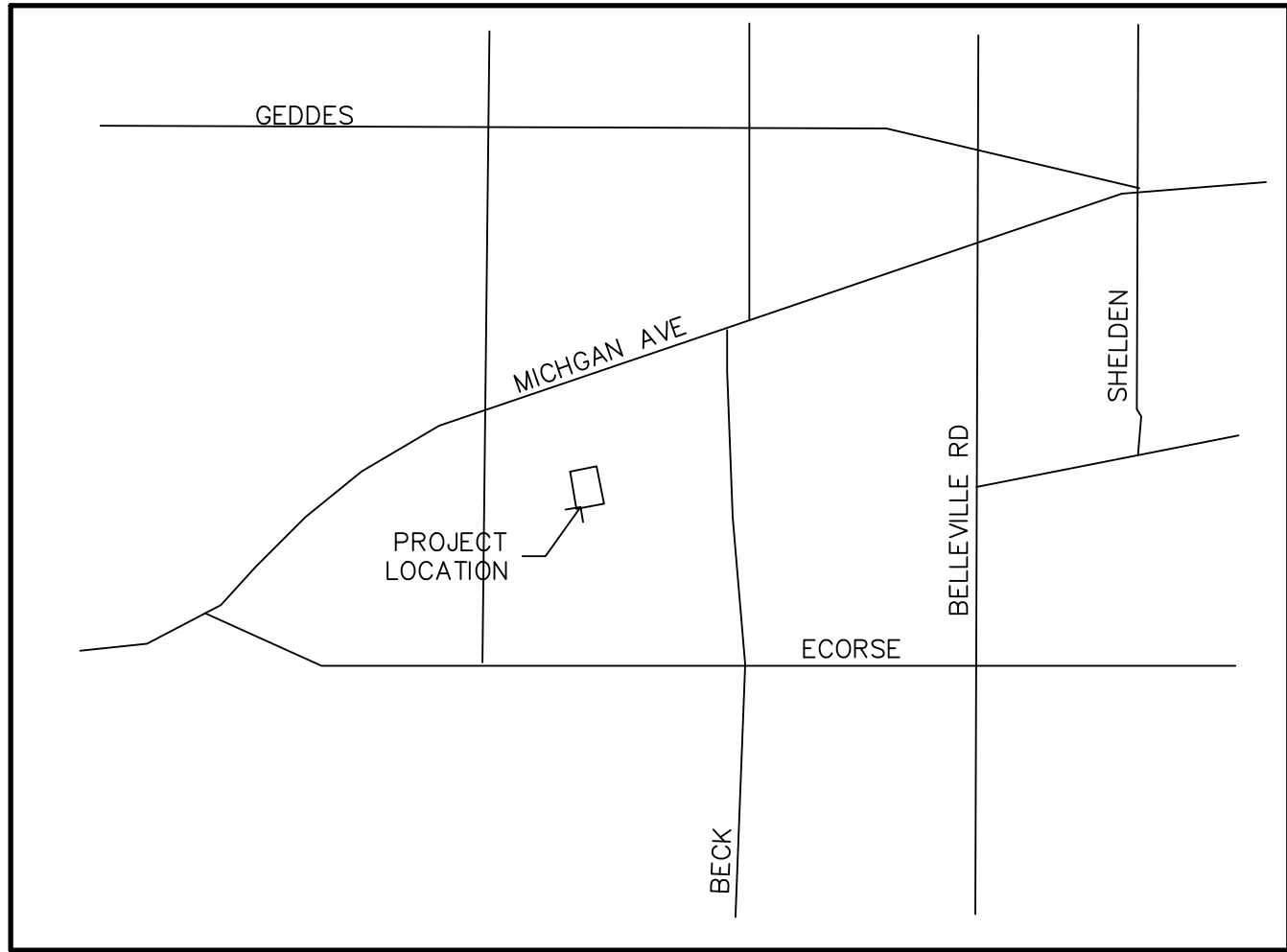


OFFICE RENOVATIONS TO  
CONTRACTORS STEEL CO  
48649 SCHOONER DR., VAN BUREN TWP., MI 48111

OFFICE RENOVATIONS TO  
CONTRACTORS STEEL  
48649 SCHOONER DR., VAN BUREN TWP., MI 48111

LOCATION MAP



DIRECTORY

**ARCHITECT**  
HOPPE DESIGN  
47032 McBRIDE  
BELLEVILLE, MI 48111  
734-218-2492

**APPLICANT AND OWNER**  
CONTRACTORS STEEL CO  
48649 SCHOONER DR  
VAN BUREN TWP., MI

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PRELIMINARY NOT TO BE USED FOR CONSTRUCTION

TITLE SHEET

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DT

HOPPE DESIGN, LLC  
47032 McBRIDE, BELLEVILLE, MI 48111  
734-218-2492

REVISIONS

PROJECT: 2212  
DATE: 8.30.22  
DRAWN: WCH  
CHECKED: WCH



DESCRIPTION	MANUFACTURER	MODEL	STYLE	FINISH	COLOR	STANDARD/ RESPONSIBILITY	COMMENTS	SUBMITTA	
DIVISION 3									
CONCRETE @ FOUNDATIONS, BASEMENT WALLS, EXTERIOR WALLS, PIERS & COLUMNS, STRUCTURAL FRAMING	1800 PSF @ 28 DAYS, 45 WATER/CEMENT RATIO, 1" MAX COARSE AGGREGATE, #84 1550 CY CEMENT CONTENT, 5.7% AIR ENTRAINMENT BY VOL, 3" SLUMP				NA	ASTM C94 ACI 318.3R	AGGREGATE MAX NOT TO EXCEED 1/4 OF SLAB THICKNESS, FLOOR LEVEL TO BE 1/8" IN 10' MAX, NO CALCIUM CHLORIDE ADDITIVES	X	
CONCRETE @ DRIVEWAYS, GARAGE FLOORS, PORCHES, PATIOS, STEPS, SLABS, WALKS, CURBS	1800 PSF @ 28 DAYS, 45 WATER/CEMENT RATIO, 1" MAX COARSE AGGREGATE, #84 1550 CY CEMENT CONTENT, 5.7% AIR ENTRAINMENT BY VOL, 3" SLUMP				NA	ASTM C94 ACI 318.3R	AGGREGATE MAX NOT TO EXCEED 1/4 OF SLAB THICKNESS, FLOOR LEVEL TO BE 1/8" IN 10' MAX, NO CALCIUM CHLORIDE ADDITIVES, SAWCUT CONTROL JOINTS WITHIN 24 HOURS OF INSTALLATION OF CONCRETE	X	
STEEL REINFORCING WELDED WIRE MESH	FLAT SHEETS, 48" WIDE X 10' LONG		GRADE 60		NA	ASTM A615, CRSI	PROVIDE CHAIRS AND BOLSTERS, STAGGER OVERLAPS 2' FULL MESH	X	
EXTERIOR COMPOUND SONNENBLON	FLUSH/NO DYE		FLUSH/NO DYE		NA	ASTM A165	TWO COATS ON SLABS, VERIFY COMPATIBILITY WITH FLOORING		
CONCRETE SEALER WATER BORNIE	LAM CONSTRUCTION CHEMICALS		1.5 X 6 GURIE RUS			ASTM C 309 TYPE 1 AND 2			
DIVISION 4									
CONCRETE MASONRY UNITS	NORMAL WEIGHT	GRADE N	30 2000 PSI	BA16		ASTM C 90 C 145, M.I.M. ACI 530.1	EXPOSED CONCAVE TOOLED JOINTS, NATURAL, GREY MORTAR, GROUT SOLID CMJ CORES, SCHEDULED TO RECOVER REBAR AND ALL CORES BELOW GRADE	X	
MORTAR TYPE M-BELOW GRADE	PORTLAND CEMENT					ASTM C 270, 2500 PSF	NO WELL OR LAKE WATER IN MORTAR	X	
MORTAR TYPE S	PORTLAND CEMENT		30 2000 PSI		BY OWNER	ASTM C 270	NO WELL OR LAKE WATER IN MORTAR	X	
MORTAR TYPE N-BRICK	PORTLAND CEMENT				BY OWNER	ASTM C 270	NO WELL OR LAKE WATER IN MORTAR	X	
HORIZONTAL REINFORCING	OUR O-WALL	LADDER TYPE	3/16 OR RB		NA	ASTM A 476, 3000 PSF	NO WELL OR LAKE WATER IN MORTAR	X	
REBAR	HECHMAN OR HOLMAN AND BARNARD					ASTM A62	1" GAUGE WIRE, PLACE AT 18" OC VERTICALLY UNO	X	
POST TENSIONERS									
VAPOR BARRIER							POLYETHYLENE 8 MIL SLAB & 4 MIL WALLS, 2" O" OVERLAP BENEATH SLABS		
DIVISION 5									
STRUCTURAL STEEL CHANNELS, ANGLES, PLATES			Fy= 50 KSI			NA	ASTM A36, A572	HOLES TO BE DRILLED NOT BURNED	X
BOLTS			Fy= 50 KSI			NA	ASTM A36		X
STRUCTURAL NUTS						NA	ASTM A325 N HIGH STRENGTH F 1554	3/4" UNO, PROVIDE WASHERS BENEATH TURNED ELEMENTS	X
BOLT WASHERS						NA	ASTM F 436, A 36	HARDENED, HOT DIPPED GALVANIZED	
STEEL LINTELS						BY OWNER		ALL EXTERIOR LINTELS TO BE GALVANIZED AND PAINTED, INTERIOR LINTELS TO BE PAINTED, PREPARED	X
STRUCTURAL LEVELING GROUT	LAM CONSTRUCTION CHEMICALS	CRYSTEX 5000 PSI		NON METALLIC, NON SHRINK	NA	ASTM C1107			X
STEEL STUDS, 12, 14, 16 GA	CLARK DETRICH	Fy= 50 KSI		COATING	NA	ASTM C555	10" OC UNO		
STEEL STUDS, 18, 20 GA	CLARK DETRICH	Fy= 50 KSI		COATING	NA	ASTM C555	10" OC UNO		
STEEL TRACKS AND RUNNERS, 14, 16, 18, 20 GA	CLARK DETRICH	Fy= 50 KSI		COATING	NA	ASTM C555	10" OC UNO		
STEEL HAT CHANNEL, 25 GA	CLARK DETRICH	1" Lx 1/2" Wx 3/4" D				NA	A 653		
FURRING CHANNELS, 25 GA	CLARK DETRICH	1" Lx 1/2" Wx 3/4" D				NA	A 653		
PRIMER	TRUSCON	37 BAR-OK		LEAD CHROMAT C FREE	RED		NON ASPHALTIC, RUST INHIBITING	X	
DIVISION 6									
TREATED LUMBER, BELOW GRADE						NA	AWPA UCL 6A	80% RETENTION, ANONA FREE	
TREATED LUMBER, ABOVE GRADE						NA	AWPA UCL 3B	80% RETENTION, ANONA FREE	
TREATED LUMBER, ABOVE GRADE	SAMPSON	G 188				NA		HOT DIPPED GALVANIZED OR STAINLESS STEEL	X
TREATED LUMBER IN CONTACT WITH SOILS FOR WOOD CONSTRUCTION			5/8" GRADE 2 OR 5				AWPA C2	80% RETENTION, ANONA FREE	
PLYWOOD SUB FLOORING	STURDIBOARD	T AND G				NA	APA 1 DOC P61		
WOOD PRESERVATIVE						NA		ACQ FOR DOUGLASS FIR OR CCKAY FOR SOUTHERN PINE	
TILE BACKER	GEORGIA PACIFIC	DINKSHIELD TILE BACKER 58"			NA				X

GENERAL  
IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE SHORING AND BRACING DURING CONSTRUCTION TO ACCOUNT FOR ALL FORCES, INCLUDING BUT NOT LIMITED TO FORCES FROM GRAVITY, EARTH, WIND AND UNBALANCED FORCES DUE TO CONSTRUCTION SEQUENCES.

THE STRUCTURAL INTEGRITY OF THE BUILDING SHOWN ON THESE PLANS IS DEPENDENT UPON COMPLETION ACCORDING TO PLANS AND STRUCTURAL MEMBERS ARE NOT SELF BRACING AND SHALL BE SHORED AND/OR BRACED BY THE CONTRACTOR AS NECESSARY UNTIL STABILIZED BY VIRTUE OF COMPLETED CONNECTIONS.

FIELD MEASURE AND VERIFY ALL DIMENSIONS AND ELEVATIONS BEFORE FABRICATION.

**FOUNDATIONS**  
ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL, HAVING A MINIMUM SAFE BEARING CAPACITY. THE TESTING AND INSPECTION AGENCY SHALL VERIFY SOIL BEARING CAPACITY AT EACH FOOTING PRIOR TO INSTALLATION OF FOOTING. NOTIFY ENGINEER OF ANY VARIATION FROM ANTICIPATED BEARING CAPACITY FOR APPROPRIATE RE-DESIGN OR LOWERING OF FOOTING.

THE BOTTOMS OF ALL EXTERIOR FOOTINGS SHALL BE 3'-6" MINIMUM BELOW FINISHED GRADE. IF THE BUILDING WILL BE UNDER CONSTRUCTION DURING FREEZING WEATHER, ALL INTERIOR FOUNDATIONS SHALL BE DEPRESSED 3'-6" BELOW CONSTRUCTION GRADE FOR FROST PROTECTION. IF SUCH ADDITIONAL FOOTING DEPTH WILL CAUSE UNDERMINING OF ADJACENT EXISTING FOOTINGS OR STRUCTURES, PROVIDE APPROPRIATE SHORING, BRACING OR UNDERPINNING AS REQUIRED OR LEAVE FOOTING ELEVATION AS DESIGNED AND PROVIDE CONTINUED PROTECTION AND HEAT TO PREVENT FORMATION OF FROST BELOW FOOTING AND ADJACENT TO FOOTING.

THE CONTRACTOR SHALL SAFEGUARD AND PROTECT ALL EXCAVATIONS AND ADJACENT STRUCTURES, PAVEMENTS, AND UTILITIES. ALL EXCAVATIONS SHALL BE KEPT FREE OF WATER. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN, INSTALLATION, MAINTENANCE AND REMOVAL OF ALL SHORING, BRACING, AND Dewatering THAT IS REQUIRED TO PROPERLY CONSTRUCT THE FOUNDATIONS AND PROTECT ADJACENT STRUCTURES, PAVEMENTS AND UTILITIES.

PRETREAT EXCAVATIONS WITH TERMITICIDE AND INSPECT EXCAVATIONS PRIOR TO POURING CONCRETE.

TEMPORARY BRACING MUST BE PROVIDED TO RESIST ALL LATERAL FORCES UNTIL STRUCTURAL SYSTEM IS SELF SUPPORTING.

**CONCRETE SLABS**  
PLUMBING AND ELECTRICAL CONTRACTORS ARE TO PROVIDE ALL REQUIRED UNDERSLAB WORK PRIOR TO POURING THE FLOOR SLAB.

INSPECT ALL REINFORCING BEFORE POURING CONCRETE.

SLOPE SLABS TO FLOOR DRAINS. VERIFY DEPRESSIONS AND FLOOR FINISHES.

PROVIDE 3" CONCRETE COVER MINIMUM FROM TOP OF SLAB TO SLAB REINFORCING AND LAP ALL STEEL FABRIC SPLICES 6" MIN. REINFORCING SHALL BE CENTERED IN SLAB.

GENERAL BASE TO BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY UNDER ALL SLABS ON GRADE.

**REINFORCING**  
MINIMUM CONCRETE COVERING SHALL BE:  
3" FOOTING BOTTOM  
2" COLUMNS, BEAMS AND FORMED SURFACES IN DIRECT CONTACT WITH SOIL OR EXPOSED TO THE WEATHER, EXCEPT SLABS.  
2" DECK SLAB TO TOP  
1" DECK SLAB TO BOTTOM  
1" INTERIOR FACES OF WALLS AND SLABS NOT EXPOSED TO WEATHER  
3" INTERIOR SLABS

**MASONRY**  
MASONRY WALLS ARE TO BE ADEQUATELY BRACED DURING CONSTRUCTION. SEE "STANDARD PRACTICE FOR BRACING MASONRY WALLS UNDER CONSTRUCTION" BY THE COUNCIL FOR MASONRY WALL BRACING AND ALSO NOMA TEK 304B "BRACING CONCRETE MASONRY WALLS DURING CONSTRUCTION" FOR RECOMMENDATIONS REGARDING BRACING.

PLACE LADDER TYPE HORIZONTAL JOINT REINFORCING WITH PREFORMED LAPPED CORNER REINFORCING.

THE DISCONTINUOUS ENDS OF ALL MASONRY WALLS SHALL BE SOUDLY GROUTED A MINIMUM OF 8" OR ONE BLOCK CELL AND REINFORCED FOR THEIR FULL HEIGHT WITH ONE #5 BAR UNO.

AT GROUTED CELLS LIFTS OF GROUT SHALL BE KEYED 4" INTO THE COURSE OF MASONRY BELOW.

ALL CMJ BOND BEAMS TO HAVE (2) #4 BARS CONTINUOUS. PROVIDE (2) #4 L BARS AT EVERY CORNER LAPPED 3'-0" WITH CONTINUOUS BARS.

VERTICAL CONTROL JOINTS IN CMJ WALLS TO HAVE A MINIMUM 3/8" GAP AND SHALL BE LOCATED BY THE ARCHITECT, BUT NOT MOVE THAN 20'-0" OC.

BRICK TIES SHALL BE GALVANIZED ADJUSTABLE 2-PIECE WIRE TIES OF NOT LESS THAN 9 GAGE AND SHALL BE SPACED AT 16" OC VERTICALLY AND HORIZONTALLY.

WHERE MASONRY MEETS STRUCTURAL MEMBERS SUBJECT TO VERTICAL DEFLECTION, PROVIDE ALLOWANCE FOR VERTICAL MOVEMENT OF L/240 OF STRUCTURAL MEMBER.

BOND BEAM REINFORCING TO BE CONTINUOUS ACROSS CONTROL JOINTS.

PROVIDE A 24" LAP AT FOUNDATION DOWELS.

AIR TEMPERATURE AT TIME OF MASONRY INSTALLATION SHALL BE 40<T<90 DEGREES F.

**METAL DECK**  
UNLESS OTHERWISE NOTED, ALL METAL DECK HAS BEEN DESIGNED TO BE CONTINUOUS OVER 3 SPANS MINIMUM AND SHALL BEAR AT LEAST 2" ON STEEL SUPPORTS. FOR ONE OR TWO SPAN CONDITIONS, THE CONTRACTOR SHALL PROVIDE SHORING AS REQUIRED OR FURNISH HIGHER GAGE DECK AS REQUIRED TO SUPPORT ALL THE APPLICABLE LOADS. CONTRACTOR SHALL SUBMIT ALTERNATE FOR APPROVAL.

PROVIDE REINFORCING CHANNELS, STANDARD CLOSURES, CANT STRIPS, SLUMP PANS, FINISH STRIPS, POUR STOPS, AND OTHER ACCESSORIES AS REQUIRED FOR PROPERLY FINISHED JOB, EVEN IF NOT SPECIFICALLY SHOWN ON THE DRAWINGS. PROVIDE BEARING ANGLES WELDED TO COLUMNS TO SUPPORT METAL DECKS AS REQUIRED.

FASTEN STEEL DECK UNITS TO STRUCTURAL SUPPORTS USING HEX WASHER HEAD TEK SCREWS OR ARC SPOT WELDS ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND IN CONFORMANCE WITH THE STEEL DECK INSTITUTES SPECIFICATION SECTION 4.4.

ARC SPOT WELDS (PUDDLE WELDS) TO SUPPORTS SHALL HAVE A DIAMETER OF 3/8" MINIMUM OR AN ELONGATED WELD OF 3/4" MINIMUM WIDTH AND 3/4" MINIMUM LENGTH; WELD METAL SHALL PENETRATE ALL LAYERS OF DECK MATERIAL AT END LAPS AND HAVE ADEQUATE FUSION TO THE SUPPORTING MEMBERS. WELDING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY STANDARD "S" SPECIFICATION FOR WELDING SHEET STEEL IN STRUCTURES" AWS D1.3.

UNITS SHALL BE FASTENED TO THE STEEL SUPPORTS AT THE END OF THE UNITS AND AT INTERMEDIATE SUPPORTS AND TO THE STEEL SUPPORTS AT THE SIDE BOUNDARIES BY 3/8" DIAMETER PUDDLE WELDS AT 12" OC. SHEAR STUDS WELDED THROUGH DECK MAY BE USED IN PLACE OF 3/8" DIAMETER PUDDLE WELDS.

THE SIDE LAPS OF ADJACENT UNITS SHALL BE FASTENED BETWEEN SUPPORTS BY BUTTON PUNCHING AT 24" OC UNO.

**STRUCTURAL STEEL**  
UNLESS OTHERWISE NOTED, ALL BEAMS AND LINTELS BEARING ON MASONRY SHALL HAVE A MINIMUM BEARING LENGTH OF 7 1/2" AND SHALL HAVE A MINIMUM OF TWO BLOCK COURSES AT 32" LONG OF SOLID MASONRY UNDER THE BEARING SURFACE.

WHERE STEEL CONNECTIONS ARE NOT FULLY DETAILED ON THE DESIGN DRAWINGS (WITH ALL REQUIREMENTS FOR BOLTS, PLATES, WELDS, DIMENSIONS, ETC SHOWN) CONNECTIONS SHALL BE DESIGNED BY THE STEEL CONTRACTOR UNDER THE SUPERVISION OF A P.E. LICENSED IN THE STATE THAT HAS JURISDICTION OVER THE PROJECT.

WHERE TYPICAL OR INCOMPLETE CONNECTIONS ARE SHOWN ON THE DESIGN DRAWINGS, THOSE DETAILS SHALL BE USED AS A BASIS FOR CONNECTION DESIGN TO BE COMPLETED BY THE CONTRACTOR. ALTERNATE CONNECTIONS DESIGNED BY THE STEEL CONTRACTOR WILL BE PROVIDED IF REQUIRED DESIGN FORCES CANNOT BE ACHIEVED BY THE TYPICAL OR EXAMPLE CONNECTION, OR IF AUTHORIZATION TO ALTER THE DETAIL IS PROVIDED BY THE DESIGN ENGINEER.

WHERE CONNECTION FORCES ARE INDICATED ON THE DRAWINGS, PROVIDE CONNECTIONS DESIGNED TO RESIST THE FORCE SHOWN.

WHERE CONNECTION FORCES ARE NOT INDICATED ON THE DRAWINGS, PROVIDE CONNECTIONS DESIGNED TO RESIST FORCES AS FOLLOWS: FOR SHEAR CONNECTIONS IN NON-COMPOSITE MEMBERS, DESIGN CONNECTIONS TO RESIST 50% OF THE TOTAL ALLOWABLE UNIFORM LOAD SHOWN IN THE TABLES IN PART 3 OF THE AISC MANUAL OF STEEL CONSTRUCTION. FOR SHEAR CONNECTIONS IN COMPOSITE MEMBERS, DESIGN CONNECTIONS TO RESIST 75% OF THE TOTAL ALLOWABLE UNIFORM LOAD SHOWN IN THE TABLES IN PART 3 OF THE AISC MANUAL OF STEEL CONSTRUCTION. FOR MOMENT CONNECTIONS, DESIGN CONNECTIONS TO RESIST 100% OF MOMENT CAPACITY OF THE MEMBER.

ALL FULLY TENSIONED A490 BOLTS SHALL HAVE WASHERS BENEATH BOTH NUT AND HEAD. PROVIDE TEMPLATES TO LOCATE ANCHOR BOLTS AND BASE PLATES.

SHOP AND FIELD CONNECTIONS SHALL BE MADE BY WELDING OR HIGH STRENGTH BOLTING. BOLTED CONNECTIONS SHALL CONFORM TO ASTM A325-X USING LOAD INDICATOR WASHERS (LIW) OR LOAD INDICATOR BOLTS (LIB). BEAM CONNECTIONS SHALL PROVIDE SHEAR CAPACITY TO SUPPORT A REACTION R EQUAL TO HALF THE SHEAR CAPACITY OF BEAM. USE 1/2" DIA BOLTS, E70XX 1/2" WELD AND 3/8" ANGLE THICKNESS.

ALL WELDING SHALL BE PERFORMED USING THE ELECTRIC ARC METHOD IN ACCORDANCE WITH THE LATEST REVISION OF THE AWS D1.1. E70XX ELECTRODES CONFORMING TO AWS A5.1 OR A5.5 SHALL BE USED FOR SHIELDED METAL ARC METHOD AND Fx7-EXXX ELECTRODE CONFORMING TO AWS F5.17 FOR SUBMERGED ARC METHOD.

ALL WELDS SHALL BE PROVIDED AS SHOWN IN THE STRUCTURAL DETAILS UNLESS THICKER WELD IS REQUIRED DUE TO MATERIAL THICKNESSES. WHERE WELD IN NOT DETAILED, WELD SHALL BE DESIGNED BY A LICENSED ENGINEER RETAINED BY THE CONTRACTOR TO MEET CONNECTION CAPACITY REQUIREMENTS LISTED ABOVE. WELD SIZES SHALL BE INCREASED AS NEEDED TO MEET THE FOLLOWING MINIMUM WELD SIZE REQUIREMENTS BASED ON THE SMALLER MATERIAL THICKNESS OF THE PIECES OF STEEL BEING WELDED TOGETHER:

MATERIAL THICKNESS	MIN FILLET WELD SIZE (PROVIDE LARGER WELD IF REQUIRED FOR STRESS)
1/4" AND UNDER	3/8"
OVER 1/4" TO 1/2"	7/16"
OVER 1/2" TO 3/4"	1/2"
OVER 3/4"	5/16"

IF PENETRATIONS THROUGH WEBS OF STEEL BEAMS WILL BE REQUIRED, CONTRACTOR TO NOTIFY ENGINEER OF RECORD.

SEE ARCHITECTURAL DRAWINGS FOR MISCELLANEOUS AND NON-STRUCTURAL STEEL.

**STEEL JOISTS**  
PROVIDE AND INSTALL BRIDGING IN ACCORDANCE WITH STEEL JOISTS INSTITUTE STANDARDS. ALL ENDS OF BRIDGING LINES TERMINATING AT MASONRY WALLS SHALL BE ANCHORED THERETO IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. WHERE BRIDGING DOES NOT TERMINATE AT A MASONRY WALL, THE FIRST AND SECOND BAYS FROM THE END OF THE BRIDGING IS TO BE DIAGONAL X-BRIDGING. MANUFACTURER TO PROVIDE ADDITIONAL BRIDGING AS REQUIRED TO SATISFY SA UPLIFT REQUIREMENTS.

WHERE STEEL JOISTS SUPPORT MOVEABLE PARTITIONS, JOIST MANUFACTURER SHALL DESIGN JOIST FOR A MAXIMUM LIVE/SNOW LOAD DEFLECTION OF THE SMALLER OF 1/2" AND L/360.

JOIST MANUFACTURER SHALL LIMIT JOIST DEFLECTION DUE TO LIVE/SNOW LOAD TO L/360.

THE ENDS OF STEEL JOIST SHALL BEAR A MINIMUM DISTANCE OF 2 1/2" INCHES OVER STEEL SUPPORTS AND 4 INCHES OVER ALL OTHER SUPPORTS. THE ENDS SHALL BE FASTENED BY BOLTING AND OR WELDING.

ERECTION OF JOISTS AND JOIST BRIDGING SHALL CONFORM TO ALL REQUIREMENTS OF OSHA AND JOIST MANUFACTURER.

**WOOD FRAMING**  
ALL LUMBER IN CONTACT WITH MASONRY OR STEEL TO BE PRESERVATIVE TREATED.

ALL FLUSH FRAMED CONNECTIONS ARE TO MADE USING JOIST HANGERS DESIGNED FOR THE SPECIFIC CONDITION UNLESS OTHER CONNECTIONS ARE PROVIDED.

SHOP DRAWINGS SHALL BE PROVIDED FOR ALL ENGINEERED WOOD MATERIAL INDICATING PRODUCTS, DETAILS, CONNECTIONS AND ACCESSORIES AS REQUIRED BY THE MANUFACTURE TO MEET PROJECT LOADING REQUIREMENTS.

OBSERVE ALL CODE REQUIREMENTS FOR BRIDGING, BORING, AND NOTCHING OF STUDS AND JOISTS. FOR BRIDGING, BORING AND NOTCHING OF ENGINEERED WOOD PRODUCTS OBSERVE ALL MANUFACTURER REQUIREMENTS.

BRIDGING SHALL BE PROVIDED FOR ALL ROOF RAFTERS.

ALL ROOF RAFTERS ARE TO BE 24" ON CENTER UNLESS OTHERWISE NOTED.

**ROOF DESIGN NOTES:**  
A. VERTICAL WEB MEMBERS FOR ALL GABLE END TRUSSES SHALL BE DESIGNED TO RESIST A HORIZONTAL WIND LOAD RESULTING FROM THE DESIGNED WIND SPEED WITHOUT EXCEEDING THE DEFLECTION LIMIT OF L/600 OF THEIR RESPECTIVE VERTICAL SPANS.  
B. BRIDGING FOR BOTTOM CHORDS SHALL BE DESIGNED TO DISTRIBUTE THE HORIZONTAL WIND LOAD PROPOSED ON THE COMPLETE BUILDING TO THE SHEAR WALLS AND SHALL BE DESIGNED FOR A TOTAL IMPOSED WIND LOAD ON BUILDING INCLUDING WINDWARD AND LEeward PRESSURE FROM THE DESIGNED WIND SPEEDS.

LOADS AND REFERENCES		
<b>DESIGN LOADS</b>		
TABLE 1604.5	OCCUPANCY CATEGORY	II
	CEILING DEAD LOAD (PSF)	25.00
	CEILING LIVE LOAD (PSF)	125.00
	TOTAL UNFACTORED DESIGN CEILING LOAD (PSF)	
	25 + 125 =	150
<b>SOILS</b>		
	SELF SUPPORTING FOUNDATION (MINIMUM ALLOWABLE BEARING PRESSURE IN PSF)	3000
<b>SEISMIC</b>		
TABLE 1604.5	RISK CATEGORY	II
	SEISMIC IMPORTANCE FACTOR	1.00
FIGURE 1613.3.1(1)	I <sub>s</sub>	
	S <sub>DS</sub>	.1g
FIGURE 1613.3.1(2)	S <sub>D1</sub>	
	MAPPED ONE SECOND SPECTRAL RESPONSE ACCELERATION	.04g
SECTION 1613.3.2	S <sub>D1</sub>	D
SECTION 1613.3.4	S <sub>D2</sub>	
	SHORT PERIOD DESIGN SPECTRAL RESPONSE ACCELERATION	0.1
SECTION 1613.3.4	S <sub>D1</sub>	
	ONE SECOND DESIGN SPECTRAL RESPONSE ACCELERATION	0.08
SECTION 1613.3.3,	F <sub>A</sub>	
TABLE 1613.3.3(2),	F <sub>A</sub>	1.6
SECTION 1613.3.3,	F <sub>V</sub>	
TABLE 1613.3.3(2)	F <sub>V</sub>	2.4
	S <sub>MS</sub>	F <sub>1</sub> S <sub>1</sub>
	S <sub>MS</sub>	F <sub>1</sub> S <sub>1</sub>
	S <sub>MS</sub>	0.12
SECTION 1613.3.1	SDC	SEISMIC DESIGN CATEGORY A

REFERENCES		
STRUCTURAL LOADS CONCRETE	ASCE-7	2010
	ACI 301	
	ACI 318 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE	2010
	ACI SP 66	
	PORTLAND CEMENT ASSOCIATION "DESIGN AND CONTROL OF CONCRETE MIXTURE"	2011
MASONRY	ACI 530/ASCE 5	2013
	ACI 530.1/ASCE 8	
	NOMA TEK 3-4B "BRACING CONCRETE MASONRY WALLS DURING CONSTRUCTION"	2005
BRICK	BIA "TECHNICAL NOTES ON BRICK CONSTRUCTION"	
STEEL	ASC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"	13TH EDITION
WELDING	AMERICAN WELDING SOCIETY AWS D1.1/D1.1M	2015
STEEL JOISTS	STEEL JOISTS INSTITUTE "STANDARD SPECIFICATION"	2015
METAL DECK	STEEL DECK INSTITUTE	1987
WOOD	"NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION"	2015
	ANSI/AP&P ANDS	
SOILS REPORT	TO BE PROVIDED BY DEVELOPER	

## METAL STUD SIZING

ALLOWABLE HEIGHTS STUD SIZE	16" OC/ 33 KSI **	
3 1/2" OR 4" X 20 GA	13'-11"	
3 1/2" OR 4" X 18 GA	18'-2"	
3 1/2" OR 4" X 16 GA	19'-6"	

5 1/2" OR 6" X 20 GA	23'-11"
5 1/2" OR 6" X 18 GA	27'-2"
5 1/2" OR 6" X 16 GA	30'-0"

\*\* HEIGHTS BASED ON 16" OC STUD SPACING, 5 PSF LATERAL LOAD, L/240 DEFLECTION, NON-STRUCTURAL APPLICATION. BRIDGING AT MIDPOINTS OR 8'-0" MAX

STUD SIZE	16" OC/33 KSI***	12" OC/33 KSI***
3 1/2" OR 4" X 20 GA	11'-0"	12'-3"
3 1/2" OR 4" X 18 GA	12'-0"	13'-3"
3 1/2" OR 4" X 16 GA	13'-0"	14'-3"

5 1/2" OR 6" X 20 GA	16'-4"	18'-0"
5 1/2" OR 6" X 18 GA	18'-0"	19'-8"
5 1/2" OR 6" X 16 GA	19'-3"	21'-3"
5 1/2" OR 6" X 12 GA	22'-9"	28'-0"

8" X 20 GA	20'-6"	22'-8"
8" X 18 GA	22'-6"	24'-9"
8" X 16 GA	24'-3"	26'-8"
8" X 12 GA	28'-9"	31'-8"

STUD SIZE	16" OC/50 KSI***	12" OC/50 KSI***
3 1/2" OR 4" X 20 GA	12'-0"	13'-6"
3 1/2" OR 4" X 18 GA	13'-3"	14'-8"
3 1/2" OR 4" X 16 GA	14'-3"	15'-8"

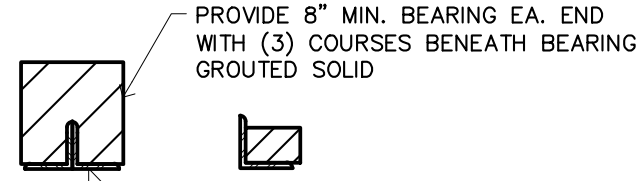
5 1/2" OR 6" X 20 GA	18'-0"	20'-0"
5 1/2" OR 6" X 18 GA	19'-8"	21'-8"
5 1/2" OR 6" X 16 GA	21'-3"	23'-4"
5 1/2" OR 6" X 12 GA	28'-0"	31'-0"

8" X 20 GA	22'-6"	25'-0"
8" X 18 GA	24'-9"	27'-3"
8" X 16 GA	26'-8"	29'-4"
8" X 12 GA	31'-8"	34'-9"

\*\*\* HEIGHTS BASED ON 20 PSF LATERAL LOAD, L/240 DEFLECTION, STRUCTURAL APPLICATION. BRIDGING AT 1/3 POINTS OR 8'-0" MAX.

# PRELIMINARY NOT TO BE USED FOR CONSTRUCTION

## MASONRY LINTEL SCHEDULE



ALL LINTELS TO BE 3/8" MIN. AND EXTERIOR LINTELS ARE TO BE GALVANIZED AND PAINTED.

HORIZONTAL LEGS

4" MASONRY: ONE 3 1/2"  
6" MASONRY: TWO 2 1/2"  
8" MASONRY: TWO 3 1/2"  
10" MASONRY: TWO 4"  
12" MASONRY: TWO 5"



STATEMENT OF SPECIAL INSPECTIONS

STEEL CONSTRUCTION (TABLE 1704.3)	FREQUENCY		REFERENCE CRITERIA	
	CONT-INOUS	PERI-ODIC	REFERENCED STANDARD	IBC REFERENCE
1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS, AND WASHERS:				
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	—	X	APPLICABLE ASTM MATERIAL SPECIFICATIONS; AISC 360, SECTION A3.3	—
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED	—	X	—	—
2. INSPECTION OF HIGH-STRENGTH BOLTING				
A. SNUG TIGHT JOINTS	—	X		
B. SLIP-CRITICAL CONNECTIONS WITH MATCHMARKING, TWIST OFF BOLT OR DIRECT TENSION INDICATOR	X	X		
C. SLIP-CRITICAL CONNECTIONS WITHOUT MATCHMARKING OR CALIBRATED WRENCH METHODS	X		AISC 360, SECTION M2.5	1704.3.3
3. MATERIAL VERIFICATION OF STRUCTURAL STEEL				
A. IDENTIFICATION MARKINGS TO CONFORM TO AISC 360	—	X	AISC 360, SECTION M5.5	
B. FOR OTHER STEEL IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS		X	APPLICABLE ASTM MATERIAL STANDARDS	
C. MANUFACTURER'S CERTIFIED MILL TEST REPORTS	—	X		
4. MATERIAL VERIFICATION OF WELD FILLER MATERIALS				
A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS	—	X	AISC 360, SECTION A3.5 AND APPLICABLE AWS A5 DOCUMENTS	—
MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED	—	X	—	—
5. INSPECTION OF WELDING				
A. STRUCTURAL STEEL AND COLD FORMED STEEL DECK	—	—		
1) COMPLETE AND PARTIAL PENETRATION GROOVE WELDS	X	—		
2) MULTIPASS FILLET WELDS	X	—		
3) SINGLE-PASS FILLET WELDS < 5/16"	X	—	AWS D1.1	1704.3.1
4) PLUG AND SLOT WELDS	X			
5) SINGLE-PASS FILLET WELDS < 5/16"	—	X		
5) FLOOR AND ROOF DECK WELDS	—	X	AWS D1.3	—
B. REINFORCING STEEL:				
1) VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706	—	X		
2) REINFORCING STEEL-RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL REINFORCED CONCRETE SHEAR WALLS AND SHEAR REINFORCEMENT	X	—	AWS D1.4 ACI 318: 3.5.2	—

3) SHEAR REINFORCEMENT	X	—			
4) OTHER REINFORCING STEEL	—	X			
6. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS:	—	X			
A. DETAILS SUCH AS BRACING AND STIFFENING	—	X	—	1704.3.2	
B. MEMBER LOCATIONS	—	X			
C. APPLICATION OF JOINT DETAILS AT EACH CONNECTION	—	X			
REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION (TABLE 1704.4)	FREQUENCY		REFERENCE CRITERIA		
	CONT-INOUS	PERI-ODIC	REFERENCED STANDARD	IBC SECTION	
	—	X	ACI 318: 3.5, 7.1-7.7	1913.4	
	—	—	AWS D1.4 ACI 318: 3.5.2	—	
	X	—	ACI 318: 8.13, 21.2.8	1911.5, 1912.1	
		X	ACI 318;3.8.6, 8.1.3, 21.2.8	1912.1	
	—	X	ACI 318: CH. 4, 5.2-5.4	1904.3, 1913.2, 1913.3	
	X	—	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	1913.1	
	X	—	ACI 318: 5.9, 5.10	1913.6, 1913.7, 1913.8	
	—	X	ACI 318: 5.11-5.13	1913.9	
9. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	—	X	ACI 318: 6.1.1	—	
LEVEL 1 SPECIAL INSPECTION (TABLE 1704.5.1) INSPECTION TASK	FREQUENCY		REFERENCE CRITERIA		
	CONT-INOUS	PERI-ODIC	OBC SECTION	ACI 530/ ASCE 5/ TMS 402	
	—	X	—	—	
	—	X	—	—	
	—	X	—	—	
	2. THE INSPECTION PROGRAM SHALL VERIFY:				
	A. SIZE AND LOCATION OF STRUCTURAL ELEMENTS	—	X	—	ART. 3.3F
	B. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION	—	X	—	—
	C. SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT	—	X	—	SEC. 1.15
				SEC. 1.2.2(E), 1.16.1	ART. 2.4, 3.4

D. WELDING OF REINFORCING BARS	X	—	—	SEC. 2.1.9.7.2, 3.3.3.4(B)	—
E. PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40 DEG F) OR HOT WEATHER (TEMPERATURE ABOVE 90 DEG F)	—	X	SEC. 2104.3, 2104.4	—	ART. 1.8C, 1.8D
3. PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:					
A. GROUT SPACE IS CLEAN	—	X	—	—	ART. 3.2D
B. PLACEMENT OF REINFORCEMENT AND CONNECTORS	—	X	—	SEC. 1.13	ART 3.4
C. PROPORTIONS OF SITE-PREPARED GROUT	—	X	—	—	ART. 2.6B
D. CONSTRUCTION OF MORTAR JOINTS	—	X	—	—	ART . 3.3B
4. GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS	X	—	—	—	ART 3.5
5. PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED	—	—	SEC. 2105.2.2, 2105.3	—	ART. 1.4
6. COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED	—	X	—	—	ART. 1.5
REQUIRED VERIFICATION AND INSPECTION OF SOILS (TABLE 1704.7)	FREQUENCY				
	CONT-INOUS	PERI-ODIC			
VERIFICATION AND INSPECTION					
1. VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	—	X			
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	—	X			
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS	—	X			
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	X	—			
5. PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	—	X			

VERIFY ALL DIMENSIONS IN FIELD  
PRELIMINARY NOT TO BE USED FOR CONSTRUCTION

SPECIAL INSPECTIONS

OFFICE RENOVATIONS TO  
CONTRACTORS STEEL

48649 SCHOONER DR., VAN BUREN TWP., MI 48111

HOPPE DESIGN, LLC

47032 McBRIDE, BELLEVILLE, MI 48111  
734-216-2492

REVISIONS

PROJECT: 2212  
DATE: 8.30.22  
DRAWN: WCH  
CHECKED: WCH

S002

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UNIT	DESCRIPTION	MANUFACTURER	MODEL	STYLE	FINISH	COLOR	POWER	CONTACT	STANDARD/RESPONSIBILITY	COMMENTS	SUBMITTAL	
DIVISION 1												
	FORM OF AGREEMENT	AAA A101								APPLIES TO ALL CONT. AND SUBS		
	GENERAL CONDITIONS	AAA A201									NONE ACCEPTED FOR PROPRIETARY SPECIFICATIONS	
	SUBSTITUTIONS											
ALL ITEMS LISTED SHALL BE PROVIDED AND INSTALLED BY THE CONTR. FOR A COMPLETE SYSTEM UNLESS OTHERWISE NOTED. THE LISTED CONTACT IS A RECOMMENDED SUPPLIER ONLY.												
AN INCOMPLETE OR INCORRECT PROPRIETARY SPECIFICATION OR UNAVAILABILITY OF A PRODUCT DOES NOT RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITY TO PROVIDE THE LISTED PRODUCT OR A COMPARABLY EQUAL PRODUCT AS APPROVED BY THE ARCHITECT. INACCURACIES IN THE PRODUCT SPREADSHEET SHALL BE REPORTED TO THE ARCHITECT DURING THE BIDDING PERIOD. ADDITIONAL COMPENSATION SHALL NOT BE ALLOWED FOR THE CONTRACTOR FOR INACCURACIES OR OMISSIONS REPORTED AFTER AWARD OF CONTRACT. ALLOWANCES FOR SELECTED PRODUCTS ARE LISTED IN THE WRITTEN SPECIFICATION.												
DIVISION 2												
	TOPSOIL			4" DEPTH	N/A	N/A	N/A			STOCKPILE/RE-USE EXISTING/ SUPPLEMENT WITH NEW 85% PURITY, 80% GERMINATION, 1% WEED, 150 LBS PER ACRE, 4 LBS PER 1000SF		
	GRASS SEED	MICHIGAN STATE SEED SOLUTIONS	PRO SPORTS TURF MIXTURE	80% KENTUCKY BLUEGRASS 20% PERENNIAL	N/A	N/A	N/A	800-647-8873	D-1785			
	PVC CEMENT				N/A	N/A	N/A	800-348-7671	D-3034			
	PVC GRAVITY SEWER SOLVENT WELD BELL				N/A	N/A	N/A	800-348-7671	SOR-35			
DIVISION 3												
DIVISION 6												
SS-1	SOLID SURFACE COUNTER	CORIAN					N/A		AWI 400	1 1/2" FULL BULL NOSE EDGE AT COUNTERTOPS		
PL-1	PLASTIC LAMINATE SHELVING- WOOD	NEVAMAR 3/4" HARDWOOD VENEER WITH 1 1/2" HARDWOOD EDGE	PAINTED				BY OWNER WHITE	N/A 800-638-4380		3/4" BIRCH VENEER PLYWOOD W/ 1 1/2" HARDWOOD EDGE- PAINTED		
CAB-1	METAL COAT ROD CABINETS- KITCHEN	MASTERPIECE STAINLESS	BY OWNER	WOOD	PEENED		BY OWNER	N/A 734-789-7689	AWI 400/ ICMA	PROVIDE BRACKETS		
	CABINET HARDWARE KITCHEN	MASTERPIECE	205 PULLS		FACTORY CHROME		N/A	734-789-7689				
DIVISION 7												
	EPDM	CARLISLE OR FIRESTONE	45 MIL REINFORCED			BLACK	N/A					
	FIBERGLASS INSUL. - WALL	OWENS CORNING		4"	N/A	N/A	N/A					
	FIBERGLASS INSUL. - CEILING	OWENS CORNING		6"	N/A	N/A	N/A			PROVIDE STYROFOAM VENT BAFFLES		
	RIGID INSUL. - PERIMETER	STYROFOAM FOAMULAR 400	RIGID	SEE DRAWINGS FOR DIMENSIONS	N/A	N/A	N/A					
	SEALANT- EXTERIOR						N/A		PFAS FREE	TWO COMPONENT POLYSULFIDE W/ BACKER ROD		
	SEALANT- INTERIOR SLAB SEALER			LATEX			N/A		PFAS FREE			
DIVISION 8												
	DOOR INTERIOR OFFICE	USA FIRE DOOR	PC SOLID OR STY SOLID CORE	CLEAR CHERRY	FACTORY STAIN	BY OWNER	N/A			ARCHITECTURAL STAIN GRADE CHERRY, PLAN SLICED, COLOR TO MATCH CABINETS		
	EXT WINDOW GLAZING	PPG	CLEAR SOLAR BAN 80				N/A		PFAS FREE			
	DOOR COMMERCIAL METAL	STEELCRAFT	INSULATED	18 GAUGE STEEL	PAINT	BY OWNER	N/A			18 GAUGE STEEL FRAMES WITH WELDED CORNERS AND FRAME REINFORCEMENT. ALL JOINTS WELDED AND GROUND SMOOTH. THREE FRAME ANCHORS MIN. PER JAMB		
	DOOR HARDWARE FINISH					BY OWNER						
OFFICE	HARDWARE LOCKSET	SCHLAGE	AL 50 PD	JUPITER LEVER	LIFETIME	BY OWNER	N/A					
STORAGE	HARDWARE LOCKSET	SCHLAGE	AL 80 PD	JUPITER LEVER	LIFETIME	BY OWNER	N/A					
PASSAGE	HARDWARE LOCKSET	SCHLAGE	AL 10S	JUPITER LEVER	LIFETIME	BY OWNER						
PRIVATE	HARDWARE LOCKSET	SCHLAGE	AL 40S	JUPITER LEVER	LIFETIME	BY OWNER						
	HARDWARE EXIT	VON DUPRIN	9927 L X 992 L 06		US20D	US20D SATIN CHROME	N/A					
	HARDWARE CLOSER	LCN	4013 4113		ALUM	BY OWNER	N/A					
	HARDWARE HINGES	HAGER	BB127NRP 901A	4 1/2 X 4 1/2	US20D	BY OWNER	N/A					
	HARDWARE SWEEPS	NATIONAL GUARD				BY OWNER	N/A					
	HARDWARE	NATIONAL GUARD				BY OWNER	N/A					
	ASTRALGAL HARDWARE WEATHERSTRIPPING	NATIONAL GUARD	190V			BY OWNER	N/A					
	HARDWARE STRIKE	LOCKSET PROVIDER	EXTENDED	MATCH	MATCH	BY OWNER	N/A			EXTENDED STRIKE PLATE AT DEEP JAMB		
	ALUMINUM WINDOW	KAWNEER OR EQUAL	4 1/2"	TRIFAB	COLOR BY OWNER	BY OWNER	N/A			THERMALLY BROKEN		
DIVISION 9												
	GYP SUM BOARD	US GYPSUM			PRIME AND PAINT	BY OWNER	N/A			GLUE AND SCREW		
	GYP SUM GREENBOARD	US GYPSUM			PRIME AND PAINT	BY OWNER	N/A			GLUE AND SCREW		
ACT-2	LATEX CEILING TILE	USG	CLIMAPLUS CONN	24" X 48"	MILLENNIA WHITE	N/A						
T-1	TILE	ARMSTRONG	CROSSVILLE	BY OWNER	BY OWNER	BY OWNER	N/A			LATEX ADHESIVE		
T-1	GROUT	POLYBLEND			BY OWNER	BY OWNER	N/A			LATEX GROUT		
T-2	TILE	ARMSTRONG	CROSSVILLE	BY OWNER	BY OWNER	BY OWNER	N/A			LATEX ADHESIVE		
T-2	GROUT	POLYBLEND			BY OWNER	BY OWNER	BY OWNER	N/A		LATEX GROUT		
V6-1 P-1	VINYL BASE PAINT	ROPPE SHERWIN WILLIAMS	BY OWNER	BY OWNER	BY OWNER	BY OWNER	N/A		PFAS FREE	LATEX DRYWALL PRIMER, STAIN BLOCKING PRIMER ON STAINS, AND TWO COATS LOW LUSTER LATEX EGGSHELL		
	PAINT- BLOCK AND STUCCO	DEVCOE	BY OWNER	BY OWNER	BY OWNER	BY OWNER	N/A		PFAS FREE	ONE COAT FILLER AND SEALER, AND ONE COAT LATEX SATIN SHEEN.		
	PAINT	SHERWIN WILLIAMS			CEILING WHITE	N/A			PFAS FREE	THOROUGHLY CLEAN WITH WIRE BRUSH AND RINSE, THEN OIL BASED RUST INHIBITIVE METAL PRIMER. ALLOW TO DRY 24 HOURS. TWO COATS LOW LUSTER ACRYLIC		
P-7	PAINT- ZINC COATED METAL	DEVCOE				BY OWNER	N/A		PFAS FREE	THOROUGHLY CLEAN AND REMOVE POWDERY OXIDE. GALVANIZED METAL PRIMER. TWO COATS LOW LUSTER ACRYLIC		
	PAINT- ALUMINUM					BY OWNER	N/A		PFAS FREE	THOROUGHLY CLEAN AND REMOVE POWDERY OXIDE. ALUMINUM PRIMER. TWO COATS SEMI-GLOSS ACRYLIC ENAMEL		
DIVISION 10												
	TOWEL PAPER DISP	BOBRICK	4262 282			CHROME	N/A			LOCATE IN ALL BATHROOMS		
	PAPER TOWEL DISPENSER/ DISPOSAL	BOBRICK	9-389			CHROME	N/A					
	SANITARY DISPOSAL	BOBRICK	270			CHROME	N/A					
	SOAP DISPENSER	BOBRICK	822			CHROME	N/A					
	MIRROR	BOBRICK	BEVELED EDGE			CHROME	N/A					
	GRAB BARS	BOBRICK	550 SERIES			CHROME	N/A					
	PHONE JACK				N/A	N/A						
	COMPUTER JACK				N/A	N/A						
	FIRE EXTINGUISHER	LARSON	2A:10BC			N/A						
DIVISION 11												
	DISHWASHER					BY OWNER						
	MICROWAVE	BY OWNER				BY OWNER	15A			DEDICATED CIRCUIT		
	REFRIGERATOR	BY OWNER				BY OWNER				ICE MAKER, WATER DISPENSER, WATER SUPPLY		
	GARBAGE DISPOSAL	ISE	PRO 333	N/A	N/A	N/A	1 HP, 120/160					

DIVISION 15											
	FURNACE FILTER THERMOSTAT	HONEYWELL	F22F MEDIA ELECTRONIC/ DIGITAL	TSTAT CCP	N/A	WHITE					
	DUCTWORK/ DUCT INSULATION		GALV. STEEL 2"	75 LB DENSITY 1.5 LB DENSITY	N/A	N/A			SMACNA	FACTORY ATTACHED VINYL JACKET	
	DUCT INSULATION		1"	75 LB DENSITY 1.5 LB DENSITY	N/A	N/A				SEMI RIGID FIRE RESISTANT COATING ON AIR SIDE	
	BACKFLOW PREVENTERS GAS PIPING	BEECO	REPUBLIC X-TRU COAT WITH POLYETHYLENE SHEATH BELOW GRADE	SCHED 40 BLACK STEEL	N/A	N/A			LOCAL CODE	SCREWED MALLEABLE IRON FITTINGS	
	PUMPING ACCESS PANEL		12" X 12"	STEEL	PAINTED	BY OWNER	N/A				
	SANITARY PIPING			PVC SCHED 40 DWV	N/A	N/A			CURRENT CODE	INSULATED CAST IRON IN RETURN AIR PLENUM. WASTELINES SHALL NOT BE CELLULAR PVC	
	POTABLE WATER AND CONDENSATE DRAIN PIPING			TYPE L HARD COPPER	N/A	N/A					
	WATER VALVE	CRANE	440 GATE		N/A	N/A					
	PIPE INSULATION DRAIN AND VENT PIPING	MANVILLE	MICRO-LOK 650	DWV HARD COPPER	N/A	N/A				OR SCHED 40 PVC, JOBAH 88902 THREADED AIR GAP	
	BALL VALVE			TYPE L COPPER PIPING 1/2"	N/A	N/A					
	POTABLE WATER PIPING 1/2"		TYPE L COPPER		N/A	N/A					
	POTABLE WATER PIPING 2" TO 3/4"		TYPE K COPPER SOFT		N/A	N/A				UNDERSLAB PIPING	
DIVISION 16											
	CONDUIT			3/4" EMT	N/A	N/A					
	EXPOSED WIRING	WIREMOLD	VS00		N/A	N/A	588-530-8253				
	DUPLEX RECEPTACLE	HUBBELL	5302		WHITE	20A/120V 1P				STRAIGHT BLADE 2 POLE 3 WIRE NEMA CONFIGURATION 5-20R, 125V, 85°C GRADE	
	FACE PLATES GFI	HUBBELL	GP5302-1		WHITE	N/A 20A/125V				2 POLE 3 WIRE GROUNDING TYPE, NEMA CONFIGURATION 5-20R, TOGGLE OPERATED	
	WALL SWITCHES	HUBBELL			WHITE	20A/120/270V					

OFFICE RENOVATIONS TO  
CONTRACTORS STEEL

48649 SCHOONER DR., VAN BUREN TWP., MI 48111

HOPPE DESIGN, LLC

47032 MERIDE, BELLEVILLE, MI 48111

734-216-2492

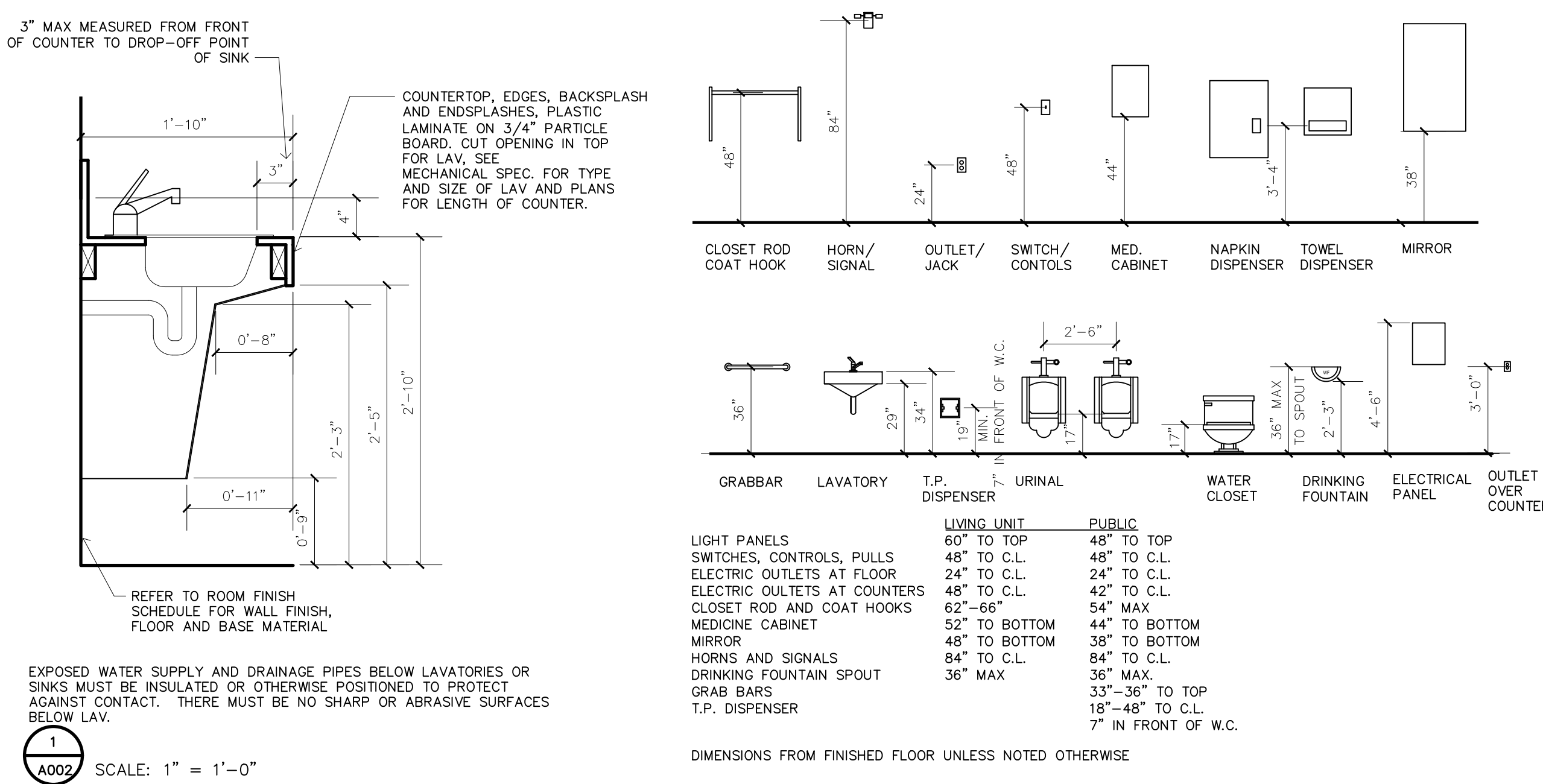
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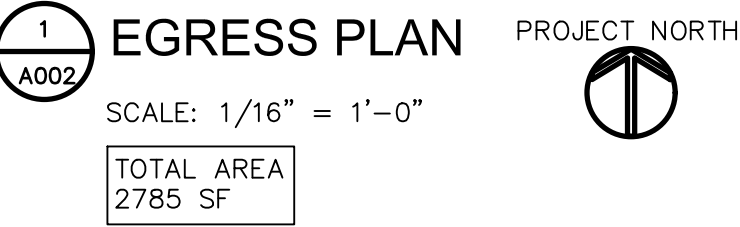
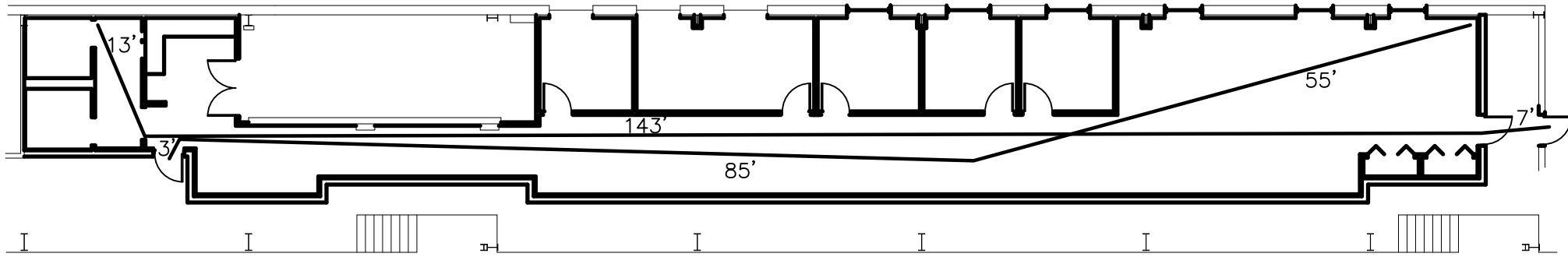
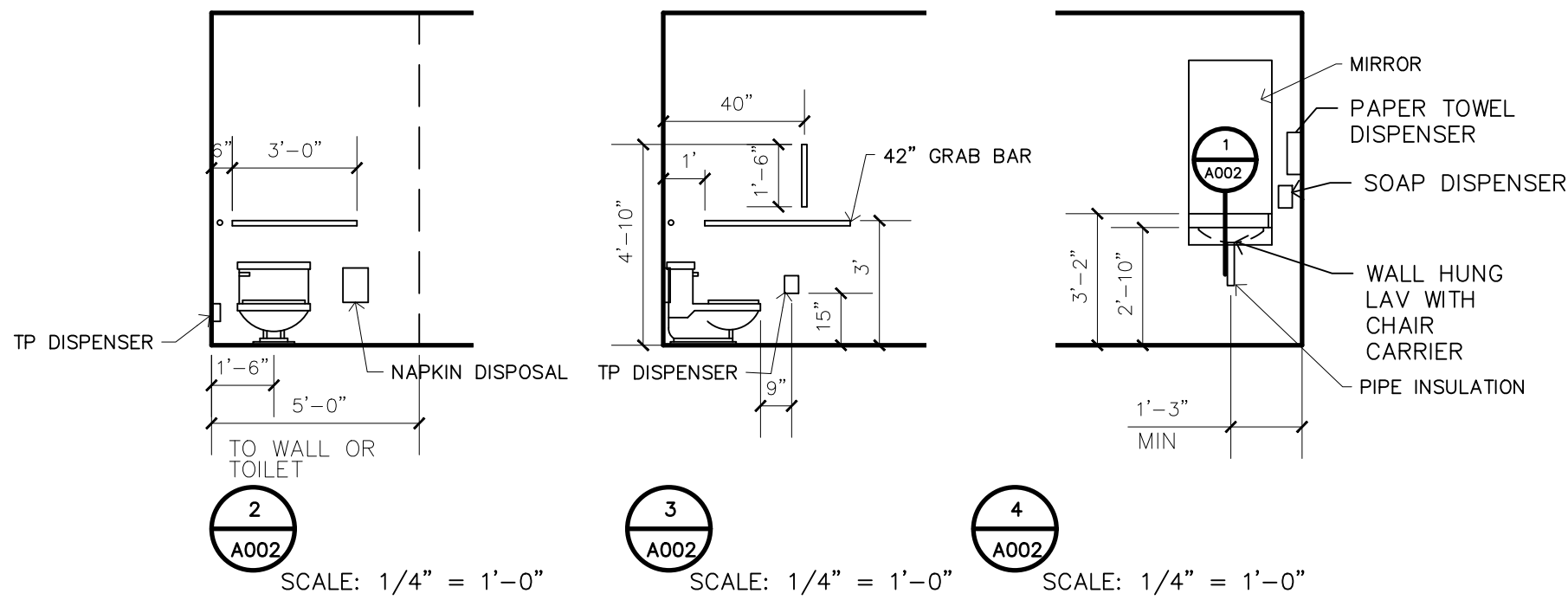


	APPLICABLE CODES		
	BUILDING	2015 MICHIGAN REHABILITATION CODE FOR EXISTING BUILDINGS	
	ACCESSIBILITY	INTERNATIONAL FIRE CODE	
		2009 ICC/ANSI A117.1 - ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES	
		2010 AMERICANS WITH DISABILITIES	
	ENERGY CODE	ASHRAE 90.1 2013; IECC 2015	
	MECHANICAL	2015 INTERNATIONAL MECHANICAL	
	PLUMBING	2015 INTERNATIONAL PLUMBING CODE	
	ELECTRICAL	2017 NFPA 70 NATIONAL ELECTRICAL CODE	
SECTION #	CHAPTER 1		
107.3.4	REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE		WAYDE HOPPE
107.3.4.1	THE FOLLOWING ITEMS ARE DEFERRED SUBMITTALS. DESIGN OF THESE ITEMS WILL BE SUBMITTED AFTER THE AWARD OF CONTRACT		NON REQUIRED
SECTION #	CHAPTER 3		
USE AND OCCUPANCY CLASSIFICATION			
303.4	OCCUPANCY CLASSIFICATION	FACTORY INDUSTRIAL	
	GROUP CLASSIFICATION	F-2	
	USE CLASSIFICATION	LOW HAZARD: METAL PRODUCTS	
304	OCCUPANCY CLASSIFICATION	BUSINESS	
	GROUP CLASSIFICATION	GROUP B	
	USE CLASSIFICATION	PROFESSIONAL SERVICE	
SECTION #	CHAPTER 4	REQUIRED	PROVIDED
SECTION #	CHAPTER 5	REQUIRED	PROVIDED
BUILDING AREA			
TABLE 508.4	OCCUPANCY SEPARATION	NONE REQUIRED	NONE PROVIDED
503.1.1	SPECIAL INDUSTRIAL OCCUPANCIES	EXEMPT FROM HEIGHT AND AREA RESTRICTIONS	
	AREA OF SUITE		2785 SF
SECTION #	CHAPTER 6	REQUIRED	PROVIDED
BUILDING CONSTRUCTION TYPE			
	CONSTRUCTION TYPE	IIB	IIB
TABLE 601	FIRE RESISTANCE RATINGS		
TABLE 601	STRUCTURAL FRAME	0 HOURS	0 HOURS
TABLE 601	EXTERIOR BEARING WALLS	0 HOURS	0 HOURS
TABLE 601	INTERIOR BEARING WALLS	0 HOURS	0 HOURS
TABLE 601	EXTERIOR NON-BEARING WALLS/PARTITIONS	0 HOURS	0 HOURS
TABLE 601	INTERIOR NON-BEARING WALLS/PARTITIONS	0 HOURS	0 HOURS
TABLE 601	FLOOR CONSTRUCTION	0 HOURS	0 HOURS
TABLE 601	ROOF CONSTRUCTION	0 HOURS	0 HOURS
TABLE 602	EXTERIOR WALL FIRE RATING	0 HOURS	0 HOURS
SECTION #	CHAPTER 7	REQUIRED	PROVIDED
FIRE AND SMOKE PROTECTION FEATURES			
	FIRE-RESISTANCE RATED CONSTRUCTION		
SECTION 705.8.1	EXTERIOR WALL OPENINGS		
TABLE 706.4	FIRE WALL RATING	NOT APPLICABLE	NOT APPLICABLE
TABLE 707.3.10	FIRE BARRIER RATING	NOT APPLICABLE	NOT APPLICABLE
	SHAFT ENCLOSURES	NOT APPLICABLE	NOT APPLICABLE
SECTION 708	FIRE PARTITIONS	NOT APPLICABLE	NOT APPLICABLE
	SMOKE BARRIERS	NOT APPLICABLE	NOT APPLICABLE
	SMOKE PARTITIONS	NOT APPLICABLE	NOT APPLICABLE
	DRAFTSTOPPING	NOT APPLICABLE	NOT APPLICABLE
SECTION #	CHAPTER 8	REQUIRED	PROVIDED
INTERIOR FINISHES			
	OCCUPANCY	B	
	-EXIT ENCLOSURES/ PASSAGEWAYS	CLASS A (0-25 FLAME SPREAD INDEX; 0-450 SMOKE DEVELOPED INDEX)	CLASS A (0-25 FLAME SPREAD INDEX; 0-450 SMOKE DEVELOPED INDEX)
	-CORRIDORS	CLASS B (25-75 FLAME SPREAD INDEX; 450 SMOKE DEVELOPED INDEX)	CLASS B (25-75 FLAME SPREAD INDEX; 450 SMOKE DEVELOPED INDEX)
	-ROOMS AND ENCLOSED SPACES	CLASS C (75-200 FLAME SPREAD INDEX; 450 SMOKE DEVELOPED INDEX)	CLASS C (75-200 FLAME SPREAD INDEX; 450 SMOKE DEVELOPED INDEX)
	INTERIOR FLOOR FINISH	GROUP B TO HAVE MINIMUM CRITICAL RADIANT FLUX NOT LESS THAN CLASS 2	
SECTION #	CHAPTER 9	REQUIRED	PROVIDED
FIRE PROTECTION SYSTEMS			
SECTION 906.1	FIRE EXTINGUISHERS	NO SPRINKLER SYSTEM REQUIRED COMPLY WITH FIRE CODE	NONE PROVIDED
SECTION #	CHAPTER 10	REQUIRED	PROVIDED
OCCUPANT LOAD			
TABLE 1004.1.1	B USE GROUP		
	BUSINESS	100 GROSS	2785 / 100 = 28
MEANS OF EGRESS			
	EGRESS TYPES	B	
	STAIRWAYS	NA	N/A
	OTHER EGRESS COMPONENTS: .2"/PERSON	28 PEOPLE X .2"/PERSON = 5.6 INCHES	72"
TABLE 1017.2	TRAVEL DISTANCE B NON SPRINKLED	200'	163'
SECTION 1020.2	CORRIDOR WIDTH WITH OCCUPANT LOAD <50	36 INCHES (MIN.)	NA
TABLE 1020.1	CORRIDOR RATING NON SPRINKLED SERVING < 30	0	NA
TABLE 1006.3.1	NUMBER OF EXITS	2	2
SECTION #	CHAPTER 11	REQUIRED	PROVIDED
ACCESSIBILITY			
			ACCESS TO SUITE AND WITHIN SUITE IS ACCESSIBLE
SECTION #	MICHIGAN PLUMBING CODE	REQUIRED	PROVIDED
	B BUSINESS		
	W.C. 1.25 FOR FIRST 50 AND 1.50 FOR THE REMAINDER	(28/25) + (0/50) = 2 REQUIRED	2
	LAV. 1.40 FOR FIRST 50 AND 1.80 FOR THE REMAINDER	(28/40) + (0/80) = 2	2

SECTION #	MICHIGAN REHABILITATION CODE FOR EXISTING BUILDINGS	REQUIRED	PROVIDED
SECTION #	CHAPTER 4	REQUIRED	PROVIDED
PRESCRIPTIVE METHOD			
403	ALTERATIONS SHALL COMPLY WITH THE MBC		SEE MBC REVIEW ABOVE
SECTION #	CHAPTER 5	REQUIRED	PROVIDED
WORK AREA METHODS			
SECTION #	CHAPTER 8	REQUIRED	PROVIDED
ALTERATIONS LEVEL 2			
803.4	MEET THE INTERIOR FINISH REQUIREMENTS OF THE MBC		PROVIDED
804	FIRE PROTECTION	NONE REQUIRED	
805.3	THE NUMBER OF EXITS IS TO BE DETERMINED BY THE OCCUPANT LOAD PER THE MBC		PROVIDED
805.4	WORK AREAS WITH OCCUPANT LOADS GREATER THAN 50 AND TRAVEL DISTANCE GREATER THAN 75 FEET PROVIDE TWO MEANS OF EGRESS		NA
805.6	DEAD ENDS LIMITED TO 35'		NO DEAD ENDS PROVIDED
805.8	EXIT SIGNS		PROVIDED
806.1	COMPLY WITH ACCESSIBILITY OF 410		PROVIDED



### BARRIER FREE FIXTURE HEIGHTS



REVISIONS

PROJECT: 2212  
DATE: 8.30.22  
DRAWN: WCH  
CHECKED: WCH

VERIFY ALL DIMENSIONS IN FIELD  
PRELIMINARY NOT TO BE USED FOR CONSTRUCTION

CODE REVIEW  
BUILDING A

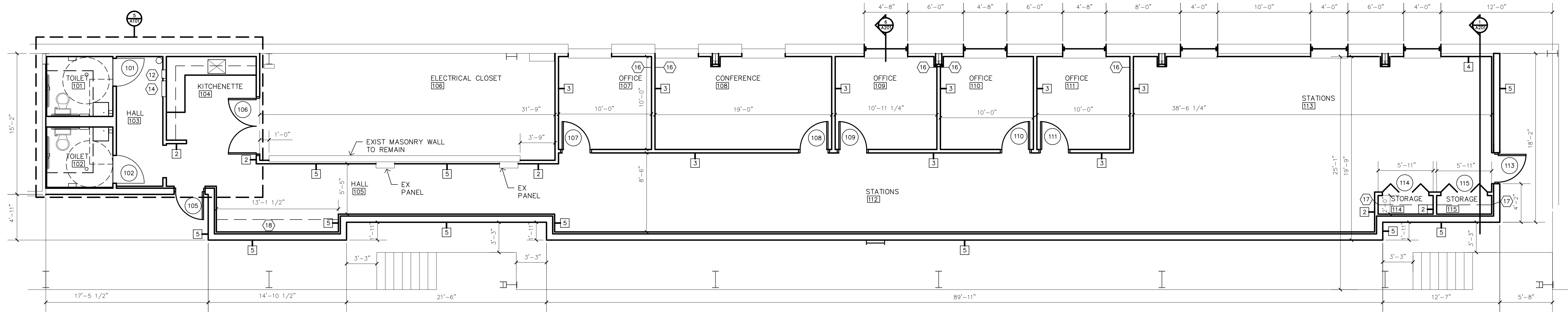
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A002

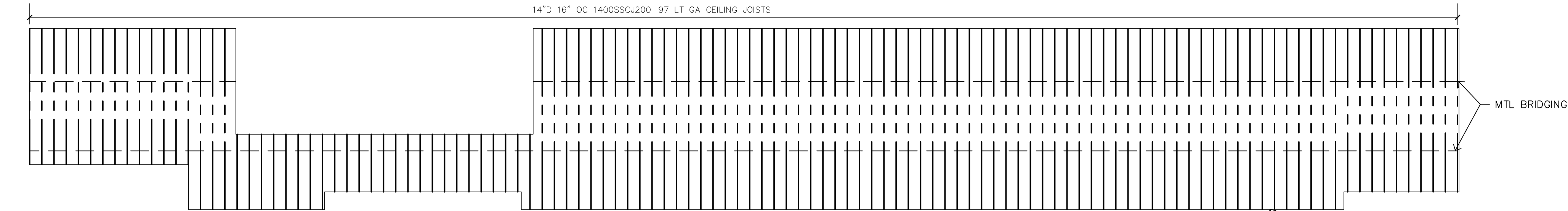
HOPPE DESIGN, LLC  
47032 McBRIDE, BELLEVILLE, MI 48111  
734-216-2492

OFFICE RENOVATIONS TO  
CONTRACTORS STEEL  
48649 SCHOONER DR., VAN BUREN TWP., MI 48111





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

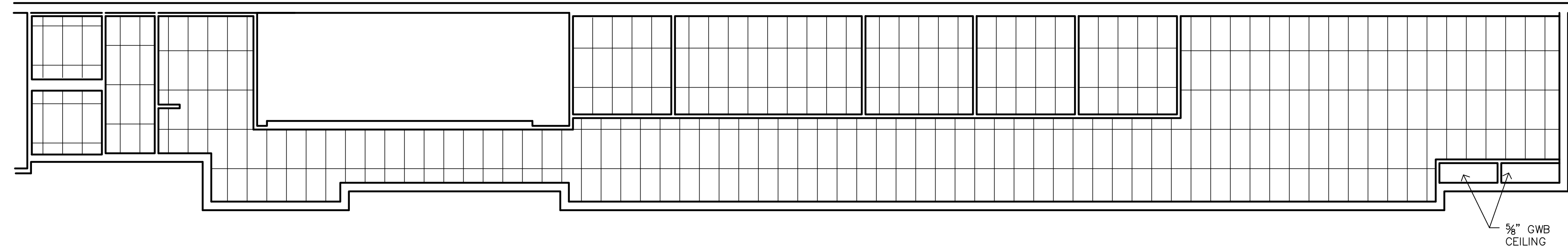


2 CEILING FRAMING PLAN  
SCALE: 1/8" = 1'-0"

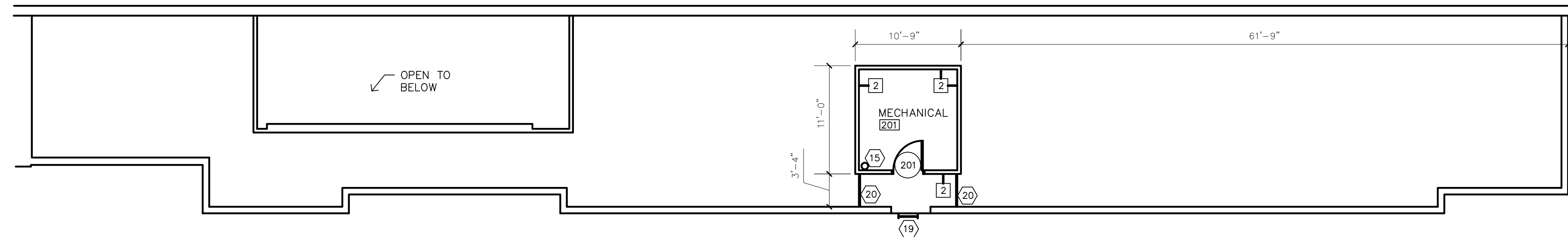


14 00SSCJ200-97 FLOOR JOISTS TO SUPPORT 25 PSF  
DL + 125 PSF LL  
DELTA LL = L/360  
DELTA TL = L/240

PROVIDE 14 GA 50 KSI  
CONTINUOUS RIM TRACK  
WITH PRE-SPACED/PRE-ATTACHED  
CLIPS @ 16" OC



3 REFLECTED CEILING  
PLAN  
SCALE: 1/8" = 1'-0"



4 MEZZANINE PLAN  
SCALE: 1/8" = 1'-0"

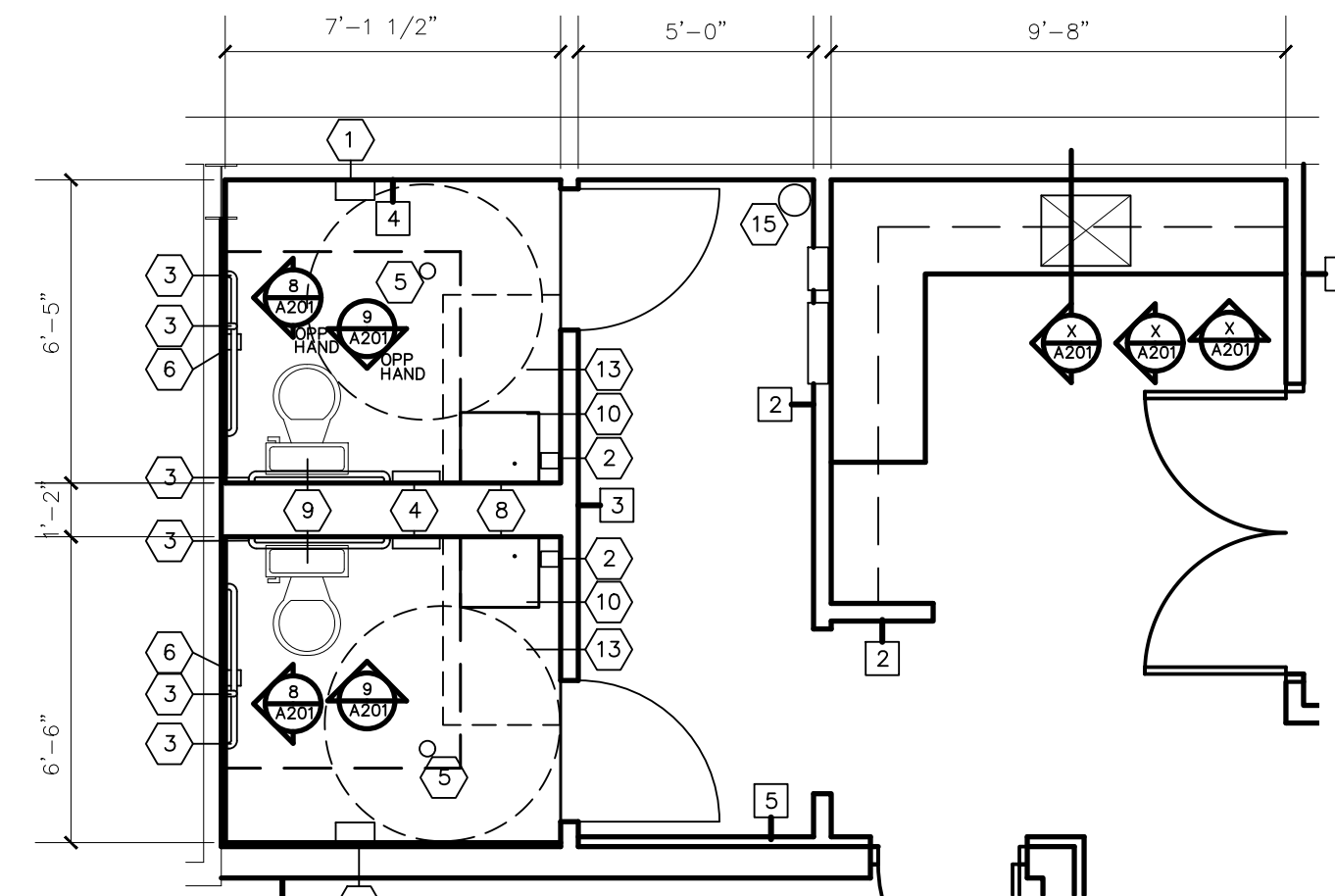


KEYNOTES

1. ELECTRIC HAND DRYER
2. SOAP DISPENSER
3. GRAB BAR
4. FEMININE NAPKIN DISPOSAL
5. FLOOR DRAIN
6. TOILET PAPER DISPENSER
7. MOP HOLDER
8. MIRROR
9. TOILET
10. LAVATORY
11. SLOP SINK
12. ELECTRIC TANKLESS WATER HEATER
13. SOUND ATTENUATION INSULATION  
ABOVE CEILING
14. ELECTRIC PANEL
15. 2A-10B WALL HUNG FIRE  
EXTINGUISHER
16. PLYWOOD BACKING
17. ROD AND SHELF
18. WOOD SHELVING: 5 HIGH, PAINTED
19. SHIPS LADDER
20. METAL RAILING

WALL TYPES

1. 5/8" GWB ON 6" METAL STUDS 16" O.C. W/ 5" ACOUSTICAL  
FIBERGLASS INSULATION W/ 5/8" GWB. U419 1 HR RATING
2. 5/8" GWB ON 3 3/8" METAL STUDS 16" O.C. W/ 5/8" GWB.
3. 5/8" GWB ON 3 3/8" METAL STUDS 16" O.C. W/ 3 1/2" FIBERGLASS  
ACOUSTICAL INSUL W/ 5/8" GWB.
4. 5/8" GWB ON VB ON 3 5/8" 16 GA MTL STUD  
16" OC WITH FIBERGLASS INSUL  
ON EXISTING CMU
5. 5/8" GWB ON 2" RESILIENT  
HAT CHANNEL WITH  
2" RIGID INSULATION  
ON 8" REINFORCED CMU
6. 8" REINFORCED CMU



5 TOILETS AND  
KITCHEN PLAN  
SCALE: 1/4" = 1'-0"

PROVIDE WD BLOCKING AT ALL TOILET AND KITCHEN  
ACCESSORIES.



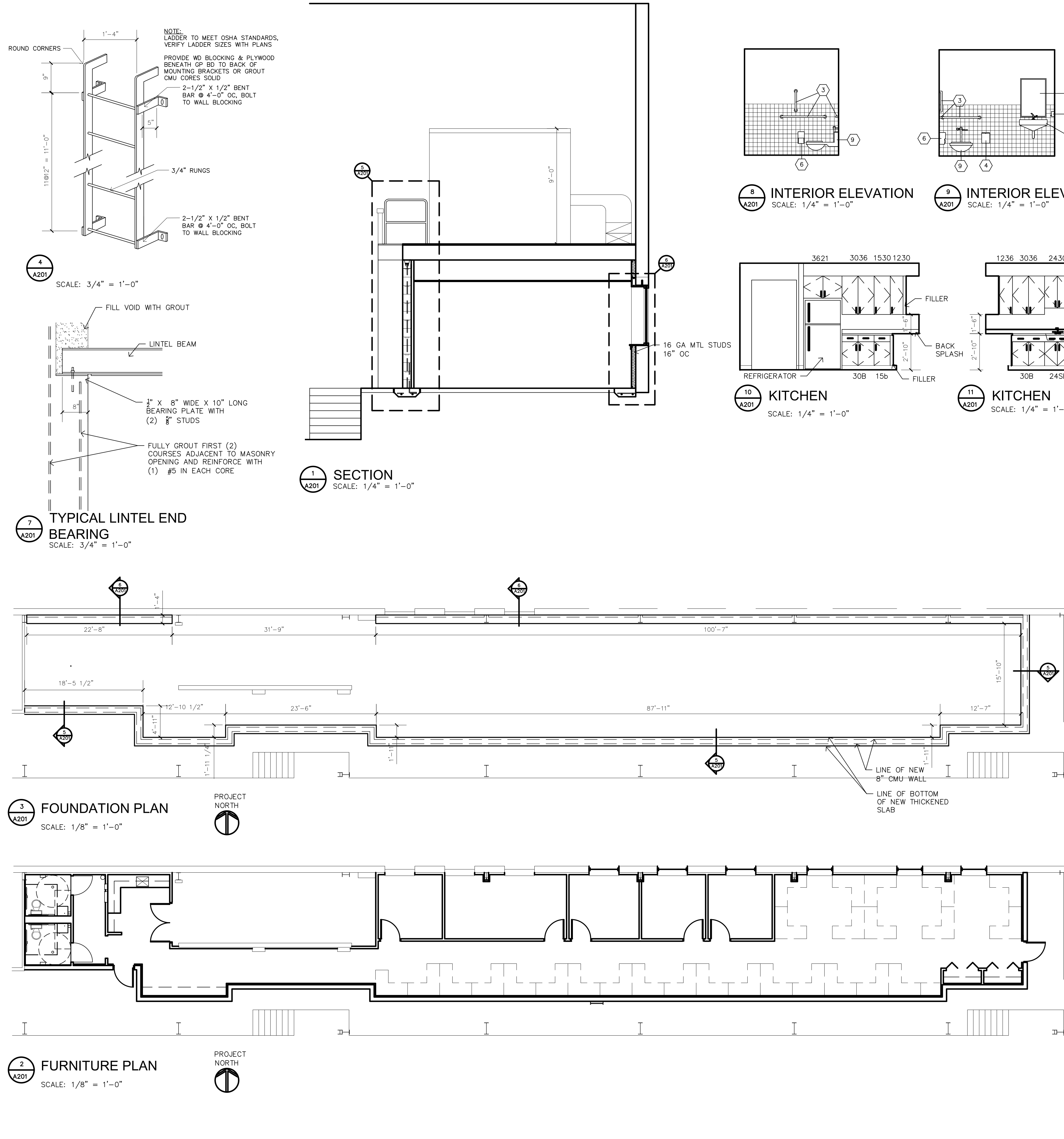
FLOOR PLAN

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## SECTIONS AND DETAILS

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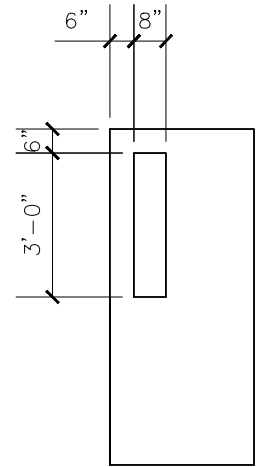


**PRELIMINARY NOT TO BE USED FOR CONSTRUCTION  
VERIFY ALL DIMENSIONS IN FIELD**

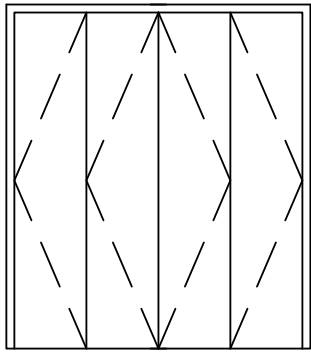


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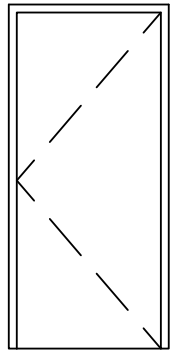
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HIGH	297	PAINT EXISTING	298	GWB PAINTED	299	PLASTIC LAMINATE	300	CERAMIC TILE 4" HIGH	301	PAINT EXISTING	302	GWB PAINTED	303	PLASTIC LAMINATE	304	CERAMIC TILE 4" HIGH	305	PAINT EXISTING	306	GWB PAINTED	307	PLASTIC LAMINATE	308	CERAMIC TILE 4" HIGH	309	PAINT EXISTING	310	GWB PAINTED	311	PLASTIC LAMINATE	312	CERAMIC TILE 4" HIGH	313	PAINT EXISTING	314	GWB PAINTED	315	PLASTIC LAMINATE	316	CERAMIC TILE 4" HIGH	317	PAINT EXISTING	318	GWB PAINTED	319	PLASTIC LAMINATE	320	CERAMIC TILE 4" HIGH	321	PAINT EXISTING	322	GWB PAINTED	323	PLASTIC LAMINATE	324	CERAMIC TILE 4" HIGH	325	PAINT EXISTING	326	GWB PAINTED	327	PLASTIC LAMINATE	328	CERAMIC TILE 4" HIGH	329	PAINT EXISTING	330	GWB PAINTED	331	PLASTIC LAMINATE	332	CERAMIC TILE 4" HIGH	333	PAINT EXISTING	334	GWB PAINTED	335	PLASTIC LAMINATE	336	CERAMIC TILE 4" HIGH	337	PAINT EXISTING	338	GWB PAINTED	339	PLASTIC LAMINATE	340	CERAMIC TILE 4" HIGH	341	PAINT EXISTING	342	GWB PAINTED	343	PLASTIC LAMINATE	344	CERAMIC TILE 4" HIGH	345	PAINT EXISTING	346	GWB PAINTED	347	PLASTIC LAMINATE	348	CERAMIC TILE 4" HIGH	349	PAINT EXISTING	350	GWB PAINTED	351	PLASTIC LAMINATE	352	CERAMIC TILE 4" HIGH	353	PAINT EXISTING	354	GWB PAINTED	355	PLASTIC LAMINATE	356	CERAMIC TILE 4" HIGH	357	PAINT EXISTING	358	GWB PAINTED	359	PLASTIC LAMINATE	360	CERAMIC TILE 4" HIGH	361	PAINT EXISTING	362	GWB PAINTED	363	PLASTIC LAMINATE	364	CERAMIC TILE 4" HIGH	365	PAINT EXISTING	366	GWB PAINTED	367	PLASTIC LAMINATE	368	CERAMIC TILE 4" HIGH	369	PAINT EXISTING	370	GWB PAINTED	371	PLASTIC LAMINATE	372	CERAMIC TILE 4" HIGH	373	PAINT EXISTING	374	GWB PAINTED	375	PLASTIC LAMINATE	376	CERAMIC TILE 4" HIGH	377	PAINT EXISTING	378	GWB PAINTED	379	PLASTIC LAMINATE	380	CERAMIC TILE 4" HIGH	381	PAINT EXISTING	382	GWB PAINTED	383	PLASTIC LAMINATE	384	CERAMIC TILE 4" HIGH	385	PAINT EXISTING	386	GWB PAINTED	387	PLASTIC LAMINATE	388	CERAMIC TILE 4" HIGH	389	PAINT EXISTING	390	GWB PAINTED	391	PLASTIC LAMINATE	392	CERAMIC TILE 4" HIGH	393	PAINT EXISTING	394	GWB PAINTED	395	PLASTIC LAMINATE	396	CERAMIC TILE 4" HIGH	397	PAINT EXISTING	398	GWB PAINTED	399	PLASTIC LAMINATE	400	CERAMIC TILE 4" HIGH	401	PAINT EXISTING	402	GWB PAINTED	403	PLASTIC LAMINATE	404	CERAMIC TILE 4" HIGH	405	PAINT EXISTING	406	GWB PAINTED	407	PLASTIC LAMINATE	408	CERAMIC TILE 4" HIGH	409	PAINT EXISTING	410	GWB PAINTED	411	PLASTIC LAMINATE	412	CERAMIC TILE 4" HIGH	413	PAINT EXISTING	414	GWB PAINTED	415	PLASTIC LAMINATE	416	CERAMIC TILE 4" HIGH	417	PAINT EXISTING	418	GWB PAINTED	419	PLASTIC LAMINATE	420	CERAMIC TILE 4" HIGH	421	PAINT EXISTING	422	GWB PAINTED	423	PLASTIC LAMINATE	424	CERAMIC TILE 4" HIGH	425	PAINT EXISTING	426	GWB PAINTED	427	PLASTIC LAMINATE	428	CERAMIC TILE 4" HIGH	429	PAINT EXISTING	430	GWB PAINTED	431	PLASTIC LAMINATE	432	CERAMIC TILE 4" HIGH	433	PAINT EXISTING	434	GWB PAINTED	435	PLASTIC LAMINATE	436	CERAMIC TILE 4" HIGH	437	PAINT EXISTING	438	GWB PAINTED	439	PLASTIC LAMINATE	440	CERAMIC TILE 4" HIGH	441	PAINT EXISTING	442	GWB PAINTED	443	PLASTIC LAMINATE	444	CERAMIC TILE 4" HIGH	445	PAINT EXISTING	446	GWB PAINTED	447	PLASTIC LAMINATE	448	CERAMIC TILE 4" HIGH	449	PAINT EXISTING	450	GWB PAINTED	451	PLASTIC LAMINATE	452	CERAMIC TILE 4" HIGH	453	PAINT EXISTING	454	GWB PAINTED	455	PLASTIC LAMINATE	456	CERAMIC TILE 4" HIGH	457	PAINT EXISTING	458	GWB PAINTED	459	PLASTIC LAMINATE	460	CERAMIC TILE 4" HIGH	461	PAINT EXISTING	462	GWB PAINTED	463	PLASTIC LAMINATE	464	CERAMIC TILE 4" HIGH	465	PAINT EXISTING	466	GWB PAINTED	467	PLASTIC LAMINATE	468	CERAMIC TILE 4" HIGH	469	PAINT EXISTING	470	GWB PAINTED	471	PLASTIC LAMINATE	472	CERAMIC TILE 4" HIGH	473	PAINT EXISTING	474	GWB PAINTED	475	PLASTIC LAMINATE	476	CERAMIC TILE 4" HIGH	477	PAINT EXISTING	478	GWB PAINTED	479	PLASTIC LAMINATE	480	CERAMIC TILE 4" HIGH	481	PAINT EXISTING	482	GWB PAINTED	483	PLASTIC LAMINATE	484	CERAMIC TILE 4" HIGH	485	PAINT EXISTING	486	GWB PAINTED	487	PLASTIC LAMINATE	488	CERAMIC TILE 4" HIGH	489	PAINT EXISTING	490	GWB PAINTED	491	PLASTIC LAMINATE	492	CERAMIC TILE 4" 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PAINTED	591	PLASTIC LAMINATE	592	CERAMIC TILE 4" HIGH	593	PAINT EXISTING	594	GWB PAINTED	595	PLASTIC LAMINATE	596	CERAMIC TILE 4" HIGH	597	PAINT EXISTING	598	GWB PAINTED	599	PLASTIC LAMINATE	600	CERAMIC TILE 4" HIGH	601	PAINT EXISTING	602	GWB PAINTED	603	PLASTIC LAMINATE	604	CERAMIC TILE 4" HIGH	605	PAINT EXISTING	606	GWB PAINTED	607	PLASTIC LAMINATE	608	CERAMIC TILE 4" HIGH	609	PAINT EXISTING	610	GWB PAINTED	611	PLASTIC LAMINATE	612	CERAMIC TILE 4" HIGH	613	PAINT EXISTING	614	GWB PAINTED	615	PLASTIC LAMINATE	616	CERAMIC TILE 4" HIGH	617	PAINT EXISTING	618	GWB PAINTED	619	PLASTIC LAMINATE	620	CERAMIC TILE 4" HIGH	621	PAINT EXISTING	622	GWB PAINTED	623	PLASTIC LAMINATE	624	CERAMIC TILE 4" HIGH	625	PAINT EXISTING	626	GWB PAINTED	627	PLASTIC LAMINATE	628	CERAMIC TILE 4" HIGH	629	PAINT EXISTING	630	GWB PAINTED	631	PLASTIC LAMINATE	632	CERAMIC TILE 4" HIGH	633	PAINT EXISTING	634	GWB PAINTED	635	PLASTIC LAMINATE	636	CERAMIC TILE 4" HIGH	637	PAINT EXISTING	638



A



B

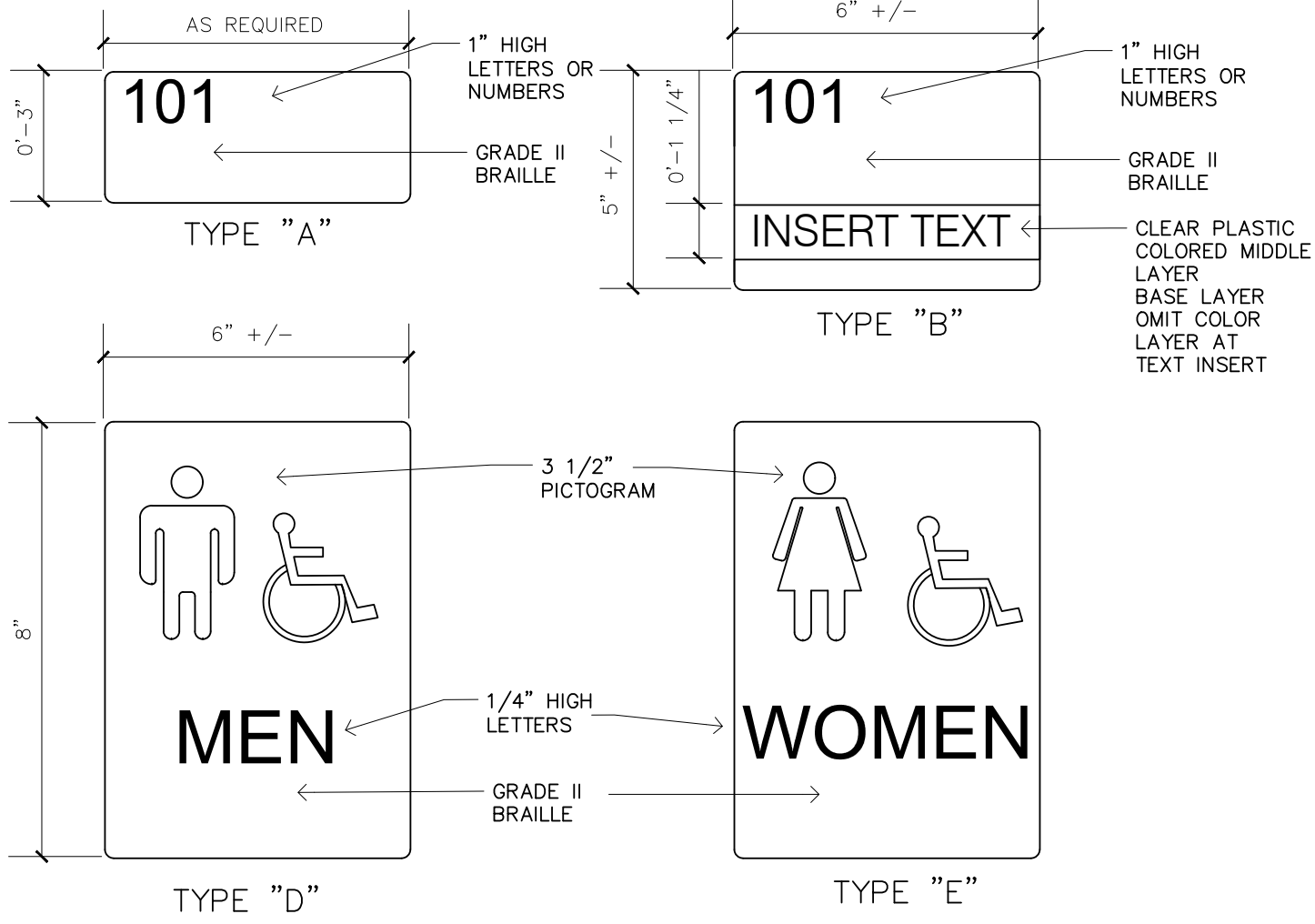
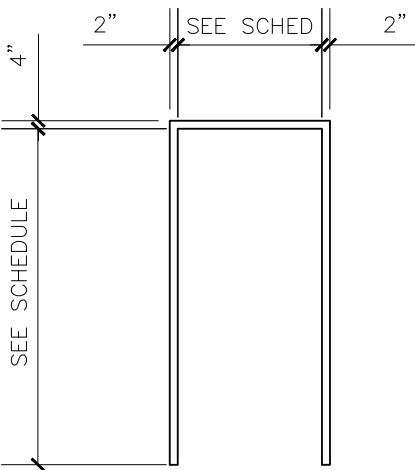


C

## DOOR TYPES

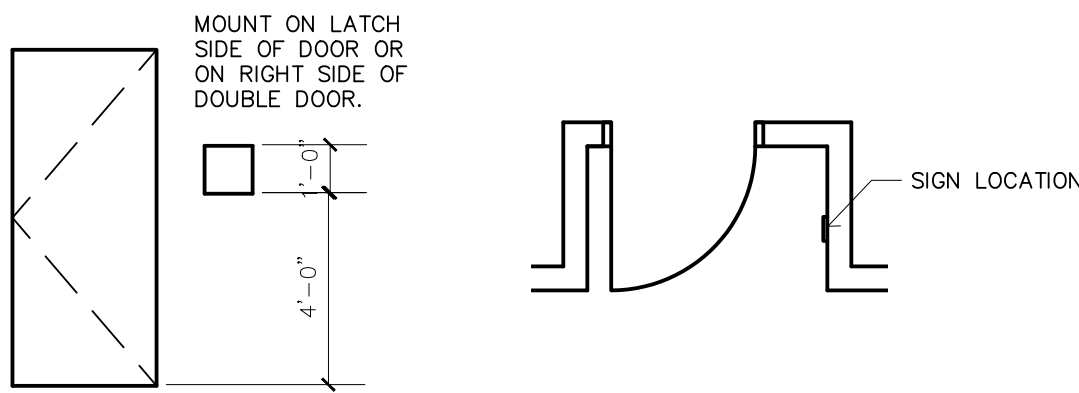
SCALE: 1/4" = 1'-0"  
ALL WINDOW GLAZING TO BE TEMPERED.

- LITE @ DOORS W/ RATING AT 60 MIN OR GREATER
- 4" X 24" LITE DIMENSION MAXIMUM
  - FIRE RESISTANCE RATED GLAZING TO BE D-H-W-240 CERAMIC GLAZING
  - TO BE LABELED BY INTERTEK OR UL



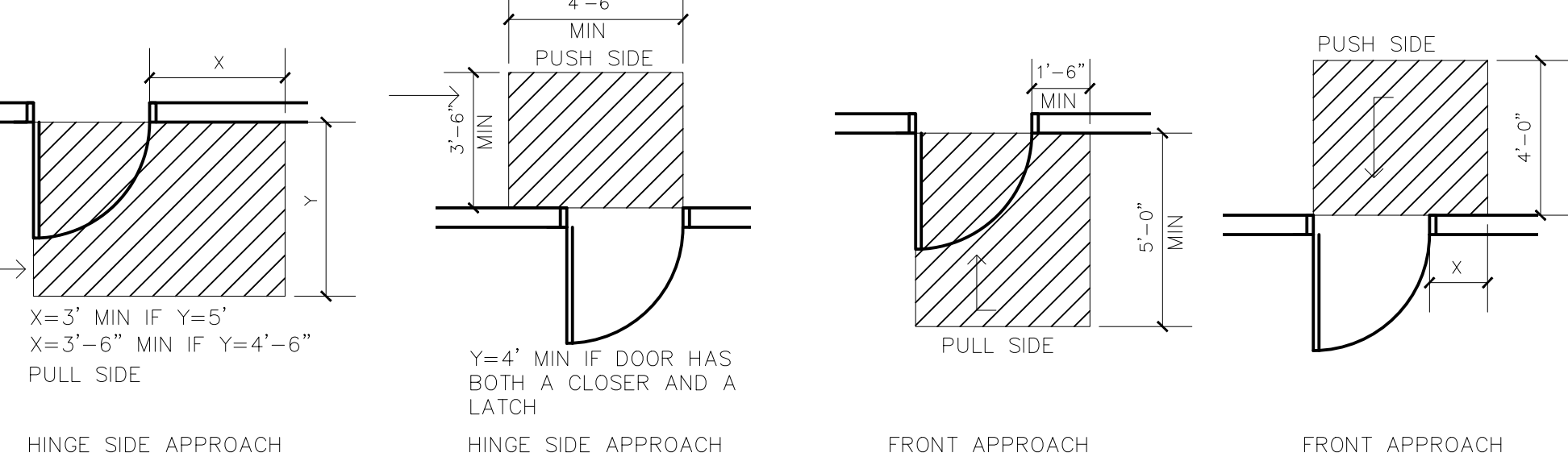
- SIGN MATERIAL SHALL BE MAPLE AS MANUFACTURED AND SUPPLIED BY MODA: 248-306-0677.
- LETTERS SHALL BE RAISED 3/32"; DIMENSIONS SHALL BE 7" H X 9.75" W.
- PICTOGRAMS AND LETTERS SHALL BE CONTRASTING COLOR.
- COMPLY WITH CABO/ANSI A117.1-1998 SECTION 703 SIGNAGE.
- RESTROOM SIGNAGE TO BE MODEL SA64 BY MODA
- ROOM ID SIGNAGE TO MODEL SA65 BY MODA

## SIGNAGE



## SIGN MOUNTING LOCATION

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



## BARRIER FREE DOOR APPROACH

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

- ALL HARDWARE @ ALUM DOORS BY ALUM DOOR SUPPLIER. HARDWARE BASED ON "KAWNEER"; MFG TO SUPPLY CYLINDER.
- ALUM DOOR HARDWARE SHALL MATCH DOOR FINISH.
- ALUM DOORS AND DOOR FRAMES SHALL BE KAWNEER "HEAVY WALL" OR EQUAL, 0.188" WALL THICKNESS.
- ALUM DOORS AND FRAMES SHALL BE GLAZED WITH TEMPERED GLASS. EXTERIOR DOORS AND FRAMES SHALL BE 1" INSULATED GLASS.
- ALL HW OR WOOD DOORS AND FRAMES SHALL BE GLAZED WITH TEMPERED GLASS, EXCEPT FIRE RATED DOORS AND FRAMES.
- FIRE RATED DOORS AND FRAMES SHALL BE GLAZED WITH LABELED FIRE/SAFETY RATED GLASS TO MATCH FIRE RATING AND AS FOLLOWS:  
20 & 45 MIN - 1296 SQ IN  
60 & 90 MIN - 100 SQ IN  
MAX GLASS SIZE.
- FIRE RATED DOORS TO HAVE STEEL BALL BEARING HINGES.
- WOOD DOORS TO BE 1 3/4" THICK.

- HARDWARE SET #1
- 3 HINGES: HAGAR, BB1279 US26D 4 1/2" X 4 1/2"
- 1 CLOSER: LCN, RW-PA TB 689 ALUM
- 1 EXIT DEVICE: VON DUPRIN, 997SL-L-M-03-4-US26D
- 1 THRESHOLD: NATIONAL GUARD, 513 ALUM
- WEATHERSTRIP: NATIONAL GUARD, 190V
- 1 SWEEP: NATIONAL GUARD, 601A W/ ADJUSTING CAPABILITY
- 1 CYLINDER: SAME AS MANUFACTURER OF EXIT DEVICE- MATCH KEYING SYSTEM

- NOTES
- PROVIDE DENS SHIELD BOARD BEHIND ALL LITE APPLICATIONS.
  - PROVIDE WATER RESISTANT GREEN BOARD AT ALL BATHROOM APPLICATIONS.

## SCHEDULES

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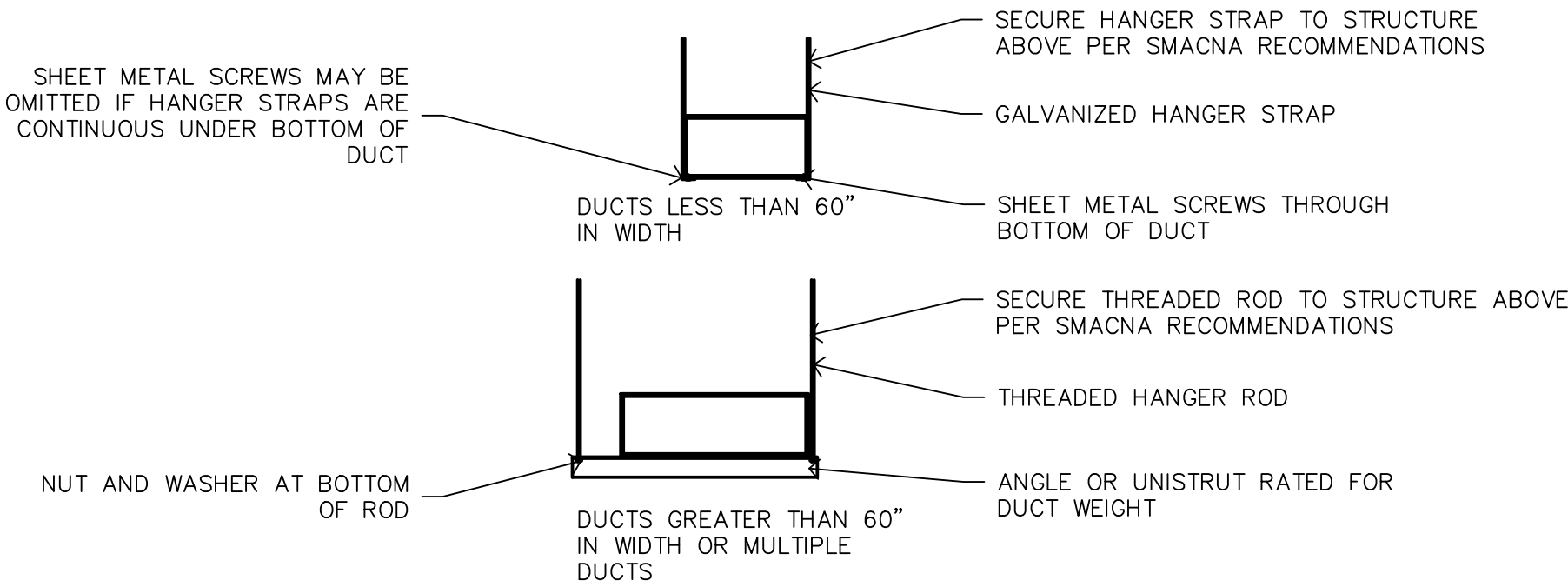
MECHANICAL KEYNOTES

LEGEND

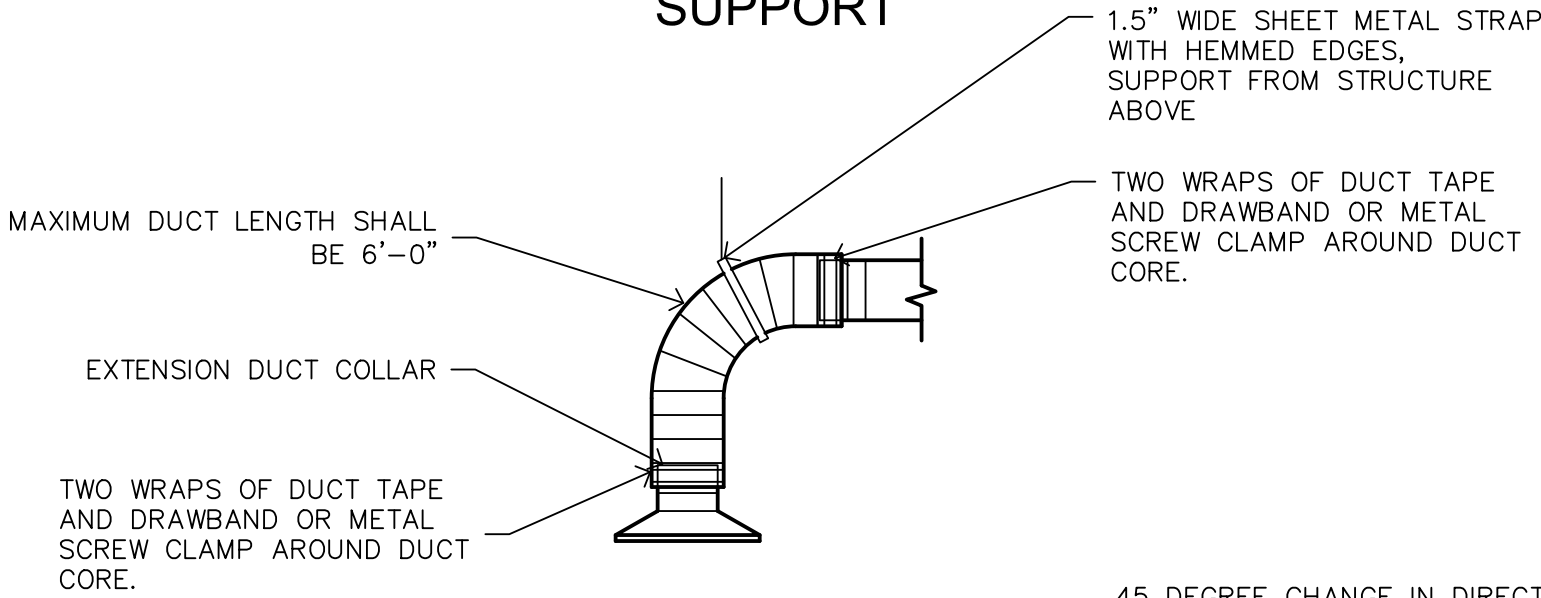
- GATE VALVE
- GLOBE VALVE
- BALL VALVE
- CHECK VALVE
- 2-WAY CONTROL VALVE
- 3-WAY CONTROL VALVE
- LUBRICATED PLUG VALVE
- BAL. BALL VALVE W/  
MEMORY STOP
- CIRCUIT SETTER
- PRESSURE REDUCING  
VALVE
- PRESSURE TEMP. TEST  
PORT
- PRESSURE GAUGE
- THERMOMETER
- EXPANSION JOINT W/  
GUIDES
- AIR VENT
- Y-STRAINER
- PIPE FLEXIBLE CONNECTOR
- CONN. TO EXIST.
- DUCT FLEXIBLE CONNECTOR
- EXIST. FIRE DAMPER
- NEW FIRE DAMPER
- EXIST. SMOKE DAMPER
- NEW SMOKE DAMPER
- EXIST. COMB. FIRE SMOKE  
DMPR
- NEW COMB. FIRE/SMOKE  
DMPR
- SUPPLY DIFFUSER
- RETURN GRILLE
- EXHAUST GRILLE

MECHANICAL NOTES

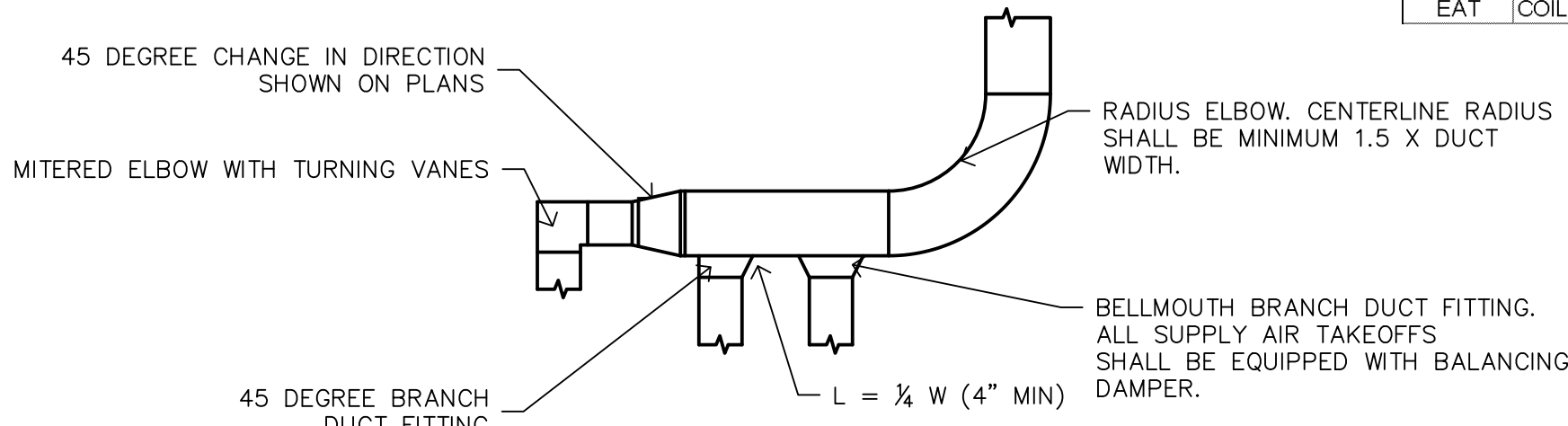
1. ALL WORK IS TO BE PROVIDED AND PERFORMED ACCORDING TO ALL STATE AND LOCAL CODES.
2. ALL EXHAUST OUTLETS AND OUTSIDE AIR INLETS SHALL BE A MINIMUM OF 15' APART.
3. EQUIPMENT NOISE SHALL NOT EXCEED 55 DECIBELS AT THE LOT LINE.
4. ALL DUCT WORK SHALL BE FABRICATED OF SHEET METAL AND IN ACCORDANCE WITH SMACNA STANDARDS.
5. ALL FLEX DUCT WORK SHALL BE THE INSULATED TYPE AND RUNS SHALL NOT EXCEED 6' MAXIMUM LENGTH. CONTRACTOR MAY USE FLEX DUCT TO CONNECT TO SUPPLY GRILLES.
6. PROVIDE MANUAL VOLUME DAMPER IN EACH BRANCH FOR BALANCING.
7. PROVIDE FIRE DAMPER WHERE THE DUCT PENETRATES THROUGH FIRE WALL.
8. RUN CONDENSATE LINE TO THE NEAREST FLOOR DRAIN.
9. CONTRACTOR TO FURNISH, LOCATE AND INSTALL THERMOSTAT FOR EACH ZONE.
10. INSTALL GAS PIPING, SIZES AS SHOWN.
11. EXISTING GAS PRESSURE TO BE VERIFIED BY THE CONTRACTOR AND SIZE GAS PIPING ACCORDINGLY.
12. DISCONNECT SWITCH SHALL BE PROVIDED WITH ALL UNITS.
13. PIPE SIZES ARE BASED ON 1# PRESSURE, CONTRACTOR TO FIELD VERIFY EXISTING GAS PRESSURE. VERIFY GAS PIPE SIZES, RESIZE IF NECESSARY.
14. CONTRACTOR TO PROVIDE GAS PRESSURE REGULATOR MAXITROL 325 SERIES FROM 1# DOWN TO 7" TO CONNECT GAS INLET OF HVAC UNITS OR AS RECOMMENDED BY THE MANUFACTURER OF THE EQUIPMENT.
15. CONTRACTOR SHALL ADD CAPACITY REQUIRED FOR ANY APPLIANCES.
16. MECHANICAL CONTRACTOR TO SIZE ALL DUCTWORK AND EQUIPMENT RELATED TO NEW HVAC SYSTEM TO PROVIDE COMPLETE SYSTEM THAT IS IN COMPLIANCE WITH ALL CODES AND REGULATIONS.
17. MECHANICAL DRAWINGS ARE SCHEMATIC ONLY. HVAC CONTRACTOR IS RESPONSIBLE TO LOCATE PATH OF NEW DUCTWORK TO OPTIMIZE SUPPLY AND RETURN.
18. THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR THE NEW ROOM TEMPERATURE SENSORS AND ALL NEW CONNECTIONS TO THE THERMOSTATS.
19. PROVIDE DUCT DETECTORS AS REQUIRED BY CODE



DUCTWORK SUPPORT



FLEX DUCT INSTALLATION



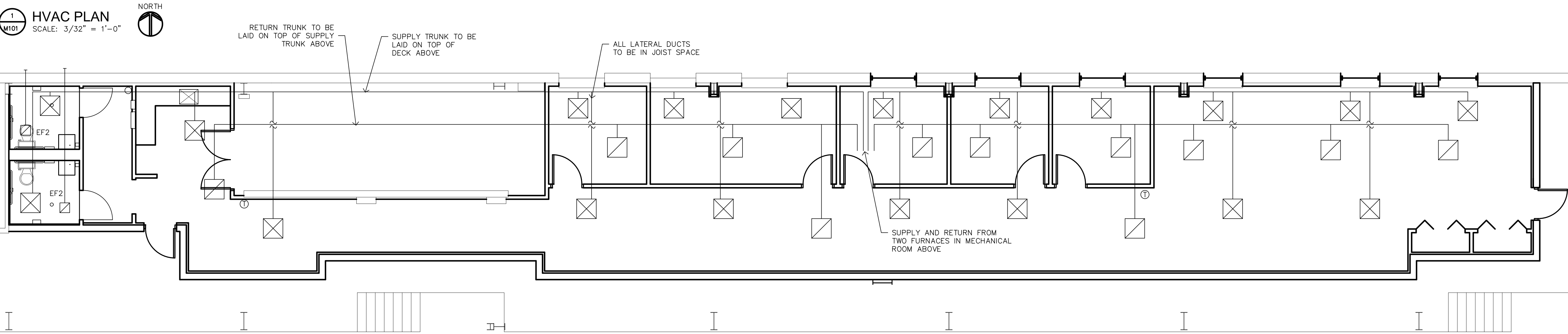
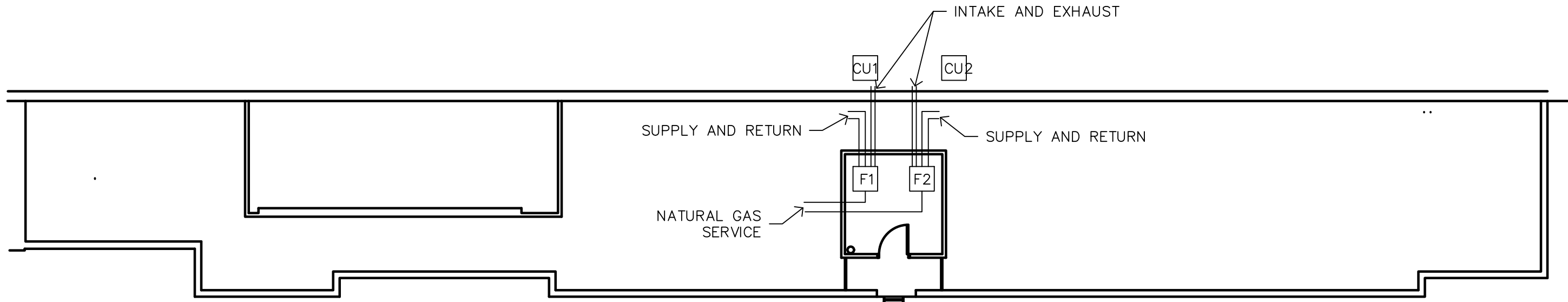
DUCTWORK CONSTRUCTION

EXHAUST FAN SCHEDULE							
TYPE	MANUFACTURER	CATALOG NO.	CFM	EST E.S.P.	VOLT/ PHASE	MOTOR	ACCESSORIES
EF-1	COOK	GC144	150	0.5	120/1	98W	DM, GBD, CG, RC, HK
EF2	COOK	GC75	75		120/1		DM, GBD, CB, HK
CG	WHITE ALUMINUM CEILING GRILLE		GK	GREASE TERMINATION KIT			
DM	DISCONNECT MEANS		HB	HINGED BASE			
GBD	GRAVITY BACKDRAFT DAMPER		RC	18" INSULATED ROOF CURB			
VSC	VARIABLE SPEED CONTROLLER		HK	HANGING KIT WITH VIBRATION INSULATOR			

GRILLES, REGISTERS AND DIFFUSERS SCHEDULE										
TYPE	MANUFACTURER	CATALOG NO.	APP	FINISH	FRAME TYPE	VOLUME DAMPER	MAX NC (DB)	MIN THROW (FT)	MAX THROW (FT)	MAX PRESS. DROP
A	TITUS		SUP	WHITE	T-BAR/ FLANGE	YES	30	8	24	0.1
B	TITUS		RET	WHITE	FLANGE	NO	30	-	-	0.1
C	TITUS		SUP	WHITE	FLANGE	NO	30	23	60	0.1
EXH	EXHAUST		RET	RETURN		SUP	SUPPLY			
1	THROWS ARE BASED ON 50 FEET PER MINUTE VELOCITY									
2	OPPOSED BLADE DAMPERS SHALL BE PROVIDED ON ALL DIFFUSERS REQUIRING DOUME DAMPERS									
3	PROVIDE T-BAR OR FLANGE FRAME AS NOTED BY "T" OR "F" DESIGNATION IN DIFFUSER TAG ON PLANS									

SPLIT SYSTEM SCHEDULE										
TYPE	MANUFACTURER	CATOLOG NUMBER	CFM	BLOWER		HP	HEATER MBH/EFF	ELECTRICAL		
				OA CFM	E.S.P.			VOLT/PH		
F1	TRANE	TUHMD120ACV5VA	2000	300	0.5	1	120	120/1		
F2	TRANE	TUHMD120ACV5VA	2000	300	0.5	1	120	120/1		
CH	CRANKCASE HEATER									
LA	LOW AMBIENT CONTROL									
CB	CIRCUIT BREAKER									
T	WALL MOUNTED 7 DAY PROGRAMMABLE THERMOSTAT									
EFF	EFFICIENCY									
OA	OUTSIDE AIR									
EAT	COIL ENTERING AIR TEMPERATURE									

EVAPORATOR/ CONDENSING UNIT						
TYPE	MANUFACTURER	COOLING EAT		CLG CAPACITY		CONDENSING UNIT
		DB	WB	SENS	TOTAL	
CU1	TRANE					4TTVOX36A1000A 208/230/1
CU2	TRANE					4TTVOX36A1000A 208/230/1
CH	CRANKCASE HEATER					
LA	LOW AMBIENT CONTROL					
CB	CIRCUIT BREAKER					
T	WALL MOUNTED 7 DAY PROGRAMMABLE THERMOSTAT					
EFF	EFFICIENCY					
OA	OUTSIDE AIR					
EAT	COIL ENTERING AIR TEMPERATURE					
EST	DOES NOT INCLUDE FILTER LOSS					



HOPPE DESIGN, LLC

47032 MERRIDE, BELLEVILLE, MI 48111

734-216-2492

REVISIONS

PROJECT: 2212  
DATE: 8.30.22  
DRAWN: WCH  
CHECKED: WCH

PRELIMINARY NOT TO BE USED FOR CONSTRUCTION  
VERIFY ALL DIMENSIONS IN FIELD

HVAC PLANS

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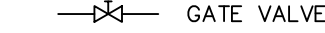
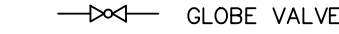
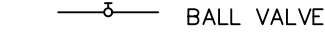
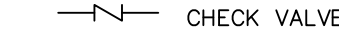




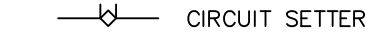



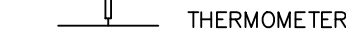

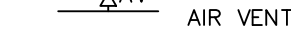
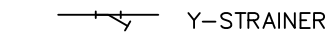

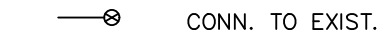







M101



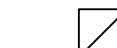
OFFICE RENOVATIONS TO  
CONTRACTORS STEEL

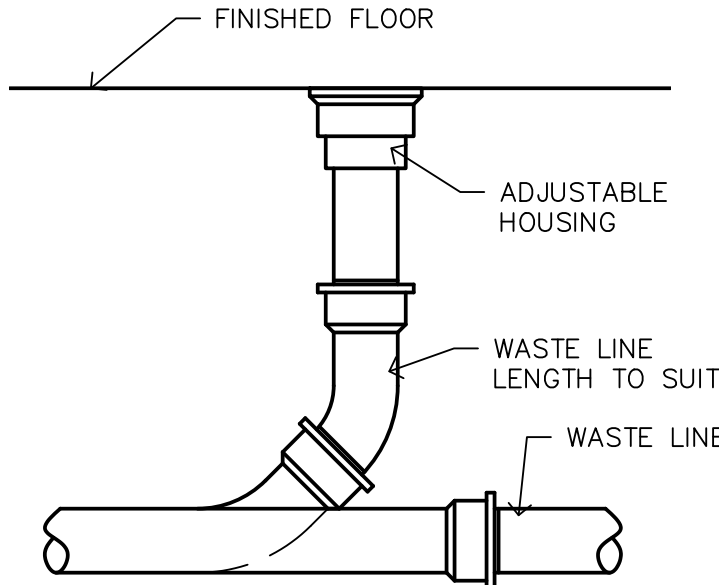
48649 SCHOONER DR., VAN BUREN TWP., MI 48111



LEGEND

-  GATE VALVE
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-  BALL VALVE
-  CHECK VALVE
-  2-WAY CONTROL VALVE
-  3-WAY CONTROL VALVE
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MEMORY STOP
-  CIRCUIT SETTER
-  PRESSURE REDUCING  
VALVE
-  PRESSURE TEMP. TEST  
PORT
-  PRESSURE GAUGE
-  THERMOMETER
-  EXPANSION JOINT W/  
GUIDES
-  AIR VENT
-  Y-STRAINER
-  PIPE FLEXIBLE CONNECTOR
-  CONN. TO EXIST.
-  DUCT FLEXIBLE CONNECTOR
-  EXIST. FIRE DAMPER
-  NEW FIRE DAMPER
-  EXIST. SMOKE DAMPER
-  NEW SMOKE DAMPER
-  EXIST. COMB. FIRE SMOKE  
DMPR
-  NEW COMB. FIRE/SMOKE  
DMPR
- MARK  
CFM

 SUPPLY DIFFUSER
-  RETURN GRILLE
-  EXHAUST GRILLE



**FLOOR CLEANOUT**  
SCALE: 1"=1'-0"

PLUMBING FIXTURE SCHEDULE																
TAG	MFR	MODEL NAME AND DESCRIPTION	FITTINGS	FLOW	WSFU'S		DFU'S	MIN PIPE CONNECTION SIZES				REMARKS	COLOR			
					C	H		W	V	CW	HW					
WC1	KOHLER	K-84325-L WALL HUNG ELONGATED WATER CLOSET WITH EXPOSED BATTERY SENSOR FLUSH VALVE WITH OVER-RIDE, WHITE OPEN FRONT TOILET SEAT, LESS COVER, WITH STAINLESS STEEL CHECK HWGE.	K-7531 EXPOSED HYBRD TOUCHLESS BATTERY POWERED FLUSH VALVE	1.28 GPF	10		4	4"	2"	1"	-	BARRIER FREE COMPLIANT; EXPOSED TO P SPUD CONNECTION; ZURN Z1201 SERIES CLOSET CARRIER, 500 LB SEAT CAPACITY	WHITE			
SK-1	ELKAY	LR3319	K-15571 FAUCET, LK-35 STRAINER, CR-19 STOPS AND SUPPLIES, 17 GA C.P.P. TRAP									3 FAUCET HOLES				
LAV1	KOHLER	K-1721 WALL HUNG SINK WITH GRID DRAIN; P-TRAP; STOP SUPPLY KIT; TRAP WRAP AND ASSE 1070 THERMOSTATIC MIXING VALVE	K-13460 TOUCHLESS FAUCET, CR-19 STOPS, AND SUPPLIES, OFFSET GRID DRAIN, 17 GA C.P.P. TRAP	0.5 GPM	1.5	1.5	1	1 1/2"	1 1/2"	1/2"	1/2"	BARRIER FREE COMPLIANT; BARRIER FREE TRAP, TRUEBRO LAV GUARD HW INSUL. KIT; SOLID BRASS FAUCET; Z1231 LAV CARRIER WITH UPRIGHTS	WHITE			
CO	ZURN	Z415-SZ1														
FD-1	ZURN	Z415-BZ	5" DIA. N.B. STRAINER													
GARB AGE DISPO SAL	ISE	PRO-333										1/ HP, 120/160				

WATER HEATER\_B  
TANKLESS ELECTRIC WATER HEATER RHEEM RTEX-06, 1 GPM AT 37 DEGREES TEMPERATURE RISE, 220V/6KW/25A/10AWG ½" NPT

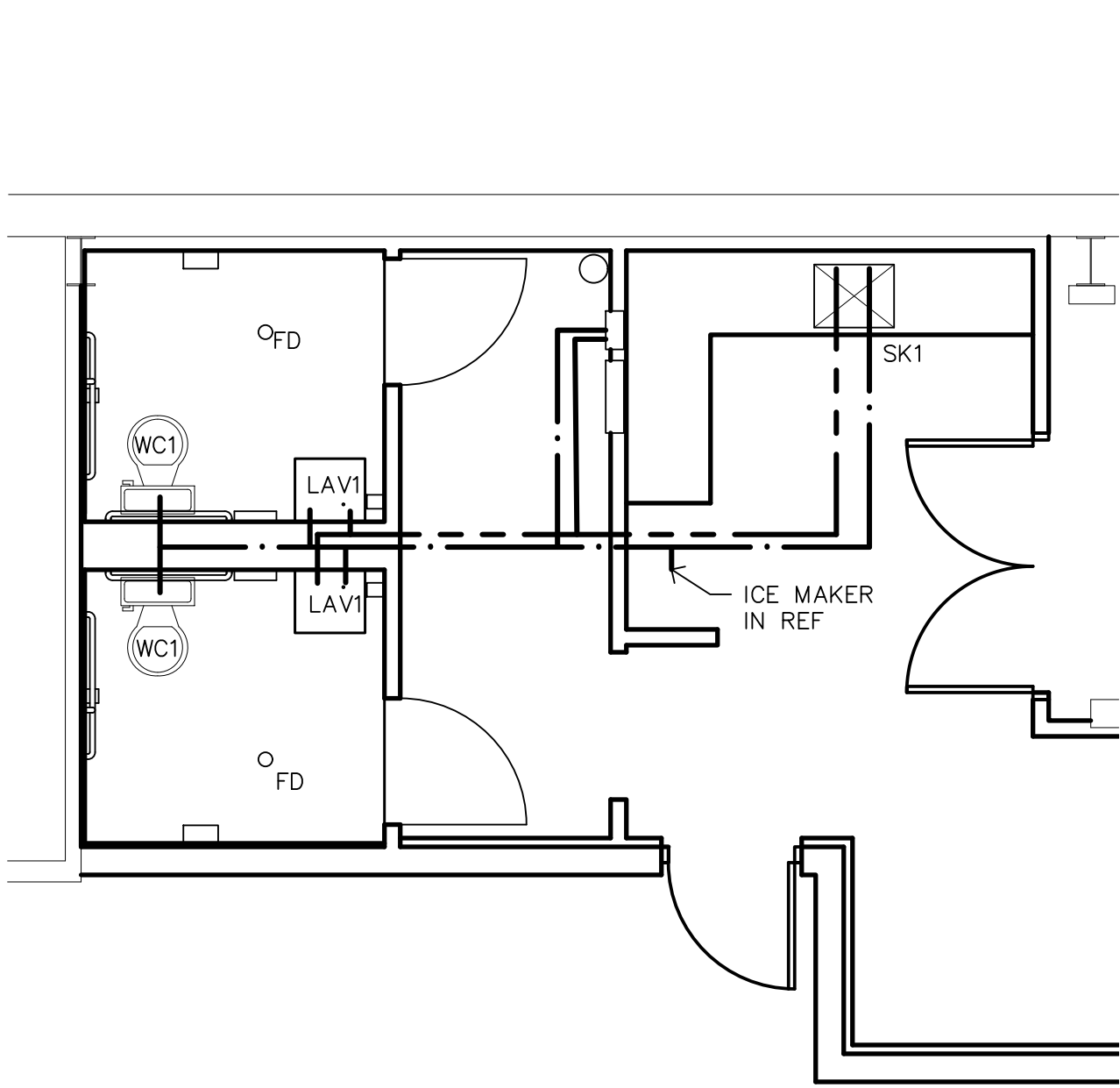
PLUMBING NOTES

1. PLUMBING CONTRACTOR RESPONSIBLE TO SIZE ALL WASTE, SUPPLY, VENTS, DRAINS, TRAPS, ETC TO PROVIDE COMPLETE SYSTEM THAT IS IN COMPLIANCE WITH ALL CODES AND REGULATIONS.
2. THE PLUMBING DRAWINGS ARE SCHEMATIC ONLY. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE FINAL LAYOUT AND ROUTING OF PIPING.
3. NO PLUMBING PIPING SHALL BE ROUTED OVER ELECTRICAL PANELS.
4. PLUMBING CONTRACTOR SHALL CONTACT THE SERVICE PROVIDER AND ARRANGE FOR NEW GAS SERVICE CONNECTION.
5. PLUMBING CONTRACTOR SHALL CONTACT THE MUNICIPAL AUTHORITY TO ARRANGE FOR NEW WATER SERVICE CONNECTION.
6. PROVIDE CLEANOUTS AT THE BASE OF ALL BASE STACKS, CHANGES IN DIRECTION GREATER THAN 45 DEGREES, AND 50 FEET ON CENTER FOR STRAIGHT RUNS.
7. ALL PLUMBING SHALL COMPLY WITH BARRIER FREE REQUIREMENTS.
8. PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS.
9. WRAP ALL WATER PIPING WITH INSULATED PIPE WRAP.
10. ALL LAMBS TONGUE DISCHARGE TO BE 36" ABOVE ADJACENT GRADE.
11. PLUMBING CONTRACTOR TO VERIFY MICHIGAN PLUMBING CODE AND COUNTY HEALTH DEPARTMENT REQUIREMENT FOR BACKFLOW PREVENTERS, CHECK VALVES, VACUUM BREAKERS, AND INDIRECT WASTEWATER CONNECTIONS.

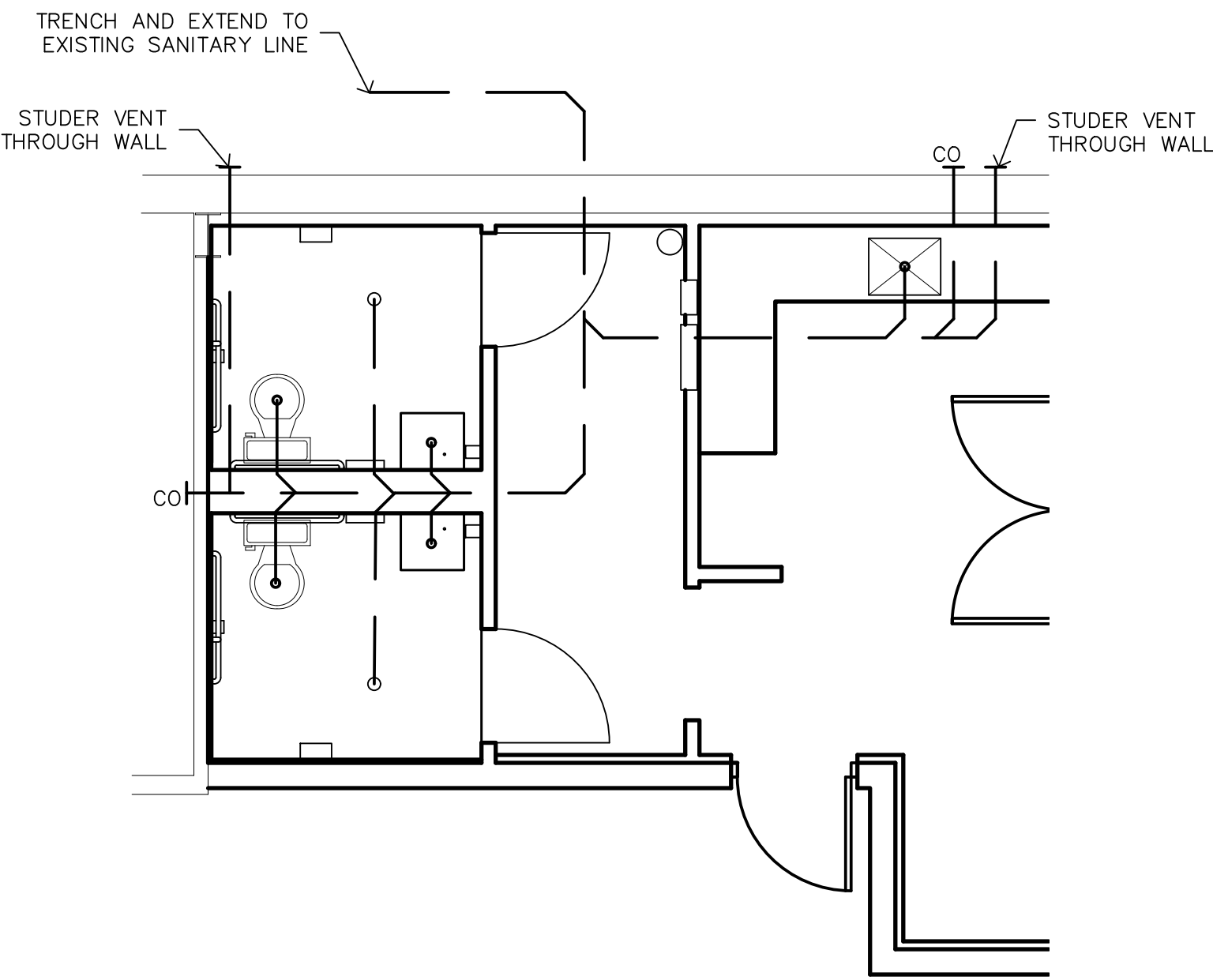
PLUMBING PIPING REQUIREMENTS

	HW	CW	WASTE
WATER CLOSET TANK	1"	2"	3"
WATER CLOSET FLUSH VALVE	1"	1"	3"-4"
URINALS	2"	2"	2"
SERVICE SINK	2"	2"	3"
ELECTRIC WATER COOLER	2"	2"	1 ½"
WASH BASIN	2"	2"	1 ½"
SINKS/LAVATORIES	2"	2"	1 ½"
SHOWER STALLS	2"	2"	3"
FLOOR DRAIN	2"	2"	3"

NOTE: PIPE SIZES SHOWN ARE MINIMUM STANDARD. PC SHALL VERIFY VARIANCES ON PLAN.



**SUPPLY PLAN**  
SCALE: 1/4" = 1'-0"



**SANITARY PLAN**  
SCALE: 1/4" = 1'-0"

SAWCUT EXISTING SLAB FOR NEW UNDERGROUND SANITARY PIPING. INSTALL NEW 4 REINF CONCRETE SLAB ON VB ON COMPACTED BASE

PLUMBING PLANS

HOPPE DESIGN, LLC  
47032 McBRIDE, BELLEVILLE, MI 48111  
734-216-2492

REVISIONS

PROJECT: 2212  
DATE: 8.30.22  
DRAWN: WCH  
CHECKED: WCH

P101

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


























OFFICE RENOVATIONS TO  
CONTRACTORS STEEL  
48649 SCHOONER DR., VAN BUREN TWP., MI 48111



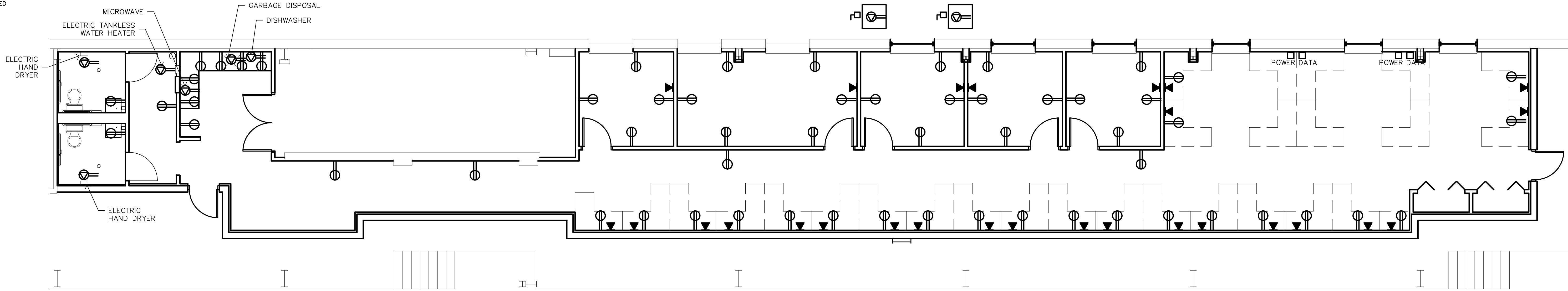
ELECTRICAL KEYNOTES

1. OCCUPANCY SENSOR EQUAL TO WATTSTOPPER ST-200

LEGEND

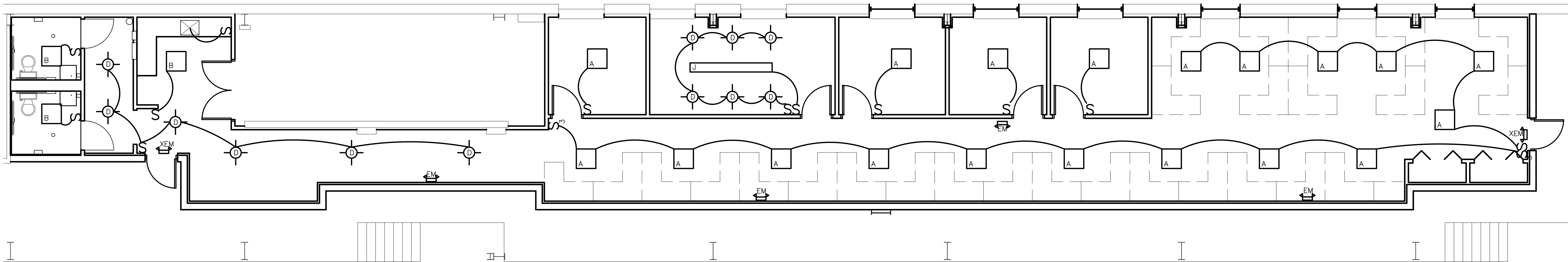
-  SWITCH ON RHEOSTAT
-  THREE WAY SWITCH
-  SWITCH WITH PILOT
-  SWITCH
-  SPECIAL OUTLET
-  DUPLEX OUTLET
-  QUAD OUTLET
-  WEATHERPROOF OUTLET
-  GROUND FAULT INTERRUPTER
-  TELEPHONE/ COMPUTER
-  SMOKE DETECTOR
-  TELEVISION/ CABLE
-  CEILING MOUNTED LIGHT FIXTURE
-  CEILING MOUNTED LIGHT FIXTURE RECESSED
-  WALL MOUNTED LIGHT FIXTURE
-  CEILING FAN/ LIGHT
-  SCONCE
-  MOTOR, ONE PHASE
-  GROUND MNTD EXT. LIGHTING
-  2x4 LAY IN LIGHT FIXTURE
-  1 X 4 LIGHT FIXTURE
-  PENDANT MOUNTED OVERSIZED FIXTURE
-  EXIT SIGN
-  EXIT SIGN/ EMERGENCY LIGHT
-  FIRE ALARM PULL STATION
-  HORN/ STROBE
-  COMPUTER JACK
-  RATE OF RISE HEAT DETECTOR
-  DISCONNECT SWITCH
-  DISCONNECT SWITCH WITH FUSE
-  AUDIO JUNCTION BOX- PRE-WIRE PER DIRECTION OF OWNER

LIGHT FIXTURE SCHEDULE						
TYPE	MANUFACTURER	CATALOG NUMBER	LAMPS	NO. WATTS	MOUNTED	REMARKS
A	LITHONIA	2BLT2BA4 E21 AD5M 40L	LED	120	LAYIN SUSPENSE D, LAYIN, SURFACE	LP835 82CRI, 3500K 2'X2'
B	LITHONIA	EPANL 2X2 3400 LMHE 80 CRI 35K MIN1	LED			POLYCARBONATE LENS
C	LITHONIA	LDN6 35 10 LW6 AR LSS MVOLT EZ1	LED	10.44-120	RECESSED	
D	LITHONIA	6JBK ADJ 30K 90CRI MW	LED	10.8-120	RECESSED	
E	BRUCK	MAGNUM 2 CHROME 1100 CRI 98 3000K	LED	11.9-120	SURFACE	
EM	LITHONIA	ELM4L 120V/3 15W/032AMPS				
XEM	LITHONIA	ECRGHO RD M6 120V/2 8W/05AMPS 3.6V BATTERY				
F	LITHONIA	WF8 LED 30K MVOLT 90CRI MW				
G	LITHONIA	WPX1 LED P2 40K MVOLT 000BXD M4				
H	LITHONIA	EPANL 1X4 3000LM 80CRI 35K MCOLT E10WCP 1X4SMKSH				
J	EATON	DSI-WS-2L35-LD2-1D-UNV-AC-T9-STD-SW-W	LED		PENDANT	



**1 POWER PLAN**  
SCALE: 3/16" = 1'-0"  
PROJECT NORTH

ALL OUTLETS IN TOILET ROOMS AND KITCHEN TO BE GFI PROTECTED



**2 LIGHTING PLAN**  
SCALE: 3/16" = 1'-0"  
PROJECT NORTH

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ELECTRICAL PLANS

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