A FIRE ALARM CONTROL MODULE AND INTERFACE WITH DOOR LOCKING SYSTEM.

TYPICAL CARD READER RACEWAY DETAIL NO SCALE

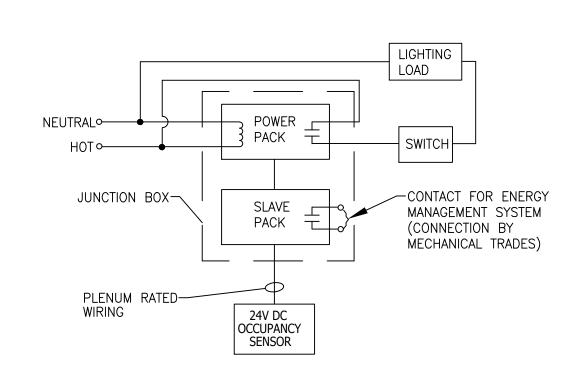


T-GRID FIXTURE MOUNTING DETAIL

NO SCALE

ELECTRICAL FIXTURES

- 1. PENDANT MOUNTED FIXTURES SHALL BE DIRECTLY SUPPORTED FROM THE STRUCTURE ABOVE USING A 9 GAUGE WIRE OR AN APPROVED ALTERNATE SUPPORT WITHOUT USING THE CEILING SUSPENSION SYSTEM FOR DIRECT SUPPORT.
- 2. TANDEM FIXTURES MAY UTILIZE COMMON WIRES.



CEILING MOUNTED VACANCY/OCCUPANCY SENSOR DETAIL

NO SCALE (VS) (OS)

WALL 4 11/16" SQUARE BOX WITH PLASTER RING STAINLESS STEEL BLANK COVERPLATE 18" OR AS INDICATED ON PLANS

- PATCH HOLE TO

MATCH FIRE RATING

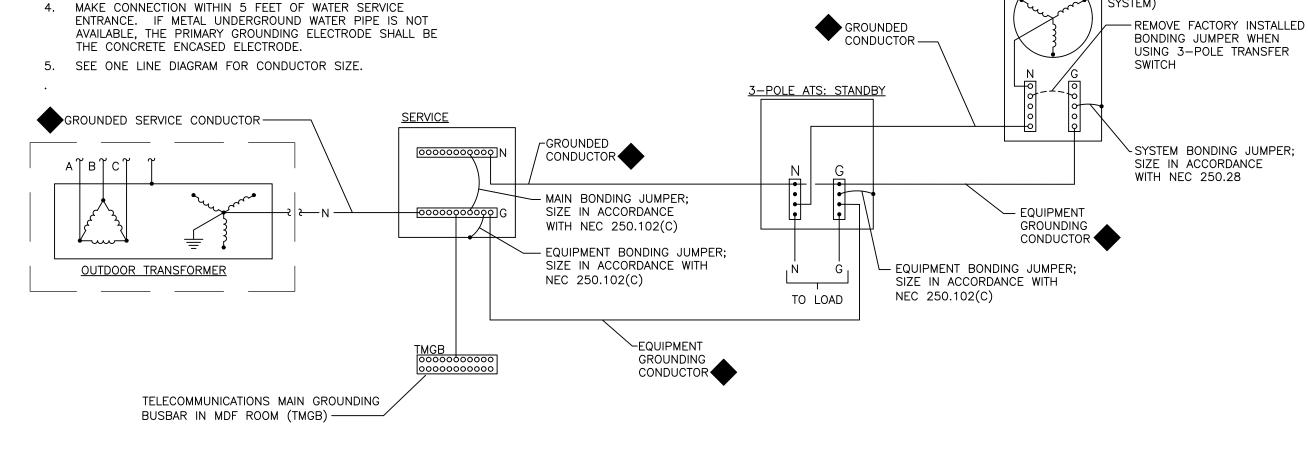
TELE/DATA DETAIL

NO SCALE

1-1/4"C WITH PULL

STRING AND END

BUSHING -



4-WIRE ELECTRICAL SERVICE AND GENERATOR WITH 3-POLE TRANSFER SWITCH GROUNDING DETAIL NO SCALE ~

GENERAL NOTES

- 1. EQUIPMENT DIMENSIONS INDICATED ARE BASED ON TYPICAL EQUIPMENT DIMENSIONS. PRIOR TO INSTALLATION OR PAD CONSTRUCTION ELECTRICAL CONTRACTOR SHALL SUBMIT FOR APPROVAL A DIMENSIONED PAD LAYOUT DRAWING BASED ON EQUIPMENT SHOP DRAWING DIMENSIONS. SUBMIT PAD LAYOUT DRAWING AS A SHOP DRAWING.
- 2. VERIFY CONDUIT STUB UP LOCATIONS WITH EQUIPMENT SHOP DRAWINGS
- 3. SWEEPS MUST BE RIGID STEEL, A MINIMUM 36" RADIUS BEND.

KEY NOTES

NEC TABLE 250.66.

1. INSTALL GROUNDING ELECTRODE CONDUCTOR IN SCHEDULE

2. SUPPLY SIDE BONDING JUMPER; SIZE IN ACCORDANCE WITH

3. GROUND GRID RESISTANCE SHALL BE 5 OHMS OR LESS.

PROVIDE ADDITIONAL GROUND RODS AS REQUIRED.

NEC TABLE 250.66 AND NEC ARTICLES 250.28(D) AND

40 PVC CONDUIT. SIZE CONDUCTOR IN ACCORDANCE WITH

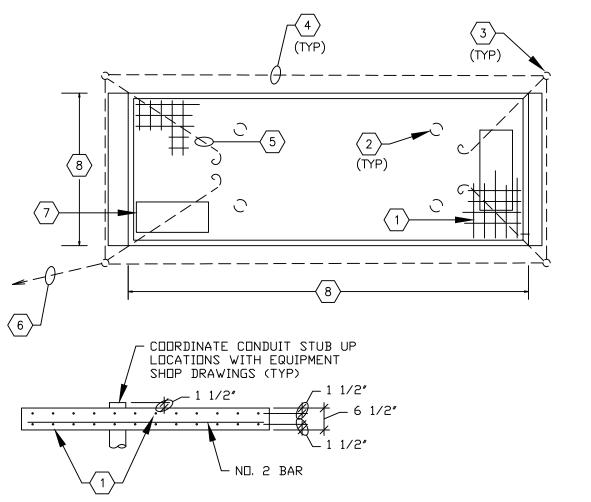
4. CONCRETE PADS SHALL UTILIZE CONCENTRATION 6 BAGS OF CEMENT PER YARD, COORDINATE ALL WORK WITH ARCHITECTURAL AND STRUCTURAL TRADES.

KEYED NOTES

1 #4 RE-STEEL, 2 LAYERS (TYPICAL)

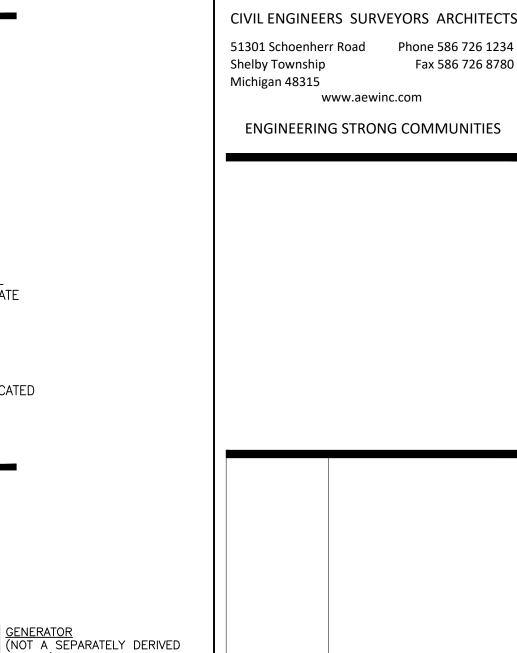
PRIOR TO INSTALLATION.

- $\overline{\left(2\right)}$ SUPPORT ROD UNDER GENERATOR RAILS. SEE DETAIL THIS SHEET.
- $\begin{pmatrix} 3 \end{pmatrix}$ 10'-0" LONG x 5/8" DIAMETER COPPER GROUND ROD. $\begin{pmatrix} 4 \end{pmatrix}$ 1#4/0 COPPER GROUND CABLE TO INTERCONNECT GROUND RODS.
- 1#4/0 CORRER CROWN CARLE TO FOURMENT FOR CROWNING
- (5) 1#4/0 COPPER GROUND CABLE TO EQUIPMENT FOR GROUNDING.
- 6 1#4/0 COPPER GROUND TO CONNECT TO ADJACENT SERVICE TRANSFORMER GROUNDING SYSTEM.
- 7 CONFIRM EXACT CONDUIT STUB UP LOCATION(S) WITH GENERATOR MANUFACTURER SHOP DRAWINGS PRIOR TO ROUGH—IN.
- (8) CONFIRM EXACT GENERATOR SIZE AND ASSOCIATED CONCRETE PAD WITH GENERATOR MANUFACTURER PRIOR TO ROUGH IN.
- NO SCALE



TYPICAL SERVICE EQUIPMENT CONCRETE PAD SECTION DETAIL

GENERATOR PAD DETAIL SCALE: N.T.S.



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BID ISSUE

DD OWNER REVIEW

SUBMITTALS/REVISIONS

SHEET TITLE:

12/06/2024

11/11/2024

DATE

ELECTRICAL DETAILS

LIENT:
SEMCO ENERGY GAS COMPANY

PRELIMINARY CONSTRUCTION RECORD

DRAWN BY: CHECKED BY: DATE:

NMA JRA OCTOBER 2024

SCALE:

AS NOTED

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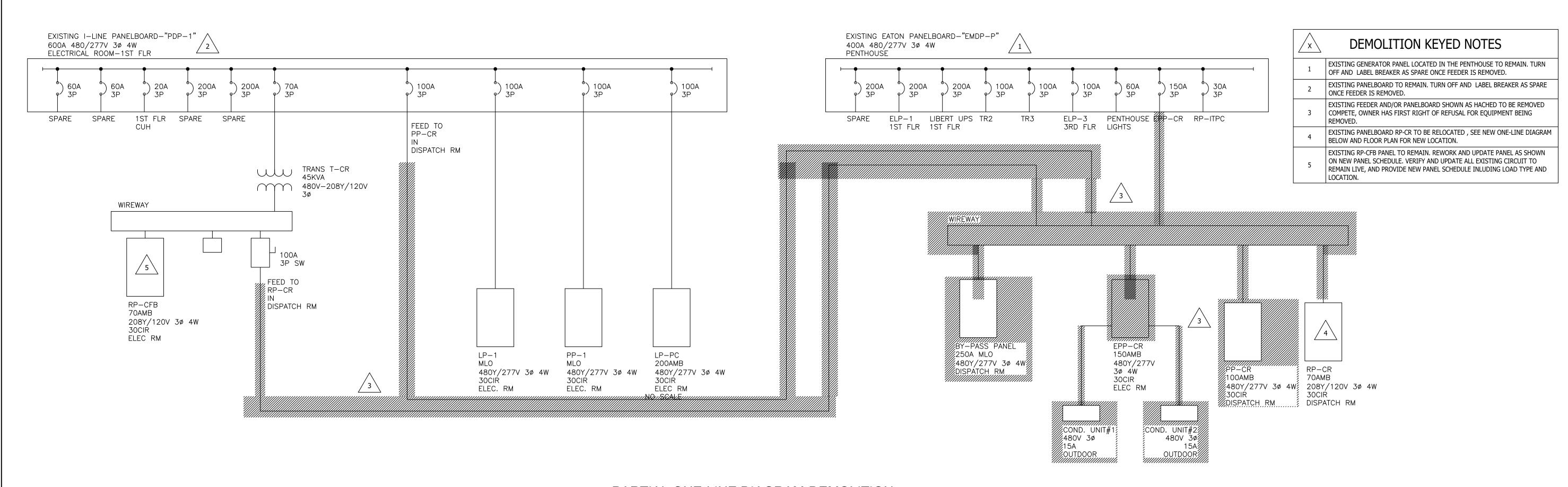
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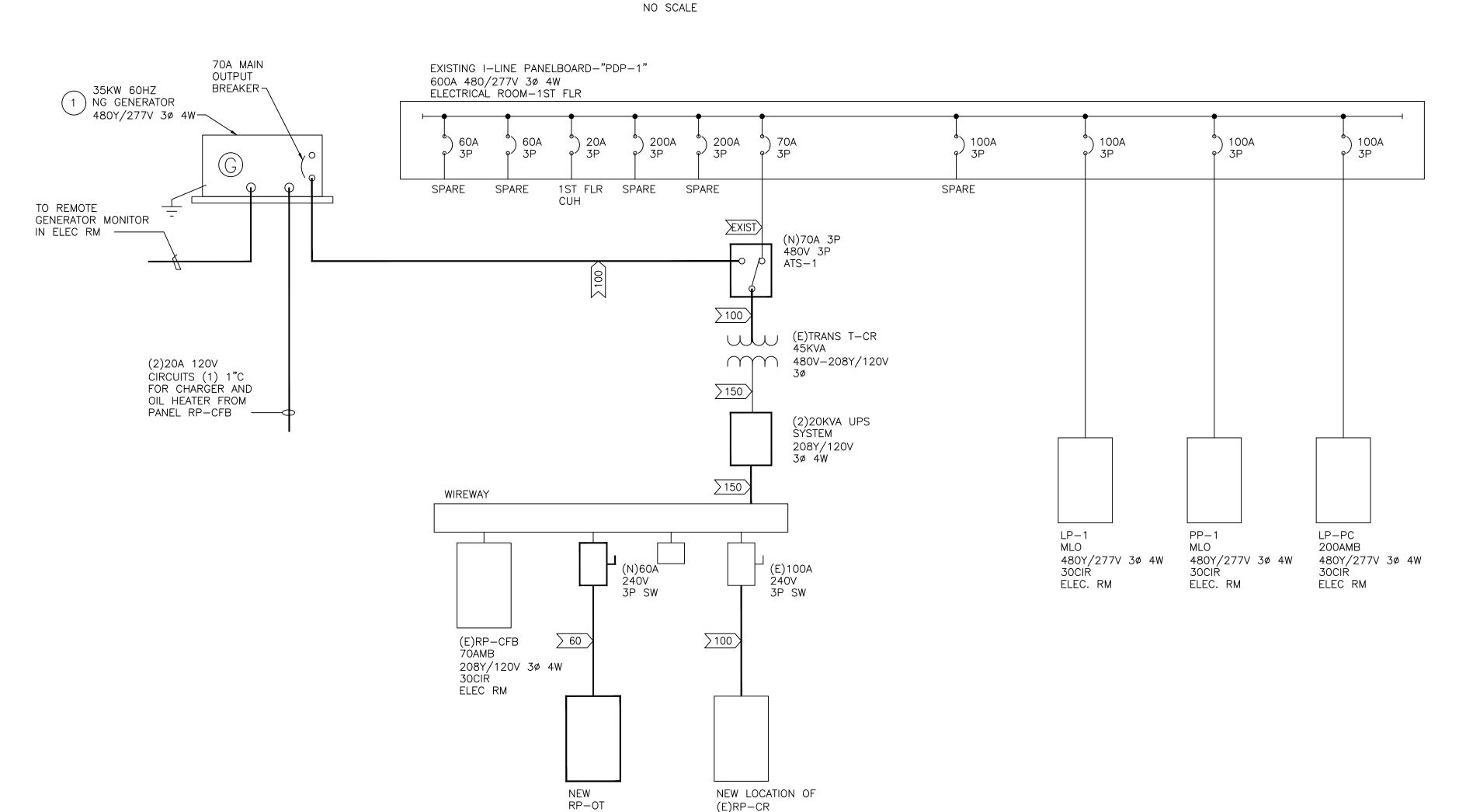
PROJECT NO.

1584-0003

E200



PARTIAL ONE-LINE DIAGRAM-DEMOLITION



70AMB

30CIR

208Y/120V 3ø 4W

DISPATCH RM

60AMB

18CIŔ

208Y/120V 3ø 4W

OT CONTROL RM

FEEDER	C□ND.	FEEDER AND CONDUIT SIZES
(AMPS)	SIZE	
EXIST		EXISTING FEEDER TO REMAIN
<u>> 60</u>	6	1″C, 4#6 & 1#8 GRD.
<u>>100</u>	3	1-1/4″C, 4#3 & 1#6 GRD.
<u>>150</u>	1/0	1-1/2″C, 4#1/0 & 1#6 GRD.

LOAD SUMMARY										
	DEMAND LOAD									
	KVA	KVA	AMPERAGE							
PANEL RP-CR	17.30 KVA	14.15 KVA	39.3							
PANEL RP-CFB	16.52 KVA	14.65 KVA	40.7							
PANEL RP-OT	8.70 KVA	8.70 KVA	24.2							
TOTAL DEMAND LOAD:		37.5KVA	104.2A							
TOTAL ELECTRICAL SERVICE: 10	VOLTAGE: 208Y/120V 3Ø 4W SERVICE									

#	NEW WORK KEYED NOTES
1	NEW NATURAL GAS GENERATOR SET. 35KW, 44KVA, 60HZ 480/277V 3Ø, BY GENERAC "CAT #SG035". REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION AND SPECS FOR INSTALLATION REQUIREMENT.

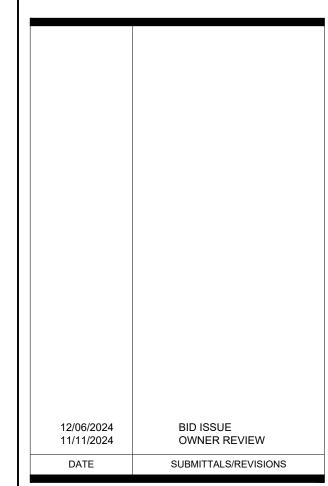


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PROJECT NAME:

SEMCO EMERGENCY OPERATIONS CENTER

SHEET TITLE:

ONE-LINE DIAGRAMS

SEMCO ENERGY GAS COMPANY

DRAWN BY:	CHECKED BY:	DATE:					
NMA	JRA	OCTOBER 2024					
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PROJECT NO.

1584-0003

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E300

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PARTIAL ONE-LINE DIAGRAM-NEW WORK
NO SCALE

Panel Designation: (E)RP-CFB Panel Location: ELEC RM 101							Main	: 7C)		P-P Voltage: 208					
							ssing	: 10	00				P-N V	oltage:	120	
Fed From	See On	e-Line D)iaaram	ľ	Gr				ANDA	RD				Phase:		
Feeder Size			_		Mounting: SURFACE									Wire:	4	
			10.91 0.11				utral			_	Min	SC Inte	rrupting			
	Light	Recept	Cont	nonC	ос			_		ос	nonC	Cont	Recept	Light	Tok	
Remarks	Load	Load	Load	Load	Prot	СКТ	Ø Ø A B	C	CKT	Prot	Load	Load	Load	Load	Remarks	
OC RM 100		900			20	1	X	Ť	2	20			360		TOILET RM 102, 107	
OFFICE RM 103,104		900			20	3	×	(4	20	960				EWC CORRIDOR	
OFFICE RM 104, 105		900			20	5		X	6	20			540		FATIGUE RM 108	
EOC RM 100 COUNTER		360			20	7	X		8	20			1200		FATIGUE RM 108, TREADMILL	
OC RM 100 COUNTER		360			20	9	×	(10	20			1200		FATIGUE RM 108, TREADMILL	
SPARE					20	11		X	12	20			720		GAS CONTROL RM 106 TV'S	
DIGITAL RM 110		540			20	13	X		14	20			720		GAS CONTROL RM 106 TV'S	
DIGITAL RM 110		540			20	15	×	(16	20			1000		GAS CONTROL RM 106 COPIER	
EXISTING CIRCUITS		540			20	17		X	18	20					EXISTING CIRCUIT	
EXISTING CIRCUITS		540			20	19	X		20	20					EXISTING CIRCUIT	
EXISTING CIRCUITS		540			20	21	×	(22	20					existing circuit	
LIGHTING RM 100-109	1000				20	23		X	24	20					SPARE	
LIGHTING RM 106	1200				20	25	X		26						SPACE	
SPACE						27	×	(28						SPACE	
SPACE						29		X	30						SPACE	
		Connect					Dem		l			Deman				
oad Description	ØA	ØB	ØС	Total			Fac				ØA	ØB	ØС	Total		
ighting or Continous Load (Volt-Amps)	1200	0	1000	2200			1.0				1200	0	1000	2200		
180VA Receptacle Load (Volt-Amps)	4620	4540	2700	11860			(Firs				3895	3828	2277	10000	Receptacle Demand Factor per Article	
	Am	ount ove	r 10kVA	1860		0.3	50 (>	IOK'	VA)		362	356	212	930	220.44 of the National Electrical Code.	

 0
 960
 0
 768
 0
 768

 5.82
 5.50
 3.70
 15.02
 125% of Light/Cont and Recept (<10kVA) load plus other load</td>
 5.46
 4.95
 3.49
 13.90

 48.5
 45.8
 30.8
 41.7
 (<10kVA) load plus other load</td>
 45.5
 41.3
 29.1
 38.6

 59.1
 53.8
 37.7
 50.2
 ---- per NEC Article 215.2
 ---->
 56.1
 49.2
 35.9
 47.1

0 0 0 0

0 0 0 0 0 768 0 768

Continuous Load (Volt-Amps)

Total Load (kVA)

Total Ampacity (Amps)

Non-Continuous Load (Volt-Amps)

Minimum Feeder Sizing (Amps)

Panel Designation		_	Mair				P-P Voltage: 208									
Panel Location			ssing				P-N Voltage: 120									
Fed From	: See Or	ne-Line D)iagram	Ė	Gr	ound	d Bu	s: \$1	TAND	ARD	Phase: 3 Wire: 4					
Feeder Size	: See Or	ne-Line D)iagram	ı		Λουι	nting	g: Sl	URFA	CE						
						Ne	utra	ıl: 10	00%		Min SC Interrupting Rating: 10K					
Remarks	Light Load	Recept Load	Cont Load	nonC Load	OC Prot	СКТ	Ø Ø	Ø Ø B C	СКТ	OC Prot	nonC Load	Cont Load	Recept Load	Light Load	Remarks	
DISPATCH RM 112 FLOOR BOXES		900			20	1	X		2	20			900		DISPATCH RM 112 FLOOR BOXES	
DISPATCH RM 112 FLOOR BOXES		900			20	3)	X	4	20			900		DISPATCH RM 112 FLOOR BOXES	
DISPATCH RM 112 TV'S		720			20	5		Х	6	20			360		DISPATCH RM 112 COUNTER	
DISPATCH RM 112 TV'S		720			20	7	X		8	20			1000		DISPATCH RM 112 COPIER	
GAS CONTROL RM 106 COUNTER		360			20	9)	X	10	20			900		DISPATCH OFFICE RM 113	
GAS CONTROL RM 106 COUNTER		360			20	11		Х	(12	20			1500		GAS CONTROL RM 106 MICROW AVE	
GAS CONTROL RM 106 DISHW ASHER		960			20	13	X		14	20			960		GAS CONTROL RM 106 FRIG	
GAS CONTROL RM 106		360			20	15)	X	16	20			360		TOILET RM 114	
DISPATCH RM 112 COUNTER		360			20	17		Х	18	20			1500		DISPATCH RM 112 MICROWAVE	
DISPATCH RM 112 DISHWASHER		960			20	19	X		20	20			360		DISPATCH RM 112 COUNTER	
DISPATCH RM 112 FRIG		960			20	21)	X	22	20				1000	LIGHTING RM 112-114	
PARE					20	23		Х	24	20					SPARE	
PARE					20	25	Х		26	20					SPARE	
SPARE					20	27)	X	28						Space	
SPARE					20	29		Х	30	_					Space	
															_	
		Connect	ed Load				Dem	nanc	d			Demand	Load			
oad Description	ØA	ØB	ØС	Total			Fac	ctor			ØA	ØB	ØС	Total		
ighting or Continous Load (Volt-Amps)	0	1000	0	1000				.00			0	1000	0	1000		
180VA Receptacle Load (Volt-Amps)	6760	4740	4800	16300			,		kVA)		4147	2908	2945	10000	Receptacle Demand Factor per Articl	
An			r 10kVA	6300		0.3	50 (>	10k	(AV)		1306	916	928	3150	220.44 of the National Electrical Code	
Continuous Load (Volt-Amps)	0	0	0	0							0	0	0	0		
Non-Continuous Load (Volt-Amps)	0	0	0	0							0	0	0	0		
otal Load (kVA)	6.76	5.74	4.80	17.30		_				ecept	5.45	4.82	3.87	14.15		
Total Ampacity (Amps)	56.3	47.8	40.0	48.1	100					load	45.4	40.2	32.3	39.3		
Minimum Feeder Sizing (Amps)	65.0	56.0	46.1	55.7	< p	oer N	EC A	rticl	le 215.	2>	54.1	48.3	38.4	46.9		

Panel Designation		٨	۸air	n: 60			P-P Voltage: 208									
Panel Location	Panel Location: ELEC RM 109								0		P-N Voltage: 120					
Fed From	: See Or	ne-Line [Diagram		Gr	ounc	Bus	s: ST/	ANDA	\RD				Phase:	: 3	
Feeder Size	: See Or	ne-Line D)iaaram			Nour	ntine	ı: SU	RFAC	CE				Wire	: 4	
			J					I : 10			Min	SC Inte	rrupting	Ratina	: 10K	
Remarks	Light Load	Recept Load	Cont Load	nonC Load	OC Prot			Ø Ø B C		OC Prot	nonC Load	Cont Load	Recept Load	Light Load	Remarks	
GAS CONTROL RM 106 FLOOR BOXES		900			20	1	X		2	20			900		GAS CONTROL RM 106 FLOOR BOXES	
GAS CONTROL RM 106 FLOOR BOXES		900			20	3)	X	4	20			900		GAS CONTROL RM 106 FLOOR BOXES	
OT CONTROL RM 109		540			20	5		X	6	20			720		GAS SUPERVISOR OFFICE 111	
SERVER #1 RM 109		1920			20	7	X		8	20			1920		SERVER #2 RM 109	
SPARE					20	9)	X	10	20					SPARE	
SPARE					20	11		X	12	20					SPARE	
SPARE					20	13	Х		14	20					SPARE	
SPACE					-	15)	X	16	-					SPACE	
SPACE					-	17		X	18	-					SPACE	
															-	
		Connect						nand				Deman				
Load Description	ØA	ØB	ØС	Total			Fac	ctor			ØA	ØB	ØС	Total		
Lighting or Continous Load (Volt-Amps)	0	0	0	0			1.	00			0	0	0	0		
180VA Receptacle Load (Volt-Amps)	5640	1800	1260	8700	1.00 (First 10kVA)				5640	1800	1260	8700	Receptacle Demand Factor per Article			
	Am	ount ove	r 10kVA	0	0.50 (> 10kVA)				0	0	0	0	220.44 of the National Electrical Code.			
Continuous Load (Volt-Amps)	0	0	0	0							0	0	0	0		
Non-Continuous Load (Volt-Amps)	0	0	0	0							0	0	0	0		
Total Load (kVA)	5.64	1.80	1.26	8.70	i e					ecept	5.64	1.80	1.26	8.70		
Total Ampacity (Amps)	47.0	15.0	10.5	24.2	(<10k	-		19 1			47.0	15.0	10.5	24.2		
Minimum Feeder Sizing (Amps)	58.8	18.8	13.1	30.2	< p	er Ni	EC A	rticle	215.	2>	58.8	18.8	13.1	30.2		



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12/06/2024 11/11/2024	BID ISSUE OWNER REVIEW
DATE	SUBMITTALS/REVISIONS

PROJECT NAME: SEMCO **EMERGENCY OPERATIONS** CENTER

PANEL SCHEDULES

SEMCO ENERGY GAS COMPANY

PRELIMINAR	Y CONSTRU	CTION RECORD
DRAWN BY:	CHECKED BY:	DATE:
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GUARANTEE IS GIVEN OR IMPLIED AS TO THE
COMPLETENESS OR ACCURACY THEREOF.

PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES (IN CONFLICT WITH THE CONSTRUCTION OF THESE PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. DURING THE CONSTRUCTION, THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL UTILITIES THAT ARE ENCOUNTERED. (ALL COSTS FOR UTILITY LOCATION VERIFICATION, SUPPORT AND PROTECTION SHALL BE INCLUDED IN THE PROPOSED PAY ITEM CONFLICTING WITH THAT UTILITY).

DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

PROJECT NO.

1584-0003

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