RENOVATIONS TO

TACH Floyd Elementary

OWNER: **JAMES WERTH**
PO BOX 9
LAUREL FORK, VA 24352

FACILITY: **FLOYD ELEMENTARY SCHOOL**
531 OAK HILL DR
FLOYD, VA 24091

23 MAR 2026 - 100% CDs

LIST OF DRAWINGS

ORDER	DISCIPLINE	SHEET NUMBER	SHEET NAME
GENERAL			
1.0	**GENERAL**	G101	TITLE DRAWING
1.0	**GENERAL**	G102	GENERAL REQUIREMENTS
LIFE SAFETY			
1.5	**LIFE SAFETY**	LS101	LIFE SAFETY PLAN
ARCHITECTURE			
4.0	**ARCHITECTURE**	A110	FIRST FLOOR PLAN
4.0	**ARCHITECTURE**	A201	DOOR SCHEDULE
4.0	**ARCHITECTURE**	A202	SPECIALTY ITEMS
4.0	**ARCHITECTURE**	A901	LEGENDS AND ROOMS FINISHES
MECHANICAL			
5.0	**MECHANICAL**	M001	MECHANICAL COVER SHEET
5.0	**MECHANICAL**	M101	MECHANICAL PLANS
ELECTRICAL			
6.0	**ELECTRICAL**	E0.0	ELECTRICAL COVER SHEET
6.0	**ELECTRICAL**	E1.0	ELECTRICAL PLANS
6.0	**ELECTRICAL**	E2.0	ELECTRICAL DETAILS
PLUMBING			
7.0	**PLUMBING**	P001	PLUMBING COVER SHEET
7.0	**PLUMBING**	P101	PLUMBING PLANS
7.0	**PLUMBING**	P201	PLUMBING SECTIONS & RISER DIAGRAMS

1 VICINITY MAP
G101 1" = 300'-0"

CONTACT INFORMATION

ARCHITECTURAL
WM2A ARCHITECTS
408B N MAIN ST
HILLSVILLE VA 24343
478-745-4945
CONTACT: YANCEY POWERS

MECHANICAL
CES, INC
1111 S. MARSHALL STREET, SUITE 250
WINSTON SALEM, NC 27101
336-724-0139
CONTACT: DAVID GOODSON

PLUMBING
CES, INC
1111 S. MARSHALL STREET, SUITE 250
WINSTON SALEM, NC 27101
336-724-0139
CONTACT: DAVID GOODSON

ELECTRICAL
CES, INC
1111 S. MARSHALL STREET, SUITE 250
WINSTON SALEM, NC 27101
336-724-0139
CONTACT: DAVID GOODSON

WM2A ARCHITECTS
WM2A.COM
348 COTTON AVENUE
SUITE 500, PO BOX 110
MACON,GEORGIA 31201

Seal:
COMMONWEALTH OF VIRGINIA
YANCEY KYLE POWERS
Lic. No. 0401016094
3/10/26
ARCHITECT

RENOVATIONS TO
TACH Floyd Elementary
531 OAK HILL DR SW
FLOYD, VA 24091

REVISIONS
NO. DATE DESCRIPTION

PROJECT STATUS: 100% CDs
REVISION NO (IF ANY): REVISION DATE:
PROJECT NO: 2025-119
Issue Date: 23 MAR 2026
DRAWING NAME: TITLE DRAWING
DRAWING NO: **G101**

Plotted: 3/17/2026 3:27:16 PM

ABBREVIATIONS

ABBREV	TERM
A	
&, +	AND
@	AT
A/C	AIR CONDITIONING
A/V	AUDIO/VISUAL
AB	ANCHOR BOLT
ACC	ACCESSIBLE
ACOUST	ACOUSTICAL
ACT	ACOUSTIC CEILING TILE
AD	AREA DRAIN
ADJ	ADJACENT, ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AGGR	AGGREGATE
ALT	ALTERNATE
ALUM	ALUMINUM
ANOD	ANODIZED
APC	ACOUSTICAL PANEL CEILING
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ASPH	ASPHALT
ATTN	ATTENTION
AUTO	AUTOMATIC
B	
BCAB	BASE CABINET
BD	BOARD
BG	BUMPER GUARD
BIT	BITUMINOUS
BL	BED LOCATOR; BUILDING LINE
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BO	BOTTOM OF
BOT	BOTTOM
BRG	BEARING
BRK	BRICK
BRKT	BRACKET
BSMNT	BASEMENT
BUR	BUILT-UP ROOFING
C	
C	CHANNEL
C,C	CONTRACTOR-FURNISHED, CONTRACTOR-INSTALLED
CAB	CABINET
CAT	CATEGORY
CATV	CABLE TELEVISION
CB	CATCH BASIN, CEMENT BOARD
CBU	CEMENTITIOUS BACKER UNIT
CC	CENTER-TO-CENTER
CCTV	CLOSED-CIRCUIT TELEVISION
CEM	CEMENT
CER	CERAMIC
CG	CORNER GUARD
CH	CHILLER
CI	CAST IRON
CIP	CAST-IN-PLACE
CJ	CONTROL JOINT, CONSTRUCTION JOINT
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CNTR	CENTER, COUNTER
CO	CASED OPENING; CLEANOUT
COL	COLUMN
CONC	CONCRETE
COND	CONDITION
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
CORR	CORRIDOR
CPT	CARPET
CR	CRASH RAIL
CSS	CLINICAL SERVICE SINK
CT	CERAMIC TILE
CTR	CENTER
CTSK	COUNTERSUNK
CW	COLD WATER; CURTAIN WALL
D	
D	DEEP, DEPTH
DBL	DOUBLE
DEG	DEGREE
DEMO	DEMOLISH; DEMOLITION
DEPT	DEPARTMENT
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIFF	DIFFUSER
DIM	DIMENSION
DIMS	DIMENSIONS
DISP	DISPENSER
DIV	DIVISION
DMPF	DAMP PROOFING
DN	DOWN
DO	DOOR OPENING
DR	DOOR
DRN	DRAIN
DS	DOWNSPOUT
DTL	DETAIL
DW	DISHWASHER
DWG	DRAWING
DWMS	DRYWALL METAL STUD (DIV 9)
DWR	DRAWER
E	
E	EAST
EA	EACH
EB	EXPANSION BOLT
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR, ELEVATION
EMER	EMERGENCY
ENCL	ENCLOSURE
ENGR	ENGINEER
EP	ELECTRICAL PANEL
EPDM	ETHYLENE PROPYLENE DIENE M-CLASS (ROOFING)
EQ	EQUAL
EQUIP	EQUIPMENT
EVS	ENVIRONMENTAL SERVICES
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
F	
FA	FIRE ALARM
FB	FACE BRICK
FD	FLOOR DRAIN; FIRE DEPARTMENT
FDC	FIRE DEPARTMENT CONNECTION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF&E	FURNITURE, FIXTURES AND EQUIPMENT
FFB	FLUSH FLOOR BOX
FFE	FINISH FLOOR ELEVATION
FH	FLAT HEAD, FIRE HYDRANT
FHC	FIRE HOSE CABINET
FIN	FINISH
FIXT	FIXTURE
FLASH	FLASHING
FLR	FLOOR
FLUOR	FLUORESCENT
FND	FOUNDATION
FO	FACE OF
FP	FIRE PROTECTION
FPG	FIREPROOFING
FR	FIRE RESISTANT
FRC	FIBER REINFORCED CONCRETE
FRP	FIBER REINFORCED PANEL
FRT	FIRE RETARDANT TREATED
FT	FEET; FOOT
FTG	FOOTING
FURN	FURNITURE
FURR	FURRING
FWC	FABRIC WALL COVERING
FWP	FABRIC WRAPPED PANEL
G	
GA	GAUGE
GALV	GALVANIZED
GB	GRAB BAR
GB, GWB	GYPSUM (WALL) BOARD
GC	GENERAL CONTRACT(OR)
GEN	GENERAL
GFRC	GLASS FIBER REINFORCED CONCRETE
GL	GLASS
GLAZ	GLAZING
GRAN	GRANULAR
GRD	GROUND
GRFG	GLASS FIBER REINFORCED GYPSUM
GSM	GALVANIZED SHEET METAL
GV	GAS VALVE
GYP	GYPSUM
H	
H, HT	HIGH; HEIGHT
HB	HOSE BIB
HC	ACCESSIBLE
HDWD	HARDWOOD
HDWR	HARDWARE
HGT	HEIGHT
HM	HOLLOW METAL
HNDRL	HANDRAIL
HO	HOLD OPEN
HORIZ	HORIZONTAL
HR	HOUR
HSKNG	HOUSEKEEPING
HSS	HOLLOW STRUCTURAL SECTION
HTG	HEATING
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
HW	HOT WATER; HAND WASH
I	
ID	INSIDE DIAMETER
IN	INCH; INCHES
INCAND	INCANDESCENT
INCL	INCLUDED; INCLUDING
INFO	INFORMATION
INSUL	INSULATED; INSULATION
INT	INTERIOR
INV	INVERT
J	
JAN	JANITOR
JC	JANITOR'S CLOSET
JST	JOIST
JT	JOINT
K	
K	KIP (1000 POUNDS)
KD	KNOCK DOWN
KIT	KITCHEN
KO	KNOCK OUT
KP	KICK PLATE
KSF	KIPS PER SQUARE FOOT
L	
LAM	LAMINATE
LAV	LAVATORY
LB	POUNDS
LGMS	LIGHT GAUGE METAL STUD (DIV 5)
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LT	LIGHT
LVT	LUXURY VINYL TILE
M	
MAS	MASONRY
MAX	MAXIMUM
MB	MODIFIED BITUMEN (ROOFING)
MECH	MECHANICAL
MED	MEDIUM
MEMB	MEMBRANE
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MR	MOISTURE RESISTANT
MTD	MOUNTED
MTG	MOUNTING
MTL	METAL
MULL	MULLION
N	
N	NOTE
N/A	NOT APPLICABLE
NC	NOISE CRITERIA
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NR	NOT (FIRE) RATED
NTS	NOT TO SCALE
O	
O,C	OWNER-FURNISHED, CONTRACTOR-INSTALLED
O,O	OWNER-FURNISHED, OWNER-INSTALLED
O/C	ON CENTER
OA	OUTSIDE AIR
OD	OUTSIDE DIAMETER; OVERFLOW DRAIN
OFF	OFFICE
OH	OVERHEAD, OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
ORD	OVERFLOW ROOF DRAIN
P	
P	PAINT
PAV	PAVING
PB	PARTICLE BOARD
PC	PRECAST
PDF	POWER DRIVEN FASTENER
PEMB	PRE-ENGINEERED METAL BUILDING
PERF	PERFORATED
PERIM	PERIMETER
PERP	PERPENDICULAR
PL	PLATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PLBG	PLUMBING
PLF	POUNDS PER LINEAL FOOT
PLYWD	PLYWOOD
PNL	PANEL
PNT	PAINT; PAINTED
POL	POLISHED
PR	PAIR
PREFAB	PREFABRICATED
PROJ	PROJECT
PSF	POUNDS PER SQUARE FOOT
PT	POINT; PRESSURE-TREATED
PTD	PAINTED
PTN	PARTITION
PVC	POLYVINYL CHLORIDE
Q	
QT	QUARRY TILE
QTY	QUANTITY
R	
R	RADIUS; RISER
RA	RETURN AIR
RAD	RADIUS
RB	RESILIENT BASE
RBR	RUBBER
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REC	RECESSED
RECPT	RECEPTACLE
REF	REFERENCE, REFRIGERATOR
REG	REGISTER
REINF	REINFORCED; REINFORCING
REL	RELOCATE
REM	REMOVABLE
REQ	REQUIRE; REQUIRED
REQD	REQUIRED
RESIL	RESILIENT
REV	REVISION; REVISED
RM	ROOM
RO	ROUGH OPENING
RTD	RATED
RTG	RATING
RTU	ROOF TOP UNIT
S	
S	SOUTH
SA	SUPPLY AIR
SAF	SELF-ADHERED FLASHING
SCHED	SCHEDULE
SCW	SOLID CORE WOOD
SD	STORM DRAIN
SECT	SECTION
SF	SQUARE FEET; SQUARE FOOT
SH	SPRINKLER HEAD
SHR	SHOWER
SHT	SHEET
SIM	SIMILAR
SM	SHEET METAL; SURFACE-MOUNTED
SP	STANDPIPE
SPEC	SPECIFICATION; SPECIFIED
SPK	SPRINKLER OR SPEAKER
SPKR	SPEAKER
SQ	SQUARE
SS	STAINLESS STEEL
SSK	SERVICE SINK
STA	STATION
STC	SOUND TRANSMISSION COEFFICIENT
STL	STEEL
STOR	STORAGE
STRG	STRINGER
STRUCT	STRUCTURE; STRUCTURAL
SUBCAT	SUBCATEGORY
SUSP	SUSPENDED
SYM	SYMMETRICAL
SYS	SYSTEM
T	
T	TREAD
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TB	TOWEL BAR
TCAB	TALL CABINET
TEL	TELEPHONE; TELECOM
TELE	TELEPHONE
TEMP	TEMPERATURE; TEMPORARY
TEMP	TEMPORARY
THK	THICKNESS
THRU	THROUGH
TKBD	TACK BOARD
TLT	TOILET
TMPD	TEMPERED
TO	TOP OF
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL
TV	TELEVISION
TYP	TYPICAL
U	
UNFIN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED
URNL	URINAL
V	
VAR	VARIES
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
VP	VISION PANEL
VR	VAPOR RETARDER
VWC	VINYL WALL COVERING
W	
W	WIDE; WEST
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WCAB	WALL CABINET
WD	WOOD
WIN	WINDOW
WP	WATERPROOF; WATERPROOFING
WPM	WATERPROOF MEMBRANE
WS	WEATHER-STRIPPING
WSCT	WAINSCOT
WT	WEIGHT
WV	WATER VALVE
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH

Plotted: 3/17/2026 3:27:38 PM

SYMBOL LEGEND
1 1/2" = 1'-0"

Space Name
1 | 1 | 1
F1 - B1 - W1
- SPACE NAME
- SPACE NUMBER
- FLOOR FINISH - BASE FINISH - WALL FINISH*.
- AT LIGHT GREEN BACKGROUND, PROVIDE SOUND ATTENUATION BATTS AT PERIMETER PARTITIONS. FILL FULL HEIGHT OF EACH PARTITION.
- CEILING TYPE.
- CEILING HEIGHT ABOVE FINISHED FLOOR.
- 4" / 4" — DOT DENOTES FACE OF FINISH. SLASH DENOTES FACE OF STUD/FACE OF CMU.
- 121.3 (2'-0" / 2'-0") WING - HWS - HW - WS — OPENING NO. NOMINAL OPENING - WIDTH X HEIGHT. DOOR TYPE - FRAME TYPE - HW SET - FIRE RATING
- Ref 1 A101 1 Ref 1 — SHEET NUMBER; ELEVATION NUMBER (DENOTES EXTERIOR ELEVATION.)
- Ref 1 1 A101 1 1 — SHEET NUMBER; ELEVATION NUMBER (DENOTES INTERIOR ELEVATION.)
- Elevation Name — ELEVATION; NAME OF LEVEL
- 1 A101 SIM — BUILDING SECTION NUMBER; SHEET NUMBER
- 1 A101 SIM — WALL SECTION NUMBER; SHEET NUMBER
- 1 A101 SIM — DETAIL SECTION NUMBER; SHEET NUMBER
- 1 A101 — CALLOUT NUMBER; SHEET NUMBER
- 1 — REVISION NUMBER
- REVISION CLOUD

*AT SPACE INDICATOR, FINISHES PROVIDE A SHORTHAND VIEW. CONSULT FINISH SCHEDULE FOR COMPLETE ROOM FINISH REQUIREMENTS.

SOUND ATTENUATION LEGEND
1 1/2" = 1'-0"

WALL TYPE	DESCRIPTION	MAX WALL HEIGHT - 20 GA
G1A0	162S125-33 @ 16" SPACING AND L/240 DEFLECTION	9'-8"
G2A0	250S125-33 @ 16" SPACING AND L/240 DEFLECTION	12'-10"
G3A0	362S125-33 @ 16" SPACING AND L/240 DEFLECTION	16'-5"
G4A0	400S125-33 @ 16" SPACING AND L/240 DEFLECTION	18'-4"
G6A0	600S125-33 @ 16" SPACING AND L/240 DEFLECTION	24'-6"

1. TABLE ABOVE ASSUMES ONE LAYER OF GYPSUM WALLBOARD ON EACH SIDE OF STUDS. CONFIRM ALLOWABLE WALL HEIGHT IN OTHER WALL CONFIGURATIONS.
2. PROVIDE 20 GA STUDS (0.329-INCH), MINIMUM, AT ALL DRYWALL METAL STUD CONSTRUCTION.
3. TABLE ABOVE ASSUMES NON-LOAD-BEARING PARTITIONS.
4. SPECIALTY STUDS, SUCH AS "ProSTUD 20" by CLARK DIETRICH AND "SUPREME" by SCAFCO MAY BE USED IF THE PERFORMANCE OF THE ENTIRE STUD SYSTEM EXCEEDS OR MATCHES THE PERFORMANCE OF THE STANDARD STUD DESIGNATIONS INDICATED ABOVE.

DRYWALL METAL STUD FRAMING
1 1/2" = 1'-0"

1. PROVIDE FILLER PANELS TO FINISH OUT AND/OR SCRIBE CABINETS TO WALL.
2. WHEN FILLER PANELS ARE REQ'D AT BOTH SIDES OF A CASEWORK TERMINATION, SET CASEWORK IN CENTER OF OPNG AND PROVIDE EQUAL WIDTH FILLER PANELS.
3. PROVIDE FINISHED END PANELS AND RETURNS AT OPEN-ENDED CABINETS, AT KNEE SPACES, AND AT BELOW-COUNTER RETURNS AT ACCESSIBLE SINKS.
4. PROVIDE CONTINUOUS BACKSPLASH AT ALL COUNTERTOPS. INCLUDE END SPLASHES WHERE COUNTERTOP INTERSECTS WALL. (UNO)
5. INSTALL GROMMETS IN COUNTERTOPS AT KNEE SPACES AND WHERE INDICATED. (OWNER TO CONFIRM LOCATIONS ON SITE PRIOR TO INSTALLATION.)
6. PROVIDE ADJUSTABLE SHELVING WITHIN CABINETS UNO.
7. PROVIDE TWO LAYERS 3/4-INCH PLYWD SUPPORT AT COUNTERTOP ICE MACHINE LOCATIONS. CONFIRM COUNTERTOP DEPTH WITH ICE MAKER PROVIDED.
8. CABINET HARDWARE ITEMS INDICATED ARE REPRESENTATIVE. PROVIDE SPECIFIED HARDWARE IN CASE OF DISCREPANCY.
9. PLUMBING ITEMS INDICATED ARE REPRESENTATIVE. PROVIDE SPECIFIED PLUMBING ITEMS.
10. PROVIDE DRYWALL BULKHEADS WITH 1-INCH PROJECTION FROM FACE OF CASEWORK AT UPPER CABINETS AND AT FULL-HGT CASEWORK UNO.
11. PROVIDE COUNTERTOP BRACKET SUPPORTS AT 36-INCHES O/C MAX TO SUPPORT COUNTERTOPS WHERE COUNTERTOP SPAN EXCEEDS 36-INCHES.
12. PROVIDE PLAM-1 AT ALL EXPOSED VERTICAL CASEWORK FACES UNO.
13. WHERE STEEL COUNTERTOP SUPPORTS ARE REQUIRED, PROVIDE RAKKS FLUSH-MOUNT MODELS EH1212, EH1818, AND EH1824. SCREW SUPPORTS TO METAL STUDS INSIDE THE WALL; THEN COVER WITH GYPSUM WALLBOARD.

GENERAL NOTES - CASEWORK
1/2" = 1'-0"

GENERAL NOTES - DEMOLITION
3/8" = 1'-0"

A. DEMOLITION PLAN(S) ARE NOT ALL INCLUSIVE. ADDITIONAL DEMOLITION MAY BE REQUIRED TO ALLOW INSTALLATION OF NEW WORK. SEE CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION REQUIREMENTS. IN AREAS OR ROOMS WHERE ARCHITECTURAL DEMOLITION IS NOT INDICATED AND MECH/ELEC/ PLUMBING WORK IS REQUIRED, REMOVE EXISTING CONSTRUCTION AS NEEDED TO ALLOW INSTALLATION OF THE MECH/ELEC/PLUMBING WORK REQUIRED. RESTORE AREA TO ORIGINAL CONDITION UPON COMPLETION OF MECH/ELEC/PLUMBING WORK.
B. DURING TIME OF DEMOLITION, PROTECT ALL EXISTING CONSTRUCTION TO REMAIN. REPAIR ANY DAMAGE PROMPTLY AND RESTORE THE CONSTRUCTION TO ORIGINAL CONDITION.
C. WHEREVER NEW FINISH IS INDICATED, DEMOLISH EXISTING FINISH PRIOR TO INSTALLATION OF NEW FINISH. WHEN NEW PAINT OR OTHER COATING IS INDICATED, IT IS PERMISSABLE TO LEAVE EXISTING COATING IN PLACE PROVIDED THAT THE REQUIRED SURFACE PREPARATION IS PERFORMED.
D. VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING DEMOLITION OPERATIONS. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES BEFORE PROCEEDING.
E. AS DEMOLITION WORK PROCEEDS, NOTIFY ARCHITECT OF ANY NEWLY-EXPOSED STRUCTURAL COMPONENTS THAT APPEAR TO NEED REPAIR OR REPLACMENT. ALLOW ARCHITECT AND/OR STRUCTURAL ENGINEER TO EXAMINE COMPONENTS PRIOR TO PROCEEDING WITH DEMOLITION. REPAIR/REPLACE STRUCTURAL ITEMS AS DIRECTED BY ARCHITECT PRIOR TO RESUMING DEMOLITION WORK.
F. EXECUTE DEMOLITION WORK IN A CAREFUL AND ORDERLY MANNER. MINIMIZE PRODUCTION OF NOISE, DUST, AND OTHER DISTURBANCE TO THE OWNER.
G. MAINTAIN ALL EXISTING SMOKE AND FIRE PROTECTION SYSTEMS AT ALL TIMES DURING DEMOLITION.
H. KEEP ALL EXISTING ACCESS/EGRESS PATHS FREE AND CLEAR OF DEBRIS AT ALL TIMES.
I. OWNER IS RESPONSIBLE FOR REMOVING ANY FURNITURE PRIOR TO COMMENCEMENT OF CONSTRUCTION UNO.
J. REMOVE ALL LANDSCAPING AS NECESSARY FOR CONSTRUCTION. VERIFY WITH ARCHITECT AND/OR OWNER WHETHER RELOCATION OF PLANTS IS REQUIRED. REMOVE PLANTING TO BE RELOCATED CAREFULLY; MAINTAIN ROOT SYSTEM TO EXTENT POSSIBLE.

G3A0

WALL TYPES
- C CMU (MAY HAVE FURRING)
- G GYPSUM BOARD WITH METAL STUDS
- S SHAFTWALL
- W GYPSUM BOARD WITH WOOD STUDS

STUD/CMU WIDTH

#	CMU	METAL	WOOD
0		0 7/8"	
1		1 5/8"	1x FLAT
2		2 1/2"	
3		3 5/8"	2x3
4	3 5/8"	4"	2x4
6	5 5/8"	6"	2x6
8	7 5/8"	8"	2x8
9	11 5/8"		

WALL TYPE MODIFIER
- A. 5/8" GYP BD (TYPE X) EA SIDE.
- B. NOT USED.
- C. TWO LAYERS 5/8" GYP BD (TYPE X) EA SIDE.
- D. 1" GYP BD SHAFT SIDE; TWO LAYERS 5/8" GYP BD (TYPE X) ON ROOM SIDE.
- E. 5/8" GYP BD (TYPE X) - EXPOSED SIDE ONLY.
- F. NO SHEATHING ON CMU.
- G. 5/8" GYP BD (TYPE X) ON 7/8" HAT CHNL - EACH SIDE OF CMU.
- H. 5/8" GYP BD (TYPE X) ON 7/8" HAT CHNL - EXPOSED SIDE OF CMU.

FIRE RATING OR PARTITION HEIGHT
- 0 NON-RATED; EXTEND FINISH 6-INCHES ABOVE CEILING.
- F NON-RATED; FULL HEIGHT TO STRUCTURE.
- S NON-RATED SMOKE PARTITION
- B 1 HOUR RATED FIRE/SMOKE BARRIER
- C 2 HOUR RATED FIRE/SMOKE BARRIER
- 1 1 HOUR RATED FIRE PARTITION
- 2 2 HOUR RATED FIRE BARRIER
- H EXTEND CMU TO NEXT FULL COURSE ABOVE CEILING (4-INCH MINIMUM ABOVE CEILING).
- X SEE BLDG SECTION/ELEVATION FOR HEIGHT.

PARTITION TYPE LEGEND
1 1/2" = 1'-0"

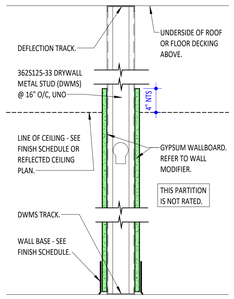
SYMBOL DESIGNATION
FOR WALL TYPES INDICATED TO RECEIVE SOUND ATTENUATION, EXTEND SOUND ATTENUATION TO FULL HEIGHT OF WALL UNLESS OTHERWISE INDICATED. REFER TO INDIVIDUAL WALL TYPE MODIFIER FOR STC RATINGS.

WITH SOUND ATTENUATION	NO SOUND ATTENUATION
X#X#	X#X#

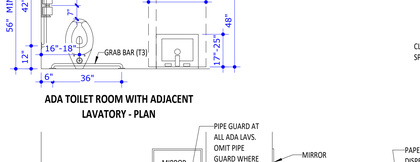
WALL HATCH PATTERN LEGEND
- NON-RATED METAL STUD PARTITION
- NON RATED MASONRY

Wall Hatch Pattern Legend
1 1/2" = 1'-0"

2 ATTACHMENT AT GRAB BARS
G102 | 3"=1'-0"

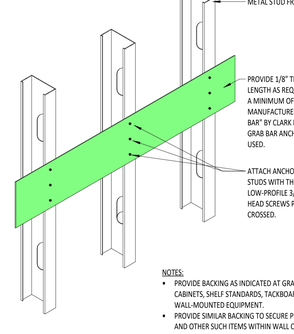


3 RECESSED CABINET IN NON-RATED/1-HR PARTITION
G102 | 1 1/2" = 1'-0"



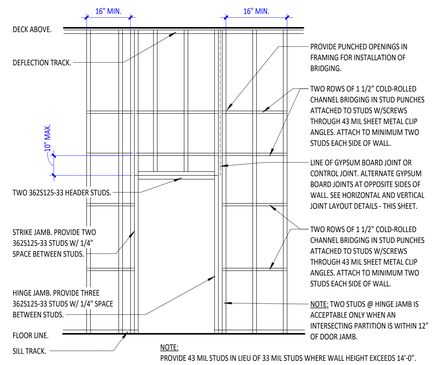
4 SEMI-RECESSED CABINET IN NON-RATED/1-HR PARTITION
G102 | 1 1/2" = 1'-0"

5 BULKHEAD AT CASEWORK
G102 | 1 1/2" = 1'-0"



NOTE:
TAPE AND FINISH JOINTS PER REQUIREMENTS OF RATED WALL ASSEMBLIES WHERE RATED WALLS OCCUR.
FULLY SEAL ALL PENETRATIONS IN PARTITIONS, INCLUDING BACK FURRING AND/OR WALL CABINET.

1 STUD FRAMING AT DOORS/WINDOWS
G102 | 1 1/2" = 1'-0"



NOTE:
PROVIDE 43 MIL STUDS IN LIEU OF 33 MIL STUDS WHERE WALL HEIGHT EXCEEDS 14'-0".

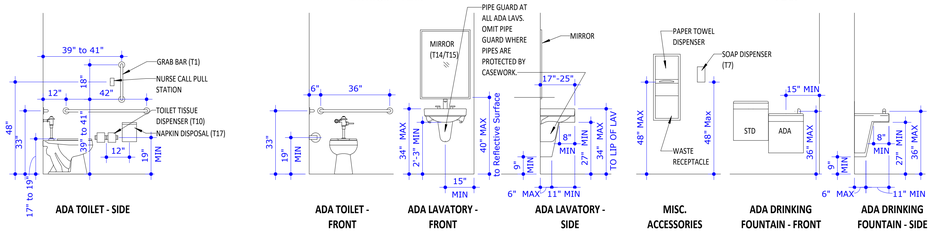
NOTES:
- PROVIDE BACKING AS INDICATED AT GRAB BARS, HANDRAILS, CABINETS, SHELF STANDARDS, TACKBOARDS, AND OTHER WALL-MOUNTED EQUIPMENT.
- PROVIDE SIMILAR BACKING TO SECURE PLUMBING PIPING AND OTHER SUCH ITEMS WITHIN WALL CAVITIES.

7 PARTITION BACKING SUPPORT
G102 | 1 1/2" = 1'-0"

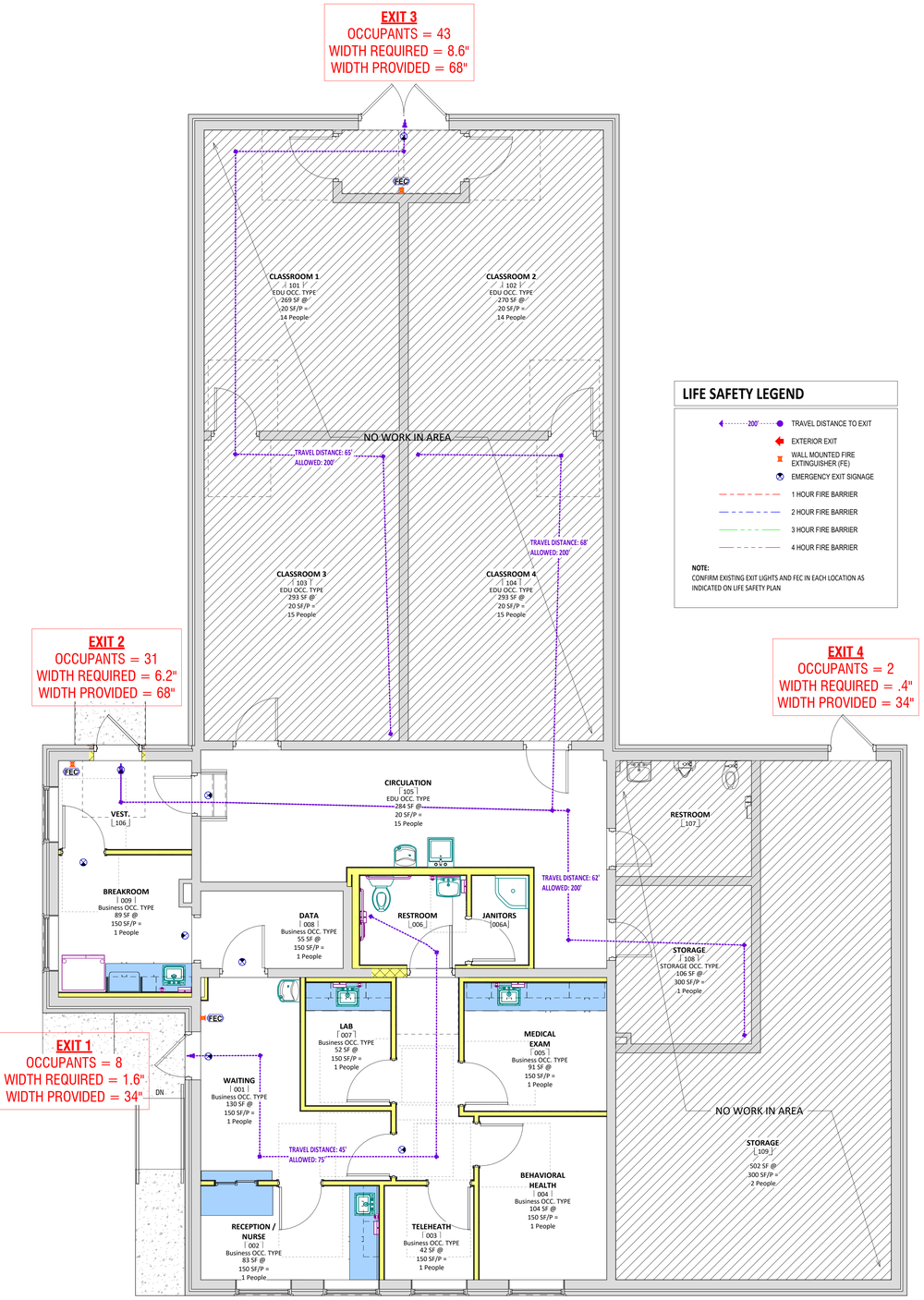
FIXTURE AND ACCESSORY MOUNTING NOTES:
1. INSTALL ACCESSORIES AT MOUNTING HEIGHTS INDICATED UNO.
2. PROVIDE PARTITION BLOCKING FOR WALL-MOUNTED ITEMS, SUCH AS GRAB BARS. (SEE PARTITION BLOCKING DETAIL.)
3. PROVIDE INDICATED CLEAR FLOOR SPACE FOR ALL FIXTURES AND ACCESSORIES.
4. WHERE ACCESSORIES ARE INDICATED TO BE INSTALLED ON OR WITHIN TOILET PARTITIONS, COORDINATE REQUIRED FASTENING REINFORCMENTS, CUTOUTS, AND OTHER REQUIRED ACCOMMODATIONS WITH THE FABRICATION AND INSTALLATION OF THE TOILET PARTITION SYSTEM.
5. PROVIDE/INSTALL FLUSH VALVE CONTROLS THAT ARE ACCESSIBLE FROM INTERIOR OF ROOM UNO.

6 METAL STUD PARTITIONS
G102 | 1 1/2" = 1'-0"

ADA Accessible Fixtures
3/8" = 1'-0"



WM2A ARCHITECTS
WM2A.COM
348



LIFE SAFETY LEGEND

- 200' — TRAVEL DISTANCE TO EXIT
- EXTERIOR EXIT
- WALL MOUNTED FIRE EXTINGUISHER (FE)
- EMERGENCY EXIT SIGNAGE
- 1 HOUR FIRE BARRIER
- 2 HOUR FIRE BARRIER
- 3 HOUR FIRE BARRIER
- 4 HOUR FIRE BARRIER

NOTE:
CONFIRM EXISTING EXIT LIGHTS AND FEC IN EACH LOCATION AS INDICATED ON LIFE SAFETY PLAN

1 | LIFE SAFETY PLAN
LS101 1/4" = 1'-0"

Plotted: 1/17/2026 1:27:49 PM

2021 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)
(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: TACH - Floyd Elementary School
Address: 531 Oak Hill DR, FLoyd Va — Zip Code 24091
Owner/Authorized Agent: James Werth — Phone # (276) 398 - 2292 — E-Mail JWerth@triarea.org
Owned By: ☐ City/County ☑ Private ☐ State
Code Enforcement Jurisdiction: ☐ City_____ ☑ County Floyd ☐ State

CONTACT:

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	WM2A Architects	Yancey Powers	0401016094	(478) 475-4945	yanceypowers@wm2a.com
Civil				( )	
Electrical	CES, INC	David Goodson	11059277	(336) 724-0139	David@coseng.net
Fire Alarm				( )	
Plumbing	CES, INC	David Goodson	11059277	(336) 724-0139	David@coseng.net
Mechanical	CES, INC	David Goodson	11059277	(336) 724-0139	David@coseng.net
Sprinkler-Standpipe				( )	
Structural				( )	
Retaining Walls >5' High				( )	
Other				( )	

("Other" should include firms and individuals such as truss, precast, pre-engineered, interior designers, etc.)

2021 VA BUILDING CODE: ☐ New Building ☐ Addition ☐ Renovation
☐ 1st Time Interior Completion
☐ Shell/Core - Contact the local inspection jurisdiction for possible additional procedures and requirements
☐ Phased Construction - Shell/Core- Contact the local inspection jurisdiction for possible additional procedures and requirements

2021 VA EXISTING BUILDING CODE: EXISTING: ☐ Prescriptive ☐ Repair ☐ Chapter 14
Alteration: ☐ Level I ☑ Level II ☐ Level III
☐ Historic Property ☑ Change of Use

CONSTRUCTED: (date) _____ **CURRENT OCCUPANCY(S)** (Ch. 3): Education
RENOVATED: (date) _____ **PROPOSED OCCUPANCY(S)** (Ch. 3): Education / Business/ S-1

RISK CATEGORY (Table 1604.5): **Current:** ☐ I ☑ II ☐ III ☐ IV
Proposed: ☐ I ☑ II ☐ III ☐ IV

BASIC BUILDING DATA
Construction Type: ☐ I-A ☐ II-A ☐ III-A ☐ IV ☐ V-A
(check all that apply) ☐ I-B ☐ II-B ☐ III-B ☑ V-B
Sprinklers: ☑ No ☐ Partial ☐ Yes ☐ NFPA 13 ☐ NFPA 13R ☐ NFPA 13D
Standpipes: ☑ No ☐ Yes Class ☐ I ☐ II ☐ III ☐ Wet ☐ Dry
Fire District: ☑ No ☐ Yes **Flood Hazard Area:** ☑ No ☐ Yes
Special Inspections Required: ☑ No ☐ Yes (Contact the local inspection jurisdiction for additional procedures and requirements.)

Gross Building Area Table

Floor	Existing (sq ft)	New (sq ft)	Sub-Total
3rd Floor			
2nd Floor			
Mezzanine			
1st Floor	3,523		
Basement			
TOTAL	3,523		

ALLOWABLE AREA

Primary Occupancy Classification(s):
Assembly ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5
Business ☑
Educational ☑
Factory ☐ F-1 Moderate ☐ F-2 Low
Hazardous ☐ H-1 Detonate ☐ H-2 Deflagrate ☐ H-3 Combust ☐ H-4 Health ☐ H-5 HPM
Institutional ☐ I-1 Condition ☐ 1 ☐ 2
☐ I-2 Condition ☐ 1 ☐ 2
☐ I-3 Condition ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
☐ I-4
Mercantile ☐
Residential ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4
Storage ☑ S-1 Moderate ☐ S-2 Low ☐ High-piled
☐ Parking Garage ☐ Open ☐ Enclosed ☐ Repair Garage
Utility and Miscellaneous ☐

Accessory Occupancy Classification(s): _____
Incidental Uses (Table 509): _____
Special Uses (Chapter 4 – List Code Sections): _____
Special Provisions: (Chapter 5 – List Code Sections): _____
Mixed Occupancy: ☐ No ☑ Yes Separation: _____ Hr. Exception: _____

☑ Non-Separated Use (508.3) - The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.

☐ Separated Use (508.4) - See below for area calculations for each story. the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1$$

_____ + _____ + ... = _____ ≤ 1.00

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2[4] AREA	(C) AREA FOR FRONTAGE INCREASE[1,3]	(D) ALLOWABLE AREA PER STORY OR UNLIMITED[2,3]
1	Education	1968	9500		
1	Business	962	9000		
1	S-1	593	9000		

[1] Frontage area increases from Section 506.3 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = _____ (F)
b. Total Building Perimeter = _____ (P)
c. Ratio (F/P) = _____ (F/P)
d. W = Minimum width of public way = _____ (W)
e. Percent of frontage increase I_f = 100[F/P – 0.25] x W/30 = _____ (%)
[2] Unlimited area applicable under conditions of Section 507.
[3] Maximum Building Area = total number of stories in the building x D (maximum3 stories) (506.2).
[4] The maximum area of open parking garages must comply with Table 406.5.4.
[5] Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE [1]
Building Height in Feet (Table 504.3) [2]	40'	10'	
Building Height in Stories (Table 504.4) [3]	1	1	

[1] Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.
[2] The maximum height of air traffic control towers must comply with Table 412.3.1.
[3] The maximum height of open parking garages must comply with Table 406.5.4.

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

USE		WATER CLOSETS MALE	WATER CLOSETS FEMALE	WATER CLOSETS UNISEX	URINALS	LAVATORIES MALE	LAVATORIES FEMALE	LAVATORIES UNISEX	SHOWERS /TUBS	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBLE
SPACE	EXIST'G			1	1			1			1
	NEW			1				1			1
	REQ'D			2				2			1
PROVIDED				2	1			2			2

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)

_____

_____

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (W/ " " REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame, including columns, girders, trusses		0	0				
Bearing Walls		0	0				
Exterior		0	0				
North		0	0				
East		0	0				
West		0	0				
South		0	0				
Interior		0	0				
Nonbearing Walls and Partitions							
Exterior walls							
North		0	0				
East		0	0				
West		0	0				
South		0	0				
Interior walls and partitions		0	0				
Floor Construction including supporting beams and joists							
Floor Ceiling Assembly		0	0				
Columns Supporting Floors		0	0				
Roof Construction, including supporting beams and joists							
Roof Ceiling Assembly		0	0				
Columns Supporting Roof		0	0				
Shaft Enclosures - Exit		0	0				
Shaft Enclosures - Other		0	0				
Corridor Separation		0	0				
Occupancy/Fire Barrier Separation		0	0				
Party/Fire Wall Separation		0	0				
Smoke Barrier Separation		0	0				
Smoke Partition		0	0				
Tenant/Dwelling Unit/ Sleeping Unit Separation		0	0				
Incidental Use Separation		0	0				

* Indicate section number permitting reduction

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
ETR	NP	N/A	

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: ☐ No ☑ Yes
Exit Signs: ☐ No ☑ Yes
Fire Alarm: ☑ No ☐ Yes
Smoke Detection Systems: ☑ No ☐ Yes ☐ Partial _____
Carbon Monoxide Detection: ☑ No ☐ Yes

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: LS101

☑ Fire and/or smoke rated wall locations (Chapter 7)
☐ Assumed and real property line locations (if not on the site plan)
☐ Exterior wall opening area with respect to distance to assumed property lines (705.8)
☑ Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)
☑ Occupant loads for each area
☑ Exit sign locations (1013)
☑ Exit access travel distances (1017)
☑ Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))
☑ Dead end lengths (1020.4)
☑ Clear exit widths for each exit door
☑ Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
☑ Actual occupant load for each exit door
☐ A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
☐ Location of doors with panic hardware (1010.1.10)
☐ Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
☐ Location of doors with electromagnetic egress locks (1010.1.9.9)
☐ Location of doors equipped with hold-open devices
☐ Location of emergency escape windows (1030)
☐ The square footage of each fire area (202)
☐ The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
☐ Note any code exceptions or table notes that may have been utilized regarding the items above

ENERGY SUMMARY

ENERGY REQUIREMENTS:
The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code: ☐ No ☑ Yes (The remainder of this section is not applicable)

Exempt Building: ☐ No ☐ Yes (Provide code or statutory reference): _____

Climate Zone: ☐ 3A ☐ 4A ☐ 5A

Method of Compliance: Energy Code ☐ Performance ☐ Prescriptive
ASHRAE 90.1 ☐ Performance ☐ Prescriptive
(If "Other" specify source here)_____

THERMAL ENVELOPE (Prescriptive method only)

Roof/ceiling Assembly (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Skylights in each assembly: _____
U-Value of skylight: _____
total square footage of skylights in each assembly: _____

Exterior Walls (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Openings (windows or doors with glazing)
U-Value of assembly: _____
Solar heat gain coefficient: _____
projection factor: _____
Door R-Values: _____

Walls below grade (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____

Floors over unconditioned space (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____

Floors slab on grade
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Horizontal/vertical requirement: _____
slab heated: _____

WM2A ARCHITECTS
WM2A.COM
348 COTTON AVENUE
SUITE 500, PO BOX 110
MACON,GEORGIA 31201

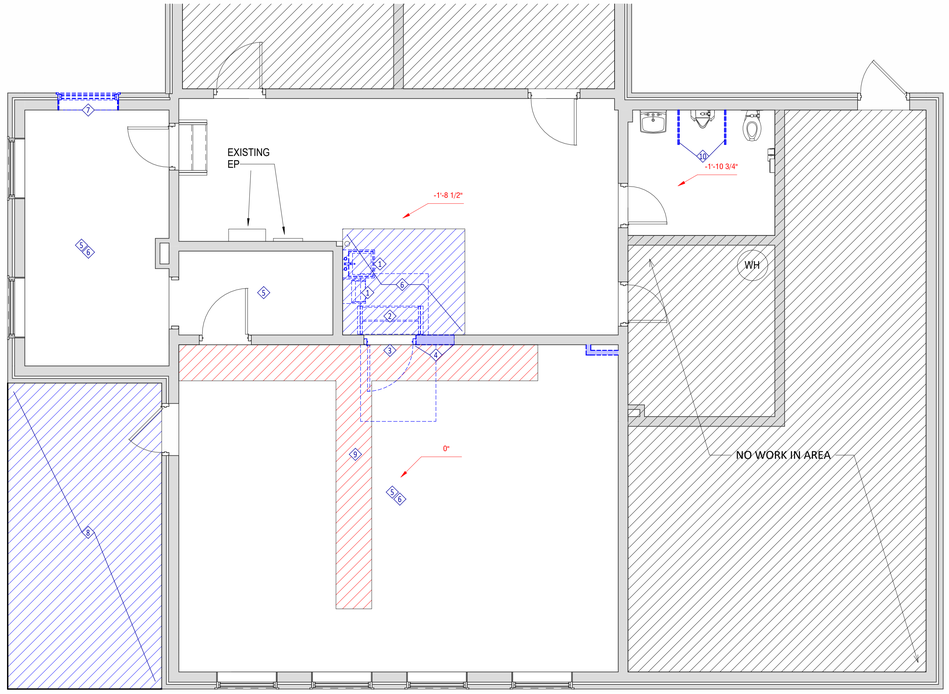
Seal:
COMMONWEALTH OF VIRGINIA
YANCEY KYLE POWERS
Lic. No. 0401016094
9/19/24
ARCHITECT

RENOVATIONS TO
TACH Floyd Elementary
531 OAK HILL DR SW
FLOYD, VA 24091

REVISIONS
NO. DATE DESCRIPTION

PROJECT STATUS:
100% CDs
REVISION NO (IF ANY): REVISION DATE:

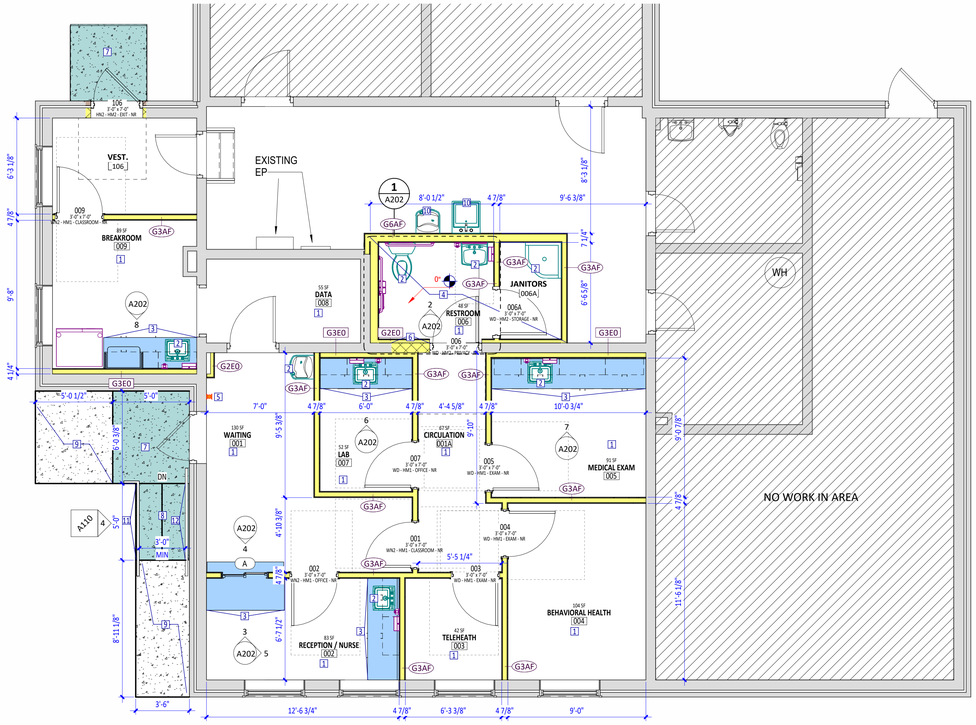
PROJECT NO: 2025-119
Issue Date: 23 MAR 2026
DRAWING NAME:
LIFE SAFETY PLAN
DRAWING NO:
LS101



1 | LEVEL 1 DEMO PLAN
A110 | 1/4" = 1'-0"

KEYNOTES - DEMOLITION

Keynote Number	Description
1	SALVAGE EXISTING PLUMBING FIXTURE. TO BE REINSTALLED
2	DEMO EXISTING STAIRS
3	DEMO EXISTING DOOR AND FRAME AND INFILL WALL TO MATCH EXISTING CONSTRUCTION
4	DEMO EXISTING WALL AND PREPARE FOR NEW OPENING
5	DEMO EXISTING FLOORING AND PREPARE FOR NEW
6	DEMO EXISTING CEILING AND PREPARE FOR NEW
7	DEMO EXISTING WALL AND WINDOW. PREPARE FOR NEW DOOR OPENING
8	DEMO EXISTING CONCRETE
9	SAW CUT SLAB AS NEEDED TO INSTAL PLUMBING FOR NEW LAYOUT. REF PLUMBING
10	DEMO PARTITIONS TO CREATE SINGLE USE RESTROOM



2 | LEVEL 1 NEW WORK PLAN
A110 | 1/4" = 1'-0"

KEYNOTES - NEW WORK

Keynote Number	Description
1	NEW OWNER SELECTED FLOORING TO BE INSTALLED
2	NEW PLUMBING FIXTURE TO BE INSTALLED
3	NEW CASEWORK TO BE INSTALLED. REF INTERIOR ELEVATIONS
4	RAISE EXISTING LOWER FLOOR AREA WITH NEW FRAMED CONSTRUCTION TO ALIGN FINISHED FLOOR WITH ADJACENT SPACES
5	PROVIDE NEW WALL MOUNTED FIRE EXTINGUISHER CABINET
6	INFILL WALL TO MATCH EXISTING CONDITION
7	PROVIDE 5' X 5' MIN CONCRETE STOPE. NOT TO EXCEED 2% SLOPE
8	PROVIDE CONCRETE RAMP NOT TO EXCEED 1:12 SLOPE
9	PROVIDE 4" CONCRETE SIDE WALK. TIE INTO EXISTING ASPHALT PARKING LOT
10	REINTALL SALVAGED PLUMBING FIXTURE
11	PROVIDE 36" HANDRAIL WITH VERTICAL PICKETS 4" O.C. EXTEND 1' FROM RAMP ON EACH SIDE
12	PROVIDE 36" WALL MOUNTED HANDRAIL. EXTEND 12" FROM RAMP ON EACH SIDE

3 | LEVEL 1 RCP
A110 | 1/4" = 1'-0"

CEILING AC1
24" X 24"
ACOUSTICAL CEILING TILE
15/16" GRID

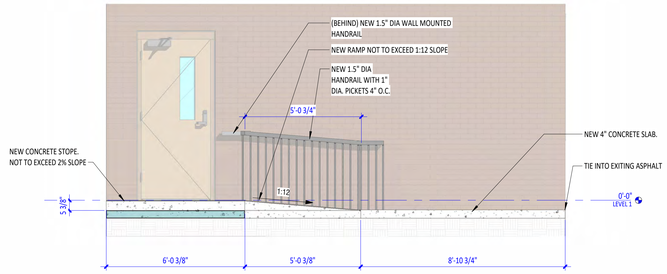
CEILING GB1
GYPSUM BOARD CEILING
PAINT P-1

DIFFUSER - SQUARE SUPPLY
REGISTER - SQUARE RETURN
REGISTER - EXHAUST
LIGHTING - RECESSED FIXTURE
LIGHTING - RECESSED FIXTURE
EXIT SIGNAGE

NOTE:
REFLECTED CEILING PLAN(S) ON ARCHITECTURAL DRAWINGS OFTEN DO NOT INDICATE ALL CEILING-MOUNTED ITEMS. SEE DRAWINGS OF OTHER DISCIPLINES FOR ADDITIONAL ITEMS. COORDINATE INSTALLATION OF ALL REQUIRED CEILING ITEMS.

COLOR SHADES USED ON REFLECTED CEILING PLANS AND LEGENDS ARE PROVIDED TO HELP THE CONTRACTOR IDENTIFY TYPES OF CEILINGS. THESE SHADES DO NOT INDICATE FINISH COLORS.

RCP LEGEND
1/8" = 1'-0"



4 | RAMP DETAIL
A110 | 3/8" = 1'-0"

WM2A ARCHITECTS
WM2A.COM
348 COTTON AVENUE
SUITE 500, PO BOX 110
MACON,GEORGIA 31201

Seal:
COMMONWEALTH OF VIRGINIA
YANCEY KYLE POWERS
Lic. No. 0401016094
ARCHITECT

RENOVATIONS TO
TACH Floyd Elementary
531 OAK HILL DR SW
FLOYD, VA 24091

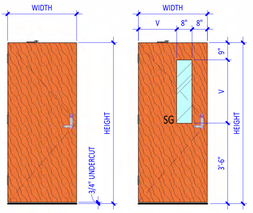
REVISIONS
NO. DATE DESCRIPTION

PROJECT STATUS: 100% CDs
REVISION NO (IF ANY): REVISION DATE:
PROJECT NO: 2025-119 Issue Date: 23 MAR 2026
DRAWING NAME: FIRST FLOOR PLAN
DRAWING NO: **A110**

Plotted: 3/27/2026 2:27:45 PM

DOOR SCHEDULE WM2A

OPNG NO	QNTY	FROM ROOM	TO ROOM	WIDTH	HEIGHT	DOOR TYPE	FRAME TYPE	HEAD DTL	JAMB DTL	HW SET	RATED OPNG	COMMENTS
004	SINGLE - SWINGING	CIRCULATION	BEHAVIORAL HEALTH	3'-0"	7'-0"	WD	HM1	HA	JA	EXAM	NR	
002	SINGLE - SWINGING	WAITING	RECEPTION / NURSE	3'-0"	7'-0"	WN2	HM1	HA	JA	OFFICE	NR	
003	SINGLE - SWINGING	CIRCULATION	TELEHEATH	3'-0"	7'-0"	WD	HM1	HA	JA	EXAM	NR	
005	SINGLE - SWINGING	CIRCULATION	MEDICAL EXAM	3'-0"	7'-0"	WD	HM1	HA	JA	EXAM	NR	
006	SINGLE - SWINGING	CIRCULATION	RESTROOM	3'-0"	7'-0"	WD	HM2	CA	CA	PRIVACY	NR	
001	SINGLE - SWINGING	WAITING	CIRCULATION	3'-0"	7'-0"	WN2	HM1	HA	JA	CLASSROOM	NR	
007	SINGLE - SWINGING	CIRCULATION	LAB	3'-0"	7'-0"	WD	HM1	HA	JA	OFFICE	NR	
006A	SINGLE - SWINGING	RESTROOM	JANITORS	3'-0"	7'-0"	WD	HM2	HA	JA	STORAGE	NR	
106	SINGLE - SWINGING	VEST.		3'-0"	7'-0"	HN2	HM2	CA	CA	EXIT	NR	
009	SINGLE - SWINGING	BREAKROOM	VEST.	3'-0"	7'-0"	WN2	HM1	HA	JA	CLASSROOM	NR	



WD
SOLID CORE WOOD

WN2
SOLID CORE WOOD
NARROW GLASS 2

NOTES:

TYPE WNG IS ALWAYS A RATED DOOR WITH FIRE GLASS. (100 IN², MAX.) PROVIDE METAL GLAZING FRAME IF REQD FOR RATING.

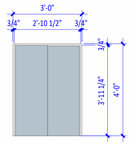
AT ALL OTHER DOORS WHERE A RATING IS REQD, PROVIDE FIRE GLASS IN LIEU OF INDICATED SAFETY GLASS. PROVIDE METAL GLAZING FRAME IF REQD FOR RATING.

"V" INDICATES THAT DIMENSION VARIES WITH DOOR SIZE.

"SG" INDICATES 6MM SAFETY GLASS.

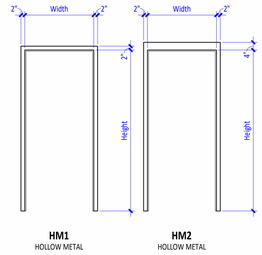
"FG" INDICATES FIRE GLASS.

Door Types
3/8" = 1'-0"



A
TRANSACTION WINDOW

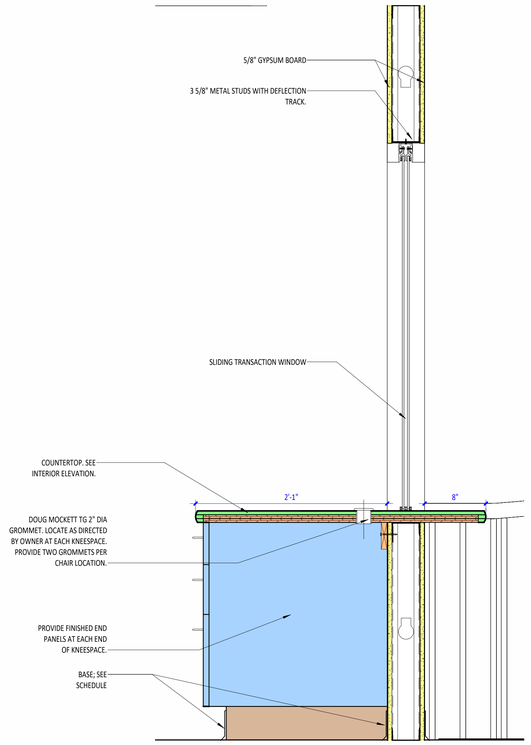
WINDOW TYPES
3/8" = 1'-0"



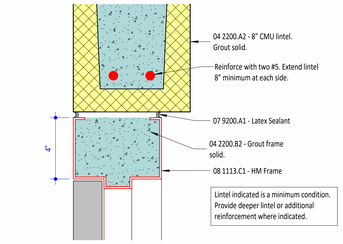
HM1
HOLLOW METAL

HM2
HOLLOW METAL

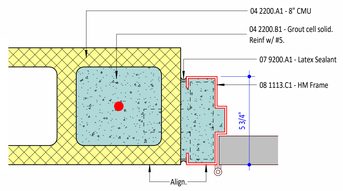
HM Frame Types
3/8" = 1'-0"



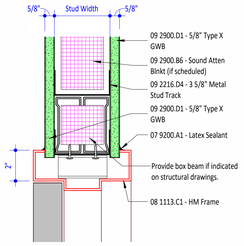
5 | 002 RECEPTION DESK SECTION
A201 | 1 1/2" = 1'-0"



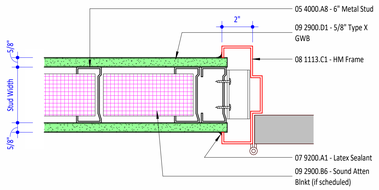
1 | Head CA - HM Door Frame (Typ at CMU)
A201 | 3" = 1'-0"



2 | Jamb CA - HM Door Frame (Typ at CMU)
A201 | 3" = 1'-0"



3 | Head HA - HM Door Frame (Typ)
A201 | 3" = 1'-0"



4 | Jamb JA - HM Door Frame (Typ)
A201 | 3" = 1'-0"

WM2A ARCHITECTS
WM2A.COM
348 COTTON AVENUE
SUITE 500, PO BOX 110
MACON, GEORGIA 31201

Seal:
COMMONWEALTH OF VIRGINIA
YANCEY KYLE POWERS
Lic. No. 0401016094
3/10/26
ARCHITECT

RENOVATIONS TO
TACH Floyd Elementary
531 OAK HILL DR SW
FLOYD, VA 24091

REVISIONS
NO. DATE DESCRIPTION

PROJECT STATUS: 100% CDs
REVISION NO (IF ANY): REVISION DATE:
PROJECT NO: 2025-119
Issue Date: 23 MAR 2026
DRAWING NAME: DOOR SCHEDULE
DRAWING NO: A201

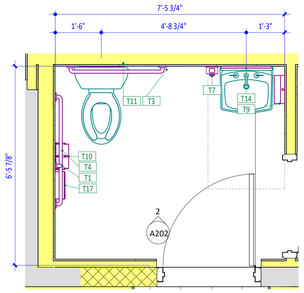
Plotted: 1/27/2026 1:27:43 PM

TOILET ACCESSORIES BY ROOM

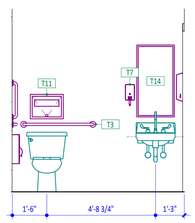
ROOM NO.	ROOM NAME	TYPE MARK	DESCRIPTION	COUNT	O.C / C.C / O.O
002					
002	RECEPTION / NURSE	T7	SOAP DISPENSER	1	C.C
002	RECEPTION / NURSE	T9	PAPER TOWEL DISPENSER, SURFACE-MOUNTED.	1	C.C
005					
005	MEDICAL EXAM	T7	SOAP DISPENSER	1	C.C
005	MEDICAL EXAM	T9	PAPER TOWEL DISPENSER, SURFACE-MOUNTED.	1	C.C
006					
006	RESTROOM	T1	18" GRAB BAR (VERTICAL)	1	C.C
006	RESTROOM	T3	36" GRAB BAR	1	C.C
006	RESTROOM	T4	42" GRAB BAR	1	C.C
006	RESTROOM	T7	SOAP DISPENSER	1	C.C
006	RESTROOM	T9	PAPER TOWEL DISPENSER, SURFACE-MOUNTED.	1	C.C
006	RESTROOM	T10	TOILET PAPER DISPENSER.	1	C.C
006	RESTROOM	T11	RECESSED SEAT COVER DISPENSER	1	C.C
006	RESTROOM	T14	18 X 36-inch Mirrror.	1	C.C
006	RESTROOM	T17	SURFACE MOUNTED SANITARY NAPKIN DISPOSAL	1	C.C
007					
007	LAB	T7	SOAP DISPENSER	1	C.C
007	LAB	T9	PAPER TOWEL DISPENSER, SURFACE-MOUNTED.	1	C.C
009					
009	BREAKROOM	T7	SOAP DISPENSER	1	C.C
009	BREAKROOM	T9	PAPER TOWEL DISPENSER, SURFACE-MOUNTED.	1	C.C

TOILET ACCESSORY SCHEDULE

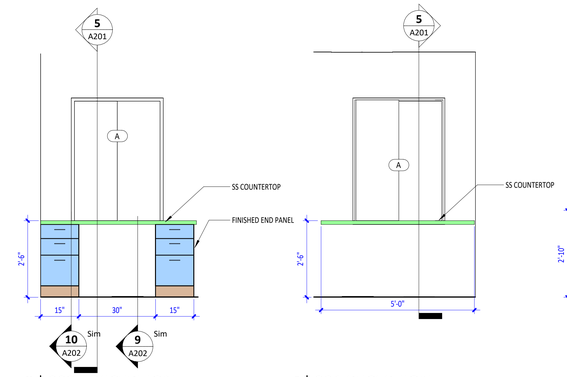
TYPE MARK	ITEM	IMAGE	DESCRIPTION	MODEL
T1	18" GRAB BAR (VERTICAL)		1 1/4" DIAMETER, HEAVY-DUTY SATIN-FINISH STAINLESS STEEL, CONCEALED MOUNTING.	ASI 3700 SERIES, BOBRICK B-5806, BRADLEY 832.
T3	36" GRAB BAR		1 1/4" DIAMETER, HEAVY-DUTY SATIN-FINISH STAINLESS STEEL, CONCEALED MOUNTING.	ASI 3700 SERIES, BOBRICK B-5806, BRADLEY 832.
T4	42" GRAB BAR		1 1/4" DIAMETER, HEAVY-DUTY SATIN-FINISH STAINLESS STEEL, CONCEALED MOUNTING.	ASI 3700 SERIES, BOBRICK B-5806, BRADLEY 832.
T7	SOAP DISPENSER		SURFACE-MOUNTED, VERTICAL, MANUAL DISPENSER.	ASI 0347, BOBRICK B-2111, BRADLEY 6562.
T9	PAPER TOWEL DISPENSER, SURFACE-MOUNTED.		SATIN-FINISH STAINLESS STEEL, DISPENSES 400 C-FOLD OR 525 MULTI-FOLD, SURFACE MOUNTING.	ASI 0210, BOBRICK B-262, BRADLEY 250-15.
T10	TOILET PAPER DISPENSER.		DUAL-ROLL DISPENSER, CAST ALUMINUM, NON-CONTROLLED DELIVERY.	ASI 0264-1A, BOBRICK B-2740, BRADLEY 5241-50.
T11	RECESSED SEAT COVER DISPENSER		SATIN-FINISH STAINLESS STEEL, DISPENSES 500 TOILET SEAT COVERS.	ASI 0477, BOBRICK B-301, BRADLEY 584.
T14	18 X 36-inch Mirrror.		Mirror with channel frame.	ASI 0620 series, Bobrick B-165, Bradley 781.
T17	SURFACE MOUNTED SANITARY NAPKIN DISPOSAL		SATIN-FINISH STAINLESS STEEL, 1.2 GALLON PLASTIC LINER, LOCKABLE.	ASI 0473-1A, BOBRICK B-254, BRADLEY 4722-15.



1 | 006 - RESTROOM
A202 | 1/2" = 1'-0"

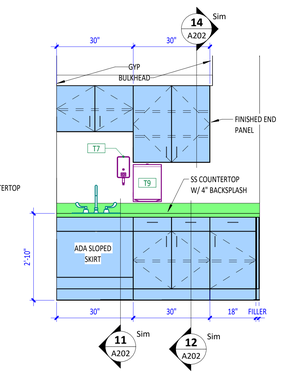


2 | 006 - RESTROOM
A202 | 3/8" = 1'-0"

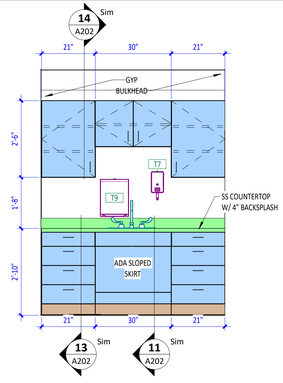


3 | 002 - RECEPTION
A202 | 1/2" = 1'-0"

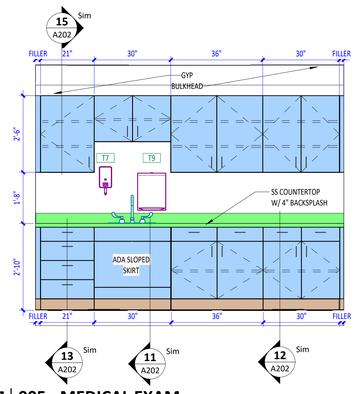
4 | 001 RECEPTION
A202 | 1/2" = 1'-0"



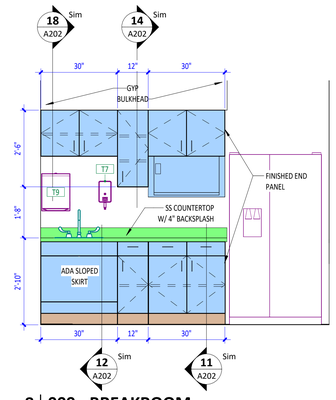
5 | 002 - NURSE
A202 | 1/2" = 1'-0"



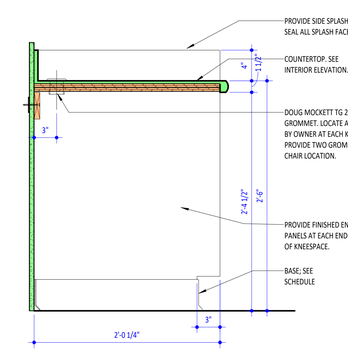
6 | 007 - LAB
A202 | 1/2" = 1'-0"



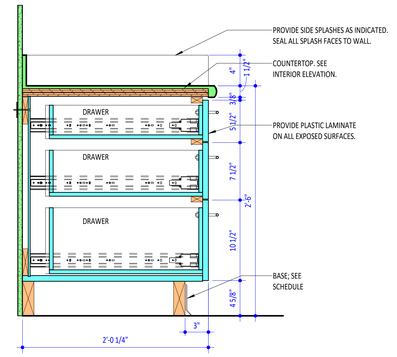
7 | 005 - MEDICAL EXAM
A202 | 1/2" = 1'-0"



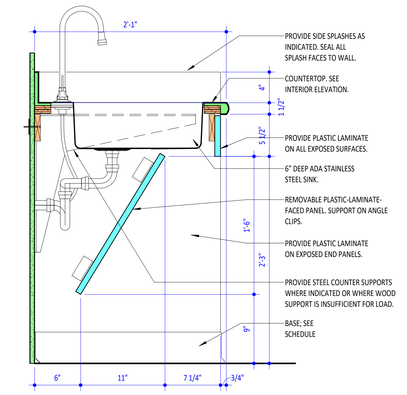
8 | 009 - BREAKROOM
A202 | 1/2" = 1'-0"



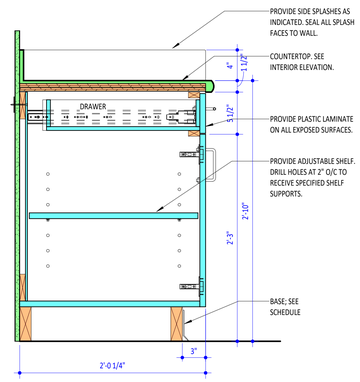
9 | 30" COUNTER WITH KNEESPACE
A202 | 1 1/2" = 1'-0"



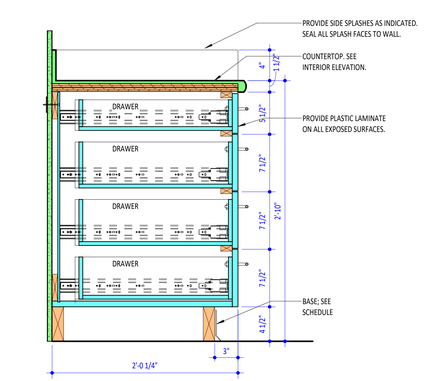
10 | 30" DRAWER BASE - 3 DRAWERS
A202 | 1 1/2" = 1'-0"



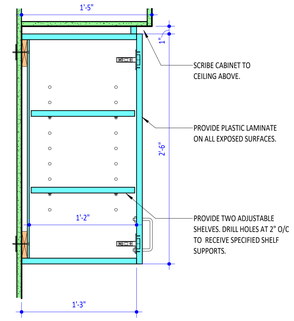
11 | 34" ADA SINK BASE, FRONT APPROACH
A202 | 1 1/2" = 1'-0"



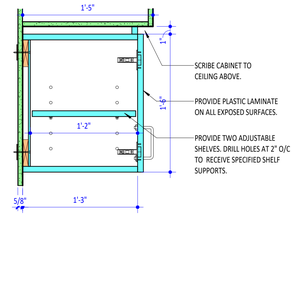
12 | 34" BASE CABINET - 1 DRAWER
A202 | 1 1/2" = 1'-0"



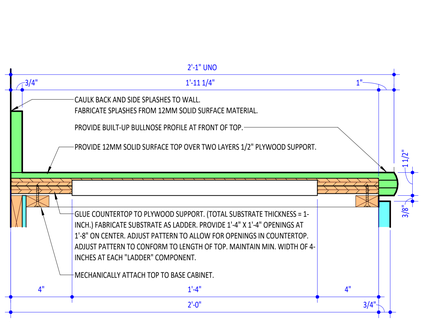
13 | 34" DRAWER BASE - 4 DRAWERS
A202 | 1 1/2" = 1'-0"



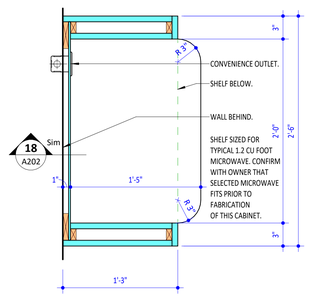
14 | 30" WALL CABINET - TYPICAL
A202 | 1 1/2" = 1'-0"



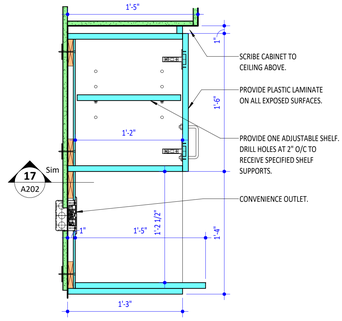
15 | 18" WALL CABINET - TYPICAL
A202 | 1 1/2" = 1'-0"



16 | COUNTERTOP - SOLID SURFACE
A202 | 3" = 1'-0"



17 | MICROWAVE SHELF
A202 | 1 1/2" = 1'-0"



18 | 34" WALL CABINET - MICROWAVE
A202 | 1 1/2" = 1'-0"

WM2A ARCHITECTS
WM2A.COM
348 COTTON AVENUE
SUITE 500, PO BOX 110
MACON,GEORGIA 31201

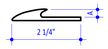
Seal:
COMMONWEALTH OF VIRGINIA
YANCEY KYLE POWERS
Lic. No. 0401016094
3/18/26
ARCHITECT

RENOVATIONS TO
TACH Floyd Elementary
531 OAK HILL DR SW
FLOYD, VA 24091

REVISIONS
NO. DATE DESCRIPTION

PROJECT STATUS: 100% CDs
REVISION NO (IF ANY): REVISION DATE:
PROJECT NO: 2025-119 Issue Date: 23 MAR 2026
DRAWING NAME: SPECIALTY ITEMS
DRAWING NO: **A202**

BURKE 800; ROPPE #38; TARKETT EG-XX-H (A=1/4")
BURKE 700; ROPPE #39; TARKETT EG-XX-G (A=5/16")



PROVIDE EDGE STRIP WHEREVER
CARPET ABUTS CONCRETE SLAB. SIZE
TO MATCH CARPET THICKNESS (A).

1 | CARPET EDGE STRIP
A901 | 6" = 1'-0"

ROPPE #21; TARKETT RRS-XX-B (B=.080")
BURKE 633; ROPPE #22; TARKETT RRS-XX-C (B=1/8")

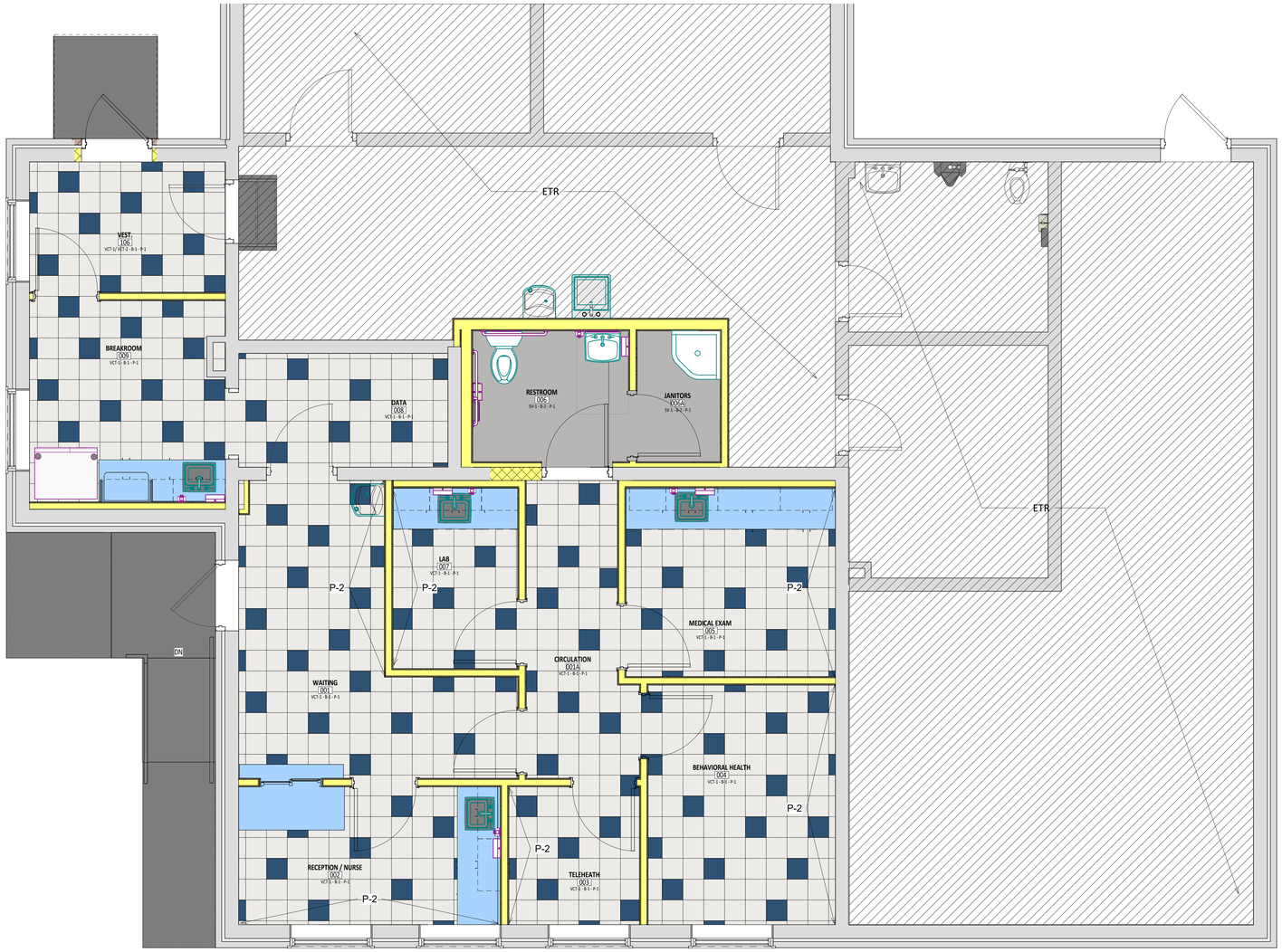
PROVIDE EDGE STRIP WHEREVER
RESILIENT FLOORING ABUTS CONCRETE SLAB. SIZE
TO MATCH FLOORING THICKNESS (B).

2 | RESILIENT EDGE STRIP
A901 | 6" = 1'-0"

ROPPE #59;
TARKETT SSR-XX-D

PROVIDE REDUCER STRIP WHEREVER
RESILIENT FLOORING ABUTS RESILIENT FLOORING
OF DIFFERENT THICKNESS.

3 | RESILIENT REDUCER STRIP
A901 | 6" = 1'-0"



4 | LEVEL 1 FINISH PLAN
A901 | 3/8" = 1'-0"

FINISHES - FLOORS

FLOOR FINISH	FLOOR TYPE	MANUFACTURER	STLE AND COLOR	IMAGE	COMMENTS
SHEET VYNIL					
SV-1	SHEET VYNIL	MOHAWK	946 FOSSIL - HEALTHY ENVIRONMENTS COLLECTION RESILIENT SHEET MEDELLA C2048		OWNER TO SELECT FINAL COLOR
VCT					
VCT-2	VCT	ARMSTRONG	FIELD - 52513 CIRQUE WHITE		OWNER TO SELECT FINAL COLOR
VCT-3	VCT	ARMSTRONG	ACCENT - 51946 GENTIAN BLUE		OWNER TO SELECT FINAL COLOR

FINISHES - WALLS

WALL FINISH	WALL TYPE FINISH	MANUFACTURER	STYLE AND COLOR	IMAGE	COMMENTS
PAINT					
P-1	PAINT	SHERWIN WILLIAMS	SW6147 PANDA WHITE		FIELD PAINT AND HOLLOW METAL FRAMES
P-2	PAINT	SHERWIN WILLIAMS	6227 MEDITATIVE		ACCENT WALL. OWNER TO SELECT FINAL COLOR

FINISHES - BASE

BASE FINISH	BASE TYPE	MANUFACTURER	STYLE AND COLOR	IMAGE	COMMENTS
RESILIENT					
B-1	RESILIENT	ROPPE	177 STEEL BLUE		OWNER TO SELECT FINAL COLOR
B-2	RESILIENT	MOHAWK	946 FOSSIL INTEGRAL BASE		OWNER TO SELECT FINAL COLOR

FINISHES - CASEWORK

CASEWORK FINISH	CASEWORK TYPE	MANUFACTURER	STYLE AND COLOR	IMAGE	COMMENTS
LAMINATE					
PL1	LAMINATE	FORMICA	5793-NG BUFF ELM		WALL & BASE CABINET

FINISHES - COUNTERTOPS

COUNTERTOP FINISH	COUNTERTOP TYPE	MANUFACTURER	STYLE AND COLOR	IMAGE	COMMENTS
LAMINATE					
PL2	LAMINATE	FORMICA	7018-58 NAVY GRAFIX		

ROOM SCHEDULE

ROOM NUMBER	ROOM NAME	FLOOR FINISH PRIMARY	FLOOR FINISH SECONDARY	BASE FINISH	WALL FINISH	CASEWORK FINISH	COUNTERTOP FINISH	COMMENTS
001	WAITING	VCT-1	VCT-2	B-1	P-1	(none)	(none)	
001A	CIRCULATION	VCT-1	VCT-2	B-1	P-1	(none)	(none)	
002	RECEPTION / NURSE	VCT-1	VCT-2	B-1	P-1	PL1	PL2	
003	TELEHEATH	VCT-1	VCT-2	B-1	P-1	(none)	(none)	
004	BEHAVIORAL HEALTH	VCT-1	VCT-2	B-1	P-1	(none)	(none)	
005	MEDICAL EXAM	VCT-1	VCT-2	B-1	P-1	PL1	PL2	
006	RESTROOM	SV-1		B-2	P-1	(none)	(none)	SEMI-GLOSS PAINT
006A	JANITORS	SV-1		B-2	P-1	(none)	(none)	SEMI-GLOSS PAINT
007	LAB	VCT-1	VCT-2	B-1	P-1	PL1	PL2	
008	DATA	VCT-1	VCT-2	B-1	P-1	(none)	(none)	
009	BREAKROOM	VCT-1	VCT-2	B-1	P-1	PL1	PL2	

WM2A ARCHITECTS
WM2A.COM
348 COTTON AVENUE
SUITE 500, PO BOX 110
MACON,GEORGIA 31201

Seal:
COMMONWEALTH OF VIRGINIA
YANCEY KYLE POWERS
Lic. No. 0401016094
5/16/26
ARCHITECT

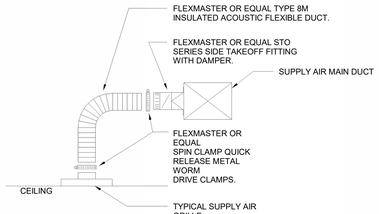
RENOVATIONS TO
TACH Floyd Elementary
531 OAK HILL DR SW
FLOYD, VA 24091

REVISIONS
NO. DATE DESCRIPTION

PROJECT STATUS:
100% CDs
REVISION NO (IF ANY): REVISION DATE:

PROJECT NO: 2025-119
Issue Date: 23 MAR 2026
DRAWING NAME:
LEGENDS AND ROOMS FINISHES
DRAWING NO:
A901

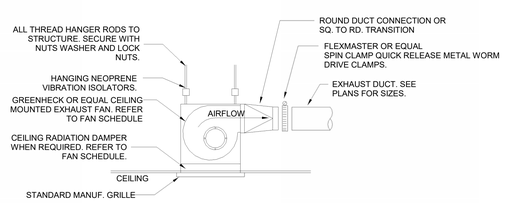
Plotted: 3/17/2026 3:27:53 PM



NOTES:
1. FLEXIBLE DUCT LENGTH SHALL BE 8'-0" MAX.

2. ALL DUCT CONNECTIONS SHALL BE MADE AND SEALED IN ACCORDANCE WITH MECHANICAL CODE AND MANUFACTURES INSTRUCTIONS.

1 M001 DETAIL - CEILING DIFFUSER
12" = 1'-0"



NOTES:
1. FAN SHALL BEAR UL LABEL.

2. SEE FAN SCHEDULE FOR INDIVIDUAL FAN CONTROL.

3. ALL DUCT CONNECTIONS SHALL BE MADE AND SEALED IN ACCORDANCE WITH MECHANICAL CODE AND MANUFACTURES INSTRUCTIONS.

2 M001 DETAIL - CEILING EXHAUST FAN
12" = 1'-0"

NOTES:
1. USE ONLY ELBOW CR3-9 WITH 1.5" VANE SPACING.

Co = 0.11 max

VANED ELBOW

NOTES:
1. USE ONLY ELBOW CR3-3 WITH ONE SPLITTER VANE.

Co = 0.05 max

SMOOTH RADIUS ELBOW

NOTES:
1. THIS IS NOT ACCEPTABLE DUE TO HIGH STATIC LOSSES IN FITTING.

STANDARD RADIUS ELBOW.
THIS IS NOT ALLOWED DUE TO NO TURNING VANE.

3 M001 DETAIL - DUCT STANDARDS
12" = 1'-0"

SEQUENCE OF OPERATION

1. SPLIT SYSTEM AIR HANDLER: (E)AHU

THIS EXISTING UNIT SHALL OPERATE BASED ON SIGNAL FROM THE EXISTING THERMOSTAT. THERMOSTAT SETPOINTS SHOULD BE SET INITIALLY TO THE FOLLOWING:

THERMOSTAT SETPOINTS:
COOLING: 72
HEATING: 68

THERE IS NO ECONOMIZER MODE AS THE EQUIPMENT IS BELOW THE 65,000 BTU/HR RATING.

2. MOTORIZED FRESH AIR DAMPER: (FAD-1)

THE FRESH AIR DAMPER SHALL BE CLOSED WHEN THE UNIT IS NOT RUNNING AND OPEN TO SET POINT WHEN THE UNIT IS RUNNING.

AIR HANDLER FAN ON = 120 CFM (10%)
AIR HANDLER FAN OFF = 0 CFM (0%)
ECONOMIZER = N/A

3. EXHAUST FANS (EF-1 & EF-2):

FANS SHALL TURN ON AND OFF WITH ASSOCIATED ROOM LIGHT CONTROL.

4. UNIT HEATERS (E)UH & UH-1:

UNITS SHALL TURN ON AND OFF BASED ON SIGNAL FROM INTEGRAL THERMOSTAT. INITIALLY SET AT 50 DEG F (ADJ.).

EXISTING (RE-USED) EQUIPMENT NOTES

ALL EQUIPMENT SHOWN TO BE RE-USED IS ASSUMED TO BE IN GOOD WORKING ORDER. CES DID NOT PERFORM ANY FUNCTION OR PERFORMANCE TESTS ON ANY EXISTING EQUIPMENT DURING DESIGN. SHOULD ANY EQUIPMENT DESIGNATED TO REMAIN NEED ANY SERVICING OR REPAIR, THE MECHANICAL CONTRACTOR SHALL INFORM THE OWNER AND G.C. AND PERFORM THAT WORK AS A CHANGE ORDER OR OUTSIDE OF THIS CONTRACT.

AS-BUILT DRAWING NOTE

M.C. SHALL MAINTAIN A SET OF AS-BUILT DRAWINGS THROUGHOUT THE PROJECT AND LEAVE A PAPER COPY OF THE AS-BUILT PLANS WITH THE SCHOOL SYSTEM PROJECT MANAGER. M.C. SHALL ALSO PROVIDE A DIGITAL COPY OF THESE AS-BUILTS TO THE OWNER AND THE ENGINEER OF RECORD. THIS IS BEING REQUESTED FOR ANY FUTURE ADDITIONS OR RE-CONFIGURATIONS.

MECHANICAL SPECIFICATIONS

1. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE LOCAL STATE BUILDING CODE MECHANICAL, ENERGY, AND LOCAL CODES.
2. THE WORD "PROVIDE" AS USED ON THESE DRAWINGS AND IN THESE SPECIFICATIONS SHALL MEAN TO FURNISH AND INSTALL.
3. THE MECHANICAL CONTRACTOR SHALL COORDINATE HIS WORK WITHTHAT OF THE OTHER TRADES PRIOR TO THE INSTALLATION OF ANY OF HIS EQUIPMENT, PIPING OR CONTROL WIRING.
4. MEASUREMENTS: BEFORE ORDERING ANY MATERIAL OR DOING ANY WORK, THE MECHANICAL CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AND SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF THE SAME.
5. ALL MATERIALS USED SHALL BE NEW UNLESS OTHERWISE SHOWN OR CALLED FOR, AND SHALL BE FURNISHED IN ACCORDANCE WITH STANDARD SPECIFICATION OF THE AMERICAN SOCIETY FOR TESTING MATERIALS, THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS, ASHRAE, AND OTHER GUIDE SPECIFICATIONS.
6. THE DRAWINGS ARE DIAGRAMMATIC AND SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE. THE DRAWINGS INDICATE OFFSETS REQUIRED, BUT BY NO MEANS INDICATE ALL SUCH SITUATIONS.
7. RECTANGULAR & ROUND DUCTWORK SHALL BE BEST QUALITY GALVANIZED SHEET METAL BY WHEELING, OR EQUAL, AND SHALL BE FURNISHED AND INSTALLED IN STRICT ACCORDANCE WITH LATEST EDITION OF ASHRAE GUIDE AND SMACNA.
8. FLEXIBLE DUCT: GENFLEX, THERMAFLEX, WIREMOLD, OR APPROVED EQUAL, R-6 INSULATED U.L. LABELED CLASS L FLEXIBLE AIR DUCT. DUCT SHALL BE PROVIDED WITH VAPOR BARRIER, GLASS FIBER INSULATION, CONTINUOUS FULL INTERNAL LINER, AND ZINC COATED CARBON STEEL HELIX, CC FITTINGS AT EACH END FOR CONNECTION TO ROUND. CONNECT WITH METAL WORM DRIVE BANDS TO LINED SHEET METAL PLENUM ON GRILLES/DIFFUSERS.
9. CONDENSATE DRAIN PIPING IS EXISTING AND IS TO REMAIN UNCHANGED UNLESS DAMAGED.
10. INSULATION: 2" THICK FIBERGLASS INSULATION WITH FOIL WRAP EXTERIOR. NO INSULATION REQUIRED ON EXHAUST DUCTS,
11. MAINTAIN ALL FIRE RATINGS WHERE APPLICABLE. SUBMIT UL ASSEMBLY TO LOCAL FIRE MARSHAL FOR APPROVAL.
12. DO NOT SCALE THESE DRAWINGS.
13. ALL EQUIPMENT SHALL BE LOCATED AND INSTALLED TO PROVIDE MAXIMUM SPACE FOR MAINTENANCE AND SERVICE. ALL SERVICE CLEARANCES AS SHOWN IN THE MANUFACTURER'S INSTRUCTIONS MUST BE MAINTAINED.
14. THE MECHANICAL CONTRACTOR SHALL COORDINATE SIZE AND LOCATION OF ALL BUILDING PENETRATIONS.
15. MECHANICAL CONTRACTOR SHALL TEST AND BALANCE ALL SYSTEMS TO COMPLY WITH PLANS.

MECHANICAL LEGEND

AHU	-	SPLIT SYSTEM AIR HANDLER
EF	-	EXHAUST FAN
FAD	-	FRESH AIR DAMPER
FAH	-	FRESH AIR HOOD
SA	-	SUPPLY AIR
RA	-	RETURN AIR
EA	-	EXHAUST AIR (GENERAL)
OA	-	OUTSIDE AIR
SA-E	-	EXISTING SUPPLY AIR
RA-E	-	EXISTING RETURN AIR
EA-E	-	EXISTING EXHAUST AIR
CFM	-	CUBIC FEET PER MINUTE
12x12	-	RECTANGULAR DUCT NOTATION
12Ø	-	ROUND DUCT NOTATION
(E)	-	EXISTING ITEM
(R)	-	RELOCATED ITEM
MC	-	MECHANICAL CONTRACTOR
EC	-	ELECTRICAL CONTRACTOR
PC	-	PLUMBING CONTRACTOR
GC	-	GENERAL CONTRACTOR
T		THERMOSTAT
		POINT OF CONNECTION TO EXISTING
		ITEM BEING DEMOLISHED/REMOVED

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT METHOD OF COMPLIANCE:
Prescriptive X Energy Cost Budget ☐

Climate Zone 4A

Exterior design conditions (ROANOKE MUNICIPAL VA, USA)
- winter dry bulb 19.6°F
- summer dry bulb 92.3°F
- summer wet bulb 72.8°F

Interior design conditions
- winter dry bulb 72°F
- summer dry bulb 75°F
- relative humidity 50%

Building heating load 32.1 MBH

Building cooling load 35.4 MBH

Mechanical Spacing Conditioning System
- Unitary
  - description of unit
  - heating efficiency
  - cooling efficiency — SEE EQUIPMENT SCHEDULES
  - heat output of unit
  - cooling output of unit
- Boiler
  - total boiler output. If oversized, state reason. N/A
- Chiller
  - total chiller capacity. If oversized, state reason. N/A

List equipment efficiencies Refer to drawings and specifications.

Equipment schedules with motors (mechanical systems)
- description of unit
- motor power
- number of phases — SEE EQUIPMENT SCHEDULES

DESIGNER STATEMENT:
To the best of my knowledge and belief, the design of this building complies with the mechanical systems, service systems and equipment requirements of the International Building code, Volume X-Energy.

SIGNED: Christopher R. Stroupe
NAME: Christopher R. Stroupe, PE
TITLE: Engineer

Outside Air (Ventilation) Calculations

Category	Occupancy	403.3 CFM/PP	403.3 CFM/SF	403.3 PPL/1000SF	Project Specific Room Number	Design Area SF	Design No. of People	Adjusted number of People	Design CFM for People	Design CFM for Area	Total OA Required
Offices	Office Spaces	5	0.06	5	Breakroom 009	89	0.4	1.0	5.0	5.3	10.3
Workrooms	Computer (without Printing)	5	0.06	4	Data 008	55	0.2	0.0	0.0	3.3	3.3
Offices	Office Spaces	5	0.06	5	Waiting 001	129	0.6	2.0	10.0	7.7	17.7
Offices	Office Spaces	5	0.06	5	Reception/nurse 002	83	0.4	2.0	10.0	5.0	15.0
Offices	Office Spaces	5	0.06	5	Telehealth 003	42	0.2	1.0	5.0	2.5	7.5
Offices	Office Spaces	5	0.06	5	Lab 007	57	0.3	2.0	10.0	3.4	13.4
Hospitals-Nursing Homes	Medical Procedure Rooms	15	0	20	Medical Exam 005	93	1.9	2.0	30.0	0.0	30.0
Public Spaces	Corridors	0	0.06	0	Circulation 001A	68	0.0	2.0	0.0	4.1	4.1
Offices	Office Spaces	5	0.06	5	Behavioral Health 004	104	0.5	2.0	10.0	6.2	16.2
					Required Outside Air						**117.6**
					Outside Air Provided via motorized damper on Air Handler						**120**

1. Adjusted number of people based on Owner Provided input.
2. The existing Air handler has been equipped with a fresh air damper and duct.

EXHAUST FAN SCHEDULE

PLAN TAG	MANUFACTURER	MODEL	TYPE	CFM	ESP	POWER	VOLTAGE	CONTROL	REMARKS
EF-1	LOREN COOK	GC-146	CEILING	70	0.25	26 W	115/1	WITH LIGHT	1,2,3
EF-2	LOREN COOK	GC-146	CEILING	50	0.25	26 W	115/1	WITH LIGHT	1,2,3

1. DUCT COLLAR
2. BACKDRAFT DAMPER
3. STANDARD GRILLE

FRESH AIR INTAKE HOOD SCHEDULE

PLAN ID	MANUFACTURER	MODEL	TYPE	LOCATION	MAX AIRFLOW	SERVES	INLET SIZE	REMARKS
FAH-1	FAMCO	SWV8P	INTAKE	SIDEWALL	120	(E)AHU	8"	1,2

1. INLET SCREEN
2. BLACK FINISH

MOTORIZED (FRESH AIR) DAMPER SCHEDULE

PLAN ID	MANUFACTURER	MODEL	TYPE	AIRFLOW SETPOINT (MIN TO MAX)	CONTROL NOTES	ASSOCIATED UNIT	REMARKS
FAD-1	FAMCO	ADC824	2- POSITION	0 to120	OPEN WITH AHU FAN ON	(E)AHU	1,2

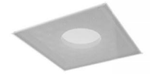
1. 24V MOTORIZED ACTUATOR
2. NORMALLY CLOSED, POWER OPEN.

ELECTRIC UNIT HEATER SCHEDULE

PLAN ID	MANUFACTURER	MODEL	KW	VOLTAGE	AMPS	CONTROL	SETPOINT	REMARKS
UH-1	MARKEL	HF3316T2SRPW	3.0	208/1	14.4	BUILT IN	50 F	1,3,4

1. HEATER SHALL BE CONTROLLED BY A BUILT IN DOUBLE POLE THERMOSTAT
2. SURFACE MOUNTING BOX
3. WHITE FINISH

GRILLE & DIFFUSER IMAGES

MODEL	IMAGE
TMS-AA	
PAR-AA	

GRILLE, REGISTER & DIFFUSER SCHEDULE

PLAN ID	MANUF	MODEL	SERVICE	FACE	NECK	MOUNTING	MATERIAL	FINISH COLOR	REMARKS
S1	TITUS	TMS-AA	SUPPLY	24x24	6"	LAY-IN	ALUMINUM	WHITE	1,2,3
S2	TITUS	TMS-AA	SUPPLY	24x24	8"	LAY-IN	ALUMINUM	WHITE	1,2,3
S3	TITUS	TMS-AA	SUPPLY	12x12	4"	LAY-IN	ALUMINUM	WHITE	1,2,3
R1	TITUS	PAR-AA	RETURN	24x24	6"	LAY-IN	ALUMINUM	WHITE	1,2,3
R2	TITUS	PAR-AA	RETURN	24x24	8"	LAY-IN	ALUMINUM	WHITE	1,2,3

1. WHITE POWDERCOAT FINISH
2. OPOSED BLADE DAMPER IN NECK (TITUS D-75)
3. INSULATED BACK PAN

NOTE: THESE DIFFUSERS MATCH THE TRI-AREA COMMUNITY HEALTH STANDARDS. NO SUBSTITUTIONS UNLESS OWNER APPROVED

MECHANICAL SHEET INDEX

WM2A ARCHITECTS
WM2A.COM
403B NORTH MAIN ST
HILLSVILLE, VA 24343

CONSULTANT ENGINEERING SERVICE, INC.
PLUMBING • MECHANICAL • ELECTRICAL
Phone: 336.724.0139
1111 S. Marshall Street, Suite 250
Winston Salem, NC 27101

CES LICENSE NUMBER (NC)	F-0238
CES LICENSE NUMBER (VA)	11059277
PROJECT NO.	4625
DRAWN	DMG
APPROVED	CRS

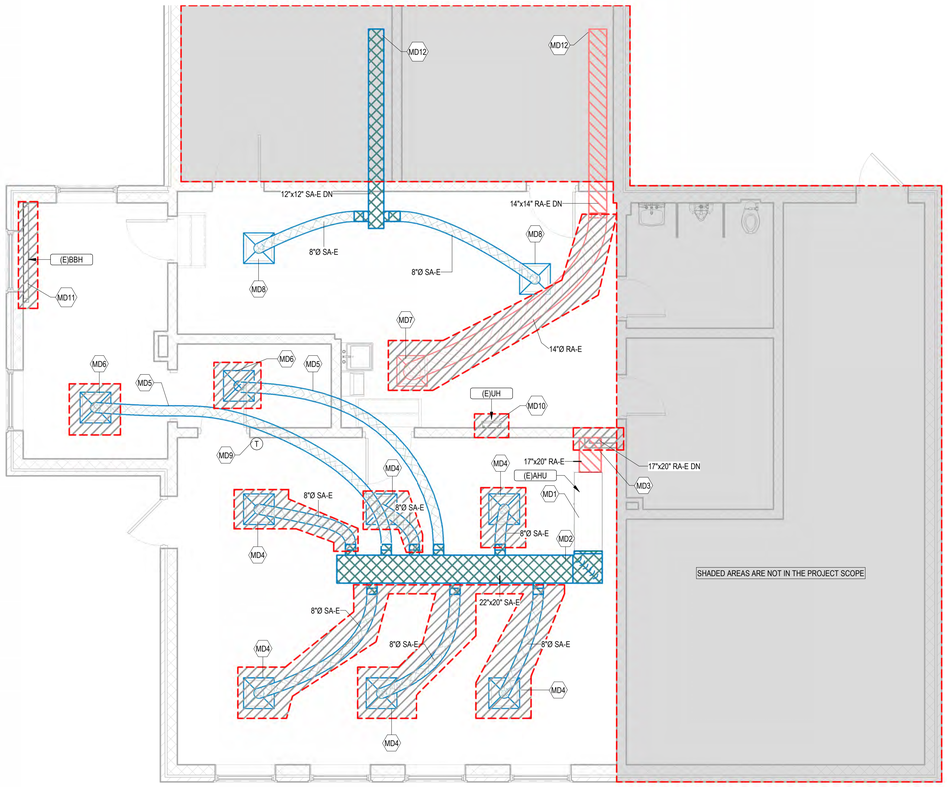
COMMONWEALTH OF VIRGINIA
CHRISTOPHER R. STROUPE III
Lic. No. 025656
03/11/2026
PROFESSIONAL ENGINEER

RENOVATIONS TO
TACH Floyd Elementary
531 OAK HILL DR SW
FLOYD, VA 24091

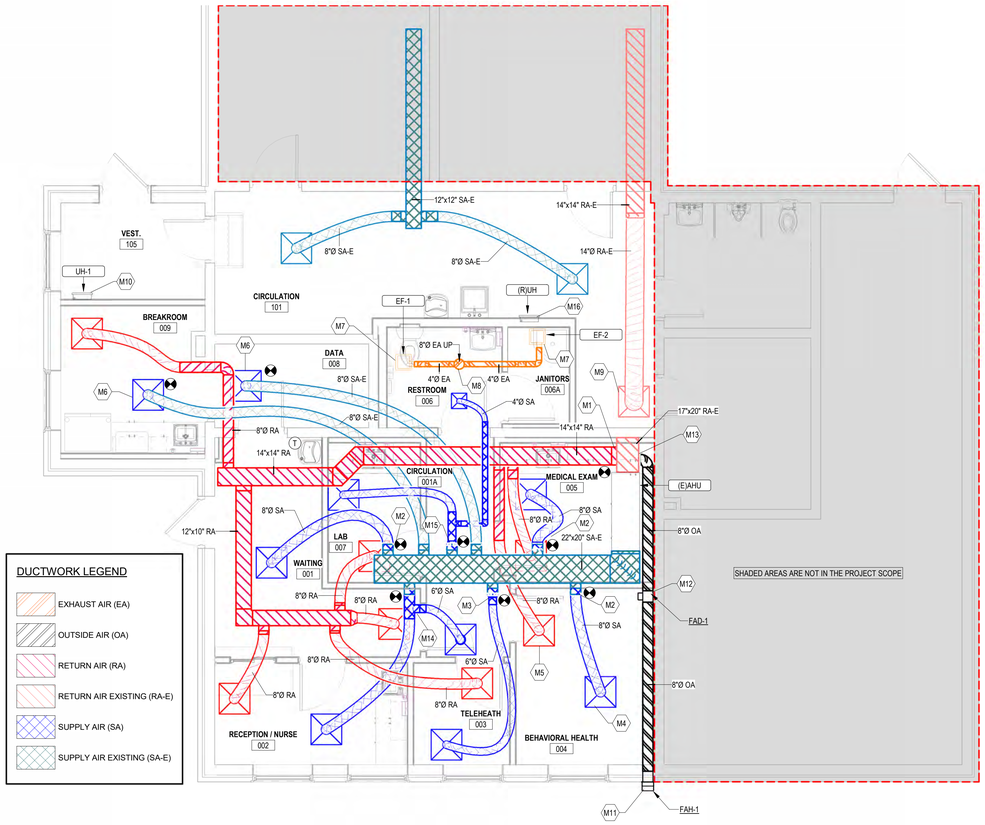
REVISIONS
DATE | Revison Number | DESCRIPTION

PROJECT STATUS:
CONSTRUCTION DOCUMENTS
REVISION NO (IF ANY): REVISION DATE:

PROJECT NO: 2025-119
CURRENT DATE: 03/11/2026
DRAWING NAME:
MECHANICAL COVER SHEET
DRAWING NO.
M001



1 M101 DEMOLITION PLAN
1/4" = 1'-0"



DUCTWORK LEGEND

- EXHAUST AIR (EA)
- OUTSIDE AIR (OA)
- RETURN AIR (RA)
- RETURN AIR EXISTING (RA-E)
- SUPPLY AIR (SA)
- SUPPLY AIR EXISTING (SA-E)

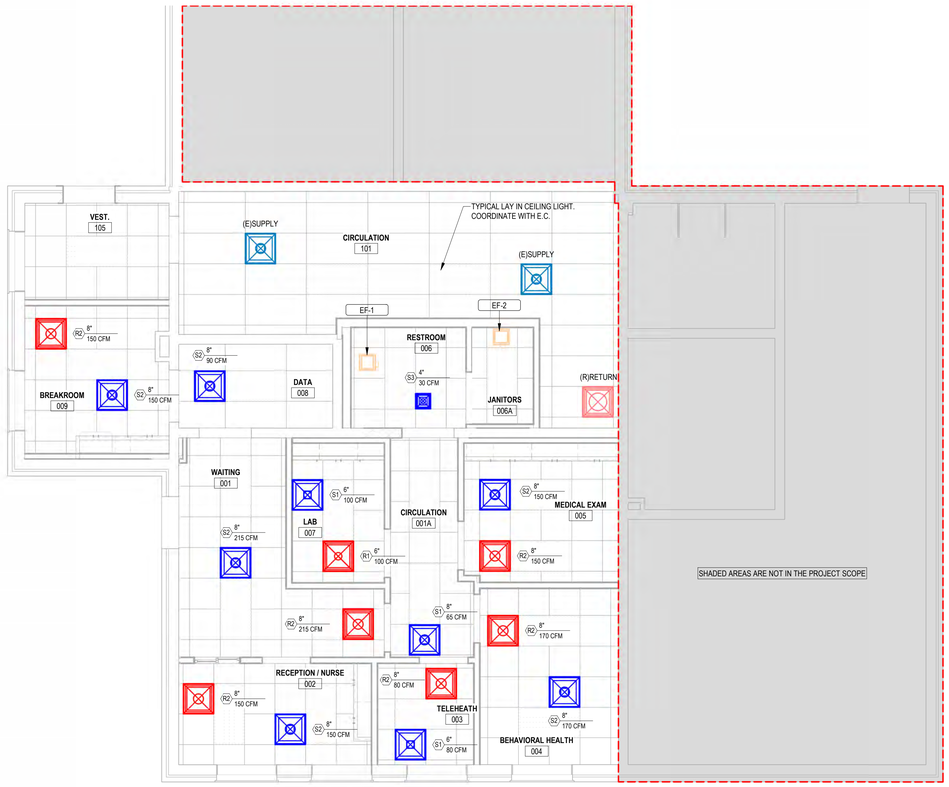
2 M101 NEW WORK PLAN
1/4" = 1'-0"

KEYNOTES

Key Value	Keynote Text
MD1	EXISTING 3-TON SPLIT SYSTEM AIR HANDLER ABOVE CEILING TO REMAIN AS IS.
MD2	EXISTING 22x20SA MAIN DUCT ABOVE CEILING TO REMAIN.
MD3	M.C. TO CUT THIS EXISTING RETURN DUCT ABOVE CEILING AND REMOVE THE VERTICAL DROP INSIDE CHASE. CAP RETURN DUCT END ABOVE CEILING. ALSO REMOVE THE WALL GRILLE BELOW.
MD4	REMOVE THIS SUPPLY DIFFUSER AND ALL FLEX DUCT BACK TO MAIN TAP. FLEX DUCT THAT IS IN GOOD CONDITION MAY BE RE-USED FOR NEW DIFFUSER LOCATIONS. FIELD DETERMINE THIS CASE BY CASE AT EACH DIFFUSER.
MD5	THESE TWO 8"SA FLEX BRANCHES FROM MAIN TO REMAIN AS IS.
MD6	REMOVE THESE TWO DIFFUSERS AND REPLACE WITH NEW.
MD7	EXISTING RETURN DIFFUSER TO BE RELOCATED AS INDICATED IN NEW WORK PLAN.
MD8	THESE TWO EXISTING SUPPLY DIFFUESERS ARE TO REMAIN AS IS.
MD9	EXISTING THERMOSTAT TO REMAIN.
MD10	EXISTING WALL UNIT HEATER TO BE REMOVED AND RELOCATED TO NEW WALL SEE NEW WORK PLAN
MD11	EXISTING ELECTRIC BASEBOARD HEATER TO BE REMOVED COMPLETELY TO MAKE WAY FOR NEW EXTERIOR DOOR. COORDINATE POWER REMOVAL WITH E.C.
MD12	DUCTS CONTINUED TO AIR HANDLER BEYOND THIS PROJECT SCOPE.

KEYNOTES

Key Value	Keynote Text
M1	EXTEND A NEW 14x14RA DUCT FROM EXISTING RETURN STUB OUT AT UNIT. ROUTE AS SHOWN.
M2	PROVIDE NEW FLEX DUCT FROM EXISTING 8" TAPS TO NEW DIFFUSERS. M.C. MAY RE-USE ANY FLEX DUCT THAT WAS EXISTING AS LONG AS IT IS IN GOOD CONDITION. TYPICAL FOR 4 LOCATIONS.
M3	PROVIDE AN 8" TO 6" REDUCER AT THIS TAP AND ROUTE 6" FLEX TO DIFFUSER.
M4	TYPICAL NEW 2x2 CEILING DIFFUSER WITH INTEGRAL DAMPER IN NECK. REFER TO CEILING PLAN FOR NECK SIZE AND BALANCING AIRFLOW CFM.
M5	TYPICAL NEW 2x2 RETURN GRILLE WITH INTEGRAL DAMPER IN NECK. REFER TO CEILING PLAN FOR NECK SIZE AND BALANCING AIRFLOW CFM.
M6	INSTALL NEW 2x2 DIFFUSER ONTO EXISTING FLEX DUCTS.
M7	NEW CEILING MOUNTED EXHAUST FAN TIED TO ROOM LIGHT SWITCH. COORDINATE WITH E.C.
M8	EXTEND NEW 8"EA DUCT UP THROUGH ROOF AND TERMINATE WITH A ROOF CAP, FLASHED INTO ROOFING.
M9	LOCATION OF EXISTING RETURN DUCT THAT WAS RELOCATED FROM THE ORIGINAL LOCATION WITHIN THIS ROOM.
M10	INSTALL A NEW WALL MOUNTED, 3kW ELECTRIC UNIT HEATER IN ENTRY/EXIT VESTIBULE AREA AS SHOWN. PROVIDE A SURFACE MOUNTED BOX.
M11	INSTALL AN 8" HOODED WALL CAP (FAH-1) IN EXTERIOR WALL AND EXTEND 8" OUTSIDE AIR DUCT TO RETURN DUCT OF THE AIR HANDLER.
M12	INSTALL AN 8" MOTORIZED OUTSIDE AIR DAMPER (FAD-1) IN 8" OUTSIDE AIR DUCT AT LOCATION SHOWN WHERE IT IS ACCESSIBLE. CONNECT DAMPER TO AHU FAN CONTROL SUCH THAT DAMPER IS OPEN WHEN FAN IS RUNNING AND CLOSED WHEN FAN IS OFF. REFER TO SEQUENCE OF OPERATION FOR SET POINTS.
M13	TIE OUTSIDE AIR DUCT INTO RETURN AIR DUCT AS SHOWN. FLEX DUCT MAY BE USED IF HARD DUCT IS HARD TO FIT.
M14	EXTEND A NEW 8" METAL DUCT FROM (E)8"SA TAP, THEN PROVIDE A 6"SA BRANCH FROM THAT TAP AS SHOWN. AFTER THE 6"SA BRANCH, ROUTE 8" FLEX TO DIFFUSER IN RECEPTION/NURSE 002.
M15	PROVIE AN 8" TO 6" METAL DUCT TRANSITION FROM THE "E)8"SA TAP, THEN PROVIDE A 4" BRANCH FROM THAT TAP AS SHOWN TO THE RESTROOM DIFFUSER, AFTER THE 4" BRANCH, ROUTE 6" FELX DUCT TO DIFFUSER IN LAB 007.
M16	NEW LOCATION OF RE-LOCATED WALL UNIT HEATER. INSTALL AT 24"AFF AND COORDINATE WITH E.C. TO PROVIDE THE RE-LOCATED POWER SUPPLY.



3 M101 LEVEL 1 HVAC CEILING PLAN
1/4" = 1'-0"

WM2A ARCHITECTS
WM2A.COM
403B NORTH MAIN ST
HILLSVILLE, VA 24343

CONSULTANT ENGINEERING SERVICE, INC.
PLUMBING • MECHANICAL • ELECTRICAL
Phone: 336.724.0139
1111 S. Marshall Street, Suite 250
Winston Salem, NC 27101

These drawings, created by Consultant Engineering Service, are intended to be viewed and printed in color. Color is used to distinguish between different systems and to provide drawing clarity.

CES LICENSE NUMBER (NC)	F-0238
CES LICENSE NUMBER (VA)	11059277
PROJECT NO.	4625
DRAWN	DMG
APPROVED	CRS

COMMONWEALTH OF VIRGINIA
CHRISTOPHER R. STROUPE III
Lic. No. 025656
03/11/2026
PROFESSIONAL ENGINEER

RENOVATIONS TO
TACH Floyd Elementary
531 OAK HILL DR SW
FLOYD, VA 24091

REVISIONS

DATE	Revision Number	DESCRIPTION

PROJECT STATUS: CONSTRUCTION DOCUMENTS
REVISION NO (IF ANY): REVISION DATE:
PROJECT NO: 2025-119
CURRENT DATE: 03/11/2026
DRAWING NAME: MECHANICAL PLANS
DRAWING NO: **M101**

ELECTRICAL SPECIFICATIONS AND NOTES

CODES AND STANDARDS

ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST FEDERAL, STATE, AND LOCAL CODES, AS AMENDED BY THE STATE IN WHICH THE WORK IS BEING PERFORMED. THIS INCLUDES, BUT IS NOT LIMITED TO:

ASHRAE/IES	90.1 ENERGY CONSERVATION CODE
VSBC	VIRGINIA STATE BUILDING CODE
NEC	NATIONAL ELECTRICAL CODE
NESC	NATIONAL ELECTRICAL SAFETY CODE

ALL WORK SHALL BE FIRST CLASS IN NATURE AND SHALL BE IN ACCORDANCE WITH RECOGNIZED STANDARDS, PROCEDURES, AND MATERIALS. RECOGNIZED STANDARDS INCLUDE, BUT ARE NOT LIMITED TO:

AEIC	AMERICAN ASSOCIATION OF EDISON ILLUMINATING COMPANIES
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
EPA	ENVIRONMENTAL PROTECTION AGENCY
ICC	INTERNATIONAL CODE COUNCIL
ICEA	INSULATED CABLE ENGINEERS ASSOCIATION
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS
IES	ILLUMINATING ENGINEERING SOCIETY
NECA	NATIONAL ELECTRICAL CONTRACTOR ASSOCIATION
NEIS	NATIONAL ELECTRICAL INSTALLATION STANDARDS
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NETA	INTERNATIONAL ELECTRICAL TESTING ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
TCLP	TOXICITY CHARACTERISTIC LEACHING PROCEDURE
UL	UNDERWRITERS LABORATORIES (OR APPROVED 3RD PARTY TESTING AGENCY)

THE INSTALLATION SHALL ALSO COMPLY WITH ALL PERTINENT ORDINANCES, REGULATIONS, AND THE MANUFACTURER'S INSTRUCTIONS.

MATERIAL INSTALLED SHALL BE NEW AND CONFORM TO INDUSTRY STANDARDS.

GENERAL REQUIREMENTS

EQUALS: SPECIAL ATTENTION IS DIRECTED TO N.C. GENERAL STATUE 133-3 ON APPLICABLE PROJECTS. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS TO ENCOURAGE FREE AND OPEN COMPETITION ON PUBLIC CONTRACTS. REFER TO THE GENERAL CONDITIONS AND SPECIFICATIONS FOR SUBMITTING APPROVED EQUALS PRIOR TO BID.

DOCUMENTS: REFER TO THE GENERAL CONDITIONS, SUPPLEMENTAL GENERAL CONDITIONS, AND INSTRUCTIONS TO BIDDERS FOR ADDITIONAL INFORMATION. THESE DOCUMENTS ARE A PART OF THE CONTRACT DOCUMENTS.

OBTAIN ALL CONTRACT DOCUMENTS THAT PERTAIN TO THIS PROJECT. THIS INCLUDES DRAWINGS, SPECIFICATIONS, AND SUBMITTALS FOR OTHER TRADES. CONNECT AND PROVIDE SERVICES FOR EQUIPMENT AS SHOWN OR INDICATED WHEN APPLICABLE.

ADDENDA: OBTAIN EACH ADDENDA AND INCORPORATE THEM INTO THE BID.

INSURANCE: PROVIDE INSURANCE AS INDICATED IN THE GENERAL CONDITIONS, SPECIFICATIONS, OR AS DIRECTED BY THE OWNER PRIOR TO BID.

FEES: PAY ALL REQUIRED INSPECTION FEES PERTAINING TO THIS CONTRACTOR'S SCOPE OF WORK AND INCLUDE THE COST IN THE BID.

ALTERNATES & UNIT PRICES: EACH BIDDER IS RESPONSIBLE FOR BIDDING ALTERNATES AND UNIT PRICES AS INDICATED.

COMPLETE INSTALLATION: FURNISH ALL MATERIAL, LABOR, AND EQUIPMENT FOR A COMPLETE INSTALLATION FOR EACH ITEM OR SYSTEM.

THE TERM "PROVIDE" MEANS TO FURNISH, INSTALL, AND CONNECT WITH ALL RELATED HARDWARE, SOFTWARE, AND ACCESSORIES FOR A COMPLETE INSTALLATION READY FOR USE.

NOTIFY INSPECTORS: NOTIFY THE APPROPRIATE INSPECTORS TO SCHEDULE REQUIRED INSPECTIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ELECTRICAL INSPECTOR, FIRE MARSHAL, AUTHORITY HAVING JURISDICTION, AND THE ENGINEER OF RECORD.

CONTRACT SUPERVISOR: ASSIGN AND MAINTAIN A SINGLE QUALIFIED PERSON AS THE JOB SUPERINTENDENT THAT IS DEDICATED TO THIS PROJECT.

QUALIFIED PERSONNEL: PROVIDE ADEQUATE MANPOWER TO MEET THE SCHEDULE. THIS INCLUDES QUALIFIED ELECTRICIANS AND MECHANICS THAT ARE PROPERLY LICENSED AND SKILLED IN THE INSTALLATION OF THIS TYPE OF WORK.

MODIFICATIONS: MINOR CHANGES IN LOCATIONS OF EQUIPMENT SUCH AS RECEPTACLES, LIGHT FIXTURES, AND OTHER EQUIPMENT MAY BE MADE AT ANY TIME PRIOR TO ELECTRICAL ROUGH-IN WITHOUT CAUSING ADDITIONAL COST TO THE OWNER.

SITE CONDITIONS: VISIT THE PROJECT SITE PRIOR TO THE BID TO BECOME FAMILIAR WITH THE PROJECT CONDITIONS. DIRECT ANY QUESTIONS TO THE ENGINEER A MINIMUM OF 10 DAYS PRIOR TO BID.

COORDINATION: COORDINATE INSTALLATION WITH THE OWNER'S REPRESENTATIVE, GENERAL CONTRACTOR, AND OTHER TRADES AS APPLICABLE. AVOID CUTTING OR DAMAGING THE WORK OF OTHER TRADES. WHERE CUTTING IS UNAVOIDABLE, COORDINATE WITH OTHER CONTRACTORS FIRST. REPAIR WORK TO MATCH.

STRUCTURE: DO NOT CUT THE STRUCTURE WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.

SLEEVES: PROVIDE, PLACE, AND NEATLY GROUT SLEEVES FOR ELECTRICAL WORK IN WALLS AND PARTITIONS.

FIRE CAULK: SEAL AIRTIGHT AROUND ALL CONDUITS, CABLES, BOXES, ETC...THAT ARE RUN THROUGH WALLS, FLOORS, PARTITIONS, AND CEILINGS. USE FIRE BARRIER CAULK AND PUTTY EQUAL TO 3M TYPE 303 PUTTY OR TYPE CP-25 CAULK AS APPLICABLE.

PENETRATIONS: PENETRATIONS THROUGH SMOKE RATED PARTITIONS AND FIRE WALLS SHALL BE PROTECTED PER CODE. APPROVED ASSEMBLIES AND MATERIALS SHALL BE USED AS REQUIRED. COORDINATE WITH THE GENERAL CONTRACTOR AND/OR ENGINEER.

DEFECTIVE EQUIPMENT: REMOVE AND REPLACE EQUIPMENT THAT IS DEFECTIVE OR THAT IS DAMAGED DURING CONSTRUCTION.

CHANGES: DEVIATIONS FROM THE DRAWINGS AND SPECIFICATIONS SHALL BE REQUESTED IN WRITING PRIOR TO CHANGES BEING MADE. DEVIATIONS SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL FROM THE ENGINEER.

SUBMITTALS: SUBMIT 6 COPIES OF SUBMITTAL DATA FOR ALL MATERIALS AND EQUIPMENT TO BE INSTALLED ON THIS PROJECT. ELECTRONIC SUBMITTALS ARE ALSO ACCEPTABLE.

SUBMITTALS SHALL COMPLY WITH THE DRAWINGS, SPECIFICATIONS, AND CODE. INCLUDE MANUFACTURER CURRENT SPECIFICATION AND LITERATURE HIGHLIGHTED AND CLEARLY MARKED INDICATING MATERIALS AND EQUIPMENT TO BE PROVIDED.

SUBMITTAL DATA SHALL INCLUDE EQUIPMENT SIZES, CAPACITIES, VOLTAGE, AMPERAGE, ACCESSORIES, REQUIREMENTS FOR ACCESS AND MAINTENANCE, CLEARANCES, AND OTHER PERTINENT INFORMATION.

ONCE SUBMITTALS COMPLY AND ARE CLEARLY MARKED, STAMP AND SUBMIT TO THE THE ENGINEER FOR APPROVAL. SUBMITTALS WILL NOT BE REVIEWED IF THEY ARE NOT STAMPED OR CLEARLY MARKED.

RECORD DRAWINGS: MAINTAIN A SET OF RECORD DRAWINGS ON SITE THROUGHOUT CONSTRUCTION AND UPDATE DAILY.

MARK RECORD DRAWINGS WITH ALL REVISIONS, CHANGES, AND DEVIATIONS SHOWING ACCURATE AS-BUILT CONDITIONS. INCLUDE REVISIONS TO ALL SCHEDULES AS WELLS AS REVISED LOCATIONS FOR DEVICES, CONDUITS, PANELBOARDS, EQUIPMENT, BOXES, WALLS, ETC...

SUBMIT 2 COPIES OF THE MARKED UP RECORD DRAWINGS TO THE ENGINEER AT THE COMPLETION OF THE PROJECT.

UTILITIES: ON APPLICABLE PROJECTS, COORDINATE POWER, TELEPHONE, TELEVISION, AND DATA SERVICE REQUIREMENTS WITH LOCAL UTILITIES PRIOR TO SUBMITTING A BID PROPOSAL.

PROVIDE TEMPORARY UTILITIES AS INDICATED IN THE GENERAL CONDITIONS OR AS DIRECTED BY THE OWNER.

TEMPERATURE RATINGS: ALL ELECTRICAL CONNECTORS, LUGS, BREAKERS, EQUIPMENT, ETC... SHALL BE RATED A MINIMUM OF 75 DEGREES CELSIUS.

BUILDING WIRE AND CABLE

A. GENERAL

1. ALL WIRE AND CABLE SHALL BE LISTED BY AN "APPROVED" THIRD-PARTY AGENCY ACCREDITED BY THE NCBCC.

2. PRIOR TO ENERGIZING FEEDERS, SUB-FEEDERS AND SERVICE CONDUCTORS, TEST CONDUCTORS FOR ELECTRICAL CONTINUITY AND SHORT CIRCUITS. A COPY OF THESE TESTS SHALL BE SENT TO THE ENGINEER OF RECORD, THE OWNER, AND MADE AVAILABLE TO THE AUTHORITY HAVING JURISDICTION.

3. ALL WIRE AND CABLE SHALL BE RUN IN RACEWAY.

4. MINIMUM FULL SIZE NEUTRAL WIRE SHALL BE PROVIDED FOR EACH SINGLE PHASE BRANCH CIRCUIT REQUIRING A NEUTRAL. SHARING OF NEUTRALS BETWEEN BRANCH CIRCUITS IS NOT ALLOWED.

B. CONDUCTORS

1. CONDUCTORS AND CABLES SHALL BE 600 VOLTS, THHN/THWN, COPPER. ALUMINUM CONDUCTORS ARE NOT ALLOWED.

2. POWER AND LIGHTING CIRCUITS #10AWG AND SMALLER SHALL HAVE SOLID COPPER CONDUCTORS. CONDUCTOR SIZES #8AWG AND LARGER SHALL HAVE CLASS B STRANDED COPPER CONDUCTORS. ALUMINUM CONDUCTORS ARE NOT ALLOWED.

3. POWER AND LIGHTING CIRCUITS' MINIMUM CONDUCTOR SIZE SHALL BE #12AWG, AND MAXIMUM SIZE ALLOWED SHALL BE 500 KCMIL UON.

4. FIRE ALARM AND CONTROL WIRING SHALL HAVE STRANDED COPPER CONDUCTORS.

5. FULL SIZE NEUTRAL CONDUCTOR SHALL BE PROVIDED FOR EACH SERVICE PANEL AND SUB-PANEL.

C. INSULATION

1. THE INSULATION TYPE FOR INTERIOR WIRING SHALL BE DUAL-RATED THHN/THWN OR XHHW.

D. VOLTAGE DROP

1. WHERE THE CONDUCTOR LENGTH FROM THE PANEL TO THE FIRST OUTLET ON A 120-VOLT CIRCUIT EXCEEDS 50 FEET, THE BRANCH CIRCUIT CONDUCTORS FROM THE PANEL TO THE FIRST OUTLET SHALL NOT BE SMALLER THAN #10 AWG.

E. COLOR CODING

1. THE SECONDARY SERVICE, FEEDERS, AND BRANCH CIRCUITS SHALL BE COLOR CODED AS FOLLOWS:

PHASE	208/120V
A	BLACK
B	RED
C	BLUE
NEUTRAL	WHITE
GROUND	GREEN

F. SPLICING

1. JOINTS IN SOLID CONDUCTORS SHALL BE SPLICED USING IDEAL "WIRE NUTS," 3M COMPANY "SCOTCHLOCK" OR T&B CONNECTORS IN JUNCTION BOXES, OUTLET BOXES, AND LIGHTING FIXTURES.

2. "STA-KON," "PIGGY," OR OTHER PERMANENT TYPE CRIMP CONNECTORS SHALL NOT BE USED FOR #10 AWG AND SMALLER CONDUCTORS.

3. JOINTS IN STRANDED CONDUCTORS SHALL BE SPLICED BY APPROVED MECHANICAL CONNECTORS AND GUM RUBBER TAPE OR FRICTION TAPE. PERMANENT COMPRESSION CONNECTORS FOR SPLICES AND TAPS, PROVIDED UL-APPROVED INSULATING COVERS, MAY BE USED INSTEAD OF MECHANICAL CONNECTORS PLUS TAPE.

4. CONDUCTORS, IN ALL CASES, SHALL BE CONTINUOUS FROM OUTLET TO OUTLET AND NO SPICING SHALL BE MADE EXCEPT WITHIN OUTLET OR JUNCTION BOXES, TROUGHS AND GUTTERS.

GROUNDING AND BONDING

A. GROUNDING CONDUCTORS SHALL BE COLORED SOLID GREEN. CONDUCTORS INTENDED AS NEUTRAL SHALL BE COLORED SOLID WHITE ON 120/208 VOLT CIRCUITS AND NATURAL GRAY ON 277/480 VOLT CIRCUITS.

B. THE RACEWAY SYSTEM SHALL NOT BE RELIED ON FOR EQUIPMENT GROUND CONTINUITY. A GREEN EQUIPMENT GROUNDING CONDUCTOR, PROPERLY SIZED PER NEC TABLE 250-122, SHALL BE RUN IN ALL RACEWAYS EXCEPT FOR TELECOMMUNICATIONS, DATA, AUDIO, AND LOW VOLTAGE RACEWAYS FOR FIRE ALARM SYSTEMS.

C. BOND CABLE TRAYS TO MAKE THEM ELECTRICALLY CONTINUOUS. GROUND PER CODE.

D. THE ELECTRICAL SERVICE SHALL BE GROUNDED BY THREE MEANS, WHEN AVAILABLE, PER THE NEC.
1. TO THE METALLIC COLD-WATER PIPE, PER NEC 250-52.

2. TO THE STEEL FRAME OF THE BUILDING, PROVIDED THE BUILDING FRAME IS EFFECTIVELY GROUNDED. IN NEW CONSTRUCTION, EFFECTIVELY GROUND AND BOND STEEL BUILDING FRAME.

3. TO GROUND ROD(S). GROUND RODS SHALL BE 10 FEET LONG AND 3/4 INCH IN DIAMETER, AND SHALL BE OF COPPER-CLAD STEEL CONSTRUCTION. ALL GROUND CONNECTIONS SHALL BE ACCESSIBLE. PROVIDE A TEST WELL FOR EACH GROUND ROD DRIVEN.

E. BOXES WITH CONCENTRIC, ECCENTRIC, OR OVER-SIZED KNOCKOUTS SHALL BE PROVIDED WITH BONDING BUSHINGS AND JUMPERS. THE JUMPER SHALL BE SIZED PER NEC TABLE 250-122 AND LUGGED TO THE BOX.

F. WHERE ONE BUILDING IS FEEDING ANOTHER BUILDING, THE INSTALLATION SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF NEC ARTICLES 225 AND 250.

G. THE GAS PIPING SYSTEM SHALL BE BONDED TO THE EQUIPMENT GROUND AS REQUIRED PER THE NEC AND VA FUEL GAS CODE.

H. IDENTIFY EACH GROUNDING ELECTRODE CONNECTED TO A COMMON GROUND BUS. THE COMMON GROUND BUS SHALL NOT BE LESS THAN 4" HIGH BY 1/4" THICK, WITH LENGTH AS REQUIRED. LENGTH SHALL BE PROVIDED WITH 25% CAPACITY.

SUPPORTING DEVICES

A. RACEWAY AND BOXES SHALL BE SUPPORTED IN A METHOD AND AT A SPACING AS APPROVED BY THE NEC, EXCEPT AS NOTED HEREIN.

B. CONDUIT SHALL BE SUPPORTED BY APPROVED PIPE STRAPS OR CLAMPS.

C. CONDUITS INSTALLED ON THE INTERIOR OF EXTERIOR BUILDING WALLS SHALL BE SPACED OFF THE WALL SURFACE A MINIMUM OF 1/4 INCH USING CLAMP-BACKS OR STRUT.

D. PIPE STRAPS OR CLAMPS SHALL BE SECURED BY MEANS OF:
1. TOGGLE BOLTS ON HOLLOW MASONRY

2. METAL EXPANSION SHIELDS AND MACHINE SCREWS, OR STANDARD PRE-SET INSERTS, ON CONCRETE OR SOLID MASONRY.

3. MACHINE SCREWS OR BOLTS ON METAL SURFACES.

4. WOOD SCREWS ON WOOD CONSTRUCTION.

5. POWER ACTUATED FASTENERS ARE NOT ALLOWED.

CONDUIT

CONDUIT SCHEDULE
A. BELOW SLAB ON GRADE AND UNDERGROUND : PVC SCHEDULE 40 WITH ASPHALT COATED RIGID ELBOWS AND GROUND WIRE. ALL THREADED AND CONNECTIONS AND JOINTS SHALL BE WATERTIGHT.

B. ABOVE SLAB ON GRADE AND OVERHEAD: EMT CONDUIT WITH STEEL, COMPRESSION TYPE FITTINGS UNLESS OTHERWISE NOTED OR REQUIRED BY CODE.

C. HAZARDOUS AREAS, SPECIAL OCCUPANCIES, OR CONDUITS SUBJECT TO DAMAGE: INSTALL CONDUIT PER THE NEC. THIS INCLUDES, BUT IS NOT LIMITED TO: GALVANIZED RIGID STEEL CONDUIT, EXPLOSION PROOF AND SEAL OFFS WHERE REQUIRED, ETC... REFER TO THE NEC FOR ADDITIONAL REQUIREMENTS.

D. MOTOR CONNECTIONS: LIQUID TIGHT FLEXIBLE METAL CONDUIT PER THE NEC.

E. WHIPS (6 FEET OR LESS TO LIGHTING FIXTURES): MC CABLE WHERE ALLOWED PER THE NEC.

F. DEVIATIONS: ANY DEVIATION SHALL BE APPROVED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO BID AND THE AHJ PRIOR TO ROUGH-IN.

G. MINIMUM CONDUIT SIZES: 3/4" ABOVE GROUND AND 1" UNDERGROUND.

UNDERGROUND RACEWAYS

A. RACEWAYS RUN EXTERNAL TO BUILDING FOUNDATION, EXCEPT BRANCH CIRCUIT RACEWAYS, SHALL BE ENCASED WITH A MINIMUM OF THREE INCHES OF CONCRETE ON ALL SIDES.

B. ENCASED RACEWAYS MUST HAVE A MINIMUM COVER OF EIGHTEEN INCHES, EXCEPT RACEWAYS CONTAINING CIRCUITS WITH VOLTAGES ABOVE 1000 VOLTS, WHICH MUST HAVE A MINIMUM COVER OF THIRTY INCHES.

C. ENCASED RACEWAYS SHALL BE OF A TYPE APPROVED BY THE NEC AND SUITABLE FOR CONCRETE ENCASEMENT.

D. STEEL REINFORCING SHALL BE REQUIRED UNDER ROADWAYS AND WITHIN 10 FEET OF ALL MANHOLES AND BUILDING ENTRANCES. THE STEEL REINFORCING SHALL BE TIED TO THE WALL REINFORCING AT MANHOLES AND BUILDING ENTRANCES.

E. BRANCH CIRCUITS RUN UNDERGROUND EXTERNAL TO BUILDING FOUNDATION WALLS SHALL BE RUN IN ACCORDANCE WITH THE NEC, AND SHALL BE APPROVED AS SUITABLE FOR DIRECT BURIAL. MINIMUM SIZE SHALL BE 1 INCH.

F. ALL UNDERGROUND RACEWAYS, EXCEPT BRANCH CIRCUITS, SHALL BE IDENTIFIED BY UNDERGROUND LINE MARKING TAPE LOCATED DIRECTLY ABOVE THE RACEWAY 6 TO 8 INCHES BELOW FINISHED GRADE. TAPE SHALL BE PERMANENT, BRIGHT COLORED, CONTINUOUS PRINTED, PLASTIC TAPE COMPOUNDED FOR DIRECT BURIAL NOT LESS THAN 6 INCHES WIDE AND 4 MILS THICK.

G. WHERE UNDERGROUND RACEWAYS ARE REQUIRED TO TURN UP TO CABINETS, EQUIPMENT, ETC., AND ON TO POLES, THE ELBOW REQUIRED AND THE STUB-UP OUT OF THE SLAB OR EARTH SHALL BE OF GALVANIZED RIGID STEEL FOR THE LAST TWO FEET MINIMUM.

H. WHERE PASSING THROUGH A BELOW GRADE WALL FROM A CONDITIONED INTERIOR BUILDING SPACE, RACEWAYS SHALL BE SEALED UTILIZING FITTINGS SIMILAR AND EQUAL TO OZ/GEDNEY TYPE FSK THRU-WALL FITTING WITH FSKA MEMBRANE CLAMP ADAPTER IF REQUIRED.

ABOVE GROUND RACEWAYS
A. SUPPORT AND ATTACH ALL CONDUITS AND RACEWAYS PER THE NEC WITH APPROVED HANGERS AND CLAMPS. DO NOT SUPPORT CONDUITS, RACEWAYS, OR CABLES, FROM DUCTWORK, PIPING, CEILING GRID SUPPORT WIRES, OR CEILING SUPPORT SYSTEM. PROVIDE SUPPLEMENTAL STEEL SUPPORTS BETWEEN JOISTS, BEAMS, PURLINS, TRUSSES, ETC... AS REQUIRED.

B. CONDUITS AND RACEWAYS SHALL BE SEISMICALLY SUPPORTED WHERE REQUIRED BY THE BUILDING CODE.

TERMINATIONS

A. IMC AND GRC SHALL TERMINATE WITH EITHER A DOUBLE LOCKNUT/BUSHING SET, OR IN A THREADED HUB.

B. WHERE CONCENTRIC, ECCENTRIC, OR OVER-SIZED KNOCKOUTS ARE ENCOUNTERED, A GROUNDING-TYPE INSULATED BUSHING SHALL BE PROVIDED.

C. ALL CONDUIT TERMINATIONS SHALL BE PROVIDED WITH INSULATED THROAT.

D. EMT TERMINATIONS SHALL BE MADE UTILIZING PLATED STEEL HEXAGONAL COMPRESSION CONNECTORS. NO POT METAL, SET SCREW, OR INDENTED TYPE FITTINGS SHALL BE UTILIZED.

TERMINATIONS

A. IMC AND GRC SHALL TERMINATE WITH EITHER A DOUBLE LOCKNUT/BUSHING SET, OR IN A THREADED HUB.

B. WHERE CONCENTRIC, ECCENTRIC, OR OVER-SIZED KNOCKOUTS ARE ENCOUNTERED, A GROUNDING-TYPE INSULATED BUSHING SHALL BE PROVIDED.

C. ALL CONDUIT TERMINATIONS SHALL BE PROVIDED WITH INSULATED THROAT.

D. EMT TERMINATIONS SHALL BE MADE UTILIZING PLATED STEEL HEXAGONAL COMPRESSION CONNECTORS. NO POT METAL, SET SCREW, OR INDENTED TYPE FITTINGS SHALL BE UTILIZED.

CONDUIT FITTINGS

A. WHERE CONDUITS OF ANY TYPE PASS OVER A BUILDING EXPANSION JOINT, A STANDARD EXPANSION JOINT FITTING, COMPATIBLE WITH THE TYPE RACEWAY BEING USED, SHALL BE PROVIDED.

B. CONDUIT COUPLINGS FOR IMC, GRC, AND PVC SHALL BE IN ACCORDANCE WITH THE NEC.

C. EMT COUPLINGS SHALL BE OF THE PLATED STEEL HEXAGONAL COMPRESSION TYPE. NO POT METAL, SET SCREW, OR INDENTED TYPE COUPLINGS SHALL BE UTILIZED.

D. IN OUTDOOR LOCATIONS OR INTERIOR DAMP LOCATIONS, GASKETED FITTINGS INCLUSIVE OF COUPLINGS SHALL BE USED IN ALL METALLIC RACEWAYS.

ELECTRICAL IDENTIFICATION

REFER TO DETAIL ON THE DRAWINGS.

INTERIOR LUMINAIRES

REFER TO THE LIGHTING FIXTURE SCHEDULE AND THE LIGHTING FIXTURE SUPPORT DETAIL ON THE DRAWINGS.

CLEANING AND PAINTING

A. VACUUM AND CLEAN ALL BOXES AFTER ROUGH-IN AND PROTECT FROM CONSTRUCTION DEBRIS/PAINTING.

B. CLEAN ALL CONDUITS, HANGERS, SUPPORTS, PANELS, LIGHTS, DEVICES, ETC... AND LEAVE READY FOR USE OR PAINTING.

C. COORDINATE ALL PAINTING REQUIREMENTS WITH THE ARCHITECT, GENERAL CONTRACTOR, AND/OR OWNER PRIOR TO BID.

D. TOUCH UP ALL SCRATCHED SURFACES ON FACTORY FINISHED EQUIPMENT AND MATERIALS WITH PAINT OF SAME TYPE AND COLOR.

TESTING

A. PERFORM ALL TESTS REQUIRED BY CODE. MEG-TEST ALL PANELS TO ELIMINATE GROUNDS AND SHORT CIRCUITS. TEST ALL LIGHTS, RECEPTACLES, EQUIPMENT, ETC... FOR PROPER CONNECTION AND GROUNDING.

B. TEST THE GROUND SYSTEM WITH "EARTH MEGGER." FURNISH TEST RESULTS TO THE OWNER AND ENGINEER. ADD ADDITIONAL GROUND RODS UNTIL TEST RESULTS ARE BELOW 25 OHMS.

C. ENSURE THAT ALL LUGS ON ALL FEEDERS ARE TIGHT THROUGHOUT CONSTRUCTION. TORQUE AS REQUIRED.

TRAINING

A. INSTRUCT OWNER'S REPRESENTATIVES IN PROPER OPERATION AND MAINTENANCE OF ALL SYSTEMS AND EQUIPMENT.

B. FURNISH TO OWNER COPIES OF OPERATING AND MAINTENANCE MANUALS, INCLUDING GUARANTEES AND SPARE PARTS LIST.

GUARANTEE:

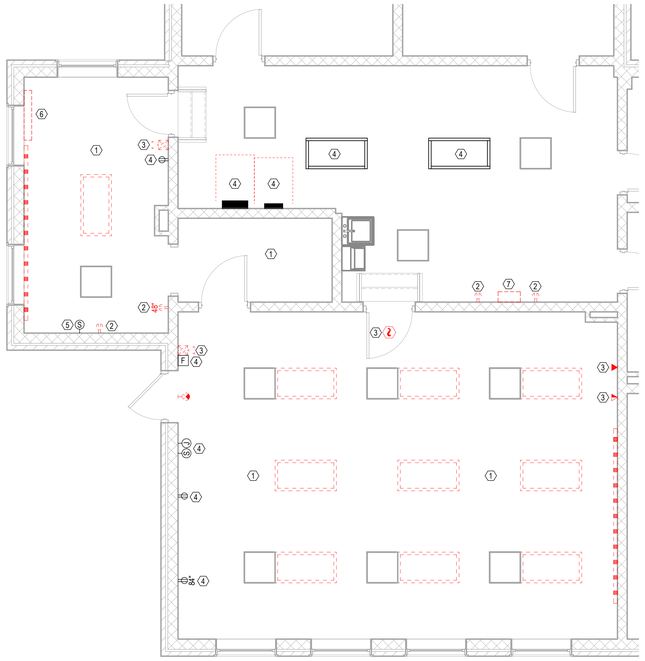
A. GUARANTEE ALL MATERIALS, EQUIPMENT, AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE TIME OF FINAL ACCEPTANCE BY THE OWNER UNLESS OTHERWISE INDICATED. REPAIR AND/OR REPLACE, WITHOUT ANY COST TO THE OWNER, ANY DEFECTIVE PART OR WORKMANSHIP WITHIN THE GUARANTEE PERIOD.

1. LINK TRADE PERMITS WITH THE BUILDING PERMIT.
2. ALL PRE-WIRED EQUIPMENT SHALL BE LISTED BY STATE OF VA APPROVED 3RD PARTY AGENCY, [NEC 90.7;110.3(B)]
3. CLEARANCE REQUIRED AT ELECTRICAL EQUIPMENT, (NEC 110.26).
4. ALL GROUNDING AND BONDING REQUIRED TO COMPLY WITH NEC ARTICLE 250, (NEC 250.1)
5. FLEXIBLE CORDS SHALL NOT PASS THROUGH CEILINGS, WALLS OR FLOORS, (NEC 400.8)
6. ALL WIRING, INCLUDING LOW VOLTAGE, DATA, PHONE, FIRE ALARM, SECURITY, HVAC CONTROLS, AND POWER SHALL BE PERMITTED AND INSPECTED PER VA GENERAL STATUTES PER COUNTY, AND CITY ORDINANCE.
7. ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES, AND EQUIPMENT SHALL BE LABEL LISTED BY A VIRGINIA APPROVED THIRD PARTY TESTING AGENCY.

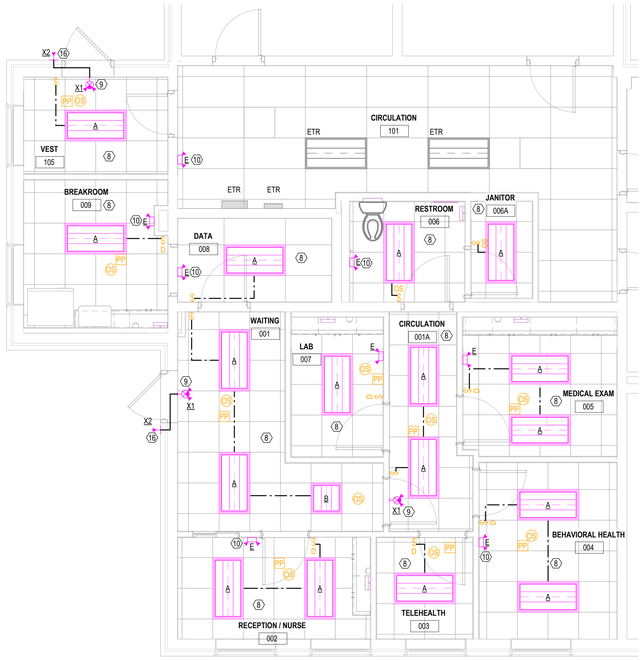
UNIT PRICING:
1. ADD (1) 20 AMP DUPLEX RECEPTACLE AND FACEPLATE ON A DEDICATED CIRCUIT, INCLUDE (1) 20AMP SINGLE POLE BREAKER, BOX, PLATE, 3/4" CONDUIT AND (3) #12 WIRE APPROXIMATELY 100FT IN LENGTH, INCLUDE ALL LABOR AND MATERIAL.
$_____
2. ADD (1) EMERGENCY BATTERY LIGHT FIXTURE IN CEILING, CONNECT TO EXISTING CIRCUIT, INCLUDE BOX, MOUNTING DEVICE, 3/4" CONDUIT AND (3) #12 WIRE APPROXIMATELY 50FT IN LENGTH, INCLUDE ALL LABOR AND MATERIAL.
$_____
3. ADD (1) EXIT LIGHT FIXTURE IN CEILING, CONNECT TO CIRCUIT, INCLUDE BOX, MOUNTING DEVICE, 3/4" CONDUIT AND (3) #12 WIRE APPROXIMATELY 50FT IN LENGTH, INCLUDE ALL LABOR AND MATERIAL.
$_____
4. ADD (1) FIRE ALARM SPEAKER/STROBE MOUNTED ON WALL, CONNECT TO EXISTING LOOP, INCLUDE HORN/STROBE, BOX, J-HOOKS, 15FT OF 3/4" CONDUIT (FOR STUB-UP) AND 100FT OF FIRE ALARM WIRE/CABLE, INCLUDE PROGRAMMING, TESTING, ALL LABOR AND MATERIAL.
$_____
5. ADD (1) FIRE ALARM PULL STATION MOUNTED ON WALL, CONNECT TO EXISTING LOOP, INCLUDE PULL STATION, BOX, J-HOOKS, 15FT OF 3/4" CONDUIT (FOR STUB-UP) AND 100FT OF FIRE ALARM WIRE/CABLE, INCLUDE PROGRAMMING, TESTING, ALL LABOR AND MATERIAL.
$_____

Electrical Abbreviations

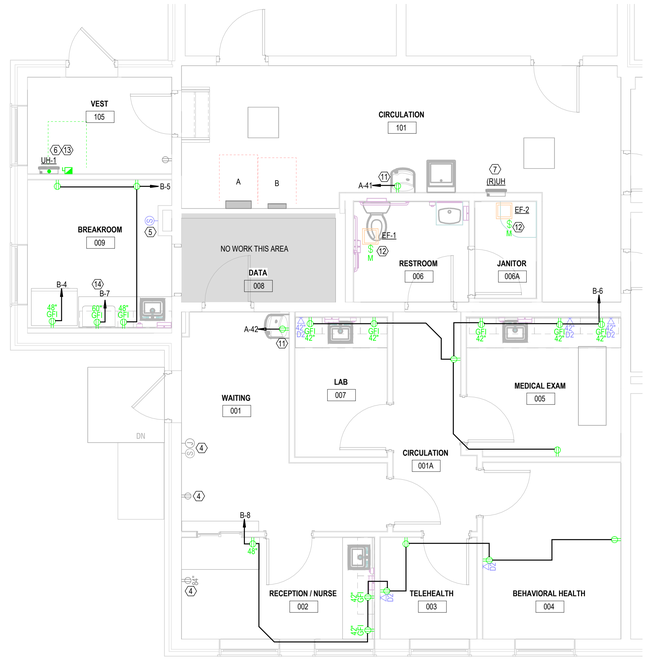
1P	1 Pole (2P, 3P, 4P, ETC.)	MCB	Main Circuit Breaker
A, Amp	Ampere	MCC	Motor Control Center
AC	Above Counter	MDC	Main Distribution Center
ACLG	Above Ceiling	MDP	Main Distribution Panel
ADO	Automatic Door Opener	MFR	Manufacturer
AF	Amp Frame	MFS	Main Fused Disconnect Switch
AFF	Above Finished Floor	MH	Manhole
AFG	Above Finished Grade	MIC	Microphone
AFI	Arc Fault Circuit Interrupter	MIN	Minimum
AHU	Air Handling Unit	MISC	Miscellaneous
AL	Aluminum	MLO	Main Lugs Only
ALT	Alternate	MMS	Manual Motor Starter
AMP	Ampere	MOA	Multioutlet Assembly
AMPL	Amplifier	MSP	Motor Starter Panelboard
ANNUN	Annunciator	MSBD	Main Switchboard
APPROX	Approximately	MSS	Motor Starter Switch
AQ-STAT	Aquastat	MT	Mount
ARCH	Architect, Architectural	MT.C	Empty Conduit
AS	Amp Switch	MTS	Manual Transfer Switch
AT	Amp Trip	MTR	Motor, Motorized
ATS	Automatic Transfer Switch	N.C.	Normally Closed
AUTO	Automatic	NEC	National Electrical Code
AUX	Auxiliary	NEMA	National Electrical Manufacturer's Association
AV	Audio Visual	NFDS	Non-Fused Safety Disconnect Switch
AWG	American Wire Gauge	NIC	Not In Contract
BATT	Battery	NL	Night Light
BD	Board	N.O.	Normally Open
BLDG	Building	NPF	Normal Power Factor
BMS	Building Management System	NTS	Not To Scale
C	Conduit	OC	On Center
CAB	Cabinet	OH	Overhead
CAT	Catalog	OL	Overloads
CATV	Cable Television	PA	Public Address
CB	Circuit Breaker	PB	Pull Box Or Pushbutton
CCTV	Closed Circuit Television	PE	Pneumatic Electric
CKT	Circuit	PED	Pedestal
CLG	Ceiling	PF	Power Factor
COMB	Combination	PH	Phase
CMPR	Compressor	PIV	Post Indicating Valve
CONN	Connection	PNL	Panel
CONST	Construction	PP	Power Pole
CONT	Continuation Or Continuous	PR	Pair
CONTR	Contractor	PRI	Primary
CONV	Convector	PROJ	Projection
CP	Circulating Pump	PRV	Power Roof Ventilator
CRT	Cathode-Ray Tube	PT	Potential Transformer
CT	Current Transformer	PVC	Polyvinyl Chloride (Conduit)
CTR	Center	PWR	Power
CU	Copper	QUAN	Quantity
DCP	Domestic Water Circulating Pump	RCPT	Receptacle
DEPT	Department	REQD	Required
DET	Detail	RM	Room
DIA	Diameter	RSC	Rigid Steel Conduit
DISC	Disconnect	RTU	Roof Top Unit
DIST	Distribution	SC	Surface Conduit
DN	Down	SEC	Secondary
DPR	Damper	SHT	Sheet
DS	Safety Disconnect Switch	SIM	Similar
DT	Double Throw	SLD	Single-Line Diagram
DWG	Drawing	SN	Solid Neutral
EC	Electrical Contractor	SPEC	Specification
ELEC	Electric, Electrical	SPKR	Speaker
ELEV	Elevator	SP	Spare
ELU	Emergency Lighting Unit	SPP	Single-Point Power
EM	Emergency	SR	Surface Raceway
EMS	Energy Management System	SS	Stainless Steel
EMT	Electrical Metallic Tubing	SSW	Selector Switch
EP	Electric Pneumatic	S/S	Stop/Start Pushbuttons
EQUIP	Equipment	STA	Station
EWC	Electric Water Cooler	STD	Standard
EXIST	Existing	SURF	Surface Mounted
EXH	Exhaust	SW	Switch
EXP	Explosion Proof	SWBD	Switchboard
FA	Fire Alarm	SYM	Symmetrical
FABP	Fire Alarm Booster Power Supply Panel	SYS	System
FACP	Fire Alarm Control Panel	TEL	Telephone
FCU	Fan Coil Unit	TERM	Terminal
FIXT	Fixture	TL	Twist Lock
FLR	Floor	TR	Tamper Resistant
FLUOR	Fluorescent	T-STAT	Thermostat
FU	Fuse	TTC	Telephone Terminal Cabinet
FUDS	Fused Safety Disconnect Switch	TV	Television
GA	Gauge	TVTC	Television Terminal Cabinet
GAL	Gallon	TYP	Typical
GALV	Galvanized	UC	Under Counter
GC	General Contractor	UE	Underground Electrical
GEN	Generator	UG	Underground
GFI	Ground Fault Circuit Interrupter	UH	Unit Heater
GFP	Ground Fault Protector	UT	Underground Telephone
GND	Ground	UTIL	Utility
GRS	Galvanized Rigid Steel (Conduit)	UV	Ultraviolet
GYP BD	Gypsum Board	V	Volt
HOA	Hands-Off-Automatic Switch	VA	Volt-Amperes
HORIZ	Horizontal	VDT	Video Display Terminal
HP	Horsepower	VERT	Vertical
HPF	High Power Factor	VFD	Variable Frequency Drive
HT	Height	VOL	Volume
HTG	Heating	W	Watt
HTR	Heater	W/	With
HV	High Voltage	WG	Wire Guard
HVAC	Heating, Ventilating And Air Conditioning	WH	Water Heater
IC	Interrupting Capacity	W/O	Without
IG	Isolated Ground	WP	Weatherproof
IMC	Intermediate Metal Conduit	XFMR	Transformer
INCAND	Incandescent	XFR	Transfer
IR	Infrared		
IW	Interlock With		
J-BOX	Junction Box	∠	Angle
KV	Kilovolt	@	At
KVA	Kilovolt-Ampere	▲	Delta
KVAR	Kilovolt



1 E1.0 ELECTRICAL DEMOLITION PLAN
1/4" = 1'-0"



2 E1.0 ELECTRICAL LIGHTING PLAN
1/4" = 1'-0"



3 E1.0 ELECTRICAL POWER PLAN
1/4" = 1'-0"

LUMINAIRE SCHEDULE

ID	DESCRIPTION	MANUFACTURER	MODEL NUMBER	EQUIVALENT MANUFACTURER	MOUNTING	LUMENS	LAMP	CCT	CRI	DRIVER	WATTS	EMERGENCY COMPONENT	NOTES
A	2X4 RECESSED FULLY SWITCHABLE FLAT PANEL	LITHONIA	CPANL 2X4 ALO6 SWW7 M2 MVOLT	LITESOURCE; H.E.WILLIAMS; COOPER	LAY-IN	4000 lm	INTEGRAL LED	3500 K	80	LED DRIVER	36 W	--	--
B	2X2 RECESSED FULLY SWITCHABLE FLAT PANEL	LITHONIA	CPANL 2X2 ALO6 SWW7 M2 MVOLT	LITESOURCE; H.E.WILLIAMS; COOPER	LAY-IN	4000 lm	INTEGRAL LED	3500 K	80	LED DRIVER	32 W	--	--
E	ELU INDOOR, TWO HEAD	LITHONIA	ELM6L LVOLT LTP	LITESOURCE; H.E.WILLIAMS; COOPER	SURFACE WALL	1100 lm	INTEGRAL LED	6500 K	80	--	3 W	BATTERY	
X1	EXIT/ELU COMBO, RED LETTERING	LITHONIA	LHQM LED R HO	LITESOURCE; H.E.WILLIAMS; COOPER	WALL	1045 lm	INTEGRAL LED	4000 K	0	--	4 W	BATTERY	--
X2	EGRESS ELU OUTDOOR, TWO HEAD	LITHONIA	ELMRE SP640L T	LITESOURCE; H.E.WILLIAMS; COOPER	WALL	320 lm	INTEGRAL LED	6500 K	80	--	3 W	REMOTE BATTERY	VERIFY COLOR AND FINISH WITH ARCHITECT.

REMARKS:
1. ALL LIGHT FIXTURES SHALL BE ENERGY EFFICIENCY DLC (DESIGN LIGHTS CONSORTIUM) CERTIFIED.
2. LIGHT FIXTURES SHALL BE EQUIPPED WITH UL LISTED AND APPROVED INTEGRALLY MOUNTED DISCONNECTS FOR DRIVER IN ACCORDANCE WITH ARTICLE 410.30 OF THE NATIONAL ELECTRICAL CODE (NEC). THE CONTRACTOR SHALL COORDINATE WITH THE DISTRIBUTOR AND MANUFACTURER TO VERIFY THAT NEW LIGHTS MEET ALL REQUIREMENTS OF THE LATEST EDITION OF THE NEC.
3. ALL LAY-IN TYPE LED LIGHT FIXTURES SHALL BE SUPPORTED FROM THE STRUCTURE WITH TWO CEILING SYSTEM SUPPORT WIRES. WIRES SHALL BE ATTACHED AT DIAGONALLY OPPOSITE CORNERS OF THE LIGHT. IN ADDITION, EACH LIGHT SHALL BE ATTACHED TO THE CEILING GRID SYSTEM USING FOUR SCREWS (TWO AT EACH END). SCREWS SHALL NOT INTERFERE WITH THE DOOR OPERATION.
4. PROVIDE THREADED ROD OR WIRE SUPPORT FROM THE STRUCTURE TO ALL CEILING MOUNTED RECESS CAN LIGHTS SO THAT TRIM WILL FIT FLUSH AGAINST THE CEILING AND THE CEILING TILES WILL NOT SAG.
5. ALL LAMPS OF EACH CATEGORY SHALL BE OF THE SAME MANUFACTURER.
6. EXIT LIGHTS SHALL HAVE EVEN GRAPHICS ILLUMINATION (INDIVIDUAL LED SHALL NOT BE VISIBLE), UNIVERSAL MOUNTING, FACES, ARROWS, AND ETC.
7. CONNECT ALL FIXTURES WITH THE "EMERGENCY" (HATCHED) AND EXTERIOR EMERGENCY EGRESS LIGHTS TO THE NEAREST EXISTING LIFE SAFETY PANEL. SEE PANEL SCHEDULES AND SITE WORK PLAN NEW WORK.
8. PROVIDE ALL FIXTURE MOUNTING HARDWARE WHERE REQUIRED.
9. OUTDOOR AND CANOPY LIGHTS ARE TO BE UL WET LOCATION LISTED.
10. PROVIDE BUILT-IN 120V PHOTOCELL AND SENSOR.
11. VERIFY LIGHT FIXTURE FINISH PRIOR TO ORDERING.

Panelboard: A - EXISTING PANEL

LOCATION: CIRCULATION 101
SUPPLY:
MOUNTING: SURFACE
ENCLOSURE: NEMA 1

VOLTAGE: 240 V, 1Ø, 3W
BUS RATING: 300 A
NEUTRAL: 100%
FEED-THRU LUGS: No
FEATURES & MODIFICATIONS: -

MAINS TYPE: MCB
MAINS RATING: 300 A
SPD:
A.I.C.: 22 kA

CKT	DESCRIPTION	NOTE	TRIP (A)	P	WIRES & CONDUITS	PHASE A LOAD (KVA)		PHASE B LOAD (KVA)		WIRES & CONDUITS	P	TRIP (A)	NOTE	DESCRIPTION	CKT
1	EX: VACCUM SYSTEM		60	2	--	3	5				2	60		PANEL B	2
3								3	6						4
5	EX: A/C		30	2	--	2	2			--	2	30		EX: RCPT	6
7								2	2						8
9	SPARE		20	2	--	0	1			--	1	30		EX: RCPT	10
11								0	1	--	1	30		EX: RCPT	12
13	EX: JOINTER		30	1	--	2	1			--	1	30		EX: RCPT	14
15	EX: RCPT		30	1	--			2	1	--	1	30		EX: RCPT	16
17	EX: PLANER		30	2	--	2	2			--	2	30		EX: HEATER	18
19								2	2						20
21	EX: LAB LIGHTS		30	2	--	2	1			--	1	30		EX: RCPT	22
23								2	1	--	1	30		EX: RCPT	24
25	EX: LAB LIGHTS		30	1	--	2	1			--	1	30		EX: RCPT	26
27	EX: ELECTRIC HEAT		30	2	--			2	1	--	2	30		EX: AIR CLEANER	28
29						2	1								30
31	EX: RCPT		30	1	--			1	2	--	2	30		EX: HEATER	32
33	EX: RCPT		30	1	--	1	2								34
35	EX: RCPT		20	2	--			1	2	--	2	30		EX: HEATER	36
37						1	2								38
39															40
41	EWC + GFCI BREAKER		20	1	2#12,#12G,3/4"C	0	0			2#12,#12G,3/4"C	1	20		EWC + GFCI BREAKER	42
					Connected Load:	29 kVA		28 kVA							
					Connected Current:	245 A		232 A							

LOAD CLASSIFICATION	CONNECTED	FACTOR	DEMAND
RECEPTACLE - GENERAL	5820 VA	100.00%	5820 VA

PANEL TOTALS	
CONNECTED LOAD:	57 kVA
CONNECTED CURRENT:	238 A
DEMAND LOAD:	57 kVA
DEMAND CURRENT:	238 A

CIRCUIT NOTES:
PROVIDE NEW BREAKER AS NEEDED.

Load Center: B - EXISTING PANEL

LOCATION: CIRCULATION 101
SUPPLY: A
MOUNTING: SURFACE
ENCLOSURE: NEMA 1

VOLTAGE: 240 V, 1Ø, 3W
BUS RATING: 100 A
NEUTRAL: 100%
FEED-THRU LUGS: No
FEATURES & MODIFICATIONS: -

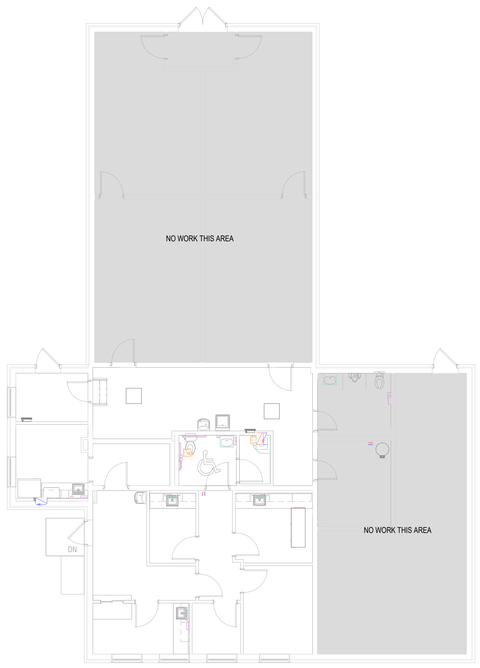
MAINS TYPE: MLO
MAINS RATING: 60 A
SPD:
A.I.C.: 10 kA

CKT	DESCRIPTION	NOTE	TRIP (A)	P	WIRES & CONDUITS	PHASE A LOAD (KVA)		PHASE B LOAD (KVA)		WIRES & CONDUITS	P	TRIP (A)	NOTE	DESCRIPTION	CKT
1	EX: LOAD		40	2	--	2	2			--	1	20		BATHROOM HEATER	2
3								2	1	2#12,#12G,3/4"C	1	20		RCPT - BREAKROOM RM 009	4
5	RCPT - BREAKROOM RM 009		20	1	2#12,#12G,3/4"C	1	1			2#12,#12G,3/4"C	1	20		RCPT - RM 005 & 007	6
7	RCPT - BREAKROOM RM 009		20	1	2#12,#12G,3/4"C			1	1	2#12,#12G,3/4"C	1	20		RCPT - RM 002, 003, 004	8
					Connected Load:	5 kVA		6 kVA							
					Connected Current:	44 A		47 A							

LOAD CLASSIFICATION	CONNECTED	FACTOR	DEMAND
RECEPTACLE - GENERAL	5460 VA	100.00%	5460 VA

PANEL TOTALS	
CONNECTED LOAD:	11 kVA
CONNECTED CURRENT:	46 A
DEMAND LOAD:	11 kVA
DEMAND CURRENT:	46 A

CIRCUIT NOTES:
PROVIDE NEW BREAKER AS NEEDED.



5 E1.0 LEVEL 1 KEYPLAN
1/8" = 1'-0"

4 E1.0 ELECTRICAL FIRE ALARM PLAN
1/4" = 1'-0"

DEMOLITION SHEET NOTES

A THE CONTRACTOR SHALL VISIT THE SITE SPECIFICALLY INCLUDING ALL AREAS INDICATED ON THE DRAWINGS. HE SHALL BE THOROUGHLY FAMILIARIZED HIMSELF WITH THESE CONDITIONS.
B IT SHALL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO DISCONNECT AND REMOVE ALL EXISTING RECEPTACLES, ELECTRICAL EQUIPMENT, ETC., AFFECTED BY THE REMODELED AREA.
C ALL FIRE ALARM DEVICES ARE TO BE REMOVED AND REINSTALLED. REWORK WIRING AS NEEDED. ALL UN-USED CONDUIT, WIRING SHALL BE REMOVED BACK TO THE SOURCE AND DISCARD. U.N.O.
D ALL COMMUNICATION DEVICES ARE TO BE REMOVED. REMOVE CONDUIT AND WIRING BACK TO THE SOURCE AND DISCARD. U.N.O.
E ALL ABANDONED OUTLETS INCLUDING RECEPTACLES, TELEPHONE, DATA, ETC., SHALL BE COVERED AND PATCHED TO MATCH THE FINISH OF SURROUNDING WALL OR CEILING TO THE SATISFACTION OF THE OWNER. COORDINATE WITH ARCHITECT AND G.C.

LIGHTING SHEET NOTES

A ACCESS AND WORKING SPACE SHALL BE PROVIDED AND MAINTAINED FOR ALL ELECTRICAL EQUIPMENT TO PERMIT READY AND SAFE OPERATION AND MAINTENANCE (NEC 110.26).
B ALL CONDUIT AND WIRES AT OPEN CEILING ARE TO BE CONCEALED AND INSTALLED ALONG THE STRUCTURAL BEAMS IN A CLEAN WAY AND HIDDEN AS MUCH AS POSSIBLE. DO NOT INSTALL CABLES, RACEWAYS, AND BOXES IN THE SPACE BETWEEN THE METAL DECK AND THE ROOFING MATERIAL PER NEC 300.4(E). ROUTE CONDUITS PARALLEL OR PERPENDICULAR TO STRUCTURAL STEEL.
C ALL PENETRATIONS THROUGH FIRE WALL MUST BE PROPERLY SEALED TO ENSURE EFFECTIVE FIRE RESISTANCE BY AN APPROVED CONTRACTOR. COORDINATE WITH G.C.
D LIGHTING FIXTURE LOCATIONS SHOWN ARE SCHEMATIC. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS PRIOR TO ROUGH-IN.
E ALL BRANCH CIRCUIT CONDUIT TO BE INSTALLED OVERHEAD.
F EMERGENCY CIRCUIT WIRING TO HAVE CONTACTOR SWITCHED CONDUCTOR AND ALSO UNSWITCHED CONDUCTOR TO ALL EXIT AND EXTERIOR LIGHTS WHERE SHOWN.
G CONFIRM LOCATION OF ALL DOOR SWINGS WITH ARCHITECTURAL PLANS PRIOR TO ROUGHING-IN SWITCHES.
H REFER TO ARCHITECT'S REFLECTED CEILING PLANS FOR CEILING HEIGHTS, TYPES, FINISHES, ETC. IN EACH AREA. VERIFY FLANGE TYPES, TRIM KITS, STEM LENGTH, ETC. FOR ALL LIGHT FIXTURES PRIOR TO SUBMITTALS.
J COORDINATE WITH LIGHTING VENDORS FOR NECESSARY MOUNTING HARDWARE AND ACCESSORIES PRIOR TO ROUGH-IN.
K NOTIFY ENGINEER OF ANY DISCREPANCY PRIOR TO ROUGH-IN.
L ALL CONDUITS IN EXPOSED CEILING AREAS SHALL BE RUN PARALLEL OR PERPENDICULAR WITH STRUCTURAL STEEL, TIGHT TO THE ROOF DECK OR TOP OF STEEL MEMBERS HIDDEN FROM VIEW (TYP.)

POWER SHEET NOTES

A ACCESS AND WORKING SPACE SHALL BE PROVIDED AND MAINTAINED FOR ALL ELECTRICAL EQUIPMENT TO PERMIT READY AND SAFE OPERATION AND MAINTENANCE (NEC 110.26).
B ELECTRICAL WORK HAS BEEN SHOWN BASED ON EXISTING FIELD OBSERVATIONS.
C ALL 15 AND 20 AMPERE, 125 AND 250 VOLT NONLOCKING TYPE RECEPTACLES SHALL BE TAMPER RESISTANT TYPE.
D COORDINATE LOCATION OF RECEPTACLES WITH OWNER.
E ALL WIRES AT OPEN CEILING ARE TO BE CONCEALED AND INSTALLED ALONG THE STRUCTURAL BEAMS IN A NEAT WAY AND HIDDEN AS MUCH AS POSSIBLE.
F ALL RECEPTACLE PLATES TO HAVE LABELS INDICATING PANELS AND CIRCUIT NUMBER. PROVIDE LAMINATED TAG FOR EACH PLATE. VERIFY WITH OWNER FOR APPROVAL.
G ALL RECEPTACLE AND DATA OUTLET FACEPLATE SHALL MATCH THE WALL COLOR.
H SERIES RATING IS NOT ALLOWED. SHARED NEUTRALS ARE NOT ALLOWED.
I EC SHALL MEET WITH THE GENERAL CONTRACTOR, OWNER, AND OWNER'S LOW VOLTAGE CONTRACTOR(S) PRIOR TO ROUGH-IN.
J PROVIDE EMPTY 1" CONDUIT STUB UP FOR DATA AS NOTED, INSTALL PULL STRING IN CONDUIT. COORDINATE ALL WORK WITH OWNER SUB CONTRACTOR.

KEYNOTES

1 REMOVE ALL LIGHT FIXTURES IN THIS ROOM ALONG WITH ASSOCIATED SWITCHES, BOXES, CONDUCTORS, AND CONDUIT COMPLETE BACK TO SOURCE.
2 REMOVE THIS RECEPTACLE ALONG WITH ASSOCIATED BOXES, CONDUCTORS, AND CONDUIT COMPLETE BACK TO SOURCE.
3 REMOVE THIS LOW VOLTAGE DEVICES INCLUDING, BUT NOT LIMITED TO: TELEPHONE, DATA, CATV, FIRE ALARM, CLOCKS, BELLS, SECURITY, CABLING, ETC... COMPLETE BACK TO SOURCE.
4 EXISTING TO REMAIN. PROTECT DURING CONSTRUCTION.
5 DISCONNECT AND RELOCATE THIS SPEAKER. PROVIDE CONDUIT AND WIRING AS NEEDED. PROTECT DURING CONSTRUCTION.
6 MECHANICAL EQUIPMENT: DISCONNECT, REMOVE AND RELOCATE ALL CONDUCTORS, CONDUITS, AND DISCONNECTS ASSOCIATED WITH THE MECHANICAL EQUIPMENT BEING REMOVED. REUSE THE SAME CIRCUIT FOR NEW EQUIPMENT. PROVIDE NEW CONDUCTOR, CONDUIT, AND DISCONNECT AS REQUIRED. VERIFY EXISTING CIRCUITRY IN FIELD. COORDINATE WITH THE MECHANICAL AND GENERAL CONTRACTORS.
7 MECHANICAL EQUIPMENT: EXISTING UNIT TO BE RELOCATED. DISCONNECT AND REMOVE ALL CONDUCTORS, CONDUITS, AND DISCONNECTS ASSOCIATED WITH THE MECHANICAL EQUIPMENT. VERIFY EXISTING CIRCUITRY IN FIELD. PROVIDE NEW WIRING, CONDUIT AND DISCONNECT AS NEEDED. COORDINATE WITH THE MECHANICAL AND GENERAL CONTRACTORS.
8 CONNECT NEW LIGHT FIXTURES AND LIGHTING CONTROLS TO EXISTING BRANCH CIRCUIT PREVIOUSLY SERVING LIGHTING FIXTURES IN THIS ROOM VIA (1) 3/4" CONDUIT WITH 2#12 AWG AND 1#12 GND. VERIFY EXISTING CIRCUITRY IN FIELD.
9 PROVIDE NEW EXIT LIGHT FIXTURE. INSTALL NEW CONDUIT AND WIRING TO THE NEAREST UN-SWITCHED LIGHT CIRCUIT.
10 PROVIDE NEW EMERGENCY BACKUP LIGHT FIXTURE. INSTALL NEW CONDUIT AND WIRING TO THE NEAREST UN-SWITCHED LIGHT CIRCUIT.
11 ELECTRIC WATER COOLER (EWC) IS TO BE CONNECTED TO A GFCI BREAKER. INSTALL 20-AMP DUPLEX RECEPTACLE INSIDE THE EWC UNIT. COORDINATE WORK WITH PC. SEE DETAIL 6/E2.0. PROVIDE SEPERATE NEUTRAL AS REQUIRED.
12 EXHAUST FAN: LIGHT SWITCH OPERATES BOTH THE LIGHT AND THE EXHAUST FAN. PROVIDE AND INSTALL 20 AMP SINGLE POLE MOTOR RATED SWITCH WITH ENCLOSURE.
13 PROVIDE AND INSTALL 30 AMP, 2P, 3W, 250VOLT, N1, HEAVY DUTY, FUSED DISCONNECT. FUSE PER EQUIPMENT NAMEPLATE.
14 COORDINATE EXACT LOCATION WITH ARCHITECTURAL ELEVATIONS, MICROWAVE BRACKET, AND GENERAL CONTRACTOR PRIOR TO ROUGH-IN.
15 INSTALL NEW FIRE ALARM DEVICE. E.C. TO CONNECT TO EXISTING FIRE ALARM PANEL AND ADD EQUIPMENT AND PROGRAMMING AS NEEDED. ALL NEW WORK SHOULD BE TESTED AND A LETTER OF CERTIFICATION PROVIDED TO FIRE MARSHALL AND OWNER. VERIFY EXISTING EQUIPMENT.
16 PROVIDE NEW EGRESS LIGHT FIXTURE. INSTALL NEW CONDUIT AND WIRING TO THE EXIT LIGHT.

ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PATHWAY BETWEEN FIRE ALARM DEVICES AND NAC PANEL, AND FROM NAC PANEL TO MAIN FIRE ALARM CONTROL PANEL.

WM2A ARCHITECTS
WM2A.COM
403B NORTH MAIN ST
HILLSVILLE, VA 24343

CONSULTANT ENGINEERING SERVICE, INC.
PLUMBING • MECHANICAL • ELECTRICAL
Phone: 336.724.0139
1111 S. Marshall Street, Suite 250
Winston Salem, NC 27101

These drawings, created by Consultant Engineering Service, are intended to be viewed and printed in color. Color is used to distinguish between different systems and to provide drawing clarity.

CES LICENSE NUMBER (NC)	F-0238
CES LICENSE NUMBER (VA)	11059277
PROJECT NO.	4625
DRAWN	GE
APPROVED	CRS

COMMONWEALTH OF VIRGINIA
CHRISTOPHER R STROUPE III
Lic. No. 025656
03/11/26
PROFESSIONAL ENGINEER

RENOVATIONS TO
TACH Floyd Elementary
531 OAK HILL DR SW
FLOYD, VA 24091

REVISIONS

DATE	Revision Number	DESCRIPTION

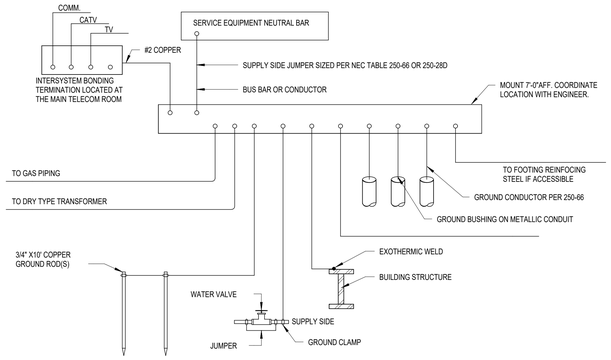
PROJECT STATUS:
CONSTRUCTION DOCUMENTS

REVISION NO (IF ANY): REVISION DATE:

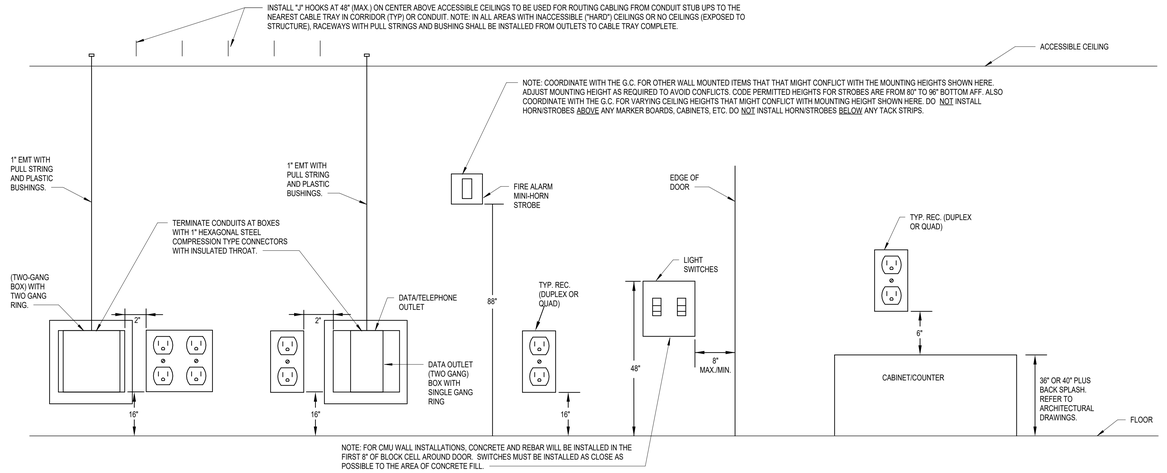
PROJECT NO: 2025-119
CURRENT DATE: 03/11/2026

DRAWING NAME:
ELECTRICAL PLANS

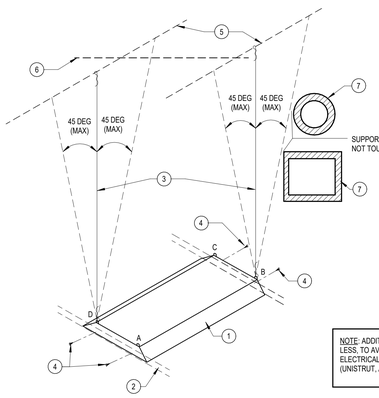
DRAWING NO:
E1.0



1 E2.0 SERVICE GROUNDING DETAIL
NOT TO SCALE



2 E2.0 TYPICAL ELECTRICAL DEVICE INSTALLATION MOUNTING HEIGHT, LAYOUT AND CLEARANCE
NOT TO SCALE



KEYNOTES: (#)

1. LAY-IN LIGHT FIXTURE.
2. CEILING GRID.
3. SUPPORT WIRE. USE CEILING TYPE SUPPORT WIRE. ONE AT EACH OF TWO DIAGONALLY OPPOSITE CORNERS (EITHER 'A' & 'C' OR 'B' & 'D' - TWO REQUIRED PER LIGHT). WIRES SHALL BE SINGLE LENGTH (DO NOT SPLICE), INSTALLED AT NO MORE THAN 45 DEGREES FROM VERTICAL IN ANY DIRECTION, TAUT (NO SLACK), PAINTED A DIFFERENT COLOR (RED) THAN THE OTHER CEILING SUPPORT WIRES.
4. SHEET METAL SCREW (FOUR REQUIRED PER LIGHT). THE SCREWS SHALL BE INSTALLED CONCEALED FROM SIGHT IN SUCH A MANNER THAT THE LIGHT IS ADEQUATELY SECURED TO THE GRID AND THE SCREWS DO NOT INTERFERE WITH ANY DOOR TRIMS, FLANGES, LOUVERS, ETC. INSTALL SCREWS TIGHTLY SO NO GAPS APPEAR IN THE LIGHT FIXTURE FRAMING OR TRIM.
5. STRUCTURE (METAL OR WOOD TRUSS, METAL OR WOOD BAR JOIST, CONCRETE, ETC.).
6. BRIDGING BETWEEN STRUCTURAL MEMBERS (WHERE APPLICABLE). NOTE: SUPPORT WIRES ARE NOT PERMITTED TO ATTACH TO THE BRIDGING AT ANY LOCATION.
7. PIPING, HVAC DUCT, ETC. WITH OR WITHOUT INSULATION. NOTE: SUPPORT WIRES ARE NOT PERMITTED TO CONTACT ANY PIPING, HVAC DUCTS, INCLUDING INSULATION AT ANY POINT.

NOTE: ADDITIONAL SUPPORT MATERIALS MAY BE REQUIRED IN ORDER TO ACHIEVE AN ANGLE OF 45 DEGREES OR LESS, TO AVOID CONTACTING PIPING OR DUCTS, TO PREVENT FROM ATTACHING TO BRIDGING, ETC. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ADDITIONAL SUPPORT MATERIALS APPROVED FOR THE PURPOSE (UNISTRUT, ANGLE IRON, ETC.) AS REQUIRED TO INSTALL THE SUPPORT WIRES PER THIS DETAIL.

3 E2.0 LAY-IN LIGHT FIXTURE SUPPORT
NOT TO SCALE

T1
112.5 KVA
480:120/208
FED FROM PANEL XX
INSTALLED: 2023

LINE 1: EQUIP. TAG/NAME
LINE 2: RATING (KVA)
LINE 3: VOLTAGE CONFIGURATION
LINE 4: FEEDER SOURCE
LINE 5: FOUR-DIGIT YEAR INSTALLED

TRANSFORMER NAMEPLATE NOTES:

1. MATERIAL SHALL BE CORE-ENGRAVED BAKELITE.
2. COLOR SCHEME:
   120/208 VOLT SYSTEMS - BLUE SURFACE WITH WHITE CORE
   277/480 VOLT SYSTEMS - BLACK SURFACE WITH WHITE CORE
   EMERGENCY SYSTEMS - RED SURFACE WITH WHITE CORE.
3. LETTERING SHALL BE 1/4" HIGH.
4. FASTEN WITH STAINLESS STEEL SCREWS OR POP RIVETS.

DRY-TYPE TRANSFORMER

PANEL MP
400A, 277/480V, 3PH, 4W
FED FROM PANEL MSP IN CAROLINA BUILDING
INSTALLED: 2023

LINE 1: PANEL TAG/NAME
LINE 2: AMPS, SYSTEM VOLTAGE, PHASE, WIRE
LINE 3: FEEDER SOURCE
LINE 4: FEEDER SOURCE (IF NEEDED)
LINE 5: FOUR-DIGIT YEAR INSTALLED

PANEL NAMEPLATE NOTES:

1. MATERIAL SHALL BE CORE-ENGRAVED BAKELITE
2. COLOR SCHEME:
   120/208 VOLT SYSTEMS - BLUE SURFACE WITH WHITE CORE
   277/480 VOLT SYSTEMS - BLACK SURFACE WITH WHITE CORE
   EMERGENCY SYSTEMS - RED SURFACE WITH WHITE CORE
3. LETTERING SHALL BE 1/4" HIGH.
4. FASTEN WITH STAINLESS STEEL SCREWS OR POP RIVETS.

ELECTRICAL PANEL

LIGHTING CONTACTOR
LC1
INSTALLED: 2023

LINE 1: EQUIP. DESCRIPTION
LINE 2: EQUIP. DESCRIPTION
LINE 3: EQUIP. TAG/NAME
LINE 4: FOUR-DIGIT YEAR INSTALLED

LIGHTING CONTACTOR NAMEPLATE NOTES:

1. MATERIAL SHALL BE CORE-ENGRAVED BAKELITE.
2. COLOR SCHEME:
   120/208 VOLT SYSTEMS - BLUE SURFACE WITH WHITE CORE
   277/480 VOLT SYSTEMS - BLACK SURFACE WITH WHITE CORE
   EMERGENCY SYSTEMS - RED SURFACE WITH WHITE CORE.
3. LETTERING SHALL BE 1/4" HIGH.
4. FASTEN WITH STAINLESS STEEL SCREWS OR POP RIVETS.

LIGHTING CONTACTOR

SWHP-1
480V
BHP-1,3,5

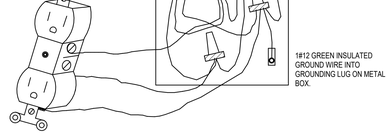
LINE 1: EQUIP. TAG/NAME
LINE 2: SYSTEM VOLTAGE
LINE 3: FEEDER SOURCE
LINE 4: FEEDER SOURCE (IF NEEDED)

PANEL NAMEPLATE NOTES:

1. MATERIAL SHALL BE CORE-ENGRAVED BAKELITE
2. COLOR SCHEME:
   120/208 VOLT SYSTEMS - BLUE SURFACE WITH WHITE CORE
   277/480 VOLT SYSTEMS - BLACK SURFACE WITH WHITE CORE
   EMERGENCY SYSTEMS - RED SURFACE WITH WHITE CORE
3. LETTERING SHALL BE 1/4" HIGH.
4. FASTEN WITH STAINLESS STEEL SCREWS OR POP RIVETS.

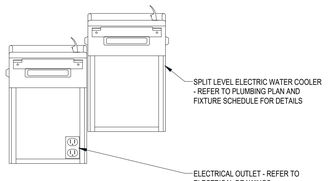
SAFETY DISCONNECT

4 E2.0 TYPICAL ELECTRICAL EQUIPMENT LABELS
NOT TO SCALE



NOTE : ALL DEVICES SHALL BE PIGTAILED. DO NOT FEED THROUGH DEVICES UNLESS OTHERWISE NOTED OR APPROVED.

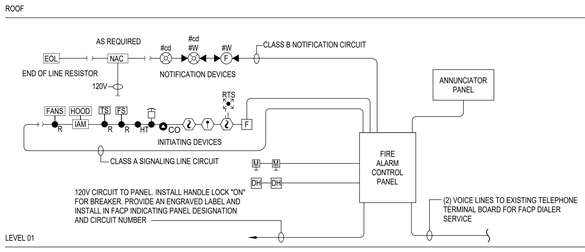
5 E2.0 TYPICAL BOX RECEPTACLE CONNECTION
NOT TO SCALE



NOTES:

EWC TO BE CONNECTED TO GFCI BREAKER. INSTALL 20-AMP DUPLEX RECEPTACLE INSTALL OF ELECTRIC WATER COOLER UNIT. COORDINATE WORK WITH PC.

6 E2.0 SPLIT LEVEL COOLER
NOT TO SCALE



FIRE ALARM RISER DIAGRAM NOTES :

1. REFER TO THE PLANS FOR THE LOCATIONS AND QUANTITIES OF FIRE ALARM DEVICES.
2. DETECTION OF SMOKE IN THE RETURN AIR FLOW BY ANY DUCT MOUNTED OR SPOT TYPE SMOKE DETECTOR SHALL DE-ACTIVATE ALL SUPPLY AIR FANS, RETURN AIR FANS, ALL FAN POWERED AND CLOSE ALL SMOKE DOORS.
3. THIS DETAIL IS DIAGRAMMATIC IN NATURE. THE FIRE ALARM VENDOR SHALL PRODUCE AND SUBMIT A COMPLETE BUILDING LAYOUT IN AUTOCAD FORMAT SHOWING THE LOCATIONS OF ALL DEVICES AND ALL INTERCONNECTING WIRING. THESE DRAWINGS SHALL BE SUBMITTED AND APPROVED BY THE ENGINEER PRIOR TO THE FIRE ALARM INSTALLATION. REFER TO THE SPECIFICATIONS FOR COMPLETE SUBMITTAL REQUIREMENTS.
4. ON THE CLASS A ADDRESSABLE INITIATION LOOP, PROVIDE ISOLATION MODULES ON THE SUPPLY AND RETURN FOR EACH LOOP WITH NO MORE THAN 20 DEVICES BETWEEN MODULES AND WHERE LOOP COVERS MORE THAN A SINGLE FLOOR. REFER TO THE SPECIFICATIONS FOR DETAILED ISOLATION MODULE INSTALLATION REQUIREMENTS.
5. NAC (NOTIFICATION ALARM CIRCUIT) POWER BOOSTER DEVICES ARE NOT SHOWN ON THE DRAWING BUT SHALL BE FURNISHED AND INSTALLED AS REQUIRED. THE COST FOR THE INSTALLATION OF 120V CIRCUITS TO POWER REQUIRED NAC UNITS SHALL BE INCLUDED IN THE CONTRACTORS' BID. A SMOKE DETECTOR IS REQUIRED WITHIN 15' OF EACH POWER BOOSTER DEVICE. ALL WIRING FOR FIRE ALARM SYSTEM SHALL BE INSTALLED COMPLETELY IN METALLIC RACEWAY SYSTEM.
6. THE FACP SURGE SUPPRESSOR SHALL BE MOUNTED ADJACENT TO (NOT IN OR ON) THE ELECTRICAL PANEL. CREATE A COIL ON THE BRANCH CIRCUIT PHASE CONDUCTOR COMPOSED OF 5 TO 10 TURNS, ABOUT 1" IN DIAMETER AND TYE-WRAP. INSTALL COILED LOOP INSIDE A NEW 6" SQUARE X 4" DEEP BOX. INSTALL 20/1 BREAKER IN PANEL EQUIPPED WITH HANDLE LOCK "ON". LABEL BREAKER AND PANEL DIRECTORY TO READ, "FIRE ALARM PANEL".

ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PATHWAY BETWEEN FIRE ALARM DEVICES AND NAC PANEL, AND FROM NAC PANEL TO MAIN FACP PANEL.

7 E2.0 FIRE ALARM DETAILS
NOT TO SCALE

WM2A ARCHITECTS
WM2A.COM
403B NORTH MAIN ST
HILLSVILLE, VA 24343

CONSULTANT ENGINEERING SERVICE, INC.
PLUMBING • MECHANICAL • ELECTRICAL
Phone: 336.724.0139
1111 S. Marshall Street, Suite 250
Winston Salem, NC 27101

These drawings, created by Consultant Engineering Service, are intended to be viewed and printed in color. Color is used to distinguish between different systems and to provide drawing clarity.

CES LICENSE NUMBER (NC)	F-0238
CES LICENSE NUMBER (VA)	11059277
PROJECT NO.	4625
DRAWN	GE
APPROVED	CRS

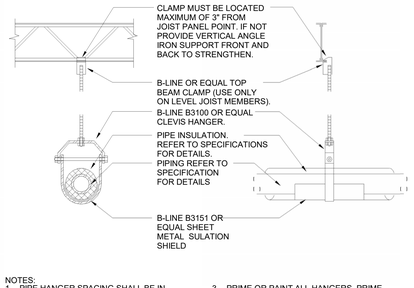
COMMONWEALTH OF VIRGINIA
CHRISTOPHER R STROUPE III
Lic. No. 025656
03/11/26
PROFESSIONAL ENGINEER

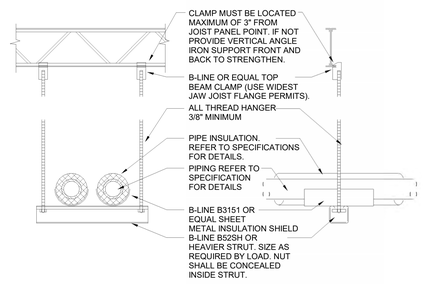
RENOVATIONS TO
TACH Floyd Elementary
531 OAK HILL DR SW
FLOYD, VA 24091

REVISIONS

DATE	Revision Number	DESCRIPTION

PROJECT STATUS: CONSTRUCTION DOCUMENTS
REVISION NO (IF ANY): REVISION DATE:
PROJECT NO: 2025-119
CURRENT DATE: 03/11/2026
DRAWING NAME: ELECTRICAL DETAILS
DRAWING NO: **E2.0**





NOTES:
1. PIPE HANGER SPACING SHALL BE IN ACCORDANCE WITH THE CURRENT STATE MECHANICAL CODE.
2. PROVIDE UNISTRUT OR ANGLE IRON BRIDGING SPANNING MULTIPLE BAR JOIST AS REQUIRED.
3. PRIME OR PAINT ALL HANGERS. PRIME AND PAINT ALL PIPE WELDS AND OTHER ITEMS SUBJECT TO RUSTING.

1. PIPE HANGER SPACING SHALL BE IN ACCORDANCE WITH THE CURRENT STATE MECHANICAL CODE. WHEN DIFFERENT TYPE AND SIZE OF PIPING ARE INSTALLED ON A SINGLE TRAPEZE, SPACING SHALL BE BASED ON THE MOST STRINGENT.
2. PROVIDE UNISTRUT OR ANGLE IRON BRIDGING SPANNING MULTIPLE BAR JOIST AS REQUIRED.
3. PRIME AND PAINT ALL HANGERS. PRIME AND PAINT ALL PIPE WELDS AND OTHER ITEMS SUBJECT TO RUSTING.

1 / P001 DETAIL - PIPE HANGER (P)
NOT TO SCALE

PLUMBING FIXTURE SCHEDULE

WC1 - FLOOR MOUNTED TANK TYPE WATER CLOSET, VITREOUS CHINA WITH ELONGATED OPEN FRONT SEAT WITH SELF SUSTAINING CHECK HINGES. ADA HEIGHT OF 17" TO RIM. ELONGATED BOWL. P.C TO ENSURE THE TRIP LEVER IS ON THE SIDE OF THE FIXTURE CLOSEST TO THE ADJACENT LAVATORY.
FIXTURE: ZURN #Z5551-K (1.6 GPF)
SEAT: CHURCH COMMERCIAL #295SSCT

L1 - RECTANGULAR WALL MOUNTED SINK, VITREOUS CHINA WITH FRONT OVERFLOW DRAIN AND FAUCET HOLES ON 4" CENTERS. PROVIDE COMPLETE WITH OPEN GRID STRAINER, EXPOSED SUPPORT BRACKET, 0.5 GPM MANUAL SINGLE HANDLE FAUCET AND TRAP AND SUPPLY SCALD GUARDS.
FIXTURE: ZURN #Z5344
FAUCET: ZURN #Z7440-XL-FC

EWC - SINGLE ADA WATER COOLER WITH INTEGRAL WATER BOTTLE FILLER AND FRONT PUSH BUTTON ACTIVATION. 8GPH OF 50 DEG WATER. 115/1PH.
FIXTURE: OASIS #P8S8F

MXV1 - ASSE 1070 POINT OF USE MIXING VALVE, SET TO 110 DEG F OUTLET TEMPERATURE.
FIXTURE: ZURN #ZW3870XLT

FCO - ADJUSTABLE PVC FLOOR CLEANOUT WITH NICKEL COVER AND VANDAL PROOF SCREWS. FITS INSIDE 4" PVC PIPE.
FIXTURE: SIOUX CHIEF #822-C4-P-NR-V

SK1 - SINGLE BOWL, STAINLESS STEEL SINK WITH ADA DEPTH OF 5". SINGLE GOOSENECK FAUCET ON 8" CENTERS WITH 1.0 GPM LAMINAR FLOW AERATOR. PROVIDE WITH SOUND DEADENING COATING, TRAP AND SUPPLY SCALD GUARDS AND BASKET STRAINER.
FIXTURE: ELKAY # LRADQ1918 (HOLE DRILLING CONFIGURATION #3)
FAUCET: ZURN #Z871S1-XL-21M

SK2 - SINGLE BOWL, STAINLESS STEEL SINK WITH ADA DEPTH OF 5". SINGLE HOLE SWIVEL FAUCET WITH PULL DOWN SPRAY HANDLE. 1.5GPM AERATOR. PROVIDE WITH SOUND DEADENING COATING, TRAP AND SUPPLY SCALD GUARDS AND BASKET STRAINER.
FIXTURE: ELKAY # LRADQ1918 (HOLE DRILLING CONFIGURATION #1)
FAUCET: MOEN "ARBOR" #7594

IMB - PLASTIC ICE MAKER BOX WITH QUARTER TURN VALVE AND INTEGRAL HAMMER ARRESTOR. PROVIDE COMPLETE WITH WALL FRAME.
FIXTURE: WATER-TITE CORPORATION #AB9700HA

MS1 - 24x24x10 MOLDED MOP SERVICE BASIN WITH STAINLESS STEEL WALL GUARDS, VINYL BUMPER GUARDS, HOSE AND HOSE BRACKET, MOP HANGER AND PVC DRAIN.
FIXTURE: ZURN #Z1996-24-AW-BS-BV-HH-MH-NHG
FAUCET: ZURN #Z841M2-RC

NOTE: WC1, L1, L1 FAUCET, EWC, SK1, SK1 FAUCET, SK2, & IMB ARE OWNER PREFERRED FIXTURES. DO NOT SUBSTITUTE WITHOUT OWNER CONSENT.

SEWER CAMERA AND SMOKE TEST

PRIOR TO SAWCUTTING THE FLOOR, THE P.C. SHALL CAMERA THE EXISTING SEWER LINE, ENTERING AT THE EXPOSED CLEANOUT PLUG AT THE EXISTING UTILITY SINK. THIS SHALL BE DONE TO LOCATE THE UNDERGROUND PIPING TO AVOID UN NECESSARY FLOOR REPAIR.

AFTER ALL NEW UNDERGROUND PIPING AND FIXTURES ARE INSTALLED, THE PLUMBING CONTRACTOR SHALL PERFORM A SECOND UNDERGROUND CAMERA OF THE PIPING.

THE PLUMBING CONTRACTOR SHALL FLUSH THE SYSTEM WITH WATER AND THEN CAMERA THE LINE TO IDENTIFY ANY CONSTRUCTION DEBRIS STUCK IN THE PIPES OR LOW SPOTS IN THE PIPING. ALL DEFICIENCIES SHOULD BE ADDRESSED TO ENSURE A FULLY FUNCTIONING SYSTEM.

THE CAMERA SCOPE SHALL EXTEND A MINIMUM OF 60 FEET BEYOND THE PROJECT WORK AREA TO ENSURE THE PIPING SYSTEM IS IN GOOD WORKING ORDER. ANY PIPE ISSUES BEYOND THE SCOPE AREA SHALL BE BROUGHT TO THE ATTENTION OF THE SCHOOL REPRESENTATIVE AND THE G.C. FOR FURTHER DISCUSSION AND ADDITIONAL SERVICES REPAIRS.

THE SEWER CAMERA SHALL HAVE RECORDED VIDEO CAPABILITY. THIS VIDEO FILES SHOULD BE SHARED WITH THE ENGINEER AND BUILDING OWNER/LANDLORD UPON REQUEST.

A SMOKE VENT TEST SHOULD ALSO BE PERFORMED TO MAKE SURE NO OPEN SEWER PIPES REMAIN IN THE SPACE OR ABOVE THE CEILING.

HOT WATER RE-CIRCULATION NOTES

A HOT WATER RE-CIRCULATION LOOP AND PUMP IS NOT REQUIRED IN THIS PROJECT AS THE DEVELOPED LENGTH OF HOT WATER PIPING FROM THE WATER HEATER TO THE FURTHEST FIXTURE DOES NOT EXCEED 50 FT, PER VAPC 607.2

AS-BUILT DRAWING NOTE

P.C. SHALL MAINTAIN A SET OF AS-BUILT DRAWINGS THROUGHOUT THE PROJECT AND LEAVE A PAPER COPY OF THE AS-BUILT PLANS WITH THE SCHOOL SYSTEM PROJECT MANAGER. P.C. SHALL ALSO PROVIDE A DIGITAL COPY OF THESE AS-BUILTS TO THE THE ENGINEER OF RECORD. THIS IS BEING REQUESTED FOR ANY FUTURE ADDITIONS OR RE-CONFIGURATIONS.

FIXTURE RUN OUT SIZES

CW = COLD WATER
HW = HOT WATER (TEMP) DEG F

THE FOLLOWING FIXTURES SHALL BE PROVIDED AND INSTALLED BY THE PLUMBING CONTRACTOR.

WC1	- 1/2"CW
L1	- 1/2"CW & 1/2"HW(110)
SK1	- 1/2"CW & 1/2"HW(110)
SK2	- 1/2"CW & 1/2"HW(110)
MS1	- 1/2"CW & 1/2"HW(120)
EWC	- 1/2"CW
MXV1	- 1/2"CW, 1/2"HW(120) & 1/2"HW(110)
IMB	- 1/2"CW

PLUMBING SPECIFICATIONS

1. PLUMBING CONTRACT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FEES, AND PERMITS REQUIRED FOR AND REASONABLY INCIDENTAL TO THE EXECUTION OF THE PLUMBING WORK.
2. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH VIRGINIA STATE BUILDING CODE, PLUMBING, ENERGY, AND LOCAL BUILDING CODES.
3. THE PLUMBING CONTRACTOR SHALL MAKE A COMPLETE REVIEW OF THE PLUMBING PLANS, SCHEDULES AND DETAILS PRIOR TO INSTALLATION OF THE PLUMBING SYSTEM AND REVIEW ANY CONFLICTS THAT ARE NOTED WITH THE OWNER, ARCHITECT AND/OR ENGINEER FOR RESOLUTION. FIELD VERIFY ALL EXISTING LINE SIZES AND LOCATION PRIOR TO BIDDING.
4. IT WILL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO INSURE THAT ITEMS TO BE FURNISHED UNDER THIS CONTRACT WILL FIT THE SPACE AVAILABLE. HE SHALL MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS, AND SHALL FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT THAT ARE THE TRUE INTENT AND MEANING OF THE DRAWINGS AND SPECIFICATIONS.
5. THE PLUMBING CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF THE OTHER TRADES PRIOR TO THE INSTALLATION OF ANY OF HIS PIPING OR EQUIPMENT.
6. MEASUREMENTS: BEFORE ORDERING ANY MATERIAL OR DOING ANY WORK, THE PLUMBING CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AND LINE SIZES AND SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF SAME. HE SHALL ALSO BE RESPONSIBLE FOR VERIFYING THE INVERT ELEVATION OF THE EXISTING SANITARY PIPING PRIOR TO CONSTRUCTION.
7. ALL MATERIALS USED SHALL BE NEW UNLESS OTHERWISE SHOWN OR CALLED FOR, AND SHALL BE FURNISHED IN ACCORDANCE WITH STANDARD SPECIFICATION OF THE AMERICAN SOCIETY FOR TESTING MATERIALS, THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS, THE AMERICAN CONCRETE INSTITUTE, AND OTHER GUIDE SPECIFICATIONS.
8. DIAGRAMS AND COORDINATION: THE DRAWINGS ARE DIAGRAMMATIC AND SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE. THE DRAWINGS INDICATE OFFSETS REQUIRED, BUT BY NO MEANS INDICATE ALL SUCH SITUATIONS.
9. INSPECTIONS: THE CONTRACTOR MUST AT ALL TIMES LEND ANY ASSISTANCE NECESSARY FOR ENGINEERS OR THEIR AUTHORIZED REPRESENTATIVE TO MAKE TESTS, INSPECTIONS, ETC.
10. BLOWING OUT, CLEANING AND TESTING SYSTEMS: ALL PIPING AND EQUIPMENT SHALL BE BLOWN OUT UNDER PRESSURE AND CLEANED OF FOREIGN MATTER BEFORE THE SYSTEM IS PUT INTO OPERATION. EQUIPMENT SHALL NOT BE CONNECTED TO PIPING UNTIL IT HAS BEEN BLOWN OUT AND CLEANED. PRESSURE TEST ALL NEW WATER PIPING SYSTEM. ANY DEFECTS MADE EVIDENT BY THE TEST SHALL BE CORRECTED BY THIS CONTRACTOR WITHOUT EXTRA COST TO THE OWNER. DISINFECT WATER PIPING IN ACCORDANCE WITH VA PLUMBING CODE, SECTION 610.1.
11. GUARANTEE: CONTRACTOR SHALL GUARANTEE HIS MATERIAL, EQUIPMENT AND WORKMANSHIP FOR A PERIOD OF 12 MONTHS AFTER DATE OF FINAL ACCEPTANCE BY ENGINEERS AND OWNERS (PARTS AND LABOR). ALL GUARANTEE FAILURE SHALL BE CORRECTED OR REPLACED BY CONTRACTOR AS SOON AS POSSIBLE AFTER NOTIFICATION OF SUCH FAILURE.
12. SANITARY WASTE & VENT PIPING : PVC DWV WASTE AND VENT PIPE AND FITTINGS. SOLID WALL PVC CONFORMING TO ASTM D2665 ONLY. NO FOAM CORE PIPING. PROVIDE APPROPRIATE TRANSITION COUPLINGS FROM EXISTING CAST IRON PIPING TO NEW PVC PIPING.
13. ABOVE GROUND WATER PIPING: TYPE L HARD COPPER WATER PIPING CONFORMING TO ASTM-B-88. WROUGHT-COPPER FITTINGS CONFORMING TO ASTM-B-16.23.
14. UNDERGROUND WATER PIPING: TYPE K COPPER.
15. INSULATION: PROVIDE INSULATION OF ALL NEW PIPING AS SHOWN: ALL INSULATION SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURES WRITTEN INSTRUCTIONS BY AN APPROVED INSULATION SUBCONTRACTOR. TEST ALL PIPING PRIOR TO COVERING. PIPE INSULATION ABOVE CEILINGS SHALL BE 1" FIBERGLASS WITH PAPER COVERING. 1/2" ARMAFLEX MAY BE USED IN WALLS. ALL INSULATION SHALL MEET THE ASTM PLENUM RATING WITH FLAME SPREAD INDEX OF 25 AND SMOKE DEVELOPED INDEX OF 50. ANY PIPING EXPOSED IN THE SPACE SHALL BE WRAPPED IN A WHITE PVC JACKET.
16. PROVIDE BALL VALVES TO ISOLATE ALL GROUPS OF FIXTURES AND AS SHOWN ON THE PLANS TO FACILITATE FUTURE SERVICING.
17. PROVIDE DIELECTRIC UNIONS OR FLANGES TO ISOLATE DISSIMILAR METALS.
18. HORIZONTAL DRAINAGE PIPING 3" AND LARGER SHALL HAVE A MINIMUM FALL OF 1/8" PER FOOT AND PIPING 2" AND SMALLER SHALL HAVE A MINIMUM FALL OF 1/4" PER FOOT. FIELD VERIFY INVERTS PRIOR TO CONSTRUCTION.
19. CLEANOUTS SHALL BE PROVIDED IN ALL SANITARY PIPING AS SHOWN OR INDICATED BY THE AHJ.
20. WCO SHALL HAVE STAINLESS STEEL COVERS.
21. ALL VENT PIPING SHALL SLOPE UP TO THE DISCHARGE POINT.
22. MAINTAIN ALL FIRE RATINGS. SUBMIT UL ASSEMBLY TO LOCAL FIRE MARSHAL FOR APPROVAL.
23. G.C. SHALL BE RESPONSIBLE FOR ALL FLOOR REPAIR. SAWCUTTING, TRENCHING AND BACKFILL SHALL BE BY P.C.

PLUMBING LEGEND

CW	-	COLD WATER
HW	-	HOT WATER (TEMP) DEG F
SS	-	SANITARY SEWER
V	-	VENT
VTR	-	VENT THROUGH ROOF
WC	-	WATER CLOSET
L	-	LAVATORY
MS	-	JANITORS MOP SINK
SK	-	STAINLESS STEEL SINK
EWC	-	ELECTRIC WATER COOLER
WHA	-	WATER HAMMER ARRESTOR
IMB	-	ICE MAKER BOX
AD	-	ACCESS DOOR OR PANEL
WH	-	ELECTRIC WATER HEATER
MXV	-	MIXING VALVE
FCO	-	FLOOR CLEANOUT
CO	-	EXPOSED CLEANOUT PLUG
BV	-	BALL VALVE
CV	-	CHECK VALVE
PC	-	PLUMBING CONTRACTOR
GC	-	GENERAL CONTRACTOR
MC	-	MECHANICAL CONTRACTOR
EC	-	ELECTRICAL CONTRACTOR
BFF	-	BELOW FINISHED FLOOR
AFF	-	ABOVE FINISHED FLOOR
FFE	-	FINISHED FLOOR ELEVATION
UG	-	UNGERGROUND
(E)	-	EXISTING ITEM
(R)	-	RELOCATED EXISTING ITEM
		POINT OF CONNECTION TO EXISTING
		ITEMS BEING DEMOLISHED/REMOVED

PLUMBING SHEET INDEX

WM2A ARCHITECTS
WM2A.COM
403B NORTH MAIN ST
HILLSVILLE, VA 24343

CONSULTANT ENGINEERING SERVICE, INC.
PLUMBING • MECHANICAL • ELECTRICAL
Phone: 336.724.0139
1111 S. Marshall Street, Suite 250
Winston Salem, NC 27101

CES LICENSE NUMBER (NC)	F-0238
CES LICENSE NUMBER (VA)	11059277
PROJECT NO.	4625
DRAWN	DMG
APPROVED	CRS

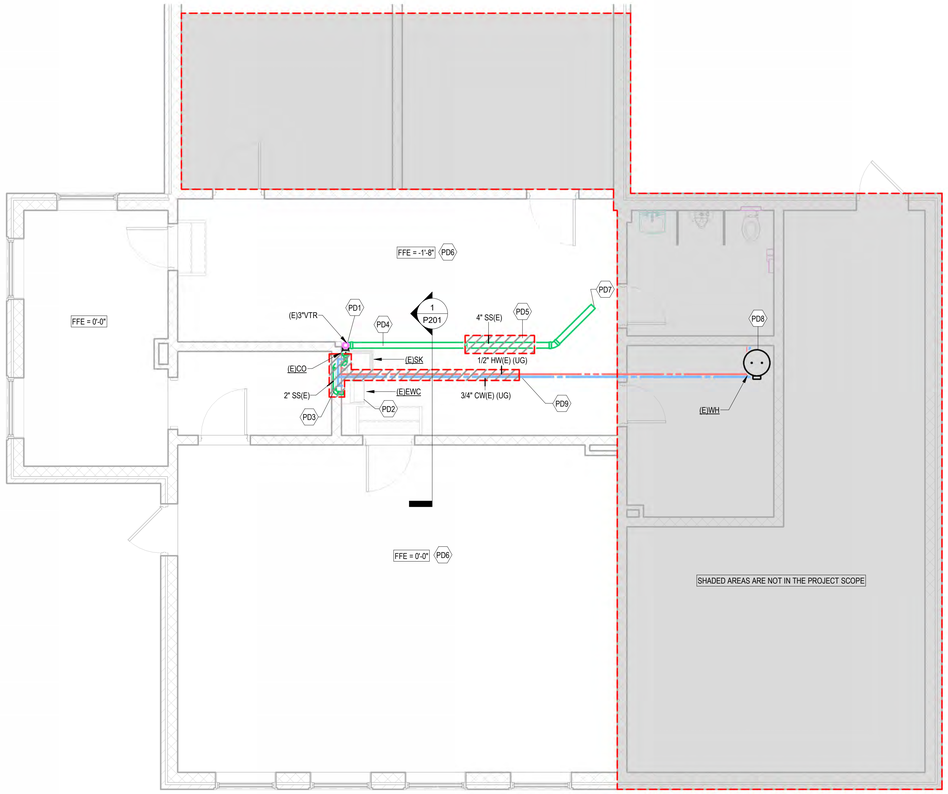
COMMONWEALTH OF VIRGINIA
CHRISTOPHER R. STROUPE III
Lic. No. 025656
03/11/2026
PROFESSIONAL ENGINEER

RENOVATIONS TO
TACH Floyd Elementary
531 OAK HILL DR SW
FLOYD, VA 24091

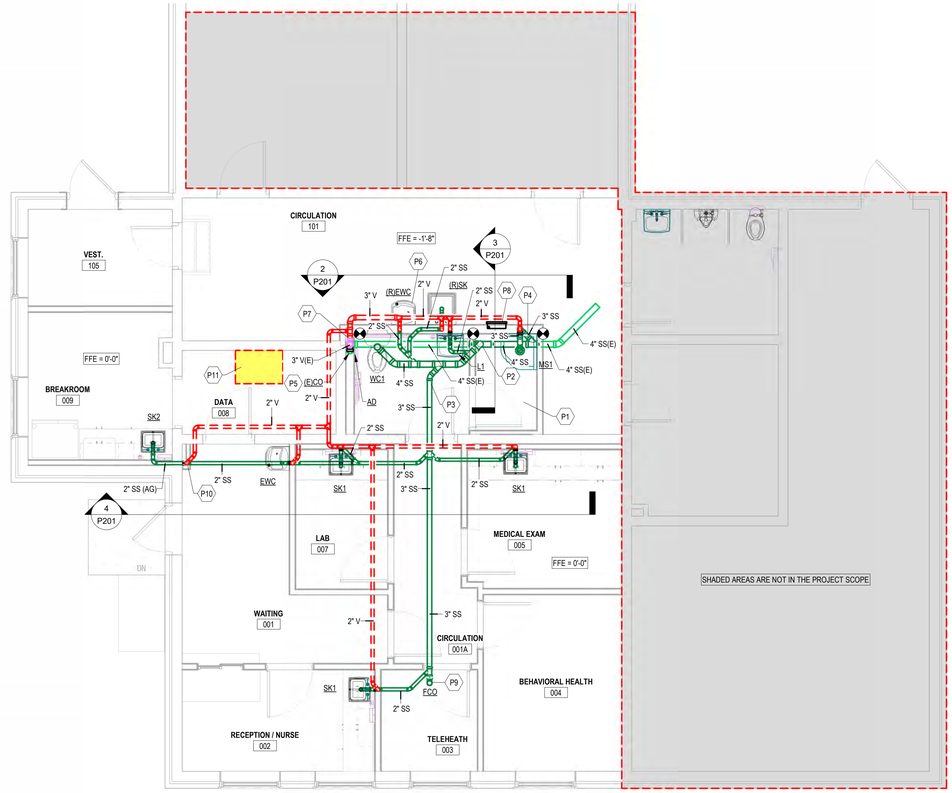
REVISIONS

DATE	Revison Number	DESCRIPTION

PROJECT STATUS: CONSTRUCTION DOCUMENTS
REVISION NO (IF ANY): REVISION DATE:
PROJECT NO: 2025-119 CURRENT DATE: 03/11/2026
DRAWING NAME: PLUMBING COVER SHEET
DRAWING NO: **P001**



1 P101 DEMOLITION PLAN
1/4" = 1'-0"



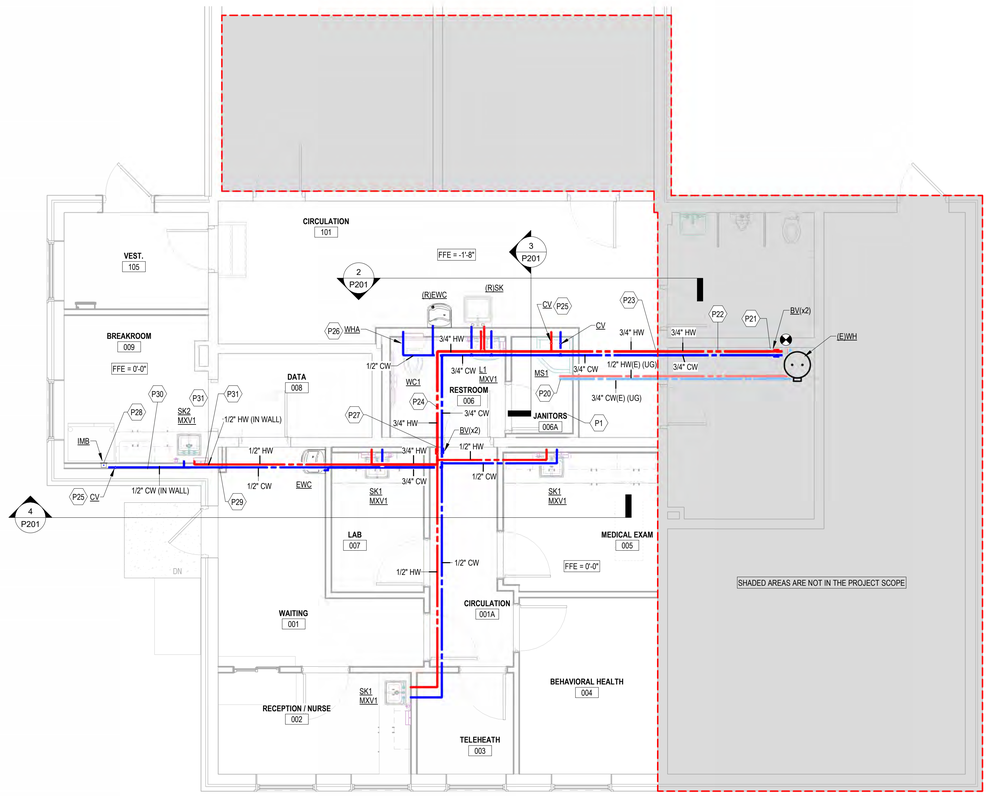
2 P101 NEW WORK - WASTE & VENT
1/4" = 1'-0"

KEYNOTES

Key Value	Keynote Text
PD1	EXISTING 3"V RISER EXTENDED FROM 4"SS UP FROM BELOW SLAB. THIS VENT, SEWER RISER AND EXPOSED CLEANOUT TO REMAIN. REFER TO SECTION 1/P201 FOR ADDITIONAL DEMOLITION NOTES AT THIS LOCATION.
PD2	THIS EXISTING SINK AND WATER COOLER TO BE REMOVED AND RE-LOCATED TO NEW AREA SHOWN ON NEW PLANS. P.C. TO CARFULLY REMOVE FIXTURES AND FAUCET FOR RE-USE.
PD3	CUT AND CAP ALL EXISTING ROUGH-INS FOR SINK AND WATER COOLER IN WALL.
PD4	P.C. TO CAMERA THE SEWER LINE AT THE CLEANOUT DESCRIBED IN KEYNOTE "PD1" TO DETERMINE THE EXACT LOCATION OF THIS UNDERGROUND 4" LINE. ROUTING SHOWN IS ASSUMED.
PD5	P.C. TO SAW CUT FLOOR AT THIS APPROXIMATE LOCATION TO EXPOSE THE EXISTING SEWER LINE BELOW. SEE NEW WORK PLAN FOR RE-CONNECTIONS.
PD6	P.C. TO NOTE THE FLOOR ELEVATION DIFFERENCES WITHIN THIS PROJECT AREA.
PD7	SEWER LINE ASSUMED ROUTING TO ADJACENT RESTROOM.
PD8	EXISTING 50 GALLON ELECTRIC WATER HEATER IN STORAGE ROOM ADJACENT TO PROJECT AREA. THIS IS TO REMAIN AND BE RE-USED.
PD9	ASSUMED UNDERGROUND ROUTING OF EXISTING WATER SUPPLIES TO (E)SK & (E)EWC. P.C. TO DIG DOWN TO EXPOSE THESE PIPES, THEN REMOVE OR ABANDON PIPING DOWNSTREAM OF CUT TO EXISTING FIXTURES. CAP AND ABANDON PIPING BELOW SLAB.

KEYNOTES

Key Value	Keynote Text
P1	THE FLOOR FOR THIS NEW RESTROOM AND JANITORS CLOSET WILL BE BUILT UP AND IN-FILLED BY G.C. WITH CONCRETE FROM THE -1'-8" FFE MARK ADJACENT TO THE NEW FFE AT 0'-0".
P2	EXTEND A NEW 4"SS BRANCH UP FROM EXISTING 4"SS MAIN BELOW LOW FLOOR. THIS NEW 4"SS BRANCH SHALL TURN HORIZONTAL AND ROUTE AS CLOSE TO THE EXISTING FINISHED FLOOR ELEVATION AS POSSIBLE TO ALLOW FOR FIXTURE CONNECTIONS IN THE NEW RAISED RESTROOM. REFER TO DETAIL 2/P201 FOR PIPE ROUTING CLARIFICATION.
P3	ALL NEW SANITARY SEWER PIPING THAT SERVES THE NEW RESTROOM, JANITORS CLOSET AND NEW CLINIC SINKS WILL BE IN SLAB BELOW THE 0'-0" FINISHED FLOOR ELEVATION.
P4	PROVIDE A 4x3 WYE OFF THE (E)4"SS MAIN AS SHOWN AND TURN UP IN WALL TO SANITARY TEE TO BRANCH OVER TO NEW MOP SINK "MS1" REFER TO SECTION 2/P201.
P5	EXISTING EXPOSED CLEANOUT AND 3"VENT RISER TO REMAIN AND BE ENCLOSED IN A NEW WALL. P.C. TO INSTALL AN ACCESS DOOR IN NEW WALL TO ALLOW FOR CLEANOUT TO BE USED.
P6	REFER TO SECTION CUTS 2/P201 & 3/P201 AS WELL AS THE WASTE AND VENT RISER DIAGRAM TO UNDERSTAND THE ELEVATION DIFFERENCES OF THE ROUGH-INS FROM THE NEW RESTROOM FIXTURES AND THE RELOCATED WATER COOLER AND SINK.
P7	TIE ALL NEW VENTS TO EXISTING 3"V RISER UP THROUGH ROOF.
P8	RELOCATED ELECTRIC UNIT HEATER IN THE WALL SHOWN FOR REFERENCE ONLY.
P9	PROVIDE A NEW FLOOR CLEANOUT ON NEW BRANCH.
P10	TURN THIS 2"SS LINE UP FROM BELOW SLAB INSIDE NEW CORNER BOX OUT THEN EXTEND A 2"SS BRANCH ABOVE GROUND, INSIDE NEW FURRED WALL TO SK1 IN BREAK ROOM. REFER TO SECTION 4/P201.
P11	THIS YELLOW SHADED AREA IS THE APPROXIMATE LOCATION OF THE EXISTING DATA RACK IN THE IT CLOSET. DO NOT ROUTE ANY VENT PIPING OVER TOP OF THIS DATA RACK.
P20	THE EXISTING UNDERSLAB HOT AND COLD WATER SUPPLIES TO THE REMOVED SINK AND WATER COOLER ARE TO BE CAPPED BELOW SLAB AT THIS APPROXIMATE LOCATION. THE UPSTREAM PIPING WILL REMAIN IN SERVICE AS IT IS BELIEVED THIS SERVES THE EXISTING ADJACENT RESTROOM THAT IS NOT IN SCOPE.
P21	P.C. TO TAP INTO THE EXISTING HOT AND COLD WATER LINES AT THE EXISTING WATER HEATER AND ROUTE A NEW 3/4"CW AND 3/4"HW SUPPLY LINE TO THE NEW WORK AREA. PROVIDE ISOLATION BALL VALVES IN EACH PIPE.
P22	PIPES IN THIS STORAGE ROOM TO BE ROUTED ABOVE CEILING AND THROUGH WALL TO SPACE WITH HIGHER CEILING.
P23	TURN PIPES UP. EXPOSED ALONG THE FACE OF WALL FROM THE LOWER STORAGE ROOM AREA TO ABOVE THE HIGHER CEILING IN THIS ART ROOM SPACE. WRAP PIPES IN WHITE PVC JACKET WHERE EXPOSED.
P24	ALL NEW HOT AND COLD WATER PIPING SHALL BE ROUTED ABOVE CEILING AND INSULATED WITH 1" FIBERGLASS INSULATION AND FOIL JACKET.
P25	PROVDE AN ASSE 1024 COMPLIANT CHECK VALVE ON HOT AND COLD WATER BRANCH TO JANITORS MOP SINK AND COLD WATER BRANCH TO ICE MAKER BOX. FOR CHECK VALVE AT ICE MAKER, PROVIDE AN ACCESS DOOR IN THE WALL.
P26	PROVIDE WATER HAMMER ARRESTOR ON BRANCH TO WATER CLOSET.
P27	PROVIDE ISOLATION VALVES ON PIPING BRANCHES TO ISOLATE THE CLINIC AREA SINKS.
P28	ICE MAKER BOX INSTALLED AT 60"AFF. ENSURE BOX IS CONFIGURED FOR BOTTOM INLET WITH INTEGRAL HAMMER ARRESTOR.
P29	DROP 1/2"CW & 1/2"HW DOWN INSIDE SMALL BOX CHASE. THEN TURN HORIZONTALLY THROUGH EXISTING BLOCK WALL TO GET INTO THE NEW FURRED OUT WALL BEHIND THE BREAKROOM SINK.
P30	HOT AND COLD WATER PIPING ROUTED IN WALL, ABOVE GROUND TO SK1 AND IMB IN BREAK ROOM.
P31	PROVIDE AN ASSE 1070 APPROVED POINT OF USE MIXING VALVE AT ALL L1, SK1 & SK2 FIXTURES. SET OUTLET TEMPERATURE TO 110 DEG F.



3 P101 NEW WORK - WATER
1/4" = 1'-0"

WM2A ARCHITECTS
WM2A.COM
403B NORTH MAIN ST
HILLSVILLE, VA 24343

CONSULTANT ENGINEERING SERVICE, INC.
PLUMBING • MECHANICAL • ELECTRICAL
Phone: 336.724.0139
1111 S. Marshall Street, Suite 250
Winston Salem, NC 27101

These drawings, created by Consultant Engineering Service, are intended to be viewed and printed in color. Color is used to distinguish between different systems and to provide drawing clarity.

CES LICENSE NUMBER (NC)	F-0238
CES LICENSE NUMBER (VA)	11059277
PROJECT NO.	4625
DRAWN	DMG
APPROVED	CRS

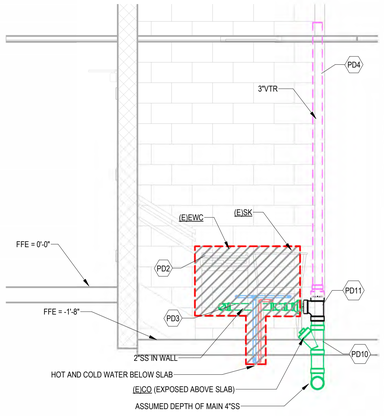
COMMONWEALTH OF VIRGINIA
CHRISTOPHER R. STROUPE III
Lic. No. 025656
03/11/2026
PROFESSIONAL ENGINEER

RENOVATIONS TO
TACH Floyd Elementary
531 OAK HILL DR SW
FLOYD, VA 24091

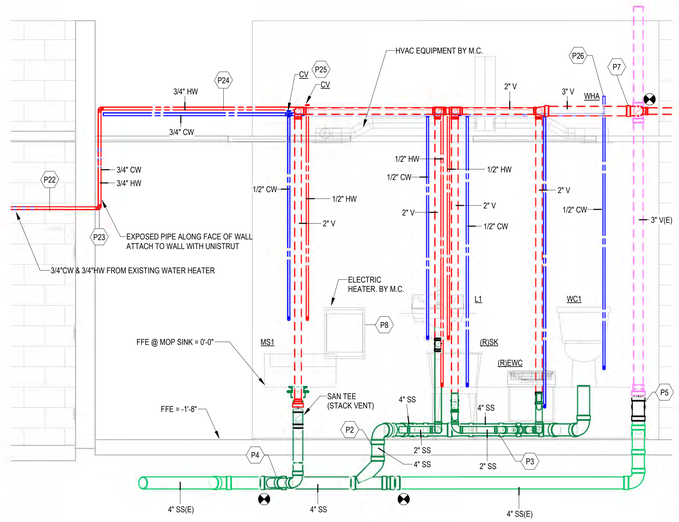
REVISIONS

DATE	Revision Number	DESCRIPTION

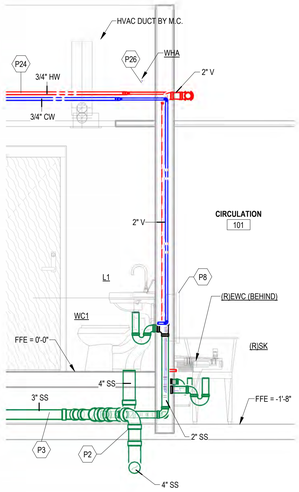
PROJECT STATUS: CONSTRUCTION DOCUMENTS
REVISION NO (IF ANY): REVISION DATE:
PROJECT NO: 2025-119
CURRENT DATE: 03/11/2026
DRAWING NAME: PLUMBING PLANS
DRAWING NO: **P101**



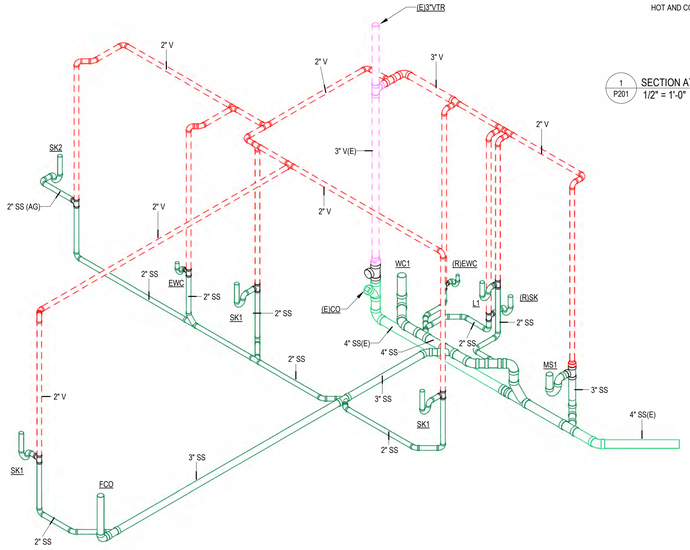
1 P201 SECTION AT EXISTING VENT RISER
1/2" = 1'-0"



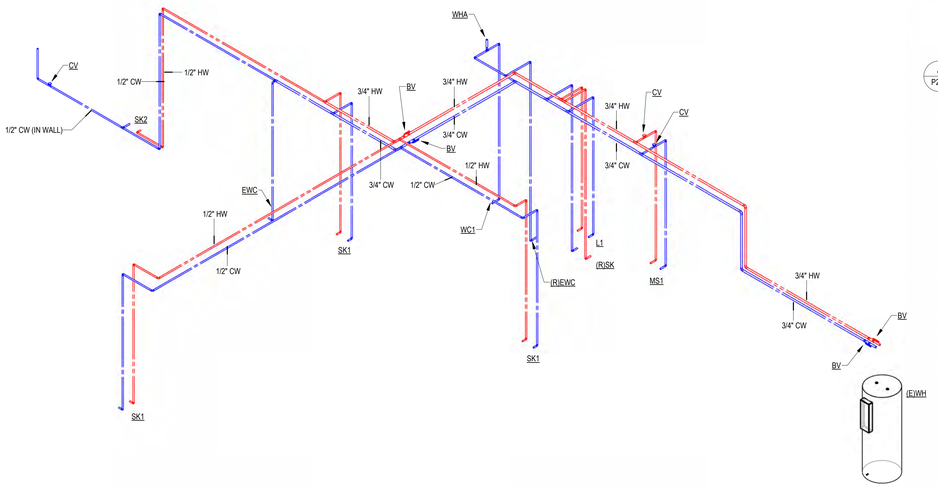
2 P201 SECTION AT NEW RESTROOM
1/2" = 1'-0"



3 P201 SECTION AT NEW RESTROOM SIDE VIEW
1/2" = 1'-0"



5 P201 WASTE & VENT RISER DIAGRAM



6 P201 DOMESTIC WATER RISER DIAGRAM

4 P201 SECTION ACROSS NEW CLINIC AREA
1/2" = 1'-0"

KEYNOTES

Key Value	Keynote Text
PD2	THIS EXISTING SINK AND WATER COOLER TO BE REMOVED AND RE-LOCATED TO NEW AREA SHOWN ON NEW PLANS. P.C. TO CARFULLY REMOVE FIXTURES AND FAUCET FOR RE-USE.
PD3	CUT AND CAP ALL EXISTING ROUGH-INS FOR SINK AND WATER COOLER IN WALL.
PD4	P.C. TO CAMERA THE SEWER LINE AT THE CLEANOUT DESCRIBED IN KEYNOTE "PD1" TO DETERMINE THE EXACT LOCATION OF THIS UNDERGROUND 4" LINE. ROUTING SHOWN IS ASSUMED.
PD10	EXISTING EXPOSED CLEANOUT PLUG TO REMAIN AND BE CONCEALED IN NEW FURRED OUT WALL. P.C. TO INSTALL AN ACCESS PANEL IN NEW WALL TO ALLOW FOR CLEANOUT TO BE USED.
PD11	EXISTING SANITARY TEE AND VENT RISER TO REMAIN AND BE CONCEALED INSIDE NEW WALL.

KEYNOTES

Key Value	Keynote Text
P2	EXTEND A NEW 4"SS BRANCH UP FROM EXISTING 4"SS MAIN BELOW LOW FLOOR. THIS NEW 4"SS BRANCH SHALL TURN HORIZONTAL AND ROUTE AS CLOSE TO THE EXISTING FINISHED FLOOR ELEVATION AS POSSIBLE TO ALLOW FOR FIXTURE CONNECTIONS IN THE NEW RAISED RESTROOM. REFER TO DETAIL 2/P201 FOR PIPE ROUTING CLARIFICATION.
P3	ALL NEW SANITARY SEWER PIPING THAT SERVES THE NEW RESTROOM, JANITORS CLOSET AND NEW CLINIC SINKS WILL BE IN SLAB BELOW THE 0'-0" FINISHED FLOOR ELEVATION.
P4	PROVIDE A 4x3 WYE OFF THE (E)4"SS MAIN AS SHOWN AND TURN UP IN WALL TO SANITARY TEE TO BRANCH OVER TO NEW MOP SINK "MS1" REFER TO SECTION 2/P201.
P5	EXISTING EXPOSED CLEANOUT AND 3"VENT RISER TO REMAIN AND BE ENCLOSED IN A NEW WALL. P.C. TO INSTALL AN ACCESS DOOR IN NEW WALL TO ALLOW FOR CLEANOUT TO BE USED.
P7	TIE ALL NEW VENTS TO EXISTING 3"V RISER UP THROUGH ROOF.
P8	RELOCATED ELECTRIC UNIT HEATER IN THE WALL SHOWN FOR REFERENCE ONLY.
P10	TURN THIS 2"SS LINE UP FROM BELOW SLAB INSIDE NEW CORNER BOX OUT THEN EXTEND A 2"SS BRANCH ABOVE GROUND. INSIDE NEW FURRED WALL TO SK1 IN BREAK ROOM. REFER TO SECTION 4/P201.
P22	PIPES IN THIS STORAGE ROOM TO BE ROUTED ABOVE CEILING AND THROUGH WALL TO SPACE WITH HIGHER CEILING.
P23	TURN PIPES UP, EXPOSED ALONG THE FACE OF WALL FROM THE LOWER STORAGE ROOM AREA TO ABOVE THE HIGHER CEILING IN THIS ART ROOM SPACE. WRAP PIPES IN WHITE PVC JACKET WHERE EXPOSED.
P24	ALL NEW HOT AND COLD WATER PIPING SHALL BE ROUTED ABOVE CEILING AND INSULATED WITH 1" FIBERGLASS INSULATION AND FOIL JACKET.
P25	PROVDE AN ASSE 1024 COMPLIANT CHECK VALVE ON HOT AND COLD WATER BRANCH TO JANITORS MOP SINK AND COLD WATER BRANCH TO ICE MAKER BOX. FOR CHECK VALVE AT ICE MAKER. PROVIDE AN ACCESS DOOR IN THE WALL.
P26	PROVIDE WATER HAMMER ARRESTOR ON BRANCH TO WATER CLOSET.
P27	PROVIDE ISOLATION VALVES ON PIPING BRANCHES TO ISOLATE THE CLINIC AREA SINKS.
P28	ICE MAKER BOX INSTALLED AT 60"AFF. ENSURE BOX IS CONFIGURED FOR BOTTOM INLET WITH INTEGRAL HAMMER ARRESTOR.
P29	DROP 1/2"CW & 1/2"HW DOWN INSIDE SMALL BOX CHASE, THEN TURN HORIZONTALLY THROUGH EXISTING BLOCK WALL TO GET INTO THE NEW FURRED OUT WALL BEHIND THE BREAKROOM SINK.
P30	HOT AND COLD WATER PIPING ROUTED IN WALL, ABOVE GROUND TO SK1 AND IMB IN BREAK ROOM.

WM2A ARCHITECTS
WM2A.COM
403B NORTH MAIN ST
HILLSVILLE, VA 24343

CONSULTANT ENGINEERING SERVICE, INC.
PLUMBING • MECHANICAL • ELECTRICAL
Phone: 336.724.0139
1111 S. Marshall Street, Suite 250
Winston Salem, NC 27101

These drawings, created by Consultant Engineering Service, are intended to be viewed and printed in color. Color is used to distinguish between different systems and to provide drawing clarity.

CES LICENSE NUMBER (NC)	F-0238
CES LICENSE NUMBER (VA)	11059277
PROJECT NO.	4625
DRAWN	DMG
APPROVED	CRS

COMMONWEALTH OF VIRGINIA
CHRISTOPHER R. STROUPE III
Lic. No. 025656
03/11/2026
PROFESSIONAL ENGINEER

RENOVATIONS TO
TACH Floyd Elementary
531 OAK HILL DR SW
FLOYD, VA 24091

REVISIONS

DATE	Revision Number	DESCRIPTION

PROJECT STATUS: CONSTRUCTION DOCUMENTS
REVISION NO (IF ANY): REVISION DATE:
PROJECT NO: 2025-119 CURRENT DATE: 03/11/2026
DRAWING NAME: **PLUMBING SECTIONS & RISER DIAGRAMS**
DRAWING NO: **P201**