

### COMMUNITY DEVELOPMENT DEPARTMENT

45175 Ten Mile Road Novi, MI 48375 (248) 347-0415 Phone (248) 735-5600 Facsimile www.cityofnovi.org

# ZONING BOARD OF APPEALS STAFF REPORT

FOR: City of Novi Zoning Board of Appeals ZONING BOARD APPEALS DATE: January 9, 2023

REGARDING: 43455 Ten Mile Road, Parcel # 50-22-27-200-003 (PZ23-0066)

**BY:** Alan Hall, Deputy Director Community Development

### **GENERAL INFORMATION:**

### **Applicant**

Primrose & Swim School

### Variance Type

**Dimensional Variance** 

### **Property Characteristics**

Zoning District: This property is zoned Office Service (OS-1)

Location: south of Ten Mile Road, west of Novi Road

Parcel #: 50-22-27-200-003

### Request

The applicant is requesting variances from the City of Novi Zoning Ordinance Section 3.1.12.D for a reduction in required side yard parking setbacks to 0 ft. (10 ft. minimum, a variance of 10 ft.). This variance will enable a proposed lot-split in which the proposed parking lot will be divided between the new parcels.

### **II. STAFF COMMENTS:**

<u>Background:</u> This property is where "Whitehall Healthcare Center of Novi" was previously located. The existing building is scheduled to be demolished and two new buildings are proposed to be constructed. The new site plan proposes that the existing parcel (50-22-27-200-003) is to be split into two separate lots so each new building will be positioned in its own lot while sharing parking and road access with each other.

The applicant is seeking a zero-lot line side yard setback variance for both newly created parcels located along the new lot-split property line. Both newly created parcels would require this variance so the lot-split could be recorded as designed.

### III. RECOMMENDATION:

The Zoning Board of Appeals may take one of the following actions:

1.	I m	iove					variance , for						ught	-
	beca	use	Pet	etitioner ha		has	has shown		practical		difficult	:y 	requirii	
	(6	(a) Without the variance Petitioner will be unreasonably prevented or limited with respect to use of the property because												
	(b) The property is unique because													
	(0	c) Pet 	itioner	did n	ot creat	e the (	condition be	caus	se					·
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2.	I mo				=						PZ23-0066,	_	-
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	(b)	The	circur	nstan		featu	res of the				o the variand		
	(c)		omic	or	financ	cial	result in m return b	iere i ased	nconver on	nience Petiti	or inability to oners state	attain hi	igher that
	(d)		varia	nce v	would i	esult	in interfe	rence	e with	the a	adjacent and	surrour	nding
	(e)		_		riance w	ould b		ent v	vith the	spirit	and intent of		

Should you have any further questions with regards to the matter please feel free to contact me at (248) 347-0423.

Alan Hall – Deputy Director Community Development - City of Novi





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# ZONING BOARD OF APPEALS APPLICATION

NOV 2 2 2023

GITY OF NOVI COMMUNITY DEVELOPMENT

### APPLICATION MUST BE FILLED OUT COMPLETELY

I. PROPERTY INFORMATION (Add	ress of subject ZBA Co	rsel	Application Fee:	33000
PROJECT NAME / SUBDIVISION				
Primrose & Swim School - 10 Mile	Road		Meeting Date:	- 9-24
ADDRESS 43455 W. 10 Mile Road, Novi, MI 4	18375	LOT/SIDTE/SPACE #		
SIDWELL #	May be ob	otain from Assessing 7	IBA Case #: PZ	<u>.3-006</u> 6
50-22-2/ _2UU _UUS		ent (248) 347-0485		
CROSS ROADS OF PROPERTY TU Mile Road & Novi Koad IS THE PROPERTY WITHIN A HOMEOWNER'S ASS	OCUTION HIDIODIOTIONS	1	<u> </u>	
YES VINO	OCIATION JURISDICTION?	REQUEST IS FOR:	AEDOLAL TIVA CANT DE	ODEDTY TICKLAGE
	SIGE OF VIOLATION OF G	9		OPERIT LI SIGNAGE
II. APPLICANT INFORMATION	TICE OF VIOLATION OR C	CITATION ISSUED? YE	S MENO	
	EMAIL ADDRESS		CELL PHONE NO.	
A. APPLICANT	samantha@814cre	e.com	(734) 260-6820	
NAME			TELEPHONE NO.	
Samantha Kozlowski, Developmer ORGANIZATION/COMPANY	nt Manager		(248) 817-1691	
814 SERVICES, LLC			FAX NO. N/A	
ADDRESS		CITY	STATE	ZIP CODE
1695 Twelve Mile Road, Suite 100		Berkley	MI	48072
	ERE IF APPLICANT IS ALSO	THE PROPERTY OWNER	2	
Identify the person or organization that owns the subject property:	reed@814cre.com	1	(734) 260-6820	
NAME	10000014010.0011		TELEPHONE NO.	
Reed Fenton, Manager			(248) 817-1691	
ORGANIZATION/COMPANY EIG14T MI PARTNERSHIP, LLC			FAX NO. <b>N/A</b>	
ADDRESS		CITY	STATE	ZIP CODE
1695 Twelve Mile Road, Suite 100		Berkley	MI	48072
III. ZONING INFORMATION		The state of the s		
A. ZONING DISTRICT			<b>□</b>	
	□ R-3 □ R-4		□ MH	
B. VARIANCE REQUESTED	□ TC □ TC-1	✓ OTHER OSC-1		
INDICATE ORDINANCE SECTION (S) AND	VARIANCE REQUESTED:			
0.4.04		Parking Setbacks (Interio	or Sides Fast and We	est)
	/ariance requested	T diffing Colodono (Intorio	n oldoo East alla 110	,,,,,
2. Section\				
	/ariance requested			
4. Section\	/ariance requested			<del></del>
IV. FEES AND DRAWNINGS				
A. FEES				
$\square$ Single Family Residential (Existing	g) \$220 🗌 (With Viola	tion) \$275 🗌 Single Famil	ly Residential (New) \$	275
Multiple/Commercial/Industrial:	\$330 🔲 (With Viola	tion) \$440 🗌 Signs \$330	$\square$ (With Violation) \$	440
☐ House Moves \$330	☐ Special Me	eetings (At discretion of Bo	ard) \$660	
	TAL COPY SUBMITTED	AS A PDF		
<ul><li>Dimensioned Drawings and Plans</li><li>Site/Plot Plan</li></ul>		<ul><li>Existing &amp; proposed</li><li>Location of existing</li></ul>		
Existing or proposed buildings or compared buildings.	addition on the prope	rty • Floor plans & elevat	ions	applicable
<ul> <li>Number &amp; location of all on-site p</li> </ul>	arking, if applicable	Any other information		riance application



### **ZONING BOARD OF APPEALS APPLICATION**

V. VARIANCE					
A. VARIANCE (S) REQUESTED					
☑ dimensional □ use □ sign					
There is a five-(5) hold period before work/action can be taken on va	ariance approvals.				
B. SIGN CASES (ONLY) Your signature on this application indicates that you agree to install a Mock-Up Sign ten-(10) days before the schedule ZBA meeting. Failure to install a mock-up sign may result in your case not being heard by the Board, postponed to the next schedule ZBA meeting, or cancelled. A mock-up sign is NOT to be actual sign. Upon approval, the mock-up sign must be removed within five-(5) days of the meeting. If the case is denied, the applicant is responsible for all costs involved in the removal of the mock-up or actual sign (if erected under violation) within five-(5) days of the meeting.					
C. ORDINANCE					
City of Novi Ordinance, Section 3107 – Miscellaneous					
No order of the Board permitting the erection of a building shall be valid for a period longer than one-(1) year, unless a building permit for such erection or alteration is obtained within such period and such erection or alteration is started and proceeds to completion in accordance with the terms of such permit.					
No order of the Board permitting a use of a building or premises shall be valid for a period longer than one-hundred and eighty-(180) days unless such use is establish within such a period; provided, however, where such use permitted is dependent upon the erection or alteration or a building such order shall continue in force and effect if a building permit for such erection or alteration is obtained within one-(1) year and such erection or alteration is started and proceeds to completion in accordance with the terms of such permit.					
D. APPEAL THE DETERMINATION OF THE BUILDING OFFICIAL					
PLEASE TAKE NOTICE:					
The undersigned hereby appeals the determination of the Building Official / Inspector or Ordinance made  CONSTRUCT NEW HOME/BUILDING  ACCESSORY BUILDING  DUISE  OTHER					
□ ACCESSORY BUILDING □ USE □ OTHER					
VI. APPLICANT & PROPERTY SIGNATURES					
VI. APPLICANT & PROPERTY SIGNATURES  A. APPLICANT	11/20/2023				
VI. APPLICANT & PROPERTY SIGNATURES	11/20/2023 Date				
VI. APPLICANT & PROPERTY SIGNATURES  A. APPLICANT  Cawantha Rhindowskii					
VI. APPLICANT & PROPERTY SIGNATURES  A. APPLICANT  Cawantha Rhindowskii	and sign below: he owner(s) of the property described in this				
VI. APPLICANT & PROPERTY SIGNATURES  A. APPLICANT  Applicant Signature  B. PROPERTY OWNER  If the applicant is not the owner, the property owner must read  The undersigned affirms and acknowledges that he, she or they are the	and sign below: he owner(s) of the property described in this related enclosures.				
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# NOVI cityofnovi.org

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# REVIEW STANDARDS DIMENSIONAL VARIANCE

The Zoning Board of Appeals (ZBA) will review the application package and determine if the proposed Dimensional Variance meets the required standards for approval. In the space below, and on additional paper if necessary, explain how the proposed project meets each of the following standards. (Increased costs associated with complying with the Zoning Ordinance will not be considered a basis for granting a Dimensional Variance.)

### Standard #1. Circumstances or Physical Conditions.

Explain the circumstances or physical conditions that apply to the property that do not apply generally to other properties in the same zoning district or in the general vicinity. Circumstances or physical conditions may include:

<ul> <li>a. Shape of Lot. Exceptional narrowness, sha in existence on the effective date of the Z</li> <li>Not Applicable</li></ul>	Zoning Ordinance or amendment.
le .	
and/or	
<ul> <li>b. Environmental Conditions. Exceptional top other extraordinary situations on the land,</li> <li>☐ Not Applicable</li> <li>☑ Applicable</li> </ul>	building or structure.
There are significant wetlands on this property which side of the parcel.	h restricts the limit of development on the west
and/or	
c. Abutting Property. The use or development to the subject property would prohibit the of the Zoning Ordinance or would involve Not Applicable.	literal enforcement of the requirements

### Standard #2. Not Self-Created.

Describe the immediate practical difficulty causing the need for the Dimensional Variance, that the need for the requested variance is not the result of actions of the property owner or previous property owners (i.e., is not self-created).

The existing parcel is being redeveloped into a cohesive, multi-tenant development with shared access and parking. Due to the shared parking required to achieve this development, we are not able to provide the required parking setback between the two uses. Also due to the shared parking arrangement, it is not appropriate to cut off lighting between the two uses as this would not provide acceptable lighting levels in the majority of the parking area.

### Standard #3. Strict Compliance.

Explain how the Dimensional Variance in strict compliance with regulations governing area, setback, frontage, height, bulk, density or other dimensional requirements will unreasonably prevent the property owner from using the property for a permitted purpose, or will render conformity with those regulations unnecessarily burdensome.

We would not be able to provide the required amount of parking for the two users if we were to provide the required setback between the childcare and swim school uses. The most efficient way to provide lighting for the shared parking area is to establish lighting, as proposed, in the two landscape islands on the north and south sides of the parking area.

### Standard #4. Minimum Variance Necessary.

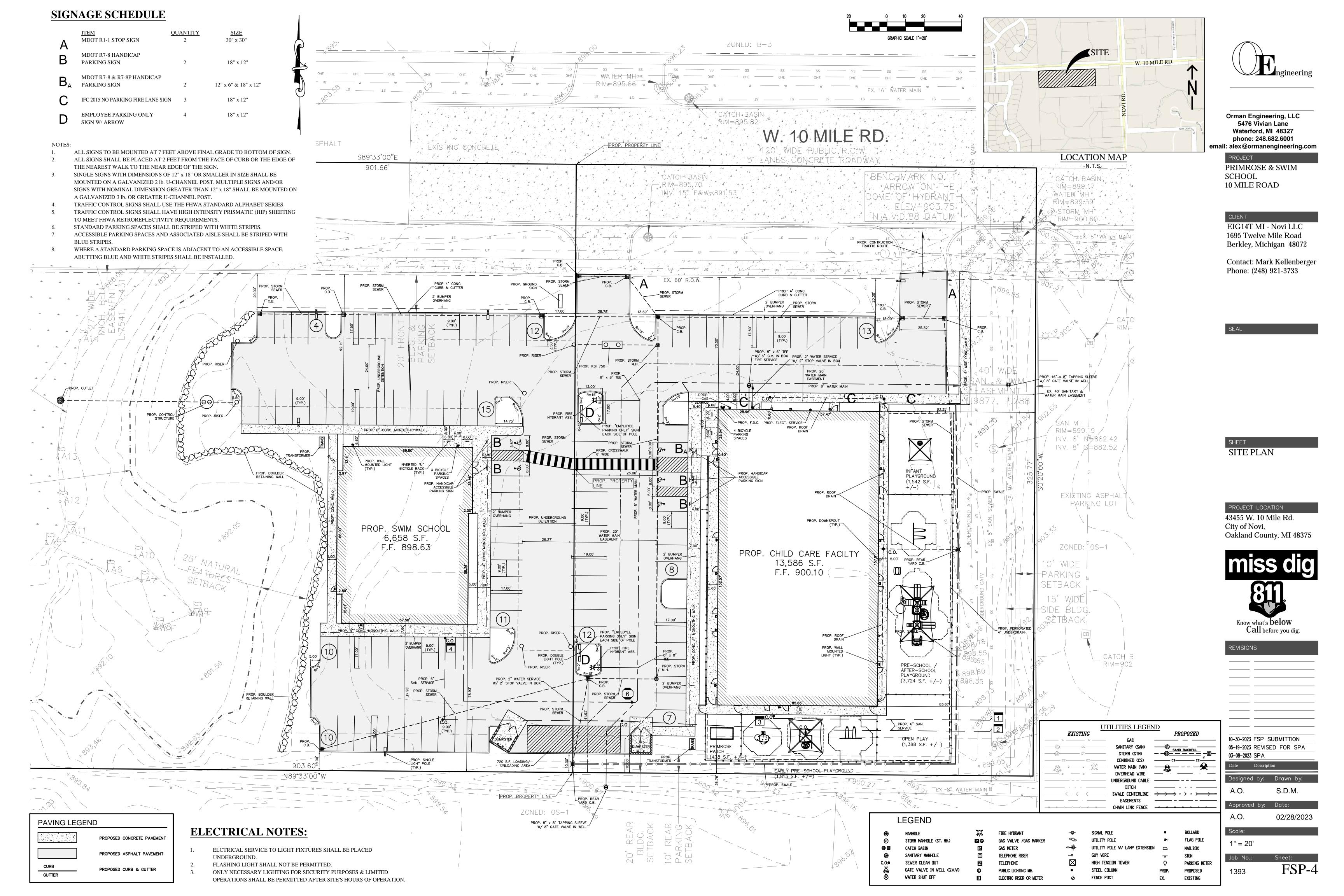
Explain how the Dimensional Variance requested is the minimum variance necessary to do substantial justice to the applicant as well as to other property owners in the district.

The requested variances are the minimum necessary to complete the development as proposed and were previously presented to the Planning Commission. We are committed to developing this project and will provide for shared access, parking, and maintenance between the two parcels. The requested variances will result in a development that is similar to many other commercial developments with in the City.

### Standard #5. Adverse Impact on Surrounding Area.

Explain how the Dimensional Variance will not cause an adverse impact on surrounding property, property values, or the use and enjoyment of property in the neighborhood or zoning district.

Our redevelopment will not cause any adverse impact on surrounding property or property values. The redevelopment of this property will rid the City of Novi of the existing, vacant, retirement home that has been an eyesore for way too long and attracts vandalism. There will be no significant change to how this development will appear or function with the granting of the variances. The redevelopment will enhance the community and surrounding properties, while providing much needed services to the residents of the City of Novi.

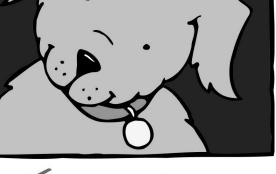


PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.

TITLE SHEET



# PRIMROSE SCHOOL 43455 W. 10 MILE ROAD NOVI, MI 48375



### **PROJECT CONTACTS**

LOCATION MAP

OWNER/DEVELOPER EIG14T (814 CRE) 1695 TWELVE MILE RD, SUITE 100 BERKLEY, MI 48072 PHONE: 312-273-4558 CONTACT: MEAGHAN O'CONNOR EMAIL: Meaghan@814cre.com

**FRANCHISOR** PRIMROSE SCHOOL FRANCHISING COMPANY 3200 WINDY HILL ROAD, SUITE 1200E ATLANTA, GA 30339 PHONE: 770-310-8755 CONTACT: JOHN FINNEMORE EMAIL: JFinnemore@primroseschools.com

PROJECT MANAGERS

12 SUNNEN DRIVE, SUITE 100 ST. LOUIS, MO 63143 PHONE: 314-821-1100 PROJECT LEADER: AUBREY ARMSTRONG primroseschools@theCDcompanies.com

SITE LOCATION

**CIVIL AND LANDSCAPE** ORMAN ENGINEERING, LLC 5476 VIVIAN LANE WATERFORD, MI 48327 CONTACT: ALEXANDER ORMAN PHONE: 248-682-6001 alex@ormanengineering.com

### **GENERAL NOTES**

THE GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, A.I.A. DOCUMENT A201, LATEST EDITION ARE HEREBY MADE A PART OF THESE CONSTRUCTION DOCUMENTS AS IF BOUND HEREIN. COPY OF A201, LATEST EDITION OF THE GENERAL CONDITIONS MAY BE OBTAINED FROM THE ARCHITECT OR DIRECTLY FROM THE AMERICAN INSTITUTE OF ARCHITECTS, 1735 NEW YORK AVENUE,

CONTRACTOR SHALL BE RESPONSIBLE FOR PERMITTING ALL SIGNS. CONTRACTOR SHALL ENSURE THERE ARE NO CONTRACTOR OR BANK SIGNS ON THE PROPERTY DURING CONSTRUCTION.

THESE DRAWINGS SHOW THE LOCATION AND SPECIFICATIONS FOR THE MINIMUM REQUIRED DESIGN. THESE DOCUMENTS SHALL NOT BE REPRODUCED OR USED BY THE OWNER OR BY OTHERS, EXCEPT WITH WRITTEN APPROVAL FROM PRIMROSE. FIRE SUPPRESSION SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH NFPA 13.

FIRE SUPPRESSION SYSTEM SHALL BE SUPERVISED PER IBC 903. SYSTEM SHALL EXTEND INTO ATTIC & EXTERIOR CANOPIES.

PROVIDE SHOP DRAWINGS TO THE ARCHITECT & APPROVING GOVERNMENTAL AUTHORITIES FOR THE FOLLOWING SYSTEMS:

- FIRE ALARM & SMOKE DETECTION SYSTEMS.

3. FIRE SUPPRESSION SYSTEM - NFPA 13. ALL OTHER SHOP DRAWINGS SHALL BE SUBMITTED & APPROVED BY THE GENERAL CONTRACTOR. ANY DEVIATIONS OR SUBSTITUTIONS TO THE PLANS OR SPECS. SHALL BE SUBMITTED TO & APPROVED BY THE ARCHITECTS CONSTRUCTION MANAGER.

THE CONTRACTOR SHALL ARRANGE & COORDINATE REQUIRED SPECIAL INSPECTIONS TO BE PAID FOR BY THE CONTRACTOR. THE INSPECTOR(S) SHALL BE QUALIFIED TO PERFORM INSPECTIONS AS DETERMINED BY THE LOCAL BUILDING OFFICIAL. WORK SHALL BE IN ACCORDANCE WITH 2018 INTERNATIONAL BUILDING CODE. REPORTS SHALL BE DISTRIBUTED TO THE OWNER, CONTRACTOR &

- 1. CONCRETE SHALL BE INSPECTED & TESTED PER SPECIFICATION 03010 & 1705.3 CONCRETE CONSTRUCTION & TABLE 1705.3
- REQUIRED SPECIAL INSPECTIONS & TESTS OF CONCRETE 2. GEOTECHNICAL & SOILS - PER SPECIFICATION 02100 & 1803.6 & TO BE REPORTED TO THE BUILDING OFFICIAL BY THE PERMIT APPLICANT.

### NOTE TO CONTRACTOR:

1. FENCING MAY REQUIRE A SEPARATE PERMIT AND SUBMITTAL. IF REQUIRED, IT SHALL BE SUBMITTED BY THE CONTRACTOR. 2. SIGNAGE REQUIRES A SEPARATE PERMIT AND SUBMITTAL BY THE CONTRACTOR AND/OR SIGN VENDOR.

- 1. THE CONTRACTOR SHALL EXAMINE THE DRAWINGS AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES IN ELEVATIONS, DIMENSIONS, AND SITE CONDITIONS BEFORE PROCEEDING WITH ANY WORK. COMMISSIONS AND CONFLICTS BETWEEN VARIOUS ELEMENTS OF THE DRAWINGS AND SPECIFICATIONS SHALL BE RESOLVED WITH THE ENGINEER/ARCHITECT PRIOR TO THE START OF WORK.
- 2. THE DRAWINGS AND SPECIFICATIONS REPRESENT THE COMPLETED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES AND MEANS NECESSARY TO PROTECT PERSONS AND THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING, ETC. OBSERVATION VISITS BY THE ARCHITECT OR ENGINEER DO NOT INCLUDE INSPECTION OF THOSE ITEMS.
- 3. NOTES AND DETAILS ON THE DRAWINGS TAKE PRECEDENCE OVER THESE STANDARD NOTES. TYPICAL DETAILS SHALL BE USED WHENEVER APPLICABLE. REFER TO THE SPECIFICATIONS FOR INFORMATION NOT COVERED BY THESE NOTES OR THE DRAWINGS.
- 4. ALL WORK NOT DETAILED OR NOTED SHALL BE CONSTRUCTED IN ACCORDANCE WITH SIMILAR WORK SHOWN ON THE DRAWINGS AND TYPICAL DETAILS. DIMENSIONS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
- 5. NO PIPES OR DUCTS SHALL BE PLACED IN STRUCTURAL MEMBERS UNLESS SPECIFICALLY DETAILED AND APPROVED BY THE
- 6. ASTM AND SIMILAR REFERENCES ARE FOR LATEST REVISIONS AND ISSUE, UNLESS OTHERWISE NOTED.
- 7. CONTRACTOR SHALL INVESTIGATE SITE DURING CLEARING AND EXCAVATION FOR UNSUITABLE CONDITIONS: UNCONSOLIDATED AND UNDOCUMENTED FILLS, BURIED STRUCTURES, UTILITIES, ETC. AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER OF ANY SITE CONDITIONS NOT REFLECTED ON THE DRAWINGS OR DIFFERENT FROM MAXIMUM AND MINIMUM DIMENSIONS INDICATED, INCLUDING CONFLICTS IN GRADE, ADVERSE SOIL CONDITIONS, GROUND WATER PRESENT, DEEPENED FOOTINGS, UNCOVERED AND UNEXPECTED UTILITY LINES, ETC.
- 8. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON STRUCTURAL FRAME. LOAD SHALL NOT EXCEED THE DESIGN OF LIVE LOADS. PROVIDE SHORING AND BRACING WHERE DESIGN STRENGTH HAS NOT BEEN ATTAINED OR STRUCTURE IS NOT COMPLETE.
- 9. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF UTILITY SERVICES IN THE AREA TO BE EXCAVATED BEFORE DIGGING. EXERCISE EXTREME CAUTION WHEN EXCAVATING AND TRENCHING.
- 10. SCOPE OF SERVICES: SITE SURVEILLANCE AND OR SPECIAL INSPECTIONS FOR THIS PROJECT HAS NOT BEEN INCLUDED IN THE PROFESSIONAL OF RECORD'S SCOPE OF SERVICES. THE OWNER WILL BE PROVIDING FOR THESE SERVICES UNDER A SEPARATE MEANS.

### **ABBREVIATIONS**

AIR CONDITIONING MANUFACTURER MINIMUM ABOVE FINISH FLOOR MIN AHU MASONRY OPENING AIR HANDLING UNIT MO ALUMINUM MIRROR/ MOISTURE RESISTANT **ASPH** MARBLE THRESHOLD **ALUMINUM THRESHOLD** NOT APPLICABLE BLKT **BLANKET** NOT IN CONTRACT **BRASS THRESHOLD** NOMINAL **CONTROL JOINT** NOT TO SCALE CLG ON CENTER CMU **CONCRETE MASONRY UNIT** COL PLASTIC LAMINATE CONC CONCRETE PLYWE PLYWOOD CONT PREFABRICATED **CONTINUOUS** CPT **CARPET** POUNDS PER SQUARE FOOT CT CERAMIC TILE PAINT/ PRESSURE TREATED **CENTER LINE** QUARRY TILE DOUBLE RISER/ RADIUS **DRINKING FOUNTAIN** REINFORCING BAR DIAMETER REFERENCE DIM **DIMENSION** REINFORCE RFINE DN DOWN REQUIRED DOWNSPOUT **ROUGH OPENING** SPLASHBLOCK **EXPANSION JOIN** SHLVS SHELVES ELEC **SIMILAR** ELEV/EL **SPECIFICATION** EQ STAINLESS STEE **EXIST EXISTING** STORAGE FLOOR DRAIN STOR SUSP SUSPENDED TELEPHONE FINISH FLOOR FND FOUNDATION TOILET PAPER DISPENSER FIRE RATED TRANSITION STRIP GALV GALVANIZED TYP TYPICAL GYP BD GYPSUM BOARD UNLESS NOTED OTHERWISE VCT VINYL COMPOSITE TILE HANDICAPPED HDW HARDWARE VERT VERTICAL **HOLLOW METAL** VINYL THRESHOLD HVAC HEATING, VENTILATION & AIR CONDITIONING WC WATER CLOSET INFO INFORMATION WOOD INSUL INSULATION WATERPROOF MAS MASONRY WWF WELDED WIRE FABRIC

### SYMBOL LEGEND

W/

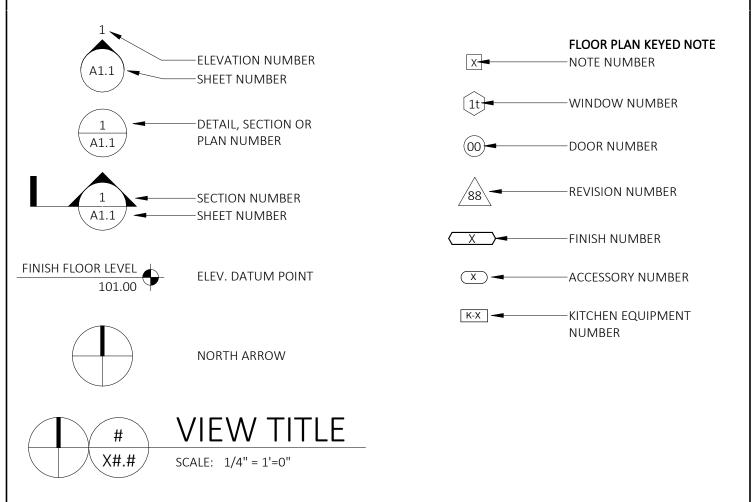
WITH

MAX

MECH

MAXIMUM

MECHANICAL



### PROJECT DESCRIPTION

THIS FACILITY DESIGN IS BASED ON THE FOLLOWING DESIGN CRITERIA **BUILDING CLASSIFICATIONS AND DATA** 

### **BUILDING CODES LIST**

2015 Michigan Building Code 2015 International Fire Code 2018 Michigan Plumbing Code 2015 Michigan Mechanical Code 2015 International Fuel Gas Code 2017 National Electrical Code with Part 8 2015 Michigan Building Code - Chapter 13 & 2015 Michigan Uniform Energy Code - Chapter 4 & Part 10a. Rules (ANSI/ASHRAE 90.12013) 2013 NFPA 13 - Commercial Fire Supression 2013 NFPA 72 - Commercial Fire Alarm ICC/ANSI A117.1 2009 & Michigan Barrier Free Design Law of Public Act 1

OCCUPANCY GROUP CLASSIFICATION: NON-SEPARATED OCCUPANCIES PER **SECTION 508.3** GROUP: E-DAYCARE FACILITIES (**SECTION 305.2**)

PER SECTION 308.6.1: A CHILD DAY CARE FACILITY THAT PROVIDES CARE FOR MORE THAN 5 BUT NOT MORE THAN 100 CHILDREN 2-1/2 YEARS OR LESS OF AGE, WHERE THE ROOMS IN WHICH THE CHILDREN ARE CARED FOR ARE LOCATED ON A LEVEL OF EXIT DISCHARGE SERVING SUCH ROOMS AND EACH OF THESE CHILD CARE ROOMS HAS AN EXIT DIRECTLY TO THE EXTERIOR, SHALL BE CLASSIFIED AS GROUP E. B - BUSINESS (SECTION 304)

ACCESSORY USE GROUP S-1 - STORAGE (SECTION 311)

TYPE OF CONSTRUCTION CLASSIFICATION TYPE V-B - UNPROTECTED - SPRINKLED

ALLOWABLE AREA:

TABULAR AREA (**TABLE 506.2**): 38,000 SF

**BUILDING HEIGHT:** MAXIMUM ALLOWABLE PER **TABLE 504.3** = 60'-0" ALLOWABLE NUMBER OF STORIES PER **TABLE 504.4** = 2

<u> ACTUAL BUILDING HEIGHT:</u> TOP OF HIGHEST RIDGE) = 29'-0" +/-ACTUAL NUMBER OF STORIES = 1

DRAFTSTOPPING IN ATTICS: (SECTION 718.4)

EXCEPTION: DRAFTSTOPPING NOT REQUIRED IN BUILDINGS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1, PROVIDED THAT AUTOMATIC SPRINKLERS ARE INSTALLED IN THE COMBUSTIBLE CONCEALED SPACE WHERE THE DRAFTSTOPPING IS BEING OMITTED. BUILDING AND ATTIC ARE EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM.

CORRIDORS: (SECTION 1020)

CORRIDORS SHALL BE FIRE RESISTANCE RATED IN ACCORDANCE WITH TABLE 1020.1.

A FIRE RESISTANCE RATING IS NOT REQUIRED FOR CORRIDORS IN AN OCCUPANCY GROUP E WHERE BUILDINGS ARE EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1 OR 903.3.1.2 WHERE ALLOWED.

REFER TO LS1.0 'LIFE SAFETY PLAN' FOR EXITING INFORMATION

### NOTE TO CONTRACTOR RE: MOLD/MILDEW

1. THE FOLLOWING REQUIREMENTS SHALL APPLY TO ALL NEW AND REMODEL CONSTRUCTION PROJECTS.

2. IN THE EVENT THE CONTRACTOR DISCOVERS, AT ANY TIME DURING DEMOLITION, CONSTRUCTION, AND / OR REMODELING OPERATIONS, EXISTING CONDITIONS THAT COULD INCLUDE THE PRESENCE OF MOLD AND / OR MILDEW, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE AND THE PROFESSIONAL OF RECORD, IN WRITING, OF THE CONCERNS AND/OR SUSPICIONS.

3. CONCURRENTLY, THE CONTRACTOR SHALL BE RESPONSIBLE TO RETAIN A MOLD AND MILDEW CERTIFIED TESTING AGENCY TO PERFORM AN INVESTIGATION AND TESTING AS REQUIRED TO EVALUATE THE NATURE AND EXTENT OF THE PROBLEM. IF THE TESTING AGENCY CONFIRMS HAZARDS, THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN A MINIMUM OF THREE (3) BIDS FROM COMPANIES QUALIFIED AND LICENSED TO PERFORM ALL NECESSARY REMEDIATION WORK, COMPLYING WITH ALL LOCAL, STATE AND FEDERAL ENVIRONMENTAL REGULATIONS, CODES, AND STATUTES.

4. ONCE DISCOVERY OR SUSPICION OF MOLD AND / OR MILDEW IS MADE, THE CONTRACTOR SHALL TAKE ALL REASONABLE AND PRACTICAL PRECAUTIONS TO PROTECT ALL CONSTRUCTION PERSONNEL AND THE PUBLIC FROM THE EXPOSURE TO MOLD AND / OR MILDEW, AND SUCH PRECAUTIONS SHALL REMAIN IN PLACE UNTIL SUCH TIME AS THE OWNER OR HEALTH AUTHORITY DIRECTS OTHERWISE. CONSTRUCTION OPERATIONS SHALL NOT BE STOPPED OR CURTAILED, EXCEPT IN THE AREA OF MOLD / MILDEW CONCERN, DUE TO THESE REQUIRED PRECAUTIONS.

5. THE CONTRACTOR SHALL MAKE ALL REASONABLE EFFORTS TO AVOID CONDITIONS FAVORABLE TO THE DEVELOPMENT OF MOLD AND MILDEW, ESPECIALLY IN VOIDS WHICH WILL BE CONCEALED AND NOT VENTILATED. IN ALL CASES, INTERIOR SPACES AND INTERIOR FINISHED CONSTRUCTION SHALL BE MAINTAINED IN DRY AND WELL-VENTILATED CONDITIONS.

6. THE CONTRACTOR SHALL COMPLY WITH FEDERAL ENVIRONMENTAL AND OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS AND ALL LOCAL AND STATE HEALTH DEPARTMENT REQUIREMENTS AND RECOMMENDATIONS REGARDING MOLD AND MILDEW.

7. ALL PENETRATIONS SHALL BE SEALED WATER-TIGHT TO PREVENT MOISTURE MIGRATION FROM ENTERING THE BUILDING OR WALL CAVITIES.

8. ALL CONDENSATE DRAIN PANS SHALL BE CLEANED AND KEPT FREE FROM DEBRIS UNTIL AND WHEN THE FACILITY IS TURNED OVER TO THE OWNER. INSURE POSITIVE DRAINAGE AT ALL DRAIN PANS. INSURE THAT ALL "COLD" SURFACES ARE INSULATED AND COVERED WITH A FULLY SEALED AND CONTINUOUS VAPOR BARRIER. ("COLD" SURFACES INCLUDE, BUT ARE NOT LIMITED TO, DOMESTIC COLD WATER PIPING, CHILLED WATER PIPING, INTERIOR RAIN LEADERS, OUTDOOR AIR INTAKES, AND DUCTWORK CARRYING AIR CONDITIONED SUPPLY AIR.)

9. ENSURE THAT THERE ARE NO WATER LEAKS IN CONCEALED PLUMBING CHASES. RETURN AIR PATHS AND PLENUMS SHALL BE KEPT DRY. ALL EXISTING SUPPLY AIR PATHS AND ALL EXISTING DUCTWORK TO BE RE-USED SHALL BE CLEANED AND TREATED AS REQUIRED TO REMOVE THE POTENTIAL FOR MOLD AND MILDEW. ALL DAMP AREAS SHALL BE DRIED THOROUGHLY PRIOR TO ENCLOSURE.

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S4.2  MECHA MP1.0  MP2.0  M1.0  M3.0  M3.1  M4.0  PLUMB  P1.0  P3.0  P4.0  P5.0  ELECTR  E0.1  E1.0  E3.0  E3.1  E4.0  E3.0  CIVIL  SP-1  SP-2  SP-3  SP-4  SP-5	FRAMING DETAILS & SECTIONS  NICAL  MECHANICAL & PLUMBING SPECIFICATIONS  MECHANICAL & PLUMBING ROOF PLAN  MECHANICAL & PLUMBING ROOF PLAN  MECHANICAL FLOOR PLAN  MECHANICAL SCHEDULES  MECHANICAL CONTROL NOTES  MECHANCIAL VENTILATION CALCULATIONS  ING  SANITARY FLOOR PLAN  WATER SYSTEM FLOOR PLAN  SANITARY ISOMETRIC  PLUMBING DETAILS  CAL  ELECTRICAL SPECIFICATIONS, ABBREVIATIONS & SYMBOLS  ELECTRICAL ONE LINE & SCHEDULES  PANEL SCHEDULES  LIGHTING PLAN  POWER PLAN  HVAC POWER PLAN  ELECTRICAL ROOF PLAN  COMMUNICATIONS PLAN  ELECTRICAL SITE PLAN  COVER SHEET  OVERALL PLAN  PAVING & GRADING PLAN  CALCULATIONS & DETAILS SHEET
S4.2  MECHA MP1.0  MP2.0  M1.0  M3.0  M3.1  M4.0  PLUMB  P1.0  P3.0  P4.0  P5.0  ELECTR  E0.1  E1.0  E3.0  E3.1  E4.0  E5.0  CIVIL  SP-1  SP-2  SP-3  SP-4	FRAMING DETAILS & SECTIONS  NICAL  MECHANICAL & PLUMBING SPECIFICATIONS  MECHANICAL & PLUMBING ROOF PLAN  MECHANICAL FLOOR PLAN  MECHANICAL SCHEDULES  MECHANICAL CONTROL NOTES  MECHANCIAL VENTILATION CALCULATIONS  NG  SANITARY FLOOR PLAN  WATER SYSTEM FLOOR PLAN  WATER SYSTEM FLOOR PLAN  SANITARY ISOMETRIC  PLUMBING DETAILS  CAL  ELECTRICAL SPECIFICATIONS, ABBREVIATIONS & SYMBOLS  ELECTRICAL ONE LINE & SCHEDULES  PANEL SCHEDULES  LIGHTING PLAN  POWER PLAN  HVAC POWER PLAN  ELECTRICAL SITE PLAN  COVER SHEET  OVERALL PLAN  SITE PLAN  PAVING & GRADING PLAN  CALCULATIONS & DETAILS SHEET  KSI DETAILS SHEET
S4.2  MECHA MP1.0  MP2.0  M1.0  M3.0  M3.1  M4.0  PLUMB P1.0  P3.0  P4.0  P5.0  ELECTR  E0.1  E1.0  E3.0  E3.1  E4.0  E3.0  CIVIL  SP-1  SP-2  SP-3  SP-4  SP-5  SP-6	FRAMING DETAILS & SECTIONS  NICAL  MECHANICAL & PLUMBING SPECIFICATIONS  MECHANICAL & PLUMBING ROOF PLAN  MECHANICAL & PLUMBING ROOF PLAN  MECHANICAL FLOOR PLAN  MECHANICAL SCHEDULES  MECHANICAL CONTROL NOTES  MECHANCIAL VENTILATION CALCULATIONS  ING  SANITARY FLOOR PLAN  WATER SYSTEM FLOOR PLAN  SANITARY ISOMETRIC  PLUMBING DETAILS  CAL  ELECTRICAL SPECIFICATIONS, ABBREVIATIONS & SYMBOLS  ELECTRICAL ONE LINE & SCHEDULES  PANEL SCHEDULES  LIGHTING PLAN  POWER PLAN  HVAC POWER PLAN  ELECTRICAL ROOF PLAN  COMMUNICATIONS PLAN  ELECTRICAL SITE PLAN  COVER SHEET  OVERALL PLAN  PAVING & GRADING PLAN  CALCULATIONS & DETAILS SHEET
S4.2  MECHA MP1.0  MP2.0  M1.0  M3.0  M3.1  M4.0  PLUMB P1.0  P3.0  P4.0  P5.0  ELECTR E0.1  E1.0  E3.0  E3.1  E4.0  E3.0  CIVIL  SP-1  SP-2  SP-3  SP-4  SP-5  SP-6  SP-7	FRAMING DETAILS & SECTIONS  NICAL  MECHANICAL & PLUMBING SPECIFICATIONS  MECHANICAL & PLUMBING ROOF PLAN  MECHANICAL FLOOR PLAN  MECHANICAL FLOOR PLAN  MECHANICAL SCHEDULES  MECHANICAL DETAILS  MECHANICAL CONTROL NOTES  MECHANCIAL VENTILATION CALCULATIONS  NG  SANITARY FLOOR PLAN  WATER SYSTEM FLOOR PLAN  SANITARY ISOMETRIC  WATER SYSTEM ISOMETRIC  PLUMBING DETAILS  CAL  ELECTRICAL SPECIFICATIONS, ABBREVIATIONS & SYMBOLS  ELECTRICAL ONE LINE & SCHEDULES  PANEL SCHEDULES  LIGHTING PLAN  POWER PLAN  HVAC POWER PLAN  ELECTRICAL ROOF PLAN  COMMUNICATIONS PLAN  ELECTRICAL SITE PLAN  COVER SHEET  OVERALL PLAN  SITE PLAN  PAVING & GRADING PLAN  CALCULATIONS & DETAILS SHEET  KSI DETAILS SHEET  UNDERGROUND DETENTION DETAILS SHEET
S4.2  MECHA MP1.0  MP2.0  M1.0  M3.0  M3.1  M4.0  PLUMB P1.0  P3.0  P4.0  P5.0  ELECTR E0.1  E1.0  E3.0  E3.1  E4.0  E3.0  CIVIL  SP-1  SP-2  SP-3  SP-4  SP-5  SP-6  SP-7  SP-8	FRAMING DETAILS & SECTIONS  NICAL  MECHANICAL & PLUMBING SPECIFICATIONS  MECHANICAL & PLUMBING ROOF PLAN  MECHANICAL SCHEDULES  MECHANICAL SCHEDULES  MECHANICAL DETAILS  MECHANICAL CONTROL NOTES  MECHANICAL VENTILATION CALCULATIONS  NG  SANITARY FLOOR PLAN  WATER SYSTEM FLOOR PLAN  WATER SYSTEM ISOMETRIC  PLUMBING DETAILS  CAL  ELECTRICAL SPECIFICATIONS, ABBREVIATIONS & SYMBOLS  ELECTRICAL ONE LINE & SCHEDULES  PANEL SCHEDULES  LIGHTING PLAN  POWER PLAN  HVAC POWER PLAN  ELECTRICAL SITE PLAN  COVER SHEET  OVERALL PLAN  SITE PLAN  PAVING & GRADING PLAN  CALCULATIONS & DETAILS SHEET  KSI DETAILS SHEET  UNDERGROUND DETENTION DETAILS SHEET  FIRE TRUCK MOVEMENT PLAN
S4.2  MECHA MP1.0  MP2.0  M1.0  M3.0  M3.1  M4.0  PLUMB P1.0  P3.0  P4.0  P5.0  ELECTR  E0.1  E1.1  E2.0  E3.0  E3.1  E4.0  E5.0  E0.1  SP-1  SP-2  SP-3  SP-4  SP-5  SP-6  SP-7  SP-8  1	FRAMING DETAILS & SECTIONS NICAL MECHANICAL & PLUMBING SPECIFICATIONS MECHANICAL & PLUMBING ROOF PLAN MECHANICAL & PLUMBING ROOF PLAN MECHANICAL FLOOR PLAN MECHANICAL SCHEDULES MECHANICAL DETAILS MECHANICAL CONTROL NOTES MECHANICAL VENTILATION CALCULATIONS NG SANITARY FLOOR PLAN WATER SYSTEM FLOOR PLAN SANITARY ISOMETRIC WATER SYSTEM ISOMETRIC PLUMBING DETAILS CAL ELECTRICAL SPECIFICATIONS, ABBREVIATIONS & SYMBOLS ELECTRICAL ONE LINE & SCHEDULES PANEL SCHEDULES LIGHTING PLAN POWER PLAN HVAC POWER PLAN ELECTRICAL ROOF PLAN COMMUNICATIONS PLAN ELECTRICAL SITE PLAN  COVER SHEET OVERALL PLAN SITE PLAN PAVING & GRADING PLAN CALCULATIONS & DETAILS SHEET KSI DETAILS SHEET UNDERGROUND DETENTION DETAILS SHEET FIRE TRUCK MOVEMENT PLAN ALTA/NSPS LAND TITLE SURVEY
S4.2  MECHA MP1.0  MP2.0  M1.0  M3.0  M3.1  M4.0  PLUMB P1.0  P3.0  P4.0  P5.0  ELECTR E0.1  E1.0  E3.0  E3.1  E4.0  E5.0  E6.0  CIVIL  SP-1  SP-2  SP-3  SP-4  SP-5  SP-6  SP-7  SP-8  1  LP-1	FRAMING DETAILS & SECTIONS NICAL MECHANICAL & PLUMBING SPECIFICATIONS MECHANICAL & PLUMBING ROOF PLAN MECHANICAL & PLUMBING ROOF PLAN MECHANICAL FLOOR PLAN MECHANICAL SCHEDULES MECHANICAL CONTROL NOTES MECHANICAL CONTROL NOTES MECHANCIAL VENTILATION CALCULATIONS ING SANITARY FLOOR PLAN WATER SYSTEM FLOOR PLAN SANITARY ISOMETRIC PLUMBING DETAILS CAL ELECTRICAL SPECIFICATIONS, ABBREVIATIONS & SYMBOLS ELECTRICAL ONE LINE & SCHEDULES PANEL SCHEDULES LIGHTING PLAN POWER PLAN HVAC POWER PLAN ELECTRICAL ROOF PLAN COMMUNICATIONS PLAN ELECTRICAL SITE PLAN  COVER SHEET OVERALL PLAN SITE PLAN PAVING & GRADING PLAN CALCULATIONS & DETAILS SHEET KSI DETAILS SHEET UNDERGROUND DETENTION DETAILS SHEET FIRE TRUCK MOVEMENT PLAN ALTA/NSPS LAND TITLE SURVEY LANDSCAPE PLANTING PLAN
S4.2  MECHA MP1.0  MP2.0  M1.0  M2.0  M3.0  M3.1  M4.0  PLUMB  P1.0  P2.0  P4.0  P5.0  ELECTR  E0.1  E1.0  E3.0  E3.1  E4.0  E5.0  E3.1  E4.0  E5.0  E7.0  CIVIL  SP-1  SP-2  SP-3  SP-4  SP-5  SP-6  SP-7  SP-8  1  LP-1  LP-2  LP-3	FRAMING DETAILS & SECTIONS NICAL MECHANICAL & PLUMBING SPECIFICATIONS MECHANICAL & PLUMBING ROOF PLAN MECHANICAL FLOOR PLAN MECHANICAL SCHEDULES MECHANICAL CONTROL NOTES MECHANICAL CONTROL NOTES MECHANCIAL VENTILATION CALCULATIONS NG SANITARY FLOOR PLAN WATER SYSTEM FLOOR PLAN WATER SYSTEM ISOMETRIC PLUMBING DETAILS CAL ELECTRICAL SPECIFICATIONS, ABBREVIATIONS & SYMBOLS ELECTRICAL ONE LINE & SCHEDULES PANEL SCHEDULES LIGHTING PLAN POWER PLAN HVAC POWER PLAN ELECTRICAL SITE PLAN  COVER SHEET OVERALL PLAN SITE PLAN PAVING & GRADING PLAN CALCULATIONS & DETAILS SHEET KSI DETAILS SHEET UNDERGROUND DETENTION DETAILS SHEET FIRE TRUCK MOVEMENT PLAN ALTA/NSPS LAND TITLE SURVEY LANDSCAPE NOTES & DETAILS
S4.2  MECHA MP1.0  MP2.0  M1.0  M2.0  M3.0  M3.1  M4.0  PLUMB  P1.0  P2.0  P4.0  P5.0  ELECTR  E0.1  E1.0  E3.0  E3.1  E4.0  E5.0  E3.1  E4.0  E5.0  E6.0  CIVIL  SP-1  SP-2  SP-3  SP-4  SP-5  SP-6  SP-7  SP-8  1  LP-1  LP-2  LP-3	FRAMING DETAILS & SECTIONS NICAL MECHANICAL & PLUMBING SPECIFICATIONS MECHANICAL & PLUMBING ROOF PLAN MECHANICAL & PLUMBING ROOF PLAN MECHANICAL FLOOR PLAN MECHANICAL SCHEDULES MECHANICAL DETAILS MECHANICAL CONTROL NOTES MECHANCIAL VENTILATION CALCULATIONS NG SANITARY FLOOR PLAN WATER SYSTEM FLOOR PLAN SANITARY ISOMETRIC WATER SYSTEM ISOMETRIC PLUMBING DETAILS CAL ELECTRICAL SPECIFICATIONS, ABBREVIATIONS & SYMBOLS ELECTRICAL ONE LINE & SCHEDULES PANEL SCHEDULES LIGHTING PLAN POWER PLAN HVAC POWER PLAN ELECTRICAL ROOF PLAN COMMUNICATIONS PLAN ELECTRICAL SITE PLAN  COVER SHEET OVERALL PLAN SITE PLAN PAVING & GRADING PLAN CALCULATIONS & DETAILS SHEET KSI DETAILS SHEET UNDERGROUND DETENTION DETAILS SHEET FIRE TRUCK MOVEMENT PLAN ALTA/NSPS LAND TITLE SURVEY LANDSCAPE PLANTING PLAN LANDSCAPE PLANTING PLAN LANDSCAPE NOTES & DETAILS TREE PRESERVATION PLAN
S4.2  MECHA MP1.0  MP2.0  M1.0  M3.0  M3.1  M4.0  PLUMB P1.0  P3.0  P4.0  P5.0  ELECTR E0.1  E1.0  E3.0  E3.1  E4.0  E5.0  E6.0  CIVIL  SP-1  SP-2  SP-3  SP-4  SP-5  SP-6  SP-7  SP-8  1  LP-1  LP-2  LP-3  LS 1.0  A 4.0	FRAMING DETAILS & SECTIONS NICAL MECHANICAL & PLUMBING SPECIFICATIONS MECHANICAL & PLUMBING ROOF PLAN MECHANICAL & PLUMBING ROOF PLAN MECHANICAL SCHEDULES MECHANICAL DETAILS MECHANICAL CONTROL NOTES MECHANICAL VENTILATION CALCULATIONS NG SANITARY FLOOR PLAN WATER SYSTEM FLOOR PLAN SANITARY ISOMETRIC WATER SYSTEM ISOMETRIC PLUMBING DETAILS CCAL ELECTRICAL SPECIFICATIONS, ABBREVIATIONS & SYMBOLS ELECTRICAL ONE LINE & SCHEDULES PANEL SCHEDULES LIGHTING PLAN POWER PLAN HVAC POWER PLAN ELECTRICAL ROOF PLAN COMMUNICATIONS PLAN ELECTRICAL SITE PLAN  COVER SHEET OVERALL PLAN SITE PLAN PAVING & GRADING PLAN CALCULATIONS & DETAILS SHEET KSI DETAILS SHEET UNDERGROUND DETENTION DETAILS SHEET FIRE TRUCK MOVEMENT PLAN ALTA/NSPS LAND TITLE SURVEY LANDSCAPE PLANTING PLAN LANDSCAPE NOTES & DETAILS TREE PRESERVATION PLAN LICENSING PLAN - CHILD CARE FACILITY EXTERIOR ELEVATIONS - CHILD CARE FACILITY EXTERIOR ELEVATION - CHILD CARE FACILITY
S4.2  MECHA MP1.0  MP2.0  M1.0  M2.0  M3.0  M3.1  M4.0  PLUMB  P1.0  P2.0  P3.0  P4.0  P5.0  ELECTR  E0.1  E1.0  E3.0  E3.1  E4.0  E3.0  E3.1  E4.0  E5.0  E6.0  CIVIL  SP-1  SP-2  SP-3  SP-4  SP-5  SP-6  SP-7  SP-8  1  LP-1  LP-2  LP-3  LS 1.0  A 4.0	FRAMING DETAILS & SECTIONS NICAL MECHANICAL & PLUMBING SPECIFICATIONS MECHANICAL & PLUMBING ROOF PLAN MECHANICAL & PLUMBING ROOF PLAN MECHANICAL SCHEDULES MECHANICAL DETAILS MECHANICAL CONTROL NOTES MECHANICAL VENTILATION CALCULATIONS NG SANITARY FLOOR PLAN WATER SYSTEM FLOOR PLAN SANITARY ISOMETRIC WATER SYSTEM ISOMETRIC PLUMBING DETAILS CCAL ELECTRICAL SPECIFICATIONS, ABBREVIATIONS & SYMBOLS ELECTRICAL ONE LINE & SCHEDULES PANEL SCHEDULES LIGHTING PLAN POWER PLAN HVAC POWER PLAN ELECTRICAL SITE PLAN  COVER SHEET OVERALL PLAN SITE PLAN PAVING & GRADING PLAN CALCULATIONS & DETAILS SHEET KSI DETAILS SHEET UNDERGROUND DETENTION DETAILS SHEET IFIRE TRUCK MOVEMENT PLAN LANDSCAPE PLANNING PLAN LANDSCAPE PLANTING PLAN LANDSCAPE NOTES & DETAILS TREE PRESERVATION PLAN LICENSING PLAN - CHILD CARE FACILITY EXTERIOR ELEVATIONS - CHILD CARE FACILITY EXTERIOR SHOWS - CHILD CARE FACILITY EXTERIOR ELEVATIONS - CHILD CARE FACILITY
S4.2  MECHA MP1.0  MP2.0  M1.0  M3.0  M3.1  M4.0  PLUMB P1.0  P2.0  P3.0  P4.0  P5.0  ELECTR E0.1  E1.0  E3.0  E3.1  E4.0  E5.0  E3.1  E4.0  E5.0  E7.0  CIVIL  SP-1  SP-2  SP-3  SP-4  SP-5  SP-6  SP-7  SP-8  1  LP-1  LP-2  LP-3  LS 1.0  A 4.0  ID-5.1	FRAMING DETAILS & SECTIONS  NICAL  MECHANICAL & PLUMBING SPECIFICATIONS  MECHANICAL & PLUMBING ROOF PLAN  MECHANICAL SCHEDULES  MECHANICAL SCHEDULES  MECHANICAL DETAILS  MECHANICAL ODTROL NOTES  MECHANICAL VENTILATION CALCULATIONS  NG  SANITARY FLOOR PLAN  WATER SYSTEM FLOOR PLAN  SANITARY ISOMETRIC  WATER SYSTEM ISOMETRIC  PLUMBING DETAILS  CAL  ELECTRICAL SPECIFICATIONS, ABBREVIATIONS & SYMBOLS  ELECTRICAL ONE LINE & SCHEDULES  PANEL SCHEDULES  LIGHTING PLAN  POWER PLAN  HVAC POWER PLAN  COMMUNICATIONS PLAN  ELECTRICAL SITE PLAN  COVER SHEET  OVERALL PLAN  SITE PLAN  PAVING & GRADING PLAN  CALCULATIONS & DETAILS SHEET  KSI DETAILS SHEET  UNDERGROUND DETENTION DETAILS SHEET  FIRE TRUCK MOVEMENT PLAN  ALTA/NSPS LAND TITLE SURVEY  LANDSCAPE PLANING PLAN  LANDSCAPE PLANING PLAN  LICENSING PLAN - CHILD CARE FACILITY  EXTERIOR ELEVATIONS - CHILD CARE FACILITY  EXTERIOR ELEVATIONS - CHILD CARE FACILITY  EXTERIOR ELEVATIONS - CHILD CARE FACILITY  KEY PLAN - SWIM SCHOOL  NORTH/SOUTH EXTERIOR ELEVATIONS - SWIM SCHOOL
S4.2  MECHA MP1.0  MP2.0  M1.0  M2.0  M3.0  M3.1  M4.0  PLUMB  P1.0  P2.0  P3.0  P4.0  P5.0  ELECTR  E0.1  E1.0  E3.0  E3.1  E4.0  E3.0  E3.1  E4.0  E5.0  E6.0  CIVIL  SP-1  SP-2  SP-3  SP-4  SP-5  SP-6  SP-7  SP-8  1  LP-1  LP-2  LP-3  LS 1.0  A 4.0	FRAMING DETAILS & SECTIONS NICAL MECHANICAL & PLUMBING SPECIFICATIONS MECHANICAL & PLUMBING ROOF PLAN MECHANICAL & PLUMBING ROOF PLAN MECHANICAL SCHEDULES MECHANICAL DETAILS MECHANICAL CONTROL NOTES MECHANICAL VENTILATION CALCULATIONS NG SANITARY FLOOR PLAN WATER SYSTEM FLOOR PLAN SANITARY ISOMETRIC WATER SYSTEM ISOMETRIC PLUMBING DETAILS CCAL ELECTRICAL SPECIFICATIONS, ABBREVIATIONS & SYMBOLS ELECTRICAL ONE LINE & SCHEDULES PANEL SCHEDULES LIGHTING PLAN POWER PLAN HVAC POWER PLAN ELECTRICAL SITE PLAN  COVER SHEET OVERALL PLAN SITE PLAN PAVING & GRADING PLAN CALCULATIONS & DETAILS SHEET KSI DETAILS SHEET UNDERGROUND DETENTION DETAILS SHEET IFIRE TRUCK MOVEMENT PLAN LANDSCAPE PLANNING PLAN LANDSCAPE PLANTING PLAN LANDSCAPE NOTES & DETAILS TREE PRESERVATION PLAN LICENSING PLAN - CHILD CARE FACILITY EXTERIOR ELEVATIONS - CHILD CARE FACILITY EXTERIOR SHOWS - CHILD CARE FACILITY EXTERIOR ELEVATIONS - CHILD CARE FACILITY

ARCHITECTURAL

CALCULATED AREA

AREA **EDUCATION & BUSINESS USE: EDUCATIONAL DAYCARE** 2,940 SF 6,222 SF

13,269 SF

**EDUCATIONAL CLASSROOM BUSINESS USE GROUP** 1,039 SF KITCHEN 266 SF HALL 1,155 SF TOILETS 745 SF **ACCESSORY USES:** STORAGE USE GROUP 274 SF **INTERIOR WALLS** 628 SF

**BUILDING SQUARE FOOT AREA SUMMARY** 

EXTERIOR WALLS 277 SF TOTAL BUILDING S.F. 13,546 SF

NET AREA (INSIDE FACE OF EXT. WALLS)

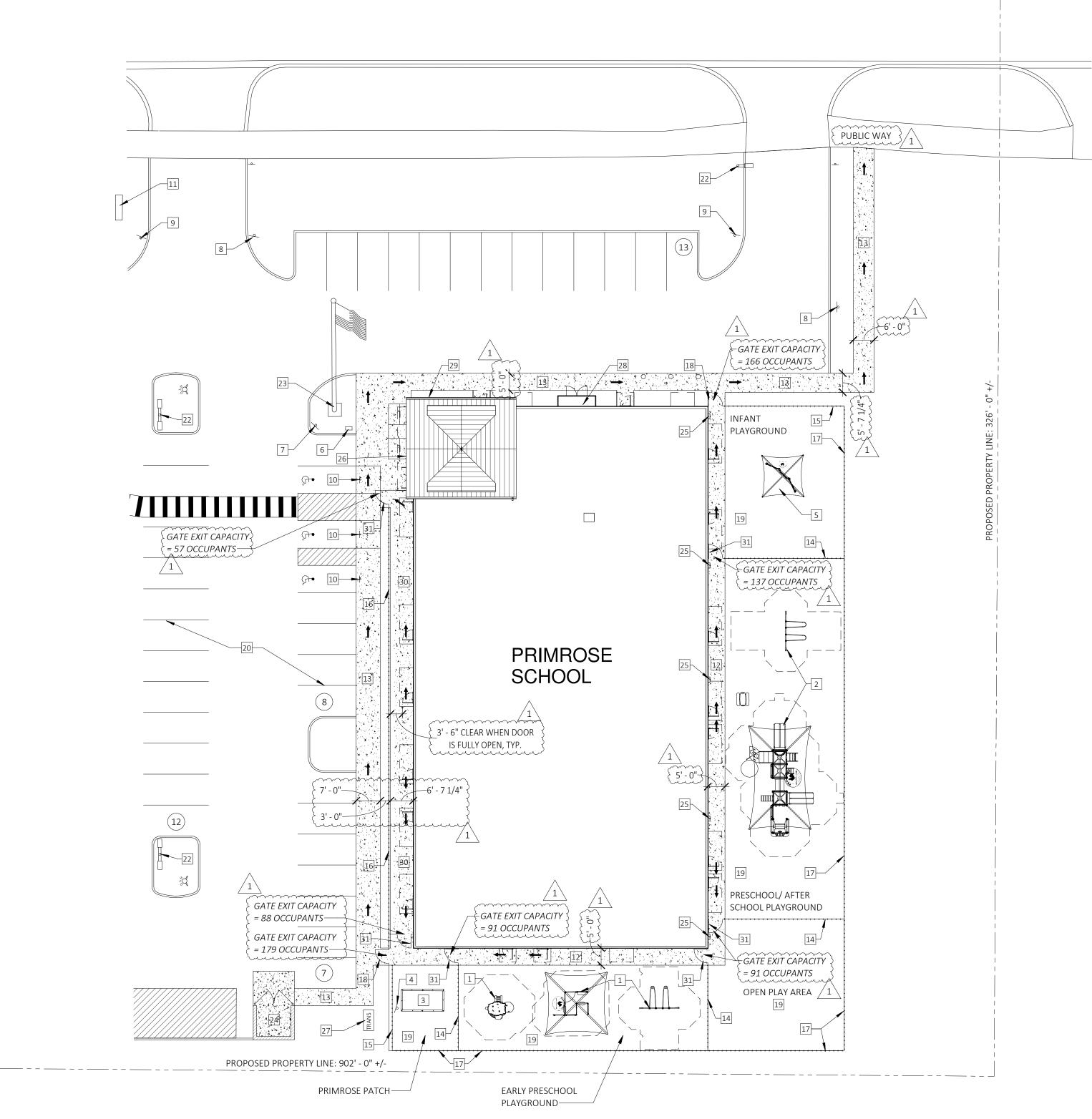
PROPOSED PARKING SPACES: 38
LOT AREA: 294,048 S.F. +/- (6.75 ACRES)

PRIMROSE IS NOT THE ONLY TENANT ON THIS PROPERTY.
REFER TO CIVIL FOR FULL EXTENT OF PROPERTY LINES AND
ADDITIONAL TENANTS/ BUILDINGS ON THIS SITE. THE SITE
PLAN ON THIS SHEET IS ONLY THE PORTION THAT PERTAINS
TO THE SCOIPE OF THIS PROJECT.

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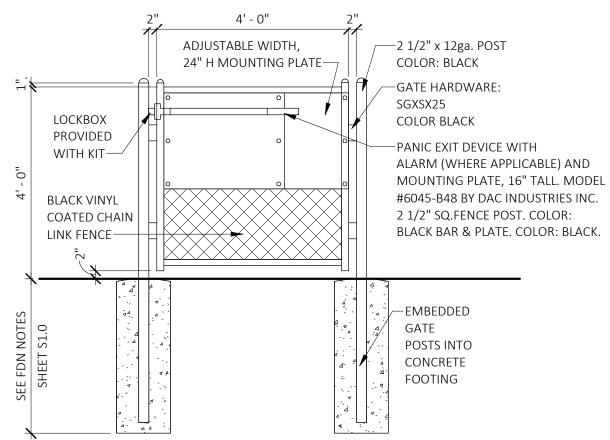
10 MILE ROAD

PROPOSED PROPERTY LINE: 902' - 0" +/-











### SITE PLAN GENERAL NOTES

- 1. ENTRAPMENT. THE DISTANCE BETWEEN ANY OPENING SURFACES SHALL NOT BE GREATER THEN 3.5 INCHES AND LESS THAN 9 INCHES.
- CONTRACTOR TO FURNISH, ASSEMBLE AND INSTALL PER MANUFACTURER'S INSTRUCTIONS ALL EQUIPMENT LISTED ON THIS PLAN UNLESS OTHERWISE NOTES.
   CONCRETE EXPANSION JOINTS ARE TO BE PLANNED AND SET WITH
- CONSIDERATION TO OVERALL SITE LAYOUT AND DESIGN. EXPANSION JOINTS SHALL OCCUR TO CREATE SQUARES NO GREATER THAN 20 FEET IN EACH DIRECTION. CONTROL JOINTS SHALL BE 1/2 INCH DEEP TOOLED JOINTS AND CREATE SQUARES NO GREATER THEN 10 FEET X 10 FEET IN EACH DIRECTION.

  4. CONCRETE WALKS SHALL BE FLUSH AT FF WITH A 2% MAX FALL. SIDEWALKS
- ELSEWHERE SHALL BE 2" MIN BELOW FF AND SLOPING AWAY FROM THE
  BUILDING AT 2%. MAX SLOPE ACROSS PLAY SURFACING SHALL BE 2% AT FALL
  SURFACES SODDED AREAS 8% PATH OF TRAVEL FROM PUBLIC WALK TO FRONT
  DOOR SHALL BE 5% MAX, WITH A 1% MAX CROSS SLOPE.
- 5. DO NOT USE TOXIC PLANTS. EXISTING PLANTS SHALL BE EVALUATED AND HAZARDOUS PLANTS REMOVED. CONTACT OWNER FOR LIST OF POISONOUS PLANTS. CONTRACTOR IS RESPONSIBLE FOR ENSURING NO POISONOUS PLANTS ARE USED. PLANTS WHICH HAVE FRUITS THAT POSE A CHOKING HAZARDS SHALL NOT BE USED. PLANTS WITH OTHER HAZARDS SUCH AS THORNS SHALL NOT BE USED. EXISTING VEGETATION SHALL BE PROTECTED WHENEVER POSSIBLE.
- 6. NO TREE SHALL BE PLANTED WITHIN 10' OF A UTILITY LINE UNLESS APPROVED BY OWNER
- 7. TREES AND SHRUBS SHALL NOT INTERFERE WITH PHYSICAL OR SIGHT CLEARANCES REQUIRED FOR VEHICLE OR PEDESTRIAN TRAFFIC WITHIN AND ACCESSING THE SITE, BOTH INITIALLY AND THROUGH MATURITY.
- 8. IF A METAL OR CONCRETE MOW STRIP IS USED, IT SHALL BE FLUSH WITH GRADE AND PREFERABLY OUTSIDE OF THE PLAYGROUND FENCE. THERE SHALL BE NO PROTRUDING OBJECTS ON THE PLAYGROUND.
- 9. FILL GAP IN SOD WITH SANDY TOPSOIL AND LIGHTLY ROLL TO BRING THE ROOTS OF THE GRASS INTO FIRM CONTACT WITH THE SOIL SO THAT SOIL MOISTURE IS AVAILABLE TO THE ROOTS AND THE SOD CAN "KNIT" WITH THE SOIL SONNER. ROLLING ISN'T FOR SMOOTHING OUT THE BUMPS. THAT IS DONE BY PROPER SITE PREPARATION BEFORE LAYING THE SOD.
- 10. ARCHITECTURAL SITE PLAN IS FOR LOCATION OF PLAY AND SITE FURNITURE.
  BUILDING SETBACKS, DRIVE AND BUILDING LOCATION SHOULD BE LOCATED PER
  CIVIL PLANS. UTILITIES AND SITE LIGHTING SHOULD BE LOCATED PER CIVIL AND
  ELECTRICAL DRAWINGS.
- 11. FINAL SIGN PLACEMENT SHALL BE AGREED UPON BETWEEN CONTRACTOR AND FRANCHISE OWNER
- 12. PROVIDE PANIC DEVICES ON ALL PLAYGROUND GATES. ALARMS ARE ONLY REQUIRED AT GATES THAT EXIT TO THE PARKING LOT OR A PUBLIC SPACE.

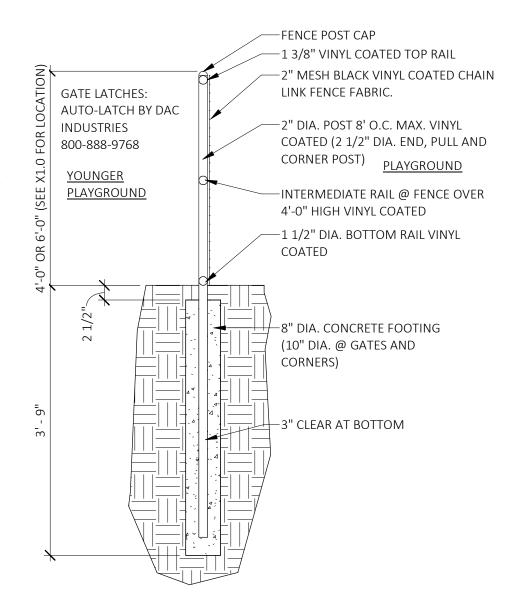
### SITE PLAN KEYED NOTES

- 1 EARLY PRE-SCHOOL PLAYGROUND EQUIPMENT SEE 1/A7.2
- 2 PRE-SCHOOL / AFTER SCHOOL PLAYGROUND EQUIPMENT SEE 2/A7.2
- 3 PRIMROSE PATCH 6' x 12' SEE 6/A7.2
- PRIMROSE PATCH SIGN SEE 3/A7.2
   12' x 12' SUNPORTS SUNSHADE. FORSET GREEN WITH BEIGE LOGO SEE 3/X1.0
- 6 MAILBOX, COORDINATE LOCATION WITH DEVELOPMENT MANAGER
   7 SMOKE FREE SIGN SEE 3/A7.2
- 8 BUCKLE UP SIGN SEE 3/A7.2
- 9 WATCH FOR CHILDREN SIGN SEE 3/A7.2
- 10 HC PARKING SIGNAGE SEE CIVIL DRAWINGS
- 11 MONUMENT SIGN SEE CIVIL DRAWINGS
- 12 5'W SIDEWALK SEE 7/A7.2
- 13 SIDEWALK SEE CIVIL DRAWINGS
- 14 4' BLACK VINYL CLAD CHAIN LINK FENCE, TYPICAL AT ALL INTERIOR FENCES SEE 6/X1.0
- 15 6' BLACK AMERISTAR IMPACT FENCE, TYPICAL AT FRONT OF BUILDING SEE DETAILS ON A7.3.
- 16 4' BLACK AMERISTAR IMPACT FENCE, TYPICAL AT FRONT OF BUILDING
- SEE DETAILS ON A7.3.

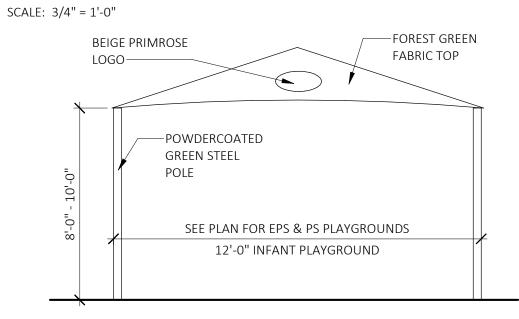
  17 6' BLACK AMERISTAR FENCE TYPICAL AT PERIMETER FENCES SEE 1 &
- 2/X1.0 18 4'W x 6'H BLACK GATE W/PANIC HARDWARE TO MATCH FENCE
- MATERIAL, TYPICAL SEE 2 & 5/X1.0

  19 PROVIDE ARTIFICIAL TURF THROUGHOUT PLAYGROUND SEE 8/A7.2
- 20 PARKING LOT WITH STRIPING SEE CIVIL DRAWINGS FOR DIMENSIONS.
- 21 NOT USED
- 22 LOT LIGHT SEE ELECTRICAL DRAWINGS
- 23 FLAGPOLE SEE 8/A7.1
  24 PROPOSED MASONRY TO
- 24 PROPOSED MASONRY TRASH ENCLOSURE, WITH CONCRETE APPROACH SEE SHEET A7.1
- DOWNSPOUT CONNECT W/4" PVC TO STORM SEE ROOF PLAN
   PROVIDE A KNOX BOX NEAR THE FRONT ENTERANCEFOR THE FIRE
- DEPT. ACCESS COORDINATE WITH LOCAL FIRE OFFICE.

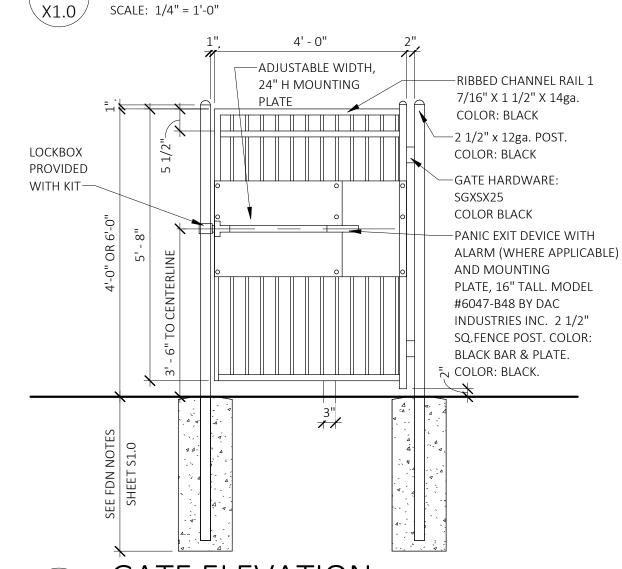
  27 PAD MOUNTED TRANSFORMER SEE ELECTRICAL DRAWINGS
- METER AND C.T. CABINET INSTALL BY G.C..G.C. CSHALL VERIFY EXACT LOCATION (PRIOR TO ROUGH-IN) WITH ELECTRIC UTILITY REP.
   GAS METER LOCATION SEE PLUMBING DRAWINGS
- 30 6'-7" +/- SIDEWALK, SEE 7/A7.2.
- 31 4'W x 4'H BLACK GATE W/ PANIC HARDWARE ARE TO MATCH FENCE MATERIAL, TYP. SEE 2 & 5/X1.0

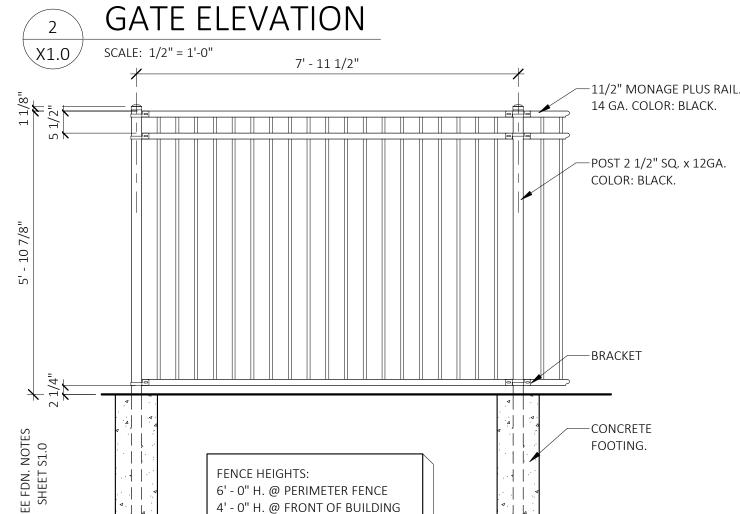


# CHAIN LINK FENCE

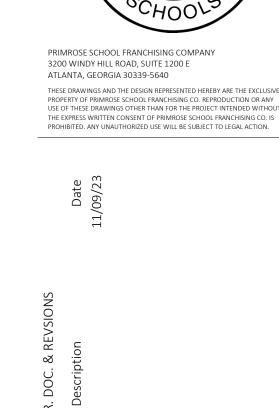














Professional of Record: Suzanne M Hayes LICENSE NO: 1301072179 EXP. DATE: 12/19/24

Drawn/CheckedDSC / ALAProject Number2202640Bid Date--/--/--Permit Date7/10/23For Construction--/--/--

ARCHITECTURAL SITE PLAN

X1.0



. 10 MILE 48375 43455 NOVI,

THESE DRAWINGS AND THE DESIGN REPRESENTED HEREBY ARE THE EXCLUSIVE THE EXPRESS WRITTEN CONSENT OF PRIMROSE SCHOOL FRANCHISING CO. IS PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.

### **BUILDING PROGRAM - MI** Primrose School - Michigan 06/06/2023

Name	Ages	Primrose S.F.	Michigan State	Michigan Max.	PSFC Staff	PSFC Max	Proposed Room	Staff	Required
Name	Ages	Per Child	Ratio	Group Size	Ratio	Group Size	Capacity	Required	Area S.F.
A1 - Infants	6 Wks - 12 Months	50	1:4	12	1:4	8	8	2	400
A2 - Infants	6 Wks - 12 Months	50	1:4	12	1:4	8	8	2	400
B1 - Toddlers	12 - 18 Months	50	1:4	12	1:6	12	12	3	600
B2 - Toddlers	18 - 23 Months	50	1:4	12	1:6	12	12	3	600
EP1 - Early Preschool	24 - 29 Months	50	1:4	12	1:8	16	12	3	600
EP2 - Early Preschool	30 - 35 Months	35	1:8	16	1:8	16	16	2	560
Preschool Pathways	30 - 42 Months	35	1:8	16	1:8	16	16	2	560
C1 - Preschool	3 Years	35	1:10	30	1:12	24	20	2	700
C2 - Preschool	3 Years	35	1:10	30	1:12	24	20	2	700
D1 - Pre - Kindergarten	4 Years	35	1:12	36	1:12	24	24	2	840
D2 - Pre - Kindergarten	4 Years	35	1:12	36	1:12	24	24	2	840
EXP - Kindergarten / After School	5 Years +	35	1:18	36	1:15	30	30	2	1050

CLEAR OPENING = 33"

OCCUPANT EXIT CAPACITY = 165

ACTUAL # OCCUPANTS EXITING = 14-

CLASSROOM - A2

EDUCATIONAL DAYCARE

AGE: 6WKS - 12 MONTHS

(8 X 50 = 400 SF REQ'D)

OVERALL SF = 477 SF

**CONFERENCE** 

RISER ROOM

CLEAR OPENING = 66"

(SECONDARY EXIT) —

OCCUPANT EXIT CAPACITY = 330

<u>OFFICE</u>

126 SF

PROVIDED LICENSED SF: 450 S

DRY STORAGE

INFANTS (1:4)

CLEAR OPENING = 33"

TOILET 14

**LAUNDRY ROOM** 

CAR SEAT \_<u>STORAGE</u>

**RECEPTION** 

BUSINESS 77 SF

228 SF

OCCUPANT EXIT CAPACITY = 165

ACTUAL # OCCUPANTS EXITING = 15-

CLEAR OPENING = 33"

ununununun

CLASSROOM - A1

AGE: 6 WKS - 12 MONTHS

PROVIDED LICENSED SF: 480 SF

(8 X 50 = 400 SF REQ'D)

OVERALL SF = 507 SF

RESOURCE ROOM

STAFF ROOM

TOILET 16

CLASSROOM - B1

EDUCATIONAL DAYCARE

(10 X 50 = 600 SF REQ'D)

PROVIDED LICENSED SF: 632 SF

AGE: 12 - 18 MONTHS

OVERALL SF = 656 SF

—CLEAR OPENING = 33"

202 27 7,850

TODDLERS (1:4)

TOILET 15

48 SF

CLEAR OPENING = 33"

OCCUPANT EXIT CAPACITY = 165 OCCUPANT EXIT CAPACITY = 165

ACTUAL # OCCUPANTS EXITING = 19 ACTUAL # OCCUPANTS EXITING = 19

BUSINESS 178 SF

STORAGE 1

INFANTS (1:4)

EDUCATIONAL DAYCARE

OCCUPANT EXIT CAPACITY = 165

ACTUAL # OCCUPANTS EXITING = **45**—

CLASSROOM -

PRESCHOOL PATHWAYS (1:8)

PROVIDED LICENSED SF: 857 SF OVERALL SF = 897 SF

TOILET 18

EDUCATIONAL CLASSROOM

AGE: 30 - 42 MONTHS

(16 X 35 = 560 SF REQ'D)

**PATHWAYS** 

<u>TOILET 17</u>\_

CLASSROOM - B2

EDUCATIONAL DAYCARE

(12 X 50 = 600 SF REQ'D)

OVERALL SF = 650 SF

PROVIDED LICENSED SF: 627 SF

AGE: 18 - 23 MONTHS

TODDLERS (1:5)

CLEAR OPENING = 33"

OCCUPANT EXIT CAPACITY = 165

ACTUAL # OCCUPANTS EXITING = 46—

CLASSROOM - C1

EDUCATIONAL CLASSROOM

(20 X 35 = 700 SF REQ'D)

OVERALL SF = 903 SF

PROVIDED LICENSED SF: 867 SF

<u>TOILET 12</u>

PRE-SCHOOL (1:10)

AGE: 3 YEARS

CLASSROOM - EP1

EARLY PRE-SCHOOL (1:8)

PROVIDED LICENSED SF: 622 SF

EDUCATIONAL DAYCARE

AGE: 24 - 29 MONTHS

(12 X 50 = 600 SF REQ'D)

OVERALL SF = 650 SF

CLEAR OPENING = 33"

OCCUPANT EXIT CAPACITY = 165

ACTUAL # OCCUPANTS EXITING = 19

—CLEAR OPENING = 33"

OCCUPANT EXIT CAPACITY = 165

ACTUAL # OCCUPANTS EXITING = **46** 

CLASSROOM - C2

EDUCATIONAL CLASSROOM

(20 X 35 = 700 SF REQ'D)

OVERALL SF = 903 SF

PROVIDED LICENSED SF: 867 SF

PRE-SCHOOL (1:10)

AGE: 3 YEARS

\_<u>TOILET 11</u>

CLASSROOM - EP2

EARLY PRE-SCHOOL (1:8)

**EDUCATIONAL CLASSROOM** 

(16 X 35 = 560 SF REQ'D)

PROVIDED LICENSED SF: 571 S

AGE: 30-35 MONTHS

OVERALL SF = 598 SF

— — — STORAGE 2

TOILET 4

STORAGE

TOILET 10

TOILET 1

68 SF

TOILET 3

TOILET 2

CLEAR OPENING = 33"

OCCUPANT EXIT CAPACITY = 165

ACTUAL # OCCUPANTS EXITING = **30** 

SHOWS DIRECTION OF SHORTEST DISTANCE TO AN ACCESSIBLE PATH

THAT LEADS TO THE PUBLIC WAY

CLEAR OPENING = 33"

OCCUPANT EXIT CAPACITY = 165

CLASSROOM - D1

EDUCATIONAL CLASSROOM

(24 X 35 = 840 SF REQ'D)

OVERALL SF = 901 SF

PROVIDED LICENSED SF: 866 SF

TOILET 9

TOILET 6

**CLASSROOM - EXP** 

EDUCATIONAL CLASSROOM

(30 X 35 = 1,050 SF REQ'D)

PROVIDED LICENSED SF: 1,061 SF

AGE: 5 YEARS & UP

OVERALL SF = 1121 SF

—CLEAR OPENING = 33"

OCCUPANT EXIT CAPACITY = 165

ACTUAL # OCCUPANTS EXITING = **29** 

LS1.0 SCALE: 1/8" = 1'-0"

KINDERGARTEN/AFTER SCHOOL (1:15)

LIFE SAFETY PLAN

AGE: 4 YEARS

PRE KINDERGARTEN (1:12)

ACTUAL # OCCUPANTS EXITING = 46-

—CLEAR OPENING = 33"

OCCUPANT EXIT CAPACITY = 165

ACTUAL # OCCUPANTS EXITING = **45** 

CLASSROOM - D2

PRE KINDERGARTEN (1:12)

EDUCATIONAL CLASSROOM

PROVIDED LICENSED SF: 863 SF

(24 X 35 = 840 SF REQ'D)

OVERALL SF = 899 SF

AGE: 4 YEARS

\_TOILET 7

TOILET 5

—CLEAR OPENING = 33"

OCCUPANT EXIT CAPACITY = 165

ACTUAL # OCCUPANTS EXITING = **29** 

CLEAR OPENING = 33"

(SECONDARY EXIT)

20 SF

<u>OUTDOOR</u> \_<u>storage</u> STORAGE

OCCUPANT EXIT CAPACITY = 165 <

	OCCUPANT LO	AD:			
	AREA	AREA SUM	OCCUPANTS	TOILET FIXTUR	RES (TABLE 2902.1)
GROUPS	EDUCATION: DAYCARE	2,940 S.F. / 35 =	84	1 FIXTURE / 50	O OCC. = 2 FIXTURES
USE GRC	EDUCATION: CLASSROOM	6,222 S.F. / 20 =	312	1 FIXTURE / 50	O OCC. = 7 FIXTURES
$\supset$	KITCHEN:	266 S.F. / 200 =	2	1 FIXTURE / 25	OCC. = 1 FIXTURE
	BUSINESS:	1,039 S.F. / 150 =	7	1 FIXTURE / 25	5 OCC. = 1 FIXTURE
CSES- RY E	STORAGE:	274 S.F. / 300 =	1	1 FIXTURE / 10	00 OCC. = 1 FIXTURE
ACCSI SORY USE	HALL:	1,155 S.F. / 5 =	231	1 FIXTURE / 10	00 OCC. = 3 FIXTURES
S O	TOILETS:	745 S.F. / 5 =	149	1 FIXTURE / 10	00 OCC. = 2 FIXTURES
}	TOTAL NET O	CCUPANTS:	786	TOTAL:	17 FIXTURES
TOILET FIXTURES PROVIDED: 2					20 FIXTURES

EXTERIOR WALLS, TOILETS AND CORRIDORS ARE CONSIDERED UNOCCUPIED SPACE AND NOT CALCULATED IN THE OCCUPANCY.

**EXIT REQUIREMENTS:** 250' (TABLE 1017.2) TRAVEL DISTANCE MAXIMUM DEAD END CORRIDOR LENGTH 50' (SECTION 1020.4) EGRESS WIDTH (INCHES PER OCCUPANT) 0.2" (SECTION 1005.1) 44" (TABLE 1020.2) MINIMUM CORRIDOR OR AISLE WIDTH MINIMUM CLEAR OPENING EXIT DOOR 32" (SECTION 1010.1.1) MINIMUM DOOR HEIGHT 80" (SECTION 1010.1.1)

REQUIRED NUMBER OF EXITS: SECTION 1006 REQUIRED: (2) EXITS PROVIDED: (16) EXITS

EXIT WIDTH: **REQUIRED:** 

PROVIDED:

406 OCCUPANTS x 0.2" = 81.2" 15 DOORS @ 33" = 495" 1 DOOR @ 66" = 66" TOTAL PROVIED = 561" TOTAL: 561" PROVIDED > 81.2" REQUIRED CORRIDORS: SECTION 1020

CORRIDORS SHALL BE FIRE RESISTANCE RATED IN ACCORDANCE WITH TABLE 1020.1

A FIRE RESISTANCE RATING IS NOT REQUIRED FOR CORRIDORS IN AN OCCUPANCY GROUP E WHERE BUILDINGS ARE EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1 OR 903.3.1.2 WHERE ALLOWED.

MAXIMUM ALLOWABLE PER TABLE 504.3 = 60'-0" ALLOWABLE NUMBER OF STORIES PER TABLE 504.4 = 2

ACTUAL BUILDING HEIGHT: TOP OF HIGHEST RIDGE = 29'-0" +/-ACTUAL NUMBER OF STORIES = 1

OCCUPANCY LOAD: MAX. FLOOR AREA ALLOWANCES PER OCCUPANT (TABLE 1004.5)

## CALCULATED AREA

BUILDING SQUARE FOOT AREA SUMMAR	RY
NAME	AREA
EDUCATION & BUSINESS U	SE:
EDUCATIONAL DAYCARE	2,940 SF
EDUCATIONAL CLASSROOM	6,222 SF
BUSINESS USE GROUP	1,039 SF
KITCHEN	266 SF
HALL	1,155 SF
TOILETS	745 SF
ACCESSORY USES:	
STORAGE USE GROUP	274 SF
INTERIOR WALLS	628 SF
NET AREA (INSIDE FACE OF EXT. WALLS)	13,269 SF
EXTERIOR WALLS	277 SF
TOTAL BUILDING S.F.	13,546 SF

### TRAVEL DISTANCES

CLASSROOM - A1	30' - 7 3/4"
CLASSROOM - A2	28' - 10"
CLASSROOM - B1	36' - 6 5/8"
CLASSROOM - B2	38' - 6 5/8"
CLASSROOM - C1	58' - 1 1/4"
CLASSROOM - C2	58' - 0 1/2"
CLASSROOM - D1	57' - 11 1/2"
CLASSROOM - D2	57' - 11 1/4"
CLASSROOM - EP1	44' - 0 1/8"
CLASSROOM - EP2	37' - 11 3/4"
CLASSROOM - EXP	56' - 5 1/8"
CLASSROOM - PATHWAYS	59' - 7 3/4"
Hall Path 1	70' - 11 3/4"
Hall Path 2	99' - 0"
Hall Path 3	82' - 0 1/2"

***	1301072179	11.09
Pro	fessional of Rec	ord:
S	Suzanne M Haye	es
LICEN	NSE NO: 130107	72179
EX	P. DATE: 12/19,	/24

Drawn/Checked

, , , , , , , , , , , , , , , , , , ,	
Project Number	2202640
Bid Date	//
Permit Date	7/10/23
For Construction	//

LIFE SAFETY PLAN

- 1. This document contains instructions to bidders for the project named above. This bidding document is not part of the contract documents, unless specifically referenced in the Owner/Contractor Agreement.
- 2. To obtain bidding documents contact the Architect. 3. Submission of bids: Submit Documents "Attachment A - Bid Proposal Form" and "Attachment B - Bid Form" before the time and date below. Submit bids via email. Provide "Attachment B - Bid Form" in .xls file format.
- 4. Due date and time of day: Per Invitation to Bid. 5. The Owner reserves the right to reject or accept any or all bids or to enter into negotiations with any contractor.
- The Owner reserves the right to modify the contract documents and rebid the project, if necessary, to meet the Owner's budgetary requirements.

### SECTION 00110 - INSTRUCTIONS TO BIDDERS

1. Bids entitled to consideration shall be filled out completely without alterations or erasures.

subcontractors shall be submitted within forty-eight (48) hours.

- 2. Each bid shall be made out on a form, a copy of which will be attached to bid documents. Upon the request of Owner after the bid opening, list of
- 3. LEGAL CONDITIONS: Bidders are notified to familiarize themselves with the laws of the State and of all governing ordinance or codes of the State, County or City, or other authority having jurisdiction relating to the hours and protection of labor, use of streets, protection against fire, and any other conditions which may be required.
- 4. EXAMINATION OF THE SITE: Before bidding, Contractor shall examine the site and satisfy themselves as to existing conditions under which they will have to operate in performing the work. No allowance shall be made subsequently for their failure to do so.
- WITHDRAWING BIDS: Bids received after the time and date specified will be returned unopened to the Bidder. Any bid may be withdrawn prior to the time set for opening of bids, but no bid may be withdrawn for a period of sixty (60) days after the date set for receipt of the bid. In order for bid to be considered, bidder must hold appropriate license enabling him to do the
- REJECTION OF BIDS: It is understood that the Owner will not be responsible for any errors or omissions on the part of the Contractor in making their proposal. The Owner reserves the right to reject any or all bids and to waive any informality or irregularity in any bid if the Bidder failed to furnish any required bid security (if required) or to submit the data requested by the bid documents or if the bid is in any way incomplete or irregular.
- 7. INTERPRETATION OF PLANS AND SPECIFICATIONS: All bidders shall carefully examine the drawings and specification to inform themselves fully as to all conditions and limitations. If there is any doubt as to the true meaning of any parts of the drawings, specifications or other documents, the Bidder shall submit to the Architect a request for an interpretation thereof. Any interpretation of documents shall be made by Addendum only, duly issued, and a copy of each such Addendum will be emailed or delivered to each person or firm receiving a set of bid documents. The Owner will not be responsible for any other explanation or interpretation of the Contract Documents. No questions will be answered by either the Owner or Architect within forty-eight (48) hours of the bid date and time.
- 8. ADDENDA: The effect of all Addenda to the Contract Documents shall be considered in the Bid, and said Addenda shall be made part of the Contract Documents. Before submitting they Bid, each Bidder shall inform themselves as to whether or not any Addenda have been issued, and failure to cover Addenda in their Bid may result in its rejection. 9. CONTRACT REQUIREMENTS: The following are required to be supplied by
- award of a contract, and all Contractors bidding the Work shall include the cost of the following in their bids: a. A certificate indicating the Contractor's Liability and Property Damage Insurance is in force and with a company acceptable to the Owner, and

the successful low bidder within ten (10) days notification of selection for the

- indicating the Owner and Architect as additionally insured. b. Minimum insurance coverage requirements specified in Supplementary
- c. A certificate indicating compliance with the State Workman's
- Compensation Law. d. A Construction Schedule Bar Chart listing all critical path trades and
- milestone dates. e. Within forty-eight (48) hours of the Owner's request, a Schedule of Values, listing Subcontractors that the General Contractor will employ on
- this Project and associated price breakdowns. f. The SBA loan/lender will now be disbursing funds directly to subcontractors and suppliers with purchase orders over \$5000.00. Please let your accounting staff know of these changes.
- 10. EXECUTION OF CONTRACT: a. The Owner reserves the right to have performed the entire amount of
- work, or such parts of the work as he may select. b. If this is an SBA loan, the lender will be disbursing funds directly to subcontractors and suppliers with purchase orders over \$5000.00.
- Please let your accounting staff know of these changes. 11. CONTRACT AWARDING: The Bidder to whom the job is awarded will be required to execute a written contract with the Owner after notification of award. The Architect will forward to the Contractor for his signature:
- a. Five (5) sets of contracts, with the appropriate figures and information. b. One (1) sets of Drawings and Specifications in PDF form. General Contractor shall ensure that a complete set of **Construction Documents**
- given to all Subcontractors prior to bid submission. c. The Contractor shall sign and return all Contracts to the Owner for further signature processing.
- 12. CONSTRUCTION COMMENCEMENT AND COMPLETION SCHEDULES: The base bid will be based on a completion time as you list on the Primrose Bid Form with a maximum as listed in the Bid Form, from the date of the commencement of construction. The Contractor submitted Construction Schedule shall show the method of completing the entire project, including one (1) week for punch out, by the determined completion date.
- a. The job shall commence upon Architect's authorization to proceed. However, no construction shall begin until construction contracts have been signed; and written notice by the Architect to proceed is given to the Contractor. Extensions will be considered only by the Owner if they are presented in written form for either commencement or completion of the building. It is the intent of the Owner to proceed with the start of construction as quickly as possible within the aforementioned criteria. During construction, the Architect will supply one (1) set of plans in paper and electronic form for the Contractor to use, including all revisions. Additional construction sets may be purchased from the office of the Architect at cost.
- 13. CONSTRUCTION PROGRESS REPORTS: Contractor awarded the job shall supply the Architect and Owner with a written construction schedule within five (5) days of Notice to Proceed. During the Work, Contractor shall supply the Owner & Architect with written daily construction reports on a weekly basis that indicate work accomplished on the project during the week. Provide digital photos of all work underway.

SECTION 00500 - BID BOND Not required.

SECTION 00600 - FORM OF CONTRACT

1. AGREEMENT: The Agreement between Owner and Contractor, shall include the

a. Construction Contract shall be AIA Form A-101 Standard Form of Agreement between Owner and Contractor 2017 edition with modification as required by the lending institution. A copy of this document is available from the

Owner upon written request by a General Contractor bidding this project.

- b. Standard AIA Document G701, most recent edition, "Change Order". c. Standard AIA Document G702 & G703, most recent edition, "Application and Certificate for Payment"
- d. Standard AIA Document G703, most recent edition, "Continuation Sheet" e. Standard AIA Document G704, most recent edition, "Certificate of Substantial Completion"
- f. Standard AIA Document G706, most recent edition, "Contractor's Affidavit of Payment of Debts and Claims". g. Standard AIA Document G706A, most recent edition, "Contractor's Affidavit
- of Release of Liens". h. Request for Extension of Time - Contractor's own form (or Field Order

### SECTION 01000 - GENERAL CONDITIONS

- Standard AIA Document A201, 2017 edition, "General Conditions of the Contract for Construction" with Primrose modifications is hereby
- incorporated into and made a part of the Contract by reference. 2. A copy of this document is available from the Architect upon written request by a General Contractor bidding this project.

### SECTION 01100 - SUPPLEMENTARY GENERAL CONDITIONS

- The following supplements modify, change, delete, or add to the General Conditions. Where any part of the General Conditions is modified or voided by these articles, the unaltered provisions of that part shall remain in effect. . Add the following:
- 1.1.9 The construction shall be in accordance with the applicable National, State, County, and Local building codes and the requirements of the specifications hereinafter included. The construction shall be in accordance with such code and generally recognized standards or requirements with no additional expense to 1.1.9.1 When more than one (1) code is applicable to the work, construction will
- conform to the most stringent requirement. Where the requirement of the specifications exceed code requirements, the Work shall conform with the
- 1.1.9.2 The Owner shall obtain the following agency approvals or as required:
- a. State and Local Fire Marshal permit
- b. State and Local Health and Welfare Departments permit c. State and Local Building Department overall permit
- All other minor permits shall be the responsibility of the Contractor and their

1.1.9.3 Contractor shall be responsible to pay those fees specified at the time of contract signing. Required fees, not covered in documentation, paid by Contractor to expedite construction will be reimbursed by Owner. 1.1.9.4 Owner will pay the site bonding fees where required. The Contractor shall reimburse Owner for any bond fees not returned by the local jurisdiction to Owner at the conclusion of the project, unless it is necessary to hold a

landscaping bond past conclusion. 1.1.9.5 It is the responsibility of the General Contractor to verify that all utilities are as noted on the site plan. 1.2.4 In case of difference between drawings and specifications, the most

expensive requirement shall govern. Contact Owner and/or Architect for resolution. Anything mentioned in the drawings and not in the specifications and vice-versa, shall have like affect as if mentioned in both. Large scale drawings take precedence over small scale drawings. 3.2.5 Reference to any product in the specifications shall be interpreted as establishing a standard of quality and shall not be construed as limiting competition unless stated in specification. Products of equal quality may be substituted if approved by the Architect prior to bidding. 3.7.1.1 The Owner will attempt to secure the general building permit, health department approval, and fire department approval before starting construction. Owner will pay for these permits only, unless noted otherwise in the Contract

3.9.1.1 PROJECT SUPERVISION: Contractor will be responsible for providing proper, adequate and competent job site supervision and management of the project. The Owner reserves the right to remove any of the project job site supervision and or management, if Owner if under the opinion that the personnel in question is either not competent for the position, and/or is not satisfying the requirements and standards of the project, as specified in the Contract Documents. At a minimum, a superintendant employed by the Contractor on-site at all times any work is occurring or deliveries are made.

7.5 Overhead and profit for changes: 7.5.1 It is the intent of the owner, wherever possible, to establish the cost or credit from a change in the work by a mutually acceptable fixed price. It is hereby agreed that the allowance for the overhead and profit combined included in the total cost to the owner, shall be based upon the following schedule:

- a. To the contractor performing with own forces not to exceed 20% of the net additional cost. b. To the subcontractor performing with own forces - Not to exceed 10% of
- the net additional cost. c. To the contractor, not to exceed 10% of the amount due a subcontractor.
- 8.3.4 It is understood that the contract time will stop at Substantial Completion or the issuance of a Certificate of Occupancy, whichever is first to occur. Substantial Completion is defined as when the Owner can take beneficial occupancy of the building. This is defined as the ability to stock the building with

9.3.1.3 Each monthly application for payment shall be accompanied by a report as to the status of the work in relation to the progress schedule, and if behind schedule, what steps are being taken to regain lost time. 9.3.1.4 On a date as set in the contract, ninety (90%) percent of the value, based

on contract prices, or labor and material incorporated into the work and of materials suitably stored at the site thereof up to the first day of that month, as estimated by the architect, less the aggregate of previous payments; and upon substantial completion of the entire work, ninety (90%) percent of the contract price, application for the remaining 10%, to be paid upon completion and acceptance of the work by the owner.

9.3.1.5 No lien releases will be required with the first draw. With the second

draw and all subsequent draws, unconditional, original copies of the lien releases covering the full amount of previous draw will be required. 9.3.2.1 A portion of the retainage may be withheld until all inspection requirements have been satisfied and bonds released. This will include the contractor securing all "final government inspections", but not limited to highway, sewer, water, engineering, landscaping, arborist; all in the mode required by the municipal or other governing body to cause them to issue a release of all required bonds, escrows, letters of credit, and/or refundable. 9.3.4 In the event the contractor requests a final inspection, and upon arrival the architect finds the work incomplete for inspection, the contractor will be issued a

deductive change order for the cost of travel, not to exceed \$1,500.

11.5 SPECIFIC INSURANCE REQUIREMENTS 11.5.3 The contractor shall comply with the workman's compensation laws of governing at the site. Submit a certificate to the architect showing proof of the ability to pay compensation directly.

11.5.4 The contractor shall, during the progress of the work, maintain builder's risk insurance, thereon in the amount of the full insurable value thereof. Such insurance shall cover all work in place or stored. The company issuing and the form of policy shall be acceptable to the owner. Insurance shall cover "all risks" including theft (in place or stored material), vandalism, and malicious mischief. Provide a certificate of insurance acceptable to the owner prior to commencing construction. Owner and contractor waive all rights against each other for damages caused by fire or other perils to the extent covered by insurance obtained for the work. Contractor shall require similar waivers in favor of the owner and contractor by any subcontractors.

11.5.5 The contractor shall maintain owner's protective liability insurance, taken out in the name of the owner as insured with limits as follows:

- A. Personal injury including death: \$500,000 per person and \$500,000 for each occurrence. B. Property damages: Limits of \$100,000 per occurrence and \$250,000 for
- aggregate operations. C. A certificate shall be submitted to the owner prior to commencing work.
- 11.5.6 The contractor shall maintain contractor's protective liability insurance with limits as follows:
- A. Personal injury including death: \$500,000 per person and \$500,000 for each occurrence.
- B. Property damages: Limits of \$100,000 per occurrence and \$250,000 for aggregate operations. C. A certificate shall be submitted to the owner prior to commencing work.
- 11.5.7 The contractor shall maintain contractor's public liability insurance including completed operations and contractual liability with limits as follows: A. Personal injury including death: \$500,000 per person and \$500,000 for
- each occurrence. B. Property damages: Limits of \$100,000 per occurrence and \$250,000 for aggregate operations
- C. A certificate shall be submitted to the owner prior to commencing work. 11.5.8 The contractor shall maintain contractor's comprehensive automobile liability insurance with the limits as follows:
- A. Personal injury including death: \$500,000 per person and \$500,000 for each occurrence.
- B. Property damages: Limits of \$100,000 per occurrence and \$250,000 for aggregate operations. C. A certificate shall be submitted to the owner prior to commencing work.
- 11.5.9 All coverage's shall include the owner, Architect, and Architect's Consultants as an additional named insured and shall provide the owner with not less than 10 days advance notice of the cancellation or material change to these policies. These coverage's shall continue throughout the term of the contract, including any extensions made thereto. The form of the policy for such insurance shall be acceptable to the owner, and such policy shall be issued by a company acceptable to the owner.
- 11.5.10 In any case of employees engaged in hazardous work under this contract not protected under the workman's compensation statute, the contractor shall have adequate coverage provided for the protection of employees so engaged and not otherwise protected.

11.5.11 Provide an umbrella liability policy with limits of not less than \$1,000,000 to be excess of any other coverage required. Such coverage shall be at least as broad as the primary coverage above, with any excess umbrella layers written on a strict following form basis over the primary umbrella. All such policies shall be endorsed to provide defense coverage obligations. 13.6 Contractor shall promptly pay to owner all costs and reasonable attorney fees incurred in connection with any legal action in which the owner prevails, in whole or in part, based on a breach of the contract or any other dispute arising out of or in connection with the contract. 13.6.1 It is mutually agreed that any legal action arising out of or in connection with this contract shall be filed and heard in the jurisdiction where the project is

constructed.

- 1. Definitions: The General Conditions of the Contract is to be amended to
- a. OWNER: Primrose School Franchising Company's franchise owner. b. CONTRACTOR: As used herein, refers to the Principal Contractors, foreman, agents, and employees thereof.
- c. PRIMROSE: Where referred to, means: Primrose School Franchising
- d. ARCHITECT: CASCO Aubrey Armstrong Project Manager, 12 Sunnen Drive, Suite 100, St. Louis MO 63143, (314) 821-1100
- 2. Measurements: Before ordering any materials or doing any work, the contractor and his subcontractors shall verify all measurements at the building and be responsible for same. The contractor shall verify all grades, levels, lines and dimensions. No extra charge will be allowed due to differences in field and plan dimensions. Any differences shall be reported to the Architect for consideration before proceeding.
- 3. Layout: The Contractor shall employ a licensed surveyor to establish grades, benchmarks, and lay out the work. Contractor shall maintain and safeguard all benchmarks.
- The Contractor and all their Subcontractors agree to fully comply with any and all OSHA regulations. The Contractor and their Subcontractors as a term and condition of this contract shall keep and save the Owner and Architect harmless from any claims and charges of any kind by reason of Contractor and/or Subcontractor failing to fully comply with the act and regulations and agrees to reimburse the Owner any fines, damages, or expenses of any kind incurred by the Contractor and/or Subcontractor by reason of the their failure to comply.
- 5. Fire: The Contractor shall take all necessary precautions the guard against and eliminate possible fire hazards and to prevent damage to the work, materials, equipment, temporaries, and public/private property. Provide fire extinguishers and maintain in good order during construction as required by Fire Officials and applicable regulations. No workman shall be allowed to start fires with gasoline or other flammable materials. No open fires shall be allowed. Salamanders shall be set in earth, concrete, or other noncombustible flooring. Keep eight feet of clearance to any combustible material. Remove all oil soaked rags, papers, or other highly combustible materials from the building.
- Signs: The Contractor and/or Subcontractors shall not display nor permit any signs or advertisements without the permission of the Owner. The Owner will furnish any Job Signs deemed necessary to advertise the building. Contractor shall install, maintain, and remove the signage during the construction process.
- 7. Hazardous Materials: The Architect and Owner requires from material suppliers and equipment manufacturers representations concerning hazardous materials per the following language: It is the intent of the specifications that no product or material be incorporated into the building that contains any hazardous substance, or that such products shall be properly identified prior to use or incorporation
- 8. ADA: The products and materials furnished for this building shall be fabricated, constructed, and installed in compliance with the Americans with Disabilities Act, applicable to this facility. Should any equipment, item, or element of the work not comply with the applicable provisions of the ADA, the Architect shall be notified during the bidding period.

9. The Contractor shall keep at the site of the Work a copy of the Drawings, Specifications, Site Plan, and other pertinent documents, and shall at all times allow the Owner and duly authorized representatives free access thereto. Such sets of documents shall not be used by workmen, exposed to the weather, or otherwise used for any purpose other than consultation by/or with the above-named persons

10. Record Drawings: The Contractor shall maintain and keep up to date a complete set of construction documents that shall be corrected daily to indicate the precise dimensioned location of concealed work, including equipment, piping, and conduit. Upon completion of the work, this set shall be forwarded the Architect.

### SECTION 01200 - SPECIAL CONDITIONS

- 1. The work shall commence at the time stipulated in the Notice to Proceed, and shall be fully complete by the date or time stipulated in the Bid Form.
- 2. Time is the essence of the Contract. Any delay of the work as provided for in the Contract Documents will cause loss and damage to the Owner in lost business, interest cost, and increased administrative charges. Therefore a time charge equal to \$250 (Two hundred and Fifty dollars) per day for each day for the first 30 calendar days, and \$350 (Three Hundred and Fifty dollars) per day for every calendar day thereafter beyond the Completion Date as provided in the Contract Documents. The monies shall be paid to the Owner out of funds otherwise due the Contractor in the Final Payment, not as a penalty, but as liquidated damages sustained, it being mutually understood and agreed between the parties thereto that such amount is reasonable as liquidated damages
- . Substantial Completion shall occur at the latter of the building being ready for delivery of FF&E as determined by Primrose Corporate or the delivery of a temporary certificate of occupancy that will allow the building to be stocked and training to occur. It is understood the time period between Substantial Completion and Final Completion will be used by the Contractor to finish the final punch list and address any governmental final inspection . When it rains on the construction site, based on the agreed upon
- precipitation records address (e) below), at any time during the construction period, from notice to proceed to substantial completion/Certificate of Occupancy, each separate rain event shall add day(s) to the contract time in the following manner:
- 1. Up to .25 inch of precipitation: no time will be added to the contract. 2. From .26 inch up to .50 inch of precipitation in a twenty-four hour period: 1 (one) day will be added to the contract schedule.
- 3. From .51 inch to 1.00 inch of precipitation in a twenty-four hour period: 2 (two) days will be added to the contract schedule.
- 4. Over 1 inch of precipitation in a twenty-four hour period: 3 (three) days will be added to the contract schedule. Precipitation records to be obtained from the following address <a href="http://www.wunderground.com">http://www.wunderground.com</a> . The Contractor shall provide the testing, adjusting, and balancing of the
- HVAC system. The exclusive independent, certified, and national T&B firm is Melink Corporation (no exceptions). Call Melink to confirm price for preliminary visit plus visit to test and balance per the current program pricing and terms (available upon request) A kickoff call shall occur at the beginning of the project between Melink, Contractor, HVAC Contractor, and Construction Manager. On the call the team should schedule the first visit or at least get a rough estimate of when the first visit will be. The general Contractor shall be responsible for scheduling the testing, adjusting, and balancing directly with Melink Corporation at least 4 weeks in advance. The first step is a preliminary inspection to inspect the equipment in place and plan for the final balance when the HVAC systems are complete and fully operational. This work shall be performed after the HVAC system start-up and before turnover to Operations. Gas and electric power must be turned on, all doors and windows installed, and ceiling tiles in place. The purpose of testing, adjusting, and balancing the HVAC system is to ensure optimal performance, comfort, and energy efficiency for the Owner's benefit. This service covers all heating and air-conditioning and exhaust ventilation systems. A certified report will be submitted to the Owner within 1-2 weeks
- following checklist: 1. Inquire about any design, equipment, and installation problems.

of completion. The T&B work shall be completed in accordance with the  $\,$ 

- 2. Compare installed system to mechanical plans.
- 3. Document design specifications for report. 4. Ensure all fans are running for balance.
- 5. Measure initial building pressure. 1. Inspect the HVAC System
- 6. Inspect units and document any deficiencies. 7. Record unit nameplate data.
- 8. Check thermostats for proper wiring and settings. 9. Check for correct fan rotation (include condenser fans).
- 10. Check conditions of filters and coils.
- 11. Check position of outside air dampers. 12. Check gas lined and condensate lines.
- 13. Check belt tension and pulley alignment.
- 14. Check disconnect switches and covers. 15. Check any fan noises and vibration.
- 16. Check heating/cooling modes of RTUs.
- 1. Test and Balance the HVAC System 17. Measure supply and return airflow's.
- 18. Adjust RPM as necessary to achieve design. 1. Check actual amps versus motor FLA. 2. Note adjustments made on pulleys.
- Measure final RPMs. 19. Damper at branch takeoffs first and at diffusers second.
- 20. Check for drafts and hot/cold spots
- 21. Ensure slightly positive building pressure. 1. Fine tune position of OA dampers.
- 2. Measure final building pressure.
- Final Review 22. Review report and data for completeness.
- 23. Discuss findings and results with superintendent. 24. Submit certified report along with recommendations to Owner. 1. Air quantities shall be balanced to within +/- 10% of design as a general rule. However, in some cases, the air quantities may need
- to be adjusted differently in order to ensure acceptable comfort levels, proper hood capture, positive building pressure, etc. Melink shall notify the superintendent of any deficiencies needing immediate attention, and the G.C. shall have the mechanical and electrical contractors available on call to promptly correct any such problems (i.e. burned out motors, failed thermostats, incorrect wiring, bad circuit breakers and starters, dirty filters, missing
- 2. In the event Melink need to reschedule a follow-up visit to test and balance any equipment not ready on the originally scheduled T&B date, the G.C. shall pay the additional cost involved, including travel. 3. Required Vendor: Melink Contact Information:

dampers, undersized RTU outside air intake).

Ashley Morris, 5140 River Valley Rd. Milford, OH 45150 Phone: 513-965-7032 primrose@melinkcorp.com

### **SECTION 01500 - TEMPORARY FACILITIES**

- 1. Job Site Trailer: The Contractor shall provide a job trailer at the building site. In addition, provide a minimum 150 square foot area, 7' interior height storage container, lockable. The container must be on site a minimum of six week prior to scheduled completion
- Water: The Contractor shall make arrangements for the use of water during the construction period. They shall pay for and provide all temporary piping, meters, connections, etc. as required to make water available at all times on the
- 3. Electricity: The Contractor shall make all arrangements, pay all fees and charges, and maintain temporary electrical power at all times on the site. Power shall be sufficient for all electrical tools and equipment, and as necessary to provide and maintain temporary lighting in all areas of the job throughout the 2.
- course of construction. Temporary Heat and Protection: The Contractor shall provide at their own expense, temporary heat, protection, and adequate ventilation as necessary to protect the work against injury from freezing and frost. After drywall,
- woodwork, ceiling panels, and other finish materials have been installed, the temperature shall be maintained at not less than 55 degrees at all times. Temporary Toilets: The Contractor shall provide, maintain, and clean temporary chemical toilets of a type and quantity approved by local authorities for use by
- Pumping: The Contractor shall promptly remove all water in excavations, trenches, etc. at any time during the progress of the work and they shall keep the premises free from standing water at all times until the completion of the

### SECTION 01700 - GENERAL REQUIREMENTS/PROJECT CLOSEOUT

- The following items are the responsibility of the General Contractor to the Owner prior to final acceptance:
- a. Unrestricted Certificate of Occupancy. b. Fire Marshal approval.

workmen during the construction period.

- c. Health Department Approval (as related to building items installed in the kitchen, pantry, laundry and toilets as a part of the contract). The contractor will provide the following to Owner at the time of the Final
- a. Maintenance and equipment manuals (2 copies of each).
- b. Guarantees and warranties for each piece of equipment or material installed that carries such. All guarantees and warranties shall extend from either the date of building acceptance by Owner or the date building is placed into daily operation, not from the date of installation of the equipment.
- c. A written guarantee from the Exterminator drawn in favor of the Owner for not less than one (1) year making good any damage caused by subterranean termites
- d. A list of all Subcontractors, including addresses and telephone numbers. e. Warranty on roof to Owner
- f. Material: Touch up paint and stains. One unopened can of each. g. Two (2) percent of floor surfaces used.
- h. State and/or local Fire Marshall approval as applicable. i. State and/or local Health Department approval as applicable. j. A Certificate of Occupancy or final building inspection report by local building official as applicable.

### SECTION 01710 - CLEAN-UP

- Damage and Breakage: The Contractor shall be responsible for all damage, breakage, or other injury to the building or equipment. The Contractor shall protect all adjacent property, roads, streets, curbs, plantings, etc. during construction operations. All damages shall be repaired/replaced by the Contractor at his expense.
- protect all finished work from soiling, staining, or damage. The Contractor shall provide dust abatement for all involved portions of the site by watering, sprinkling, or the use of calcium chloride. 3. Clean-up: The Contractor shall clean all surfaces, equipment, and fixtures inside and outside the building for the Final Inspection. Cleaning shall leave

Protection: The Contractor shall provide drop cloths, planks, runways, etc. to

the building dust free. All paint, drywall compound, etc. shall be removed from window frames, glass, etc.

### Broom clean building every day. **DIVISION 2 - SITEWORK**

### SECTION 02000 - SUBSURFACE INVESTIGATION

PART 1 - GENERAL 1. Subsurface investigation report will be furnished to the Contractor by the Owner and shall become a part of the Construction Documents. Data on subsurface investigation is not intended as representation or warrants of continuity of such conditions between soil borings. The Owner will not be responsible for interpretations or conclusions drawn by the Contractor.

### **SECTION 02100 - EARTHWORK**

- PART 1 GENERAL
- 1. Fills, Finish Grading: See below for specific grade slopes and drainage
- requirements 2. Fills shall be of materials as specified herein or in the soils report, with all slopes
- 3. Grading must be accomplished in a manner so as not to allow water to pond. All cutting, filling, compaction of fills, rough, and finish grading to subgrades as 4. For surfaced areas such as roads, parking areas, walks: To the underside of the
- surfacing or base course. The elevations are fixed by the finished grades of the
- 5. For lawn and planted areas: Topsoil shall be 4" thick; therefore, grade to four (4) inches below finished grade before placing topsoil. 6. Included in the scope of work is the grubbing, clearing, and removal of all trash, brush, trees, organic matter, and vegetation on site and not shown to remain.
- premises. Do not burn on-site. 7. During the construction period provide temporary drainage ditches to keep

Remove all trash and debris from the site. Dispose in an approved dump off

- construction areas free of accumulated water. 8. Provide dust control for all earthwork operations. Cover area with light coating of water or other approved method. 9. Any earthwork in place and tested that is subjected to freezing before the
- pouring shall be reworked and proof rolled prior to concrete placement. 10. Fill and backfill shall be placed in accordance with recommendations set forth in "Subsurface Investigation Report". Professional Engineering supervision of excavation and compaction will be required. Testing shall be done by an independent testing laboratory approved by the Owner. **CONTRACTOR** shall pay for all such tests. Perform one density test on each type of fill material.

Perform one field density test for each lift or of the existing subgrade. Existing

forwarded to the Architect and Contractor. Contractor shall cooperate with the

subgrade shall be proof rolled and compacted to 95% proctor density or as noted in the geotechnical report for minimum standards. Whichever requirement is more stringent will govern. Additionally, each lift of building or subgrade fill shall not exceed 6" in depth and shall be compacted to 95% proctor density. Perform field density tests in accordance with ASTM D1556 (sand cone method, ASTM D2167 (rubber balloon method) or nuclear method, as applicable. Provide one test on each column footing and one test per thirty feet of linear footing excavation. Provide additional tests as necessary for areas which do not meet the specified density requirements. Testing as described above shall be required for areas under the building pad not requiring fill, I.e. areas in cut, or areas not requiring cut or fill. Reports shall be simultaneously

testing agency in coordinating compaction and other required testing.

- 11. Topsoil: Strip all existing topsoil and stockpile on site. Seed stockpiled topsoil to prevent erosion. Place four (4) inches thick over areas to be seeded or two (2) inches over area to be sodded. Protect all existing streets and improvements. Any excess topsoil shall be removed from the site and
- disposed of at no additional cost to the Owner. 12. Excess and Waste: Remove waste material, including unacceptable and unused excavation material, trash, and debris, from the property and legally dispose at no cost to the Owner.

- PART 2 PRODUCTS 1. Fill material shall be new or on-site materials as defined by the soils report and the Soils Engineer. Maintain optimum moisture contents while
- Top soil shall be defined as agricultural top soil. Such top soil shall be free of debris, trash, weeds, roots larger than 1/2" diameter and chemicals that may prevent the normal growth of sod and plant materials. Top soil, organic soil and related soil classifications shall not be used under the building, under footings or foundations, or under paved areas. Remove all existing topsoil
- 3. Erosion control materials shall consist of three foot wide. 10 mil. 100% spun bonded nylon reinforced silt fence fabric with a maximum vertical water flow of 500 gallons per minute per square foot. Posts shall be steel T posts, minimum five feet long. Contractor may use Silt Soxx in lieu of silt fencing or straw bales.

### PART 3 - EXECUTION

- 1. The Contractor shall protect and maintain active all elements on the site and surrounding affected areas during the construction period. All existing pavement, curbs, walks, signage, storm water structures, and utilities shall be kept active and free of mud and debris at all times.
- Use of explosives is prohibited. 3. After clearing, grubbing and removal of topsoil, the area shall be scarified and proof rolled per the soil report. Any soft spots or otherwise unsuitable materials shall be removed and replaced or reworked at the direction of the Soils Engineer. All such work shall be included in the base bid. All paved areas shall have the subgrade proof rolled just prior to application of the paving material. These areas shall have optimum moisture content at the
- time paving operations are conducted. 4. Uniformly grade all areas and transition areas. Provide a smooth finished surface, within a tolerance of 1/2" over 10'.
- 5. The Contractor shall comply with soil erosion requirements of the code and local ordinances. The Contractor shall periodically inspect conditions of fences and/or bales and repair and/or clean to maintain in working order. 6. The Contractor shall take all steps necessary to protect adjoining property, public and private, resulting from the movement of debris or earth. The
- Contractor shall take immediate action to any damage. The Contractor shall hold the Owner harmless from any and all claims of any type whatsoever resulting from damages to adjoining public or private property, including reasonable attorney's fees incurred by the Owner. Further, if the Contractor fails to take necessary steps to prevent said damage, the Owner may, but need not, take necessary actions and deduct the cost thereof from amounts due to the Contractor.
- 8. The Contractor shall locate existing underground utilities in areas of the work. If utilities are to remain in place, provide adequate means of support and protection during earthwork operations. Underground utilities shown on the drawings have been taken from existing public records, Owner's records and available as-built drawings and are correct to the best of our knowledge and provided for information only. Should uncharted or incorrectly charted utilities be encountered during excavation, consult utility owner immediately for instructions. Cooperate with Owner and companies

in keeping services and facilities in operation. Repair damaged utilities

caused by Contractor's negligence to the satisfaction of the utility at no cost

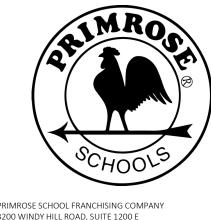
to the Owner. Provide minimum 48 hour notice to utility before interrupting

- Barricade open excavations occurring as a part of this work and provide warning lights. Slope sides of excavations to comply with local codes and ordinances having jurisdiction. Shore and brace when sloping is not possible because of space restrictions or the stability of the soil excavated. Maintain
- in safe condition until backfilling is complete. 10. Perform excavations within drip line of trees to remain by hand, and protect the root systems from damage or dryout to the greatest extent possible. Maintain moist conditions for root systems and cover with burlap. Paint roots cut of 1" diameter and larger with emulsified asphalt tree paint.
- 11. Do not place finish topsoil until all construction debris, trash, equipment, and surplus material have been removed. Loosen surface of subgrade to a depth of 2" minimum to ensure a positive bond between the subgrade and topsoil. In areas to be sodded, spread and compact topsoil to a uniform 2" depth, 1" to 1-1/2" below the finish grade shown on the plans. Where topsoil is spread, use a cultipacker, pulverizer, or similar tool to pulverize the soil and
- eliminate all lumps. 12. Finish grade slopes - Unless local conditions warrant otherwise, the following
- finish slopes shall apply: a. Hard surface should slope away from the building at two (2) percent,

minimum; four (4) percent maximum: 4% preferred.

- b. Playground Maximum one (1) percent slope at playground equipment with maximum eight (8) percent slope for the remainder of the play
- Minimum one-one half (1-1/2) percent slope in landscaped areas with swales at a minimum of two (2) percent. d. Pavement - Maximum six (6) percent in parking area. Minimum one-half (.5) percent for portland cement concrete paving. Minimum one (1)
- percent for asphaltic concrete paving. Adhere carefully to finish grades on engineered site plans to effect proper drainage of the entire lot. Notify Architect of discrepancies between above standards and engineered plans.
- . Prepare finish grade for sodding or seeding with only light raking required by the Landscape Contractor. a. Round finished surfaces at abrupt changes in slope.
- b. Should spot elevations conflict with grade contours, spot elevations shall c. Finish grades to uniform levels or slopes between points where levels are given or between such points and existing grades.
- d. Positively drain all lawn areas to designated surface water collection points, streets, and/or waterways. e. After placement, maintain surfaces to indicated finished grades; deposit whatever additional topsoil is needed to correct any settlement or erosion up to the date of final acceptance. Scarify surfaces upon which additional topsoil is to be deposited, or otherwise satisfactorily prepare
- to ensure proper bond. Where settling is measurable or observable at excavated areas during the warranty period, remove surface (pavement, lawn, or other surface), add backfill material, compact and replace finish surface or finish to match adjacent work. Eliminate evidence of restoration to greatest extent possible.

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ATLANTA, GEORGIA 30339-5640 THESE DRAWINGS AND THE DESIGN REPRESENTED HEREBY ARE THE EXCLUSIVE PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.



Professional of Record: Suzanne M Hayes LICENSE NO: 1301072179 EXP. DATE: 12/19/24

Drawn/Checked DSC / ALA 2202640 Project Number Bid Date 7/10/23 Permit Date For Construction --/--/--

SPECIFICATIONS

### PART 1 - GENERAL

4. Only the portion under the building and extending 5'-0" beyond the outside . Where connection to storm drains is necessary, furnish and install all pipe, face of the building shall be treated. All other portions of the project site are excluded from treatment. as noted on engineered site plans. Chemicals shall be applied before the slab on grade and adjacent sidewalks are poured, but after all backfilling and utility trenching in complete.

### applicable.

### 7. Installer shall provide a standard written warranty to the Owner. The Owner intends to contract for continuing service as required to maintain the bond. At PART 1 - GENERAL a minimum, warrant against termite infestation for a period of one (1) year from date of Substantial Completion, including treatment of termite protection and all repairs without cost to the Owner. Installer shall offer to the Owner a continuing service and a bond to pay for any damage caused by termites or other wood boring insects. PART 2 - PRODUCTS

6. Chemicals shall be compatible with the foundation insulation (Styrofoam) if

boring insects, and similar projects in the area do not require treatment, notify

the Architect prior to bid date for an exception to this requirement.

2. Installer shall have a minimum of three years experience in such installations.

3. The treatment shall be considered "pre-construction" type. Coordinate the

adequate ventilation for the protection of all workmen.

The chemicals used shall be approved by Federal, State, and local authorities.

placement of all chemicals with other trades working on the project. Provide

### 1. Soil treatment chemicals and installation shall be provided by a local company registered with the state to provide and install termite protection. 2. Treatment shall be provided by Terminix, Orkin, or another company as approved by the Architect during the bidding process.

- PART 3 EXECUTION 1. Apply chemical to the soil under and around the building in strict accordance with federal, state and local regulations. Chemicals shall be delivered to the
- site in new containers that clearly state the active ingredients on the label. 2. Apply chemicals at the rate recommended for pre-construction, slab-on-grade work. Minimum rates shall be 1.5 gallons per 10 square feet as an overall treatment under the slab areas and 2 gallons per 5 lineal feet along foundation walls and other vertical penetrations. Utility trenches shall receive special treatment within the building and 5' beyond the foundation walls.
- 3. Provide necessary equipment and services to place the chemicals at soil depth 2 to adequately protect from subterranean termite infestation. Apply chemicals before the installation of the porous fill and vapor barrier.

### **SECTION 02300 - PAVING AND SURFACING**

Department Specifications.

### PART 1 - GENERAL

- 1. See engineered site plan for site specific information regarding paving types. 2. All work shall comply with the requirements of the Standard State Highway
- 3. Subgrade Fills, Backfills and Compaction shall be accomplished as recommended in the "Subsurface Investigation Report" as supplied by the

### SECTION 02350 EXTERIOR CONCRETE FLATWORK

### PART 1 - GENERAL

- 1. Concrete Walks & Porches: Concrete shall be four (4) inches thick, air entrained and having a psi strength as specified in Section 03010, with 6x6 1.4/1.4 welded wire fabric, or fibermesh added to the concrete at a rate of 1.5 pounds per cubic yard, poured over properly prepared subgrade unless noted otherwise on the plans. Sidewalk control joint spacing shall not exceed the width of the sidewalk. Pour to uniform surface and finish with a medium fine brush. All exposed edges shall be rounded to a 1" radius.
- 2. Concrete Dumpster Pad: Concrete shall be thickness as shown on drawings. Perimeter edges thickened to provide support for fence enclosure. See details on plans. Location and size to be specified on the final approved site plan.
- 3. Dumpster Approach Pad: Concrete shall be a minimum of six (6) inches thick with #4 @ 18"o.c. or per recommendations of "Subsurface Investigation" Report" supplied by the Owner. Pad shall be the width of the dumpster pad and a minimum of 20' long.

### SECTION 02351 - ASPHALTIC CONCRETE PAVING

### PART 1 - GENERAL

- 1. Core tests shall be taken to verify thickness and subsurface compaction. Provide for three samples, randomly located. Test for extraction, gradation, laboratory density, and Marshalls Stability. Provide a certificate from the testing agency that materials and installation comply with specifications, signed by the asphaltic concrete producer and Contractor. All costs of the tests shall be paid by the Owner. If tests show the installation does not meet specifications, the paving shall be removed, replaced, and retested at no additional cost to the Owner.
- 2. The entire installation shall comply with all local and state laws and
- 3. Take precautions that equipment and vehicles do not damage or disturb existing site grading, walks, drives, utilities, plants, etc.
- 4. Provide temporary barricades and warning lights as required for the protection of the work and public safety.

### PART 2 - PRODUCTS

- 1. Asphalt cement, fine aggregate, and coarse aggregate shall be in compliance with state highway department standards for parking areas and driveways. See Civil Engineering plans for specifications. The minimum specification
- shall be: a. Base Course: per civil plans and/or soils report.
- b. Bituminous Binder Course: per civil plans and/or soils report. c. Bituminous Wearing Course: per civil plans and/or soils report.
- d. Surface Sealer: Equal to Advanced Formula J-16 Pavement Sealer as manufactured by Maintenance, Inc., Wooster, Ohio.

### PART 3 - EXECUTION

- 1. Check subgrade surface elevation prior to placement of asphaltic concrete paving; method subject to approval of Architect.
- 2. Proof roll prepared subgrade surface to check for unstable areas and areas needing additional compaction. Notify contractor of unsatisfactory conditions. Do not begin paving work until deficient subgrade areas have been repaired.
- 3. Asphaltic concrete paving shall not be placed on surfaces which are damp or wet nor when the air temperature on the road three feet above the surface is less than 45 degrees F, except that work may begin before noon on bright sunny days when the air temperature three feet above the road surface is over 40 degrees F. and rising.
- 4. When laying surfaces which require three or more adjacent passes of the finishing machine, the outer lanes shall be laid first and closure of the surface shall be made by the interior strips near the center line.
- 5. The use of wood or metal headers to form the edge of the joint during the rolling of the fresh mixture will not be permitted. The edges of all fixtures in the streets, edges, or curbs, bridges or cold asphaltic concrete shall be lightly painted or sprayed with RC-70 or equal to facilitate a tight joint with the fresh mixture.
- 6. The asphaltic concrete shall be thoroughly compacted while hot, by rolling and/or tamping. All areas of binder or surface courses inaccessible to the roller shall be thoroughly tamped while hot enough to compact properly. All depressed areas around weep holes shall be thoroughly tamped. Compaction of both surface and base course shall be a minimum of 96% of Laboratory Density if not specified otherwise.
- 7. After the second rolling the surface course shall be checked with a 10' straightedge placed parallel to the center line and any variation greater than 1/4" in the surface course shall be corrected. In removal of bumps, the surface shall first be warmed with a surface heater to soften the mixture, without burning it, until the surface can be loosened, and smoothed with rakes and straightedge. While still hot, the mixture shall be rolled to obtain proper density.

between lines as shown on final approved Site Plan or as required by Local

**SECTION 02362 - PAVEMENT MARKING** 

- structures, gratings and drains (per local codes and/or specifications) in sizes
- 2. Yard drains in the playground shall have locking plastic lids. No metal inlet covers will be allowed.

### SECTION 02500 - IRRIGATION SYSTEMS

- a. The work consists of designing and installing a complete underground irrigation system as shown on the drawings and as hereinafter specified, including the furnishing of all labor, plant, equipment, appliances and materials and in performing all operations in connection with the construction of the irrigation system. It shall include furnishing and installing all plastic and pipe fittings, control valves, pressure relied valves,
- check valves, automatic drain valves, impulse sprinkler heads as required for a complete system as shown on the Drawings or as called for in these Specifications or as may be required for proper operation of the system. The system shall provide 100% coverage of all turf and planted areas. Irrigation shall be provided to the Primrose Patch, see Site Plan for location. b. All local, Municipal and State Laws and Rules and Regulations governing or relating to any portion of this work are hereby incorporated into and made

a part of these Specifications and their provisions shall be carried out by

the Sprinkler Contractor. Include backflow preventer with unions as

- required by local codes. c. Furnish the Owner with one set of blueline prints, showing all sprinkler work required under this contract.
- a. All pipe, fittings and valves, etc., shall be carefully placed in the trenches with concrete thrust blocks to be poured at all fittings and valves, where required. Interior of pipes shall be kept free from dirt and debris and when pipe laying is not in progress, open ends of pipe shall be closed by
- approved means. b. Heights of sprinkler heads or sprinkler valves in relation to ground level shall be agreed upon by the Owner and the Contractor prior to installation. c. All piping shall be properly graded so that the entire system of piping may
- be drained to a depth below the area's frost line.

### SECTION 02600 - VINYL COATED CHAIN LINK FENCE

- 1. Interior fence shall be four feet (4'-0") high or height as shown on plans with six (6) gauge finish material with two (2) inch mesh fabric coated with aluminum or zinc. All end, corner and gate posts to be two and one-half (2-1/2) inch O.D. with two (2) inch O.D. line posts and one and three-eighths (1- 3/8) inch O.D. top and intermediate rails, and one and one-half (1-1/2) inch bottom rain. All framework pipe shall be galvanized steel pipe, Postmaster, Allied SS20 or approved equal. All fabric, posts, and rails shall be coated with vinyl unless noted otherwise on plans. Bolt ends on perimeter to face out. Color of all parts shall be **black**. All fence posts shall be set in solid concrete to a minimum depth of three (3') feet in solid ground. Line post spacing shall not exceed eight feet (8') on center. Line post footing shall be eight (8") diameter. Provide bolt caps on bolts facing into the playground or cut off flush.
- Provide gates as shown on Drawings in compliance with ASTM F 654. Provide access to all yards with double four foot wide gates for maintenance access to all areas of the playground. Provide four (4') foot wide gates for pedestrian access. All fence posts to be set in solid concrete to a minimum depth of three (3') feet in solid ground.
- 3. Unless specified otherwise on X-1, provide childproof free exit latches such as a pool latch by Hoover Fence CSL-3 or "Auto-Latch" by DAC Industries (800)-888-9768 on all playground gates. Double gates shall have Magna-Latch Lokk Bolt Lockable Drop Rod (cane bolt) Model LB124BX-black or equal. If panic devices are required, see specifications on detail.
- Provide fence with knuckle sleeve top & bottom. Fabric shall comply with ASTM F 668, Class 1. Vinyl on fabric, post, rails, and frames shall comply with ASTM F 934. Fittings for a complete installation in accordance with ASTM F 626. Tie wires in compliance with ASTM F 626 shall be tied to line posts 12"o.c. and rails at 24"o.c.
- 5. Fence fabric shall be installed facing playground areas if allowed by local code. Child safety regulations require no space between 3-1/2" and 9" exist anywhere on the constructed fence (entrapment zone).

### SECTION 02625 - DECORATIVE IRON FENCE - Ameristar

- 1. If specified on the architectural site plan, interior fence shall be four feet (4'-0") high or height as shown on plans. Bolt ends on perimeter to face out. Color shall **be black**. All fence posts shall be set in solid concrete to a minimum depth of three (3') feet in solid ground. Line post spacing shall not exceed **eight** (8') on center. Provide bolt caps on bolts facing into the
- playground. 2. All perimeter fence not shown on the site plan otherwise, shall be six (6') feet high with gauge as provided by Ameristar Montage Plus. All fence parts shall **be black**. All fence posts shall be set in solid concrete to a minimum depth of three (3') feet in solid ground. Line post spacing shall not exceed eight (8') on center. Provide bolt caps on bolts facing into the playground or
- cut bolts flush with nuts. 3. All fencing shall be Ameristar (Tulsa, OK) Montage Plus ornamental steel Majestic Design, flush bottom rail treatment, 3-rail style. Pickets shall be **¾" 16 gauge** tubing. Posts shall be **12 gauge** tubing, and rails shall be **14 gauge** tubing. Child safety regulations require no space between 3-1/2" and 9" exist anywhere on the constructed fence (entrapment zone). Provide three rails on all fences; connect to posts with approved fasteners. Top and bottom rails shall be flush. Steel tube pickets in picket holes in the rail shall be spaced 3.75" O.C. See details for further information. Ameristar reference drawing shall be #11-100-9032. Finish shall be per manufacturer's specification.
- 4. Finish shall be per manufacturer's specification.
- Provide gates as shown on Drawings. Provide access to all yards with double four foot wide gates for maintenance access to all areas of the playground. Provide cane bolt on passive gate with lock. Provide four (4) foot wide gates for pedestrian access. All fence posts to be set in solid concrete to a minimum depth of three (3') feet in solid ground.
- . Unless specified otherwise on X-1, gate latches shall be Magna latch magnetic pool safety gate latches #ML3TPKA black. Double gates shall have Magna-Latch Lokk Bolt Lockable Drop Rod (cane bolt) Model LB124BX-black or equal. If panic devices are required, see specifications on detail.
  - Montage Ornamental Steel Majestic Design
  - Color: black Contact: Mark Murphy Phone: (918) 877-3548
  - E-Mail: <u>mark.murphy@assabloy.com</u>

### SECTION 02625 - DECORATIVE IRON FENCE - FORTRESS VERSAI ASSURANCE

### PART 1 - GENERAL

- 1. Provide Ornamental Rackable welded steel fence system, Fortress Iron's VERSAI products including a 20-year limited warranty from the date of purchase for defects in material and workmanship including protection against cracking, peeling, blistering and corrosion (rusting). Color shall **be black**. Refer to 20 Year Warranty Sheet.
- Fortress Iron Railing and Fence Systems: 1800 Jay Ell, Suite 200
- Richardson, Texas 75081
- Contact: James Shaw Phone: 469-337-5139 Web site: <u>www.fortressfence.com</u> E-Mail: <u>james@fortressbp.com</u>

- PART 2 PRODUCTS 1. Rails are Grade A cold rolled steel formed U-Channel and Pickets are Grade A cold rolled steel formed and welded tubing, both conforming to ASTM A500 with G 60 zinc coating (0.60 oz/ft2) total inside and outside surfaces in accordance with the ASTM A123 hot dipped electroplating process. Materials also conform to ASTM E935 testing (Methods A, B, C and D) and load testing in accordance with AC174 (Sections 4.2.2, 4.2.3 and 4.2.4). Rails: 14-gauge formed U-Channel ASTM 500 galvanized steel, 1-9/16-inch Leg X 1 3/16 inch
- 2. Pickets: 16-gauge ASTM A500 galvanized welded and formed steel tubing for 4' 5' & 6' tall panels, ASTM A500 galvanized welded and formed steel tubing for 7' & 8' tall panels' 3/4-inch square. Pickets shall be spaced with 3" air space. Posts: 12-gauge 2 1/2inch square. ASTM A500 galvanized formed and welded

steel tubing with powder coated factory finish. Post caps can be pressed steel

- Fasteners: All nuts, bolts, sheet metal and wood screws are stainless steel conforming to ASTM F593-02e2 standard.
- Fittings: Fabricated tees, elbows, splice connections; wall returns, wall ends and other similar components are of the same material, specification and finish as fence panels.
- 6. If specified on the architectural site plan, interior fence shall be four feet (4'-0") high or height as shown on plans.
- 7. Bolt ends on perimeter to face out. Color shall **be black**. All fence posts shall be set in solid concrete to a minimum of three (3'-0") in solid ground
- 8. Fortress Iron's Versai Commercial Fence Flat Top Flat Bottom (FT/FB) style. 9. Commercial Fence panels are fabricated in standard length of 90 1/2" and standard heights of 46", 58", 70", 82" and 94". All fence panels comply with all requirements indicated for materials, thickness, design and details of construction. All welded connections comply with AWS standards for recommended practice in shop welding. All components are accurately cut and drilled to receive hardware, fasteners and accessories. Panels shall be capable of supporting a 300 lb. load (applied at mid-span) without permanent
- 10. Metal parts are assembled and finished individually prior to shipment. Galvanized steel fence components are cleaned with a non-petroleum solvent followed by the application of a sealing zinc phosphate coating. Immediately after sealing, a two-step finishing process consisting first of an electrostatic dipping process in a lead free high corrosion resistant epoxy resin leaving a coating of approximately 20 microns followed by a thermosetting carboxyl polyester resin top coat with a minimum dry film thickness of 60 to 70 microns. The second coating will be applied by the electrostatic spray process.

deformation. Panels shall be rackable to a 30" change in grade.

### PART 3 - EXECUTION

- 1. Stake layout showing locations of all gates and posts. Contact "CALL BEFORE YOU DIG" prior to beginning any excavation work.
- 2. Install fences in accordance with written instructions and in accordance with authorities having jurisdiction. Concrete Set Posts: Drill hole in firm soil. Posts holes will be a minimum of 36
- inches deep with a minimal diameter of 8 inches. Fence post (2 ½") shall be spaced 95" on-center to accommodate installation of brackets on 2 ½" post. 4. Install Fortress brackets onto fence section and posts as indicated in printed instructions for specific fence style. Attach fence sections to brackets with approved fasteners and techniques to insure that fence sections are parallel to
- grade within ¼-inch in 12 feet. 5. Gate Installation: Install in accordance with manufacturer's instructions. Do not mount gate from wall of a structure. Provide gate post on both sides of a gate. For double drive gate installation, provide concrete center drop to foundation depth and drop rod retainers at center. Lubricate to insure smooth operation and verify proper latch operation.
- 6. Unless specified otherwise, gate latches shall be Magna latch magnetic pool safety gate latches #ML3TPKA black. If panic devices are required, see specifications on detail.
- 7. Remove all cutting and drilling chips that are attached to the fencing, post, brackets or additions to prevent corrosion. Repair scratches and other installation-incurred damage. Using a spray paint of the appropriate color that includes a zinc additive, repaint and seal any scratches or holes drilled in the fencing, post, brackets, or additions to prevent rust from forming. Clean up debris and unused material, and remove from site.

### **SECTION 02700 - PLAYGROUND EQUIPMENT**

### PART 1 - GENERAL

- 1. The Contractor is responsible for providing and installing the playground equipment site area as specified on site plan, including final grading (maximum two (2) percent slope) suitable for installation of playground
- 2. Equipment shall be ordered from the Owner's supplier. The Contractor is responsible to receive, verify, and store, playground equipment when delivered. The Owner's suppliers of equipment is listed on sheet T-1 and
- **3.** GC shall purchase the playground equipment from the vendor and the install shall be done by the Little Tikes certified installer or installer that meets all the certifications needed by Little Tikes to qualify as a "certified installer".
- Playground equipment is installed after grade has been established in the fall zone areas; any required drainage of the fall zone areas is installed and connected to the approved storm system. The perimeter timbers may be installed prior to the playground installation. Immediately preceding the completion of the play structure installation, the sod and remaining landscape features shall be completed. The playground sod shall be installed and complete a minimum of 30 days prior to Occupancy. Refer to the plans and specs' for additional information. **Do not install the sod prior to** installation of the playground structures.

### **REQUIRED VENDORS:** PlayPower LT Farminton, Inc.

### BCI Burke Company Refer to sheet A2.2 for contact information.

### SECTION 02824 - ARTIFICIAL TURF SURFACING

### PART 1 - GENERAL

- 1. Provide all labor, materials, equipment, and tools necessary for the complete installation of synthetic grass safety surface. Surface shall meet the requirements of ASTM F1292-13, that states that the surface must yield both a peak deceleration of no more than 200 g's and a Head Injury Criteria (HIC) value of no more than 1,000 for a headfirst fall from the accessible height of the play equipment. System must be IPEMA certified and supported by test data that is less than 3 years executed. The system shall consist of, but not necessarily be limited to, the following:
- a. Synthetic grass consisting of fibers that are 1.55" long. Turf fiber construction consisting of polyethylene monofilament and texturized polyethylene thatch tufted to a 2-layer stabilized woven polypropylene fabric (primary backing), with a secondary backing (stitch binder) of DuraFlo. (XGrass® Prime synthetic turf).
- b. Synthetic Grass Infill, consisting of anti-microbial acrylic coated round silica particles, designed to provide the look, feel, and performance of optimally maintained natural grass. (EnviroFill®)
- c. 1/2" Screenings, 3/4" clean aggregate, compacted 4" deep d. Synthetic grass shall be CPSIA compliant with valid supporting test documents2. A resilient infill system, consisting of coated sand granules.
- a. Data: Submit manufacturer's product data, including installation instructions and subsurface instructions.
- b. Samples: Submit samples of synthetic grass, infill, pad underlayment. c. Warranty: Submit manufacturer's standard 10-year warranty. Please refer to the current XGrass warranty for details.

### PART 2 - PRODUCTS

- L. SYNTHETIC GRASS SAFETY SURFACE
- A. Aggregate Base 1/2" Screenings, 3/4" Clean Aggregate, Compacted 4" deep (Refer to Section 3.2-3).
- B. Synthetic grass:
  - The Recreational Group Stacy Collier - Exec Vice President of Sales Cell: (573) 760 - 2560 Office: (877) 881 - 8477

stacy.collier@recreationalgroup.com

- Forever Lawn www.foreverlawn.com Office: (866) 992 - 7876
- Southwest Greens Midwest www.southwestgreens.com Office: (877) 260 - 7888
- SynLawn www.synlawn.com Office: 866.796.5296
- a. Face Weight: 53 oz/sy b. Face Yarn Type: Polyethylene
- c. Yarn Size: 10800/7300 d. Pile Height: 1.55"
- e. Color: Summer Blend (Heat Block)
- f. Construction: Broadloom tufted g. Stitch Rate: 8 per 3 inches
- h. Tufting Gauge: 3/8" i. Tuft Bind: 13.1 lbs
- j. Permeability: 405.7 inches/hour
- k. Primary Backing: Stabilized dual layered woven polypropylene I. Secondary Backing: 10 oz. DuraFlo
- m. Total Product Weight: 72.7 oz/sy n. Finished Roll Width: 180" untrimmed
- o. Warranty: 10 Year p. Manufactured in the USA, Internationally manufactured products will not be accepted
- Pad Underlayment System: SofPad™ 100% recycled, non-contaminated, Post industrial cross-link, closed cell Polyethylene – polyolefin foam pad from XGrass. ONLY APPLY SofPad IN FALL ZONE AREAS
- 1. Foam Type: Polyethylene Polyolefin
- 2. Bulk Density: 5.0-8.0 lb/cu ft 3. Effective Size: 24 sq ft (net coverage)
- 4. Tensile Strength: 34-36 psi B. IN FALL ZONES ONLY: Synthetic Grass Infill: EnviroFill® from XGrass, 1224 Riverbend Dr. Dalton, GA 30721, Phone (877) 881-8477. Coating: Priority
- acrylic with Microban<sup>®</sup>, iron oxide and chromium oxide. 1. Grain shape: Hardness: 6-8 Mohs
- 2. Curvature: 0.7+
- 3. Specific Gravity: 1.76 g/cm3 4. Bulk Density: 110 lb/cu ft
- 5. Uniform Coefficient: 1.10 to 1.40 6. Effective Size: .84 −1.68 mm
- C. <u>IN FALL ZONES:</u> Infill with sand 12/20 silica. D. Splicing Material: 1000 denier coated nylon (Cordura®) 12" wide
- E. Adhesive: Synthetic Turf Adhesive (from XGrass)

### PART 3 - EXECUTION

- 1. GROUND PREPARATION: a. General: The ground area to receive synthetic grass safety surface is
- indicated on the Drawings. b. Leveling and Site Preparation: All organic material and organic debris to be removed. Soil to be graded level and stabilized (compacted) 6-7 " below grade, per site requirements. Compaction shall be done with mechanical compactors, including vibratory compactors, and/or
- powered tampers, and rollers.
- 2. BASE & CONSTRUCTION a. General: The area to be smooth and graded to allow for proper drainage. Refer to engineered grading plan if available. The overall grade of the
- playground is not to exceed 2%, with 1% under equipment. b. Nailer Board: Installation of pressure treated or composite board per site 1. Concrete edges: Nailer board attached directly to vertical concrete
- 2. Non-concrete edges: Nailer board installed with round, steel stake, 3 per 10' board. Top of nailer boards to be situated 3/4" below c. Compacted Aggregate Base: Place 4" of 3/4" clean aggregate base and 1/2" of screening as leveling layer compacted to 90% of max density per

edge with a Tapcon hardware situated 3/4" below concrete grade.

AASHTO T99. Compaction shall be done with mechanical compactors, including vibratory compactors, and/or powered tampers, and rollers. d. Underlayment Pad: Lay underlayment pad with seam staggered, trimming edge to fit flush against the nailer board.

e. Synthetic Grass: Place turf and cut to fit configuration as shown on

- Drawings. Splice seams. All seams must be attached with splicing film/fabric and adhesive as approved by the manufacturer for this type of installation of their product. f. Anchoring/Edging: Edges of turf will be secured to nailer board
- g. Infill: Apply layers of synthetic grass infill evenly with a drop spreader and broom the turf fibers with stiff bristle broom to stand fibers up and allow infill to settle into the bottom. Broom in infill round approximately 3 pounds per square foot.

### SECTION 02900 - LANDSCAPING

### PART 1 - GENERAL

- 1. Sodding Of Lawn Areas -- See Landscape Plan for locations:
  - a. Variety of sod shall be per the site plan, or as selected by the Owner's representative.
  - b. Sod shall be grown locally, strongly rooted and reasonably free of
  - pernicious weeds and apparent disease c. Fertilizer shall be Milorganite and shall be distributed uniformly at the rate recommended by manufacturer. The fertilizer shall be delivered to the site unopened in original containers, each bearing
  - the manufacturer's guaranteed analysis and in conformity with state fertilizer laws. d. Prior to sodding, all vegetation which might interfere shall be
  - then shall be thoroughly tilled to a depth of at least six (6) inches. e. Sod strips twelve (12) to eighteen (18) inches wide shall be laid smoothly, edge to edge, and with staggered joint. The sod shall be watered immediately after laying and rolled to the proper grade within forty eight (48) hours after harvesting. On slopes, the sodding shall begin at the bottom and progress upward with strips
  - f. Maintain sodded areas until final acceptance by Owner. Maintenance shall consist of mowing, weeding and watering as necessary to maintain healthy turf. Any dead or deficient sod shall be removed and replaced.
- g. Warrant all sodded areas for a period of (1) one year after final acceptance. Resod all areas deemed unsatisfactory at the end of the warranty period.

laid transverse to the flow of water.

- 2. Sodding Of Lawn Areas -- See Landscape Plan for locations: a. Variety of sod shall be per the site plan, or as selected by the Owner's representative.
  - pernicious weeds and apparent disease c. Fertilizer shall be Milorganite and shall be distributed uniformly at the rate recommended by manufacturer. The fertilizer shall be delivered to the site unopened in original containers, each bearing the manufacturer's guaranteed analysis and in conformity with state fertilizer laws.

b. Sod shall be grown locally, strongly rooted and reasonably free of

- d. Prior to sodding, all vegetation which might interfere shall be mowed, grubbed, raked and the debris removed from the site. Area then shall be thoroughly tilled to a depth of at least six (6) inches.
- e. Sod strips twelve (12) to eighteen (18) inches wide shall be laid smoothly, edge to edge, and with staggered joint. The sod shall be watered immediately after laying and rolled to the proper grade within forty eight (48) hours after harvesting. On slopes, the sodding shall begin at the bottom and progress upward with strips laid transverse to the flow of water f. Maintain sodded areas until final acceptance by Owner.
- Maintenance shall consist of mowing, weeding and watering as necessary to maintain healthy turf. Any dead or deficient sod shall be removed and replaced. g. Warrant all sodded areas for a period of (1) one year after final

acceptance. Resod all areas deemed unsatisfactory at the end of

recommendations and requirements of ANSI Z60.1 "Standard for

the warranty period. 3. Planting Of Trees, Shrubs and Ground Cover: a. Provide trees, shrubs and ground cover complying with the

fertilizer laws.

- Nursery Stock" and as further specified. b. Fertilizer shall be uniform in composition, free-flowing and delivered to the site unopened in original containers each bearing the manufacturer's guaranteed analysis and in conformity with state
- c. Peat shall be free from lumps, roots, woody material and stones or other foreign matter and shall contain no less than ninety (90) percent organic matter by weight on an oven-dry basis. Peat moss shall be free of mineral matter harmful to plant life, water-absorbing capacity to 1,100 to 2,000 percent; moisture content thirty (30%) percent natural; acid reaction four (4) to five (5) pH. d. Provide stakes which are straight, sound, rough sawn, not less than
- of 2-strand twisted, pliable galvanized iron wire not lighter than twelve (12) gallons. Provide new 2-ply garden hose not less than one-half (1/2") inch in diameter. e. Provide (2) 6' steel tee post align north-south nylon webbing equal to arbortie or Provide 2-strand twisted, pliable galvanized iron wire

two (2) inches if square, or two and one-half (2-1/2) inches in

- not less than one-half (1/2") inch in diameter. f. Mulch shall be medium size, dried Pine bark chips or equal. Spread evenly to a thickness of two (2) inches in tree and shrub saucers and in ground cover planting beds. g. Weed barrier fabric shall be 30-mil, multi-use woven flat ribbon
- punched fiber. Weed barrier fabric shall be designed to assure positive permeability, strength and durability. WEED BARRIER SHALL BE APPLIED IN ALL ROCK OR BARK LANDSCAPED AREAS. h. Topsoil shall be a natural, friable topsoil, representative of productive soils in the vicinity. It shall be obtained from well-

polypropylene (black) yarn with a facing of polypropylene, needle-

drained areas, free of subsoil, foreign matter, toxic substances and

- any harmful material. i. Plant trees, shrubs and ground covers during normal season for such j. Spread 2" of compost (Back To Earth Soil Conditioner), 1" of pine
- bark mulch, and Osmocote fertilizer (1 lb. Per 100 sq. Ft.) Incorporate to a depth of 6". k. Prune, thin out and shape trees, shrubs and ground covers in accordance with standard horticultural practice.
- I. Maintain plant material until final acceptance by the Owner. Maintenance shall consist of spraying, pruning, watering and weeding as required for healthy growth. Any plant material found to be dead or in a unhealthy condition shall be removed and replaced. m. Warrant all plantings for a period of one (1) year after final

acceptance. At the end of the warranty period dead and deficient

material will be removed and replaced at no cost to the owner. 4. Installation of Erosion Control Fabric: a. Fabric shall be "Soil Saver" as is distributed by Jim Walls Company in Dallas, Texas (214) 239-8577; or "Curlex Blankets" as is distributed by American Excelsior Company in North Kansas City, Missouri (816)

842-3034; or approved equal.

b. Staples shall be #11 gauge steel wire formed into a "U" shape, six (6) inches long. c. Fabric shall be rolled out in place. Fabric shall be applied without

d. The Contractor shall refer to the Drawings for details of fabric

e. It is intended that non-seeded areas indicated on the Drawings to be protected from erosion be left unprotected. Therefore, application of the erosion control fabric shall occur the same day that the seeding of an area has taken place.

f. Fabric shall completely cover all areas which are shown on the

stretching and shall lie smoothly, but loosely on the soil surface.

Drawings to be protected from erosion. After fabric installation the entire area shall be rolled with a smooth roller weighing between 200 to 250 pounds. After rolling, the fabric shall be in intimate contact with the soil surface at all points. Any clods, etc. which hold the fabric off the ground should be removed. The fabric shall be forced down into any depressions and held there with a staple.

### **DIVISION 3 - CONCRETE**

### SECTION 03010 - POURED-IN-PLACE CONCRETE

1. Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed on at least one composite sample for each 50 cubic yard or fraction thereof of each concrete mixture placed each day. Provide one slump test per ASTM C 143 for each load of concrete at the point of discharge. Provide one air content test for each compressive strength test. Cast and laboratory and/or field cure at least three sets of two standard cylinder specimens for each composite sample according to ASTM C 31/C 31M. Test one set of two specimens at 7 days and one set of two specimens at 28 days according to ASTM C 39/C 39M, the third set is retained for later mowed, grubbed, raked and the debris removed from the site. Area testing if required. A compressive-strength test shall be the average compressive strength from a set of two specimens obtained from same composite sample and tested at age indicated. Strength of each concrete mixture will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi. All costs of testing shall be borne by the **Contractor**. Results of the tests shall be reported by the laboratory directly to the Architect. If a test indicates strength less than desired, additional testing shall be ordered at the Contractor's cost at the direction of the Architect. If results are still unsatisfactory, those portions of the structure shall be removed and replaced, or reinforced at the direction of the Architect at the

### PART 2 - PRODUCTS

Contractor's expense.

1. Concrete properties for concrete exposed to freeze/thaw cycles shall be determined from designated Exposure Category F Class F2 as described in Section 4.2.1 of the latest edition of ACI 318, unless noted otherwise. a. Minimum Compressive Strength: f'c = 3000 psi at 28 days, normal weight, typical. 4500 psi at dumpster and transformer pads.

b. Maximum water/cement ratio limit (w/cm): 0.45

c. Air Content w/ 3/4" aggregate size = 6% +/- 1.5%

c. Air Content w/ 3/4" aggregate size = N/A

- 2. Concrete properties for concrete not exposed to freeze/thaw cycles shall be determined from designated Exposure Category F Class FO as described in
- Section 4.2.1 of the latest edition of ACI 318, unless noted otherwise. a. Minimum Compressive Strength: f'c = 3000 psi at 28 days, normal weight. b. Maximum water/cement ratio limit (w/cm): N/A
- 3. Maximum slump per Section 2.5.1 ACI 117: 3" +/- 1" for slabs and footings, 4" +/- 1" for walls, columns and beams. Water: Potable. 5. Concrete shall be ready mixed in accordance w/ ASTM C94. Portland cement

shall conform to ASTM C150, Type I or II. Normal weight aggregate shall

- conform to ASTM C33. 6. Admixtures: Air Entraining Agent shall be neutralized vinsol resin conforming to ASTM C-260. Water Reducing Agent shall be Pozzolith by Master Builders Co. conforming to ASTM C-494 or equal. Admixtures may not be used without prior approval of the Architect. Admixtures to increase the
- 7. Curing compound shall conform to ASTM C309, Type 2, Class B. 8. Interior concrete slabs to receive a hard-troweled finish shall not utilize an air-

workability of the concrete shall not reduce the strength of the concrete.

- entrained agent nor shall the air content exceed 3%. 9. All concrete shall have a minimum cementitious materials content of 470 pounds per cubic yard, unless noted otherwise. Minimum cementitious materials content for floors shall be 540 pounds per cubic yard, unless noted
- otherwise. 10. Calcium Chloride shall not be added to concrete.
- 11. Material, mixing, placement and workmanship shall be in accordance with the requirements of the latest edition of the "Building Code Requirements for Reinforced Concrete" (ACI 318) and Section 1905 of the IBC. Each proposed concrete mix shall include test data
- temperature has fallen to, or is expected to fall below, 40°F"; when cold weather conditions exist, place concrete complying with ACI 306. Hot weather is defined by ACI 305 as "any combination of high air temperature, low relative humidity, and wind velocity tending to impair the quality of fresh or hardened concrete or otherwise resulting in abnormal properties"; when hot weather diameter if round and eight (8) feet long. Provide wire ties and guys conditions exist, place concrete complying with ACI 305.

12. Concrete Placement: Cold weather is defined by ACI 306 as "The air

- 13. All Detailing, Fabrication, and Erection of reinforcing shall conform to latest edition of ACI "Manual of Standard Practice for Detailing Reinforced Concrete Structures" (ACI 315) and the current "Building Code Requirements for Reinforced Concrete" (ACI 318).
- not lighter than twelve (12) gallons. Provide new 2-ply garden hose ASTM A615 - Grade 40 for #3, Grade 60 for #4 and larger. • ASTM A706 - Where welding is required, at shear wall boundary elements
  - (trim bars) and lateral frame elements ASTM A185 - Welded Wire Reinforcement 15. The following minimum concrete cover shall be provided for reinforcement per ACI 318. 1. Concrete cast against and permanently exposed to earth: 3"

14. Reinforcing Steel:

#5 bar and smaller: 3. Concrete not exposed to weather or in contact with ground Slabs, walls, joists: 3/4" Beams, columns: 1-1/2" 16. Unless noted otherwise, lap splices in concrete shall be class "B" tension lap splices (2'-0" minimum) per the latest edition of ACI 318. Stagger alternate

splices a minimum of one lap length. Lap welded wire fabric so that the

overlap between outermost cross wires of each sheet is not less than the

cross wire spacing plus 2 inches. All splice locations are subject to approval by

Engineer and shall be made only where indicated on the drawings. Extend all

#6 through #18 bars:

2. Concrete cast against forms and exposed to earth or weather

- horizontal reinforcing continuous around corners and intersections or provide bent corner bars to match and lap with horizontal bars at corners and intersections of footings and walls. 17. Provide bar supports and spacers to support all reinforcement in proper locations and wire adequately at intersections to hold bars firmly in position while concrete is placed. Bar supports and spacers which rest on or exposed
- 18. Vertical dowels shall match the size and spacing of the wall reinforcement and be secured and supported in place prior to placing concrete, unless noted

19. Welding of reinforcement is not permitted unless specifically noted or

surfaces shall be hot dipped galvanized or plastic coated.

approved in writing by the Engineer 20. All slabs on grade shall be placed on a material base in accordance with the GEOTECHNICAL report. 21. Slab on grade shall be reinforced as indicated on plans.

22. Location of slab construction or pour joints must be approved by the Engineer

if different from those shown on these drawings. Joints shall be placed at a maximum spacing of 12'-0" unless noted otherwise. 23. Isolation Joint Material shall be 1/2" thick full height of joint, unless noted otherwise, in compliance with ASTM D1751.

24. All saw cut joints shall be "Sof Cut" sawn as soon as allowed by saw

non-metallic, 1" minimum thickness.

weather and within 12 hours in cold weathers after slab finish is completed. 25. Chamfer exposed edges of concrete slabs, flatwork, beams, and columns 3/4" unless noted otherwise. 26. Grout under all column base plates and beam bearing plates with non-shrink,

manufacturer recommendations. Joints shall be made within 4 hours in hot

27. No conduits placed in the slab on grade shall have an outside diameter greater than 1/3 the thickness of the slab. No conduit shall be embedded in a slab on grade that is less than 3-1/2" thick except for local offsets. Minimum clear distance between conduits shall be 6".

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3200 WINDY HILL ROAD, SUITE 1200 E ATLANTA, GEORGIA 30339-5640

HESE DRAWINGS AND THE DESIGN REPRESENTED HEREBY ARE THE EXCLUSIVE

PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.

SUZANNE ARCHITECT (1**3**01072179 (

Professional of Record: Suzanne M Hayes LICENSE NO: 1301072179 EXP. DATE: 12/19/24 Drawn/Checked DSC / ALA 2202640 Project Number

7/10/23

--/--/--

Bid Date

Permit Date

For Construction

- spaced no less than four diameters apart, unless specifically indicated

28. Slab reinforcement shall extend through all construction joints, unless noted

otherwise. Slab penetrations shall not exceed 30% of the slab thickness and

- 29. Formwork: All wood forms shall be free from defects when concrete is
- exposed. All wood forms and stakes shall be completely removed. 30. Granular/Porous Fill: See Subsurface Investigation Report for project specific
- and completely seal joints and ALL penetrations. Install over granular fill, unless otherwise indicated by Subsurface Investigation Report.
- 32. Where slabs abutt vertical surfaces, provide one-half (1/2) inch pre- moulded expansion joint in compliance with ASTM D1751.

31. Vapor Barrier: 6-mil thick plain polyethylene sheeting, unless noted otherwise

in the Subsurface Investigation Report.. Lap end and side joints six (6) inches

### PART 3 - EXECUTION

- 1. Concrete shall not be placed on muddy or frozen ground. Interior slabs on grade shall not be placed until all danger of frost has passed. Before pouring against set concrete, the hardened surface shall be carefully cleaned and
- 2. Notify testing agency a minimum of 24 hours before commencement of
- 3. Finish: Floor slab shall be steel troweled to a smooth plain surface, free of score marks, grooves, and depressions. Variations in surface shall not be more than one-quarter (1/4) inch in twelve (12) feet. When concrete has set sufficiently to ring under the trowel, it shall be given a second trowelling to produce a smooth dense surface. The application of additional cement or "dryer" is expressly prohibited.
- 4. Protect concrete against frost, wind, rain, ice, and rapid drying. Keep moist for at least seven days after placing. During this period the concrete shall be maintained at temperatures between 50deg. and 80deg. F. Floor shall be cured by wetting and covering with sand or six (6) mil visqueen, or apply Sonneborne liquid curing compound or equal. Temperature shall be maintained by placing sheet insulation over the slab.
- 5. Saw cut concrete within 24 hours of placing, cut 1/4" deep. 6. Cold Weather Concrete: When the air temperature is 40deg. or below or expected to drop below 40deg. within 24 hours of placement, the following
- precautions shall be taken a. Adequately heat all material. No frozen ingredients shall be used.
- b. Temperature of the delivered concrete shall be 70deg. +/- 10deg. F. c. Concrete shall not come into contact with frozen ground or forms.
- d. Concrete when placed shall have a slump not to exceed four inches. e. During placing and finishing, concrete shall be maintained at a
- temperature of 50 degrees F. or above, but not more than 80 degrees. f. Trowelling shall be delayed in order to avoid bringing an excess of fines to 1.
- g. During placement and finishing, slabs shall be protected from wind to
- prevent loss of heat and rapid drying. h. Sudden cooling of ambient air temperature in excess of 20 degrees F. in
- any 24 hour period shall not be allowed. During this period the concrete shall not be allowed to drop to a temperature below 40 degrees. i. Newly finished flatwork shall be covered and protected during cold
- weather for at least 14 days against exposure to rain, sleet and ice. j. During the entire protection period, adequate means shall be provided to prevent loss of moisture from the concrete surface.
- 7. Hot Weather Concrete: When the air temperature is above 80 degrees or is forecast to rise above that temperature within 24 hours of placement, the following precautions shall be taken:
- a. Stockpiled aggregates shall be saturated and the surface kept moist by intermittent sprinkling or continuous fog spray.
- b. Mixing water shall be kept cool. c. When necessary to produce and maintain concrete at an acceptable
- temperature, chopped or crushed ice up to a limit of 50% of the required water may be added at a rate and in a manner that it will be completely melted during the mixing period. d. The cement factor required by the design mix shall be increased as
- necessary to maintain the specified water- cement ratio whenever additional water is added to compensate for loss of slump during transportation, handling, or placing.
- e. Retarding admixtures may be added with the approval of the Architect. f. Temperature of the concrete when placed shall not exceed 85 degrees.
- g. Forms, reinforcing, and subgrade shall be wetted immediately before concrete is placed. Wetting down areas around the pour is recommended to reduce air temperature and increase humidity.
- h. Placing and finishing shall be done as quickly as possible. Adequate manpower and equipment shall be available to handle and place the concrete immediately after its mixing or delivery to the site of the work. i. Concrete shall be placed to avoid cold joints.
- sunshades, wind breaks or fog nozzles, or a combination of such items, will be required during flat slab operations.

j. In extremely hot weather, or in very dry and/or windy weather,

- k. Concrete shall be kept cool and moist during the curing period. Initial curing media shall be placed within 20 minutes of final finishing of each
- 8. Form Removal: Forms shall be removed without damage to concrete. The time of removal shall be governed by the weather and local conditions, but shall generally stay in place a minimum of four days.
- 9. After form removal, rub smooth and knock off rough places, Cut out all loose and honeycombed concrete to solid concrete; fill all voids with cement mortar, rub to match adjacent surfaces, and completely conceal. There shall be no sharp edges present on any concrete flatwork.

### **DIVISION 4 - MASONRY**

### SECTION 04200 - CONCRETE MASONRY UNITS

mortar, tool and compress.

### PART 1 - GENERAL

- 1. Manufacturer: Obtain units from one manufacturer, of uniform texture and color for each kind required.
- 2. Craftsmanship: All masonry shall be made waterproof by quality

transit shall not be incorporated into the finally exposed walls.

- craftsmanship and installation of the specified materials. 3. Shipping: All masonry units shall be packaged, shipped and transported in a manner to minimize chipping and damage to the units. All units damaged in
- 4. Coordination: The design calls for close tolerances at all window and door openings and at certain design features. Consult the drawings and coordinate the masonry construction with masons and other trades.
- 5. Protection: The tops of all walls and all completed walls shall be covered at night and at all times of precipitation to prevent water snow or ice from entering the wall cavity or from damaging the exterior surface. All protections shall be held firmly in place against wind displacement.
- 6. Cold Weather Precautions: Do not lay masonry in less than 40 degree F. or expected lower temperatures unless suitable means are provided to heat the materials and to protect the uncured mortar from frost damage. No antifreeze compounds or calcium chloride may be added to the mortar at any time. Remove snow and ice from all previously laid masonry by elevating the temperature of the air around it, do not heat the masonry directly. Consult Architect and/or Construction Manager for protection/heating requirements if masonry is to be laid in colder than 40 degree F. weather. If ice crystals form on the surface of the mortar during the tooling and compressing stage, rake the mortar out to a depth of 1/2" and cover wall. When air temperatures recover above 40 degrees F. and will not fall below 32 degrees F. again within 12 hours, tuck point the raked joint with fresh

7. Hot Weather Protection: If the job site air temperature is above 80 degrees F. 1.4 QUALITY ASSURANCE during the work day, mortar shall be placed in final position within one hour after mixing.

### PART 2 - PRODUCTS

- 1. Concrete Masonry Units: ASTM C90, Grade N, Type I load bearing moisture controlled units or as called for on drawings. Solid units ASTM C145 or C55. Size: eight (8) inches by sixteen (16) inches nominal face dimension by thickness 1.5 DELIVERY, STORAGE, AND HANDLING as indicated. Provide fire rated units where indicated on the Drawings. Drying shrinkage shall not exceed 0.10 per cent for normal weight units as determined
- by ASTM C426, latest addition. 2. Provide jamb and end units, bond beams, half units, solid units, pilaster blocks, and other special units as required for a complete installation. All cells in retaining walls shall be filled solid with grout. All cells containing rebar shall be filled with concrete fill, and shall not contain conduit or electrical boxes. Bond beams shall be constructed of double open ended bond beam block with reinforcing bar(s).
- 3. Normal weight aggregates shall conform to ASTM C33. 4. Lightweight aggregates shall conform to ASTM C331.
- 5. Drying shrinkage shall not exceed 0.10 per cent for normal weight units as determined by ASTM C426, latest addition.
- 6. Mortar: Type M for masonry in contact with the earth and for filling concrete block, Type S for exposed masonry walls. one (1) part Portland cement, onequarter (1/4) part hydrated lime, and not less than 2-1/4 or more than three times the sum of the volumes of the cements and lime used for sand. No antifreeze liquid, salts or other substances shall be used in the mortar or grout to lower the freezing point. Mortar color shall be medium gray or as per Exterior Color Schedule. Compressive strength of the mortar at 28 days shall be: a. Type M - 2500 psi b. Type S - 2000 psi
- 7. Water Mortar: Where masonry will be subject to excessive moisture or normal hydrostatic pressures (i.e. below grade, retaining walls) a water mortar such as Hydrocide Powder, a product of Sonneborn- Rexnord, shall be added to the mortar per the manufacturer's recommendations
- 8. All bond beams, filled horizontal elements, vertically reinforced masonry block cells and similar conditions shall be filled with 3,000 psi concrete, not mortar, or as called for on the Structural drawings. Aggregate size shall be 3/8" or 1/2" at the Contractor's option
- 9. Flashing: 45 mil cured EDPM. Lap all joints 12".
- 10. Bond breaker strip: 15# asphalt roofing felt ASTM D226. 11. Pre-molded control joint strips: Solid rubber designed to fit standard block and

### maintain lateral stability.

joints plumb and aligned.

PART 3 - EXECUTION Preparation: Layout and course all masonry to conform with the drawings and the various elements to be incorporated. Establish locations of all anchors, ties, reinforcing, lintels, etc. and coordinate with other trades. No exposed cut ends

will be allowed. No cores shall be exposed, use a solid unit with facing.

- Do not wet concrete masonry units. 3. Face units in vertical walls shall be laid in a standard running bond, except as specifically noted on the drawings. Exposed masonry shall be lain with vertical
- 4. Joints: Shall be nominal 3/8" wide vertically and horizontally. Joints on all exposed masonry shall be tooled and compressed concave. When mortar is thumbprint hard, use a round jointer/tooler to produce joint. Mortar shall be hard and firmly compressed. Shrinkage and other type cracks will not be acceptable and must be repaired in an approved manner. Joints shall be weather tight. Where fresh masonry joins partially set masonry, remove loose PART 3 EXECUTION units and mortar, clean and lightly wet contact surfaces. Stop horizontal runs by 3.1 EXAMINATION
- racking back one half (1/2) unit in each course. Toothing shall not be permitted. 5. Mortar droppings shall be removed as they occur, and shall not be allowed to harden on exposed faces. Do not allow mortar to drop into the empty cells.
- 6. Control joints shall occur at a minimum of 30 feet on center at exterior wall and 40 feet on center at interior partitions. Locations for control joints shall be as 3.2 PREPARATION located on drawings or as approved by Architect in the field. Control joints shall consist of units laid to a plumb, true thru wall vertical joint with pre-molded rubber separator and sealant on each side. Horizontal reinforcing shall be cut at C. Prepare surfaces using the methods recommended by the manufacturer for
- 7. Weepholes: Provide rope wicks, trimmed flush at 32" o.c. Rope wicks shall be 3.3 INSTALLATION untreated cotton or fiberglass rope with a diameter of not less than 3/16" nor greater than 1/4" diameter. Wicks shall extend 8" vertically in a void cavity. Hold in place with duct tape. Keep cavity free of mortar droppings.
- 8. 8Installation: Install masonry plumb and true to lines in all directions. Discard all units that are not within tolerance as to size or shape, are chipped, or off color. Install units with finished face out. Do not pound or hammer to fit units after they are in position. When adjustment must be made after mortar has begun to set, remove mortar and replace it with fresh. Do not allow mortar to harden on the finally exposed portions of the work. Lay CMU in a running bond, with full head and bed joints. All joints shall be uniform in width and thickness. Place horizontal joint reinforcement continuous on top of the first course at bottom of
- 9. Reinforcing: Reference drawings for masonry columns, vertically reinforced walls and wall stiffeners. Concrete for vertical reinforced masonry shall be rod vibrated as placed. Lifts shall not exceed 4'-8" and the lift shall stop 1-1/2" below the top of the course to form a key at pour joints.. All vertical reinforcing shall be continuous thru horizontal bond beams at all locations unless noted otherwise on drawings. All reinforcing shall be rust free and lapped 40 diameters minimum. Hold in place with wire anchors or chairs when filling. Where reinforcement is not detailed, provide one #5 at all sides of and adjacent to every opening which exceeds 24" in either direction. Extend vertical reinforcement full height of wall and horizontal reinforcement 24" beyond each side of opening
- 10. CMU reinforcing shall truss type, hot dipped galvanized, cold drawn steel conforming to ANSI/ASTM A82. Install at 16"o.c. starting with the top face of the first course unless noted otherwise on drawings. Ends shall be lapped 16". Provide preformed corner bracing and lap 24".
- 11. Cleaning: Masonry shall be cleaned upon completion of all work. Masonry cement shall be cleaned from windows, doors, concrete and other materials. Point up exposed masonry voids, cracks, and surface imperfections. Use water and a stiff wire brush to clean off excess mortar. Do no strike off surface mortar with metallic objects as this may pall off the finished face of the unit causing it to be replaced. Masonry cleaning products to be applied according to manufacturer's directions. Any solution used shall be acid and efflorescent free, similar to Sure-Klan as manufactured by Protocol, Inc. Wash off all traces of cleaning agent when complete and flood surface to remove all contaminates.

### SECTION 04300 - BRICK MASONRY

PART 1 GENERAL 1.1 SECTION INCLUDES

requirements.

- A. Thin brick veneer and accessories.
- 1.2 REFERENCES
- A. ASTM C 67 Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile B. ASTM D 1056 - Standard Specification for Flexible Cellular Materials-Sponge
- or Expanded Rubber C. ASTM C 1088 - Standard Specification for Thin Veneer Brick Units Made from Clay or Shale.
- D. BIA TN 28C Technical Notes on Brick Construction, Thin Brick Veneer. 1.3 SUBMITTALS
- A. Product Data: Manufacturer's data sheets on each product to be used, including:
- 1. Preparation instructions and recommendations. 2. Storage and handling requirements and recommendations. Installation methods. B. Manufacturer's Certificates: Certify products meet or exceed specified

manufacturer's identification and labels intact until ready for installation. B. Store in accordance with the manufacturer's instructions and the following:

minimum 2 years' experience installing similar products/

1. Store units off the ground in a clean, dry, well-ventilated area covered to prevent masonry units and related materials from getting saturated before

A. Sourcing: All primary products specified in this section shall be supplied by a

B. Manufacturer Qualifications: 10 years' experience manufacturing similar

C. Installer Qualifications: Approved by the setting system manufacturer with

products and with production capability to meet the Project schedule.

A. Deliver materials in the manufacturer's unopened packaging with

- 2. Protect from surface damage, mud, dust or materials likely to cause
- staining or other defects. 3. Remove damaged or deteriorated materials from the Project site and replace with new materials to meet specified requirements.
- A. Walls to receive thin brick must be structurally sound with a deflection no less than L/240, plumb and flat within 1/4 inch (6 mm) per 10 feet (3 meters), with corners braced to meet code and design requirements and to alleviate shrinkage, raking, settling, and movement.

C. Handle materials in accordance with the manufacturer's instructions.

- B. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits. PART 2 PRODUCTS
- 2.1 MANUFACTURERS

1.6 PROJECT CONDITIONS

single manufacturer

- A. Acceptable Manufacturer: General Shale Authintic Brick; https://www.authinticbrick.com
- B Substitutions: Not permitted 2.2 THIN BRICK A. Thin Brick: ASTM C 1088, Type TBS, tested in accordance with ASTM C 67, as
  - manufactured by General Shale. B. Brick Color and Size
  - See exterior elevations C. Shapes: Provide flats and corner shapes as required.
- D. Mortar Joint Thickness: 3/8 inch Standard unless otherwise indicated on the Drawings. E. Mortar Joint shape: Tooled concave unless otherwise indicated on the
- Drawings. 2.3 ACCESSORIES
- A. Water Resistive Barrier: As indicated on drawings.
- B. Setting System: Provide setting system complete including manufacturer's accessories including primers, transition and sealing tapes required. System shall Conform to requirements specified in BIA TN 28C and the thin brick
- 1. Metal Lath and Scratch (Thick Set) System. C. Expansion Joints:

manufacturer's recommendation

- 1. Pre-molded Foam: ASTM D 1056, Type 2, Class A, Grade 1.
- 2. Neoprene: ASTM D 1056, Type 2, Class A, Grade 1, or ASTM D 2240 Shore A Hardness of 50 to 70 with cold weather flexibility and minimum ultimate elongation of 300 percent.
- D. Sealants and Backer Rods: Where noted on drawings. E. Cleaners: Compatible with substrate and acceptable to masonry
- manufacturer.

- A. Do not begin installation until backup structure and substrates have been properly prepared. B. If preparation is the responsibility of another installer, notify Architect of
- unsatisfactory preparation before proceeding.
- A. Clean surfaces thoroughly prior to installation. B. Protect adjacent materials from damage due to masonry work
- A. Install in accordance with manufacturer's instructions and BIA TN 28C -

achieving the best result for the substrate under the project conditions.

- Technical Notes on Brick Construction, Thin Brick Veneer. B. Install products from a single manufacturer as specified above based on adjacent construction and substrates.
- C. Coursing and Bond Patterns: 1. Establish lines, levels, coursing and bond patterns indicated. Protect
- from displacement. 2. Maintain masonry courses to uniform dimensions. Form vertical and horizontal joints of uniform thickness.
- openings, and transitions. Maintain architectural alignments as indicated. D. Mortar Mixing: 1. Mix mortar only in quantities needed for immediate use.

3. Refer to the Drawings for special details and treatments at corners,

- 2. Measure materials by volume or equivalent weight, using the same measurement for each material and batch. Do not measure by shovel. 3. If mortar color is to be used, add in accordance with manufacturers
- recommendations. Ensure uniformity of mix and coloration. 4. Clean mixing boards and mechanical mixing machine between batches. E. Mortar Joints: 3/8 inch (9.5 mm) thick unless otherwise indicated on the
- Drawings. F. Mortar Joint Tooling: 1. Provide slightly concave tool joints when the mortar is thumbprint hard using non-rusting round jointer tools slightly larger than the joint width to smooth and compress mortar tightly against both sides of the joint.
- 2. Tool joints in a manner to ensure the durability of the building envelope and not retain water or dirt.
- 3. Head joints shall match bed joint profile.
- 4. Tool all exterior joints below grade.
- 5. Flush cut all joints that are not tooled only where permitted by the 6. After tooling, cut off mortar tailings with a trowel and brush mortar burrs
- and dust from the face of the brick. G. Sealant Recesses: 1. Leave joints around outside perimeters of exterior doors, window
- frames, and other wall openings a uniform depth of 3/4 inch (19 mm) and 1/4 to 3/8 inch (6 to 10 mm) wide.
- 3.4 CLEANING A. Leave work areas clean at the end of each day. B. Cut out defective mortar joints and holes in exposed masonry and re-point
- with mortar. C. Clean new masonry to remove excess mortar from the face of the brick as the Work progresses.

1. Clean shortly after laying, the same day if possible, by wiping off the

- excess mortar using a bristle brush. 2. Wash down with water and a brush the same or next day, 3. Use chemical cleaners only as a last resort. Before use test an inconspicuous area at least 20 square feet (2 square meters), allow to dry 3
- to 7 days. Inspect to ensure the mortar is not softened, brick or mortar are not discolored, and cleaner does not bring salts to the surface of the brick. If approved clean brick as follows:

a. Follow brick manufacturers recommendations and BIA Technical

- Note 20. b. Wet surface of masonry prior to cleaning.
- c. Scrub with acceptable cleaning agent, avoiding mortar joints.

- d. Follow wait time suggested by manufacturer before rinsing with
- e. Do only small sections at a time.
- f. Work from top to bottom, insuring that lower portion of wall is thoroughly wetted when cleaning the upper portion. g. Protect all sash, glass, metal lintels and other corrodible parts when
- masonry is cleaned with acid or caustic solution. h. Upon completion, rinse thoroughly to remove surplus materials.
- 3.5 PROTECTION A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial

### SECTION 04730 - SIMULATED STONE VENEER (BUECHEL STONE CORPORATION)

- Product Data: Submit for fabricated wire reinforcement and each type of stone. Verification Samples: To ensure proper stone veneer has been delivered and mortar color is acceptable, provide a "laid up" sample using the selected stone and mortar materials and showing a full range of colors expected in the finished Work; minimum 4 feet by 4 feet.
- Submittals: a. Manufacturer's detailed installation instructions;
- b. ICC-ES Report, as required; c. Installer: Minimum 5 years experience in similar types of work of similar scope, and be able to furnish list of previous jobs and references; d. Fabricator: Manufacturer to have not less than 5 years experience in
- manufactured veneer stone similar to type specified and 5 million square 4. Provide expansion joints as indicated on drawings, or confirm with the architect
- if not indicated
- 5. Certifications: Must meet the minimum requirements for pre-cast veneer stone as set forth under the following:
- a. International Building Code, 2015; b. International Residential Code, 2015. 6. At closeout, submit maintenance instructions and special Warranties.
- 7. Shipping: All pieces shall be packaged, shipped and transported in a manner to minimize chipping and damage to the units. All units damaged in transit shall not be incorporated into the finally exposed walls. Store moisture-sensitive materials in weather protected enclosures.
- 9. Maintain materials and ambient temperature in area of installation at minimum 40 degrees F (4 degrees C) prior to, during, and for 48 hours following installation. When air temperature is 40 degrees F (4.5 degrees C) or below, consult local building code for Cold-Weather Construction
- 10. Provide manufacturer's 50 year standard limited warranty coverage against defects in materials when installed in accordance with manufacturer's installation instructions and upon Substantial Completion.
- 11. Extra Materials: Furnish extra manufactured stone material in a variety of shapes and sizes in quantity equal to one percent of the installed stone.

Veneer Stone shall be manufactured by Buechel Stone Corporation.

# PART 2 - PRODUCTS

- See Exterior Elevations for veneer stone water-table and cap specification. 3. Manufactured Masonry Physical Properties: Veneer Stone units consisting of Portland Cement, course aggregates, sand, iron oxide colors and water. a. Portland Cement: ASTM C 150, type 1, 2, or 3, depending on color to be
- b. Course Aggregates: ASTM C 330, lightweight type, color as necessary to obtain final approved color of stone;
- c. Sand: ASTM C 144, special color if required to match approved color; d. Iron oxide colors;
- e. Water: Clean and free from deleterious substances. 4. Setting Accessories: a. Moisture Barrier: Tyvek Stucco Wrap, by E.I. DuPont, or comparable
- product as approved by Architect. Provide tape to seal joints, seams, and tears of same permeance as membrane. Metal Lathe: ASTM C 847; 18 gage, galvanized, flat diamond mesh, self furring, stamped sheet; 2.5. Attach with galvanized nails, screws and other metal supports, of type and size to suit application to rigidly secure
- materials in place. c. Joint Sealant: Refer to Section 7900. d. Fasteners: Coated 1-1/2 inch nails, staples, or screws of type and for
- spacing as recommended by stone manufacturer. e. Cleaner: Non-acid cleaner as recommended by simulated stone manufacturer.
- a. Flashing As specified or shown on drawings.

### PART 3 - EXECUTION

Accessory Materials

- 3.1 EXAMINATION AND PREPARATION
- Examine conditions and proceed with Work. Verify that field conditions are acceptable and are ready to receive work.
- b. Verify that items provided by other Sections of Work are properly sized c. Verify that built-in items are in proper location and ready for roughing
- into masonry work. d. Verify correct product prior to installation.
- e. Consult Owner and manufacturer if deficiencies exist; correct deficiencies in accordance with stone manufacturer's recommendations. Protect surrounding area from possible damage during installation work.
- Initiating installation constitutes Installer's acceptance of existing surfaces 3.2 APPLICATION

occur between supports.

- Moisture Barrier a. Apply sheets horizontally, starting at the base of the wall, and lapping
- each successive upper layer over the previous lower sheet. b. Lap horizontal and vertical joints 6 inches. c. Cut and seal joints, penetrations, openings, and projections with
- manufacturer's recommended tape. d. Install with corrosion-resistant staples. 2. Lathing: Apply metal lath taut, with long dimension perpendicular to
- a. Lap ends minimum 1 inch. Secure end laps with tie wire where they
- b. Lap sides of lath minimum 1-1/2 inches. c. Attach metal lath to framing using nails or screws of type, size and spacing recommended by system manufacturer. d. Continuously reinforce internal angles with corner mesh, except where
- reinforcement; fasten at perimeter edges only. e. Place 4 inch wide strips of metal lath centered over junctions of dissimilar backing materials. Secure rigidly in place.

the metal lath returns 3 inches from corner to form the angle

4. Simulated Stone Veneer: Install in accordance with manufacturer's a. Apply 3/8 to 1/2 inch of mortar covering back of each stone section,

3. Mortar: Apply 3/8 inch scratch coat of mortar to lath and allow to dry 48

- b. Press each unit firmly into position, wiggle and apply light pressure to unit to ensure firm bonding, causing mortar to extrude slightly around edges of unit; units to be installed dry-stacked, without grout joints. c. Construction & Expansion Joints: refer to manufacturer's installation instructions for maximum dimensions of construction and expansion
- d. Install outside corner return units with short and long lengths alternated. e. Install accessory pieces (water table cap) as work progresses, using same technique as units in field of wall.

- 5. Certifications: Must meet the minimum requirements for pre-cast veneer stone as set forth under the following:
- a. International Building Code, 2015;
- b. International Residential Code, 2015. 6. Plan work to minimize jobsite cutting. Perform necessary cutting with proper
- tools to provide uniform edges; take care to prevent breaking unit corners or
- Remove excess mortar, do not allow mortar to dry on face of units.
- a. Point and tool joints before mortar has set.
- b. Clean and finish joints in accordance with the architect's and manufacturer's instructions.
- 8. Control Joints: Size in accordance with Section 7900 for sealant performance, but in no case larger than adjacent mortar joints in exposed stone units. Expansion Joints: Provide where indicated on Drawings or as recommended by system manufacturer
- 10. Built-in Work: As work progresses, build in door and window frames, nailing strips, anchor bolts, plates, and other items specified in various sections. a. Build in items plumb and level.
- b. Bed anchors of metal door and glazed frames in mortar joints. Fill frame voids solid with mortar. c. Do not build in organic materials subject to deterioration.
- 3.3 ADJUSTING 1. Cutting and Fitting: Cut and fit for chases, pipes, conduit, sleeves and grounds. Cooperate with other sections of work to provide correct size, shape and location.
- a. Obtain approval prior to cutting or fitting any area not indicated or where appearance or strength of masonry may be impaired. 3.4 CLEANING AND SEALING
- a. Remove excess mortar and smears using brush or steel wool.
- b. Replace defective mortar. Match adjacent work. c. Clean soiled surfaces with non-acidic solution, acceptable to the stone manufacturer, which will not harm masonry or adjacent materials.

d. Leave surfaces thoroughly clean and free of mortar and other soiling.

e. Use non-metallic tools in cleaning operations. Sealing: Apply sealer to completed surface in accordance with

### Sealer: Water based, silane or siloxane masonry sealer, clear.

manufacturer's recommendations.

### **SECTION 05100 - STRUCTURAL METALS**

**DIVISION 5 - METALS** 

- PART 1 GENERAL 1. All structural steel shall conform to latest ASTM specifications, AISC Codes and Specifications, AWS D1.1 Structural Welding Code, and AWS Standard
- Qualification Procedure. 2. All structural steel elements shall receive a shop coating of a rust inhibitive primer and all surfaces, except those surfaces where friction fitting or welding will be performed. After connecting, these areas shall be field painted with matching paint. All exterior structural steel permanently

exposed to the weather shall be hot dipped galvanized after fabrication.

- All materials shall be rust free, new and shop painted Anchor bolts shall conform with ASTM A 307 formed without heat. Where
- bolts are not called out, use 3/4" diameter machine bolts. 3. Bolts shall conform to ASTM A325-F (friction type). 4. For items called for to be galvanized,: ASTM A 153 or ASTM A 386. All
- welding done after galvanizing shall be protected with two coats of "Galvanized" or "Galvaloy" ... Fasteners: ASTM A 307, Grade A.
- 6. Structural Steel Shapes, Columns, and Elements: ASTM A 36 as a minimum. See drawings for other types and grades of steel. Washers: ASTM A 325 large cut type. Provide 2" round washers for
- attaching wood elements to any steel member, bolt or anchor bolt. PART 3 - EXECUTION
- identify all elements for field assembly. Verify all dimensions with architectural and structural drawings. Exposed structural elements shall be free of marks, mill identifications, burrs, welding splatters, or other defects that will adversely effect the exposed

1. Fabricate and assemble in shop to greatest extent possible. Mark and

### 3. Loose Items: All All steel angles supporting masonry shall bear each end on solid masonry as indicated on the drawings.

### **DIVISION 6 - WOOD AND PLASTIC**

- SECTION 06010 ROUGH CARPENTRY
- 1. Grading Rules: Southern Pine latest edition of Standard Grading Rules, Southern Pine Inspection Bureau (SPIB). Douglas Fir, Western Larch, Western Hemlock- latest edition of Standard Grading Rules published by Western Wood Products Association (WWPA) or West Coast Lumber Inspection
- Bureau (WCLIB). All material manufactured in accordance with U.S. Product Standard and shall carry grade trademarks on each piece. Workmanship: Employ only skilled carpenters. All carpentry shall be

accurately set, plumb, true, even and securely fastened in accordance with

### referenced standard or manufacturer's recommendations.

- PART 2 PRODUCTS Materials: a. Joists, beams, planks, rafters, headers, exterior wall top plates: S4S, #1 SP (Southern Pine) or #1 DF-L, air-dried to a moisture content of nineteen (19) percent or less. Truss lumber to be per design Engineer's specifications and 06190. Structural Composite Lumber to be laminated
- veneer lumber with the following minimum design values: Fb=2,600 psi, Fv=285 psi, E=2,000,000 psi b. Plates, blocking, furring, and bracing: S4S, #2SP (Southern Pine) or #2
- DF-L or better. c. Studs: Bearing walls, posts and partitions to be # 2 S-P (Southern Pine) or #2 DF-L. Non-bearing walls or partitions to be No. 2, Construction Grade or better. All studs shall be air-dried to a maximum moisture content nineteen (19) percent. Bearing wall studs at sixteen (16) inches

on center. Non-bearing wall studs at sixteen (16) inches on center,

unless local code requires closer spacing.

d. Roof Sheathing: THICKNESS AS SHOWN ON STRUCTURAL DRAWINGS CDX exterior grade plywood APA rated 40/20, and conforming with Product Standard PS-1-80. Install full 2x blocking at all sheathing edges. Install with face grain perpendicular to supports. Nailing to remain exposed for inspection if local code requires. e. Exterior Wall Sheathing: 15/32" CDX exterior grade plywood APA rated

inspection. Install full depth 2x blocking at all panel edges (except

32/16. All exterior walls are shear walls. Nailing to remain exposed for

additional framing at wall ends and breaks for Simpson Anchors. Cover all sheathing with building wrap (Tyvek) installed starting from the bottom, with 6 inch overlaying laps. Lap vertical joints 12 inches. 1. NOTE: Use 3/4" wall sheathing with the above specifications at the

2x8 exterior walls of the entry tower.

where 3x framing is required by shear wall schedule). Provide

to weather shall be pressure treated in compliance with AWPA Standards C1 & C2, 15% maximum moisture content equal to MCQ or ACQ as approved by the EPA.

Preservative treatment: All lumber in contact with concrete or exposed

- 2. Simpson Connectors: Metal ties, connections, tie-downs, hold-downs, straps, and related items shall be those of the Simpson "Strong-Tie" Connectors, without substitution and based on their latest catalog. All holes shall be filled with he proper nail or bolt as specified by manufacturer. Reference drawings for metal connections and include connectors based on
- the following criteria: a. All exterior walls shall be tied to the top and bottom of studs, columns,
- posts, and related elements.
- b. All interior bearing shall be tied to the top and bottom of studs, columns, posts, and related elements.
- c. All roof trusses shall have ties connecting them to the bearing plates, beams, and related items.
- d. All conventional roof members shall have ties connecting them to plates, beams, and other structural elements.
- Fasteners: All rough hardware and fasteners used on the exterior shall be corrosion resistant and non-staining. Unless called out otherwise, they shall be galvanized or stainless steel. 2"x2"x3/16" plate washers shall be used under bolt heads and nuts against wood. Use heavy plate or malleable iron washers for all bolts designed to act in tension, such as hold down anchors. PART 3 - EXECUTION
- 1. All wall penetrations shall have a minimum of double studs each side of the opening, one full height to the top plate and one becoming a cripple stud supporting a header. If the opening width exceeds five (5') feet, provide an additional stud extending to the top plate. If the opening exceeds seven feet (7') provide an additional cripple stud. If a wall height exceeds ten (10) feet, provide 2x bridging, same width as wall, preferably at mid-height, but not to
- exceed intervals of 8 feet. 2. All dimensions and measurements shall be field verified to produce proper fit and function. All members shall be self fitting without fillers. Fasteners and anchorages shall bring the members into a tight fit without movement when a dead and live load are superimposed.
- . All framing lumber, blocking, studs, joists and related members shall be closely fitted with square or shaped ends, accurately set to required lines and level, plumb and true in all dimensions. Members on a slope shall be accurately cut to fit the angles. All wood members shall be nailed or bolted to the abutting material to hold them firmly in place. No framing member shall be diminished in cross sectional area to accommodate pipes, wires, or conduits without the approval of the Architect. Studs are sized to accommodate a 3/4" hole when drilled in the middle of the width. Bolt holes shall be the same size as the nominal size of the bolt used. Retightens all nuts prior to closing in. Pre-drill all holes for 20d and larger nails and all lag bolts. DO NOT bore or notch joists, rafters, headers, or beams. Holes through sills, plates, studs, and double plates in interior/exterior bearing walls and shear wall framing shall not exceed 1/3 the plate or stud width.
- Center all bored holes in wall framing. 4. Provide wood blocking to support wire shelves, casework, paper towel dispensers, toilet paper holders, grab bars, mirrors, and electrical/plumbing/HVAC items as required. Provide solid blocking for all rafters more than 10 inches deep at 10'-0" o.c., and for all floor joists 8 inches or more in depth at 8'-0" o.c. maximum.

### **SECTION 06190 - WOOD TRUSSES**

- PART 1 GENERAL 1. Pre-engineered wood trusses shall be used for roof framing. Sizing of
- members and design of system to be by the fabricator. Fabricator to supply necessary engineering certification to comply with Local Building Codes. Truss shop drawings shall be stamped by a Professional Engineer registered in the state of the project construction. Copies will be submitted to the Architect for approval. The Contractor shall submit copies of design shop drawings to local design review departments, if required. The truss configurations indicated on the drawings are schematic in nature to show required spans and roof slopes. The truss manufacturer shall be solely
- responsible for the structural design of the trusses, including fabrication and 2. Trusses shall be fabricated by a certified member of the Truss Plate Institute. Design, fabrication and erection shall conform to Truss Plate Institute Standards. Connector plates shall be ICBO approved with a minimum size of 2" x 4". All chord members shall have lumber grade stamps; all web
- members bearing a grade stamp. 3. Design Truss Loadings: See Plans. a. The general contractor or truss manufacturer shall provide the truss Design Engineer of Record copies of all construction documents

necessary to establish/check all applicable truss design loads.

members from the same lumber grade with at least 50% of the web

- b. All trusses shall be designed for the uniform loads shown in addition to applicable wind, snow drift, unbalance snow, and mechanical platform loading shown. Verify Design Loads meet or exceed ASCE 7-10 for live and snow loading. Total load deflection shall be limited to L/240. c. The truss manufacturer shall be responsible for the design of all trusses
- the plans. The amount of load transmitted laterally by the member shall be a minimum of 2000 pounds unless noted otherwise on the framing d. The truss Design Engineer of Record shall select (truss manufacturer to supply) all truss hold down plates/connectors necessary to resist the net design uplift forces determined based on the building code prescribed

combinations of the design loads shown on the drawings. The maximum

design dead load considered to resist wind uplift in such combinations shall be the minimum expected to be in place. The truss hold down selections shall be indicated on the signed and sealed truss drawings. 4. Truss manufacturer to submit erection plan and show drawings, bearing the seal of an Engineer registered in the state conforming to the design criteria specified herein for approval and prior to fabrication. Submitted data to contain design loadings, allowable stress increases employed, calculated truss member stresses, rated load capacity of the truss member connection size, species, and stress-grade of lumber employed, fabrication details

indicating location of connectors, handling and erection instructions, truss to

truss connection details, and all bracing requirements of chords and webs.

Failure to furnish any of the above required data will be regarded as ample

- reason for the rejection of the shop drawings. The Contractor shall approve fabrication drawings indicating size, shape, and layout prior to submittal for review by the Architect. PART 2 - PRODUCTS 1. All lumber shall conform to the stress ratings of for the species and grades as set out in the official grading rules of the appropriate lumber association or
- sized to support overhangs and interior attachments. All overhangs greater than 3'-0" shall have 2x6 top chords . Connector plates shall be a minimum of 0.036" in thickness and shall be manufactured from material meeting the requirements of ASTM A446 Grade A steel. Plates to be galvanized in accordance with ASTM A525 G60 Coating

as listed in referenced design standards. All top and bottom chords shall be

manufacturing facility, by experienced workmen using precision cutting and

fabrication equipment under the direct supervision of a qualified foreman.

### PART 3 - EXECUTION 1. Fabricate all trusses and components in a properly equipped permanent

Class "C" specifications.

Architect of any conditions that would adversely affect the installation or structural capacity of the trusses. 3. Install trusses true and plumb and securely anchored to the top plate with hurricane ties at each end. Erection and installation shall be in accordance

2. Carefully inspect locations where trusses are to be installed. Notify the

with written instructions from the manufacturer. 4. The truss manufacturer shall be responsible for all truss to truss connections, all truss to girder connections, and if the truss is made up of more than one truss, the truss to truss connections.

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HESE DRAWINGS AND THE DESIGN REPRESENTED HEREBY ARE THE EXCLUSIVE

PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.

used as drag struts and shall ensure such trusses are placed as shown on

ARCHITECT

EXP. DATE: 12/19/24 Drawn/Checked DSC / ALA 2202640 Project Number Bid Date 7/10/23 Permit Date

Professional of Record: Suzanne M Hayes LICENSE NO: 1301072179

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For Construction

- 1. It is the intent of this section to set minimum standards for materials and installation of all interior and exterior finish carpentry, including cabinetwork
- 2. Provide shop drawings for all casework, shelving, and counters to Architect for PART 2 PRODUCTS approval before installation. PART 2 - PRODUCTS
- 1. Interior millwork shall conform to the "Standard Grade" criteria of the AWI standards. Where trim will be painted; therefore, finger joint trim will be
- 2. All wood and wood trim for exposed exterior finish carpentry shall be clear Hardie trim except as called for on the drawings. Nails shall be as required to hold members securely in place without splitting the material. All nails shall
- be hot dipped galvanized. a. Board Siding (where occurs): "Hardiplank" as manufactured by James
- Hardie Building Products or approved equal. Siding shall be 5/16" thick, 7-1/2" wide (6-1/4" coverage), Woodgrain pattern, 12' long. Product shall have a 50 year, limited, transferable warranty. "R" value shall equal .15. Prefinished material with color as noted on Exterior Color
- Schedule sheet A-4 shall be used. b. Fascia, Frieze and Running Trim: Shall be prefinished LP SmartSide, or equal, with color as noted on Exterior Color Schedule.
- c. Interior Running Trim: Painted wood may be #1 paint grade poplar or fir. Finger joint material is acceptable. Stained material shall be white oak, rift sawn, premium grade or equal.
- 3. Vinyl Shutters: Copolymer with molded through UV stabilized color and 40 year limited warranty as manufactured by architecturaldepot.com, Mid-America or approved equal. Color to be as specified on Exterior Color Schedule. Height shall match window height. Furnish and install all attachment hardware, and install in accordance with manufacturer's specifications.
- 4. Seal all countertops to adjacent surfaces with silicone sealants only.
- 5. Millwork and Cabinet Work: All casework shown on the drawings shall be provided per the specifications on the drawings and as specified below by one of the following manufacturers (no substitutes):
  - Calhoun Millworks, OR Masters Millwork Refer to sheet A2.2 for contact information.
- a. Fabricate, including finishing and hardware installation, before shipment to the maximum extent possible.
- b. All hardware shall be steel or brass with chromium plate finish, ball bearing (KV 1300 or equal) side mount drawer slides; self adjusting and self-closing inside mounted hinges.
- c. Provide approved securing devices (child-proof) on all drawers and doors (key locks). d. Bottoms of all cabinets below a sink or lavatory shall be constructed of
- 3/4" marine grade plywood. 6. Plastic laminate countertops shall have laminates manufactured by Formica, Laminart, or Wilsonart. Seal all countertops to adjacent surfaces with silicone
- sealants only. 7. See plan for location of cultured marble tops. Tops shall be premium grade and fabricated with an integral recessed rim.
- 8. Drop Staircase units shall be Werner 3008 with an insulating cover installed, which prevents attic air/moisture from infiltrating the heated/cooled area of the building. Insulating unit shall be equal to ESS Energy Products R-39 Energy Guardian. The kit is comprised of a lid and frame. The air seal is formed when the lid fits into the frame. The lid weighs approximately 10 lb. and the frame is less
- PART 3 EXECUTION 1. All interior and exterior corners shall be mitered. No exposed butt cuts will be allowed, except on small shoe mould or quarter round that may be terminated on a 22-1/2 degree angle. Joints shall be held to a minimum on continuous runs of millwork. Glues and adhesives shall be kept off exposed
- corrected by replacing the entire section of millwork. 3. All interior and exterior joinery shall be to very close tolerances with equal
- fittings. Fill all joints before finishing. All laminate top seams/splices/joints shall be filled with a filler that matches the laminate color; so the seam/joint is 5. Provide products that are "Low-emitting" not visible.
- 4. All hanging casework/cabinets should be caulked on all sides, and underneath the cabinet, where the cabinet abuts the wall surface. Cabinet seams, which are the result two pieces of casework abutting one another should be filled with a caulk/putty that matches the color of the casework; so the seams are

### **DIVISION 7 - THERMAL AND MOISTURE PROTECTION**

### **SECTION 07200 - FIBERGLASS INSULATION**

surfaces to receive stain or paint.

### PART 1 - GENERAL

1. It is the intent of this section to establish minimum standards for insulation products and their installation.

### PART 2 - PRODUCTS

- a. Installer to provide the Owner with a certificate to guarantee the R-Value.
- Minimum R-Value for exterior walls = **R-21** b. Maximum flame spread: 25, Maximum smoke developed: 50
- c. Exterior Walls: Type: Kraft-faced glass fiber thermal insulation complying with ASTM C 665, Type II, Class C.
- d. Interior Sound Walls: Owens Corning Sound Attenuation Batts 2 1/2" thick
- e. Comply with ASTM C 665, Type I and ASTM E 136. ASTM C 665

### PART 3 - EXECUTION

seal corners where required.

- 1. Installation: Comply with manufacturer's instructions and recommendations. Fill all areas around voids, pipes, between structural elements and as called for on drawings. Pack all voids completely with insulation. Do not compress as the R- value will be lowered as the density increases.
- 2. Protect insulation from physical damage and from becoming wet, soiled, or covered with ice or snow. Comply with manufacturer's recommendations for handling, storage and protection during installation.
- 3. Do not use unfaced insulation in exposed applications where there is potential for skin contact and irritation. Use of faced insulation is approved in sloped ceilings and under the mechanical platform, areas that must be insulated prior to
- 4. Label insulation packages to include material name, production date and/or product code
- 5. Kraft and standard foil facings will burn and must not be left exposed. The facing must be installed in substantial contact with an approved roof/ceiling
- construction material. Protect facing from any open flame or heat source. 6. If specified, maintain vapor retarder integrity by tightly abutting adjacent insulation. Repair punctures or tears in vapor retarder facing by taping. Follow
- tape manufacturer's application recommendations. 7. Sound Walls: Seal the perimeter using a nonhardening caulk such as a butyl rubber-based compound to seal walls at both top and bottom plates. Two layers of properly staggered wallboard, with joint compound and tape will effectively
- 8. Friction-fit Sound Attenuation Batts in place until the interior finish is applied. When insulation is being applied in continuous heights greater than 8' or when batts do not fill the cavity depth, supplementary support should be provided to hold the insulation in place.

### **SECTION 07210 - FOUNDATION INSULATION**

1. It is the intent of this section to specify minimum standards for products and installation of foundation insulation.

- 1. Materials: Frost Barrier Rigid thermal insulation, thickness as shown on Drawings, to be Styrofoam by Dow Chemical extruded polystyrene type SM
- or SB or approved equal.

2. Minimum R-Value = **R-10** 

PART 3 - EXECUTION 1. Foundation insulation shall be applied vertically and horizontally (if required by local code), on the inside of all exterior foundation walls laid atop the porous fill and under the vapor barrier and concrete slabs.

### SECTION 07220 - FOAMED IN PLACE INSULATION

### PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Contractual Conditions and Division 01 Specification Sections, apply to this Section. 1.2 SUMMARY
- A. Section Includes: Light density, open celled, flexible, 100 percent water blown polyurethane foam insulation
- B. Coordinate mechanical ventilation and fresh air supply with Mechanical sections and ASHRAE Guidelines for optimum indoor air quality.

### 1.3 REFERENCES

- A. American Society for Testing and Materials International (ASTM) 1. ASTM C 518: Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus 2. ASTM C 1338: Standard Test Method for Determining Fungi Resistance of Insulation Materials and Facings
- 3. ASTM E 84: Test Method for Surface Burning Characteristics of **Building Materials** 4. ASTM E 96: Standard Test Methods for Water Vapor Transmission of
- 5. ASTM E 2178: Standard Test Method for Air Permeance of Building

### Materials 1.4 SUBMITTALS

### A. Product Data for each type of insulation product specified.

- B. Product test reports performed by a qualified independent testing agency evidencing compliance of insulation products with specified requirements including those for thermal resistance, fire-test-response characteristics,
- water-vapor transmission, water absorption, and other properties, based on comprehensive testing of current products. C. Evaluation Report: Evidence of compliance of foam-plastic insulations with International Building Code (IBC), International Residential Code (IRC),
- International Energy Conservation Code (IECC). D. Manufacturer's certificate certifying insulation provided meets or exceeds
- specified requirements.
- E. Installer's certificate showing the Icynene installation certification. F. Sample warranty
- 1.5 QUALITY ASSURANCE a. Manufacturer's Qualifications: Product produced in an ISO9001 registered
- b. Single Source Responsibility: Single source product from one
- c. Installer Qualifications: Engage an Icynene Licensed Dealer (applicator) who has been trained and certified by Icynene. d. Fire-Test-Response Characteristics: Provide materials specified as
- determined by testing identical products per test method indicated below by a testing and inspecting agency acceptable to authorities having jurisdiction. Identify materials with appropriate markings of applicable testing and inspecting agency.
- 1. Surface-Burning Characteristics: ASTM E 84 Toxicity/Hazardous Materials
- 2. Cracks, splits, mill marks, hammer marks, and related exposed defects shall be 2. Provide products that contain no urea-formaldehyde
  - 3. Products and equipment requiring or using CFCs, HCFCs, or HFCs during the manufacturing or application process will not be permitted
  - 4. Provide products that contain no PBDEs
  - 1.6 DELIVERY, STORAGE, AND HANDLING
  - A. Comply with manufacturers written instructions for handling and
  - protection prior to and during installation. B. Store both components in a temperature controlled area between 50 deg F (15 deg C) and 100 deg F (32 deg C). Do not allow product to freeze.
  - C. Use only those components that are supplied by the Manufacturer. 1.7 PROJECT CONDITIONS
  - A. Do not expose to sunlight, except to extent necessary for period of installation and concealment.
  - 1.8 WARRANTY A. Manufacturer's standard limited lifetime warranty.
  - B. Refer to <u>www.lcynene.com</u> for full warranty terms.

### PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Polyurethane Spray Foam Insulation: Icynene Classic UltraTM by Icynene Inc., or approved equal. B. Intumescent paint:
- 1. DC-315 by International Fireproof Technology Inc. 2. Fireshell F10E by TPR2

### 3. No-Burn Plus ThB by No-Burn

- A. General: Provide insulating materials that comply with requirements and with referenced standards.
- B. Icynene Classic UltraTM (LD-C-50) Spray Foam Insulation: Low-density, water-blown, conforming to the following: 1. Thermal Resistance (R-Value/inch @75 deg F): ASTM C 518; 3.7 hr/sq
- ft/degree F/BTU 2. Air Permeance (for 3 inches of material): ASTM E 2178; < 0.014 L/s.m2
- 3. Water Vapor Transmission (for 5.5 inches of material): ASTM E 96; 11 perms [627 ng /(Pa.s.m2)]
- 4. Flame Spread and Smoke Developed Rating: ASTM E 84 a. Flame Spread: Less than 20
- b. Smoke Development: Less than 400 5. Bacterial and Fungal Growth and Food Value: ASTM C 1338: no
- C. Product Description:
- 1. ICC/ES Evaluation Report No. ESR 1826 2. Collaborative for High-Performance Schools (CHPS) "Low-emitting
- material" per CA 01350 Criteria D. Intumescent Paint
- 1. DC-315 Thermal Barrier Coating: 14 wet mils 2. Fireshell F10E Thermal Barrier Coating: 21 wet mils 3. No-Burn Plus ThB Thermal Barrier Coating: 18 wet mils
- SOURCE QUALITY CONTROL A. Product produced in an ISO 9001 registered factory.

### PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates and conditions, under which work is to be performed. Do not proceed until unsatisfactory conditions have been corrected.
- 1. Review placement area to determine final location will not be within 3 inches of any heat source where the temperature will exceed 200 deg F per ASTM C 411 or in accordance with authorities having jurisdiction.
- 3.2 PREPARATION A. Clean substrates and cavities of loose materials capable of interfering with insulation placement.
- 3.3 APPLICATION
- A. Site mix liquid components manufactured by Icynene and supplied by Independent Icynene Licensed Dealer
- B. Apply insulation to substrates in compliance with manufacturer's written
- Apply insulation to produce thickness required for indicated R Value. D. Extend insulation in thickness indicated to envelop entire area to be

E. Water-Piping Coordination: If water piping is located within insulated

exterior walls, coordinate location of piping to ensure that it is placed on

### warm side of insulation and insulation encapsulates piping. 3.4 REPAIRS

### A. Any repairs must be effected by an Icynene Licensed Dealer. 3.5 PROTECTION

Protect installed insulation from damage due to harmful weather exposures, physical abuse, and other causes. Provide temporary coverings where insulation is subject to abuse.

### SECTION 07270 - AIR BARRIER WRAP PART 1 - GENERAL

1. Furnish and install air barrier/weather resistant barrier over exterior of wall sheathing at all locations regardless of whether or not indicated on drawings to protect exterior sheathing and interior walls.

### PART 2 - PRODUCTS 1. Acceptable Manufacturer:

**DuPont Weatherization Systems** 

4417 Lancaster Pike - Building 728 Wilmington, DE 19805 800-448-9835

- <u>www.tyvek.com</u> ANY OTHER PRODUCT MUST HAVE PRIOR APPROVAL AND HAVE THE SAME OR BETTER PERFORMANCE CHARACTERISTICS.
- Materials DuPont™ Tyvek® Commercial Wrap®: A flash spunbonded olefin, nonwoven, non-perforated secondary weather resistant barrier. Where required by James Hardie provide minimum 90% efficiency water resistive barrier (DuPont™ Tyvek® Drain Wrap®).
- Performance Characteristics a. AATCC-127, Water Penetration Resistance, exceeded at 280 b. TAPPI T-460, Gurley Hill (sec/100cc) Air infiltration at >1500 seconds
- ASTM E 96 Method B(g/m2-24hr.)Water vapor transmission of 200 d. TAPPI T-41D, Basis weight of 2.7oz/yd e. ASTM E96 Method B, Water Vapor Transmission, 28 perms
- f. ASTM E1677, Air Retarder Material Standard Specification, Type I air barrier 4. Sealing Tape/Fasteners
- a. DuPont™ Tyvek® Tape, DuPont Weatherization Systems. b. For steel frame construction: DuPont™ Tyvek® Wrap Cap Screws, DuPont Weatherization Systems. 1 5/8" rust resistant screws with 2" diameter
- plastic cap. c. For wood frame construction: DuPont™ Tyvek® Wrap Caps, DuPont Weatherization Systems. Nails with large heads or plastic washers.
- d. Caulks or Sealant: polyurethane or elastomeric sealants a. OSI® Quad Pro-Series®, solvent release butyl rubber sealant. b. DAP® Dynaflex 230™ c. Other products as approved and recommended by air barrier/weather

### PART 3 - EXECUTION

- 1. Installation Install Air Barrier over exterior side of exterior wall sheathing. Install Air Barrier after sheathing is installed and before windows and doors are installed. Install lower level barrier prior to upper layers to ensure proper
- shingling of layers. 2. Overlap Air Barrier at corners of building by a minimum of 12 inches. 3. Overlap Air Barrier vertical seams by a minimum of 6 inches.

resistant barrier manufacturer.

- 4. Ensure barrier is plum and level with foundation, and unroll extending Air Barrier over window and door openings. Attach Air Barrier to wood, insulated sheathing board or exterior gypsum with plastic cap nails every 12" to 18" on vertical stud line with wood stud framing.
- When attaching to masonry, use adhesive recommended by manufacturer. 6. Prepare window and door rough openings as follows: Prepare each window rough opening by cutting a modified "I" pattern in the Air Barrier. Horizontally cut Air Barrier along bottom of header. Vertically cut Air Barrier down the center of window openings from the top of the window opening down to 2/3 of the way to the bottom of the window openings. Diagonally cut Air Barrier from the bottom of the vertical cut to the left and right corners of opening. Fold side and bottom flaps into window opening and fasten every 6 inches. Trim off excess. Prepare each rough door opening by cutting a standard "I" pattern in the Air Barrier. Horizontally cut Air Barrier along bottom of door frame header and along top of sill. Vertically cut Air Barrier down the center of door openings from the top of the door opening (header) down to the bottom of the door opening
- (sill). Fold side flaps inside around door openings and fasten every 6 inches. Trim off excess. 7. Tape all horizontal and vertical seam of Air Barrier with DuPont™ Tyvek® Tape.
- Seal all tears and cuts in Air Barrier with DuPont™ Tyvek® Tape. CONTRACTOR SHALL PROVIDE TESTING TO PROVE THE AIR LEAKAGE RATE OF THIS BUILDING DOES NOT EXCEED 0.40 CFM/SF AT A PRESSURE DIFFERENTIAL OF 0.3 INCH W.G. (1.57 PSF). TESTS SHALL BE ACCOMPLISHED USING EITHER PRESSURIZATION OR DEPRESSURIZATION OR BOTH. WHOLE BUILDING TESTING SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ASTM E 779 OR APPROVED SIMILAR TEST. UNER ASTM E 779 IT IS PERMISSIBLE TO TEST THE BUILDING USING THE BUILDING HVAC SYSTEM.

### **SECTION 07411 - METAL ROOF PANELS**

- PART 1 GENERAL 1. It is the intent of this section to establish minimum standards for metal roof
- panels and installation. Product Data: For each type of product indicated. include construction details, material descriptions, dimensions of individual components and profiles, and
- finishes for each roof panel and accessory. 3. Samples for Verification: For each type of exposed finish required, prepare
  - samples of size indicated below:
  - a. Metal Roof Panels: 12 inches long by actual panel width; include

  - fasteners, clips, battens, closures and other metal roof panel accessories. b. Trim and Closures: 12 inches long; include fasteners and other exposed
- c. Accessories: 12 inch long samples of each.
- d. Self-Adhering Underlayment: 12 inches square sample. 4. Qualification data for qualified installer that has been trained and approved by
- manufacturer. a. Special Warranty: Manufacturer's standard form in which manufacturer
- agrees to repair or replace metal roof panel assemblies that fail in materials or workmanship within 20 years from date of Substantial Completion. b. Special Warranty on Panel Finishes: Manufacturer's standard form in
- which manufacturer agrees to repair finish or replace metal roof panels that show evidence of deterioration of factory-applied finishes within 20 years from the date of Substantial Completion. c. Special Weathertightness Warranty for Standing-Seam Metal Roof Panels: Manufacturer's standard form in which manufacturer agrees to repair or
- replace standing-seam metal roof panel assemblies that fail to remain weathertight, including leaks, within 20 years from date of Substantial PART 2 - PRODUCTS
- 1. Metal Roof Panel Assembly: Integral-Standing Seam Metal Roof Panels: Formed with integral ribs at panel edges and flat pan between ribs; design for sequential installation by mechanically attaching panels to supports using concealed clips located under one side of panel and lapping and interconnecting side edges of adjacent panels.
- a. Metal Roof Panels shall be manufactured by Berridge Manufacturing (CEE-LOCK System, 24 gage), or approved equal. See sheet A2.0 for finish. b. Underlayment material shall be Grace Ice & Watershield, 40 mil
- minimum, or approved equal. c. Panel Sealants as recommended by metal panel manufacturer. d. Fasteners: Fasteners include self-tapping screws, bolts, nuts, self-locking rivets and bolts, end-welded studs and other suitable fasteners designed to withstand design loads. Provide exposed fasteners with heads matching B. Material Compatibility: Provide roofing materials that are compatible with one color of metal roof panels by means of plastic caps or factory-applied
- coating. Provide EPDM, PVC, or neoprene sealing washers. e. Accessories: Provide components approved by roof panel manufacturer as required for complete metal roof panel assembly including trim, copings, fascia, corner units, ridge closures, clips, flashing's, sealants, gaskets, fillers, closure strips and similar items. Match material and finish

of metal roof panels unless noted otherwise.

3' to either side of all valleys.

accordance with local codes.

f. Flashing's and trim shall be formed from same material as roof panels, pre-painted with coil coating, minimum 0.018 inch thick. g. Where January average daily temperature is 25 degrees or less, provide Grace Ice Shield winter ice dam protection a minimum of 6' up on all eaves (from exterior wall line below), 3' around all roof penetrations, and

### PART 3 - FXFCUTION 1. Install all roofing in accordance with manufacturer's recommendations and in

- 2. Examine substrates, areas and conditions, with Installer present, to ensure roof surface is clean of all objects which may puncture or tear Underlayment. Verify that roof sheathing joints are supported by framing or blocking and that

  B. Shop Drawings: For roofing system. Include plans, elevations, sections, details,
- installation is within flatness tolerances required by metal roof panel 4. Examine rough-ins for components and systems penetrating metal roof panels to verify actual locations of penetrations relative to seam locations of metal
- roof panels before metal roof panel installation. i. Install self-adhering sheet underlayment, wrinkle free, on roof deck. Install at locations indicated below, lapped in direction to shed water. Lap sides not less that 3-1/2 inches. Lap ends not less than 6 inches, staggered 24 inches between courses. Roll laps with roller. Cover underlayment within 7 days.
- a. Eaves: Extend from edges of eaves 48 inches beyond interior face of exterior wall. b. Rakes: Extend from edges of rake 48 inches beyond interior face of
- c. Valleys: Extend from lowest to highest point, 18 inches on each side. d. Roof Slope Transitions: Extend 18 inches on each roof slope. Install flashing to cover underlayment.
- otherwise indicated or restricted by shipping limitations. . Fasten metal roof panels to supports with concealed clips at each standing seam joint at location and spacing recommended by manufacturer. a. Install clips to supports with self-tapping fasteners.

Provide and install metal roof panels of full length from eave to ridge, unless

b. Snap Joint: Nest standing seams and fasten together by interlocking and completely engaging factory-applied sealant. c. Apply battens to metal roof panel seams, fully engaging to provide weathertight joints. . Remove temporary protective coverings and strippable films, if any, as metal

roof panels are installed, unless otherwise directed by manufacturer's written

finished surfaces as recommended by metal roof panel manufacturer. Maintain clean condition during construction. . Replace any metal roof panels that have been damaged or have deteriorated beyond successful repair by finish touchup or other similar minor repair

installation instructions. Upon completion of metal panel installation, clean

### SECTION 07460 - SIDING

### PART 1 - GENERAL

PART 2 - PRODUCTS

- 1. It is the intent of this section to set minimum standards for the fiber-cement
- 2. Product Data: For each type off product listed. 3. Samples for Verification: For each type, color, texture and pattern required.

years from the date of Substantial Completion.

a. Board & Batten: 24 inch wide by 36 inch high sample panel assembled on b. Trim: 12 inch long by actual width sample of each trim indicated.

4. Qualification data for qualified installer that has been trained and approved by

- 5. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace siding and/or trim that fails within the specified warranty period. Failures include, but are not limited to, cracking, deforming, or otherwise deteriorating beyond normal weathering. Warranty period to be 50
- 6. Store all materials in a dry, well-ventilated, weathertight place.

1. All exposed exterior siding and wood trim shall be manufactured by James

### Hardie Incorporated, or approved equal. a. Siding made from fiber-cement board that does not contain asbestos fibers; complies with ASTM C 1186, Type A, Grade II; is classified as noncombustible when tested in accordance with ASTM D 136; and has a

flame-spread index of 25 or less when tested according to ASTM E 84.

- 2. Refer to Exterior Finish Legend on sheet A2.0 for specified siding and trim products, sizes and finishes.
- PART 3 EXECUTION 1. Weather Limitations: Proceed with siding installation only if substrate is
  - completely dry and if existing and forecasted weather conditions permit siding to be installed according to manufacturer's written instructions.
- 2. Examine all substrates for compliance with requirements for installation tolerances and other conditions affecting performance of siding. Proceed with installation only after unsatisfactory conditions have been corrected.
- 3. Coordinate installation with flashings and other adjoining construction to ensure

A. Drawings and general provisions of the Contract, including General and

Supplementary Conditions and Division 1 Specification Sections, apply to this

A. Roofing Terminology: Refer to ASTM D 1079 and glossary of NRCA's "The NRCA

B. Design Uplift Pressure: The uplift pressure, calculated according to procedures

watertight; do not permit the passage of water; and resist specified uplift

pressures, thermally induced movement, and exposure to weather without

by roofing membrane manufacturer based on testing and field experience.

C. Roofing System Design: Provide a membrane roofing system that is identical to

membrane roofing system and that are listed in FMG's "Approval Guide" for

1. Fire/Windstorm Classification: Class 1A-**90**. See structural drawings.

Class 1 or noncombustible construction, as applicable. Identify materials with

agency to resist uplift pressure calculated according to ASCE 7.

D. FMG Listing: Provide roofing membrane, base flashings, and component

systems that have been successfully tested by a qualified testing and inspecting

Roofing Systems," before multiplication by a safety factor.

C. Systems," after multiplication by a safety factor.

Roofing and Waterproofing Manual" for definition of terms related to roofing

in SPRI's "Wind Load Design Guide for Fully Adhered and Mechanically Fastened

PART 1 - GENERAL

1.2 SUMMARY

1.1 RELATED DOCUMENTS

2. Vapor retarder.

3. Roof insulation.

work in this Section.

FMG markings.

Roofing Systems."

A. Product Data: For each type of product indicated.

3. 12-by-12-inch square of walkway pads or rolls.

1.4 PERFORMANCE REQUIREMENTS

A. This Section includes the following:

1. Adhered membrane roofing system.

- proper sequencing. 4. Fasteners: Fasteners for attaching fiber-cement siding and trim shall be corrosive-
- resistant, hot-dip galvanized, or stainless steel fasteners
- 5. Clean substrates of projections and substances detrimental to application.
- 6. Comply with siding manufacturer's written installation instructions applicable to products and applications indicated unless more stringent requirements apply. SECTION 07531 - EPDM MEMBRANE ROOFING (Alternate Bid)
  - its stated shelf life.
  - Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according

- A. Special Warranty: Manufacturer's standard form, without monetary limitation, in which manufacturer agrees to repair or replace components of membrane
- accessories, roof insulation, vapor retarder, walkway products and other

- PART 2 PRODUCTS 2.1 MANUFACTURERS
- that may be incorporated into the Work include, but are not limited to, the another under conditions of service and application required, as demonstrated products specified.
  - 2. Products: Subject to compliance with requirements, provide one of the products specified. 3. Available Manufacturers: Subject to compliance with requirements,
- materials that comply with requirements in FMG 4450 and FMG 4470 as part of a Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified.
  - a. Carlisle SynTec Incorporated.
- Base flashings and membrane terminations. Insulation fastening patterns. C. Samples for Verification: For the following products:
- 1. 12-by-12-inch square of sheet roofing, of color specified, including T-shaped side and end lap seam. 2. 12-by-12-inch square of roof insulation.
- 4. 12-inch length of metal termination bars. 5. Six insulation fasteners of each type, length, and finish. D. Installer Certificates: Signed by roofing system manufacturer certifying that Installer is approved, authorized, or licensed by manufacturer to install roofing
- E. Manufacturer Certificates: Signed by roofing manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
- 1. Submit evidence of meeting performance requirements. F. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency, for components of

### G. Research/Evaluation Reports: For components of membrane roofing system.

I. Warranties: Special warranties specified in this Section.

eligible to receive manufacturer's warranty.

roof-mounted equipment.

avoid delays.

1.6 QUALITY ASSURANCE A. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is

H. Maintenance Data: For roofing system to include in maintenance manuals.

B. Manufacturer Qualifications: A qualified manufacturer that has UL listing for membrane roofing system identical to that used for this Project. C. Testing Agency Qualifications: An independent testing agency with the

experience and capability to conduct the testing indicated, as documented

- according to ASTM E 548. D. Source Limitations: Obtain components for membrane roofing system approved by roofing membrane manufacturer. E. Fire-Test-Response Characteristics: Provide membrane roofing materials with the fire-test-response characteristics indicated as determined by testing identical products per test method below by UL, FMG, or another testing and inspecting
- with appropriate markings of applicable testing and inspecting agency. 1. Fire-Resistance Ratings: ASTM E 119, for fire-resistance-rated roof assemblies of which roofing system is a part. F. Preinstallation Conference: Conduct conference at Project site. Review methods

and procedures related to roofing system including, but not limited to, the

- 1. Meet with Owner; Architect; Owner's insurer if applicable; testing and inspecting agency representative; roofing Installer; roofing system manufacturer's representative; deck Installer; and installers whose work interfaces with or affects roofing, including installers of roof accessories and
- manufacturer's written instructions. 3. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and

2. Review methods and procedures related to roofing installation, including

4. Examine deck substrate conditions and finishes for compliance with

requirements, including flatness and fastening.

6. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect roofing system.

5. Review structural loading limitations of roof deck during and after roofing.

- 7. Review governing regulations and requirements for insurance and
- 8. Review temporary protection requirements for roofing system during and after installation
- unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storing and mixing with other
- system manufacturer. Protect stored liquid material from direct sunlight. 1. Discard and legally dispose of liquid material that cannot be applied within
- by sunlight, moisture, soiling, and other sources. Store in a dry location.

# permanent deflection of deck.

- 1.9 WARRANTY
- period. Failure includes roof leaks. 1. Special warranty includes roofing membrane, base flashings, roofing

- A. General: Provide installed roofing membrane and base flashings that remain A. In other Part 2 articles where subparagraph titles below introduce lists, the following requirements apply for product selection: 1. Available Products: Subject to compliance with requirements, products

  - 2.2 EPDM ROOFING MEMBRANE A. EPDM Roofing Membrane: ASTM D 4637, Type II, scrim or fabric internally **reinforced** uniform, flexible sheet made from EPDM, and as follows:
  - 2.3 AUXILIARY MATERIALS A. General: Auxiliary materials recommended by roofing system manufacturer for
  - jurisdiction. B. Sheet Flashing: 60-mil- thick EPDM, partially cured or cured, according to
  - D. Seaming Material: Manufacturer's standard synthetic-rubber polymer primer and 3-inch- wide minimum, butyl splice tape with release film. Lap Sealant: Manufacturer's standard single-component sealant, color to match
    - H. Metal Battens: Manufacturer's standard aluminum-zinc-alloy-coated or zinccoated steel sheet, approximately 1 inch wide by 0.05 inch thick, prepunched. Fasteners: Factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in FMG 4470, designed for fastening membrane
    - corrosion-resistance provisions in FMG 4470, designed for fastening substrate
    - 2.5 VAPOR RETARDER A. Polyethylene Vapor Retarder: ASTM D 4397, 6 mils thick, minimum, with maximum permeance rating of 0.13 perm. 1. Tape: Pressure-sensitive tape of type recommended by vapor-retarder

B. Laminated-Sheet Vapor Retarder: Kraft paper, 2 layers, laminated with asphalt

### and edge reinforced with woven fiberglass yarn with maximum permeance

retarder application.

- A. General: Provide preformed roof insulation boards that comply with requirements and referenced standards, selected from manufacturer's standard sizes and of thickness indicated.
  - b. Celotex Corporation.
- e. GenFlex Roofing Systems. f. Johns Manville International, Inc.
- C. Provide preformed saddles, crickets, tapered edge strips, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated.

- ..7 DELIVERY, STORAGE, AND HANDLING . Deliver roofing materials to Project site in original containers with seals
- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing
- C. Protect roof insulation materials from physical damage and from deterioration
- Handle and store roofing materials and place equipment in a manner to avoid
- components of membrane roofing system.
- manufacturers offering products that may be incorporated into the Work include, but are not limited to, the manufacturers specified.
- systems that have been successfully tested by a qualified testing and inspecting 1. Manufacturers: agency to resist the factored design uplift pressures calculated according to
  - d. GenFlex Roofing Systems. e. Johns Manville International, Inc.
  - Thickness: 60 mils, nomina C. Exposed Face Color: White-on-black.
  - intended use and compatible with membrane roofing. 1. Liquid-type auxiliary materials shall meet VOC limits of authorities having
  - Bonding Adhesive: Manufacturer's standard bonding adhesive.
  - roofing membrane. F. Water Cutoff Mastic: Manufacturer's standard butyl mastic sealant. G. Metal Termination Bars: Manufacturer's standard predrilled stainless-steel or aluminum bars, approximately 1 by 1/8 inch thick; with anchors.

### to substrate, and acceptable to membrane roofing system manufacturer. J. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, T-joint

2.4 SUBSTRATE BOARDS A. Substrate Board: ASTM C 728, perlite board, **3/4 inch** thick, seal coated. B. Fasteners: Factory-coated steel fasteners and metal or plastic plates meeting

covers, in-seam sealants, termination reglets, cover strips, and other

### rating of 0.50 perm and manufacturer's standard roofing adhesive. 2.6 ROOF INSULATION

- B. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, felt or glass-fiber mat
- c. Firestone Building Products Company. d. GAF Materials Corp.
- g. RMAX.

- certificates if applicable
- 9. Review roof observation and repair procedures after roofing installation.

# 1.8 PROJECT CONDITIONS

# to manufacturer's written instructions and warranty requirements.

- roofing system that fail in materials or workmanship within specified warranty
- 2. Warranty Period: 20 years from date of Substantial Completion.

- Roofing System Design: Provide a membrane roofing system that is identical to
- SPRI's "Wind Load Design Guide for Fully Adhered and Mechanically Fastened b. Celotex Corporation. c. Firestone Building Products Company.
  - f. Sarnifil, Inc g. Versico Inc.

panel to roof deck.

- accessories.
- agency acceptable to authorities having jurisdiction. Materials shall be identified manufacturer for sealing joints and penetrations in vapor retarder. 2. Adhesive: Manufacturer's standard lap adhesive, FMG approved for vapor-

- facer on both major surfaces. 1. Manufacturers: a. Carlisle SynTec Incorporated.



THESE DRAWINGS AND THE DESIGN REPRESENTED HEREBY ARE THE EXCLUSIV

PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.

3200 WINDY HILL ROAD, SUITE 1200 E

ATLANTA, GEORGIA 30339-5640

HAYES ARCHITECT, manNoll ´/1301072179 (

Professional of Record:

Suzanne M Hayes

LICENSE NO: 1301072179

EXP. DATE: 12/19/24

2202640

7/10/23

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Drawn/Checked

Project Number

For Construction

Bid Date

Permit Date

10 483 ≥ ≥ 43455 NOVI,

### PART 3 - EXECUTION

- 3.1 EXAMINATION
- A. Examine substrates, areas, and conditions, with Installer present, for compliance with the following requirements and other conditions affecting performance of roofing system:
- 1. Verify that roof openings and penetrations are in place and set and
- 2. Verify that wood blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match
- 3. Verify that concrete substrate is visibly dry and free of moisture. Test for capillary moisture by plastic sheet method according to
- 4. Proceed with installation only after unsatisfactory conditions have been corrected

### 3.2 PREPARATION

- A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.
- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction.
- C. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at the end of the workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.

### 3.3 VAPOR-RETARDER INSTALLATION

- A. Loosely lay polyethylene-film vapor retarder in a single layer over area to receive vapor retarder, side and end lapping each sheet a minimum of 2
- inches and 6 inches, respectively B. Seal side and end laps with **tape**.
- C. Completely seal vapor retarder at terminations, obstructions, and penetrations to prevent air movement into membrane roofing system.

### 3.4 INSULATION INSTALLATION

- A. Coordinate installing membrane roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday. B. Comply with membrane roofing system manufacturer's written instructions
- for installing roof insulation. C. Install one or more layers of insulation under area of roofing to achieve required thickness. Where overall insulation thickness is 3 inches or greater, install 2 or more layers with joints of each succeeding layer staggered from joints of previous layer a minimum of 6 inches in each direction.
- D. Trim surface of insulation where necessary at roof drains so completed surface is flush and does not restrict flow of water.
- E. Install insulation with long joints of insulation in a continuous straight line with end joints staggered between rows, abutting edges and ends between boards. Fill gaps exceeding 1/4 inch with insulation. 1. Cut and fit insulation within 1/4 inch of nailers, projections, and
- penetrations.
- F. Mechanically Fastened and Adhered Insulation: Install each layer of insulation and secure first layer of insulation to deck using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to deck type.
- 1. Fasten first layer of insulation according to requirements in FMG's "Approval Guide" for specified Windstorm Resistance Classification. 2. Fasten first layer of insulation to resist uplift pressure at corners,
- perimeter, and field of roof. 3. Install subsequent layers of insulation in a cold fluid-applied adhesive.

### 3.5 ADHERED ROOFING MEMBRANE INSTALLATION

- A. Install roofing membrane over area to receive roofing according to membrane roofing system manufacturer's written instructions. Unroll roofing membrane and allow to relax before installing.
- B. Start installation of roofing membrane in presence of membrane roofing system manufacturer's technical personnel.
- C. Accurately align roofing membrane and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- D. Bonding Adhesive: Apply bonding adhesive to substrate and underside of roofing membrane at rate required by manufacturer and allow to partially dry before installing roofing membrane. Do not apply bonding adhesive to splice area of roofing membrane.
- E. Mechanically or adhesively fasten roofing membrane securely at
- terminations, penetrations, and perimeter of roofing. F. Apply roofing membrane with side laps shingled with slope of roof deck
- where possible. G. Adhesive Seam Installation: Clean both faces of splice areas, apply splicing
- cement, and firmly roll side and end laps of overlapping roofing membranes according to manufacturer's written instructions to ensure a watertight seam installation. Apply lap sealant and seal exposed edges of roofing membrane
- 1. Apply a continuous bead of in-seam sealant before closing splice if required by membrane roofing system manufacturer. H. Repair tears, voids, and lapped seams in roofing that does not meet
- I. Spread sealant or mastic bed over deck drain flange at deck drains and securely seal roofing membrane in place with clamping ring.

### 3.6 BASE FLASHING INSTALLATION

- A. Install sheet flashings and preformed flashing accessories and adhere to substrates according to membrane roofing system manufacturer's written
- B. Apply bonding adhesive to substrate and underside of sheet flashing at required rate and allow to partially dry. Do not apply bonding adhesive to seam area of flashing.
- C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.
- D. Clean splice areas, apply splicing cement, and firmly roll side and end laps of overlapping sheets to ensure a watertight seam installation. Apply lap sealant and seal exposed edges of sheet flashing terminations.
- E. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

### 3.7 WALKWAY INSTALLATION

A. Flexible Walkways: Install walkway products in locations indicated. Adhere walkway products to substrate with compatible adhesive according to roofing system manufacturer's written instructions.

### 3.8 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified independent testing and inspecting agency to perform roof tests and inspections and to prepare test
- B. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion and submit report to
- C. Repair or remove and replace components of membrane roofing system where test results or inspections indicate that they do not comply with
- D. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

### 3.9 PROTECTING AND CLEANING

- A. Protect membrane roofing system from damage and wear during remainder of construction period. When remaining construction will not affect or endanger roofing, inspect roofing for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.
- B. Correct deficiencies in or remove membrane roofing system that does not comply with requirements, repair substrates and repair or reinstall membrane roofing system to a condition free of damage and deterioration at time of
- Substantial Completion and according to warranty requirements.
- C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

### 3.10 ROOFING INSTALLER'S WARRANTY

- A. Roofing Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period,
- B. Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period he will, at his own cost and expense, make or cause to be made such repairs to or replacements of said work as are necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.
- C. This Warranty is made subject to the following terms and conditions: 1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:
  - a. lightning;
  - b. peak gust wind speed exceeding 90 mph;
  - d. failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition;
  - e. faulty construction of parapet walls, copings, chimneys, skylights, vents, equipment supports, and other edge conditions and penetrations of the work;
  - f. vapor condensation on bottom of roofing; and g. activity on roofing by others, including construction contractors,
- maintenance personnel, other persons, and animals, whether authorized or unauthorized by Owner. 2. When work has been damaged by any of foregoing causes, Warranty shall
- be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof have been paid by Owner or by another responsible party so designated.
- 3. Roofing Installer is responsible for damage to work covered by this Warranty but is not liable for consequential damages to building or building contents resulting from leaks or faults or defects of work.
- 4. During Warranty Period, if Owner allows alteration of work by anyone other than Roofing Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof, this Warranty shall become null and void on date of said alterations, but only to the extent said alterations affect work covered by this Warranty. If Owner engages Roofing Installer to perform said alterations, Warranty shall not become null and void unless Roofing Installer, before starting said work, shall have notified Owner in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this Warranty.
- 5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray-cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void on date of said change, but only to the extent said change affects work covered by this Warranty.
- 6. Owner shall promptly notify Roofing Installer of observed, known, or suspected leaks, defects, or deterioration and shall afford reasonable opportunity for Roofing Installer to inspect work and to examine evidence of such leaks, defects, or deterioration.
- 7. This Warranty is recognized to be the only warranty of Roofing Installer on said work and shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of original work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner's General Contractor.

### SECTION 07540 TPO MEMBRANE ROOFING SYSTEM (Base Bid)

- This roofing system must be installed by a Manufacturer Authorized Roofing Applicator in compliance with shop drawings as approved by Manufacturer.
- Upon completion of the installation, an inspection will be conducted by a Technical Representative of Manufacturer to ascertain the roofing system has been installed according to Manufacturer's specifications and details.
- This roofing system meets Underwriters Laboratories (UL) and Factory Mutual (FM) requirements (minimum required FM design is FM Class1A-90). For specific code approvals achieved with this system, refer to Manufacturer's Code Approval Guide, Factory Mutual Approval Guide or Underwriters

### Laboratories Fire Resistance and Roofing Materials and Systems Directories. PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to job site in original, unopened containers labeled with the manufacturer's name, brand name and installation instructions.
- B. Job site storage temperatures in excess of 90°F may affect shelf life of curable materials (i.e., uncured flashing, adhesives, sealants, primers, Pourable Sealer and Pressure-Sensitive Flashings).
- C. When liquid adhesives and sealants are exposed to lower temperatures, restore to a minimum of 60°F before use. Do not store adhesive containers with opened lids due to loss of solvent, which will occur from flash off.
- D. Insulation and underlayment must be stored so it is kept dry and is protected from the elements. Store insulation on a skid and completely cover with a breathable material such as tarp or canvas. If the insulation is lightweight, it should be weighted to prevent possible wind damage.

### A. This roofing system must not be applied on portions of a project where the

- slope exceeds 18 inches in one horizontal foot.
- B. The use of a vapor retarder to protect insulation and reduce moisture accumulation within an insulated roofing assembly should be investigated by the specifier. Consult the latest publications by ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.) and NRCA (National Roofing Contractors Association) for specific information.
- C. If this roofing system is installed during windy conditions or on projects, which are not encapsulated, precautionary measures must be taken to utilize temporary ballast during installation.
- D. Coordination between trades is essential to avoid unnecessary rooftop traffic over sections of the roof and to prevent damage to the membrane.
- A. Roofing 5 years by manufacture. A 20 year Golden Seal Total System Warranty which utilize all components manufactured or marketed by Manufacturer., with a wind speed coverage up to 72 mph is available for a
- upon review by Manufacturer and at Manufacturer's sole discretion. **Note:** Due to the various wind uplift conditions, these projects must be reviewed by Manufacturer prior to bid, preferably in the design phase, to determine system enhancements that may be applicable.

charge. Extended wind uplift coverage (greater than 55 mph) is available only E.

### PART II - PRODUCTS

The components of this roofing system are to be products of Manufacturer or accepted by Manufacturer as compatible. The installation, performance or integrity of products by others, when selected by the specifier and accepted by Manufacturer is not the responsibility of Manufacturer and is expressly disclaimed by the Manufacturer's Warranty.

White, .060" thick reinforced Thermoplastic Polyolefin (TPO membrane) is used for this system. Field membrane sheets are 10' or 8' by 100' long based on project conditions. Perimeter sheets are 5' wide (used with 10' field sheets) or 4' wide (used with 8' field sheets).

- Roof Insulation A. Roof insulation shall be polyisocyanurate roof insulation with a minimum "R" value of 38 (5.0" thick minimum) in accordance with LTTR procedures. Polyisocyanurate shall have a typical compressive strength of 20 psi.
- Polyisocyanurate roof insulation shall meet Federal Specification HH-I-1972/2-Class I, UL Class A rating and Factory Mutual (FM) Class 1 approval.
- Provide in all locations. Apply in two (2) layers with staggered joints.
- Provide 1" rigid insulation at all preformed curbs without factory installed
- B. All insulation shall be mechanically fastened to the roof deck with a minimum six (6) fasteners per 48 inches per a 96 inch board. Additional fasteners shall be located as required to eliminate high spots in boards.
- C. Insulation joints shall be 1/4" or less in width. Repair all joints wider than 1/4" with insulation. Stagger all joints.
- D. Broken corners shall be cut out and replaced with sections of insulation large enough to be supported on two or more deck flutes.
- E. All roof insulation shall be installed in accordance with the recommendations of Factory Mutual (FM) and the roof insulation manufacturer.
- F. Tapered roof insulation and necessary fill boards forming all crickets between each scupper (where applicable), crickets on the high side of roof scuttle, crickets formed on high side of smoke/heat release vents, HVAC units and all other roof penetrations with curbs, as shown on roof plan shall be polyisocyanurate roof insulation meeting Federal Specifications HH-1-1972/2 Class 1 and Factory Mutual (FM) Class 1 approval. Taper insulation to provide 1/4" per foot minimum slope at areas noted as crickets on roof plan.

### Related Materials Non-Reinforced or Reinforced Flashing, Bonding Adhesive, Cut Edge Sealant, Water Cut-Off Mastic, Sealant, Splicing Cement, Membrane Cleaner, Heat Weldable

Walkway Pads, Pre-Molded Inside/Outside Corners, Pipe Flashings and Sealant

G. Insulation must be accepted in writing by roof membrane manufacturer.

### Part III - Execution

- A. When feasible, begin the application at the highest point of the highest roof level and work to the lowest point to prevent moisture infiltration and to minimize construction traffic on completed sections. This will include completion of all flashings and terminations.
- B. Follow criteria outlined in the "Design Criteria" Section of Manufacturer's technical manual to prepare the roof deck or the substrate prior to the application of the new roofing system.
- Roof Deck Criteria A. A proper substrate shall be provided by the building owner. The structure shall be sufficient to withstand normal construction loads and live loads.
- Defects in the roof deck must be reported and documented to the specifier, general contractor and building owner for assessment. The Manufacturer Authorized Roofing Applicator shall not proceed unless the defects are corrected
- C. Acceptable decks and the applicable Manufacturer Fasteners: 1. Oriented Strand Board (OSB), minimum 7/16 inch thick - Manufacturer HP Woodie Fasteners are required with a minimum pullout of 360 pounds per fastener. On minimum 5/8 inch thick OSB decks, HP-X Fasteners/Piranha

### Plates may be used with a minimum pullout of 360 pounds. A. For all projects, substrate must be even without noticeable high spots or

depressions and free of accumulated water, ice or snow. Clear substrate of debris and foreign material. Fresh bitumen based roof cement must be removed or concealed. INSTALLATION

Refer to the applicable Material Safety Data Sheets and Technical Data Bulletins for cautions and warnings. Remove excess dust and dirt from the membrane by wiping with a clean rag. If necessary, scrub the sheets with warm soapy water and rinse with clean water.

### A. Insulation Attachment

- 1. Insulation shall be mechanically fastened to the roof deck as follows: a. For HP Recovery Board or minimum 1-1/2" thick Polyisocyanurate, a minimum of 5 fasteners and plates per 4' x 8' board are required.
- b. For Polyisocyanurate less than 1-1/2" thick or Foamular® or DOW Extruded Polystyrene, any thickness, a minimum of 6 fasteners and plates per 4' x 8' board are required. Insulation boards 4' x 4', regardless of thickness, must be fastened at the minimum rate of 1 fastener and plate every 4 square feet
- Manufacturer's Piranha Plates, Seam Fastening Plates (2" diameter) or Insulation Fastening Plates (3" diameter) must be used with appropriate fastener for insulation attachment
- B. Membrane Placement and Attachment and Hot Air Welding 1. A minimum of one perimeter sheet shall be installed at edges of each roof level and either 10' or 8' wide membrane shall be installed in the field of
- the roof. 2. Membrane sheets shall be mechanically fastened with the appropriate Fastener/Fastening Plate spaced 6" to 12" on center, depending on project criteria, within the membrane splice. Refer to the "Design Criteria" section 4. See drawings and schedules for type, size, design, and location of hollow
- for required number of perimeter membrane sheets and fastener spacing. 3. Overlap adjacent membrane sheets approximately 5--1/2" at those locations where Fastening Plates are located (along length of membrane)

and a minimum of 2" at end roll sections (width of the membrane).

- 4. Hot air weld the membrane sheets a minimum of 1-1/2" with an Automatic Hot Air Welding Machine. 5. Membrane that has been exposed to the elements for approximately 7 days must be prepared with Sure-Weld Membrane Cleaner. Wipe the surface where Sure-Weld Membrane Cleaner has been applied with a
- clean, dry HP Splice Wipe or other white rag to remove cleaner residue prior to hot air welding.

Manufacturer's Warranty.

- Additional Membrane Securement 1. The membrane must be secured at the perimeter of each roof level, roof section, expansion joint, curb, skylight, interior wall, penthouse, etc., at any angle change which exceeds 2" in one horizontal foot and at all other
- D. Membrane Flashing 1. Flash all walls and curbs with Sure-Weld reinforced membrane. Non-Reinforced membrane shall be limited to inside and outside corners, field fabricated pipe seals, scuppers and Sealant Pockets where the use of

penetrations in accordance with Manufacturer's Published Details.

manner approved by Manufacturer. 2. On vertical surfaces, such as walls, curbs and pipes, Bonding Adhesive is not required when the flashing height is 12" or less and the membrane is terminated under a metal counterflashing (nailed). When a coping or termination bar is used for vertical terminations, Bonding Adhesive may be eliminated for flashing heights 18" or less.

a. Heat Weldable Walkway Rolls are required when walkway pads are

premolded accessories are not practical. Terminate the flashing in a

### Other Related Work Walkways are required at all traffic concentration points (i.e., roof hatches, PART 2 - PRODUCTS access doors, rooftop ladders, etc.), regardless of traffic frequency. Walkways are considered a maintenance item and are excluded from the

specified and are heat welded to the membrane. b. Smooth concrete pavers, when used, shall be loose laid over a slip sheet of reinforced membrane or 2 layers of HP Protective Mat.

### SECTION 07600 - FLASHING & SHEET METAL

- 1. It is the intent that all sheet metal flashings, drips, counter flashings, downspouts, gutters, head flashings, and as called for on the drawings shall be water and weather tight under all weather conditions and exposed portions shall be painted or prefinished.
- 2. Standards: Architectural Sheet Metal Manual of the Sheet Metal and Air Conditioning Contractors National Association shall be used as a basis for the installation of items not shown in detail or not specified. Also reference ASTM A-525 and ASTM A-527.

### PART 2 - PRODUCTS

- 1. Roof edge flashing shall be and drip edge shall be .032 prefinished aluminum. Fabricate to profiles on drawings. Exterior and exposed sheet
- metal shall be 22 ga. Zinc-Coated steel with paint grip surface. Fasteners shall be of the same material as the flashings or a compatible noncorrosive metal as recommended by SMACNA
- Gutters shall be 6" wide, .032 prefinished aluminum. Install with minimum pitch to downspouts. Seamless gutters matching the profile and color shown
- 4. Downspouts shall be 3" x 4" prefinished aluminum. Pipe all downspouts to approved storm drainage system. Color shall match gutters. 5. Soffit Vents - provide non-vented aluminum soffit vents equal to Norandex

### Aluminum 12" Soffit Panel .019" thick

PART 3 - EXECUTION 1. Shop fabricate to the greatest extent possible.

will be accepted. Provide spike and ferrule anchoring.

- 2. Provide for horizontal expansion with joints as detailed by SMACNA. 3. Form all sheet metal on conventional equipment to insure metal is free from oil-canning, buckling, tool marks, equipment marks, dents, crushing and true in line and dimension. Exposed edges shall be folded back to form hems free of tool and die marks.
- 4. Anchor all pieces firmly in place, providing for thermal expansion. Use concealed fasteners at all locations exposed to public view and minimize exposed fasteners at all other locations. Caulk at any condition that cannot be otherwise made water and weathertight with elastomeric sealant.

### SECTION 07900 - JOINT SEALANTS

PART 1 - GENERAL 1. It is the intent of this section to specify minimum standards for interior and exterior joint sealant products and installation. See various other sections for related sealants.

### PART 2 - PRODUCTS

- Materials: a. Interior Caulking: GE Silicone Sanitary 1702 Sealant or equal in white, almond or clear, to match adjacent surfaces.
- b. Exterior Caulking: GE Construction 1200 Silicone Sealant, or equal. See Exterior Color Schedule. PART 3 - EXECUTION
- 1. Installation: Install materials in accordance with manufacturer's recommendations
- All joints shall be tooled water and weatherproof. No joint greater than 1/4" shall be sealed or caulked. Remove excess sealant and leave surfaces clean, smooth, and neat. 3. Interior - Seal tops and bottoms of all baseboards and wainscot trim, all intersections of walls and casework, bottoms of door frames, behind
- of silicone caulk on all gaps and seams between immovable equipment, and walls and floors. Silicone seal all joints and connections in the FRP wallcovering system. 4. Exterior - seal all joints in the building envelope that are sources of air leakage, such as around window and door frames, between wall cavities

and window and door frames, between bottom plate and foundations,

mirrors, and all similar conditions inside. Apply a clean smooth raised bead

between ceiling and wall intersections, at all utilities through ceilings and walls and at similar conditions outside the building. 5. Holes in the building envelope for electrical and telecommunications equipment shall be sealed including the service entrance, wires, conduits,

### **DIVISION 8 - DOORS AND WINDOWS**

panels, light fixtures, and fans.

### SECTION 08100 - HOLLOW METAL DOORS AND FRAMES

hollow metal frames.

- PART 1 GENERAL 1. It is the intent of this section to establish minimum standards for the exterior hollow metal doors, exterior metal insulated doors, and interior/exterior
- 2. Work specified in other sections includes, but is not limited to, Aluminum Doors & Frames, Interior Wood Doors, Glass and Glazing, Finish Hardware, and Painting.
- 3. Contractor shall cooperate closely with the hardware supplier as required for proper preparation of doors and frames for the reception of all items as
- metal doors, louvers, vision panels, frames, etc.
- 5. Referenced Standards: a. ASTM E152 - Method of Fire Tests of Door Assemblies.
- b. DHI Installation Guide for Doors and Hardware.

specified in Section 08700 Finish Hardware.

- c. NFPA 80 Fire Doors and Windows. d. NFPA 252 - Fire Tests for Door Assemblies.
- e. SDI-100 Standard Steel Doors and Frames. f. SDI-105 - Recommended Erection Instructions for Steel Frames.
- g. UL 10B Fire Tests of Door Assemblies. h. ANSI A151.1 - Endurance Test. i. ANSI 115 - Hardware Preparation.
- 6. Delivery, Storage and Protection: a. Storage of Doors Doors shall be stored in an upright position under cover. Place the units on at least 4" (100mm) wood sills on floors in a manner that will prevent rust and damage. Do not use non-vented plastic or canvas shelters which create a humidity chamber and promote rusting. If the corrugated wrapper on the door becomes wet, or

moisture appears, remove the wrapper immediately. Provide a 1/4"

b. torage of Frames Frames shall be stored under cover on 4" (100mm) wood sills on floors in a manner that will prevent rust and damage. Do not use non-vented plastic or canvas shelters, which create a humidity chamber and promote rusting. Assembled frames shall be stored in a vertical position, five units maximum in a stack. Provide a 1/4" (6.35 mm) space between frames to promote air circulation.

(6.35mm) space between the doors to promote air circulation.

1. Manufacturer: Standard Hollow Metal Manufacturer shall be Republic or approved equal.

### 2. The required vendor for hollow metal frames and doors is: 1. Consolidated Millwork Supply, Inc.

- P.O. Box 61038 Dayton, Ohio 45406-1038
  - Attn: Mike Vagedes Tel: (937) 278-0706 Fax: (937) 278-7604
  - Email: <u>mvagedes@donet.com</u> 2. BMS - Building Material Specialties Contact: Seth Clough (971) 270-9573, and Angela Karaseva (503) 640-1886

Email: angela@bms-oregon.com

- 3. Hollow Metal Doors shall be Republic DL Series Embossed doors or approved equal with a Polystyrene core (R value 4.35). Doors shall be made of commercial quality, hot dipped, A-40 galvanized steel in accordance with ASTMA635 free from scale, pitting, or other surface defects. Face sheets for exterior doors shall be not less than 18 gage and primed.
- 4. Door thickness shall be 1-3/4". All doors shall be strong, rigid and neat in appearance, free from warps and
- buckles. Corner bends shall be true and straight and of minimum radius for the gauge of metal used. Top Channel & Bottom Channels shall be 16 gage and extending the full
- width and spot welded to the faces. Top Channels shall be flush. Openings shall be provided at the bottom channel for the escape of trapped moisture. Vertical edges shall be beveled 1/8" in 2". 8. Doors shall be reinforced at the factory for hardware in strict accordance
- with the specified hardware and in accord with instructions and templates provided by the hardware supplier. Where surface mounted hardware is to be applied, the door shall have reinforcing plates. Where specified or scheduled, provide hollow metal moldings to secure glazing in accordance with glass sizes shown on the plans. Fixed moldings
- shall be securely welded to the door on the security side. Loose stops shall be not less than 20 gauge steel, with mitered corner joints, secured to the framed opening with cadmium or zinc-coated countersunk screws. 10. Finish shall be a rust-inhibitive primer applied to all surfaces of the door, then fully cured before shipment. After fabrication, all tool marks and

surface imperfections shall be dressed, filled, and sanded as required to

make all faces and vertical edges smooth, level, and free from irregularities.

Doors shall then be chemically treated to ensure maximum paint adhesion. 11. Exterior Hollow Metal Frames shall be Republic ME Series or approved equal. Interior Hollow Metal Frames shall be Republic MH series or approved equal. Frame sizes, profile, and general detail as indicated on the drawings. No screws or fasteners shall be exposed except as specified. Punch all interior frames for silencers, 3 on knob side of single acting doors, 2 in the head of double doors. Where continuous safety hinges (Hager 780-113) are

specified, there shall be **no stop** on the hinge jamb.

- 12. Exterior Frames shall be commercial grade cold rolled steel conforming to ASTM A336-66T, not less than 16 gage and shall be zinc coated. Frames shall be designed for a minimum 25 psf horizontal load.
- 13. Interior Frames shall be commercial grade cold rolled steel conforming to ASTM A336-66T, not less that 16 gage. 14. Exterior frames shall be set up with welded and ground smooth corners. Knock down exterior frames will not be allowed. Interior frames shall be
- Knock down with tight fitting mitered and reinforced corners. 15. All finished work shall be strong and rigid, neat in appearance, square and true, and free from defects, warps, or buckles. Corner joints shall have all contact edges closed tight, with trim faces mitered and continuously welded, and stops mitered. The use of gussets shall not be permitted. Minimum
- depth of stops shall be 5/8". Frames shall be reinforced at the factory for hardware in strict accordance with the specified hardware and in accord with instructions and templates provided by the hardware supplier. Where surface mounted hardware is to be applied, the door shall have reinforcing plates.
- securely welded inside each jamb (locate on exterior side of frame so that threshold covers up anchor), with one hole provided for floor attachment. Minimum thickness of floor anchors shall be 14 gage. 18. Interior Frames shall be provided with compression anchor at head and sill

concrete or masonry with anchors of suitable design.

anchors at the base. Exterior Frames shall be anchored to wood studs,

17. Floor anchors for exterior frames shall be single reverse base anchors

- 19. Exterior frames shall be provided with a temporary steel spreader bar attached to the feet of both jambs to serve as a temporary brace during shipping and handling. Do not remove until bucks are finally secured in 20. Labeled doors and frames shall be provided for those openings requiring fire protection ratings as determined and scheduled on the plans. Such doors and frames shall be constructed as tested, approved and labeled by a
- specified cannot qualify for an appropriate rating because of it's design, hardware, or any other reason, the Architect shall be notified prior to submitting a bid. 21. Finish shall be a rust-inhibitive primer applied to all surfaces of the frame, then fully cured before shipment. After fabrication, all tool marks and
- surface imperfections shall be dressed, filled, and sanded as required to make all faces and vertical edges smooth, level, and free from irregularities. Frames shall then be chemically treated to ensure maximum paint adhesion. 22. The location of hardware on doors and frames shall be as follows:
- a. Locks & Latches: 36" from floor to centerline. b. Panic Hardware: 36" from floor to centerline.
- c. Door Pulls: 36" from floor to centerline. 23. Clearances at edges shall be as follows:

### a. Between door and frame at head and jamb: - 1/8". b. Meeting edge of pair of doors - 1/8".

- PART 3 EXECUTION 1. Frame Installation: Frames shall be set holding head level and maintaining jambs square and plumb. Secure all anchorages to adjacent construction.
- Leave spreader bars intact until frames are completely set. 2. Door Installation: Apply hardware in accordance with manufacturer templates and instructions. Adjust all operable parts for correct function. Remove hardware with the exception of prime coated items, tag, box, and

3. Touch-up: Immediately after erection, areas where prime coat has been

damaged shall be sanded smooth and touched up with the same primer

hardware shall be in conformance to UL requirements.

applied at the shop. Remove all rust before touching-up.

reinstall after field painting is completed. Installation of fire rated doors and

### **SECTION 08210 - PLASTIC LAMINATE DOORS** PART 1 - GENERAL

- 1. Extent and location of each wood door is shown on the plans. Types include
- solid core fire rated doors and hollow core doors.
- 2. Doors shall be factory prepped for hardware. 3. Fire rated doors shall be tested in accordance with ASTM E 152 and shall be labeled and listed by a testing agency and inspection organization such as
- U.L. or Factory Mutual. 4. Obtain all doors from a single manufacturer to ensure uniformity in quality,
  - appearance and construction.
- 5. Solid core interior wood doors shall carry a five year warranty.
- PART 2 PRODUCTS 1. Wood doors shall comply with ANSI/NWMA I.S. 1 "Industry Standard for
- Flush Wood Doors" published by National Woodwork Manufacturer's Association as manufactured by Oshkosh Door Company or equal.
- 2. The required vendor for wood doors is: 1. Consolidated Millwork Supply, Inc. P.O. Box 61038
- Dayton, Ohio 45406-1038 Attn: Mike Vagedes Tel: (937) 278-0706

Fax: (937) 278-7604

- Email: <u>mvagedes@donet.com</u> 2. BMS - Building Material Specialties Contact: Seth Clough (971) 270-9573, and Angela Karaseva (503) 640-1886
- Email: <u>angela@bms-oregon.com</u> 3. Doors shall be standard plastic laminate doors with HPL faces and
- edges. Doors shall have internal closer blocking. 4. Fire rated solid core wood doors shall have faces as specified and shall have the manufacturer's standard core as required to obtain fire rating, and shall have a solid wood frame on all sides large enough to accept all hardware.
- 6. Cut and trim openings through doors as shown on drawings. Lite openings shall be factory cut and trimmed with **metal vision kits**. Lites in fire rated

. Comply with tolerance requirements of AWI for prefitting.

Doors shall be 1-3/4" thick.

doors shall be constructed and tested as an assembly and shall come to the jobsite assembled.

1. Condition doors to average prevailing humidity in installation area prior to

Install doors in strict accordance with manufacturer's instructions.

3. See finish hardware specification for tolerances required when hanging

4. Adjust all doors to swing freely, and protect all completed work.

### SECTION 08500 - VINYL SINGLE HUNG WINDOWS

PART 3 - EXECUTION

- . It is the intent of this section to establish minimum standards for the fabrication and installation of the vinyl windows. Aluminum windows will not be accepted. Reference the drawings for the locations, sizes, and details of
- all products specified in this section. It is the intent that all installed products shall be weather and water tight. Applicable provisions of the ADA shall be incorporated into the fabrication
- and installation of the various elements. 4. All windows shall be provided with screens on the active side. Horizontal load on the assembly shall be 24 pounds per square foot unless local code requires a higher loading. The fabricator shall add internal

### of the assembly.

PART 2 - PRODUCTS Windows shall be single hung style, color per Exterior Color Schedule, and egual to the Ply Gem series vinyl window listed below.

structural reinforcing sections as required to ensure the structural adequacy

- Builder Series 1100 Rectangle to be used at the Office and Conference b. Builder Series 100 Single Hung to be used at all Classrooms. 2. Glazing shall carry a five year warranty against obstruction of vision due to
- seal failure (other than breakage). Glass shall be tempered, Warm Edge Plus, HP SC, double glazed, argon gas. Window unit shall have a "U" factor of .35 or lower, and a SHGC of .25 or lower. ALL GLAZING SHALL BE TEMPERED 4. All windows shall have a tilt sash, interlock at sash meeting rails, tilt-in
- sashes, stainless steel constant force balances, and dual vent locks. All recognized testing agency having a factory inspection service. If any door windows shall have removable stops added to prevent the bottom sash from . Screens shall be manufacturer's aluminum screen.
  - following performance requirements: a. Air Infiltration not to exceed .14 CFM per square foot when tested in accordance with AAMA 101 - DP H-R30. b. No water shall pass the interior frame of the system when tested in

accordance with ASTM E-331 at a test pressure of 5.25 PSF.

Framing members provided under this section shall meet or exceed the

- c. When tested in accordance with ASTM E-330, the maximum stress shall not exceed 45 PSI and the maximum deflection of any member shall not exceed 1/175 of its span. When the load is removed there shall be no evidence of any permanent deformation or damage. PART 3 - EXECUTION
- accordance with the manufacturer's printed instructions. After installation the contractor shall adjust all elements for proper operation. Protect all exposed portions from damage by other trades. Members shall be accurately fitted and mechanically attached by means of

1. Windows shall be installed, glazed and adjusted by experienced tradesmen in

exposed fasteners shall match the finish of the vinyl/aluminum members. Screws, bolts, and other fasteners shall be firmly seated forming connections that are free of voids, gaps, and cracks that will allow water to pass. Vertical elements shall be plumb, straight, and square.

screws and other fasteners which for the most part shall be concealed;

Prior to erection the installer shall verify the opening provided is adequate to support the assembly. 6. Intersections with other work and materials shall be made neatly, with even joints. All vinyl to masonry shall be sealed with Dymeric sealant, tooled and

exposed vinyl.

7. All ferrous metals, including galvanized iron, shall be separated from the frame with a bond breaker. 8. Protect all exposed vinyl from damage at all times, including masonry cleaning solutions and other chemicals.

compressed complete with backer rod. The color shall match that of the



**SPECIFICATIONS** 

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7/10/23 For Construction --/--/--

for the location of all products scheduled. 2. It is the intent of this section for all operable doors to have finish hardware. Any door not having hardware specifically called for shall be fitted with finish

hardware based on similar doors with similar functions. 3. The Owner desires all cores on all buildings be of the same manufacturer and specification; therefore, no substitutions will be allowed.

4. All labeled hardware shall conform to U.L. specifications. NFPA #80 Pamphlet shall be the guide for fire and safety. 5. Hardware templates shall be transmitted to the Aluminum Door, Hollow

Metal, Wood Door, and other related suppliers. 6. All locations shall be verified and coordinated by the Hardware Supplier

before fabrication. 7. Unless otherwise directed, hardware shall be mounted per specifications, or the hardware manufacturer's standards. Accessible door hardware shall be installed in conformance with ADA regulations. It is the intent to have all

can operate doors in normal and emergency situations. 8. Each hardware item shall be packaged separately with all screws, wrenches, templates, and instructions. Mark with door number to which each piece belongs.

hardware usable by the children to be installed low enough so small children

### PART 2 - PRODUCTS

1. The numbers used in the schedule are of the following manufacturers: 2. All cylinder locks shall be removable core. Provide construction cores for all

a. Provide 2 keys per core, 6 master keys and 3 control keys to the Owner upon completion of the project. Locks shall be keyed per the direction

3. Where closers are specified, install closers on the push side of outswing

4. Hardware shall comply with the requirements of state and local codes. 5. All hardware shall be furnished as listed in the hardware schedule.

6. The required vendor for hardware is:

1. Consolidated Millwork Supply, Inc. P.O. Box 61038 Dayton, Ohio 45406-1038 Attn: Mike Vagedes Tel: (937) 278-0706 Fax: (937) 278-7604

> Email: <u>mvagedes@donet.com</u> 2. BMS - Building Material Specialties Contact: Seth Clough (971) 270-9573, and Angela Karaseva (503) 640-1886

Email: angela@bms-oregon.com PART 3 - EXECUTION

1. All hardware shall be carefully fitted, secured, and adjusted by skilled mechanics in accordance with the manufacturer's instructions. Damage to surrounding surfaces shall be repaired to completely conceal the damage and/or replaced at the direction of the Architect.

2. All doors shall operate without binding of any type and shall return to a smooth even fit with the surface of the door equal distant from the sides and faces of the frame. Closers shall gently return all doors to the closed position with latches fully engaged. Labeled hardware shall have the labels and other operating portions masked off before painting commences, remove after

3. All hollow metal frames for doors shall have three rubber silencers in the strike jamb. Fire rated doors shall have smoke seals.

4. Thresholds, regardless of location, shall be set in a full bed of silicone.

5. Adjust, clean and oil all hardware before final inspection.

### SECTION 08800 - GLAZING

PART 1 - GENERAL

1. It is the intent of this section to establish minimum standards for the manufacturer and installation of glass and glazing.

2. All glass products shall comply with State and Federal safety regulations and shall be in compliance with child care licensing regulations for the area. 3. Vertical exterior glass shall be designed to sustain 24 PSF wind loads without

4. Reference drawings for locations and sizes of all glass panels.

5. The glass installer shall be responsible and shall verify all glass sizes, dimensions, and framed openings.

6. Where there is an exterior and interior surface orientation to be maintained, the piece shall have a label on the exterior surface indicating this side out. 7. All glass products shall be cleaned of all dust, dirt, and surface contaminates prior to punch list. Both sides of all glass shall be cleaned at all locations. 8. Any glass product that has a crack, internal/external flaw, chips, holes, voids,

or other surface damage shall be replaced at no cost to the Owner. 9. Glass products shall be protected from the work of adjacent trades. Protect glass from masonry cleaning solutions and all paint.

10. It is the intent of this section that all glass and glazing be water and weather tight in all wind loading and moisture situations. 11. All glass shall be from the same manufacturer to insure consistent color and

### PART 2 - PRODUCTS

1. All glass products shall be PPG, Pittsburgh Plate Glass Company or approved equal. All glass to be float glass. Glass shall be manufactured to meet Federal Specification DD- G-45ld and ANSI Z97.1.

2. All glass in the center shall be safety tempered or laminated.

3. See Section 08500 for Vinyl Window glazing. 4. Interior Glazing shall be 1/4" tempered or laminated, clear. Laminated safety glass shall be one-quarter (1/4) inch thick clear laminated glass equal to that

manufactured by Hordis Brothers, Inc.

5. Mirrors shall be 1/4" polished plate mirror quality with concealed fasteners. Size shall be 24"x36" unless noted otherwise on plans.

6. All glazing in fire rated doors or walls shall be 1/4" wire glass, equal to that manufactured by Hordis Brothers, Inc., in U.L. listed pre-finished metal frames. 7. Glazing Compound for Hollow Metal Frames: Pecora "M-242", Dow Corning

"795" or equal. 8. Reference Section 08200 for requirements of Aluminum Door and Frame glazing and installation.

### PART 3 - EXECUTION

1. All glass shall be set atop setting blocks of resilient rubber with a minimum 5/8" bite on all glass and proper tolerance for glass and aluminum expansion in the vertical and horizontal directions.

2. All pressure plates and covers shall be installed to produce an even pressure with distortion free images.

3. All aluminum to glass sealants shall be silicone based. All aluminum to

masonry sealants shall be two part Dymeric to match adjacent aluminum. 4. All glass products shall have temporary markings and symbols on one or both sides to clearly indicate the opening has been glazed with a glass product. Specifically doors, sidelights and glass at normal walking levels and pathways shall be marked. Remove all markings prior to final punchlist.

5. Comply with siding manufacturer's written installation instructions applicable to products and applications indicated unless more stringent requirements

6. Adjusting and Cleaning:

a. Remove damaged, improperly installed, or otherwise defective siding or trim materials and replace with new materials complying with specified

b. Clean finished surfaces according to siding manufacturer's written instructions and maintain in a clean condition during construction

DIVISION 9 - FINISHES

SECTION 09250 - GYPSUM WALLBOARD

1. It is the intent of this section to establish the minimum standards for the installation and manufacture of Drywall.

2. All the drywall shall be provided, hung, taped, sanded and ready for painting, vinyl covering, and related finishes. Drywall above the ceiling line is required to be properly taped.

3. Draftstops shall be installed in the attic area as shown on drawings. Draftstops (if shown) shall be standard type drywall and require fire taping only, no finish sanding is required.

4. Material systems specified are those of United States Gypsum Company (USG) and shall establish a standard of quality. Johns-Manville and Bestwall Gypsum Company are acceptable alternates; however, all products must meet or exceed the minimum standard of quality.

location of accessories in drywall construction. At a minimum, mark all studs on the subfloor with a permanent black marker. Also, mark location of pipes hidden in walls. Spray paint a red circle below every electrical box to be covered with drywall.

. Coordinate work with other trades, especially electrical and mechanical, for

Temperatures in the building shall be maintained within the range of 55 degrees F. to 95 degrees F. Adequate ventilation shall be provided to eliminate excess moisture within the building during this same period.

1. Interior Partitions:

a. Wallboard: As shown on Drawings, shall be ASTM C1396 Regular (Type III, Grade R, Class I) or Fire-Rated (Type III, Grade X, Class I) wallboard as indicated with thickness to be five-eighths (5/8) inch and width to be forty-eight (48) inches.

b. Use 5/8" Water Resistant (W/R) type wallboard ASTM C1396 as a 4'

wainscot in all toilet rooms, utility rooms, and kitchen. c. Use Georgia-Pacific ToughRock Mold-Guard (ASTM C1396, Section 7; CSA-A82.27-M, Type VII Grade W) gypsum board (or equal) as indicated with thickness to be five-eighths (5/8) inch and width to be forty-eight

d. Ceilings: As shown on drawings, shall be ASTM C1396 drywall with thickness to be five-eighths (5/8) inch, (Type III, Grade R, Class I). 2. Fastening System: Nails or screws per manufacturer's specifications. Nails in accordance with ASTM C514 and steel screws in accordance with ASTM

C954 and C1002. 3. Trim Accessories:

a. All external corners to be reinforced with U.S. Gypsum Dur-A-Bead No. 103, single length.

b. Metal Trim: U.S. Gypsum, 200-A U-shaped channel. 4. Joint Tape and Joint Compound: Use the three (3) coat finishing method. Drywall shall be left ready to paint. Use Durabond 90 Joint Compound and Perf-A-Tape Joint Reinforcing tape in accordance with ASTM C474 and C475. Exterior applications require a water resistant joint treatment and galvanized accessories.

### PART 3 - EXECUTION

Electrical and mechanical piping, equipment, fixtures, cabinets, and miscellaneous accessories shall be enclosed in partitions. Contractor shall coordinate with other trades to install partitions of the required thickness to

enclose work. 2. Cut all board accurately. Apply the long dimension parallel and over framing members. Joints shall be staggered. Position all end joints over stud. Stagger joints at multiple layer applications.

3. Walls shall be screwed a minimum of 8" o.c. on edges on framing members and 12"o.c. in the field of the board.

4. Ceilings shall be screwed 6"o.c. on edges supported by framing members and 8" o.c. in the field of the board.

5. Coordinate the application of drywall with other trades for the installation of their work, in particular wood blocking for the attachment of shelves, door

6. All vertical and horizontal outside corners shall be reinforced with #900 corner bead fastened with staples not more than 6"o.c. at both flanges along the entire length of the bead.

7. Expansion joints equal to USG 093 shall be located as shown on drawings. When drywall terminates at masonry or other dissimilar materials, apply a USG Metal 200-A fastened at the perforated side at 6"o.c. with staples spaced 6"o.c. The trim shall firmly abut the dissimilar material forming a neat joint.

Perf-A-Tape Joint System shall cover all metal trim, face board joints, fastenings, and any defect. Tape shall be applied over the full length of all joints, but shall not overlap at intersections. At wall-ceiling intersections, and interior wall and partition corners, tape shall be folded and installed as above, working from top to bottom. All interior corners shall have tape positioned to bridge the joint. Taping shall be done in a three step

application, final coat to be feathered out to a total width of not less than 12" at tapered joints, and 18" at butt joints. Sand smooth and leave ready

for painting or coating, take care not to roughen paper surface. 9. Fill and finish all depressions around nail and screw heads.

10. Lightly mop all walls to be painted after final sanding. 11. At the completion of all drywall work, all joint compound shall be cleaned from beads, screeds, metal base and trim, leaving work ready for decoration by others. All drywall mud and trash shall be removed from building, leaving

### SECTION 09310 - CERAMIC TILE

PART 1 - GENERAL

floors broom clean.

The extent of the ceramic tile work is indicated on the plans and schedules.

 Provide materials from one source for each type of tile. 3. Provide tile as specified. If unable to find specified tile provide Architect with

a full size sample of tile. 4. Installer shall examine the substrate and the conditions under which the tile is to be installed. Notify the General Contractor in writing of any conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the installer.

PART 2 - PRODUCTS

1. Ceramic tile shall as specified on plans.

2. All floor tile shall have a skid inhibiting surface. 3. Trim pieces shall be as required for a complete, continuously coved installation, of same material, size, color, and finish of field tile.

4. At all transitions to vinyl, vinyl tile, carpet or other floor surfaces, provide a vinyl threshold located directly under the door unit. 5. Mortar shall be dryset presanded portland cement and additives complying

with ANSI A118.3.

6. Grout shall be latex portland cement as specified on Interior Finish Schedule. 7. Sealant shall be urethane multi-part equal to Sumitseal SL 99.

8. Schluter-DITRA polyethylene membrane with a grid structure of square cavities shall be installed on plywood substrates.

PART 3 - EXECUTION

1. Comply with ANSI standard installation specifications A108.1 through A108.7 except as otherwise indicated. Maintain minimum temperature levels as

recommended by material manufacturers. 2. Extend all tile work into recesses and under equipment and fixtures to form a

Manufacturer: Provide ceiling suspension systems by same manufacturer as complete covering without interruptions, except as otherwise shown. acoustical ceiling panel manufacturer; Terminate work neatly at obstructions, edges and corners without disruption Structural Classification: Intermediate duty system complying with ASTM

of pattern or joint alignment. 3. Comply with the manufacturer's instructions for mixing and installation of proprietary materials.

4. Neutralize and seal substrates in accordance with mortar and adhesive manufacturer's instructions.

5. Use organic adhesive only on clean, smooth drywall walls. 6. Unless shown otherwise, lay tile in a neat grid pattern. Align joints when

adjoining tiles on floor, base, walls, and trim are the same size. Lay out tile work and center tile fields in both directions in each space or on each wall

area. Adjust to minimize tile cutting. Provide uniform joint widths, unless shown otherwise. Apply sealer to tile surface and grouted joints after installation. 8. Seal the top edge of all coved tile base with GE Silicone #1702 or approved

9. Leave finished installation free of cracked, chipped, broken, unbonded or otherwise defective work. Protect all floor tile installations with Kraft paper or other heavy covering during construction period to prevent staining or damage. No foot or wheel traffic permitted on floor for at least seven (7) days after grouting. Clean as necessary for final inspection.

SECTION 09512 - SUSPENDED ACOUSTICAL CEILING SYSTEM PART 1 - GENERAL

1.1 The general provisions of Division 1 apply to the work specified in this

1. American Society for Testing Materials (ASTM), latest edition. a. ASTM C367 - Standard Test Methods for Strength Properties of

Prefabricated Architectural Acoustical Tile or Lay-In Ceiling Panels. b. ASTM C635 - Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings.

c. ASTM C636 - Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels. d. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

e. ASTM E795 - Standard Practices for Mounting Test Spacious During Sound Absorption Tests.

f. ASTM E1264 - Standard Classification for Acoustical Ceiling Products.

1.3 SCOPE OF WORK

1. Furnish all labor, materials, tools, equipment and scaffolding required for completing acoustical tile ceilings, suspension systems and related items indicated on the drawings and herein specified.

2. The extent of the work is indicated on the drawings and specified herein. Types of ceilings specified in this section include acoustical panel ceilings.

1.4 QUALITY ASSURANCE 1. The acoustical tile, suspension systems and related items shall meet or exceed the following standards:

a. Comply with ASTM C367, C635, and E84. b. Underwriters Laboratories (UL) Fire Resistance Index - Where acoustical ceilings are components of fire rated assemblies, provide complete ceiling systems complying with UL design numbers corresponding with construction assemblies indicated and identified ceiling components with appropriate marking of applicable testing and inspecting agency. c. CISCA Ceiling Systems Handbook-Ceilings and Interior Systems

Construction Association. Installer Qualifications: Firm with not less than five years of successful experience in installation of acoustical ceilings similar to requirements for this project and which is acceptable to manufacturer of acoustical units, a

shown by current written statement from manufacturer. Coordination of Work: Coordinate layout and installation of acoustical ceiling units and suspension system components with other work supported by or penetrating through, ceilings, including light fixtures, HVAC equipment, fire suppression system components and partition system.

1.5 SUBMITTALS

1. Product Data: Manufacturer's product specifications and installation instructions for each acoustical ceiling material required, and each

suspension system. a. Samples: Set of 6-inch by 4-inch samples for each lay-in unit required, showing full range of exposed color and texture to be expected in

b. Set of 12-inch long samples of each exposed runner and molding.

1.6 DELIVERY, STORAGE, AND HANDLING 1. Deliver materials to the project site in original unopened packages bearing manufacturer's name and specific product identification.

2. Store materials in a dry place with continuous support to avoid warping units and protect against damage, direct sunlight, or surface contamination from other areas.

Handle materials carefully to avoid damaging or discoloring. Replace materials, which have been damaged or discolored. 4. Allow ceiling units to reach room temperature and a stabilized moisture

PART 2 - PRODUCTS

content prior to installation.

2.1 ACOUSTICAL CEILING PANELS

1. Manufacturer's: Subject to compliance with requirements, provide products only of the manufacturer's indicated. 2. Acoustic Ceiling Tile - C4: Armstrong "Cirrus Tegular" 534, 24-inches x 24inches x 15/16-inch tile w/angled tegular edge, White. No substitutions will be allowed unless critical delivery schedules cannot be met. Refer to Room

Finish Schedule for location. a. LR: 0.86

b. NRC: 0.70

c. CAC: 38 3. Acoustic Ceiling Tile - C5: Armstrong "Kitchen Zone" 763, 24-inches x 24inches x 15/16-inch tile w/square edge, White. No substitutions will be allowed unless critical delivery schedules cannot be met. Refer to Room

Finish Schedule for location. a. LR: 0.89

b. NRC: N/A

c. CAC: 33

2.2 METAL SUSPENSION SYSTEM FOR ACOUSTICAL PANEL CEILING

4. Main tee shall have 15/16 inch exposed flange with a rolled cap and 1 1/2-

7. Hangers: As recommended by manufacturer to comply with the specified

8. Primary and Secondary Supporting Members: As further specified and

required to comply with ceiling performance requirements.

inches deep web with double web design. Wall moldings shall be angle shape.

6. Attachment Devices: Tested for a carrying capacity of not less than 5 times the

structural classification (ASTM C635). Wire hangers, if recommended, to be

9. Assembly Devices and Accessories: As recommended by manufacturer and as

penetrations of ceiling which fits with type of edge detail and suspension

1. Installer must examine the conditions under which the suspended ceiling work

conditions have been corrected in a manner acceptable to the installer.

2. Installer shall consult other trades and Contractors involved prior to start of

ceiling work, to determine areas of potential interference. Do not start

installation until interferences have been resolved to the satisfaction of the

3. Coordinate layout with other work, which penetrates or is supported by ceiling

4. Measure each ceiling area and establish layout of acoustical units to balance

5. Refer to reflected ceiling plan of main sales area. Layout ceiling precisely as

of work to assure that ceiling grid layout will conform to ceiling plan and

width units at borders, and comply with reflected ceiling plans.

border widths at opposite edges of each ceiling. Avoid use of less-than-half

shown. Consult with Project Manager or Owner's representative prior to start

a. Install suspension systems which are part of non-fire rated assemblies in

b. Secure to structural and intermediate framing members by attaching to

4 feet o.c., between ends of primary suspension members, and as

which occurs above ceilings; provide additional suspended ceiling

accordance with manufacturer's instructions; and ASTM C636; and further

metal clips designed for the type of member involved, or where possible,

by looping and wire-tying directly to members. Do not attach hangers to

required to support other work resting in or on ceiling. Provide at least 2

requirements. Do not attach hangers to ducts, pipes or other similar work,

suspended ceilings meet walls, partitions and other vertical elements in

order to conceal edges of acoustical units. Secure moldings to building

suspension system to tolerance of 1/8-inch in 12-feet. Miter cut inside

inches o.c. and not more than 3-inches from ends, leveling ceiling

a. Main Runners: Support directly from hangers; space as required to

splice connection; do not pop rivet flanges of abutting runners.

c. Moldings: Install with exposed leg in same plane as bottom flange of

exposed runners, unless otherwise shown or specified.

panels to fit accurately at borders and at penetrations.

1. Contractor to provide one carton of each type of ceiling tile to be used for

replacement of any tiles damaged or discolored in the future. Tile shall be

1. Clean exposed surfaces of acoustical ceilings, including trim, edge moldings,

cleaning and touch\_up of minor finish damage. Remove and replace work,

2. Whenever possible, all materials shall be produced by a single manufacturer.

4. Surfaces to receive resilient flooring shall meet the requirements of ASTM F

2. Adhesive for tile installation will be as recommended by the manufacturer.

3. Concrete primer shall be a non-staining type as recommended by flooring

4. Cove base as manufactured by Roppe conforming to specifications in Finish

Legend, provided in 120' coils to minimize joints, and with pre-formed inside and

710, "Standard Practice for Preparing Concrete Floors to Receive Resilient

Flooring." Install no materials over surfaces failing to meet the above.

which cannot be successfully cleaned and repaired to permanently eliminate

and suspension members; comply with manufacturer's instructions for

1. The extent of resilient floor is shown on the plans and schedules.

3. Provide not less than 30 tiles after the completion of the work for

packaged with protective covering for storage and identified with appropriate

b. Cross Runners: Support by interlocking ends of cross runners with main

runners (or cross runners classified as main runners) to form 90-degree

angle between intersecting runners. Space as required to support each

at a low level compatible with manufacturer's requirements. Workmen

shall not fingerprint panels with dirty hands or gloves. Scribe and cut

construction by fastening through holes in web at intervals of not over 16

hangers at diagonally opposite corners of light fixtures as required to

is to be performed and notify the Contractor in writing of any unsatisfactory

conditions. Do not proceed with suspended ceiling work until unsatisfactory

11. Provide hold down clips for fire rated ceilings and elsewhere as required by

10. Edge Moldings and Trim: Metal of types and profiles indicated or, if not

indicated, provide manufacturer's standard molding for edges and

not less than 12-gauge (0.016-inch diameter), galvanized, soft annealed, mild

C635 requirements

design load involved.

system indicated.

PART 3 - EXECUTION

3.1 INSPECTION

suspension system

Owner's intentions.

1. Non-Fire Rated Assemblies:

metal roof deck.

members at such locations.

and outside corners.

panel unit used in the work

2. Exposed Grid Systems:

Acoustical Panels:

3.3 REPLACEMENTS

3.4 ADJUST AND CLEAN

evidence of damage.

PART 1 - GENERAL

Contractor.

manufacturer.

outside corners.

PART 2 - PRODUCTS

SECTION 09651 - LUXURY VINYL TILE

replacement materials on the job site.

For sizes and colors see Finish Legend.

3.2 INSTALLATION

required suspension systems.

codes or indicated on drawings.

C635. Classify cross tees as main tees.

5. Finish of exposed surfaces: Matte white.

PART 3 - EXECUTION 1. Metal Suspension Systems: Provide metal suspension systems of type, structural classification and finish specified which comply with applicable ASTM recommendations. Install flooring after finishing operations, including

Butt tightly to all adjacent surfaces. Scribe around obstructions to produce neat joints, laid tight, even, and straight. Extend flooring into toe spaces, door reveals, and into closets and similar openings.

for a minimum of 24 hours before and 48 hours after tile installation.

3. Maintain a temperature of not less than 70 degrees nor more than 90 degrees

General Contractor will sweep, then damp mop the entire floor with a neutral detergent solution, carefully scrubbing excessive marks and soil. If construction activity compromises the finish condition after cleaning is

completed, but prior to FFE delivery, the contractor shall cause the floors to be re-cleaned to their original condition. It will be the franchise owners responsibility to secure a floor/cleaning company to maintain the flooring after the delivery of the FFE.

### SECTION 09861 - TILE CARPETING

PART 1 - GENERAL 1. Install modular carpet tile as specified on Sheet A5.1 and indicated on the

2. Product Data: Manufacturer's product specifications and installation instructions for each flooring material required. a. Samples: 12-inch square sample for each carpet tile, pattern/color

specified. 3. Provide not less than 30 tiles after the completion of the work for replacement

materials on the job site. 4. Surfaces to receive modular carpet tile shall meet the guidelines of the latest edition of the Carpet & Rug Institute Installation Standard, where applicable. Install no materials over surfaces failing to meet these standards.

Do not install carpet tiles until spaces are enclosed and weathertight, wet-work

are maintained at levels planned for building occupants during the remainder of the construction period. Installation of the carpet tile constitutes acceptance of the substrate by this

Contractor. 7. Warranties:

a. Limited 15-year Stain Resistant Warranty b. Limited 15-year Bleach Resistant Warranty c. Limited Lifetime wear and Backing Warranty.

sheet Interior Finish Legend on sheet A5.1.

PART 2 - PRODUCTS Modular Carpet Tile: Shall be as manufactured by Patcraft, as indicated in Drawings, or approved equal. For specified material, sizes, pattern and color see 2.2 PAINT, GENERAL

PART 3 - EXECUTION

1. Installation will be accomplished in strict accordance with manufacturer's recommendations. Install flooring after finishing operations, including painting. Butt tightly to all adjacent surfaces. Scribe around obstructions to produce neat joints, laid tight, even, and straight. Extend flooring into toe spaces, door

reveals, and into closets and similar openings. The permanent HVAC system must be operational and functional and set to a minimum of 65 F or a maximum of 85 F, for a minimum of 7 days prior to, during, and after installation. Once the installation is complete the temperature PART 3 - EXECUTION should not exceed 85 F.

c. Space hangers to fall not more than 6 inches from ends and not more than SECTION 099113 - EXTERIOR PAINTING PART 1 - GENERAL

1.1 RELATED DOCUMENTS

prevent deflection of suspension system members in excess of ASTM C635 A. Drawings and general provisions of the Contract, including General and

Supplementary Conditions and Division 01 Specification Sections, apply to this Section. 1.2 SUMMARY

7. Aluminum (not anodized or otherwise coated).

d. Install continuous metal moldings for support of runners and units where A. Section includes surface preparation and the application of paint systems on exterior substrates. Concrete.

> 4. Concrete masonry units (CMU). 5. Steel. 6. Galvanized metal.

3. Clay masonry.

Fiber-cement board.

support ceiling units and other work resting in, or on, ceilings and as 8. Stainless-steel flashing. required to comply with ceiling performance requirements. Provide 9. Wood. 10. Plastic trim fabrications. unjointed main runners of manufacturer's maximum standard length wherever possible; join abutting sections with manufacturer's standard 11. Exterior portland cement plaster (stucco).

12. Exterior gypsum board.

1. Indicate VOC content.

Related Requirements: 1. Section 099123 "Interior Painting" for surface preparation and the application of paint systems on interior substrates. 2. Section 099300 "Staining and Transparent Finishing" for surface

preparation and the application of wood stains and transparent finishes on exterior wood substrates. 3. Section 099600 "High-Performance Coatings" for tile-like coatings.

a. Install acoustical panels only after the building is enclosed and moisture is 1.3 ACTION SUBMITTALS Product Data: For each type of product. Include preparation requirements and application instructions.

> B. Samples for Initial Selection: For each type of topcoat product. C. Product List: For each product indicated, include the following: 1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules. CLOSEOUT SUBMITTALS A. Coating Maintenance Manual: Provide coating maintenance manual

where each product/color/finish was used, product data pages, material safety data sheets, care and cleaning instructions, touch-up procedures, and color samples of each color and finish used. 1.5 MAINTENANCE MATERIAL SUBMITTALS Furnish extra materials from the same product run, that match products installed and that are packaged with protective covering for storage and

including area summary with finish schedule, area detail designating location

identified with labels describing contents. 1. Paint: **1 gal.** each color applied.

1.6 DELIVERY, STORAGE, AND HANDLING A. Delivery and Handling: Deliver products to Project site in an undamaged condition in manufacturer's original sealed containers, complete with labels and instructions for handling, storing, unpacking, protecting, and installing. Packaging shall bear the manufacture's label with the following information: 1. Product name and type (description).

3. Color number. 4. VOC content. 5. Environmental handling requirements.

5. Installation of the floor tile constitutes acceptance of the substrate by this 6. Surface preparation requirements. 7. Application instructions. 1. Luxury Vinyl Tile: Shall be as manufactured by Patcraft or approved equal.

2. Batch date.

B. Store materials not in use in tightly covered containers in well-ventilated 1. Installation will be accomplished in strict accordance with manufacturer's

areas with ambient temperatures continuously maintained at not less than

air temperatures are between 50 and 95 deg F.

1. Maintain containers in clean condition, free of foreign materials and

2. Remove rags and waste from storage areas daily.

1.7 FIELD CONDITIONS A. Apply paints only when temperature of surfaces to be painted and ambient

B. Do not apply paints in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces. Hazardous Materials: It is not expected that hazardous materials will be

encountered in the Work. 1. If suspected hazardous materials are encountered, do not disturb;

immediately notify Architect and Owner. D. Hazardous Materials: Hazardous materials including lead paint **may be** present in buildings and structures to be painted. A report on the presence of known hazardous materials is on file for review and use. Examine report to become aware of locations where hazardous materials are present. 1. Do not disturb hazardous materials or items suspected of containing

hazardous materials except under procedures specified. Perform preparation for painting of substrates known to include lead paint in accordance with EPA Renovation, Repair and Painting Rule and additional requirements of authorities having jurisdiction.

PART 2 - PRODUCTS 2.1 MANUFACTURERS

A. Basis-of-Design Product: Subject to compliance with requirements, provide HYPERLINK "https://www.sherwin-williams.com/architects-specifiersdesigners/specifications/" Sherwin-Williams Company; products indicated or comparable product from one of the following: Benjamin Moore Co..

in spaces is complete and dry, and ambient temperature an humidity conditions Comparable Products: Comparable products of approved manufacturers will be considered in accordance with Section 016000 "Product Requirements," and the following:

1. Products are approved by manufacturer in writing for application

2. Products meet performance and physical characteristics of basis of

1. Manufacturer's designations listed on a separate color schedule are for

design product including published ratio of solids by volume, plus or minus two percent. C. Source Limitations: Obtain paint materials from single source from single listed manufacturer.

color reference only and do not indicate prior approval.

A. Material Compatibility: 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience. . For each coat in a paint system, provide products recommended in

writing by manufacturers of topcoat for use in paint system and on substrate indicated <u>VOC Content</u>: For field applications, provide paints and coatings that complies with VOC content limits of authorities having jurisdiction.

3.1 EXAMINATION A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.

new paint application. 1. Report, in writing, conditions that may affect application, appearance, or performance of paint.

Where acceptability of substrate conditions is in question, apply samples and

perform in-situ testing to verify compatibility, adhesion, and film integrity of

B. Substrate Conditions: Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:

conditions.

written instructions.

a. Concrete: 12 percent. b. Fiber-Cement Board: 12 percent. c. Masonry (Clay and CMU): 12 percent.

d. Wood: 15 percent. e. Portland Cement Plaster: 12 percent. f. Gypsum Board: 12 percent.

2. Portland Cement Plaster Substrates: Verify that plaster is fully cured. 3. Exterior Gypsum Board Substrates: Verify that finishing compound is sanded smooth. Proceed with coating application only after unsatisfactory conditions have

been corrected; application of coating indicates acceptance of surfaces and

3.2 PREPARATION A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates and paint systems indicated.

because of size or weight of item, provide surface-applied protection before surface preparation and painting. 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied

C. Clean substrates of substances that could impair bond of paints, including

B. Remove hardware, covers, plates, and similar items already in place that are

removable and are not to be painted. If removal is impractical or impossible

dust, dirt, oil, grease, and incompatible paints and encapsulants. 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated. D. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not paint surfaces if moisture content or

alkalinity of surfaces to be painted exceeds that permitted in manufacturer's

Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints exceeds that permitted in manufacturer's written instructions Steel Substrates: Remove rust, loose mill scale, and shop primer if any. Clean

less than the following:] 1. SSPC-SP 2, "Hand Tool Cleaning." 2. SSPC-SP 3, "Power Tool Cleaning." 3. SSPC-SP 7/NACE No. 4, "Brush-off Blast Cleaning."

using methods recommended in writing by paint manufacturer[.] [ but not

G. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shopprimed surfaces.

H. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized

sheet metal by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints. I. Aluminum Substrates: Remove loose surface oxidation. Wood Substrates:

4. SSPC-SP 11, "Power Tool Cleaning to Bare Metal."

1. Scrape and clean knots. Before applying primer, apply coat of knot sealer recommended in writing by topcoat manufacturer for exterior use in paint system indicated.

2. Sand surfaces that will be exposed to view, and dust off. 3. Prime edges, ends, faces, undersides, and backsides of wood. 4. After priming, fill holes and imperfections in the finish surfaces with

putty or plastic wood filler. Sand smooth when dried.

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ARCHITECT /1301072179

Professional of Record: Suzanne M Hayes LICENSE NO: 1301072179 EXP. DATE: 12/19/24

Drawn/Checked

Project Number

Bid Date

Permit Date

For Construction --/--/--

2202640

7/10/23

- K. Plastic Trim Fabrication Substrates: Remove dust, dirt, and other foreign material that might impair bond of paints to substrates. 3.3 APPLICATION
- A. Apply paints according to manufacturer's written instructions and
- recommendations in "MPI Manual." 1. Use applicators and techniques suited for paint and substrate indicated.
- 2. Paint surfaces behind movable items same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed items with prime coat only.
- 3. Paint both sides and edges of exterior doors and entire exposed surface of exterior door frames.
- 4. Paint entire exposed surface of window frames and sashes.
- 5. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates. 6. Primers specified in painting schedules may be omitted on items that are
- factory primed or factory finished if acceptable to topcoat manufacturers.

B. Tint undercoats same color as topcoat, but tint each undercoat a lighter

- shade to facilitate identification of each coat if multiple coats of same material are to be applied. Provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
- E. Painting Fire Suppression, Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work:
- 1. Paint the following work where exposed to view: a. Equipment, including panelboards[ and switch gear].
- b. Uninsulated metal piping. c. Uninsulated plastic piping.
- d. Pipe hangers and supports.
- e. Metal conduit.
- f. Plastic conduit.
- g. Tanks that do not have factory-applied final finishes. h. <Insert mechanical items to be painted>
- 3.4 FIELD QUALITY CONTROL A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.
- 1. Contractor shall touch up and restore painted surfaces damaged by 2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor

film thickness that complies with paint manufacturer's written

shall pay for testing and apply additional coats as needed to provide dry

- recommendations. 3.5 CLEANING AND PROTECTION
- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or
- damage adjacent finished surfaces. C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and
- refinishing, as approved by Architect, and leave in an undamaged condition. D. At completion of construction activities of other trades, touch up and restore B. Store materials not in use in tightly covered containers in well-ventilated areas damaged or defaced painted surfaces.
- A. Concrete, Portland Cement Plaster (Stucco), Cementitious Siding, Nontraffic Surfaces:
- 1. Latex System:

3.6 EXTERIOR PAINTING SCHEDULE

- a. Prime Coat: Primer sealer, latex.
- 1. S-W Loxon Concrete & Masonry Primer Sealer, A24W8300, at 8.0 mils wet, 3.2 mils dry. b. Prime Coat: Latex, exterior, matching topcoat.
- 1. S-W A-100 Exterior Latex Low Sheen, A12 Series, at 4.0 mils
- wet, 1.5 mils dry, per coat. c. Topcoat: Latex, exterior, satin. 1. S-W A-100 Exterior Latex Satin, A82 Series, at 4.0 mils wet, 1.5
- mils dry, per coat.
- B. CMU Substrates: 1. Latex System:
- a. Block Filler: Block filler, latex, interior/exterior:
- 1. S-W PrepRite Block Filler, B25W25, at 75 to 125 sq. ft. per gal. b. Intermediate Coat: Latex, exterior, matching topcoat.
- c. Topcoat: Latex, exterior, satin.
- 1. S-W A-100 Exterior Latex Satin, A82 Series, at 4.0 mils wet, 1.5 mils dry, per coat.
- C. Ferrous Metal, Galvanized-Metal, and Aluminum Substrates: 1. Water-Based Light Industrial Coating System:
- a. Prime Coat: Primer, water based.
- 1. S-W Pro Industrial Pro-Cryl Universal Primer, B66-310 Series, 5.0 HYPERLINK "https://www.sherwin-williams.com/architects-specifiersto 10.0 mils wet, 2.0 to 4.0 mils dry.
- b. Intermediate Coat: Light industrial coating, exterior, water based, matching topcoat. c. Topcoat: Light industrial coating, exterior, water based, semi-gloss.
- 1. S-W Pro Industrial Acrylic Semi-Gloss Coating, B66-650 Series, at 2.5 to 4.0 mils dry, per coat.
- D. Wood Substrates: Including exposed wood items not indicated to receive shop-applied finish. 1. Latex System:
  - a. Prime Coat: Primer, latex for exterior wood.
  - 1. S-W Exterior Latex Primer, B42, at 4.0 mils wet, 1.4 mils dry,
  - b. Intermediate Coat: Latex, exterior, matching topcoat. c. Topcoat: Latex, exterior, semi-gloss:
- 1. S-W Solo Acrylic Semi-Gloss, A76 Series, at 4.0 mils wet, 1.5 mils dry, per coat.
- E. Plastic Trim Fabrication Substrates: Including architectural PVC, plastic, and fiberglass items. 1. Latex System:
  - a. Prime Coat: Primer, bonding, water-based:
  - 1. S-W PrepRite ProBlock Latex Primer/Sealer, B57-620 Series, at 4.0 mils wet, 1.4 mils dry.
  - c. Topcoat: Latex, exterior, satin:

b. Intermediate Coat: Latex, exterior, matching topcoat.

- mils dry, per coat.
- F. Exterior Gypsum Board Substrates: 1. Latex System:
- - a. Prime Coat: Primer bonding, water-based. 1. S-W PrepRite ProBlock Latex Primer/Sealer, B57-620 Series, at
  - 4.0 mils wet, 1.4 mils dry. b. Intermediate Coat: Latex, exterior, matching topcoat.
  - c. Topcoat: Latex, exterior, satin:
  - 1. S-W A-100 Exterior Latex Satin, A82 Series, at 4.0 mils wet, 1.5
- mils dry, per coat. G. Exterior Insulation Finish Systems (EIFS):
- 1. Latex System:
- a. First Coat: Latex, exterior, matching topcoat.
- b. Topcoat: Latex, exterior, satin: 1. S-W A-100 Exterior Latex Satin, A82 Series, at 4.0 mils wet, 1.5 mils dry, per coat.

### SECTION 099123 - INTERIOR PAINTING

PART 1 - GENERAL

1.2 SUMMARY

- 1.1 RELATED DOCUMENTS
- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this
- A. Section includes surface preparation and the application of paint systems on interior substrates. [not all will apply to individual projects]
- 2. Concrete masonry units (CMU).
- Steel. 4. Galvanized metal.
- 5. Aluminum (not anodized or otherwise coated). 6. Wood.
- 7. Gypsum board. Plaster.
- 9. Spray-textured ceilings B. Related Requirements:
- 1. Section 099113 "Exterior Painting" for surface preparation and the application of paint systems on exterior substrates.
- 1.3 ACTION SUBMITTALS
- A. Product Data: For each type of product. Include preparation requirements and application instructions. 1. Indicate VOC content
- B. Samples for Verification: For each type of paint system and in each color and gloss of topcoat.
- 1. Submit Samples on rigid backing. 2. Label each coat of each Sample.

1.4 CLOSEOUT SUBMITTALS

- C. Product List: For each product indicated, include the following: 1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
- 1. Coating Maintenance Manual: Provide coating maintenance manual including area summary with finish schedule, area detail designating location where each product/color/finish was used, product data pages, material safety data sheets, care and cleaning instructions, touch-up procedures, and color
- samples of each color and finish used. 1.5 MAINTENANCE MATERIAL SUBMITTALS A. Furnish extra materials, from the same product run, that match products
- installed and that are packaged with protective covering for storage and identified with labels describing contents. 1. Paint: **1 gal.** of each color applied. 1.6 DELIVERY, STORAGE, AND HANDLING
- A. Delivery and Handling: Deliver products to Project site in an undamaged condition in manufacturer's original sealed containers, complete with labels and instructions for handling, storing, unpacking, protecting, and installing. Packaging shall bear the manufacturer's label with the following information:
- 1. Product name and type (description).
- Batch date. Color number.
- 4. VOC content.

residue.

- 5. Environmental handling requirements.
- 6. Surface preparation requirements. 7. Application instructions.
- with ambient temperatures continuously maintained at not less than 45 deg F. 1. Maintain containers in clean condition, free of foreign materials and
- 2. Remove rags and waste from storage areas daily. 1.7 FIELD CONDITIONS
- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.
- B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet
- C. Lead Paint: It is not expected that lead paint will be encountered in the Work. 1. If suspected lead paint is encountered, do not disturb; immediately notify Architect and Owner
- D. Lead Paint: Lead paint [is] [may be] present in buildings and structures to be painted. A report on the presence of lead paint is on file for review and use. Examine report to become aware of locations where lead paint is present. 1. Do not disturb lead paint or items suspected of containing hazardous
- materials except under procedures specified. 2. Perform preparation for painting of substrates known to include lead
- paint in accordance with EPA Renovation, Repair and Painting Rule and additional requirements of authorities having jurisdiction. PART 2 - PRODUCTS
- 2.1 MANUFACTURERS A. Basis-of-Design Product: Subject to compliance with requirements, provide designers/specifications/" Sherwin-Williams Company; products indicated or
- comparable product from one of the following: 1. Benjamin Moore Co. B. Comparable Products: Comparable products of approved manufacturers will be considered in accordance with Section 016000 "Product Requirements," and
- the following: 1. Products are approved by manufacturer in writing for application specified.
- 2. Products meet performance and physical characteristics of basis of design product including published ratio of solids by volume, plus or minus two percent.
- C. Source Limitations: Obtain paint materials from single source from single listed
- 1. Manufacturer's designations listed on a separate color schedule are for color reference only and do not indicate prior approval. 2.2 PAINT, GENERAL
- A. Material Compatibility: 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions
  - of service and application as demonstrated by manufacturer, based on testing and field experience. 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on
- substrate indicated. 1. S-W A-100 Exterior Latex Satin, A82 Series, at 4.0 mils wet, 1.5 B. <u>VOC Content</u>: For field applications that are inside the weatherproofing system, paints and coatings shall provide materials that comply with VOC limits of authorities having jurisdiction and for interior paints and coatings applied at Project site, the following VOC limits exclusive of colorants added to a tint base, when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
  - 1. Flat Paints and Coatings: 50 g/L.
  - 2. Nonflat Paints and Coatings: 150 g/L.
  - 3. Primers, Sealers, and Undercoaters: 200 g/L. 4. Anticorrosion and Antirust Paints Applied to Ferrous Metals: 250 g/L.
  - 5. Floor Coatings: 100 g/L. 6. Shellacs, Clear: 730 g/L.
  - 7. Shellacs, Pigmented: 550 g/L. C. Low-Emitting Materials: Interior paints and coatings shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small Scale Environmental Chambers."
  - D. Colors: As noted on the drawings.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers. Where acceptability of substrate conditions is in question, apply samples and perform in-situ testing to

- verify compatibility, adhesion, and film integrity of new paint application. 1. Report, in writing, conditions that may affect application, appearance, or performance of paint.
- B. Substrate Conditions:
  - 1. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
    - a. Concrete: 12 percent. b. Masonry (Clay and CMU): 12 percent.
    - c. Wood: 15 percent.
  - d. Gypsum Board: 12 percent.
  - e. Plaster: 12 percent. 2. Gypsum Board Substrates: Verify that finishing compound is sanded smooth.
  - 3. Plaster Substrates: Verify that plaster is fully cured.
- 4. Spray-Textured Ceiling Substrates: Verify that surfaces are dry. C. Proceed with coating application only after unsatisfactory conditions have been corrected; application of coating indicates acceptance of surfaces and conditions.
- 3.2 PREPARATION A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
- involved to reinstall items that were removed. Remove surface-applied protection if any. C. Clean substrates of substances that could impair bond of paints, including dust,
- dirt, oil, grease, and incompatible paints and encapsulants. 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated. D. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be
- painted exceeds that permitted in manufacturer's written instructions. 1. Concrete Floors: Remove oil, dust, grease, dirt, and other foreign materials. Comply with SSPC-SP-13/NACE 6 or ICRI 03732. E. Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints exceed that permitted in
- F. Steel Substrates: Remove rust, loose mill scale, and shop primer, if any. Clean using methods recommended in writing by paint manufacturer[.] [ but not less than the following:]
  - SSPC-SP 2, "Hand Tool Cleaning."

manufacturer's written instructions.

- 2. SSPC-SP 3, "Power Tool Cleaning."
- 3. SSPC-SP 7/NACE No. 4, "Brush-off Blast Cleaning." 4. SSPC-SP 11, "Power Tool Cleaning to Bare Metal."
- G. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed
- H. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal fabricated from coil stock by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints. I. Aluminum Substrates: Remove loose surface oxidation.
- J. Wood Substrates: 1. Scrape and clean knots, and apply coat of knot sealer before applying
- 2. Sand surfaces that will be exposed to view, and dust off. 3. Prime edges, ends, faces, undersides, and backsides of wood.
- 4. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried. K. Cotton or Canvas Insulation Covering Substrates: Remove dust, dirt, and other foreign material that might impair bond of paints to substrates.
- 3.3 APPLICATION A. Apply paints according to manufacturer's written instructions and to recommendations in "MPI Manual."
- 1. Use applicators and techniques suited for paint and substrate 2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind
- permanently fixed equipment or furniture with prime coat only. 3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
- 4. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates. 5. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat. C. If undercoats or other conditions show through topcoat, apply additional coats
- until cured film has a uniform paint finish, color, and appearance. D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
- E. Painting Fire Suppression, Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work:
  - 1. Paint the following work where exposed in equipment rooms: a. Equipment, including panelboards[ and switch gear].
    - b. Uninsulated metal piping. c. Uninsulated plastic piping.
    - d. Pipe hangers and supports. e. Metal conduit.
  - f. Plastic conduit. g. Tanks that do not have factory-applied final finishes.
  - h. Duct, equipment, and pipe insulation having cotton or canvas insulation covering or other paintable jacket material. 2. Paint the following work where exposed in occupied spaces:
  - a. Equipment, including panelboard's. b. Uninsulated metal piping.

f. Plastic conduit.

c. Uninsulated plastic piping. d. Pipe hangers and supports. e. Metal conduit.

air inlets and outlets that are visible from occupied spaces.

g. Duct, equipment, and pipe insulation having cotton or canvas insulation covering or other paintable jacket material. h. Other items as directed by Architect.

3. Paint portions of internal surfaces of metal ducts, without liner, behind

- 3.4 FIELD QUALITY CONTROL
- A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness. 1. Contractor shall touch up and restore painted surfaces damaged by
  - 2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written
  - recommendations.
- 3.5 CLEANING AND PROTECTION
- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.

paints by washing, scraping, or other methods. Do not scratch or damage adjacent

- finished surfaces. C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition. D. At completion of construction activities of other trades, touch up and restore
- damaged or defaced painted surfaces. 3.6 INTERIOR PAINTING SCHEDULE
- A. Concrete Substrates, Nontraffic Surfaces: 1. Latex System:
  - a. Prime Coat: Primer, latex, interior. 1) S-W Loxon Concrete & Masonry Primer Sealer, A24W8300, at 8.0 mils wet, 3.2 mils dry.
  - b. Intermediate Coat: Latex, interior, matching topcoat. c. Topcoat: Latex, interior, eggshell. 1) S-W ProMar 200 Zero VOC Latex Eg-Shel, B20-2600 Series,
- at 4.0 mils wet, 1.7 mils dry, per coat. 1. After completing painting operations, use workers skilled in the trades B. Metal Substrates (Aluminum, Steel, Galvanized Steel): Latex System
  - a. Prime Coat: Primer, rust-inhibitive, water based: 1) S-W Pro Industrial Pro-Cryl Universal Primer, B66-310 Series, at 5.0 to 10 mils wet, 2.0 to 4.0 mils dry. b. Intermediate Coat: Water-based acrylic, interior, matching
  - 1) S-W Pro Industrial Acrylic Semi-Gloss Coating, B66-650 Series, at 2.5 to 4.0 mils dry, per coat. C. Wood Substrates: Including exposed wood items not indicated to receive shop-

c. Topcoat: Water-based acrylic, semi-gloss:

- a. Prime Coat: Primer sealer, latex, interior: 1) S-W PrepRite ProBlock Primer Sealer, B51-620 Series, at 4.0 mils wet, 1.4 mils dry. b. Intermediate Coat: Latex, interior, matching topcoat.
- c. Topcoat: Latex, interior, semi-gloss: 1) S-W ProMar 200 Zero VOC Latex Semi-Gloss, B31-2600 Series, at 4.0 mils wet, 1.6 mils dry, per coat.

D. Gypsum Board and Spray-Texture Ceiling] Substrates:

- a. Prime Coat: Primer, latex, interior:
- mils wet, 1.0 mils dry. b. Intermediate Coat: Latex, interior, matching topcoat. c. Topcoat: Latex, interior, flat:
- 1) S-W ProMar 200 Zero VOC Latex Flat, B30-2600 Series, at 4.0 mils wet. 1.6 mils dry. per coat. d. Topcoat: Latex, interior, low sheen: 1) S-W ProMar 200 Zero VOC Latex Low Sheen Enamel,
- B24-2600 Series, at 4.0 mils wet, 1.6 mils dry, per coat. e. Topcoat: Latex, interior, eggshell: 1) S-W ProMar 200 Zero VOC Latex Eg-Shel, B20-2600 Series, at 4.0 mils wet, 1.7 mils dry, per coat.

1) S-W ProMar 200 Zero VOC Latex Semi-Gloss, B31-2600

Series, at 4.0 mils wet, 1.6 mils dry, per coat. SECTION 09986 - FRP

applied finish.

Latex System:

1. Latex System:

PART 1 - GENERAL 1. Install FRP (Fiberglass Reinforced Panels) as called for on the drawings.

f. Topcoat: Latex, interior, semi-gloss:

- PART 2 PRODUCTS 1. FRP: Panel shall be 4' x 8' x 3/32" pebble surface fiberglass reinforced panel.
- Adhesive as required by manufacturer or install over gypsum board as shown on plans in accordance with manufacturer's instructions. a. Class 'A' fire rated FRP panels to be used where local codes require. Marlite, Kemlite or equal acceptable.

b. All exposed edges of FRP panels to be finished with vinyl molding equal

- to #390/square cap strip by Mercer Plastics Company. Inc. c. olor per Interior Color Schedule. Moldings: Shall match corresponding wall panel as furnished by panel manufacturer. Moldings shall include those necessary for a complete workmanlike finish including inside corners, outside corners, divider bars and
- end stops. End stops (panel abutment moldings) are to be used between panels of different thickness and at gypsum board ceilings.

accurate fit.

- 1. Install as per manufacturer's directions and as indicated on Finish Schedule. 2. Before proceeding with work, obtain exact dimensions as required for an
- applied and the conditions under which the work will be performed. Notify the Contractor in writing of any unsatisfactory condition. Do not proceed until the unacceptable condition is corrected. 4. Install panels level, plumb and true with no distortions. Shim as required

3. The installer must examine the substrate to which the product will be

corners. Center panels to minimize seams and waste. 5. Seal all joints between FRP and trim with clear silicone sealant or silicone sealant colored to match panels.

using concealed shims. Before making cut- outs, drill pilot holes in all

### **DIVISION 10 - SPECIALTIES**

### SECTION 10350 - FLAGPOLE

- 1. Flagpole shall be Contractor furnished and installed per manufacturer's
- instructions and in accordance with the Soils Report 2. Flagpole shall be as specified on the Architectural Site Plan. one-piece
- flash collar, cleat, halyard, snaphooks, stationary truck and ball. 3. If wind speed as specified on structural drawings exceeds 100mph, provide a "high wind speed" flagpole.

aluminum with spun satin finish. Provide with all hardware: ground sleeve,

### B. After completing paint application, clean spattered surfaces. Remove spattered SECTION 10400 - IDENTIFYING DEVICES

- 1. Coming Soon Sign- Contractor shall coordinate with LOCAL sign vendor, approved by owner, to install a Coming Soon Sign. Sign shall be placed in a high visibility location as approved by owner. Sign shall be placed at the beginning of construction and remain in place (if code allows) until acceptance of building at which time contractor shall remove the sign. Contractor shall apply and pay for any necessary sign permits and shall pay for the purchase and installation of the sign. An allowance of two thousand dollars (\$2,000) shall be included in the bid breakdown under SITEWORK. Owner will provide contractor with Primrose approved artwork to give to LOCAL sign vendor. If code requires artwork to change then Primrose will assist owner and contractor in obtaining code required artwork. Contractor
- shall submit final artwork to Owner and Primrose for approval. 2. Standard Monument Sign: Contractor will be responsible for providing sign and lights for proposed sign location (coordinate location with sign company). Contractor shall apply for and pay for any necessary sign permit from local jurisdiction authority, as required. Contractor responsible for base construction, permitting, sign purchase and installation.
- 3. Building Signs: Round logo sign shall be Contractor furnished and installed from the supplier designated by Primrose. Contractor shall be responsible, as of paragraph two (2) per this section, for obtaining any permit, as required. Contractor shall provide any wood trim required.

4. Interior Door Signs: As indicated on drawings and room signage will be

Provide all traffic control devices required by fire authorities and ADA. 5. The required Primrose sign vendor is listed below. See A2.0 & AS1.3 for additional information. Michael Martin - One Hour Signs Inc. 4011 Canton Rd. Marietta, GA 30066

michael@onehoursigns.com

770-591-1111 X4

### **SECTION 10520 - FIRE EXTINGUISHERS**

- 1. Standard Fire Extinguishers: Multi-Purpose dry chemical, 5 pound multi purpose dry chemical 2-A, 10-BC, complete with wall mounting brackets by the Ansul Company or equal.
- 1) S-W ProMar 200 Zero VOC Latex Primer, B28W2600, at 4.0 2. Mounting height to be 48" MAX A.F.F. to highest operable part. Number and location as noted on the Plans, Contractor to coordinate number and locations with local Fire Authority. 3. In corridor furnish semi-recessed fire extinguisher cabinet mounted 48" MAX
  - A.F.F. to highest operable part. Location as noted on the plans. Cabinet shall be Larsen Model #AL2409-R3 with clear tempered safety glass, or approved equal. Install per manufacturer's instructions. 4. Kitchen Fire Extinguisher: To be type "K", twenty (20) pounds, by Ansul

Company or equal. Coordinate size and location with local Fire Authority.

5. Provide knox-box key holder at Door #1 in accordance with fire authorities

6. Provide adequate blocking in walls to mount extinguishers.

### **SECTION 10800 - TOILET AND BATH ACCESSORIES**

1. Blocking: Provide adequate blocking in walls for all grab bars and other items, PART 2 - PRODUCTS Mirrors: Twenty-four (24) inches wide by thirty-six (36) inches high located at each wall hung lavatory. Mirror shall have stainless steel channel frame of

not less than 20-gauge, with square corners carefully mitered to hairline

2. Grab Bars: Bobrick B-6806 size and length per plan to be located per plans at

3. Paper Towel Dispensers: As furnished by Owner, G.C. shall install as shown

joints and mechanically interlocked. Provide No. 430 bright polished finish. Mirrors at classroom vanities and **above change tables** are special sizes and shall be safety mirrors cut to size and installed per manufacturer's

accessible toilets. Verify compliance with state and local codes.

on plans and at a minimum at each children's vanity, changing table, one in kitchen, and one at each lavatory inside a toilet room. 4. Toilet Paper Holders: As furnished by Owner, G.C. shall install so that one is

match accessory finish.

PART 3 - EXECUTION 1. Install all accessories neatly and securely. Use concealed fasteners

locations as shown or specified. Exposed mounting devices finish shall

whenever possible. Provide anchors, bolts, and other accessories securely in

accessible from each toilet. Mounting heights as shown on the Architectural

### **DIVISION 11 - EQUIPMENT**

### SECTION 11400 - KITCHEN & LAUNDRY EQUIPMENT

PART 1 - GENERAL 1. Provide and install the equipment listed on sheet A5.2. 2. The preferred supplier (not required) is: Mark Fallon - National Accounts Tundra Specialties

> Direct Ph: (303) 440-4142 x7180 mfallon@etundra.com www.etundra.com Rusty Staggs

E-Mail: rstaggs@boelter.com 1. Install in accordance with manufacturer's instructions. Securely anchor units

Phone: 678-409-4955

- 2. Place freestanding equipment after all finishes are in place. Verify clearances are adequate for proper operation.

to counters or cabinetry with concealed fasteners. Verify clearances are

adequate for proper functioning, and that rough openings are completely

- 3. Verify all power and utility connections and coordinate all trades prior to
- 4. Verify all accessory items have been provided. Remove all packing material and leave units clean, ready to operate.

### **DIVISION 12 - FURNISHINGS**

**SECTION 12510 - WINDOW SHADES** 

- PART 1 GENERAL 1. Provide window shades on all exterior windows. Window shades to be as
- indicated in Interior Finish Legend, or approved equal. 2. Install blinds in accordance with manufacturer's instructions. SWF Contract Shading Systems: Michelle Dye (Territory Sales Manager)
- michelle.dye@SWFcontract.com inpro Architectural Products Kevin Macoubrie (Sales Representative) Office: 800-222-5556 x5290

kmacoubrie@inprocorp.com

Tel: 614-563-2142

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THE EXPRESS WRITTEN CONSENT OF PRIMROSE SCHOOL FRANCHISING CO. IS PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION

3200 WINDY HILL ROAD, SUITE 1200 E

ATLANTA, GEORGIA 30339-5640



Professional of Record:

Suzanne M Hayes

Drawn/Checked

Project Number

For Construction

Bid Date

Permit Date

LICENSE NO: 1301072179 EXP. DATE: 12/19/24 2202640

7/10/23

158' - 4 3/8" FACE OF PLYWOOD TO FACE OF PLYWOOD

### FLOOR PLAN LEGEND

EXTERIOR SHEAR/BEARING WALL (ENTRY TOWER EXTERIOR WALLS): STONE VENEER AND HARDIE BOARD AND BATTEN SIDING ON 2X8 WOOD STUDS @ 16" O.C. WITH EXTERIOR SHEATHING AND 5/8" GYPSUM BOARD UP TO ROOF DECK ON INTERIOR - SEE EXTERIOR ELEVATIONS AND STRUCTURAL DRAWINGS.

EXTERIOR SHEAR/BEARING WALL (MAIN BLDG EXTERIOR WALLS): HARDIE BOARD AND BATTEN SIDING/THIN STONE/THIN BRICK ON 2X6 WOOD STUDS @ 16" O.C. WITH EXTERIOR SHEATHING AND 5/8" GYPSUM BOARD UP TO ROOF DECK ON INTERIOR - SEE EXTERIOR ELEVATIONS AND STRUCTURAL DRAWINGS.

TYPICAL INTERIOR **BEARING** WALL: 2X4 OR 2X6 WOOD STUDS @ 12" O.C. (MAX.) TO BOTTOM OF ROOF TRUSSES. PROVIDE 5/8" GYPSUM BOARD TO 6" ABOVE CEILING BOTH SIDES, PROVIDE GYPSUM BOARD TO BOTTOM OF STRUCTURE AT SOUND WALLS, SEE REFLECTED CEILING PLAN FOR LOCATIONS. - SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

> TYPICAL INTERIOR WALL: 2X4 WOOD STUDS @ 16" O.C. TO BE FRAMED 1" BELOW BOTTOM CHORD OF TRUSS, THEY SHALL BE ATTACHED WITH SIMPSON STC ROOF TRUSS CLIP TO ALLOW FOR VERTICAL MOVEMENT WHEN LOADS ARE APPLIED. SIMPSON STRONG-TIE SHALL BE PLACED EVERY 48" O.C.. WALL IS TO HAVE 5/8" GYPSUM BOARD TO 6" ABOVE CEILING BOTH SIDES, PROVIDE GYPSUM BOARD TO BOTTOM OF STRUCTURE AT SOUND WALLS, SEE REFLECTED CEILING PLAN FOR LOCATIONS.

TYPICAL INTERIOR HALF WALL: 2X4 WOOD STUDS @ 16" O.C. WITH 5/8" GYPSUM BOARD ON BOTH SIDES. SEE DETAILS **7 AND 8/A2.4** 

DOOR TAG, SEE DOOR SCHEDULE.

WINDOW TAG, SEE WINDOW LEGEND.

### 1. NOMINAL DIMENSIONS ARE TO FACE OF STUD.

2. PROVIDE DOUBLE 2X4 WOOD STUD WALLS BEHIND ALL TOILETS, AT ELECTRICAL PANELS AND WALL BETWEEN LAUNDRY AND KITCHEN.

### FLOOR PLAN KEYED NOTES

- 1 PROVIDE A KNOX BOX NEAR THE FRONT ENTERNCE FOR FIRE DEPT. ACCESS. COORDINATE WITH LOCAL FIRE OFFICIAL.
- 2 2 X 6 STUD WALL
- 3 HALF HEIGHT GATE, PART OF MILLWORK PACKAGE. SEE DETAIL 7/A2.4
- 4 PROVIDE TACTILE EXIT SIGN AT LATCH SIDE OF EXIT DOOR 5 FLOOR DRAIN, SEE PLUMBING
- 6 GREASE TRAP, SEE PLUMBING
- 7 DOWNSPOUT. SEE EXTERIOR ELEVATIONS FOR EXACT LOCATION. COORDINATE WITH CIVIL DRAWINGS FOR UNDERGROUND PIPING CONNECTIONS (TYP.)
- 8 HOSE BIBB. SEE PLUMBING DRAWINGS. COORDINATE WITH INTERIOR
- 9 PROVIDE AN ADDITIONAL 2 X 4 STUD WALL AT INTERIOR SIDE OF THE EXTERIOR WALL. BOTH STUD SPACES ARE TO BE FULLY INSULATED. PIPING SHOULD ONLY BE PLACED IN THE INSULATED INTERIOR WALL.
- 10 ROOF ACCESS LADDER. CENTER LADDER ON ROOF HATCH ABOVE. SEE DETAIL 1/A2.4
- 11 LOCATION OF GAS METER, SEE MECHANICAL AND PLUMBING DRAWINGS 12 4'-0" HIGH SOLID VINYL FENCE WITH (2) 3'-0" WIDE GATES
- 13 PROVIDE A ROUGH OPENING OF 40 1/2" WIDE x 86 1/4" TALL AT EXTERIOR
- DOOR OPENINGS FOR METAL DOOR FRAMES. VERIFY WITH DOOR CONTRACTOR FOR REQUIRED FRAME OPENING
- 14 AT INTERIOR BEARING WALLS OF TOWER, AND CONFERENCE ROOM WALLS (WHERE NOTED), PROVIDE GYPSUM BOARD UP TO ROOF DECK ON (1) SIDE OF WALL. SEE SECTIONS FOR ADDITIONAL INFORMATION.

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3200 WINDY HILL ROAD, SUITE 1200 E

ATLANTA, GEORGIA 30339-5640

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# GENERAL FLOOR PLAN NOTES

- 1. ALL INTERIOR DIMENSIONS ARE TO FACE OF STUDS, UNLESS NOTED OTHERWISE.
- 2. ALL EXTERIOR DIMENSIONS ARE TO THE FACE OF STUD OR ROUGH OPENING, UNLESS NOTED OTHERWISE.
- 3. PROVIDE BLOCKING IN WALL BEHIND ALL WALL MOUNTED FIXTURES & CASEWORK (TYPICAL).
- 4. CONTROLS AND OPERATING MECHANISMS:
- CONTROLS SPECIFICALLY INTENDED FOR ADULTS SUCH AS INTERCOMS, THERMOSTATS, ETC, SHALL BE MOUNTED AT 48" A.F.F. TO THE OPERATING PARTS. CONTROLS SUCH AS LIGHT SWITCHES, ALARM CONTROLS, SHALL BE MOUNTED AT 48" A.F.F. TO THE OPERATING PARTS. VERIFY WITH OWNER BEFORE INSTALLING CONTROLS.
- 5. SECURITY SYSTEM NOTES: A. THIS IS A REQUIRED SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR HIRING A LICENSED SECURITY FIRM FOR THEIR SCHOOL.
- B. SECURITY SYSTEM SUBCONTRACTOR TO SEAL ALL WIRING PENETRATIONS FOR SECURITY SYSTEM AT POINTS OF CONTACT. 6. BUILDING ADDRESS MUST BE VISIBLE FROM THE STREET. NUMBER HEIGHT A MINIMUM OF 6" FOR UP TO 50' DISTANCE, THEN LETTERS SHALL BE AN
- ADDITIONAL 1" TALLER PER EACH ADDITIONAL 10'-0" OF DISTANCE. 7. THERE ARE NO RECEPTACLES IN ANY OF THE TOILET ROOMS.
- 8. HOLD DOORS 4" FROM WALLS UNLESS NOTED OTHERWISE 9. G.C. SHALL CONFIRM EXACT QUANTITY & LOCATION OF SOAP AND PAPER TOWEL DISPENSERS WITH FRANCHISE OWNER PRIOR TO ORDERING.
- 10. ALL PARTITIONS EXTEND TO UNDERSIDE OF ROOF TRUSSES, UNLESS NOTED OTHERWISE, REFER TO BUILDING SECTIONS FOR ADDITIONAL INFORMATION. 11. REFER TO REFLECTED CEILING PLAN FOR LOCATION OF SOUND BATTS.
- 12. ALL DOWNSPOUTS ARE TO BE ROUTED TO UNDERGROUND STORM DRAIN
- 13. ALL INTERIOR WALLS ARE 2X4s WITH 5/8" GYPSUM BOARD EACH SIDE, UNLESS NOTED OTHERWISE.
- 14. MOISTURE RESISTANT GYPSUM BOARD REQUIRED IN TOILET ROOMS, KITCHEN, AT WATER COOLERS AND LAUNDRY ROOM. 15. JOINT ALONG PERIMETER OF BUILDING AT ADJOINING FLATWORK SHALL BE
- SEALED. 16. MINIMUM R-VALUES: EXTERIOR WALLS = R-21 KRAFT FACED

ROOF = R-38 (SEE SPECIFICATIONS) 1



Suzanne M Hayes

LICENSE NO: 1301072179

EXP. DATE: 12/19/24

Drawn/Checked 2202640 Project Number Bid Date 7/10/23 Permit Date --/--/--For Construction

FLOOR PLAN

CASEWORK PLAN A1.2 SCALE: 1/8" = 1'-0"

### ACCESSORY GENERAL NOTES

- 1. THE GENERAL CONTRACTOR SHALL FASTEN ALL ITEMS WITH APPROVED FASTENERS, ETC. AND MISC. ITEMS WHICH THE OWER NEEDS TO HAVE PERMANENTLY ATTACHED TO WALLS OR FLAT SURFACES.
- 2. CONTRACTOR SHALL COORDINATE ALL TRADES TO ENSURE THERE ARE NO OUTLETS, INTERCOMS, SWITCHES, THERMOSTATS, ETC. LOCATED BEHIND AND BULLETIN BOARD LOCATIONS.
- 3. REFER TO ENLARGED TOILET ROOM PLANS AND TOILET ROOM ELEVATIONS FOR TOILET ROOM ACCESSORIES.
- 4. SEE INTERIOR ELEVATIONS AND FFE PLAN FOR ANY ADDITIONAL CASEWORK OR EQUIPMENT NOT SHOWN OR NOTED ON THIS PLAN.
- 5. REFER TO FFE PLAN FOR INSTALLATION REQUIREMENTS.

### CABINETRY NOTES

- 1. ALL BASE CABINET PARTS, DRAWER FRONTS AND DOORS SHALL BE FABRICATED FROM 3/4" PARTICLE BOARD W/PLASTIC LAMINATE FINISH. CABINET BACK PANEL SHALL BE 1/4" HARDBOARD W/ PLASTIC LAM. FINISH AND 1X4 WOOD BLOCKING CONT. SEE CABINETRY SPEC. AND DETAILS FOR CONSTRUCTION.
- 2. ALL WALL MOUNTED CABINET PARTS AND DOORS SHALL BE FABRICATED FROM 3/4" PARTICLE BOARD W/PLASTIC LAMINATE FINISH. CABINET BACK PANEL SHALL BE 3/8" PLYWOOD W/ PLASTIC LAM. FINISH AND 1X4 WOOD BLOCKING CONT. SEE CABINETRY SPEC. AND DETAILS FOR CONSTRUCTION.
- 3. ALL CABINET DOORS AND DRAWERS IN CLASSROOMS TO HAVE CHILD RESISTANT KEY TYPE LATCHING DEVICES. USE METAL DRAWER SIDES WITH POWDER-COATED EPOXY FINISH INSTEAD OF PLYWOOD BOXES U.N.O. 4. ALL COUNTERTOPS TO HAVE 1 1/2" MIN. RADIUS ROUNDED CORNERS. ALL
- SHARP CORNERS SHALL BE CHAMFERED OR ROUNDED OVER. 5. ALL CASEWORK TO HAVE GAPS AND VOIDS FILLED WITH APPROPRIATE
- CAULK SEALANT, APPLIED PER MFG. SPECS. SILICONE SEAL ALL JUNCTURES BETWEEN PLASTIC LAMINATE TOPS, BACKSPLASHES, AND WALLS. 6. PULLS SHALL BE CHROME BOW.
- 7. ALL FOOD STORAGE SHELVES SHALL HAVE A SMOOTH, CLEANABLE AND
- DURABLE FINISH AT ALL SIDES OF SHELVES. NO EXPOSED RAW WOOD
- 8. USE PVC FOR ALL CABINET EDGE BANDING.
- 9. USE MELAMINE ON VERTICAL SURFACES.
- 10. ALL CABINET INTERIORS TO BE WHITE MELAMINE. 11. BLOCKING: G.C. TO PROVIDE ADEQUATE WOOD BLOCKING IN WALLS FOR ALL CABINETS, SHELVES AND ANY OTHER WALL MOUNTED ITEM, AS
- REQUIRED. 12. SEE **A2.2** FOR PLASTIC LAMINATE COLORS.
- 13. CASEWORK SHALL BE KEYED AS FOLLOWS:
- 1. OFFICE AND CHECKS
- 2. RECEPTION,-KITCHEN 3. CLASSROOMS

### CASEWORK SCHEDULE

TYPE MARK	ITEM (REFER TO FFE SCHEDULE ON SHEET ID1.0 FOR "F" TAGGED ITEMS)	OWNER FURNISHED	OWNER INSTALLED	CONTRACTOR FURNI	
C01	CUBBIES, SEE ELEVATIONS FOR QUANTITY			0	Ľ
C02	CUBBIES ABOVE CHANGE TABLE			0	Ľ,
C03	16" DEEP X 3'-6"W X 3'-6"H SURFACED MOUNTED			0	Ľ
C04	16" DEEP x 3'-0"W x 3'-6"H CORNER CABINET			0	Ľ
C05	16" DEEP X 1'-6"W X 3'-6"H SURFACE MOUNTED			0	Ľ'
C06	16" DEEP X 1'-3"W X 3'-6"T SURFACE MOUNTED			0	_
C07	12" DEEP X 2'-0"W X 2'-0"T WALL CABINET			0	Ľ
C08	12" DEEP X 2'-6"W X 3'-3"T WALL CABINET			0	Ľ
C09	12" DEEP X 3'-0"W X 3'-0"T WALL CABINET			0	Ľ
C10	RECEPTION DESK CABINETS			0	_
C11	30" X 40" CURRICULUM CABINET			0	
C12	16" DEEP X 4' LONG WALL CABINET			0	
C13	CAR SEAT STORAGE SHELVING			0	,
C14	24"D x 36"L ADJ. WD SHELVES W/ 1'-6" L STANDARDS			0	,
C15	18"DEEP ADJUSTABLE WOOD SHELVES, SEE ELEVATIONS			0	
C16	12" DEEP X 3'-0"W X 3'-0"T SURFACE MOUNTED			0	
C17	8" DEEP X 2'-6"W X 3'-0" SEMI - RECESSED			0	
C18	STORAGE ROOM SHELVING			0	
C19	PAPER ROLL HOLDER			0	
C20	12" DEEP X 2'-6" LONG WOOD SHELF			0	
C21	8" DEEP X 2'-6"W X 3'-0" SURFACE MOUNTED			0	
C22	2'-0"H X 1'-4"W X 6"D DISINFECTANT CABINETS			0	
C23	KITCHENETTE BASE CABINETS			0	
C24	BABY CHANGING TABLE (SNEEZE GAURDS ONLY OCCUR AT POTTY PODS OR AT CHANGING TABLES THAT ARE NOT AGAINST A WALL)			0	
C25	"PUT DOWN" COUNTER			0	L
C26	MOBILE INFANT PARTITION, SEE DETAIL 9/A2.4			0	L
C27	LOCKERS, SEE ELEVATIONS			0	Ĺ
C28	SINGLE LAVATORY			0	
C29	DOUBLE LAVATORY			0	
C30	RECESSED BROOM CLOSET, SEE DETAIL 19/A2.3. (OPTIONAL - CHECK WITH OWNER PRIOR TO ORDERING)			0	,
C31	LAUNDRY ROOM STORAGE SHELVING			0	L
		1	1	1 7	

C32 16" DEEP X 3'-0"W X 3'-6"H SURFACED MOUNTED



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THE EXPRESS WRITTEN CONSENT OF PRIMROSE SCHOOL FRANCHISING CO. IS PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.

Professional of Record: Suzanne M Hayes LICENSE NO: 1301072179 EXP. DATE: 12/19/24

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CASEWORK PLAN

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ROOF PLAN



7. SEE MECHANICAL/PLUMBING DRAWINGS FOR ADDITIONAL NOTES, DETAILS,

ACCEPTANCE OF PRE-FABRICATED CURBS AND PENETRATIONS WITH ROOF MEMBRANE SUB-COTNRACTOR. GENERAL CONTRACTOR TO PROVIDE BLOCKING, NAILING, ETC. AS NECESSARY FOR A WATERTIGHT AND

9. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO VERIFY, COORDINATE, AND/OR INSTALL ALL ADJACENT AND/OR RELATED FLASHING, BLOCKING, NAILERS, INSULATION STOPS, CRICKETS, ETC. NECESSARY FOR THE COMPLETE INSTALLATION OF THE ROOF MEMBRANE WHICH ARE REQUIRED FOR A COMPLETE WARRANTED, WATERTIGHT, AND WATERPROOF INSTALLATION.

BLOCKING AT INSULATION AROUND ENTIRE PERIMETER OF OPENING FOR FLASHING ATTACHMENT IN ACCORDANCE W/ SELECTED ROOF TYPE.

10. ALL ROOF PENETRATIONS REQUIRE PRESSURE TRATED 2 X 6 WOOD

OWNER'S PREPRESENTATIVE PRIOR TO PAINTING.

11. GAS PIPING ON ROOF TO BE PAINTED: YELLOW, UNLESS PROHIBITED BY SPECIFIC JOB CONDITIONS. IF THIS OCCURS, VERIFY PAINT COLOR W/

12. DO NOT ATTACH 4 X 4 WOOD SLEEPERS TO DECK FOR SUPPORT OF GAS PIPING. PROVIDE MEMBRANE-ROOFING PADS BELOW SLEEPERS.

ROOF PLAN KEYED NOTES

1 3'-0" PVC WALK PAD AT RTU OR ROOF HATCH AS REQUIRED BY

6 ALUMINUM GUTTER. SEE EXTERIOR ELEVATIONS FOR COLOR.

10 BUILT-UP TAPERED RIGID INSULATION CRICKET, TYPICAL.

11 AT DOWNSPOUT, PROVIDE 24" X 24" WALK PAD AS SPLASH BLOCK

12 BUILT-UP TAPERED RIGID INSULATION CRICKET. HOLD 4" (MAX) ABOVE

14 WATER HEATER CONCENTRIC VENT. REFER TO PLUMBING DRAWINGS.

16 RTU SCREENED ON 3 SIDES AS SHOWN, FIELD PAINT TO MATCH SIDING

CURB. SEE MECHANICAL DRAWINGS FOR MORE INFORMATION.

COLOR "ARCTIC WHITE". PROVIDED BY CAPTIVE AIRE. BOLTED TO RTU

-(2) SEALANT BEADS ON EACH SIDE OF

-20 GA.PAINT GRADE GALV. METAL COPING CAP, SEE ELEV. FOR

-DOUBLE WALL TYPE B

FLUE STACK THRU ROOF

LAP JOINT

7 EXHAUST FAN. REFER TO MECHANICAL DRAWINGS. 8 PLUMBING VENT. REFER TO PLUMBING DRAWINGS. 9 DRYER VENT. REFER TO MECHANICAL DRAWINGS.

2 STANDING SEAM METAL ROOF. REFER TO EXTERIOR ELEVATIONS FOR

3 METAL AWNING BELOW. REFER TO EXTERIOR ELEVATIONS FOR COLOR. 4 METAL PARAPET COPING. SEE EXTERIOR ELEVATIONS FOR COLOR.

5 METAL SCUPPER BOX AND DOWNSPOUT. REFER TO EXTERIOR ELEVATIONS

8. MECHANICAL SUB-CONSTRACTOR TO COORDINATE INSTALLATION AND

VENTS, ETC.

WATERPROOF BUILDING.

MANUFACTURER.

AND SECTIONS.

PRIMARY DRAIN ELEVATION.

15 30" x 36" ROOF HATCH, SEE 3/A1.3

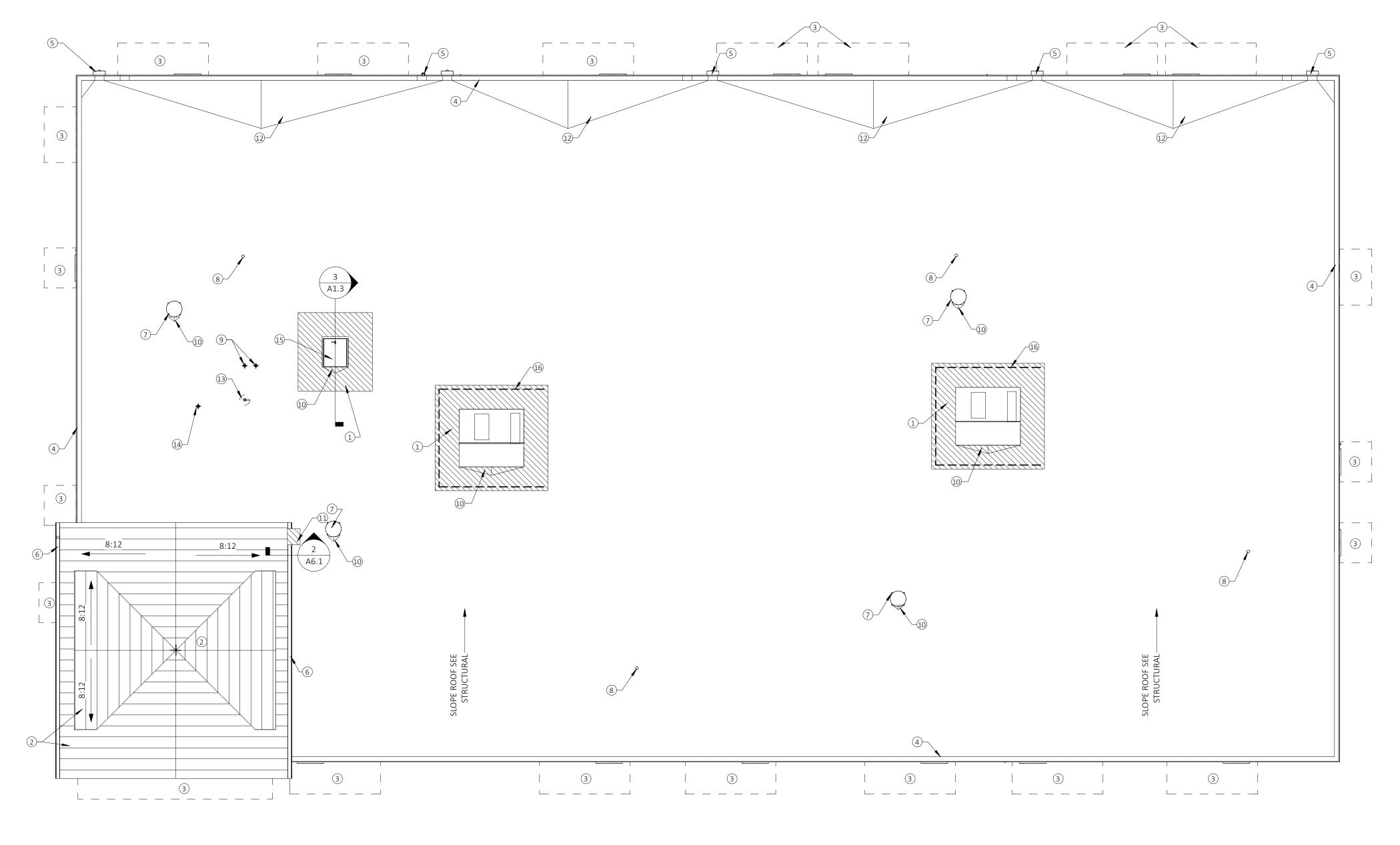
TYP. COPING LAP JOINT

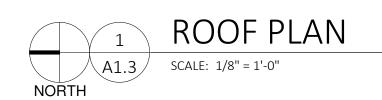
SCALE: 1 1/2" = 1'-0"

LAP JOINT IN COPING CAP, FINISH WITH BEAD OF SEALANT-

CONCEALED LAP PLATE, SET IN A FULL BED OF MASTIC @ EA. JOINT-

13 HOSE BIBB. REFER TO PLUMBING DRAWINGS.

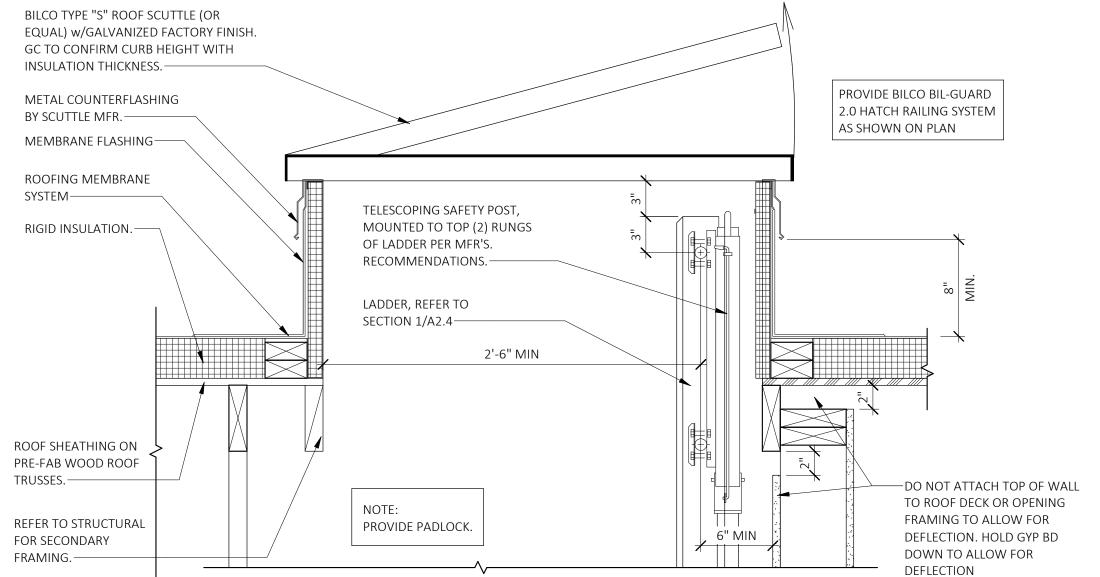




**PVC MEMBRANE** 

BOOT—

SEALANT-



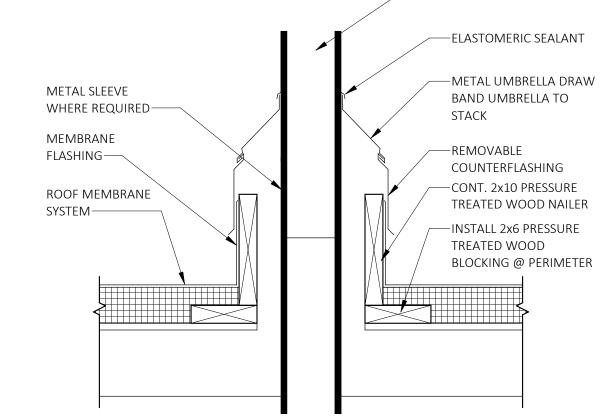
DETAIL @ ROOF HATCH

A1.3 SCALE: 1 1/2" = 1'-0"

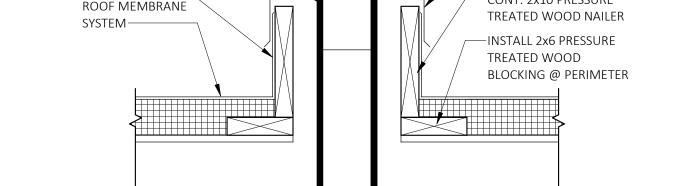
TOP OF CURB TO BE LEVEL CONT. GALV. MTL. COUNTERFLASHING-RIGID INSULATION -—MTL. TERM. BAR ANCHORED MEMBRANE FLASHING — TO CURB W/ 1/4" PANHEAD SCREWS W/ GROMMET ROOF MEMBRANE WASHERS @ 12 O.C.











SEALANT BEAD-

SEE STRUCTURAL FOR FRAMING AT OPENING.-

A1.3 SCALE: 1 1/2" = 1'-0"

-METAL SLEEVE WHERE REQUIRED

-PIPE PENETRATION

OR ELEC. DWGS

-S.S. DRAWBAND

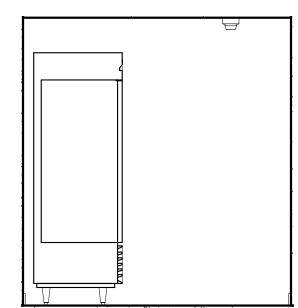
REFER TO MECH. PLUMB.

-MEMBRANE FLASHING

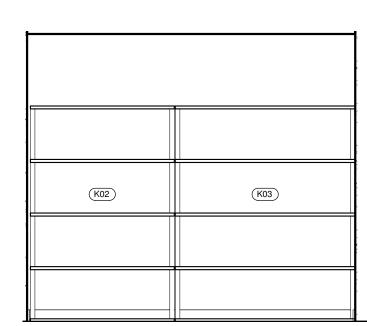
ROOF MEMBRANE

SYSTEM—

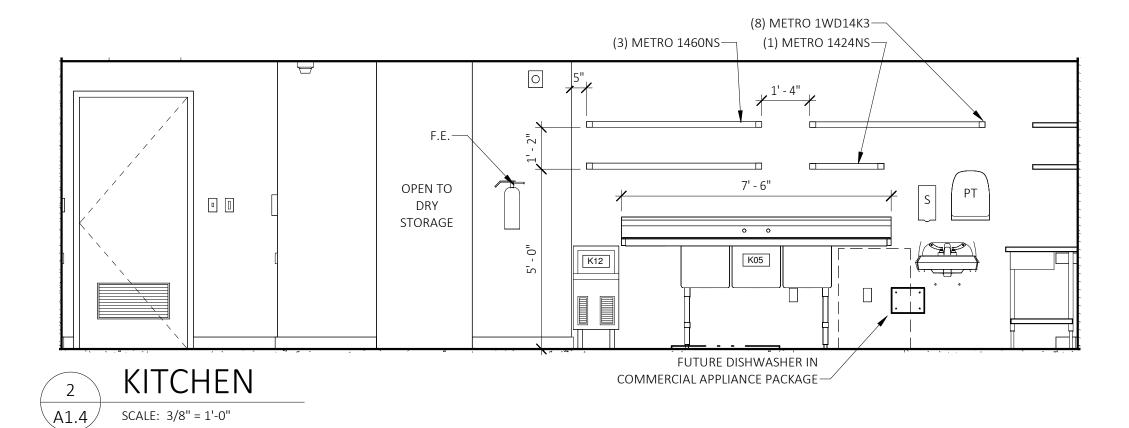


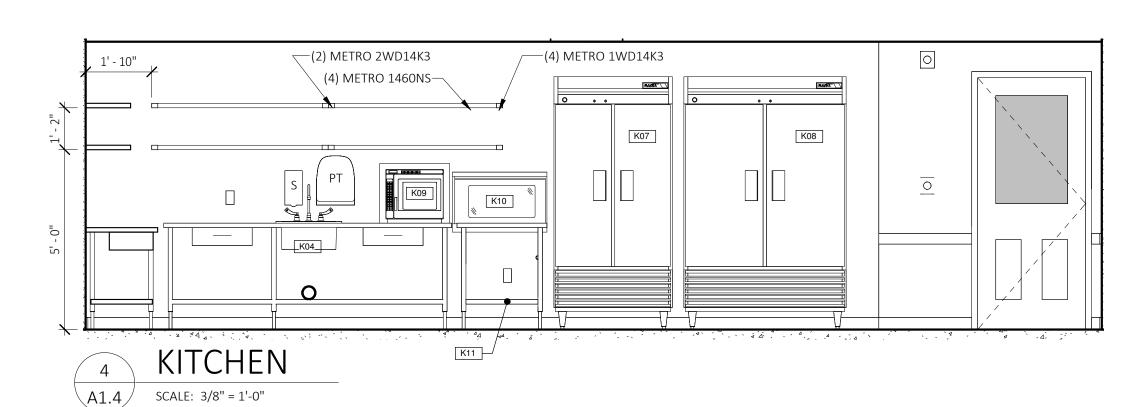












PROVIDE WALL BLOCKING FOR ALL WALL HUNG SHELVING & EQUIPMENT. METRO IS BASIS OF DESIGN. EQUAL NSF PRODUCTS ACCEPTABLE.

# **CONTRACTOR PURCHASED AND INSTALLED ITEMS**

### RESIDENTIAL APPLIANCE PACKAGE

PREFERRED VENDORS: TUNDRA SPECIALTIES OR BOELTER, REFER TO SPECIFICATIONS FOR CONTACT INFORMATION

ESTIMATED QUANTITY ITEM # FRONT LOAD WASHER SEE NOTE 3 SEE NOTE 4 FRONT LOAD DRYER

JES1460DSWW G.E. - MICROWAVE 1.4 CU. FT. - 1100 WATTS FFAR23L

SUMMIT - 1.7 CU. FT. SMALL REFRIG. FOR MEDICINE STORAGE (OR EQUAL) SEE PLAN FF6WB17ADA SUMMIT - REFRIGERATOR IN CLASSROOMS A1 & A2

1. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE SPACE REQUIREMENTS OF ANY EQUIPMENT SUBSTITUTION.

. PROVIDE CUT SHEETS OF ANY EQUIPMENT SUBSTITUTION FOR ARCHITECT'S APPROVAL.

3. WASHER - 4.3 CU.FT. CAPACITY STAINLESS STEEL FRONT LOAD WASHER 120V APPROX. 12A. SIZE APPROX. 27"W X 33"D X 40"T. NO PEDESTAL. ENERGY STAR APPROVAL RECOMMENDED. COLOR TO BE SELECTED BY FRANCHISE OWNER.

DRYER - 7.5 CU.FT. CAPACITY STAINLESS STEEL FRONT LOAD ELECTRIC DRYER, WITH 30AMP CIRCUIT BREAKER, APPROX. 5.6KW (24A) @ 240V OR 4.4 KW

(22A) @ 208V. PROVIDE BRACKETS FOR STACKING OVER WASHER. SIZE APPROX. 27"W X 33"D X 40"T. DRYER SHALL BE EXHAUSTED TO THE OUTSIDE. ENERGY STAR APPROVAL RECOMMENDED. COLOR TO BE SELECTED BY FRANCHISE OWNER.

5. PROVIDE AN ALLOWANCE OF \$5,000 FOR THE WASHERS, DRYERS, AND STACKING KITS

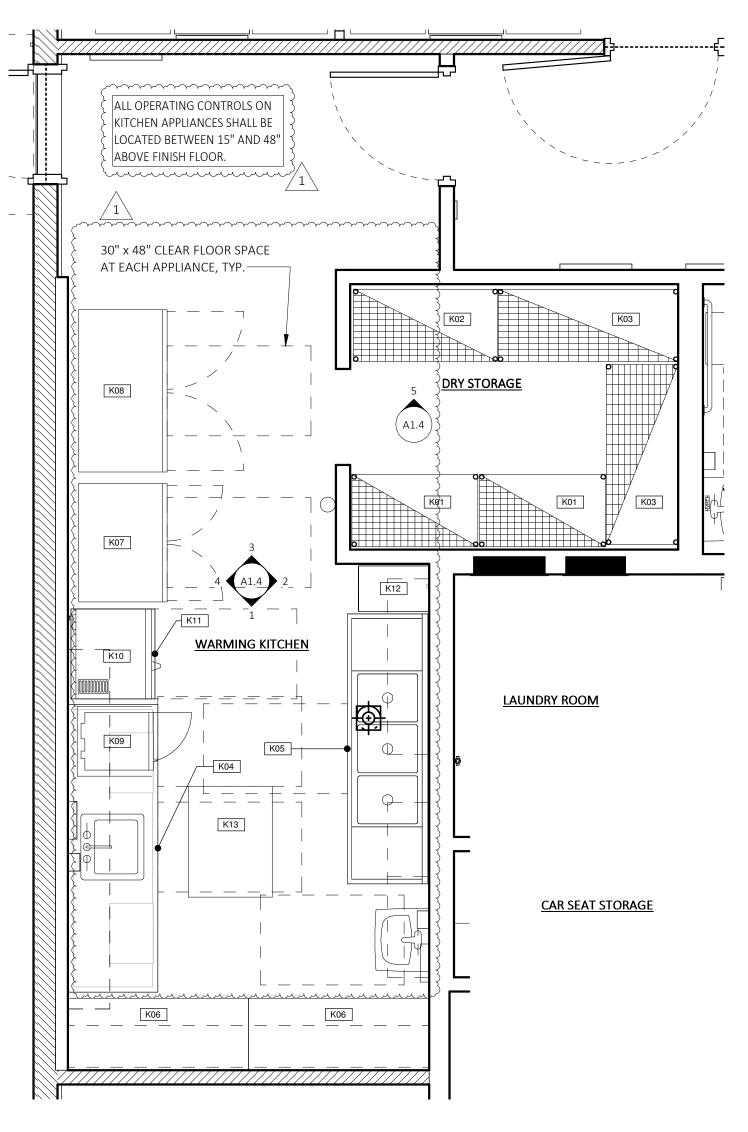
### CONANAEDCIAL ADDILANICE DACKACE

QUANTITY	<u>MANUFACTURER</u>	ITEM #	DESCRIPTION
1	TRUE or TURBO-AIR	T-35 / TSR-35SD-N	REFRIGERATOR
1	TRUE or TURBO-AIR	T-49 / TSF-49SD-N	FREEZER
1	SCOTSMAN	CU0515GA-1	SELF-CONTAINED ICE MACHINE
1	AMANA	RC30S2	COMMERCIAL MICROWAVE/ STEAMER
1	CADCO	XAF-193	COMMERCIAL CONVECTION OVEN
1	CADCO	OST-195-C	STAND AND CORD
1	CMA DISHMACHINES	UC50e	HIGH TEMP UNDERCOUNTER DISHWASHER AND GLASSWASHER

1. CONTRACTOR IS RESPONSIBLE TO VERIFY SPACE REQUIREMENT FOR ANY EQUIPMENT SUBSTITUTION.

2. PROVIDE CUT SHEETS OF ANY EQUIPMENT SUBSTITUTION FOR ARCHITECT'S APPROVAL.

3. SEE INTERIOR KITCHEN ELEVATIONS FOR SHELVING SPECIFICATIONS. METRO SHELVING IS BASE BID, BUT ALTERNATES WILL BE ACCEPTED.



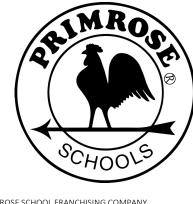
WARMING KITCHEN FLOOR PLAN

NOTE: KITCHEN TABLES AND SHELVING ARE SHOWN FOR LOCATION ONLY. ACTUAL SIZES AND TYPES OF EQUIPMENT REQUIRED MAY VARY BASED ON FIELD CONDITIONS. ADDITIONAL CHANGES TO KITCHEN LAYOUT MAY OCCUR.

SEE RESIDENTIAL AND COMMERCIAL APPLIANCE PACKAGE ON THIS SHEET FOR SPECIFIC MODEL NUMBERS AND ADDITIONAL INFORMATION THAT IS NOT SHOWN BELOW.

MARK	SPECIFICATION
K01	WIRE SHELVING,
	CENTAUR MODEL NO. C2442K OR EQUAL (10 TOTAL)
	42"W X 24"D, GREEN EPOXY, NSF
	STATIONARY POST - CENTAUR C86K (8 TOTAL)
	86-5/8"H, WITH LEVELING BOLT & CAP, GREEN EPOXY
K02	WIRE SHELVING,
	CENTAUR MODEL NO. C2448K OR EQUAL (5 TOTAL)
	48"W X 24"D, GREEN EPOXY, NSF
	STATIONARY POST - CENTAUR C86K (4 TOTAL) 86-5/8"H, WITH LEVELING BOLT & CAP, GREEN EPOXY
K03	WIRE SHELVING,
NU3	CENTAUR MODEL NO. C2460K OR EQUAL (10 TOTAL)
	60"W X 24"D, GREEN EPOXY, NSF
	STATIONARY POST - CENTAUR C86K (8 TOTAL)
	86-5/8"H, WITH LEVELING BOLT & CAP, GREEN EPOXY
K04	WORK TABLE, STAINLESS STEEL TOP
	ADVANCE TABCO MODEL NO. FMS-308
	WORK TABLE, 96"W X 30"D, 16 GAUGE 304 STAINLESS STEEL TOP WITH 1-1/2"
	REAR UPTURN, ADJUSTABLE 18 GAUGE STAINLESS STEEL UNDERSHELF, STAINLESS
	STEEL LEGS & AJDUSTABLE BULLET FEET, NSF
	(2) SS - 2020 DELUXE DRAWERS, 20" x 20" x 5" DEEP DRAWER PAN INSERT,
	STAINLESSSTEEL, WITH DRAWER SLIDES (1 ON EACH SIDE OF SINK).
	   WELD IN SINK
	TA-11C SINK WELDED INTO TABLE TOP, 20"W x 20"D x 8" DEEP BOWL,
	INCLUDES FAUCET (MUST SPECIFY SINK LOCATION)
	K-316-LUHA WRIST HANDLES ONLY, FOR SPLASH OR DESK MOUNT HAND SINK
	FAUCET (1 PAIR HOT & COLD 4" LONG BLADES), FITS FAUCETS SUPPLIED WITH
	HOT & COLD COLOR RINGS THAT DO NOT HAVE EXPOSED SCREW HEAD
	K-5 DRAIN, TWIST OPERATED, 2" NPT & 1-1/2" IPS OUTLET CONNECTIONS
	K-4 SUPPORT BRACKET, FOR LEVER WASTE DRAIN HANDLE, (1) SUPPORT REQUIRED
	FOR EACH LEVER DRAIN
K05	90" x 30" STAINLESS STEEL 3 COMP SINK. (SEE PLUMBING FOR SPECS)
K06	WORK TABLE, 60"W X 24"D
	16 GAUGE 304 STAINLESSSTEEL TOP WITH 5"H BACKSPLASH, 18 GAUGE STAINLESS STEEL ADJUSTABLE UNDERSHELF, STAINLE STEEL LEGS & ADJUSTABLE BULLET FEET, NSF
	STEEL LEGS & ADJUSTABLE BULLET FEET, NSF
	SS - 2020 DELUXE DRAWER, 20"W X20"D X 5" DEEP DRAWER PAN INSERT, STAILESS STEEL, WITH DRAWER SLIDES (SEE
	ELEVATIONS FOR DRAWER LOCATIONS)
K07	WARMING KITCHEN REFRIGERATOR
K08	WARMING KITCHEN FREEZER
K09	COMMERCIAL MICROWAVE
K10	CONVECTION OVEN
K11	COMMERICAL CONVECTION OVEN STAND OST - 195 - C
K12	ICE MACHINE





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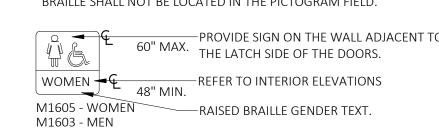
WARMING KITCHEN PLAN & ELEVATIONS

2. LETTERS & NUMERALS SHALL BE RAISED 1/32", UPPER CASE "SANS SERIF OR

SIMPLE SERIF" TYPE, ACCOMPANIED WITH GRADE 2 BRAILLE. RAISED CHARACTERS SHALL BE AT LEAST 5/8" HIGH, BUT NO HIGHER THAN 2". 3. THE SIGNAGE PACKET PURCHASED THROUGH AN APPROVED VENDOR SHALL COMPLY WITH THE SIGNAGE SECTION OF THE LOCAL ACCESSIBILITY CODE.

4. SIGNAGE CONTAINING TACTILE CHARACTERS SHOULD BE MOUNTED AT THE STRIKE SIDE OF THE DOOR & SHOULD BE LOCATED SO THAT A CLEAR FLOOR SPACE OF 18" MIN. BY 18" MIN., CENTERED ON THE TACTILE CHARACTERS, IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING BETWEEN THE CLOSED POSITION & 45 DEGREE OPEN POSITION. 5. THE PICTOGRAM FIELD MUST HAVE A HEIGHT OF 6" MIN. CHARACTER &

BRAILLE SHALL NOT BE LOCATED IN THE PICTOGRAM FIELD.



60" MAX. DOOR. -PROVIDE SIGN ADJACENT TO EXTERIOR ENTRY

2. HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES. 3. RECESSED CABINETS SHALL NOT PROTRUDE MORE THAN 4" FROM FACE OF DRYWALL

OTHERWISE.

# ACCESSIBILITY NOTES

1. THE SEAT HEIGHT OF THE WATER CLOSET SHALL BE 17" TO 19" FOR ADULTS. 2. FLUSH CONTROLS SHALL BE MOUNTED FOR USE ON THE OPEN SIDE OF THE

TOILET ROOM GENERAL NOTES

1. ALL INTERIOR DIMENSIONS ARE TO FACE OF GYPSUM BOARD UNLESS NOTED

3. GRAB BARS SHALL BE MOUNTED AS SHOWN IN PLAN AND ELEVATIONS.

1. PROVIDE A MIN. CLEARANCE OF 27" A.F.F. TO THE BOTTOM OF THE APRON. THE RIM SHALL BE NO HIGHER THAN 34" MAX. SINK BOWLS SHALL HAVE A MAXIMUM DEPTH OF 6.5"

2. HOT WATER AND DRAIN PIPES UNDER THE LAV SHALL BE INSULATED AND PROTECTED.

3. ALL FAUCETS SHALL BE LEVER TYPE.

4. MIRRORS SHALL BE MOUNTED WITH THE BOTTOM OF THE REFLECTIVE SURFACE NO HIGHER THAN 40", (34" MAX. AT CHILDRENS).

### **GRAB BARS**

3' - 0"

TOILET 17, 18

TOILET ACCESSORIES

Description

NEW SCHOOL ITEM - SOAP DISPENSER - WHITE OR FAUX

NEW SCHOOL ITEM - PAPER TOWEL DISPENSER - WHITE OR

A1.5 SCALE: 3/8" = 1'-0"

TOILET TISSUE DISPENSER

24" GRAB BAR. SEE ELEVATION

42" GRAB BAR. SEE ELEVATION.

36" GRAB BAR. SEE ELEVATION.

24" X 36" RESTROOM MIRROR

STAINLESS

FAUX STAINLESS

Type

Mark

1. COMPLY FOR ALLOWABLE STRESSES IN BENDING, SHEAR AND TENSION SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A VERTICAL OR HORIZONTAL FORCE OF 250 LBS. IS APPLIED AT ANY POINT ON THE GRAB BAR.

NOTE: HANDRAILS SHALL PROVIDE AN EQUIVALENT GRIPPING SURFACE OF A NOMINAL DIAMETER OR WIDTH OF 1 1/4" TO 1 1/2".

### **TOILET PAPER DISPENSERS**

1. INSTALL AS INDICATED ON ELEVATIONS. DISPENSERS THAT CONTROL DELIVERY, OR THAT DO NOT PERMIT CONTINUOUS PAPER FLOW, SHALL NOT

2. INSTALL TOILET PAPER DISPENSER 7"-9" FROM FRONT EDGE OF TOILET TO CENTERLINE OF DISPENSER.

### **CHILDREN'S TOILET ROOM DOORS**

1. MOUNT PULL AT 34" A.F.F. TO THE BOTTOM OF PULL.

**NOTE TO GENERAL CONTRACTOR:** A COPY OF THIS SHEET SHALL BE FURNISHED TO THE PLUMBING CONTRACTOR.

### MOUNTING HEIGHTS

CHILDREN'S DIMENSIONS (1.5" Ø GRAB BARS ASSUMED )

-	TOILET TYPE	SIDE BAR HEIGHT	TOILET TANK HEIGHT	REAR BAR HEIGHT	DISPENSER OUTLET HEIGHT
J	JUNIOR (JR)	18" - 20" TOP	26"	27.5" BOT	14"
	STANDARD (STD)	20" - 25" TOP	29"	30.5" BOT	14" - 17"
	ADA (HC)	33" - 36" TOP	30.25"	33" - 36" TOP	15" - 48" TOP

### TOILET SIZES

JUNIOR SIZE TOILETS: TOILET ROOMS 2, 3, 10, 13, 15, 16, 17, 18 **STANDARD** SIZE TOILETS: TOILET ROOMS 4, 5, 6, 7, 8, 9, 11, 12

ADA SIZE TOILETS: TOILET ROOMS 1, 14

0 0

0 0

G.C. SHALL CONFIRM EXACT QUANTITY & LOCATION OF SOAP AND PAPER TOWEL DISPENSERS WITH FRANCHISE OWNER PRIOR TO ORDERING.

# ACCESSIBILITY SIGNAGE DETAILS

1. THE CHARACTERS AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUND. THE SIGNAGE SHALL CONSIST OF BLACK LETTERS AND CHARACTERS ON A WHITE BACKGROUND. THE SIGN SHALL HAVE A NON-GLARE FINISH.

DIVAI	LLL SITALL I	VOT DE LOC	CATED IN THE FICTOGRAM FIELD.
		60" MAX.	-PROVIDE SIGN ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOORS.
WON	MEN - E	48" MIN.	-REFER TO INTERIOR ELEVATIONS
	5 - WOMEN 3 - MEN		-RAISED BRAILLE GENDER TEXT.

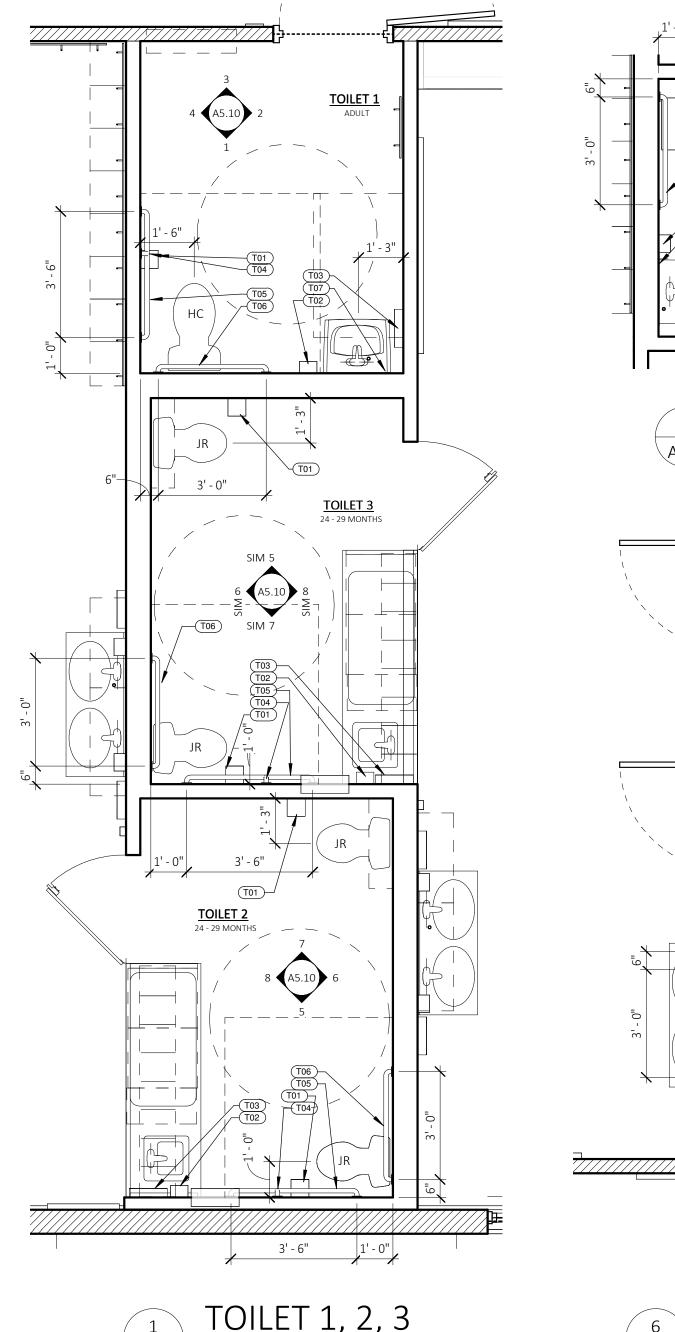
RAISED BRAILLE TEXT.



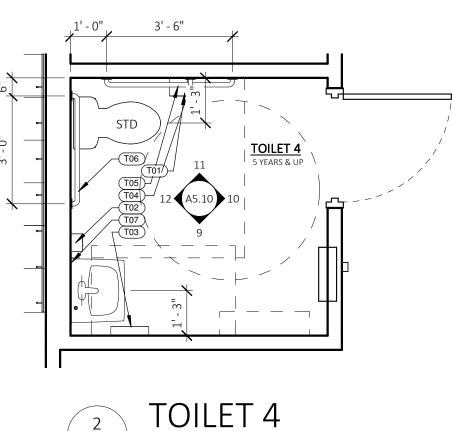
Drawn/Checked DSC / ALA Project Number 2202640 Bid Date 7/10/23 Permit Date --/--/--For Construction

LICENSE NO: 1301072179 EXP. DATE: 12/19/24

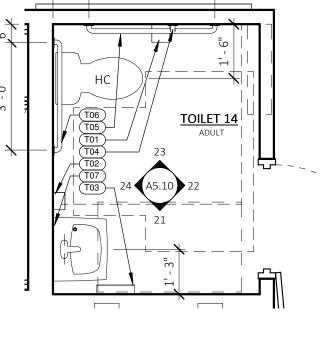
**ENLARGED TOILET** ROOM PLANS

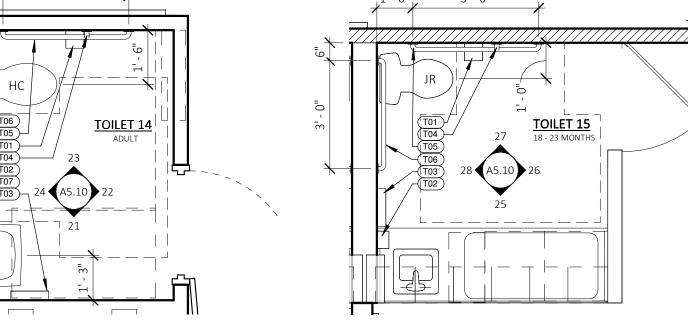






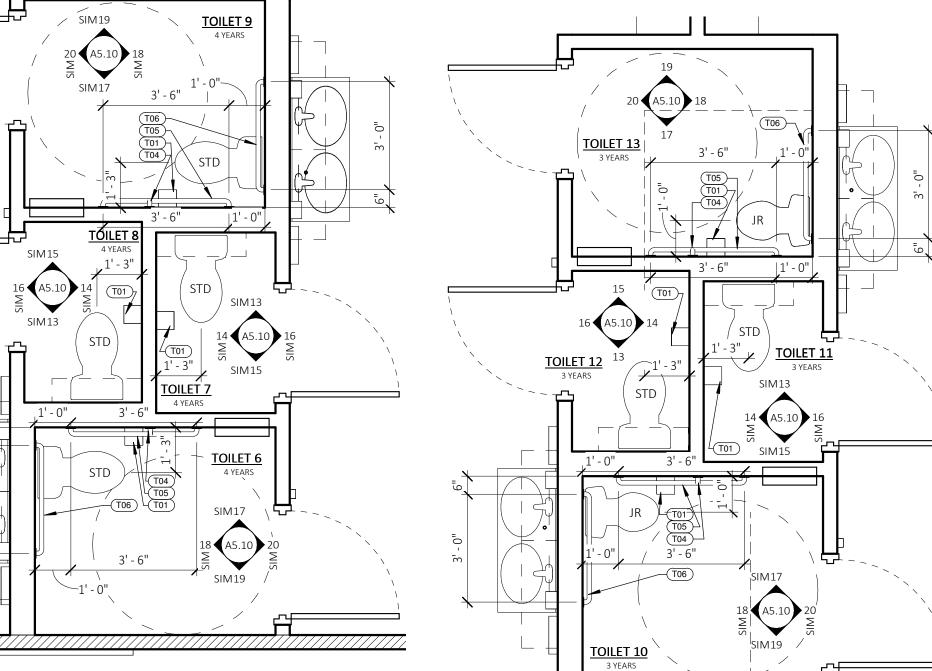
SCALE: 3/8" = 1'-0" **SIM.** TLT 5 (5 YR+)







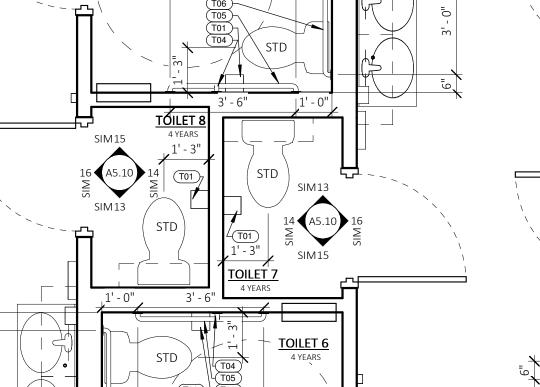




6 TOILET 6, 7, 8, 9

A1.5 SCALE: 3/8" = 1'-0"

7 TLT 10, 11, 12, 13
A1.5 SCALE: 3/8" = 1'-0"



THE EXPRESS WRITTEN CONSENT OF PRIMROSE SCHOOL FRANCHISING CO. IS

PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.

Professional of Record: Suzanne M Hayes LICENSE NO: 1301072179 EXP. DATE: 12/19/24

Dra	awn/Checked	DSC / AL
Pro	oject Number	220264
Bic	l Date	//
Pe	rmit Date	7/10/2
Foi	Construction	//

DOOR & WINDOW SCHEDULE & DETAILS

Remarks
NOTE 1
NOTE 3
NOTE 1

Details

INTERIOR DOORS SHALL BE FINISHED

HARDWARE SET 1 (INTERIOR VESTIBULE)

NOTE: FRAME TO HAVE A 2" CENTER MULLION

NOTE: MOUNT KICK PLATE AFTER FINGER GUARD

NOTE: MOUNT KICK PLATE AFTER FINGER GUARD

HARDWARE SET 4 (RISER ROOM, OUTSIRE STORAGE)

HARDWARE SET 3 (EXTERIOR CLASSROOM)

HARDWARE SET 2 (EXTERIOR CORRIDOR)

DIGITAL LEVER TRIM

MODEL

9300B

IC7A MKD

307D

190S 8" x 34"

780-224 83"

9300B

YR03R-T

IC7A MKD

KERF 17'

MK1A 83"

MODEL

780-224 83"

CL780-T LRE

IC7A MKD

KERF 17'

MK1A 83"

780-224 83"

CL780-T LRE

IC7A MKD

KERF 17'

MODEL

9300B

YR08-T

780-224 83"

IC7A MKD

KERF 17'

MK1A 83"

283D

280X

CL780-T LRE

CL701 LRE

IC7A MKD

702 @RHR

307D

8616 SDS COV DPK

190S 8" x 32" TEK

223ANB 36" TEK

780-113/224 79"

780-113/224 79"

8616 AF86P COV SNDPK ALUM

CL710 LRE

236W

307D

190S 8" x 34"

2005AT 36" MSES10

300D 25 1/2"

223ANB 36" TEK

2005AT 36" MSES10

8616 SDS COV DPK

190S 8" x 32" TEK

223ANB 36" TEK

2005AT 36" MSES10

8616 SDS COV DPK

190S 8" x 32" TEK

223ANB 36" TEK

2005AT 36" MSES10

780-113/224 79"

ETDL-S-D93 @ RHR

87R-T (install in ETDL)

8616 SDS COV SNDPK ALUM

ALUM

US32D

US26D

US26D

US26D

US32D

ALUM

US32D

US32D

US26D

ALUM

US32D

ALUM

DK BRZ

ALUM

WHITE

ALUM

US26D

US26D

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DK BRZ

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US26D

ALUM

US32D

ALUM

ALUM

ALUM

US26D

US26D

US26D

US26D

US26D

ALUM

GRAY

ALUM

US26D

US32D

US32D

GRAY

DK BRZ

"URBAN" COLOR

2EA SAFETY HINGE

1EA RIM CYLINDER

1EA FINAL CORE

2EA KICKPLATE

6EA SILENCER

QTY ITEM

1EA

1EA

1EA

1EA

1EA

1EA

2EA RIM EXIT DEVICE

2EA CLOSER W/ STOP

1EA RIM EXIT DEVICE

FINAL CORE

KICKPLATE

1EA THRESHOLD

1EA WEATHER SEAL

1EA DOOR SWEEP

QTY ITEM

1EA FINAL CORE

1EA KICKPLATE

1EA THRESHOLD

1EA WEATHER SEAL

1EA DOOR SWEEP

1EA FINGER GUARD

1EA CONTINUOUS HINGE

WEATHER SEAL

2EA CONTINUOUS HINGE

RIM EXIT DEVICE

FINAL CORE

KICKPLATE

2EA FINGER GUARD

2EA SAFETY HINGE

FLUSH BOLT

DUST PROOF STRIKE

STOREROOM LOCK

DUMMY LEVER

OVERHEAD STOP

FINAL CORE

1EA SAFETY HINGE

1EA PASSAGE SET

1EA KICKPLATE

3EA SILENCER

1EA WALL STOP

CLOSER

2EA SILENCER

THRESHOLD

WEATHER SEAL

DOOR SWEEP

NOTE: MOUNT KICK PLATE AFTER FINGER GUARD

NOTE: FRAME TO HAVE A 2" CENTER MULLION

HARDWARE SET 6 (CAR SEAT - DOUBLE DOOR)

HARDWARE SET 7 (INTERIOR CLASSROOM)

**INTERIOR PARTITIONS** 

WHERE OCCURS, SEE

FLOOR PLAN.-

H. M. FRAME-

OTHERWISE—

1-3/4" SOLID CORE WOOD

DOOR- TYP. UNLESS NOTED

CLASSROOM TRIM

CLOSER W/ STOP

**HARDWARE SET 5 (EXTERIOR VESTIBULE)** 

1EA STOREROOM LOCK

1EA FINAL CORE

1EA CHAIN STOP

1EA THRESHOLD

1EA DOOR SWEEP

QTY ITEM

1EA

2EA

2EA

2EA

2EA

2EA

2EA

2EA

2EA

2EA

1EA

1EA

1EA

1EA

1EA

1EA

1EA FINGER GUARD

1EA CONTINUOUS HINGE

1EA CLOSER W/ STOP

STOREROOM LOCK

STOREROOM TRIM

CLOSER W/ STOP

HARDWARE GROUPS

1EA

3EA

1EA

1EA

1EA

3EA

QTY

1EA

1EA

1EA

1EA

1EA

3EA

1EA

1EA

1EA

1EA

REPUBLIC 1EA KICKPLATE

DORMA 1EA

DORMA 1EA WALL STOP

3EA SILENCER

QTY ITEM

1EA SAFETY HINGE

PRIVACY

CLOSER

1EA SAFETY HINGE

ENTRY/ OFFICE

FINAL CORE

CLOSER

1EA WALL STOP

QTY ITEM

KICKPLATE

SILENCER

1EA SAFETY HINGE

1EA FINAL CORE

1EA WALL STOP

1EA SAFETY HINGE

FINAL CORE

SILENCER

1EA O.H. OR WALL STOP

SAFETY HINGE

FINAL CORE

KICKPLATE

SILENCER

CONT HINGE

FINAL CORE

KICKPLATE

THRESHOLD

DOOR SHOE

WEATHER SEAL

STOREROOM LOCK

CLOSER W/STOP

STOREROOM LOCK

CLOSER W/STOP

3EA SILENCER

QTY ITEM

CLOSER

STOREROOM LOCK

STOREROOM LOCK

HARDWARE SET 12 (INTERIOR MEDIA/ STORAGE)

HARDWARE SET 13 (CONF. ROOM BARN DOOR)

HARDWARE SET 15 (EXTERIOR KITCHEN DOOR)

HARDWARE SET 14 (INTERIOR KITCHEN)

1EA WALL STOP

3EA SILENCER

QTY ITEM

KICKPLATE

HAGER

MBS

HAGER

DORMA

PEMKO

REPUBLIC

PEMKO

FRINGER

MFR

DORMA

DORMA

HAGER

PEMKO

PEMKO

FRINGER

MFR

MBS

PEMKO

REPUBLIC

PEMKO

HAGER

DORMA

DORMA

DORMA

HAGER

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PEMKO

FRINGER

HAGER

HAGER

HAGER

DORMA

DORMA

DORMA

HAGER

MFR\_

DORMA

DORMA

HAGER

HAGER

HAGER

—JAMB STUD AND

-SEALANT, TYPICAL

-3 JAMB ANCHORS

& BASE ANCHOR

EA. SIDE (TYP.)

JACK STUD.

**BOTH SIDES** 

MBS

MBS

HAGER

DORMA 1EA

MBS

MBS

QTY ITEM

1EA SAFETY HINGE

PUSH PLATE

PULL PLATE

KICKPLATE

HARDWARE SET 8 (INTERIOR CHILDREN TOILET)

HARDWARE SET 9 (INTERIOR STAFF TOILET)

HARDWARE SET 10 (INTERIOR OFFICE)

MODEL

780-113/224 78 1/4"

780-113/224 78 1/4"

8616 AF86P COV SNDPK ALUM

8616 AF86P COV SNDPK ALUM

8616 AF86P COV SNDPK ALUM

8616 AF86P COV SNDKP ALUM

40R 3 1/2" x 15"

43R 3 1/2" x 15"

190S 8" x 34"

236W

307D

MODEL

236W

307D

CL740 LRE

190S 8" x 34"

780-113/224 79"

CL750-T LRE

IC7A MKD

236W

307D

MODEL

CL780-T LRE

IC7A MKD

236W

307D

190S 8" x 34"

780-113/224 79"

780-113/224 79"

8616 AF89P COV DPK

CL780-T LRE

IC7A MKD

307D

MODEL

780-224 83"

CL780-T LRE

IC7A MKD

KERF 17'

223ANB 36"

AWNING FRAME-

THIN BRICK, SEE

SPECIFICATIONS—

SOLDIER COURSE AT

PREFINISHED METAL

B.O. HEADER 7'-2 1/4" A.F.F.

FLASHING-

HM FRAME,

PAINTED-

\A2.1

WINDOW & DOORS TYP

BUILDING WRAP OVER

EXTERIOR SHEATHING, TYP.

\_\_\_\_\_

\_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_

SCALE: 1 1/2" = 1'-0"

@ EXTERIOR WALLS, SEE

ELEVATIONS-

8616 SDS COV DPK

2005AT 36" MSES10

190S 8" x 34" TEK

190S 8" x 34"

CL780-T LRE

IC7A MKD

701 OR 702

307D

HARDWARE SET 11 (INTERIOR STAFF, RESOURCE, LAUNDRY ROOM)

190S 8" x 34"

780-113/224 79"

FINISH MFR

HAGER

HAGER

DORMA

HAGER

HAGER

HAGER

DORMA

DORMA

HAGER

HAGER

DORMA

DORMA

HAGER

HAGER

MFR\_

HAGER

DORMA

MBS

PEMKO

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US26D

ALUM

US32D

GRAY

FINISH

ALUM

US26D

US26D

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Door			Door		Frame		Hardware	Details			_	
Door#	Type	Material	Width	Height	Thickness	Material	Finish	Group	Head	Jamb	Sill	Remarks
1	А	НМ	3' - 0"	7' - 0"	1 3/4"	НМ	PAINT	3	4/A2.1	5/A2.1	6/A2.1	NOTE 1
2	А	НМ	3' - 0"	7' - 0"	1 3/4"	НМ	PAINT	3	4/A2.1	5/A2.1	6/A2.1	NOTE 1
3	А	НМ	3' - 0"	7' - 0"	1 3/4"	НМ	PAINT	3	4/A2.1	5/A2.1	6/A2.1	NOTE 1
4	А	НМ	3' - 0"	7' - 0"	1 3/4"	НМ	PAINT	3	4/A2.1	5/A2.1	6/A2.1	NOTE 1
5	А	НМ	3' - 0"	7' - 0"	1 3/4"	НМ	PAINT	3	4/A2.1	5/A2.1	6/A2.1	NOTE 1
6	А	НМ	3' - 0"	7' - 0"	1 3/4"	НМ	PAINT	3	4/A2.1	5/A2.1	6/A2.1	NOTE 1
7	Α	НМ	3' - 0"	7' - 0"	1 3/4"	НМ	PAINT	2	4/A2.1	5/A2.1	6/A2.1	NOTE 3
8	Α	НМ	3' - 0"	7' - 0"	1 3/4"	НМ	PAINT	2	4/A2.1	5/A2.1	6/A2.1	NOTE 1
9	Α	НМ	3' - 0"	7' - 0"	1 3/4"	НМ	PAINT	3	4/A2.1	5/A2.1	6/A2.1	NOTE 1
10	Α	НМ	3' - 0"	7' - 0"	1 3/4"	НМ	PAINT	3	4/A2.1	5/A2.1	6/A2.1	NOTE 1
11	А	НМ	3' - 0"	7' - 0"	1 3/4"	НМ	PAINT	3	4/A2.1	5/A2.1	6/A2.1	NOTE 1
12	A	HM	3' - 0"	7' - 0"	1 3/4"	НМ	PAINT	3	4/A2.1	5/A2.1	6/A2.1	NOTE 1
13	A	HM	3' - 0"	7' - 0"	1 3/4"	HM	PAINT	3	4/A2.1	5/A2.1	6/A2.1	NOTE 1
14	A	HM	3' - 0"	7' - 0"	1 3/4"	HM	PAINT	3	4/A2.1	5/A2.1	6/A2.1	NOTE 1
15	A	HM	3' - 0"	7' - 0"	1 3/4"	HM	PAINT	3	4/A2.1	5/A2.1	6/A2.1	NOTE 1
16	A	HM	3' - 0"	7' - 0"	1 3/4"	HM	PAINT	15	4/A2.1	5/A2.1	6/A2.1	NOTE 3
17		HM	3' - 0"	7'-0"	1 3/4"	HM	PAINT			5/A2.1	6/A2.1	NOTE 3
	A		PR 3'-0"	7'-0"				5	4/A2.1			
18	E F	HM			1 3/4"	HM	PAINT		4/A2.1	5/A2.1	6/A2.1	NOTE 1
19		PLAM	PR 3' - 0"	6' - 8"	1 3/4"	HM	PAINT	1	2/A2.1	3/A2.1	-	
20	В	PLAM	3' - 0"	6' - 8"	1 3/4"	HM	PAINT	7	2/A2.1	3/A2.1	-	
21	В	PLAM	3' - 0"	6' - 8"	1 3/4"	HM	PAINT	7	2/A2.1	3/A2.1	-	
22	В	PLAM	3' - 0"	6' - 8"	1 3/4"	HM	PAINT	7	2/A2.1	3/A2.1	-	
23	С	PLAM	3' - 0"	6' - 8"	1 3/4"	HM	PAINT	9	2/A2.1	3/A2.1	-	NOTE 2
24	В	PLAM	3' - 0"	6' - 8"	1 3/4"	HM	PAINT	7	2/A2.1	3/A2.1	-	
25	С	PLAM	PR 3'-0"	6' - 8"	1 3/4"	HM	PAINT	6	2/A2.1	3/A2.1	-	
26	В	PLAM	3' - 0"	6' - 8"	1 3/4"	HM	PAINT	7	2/A2.1	3/A2.1	-	
27	С	PLAM	3' - 0"	6' - 8"	1 3/4"	НМ	PAINT	8	2/A2.1	3/A2.1	-	NOTE 2
28	С	PLAM	3' - 0"	6' - 8"	1 3/4"	НМ	PAINT	8	2/A2.1	3/A2.1	-	NOTE 2
29	С	PLAM	3' - 0"	6' - 8"	1 3/4"	HM	PAINT	12	2/A2.1	3/A2.1	-	NOTE 10
30	В	PLAM	3' - 0"	6' - 8"	1 3/4"	HM	PAINT	7	2/A2.1	3/A2.1	-	
31	С	PLAM	3' - 0"	6' - 8"	1 3/4"	НМ	PAINT	8	2/A2.1	3/A2.1	-	NOTE 2
32	С	PLAM	3' - 0"	6' - 8"	1 3/4"	HM	PAINT	8	2/A2.1	3/A2.1	-	NOTE 2
33	В	PLAM	3' - 0"	6' - 8"	1 3/4"	НМ	PAINT	7	2/A2.1	3/A2.1	-	
34	С	PLAM	3' - 0"	6' - 8"	1 3/4"	НМ	PAINT	8	2/A2.1	3/A2.1	-	NOTE 2
35	С	PLAM	3' - 0"	6' - 8"	1 3/4"	НМ	PAINT	8	2/A2.1	3/A2.1	-	NOTE 2
36	В	PLAM	3' - 0"	6' - 8"	1 3/4"	НМ	PAINT	7	2/A2.1	3/A2.1	-	
37	В	PLAM	3' - 0"	6' - 8"	1 3/4"	НМ	PAINT	8	2/A2.1	3/A2.1	-	NOTE 2
38	В	PLAM	3' - 0"	6' - 8"	1 3/4"	НМ	PAINT	8	2/A2.1	3/A2.1	-	NOTE 2
39	В	PLAM	3' - 0"	6' - 8"	1 3/4"	НМ	PAINT	7	2/A2.1	3/A2.1	-	
40	В	PLAM	3' - 0"	6' - 8"	1 3/4"	НМ	PAINT	8	2/A2.1	3/A2.1	_	NOTE 2
41	В	PLAM	3' - 0"	6' - 8"	1 3/4"	НМ	PAINT	8	2/A2.1	3/A2.1	_	NOTE 2
42	В	PLAM	3' - 0"	6' - 8"	1 3/4"	HM	PAINT	7	2/A2.1	3/A2.1	_	
43	В	PLAM	3' - 0"	6' - 8"	1 3/4"	НМ	PAINT	8	2/A2.1	3/A2.1	-	NOTE 2
44	В	PLAM	3' - 0"	6' - 8"	1 3/4"	HM	PAINT	8	2/A2.1	3/A2.1	-	NOTE 2
45	В	PLAM	3' - 0"	6' - 8"	1 3/4"	HM	PAINT	11	2/A2.1	3/A2.1	_	
46	С	PLAM	3' - 0"	6' - 8"	1 3/4"	HM	PAINT	11	2/A2.1 2/A2.1	3/A2.1	_	
47	С	PLAM	3' - 0"	6' - 8"	1 3/4"	HM	PAINT	11	2/A2.1	3/A2.1	_	
48	В	PLAM	3' - 0"	6' - 8"	1 3/4"	HM	PAINT	7	2/A2.1 2/A2.1	3/A2.1 3/A2.1	-	
49	В	PLAM	3' - 0"	6' - 8"	1 3/4"	HM	PAINT	7	2/A2.1 2/A2.1	3/A2.1 3/A2.1	_	
										· ·		NOTE 2
51	С	PLAM	3' - 0"	6' - 8"	1 3/4"	HM	PAINT	9	2/A2.1	3/A2.1	-	NOTE 2

HM PAINT

HM

PAINT

PAINT

53 C PLAM 3'-0" 6'-8" 13/4" HM PAINT 6 4/A2.1 3/A2.1

1 3/4"

Frame

Hardware

### DOOR SCHEDULE NOTES

DOOR SCHEDULE

Door

Door

NOTES: 1. PROVIDE FINGER GUARD PROTECTION ON ALL EXTERIOR DOORS (AT INTERIOR SIDE ONLY). FINGER SAFE USA INC., 888-346-4723, MODEL MK1A. COLOR: WHITE. 2. PROVIDE 1" UNDERCUT.

PLAM | PR 3' - 0" | 6' - 8" | 13/4"

6' - 8"

3' - 0"

52 C PLAM 3'-0" 6'-8" 13/4"

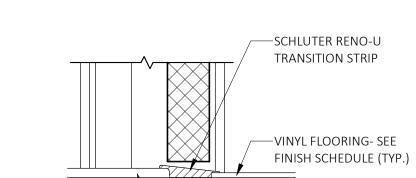
57 C PLAM 3'-0" 7'-0" 13/4"

- 3. DOOR GLAZING TO RECEIVE TINTED FILM. TINT 1. SEE INTERIOR FINISH LEGEND 4. REFER TO ROOM FINISH SCHEDULE FOR ALL DOOR FINISHES THAT ARE NOT FACTORY FINISHED
- 5. KICK PLATE TO BE INSTALLED ON PUSH SIDE OF DOOR. (GENERAL NOTE, WHERE OCCURS) 6. CHANGE IN FLOORING MATERIAL OR TRANSITION STRIPS AT DOORS TO OCCUR AT FACE OF DOOR STOP AT PULL SIDE OF DOOR FRAME. SEE DETAIL 2/A2.1 FOR ADDITIONAL
- 7. PANIC BAR REQUIRED.

10. PROVIDE 12" X 12" LOUVER.

CLARIFICATION. (GENERAL NOTE)

8. PROVIDE 12" X 24" LOUVER. 9. ALL CLOSERS ON INTERIOR WOOD DOORS WILL BE INSTALLED WITH THE SUPPLED HEX BOLT, NOT SCREWED TO THE FACE OF THE DOOR. (GENERAL NOTE)



### TILE TO VINYL TRANSITION STRIP

NOTE:

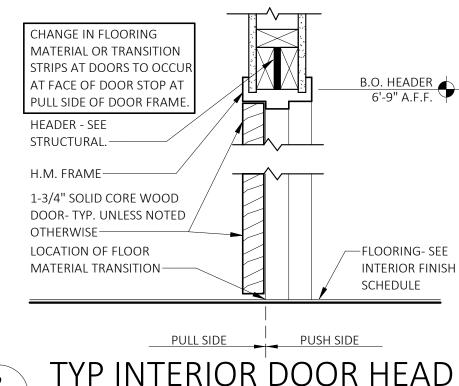


### **KEYING SCHEDULE:**

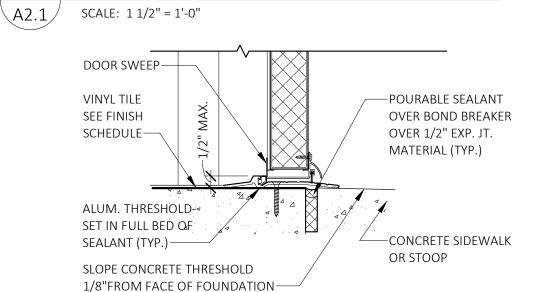
11

10

14



# TYP INTERIOR DOOR HEAD





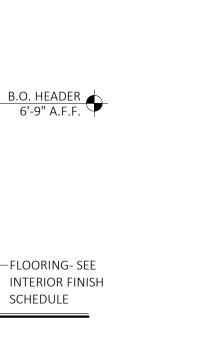
2/A2.1 3/A2.1

2/A2.1 3/A2.1

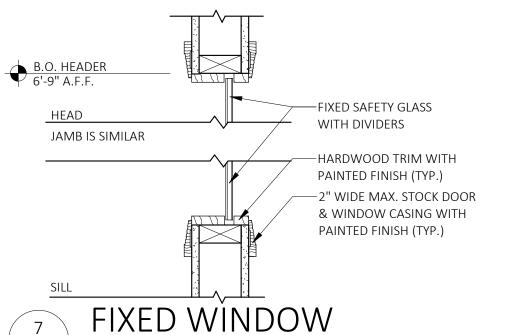
2/A2.1 3/A2.1

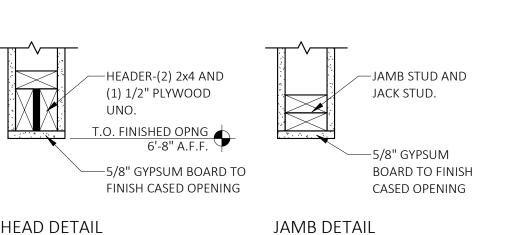
2/A2.1 3/A2.1

- #1 OFFICE #2 CLOSET / STAFF / RESOURCE / LAUNDRY / CONFERENCE
- #3 KITCHEN #4 DOORS 17 & 51
- #5 ALL OUTSIDE CLASSROOM AND HALLWAY EXIT DOORS KEYED ALIKE PROVIDE A 25 KEY - CABINET W/ LOCKING DOOR



### TYP INTERIOR DOOR JAMB \A2.1 SCALE: 1 1/2" = 1'-0"

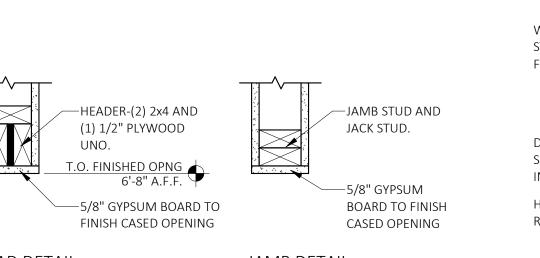




TYP EXTERIOR DOOR HEAD

TYP CASED OPENING

SCALE: 1 1/2" = 1'-0"



-WOOD STUDS.

—CEILING SYSTEM

HEADER - SEE

STRUCTURAL.

-WOOD BLOCKING AS

REQUIRED FOR HM FRAME

B.O. FRAME 7'-0" A.F.F.

-SEALANT

-5/8" GYPSUM BOARD.

JAMB A2.1 SCALE: 1 1/2" = 1'-0"

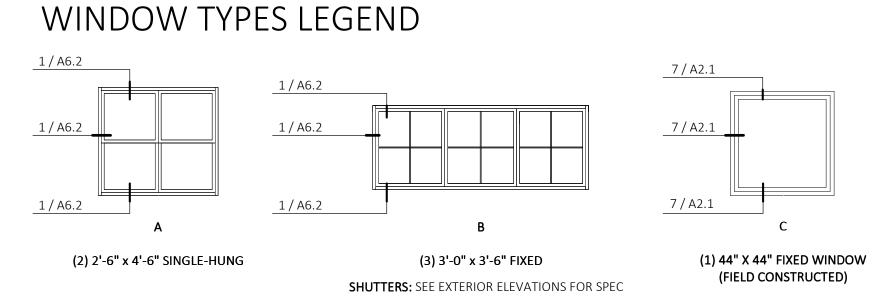
# PLAM W/ 24" X 66" CLEAR TEMPERED OR LAMINATED SAFETY GLASS THRESHOLDS PROVIDED AT EXTERIOR DOORWAYS SHALL BE 1/2" HIGH MAXIMUM. **PRIMROS**

D

-LOURES WHERE

OCCURS

PLAM



W/ 24" X 66" CLEAR TEMPERED

OR LAMINATED SAFETY GLASS

DOOR TYPES LEGEND

**METAL INSULATED DOOR** 

W/ 24" X 36" CLEAR 1"

OR LAMINATED SAFETY GLASS

METAL INSULATED DOOR

W/ 24" X 66" CLEAR 1"

INSULATED, LOW-E TEMPERED

OR LAMINATED SAFETY GLASS

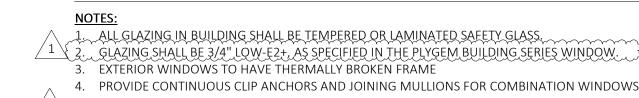
INSULATED, LOW-E TEMPERED

PLAM

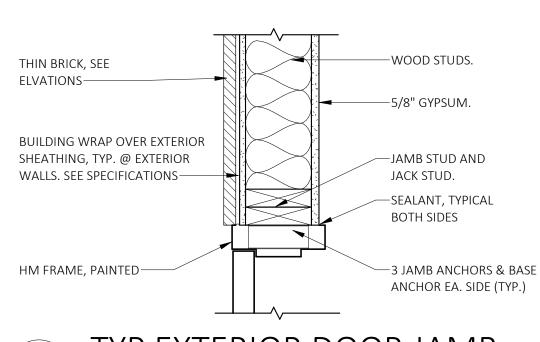
W/ 24" x 32" CLEAR

TEMPERED OR LAMINATED

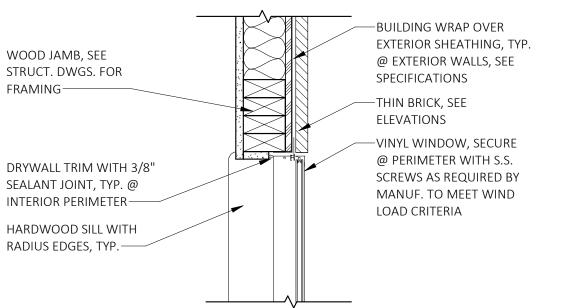
SAFETY GLASS



5. WINDOWS SHALL BE WHITE . WINDOW UNIT SHALL HAVE A U-FACTOR OF 0.30 OR BETTER, A SHGC OF 0.29 OR BETTER AND A VISUAL TRANSMITTANCE OF 0.53 OR BETTER.









TRANSITION STRIPS: INTERIOR CHANGES IN LEVEL DUE TO TRANSITION STRIPS SHALL COMPLY WITH ALL ACCESSIBILITY CODES.

SCALE: 1 1/2" = 1'-0"

FINISH SC	HEDU	LE						
	FLOO	RING	Wall Finish /	CEILING	DOOR/WIN		EXT. DOOR	
ROOM	MAT.	BASE	Chair Rail	FINISH	FRAMES	INT. DOOR	(INT. FACE)	
CAR SEAT STORAGE	F-4	B-1	P-2	C-4	P-3	PL-4	-	NOTE 1,
CLASSROOM - A1	F-4	B-1	P-2/CR-1 (P-5)	C-4	P-3	PL-4	P-3	NOTE 1,
CLASSROOM - A2	F-4	B-1	P-2/CR-1 (P-5)	C-4	P-3	PL-4	P-3	NOTE 1,
CLASSROOM - B1	F-4	B-1	P-2/CR-1 (P-5)	C-4	P-3	PL-4	P-3	NOTE 1,
CLASSROOM - B2	F-4	B-1	P-2/CR-1 (P-5)	C-4	P-3	PL-4	P-3	NOTE 1,
CLASSROOM - C1	F-4	B-1	P-2/CR-1 (P-4)	C-4	P-3	PL-4	P-3	NOTE 1,
CLASSROOM - C2	F-4	B-1	P-2/CR-1 (P-4)	C-4	P-3	PL-4	P-3	NOTE 1,
CLASSBOOM D1	ЕЛ	D 1	D 2/CD 1 /D E)	C 1	ΠЭ	DI 4	D 2	NOTE 1

	FLOO	RING	Wall Finish /	CEILING	DOOR/WIN		EXT. DOOR	
ROOM	MAT.	BASE	Chair Rail	FINISH	FRAMES	INT. DOOR	(INT. FACE)	REMARKS
CAR SEAT STORAGE	F-4	B-1	P-2	C-4	P-3	PL-4	-	NOTE 1, 3
CLASSROOM - A1	F-4	B-1	P-2/CR-1 (P-5)	C-4	P-3	PL-4	P-3	NOTE 1, 3, 4, 6, 11
CLASSROOM - A2	F-4	B-1	P-2/CR-1 (P-5)	C-4	P-3	PL-4	P-3	NOTE 1, 2, 3, 4, 6, 11
CLASSROOM - B1	F-4	B-1	P-2/CR-1 (P-5)	C-4	P-3	PL-4	P-3	NOTE 1, 2, 3, 4,11
CLASSROOM - B2	F-4	B-1	P-2/CR-1 (P-5)	C-4	P-3	PL-4	P-3	NOTE 1, 2, 3, 4,11
CLASSROOM - C1	F-4	B-1	P-2/CR-1 (P-4)	C-4	P-3	PL-4	P-3	NOTE 1, 2, 3, 4,11
CLASSROOM - C2	F-4	B-1	P-2/CR-1 (P-4)	C-4	P-3	PL-4	P-3	NOTE 1, 2, 3, 4,11
CLASSROOM - D1	F-4	B-1	P-2/CR-1 (P-5)	C-4	P-3	PL-4	P-3	NOTE 1, 2, 3, 4,11
CLASSROOM - D2	F-4	B-1	P-2/CR-1 (P-5)	C-4	P-3	PL-4	P-3	NOTE 1, 2, 3, 4,11
CLASSROOM - EP1	F-4	B-1	P-2/CR-1 (P-4)	C-4	P-3	PL-4	P-3	NOTE 1, 2, 3, 4,11
CLASSROOM - EP2	F-4	B-1	P-2/CR-1 (P-4)	C-4	P-3	PL-4	P-3	NOTE 1, 2, 3, 4,11
CLASSROOM - EXP	F-4	B-1	P-2/CR-1 (P-5)	C-4	P-3	PL-4	P-3	NOTE 1, 3, 4, 11
CLASSROOM - PATHWAYS	F-4	B-1	P-2/CR-1 (P-4)	C-4	P-3	PL-4	P-3	NOTE 1, 2, 3, 4,11
CONFERENCE	F-4	B-3/P-3	P-2/CR-1 (P-3)	C-4	P-3	PL-4		NOTE 1, 3, 4, 11
PRY STORAGE	F-2	B-2	FRP-1	C-5	P-3	-	-	NOTE 3, 9, 16
	F-4	B-3/P-3	P-2/CR-1 (P-3)	C-1	P-3	PL-4	P-3	NOTE 3, 4
AUNDRY ROOM	F-2	B-2	P-2/FRP-1	C-5	P-3	PL-4	_	NOTE 3, 12, 13
ИEDIA	F-4	B-1	P-2	C-1	P-3	PL-4	_	NOTE 3
DFFICE	F-4	B-1	P-2	C-4	P-3	PL-4	_	NOTE 1, 3, 4, 11
OUTDOOR STORAGE	F-1	_	P-6	C-3	P-3	-	P-3	NOTE 10
ECEPTION	F-4	B-3/P-3	P-2/SL-1/CR-1 (P-3)	C-1	P-3	PL-4	P-3	NOTE 1, 3, 4
ESOURCE ROOM	F-4	B-1	P-2	C-4	P-3	PL-4	-	NOTE 1, 3
ISER ROOM	F-1	-	P-6	C-3	P-3	-	P-3	NOTE 10
TAFF ROOM	F-4	B-1	P-2	C-4	P-3	PL-4	-	NOTE 1, 3
TORAGE 1	F-4	B-1	P-2	C-4	P-3	PL-4	_	NOTE 1, 3
TORAGE 2	F-4	B-1	P-2	C-4	P-3	PL-4		NOTE 1, 3, 7
OILET 1	F-2	B-2	P-2	C-2	P-3	PL-4	_	NOTE 1, 3, 13
OILET 2	F-2	B-2	P-2/FRP-1	C-2	P-3	PL-4	_	NOTE 1, 3, 8, 13
OILET 3	F-2	B-2	P-2/FRP-1	C-2	P-3	PL-4	_	NOTE 1, 3, 8, 13
OILET 4	F-2	B-2	P-2/FRP-1	C-2	P-3	PL-4	-	NOTE 1, 3, 8, 13
OILET 5	F-2 F-2	B-2	P-2/FRP-1	C-2	P-3	PL-4 PL-4	-	NOTE 1, 3, 8, 13
OILET 6	F-2 F-2	B-2	P-2/FRP-1	C-2	P-3	PL-4 PL-4	-	NOTE 1, 3, 8, 13
OILET 7	F-2 F-2	B-2	P-2/FRP-1 P-2/FRP-1	C-2 C-2	P-3	PL-4 PL-4	-	NOTE 1, 3, 8, 13
OILET 7	F-2 F-2	B-2 B-2	P-2/FRP-1 P-2/FRP-1	C-2 C-2	P-3	PL-4 PL-4		NOTE 1, 3, 8, 13
OILET 8	F-2 F-2	B-2 B-2	P-2/FRP-1 P-2/FRP-1	C-2 C-2	P-3 P-3	PL-4 PL-4	-	NOTE 1, 3, 8, 13
							-	
OILET 10	F-2	B-2	P-2/FRP-1	C-2	P-3	PL-4	-	NOTE 1, 3, 8, 13
OILET 11	F-2	B-2	P-2/FRP-1	C-2	P-3	PL-4	-	NOTE 1, 3, 8, 13
OILET 12	F-2	B-2	P-2/FRP-1	C-2	P-3	PL-4	-	NOTE 1, 3, 8, 13
OILET 13	F-2	B-2	P-2/FRP-1	C-2	P-3	PL-4	-	NOTE 1, 3, 8, 13
OILET 14	F-2	B-2	P-2	C-2	P-3	PL-4	-	NOTE 1, 3, 13
OILET 15	F-2	B-2	P-2/FRP-1	C-2	P-3	PL-4	-	NOTE 1, 3, 8, 13
OILET 16	F-2	B-2	P-2/FRP-1	C-2	P-3	PL-4	-	NOTE 1, 3, 8, 13
OILET 17	F-2	B-2	P-2/FRP-1	C-2	P-3	PL-4	-	NOTE 1, 3, 8, 13
OILET 18	F-2	B-2	P-2/FRP-1	C-2	P-3	PL-4		NOTE 1, 3, 8, 13
'ESTIBULE	F-3	B-3/P-3	P-2/SL-1	C-1	P-3	PL-4	P-3	NOTE 3 NOTE 3, 9, 10

### FINISH SCHEDULE GENERAL NOTES

- DETAILS AND FINISH LOCATION.
- F.R.P. TO RUN FULL HEIGHT OF WALLS IN THE COT STORAGE ALCOVE. F.R.P. TO TERMINATE AT A POINT EVEN WITH WING WALL. ALL EXPOSED 9. F.R.P. FULL HEIGHT ALL WALLS. USE APPROPRIATE TRIM PIECES. EDGES TO RECEIVE APPROPRIATE TRIM PIECE. SEE INTERIOR ELEVATIONS 10. GLAZING IN EXTERIOR DOOR TO RECEIVE TINT - 1. FOR F.R.P. LOCATION AT OPPOSITE SIDE OF WING WALL.
- REFER TO REFLECTED CEILING PLAN FOR CEILING HEIGHT.
- REFER TO INTERIOR ELEVATIONS FOR LOCATIONS OF CHAIR RAIL. ALL WALLS SHALL RECEIVE A LEVEL 4 SMOOTH DRYWALL FINISH.
- INFANT DIVIDER PARTITIONS TO BE PAINTED P 5.
- PROVIDE 1/2" THICK PLYWOOD FULL HEIGHT BEHIND ROOF ACCESS
- REFER TO VENDORS MILLWORK DRAWINGS, FOR SPECIFIC MILLWORK 8. F.R.P. FROM TOP OF BASE TO 4' 3" A.F.F., SEE INTERIOR ELEVATIONS, PAINT ABOVE. EXPOSED EDGE OF F.R.P. TO RECEIVE APPROPRIATE TRIM PIECE. SEE 4/A2.3

  - 11. WT-1 TO BE USED AT ALL EXTERIOR WINDOWS. 12. SEE INTERIOR ELEVATIONS FOR F.R.P. HEIGHTS / LOCATIONS AT
  - LAUNDRY ROOM. 13. PROVIDE SMOOTH PAINT FINISH ABOVE F.R.P. IN LAUNDRY AND
  - TOILET ROOMS. 14. CONTRACTOR SHALL SUPPLY MATCHING PVC EDGE BANDING ON ALL
  - MILLWORK. 15. VINYL BASE SHALL NOT BE INSTALLED ON ANY CABINETS.
  - 16. STAINLESS STEEL CORNER GUARDS

MARK	DESCRIPTION	SPECIFICATION
1 - FLOORING		
F-1	SEALED CONCRETE	SONNEBORN - KURE-N-SEAL-W, TWO (2) COATS.
F-2	12" x 24" TILE	Crossville, Inc Cross Colors Mingles A750 Brown Tweed. Use Unpolished finish in restrooms, Dry Storage and Laundry. Use Cross Tread finish in Warming Kitchen. Straight grid pattern. Grout: Tec Power Grout 973 Warm Taupe
F-3	24" x 24" CARPET TILE	MANNINGTON RUFFIAN 2 - BROWN BRANCHES
F-4	7.5" x 48" PLANK	MANNINGTON SPACIA - SS5W2535 DRY CEDAR
FT-1	TRANSITION STRIP	SCHLUTER SYSTEMS, RENO-U. FINISH: STAINLESS STEEL. *FIELD VERIFY SPECIFIC HEIGHT REQ'D.
2 - BASE		
B-1	4" COVE BASE	ROPPE. COLOR: P-631 SAHARA
B-2	TILE COVE BASE	Crossville Inc Cross COlor Mingles A750 Brown Tweed. Use in all F-2 areas. To be set down on sla not on top of floor tile. Use appropriate manufactured pieces for wall corners.
B-3	WOOD BASE	1" x 4" PAINT GRADE POPLAR
3 - CEILING	-	
C-1	PAINT	SW 7063 - NEBULOUS WHITE
C-2	PAINT	SW 7063 - NEBULOUS WHITE, SMOOTH NON-ABSORBANT
C-3		OPEN TO STRUCTURE
C-4	ACT & GRID	ARMSTRONG "CIRRUS TEGULAR" 534, 2x2 TILE WITH ANGLED TEGULAR EDGE. COLOR: WHITE. ARMSTRONG PRELUD XL 15/16 EXPOSED TEE GRID. COLOR: WHITE
C-5	ACT & GRID	ARMSTRONG "KITCHEN ZONE" 673. 2x2 TILE WITH SQUARE EDGE. COLOR: WHITE. ARMSTRONG PRELUD XL 15/16" EXPOSED TEE GRID. COLOR: WHITE.
4 - PLASTIC LA	MINATE	
PL-1	MAMBO, FINE GRAIN FINISH	WILSONART #7948K-07, MELAMINE FINISH
PL-2	CAVALCADE SOUTH, SUEDE	PIONITE AT650 + MATCHING EDGE BAND, MELAMINE FINISH
PL-3	ENGLISH LACE, TEXTURED	NEVAMAR S2085T. MELAMINE FINISH
PL-4	INTERIOR DOORS	MAMBO (SEE PL-1)
5 - INTERIOR P	AINT	
P-1		SW 7063 NEBULOUS WHITE
P-2		SW6149 RELAXED KHAKI
P-3		SW 7531 CANVAS TAN
P-4		SW 9039 BROCCOFLOWER
P-5		SW 7609 GEORGIAN REVIVAL BLUE
P-6		UNPAINTED. TAP AND MUD
6 - MISCELLAN	EOUS	
CP-1	CULTURED MARBLE	IMPERIAL MARBLE CORP. COLOR: TO BE SELECTED FROM MFR'S FULL RANGE.
CR-1	WOOD CHAIR RAIL	1" x 4" PAINT GRADE POPLAR, SEE 2/A2.3
FRP-1		MARLITE #P-140 IVORY, PEBBLE FINISH. SEE FINISH SCHEDULE NOTES AND INTERIOR ELEVATIONS FOR HEIGHTS AND LOCATIONS
SL-1	VERTICAL WOOD SHIP LAP	1"x4" PAINT GRADE POPLAR, SEE INTERIOR ELEVATIONS. PAINT P-3
TINT-1	TINTED FILM	3M FASARA GLASS FINISHES, MILKY MILK (SAN MARINO) SH2MAMM.
WT-1	WINDOW TREATMENT (SHADES)	SWFCONTRACT - CROSSHATCH R300 WHITE/CREAM C8210 (VANGAURD 3% CORTINA 48210) ULT LIGHT CORDLESS, FABRIC WRAPPED HEMBAR, CASSETTE VALANCE, OR INPRO ARCHITECTURAL PRODUCTS

CASEWORK COLOR SCHEDULE									
PIECE	CASEWORK SURFACE	COUNTERTOP							
CAR SEAT STORAGE	PL-2								
CHANGING TABLES	PL-1	PL-2							
COT STORAGE	PL-2								
CR CABINETS	PL-1								
CR SHELF	PL-1								
CUBBIES	PL-2								
CURRICULUM CABINET	PL-1								
DISINFECTANT	PL-1								
EXP SCIENCE	PL-1								

CASEWORK COLOR SCHEDULE						
PIECE	CASEWORK SURFACE COUNTE					
KITCHENETTE	PL-1	PL-2				
OFFICE	PL-1	PL-2				
POTTY POD CUBBIES	PL-2					
POTTY POD GATES	PL-1					
PUT DOWN	PL-2	PL-2				
PUT DOWN CABINETS	PL-1 UNDER PUT DOWN					
RECEPTION	PL-1	SS-1				
SHELVING	PL-2					
VANITIES	PL-1	CP-1				

### FINISH LEGEND GENERAL NOTES

- ANY INTERIOR WALL AND CEILING FINISH SHALL HAVE A MAXIMUM FLAME SPREAD INDEX OF 26 75 (CLASS II AT CORRIDORS (EXIT WAYS), AND A MAXIMUM FLAME - SPREAD INDEX OF 76 - 200 (CLASS III) AT OTHER AREAS AND CLASSROOMS. WHEN AN ADEQUATE FIRE SPRINKLER SYSTEM IS PROVIDED, THE FLAME - SPREAD CLASSIFICATION MAY BE REDUCED BY ONE CLASSIFICATION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN WRITTEN APPROVAL FROM OWNER (814CRE) FOR ANY AND ALL SUBSTITUTIONS. CHANGES IN FLOORING MATERIAL OR TRANSITION STRIPS AT DOORS TO OCCUR AT FACE OF DOOR STOP AT PULL SIDE OF DOOR FRAME. SEE
- DETAIL 2/A2.1 FOR ADDITIONAL CLARIFICATION. PAINT SHEENS THROUGHOUT:
- TOILET ROOMS: SEMI-GLOSS ON WALLS/CEILINGS KITCHEN: SEMI-GLOSS AT CEILING (WALLS RECEIVE FRP)
- LAUNDRY ROOM: SEMI-GLOSS ON WALLS/CEILING THAT DO NOT RECEIVE FRP
- ALL OTHER WALLS/CEILING NOT LISTED ABOVE: EGGSHELL
- INTERIOR WOOD TRIM/DOOR FRAMES: SEMI-GLOSS

### PRIMROSE NATIONAL ACCOUNT VENDORS

Required Vendor for F-2 and B-2: Crossville Tile:

Jennifer Mitchell: 248-427-4611; EMAIL: <u>jennifer.mitchell@virginiatile.com</u> OR, Kathleen Black: 248-467-4362; EMAIL: kathleen.black@virginiatile.com

Required Vendor for F-3 and F-4: Mannington Commercial:

Mannington Commercial Strategic Account Contract #40000503 - Project Quote # P-521699 Quotes: Penny Fitzgerald-Fischer: 730-330-4521; EMAIL: <a href="mailto:penny.fisher@mannington.com">penny.fisher@mannington.com</a> OR,

Aaron Brown: 734-853-7390; EMAIL: aaron.brown@mannington.com

Orders: Holly Ellis: Strategic Account Project Coordinator, 800-321-2519 x6319; FAX: 706-602-6280 EMAIL: holly.ellis@mannington.com OR sa.orders@mannington.com

### INTERCOM AND DOOR BELL SYSTEM

REQUIRED VENDOR: VALET SYSTEM ADDRESS: 12101 31st COURT NORTH, ST. PETERSBURG, FL 33716 WEB: http://www.centralvacuumstores.com/intercoms/voice-only/Valet-System-one/index.php CONTACT: Roger Ambrose

PHONE: 727-732-9551 EMAIL: rambrose@fullnet.net

salesinfo@centralvacuumstores.com

**CUSTOMER SERVICE** PHONE: 800-221-8227

EMAIL:

QUANTITY ITEM# **DESCRIPTION** AUDIO INPUT VOLUME & TONE CONTROL - MOUNT HORIZ. IN 1 GANG BOX **VVTW** UP TO 20

V3SW VALET MINI ROOM STATION - WHITE UP TO 20 RECESSED HOUSING ROUGH-IN DOOR STATION WITH DOOR PUSH BUTTON - WHITE **VDSL** VPS3DC TRANSFORMER

VPSC TRANSFORMER POWER CORD CAT 5 CABLE OR VALET 8-CONDUCTOR INTERCOM CABLE AS REQ'D 8VM500 BK105 NUTONE ELECTRONIC DOOR CHIME PB53LWH PUSH BUTTON AT THE FRONT DOOR

**DESCRIPTION** REFER TO SHEET A4.0 & A6.3

SIGNAGE PACKAGE SCHEDULE - ALTERNATES WILL NOT BE ACCEPTED REQUIRED VENDOR: ONE HOUR SIGNS, INC.

> ATTN: MICHAEL MARTIN michael@onehoursigns.com 4011 CANTON RD. MARIETTA, GA 30066 PHONE: 770-591-1111 x 4 FAX: 770-591-7542 TOLL FREE: 866-591-5911

ESTIMATED QUANTITY DESCRIPTION

60" ROUND PRIMROSE LOGO 18" x 24" BUCKLE UP SIGN WITH 6' PVC POST PRIMROSE PATCH SIGN WITH 8" PCV POST 11" x 28" ADDRESS PANEL WITH 8" REFLECTIVE BLACK NUMBERS

12" x 12" SMOKE FREE CAMPUS SIGNS WITH 2 x 2 x 36" PVC POST 24" ROUND ACRYLIC PRIMROSE LOGO MAILBOX PACKAGE WITH PVC POST AND PRIMROSE LOGOS

HANDICAP SIGNS WITH VAN ACCESS AND TRAFFIC POSTS INTERIOR SIGN PACKAGE - CLASSROOM/ RESTROOM DOOR SIGNAGE 12" VINYL LOGO FOR CONFERENCE ROOM GLASS DOOR. (ETCHED GLASS LOOK) 22" VINYL LOGO FOR OFFICE GLASS VIEWING WINDOW. (ETCHED GLASS LOOK)

PLEASE SLOW DOWN SIGN WITH 6' PVC POST

1. ALL SIGNAGE IS FURNISHED AND INSTALLED BY THE FRANCHISEE, INCLUDING MONUMENT AND BUILDING MOUNTED SIGN(S). GC IS RESPONSIBLE FOR PROVIDING POWER TO THE LOCATIONS. GC IS ALSO RESPONSIBLE FOR CODE REQUIRED PARKING LOT SIGNAGE TO OBTAIN CERTIFICATE OF OCCUPANCY. 2. ALL SIGNS NOT PREPARED BY ONE HOUR SIGNS, INC. REQUIRE PRIOR WRITTEN APPROVAL FROM PRIMROSE CORPORATE OFFICE. SIGN VENDOR IS RESPONSIBLE FOR PERMITTING ALL SIGNS.

LED LIGHTED CAN

SEE NOTE 1

SEE EXTERIOR ELEVATIONS

LOCATE OUTSIDE BUILDING'S MAIN ENTRY

OPTIONAL FOR CONFERENCE ROOM WALL

VERIFY STYLE WITH LOCAL AUTHORITIES

MONUMENT SIGNAGE PACKAGE SCHEDULE

NOTE: SEE 10/A7.1 FOR DETAILS

```
CASEWORK PACKAGE
REQUIRED VENDOR:
               MASTERS MILLWORK
              CONTACT: ANDY KUBIAK
               ADDRESS: 30700 STEPHENSON HWY, MADISON HEIGHTS, MI 48071
               PHONE: 214-904-9361
                       248-479-0331
              FAX:
              CALHOUN MILLWORKS
              CONTACT: AL SCHELLHORN
              ADDRESS: 995 W LINE STREET, CALHOUN, GA 30701-7913
               PHONE: 706-625-2288
              FAX: 706-629-6802
```

**FLAGS VENDOR:** FLAG SOURCE SOUTHEAST, INC. ADDRESS: 1956 LOWER ROSWELL RD., SUITE C, MARIETTA, GA, 30068 CONTACT: MARK EGGLESTON PHONE: 770-977-3331 EMAIL: flagsourcese@bellsouth.net ITEM# **QUANTITY** POLE ECSS 25 25' FLAG POLE PSFC FLAG PRIMROSE FLAG 4' x 6' U.S. NYLON II FLAG

PLAYGROUND EQUIPMENT REQUIRED VENDORs: BCI BURKE COMPANY

PO BOX 549, FOND DU LAC, WI 54936 LUKE TAUTGES: 920-517-8088 EMAIL: ltautges@bciburke.com

CASEWORK, MILLWORK AND INSTALL PACKAGE IS AVAILABLE FROM THIS VENDOR

PLAYPOWER, INC. ADDRESS: 878 E HIGHWAY 60, MONETT, MO 65708 DANIELLE OWENS 573.631.2428

1. PROVIDE 4 HALYARD CLIPS W/ POLE. PROVIDE HIGH WIND POLE PER SPECIFICATIONS WHEN REQUIRED.

JOLEAN BOYER - NATIONAL ACCOUNTS MANAGER 573.366.6333 EMAIL: PRIMROSE.SUPPORT@PLAYPOWER.COM

QUANTITY APPROVED PLAYGROUND PACKAGE KID TIMBERS (APPROX TOTAL) SEE SITE KID TIMBERS (FOR PRIMROSE PATCH)

DISCLAIMER: LITTLE TIKES PLAY SYSTEMS, INC. PRIMROSE SCHOOL FRANCHISING COMPANY HAS CONTRACTED WITH LITTLE TIKES PLAY SYSTEMS AS THE ONLY APPROVED PLAYGROUND EQUIPMENT SUPPLIER. PRIOR TO ORDERING EQUIPMENT, YOU MUST HAVE YOUR APPROVED PLAYGROUND PLAN ON FILE WITH PRIMROSE SCHOOL FRANCHISING COMPANY. APPROVAL IS TO BE GIVEN BY P.S.F.C.

TO ENSURE ON-TIME DELIVERY AND INSTALLATION, YOU MUST ORDER EQUIPMENT TWELVE (12 WEEKS) PRIOR TO YOUR OPENING DATE. IF LITTLE TIKES PLAY SYSTEMS IS CONTRACTED FOR THE INSTALLATION, THIS WILL ENSURE THEM TURNING THE PLAYGROUND OVER TO YOU FOR COMPLETION OF FALL ZONE, ETC. TWO (2) WEEKS PRIOR TO OPENING. PRIMROSE SCHOOL FRANCHISING COMPANY RECOMMENDS LITTLE TIKES PLAY SYSTEMS TO INSTALL THE EQUIPMENT TO REDUCE YOUR LIABILITY AND INSURE PROPER INSTALLATION.

**COAT HOOKS** REQUIRED VENDOR: COMMUNITY PLAYTHINGS ATTN: MAVIS MAENDEL

sales@communityplaythings.com 800-777-4244 FAX: 800-336-5948 **QUANTITY** 

ITEM# **DESCRIPTION** 200 S214-10 COAT HOOK, PLASTIC W/ 20 2-3/4" SCREWS - HD PLASTIC

COLOR: BEIGE - SET OF 10

COAT HOOKS SHALL BE LOCATED IN THE FIELD BY PRIMROSE OPERATIONS CONSULTANT

WEATHERVANE PACKAGE

REQUIRED VENDOR: WEATHERVANES OF MAINE CONTACT: KYLE MCDOUGAL

ADDRESS: 867 BLACKSTREAM RD. HERMON. ME 04401 PHONE: 207-848-8163

EMAIL: weathervanesofmaine@yahoo.com

LARGE COPPER ROOSTER #348 WITH STAINLESS STEEL UPGRADE- WELDED SHAFTS & LOCKING PIN FOR HIGH WIND.



3200 WINDY HILL ROAD, SUITE 1200 E ATLANTA, GEORGIA 30339-5640 THESE DRAWINGS AND THE DESIGN REPRESENTED HEREBY ARE THE EXCLUSIVE

PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.



Professional of Record: Suzanne M Hayes LICENSE NO: 1301072179 EXP. DATE: 12/19/24

Drawn/Checked DSC / ALA 2202640 Project Number Bid Date 7/10/23 Permit Date For Construction

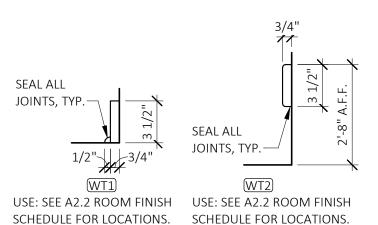
FINISH LEGENDS & **SCHEDULES** 

HAYES ARCHITECT 1301072179

Professional of Record: Suzanne M Hayes LICENSE NO: 1301072179 EXP. DATE: 12/19/24

DSC / ALA Drawn/Checked 2202640 Project Number --/--/--Bid Date 7/10/23 Permit Date --/--/--For Construction

INTERIOR DETAILS



SCALE: 1 1/2" = 1'-0"

4" BACK-SPLASH (TYP)—

1x4 WOOD BLK'G

CONT. @ BACK

SCREW ATTACH

CABINETS TO

12

STUDS WITH #12

**SCREWS & FINISH** 

WASHERS @ 16" OC

(TYP TOP & BOTTOM)—

SEE SPECIFICATIONS FOR TYPICAL

CABINETRY CONST REQUIREMENTS.

SCALE: 3/4" = 1'-0"

OF CABINET-

—4"BACK-SPLASH- (TYP.)

—1x4 WOOD BLK'G

-SHELF AS INDICATED

PER THE INTERIOR

**ELEVATIONS** 

-SCREW ATTACH

CABINETS TO

STUDS WITH #12

SCREWS & FINISH

OC-(TYP. TOP & BOTT.)

—CABINET DRAWER

—CABINET DRAWER

—DRAWER BOTTOM

**FACES** 

**BODIES** 

WASHERS @ 16"

CONT. @ BACK

OF CABINET

TYPICAL WOOD TRIM PROFILES

TYP - SINK CABINET

-POURED MARBLE

-PROVIDE

W/INTEGRAL SINK

CONCEALED WOOD

BLOCKING @ OPEN

COUNTERTOP

—SCREW ATTACH

CABINETS TO

STUDS WITH #12

SCREWS & FINISH

WASHERS @ 16"

OC-(TYP. TOP & BOTT.)

1 1/2"

—CABINET DRAWER

→ CABINET DRAWER

—DRAWER BOTT.

**BODIES** 

FACES -(TYP.)

2' - 0"

BASE CAB (3 DRAWERS)

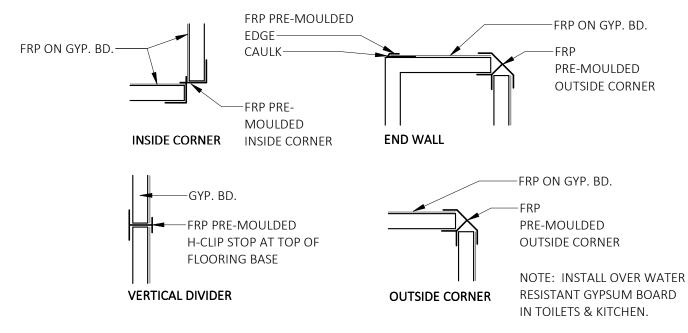
LOCATIONS

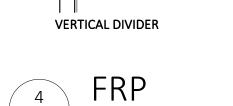
TRIM TO BE SOLID WOOD, PAINT GRADE POPLAR OR FIR. TRIM TO BE SANDED SMOOTH. ALL VOIDS AND GAPS TO BE CAULKED AS NEEDED TRIM THE CHAIR RAIL IF NEEDED TO CABINETRY AND/OR BACKSPLASH 3. ROUND ALL EDGES, OUTSIDE CORNERS, ETC. REFER TO A2.2 FOR COLOR.

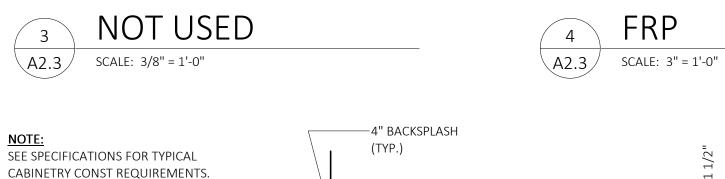
CABINET DOORS

AND DRAWER

FRONTS—







—1x4 WOOD BLK'G

CONT. @ BACK

PER THE INTERIOR

-SCREW ATTACH

STUDS WITH #12

**SCREWS & FINISH** 

WASHERS @ 16"

OC (TYP)

CABINETS TO

**ELEVATIONS** 

OF CABINET

WOOD FACE

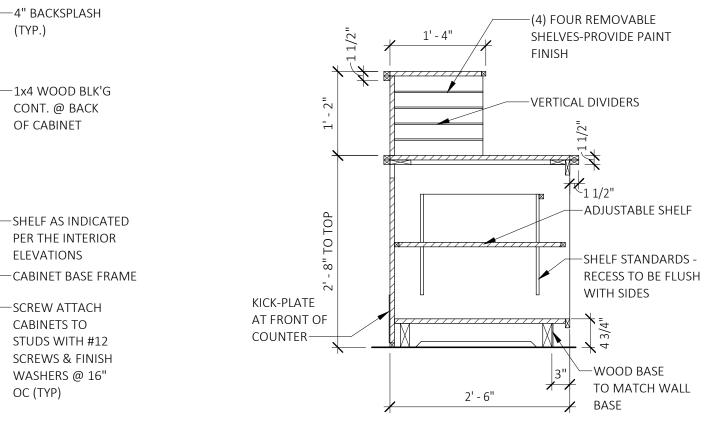
FRAME

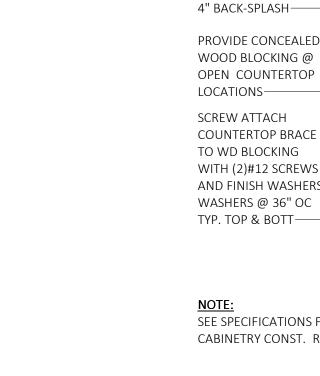
20" OR 24"

SEE INTERIOR ELEVATIONS

BASE CAB (1 DR/1 DWR)

DISINFECTANT CAB





3" HEAD RAIL-

CABINET DOORS-

SHELVES AS

INDICATED PER THE

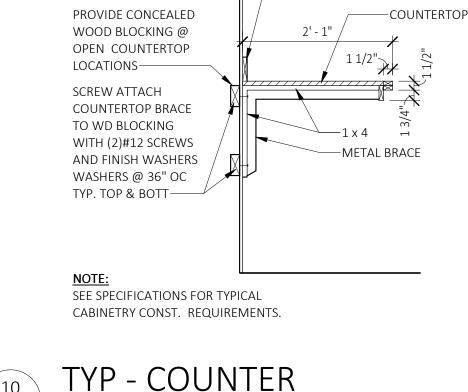
INTERIOR ELEVATIONS—

SCREW ATTACH CABINETS TO

WOOD BLOCKING WITH #12 x 2 1/2"

LONG SCREWS & FINISH WASHERS

@ 9" OC-(TYP. TOP & BOTTOM)—



TYP - UPPER CABINET

-#10 x 3" COUNTER SUNK SCREW @ 6" O.C. TO SECURE TOP & BOTTOM CABINET PANELS TO THE

-1x4 WOOD HANGING RAIL,

GLUED AND DOWELED INTO

HANGING RAILS.

CABINET SIDES.

-HANGING RAIL AT

TO CABINET SIDES.

—BACK PANEL

SEE SPECIFICATIONS FOR TYPICAL

CABINETRY CONST REQUIREMENTS

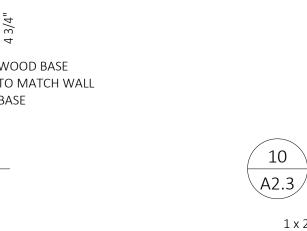
MID POINT, SECURED

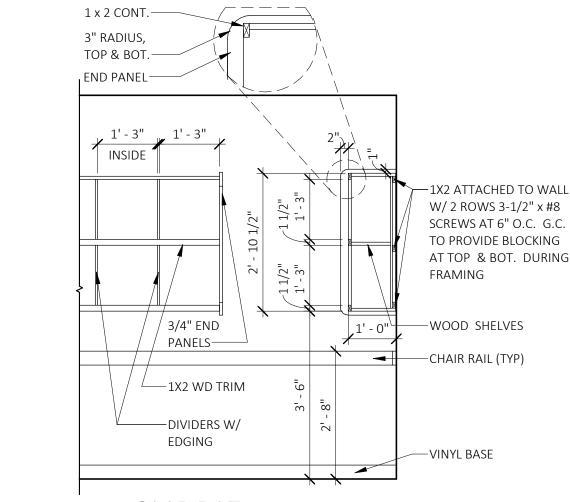
PROVIDE CONCEALED

BLK'G BEHIND UPPER

CAB's-(TYP. TOP & BOTT.)

SOLID 2x6 WOOD

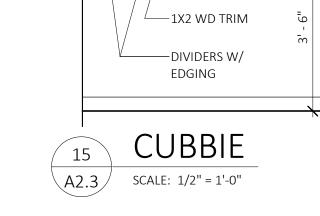




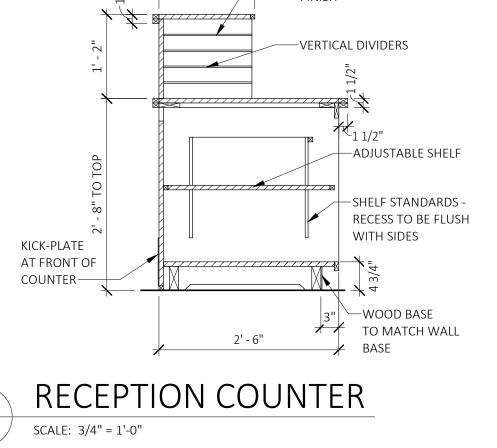
DETAILS ARE SHOWN FOR REFERENCE ONLY. ALL MILLWORK IS

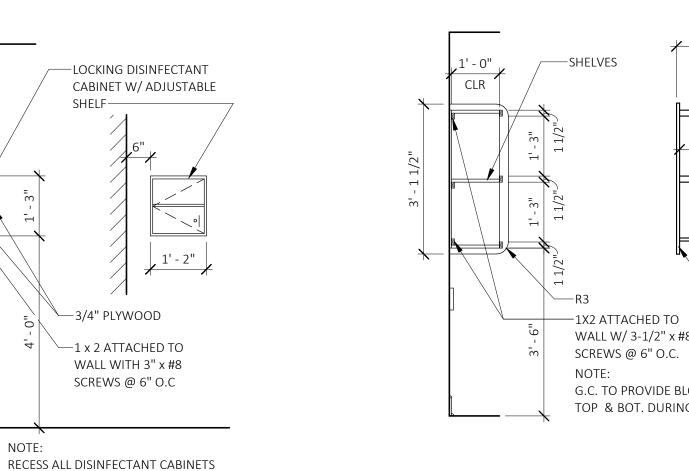
SUPPLIED BY CALHOUN MILLWORKS AS NOTED IN

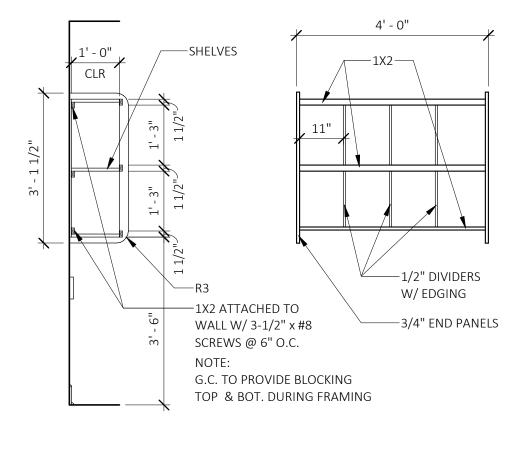
SPECIFICATIONS.

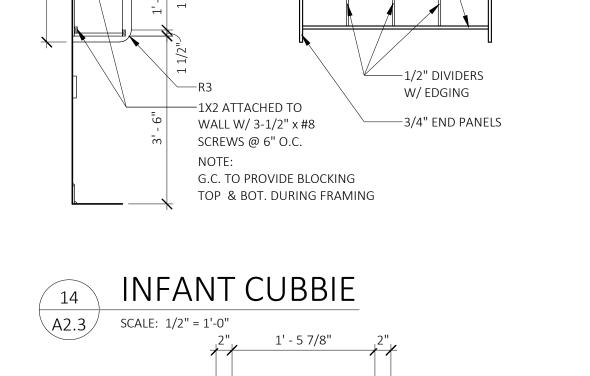


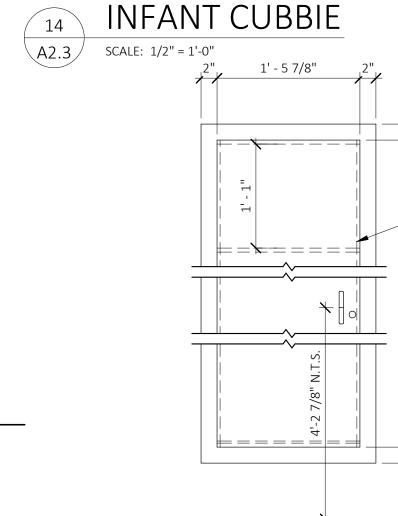
SCALE: 3/4" = 1'-0"

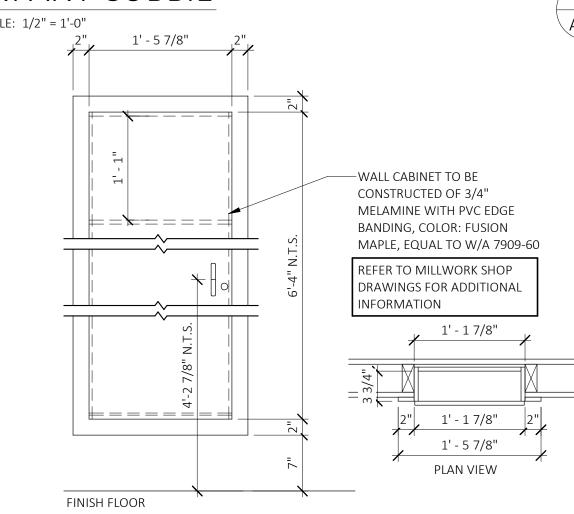


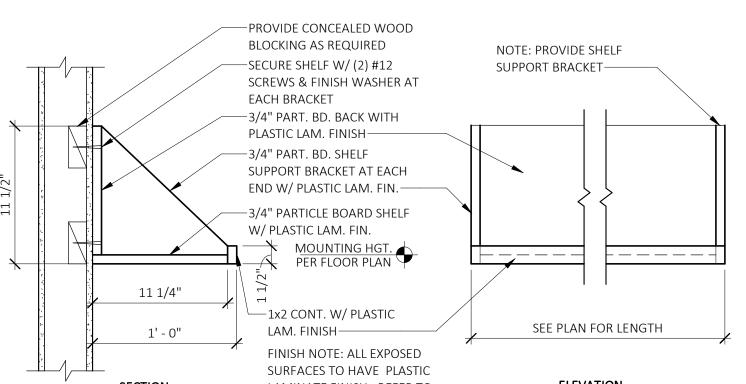


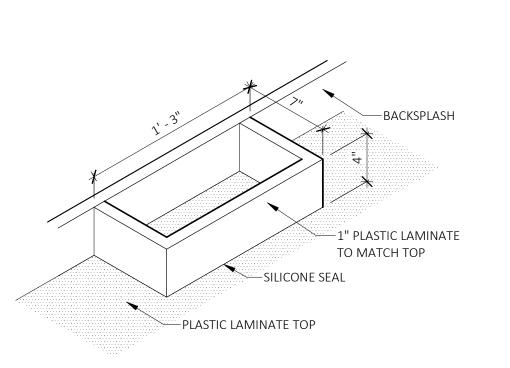


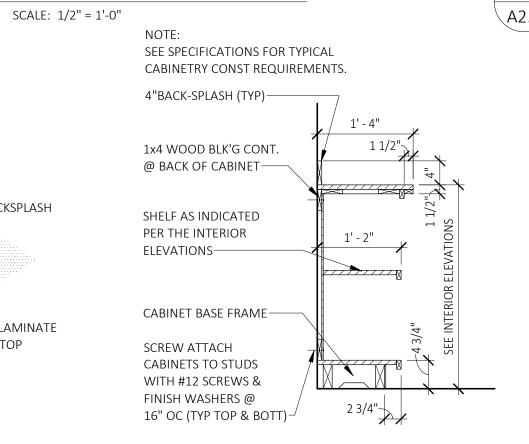


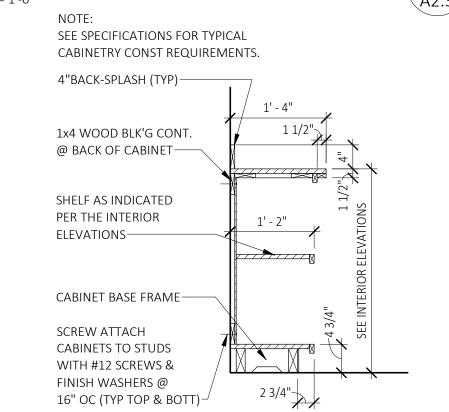


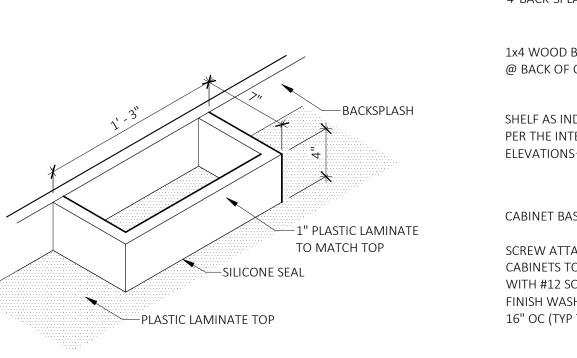












13

A2.3





PUT DOWN COUNTER

**BROOM CLOSET** A2.3

WOOD SHELF 16

NOT USED

-WOOD FACE

FRAME-(TYP.)

20" OR 24"

BASE CABINET (1 DOOR)

2' - 0"

BASE CAB (2 DRAWERS)

1 1/2"

SCALE: 3/8" = 1'-0"

SEE SPECIFICATIONS FOR TYPICAL CABINETRY CONST REQUIREMENTS.

**CABINET DOORS WITH** 

CABINET BASE FRAME-

4" BACK-SPLASH- (TYP.)—

1x4 WOOD BLK'G CONT.

@ BACK OF CABINET—

SCREW ATTACH

STUDS WITH #12

SCREWS & FINISH

WASHERS @ 16" OC

(TYP TOP & BOTT)-

SEE SPECIFICATIONS FOR TYPICAL

CABINETRY CONST REQUIREMENTS

SCALE: 3/4" = 1'-0"

CABINETS TO

1x WOOD PERIM.

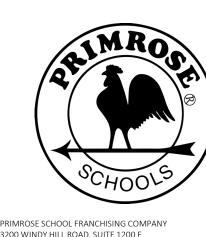
FRAMES-(TYP) —

**ELEVATION SECTION** LAMINATE FINISH. REFER TO

FINISH SCHEDULE FOR COLOR.



**PRIMROSE** 



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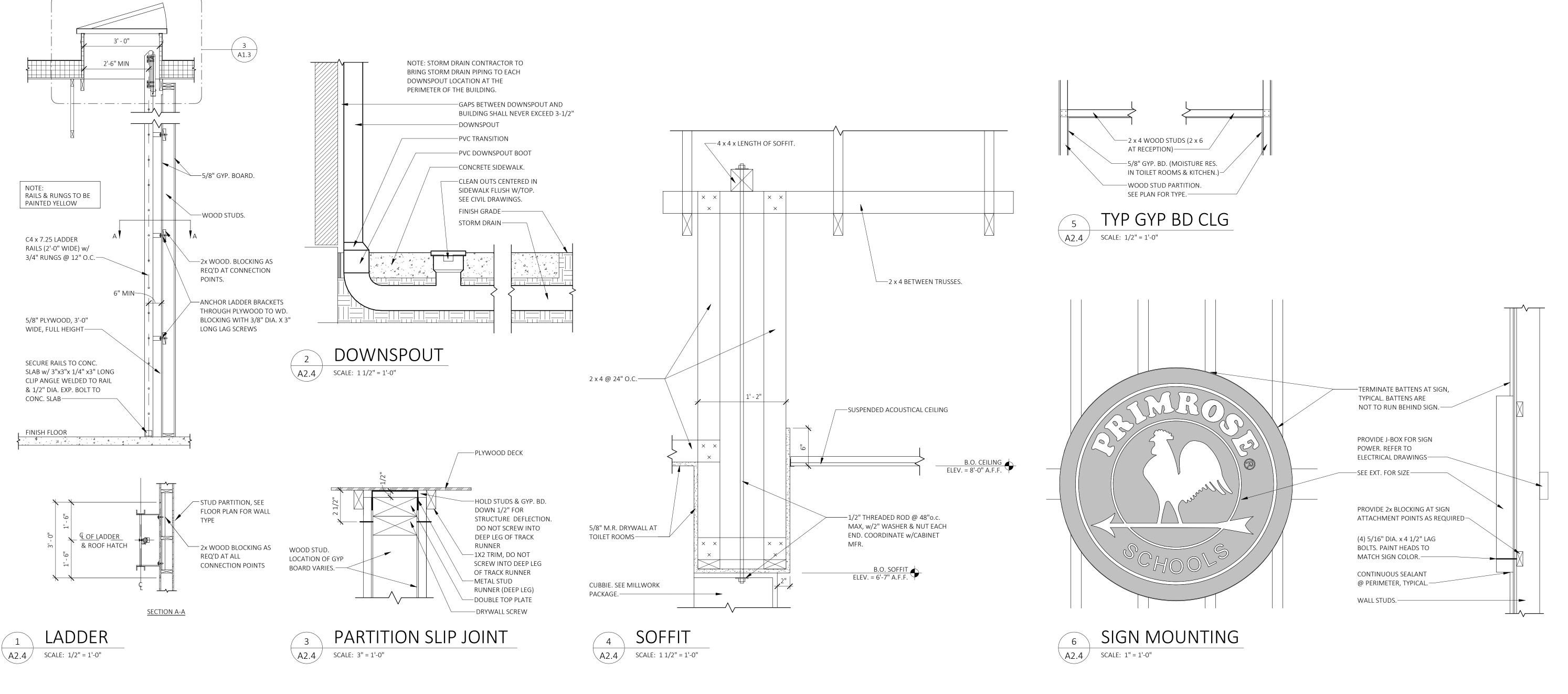
ARCHITECT

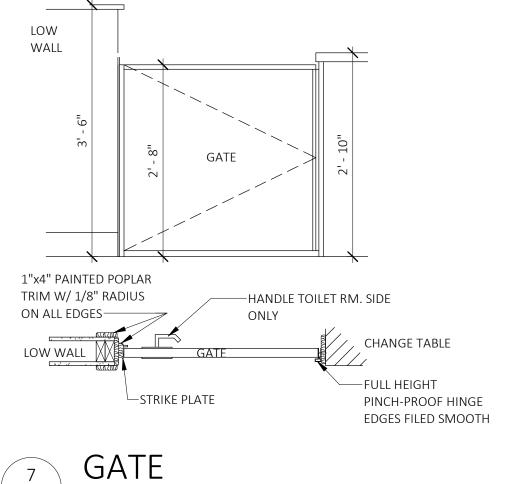
Professional of Record: Suzanne M Hayes LICENSE NO: 1301072179 EXP. DATE: 12/19/24

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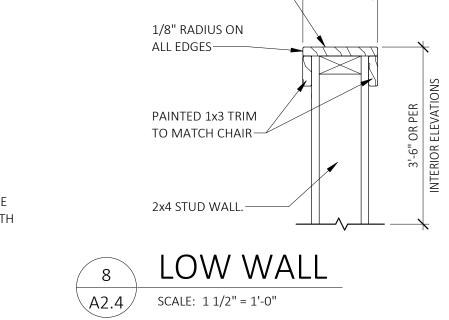
MISCELLANEOUS DETAILS



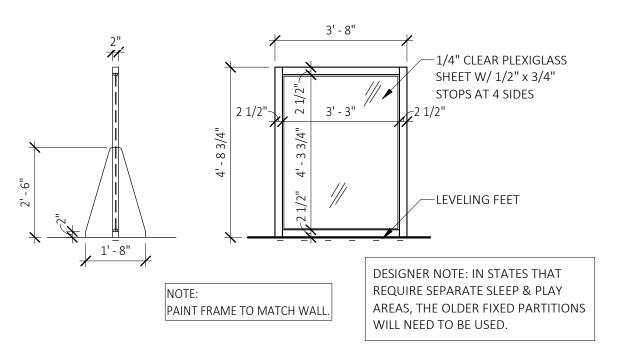




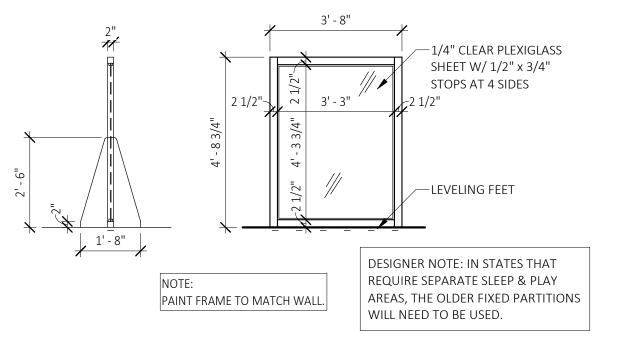
A2.4 SCALE: 3/4" = 1'-0"



5/4x PAINTED CAP——







DISPENSERS MOUNTED NO HIGHER THAN 42" TO

OPERABLE PARTS

HI-LOW DRINKING

FOUNTAIN, REFER TO PLUMBING DRAWINGS

FOR MORE INFORMATION-

HATCHED AREA REPRESENTS

REQUIRED FOR KNEE SPACE

11"

DRINKING FOUNTAIN

THE ADA CLEARANCE

ACCESSIBLE DRINKING

AT A WHEELCHAIR

FOUNTAIN—

A2.4 SCALE: 3/4" = 1'-0"



ENLARGED RECEPTION PLAN

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

ENLARGED TOILET PLAN

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

ENLARGED TOILET PLAN

A3.0 SCALE: 1/4" = 1'-0"

### CEILING LEGEND

DRYWALL CEILING. CEILING HEIGHT (C.H.) AS INDICATED. SUSPENDED LAY - IN ACOUSTICAL TILE CEILING. CEILING HEIGHT (C.H.) AS INDICATED. SOUND WALL - FILL CAVITY FROM FLOOR TO BOTTOM OF STRUCTURE W / SOUND ATTENUATION BATTS. PROVIDE GYPSUM BOARD TO BOTTOM OF STRUCTURE AS REQUIRED FOR INSTALLATION OF BATTS. EXTERIOR WALL MOUNTED FIXTURE. MOUNT 84" A.F.F. TO BOTTOM OF FIXTURE, U.N.O. EXTERIOR ELEVATIONS. SEE ELECTRICAL.

> INTERIOR EMERGENCY LIGHT FIXTURE, SEE ELECTRICAL. 1' X 4' LIGHT FIXTURE, CEILING MOUNTED. SEE MECHANICAL.

EXTERIOR EMERGENCY LIGHT FIXTURE, SEE ELECTRICAL.

2' X 4' LIGHT FIXTURE, RECESSED. SEE ELECTRICAL.

2' X 4' LIGHT FIXTURE, RECESSED - NIGHT LIGHT. SEE ELECTRICAL.

RECESSED DOWNLIGHT. SEE ELECTRICAL.

CEILING / WALL MOUNTED BATTERY POWERED EMERGENCY EXIT LIGHT W / EMERGENCY LIGHT HEADS. SEE ELECTRICAL. RETURN AIR - SEE MECHANICAL.

EXHAUST GRILLE - SEE MECHANICAL

SUPPLY AIR - SEE MECHANICAL

### RCP KEYED NOTES

- 1 NOT USED
- 2 5/8" GYPSUM BOARD CEILING
- 3 2' X 2' SUSPENDED CEILING GRID WITH LAY IN ACOUSTICAL TILES. CENTER LIGHTS U.N.O.
- 4 DRYWALL CONTROL JOINT. MAXIMUM SPACING 30' 0" O.C. 5 ELECTRIC HEATER. SEE MECHANICAL FOR ADDITIONAL INFORMATION.
- 6 NOT USED
- 7 36" X 30" BILCO "TYPE S" ROOF HATCH OR EQUAL.
- 8 2' X 2' SUSPENDED CEILING GRID WITH "KITCHEN ZONE" LAY IN ACOUSTICALTILES, CENTER LIGHTS, U.N.O. COLOR AS INDICATED ON FINISH SCHEDULE.
- 9 ROOF LADDER, SEE 1/A2.4

10 l 483 43455 NOVI,



PRIMROSE SCHOOL FRANCHISING COMPANY 3200 WINDY HILL ROAD, SUITE 1200 E ATLANTA, GEORGIA 30339-5640

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# ARCHITECT

### CEILING GENERAL NOTES

- A. ALL INTERIOR DIMENSIONS ARE TO FACE OF GYPSUM BOARD, UNLESS NOTED OTHERWISE.
- B. CENTER LIGHT FIXTURES IN ROOMS, UNLESS NOTED OTHERWISE. C. COORDINATE CEILING PLAN & INSTALLATION WITH ALL ARCHITECTURAL, MECHANICAL & ELECTRICAL TRADES. (REFER TO MECHANICAL, PLUMBING,
- FIRE PROTECTION & ELECTRICAL DRAWINGS FOR REQUIREMENTS) D. REFER TO ROOM FINISH SCHEDULE AND SPECS FOR FINISH CEILING TYPES & INSTALLATION REQUIREMENTS.
- E. PROVIDE AND INSTALL SEISMIC CEILING BRACING & RESTRAINTS. WHERE REQUIRED BY STATE OR LOCAL LAWS, CODES AND ORDINANCES.
- F. MECHANICAL CONTRACTOR SHALL COORDINATE ALL GRILLES, DIFFUSERS, EQUIPMENT, DUCTS, ETC. WITH ALL OTHER TRADES INCLUDING, BUT NOT LIMITED TO THE MILLWORK, CABINETRY THAT EXTENDS TO THE CEILING IN TOILET ROOMS, ELECTRICAL CONTRACTOR, AND LIGHTING.
- G. ALL GYP. BD. CEILING PENETRATIONS TO BE SEALED, TEXTURED, AND FINISHED.
- H. CENTER ALL SUSPENDED CEILING GRIDS IN BOTH DIRECTIONS, TYPICAL UNLESS NOTED OR DIMENSIONED.

AND LADDER BELOW AS WELL AS TRUSS SHOP DRAWINGS.

I. EXTEND GYP. BD. TO 6" ABOVE SUSPENDED CEILINGS, U.N.O. GYP. BD. SHOULD EXTEND TO ROOF DECK AT ALL EXTERIOR WALLS. J. GC TO COORDINATE EXACT ROOF HATCH OPENING LOCATION WITH WALL

LICENSE NO: 1301072179 EXP. DATE: 12/19/24 Drawn/Checked Project Number 2202640 Bid Date

7/10/23

--/--/--

Professional of Record: Suzanne M Hayes

REFLECTED **CEILING PLAN** 

Permit Date

For Construction

A3.0

Professional of Record: Suzanne M Hayes LICENSE NO: 1301072179 EXP. DATE: 12/19/24

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or Construction	//

**EXTERIOR** ELEVATIONS



MARK DESCRIPTION

METAL ROOF

STACK STONE

TRIM-2 MTL TRIM @ METAL ROOF

WD-1 BOARD & BATTEN SIDING

ACC-1 SHUTTERS

LOUVERS

DR - 1 HALF LITE DOORS

DR - 2 FULL LITE DOOR

WIN - 1 VINYL WINDOWS

WIN - 2 VINYL WINDOWS (@ OFFICE)

BRICK VENEER

WEATHER VANE

**GABLED ROOF** 

ACC-2

3" STONE SILL @ WAINSCOT

TRIM (FASCIA TRIM @ METAL

SCUPPERS, DOWNSPOUTS @

12 DOWNSPOUTS TIED INTO UNDERGROUND STORM SEWER BELOW GRADE.

HOUR SIGN. COORDINATE LOCATION WITH LOCAL FIRE OFFICIAL.

14 4' - 0" HIGH SOLID VINYL FENCE WITH (2) 3' - 0"W GATES.

EXTERIOR FINISH LEGEND

13 KNOX BOX OR APPROVED EQUAL. COORDINATE LOCATION WITH LOCAL FIRE OFFICIAL

15 BEIGE ALUMINUM PLAQUE W/6" REFLECTIVE BLACK VINYL NUMBERS. PROVIDED BY 1

SPECIFICATION

LEDGESTONE

MISC METAL TRIM & FLASHING ANY MISC METAL FLASHING AND TRIM NOT NOTED AS

DIRECTION AS REQ'D.

COLOR: TO MATCH "MR-1"

TRIM-1 MTL COPING @ PARAPET WALLS COLOR TO MATCH HARDIE BOARD ARCTIC WHITE

BERRIDGE CEE-LOCK SYSTEM. COLOR: CHARCOAL

BUECHEL STONE CORP: STONE SILL COLOR: CHILTON,

3"T x 3"D. SLOPE TOP FOR POSITIVE DRAINAGE

TRIM-1 OR TRIM-2 SHOULD MATCH COLOR OF

ADJACENT SURFACE. CONTACT ARCHITECT FOR

HARDIE PANEL (4' x 10') & HARDIE TRIM BATTEN BOARDS (1 1.2" WIDE @ 16" O.C.) fINISH: SMOOTH COLOR: ARCTIC WHITE (PRIMED AND FIELD PAINTED)

HARDIE TRIM BOARDS, 5/4 NT3 SMOOTH, VARIOUS WIDTHS AS REQUIRED (SEE ELEVATIONS). COLOR: ARCTIC WHITE (PRIMED AND FIELD PAINTED)

EKENA MILLWORK: TWO BATTEN W/Z-BAR BOARD &

SHUTTERS TO BE ORDERED PRIMED, PAINT TO MATCH

AMERICAN LOUVER & VENT COMPANY, TGV81260 OR

EXTERIOR INSULATED METAL HALF LITE DOOR; COLOR

(INTERIOR & EXTERIOR): CHARCOAL GREY. SEE DOOR

EXTERIOR INSULATED METAL FULL LITE DOOR: COLOR (INTERIOR & EXTERIOR): CHARCOAL GREY. SEE DOOR

ANDERSEN: 100 SERIES. COLOR: CHARCOAL GREY. SE

APPROVED EQUAL. COLOR: TO MATCH WD-1

LARGE COPPER ROOSTER WEATHERVANE. SEE

1A/A6.3 FOR ADDITIONAL INFORMATION.

COLOR: "ARCTIC WHITE": 6" GUTTERS AND

SCHEDULE FOR ADDITIONAL INFORMATION.

SCHEDULE FOR ADDITIONAL INFORMATION.

CHARCOAL GREY. SEE WINDOW SCHEDULE.

AUTHINTIC BRICK; THIN BRICK VENEER; STYLE

DOWNSPOUTS U.N.O.

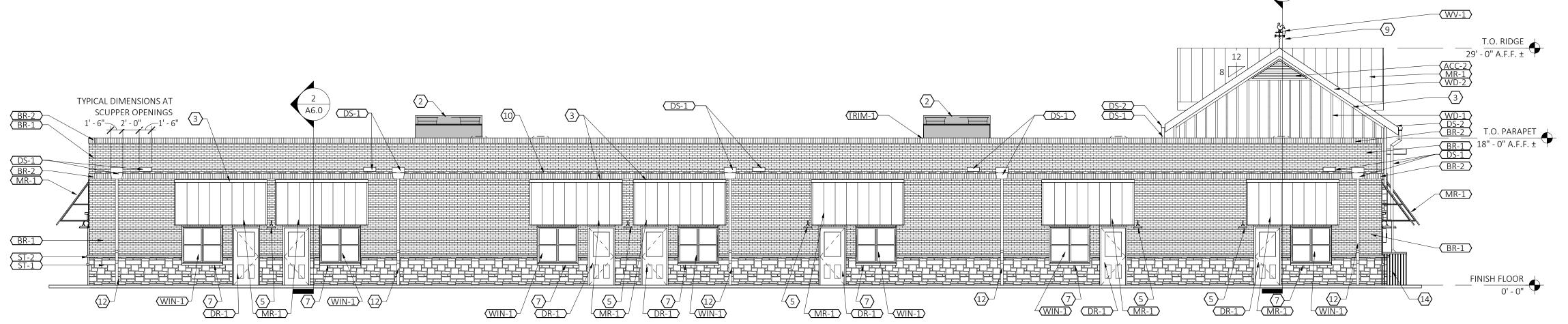
WINDOW SCHEDULE

"COTTONWOOD" BRICK VENEER SOLDIER COURSE OLDMILL BRICK VENEER SOLDIER COURSE; MODEL: OLYMPUS

GUTTERS ALONG METAL ROOF | COLOR: TO MATCH "MR - 1"

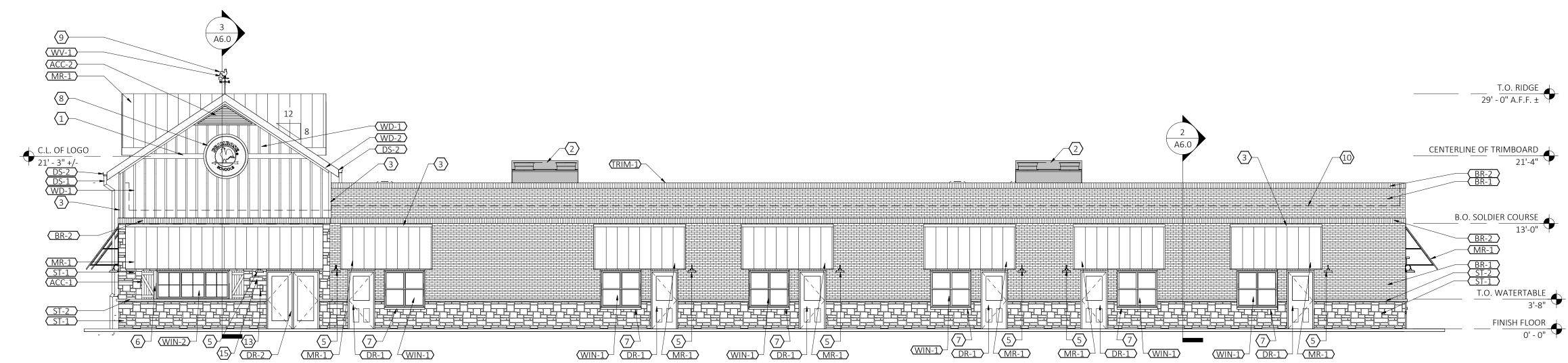
BATTEN COMPOSITE SHUTTERS. 3' - 6"T x 1' - 6"W.

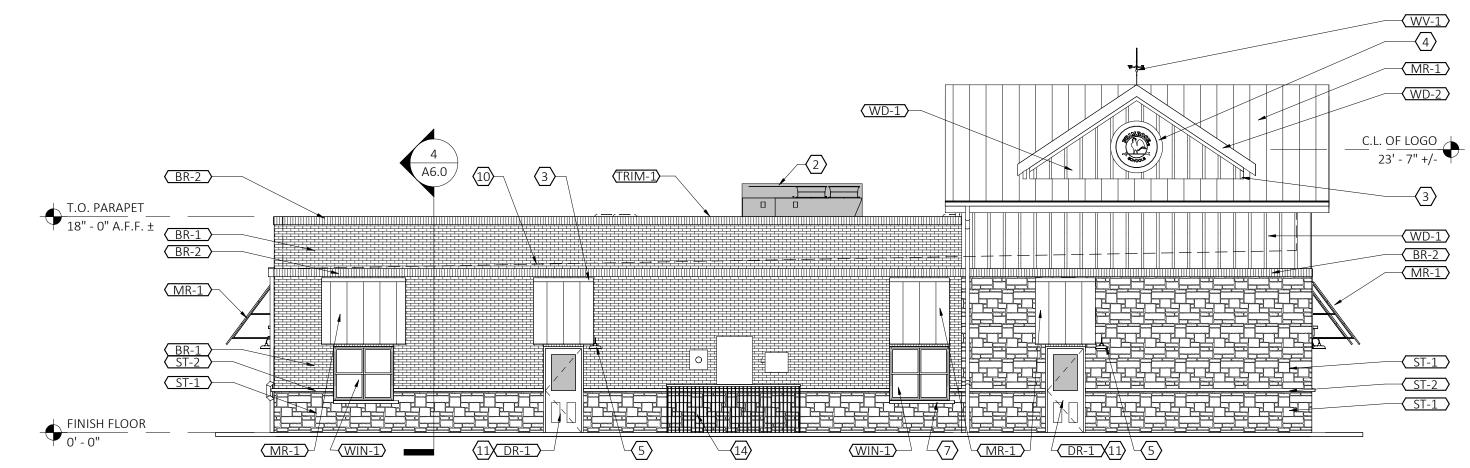
BUECHEL STONE CORP; MODEL: CHILTON



**EAST ELEVATION** 

SCALE: 1/8" = 1'-0"

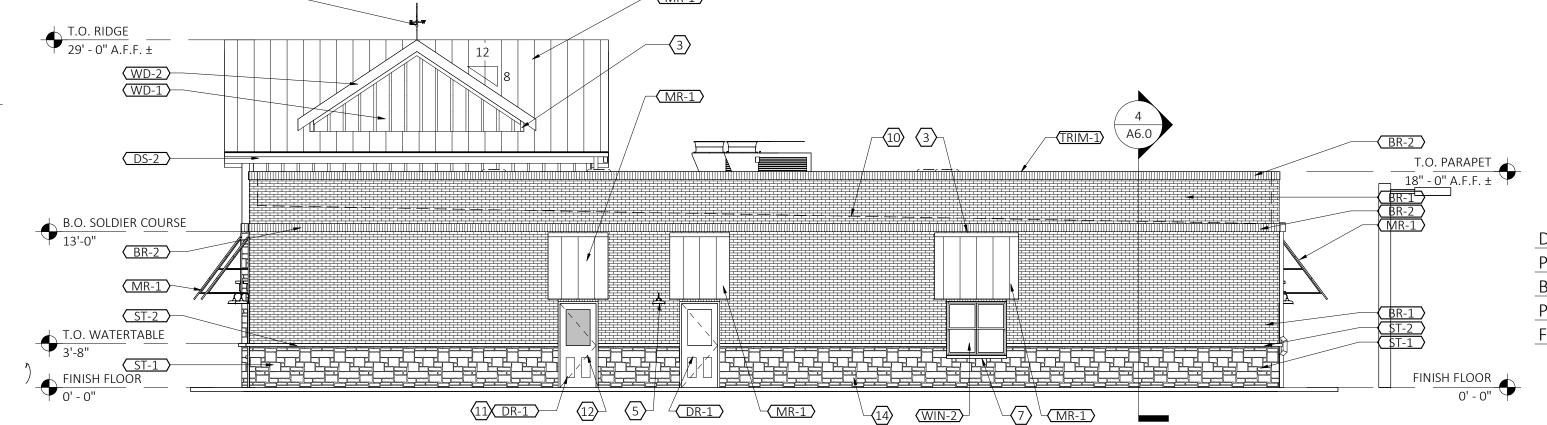




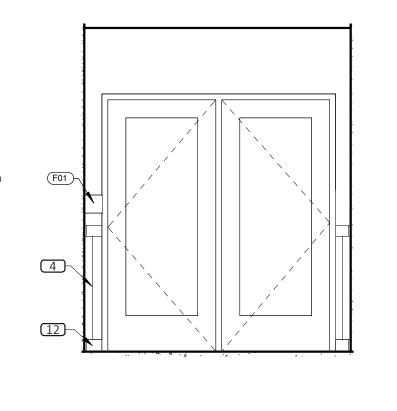


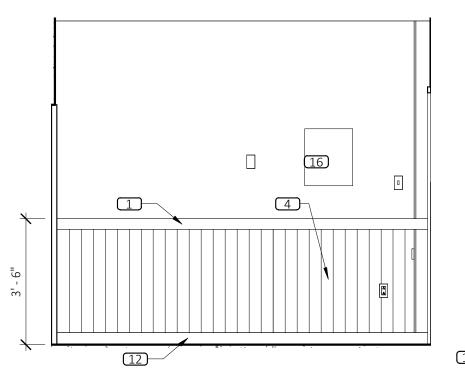
WEST ELEVATION

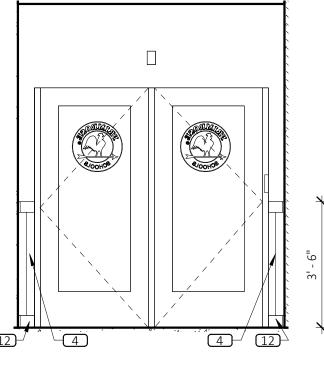
SCALE: 1/8" = 1'-0"

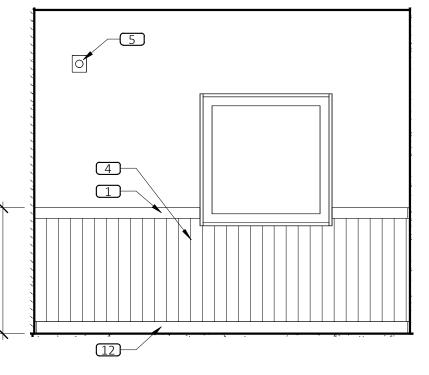


43455 W. 10 MILE ROAD NOVI, MI 48375







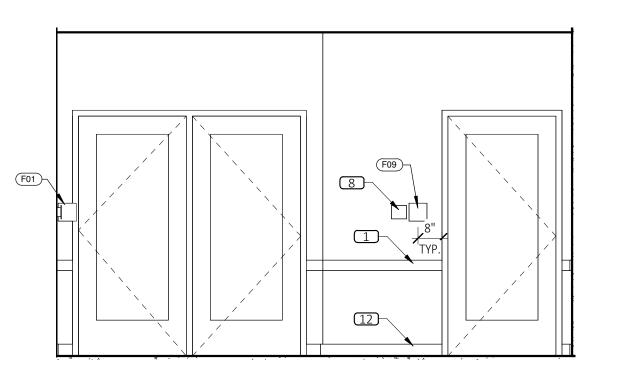


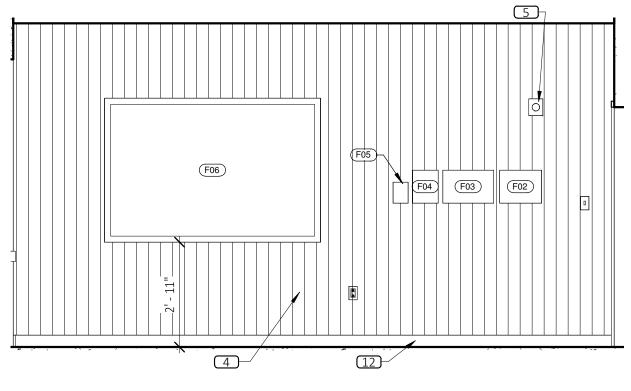
VESTIBULE A5.1 SCALE: 3/8" = 1'-0"

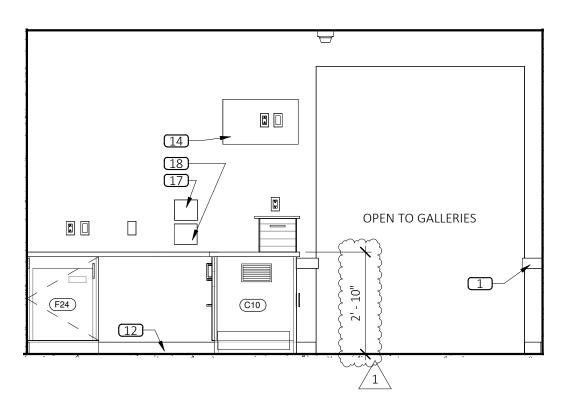


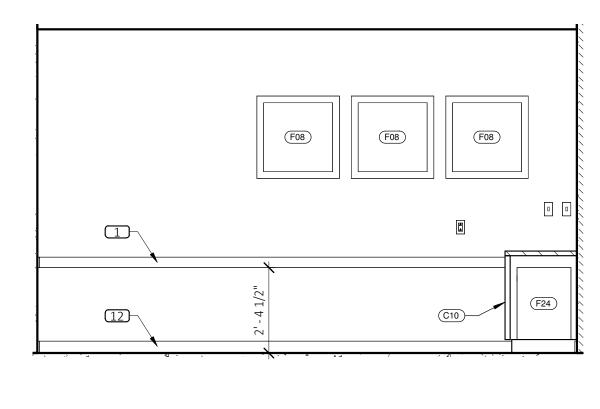


4 VESTIBULE
A5.1 SCALE: 3/8" = 1'-0"







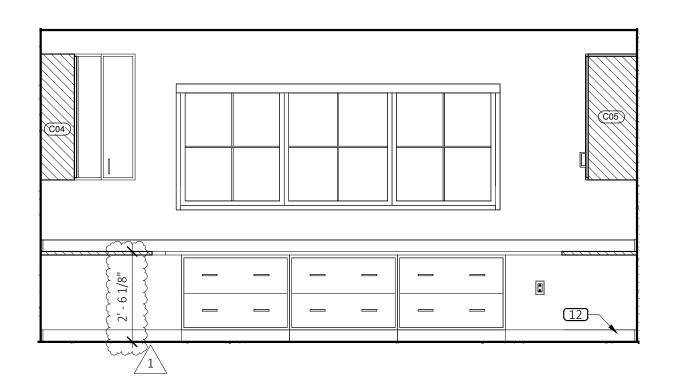


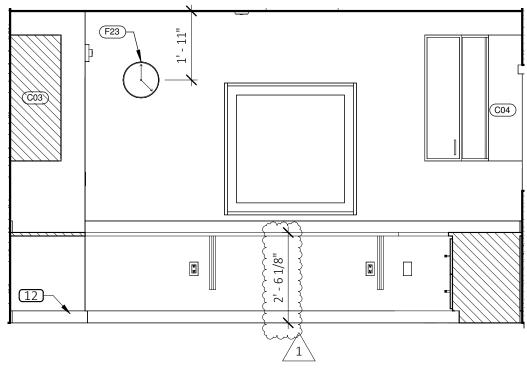


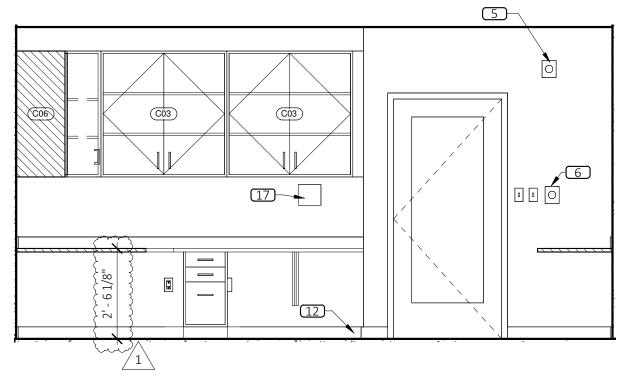


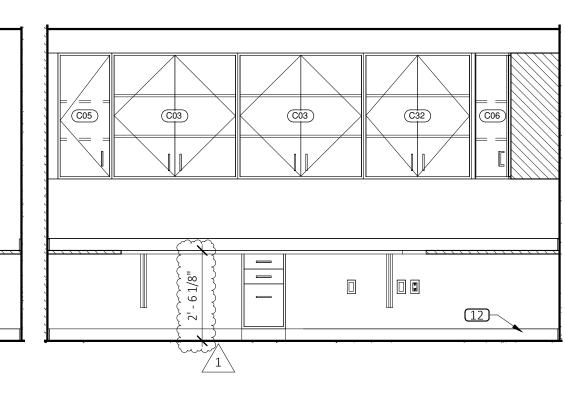


RECEPTION SCALE: 3/8" = 1'-0"







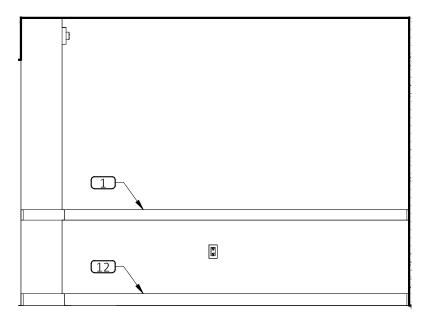


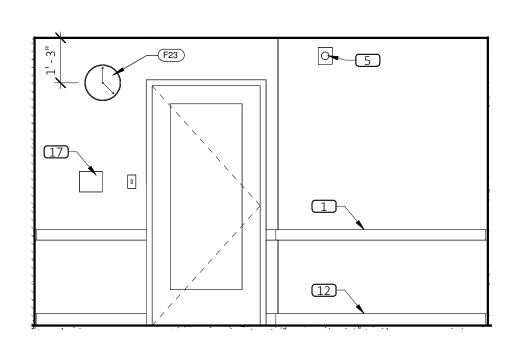


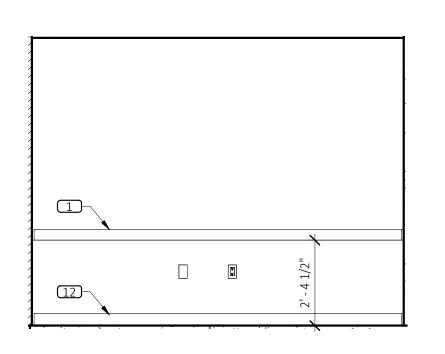


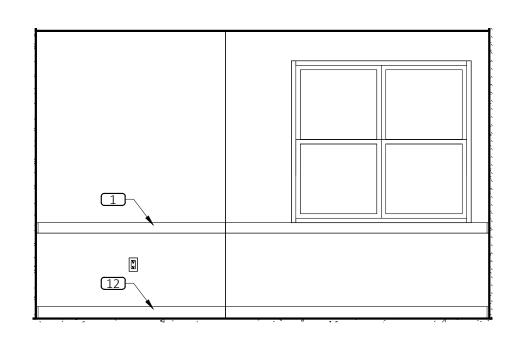


12 OFFICE
A5.1 SCALE: 3/8" = 1'-0"















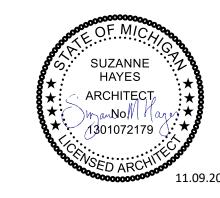


### 

- 1 CHAIR RAIL, SEE FINISH SCHEDULE
- 2 PROVIDE FULL HEIGHT FRP AT COT STORAGE ALCOVE. EXTEND FRP TO END FACE OF WING WALL & TERMINATE W/ J-MOULD (TYP.)
- 3 PROVIDE BLOCKING FOR WOOD SHELF
- 4 1" x 4" SHIP LAP. PROVIDE WOOD BLOCKING IN WALL AS NEEDED.
- 5 FA VISUAL STROBE
- 6 FA PULL STATION 7 8" BACK SPLASH
- 8 THERMOSTAT WITH CLEAR LOCKABLE COVER. .48" TO HIGHEST OPERABLE
- PART, SEE MECHANICAL. 9 HOSE BIBB ACCESS PANEL
- 10 MOP SINK
- 11 FRP
- 12 COVE BASE
- 13 COAT HOOKS 14 29" MONITOR. PROVIDE OUTLET, SEE ELECTRICAL
- 15 TIME CLOCK
- 16 FIRE ALARM ANNUNCIATOR PANEL
- 17 INTERCOM
- 18 MASTER INTERCOM

### CASEWORK SCHEDULE

		<b>JWNER FURNISHED</b>	<b>JWNER INSTALLED</b>	CONTRACTOR FURNI	CONTRACTOR INSTA
TYPE	ITEM (REFER TO FFE SCHEDULE ON SHEET	Z  ≷	Z  ≷		Z
MARK	ID1.0 FOR "F" TAGGED ITEMS)	Ó	Ó	$\Box$	$\mathcal{C}$
	CURRIES OF FLEWATIONS FOR CHANTITY	l		_	
C01	CUBBIES, SEE ELEVATIONS FOR QUANTITY			0	0
C02	CUBBIES ABOVE CHANGE TABLE			0	0
C03	16" DEEP X 3'-6"W X 3'-6"H SURFACED MOUNTED			0	0
C04	16" DEEP x 3'-0"W x 3'-6"H CORNER CABINET			0	0
C05	16" DEEP X 1'-6"W X 3'-6"H SURFACE MOUNTED			0	0
C06	16" DEEP X 1'-3"W X 3'-6"T SURFACE MOUNTED			0	0
C07	12" DEEP X 2'-0"W X 2'-0"T WALL CABINET			0	0
C08	12" DEEP X 2'-6"W X 3'-3"T WALL CABINET			0	0
C09	12" DEEP X 3'-0"W X 3'-0"T WALL CABINET			0	0
C10	RECEPTION DESK CABINETS			0	0
C11	30" X 40" CURRICULUM CABINET			0	0
C12	16" DEEP X 4' LONG WALL CABINET			0	0
C13	CAR SEAT STORAGE SHELVING			0	0
C14	24"D x 36"L ADJ. WD SHELVES W/ 1'-6" L STANDARDS			0	0
C15	18"DEEP ADJUSTABLE WOOD SHELVES, SEE ELEVATIONS			0	0
C16	12" DEEP X 3'-0"W X 3'-0"T SURFACE MOUNTED			0	0
C17	8" DEEP X 2'-6"W X 3'-0" SEMI - RECESSED			0	0
C18	STORAGE ROOM SHELVING			0	0
C19	PAPER ROLL HOLDER			0	0
C20	12" DEEP X 2'-6" LONG WOOD SHELF			0	0
C21	8" DEEP X 2'-6"W X 3'-0" SURFACE MOUNTED			0	0
C22	2'-0"H X 1'-4"W X 6"D DISINFECTANT CABINETS			0	0
C23	KITCHENETTE BASE CABINETS			0	0
C24	BABY CHANGING TABLE (SNEEZE GAURDS ONLY OCCUR AT POTTY PODS OR AT CHANGING TABLES THAT ARE NOT AGAINST A WALL)			0	0
C25	"PUT DOWN" COUNTER			0	0
C26	MOBILE INFANT PARTITION, SEE DETAIL 9/A2.4			0	0
C27	LOCKERS, SEE ELEVATIONS			0	0
C28	SINGLE LAVATORY			0	0
C29	DOUBLE LAVATORY			0	0
C30	RECESSED BROOM CLOSET, SEE DETAIL 19/A2.3. (OPTIONAL - CHECK WITH OWNER PRIOR TO ORDERING)			0	0
C31	LAUNDRY ROOM STORAGE SHELVING			0	0
C32	16" DEEP X 3'-0"W X 3'-6"H SURFACED MOUNTED			0	0



3200 WINDY HILL ROAD, SUITE 1200 E ATLANTA, GEORGIA 30339-5640

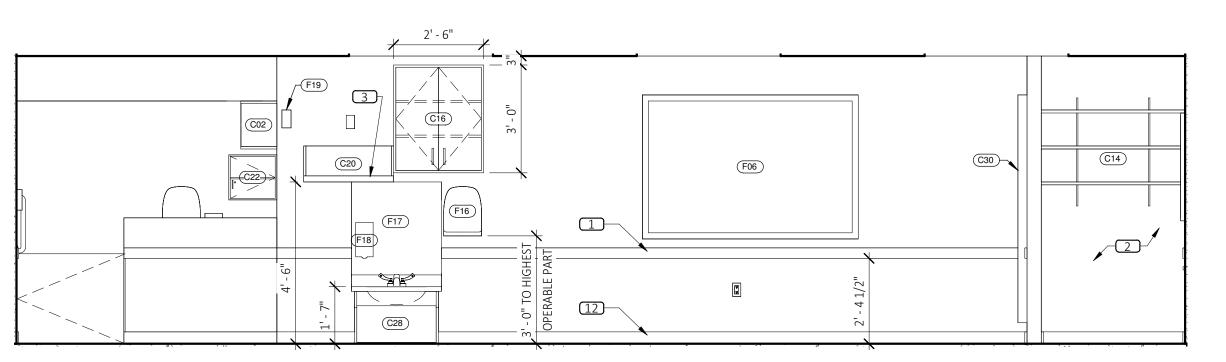
THESE DRAWINGS AND THE DESIGN REPRESENTED HEREBY ARE THE EXCLUSIVE

THESE DRAWINGS AND THE DESIGN REPRESENTED HEREBY ARE THE EXCLUSIVE PROPERTY OF PRIMROSE SCHOOL FRANCHISING CO. REPRODUCTION OR ANY USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF PRIMROSE SCHOOL FRANCHISING CO. IS PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.

Professional of Record: Suzanne M Hayes LICENSE NO: 1301072179 EXP. DATE: 12/19/24

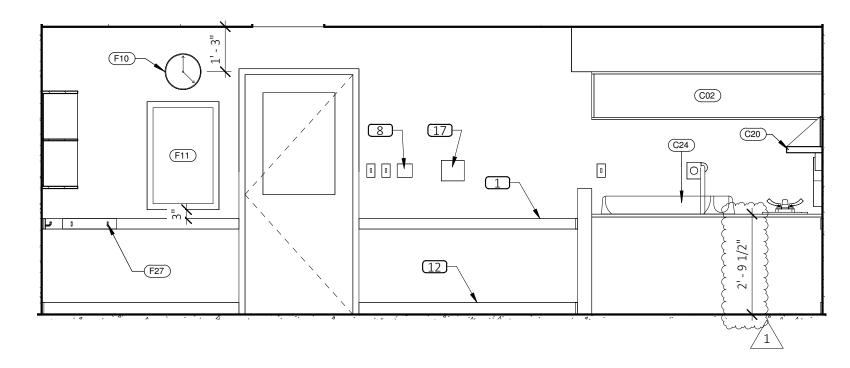
Drawn/Checked	DSC / ALA
Project Number	2202640
Bid Date	//
Permit Date	7/10/23
For Construction	//

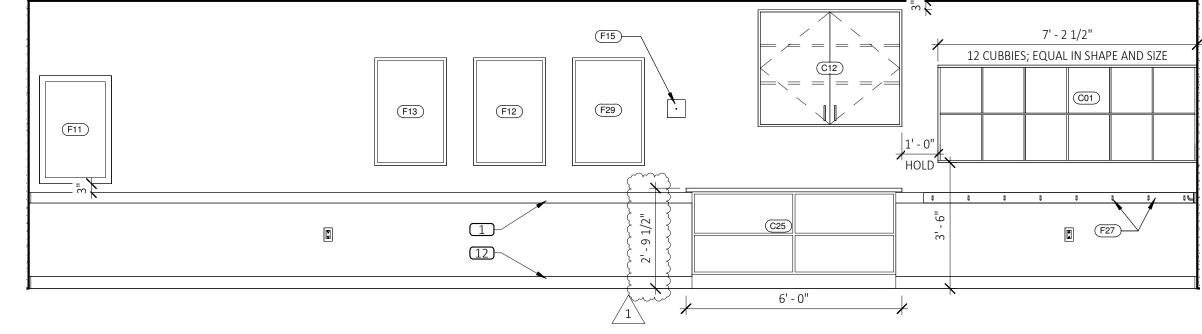
INTERIOR ELEVATIONS



### CLASSROOM B1 A5.2 SCALE: 3/8" = 1'-0"

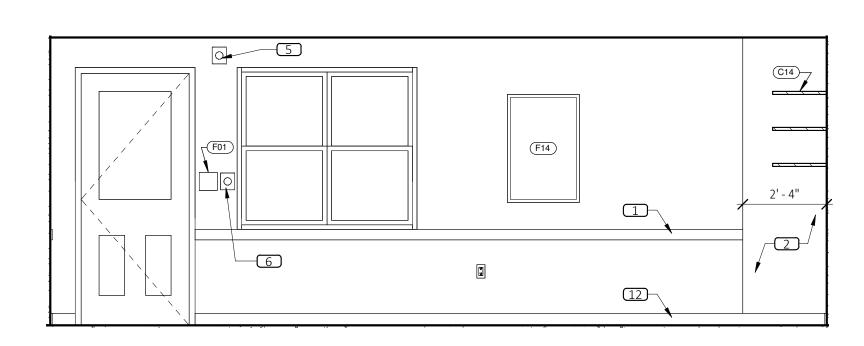
CLASSROOM B1 A5.2 SCALE: 3/8" = 1'-0"

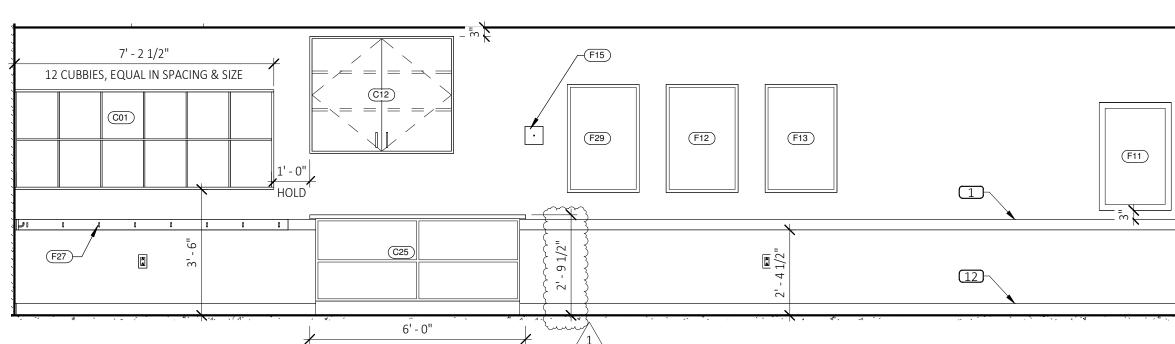






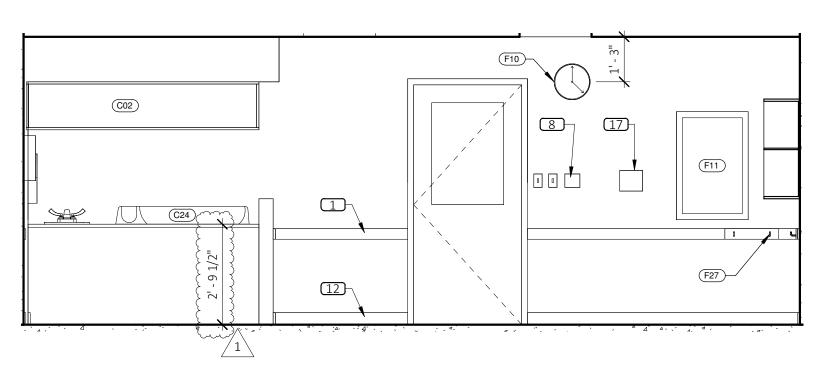
CLASSROOM B1 A5.2 SCALE: 3/8" = 1'-0"

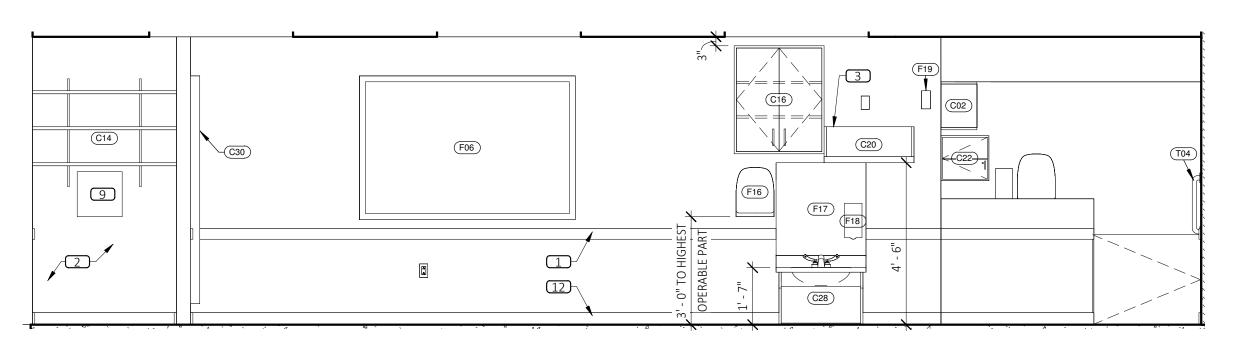
















### ELEVATION KEYED NOTES 🖾

1 CHAIR RAIL, SEE FINISH SCHEDULE

2 PROVIDE FULL HEIGHT FRP AT COT STORAGE ALCOVE. EXTEND FRP TO END

FACE OF WING WALL & TERMINATE W/ J-MOULD (TYP.) 3 PROVIDE BLOCKING FOR WOOD SHELF

4 1" x 4" SHIP LAP. PROVIDE WOOD BLOCKING IN WALL AS NEEDED.

5 FA VISUAL STROBE 6 FA PULL STATION

7 8" BACK SPLASH

8 THERMOSTAT WITH CLEAR LOCKABLE COVER. .48" TO HIGHEST OPERABLE

PART, SEE MECHANICAL.

9 HOSE BIBB ACCESS PANEL 10 MOP SINK

11 FRP

12 COVE BASE 13 COAT HOOKS

14 29" MONITOR. PROVIDE OUTLET, SEE ELECTRICAL

15 TIME CLOCK

16 FIRE ALARM ANNUNCIATOR PANEL

17 INTERCOM

18 MASTER INTERCOM

### CASEWORK SCHEDULE

TYPE MARK	ITEM (REFER TO FFE SCHEDULE ON SHEET ID1.0 FOR "F" TAGGED ITEMS)	OWNER FURNISHED	OWNER INSTALLED	CONTRACTOR FURNISHED	CONTRACTOR INSTALLED		PRIMROSE SCHOOL		C L	43455 W. IU MILE KUA NOVI, MI 48375		
							$\leq$		5	4345. NOVI		
C01	CUBBIES, SEE ELEVATIONS FOR QUANTITY			0	0		20	_	(	$\cong$		
C02	CUBBIES ABOVE CHANGE TABLE			0	0			_	Ì	7 _		
C03	16" DEEP X 3'-6"W X 3'-6"H SURFACED MOUNTED			0	0							
C04	16" DEEP x 3'-0"W x 3'-6"H CORNER CABINET			0	0				MR			
C05	16" DEEP X 1'-6"W X 3'-6"H SURFACE MOUNTED			0	0			<b>( \P</b> )				
C06	16" DEEP X 1'-3"W X 3'-6"T SURFACE MOUNTED			0	0		<i>-</i> /	4/	A	16	<b>'</b> \	
C07	12" DEEP X 2'-0"W X 2'-0"T WALL CABINET			0	0			- (		\		
C08	12" DEEP X 2'-6"W X 3'-3"T WALL CABINET			0	0		- (	\				
C09	12" DEEP X 3'-0"W X 3'-0"T WALL CABINET			0	0		_ \	$\Delta$	$\Delta \Delta$		. /	
C10	RECEPTION DESK CABINETS			0	0		\	0.				
C11	30" X 40" CURRICULUM CABINET			0	0			100	CHOC	15/		
C12	16" DEEP X 4' LONG WALL CABINET			0	0							
C13	CAR SEAT STORAGE SHELVING			0	0				CHISING COM	1PANY		
C14	24"D x 36"L ADJ. WD SHELVES W/ 1'-6" L STANDARDS			0	0			HILL ROAD, S ORGIA 3033:	SUITE 1200 E 9-5640			
C15	18"DEEP ADJUSTABLE WOOD SHELVES, SEE ELEVATIONS			0	0				IGN REPRESENTED			
C16	12" DEEP X 3'-0"W X 3'-0"T SURFACE MOUNTED			0	0	USE	OF THESE DR	RAWINGS OTHER	R THAN FOR THE I T OF PRIMROSE S	PROJECT INTEND	ED WITHOUT	
C17	8" DEEP X 2'-6"W X 3'-0" SEMI - RECESSED			0	0				ED USE WILL BE SI			
C18	STORAGE ROOM SHELVING			0	0							
C19	PAPER ROLL HOLDER			0	0			n				
C20	12" DEEP X 2'-6" LONG WOOD SHELF			0	0		Date	7/0				
C21	8" DEEP X 2'-6"W X 3'-0" SURFACE MOUNTED			0	0			) A				
C22	2'-0"H X 1'-4"W X 6"D DISINFECTANT CABINETS			0	0		<del>-</del>	4				
C23	KITCHENETTE BASE CABINETS			0	0							
C24	BABY CHANGING TABLE (SNEEZE GAURDS ONLY OCCUR AT			0	0							
	POTTY PODS OR AT CHANGING TABLES THAT ARE NOT					2						
	AGAINST A WALL)					NO N						
C25	"PUT DOWN" COUNTER			0	0	EVS.						
C26	MOBILE INFANT PARTITION, SEE DETAIL 9/A2.4			0	0	× R	ion					
C27	LOCKERS, SEE ELEVATIONS			0	0	DOC. & REVSIONS	Description					
C28	SINGLE LAVATORY			0	0	00	esc					
C29	DOUBLE LAVATORY			0	0	Ę.						
C30	RECESSED BROOM CLOSET, SEE DETAIL 19/A2.3. (OPTIONAL - CHECK WITH OWNER PRIOR TO ORDERING)			0	0	CONSTR.	ONSE					
C31	LAUNDRY ROOM STORAGE SHELVING			0	0	-	Д	L				
C32	16" DEEP X 3'-0"W X 3'-6"H SURFACED MOUNTED			0	0		TONE RESPONSE					

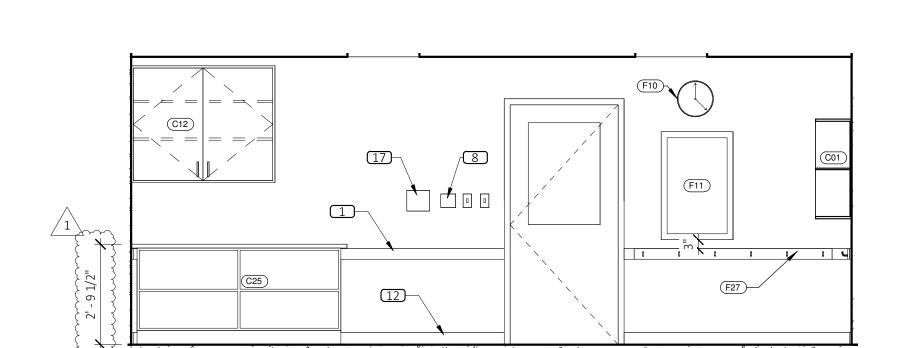


43455 W. 10 MILE ROAD NOVI, MI 48375

Professional of Record: Suzanne M Hayes LICENSE NO: 1301072179 EXP. DATE: 12/19/24

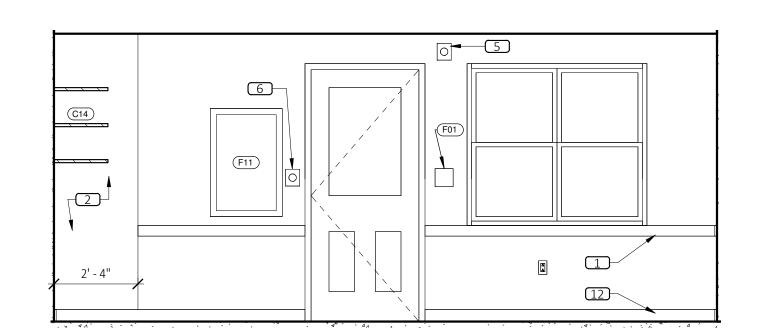
Drawn/Checked	DSC / ALA
Project Number	2202640
Bid Date	//
Permit Date	7/10/23
For Construction	//

INTERIOR ELEVATIONS 1 CLASSROOM EP1
A5.3 SCALE: 3/8" = 1'-0"



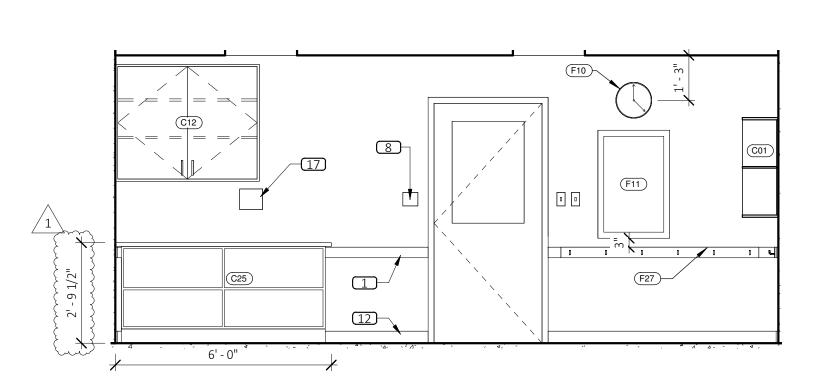
3 CLASSROOM EP1
A5.3 SCALE: 3/8" = 1'-0"

6' - 0"

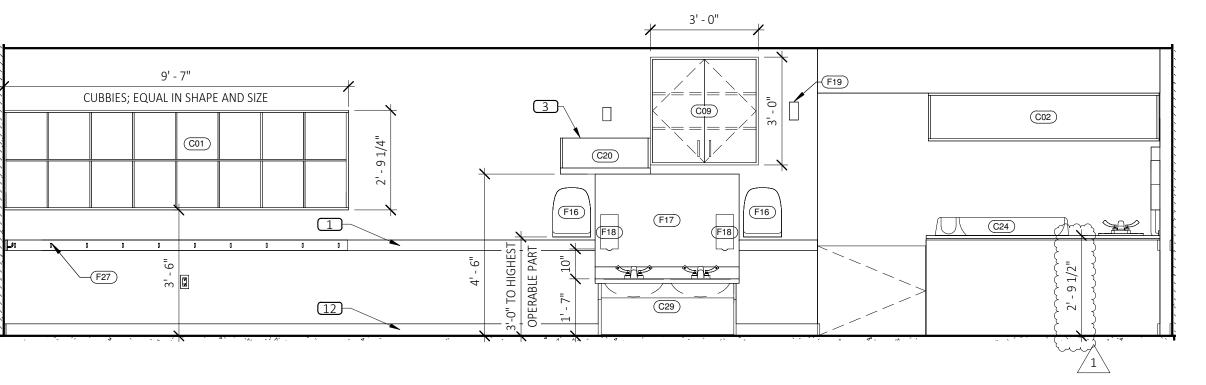


5 CLASSROOM EP2

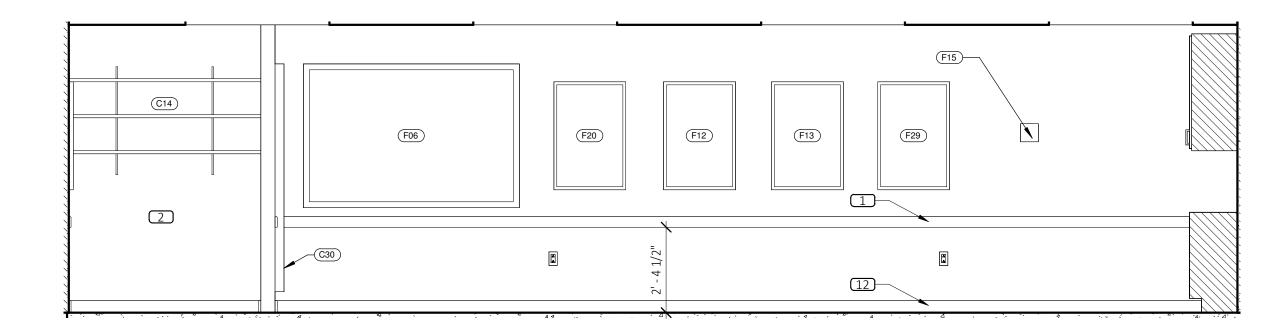
SCALE: 3/8" = 1'-0"



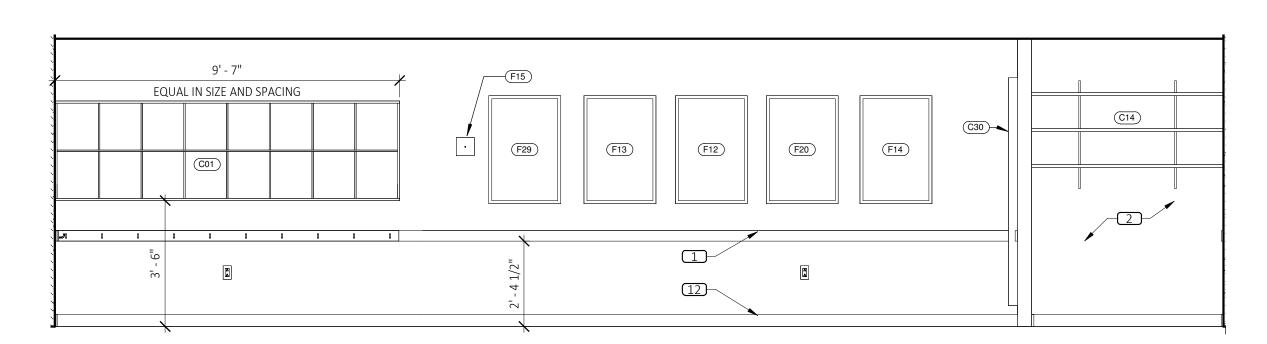
7 CLASSROOM EP2
A5.3 SCALE: 3/8" = 1'-0"



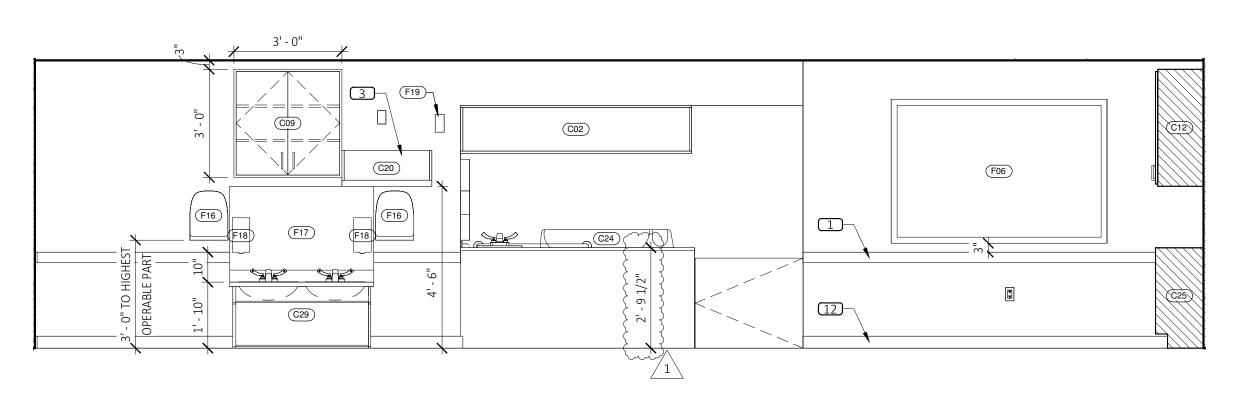
2 CLASSROOM EP1
A5.3 SCALE: 3/8" = 1'-0"



4 CLASSROOM EP1
A5.3 SCALE: 3/8" = 1'-0"



6 CLASSROOM EP2
A5.3 SCALE: 3/8" = 1'-0"



8 CLASSROOM EP2
A5.3 SCALE: 3/8" = 1'-0"

ELEVATION KEYED NOTES 🖾

1 CHAIR RAIL, SEE FINISH SCHEDULE

2 PROVIDE FULL HEIGHT FRP AT COT STORAGE ALCOVE. EXTEND FRP TO END FACE OF WING WALL & TERMINATE W/ J-MOULD (TYP.)

3 PROVIDE BLOCKING FOR WOOD SHELF

4 1" x 4" SHIP LAP. PROVIDE WOOD BLOCKING IN WALL AS NEEDED.

5 FA VISUAL STROBE

6 FA PULL STATION

7 8" BACK SPLASH 8 THERMOSTAT WITH CLEAR LOCKABLE COVER. .48" TO HIGHEST OPERABLE

PART, SEE MECHANICAL.

9 HOSE BIBB ACCESS PANEL

10 MOP SINK 11 FRP

12 COVE BASE 13 COAT HOOKS

14 29" MONITOR. PROVIDE OUTLET, SEE ELECTRICAL

15 TIME CLOCK

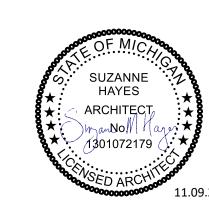
16 FIRE ALARM ANNUNCIATOR PANEL

17 INTERCOM

18 MASTER INTERCOM

CASEWORK SCHEDULE

TYPE MARK	ITEM (REFER TO FFE SCHEDULE ON SHEET ID1.0 FOR "F" TAGGED ITEMS)	OWNER FURNISHED	OWNER INSTALLED	CONTRACTOR FURNISHED	CONTRACTOR INSTALLED			PRIMROSE SCHOOL	43455 W. 10 MILE ROA	MI 48375	
C01	CUBBIES, SEE ELEVATIONS FOR QUANTITY			0	0			$\overline{\mathbf{z}}$	37	$\circ$	
C02	CUBBIES ABOVE CHANGE TABLE			0	0		(	<u> </u>	4		
C03	16" DEEP X 3'-6"W X 3'-6"H SURFACED MOUNTED			0	0						
C04	16" DEEP x 3'-0"W x 3'-6"H CORNER CABINET			0	0				MR		
C05	16" DEEP X 1'-6"W X 3'-6"H SURFACE MOUNTED			0	0					<b>35</b> /	
C06	16" DEEP X 1'-3"W X 3'-6"T SURFACE MOUNTED			0	0			/Q*/	1	150	\
C07	12" DEEP X 2'-0"W X 2'-0"T WALL CABINET			0	0			/ //			1
C08	12" DEEP X 2'-6"W X 3'-3"T WALL CABINET			0	0						
C09	12" DEEP X 3'-0"W X 3'-0"T WALL CABINET			0	0				Λ.		/
C10	RECEPTION DESK CABINETS			0	0			1			/
C11	30" X 40" CURRICULUM CABINET			0	0			10	CHOO	5/	
C12	16" DEEP X 4' LONG WALL CABINET			0	0						
C13	CAR SEAT STORAGE SHELVING			0	0	PRII	MROSE	SCHOOL FRAI	NCHISING COMPA	NY	
C14	24"D x 36"L ADJ. WD SHELVES W/ 1'-6" L STANDARDS			0	0			DY HILL ROAD, GEORGIA 303	, SUITE 1200 E 39-5640		
C15	18"DEEP ADJUSTABLE WOOD SHELVES, SEE ELEVATIONS			0	0	THES	E DRAW	INGS AND THE DE	ESIGN REPRESENTED HE		
C16	12" DEEP X 3'-0"W X 3'-0"T SURFACE MOUNTED			0	0	USE	OF THESI	E DRAWINGS OTH	OOL FRANCHISING CO. R IER THAN FOR THE PRO. NT OF PRIMROSE SCHO	JECT INTENDED V	VITHOUT
C17	8" DEEP X 2'-6"W X 3'-0" SEMI - RECESSED			0	0				ZED USE WILL BE SUBJE		
C18	STORAGE ROOM SHELVING			0	0						
C19	PAPER ROLL HOLDER			0	0			~			
C20	12" DEEP X 2'-6" LONG WOOD SHELF			0	0		Date	11/09/23			
C21	8" DEEP X 2'-6"W X 3'-0" SURFACE MOUNTED			0	0			50/1			
C22	2'-0"H X 1'-4"W X 6"D DISINFECTANT CABINETS			0	0			$\Xi$			
C23	KITCHENETTE BASE CABINETS			0	0						
C24	BABY CHANGING TABLE (SNEEZE GAURDS ONLY OCCUR AT POTTY PODS OR AT CHANGING TABLES THAT ARE NOT AGAINST A WALL)			0	0	SNO					
C25	"PUT DOWN" COUNTER			0	0	/SIC					
C26	MOBILE INFANT PARTITION, SEE DETAIL 9/A2.4			0	0	DOC. & REVSIONS	Ĕ				
C27	LOCKERS, SEE ELEVATIONS			0	0	∞.	Description				
C28	SINGLE LAVATORY			0	0	200	scri				
C29	DOUBLE LAVATORY			0	0		De				
C30	RECESSED BROOM CLOSET, SEE DETAIL 19/A2.3.			0	0	CONSTR.		SE			
	(OPTIONAL - CHECK WITH OWNER PRIOR TO ORDERING)					SO		NO			
C31	LAUNDRY ROOM STORAGE SHELVING			0	0	_		ESF			
C32	16" DEEP X 3'-0"W X 3'-6"H SURFACED MOUNTED			0	0			CODE RESPONSE			
							No.	Н			



43455 W. 10 MILE ROAD NOVI, MI 48375

Professional of Record: Suzanne M Hayes LICENSE NO: 1301072179 EXP. DATE: 12/19/24

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INTERIOR ELEVATIONS

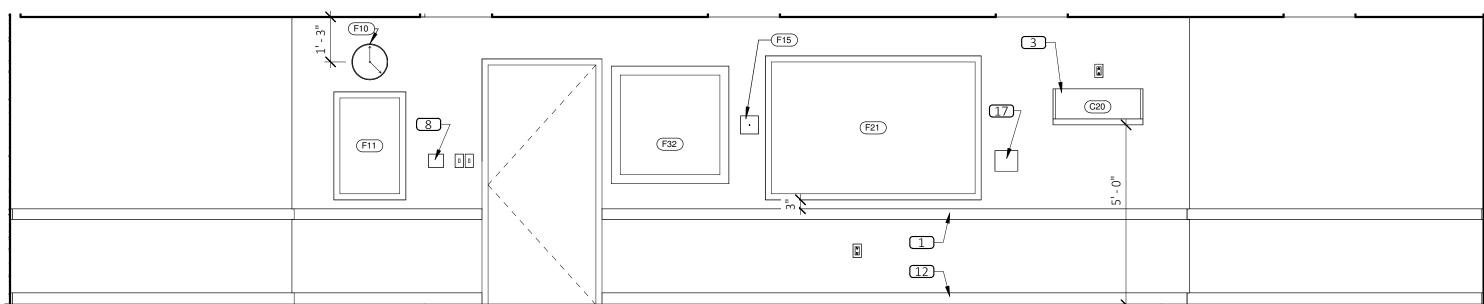
A5.3





5

F06



# CLASSROOM EXP SCALE: 3/8" = 1'-0"

### ELEVATION KEYED NOTES CASEWORK SCHEDULE

- CHAIR RAIL, SEE FINISH SCHEDULE
- PROVIDE FULL HEIGHT FRP AT COT STORAGE ALCOVE. EXTEND FRP TO END FACE OF WING WALL & TERMINATE W/ J-MOULD (TYP.)
- PROVIDE BLOCKING FOR WOOD SHELF
- 1" x 4" SHIP LAP. PROVIDE WOOD BLOCKING IN WALL AS NEEDED.
- FA VISUAL STROBE
- FA PULL STATION
- 8" BACK SPLASH
- THERMOSTAT WITH CLEAR LOCKABLE COVER. .48" TO HIGHEST OPERABLE PART, SEE MECHANICAL.
- 9 HOSE BIBB ACCESS PANEL
- 10 MOP SINK
- FRP
- 12 COVE BASE 13 COAT HOOKS
- 14 29" MONITOR. PROVIDE OUTLET, SEE ELECTRICAL
- 15 TIME CLOCK
- 16 FIRE ALARM ANNUNCIATOR PANEL
- 17 INTERCOM
- 18 MASTER INTERCOM

LAUNDRY ROOM STORAGE SHELVING

C02
C03
C04
C05
C06
C07
C08
C09
C10
C11
C12
C13
C14
C15
C16
C17

C18

C23

C29

ITEM (REFER TO FFE SCHEDULE ON SHEET ID1.0 FOR "F" TAGGED ITEMS)	OWNER FURNISHED	OWNER INSTALLED	CONTRACTOR FURNISHED	CONTRACTOR INSTALLED	
ID1.0 FOR "F" TAGGED ITEMS)	6	6	8	8	

	 			>
CUBBIES, SEE ELEVATIONS FOR QUANTITY		0	0	
CUBBIES ABOVE CHANGE TABLE		0	0	PRIN
16" DEEP X 3'-6"W X 3'-6"H SURFACED MOUNTED		0	0	
16" DEEP x 3'-0"W x 3'-6"H CORNER CABINET		0	0	
16" DEEP X 1'-6"W X 3'-6"H SURFACE MOUNTED		0	0	
16" DEEP X 1'-3"W X 3'-6"T SURFACE MOUNTED		0	0	
12" DEEP X 2'-0"W X 2'-0"T WALL CABINET		0	0	<b>/4</b>
12" DEEP X 2'-6"W X 3'-3"T WALL CABINET		0	0	- 1 1
12" DEEP X 3'-0"W X 3'-0"T WALL CABINET		0	0	
RECEPTION DESK CABINETS		0	0	\_
30" X 40" CURRICULUM CABINET		0	0	
16" DEEP X 4' LONG WALL CABINET		0	0	
CAR SEAT STORAGE SHELVING		0	0	
24"D x 36"L ADJ. WD SHELVES W/ 1'-6" L STANDARDS		0	0	PRIMROSE SCHOOL
18"DEEP ADJUSTABLE WOOD SHELVES, SEE ELEVATIONS		0	0	3200 WINDY HILL R ATLANTA, GEORGIA
12" DEEP X 3'-0"W X 3'-0"T SURFACE MOUNTED		0	0	THESE DRAWINGS AND T
8" DEEP X 2'-6"W X 3'-0" SEMI - RECESSED		0	0	USE OF THESE DRAWING

LL ROAD, SUITE 1200 E RGIA 30339-5640 PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION. 

STORAGE ROOM SHELVING PAPER ROLL HOLDER 12" DEEP X 2'-6" LONG WOOD SHELF 0 0 8" DEEP X 2'-6"W X 3'-0" SURFACE MOUNTED 0 0 C22 2'-0"H X 1'-4"W X 6"D DISINFECTANT CABINETS 0 0 KITCHENETTE BASE CABINETS BABY CHANGING TABLE (SNEEZE GAURDS ONLY OCCUR AT POTTY PODS OR AT CHANGING TABLES THAT ARE NOT AGAINST A WALL) "PUT DOWN" COUNTER MOBILE INFANT PARTITION, SEE DETAIL 9/A2.4 0 0 LOCKERS, SEE ELEVATIONS 0 0 8 SINGLE LAVATORY DOUBLE LAVATORY

RECESSED BROOM CLOSET, SEE DETAIL 19/A2.3. (OPTIONAL - CHECK WITH OWNER PRIOR TO ORDERING) 16" DEEP X 3'-0"W X 3'-6"H SURFACED MOUNTED

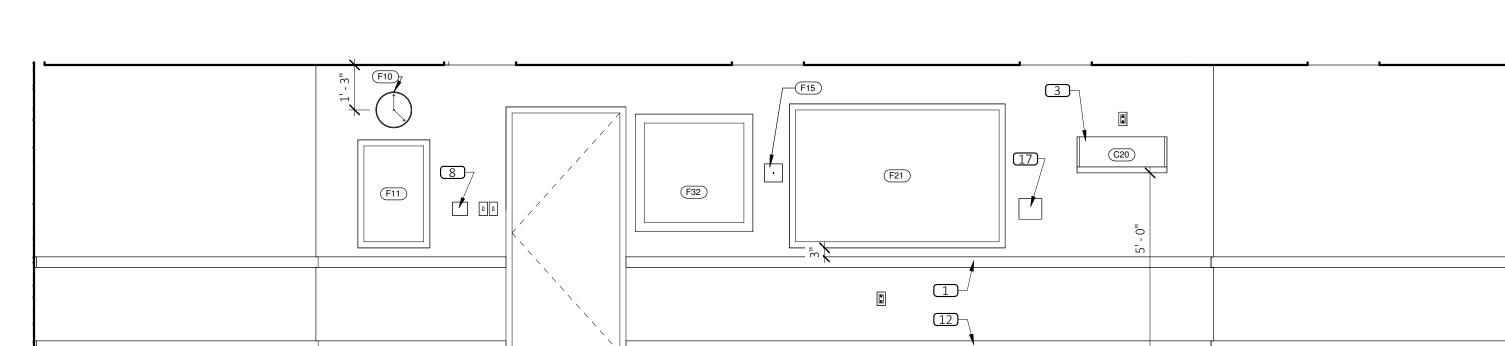
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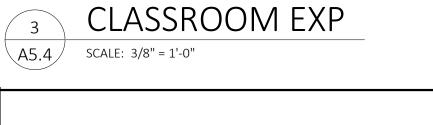


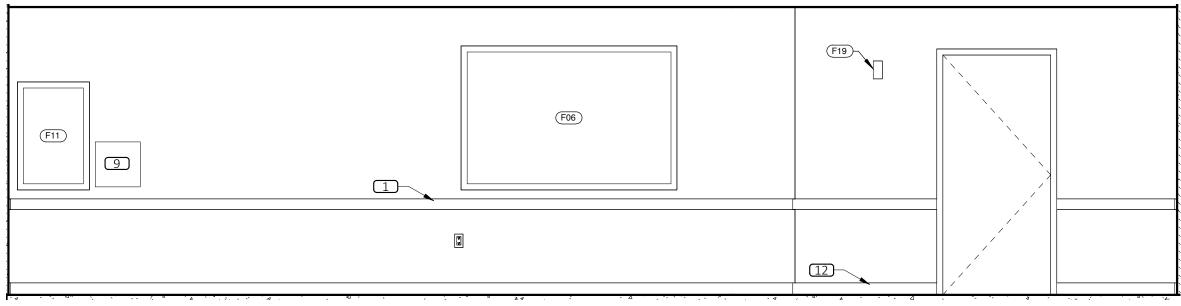
Professional of Record: Suzanne M Hayes LICENSE NO: 1301072179 EXP. DATE: 12/19/24

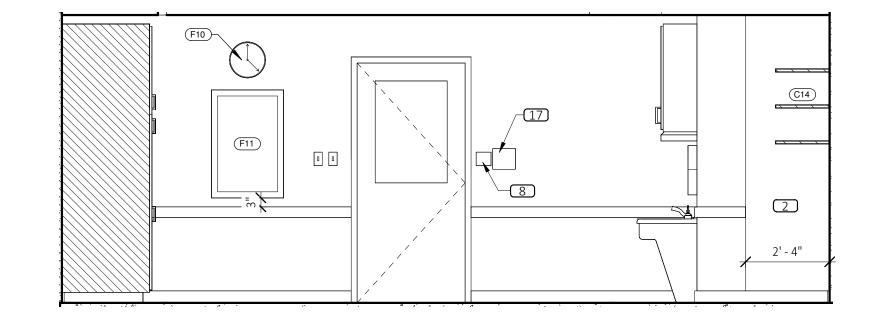
Drawn/Checked	DSC / ALA
Project Number	2202640
Bid Date	//
Permit Date	7/10/23
For Construction	//

INTERIOR ELEVATIONS



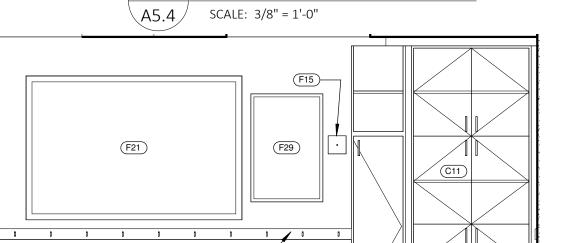




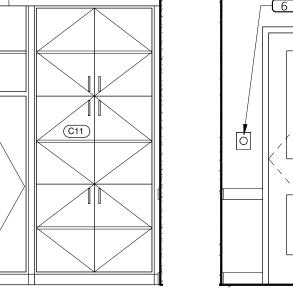


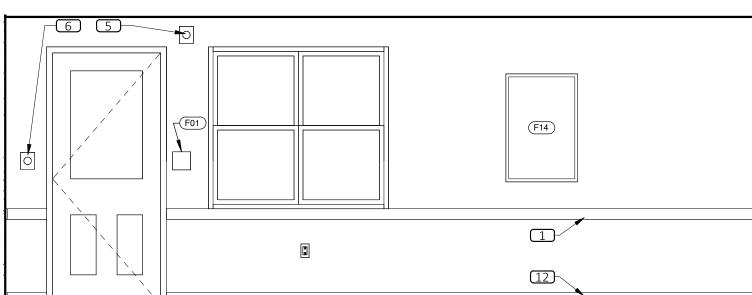


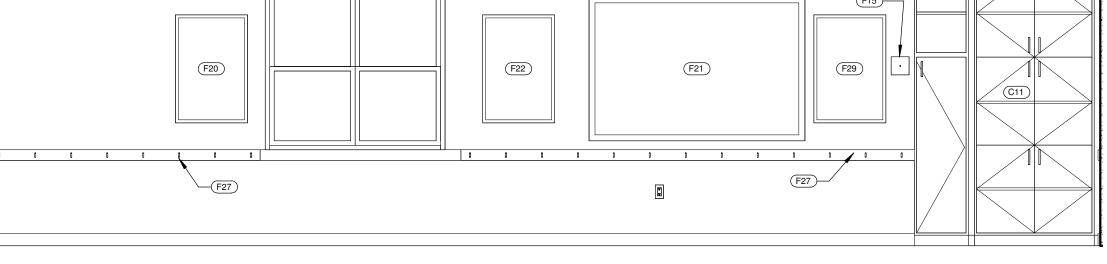
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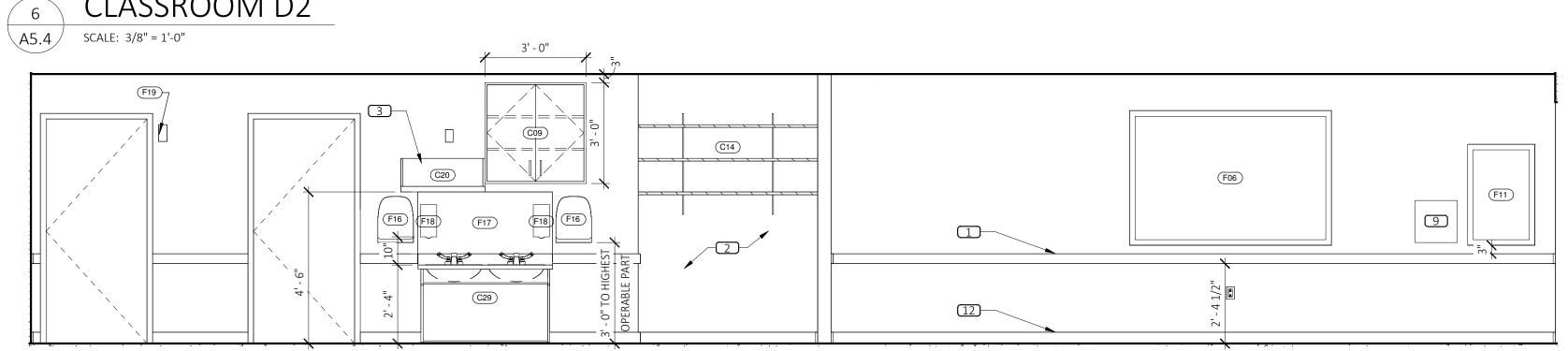
CLASSROOM D2













CLASSROOM D2

FACE OF WING WALL & TERMINATE W/ J-MOULD (TYP.)

2 PROVIDE FULL HEIGHT FRP AT COT STORAGE ALCOVE. EXTEND FRP TO END

1" x 4" SHIP LAP. PROVIDE WOOD BLOCKING IN WALL AS NEEDED.

THERMOSTAT WITH CLEAR LOCKABLE COVER. .48" TO HIGHEST OPERABLE

1 CHAIR RAIL, SEE FINISH SCHEDULE

FA VISUAL STROBE FA PULL STATION

9 HOSE BIBB ACCESS PANEL

10 MOP SINK

COVE BASE

PART, SEE MECHANICAL.

FIRE ALARM ANNUNCIATOR PANEL

CASEWORK SCHEDULE

TYPE ITEM (REFER TO FFE SCHEDULE ON SHEET

CUBBIES, SEE ELEVATIONS FOR QUANTITY

16" DEEP X 3'-6"W X 3'-6"H SURFACED MOUNTED

16" DEEP X 1'-6"W X 3'-6"H SURFACE MOUNTED

16" DEEP X 1'-3"W X 3'-6"T SURFACE MOUNTED

24"D x 36"L ADJ. WD SHELVES W/ 1'-6" L STANDARDS 18"DEEP ADJUSTABLE WOOD SHELVES, SEE ELEVATIONS

12" DEEP X 3'-0"W X 3'-0"T SURFACE MOUNTED

8" DEEP X 2'-6"W X 3'-0" SEMI - RECESSED

8" DEEP X 2'-6"W X 3'-0" SURFACE MOUNTED

2'-0"H X 1'-4"W X 6"D DISINFECTANT CABINETS

MOBILE INFANT PARTITION, SEE DETAIL 9/A2.4

RECESSED BROOM CLOSET, SEE DETAIL 19/A2.3.

16" DEEP X 3'-0"W X 3'-6"H SURFACED MOUNTED

LAUNDRY ROOM STORAGE SHELVING

(OPTIONAL - CHECK WITH OWNER PRIOR TO ORDERING)

BABY CHANGING TABLE (SNEEZE GAURDS ONLY OCCUR AT POTTY PODS OR AT CHANGING TABLES THAT ARE NOT

12" DEEP X 2'-6" LONG WOOD SHELF

16" DEEP x 3'-0"W x 3'-6"H CORNER CABINET

12" DEEP X 2'-0"W X 2'-0"T WALL CABINET

12" DEEP X 2'-6"W X 3'-3"T WALL CABINET 12" DEEP X 3'-0"W X 3'-0"T WALL CABINET

MARK ID1.0 FOR "F" TAGGED ITEMS)

CUBBIES ABOVE CHANGE TABLE

RECEPTION DESK CABINETS 30" X 40" CURRICULUM CABINET 16" DEEP X 4' LONG WALL CABINET CAR SEAT STORAGE SHELVING

STORAGE ROOM SHELVING

KITCHENETTE BASE CABINETS

PAPER ROLL HOLDER

AGAINST A WALL)

SINGLE LAVATORY DOUBLE LAVATORY

C28

9

"PUT DOWN" COUNTER

LOCKERS, SEE ELEVATIONS

PROVIDE BLOCKING FOR WOOD SHELF



43455 W. 10 MILE ROAD NOVI, MI 48375 SCHOOL

3200 WINDY HILL ROAD, SUITE 1200 E

ATLANTA, GEORGIA 30339-5640

THESE DRAWINGS AND THE DESIGN REPRESENTED HEREBY ARE THE EXCLUSIVE THE EXPRESS WRITTEN CONSENT OF PRIMROSE SCHOOL FRANCHISING CO. IS PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.

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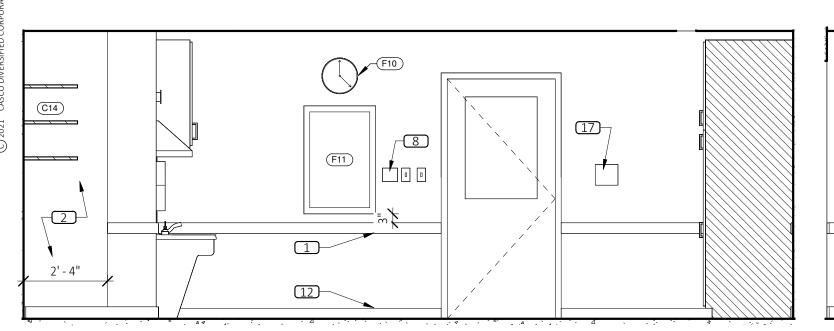
ARCHITECT Professional of Record:

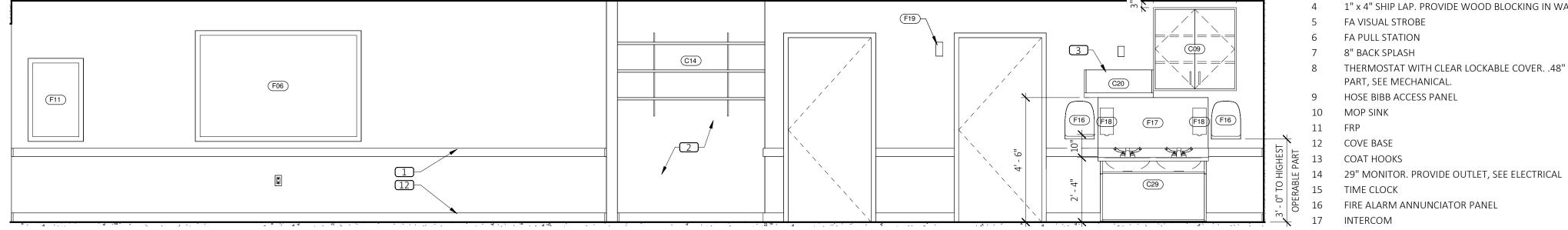
Suzanne M Hayes LICENSE NO: 1301072179 EXP. DATE: 12/19/24

Drawn/Checked DSC / ALA 2202640 Project Number Bid Date 7/10/23 Permit Date For Construction --/--/--

> INTERIOR **ELEVATIONS**

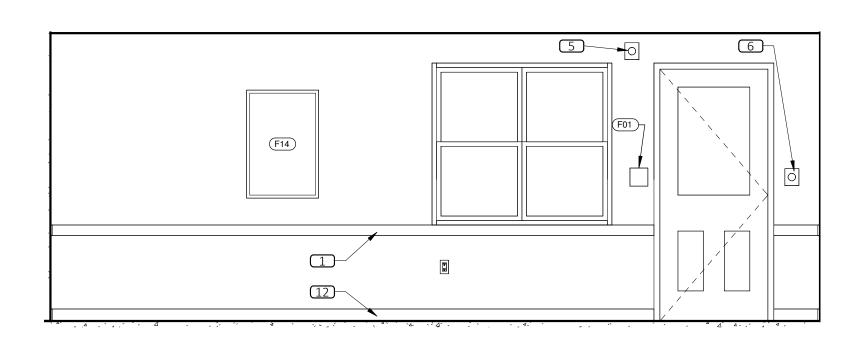


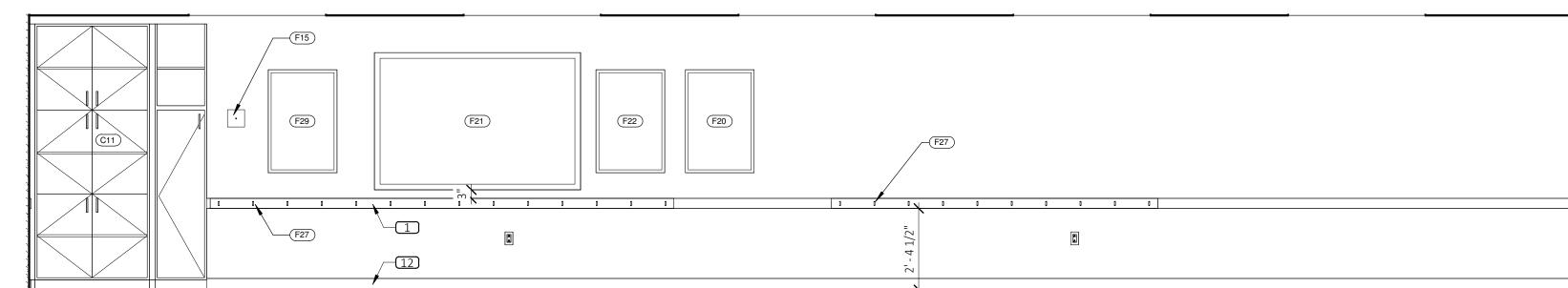




# 1 CLASSROOM D1 A5.5 SCALE: 3/8" = 1'-0"

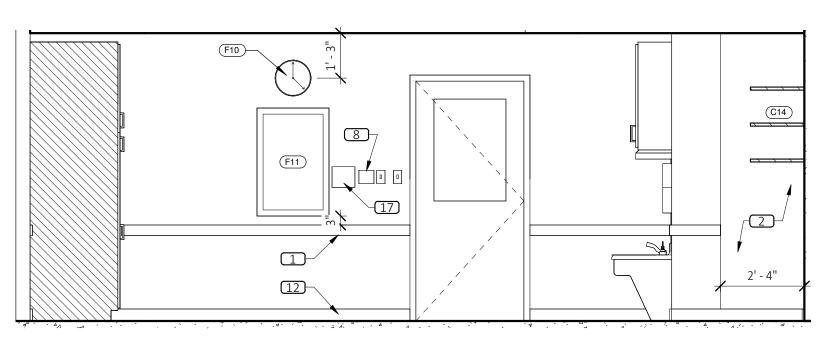


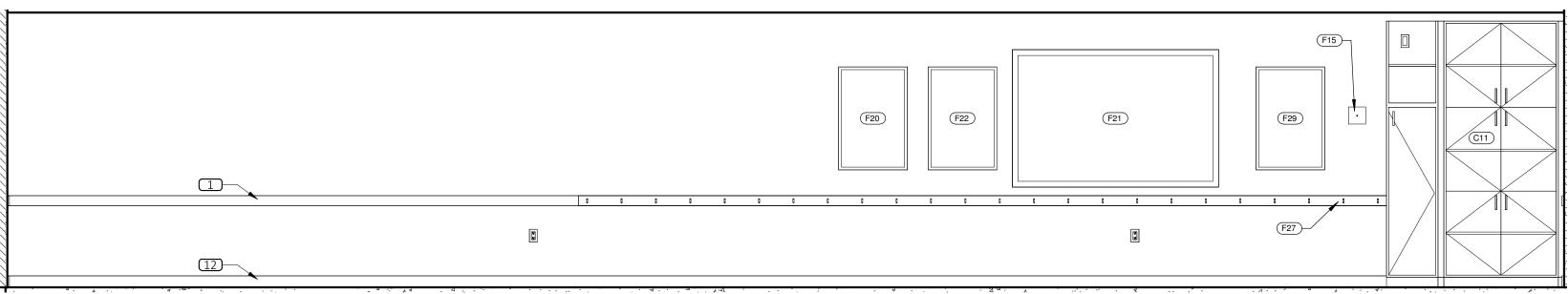




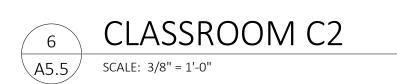


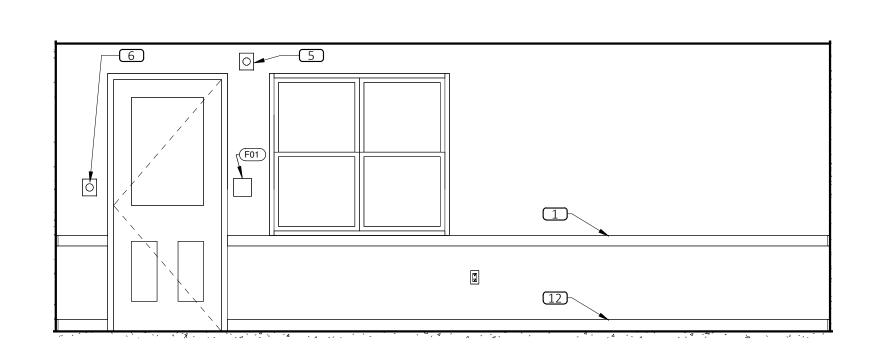


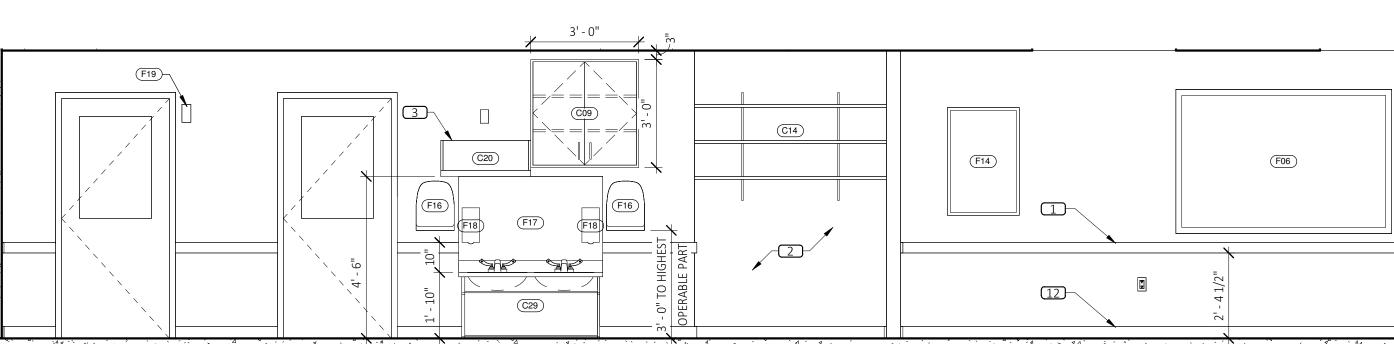






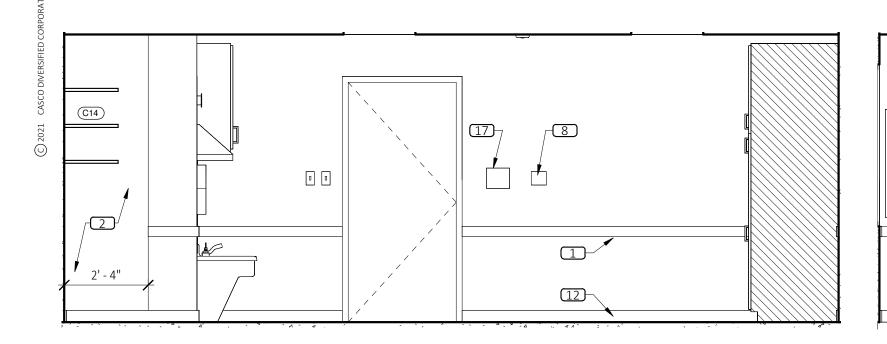


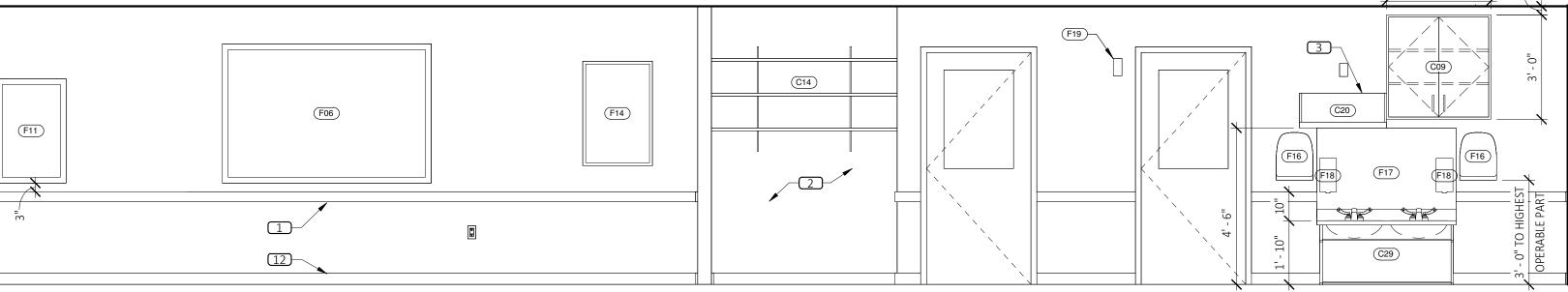






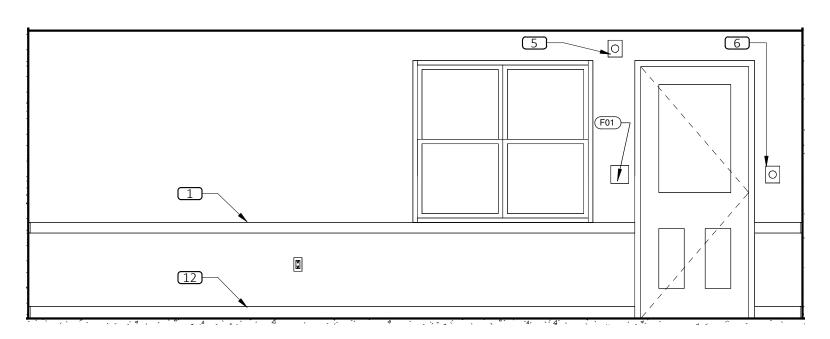
43455 W. 10 MILE ROAD NOVI, MI 48375

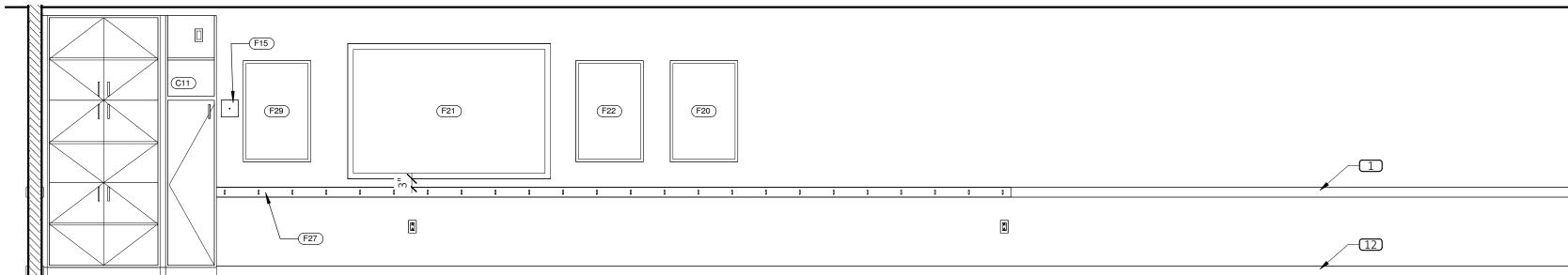






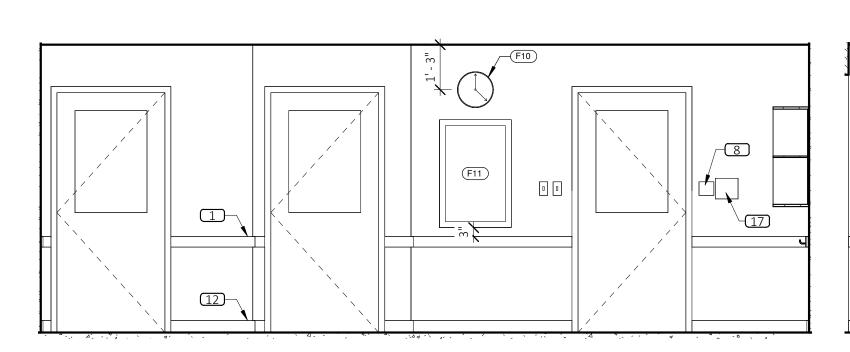


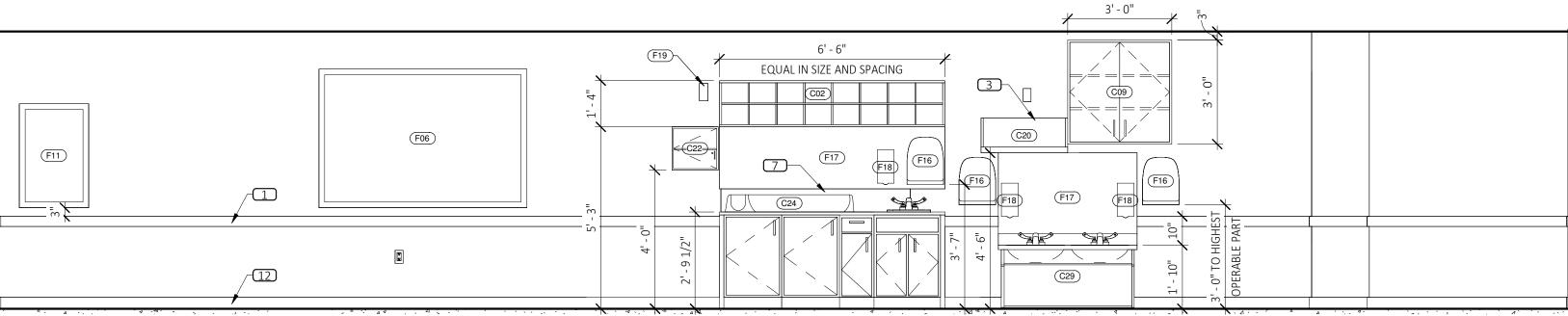


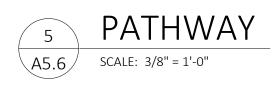




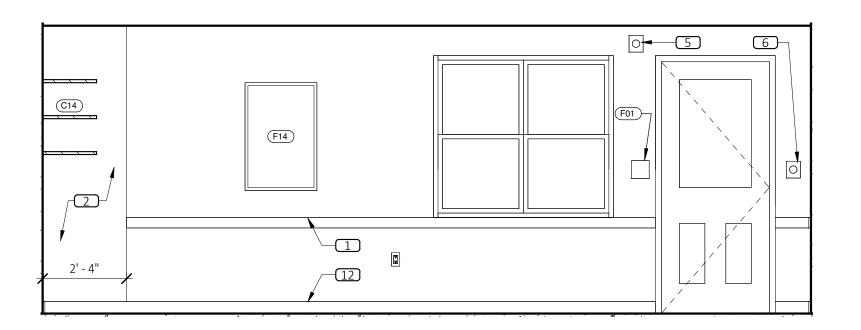


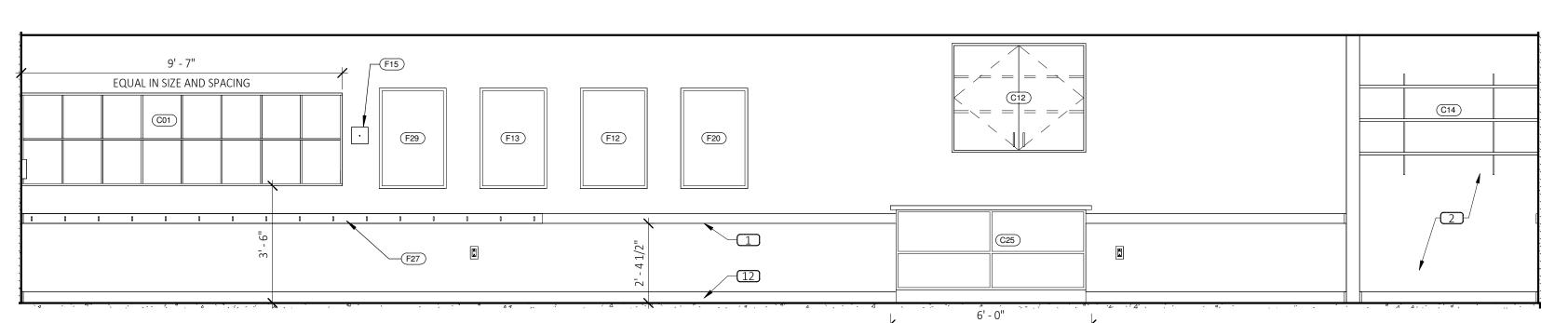
















### ELEVATION KEYED NOTES <sup>™</sup>

1 CHAIR RAIL, SEE FINISH SCHEDULE

2 PROVIDE FULL HEIGHT FRP AT COT STORAGE ALCOVE. EXTEND FRP TO END

FACE OF WING WALL & TERMINATE W/ J-MOULD (TYP.)

PROVIDE BLOCKING FOR WOOD SHELF

1" x 4" SHIP LAP. PROVIDE WOOD BLOCKING IN WALL AS NEEDED.

FA VISUAL STROBE

FA PULL STATION

8" BACK SPLASH

THERMOSTAT WITH CLEAR LOCKABLE COVER. .48" TO HIGHEST OPERABLE PART, SEE MECHANICAL.

9 HOSE BIBB ACCESS PANEL

10 MOP SINK

12 COVE BASE

13 COAT HOOKS 29" MONITOR. PROVIDE OUTLET, SEE ELECTRICAL

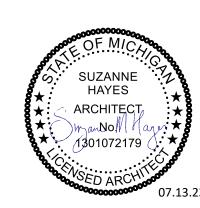
15 TIME CLOCK

FIRE ALARM ANNUNCIATOR PANEL

17 INTERCOM

# CASEWORK SCHEDULE

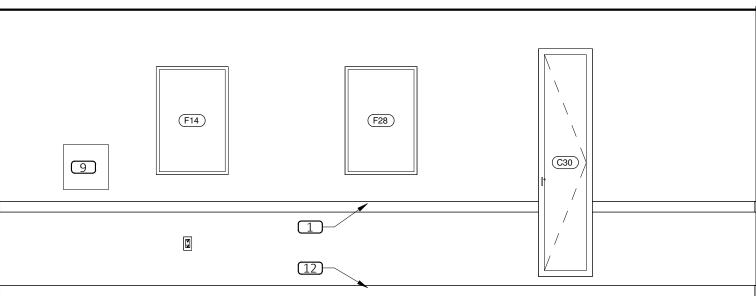
TYPE MARK	ITEM (REFER TO FFE SCHEDULE ON SHEET ID1.0 FOR "F" TAGGED ITEMS)	OWNER FU	OWNER IN	CONTRACT	CONTRACT	PRIMROSE SCH( 43455 W. 10 M NOVI, MI 48375
CO4	CURRIES OFF FUEVATIONS FOR QUANTITY			_		PRIMROS 43455 W NOVI, MI
C01	CUBBIES, SEE ELEVATIONS FOR QUANTITY			0	0	PRIMR 43455 NOVI,
C02	CUBBIES ABOVE CHANGE TABLE			0	0	4 (
C03	16" DEEP X 3'-6"W X 3'-6"H SURFACED MOUNTED			0	0	13 VC
C04	16" DEEP x 3'-0"W x 3'-6"H CORNER CABINET			0	0	<b>2</b> 7 2
C05	16" DEEP X 1'-6"W X 3'-6"H SURFACE MOUNTED			0	0	
C06	16" DEEP X 1'-3"W X 3'-6"T SURFACE MOUNTED			0	0	RIMROS
C07	12" DEEP X 2'-0"W X 2'-0"T WALL CABINET			0	0	
C08	12" DEEP X 2'-6"W X 3'-3"T WALL CABINET			0	0	
C09	12" DEEP X 3'-0"W X 3'-0"T WALL CABINET			0	0	
C10	RECEPTION DESK CABINETS			0	0	
C11	30" X 40" CURRICULUM CABINET			0	0	$\backslash \backslash \Lambda \Gamma / I$
C12	16" DEEP X 4' LONG WALL CABINET			0	0	
C13	CAR SEAT STORAGE SHELVING			0	0	SCHOOLS
C14	24"D x 36"L ADJ. WD SHELVES W/ 1'-6" L STANDARDS			0	0	1100
C15	18"DEEP ADJUSTABLE WOOD SHELVES, SEE ELEVATIONS			О	0	PRIMROSE SCHOOL FRANCHISING COMPANY
C16	12" DEEP X 3'-0"W X 3'-0"T SURFACE MOUNTED			0	0	3200 WINDY HILL ROAD, SUITE 1200 E
C17	8" DEEP X 2'-6"W X 3'-0" SEMI - RECESSED			0	0	ATLANTA, GEORGIA 30339-5640  THESE DRAWINGS AND THE DESIGN REPRESENTED HEREBY ARE THE EXCLUSIVE
C18	STORAGE ROOM SHELVING			0	0	PROPERTY OF PRIMROSE SCHOOL FRANCHISING CO. REPRODUCTION OR ANY USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT INTENDED WITHOU
C19	PAPER ROLL HOLDER			0	0	THE EXPRESS WRITTEN CONSENT OF PRIMROSE SCHOOL FRANCHISING CO. IS PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.
C20	12" DEEP X 2'-6" LONG WOOD SHELF			0	0	
C21	8" DEEP X 2'-6"W X 3'-0" SURFACE MOUNTED			0	0	
C22	2'-0"H X 1'-4"W X 6"D DISINFECTANT CABINETS			0	0	te
C23	KITCHENETTE BASE CABINETS			0	0	Date
C24	BABY CHANGING TABLE (SNEEZE GAURDS ONLY OCCUR AT POTTY PODS OR AT CHANGING TABLES THAT ARE NOT AGAINST A WALL)			0	0	
C25	"PUT DOWN" COUNTER			0	0	
C26	MOBILE INFANT PARTITION, SEE DETAIL 9/A2.4			0	0	SNO
C27	LOCKERS, SEE ELEVATIONS			0	0	SIC
C28	SINGLE LAVATORY			0	0	∠EV n
C29	DOUBLE LAVATORY			0	0	Stio Stio
C30	RECESSED BROOM CLOSET, SEE DETAIL 19/A2.3. (OPTIONAL - CHECK WITH OWNER PRIOR TO ORDERING)			0	0	CONSTR. DOC. & REVSIONS Description
C31	LAUNDRY ROOM STORAGE SHELVING			0	0	STF
C32	16" DEEP X 3'-0"W X 3'-6"H SURFACED MOUNTED			0	0	Z O



Professional of Record: Suzanne M Hayes LICENSE NO: 1301072179 EXP. DATE: 12/19/24

Drawn/Checked	DSC / ALA
Project Number	2202640
Bid Date	//
Permit Date	7/10/23
For Construction	//

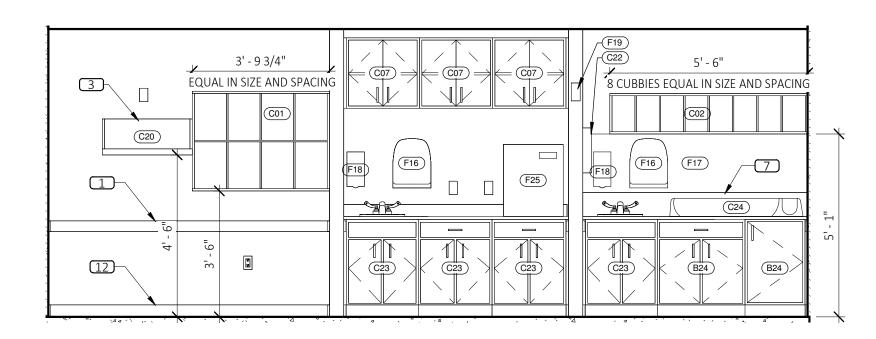
INTERIOR ELEVATIONS



# 1 CLASSROOM A1 A5.7 SCALE: 3/8" = 1'-0"

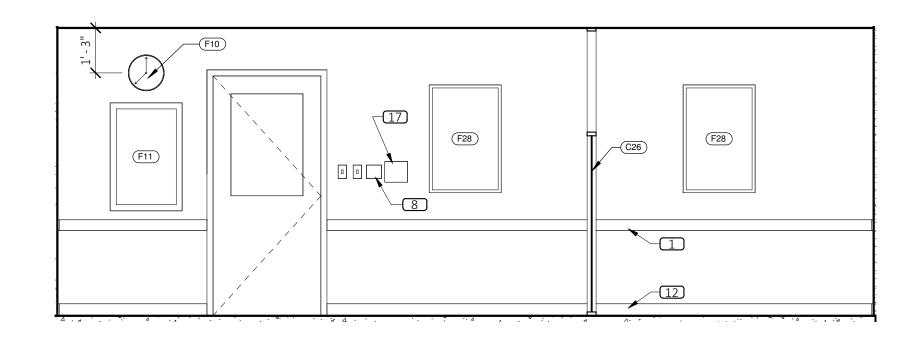
2 CLASSROOM A1
A5.7 SCALE: 3/8" = 1'-0"

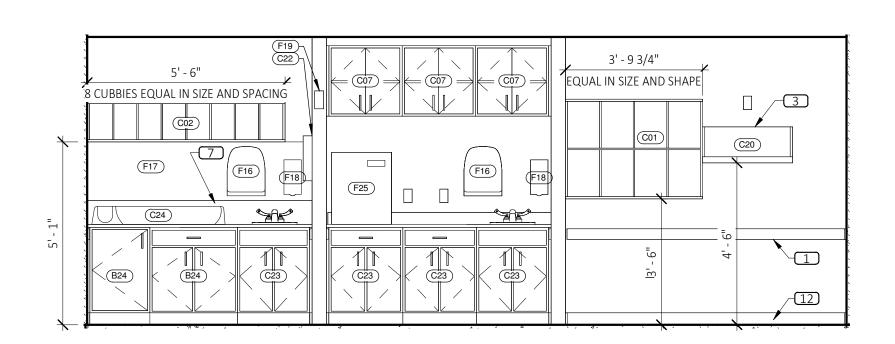
0-5 <sub>7</sub>-6 (F28) (F11) 1



### CLASSROOM A1 3 CLASSRO A5.7 SCALE: 3/8" = 1'-0"

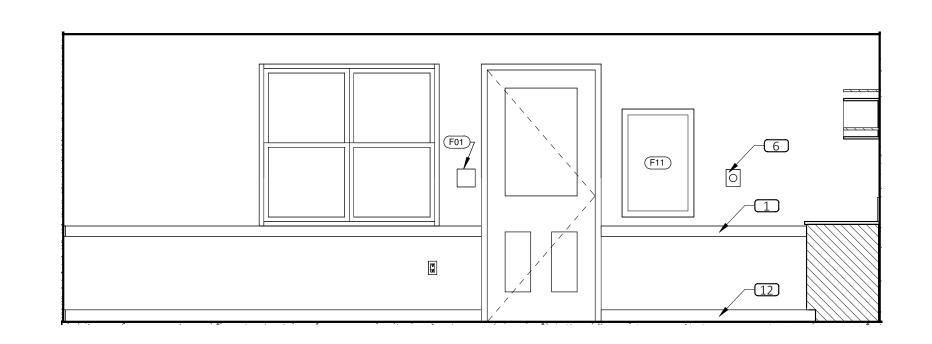


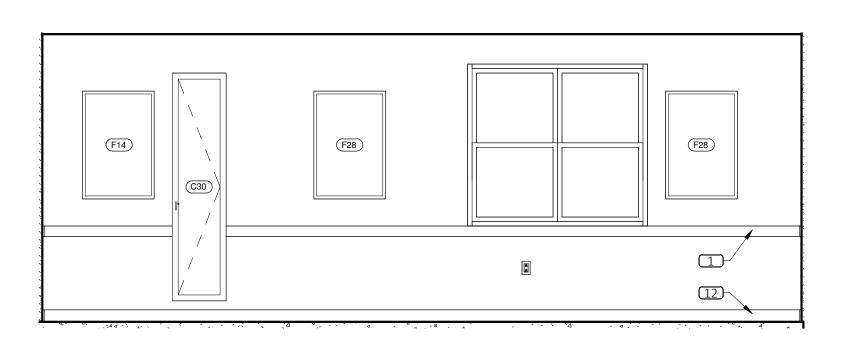
















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- 1 CHAIR RAIL, SEE FINISH SCHEDULE
- 2 PROVIDE FULL HEIGHT FRP AT COT STORAGE ALCOVE. EXTEND FRP TO END FACE OF WING WALL & TERMINATE W/ J-MOULD (TYP.)
- 3 PROVIDE BLOCKING FOR WOOD SHELF
- 4 1" x 4" SHIP LAP. PROVIDE WOOD BLOCKING IN WALL AS NEEDED.
- 5 FA VISUAL STROBE
- 6 FA PULL STATION
- 7 8" BACK SPLASH
- THERMOSTAT WITH CLEAR LOCKABLE COVER. .48" TO HIGHEST OPERABLE
- PART, SEE MECHANICAL.
- 9 HOSE BIBB ACCESS PANEL 10 MOP SINK
- 11 FRP
- 12 COVE BASE 13 COAT HOOKS
- 14 29" MONITOR. PROVIDE OUTLET, SEE ELECTRICAL
- 15 TIME CLOCK
- 16 FIRE ALARM ANNUNCIATOR PANEL
- 17 INTERCOM
- 18 MASTER INTERCOM

CASEWORK SCHEDULE

TYPE ITEM (REFER TO FFE SCHEDULE ON SHEET MARK | ID1.0 FOR "F" TAGGED ITEMS) CUBBIES, SEE ELEVATIONS FOR QUANTITY 0 0 CUBBIES ABOVE CHANGE TABLE 0 0 16" DEEP X 3'-6"W X 3'-6"H SURFACED MOUNTED 0 0 16" DEEP x 3'-0"W x 3'-6"H CORNER CABINET 0 0 16" DEEP X 1'-6"W X 3'-6"H SURFACE MOUNTED 0 0 16" DEEP X 1'-3"W X 3'-6"T SURFACE MOUNTED 0 0 12" DEEP X 2'-0"W X 2'-0"T WALL CABINET 0 0 C08 12" DEEP X 2'-6"W X 3'-3"T WALL CABINET 0 0 C09 12" DEEP X 3'-0"W X 3'-0"T WALL CABINET 0 0 RECEPTION DESK CABINETS 0 0 30" X 40" CURRICULUM CABINET 0 0 16" DEEP X 4' LONG WALL CABINET 0 0 C13 CAR SEAT STORAGE SHELVING 0 0 24"D x 36"L ADJ. WD SHELVES W/ 1'-6" L STANDARDS 0 0 18"DEEP ADJUSTABLE WOOD SHELVES, SEE ELEVATIONS 0 0 12" DEEP X 3'-0"W X 3'-0"T SURFACE MOUNTED 0 0 C16 0 0 0 0 0 0 C17 8" DEEP X 2'-6"W X 3'-0" SEMI - RECESSED C18 STORAGE ROOM SHELVING C19 PAPER ROLL HOLDER 0 0 0 0 0 0 12" DEEP X 2'-6" LONG WOOD SHELF 8" DEEP X 2'-6"W X 3'-0" SURFACE MOUNTED 2'-0"H X 1'-4"W X 6"D DISINFECTANT CABINETS KITCHENETTE BASE CABINETS BABY CHANGING TABLE (SNEEZE GAURDS ONLY OCCUR AT POTTY PODS OR AT CHANGING TABLES THAT ARE NOT AGAINST A WALL) 0 0 0 0 0 0 "PUT DOWN" COUNTER C26 MOBILE INFANT PARTITION, SEE DETAIL 9/A2.4 LOCKERS, SEE ELEVATIONS C28 SINGLE LAVATORY 0 0 C29 DOUBLE LAVATORY RECESSED BROOM CLOSET, SEE DETAIL 19/A2.3. C30 (OPTIONAL - CHECK WITH OWNER PRIOR TO ORDERING) LAUNDRY ROOM STORAGE SHELVING 0 0 16" DEEP X 3'-0"W X 3'-6"H SURFACED MOUNTED

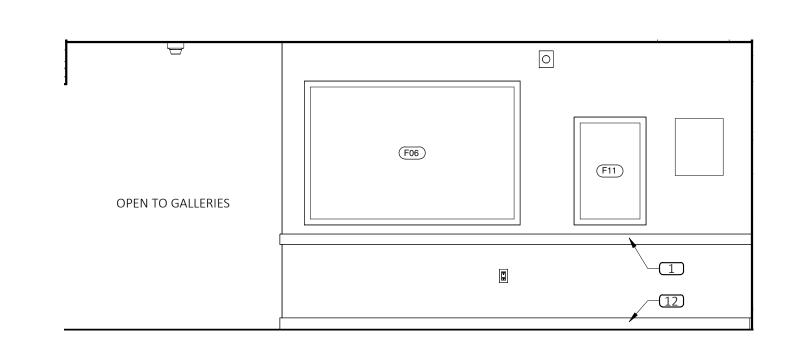
**PRIMROSE** 43455 NOVI, N 3200 WINDY HILL ROAD, SUITE 1200 E ATLANTA, GEORGIA 30339-5640 THE EXPRESS WRITTEN CONSENT OF PRIMROSE SCHOOL FRANCHISING CO. IS PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.



Professional of Record: Suzanne M Hayes LICENSE NO: 1301072179 EXP. DATE: 12/19/24

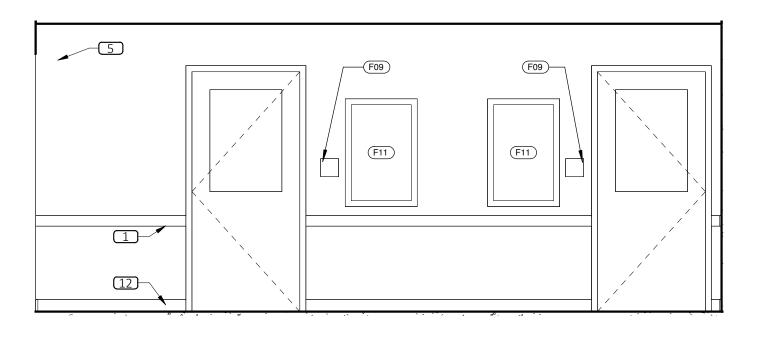
Drawn/Checked	DSC / ALA
Project Number	2202640
Bid Date	//
Permit Date	7/10/23
For Construction	//

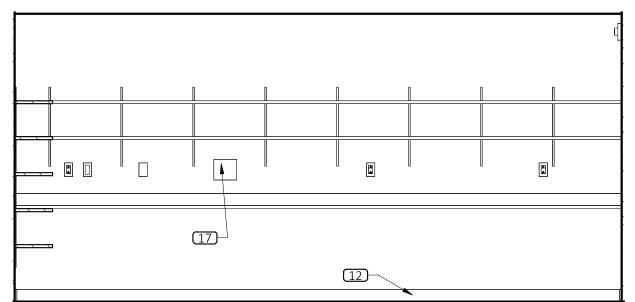
INTERIOR ELEVATIONS

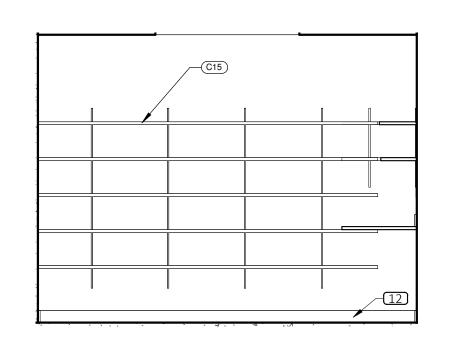








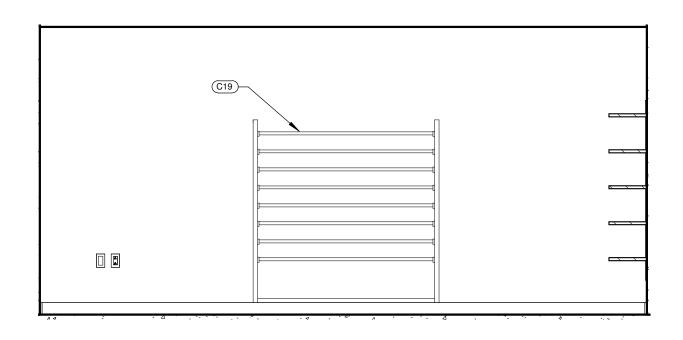


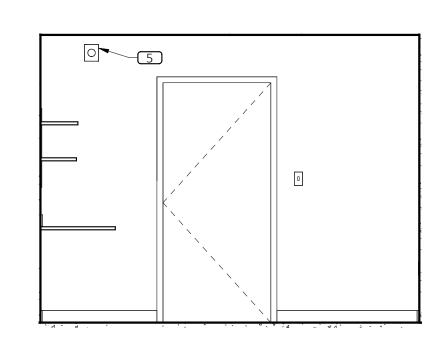


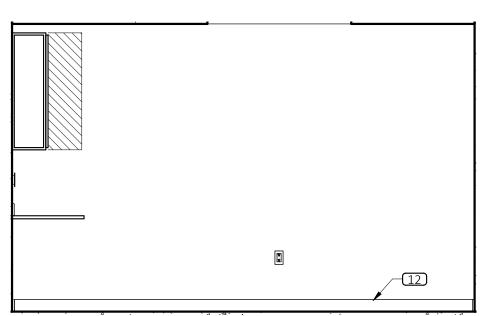


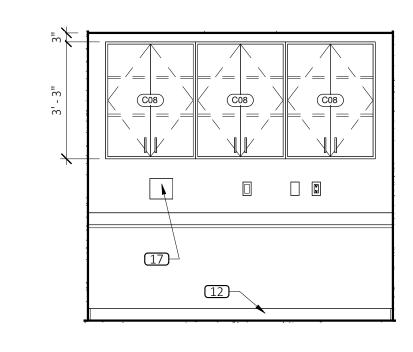










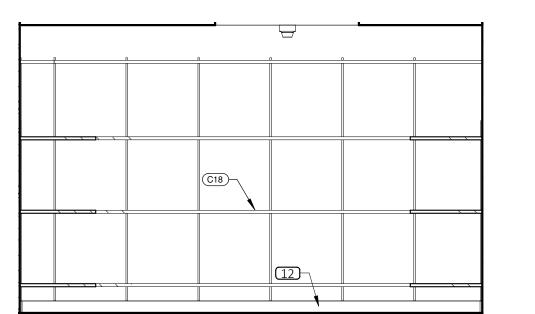


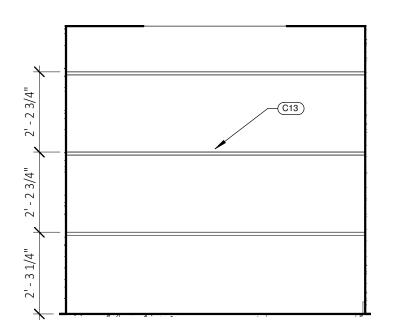


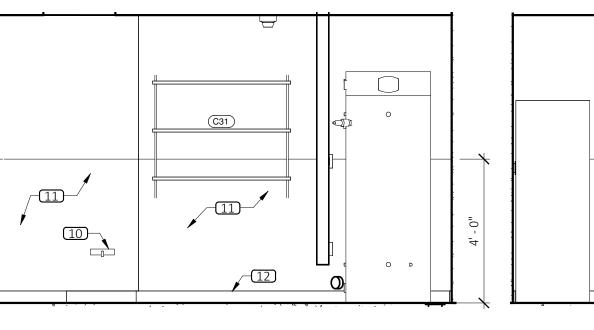


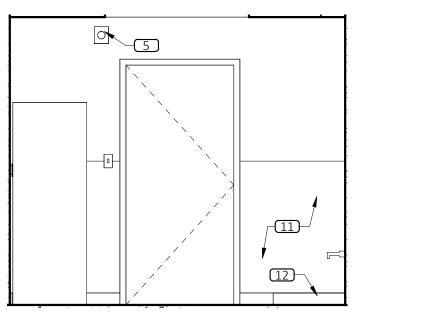
















(F26)

(F26)

15 LAUNDRY
A5.8 SCALE: 3/8" = 1'-0"

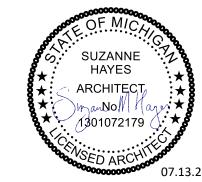


1 CHAIR RAIL, SEE FINISH SCHEDULE

- 2 PROVIDE FULL HEIGHT FRP AT COT STORAGE ALCOVE. EXTEND FRP TO END FACE OF WING WALL & TERMINATE W/ J-MOULD (TYP.)
- 3 PROVIDE BLOCKING FOR WOOD SHELF
- 4 1" x 4" SHIP LAP. PROVIDE WOOD BLOCKING IN WALL AS NEEDED. 5 FA VISUAL STROBE
- 6 FA PULL STATION
- 7 8" BACK SPLASH
- 8 THERMOSTAT WITH CLEAR LOCKABLE COVER. .48" TO HIGHEST OPERABLE
- PART, SEE MECHANICAL. 9 HOSE BIBB ACCESS PANEL
- 10 MOP SINK
- 11 FRP
- 12 COVE BASE
- 13 COAT HOOKS
- 14 29" MONITOR. PROVIDE OUTLET, SEE ELECTRICAL 15 TIME CLOCK
- 16 FIRE ALARM ANNUNCIATOR PANEL
- 17 INTERCOM
- 18 MASTER INTERCOM

## CASEWORK SCHEDULE

TYPE MARK	ITEM (REFER TO FFE SCHEDULE ON SHEET ID1.0 FOR "F" TAGGED ITEMS)	OWNER FURNISHED	OWNER INSTALLED	CONTRACTOR FURNISHED	CONTRACTOR INSTALLED
C01	CUBBIES, SEE ELEVATIONS FOR QUANTITY			0	0
C02	CUBBIES ABOVE CHANGE TABLE			0	0
C03	16" DEEP X 3'-6"W X 3'-6"H SURFACED MOUNTED			0	0
C04	16" DEEP x 3'-0"W x 3'-6"H CORNER CABINET			0	0
C05	16" DEEP X 1'-6"W X 3'-6"H SURFACE MOUNTED			0	0
C06	16" DEEP X 1'-3"W X 3'-6"T SURFACE MOUNTED			0	0
C07	12" DEEP X 2'-0"W X 2'-0"T WALL CABINET			0	0
C08	12" DEEP X 2'-6"W X 3'-3"T WALL CABINET			0	0
C09	12" DEEP X 3'-0"W X 3'-0"T WALL CABINET			0	0
C10	RECEPTION DESK CABINETS			0	0
C11	30" X 40" CURRICULUM CABINET			0	0
C12	16" DEEP X 4' LONG WALL CABINET			0	0
C13	CAR SEAT STORAGE SHELVING			0	0
C14	24"D x 36"L ADJ. WD SHELVES W/ 1'-6" L STANDARDS			0	0
C15	18"DEEP ADJUSTABLE WOOD SHELVES, SEE ELEVATIONS			0	0
C16	12" DEEP X 3'-0"W X 3'-0"T SURFACE MOUNTED			0	0
C17	8" DEEP X 2'-6"W X 3'-0" SEMI - RECESSED			0	0
C18	STORAGE ROOM SHELVING			0	0
C19	PAPER ROLL HOLDER			0	0
C20	12" DEEP X 2'-6" LONG WOOD SHELF			0	0
C21	8" DEEP X 2'-6"W X 3'-0" SURFACE MOUNTED			0	0
C22	2'-0"H X 1'-4"W X 6"D DISINFECTANT CABINETS			0	0
C23	KITCHENETTE BASE CABINETS			0	0
C24	BABY CHANGING TABLE (SNEEZE GAURDS ONLY OCCUR AT			0	0
	POTTY PODS OR AT CHANGING TABLES THAT ARE NOT AGAINST A WALL)				
C25	"PUT DOWN" COUNTER			0	0
C26	MOBILE INFANT PARTITION, SEE DETAIL 9/A2.4			0	0
C27	LOCKERS, SEE ELEVATIONS			0	0
C28	SINGLE LAVATORY			0	0
C29	DOUBLE LAVATORY			0	0
C30	RECESSED BROOM CLOSET, SEE DETAIL 19/A2.3. (OPTIONAL - CHECK WITH OWNER PRIOR TO ORDERING)			0	0
C31	LAUNDRY ROOM STORAGE SHELVING			0	0
C32	16" DEEP X 3'-0"W X 3'-6"H SURFACED MOUNTED			0	0



43455 W. 10 MILE ROAD NOVI, MI 48375

PRIMROSE SCHOOL

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INTERIOR ELEVATIONS

A5.8









1 CHAIR RAIL, SEE FINISH SCHEDULE

5 FA VISUAL STROBE

7 8" BACK SPLASH

10 MOP SINK

12 COVE BASE 13 COAT HOOKS

15 TIME CLOCK

17 INTERCOM

C02

C10

C18

C27

C28

C29

11 FRP

FA PULL STATION

9 HOSE BIBB ACCESS PANEL

PART, SEE MECHANICAL.

16 FIRE ALARM ANNUNCIATOR PANEL

14 29" MONITOR. PROVIDE OUTLET, SEE ELECTRICAL

CASEWORK SCHEDULE

TYPE ITEM (REFER TO FFE SCHEDULE ON SHEET

CUBBIES, SEE ELEVATIONS FOR QUANTITY

16" DEEP X 3'-6"W X 3'-6"H SURFACED MOUNTED 16" DEEP x 3'-0"W x 3'-6"H CORNER CABINET

16" DEEP X 1'-6"W X 3'-6"H SURFACE MOUNTED 16" DEEP X 1'-3"W X 3'-6"T SURFACE MOUNTED

24"D x 36"L ADJ. WD SHELVES W/ 1'-6" L STANDARDS

12" DEEP X 3'-0"W X 3'-0"T SURFACE MOUNTED

8" DEEP X 2'-6"W X 3'-0" SEMI - RECESSED

8" DEEP X 2'-6"W X 3'-0" SURFACE MOUNTED

2'-0"H X 1'-4"W X 6"D DISINFECTANT CABINETS

MOBILE INFANT PARTITION, SEE DETAIL 9/A2.4

RECESSED BROOM CLOSET, SEE DETAIL 19/A2.3.

16" DEEP X 3'-0"W X 3'-6"H SURFACED MOUNTED

LAUNDRY ROOM STORAGE SHELVING

(OPTIONAL - CHECK WITH OWNER PRIOR TO ORDERING)

12" DEEP X 2'-6" LONG WOOD SHELF

18"DEEP ADJUSTABLE WOOD SHELVES, SEE ELEVATIONS

BABY CHANGING TABLE (SNEEZE GAURDS ONLY OCCUR AT

POTTY PODS OR AT CHANGING TABLES THAT ARE NOT

12" DEEP X 2'-0"W X 2'-0"T WALL CABINET 12" DEEP X 2'-6"W X 3'-3"T WALL CABINET 12" DEEP X 3'-0"W X 3'-0"T WALL CABINET

MARK ID1.0 FOR "F" TAGGED ITEMS)

CUBBIES ABOVE CHANGE TABLE

RECEPTION DESK CABINETS 30" X 40" CURRICULUM CABINET 16" DEEP X 4' LONG WALL CABINET CAR SEAT STORAGE SHELVING

STORAGE ROOM SHELVING

KITCHENETTE BASE CABINETS

LOCKERS, SEE ELEVATIONS

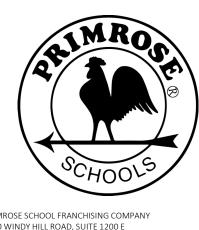
PAPER ROLL HOLDER

AGAINST A WALL) "PUT DOWN" COUNTER

SINGLE LAVATORY

DOUBLE LAVATORY

3 PROVIDE BLOCKING FOR WOOD SHELF



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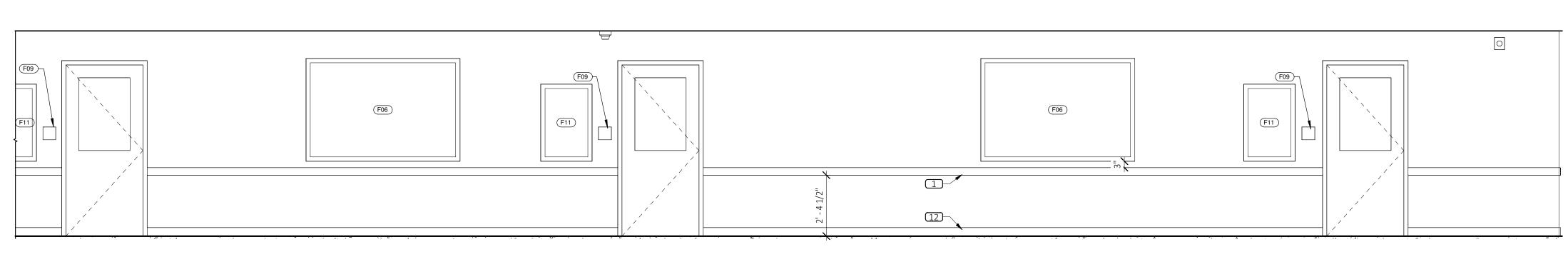
Professional of Record: Suzanne M Hayes

LICENSE NO: 1301072179 EXP. DATE: 12/19/24

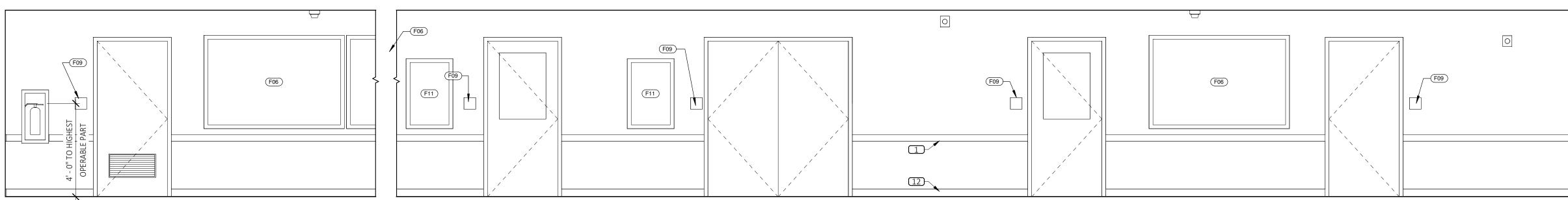
Drawn/Checked DSC / ALA Project Number 2202640 Bid Date 7/10/23 Permit Date For Construction --/--/--

> INTERIOR ELEVATIONS

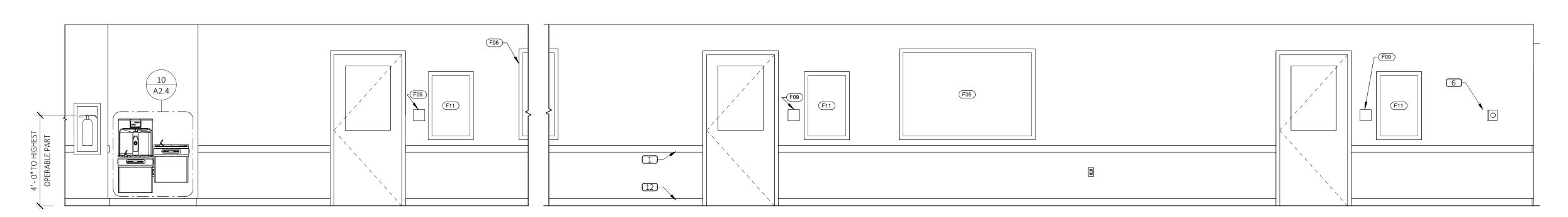




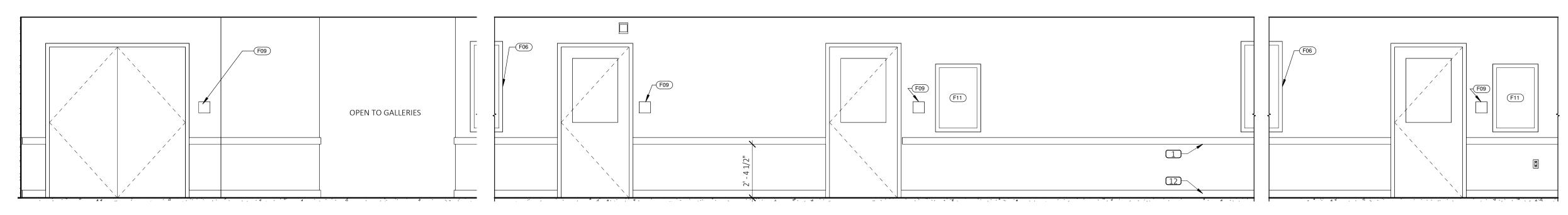
## GALLERY A5.9 SCALE: 3/8" = 1'-0"

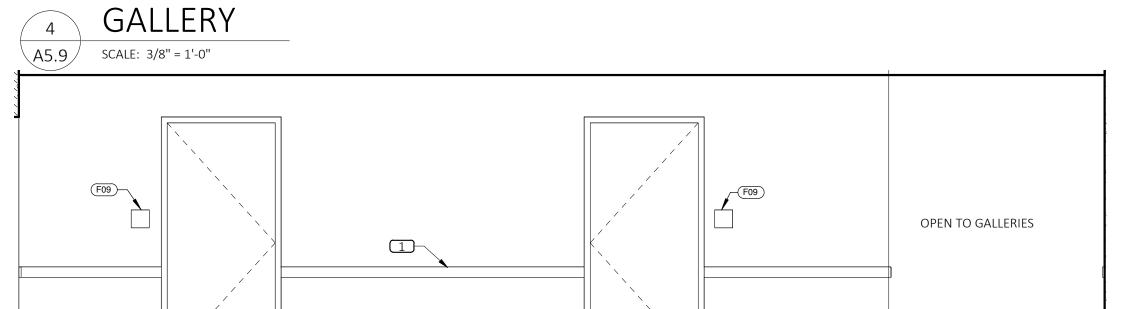


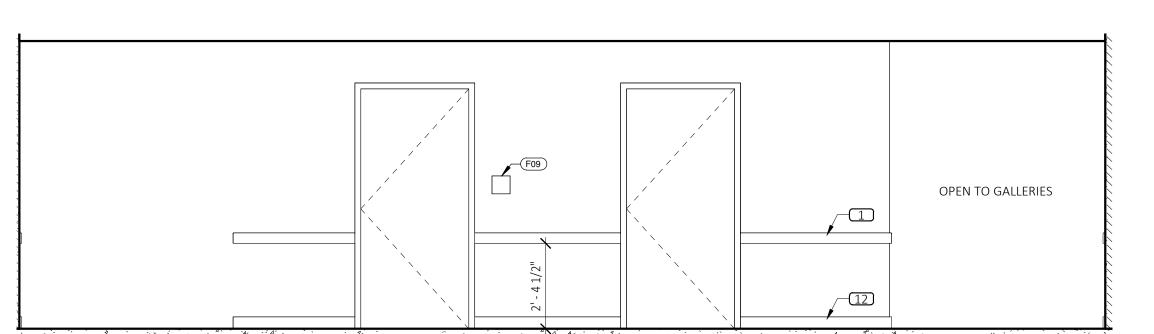
## **GALLERY** A5.9 SCALE: 3/8" = 1'-0"













**ACCESSIBILITY NOTES** 

SIDE BAR

HEIGHT

PART, SEE MECHANICAL.

16 FIRE ALARM ANNUNCIATOR PANEL

TOILET TISSUE DISPENSER

24" GRAB BAR. SEE ELEVATION 42" GRAB BAR. SEE ELEVATION. 36" GRAB BAR. SEE ELEVATION.

24" X 36" RESTROOM MIRROR

STAINLESS

FAUX STAINLESS

14 29" MONITOR. PROVIDE OUTLET, SEE ELECTRICAL

9 HOSE BIBB ACCESS PANEL

10 MOP SINK

12 COVE BASE 13 COAT HOOKS

15 TIME CLOCK

17 INTERCOM

Mark

11 FRP

TOILET TANK REAR BAR

THERMOSTAT WITH CLEAR LOCKABLE COVER. .48" TO HIGHEST OPERABLE

MASTER TOTALET ACCESSORIES

Description

NEW SCHOOL ITEM - SOAP DISPENSER - WHITE OR FAUX

NEW SCHOOL ITEM - PAPER TOWEL DISPENSER - WHITE OR

HEIGHT

30.5" BOT 14" - 17"

HEIGHT

DISPENSER

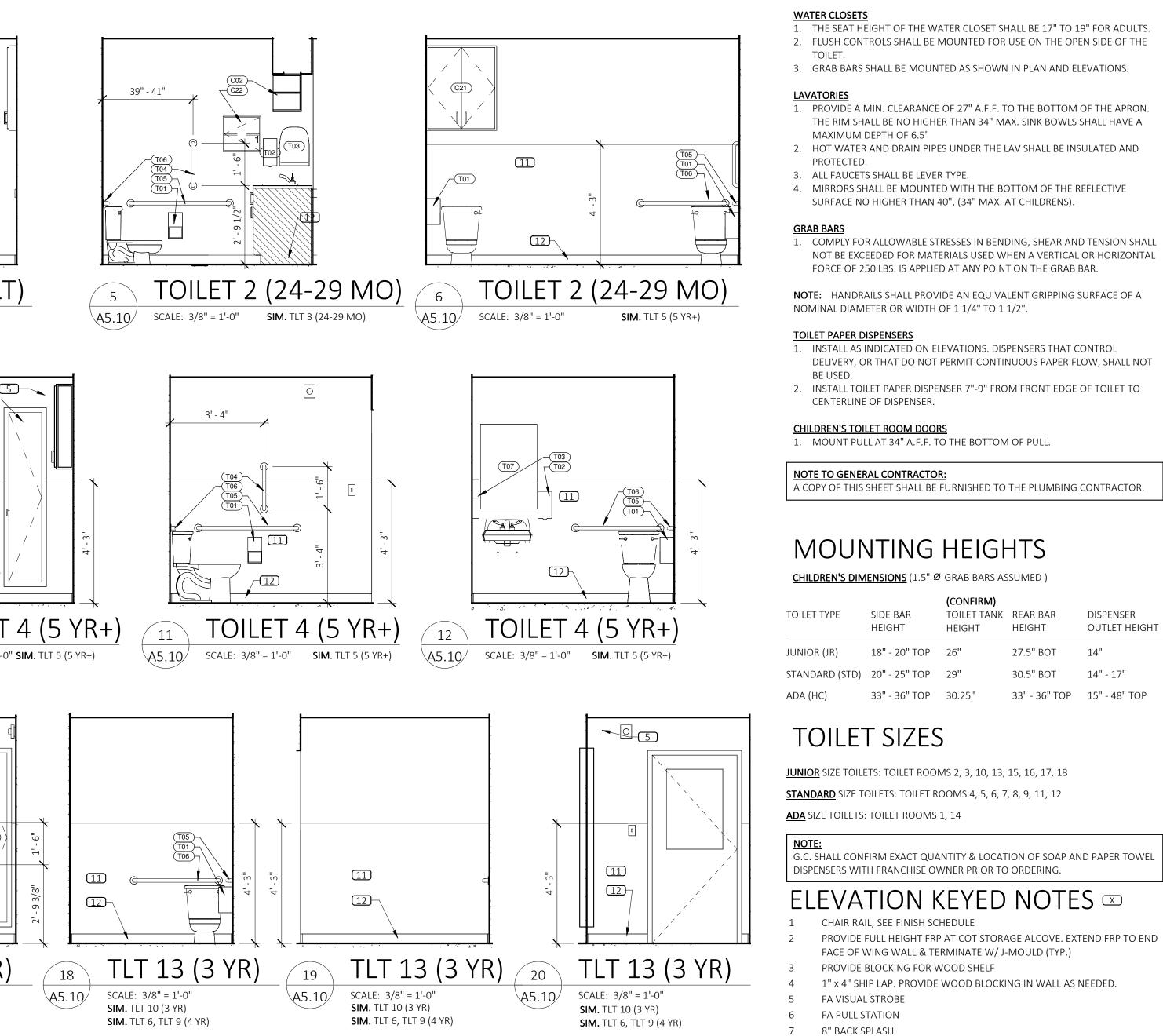
OUTLET HEIGHT

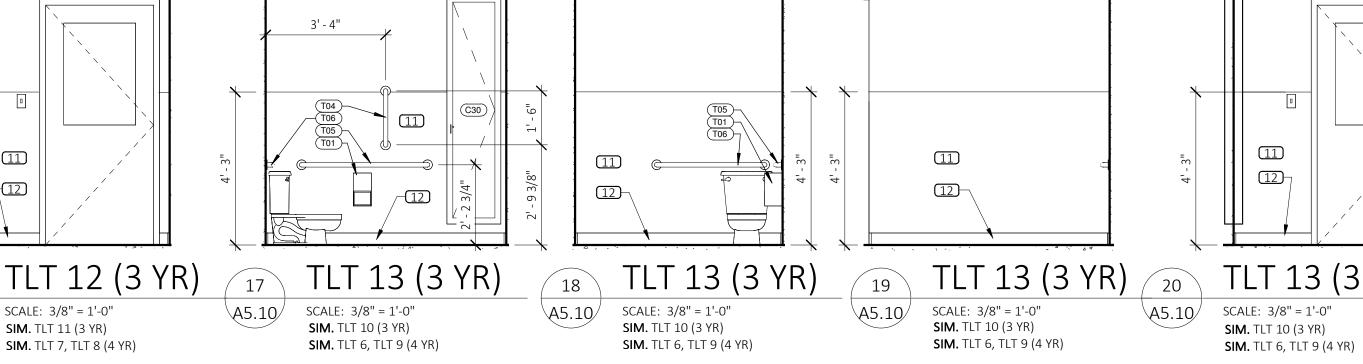
SCHOOL

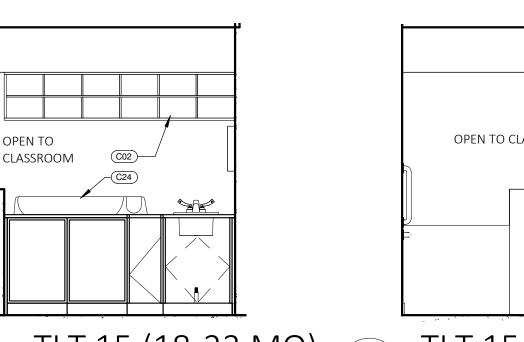
**PRIMROSE** 

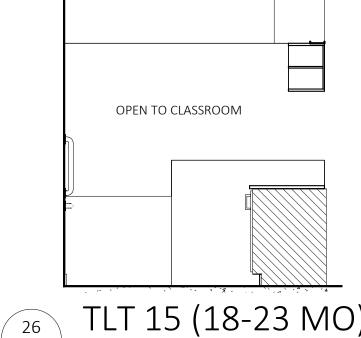
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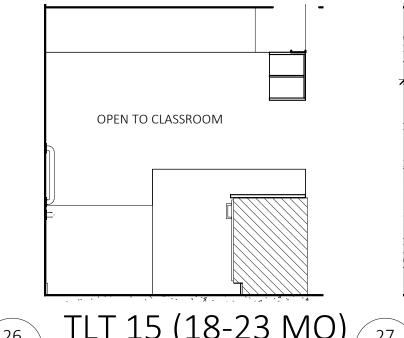
**TOILET ROOM** DETAILS

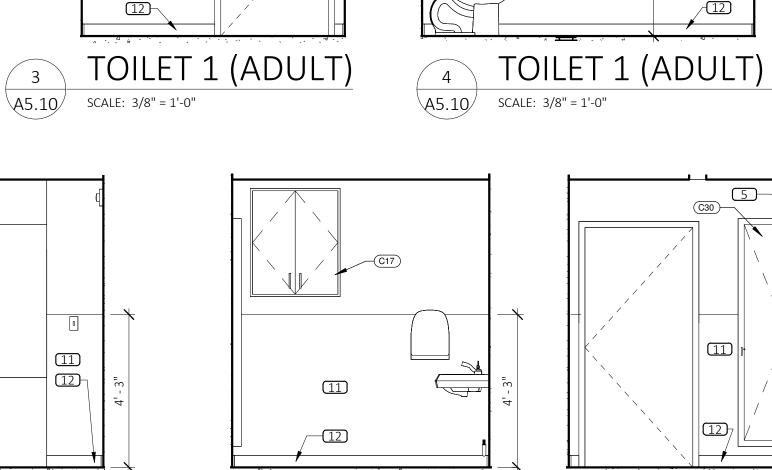












TOILET 4 (5 YR+)

T12

SCALE: 3/8" = 1'-0"

**SIM.** TLT 11 (3 YR)

**SIM**. TLT 7, TLT 8 (4 YR)

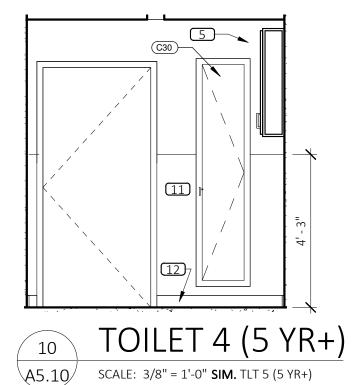
A5.10 SCALE: 3/8" = 1'-0"

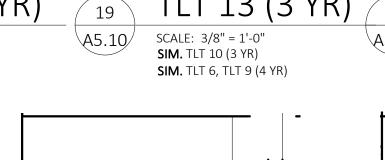
12

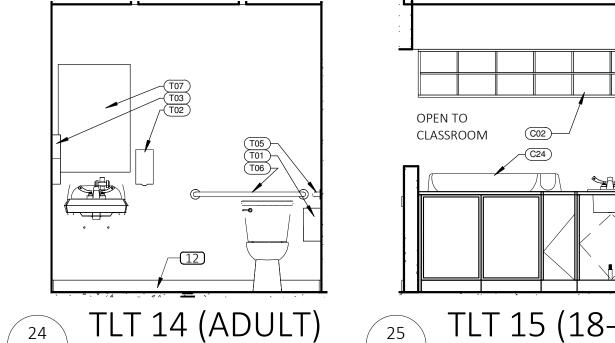
A5.10 SCALE: 3/8" = 1'-0"

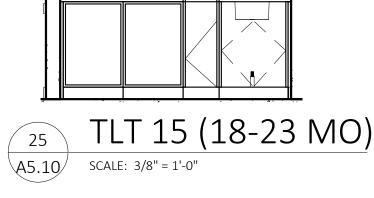
(11)

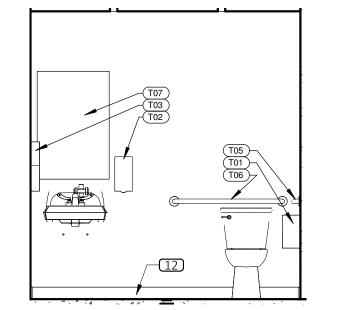
39" - 41"

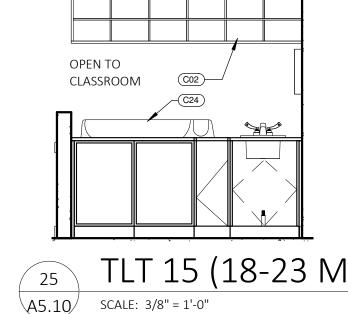


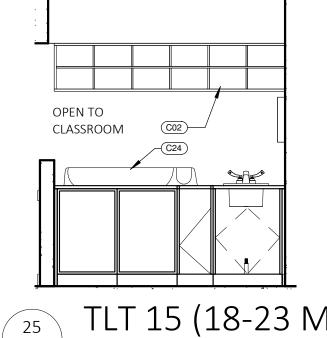


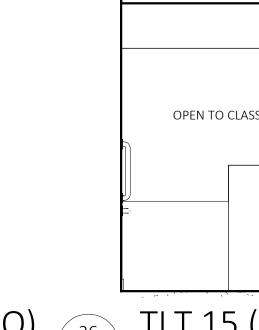


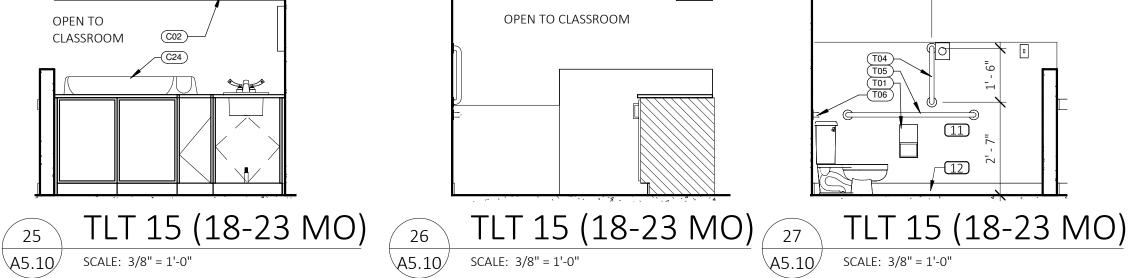




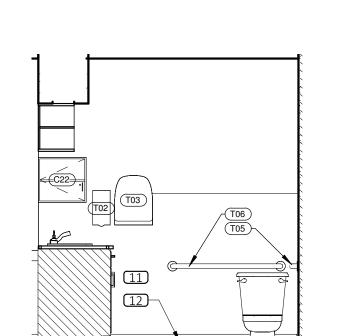




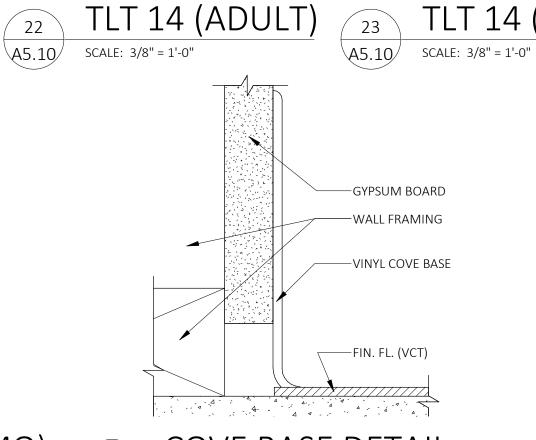




3' - 4"



TLT 15 (18-23 MO)



0 0 0 -

12

A5.10 SCALE: 3/8" = 1'-0"

TLT 12 (3 YR)

SCALE: 3/8" = 1'-0"

**SIM.** TLT 11 (3 YR)

1 1

<del>13</del>

<u>—12</u>

**SIM.** TLT 7, TLT 8 (4 YR)

A5.10

TOILET 1 (ADULT)

(11)

TOILET 2 (24-29 MO)

11

r<del>(12)</del>

TLT 12 (3 YR)

SCALE: 3/8" = 1'-0"

**SIM.** TLT 11 (3 YR)

**SIM.** TLT 7, TLT 8 (4 YR)

5

<del>- 12</del>

SCALE: 3/8" = 1'-0"

A5.10 SCALE: 3/8" = 1'-0"

A5.10

TLT 14 (ADULT) 22

SCALE: 3/8" = 1'-0"

TOILET 1 (ADULT)

OPEN TO CLASSROOM

TOILET 2 (24-29 MO)

11

 $\sqrt{12}$ 

SCALE: 3/8" = 1'-0"

**SIM.** TLT 11 (3 YR)

**SIM.** TLT 7, TLT 8 (4 YR)

3' - 4"

TLT 14 (ADULT)

A5.10 SCALE: 3/8" = 1'-0" SIM. TLT 5 (5 YR+)

\A5.10

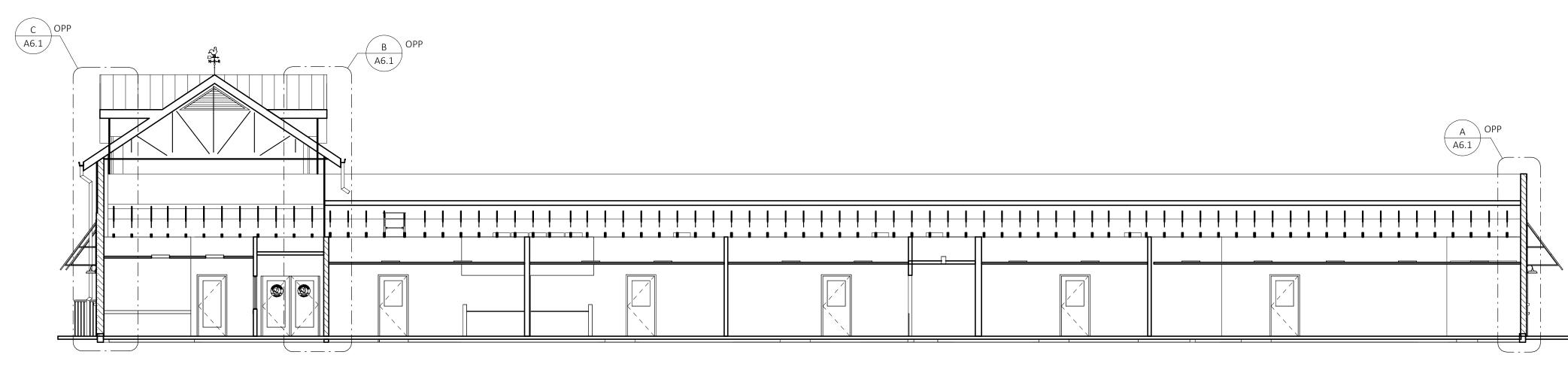
**COVE BASE DETAIL** A5.10 SCALE: 12" = 1'-0"

A5.10

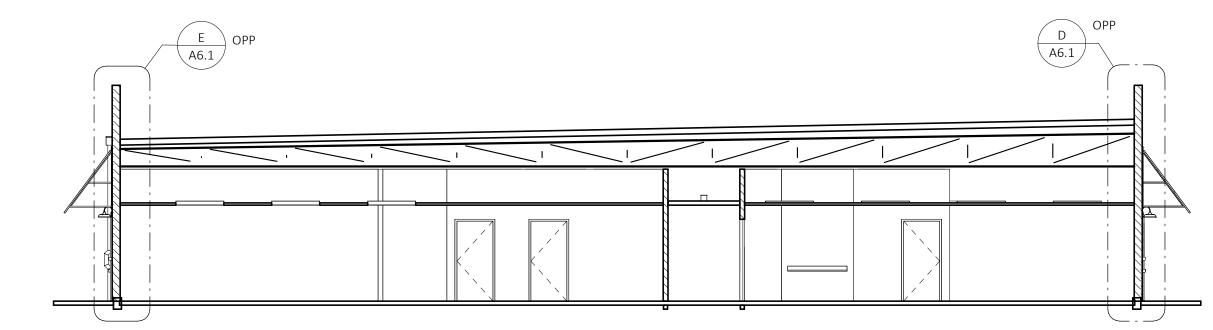
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BUILDING SECTIONS

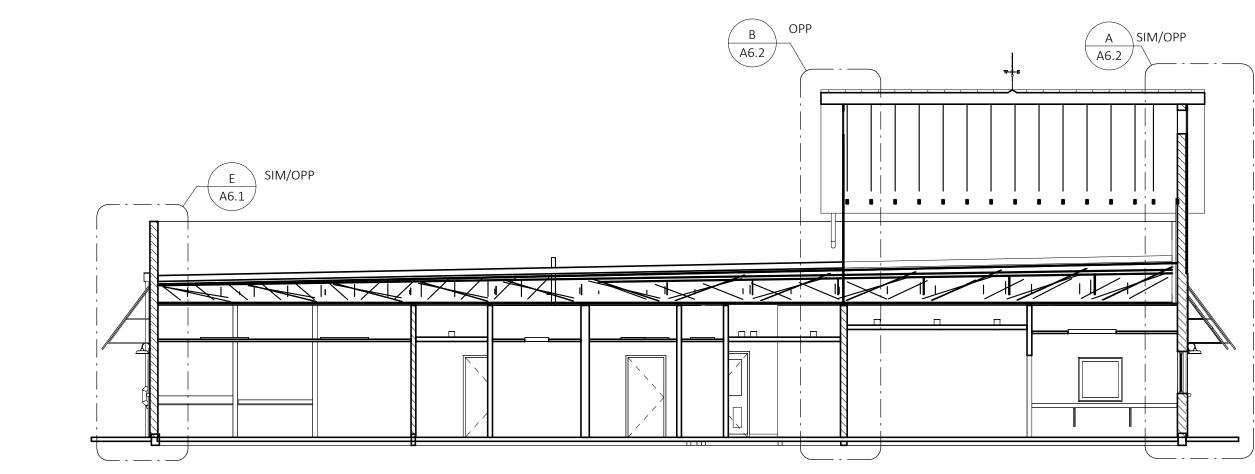
A6.0





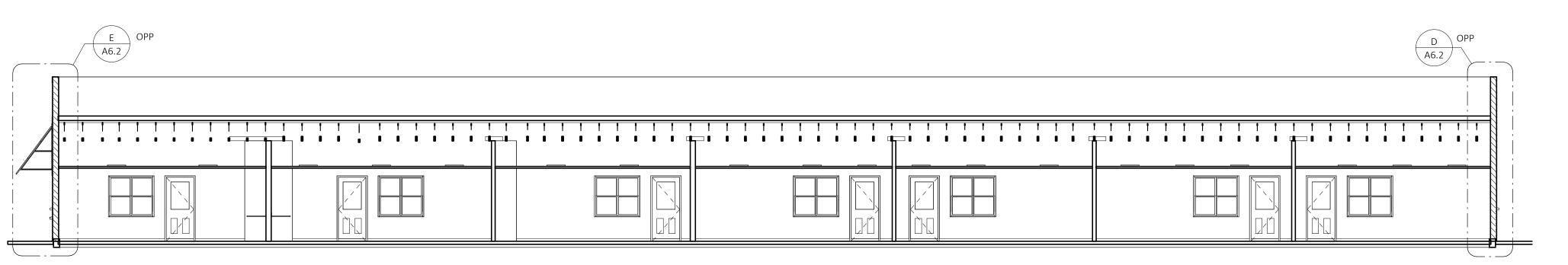


**BUILDING SECTION** 2 BUILDIN A6.0 SCALE: 1/8" = 1'-0"



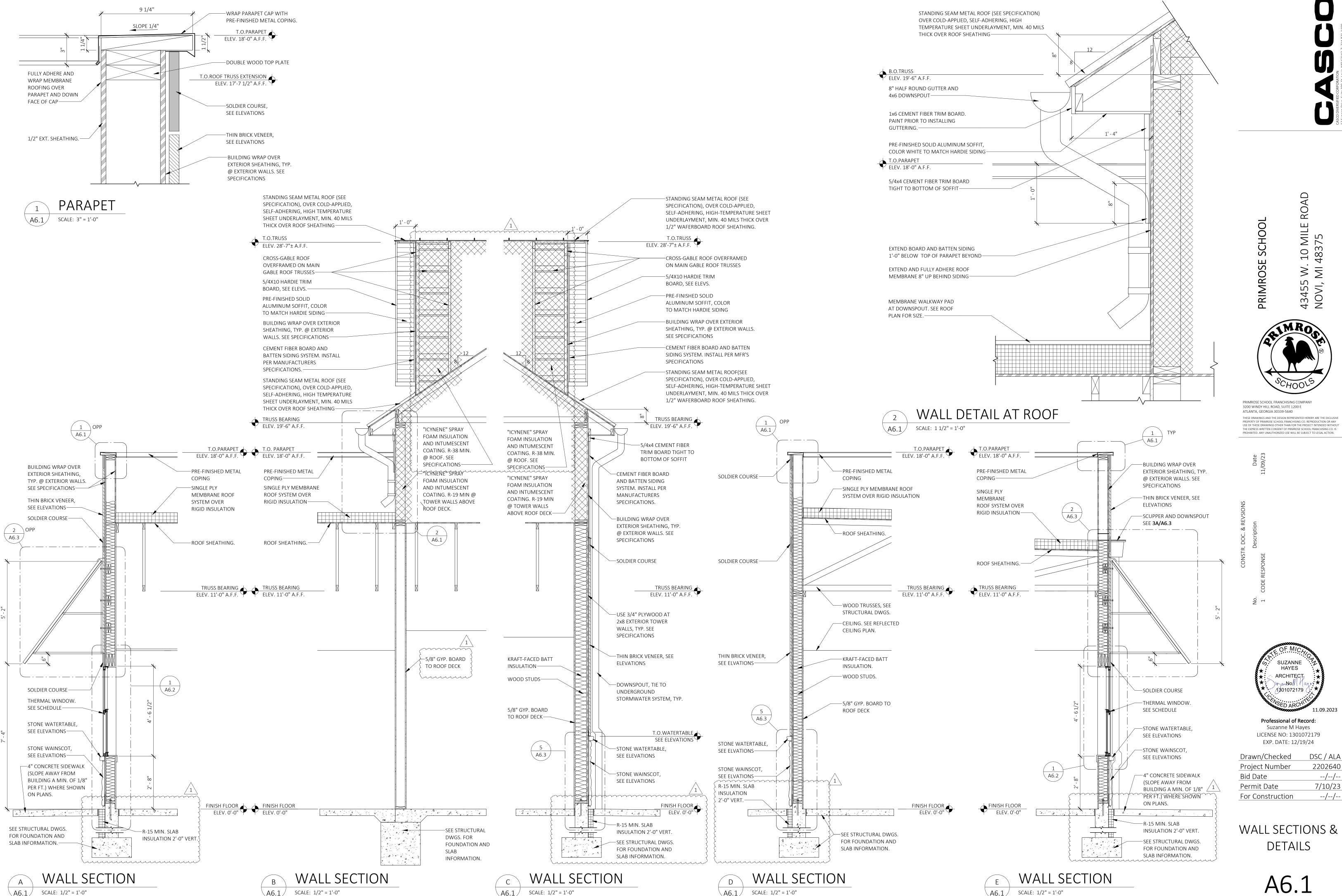
BUILDING SECTION

SCALE: 1/8" = 1'-0"



4 BUILDING SECTION

A6.0 SCALE: 1/8" = 1'-0"



2202640 7/10/23 --/--/--

-1/2" FIBER EXP. JT. MATERIAL

AND SEALANT

—SEE STRUCTURAL

DWGS. FOR REINF.

CONC SLABS AND

-BUILDING WRAP OVER

EXTERIOR SHEATHING, TYP.

@ EXTERIOR WALLS. SEE

SPECIFICATIONS

SEE ELEVATIONS

-SOLDIER COURSE,

SEE ELEVATIONS

—SOLDIER COURSE

-THIN BRICK VENEER,

-STONE WATERTABLE

SEE ELEVATIONS

-STONE WAINSCOT,

-4" CONCRETE SIDEWALK

BUILDING A MIN. OF 1/8" PER FT.) WHERE SHOWN

(SLOPE AWAY FROM

SEE ELEVATIONS

ON PLANS.

-R-15 MIN. SLAB

INSULATION 2'-0" VERT.

-SEE STRUCTURAL DWGS.

FOR FOUNDATION AND SLAB INFORMATION.

SEE ELEVATIONS

THIN BRICK VENEER,

FOUNDATIONS.



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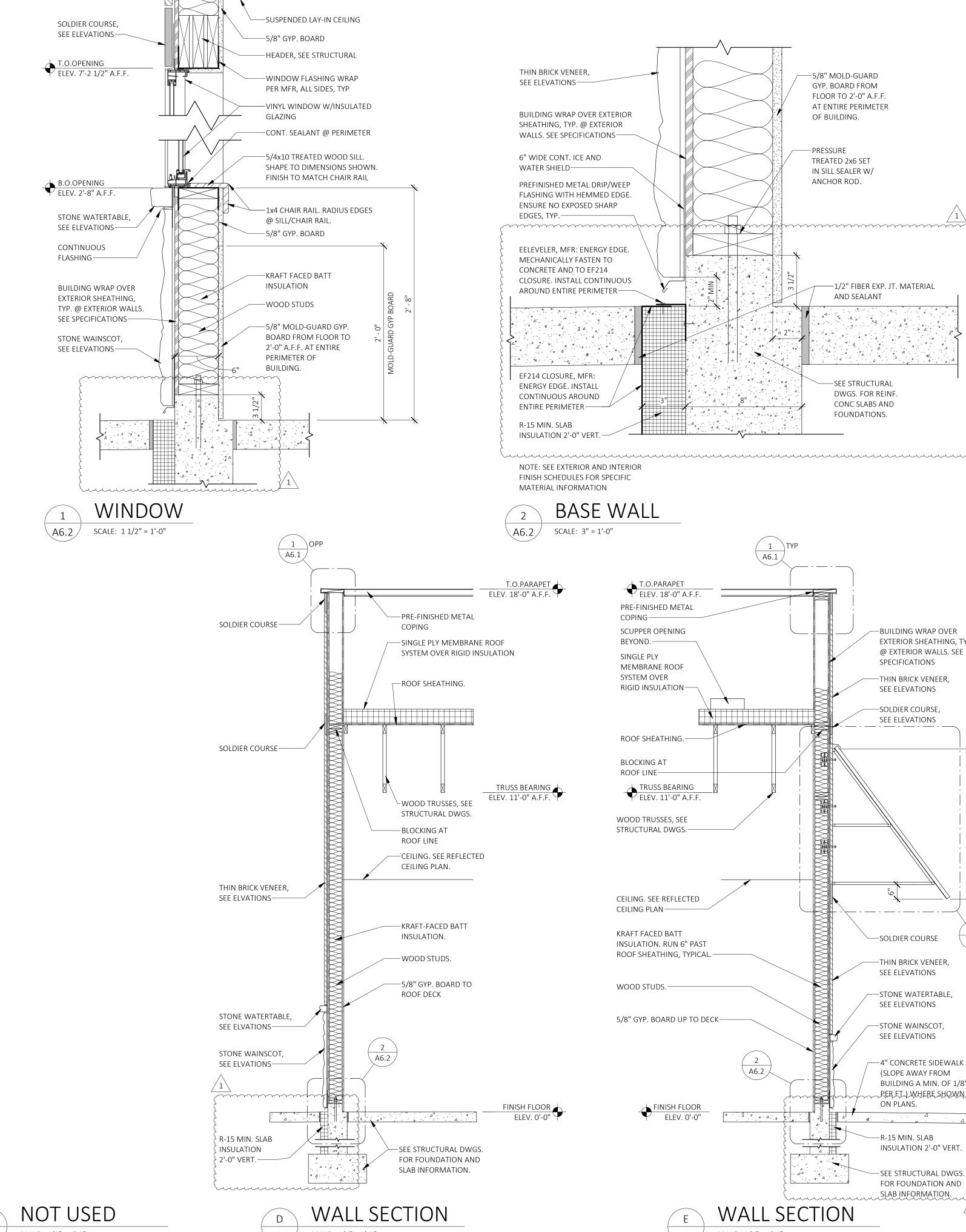
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HAYES ARCHITECT 1301072179

Professional of Record: Suzanne M Hayes LICENSE NO: 1301072179 EXP. DATE: 12/19/24

Drawn/Checked DSC / ALA 2202640 Project Number Bid Date 7/10/23 Permit Date --/--/--For Construction

WALL SECTIONS & DETAILS



A WALL SECTION

A6.2 SCALE: 1/2" = 1'-0"

PRE-FINISHED SOLID

5/4X10 HARDIE TRIM

5/4x8 CEMENT FIBER TRIM

FIBER PANEL JOINT.—

"ICYNENE" SPRAY FOAM

COATING. R-38 MIN. @

B.O.TRUSS ELEV. 19'-6" A.F.F.

"ICYNENE" SPRAY FOAM

INTUMESCENT COATING.

R-19 MIN @ TOWER WALLS

INSULATION AND

ABOVE ROOF DECK

—WOOD STUDS.

CEILING PLAN

—5/8" GYP. BOARD

TO ROOF DECK

4 A6.3

FINISH FLOOR
ELEV. 0'-0"

—CEILING, SEE REFLECTED

\ A6.1 /

5/8" GYP. BOARD

TO ROOF DECK----

INSULATION AND

SPECIFICATIONS-

**BUILDING WRAP** 

**OVER EXTERIOR** 

SHEATHING, TYP. @

EXTERIOR WALLS. SEE

AND BATTEN SIDING

SYSTEM. INSTALL PER

CONT. MTL. FLASHING,

USE 3/4" PLYWOOD AT

2x8 EXTERIOR TOWER

TRUSS BEARING
ELEV. 11'-0"±A.F.F.

COLOR TO MATCH SIDING

MANUFACTURERS

SPECIFICATIONS.-

SOLDIER COURSE,

SEE ELEVATIONS—

WALLS, TYP. SEE

SPECIFICATIONS-

THIN BRICK. SEE

SOLDIER COURSE.

SEE ELEVATIONS—

THERMAL WINDOW.

STONE WATERTABLE,

T.O.WATERTABLE SEE ELEVATIONS

SEE ELEVATIONS—

STONE WAINSCOT,

SEE ELEVATIONS—

R-15 MIN. SLAB

INSULATION 2'-0" VERT.-

SEE STRUCTURAL DWGS.

FOR FOUNDATION AND

SLAB INFORMATION -

SEE SCHEDULE——

ELEVATIONS—

SPECIFICATIONS—

INTUMESCENT

ROOF. SEE

BOARD. CENTER ON CEMENT

BOARD, SEE ELEVS.—

ALUMINUM SOFFIT, COLOR

TO MATCH HARDIE SIDING—

WALL SECTION A6.2 | SCALE: 1/2" = 1'-0"

A6.2 SCALE: 1/2" = 1'-0"

AWNING OVER THIN BRICK VENEER-

-5/4x8 CEMENT

FIBER FASCIA

-5/4X10 HARDIE TRIM

BOARD, SEE ELEVS.

-PRE-FINISHED SOLID

ALUMINUM SOFFIT,

COLOR TO MATCH

HARDIE SIDING

-CEMENT FIBER

SIDING SYSTEM.

SPECIFICATIONS.

-1x8 CEMENT

FIBER FASCIA

-5/4x8 CEMENT FIBER

TRIM BOARD. CENTER

"ICYNENE" SPRAY FOAM

INTUMESCENT COATING.

R-38 MIN. @ ROOF. SEE

-PRE-FINISHED METAL

ON CEMENT FIBER

INSULATION AND

SPECIFICATIONS

COPING BEYOND

MEMBRANE ROOF

RIGID INSULATION

-ROOF SHEATHING.

TRUSS BEARING ELEV. 11'-0" A.F.F.

-WOOD TRUSSES, SEE

STRUCTURAL DWGS.

CEILING PLAN.

-CEILING. SEE REFLECTED

FINISH FLOOR ELEV. 0'-0"

-SEE STRUCTURAL

FOUNDATION AND

SLAB INFORMATION

DWGS. FOR

-BLOCKING AT

**ROOF LINE** 

-SINGLE PLY

SYSTEM OVER

PANEL JOINT.

INSTALL PER MANUFACTURERS

BOARD AND BATTEN

SCALE: 1/2" = 1'-0"

A6.2 | SCALE: 1/2" = 1'-0"

WALLS. SEE SPECIFICATIONS——

A6.3 SCALE: 1 1/2" = 1'-0"

OVERFLOW DRAIN

TO MATCH ADJACENT WALL—

DWGS. FOR REINF.

CONC SLABS AND

FOUNDATIONS.——

A6.3 SCALE: 3" = 1'-0"

-ROOF TRUSSES, SEE

STRUCTURAL DWGS

R-15 MIN. SLAB

INSULATION 2'-0" VERT.

SECTION @ STONE VENEER

DETAILS

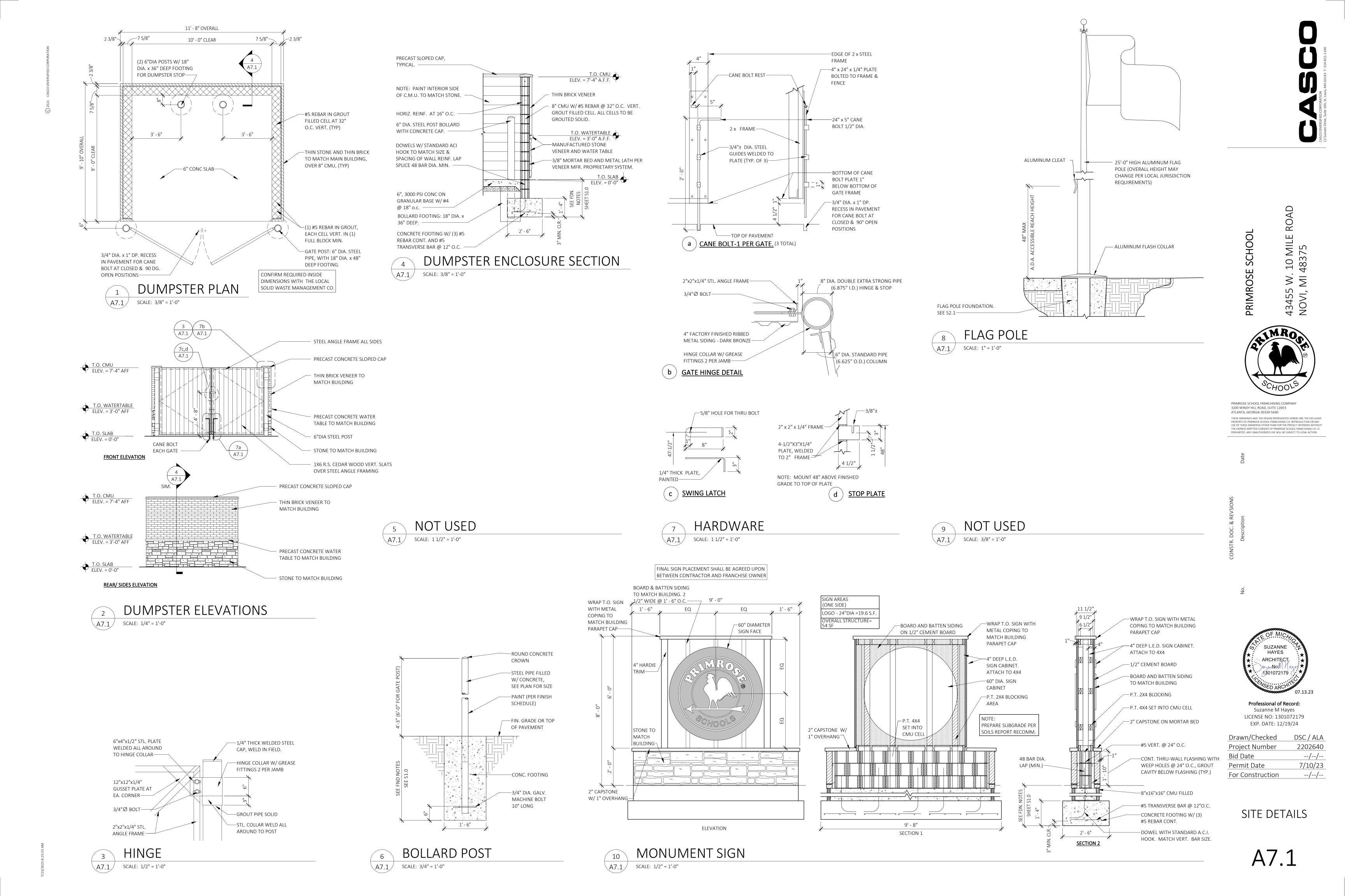
A6.3

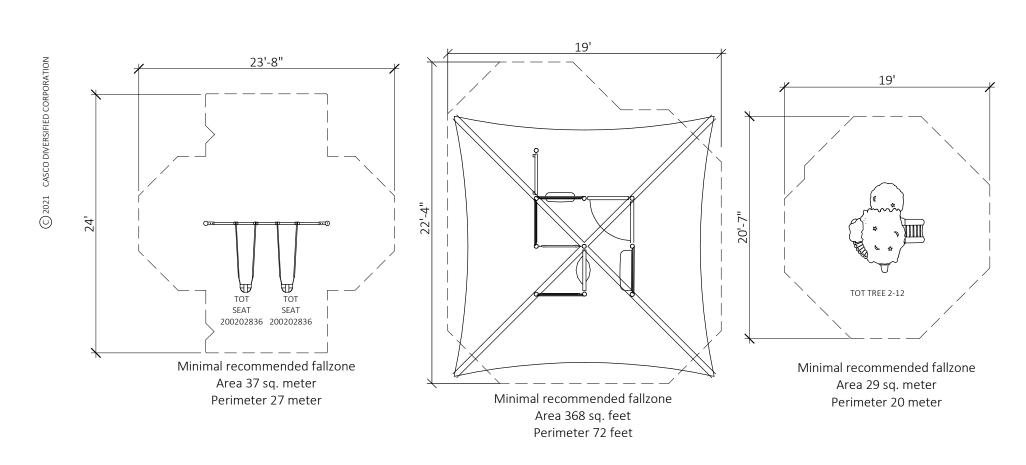
EF214 CLOSURE, MFR: ENERGY

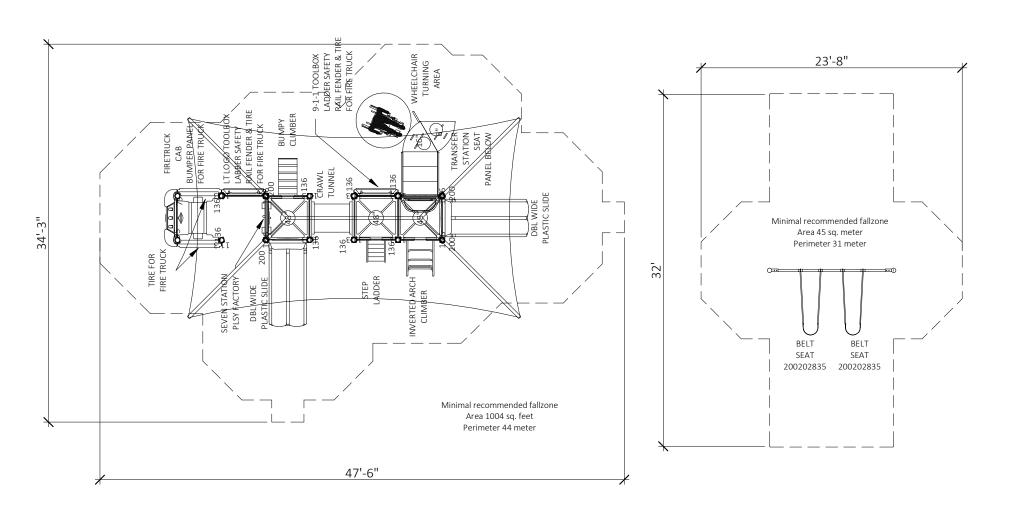
EDGE. INSTALL CONTINUOUS

AROUND ENTIRE PERIMETER

1/9/2023 9:44:26

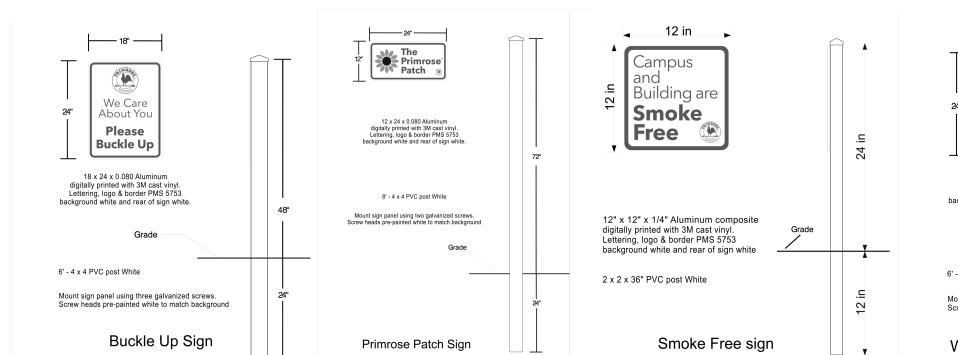


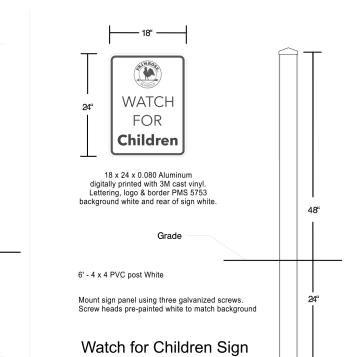




#### EARLY PRESCHOOL PLAYGROUND EQUIPMENT A7.2 SCALE: NTS

AFTER SCHOOL / PRESCHOOL PLAYGROUND EQUIPMENT



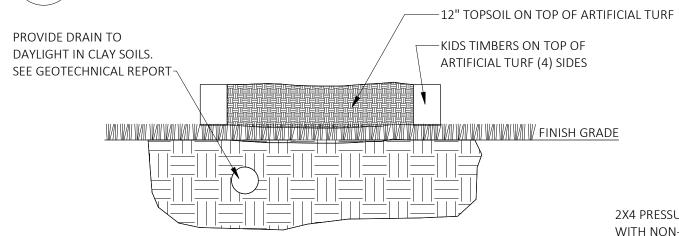




PRIMROSE PATCH

SCALE: 3/4" = 1'-0"

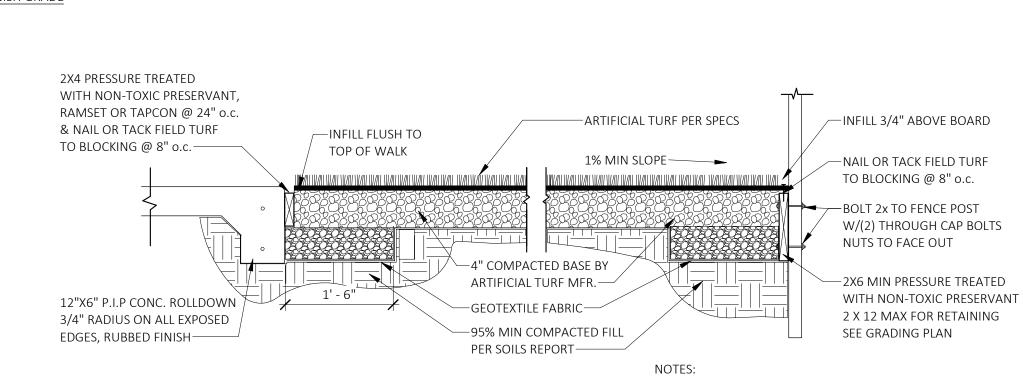
A7.2 SCALE: 3/4" = 1'-0"



DEPTH.

—1" RADIUS EDGE

—SEE CIVIL FOR SIDEWALK REINFORCING AND





ARTIFICIAL TURF A7.2 SCALE: 3/4" = 1'-0"

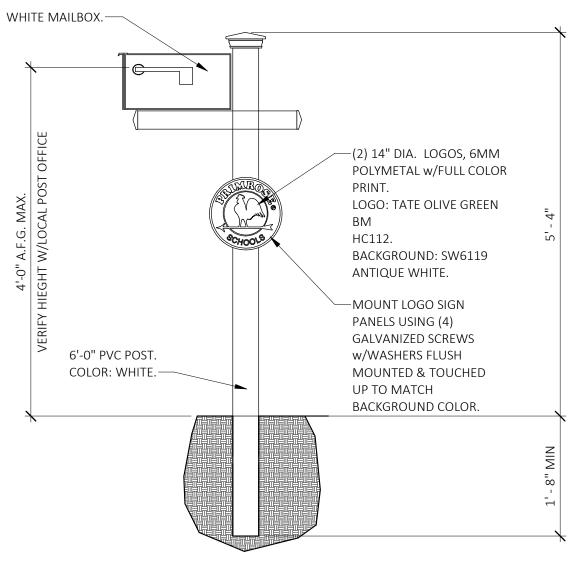
FALL SURFACING SHALL COMPLY WITH ASTM F1951 FOR WHEELCHAIR ACCESSIBILITY & ASTM F1292 FOR FALL ATTENUATION.

## PLAYGROUND EQUIPMENT GENERAL NOTES:

- 1. THE AMERICAN WITH DISABILITIES ACT (ADA) MAY REQUIRE THAT YOU MAKE YOUR PARK AND/OR PLAYGROUND ACCESSIBLE WHEN VIEWED IN ITS ENTIRETY. PLEASE CONSULT YOUR LEGAL COUNSEL TO DETERMINE IF THE ADA APPLIES TO YOU.
- 2. FOR PLAYGROUND EQUIPMENT TO BE CONSIDERED ACCESSIBLE, ACCESSIBLE SURFACING MUST BE UTILIZED IN APPLICABLE AREAS.
- 3. ALTHOUGH A PARTICULAR PLAYGROUND DESIGN MAY NOT MEET THE PROPOSED ACCESS BOARD REGULATIONS IN REGARDS TO THE APPROPRIATE NUMBER OF GROUND LEVEL EVENTS, THE ACTUAL PLAYGROUND MAY BE IN
- COMPLIANCE WHEN CONSIDERING PLAY COMPONENTS.
- 4. ALL DECK HEIGHTS ARE MEASURES FROM TOP OF GROUND COVER.

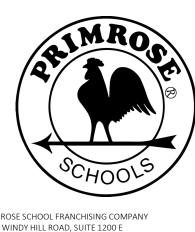
BE FREE OF ALL TRIPPING OR COLLISION HAZARDS(I.E.ROOTS, ROCKS, BOARDER MATERIAL, ECT.).

- 5. FALL ABSORBING GROUND COVER IS REQUIRED UNDER AND AROUND ALL PLAY EQUIPMENT. 6. THE MINIMUM RECOMMENDED FALL ZONE AROUND THE ENTIRE PLAY STRUCTURE IS SHOWN. THIS ZONE MUST
- 7. PLAYGROUND EQUIPMENT MUST MEET THE PERFORMANCE AND SAFETY REQUIREMENTS OF ASTM FOR CHILDREN 2-12 YEARS OLD. NOT ALL EQUIPMENT MAY BE APPROPRIATE FOR ALL CHILDREN. SUPERVISION IS REQUIRED.
- 8. ALL POST LENGTHS ARE IDENTIFIED BY TEXT SHOWING THE POST LENGTHS, I.E. 96 REPRESENTS A 96-INCH POST, AND 2210 REPRESENTS A 2210MM POST.
- 9. THE REQUIREMENT FOR A KID KUBE INSTALLATION IS THAT A LEVEL SITE BE USED.
- 10. THE REQUIREMENT FOR A PLAY BUILDER INSTALLATION IS THAT THE POST CANNOT BE SET PRIOR RO INSTALLING
- 11. PICNIC TABLE/SANDBOX TO BE PLACED AT COSTUMER'S DISCRETION. DECK-TO-DECK ENCLOSE PANEL LOCATIONS ARE MARKED BY AN ASTERISK. THE HEIGHT OF EACH PANEL MAY BE FOUND BY SUBTRACTING THE LOWEST DECK FROM THE HIGHEST DECK TO WHICH THE DECK-TO-DECK ENCLOSE PANEL MOUNTS.
- 12. RUBBER FALL ZONE MATS SHALL BE PLACED AT THE END OF EACH PLAYGROUND SLIDE AND UNDERNEATH EACH SWING.





A7.2 SCALE: 3/4" = 1'-0"



3200 WINDY HILL ROAD, SUITE 1200 E ATLANTA, GEORGIA 30339-5640 THESE DRAWINGS AND THE DESIGN REPRESENTED HEREBY ARE THE EXCLUSIVE THE EXPRESS WRITTEN CONSENT OF PRIMROSE SCHOOL FRANCHISING CO. IS

PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.



Professional of Record: Suzanne M Hayes LICENSE NO: 1301072179 EXP. DATE: 12/19/24

Drawn/Checked	DSC / ALA
Project Number	2202640
Bid Date	//
Permit Date	7/10/23
For Construction	//

PLAYGROUND / SITE DETAILS

MISCELLANEOUS:

- 1. THESE GENERAL NOTES SUPPLEMENT THE PROJECT SPECIFICATIONS. REFER TO THE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- 2. THE STRUCTURAL DRAWINGS ARE INTENDED TO BE USED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING REQUIREMENTS FROM SUCH DRAWINGS INTO THEIR SHOP DRAWINGS AND WORK.
- 3. ANY DETAIL TITLED AS A TYPICAL DETAIL IS APPLICABLE THROUGHOUT THE DESIGN DRAWINGS. THESE DETAILS ARE DEFINED AS GENERAL STANDARDS THAT ARE USUALLY NOT IDENTIFIED BY SPECIFIC REFERENCE WITHIN THE DRAWINGS. THESE DETAILS MAY BE MODIFIED OR SUPERSEDED BY SPECIFIC DETAILS THAT ARE REFERENCED WITHIN THE DRAWINGS.
- 4. NO OPENINGS SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE PROFESSIONAL-OF-RECORD.
- 5. NO CHANGE IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE PROFESSIONAL-OF-RECORD.
- 6. OPENINGS IN WALLS AND DECK, WHICH ARE 1'-4" AND LESS ON A SIDE, ARE GENERALLY NOT SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO THE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SUCH OPENINGS.
- 7. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED UPON THE STRUCTURAL FRAMING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE IMPOSED.
- 8. THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL TEMPORARY BRACING AND/OR SUPPORT THAT MAY BE REQUIRED AS THE RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES.
- 9. DO NOT SCALE THESE DRAWINGS. USE SPECIFIED DIMENSIONS.
- 10. THE CONTRACTOR'S CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PERIOD.
- 11. THE CONTRACTOR SHALL INFORM THE PROFESSIONAL-OF-RECORD IN WRITING OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY OF SUCH DEVIATION BY THE PROFESSIONAL-OF-RECORD REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC., UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE PROFESSIONAL-OF-RECORD OF SUCH DEVIATION AT THE TIME OF SUBMISSION, AND THE PROFESSIONAL-OF-RECORD HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION.

#### **SPECIAL INSPECTIONS:**

- 1. THE OWNER WILL EMPLOY THE SERVICES OF ONE OR MORE SPECIAL INSPECTORS TO PROVIDE SPECIAL INSPECTIONS DURING CONSTRUCTION FOR THE REQUIRED SPECIAL INSPECTION ITEMS.
- 2. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL RESPONSIBLE FOR THE DESIGN OF THE STRUCTURE, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
- 3. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:
  A. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. THE INSPECTOR MAY NOT ALTER, MODIFY, ENLARGE OR WAVE ANY OF THE REQUIREMENTS OF THE DOCUMENTS.
- B. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE PROFESSIONAL-OF-RECORD, AND THE CONTRACTOR. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, SUBMIT A COMPLETE LIST OF ALL OUTSTANDING DISCREPANCIES ON A WEEKLY BASIS TO THE OWNER, THE BUILDING OFFICIAL, AND THE
- PROFESSIONAL-OF-RECORD, UNTIL ALL CORRECTIONS HAVE BEEN COMPLETED.

  C. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE BUILDING CODE.
- 4. WHERE SPECIAL INSPECTION REQUIREMENTS DUPLICATE THE REQUIREMENTS OF OTHER SPECIFIED TESTING, DUPLICATE INSPECTIONS SHALL NOT BE REQUIRED.
- 5. SPECIAL INSPECTIONS SHALL BE REQUIRED FOR THE GENERAL AREAS. IDENTIFIED IN THE FOLLOWING TABLE.
- 6. STRUCTURAL OBSERVATION (AS DEFINED IN CHAPTER 17 OF THE BUILDING CODE) IS NOT REQUIRED, UNLESS SPECIFICALLY REQUIRED BY THE BUILDING OFFICIAL.

SPECIAL INSPECTIONS SCHEDULE						
SPECIAL INSPECTION	FREQUENCY	REFERENCED STANDARD(S)				
SOILS:						
1. VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	PERIODIC					
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	PERIODIC					
3. PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS.	PERIODIC	GEOTECHNICAL ENGINEERIN REPORT; IBC 1705.6				
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL.	CONTINUOUS	NEI GITT, 150 1703.0				
5. PRIOR TO THE PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT THE SITE HAS BEEN PREPARED PROPERLY.	PERIODIC					
CONCRETE:						
1. INSPECT ANCHORS CAST IN CONCRETE	PERIODIC	ACI 318: 17.8.2				
INSPECTION OF FABRICATORS:	-					
1. PREFABRICATED WOOD ROOF TRUSSES		IBC 1704.2.5				

SEE SPECIFICATION SHEETS A0.1-A0.7 FOR THE BALANCE OF STRUCTURAL NOTES

### 6. COMPONENTS AND CLADDING DESIGN WIND PRESSURES: PER TABLE BELOW.

= 4.0 PSF

= 2.0 PSF

= 3.0 PSF

= 4.0 PSF

= 5.0 PSF

= 20.0 PSF

= 25 PSF

= 53.8 PSF

= 12.5 FT

= 21.2 PSF

= 1.0

= 1.1

= 1.0

= 1.0

= |||

= 120 MPH

= ENCLOSED

= 19.3 PSF + DRIFT

**DESIGN CRITERIA:** 

ROOF DEAD LOADS:

- WOOD TRUSSES

3. MINIMUM ROOF LIVE LOAD:

4. SNOW LOADS:

5. WIND LOAD:

- CEILING/MISCELLANEOUS

- GROUND SNOW LOAD, Pg

- FLAT ROOF SNOW LOAD, Pf

- DRIFT SURCHARGE LOAD, Pd

- SLOPED ROOF SNOW LOAD, Ps

- SNOW EXPOSURE FACTOR, Ce

- ULTIMATE WIND SPEED, Vult

- OVERALL EXPOSURE CATEGORY

- SNOW LOAD IMPORTANCE FACTOR, Is

- WIDTH OF DRIFT, w

- THERMAL FACTOR, Ct

- RISK CATEGORY

- BUILDING CATEGORY

- ROOF SLOPE FACTOR, Cs

1. BUILDING CODE - 2015 MICHIGAN BUILDING CODE

- WOOD STRUCTURAL PANEL SHEATHING

- MECHANICAL/ELECTRICAL/FIRE PROTECTION

- ROOFING MEMBRANE/INSULATION

NOMINAL (ASD) COMPONENTS AND CLADDING WIND DESIGN PRESSURES (PSF)								
	ZONE	EFFECTIVE WIND AREA (SF)	WINDWARD PRESSURE	LEEWARD PRESSURE ROOF SLOPE < 7°				
		10	10.0	-18.8				
		20	10.0	-18.3				
	$\left(\begin{array}{c} 1 \end{array}\right)$	50	10.0	-17.7				
		100	10.0	-17.2				
J.		10	10.0	-31.6				
ROOF	(2)	20	10.0	-28.2				
Œ		50	10.0	-23.7				
		100	10.0	-20.4				
		10	10.0	-47.5				
	(3)	20	10.0	-39.3				
			50	10.0	-28.5			
		100	10.0	-20.4				
		10	18.8	-20.4				
		20	17.9	-19.5				
	(4)	50	16.8	-18.4				
	•	100	16.0	-17.6				
WALLS		500	14.0	-15.6				
Α		10	18.8	-25.2				
-		20	17.9	-23.5				
	(5)	50	16.8	-21.3				
	•	100	16.0	-19.5				
		500	14.0	-15.6				

\* ZONE 1 INCLUDES THOSE ROOF ELEMENTS LOCATED OUTSIDE OF 6 FEET OF A ROOF EDGE.

ZONE 2 INCLUDES THOSE ROOF ELEMENTS LOCATED WITHIN 6 FEET A ROOF EDGE.

ZONE 3 INCLUDES THOSE ROOF ELEMENTS LOCATED WITHIN 6 FEET OF A ROOF EDGE AND WITHIN

6 FEET OF A BUILDING CORNER.

ZONE 4 INCLUDES THOSE WALL ELEMENTS LOCATED OUTSIDE OF 6 FEET OF A BUILDING CORNER.

ZONE 5 INCLUDES THOSE WALL ELEMENTS LOCATED WITHIN 6 FEET OF A BUILDING CORNER.

7.	SEISMIC LOADS:	
	- RISK CATEGORY	=
	- SEISMIC IMPORTANCE FACTOR, It	= 1.25
	- MAPPED SPECTRAL RESPONSE COEFFICIENTS:	
	- S <sub>S</sub>	= 0.089
	- S <sub>1</sub>	= 0.046
	- SITE CLASS	= D
	- SPECTRAL RESPONSE COEFFICIENTS:	
	- Sd <sub>S</sub>	= 0.095
	- $Sd_1$	= 0.074
	- SEISMIC DESIGN CATEGORY	= B
	- BASIC SEISMIC-FORCE-RESISTING SYSTEM	= LIGHT FRAMED (WOOD) WALLS SHEATHE
		WITH WOOD STRUCTURAL PANELS RATED
		FOR SHEAR RESISTANCE
	-RESPONSE MODIFICATION COEFFICIENT,R	= 6.5
	-ANALYSIS PROCEDURE	= EQUIVALENT LATERAL FORCE PROCEDUR
	-SEISMIC RESPONSE COEFFICIENT, Cs	= 0.018
	-BASE SHEAR, V (ULTIMATE)	= 7.9K

### **FOUNDATIONS - GENERAL:**

- 1. THE FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE RECOMMENDATIONS BASED ON THE "GEOTECHNICAL EXPLORATION AND ENGINEERING REPORT" DATED JANUARY 10, 2023 PREPARED BY PROFESSIONAL SERVICE INDUSTRIES, INC. (PROJECT No. 03811345).
- 2. SPREAD FOOTINGS SHALL BEAR ON STRUCTURAL FILL AS DEFINED IN THE REFERENCED REPORT CAPABLE OF SUSTAINING A NET ALLOWABLE BEARING PRESSURE OF 3,000 PSF FOR INDIVIDUAL COLUMN FOOTINGS AND CONTINUOUS WALL FOOTINGS UNDER FULL SERVICE DEAD AND LIVE LOADS.
- 3. ALL BUILDING PAD AND SIDEWALK SUBGRADE SHALL BE PREPARED IN STRICT ACCORDANCE WITH THE REFERENCED GEOTECHNICAL REPORT.
- 4. ALL BEARING MATERIAL SHALL BE INSPECTED BY THE INDEPENDENT TESTING AGENCY PRIOR TO CONCRETE PLACEMENT. THE INDEPENDENT TESTING AGENCY SHALL BE THE SOLE JUDGE AS TO THE SUITABILITY OF THE BEARING MATERIAL. FOOTING ELEVATIONS SHALL BE ADJUSTED OR EXISTING SOILS SHALL BE REMOVED AND REPLACED AS REQUIRED.
- 5. FOOTINGS MAY BE POURED INTO AN EARTH-FORMED TRENCH IF SOIL CONDITIONS PERMIT.
- 6. THE TOP OF EXTERIOR FOOTING ELEVATION SHALL BE SET A MINIMUM OF 8" BELOW LOWEST FINAL ADJACENT EXTERIOR GRADE AND A MINIMUM OF 8" BELOW FINISH FLOOR. THE BOTTOM OF EXTERIOR WALL FOOTINGS SHALL BEAR A MINIMUM OF 42" BELOW LOWEST FINAL ADJACENT EXTERIOR GRADE UNLESS NOTED OTHERWISE.
- 7. THE BOTTOM OF INTERIOR FOUNDATIONS SHALL BE A MINIMUM OF 24" BELOW THE FINISH FLOOR ELEVATION.
- 8. FOUNDATION WALLS THAT RETAIN EARTH SHALL BE BRACED AGAINST BACKFILLING PRESSURES UNTIL FLOOR SLABS AT TOP AND BOTTOM ARE IN PLACE, OR UNTIL THE CONCRETE OR MASONRY HAS ATTAINED ITS FULL COMPRESSIVE STRENGTH FOR CANTILEVER WALLS.
- 9. WHERE FOUNDATION WALLS ARE TO HAVE EARTH PLACED ON EACH SIDE, PLACE FILL SIMULTANEOUSLY SO AS TO MAINTAIN A COMMON ELEVATION ON EACH SIDE OF THE WALL.
- 10. VERIFY THE USE AND EXTENT OF PERIMETER INSULATION WITH THE ARCHITECTURAL DRAWINGS PRIOR TO THE INSTALLATION OF FOUNDATIONS. INSTALL PERIMETER INSULATION AS REQUIRED.

43455 W. 10 MILE ROAI

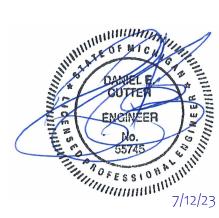


PRIMROSE SCHOOL FRANCHISING COMPANY
3200 WINDY HILL ROAD, SUITE 1200 E
ATLANTA, GEORGIA 30339-5640

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Date

CONSTR. DOC. & REVSIONS
Description



Professional of Record: Daniel E. Cutter LICENSE NO: 55745 EXP. DATE: 10/10/24

Drawn/Checked	DRW / SRW
Project Number	2202640
Bid Date	//
Permit Date	7/13/23
For Construction	//

GENERAL NOTES

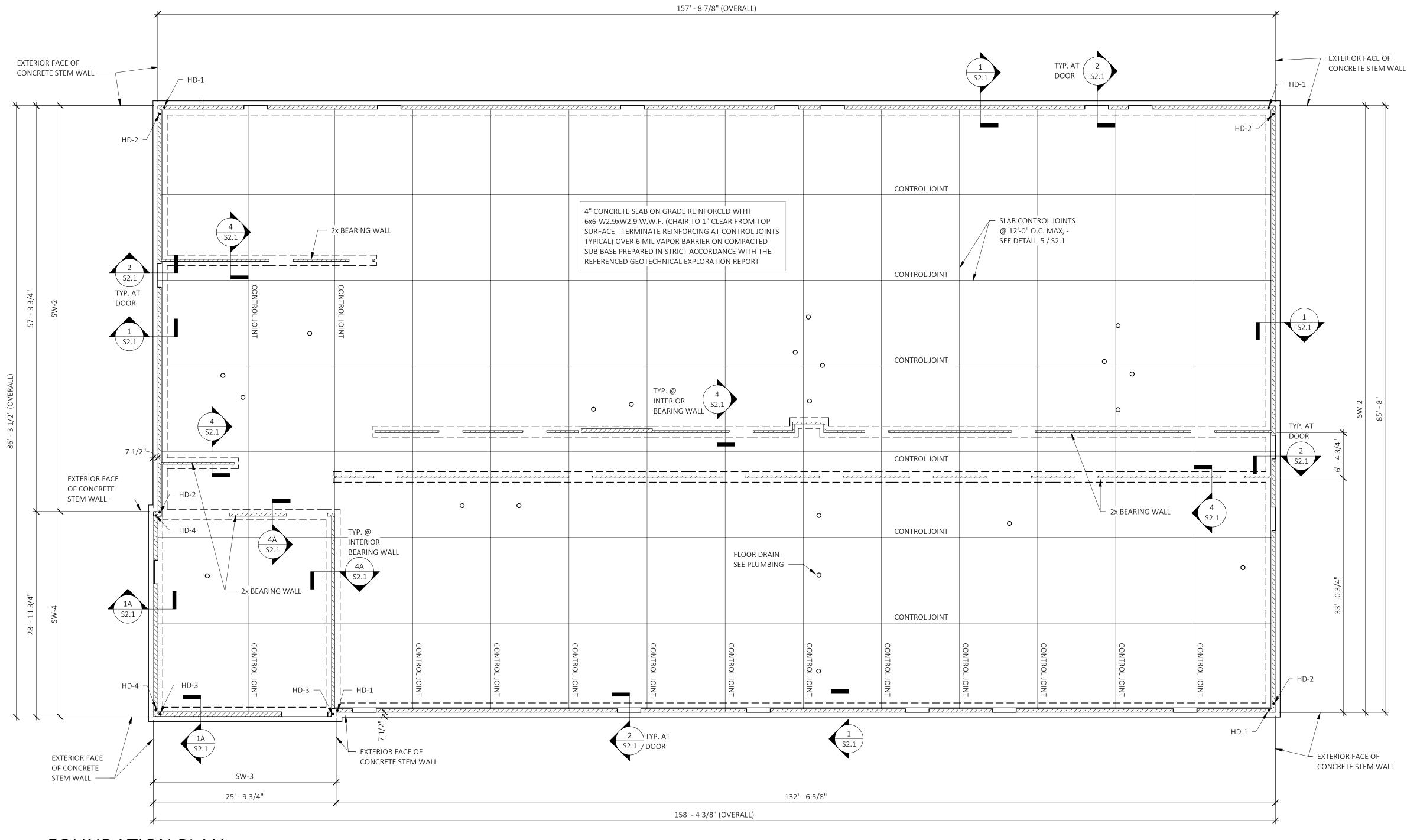
**S1.**C

Professional of Record:
Daniel E. Cutter
LICENSE NO: 55745
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Drawn/CheckedDRW / SRWProject Number2202640Bid Date--/--/--Permit Date7/13/23For Construction--/--/--

FOUNDATION PLAN

**S1** 1



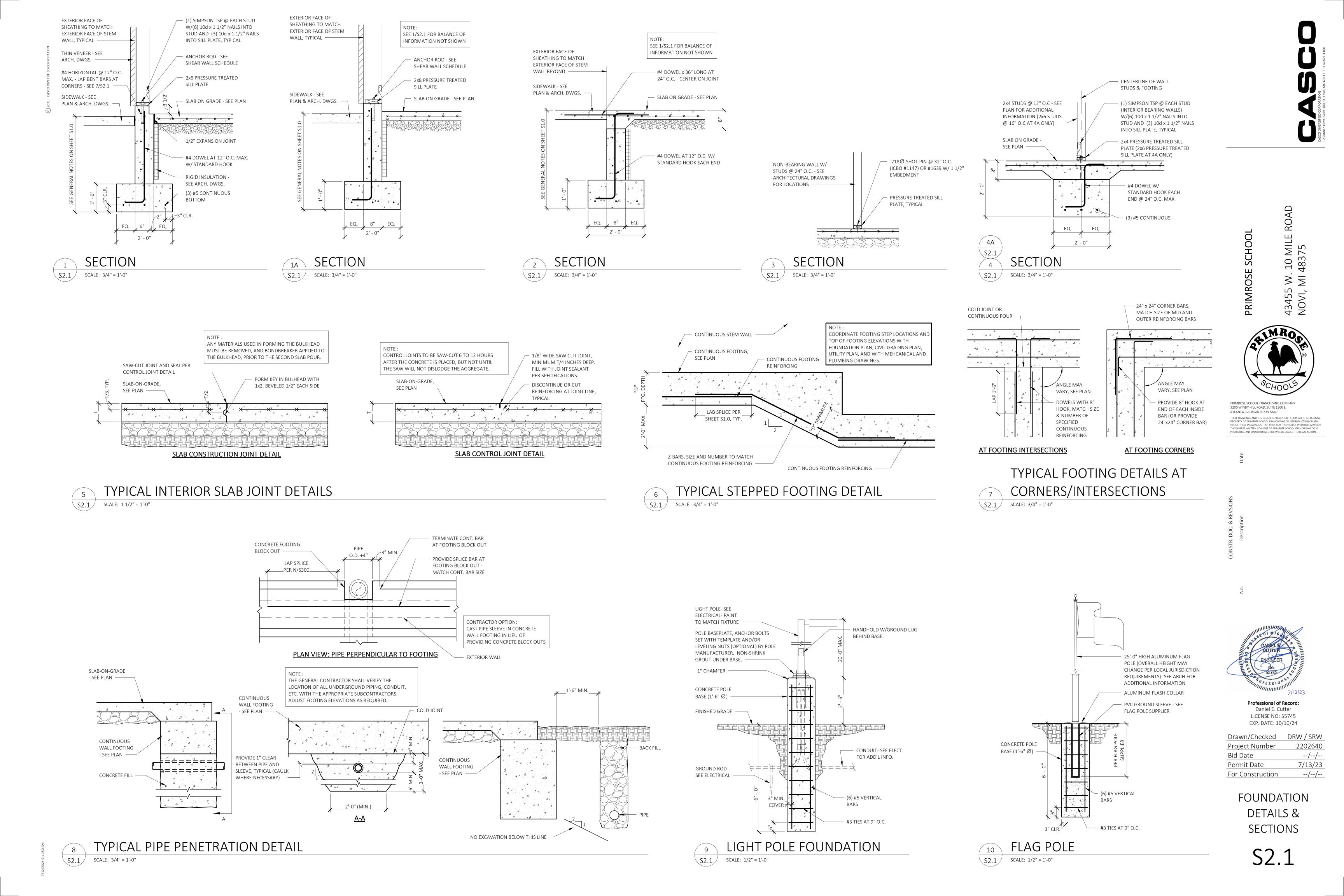
1 FOUNDATION PLAN

S1.1 SCALE: 1/8" = 1'-

## FOUNDATION PLAN NOTES

- 1. SEE SHEET S1.0 FOR GENERAL NOTES. SEE SHEET S2.1 FOR TYPICAL DETAILS.
- 2. ALL ELEVATIONS ARE BASED ON FINISH FLOOR ELEVATION OF 0'-0" FOR REFERENCE ONLY. SEE CIVIL FOR ACTUAL FINISH FLOOR ELEVATION.
- BOX OUT FOR ALL FLOOR DRAINS AND CLEAN OUTS TO ALLOW MAXIMUM SLOPE OF 1/8" PER FOOT TO DRAIN.

  GROUT AFTER COMPLETED SETTING OF FLOOR DRAIN AND/OR CLEAN OUT
- 4. INSTALL (2) 1" DIAMETER CONDUIT AT RISER ROOM LOCATION FOR IRRIGATION SYSTEM, TELEPHONE, AND CABLE TV WIRING. SEE ARCHITECTURAL DRAWINGS FOR LOCATION.
- 5. HD-"X" ON PLAN INDICATES CAST-IN-PLACE HOLD DOWN ANCHOR SEE SHEAR WALL SCHEDULE SHEET S4.1.
- 6. UNLESS NOTED OTHERWISE ON PLAN, ALL EXTERIOR WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SW-1 -
- SEE SHEAR WALL SCHEDULE SHEET S4.1.
- 7. SEE 3 / S2.1 FOR ATTACHMENT FOR NON-LOAD BEARING INTERIOR WALL TO SLAB. SEE ARCHITECTURAL DRAWINGS FOR FRAMING SIZES AND LOCATIONS.
- 8. SEE 3 / S4.2 FOR ATTACHMENT OF THE TYPICAL WALL FRAMING DETAIL FOR THE INTERIOR LOAD BEARING AND ALL EXTERIOR WALLS.
- 9. ON PLAN DENOTES ROOF TRUSS BEARING WALL OR EXTERIOR SHEAR WALL.



PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.

SEE MECHANICAL

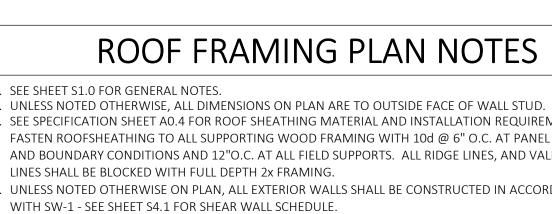
DRAWINGS

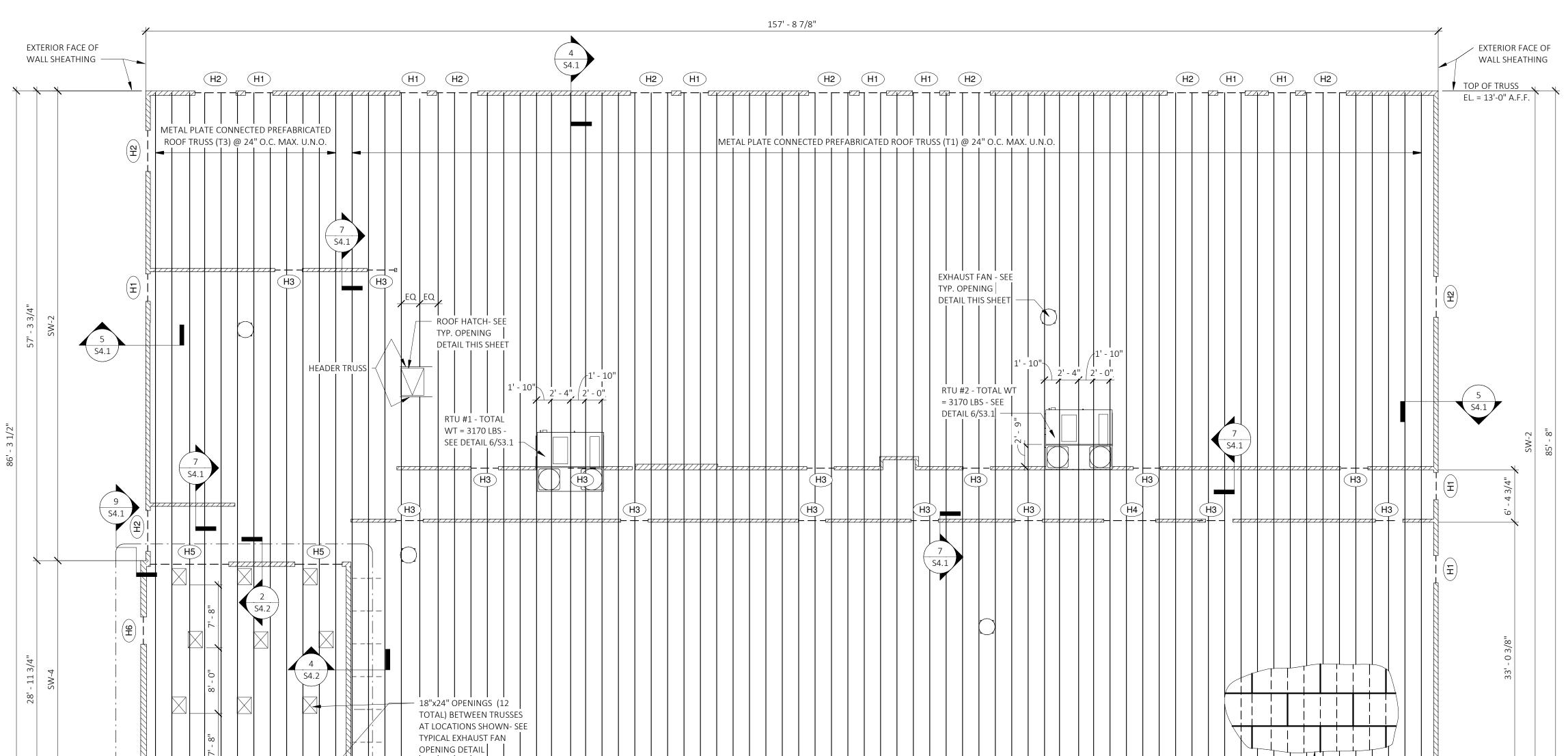
Professional of Record: Daniel E. Cutter LICENSE NO: 55745 EXP. DATE: 10/10/24

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ROOF FRAMING PLAN

TYPICAL RTU SUPPORT DETAIL





(H2)

158' - 4 3/8"

132' - 6 5/8"

1. SEE SHEET S1.0 FOR GENERAL NOTES.

2. UNLESS NOTED OTHERWISE, ALL DIMENSIONS ON PLAN ARE TO OUTSIDE FACE OF WALL STUD. 3. SEE SPECIFICATION SHEET A0.4 FOR ROOF SHEATHING MATERIAL AND INSTALLATION REQUIREMENTS. FASTEN ROOFSHEATHING TO ALL SUPPORTING WOOD FRAMING WITH 10d @ 6" O.C. AT PANEL JOINTS AND BOUNDARY CONDITIONS AND 12"O.C. AT ALL FIELD SUPPORTS. ALL RIDGE LINES, AND VALLEY

4. UNLESS NOTED OTHERWISE ON PLAN, ALL EXTERIOR WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SW-1 - SEE SHEET S4.1 FOR SHEAR WALL SCHEDULE.

5. ALL INTERIOR LOAD BEARING WALL STUDS SHALL BE 2x4 @ 12" O.C. MAXIMUM - SEE ARCHITECTURAL DRAWINGS FOR INTERIOR NON-LOAD BEARING WALL STUDS - SEE SPECIFICATION SHEET A.04 FOR MATERIAL REQUIREMENTS. 6. UNLESS NOTED OTHERWISE ON PLAN, ALL WALL DOUBLE TOP PLATE SPLICES SHALL BE CONSTRUCTED IN ACCORDANCE

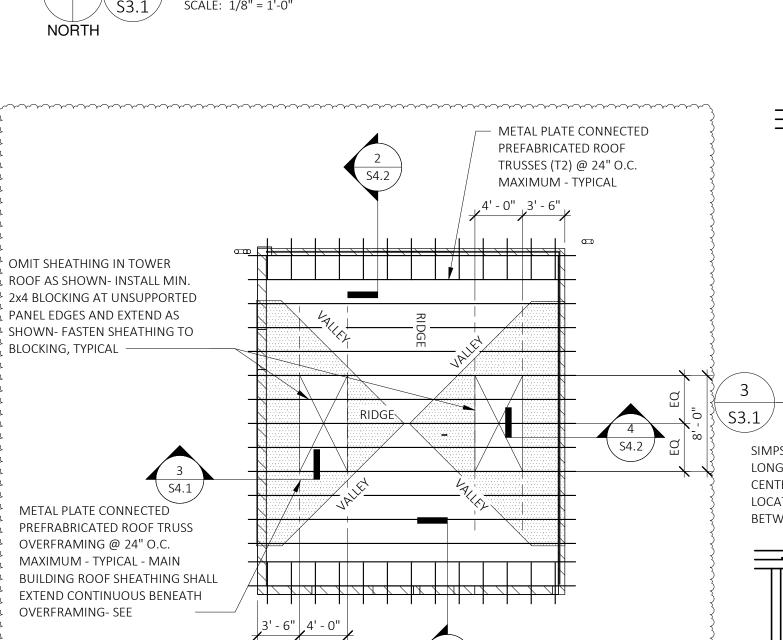
WITH DETAIL 3 / S3.1. 7. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF WOOD STUD WALLS AND NON-LOAD BEARING PARTITIONS. SEE

GENERAL NOTES FOR WALL FRAMING INFORMATION. 8. SEE SHEET S4.1 FOR ROOF TRUSS TYPES AND TRUSS NOTES.

9. SEE 3 / S4.2 FOR TYPICAL WALL OPENING FRAMING DETAIL.

10. ON PLAN DENOTES ROOF TRUSS BEARING WALL OR EXTERIOR SHEAR WALL.

HEADER SCHEDULE								
MARK	FRAMING MEMBER	HEADER SUPPORT						
(H1)	(3) - 2x8	(1) JAMB STUDS AND (1) FULL HEIGHT TRIMMER STUDS EACH SIDE OF OPENING						
H2)	(3) - 2x10	(2) JAMB STUDS AND (2) FULL HEIGHT TRIMMER STUDS EACH SIDE OF OPENING						
НЗ	(2) - 2x8	(1) JAMB STUD AND (1) FULL HEIGHT TRIMMER STUD EACH SIDE OF OPENING						
H4	(2)- 1 3/4"x9 1/4" LVL	(2) JAMB STUDS AND (2) FULL HEIGHT TRIMMER STUDS EACH SIDE OF OPENING						
(H5)	(3)- 1 3/4"x9 1/4" LVL	(2) JAMB STUDS AND (2) FULL HEIGHT TRIMMER STUDS EACH SIDE OF OPENING						
(H6)	(4) - 2x8	(1) JAMB STUDS AND (1) FULL HEIGHT TRIMMER STUDS EACH SIDE OF OPENING						
(H7)	(4) - 2x10	(2) JAMB STUDS AND (2) FULL HEIGHT TRIMMER STUDS EACH SIDE OF OPENING						
(H8)	(4)- 1 3/4"x9 1/4" LVL	(2) JAMB STUDS AND (2) FULL HEIGHT TRIMMER STUDS EACH SIDE OF OPENING						



SW-3

25' - 9 3/4"

ROOF FRAMING PLAN

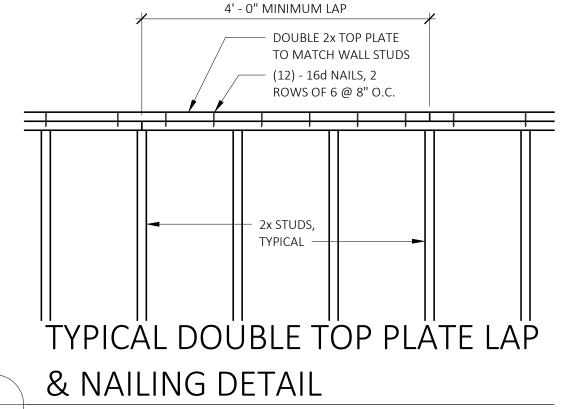
S3.1

2x8 WALL FRAMING, TYPICAL-

SEE SHEARWALL SCHEDULE (S4.1) FOR BALANCE OF INFO.

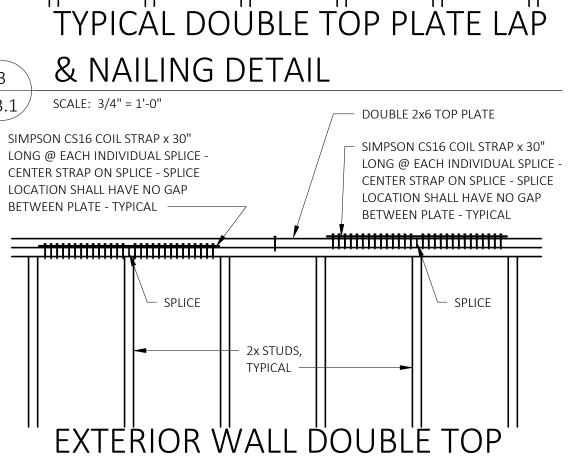
EXTERIOR FACE OF

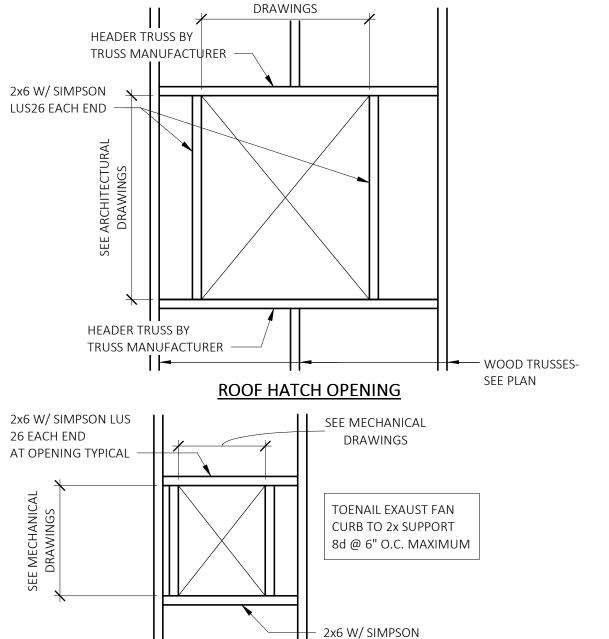
WALL SHEATHING



H2

H<sub>1</sub>

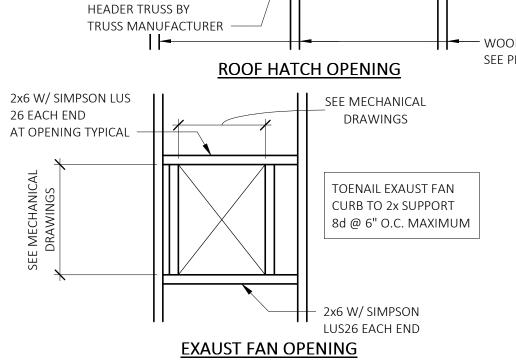


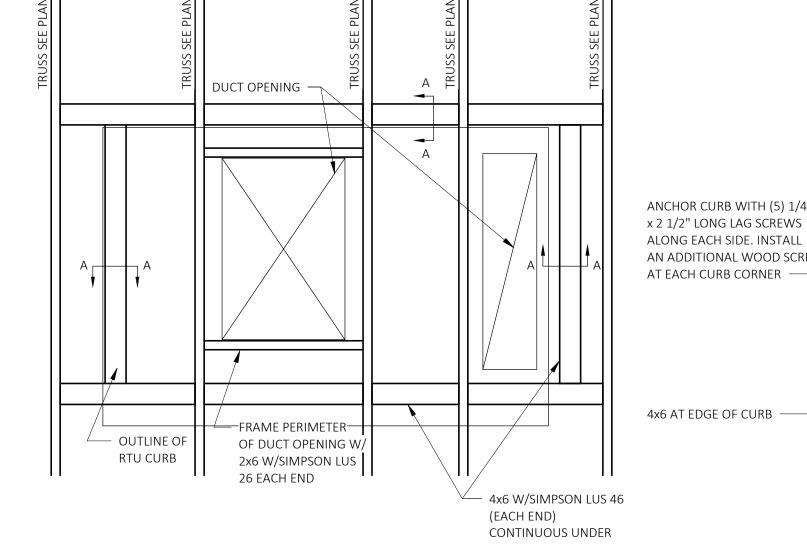


SEE ARCHITECTURAL

TYPICAL ROOF SHEATHING

INSTALLATION PATTERN -





- EXTERIOR FACE OF

WALL SHEATHING

SEE PLAN

SEE PLAN

ANCHOR CURB WITH (5) 1/4"Ø

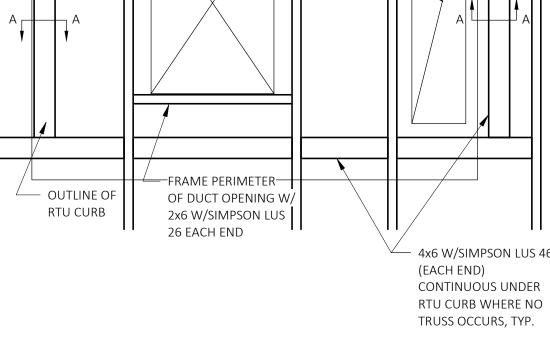
AN ADDITIONAL WOOD SCREW =

ALONG EACH SIDE. INSTALL

AT EACH CURB CORNER

4x6 AT EDGE OF CURB

SEE PLAN



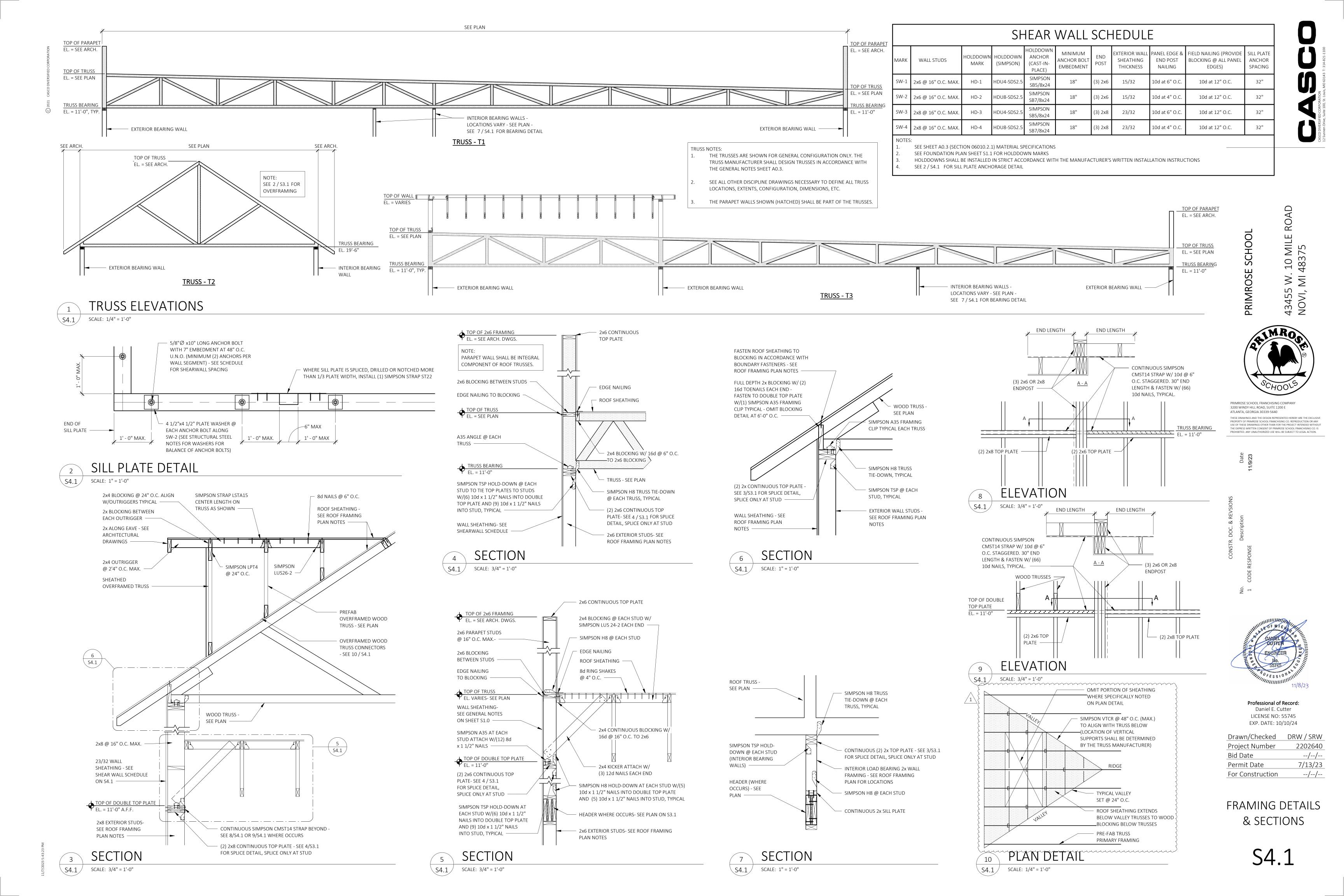
PARTIAL ROOF FRAMING PLAN







SEE PLAN



SEE DETAIL 4/S4.1 FOR

**→** 15/32 EXTERIOR WALL

SHEATHING - SEE SW-1 ON

– 2x6 @ 16" O.C. MAX.

2x4 BLOCKING @ EACH

STUD W/ SIMPSON LUS

ROOF SHEATHING —

24-2 EACH END —

8d RING SHAKES

@ 4" O.C. ——

SHEARWALL SCHEDULE ON S4.1

ADDITIONAL INFORMATION

- WOOD

- 2x4 KICKER @ 4'-0" O.C.-

FASTEN W/(3) 12d NAILS

SIMPSON TSP HOLD-DOWN

@ VERTICAL STUD TO TIE

SILL PLATES TO STUDS

EACH END, TYP.

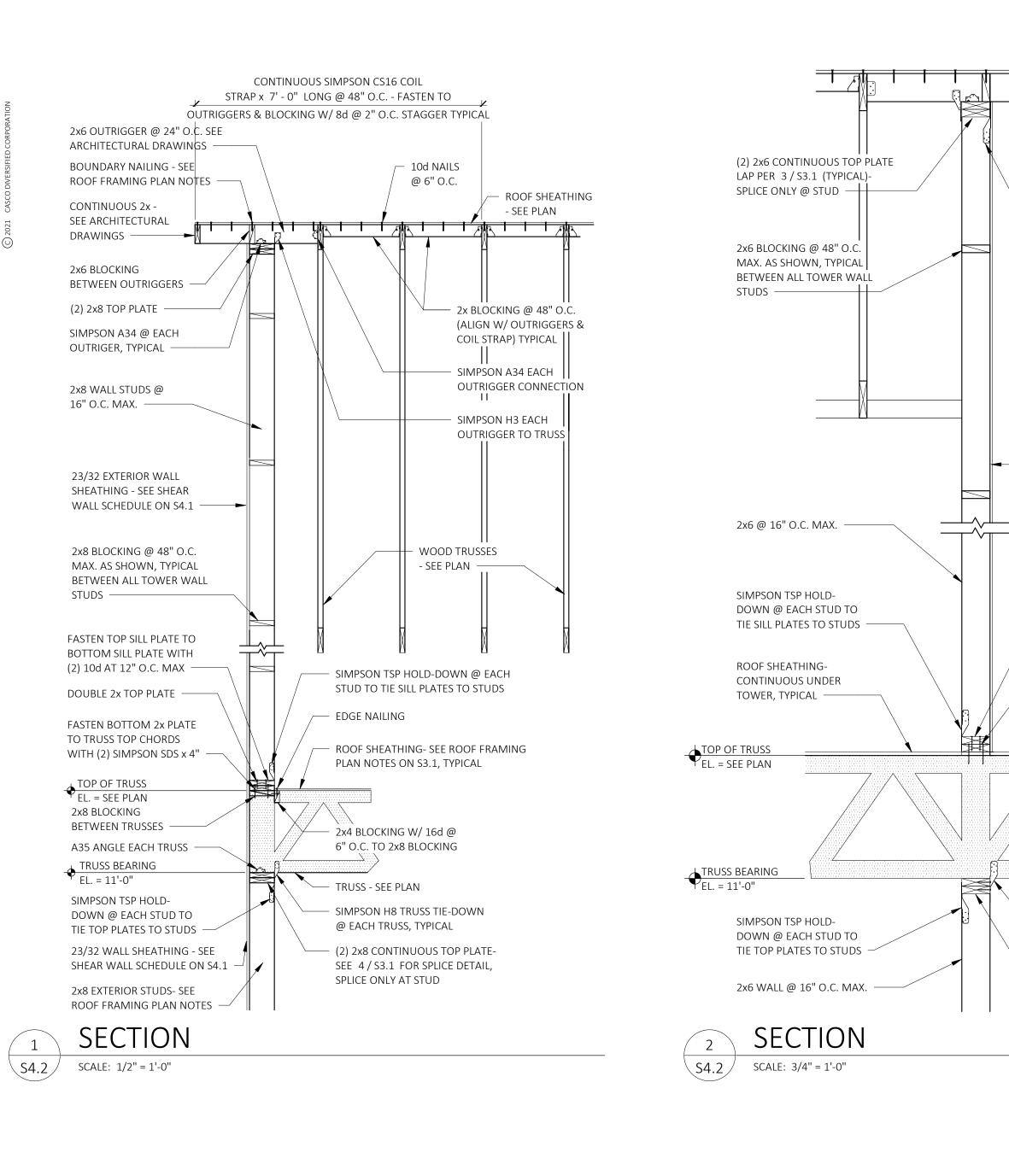
TRUSSES -

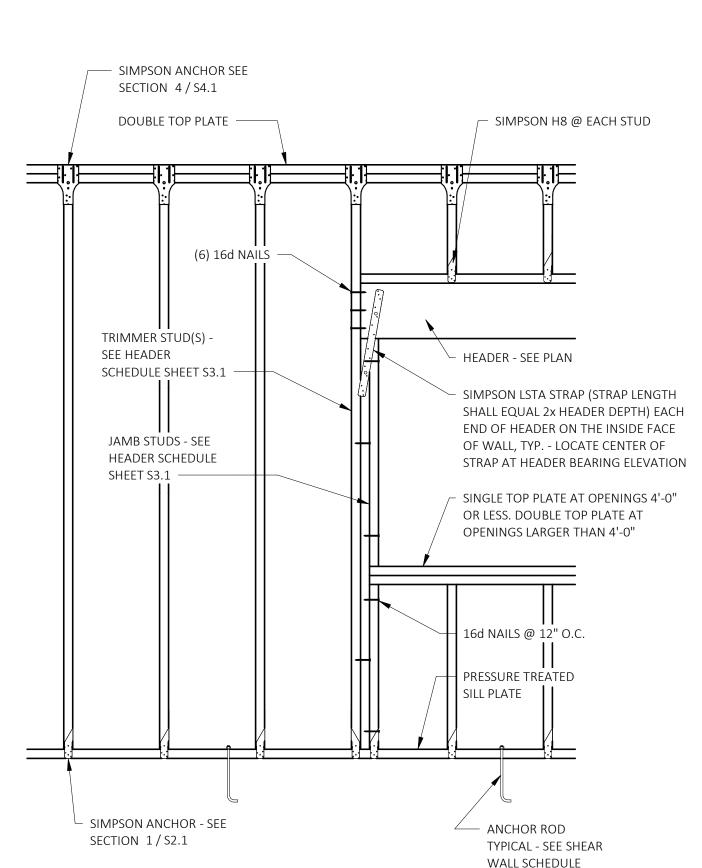
Professional of Record: Daniel E. Cutter LICENSE NO: 55745 EXP. DATE: 10/10/24

Drawn/Checked DRW / SRW 2202640 Project Number --/--/--7/13/23 Bid Date Permit Date For Construction --/--/--

FRAMING DETAILS & SECTIONS







2x6 BLOCKING BETWEEN

OUTRIGGERS

— SIMPSON TSP HOLD-

DOWN @ EACH STUD

15/32 EXTERIOR WALL

SHEATHING - SEE SW-1 ON

- FASTEN TOP SILL PLATE TO

BOTTOM SILL PLATE WITH

(2) 10d AT 12" O.C. MAX.

FASTEN BOTTOM 2x PLATE

TO TRUSS TOP CHORDS

ROOF SHEATHING- SEE

ROOF FRAMING PLAN

TRUSS - SEE PLAN

SIMPSON H8 TRUSS TIE-DOWN

(2) 2x6 CONTINUOUS TOP PLATE

LAP PER 3/S3.1 (TYPICAL)-

@ EACH TRUSS, TYPICAL

SPLICE ONLY @ STUD

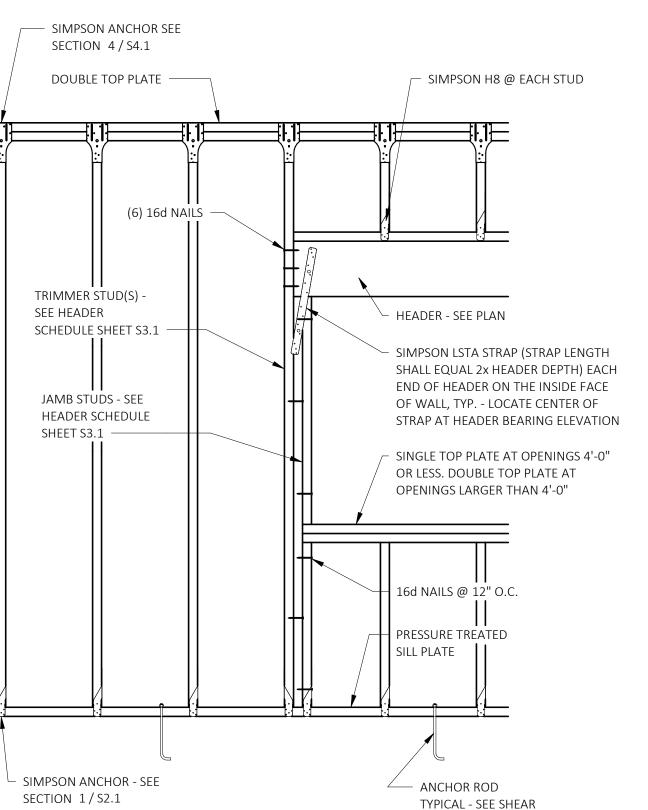
NOTES ON S3.1, TYPICAL

WITH (2) SIMPSON SDS x 4"

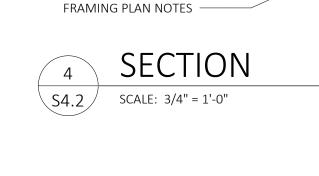
SHEARWALL SCHEDULE ON S4.1

SEE 1/S4.2 FOR

INFORMATION







WOOD TRUSS - SEE

TRUSS BEARING
EL. = 19'-6"

2x6 BLOCKING @ 48" O.C. MAX.

AS SHOWN, TYPICAL BETWEEN ALL TOWER WALL STUDS —

FASTEN BOTTOM 2x PLATE TO

TRUSS TOP CHORD WITH (2)

SIMPSON SDSx4" @ 16" O.C.

SIMPSON TSP HOLD-DOWN @

PREFABRICATED PONY WALL WITH

VERTICAL STUDS @ 16" O.C. MAX —

0.35K WIND

(ASD) EACH

**VETICAL STUD** 

EACH STUD, TYPICAL —

TOP OF TRUSS

EL. VARIES- SEE PLAN

FASTEN TRUSS BOTTOM

CHORD TO TOP 2x PLATE

WITH (2) SIMPSON SDSx4" -

FASTEN TOP SILL PLATE TO

BOTTOM SILL PLATE WITH

2x6 WALL STUDS- SEE ROOF

(2) 10d AT 12" O.C. MAX

(2) 2x6 TOP PLATE -

2. Plumbing Contractor shall verify the exact location of all existing sanitary, water and storm lines prior to starting work. Plumbing Contractor shall visit the site prior to bid and note all existing conditions to be met.

3. All plumbing work shall conform to the local plumbing code and amendments. 4. Piping layouts are diagrammatic and intend to show the general arrangement, size and capacity. All offsets are not necessarily shown. Plumbing Contractor shall arrange and

coordinate the work, furnish necessary offsets, valves, vents, and fittings to avoid conflicts with other mechanical and electrical services and with structural and architectural elements.

#### PART 2 - PRODUCTS

1. Water Piping: Connect to the city water main as required by the city. Meter to be adequate size for demand indicated on the Drawings. Piping shall be type "K" copper below slab or grade and type "L" copper above slab. If allowed locally, PEX as manufactured and tested according to national consensus standards: ASTM F 876, F 877, AWWA C904 and CSA B137.5 may be used. NO JOINTS UNDER SLAB. PIPES AND PIPE FITTINGS, INCLUDING VALVES AND FAUCETS, SHALL HAVE NO LEAD CONTENT. Water piping below grade 3" and larger shall be class 150 molded ductile iron pipe and fittings with mechanical compression joints.

a. Soldered joints shall be done in accordance with ASTM B 828 with a lead free solder that conforms with ASTM B 32 and flux that conforms with ASTM B 813. Lead free shall mean a chemical composition equal to or less than .2 percent lead. b. PEX connections shall be per the two approved standard specifications for PEX connections: ASTM F 1807 and ASTM F 1960. Both reference mechanical insert fittings. The crimp fittings specified in ASTM F1807 are the most widely used. PEX Shall not be joined by solvent cement or heat fusion methods

c. Pipes passing through concrete or other corrosive materials shall be protected from external corrosion by a protective sheathing or wrapping or other means that will withstand any reaction from lime or acid of concrete or other corrosive material. Sheathing or wrapping shall allow for expansion and contraction of piping to prevent any rubbing action. Minimum wall thickness of material shall be 0.025 inches. d. See section 8 for insulation requirements.

2. Waste and Vent Piping: Shall be schedule 40 PVC plastic with fittings installed as recommended by the manufacturer. Connect to the city sewer as required by the city. 3. Vacuum Breakers: Where shown on the Drawings, or as required, shall be angle pattern with built-in lift type check valve.

4. Valves: Plumbing Contractor shall furnish all valves of one manufacturer, figure number and type throughout the entire installation of the work, unless otherwise specified. The following numbers are from the Nibco catalog. Valves of reputable manufacturers, such as Crane., Watts Regulator Co., and Walworth Co. will be acceptable alternates, where shown to be equal to those specified. Install gate valves at each equipment connection.

a. Gate Valves: two (2) inch and smaller shall be brass or bronze body, brass trim, Union Bonnet. Built for a minimum 125 lbs. working pressure. Nibco #S-136-LF, T-136-LF or an approved equal.

b. Globe Valves: Two (2) inch and smaller shall be brass or bronze body, brass trim, screwed bonnet, built for 125 lbs. working pressure Nibco #S-211-LFL, T-211-LF or an approved equal.

c. Ball Valves: Two (2) inch and smaller shall be brass or bronze body, brass trim, screwed bonnet, built for 125 lbs. working pressure Nibco #S-585-80-LF, T-585-80-LF or an approved

d. Check Valves: Two (2) inch and smaller shall be brass or bronze body, vertical lift, teflon disc, built for 125 lbs. working pressure, Nibco #S-480-Y-LF, T-480-Y-LF or an approved equal. Check valve shall be installed at least ten (10) pipe diameters from pump outlet or change in direction as required by manufacturer.

5. Unions: Provide unions at each equipment connection, provide proper dielectric unions where connections are made between materials of dissimilar metals.

6. Thermometer: Furnish and in install a Weksler AF04 with a S3B4 well. Thermometer shall have a five (5) inch dial, adjustable pointer, 304 stainless steel case, 360 degrees adjustable head with brass wells. Temperature range as required. Approved equals by Ashcroft or Palmer are acceptable.

7. Water hammer: Water-hammer arrestors shall be installed where quick-closing valves are utilized, shall be installed in accordance with the manufacturer's instructions and shall conform to ASSE 1010. Water hammer sizing and placement shall be in accordance with PDI WH201. 8. Insulation: Water piping to be run on warm side of exterior walls, when not in slab. Insulate all hot water pipe. Insulate all cold water pipe in exterior walls. Insulation shall be ONE

(1) inch thick Armaflex flexible cellular insulation (or equivalent). Fiberglass insulation is not acceptable. Accessible lavatory insulation shall be TCI Products SKAL Gard Model SG-100B or Truebro Products Handi Lav-Guard Model #102. All unground insulated pipe shall be protected from compacted soil and water infiltration per one of the methods listed below. a. Copper pipe below slab: Shall be insulated and placed in a sealed carrier pipe

b. PEX pipe below slab: Shall be insulated and placed in a sealed carrier pipe

c. PEX pipe below slab: Shall be a pre-manufactured assembly including pipe, 1" minimum insulation and sealed protective carrier wrap.

9. Roof Flashing: Shall be PVC with 16 x 16 base and eight (8) inch high boot. 10. Gas piping: Installation and gas piping required to conform to "Standard for the Installation of Gas Appliances and Gas Piping" per local codes ANSI standards, NFPA pamphlets No. 54 and 58, and per local codes governing the installation of gas piping. Piping system shall be sized and laid out as indicated on the drawings. All piping shall be graded a minimum of one quarter (1/4)inch per fifteen (15) feet of length. A full size tee fitting and six (6) inch long capped dirt leg shall be installed at the bottom of each riser or drop and at each low point in a horizontal run. An approved type gas cock shall be installed in each branch connection and near each appliance. Gas piping installed in concealed spaces shall not have unions, tubing fittings or running threads. Gas piping above ground shall be schedule 40 black steel with 125 pound black malleable iron screwed fittings. Gas piping compound at joints shall be per NFPA bulletin #54 and local codes. Gas valves shall be UL listed for gas service such as dezurick model S-425 for 2" and less.

11. Condensate Piping: Shall be CPVC plastic. Piping shall be installed / supported as noted and detailed on sheet MP2.0.

### PART 3 - EXECUTION

1. Perform all tests required by code or necessary to demonstrate the integrity of the finished

2. Install cleanouts as shown, as called for in the code, and where required for proper maintenance. Cleanouts shall be flush with wall or floor and completely accessible. Provide

cleanouts at all dead ends and changes of direction. Cleanouts shall be no more than 1 pipe size smaller than the portion of the building drain or branch served. 3. All suspended horizontal piping shall be supported by hangers spaced maximum 8'-0" o.c.. No piping shall be self supporting. Install to provide free expansion and contraction unless firm anchorage is required. Pitch piping to low points in the system and install drain valves. 4. Soil and waste lines are designed for a minimum slope of 1/8" per foot for 3" and larger, 1/4" per foot for 2-1/2" and smaller. All grease waste lines prior to grease interceptor shall be

sloped a minimum of 1/4" per foot. All changes of direction shall be made with "Y" fittings and 1/8 bends. All drain lines shall be protected from freezing. 5. The flow velocity of the water distribution system shall be controlled to reduce the possibility of water hammer. A water-hammer arrestor shall be installed where quick-closing

valves are utilized including the ice maker and washing machines. Water-hammer arrestors shall be installed in accordance with the manufacturer's specifications. Water-hammer arrestors shall conform to ASSE 1010.

6. All new sanitary piping shall be tested per local codes with a full static pressure test. 7. New potable water piping shall be cleaned and disinfected as follows:

a. The pipe system shall be flushed with clean potable water until all outlets run clear. b. The piping shall be filled with a water/chlorine solution containing at least 50 parts per million of chlorine (50mg/L) and the system valved off and allowed to stand for 24 hours. After the required standing time, flush completely with potable water.

#### SECTION 15410 - PLUMBING FIXTURES AND TRIM

#### PART 1 - GENERAL

1. Acceptable Manufacturers: Equal products of Crane, American Standard, Eljer or Beneke will be accepted in place of those specified (see General Conditions of Contract), unless otherwise noted.

2. Fixture Efficiency: The following maximum flow rates shall be required in a type and style fixture as designated hereinafter.

a. The maximum flow from a sink or lavatory faucet shall not exceed 2.2 gpm at 60 psi.

b. The maximum volume of water per flush from a water closet shall not exceed 1.6 gal. c. All drinking water fountains shall be operated by a self-closing valve.

PART 2 - PRODUCTS 1. Fixture Trim: Exposed metal parts to be of heavy weight polished brass, heavily chromium plated or best quality, as regularly furnished by the plumbing fixture manufacturer. Provide approved fixtures, where required, to conform to all state and local handicap codes. Fixtures:

See schedule on P5.0.

#### SECTION 15500 - AUTOMATIC SPRINKLER SYSTEM

#### PART 1 - GENERAL

1. General Requirements: The notice to Bidders, General Conditions, Special Conditions and all subsequent addenda or bulletins shall be considered a part of this division of the Specifications and shall apply to the Contractor for the work under this division insofar as they apply to them or their work. The system shall be wet type (unless wet/dry required by permitting authorities) with compressor, when required, installed in sprinkler room.

a. System shall be designed as Light Hazard Occupancy.

b. Pipe sizing shall be per NFPA 13 Hydraulic Calculation method.

c. Fire Sprinkler Contractor shall be responsible for obtaining a flow test for the purposes of hydraulic design.

2. The Contractor for the work under this division shall carefully read the above mentioned documents and study the drawings of all trades. Contractor shall be responsible for neglect to read or attend to any paragraph or items contained herein.

3. The term "provide" shall be defined as "to furnish and install complete and in working order". The terms "this Contractor" or the Contractor" shall refer to the Sprinkler Contractor. 4. Scope of Work:

a. The work shall include, but is not necessarily limited to the sprinkler systems and any appurtenances common to the systems, generally consisting of pipe, fittings, valves, hangers, covering, painting, cleaning, testing and such other work as is necessary and specified. This contractor shall schedule delivery of equipment and piping and complete his work so that there is no interruption in the project work schedule.

b. The Contractor is responsible for complete piping drawings. Any pipings layout on plans is for effect only.

5. Shop Drawings:

a. This Contractor shall submit to the Architect shop drawings or catalog cuts in accordance with the general conditions and special conditions. Shop drawings and/or catalog cuts shall be furnished for, but are not necessarily limited to the following: b. Alarm Valves

c. Sprinkler Heads

d. Indicator Post Valves e. Valves

f. Water Motor Gongs

g. Siamese Connections

h. Complete Sprinkler System Layout i. Air Compressor (Dry System) connected to riser, sized by contractor.

6. Approval:

a. Layout drawings shall be approved by the Fire Marshal or appropriate authority prior to commencing fabrication or installation. 7. Regulations and Permits: All work under this section of the Specifications shall comply with all laws, ordinances, rules and regulations of the local authorities having jurisdiction according to

NFPA, pamphlet no. 13 and the Associated Factory Mutual approval and shall be subject to the inspection and approval of the authorities having jurisdiction, notwithstanding anything in this Specification to the contrary. The Contractor for the work, under this division of the Specifications, shall obtain and pay for all permits required to initiate and complete the work

a. Upon completion and prior to acceptance of the sprinkler installation, the Contractor

shall subject the system to the tests required by the appropriate governing agency and N.F.P.A. No. 13. b. Contractor shall furnish and install, adjacent to the sprinkler riser main, a printed sheet, protected by transparent cover, giving brief instructions regarding control, emergency

procedure and other matters necessary for full utilization of the system. 9. Fire Protection Equipment Guarantee: All equipment and components furnished under this Specification shall be guaranteed for a period of one (1) year from the date of acceptance. Failures of any part of the guaranteed equipment during the guarantee period shall be promptly replaced with new parts by and at the expense of the Contractor.

### PART 3 - EXECUTION

1. General Notes: (Applicable where required.)

a. Sprinkler piping shall be pitched to drain. Pitch shall be one quarter (1/4) inch to onehalf (1/2) inch fall per each ten (10) feet of run.

b. Occupied areas shall have chrome pendant sprinkler (165 deg. F). Concealed attic area above ceiling shall have upright sprinkler (212 deg. F). Mechanical rooms shall have chrome pendant sprinkler (286 degrees F).

c. All sprinkler piping shall be run concealed. Siamese Connection shall be brass of size required by local jurisdiction and, lettered "Automatic Sprinkler". Do not run piping above

d. Provide a four (4) inch pipe from main service to Siamese Connection. Provide Ball Drip. Run all piping concealed. Locate per floor plan or site plan for access by Fire Department

e. Main four (4) inch piping runs and branching tees may be grooved piping. All branch and runout piping shall be threaded and screwed fittings.

#### SECTION 15800 - MATERIALS AND WORKMANSHIP - HVAC

#### PART 1 - GENERAL

1. Materials and Workmanship:

a. This Subcontractor shall provide for all cutting and excavating not provided in other sections of the plans and specifications which may be necessary for the admission of any part of the heating, air conditioning and refrigeration systems. All required special foundations and supports not shown on the Architectural and Structural Plans shall be provided by this Subcontractor.

b. Equipment as specified and shown on working drawings.

c. All work shall be in accordance with applicable code and accomplished in a workmanlike manner.

d. Compliance and Permits: This Subcontractor shall agree to complete compliance with all applicable requirements of the National Board of Fire Underwriters and all local codes and laws applicable to this type of work. He shall obtain and pay for all permits required by competent authorities for this work and file such permits with the Owner when obtained.

2. Tests and Guarantees: a. The Subcontractor shall work with the Test & Balance company employed by the General Contractor as described in Section 01200 Special Conditions, #4.

b. Furnish the services necessary for a minimum of two complete adjustments of the air handling system and exhaust systems for the first cooling season and the first heating season after the job is complete and operating under load conditions. Supply and return air grilles and registers shall be checked with a recently tested and calibrated direct reading velocity instrument and all shall be properly adjusted to deliver or return the specified amounts of air before Test & Balance company performs their work.

c. The Subcontractor shall guarantee all equipment, materials and workmanship for a period of one (1) year from date of completion of the first test period. A five (5) year warranty is required on the compressors. Contractor shall promptly replace or repair to the satisfaction of the Owner, any portion of the work which proves defective during the guarantee period. This guarantee shall cover the cost of material and labor. d. The Subcontractor shall furnish first charges of refrigerant, grease, oils, etc., and shall be responsible for all such full charges for the guarantee period. Two sets of filters for each unit shall be provided. First sets of filters to be used during construction.

e. The Subcontractor shall make available to Owner, without added cost, free service during the guarantee period. This shall not include cleaning or replacing of filters. f. The Subcontractor shall guarantee that individual pieces of equipment furnished shall have equal or greater capacity than specified herein.

3. Electrical Work: a. The Electrical Subcontractor will provide all power wiring and connections to all electrically operated heating, air conditioning and ventilation equipment, except as otherwise specified, as shown on the Electrical Plans.

b. The Heating and Air Conditioning Subcontractor shall furnish and install all required motor starting equipment, as specified and/or required; and shall furnish all controls as specified and as required to properly complete the installation of the system. c. Electrical Subcontractor shall provide all primary wiring; Heating and Air Conditioning Subcontractor shall provide all secondary wiring. Coordinate breaker sizes and lighting locations with Electrical Subcontractor.

1. Rooftop Units (RTU's): Units shall be rooftop units with matching components.

a. Units shall be as listed on M2.0. No approved alternate manufacturers. b. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.

c. Cabinet panels shall be easily removable and located for service. d. Condensate pan shall be externally trapped.

e. Provide vibration isolation and flexible connections.

2. Supply and Exhaust Fans: As specified on M2.0. 3. This Subcontractor shall supply and install all materials necessary for proper venting of bath

exhausts, but not limited to, ductwork, flashing and roof caps.

a. Exhaust fans and Curbs shall be supplied by owner as specified on M2.0. b. Curbs shall have 14" minimum flashing and shall be 14" minimum high.

Ductwork:

a. Horizontal and vertical supply and return main and trunk ducts: Shall be supported by blocking. Fasten to trusses at maximum 4'-0" O.C. All ductwork shall be installed in accordance with the latest issue of SMACNA's and ASHRAE's minimum installation standards. All duct connections shall be sealed with duct mastic and duct tape. Sheet metal shall comply with ANSI/ASTM A 527, lockforming quality, with ASTM A 525 G90 zinc coating on exposed locations. Gauges and reinforcement shall comply with SMACNA "Low Pressure Duct Standards", latest edition. Ductboard is not allowed.

b. Flexible Ducts: Will be installed with no angular bends. Length of duct shall not exceed 4 feet. Atco Rubber Products, Inc. Flexible Duct or equal. Insulation shall be 1" thick, "R" 5.3 minimum fiberglass. Jacket shall have a flame spread rating of 25 or less and a smoke developed of 50 or less. Flexible duct shall be used for supply and outside air only. c. Balancing Dampers: Provide a manual damper for each supply diffuser and each return/exhaust branch as shown on plans. Manual dampers shall be constructed in accordance with SMACNA "HVAC Duct Construction Standards". Dampers shall be

accessible for balancing. d. Duct Sealing: Seal all supply, return, outside air and exhaust ducts to SMACNA Class "C" seal using fiberglass mesh & mastic sealant equal to United Duct Sealer meeting U.L. 181B-M. Seal entire perimeter of all joints. Seal around the duct and ceiling penetrations throughout the building to maintain the integrity of the walls and ceilings. Mastic sealant shall be non-hardening, non-migrating, elastic sealant, type applicable for fabrication/installation detail, as compounded and recommended by manufacturer specifically for sealing joints and seams in ductwork. The application process for mastic requires that all duct connections be mechanically fastened with screws or rivets or, when using flex duct, with metal or plastic bands. The area to be joined should be wiped clean with a dry rag. The mastic is then applied with a trowel or brush (according to its viscosity) and spread one inch beyond the opening. For 1/4 to 1/2 inch openings use fiberglass mesh tape under the mastic. A larger gap needs a rigid material covering. If tape is used for sealing ducts, it should be U.L. 181 foil tape. The tape rating must be stated on the tape and must meet U.L. 181B-FX (flex duct). However, mastic is preferred over tape. All connections (splices, Ys, Ts, and boots) must be sealed. Additionally, boots should be sealed to the sheetrock. Penetrations into the plenum shall be sealed. Flex duct inner liner requires air sealing, while the outer jacket needs only to be secured with a band or drawtie. The air handler itself must be sealed, including sealing the air handler to the platform. The return plenum shall be lined on the interior with duct board (foil face in), and sealed. Penetrations into the plenum, such as refrigerant line chases, shall be sealed.

5. Duct Insulation:

a. Internal liner shall not be allowed. Exterior wrap for supply, return, and exhaust air duct shall have a minimum installed value of R-8. All ductwork shall be insulated in accordance with the latest issue of SMACNA's and NESCA's minimum installation standards. b. Insulation shall have a flame spread rating of twenty-five (25) or less and smoke developed rating of fifty (50) or less.

6. Ceiling Supply Diffusers: Shall be per M2.0. Aluminum with a white baked powder coat

finish. Balancing damper shall be adjustable from room as called for on plan. 7. Access Doors in Duct: Shall be hinged type with Cam locks. Doors shall be hinged to provide tight seal with the air pressure. Doors shall be factory fabricated as manufactured by Air Balance Inc. Provide access door for each fire damper (if occurs).

8. Exhaust / Return Registers: Rectangular exhaust / return registers shall be aluminum per schedule on M2.0 or an approved equal with white backed powder coat finish. Balancing damper shall be adjustable from room as called for on plan.

9. Supply Sidewall: Sidewall grilles shall be all aluminum per M2.0 or an approved equal with white baked power coat finish. 10. Return Air Filters: Shall be accessible through a removable access door with no screw

removal (tool-less). a. Units will be supplied with (1) set of washable metal filters, 2" MERV 8 and 2" MERV 13

b. Contractor shall clean washable metal filters and replace MERV 8 and MERV 13 filters

after construction is complete and prior to turnover. c. Owner shall clean / replace filters at a minimum of every 2 months to keep mechanical HVAC systems in proper working order.

11. Controls: All HVAC controls shall be through programmable thermostats located within the space with clear lockable covers. Contractor shall verify with manufacturer all wiring requirements prior to installation and install in strict accordance with the manufacturer's published installation requirements. Coordinate exact location of sensors in field so as not to interfere with bulletin boards. Refer to sheet M3.1 for sequence of operations. Note: All

devices shall be hard wired. 12. Smoke detectors shall be factory installed in return air section of any rooftop unit supplying 2000 CFM or greater. On detection of smoke the units shut down. 13. Variable Air Volume Terminal Units: As specified on M2.0. Must be located in accessible

location. All manufacturers required clearances must be maintained. 15. Air Purification: Provide Global Plasma Solutions Bi-Polar Ionizers as scheduled on sheet M2.0.

a. UV lights, powered particular filters, and uni-polar ion generators shall not be acceptable

b. Project is designed using ASHRAE Standard 62 IAQ Procedure and shall require manufacture to provide indoor air quality calculations using the formulas within ASHRAE Standard 62.1 to validate indoor air quality at the quantity of outdoor air scheduled. c. Air purification system shall have been tested by UL or Intertek/ETL to prove conformance to UL 867-2007 including ozone chamber testing and peak ozone test for

d. Bi-polar ionization system shall be capable of killing microorganisms (mold, bacteria, virus, etc...), MRSA, E. coli, TB, C.diff, controlling gas phase contaminants generated from human occupants, capable of reducing static charges. e. Shall be self cleaning.

f. Each electrode pair shall provide a minimum of 200 million ions per cubic centimeter.

#### PART 3 - EXECUTION

1. Maintenance: Furnish complete necessary maintenance information with equipment which requires preventive maintenance for efficient operation. Required routine maintenance actions shall be clearly stated and incorporated on an accessible label, which may be limited to identifying, by title and/or publication number, the operating and maintenance manual for that particular model and type of product. Furnish Owner at least one copy of this information.

## MECHANICAL ABBREVIATIONS

ABOVE FINISHED FLOOR AIR HANDLING UNIT BTUH BRITISH THERMAL UNITS PER HOUR CONTROL DAMPER CFM CUBIC FEET PER MINUTE COPPER CU-# CONDENSING UNIT DRY BULB DIAMETER DIA, Ø EXHAUST AIR ENTERING AIR TEMPERATURE

EAT EF EXHAUST FAN ESP EXTERNAL STATIC PRESSURE EΤ **EXPANSION TANK FURNACE** FLEX FLEXIBLE

FPM FEET PER MINUTE FT FLOOR, FEET FV FACE VELOCITY DEGREES FAHRENHEIT GAUGE

CD

CU

EΑ

HORSEPOWER HOUR HEATING, VENTILATING AND AIR CONDITIONING HVAC

HERTZ INLINE FAN INCH, INCHES

IN WG INCHES WATER GAUGE ΚW KILOWATT LAT LEAVING AIR TEMPERATURE POUND

LRA LOCKED ROTOR AMPERES MAXIMUM MECH MECHANICAL MIN MINIMUM

MISC MISCELLANEOUS NTS NOT TO SCALE OA **OUTSIDE AIR RETURN AIR** 

RET RETURN RLA RATED LOAD AMPS RPM **REVOLUTIONS PER MINUTE** 

SUPPLY AIR TEFC TOTALLY ENCLOSED FAN COOLED TEMP TEMPERATURE

TYPICAL UNLESS OTHERWISE NOTED

> VENT WET BULB

43455 NOVI,

3200 WINDY HILL ROAD, SUITE 1200 E ATLANTA, GEORGIA 30339-5640

THESE DRAWINGS AND THE DESIGN REPRESENTED HEREBY ARE THE EXCLUSIVE PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.

Professional of Record: Michael C. Grapperhaus

Drawn/Checked BAM / MCG Project Number Bid Date 7/10/23 Permit Date For Construction

LICENSE NO: 56692

EXP. DATE: 9/30/23

MECHANICAL & PLUMBING **SPECIFICATIONS** 

SIZING TABLE (10") W.C.

366 704 1120

BASED ON 0.5" WC PRESSURE DROP TOTAL PIPE LENGTH = 250 FT.

XX TYPE
# INDEX

LOAD CHART

PRIMROSE SCHOOL "L" PROTOTYPE

RTU 2

TOTAL

**ROOFTOP UNIT EXHAUST FAN** 

NATURAL GAS LOAD/SIZE

216.0

211.8 199.9

627.7 MBH

EXTERIOR WALL UP TO ABOVE THE CEILING.

SUPPORT DETAIL ON THIS SHEET.

ENSURE THAT PENETRATION IS WEATHER TIGHT.

5 ROUTE GAS LINE BELOW ROOF TO WATER HEATER.

MINIMUM OF 10' FROM ANY FRESH AIR INTAKE.

THIS SHEET FOR MORE INFORMATION.

17" (430) MIN

43" (1092) MAX

53 1/2"

(1355)

MP2.0 SCALE: 1 1/2" = 1'-0"

WATER PROOFING -

METAL DECK -

ROOF DECKING -

1-1/2" ANGLE IRON (TYPICAL OF 2).

HARDWARE. MOUNT AT ANGLES

SUPPORTS. CONNECT TO

STRUCTURE USING RIGID

NOTED.

CONNECT TO PIPE USING RIGID PIPE

WATERTIGHT

SEALANT —

- INSULATION

FLASHING CLAMP

- UNDER DECK CLAMP

1/8" DRAIN HOLE (CONNECT

~ 3/4" (19) WATER LINE

/ 11.00" BOLT CIRCLE

(4) BOLT HOLES

ROOF MOUNTED HOSE BIBB

- 3.56 MOUNT HOLES

SUPPORT AS TEMPLATE

HOLE PATTERN, USE HYDRANT

PIPE AND DRAIN TO MOP SINK)

14 GA STEEL.

# M/P ROOF PLAN KEYED NOTES

EQUIPMENT IS NOT SUPPLIED WITH BUILT-IN TRAP SYSTEM. DRAIN SHALL EXTEND A

OF DRAIN LINE. CAP ALL UNUSED CONDENSATE DRAIN FITTINGS. TYPICAL ALL UNITS. 2 ROUTE 2"Ø (10" WC) GAS LINE INTO BUILDING DIRECTLY OFF METER. ROUTE PIPE INSIDE OF

3 ROUTE 2"Ø GAS LINE THRU VERTICAL WALL ONTO ROOF. PROVIDE STORM COLLAR TO

4 GAS PIPING SHALL BE INSTALLED ON ROOF EXCEPT WHERE NOTED, REFER TO ROOF PIPING

6 GAS METER AND REGULATOR ARE BY GAS COMPANY. CONTRACTOR SHALL VERIFY THAT GAS METER ASSEMBLY IS REGULATED FOR 10" WC ON BUILDING SIDE OF ASSEMBLY AND HAS A MINIMUM CAPACITY OF 627.7 MBH. GAS PIPING IS SIZED BASED ON 10" WC PRESSURE, A

0.5" WC PRESSURE DROP AND A 250' DEVELOPED LENGTH PER TABLE 402.4(2) OF THE 2018 INTERNATIONAL FUEL AND GAS CODE. COORDINATE WITH LOCAL NATURAL GAS UTILITY COMPANY FOR FINAL METER LOCATION AND UNDERGROUND GAS SERVICE PIPING

7 PLUMBING VENT THRU ROOF. SEAL ROOF PENETRATION WEATHER TIGHT. VENT MUST BE A

8 CONCENTRIC VENT THRU ROOF FROM WATER HEATER. SEAL ROOF PENETRATION WEATHER

DAMPER. INSTALL VENT WITH CAP VENT AND BACKDRAFT DAMPER. INSTALL VENT PER

TIGHT. VENT MUST BE A MINIMUM OF 10' FROM ANY FRESH AIR INTAKE.

12 ROOF HATCH - SEE ARCHITECTURAL FOR ADDITIONAL INFORMATION

9 4"Ø RIGID METAL DRYER DUCT/VENT THRU ROOF WITH CAP VENT AND BACKDRAFT

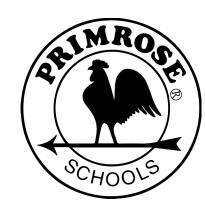
MANUFACTURERS INSTALLATION MANUAL. REFER TO DETAIL ON SHEET M3.0 10 MECHANICAL EQUIPMENT; REFER TO SHEET M2.0 FOR SCHEDULE AND SHEET M3.0 FOR

11 PROVIDE 3/4"Ø CW TO HOSE BIBB (HB-2) WITH AUTOMATIC DRAINAGE AT ROOF CURB.

REFER TO P2.0 FOR CW LINE LOCATION, P5.0 FOR FIXTURE SCHEDULE AND TO DETAIL ON

13 CONTRACTOR MUST PROVIDE PROTECTIVE METAL STRIKE PLATE BEHIND FACE OF DRYWALL THE ENTIRE VERTICAL LENGTH OF PIPE. PLATE SHALL EXTEND A MINIMUM OF SIX INCHES (6") ON ALL SIDES OF THE PIPE. PROTECTIVE METAL STRIKE PLATE SHALL BE A MINIMUM OF

MINIMUM OF 3'-0" ON THE DOWNHILL SIDE OF THE UNIT. PROVIDE SPLASH BLOCK AT END



3200 WINDY HILL ROAD, SUITE 1200 E

ATLANTA, GEORGIA 30339-5640 THESE DRAWINGS AND THE DESIGN REPRESENTED HEREBY ARE THE EXCLUSIVE PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.

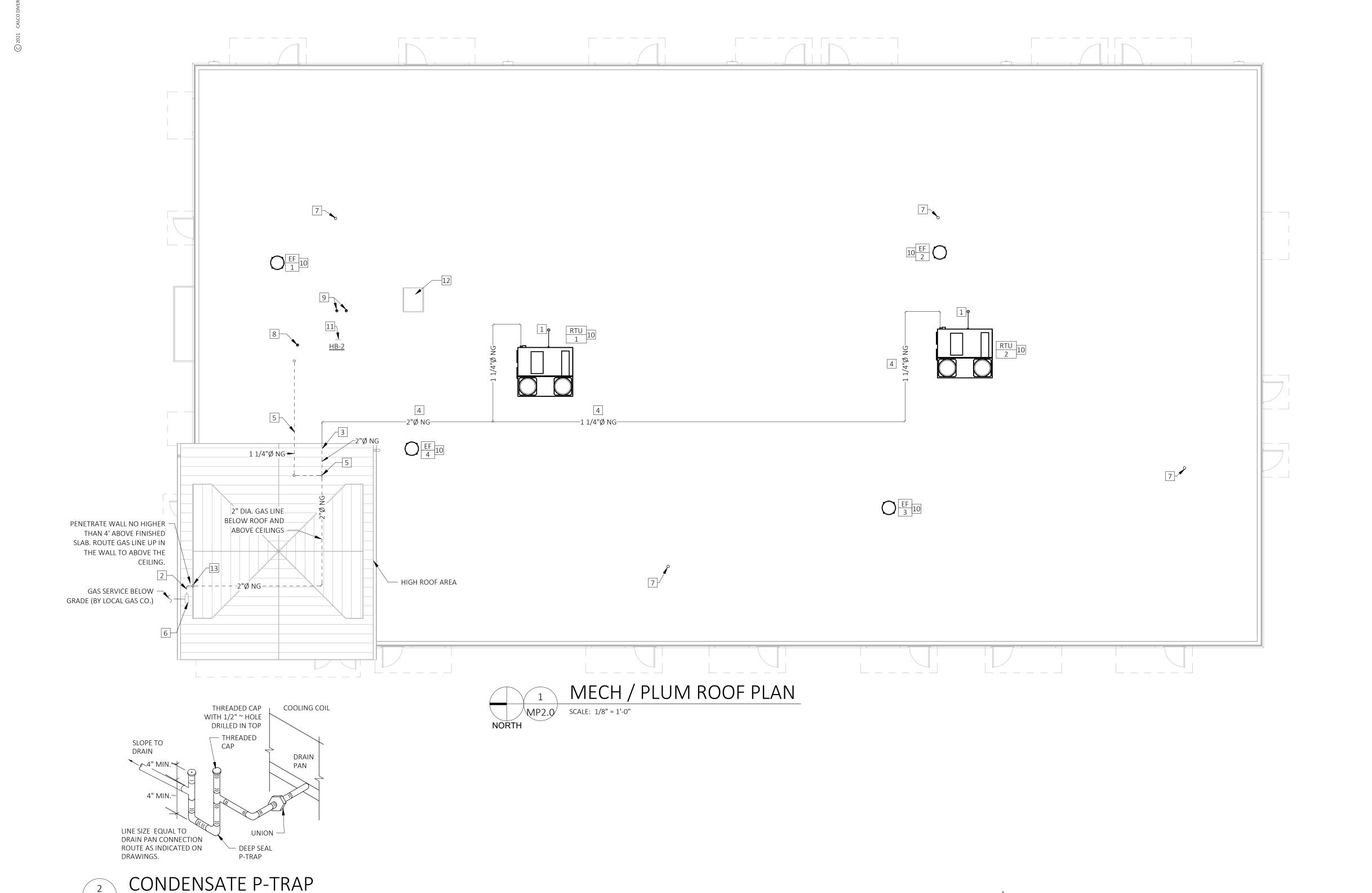
GRAPPERHAUS Professional of Record: Michael C. Grapperhaus

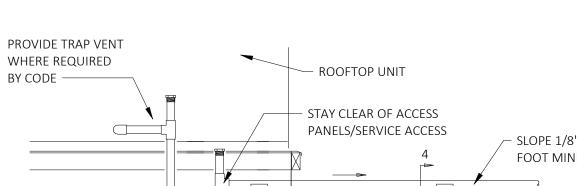
LICENSE NO: 56692 EXP. DATE: 9/30/23

Drawn/Checked BAM / MCG 2202640 Project Number Bid Date

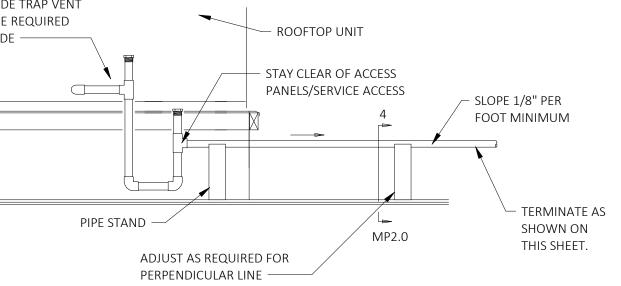
7/10/23 Permit Date --/--/--For Construction

MECHANICAL & PLUMBING ROOF PLAN

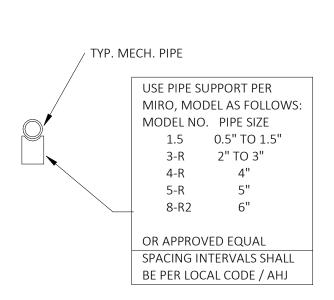


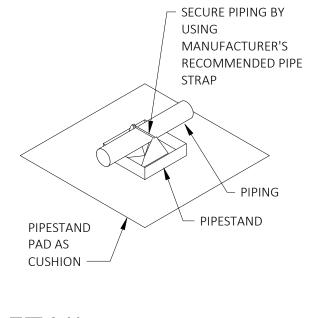


MP2.0 SCALE: NOT TO SCALE

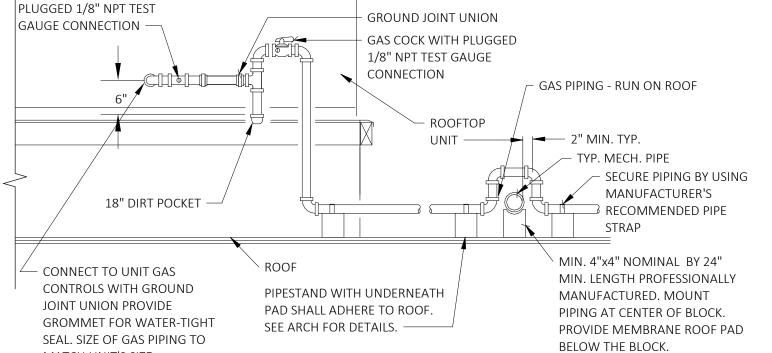












GAS PIPING CONNECTION & SUPPORT DETAIL SCALE: NOT TO SCALE

MATCH UNIT'S SIZE. MP2.0

UNITS MOST VISIBLE FROM THE ROOF HATCH. 5 EXTEND DUCT UP AT SIZE SHOWN ON PLAN AND PROVIDE DUCT TRANSITION AS REQUIRED

4 MARK THE RTU/EF WITH UNIT NUMBER AND WHICH ROOM THEY SERVE, ON SIDE OF THE

TO CONNECT TO EF.

MECHANICAL LEGEND

SUPPLY DUCT (SHEET METAL)

RETURN DUCT (SHEET METAL)

EXHAUST DUCT (SHEET METAL)

RECTANGULAR DUCT DIMENSION

SUPPLY DUCT UP / SUPPLY DUCT DOWN

RETURN DUCT UP / RETURN DUCT DOWN

EXHAUST DUCT UP / EXHAUST DUCT DOWN

SUPPLY / RETURN / EXHAUST AIR TERMINAL

THERMOSTAT IN CLEAR, LOCKABLE COVER.

STATIC PRESSURE SENSOR WITHIN DUCT.

EQUIPMENT TAG, SEE SCHEDULES

LOCATED AS SHOWN ON PLAN

MANUAL VOLUME DAMPER

ON SHEET M2.0,

4" DIA. RIGID ALUMINUM DRYER VENT THRU ROOF, TERMINATE WITH CAP VENT AND

WITH THE FEWEST ELBOWS POSSIBLE. SEE DETAIL ON SHEET M3.0.

LOCATED A MINIMUM OF 2' BELOW THE CONTAMINATION SOURCE.

SHOWN ON THIS PLAN. SEE SHEET M3.0 FOR DETAIL

MANUFACTURER'S INSTRUCTIONS. VENT SHALL BE ROUTED IN THE STRAIGHTEST ROUTE

RTU TO BE INSTALLED ON FACTORY CURB. EXTEND FULL SIZE SUPPLY AND RETURN DUCT

3 OUTSIDE AIR INTAKES SHALL BE LOCATED A MINIMUM OF 10' FROM ANY HAZARD OR NOXIOUS CONTAMINANT SUCH AS CHIMNEYS, PLUMBING VENTS, STREETS, ALLEYS, PARKING LOTS, EXCEPT AS SPECIFIED OTHERWISE IN CODES. WHERE A SOURCE OF

DROPS THRU ROOF. TRANSITIONS TO BE MADE IN VERTICAL DROP, TRANSITION TO THE SIZE

CONTAMINANT IS LOCATED WITHIN 10' OF AN INTAKE OPENING, SUCH OPENING SHALL BE

AIR TERMINAL TAG, SEE

SCHEDULE ON SHEET M2.0

- EQUIPMENT

REFERENCE

EQUIPMENT INDEX

X-8"Ø <del>→</del> NECK SIZE

250 AIR FLOW (CFM)

AIR TERMINAL MARK

FLEX DUCT (SUPPLY ONLY)

ROUND DUCT DIMENSION

6 EXHAUST FAN SHALL BE MOUNTED ON ROOF. SEE DETAIL SHEET M3.0. 7 CONTRACTOR SHALL TRANSITION AS NECESSARY TO CONNECT DUCTWORK FROM SIZES SHOWN ON PLANS TO VAV UNIT INPUT AND OUTPUT.

8 CONTRACTOR SHALL INSTALL VAV BOX NO MORE THAN 12" ABOVE THE CEILING IN AN ACCESSIBLE LOCATION. UNIT SHALL BE HUNG FROM THE THE STRUCTURE ABOVE WITH FOUR (4) COMMERCIAL GRADE HANGER STRAPS CONNECTED DIRECTLY TO EACH CORNER OF THE MAIN UNIT. CONTRACTOR MUST LEAVE MINIMUM OF 4' OF STRAIGHT, NON-INTERRUPTED DUCT BEFORE AND AFTER THE VAV BOX. THESE 4' SECTIONS SHALL BE THE SIZE OF THE VAV BOX INLETS AND OUTLETS RESPECTIVELY.

9 DIFFUSER MUST BE PROVIDED WITH DAMPER. DAMPER MUST BE ACCESSIBLE FROM ROOM. 10 TRANSITION FROM SQUARE NECK ON DIFFUSER TO ROUND DUCT AS SHOWN ON PLAN AS NECESSARY.

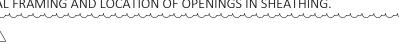
11 MOUNT BOTTOM OF ELECTRIC UNIT HEATER AT 12" AFF. HEATER TO BE PROVIDED WITH INTEGRAL THERMOSTAT AND SET TO TURN ON WHEN THE SPACE TEMPERATURE FALLS BELOW 50 DEG F. INSTALL UNIT PER MANUFACTURER'S INSTRUCTION. REFER TO SHEET M2.0 FOR SCHEDULE.

12 INSTALL HARD WIRED THERMOSAT AT 48" A.F.F. PROVIDE WITH CLEAR LOCKABLE COVER.

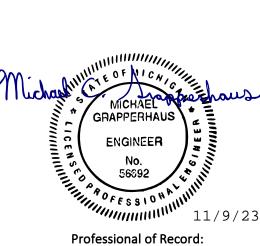
13 STATIC PRESSURE SENSOR TO CONTROL RTU. INSTALL IN DUCT AS SHOWN ON PLAN. 14 KITCHEN DOOR TO BE LOUVERED SEE ARCHITECTURAL PLANS FOR MORE INFORMATION.

15 DRYER DUCT SHALL HAVE 4"DIA. SECONDARY DRYER LINT TRAP INSTALLED APPROXIMATELY 4 FEET FROM THE OUTLET AND BELOW THE CEILING IN LAUNDRY ROOM. REFER TO DETAIL \_ON SHEET M3.O. AND ARCHITECTURAL INTERIOR ELEVATIONS....

16 DUCT UP INTO TOWER ELEMENT. SEE DETAIL THIS SHEET. COORDINATE LOCATIONS WITH STRUCTURAL FRAMING AND LOCATION OF OPENINGS IN SHEATHING.



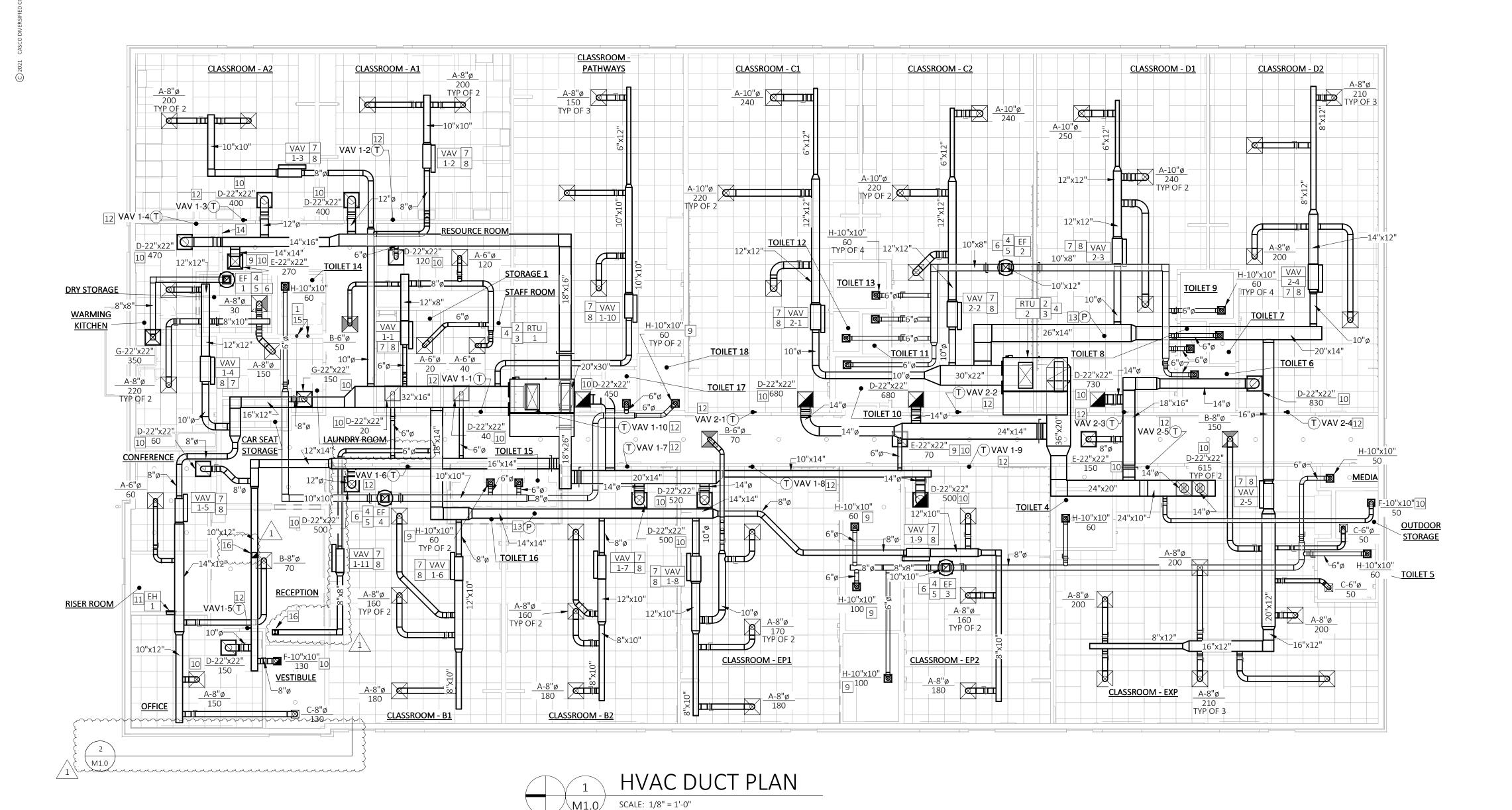


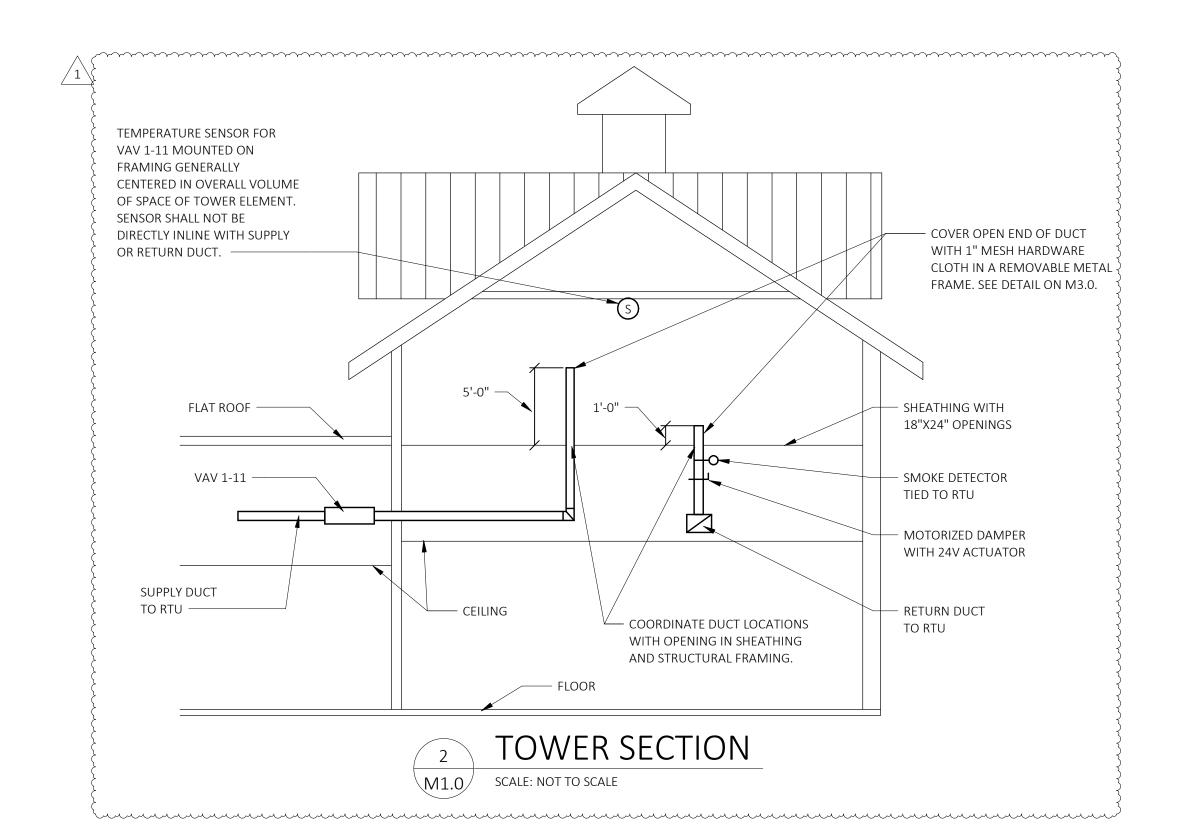


Michael C. Grapperhaus LICENSE NO: 56692 EXP. DATE: 9/30/23 Drawn/Checked BAM / MCG

Project Number Bid Date 7/10/23 Permit Date For Construction

MECHANICAL





## MECHANICAL GENERAL NOTES

- 1. DUCTWORK AND HVAC EQUIPMENT SHOWN IS DIAGRAMMATIC. COORDINATE AND FIELD ROUTE DUCTWORK TO MEET JOB REQUIREMENTS. LOCATION OF EQUIPMENT MUST BE COORDINATED WITH ALL DISCIPLINES BEFORE FINAL LOCATIONS ARE SELECTED. WEIGHTS OF EQUIPMENT MUST BE VERIFIED AND COORDINATED WITH STRUCTURAL SYSTEMS BEFORE EQUIPMENT CAN BE INSTALLED AT JOB SITE.
- 2. ALL SUPPLY & RETURN DUCT WORK SHALL BE INSULATED WITH MINIMUM INSTALLED VALUE OF R-8 DUCT WRAP WITH ALL SERVICE JACKET & SEALED. WRAP INTAKE & EXHAUST DUCTS WITH MINIMUM INSTALLED VALUE OF R-8 DUCT WRAP INSULATION.+VAPOR RETARDER & SEAL.
- 3. ALL DUCT SHALL BE SHEET METAL EXCEPT LAST 4' OF SUPPLY DUCT TO DIFFUSER MAY BE FLEX. NO ANGULAR BENDS ALLOWED IN FLEX DUCT. SEE DETAIL ON
- 4. PROVIDE TURNING VANES AT ALL RECTANGULAR ELBOWS
- 5. SHEET METAL DUCT GAUGES AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF SMACNA LOW PRESSURE DUCT STANDARDS.
- 6. MOUNT ALL SENSORS 60" A.F.F.
- 7. REFER TO ARCHITECTURAL DRAWING FOR EXACT LOCATION OF ALL GRILLES, DIFFUSERS, ETC.
- 8. LABEL ALL SENSORS, EXHAUST FANS, ROOFTOP UNITS, AND VAV UNITS WITH ENGRAVED PLASTIC SIGNS. 9. ROUTE ALL DUCT WORK ABOVE CEILINGS AND BELOW BOTTOM CHORD OF TRUSSES.
- 10. VENTS SHALL BE TERMINATED A MINIMUM OF 1'-0" ABOVE ROOF AND 3'-0" AWAY FROM PARAPETS OR WALLS AND 10'-0" AWAY FROM ANY MECHANICAL AIR
- INTAKES.
- 11. PROVIDE THERMOSTATS TO SENSE TEMPERATURE AT LOCATIONS SHOWN ON PLAN. 12. CONTRACTOR SHALL COORDINATE ALL SENSOR LOCATIONS WITH ALL OTHER DISCIPLINES PRIOR TO INSTALLATION.
- 13. ALL TOILET ROOM DOORS MUST BE UNDERCUT 1" MINIMUM. COORDINATE WITH GENERAL CONTRACTOR. REFER TO ARCHITECTURAL DRAWINGS. 14. CONTRACTOR SHALL VERIFY EXACT SPACING OF TRUSSES PRIOR TO STARTING DUCTWORK. CONTRACTOR SHALL VERIFY THAT ALL DUCTS HAVE ADEQUATE
- SPACE ABOVE CEILINGS. IF THERE IS ANY CONFLICTS, NOTIFY ARCHITECT. 15. CONTRACTOR SHALL TRANSITION DUCTS BETWEEN RECTANGULAR AND ROUND AS REQUIRED TO CONNECT TO MECHANICAL EQUIPMENT AND DIFFUSERS. 16. ALL ROOF PENETRATIONS SHALL BE SEALED AND MADE WEATHER TIGHT BY CONTRACTOR.
- 17. GC TO FURNISH (THROUGH CAPTIVEAIRE REP) AND HVAC CONTRACTOR TO INSTALL FACTORY HVAC CURBS.  $\frac{\sqrt{1-1}}{18}$ . CONTRACTOR TO CHANGE OUT ALL FILTERS AT CERTIFICATE OF OCCUPANCY AND TO PROVIDE ONE NEW FILTER REPLACEMENT FOR ALL UNITS. 19. SPACE ALLOCATED FOR MECHANICAL AND OTHER WORK ABOVE THE CEILINGS IS CRITICAL. LIGHT FIXTURES AND AIR DEVICES HAVE BEEN LOCATED TO ACHIEVE A DEFINITE ARCHITECTURAL EFFECT AND MAY NOT BE CHANGED WITHOUT THE CONSENT OF THE ARCHITECT AND/OR OWNER. BECOME FAMILIAR WITH THE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS PRIOR TO FABRICATING AND INSTALLING ANY MATERIALS AND/OR
- 20. ALL WORK SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, LOCAL CODES, LAWS, ACTS, AMENDMENTS AND AUTHORITIES HAVING JURISDICTION.
- 21. THE COMPLETED INSTALLATION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE INDUSTRY STANDARDS OF GOOD PRACTICE AND SAFETY. THE MANUFACTURERS STRICTEST RECOMMENDATIONS FOR EQUIPMENT AND PRODUCT APPLICATION AND/OR INSTALLATION SHALL BE FOLLOWED.
- 22. ALL WORK SHALL BE INSTALLED TO AVOID CONFLICTS WITH OTHER TRADES CLOSELY COORDINATE ALL WORK WITH ALL OTHER TRADES. FAILURE OF THE CONTRACTOR TO COORDINATE WITH ALL OTHER TRADES SHALL RELIEVE THE ARCHITECT/ENGINEER AND THE OWNER FROM ANY ADDED COST.
- 23. ALL WORK SHALL BE INSTALLED TO PROVIDE ADEQUATE CLEARANCE FOR ARCHITECTURAL DESIGN AND PROPER OPERATION AND SERVICE OF EQUIPMENT. 24. ALL TEMPERATURE AND HUMIDITY SET POINTS SHALL BE FIXED WITH-IN THE CAPTIVEAIRE CASLINK CONTROL SYSTEM. NO ADJUSTMENT SHALL BE AT THE SPACE SENSORS.
- 25. MECHANICAL CONTRACTOR SHALL COORDINATE ALL GRILLES, DIFFUSERS, DUCTS, ETC. WITH ALL OTHER TRADES INCLUDING BUT NOT LIMITED TO THE MILLWORK, CABINETRY THAT EXTENDS TO THE CEILING IN TOILET ROOMS, ELECTRICAL CONTRACTOR, LIGHTING.
- 26. CONTRACTOR SHALL VERIFY A PLASMA TUBE HAS BEEN INSTALLED IN EACH ROOFTOP UNIT AS PER SCHEDULE ON SHEET M2.0 AND DETAIL ON SHEET M3.0. ALL VENTILATION CALCULATIONS CAN BE FOUND ON SHEET M4.0. PLASMA TUBE SHALL BE INSTALLED BY CAPTIVEAIRE SERVICE TECH DURING RTU STARTUP.
- 27. CONTRACTOR SHALL ENSURE THAT ALL BALANCING DAMPERS ARE INSTALLED IN AN ACCESSIBLE LOCATION. WHERE DAMPERS CAN BE ACCESSIBLE THROUGH LAY-IN/ACT CEILING AT THE BRANCH LOCATIONS AS SHOWN IN DETAIL ON SHEET M3.0 THEY SHALL BE INSTALLED IN THE DUCTWORK. IF WHEN DAMPERS ARE LOCATED IN THE DUCTWORK THEY ARE INACCESSIBLE FOR BALANCING THEN THE AIR TERMINAL SHALL BE PROVIDED WITH DAMPER TO BE ADJUSTED AT THE FACE OF GRILLE. (SEE SPECIFICATIONS ON MP1.0). KEYED NOTE 9 IS USED ON PLAN TO INDICATE KNOWN LOCATIONS WHERE DAMPERS ARE LOCATED IN AIR TERMINAL. FINAL COORDINATION SHALL BE BY CONTRACTOR.

PER THE REQUIREMENTS OF THE 2018 INTERNATIONAL ENERGY CODE, THE GENERAL CONTRACTOR SHALL OBTAIN & PROVIDE THE FOLLOWING MECHANICAL RELATED ITEMS LISTED BELOW. CONTRACTOR SHALL PROVIDE A COPY TO THE TENANT AND WRITTEN CONFIRMATION TO THE PROFESSIONAL OF RECORD PROVING SAID INFORMATION HAS BEEN PROVIDED.

- 1. HVAC O&M DOCUMENTS FOR ALL MECHANICAL EQUIPMENT AND SYSTEMS PROVIDED TO THE TENANT BY THE MECHANICAL
- CONTRACTOR WITH 90 DAYS OF SYSTEM ACCEPTANCE. 2. A COMMISSIONING PLAN SHALL BE DEVELOPED BY APPROVED AGENCY.
- 3. HVAC EQUIPMENT AND CONTROL SYSTEMS SHALL BE TESTED TO ENSURE PROPER OPERATION.
- 4. A PRELIMINARY COMMISSIONING REPORT SHALL BE COMPETED AND CERTIFIED BY APPROVED AGENCY.
- 5. HVAC AS-BUILT DRAWINGS SHALL BE SUBMITTED WITHIN 90 DAYS OF SYSTEM ACCEPTANCE.
- 6. AN AIR BALANCING REPORT SHALL BE PROVIDED FOR HVAC SYSTEMS.
- 7. A FINAL COMMISSIONING REPORT SHALL BE PROVIDED TO BUILDING OWNER WITHIN 90 DAYS OF RECEIPT OF CERTIFICATE OF
- OCCUPANCY. 8. ALL HVAC CONTROL SYSTEMS SHALL BE TESTED TO ENSURE PROPER OPERATION, CALIBRATION AND ADJUSTMENT OF CONTROLS.

CAPTIVEAIRE CONTACT INFORMATION:

BRANDEN GOAD (629) 401-7547

BRANDEN.GOAD@CAPTIVEAIRE.COM

OUTSIDE AIR **GAS HEATING** ELECTRICAL (CFM) COOLING COIL ESP | MOTOR AMB DB | NET TOTAL | NET SENSIBLE COOLING SUPPLY HEATING SUPPLY (CFM) TONS (IN-WC) HP (°F) MANUFACTURER MODEL AREA SERVED MIN (CFM) (MBH) | INPUT (MBH) | OUTPUT (MBH) | IEER | VOLTS | PHASE | (HZ) | MCA | MOCP (LBS) ACCESSORIES NOTES 4600 CAPTIVEAIRE CASRTU3-I.250-24-12.5T-DOAS SEE VAV SCHEDULE 1050 3800 12.5 | 1.75 | 7.5 | 90.3 | 140.90 114.70 216 175 21.3 | 208 | 3 | 60 | 74.8 | 90 2574 1-13 CAPTIVEAIRE CASRTU3-I.250-24-12.5T-DOAS SEE VAV SCHEDULE 1130 4400 3500 12.5 | 1.75 | 7.5 | 90.3 | 143.20 115.60 211.8 190 21.3 | 208 | 3 | 60 | 74.8 | 90 1-15 1-13

ROOFTOP UNIT SCHEDULE (GAS)

CAPTIVEAIRE WARRANTY: 5 YEAR PARTS AND LABOR (ALTERNATE EXTENDABLE TO 10 YEARS PARTS WARRANTY - TO BE SELECTED BY OWNER IF DESIRED)

SEE SPECIFICATION FOR ADDITIONAL REQUIREMENTS

PROVIDE PERMANENT (SUN-RESISTANT) ENGRAVED BLACK LABEL WITH WHITE LETTERS SHOWING UNIT NUMBER AND ROOM NUMBERS SERVED

COORDINATE WITH ELECTRICAL CONTRACTOR

ALL UNITS TO BE FURNISHED WITH HIGH-PRESSURE AND LOW-PRESSURE SWITCHES

ALL UNITS SHALL HAVE FACTORY-FURNISHED AND INSTALLED SMOKE DETECTOR IN RETURN AIR SECTION.

ALL UNITS SHALL BE PROVIDED WITH R-410A REFRIGERANT.

FURNISH WITH TWO SETS OF BOTH 2" MERV 8 AND 2" MERV 13 FILTERS

ALL UNITS SHALL BE SUITABLE FOR OPERATION WITH CASLINK CONTROLS AND MONITORING SYSTEM.

ALL UNITS TO BE FURNISHED WITH AS MULTI-ZONE VARIABLE AIR VOLUME UNITS.

ALL UNITS TO BE FURNISHED WITH SINGLE CIRCUIT INVERTER DUTY COMPRESSOR

CAPTIVEAIRE TO PROVIDE ALTERNATE PRICING TO PROVIDE HAIL GAURDS. OWNER TO MAKE FINAL DECISION PRIOIR TO ORDERING EQUIPMENT. MANUFACTURER REPRESENTATIVE TO PERFORM UNIT STARTUP AND FINALIZE SYSTEM CONTROLS AND PROVIDE TRAINING OF THE CONTROLS SYSTEM TO THE OWNER.

GC TO PURCHASE EQUIPMENT THROUGH CAPTIVEAIRE NATIONAL ACCOUNT. REFER TO CAPTIVEAIRE CONTANCT INFORMATION.

ACCESSORIES (FACTORY-INSTALLED IF AVAILABLE, OR SHIPPED FOR FIELD INSTALLATION): 14" TALL STANDARD FACTORY INSULATED ROOF CURB

HINGED AND REMOVABLE ACCESS PANELS

NON-FUSED DISCONNECT SWITCH

GFCI SERVICE OUTLET (FIELD WIRED)

ECONOMIZER WITH WITH DIFFERENTIAL ENTHALPY CONTROL

FACTORY INSTALLED HUMIDITY CONTROL PACKAGE - MODULATING HOT GAS REHEAT

CLOGGED FILTER SWITCH

CRANKCASE HEATER BAROMETRIC RELIEF DAMPER

PROVIDE EXTRA SET OF 2" MERV 8 AND 2" MERV 13 FILTERS FOR CONTRACTOR TO INSTALL BEFORE TURNOVER

FREEZESTAT

DISCHARGE DEWPOINT CONTROL

TOTAL CFM MONITORING FOR RTU

ECM CONDENSING FANS

ROOF CURB MOUNTED SCREENS. LOCATE SCREENS SO THAT THERE IS AN OPENING ALONG THE SHORT END OF THE RTU, FACING SOUTH. SEE ARCHITECTURAL ROOF

PLAN ON SHEET A1.3 FOR MORE INFORMATION.

AIR PURIFICATION SCHEDULE								
					PRESSURE	MILLION ION		
SYMBOL	MANUFACTURER	MODEL	VOLTAGE	WATTS	DROP	DENSITY		
iPS 1-2	GLOBAL PLASMA SOLUTIONS	GPS-FC48-AC	24-240 (AC)	10	0.05" W.G.	200 MILLION		
IOTES:								

ONE DEVICE TO BE FIELD INSTALLED IN RTU-1 AND RTU-2.

NO APPROVED EQUALS

RTU-2

NOTES:

MOUNT BI-POLAR ION GENERATOR PER DETAIL ON SHEET M3.0

POWER SHALL BE PROVIDED FROM BLOWER MOTOR

PROVIDE WITH INTEGRAL SELF CLEANING SYSTEM

GC TO PURCHASE EQUIPMENT THROUGH CAPTIVEAIRE NATIONAL ACCOUNT. REFER TO CAPTIVEAIRE CONTANCT

INFORMATION. EQUIPMENT SHALL BE INSTALLED ON SITE BY THE CAPTIVEAIRE TECH DURING RTU STARTUP

ORDERS SHALL BE PLACED THROUGH ACCOUNT MANAGER

GLOBAL PLASMA SOLUTIONS ACCOUNT MANAGER: TODD E. BEELER:

PHONE: 865-250-1792 - EMAIL: TODD.E.BEELER@GLOBALPLASMASOLUTIONS.COM

	EXHAUST FAN SCHEDULE										
							EL	ECTRICAL DA	λTA		
MARK	MANUFACTURER	MODEL	DESCRIPTION	CFM	ESP (IN. WG.)	DRIVE	HP	VOLTAGE	PHASE	AREA SERVED	REMARKS
EF-1	CAPTIVEAIRE	DR12HFA	ROOF MOUNTED	350	0.500	DIRECT	1/4	115 V	1	WARMING KITCHEN	CONTROLLED BY MANUAL TIMER SWITCH (BY EC) IN KITCHEN
EF-2	CAPTIVEAIRE	DR12HFA	ROOF MOUNTED	480	0.500	DIRECT	1/4	115 V	1	TOILET	CONTROLLED BY TIMECLOCK - CONSTANT ON DURING OCCUPIED HOURS
EF-3	CAPTIVEAIRE	DR12HFA	ROOF MOUNTED	430	0.500	DIRECT	1/4	115 V	1	TOILET / MEDIA	CONTROLLED BY TIMECLOCK - CONSTANT ON DURING OCCUPIED HOURS
EF-4	CAPTIVEAIRE	DR12HFA	ROOF MOUNTED	450	0.500	DIRECT	1/4	115 V	1	TOILET/LAUNDRY	CONTROLLED BY TIMECLOCK - CONSTANT ON DURING OCCUPIED HOURS
NOTEC											

ALL FANS SHALL HAVE A DISCONNECT SWITCH

ALL FANS SHALL BE PROVIDED WITH BIRDSCREEN AND BACKDRAFT DAMPER

ALL FANS SHALL BE PROVIDED WITH 14" PRE-FAB CURB

ALL FANS SHALL BE OFF DURING UNOCCUPIED HOURS (NIGHT / WEEKEND SETBACK)

GC TO PURCHASE EQUIPMENT THROUGH CAPTIVEAIRE NATIONAL ACCOUNT. REFER TO CAPTIVEAIRE CONTANCT INFORMATION.

OUTSIDE AIR  RTU - 1 1050 RTU - 2 1130  TOTAL 2180  EXHAUST AIR  EF - 1 350 EF - 2 480 EF - 3 430 EF - 4 450 TOTAL 1710	<u>CLASSIFICATION</u>	UNIT	<u>CFM</u>
EXHAUST AIR  EF - 1 350 EF - 2 480 EF - 3 430 EF - 4 450	OUTSIDE AIR		
TOTAL 2180  EXHAUST AIR  EF - 1 350  EF - 2 480  EF - 3 430  EF - 4 450		RTU - 1	1050
EXHAUST AIR  EF - 1		RTU - 2	1130
EF - 1 350 EF - 2 480 EF - 3 430 EF - 4 450		TOTAL	2180
EF - 2 480 EF - 3 430 EF - 4 450	EXHAUST AIR		
EF - 3 430 EF - 4 450		EF - 1	350
EF - 4 450		EF - 2	480
		EF - 3	430
TOTAL 1710		EF - 4	450
		TOTAL	1710
BUILDING FINAL PRESSURE:	BUILDING FINAL PRESSURE:		
WITH KITCHEN EXHAUST FAN ON: POSITIVE	WITH KITCHEN EXHAUST	FAN ON:	POSITIVE 470 CFM

	AIR TERMINAL SCHEDULE									
MARK	FUNCTION	MANUFACTURER	MODEL	DESCRIPTION	FACE SIZE					
А	SUPPLY AIR	PRICE	AMD	SUPPLY AIR DIFFUSER, RECTANGULAR FULL LOUVERED FACE, 18X18 NECK WITH SQUARE TO ROUND NECK, LAY-IN. WHITE FINISH. SEE PLANS FOR ROUND NECK SIZE	24"X24"					
В	SUPPLY AIR	PRICE	AMD	SUPPLY AIR DIFFUSER, RECTANGULAR FULL LOUVERED FACE, 18X18 NECK WITH SQUARE TO ROUND NECK, SURFACE MOUNT. WHITE FINISH. SEE PLANS FOR ROUND NECK SIZE	24"X24"					
С	SUPPLY AIR	PRICE	AMD	SUPPLY AIR DIFFUSER, RECTANGULAR FULL LOUVERED FACE, 9X9 NECK WITH SQUARE TO ROUND NECK, SURFACE MOUNT. WHITE FINISH. SEE PLANS FOR ROUND NECK SIZE	12"X12"					
D	RETURN AIR	PRICE	630	RETURN AIR GRILLE, RECTANGULAR FACE, RECTANGULAR NECK, LAY-IN MOUNT. WHITE FINISH. 22X22 NECK SIZE	24"X24"					
Е	RETURN AIR	PRICE	630	RETURN AIR GRILLE, RECTANGULAR FACE, RECTANGULAR NECK, SURFACE MOUNT. WHITE FINISH. 22X22 NECK SIZE	24"X24"					
F	RETURN AIR	PRICE	630	RETURN AIR GRILLE, RECTANGULAR FACE, RECTANGULAR NECK, SURFACE MOUNT. WHITE FINISH. 10X10 NECK SIZE	12"X12"					
G	EXHAUST AIR	PRICE	630	EXHAUST AIR GRILLE, RECTANGULAR FACE, RECTANGULAR NECK, LAY-IN MOUNT. WHITE FINISH. 22X22 NECK SIZE	24"X24"					
Н	EXHAUST AIR	PRICE	630	EXHAUST AIR GRILLE, RECTANGULAR FACE, RECTANGULAR NECK, SURFACE MOUNT. WHITE FINISH. 10X10 NECK SIZE	12"X12"					

- ALL AIR DEVICES SHALL BE ALUMINUM.
- REFER TO ARCHITECTURAL DRAWINGS FOR TYPE OF CEILING.
- REFER TO MECHANICAL PLANS FOR NECK SIZE.
- COORDINATE MOUNTING FRAMES AND LOCATION WITH ARCHITECTURAL DRAWING A3.0. SURFACE MOUNT FRAMES SHALL BE TYPE 1- DRYWALL FRAMES.
- ALL AIR DEVICES SHALL BE PROVIDED WITH FULL LOUVERED FACE AND NO PANEL FACE.
- ALL SUPPLY AIR DIFFUSERS 4-WAY THROW U.N.O.
- WHERE 2 OR 3-WAY TRHOW IS CALLED FOR ON PLAN INCLUDE DIRECTIONAL BAFEL IN NECK OF DIFFUSER TO DIVERT AIR FLOW.
- SOME AIR DEVICES SHALL BE PROVIDED WITH BALANCING DAMPERS. SEE PLAN FOR LOCATION. SEE SPECIFICATIONS ON MP1.0. FINAL COORDINATION OF WHICH AIR TERMINALS REQUIRE DAMPERS SHALL BE VERIFIED IN FIELD PRIOR TO
- GC TO PURCHASE EQUIPMENT THROUGH CAPTIVEAIRE NATIONAL ACCOUNT. REFER TO CAPTIVEAIRE CONTANCT INFORMATION.

	ELECTRIC UNIT HEATER SCHEDULE									
					BTU/HR		POW	/ER		
MARK	AREA SERVING	MANUFACTURER	MODEL	INPUT (KW)	OUTPUT	AMPS	VOLTAGE	PHASE	FREQ (HZ)	
EH-1	RISER ROOM	Q-MARK	AWH-4508	4.8	16378	23.1	208	1	60	
NOTES:										

ALL SHALL BE PROVIDED WITH SCR CONTROL.

- UNIT SHALL BE PROVIDED WITH DISCONNECT SWITCH
- UNIT SHALL BE PROVIDED WITH INTEGRAL THERMOSTAT
- UNIT SHALL BE PROVIDED WITH BACK BOX FOR RECESSED MOUNT UNIT SHALL BE PROVIDED WITH FRONT PANEL / GRILLE

ALL SHALL BE INDIVIDUALLY CONTROLLED BY PROGRAMMABLE THERMOSTAT LOCATED WITHIN AREA SERVED.

GC TO PURCHASE EQUIPMENT THROUGH CAPTIVEAIRE NATIONAL ACCOUNT. REFER TO CAPTIVEAIRE CONTANCT INFORMATION.

GC TO PURCHASE EQUIPMENT THROUGH CAPTIVEAIRE NATIONAL ACCOUNT. REFER TO CAPTIVEAIRE CONTANCT INFORMATION.

					Al	r flow (Cf	M)			E	LECTRIC HE	EAT		
MARK	AREA SERVED	MANUFACTURER	MODEL	INLET DIAMETER (IN.)	MIN.	REHEAT	MAX.	FREQ. (HZ)	PHASE	VOLTAGE	MCA	МОСР	HEAT (KW)	CONTROL
/AV 1-1	STAFF, RESOURSE, STORAGE	PRICE	SDV	6	115	185	230	60	3	208	8.70	15.0	2.3	SCR
'AV 1-2	CLASSROOM A1	PRICE	SDV	8	200	320	400	60	3	208	15.50	20.0	4.1	SCR
'AV 1-3	CLASSROOM A2	PRICE	SDV	8	200	320	400	60	3	208	15.50	20.0	4.1	SCR
'AV 1-4	KITCHEN, LAUNDRY	PRICE	SDV	10	310	495	620	60	3	208	23.80	25.0	6.3	SCR
'AV 1-5	ENTRY, OFFICE, CONFERENCE	PRICE	SDV	8	205	330	410	60	3	208	15.90	20.0	4.2	SCR
'AV 1-6	CLASSROOM B1	PRICE	SDV	8	250	400	500	60	3	208	19.30	20.0	5.1	SCR
AV 1-7	CLASSROOM B2	PRICE	SDV	8	250	400	500	60	3	208	19.30	20.0	5.1	SCR
AV 1-8	CLASSROOM EP1	PRICE	SDV	10	295	470	590	60	3	208	22.30	25.0	5.9	SCR
AV 1-9	CLASSROOM EP2	PRICE	SDV	8	250	400	500	60	3	208	19.30	20.0	5.1	SCR
V 1-10	CLASSROOM PATHWAYS	PRICE	SDV	8	225	360	450	60	3	208	17.40	20.0	4.6	SCR
4V 1-11	ENTRY TOWER	PRICE	SDV	6	Ó	200	200	60	3	208	10.60	15.0	2.8	SCR
AV 2-1~	CLASSROOMC1		wspw	10000	~340~	~540~	~~680~	moom	mgm	~~~208~~~	~25.70~	~30.0~	mesen	wserw
AV 2-2	CLASSROOM C2	PRICE	SDV	10	340	540	680	60	3	208	25.70	30.0	6.8	SCR
AV 2-3	CLASSROOM D1	PRICE	SDV	10	365	580	730	60	3	208	27.60	30.0	7.3	SCR
11112	CLASSROOM D2	PRICE	SDV	12	415	660	830	60	3	208	31.80	35.0	8.4	SCR
AV 2-4	CLASSROOM EXP	PRICE	SDV	14	740	1180	1480	60	3	208	56.40	60.0	14.9	SCR

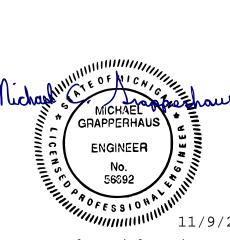
`ALL'SIZED BASED ON A TEMPERATURE RISE OF 40 DEG F, EXCEPT VAV 1-11 WHICH US SIZED FOR A MINIMUM LEAVNG AIR TEMERATURE OFF 100 DEGF



Drawn/Checked	BAM / MCG
Project Number	2202640
Bid Date	//
Permit Date	7/10/23
For Construction	/

MECHANICAL

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Michael C. Grapperhaus LICENSE NO: 56692 EXP. DATE: 9/30/23

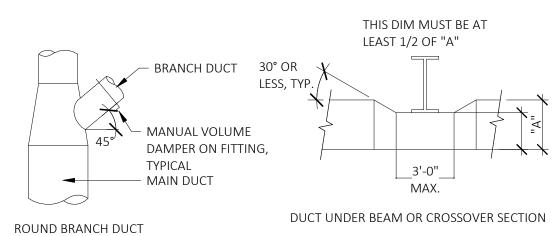
Drawn/Checked BAM / MCG 2202640 Project Number Bid Date 7/10/23 Permit Date --/--/--For Construction

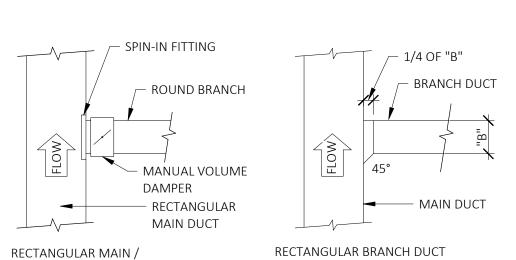
MECHANICAL DETAILS



## TYPICAL RTU CURB DETAIL

SCALE: NOT TO SCALE

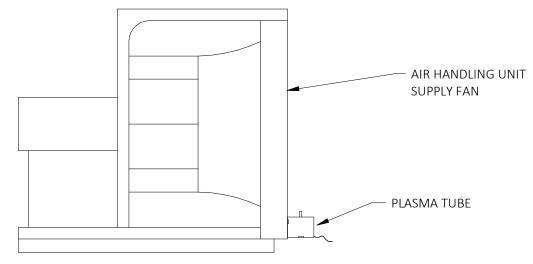




## DUCT CONNECTION DETAIL

SCALE: NOT TO SCALE

ROUND BRANCH DUCT

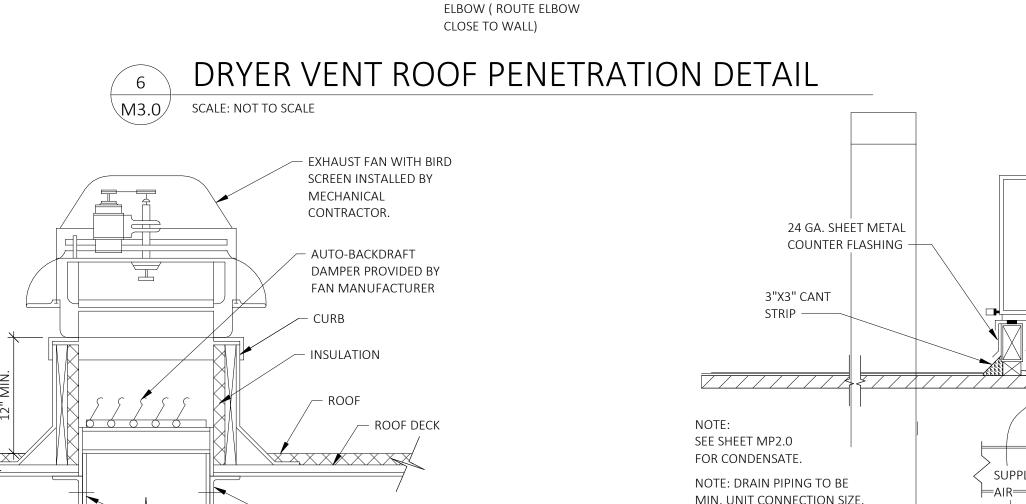


NOTES:

- 1. MOUNT GPS-FC48-AC TO FAN INLET.
- 2. USE TWO SELF-TAPPING SCREWS OR RARE EARTH MAGNETS TO SECURE GPS-FC48-AC TO FAN
- INLET, ENSURING SCREWS DO NOT CONTACT FAN SCROLL. 3. WIRE GPS-FC48-AC BLOWER MOTOR.
- 4. GPS-FC48-AC TO BE INSTALLED ONSITE BY CAPTIVEAIRE

### GPS-FC48-AC MOUNTING DETAIL SCALE: NOT TO SCALE

ROOF MOUNTED DOWNFLOW EXHAUST FAN



CONSTRAINED SPACE CONNECTION

CEILING

LAUNDRY ROOM

— 4" TIGHT RADIUS RIGID

INTERIOR

CEILING

WALL -

4" RIGID

MANUFACTURER SPECS THAT A

BOOSTER FAN IS NOT REQUIRED

TJERNLUND PRODUCTS

SECONDARY LINT TRAP

BASED ON TOTAL DEVELOPED

LENGTH OF DUCT IN FIELD.

DRYER EXHAUST

MODEL LT4. -

VERIFY WITH DRYER

(FLEX NOT ACCEPTABLE) -

GENERAL CONTRACTOR SHALL FLASH ROOF PENETRATION PER

ARCHITECTURAL PLAN/DETAIL

NOTE: MAX. OF (1)90° BEND

WILL BE ALLOWED

VENT CAP,

ROOFING -

AMERICAP MOD

4CW OR EQUAL

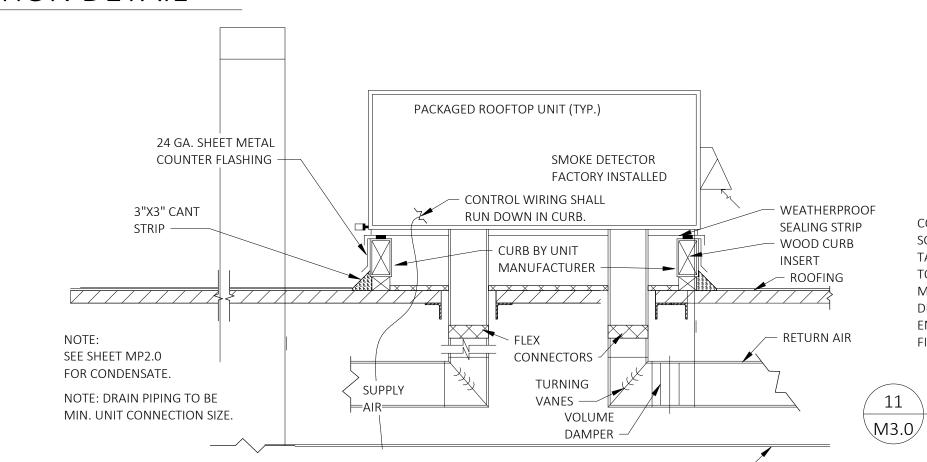
✓ 4" RIGID HEAVY

METAL VENT

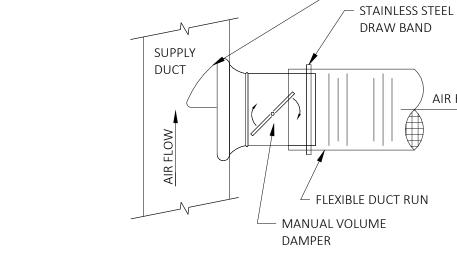
STORM COLLAR

CEILING PLATE

ROOF CONSTRUCTION



ROOF UNIT MOUNTING DETAIL SCALE: NOT TO SCALE

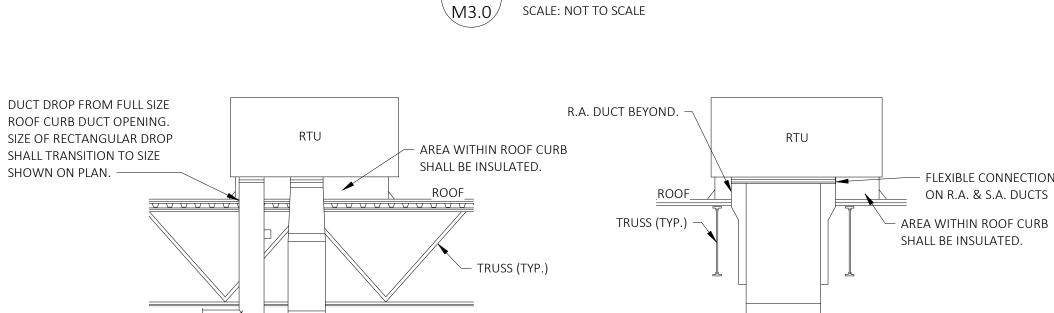








AIR SCOOP



– DUCT SEE PLAN FOR

MANUAL

REFER TO ARCH. DWGS.

CEILING DIFFUSER

ALL DUCTWORK TO

BE ROUTED BELOW

**TRUSSES** 

FOR CEILING TYPE -

**INSULATED** 

MAIN DUCT

VOLUME DAMPER -

- SUPPORT TO STRUCTURE ABOVE.

- MASTIC OR TWO WRAPS OF UL

SECURING INSULATION LAYER

- WRAP INSULATION DOWN TO

- METAL CLAMP AROUND FLEX

BE DRAWN TIGHT & TAPED.

1. METHOD OF INSTALLATION FOR AIRTIGHT SEAL WILL BE TYPICAL FOR ALL FLEX

3. CLOSED CELL SPRAY FOAM INSULATION SHALL BE APPLIED TO COMPLETELY COVER ENTIRE DIFFUSER AND ALL METAL SUPPORTS FOR AND AROUND

MANUFACTURER'S INSTALLATION INSTRUCTIONS.

CEILING DIFFUSER DETAIL

2. REFER DIFFUSER SCHEDULE FOR CORRECT CEILING DIFFUSER.

CONNECTIONS TO AIR DISTRIBUTION DEVICES. CONNECTIONS SHALL BE PER

CEILING. FORMING AIRTIGHT SEAL

DUCT & COLLAR. CONNECTION TO

- INSULATED FLEXIBLE DUCT 5'-0" MAX. LENGTH (VERTICAL SECTION ONLY)

181-B-FX TAPE FOLLOWED BY A BAND ON THE CORE, MASTIC TAPE OR BAND

- CLOSED CELL SPRAY FOAM INSULATION

- DUCT DROP FROM FULL SIZE ROOF CURB

DUCT OPENING. SIZE OF RECTANGULAR

DROP SHALL TRANSITION TO ELBOWS OR

TEE SIZED TO MATCH ROUND DUCT IT SERVES. (EXAMPLE-24"X 24" TO 24"ø.)

METAL SHIELD

- RIGID DUCT AT ELBOW

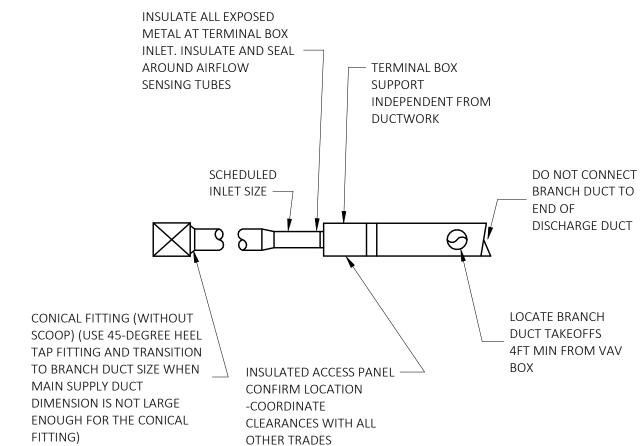


TURNING

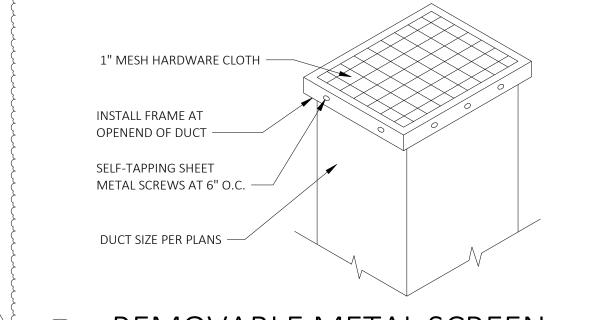
VANES —

CEILING —

SCALE: NOT TO SCALE



M3.0 VAV BOX INSTALLATION DETAIL



REMOVABLE METAL SCREEN M3.0 SCALE: NOT TO SCALE

3"x3"x1/4" ANGLES ALL SIDES BY

SCALE: NOT TO SCALE

MECH. CONTR. SPAN BETWEEN

M3.0

ATTACH DUCT TO FRAME BY MECHANICAL CONTRACTOR.

PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.

MECHANICAL

CONTROL NOTES

Set Points

**TEMPERATURE SETPOINTS:** 

RTU COOLING MODE: >60.0 DEG F INTAKE MAT RTU COOLING LAT: 50.0 DEG F DRY BULB SPACE COOLING OCCUPIED: 72.0 DEG F DRY BULB SPACE COOLING UNOCCUPIED: 74.0 DEG F DRY BULB

RTU HEATING MODE: <56.0 DEG F INTAKE MAT RTU HEATING LAT: 62.0 DEG F DRY BULB VAV HEATING LAT: 95.0 DEG F DRY BULB SPACE HEATING OCCUPIED: 70.0 DEG F DRY BULB SPACE HEATING UNOCCUPIED: 64.0 DEG F DRY BULB

**DEHUMIDIFICATION SETPOINTS:** 

RTU HOT GAS REHEAT: 58.0 DEG F DEW POINT RTU REHEAT DISCHARGE: 56.0 DEG F DRY BULB VAV DAMPER MODULATION: 55% RELATIVE HUMIDITY

**DUCT STATIC PRESSURE SETPOINTS:** 

MAINTAIN +1" ESP INSIDE DUCT RELATIVE TO SPACE

**MODES OF OPERATIONS** 

OCCUPIED MODE:

RTU-1, 2 will be commanded on and operating in communication with VAV boxes and local space sensors. See Sequence of Operation for more detailed information.

EF-1 turned on by manual timer switch in kitchen only (switch by EC).

EF-2, 3, 4 will be commanded on via timeclock (by EC).

Hot water recirculation pump will be commanded on, via timeclock (by EC).

UNOCCUPIED MODE

RTU-1, 2 will be commanded on in 100% recirculating, auto blower mode in communication with VAV boxes and local space sensors. See Sequence of Operation for more detailed information.

EF-2, 3, 4 will be commanded off via interlock with RTU-1, 2.

Building Lighting (Wall packs, flag pole, sign light) will be commanded on/off in accordance with AHJ / owner requirements. Typical operation: a photocell (by EC) will be used to command lights on at dusk and off at dawn. Where required, CASLink will be used to command lights on/off.

Site Lighting (Pole Lights) will be commanded on/off in accordance with AHJ / owner requirements. Typical operation: a photocell (by EC) will be used to command lights on at dusk and off at dawn. Where required, CASLink will be used to command lights on/off.

Hot water recirculation pump will be commanded off.

### **SEQUENCE OF OPERATIONS**

Sequence of Operations RTU-1,2

Occupied Mode:

During occupied periods, the supply fan will run continuously and the outside air damper will open to maintain minimum ventilation requirements. The unit controller will control the supply fan speed to maintain the current duct static pressure setpoint (adj.). The DX cooling and gas heat will modulate (based on intake mixed air temperature (MAT) setpoints (adj.)) to maintain the current discharge air temperature setpoint. If economizing is enabled the outside air damper will modulate to maintain the current discharge air temperature setpoint.

Unoccupied Mode:

When the space temperature is below the unoccupied heating setpoint of 64.0 deg. F (adj.) the supply fan will start, the outside air damper will remain closed and the gas heat will be enabled. When the space temperature rises above the unoccupied heating setpoint of 64.0 deg. F (adj.) the supply fan will stop and the gas heat will be disabled. When the space temperature is above the unoccupied cooling setpoint of 74.0 deg. F (adj.) the supply fan will start, the outside air damper will open if economizing is enabled and remain closed if economizing is disabled and the DX cooling will be enabled. When the space temperature falls below the unoccupied cooling setpoint of 74.0 deg. F (adj.) the supply fan will stop, the DX cooling will be disabled and the outside air damper will close.

Occupied Override:

When an occupied bypass request is received from CASLink remotely or onboard the HMI inside of the controls vestibule, the unit will transition from its current occupancy mode to occupied override mode and the unit will maintain the space temperature to the occupied bypass request setpoints (adj.) until 1 hour (adj.) has passed.

Cooling Mode:

The unit controller shall use the intake mixed air temperature and humidity sensor to maintain scheduled discharge air temperature. Discharge air setpoint shall be maintained by modulating the economizer or the DX cooling as required to maintain the discharge air setpoint. Once all economizing requirements have been met, compressor operation will be enabled if the economizer alone can not meet the demand. Once the active cooling demand has been satisfied, the compressor will modulate down to the either the minimum possible speed necessary or shut off in order to discharge scheduled LAT.

Using Differential Total control the economizer will modulate open from the current position if the outdoor air wet bulb temperature is less than the economizer dew point set point (55 deg F adj.), and the outdoor dry bulb temperature is less than the economizer temperature set point (75 deg F adj.). If the return dew point is less than the dew point set point, the unit will use the return dew point as the beginning of the modulation band. the modulation occurs from the current damper position to fully open over a specific dew point temperature band. The barometric (gravity operated) relief dampers will open with increased building pressure. As the building pressure increases, the pressure in the unit return section also increases, opening the dampers and relieving

Supply Fan:

The supply fan will be enabled while in the occupied mode and cycled on (Auto Blower Mode) during the unoccupied mode. A differential pressure switch will monitor the differential pressure across the fan. If the switch does not open after a request for fan operation, a fault will be annunciated at the HMI and communicated through CASLink, the unit will stop, requiring a manual reset.

Supply Duct Static Pressure Control:

The unit controller will modulate the supply fan speed as required to maintain the duct static pressure setpoint. If the duct static pressure falls below the supply air static setpoint + deadband, the unit controller will increase the output to the supply fan to maintain setpoint. If the duct static pressure rises above the supply air static setpoint + deadband, the unit controller will decrease the output to the supply fan to maintain setpoint. The duct static pressure setpoint shall be set either remotely through CASLink or on the onboard HMI, and shall be reset between the minimum and maximum static pressure limits to maintain the critical zone VAV air damper in a position between 65% and 75% open (adj.).

Filter Status:

A differential pressure switch will monitor the differential pressure across the filter when the fan is running. If the switch closes after a request for fan operation a dirty filter alarm will be annunciated through CASLink and on the onboard HMI in the controls vestibule. The unit will, however, continue running as usual.

**Smoke Detector Shutdown:** The unit will shut down in response to a signal from the smoke detector indicating the presence of smoke. The smoke detector will be interlocked to the unit through the dry contacts of the smoke detector. A manual reset of the smoke detector will be required to restart the unit.

All sensors shall be wired back to the main control board that continuously monitors all critical components and makes decisions based on pre-determined logic to accurately control the following:

1. PID logic to control heater modulation ensuring precise discharge temperature

2. PID logic to control compressor speed to provide precise control over evaporative coil temperatures, leaving dew point, and discharge temperatures. 3. PID logic for outdoor fan modulation to maintain an optimal outdoor coil

temperature. 4. PID logic for Electronic Expansion Valve position to maintain a precise superheat

5. PID logic for Modulating Reheat valve to limit supply air temperature and relative humidity based off of discharge conditions.

Ventilation Control (Fixed):

When the unit is in unoccupied mode, the ventilation airflow setpoint will be zero. When the unit is in occupied mode, the ventilation airflow setpoint will equal the design outdoor airflow (see RTU schedule).

Dehumidification mode:

During occupied mode modulating hot gas reheat shall be engaged when the intake mixed air dewpoint is above setpoint and shall run with a discharge air temperature setpoint of 56 deg F dry bulb (adj.) until intake mixed air dewpoint is below setpoint.

During unoccupied mode modulating hot gas reheat shall be off.

Sequence of Operations ALL VAV BOXES SCHEDULED

Occupancy Mode:

VAV SYSTEM

The occupancy mode will be communicated or hardwired to the controller via a programmable schedule. Valid occupancy modes for the unit will be:

Normal operating mode for occupied spaces or daytime operation. When the unit is in the occupied mode the VAV will maintain the space temperature at the active occupied heating or cooling setpoint. Applicable ventilation and airflow setpoints will be enforced. The occupied mode will be the default mode of the VAV.

Unoccupied:

Normal operating mode for unoccupied spaces or nighttime operation. When the unit is in unoccupied mode the VAV controller will maintain the space temperature at the stored unoccupied heating or cooling setpoint. When the space temperature is within the setpoint deadband the active unoccupied setpoint the VAV will modulate fully closed, and the RTU fan will turn off.

Heat/Cool Mode:

The Heat/Cool mode will be set by the VAV controller. In standalone or auto mode the VAV controller will compare the primary air temperature with the configured auto changeover setpoint to determine if the air is "hot" or "cold". Heating mode implies the primary air temperature is hot. Cooling mode implies the primary air temperature is cold.

The space temperature setpoint will be determined either by programmed setpoint. Setpoints can be manually set on each VAV thermostat.

Cooling Mode:

When the unit is in cooling mode, the VAV controller will maintain the space temperature at the active cooling setpoint by simultaneously modulating both the VAV damper (between the active cooling minimum and maximum airflow setpoints) and the RTU fan speed (between the minimum and maximum RTU fan speed airflow setpoints). Based on the VAV controller occupancy mode, the active cooling setpoint will be one of the following:

Occupied Cooling Setpoint 72.0 deg. F 74.0 deg. F Unoccupied Cooling Setpoint Occupied Min Cooling Airflow Setpoint See VAV Schedule Occupied Max Cooling Airflow Setpoint See VAV Schedule

The VAV controller will use the measured space temperature and the active cooling setpoint to determine the requested cooling capacity of the unit. The outputs will be controlled based on the unit configuration and the requested cooling capacity.

When the unit is in heating mode, the VAV controller will maintain the space temperature at the active heating setpoint by simultaneously modulating both the VAV damper (between the active heating minimum and maximum airflow setpoints) and the RTU fan speed (between the minimum and maximum RTU fan speed airflow setpoints). Based on the VAV controller occupancy mode, the active heating setpoint will be one of the following:

70.0 deg. F Occupied Heating Setpoint 64.0 deg. F Unoccupied Heating Setpoint Occupied Min Heating Airflow Setpoint See VAV Schedule Occupied Max Heating Airflow Setpoint See VAV Schedule

Electric heater shall be modulated to maintain space heating setpoint.

Dehumidification mode:

During occupied mode VAV damper shall modulate open when space relative humidity (%RH) is above setpoint and modulate based on space dry bulb temperature when space relative humidity (%RH is below setpoint.

RTU-1 and VAV 1-11 Sequence of Operations (for tower element): RTU-1 and VAV 1-11 shall operate same as other RTU's and VAV's except as specified below.

 $\overline{\phantom{a}}$ 

VAV 1-11 will not have any difference in occupied / unoccupied modes. Operation and set points remain the same.

VAV 1-11 shall modulate to the minimum / closed position and motorized damper in return air duct shall be closed.

VAV 1-11 shall modulate to the maximum / open position and motorized damper in ₹ return air duct shall open.

RTU-1 - Smoke detector: RTU shall shut down upon detection of smoke at either smoke detector in main

Electric heat in VAV box shall be utilized to maintain a space temperature of 50°F.

duct in unit or in return air branch duct (location shown on plan).

If temperature drops to 45°F or below an alert on the CASLink system shall be

Drawn/Checked BAM / MCG Project Number Bid Date 7/10/23 Permit Date For Construction

#### Global Plasma Solutions 10 Mall Terrace, Building C Savannah, GA 31406 Phone: (912) 356-0115 Fax: (912) 356-0114 Email: info@globalplasmasolutions.com Web: www.globalplasmasolutions.com

Steady State Using the VRP\*

Plasma Off

Building materials and furnishings assumed to have no VOCs and off-gassing is complete

All yellow shaded boxes require user input or review

Is IAQ acceptable at reduce outside air levels?

& From Outdoors

Zone Floor Area (square f

Using the IAQ Method

outside air levels?

VERSION 1.6 running ASHRAE 62.1-2013

Occupancy Pz

Acceptable at Reduced

Yes

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Occupant

Generation

Zone (CFM) with

Ez correction

A = Outside Air

Cognizant http://www.cdc.gov/niosh/npg/npgsyn-a.html

1 = ASHRAE & NIOSH C02 Limit

 50%
 NIOSH
 2 = C02 Level at Ventilation Rate OA Flow Rate

 50%
 OSHA
 3 = C02 Level at IAQ Procedure OA Flow Rate

to control the other contaminants of concern, as found on submarines.

IMC 2006 & later allows for ASHRAE 62 IAQP through the engineered exception found in Section 403.2

Exhaust flow rates may differ from Table 6.5 based on ASHRAE 62 IAQP via Section 6.5.2

ventilation (DCV) setpoints. The National Research Council was commissioned by

the US Navy to prove C02 is not a contaminant of concern when using air purification

\*\*\*OSHA, NIOSH & WHO most conservative values us

Carbon dioxide\*\*

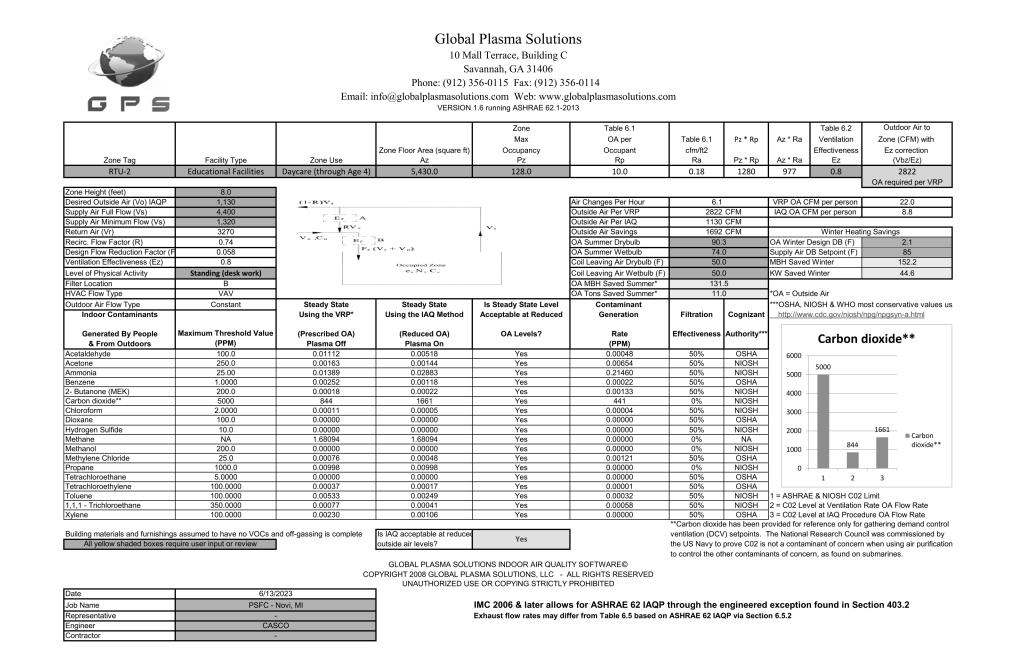
Global Plasma Solutions 10 Mall Terrace, Building C Savannah, GA 31406 Phone: (912) 356-0115 Fax: (912) 356-0114 Email: info@globalplasmasolutions.com Web: www.globalplasmasolutions.com VERSION 1.6 running ASHRAE 62.1-2013

	I			Zone	Table 6.1	ı	ı		Table 6.2	Outdoor Air to
				Max	OA per	Table 6.1	Pz * Rp	Az * Ra	Ventilation	Zone (CFM) with
			Zono Floor Area (aguara ft)		· ·	cfm/ft2	FZ KP	AZ Na		Ez correction
Zone Tag	Facility Type	Zone Use	Zone Floor Area (square ft) Az	Occupancy Pz	Occupant Rp	Ra	Pz * Rp	Az * Ra	Effectiveness Ez	(Vbz/Ez)
RTU-1	Educational Facilities	Office Space	2,784.0	6.0	5.0	0.06	30	167	0.8	246
KIU-I	Educational Facilities	Office Space	2,764.0	6.0	5.0	0.06	30	167	0.8	OA required per VRP
Zone Height (feet)	8.0									OA required per VKF
Desired Outside Air (Vo) IAQP	170	(1-R)V <sub>r</sub>			Air Changes Per Hour	3.6		VRP OA C	FM per person	41.1
Supply Air Full Flow (Vs)	1,330	Er			Outside Air Per VRP		CFM		FM per person	28.3
Supply Air Minimum Flow (Vs)	399	Ī <sub>R</sub> v.		V.	Outside Air Per IAQ		CFM			
Return Air (Vr)	1160	V.,C.	-	<b>A</b>	Outside Air Savings	76	CFM		Winter Heat	ing Savings
Recirc. Flow Factor (R)	0.87	L Er	В V <sub>r</sub> + V <sub>o</sub> )		OA Summer Drybulb	90.	3	OA Winter I	Design DB (F)	2.1
Design Flow Reduction Factor (F	0.197	1			OA Summer Wetbulb	74.			OB Setpoint (F)	85
Ventilation Effectiveness (Ez)	0.8		Occupied Zone c, N, C.		Coil Leaving Air Drybulb (F)	50.	0	MBH Saved	,	6.9
Level of Physical Activity	Standing (desk work)		e, N, C.		Coil Leaving Air Wetbulb (F)	50.	0	KW Saved	Winter	2.0
Filter Location	В				OA MBH Saved Summer*	5.9	9			
HVAC Flow Type	VAV				OA Tons Saved Summer*	0.5	5	*OA = Outs	ide Air	
Outdoor Air Flow Type	Constant	Steady State	Steady State	Is Steady State Level	Contaminant			***OSHA, N	IIOSH & WHO r	nost conservative values
Indoor Contaminants		Using the VRP*	Using the IAQ Method	Acceptable at Reduced	Generation	Filtration	Cognizant			/npg/npgsyn-a.html
		-								
Generated By People	Maximum Threshold Value	(Prescribed OA)	(Reduced OA)	OA Levels?	Rate	Effectiveness	Authority***	1	Carbon	dioxide**
& From Outdoors	(PPM)	Plasma Off	Plasma On		(PPM)				Carbon	uloxide
Acetaldehyde	100.0	0.01110	0.00333	Yes	0.00048	50%	OSHA	6000		
Acetone	250.0	0.00146	0.00055	Yes	0.00654	50%	NIOSH		5000	
Ammonia	25.00	0.00826	0.00617	Yes	0.21460	50%	NIOSH	5000 -		
Benzene	1.0000	0.00251	0.00075	Yes	0.00022	50%	OSHA			
2- Butanone (MEK)	200.0	0.00014	0.00007	Yes	0.00133	50%	NIOSH	4000 -		
Carbon dioxide**	5000	592	726	Yes	441	0%	NIOSH			
Chloroform	2.0000	0.00011	0.00003	Yes	0.00004	50%	NIOSH	3000 -		
Dioxane	100.0	0.00000	0.00000	Yes	0.00000	50%	OSHA	.		
Hydrogen Sulfide	10.0	0.00000	0.00000	Yes	0.00000	50%	NIOSH	2000 -		■ Carbon
Methane Methanol	NA 200.0	1.68094	1.68094	Yes	0.00000	0% 0%	NA NIOSH			726 dioxide**
	25.0	0.00000 0.00073	0.00000 0.00024	Yes	0.00000 0.00121	50%	OSHA	1000 -	592	720
Methylene Chloride	1000.0	0.00073	0.00024	Yes Yes	0.00121	0%	NIOSH	0 -		
Propane Tetrachloroethane	5.0000	0.00998	0.00998	Yes	0.00000	50%	OSHA	1 0 -	1 3	2
Tetrachloroethylene	100.0000	0.0000	0.0000	Yes	0.00000	50%	OSHA	1	1 2	3
Toluene	100.0000	0.00532	0.0011	Yes	0.00001	50%	NIOSH	1 - ACHDA	E & NIOSH C02	Limit
1.1.1 - Trichloroethane	350.0000	0.00075	0.00023	Yes	0.00032	50%				Rate OA Flow Rate
Xylene	100.0000	0.00075	0.00023	Yes	0.00000	50%				dure OA Flow Rate
Хуюно	100.0000	0.00230	0.0000	100	0.0000					gathering demand control
Building materials and furnishings	s assumed to have no VOCs a	nd off-gassing is complete	Is IAQ acceptable at reduce		1				,	cil was commissioned by
All vellow shaded boxes red		a sa gaoding to complete	outside air levels?	Yes	I					n when using air purificati
your onaded boxes rec	Tame and impact of fortion		5415.20 dii 1010101			•	•		ern, as found on	• .

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IMC 2006 & later allows for ASHRAE 62 IAQP through the engineered exception found in Section 403.2 Exhaust flow rates may differ from Table 6.5 based on ASHRAE 62 IAQP via Section 6.5.2

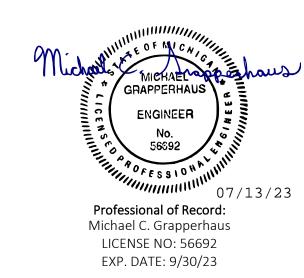
RTU-1 VENTILATION RATE IS AN AMALGAMATION OF 2 DISSIMILAR ZONES 1A AND 1B. BASED ON VENTILATION RATES PRESCRIBED BY THE 2018 INTERNATIONAL MECHANICAL CODE, RTU-1 WILL NEED TO PROVIDE 2507 CFM OF OUTSIDE AIR AS PER EXCEPTIONS OF PARAGRAPH 403.2 OF THE 2018 INTERNATIONAL MECHANICAL CODE, THIS RATE OF 2507 CFM HAS BEEN REDUCED TO 170 CFM DUE TO AN ENGINEERED VENTILATION SYSTEM WHICH CONSISTS OF A PLASMA TUBE ADDED INTO SUPPLY AIRFLOW



BASED ON VENTILATION RATES PRESCRIBED BY THE 2018 INTERNATIONAL MECHANICAL CODE, RTU-2 WILL NEED TO PROVIDE 2822 CFM OF OUTSIDE AIR AS PER EXCEPTIONS OF PARAGRAPH 403.2 OF THE 2018 INTERNATIONAL MECHANICAL CODE, THIS RATE OF 2822 CFM HAS BEEN REDUCED TO 1130 CFM DUE TO AN ENGINEERED VENTILATION SYSTEM WHICH CONSISTS OF A PLASMA TUBE ADDED INTO SUPPLY AIRFLOW



3200 WINDY HILL ROAD, SUITE 1200 E ATLANTA, GEORGIA 30339-5640 THESE DRAWINGS AND THE DESIGN REPRESENTED HEREBY ARE THE EXCLUSIVE THE EXPRESS WRITTEN CONSENT OF PRIMROSE SCHOOL FRANCHISING CO. IS PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.



Drawn/Checked BAM / MCG 2202640 Project Number Bid Date 7/10/23 Permit Date For Construction

> MECHANCIAL VENTILATION CALCULATIONS

PLUMBING LEGEND

---- SANITARY VENT PIPING

**VENT THROUGH ROOF** 

**ABBREVIATIONS** 

VTR

WITH GENERAL CONTRACTOR THE EXACT LOCATION.

6. GROUT/SEAL ALL FIXTURES TO THE WALL OR FLOOR.

10. SEE ISOMETRIC DRAWINGS FOR MORE IN DEPTH SIZING NOTES.

CIVIL ENGINEERING DESIGN COORDINATION NOTICE

NOTICE TO ALL PARTIES HAVING AN INTEREST IN THIS CONSTRUCTION PROJECT: 1. CIVIL ENGINEERING FOR THIS PROJECT IS BEING PERFORMED BY OTHERS.

CIVIL SHT. | CIVIL SHEET | REV.

SITE PLAN

DWG. NO. DWG. TITLE

AND FOUNDATIONS PRIOR TO INSTALLING ANY PIPING.

CIVIL ENGINEERING CONSULTANT IS: ORMAN ENGINEERING, LLC

DISCIPLINE: PLUMBING

EQUIVALENT COLD WATER FLOW RATE (GPM):

TOTAL DEVELOPED LENGTH OF PIPE (ABOVE X 1.2) (FT):

MINIMUM REQUIRED FIXTURE PRESSURE (PSI):

STATIC PRESSURE LOSS (ELEVATION X .433) (PSI):

ADDITIONAL DEMAND LOAD (GPM):

PRESSURE AVAILABLE AT MAIN (PSI):

PRESSURE BOOSTER PUMP (PSI):

BACKFLOW PREVENTER LOSS (PSI):

TOTAL BUILDING PRESSURE LOSS (PSI)

FRICTION LOSS PRESSURE AVAILABLE (PSI):

MAXIMUM ALLOWABLE FRICTION LOSS (PSI/100 FT):

CALCULATED FRICTION HEAD LOSS (PSI/100 FT):

MINIMUM REQUIRED 'WATER' PIPE SIZE (INCHES):

MINIMUM REQUIRED 'WASTE' PIPE SIZE (INCHES):

WC-1 | 10 | JUNIOR WATER CLOSET

S-6 1 3 COMPARTMENT SINK

SB-1 2 SUPPLY BOX (WASHING MACHINE)

SB-2 1 SUPPLY BOX (DISHWASHER)

DF-1 1 DRINKING FOUNTAIN

HB-2 1 ROOF HOSE BIBB

FD-1 21 FLOOR DRAIN

WC-3 2 ADA WATER CLOSET

S-1 | 16 | JUNIOR SINK

S-2 10 COUNTER SINK

S-3 1 ADA LAVATORY

S-4 1 MOP SINK

S-7 1 PREP SINK

FS-1 1 FLOOR SINK

HB-1 6 HOSE BIBB

S-5 1 SINK

WC-2 8 STANDARD WATER CLOSET

PLUMBING FIXTURE TYPE

ADDITIONAL LOSSES (PSI):

WATER FLOW VELOCITY (FPS):

ELEVATION RISE (FT):

BUILDING LOSS:

STRAINER (PSI):

(PER 2018 IPC)

MARK QTY.

METER LOSS (PSI):

SO AT THEIR OWN RISK

VENT

SANITARY

STANDARD

PRIOR TO GREASE INTERCEPTOR SHALL BE SLOPED A MINIMUM OF 1/4" PER FT.

PLUMBING GENERAL NOTES

PLUMBING FIXTURE TAG

SANITARY DRAIN GREASE WASTE

WCO

CLEAN OUT IN WALL

UNDER GROUND

CLEAN OUT IN FLOOR

CLEAN OUT TO GRADE

BELOW FINISHED FLOOR

**KEYED NOTE** 

1. LOCATE ALL VENTS ON ROOF. LOCATE ALL VENTS MINIMUM OF 10' AWAY FROM ANY INTAKE DUCT. COORDINATE

2. ALL CLEANOUTS ARE TO BE THE FULL SIZE OF THE SANITARY OR WASTE BRANCH TO WHICH THEY ARE INSTALLED. 3. ALL 6" AND 4" SANITARY AND WASTE LINES ARE TO BE SLOPED AT MIN. 1/8" PER FT. ALL GREASE WASTE LINES

5. CONTRACTOR IS CAUTIONED THERE IS A LONG LEAD TIME FOR JR. CLOSETS & THE ROUGH-IN IS NOT A STANDARD

4. FLUSH CONTROLS SHALL BE ON THE OPEN SIDE OF THE ACCESSIBLE WATER CLOSET, AWAY FROM WALL.

7. THIS CONTRACTOR SHALL PROVIDE SEWER CONNECTIONS TO THE PROPER UTILITY AS SHOWN ON THE SITE

INSTALLATION. ALL GROUND CLEANOUTS INSTALLED IN SIDEWALKS SHALL BE CENTERED IN SIDEWALK. 9. ALL TWO-WAY GROUND CLEANOUTS SHALL BE INSTALLED PER TWO-WAY CLEANOUT DETAIL ON SHEET P5.0.

11. PLUMBING CONTRACTOR SHALL COORDINATE SANITARY ROUGH-IN LOCATIONS WITH STRUCTURAL FOOTINGS

2. CONTRACTORS RELYING ON DOCUMENTS NOT COORDINATED WITH THE CIVIL ENGINEERING WORK SHALL DO

3. COORDINATION WITH THE CIVIL ENGINEERING DOCUMENTS HAS BEEN COMPLETED ONLY AS SHOWN BELOW.

5476 VIVIAN LANE, WATERFORD, MI, 48327

| PERMIT | 2/28/23

PLUMBING FIXTURE UNIT CALCULATIONS

EQUIVALENT PIPE LENGTH FROM METER TO MOST REMOTE FIXTURE (FT): Project Specific

NO.

REV.

DATE

COORDINATION CHECKED BY: | INITIALS | DATE | INITIALS | DATE | INITIALS | DATE

7/12/23

REV.

NO.

REV.

DATE

Project Specific

Project Specific

Project Specific

Project Specific

Project Specific

2015 MPC - TABLE

709.1

4

4

4

1

2

2

2

0

2

3

2

0.5

0

0

2

DFU TOTAL DFU

40

32

8

16

20

0

6

0.5

0

42

175.5

5 (Project Specific)

2015 MPC - TABLE

E103.3(2)

WSFU Total WSFU

22

17.6

10

11.2

7

2

3

1.4

4

1.4

0

8

1.4

0.25

15

2.5

0

106.75

2.2

2.2

0.7

0.7

1.4

4

1.4

0

4

1.4

0.25

2.5

2.5

NO.

DATE

8. ALL CLEANOUT LOCATIONS SHALL BE VERIFIED WITH PRIMROSE CONSTRUCTION MANAGER PRIOR TO

SANITARY PIPING

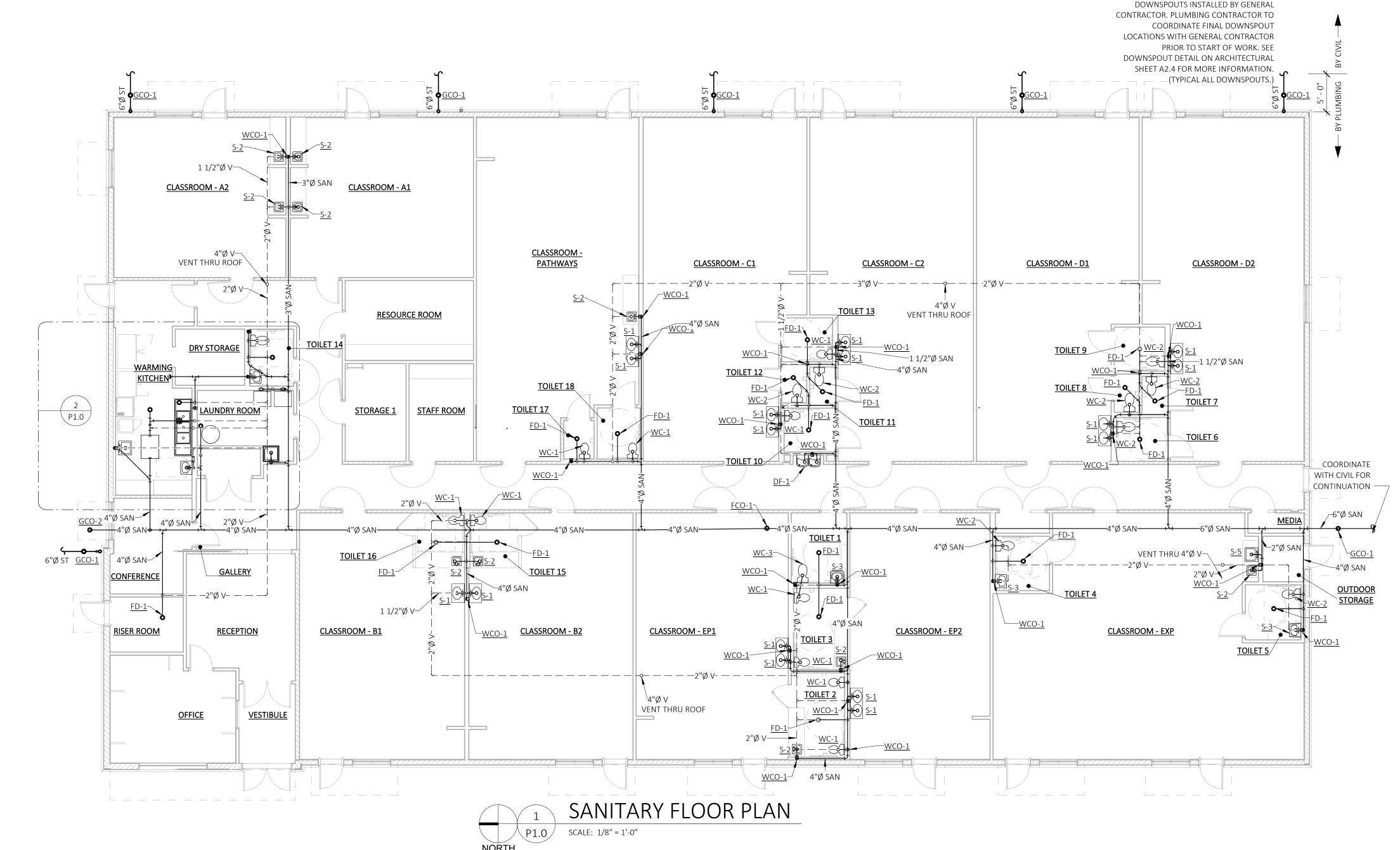
STORM WATER PIPING

Professional of Record: Michael C. Grapperhaus LICENSE NO: 56692 EXP. DATE: 9/30/23

Drawn/Checked BAM / MCG 2202640 Project Number Bid Date

7/10/23 Permit Date For Construction --/--/--

SANITARY FLOOR PLAN



## 4"Ø SAN—— **WARMING** <u>KITCHEN</u> −4"Ø SAN <u> </u>4"Ø SAN\_\_ LAUNDRY ROOM [4"Ø GW−\ <u>-WCO-1</u> √4"Ø SAN 1 1/2"Ø V FUTURE DISHWASHER: PROVIDE A 2" CAST IRON OR\_ COPPER DRAIN LINE FROM WALL BOX TO MAIN SANITARY LINE FOR FUTURE DISHWASHER AND A 3/4" GALLERY 140 DEGREE HOT WATER LINE UNDER THE LEFT DRAINBOARD OF THE THREE COMPARTMENT SINK FOR 4"Ø SAN-THE DISHWASHER. PROVIDE COLD WATER SOLENOID VALVE IN DISHWASHER DRAIN LINE PRIOR TO WALL BOX TO COOL DISHWASHER DISCHARGE TO BELOW 110 F. -

ENLARGED KITCHEN SANITARY PLAN

P1.0 SCALE: 1/4" = 1'-0"

# 2015 MICHIGAN UNIFORM **ENERGY CODE POST**

PER THE REQUIREMENTS OF THE 2015 MICHIGAN UNIFORM ENERGY CODE, THE GENERAL CONTRACTOR SHALL OBTAIN & PROVIDE THE FOLLOWING PLUMBING RELATED ITEMS LISTED

- TENANT BY THE PLUMBING CONTRACTOR WITH 90 DAYS OF SYSTEM ACCEPTANCE.
- 3. PLUMBING EQUIPMENT AND CONTROL SYSTEMS SHALL BE TESTED TO ENSURE PROPER
- 5. AS-BUILT DRAWINGS SHALL BE SUBMITTED WITHIN 90 DAYS OF SYSTEM ACCEPTANCE.
- 6. A FINAL COMMISSIONING REPORT SHALL BE PROVIDED TO BUILDING OWNER WITHIN 90
- CALIBRATION AND ADJUSTMENT OF CONTROLS.

## DAYS OF RECEIPT OF CERTIFICATE OF OCCUPANCY. 7. ALL PLUMBING CONTROL SYSTEMS SHALL BE TESTED TO ENSURE PROPER OPERATION,

CONSTRUCTION REQUIREMENTS

В	ELOW. CONTRACTOR SHALL PROVIDE A COPY TO THE TENANT AND WRITTEN CONFIRMATION
TI	HE PROFESSIONAL OF RECORD PROVING SAID INFORMATION HAS BEEN PROVIDED.
1	OSM DOCUMENTS FOR ALL DILIMBING FOLIDMENT AND SYSTEMS DROVIDED TO THE

- 2. A COMMISSIONING PLAN SHALL BE DEVELOPED BY APPROVED AGENCY.
- 4. A PRELIMINARY COMMISSIONING REPORT SHALL BE COMPETED AND CERTIFIED BY APPROVED

HOT WATER SUPPLY (140 DEGREES)

——— HOT WATER RETURN SHUT OFF VALVE

**ABBREVIATIONS** 

FLOOR DRAIN **GATE VALVE** ACCESSIBLE SHUT-OFF VALVE HOSE BIBB STD STANDARD **HUB DRAIN** BELOW FINISHED FLOOR

## **# WATER PLAN KEYED NOTES**

- 1 2" DOMESTIC WATER SERVICE WITH 2" METER AND 2" BACKFLOW PREVENTER IN BUILDING. COORDINATE WITH CIVIL ENGINEERING DRAWINGS. CONTRACTOR TO PROVIDE SHUT OFF AT INSIDE OF BUILDING.
- 2 6" FIRE SERVICE INTO BUILDING. SEE CIVIL ENGINEERING DRAWINGS.
- 3 FIRE LINE TO FIRE SPRINKLER SYSTEM. SEE SPECIFICATIONS SHEET MP1.0. COORDINATE FIRE DEPARTMENT CONNECTION (FDC) LOCATION WITH LOCAL AUTHORITIES. FIRE PROTECTION CONTRACTOR SHALL PROVIDE RPZ BACKFLOW ASSEMBLY IN ROOM IF NOT PROVIDED ON SITE.
- 4 DROP FIRE SPRINKLER TEST TEE PIPING DOWN IN WALL IN TOILET ROOM. PREFERRED LOCATION, FINAL LOCATION TO BE COORDINATED WITH FIRE PROTECTION ENGINEER
- 5 COLD WATER MANIFOLD PIPING WITH SHUT-OFF VALVES.
- 6 3/4" CW TO ICE MAKER WITH BACKFLOW PREVENTER.
- 7 WH-1 WATER HEATER SEE SCHEDULE AND PIPING DETAIL SHEET P5.0.
- 8 PROVIDE POINT OF USE MIXING VALVE AT LAVATORY. SEE SCHEDULE AND DETAIL ON SHEET P5.0.
- 9 1/2" CW TO CONVECTION OVEN WITH BACKFLOW PREVENTER.
- 10 INSTALL ACCESSIBLE STOP VALVES ON PIPING SERVING HOSE BIBBS. PROVIDE ACCESS PANEL IN INTERIOR WALL. COORDINATE LOCATION WITH ARCHITECTURAL INTERIOR ELEVATIONS. ACCESS COVERS SHALL BE J.R. SMITH # 4730, 15"X15"-NB-U FLUSH WITH WALL COVER.
- 11 NON-FREEZE HOSE BIBB AT 24" AFG WITH KEY LOCK & VACUUM BREAKER.

PLUMBING GENERAL NOTES

2. PROVIDE 3/8" CW SUPPLY TO ALL FLOOR DRAIN TRAP PRIMERS.

6. SEE ISOMETRIC DRAWINGS FOR MORE IN DEPTH SIZING NOTES.

5. NO JOINTS OR FITTINGS ALLOWED BELOW FLOOR.

IN INTERIOR WALLS.

IN ACCESSIBLE LOCATIONS.

1. INSULATE ALL HOT WATER PIPING WITH 1" ARMAFLEX BELOW FLOOR, ABOVE CEILING, AND

3. THE CONTRACTOR SHALL PROVIDE WATER CONNECTIONS TO THE EXISTING LINES AS SHOWN

4. WATER PIPING RUN ABOVE CEILINGS WITHIN JOIST SPACE. ALL VALVES MUST BE INSTALLED

12 3/4" CW LINE TO NON-FREEZE ROOF HYDRANT. REFER TO SHEET P5.0 FOR SCHEDULE, AND SHEET MP2.0 FOR DETAIL. SEAL ROOF PENETRATIONS WEATHER TIGHT. COORDINATE IN FIELD WITH ALL OTHER TRADES TO DETERMINE FINAL LOCATION PRIOR TO INSTALLATION. INSTALL ACCESSIBLE SHUT-OFF VALVE IN WATER LINE BELOW ROOF.

43455 NOVI,



3200 WINDY HILL ROAD, SUITE 1200 E ATLANTA, GEORGIA 30339-5640

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THESE DRAWINGS AND THE DESIGN REPRESENTED HEREBY ARE THE EXCLUSIVE

Professional of Record: Michael C. Grapperhaus LICENSE NO: 56692 EXP. DATE: 9/30/23

Drawn/Checked BAM / MCG 2202640 Project Number Bid Date 7/10/23 Permit Date For Construction

> WATER SYSTEM FLOOR PLAN

===3/4"Ø CW==+===3/4"Ø CW <u>STORAGE</u> 

1 1/2"Ø HW— DRY STORAGE <u>KITCHEN</u> 3/4"Ø HW 140F<sub>N 140F</sub> ∕3/4"Ø HW 140F 1/2"Ø CW-∕-3/4"Ø HW 140F 3/4"Ø HW 140F~ LAUNDRY ROOM 3/4"Ø CW-1 1/2"Ø HW 3/4"Ø CW-/ 1/1/2"Ø CW $^{-1}$ ─3/4"Ø HW 140F \_1 1/2"Ø CW-FUTURE DISHWASHER: PROVIDE A 2" CAST IRON OR COPPER DRAIN LINE FROM WALL BOX TO MAIN SANITARY LINE FOR FUTURE DISHWASHER AND A 3/4" 140 DEGREE HOT WATER LINE UNDER THE LEFT DRAINBOARD OF THE THREE COMPARTMENT SINK FOR `−1 1/2"Ø CW THE DISHWASHER. PROVIDE COLD WATER SOLENOID VALVE IN DISHWASHER DRAIN LINE PRIOR TO WALL BOX TO COOL DISHWASHER DISCHARGE TO BELOW 110 F. —

TOILET 1

**CLASSROOM - C2** 

CLASSROOM - EP2

CLASSROOM - D1

1 1/4"Ø CW

STORAGE 2

<u>WC-2</u>

CLASSROOM - EXP

1 1/4"Ø HW

CLASSROOM - D2

CLASSROOM - C1

ENLARGED KITCHEN WATER PLAN 2 ENLARG
P2.0 SCALE: 1/4" = 1'-0"

1 1/4"Ø HW-

1 1/2"Ø HW<del>─</del>1 1/2"Ø CW

<u>RECEPTION</u>

<u>VESTIBULE</u>

DRY STORAGE

CLASSROOM - A2

HB-1 3/4"Ø CW

**WARMING** 

<u>KITCHEN</u>

<u>CONFERENCE</u>

1 1/2"Ø CW─

<u>OFFICE</u>

P2.0

2"Ø CW—

6" FIRE LINE

COORDINATE

CONTINUATION. —

WITH CIVIL FOR

1 1/4"Ø CW

RESOURCE ROOM

STORAGE 1

[ −3/4"Ø HWR− − − − ₩ −

CLASSROOM - B1

STAFF ROOM

1 1/2"Ø CW<del>−</del>

1 1/4"Ø CW

TOILET 18

CLASSROOM - B2

P2.0 SCALE: 1/8" = 1'-0"

- -1 1/2"Ø CW-

CLASSROOM - EP1

FLOOR PLAN - WATER SYSTEM

1 1/4"Ø CW-

CLASSROOM -

<u>PATHWAYS</u>

No.

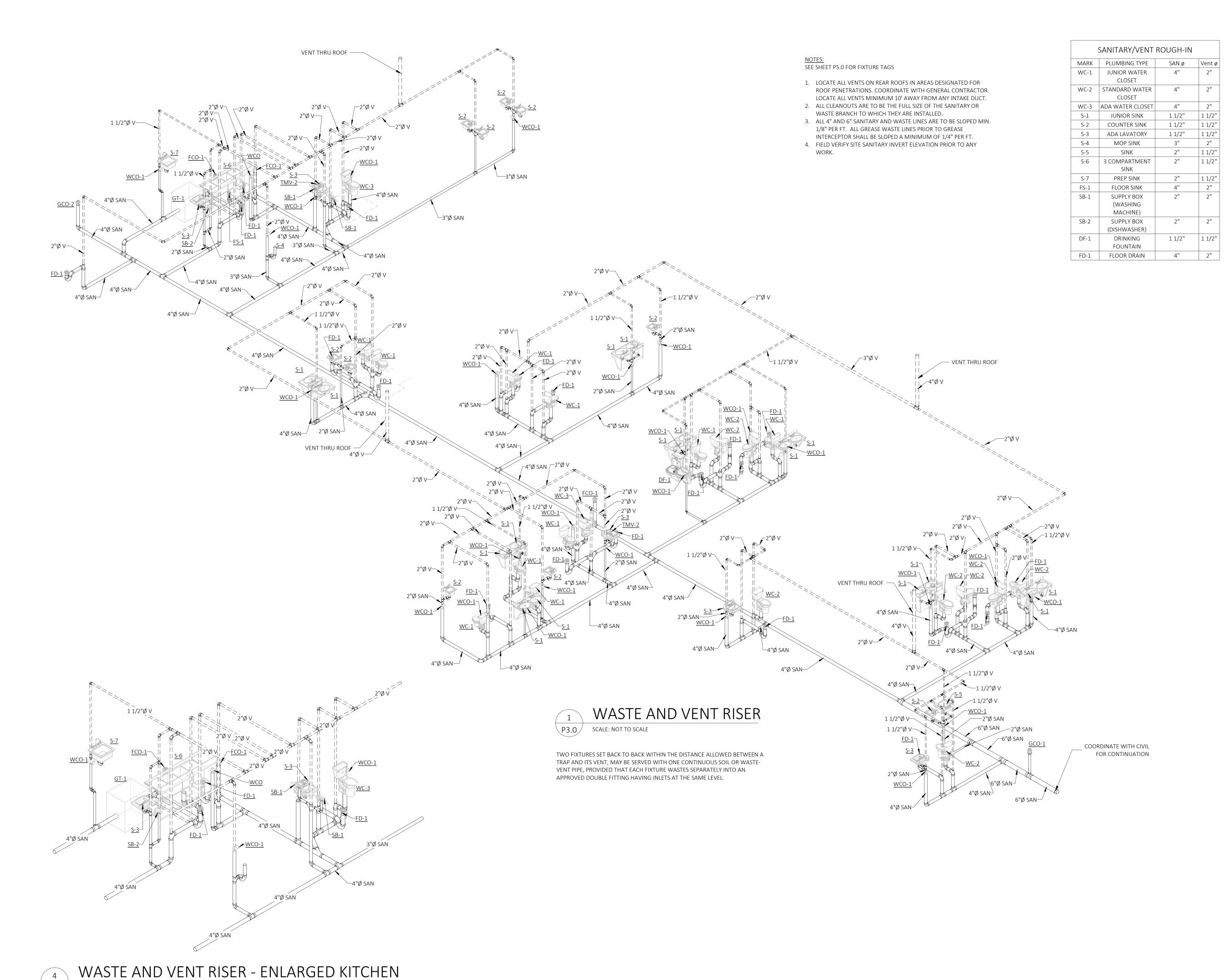
MICHAELORA MICHAELORA

Drawn/CheckedBAM / MCGProject Number2202640Bid Date--/--/--Permit Date7/10/23For Construction--/--/--

EXP. DATE: 9/30/23

SANITARY ISOMETRIC

P3.0



Professional of Record: Michael C. Grapperhaus LICENSE NO: 56692

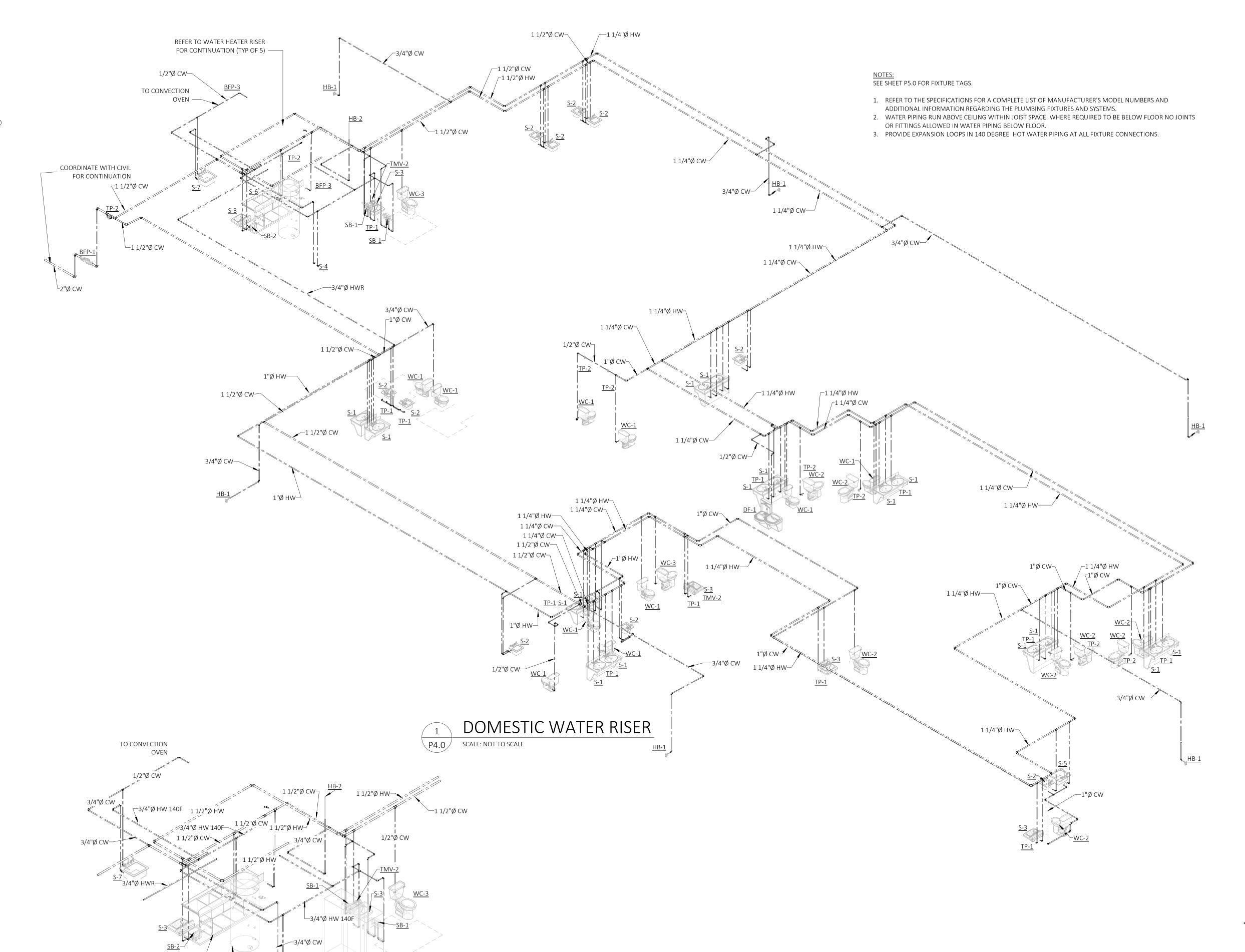
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EXP. DATE: 9/30/23

WATER SYSTEM

ISOMETRIC

P4.0



110F

DOMESTIC WATER HEATER RISER

WATER ROUGH-IN

3/4"

HWø

3/4"

MARK PLUMBING TYPE

JUNIOR WATER | 1/2"

CLOSET WC-2 | STANDARD WATER | 1/2"

WC-3 ADA WATER CLOSET 1/2"

JUNIOR SINK

MOP SINK

SINK

PREP SINK

SUPPLY BOX (WASHING

MACHINE)

SUPPLY BOX

(DISHWASHER)

DRINKING FOUNTAIN

HOSE BIBB

PUMP

MIXING VALVE

TRAP PRIMER

BACKFLOW PREVENTER

BACKFLOW PREVENTER

THERMOSTATIC MIXING VALVE

THERMOSTATIC 1/2"

WATER HEATER | 1 1/2"

TRAP PRIMER 3/8"

ROOF HOSE BIBB 3/4"

RECIRCULATION 0"

COUNTER SINK 1/2"

ADA LAVATORY 1/2"

3 COMPARTMENT 3/4" SINK

S-1

S-2

S-3

S-4

S-5

S-6

S-7

SB-1

SB-2

DF-1

HB-1

HB-2

RCP-1

TMV-1

TMV-2

WH-1

TP-1

TP-2

BFP-1

BFP-3

REFER TO OVERALL PLAN FOR ALL LINE CONTINUATIONS

P4.0 SCALE: NOT TO SCALE

DOMESTIC WATER RISER - ENLARGED KITCHEN

3/4"Ø HW 140F

REFER TO WATER HEATER RISER

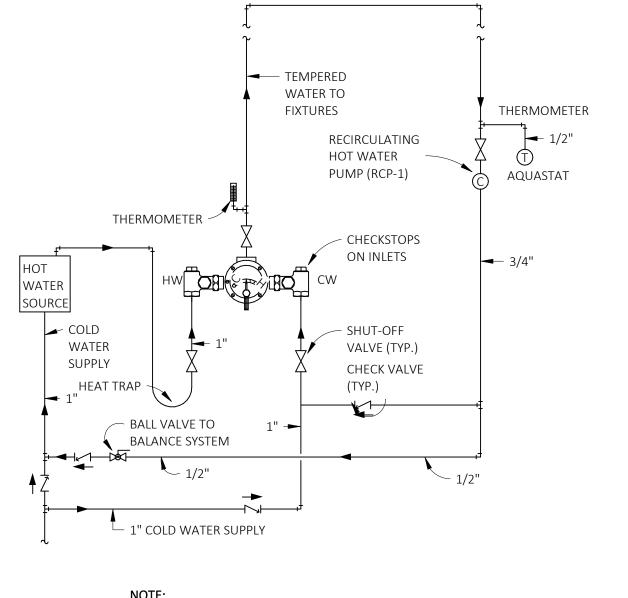
FOR CONTINUATION (TYP OF 5)

P4.0 SCALE: NOT TO SCALE

Project Number Bid Date 7/10/23 Permit Date For Construction --/--/--

> PLUMBING DETAILS

P5.0



REFER TO AND INSTALL PER ALL MANUFACTURERS RECOMMENDED PIPING INSTRUCTIONS

THERMOSTATIC MIXING VALVE (TMV-1) SCALE: NOT TO SCALE

WATER HEATER. WATTS #289 OR MODEL ST-30VC-DD EQUAL. SHALL COMPLY WITH ANSI CW INPUT -Z21.22 THERMOMETER / DIELECTRIC UNION (TYP) SHUT OFF -VALVE(TYP) TMV-1 SEE DETAIL FIXTURE -COLD WATER TO 110°F WATER LOOP INTAKE VENT -T&P VALVE CHECK VALVE — TO 140°F WATER LOOP AQUASTAT -/ COLD WATER FLOOR - SEE SCHEDULE ON SHEET P5.0 DRAIN HOT COCK & DIELECTRIC 3/4" — UNION (TYP) — WATER (TYP ALL) UNIONS RETURN / 6" DIRT LEG WITH GAS SYSTEM MUST SHUT DOWN DURING OFF PEAK HOURS - EMERGENCY DRAIN PAN TYPICAL ALL FLOOR DRAINS WHERE A LAVATORY IS NEAR BY WITH 3/4" PIPE TO FLOOR 140 AND 110 LOOPS WILL EACH HAVE CIRC. SYSTEM DRAIN VALVE - $\rightarrow$  3/4" PIPE TO FLOOR DRAIN OR

APPROVED WASTE RECEPTOR

1/2" 0" 0" 0"

2" 0" 0" 0"

0" 0" 0" 0"

TP-2 TRAP PRIMER

BFP-1 BACKFLOW PREVENTER

BFP-3 BACKFLOW PREVENTER

JAY R. SMITH

WATTS

WATTS

2699

LF009-QT

9D

VACUUM RELIEF VALVE 6" ABOVE

1/2" COLD - JR SMITH EZE-2698 WATER SUPPLY —— **AUTOMATIC TRAP** PRIMER VALVE WITH CHROME FINISH (OR APPROVED EQUAL) JR SMITH 2699 TRAP PRIMER VALVE -1/2" MIN TO FLOOR DRAIN TRAP -- COPPER, WITH NO JOINTS BELOW FLOOR

AUTOMATIC TRAP PRIMER VALVE WITH CHROME FINISH. TO BE USED FOR FLOOR DRAINS WHERE A LAVATORY IS NOT NEARBY. OR APPROVED EQUAL. SEE DETAIL THIS SHEET.

PROVIDE AT BUILDING SERVICE ENTRANCE. SEE NOTES ON PLAN TO DETERMINE IF LOCATED WITHIN BUILDING OR ON SITE.

CAST IRON TOP — BRASS CLEANOUT PLUG FINISH GRADE - MAY WITH COUNTERSUNK HEAD VARY SEE PLAN -PIPE EXTENSION AS REQUIRED TO FINISH GRADE 6" 2-WAY CLEANOUT TEE. TYPICAL ALL FLOOR DRAINS WHERE A LAVATORY IS NOT NEAR BY ALL CLEANOUT LOCATIONS SHALL BE VERIFIED WITH PRIMROSE CM PRIOR TO INSTALLATION

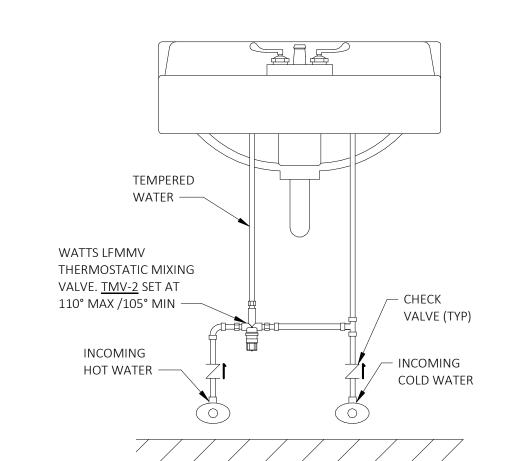
> TYPICAL TWO-WAY CLEANOUT SCALE: NOT TO SCALE

WATER HEATER PIPING DETAIL SCALE: NOT TO SCALE

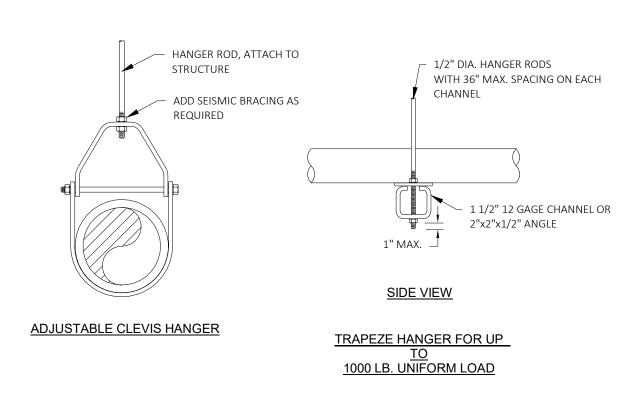
THERMAL EXPANSION

ABSORBER - AMTROL

TRAP PRIMER SCALE: NOT TO SCALE



POINT OF USE MIXING VALVE SCALE: NOT TO SCALE



PIPE HANGER SPACING SHALL BE INSTALLED PER LOCAL CODE / AHJ

TYPICAL PIPE HANGER DETAIL SCALE: NOT TO SCALE

			FIXTURE SPECIFICA	ZIONS					FAUCET			
MARK	PLUMBING TYPE	MANUFACTURER	MODEL		HWø	SANø	Vent ø	MANUFACTURER		CWø	HWø	DESCRIPTION
WC-1	JUNIOR WATER CLOSET	American Standard	2315.228	1/2"	0"	4"	2"					JUNIOR 10" WATER CLOSET, WHITE: TANK WITH COVER LOCKING DEVICE, ROUND FRONT SIPHON ACTION BOWL, 1.28 GALLONS PER FLUSH, WHITE, CHURCH #1580CT OPEN FRONT SEAT, NO COVER SEAT WITH CHECK HINGES, 2 BOLT CAPS, ANGLE VALVE BRASSCRAFT #OCR19XC, 1/2" NOM. COMP INLET X 3/8" OD COMP OUTLET POLISHED CHROME WITH 12" RISER, AND ONE PIECE CHROME PLATED BRASS ESCUTCHEON. GERBER MODEL HE-20-601 IS AN APPROVED EQUAL. TRIP LEVER SHALL BE ON OPEN SIDE OF ACCESSIBLE TOILETS.
WC-2	STANDARD WATER CLOSET	American Standard	CADET 215CA.104	1/2"	0"	4"	2"					STANDARD 15"RIM HEIGHT WATER CLOSET, WHITE: 4188A.164 TANK WITH COVER LOCKING DEVICE, ENLONGATED BOWL, 1.28 GALLONS PER FLUSH, WHITE, CHURCH #295SSCT OPEN FRONT SEAT, NO COVER SEAT WITH SELF SUSTAINING HINGES, 2 BOLT CAPS, ANGLE VALVE BRASSCRAFT #OCR19XC, 1/2" NOM. COMP INLET X 3/8" OD COMP OUTLET POLISHED CHROME WITH 12" RISER, AND ONE PIECE CHROME PLATED BRASS ESCUTCHEON. APPROVED EQUALS ONLY. SEE MANUFACTURE'S CUTSHEETS FOR RIGHT HAND TRIP LEVERS WHERE REQUIRED ON THE OPEN SIDE OF ACCESSIBLE TOILETS.
WC-3	ADA WATER CLOSET	American Standard	CADET 215AA.104	1/2"	0"	4"	2"					ADA COMPLIANT 16.5" RIM HEIGHT, WHITE: 4188A.164 TANK WITH COVER LOCKING DEVICE, ELONGATED BOWL, 1.28 GALLONS PER FLUSH, WHITE, CHURCH #295SSCT OPEN FRONT SEAT, NO COVER SEAT WITH SELF SUSTAINING HINGES, 2 BOLT CAPS, ANGLE VALVE BRASSCRAFT #OCR19XC, 1/2" NOM. COMP INLET X 3/8" OD COMP OUTLET POLISHED CHROME WITH 12" RISER, AND ONE PIECE CHROME PLATED BRASS ESCUTCHEON. APPROVED EQUALS ONLY. SEE MANUFACTURE'S CUTSHEETS FOR RIGHT HAND TRIP LEVERS WHERE REQUIRED ON THE OPEN SIDE OF ACCESSIBLE TOILETS.
S-1	JUNIOR SINK	Cabinet Manufacturer		1/2"	1/2"	1 1/2"	1 1/2"	MOEN	8215	1/2"	1/2"	CULTURED MARBLE TOP BY CABINET MANUFACTURER WITH MOEN 8215 OR DELTA 2529LF-LGHDF 4" CENTERS FAUCET WITH WRISTBLADE HANDLES AND GRID DRAIN K-77129-A COMPLETE SINK ASSEMBLY WITH STOPS AND CAST BRASS "P" TRAP. APPROVED EQUALS ONLY.
S-2	COUNTER SINK	Elkay Dayton	D-11515	1/2"	1/2"	1 1/2"	1 1/2"	MOEN	8215	1/2"	1 '	MOEN OR DELTA 2529LF-LGHDF 4" CENTERS FAUCET WITH WRISTBLADE HANDLES, 5" SPOUT WITH AERATOR, PROVIDE WITH K-7129-A 1-1/4" OFFSET DRAIN WITH OPEN STRAINER, I.P.S. SUPPLIES WITH LOOSE KEY STOP (2); 1-1/4" INSULATE 1-1/4" WASTE WITH 1/2" ARMAFLEX INSULATION.
S-3	ADA LAVATORY	Kohler	K-2005	1/2"	1/2"	1 1/2"	1 1/2"	MOEN	8215	1/2"	1	WHITE WALL HUNG VITREOUS CHINA ADA COMPLIANT LAVATORY WITH MOEN OR DELTA 2529LF-LGHDF 4" CENTERS FAUCET WITH WRISTBLADE HANDLES, 5" SPOUT WITH AERATOR, PROVIDE WITH K-7129-A 1-1/4" OFFSET DRAIN WITH OPEN STRAINER, I.P.S. SUPPLIES WITH LOOSE KEY STOPS (2); 1-1/4" INSULATE 1-1/4" WASTE WITH 1/2" ARMAFLEX INSULATION.
S-4	MOP SINK	Swan	MS-2424	3/4"	3/4"	3"	2"	SPEAKMAN	SC-5811-RCP	3/4"	1	SWAN OR MUSTEE 63M MOP SERVICE BASIN (24"X24") FLOOR MOUNTED WITH MOP HANGER MODEL NO. MS-2437, VINYL RIM GUARD MODEL NO. MS-2408 AND MOP SINK FAUCET (MT'D @ 36" A.F.F.) MODEL SPEAKM SC-5811-RCP WITH FOUR ARM HOLDERS OR EQUAL.INSTALL WATTS LFWCV SWING CHECK VALVES ON EACH OF THE HOT AND COLD SUPPLY LINES.
S-5	SINK	JUST	SL-ADA-2122-A-GR	1/2"	1/2"	2"	1 1/2"	MOEN	8244	1/2"	1	SINK TO BE 4.5" DEEP WITH CENTER DRAIN. MOEN OR DELTA 2171LF-WBHHDF WITHOUT SUPPLY SPRAY FAUCET WITH 4" WRISTBAND HANDLES, AND GOOSENECK SPOUT WITH AERATOR. COMPLETE SINK ASSEMBLY WITSTOPS AND CAST BRASS "P" TRAP.
S-6	3 COMPARTMENT SINK	Eagle Group	414-16-3-18	3/4"	3/4"	2"	1 1/2"	T&S BRASS	B-0133-01	3/4"		STAINLESS STEEL WITH TWO (2) 18" DRAINBOARDS (L&R). COMPLETE WITH TWO INCH STRAINERS T&S B-3950 ROTARY WASTE VALVE W/TWIST HANDLE AND STAINLESS STEEL LEGS (NSF APPROVED). PRE-RINSE UNIT W 14" FAUCET. APPROVED EQUALS ONLY.
S-7	PREP SINK			1/2"	1/2"	2"	1 1/2"			1/2"	1/2"	SEE ARCHITECTURAL KITCHEN PLAN FOR SINK AND FAUCET SPECIFICATIONS.
FS-1	FLOOR SINK	Plastic Oddities	PDS-300-T	0"	0"	4"	2"					FLOOR SINK RECEPTOR WITH DOME TOP STRAINER AND 3/4 GRATE. PROVIDE A REDUCER ON THE INDIRECT PIPE ENTERING THE FLOOR SINK TO PREVENT OVERFLOWS AND SPLASHING. FOR A TYPICAL 3" DRAIN FROM A 4 COMPARTMENT SINK, PROVIDE A 1-1/2" REDUCER.
SB-1	SUPPLY BOX (WASHING MACHINE)	GUY GRAY	WB-200	1/2"	1/2"	2"	2"					DUO -CLOZ BALL VALVES 1/2" MPT BRASS SWEAT CONNECTION AND 2" TRAPPED STANDPIPE PVC DRAIN. MAKE FINAL CONNECTION TO MACHINE.
SB-2	SUPPLY BOX (DISHWASHER)	GUY GRAY	WB-200	1/2"	1/2"	2"	2"					DUO -CLOZ BALL VALVES 1/2" MPT BRASS SWEAT CONNECTION AND 2" TRAPPED STANDPIPE PVC DRAIN. MAKE FINAL CONNECTION TO MACHINE.
GT-1	GREASE TRAP	SCHIER PRODUCTS	GB3	0"	0"	4"	2"					GREAT BASIN HIGH EFFICIENCY GREASE INTERCEPTOR (HYDRO-MECHANICAL TYPE) POLYETHYLENE TANK WITH TRAFFIC RATED COVERS AND BUILT-IN FLOW CONTROL DEVICE. INTERCEPTOR SHALL BE UNDER SLAB IN KITCHEN IN LOCATION AS SHOWN ON PLAN. CONTRACTOR TO DETERMINE TELEGLIDE RISER SIZE AND MODEL, SIZE BASED ON FIELD CONDITIONS AND LOCAL CODE REQUIREMENTS.
DF-1	DRINKING FOUNTAIN	Elkay	LZSTL8WSLP	1/2"	0"	1 1/2"	1 1/2"					ADA BARRIER FREE TWO LEVEL ELKAY WITH EZH2O BOTTLE FILLER STATION - WALL HUNG UNIT. PROVIDE 1.5" CP CAST IRON TRAP AND ANGLE SUPPLIES WITH LOOSE KEY STOPS.
HB-1	HOSE BIBB	JAY R. SMITH	5609QT	3/4"	0"	0"	0"					FROST-FREE WITH INTERIOR PANEL FOR BLOW DOWN WHERE FREEZING MAY OCCUR. ALIGN WITH PERPENDICULAR WALL AND PROVIDE INTERIOR SHUT-OFF VALVE. COMMON EXTERIOR HOSE BIBBS ACCEPTABLE IN CLIMATES THAT DO NOT HAVE FREEZING WEATHER. ALL HOSE BIBBS SHALL HAVE REMOVABLE KEY AND A VACUUM BREAKER.
HB-2	ROOF HOSE BIBB	JAY R. SMITH	5907	3/4"	0"	0"	0"					NON-FREEZE ROOF HYDRANT WITH CHECK VALVE AND VACUUM BREAKER. 1/8" DIA DRAIN TO BE PIPED TO DRAIN IN MOP SINK IN LAUNDRY ROOM.
RCP-1	RECIRCULATION PUMP	Grundfos	UPS15-35SUC	0"	3/4"	0"	0"					DOMESTIC HOT WATER RECIRCULATION PUMP, SYSTEM LUBRICATED CIRCULATOR, 3 SPEED, 110 WATTS, 115 V, 1 PHASE, WITH AQUASTAT AND 3/4" UNION.
MV-1	THERMOSTATIC MIXING VALVE	LAWLER MFG	66-80	1"	1"	0"						MIXING VALVE WITH THREE-WAY PROTECTION, TAMPER RESISTANT CONTROL ADJUSTMENT, FULLY ROTATABLE INLETS & OUTLETS, INTEGRAL MOUNTING FLANGE CAST IN THE BODY, ASSE 1017 AND CSA B125.3 CERTII 1" INLETS & OUTLET. SET VALVE @ 110 DEG F.
MV-2	THERMOSTATIC MIXING VALVE	WATTS	LFMMV		1/2"							THERMOSTATIC MIXING VAVLE. INSTALLED UNDER PUBLIC LAVATORY IN ACCESSIBLE LOCATION. SET AT 110 DEG F MAX / 105 DEG MIN
	WATER HEATER	Bradford White	EF-100T-199E-5N			0"						COMMERCIAL POWER DIRECT VENT; 100 GALLONS; 199,999 BTUH INPUT; 97% THERM. EFF.; VENT AND INTAKE TO TERMINATE THROUGH ROOF WITH 4" CONCENTRIC VENT KIT; PROVIDE CONDENSATE NEUTRALIZER KI (P/N A2123601); SET TANK TEMP TO 140 DEG F.; PROVIDE WITH AMTROL ST-30VC-DD EXPANSION TANK. 235 GPH RECOVERY AT 100 DEG F RISE.
	FLOOR DRAIN	Plastic Oddities	PHD 822R	0"	0"	4"	_					HEAVY DUTY ADJUSTABLE DRAIN WITH 5" NICKEL STRAINER WITH ROUND TOP. FLOOR DRAINS SHALL BE FORMED AROUND TO PREVENT CONCRETE FROM TOUCHING AT POURING OF SLAB. FLOOR DRAINS SHALL BE GROUTED AFTER ADJUSTMENT FOR ELEVATION FOR FINISHED FLOOR. APPROVED EQUALS BY JAY R. SMITH, ZURN, WADE, WATTS, SOUIX CHEIF OR JOSAM ARE ACCEPTABLE
	FLOOR CLEANOUT	JAY R. SMITH	4025	0"	0"	0"	0"					CLEAN OUT SHALL BE FLUSH WITH FINISHED FLOOR. SHALL BE FORMED AROUND TO PREVENT CONCRETE FROM TOUCHING AT POURING OF SLAB AND SHALL BE GROUTED AFTER ADJUSTMENT FOR ELECATION FOR FINISHED FLOOR AND TO RECEIVE FINISHED FLOOR MATERIALS. APPROVED EQUALS BY ZURN, WADE, WATTS, SOUIX CHEIF OR JOSAM ARE ACCEPTABLE
GCO-1	2-WAY GROUND CLEANOUT	JAY R. SMITH	4280	0"	0"	0"	0"					2-WAY GROUND CLEAN OUT SHALL BE FLUSH WITH FINISHED GRADE. SHALL BE SET IN 18"X18"X6" CONCRETE PAD AND BE FORMED AROUND TO PREVENT CONCRETE FROM TOUCHING AT POURING OF PAD AND SHALL GROUTED AFTER ADJUSTMENT FOR ELEVATION FOR FINISHED GRADE. APPROVED EQUALS BY ZURN, WADE, WATTS, SOUIX CHEIF OR JOSAM ARE ACCEPTABLE
GCO-2	1-WAY GROUND CLEANOUT	JAY R. SMITH	4280	0"	0"	0"	0"					1-WAY GROUND CLEAN OUT SHALL BE FLUSH WITH FINISHED GRADE. SHALL BE SET IN 18"X18"X6" CONCRETE PAD AND BE FORMED AROUND TO PREVENT CONCRETE FROM TOUCHING AT POURING OF PAD AND SHALL GROUTED AFTER ADJUSTMENT FOR ELEVATION FOR FINISHED GRADE. APPROVED EQUALS BY ZURN, WADE, WATTS, SOUIX CHEIF OR JOSAM ARE ACCEPTABLE
VCO-1	WALL CLEANOUT	JAY R. SMITH	4530	0"	0"	0"	0"					CLEAN OUT SHALL BE FLUSH WITH FINISHED WALL. SHALL BE LOCATED IN ACCESSABLE LOCATION AND PAINTED TO MATCH ADJACENT WALL. APPROVED EQUALS BY ZURN, WADE, WATTS, SOUIX CHEIF OR JOSAM ARE ACCEPTABLE  ACCEPTABLE
 TP-1	TRAP PRIMER	JAY R. SMITH	EZE-2698	3/8"	0"	0"	0"					AUTOMATIC TRAP PRIMER VALVE WTIH CHROME FINISH. OR APPROVED EQUAL, SEE DETAIL THIS SHEET.
	TDAD DDIAACD	JAT N. SIVITTI	222 2030	3,0			- J				1	TO SOME THE THIRD CONTROL OF THE PROPERTY OF T

PROVIDE 3/4" AT ICE MACHINE AND 1/2" AT CONVECTION OVEN.

2. Codes and Ordinances: All work shall conform to all regulations and codes of the various departments of the local, state and/or national authorities having jurisdiction and in accordance with their latest governing rules and regulations, the utility, and with

the latest edition of the National Electrical Code, NFPA 70.

PART 2 - PRODUCTS

1. Wiring: a. Wiring shall be installed in concealed thin wall electrical metallic tubing, except conduit outdoors or in slab shall be rigid galvanized steel. Conduit below grade shall be Schedule 40 PVC. Minimum conduit size shall be ½ inch. NMC & MC cable with grounding conductor may be used if allowed by any authority having jurisdiction and accepted by Franchisee as alternate branch wiring system in

accordance with NEC 330 &334. b. Equipment connections shall be made utilizing flexible metal conduit for interior use and liquidtight flexible conduit for exterior use. c. Conductors shall be copper, 600-volt insulation, type THWN/THHN insulation.

Minimum size shall be No. 12 and maximum size 500 KCMIL. All wire No. 10 and

larger shall be stranded. d. Wire and cable shall be as manufactured by Anaconda, General Cable,

Triangle, Phelps-Dodge or approved equal. e. Label wiring and cable with panel and circuit number at device and panelboard.

Outlet Boxes:

a. Outlet boxes shall be galvanized or sherardized sheet steel boxes, at least one and one-half (1-1/2) inch deep and of sufficient size to accommodate devices and conductors to be installed in same. Boxes shall be mounted flush with finished wall or ceiling. Boxes shall conform to Article 370 of NEC. Boxes shall be Appleton, Steel City, Raco or approved equal.

b. Wall switches, receptacles, telephone outlets and special purpose outlet boxes shall be four (4) inch square, flush with finished wall. Single-gang boxes shall only be used where four (4) inch square boxes will not fit. c. Ceiling and wall bracket outlets shall be four (4) inch octagonal, not less than

one and one-half (1-1/2) inch deep. d. Receptacles mounted above counters shall be installed to avoid splash boards,

cabinets and other equipment. e. Ground Fault Receptacles shall be installed in lieu of standard receptacles in Handicap Toilet, Kitchen, infant kitchenette and exterior areas. Ground fault receptacle shall be located to be readily accessible or contractor shall install GFI

circuit breaker. 3. Wiring Devices: Shall be Arrow Hart, Pass and Seymour, Hubbell, Sierra or approved equal. Wiring devices shall not be installed until all painting, plastering and other work is finished.

a. Wall receptacles: Safety type duplex, grounded, IVORY, 15A, 120V, flushmounted. Mount at eighteen (18) inches above finish floor, unless otherwise

 b. Dryer Receptacle: Grounded black, to match cord set furnished with dryer. c. Switches: IVORY, rated 15A, 120/277V.

d. Device Plates: Furnish and install wall plates of appropriate type and size for all wall outlets. Plates shall be IVORY, manufactured by device manufacturer. Where two or more devices are shown at the same location, use gang plate. Use weatherproof plates outdoors.

4. Panels: Panelboards shall be deadfront, completely enclosed for surface or flush mounting as shown on the drawings. The circuit breaker units shall be molded case type with thermal-magnetic tripping mechanism. Permanent, individual circuit numbers shall be affixed to each breaker or to the panel enclosure and a typewritten directory card shall be provided indicating circuit controlled and located in a card holder on the inside of the door. Each multi-pole breaker in main and/or power panels shall be furnished with a nameplate affixed to the panel enclosure indicating circuit

a. All panelboards bussing and breakers as a unit shall be fully rated to safely interrupt available short circuit currents as established on the drawings or as otherwise required, 10,000 AIC minimum. Panels shall be Eaton "PRL1A" or equal by Square D, Siemens/ITE, Challenger, or GE.

b. Safety Switches: The Contractor shall furnish and install fusible or non-fusible switches as indicated on the drawings or as otherwise required by the National Electrical Code. All switches shall be heavy-duty, quick-make, quick-break in a NEMA 1 or NEMA 3R enclosure and shall disconnect all ungrounded conductors. Fuses shall be provided for all fusible switches. Provide dual element, time delay type for motor loads. Provide fuses for HVAC equipment with "let-through" short circuit current at less than 5,000A.

5. Electrical Service: Electrical service to the building shall be as shown on drawings and as permitted by local codes and ordinances. Service shall be as indicated on the drawings. Meter equipment shall be furnished and/or installed per local utility company requirements. Extend service feeders from the service equipment to the point of secondary service as directed by local utility company.

6. Branch Circuit Wiring: Balance circuits on panel on each phase and neutral as evenly as possible.

PART 3 - EXECUTION

1. General: The installation of all systems, devices, components, connections etc., shall be done in a first-class manner and in complete accordance with governing code requirements, manufacturer's recommendations and procedures, and these specifications.

a. Contractor shall pay for all permits, fees, inspections and testing. 2. Conduit: Generally, conduits shall be concealed. Install exposed only in unfinished

areas or where specifically indicated on the drawings. Install exposed conduits parallel with or at right angles to the building walls. All conduits shall be kept at least 6 inches from runs of flues, steam pipes, hot water pipes or other heat producing devices. No bends shall be made with a radius of less than six times the diameter of the conduit, nor more than 90 degrees. Conduits ends shall be cut square, reamed smooth and drawn up tight. All underground site conduit shall be buried a minimum of 36" below finish grade.

a. Secure all conduit in place and protect to prevent damage to the work during construction. Plug conduit ends with cork or oakum to avoid filling with foreign matter during construction.

b. Circuit layout on the drawings is shown diagrammatically only, and where changes are necessary due to structural conditions, other apparatus or causes, such changes shall be made without any additional cost to the Owner. Offsets in conduits are not indicated and must be furnished as required.

c. Provide all empty conduits with a number 14 galvanized fishwire. Provide plastic bushings on ends to protect future cable pulls.

do not meet National Electrical Code requirements, the intent of these specifications or conduit manufacturer's standards, the Contractor shall be required to replace such conduit in an approved manner.

d. Conduit bends shall be made with an approved bending device. Where bends

e. All openings around electrical penetrations through fire resistance rated walls, partitions, floors or ceilings shall be provided with an approved fire seal in UL

assembly standards. f. Provide junction and/or pull boxes as required to avoid excessive runs or bends between outlets and/or equipment, sized in accordance with the National

3. Conductors: Conductors shall not be pulled in until conduit runs are complete. No grease, oil, or lubricant, other than powdered soapstone or approved pulling

compound shall be used to facilitate the pulling of conductors. a. All conductors shall be color coded in accordance with good wiring practices. The neutral conductor shall have an identifying white covering and the grounding conductor shall have a green covering. Ungrounded conductors shall be color

coded in accordance with system voltage. b. Splices, terminations, taps, etc., shall be located in approved junction boxes, cabinets, wiring troughs, outlets, etc., properly sized in accordance with the National Electrical Code.

Otherwise, conductors shall be continuous and not spliced in panelboards, fittings, conduits, etc. Any splices 40A or more shall be insulated, lug-type. 4. Outlet Boxes: Wall outlets shall be 4" square or ganged as required. Wall switches shall be installed for outlet control as indicated on the drawings.

a. All outlet boxes shall be furnished of proper size with plates, adaptors, connectors, etc., as required. b. Lighting switches shall be grouped with one plate and located approximately 2

inches from door frame unless noted otherwise.

5. Power Wiring: Install as shown or as otherwise required, all wiring systems in accordance with these specifications. All motors and equipment shall be connected, protected and grounded in accordance with the National Electrical Code and these specifications.

a. Provide disconnects for all motors or equipment as indicated on the drawings or as required by the National Electrical Code. Motor or equipment protection shall be in accordance with nameplate data and the National Electrical Code. Coordinate with others and provide over current protection and disconnecting means per actual nameplate maximum over current protection (MOCP).

b. It shall be understood that this contractor is responsible for providing all necessary switches, fuse protection, overload protection, devices, etc., as may be required, by each piece of equipment under base bid.

c. Motor starters shall be furnished by others, unless otherwise noted, but installed and connected by this contractor, except such starters indicated as an integral part of the specific equipment. All equipment shall be connected for correct rotation by this Contractor.

6. Grounding: The neutral conductor, at point of service only, and metal enclosures of the total wiring system shall be grounded in accordance with the National Electrical Code and as specified herein. The cold water pipe system and concrete footing rebar shall serve as the system ground and shall be connected by means of a ground electrode conductor, sized as indicated on the drawings, or as otherwise required, and connected with an approved ground clamp. The size of cold water pipe shall be as specified by the National Electrical Code and this Contractor shall provide an approved ground jumper around the water meter of equal size to the system grounding electrode conductor. A driven rod(s) supplemental electrode system shall also be established in accordance with

a. Grounding provisions shall be complete, continuous, in accordance with these specifications and NFPA requirements.

b. All grounding electrode conductors shall be bare copper enclosed in galvanized rigid conduit, with an approved bonding bushing at each end, and accessible in accordance with the National Electrical Code.

c. Ground clamps shall be the compression type by Kearney, Thomas & Betts,

Penn-Union or approved equal. d. All connections to ground rods, building structure or any splice, "T" connection, etc., below grade shall be the exothermically welded type as manufactured by Cadweld or approved equal. All system components shall be supplied by one

e. Ground rods shall be 3/4" copper clad encased steel, 10 foot lengths sectional type and driven full length into the ground. Resistance of all electrodes shall be in accordance with the National Electrical Code and additional rods shall be provided as required. Measurements shall be taken during normally dry conditions.

f. Various branch circuits shall be equipped with an insulated, green grounding conductor as indicated on the drawings, or as otherwise required. Conduit raceways shall serve as a redundant grounding path as applicable and in accordance with the

National Electrical Code. g. All EMT, plastic or flexible conduits shall be provided with a grounding conductor in addition to those indicated. Increase conduit size as applicable.

h. Bond all grounding conductors to each of the pull boxes, junction boxes, cabinets and other enclosure through which the circuits pass, unless noted

7. Wiring Devices: Unless otherwise noted, install wall devices vertically, so that devices of the same mounting heights will align exactly. Plates shall be plumb and true with all four edges in continuous contact with wall surfaces. Mount receptacles with the ground terminal on bottom. Do not install devices until plastering or other wall finishes are complete. If installed ahead of painting, protect devices from paint spills.

a. Outlets at counters shall be installed to avoid conflict with splashboards, upper cabinets and other equipment. The Contractor is responsible for coordinating with the latest elevations, details, sections and the General Contractor and shall adjust mounting heights as directed.

b. At receptacle devices where branch circuits feed through to additional outlets, pigtail connections shall be established for the neutral and grounding conductor (as applicable). It shall be possible to remove and/or disconnect any one device without disrupting the neutral or grounding path of another device.

8. Supports: All conduits, outlet boxes, pull boxes, equipment, panels, etc., shall be supported adequately in accordance with the National Electrical Code. General support spacing requirements shall be in accordance with the Code unless additional support is needed due to conditions encountered. Additional support shall be provided if so directed by the Architect and/or Engineer at no additional cost if conditions warrant. 9. Equipment Connections: Provide electrical connections to all equipment as shown on the drawings or as otherwise required. For equipment provided with portable cords, provide outlets of the proper NEMA configuration. All equipment shall be connected ready for operation in accordance with the manufacturer's recommendations, and these

a. HVAC equipment power wiring shall be furnished and installed by this contractor. Control equipment and control wiring shall be furnished under DIVISION 15 unless otherwise noted. Coordinate exact location of all equipment, devices, outlets, etc. with the mechanical drawings and DIVISION 15 of these specifications. b. Auxiliary Systems: Provide devices, outlets, raceways, wiring, etc., for auxiliary systems, i.e. telephone, cable tv, fire alarm, intercom, etc. to the extent indicated on

**SECTION 16500 - LIGHTING** 

the drawings and as specified in Section 16700.

specifications.

PART 1 - GENERAL 1. Furnish and install all lighting fixtures, complete with lamps, as indicated on schedule and floor plan. Catalog numbers are for basic units. Furnish and install all appurtenances necessary for a complete installation.

2. Prior to passing a final inspection the contractor shall produce evidence that the lighting control systems have been tested to ensure that the control hardware is calibrated, adjusted and programmed in accordance with construction documents and manufacturer's instructions (IECC C408.3.1).

3. Provide light fixtures as specified in the Light Fixture Schedule on drawings. No substitutions allowed.

PART 2 - PRODUCTS

1. All fixtures shall be LED, uno.

2. Provide adequate and substantial supports from structure for lighting fixtures. Do

not rely on false or furred ceiling for support. 3. Provide shop drawings for lighting fixtures if not exactly as specified on the plans. 4. All LED fixtures shall be circuited with a dedicated neutral, shared neutrals is not

SECTION 16705 - FIRE ALARM SYSTEM PERFORMANCE SPECIFICATION

PART 1 - GENERAL 1. Fire Alarm System: Design and provide a complete fire alarm system. System shown on the Drawings is diagrammatic. A duly licensed fire alarm contractor shall be responsible for the system. The Contractor shall ensure compliance with national, state daycare licensing requirements and local fire codes, ordinances and regulations. The devices shown on the plans are schematic only and do not represent an engineered design. The Fire Alarm Contractor shall be responsible for the entire Fire Alarm system design and installation. Fire alarm system shall be installed, wired, connected, tested and left in operating condition. Test all components after installation for operation.

2. System shall be installed to enable remote 24 hour monitoring of the system. Remote station shall be as selected by Owner or as required by local authorities. 3. The Fire Alarm Subcontractor shall research all local, state, and national codes. He shall ascertain any additional requirements and identify same at the time of bid to the General Contractor. The Fire Alarm Contractor shall include in his price, at the time of contract, a system that is in full compliance with the codes.

4. System shall meet the requirements of NFPA-72 and UL. 5. Shop drawings signed and sealed by a licensed Fire Protection Engineer in the state of the project location, will be required to be submitted to the local permitting

authorities. Include the following: a. Product data sheets and equipment description.

b. Complete sequencing of operations and functions. c. List of all zones .

d. Component wiring diagrams. e. Standby battery power calculations.

f. Operating and maintenance instructions. g. Carbon Monoxide detector & trouble alert.

1. Equipment shall be by Simplex, ADT or Honeywell. System shall be addressable and devices shall be point addressable.

2. Fire alarm control panel shall be Simplex (Bases of Design) or equal to 4100ES (Emergency Voice/Alarm Communication Equipments) modular/solid state microprocessor based electronics including backlit liquid crystal display, individual red system alarm LEDs, amber supervisory service LEDs, individual yellow trouble LEDs, individual yellow alarm silenced LEDs, green power on LED, alarm acknowledge key, supervisory acknowledge key, trouble acknowledge key, alarm silence key, and system reset key. The control panel shall be in a locked recessed wall cabinet with transparent door for full view of indicators and controls. Devices listed shall be compatible with 4100-ES system.

3. Zone adaptor modules shall be Individual Addressable Modules (IAM) shall be Simplex type 4190-9150 with Addressable Automatic Detector mounting bases -Simplex 4098-9792.

4. Annunciator shall be Simplex 4606-9101 serial LCD type. 5. Manual pull stations shall be Simplex type 4099-9003 addressable single action with raised white lettering.

6. Heat sensors shall be Simplex type 4098-9733 on 4098-9792 base rated at 135

7. Smoke detectors shall be type 4098-9714 on 4098-9792 base.

8. Duct smoke detectors shall be Simplex Type 4098-9752 addressable photoelectric. Provide necessary sampling tubes across the entire width of ductwork. Provide to HVAC contractor for installation. Duct smoke detectors shall be connected to fire alarm system. Coordinate with notes on M0.1 and M1.0.

9. Sprinkler water flow and tamper switches shall be furnished by others and wired 10. Audio visual devices shall be Simplex 4903-9247 semi flush mounted on a standard electrical box. Flash rate shall be flash per second with a candela rating on

axis flash intensity as required by code. Horn shall be 100db. 11. Visual device shall be Simples 4904-9341 UL listed to UL Standard 1971. Flash rate shall be 1HZ with candela per code on-axis flash intensity.

PART 3 - EXECUTION

1. Install in accordance with plans, specifications, and shop drawings, and in accordance with all national and local codes, NEC criteria, and manufacturer's instructions. All signal wiring shall be twisted and shielded cable.

2. Use red boxes or spray paint boxes red. 3. Use red colored jacket wiring throughout the work.

4. Verify location of all devices and equipment with Fire Marshall's office and Owner's Project Representative prior to rough in.

5. All cabling shall be neatly routed and tie-wrapped. All cables shall be routed parallel to building lines.

6. Provide a NFPA 72 completion form, one year warranty, full wiring diagram, technical literature, and operating/maintenance instructions to the Owner. 7. Fully test in the presence of the Owner's representative and instruct same in the use of the system in a minimum four (4) hour systems operation training session. 8. Provide instruction manuals for the specific system including maintenance instructions and system documentation

SECTION 16720 - TELEPHONE SYSTEM

PART 1 - GENERAL

1. Telephones: a. Provide and install boxes, wire and backboard for a complete telephone and

b. Wiring shall be four pair, 24 AWG cable with homeruns from all outlets to the backboard. Cable shall be continuous and may be attached to trusses. Cable shall not be attached to or laid on light fixtures, diffusers or the lay-in ceiling. Install cable at 90- degree angles to electrical conduits and wires.

c. Provide one 4'x4'x3/4" plywood backboard mounted at 36" AFF at location shown on drawings or as directed in the field. See drawings.

d. Install single gang boxes at heights indicated on drawings. e. At outlet locations, pull cable down wall to box, coil 6' and store in box. At equipment room leave 20' excess cable, coiled and hung from ceiling. Label both ends of each cable with a permanent marker or cable tag with the same distinct

f. Face plates and all final terminations will be by the telephone contractor.. All locations shall have a RJ11C or RJ14 jack - confirm compatibility with Owner's

g. Provide a service entrance conduit of the size as specified by the local telephone company. Coordinate tie in points with local telephone company engineer. Entrance cable shall be at least 12 pair. Terminate building end in room as indicated on the drawings. Conduit shall be against wall under plywood backboard rise level to 12" AFF.

h. On lower left of backboard provide a #6 AWG ground wire tied to the building ground system. Provide ground bar connector and mount on plywood. i. Provide a 15 amp 110 volt four plex outlet adjacent to the backboard.

Provide wire from box to outlet for all outlets shown on plans and for the following:

1. Fire Alarm panel to backboard. 2. Wall hung phone in Kitchen.

3. Office desk phone. 4. Reception desk phone..

SECTION 16730 - INTERCOM SYSTEM

PART 1 - GENERAL 1. Intercom system installation shall comply with all governing codes and ordinances

enforced by state and local agencies. 2. Contractor shall provide a complete and fully functional intercom system. Verify all components with manufacturer prior to bid.

3. All equipment shall be as listed on Sheet A-2.2. All parts shall be compatible with

parts specified below.

PART 2 - PRODUCTS 1. Wiring shall be as required by the system manufacturer, with homeruns from all outlets to the main station. Cable shall be continuous and may be attached to trusses. Cable shall not be attached to or laid on light fixtures, diffusers or the ceiling. Install cable at 90- degree angles to electrical conduits and wires.

PART 3 - EXECUTION

1. Install system in strict accordance with manufacturer's instructions. 2. Owner's project manager shall approve all locations and mounting heights prior to rough-in. Installer shall be responsible for coordinating with other trades for availability

3. Installer shall coordinate with General Contractor for any additional blocking or supports necessary to properly install the system.

4. Installer shall include in the bid a one hour training session for Owner's staff. Training shall be held at the project site with the system fully operational. Schedule training date and time with Owner no less than 10 days prior to actual date.

SECTION 16790 - BURGLAR ALARM SYSTEM

PART 1 - GENERAL 1. Security system will be provided by the Contractor.

PART 2 - PRODUCTS

1. The Main Security Panel shall be connected to a separate dedicated branch circuit, maximum 20 amperes. This circuit shall be labeled at the power panel as SECURITY.

2. See Electrical Plan E-3 for device locations. 3. Provide magnetic door contacts, recessed mount, electrical configuration normally open, loop configuration closed, material ABS plastic, color white Coordinate exact type of device with Owner's security vendor.

4. Provide motion detectors as shown on plan mounted at ceiling, above bulletin boards, equal to GE Precision Line PIR/RCR white. Coordinate exact type of device with Owner's security vendor.

5. Provide an allowance of \$300 for control panel. 6. Wiring shall be shielded multi-conductor riser security cable (NEC type CL3R cable).

SECTION 16800 - COMPUTER WIRING SYSTEM PART 1 - GENERAL

1. Computer wiring and outlet boxes shall be provided by the Contractor.

PART 2 - PRODUCTS

1. The extent of work is shown on sheet E-5, Network Plan. 2. Provide boxes as shown on plan, with conduit to above ceiling containing CAT-6 shielded wiring extended to Media Room with 6 ft. of slack on both ends. General Contractor to coordinate with Owner's vendor for specific cable requirements prior to

PART 3 - EXECUTION

installation.

1. Run all wiring in a neat and workmanlike manner, without blocking walkways or access to equipment.

**ABBREVIATIONS** 

(NOTE: NOT ALL ABBREVIATIONS ARE USED)

AFF	ABOVE FINISHED FLOOR	EM	EMERGENCY
AL	ALUMINUM	EWC	ELECTRIC WATER COOLER
AMP	AMPERE	EXIST'G	EXISTING
ATS	AUTO-TRANSFER SWITCH	GFCI	GROUND FAULT CIRCUIT INTERRUPTE
3FG	BELOW FINISHED GRADE	FL	FLOOR
BLDG	BUILDING	FLUOR	FLUORESCENT
СВ	CIRCUIT BREAKER	GRD OR (G)	GROUND
CKT	CIRCUIT	IG	ISOLATED GROUND
CLG	CEILING	JB	JUNCTION BOX
COND OR "C"	CONDUIT	MCB	MAIN CIRCUIT BREAKER
CONN	CONNECT	MDP	MAIN DISTRIBUTION PANEL
CU	COPPER	MLO	MAIN LUG ONLY
C/T	CURRENT TRANSFORMER	MTG HT	MOUNTING HEIGHT
MIC	DIMMER	NF	NON FUSED
OMC	DESTINATION MATERNITY	NIC	NOT IN CONTRACT
DISC SW	DISCONNECT SWITCH	OFOI	OWNER FURNISH, OWNER INSTALL
OP	DOUBLE POLE	RT	RAIN TIGHT, NEMA 3R
DT	DOUBLE THROW	RTU	ROOF TOP UNIT
OPP	DISTRIBUTION POWER PANEL	SW	SWITCH
EC	EMPTY CONDUIT	UG	UNDERGROUND
ΕF	EXHAUST FAN	UNO	UNLESS KNOWN OTHERWISE
V.I.F.	VERIFY IN FIELD	WP	WEATHERPROOF

XFMR

TRANSFORMER



**ELECTRICAL SYMBOLS** 

(NOT ALL SYMBOLS ARE USED)

LIGHTING CIRCUITING KEY

2' X 4' LED LIGHT FIXTURE, LAY-IN, NIGHT LIGHT

5" X 4' LED LIGHT FIXTURE, CEILING MOUNTED

5" X 4' LED LIGHT FIXTURE, CEILING MOUNTED, NIGHT LIGHT

SAME AS ABOVE EXCEPT 3-WAY, IVORY, MOUNT 48" AFF

SINGLE POLE MOTOR RATED SWITCH, MOUNT 48" AFF

LOW VOLTAGE SWITCH WATTSTOPPER LVSW-101-I, IVORY, MOUNT 48" AFF

SINGLE POLE DIMMING SWITCH, WATTSTOPPER RH4FBL3PTC, MOUNT 48" AFF

CEILING MOUNTED OCCUPANCY SENSOR, LINE VOLTAGE, WATTSTOPPER DT-355

CEILING MOUNTED OCCUPANCY SENSOR, LOW VOLTAGE, WATTSTOPPER DT-305-U

POWER PACK FOR LOW VOLTAGE OCCUPANCY SENSOR, WATTSTOPPER BZ-200

DUPLEX RECEPTACLE, CHILDPROOF AND TAMPER RESISTANT UL RECEPTACLE OR

EQUAL, LEVITON T-5320 IVORY OR EQ, MOUNT 18" AFF UNO.

RECEPTACLE OR EQUAL, LEVITON T-7599 IVORY, 18" AFF UNO

SPECIAL EQUIPMENT OUTLET, MOUNT AT 18" AFF UNO, CONFIRM NEMA

TELEPHONE OUTLET WITH CABLE (8 WIRE) TO TELEPHONE INTERFACE ON

COMPUTER LINE, PROVIDE CAT 5 WIRE TO ROUTER IN EXP ROOM, MOUNT

BATTERY POWERED EMERGENCY EXIT LIGHT W/EMERGENCY LIGHT HEADS

CARBON MONOXIDE DETECTOR, BRK ELECTRONICS CO5120BN, PROVIDE

DOOR BELL CHIME, NUTONE FLUSH MTD. LB14WH W/101T (2 REQ'D)

BRANCH CIRCUIT HOMERUN TO PANELBOARD; ALPHA-NUMERIC

NOTATION INDICATES PANEL DESIGNATION AND CIRCUIT NUMBER

PANIC BUTTON, TIE TO SECURITY SYSTEM, (1) UNDER RECEPTION COUNTER, (1) UNDER

CHILDCARE FACILITY DEVICES SHALL BE CHILDPROOF AND TAMPER RESISTANT UL RECEPTACLE OR EQUAL TYPE WITH

OFFICE COUNTER, & (1) IN RESOURCE ROOM NEXT TO HALLWAY DOOR AT 72" AFF,

SPECIAL PROTECTIVE COVERS IN AREAS WHICH ARE ACCESSIBE TO CHILDREN, INCLUDING RECEPTION AREA.

WALL MOUNTED TWIN HEAD BATTERY OPERATED EMERGENCY LIGHT FIXTURE,

EXTERIOR WALL OF BLDG AS APPROVED BY LOCAL UTILITY, MOUNT 18" AFF UNO

CONFIRGURATION AND PROVIDE MATCHING PLUG IF NOT PROVIDED.

NEMA L5-20R TWIST LOCK RECEPTACLE

MOUNT 18" AFF UNO.

JUNCTION BOX, SIZE AS REQUIRED

DISCONNECT SWITCH, SIZE AS NOTED

FIRE ALARM ANNUNCIATOR PANEL

VOICE EVACUATION CONTROL PANEL

FA VISUAL STROBE, MOUNT 80" AFF

FA WALL SPEAKER, MOUNT 80" AFF

FA SPEAKER & STROBE, MOUNT 80" AFF

FA HORN AND STROBE, MOUNT 80" AFF

INTRCONNECTION AND WIRE ALL TOGETHER.

DOOR BELL PUSHBUTTON NUTONE PB12NWH

INTERCOM STATION, MOUNT 48" AFF

FA DUCT SMOKE DETECTOR

FA SMOKE DETECTOR

FA HEAT DETECTOR

INTERCOM MASTER

TRANSFORMER

SECURITY PANEL

ELECTRIC WALL HEATER

SECURITY SYSTEM LEGEND

MOTION DETECTOR, MOUNT 84" AFF

SHALL NOT BE VISIBLE TO THE GENERAL PUBLIC

A-7

SEC

FA MANUAL PULL STATION, MOUNT 48" AFF

FIRE ALARM CONTROL PANEL

DISTRIBUTION PANELBOARD

BRANCH PANELBOARD

MOTOR

DUAL TECHNOLOGY WALL SWITCH OCCUPANCY SENSOR, WATTSTOPPER DSW-301-I MOUNT 48" AFF

GROUND-FAULT CIRCUIT INTERRUPTER RECEPTACLE, CHILDPROOF AND TAMPER RESISTANT UL

QUAD RECEPTACLE, CHILDPROOF AND TAMPER RESISTANT UL RECEPTACLE OR EQUAL,

FIXTURE TYPE, SEE LIGHT

WALL MOUNTED FIXTURE

RECESSED DOWNLIGHT

OUTDOOR FLOOD LIGHTS

2' X 4' LED LIGHT FIXTURE, LAY-IN

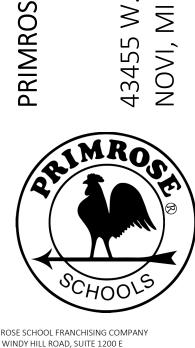
FIXTURE SCHEDULE -

- CIRCUIT NUMBER

- SWITCH LEG OR "NL" IF

NON-SWITCHED

10 l 483 ≥ ≥ 43455 NOVI,



3200 WINDY HILL ROAD, SUITE 1200 E ATLANTA, GEORGIA 30339-5640

PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.



Professional of Record: David A. Tretter LICENSE NO: 6201310096 EXP. DATE: 6/22/25

Drawn/Checked DCC / DAT 2202640 Project Number Bid Date 7/10/23 Permit Date For Construction --/--/--

**ELECTRICAL** 

**SYMBOLS** 

SPECIFICATIONS, **ABBREVIATIONS &** 



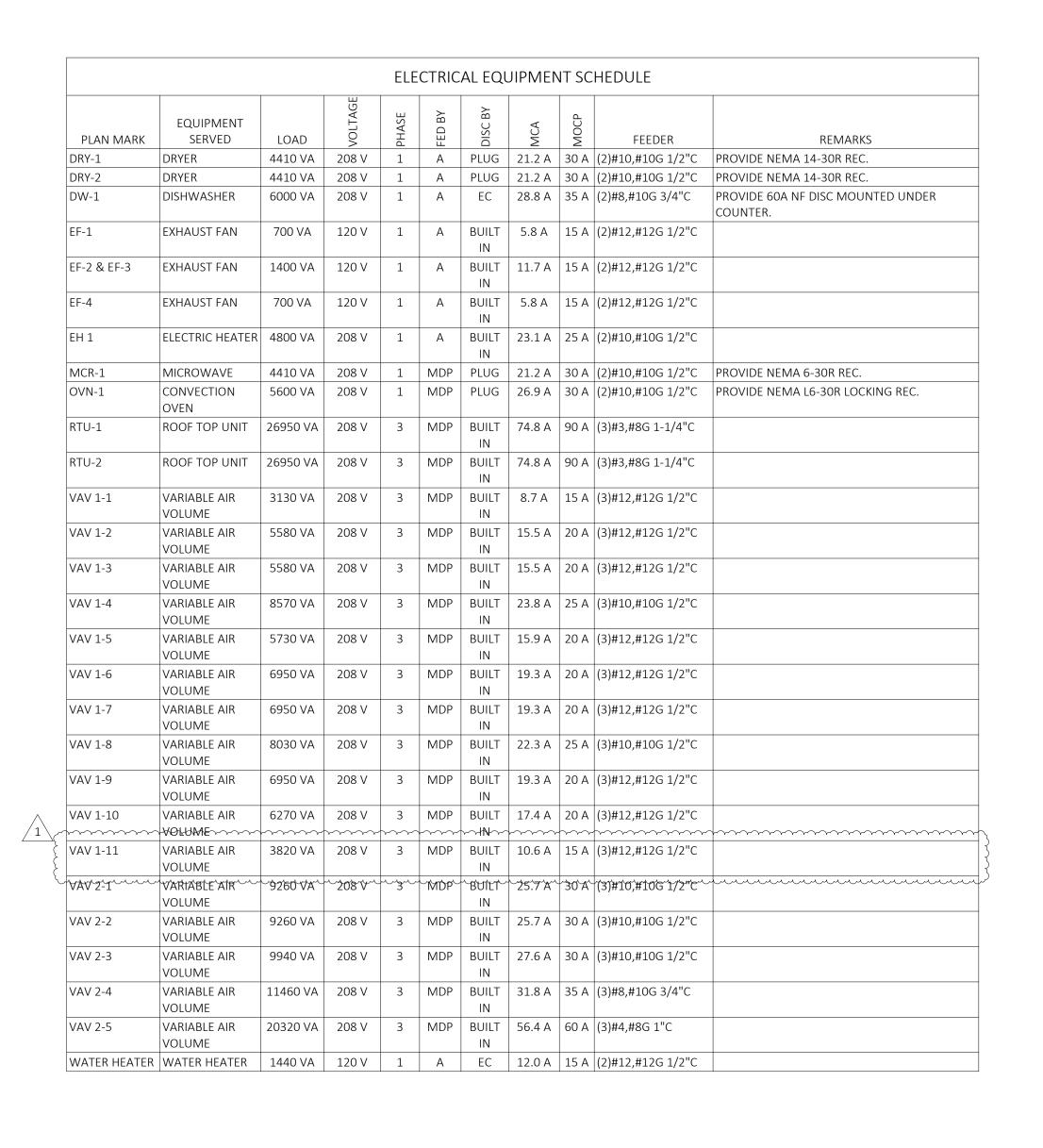
3200 WINDY HILL ROAD, SUITE 1200 E ATLANTA, GEORGIA 30339-5640 PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.

TRETTER **ENGINEER** No. 6201310096

11/09/23 Professional of Record: David A. Tretter LICENSE NO: 6201310096 EXP. DATE: 6/22/25

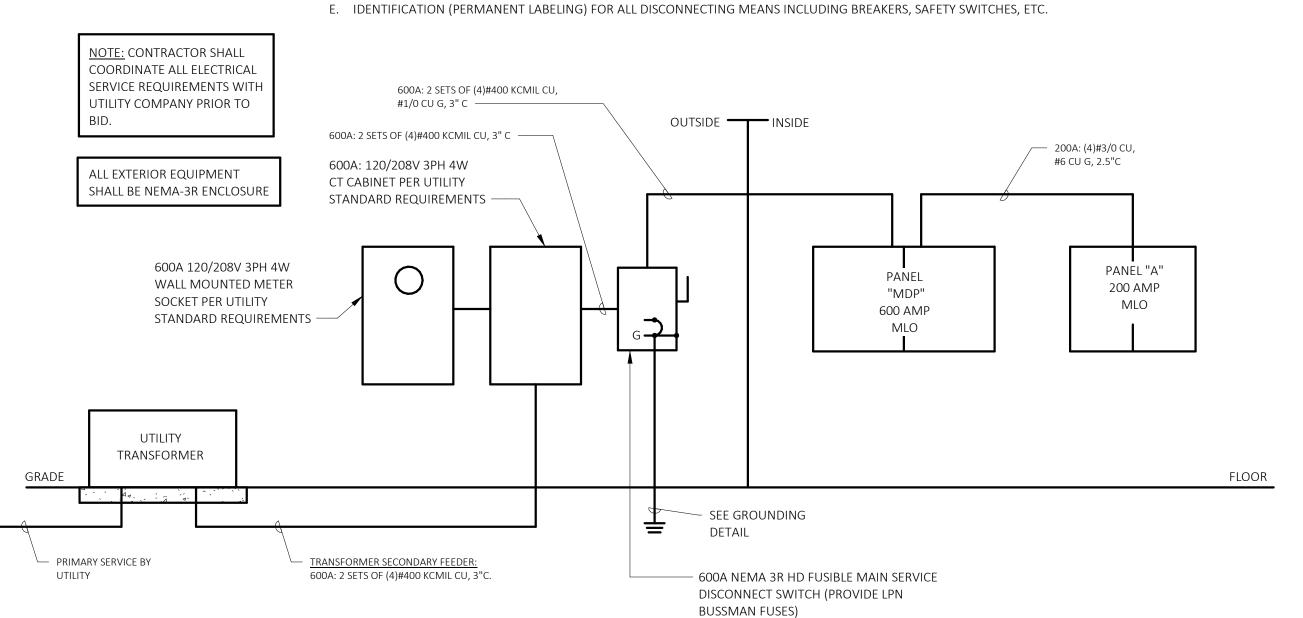
Drawn/Checked	DCC / DAT
Project Number	2202640
Bid Date	//
Permit Date	7/10/23
For Construction	//

ELECTRICAL ONE LINE & SCHEDULES

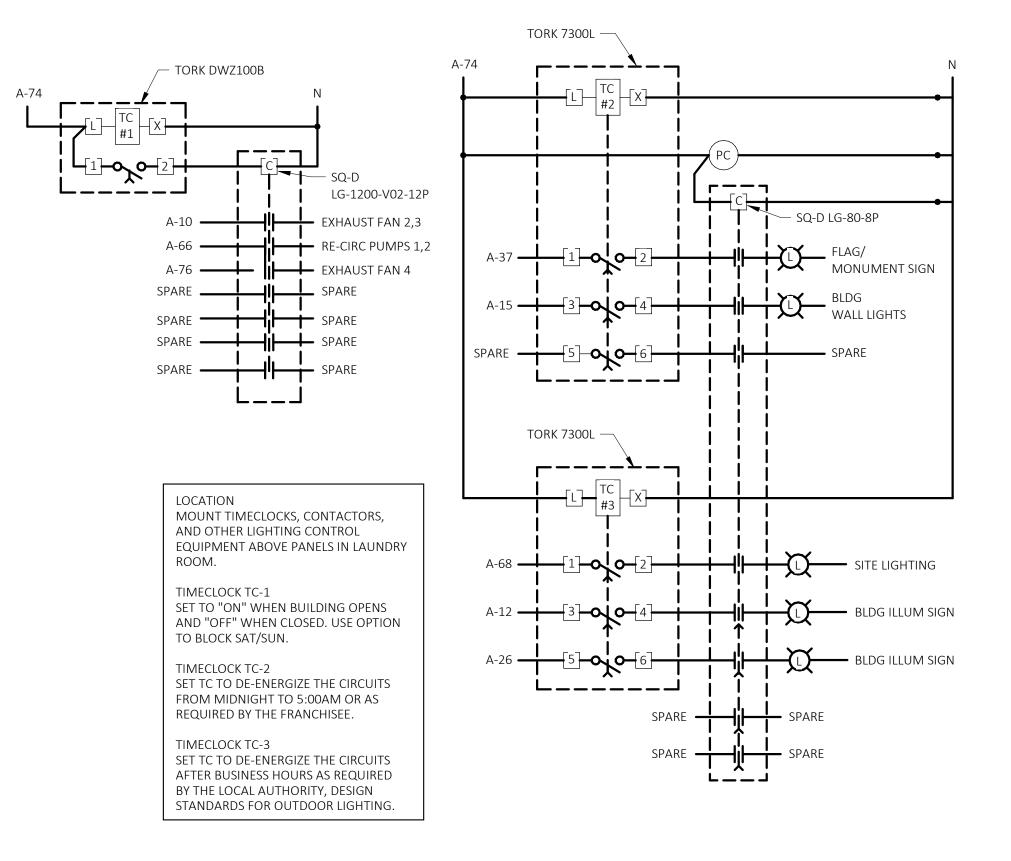


### GENERAL ONE-LINE NOTES

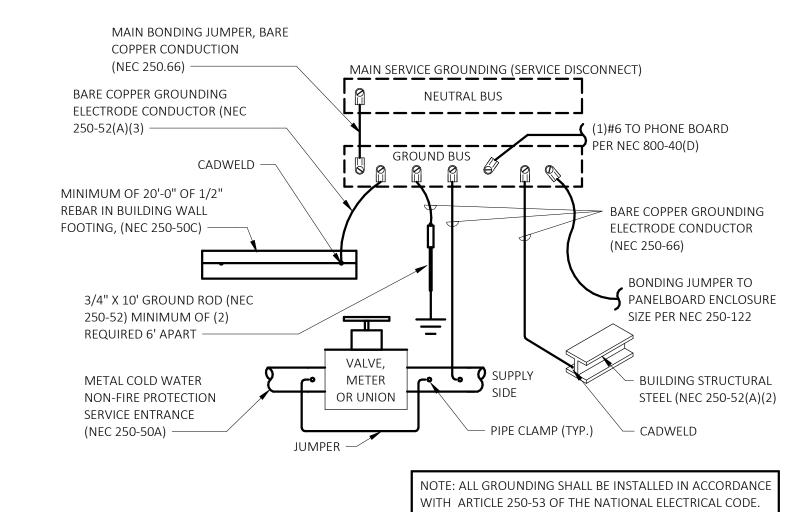
- A. ALL SERVICE EQUIPMENT SHALL BE PROVIDED IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS VERIFY VOLTAGE, PHASE, UNDERGROUND POINT OF CONNECTION, ETC.
- B. ALL WORK SHALL BE IN ACCORDANCE WITH NFPA 70 (NEC) AND LOCAL ORDINANCES.
- C. SPACE RESTRICTIONS APPLY. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR AND SHALL VERIFY AVAILABLE SPACE WITH ACTUAL DIMENSION OF ALL SUBSTITUTION FROM DESIGN SPECIFICATIONS.
- D. CONFIRM BREAKER SIZES WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.











### **GENERAL GROUNDING NOTES**

- A. FULL SIZE GROUND MEANS THAT GROUND CONNECTOR SIZE SHALL BE AS SHOWN ON SERVICE EQUIPMENT ON THE POWER RISER DIAGRAM.
- B. AFTER GROUNDING SYSTEM IS INSTALLED, GROUND RESISTANCE SHALL BE MEASURED, TO ASSURE THAT GROUND VALUE OF 15 OHM MAXIMUM RESISTANCE IS ACHIEVED. IF NOT, ADDITIONAL GROUNDING SHALL BE PROVIDED TO MEET THE SPECIFIC VALUE.
- C. ALL CONNECTIONS TO GROUND RODS SHALL BE EXOTHERMIC WELD CONNECTIONS. D. WHERE LOCATED OUTSIDE OF BUILDING, TOP OF GROUND ROD SHALL BE 12" (MINIMUM) BELOW GRADE. PROVIDE NON-METALIC INSPECTION WELL WITH REMOVABLE COVER.
- E. GROUND CONNECTOR SHALL BE LOCATED WITHIN OR NEAR BOTTOM OF CONCRETE FOUNDATION OR FOOTING THAT IS IN DIRECT CONTACT WITH THE EARTH, AND SHALL CONSIST OF AT LEAST 20 FEET OF ONE OR MORE STEEL REINFORCING BARS OR RODS OF NOT LESS THAN 1/2 INCH DIAMETER OR OF AT LEAST 20 FEET OF BARE COPPER CONDUCTOR ALL CONDUCTORS SHALL BE COPPER. BONDING OF HOT WATER PIPE, COLD WATER PIPE, AND UTILITY SYSTEM.
- F. ALL CONDUCTORS SHALL BE COPPER.



PHASE: 3

RTU-2

VAV 1-2

VAV 1-4

VAV 1-6

VAV 1-8

VAV 1-10

VAV 2-2

VAV 2-4

VAV 1-11

OVN-1

SPARE SPARE

PROVISION

PROVISION **PROVISION** 

**PROVISION** 

PROVISION

**PROVISION** 

PANEL REQUIRED TO BE AIC FULLY RATED. MAY NOT SERIES RATE DUE TO MOTOR LOAD PER NEC 240.86.C

PHASE BALANCE

SURFACE 120/208 Wye

9.0 9.0

9.0

1.9

**DEMAND FORMULA** 

LOAD \* 125% NEC 210.9 CONTINUOUS

10kVA + 50% REMAINDER NEC 220.44 LOAD \* 80% (USED MCA IN CALCULATION)

LOAD \* 100% NEC 210.19 NON-CONTINUOUS

PROVIDE LABELING TO IDENTIFY THE SERIES RATING OF THE PANELS PER NEC 110.22(B),(C).

0 NON-COINCIDENTAL LOADS NEC 220.60

LAUNDRY ROOM 7

GFI

LOAD TYPE

Receptacle

~~<del>~</del>~~~57~

-- 63 1.3

"GFI" PROVIDE GFCI CIRCUIT BREAKER.

NOTE CKT LTG REC HVAC MISC NP

 
 1
 4.3
 12.9
 3.1
 1.6

 3
 3.1
 14.2
 4.5
 4.9
 5 2.8 16.1 0.0 3.3

WIRES: 4

PANEL

AMP P... A B C P... AMP

90 3 3 15 VAV 1-1 -- -- --

3 20 VAV 1-3

3 20 VAV 1-7

3 20 VAV 1-9

3 30 VAV 2-1 -- -- --

**LOAD...** 87.5 92.3 82.8 **CURREN...** 736 775 775

**PHASE** %: 33 35 32

CONNECTED

10163 VA

53210 VA

189300 VA

9840 VA

0 VA

20 VAV 1-5

30 VAV 2-3

PROVISION PROVISION

PROVISION

PROVISION

PROVISION

PROVISION

**DEMAND FACTOR** 

100.00%

59.40%

80.00%

100.00%

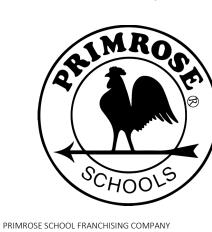
0.00%

CAPACITY:

DEMAND LOAD:

DESCRIPTION

U		
Ü		314-821-1100
(I	NO	2 Sunnen Drive, Suite 100, St. Louis, MO 63143 T: 314-821-1100
4	ASCO DIVERSIFIED CORPORATION	, Suite 100, St. Lo
	ASCO DIVERSIF	2 Sunnen Drive



3200 WINDY HILL ROAD, SUITE 1200 E ATLANTA, GEORGIA 30339-5640

THE EXPRESS WRITTEN CONSENT OF PRIMROSE SCHOOL FRANCHISING CO. IS PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.

TRETTER **ENGINEER** No. 6201310096 11/09/23

> Professional of Record: David A. Tretter LICENSE NO: 6201310096 EXP. DATE: 6/22/25

Drawn/Checked	DCC / DAT
Project Number	2202640
Bid Date	//
Permit Date	7/10/23
For Construction	//

PANEL SCHEDULES

MOUNT:	9	SURFACE	120/208	Wye	PHASE: 3	VIRES: 4		PANEL		Α	CA	APACITY:	200 A		INT	Г САР:		22 K	A
OCATION:					LUGS:		MLO	) DE	MAND LOAD:	146 A		AV	. FAUL	T:	14.0	KA			
NOTE	CKT	LTG REC	HVAC M	SC NP	DESCRIPTION	AMP	P A	В	C P	AMP	DE	SCRIPTION	NP	MISC	HVAC	REC	LTG	СКТ	NOTE
	1	1.6			LTG CLASSROOM D2,D1,C2	20	1		1	20	LTG CONF. REC						0.4	2	
	3	1.3			LTG CLASSROOM C1, EP3	20	1		1		LTG CLASS B1,B						1.0	4	
	5	0.5			LTG WARMING KITCHEN	20	1		1	20	LTG CLASS EXP,	EP2 TOILETS					1.1	6	
	7	0.2			IPAD CHARGING STATION	20	1		1		EF-1				0.7			8	
	9	0.6			LTG GALLERY	20	1		1		EF-2 & EF-3				1.4			10	TC
	11	1.1			REC CLASSROOM A1	20	1		1		BLDG SIGN						1.2	12	TC
	13	0.7			REC CLASSROOM A2	20	1		1		COPY RESOURCE	Œ				1.2		14	
TC	15	0.2			BLDG WALL LIGHTING	20	1		1		REC KITCHEN					0.9		16	
	17	0.9			REC CLASSROOM B2	20	1		1		REC GALLERY					1.2		18	CEL
	19	1.1			REC CLASSROOM EP3	20	1		1	20	EWC	CDATOD DECEDION				0.5		20	GFI GFI
	21 23	0.2			REC TV CLASSROOM - EXP	20	1		1			ERATOR RECEPTION				1.2 0.5		22	GFI
	25	0.7			TBB IRRIGATION	20	1		1		REC OUTDOOR BLDG SIGN	STURAGE				0.5	1.2	26	TC
GFI	27	1.6			ICE MAKER	20	1		1		REFRIGERATOR	<u> </u>				1.2	1.2	28	GFI
LO	29	1.0	0	2	FACP	20	1		1	20	FREEZER	<u> </u>				1.2		30	GFI
LU	31				INTERCOM	20	1		2	30	DRY-1			+ +		2.2		32	GFI
LO	33		0		SECURITY PANEL	20	1				 DI(1-T					2.2		34	
LO	35	0.5	+ + •	.5	RTU REC	20	1		2	30	DRY-2					2.2		36	
TC	37	0.5			FLAG/ MONUMENT SIGN	20	1									2.2		38	
	39	1.2			REFRIG CLASSROOM A1	20	1		1	20	WASHER 1					1.4		40	
	41	1.2			REFRIG CLASSROOM A2	20	1		1	20	WASHER 2					1.4		42	
	43	1.1			REC CLASSROOM D2	20	1		1		GARB DISP			0.6				44	GFI
	45	0.9			REC CLASSROOM D1	20	1		1		REC CLASSROO	M EXP				1.1		46	
	47	1.1			REC CLASSROOM C2	20	1		1		REC CLASSROO					0.9		48	
	49	1.1			REC CLASSROOM C1	20	1		1		REC CLASSROO					0.9		50	
	51	0.4			REC CLASSROOM A1	20	1		1	20	REC CLASSROO	M B1				1.1		52	
	53	0.5			REC CLASSROOM A2	20	1		1	20	REC RECEPTION	l				1.2		54	
	55	0.5			REC RESOURCE	20	1		1	20	REC CONFEREN	ICE RM				0.7		56	
	57	0.5			REC STAFF	20	1		2	35	DW-1			3.0				58	GFI
	59	0.5			REC OFFICE	20	1							3.0				60	
	61		2.4		EH 1	25	2		1		REC LAUNDRY					0.3		62	
	63		2.4						1		WATER HEATER	₹		1.4				64	
	65	0.4			REC RECEPTION	20	1		1		REC RCP 1 & 2					0.4		66	TC
	67		0		FAAP	20	1		1		SITE LIGHTING						0.6	68	TC
	69		0	2	VOIC EVAC	20	1		1		REC OFFICE	DECEDE: OA:				0.4		70	
	71				SPARE	20	1		1		REC MONITOR	KECEPTION				0.2		72	
	73				SPARE	20	1		1	20	TIME CLOCK			0.5	0.7			74	Τ.
	75 77				SPARE	20	1		1	15	EF-4				0.7			76	TC
	77				SPARE	20	1		1	20	Spare							78	
	79 81				SPARE SPARE	20			1	20	SPARE SPARE			<del>                                     </del>				80 82	
	83				SPARE	20	1		1		SPARE							84	
	03				JEANE		_	0 20 7 20	2 2	20	JEANE							04	
								.0 26.7 22											
					PHASE BALANCE		_	3 223 2											
						PHAS	<b>E %:</b> 32	1 38 3	31										
OAD TYPE		DEMA	AND FORM	ULA			CC	ONNECTED		DEM	AND FACTOR	DEMAND				TOTAL	LOAD		
ighting		LOAD	* 125% N	C 210.9	CONTINUOUS			10163 VA			100.00%	10163 VA		CONN	ECTED			DEMA	ND
Receptacle		10kV	4 + 50% RE	MAINDE	R NEC 220.44	·		13200 VA			61.57%	26600 VA		7086	66 VA			52746	VA
· ····································		LOAD	* 80% (US	ED MCA	IN CALCULATION)			7600 VA			80.00%	6080 VA			7 A			146	
Misc.			•		NON-CONTINUOUS			9840 VA			100.00%	9840 VA							
lon-Peak	Peak 0 NON-COINCIDENTAL LOADS NEC 220.60							0 VA			0.00%	0 VA							

. PROVIDE LABELING TO IDENTIFY THE AIC SERIES RATING OF THE PANELS PER NEC 110.22(B),(C).

"LO" PROVIDE LOCKABLE CIRCUIT BREAKER WITH ABILITY TO BE "LOCKED ON".

"GFI" PROVIDE GFCI CIRCUIT BREAKER.

"TC" CIRCUIT TO BE CONTROLLED BY TIME CLOCK, REFER TO DETAIL 1/E1.0 FOR WIRING DIAGRAM.

VOLTAGE DROP CALCULATIONS											
PANEL/L		FEE	DER		OHMS/K-FT	LENGTH	7	LOAD	V-DROP	v	%V-
DAD	AWG	SETS	CU/AL	PH	NEC TABLES	LENGTH		LOK	V-DICOP	٧	DROP
MDP	#400	2	CU	3	0.056 OHM/K-FT	252 FT	0.0071 OHM	555 A	3.92 V	208 V	1.88%

1-PHASE V-DROP CALC IS BASED ON NEC TABLE 8, DC RESISTANCE, UNCOATED WIRES. IF #1/0 OR LARGER, USE TABLE 9 DUE TO SKIN AFFECT.

3-PHASE V-DROP CALC IS BASED ON NEC TABLE 9, EFFECTIVE Z AT 0.85 PF, UNCOATED WIRES, STEEL CONDUIT (WORST CASE).

EQUATIONS:

DEMAND

10163 VA

31605 VA

151440 VA

9840 VA

0 VA

Z (1-PH) = (TABLE 8 OHMS/K-FT) \* (K-FT/1000') \* (LENGTH) (\*2) / (SETS) - NOTE: IF #1/0 OR LARGER, USE TABLE 9 DUE TO SKIN AFFECT Z (3-PH) = (TABLE 9 OHMS/K-FT) \* (K-FT/1000') \* (LENGTH) / (SETS) V-DROP = Z \* LOAD

VOLTAGE DROPS:

2% MAXIMUM FOR FEEDERS

UP TO 3% MAXIMUM FOR BRANCH CIRCUITS

INT CAP:

1.9 1.9

2.3

2.3

AV. FAULT:

NP MISC HVAC REC LTG CKT NOTE

TOTAL LOAD

DEMAND

203111 VA

564 A

CONNECTED

262576 VA

729 A

22 KA

16.48 KA

600 A

2202640 LOAD.xlsm

UT. XFRM F	AULT CALC	2202640 LOAD.xlsm		
SERVICE E	NTRANCE	CALCULATIO	N	
VOLTAGE (L-L):	208V	I-FLA=[RATED KVA	* 1000]/	
PHASE (PH):	3	[V-LL*SQRT(I	PHASE)]	
AMPS:	600A	I-FLA=	COEA	
FULL LOAD KVA:	216KVA	I-FLA=	023A	
TRANSFORMER:	225KVA	M=100/%Z= 8	89.3	
IMPEDANCE (%Z):	1.1%Z	I-SC=I-FLA*M=	56 KA	

BUSSMANN SPD. CONTRACTOR SHALL CONTACT UTILITY AND VERIFY I-SC AVAILABLE AT SECONDARY OF TRANSFORMER. CONTACT ENGINEER FOR RE-CALCULATION IF LARGER THAN CALCULATED.

CALCULATION

MOTOR LOAD FAULT CALC 2202640 LOAD.xlsm

STARTING I-SC: 56 KA

MOTOR LOAD (KVA):	186KVA	I-SC(ML)=I-ML*6=	3,089A	
MOTOR LOAD (A):	515A	I-SC=I-SC+I-SC(ML)=	59 KA	
SERVICE FEEDER	FAULT CALC	2202640 LOAD.xlsm		
STARTING I-SC:	59 KA	IMPEDANCE BASED ON 3	SINGLE	
VOLTAGE (L-L):	208V	CONDUCTORS IN NON-MA	AGNETIC	
PHASE (PH):	3	CONDUIT (WORSE CASE)		
FEEDER SIZE:	400	CALCULATION	ON	
FEEDER MATERIAL:	CU	f=[SQRT(PHASE)*L*IS-C]/		
PARALLEL SETS (Q):	2 SETS	[Q*C*V-LL]		
FEEDER LENGTH (L):	240FT	f=	2.420	
FEET PER OHMS (C):	24,297 FT/OHMS	M=1/(1+f)=	0.292	
		I-SC=I-SC*M=	17.21 KA	
NOTE: CALCULATION BASED ON BUSSMANN SPD				

MDP FEEDER F	AULT CALC	2202640 LOAD.xlsm			
STARTING I-SC:	17 KA	IMPEDANCE BASED ON 3	SINGLE		
VOLTAGE (L-L): 208V		CONDUCTORS IN NON-MAGNETIC			
PHASE (PH):	3	CONDUIT (WORSE CASE)			
FEEDER SIZE:	400	CALCULATION	ON		
FEEDER MATERIAL:	CU	f=[SQRT(PHASE)*L*IS-C]/			
PARALLEL SETS (Q):	2 SETS	[Q*C*V-LL]			
FEEDER LENGTH (L):	15FT	f=	0.044		
FEET PER OHMS (C):	24,297 FT/OHMS	M=1/(1+f)=	0.958		
		I-SC=I-SC*M=	16.48 KA		
NOTE: CALCULATION BASED ON BUSSMANN SPD					

PANEL A FEEDER	FAULT CALC	2202640 LOAD.xlsm		
STARTING I-SC:	16 KA	IMPEDANCE BASED ON 3	SINGLE	
VOLTAGE (L-L):	208V	CONDUCTORS IN NON-MA	AGNETIC	
PHASE (PH):	3	CONDUIT (WORSE CASE)		
FEEDER SIZE:	3/0	CALCULATION	ON	
FEEDER MATERIAL:	CU	f=[SQRT(PHASE)*L*IS-C]/		
PARALLEL SETS (Q):	1 SETS	[Q*C*V-LL]		
FEEDER LENGTH (L):	15FT	f=	0.148	
FEET PER OHMS (C):	13,923 FT/OHMS	M=1/(1+f)=	0.871	
		I-SC=I-SC*M=	14 KA	
NOTE: CALCULATION BASED ON BUSSMANN SPD				

THE EXPRESS WRITTEN CONSENT OF PRIMROSE SCHOOL FRANCHISING CO. IS PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.

C.D.A.A.A. (1) LUMINAIRE LESS THAN 100W

C.D.A.A.D. DAYLIGHTING ZONES AUTOMATICALLY CONTROLLED.

C.E.A. READILY ACCESSIBLE C.E.B. VISIBLE TO LIGHTS OR LABEL SWITCHES

D.A.A. EXCEPTIONS: D.A.A.A. LESS THAN 150W OF GENERAL LIGHTING D.B.SIDELIGHT ZONE (WINDOW) (C405.2.3.2)

WINDOW INSIDE (7'-0")

E. SPECIFIC CONTROLS (C405.2.4) E.A. DISPLAY AND ACCENT CONTROLLED SEPARATELY E.B. CASES CONTROLLED SEPARATELY

WALL SWITCH

F.A. ALL - PHOTOCELL F.C. EXIT LIGHTS - 5W PER SIDE MAX (C405.3)

## # LIGHTING PLAN KEYED NOTES

- NO AUTOMATIC LIGHTING CONTROLS IN CORRIDORS DUE TO SECURITY OF ROOM AND SAFETY OF OCCUPANTS.
- 2 SEE ARCHITECTURAL EXTERIOR ELEVATIONS SHEET A4.0 FOR EXACT LOCATION OF LIGHT FIXTURES.
- 3 MULTI-LEVEL SWITCH SHALL BE PROVIDED FOR EACH ROOM AS SHOWN.
- 4 NO AUTOMATIC LIGHTING CONTROLS IN KITCHEN OR IN LAUNDRY ROOM DUE TO LIFE SAFETY AND ELECTRICAL PANELS.
- 5 DAYLIGHTING ZONE EXEMPT WHERE THERE IS LESS THAN 150W WITHIN DAYLIGHT ZONE, 50% OR MORE OF LIGHT FIXTURE MUST BE WITHIN THE ZONE TO REQUIRE DAYLIGHTING

## LIGHTING GENERAL NOTES

- A. DEVICE LOCATIONS SHOWN ON THE PLAN SHALL BE PLACED EXACTLY AS SHOWN. REFER ANY QUESTIONS TO THE ARCHITECT.
- B. ALL FIXTURES, WIRE, AND ELECTRIC DEVICES SHALL BE U.L. APPROVED. C. ALL OUTSIDE LIGHTING SHALL BE ON PHOTCELL CONTROL.
- D. ALL BRANCH LIGHTING AND RECEPTACLE CIRCUITS IN EXCESS OF 100 FT TO LOAD CENTER FROM PANEL SHALL BE #10 AWG.
- E. ALL LIGHTING SHALL BE CIRCUITED TO PANEL A.
- F. ALL LED LIGHTS SHALL HAVE DEDICATED NEUTRAL
- G. ALL CONDUITS THROUGH CEILING AND ALL INTERIOR RECESSED DOWNLIGHTS TO BE SEALED AROUND FIXTURE TO PREVENT LIGHT LEAKS AND AIR PENETRATION INTO CEILING SPACE.

#### **MICHIGAN UNIFORM ENERGY CODE 2015:**

- A. EXCEPTION TO ALL CONTROLS (C405.2) A.A. SECURITY OR EMERGENCY AREAS THAT ARE REQUIRED TO BE CONTINUOUSLY LIT. A.A.A. EXEMPT ROOMS - LAUNDRY, KITCHEN FOR LIFE SAFETY A.B. INTERIOR EXIT STAIRWAYS, RAMPS, AND PASSAGEWAYS.
- A.B.A. EXEMPT ROOMS MAIN HALLWAY (GALLERIES) A.C. EMERGENCY EGRESS THAT IS NORMALLY OFF.
- B. OCCUPANCY SENSORS (C405.2.1) B.A. CLASSROOMS, CONFERENCE, BREAK ROOMS, OFFICES, RESTROOMS, STORAGE, JANITOR, WAREHOUSE, AND 300 SQUARE FOOT OR LESS AND ENCLOSED, WAREHOUSE.
- B.B. FUNCTION (C405.2.1.1) B.B.A. 20 MINUTES TO AUTOMATIC OFF B.B.B. MANUAL ON (VACANCY SENSOR) B.B.B.A. EXCEPTIONS:
  - B.B.B.A.A. CORRIDORS B.B.B.A.B. RESTROOMS B.B.B.A.C. ENTRANCE-LOBBIES B.B.B.A.D. AREAS DUE TO SAFETY OR SECURITY OF THE ROOM.
- B.B.C. ALL AREAS MUST HAVE LOCAL CONTROLS C. TIME-SWITCH CONTROLS (C405.2.2) C.A. PERTAINS TO AREAS WITHOUT OCC SENSORS C.B. EXCEPTION WITH LIGHT REDUCTION (C405.2.2.2)
- C.B.A. AUTOMATIC SHUT-OFF WOULD ENDANGER (ELEC ROOMS) C.B.B. NIGHT LIGHTS C.C. FUNCTION (C405.2.2.1) C.C.A. 2-HOUR MANUAL OVER-RIDE
- C.C.B. OVER-RIDE FOR 5,000 SF MAX C.D.LIGHT REDUCTION CONTROLS OF AT LEAST 50% (C405.2.2.2) C.D.A. REQUIRED EVERYWHERE WITHOUT OCC SENSORS C.D.A.A. EXCEPTIONS:
- C.D.A.A.B. 0.6W/SF OR LESS C.D.A.A.C. CORRIDORS, EQUIP ROOMS, PUBLIC LOBBIES, ELEC OR MECH
- C.E. MANUAL CONTROLS (C405.2.2.3)
- D. DAYLIGHTING CONTROLS (C405.2.3) D.A.AUTOMATIC CONTROLS (DAYLIGHT-RESPONSIVE CONTROLS)
- D.B.A. AREA: WIDTH OF WINDOW + 2' ON EACH SIDE BY HEIGHT OF TOP OF
- D.B.B. EXEMPT: SPACES WHICH HAVE LESS THAN 150W OF GENERAL LIGHTING IN THEIR DAYLIGHT ZONES
- E.C. UNDERCABINET LIGHTING CONTROL INTEGRAL (ROCKER SWITCH) OR INDEPENDENT
- F. EXTERIOR CONTROLS (C405.2.5) F.B. FAÇADE AND LANDSCAPE - PHOTOCELL AND TIMECLOCK (OPEN/CLOSE)

ENGINEER No. 6201310096 Professional of Record: David A. Tretter LICENSE NO: 6201310096 EXP. DATE: 6/22/25

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LIGHTING PLAN



SMALL ROOM

E2.0 SCALE: NO SCALE

LARGE ROOM

OCCUPANCY SENSOR WIRING DIAGRAM



CLASSROOM - A1

CLASSROOM - A2

- A. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF QUANTITY AND LOCATION OF EXIT SIGNS AND EMERGENCY LIGHTS WITH LOCAL AUTHORITY HAVING JURISDICTION AND MAKING ADJUSTMENTS
- REQUIRED BY FIRE MARSHAL/AHJ. B. PROVIDE ALL NECESSARY ACCESSORIES, CONNECTORS, HANGERS, END CAPS, ETC FOR A COMPLETE OPERABLE INSTALLATION.
- C. PREFERED VENDOR: BRYAN BIRDWELL VILLA LIGHTING SUPPLY, INC 2929 CHOUTEAU AV, ST. LOUIS, MO 63103 CELL: 615-319-0984 DIRECT: 314-633-0546 OFFICE: 800-325-0963
- EMAIL: <a href="mailto:primroseschool@villalighting.com">primroseschool@villalighting.com</a> WEB SITE: WWW.VILLALIGHTING.COM.

**ENGINEER** 

Professional of Record: David A. Tretter LICENSE NO: 6201310096 EXP. DATE: 6/22/25

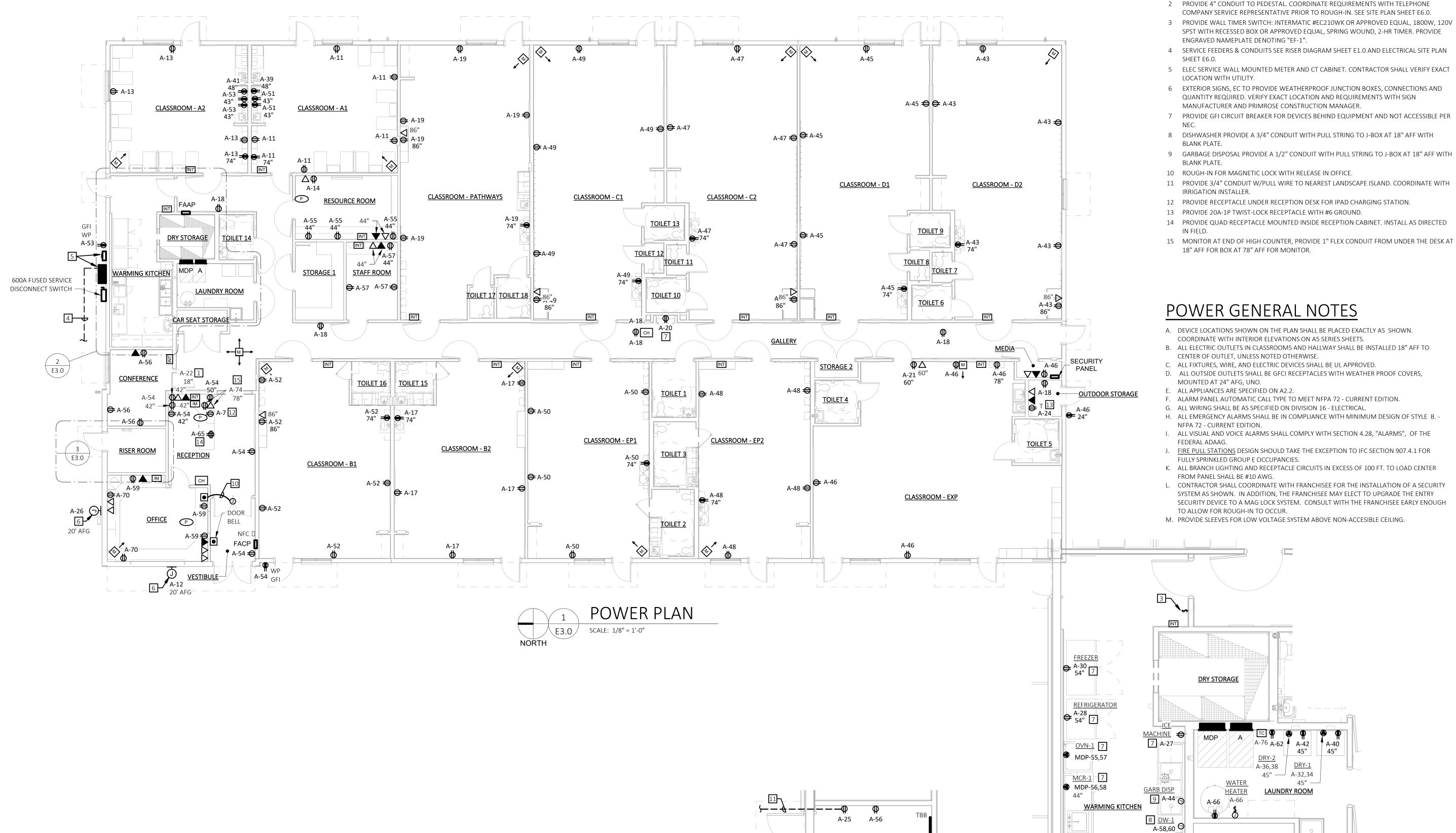
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POWER PLAN



A-16

**# POWER PLAN KEYED NOTES** 



RISER ROOM

ENLARGED RISER ROOM PLAN

**├**-->---

E3.0 SCALE: 1/4" = 1'-0"

A- 61,63

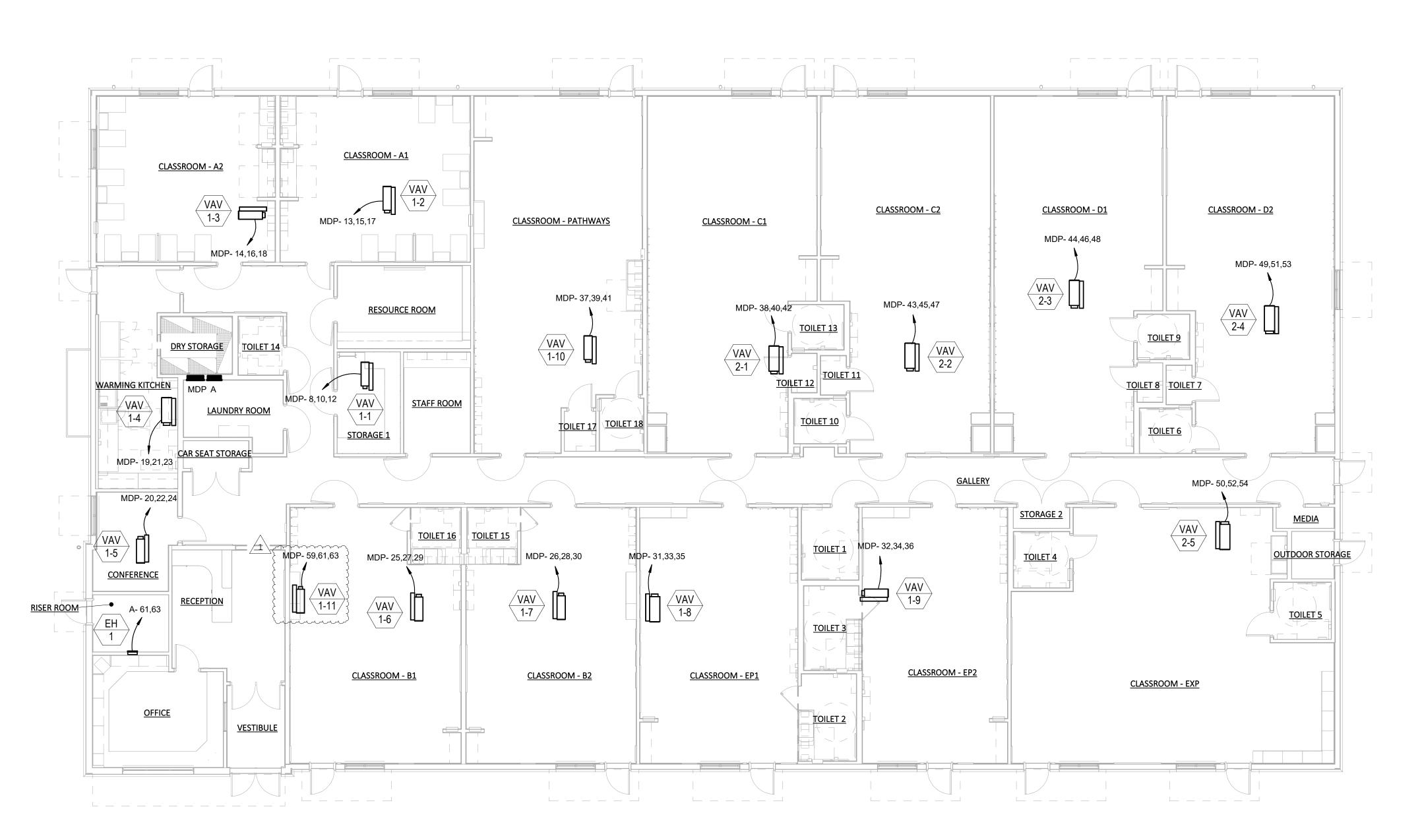
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HVAC POWER PLAN

E3.1

# **GENERAL NOTES**

- A. ALL WIRING SHALL BE AS SPECIFIED ON DIVISION 16 ELECTRICAL.
- B. EC SHALL COORDINATE WITH MC.C. SEE SHEET E1.0 FOR PANEL SCHEDULE ON ONE-LINE DIAGRAM.





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ELECTRICAL ROOF PLAN

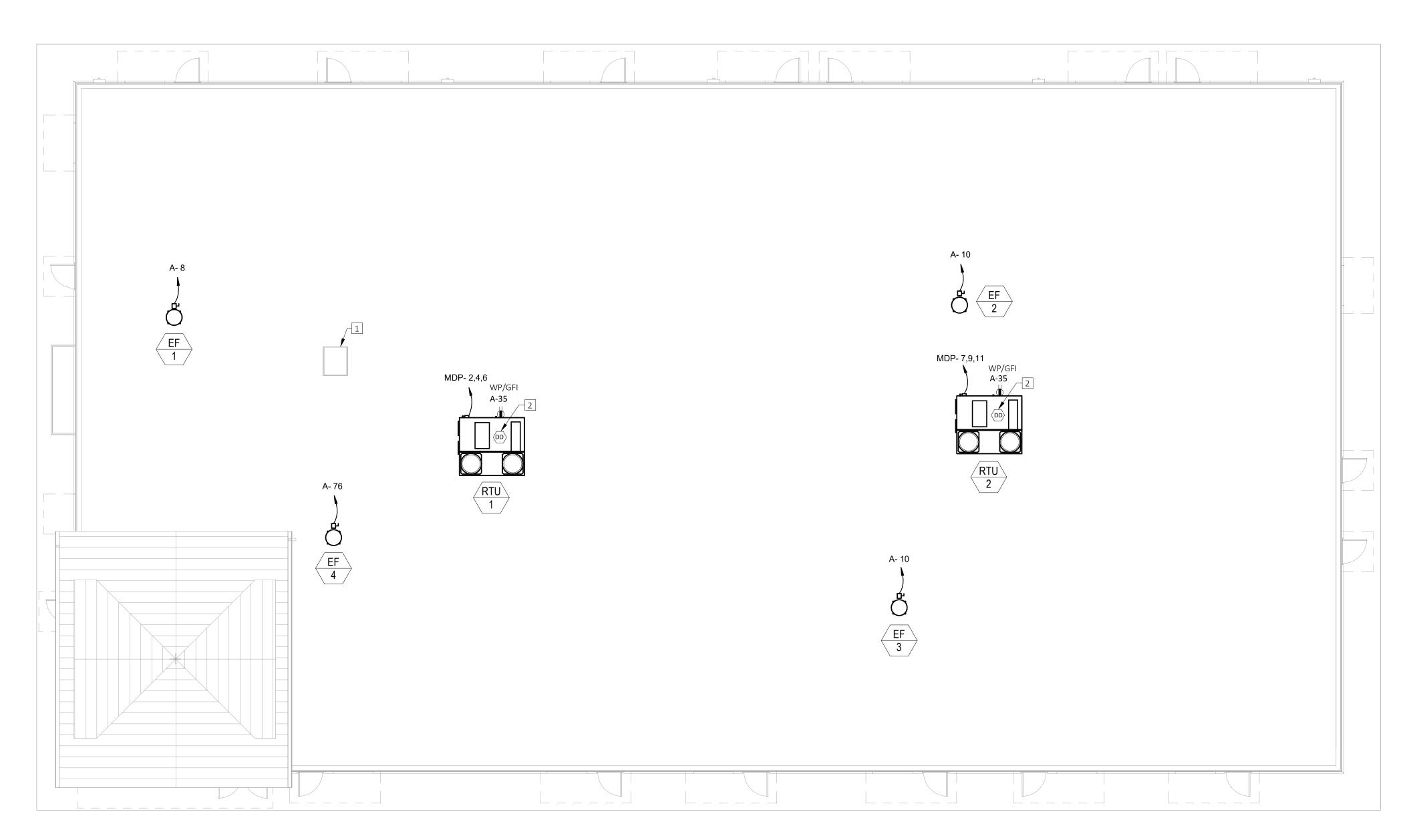
E4.0

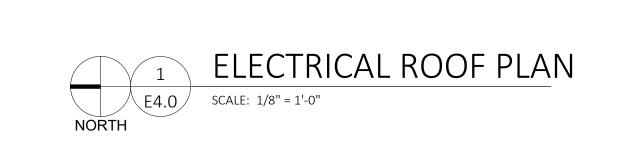
## **# HVAC POWER KEYED NOTES**

- 1 ROOF ACCESS/MAINTENANCE DOOR SHALL NOT BE BLOCKED BY ANY DUCT, PIPES, WIRES, CONDUITS OR OTHER FIXED ITEMS.
- 2 DUCT DETECTORS, SEE SHEET M2.0 FOR ADDITIONAL INFORMATION.

## HVAC POWER GENERAL NOTES

- A. ALL WIRING SHALL BE AS SPECIFIED ON DIVISION 16 ELECTRICAL
- B. ALL BRANCH RECEPTACLE CIRCUITS IN EXCESS OF 100 FT. TO LOAD CENTER FROM PANEL SHALL BE #10 AWG.
- C. WP GFCI SERVICE RECEPTACLES FOR RTU UNITS PROVIDED BY MC AND WIRED BY EC.
- D. EC SHALL COORDINATE WITH MC.
- E. SEE SHEET E1.1 FOR PANEL SCHEDULE AND SHEET E1.0 FOR ONE-LINE DIAGRAM.
- F. NEMA 3R, NON-FUSED DISCONNECT SWITCH PROVIDED WITH ALL RTU'S AND EXHAUST FANS.





COMM GENERAL NOTES

REFER TO SPECIFICATIONS.

NFPA 72 - CURRENT EDITION.

NETWORK SWITCH.

— 6' MIN SLACK WIRE BY

CONTRACTOR- ENDS

BY OWNER - TYP

⊢ — — — ← — RECEPTION

-- RESOURCE

II — — — RESOURCE/PRINTER

— — — OUTDOOR STORAGE

2 COMPUTERS

CABLES BY OWNER

— 1 PRINTER

|---|

- — RECEPTION

ENGINEERED DESIGN.

FEDERAL ADAAG.

A. PROVIDE CABLING PER SPECIFICATIONS. TERMINATIONS AND DEVICES PROVIDED BY OTHERS,

B. FIRE ALARM DESIGN IS THE RESPONSIBILITY OF A DULY LICENSED FIRE ALARM CONTRACTOR. THE DEVICES SHOWN ON THE PLANS ARE SCHEMATIC ONLY AND DO NOT REPRESENT AN

D. ALL EMERGENCY ALARMS SHALL BE IN COMPLIANCE WITH MINIMUM DESIGN OF STYLE B -

E. ALL VISUAL AND VOICE ALARMS SHALL COMPLY WITH SECTION 4.28, "ALARMS", OF THE

C. ALARM PANEL AUTOMATIC CALL TYPE TO MEET NFPA 72 - CURRENT EDITION.

**# COMM PLAN KEYED NOTES** 

OWNER'S INTERNET PROVIDER TO POINT OF ENTRY.

3 POINT OF ENTRY FOR TELEPHONE, SECURITY AND INTERNET.

5 NETWORK SWITCH (OFOI) MOUNT CONCEALED UNDER DESK.

WITH THE FIRE MARSHALL AND/OR A.H.J.

1 WIRELESS ROUTER (OFOI) PROVIDE 2" CONDUIT ABOVE CEILING WITH CABLE PER

JACK/FACEPLATE WITH WIRE IN 3/4" CONDUIT TO ABOVE CEILING, RUN WIRE TO

INSULATION. PROVIDE WIRE TO POINT DESIGNATED ON PLAN. LEAVE MIN. 6'-0" OF SLACK ON BOTH ENDS. RUN ALL WIRE IN NEAT MANNER, DO NOT BLOCK ANY WALKWAYS OR

6 EXACT MOUNTING LOCATION OF THE VOICE EVACUATION COTROL PANEL TO BE VERIFIED

2 POA (OFOI) IN UPPER CABINET PROVIDE DUPLEX RECEPTACLE AND NETWORK

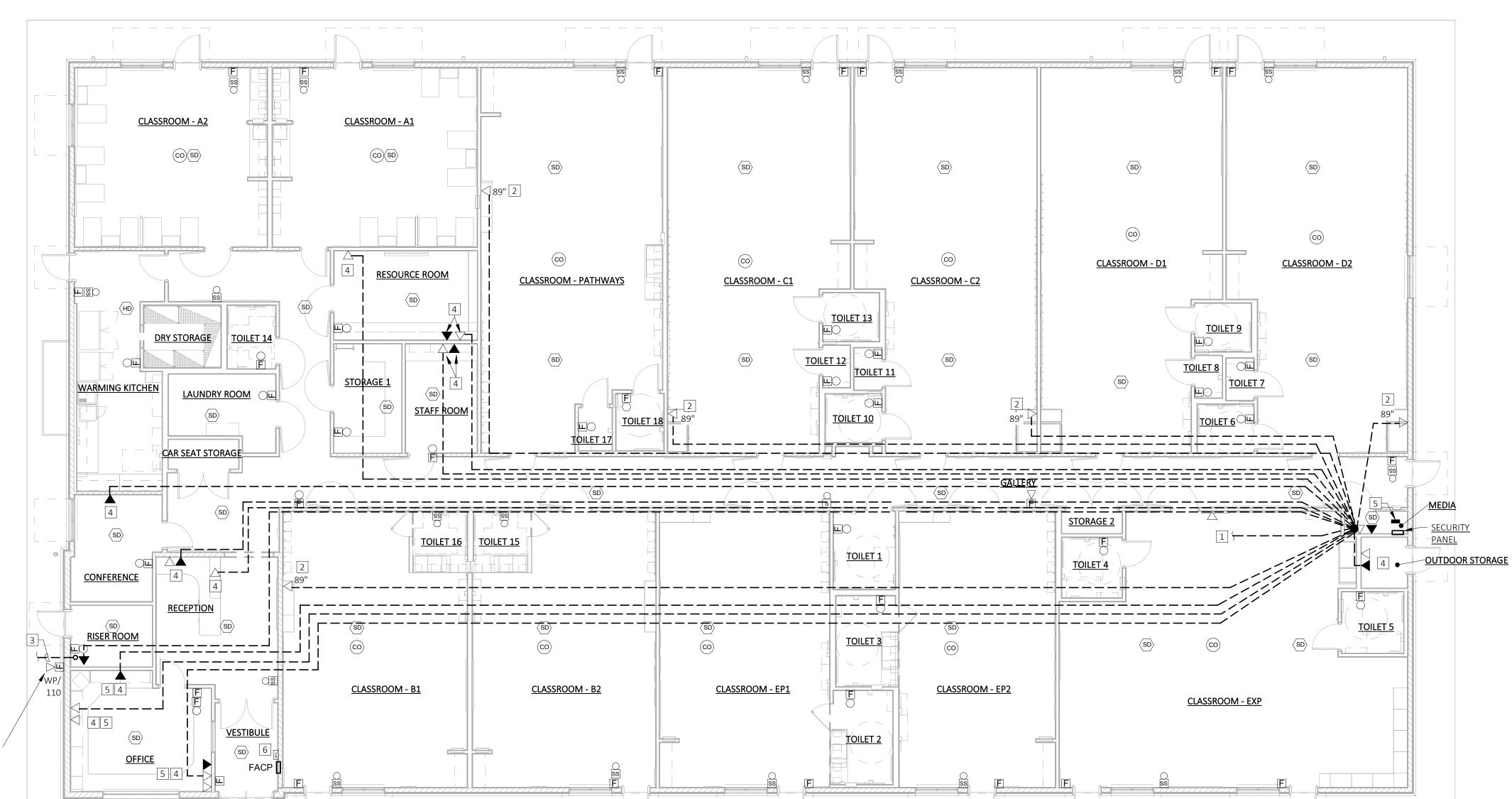
4 NETWORK FACEPLATE @18" AFF UNO. RUN 3/4" CONDUIT TO ABOVE CEILING

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For Construction COMMUNICATIONS

PLAN



# COMMUNICATIONS PLAN

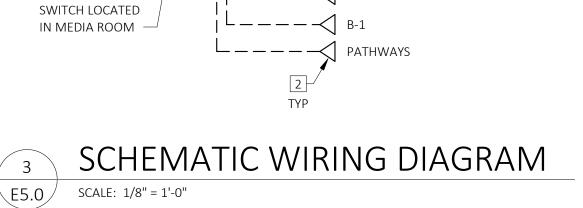
### **GENERAL FIRE ALARM NOTES**

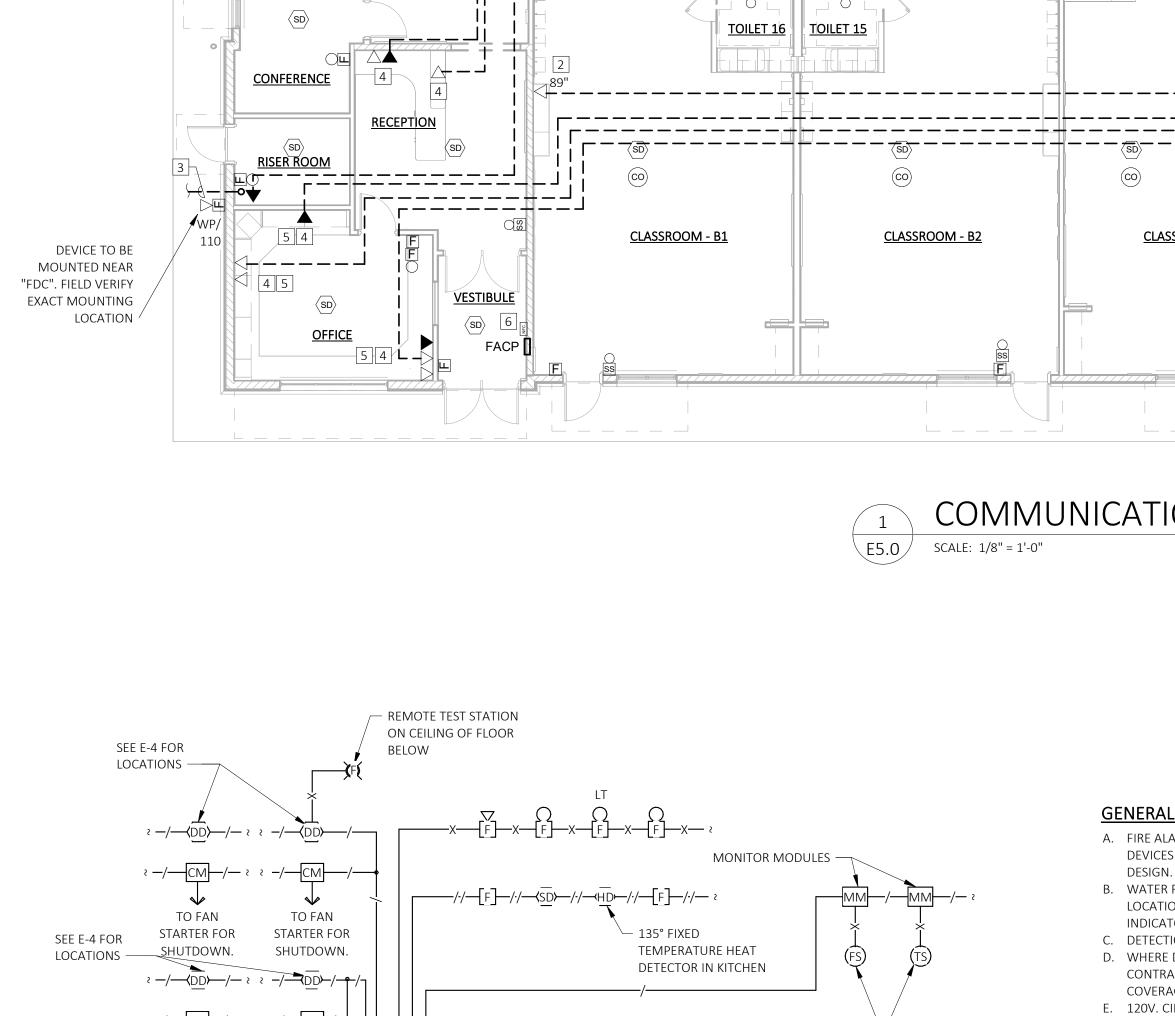
- A. FIRE ALARM DESIGN IS THE RESPONSIBILITY OF A DULY LICENSED FIRE ALARM CONTRACTOR. THE DEVICES SHOWN ON THE PLANS ARE SCHEMATIC ONLY AND DO NOT REPRESENT AN ENGINEERED
- B. WATER FLOW AND TAMPER SWITCHES REFER TO FIRE PROTECTION DRAWINGS FOR ESTIMATE OF INDICATOR IF SHOWN ON SITE PLANS.
- C. DETECTION SHALL BE LOCATED IN ROOM CONTAINING FIRE ALARM CONTROL PANEL WHERE DUCT CONFIGURATION PROHIBITS PROPER LOCATION OF ONE DETECTOR PER UNIT
- 120V. CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING (RED TAPE) AND BE IDENTIFIED AS "FIRE ALARM CIRCUIT CONTROL" PER NFPA 72.
- WIRING SHOWN IS FOR ESTIMATING PURPOSES ONLY. CONTRACTOR SHALL INCLUDE PROPER WIRING IN ACCORDANCE WITH APPROVED SHOP DRAWINGS.
- PROTECTION KIT WITH 19,500A PEAK SURGE CURRENT CAPACITY. INSTALL PER MANUFACTURER'S
- G. PROVIDE & INSTALL SUPPRESSOR TO PROTECT VIA POWER & TELE LINES. DITEK #DTK-FPK1 FIRE RECOMMENDATIONS.

## IF REQUIRED BY CODE —//— = (2) #18 TWISTED, SHIELDED TYPICAL FIRE ALARM WIRING DIAGRAM

IN CONDUIT OR 'MC' CABLE

GENERAL NOTE B





REMOTE

ANNUNCIATOR

SP CENTRAL STATION CONNECTION

SCALE: 1/8" = 1'-0"

 $\angle$  SURGE PROTECTION —/— = (2) #18 TWISTED, SHIELDED AND (2) #14

FIRE

ALARM

CONTROL

TO SMOKE

DAMPER FOR

SHUTDOWN

GROUND PER N.E.C. ───

A-29 120 VOLTS

TO SMOKE

DAMPER FOR

SHUTDOWN

3200 WINDY HILL ROAD, SUITE 1200 E ATLANTA, GEORGIA 30339-5640 THESE DRAWINGS AND THE DESIGN REPRESENTED HEREBY ARE THE EXCLUSIVE THESE DRAWINGS AND THE DESIGN REPRESENTED HEREBY ARE THE EXCLUSIVE PROPERTY OF PRIMROSE SCHOOL FRANCHISING CO. REPRODUCTION OR ANY USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF PRIMROSE SCHOOL FRANCHISING CO. IS PROHIBITED. ANY UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.

## ELECTRICAL SITE GENERAL NOTES

1 EC SHALL PROVIDE UNDERGROUND SECONDARY ELECTRIC SERVICE WITH WARNING

2 EC SHALL PROVIDE 4" UNDERGROUND CONDUIT FROM TELEPHONE PEDESTAL TO

3 MONUMENT SIGN: PROVIDE WP JUNCTION BOX WITH CIRCUIT FOR INTERNALLY

4 UTILITY COMPANY IS RESPONSIBLE FOR THE TRANSFORMER, PRIMARY SERVICE,

AND SERVICE REQUIREMENTS FOR COMPLETE AND OPERATIONAL SYSTEM. 5 CONTRACTOR SHALL COORDINATE TRANSFORMER PAD WORK WITH UTILITY.

6 EC SHALL PROVIDE TYPE N GROUND MOUNTED FLOOD LIGHT FOR FLAG POLE. LOCATE

WALL. SEE ONE-LINE DIAGRAM ON SHEET E1.0.

AND AIM AT FLAG. SEE 2/E1.O FOR CONTROLS.

ILLUMINATED SIGN.

AND PEDESTAL LOCATION WITH TELEPHONE COMPANY.

TAPE 12" BELOW GRADE ALONG ENTIRE ROUTE TO CT CABINET AT EXTERIOR BUILDING

TELEPHONE TERMINAL BOARD IN RISER ROOM. COORDINATE CONDUIT SIZE, ROUTING

PRIMARY CONDUITS AND WIRES TO THE TRANSFORMER. EC IS RESPONSIBLE FOR THE TRANSFORMER PAD AND THE SECONDARY FEEDER FROM THE TRANSFORMER TO THE BUILDING, CT CABINET AND SERVICE METER. CONTRACTOR SHALL PROVIDE MATERALS

- A. IMPORTANT: IMMEDIATELY FOLLOWING AWARD OF CONTRACT & PRIOR TO START OF WORK, EC SHALL CONTACT THE POWER COMPANY AND THE TELEPHONE COMPANY TO COORDINATE NEW SERVICES. EC TO VERIFY: LOCATION OF PRIMARY SOURCE, TRANSFORMER, AND SECONDARY FEEDER; LOCATION OF TELEPHONE SOURCE (POLE OR PEDESTAL); AVAILABLE VOLTAGE INCLUDING PHASE; AND METER INSTALLATION REQUIREMENTS. NOTIFY THE ENGINEER AND CONSTRUCTION MANAGER OF ANY DISCREPANCIES.
- B. SITE LIGHTING CIRCUITRY (2)#10; #10G; 3/4" CONDUIT, UNO. C. REFER TO SHEET S2.1 FOR POLE BASE DETAIL.
- D. SEE LIGHT FIXTURE SCHEDULE ON SHEET E2.0.
- E. UNDERGROUND WIRE TO SIGN LIGHT TO BE U.L. & CODE APPROVED TYPE UF AND CONNECTED TO GROUND FAULT CIRCUIT.

**UTILITY CONTACTS** COMPANY NAME: DTE ENERGY CO. ADDRESS: ONE ENERGY PLAZA DETROIT, MI 48226 PHONE: 800.477.4747

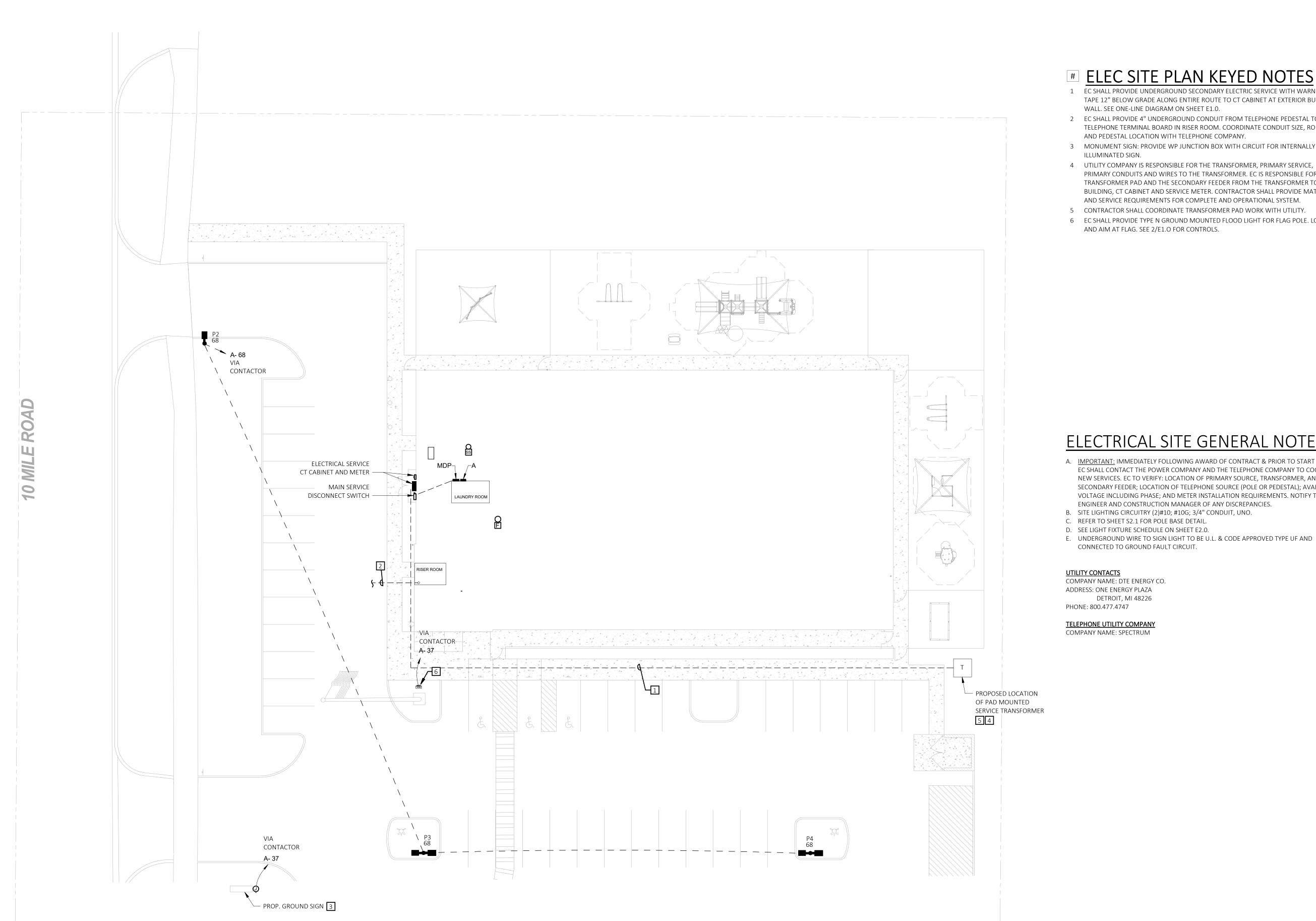
TELEPHONE UTILITY COMPANY COMPANY NAME: SPECTRUM

**ENGINEER** 

**Professional of Record:**David A. Tretter LICENSE NO: 6201310096 EXP. DATE: 6/22/25

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ELECTRICAL SITE



ELECTRICAL SITE PLAN