

C:\Users\CKrieg\OneDrive - Frederick Ward\Documents\Perryville High School Field House, CENTRAL\_drawing\F2UJF-rvt

11/20/2023 9:19:22 AM

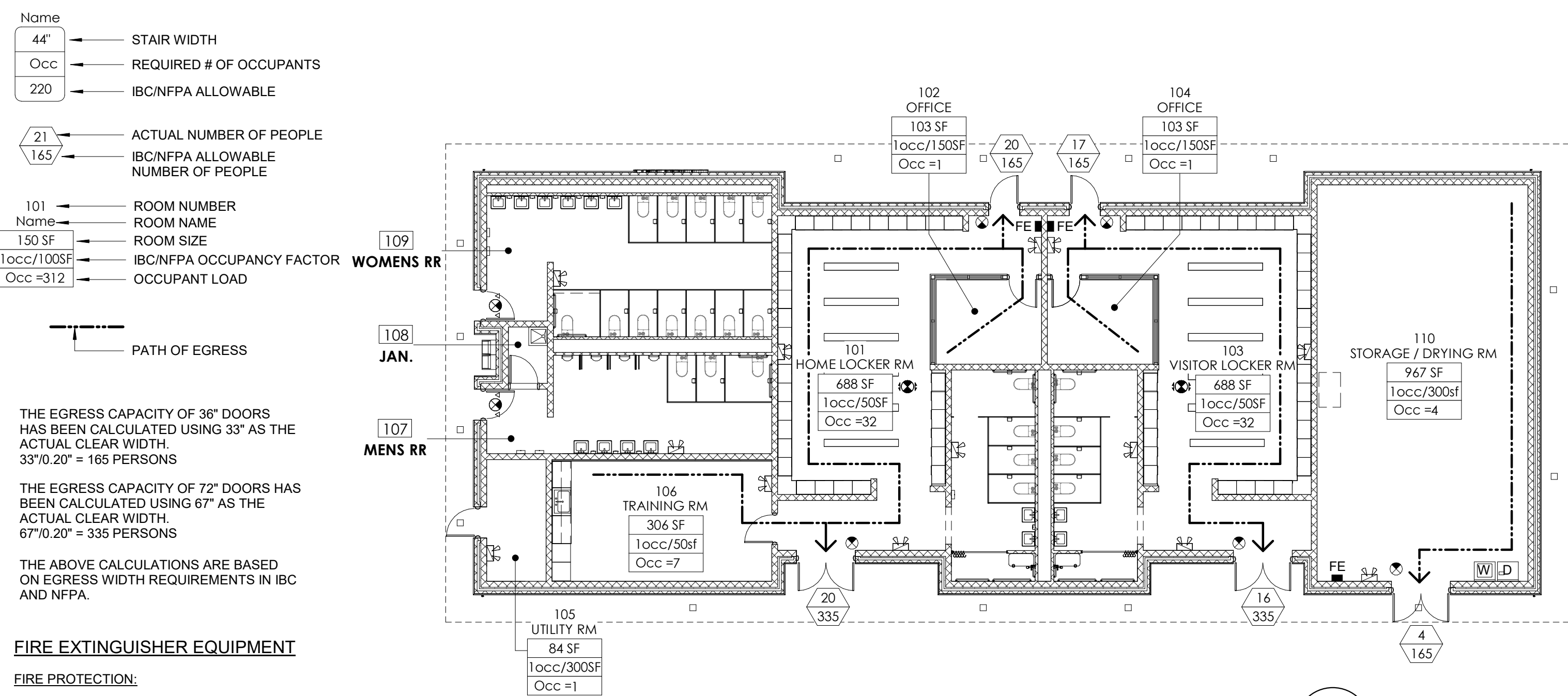
STANDARD ABBREVIATIONS									
ABOVE	ABV	EXTERIOR INSULATION	EIFS	PAINTED	PT				
ABOVE FINISH FLOOR	AFF	FINISH SYSTEM		PAIR	PR				
ACCESSIBLE	ACC	FASTEN (ER)	FAS	PAPER TOWEL DISPENSER	PTD				
ACOUSTIC or ACOUSTICAL	AC	FEET OR FOOT	FT	PARALLEL	PAR				
ACOUSTICAL CEILING TILE	ACT	FEMININE NAPKIN DISPOSAL	FND	PARTITION	PTN				
ADHESIVE	ADH	FIELD VERIFY	FV	PERPENDICULAR	PERP				
ALTERNATE	ALT	FINISH	FIN	PLASTIC OR PLASTER	PLAS				
ALUMINUM	ALUM	FINISH FLOOR	FF	PLATE	PL				
ANCHOR BOLT	AB	FIRE CODE	FC	PLYWOOD	PWD				
ANGLE	ANG	FIRE EXTINGUISHER	FE	POWER ACCUTATED	PAF				
ANODIZE(D)	ANO	FIREPROOFING	FP	FASTENER					
APPROXIMATE	APPROX	FLASHING	FLASH	PREENGINEERED	PRE-ENG				
ARCHITECT(URAL)	ARCH	FLOOR	FLR	PREFABRICATED	PREFAB				
AT	@	FLUORESCENT	FLUOR	PREFINISHED	PREFIN				
BABY CHANGING STATION	BCS	FOOTING	FTG	PROPERTY LINE	PL				
BEAM	BM	FOUNDATION	FDN	QUARRY TILE	QT				
BEARING	BRG	FULL SCALE	FS	RADIATOR or RADIUS	RAD				
BELOW	BEL	FURNISH	FURN	RAIN LEADER	RL				
BELOW FINISH FLOOR	BFF	FURRING	FUR	RECOMMENDATION	RECOM				
BITUMINOUS	BIT	GALVANIZED	GALV	REFERENCE	REF				
BLOCK	BLK	GALVANIZED IRON	GI	REFRIGERATOR	REFR				
BLOCKING	BLKG	GAUGE	GA	REINFORCE (ING) (ED)	REINF				
BOARD	BD	GLASS	GL	REINFORCED CONCRETE	RC				
BOTTOM	BOT	GRAB BAR	GB	REQUIRE	REQ'D				
BOTTOM OF DECK	BOD	GRADE	GD	RESILIENT	RES				
BOTTOM OF FOOTING	BOP	GYP	GYP	RETURN	RET				
BUILDING	BLDG	GYPSUM WALL BOARD	GBW	REUSE	REV				
BUILT UP ROOF	BUR	HARDWARE	HDW	RISER	R				
BULKHEAD	BLKHD	HEATING	HTG	ROOF DRAIN	RD				
CABINET	CAB	HEATING/VENTING and	HVAC	ROOFING	RFM				
CARPET (ED)	CPT	AIR CONDITIONING		ROUGH OPENING	RO				
CARPET EDGE	CE	HEAVY DUTY	HD	SANITARY NAPKIN	SND				
CAST IRON	CI	HEIGHT	HT	DISPENSER					
CEILING	CLG	HIGH	H	SECTION	SCHED				
CEMENT	CEM	HOLLOW CORE	HC	SHEET	SECT				
CENTER	CTR	HOLLOW METAL	HM	SHEATHING	SHG				
CENTER LINE	CL	HORIZONTAL	HORIZ	SHEET	SH				
CERAMIC TILE	CT	HORIZONTAL CONTROL JOINT	HCJ	SIMILAR	SIM				
CHANNEL	CHAN	INCLUDE	INCL	SOAP DISPENSER	SD				
CLEAR	CLR	INSIDE DIAMETER	ID	SOLID CORE	SC				
CLOSET	CL	INSULATION	INSUL	SPECIAL	SPCL				
COLUMN	COL	INTERMEDIATE	INTER	SPECIFICATION	SPEC				
COMBINATION	COMB	INTERIOR	INT	SPLASH BLOCK	SB				
CONCRETE	CONC	INVERT	INV	SQUARE	SQ				
CONCRETE MASONRY UNIT	CMU	JANITORS CLOSET	JAN	SQUARE FOOT	SQ FT or SF				
CONSTRUCTION	CONSTR	JOINT	JT	SQUARE YARD	SQ YD or SY				
CONTINUOUS or CONTINUE	CONT	KITCHEN	KIT	STAIN (ED)	STN				
CONTROL JOINT	CJ	LAMINATE (D)	LAM	STAINLESS STEEL	SS				
CORNER GUARD	CG	LAMINATED PLASTIC	LP	STANDARD	STD				
CORRIDOR	CORR	LAVATORY	LAV	STEEL	STL				
COUNTER SINK	CS	LIGHT	LT	STORAGE	STOR				
COURSE	CRS	LINEAR FEET	LIN FT	STRUCTURAL	STRUCT				
CUBIC	CU	LIQUID SOAP DISPENSER	LSD	STRUCTURAL FACING TILE	SFT				
CUBIC FEET	CU FT or CF	LONG or LENGTH	L	SUSPEND (ED)	SUSP				
CUBIC YARD	CU YD or CY	LOUVER	LVR	SYSTEM	SYS				
CYLINDER	CYL	MANUFACTURER	MFR	TELEPHONE	TEL				
DEMOLITION or DEMOLISH	DEMO	MASONRY	MAS	TELEVISION	TV				
DETAIL	DTL	MASONRY OPENING	MO	TERRAZZO	TZ				
DEEP or DEPTH	DIA	MATERIAL	MATL	THICK	THK				
DIAMETER	DIA	MAXIMUM	MAX	TO BE SELECTED	TBS				
DIMENSION	DIM	MECHANICAL	MECH	TOILET TISSUE DISPENSER	TTD				
DIVISION	DIV	METAL	MTL	TOLERANCE	TOL				
DOOR	DR	METAL THRESHOLD	MT	TONGUE AND GROOVE	T&G				
DOUBLE	DBL	MINIMUM	MIN	TOP OF STEEL	T/S				
DOWN	DN	MIRROR	MIR	TOP OF FOOTING	T				
DOWNSPOUT	DS	MISCELLANEOUS	MISC	TREATED	TRD				
DRAWING	DWG or DWG	MODULAR	MOD	TRIPLE	TPL				
DRINKING FOUNTAIN	DF	MOP AND BROOM HOLDER	MBH	TURN DOWN SLAB	TDS				
EACH	EA	MOLDING	MLDG	TYPICAL	TYP				
EACH FACE	EF	MOUNTED	MTD	UNFINISHED	UNF				
EACH WAY	EW	NATURAL	NAT	UNLESS NOTED OTHERWISE	UNO				
ELECTRIC or ELECTRICAL	ELEC	NOMINAL	NOM	VERTICAL	VERT				
ELECTRIC WATER COOLER	EW	NOT APPLICABLE	NA	VINYL BASE	VB				
ELEVATION (GRADE)	ELEV	NOT IN CONTRACT	NIC	VERTICAL CONTROL JOINT	VCJ				
ENCLOSURE	ENCL	NOT TO SCALE	NTS	VINYL COMPOSITION TILE	VCT				
ENTRANCE	ENTR	NUMBER	No or #	WATER CLOSET	WC				
EQUAL	EQ	ON CENTER	OC	WATER HEATER	WH				
EQUIPMENT	EQUIP	OPENING	OPP	WATER RESISTANT	WR				
ESTIMATE	EST	OPPOSITE	OPP	WATERPROOF (ING)	WP				
EXHAUST	EXH	OUTSIDE DIAMETER	OD	WEIGHT	WT				
EXISTING	EXIST	OVERALL	OA	WIDED WIRE FABRIC	WWF				
EXISTING TO REMAIN	ETR	OVERHEAD	OH	WITH	W/				
EXPANSION BOLT	EXP BT			WITHOUT	W/O				
EXPANSION JOINT	EXP			WOOD	WD				
EXPOSED	EXTEN			YARD	YD				
EXTENSION	EXT								
EXTERIOR									

## PROJECT NOTES

- CONTRACTOR AND ANY SUB-CONTRACTOR HAVING SUBMITTED PROPOSAL FOR THIS WORK SHALL BE HELD AS HAVING CLEAR AND COMPLETE UNDERSTANDING OF REQUIREMENTS FOR THEIR WORK UNDER THE CONTRACT. THIS IS TO INCLUDE BUT NOT LIMITED TO SITE/CIVIL, ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, INFORMATION TECHNOLOGY, ETC., SO AS TO AVOID COORDINATION ERRORS, OMISSIONS AND MISINTERPRETATIONS. NO ADDITIONAL COMPENSATION WILL BE AUTHORIZED FOR ALLEGED ERRORS, OMISSIONS AND MISINTERPRETATIONS. WHETHER THEY ARE A RESULT OF A FAILURE TO OBSERVE THESE REQUIREMENTS OR NOT, CONTRACTOR IS ALSO REQUIRED TO COORDINATE WITH ANY OWNER SUPPLIED EQUIPMENT REQUIREMENTS.
- WHERE DISCREPANCIES EXIST BETWEEN VARIOUS DRAWINGS, THE CONTRACTOR WILL CONTACT ARCHITECT AND OWNER IN WRITING BEFORE PROCEEDING. THE CONTRACTOR WILL BE RESPONSIBLE FOR IMPLEMENTING ANY REASONABLE INTERPRETATION AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTORS ARE RESPONSIBLE AND LIABLE FOR SAFETY AND PROTECTION OF SITE, PROJECT, WORKMEN, SUB-CONTRACTORS, THE PUBLIC AND PUBLIC PROPERTY AGAINST INJURY OR DAMAGE OF ANY TYPE, FROM ANY CAUSE, UNTIL FINAL ACCEPTANCE OF THE PROJECT. CONTRACTOR SHALL CARRY INSURANCE TO FULLY PROTECT THEIR INTEREST AND THOSE OF THE OWNER.
- ALL WORK SHALL CONFORM TO LOCAL BUILDING CODES AND REGULATIONS AND SHALL BE INSTALLED ACCORDING TO THE JOINT REQUIREMENTS AND DECISIONS OF ALL LOCAL AUTHORITIES. IF ANY CONTRACTOR OR SUBCONTRACTOR PERFORMS ANY WORK CONTRARY TO THE LOCAL BUILDING CODE AND ORDINANCES, RULES AND REGULATIONS, WITHOUT PRIOR WRITTEN NOTICE TO THE OWNER, HE SHALL BEAR ALL COSTS ARISING THEREFROM.
- COORDINATE AND SCHEDULE WORK WITH THE OWNER TO ACCOMMODATE THE OWNER'S NORMAL ACTIVITIES AND TO MAINTAIN THE SAFETY OF THE OWNER'S PROPERTY, STAFF AND OTHERS USING THE SITE.
- ALL CONTRACTORS SHALL CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE BEFORE STARTING THE WORK. DIMENSIONS SHOWN ARE FROM FACE OF FINISH OR FACE OF MASONRY WALL UNLESS OTHERWISE NOTED.
- EVERY EFFORT HAS BEEN MADE TO IDENTIFY THOSE DIMENSIONS WHICH REQUIRE FIELD VERIFICATION WITH +/- DIMENSIONS NOT SO NOTED ARE INTENDED TO BE HELD. ALL DIMENSIONS, HOWEVER, SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OR INSTALLATION OF BUILDING COMPONENTS.
- ALL CONTRACTORS SHALL COORDINATE LOCATIONS, CLEARANCES, AND ELEVATIONS OF BUILDING STRUCTURE, HVAC WORK, ELECTRICAL WORK, LIGHT FIXTURES, MECHANICAL WORK, CEILINGS AND THE LIKE WITH THEIR RESPECTIVE WORK PRIOR TO FABRICATION AND INSTALLATION. CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR POTENTIAL CONFLICTS BEFORE PROCEEDING WITH THE WORK.
- COORDINATE WITH MECHANICAL AND ELECTRICAL REQUIREMENTS FOR CONDITIONS WHICH WILL DISTURB EXISTING CONDITIONS AND WHICH WILL REQUIRE SELECTIVE DEMOLITION PATCHING AND FINISHING.
- NOT EVERY CONDITION IS DETAILED. WHERE SPECIFIC DETAILING IS NOT SHOWN, EXECUTE THE CONSTRUCTION IN A SOUND, WORKMANLIKE MANNER IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDED INSTALLATION METHODS & PROCEDURES.
- WHEN PRODUCT SPECIFICATIONS DO NOT EXIST, CONTRACTOR TO USE MANUFACTURERS RECOMMENDED INSTALLATION METHODS & PROCEDURES.
- ADJACENT BUILDING SPACES NOT IN THE PROJECT AREA SHALL BE KEPT CLEAN AND PROTECTED. REMOVAL OF ALL EXISTING CONSTRUCTION, MECHANICAL AND ELECTRICAL EQUIPMENT AND FIXTURES SHALL BE EXECUTED IN A CAREFUL AND ORDERLY MANNER WITH THE LEAST POSSIBLE DISTURBANCE OF ADJOINING AREAS. ALL EXISTING WORK DISTURBED OR DAMAGED BY THE PROCESS OF DEMOLITION AND NEW CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER. EVERY MEANS SHALL BE USED BY EACH TRADE TO PROTECT THE WORK AND MATERIALS OF ALL OTHERS. IN THE EVENT OF DAMAGE, IMMEDIATE REPAIRS AND REPLACEMENTS SHALL BE MADE TO THE SATISFACTION OF THE ARCHITECT.
- THE AMOUNT OF DUST RESULTING FROM THE WORK SHALL BE CONTROLLED TO PREVENT THE SPREAD OF DUST TO THE OTHER PORTIONS OF THE BUILDING. THE USE OF WATER WILL GENERALLY NOT BE PERMITTED. PROVIDE DROP CLOTHS, DUST CURTAINS OR OTHER SUITABLE BARRIERS TO PREVENT THE DUST TRAVELING TO OTHER PORTIONS OF THE BUILDING. SEAL OFF ALL RETURN AIR REGISTERS AND OTHER MECHANICAL SYSTEMS TO PREVENT DUST FROM ENTERING SUCH SYSTEMS. IN ALL AREAS WHERE CONSTRUCTION DIRT AND/OR DUST IS PRODUCED AS A RESULT OF THE WORK, SUCH AREAS SHALL BE VACUUMED AND/ OR DAMP MOPPED WITH APPROPRIATE EQUIPMENT.
- MAINTAIN THE PREMISES FREE FROM ACCUMULATION OF WASTE, DEBRIS, AND RUBBISH CAUSED BY THE PROCESS OF DEMOLITION. AT COMPLETION OF THE WORK REMOVE ALL WASTE MATERIALS, TOOLS AND CONSTRUCTION EQUIPMENT, LEAVING THE AREA CLEAN AND READY FOR NEW CONSTRUCTION.

# NEW FIELD HOUSE AT STADIUM

## 1696 PERRYVILLE RD, PERRYVILLE, MD 21903



### FIRE EXTINGUISHER EQUIPMENT

#### FIRE PROTECTION:

#### EXTINGUISHING EQUIPMENT GUIDELINES:

PROVIDE FIRE EXTINGUISHER PER NFPA 10.

MINIMUM PLACEMENT OF ONE 10LB ABC PORTABLE FIRE EXTINGUISHER AND SHALL BE PROVIDED WITH A MAXIMUM OF 75FT OF TRAVEL DISTANCE TO THE EXTINGUISHER.

FIRE EXTINGUISHERS SHALL BE CONSPICUOUSLY LOCATED WHERE THEY ARE READILY ACCESSIBLE AND IMMEDIATELY AVAILABLE IN THE EVENT OF A FIRE.

FIRE EXTINGUISHER SHALL BE LOCATED ALONG NORMAL PATHS OF TRAVEL, INCLUDING EXITS FROM AREAS.

SIGNS OR OTHER MEANS USED TO INDICATE FIRE EXTINGUISHER LOCATIONS SHALL BE LOCATED IN CLOSE PROXIMITY AND SHALL BE VISIBLE FROM THE NORMAL PATH OF TRAVEL.

#### INSTALLATION:

BEFORE INSTALLING ANY FIRE-EXTINGUISHING EQUIPMENT, THE OWNER/ RESIDENT SHOULD READ AND UNDERSTAND THE INSTALLATION AND USE INSTRUCTIONS, INCLUDING THE LIMITATIONS, CAUTION, AND WARNINGS CONTAINED ON THE EQUIPMENT AND IN THE OWNER'S MANUAL.

PORTABLE FIRE EXTINGUISHERS SHOULD BE INSTALLED PER NFPA 10 AND AS FOLLOWS:

(1) PROVIDE A MINIMUM OF 2 FIRE EXTINGUISHERS. LOCATION SHOWN ON DRAWINGS AND/ OR AS DIRECTED BY FIRE MARSHAL IN THE FIELD.

(2) IN AN ACCESSIBLE LOCATION, FREE FROM BLOCKING BY STORAGE AND EQUIPMENT, AND NEAR ROOM EXITS THAT PROVIDE AN ESCAPE ROUTE.

(3) SO THAT THE TOP OF THE EXTINGUISHER IS NOT MORE THAN 5 FT ABOVE THE FLOOR AND NOT LESS THAN 4 IN. ABOVE THE FLOOR; SHOULD BE EASY TO REACH AND REMOVE AND SHOULD BE PLACED WHERE IT WILL NOT BE DAMAGED.

(4) PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED USING ANY OF THE FOLLOWING MEANS:

- SECURELY ON A HANGER INTENDED FOR THE FIRE EXTINGUISHER.
- IN A BRACKET INCORPORATING RELEASING STRAPS OR BANDS SUPPLIED BY THE EXTINGUISHER MANUFACTURER.
- ON A LISTED BRACKET INCORPORATING RELEASING STRAPS OR BANDS APPROVED FOR SUCH A PURPOSE.

(5) PLACED SO THAT THE OPERATING INSTRUCTIONS ON THE EXTINGUISHER FACE OUTWARD.

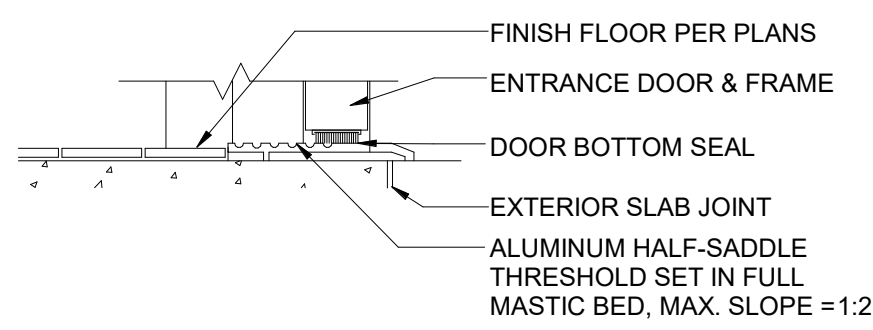
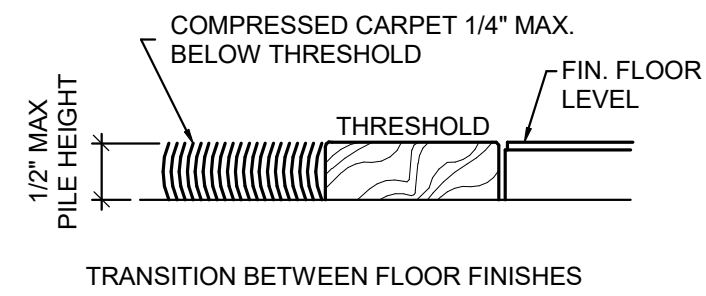
## CODE INFORMATION

PROJECT SHALL COMPLY WITH THE 2018 INTERNATIONAL BUILDING CODE (IBC); THE 2018 NFPA 101 LIFE SAFETY CODE; STATE OF MARYLAND ACCESSIBILITY CODE (COMAR 09.12.53); THE 2018 INTERNATIONAL ENERGY CONSERVATION CODE; THE AMERICAN WITH DISABILITIES ACT; AND ALL APPLICABLE CODES AND ORDINANCES.

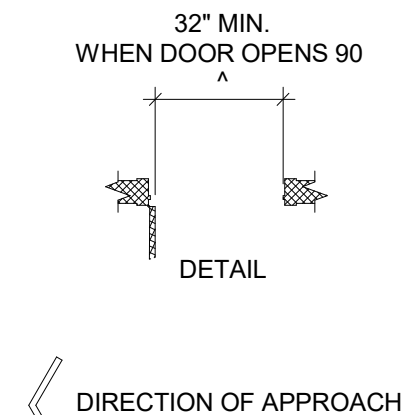
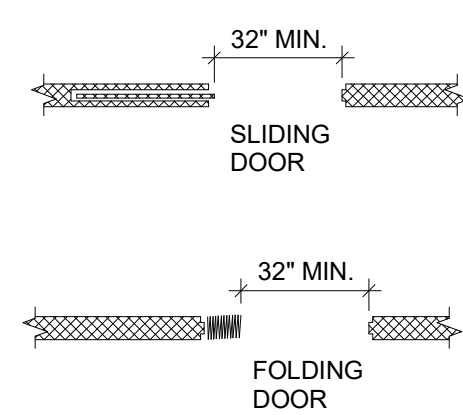
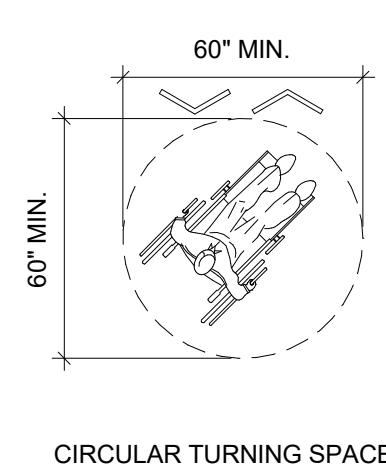
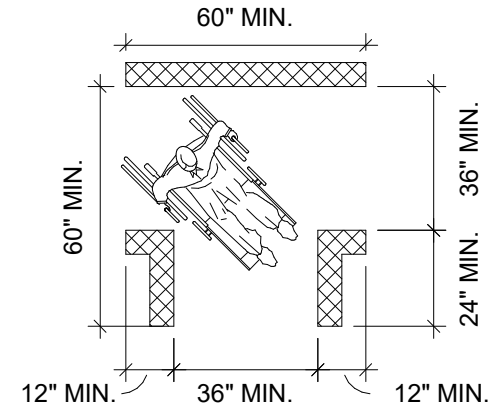
CODE REQUIREMENT	REFERENCE	PROJECT INFORMATION
USE GROUP	IBC, SECTION 302	USE - E-EDUCATIONAL
CONSTRUCTION TYPE	IBC, SECTION 602	TYPE - VB
FIRE RESISTIVE RATING REQUIREMENTS FOR BUILDING ELEMENTS	IBC, TABLE 601	STRUCTURAL FRAME = 0 HOURS; BEARING WALLS = 0 HOURS; NONBEARING WALLS EXTERIOR = 0 HOURS; NONBEARING WALLS INTERIOR = 0 HOURS; FLOOR CONSTRUCTION = 0 HOURS; ROOF CONSTRUCTION = 0 HOURS.
FIRE RESISTIVE RATING REQUIREMENTS FOR EXTERIOR WALLS	IBC, TABLE 602	FIRE SEPARATION DISTANCE IS GREATER THAN 30' THEREFORE NO FIRE RATING IS REQUIRED FOR EXTERIOR WALLS.
AUTOMATIC SPRINKLER SYSTEM	IBC, SECTION 903.2.3(1)	NONE REQUIRED LESS THAN 12,000 SQ.FT.
MAXIMUM HEIGHT & AREA = 40'-0" HIGH, 1 STORY & 6,000 SQ. FT.	IBC, TABLE 504.3, 504.4, 506.2	ACTUAL HEIGHT = 1 STORY + ATTIC ACTUAL AREA = 4,890 SQ. FT.
AREA MODIFICATIONS	IBC, SECTION 506	N/A
OCCUPANT LOAD	IBC, TABLE 1004.1.2	78 OCCUPANTS
MINIMUM NUMBER OF EXITS	IBC, TABLE 1006.3.1	2 REQUIRED; 7 PROVIDED
EXIT ACCESS TRAVEL DISTANCE = 200' MAX.	IBC, TABLE 1017.2	200'-0" EGRESS DISTANCE

## DRAWING INDEX

NUMBER	NAME	REVISION
T1	TITLE SHEET	
C1	SITE PLAN	
G1	ADA STANDARDS	
G2	SPECIFICATIONS	
G3	SPECIFICATIONS	
A0	ARCH SITE/SLAB PLAN	
A1	FLOOR PLAN, REFLECTED CEILING PLAN	
A2	ROOF PLAN, ATTIC PLAN	
A3	ELEVATIONS, SECTIONS	
A4	ENLARGED PLANS, ELEVATIONS	
A5	WALL SECTIONS	
A6	WALL SECTIONS	
A7	DETAILS, DOOR SCHEDULE	
A8	ROOM FINISH SCHEDULE, ENLARGED ELEVATIONS	
S1	STRUCTURAL NOTES	
S2	FOUNDATION AND ROOF FRAMING PLANS	
S3	FOUNDATION SECTIONS AND TYPICAL DETAILS	
S4	FRAMING SECTIONS AND TYPICAL DETAILS	
M1	HVAC PLAN	
M2	FAN SCHEDULE, DETAILS	
M3	MECHANICAL SPECIFICATIONS	
P1	PLUMBING PLAN	
P2	DIAGRAM, DETAILS, SCHEDULES	
P3	DIAGRAMS, DETAILS	
P4	PIPING/PLUMBING SPECIFICATIONS	
E1	GENERAL NOTES AND SYMBOL S LIST	
E2	LIGHTING PLANS, SCHEDULE AND NOTES	
E3	POWER PLANS, SCHEDULE AND NOTES	
E4	POWER RISER, SCHEDULE AND NOTES	
E5	ELECTRICAL SPECIFICATIONS	

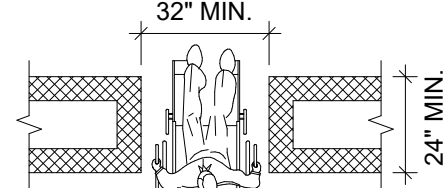


REFER TO DOOR SCHEDULE FOR SPECIFIC APPLICABLE DETAILS

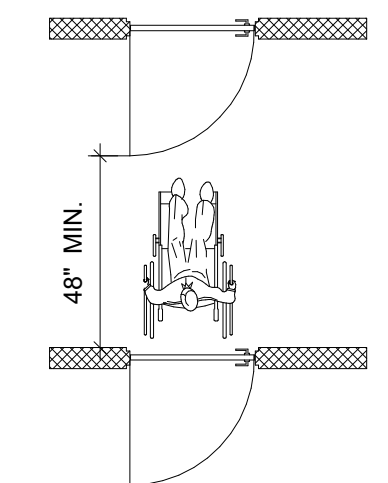
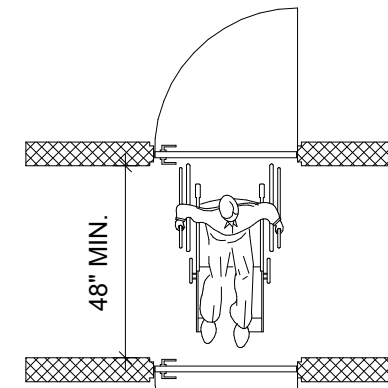


DIRECTION OF APPROACH

NOTE: ALL DOORS IN ALCOVES SHALL COMPLY WITH THE CLEARANCES FOR FORWARD APPROACHES.



MAXIMUM DOORWAY DEPTH



#### LETTERS AND NUMBERS:

- LETTERS AND NUMERALS SHALL BE RAISED 1/32" (0.8 MM) MINIMUM, UPPERCASE, SANS-SERIF OR SIMPLE SERIF AND SHALL BE ACCOMPANIED WITH GRADE 2 BRAILLE. RAISED CHARACTERS SHALL BE AT LEAST 5/8" (16 MM) HEIGHT, BUT NO HIGHER THAN 2" (50 MM). PICTOGRAMS SHALL BE ACCOMPANIED BY THE EQUIVALENT VERBAL DESCRIPTION PLACED DIRECTLY BELOW THE PICTOGRAM. THE BORDER DIMENSIONS OF THE PICTOGRAM SHALL BE 6" (152 MM) MINIMUM IN HEIGHT. (ADAAG SEC. 4.30.4)
- LETTER AND NUMBERS ON SIGNS SHALL HAVE A WIDTH-TO-HEIGHT RATIO BETWEEN 3.5 AND 1:1 AND A STROKE WIDTH-TO-HEIGHT RATIO BETWEEN 1:5 AND 1:10. (ADAAG SEC. 4.30.2)
- THE CHARACTERS AND BACKGROUND OF SIGNS SHALL BE EGGSHELL, MATTE, OR OTHER NON-GLARE FINISH. CHARACTERS AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUND - EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND. (ADAAG SEC. 4.30.5)
- CHARACTERS AND NUMBERS ON SIGNS SHALL BE SIZED ACCORDING TO THE VIEWING DISTANCE FROM WHICH THEY ARE TO BE READ. THE MINIMUM HEIGHT IS MEASURED USING AN UPPER CASE X. LOWER CASE CHARACTERS ARE PERMITTED. (ADAAG SEC. 4.30.3)
- BRAILLE SHALL BE CONTRACTED (GRADE 2) BRAILLE AND SHALL COMPLY WITH SECTION 703.4. (ICC/ANSI SEC. 703.4.1)
- BRAILLE SHALL BE BELOW THE CORRESPONDING TEXT. IF TEXT IS MULTILINE, BRAILLE SHALL BE PLACED BELOW THE ENTIRE TEXT. BRAILLE SHALL BE SEPARATED 3/8" (9.5 MM) MIN. FROM ANY OTHER TACTILE CHARACTERS AND 3/8" (9.5 MM) MIN. FROM RAISED BORDERS AND DECORATIVE ELEMENTS. BRAILLE PROVIDED ON ELEVATOR CAR CONTROLS SHALL BE SEPARATED 3/16" (4.8 MM) MIN. EITHER DIRECTLY BELOW OR ADJACENT TO THE CORRESPONDING RAISED CHARACTERS OR SYMBOLS. (ICC/ANSI SEC. 703.4.4)

#### SIGN LOCATIONS:

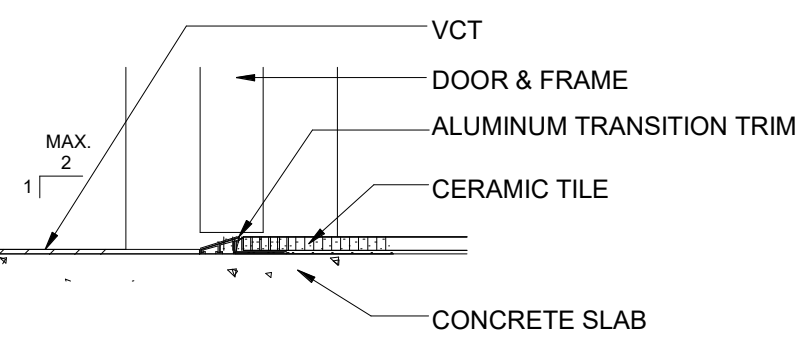
- ALL BUILDING ENTRANCES THAT ARE ACCESSIBLE TO AND USABLE BY PERSONS WITH DISABILITIES AND AT EVERY MAJOR JUNCTION ALONG OR LEADING TO AN ACCESSIBLE ROUTE OF TRAVEL SHALL BE IDENTIFIED WITH A SIGN DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AND WITH ADDITIONAL DIRECTIONAL SIGNS, AS REQUIRED, TO BE VISIBLE TO PERSONS ALONG APPROACHING PEDESTRIAN WAYS. (ICC/IBC SEC. 1110)
- WHERE PERMANENT IDENTIFICATION IS PROVIDED FOR ROOMS AND SPACES, SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. WHERE THERE IS NO WALL SPACE TO THE LATCH SIDE OF THE DOOR, INCLUDING AT DOUBLE LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL. MOUNTING HEIGHT SHALL BE 60" (1525 MM) ABOVE THE FINISH FLOOR TO THE CENTERLINE OF THE SIGN. MOUNTING LOCATION FOR SUCH SIGNAGE SHALL BE SO THAT A PERSON MAY APPROACH WITHIN 3" (76 MM) OF THE SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR. (ADAAG SEC. 4.30.6)
- ADDITIONAL DIRECTIONAL SIGNS ALONG ACCESSIBLE PATH OF TRAVEL ARE REQUIRED. (ICC/IBC SEC. 1110)
- BUILDING REMODELED TO PROVIDE ACCESSIBLE SANITARY FACILITIES FOR PUBLIC USE SHALL HAVE INFORMATION POSTED IN THE LOBBY AS PART OF THE BUILDING DIRECTORY.

#### INTERNATIONAL SYMBOL OF ACCESSIBILITY:

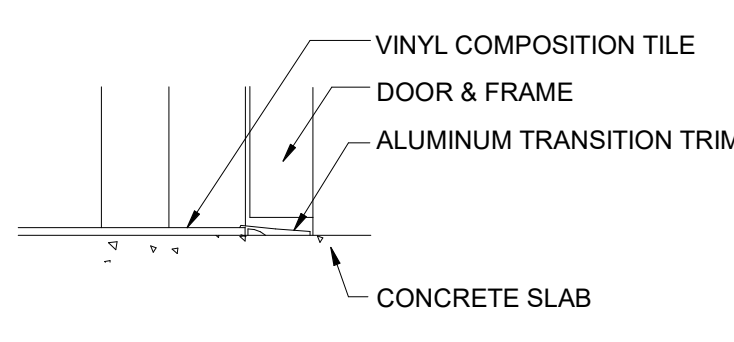
- STANDARD USED TO IDENTIFY ACCESSIBLE FACILITIES.
- WHITE FIGURE ON BLUE BACKGROUND, COLOR #15090 ON FEDERAL STANDARD #955A.
- WHEN ENFORCING AGENCY DETERMINES, IF APPROPRIATE, SPECIAL DESIGNS AND COLORS MAY BE APPROVED.
- BRAILLE: (ICC/ANSI TABLE 703.4.3)
- DOTS TO BE 0.09" (2.3 MM) TO 0.1" (1.5 MM) ON CENTER IN EACH CELL.
- 0.241" (6.1 MM) TO 0.3" (7.6 MM) SPACE BETWEEN CELLS HORIZONTALLY.
- 0.385" (10.0 MM) TO 0.4" (10.2 MM) SPACE BETWEEN CELLS HORIZONTALLY.
- DOTS RAISED 0.025" (0.6 MM) TO 0.037" (0.9 MM) ABOVE BACKGROUND.
- DOTS BASE DIAMETER TO BE 0.059" (1.5 MM) TO 0.063" (1.6 MM)

- NOTE:
- 1/2" MAXIMUM TOTAL HEIGHT WITH 1/4" MAXIMUM VERTICAL CHANGE AT EDGE.
  - 1:2 SLOPED BEVEL REQUIRED IF LEVEL CHANGE IS OVER 1/4" VERTICAL.
  - LEVEL CHANGES OF MORE THAN 1/2" MUST BE RAMPED AND COMPLY WITH RAMP REQUIREMENTS

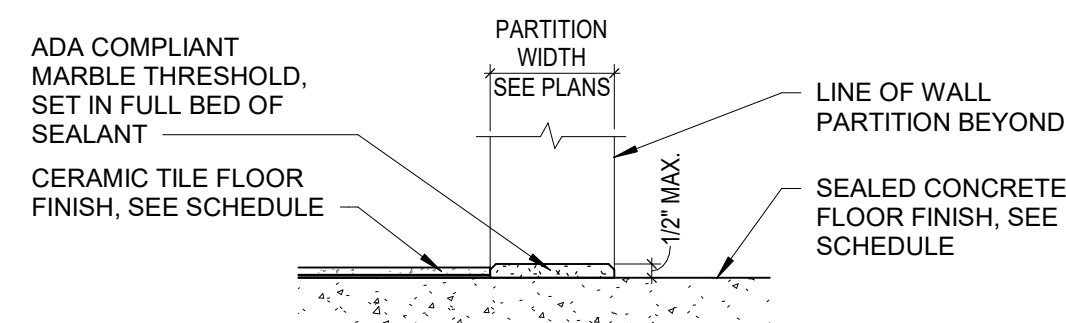
#### ACCESSIBLE ENTRANCE THRESHOLD



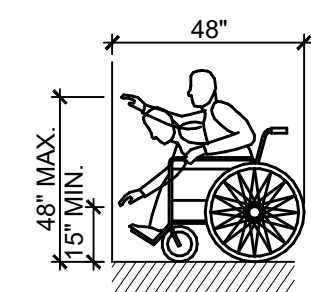
a) TRANSITION - VCT TO CT



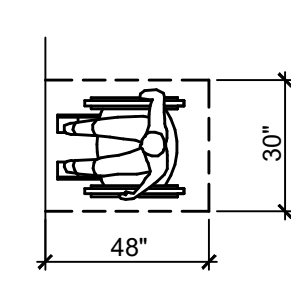
b) TRANSITION - VCT TO CONC.



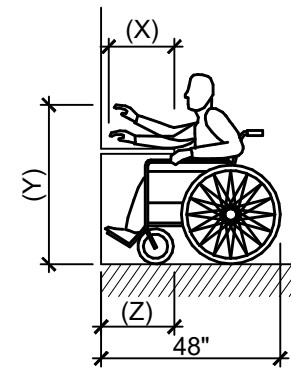
c) TRANSITION - CT TO SEALED CONC.



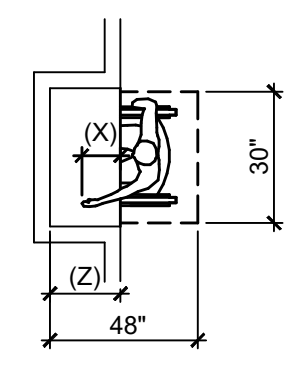
HIGH FORWARD REACH LIMIT



SLIDE SIDE FRONT APPROACH DOORS AND FOLDING DOORS



LATCH SIDE FORWARD APPROACH DOORS AND FOLDING DOORS



LATCH SIDE FORWARD APPROACH DOORS AND FOLDING DOORS

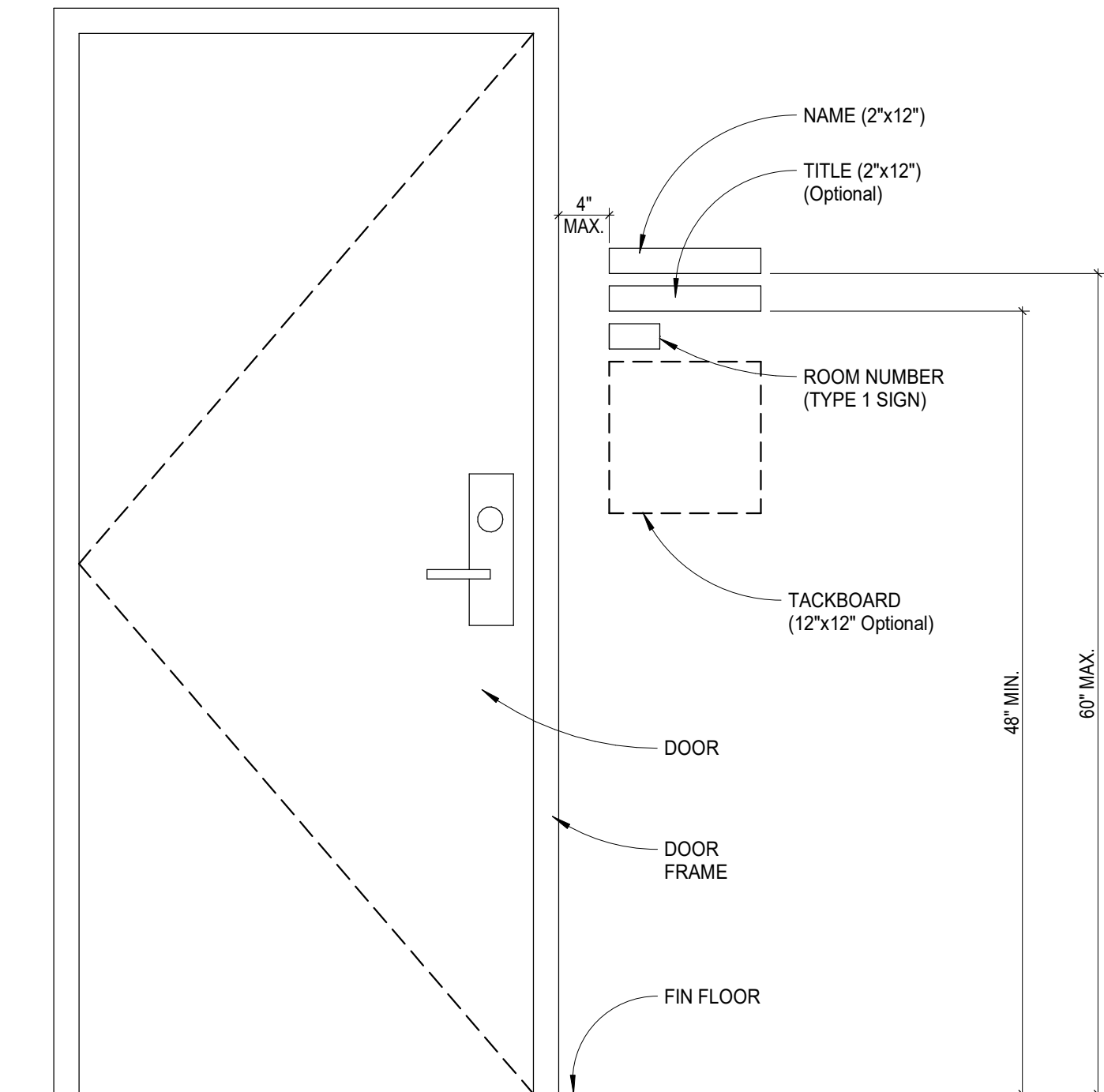
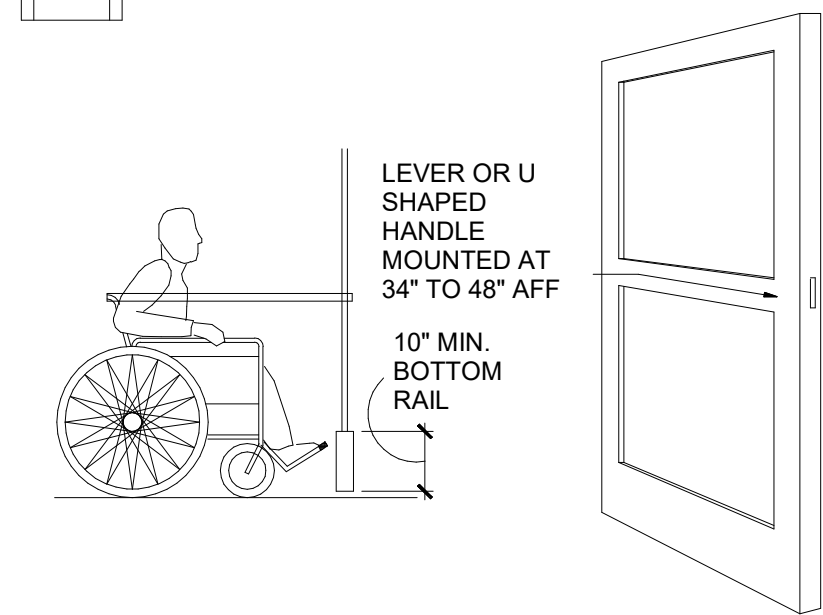
#### DOOR TYPE:

- MINIMUM 10" HIGH SMOOTH SURFACE AT DOOR BOTTOM, EITHER ATTACHED PANEL OR BOTTOM RAIL.

#### HARDWARE:

- OPEN FROM INSIDE WITHOUT USE OF KEY OR SPECIAL KNOWLEDGE OR EFFORT.
- OPEN BY SINGLE EFFORT LEVER-TYPE DEVICE (NOT REQUIRING GRASPING).
- HANDLING, PULLS, LATCHES, LOCKS AND OTHER OPERABLE HARDWARE TO BE MOUNTED AT 34" TO 48" AFF.
- MAXIMUM 8.5 LBS. EFFORT TO OPERATE EXTERIOR DOOR, 5 LBS. FOR INTERIOR.

(WHERE INDICATED)  
A NARROW FRAME WITH A BEVELED TOP EDGE (60 DEGREE MAXIMUM BEVEL TO HORIZONTAL PLANE) INSTALLED AT THE BOTTOM OF A GLASS DOOR (WITH NO SIDE FRAMES) MAY BE USED IN LIEU OF PROVIDING THE REQUIRED 10-INCH UNINTERRUPTED SURFACE AT THE BOTTOM OF THE DOOR.



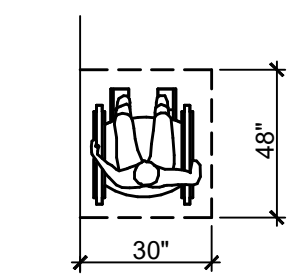
#### NOTES:

- MOUNT w/ (4) MECHANICAL FASTENERS AND ADHESIVE (TYP.)
- IF NO SPACE ON LATCH SIDE, SIGN SHALL BE PLACED ON THE NEAREST ADJACENT WALL

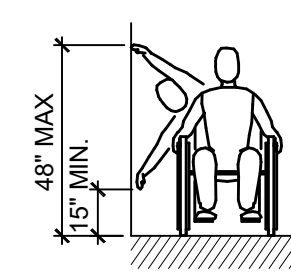
#### NOTES:

- X SHALL BE ≤ 25 INCHES; Z SHALL BE ≥ X.
- WHEN X ≤ 20 INCHES, THEN Y SHALL BE 48 INCHES MAXIMUM.
- WHEN X IS > 20 TO 25 INCHES, THEN Y SHALL BE 44 INCHES MAXIMUM.

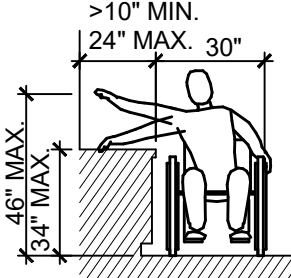
#### MAXIMUM FORWARD REACH OVER AN OBSTRUCTION



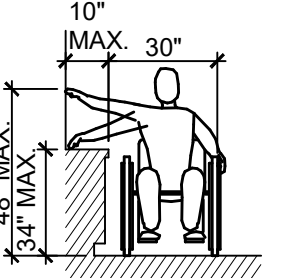
CLEAR FLOOR SPACE PARALLEL APPROACH



HIGH AND LOW SIDE REACH LIMITS

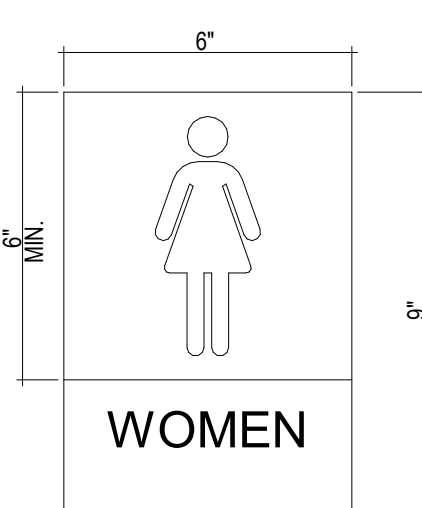


SIDE REACH OVER AN OBSTRUCTION

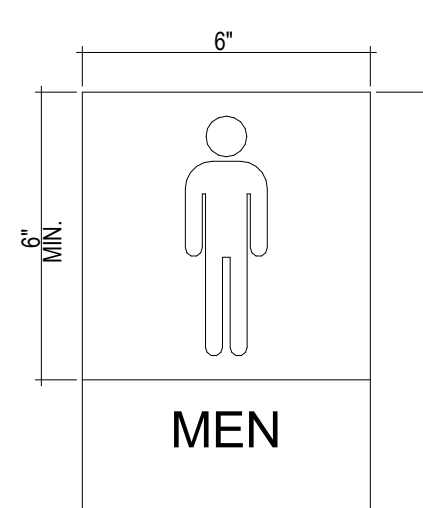


SIDE REACH OVER AN OBSTRUCTION

#### STANDARD RESTROOM SIGNAGE



WOMEN



MEN

RECTANGLE TO MEASURE 9" X 6" MOUNTED ON DOOR & BE 1/4" THICK, PICTOGRAM FIELD TO BE A MIN. OF 6", COLOR MUST BE CONTRASTING TO DOOR FINISH & MOUNTED @ 60" AFF TO CENTER.

REVISIONS	DESCRIPTION
REV#	DATE

ARCHITECTS  
ENGINEERS  
PLANNERS  
SURVEYORS

**FREDERICK WARD ASSOCIATES**

410-838-7900  
www.frederickward.com

P.O. Box 727, 5 South Main Street, Elkton, Maryland 21024

CECIL COUNTY PUBLIC SCHOOLS

201 BOOTH ST, ELKTON, MD 21821

ADA STANDARDS

NEW FIELD HOUSE AT STADIUM

1686 PERRYVILLE RD, PERRYVILLE, MD 21903

STATE OF MARYLAND  
WILLIAM STANLEY  
ARCHITECT

DATE: 11/03/2023  
SCALE: AS NOTED  
DRAWN BY: CK, AH  
CHECKED BY: WS

DRAWING NO: G1  
PWA JOB NUMBER: 2181073.00

010000 - GENERAL REQUIREMENTS

1. LOCATE THE WORK AND COMPONENTS OF WORK ACCURATELY, IN CORRECT ALIGNMENT AND ELEVATIONS, AS INDICATED ON DRAWINGS. COMPLY WITH MANUFACTURERS' WRITTEN INSTRUCTIONS FOR INSTALLING PRODUCTS. INSTALL PRODUCTS AT A TIME AND UNDER CONDITIONS THAT WILL ENSURE THE BEST POSSIBLE RESULTS. PROTECT COMPLETED WORK FROM DAMAGE AND DETERIORATION. REPAIR OR REPLACE ANY PART OF THE WORK THAT HAS BEEN DAMAGED PRIOR TO SUBSTANTIAL COMPLETION.

2. CONTRACTOR TO HOLD A PRE-CONSTRUCTION MEETING WITH OWNER, ARCHITECT, AND OTHER PERTINENT PARTIES TO DETERMINE AND DISCUSS TENTATIVE CONSTRUCTION SCHEDULE, CRITICAL ITEMS, ADMINISTRATIVE PROCEDURES, SITE MOBILIZATION, AGENDA, AND TIMING OF PROGRESS MEETINGS, AND OTHER ITEMS OF SIGNIFICANCE THAT COULD AFFECT PROGRESS.

3. PROVIDE ELECTRONIC PDFS OR REQUIRED SUBMITTALS TO THE ARCHITECT FOR REVIEW. ARCHITECT SHALL REVIEW AND MARK AS "NO EXCEPTION TAKEN", "REVIEWED WITH COMMENTS", "REVISE AND RESUBMIT", OR "REJECTED" WITHIN 10 BUSINESS DAYS OF RECEIPT. CONTRACTOR TO RESUBMIT CORRECTED SUBMITTALS.

4. ON THE DATE OF SUBSTANTIAL COMPLETION CONTRACTOR SHALL CONDUCT A WALK-THROUGH INSPECTION OF THE PROJECT WITH THE PROJECT TEAM. THE ARCHITECT SHALL COMPLETE A PUNCH LIST NOTING ANY DEFICIENCIES AND INCOMPLETE ITEMS.

5. EMPLOY PROFESSIONAL CLEANERS FOR FINAL CLEANING. REMOVE ALL CONSTRUCTION EQUIPMENT, TOOLS, AND DEBRIS. CLEAN EXTERIOR, INCLUDING SWEEPING AND RAKING OF GROUNDS. CLEAN BUILDING SURFACES AND EQUIPMENT TO REMOVE DUST, DIRT, PAINT, STAINS, AND OTHER SUBSTANCES TO A LEVEL ACCEPTABLE BY THE OWNER.

6. ABIDE BY ADDITIONAL DIVISION 0 AND DIVISION 1 REQUIREMENTS PROVIDED WITHIN BID DOCUMENTS THAT FORM A PART OF THIS SPECIFICATION

7. PROVIDE DUMPSTER AND REMOVE ALL DEBRIS.

042000 - UNIT MASONRY

1. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION ON MASONRY., ACCESSORIES, AND OTHER ITEMS NOT LISTED WITHIN THIS SECTION.

2. PROVIDE SPLIT FACE CMU UNITS 3 5/8" X 7 5/8" X 15 5/8" YORK BUILDING PRODUCTS OR APPROVED EQUIVALENT. COLOR: TO BE SELECTED BY ARCHITECT FROM MANUFACTURERES FULL RANGE OF COLORS.

3. SPECIAL SHAPES: PROVIDE SILL UNITS IN AREAS AS INDICATED ON THE DRAWINGS, PROVIDE CORNER UNITS WITH TWO FINISHED FACES FOR JAMB AND CORNER LOCATIONS. VERIFY REQUIREMENTS WITH MANUFACTURER.

4. MORTAR MIXES TO COMPLY WITH ASTM C 270. SEE STRUCTURAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS REQUIREMENTS. COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURERS FULL RANGE.

5. WEEP HOLES AND VENTS TO BE FREE-DRAINING MESH WITH WEEPVENT CAVITY WALL VENTS BY MORTAR NET USA, OR EQUAL. COLOR MATCH MORTAR.

6. CAVITY DRAINAGE MESH MATERIAL IS TO BE 3/4" THICK AND 10" HIGH WITH DIMPLED OR DOVETAIL SURFACE TO CATCH MORTAR DROPPINGS, BY "MORTAR NET USA" OR APPROVED EQUIVALENT.

7. VINYL SHEET FLASHING; FLEXIBLE SHEET FLASHING ESPECIALLY FORMULATED USING VIRGIN POLY VINYL CHLORIDE AND PLASTICIZER AND OTHER MODIFIERS TO REMAIN FLEXIBLE AND WATERPROOF IN CONCEALED MASONRY APPLICATION, BLACK IN COLOR, AND 50 MILS THICK. USE WHERE FLASHING IS FULLY CONCEALED IN MASONRY. STOP FLASHING 1/2" FROM FACE OF EXTERIOR WALL.

8. WALL ANCHORS TO BE HOHMANN & BARNARD, INC. 170-2X TRUSS EYE-WIRE ADJUSTABLE REINFORCEMENT, HOT-DIPPED GALVANIZED JOINT REINFORCEMENT WITH 2X-HOOK SIZED APPROPRIATELY FOR CAVITY/INSULATED WALLS.

9. INSTALL MASONRY AS FULL SIZE UNITS IF POSSIBLE. IF CUTTING IS REQUIRED, PROVIDE CLEAN, SHARP, UNCHIPPED EDGES. INSTALL CUT UNITS WITH CUT SIDE CONCEALED.

10. TOLERANCES:  
LINES AND LEVELS: DO NOT VARY MORE THAN 1/8"/10'-0", AND NO MORE THAN 1/2" TOTAL  
JOINTS: DO NOT VARY THICKNESS BY MORE THAN +/- 1/8"

11.BOND PATTERN: RUNNING BOND.

12. INSTALL ACCESSORIES AS INDICATED ON DRAWINGS AND ACCORDING TO MANUFACTURERS' WRITTEN INSTRUCTIONS.

047200 - CAST STONE MASONRY

1. PROVIDE CAST STONE UNITS IN SIZES AND PROFILES AS SHOWN ON THE DRAWINGS. SHAPES ARE BASED ON "ARRISCRAFT INTERNATIONAL".  
A. WATERABLE: WT 863 OR APPROVED EQUIVALENT - SEE DRAWINGS  
B. PRECAST REINFORCED LINTEL FOR DOORS - SEE DRAWINGS

2. SPECIAL SHAPES : PROVIDE CORNER UNITS WITH TWO FINISHED FACES FOR BUILDING CORNER AND JAMB LOCATIONS. VERIFY REQUIREMENTS WITH MANUFACTURER.

3. UNIT PROPERTIES : COMPRESSIVE STRENGTH (ASTM C1194): > 6,500 PSI AT 28 DAYS  
ABSORPTION: (ASTM C1195)< 6% AT 28 DAYS

4. FINISHES: EXPOSED SURFACES - FINE-GRAINED TEXTURE SIMILAR TO NATURAL STONE, FREE OF CRACKS, CHIPS OR OTHER DEFECTS THAT WOULD EFFECT THE STREIGHT OR SERVICEABILITY OF THE UNIT OR BECOME EXPOSED ONCE INSTALLED AND VISIBLE. WHEN VIEWED FROM A DISTANCE OF NOT LESS THAN 15 FEET UNDER DIFFUSED LIGHT. COLOR: COLOR AND FINISH SELECTED BY ARCHITECT FROM MANUFACTURERS FULL RANGE

5. INSTALL CAST STONE AND ACCESSORIES AS INDICATED ON DRAWINGS AND ACCORDING TO MANUFACTURERS WRITTEN INSTRUCTIONS.

054000 - LIGHT GAUGE STEEL FRAMING

1. LIGHT GAUGE METAL STUD DESIGNATION SHOWN ON DRAWINGS ASSUME MARINO WARE AS A DESIGN BASIS. MANUFACTURER MUST SUBMIT LITERATURE INDICATION THAT THE MEMBERS SUPPLIED PROVIDE EQUIVALENT STRENGTH AND STIFFNESS. MANUFACTURER AND/OR SUPPLIER TO PREPARE INFORMATION INDICATING CAPACITY OF MEMBERS, FRAMING DETAILS, CONNECTIONS, BRACING, BRIDGING AND ALL OTHER APPURTENANCES TO CONFIRM LOAD CRITERIA.

2. ALL LINTELS INDICATED ON DRAWINGS AS METAL STUD LINTELS ARE TO BE PROVIDED BY STUD MANUFACTURER/SUPPLIER.

3. ALL STEEL STUDS SHALL BE HOT-DIPPED GALVANIZED (G 60) IN ACCORDANCE WITH ASTM A924. STEEL STUDS SHALL BE DESIGNED, MANUFACTURED AND INSTALLED IN ACCORDANCE WITH THE LATEST AISI SPECIFICATIONS AND SHALL COMPLY WITH ASTM A653 & C955. ALL STUDS AND ACCESSORIES SHALL HAVE STRENGTHES RECOMMENDED BY THE MANUFACTURER.

4. ALL WELDING OF LIGHT GAUGE STEEL FRAMING MUST BE DONE BY CERTIFIED WELDERS IN ACCORDNACE WITH AWS D1.3. SPECIFICATION FOR WELDING SHEET STEEL IN STRUCTURES.

5. MAKE CONNECTIONS WITH SELF-TAPPING SCREWS OR WELDING SO THAT THE CONNECTIONS MEET OR EXCEED THE DESIGN LOADS.

6. CUT ALL LIGHT GAUGE STEEL FRAMING MEMEBERS WITH SAWS OR SHEARS. FRAME CUTTING IS NOT PERMITTED.

7. THE LIGHT GAUGE STEEL FRAMING SUPPLER AND ERECTOR SHALL HAVE A MINIMUM 5 YEARS EXPERIENCE IN THE FABRICATION AND ERECTION OF LIGHT GAUGE STEEL FRAMING SYSTEM.

061000 - ROUGH CARPENTRY

1. FRAMING, BLOCKING, NAILER, FURRING, AND SUPPORTS TO BE CONSTRUCTED FIRE RETARDANT TREATED LUMBER NO. 2 GRADE LUMBER OF ANY SPECIES.

2. ALL FASTENERS SHALL BE HOT-DIP GALVANIZED. SCREWS FOR FASTENING TO METAL FRAMING SHALL COMPLY WIT ASTM C 1002.

3. COMPLY WITH AWPFA WCD 1, "DETAILS FOR CONVENTIONAL WOOD FRAME CONSTRUCTION"

4. SECURELY ATTACH CARPENTRY TO SUBSTRATE BY ANCHORING AND FASTENING TO COMPLY WITH TABLE 2304.9.3.2 "FASTENING SCHEDULE" OF IBC 2018.

5. COORDINATE WITH STRUCTURAL SPECIFICATIONS.

061600 - SHEATHING

1. PROVIDE EXTERIOR GRADE PLYWOOD SHEATHING IN THICKNESSES INDICATED ON DRAWINGS BY "GEORGIA PACIFIC" OR APPROVED EQUIVALENT.

2. APPLY "3M AIR AND VAPOR BARRIER 3015NP" OR APPROVED EQUIVALENT WEATHER BARRIER MEMBRANE OVER SHEATHING. APPLY PER MANUFACTURERS SPECIFICATIONS.

3. FOR WALL SHEATHING, PROVIDE FASTENERS WITH HOT-DIP ZINC COATING COMPLYING WITH ASTM A 153/A 153M.

064116 - PLASTIC LAMINATE-CLAD ARCHITECTURAL CABINETS

1. PRODUCTS:  
A. QUALITY STANDARD FOR FABRICATION AND PRODUCTS: "ARCHITECTURAL WOODWORK INSTITUTE QUALITY STANDARDS". PREMIUM GRADE UNLESS NOTED OTHERWISE.  
B. TYPE OF CONSTRUCTION: FRAMELESS  
C. DOOR AND DRAWER - FRONT STYLE: FLUSH  
D. LAMINATE CLADDING FOR EXPOSED SURFACES:  
1. HORIZONTAL SURFACES: GRADE HGS  
2. POSTFORMED SURFACES: GRADE HGP  
3. VERTICAL SURFACES: GRADE HGS, VGP  
E. MATERIALS FOR SEMIEXPOSED SURFACES: HIGH - PRESSURE DECORATIVE LAMINATE, SHALL MEET NEMA LD 3, GRADE VGS

2. MATERIALS:  
A. FIRE-RETARDED-TREATED MATERIALS USE WHERE INDICATED ON DRAWINGS  
B. WOOD WITH TRANSPARENT AND PAINTED FINISH: AWI PREMIUM GRADE. PLASTIC LAMINATE FINISH: AWI PREMIUM GRADE INCLUDING BALANCE SHEET. FINISHES: TRANSPARENT FINISH: CATALYZED POLYURETHANE, AWI FINISH SYSTEM NO. 5, PREMIUM GRADE.  
C. CABINET HARDWARE  
1. HINGES - FRAMELESS, CANCELALED EUROPEAN WITH SOFT CLOSE, SHALL MEET ANSI/BHMA, GRADE 1  
2. PULLS - SATIN CHROME WIRE PULLS, ADA COMPLIANT  
3. ADJUSTABLE SHELF SUPPORT-  
SHELVING: HARDWOOD OR MEDIUM DENSITY PARTICLEBOARD WITH HARDWOOD EDGE BANDS.  
4. LOCKS - NOT REQUIRED  
5. EXPOSED HARDWARE FINISHES - SATIN STAINLESS STEEL OR BRASS W/ CHROMIUM FINISH / BALL BEARING SIDE MOUNT DRAWER SLIDES  
D. COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD RANGE.

3. COUNTERTOPS AND BACKSPASH  
A. PLASTIC LAMINATE COUNTERTOP SHALL BE SOLID 1 1/2" THICK PARTICLEBOARD W/ A HORIZONTAL GRADE HIGH - PRESSURE LAMINATE ON THE TOP SURFACE WITH SUITABLE BACKER SHEET ON THE BOTTOM SURFACE.  
B. BACKSPASHES SHALL BE 3/4" THICK X 4" WIDE PARTICLEBOARD W/ HIGH-PRESSURE LAMINATE FINISH.  
C. COUNTERTOPS COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURERS' STANDARD RANGE.  
D. COUNTERTOP TO BE INSTALLED PER MANUFACTURERS' WRITTEN INSTRUCTIONS.

066620 - MANUFACTURED TRIM AND ORNAMENTS

1. CELLULAR PVC CEILING AND WALL ORNAMENTAL TRIM

2. PRODUCT: 3/4" X 3-1/2" SMOOTH FLAT TRIM BOARD

3. ACCEPTABLE MANUFACTURERS INCLUDE:  
A. FYPON  
B. AZEK  
C. VERSATEX

4. FINISHED SURFACES SHALL BE FREE FROM CRACKS, PITS, CHIPS, VOIDS, DEPRESSIONS, BUMPS, RIDGES, WAVES, SCRATCHES, DISCOLORATION OR OTHER DEFACTIONS

5. SEALANT: AS RECOMMENDED BY MANUFACTURERS WRITTEN INSTALLATION INSTRUCTIONS

6. FASTENERS: USE CORROSIVE-RESISTANT FASTENERS.

7. FILLER: USE A COMPATIBLE FILLER PUTTY.

072100 - THERMAL INSULATION

1. PROVIDE EXTRUDED POLYSTYRENE RIGID FOAM INSULATION BOARD BY "DOW BUILDING SOLUTIONS" OR EQUAL FOR FOUNDATIONS INSULATION. PROVIDE INSULATION IN THICKNESS REQUIRED TO ATTAIN INDICATED R-VALUE.

2. PROVIDE FOIL-FACED, GLASS-FIBER BLANKET INSULATION BY "OWNS CORNING" OR EQUAL. INSULATION TO COMPLY WITH ASTM C 665, TYP I WITH MAXIMUM FLAME-SPREAD AND SMOKE-DEVELOPED INDEXES OF 25 AND 450, RESPECTIVELY. PER ASTM E 84; PASSING ASTM E 136 FOR COMBUSTION CHARACTERISTICS. PROVIDE INSULATION WITH R-VALUE AS INDICATED ON THE DRAWINGS.

3. PROVIDE FOAMED-IN-PLACE INSULATION: CLOSED-CELL SPRAY POLYURETHANE FOAM BY "BASF" SPRAYTITE LIGHT COMMERCIAL SPRAY POLYURETHANE FOAM (SPF) OR EQUAL. PROVIDE INSULATION IN THICKNESS REQUIRED TO ATTAIN INDICATED R-VALUE. MINIMUM DENSITY 1.5 PCF.

4. INSTALL ONLY INSULATION THAT IS DRY, UNDAMAGED, AND UNSOILED, AND HAS NOT BEEN EXPOSED TO ICE, RAIN, OR SNOW.

074113 - PREFORMED METAL STANDING SEAM ROOFING

1. PRODUCT:  
A. BASIS OF DESIGN: PETERSEN ALUMINUM CORPORATION PETERSEN ALUMINUM CORP, ANNAPOLIS JUNCTION, MD, 800-344-1400, SNAP CLAD.  
B. MATERIAL TO COMPLY WITH ASTM A 653 STANDARD SPECIFICATION FOR STEEL SHEET, ZINC-COATED (GALVANIZED) OR ZINC-IRON ALLOY COATED (GALVANNEALED) BY THE HOT-DIP PROCESS  
C. ROOF SYSTEM SHALL BE DESIGNED TO MEET STANDARD BUILDING CODE WIND LOAD REQUIREMENTS.  
D. PANELS TO MEET:  
1. WATER PENETRATION: WHEN TESTED PER ASTM E-283/1680 AND ASTM E-331/1646 THERE SHALL BE NO UNCONTROLLED WATER PENETRATION OR AIR INFILTRATION THROUGH THE PANEL JOINTS.  
2. ROOF SYSTEM SHALL BE DESIGNED TO MEET A UL CLASS 90 WIND UPLIFT IN ACCORDANCE WITH UL STANDARD 580 AND PANEL SYSTEM SHALL BE ASTM 1592 TESTED AND APPROVED  
3. UL 2218 - IMPACT RESISTANCE RATED.

2. SUBMITTALS  
A. FURNISH DETAILED DRAWINGS SHOWING PROFILE AND GAUGE OF EXTERIOR SHEETS, LOCATION AND TYPE OF FASTENERS, LOCATION, GAUGES, SHAPE AND METHOD OF ATTACHMENT OF ALL TRIM LOCATIONS AND TYPES OF SEALANTS, AND ANY OTHER DETAILS AS MAY BE REQUIRED FOR A WEATHER-TIGHT INSTALLATION.  
B. PROVIDE FINISH SAMPLES OF ALL COLORS SPECIFIED.  
C. SHOP DRAWINGS: SHOW FABRICATION AND INSTALLATION LAYOUTS OF METAL ROOF PANELS, METAL WALL PANELS OR METAL SOFFIT PANELS, DETAILS OF EDGE CONDITIONS, SIDE-SEAM JOINTS, PANEL PROFILES, CORNERS, ANCHORAGES, TRIM, FLASHINGS, CLOSURES AND ACCESSORIES, AND SPECIAL DETAILS. DISTINGUISH BETWEEN FACTORY AND FIELD-ASSEMBLED WORK

3. PANEL DESIGN  
A. GENERAL: PROVIDE FACTORY-FORMED METAL ROOF PANELS DESIGNED TO BE INSTALLED BY LAPPING AND INTERCONNECTING RAISED SIDE EDGES OF ADJACENT PANELS WITH JOINT TYPE INDICATED AND MECHANICALLY ATTACHING PANELS TO SUPPORTS USING CONCEALED CLIPS IN SIDE LAPS. INCLUDE CLIPS, CLEATS, PRESSURE PLATES AND ACCESSORIES REQUIRED FOR A WEATHERTIGHT INSTALLATION.  
B. ROOF PANELS SHALL BE SNAP CLAD STANDING SEAM IN 18" WIDTHS WITH 1 3/4" HIGH SEAM.  
C. PANELS TO BE PRODUCED WITHOUT FACTORY SUPPLIED HOT MELT MASTIC IN THE SEAMS.  
D. PANELS TO BE PRODUCED SMOOTH - FACTORY STANDARD.  
E. PANELS TO BE DESIGNED FOR ATTACHMENT WITH CONCEALED FASTENER CLIPS, SPACED AS REQUIRED BY THE MANUFACTURER TO PROVIDE FOR BOTH POSITIVE AND NEGATIVE DESIGN LOADS, WHILE ALLOWING FOR THE EXPANSION AND CONTRACTION OF THE ENTIRE ROOF SYSTEM RESULTING FROM VARIATIONS IN TEMPERATURE.  
F. FORMING: USE CONTINUOUS END ROLLING METHOD. NO END LAPS ON PANELS. NO PORTABLE ROLLFORMING MACHINES WILL BE PERMITTED ON THIS PROJECT, NO INSTALLER-OWNED OR INSTALLER-RENTED MACHINES WILL BE PERMITTED. IT IS THE INTENT OF THE ARCHITECT TO PROVIDE FACTORY-MANUFACTURED PANEL SYSTEMS ONLY FOR THIS PROJECT.

4. MATERIALS AND FINISHES  
A. PREFORMED ROOFING PANELS SHALL BE FABRICATED OF 24 GA STEEL  
B. COLOR SHALL BE SELECTED BY THE ARCHITECT FROM THE MANUFACTURER'S STANDARD COLOR RANGE.  
C. FINISH SHALL BE KYNAR 500 OR HYLAR 5000 FLUOROCARBON COATING WITH A TOP SIDE FILM THICKNESS OF 0.70 TO 0.90 MIL, OVER A 0.25 TO 0.3 MIL PRIME COAT TO PROVIDE A TOTAL DRY FILM THICKNESS OF 0.95 TO 1.25 MIL, TO MEET AAMA 621. BOTTOM SIDE SHALL BE COATED WITH A PRIMER WITH A DRY FILM THICKNESS OF 0.25 MIL. FINISH SHALL CONFORM TO ALL TESTS FOR ADHESIONS, FLEXIBILITY AND LONGEVITY AS SPECIFIED BY KYNAR 500 OR HYLAR 5000 FINISH SUPPLIER.  
D. IF STRIPPABLE COATING TO BE APPLIED ON THE PRE-FINISHED PANELS TO THE TOP SIDE TO PROTECT THE FINISH DURING FABRICATION, SHIPPING AND HANDLING, FILM SHALL BE REMOVED BEFORE INSTALLATION.

E. TRIM: TRIM SHALL BE FABRICATED OF THE SAME MATERIAL AND FINISH TO MATCH THE PROFILE, AND WILL BE PRESS BROKEN IN LENGTHS OF 10 TO 12 FEET. TRIM SHALL BE FORMED ONLY BY THE MANUFACTURER OF THEIR APPROVED DEALER. TRIM TO BE ERECTED IN OVERLAPPED CONDITION. USE LAP STRIPS ONLY AS INDICATED ON DRAWINGS. MITER CONDITIONS SHALL BE FACTORY WELDED MATERIAL TO MATCH THE SHEETING.

F. CLOSURES: USE COMPOSITION OR METAL PROFILED CLOSURES AT THE TOP OF EACH ELEVATION TO CLOSE ENDS OF THE PANELS. METAL CLOSURES TO BE MADE IN THE SAME MATERIAL AND FINISH AS FACE SHEET.

G. FASTENERS: FASTENERS SHALL BE OF TYPE, MATERIAL, SIZE, CORROSION RESISTANCE, HOLDING POWER AND OTHER PROPERTIES REQUIRED TO FASTEN MISCELLANEOUS FRAMING MEMBERS TO SUBSTRATES.

H. SUBSTRATE SHALL BE PLYWOOD

I. ROOFING UNDERLAYMENT: ON ALL SURFACES TO BE COVERED WITH ROOFING MATERIAL, FURNISH AND INSTALL A 40 MIL PEEL & STICK MEMBRANE, REQUIRED AS OUTLINED BY METAL PANEL MANUFACTURER. MEMBRANE TO BE A MINIMUM OF 40 MIL THICKNESS, SMOOTH, NON-GRANULAR, HIGH TEMPERATURE. BASIS OF DESIGN: CARLISLE WIP 300 HT HIGH TEMPERATURE PROTECTION SELF ADHERING ROOFING UNDERLAYMENT. OTHER ACCEPTABLE MANUFACTURERS INCLUDE:  
1. W.R GRACE "ICE & WATER SHIELD"  
2. INTERWRAP TITANIUM PSU-30  
3. TAMKO TW TILE AND METAL UNDERLAYMENT

J UNDERLAYMENT SHALL BE LAID IN HORIZONTAL LAYERS WITH JOINTS LAPPED TOWARD THE EAVES A MINIMUM OF 6, AND WELL SECURED ALONG LAPS AND AT ENDS AS NECESSARY TO PROPERLY HOLD THE FELT IN PLACE. ALL UNDERLAYMENT SHALL BE PRESERVED UNBROKEN AND WHOLE.

K. PEEL AND STICK UNDERLAYMENT SHALL LAP ALL HIPPS AND RIDGES AT LEAST 12 TO FORM DOUBLE THICKNESS AND SHALL BE LAPPED 6 OVER THE METAL OF ANY VALLEY OR BUILT-IN GUTTERS AND SHALL BE INSTALLED AS REQUIRED BY THE STANDING SEAM PANEL MANUFACTURER TO ATTAIN THE DESIRED 20 YEAR WEATHERTIGHTNESS WARRANTY.

L. SEALANTS  
1. PROVIDE TWO-PART POLYSULFIDE CLASS B NON-SAG TYPE FOR VERTICAL AND HORIZONTAL JOINTS OR  
2. ONE PART POLYSULFIDE NOT CONTAINING PITCH OR PHENOLIC EXTENDERS OR  
3. EXTERIOR GRADE SILICONE SEALANT RECOMMENDED BY ROOFING MANUFACTURER OR  
4. ONE PART NON-SAG, GUN GRADE EXTERIOR TYPE POLYURETHANE RECOMMENDED BY THE ROOFING MANUFACTURER.

5. INSTALLATION  
A. PANELS SHALL BE INSTALLED PLUMB AND TRUE IN A PROPER ALIGNMENT AND IN RELATION TO THE STRUCTURAL FRAMING. THE ERECTOR MUST HAVE AT LEAST FIVE YEARS SUCCESSFUL EXPERIENCE WITH SIMILAR APPLICATIONS.  
B. INSTALL METAL PANELS, FASTENERS, TRIM AND RELATED SEALANTS IN ACCORDANCE WITH APPROVED SHOP DRAWINGS AND AS MAY BE REQUIRED FOR A WEATHER-TIGHT INSTALLATION.

6. WARRANTIES  
A. WEATHERTIGHT WARRANTY: 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 SPECIFIED WARRANTY PERIOD.  
B. WARRANTY PERIOD: 20 YEARS FROM DATE OF SUBSTANTIAL COMPLETION  
C. FINISH WARRANTY: MANUFACTURER'S STANDARD FORM IN WHICH MANUFACTURER AGREES TO REPAIR FINISH OR REPLACE STANDING SEAM METAL ROOF PANELS THAT SHOW EVIDENCE OF DETERIORATION OF FACTORY-APPLIED FINISH WITHIN SPECIFIED WARRANTY PERIOD.  
D. WARRANTY PERIOD: 20 YEARS FROM THE DATE OF SUBSTANTIAL COMPLETION  
E. APPLICATOR SHALL FURNISH WRITTEN WARRANTY FOR A TWO (2) YEAR PERIOD FROM DATE OF SUBSTANTIAL COMPLETION OF BUILDING COVERING REPAIRS REQUIRED TO MAINTAIN ROOF AND FLASHINGS IN WATERTIGHT CONDITION.

074646 - FIBER CEMENT TRIM

1. MANUFACTURER: JAMES HARDIE BUILDING PRODUCTS OR APPROVED EQUIV.

2. HARDIE SOFFIT PANELS  
TYPE: VENTED-SMOOTH  
THICKNESS - 0.25", WEIGHT -1.98 LBS. PER SQUARE FOOT, WIDTH - 12", LENGTH - 96", COLOR - ARCTIC WHITE  
TYPE: NON-VENTED SMOOTH  
THICKNESS - 0.25", WEIGHT - 1.98 LBS. PER SQUARE FOOT, WIDTH - 24" & 48", LENGTH - 144", COLOR ARCTIC WHITE

3. HARDIETRIM BOARDS  
TYPE: SMOOTH BATTEN BOARDS  
THICKNESS - 0.75", WEIGHT - 5.43 LBS. PER SQUARE FOOT, LENGTH - 144", WIDTH 2.5", COLOR - ARCTIC WHITE  
TYPE: SMOOTH BOARDS  
THICKNESS - 1", WEIGHT -6.25 LBS. PER SQUARE FOOT, LENGTH - 144", WIDTHS 11.25", COLOR - TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD RANGE.

4. FASTENERS: FOR WOOD USE SIDING NAILS OF SUFFICIENT LENGTH TO PENETRATE A MINIMUM OF 1 INCH INTO SUBSTRATE OR AS REQUIRED IN MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.

5. SEALANT: ASTM C920, MINIMUM CLASS 25 SEALANT

076200 - SHEET METAL FLASHING AND TRIM

1. COMPLY WITH SMACNA'S "ARCHITECTURAL SHEET METAL MANUAL" FOR WINDSTORM CLASSIFICATION.

2. PROVIDE METALLIC - COATED STEEL SHEET METAL FROM "W.P. HICKMAN" OR EQUAL. WITH COIL - COATED FINISH: THREE - COAT FLUOROPOLYMER

3. UNDERLAYMENT : SELF ADHERING, HIGH-TEMPERATURE SHEET

4. PROVIDE PRODUCTS:  
A. MANUFACTURED THROUGH-WALL FLASHING WITH SNAPLOCK RECEIVER  
B. MANUFACTURED REGLETS WITH COUNTERFLASHING  
C. FORMED ROOF - DRAINAGE FABRICATIONS WITH HANGING GUTTERS, DOWNSPOUTS  
D. FORMED STEEP-SLOPE ROOF FABRICATIONS, INCLUDING VALLEY FLASHING, DRIP EDGES, EAVE AND RAKE FLASHING, RIDGE AND HIP FLASHING, COUNTER-FLASHING FLASHING RECEIVERS AND ROOF-PENETRATION FLASHING

5. GUTTERS TO BE FABRICATE IN PROFILE AS SHOWN ON DRAWINGS. FABRICATE SECTIONS NO LONGER THAN 12 FEET. FURNISH GUTTER STRAPS AND BRACKETS.

077253 - SNOW GUARDS

1. PROVIDE RAIL-TYPE SNOW GUARD:  
A. SEAM MOUNTED, RAIL TYPE SNOW GUARD BY PMC INDUSTRIES, INC - ACECLAMP A2-3 BAR SNOW GUARD SYSTEM, HEAVY DUTY FOR SINGLE LOCK PROFILE OR APPROVED EQUIV.

2. MATERIAL AND FINISH: COMPONENTS ARE EXTRUDED 6061-T6 ALUMINUM ALLOY

3. COMPONENTS:  
A. SEAM CLAMPS: 6061-T6 ALUMINUM ALLOY  
B. BRACKETS: 6061-T6 ALUMINUM ALLOY WITH 3 HOLES  
C. SNOW RAILS: 6061-T6 ALUMINUM ALLOY  
D. COUPLERS: 6061-T6 ALUMINUM ALLOY  
E. END COLLARS: 5052 ALUMINUM ALLOY  
F. END CAPS: 300 SERIES STAINLESS STEEL (18-8)  
G. ICE FLAGS: 5052 ALUMINUM ALLOY  
H. PUSH PINS AND SCREWS: 300 SERIES STAINLESS STEEL (18-8)

4. COLOR, FINISH: MATTE , POWDER COATED TO MATCH ROOF

5. WARRANTY: LIMITED 20-YEAR WARRANTY AGAINST PRODUCT DEFECTS.

079200 - JOINT SEALANTS

1. PROVIDE JOINTS SEALANTS BY "DOW CORNING", "PERCORA", "SIKA", OR TREMCO" OR APPROVED EQUIV.

2. SEALANT COLOR TO BE SELECTED BY ARCHITECT.

3. PROVIDE CLOSED CELLED BACKER RODS COMPATIBLE WITH ADJOINING SEALANTS IN LOCATION AS INDICATED ON THE DRAWINGS.

4. FOR PENETRATIONS IN FIRE RATED WALLS USE UL-LISTED FIRE RATED JOINT SEALANT WITH RATING EQUAL TO OR GREATER THAN THE RATING OF WALL.

5. FOR INTERIOR JOINT LOCATIONS, INCLUDING PERIMETERS AROUND DOOR AND WIND FRAMES AND INTERSECTIONS ON INTERIOR GYPSUM BOARD PARTITIONS AND MASONRY US "SIKA,SIKAFLEX 1A" ONE PART URETHANE, NON-SAG, ASTM C 920, TYPE S, GRADE NS, CLASS 25 OR APPROVED EQUIV.

6. FOR JOINTS IN HORIZONTAL WEARING AND NON-WEARING SURFACES INCLUDING CONCRETE EXPANSION JOINTS USE "SIKA, SIKAFLEX 1C-SL" ONE PART URETHANE, SELF-LEVELING, ASTM C 920,TYPE S, GRADE P, CLASS 25 OR APPROVED EQUIV.

7. COMPLY WITH ASTM C 1193 FOR USE OF JOINT SEALANTS AS APPLICABLE MATERIALS. APPLICATIONS AND CONDITIONS INDICATED. INSTALL SEALANTS SO THEY DIRECTLY CONTACT AND FULLY WET JOINT SUBSTRATES, COMPLETELY FILL RECESSES WITH UNIFORM SHAPE AND DEPTH THAT WILL ALLOW OPTIMUM SEALANT MOVEMENT CAPABILITY. REMOVE EXCESS SEALANT FROM ADJACENT SURFACES.

081113 - HOLLOW METAL DOORS AND FRAMES

1. HOLLOW METAL DOORS SHALL BE FLUSH PANEL CONSTRUCTED OF G-60 GALVANIZED STEEL. WITH A THERMALLY INSULATED CORE WITH A MINIMUM R-VALUE OF R-6. PERFORMANCE LEVEL TO BE HEAVY DUTY, LEVEL 1 AND PHYSICAL PERFORMANCE LEVEL B.

2. DOORS SHALL MEET THE REQUIREMENTS OF IECC TABLE C402.5.2. SWINGING DOORS SHALL HAVE MAXIMUM AIR LEAKAGE@F 0.20 CFM/SF

3. HOLLOW METAL FRAMES SHALL BE CONSTRUCTED OF G-60 GALVANIZED STEEL. .053 IN THICK. CORNERS TO BE MITERED OR COPED. PROVIDE HARDWARE REINFORCEMENT, COORDINATE REQUIREMENTS WITH HARDWARE.

4. PROVIDE MASONRY TYPE T-SHAPED JAMB ANCHORS TO SUIT FRAME SIZE. .042 IN THICK WITH CORRUGATED STRAPS NOT LESS THAN 2 IN WIDE BY 10 IN LONG. INSTALL 3 PER JAMB.

5. INSTALL CLIP-TYPE FLOOR ANCHORS WITH TWO HOLES TO RECEIVE FASTENERS AT EACH JAMB.

6. WELD GROUT GUARDS TO FRAME AT BACK OF HARDWARE MORTISES IN FRAMES TO BE GROUTED.

7. DOORS AND FRAMES TO RECEIVE PAINT FINISH. REFER TO SECTION 099113 - PAINT FOR INFORMATION.

8. ADJUST FRAMES FOR SQUARENESS, ALIGNMENT, TWIST, AND PLUMBNESS WITHIN 1/16 IN. OF ANY DIRECTION. SHIM AS NECESSARY.

9. FIT DOORS ACCURATELY IN FRAMES WITH 1/8 IN CLEARANCE AT HEAD AND JAMBS AND 3/8 IN CLEARANCE AT THRESHOLD.

10.CHECK AND RE-ADJUST OPERATING HARDWARE BEFORE FINAL INSPECTION. REMOVE AND REPLACE DEFECTIVE WORK. TOUCH-UP ANY SURFACES WITH GALVANIZING REPAIR PAINT. AFTER ERECTION AND PRIOR TO APPLICATION OF FINISH COATS.

084113 - STOREFRONT

1. ALUMINUM STOREFRONT TO BE "KAWNEER TRIFAB 450" OR APPROVED EQUAL. PROFILES TO BE CENTER SET, 2-IN BY 4-1/2 IN AND 4-1/2 IN BY 4-1/2 IN.

2.SUBMITTED SHOP DRAWINGS SHALL INCLUDE FRAME ELEVATIONS, AND CONNECTION DETAILS.

3. COLOR TO BE SELECTED BY ARCHITECT FROM MANUF. STANDARD RANGE.

4. REFER TO SECTION 088000 - GLAZING FOR GLASS INFORMATION.

5. WHERE METAL WILL COME IN CONTACT WITH DISSIMILAR METALS, PROTECT AGAINST GALVANIC ACTION BY APPLYING APPROPRIATE SEALANT, PRIMER, OR TAPE.

6. INSTALL PER MANUF. WRITTEN INSTRUCTIONS. INSTALL COMPONENTS PLUMB AND TRUE TO LINE ENSURING SMOOTH OPERATION OF MOVING PARTS AND TIGHT FIT AT CONTACT POINTS. INSTALL DOORS, FRAMES, AND GLAZING TO PRODUCE A WEATHERPROOF ASSEMBLY.

87100 - HARDWARE

1. SUBMITTAL SHALL INCLUDE HARDWARE SCHEDULE INDICATING HARDWARE TO BE PROVIDED FOR EACH DOOR IN THE PROJECT.

2. REFER TO HARDWARE SCHEDULE FOR REQUIREMENTS. HARDWARE FINISH TO BE BRUSHED STAINLESS STEEL. COORDINATE KEYING REQUIREMENTS WITH OWNER.

3. PROVIDE ALL LOCKSET HARDWARE FROM SINGLE SOURCE.

4. PROVIDE HINGES WITH NON-REMOVABLE PINS.

5. ALL THRESHOLDS SHALL BE ADA-COMPLIANT.

6. CLOSERS TO BE SURFACE MOUNTED.

7. INSTALL THREE HINGES PER DOOR, UNLESS OTHERWISE NOTED.

8. ADJUST AND CHECK HARDWARE AFTER INSTALLATION TO ENSURE SMOOTH OPERATION AND TIGHT FIT. REPLACE UNITS THAT CANNOT BE PROPERLY ADJUSTED.

9. PROVIDE SARGENT 11 LINE 6 PIN BORE SETS MATCH CCPS STANDARDS.

10. COORDINATE KEYING WITH CCPS.

088000 - GLAZING

1. PROVIDE GLAZING FROM "PPG", "VIRACON", "PILKINGTON", OR APPROVED EQUAL. COLOR TO BE CLEAR.

2. WARRANTY PERIOD TO BE NO LESS THAN 10 YEARS FROM DATE OF SUBSTANTIAL COMPLETION.

3. PROVIDE TEMPERED GLASS IN LOCATIONS INDICATED ON DRAWINGS.

4. INSTALL UNITS WITH MANUFACTURER'S STANDARD ACCESSORIES AND RECOMMENDED SEALANTS AND SETTING BLOCKS.

5. PROTECT GLAZING FROM DAMAGE AFTER INSTALLATION. CLEAN GLASS PRIOR TO SUBSTANTIAL COMPLETION. REPLACE ANY UNIT THAT IS CRACKED, CHIPPED, OR DAMAGED.

089000 - LOUVERS AND VENTS

1. LOUVERS ARE DRAINABLE TYPE OF MULLION CONSTRUCTION WITH EXTRUDED ALUMINUM SECTION

2. ALUMINUM ALLOY IS 6063-T5. GAUGE IS 121.0811

3. BLADES ARE FASTENED TO JAMBS WITH MECHANICAL FASTENERS

4. INTERMEDIATE BLADES ON NOMINAL 5 INCH CENTERS

5. TEST DATA:  
A. FREE AREA: 5.2%  
B. PRESSURE DROP @ .15WC: 1065 FPM  
C. WATER PENETRATIONS 998 FPM

6. LOUVERS TO HAVE ALUM. WIRE SCREENS.

7. PROVIDE ALL CAULKING, ERECTION AND MOUNTING CLIPS AND FASTENERS TO SURROUNDING STRUCTURE AS NEEDED FOR PROPER INSTALLATION

8. INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS

9. PROVIDE SHOP DRAWING SUBMITTAL FOR APPROVAL.

010000 - GENERAL REQUIREMENTS

1. LOCATE THE WORK AND COMPONENTS OF WORK ACCURATELY, IN CORRECT ALIGNMENT AND ELEVATIONS, AS INDICATED ON DRAWINGS. COMPLY WITH MANUFACTURERS' WRITTEN INSTRUCTIONS FOR INSTALLING PRODUCTS. INSTALL PRODUCTS AT A TIME AND UNDER CONDITIONS THAT WILL ENSURE THE BEST POSSIBLE RESULTS. PROTECT COMPLETED WORK FROM DAMAGE AND DETERIORATION. REPAIR OR REPLACE ANY PART OF THE WORK THAT HAS BEEN DAMAGED PRIOR TO SUBSTANTIAL COMPLETION.

2. CONTRACTOR TO HOLD A PRE-CONSTRUCTION MEETING WITH OWNER, ARCHITECT, AND OTHER PERTINENT PARTIES TO DETERMINE AND DISCUSS TENTATIVE CONSTRUCTION SCHEDULE, CRITICAL ITEMS, ADMINISTRATIVE PROCEDURES, SITE MOBILIZATION, AGENDA, AND TIMING OF PROGRESS MEETINGS, AND OTHER ITEMS OF SIGNIFICANCE THAT COULD AFFECT PROGRESS.

3. PROVIDE ELECTRONIC PDFS OR REQUIRED SUBMITTALS TO THE ARCHITECT FOR REVIEW. ARCHITECT SHALL REVIEW AND MARK AS "NO EXCEPTION TAKEN", "REVIEWED WITH COMMENTS", "REVISE AND RESUBMIT", OR "REJECTED" WITHIN 10 BUSINESS DAYS OF RECEIPT. CONTRACTOR TO RESUBMIT CORRECTED SUBMITTALS.

4. ON THE DATE OF SUBSTANTIAL COMPLETION CONTRACTOR SHALL CONDUCT A WALK-THROUGH INSPECTION OF THE PROJECT WITH THE PROJECT TEAM. THE ARCHITECT SHALL COMPLETE A PUNCH LIST NOTING ANY DEFICIENCIES AND INCOMPLETE ITEMS.

5. EMPLOY PROFESSIONAL CLEANERS FOR FINAL CLEANING. REMOVE ALL CONSTRUCTION EQUIPMENT, TOOLS, AND DEBRIS. CLEAN EXTERIOR, INCLUDING SWEEPING AND RAKING OF GROUNDS. CLEAN BUILDING SURFACES AND EQUIPMENT TO REMOVE DUST, DIRT, PAINT, STAINS, AND OTHER SUBSTANCES TO A LEVEL ACCEPTABLE BY THE OWNER.

6. ABIDE BY ADDITIONAL DIVISION 0 AND DIVISION 1 REQUIREMENTS PROVIDED WITHIN BID DOCUMENTS THAT FORM A PART OF THIS SPECIFICATION

7. PROVIDE DUMPSTER AND REMOVE ALL DEBRIS.

042000 - UNIT MASONRY

1. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION ON MASONRY., ACCESSORIES, AND OTHER ITEMS NOT LISTED WITHIN THIS SECTION.

2. PROVIDE SPLIT FACE CMU UNITS 3 5/8" X 7 5/8" X 15 5/8" YORK BUILDING PRODUCTS OR APPROVED EQUIVALENT. COLOR: TO BE SELECTED BY ARCHITECT FROM MANUFACTURERES FULL RANGE OF COLORS.

3. SPECIAL SHAPES: PROVIDE SILL UNITS IN AREAS AS INDICATED ON THE DRAWINGS, PROVIDE CORNER UNITS WITH TWO FINISHED FACES FOR JAMB AND CORNER LOCATIONS. VERIFY REQUIREMENTS WITH MANUFACTURER.

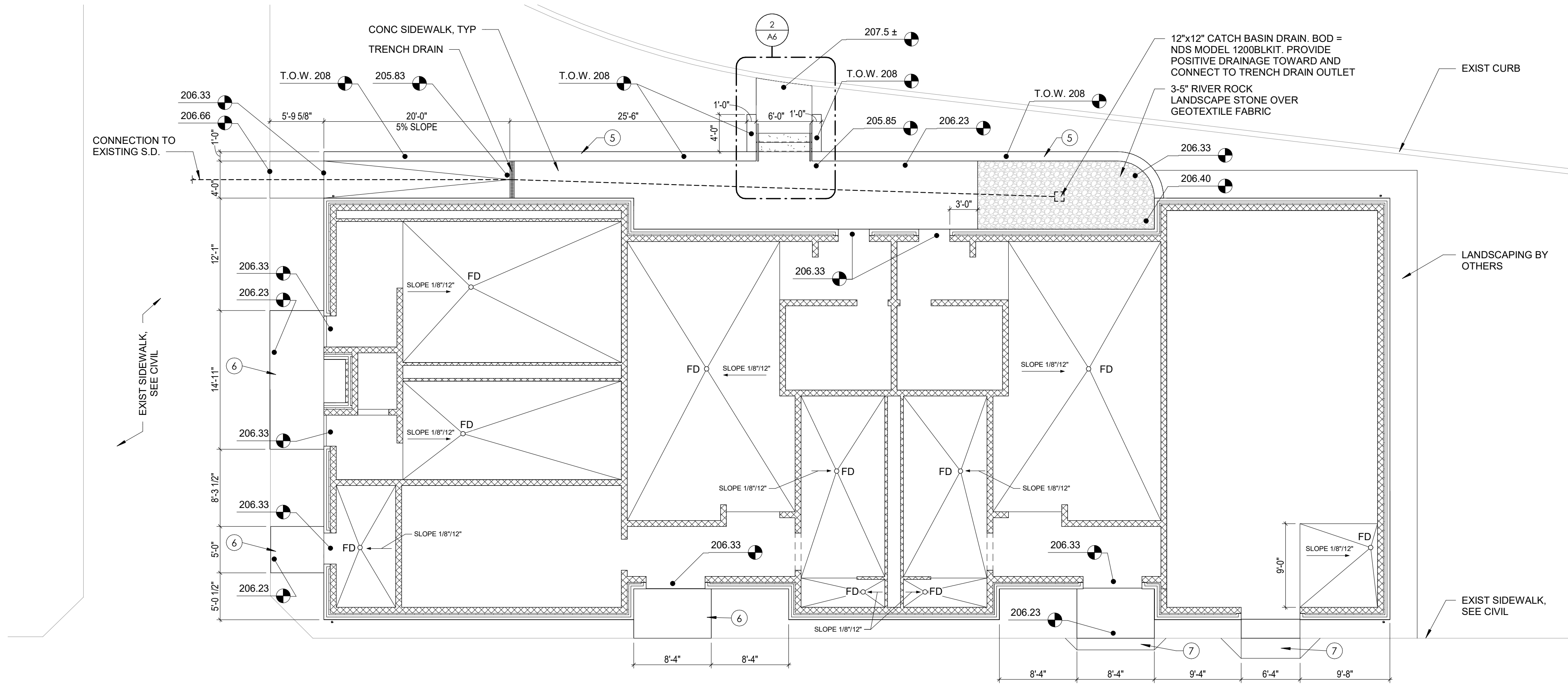
4. MORTAR MIXES TO COMPLY WITH ASTM C 270. SEE STRUCTURAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS REQUIREMENTS. COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURERS FULL RANGE.

5. WEEP HOLES AND VENTS TO BE FREE-DRAINING MESH WITH WEEPVENT CAVITY WALL VENTS BY MORTAR NET USA, OR EQUAL. COLOR MATCH MORTAR.

6. CAVITY DRAINAGE MESH MATERIAL IS TO BE 3/4" THICK AND 10" HIGH WITH DIMPLED OR DOVETAIL SURFACE TO CATCH MORTAR DROPPINGS, BY "MORTAR NET USA" OR APPROVED EQUIVALENT.

7. VINYL SHEET FLASHING; FLEXIBLE SHEET FLASHING ESPECIALLY FORMULATED USING VIRGIN POLY VINYL CHLORIDE AND PLASTICIZER AND OTHER MODIFIERS TO REMAIN FLEXIBLE AND WATERPROOF IN CONCEALED MASONRY APPLICATION, BLACK IN COLOR, AND 50 MILS THICK TH

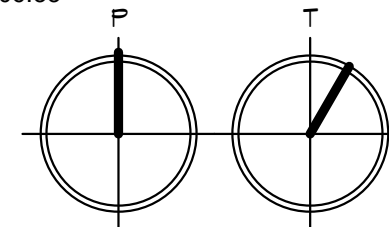
RE-BID/PERMIT SET - 11/03/2023



NOTE: PROPOSED FIELD HOUSE FF ELEVATION = 206.33

1  
A0

ARCH SITE/SLAB PLAN  
1/8" = 1'-0"

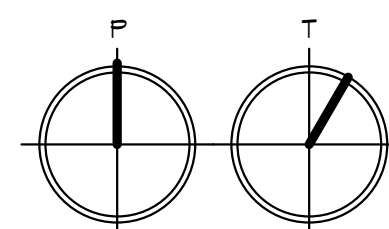


APPROXIMATE LOCATION OF  
FIELD HOUSE BUILDING.

REMOVE (3) TREES AND  
ROOTBALLS AS REQUIRED TO  
FACILITATE NEW CONSTRUCTION.

2  
A0

DIAGRAMMATIC SITE PLAN  
NTS



#### GENERAL CONSTRUCTION NOTES:

- A. FIELD VERIFY ALL EXISTING CONSTRUCTION RELATED CONDITIONS PRIOR TO STARTING NEW CONSTRUCTION. BRING ALL DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT OR OWNER REPRESENTATIVE.
- B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY BRACING AND PROTECTING WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGE, COLLAPSE, DISTORTION, AND/OR MISALIGNMENT IN ACCORDANCE WITH APPLICABLE CODE STANDARDS AND GOOD PRACTICE.
- C. BUILDING SLAB TO BE AT ELEVATION 206.00 (0'-0"). EXCEPT ROOMS 107, 108, 109. BUILDING SLAB AT ROOMS 107, 108, 109 SHALL BE AT ELEVATION 206.33. COORDINATE W/ CIVIL DRAWINGS.
- D. GENERAL CONTRACTOR TO REGRADE TO PROVIDE POSITIVE SLOPE FROM BUILDING. COORDINATE W/ CIVIL DRAWINGS.
- E. CONTRACTOR TO COORDINATE BLOCKING REQUIREMENTS FOR ALL WALL MOUNTED EQUIPMENT AND ACCESSORIES.
- F. ALL DIMENSIONS ARE TO FACE OF MASONRY OR FACE OF FINISH UNLESS NOTED OTHERWISE.
- G. ALL NEW SIDEWALK TO HAVE MAX. SLOPE 5% WITH MAX. CROSS-SLOPE OF 2% SIDEWALK ELEVATION SHALL MATCH INTERIOR FLOOR SLAB AT ALL DOORS.

#### CONSTRUCTION KEYNOTES

- 1 PROVIDE LOCKER ROOM BENCHES, TYP.
- 2 PROVIDE LOCKERS, TYP.
- 3 24"x48" ACCESS DOOR WITH PULL DOWN WOODEN STAIRS WITH 375 LB MIN CAPACITY
- 4 MASONRY OPENING, HEIGHT: 7'-0". SEE STRUCT DRAWINGS FOR LINTEL.
- 5 PROVIDE 12" CMU LANDSCAPING WALL: ALLAN BLOCK AB STONES RETAINING WALL W/ AB CAP TOP COURSE OR EQUIV. T.O WALL ELEV.: 209.0. INSTALL PER MANUF. INSTRUCTIONS
- 6 PROVIDE CONC SLAB, SEE STRUCT
- 7 PROVIDE CONC. LANDING OF 60" X 60" MIN. W/ MAX SLOPE: 2%. TIE INTO EXIST. SIDEWALK W/ MAX. SLOPE 1:12 AND SIDE FLARE AT MAX. SLOPE 1:10.
- 8 TRAINING TABLE, TYP. PROVIDED BY OWNER
- 9 DRINKING FOUNTAIN
- 10 ADA COMPLIANT MARBLE THRESHOLD, SEE FLOORING TRANSITION DETAIL C/G1

REVISIONS		DESCRIPTION
REV#	DATE	

ARCHITECTS  
ENGINEERS  
PLANNERS  
SURVEYORS  
FREDERICK WARD ASSOCIATES  
www.frederickward.com  
P.O. Box 727, 5 South Main Street, Elkton, Maryland 21041

CECIL COUNTY PUBLIC  
SCHOOLS  
201 BOOTH ST, ELKTON, MD 21821

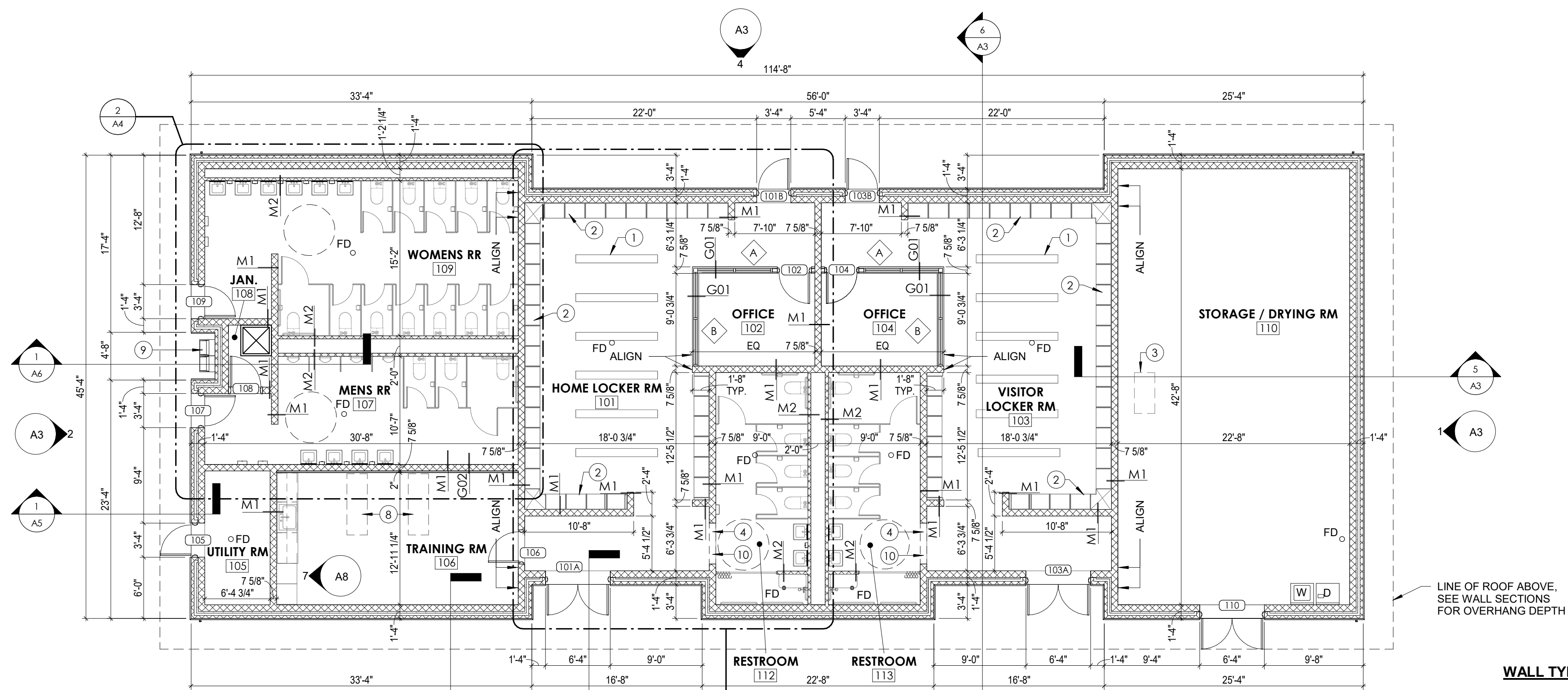
ARCH SITE/SLAB PLAN

NEW FIELD HOUSE AT STADIUM

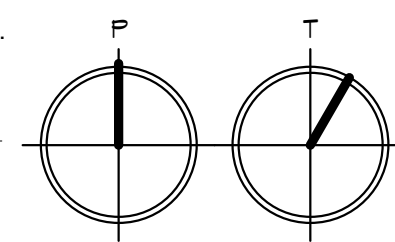
1696 PERRYVILLE RD, PERRYVILLE, MD 21903



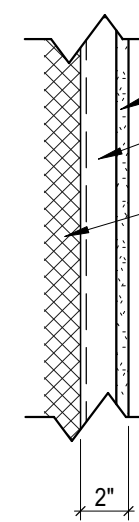
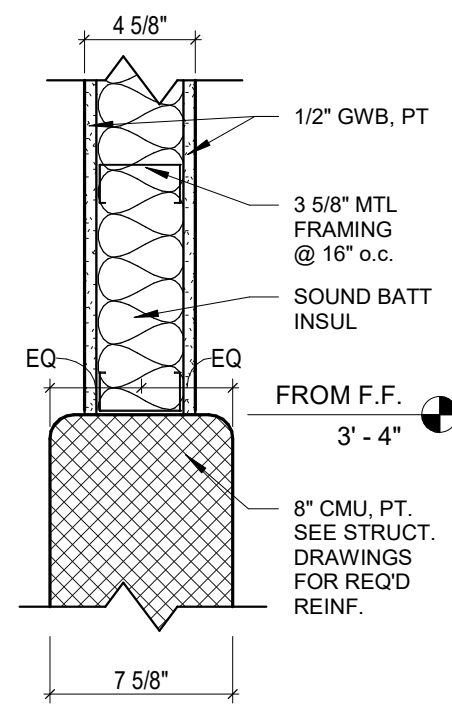
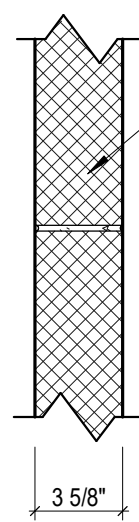
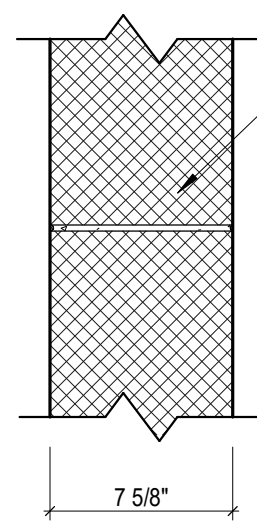
DATE: 11/03/2023	DRAWING NO: <b>A0</b>
SCALE: AS NOTED	
DRAWN BY: CK, AH	
CHECKED BY: WS	PWA JOB NUMBER 2181073.00



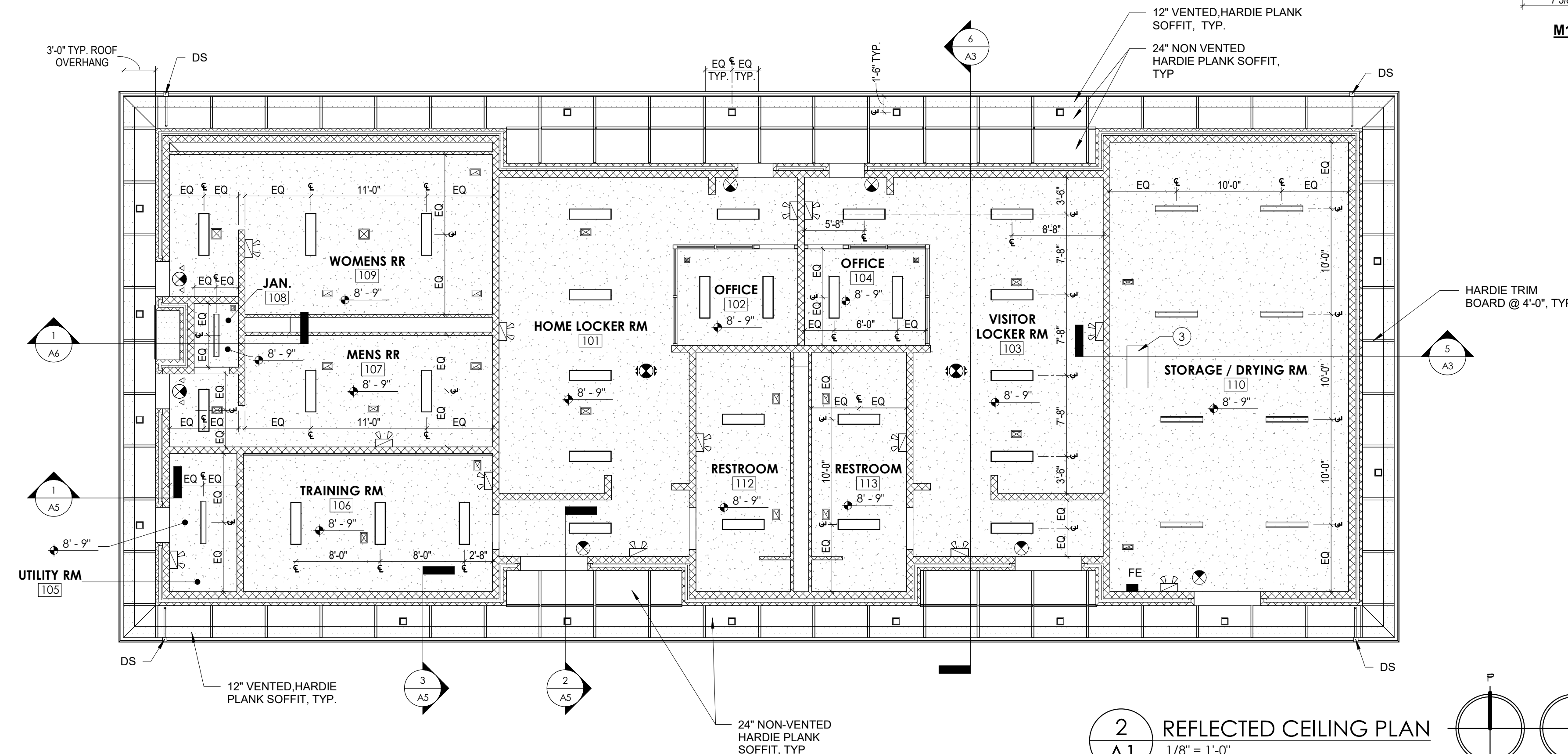
**1 FLOOR PLAN**  
1/8" = 1'-0"



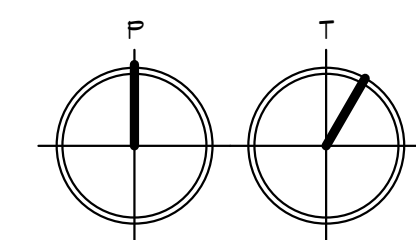
**WALL TYPES**



**NOTE:** ALL INTERIOR PARTITION WALLS TO EXTEND UP TO BOTTOM OF ROOF TRUSS.



**2 REFLECTED CEILING PLAN**  
1/8" = 1'-0"



**GENERAL CONSTRUCTION NOTES:**

- FIELD VERIFY ALL EXISTING CONSTRUCTION RELATED CONDITIONS PRIOR TO STARTING NEW CONSTRUCTION. BRING ALL DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT OR OWNER REPRESENTATIVE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY BRACING AND PROTECTING WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGE, COLLAPSE, DISTORTION, AND/OR MISALIGNMENT IN ACCORDANCE WITH APPLICABLE CODE STANDARDS AND GOOD PRACTICE.
- BUILDING SLAB TO BE AT ELEVATION 206.00 (0'-0"). EXCEPT ROOMS 107, 108, 109. BUILDING SLAB AT ROOMS 107, 108, 109 SHALL BE AT ELEVATION 206.33. COORDINATE W/ CIVIL DRAWINGS.
- GENERAL CONTRACTOR TO REGRADE TO PROVIDE POSITIVE SLOPE FROM BUILDING. COORDINATE W/ CIVIL DRAWINGS.
- CONTRACTOR TO COORDINATE BLOCKING REQUIREMENTS FOR ALL WALL MOUNTED EQUIPMENT AND ACCESSORIES.
- ALL DIMENSIONS ARE TO FACE OF MASONRY OR FACE OF FINISH UNLESS NOTED OTHERWISE.
- ALL NEW SIDEWALK TO HAVE MAX. SLOPE 5% WITH MAX. CROSS-SLOPE OF 2% SIDEWALK ELEVATION SHALL MATCH INTERIOR FLOOR SLAB AT ALL DOORS.

**CONSTRUCTION KEYNOTES**

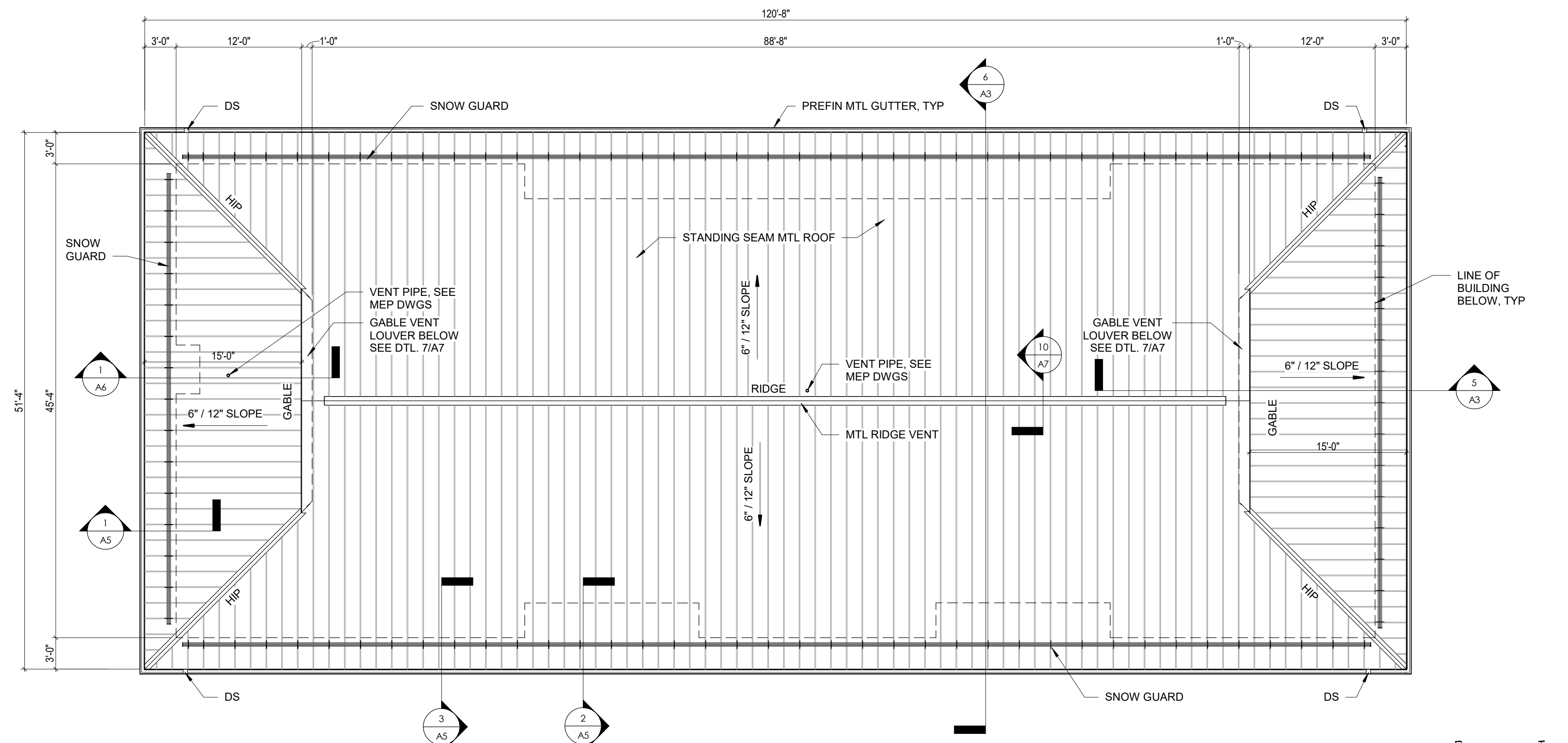
- PROVIDE LOCKER ROOM BENCHES, TYP.
- PROVIDE LOCKERS, TYP.
- 24"x48" ACCESS DOOR WITH PULL DOWN WOODEN STAIRS WITH 375 LB MIN CAPACITY
- MASONRY OPENING, HEIGHT: 7'-0". SEE STRUCT DRAWINGS FOR LINTEL.
- PROVIDE 12" CMU LANDSCAPING WALL: ALLAN BLOCK AB STONES RETAINING WALL W/ AB CAP TOP COURSE OR EQUIV. T.O WALL ELEV.: 209.0. INSTALL PER MANUF. INSTRUCTIONS
- PROVIDE CONC SLAB, SEE STRUCT
- PROVIDE CONC. LANDING OF 60" X 60" MIN. W/ MAX SLOPE: 2%. TIE INTO EXIST. SIDEWALK W/ MAX. SLOPE 1:12 AND SIDE FLARE AT MAX. SLOPE 1:10.
- TRAINING TABLE, TYP. PROVIDED BY OWNER
- DRINKING FOUNTAIN
- ADA COMPLIANT MARBLE THRESHOLD, SEE FLOORING TRANSITION DETAIL C/G1

**CEILING LEGEND**

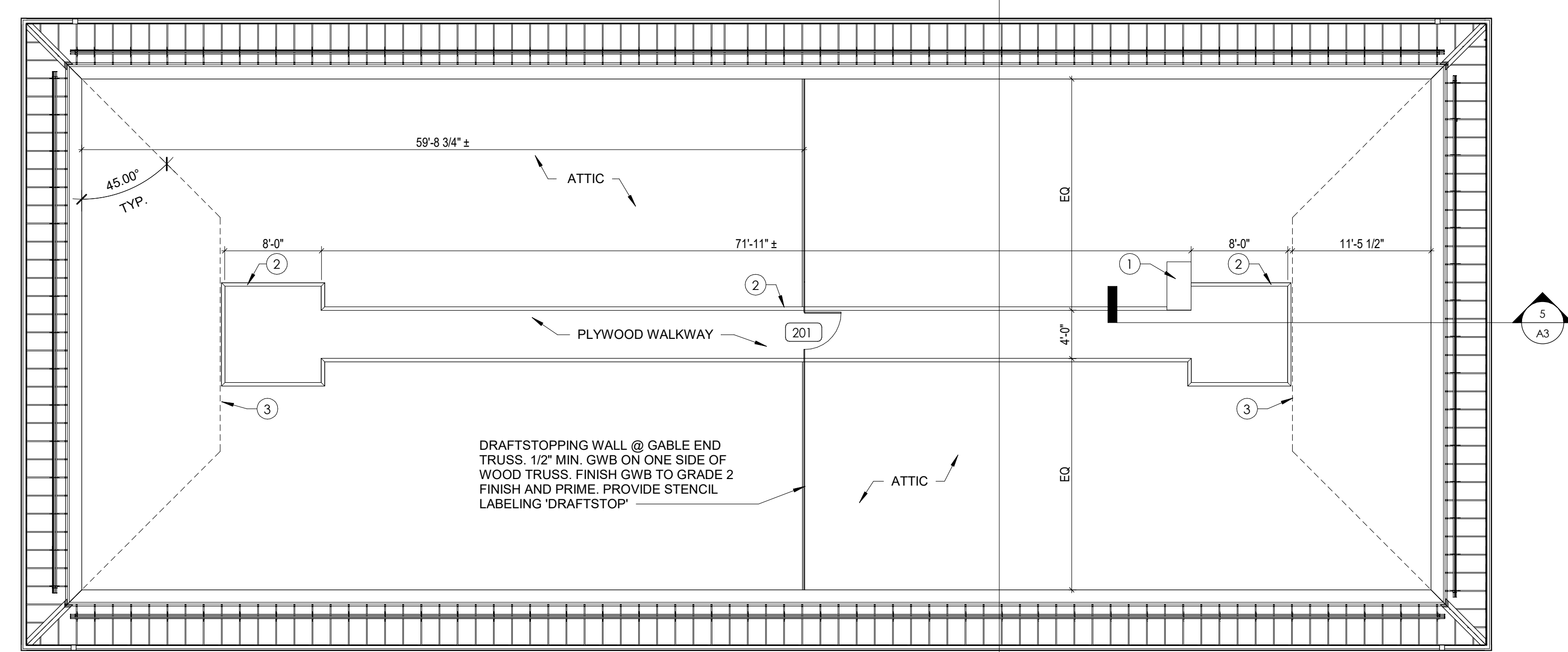
SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR SPECIFIC MODELS AND SIZES OF FIXTURES.

- GWB CEILING
- 4' STRIP LIGHT FIXTURE
- 4' VANDAL-RESISTANT LIGHT FIXTURE
- 6" X 6" SQUARE LED DOWN LIGHT
- 1'-0" CEILING HEIGHT TAG
- EXIT SIGN
- DIRECTIONAL EMERGENCY EXIT SIGN
- EMERGENCY EXIT SIGN W/ EMERGENCY LIGHTING
- EMERGENCY LIGHTING UNIT W/ (2) HEADS
- SUPPLY AIR DIFFUSER
- EXHAUST FAN

<b>ARCHITECTS</b> <b>ENGINEERS</b> <b>PLANNERS</b> <b>SURVEYORS</b> <b>FREDERICK WARD ASSOCIATES</b> 410-838-7900 www.frederickward.com P.O. Box 727, 5 South Main Street, Elkton, Maryland 21014	
<b>CECIL COUNTY PUBLIC SCHOOLS</b> 201 BOOTH ST, ELKTON, MD 21921 1686 PERRYVILLE RD, PERRYVILLE, MD 21903	
<b>FLOOR PLAN, REFLECTED CEILING PLAN</b> <b>NEW FIELD HOUSE AT STADIUM</b>	
DATE: 11/03/2023 SCALE: AS NOTED DRAWN BY: CK, AH CHECKED BY: WS	DRAWING NO: <b>A1</b> FWA JOB NUMBER 2181073.00



**1 ROOF PLAN**  
1/8" = 1'-0"



**2 ATTIC PLAN**  
1/8" = 1'-0"

**CONSTRUCTION KEYNOTES**

- ① 24"x48" ACCESS DOOR WITH PULL DOWN WOODEN STAIRS WITH 375 LB MIN CAPACITY
- ② PROVIDE 42" HIGH GUARDRAIL
- ③ GABLE VENTS ABOVE, SEE DTL. 7/A7

<b>CECIL COUNTY PUBLIC SCHOOLS</b> 201 BOOTH ST, ELKTON, MD 21821		<b>NEW FIELD HOUSE AT STADIUM</b> 1686 PERRYVILLE RD, PERRYVILLE, MD 21903	
DATE: 11/03/2023 SCALE: AS NOTED DRAWN BY: CK, AH CHECKED BY: WS		DRAWING NO: <b>A2</b> FWA JOB NUMBER: 2181073.00	

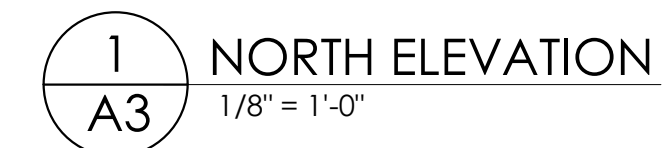
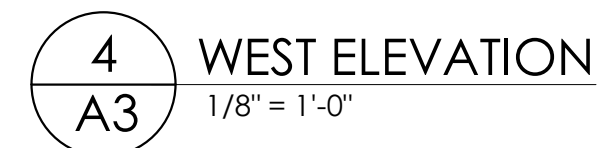
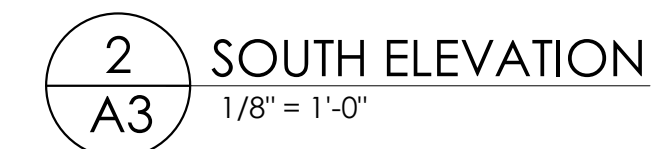
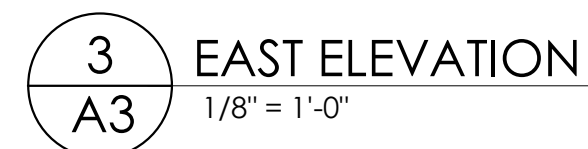
**ARCHITECTS  
ENGINEERS  
PLANNERS  
SURVEYORS**

**FREDERICK WARD ASSOCIATES**

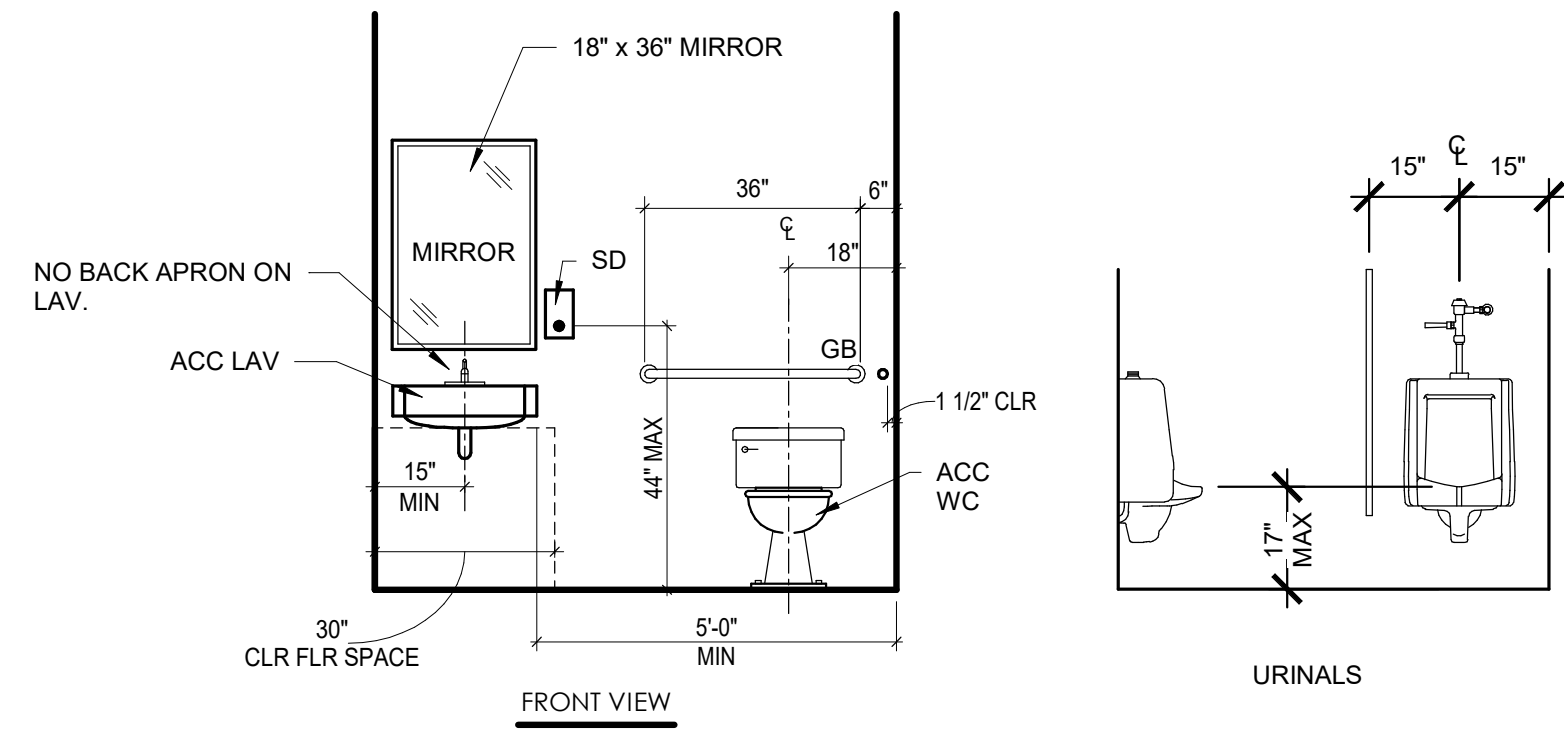
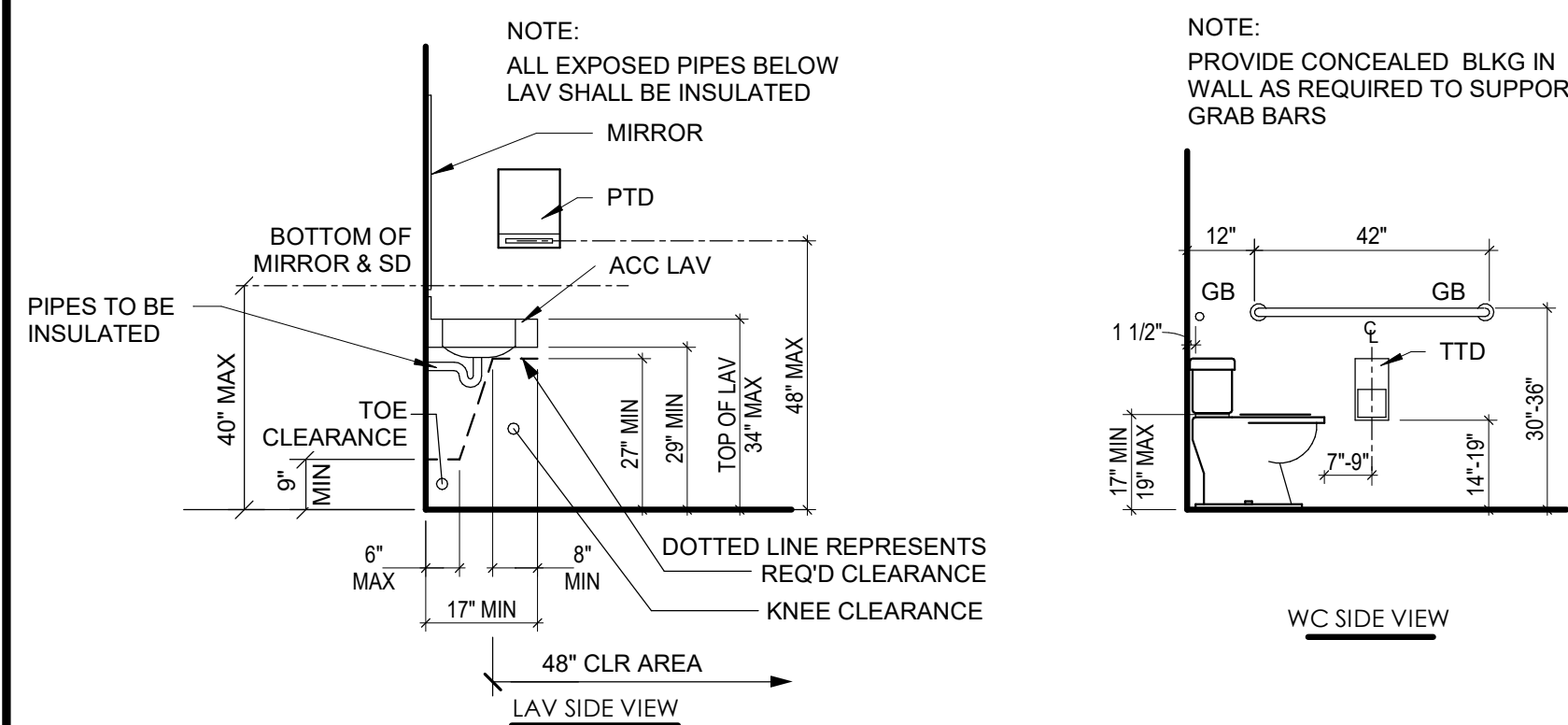
410-838-7900  
www.frederickward.com

P.O. Box 727, 5 South Main Street, Baltimore, Maryland 21014

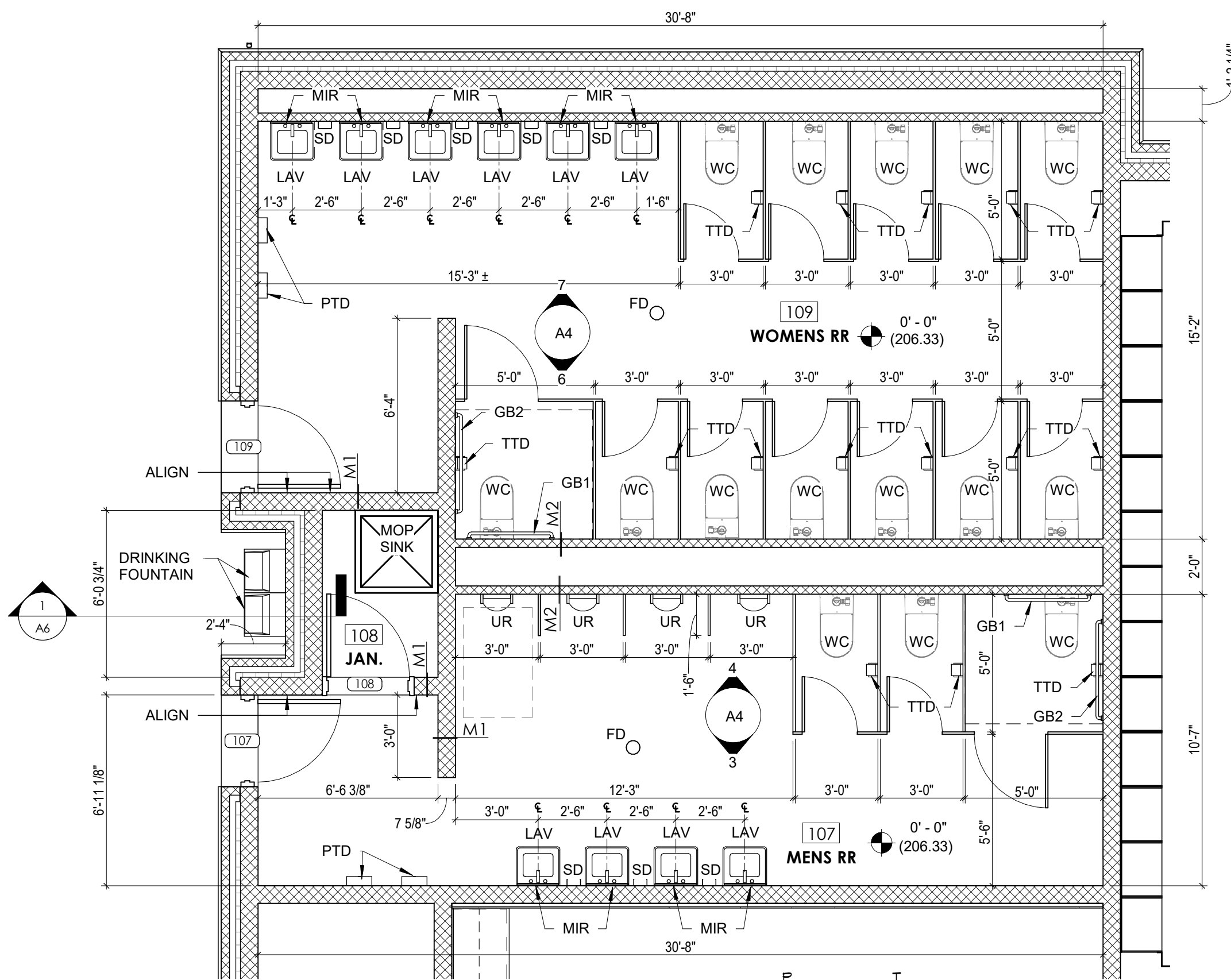
REV#	DATE	DESCRIPTION



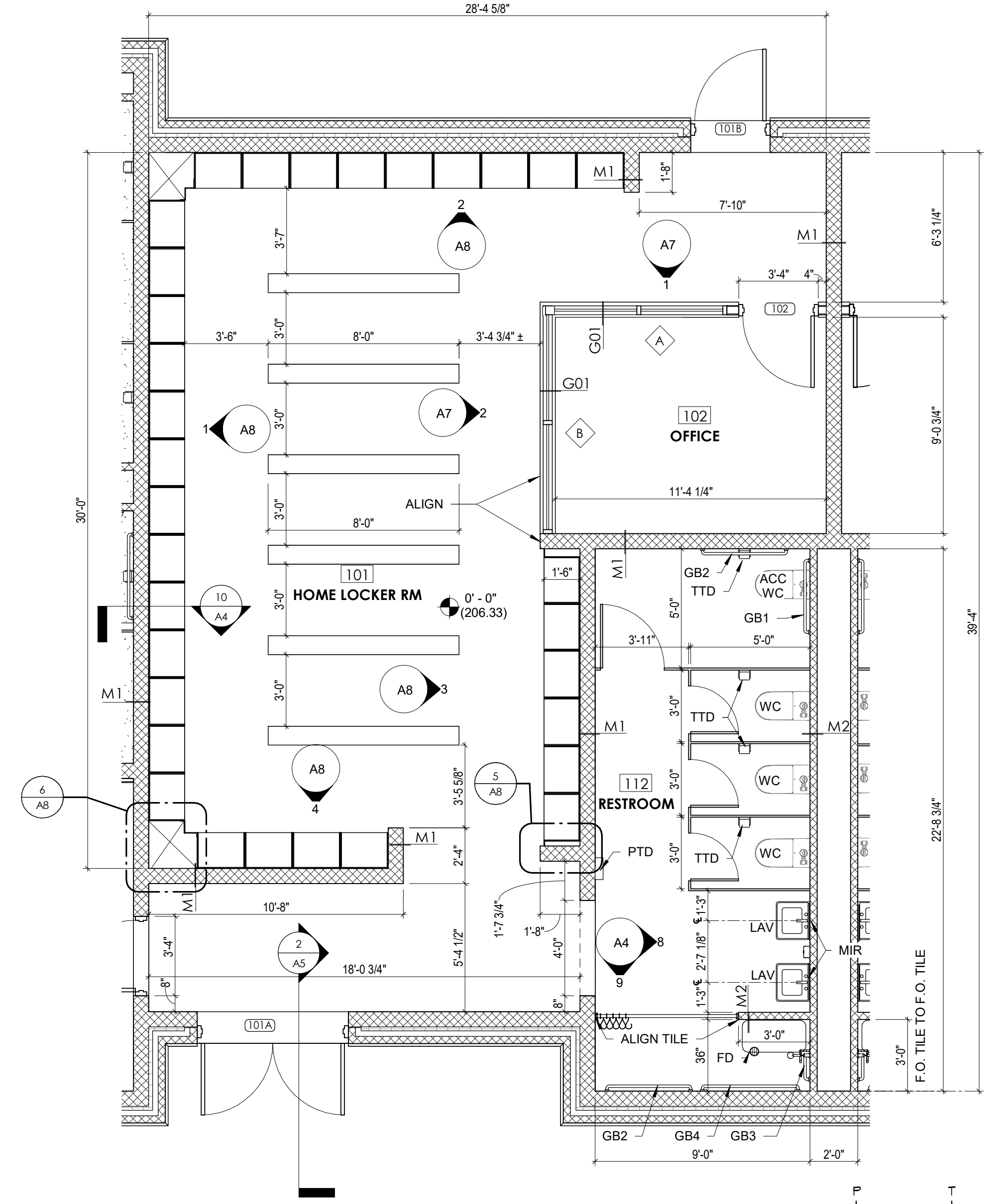
DATE: /03/2023	DRAWING NO:  <b>A3</b>
SCALE: NOTED	
DESIGNED BY: K. AH	
CHECKED BY: S	FWA JOB NUMBER 2181073 00



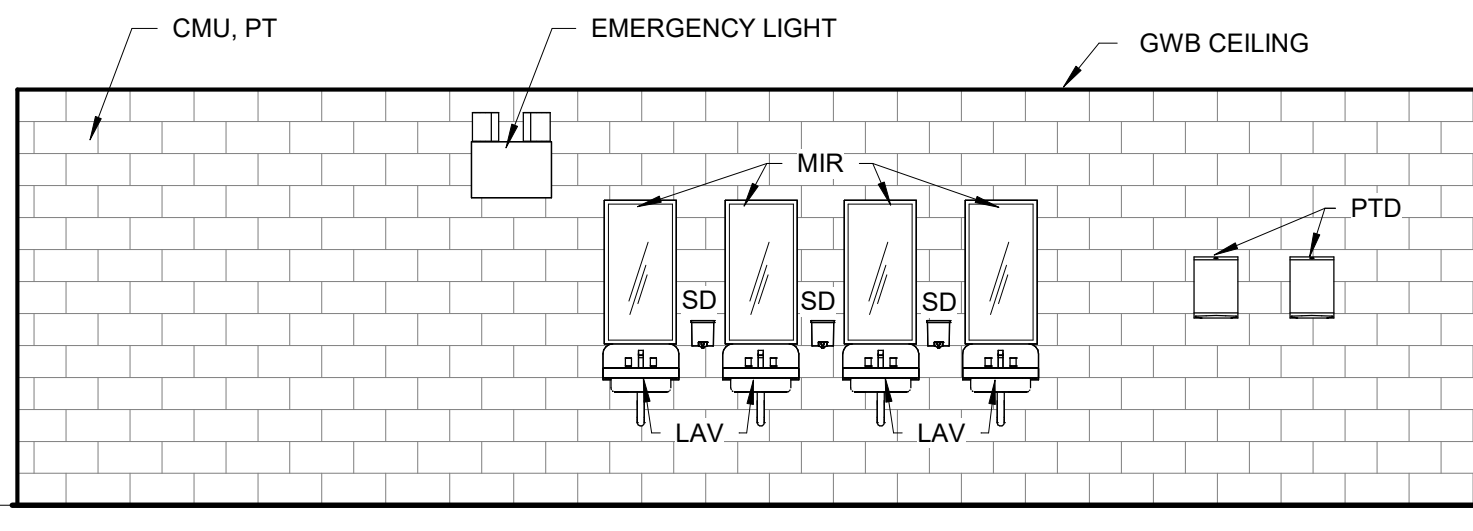
5 ADA RESTROOM MOUNTING HEIGHTS  
3/8" = 1'-0"



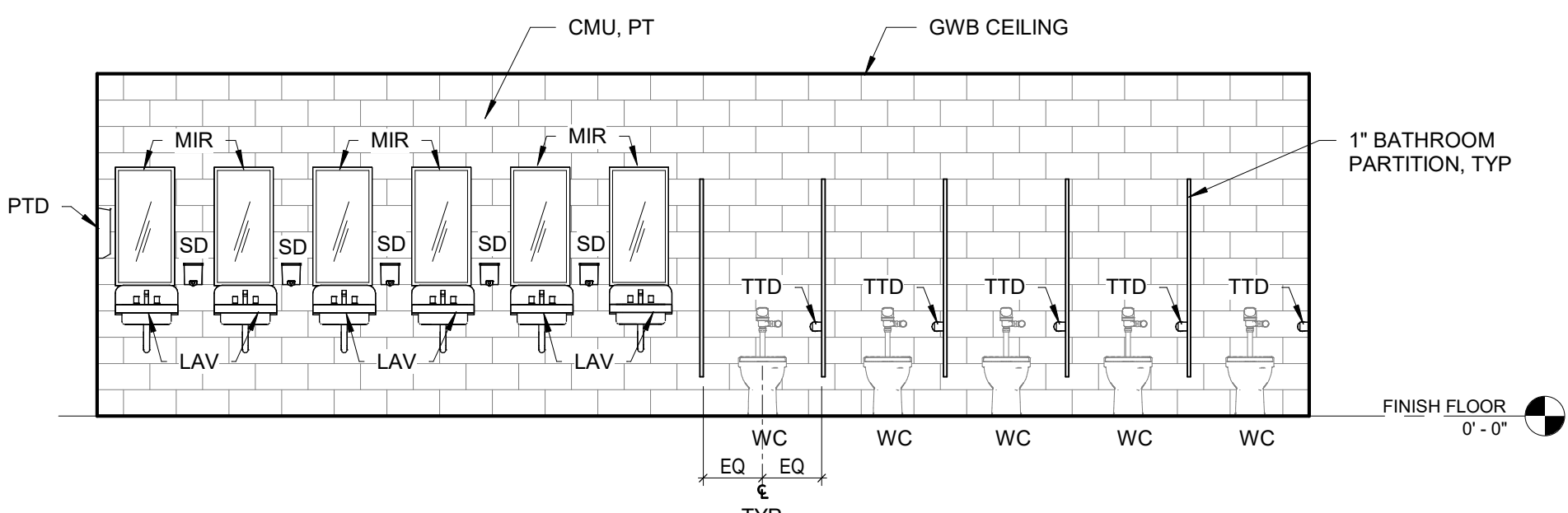
2 ENLARGED RESTROOM PLAN  
1/4" = 1'-0"



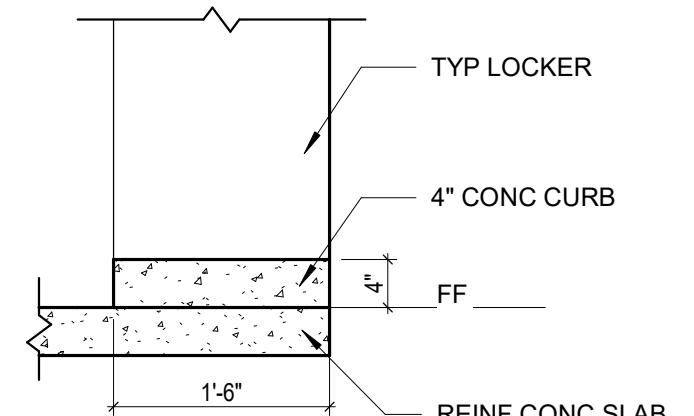
1 ENLARGED LOCKER ROOM  
1/4" = 1'-0"  
VISITOR LOCKER ROOM RR ELEVATION SIMILAR, OPP.



3 MENS RR 107 - ELEV @ ACC  
1/4" = 1'-0"



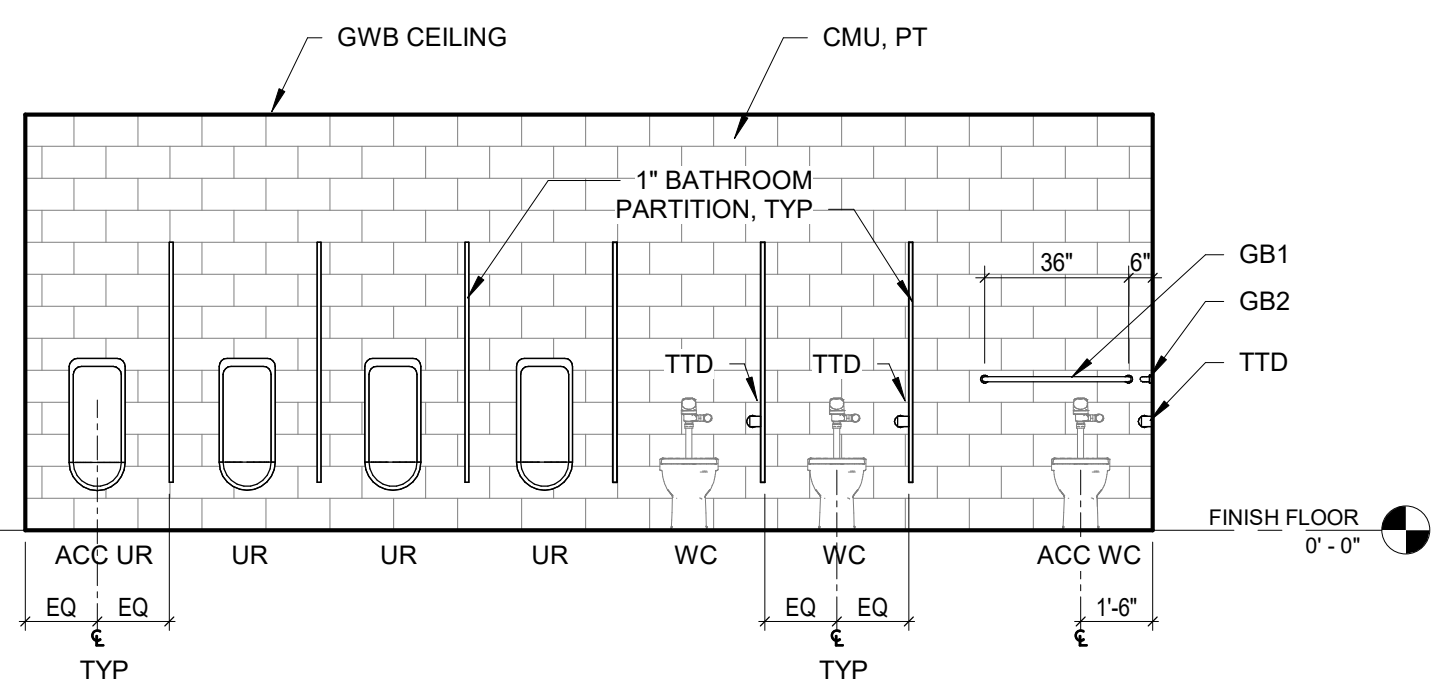
7 WOMENS RR 109 ELEV @ LAVATORIES & WC  
1/4" = 1'-0"



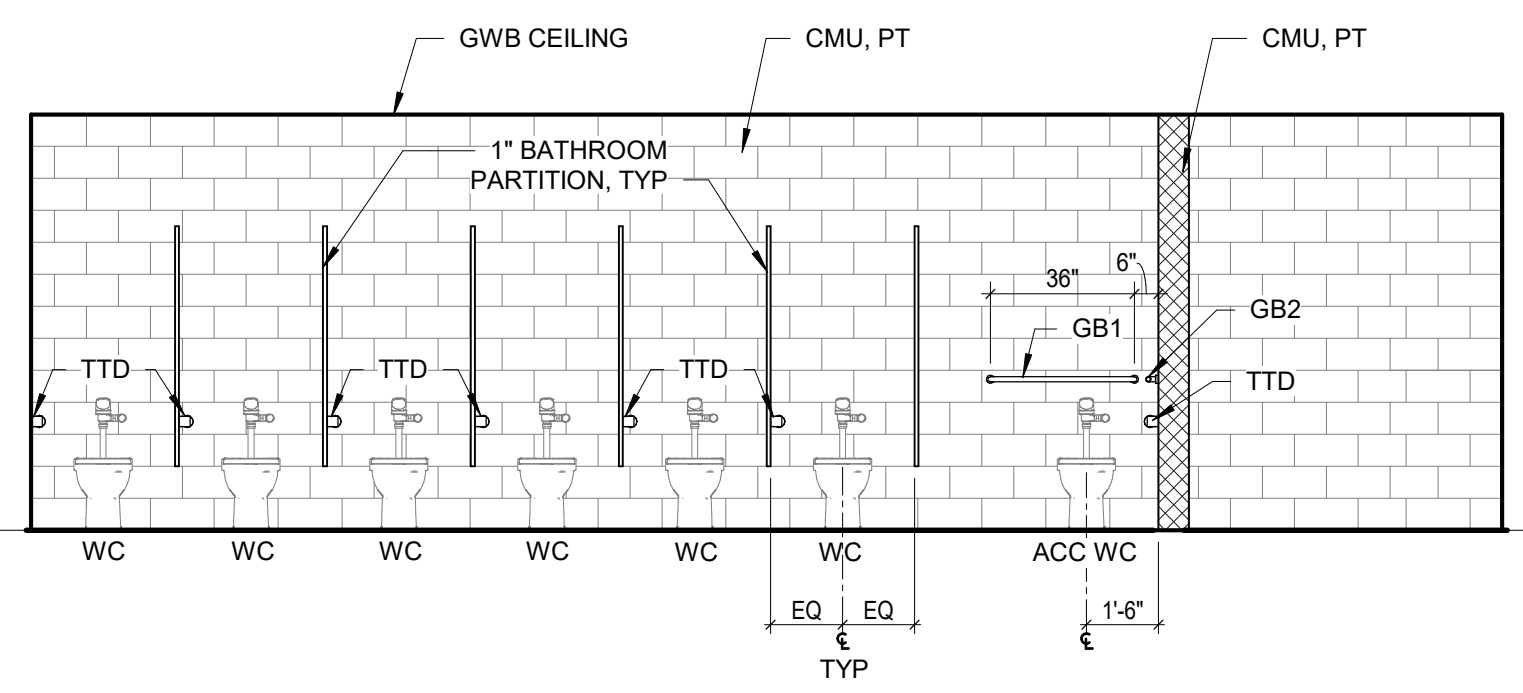
10 TYP LOCKER CURB DTL  
3/4" = 1'-0"

MARK	DESCRIPTION	MANUFACTURER/ MODEL NO.
TTD	TOILET TISSUE DISPENSER	BOBRICK B-4288 CONTURA SERIES, SURFACE MOUNTED
GB-1	36" GRAB BAR	BOBRICK B-6806 x 36" OR APPROVED EQUIV.
GB-2	42" GRAB BAR	BOBRICK B-6806 x 42" OR APPROVED EQUIV.
GB-3	12" GRAB BAR	BOBRICK B-6806 x 12" OR APPROVED EQUIV.
GB-4	48" GRAB BAR	BOBRICK B-6806 x 48" OR APPROVED EQUIV.
PTD	PAPER TOWEL DISPENSER	BOBRICK B-2620 OR APPROVED EQUIV.
SD	SOAP DISPENSER	BOBRICK 818615 CONTURA SERIES, SURFACE MOUNTED
MIR	MIRROR	BRADLEY/ MODEL 781 SERIES 18"X36"
	ADA SHOWER SEAT	BOBRICK B-5191

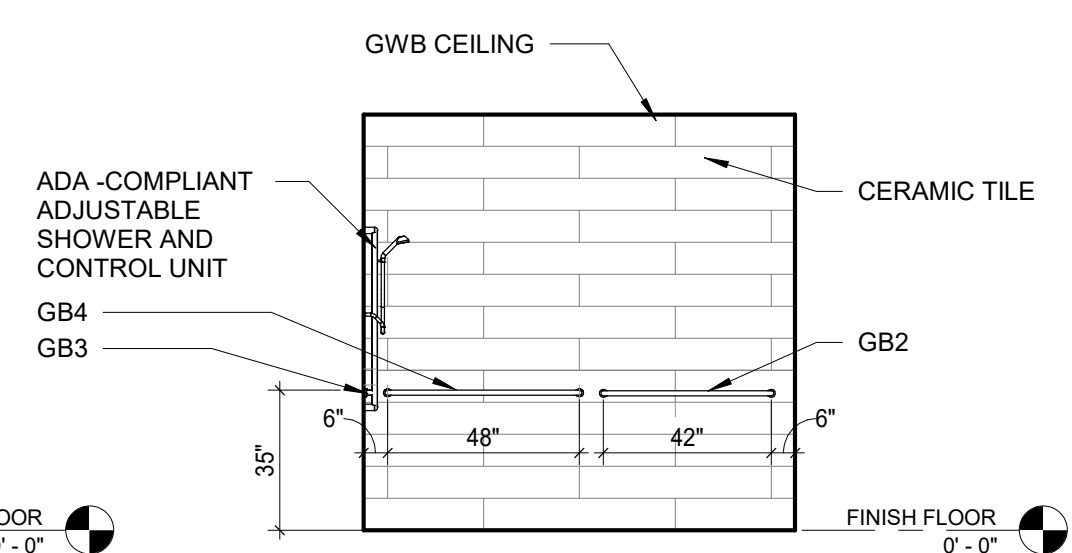
NOTE: ACCESSORIES PROVIDED BY CCPS AND INSTALLED BY GC.



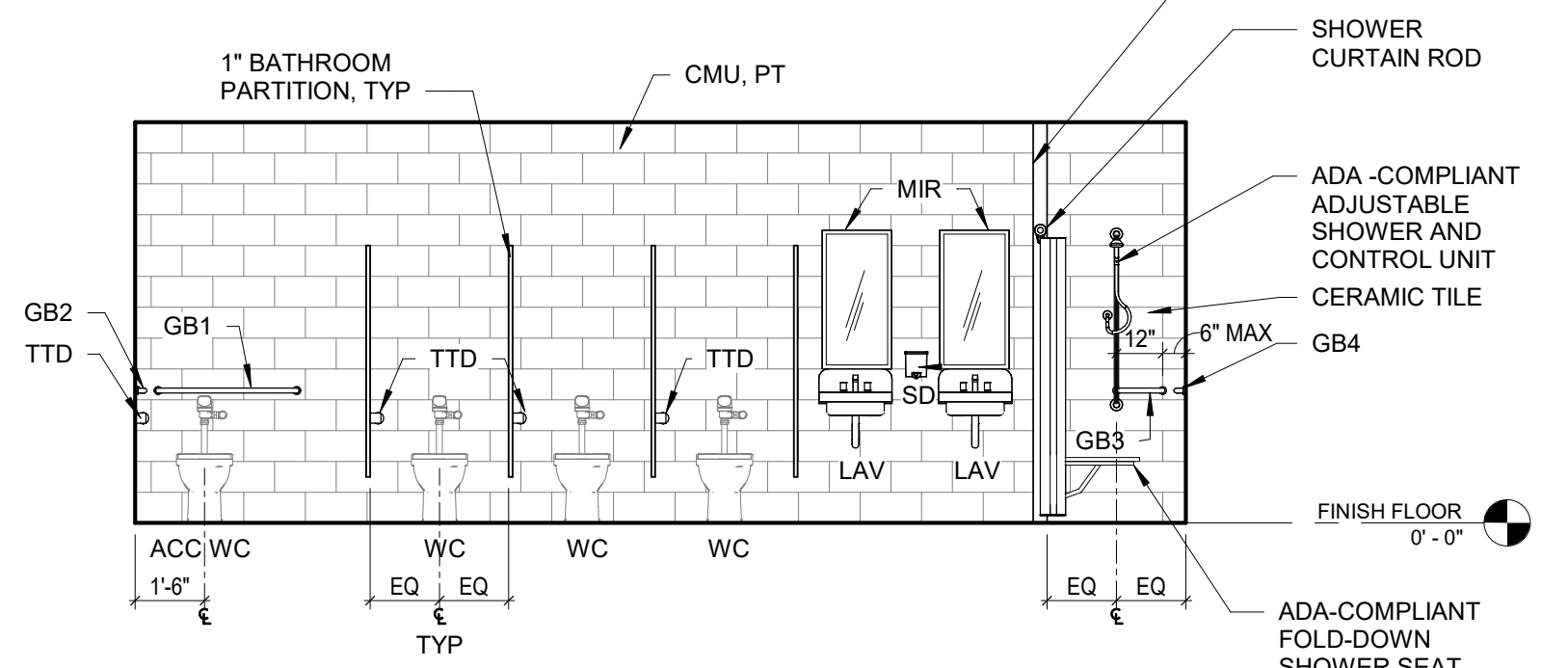
4 MENS RR 09 ELEV @ STALLS  
1/4" = 1'-0"



6 WOMENS RR 109 ELEV @ WC  
1/4" = 1'-0"



9 HOME LOCKER 112 SHOWER ELEV  
1/4" = 1'-0"



8 HOME LOCKERS 112 RR ELEV  
1/4" = 1'-0"

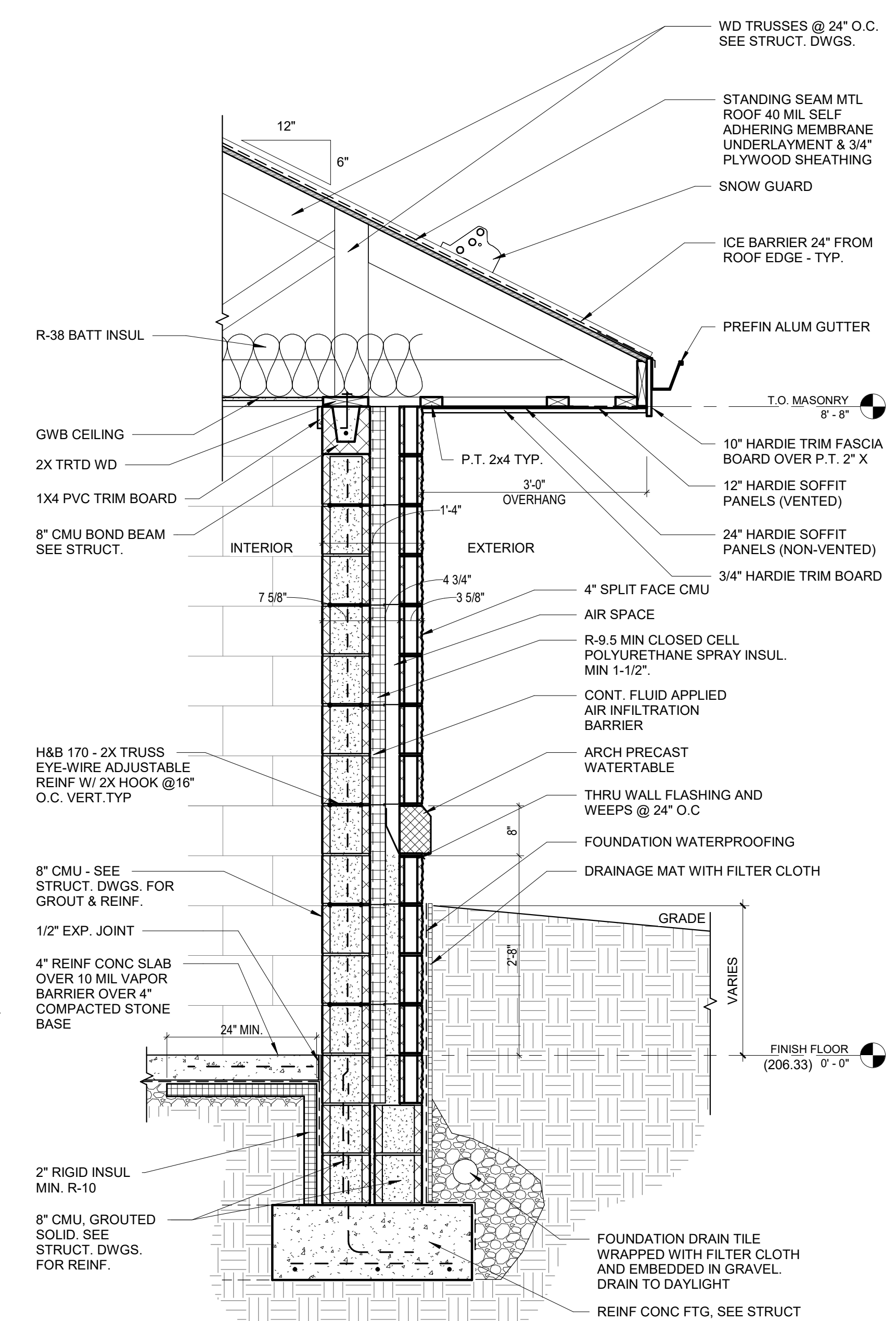
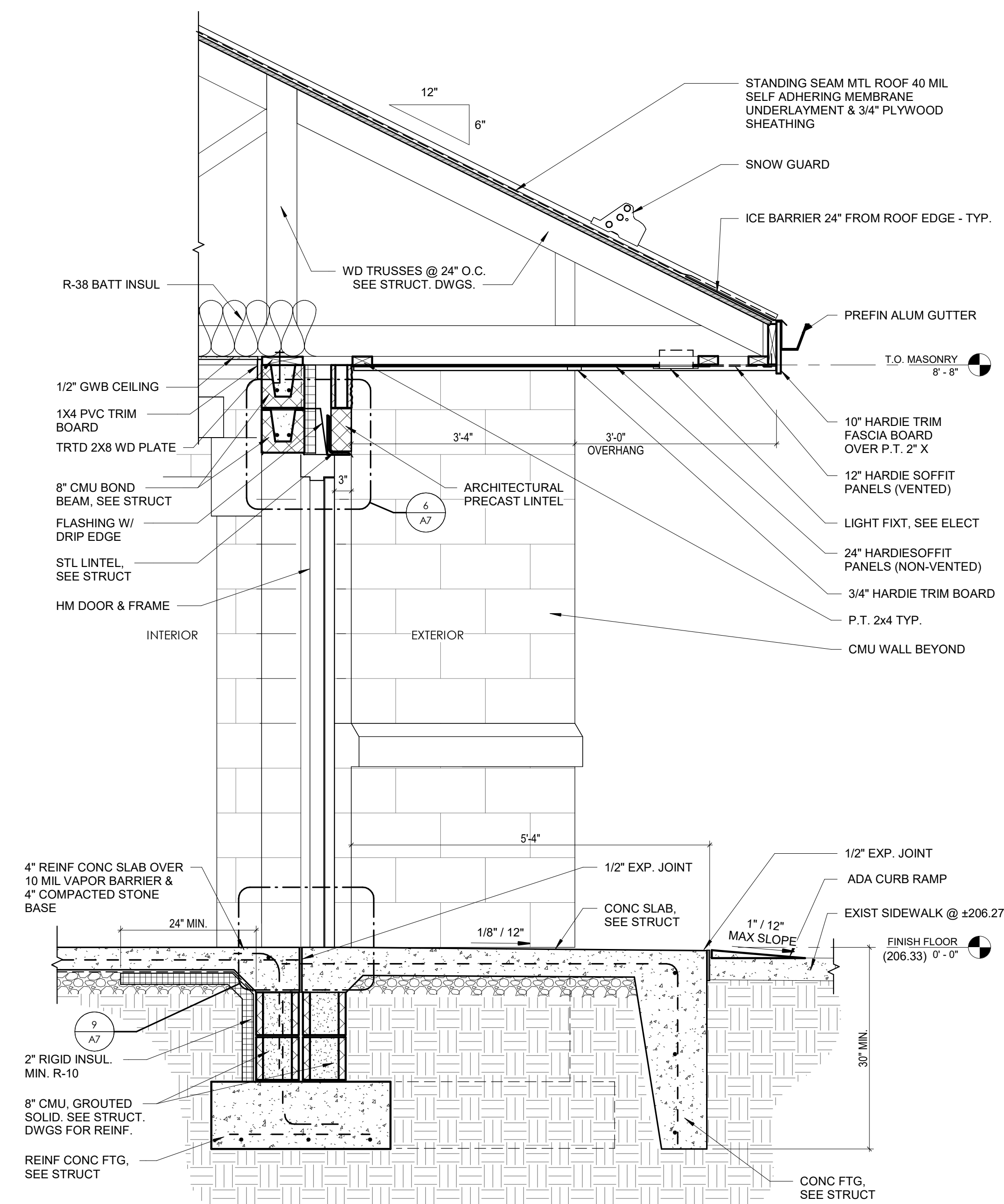
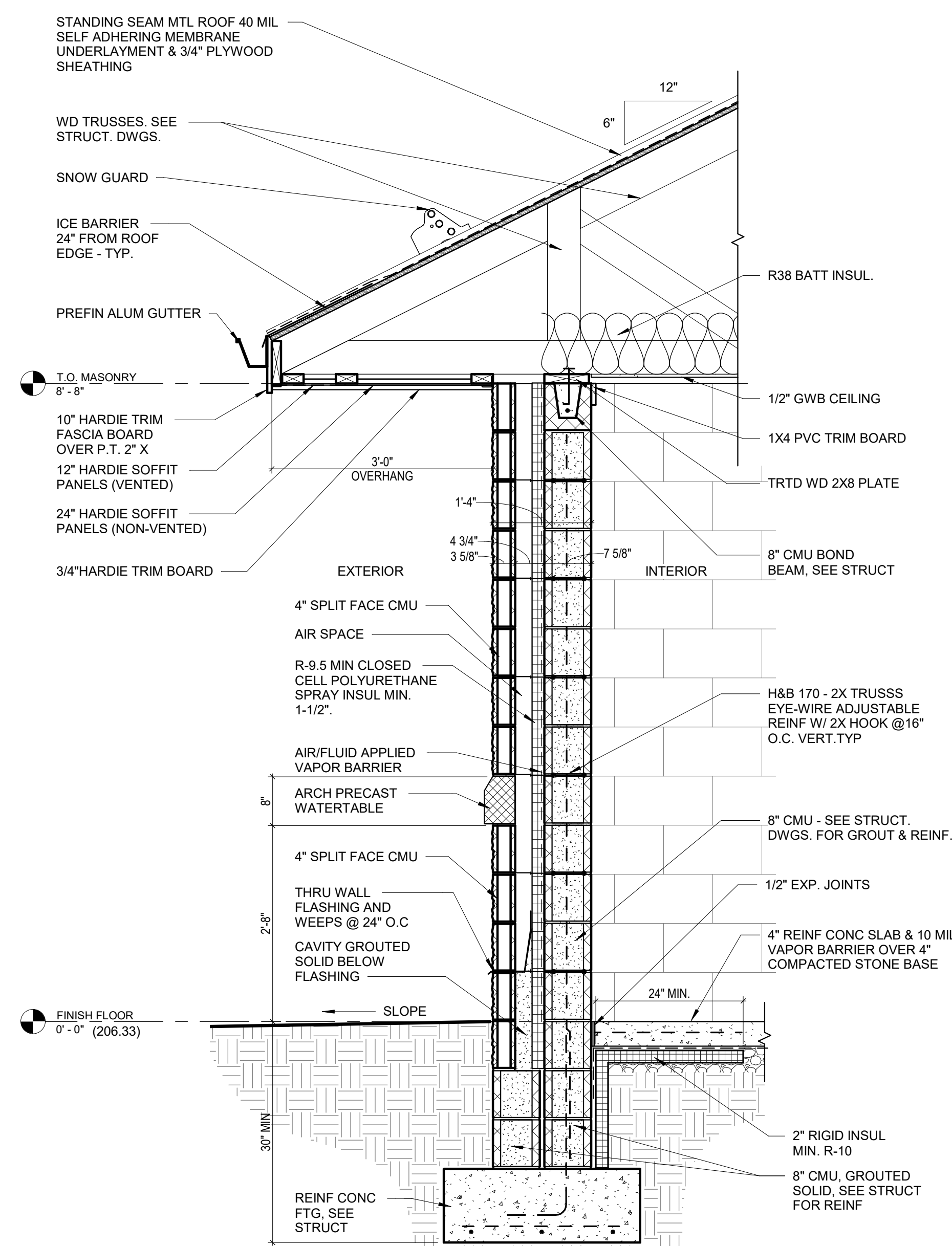
VISITOR LOCKER ROOM RR ELEVATION SIMILAR, OPP.

ENLARGED PLANS,  
ELEVATIONS

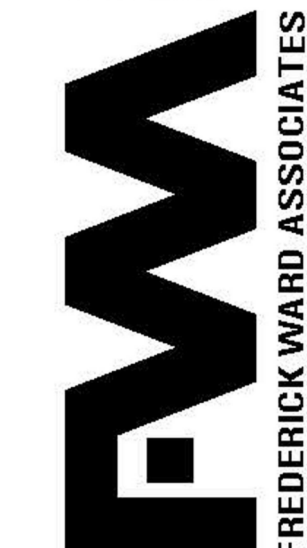
CECIL COUNTY PUBLIC  
SCHOOLS  
NEW FIELD HOUSE AT STADIUM  
1686 PERRYVILLE RD, PERRYVILLE, MD 21903



DATE:	11/03/2023	DRAWING NO.:	A4
SCALE:	AS NOTED		
DRAWN BY:	CK, AH		
CHECKED BY:	WS	PWA JOB NUMBER	2181073.00

[illegible]

**ARCHITECTS  
ENGINEERS  
PLANNERS  
SURVEYORS**  
410-838-7900  
[www.frederickward.com](http://www.frederickward.com)



CECIL COUNTY PUBLIC  
SCHOOLS

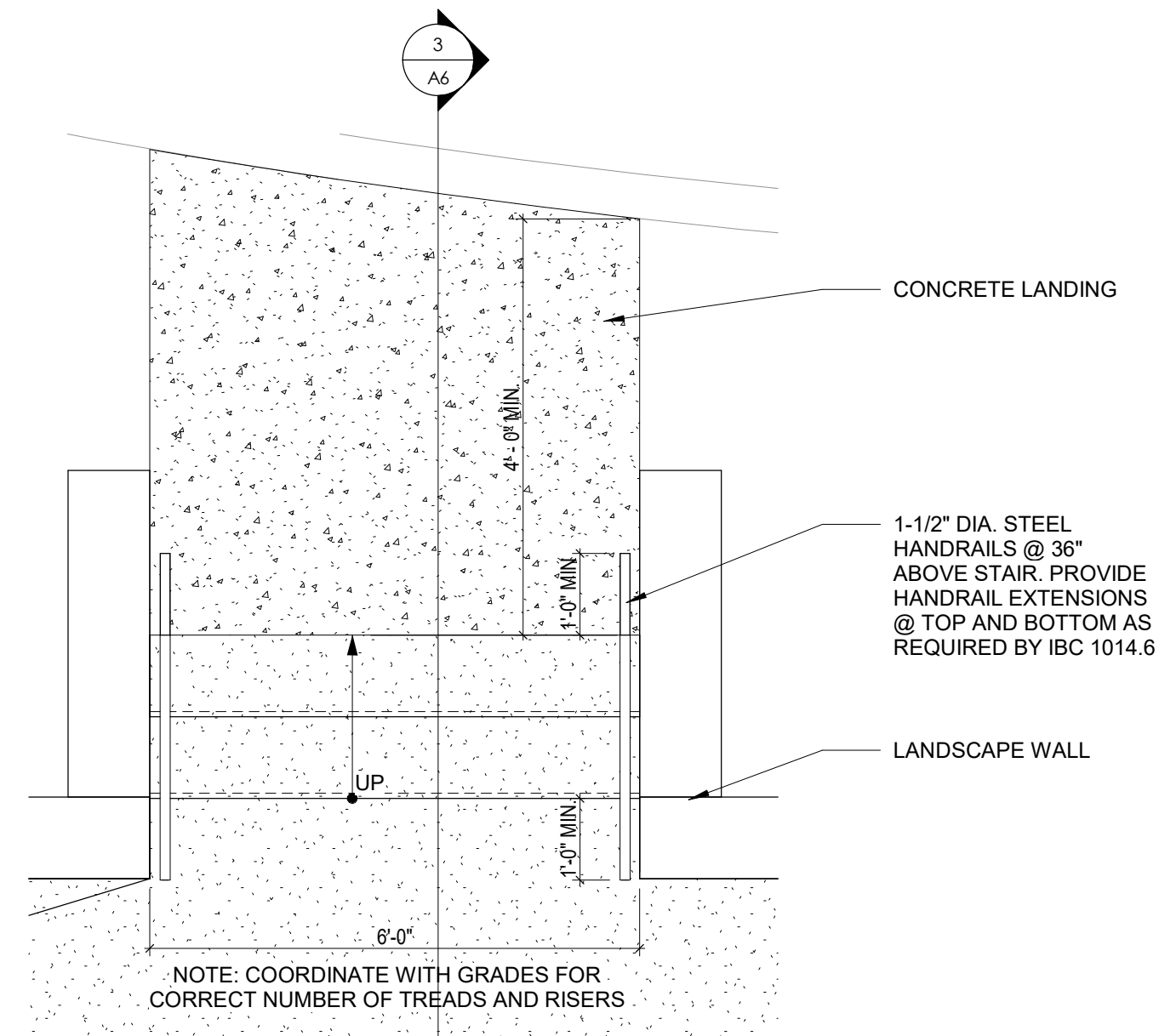
## WALL SECTIONS

NEW FIELD HOUSE AT STADIUM

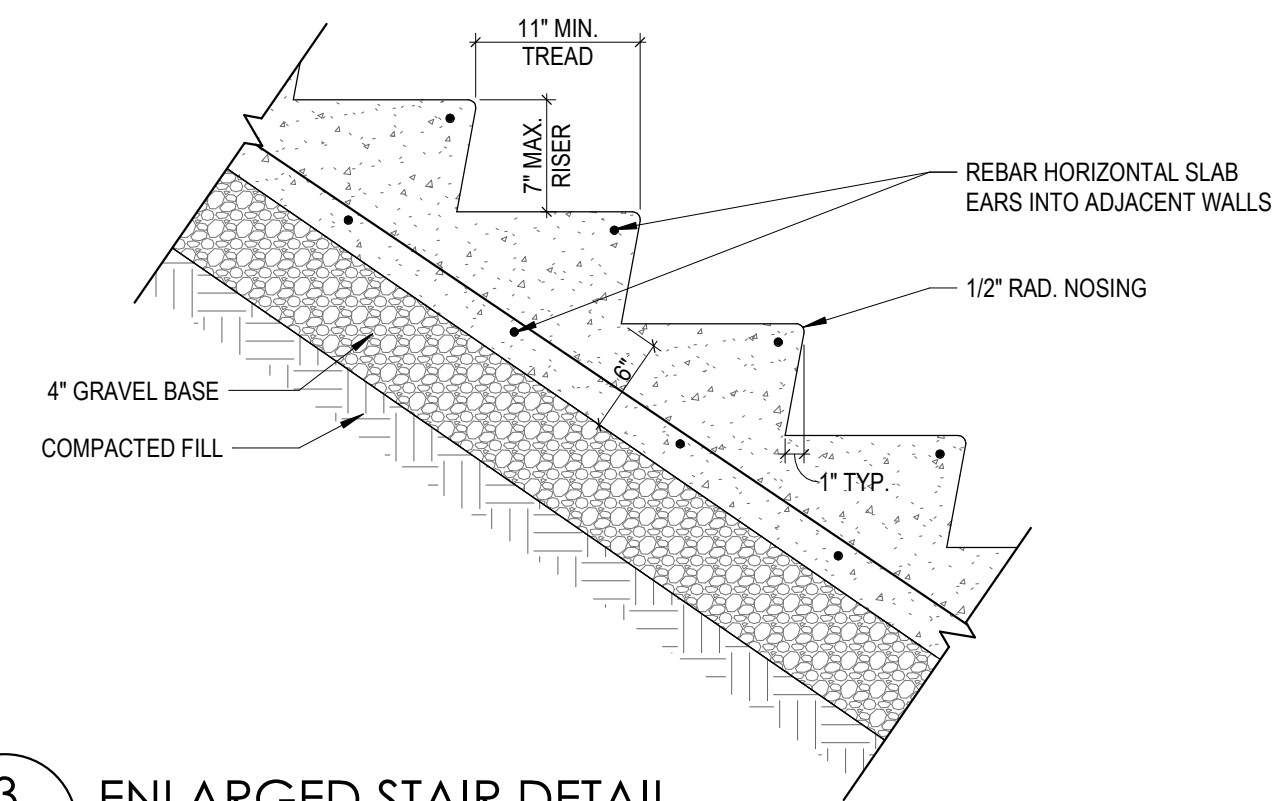


DATE:	11/03/202
SCALE:	AS NOTE
DRAWN BY:	CK. AH

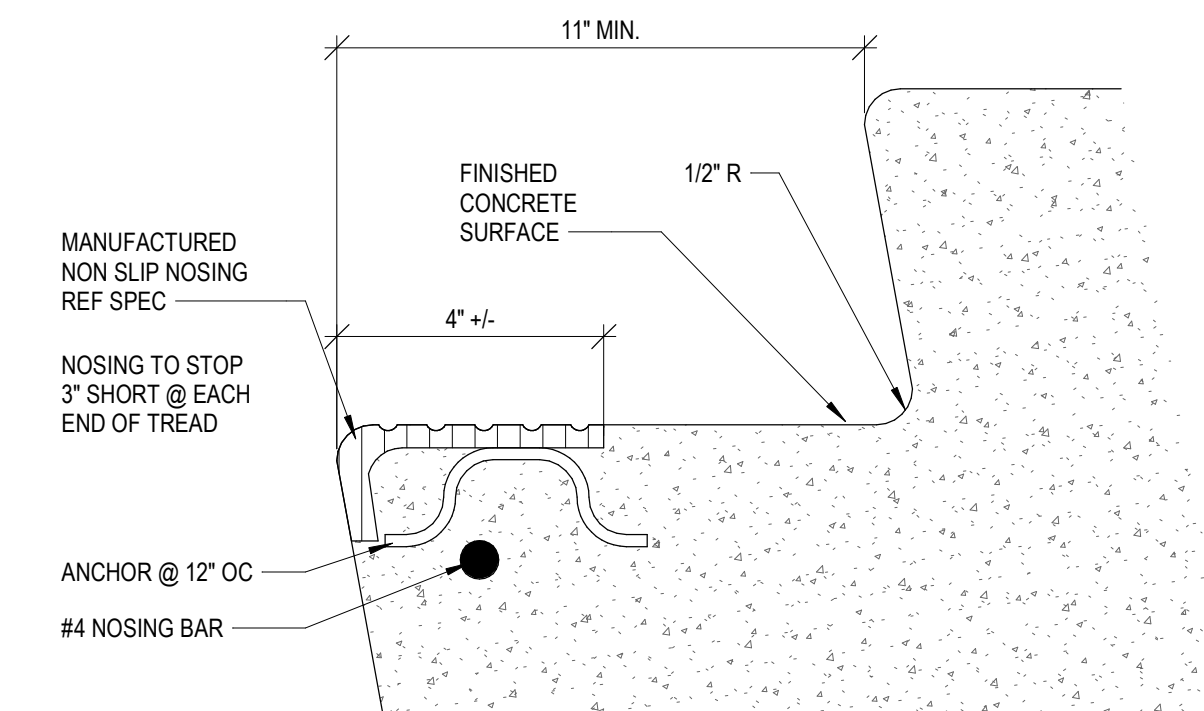
DRAWING NO	A
FWA JOB NUM	



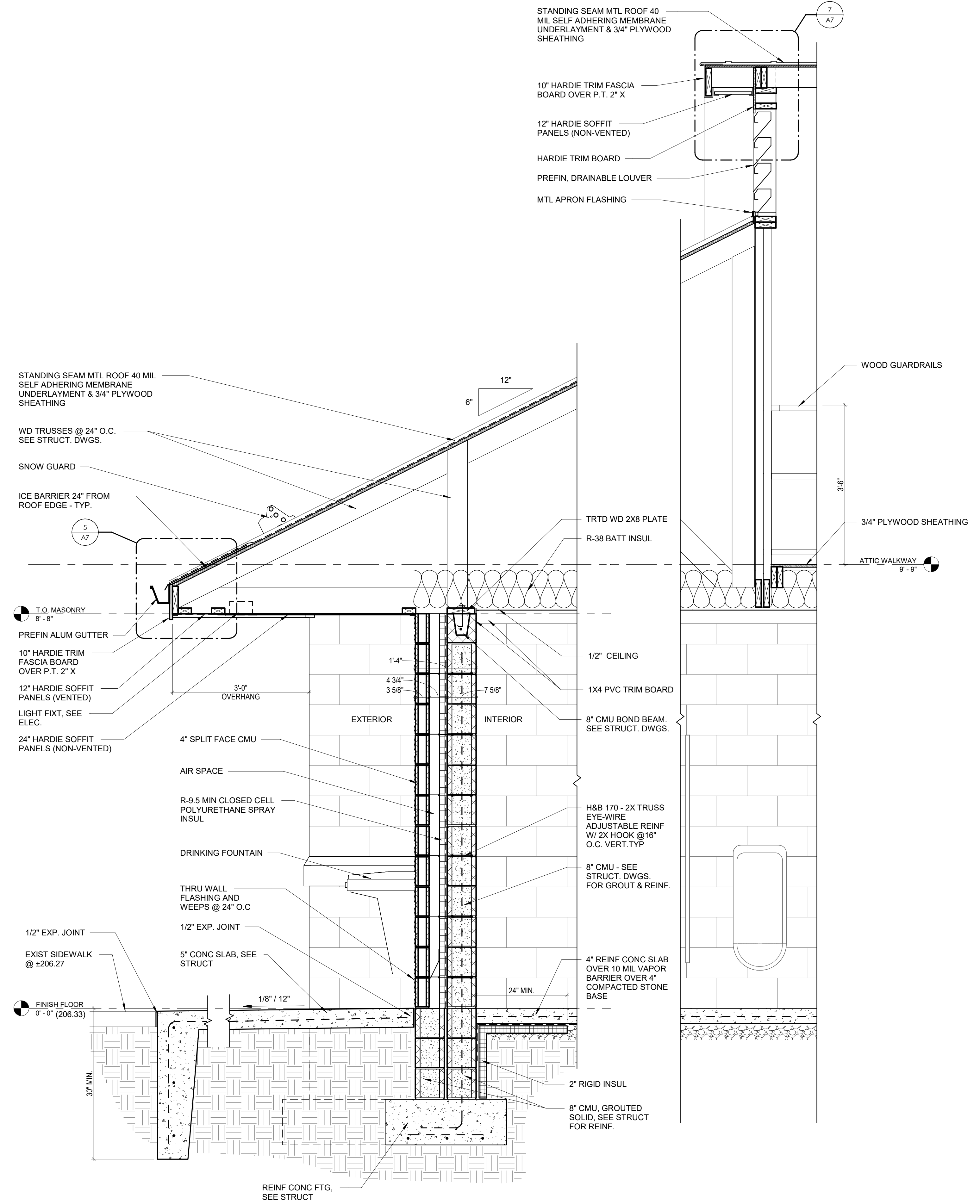
2 EXTERIOR CONC. STAIR PLAN  
1/2" = 1'-0"



3 ENLARGED STAIR DETAIL  
1" = 1'-0"



4 CONCRETE TREAD WITH SAFETY NOSING  
3" = 1'-0"



1 WALL SECTION 4  
3/4" = 1'-0"

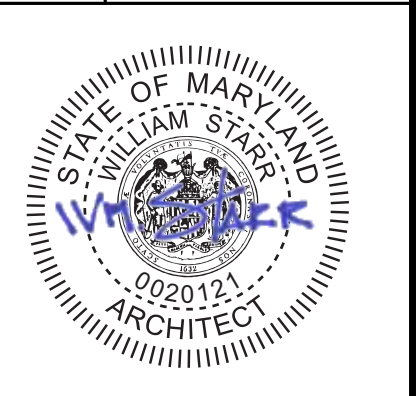
REVISIONS		DESCRIPTION
REV#	DATE	

ARCHITECTS  
ENGINEERS  
PLANNERS  
SURVEYORS  
410-838-7900  
www.frederickward.com

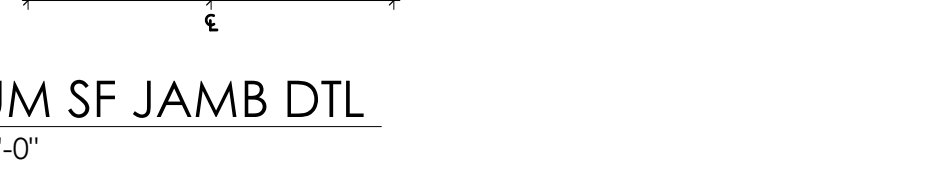
**FWA**  
FREDERICK WARD ASSOCIATES  
P.O. Box 727, 5 South Main Street, 4th Floor, Maryland 21014

CECIL COUNTY PUBLIC SCHOOLS  
201 BOOTH ST, ELKTON, MD 21821

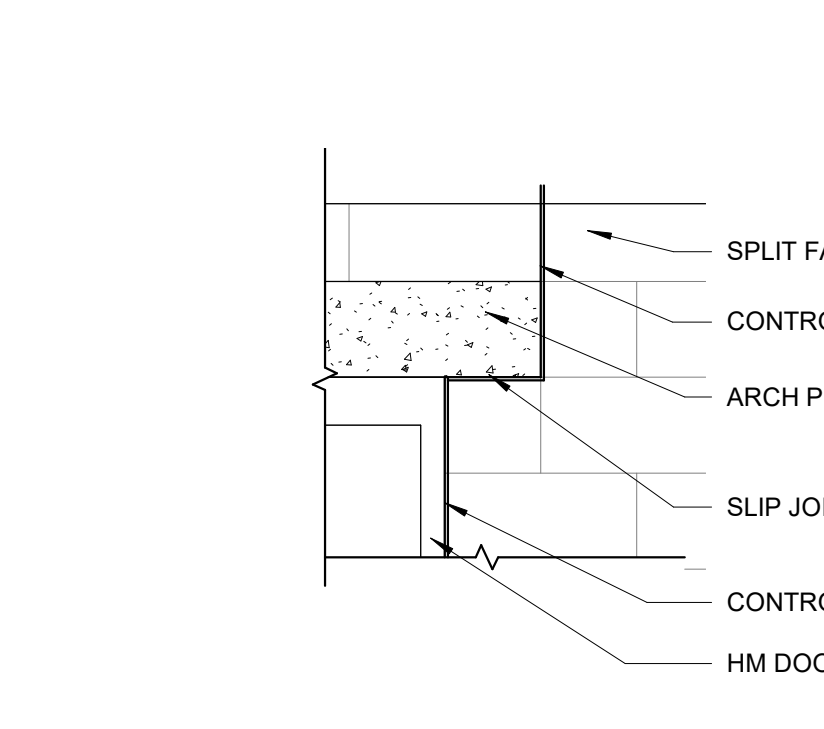
WALL SECTIONS  
NEW FIELD HOUSE AT STADIUM  
16806 PERRYVILLE RD, PERRYVILLE, MD 21903



DATE: 11/03/2023	DRAWING NO.:
SCALE: AS NOTED	<b>A6</b>
DRAWN BY: CK, AH	
CHECKED BY: WS	PWA JOB NUMBER 2181073.00



11 ALUM SF SILL DTL  
A7 3" = 1'-0"



GLAZING TYPES	
T	1/4" CLEAR TEMPERED GLAZING

	
DATE: 11/03/2023	DRAWING NO:  <div style="font-size: 48px; font-weight: bold; text-align: center;">A7</div>
SCALE: AS NOTED	
DRAWN BY: CK, AH	
CHECKED BY:	FWA JOB NUMBER



STRUCTURAL NOTES:

GENERAL

1. STRUCTURAL NOTES ARE NOT INTENDED TO REPLACE SPECIFICATIONS. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. FOR INCONSISTENCIES BETWEEN STRUCTURAL DRAWINGS, THE SPECIFICATIONS, AND ANY CODE OF STANDARD PRACTICE, THE STRICTER REQUIREMENT SHALL APPLY, AND THE ENGINEER SHALL BE NOTIFIED PRIOR TO PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.
2. STRUCTURAL CONSTRUCTION DOCUMENTS SHALL BE USED WITH OTHER CONSTRUCTION DOCUMENTS, INCLUDING ARCHITECTURAL, M/E/P, AND SITE DOCUMENTS. COORDINATE WITH THESE DOCUMENTS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, CHASES, INSERTS, REGLETS, SLEEVES, DEPRESSIONS, ETC., NOT INDICATED ON THE STRUCTURAL DOCUMENTS. ALL DIMENSIONS AND CONDITIONS, EXISTING AND NEW, SHALL BE FIELD VERIFIED. THE ENGINEER SHALL BE NOTIFIED OF DISCREPANCIES PRIOR TO PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.
3. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE STABILITY AND SAFETY DURING CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF SHEETING, SHORING, TEMPORARY BRACING, CUTS, AND TIEDOWNS. THE CONTRACTOR SHALL PROVIDE SHORING AND BRACING NECESSARY TO PROTECT EXISTING AND ADJACENT STRUCTURES.
4. SECTIONS AND DETAILS SHOWN ON ANY STRUCTURAL DOCUMENTS SHALL BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS THAT DO NOT HAVE A SPECIFIC SECTION INDICATED, AND SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
5. APPLICABLE FEDERAL, STATE AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OSHA.
6. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED ON THE STRUCTURE. CONSTRUCTION LOADS SHALL NOT EXCEED THE SPECIFIED DESIGN LIVE LOADS. CONCRETE SLABS AND TOPPING SHALL NOT BE LOADED UNTIL THE CONCRETE HAS REACHED AT LEAST 75% OF THE SPECIFIED DESIGN COMPRESSIVE STRENGTH.
7. THE CONTRACTOR'S CONSTRUCTION SEQUENCES SHALL ALLOW FOR THE EFFECTS OF THERMAL MOVEMENTS DURING THE CONSTRUCTION PERIOD, PRIOR TO THE BUILDING BEING ENCLOSED AND TEMPERATURE CONTROLLED. NEGATIVE EFFECTS OF SUCH THERMAL MOVEMENTS, SUCH AS MATERIAL CRACKING, FROST HEAVE, ETC., SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
8. IN THE ABSENCE OF SPECIFIC INSTRUCTIONS TO THE CONTRARY IN THE CONTRACT DOCUMENTS, THE TRADE PRACTICES THAT ARE DEFINED IN ANY CODE OF STANDARD PRACTICE SHALL GOVERN.
9. DO NOT SCALE DRAWINGS TO DETERMINE DIMENSIONS, LOCATIONS, OR SIZES OF ANY ELEMENT.

STRUCTURAL DESIGN CRITERIA

1. DESIGN LOADS ARE IN ACCORDANCE WITH THE 2018 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC) INCLUDING LOCAL CODES, WHERE APPLICABLE, AND THE FOLLOWING STANDARDS REFERENCED IN IBC 2018:
- ACI 318 - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
  - ACI 530 - BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES
  - ACI 530.1 - SPECIFICATIONS FOR MASONRY STRUCTURES
  - AF&PA NDS - NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION
  - AISC 360 - SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS
  - ASCE 7 - MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
2. RISK CATEGORY / OCCUPANCY CATEGORY OF BUILDING : II
3. LIVE LOADS ARE AS FOLLOWS. LIVE LOAD REDUCTIONS HAVE BEEN TAKEN WHERE APPLICABLE, UNO.
- |                |        |
|----------------|--------|
| ROOF LIVE LOAD | 30 PSF |
|----------------|--------|
4. SNOW LOADING IS BASED ON THE FOLLOWING. DRIFTING OR SLIDING SNOW LOADS HAVE BEEN CONSIDERED WHERE APPROPRIATE.
- |                                |                   |
|--------------------------------|-------------------|
| RAIN ON SNOW SURCHARGE         | N/A (Pg > 20 PSF) |
| GROUND SNOW LOAD, Pg           | 30 PSF            |
| FLAT-ROOF SNOW LOAD, Pf        | 21 PSF            |
| SNOW EXPOSURE FACTOR, Ce       | 1.0               |
| SNOW THERMAL FACTOR, Ct        | 1.0               |
| SNOW LOAD IMPORTANCE FACTOR, I | 1.1               |
5. WIND LOADING IS BASED ON THE FOLLOWING:
- |  |                  |
|--|------------------|
| BASIC WIND SPEED (3 SEC GUST)                                  | 115 MPH          |
| EXPOSURE CATEGORY  | B                |
| BUILDING CATEGORY: SIMPLE DIAPHRAGM, LOW-RISE, ENCLOSED, RIGID |                  |
| INTERNAL PRESSURE COEFF.                                       | +0.18            |
| COMPONENTS & CLADDING (LOAD FACTOR OF 0.6 IS NOT INCLUDED)     |                  |
| WALLS  | +19.5, -21.2 PSF |
| WALL CORNERS   | +19.5, -26.2 PSF |
| ROOF ZONE 1  | +17.4, -32.7 PSF |
| ROOF ZONE 2  | +17.4, -32.7 PSF |
| ROOF ZONE 3  | +16.3, -40.4 PSF |
6. SEISMIC LOADING IS BASED ON THE FOLLOWING:
- |  |        |
|--|--------|
| SEISMIC IMPORTANCE FACTOR                  | 1.00   |
| SEISMIC SITE CLASS                         | D      |
| SPECTRAL RESPONSE COEFF. (5%)              | 0.181g |
| SPECTRAL RESPONSE COEFF. (5%)              | 0.073g |
| LONG PERIOD TRANSITION (Tj)                | 6      |
| SEISMIC DESIGN CATEGORY                    | B      |
| ANALYSIS PROCEDURE                         |        |
| EQUIVALENT LATERAL FORCE                   |        |
| BASIC STRUCTURAL SYSTEM                    |        |
| BEARING WALL                               |        |
| SEISMIC FORCE RESISTING SYSTEM             |        |
| INTERMEDIATE REINFORCED MASONRY SHEAR WALL |        |
| RESPONSE MODIFICATION FACTOR (R)           | 3.5    |
| DESIGN BASE SHEAR                          | 3.6K   |
7. DESIGN REACTIONS AND SUPPORT DETAILS FOR ELEVATOR, ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING EQUIPMENT ARE BASED UPON AVAILABLE MANUFACTURER INFORMATION. SUPPORT CONDITIONS MAY NEED TO BE REVISED BASED UPON ACTUAL SUPPLIED EQUIPMENT AND SUPPORT DETAILS.
8. ROOF TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING SUPERIMPOSED LOADS:
- |                 |                                  |
|-----------------|----------------------------------|
| TOP CHORD       | BOTTOM CHORD                     |
| DEAD = 15 PSF   | DEAD = 10 PSF                    |
| LIVE = 30 PSF   | LIVE = 10 PSF (TYP)              |
| SNOW = PER CODE | SNOW = 40 PSF (ATTIC & CATWALKS) |
| WIND = PER CODE |                                  |
- 6ABLE END TRUSSES SHALL BE DESIGNED FOR WIND LOAD PERPENDICULAR TO THE PLANE OF THE TRUSS. DESIGN, DETAIL AND PROVIDE ALL TEMPORARY AND PERMANENT BRACING FOR THE TRUSS SYSTEM.

SUBMITTALS

1. THE APPLICABLE CONTRACTOR SHALL SUBMIT THE FOLLOWING FOR APPROVAL:
- CONCRETE MIX DESIGNS FOR STRENGTHS INDICATED
  - CONCRETE REINFORCING SHOP DRAWINGS, INCLUDING ELEVATIONS OF ALL WALLS
  - STRUCTURAL STEEL SHOP DRAWINGS & CONNECTION DESIGN
  - MASONRY REINFORCING SHOP DRAWINGS, INCLUDING ELEVATIONS OF ALL WALLS
  - MASONRY GROUT AND MORTAR MIX DESIGNS
  - WOOD TRUSS SHOP DRAWINGS W/ P.E. SEALED CALCULATIONS
  - PRODUCT DATA & MILL TEST FOR EACH APPLICABLE PRODUCT

IBC SPECIAL INSPECTIONS

1. STRUCTURAL TESTS AND SPECIAL INSPECTIONS ARE REQUIRED BY THE INTERNATIONAL BUILDING CODE AND SHALL BE PERFORMED ON THIS PROJECT IN ACCORDANCE WITH REQUIREMENTS OF IBC CHAPTER 17, "SPECIAL INSPECTIONS AND TESTS."
2. AS REQUIRED BY IBC, THE SPECIAL INSPECTIONS AND TESTS SHALL BE PERFORMED BY AN INDEPENDENT, APPROVED AGENCY, EMPLOYED BY THE OWNER.
3. COPIES OF ALL REPORTS DOCUMENTING THE SPECIAL INSPECTIONS AND TESTS PERFORMED BY THE INSPECTING AGENCY SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD (BAKER, INGRAM & ASSOCIATES).
4. SPECIAL INSPECTIONS SHALL INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

**FABRICATOR INSPECTION:** WHERE FABRICATION OF LOAD-BEARING MEMBERS, LATERAL LOAD-RESISTING MEMBERS AND ASSEMBLIES (SUCH AS STRUCTURAL STEEL, LIGHT-GAGE STEEL TRUSSES, ETC.) IS PERFORMED ON THE PREMISES OF A FABRICATOR'S SHOP, SPECIAL INSPECTION SHALL BE PROVIDED TO VERIFY FABRICATION AND QUALITY CONTROL PROCEDURES, IN ACCORDANCE WITH IBC SECTION 1704.2.5.

**CONCRETE CONSTRUCTION:** SPECIAL INSPECTIONS AND VERIFICATIONS SHALL CONFORM TO IBC SECTION 1705.3 AND TABLE 1705.3 "REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION."

**MASONRY CONSTRUCTION:** SPECIAL INSPECTIONS AND EVALUATION SHALL CONFORM TO IBC SECTION 1705.4.

**STEEL CONSTRUCTION:** SPECIAL INSPECTIONS SHALL CONFORM TO IBC SECTION 1705.2, AISC 360-10, S01 GA/GC AND TABLE 1705.2.3 "REQUIRED SPECIAL INSPECTIONS OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS." STEEL CONSTRUCTION INCLUDES STRUCTURAL STEEL, STEEL JOISTS, STEEL FLOOR, ROOF DECK, AND LIGHT-GAGE STEEL FRAMING.

**WOOD CONSTRUCTION:** SPECIAL INSPECTIONS AND EVALUATION SHALL CONFORM TO IBC SECTION 1705.5.

**SOILS:** SPECIAL INSPECTIONS AND EVALUATION SHALL CONFORM TO IBC SECTION 1705.6 AND TABLE 1705.6 "REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS."

TYPICAL DETAILS

1. TYPICAL DETAILS APPLY AT ALL APPROPRIATE LOCATIONS.
2. TYPICAL DETAILS ARE GENERALLY NOT CUT ON THE PLANS.
3. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL TYPICAL DETAIL APPLICATIONS.

FOUNDATIONS

1. FOUNDATIONS HAVE BEEN DESIGNED BASED ON A PRESUMPTIVE BEARING CAPACITY OF 2 KSF. PRESUMPTIVE BEARING CAPACITY SHALL BE VERIFIED PRIOR TO PLACING FOUNDATIONS.
2. SPREAD FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR COMPACTED STRUCTURAL FILL HAVING A MINIMUM SAFE BEARING CAPACITY OF 3 KSF.
3. THE BOTTOMS OF EXTERIOR FOOTINGS SHALL BE 36 IN. MINIMUM BELOW FINISHED GRADE.
4. EDGES OF FOOTINGS SHALL NOT BE PLACED AT A GREATER THAN 1 (VERTICAL) TO 2 (HORIZONTAL) SLOPE WITH RESPECT TO ANY ADJACENT FOOTING OR EXCAVATION.
5. ADJACENT COLUMN FOOTINGS THAT ABUT SHALL BE SEPARATED BY A PAPER JOINT.
6. FOUNDATION CONCRETE SHALL BE NORMAL WEIGHT HAVING A MINIMUM 28 DAY DESIGN COMPRESSIVE STRENGTH AS FOLLOWS:
- |                          |                         |
|--------------------------|-------------------------|
| SPREAD FOOTINGS          | 3000 PSI                |
| WALLS & PIERS            | 4000 PSI                |
| SLAB-ON-GRADE (INTERIOR) | 3500 PSI                |
| SLAB-ON-GRADE (EXTERIOR) | 4500 PSI, 0.45 W/C MAX. |
7. PROVIDE AIR-ENTRAINMENT IN ALL CONCRETE EXPOSED TO FREEZE-THAW CONDITIONS DURING THE CONSTRUCTION PERIOD AND/OR IN THE COMPLETED STRUCTURE.
8. VERTICAL CRACK CONTROL AND/OR CONSTRUCTION JOINTS IN CONCRETE WALLS SHALL BE PROVIDED AT 30 FT. O/C MAX. CONSTRUCTION JOINTS SHALL BE PROVIDED AT 90 FT. O/C MAX.

FOUNDATION SUBGRADE PREPARATION REQUIREMENTS

1. A GEOTECHNICAL ENGINEER, LICENSED IN THE JURISDICTION WHERE THE PROJECT IS LOCATED, SHALL OBSERVE, REVIEW AND APPROVE ALL WORK RELATED TO EXCAVATION, BACKFILL, COMPACTION, SUBGRADE AND SUBBASE PREPARATION, AND MATERIAL SELECTION.
2. THE BUILDING SITE SHALL BE STRIPPED OF ANY TOPSOIL, ORGANIC MATTER, VEGETATION FILL MATERIALS, AND OTHERWISE UNSUITABLE OR SOFT SUBGRADE MATERIALS.
3. UNSUITABLE MATERIALS SHALL BE EXCAVATED DOWN TO RESIDUAL SOIL ELEVATIONS.
4. SOIL BEARING ELEVATIONS SHALL BE VERIFIED BY THE GEOTECHNICAL ENGINEER PRIOR TO BACKFILLING EXCAVATIONS OR CONSTRUCTING FOUNDATIONS.
5. WHERE ROCK IS ENCOUNTERED WITHIN 2 FEET OF FOUNDATION BEARING ELEVATION (SUBGRADE SHALL BE PROBED TO DETERMINE THIS), UNDERCUT ROCK BY 2 FEET MIN. BELOW BEARING ELEVATION AND REPLACE WITH COMPACTED STRUCTURAL FILL.
6. AT SLAB-ON-GRADE AREAS, FOLLOWING STRIPPING, THE SUBGRADES SHALL BE BACKFILLED WITH A LOADED TANDEN AXLE DUMP TRUCK OR TEN-TON ROLLER UNDER OBSERVATION OF THE GEOTECHNICAL ENGINEER. AREAS WHICH EXHIBIT EXCESSIVE PUMPING OR HEAVING, AS DETERMINED BY THE GEOTECHNICAL ENGINEER, SHALL BE REMOVED AND REPLACED WITH NEW COMPACTED STRUCTURAL FILL.
7. COMPACTED FILL SHALL BE USED TO RAISE EXISTING GRADES TO THE PROPOSED NEW ELEVATION, WHERE REQUIRED.
8. UNDER-SLAB DRAINS, CONSISTING OF A 4-INCH WASHED GRAVEL OR CRUSHED STONE STONE DRAINAGE LAYER (CORRESPONDING TO PA DOT 2B), SHALL BE USED BENEATH THE CONCRETE SLAB-ON-GRADE.

MORTAR AND GROUT MIX

1. CONCRETE MASONRY CONSTRUCTION SHALL CONFORM TO ACI 530 AND 530.1.
2. DRY INGREDIENTS FOR MORTAR AND GROUT SHALL CONFORM TO THE FOLLOWING:
- |                      |                        |
|----------------------|------------------------|
| PORLAND CEMENT       | ASTM C150 TYPE I OR II |
| HYDRATED LIME        | ASTM C207 TYPE S       |
| AGGREGATE FOR MORTAR | ASTM C144              |
| AGGREGATE FOR GROUT  | ASTM C404              |
3. WATER SHALL BE POTABLE.
4. DO NOT USE ADMIXTURES, INCLUDING AIR-ENTRAINING AGENTS, ACCELERATORS, AND RETARDERS.
5. MORTAR FOR UNIT MASONRY SHALL COMPLY WITH ASTM C270.
- TYPE M (2,500PSI) FOR MASONRY BELOW GRADE OR IN CONTACT WITH EARTH
- TYPE S (1,400PSI) FOR MASONRY BEARING MASONRY CONSTRUCTION OTHER THAN FOUNDATION WALLS.
- TYPE N (750PSI) FOR NON-LOAD BEARING MASONRY CONSTRUCTION
6. GROUT FOR UNIT MASONRY SHALL COMPLY WITH C416 WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI.
7. MORTAR TESTING: FOR EACH MIX PROVIDED, MORTAR SHALL BE SAMPLED AND TESTED PER ASTM C780 FOR COMPRESSIVE STRENGTH.
8. GROUT TESTING: FOR EACH MIX PROVIDED, GROUT SHALL BE SAMPLED AND TESTED PER ASTM C1019 FOR COMPRESSIVE STRENGTH.

CONCRETE REINFORCING

1. REINFORCED CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318.
2. CONCRETE REINFORCING SHALL CONFORM TO THE FOLLOWING DESIGNATIONS:
- |                          |                     |
|--------------------------|---------------------|
| DEFORMED BARS            | ASTM A615, GRADE 60 |
| DEFORMED BARS (WELDABLE) | ASTM A706           |
| WELDED WIRE FABRIC       | ASTM A1064          |
3. LAP DEFORMED BARS 40 DIA., UNO. PROVIDE CORNER AND L BARS AT CORNERS AND INTERSECTIONS. REINFORCING INDICATED AS CONTINUOUS SHALL BE LAPPED. HOOKS SHALL NOT EXCEED STANDARD HOOKS, UNO. LAP WELDED WIRE FABRIC SUCH THAT THE OVERLAP OF THE OUTERMOST CROSS-WIRES OF EACH ADJOINING SHEET IS NOT LESS THAN THE SPACING OF THE CROSS-WIRES PLUS TWO IN., UNO. PROVIDE CONTINUOUS REINFORCEMENT WHEREVER POSSIBLE; SPLICE ONLY AS SHOWN OR APPROVED; STAGGER SPLICES WHERE POSSIBLE; USE TENSION SPLICE CLASS "B" UNO. DONELS SHALL MATCH THE SIZE AND SPACING OF THE SPECIFIED REINFORCEMENT AND SHALL BE LAPPED WITH TENSION SPLICES.
4. CONCRETE PROTECTION FOR REINFORCEMENT:
- |   |           |
|---|-----------|
| CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: | 3 IN.     |
| CONCRETE EXPOSED TO EARTH OR WEATHER:                   |           |
| NO. 6 THROUGH NO. 18 BARS:                              | 2 IN.     |
| NO. 5 BAR AND SMALLER:                                  | 1-1/2 IN. |
- CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
- |                         |           |
|-------------------------|-----------|
| SLABS, WALLS, JOISTS:   |           |
| NO. 14 AND NO. 18 BARS: | 1-1/2 IN. |
| NO. 11 BAR AND SMALLER: | 3/4 IN.   |
| BEAMS, COLUMNS, PIERS:  | 1-1/2 IN. |
5. REINFORCING FOR SLABS ON GRADE, WHERE NOT OTHERWISE SPECIFIED, SHALL BE AS FOLLOWS:
- |                   |   |
|-------------------|---|
| REINFORCING BARS: | SEE FOUNDATION AND TYPICAL DETAILS. AT SLAB BLOCKOUT AND RE-ENTRANT CORNERS, PROVIDE 2#5 X 4'-0" DIAGONALS. |
|-------------------|---|
- WIRE MESH:
- 6x6-M2.9 x M2.9 WWF. REINFORCING SHALL BE SUPPORTED AT MID-DEPTH OF SLAB.
6. WELDING, WELDING ELECTRODES AND FLUXES SHALL CONFORM TO AWS D1.4 "STRUCTURAL WELDING CODE - REINFORCED STEEL". ELECTRODES SHALL HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI. LAP WELDED BARS OR DBA'S SHALL BE USED IN ALL WELDED APPLICATIONS.
7. DETAILING OF CONCRETE REINFORCING AND ACCESSORIES SHALL CONFORM TO ACI DETAILING MANUAL SP-66, AND WITH ACI 315, MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES.

CONCRETE SLABS ON GRADE

1. GEOTECHNICAL ENGINEER SHALL OBSERVE AND APPROVE SUBGRADE BEFORE CONCRETE PLACEMENT.
2. DO NOT PLACE CONCRETE SLABS ON FROZEN GROUND.
3. CONTROL JOINTS ARE REQUIRED IN CONCRETE SLABS. REFER TO PLANS AND TYPICAL DETAILS FOR JOINT CONSTRUCTION AND LOCATIONS.
4. INSTALL (2) #4 x 5'-0" LONG BARS DIAGONALLY AT RE-ENTRANT CORNERS AND OPENINGS.
5. COORDINATE LOCATIONS AND DIMENSIONS OF RECESSED SLABS.

CONCRETE MASONRY

1. CONCRETE MASONRY CONSTRUCTION SHALL CONFORM TO ACI 530 AND 530.1.
2. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE MASONRY, F'm, SHALL BE 1500 PSI. (MIN NET AREA COMPRESSIVE STRENGTH OF UNIT = 1900 PSI.)
3. CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90.
4. CONCRETE MASONRY REINFORCING SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60. DEFORMED BAR ANCHORS (DBA) SHALL CONFORM TO ASTM A496. DBA'S SHALL BE WELDED BY AUTOMATIC EQUIPMENT.
5. GROUT SHALL CONFORM TO THE PROPORTIONAL REQUIREMENTS OF ASTM C416. PROVIDE FINE AND COARSE GROUTS APPROPRIATE FOR SIZE OF VOID SPACE BEING FILLED. GROUT SHALL HAVE A MINIMUM SLUMP OF 8 INCHES PROVIDED BY SUFFICIENT WATER CONTENT. ADMIXTURES ARE NOT PERMITTED IN GROUT. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.
6. MORTAR SHALL CONFORM TO ASTM C270, TYPE M OR S, PCL OR MORTAR CEMENT. USE OF MASONRY CEMENT IS NOT PERMITTED.
7. ALL REINFORCED VOIDS SHALL BE GROUTED SOLID.
8. REINFORCED VOIDS, AND NON-REINFORCED VOIDS SPECIFIED TO BE GROUTED, IN CONCRETE MASONRY SHALL BE FILLED SOLID WITH GROUT IN 5 FT. MAXIMUM LIFTS STOP ROURS 1-1/2 INCHES BELOW THE BED JOINT TO FORM A KEY AT FOUR JOINTS.
9. REINFORCING BARS SHALL BE TIED TO DONELS AND HELD IN THE PROPER POSITION BY MECHANICAL BAR POSITIONERS DESIGNED FOR THAT PURPOSE.
10. REINFORCING SHALL NOT BE PLUNGED INTO WET GROUT.
11. LAP UNCOATED, DEFORMED BARS 48 BAR DIAMETERS.
12. CONCRETE MASONRY SHALL BE LAID IN RUNNING BOND, UNO. PILASTERS SHALL BE BONDED, UNO.
13. LOAD BEARING CMU SHALL HAVE FULL MORTAR BED JOINTS.
14. PROVIDE LADDER-TYPE, HORIZONTAL JOINT REINFORCEMENT AS FOLLOWS:
- |                       |   |
|-----------------------|---|
| TYPICAL:              | 16 IN O/C MAX, UNO.   |
| AT BELOW GRADE WALLS: | PROVIDE AT 8 IN. C/C.   |
| AT PARAPETS:          | PROVIDE AT 8 IN. C/C.   |
| AT WALL OPENINGS:     | PROVIDE ADD'L REINF. NOT MORE THAN 8 IN. ABOVE AND BELOW OPENING. TERMINATE 2 FT. BEYOND OPENING. |
- PROVIDE CONTINUITY AT INTERSECTIONS AND CORNERS USING PREFABRICATED T-SHAPED AND L-SHAPED UNITS, AND LAP ALL CONSECUTIVE SECTIONS OF TRUSS TYPE REINFORCING A MINIMUM OF 8".
15. PROVIDE VERTICAL CONTROL JOINTS IN WALLS AT 24 FT. O/C MAX, UNO.
16. ALL CMU WALLS SHALL BE DONELD TO SUPPORTING SLABS WITH MINIMUM #4 @ 48 HOOKED DONELS, UNO. ALL CMU WALLS SUPPORTED DIRECTLY ON STEEL MEMBERS SHALL BE ANCHORED WITH 1/2" DIAMETER x 4" STUDS AT 32" O/C, OR WITH #4 X 2'-0" DBA AT 48" O/C, UNO.
17. THE TOPS OF ALL NON-LOAD BEARING CMU WALLS SHALL BE BRACED ACCORDING TO SPECIFIC SECTIONS AND / OR TYPICAL DETAILS.

CONCRETE MIX

1. REINFORCED CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318.
2. CEMENTITIOUS MATERIAL SHALL CONFORM TO ASTM C150 TYPE I OR II, SUPPLEMENT WITH THE FOLLOWING:
- |                                      |                             |
|--------------------------------------|-----------------------------|
| FLY ASH                              | ASTM C618, CLASS F          |
| GROUND GRANULATED BLAST-FURNACE SLAG | ASTM C484, GRADE 100 OR 120 |
3. NORMAL WEIGHT AGGREGATE SHALL CONFORM TO ASTM C33.
4. WATER SHALL BE POTABLE.
5. AIR ENTRAINING ADMIXTURES SHALL CONFORM TO ASTM C260.
6. CONCRETE ADMIXTURES SHALL CONFORM TO THE FOLLOWING:
- |                            |                   |
|----------------------------|-------------------|
| WATER REDUCING             | ASTM C494, TYPE A |
| WATER REDUCING & RETARDING | ASTM C494, TYPE D |
| HIGH RANGE WATER REDUCING  | ASTM C494, TYPE F |
7. CONCRETE WITH AIR ENTRAINING SHALL NOT EXCEED 6% AIR AND .45 WATER/CEMENT RATIO.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING DESIGNATIONS:
- |                                   |                    |
|-----------------------------------|--------------------|
| STRUCTURAL STEEL WF SHAPES        | ASTM A992          |
| OTHER STRUCTURAL STEEL SHAPES     | ASTM A36, UNO      |
| STEEL BARS, ANGLES AND PLATES     | ASTM A36, UNO      |
| SQUARE, RECTANGULAR AND ROUND HSS | ASTM A500, GRADE C |
2. BOLTS SHALL BE MINIMUM 3/4 IN. DIA. AND SHALL CONFORM TO THE FOLLOWING DESIGNATIONS, UNO.
- |                     |           |
|---------------------|-----------|
| HIGH STRENGTH BOLTS | ASTM A325 |
|---------------------|-----------|
3. BOLTED CONNECTIONS SHALL CONFORM TO RCSC'S "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS."
4. WELDING, WELDING ELECTRODES, AND FLUXES SHALL CONFORM TO AWS D1.1 "STRUCTURAL WELDING CODE - STEEL". ELECTRODES SHALL HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI.
5. GROUT UNDER STEEL COLUMN OR POST BASE PLATES SHALL BE NONMETALLIC, SHRINKAGE-RESISTANT GROUT CONFORMING TO ASTM C1107 HAVING A MINIMUM DESIGN COMPRESSIVE STRENGTH OF 5000 PSI. GROUT UNDER STEEL BEAM BEARING PLATES IN CONCRETE MASONRY WALLS SHALL CONFORM TO ASTM C416.
6. HIGH STRENGTH BOLTED CONNECTIONS SHALL BE TIGHTENED TO THE SNUG-TIGHT CONDITION, UNO.
7. THE STEEL FABRICATOR IS RESPONSIBLE FOR CONNECTION DESIGN. CONNECTION DESIGN SHALL BE PERFORMED BY A LICENSED PROFESSIONAL ENGINEER.
8. MINIMUM CAPACITY OF BEAM CONNECTIONS: DESIGN CONNECTIONS USING THE "MAXIMUM TOTAL UNIFORM LOAD" TABLES IN THE AISC MANUAL. FOR NON-COMPOSITE BEAMS, THE CONNECTION CAPACITY SHALL BE AT LEAST 50% OF THE MAXIMUM TOTAL UNIFORM LOAD.
9. PRIOR TO DETAILING CONNECTIONS FOR STRUCTURAL STEEL, THE STEEL FABRICATOR SHALL SUBMIT FOR APPROVAL REPRESENTATIVE DETAILS FOR EACH TYPE OF PROPOSED STRUCTURAL CONNECTION. SUCH DETAILS SHALL INDICATE DESIGN CAPACITIES. AFTER APPROVAL, THE CONNECTIONS SHALL BE INCORPORATED INTO SHOP DRAWINGS.

WOOD

1. STRUCTURAL LUMBER SHALL CONFORM TO AF&PA'S NDS, "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION."
2. STRUCTURAL LUMBER SHALL BE NO. 2 S-P-F, VISUALLY GRADED, OR BETTER.
3. PLYWOOD SHALL CONFORM TO APA'S "PANEL DESIGN SPECIFICATION", PDS-04, AND DOC'S PS 1, "CONSTRUCTION AND INDUSTRIAL PLYWOOD". ALL JOINTS SHALL BE STAGGERED. PANELS SHALL BE INSTALLED WITH THE LONG DIMENSION ACROSS SUPPORTS. NAILING SHALL COMPLY WITH MINIMUM APA REQUIREMENTS FOR PLYWOOD FLOOR/ROOF DIAPHRAGMS, AND IBC FASTENING SCHEDULE.
4. PLYWOOD ROOF SHEATHING SHALL BE APA STRUCTURAL I RATED SHEATHING, EXPOSURE 1, THICKNESS AS INDICATED. PROVIDE PANEL CLIPS AT UNSUPPORTED EDGES.
5. ROOF SHEATHING SHALL BE INSTALLED ON MAIN ROOF MEMBERS PRIOR TO THE INSTALLATION OF OVERFRAMING MEMBERS.
6. PLYWOOD SUB-FLOORING SHALL BE APA RATED STURD-I-FLOOR, EXPOSURE 1, THICKNESS AS INDICATED, WITH TONGUE AND GROOVE EDGES. FIELD-GLUE USING ADHESIVES MEETING APA SPECIFICATION AF6-01.
7. CONNECTIONS SHALL BE MADE USING PREFABRICATED CONNECTORS. CONNECTOR SIZE AND CAPACITY SHALL MATCH MEMBER SIZE AND CAPACITY. TOE-NAILING IS NOT PERMITTED.
8. MINIMUM FASTENING SHALL CONFORM TO IBC TABLE 2304.9.1, "FASTENING SCHEDULE".
9. PROVIDE CONTINUOUS SOLID BLOCKING OR CROSS-BRIDGING LINES AT 8'-0" O/C MAX., ONE LINE MINIMUM. PROVIDE ADDITIONAL BRIDGING FOR MANUFACTURED WOOD PRODUCTS (JOISTS, TRUSSES, ETC.) AS SPECIFIED BY MANUFACTURER.
10. REFER TO STRUCTURAL DESIGN CRITERIA FOR TRUSS DESIGN LOADS.
11. PRESERVE PRESERVATIVE TREATED LUMBER SHALL BE PROVIDED WHERE LUMBER IS IN CONTACT WITH CONCRETE OR MASONRY, OR EXPOSED TO THE WEATHER.
12. ALL FASTENERS AND PREFABRICATED CONNECTORS USED WITH PRESERVATIVE TREATED WOOD SHALL HAVE A HOT-DIP GALVANIZING 6185 COATING ACCORDING TO ASTM A153 AND A123. (TYPE A304 OR 306 STAINLESS STEEL FASTENERS AND CONNECTORS)

METAL PLATE CONNECTED WOOD TRUSS FRAMING

1. ALL METAL PLATE CONNECTED WOOD TRUSS FRAMING INDICATED ON THE DRAWINGS IS FOR DESIGN INTENT ONLY. ALL METAL PLATE CONNECTED WOOD TRUSS FRAMING SHALL BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER IN ACCORDANCE WITH THE SPECIFIED DESIGN CRITERIA. SIGNED AND SEALED SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL. CONTRACTOR SHALL, AT HIS EXPENSE DURING BIDDING, PERFORM SUFFICIENT PRELIMINARY ENGINEERING TO ADEQUATELY PRICE THE WORK WITH ALL REQUIRED COMPONENT AND FRAMING SIZES, SPACINGS, FRAME OPENINGS, ACCESSORIES, ETC.
2. PROVIDE TRUSSES WITH COPLANAR CHORD AND WEB MEMBERS. ASSEMBLE TRUSS COMPONENTS USING CONNECTOR PLATES THAT DEVELOP THE REQUIRED CONNECTION DESIGN STRENGTH.
3. MINIMUM COMPONENT SIZE (CHORDS AND WEBS) IS 2x4. WEB MEMBERS SHALL BE LOCATED BY TRUSS MANUFACTURER AS REQUIRED, UNLESS NOTED OTHERWISE.
4. DESIGN, FABRICATION, AND INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ANSI/TPI-1 "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION"
5. ALL TEMPORARY AND PERMANENT BRACING TO BE DESIGNED BY TRUSS MANUFACTURER. SHOW BRACING CONFIGURATION, COMPONENT SIZES, AND CONNECTIONS ON SHOP DRAWING SUBMITTAL.
6. PREFABRICATED METAL-PLATE-CONNECTED WOOD TRUSSES SHALL BE DESIGNED, CONSTRUCTED, AND INSTALLED IN ACCORDANCE WITH TPI'S "NATIONAL DESIGN STANDARDS FOR METAL-PLATE-CONNECTED WOOD TRUSS CONSTRUCTION", AFPA'S NDS-05, QUALITY STANDARD FOR METAL PLATE CONNECTED WOOD TRUSSES (QST), HANDLING INSTALLING AND BRACING MPC'ED WOOD TRUSSES (HIB-01), AND RECOMMENDED DESIGN SPECIFICATION FOR TEMPORARY BRACING OF MPC'ED WOOD TRUSSES (DSB-04).
7. WOOD TRUSSES SHALL BE CONFIGURED TO ACCOMMODATE MECHANICAL DUCTWORK RUNS AND CATWALKS WITHIN THE TRUSS SPACE. COORDINATE WITH THE MECHANICAL CONTRACTOR AND ARCHITECTURAL DRAWINGS.

DRILLED ANCHORS

1. EXPANSION ANCHORS SHALL BE (UNO):
- HILTI KNK BOLT III, DENALT/PONERS POWER-STUD+SD1, OR EQUIVALENT 3/4-INCH DIAMETER
  - SUFFICIENT LENGTH TO PROVIDE 6-INCH MINIMUM EMBEDMENT
2. CHEMICAL ADHESIVE ANCHORS SHALL BE (UNO):
- HILTI RE-500 SYSTEM, DENALT/PONERS PURE 110+, OR EQUIVALENT 3/4-INCH DIAMETER
  - SUFFICIENT LENGTH TO PROVIDE 7-INCH MINIMUM EMBEDMENT
3. GROUT CMU COURSES CONT AT ANCHORS FOR 8" MIN ABOVE & BELOW ANCHOR LINES.
4. ANCHORS IN EXTERIOR APPLICATIONS SHALL BE HOT-DIPPED GALV.



"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO.: 53344, EXPIRATION DATE: OCTOBER 15, 2024."

**BAKER, INGRAM, & ASSOCIATES**  
STRUCTURAL ENGINEERS  
1547 Oregon Pike Lancaster, PA 17601  
Lancaster, Pennsylvania 717.250.7400 Ph  
Dover, Delaware 717.250.7402 Fax  
Newark, Delaware mail@bakeringram.com  
Haddon Heights, New Jersey  
Arlinghouse, Maryland PROJECT NO. 11.0101

REVISIONS		DESCRIPTION
REV#	DATE	

ARCHITECTS  
ENGINEERS  
PLANNERS  
SURVEYORS  
410-638-7900  
www.fredrickward.com

**FWA**  
FREDERICK WARD ASSOCIATES  
P.O. Box 727, 5 South Main Street Cal. de Maryland 21014

CECIL COUNTY PUBLIC  
SCHOOLS

201 Booth St. Elkon, MD 21821

STRUCTURAL NOTES

NEW FIELD HOUSE AT STADIUM

1686 Perryville Rd. Perryville, MD 21803

DATE:  
10.30.23

DRAWING NO:

SCALE:  
AS NOTED

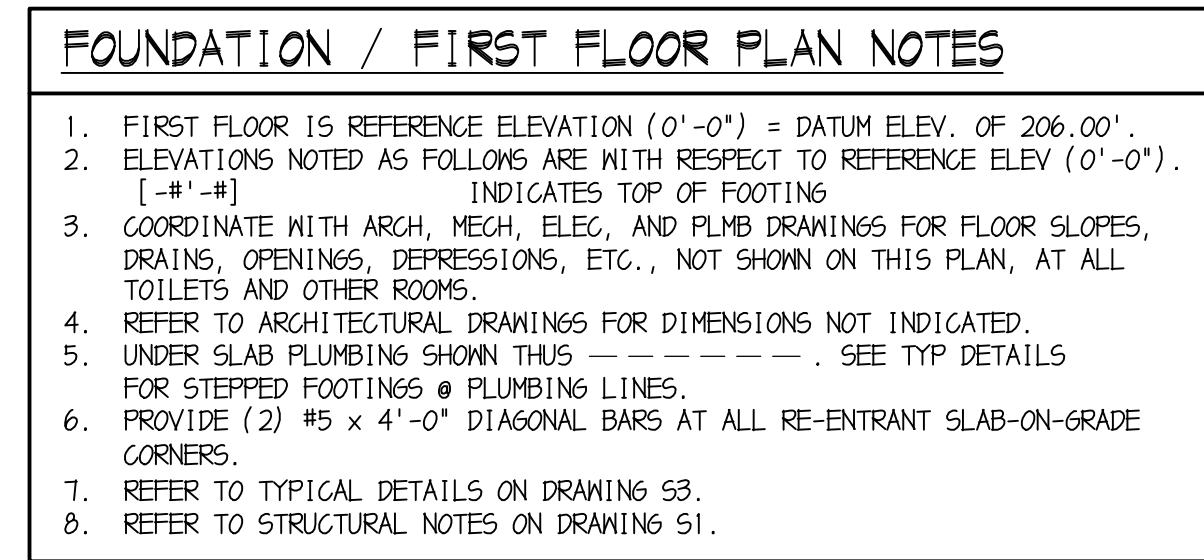
**S1**

DRAWN BY:  
JPC

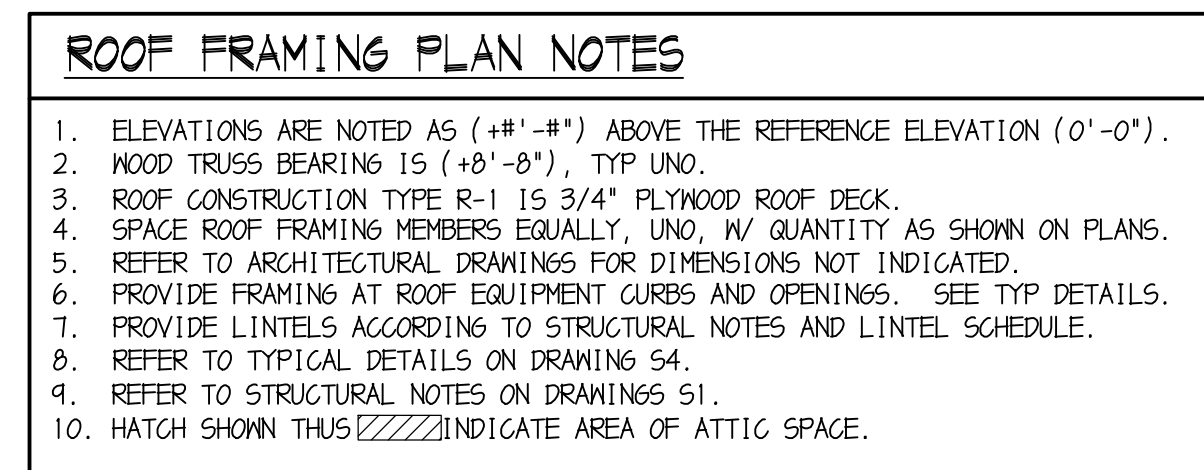
CHECKED BY:  
LRB

FWA JOB NUMBER  
2181073.00

ISSUE FOR BID/PERMIT



1 FOUNDATION PLAN  
S2 1/8" = 1'-0"



2  
S2

ROOF FRAMING PLAN

1/8" = 1'-0"



"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO.: 53344, EXPIRATION DATE: OCTOBER 15, 2024."



**BAKER, INGRAM, & ASSOCIATES**  
**STRUCTURAL ENGINEERS**

---

1547 Oregon Pike Lancaster, PA 17601

Lancaster, Pennsylvania	717.290.7400 Ph
Dover, Delaware	717.290.7402 Fax
Newark, Delaware	mail@bakeringram.com
Haddon Heights, New Jersey	PROJECT NO. IJ1701

## FOUNDATION AND ROOF FRAMING PLANS

## NEW FIELD HOUSE AT STADIUM

1696 Perryville Rd, Perryville, MD 21903

REVISIONS		
REV#	DATE	DESCRIPTION

**FW**

**ARCHITECTS  
ENGINEERS  
PLANNERS  
SURVEYORS**

**FREDERICK WARD ASSOCIATES**  
P. O. Box 727, 5 South Main Street, 2nd Fl., Manchester, NH 03104  
410-838-7900  
[www.frederickward.com](http://www.frederickward.com)

CECIL COUNTY PUBLIC  
SCHOOLS

201 Booth St, Elkton, MD 21921

DATE:  
10.30.23

SCALE:  
AS NOTED

DRAWN BY:  
JPC

CHECKED BY:  
LRB

DRAWING NO:

S2

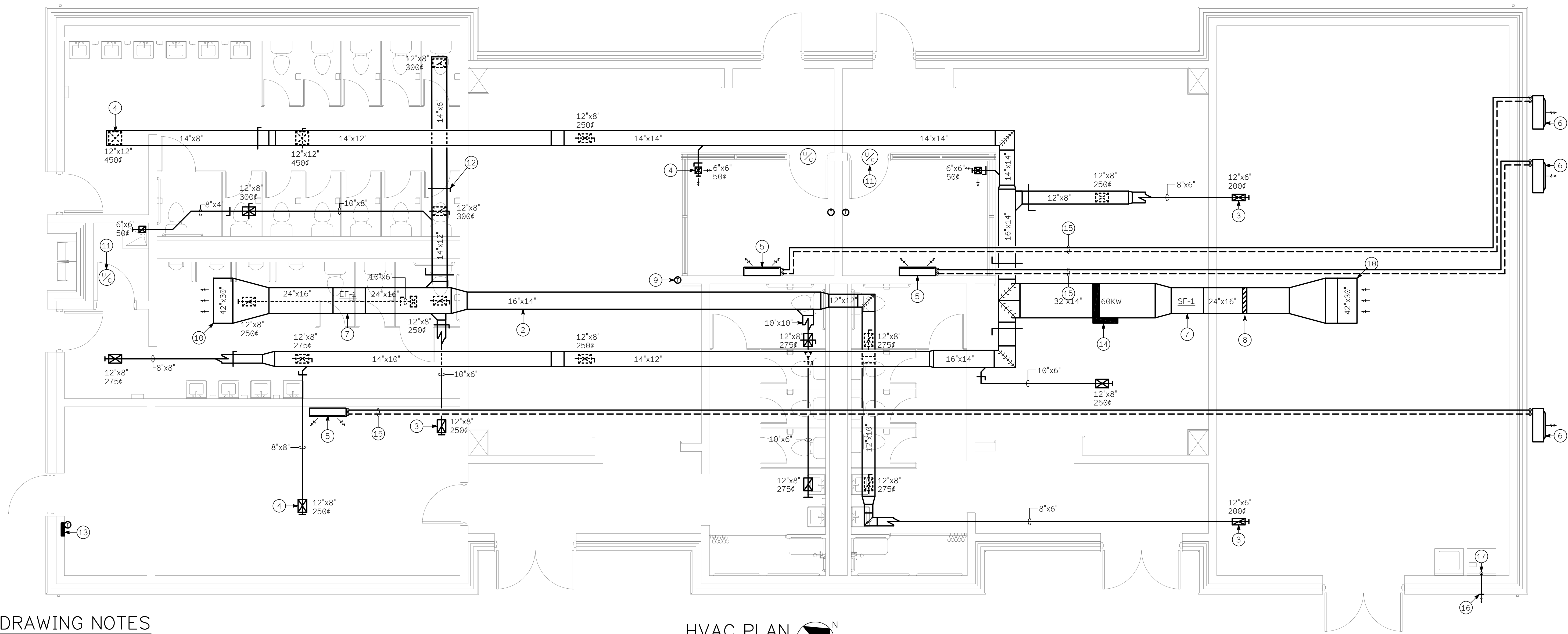
CHECKED BY:  
LRB

A JOB NUMBER  
181073.00

# ISSUE FOR BID/PERMIT







DRAWING NOTES

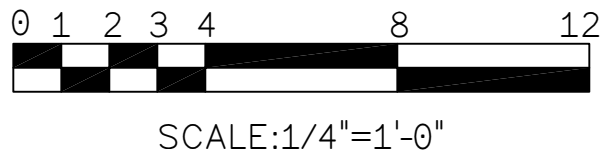
- 1 SUPPLY AIR DUCTWORK SUPPORTED FROM STRUCTURE ABOVE CEILING. DUCTWORK RUN BELOW ATTIC PLATFORM THRU JOIST
- 2 EXHAUST AIR DUCTWORK SUPPORTED FROM STRUCTURE ABOVE CEILING. DUCTWORK RUN BELOW ATTIC PLATFORM THRU JOIST
- 3 CEILING MOUNTED EXHAUST AIR REGISTER WITH NECK SIZE AND AIR QUANTITY (TYP.) INDICATED.
- 4 CEILING MOUNTED SUPPLY AIR REGISTER WITH NECK SIZE AND AIR QUANTITY (TYP.) INDICATED.
- 5 WALL MOUNTED AIR CONDITIONER UNIT LOCATED APPROX. 6" BELOW CEILING. MITSUBISHI MODEL MSZ-GL12NA OR APPROVED EQUAL WITH THERMOSTAT MOUNTED ON WALL 48" ABOVE FLOOR WHERE INDICATED. UNIT SHALL BE: SEER 20.0, 12,000 BTUH, 208V/1Ø, 22 LBS. INDOOR UNIT RECEIVES POWER FROM OUTDOOR UNIT ON GRADE.
- 6 WALL MOUNTED CONDENSING UNIT. MITSUBISHI MODEL MUZ-GL12NA-U1 OR APPROVED EQUAL. UNIT SHALL BE: 208V/1Ø, 15.0 AMP FUSE, 9.0 AMPS, 81 LBS. UNIT SHALL BE A SINGLE POINT CONNECTION. REFRIGERANT PIPING SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
- 7 INLINE FAN SUPPORTED FROM STRUCTURE ABOVE CEILING. SEE SCHEDULE FOR MORE INFORMATION.
- 8 FILTER RACK.
- 9 WALL MOUNTED THERMOSTAT MOUNTED 48" ABOVE FLOOR WITH LOCKABLE COVER AND INTERLOCKED WITH UNIT INDICATED (TYPICAL).
- 10 42"x30" STORM PROOF WALL LOUVER(4.47 SF FREE AREA), SIZE AS INDICATED, WITH FULL SIZE PLENUM EXTENDING INTO SPACE AND LOW-LEAKAGE MOTORIZED DAMPER INTERLOCKED WITH AIR HANDLING UNIT INDICATED. LOUVER SHALL BE RUSKIN MODEL ELF375DX OR APPROVED EQUAL WITH BIRD SCREEN.
- 11 1" UNDERCUT DOOR (TYPICAL).
- 12 MANUAL BALANCING DAMPER (TYPICAL).
- 13 2.0 KW ELECTRIC WALL MOUNTED (SURFACE MOUNTED) FAN FORCED HEATER WITH INTEGRAL THERMOSTAT AND TAMPER-PROOF ENCLOSURE. BERKO MODEL SRA2020DS OR APPROVED EQUAL. HEATER SHALL BE 6,826 BTUH, 65 CFM, 208V/1Ø.
- 14 60.0 KW "SLIP-IN" DUCT MOUNTED ELECTRIC HEATING COIL. INDEECO MODEL "QUA" OR APPROVED EQUAL, 480V/3Ø WITH 3 STEPS, THERMAL CUT-OUT, AIRFLOW SWITCH, DOOR DISCONNECT, U.L. LABELED AND INTERLOCKED WITH WALL MOUNTED THERMOSTAT.
- 15 RS AND RL PIPING SIZED, TRAPPED AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE LONG LINE SETS AS REQUIRED.
- 16 DRYER EXHAUST DISCHARGE TO OUTSIDE. INSTALL PER MANUFACTURERS RECOMMENDATIONS.
- 17 DRYER EXHAUST DOWN TO DRYER. INSTALL PER MANUFACTURERS RECOMMENDATIONS.

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



MECHANICAL LEGEND

- VP VOLUME DAMPER
- PMOD MOTOR OPERATED DAMPER
- FLEXIBLE CONNECTION
- SOUND LINED DUCTWORK
- DUCTWORK TRANSITIONS
- ROUND TO RECTANGULAR TRANSITION
- DUCTWORK TRANSITION
- RISE AND DROP IN DUCTWORK
- TURNING VANES
- RADIUS ELBOW
- SUPPLY DUCT DOWN
- SUPPLY DUCT UP
- RETURN DUCT DOWN
- RETURN DUCT UP
- EXHAUST DUCT DOWN
- EXHAUST DUCT UP
- AIR TITE FITTING W/INTEGRAL VOLUME DAMPER
- TOP AIR TITE FITTING CONNECTION
- FLEXIBLE DUCT
- SUPPLY AIR DIFFUSER
- RETURN AIR GRILLE
- EXHAUST AIR REGISTER
- DIRECTION OF AIR FLOW
- CONNECT TO EXISTING SYMBOL
- THERMOSTAT
- SMOKE DETECTOR
- ON/OFF SWITCH
- CUBIC FEET PER MINUTE (CFM)
- DIAMETER
- DRAWING NOTE
- REVISION SYMBOL
- 1" UNDERCUT DOOR



NOTICE TO CONTRACTORS:

ALL CONTRACTORS PRIOR TO BID SUBMISSION PROCESS SHALL VISIT PROPOSED WORK SITE AND FIELD VERIFY ALL EXISTING CONDITIONS. ANY CONDITIONS THAT DIFFERS FROM THAT SHOWN ON THIS PLAN SHALL BE REPORTED TO ARCHITECT/ENGINEER SO THAT NEW AND REVISED BID DRAWINGS OR INFORMATION MAY BE ISSUED. MODIFICATIONS TO SCOPE OF WORK WHICH RESULTS FROM CONTRACTORS NEGLIGENCE TO VISIT THE SITE PRIOR TO SUBMITTING BID, SHALL BE THE CONTRACTORS SOLE RESPONSIBILITY.

REVISIONS

REV#	DATE	DESCRIPTION

ARCHITECTS  
ENGINEERS  
PLANNERS  
SURVEYORS



CECIL COUNTY PUBLIC  
SCHOOLS

201 Booth St, Elton, MD 21921

NEW FIELD HOUSE AT STADIUM

1698 Perryville Rd, Perryville, MD 21903

"Professional Certification: I hereby certify that these documents were prepared and/or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No.: 28226, Expiration Date: 01/12/2025"



MECHANICAL • ELECTRICAL • PLUMBING  
ENGINEERING SERVICES



DATE:  
11/02/2023

SCALE:  
AS NOTED

DRAWN BY:  
MRB/UJAL

CHECKED BY:  
EPL/GWB

DRAWING NO:

M1

IDC JOB NUMBER  
18-076

FAN SCHEDULE													
ITEM#	AREA SERVED	C.F.M.	SONES	H.P./WATTS	FAN TYPE	E.S.P.	DRIVE TYPE	R.P.M.	ELECTRICAL DATA	CONTROL	WEIGHT (LBS.)	MODEL #	MANUFACTURER
EF-1	LOCKER/TOILET ROOMS	3,000	11	.75 HP	INLINE	.500	BELT	984	120/1	CONTINUOUS	200	180 SQN-B	COOK
SF-1	LOCKER/TOILET ROOMS	3,000	12.3	1.0	INLINE	.75	BELT	1087	120/1	CONTINUOUS	200	180 SQN-B	COOK

NOTES:  
PROVIDE MANUFACTURER'S BACK DRAFT DAMPER AND DISCONNECT

## SEQUENCE OF OPERATION

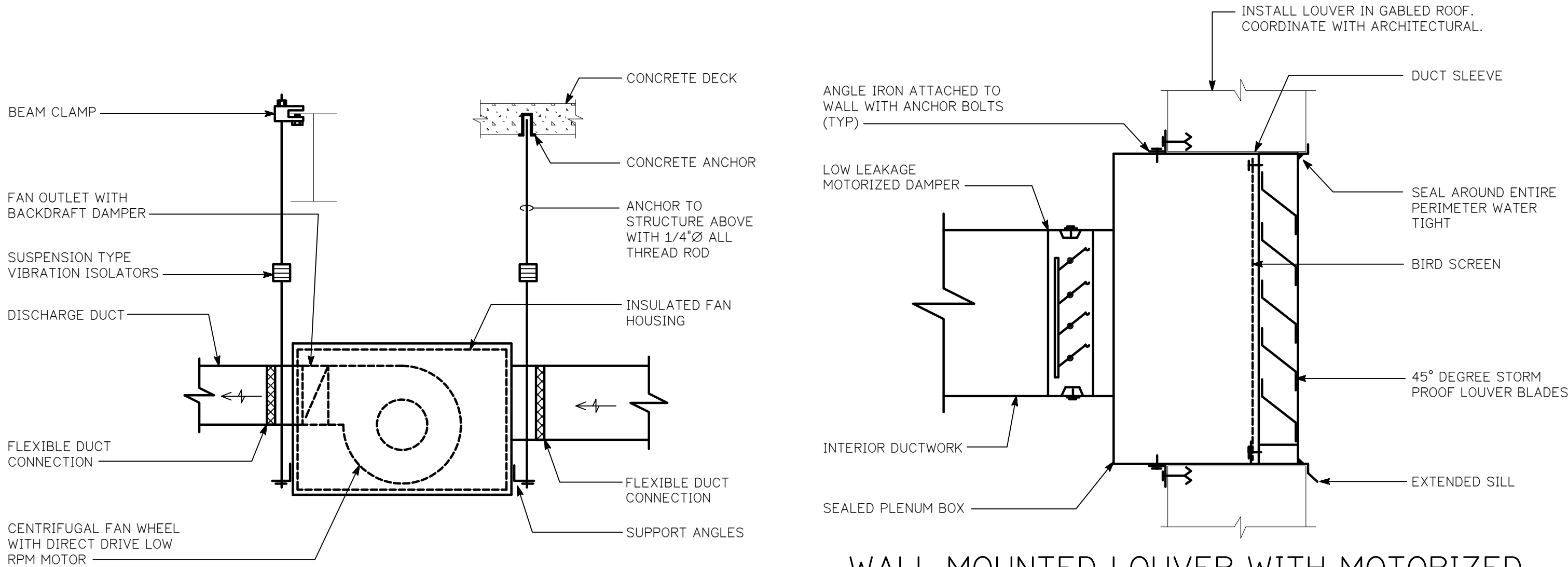
### ELECTRIC WALL HEAT

FAN FORCED ELECTRIC WALL HEATERS SHALL BE CONTROLLED VIA UNIT/FACTORY MOUNTED INTEGRAL THERMOSTAT. HEATER SHALL BE ENERGIZED UPON A CALL FOR HEAT. UPON REACHING SET POINT HEATER SHALL BE DE-ENERGIZED.

### VENTILATION AND HEATING CONTROL SEQUENCE

EXHAUST FAN EF-1 AND SUPPLY AIR FAN SF-1 SHALL BE ENERGIZED TO RUN CONTINUOUSLY.

SLIP IN DUCT COIL SHALL BE ENERGIZED AND DE-ENERGIZE BASED UPON SPACE THERMOSTAT T-1 SET POINT OF 68° (ADJUSTABLE)

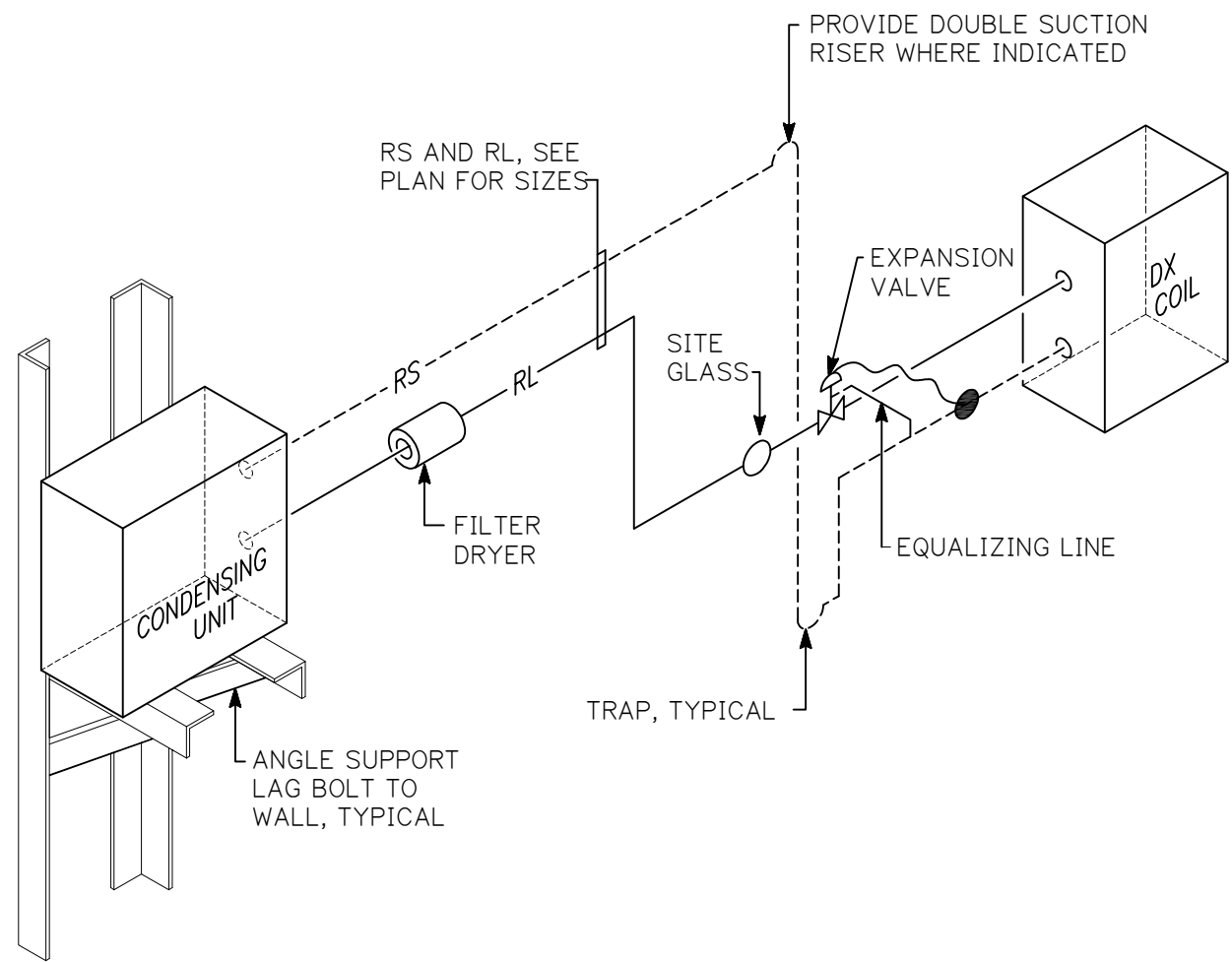


### IN-LINE EXHAUST FAN DETAIL

NO SCALE  
NOTE:  
PROVIDE VARIABLE SPEED CONTROLLER ON SIDE OF CASING FOR PROPER AIR BALANCE

### WALL MOUNTED LOUVER WITH MOTORIZED DAMPER AND DUCT CONNECTION DETAIL

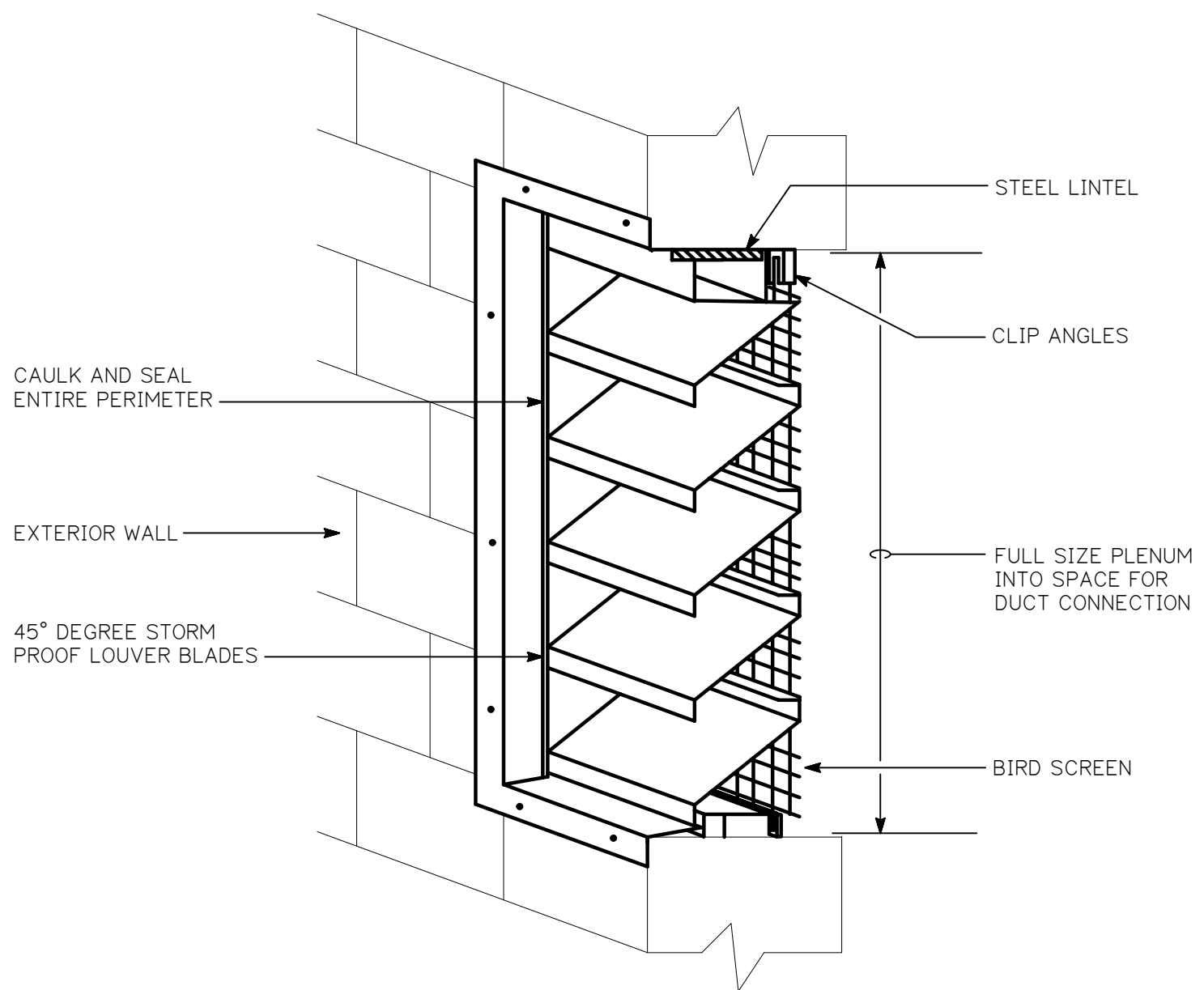
NO SCALE



### WALL MOUNTED CONDENSING UNIT AND REFRIGERANT PIPING DETAIL

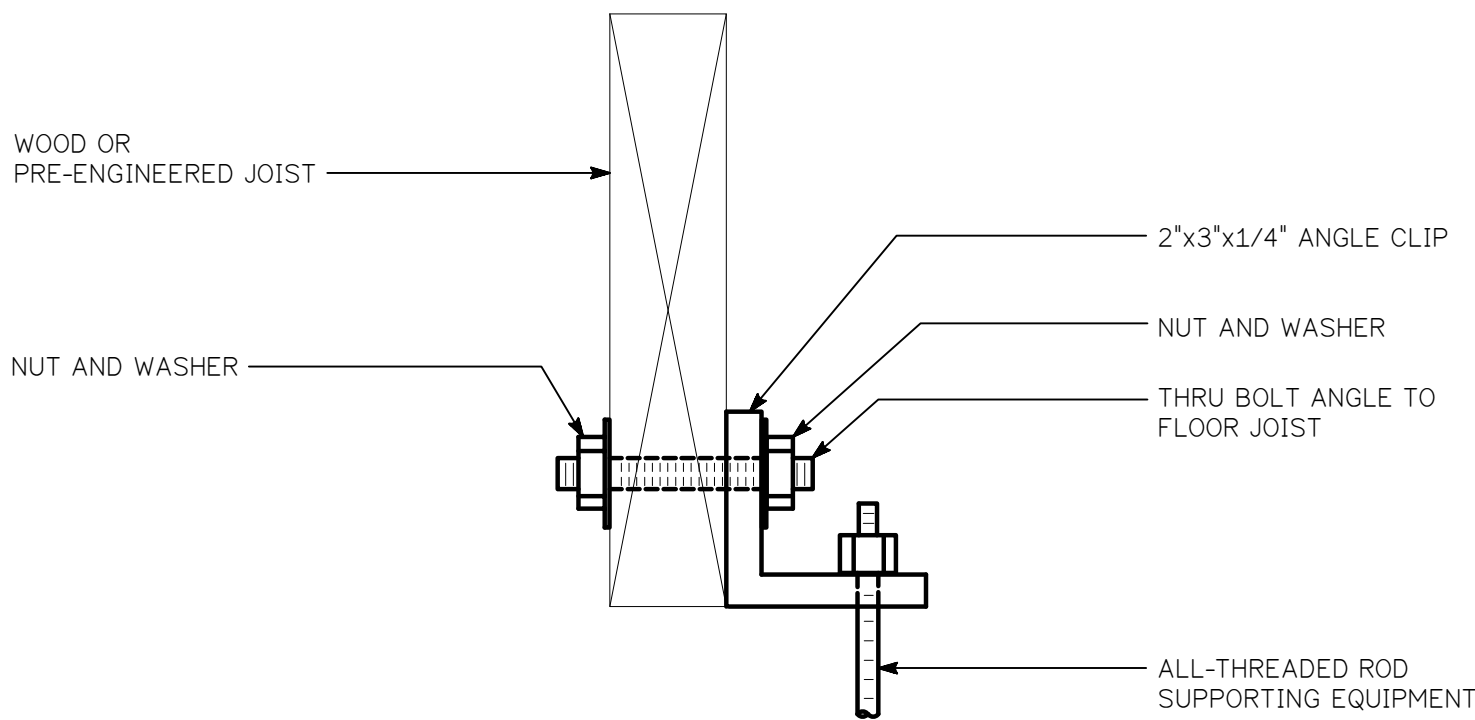
NO SCALE

NOTES:  
1) ALL EXTERIOR PIPE INSULATION MUST BE PAINTED WITH U.V. INHIBITOR.  
2) TRAP AND SIZE REFRIGERANT PIPING PER MANUFACTURERS RECOMMENDATIONS.  
3) ALL SUCTION PIPING SHALL BE INSULATED.



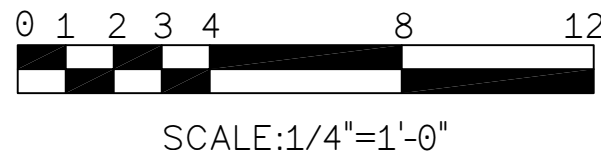
### WALL LOUVER WITH FRONT FLANGE DETAIL

NO SCALE



### WOOD JOIST SUPPORT DETAIL

NO SCALE  
NOTE:  
CONTRACTOR SHALL COORDINATE EXACT MOUNTING REQUIREMENTS WITH STRUCTURAL ENGINEER.



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

### NOTICE TO CONTRACTORS:

ALL CONTRACTORS PRIOR TO BID SUBMISSION PROCESS SHALL VISIT PROPOSED WORK SITE AND FIELD VERIFY ALL EXISTING CONDITIONS. ANY CONDITIONS THAT DIFFERS FROM THAT SHOWN ON THIS PLAN SHALL BE REPORTED TO ARCHITECT/ENGINEER SO THAT NEW AND REVISED BID DRAWINGS OR INFORMATION MAY BE ISSUED. MODIFICATIONS TO SCOPE OF WORK WHICH RESULTS FROM CONTRACTORS NEGLECT TO VISIT THE SITE PRIOR TO SUBMITTING BID, SHALL BE THE CONTRACTORS SOLE RESPONSIBILITY.

### REVISIONS

REV#	DATE	DESCRIPTION

ARCHITECTS  
ENGINEERS  
PLANNERS  
SURVEYORS  
410-838-1800  
www.frederickward.com  
**F.W.**  
FREDERICK WARD ASSOCIATES  
P.O. Box 727, S. South Main Street Del Air Maryland 21014

CECIL COUNTY PUBLIC  
SCHOOLS  
201 Booth St, Elkton, MD 21921

NEW FIELD HOUSE AT STADIUM

1688 Perryville Rd, Perryville, MD 21903

\*Professional Certification: I hereby certify that these documents were prepared and/or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No.: 28228, Expiration Date: 01/12/2025



139 N. MAIN ST., SUITE 102  
BEL AIR, MD 21034 443.787.6264  
MECHANICAL • ELECTRICAL • PLUMBING  
ENGINEERING SERVICES



DATE:  
11/02/2023

SCALE:  
AS NOTED

DRAWN BY:

MRB/JAL

CHECKED BY:

EPU/GWB

DRAWING NO:

M2

IPC JOB NUMBER

18-076

## MECHANICAL SPECIFICATIONS

## 1. SECTION 15010 - BASIC MECHANICAL REQUIREMENTS

- A. The work of each of the following sections includes furnishing and installing the material, equipment and systems complete as specified and/or indicated on the drawings. The installations, when finished, shall be complete and coordinated, ready for satisfactory service.
- B. All work under this contract shall be done in strict accordance with all applicable municipal, state, county, NFPA, International and local codes that govern each particular trade.
- C. The contractor shall make applications and pay all charges for all necessary permits, licenses and inspections as required under the above codes. Upon completion of the work, the customary certifications of approval shall be furnished. The contractor shall also coordinate and make all required submissions to the local utility companies as required.
- D. No materials or equipment shall be used in the work until approved. Before submission of the shop drawings, and not more than thirty (30) days after award of the contract, the contractor shall submit for approval, a complete list of all materials and equipment which he intends to furnish, giving manufacturer and catalog numbers. A complete list of proposed sub-contractors shall also be submitted.
- E. The contractor shall examine all drawings and specifications and shall visit the site and inspect the existing conditions in person. Certain areas may have been in-accessible at the time of the engineers survey and may only be visible during or after the demolition phase; therefore, those H.V.A.C. systems and coordination of those systems, shall become the responsibility of the contractors. Failure to comply with this requirement shall not relieve the contractors of their responsibilities for complying with the intent of the contract documents.
- F. The drawings indicate the general arrangement of the mechanical installations. Details of proposed departures due to actual field conditions or other causes shall be submitted for approval prior to installation. Reworking of completed items due to improper field coordination shall be at the contractor's expense.
- G. Provide sufficient access and clearance for all items of equipment requiring servicing and maintenance, such as valves, dampers, controls, drives, drains, vents, starters, switches, filters, traps and major items of equipment.
- H. The contractor shall perform all necessary cutting and patching as required to complete the installation of the all mechanical work. Patching of walls, floors, ceilings, roof, etc. shall match the adjacent surfaces.
- I. The contractor shall prepare three (3) copies of a record and information booklet. The booklet shall be bound in a three ring loose-leaf binder. Provide the following data in the booklet:
- 1) Catalog data on each piece of equipment furnished
  - 2) Approved shop drawings on each piece of equipment furnished
  - 3) Maintenance, operation and lubrication instruction on each piece of equipment furnished
  - 4) Simplified temperature control diagrams of all H.V.A.C. systems
  - 5) Manufacturer's and contractor's guarantees
  - 6) Air balancing reports
  - 7) Commissioning reports as required
  - 8) Schedule/description of all service work/maintenance inspections required by the paragraphs of this section
- J. All parts of the heating, ventilating, air conditioning and exhaust systems shall be adjusted, checked, balanced and tested by an independent A.A.B.C. or N.E.B.B certified testing and balancing contractor approved by the owner. The contractor shall put all systems and equipment into full operation, and shall test and balance all devices to within ten (10) percent of capacities indicated on the drawings. Submit copies of the balancing reports to the architect. Permanently mark the position of each balancing damper.
- K. Upon completion of the mechanical installations, the contractor shall provide a complete set of prints of the contract drawings which shall be legibly marked in red pencil to show all changes and departures of the installation as compared with the original design. They shall be suitable for use in preparation of as-built drawings.
- L. All new installations, including all materials and labor shall be guaranteed for a period of one (1) year from date of owner acceptance. The above shall not in any way void or abrogate equipment manufacturer's guarantee or warranty. Certificates of guarantee shall be delivered to the owner.
- M. Contractor shall also provide one (1) year free service to keep the equipment in operating condition. This service shall be provided and rendered upon request when notified of any equipment malfunction.
- N. In addition to the first year warranty period, the contractor shall provide, at no additional cost to the owner, a minimum of four (4) service calls and maintenance inspections. A complete outline of the required maintenance and the proposed schedule shall be included in a "record and information booklet", for review and acceptance by the owner/representative and engineer. The inspections are to be performed at three (3) month intervals for a total of four (4) service calls and inspections during the first year warranty period plus the original system start-up commissioning.
- The service work and inspections shall include, but not be limited to the following:
- Replace all H.V.A.C. air filters before occupancy
  - Lubricate all motor and fan bearings as required
  - Clean drain pans and drain lines
  - Check and tighten all electrical connections as required
  - Inspect all belts for adjustment and condition, replace as required
  - Check operating pressures and refrigerant charge
  - Inspect all controls for correct operation and calibrate as required
  - Perform all maintenance as outlined in the equipment manufacturers operation and maintenance manuals
- Upon completion of each scheduled inspection, the contractor shall deliver to the building owner or owners representative, within (48) hours of completion, two (2) copies of the completed inspection report for record purposes.
- O. The service contractor shall, at the ninth month, advise the owner of the termination date of the above services. This contractor shall also provide the owner with a detailed proposal, reflecting annual escalation, for the continuation of the services and inspections described above.

## 2. SECTION 15250 - MECHANICAL INSULATION

- A. All rectangular supply, return, make-up air and outside air ductwork shall be insulated with fiberglass insulation. All insulation shall be noncombustible or shall have a flame spread index of not more than 25 and a smoke-development index of not more than 50 when tested in accordance with ASTM E84.
- B. Ductwork shall be wrapped with nominal 2" thick glass fiber blanket insulation with "installed" thermal conductivity 'K' value of 0.25 at 75°F mean temperature and thermal resistance 'R' value of 6.0 at 1-1/2" compressed thickness. Owens Corning "SOFIR" fiberglass type 100 with foil faced vapor barrier. Insulation shall be neatly installed and suitable for 40°F-250°F duct temperatures.
- C. All refrigerant suction piping shall have 1" of armaflex insulation. Liquid line piping shall not require insulation. All insulation exposed to weather shall be 100% coated with a "UV" inhibitor for protection from solar radiation.
- D. All internal duct lining shall be as specified under section 15880. All interior rectangular ductwork exposed within condition spaces may be provided with internal lining only, with no external duct wrap. Refer to drawings for additional notes. Internal lining shall not be used for ductwork system conveying wet/moist air (ie: shower rooms, dishwasher hoods, etc.).
- 3. SECTION 15500 - HEATING, VENTILATING & AIR CONDITIONING (HVAC)**
- A. The work to be performed shall include all labor, materials and equipment necessary to furnish and install complete, all H.V.A.C. mechanical equipment as shown on drawings and/or hereinafter specified. It is the intent that the systems be installed complete with all items necessary to provide satisfactory service.
- B. All existing H.V.A.C. units serving the project areas shall be fully serviced including but not limited to: check/charge refrigerant, check/replace belts, change filters, check/clean heating and cooling coils, lubricate, rebalance, etc. and verify proper operation to ensure maximum capacity.
- B. All heating, ventilating and air conditioning equipment which contains compressors shall be provided with extended warranties covering the compressors for a minimum of four (4) years.
- C. Electric wall heaters:  
Wall heater shall be as manufactured by Berko or approved equal. Refer to drawings for capacities. Heater shall be complete with automatic reset thermal protection, metal sheath element, heavy duty concealed thermostat with disconnect, shaded 2-pole motor, anodized aluminum frame and shall be U.L. listed.
- D. Electric duct heaters:  
Duct heater shall be U.L. Listed and as manufactured by Indecon model "QUA" or approved equal. Heater shall have open coil elements of 80% nickel, and 20% chromium, galvanized steel frame, dual safety protection, and automatic reset thermal cut-out.
- E. Smoke detectors:  
Detectors shall be installed in the supply and return air ductwork for all system supplying equal or greater than 2,000 cfm of air and shall be U.L. 268A, NFPA 90A NFPA 72 and FM approved and listed. They shall contain an photoelectric type detector and air sampling chamber with sampling tubes extending through the width of the air duct. Unit shall be System Sensor InnovairFlex series, photoelectric model D4120 (4 wire) or approved equal, with an ionization type detector and self-contained control unit.  
  
Contractor shall provide and install a wall/ceiling mounted remote audible/visual alarm device with red trouble light and green power light, located in a public and visible location near the general area of the rooftop unit, which shall be System Sensor model APA151 or approved equal and compatible with smoke detector provided.  
  
In areas where smoke detector maintenance and inspection is not easily accessible, contractor shall also provide a wall/ceiling mounted remote test/reset device (with key). Device shall be System Sensor model RTS151KEY or approved equal and compatible with smoke detector provided.  
  
Coordinate installation of all detection devices with the controls contractor. Detectors connected to the building fire alarm system specified in Division 16-Electrical, shall be coordinated with the voltage and signal contact configuration.
- F. Mini-Split Air Conditioning/Heat Pump Units: The air conditioning system shall be a mini split system consisting of an indoor and outdoor condensing unit. Systems shall be listed by CSA to UL Standards and bear the CSA label, rated in accordance to ARI standard 240 and bear the ARI label and shall be manufactured in a facility that has met ISO 9002 and ISO 14001 international standards.

All wiring shall be in accordance with the National Electrical Code with a full charge of R-410a refrigerant.

The unit shall have a manufacturers' warranty on all parts for a period of one (1) year from date of installation.

The indoor air handling evaporator unit shall be complete, including cabinet, nonferrous DX cooling coil, centrifugal fan(s), drives, permanently lubricated multi-tap motor with thermal overload protection, filter, expansion valve, solenoid valve, R-410A refrigerant charge, insulated galvanized drain pan and other required components. Casings shall be constructed of zinc coated heavy gauge steel painted with baked-on enamel and internally insulated with R-4.2 fiber material. The indoor unit shall receive power from the outdoor unit.

The outdoor heat pump unit shall be complete, including cabinet, hermetic compressor, nonferrous condenser coil with guard, condenser fan and motor, refrigerant reservoir or receiver, charging valve, controls, refrigerant holding charge, and hermetic crankcase heater. The unit shall be complete with a lockable locked rotor, over and under voltage protection, high pressure cutout with auto-reset, motor starters and contactors, compressor protection, crankcase heater, transformer, filter/drier, vibration isolation, and other required components. Casings shall be constructed of zinc-coated steel, double phosphatized and finished with baked enamel for positive weatherproof protection. Removable access panels shall be provided for all electrical and refrigerant service. Drain holes shall be provided in the base for positive drainage. Unit shall be complete with low ambient controls and shall have a 6-year compressor warranty.

Both indoor and outdoor mini-split units shall be as manufactured by Panasonic, LG, Mitsubishi or approved equal.

#### 4. SECTION 15880 - AIR DISTRIBUTION

- A. Furnish all labor and materials necessary to complete the sheet metal work associated with the heating, ventilating, air conditioning and exhaust systems, and other miscellaneous items shown and required.
  - B. All outside air, make-up air, exhaust ductwork shall be constructed and installed in accordance with the sheet metal and air conditioning contractors national association (SMACNA) standards and ASHRAE standards.
  - C. Support horizontal ducts with hangers spaced not more than six (6) feet apart. Use strap hangers for ducts up to thirty (30) inches wide, angle hangers or rods for ducts over thirty (30) inches wide. Strap hangers to be one (1) inch wide, 20 gauge minimum; fasten to sides and bottom of duct with sheet metal screws.
  - D. Ducts shall be straight and smooth on the inside, with joints neatly finished. Ducts shall be suspended from the construction and shall be free from vibration. Curved elbows shall have a center radius equal to one and one-half (1-1/2) times the width of the duct. All square turns shall be vanned. Vanes consisting of curved metal blades shall permit the air to make abrupt turns without turbulence.
  - E. All joints in the heating, ventilating, and air conditioning and exhaust system ductwork shall be sealed air tight. Sealant shall be as manufactured by Hard Cast Inc. or approved equal and shall consist of a mineral impregnated woven fiber tape and an actuator adhesive. Sealant shall be SMACNA and U.L. approved, with a flame spread of 10 and a smoke developed of 0, non-toxic and non-flammable. Sealant shall be approved for operating temperatures from 0 degrees F. to 200 degrees F. Sealant system shall be installed in strict accordance with the manufacturer's recommendations and when applied shall provide a permanent seal without any deterioration.
  - F. Supply air registers shall have all steel construction with 3/4" spaced, double deflection louvers, opposed blade damper and finished with #26 off-white enamel. Titus model 300F, Metal-Aire, Krueger or approved equal.
  - G. Exhaust air registers shall have all steel construction with 1/2" spaced louvers, 35 degree deflection, opposed blade damper and finished with #26 off-white enamel. Titus model 355R, Metal-Aire, Krueger or approved equal.
  - H. Motorized control dampers shall be low leakage extruded aluminum airfoil with a maximum of 3 cfm/sq.ft. leakage rate at 1" static pressure and shall be AMCA listed as a Class 1A damper. Damper shall be Ruskin CD-50 or approved equal. Actuator shall be 120 VAC, with fail safe spring return and brushless DC motor
  - I. Ceiling mounted and in-line exhaust fans shall be as manufactured by Cook. Fans shall have acoustically insulated housings and shall have a maximum sound level rating of 6.0 sones. Air deliveries shall be as indicated on the drawings and all fans shall bear the AMCA certified ratings seal and the U.L. label. Integral backdraft damper shall be totally airtight proof with no metal contact. Fan shall have true centrifugal wheels with inlet perpendicular to, or remote from, inlet grille. Ceiling mounted exhaust fan grilles shall be of aerodynamic design of white molded plastic eggcrate shape and provide eighty-five (85) percent free open area. Terminal box shall be provided on the housing with cord, plug, and receptacle inside the housing. Entire fan, motor and wheel assembly shall be easily removable without disturbing the housing. Motor speeds shall not exceed 1600 rpm and all fan motors shall be suitably grounded and mounted on rubber-in-shear vibration isolators.
- 5. SECTION 15950 - CONTROLS**
- A. The controls contractor under this heading shall furnish and install all wiring and equipment necessary for a complete operational system including: automatic temperature controls, ventilation systems, exhaust systems, economizer systems, etc. as indicated on the drawings. The system shall include all necessary thermostats, relays, switches, transformers, contactors, etc. required for successful operation of all equipment as described in the sequence of operations. Electrical work in connection with all control systems shall be performed by the controls contractor and coordinated with the electrical contractor as needed to provide a full and complete package.

## 5. SECTION 15950 - CONTROLS

- A. The controls contractor under this heading shall furnish and install all wiring and equipment necessary for a complete operational system including: automatic temperature controls, ventilation systems, exhaust systems, economizer systems, etc. as indicated on the drawings. The system shall include all necessary thermostats, relays, switches, transformers, contactors, etc. required for the successful operation of all equipment and the proper sequence of operations. Electrical work in connection with all control systems shall be performed by the controls contractor and coordinated with the electrical contractor as needed to provide a full and complete package.

\*Professional Certification: I hereby certify that these documents were prepared and/or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No.: 28228, Expiration Date: 01/12/2025



<b>DATE:</b> 11/02/2023	<b>DRAWING NO:</b>  <b>M3</b>
<b>SCALE:</b> AS NOTED	
<b>DRAWN BY:</b> MRB/JAL	
<b>CHECKED BY:</b> EPL/GWB	<b>IDC JOB NUMBER</b> 18-076

**CECIL COUNTY PUBLIC  
SCHOOLS**  
201 Booth St, Elkton, MD 21921

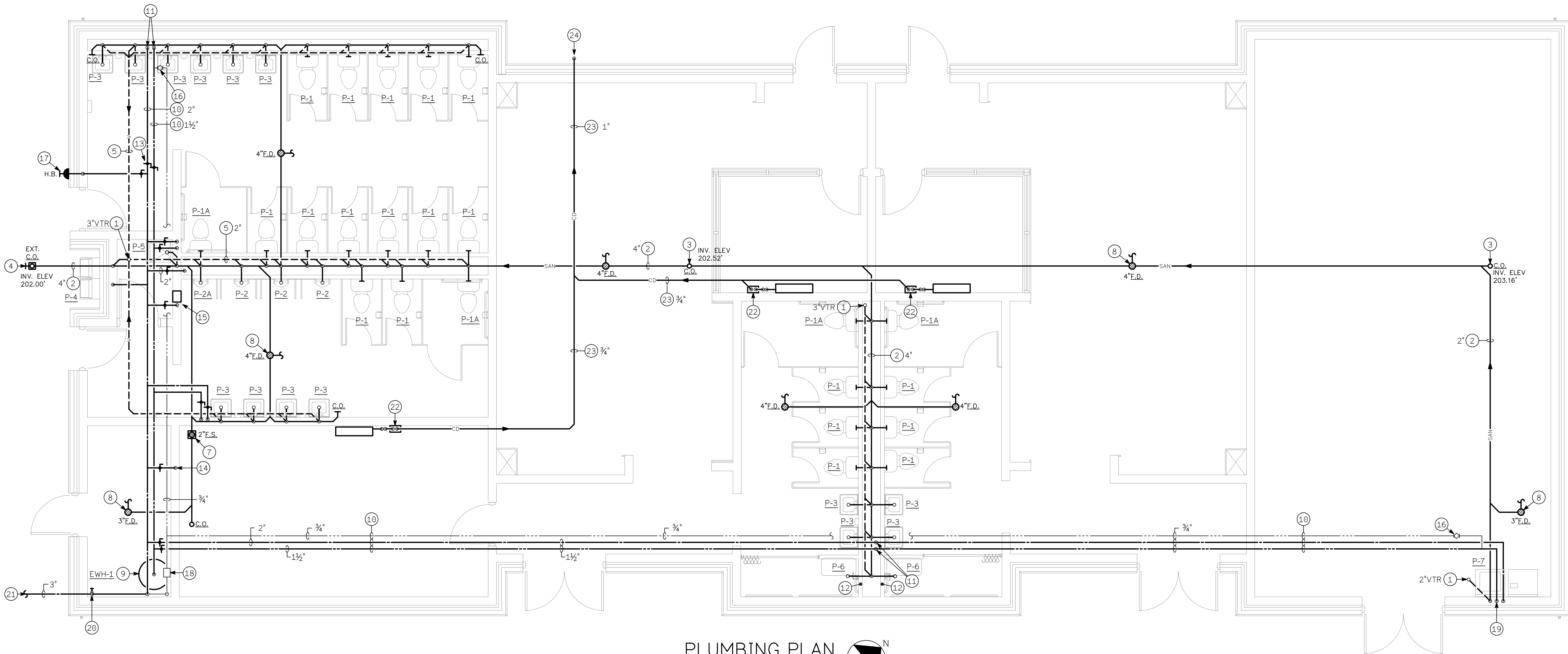
**FW**

**ARCHITECTS  
ENGINEERS  
PLANNERS  
SURVEYORS**

**FREDERICK WARD ASSOCIATES**  
411-B-838-7800  
[www.frederickward.com](http://www.frederickward.com)

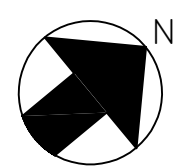
P.O. Box 727, 6 South Main Street, 2nd Fl., Maryland 21014

[illegible]



## PLUMBING PLAN

SCALE: 1/4"=1'-0"  
F.F. ELEVATION = 206.00'



## DRAWING NOTES

- 1 SANITARY VENT PIPING UP THRU ROOF.
- 2 SANITARY PIPING BELOW FLOOR SLAB SLOPED AT MINIMUM 1/8" PER FOOT. ALL 2" SANITARY PIPING BELOW FIRST FLOOR SLAB/GRADE SHALL BE SLOPED AT 1/4" PER FOOT.
- 3 SANITARY CLEANOUT IN FLOOR (TYPICAL).
- 4 EXTERIOR SANITARY CLEANOUT. SEE CIVIL FOR CONTINUATION
- 5 SANITARY VENT PIPING SUPPORTED FROM STRUCTURE ABOVE CEILING.
- 6 SANITARY VENT PIPING UP INSIDE/ALONG WALL AND ROUTED ABOVE CEILING AS INDICATED (TYPICAL).
- 7 12"x12"x10" FLOOR SINK, SIZE AS INDICATED (TYPICAL).
- 8 FLOOR DRAIN, SIZE AS INDICATED, WITH TRAP PRIMER (TYPICAL).
- 9 FLOOR MOUNTED ELECTRIC WATER HEATER IN FULL SIZE DRAIN PAN. REFER TO SCHEDULE.
- 10 DOMESTIC WATER PIPING SUPPORTED FROM STRUCTURE ABOVE CEILING.
- 11 DOMESTIC WATER PIPING DOWN INSIDE WALL AND EXTENDED TO FIXTURE(S)/EQUIPMENT.
- 12 PRESSURE/TEMPERATURE BALANCING MIXING VALVE IN WALL FOR SHOWER WITH ACCESS DOOR FOR VALVE MAINTENANCE.
- 13 BALL VALVE (TYPICAL).
- 14 DOMESTIC WATER PIPING DOWN INSIDE WALL AT WATER VALVE BOX MOUNTED APPROXIMATELY 48" ABOVE FLOOR FOR ICE MAKER CONNECTION. WATER-TITE MODEL W9700 OR EQUAL WITH 1/2" CONNECTION AND 1/4 TURN VALVE. PROVIDE LEAD-FREE, ASSE1024 BRONZE DUAL CHECK BACKFLOW PREVENTER UPSTREAM OF VALVE BOX, WATTS MODEL SERIES LF7 OR APPROVED EQUAL.

- 15 AUTOMATIC TRAP PRIMER/DISTRIBUTION UNIT LOCATED INSIDE WALL WITH BALL VALVE AND ACCESS DOOR. EXTEND 1/2" PIPING TO EACH FLOOR DRAIN TRAP. UNIT SHALL BE PPP MODEL PR-500 PRIMER WITH DU-U-500 DISTRIBUTION UNIT, ASSE1018 LISTED, OR APPROVED EQUAL.
- 16 HOT WATER RECIRCULATING BALANCE VALVE.
- 17 EXTERIOR FREEZE-PROOF RECESSED WALL HYDRANT WITH VACUUM BREAKER, KEY CONTROL, NB BOX AND COVER. WATTS MODEL HY-725 OR APPROVED EQUAL.
- 18 HOT WATER RECIRCULATING PUMP. TACO MODEL 007 OR APPROVED EQUAL, WITH ALL BRONZE CONSTRUCTION, 4 G.P.M. @ 9' HEAD, 1/25 HP, 115V/1Ø. PROVIDE TACO TIMER/AQUASTAT UNIT TO ENERGIZE PUMP DURING OCCUPIED TIMES AND MAINTAIN SYSTEM TEMPERATURE OF 140°F.
- 19 GUY GRAY WALL MOUNTED VALVE BOX WITH "DOU-CLOZ" VALVES AND 2" STANDPIPE, LOCATED 48" ABOVE FLOOR WITH TRAP AS LOW TO FLOOR AS POSSIBLE.
- 20 DOMESTIC COLD WATER SERVICE UP THRU FLOOR IN SEALED PIPE SLEEVE WITH MAIN SHUT-OFF VALVE AND LOW POINT DRAIN VALVE. MOUNT DOMESTIC WATER ASSEMBLY AT APPROXIMATELY 36" ABOVE FLOOR.
- 21 2" DOMESTIC WATER INCOMING SERVICE BELOW GRADE, EXTENDED 5'-0" BEYOND BUILDING. REFER TO CIVIL DRAWINGS FOR CONTINUATION.
- 22 MANUFACTURER PROVIDE CONDENSATE PUMP FOR DUCTLESS SPLIT SYSTEM.
- 23 GRAVITY SLOPED CONDENSATE PIPING SLOPED AT 1/8" PER FOOT.
- 24 EXTEND TO SPLASH BLOCK OUTSIDE.

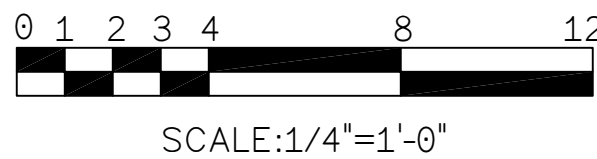
## PIPING LEGEND

	SAN	SANITARY PIPE
	V	VENT PIPE
		COLD WATER PIPE
		HOT WATER PIPE
		HOT WATER RECIRC. PIPE
	CD	CONDENSATE DRAIN PIPE
	RS	REFRIGERANT SUCTION
	RL	REFRIGERANT LIQUID
	F	FIRE PIPE
	SP	SPRINKLER PIPE
		UNION
		PRESSURE REDUCING VALVE
		BALANCING VALVE
		DIRECTION OF LIQUID FLOW
		GAS COCK
		BALL VALVE
		CHECK VALVE
		STRAINER
		PRESSURE GAUGE
		THERMOMETER
		PIPE DOWN
		PIPE UP

	CLEANOUT (FLOOR & WALL)
	ANGLE STOP VALVE
	HOSE BIBB
	WALL HYDRANT
	FLOOR DRAIN
	FLOOR SINK

## ABBREVIATIONS LIST

EX.	EXISTING
F.D.	FLOOR DRAIN
F.S.	FLOOR SINK
F.P.M.	FEET PER MINUTE
FT.	FOOT
FT <sup>2</sup>	SQUARE FEET
HP	HORSEPOWER
LBS.	POUNDS
TYP.	TYPICAL
V.T.R.	VENT THRU ROOF



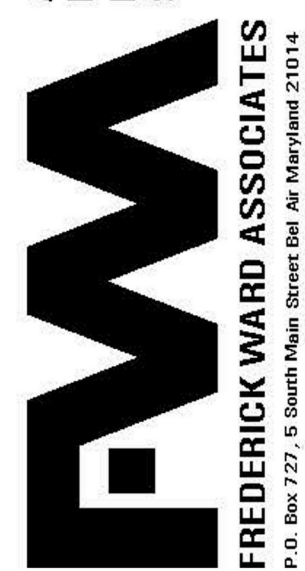
## NOTICE TO CONTRACTORS:

ALL CONTRACTORS PRIOR TO BID SUBMISSION PROCESS SHALL VISIT PROPOSED WORK SITE AND FIELD VERIFY ALL EXISTING CONDITIONS. ANY CONDITIONS THAT DIFFERS FROM THAT SHOWN ON THIS PLAN SHALL BE REPORTED TO ARCHITECT/ENGINEER SO THAT NEW AND REVISED BID DRAWINGS OR INFORMATION MAY BE ISSUED. MODIFICATIONS TO SCOPE OF WORK WHICH RESULTS FROM CONTRACTORS NEGLIGENCE TO VISIT THE SITE PRIOR TO SUBMITTING BID, SHALL BE THE CONTRACTORS SOLE RESPONSIBILITY.

## REVISIONS

REV#	DATE	DESCRIPTION

ARCHITECTS  
ENGINEERS  
PLANNERS  
SURVEYORS



CECIL COUNTY PUBLIC  
SCHOOLS

201 Booth St, Elkton, MD 21921

NEW FIELD HOUSE AT STADIUM

1688 Perryville Rd, Perryville, MD 21903

"Professional Certification: I hereby certify that these documents were prepared and/or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No.: 28228, Expiration Date: 01/12/2025



INTEGRATED  
DESIGN  
CONSULTANTS  
139 N. MAIN ST., SUITE 102  
BEL AIR, MD 21034 443.787.6264  
MECHANICAL • ELECTRICAL • PLUMBING  
ENGINEERING SERVICES



DATE:  
11/02/2023

DRAWING NO:

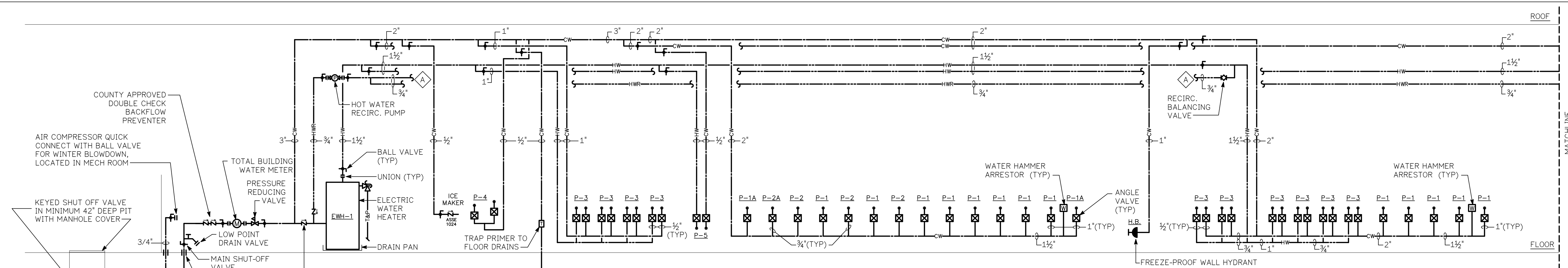
SCALE:  
AS NOTED

P1

DRAWN BY:  
MRB/JAL

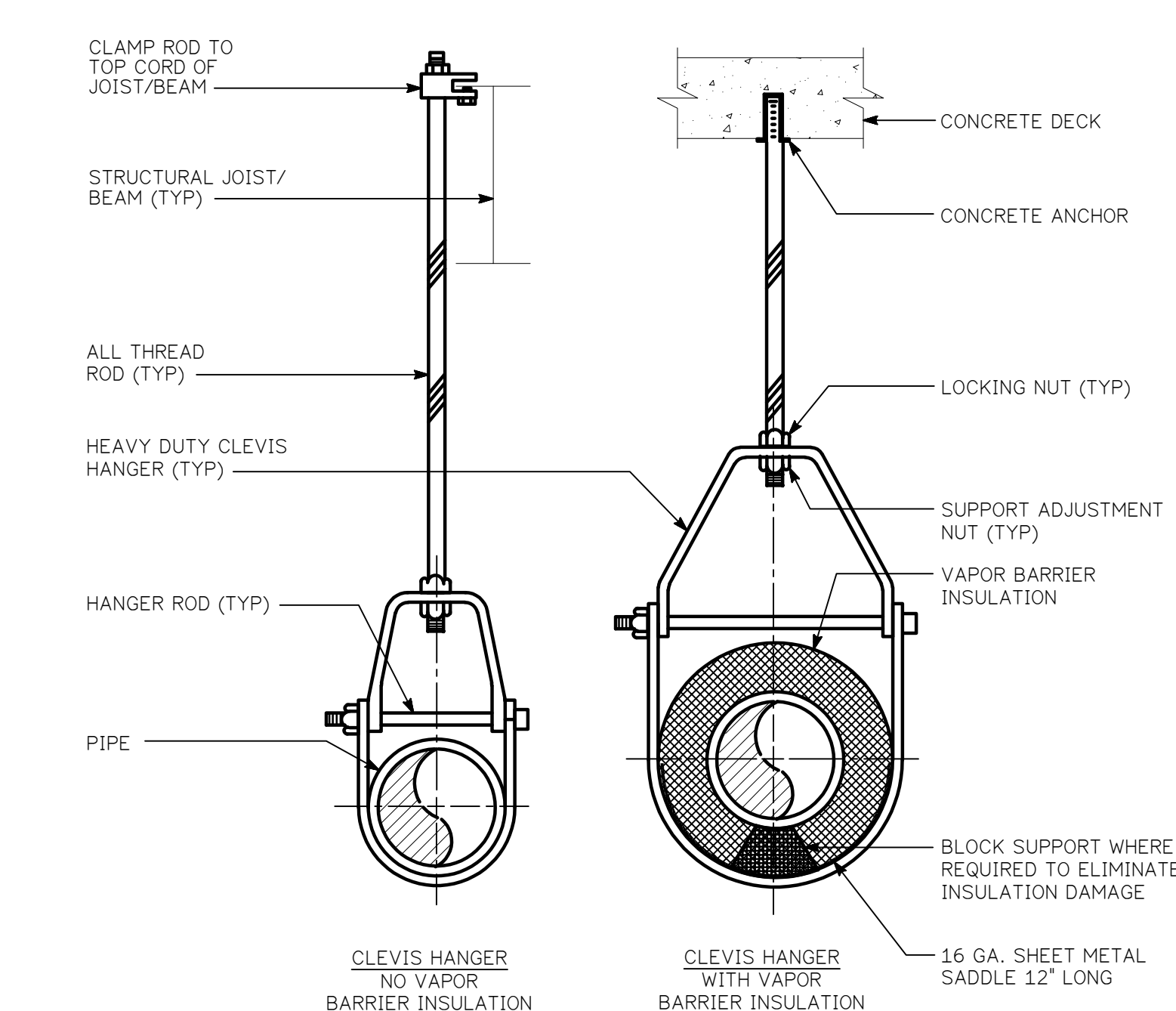
CHECKED BY:  
EPU/GWB

IDC JOB NUMBER  
18-076



DOMESTIC WATER RISER DIAGRAM

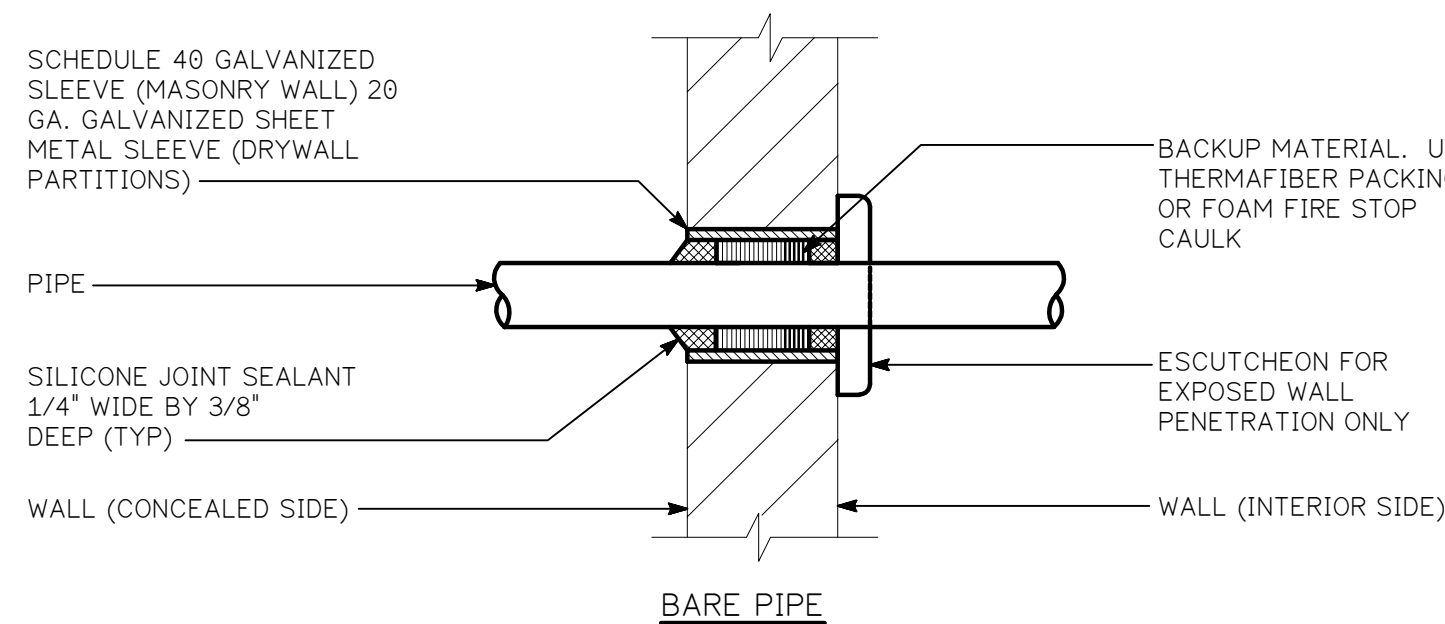
NO SCALE



PIPE SUPPORT DETAIL

NO SCALE

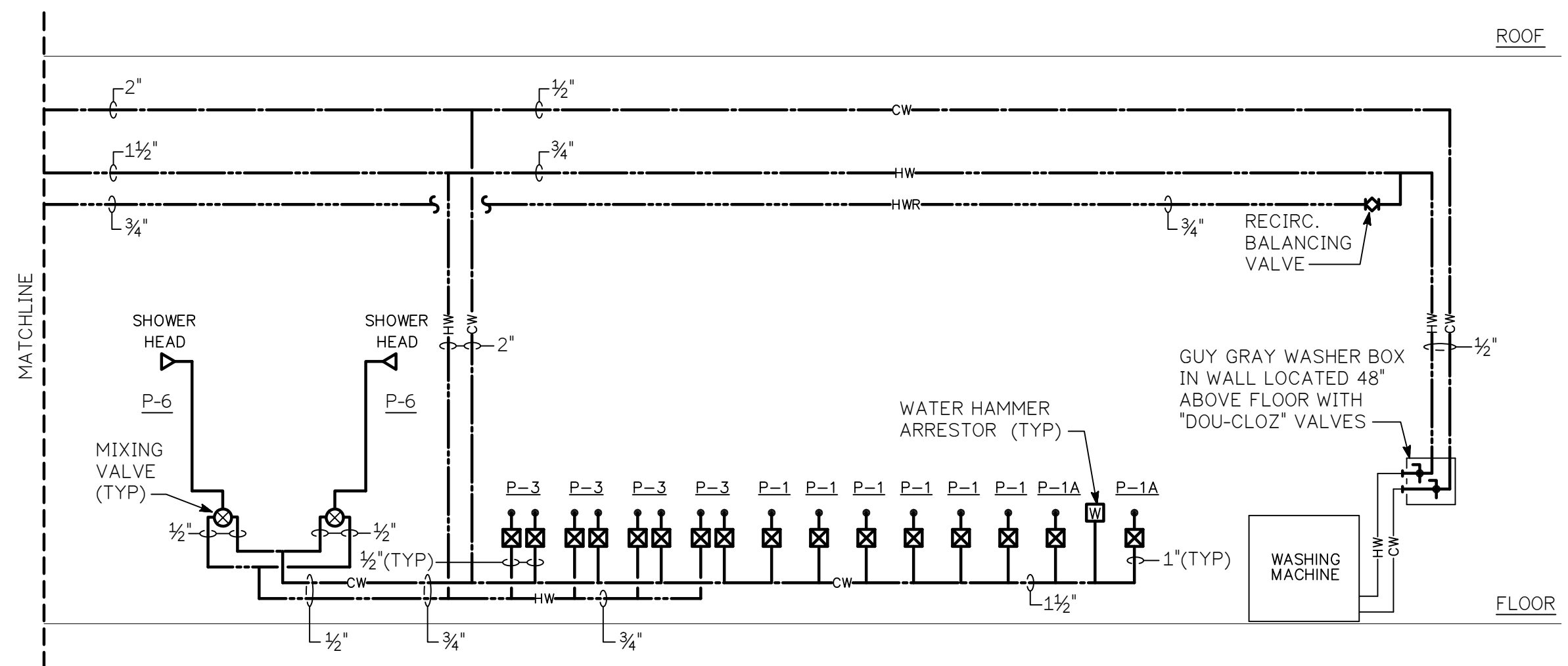
- NOTES:
- 1) ALL HANGERS FOR COPPER PIPING SHALL BE COPPER COATED.
  - 2) DISTANCE BETWEEN SUPPORTS: CAST IRON=6', COPPER=10', STEEL=12', PVC=4'



PIPE SLEEVE THRU WALL DETAIL

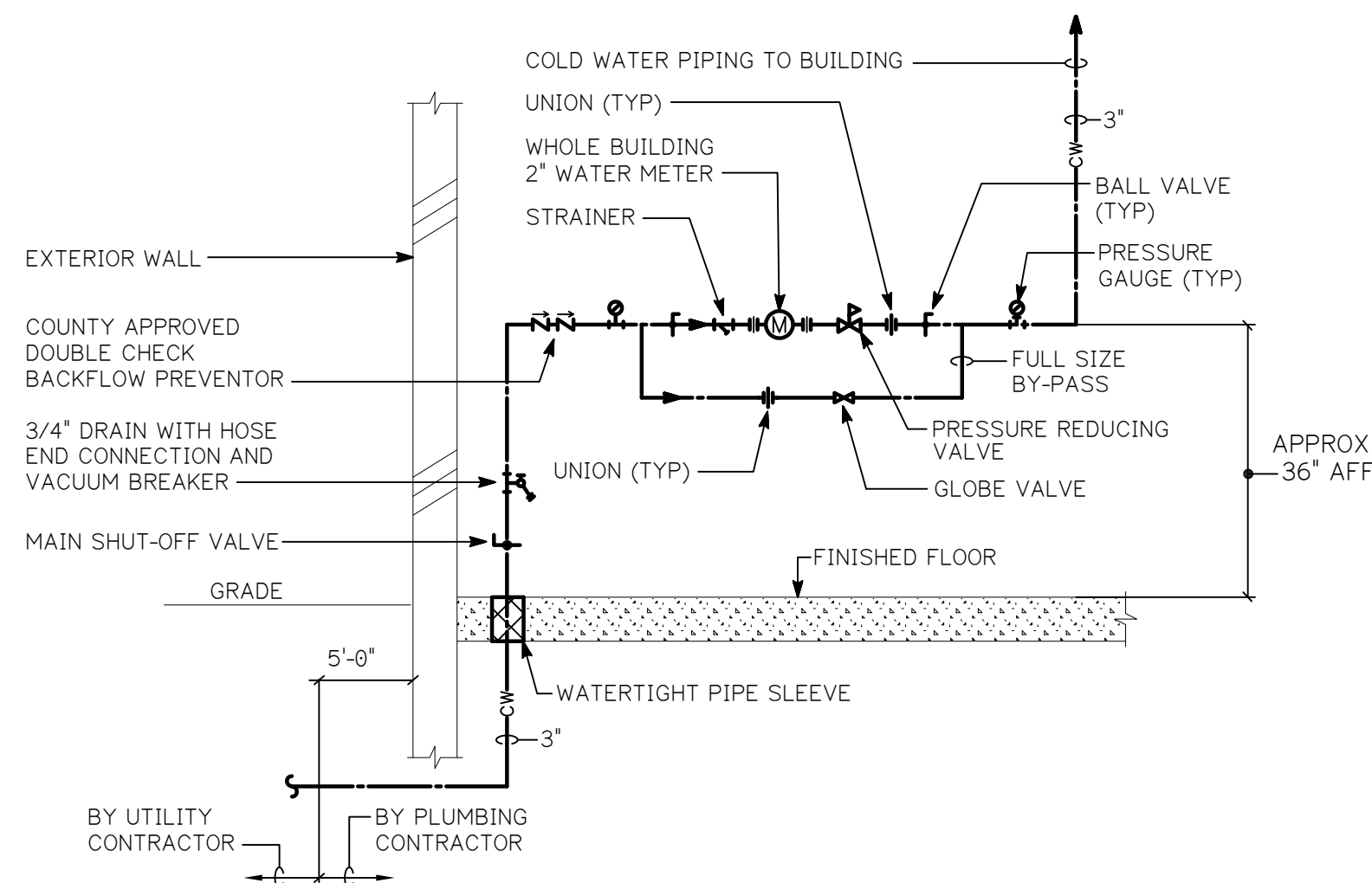
NO SCALE

- NOTES:
- 1) AT THE CONTRACTORS' OPTION A U.L. LISTED/APPROVED FIRE STOP PIPE SLEEVE ASSEMBLY MAY BE SUBMITTED FOR APPROVAL.
  - 2) FOR EXISTING POURED CONCRETE WALLS, CORE DRILL OR STAR DRILL OPENING THRU EXISTING WALL FOR PIPE SLEEVES AS DIRECTED.
  - 3) GALVANIZED SLEEVE SHALL BE CAST INTO NEW CONCRETE WALL POURS.



DOMESTIC WATER RISER DIAGRAM

NO SCALE



WATER SERVICE PRESSURE REDUCING VALVE SCHEMATIC

NO SCALE

- NOTES:
- 1) CONTRACTOR SHALL PROVIDE WATER FLOW AND PRESSURE TEST PRIOR TO INSTALLATION.
  - 2) COORDINATE WATER METER TYPE AND INSTALLATION REQUIREMENTS WITH LOCAL COUNTY WATER DEPARTMENT.
  - 3) PRESSURE SHALL BE REDUCED TO 70 PSI. COORDINATE WITH CIVIL ENGINEER.

PLUMBING FIXTURE SCHEDULE						
ITEM#	DESCRIPTION	PIPE SIZES				REMARKS
		H.W.	C.W.	SAN.	VENT	
P-1	WATERCLOSET (FLUSH VALVE)		1/2"	4"	2"	INTEGRAL
P-1A	WATERCLOSET (FLUSH VALVE)		1/2"	4"	2"	INTEGRAL HANDICAPPED
P-2	URINAL (FLUSH VALVE)		3/4"	2"	2"	INTEGRAL
P-2A	URINAL (FLUSH VALVE)		3/4"	2"	2"	INTEGRAL HANDICAPPED
P-3	WALL HUNG LAVATORY (METERED FAUCET)	1/2"	1/2"	2"	2"	"P" HANDICAPPED
P-4	ELECTRIC WATER COOLER		1/2"	2"	2"	"P" HANDICAPPED
P-5	JANITORS' SINK	1/2"	1/2"	3"	2"	"P" FLOOR MOUNTED
P-6	PRIVATE SHOWER	1/2"	1/2"	2"	2"	"P" HANDICAPPED

ELECTRIC WATER HEATER SCHEDULE													
ITEM#	AREA SERVED	NOMINAL TANK SIZE (GAL.)	DIAMETER (IN.)	HEIGHT (IN.)	RECOVERY RATE (G.P.H.) @ 90° RISE	PIPE CONNECTIONS		K.W.	ELECTRICAL DATA	OPERATING WEIGHT (LBS.)	MOUNTING LOCATION	MODEL #	MANUFACTURER
						INLET	OUTLET						
EW-H-1	TENANT SPACE	100	28"	70.25"	109	1-1/4"	1-1/4"	24	208V/3Ø	1254	FLOOR	SSE-100A	STATE

- NOTES:
- 1) 1 KW WILL RAISE 4.1 GALLONS 100°F PER HOUR.
  - 2) PROVIDE HEAT TRAPS AT INLET/OUTLET CONNECTIONS.
  - 3) STORAGE WATER TEMPERATURE SHALL BE SET AT 140°F.

REVISIONS		DESCRIPTION
REV#	DATE	

ARCHITECTS  
ENGINEERS  
PLANNERS  
SURVEYORS

410-838-1800  
www.fredrickward.com

**FW**

FREDERICK WARD ASSOCIATES  
P.O. Box 727, S. South Main Street Del Air Maryland 21014

CECIL COUNTY PUBLIC SCHOOLS

201 Booth St, Elkton, MD 21921

NEW FIELD HOUSE AT STADIUM

1688 Perryville Rd, Perryville, MD 21903

Professional Certification: I hereby certify that these documents were prepared and/or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No.: 28228, Expiration Date: 01/12/2025

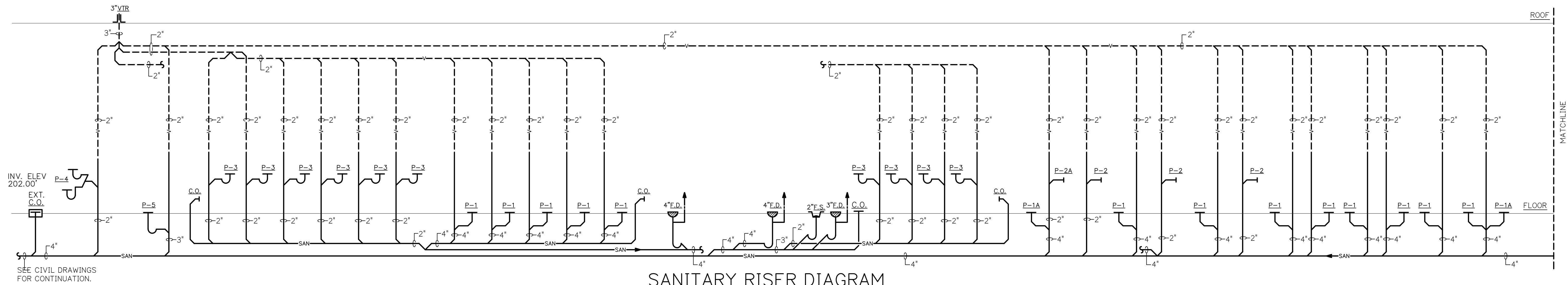
STATE OF MARYLAND  
JAMES W. BESS  
28228  
PROFESSIONAL ENGINEER

DATE: 11/02/2023  
SCALE: AS NOTED  
DRAWN BY: MRB/JAL  
CHECKED BY: EPU/GWB

DRAWING NO: P2

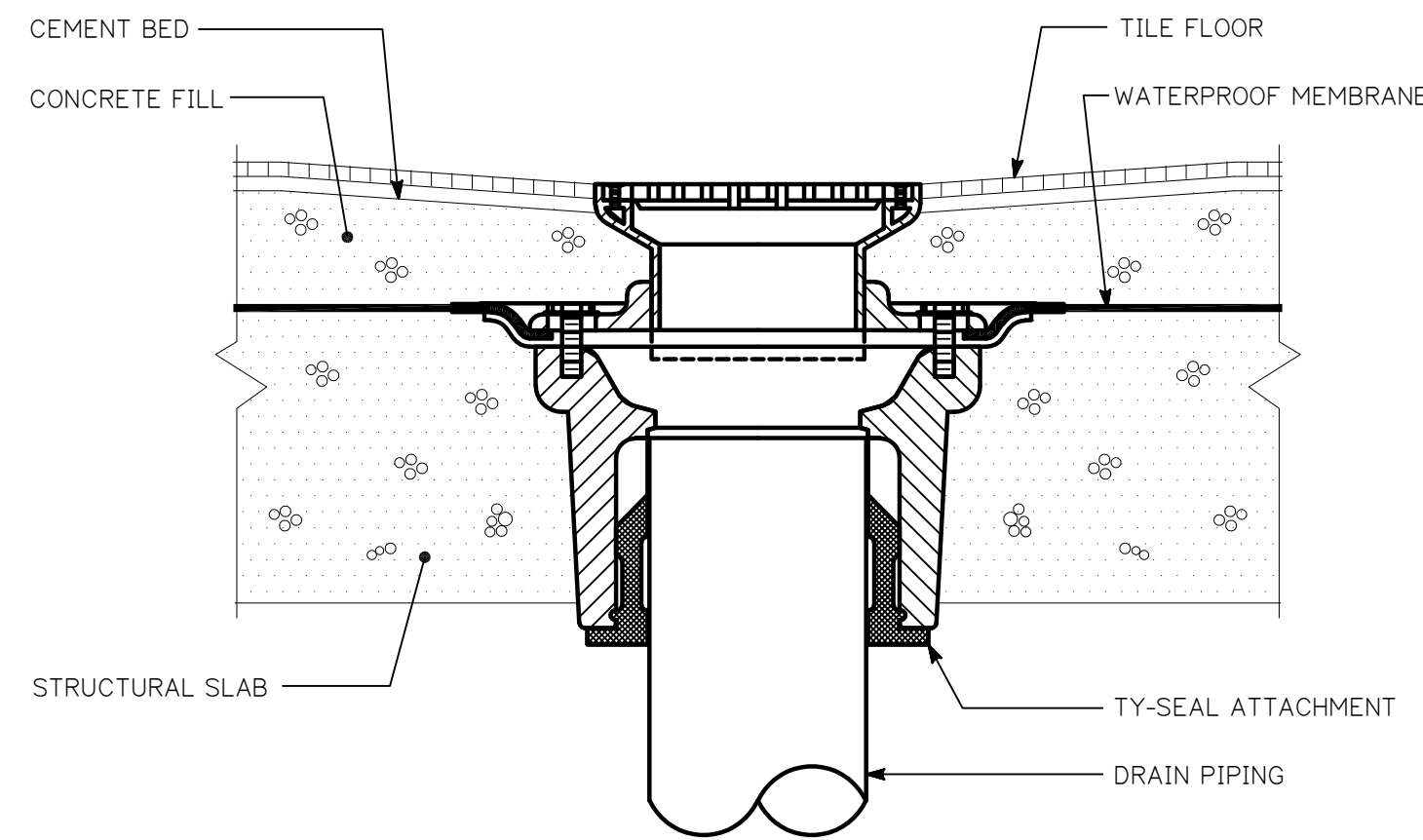
18-076

139 N. MAIN ST., SUITE 102  
BEL AIR, MD 21034 443.787.6264  
MECHANICAL • ELECTRICAL • PLUMBING  
ENGINEERING SERVICES

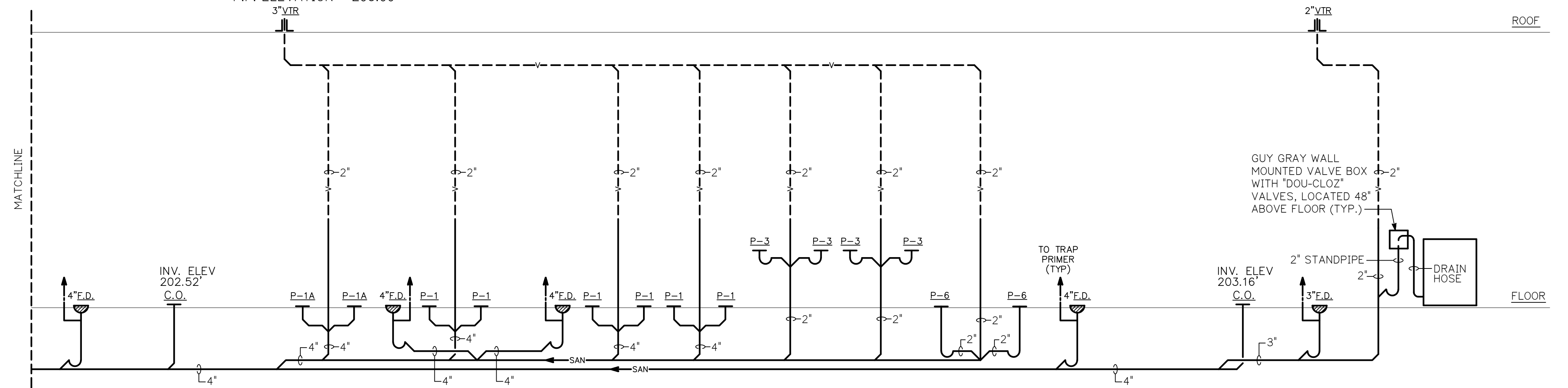


SANITARY RISER DIAGRAM

NO SCALE  
F.F. ELEVATION = 206.00'

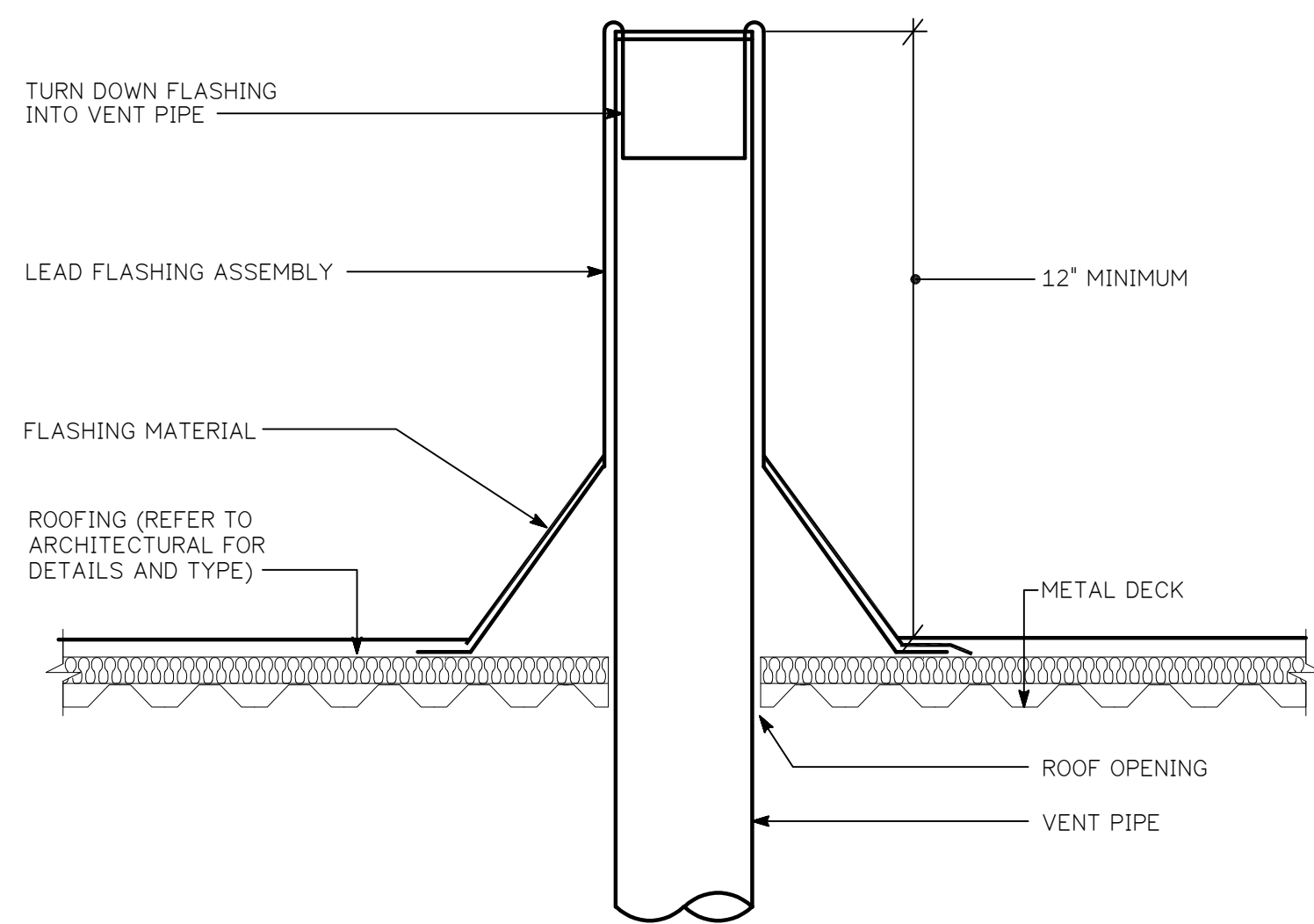


FLOOR DRAIN  
NO SCALE

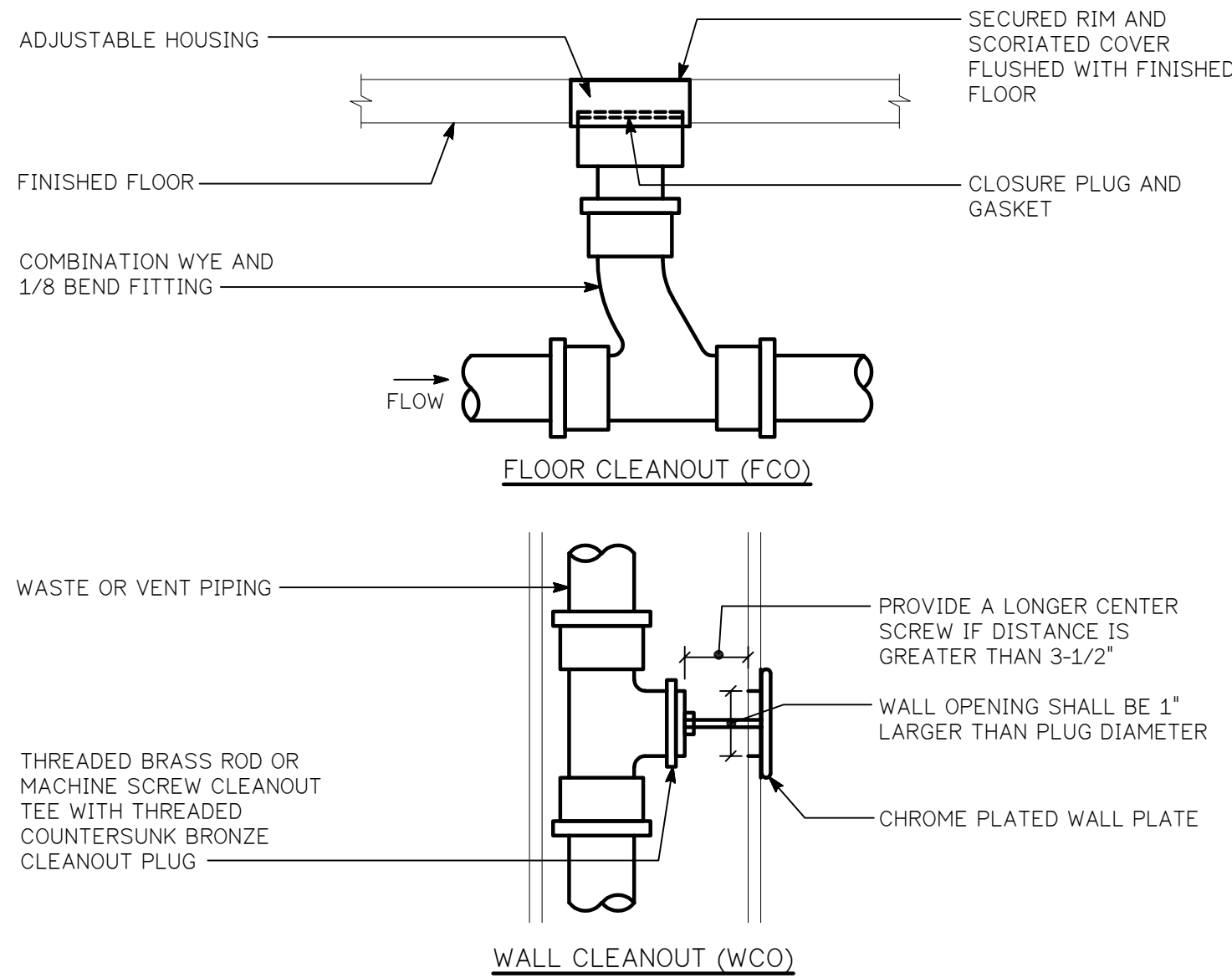


SANITARY RISER DIAGRAM

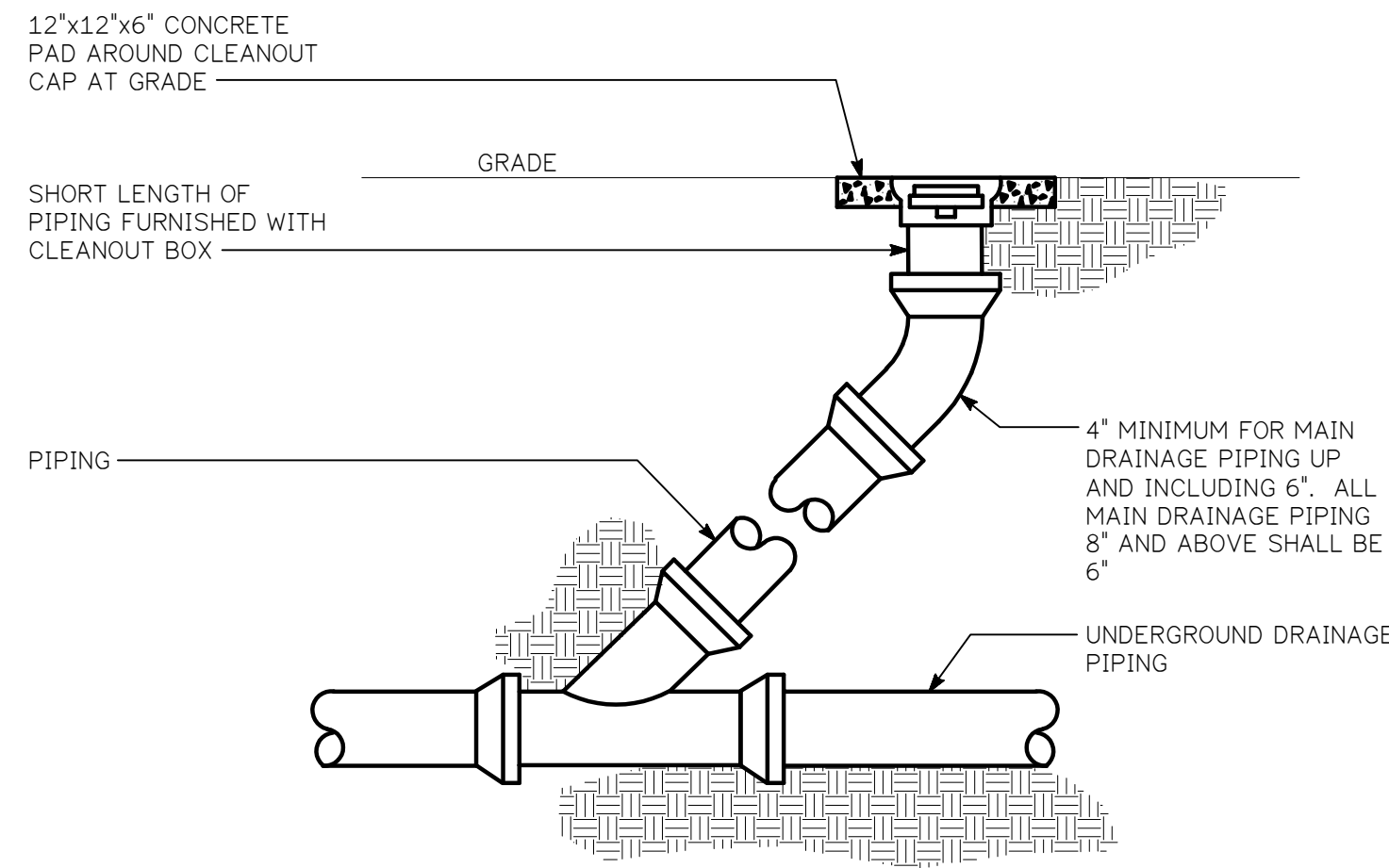
NO SCALE  
F.F. ELEVATION = 206.00'



VENT PIPE THRU ROOF DETAIL  
NO SCALE



INTERIOR CLEANOUT DETAIL  
NO SCALE



EXTERIOR CLEANOUT DETAIL  
NO SCALE

REVISIONS		DESCRIPTION
REV#	DATE	

ARCHITECTS  
ENGINEERS  
PLANNERS  
SURVEYORS  
410-838-1800  
www.frederickward.com

**FW**

FREDERICK WARD ASSOCIATES  
P.O. Box 727, S. South Main Street Del Air Maryland 21015

CECIL COUNTY PUBLIC  
SCHOOLS  
201 Booth St, Elkton, MD 21921

NEW FIELD HOUSE AT STADIUM  
1688 Perryville Rd, Perryville, MD 21903

\*Professional Certification: I hereby certify that these documents were prepared and/or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No.: 28228, Expiration Date: 01/12/2025

**idc**

INTEGRATED  
DESIGN  
CONSULTANTS

139 N. MAIN ST., SUITE 102  
BEL AIR, MD 21034 443.787.6264

MECHANICAL • ELECTRICAL • PLUMBING  
ENGINEERING SERVICES

STATE OF MARYLAND  
JAMES W. BELLO  
28228  
PROFESSIONAL ENGINEER

DATE:  
11/02/2023

SCALE:  
AS NOTED

DRAWN BY:  
MRB/JAL

CHECKED BY:  
EPJ/GWB

DRAWING NO:  
P3

IDC JOB NUMBER  
18-076



GENERAL NOTES

- A. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL CODE AND ALL LOCAL CODES.
- B. CONNECT EXIT LIGHTS, EMERGENCY BATTERY UNITS AND NIGHT LIGHTS (NL) TO UNSWITCHED PORTION OF LIGHTING CIRCUIT SERVING RESPECTIVE AREA.
- C. ALL WIRING SHALL BE COPPER, #12 AWG MINIMUM, TYPE THWN/THHN INSULATION, INSTALLED IN CONDUIT (3/4" MINIMUM). NO ROMEX OR BX CABLE PERMITTED. MC CABLE MAY BE USED, WHERE PERMITTED BY CODE, FOR LIGHTING FIXTURE WHIPS ONLY.
- D. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF LIGHTING FIXTURES AND GRID COORDINATION. VERIFY THAT ADEQUATE CLEARANCE FOR INSTALLATION, MAINTENANCE AND HEAT DISSIPATION IS AVAILABLE BEFORE ORDERING LIGHTING FIXTURES.
- E. ELECTRICAL CONTRACTOR SHALL VERIFY ALL VOLTAGES OF MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
- F. THE WIRE SIZE INDICATED IN THE HOMERUN SHALL BE USED THROUGHOUT THE CIRCUIT.
- G. SEAL ALL CONDUIT PENETRATIONS THRU RATED WALLS AND FLOORS TO MAINTAIN FIRE INTEGRITY. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE WALL LOCATIONS.
- H. CONTRACTOR SHALL CLEAN, RELAMP, REPAIR OR REPLACE ALL BROKEN OR DEFECTIVE BALLASTS AND PARTS OF EXISTING LIGHTING FIXTURES.
- I. GROUND, PHASE AND NEUTRAL CONDUCTORS SHALL BE PIG-TAILED IN OUTLET BOXES OR MULTI-OUTLET ASSEMBLY FOR RECEPTACLES SO THAT GROUND AND ELECTRICAL SERVICE TO OTHER RECEPTACLES ON THE SAME MULTI-WIRE CIRCUIT WILL NOT BE DISTURBED IF A RECEPTACLE IS REMOVED.
- J. ALL BRANCH CIRCUITS SHALL BE RUN CONCEALED IN EXISTING AND NEW WALLS. CUT AND PATCH EXISTING WALLS AND SURFACES AS REQUIRED.
- K. ELECTRICAL CONTRACTOR SHALL USE CONDULET SEALING FITTINGS WITH APPROVED SEALING COMPOUND ON ALL CONDUITS PASSING FROM INTERIOR TO EXTERIOR OF A BUILDING AND OF THE INTERFACE OF WIDELY DIFFERENT SPACE TEMPERATURE.
- L. PROVIDE TYPED, UPDATED PANELBOARD DIRECTORIES FOR ALL PANELBOARDS.

ELECTRICAL SYMBOLS LIST

NOTE: ALL MOUNTING HEIGHTS ARE TO CENTER LINE OF THE OUTLET BOX UNLESS OTHERWISE INDICATED.

SYMBOL	DESCRIPTION
	FIXTURE-FLUORESCENT-CEILING, STRIP
	FIXTURE-INCANDESCENT/HID-CEILING, WALL BRACKET
	EXIT LIGHT-CEILING, WALL
	EMERGENCY BATTERY UNIT, REMOTE HEAD
	SWITCH-SINGLE POLE M.H. 3'-10"
	SWITCH-MOTOR RATED
	RECEPTACLE-20A-125 VOLTS-DUPLEX, DOUBLE DUPLEX M.H. 1'-8"
	JUNCTION BOX
	TELEPHONE TERMINAL BACKBOARD
	PANELBOARD 120/208 VOLTS-M.H. 6'-6" TO TOP
	DISCONNECT SWITCH-UNFUSED, FUSED M.H. 5'-6" TO TOP
	MOTOR-SINGLE PHASE, THREE PHASE, HORSEPOWER AS NOTED
	HEATING ELEMENT-CAPACITY AS NOTED
	DRAWING NOTE
	GROUND CONNECTION
	BRANCH CIRCUIT-UNDERGROUND
	BRANCH CIRCUIT-EXPOSED ON CEILING OR WALLS
	BRANCH CIRCUIT-IN CEILING OR WALLS
	CONDUIT-DOWN, UP
	HOMERUN TO PANEL-LETTER AND NO. INDICATES CIRCUIT NUMBER. NO. OF CROSSLINES INDICATES NO. OF CONDUCTORS WHEN MORE THAN 3.

ABBREVIATIONS

AFF	- ABOVE FINISHED FLOOR	NEC	- NATIONAL ELECTRIC CODE
C,CDT	- CONDUIT	NL	- NIGHT LIGHT
DN	- DOWN	PC	- PHOTOCELL
DWG	- DRAWING	TC	- TIME CLOCK
EF	- EXHAUST FAN	UG	- UNDERGROUND
GFI	- GROUND FAULT INTERRUPTER	W/	- WITH
MH	- MOUNTING HEIGHT	WP	- WEATHERPROOF
MTD	- MOUNTED	XFMR	- TRANSFORMER

NOTICE TO CONTRACTORS:

ALL CONTRACTORS PRIOR TO BID SUBMISSION PROCESS SHALL VISIT PROPOSED WORK SITE AND FIELD VERIFY ALL EXISTING CONDITIONS. ANY CONDITIONS THAT DIFFERS FROM THAT SHOWN ON THIS PLAN SHALL BE REPORTED TO ARCHITECT/ENGINEER SO THAT NEW AND REVISED BID DRAWINGS OR INFORMATION MAY BE ISSUED. MODIFICATIONS TO SCOPE OF WORK WHICH RESULTS FROM CONTRACTORS NEGLECT TO VISIT THE SITE PRIOR TO SUBMITTING BID, SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY.

COMcheck Software Version 4.1.1.0  
Interior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC  
Project Title: Cecil County Public Schools - Field House  
Project Type: New Construction

Construction Site: 201 Booth Street, Elkton, MD 21921  
Owner/Agent: Cecil County Public Schools - Field House  
Designer/Contractor: Eric Levison, Integrated Design Consultants, 139 N. Main Street, Suite #308, Bel Air, MD 21014, 443.787.4264, EricL@IDCmap.net

Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations.

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft <sup>2</sup> )	C Allowed Watts / ft <sup>2</sup>	D Allowed Watts (B X C)
Exercise Center	4400	9.55	2574
Total Allowed Watts =			2574

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps / Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Exercise Center LED 1: A: Other: LED 1 copy 1: B: Other:	1 1	30 13	50 42	1500 546
Total Proposed Watts =			2046	

Interior Lighting PASSES: Design 21% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.1.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Eric Levison - Integrated Design Consultants  
Name - Title Signature Date

Project Title: Cecil County Public Schools - Field House  
Data filename: S:\IDC Projects\2018\FWA\18-076 Cecil Co Field House\ELECD\DCS\LIGHTING COMCHECK\cck Page 1 of 6  
Report date: 05/13/21

COMcheck Software Version 4.1.1.0  
Exterior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC  
Project Title: Cecil County Public Schools - Field House  
Project Type: New Construction  
Exterior Lighting Zone: 2 (Neighborhood business district)

Construction Site: 201 Booth Street, Elkton, MD 21921  
Owner/Agent: Cecil County Public Schools - Field House  
Designer/Contractor: Eric Levison, Integrated Design Consultants, 139 N. Main Street, Suite #308, Bel Air, MD 21014, 443.787.4264, EricL@IDCmap.net

Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B X C)
Walkway < 10 feet wide	300 ft of	0.5	Yes	150
Total Tradable Watts (a) =			150	
Total Allowed Watts =			150	
Total Allowed Supplemental Watts (b) =			400	

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.  
(b) A supplemental allowance equal to 400 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Proposed Exterior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps / Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Walkway < 10 feet wide (300 ft of walkway length): Tradable Wattage LED 1: D/O: Other:	1	16	13	202
Total Tradable Proposed Watts =			202	

Exterior Lighting PASSES: Design 63% better than code

Exterior Lighting Compliance Statement

Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.1.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Eric Levison - Integrated Design Consultants  
Name - Title Signature Date

Project Title: Cecil County Public Schools - Field House  
Data filename: S:\IDC Projects\2018\FWA\18-076 Cecil Co Field House\ELECD\DCS\LIGHTING COMCHECK\cck Page 2 of 7  
Report date: 05/13/21

REVISIONS

REV#	DATE	DESCRIPTION

ARCHITECTS  
ENGINEERS  
PLANNERS  
SURVEYORS  
410-838-1800  
www.fredrickward.com  
FREDERICK WARD ASSOCIATES  
P.O. Box 727, 6 South Main Street, Bel Air, Maryland 21014

CECIL COUNTY PUBLIC  
SCHOOLS  
201 Booth St, Elkton, MD 21921

GENERAL NOTES AND  
SYMBOLS LIST

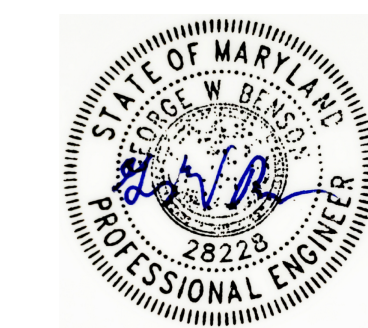
NEW FIELD HOUSE AT STADIUM

1686 Perryville Rd, Perryville, MD 21903

\*Professional Certification: I hereby certify that these documents were prepared and/or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No.: 28228, Expiration Date: 01/12/2025



INTEGRATED  
DESIGN  
CONSULTANTS  
139 N. MAIN ST., SUITE 102  
BEL AIR, MD 21014 443.787.4264  
MECHANICAL • ELECTRICAL • PLUMBING  
ENGINEERING SERVICES



DATE:  
11/02/2023

SCALE:  
AS NOTED

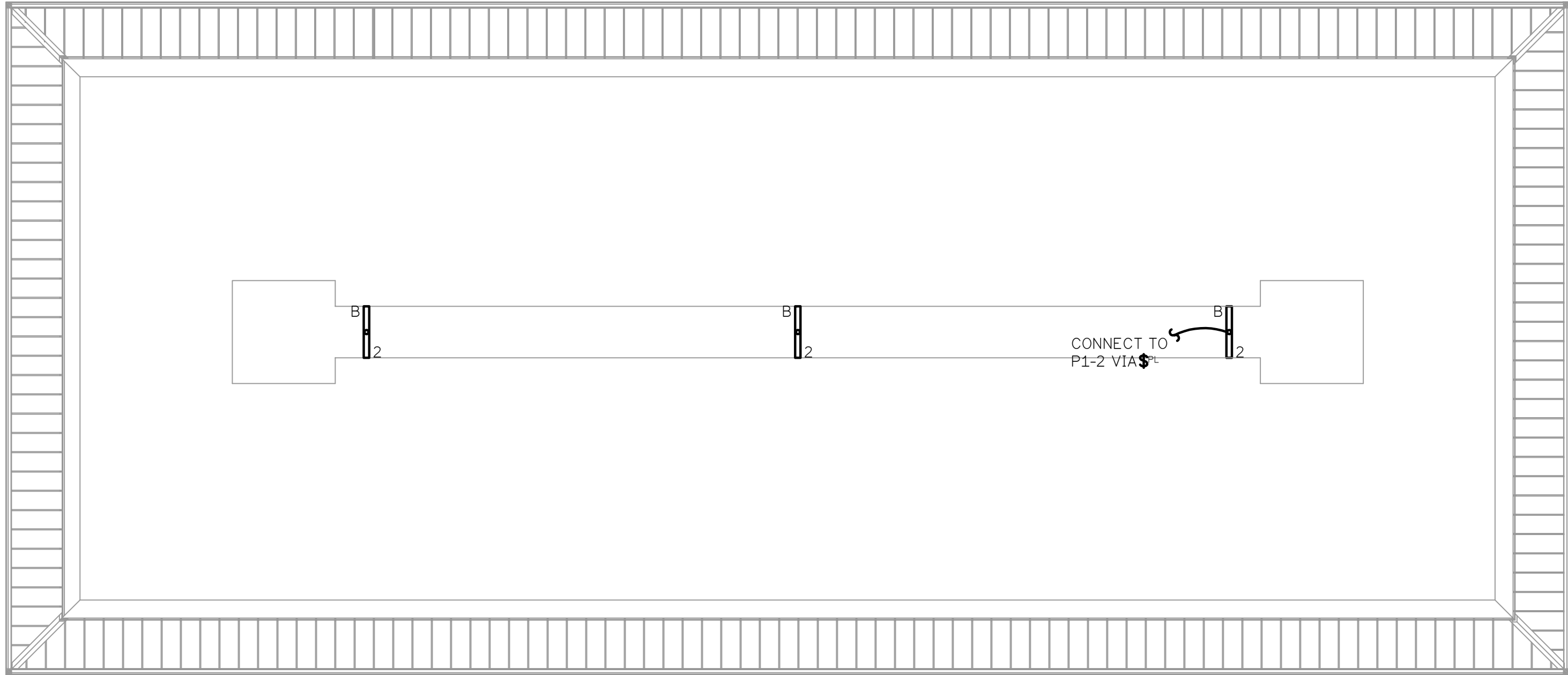
DRAWN BY:  
MRB/JAL

CHECKED BY:  
EPU/GWB

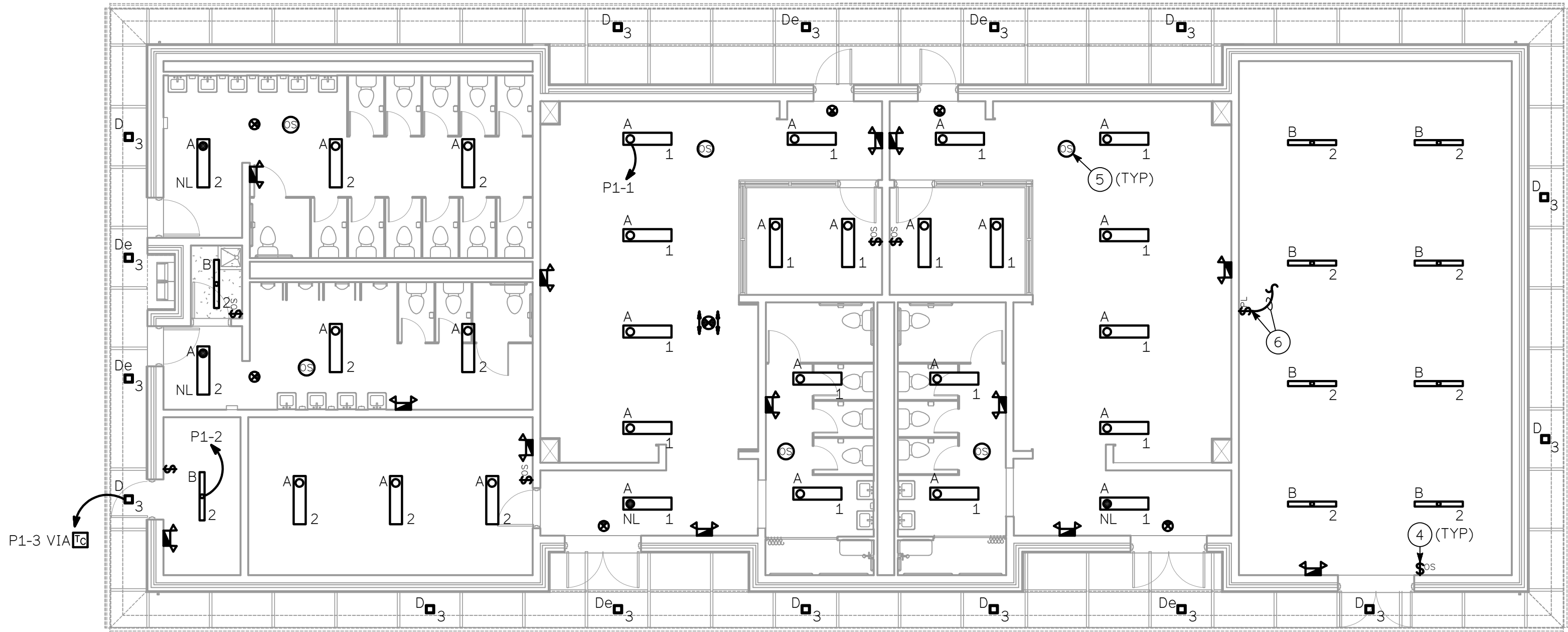
DRAWING NO:

E1

IDC JOB NUMBER  
18-076



①②③ LIGHTING PLAN - ATTIC/MECHANICAL SPACE  
SCALE:1/4"=1'-0"



①②③ LIGHTING PLAN - MAIN LEVEL  
SCALE:1/4"=1'-0"

## DRAWING NOTES

- CONTRACTOR SHALL CONNECT ALL EMERGENCY EXIT SIGNS, BATTERY PACK FIXTURES, AND NIGHT LIGHTS TO UNSWITCHED PORTION OF LIGHTING CIRCUIT SERVING AREA.
- REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR GRID COORDINATION AND EXACT LOCATION OF LIGHT FIXTURES.
- THE CONTRACTOR SHALL NOTE BRANCH CIRCUIT WIRING IS NOT SHOWN; HOWEVER, CIRCUIT NUMBERS ARE SHOWN ADJACENT TO FIXTURES IN SUBSCRIPTS. ALL OCCUPANCY SENSORS AND SWITCHES SHALL CONTROL FIXTURE WITHIN SPACE SHOWN OR AS DESIGNATED WITH SUBSCRIPTS. PROVIDE BRANCH CIRCUIT WIRING AS REQUIRED TO ACCOMMODATE BOTH BRANCH CIRCUIT CONFIGURATION AND SWITCHING SCHEME AS INDICATED.
- PROVIDE WALL BOX MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR. COORDINATE EXACT MOUNTING LOCATION IN THE FIELD.
- PROVIDE CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR FOR CONTROL OF LIGHTING FIXTURES WITHIN AREA. CONTRACTOR SHALL PROVIDE INTERFACE, ASSOCIATED EQUIPMENT, ETC. TO INSTALL A FULLY FUNCTIONAL SYSTEM. COORDINATE EXACT MOUNTING LOCATION TO PROVIDE FULL VIEW OF AREA SERVED.
- PROVIDE PILOT LIGHT STYLE WALL SWITCH FOR CONTROL OF FIXTURE LOCATED IN ATTIC. CONTRACTOR SHALL LOCATE FIXTURE ADJACENT TO ATTIC ACCESS LADDER. COORDINATE EXACT MOUNTING LOCATION IN THE FIELD.

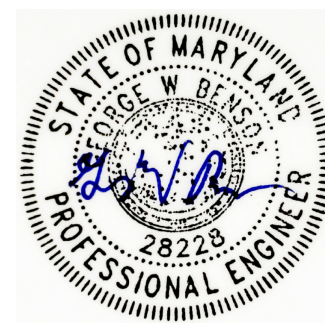
* LIGHTING FIXTURE SCHEDULE				
TYPE	INPUT	MOUNTING	DESCRIPTION/VOLTAGE	CATALOG NO.
A	50W LED 3500°K	SURFACE	4' LONG VANDAL RESISTANT LED FIXTURE WITH PRIMATIC POLYCARBONATE LENS AND STANDARD DRIVER. 120 VOLTS	LUMINAIRE CLF74-50W-3500K-120-277-CP-WHT
B	42W LED 3500°K	SURFACE	4' LONG LED STRIP FIXTURE WITH WRAP AROUND LENS AND STANDARD DRIVER. 120 VOLTS	COLUMBIA LCL4-35ML-EU
D	12.6W LED 4000°K	RECESSED	6"x6" SQUARE LED DOWN LIGHT WITH 1100 LUMEN OUTPUT, CLEAR LENS AND STANDARD DRIVER. 120 VOLTS	PRESCOLITE LF6SQSL-6SQSL 11L 40K 8 WT CL
De	12.6W LED 4000°K	RECESSED	6"x6" SQUARE LED DOWN LIGHT WITH 1100 LUMEN OUTPUT, CLEAR LENS AND EMERGENCY BATTERY BACK-UP WITH TEST SWITCH. 120 VOLTS	PRESCOLITE LF6SQSL EMR-6SQSL 11L 40K 8 WT CL
⦿	LED	UNIVERSAL	IMPACT RESISTANT EXIT SIGN WITH BLACK HOUSING AND RED LETTERING. COORDINATE LETTERING COLOR WITH LOCAL JURISTICATION. REFER TO FLOOR PLAN FOR MOUNTING. 277 VOLTS	EXITRONIX 600E SERIES
🚪	INCLUDED	SURFACE	VANDAL RESISTANT EMERGENCY EGRESS FIXTURE WITH BATTERY BACK-UP, WHITE HOUSING. 120 VOLTS	EXITRONIX CP-EMW SERIES
⚡	INCLUDED	SURFACE	WEATHERPROOF EMERGENCY REMOTE HEAD. 12 VOLTS	EXITRONIX OCR SERIES

\* COORDINATE FINISH OF ALL FIXTURES WITH ARCHITECT PRIOR TO PURCHASE

\*Professional Certification: I hereby certify that these documents were prepared and/or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No.: 28228, Expiration Date: 01/12/2025



INTEGRATED  
DESIGN  
CONSULTANTS  
139 N. MAIN ST., SUITE 102  
BETHESDA, MD 20814 443.787.6264  
MECHANICAL • ELECTRICAL • PLUMBING  
ENGINEERING SERVICES



DATE:  
11/02/2023

SCALE:  
AS NOTED

DRAWN BY:  
MRB/JAL

CHECKED BY:  
EPL/GWB

DRAWING NO:

E2

IDC JOB NUMBER  
18-076

LIGHTING PLANS,  
SCHEDULE AND NOTES

NEW FIELD HOUSE AT STADIUM

1686 Perryville Rd, Perryville, MD 21903

CECIL COUNTY PUBLIC  
SCHOOLS

201 Booth St, Elkton, MD 21921

ARCHITECTS  
ENGINEERS  
PLANNERS  
SURVEYORS

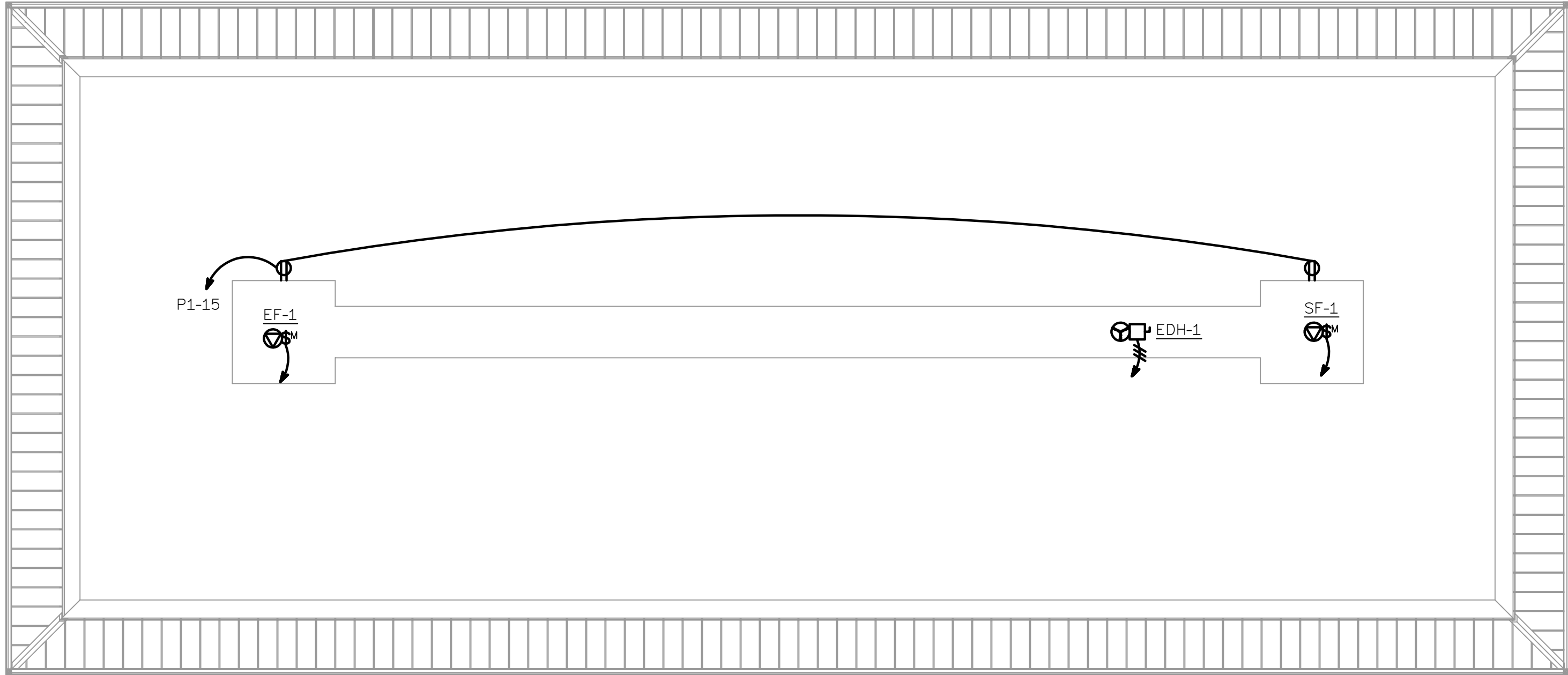
**FW**  
FREDERICK WARD ASSOCIATES  
P.O. Box 727, 6 South Main Street, 2nd Fl., Maryland 21014  
410-838-1800  
www.fredrickward.com

REVISIONS

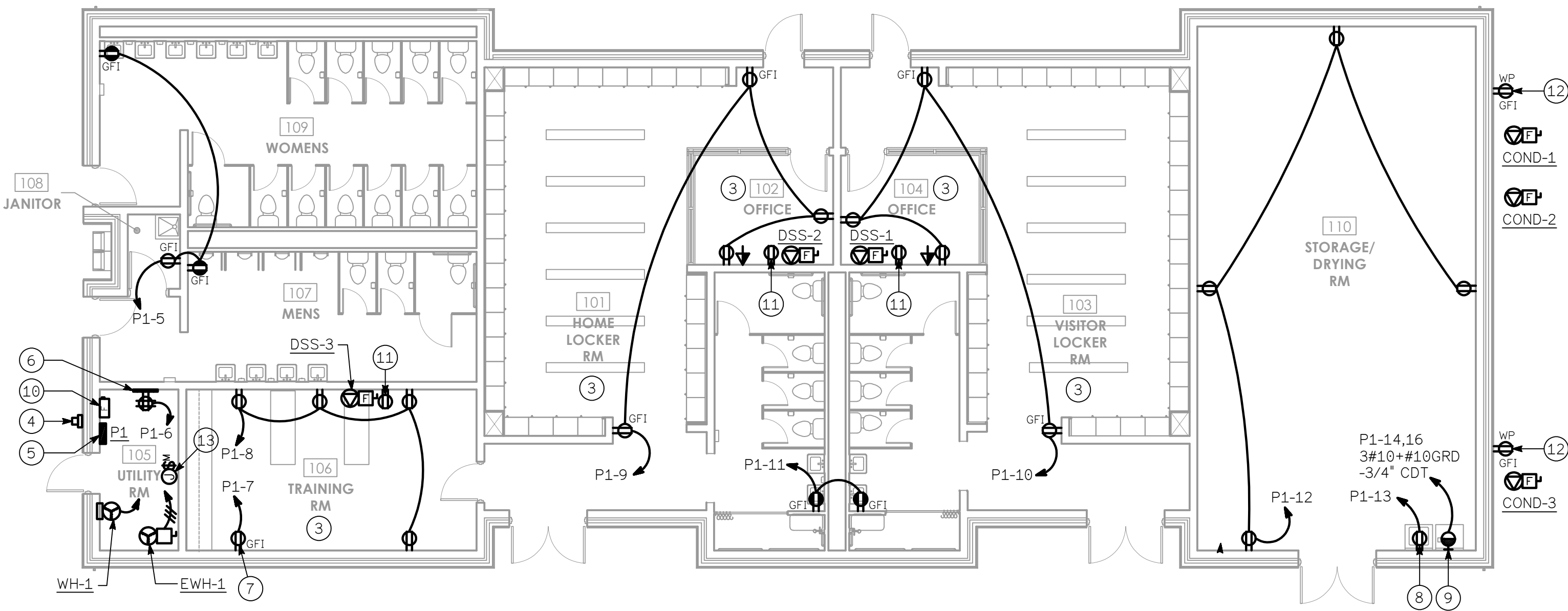
DESCRIPTION

DATE

REV#



①② POWER PLAN - ATTIC/MECHANICAL SPACE  
SCALE:1/4"=1'-0"



①② POWER PLAN - MAIN LEVEL  
SCALE:1/4"=1'-0"

DRAWING NOTES

- ① COORDINATE EXACT DEVICE LOCATIONS, HEIGHTS, AND REQUIREMENTS WITH OWNER'S REPRESENTATIVE IN THE FIELD.
- ② PROVIDE CONNECTIONS TO ALL MECHANICAL EQUIPMENT AS INDICATED IN MECHANICAL EQUIPMENT SCHEDULE. COORDINATE EXACT MOUNTING LOCATION WITH MECHANICAL CONTRACTOR IN THE FIELD.
- ③ ALL DEVICES SHALL BE FLUSH MOUNTED WITH-IN CONCRETE BLOCK WALLS. NO DEVICES, CONDUIT, OR WIRING SHALL BE SURFACE MOUNTED IN TEAM ROOM AREAS.
- ④ PROPOSED LOCATION OF NEW UTILITY COMPANY METER SOCKET. COORDINATE EXACT MOUNTING LOCATION IN THE FIELD.
- ⑤ PROPOSED LOCATION OF NEW PANELBOARD. REFER TO POWER RISER AND PANEL SCHEDULE, SHEET E-4 FOR ADDITIONAL INFORMATION.
- ⑥ PROVIDE 2'x4'x3/4" THICK PLYWOOD BACKBOARD FOR TELEPHONE EQUIPMENT. COORDINATE EXACT MOUNTING LOCATION IN THE FIELD.
- ⑦ PROVIDE GFI PROTECTED DUPLEX RECEPTACLE FOR SCHOOL PROVIDED ICE MACHINE. COORDINATE EXACT MOUNTING LOCATION AND CONNECTION REQUIREMENTS WITH SCHOOL REPRESENTATIVE PRIOR TO START OF WORK.
- ⑧ PROVIDE GFI PROTECTED DUPLEX RECEPTACLE FOR CONNECTION TO SCHOOL PROVIDED WASHING MACHINE. COORDINATE EXACT MOUNTING LOCATION IN THE FIELD.
- ⑨ PROVIDE NEMA 14-30R RECEPTACLE FOR CONNECTION TO SCHOOL PROVIDED DRYER. COORDINATE EXACT MOUNTING LOCATION IN THE FIELD. PROVIDE WIRING AS INDICATED.
- ⑩ PROPOSED LOCATION OF 240V RATED, 3 POLE, 200A DISCONNECT SWITCH FUSED @ 200A FOR DUCT HEATER/SERVICE MAIN #2. COORDINATE EXACT MOUNTING LOCATION IN THE FIELD. REFER TO POWER RISER, SHEET E-4 FOR ADDITIONAL INFORMATION.
- ⑪ PROVIDE DUPLEX RECEPTACLE MOUNTED ADJACENT TO DUCTLESS SPLIT SYSTEM (DSS) INDOOR UNIT FOR CONDENSATE PUMP. COORDINATE EXACT MOUNTING LOCATION IN THE FIELD. CIRCUIT #P1-27
- ⑫ PROVIDE WEATHERPROOF, GFI PROTECTED DUPLEX RECEPTACLE FOR HVAC EQUIPMENT MAINTENANCE. COORDINATE EXACT MOUNTING LOCATION IN THE FIELD. CIRCUIT #P1-28
- ⑬ PROVIDE 120V ELECTRICAL CONNECTION TO HOT WATER RECIRCULATING PUMP. COORDINATE CONNECTION LOCATION AND REQUIREMENTS IN THE FIELD. CIRCUIT #P1-29

MECHANICAL UNIT SCHEDULE

UNIT NUMBER	UNIT MCA	UNIT MOCP	UNIT VOLTS/Ø	CONDUCTORS	CIRCUIT NUMBER	NOTES
EDH-1	166.2	200	208/V 3Ø	3#3/0+#6 GRD IN 2" CDT	DISCONNECT	60.0 kw
SF-1	16.0	20	120V 1Ø	2#12+#12 GRD IN 1/2" CDT	P1-17	1.0 HP
EF-1	13.8	20	120V 1Ø	2#12+#12 GRD IN 1/2" CDT	P1-18	3/4 HP
EWH-1	66.5	90	208/V 3Ø	3#3+8 GRD IN 1 1/4" CDT	P1-37,39,41	24.0 kw
WH-1	9.6	20	208V 1Ø	2#12+#12 GRD IN 1/2" CDT	P1-19,21	2.0 kw
DSS-1	-	-	208V 1Ø	2#12+#12 GRD IN 1/2" CDT	FROM COND-1	INDOOR
COND-1	6.8	15	208V 1Ø	2#12+#12 GRD IN 1/2" CDT	P1-20,22	OUTDOOR
DSS-2	-	-	208V 1Ø	2#12+#12 GRD IN 1/2" CDT	FROM COND-2	INDOOR
COND-2	6.8	15	208V 1Ø	2#12+#12 GRD IN 1/2" CDT	P1-23,25	OUTDOOR
DSS-3	-	-	208V 1Ø	2#12+#12 GRD IN 1/2" CDT	FROM COND-3	INDOOR
COND-3	6.8	15	208V 1Ø	2#12+#12 GRD IN 1/2" CDT	P1-24,26	OUTDOOR

\*Professional Certification: I hereby certify that these documents were prepared and/or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No.: 28228, Expiration Date: 01/12/2025



DATE: 11/02/2023  
SCALE: AS NOTED  
DRAWN BY: MRB/JAL  
CHECKED BY: EPU/GWB  
DRAWING NO: E3  
IDC JOB NUMBER: 18-076

POWER PLANS, SCHEDULE AND NOTES  
NEW FIELD HOUSE AT STADIUM  
1686 Perryville Rd, Perryville, MD 21903

CECIL COUNTY PUBLIC SCHOOLS  
201 Booth St, Elkton, MD 21921

ARCHITECTS  
ENGINEERS  
PLANNERS  
SURVEYORS  
FREDERICK WARD ASSOCIATES  
410-838-7800  
www.frederickward.com  
P.O. Box 727, 5 South Main Street Bel Air Maryland 21014

REVISIONS	
REV#	DATE



[illegible]