



RENOVATION

MARIANNA TERRACE OFFICE

BUILDING RENOVATION

1700 WABASH AVE

CINCINNATI, OHIO 45215

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JAMES D. GUTHRIE, LICENSE #10422
EXPIRATION DATE 12/31/2020

MAINTENANCE BUILDING
RENOVATION

MARIANNA
TERRACE

1700 WABASH AVE
CINCINNATI, OH

Hub + Weber
Architects, PLC

200 West Pike Street
Covington, KY 41011
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Issued: 02.26.2020

Revised:

COVER SHEET &
CODE NOTES

G001-M

1904.043

VICINITY MAP



GENERAL PROJECT NOTES

- THE DRAWINGS ARE INTENDED TO GRAPHICALLY SHOW THE GENERAL REQUIREMENTS FOR THE SCOPE OF WORK REQUIRED TO COMPLETE THIS RENOVATION. THE DRAWINGS DO NOT SHOW OR IDENTIFY ALL COMPONENTS, MATERIALS, ITEMS OR INSTALLATION METHOD NECESSARY TO MEET MANUFACTURERS, REGULATORY OR CODE REQUIREMENTS. SPECIFIC REGULATORY COMPLIANCE ITEMS OR PROVISIONS ARE IDENTIFIED AND/OR REFERRED TO BY INDICATION OF THE APPROPRIATE ASSEMBLY DESIGNATION OR GENERAL TERMINOLOGY. THE CONTRACTOR SHALL BE REQUIRED TO FAMILIARIZE THEMSELVES WITH THE APPLICABLE CODE PROVISIONS, ASSEMBLY DESIGNATION OR MATERIAL IDENTIFIED AND SHALL COMPLETE THIS PROJECT IN COMPLIANCE WITH THE APPLIANCE REQUIREMENTS.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, SEQUENCING, AND SAFETY REQUIREMENTS FOR THE PROJECT. EACH CONTRACTOR, SUBCONTRACTOR, LABORER, OR OTHER PERSONS PERFORMING WORK ON THE PROJECT SITE SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE WORKPLACE AND CONSTRUCTION SAFETY REGULATIONS PROMULGATED BY FEDERAL, STATE OR LOCAL AUTHORITIES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ASSURING THAT SITE SPECIFIC SAFETY REQUIREMENTS ARE DOCUMENTS AND DISSEMINATED TO ALL PARTIES AND SHALL MAINTAIN ALL REQUIRED RECORDS, FORMS, MANUALS, RULES OR OTHER DOCUMENTS AT THE SITE.
- THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION OF ALL UNDERGROUND UTILITIES, PUBLIC OR PRIVATE. IN THE AREAS OF WORK PRIOR TO THE START OF WORK, ALL UTILITIES SHALL BE PROTECTED FROM DAMAGE DURING THE COMPLETION OF THE PROJECT.
- EACH SHEET CONTAINED IN THIS DRAWING SET IS AN INTEGRAL COMPONENT OF THE CONSTRUCTION DOCUMENTS FOR THE PROJECT. PORTIONS OF THE WORK DESCRIBED ON ONE SHEET MAY IMPACT, BE IMPACTED BY, OR RELY UPON INFORMATION OR WORK SHOWN ON THE OTHER SHEETS WITHIN DRAWINGS OR WITHIN THE SPECIFICATIONS. EACH CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK REQUIRED FOR THE ENTIRE PROJECT AND SHALL BE RESPONSIBLE FOR COORDINATION OF THEIR RESPECTIVE PORTIONS WITH OTHER TRADES TO ASSURE THAT THE WORK PROGRESSES IN AN ORDERLY AND TIMELY MANNER.
- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE AUTHORITIES HAVING JURISDICTION. EACH CONTRACTOR PERFORMING WORK ON THE PROJECT SHALL REFER TO THE APPROVED DOCUMENTS FOR THE SCOPE OF WORK REQUIRED, USE OF BID SETS, LOOSE SHEETS OR OTHER ITEMS/DOCUMENTS NOT PART OF THE APPROVED DOCUMENTS IS DONE AT THE RESPECTIVE PARTIES SOLE RISK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND SAFEKEEPING OF THE APPROVED DOCUMENTS.
- DO NOT SCALE DRAWINGS. IF ANY DISCREPANCY IS FOUND OR ANY INFORMATION OR CLARIFICATION IS NEEDED WHICH CANNOT BE REASONABLY DETERMINED BY THE CONSTRUCTION DOCUMENTS, CONTRACT THE ARCHITECT FOR RESOLUTION. IN CASE OF DISCREPANCY REGARDING THE QUANTITY OR QUALITY, THE HIGHER QUALITY OR GREATER QUANTITY SHALL BE PROVIDED UNLESS DIRECTED OTHERWISE BY THE OWNER OR ARCHITECT.
- ALL WORK DESCRIBED HEREIN IS DESIGNED AND INTENDED TO COMPLY WITH THE PROVISIONS OF ICC/ANSI A117.1 AND THE UNIFORM FEDERAL ACCESSIBILITY STANDARDS. THE CONTRACTOR SHALL ENSURE THE WORK IS COMPLETED TO MEET THE APPLICABLE REQUIREMENTS AND SHALL BECOME FAMILIAR WITH THE APPLICABLE PROVISIONS BEFORE COMPLETE THE WORK DESCRIBED HEREIN.

CODE INFORMATION

PROJECT DESCRIPTION:

RENOVATION OF EXISTING MAINTENANCE AND OFFICE BUILDING. RENOVATION WILL REWORK OFFICES AND MAINTENANCE WORKSHOP AND ADD A MEETING ROOM FOR RESIDENTS.

BUILDING CODE:

2017 OHIO BUILDING CODE

USE CLASSIFICATION:

EXISTING:

- (B) BUSINESS
- (B) ACCESSORY STORAGE / WORKSHOP

PROPOSED:

- (B) BUSINESS
- (B) ACCESSORY STORAGE / WORKSHOP
- (A-3) MEETING ROOM

PROJECT SQUARE FOOTAGE:

TOTAL: 2,111 SF

CONSTRUCTION TYPE:

IIB = CONSTRUCTED OF NON-COMBUSTIBLE MATERIALS, EXCEPT AS PERMITTED BY SECTION 603.

HEIGHT AND AREA:

CONSTRUCTION TYPE: IIB

A-3 ALLOWABLE AREA: 9,500 sf

TOTAL ALLOWABLE: 9,500 sf

ACTUAL AREA: 2,111 sf

A-3 ALLOWABLE HEIGHT: 2 STORIES (55')

TOTAL ALLOWABLE: 2 STORIES (55')

ACTUAL HEIGHT: 1 STORY (14')

FIRE SEPARATION:

NON-SEPARATED MIXED USES.

FIRE PROTECTION:

SPRINKLER SYSTEM NOT REQUIRED PER SECTIONS 903.2.1.3.

FIRE EXTINGUISHERS, PER NFPA 10, ARE REQUIRED TO BE INSTALLED PER SECTION 906. INCLUDING IN THE OFFICE AREA AND THE WORKSHOP AREA; TO BE LOCATED NOT MORE THAN 75'-0" BETWEEN EXTINGUISHERS.

SMOKE AND FIRE ALARMS:

FIRE ALARM AND DETECTION SYSTEMS ARE NOT REQUIRED PER SECTION 907.2.1 OR 907.2.2

INTERIOR FINISH RATINGS:

INTERIOR EXIT STAIRWAYS - CLASS A
CORRIDORS FOR EXIT ACCESS - CLASS A
ROOMS AND ENCLOSURED SPACES - CLASS C

OCCUPANCY:

(B) OFFICE: 974 SF / 100 = 10
(A-3) MEETING: 780 SF / 15 = 52
(B) WORKSHOP: 306 SF / 300 = 1
TOTAL: = 63

MEANS OF EGRESS:

(4) EXISTING EXITS WITH AT LEAST (2) SEPARATED BY A MINIMUM OF ½ THE DIAGONAL LENGTH OF THE BUILDING PER SECTION 1007.1.1.

MINIMUM EGRESS WIDTH:

DOORS: 32" (80 x 0.2 = 16")
MAXIMUM EXIT ACCESS TRAVEL DISTANCE: 200 FT
MAXIMUM DEAD END: 20 FT

PLUMBING FIXTURES:

(1) WATER CLOSET AND (1) LAVATORY FOR MALES
(1) WATER CLOSET AND (1) LAVATORY FOR FEMALES
(1) SERVICE / MOP SINK

PROJECT TEAM

OWNER

CMHA
1627 WESTERN AVENUE
CINCINNATI, OH 45214
(513) 721-4580

ARCHITECT

HUB + WEBER ARCHITECTS, PLC
200 WEST PIKE STREET
COVINGTON, KENTUCKY 41011
(859) 491-3844

CIVIL ENGINEER

ABERCROMBIE AND ASSOCIATES
8111 CHEVIOT ROAD, SUITE 200
CINCINNATI, OHIO 45247
(513) 245-5161

MECHANICAL, ELECTRICAL, PLUMBING ENGINEER

ENGINEERED BUILDING SYSTEMS
515 MONMOUTH STREET
NEWPORT, KENTUCKY 41071
(859) 261-0585

LANDSCAPE ARCHITECT

PLACE WORKSHOP
250 EAST FIFTH STREET, 15TH FLOOR
CINCINNATI, OHIO 45202
(513) 512-2366

STRUCTURAL ENGINEER

ROENKER ENGINEERING
3276 HIGHRIIDGE DRIVE
TAYLOR MILL, KY 41015
(85) 331-0084

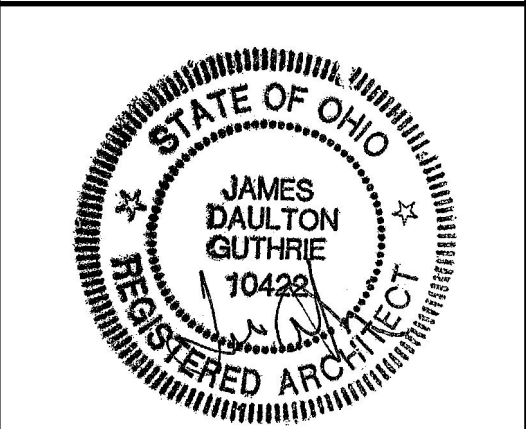
DRAWING INDEX

CURRENT DATE	SHEET NUMBER	SHEET DESCRIPTION
02.26.20	G001-M	COVER SHEET AND CODE INFORMATION
02.26.20	C101-M	ARCHITECTURAL SITE PLAN
02.26.20	D101-M	DEMO FLOOR PLANS
02.26.20	A101-M	FLOOR PLANS
02.26.20	A102-M	ROOF PLAN
02.26.20	D201-M	DEMO ELEVATION PLANS
02.26.20	A201-M	ELEVATIONS
02.26.20	A401-M	REFLECTED CEILING PLANS
02.26.20	A501-M	SCHEDULES AND INTERIOR ELEVATIONS
02.26.20	S101-M	STRUCTURAL PLANS

DRAWINGS BY OTHERS

CURRENT DATE	SHEET NUMBER	SHEET DESCRIPTION
02.26.20	M100	MECHANICAL PLAN
02.26.20	M200	MECHANICAL DETAILS
02.26.20	P100	PLUMBING PLAN
02.26.20	P200	PLUMBING DETAILS
02.26.20	E100	ELECTRICAL POWER PLAN
02.26.20	E200	ELECTRICAL LIGHTING PLAN
02.26.20	E300	ELECTRICAL DETAILS

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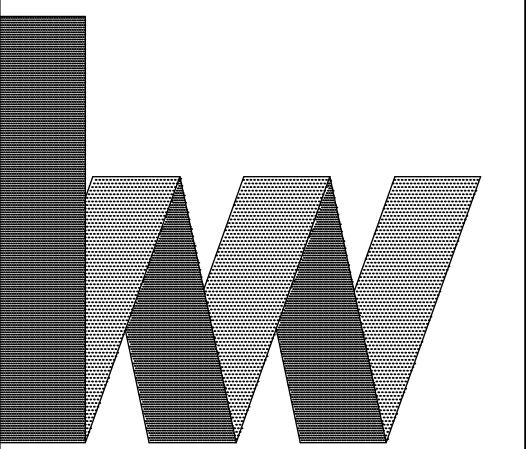


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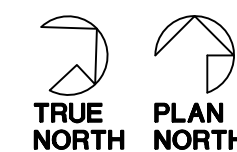
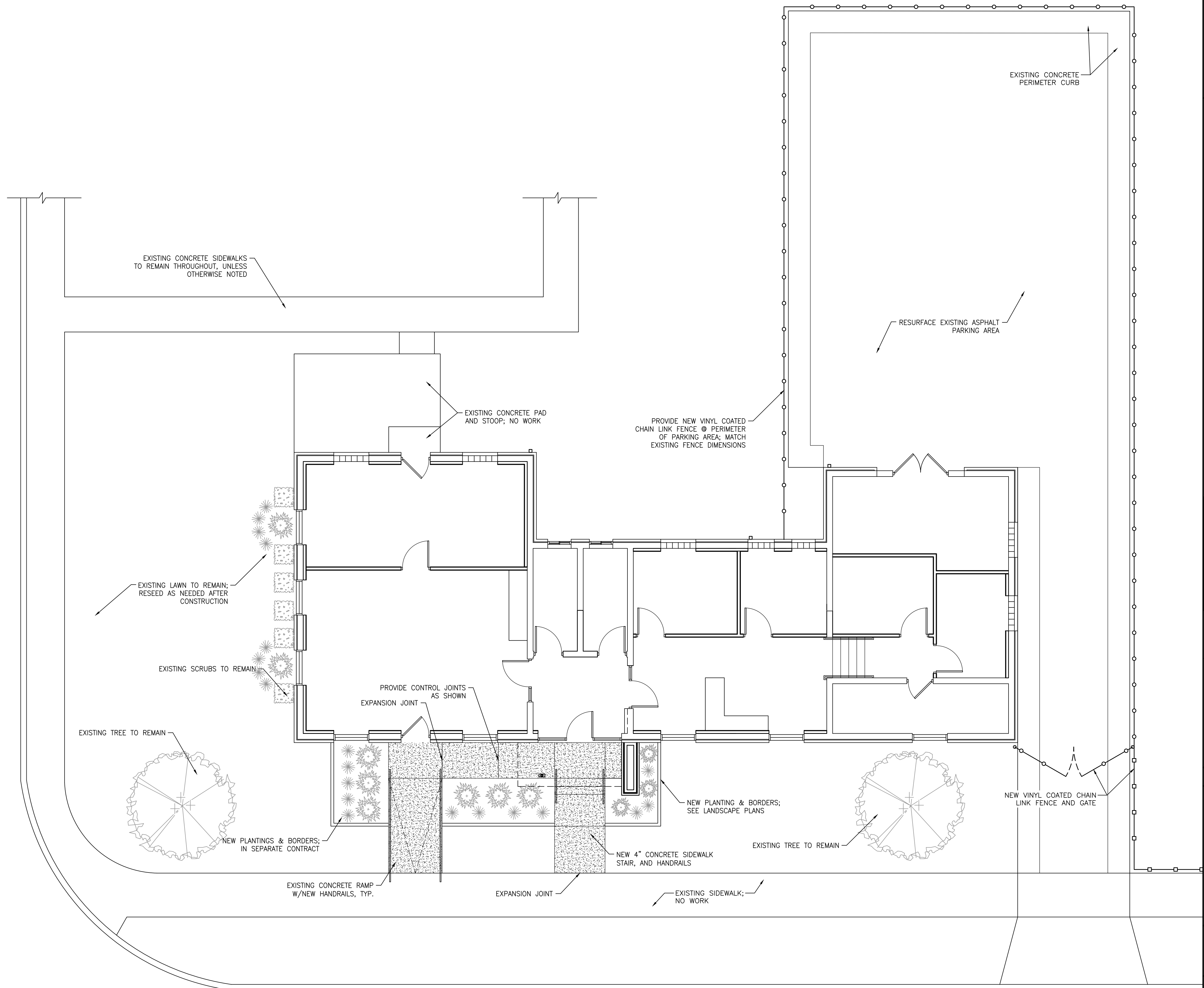
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Revised:

ARCHITECTURAL
SITE PLAN

C101-M

1904.043



ARCHITECTURAL SITE PLAN
1/8" = 1'-0"

1. CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONSTRUCTION CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY ARCHITECT OF ANY DISCREPANCIES IMMEDIATELY.
2. CONTRACTOR RESPONSIBLE FOR ALL TEMPORARY SHORING REQUIRED DURING DEMOLITION.
3. COORDINATE DEMOLITION WITH NEW STRUCTURE SHOWN ELSEWHERE IN THESE DOCUMENTS.
4. COORDINATE SCOPE OF DEMOLITION WITH PROPOSED WORK SHOWN ELSEWHERE IN THESE DOCUMENTS.
5. SEE FLOOR PLAN FOR ADDITIONAL DIMENSIONS.
6. REMOVE ALL CEILING GRIND AND TILE.
7. REMOVE ALL FASTENERS, CLIPS, ATTACHMENTS AND LOOSE MATERIAL FROM: WALLS, FLOOR JOISTS, SUB-FLOOR, AND OTHER STRUCTURAL COMPONENTS.
8. REMOVE ALL FLOORING FINISHES AND ANY DAMAGED OR IMPROPERLY SECURED SUB-FLOOR MATERIALS, REPLACE AS REQUIRED.
9. ALL DEBRIS SHALL BE CONTAINED. CONTRACTOR SHALL MINIMIZE INTERFERENCE WITH COMMON AREAS.
10. GRIND AND PATCH AREAS OF FLOOR WHERE WALLS HAVE BEEN REMOVED TO BRING INTO LEVEL WITH SURROUNDING FLOOR.

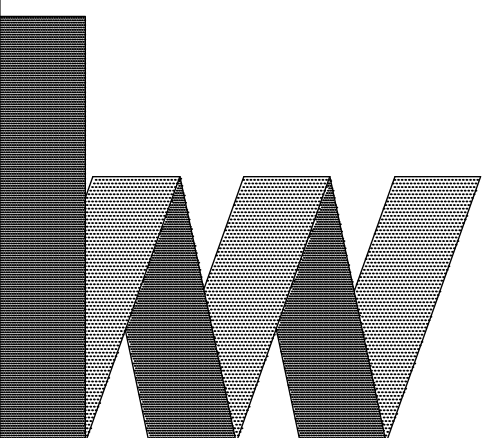
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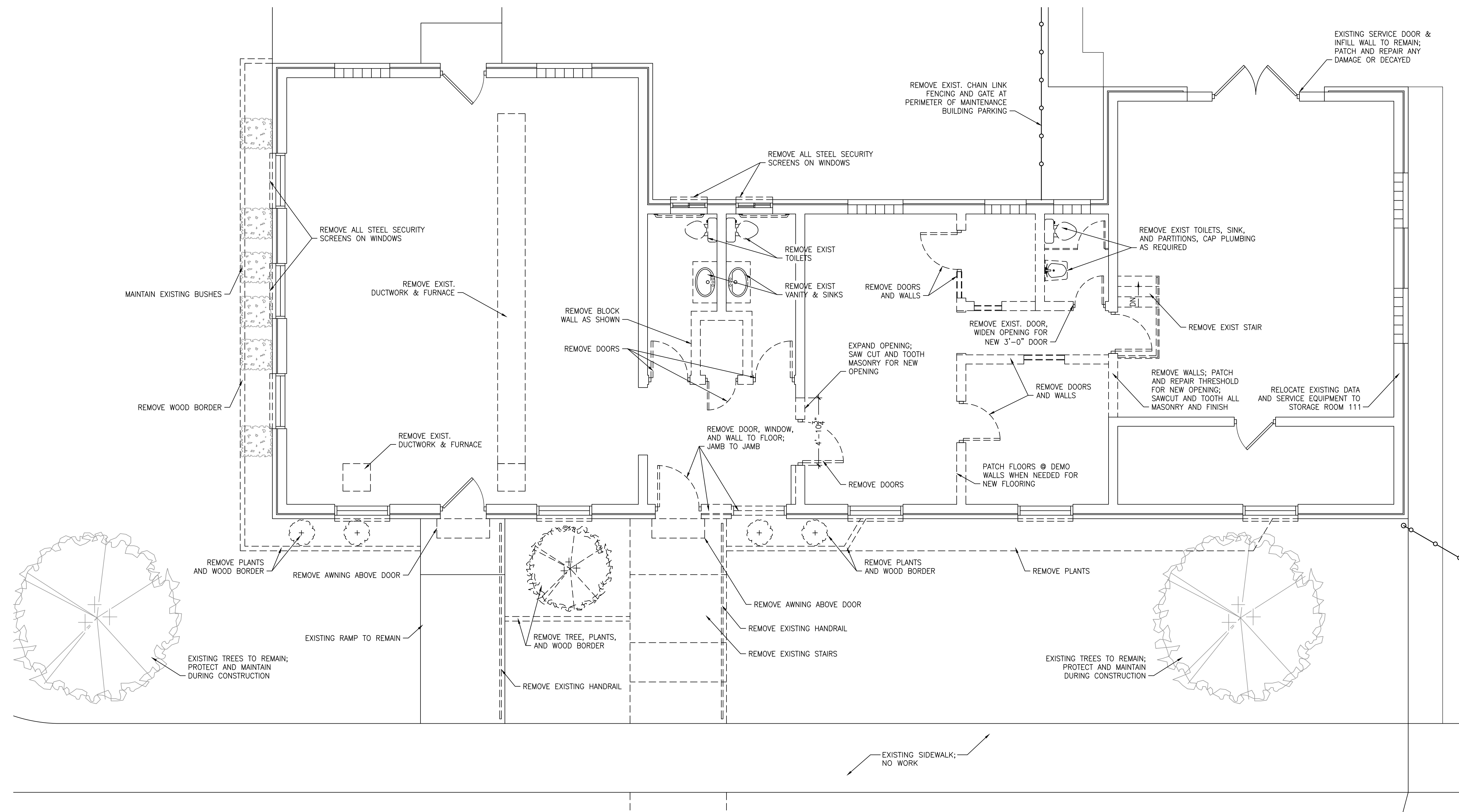
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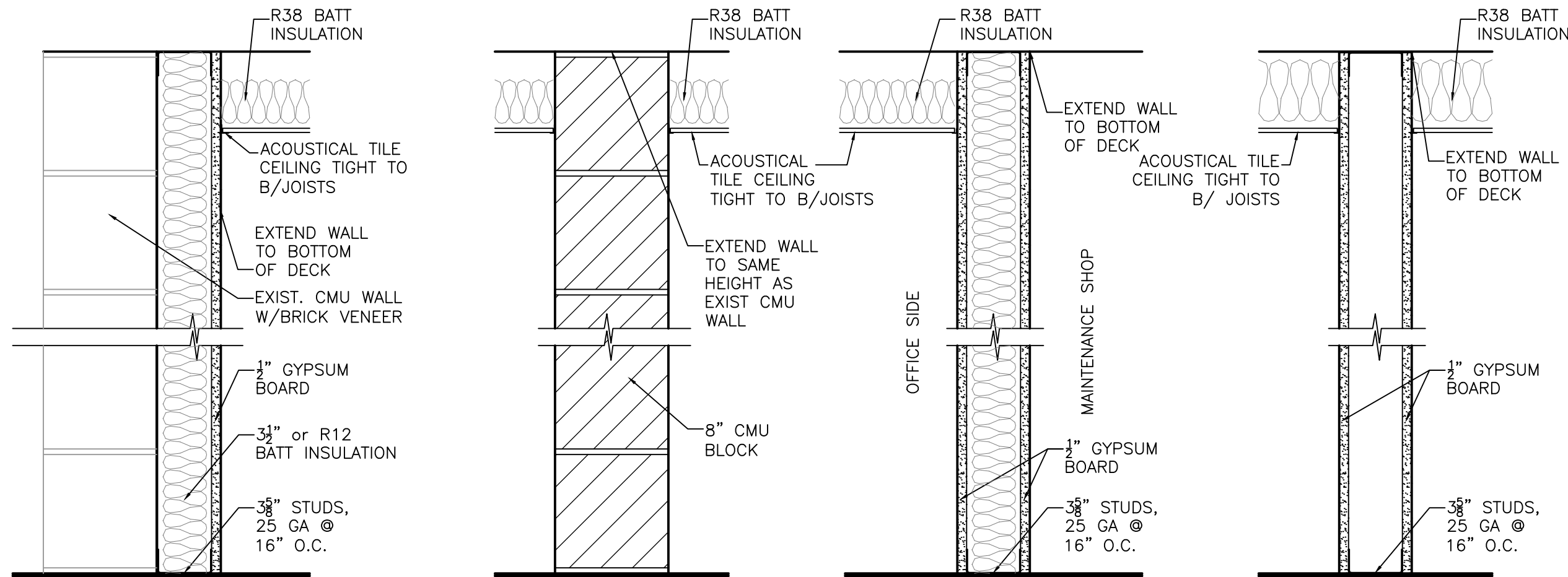
**MAINTENANCE
BUILDING DEMO
PLAN**

D101-M

1904.043



 **TRUE NORTH**  **PLAN NORTH** **FLOOR PLAN**
1/4" = 1'-0"



D 3-5/8" STUD W/1/2" DW
FURRED CMU INSULATED WALL
EXTERIOR WALL

C 8" CMU WALL
MATCH EXIST. WALL
INTERIOR PARTITION

B 3-5/8" STUD W/1/2" DW
FURRED CMU INSULATED WALL
EXTERIOR WALL

A 3-5/8" STUD W/1/2" DW
TYPICAL INTERIOR
PARTITION

* ALL WALL TYPES ARE "A"
UNLESS OTHERWISE NOTED.

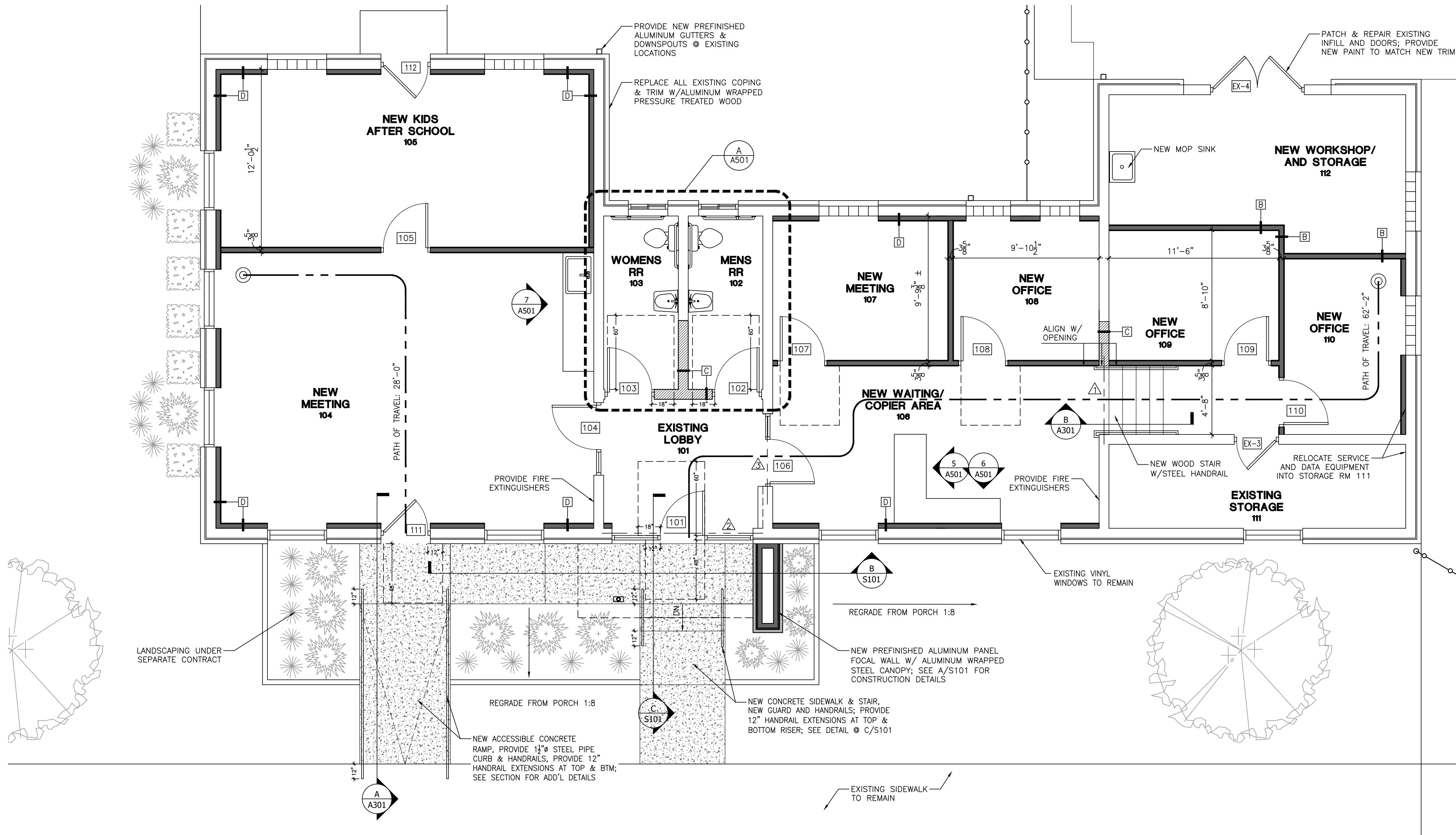
WALL TYPES NTS

PLAN NOTES

- ALL DIMENSIONS FOR NEW WALLS TO NEW WALLS ARE GIVEN FROM FACE OF FRAMING. DIMENSIONS FOR NEW WALLS TO EXISTING WALLS ARE GIVEN FROM FACE OF FRAMING TO FACE OF EXISTING DRYWALL.
- DIMENSIONS: USE DIMENSIONS SHOWN; IN NO CASE SHALL WORKING DIMENSIONS BE SCALED FROM DRAWINGS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CROSS CHECK DETAILS AND DIMENSIONS SHOWN ON THE ARCHITECTURAL DRAWINGS WITH RELATED REQUIREMENTS ON THE STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND OTHER DRAWINGS AS APPLICABLE.
- WHERE NO SPECIFIC STANDARDS ARE APPLIED TO A MATERIAL OR METHOD OF CONSTRUCTION TO BE USED IN THE WORK ALL SUCH MATERIALS AND METHODS ARE TO MAINTAIN STANDARDS OF THE INDUSTRY.
- MATERIAL, EQUIPMENT, ETC. NOT INDICATED ON THE DRAWINGS OR SPECIFIED HEREIN BUT REQUIRED FOR THE SUCCESSFUL AND EFFICIENT COMPLETION OF THE INSTALLATION SHALL BE HELD TO BE IMPLIED AND SHALL BE FURNISHED AND INSTALLED FOR NO ADDITIONAL COST.
- CONTRACTOR IS RESPONSIBLE FOR THE STRUCTURAL, THERMAL AND MOISTURE PERFORMANCE OF THE PROJECT.
- HANDRAIL, 36" A.F.F. HANDRAIL TO WITHSTAND 200 LB. CONCENTRATED LOAD AND 50 LB. LATERAL FOOT CONTINUOUS LOAD. HANDRAIL TO BE PROFILE PER KBC 2018 W/ 12" EXTENSIONS THAT RETURN TO THE WALL OR FLOOR.
- PROVIDE R38 BATT INSULATION THROUGHOUT BUILDING, ATTACH AS REQUIRED AT ROOF JOISTS AND AT EXPOSED CEILING IN MAINTENANCE SHOP.
- PROVIDE SIGNAGE PER ANSI ICC A117.1 - 2009 AT ALL REQUIRED AREAS.

HEADER/LINTEL SCHEDULE

TYPE	DESCRIPTION
△	(2) 4"x8" PRECAST LINTEL TO MATCH EXIST. CMU WIDTH W/ (1) #4 TOP & BOTTOM, 8" BEARING EACH SIDE - OPENING 4'-8" WIDE. BOTTOM OF OPENING AT 7'-4" AFF.
△	(3) 6"x3"x8" PAINTED STEEL ANGLE, 8" BEARING EACH END - OPENING 9'-6" WIDE. BOTTOM OF OPENING AT 7'-4" AFF.
△	(2) 4"x8" PRECAST LINTEL TO MATCH EXIST. CMU WIDTH W/ (1) #4 TOP & BOTTOM, 8" BEARING EACH SIDE - OPENING 5'-0" WIDE. BOTTOM OF OPENING AT 7'-4" AFF.



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MAINTENANCE
BUILDING FLOOR
PLAN

A101-M

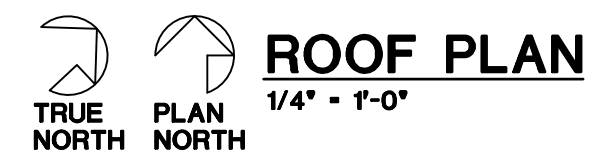
TRUE NORTH
PLAN NORTH
FLOOR PLAN
1/4" = 1'-0"

1904.043

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3. CONTRACTOR IS RESPONSIBLE FOR THE STRUCTURAL, THERMAL AND MOISTURE PERFORMANCE OF THE PROJECT.
4. PROVIDE R38 BATT INSULATION THROUGHOUT BUILDING, ATTACH AS REQUIRED AT ROOF JOISTS AND AT EXPOSED CEILING IN MAINTENANCE SHOP.

A circular professional seal for the State of Ohio. The outer ring contains the text "STATE OF OHIO" at the top and "REGISTERED ARCHITECT" at the bottom, separated by two stars. The center of the seal contains the name "JAMES DAULTON GUTHRIE" and the license number "10422". A signature is written across the bottom half of the seal.

904.043

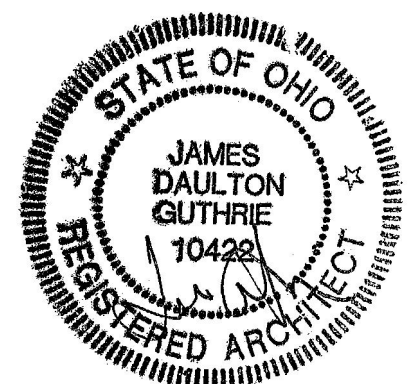


GENERAL DEMOLITION NOTES

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EXISTING TO REMAIN
EXISTING TO BE DEMOLISHED

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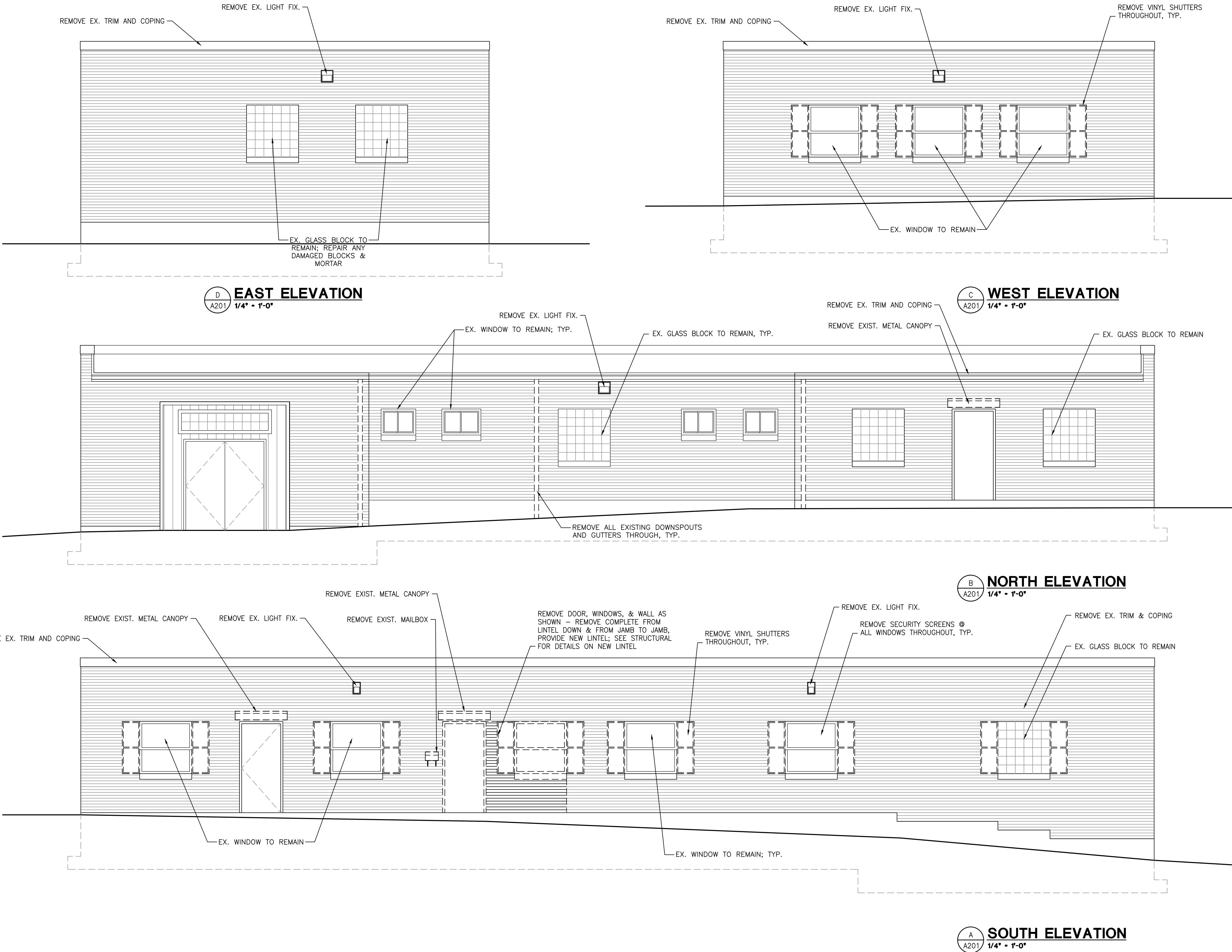
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MAINTENANCE
BUILDING DEMO
ELEVATIONS

D201-M



GENERAL ELEVATION NOTES

1. PROVIDE NEW LED FIXTURES AT ALL EXISTING EXTERIOR FIXTURE LOCATIONS, INCLUDING SECURITY LIGHTING
2. PROVIDE NEW PRE-FINISHED ALUMINUM GUTTERS AND DOWNSPOUTS THROUGHOUT.
3. PROVIDE NEW ALUMINUM WRAPPED PRESSURE TREATED WOOD TRIM, AND PREFINISHED ALUMINUM COPING THROUGHOUT.
4. TUCKPOINT AND REPAIR MASONRY AS REQUIRED. MASONRY REPAIR HAS BEEN NOTED ON A100 SERIES DRAWINGS BUT SCOPE IS NOT LIMITED TO THOSE NOTES. CONTRACTOR RESPONSIBLE TO REPAIR ANY AND ALL DAMAGED MASONRY AND MORTAR.

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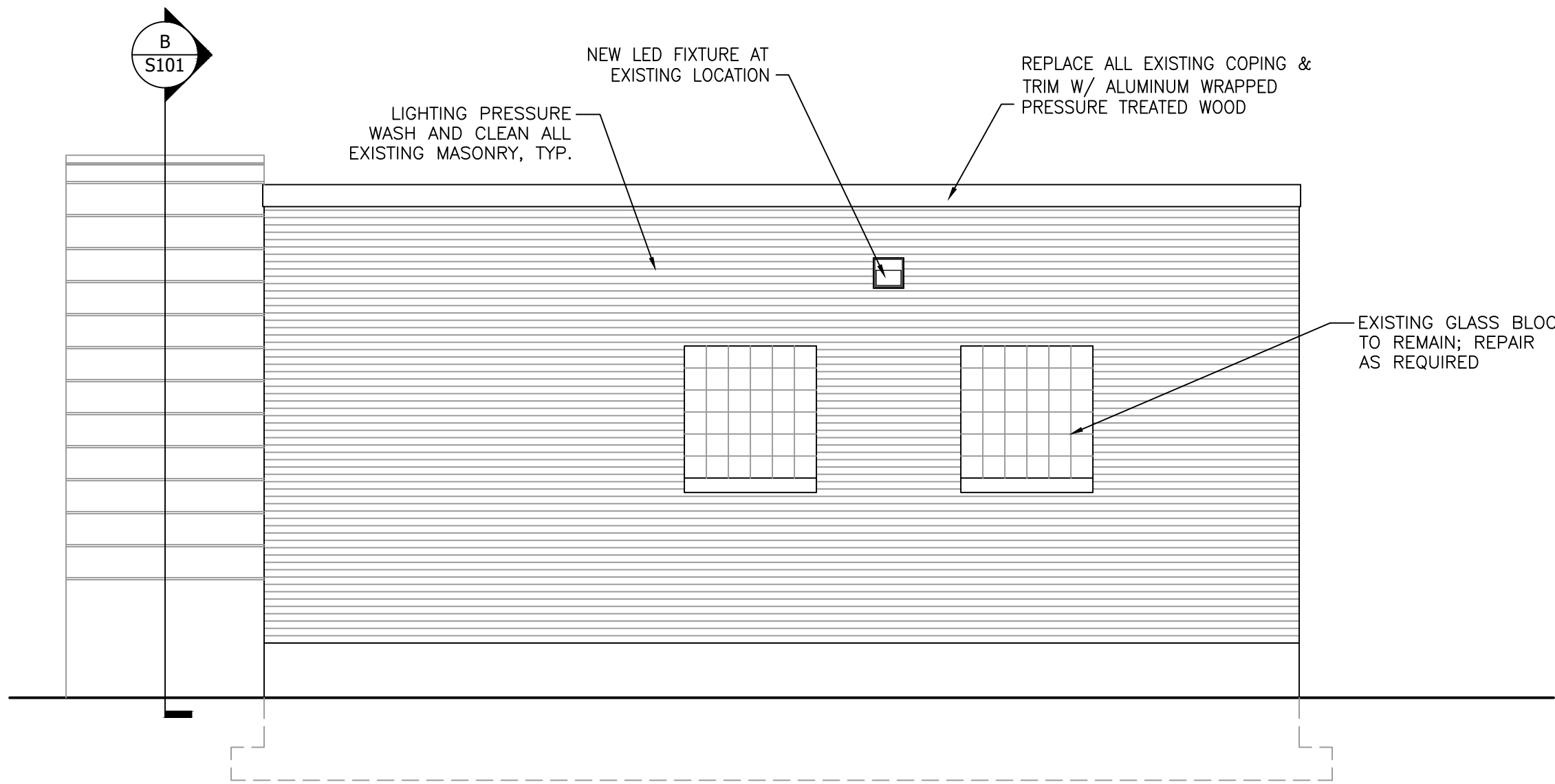
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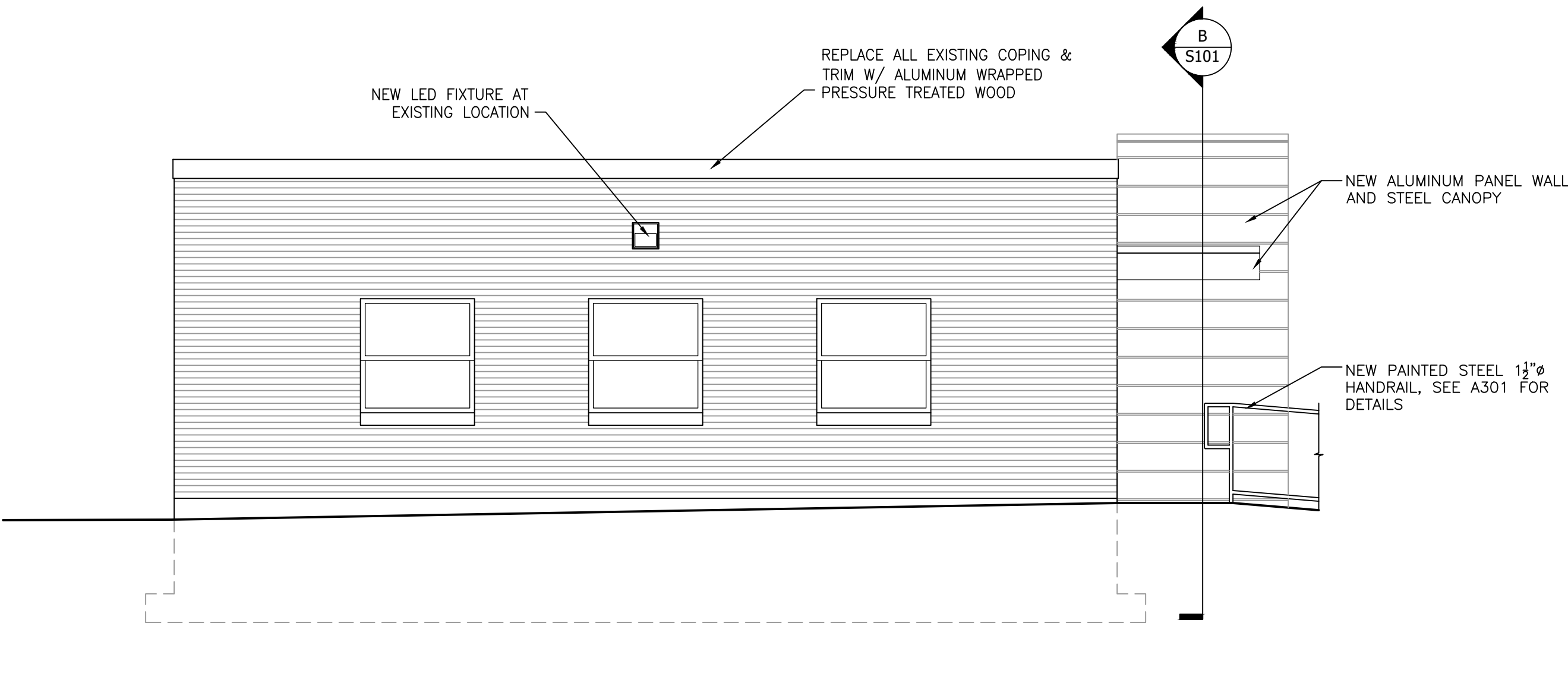
MAINTENANCE
BUILDING
ELEVATIONS

A201-M

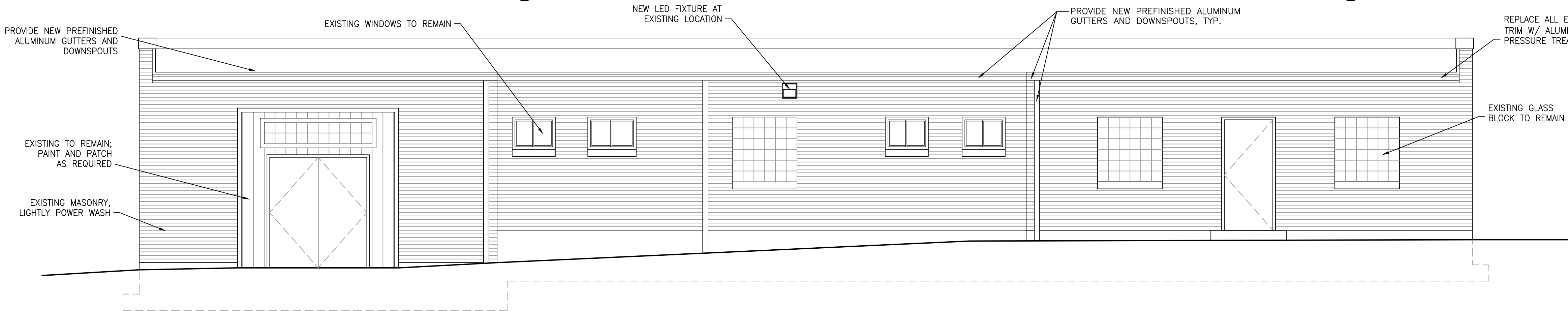
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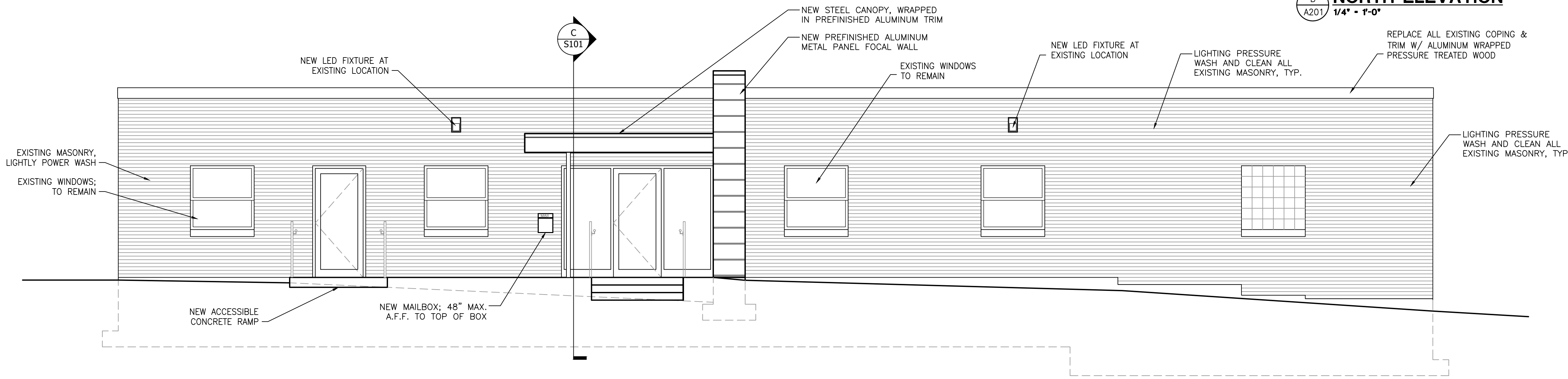
EAST ELEVATION
D
A201
1/4" = 1'-0"





WEST ELEVATION
C
A201
1/4" = 1'-0"



NORTH ELEVATION
B
A201
1/4" = 1'-0"

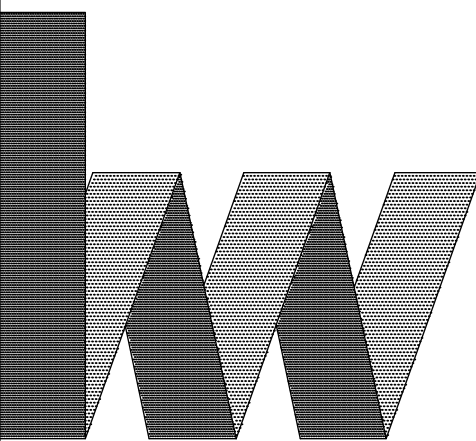


SOUTH ELEVATION
A
A201
1/4" = 1'-0"

 Roenker Engineering, Inc.
Structural Consultants 

(829) 331-0084 3276 Highridge Dr.
FAX: (859) 331-0085 Taylor Mill, KY 41116

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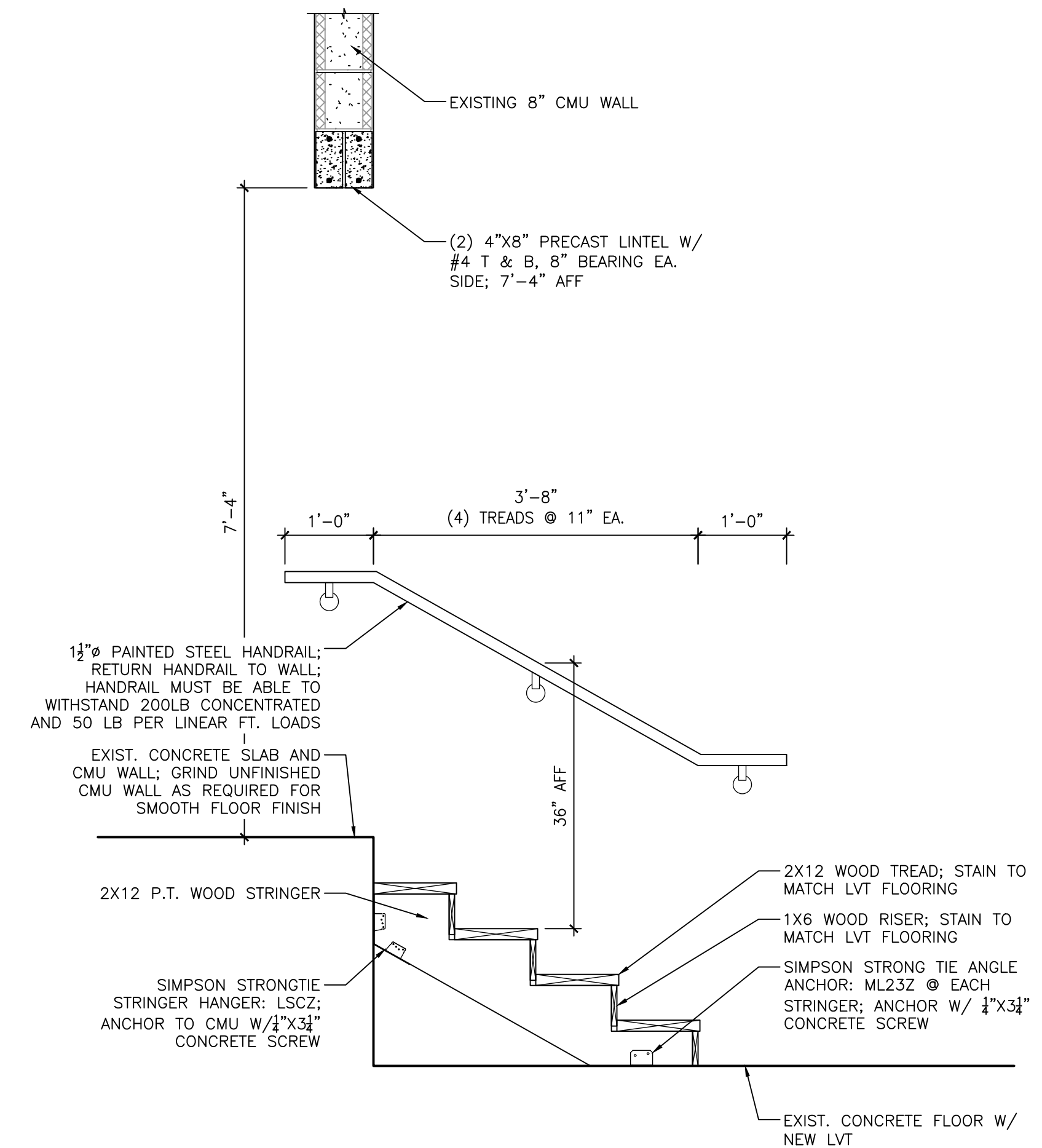


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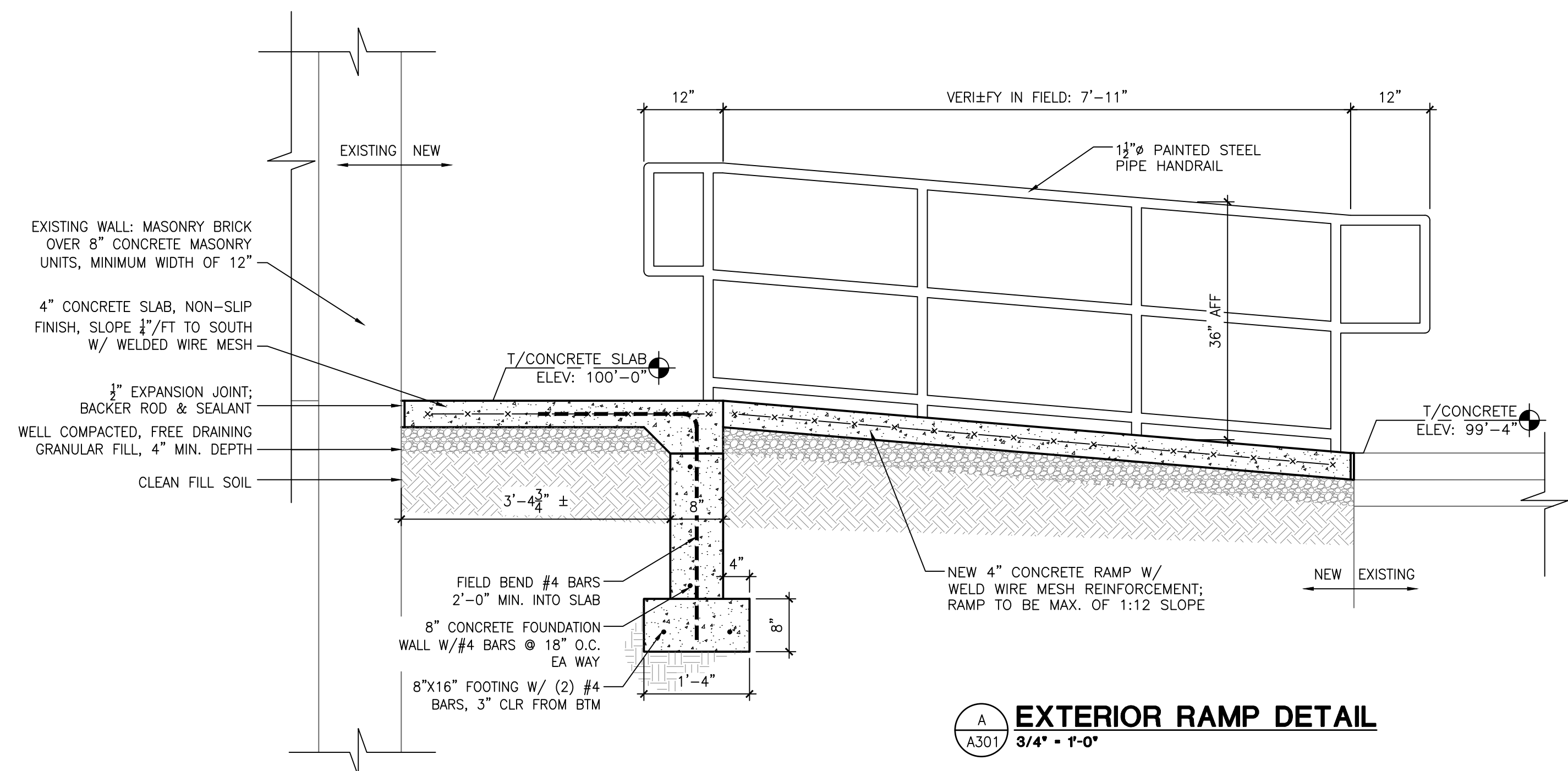
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A301-M



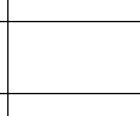
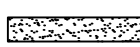
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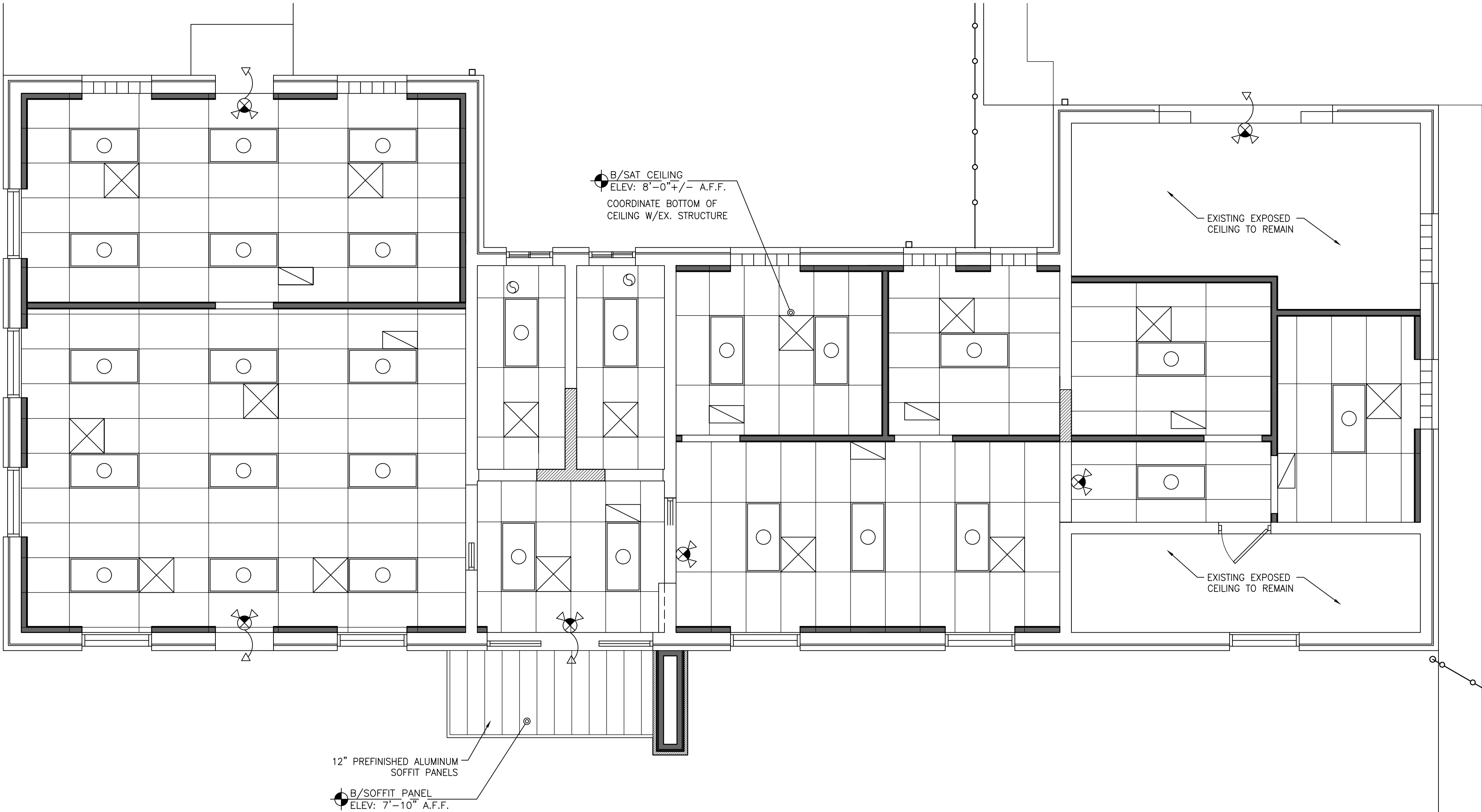


INTERIOR STAIR DETAIL




EXTERIOR RAMP DETAIL
3/4" - 1'-0"

REFLECTED CEILING PLAN NOTES		REFLECTED CEILING PLAN NOTES	<div>COPYRIGHT © 2019 THIS DOCUMENT IS THE PRODUCT AND EXCLUSIVE PROPERTY OF HUB+WEBER ARCHITECTS, P.L.C. NEITHER THE DOCUMENT NOR THE INFORMATION IT CONTAINS MAY BE USED FOR OTHER THAN THE SPECIFIC PURPOSE FOR WHICH IT WAS PREPARED WITHOUT THE WRITTEN CONSENT OF HUB+WEBER ARCHITECTS, P.L.C.</div> <div></div> <div>JAMES D. GUTHRIE, LICENSE #10422 EXPIRATION DATE 12/31/2020</div>
SYMBOL	EXIT / EMERGENCY LIGHT SCHEDULE	<p>NOTES:</p> <p>IN THE EVENT OF POWER SUPPLY FAILURE IN ROOMS AND SPACES THAT REQUIRE TWO OR MORE MEANS OF EGRESS, AN EMERGENCY ELECTRICAL SYSTEM SHALL AUTOMATICALLY THE FOLLOWING AREAS IN ACCORDANCE WITH 1008.3.1, 1008.3.2, AND 1008.3.3 OF THE OBC 2017:</p> <ol style="list-style-type: none">1. GENERAL: AISLES, CORRIDORS, EXIT ACCESS STAIRWAYS AND RAMPS.2. BUILDINGS: INTERIOR EXIT ACCESS STAIRWAYS AND RAMPS, INTERIOR AND EXTERIOR EXIT STAIRWAYS AND RAMPS, EXIT PASSAGEWAYS, VESTIBULES AND AREAS ON THE LEVEL OF DISCHARGE USED FOR EXIT DISCHARGE IN ACCORDANCE WITH SECTION 1028.1, EXTERIOR LANDINGS AS REQUIRED BY 1010.1.6.3. ROOMS AND SPACES: ELECTRICAL EQUIPMENT ROOMS, FIRE COMMAND CENTERS, FIRE PUMP ROOMS, GENERATOR ROOMS, PUBLIC RESTROOMS WITH AN AREA GREATER THAN 300 SQUARE FEET. <p>PER 1008.3.4 OF THE OBC 2017 ALL ABOVE AREAS SHALL HAVE THE EMERGENCY POWER SYSTEM SHALL PROVIDE POWER FOR A DURATION OF NOT LESS THAN 90 MINUTES AND SHALL CONSIST OF STORAGE BATTERIES, UNIT EQUIPMENT OR AN ON-SITE GENERATOR. THE INSTALLATION OF THE EMERGENCY POWER SYSTEM SHALL BE IN ACCORDANCE WITH SECTION 2702.</p> <p>ILLUMINATION LEVEL UNDER EMERGENCY POWER PER 1008.3.5 OF THE OBC 2017.</p> <p>EMERGENCY LIGHTING SYSTEMS SHALL BE DESIGNED AND INSTALLED SO THAT THE FAILURE OF ANY INDIVIDUAL LIGHTING ELEMENT, SUCH AS THE BURNING OUT OF A LIGHT BULB, CANNOT LEAVE IN TOTAL DARKNESS ANY SPACE THAT REQUIRES EMERGENCY ILLUMINATION, INCLUDING THE EXIT DISCHARGE.</p> <p>PER 1013.1 OF THE OBC 2017, EXIT AND EXIT ACCESS DOORS SHALL BE MARKED BY AN APPROVED EXIT SIGN READILY VISIBLE FROM ALL DIRECTION OF EGRESS TRAVEL. THE PATH OF EGRESS TRAVEL TO EXITS AND WITHIN EXITS SHALL BE MARKED BY READILY VISIBLE EXIT SIGNS TO CLEARLY INDICATE THE DIRECTION OF EGRESS TRAVEL. EXIT SIGN PLACEMENT SHALL BE SUCH THAT NO POINT IN AN ACCESS CORRIDOR OR EXIT PASSAGEWAY IS MORE THAN 100 FEET OR THE LISTED VIEWING DISTANCE FOR THE SIGN.</p> <p>PER 1013.5 OF THE OBC 2017, ALL EXIT SIGNS SHALL BE INTERNALLY ILLUMINATED, IN ACCORDANCE WITH UL 924 AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND CHAPTER 27. EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES.</p>	
<p>FOR GENERAL ELECTRIC LIGHTING AND POWER LOCATIONS SEE ELECTRICAL DRAWINGS. FOR MORE SPECIFIC EXIT LIGHT REQUIREMENTS SEE ELECTRICAL DRAWINGS. ELECTRICAL DRAWINGS SUPERSEDE ARCHITECTURAL EMERGENCY LIGHTING LOCATIONS.</p>			
SYMBOL	GENERAL CEILING FIXTURE SCHEDULE		
	2X4 LED LIGHT		
	2x4 ACOUSTIC TILE W/ TEGULAR EDGES W/ PREFINISHED WHITE ALUMINUM T-BAR GRID		
	BULKHEAD - ½" DRYWALL OVER 3⁄8" METAL FRAMING; 7'-0" A.F.F.		
	* PROVIDE R-38 BATT INSULATION ABOVE SAT CEILING AND BETWEEN STEEL JOISTS AT ALL EXPOSED CEILINGS		



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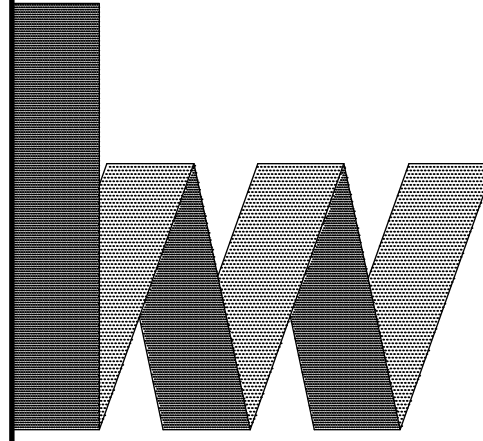


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EXPIRATION DATE 12/31/2020

MAINTENANCE BUILDING
RENOVATION

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TERRACE

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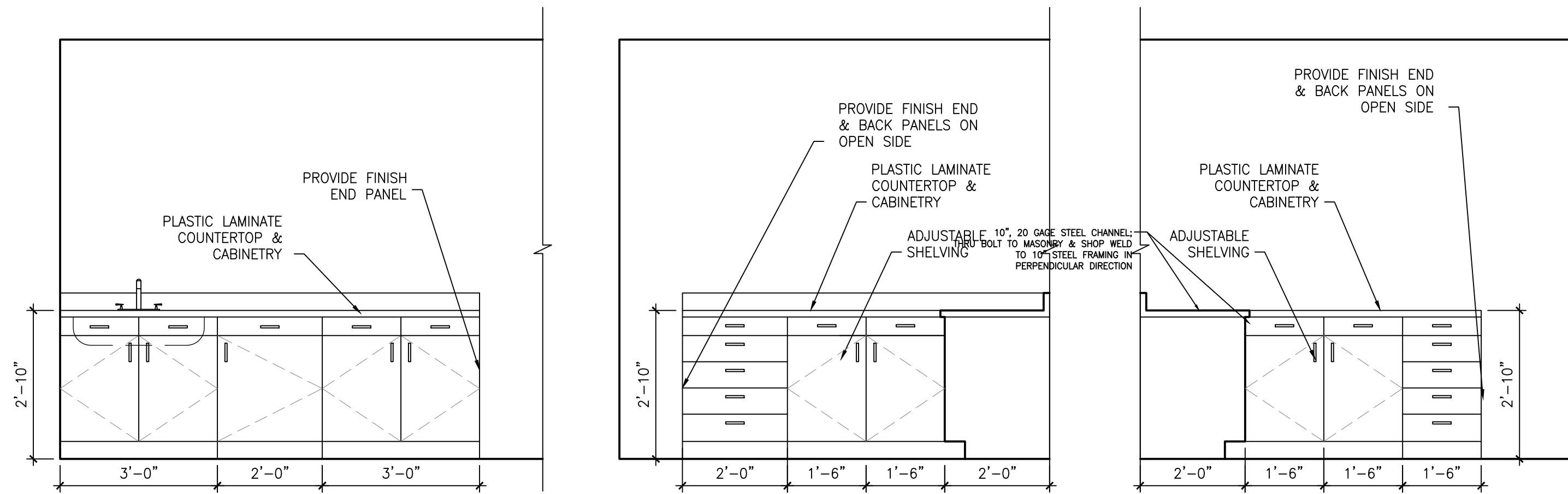
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Fx: 859-655-3243
hw@hubweber.com

Issued:	02.26.2020
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REFLECTED
CEILING PLAN

A401-M

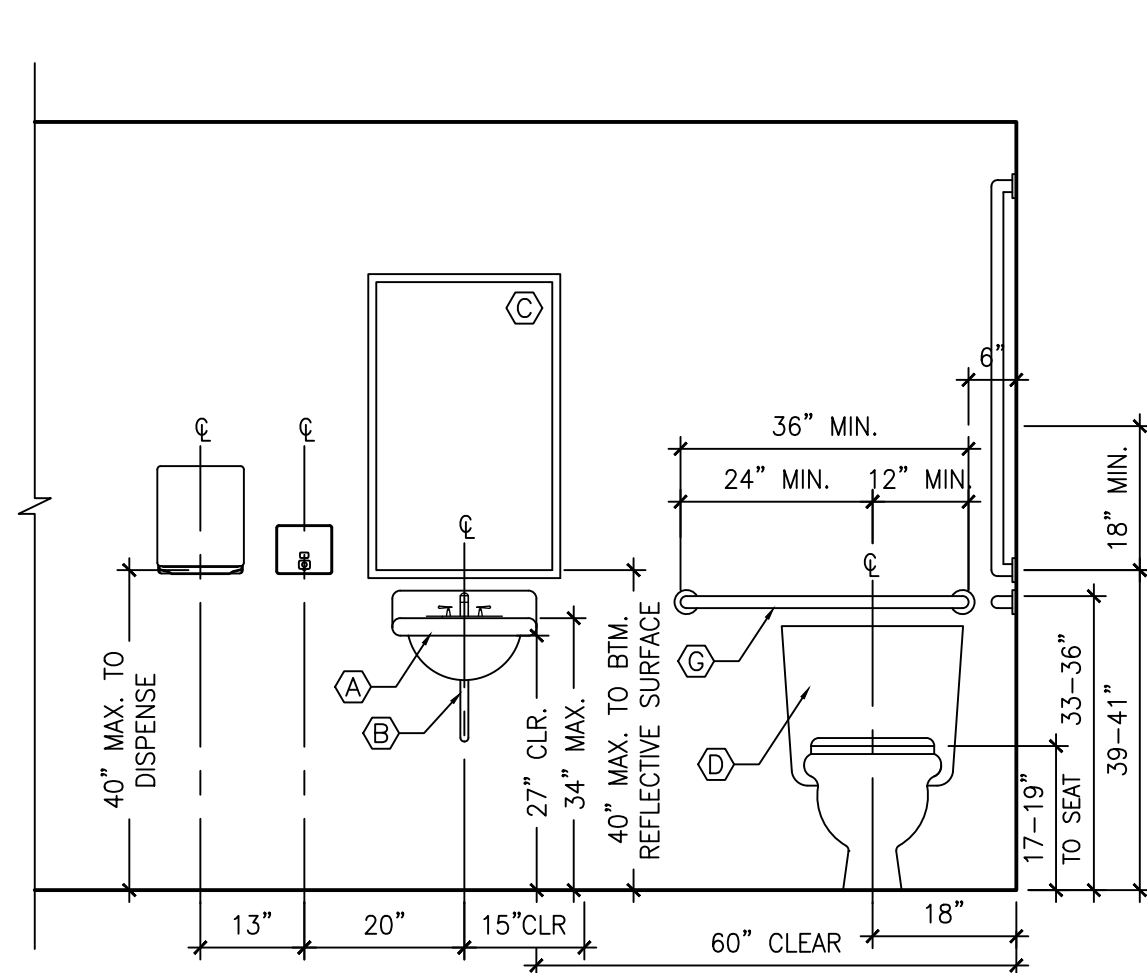
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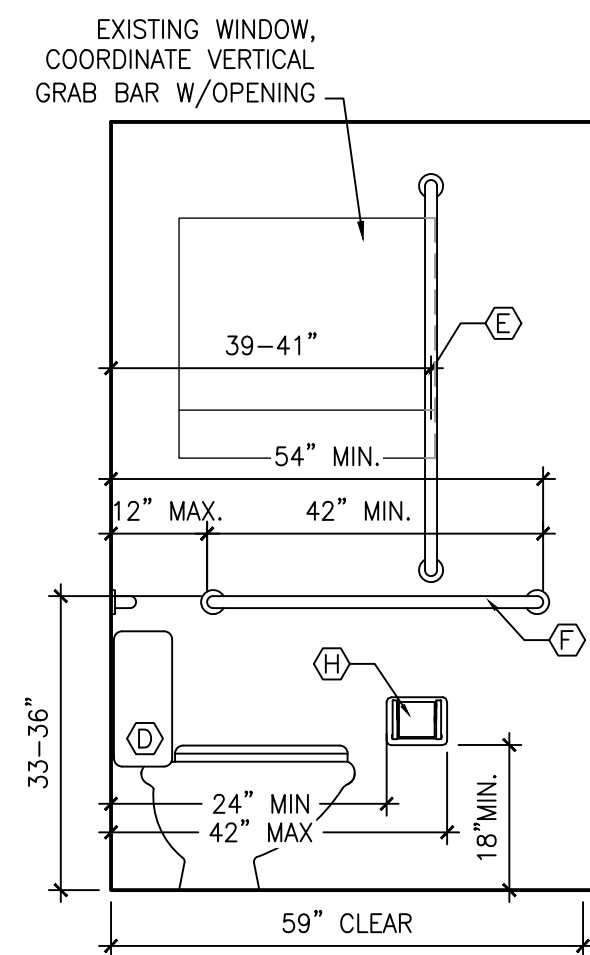
7 KITCHENETTE
A501 1/2" - 1'-0"

6 CUSTOMER COUNTER
A501 1/2" - 1'-0"

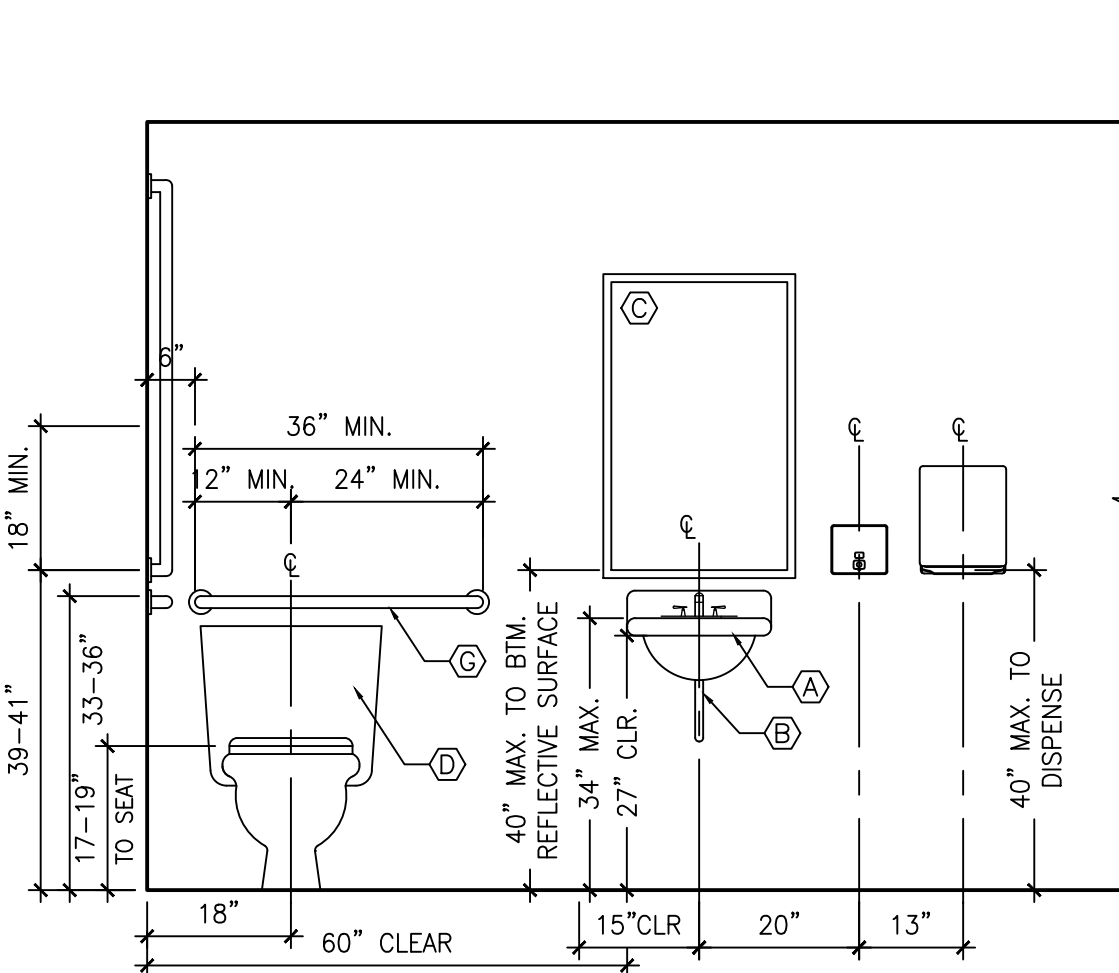
5 CUSTOMER COUNTER
A501 1/2" - 1'-0"



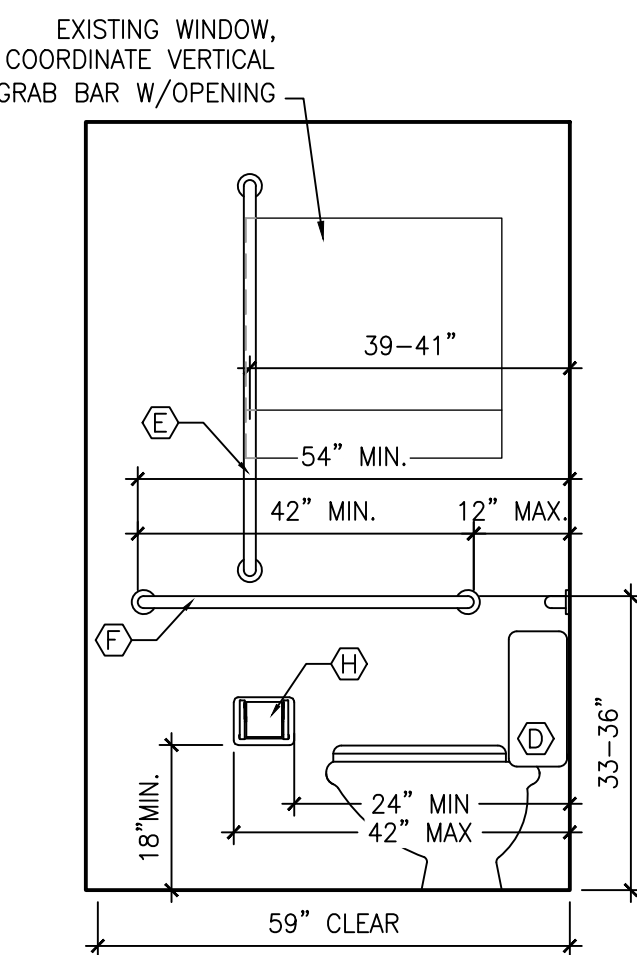
4 RR ELEVATION
A501 1/2" - 1'-0"



3 RR ELEVATION
A501 1/2" - 1'-0"



2 RR ELEVATION
A501 1/2" - 1'-0"



1 RR ELEVATION
A501 1/2" - 1'-0"

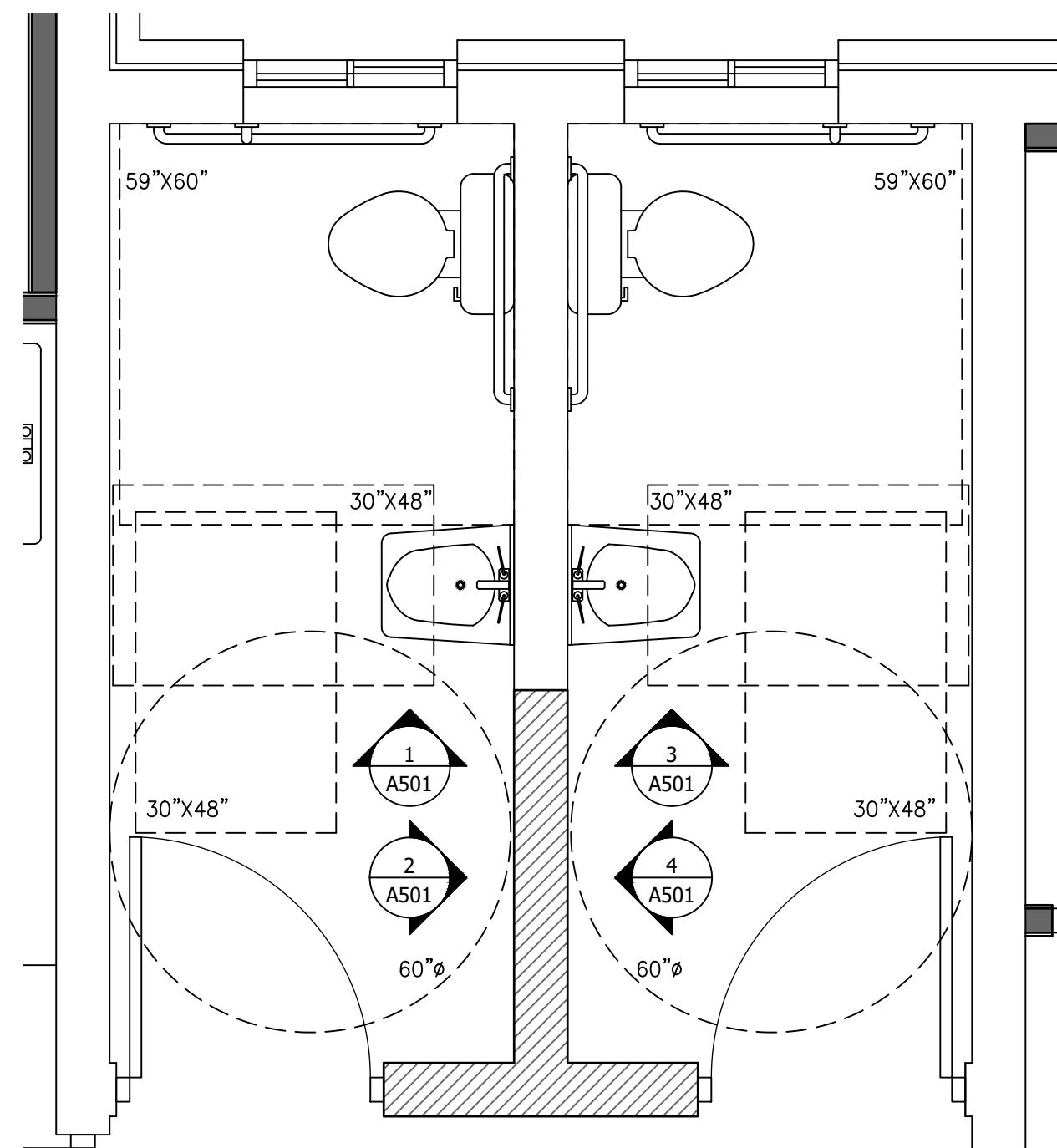
ACCESSIBILITY NOTES

- ALL ACCESSIBLE RESTROOMS SHALL BE MARKED WITH SIGNAGE COMPLYING WITH ADAAG AND SHALL BE MOUNTED AT A HEIGHT OF 60" TO THE CENTERLINE OF THE SIGN. SIGN SHOULD COMPLY WITH SECTION 4.30 OF THE ADAAG.
- DOOR HANDLES, PULLS, AND OTHER OPERATING DEVICES SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST TO OPERATE. PUSH TYPE MECHANISMS AND LEVER HANDLES ARE ACCEPTABLE DESIGNS. THUMB TURN SHALL BE PADDLE TYPE.
- PROVIDE SMOOTH, HARD, NONABSORBENT SURFACE, TO A CEILING HEIGHT ABOVE THE FLOOR ON ALL WALLS, AND EXCEPT FOR STRUCTURAL ELEMENTS, THE MATERIALS USED IN SUCH WALLS SHALL BE OF A TYPE THAT IS NOT ADVERSELY AFFECTED BY MOISTURE. ACCESSORIES SUCH AS GRAB BARS, TOWEL BARS, PAPER TOWEL DISPENSERS AND SOAP DISHES, PROVIDED ON THE WALLS SHALL BE INSTALLED AND SEALED TO PROTECT STRUCTURAL ELEMENTS FROM MOISTURE.

ACCESSORIES SCHEDULE

A	ACCESSIBLE SINK; WHITE PORCELAIN	RIM @ 34" AFF MAX
B	INSULATED PIPE WRAP	ON ALL EXPOSED PIPES
C	MIRROR 18"x36" STAINLESS FRAME	B.O. GLASS @ 3'-4" AFF
D	ACCESSIBLE WC	SEAT @ 18" AFF
E	48" GRAB BAR	SEE ELEVATIONS
F	42" GRAB BAR	CL @ 3'-0" AFF
G	36" GRAB BAR	CL @ 3'-0" AFF
H	TOILET PAPER DISPENSER	MATCH EXIST ELSEWHERE
I	MOISTURE RESISTANT DW & PAINT	@ MIN. USE @ PLUMBING WALL
J	MOP SINK	-
K	PAPER TOWEL DISPENSER	DISPENSE @ 40" AFF MAX
L	SOAP DISPENSER	DISPENSE @ 40" AFF MAX

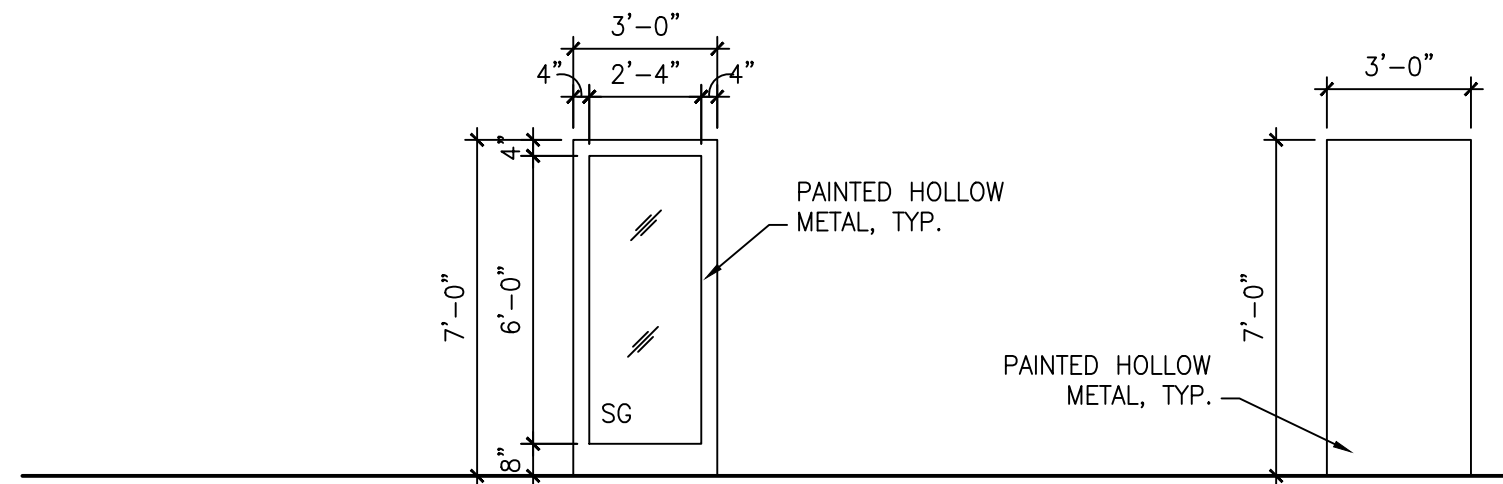
- PROVIDE BLOCKING IN WALLS FOR ALL ACCESSORIES.
- SEE SPECIFICATIONS FOR PRODUCTS.



ENLARGED RESTROOM PLAN
A501 1/2" - 1'-0"

DOOR SCHEDULE

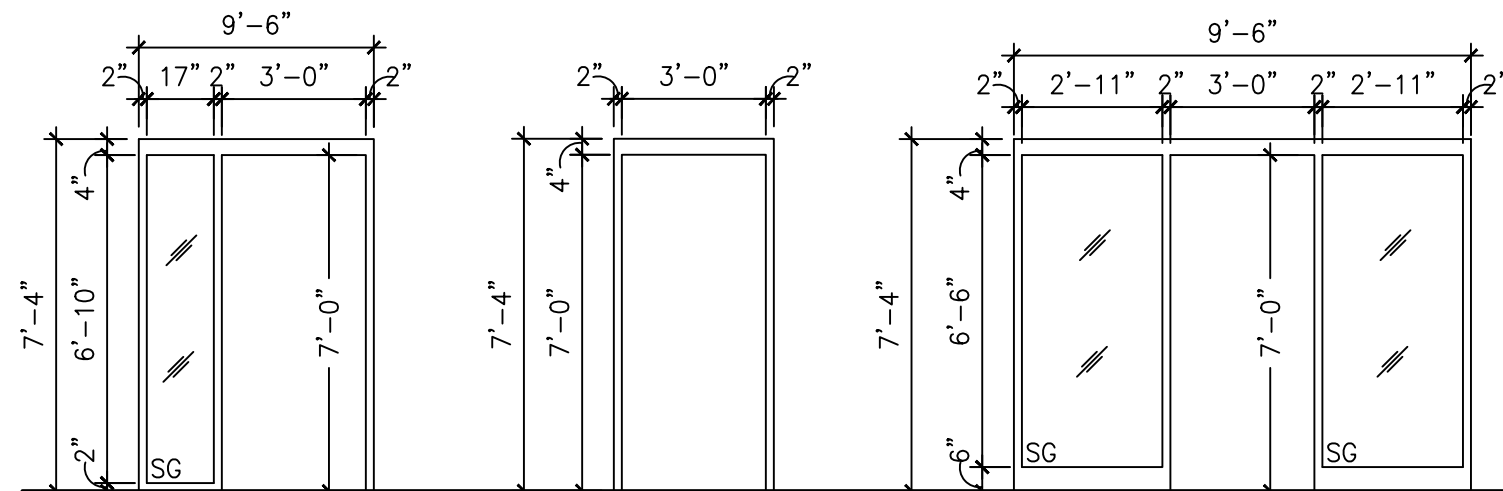
NO.	DOOR			FRAME		GLASS	LOUV.	LABEL	HDWE	REMARKS
	SIZE	MAT.	TYPE	MAT.	TYPE					
101	3'-0" X 7'-0" X 1 3/4"	HM	2	HM	A	X	-	-	1	-
102	3'-0" X 7'-0" X 1 3/4"	HM	1	HM	B	-	-	-	2	-
103	3'-0" X 7'-0" X 1 3/4"	HM	1	HM	B	-	-	-	2	-
104	3'-0" X 7'-0" X 1 3/4"	HM	2	HM	C	X	-	-	8	-
105	3'-0" X 7'-0" X 1 3/4"	HM	1	HM	B	-	-	-	8	-
106	3'-0" X 7'-0" X 1 3/4"	HM	2	HM	C	X	-	-	3	PROVIDE BULLETPROOF GLAZING
107	3'-0" X 7'-0" X 1 3/4"	HM	1	HM	B	-	-	-	8	-
108	3'-0" X 7'-0" X 1 3/4"	HM	1	HM	B	-	-	-	6	-
109	3'-0" X 7'-0" X 1 3/4"	HM	1	HM	B	-	-	-	6	-
110	3'-0" X 7'-0" X 1 3/4"	HM	1	HM	B	-	-	-	6	-
111	3'-0" X 7'-0" X 1 3/4"	HM	2	HM	B	-	-	-	1	MATCH EX. OPENING
112	3'-0" X 7'-0" X 1 3/4"	HM	2	HM	B	-	-	-	1	MATCH EX. OPENING
EX-3	2'-8" X 7'-0" X 1 3/4"	EX	EX	EX	EX	-	-	-	5	PROVIDE NEW HARDWARE
EX-4	(2) 3'-0" X 7'-0" X 1 3/4"	EX	EX	EX	EX	-	-	-	7	PROVIDE NEW HARDWARE



2

1

DOOR TYPES



C

B

A

FRAME TYPES

SET 1

- 3 HINGES
- 1 EXIT DEVICE
- 1 OFFSET PULL
- 1 MORTISE CYLINDER
- 1 CLOSER
- 1 WEATHERSTRIPPING
- 1 ADA THRESHOLD

SET 6

- 3 HINGES
- 1 OFFICE LOCK SET
- 1 CLOSER
- 1 DOOR STOP

SET 2

- 3 HINGES
- 1 PRIVACY LOCK SET
- 1 CLOSER
- 1 DOOR STOP

SET 7

- 6 HINGES
- 1 STORAGE LOCKSET
- 1 MORTISE CYLINDERS
- 1 DUMMY LEVER
- 2 CLOSER
- 2 WEATHERSTRIPPING

SET 3

- 3 HINGES
- 1 EXTERIOR LOCKSET
- 1 CONTROLLED ACCESS POINT
- W/ ELECTRONIC BUZZER
- 1 MORTISE CYLINDER
- 1 OFFSET PULL
- 1 CLOSER
- 1 DOOR STOP

SET 5

- 3 HINGES
- 1 STORAGE LOCK SET
- 1 CLOSER
- 1 DOOR STOP

SET 8

- 3 HINGES
- 1 PASSAGE LOCK SET
- 1 CLOSER
- 1 DOOR STOP

NOTES:

- HANDLES, PULLS, AND OTHER OPERATING DEVICES SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST TO OPERATE. PUSH TYPE MECHANISMS AND LEVER HANDLES ARE ACCEPTABLE DESIGNS. THUMB TURN SHALL BE PADDLE TYPE.
- ALL GLASS IN DOORS AND FIXED ADJACENT SIDELITES TO BE SAFETY GLASS.
- ALL EGRESS DOORS SHALL BE READILY OPERABLE FROM THE SIDE WHICH EGRESS IS TO BE MADE WITHOUT THE USE OF KEY, SPECIAL KNOWLEDGE OR EFFORT.
- THRESHOLDS AT ALL MEANS OF EGRESS DOORS SHALL NOT EXCEED 1/2" MAXIMUM. RAISED THRESHOLDS AND FLOOR LEVEL CHANGES GREATER THAN 1/4" AT DOORWAYS SHALL BE BEVELED WITH A SLOPE NOT GREATER THAN ONE UNIT VERTICAL AND 2 UNITS HORIZONTAL.
- ALL DOORS AND FRAMES SHALL BE COMMERCIAL GRADE, PRE-FINISHED, AND COME EQUIPPED WITH HARDWARE PRE-INSTALLED.
- FRAMES SHALL BE HOLLOW METAL AND PAINTED WITH (2) COATS OF BENJAMIN MOORE IN OWNERS COLOR. ALL GLASS IN DOOR LEAFS OR IN STOREFRONT SYSTEMS SHALL BE 1/2" CLEAR AND TEMPERED.

ROOM FINISH SCHEDULE

NO.	NAME	FLR.	BASE	WALLS		CEILING		REMARKS
				CONST.	FIN.	CONST.	FIN.	
101	EXISTING LOBBY	LVT	TSV	DW/CMU	P	SAT	-	8'-0"
102	MENS RESTROOM	LVT	TSV	CMU	P	SAT	-	8'-0"
103	WOMENS RESTROOM	LVT	TSV	CMU	P	SAT	-	8'-0"
104	MEETING ROOM	LVT	TSV	DW/CMU	P	SAT	-	8'-0"
105	KIDS AFTER SCHOOL	LVT	TSV	DW/CMU	P	SAT	-	8'-0"
106	WAITING / COPIER	LVT	TSV	DW/CMU	P	SAT	-	8'-0"
107	SMALL MEETING	LVT	TSV	DW/CMU	P	SAT	-	8'-0"
108	OFFICE	LVT	TSV	DW/CMU	P	SAT	-	8'-0"
109	OFFICE	LVT	TSV	DW/CMU	P	SAT	-	10'-7"
110	OFFICE	LVT	TSV	DW/CMU	P	SAT	-	10'-7"
111	EXISTING STORAGE	VCT	TSV	CMU	P	-	-	-
112	WORKSHOP / STORAGE	VCT	TSV	DW/CMU	P	-	-	-

NOTES:

- ALL SAT CEILINGS TO BE CONSTRUCTED CLOSE TO BOTTOM OF EXISTING STRUCTURE. HEIGHT IS +/- 8'-0" ABOVE FINISHED FLOOR AT UPPER LEVEL.

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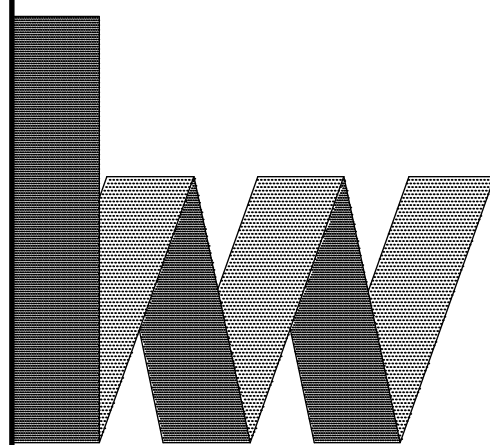


JAMES D. GUTHRIE, LICENSE #10422
EXPIRATION DATE 12/31/2020

MAINTENANCE BUILDING
RENOVATION

MARIANNA
TERRACE

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Architects, PLLC

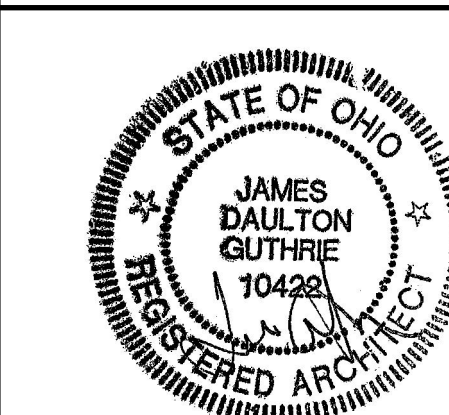
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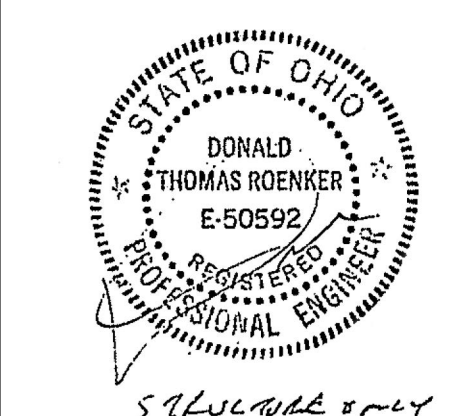
ENLARGED PLANS
AND SCHEDULES

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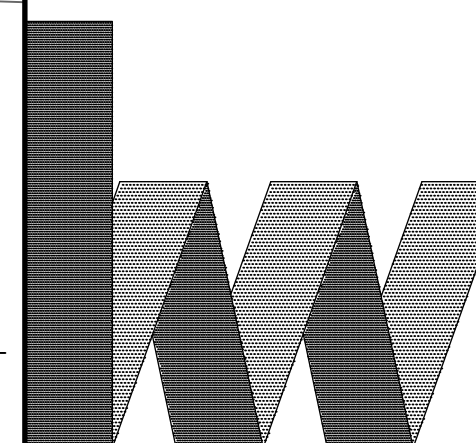
Rt Roenker Engineering, Inc.
Structural Consultants
(829) 331-0084 3276 Highridge Drive
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MAINTENANCE BUILDING
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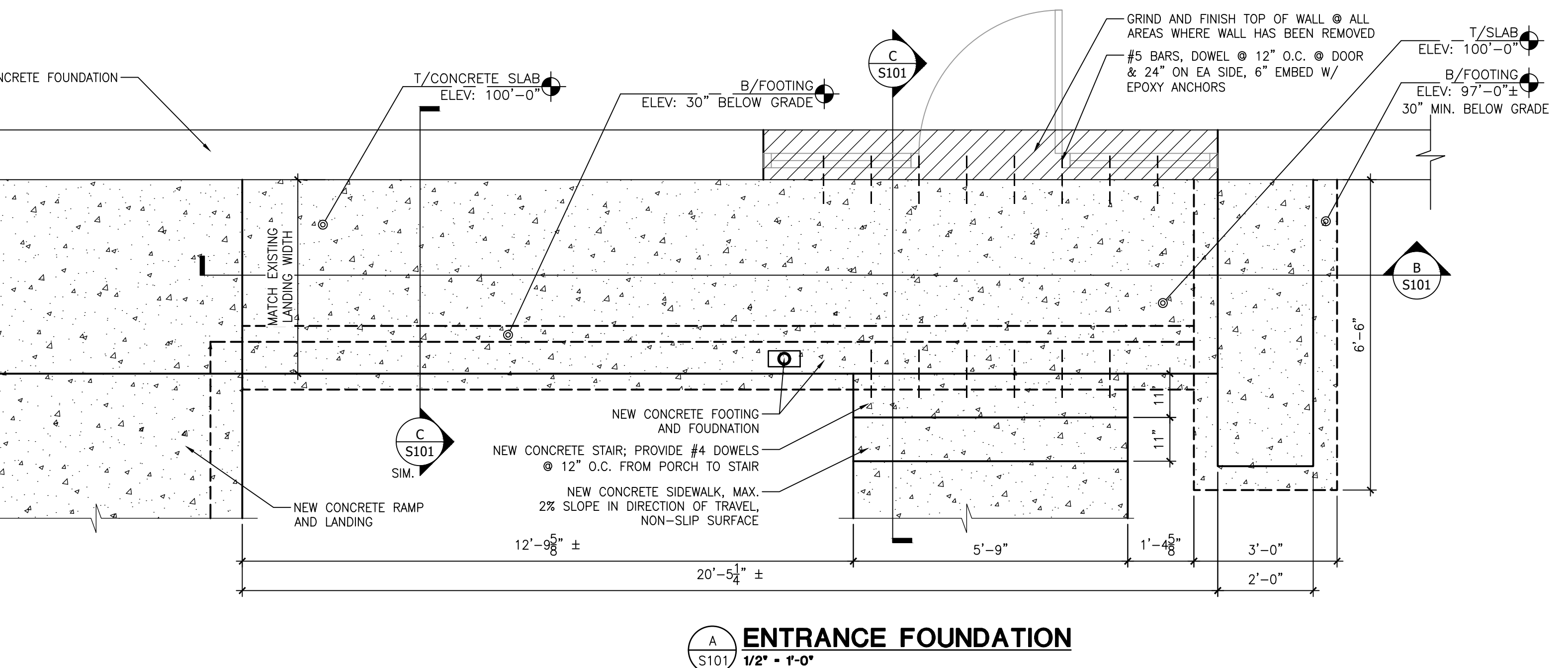
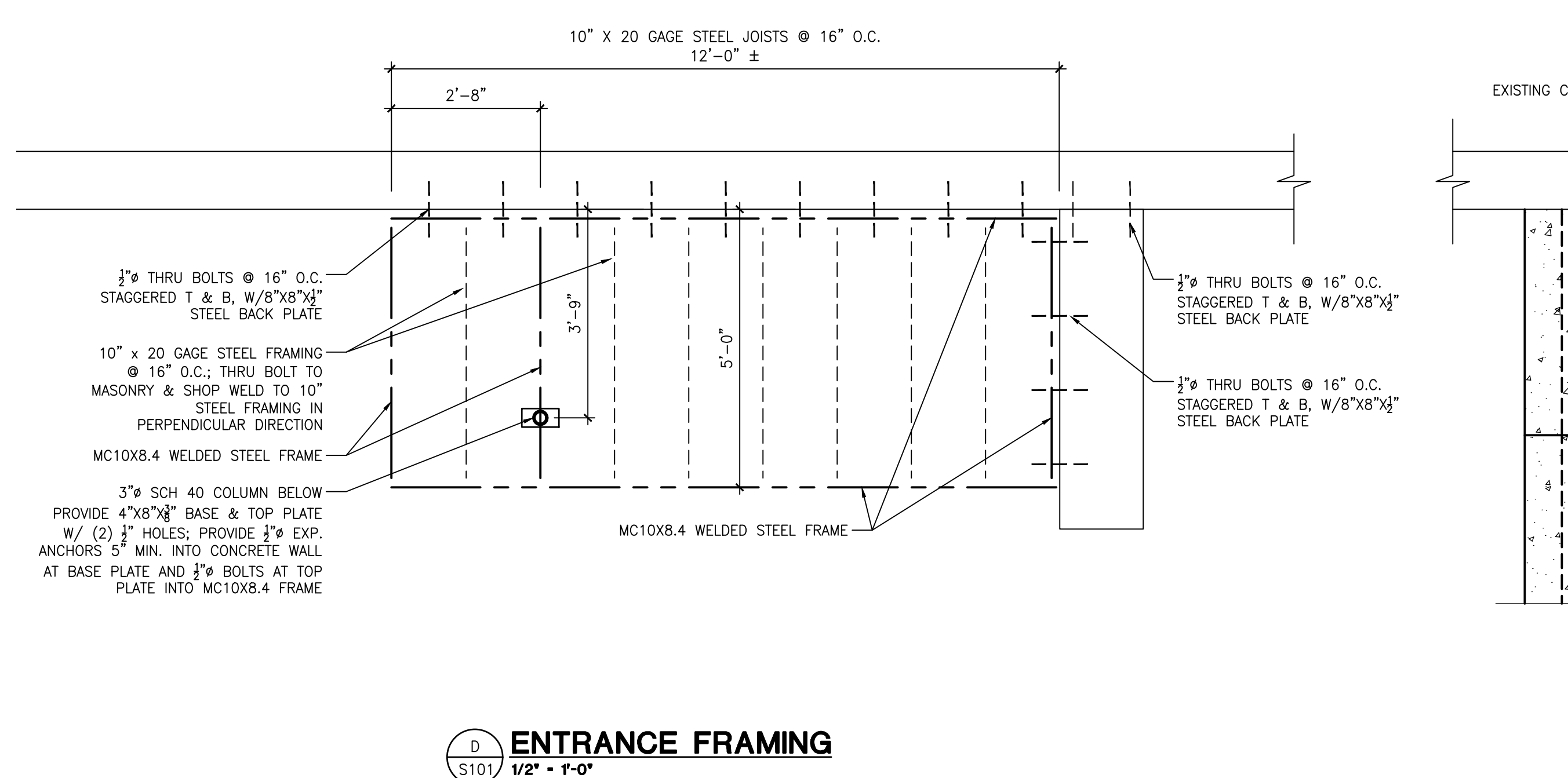
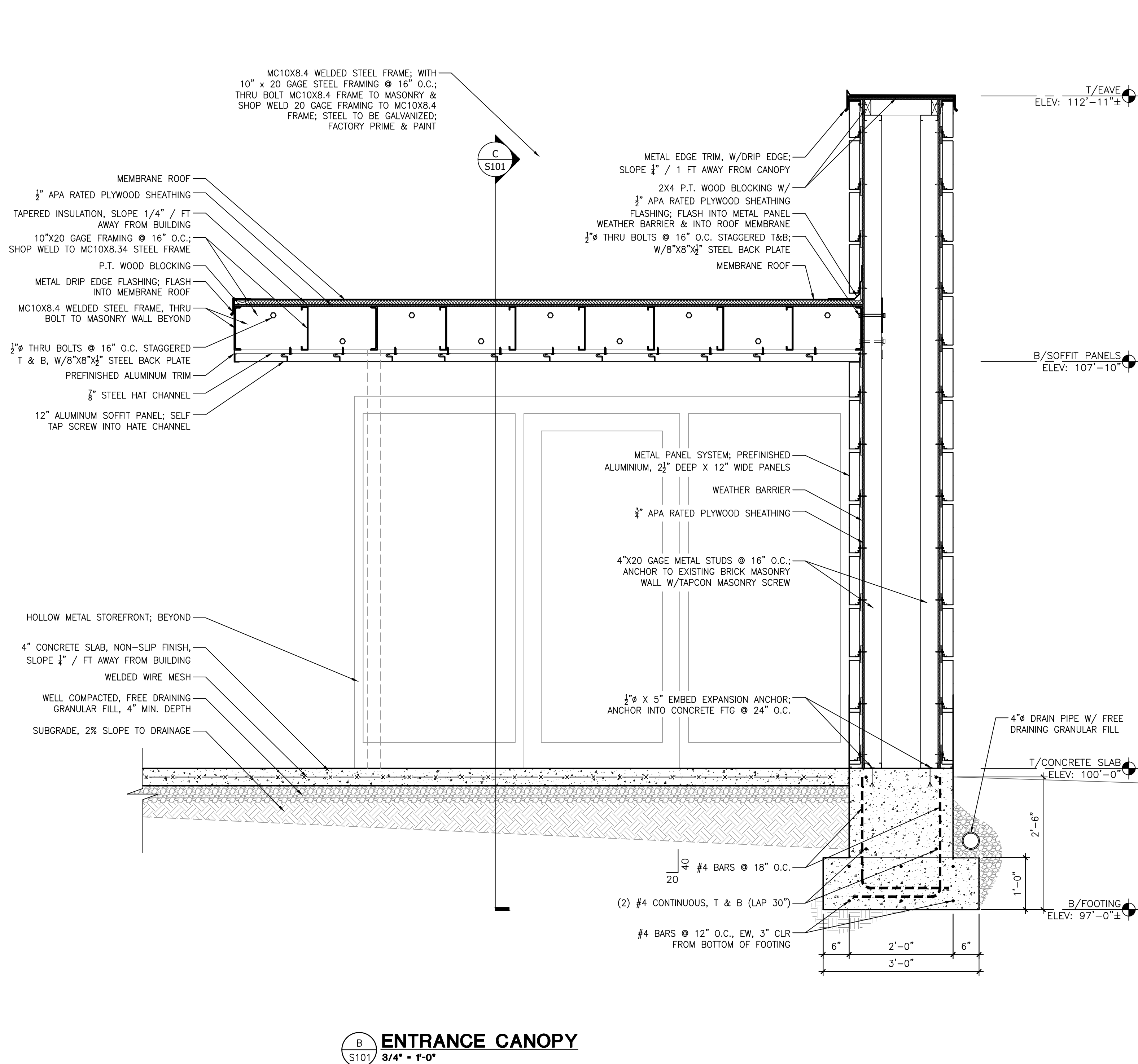
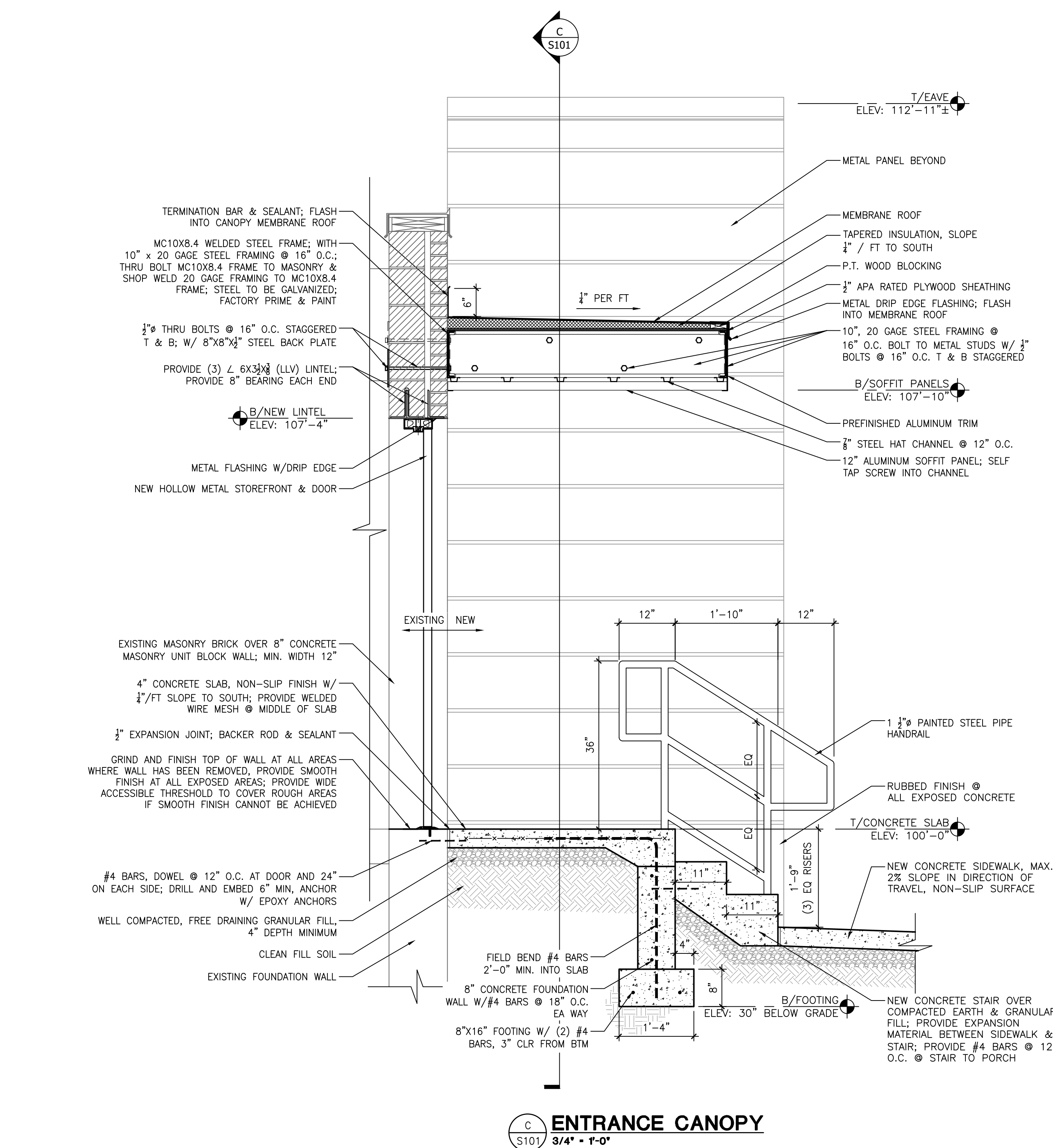
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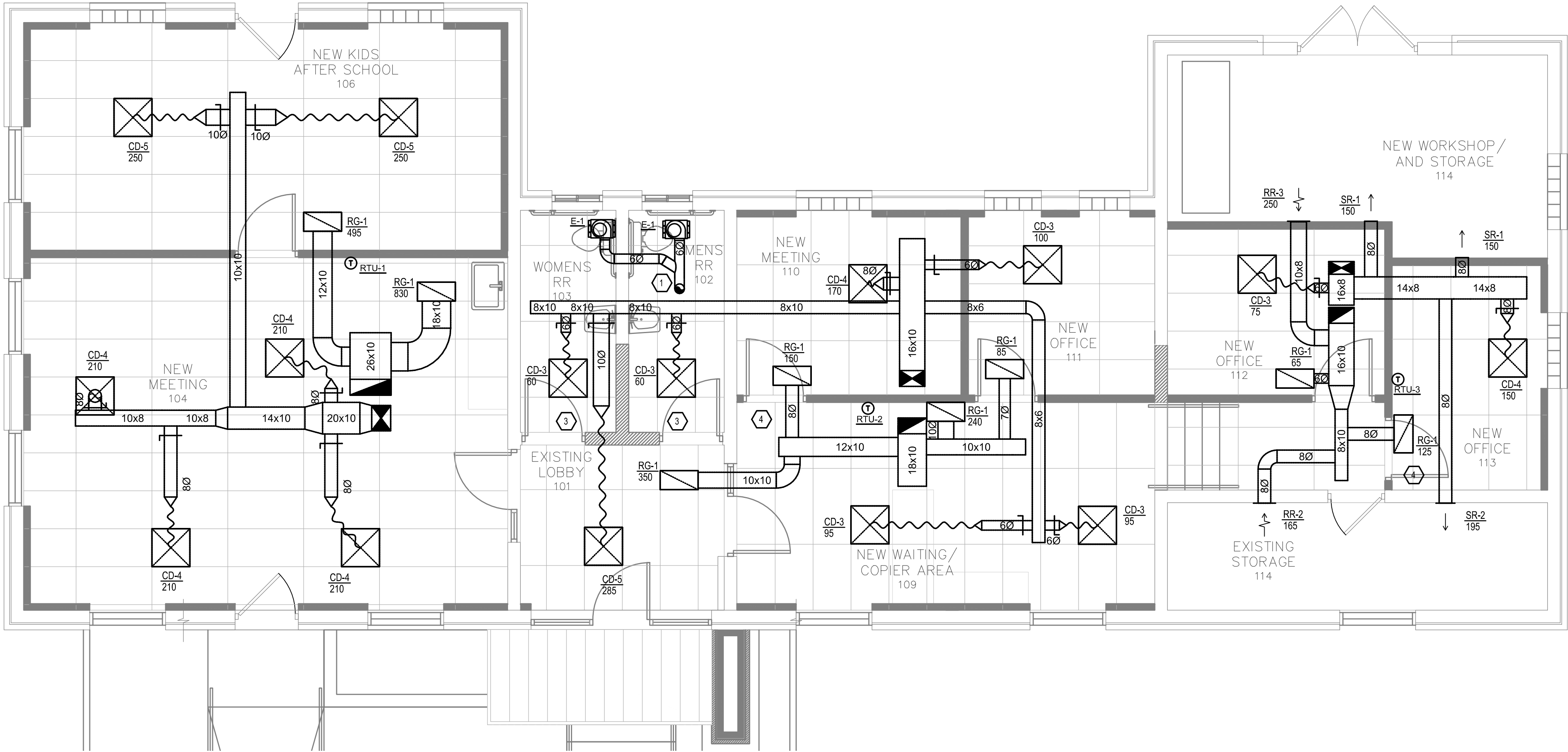
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STRUCTURAL

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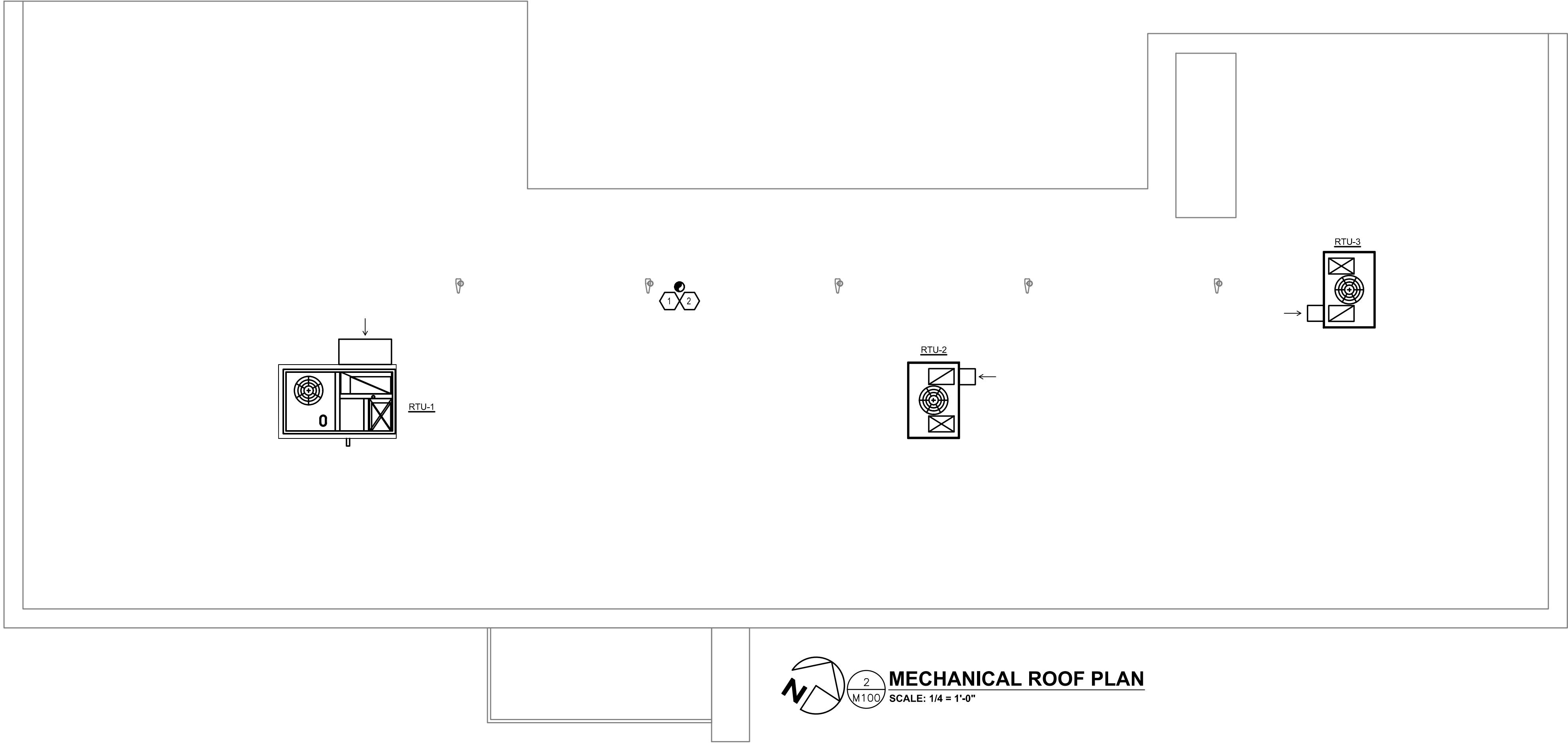
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Z:\Project Directories\7400 -7499\7476- Marianna Terrace Maintenance Building\Construction Documents\7476-M100-MECHANICAL-FLOOR-PLAN.dwg-EES, Plot Date/Time: Feb 20, 2020-5:09pm - By: thomas.gillon
THESE DRAWINGS AND SPECIFICATIONS ARE NOT AUTHORIZED TO BE USED AS CONTRACT DOCUMENTS. THESE DRAWINGS HAVE BEEN PREPARED TO DEMONSTRATE COMPLIANCE WITH ANY CONTRACTUAL AGREEMENT THAT MAY EXIST WITH AN OWNER, CONSTRUCTION MANAGER, GENERAL CONTRACTOR, ETC.
CODE COMPLIANCE. THE INSTALLING CONTRACTOR IS RESPONSIBLE TO ENSURE THAT MEANS, METHODS, AND MATERIALS USED IN CONSTRUCTION ARE INSTALLED IN ACCORDANCE WITH ANY CONTRACTUAL AGREEMENT THAT MAY EXIST WITH AN OWNER, CONSTRUCTION MANAGER, GENERAL CONTRACTOR, ETC.



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



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

MECHANICAL SCOPE OF WORK

RENOVATION TO EXISTING BUILDING. DEMO ALL EXISTING HVAC. INSTALL 3 NEW RTUS WILL ALL ASSOCIATE DUCTWORK, AIR DEVICES, CONTROLS, ETC. INSTALL NEW BATH EXHAUST FANS AND DUCTS.

CODES REFERENCED

- 2017 OHIO MECHANICAL CODE
- 2017 OHIO BUILDING CODE
- ASHRAE 90.1-2010

HVAC DESIGN CONDITIONS

COOLING
OUTDOOR: 93 DB / 75 WB
INDOOR: 72

HEATING
OUTDOOR: 0 DB
INDOOR: 72

GENERAL NOTES

- FOR FULL SCHEDULES, SPECIFICATIONS, AND COMPLETE LISTING SEE DETAIL SHEETS.
- COORDINATE ROUTING OF ALL WORK WITH OTHER TRADES.
- COORDINATE WITH ELECTRICAL CONTRACTOR FOR POWER CONNECTIONS TO ALL MECHANICAL EQUIPMENT.
- INSTALL ALL EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. MAINTAIN ALL CODE RECOMMENDED CLEARANCES FOR ACCESS AND MAINTENANCE.
- REFER TO ARCHITECTURAL PLANS FOR DIMENSIONS, AND FINAL CEILING DIFFUSER LOCATIONS.
- MAINTAIN ALL CODE REQUIRED SERVICE CLEARANCES. FOLLOW CLEARANCE TO COMBUSTIBLE DISTANCE PER MANUFACTURER'S INSTRUCTIONS.
- PROVIDE BACKDRAFT DAMPERS FOR ALL EXHAUST SYSTEMS AND EITHER LOUVER, BRICK VENT, OR CAPS AT ALL EXTERIOR BUILDING PENETRATIONS.
- ANY EQUIPMENT THAT IS SUBSTITUTED SHALL FIT IN THE SPACE PROVIDED WITH ADEQUATE ROOM FOR SERVICING, INCLUDING SUBSTITUTE EQUIPMENT NAMED IN THE SPECIFICATIONS. SUBMIT A 1/4" SCALE DRAWING OF ALL EQUIPMENT SUBSTITUTED FOR APPROVAL PRIOR TO INSTALLATION, INCLUDING, BUT NOT LIMITED TO, STRUCTURAL AND ARCHITECTURAL IMPACT, CLEARANCE REQUIREMENTS AND UTILITY REQUIREMENTS. IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO COORDINATE ALL NEW ELECTRICAL AND PLUMBING REQUIREMENTS WITH THE ELECTRICAL AND PLUMBING CONTRACTORS.

KEYED SHEET NOTES

- DUCT EXHAUST UP THROUGH ROOF WITH RAIN-PROOF CAP.
- ALL EXHAUST SHALL MEET THE FOLLOWING REQUIREMENTS.
 - 3' FROM PROPERTY LINE.
 - 3' FROM OPERABLE OPENINGS INTO BUILDING.
 - 10' FROM MECHANICAL AIR INTAKE.
- UNDERCUT DOOR 1" FOR TRANSFER AIR.

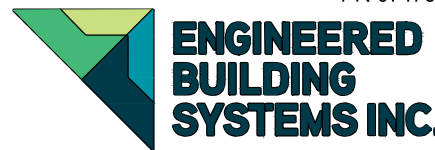
SYMBOLS LEGEND - HVAC

	THERMOSTAT
	CEILING DIFFUSER
	SIDE WALL GRILL
	RETURN WALL GRILL
	AIR FLOW DIRECTION
	DUCTWORK
	LINED DUCTWORK
	TYPICAL SUPPLY DUCT ON
	TYPICAL RETURN DUCT ON
	TYPICAL EXHAUST DUCT
	TURNING VANES
	FLEXIBLE DUCT, 8'-0" LONG MAX.
	TYPICAL ROUND DUCT ON
	ROUND DUCT UP
	MVD MANUAL VOLUME DAMPER
	DROPPED CEILING/SOFFIT

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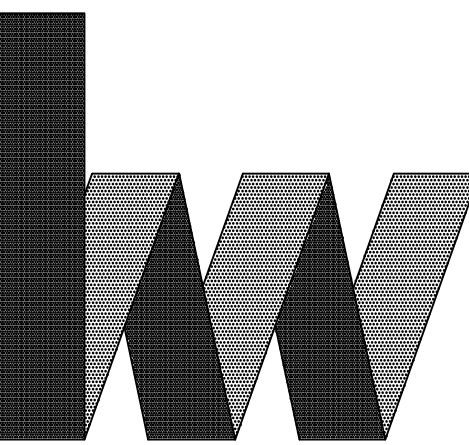
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Revised:

MECHANICAL
PLAN

M100

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- MECHANICAL SPECIFICATIONS**
1. General
- a. Refer to architectural drawings, general notes, instructions to bidders, general conditions, supplementary general conditions, base building specifications and drawings, shop drawing manuals and as-built plans, except as noted herein, which apply in all respects to this section. The contractor shall visit the site and familiarize himself with all existing conditions prior to bidding the work.
2. Use of Drawings and Specifications
- a. EBS drawings and specifications are intended to convey design intent only. All means and methods sequences, techniques, and procedures of construction as well as any associated safety precautions and programs, and all incidental and temporary devices required to construct the project, and to provide a complete and fully operational mechanical system are the responsibility of the mechanical contractor.
3. Standards
- a. Equipment and materials shall conform with appropriate provisions of AGA, ARI, ASME, ASTM, CISPI, UL, NEMA, ANSI, SMACNA, ASHRAE, NFPA, NEC, as applicable to each individual unit or assembly. All equipment must bear UL label.
4. License / Experience
- a. Contractor must be licensed by the state to install HVAC system/equipment. Contractor must also have a minimum of 5 years of experience and have installed at least (5) successful project installations of similar size and scope. References must be provided upon request.
5. Codes
- a. All work shall be performed in strict accordance with all applicable state and local codes and ordinances. The mechanical contractor shall satisfy code requirements at a minimum without any extra cost to the owner. In case of conflict between the drawings/specifications and the codes and ordinances, the highest standard shall apply.
6. Permits and Fees
- a. The mechanical contractor shall procure and pay for all permits, fees, taxes, and inspections necessary to complete the mechanical work. Furnish certificate of approval for work from inspection authority to owner before final acceptance for work. Certificate of final inspection and approval shall be submitted with the contractor's request for payment. No final payment will be approved without this certificate.
7. Site Examination
- a. The mechanical contractor shall thoroughly examine all areas of work where equipment, ductwork, and piping will be installed and shall report any condition that, in his opinion, prevents the proper installation of the mechanical work prior to bid. Contractor shall also examine all drawings and specifications of other branches of work, making reference to them for details of new or existing building conditions. No extras will be allowed for failure to include all required work in bid.
- b. All work shall be done at times convenient to the owner and only during normal working hours, unless specified otherwise.
- c. Mechanical contractor shall take their own measurements and be responsible for them.
- d. Access panels are not shown on drawings. During site examination, contractor shall identify all areas where access panels are required, and report to general contractor. Designation of who furnishes and who installs access panels must be coordinated with general contractor prior to starting work.
8. Contractor Coordination
- a. Coordination drawings showing system and component installation layout, routing, details, etc. Shall be produced by the mechanical contractor and under the supervision of the general contractor/construction manager, or appropriate party as applicable.
- b. All systems installed by each sub-contractor shall be coordinated with one another and approved by general contractor/construction manager, etc. prior to installation and/or fabrication.
- c. If questions concerning design intent arise during coordination, EBS can assist where appropriate.
- d. The architectural drawings shall take precedence over all other drawings. Do not scale distances off the mechanical drawings, use actual building dimensions.
9. Shop Drawings / Submittals
- a. Submit to the architect electronic copies of complete and certified shop drawings, descriptive data, performance data and ratings, diagrams and specifications on all specified equipment, including accessories, and materials for review. The make, model number, type, finish and accessories of all equipment and materials shall be reviewed and approved by the mechanical contractor and general contractor prior to submitting to the architect for their review and approval. Approval of shop drawings does not relieve the mechanical contractor/vendor from compliance with the requirements of the contract drawings, specifications and applicable codes.
- b. Shop drawings shall be required for the following:
- i. HVAC equipment
- ii. Fans
- iii. Diffusers, registers, grilles, dampers, louvers, and all sheet metal accessories
- iv. Temperature controls
- v. Sheet metal coordination drawings
- vi. Air balance report
- c. Products installed by the mechanical contractor and provided by others must be submitted for review prior to purchasing. Products shall not be selected based on permit drawings without express permission - products shall be selected based on construction drawings.
10. Record Drawing
- a. The mechanical contractor shall be responsible for creating record drawings where required. Drawings shall be produced in Autocad 2004 format or later.
11. Testing
- a. All mechanical systems shall be tested for proper operation.
12. Fire Stopping
- a. Provide fire stopping at all penetrations through rated separations per local codes & regulations & per UL recommendations for assemblies encountered in project.
- b. The fire stopping material shall meet the integrity of the fire rated wall, floor, ceiling & roof being penetrated. Refer to architect's drawings for wall, floor, ceiling & roof fire ratings prior to bidding work.
- c. Refer to architect's drawings for wall, floor, ceiling, and roof fire ratings prior to bidding work.
13. Access Panels
- a. Provide ceiling and wall access panel quantities & locations to the general contractor prior to bidding. Access panels are required for all concealed appliances, controls devices, heat exchangers and HVAC system components that utilize electric energy. Where access panel should be sized to allow accessibility for inspection, service, repair and replacement without disabling the function of a fire-resistance-rated assembly or removing permanent construction, other appliances, venting systems or any other piping or ducts not connected to the appliance being inspected, serviced, repaired or replaced. There shall be no extras for having to add access panels after bids are awarded.
14. Cutting and Patching
- a. Neatly do all cutting as required and patch all cut surfaces to match building construction. The contractor shall employ and pay a trade trained and qualified to perform the required patching work. All surfaces disturbed shall be restored with like materials to the satisfaction of the owner. All penetrations through roof shall be made by bonded roofer. Mechanical contractor shall pay all fees required.
15. Flashing & Counterflashing
- a. Roof flashing shall be furnished and installed by the roofing contractor. Roof counterflashing shall be furnished and installed by the mechanical contractor. Coordinate work with roofing contractor and pay all fees.
- b. Obtain approval from general contractor, construction manager, owner and/or roofing contractor prior to making any penetrations so that warranties are not compromised or voided.
16. Warranty
- a. The mechanical contractor shall unconditionally warrant all work to be free of defects in equipment, material and workmanship for a period of one (1) year from the date of final acceptance by owner. The mechanical contractor will repair or replace any defective work promptly and without charge to the owner.
- b. Restore any other existing work damaged in the course of repairing defective equipment, materials and workmanship.
17. Mechanical Work
- a. The mechanical contractor shall provide new hvac equipment, fans, ductwork, piping, air devices, controls as indicated on drawings and as specified. Startup and 1st year parts and labor warranty shall be included and manufacturer's extended warranties. Equipment and appliances shall be installed as required by the terms of their approval, in accordance with the conditions of the listing, the manufacturer's installation instructions, and the applicable code.
18. Owner's Instructions
- a. Provide two sets of complete operating and maintenance instructions with drawings, typewritten instructions and operating sequences and descriptive data sheets, Assemble each set in a hard-bound cover. Provide pdf files of all documentation.
19. Final
- a. Put all equipment in service and demonstrate that all conditions of the contract have been fulfilled. Remove all tools, debris, work under this contract. Submit all warranties, test reports, operating and maintenance manuals for HVAC systems, log sheets and charts, and guarantees as previously specified. Provide all reports, forms, etc. required by inspectors to the satisfaction of the owner. Provide as-built record drawings (in Autocad 2007 or later) showing an accurate account of the final installed systems. Systems including but not limited to all equipment and associated controls, ductwork/piping, air devices, etc.
20. Sheetmetal Ductwork
- a. All sizes of ducts shown on the drawings are interior duct dimensions. All ductwork shall be rigid sheetmetal constructed from galvanized sheet with SMACNA low velocity duct construction standards. Assemble and install ductwork in accordance with recognized industry practice for achieving air tight (5% leakage) and noiseless (no objectionable noise) systems, capable of performing each indicated service. Furnish all required dampers, transitions, elbows, connectors to air devices, and other accessories necessary for a complete operating system. Flexible ductwork shall not exceed 8'-0" long.
21. Adhesives and Sealants
- a. Seal all longitudinal and transverse duct joints with a UL 181A or 181B non-hardening, non-migrating mastic or liquid elastic sealant of a type recommended by the manufacturer for sealing joints and seams in sheet metal ductwork. Cover all field joints, joints around spin-in fittings and fastening screws with mastic. All sealants and gaskets shall have surface-burning characteristics with a maximum flame-spread index of 25 and a maximum smoke-developed index of 50 when tested according to UL 723.
- b. Exposed Ductwork: trim duct sealants flush with metal. Create a smooth and uniform exposed bead. Do not use two-part tape sealing system.
22. Duct Supports
- a. Furnish and install hot-dipped galvanized steel fasteners, hangers, anchors, rods, straps, trim, and angles for support of ductwork.
- b. Flexible Connections
- a. Furnish and install neoprene flexible duct connections at the inlet and discharge of units and fans.
23. Duct Manual Volume Dampers
- a. Furnish and install opposed-blade, leak-proof volume control dampers where indicated on drawings and locations in supply, return and exhaust ducts where branches are taken from larger ducts or at each individual duct register in order to achieve system air balance quantities. Balancing devices must be provided in accordance with IMC 603.18. All manual volume dampers must be shown on coordination drawings when submitted for review.
24. Duct Access Doors
- a. Furnish and install conveniently located duct access doors of ample size and quantity for servicing the dampers.
25. Diffusers, Grilles and Registers
- a. Diffusers, grilles and registers shall be manufactured by Titus, prior, or engineered approved equal and shall be furnished and installed by the mechanical contractor. Diffusers shall be installed as indicated on the drawings and schedules. The mechanical contractor shall provide all miscellaneous items necessary for a complete and proper installation in the type of ceiling and walls used in this project.
27. Exhaust Fan
- a. Fan manufacturer shall be Broan, Cook, Greenheck, or engineered approved equal. Refer to drawings and schedules for unit location, technical data, and any applicable accessories.
28. Rooftop Unit
- a. Outdoor, rooftop mounted, electrically controlled, heating and cooling unit utilizing scroll compressors for cooling and natural gas for heating. Unit shall have standard manufacturer warranty on parts. Install per manufacturer's requirements. Refer to drawings and schedules for unit location, technical data, and accessories.
- b. Rooftop manufacturer shall be Carrier, Tempstar or equivalent.
- c. for unit location, technical data, and accessories.
29. Condensate Drain Piping
- a. The mechanical contractor shall furnish and install condensate drains, p-traps with removable cleanout caps for air equipment per manufacturer's recommendations. The p-trap depth shall be at least the depth specified for the respective pressure drop of the unit. Condensate drain piping shall be schedule 40 PVC pipe with solvent weld fittings. All condensate drain lines shall be configured to permit the clearing of blockages and performance of maintenance without requiring the drain line to be cut. For condensate pumps located in uninhabitable spaces (i.e. attics and crawl spaces), provide controls that will shut down the air equipment if the condensate pump fails.
- b. All cooling equipment shall have a wet switch in the primary drain line, the overflow drain line, or in the equipment-supplied drain pan (located at a point higher than the primary drain line connection and below the overflow rim of the pan) that will

- shut down the unit when the condensate is clogged..
30. Piping Supports (Metal Pipe)
- a. Furnish and install hot-dipped galvanized steel fasteners, hangers, anchors, rods, straps, trim and angles for support of piping.
31. Piping Supports (Plastic Pipe)
- a. Furnish and install hangers for plastic piping per manufacturer's requirements.
32. Temperature Controls and Control Wiring
- a. The mechanical contractor shall provide all control wiring necessary for the complete and proper operating temperature control system. Programmable thermostats shall be provided with equipment packages unless otherwise noted.
- b. Exposed wiring: All wiring exposed to the space shall be run in conduit. Coordinate requirements with architectural drawings.
33. Testing, Balancing, and Adjusting
- a. The individual performing the air balancing shall be a certified test and balancer and a member of NEBB or AABC, using calibrated equipment. The certified air balance contractor shall accurately balance the systems to provide air quantities as indicated on the drawings and in the schedules/specifications, operate automatic control systems, and verify set points during balancing.
34. Sequence of Operation
- a. Exhaust Fans
- i. E-1: exhaust fan shall run on a light switch (furnished by the electrical contractor).
- b. Rooftop units
- i. RTU-1: unit shall be controlled from a thermostat in the space.
- ii. Heating mode - when the thermostat calls for heating the fan shall run and the gas fired heat exchanger shall fire to maintain temperature setpoint. When the setpoint is reached the heater shall shut off.
- iii. Cooling mode - when the thermostat calls for cooling the refrigeration system shall engage, the fan shall run, and the dx cooling coil shall cool the air to maintain temperature setpoint. When the setpoint is reached, the refrigeration system shall shut off.
- iv. RTU-2,3: unit shall be controlled from a thermostat in the space.
- v. Heating mode - when the thermostat calls for heating the fan shall run and the gas fired heat exchanger shall fire to maintain temperature setpoint. When the setpoint is reached the heater shall shut off.
- vi. Cooling mode - when the thermostat calls for cooling the refrigeration system shall engage, the fan shall run, and the dx cooling coil shall cool the air to maintain temperature setpoint. When the setpoint is reached, the refrigeration system shall shut off.
- vii. Ventilation - the fan shall run during occupied mode to provide the required building ventilation/ makeup air.

DUCT INSULATION SCHEDULE					
EQUIPMENT	RTU-1 RTU-2 RTU-3	AIR DISTRIBUTION TYPE			
		SA	RA	OA	EAREL
		R-3.5	N/A	N/A	N/A
		R-3.5	N/A	N/A	N/A
		R-3.5	N/A	N/A	N/A

DUCT INSULATION REQUIREMENTS ARE BASED ON TABLE 6.8.2B OF ASHRAE 90.1 2010 ENERGY CODE.

PROVIDE DUCTWORK OF SUFFICIENT THICKNESS TO MEET THE INSTALLED R-VALUE REQUIREMENTS LISTED ABOVE.

ITEMS NOT REQUIRED TO BE INSULATED: FIBROUS-GLASS DUCTS, DUCTS WITH LINER THAT MEETS ASHRAE 90.1, FACTORY-INSULATED FLEXIBLE DUCTS, FACTORY-INSULATED PLENUMS AND CASINGS, FLEX CONNECTORS, VIBRATION-CONTROL DEVICES, FACTORY-INSULATED ACCESS PANELS AND DOORS.

Duct Thermal Insulation

- a. Provide external thermal insulation with an integral vapor barrier facing of sufficient thickness and thermal resistance to meet local energy code requirements (minimum 1-1/2" thick, .75 lb. per cu./ft. Density, with FSK jacket, .002 thick reinforced aluminum foil vapor barrier). Do not insulate exposed ductwork and portions of ductwork that are internally lined as noted on drawings. Ductwork exposed to the weather shall be protected with an approved weatherproof barrier/jacking. Insulation of all ductwork shall be continuous thru all walls and floors. Thermal insulation and sealers shall comply with NFPA flame spread of 25 or less, and smoke developed index of 50 or less.

Insulation Requirements:

- a. All supply and return ducts and plenums installed as part of the HVAC distribution air system shall be insulated in accordance with Table 6.8.2B below. The following R values are required:

TABLE 6.8.2B Minimum Duct Insulation R-Value, ^a Combined Heating and Cooling Supply Ducts and Return Ducts							
Climate Zone	Duct Location						
	Exterior	Ventilated Attic	Unvented Attic Above Insulated Ceiling	Unvented Attic with Roof Insulation ^b	Unconditioned Space ^b	Indirectly Conditioned Space ^c	Buried
Supply Ducts							
1	R-6	R-6	R-8	R-3.5	R-3.5	none	R-3.5
2	R-6	R-6	R-6	R-3.5	R-3.5	none	R-3.5
3	R-6	R-6	R-6	R-3.5	R-3.5	none	R-3.5
4	R-6	R-6	R-6	R-3.5	R-3.5	none	R-3.5
5	R-6	R-6	R-6	R-1.9	R-3.5	none	R-3.5
6	R-8	R-6	R-6	R-1.9	R-3.5	none	R-3.5
7	R-8	R-6	R-6	R-1.9	R-3.5	none	R-3.5
8	R-8	R-8	R-8	R-1.9	R-6	none	R-6
Return Ducts							
1 to 8	R-3.5	R-3.5	R-3.5	none	none	none	none

^aInsulation R-value, measured in (h·ft²·°F)/Btu, are for the insulation as installed and do not include film resistance. The required minimum thicknesses do not consider water vapor transmission and possible surface condensation. Where exterior walls are used as plenum walls, wall insulation shall be as required by the most restrictive condition of Section 6.4.4.2 or Section 5. Insulation resistance measured on a horizontal plane in accordance with ASTM C518 at a mean temperature of 75°F at the installed thickness.

^bIncludes crawlspace, both ventilated and nonventilated.

^cIncludes return air plenums with or without exposed ducts above.

Note: Unconditioned outside air ductwork shall have the same insulation requirements as supply ducts except unconditioned outside air ducts shall also require R-3.5 insulation in indirectly conditioned spaces. Exhaust air ductwork between isolation damper and penetration of building exterior or a minimum of 9' from all exterior penetrations shall have a minimum R-3.5 insulation.

ROOFTOP UNIT SCHEDULE																					
GENERAL								COOLING						HEATING				ELECTRIC			
TAG	AREA SERVED	MANUFACTURER	MODEL	WEIGHT	MOUNTING	NOTES	CFM	ESP	OA CFM	BHP	CLG-MEH	CLG-SENS	NOMINAL TONS	SEER	INPUT MBH	OUTPUT MBH	EFFICIENCY %	GAS PRESSURE (IN WG)	VOLT/PHASE	MCA	MOCP
RTU-1	SEE PLANS	CARRIER	48GCDM041A3-0A0A0	628	ROOF	1-3,6	1200	0.6	N/A	0.37	33	24	3	16	65	53	81	7	230/1	23	30
RTU-2	MEETING	CARRIER	48VG-B300403	351	ROOF	1,3,4,5	940	0.7	SEE VENTILATION SCHEDULE	0.36	28	20	2.5	15	40	33	81	7	230/1	21.7	30
RTU-3	SHOP	CARRIER	48VG-B240403	344	ROOF	1,3,4,5	715	0.3	SEE VENTILATION SCHEDULE	0.15	22	16	2	15	40	33	80	7	230/1	19.4	30

1. 14 INCH ROOF CURB
2. DIRECT DRME - ECO BLUE MOTOR
3. TWO STAGE COOLING
4. MANUAL OUTSIDE AIR DAMPER
5. MASTER MOTOR I LOW AMBIENT CONTROLS
6. FIELD INSTALLED ULTRA LOW LEAK VERTICAL ECONOMIZER WITH SOLID STATE W7720 CONTROLLER

FAN SCHEDULE													
TAG	TYPE	AREA SERVED	MANUFACTURER	MODEL	DRME	CFM	ESP	WATTS	RPM	VOLT/PHASE	MOUNTING	WEIGHT	NOTES
E-1	EXHAUST	TOILET	GREENHECK	SP-B80	DIRECT	70	0.15	54	900	115/60/1	CEILING	11	-

NATURAL VENTILATION SCHEDULE						
ROOM NUMBER	ROOM NAME	AREA	DOOR OPENABLE AREA (SQ. FT)	WINDOW OPENABLE AREA (SQ. FT)	TOTAL OPENABLE AREA	% OF FLOOR AREA
104	NEW MEETING	462	21	32	53	18
106	NEW KIDS AFTER SCHOOL	295	21	0	21	12

NATURAL VENTILATION CALCULATIONS PER SEC 402.1 OF 2017 OMC						
NATURAL VENTILATION OF THE OCCUPIED SPACE SHALL BE THROUGH WINDOWS, DOORS, OR OTHER OPENINGS TO THE SPACE. THE OPERATING MECHANISM FOR SUCH OPENINGS SHALL BE PROVIDED WITH READY ACCESS SO THAT THE OPENINGS ARE READILY CONTROLLABLE BY THE BUILDING OCCUPANTS.						

DIFFUSER, GRILLE, AND REGISTER SCHEDULE

CALLOUT	DESCRIPTION	FACE SIZE (IN)	INLET SIZE (IN)	MODEL	NOTES
CD-3	4-WAY THREE CONE DIFFUSER	24x24	6Ø	TITUS TMS	REMOVABLE CORE FROM FACE OF DIFFUSER. INSULATE BACK OF DIFFUSER.
CD-4	4-WAY THREE CONE DIFFUSER	24x24	8Ø	TITUS TMS	REMOVABLE CORE FROM FACE OF DIFFUSER. INSULATE BACK OF DIFFUSER.
CD-5	4-WAY THREE CONE DIFFUSER	24x24	10Ø	TITUS TMS	REMOVABLE CORE FROM FACE OF DIFFUSER. INSULATE BACK OF DIFFUSER.
RG-1	EGGCRATE RETURN GRILLE	24x12	22x10	TITUS 50F	#26 WHITE FINISH.
RR-2	STEEL RETURN GRILLE, 3/4" BLADE SPACING, 35 DEGREE DEFLECTION, BLADES PARALLEL TO LONG DIMENSION	14x8	12x6	TITUS 350RL	STEEL OPPOSED-BLADE DAMPER OPERABLE FROM THE FACE OF THE GRILLE.
RR-3	STEEL RETURN GRILLE, 3/4" BLADE SPACING, 35 DEGREE DEFLECTION, BLADES PARALLEL TO LONG DIMENSION	14x10	12x8	TITUS 350RL	STEEL OPPOSED-BLADE DAMPER OPERABLE FROM THE FACE OF THE GRILLE.
SR-1	STEEL DOUBLE DEFLECTION, 3/4" BLADE SPACING, FRONT BLADES PARALLEL TO LONG DIMENSION.	8x8	6x6	TITUS 300RL	STEEL OPPOSED-BLADE DAMPER OPERABLE FROM THE FACE OF THE GRILLE.
SR-2	STEEL DOUBLE DEFLECTION, 3/4" BLADE SPACING, FRONT BLADES PARALLEL TO LONG DIMENSION.	12x8	10x6	TITUS 300RL	STEEL OPPOSED-BLADE DAMPER OPERABLE FROM THE FACE OF THE GRILLE.

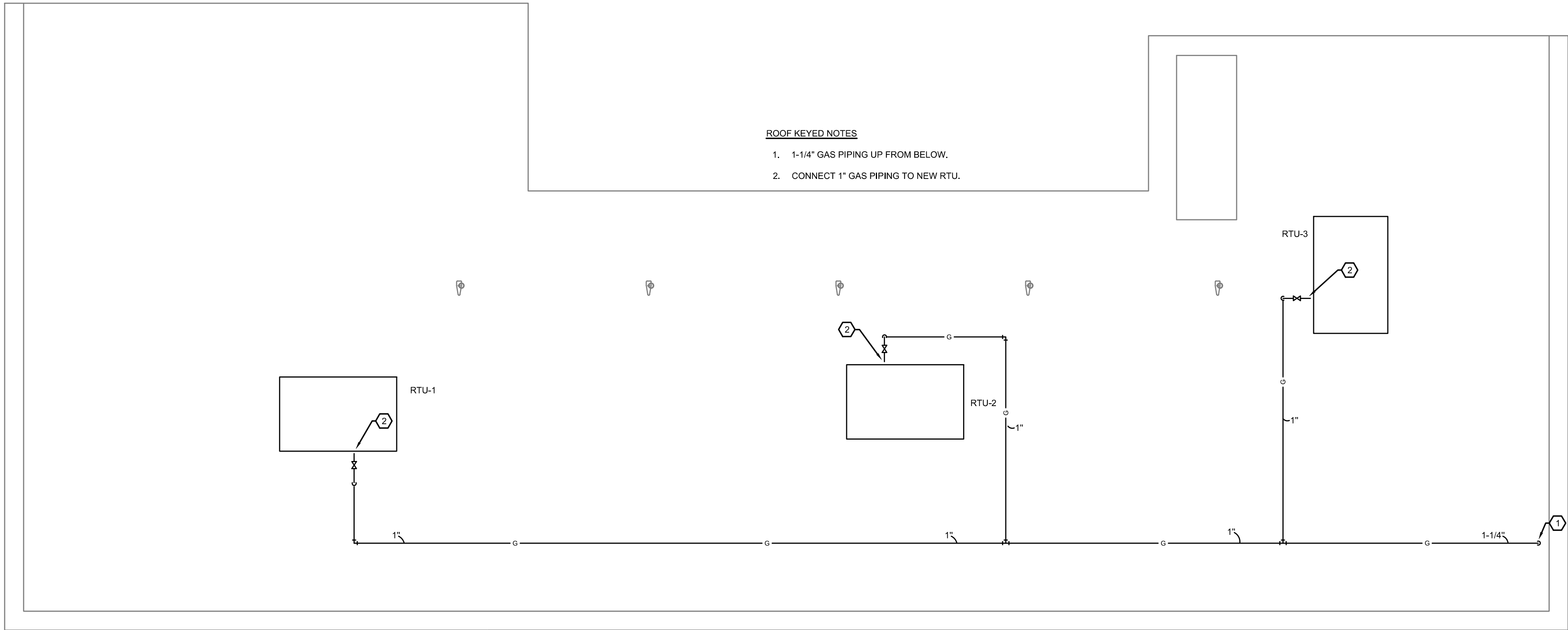
Zone RTU-2 Ventilation													
System Primary Airflow:		940 CFM		Zone Air Distribution Effectiveness:		E_z		0.8					
Average Outdoor Air Fraction:		0.109		Primary Air Fraction to Zone:		E_p		1					
Occupant Diversity:		1		Secondary Air Fraction to Zone:		E_s		1					
Uncorrected Air Intake:		103 CFM		Fraction of Supply Air to Zone from Outside Zone:		F_{oa}		1					
System Ventilation Efficiency:		0.904		Fraction of Supply Air to Zone from Fully Mixed Primary Air:		F_b		1					
Outdoor Air Intake:		113 CFM		Fraction of Outdoor Air to Zone from Outside Zone:		F_o		1					
		0.12											

Room Information													
Room	Room Type	People Outdoor Air			Area Outdoor Air			Breathing Zone Outside Airflow (CFM) V_{bz}	Zone Outdoor Airflow (CFM) V_{oz}	Zone Discharge Airflow (CFM) V_{dz}	Discharge Outdoor Air Fraction Z_d	Zone Ventilation Efficiency E_{vc}	
		Rate (CFM/person) R_p	People P_z	Total (CFM) $R_p \cdot P_z$	Rate (CFM/ft ²) R_a	Area (ft ²) A_z	Total (CFM) $R_a \cdot A_z$						
101 EXISTING LOBBY	Office-Main Entry Lobbies	5	1	5	0.06	93.6	6	11	14	285	0.0491	1.07	
102 MENS RR	Spaces-Toilet rooms - public	0	0	0	0	59	0	0	0	59	0	1.12	
103 WOMENS RR	Spaces-Toilet rooms - public	0	0	0	0	59	0	0	0	59	0	1.12	
109 NEW WAITING/COPIER AREA	Office-Main Entry Lobbies	5	3	15	0.06	298	18	33	41	271	0.151	0.969	
110 NEW MEETING	Office-Conference Rooms	5	4	20	0.06	115	7	27	34	167	0.204	0.904	
111 NEW OFFICE	Office-Office Spaces	5	1	5	0.06	95.8	6	11	14	99	0.141	0.979	

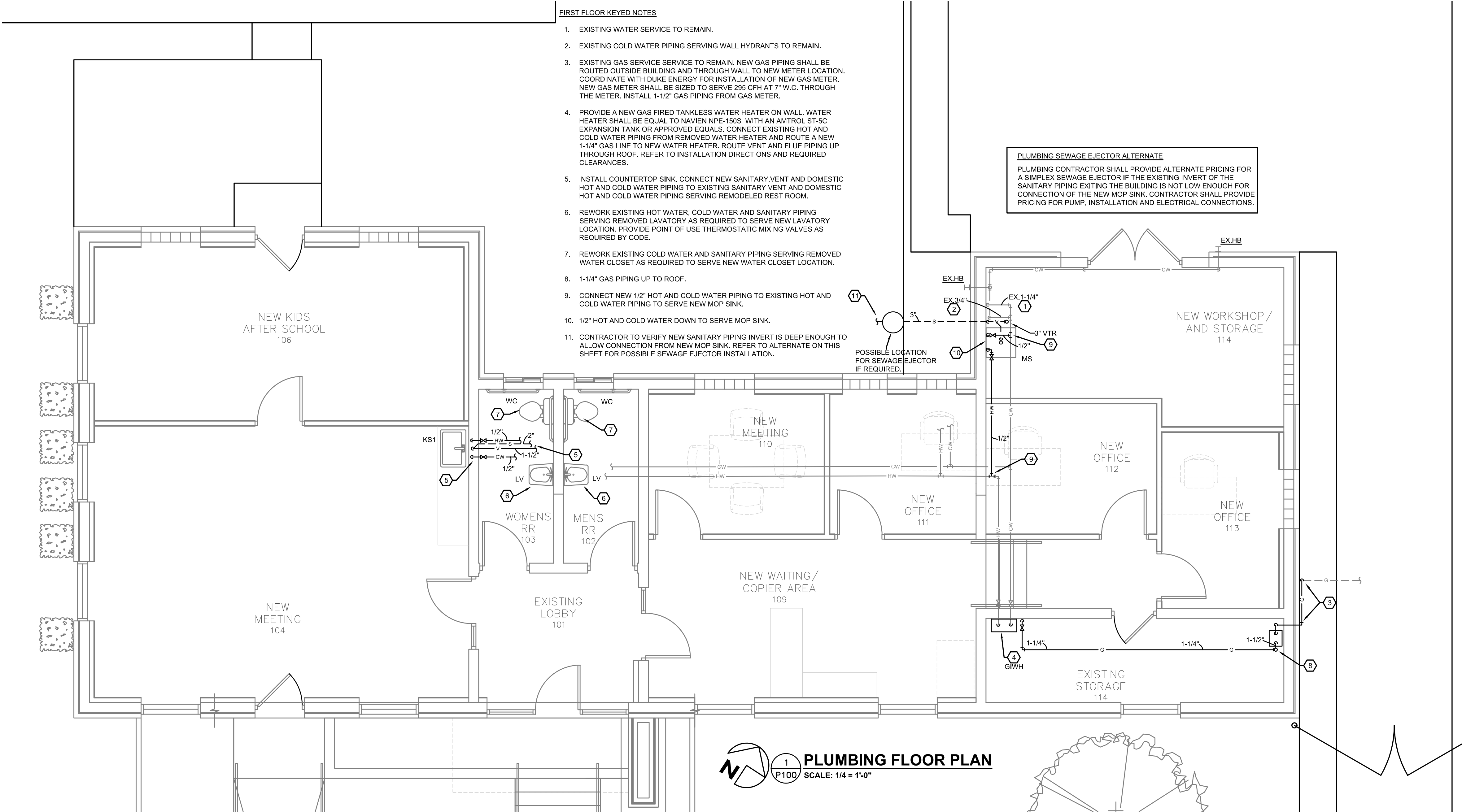
*VENTILATION CALCULATIONS PER OMC 2017 TABLE 403.3.1.1

Zone RTU-3 Ventilation												
System Primary Airflow:		715 CFM		Zone Air Distribution Effectiveness:		E_z		0.8				
Average Outdoor Air Fraction:		0.149		Primary Air Fraction to Zone:		E_p		1				
Occupant Diversity:		1		Secondary Air Fraction to Zone:		E_s		1				
Uncorrected Air Intake:		106 CFM		Fraction of Supply Air to Zone from Outside Zone:		F_{oa}		1				
System Ventilation Efficiency:		0.928		Fraction of Supply Air to Zone from Fully Mixed Primary Air:		F_b		1				
Outdoor Air Intake:		114 CFM		Fraction of Outdoor Air to Zone from Outside Zone:		F_{oc}		1				
V_{ot}		0.159		F_c								
Room Information												
Room	Room Type	People Outdoor Air			Area Outdoor Air			Breathing Zone Outdoor Airflow (CFM) F_{bz}	Zone Outdoor Airflow (CFM) V_{oc}	Zone Discharge Airflow (CFM) V_{dt}	Discharge Outdoor Airflow (CFM) Z_d	Zone Ventilation Efficiency E_{vz}
		Rate (CFM/person) R_p	People P_t	Total (CFM) $R_p \cdot P_t$	Rate (CFM/ft ²) R_a	Area (ft ²) A_t	Total (CFM) $R_a \cdot A_t$					
110 NEW WORKSHOP / AND STORAGE	Educational-Wood/Metal Shop	10	2	20	0.18	192	35	55	69	298	0.232	0.928
111 EXISTING STORAGE	Storage-Warhouses	0	0	0	0.06	114	7	7	9	194	0.0464	1.11
112 OFFICE	Office-Office Spaces	5	1	5	0.06	100	7	12	15	74	0.203	0.957
113 NEW OFFICE	Office-Office Spaces	5	1	5	0.06	97.1	6	11	14	149	0.094	1.07

Z:\Project Directories\7400 -7499\7476- Marianna Terrace Maintenance Building\Construction Documents\7476-P100-PLUMBING-FLOOR-PLAN.dwg - EBS. Plot Date/Time: Mar 04, 2020-11:27am - By: derek.grundy
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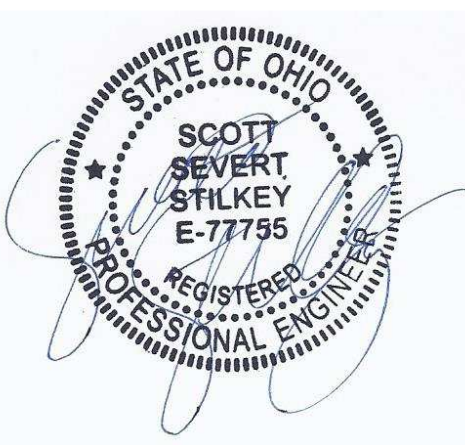


PLUMBING ROOF PLAN
P100 SCALE: 1/4" = 1'-0"

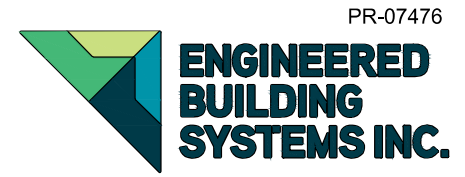


PLUMBING FLOOR PLAN
P100 SCALE: 1/4" = 1'-0"

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Revised:

**PLUMBING
PLAN**

P100

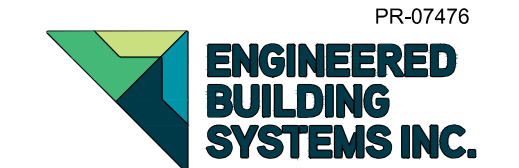
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Z:_Project Directories\7400 -7499\7476- Construction Documents\7476-P200-PLUMBING-DETAILS.dwg-EBS Plot Date/Time: Mar 04, 2020-11:26am - By: derek.grundy
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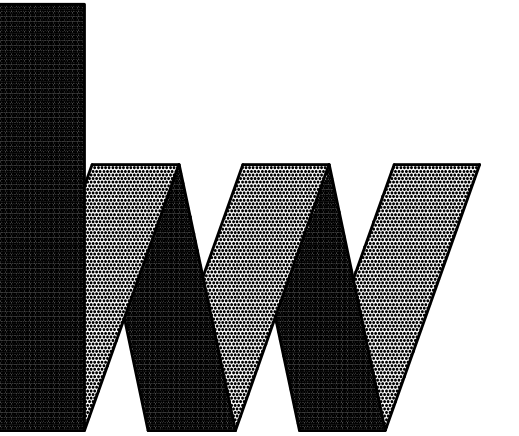
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PLUMBING
DETAILS

P200

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VISION 22 - PLUMBING

1. GENERAL PLUMBING REQUIREMENTS

- REFER TO ARCHITECTURAL DRAWINGS, GENERAL NOTES AND INSTRUCTIONS TO BIDDERS, GENERAL CONDITIONS, SUPPLEMENTARY GENERAL CONDITIONS, SPECIFICATIONS AND DRAWINGS, AND AS-BUILT PLANS, WHICH APPLY IN ALL RESPECTS TO THIS SECTION.
- ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES. IN CASE OF CONFLICT BETWEEN THE DRAWINGS/SPECIFICATIONS AND THE CODES AND ORDINANCES, THE HIGHEST STANDARD SHALL APPLY. THE PLUMBING CONTRACTOR SHALL SATISFY CODE REQUIREMENTS AS A MINIMUM STANDARD WITHOUT ANY EXTRA COST TO OWNER.
- THE PLUMBING CONTRACTOR MUST BE LICENSED BY THE STATE OF OHIO TO INSTALL NEW PLUMBING SYSTEMS.
- PROVIDE A COMPLETE AND FULLY OPERATIONAL PLUMBING SYSTEM. THE PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO COMPLETE THE PLUMBING WORK.
- THOROUGHLY EXAMINE ALL AREAS WHERE EQUIPMENT AND PIPING WILL BE INSTALLED AND REPORT ANY CONDITION THAT PREVENTS THE PROPER INSTALLATION OF THE PLUMBING WORK PRIOR TO BID. CONTRACTOR SHALL ALSO EXAMINE THE DRAWINGS AND SPECIFICATIONS OF OTHER BRANCHES OF WORK, MAKING REFERENCE TO THEM FOR DETAILS OF NEW OR EXISTING BUILDING CONDITIONS. NO EXTRAS WILL BE ALLOWED FOR FAILURE TO INCLUDE ALL REQUIRED WORK IN BID. ALL WORK SHALL BE DONE AT TIMES CONVENIENT TO THE OWNER AND ONLY DURING NORMAL WORKING HOURS, UNLESS SPECIFIED OTHERWISE. PLUMBING CONTRACTOR SHALL TAKE THEIR OWN MEASUREMENTS AND BE RESPONSIBLE FOR THEM.
- WHERE NOT PROVIDED BY OTHERS, PROCURE AND PAY FOR ALL PERMITS, FEES, TAXES AND INSPECTIONS NECESSARY TO COMPLETE THE PLUMBING WORK. FURNISH CERTIFICATE OF APPROVAL FOR WORK FROM INSPECTION AUTHORITY TO OWNER BEFORE FINAL ACCEPTANCE FOR FINAL CERTIFICATE OF FINAL INSPECTION AND APPROVAL SHALL BE SUBMITTED WITH THE CONTRACTOR'S REQUEST FOR PAYMENT. NO FINAL PAYMENT WILL BE APPROVED WITHOUT THIS CERTIFICATE.
- DRAWINGS ARE DIAGRAMMATIC ONLY INTENDING TO SHOW GENERAL RUNS AND LOCATIONS OF EQUIPMENT, FIXTURES, DUCTS, PIPING AND NOT NECESSARILY SHOWING ALL OFFSETS, DETAILS, ACCESSORIES AND EQUIPMENT TO BE CONNECTED.
- ALL WORK SHALL BE ACCURATELY LAID-OUT WITH OTHER TRADES, PRIOR TO INSTALLATION & FABRICATION. TO AVOID ALL CONFLICTS AND OBTAIN A NEAT AND WORKMANLIKE INSTALLATION WHICH WILL AFFORD MAXIMUM ACCESSIBILITY FOR EQUIPMENT OPERATION, MAINTENANCE CLEARANCES AND HEADROOM.

2. USE OF DRAWINGS AND SPECIFICATIONS

- EB'S DRAWINGS AND SPECIFICATIONS ARE INTENDED TO CONVEY DESIGN INTENT ONLY. ALL MEANS AND METHODS, SEQUENCES, TECHNIQUES, AND PROCEDURES OF CONSTRUCTION AS WELL AS ANY ASSOCIATED SAFETY PRECAUTIONS AND PROGRAMS, AND ALL INCIDENTAL AND TEMPORARY DEVICES REQUIRED TO CONSTRUCT THE PROJECT, AND TO PROVIDE A COMPLETE AND FULLY OPERATIONAL PLUMBING SYSTEM ARE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR.

3. CONTRACTOR COORDINATION

- COORDINATION DRAWINGS SHOWING SYSTEM AND COMPONENT INSTALLATION LAYOUT, ROUTINGS, DETAILS, ETC. SHALL BE PRODUCED BY THE PLUMBING CONTRACTOR AND UNDER THE SUPERVISION OF THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER, OR APPROPRIATE PARTY AS APPLICABLE. ALL SYSTEMS INSTALLED BY EACH SUB-CONTRACTOR SHALL BE COORDINATED WITH ONE ANOTHER AND APPROVED BY GENERAL CONTRACTOR/CONSTRUCTION MANAGER, ETC. PRIOR TO INSTALLATION AND/OR FABRICATION. IF QUESTIONS CONCERNING DESIGN INTENT ARISE DURING COORDINATION, EBS CAN ASSIST WHERE APPROPRIATE.

4. PLUMBING FIXTURES

- SHUT OFF VALVES/STOPS SHALL BE PROVIDED AT ALL LAVATORIES, SINKS AND WATER CLOSETS.
- COORDINATE COLOR OF FIXTURES WITH ARCHITECT.
- PROVIDE ADA COMPLIANT FIXTURES WHERE INDICATED ON THE ARCHITECTURAL PLANS.
- PROVIDE NEW PLUMBING FIXTURES, EQUIPMENT, PIPING & VALVES AS INDICATED ON DRAWINGS & AS SPECIFIED. FIXTURES SHALL BE SECURELY FASTENED TO PREVENT ANY MOVEMENT OF FIXTURE DURING NORMAL USE. SEAL TO WALL, FLOOR OR COUNTERTOP WITH SILICONIZED ACRYLIC-LATEX CAULK.

5. DOMESTIC WATER SYSTEMS

- NEW FIXTURES SHALL BE CONNECTED TO THE EXISTING WATER SERVICE/MAIN.
- INTERIOR DOMESTIC WATER PIPING:
 - WHERE ALLOWED BY CODE, SCHEDULE 40 AND SCHEDULE 80 CPVC PIPING CAN BE USED. PIPE SHALL MEET THE REQUIREMENTS OF ASTM F441. CPVC SOCKET FITTINGS SHALL MEET THE REQUIREMENTS OF ASTM F438 FOR SCHEDULE 40 AND ASTM F439 FOR SCHEDULE 80. SCHEDULE 40 SHALL BE PROVIDED FOR SIZES 2" AND UNDER, SCHEDULE 80 FOR SIZES LARGER THAN 2".
 - CONTROL VALVES SHALL BE MANUFACTURED BY OR APPROVED BY PIPING MANUFACTURER.
 - ADJUST ALL STOPS AND VALVES PROPERLY PRIOR TO PROJECT COMPLETION.

6. DOMESTIC WATER HEATING SYSTEM

- REFER TO SHEET P100 FOR WATER AND EXPANSION TANK SPECIFICATIONS.

7. SANITARY AND VENT SYSTEMS

- CONNECT NEW SANITARY PIPING TO EXISTING SEWER LATERAL.
- CUT AND PATCH SLAB AS REQUIRED TO INSTALL NEW SANITARY PIPING.
- INTERIOR SANITARY, WASTE, AND VENT PIPING:
 - WHERE NOT INSTALLED IN A PLENUM, SANITARY, WASTE, AND VENT PIPING WITHIN BUILDING TO BE SCHEDULE 40 PVC PIPING AND FITTINGS CONFORMING TO ASTM D 2865. SOLDER-WALL DRAIN PIPING WITH PVC SOCKET SOLVENT WELD FITTINGS CONFORMING TO ASTM D2865, MADE TO ASTM D3311, DRAIN, WASTE, AND VENT PATTERNS.
 - WHERE PIPING MUST BE INSTALLED IN A PLENUM, SANITARY, WASTE, AND VENT PIPING WITHIN BUILDING TO BE NO-HUB, CAST-IRON PIPE WITH NO-HUB COUPLINGS CONSISTING OF A STAINLESS STEEL SHIELD, CLAMP, AND NEOPRENE GASKET. COUPLINGS SHALL BE TESTED AND CERTIFIED TO CISPI 310, ASTM C1277, ASTM C564, AND NSF. IDEAL CLAMP PRODUCTS' HEAVY DUTY POWR GEAR (RED SHIELD) COUPLINGS ARE ALSO APPROVED AND ACCEPTABLE. THESE COUPLINGS ARE LISTED WITH NSF INTERNATIONAL AND CONFORM WITH ASTM C1540 PERFORMANCE REQUIREMENTS (SHEAR, DEFLECTION AND UNRESTRAINED THRUST TESTS).

8. NATURAL GAS PIPING SYSTEMS

- REWORK EXISTING GAS METER LOCATION. REFER TO DRAWINGS, COORDINATE WITH DUKE ENERGY FOR POSSIBLE INSTALLATION OF NEW METER GAS PRESSURE THROUGH THE METER SHALL BE 7"W.C.
- INTERIOR AND EXTERIOR GAS PIPING SHALL BE SCHEDULE 40 STEEL PIPE, ASTM A53. PIPING 2" AND UNDER SHALL BE THREADED.
- MALLEABLE-IRON THREADED FITTINGS: ASME B16.3, CLASS 150, STANDARD PATTERN.
- PROVIDE GAS PIPING RUN-OUTS TO ALL GAS-FIRED EQUIPMENT. PIPING SHALL BE INSTALLED FULL-SIZE TO EACH UNITS GAS INLET CONNECTION, BURNER, REGULATOR, ETC. PROVIDE AND INSTALL GAS COCK AND MAKE FINAL CONNECTIONS. CONNECTIONS TO EACH GAS-FIRED EQUIPMENT ITEM SHALL INCLUDE A DRIP LEG AND SHUTOFF GAS COCK. COMPLY WITH EQUIPMENT MANUFACTURER'S INSTRUCTION. FOR CONNECTIONS TO GAS-FIRED ROOFTOP EQUIPMENT, INCLUDE THE ROOF PENETRATION AND INSTALL THE GAS PIPING THROUGH THE ROOF IN A LOCATION THAT HAS BEEN COORDINATED WITH THE MECHANICAL CONTRACTOR.

9. VALVES - GENERAL

- PLUMBING CONTRACTOR SHALL PROVIDE VALVES AS NECESSARY FOR PROPER SYSTEM OPERATION AND COMPONENT ISOLATION. INSTALL VALVES FOR EACH ISOLATED FIXTURE OR GROUP OF FIXTURES, AND EACH CONNECTION TO EQUIPMENT.
 - LOCATE SHUT-OFF VALVES ADJACENT TO EQUIPMENT FOR EASY ACCESS SUCH THAT VALVES CAN BE REACHED WITHOUT MOVING EQUIPMENT.
10. VALVES FOR DOMESTIC WATER
- VALVES FOR DOMESTIC WATER MUST MEET THE REQUIREMENTS OF THE LEAD-FREE LAW S.3874. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE LEAD-FREE PRODUCTS AS MANDATED BY THE LAW AND AS REQUIRED/INTERPRETED BY THE AUTHORITY HAVING JURISDICTION.
 - PROVIDE VALVES FOR WORKING PRESSURE IN WATER PIPING OF 125 PSI OR GREATER.
 - GENERAL DUTY SHUT-OFF BALL VALVES
 - INSULATED TWO-PIECE, FULL PORT, SILICON BRONZE BALL VALVES WITH THE CAPABILITY OF ACCEPTING EXTENDED OPERATING HANDLES (FOR INSULATED PIPING). VALVES SHALL BE NIBCO MODEL T5/SPC-59S-Y-66-LF (-NS) OR EQUAL PRODUCT MANUFACTURED BY AMERICAN VALVE CO, CRANE, HAMMOND, MILWAUKEE, RED-WHITE VALVE CORPORATION, OR WATTS.
 - THERMOSTATIC MIXING VALVES
 - TEMPERED WATER SHALL BE DELIVERED FROM PUBLIC HAND-WASHING FACILITIES (LAVATORIES AND SINKS) THROUGH AN APPROVED WATER-TEMPERATURE LIMITING DEVICE THAT CONFORMS TO ASSE 1070. SET OUTLET TEMPERATURE OF THERMOSTATIC MIXING VALVE TO 110 DEGREES F. POINT-OF USE THERMOSTATIC MIXING VALVES SHALL BE EQUAL TO WATTS SERIES USG-B. ROUTE TEMPERED WATER TO HOT WATER SIDE OF SINK/LAVATORY. ACCEPTABLE MANUFACTURERS INCLUDE SYMONS, LAWLER, LEONARD, POWERS, BRADLEY, AND WATTS.

11. HANGERS & SUPPORTS

- THE PLUMBING CONTRACTOR SHALL FURNISH ALL PIPE SUPPORTS REQUIRED FOR THEIR WORK. ALL SUPPORTS SHALL BE SUPPORTED PER CODE. ADDITIONAL SUPPORTS SHALL BE PROVIDED WHERE REQUIRED TO PREVENT SAGGING, WHERE ALTERNATIVE PIPING MATERIALS ARE USED, HANGER SPACING CAN BE REDUCED AS RECOMMENDED BY THE MANUFACTURER AND WHERE ALLOWED BY CODE.

12. SUPPORT FOR PIPING INSTALLED ON ROOF

- ALL GAS PIPING ON ROOF TO BE SUPPORTED WITH RUBBER, UV-RESISTANT SUPPORT BLOCKS EQUAL TO MIFAB CXW-B.

13. INSULATION

- PROVIDE THERMAL INSULATION ON ALL METALLIC DOMESTIC COLD WATER AND DOMESTIC HOT WATER PIPING WITH SELF-SEALING CLOSED CELL ELASTOMERIC FOAM. PROVIDE A CONTINUOUS VAPOR TIGHT SEAL. INSULATION SHALL BE CONTINUOUS THRU ALL WALLS AND FLOORS. NFPA FIRE HAZARD RATINGS FOR INSULATION, ADHESIVES, SEALERS, AND COATINGS SHALL NOT EXCEED 25 FOR FLAME SPREAD AND 50 FOR SMOKE DEVELOPED, UNLESS OTHERWISE REQUIRED BY THE LOCAL AUTHORITY OR ENERGY CODES. THE MINIMUM INSULATION LEVELS SHALL BE AS FOLLOWS:
 - PROVIDE 1/2" THICK ELASTOMERIC INSULATION ON DOMESTIC COLD WATER PIPING THAT IS REQUIRED TO BE INSULATED.
 - PROVIDE 1" THICK ELASTOMERIC INSULATION ON HOT WATER PIPING.

14. INSULATION FOR HANDICAP ACCESSIBLE FIXTURES (WHERE NOT PROTECTED WITH A SHROUD)

- ALL HANDICAP LAVATORY P-TRAP AND ANGLE STOP ASSEMBLIES SHALL BE INSULATED WITH TRAP WRAP PROTECTIVE KIT MANUFACTURED BY PROFLO MODEL PF202WH OR EQUAL. ABRASION RESISTANT, ANTI-MICROBIAL VINYL EXTERIOR COVER SHALL BE SMOOTH. FOR TRAPS, THE INSULATION SHALL HAVE A CLEANOUT NUT CAP TO ALLOW SERVICE TO THE TRAP WITHOUT DISASSEMBLY. FOR STOPS, THE INSULATION SHALL HAVE A LOCK LID THAT PREVENTS TAMPERING BUT ALLOWS ACCESS WITHOUT REMOVAL OF THE INSULATION. FASTENERS SHALL REMAIN SUBSTANTIALLY OUT OF SIGHT. ACCEPTABLE MANUFACTURERS INCLUDE PROFLO, TRUEBRO, PLUMBEREX, AND DEARBORN.

15. ESCUTCHEON PLATES

- INSTALL ONE PIECE CHROME PLATED BRASS WALL PLATE EQUIPPED WITH SET SCREW AROUND ALL EXPOSED PIPE PASSING THROUGH WALLS IN FINISHED AREAS.

16. ACCESS PANELS

- LOCATE VALVES IN READILY ACCESSIBLE LOCATIONS. WHERE VALVES MUST BE INSTALLED ABOVE NON-ACCESSIBLE CEILINGS, PROVIDE ACCESS PANELS. COORDINATE ACCESS PANEL LOCATIONS WITH THE ARCHITECT.

17. FIRE STOPPING

- PROVIDE FIRE STOPPING AT ALL PENETRATIONS THROUGH RATED SEPARATIONS PER LOCAL CODES & REGULATIONS & PER UL RECOMMENDATIONS FOR ASSEMBLIES ENCOUNTERED IN PROJECT.
 - THE FIRE STOPPING MATERIAL SHALL MEET THE INTEGRITY OF THE FIRE RATED WALL, FLOOR, CEILING & ROOF BEING PENETRATED. REFER TO ARCHITECT'S DRAWINGS FOR WALL, FLOOR, CEILING & ROOF FIRE RATINGS PRIOR TO BIDDING WORK.
18. FLASHING & COUNTERFLASHING
- PROVIDE ROOF FLASHING AND COUNTERFLASHING FOR ALL ROOF PENETRATIONS.
 - OBTAIN APPROVAL FROM GENERAL CONTRACTOR, CONSTRUCTION MANAGER, OWNER AND/OR ROOFING CONTRACTOR PRIOR TO MAKING ANY PENETRATIONS SO THAT WARRANTIES ARE NOT COMPROMISED OR VOIDED.

19. CATHODIC PROTECTION

- PROVIDE DIELECTRIC INSULATION AT POINTS WHERE COPPER OR BRASS PIPE COMES IN CONTACT WITH FERROUS PIPING, REINFORCING STEEL OR OTHER DISSIMILAR METAL IN STRUCTURE.

20. EXCAVATION, TRENCHING & BACKFILL

- DO ALL EXCAVATION, TRENCHING & BACKFILL REQUIRED FOR THE INSTALLATION OF PLUMBING WORK.
- ALL BACKFILL SHALL BE COMPACTED & BROUGHT TO FINISHED GRADE AND SHALL MATCH SURROUNDING CONDITIONS.
- RESTORE ALL DISTURBED FLOORING TO ORIGINAL CONDITION.
- ALL PIPING SHALL BE LAID ON A BED OF SAND, 6" THICK MINIMUM, BACKFILL UNDER BUILDING AND ALL DRIVES, ROADS AND WALKS WITH BANK-RUN GRAVEL.

21. CUTTING AND PATCHING

- CUT AND PATCH WALLS AND FLOORS TO MATCH BUILDING CONSTRUCTION WHERE REQUIRED TO INSTALL ALL PLUMBING.

22. CONNECTIONS

- INSTALL UNIONS AT FINAL CONNECTION TO EACH PIECE OF EQUIPMENT. INSTALL DIELECTRIC COUPLINGS TO CONNECT PIPING MATERIALS OF DISSIMILAR METALS.

23. INSTALLATION

- INSTALL PIPING FREE OF SAGS AND BENDS. INSTALL FITTINGS FOR CHANGES IN DIRECTION AND BRANCH CONNECTIONS. INSTALL SLEEVES FOR PIPES PASSING THROUGH CONCRETE AND MASONRY WALLS. GYPSUM-BOARD PARTITIONS, CONCRETE FLOOR, AND ROOF SLABS, SEAL PIPE PENETRATIONS THROUGH RATED CONSTRUCTION WITH FIRESTOPPING SEALANT MATERIAL. UNDERGROUND WATER AND SEWER LINES SHALL BE LAID IN SEPARATE TRENCHES WITH A MINIMUM HORIZONTAL SPACING AS REQUIRED BY CODE, EXCAVATED TO THE PROPER DEPTH AND GRADED TO PRODUCE THE REQUIRED FALL.

24. TESTING

- ALL PLUMBING WORK SHALL BE TESTED & APPROVED BY INSPECTOR PRIOR TO BEING BACKFILLED, CONCEALED & PUT INTO SERVICE. AFTER TESTING IS COMPLETE & APPROVED, THE PLUMBING CONTRACTOR SHALL DISINFECT THE POTABLE WATER SYSTEM AS REQUIRED BY LOCAL AUTHORITY. TEST WATER PURITY ACCORDING TO LOCAL REQUIREMENTS AND SUBMIT CERTIFIED TEST RESULTS TO OWNER FOR REVIEW AND APPROVAL.

25. SHOP DRAWINGS

- SUBMIT TO THE ARCHITECT PDF FILE COPIES OF COMPLETE & CERTIFIED SHOP DRAWINGS, DESCRIPTIVE DATA, PERFORMANCE DATA & RATINGS, DIAGRAMS AND SPECIFICATIONS ON ALL SPECIFIED EQUIPMENT, INCLUDING ACCESSORIES, AND MATERIALS FOR REVIEW.
- THE MAKE, MODEL NUMBER, TYPE, FINISH & ACCESSORIES OF ALL EQUIPMENT AND MATERIALS SHALL BE REVIEWED & APPROVED BY THE PLUMBING CONTRACTOR & GENERAL CONTRACTOR PRIOR TO SUBMITTING TO THE ARCHITECT FOR THEIR REVIEW & APPROVAL.
- REVIEW OF SHOP DRAWINGS DOES NOT RELIEVE THE PLUMBING CONTRACTOR/VENDOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT DRAWINGS, SPECIFICATIONS & APPLICABLE CODES.

26. OWNER'S INSTRUCTIONS

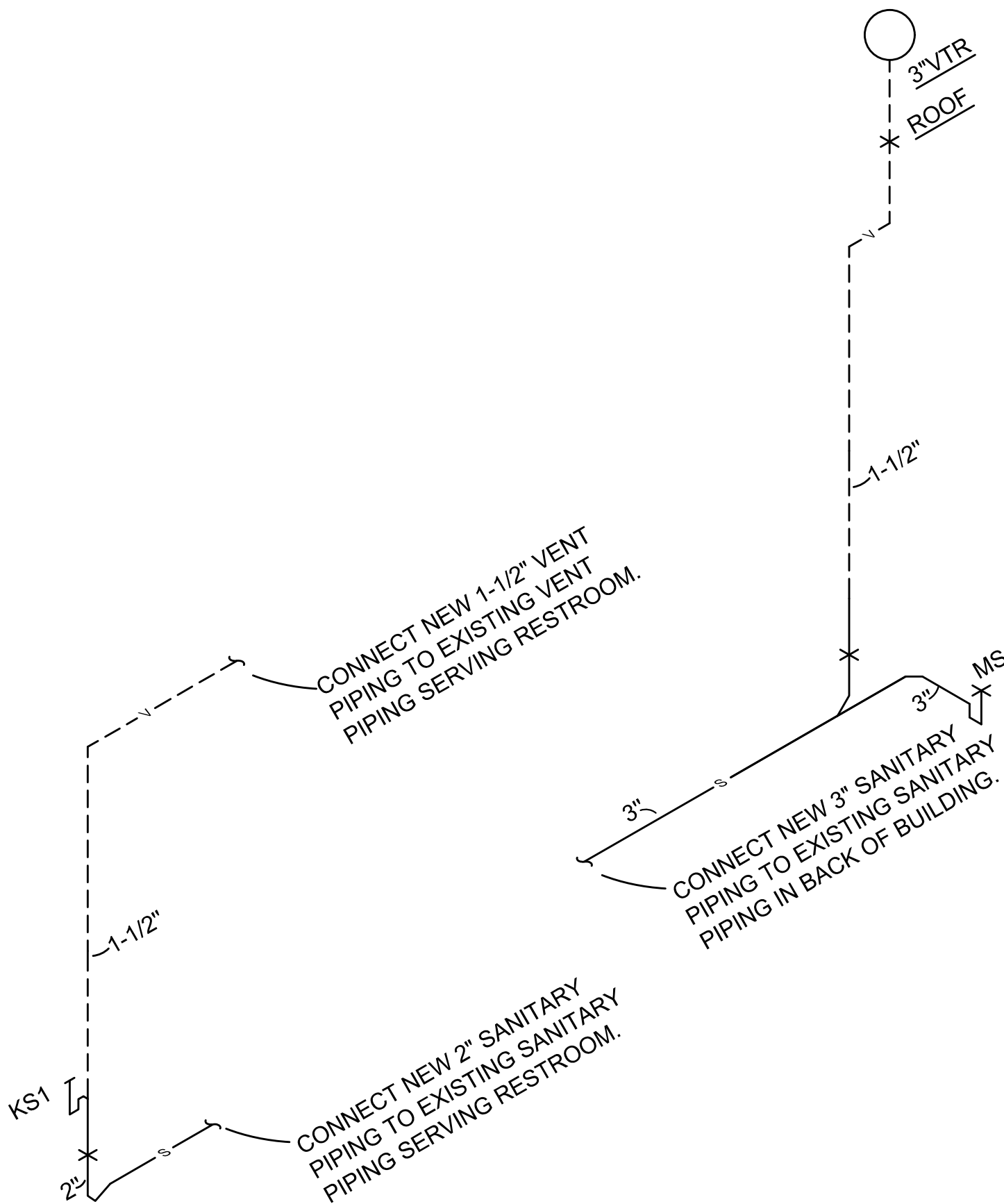
- PROVIDE TWO SETS OF COMPLETE OPERATING AND MAINTENANCE INSTRUCTIONS WITH DRAWINGS. TYPEWRITTEN INSTRUCTIONS AND OPERATING SEQUENCES AND DESCRIPTIVE DATA SHEETS, ASSEMBLE EACH SET IN A HARD-BOUND COVER.

27. WARRANTY

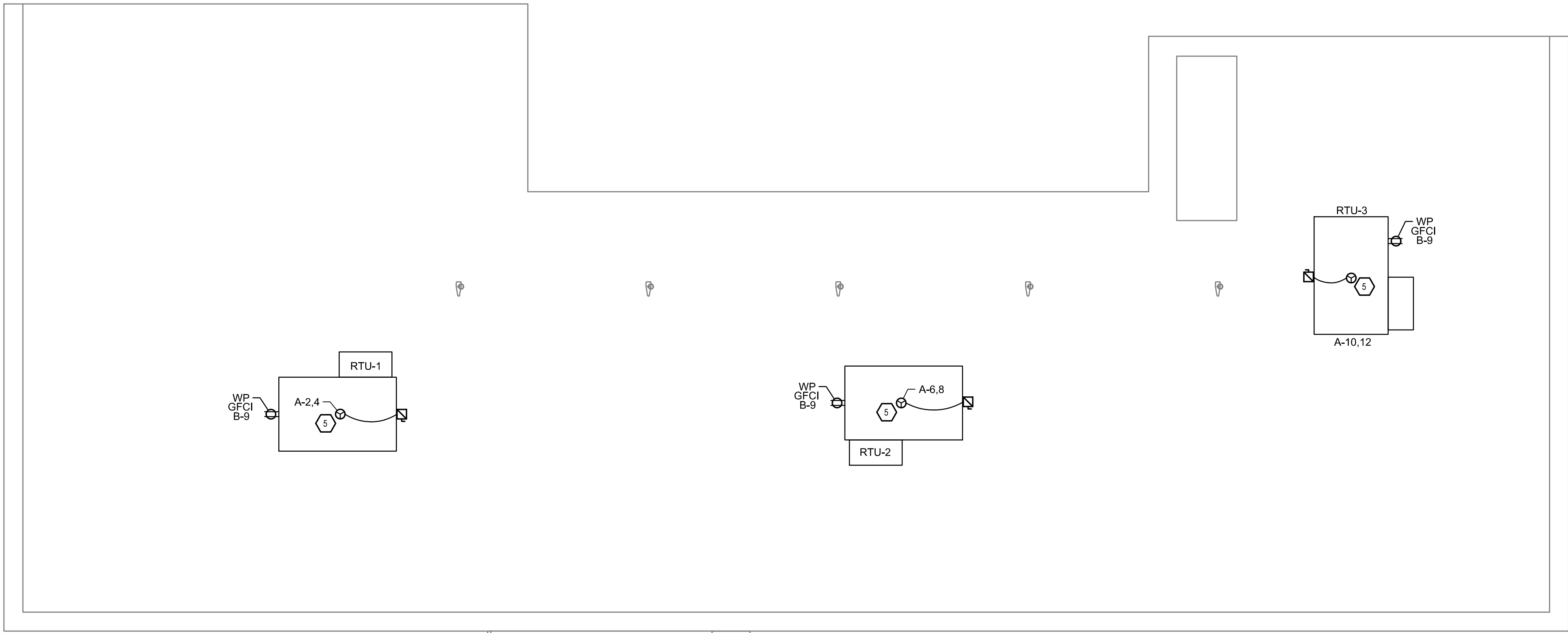
- THE PLUMBING CONTRACTOR SHALL UNCONDITIONALLY WARRANT ALL WORK TO BE FREE OF DEFECTS IN EQUIPMENT, MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE BY OWNER AND THE PLUMBING CONTRACTOR WILL REPAIR OR REPLACE ANY DEFECTIVE WORK PROMPTLY AND WITHOUT CHARGE TO THE OWNER.
 - RESTORE ANY OTHER EXISTING WORK DAMAGED IN THE COURSE OF REPAIRING DEFECTIVE EQUIPMENT, MATERIALS AND WORKMANSHIP.
- END OF DIVISION 22 - PLUMBING

PLUMBING LEGEND	
SYMBOL	DESCRIPTION
—CW—	COLD WATER PIPING
—HW—	HOT WATER PIPING
—G—	NATURAL GAS PIPING
	BALL VALVE
HB H	HOSE BIBB

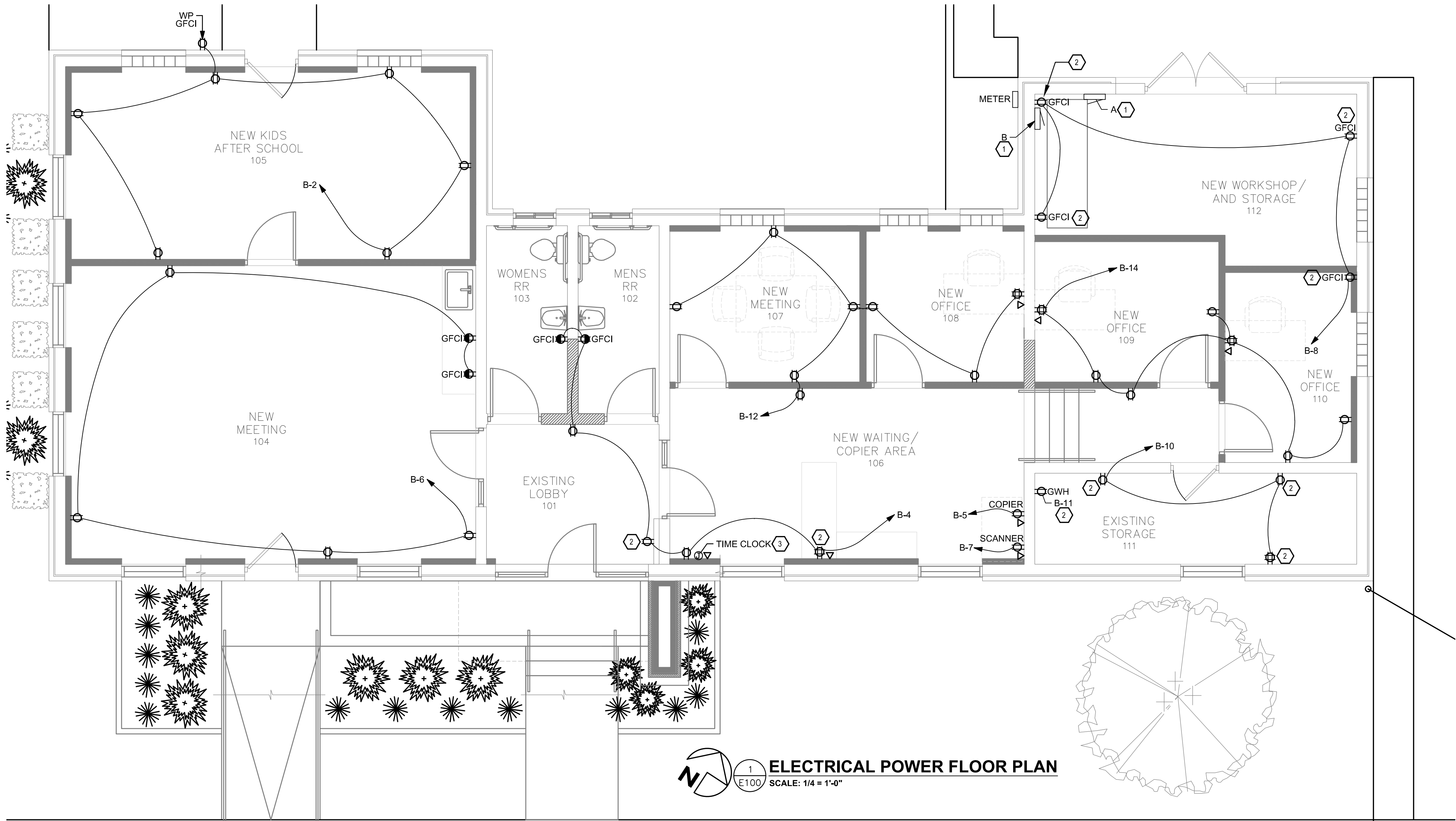
PLUMBING EQUIPMENT AND FIXTURE SCHEDULE	
WC- TANK TYPE FLOOR SET WATER CLOSET; SHALL BE A KOHLER K-3519-T-O 1.0 GPF ADA OR APPROVED EQUAL.	
LV- WALL HUNG ADA LAVATORY; KOHLER GREEN/WHICH K-2030-0 3 HOLE CHINA LAVATORY WITH KOHLER CORALAS K-15198-4RA-CP SINGLE LEVER FAUCET OR APPROVED EQUAL.	
KS1- COUNTERTOP SINK; PROFLO PFSR2521553C 25 X 21 3 HOLE SELF RIMMING, WITH PROFLO PFXC8880LSCP CHROME FAUCET OR APPROVED EQUAL.	
MS- MOP SINK; FIAT MSB2424 MOLDED STONE MOP SERVICE BASIN WITH FIAT 830AA SERVICE SINK FAUCET OR APPROVED EQUAL.	



\\Server2\els\Project Directories\7400 -7499\7476- Marianna Terrace Maintenance Building\Construction Documents\7476-E100-ELECTRICAL-POWER-FLOOR-PLAN.dwg - EBS. Plot Date/Time: Mar 02, 2020 - 2:46pm - By: scott.fritz
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ELECTRICAL POWER ROOF PLAN
SCALE: 1/4" = 1'-0"



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

SCOPE OF WORK

THIS PROJECT INCLUDES THE RENOVATION OF AN EXISTING MAINTENANCE FACILITY. PROJECT TO INCLUDE ALL NEW POWER AND LIGHTING. ELECTRICAL DISTRIBUTION EQUIPMENT IS EXISTING TO REMAIN. SEE SINGLE LINE AND PANEL SCHEDULE FOR MORE INFORMATION.

GENERAL NOTES-POWER

- ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL CONDUIT/CABLE ROUTING. COORDINATE ROUTING WITH ALL OTHER TRADES AND BUILDING CONDITIONS.
- SEE SINGLE LINE DIAGRAM FOR FEEDER WIRE AND CONDUIT SIZE. ALL CIRCUITS NOT SIZED ON DRAWING SHALL BE INSTALLED TO MEET MINIMUM SIZE REQUIRED BY NEC.
- PROVIDE MOTOR STARTERS FOR EQUIPMENT AS INDICATED ON DRAWINGS. COORDINATE ANY INTERLOCKING WIRING WITH HVAC CONTRACTOR AND PROVIDE WIRING, COILS, AND AUXILIARY CONTACTS AS NECESSARY. SIZE ALL CIRCUITS FOR ACTUAL EQUIPMENT TO BE CONNECTED.
- ALL PANELS AND DISCONNECTS LOCATED OUTDOORS SHALL BE LABELED NEMA 3R.
- ROOF MOUNTED AND OUTDOOR EQUIPMENT SHALL HAVE 120V RECEPTACLE MOUNTED WITHIN 25' OF EACH PIECE. RECEPTACLES SHALL BE IN WEATHER PROOF BOX AND HAVE GFCI PROTECTION.
- PROVIDE HACR RATED BREAKERS ON HVAC EQUIPMENT ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- REFER TO ARCHITECT'S PLANS AND ELEVATIONS FOR ALL DEVICE MOUNTING HEIGHTS.
- CONTRACTOR TO PROVIDE GROUNDING AND BONDING AS REQUIRED FOR ELECTRICAL SYSTEMS. GROUNDING AND BONDING IS CONSIDERED MEANS AND METHODS OF CONSTRUCTION, AND SHOULD BE COMPLETED BY THE ELECTRICAL CONTRACTOR IN ACCORDANCE WITH NEC 250. GAS PIPING SYSTEMS MUST BE BONDED PER UTILITY PROVIDER'S INSTALLATION GUIDELINES WHERE REQUIRED.

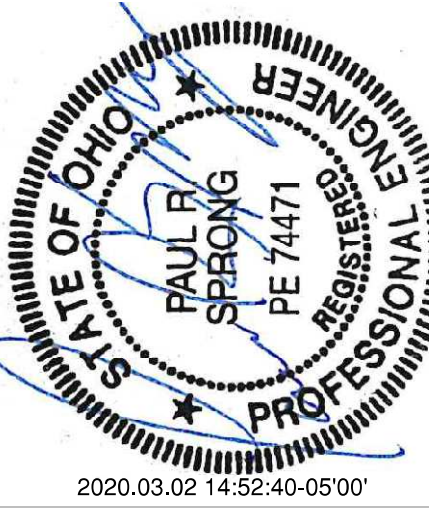
DEMO NOTES

- CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF ALL EXISTING BUILDING CONDITIONS PRIOR TO ANY DEMOLITION/NEW WORK PERFORMED. COORDINATE ALL WORK WITH OTHER BUILDING TRADES. REPORT ANY MAJOR DISCREPANCIES TO ENGINEER PRIOR TO BEGINNING WORK. ACTUAL DEMOLITION AMOUNT SHALL BE BASED ON FIELD VISIT BY CONTRACTOR.
- ALL NECESSARY SHUT DOWN OF POWER MUST BE SCHEDULED SO AS NOT TO DISTURB OPERATION.
- CONTRACTOR SHALL RETURN ALL DEMOLITION EQUIPMENT TO OWNER'S REPRESENTATIVE FOR SALVAGE, OR REMOVE FROM PREMISES AT OWNERS OPTION.
- CONTRACTOR SHALL DISCONNECT ALL POWER AND LOW VOLTAGE WIRING FROM EQUIPMENT BEING REMOVED BY OTHER TRADES.
- REMOVE ALL ELIMINATED CONDUIT AND WIRE FROM PROJECT AREA. PROVIDE FIRE STOPPING WHERE REQUIRED. ALL ABANDONED CONDUIT, AND DEVICES ENCASED IN CONCRETE SHALL BE CUT BACK FLUSH WITH SLAB. PATCH CONCRETE LEVEL WITH EXISTING SLAB.
- ALL CIRCUITS SHALL BE VERIFIED BY CONTRACTOR PRIOR TO DEMOLITION. ALL EXISTING CIRCUITS TO ITEMS TO REMAIN IN SERVICE SHALL BE MAINTAINED. ALL RELOCATING AND REROUTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- PRIOR TO DEMOLITION, FIELD VERIFY EXACT SIZE AND ROUTING OF ALL EXISTING WIRING TO BE ENCOUNTERED. CONTRACTOR SHALL REMOVE ALL ABANDONED OR UNUSED WIRING WITHIN HIS SCOPE OF WORK AND TERMINATE PROPERLY. ANY ACTIVE WIRING DISTURBED BY THIS WORK SHALL BE RECONNECTED PRIOR TO PROJECT CLOSEOUT.
- ALL EQUIPMENT AND RECEPTACLE CIRCUITS BEING ELIMINATED IN DEMO TO BE REMOVED BACK TO SOURCE UNLESS OTHERWISE NOTED.
- ALL LIGHTING CIRCUITS ELIMINATED IN DEMO TO BE REMOVED BACK TO SOURCE. RETAIN ALL FIXTURES FOR USE IN EXPANSION AREAS OR DISPOSAL BY OWNER.

KEYED SHEET NOTES - POWER

- EXISTING ELECTRICAL PANEL (SQUARE D "QO") TO REMAIN. REUSE EXISTING CONDUIT FOR NEW RENOVATION. VERIFY ALL PARTS AND PIECES ARE IN GOOD WORKING CONDITION. IF NOT LET GENERAL CONTRACTOR AND OWNER KNOW IF THERE ARE ANY BROKEN OR MISSING PARTS.
- EXISTING ELECTRICAL DEVICE LOCATION TO REMAIN. REPLACE WITH NEW DEVICE. REUSE EXISTING CONDUIT AND BOX FOR NEW RENOVATION. VERIFY ALL PARTS AND PIECES ARE IN GOOD WORKING CONDITION AND WILL WORK FOR NEW DEVICE. IF NOT LET GENERAL CONTRACTOR AND OWNER KNOW IF THERE ARE ANY BROKEN OR MISSING PARTS.
- EXISTING TIME CLOCK LOCATION. REMOVE DATA LINE AND TIME CLOCK AND MOVE TO NEW LOCATION. SEE KEYED NOTE #4.
- NEW TIME CLOCK LOCATION. PROVIDE CAT 6 DATA LINE TO THIS LOCATION. VERIFY MOUNTING HEIGHT WITH OWNER AND ARCHITECT.
- MECHANICAL EQUIPMENT PROVIDED BY THE MECHANICAL CONTRACTOR. 120/240 VOLT WIRING PROVIDED AND CONNECTED BY THE ELECTRICAL CONTRACTOR.

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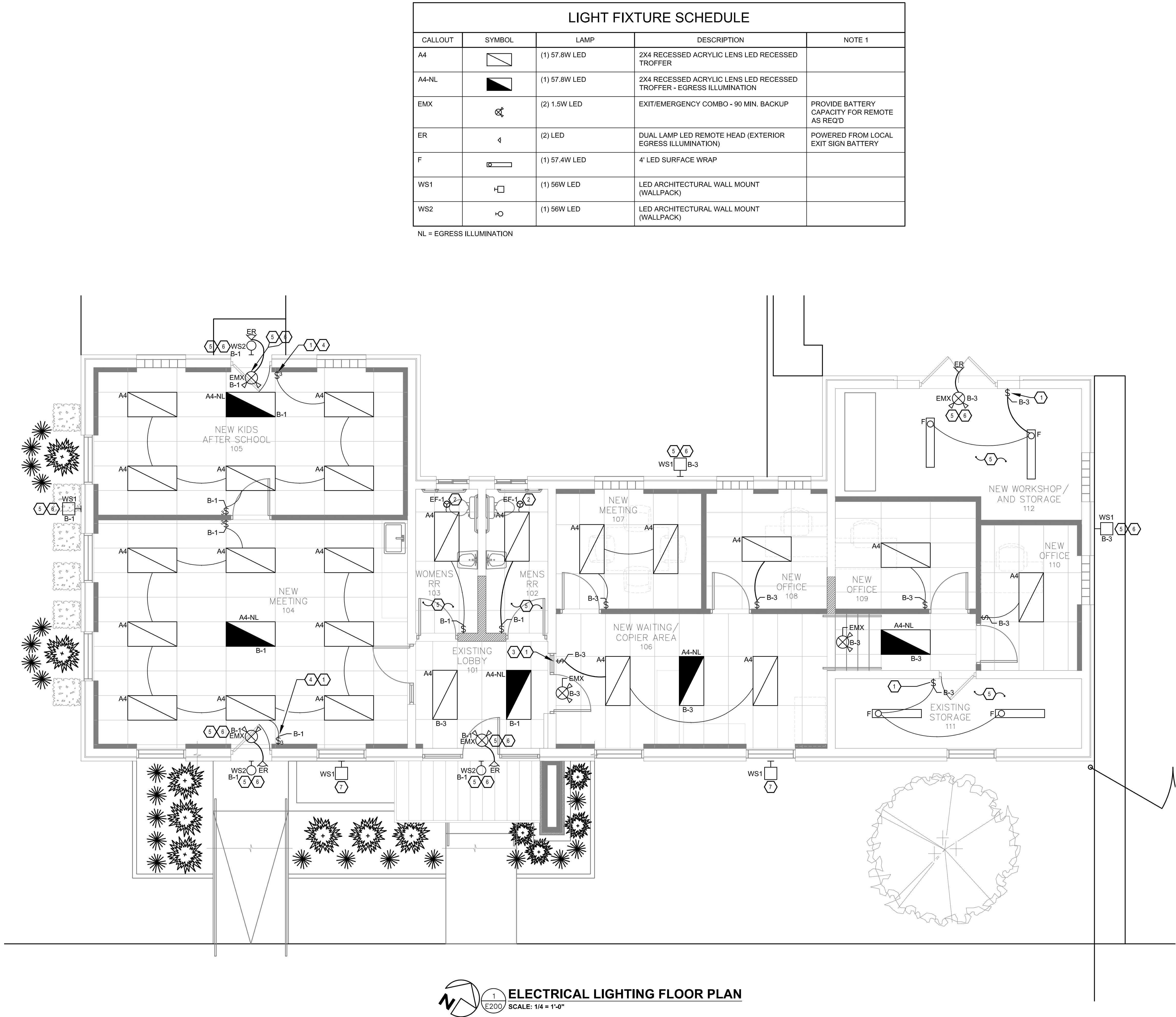
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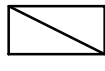



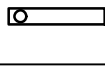

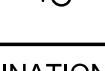
**ELECTRICAL
POWER PLAN**

E100

\\Server2\elsa\Project Directories\7400 -7499\7476- Marianna Terrace Maintenance Building\Construction Documents\7476-E200-ELECTRICAL-LIGHTING-FLOOR-PLAN.dwg - EBS, Plot Date/Time: Mar 02, 2020 -2:46pm - By: scott.fritz
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 **1**
E200 **ELECTRICAL LIGHTING FLOOR PLAN**
SCALE: 1/4" = 1'-0"

LIGHT FIXTURE SCHEDULE				
CALLOUT	SYMBOL	LAMP	DESCRIPTION	NOTE 1
A4		(1) 57.8W LED	2X4 RECESSED ACRYLIC LENS LED RECESSED TROFFER	
A4-NL		(1) 57.8W LED	2X4 RECESSED ACRYLIC LENS LED RECESSED TROFFER - EGRESS ILLUMINATION	
EMX		(2) 1.5W LED	EXIT/EMERGENCY COMBO - 90 MIN. BACKUP	PROVIDE BATTERY CAPACITY FOR REMOTE AS REQ'D
ER		(2) LED	DUAL LAMP LED REMOTE HEAD (EXTERIOR EGRESS ILLUMINATION)	POWERED FROM LOCAL EXIT SIGN BATTERY
F		(1) 57.4W LED	4' LED SURFACE WRAP	
WS1		(1) 56W LED	LED ARCHITECTURAL WALL MOUNT (WALLPACK)	
WS2		(1) 56W LED	LED ARCHITECTURAL WALL MOUNT (WALLPACK)	

NL = EGRESS ILLUMINATION

SCOPE OF WORK

THIS PROJECT INCLUDES THE RENOVATION OF AN EXISTING MAINTENANCE FACILITY. PROJECT TO INCLUDE ALL NEW POWER AND LIGHTING. ELECTRICAL DISTRIBUTION EQUIPMENT IS EXISTING TO REMAIN. SEE SINGLE LINE AND PANEL SCHEDULE FOR MORE INFORMATION.

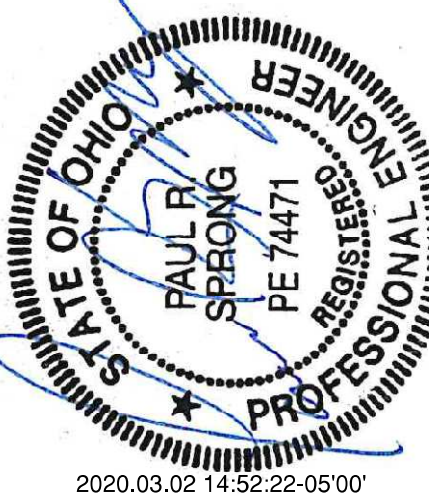
GENERAL NOTES-LIGHTING

- REFER TO ARCHITECT'S PLANS AND ELEVATIONS FOR DIMENSIONED LOCATIONS OF LIGHT FIXTURES.
- PROVIDE HOLD-ON-TYPE BREAKERS FOR EGRESS/EMERGENCY LIGHTING CIRCUITS. WIRE ALL EGRESS/EMERGENCY FIXTURES AHEAD OF ANY LOCAL SWITCHING.
- LIGHT FIXTURES CONTROLLED BY SWITCH IN SAME ROOM UNLESS OTHERWISE NOTED.
- WHERE DIMMERS AND/OR DIMMING SYSTEMS ARE REQUIRED, CONTRACTOR TO FURNISH DIMMERS THAT ARE COMPATIBLE WITH FIXTURE SOURCE AND RATED FOR THE WATTAGE OF THE DIMMING ZONE. PROVIDE ADDITIONAL DIMMERS AS REQUIRED TO MEET ZONE LOAD REQUIREMENTS.

KEYED SHEET NOTES - LIGHTING

- EXISTING ELECTRICAL DEVICE LOCATION TO REMAIN. REPLACE WITH NEW DEVICE, REUSE EXISTING CONDUIT AND BOX FOR NEW RENOVATION. VERIFY ALL PARTS AND PIECES ARE IN GOOD WORKING CONDITION AND WILL WORK FOR NEW DEVICE. IF NOT LET GENERAL CONTRACTOR AND OWNER KNOW IF THERE ARE ANY BROKEN OR MISSING PARTS.
- MECHANICAL EQUIPMENT PROVIDED BY THE MECHANICAL CONTRACTOR. 120/240 VOLT WIRING PROVIDED AND CONNECTED BY THE ELECTRICAL CONTRACTOR.
- CHANGE FROM SINGLE GANG BOX TO 2 GANG BOX.
- CHANGE FROM 2 GANG SWITCH TO SINGLE GANG SWITCH.
- REPLACE EXISTING LIGHTING WITH NEW LED.
- EXISTING ELECTRICAL LIGHTING LOCATION TO REMAIN. REPLACE WITH NEW LIGHT, REUSE EXISTING CONDUIT AND BOX FOR NEW RENOVATION. VERIFY ALL PARTS AND PIECES ARE IN GOOD WORKING CONDITION AND WILL WORK FOR NEW DEVICE. IF NOT LET GENERAL CONTRACTOR AND OWNER KNOW IF THERE ARE ANY BROKEN OR MISSING PARTS.
- REMOVE EXISTING LIGHT, REMOVE WIRING BACK TO SOURCE.

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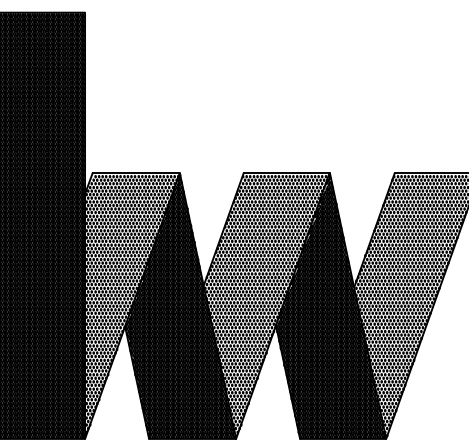
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ELECTRICAL
LIGHTING PLAN

E200

Panel

A

ROOM MOUNTING
FED FROM
NOTE

FLUSH
UTILITY

VOLTS 240/120V
BUS AMPS 200
NEUTRAL 100%

2P 3W

AIC
MAIN
LUGS

EXISTING
BKR 200
STANDARD

CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION	CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	100/2	13.4	PANEL B	a 2	30/2	5.52	RTU-1
3				b 4			
5	20/1	0	SPACE	a 6	30/2	5.21	RTU-2
7	20/1	0	SPACE	b 8			
9	20/1	0	SPACE	a 10	30/2	4.66	RTU-3
11	20/1	0	SPACE	b 12			
13	20/1	0	SPACE	a 14	20/1	0	SPACE
15	20/1	0	SPACE	b 16	20/1	0	SPACE
17	20/1	0	SPACE	a 18	20/1	0	SPACE
19	20/1	0	SPACE	b 20	20/1	0	SPACE
21	20/1	0	SPACE	a 22	20/1	0	SPACE
23	20/1	0	SPACE	b 24	20/1	0	SPACE
25	20/1	0	SPACE	a 26	20/1	0	SPACE
27	20/1	0	SPACE	b 28	20/1	0	SPACE
29	20/1	0	SPACE	a 30	20/1	0	SPACE

	CONN KVA	CALC KVA		CONN KVA	CALC KVA
LIGHTING	2.2	2.75 (125%)	MOTORS	0.2	0.2 (100%)
LARGEST MOTOR	5.52	1.38 (25%)	RECEPTACLES	11	10.5 (50%>10)
			HEATING	15.4	15.4 (100%)
			COOLING	15.4	0 (0%)
			TOTAL LOAD		30.2
			BALANCED AMPS		126
			PHASE A		107%
			PHASE B		93.1%

Panel

B

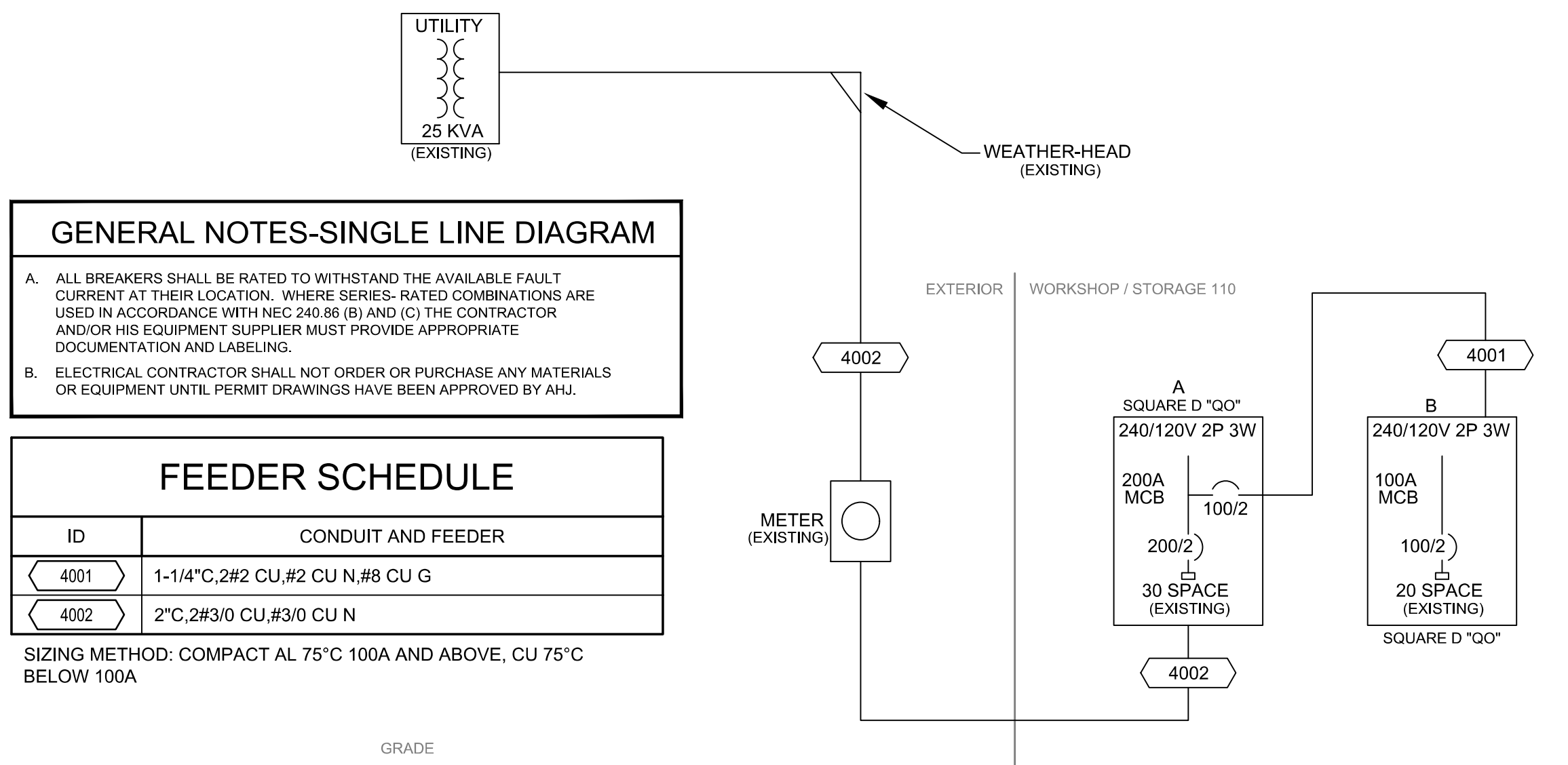
ROOM
MOUNTING FLUSH
FED FROM A
NOTE

VOLTS 240/120V
BUS AMPS 100
NEUTRAL 100%

AIC
EXISTING
MAIN BKR 100
LUGS STANDARD

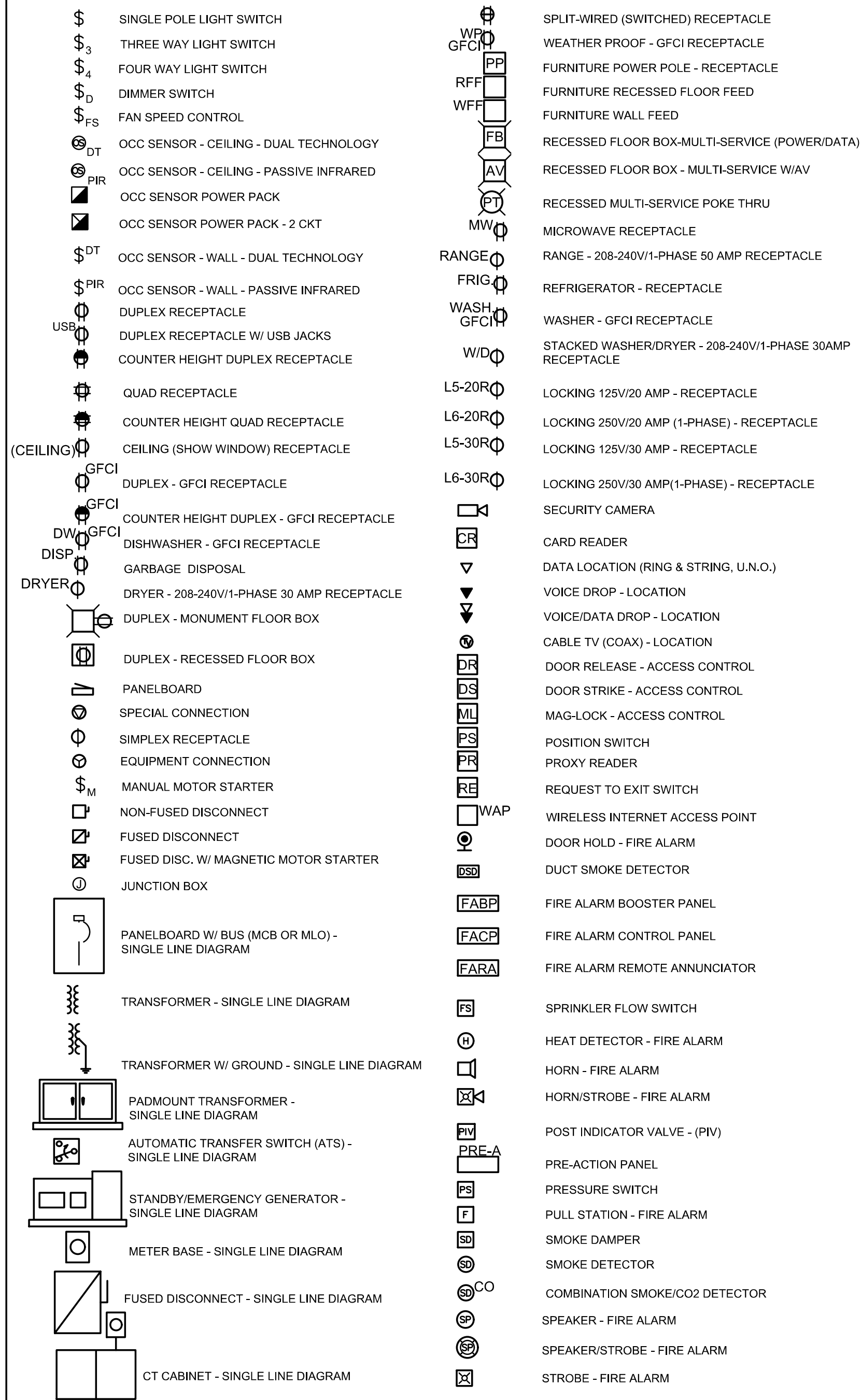
CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION	CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION	
1	20/1	1.47	EF-1, LIGHTING	a	2	20/1	1.26	RECEPTACLE
3	20/1	0.929	LIGHTING	b	4	20/1	1.26	RECEPTACLE
5	20/1	1	COPIER	a	6	20/1	1.08	RECEPTACLE
7	20/1	1	SCANNER	b	8	20/1	0.72	RECEPTACLE
9	20/1	0.54	RECEPTACLE	a	10	20/1	0.72	RECEPTACLE
11	20/1	0.18	GWH	b	12	20/1	1.62	RECEPTACLE
13	20/1	0	SPACE	a	14	20/1	1.62	RECEPTACLE
15	20/1	0	SPACE	b	16	20/1	0	SPACE
17	20/1	0	SPACE	a	18	20/1	0	SPACE
19	20/1	0	SPACE	b	20	20/1	0	SPACE

	CONN KVA	CALC KVA		CONN KVA	CALC KVA	
LIGHTING	2.2	2.75	(125%)	LARGEST MOTOR	0.1	0.025 (25%)
				MOTORS	0.2	0.2 (100%)
				RECEPTACLES	11	10.5 (50%>10)
				TOTAL LOAD		13.5
				BALANCED AMPS		56.2
				PHASE A		115%
				PHASE B		85.2%



ELECTRICAL LEGEND

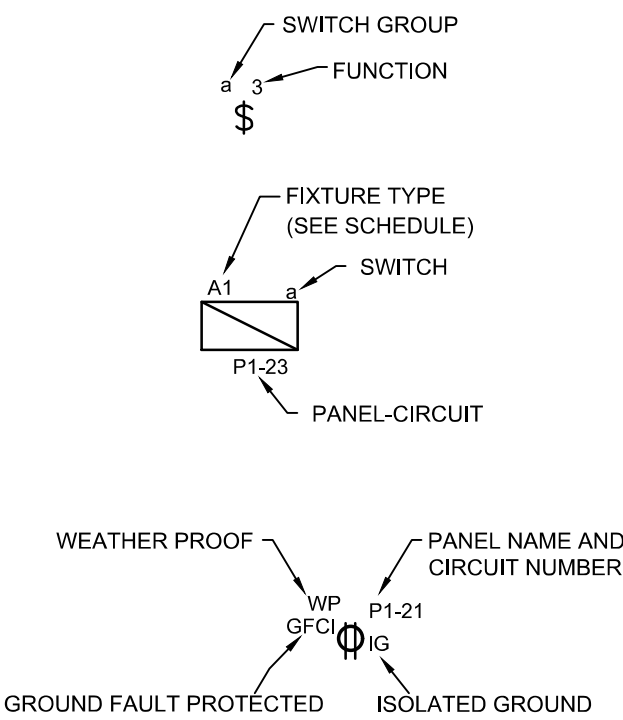
*SEE LIGHT FIXTURE SCHEDULE FOR FIXTURE TYPES.



ABBREVIATIONS

#	Number	IG	Isolated Ground
Ω	Ohm	IMC	Intermediate Metal Conduit
Φ	Phase	KCMIL	Kilohm Circular Mills
A	Ampere	KVA	Kilovolt-Ampere
AC	Alternating Current	LFMC	Liquid Tight Flexible Metal Conduit
A/C	Air Conditioning	LTG	Lighting
AFCI	Arc Fault Circuit Interrupter	LRA	Lock Rotor Amps
AFB	ABOVE FINISHED FLOOR	MC	Metal Clad Cable
AHU	Air Handling Unit	MCB	Main Circuit Breaker
AIC	Ampere Interrupting Capacity	MCC	Motor Control Center
Al	Aluminum	MLO	Main Lugs Only
ATS	Automatic Transfer Switch	N	Normally Closed
ATC	Automatic Temperature Control	NEC	National Electrical Code
AWG	American Wire Gauge	NEMA	National Electrical Manufacturers Association
BTU	British Thermal Units	NFPA	National Fire Protection Association
C	Conduit	NL	Not Light (EGRESS ILLUMINATION)
CATV	Cable Television	NO	Normally Open
CB	Critical Branch	NTS	NOT TO SCALE
C/B	Circuit Breaker	P	Pole
CKT	Circuit	PB	Push Button or Panic Button or Pull Box
CKTV	Closed Circuit Television	PNL	Panel
CT	Current Transformer	PWR	Power
DC	Direct Current	QTY	Quantity
DIA	Diameter	REQ	Required
E	Electrical Contractor	RMC	Rigid Metal Conduit
EF	Exhaust Fan	RNC	Rigid Non-Metallic Conduit
ELEV	Elevator	RTU	Roof Top Unit
EM	Emergency	ST	Shunt Trip
EMT	Electrical Metallic Tubing	SW	Switch
EPO	Emergency Power Off (Button or Switch)	TSTAT	THERMOSTAT
ENC	Electric Water Cooler	Typ	TYPICAL
FA	Fire Alarm	UG	Under Ground
FAL	Fire Alarm Annunciator	UL	Underwriters Laboratory
FLL	Full Load Amperes	V	UNLESS NOTED OTHERWISE
FMC	Flexible Metal Conduit	V	Volt
GFCI	Ground Fault Circuit Interrupter	VA	Volt-Ampere
GND	Ground	W	Watt or Wire
HOA	Hand-Off-Automatic Switch	WH	Water Heater
HVAC	Heating, Ventilation, Air Conditioning	WP	Weather Proof
		XFMR	Transformer

EXAMPLES

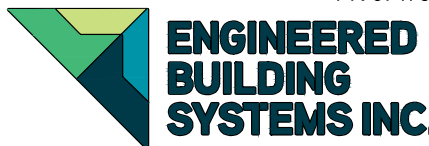


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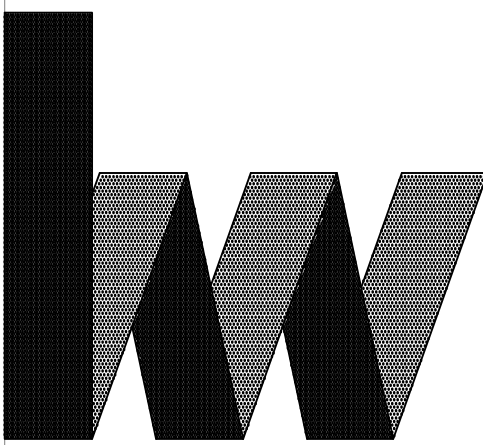
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ELECTRICAL DETAILS

E300